Hall County Regional Planning Commission

Wednesday, November 4, 2015
Regular Meeting

Item F1

Conditional Use Permits

Staff Contact: Chad Nabity

Agenda Item #4

PLANNING DIRECTOR RECOMMENDATION TO REGIONAL PLANNING
October 27, 2015

SUBJECT: Concerning an Application to Hall County for a Conditional Use Permit for a Livestock Trailer Washout to be located at 9551 South Locust Street in the NW ¼ of the SW ¼ of Section 34-Township 10 North, Range 9 West of the 6th PM in Hall County Nebraska. (C-04-2016HC)

PROPOSAL:

Douglas R. and Nancy A. Stange, owners of the property have applied for a conditional use permit for a livestock trailer washout to be located on their property at 9551 South Locust Street. If the permit is granted it is their intent to sell the property to Chad Ruda with Mid-America Washout to operate the facility at this location. A full copy of the application and all supplementary data included with the application is attached to this report.

BACKGROUND:

According to the Hall County Zoning Regulations Definitions Section:

2.03.76 **CONDITIONAL USE PERMIT** shall mean a permit issued by the Planning Commission and County Board that authorizes the recipient to make conditional use of property in accordance with the provisions of Article 5 and any additional conditions placed upon, or required by said permit.

This differs from a Permitted Use defined as:

2.03.119 **PERMITTED USE** shall mean any land use allowed without condition within a zoning district.

A permitted use is allowed outright in a particular zoning district if it is listed in the zoning district and/or zoning matrix as permitted. Conditional uses are assumed to fit within a particular district if they conform to the conditions applied to the permit after a hearing. In certain cases, a conditional use permit can be denied when it is found based on the facts presented during the hearing that the use is incompatible with the particular site and that conditions cannot reasonably be drafted that would allow that particular use to coexist with the existing uses. In either case, the decision making body must make findings of fact to support either granting or denying the permit.

Conditional Use Permits (or Special Exceptions) may be issued three different ways based on NRSS §23-114.01 (Appendix A)

1. The Planning Commission has the authority to grant conditional use permits unless the County Board has specifically withheld that authority unto themselves.
2. The County Board may withhold the ability to grant conditional use permits unto themselves.
3. The County Board may withhold the ability to grant conditional use permits unto themselves after a recommendation from the planning commission.

The Hall County Board has retained the authority to grant conditional use permits unto themselves since the first zoning regulations were adopted. This was confirmed with the adoption of new regulations in 2004 (Hall County Zoning Regulations Article 5 Conditional Uses, Procedures and Standards Section 5.01 Conditional Uses). (Appendix B)

On June 16, 2015 the Hall County Board passed Resolution #15-025 (Appendix C) giving them the authority to refer decision making regarding a conditional use permit to the Hall County Regional Planning Commission in cases where the Board of Supervisors feels they have a conflict of interest that would prevent them having a quorum of its members to rule on any particular case. Since the Board of Supervisors made a decision on a similar application for a truck washout on this property in June of 2015, the Board did not feel they could review this new application and grant it a fair and impartial hearing and have therefore referred the decision on this permit to the Planning Commission.

The Planning Commission will hold a public hearing and take testimony in this case. The Planning Commission will be asked to decide to grant or deny the permit based upon the facts presented at the case during the hearing. This report and all of the information forwarded to Planning Commission members including:

1. This Staff Recommendation
2. The Hall County Comprehensive Plan and those specific portions called out in the staff report.
3. Conditional Use Permit Application by Doug Stange including exhibits 1-15c
4. Conditional Use Permit Application by Chad Ruda, with Mid America Washout and proceedings of Hall County Board Action relative to that permit application including both the resolution that was proposed to approve the application and the one that was approved denying the application.
5. All Correspondence received by the Hall County Regional Planning Department prior to sending this packet to planning commissioners, media, other interested parties and posting to the internet. No written correspondence has been received though the planning department has fielded several calls and sent out copies of the application and regulations.

The Planning Commission may, at their discretion:

1. Continue the public hearing to a later date, in an effort to gather more information prior to making a decision,
2. Refer the issue to a committee to draft findings and or conditions that support the decision of the planning commission.
3. Place conditions upon the operation that will mitigate negative impacts of the operation to the County, and neighboring property owners,

The County Board considered a similar application with these as possible conditions. If the Planning Commission wishes to consider granting the permit these conditions would potentially address a majority of the issues. Comments on the various conditions are interspersed with the conditions.

1. This permit shall become null and void and otherwise be revoked unless construction and operation of the livestock trailer washout is commenced within two years of the date of the signing of this resolution. *Another consideration would be to cancel the permit if the use stops for a period of time (12 months or 24 months)*

2. The above-described real estate must, at all times, be kept in a clean, neat and orderly condition. Said real estate shall not be subdivided or otherwise occupied by any other entity, business or private. Applicant is authorized to build a home on-site for occupancy by applicant's site manager. In the construction of said house, Applicant must comply with all other construction codes, regulations, rules, laws, ordinances or resolutions applicable to the site.

3. No waste other than the waste from livestock trailers washed out on the above-described real estate shall be placed or stored upon the real estate. Applicant/Permittee shall take reasonable measures to prevent other parties from dumping any other waste on the property.

4. Solid waste generated from Applicant/Permittee's operation of a livestock trailer washout shall be kept in an enclosed metal building with a concrete floor, and in no event may such solid waste be kept on-site for longer than seven (7) days.

5. The liquid waste generated from Applicant/Permittee's operation of a livestock trailer washout shall be held and treated in an on-site lagoon meeting any and all requirements of the United States Environmental Protection Agency and the Nebraska Department of Environmental Quality. No such liquid waste shall be allowed to flow out of the lagoon and on to adjacent property. Only surface waters which have historically flowed from the premises shall be permitted to leave the same through historical natural drainage ways.

6. Applicant/Permittee shall plant, nurture and maintain (a) a row of trees between South Locust Street and the above-mentioned lagoon for the purpose of, to the extent reasonably possible, providing a visual barrier between the street and the lagoon; and (b), a row of trees extending in an easterly direction from the southern end of the first row of trees, along the southern boundary of the lagoon, to the eastern boundary of the subjected property for the same general purpose.

7. No uses under this Conditional Use Permit shall result in air, water or groundwater pollution that creates an unreasonable hazard or nuisance to the adjacent landowners or to the general public.

8. The term of this Conditional Use Permit shall be for a period of five (5) years beginning the date this permit is signed, but may be terminated if Applicant/Permittee fails to comply with any of the conditions, restrictions and obligations set forth herein. The Hall County Board of Supervisors shall notify the Applicant/Permittee in writing setting forth the specific area(s) of noncompliance. If Applicant/Permittee fails to take reasonable action to correct any or all violations within 30 days after receiving said notice, the Hall County Board of Supervisors shall hold a public hearing to consider the revocation and termination of this Conditional Use Permit. Any such action will require a majority vote of said Board. *Condition 8 would limit this permit to 5 years the applicants indicate that they do not believe that this investment can be returned in a 5 year period and that condition would negatively impact the financial feasibility of the project. The Planning Commission could consider a different time period. The Hall County Board has granted permits for up to 10 years. The City of Grand Island has granted permits without an expiration date.*:

9. Nothing in the grant of this Conditional Use Permit shall be construed as a grant of right, authority or permit to allow any use of land, materials or methods which violate any state or federal law, or rule or regulation of any federal, state or local agency other than as specifically set forth herein. The Applicant/Permittee shall comply with all applicable local, state and federal laws or regulations including, but not limited to, those pertaining to water quality, flood control and protection, and environmental quality and protection.

10. The rights granted by this Permit of Conditional Use shall not be assignable or transferable, and shall not run with the land. The acceptance by Applicant/Permittee of any benefit or right pursuant to this resolution shall constitute Applicant/Permittee's agreement to be bound by the terms, conditions and restrictions of this resolution. *This would need to be modified to allow the sale of the property one time to Mid America Washout of Grand Island LLC or it could be eliminated. In most cases conditional use permits run with the land and as long as the conditions are met the permit can be continued for the term of the permit.*

The County Board did pass a resolution denying the permit with the following findings, if the Planning Commission wishes to deny the permit you must support that decision with findings of fact based on the testimony presented during the hearing. Since this is a new application with new testimony and a variety of exhibits addressing the environmental and traffic concerns the Planning Commission can if they choose make different findings based on the evidence presented.

County Board Findings to deny the previous application:

1. The proposed livestock trailer washout would result in a substantial risk of air

pollution, creating an unreasonable hazard or nuisance to adjacent landowners and the general public.

2. The proposed livestock trailer washout would result in a substantial risk of groundwater contamination, creating an unreasonable hazard or nuisance to adjacent landowners and the general public.

3. The proposed livestock trailer washout would result in increased truck traffic on South Locust Street (Old Highway 281), creating an unreasonable hazard to motorists and pedestrians who otherwise travel the road.

4. The proposed livestock trailer washout would result in increased truck traffic on South Locust Street, creating unreasonable wear on the hard-surfaced road to the detriment of the general public.

Other Factors to Consider in the Decision Making Process:

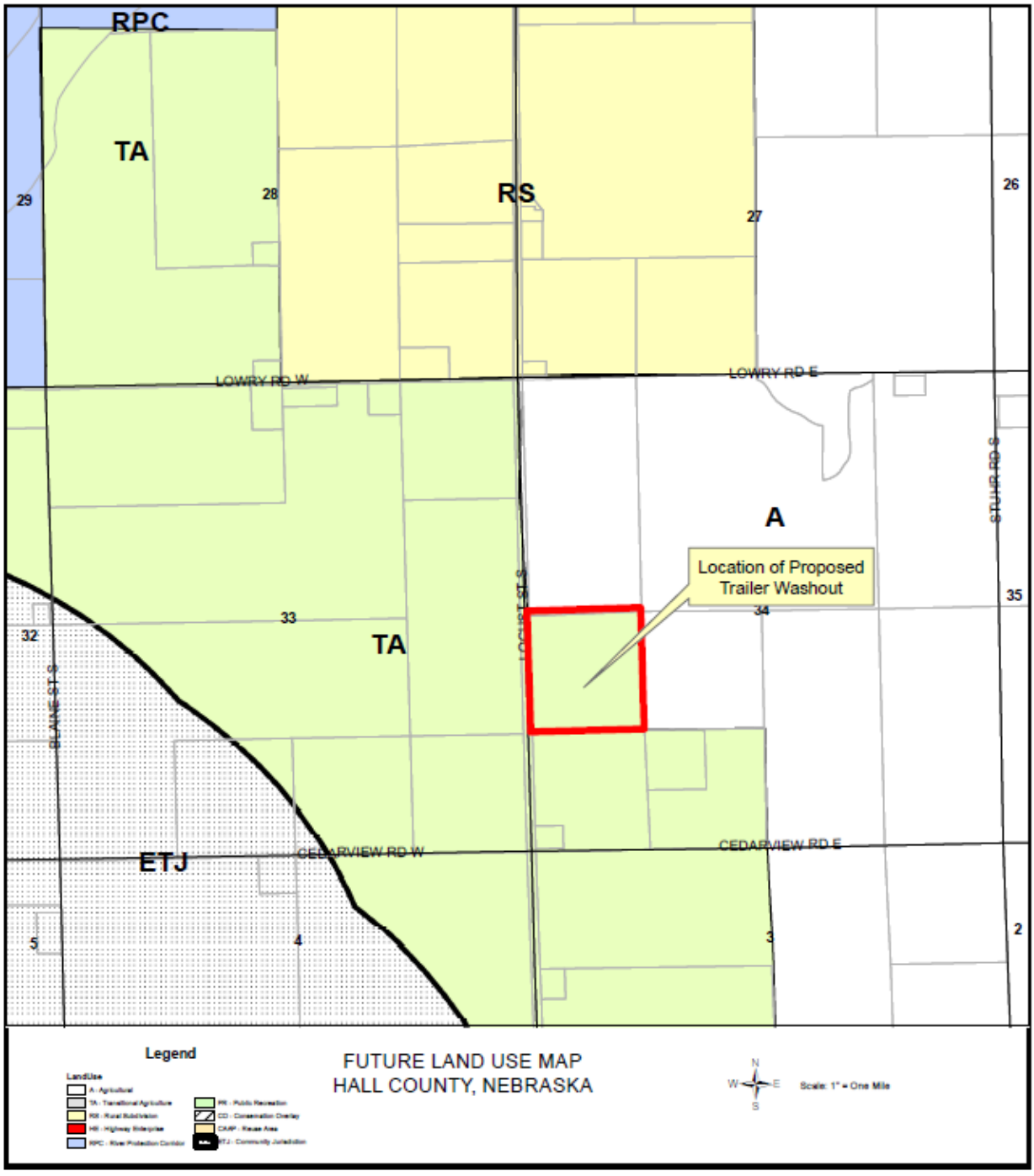
The property in question is shown on the Future Land Use map of Hall County as Transitional Agriculture. The property to the north and east of this is general agricultural ground. The following descriptions are from the Hall County Comprehensive Plan as adopted.

General Agriculture use area provides for the preservation of land currently in agricultural production within the unincorporated areas of Hall County. It is in these locations that typical row crop production and livestock production should occur.

Transitional Agricultural use areas delineate land adjacent to established communities within Hall County. These land use districts act as a transitional area encouraging continued agricultural, but would also serve as a means of protection for the communities and its residents by not permitting intensive agricultural (new or expanded livestock production) uses.

The property in question only has access to South Locust. According to the Hall County Engineer Steve Riehle, the pavement on South Locust is thicker than a typical paved county road due to the fact that it was originally built as Highway 281. The average daily traffic based on the Nebraska Department of Roads count on this section of South Locust is 1575 vehicles per day. If this facility adds 50 trucks a day, some of which may already be using the road, this would represent a 3.1% increase in traffic. A paved 2 lane highway typically can carry 8000 to 10,000 vehicles per day before experiencing any reduction in level of service.

There are no publically accessible livestock trailer washouts in Hall County.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Location of Proposed
Trailer Washout
Legend
FUTURE LAND USE MAP
HALL COUNTY, NEBRASKA
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Scale: 1" = One Mile

ACTION NEEDED:

The Planning Commission can move to approve or deny the application for a conditional use permit. Either motion must be supported by facts presented during the public hearing or publically available as part of the Planning Commission meeting packet. If the Planning moves to approve the application they can also choose to include conditions to the permit. There are examples of conditions shown above that could be considered. Other conditions may also be appropriate. Planning Commission could if they choose postpone a final decision and refer the matter to a committee to recommend conditions and findings. If the matter is referred to a committee the decision could be made at the meeting scheduled for December 2nd or at another meeting with a date to be announced during this meeting and the motion to postpone.

(Appendix A)

23-114.01. County planning commission; appointment; qualifications; terms; vacancies; compensation; expenses; powers; duties; appeal.

(1) In order to avail itself of the powers conferred by section 23-114, the county board shall appoint a planning commission to be known as the county planning commission. The members of the commission shall be residents of the county to be planned and shall be appointed with due consideration to geographical and population factors. Since the primary focus of concern and control in county planning and land-use regulatory programs is the unincorporated area, a majority of the members of the commission shall be residents of unincorporated areas, except that this requirement shall not apply to joint planning commissions. Members of the commission shall hold no county or municipal office, except that a member may also be a member of a city, village, or other type of planning commission. The term of each member shall be three years, except that approximately one-third of the members of the first commission shall serve for terms of one year, one-third for terms of two years, and one-third for terms of three years. All members shall hold office until their successors are appointed. Members of the commission may be removed by a majority vote of the county board for inefficiency, neglect of duty, or malfeasance in office or other good and sufficient cause upon written charges being filed with the county board and after a public hearing has been held regarding such charges. Vacancies occurring otherwise than through the expiration of terms shall be filled for the unexpired terms by individuals appointed by the county board. Members of the commission shall be compensated for their actual and necessary expenses incurred in connection with their duties in an amount to be fixed by the county board. Reimbursement for mileage shall be made at the rate provided in section 81-1176. Each county board may provide a per diem payment for members of the commission of not to exceed fifteen dollars for each day that each such member attends meetings of the commission or is engaged in matters concerning the commission, but no member shall receive more than one thousand dollars in any one year. Such per diem payments shall be in addition to and separate from compensation for expenses.

(2) The commission: (a) Shall prepare and adopt as its policy statement a comprehensive development plan and such implemental means as a capital improvement program, subdivision regulations, building codes, and a zoning resolution; (b) shall consult with and advise public officials and agencies, public

utilities, civic organizations, educational institutions, and citizens relating to the promulgation of implemental programs; (c) may delegate authority to any of the groups named in subdivision (b) of this subsection to conduct studies and make surveys for the commission; and (d) shall make preliminary reports on its findings and hold public hearings before submitting its final reports. The county board shall not hold its public meetings or take action on matters relating to the comprehensive development plan, capital improvements, building codes, subdivision development, or zoning until it has received the recommendations of the commission.

(3) The commission may, with the consent of the governing body, in its own name: Make and enter into contracts with public or private bodies; receive contributions, bequests, gifts, or grants of funds from public or private sources; expend the funds appropriated to it by the county board; employ agents and employees; and acquire, hold, and dispose of property. The commission may, on its own authority: Make arrangements consistent with its program; conduct or sponsor special studies or planning work for any public body or appropriate agency; receive grants, remuneration, or reimbursement for such studies or work; and at its public hearings, summon witnesses, administer oaths, and compel the giving of testimony.

(4) In all counties in the state, the county planning commission may grant conditional uses or special exceptions to property owners for the use of their property if the county board of commissioners or supervisors has officially and generally authorized the commission to exercise such powers and has approved the standards and procedures the commission adopted for equitably and judiciously granting such conditional uses or special exceptions. The granting of a conditional use permit or special exception shall only allow property owners to put their property to a special use if it is among those uses specifically identified in the county zoning regulations as classifications of uses which may require special conditions or requirements to be met by the owners before a use permit or building permit is authorized. The applicant for a conditional use permit or special exception for a livestock operation specifically identified in the county zoning regulations as a classification of use which may require special conditions or requirements to be met within an area of a county zoned for agricultural use may request a determination of the special conditions or requirements to be imposed by the county planning commission or by the county board of commissioners or supervisors if the board has not authorized the commission to exercise such authority. Upon request the commission or board shall issue such determination of the special conditions or requirements to be imposed in a timely manner. Such special conditions or requirements to be imposed may include, but are not limited to, the submission of information that may be separately provided to state or federal agencies in applying to obtain the applicable state and federal permits. The commission or the board may request and review, prior to making a determination of

the special conditions or requirements to be imposed, reasonable information relevant to the conditional use or special exception. If a determination of the special conditions or requirements to be imposed has been made, final permit approval may be withheld subject only to a final review by the commission or county board to determine whether there is a substantial change in the applicant's proposed use of the property upon which the determination was based and that the applicant has met, or will meet, the special conditions or requirements imposed in the determination. For purposes of this section, substantial change shall include any significant alteration in the original application including a significant change in the design or location of buildings or facilities, in waste disposal methods or facilities, or in capacity.

(5) The power to grant conditional uses or special exceptions as set forth in subsection (4) of this section shall be the exclusive authority of the commission, except that the county board of commissioners or supervisors may choose to retain for itself the power to grant conditional uses or special exceptions for those classifications of uses specified in the county zoning regulations. The county board of commissioners or supervisors may exercise such power if it has formally adopted standards and procedures for granting such conditional uses or special exceptions in a manner that is equitable and which will promote the public interest. In any county other than a county in which is located a city of the primary class, an appeal of a decision by the county planning commission or county board of commissioners or supervisors regarding a conditional use or special exception shall be made to the district court. In any county in which is located a city of the primary class, an appeal of a decision by the county planning commission regarding a conditional use or special exception shall be made to the county board of commissioners or supervisors, and an appeal of a decision by the county board of commissioners or supervisors regarding a conditional use or special exception shall be made to the district court.

(6) Whenever a county planning commission or county board is authorized to grant conditional uses or special exceptions pursuant to subsection (4) or (5) of this section, the planning commission or county board shall, with its decision to grant or deny a conditional use permit or special exception, issue a statement of factual findings arising from the record of proceedings that support the granting or denial of the conditional use permit or special exception. If a county planning commission's role is advisory to the county board, the county planning commission shall submit such statement with its recommendation to the county board as to whether to approve or deny a conditional use permit or special exception.

Source: Laws 1967, c. 117, § 2, p. 366; Laws 1975, LB 410, § 22; Laws 1978, LB 186, § 8; Laws 1981, LB 204, § 21; Laws 1982, LB 601, § 1; Laws 1991, LB 259, § 1; Laws 1996, LB 1011, § 6; Laws 2003, LB 754, § 3; Laws 2004, LB 973, § 3; Laws 2010, LB970, § 1.

Annotations

Subsection (5) of this section provides for a right of appeal to the district court from a decision by the county planning commission or county board of commissioners or supervisors, without setting forth any procedure for prosecuting the appeal. Therefore, the appeal procedure in section 25-1937 is also implicated. In re Application of Olmer, 275 Neb. 852, 752 N.W.2d 124 (2008).

If there is a conflict between a comprehensive plan and a zoning ordinance, the latter is controlling when questions of a citizen's property rights are at issue. Stones v. Plattsmouth Airport Authority, 193 Neb. 552, 228 N.W.2d 129 (1975).

(Appendix B)

ARTICLE 5: CONDITIONAL USES, PROCEDURES, AND STANDARDS

Section 5.01 Conditional Uses

The County Board of Supervisors shall hear and make decisions on applications for conditional uses as herein provided. The Board may grant, grant with conditions or safeguards or deny any application for a conditional use according to the following procedure:

1. A written application for a conditional use shall be submitted to the County Board by the property owner upon whose land the conditional use is proposed. The application shall contain a legal description of the property, the section of this Resolution under which the conditional use is sought and the grounds for requesting a conditional use. A development plan, schedule of development and other supportive material may be required by the Board.
2. A public hearing shall be set for which notice shall be given 10 days in advance of such hearing. The applicant shall be notified by mail, and public notice shall be placed in a newspaper of general circulation within the county at least one time 10 days prior to such hearing.
3. The public hearing shall be held at which all persons in interest may be heard.
4. After close of the hearing, the Board shall consider all evidence presented and the following items before taking final action on the application:
   A. ingress and egress to property and proposed structures with particular reference to automotive and pedestrian safety and convenience, traffic flow and control, and access in case of fire or other emergency;
   B. off-street parking and loading areas with attention to the above item;
   C. the effects of noise, glare, odor, etc. of the proposed conditional use upon adjoining properties and properties generally in the district;
   D. refuse and service areas;
   E. utilities required with reference to locations and availability;
   F. screening and buffering proposed with reference to type, dimensions and character;
   G. signs, lighting and fencing, if any, with reference to glare, traffic safety, security and other effects upon adjacent properties;
   H. required yards, open spaces, easements or right-of-ways;
   I. General compatibility with adjacent properties and other properties in the area.

5. Temporary uses which may or may not be in conformance with the district in which it is proposed to be located, and not involving the construction of a new permanent building, may be considered by the Board in accordance with procedures in this section. Approval of such temporary use shall be limited to a maximum of two years.

(Appendix C)

Hall County Resolution #15-025 Dated June 16, 2015

RESOLUTION # 15-025

A RESOLUTION TO AUTHORIZE THE HALL COUNTY REGIONAL PLANNING COMMISSION TO ACT ON APPLICATIONS FOR CONDITIONAL USES AND SPECIAL EXCEPTIONS SUCH AS MAY BE SPECIFICALLY REFERRED TO IT BY THE HALL COUNTY BOARD OF SUPERVISORS UPON ITS FAILURE TO MUSTER A QUORUM DUE TO CONFLICTS OF INTEREST

WHEREAS, the Hall County Regional Planning Commission was created under an Interlocal Cooperation Agreement dated 1967, and continues to operate at this date under an Amended Interlocal Cooperation Agreement dated 1974; and

WHEREAS, on April 20, 2004, Hall County adopted Zoning Resolution No. 04-0020 for the purpose of providing Hall County with a comprehensive zoning plan; and

WHEREAS, under the aforementioned zoning resolution, Hall County reserved unto itself the authority to grant conditional uses and special exceptions to property owners for the use of their property; and

WHEREAS, circumstances may arise wherein the Hall County Board of Supervisors declares that it does not have a quorum of its members to rule on an application for conditional uses or special exceptions by reason of potential conflicts of interest regarding any such application made to it.

NOW, THEREFORE, BE IT RESOLVED, that in the event that the Hall County Board of Supervisors finds that it does not have a quorum of its members to rule on any application for conditional uses or special exceptions by reason of potential conflicts of interest regarding any such application, then, in such event and by reason of NEB. REV. STAT. § 23-114.01(4), the Hall County Board of Supervisors shall refer such application to the Board of the Hall County Regional Planning Commission for final decision following consideration of the evidence in accordance with the standards and procedures required to be followed by the Hall County Board of Supervisors in such instances.

Resolution moved by Supervisor Pam Lancaster

Seconded by Supervisor Jane Richardson.

Vote:

Supervisor Arnold:	For X;	Against ____;	Abstained ___;	Not Present ___.
Supervisor Lancaster:	For X;	Against ____;	Abstained ___;	Not Present ___.
Supervisor Lanfear:	For X;	Against ____;	Abstained ___;	Not Present ___.
Supervisor Purdy:	For X;	Against ____;	Abstained ___;	Not Present ___.
Supervisor Quandt:	For X;	Against ____;	Abstained ___;	Not Present ___.
Supervisor Richardson:	For X;	Against ____;	Abstained ___;	Not Present ___.
Supervisor Schuppan:	For X;	Against ____;	Abstained ___;	Not Present ___.

PASSED AND ADOPTED THIS 16TH DAY OF JUNE, 2015.

HALL COUNTY BOARD OF SUPERVISORS

Scott Arnold
Chairman

ATTEST:

Marla J. Conley, Hall County Clerk

Prepared by:
Jack Zitterkopf
Hall County Attorney

CONDITIONAL USE PERMIT APPLICATION

Applicant: Douglas R. Stange and Nancy A. Stange Evaluation Date:

Requested Conditional Use: Truck wash services, Line 751 of Land Use Matrix (a Livestock Trailer Washout)

Property Location: 9551 South Locust St, Doniphan, NE 68832

(Physical Address or Roads property located on)

NW1/4SW1/4 Section 34, Township 10 North, Range 9 West of 6th PM, Hall County, Nebraska

(Legal Description)

Route of travel:

Access by South Locust Street, a paved County Road.

Hours of Operation:

24 hrs/day 7 days/wk

Specific Purpose of Conditional Use:

To Construct and operate a Livestock Trailer Washout Facility

References:

See Supplement

Contact Information:

* If owners change hands you are required to notify this office of new contact information.

All Hall County Conditional Use Permits are currently restricted to a term of five (5) years.

Any other information, concerns or requests that would be helpful in approving the conditional use Permit.

Please see the attached Supplement to Application and the documentation appended thereto

Contact Applicant at 308-381-0088

Signature of Applicant or Agent for Applicant Doug Stange Nancy Stange

Date of Evaluation:_____

_____

_____

Recommendation: Approval _____ Denied _____

Conditions of Approval:

Building-Zoning Administrator _____

**In consideration of the issuance of this permit, the applicant hereby certifies that the above statements are true and correct, and hereby agrees to comply with the zoning regulations and other regulations in effect. If in violation of regulations or through misrepresentation of facts, this conditional use permit then becomes invalid and applicant may be subject to penalties established.

Supplement to Application for Conditional Use Permit
Applicant: Douglas R. Stange and Nancy A. Stange, husband and wife
Applicant's Assignee: Mid America Washout Grand Island, LLC

SOLUTION TO A PUBLIC PROBLEM

Applicant brings to the attention of the Hall County Board of Supervisors a solution to a public health problem. Livestock fecal material is regularly and indiscriminately being accidently spilled upon the public streets and highways of towns and cities in Hall County, Nebraska. Livestock slaughtering facilities and livestock feed lots require the transportation of cattle and other livestock upon the public roads by large trucks and semis. During such transport, livestock urinate and defecate in the boxes of the trucks and trailers. When the fecal material fills above a certain level, the material spills out of the trucks and onto the roadways. Such spills add to the odors and air pollution of the residential areas through which such trucks must pass. The spilled materials on the roadways create hazards for the motoring public who may not be fully able to avoid collisions and other automotive mishaps because of loss of traction affecting steering and braking. Municipalities bear a substantial risk of liability if the attempts at clean-up are inadequate.

Applicant can help alleviate a substantial share of the problems citizens and municipalities of Hall County now must bear. Applicant can sell a parcel of land to Mid America Washout Grand Island, LLC and encourage the construction of a Livestock Trailer Washout Facility and encourage Mid America Washout Grand Island, LLC to operate a business of washing out trailers that haul livestock. The business can offer its services to livestock truck operators for a reasonable fee and at times convenient to such operators and thereby reduce the amount of fecal material that might spill from such trucks as they drive over the local highways and through the municipalities in the county.

LIVESTOCK TRAILER WASHOUT FACILITY

In brief description, a livestock trailer washout facility is a business operation in which livestock trailers, typically semi truck trailers, are driven or backed into a steeply sloped concrete floored building. A worker with a high pressure water hose sprays the floors and inner sides of the trailer to wash the manure and bedding material, usually wood chips or saw dust, toward the open rear of the trailer. The material pours down into a floor drain system that screens the solids into a separate containment area and that allows the water and suspended tiny particles to flow to the large lagoon outdoors where naturally occurring biological organisms digest the materials into an agriculturally usable form which can be recycled or sold. No chemicals are used, not even soap. After the approximately 45 minute process is completed and the trailer is clean, the truck pulls ahead and out of the facility and the next truck can drive or back in.

THE BUILDER/OPERATOR

Applicant has agreed to sell Applicant's land to Mid America Washout Grand Island, LLC and has agreed to assign to Mid America Washout Grand Island, LLC a Conditional Use Permit if Applicant's application is approved. See Memorandum Agreement and Asset and Real Estate

Purchase Agreement attached as Exhibit #1.

Mid America Washout Grand Island, LLC is a Nebraska limited liability company. See attached Certificate of Organization Exhibit #2. For the purposes of this attachment, the term "Applicant" should be considered to be Mid America Washout Grand Island, LLC when discussing the construction and operation of a livestock trailer washout facility.

OPERATOR EXPERIENCE AND HISTORY

Mid America Washout Grand Island, LLC is wholly owned by Chad Ruda and Sarah Ruda. Mr. Ruda grew up on his teacher father's small acreage near Fremont, Nebraska and helped raise bucket calves and other assorted livestock. Mr. Ruda attended Midland College in Fremont and played football. During his six years in college and a change of majors, he concluded that hard work was the secret to success. He obtained employment with Wiechman Pig Company and learned from an excellent mentor the business of buying livestock and the principles of ethical business management. He started at minimum wage but his hard work and long hours did not go unnoticed. Soon he was earning a very good salary as a very successful buyer.

As part of that work he saw many truckloads of livestock being transported and unloaded in Fremont, and later he too drove trucks. He also noticed that cleaning out trucks is a continuing problem if there is no reliable facility nearby. At that time the nearest trailer washout was in West Point, 35 miles away.

In approximately 2005, with the encouragement of his wife who suggested that he do only one thing and to do it better than anyone else, he built a trailer washout in Fremont. There was a lot to learn if he wanted to do it right and he wanted to do it right. Mr. And Mrs. Ruda dealt with government regulators including the Nebraska Department of Environmental Quality as the representative of the federal EPA. He hired engineers to help design facilities that would satisfy the regulations. He obtained information and assistance from scientists and from the University of Nebraska. He deals with regulatory officials and health scientists every month. Attached are examples of monthly waste water quality reports for a couple of his facilities. Attachment #3.

There was stiff competition from facilities who offered cheap washouts but who did not feel compelled to follow the rules or to protect the environment. Financial disaster was always a real possibility. But Rudas persevered and now have made the Fremont operation one they are proud to own.

In 2009, an owner of a washout facility in Dodge City, Kansas wanted to sell, with the strong encouragement of the KDHEQ. Mr. Ruda informed the Kansas environmental quality officials that he wanted a list of all the defects they could see in the facility and he went to work to remedy all the defects. The agencies were more than pleased to have Mr. Ruda buy the business, along with his investment of more than $200,000 in corrections and improvements to the facility.

A facility in South Sioux City, Nebraska was distressed in 2011and Mr. Ruda purchased it with

his eyes wide open. But that facility needed much remodeling costing about $70,000 to $100,000 per year since then. Now it is a pretty nice facility.

The facility in West Point became available when the owner suffered health problems and Mr. Ruda purchased it in 2013. That facility did not require so much fix up.

Mr. Ruda has been advising the owner of a facility located in Sioux Falls, South Dakota in his construction and operation of a washout facility. That owner recently commented to Mr. Ruda that, "It is fun to have a business that is needed and that runs well."

Mr. Ruda had been looking for a good location to build a new facility in Hall County. He learned that it is much easier and more efficient to build a facility correctly from the ground up rather than to remodel an existing facility that was not properly designed for the long run. He searched for the perfect location and it appears that Mr. Stange's tract fits the bill. It is near feedlots, it is on a good road, it has available nearby land that could use the byproducts in agriculture and is less likely to offer any environmental hazards. At least some of the neighbors are very much in favor of his proposed use of the land.

THE LAND
Douglas R. Stange and Nancy A. Stange, husband and wife, own a tract of land legally described as THE NORTHWEST QUARTER (NW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION THIRTY-FOUR (34), TOWNSHIP TEN (10) NORTH, RANGE NINE (9) WEST OF THE 6TH P.M., HALL COUNTY, NEBRASKA, Excepting a certain tract therefrom as shown in Warranty Deed in Book 75 Page 403 in the Register of Deeds Office and also Excepting a Certain tract therefrom as shown in Corporation Warranty Deed as Document 81 000812 in the Register of Deeds Office. See attached Exhibit #4.

That parcel of land is located at 9551 South Locust Street, Doniphan, Nebraska, and contains 39.41 acres according to the Hall County Assessor's office. See attached Exhibit #5.

Such parcel of land is zoned A-3 Agricultural-Transitional District according to the Hall County Zoning Map. See attached Exhibit #6.

HALL COUNTY NEBRASKA ZONING RESOLUTION SECTION 5
The Hall County Board of Supervisors may issue a Conditional Use Permit for a Truck Wash Service as shown on the Land Use Matrix adopted by the Hall County Board of Supervisors and pursuant to Article 5 of the Hall County Zoning Resolution in conformance with the intent of the district in which it is proposed to be located upon consideration of the factors set forth in Section 5.01 of the Hall County Zoning Resolution.

RESOLUTION SECTION 4.04
The requested use may be permitted as a conditional use pursuant to Hall County Zoning Resolution Section 4.04.03.

4.04.03 Conditional Uses
The following conditional uses may be allowed as per Article 5 of this Resolution. Approval shall depend upon the ability of the application to meet specific minimum conditions /requirements. The final consideration may require additional conditions to be met that are specific to the site in question.

4.04.03(5). Commercial uses as provided in the Zoning Matrix and the following minimum conditions are met:
A. Meets minimum lot requirements as established by this Resolutions.
B. Meets minimum off-street parking requirements as established by this resolution.
C. Meets minimum sanitary sewer requirements for the proposed use.
D. The lot takes access from an improved county road or highway or are along a developed public or private road that accesses an improved county road or highway.

4.04.05 Area and Intensity Regulations
In the A-2 [sic] Agricultural-Transitional District the height of buildings, the minimum dimensions of lots and yards, and the minimum lot area per family permitted on any lot, shall be as follows:

			Setbacks					
Uses	Min. Lot Area (sq.ft.)	Min Lot Width (Feet)	Front Yard (feet)	Rear Yard (feet)	Side Yard (feet)	Max Lot Coverage	Min. Lot Area per Dwelling Unit (sq.ft)	Max Building Height (feet)
Permitted uses	20,000	100	30	25	15	25%	20,000	35[1]
Conditional Uses	20,000	100	30	25	15	25%	20,000	35[1]

1. For structures intended for human occupancy, all others no restrictions.

See, Hall County, Nebraska Zoning Resolution 2004.

The Applicant's nearly square tract contains more than 39 acres within its boundaries of approximately 1,320 feet per side. There will be a house for the use of the business manager in addition to the livestock trailer washout facility. The house will be less than 35 feet above the ground and will be located on the tract in a position to provide the required set-backs and will have available at least 20,000 square feet with width greater that 100 feet and length greater than 200 feet.

The commercial building or buildings will similarly be located on the tract to provide the required set-backs and will have available at least 20,000 square feet with width greater that 100 feet and length greater than 200 feet. See the Proposed Site for Ruda Truck Wash attached as Exhibit #7.

RESOLUTION SECTION 6.
Section 6.08 of the Hall County Zoning Resolution provides a Schedule of Minimum Off-Street Parking and Loading Requirements. That Section requires two parking spaces in relation to a single-family detached residential structure. That section requires one parking space for each 200 square feet of office space in a commercial setting. It requires .75 space for each worker expected during the largest shift in an industrial setting. Section 6.07 defines a parking space to mean 250 square feet.

Section 6.08 does not seem to provide a parking space requirement for a business such as a livestock trailer washout facility. Based on Applicant's experience in other locations, it is prudent to set aside approximately 2,500 square feet per semi truck. It is prudent to expect to provide parking for five to seven such trucks at a time.

Applicant will provide at least one automobile parking space for each worker expected during the largest shift and at least one automobile space for each 200 square feet of space used for office work. Applicant will provide parking space for ten semi trucks of 2,500 square feet each, for which there is plenty of room as shown on the Proposed Site exhibit attached and referred to above.

RESOLUTION SECTION 6.

Section 6.05 Sanitary Requirements

1. It shall be unlawful to occupy a residential structure or any building for living purposes that does not have an approved waste system. For purposes of this Article, an approved system shall meet or be equivalent to criteria as defined by "Rules and Regulations for the Design, Operation and Maintenance of Septic Tank Systems in Nebraska," as published by the Nebraska Department of Environmental Quality (NDEQ).
2. Soil percolation tests shall be conducted in the area where the system will be located for those soils having severe limitations for such systems as identified by the Hall County Soil Survey and Hall County Comprehensive Plan.
3. A waste disposal system evaluation shall be required for septic systems serving all new residences.

Evaluations shall be on forms furnished by the office of the Zoning Administrator.

See, Hall County, Nebraska Zoning Resolution 2004.

Applicant expects to erect a single family residence on the tract. Potable water will be obtained from a well to be drilled on the site. A septic system will be installed to provide for the waste water from the residence at least the required distance from the residence. It will not share the lagoon planned for the commercial operation located on the site. The septic system will conform with the criteria defined by "Rules and Regulations for the Design, Operation and Maintenance of Septic Tank Systems in Nebraska," as published by the Nebraska Department of Environmental Quality (NDEQ).

Applicant also expects to erect facilities to accommodate the wastes to be removed from livestock trailers the Applicant will clean in its commercial operation.

A Livestock Trailer Washout Facility and its operation are clearly and specially described in NDEQ regulations. It is not the same as a Waste Disposal Site or a Landfill. It is not designed to be a car wash or a facility to clean engines and machinery. Environmental Protection Agency and the Nebraska Department of Environmental Quality define the construction and maintenance of the facility and of the related lagoon for treatment of liquid wastes and the treatment of solid wastes typically removed from livestock trailers being cleaned. As a starting point, Applicant refers to Nebraska Administrative Code section 123 NAC 007 relating to Livestock Truck Washes.

The Applicant attaches a report by Matthew D. Goeller, a civil engineer familiar with Livestock trailer washout facilities and the related regulations. The report indicates that the project as planned by Mr. Ruda will be in conformance with the government regulations and standards for such waste treatment and disposal. See Mr. Goeller's report attached Exhibit #8.

The Applicant refers to the report by Matthew D. Goeller which indicates the project will be in conformance with the government regulations and standards for the effects on surface water and ground water quality. The project plan includes the proper abandonment of an existing water well. For the related University of Nebraska information on well abandonment, see Exhibit #9.

The general site plan describes the location of buildings to be erected, the lagoon to be dug, and the location of existing trees and trees to be planted to reduce the transmission of noise and odor from the site. (See the Proposed Site attached above.)

Concerns about odors are typical of the public and neighbors who own land near the Tract. There are a dozen residences located within an approximate half mile radius from Applicant's Tract. Applicant sought the assistance of Rick Stowell, who is a University of Nebraska Extension Specialist-Animal Environment. Mr. Stowell prepared graphs indicating that all but two of the residences could expect to be free of annoying odors more than 98% of the time. The remaining two residences could expect to be free of annoying odors at least 94% of the time. See Exhibit #10. Mr. Stowell, upon being given more information about the process to be utilized for the lagoon and its operations, reports that he is very pleased to see that the odor emissions will likely be substantially lower than his earlier estimates. See attached Exhibit #11.

The immediate and long term effect of the commercial operation will be to reduce and hopefully eliminate the accidental scattering of animal wastes and digestive byproducts throughout the streets and highways of the County without unduly burdening the above described tract or the lands and residences of the neighbors near the tract. The operation should be very beneficial for the immediate and long term effects on the environment and the public.

ACCESS BY THE USERS
The Applicant expects that all access to the site will be from Locust Street. Section 4.04.03(5)(D) requires that the Tract "take access from an improved county road or highway or are along a developed public or private road that accesses an improved county road or highway."

Steven P. Riehle, Hall County Engineer, provided information concerning Locust Street. The information provided indicates that Locust Street between Interstate 80 two miles to the north and Lepin Rd (County Road 7) three miles to the south, is paved with paving between 8.5 and 11 inches thick, which is as thick as the top third of the roads in Hall County. It is thicker because it was formerly a State Highway 281 and was at the time designed to carry more heavy traffic than was the typical county road. Mr. Riehle also provided a recent report of traffic counts on Locust Street. See attached Exhibit #12. the report by Matthew D. Goeller indicates that Locust Street is more than capable of handling the traffic load.

Locust Street is described as a rural two-lane paved road. There is not now a left turn lane at the Applicant's Tract. The County Engineer's information suggests that a left turn lane is not now needed considering the traffic count. See also the report of Matthew D. Goeller.

As a rural road, there is very little pedestrian traffic near the Tract.

SIGNS
Applicant expects to erect a sign or signs sufficient to mark the location of the livestock trailer washout facility in sufficient size that truck drivers can easily plan for stopping and turning safely. Section 6.11 of the Hall County, Nebraska Zoning Resolution 2004 provides that signs are permitted on A-3 Zoning Districts. One sign advertising the authorized business being conducted on the property where the sign is located may be erected without need of a Sign Permit. (See, Section 6.12 of the Hall County, Nebraska Zoning Resolution 2004.)

> One (1) free standing or projecting sign for each enterprise on the premises of not more than 100 square feet per sign face, at no point closer to the front line or a side line than one-half of the required building setback distance, and not exceed the maximum height from the established grade level for said Zoning District. The lowest horizontal projecting feature of any post or pole mounted sign shall be eight feet above the established grade level.

See, Section 6.10.07 of the Hall County, Nebraska Zoning Resolution 2004.

Applicant expects to erect a sign which meets the regulations and limitations stated above.

REQUIRED UTILITIES
Applicant will use electricity provided by a public utility but in an amount well within the capabilities of the facilities now serving the Tract. Applicant will use trash removal service provided by a local company for office wastes and household wastes. Applicant will use either

electricity or privately supplied propane for residential and office heating purposes. Applicant will use well water for residential, office and commercial purposes.

SECURITY
In accordance with NDEQ regulations referred to above, Applicant expects to erect barriers designed to bar unauthorized dumping of materials and dumping of hazardous materials and to bar unauthorized traffic especially when the facility is not in operation. Fire and police agencies will be given access either by code for locked gates or by other means to assure that access may be gained by safety officials in times of emergency.

DEVELOPMENT PLAN AND SCHEDULE
Applicant expects the work on the development of the facilities to begin as soon as the required permits are approved. Applicant expects the facility to be in operation within a few months after development starts. The plan, even allowing for normal adverse weather conditions, will allow the facility to be in operation in less than 18 months.

COMPATIBILITY WITH AND PROMOTION OF RESOLUTION PURPOSES
Applicant's proposal comports very well with the stated purposes of the Hall County Zoning Resolution. The planned operation will promote the health and safety of the public by reducing the distribution of filth and animal wastes on the public streets and highways. The operation will restrict such animal byproducts to an area of the county that is used for primarily agricultural endeavors. Corn and soybeans are major crops grown by farmers in Hall County, feed products used typically for fattening livestock for food production. The marketing of such commodities is very dependent upon a lively livestock production and marketing process. The facility will be less obtrusive in its location than in almost any other place in the county. It is noted that a livestock feeding operation is located less than a mile away. It is further noted that a large livestock packing house is located less than nine miles away, in Grand Island, Nebraska, the county seat and third largest city in Nebraska. There are at least two other packing houses located in adjoining counties. There at least 22 other feedlots in and near Hall County, and easily a half dozen more in nearby counties. See attached Exhibit #13.

Almost all of such livestock is transported from farm to feedlot to packing plant by truck. Each semi truck can carry 40 head of fat cattle. Swift in Grand Island packs 5,000 head of cattle each day. That requires 125 truck trips per day to the plant over Grand Island's streets and the county's highways. That means that a high school student driving his mother's car to school is sure to find some slippery messes on the way. See the pictures of such spills. See attached Exhibit #14.

The city's obligation to keep the public streets and roads safe to drive upon has a heavy burden. Certainly agriculture is a very important part of the economy of the County but there are costs that must be borne. The Applicant's business operation can help reduce that cost and can add to the enjoyment of living in the towns and cities of Hall County and can contribute to the economic welfare of the rural citizens who strive every day to feed America.

Many local citizens have expressed in writing their support of the proposed operation. They come from "all walks of life" and include government officials, residents of Grand Island, and residents of surrounding communities, some of whom even live or work on Locust Street. The attached written statements of those citizens are merely examples of the sentiments of the "Silent Majority," the citizens for whom our government officials hope to serve and who are dependent upon our government officials to take those steps necessary to protect the interests of the whole community. See attached written Statements. See attached Exhibit #15.

TERM OF USE

Applicant or Applicant's Assignee request that the term of the Conditional Use Permit not have a required renewal date. The investment in the construction and development will be very substantial. The typical 5-year life of the Permit is much too short for a rational investor to make the improvements required in order to operate the business in accordance with the government's requirements. However, if the business stops operations, then the termination of the permit seems sensible.

Douglas R. Stange, Applicant

Nancy A. Stange, Applicant

Exhibit 1

MEMORANDUM AGREEMENT

Parties to this Memorandum Agreement are:

SELLER 1 – Doug Stange and Nancy Stange, husband and wife
SELLER 2 – Mid-NEBR Speedway, Inc.
Said two Sellers collectively referred to as "Seller" where so indicated.

BUYER – Mid America Washout, LLC and its nominee, Mid America Washout Grand Island, LLC (hereafter Buyer)

All of the above parties hereby agree that in event SELLER 1, at Seller's sole expense, successfully obtains a Conditional Use Permit for a livestock trailer wash-out from the Hall County Board of Supervisors, including successful obtaining of the Conditional Use Permit after any appeal, then in such event BUYER agrees to purchase SELLER 1's real estate and SELLER 2's Speedway property under the same terms and conditions as set forth in the previous Asset and Real Estate Purchase Agreement dated May 1, 2015 and executed by the parties on May 8, 2015, which agreement was earlier cancelled due to the refusal of the Hall County Board of Supervisors to grant the conditional use permit following the first application for said permit. Said Agreement is incorporated herein by reference as if set forth at this point.

In consideration of this agreement Seller agrees not to compete against Buyer either by establishing Seller's own trailer wash-out business on said premises, either by themselves or through some other entity they are a part of, or by selling or leasing the referenced real estate and business assets to any other individual or entity for the purpose of said other individual or entity establishing a trailer wash-out business.

The undersigned have executed this Agreement as of the date set forth above.

Dated: 9-23-15, 2015

Doug Stange

Doug Stange, Seller 1

Dated: 9-23-15, 2015

Nancy Stange

Nancy Stange, Seller 1

Dated: 9-23-15, 2015

Doug Stange - President

Mid-NEBR Speedway, Inc., Seller 2
By: Doug Stange, President

Dated: 9/21, 2015

Mid America Washout, LLC
Mid America Washout Grand Island, LLC
By: Chad Ruda, Member

Exhibit 2

CERTIFICATE OF ORGANIZATION
OF
MID AMERICA WASHOUT GRAND ISLAND, LLC

This Certificate of Organization for Mid America Washout Grand Island, LLC (hereafter the "Company"), filed with the Nebraska Secretary of State pursuant to Section 21-117 of the Nebraska Uniform Limited Liability Company Act, certifies as set forth below:

(1) The undersigned individuals have acted as organizers to form the Company.

(2) The name of the limited liability company is: Mid America Washout Grand Island, LLC

(3) The street and mailing addresses of the initial designated office is:
Location: 321 Cathy St., Fremont, NE 68025
Mailing: 321 Cathy St., Fremont, NE 68025

(4) The name and street and mailing addresses and post office box number, if any, of the initial agent for service of process of the company is:
Chad Ruda
Location: 321 Cathy St., Fremont, NE 68025
Mailing: 321 Cathy St., Fremont, NE 68026

(5) The company is not organized to render a professional service.

Dated: May 12, 2015.

Chad Ruda, Member

Sarah Ruda, Member

Exhibit 3

Midwest Laboratories
13611 B Street
Omaha, NE 68144
P 402-334-7770
F 402-334-9121
www.midwestlabs.com

31 August 2015

Work Order: 1506182

CHAD RUDA
MID AMERICA TRUCK WASH LLC - 27507
321 E CATHY STREET
FREMONT, NE 68025

RE: Monthly Wastewater

Enclosed are the results of analyses for samples received by the laboratory on 2015-08-26 11:20. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Heather Ramig

Heather Ramig
Project Manager
heather@midwestlabs.com
402-829-9891

The result(s) issued on this report only reflect the analysis of the sample(s) submitted. For applicable test parameters, Midwest Laboratories is in compliance with NELAC requirements. Our reports and letters are for the exclusive and confidential use of our clients and may not be reproduced in whole or in part, nor may any reference be made to the work, the results, or the company in any advertising, news release, or other public announcements without obtaining our prior written authorization.

Exhibit 4

QUITCLAIM DEED **200203075**

MID-NEBR SPEEDWAY, INC., herein called the Grantor, in consideration of business reorganization and other valuable consideration does hereby quitclaim, grant, bargain, sell, convey and confirm unto Douglas R. Stange and Nancy A. Stange, as joint tenants with rights of survivorship and not as tenants in common, herein called the Grantees, the following described property (as defined in Neb.Rev.Stat: 76-201):

The Northwest Quarter of the Southwest Quarter (NW1/4SW1/4) in Section Thirty-four (34), Township Ten (10) North, Range Nine (9) West of the 6th P.M., Hall County, Nebraska; Excepting and certain tract therefrom as shown in Warranty Deed in Book 75, Page 403 in the Register of Deeds Office also Excepting and Certain tract therefrom as shown in Corporation Warranty Deed as Document 81-000812 in the Register of Deeds Office.

To have and to hold the above-described premises together with all tenements, hereditaments and appurtenances thereto belonging unto the Grantee and to Grantee's heirs and assigns forever.

Dated: 3-20, 2002

MID-NEBR SPEEDWAY, INC.

BY: Douglas R. Stange
DOUGLAS R. STANGE, President

STATE OF NEBRASKA)
) ss.
COUNTY OF Hall)

The foregoing instrument was acknowledged before me on this 20 day of March, 2002, by Douglas R. Stange, President of Mid-Nebr Speedway, Inc.

Sheila Barber
Notary Public

GENERAL NOTARY-State of Nebraska
SHEILA GARBER
My Comm. Exp. March 2, 2004

Entered As Instrument No.
0200203075

10.50

STATE OF NEBRASKA)
COUNTY OF HALL) SS

02 MAR 21 AM 9 53

Kathy [illegible]
REG OF DEEDS

CASH _____
CHECK 10.50
_____
_____
_____

REFUNDS:
CASH _____
CHECK _____

NEBRASKA DOCUMENTARY
STAMP TAX
Date 3-21-2002
$ Exempt #5 By KR

David Schroeder
PO Box 1545
GI NE 68802

RESERVED FOR REGISTER OF DEEDS RECORDING SPACE
(Sec. 23-1503.01)
HALL COUNTY, NE

Exhibit 5

Hall County Assessor

121 South Pine Street, Suite 1
Grand Island, NE 68801-6099
Phone: (308) 385-5050
Fax: (308) 385-5059
TDD: (800) 833-7352

Janet Pelland
Assessor

Barb Stoddard
Deputy Assessor

Commercial Data Sheet

Parcel Information

Parcel Number: 400239094
Map Number: 3433-34-0-00000-000-0015
Situs: 09551 \S LOCUST
Legal: DONIPHAN TWP XC .59 AC HWY NW 1/4 SW 1/4 34-10-9 39.41 AC

Ownership Information

Business Name: MID NEBRASKA SPEEDWAY
Current Owner: STANGE/DOUGLAS R & NANCY A
Address: 708 E BISMARK RD
City, State: GRAND ISLAND NE
Zipcode: 68801-0000

Lot Information

Neighborhood: 1 MARKET AREA 1
Topography:
Amenities:

Lot Width: 0
Lot Depth: 0
Street Access:
Utilities:

Value Method: SF
No. Units: 1716700
Unit Value:
Adjustments: 0
Lot Value:

Building Cost Approach Data

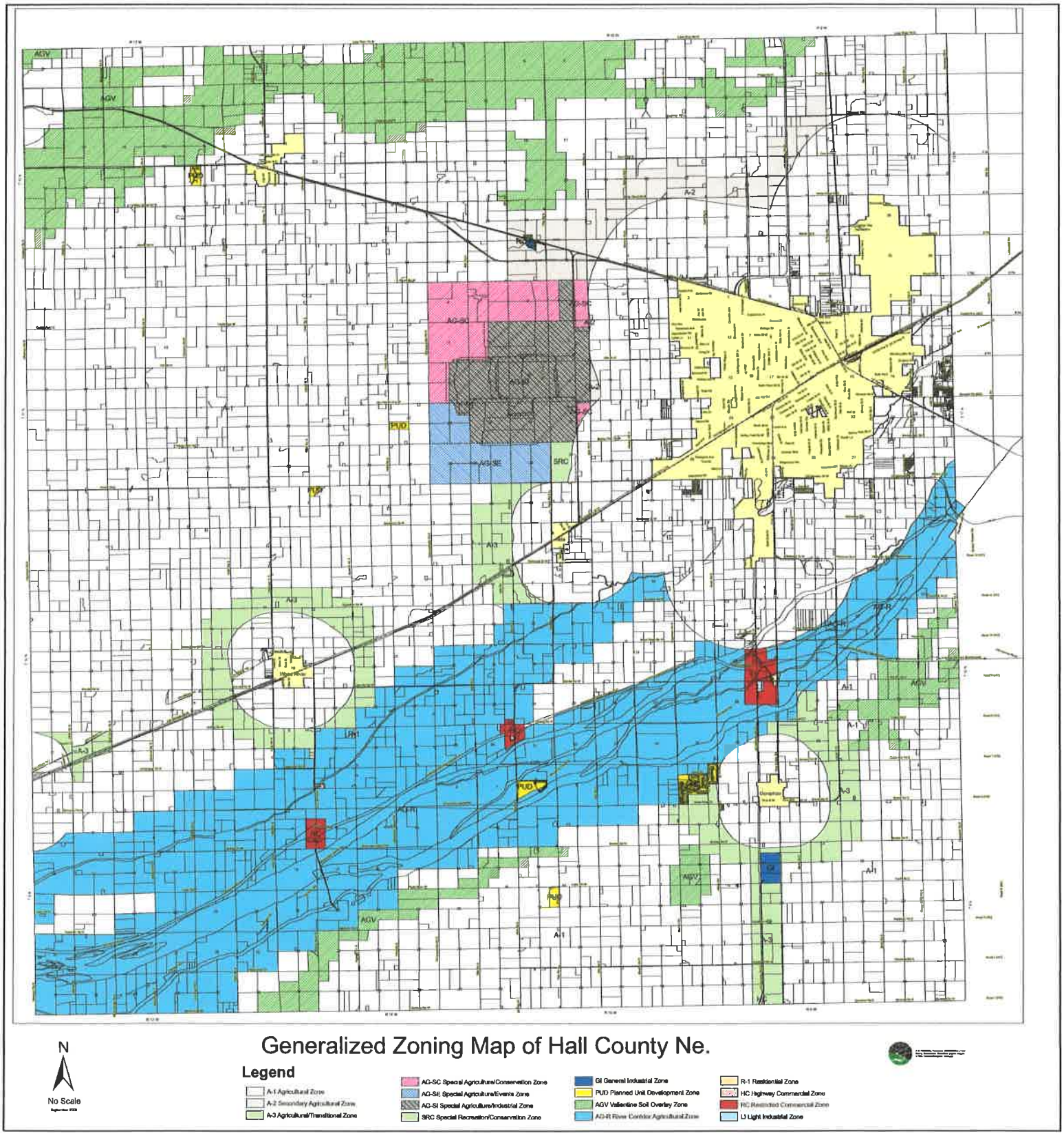
Year	Class	Area	Perim.	Story/Height
1972	C	988	128	1 / 8
RESTROOM BUILDINGS	**Quality:** Average	**Condition:** Average	**Ext. Wall:** Concrete Block, Standard	**Heat/Cool:**
1972	S	600	98	1 / 8
SNACK BAR	**Quality:** Average	**Condition:** Average	**Ext. Wall:** N/A	**Heat/Cool:**
1972	S	960	128	1 / 8
SNACK BAR	**Quality:** Average	**Condition:** Average	**Ext. Wall:** N/A	**Heat/Cool:**

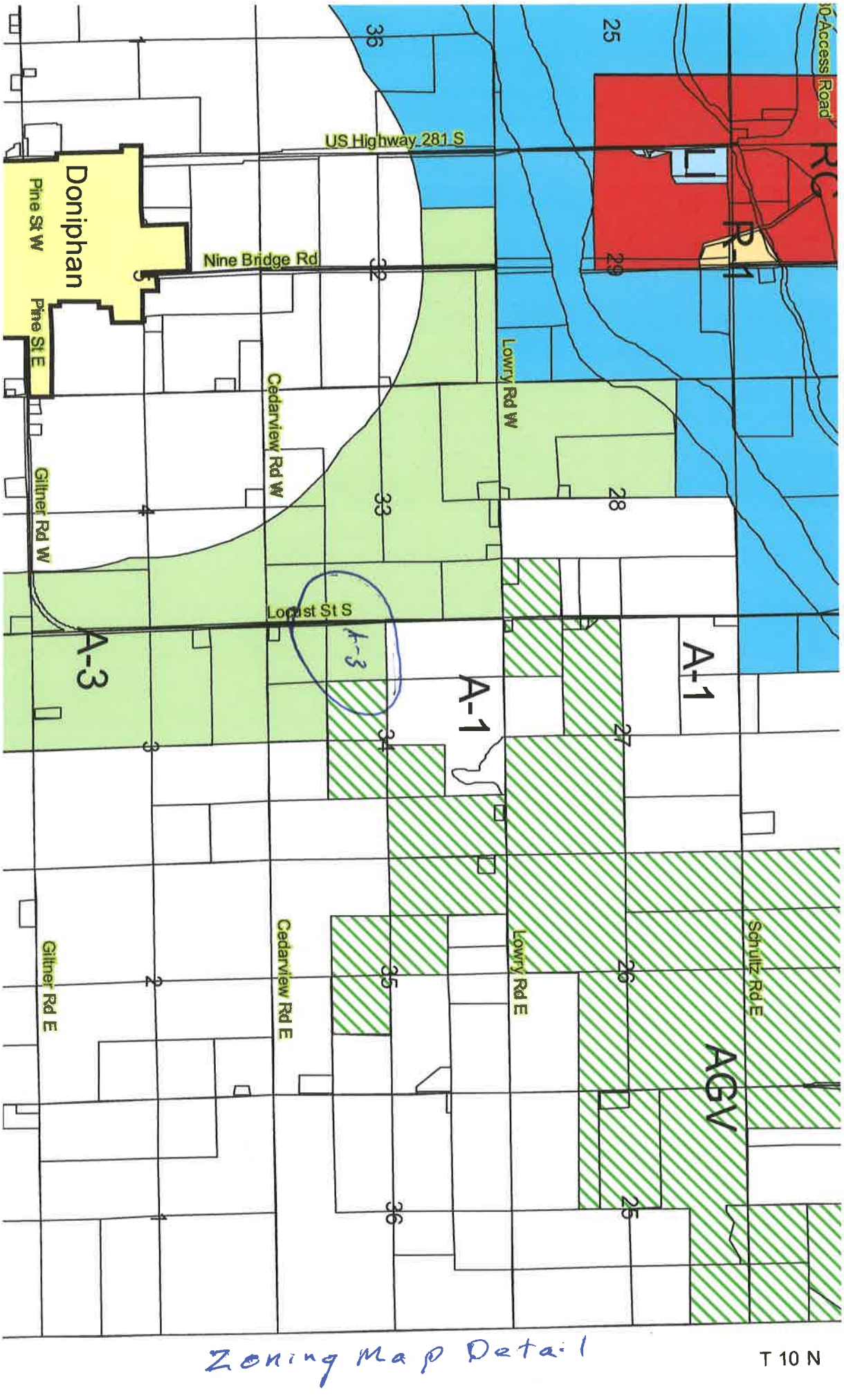
Photos/Sketches

Filedate: 7/28/2015 11:00:05 PM

THOMSON REUTERS

Exhibit 6

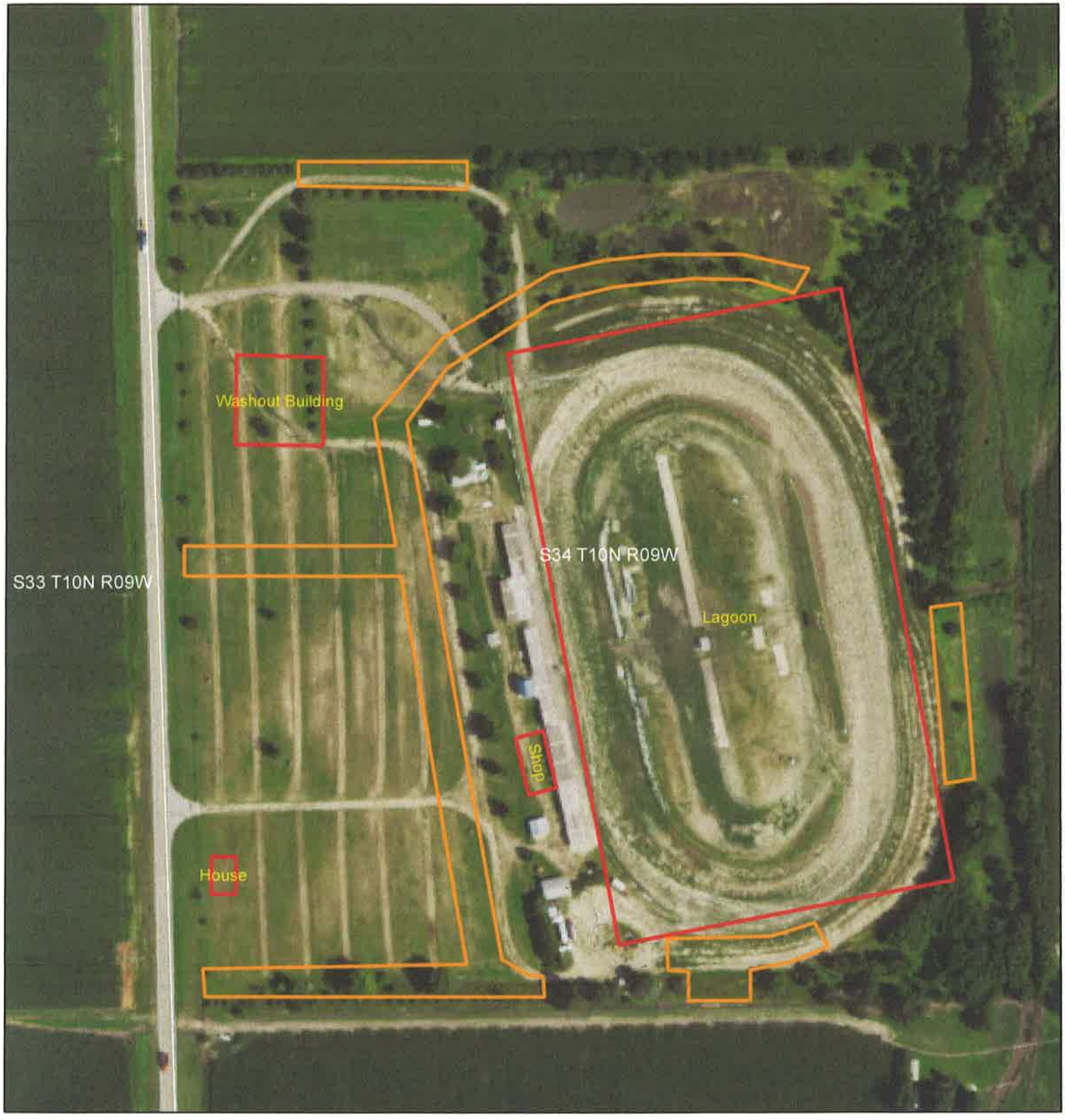

Generalized Zoning Map of Hall County Ne.
N
No Scale
Legend
A-1 Agricultural Zone
A-2 Secondary Agricultural Zone
A-3 Agricultural/Transitional Zone
AG-SC Special Agriculture/Conservation Zone
AG-SE Special Agriculture/Events Zone
AG-SI Special Agriculture/Industrial Zone
SRC Special Recreation/Conservation Zone
GI General Industrial Zone
PUD Planned Unit Development Zone
AGV Valleytine Soil Overlay Zone
AG-R River Corridor Agricultural Zone
R-1 Residential Zone
HC Highway Commercial Zone
RC Restricted Commercial Zone
LI Light Industrial Zone



Zoning Map Detail

Exhibit 7

Proposed Site for Ruda Truckwash



Legend

- Area to add trees
- Structures
- Section_Lines

0 115 230 460 690 920 Feet

Washout Building 125 ft. x 125 ft.
Shop 40 ft. x 80 ft.
Anaerobic Treatment Lagoon

N

Exhibit 8

Re: Items pertaining to County Zoning Application for a new truck wash facility, Mr. Chad Ruda

c. The proposed truck wash operation will have noise that is reasonable for such operations in that trucks will be arriving and departing from the location during business hours. Such noise will be reduced by the existing mature tree stand surrounding the property and proposed location. Such noise level is difficult to quantify, however all trucks will be at a low engine RPM and idle continuously while on site, reducing the effects on surrounding properties.

Odor production from such facility will be minimal. A tour of Ruda's existing facilities will prove such as several of his facilities are located in residential and business areas of other communities, with no objections. Odor is related to manure production, storage and subsequent treatment. The engineer's design and owner's management of the proposed lagoon is expected to be effective in minimizing such odor as it has in Mr. Ruda's other facilities. The same type of lagoon system is used in many municipal / city waste treatment system in Nebraska. As well, the daily production of this facility is minimal compared to common municipal treatment systems.

d. All solids removed from the facility will be marketed to surrounding farmers by Settje Agri-Services and Engineering, Inc. for application to crop land at agronomic rates. All garbage will be removed by a local refuse company to be determined.

l. The general compatibility of this proposed facility will be usual for an agricultural zoning area. The facility will not generate odor similar to a feedlot facility as all manure is contained, stored and treated without being subjected to an open air environment found in all feedlot settings.

1. A site plan showing the location and sizes of proposed structures has been enclosed. All items shown are planned to be constructed within one year of receiving the required construction permit from the Nebraska Department of Environmental Quality.

2. There are two permits that will likely be required to construct and operate the proposed facility depending on the feasibility of a wastewater recycling system.

1) Construction Permit from the Nebraska Department of Environmental Quality.
   This permit is required for the construction of any wastewater works for commercial use to comply with NDEQ Title 123. Legally this permit has to be obtained prior to the start of any construction having to do with the wastewater works to include pits, plumbing, solids separation, any treatment processes and ultimately any long term storage structures (lagoons). Detailed construction plans must be submitted to NDEQ for pre-approval in order to obtain this permit. Both surface and groundwater contamination are considered and addressed in the review process by NDEQ.
2) Federal NPDES Permit from the Environmental Protection Agency.
   This permit must be obtained for any discharge of wastewater from the facility whether it be into waters of the state or onto cropland. Discharge into waters of the state is not one of the options for this facility, however, liquid application to crop land may be an option. If an application for an NPDES permit is prepared for this site, it will require a detailed nutrient

management plan that demonstrates application rates onto crop land at agronomic levels. Surface water contamination is the primary concern of the EPA when considering the issuance of such permits. This permit will not be sought if a complete wastewater recycling system is proposed.

Some additional items that are pertinent to this proposed facility as it pertains to the consideration for county approval are as follows:

1. Mr. Ruda has prepared a general description of his washout process that will be used at his proposed facility (Mid America Washout). In review of this document, it appears to be consistent with what has been done at his existing facilities. In addition, it complies with the NDEQ Title 123 standards.
2. Mr. Ruda has indicated that some concern has been raised as to the type of contaminants that will be contained in the wash water effluent. In my experience, a livestock truck washout uses only water (no detergents) to wash out the livestock trailers. That is consistent with what I have observed at Mr. Ruda's other facilities. In addition, the permits required by NDEQ will allow only livestock trailers to be washed out at this facility. No petroleum based chemicals, heavy metals, or other non-natural contaminants will be present in the effluent. The only components will be water, livestock manure, and possibly some wood chip bedding material. Some chemical composition testing results have been included for reference.
3. Mr. Ruda also indicated that some concern had been raised as to the traffic impacts on the local road system. In review of some preliminary data that Mr. Steven P. Riehle had put together for the projected traffic increase as compared with its current numbers, it appears that the affect will be relatively insignificant. Mr. Reihle confirmed this opinion in a recent conversation and indicated that the road was likely due for resurfacing soon anyway.

The above opinions are based on my experience as a professional engineer designing and obtaining permits for livestock waste handling facilities for the past 14 years. My pertinent education includes a Bachelor and Master of Science degrees obtained from the University of Nebraska – Lincoln both in Civil Engineering.

Matthew D. Goeller, P.E.

9-22-15

Exhibit 9

IANR NebGuide Nebraska Lincoln

Published by University of Nebraska–Lincoln Extension, Institute of Agriculture and Natural Resources

Know how. Know now.

- Type Size + Type Size

Decommissioning Water Wells to Protect Water Quality and Human Health

G1471

This publication discusses decommissioning water wells for proper well abandonment.

Sharon O. Skipton, Extension Water Quality Educator
David P. Shelton, Extension Agricultural Engineer
Bruce I. Dvorak, Extension Environmental Engineering Specialist
Wayne E. Woldt, Extension Environmental Specialist
Tom C. Christopherson, Water Well Standards Program Manager, Nebraska Department of Health and Human Services

- Water Well Abandonment Terminology
- What Threat Do Illegal Water Wells Pose?
- How Many Illegal Water Wells Are There in Nebraska?
- Decommissioning Illegal Water Wells
- Additional Information
- Summary
- Acknowledgments

University of Nebraska–Lincoln Extension and the Nebraska Department of Health and Human Services place a high priority on water quality and jointly sponsor this series of educational publications.

DHHS NEBRASKA

At one time, the term "abandoned wells" referred to wells that were not being used and were in a state of disrepair.

maintains a list of individuals with a valid license. Information can be obtained at (402) 471-0546 or *http://www.hhs.state.ne.us/*.

Water Well Abandonment Terminology

The 1994 Nebraska Legislature passed LB 981, which established the following definitions in the Water Well Standards and Contractors' Licensing Act. These definitions, which clarify water-well abandonment language used in Nebraska, will be used in this publication.

Abandoned Water Well

Abandoned water well shall mean any water well, the use of which has been accomplished or permanently discontinued, which has been decommissioned as described in the rules and regulations of the Nebraska Department of Health and Human Services Regulation and Licensure, and the owner of which has filed a notice of abandonment with the state Department of Natural Resources if required by Nebraska Statutes.

Active Water Well

Active water well shall mean a well which is in use and which is not an illegal water well.

Decommissioned Water Well

Decommissioned, when used in relation to a water well, shall mean the act of filling, sealing, and plugging a water well in accordance with the rules and regulations of the Nebraska Department of Health and Human Services.

Driven Sandpoint Well

Driven sandpoint well is a well without a casing, with the sandpoint or sandscreen attached directly to the pump suction line.

Illegal Water Well

Illegal water well shall mean any water well which has not been properly decommissioned and which meets any of the following conditions:

1. The water well is in such a condition that it cannot be placed in active or inactive status.
2. Any necessary operating equipment has been removed and the well has not been placed in inactive status.
3. The water well is in such a state of disrepair that continued use for the purpose for which it was constructed is impractical.
4. The water well was constructed after Oct. 1, 1986, but not constructed by a licensed water well contractor or by an individual on land owned by him or her and used by him or her for farming, ranching, or agricultural purposes or at his or her place of abode.
5. The water well poses a health or safety hazard.
6. The water well is an illegal water well in accordance with Nebraska statutes.
7. The water well was constructed after Oct. 1, 1986, and such well is not in compliance with the standards developed under the Water Well Standards and Contractors Licensing Act.

Inactive Water Well

Inactive water well shall mean a water well that is in a good state of repair and for which the owner has provided evidence of intent for future use by maintaining the water well in a manner which meets the following requirements:

1. The water well does not allow impairment of the water quality in the water well or of the groundwater encountered by the water well.
2. The top of the water well or water well casing has a water-tight welded or threaded cover or some other water-tight cover with a means to prevent its removal without the use of equipment or tools to prevent unauthorized access, to prevent a safety hazard to humans and animals, and to prevent illegal disposal of wastes into the water well.

3. The water well is marked so as to be easily visible and located and is labeled or otherwise marked so as to be easily identified as a water well, and the area surrounding the water well is kept clear of brush, debris and waste material.

What Threat Do Illegal Water Wells Pose?

Illegal water wells are in all 93 Nebraska counties. They penetrate all principal aquifers and vary considerably in construction and depth. They represent a serious threat to human health and safety and to the overall quality of the state's groundwater resources.

Illegal and improperly constructed water wells provide a direct conduit from the land surface to the water-bearing zones. These water wells can allow surface runoff to flow directly down to the water-bearing zones, often carrying organic wastes, microbiological contaminants, fertilizers, and other chemical residues such as pesticides and petroleum products into the groundwater. Small mammals and reptiles can fall into the water wells, further adding to the bacteriological contamination problem. Once groundwater is contaminated, it is difficult, if not impossible, to clean up, and the process is always expensive. In addition, open water wells are especially hazardous to small children and present a risk to human life that can be prevented.

How Many Illegal Water Wells Are There in Nebraska?

While there has been no attempt to count the number of illegal water wells in Nebraska, decommissioning progress to date and anecdotal evidence suggests there may be thousands threatening our groundwater quality. Early Nebraska settlers found that many areas had relatively abundant groundwater that could be obtained fairly easily. In many situations, it was common to have more than one well on each farmstead because it was easier to construct a well at the point of use rather than develop a central water well and a distribution system. Farm consolidation, rural electrification, and general modernization in Nebraska took many of these old wells out of service. Also, throughout the years when a new well was drilled, the owner often neglected to properly decommission the old well.

Not all out-of-service wells are located on farmsteads or in rural areas. There likely are hundreds, and possibly thousands, located in communities throughout the state. In the early development of communities, most households and businesses had an individual water-supply well. Most of these water wells have since been replaced by community water-supply systems, but in many cases, were not properly decommissioned.

A windmill tower is almost a sure sign that a well exists, but wells can be present at many other locations too. Some signs of an old well include: concrete pads where the legs of a windmill tower once stood; depressions where an old well pit or the walls of a dug well may have collapsed; an old stock tank in an overgrown area; a small area that is fenced off, especially if there also are pipes sticking out of the ground; flat stones, a concrete slab, old boards, metal sheets, or other items that could be covering an old well shaft; and many others. Sometimes there are no signs.

Decommissioning Illegal Water Wells

Illegal water wells are a serious liability. They can contaminate our drinking water supply and present a safety hazard for humans and animals. **The decommissioning of all illegal water wells must follow requirements found in Title 178, Chapter 12, *Regulations Governing Water Well Construction, Pump Installation and Water Well Decommissioning Standards* of the Nebraska Department of Health and Human Services.**

Decommissioning Steps

Figure 1 illustrates the general procedure of filling and sealing a water well. The general steps are described below.

Removal of Well Equipment

Well equipment (well pump, piping, etc.) and any other obstructions need to be removed. If an obstruction can't be removed, the contractor will need to grout from the bottom of the well to a point above the obstruction, or place a minimum 5-foot grout seal above the obstruction.

Excavation

An area around the well casing is often excavated to a depth of 3 to 4 feet, and the top 3 feet of casing is removed.

Disinfection

The well should be disinfected with a chlorine solution. Fill material placed in the well during the decommissioning process also should be disinfected.

Filling and Sealing

Once the well has been cleared of equipment and disinfected, it is ready to be filled. The well is first filled or grouted from the bottom to a foot below the static water level (top of the water table). A minimum of a 3-foot section of grout/bentonite is then placed at this point. The well casing is further filled with disinfected gravel to within about 3 feet below the top of the cut-off casing.

Capping

After the well has been filled, it needs to be sealed or capped with an upper plug to prevent surface and near-surface contaminants from entering the well casing. Two options are available, either of which can be used if the well records indicate an adequate surface seal, such as a mounded concrete pad sloping away from the well or a watertight cap was installed during construction. Option #1 includes removing the top 3 feet of the casing and installing a 6-inch thick grout seal 1 foot beyond the bore hole and at least 1 foot below the top of the cut-off casing. Option #2 allows leaving the casing in place, installing a 10-foot thick seal and installing a water-tight cover on top of the casing. If a surface seal was not installed during construction or it is not known if a surface seal was installed, only the first option can be used.

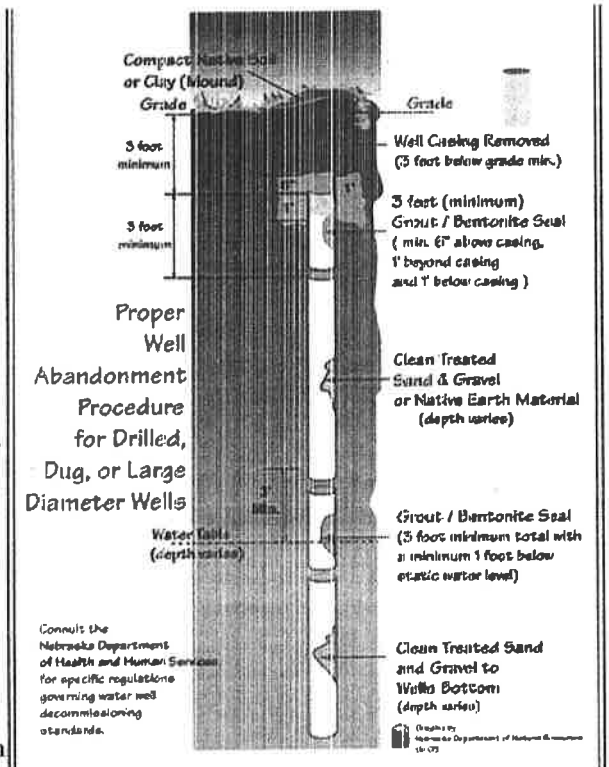


Figure 1. Schematic of water well decommissioning process (courtesy Nebraska Department of Natural Resources).

Backfilling

The excavated hole around the old casing is then backfilled with native soil,

Reporting

Once a well has been properly decommissioned, it must be reported to the Nebraska Department of Natural Resources on forms provided by DNR so it can be logged as an abandoned well.

Cost of Decommissioning

As outlined above, the decommissioning process includes removal of well equipment, disinfection, filling, sealing, capping, and reporting. The cost will depend on several factors including: well accessibility, construction technique, and materials; depth, diameter, and condition; the cost of materials used for decommissioning which may include sand, gravel, bentonite, concrete, and chlorine; operating costs encountered by the contractor including the cost of fuel; and more. Depending on these factors and others, the cost may range from approximately $300 for a shallow, small-diameter domestic or livestock well to $1,500 or more for a deep, large-diameter well, depending on the scenario encountered.

Because of the importance of protecting water quality, nearly every Nebraska Natural Resources District (NRD) offers an attractive cost-sharing incentive to assist well owners with the cost of decommissioning. Payment rates vary by NRD, but typically these programs will pay for 60 percent to 75 percent of the costs. Thus, out-of-pocket expense to the well owner can be quite low.

To apply for well decommissioning cost-share assistance, well owners must first contact the appropriate NRD for an information and application packet that gives program guidelines, forms, and instructions. No cost-share payments can be made unless all procedures are followed. (See NRD contact information below.)

Additional Information

This publication provides an overview of well decommissioning. Additional information on proper well abandonment is available from:

Nebraska Department of Health and Human Services
Tom Christopherson, Manager, Water Well Standards Program
301 Centennial Mall South
P.O. Box 95026
Lincoln, NE 68509-5026
(402) 471-0598
http://www.hhs.state.ne.us/

Nebraska Department of Natural Resources
301 Centennial Mall South
P.O. Box 94676
Lincoln, NE 68509-4676
(402) 471-2363
http://www.dnr.state.ne.us/

Information on NRD financial resources to help defray the cost of well decommissioning is available from:

Nebraska Association of Resources Districts
601 So. 12th St., Suite 201
Lincoln, NE 68508
(402) 471-7670
http://www.nrdnet.org/

Individual NRDs

Table I. Individual Nebraska NRDs.

NRD Name	*City*	*Phone*
Central Platte	Grand Island	(308) 385-6282
Lewis and Clark	Hartington	(402) 254-6758
Little Blue	Davenport	(402) 364-2145
Lower Big Blue	Beatrice	(402) 228-3402
Lower Elkhorn	Norfolk	(402) 371-7313
Lower Loup	Ord	(308) 728-3221
Lower Niobrara	Butte	(402) 775-2343
Lower Platte North	Wahoo	(402) 443-4675
Lower Platte South	Lincoln	(402) 476-2729
Lower Republican	Alma	(308) 928-2182
Middle Niobrara	Valentine	(402) 376-3241
Middle Republican	Curtis	(308) 367-4281
Nemaha	Tecumseh	(402) 335-3325
North Platte	Gering/Scottsbluff	(308) 632-2749
Papio-Missouri River	Omaha	(402) 444-6222
South Platte	Sidney	(308) 254-2377
Tri-Basin	Holdrege	(308) 995-6688

Twin Platte	North Platte	(308) 535-8080
Upper Big Blue	York	(402) 362-6601
Upper Elkhorn	O'Neill	(402) 336-3867
Upper Loup	Thedford	(308) 645-2250
Upper Niobrara-White	Chadron	(308) 432-6190
Upper Republican	Imperial	(308) 882-5173

Summary

While illegal water wells in Nebraska have not been accurately counted, they exist in every county on farmsteads, acreages, and in communities. Illegal water wells can contaminate groundwater, including drinking water supplies. In addition, they present a safety hazard to humans and animals. All illegal water wells must be decommissioned following requirements found in Nebraska Department of Health and Human Services Title 178, Chapter 12, *Regulations Governing Water Well Construction, Pump Installation and Water Well Decommissioning Standards.* With only one exception, water well decommissioning must be carried out or supervised by an individual holding a valid Nebraska Water Well Standards and Contractors' license. Cost-share assistance is available to help property owners with well decommissioning costs.

Acknowledgments

Information in this NebGuide is adapted from Miscellaneous Publication No. 37, *Guidelines for Decommissioning Water Wells: How To Plug Water Wells,* Duane A. Eversoll, Conservation and Survey Division; DeLynn Hay, Biological Systems Engineering, Institute of Agriculture and Natural Resources; Rod J. Temblay, Nebraska Department of Health; with additional information from Water Well Standards and Contractors' Licensing Act, Nebraska Department of Health and Human Services; and Regulations Governing Water Well Construction, Pump Installation and Water Well Decommissioning Standards, Nebraska Department of Health and Human Services.

This publication has been peer-reviewed.

Visit the University of Nebraska–Lincoln Extension Publications Web site for more publications.
Index: Water Management
Water Quality
2002, Revised August 2008

TOP

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Exhibit 10

ESTIMATING SETBACK DISTANCES USING THE ODOR FOOTPRINT TOOL

Worksheet for Calculating Separation Distances for a Particular Animal Production Site

Project description: Ruda Truckwash (by: R. Stowell, 7/21/15)

Location: Doniphan, Hall County

Region: South-Central NE - Gr. Is.

GENERAL INFORMATION FOR BASE PLAN						ADDITIONAL INFORMATION
Column A	**Column B**	**Column C**	**Column D**	**Column E**	**Column F**	**Column G**
Source Facility *Describe*	Plan Dimensions (e.g. ft x ft) *Show*	Plan Area (sq. ft.) *Calculate*	Odor Emission Number (OU/s·ft^2) *Tables 1 & 2*	Odor Control Factor *Table 3*	Scaled Odor Emission Rate (x 10^6 OU/s) *C x D x E ÷ 1,000,000*	*Describe*
1) Wash-out building	125' x 125'	15,625	30	1	0.47	Assumed like a scraped dairy barn - persistently wet with frequent removal
2) Soilds storage building	60' x 160'	9,600	30	1	0.29	Assumed midway between an earthen storage basin and a crusted stockpile
3) Anaer. treatment lagoon	525' x 950'	498,750	10	1	4.99	Assumed contents are not purple, but lagoon has already turned over
				Total scaled odor emission rate = *Sum of values in Column F*	5.75	

Annoyance-Free Percentage *Circle value chosen by you or by community* 90 (94) (96) (98) 99 %	Directional Setback Distances (miles or fraction thereof) *Locate using set of setback curves for region*				Directional Setback Distances (miles or fraction thereof) *Locate using set of setback curves for region*			
	N	E	S	W	N / NE	E / SE	S / SW	W / NW
94% AFP	0.40	0.15	0.25	0.25				
96% AFP	0.45	0.25	0.35	0.35				
98% AFP	0.65	0.40	0.50	0.50				

Remarks for Ruda Truckwash footprint:

Assumptions were made about the truckwash facilities as odor sources. The selections made should convey confidence only as ballpark estimates.

The range of odor-annoyance-free frequencies (% AFP) shown is intended to provide perspective. The recommended way of describing these frequencies is as '*average **percentage of hours** over a period of years (~10 years) during which annoying odor levels are projected to **not be present** for a given location'*. Another way to describe them is in terms of '*number of hours (100-XX) over a four-day period, on average, in which annoying odor levels are expected to be present for a given location*'. For the given case, annoyance-free odor conditions are projected to exist 96% of the time at each of the following locations: a location just under a half-mile to the north, a quarter mile to the east, and a third of a mile to either the south or west of the truckwash. This is equivalent to 4 hours, on average, of odor at annoying levels existing at a given residence over 4-day timeframes.

Proposed Site for Ruda Truckwash
98% Annoyance Free Percentage

Setback

Structures

Section_Lines

Washout Building 125 ft. x 125 ft.
Solids Building 60 ft. x 160 ft.
Shop 40 ft. x 80 ft.
Anaerobic Treatment Lagoon

N

Proposed Site for Ruda Truckwash
96% Annoyance Free Percentage

Setback

Structures

Section_Lines

Washout Building 125 ft. x 125 ft.
Solids Building 60 ft. x 160 ft.
Shop 40 ft. x 80 ft.
Anaerobic Treatment Lagoon

N

Proposed Site for Ruda Truckwash
94% Annoyance Free Percentage

Setback

Structures

Section_Lines

Washout Building 125 ft. x 125 ft.
Solids Building 60 ft. x 160 ft.
Shop 40 ft. x 80 ft.
Anaerobic Treatment Lagoon

N

Exhibit 11

University of Nebraska Lincoln

DEPARTMENT OF BIOLOGICAL SYSTEMS ENGINEERING

September 8, 2015

Mr. Chad Ruda
Ruda Family Farm

Dear Mr. Ruda,

This letter follows our discussion regarding the truckwash facility proposed for a site south of Grand Island, NE. As a result of running the Nebraska Odor Footprint Tool (NOFT) for the proposed facility, you were previously provided with directional separation distances that show my best estimate of the odor risk presented. Understanding that I made assumptions to represent a truckwash facility in the NOFT, the projections showed odor risk ranging from 6% frequency [hourly basis] of annoying odor levels at roughly ¼ to 3/8 of a mile to 2% at ½ to 5/8 of a mile from the facility. This information is intended to offer additional objectivity to your planning activities and to discussions that may occur about the proposed facility. Determining whether odor risk presented is acceptable or not is up to the local community.

It was good to see recognition that there would be some odor generated by the facility and your interest in using best management practices to reduce the potential odor emissions and impacts. The screen separator would remove larger manure solids from the wastewater, which would reduce the loading rate of the proposed lagoon, increasing the likelihood that optimal treatment occurred (i.e. 'purple lagoon') and decreasing overall odor emissions from the facilities. The planned use of trees to reduce the impact of odor on neighbors is a positive practice that would be of greatest benefit for neighbors within the wind shadow of the windbreak. Finally, it was interesting and encouraging to see that we both independently identified using wastewater circulation to reduce odor generation from this facility. Given the good match of such a system to the proposed facility (dilute, relatively easy-to-circulate wastewater) and your personal experience utilizing such a system at an existing truckwash facility, I would have fairly high confidence that desired aeration would occur and odor levels would be appreciably reduced compared to storage and treatment in a conventional lagoon.

Please feel free to refer questions to me that you may have or may receive from others.

Sincerely,

Rick Stowell
Extension Specialist – Animal Environment

L.W. Chase Hall East Campus / P.O. Box 830726 / Lincoln, NE 68583-0726 / (402) 472-1413 / FAX (402) 472-6338 / http://BSE.unl.edu

Exhibit 12

HALL COUNTY HIGHWAY DEPT.
2900 WEST 2ND STREET
GRAND ISLAND, NE 68803

STEVEN P. RIEHLE
County Engineer
call 379-9236

PHONE: (308) 385-5126
FAX: (308) 381-6486
Email: stever@hallcountyne.gov

Sections of Paved Roads — Hall County, Nebraska — 9/3/2015 — Steve Riehle — Sorted by Trafic Volume

Shaded #'s are estimates

Description	Location	Approx. Length	Mile Number(s)	Paving Thickness (Inches)	Traffic Counts from NDOR, County, or Estimated	% Trucks (Many are assumed)	Truck Counts (based on % Trucks)	Significant Traffic Generators
Capital Avenue	1/2 mile E of Sky Park to US Hwy 30	1.0?	35A & 35B	9.0	4635?	15%?	700	North Truck Bypass and JBS Packing Plant
Stuhr Road	US Hwy 34 to Stolley Park Road	1.0	6P	14.0?	3,543	25%	890	JBS Packing Plant, East Truck Bypass and City of Grand Island
Shady Bend Road	US Hwy 34 to Airport Road	3.7	4P to 4T	10.5?	2,630	22%	580	East Truck Bypass, Subdivisions, Airport and City of Grand Island
Airport Road	US Hwy 281 to Sky Park Road	1.7	37C & 37D	8.0?	2,280	15%	340	North Truck Bypass and City of Grand Island
Engleman Road	1/8 mile S of Old Potash to 1/2 mile N of 13th	1.6		7.5	1,815	15%	270	Subdivisions and City of Grand Island
Bismark Road	W of Shady Bend Road to Gunbarrel Road	1.5			1,712	15%	260	Subdivisions and City of Grand Island
Locust Street	Lepin Road to I-80	5.6	8D thru 8J	8.5 to 11.0	1,575	15% ?	240	Doniphan and I-80
Engleman Road	1/2 mile S & N of Stolley Park Road	1.0		7.5	1,325	15%	200	Subdivisions and City of Grand Island
Giltner Road	Blaine Street to Hamilton County	4.0	11A thru 11D	8.5	1,195	20%	240	Farm to Market and Doniphan
Engleman Road	Guenther to Husker Hwy	3.0	18L, 18M & 18N	7.5 to 9.0	1,140	15%	170	Cedar Hollow School and City of Grand Island
Engleman Road	1/2 mile N of Capital to Abbott Road	1.5		7.5	1,097	15%	160	Subdivisions and City of Grand Island
Wiseman Road	Burmood Road to US Hwy 30	1.0	50F	7.5?	1,000	20%	200	Shelton Elevator and City of Shelton
Capital Avenue	US Hwy 30 to Gunbarrel Rd (Merrick County)	0.5	35A	9.0	1,000	10%	100	Subdivisions and City of Grand Island
Wildwood Drive	West of Engleman Road	0.1	23K	5.5?	1,000	5%	50	Cedar Hollow School
Chapman Road	US Hwy 281 to Merrick County Line	4.0	45A thru 45D	7.5	990	15%	150	Farm to Market and Chapman
Gunbarrel Road	US Hwy 34 to US Hwy 30	4.6	2P to 2S	5.5 & up	890	20%	180	Graver Pit, East Truck Bypass, Subdivisions
Husker Highway	Buffalo County Line to US Hwy 30	15.5	27J thru 27Z	9.5 to 10.5	828	20%	170	Landfill, HHD, and Farm to Market
Alda Road	Adams County to I-80	7.0	26A thru 26G	10.5	703	20%	140	Farm to Market, Gravel Pits, I-80
Old Potash Hwy	95th Road to Engleman Road	5.7	31J to 31P	7.5 to 8.5	580	20%	120	Transfer Station and Farm to Market
One R Road	Monitor Road to US Hwy 281	4.0	43E thru 43J	5.0 to 5.5	440	10%	40	One R School
Webb Road	US Hwy 281/Airport Rd to One R Rd	3.0	14U, 14V & 14W	6.0 & 7.0	430	10%	40	One R School, Farm to Market and Grand Island
Platte River Drive	Alda Road to US Hwy 34/281	7.0	11G to 11K, 9.5L,	7.5	420	10%	40	Farm to Market and Amick Acres
Rosedale Road	Prosser Spur to US Hwy 34/281	10.0	3G thru 3R	8.0 & 8.5	407	20%	80	Farm to Market, Gravel Pits
13th Street	60th to Engleman Road	2.2	33J & 33K		400	15%	60	Farm to Market
90th Road	Abbot Rd/NE Hwy 2 to Howard County	5.2	28V thru 28Z	5.5	398	15%	60	Dannebrog & Farm to Market
Airport Road	NE Hwy 11 to Engleman Road	10.0	37J thru 37T	7.5 to 8.0	358	20%	70	Farm to Market
Schultz Road	Wood River NE to Alda Link L40C	5.5	17N thru 17T	9.5	305	22%	70	Wood River Ethanol Plant, Farm to Market and City of Wood River
St Paul Road	Capital Ave to Airport Road	1.0	8T	?	300	5%	20	Subdivisions and City of Grand Island
Wood River Road	Bluff Center Road to US Hwy 30	6.0	19S to 19X	7.0 to 8.5	285	8%	20	Wood River School & Farm to Market
Burmood Road	Buffalo County Line to NE Hwy 11	7.0	11U thru 11Z	6.0 to 9.0	255	20%	50	Shelton Elevator and City of Shelton
130th Road	N & S of US Hwy 30	0.7	36J		217	20%	40	Wood River Ethanol Plant and City of Wood River
Barrows Road	East of US Hwy 34/281	0.5	1E	5.5	200	20%	40	Hansen Elevator
Guenther Road	Alda Link L40C to US Hwy 34/281	5.0	21H thru 21L	5.5 to 9.0	200	20%	40	Gravel Pits, Cedar Hollow School
Lowry Road	US Hwy 34/281 to Locust Street	2.0	15D & 15E	5.5	200	15%	30	Farm to Market
Nine Bridge Road	Doniphan to Cedarview Road	0.5	10.5F		200	15%	30	Feed Lot and Village of Doniphan
Blaine Street	Schimmer Road to Floodway	0.5	10N	7.5	200	15%	30	Gravel Pit, Platte Valley Industrial Park and City of Grand Island
Capital Avenue	Monitor Road to Engleman Road	1.0	35J	5.5	200	10%	20	Subdivisions and City of Grand Island

Sections of Paved Roads Hall County, Nebraska 9/3/2015 Steve Riehle

Sorted by Truck Counts

Description	Location	Approx. Length	Mile Number(s)	Paving Thickness (Inches)	Traffic Counts from NDOR, County, or Estimated	% Trucks (Many are assumed)	Truck Counts (based on % Trucks)	Significant Traffic Generators
Stuhr Road	US Hwy 34 to Stolley Park Road	1.0	6P	14.0?	3,543	25%	890	North Truck Bypass and JBS Packing Plant
Capital Avenue	1/2 mile E of Sky Park to US Hwy 30	1.0?	35A & 35B	9.0	4635?	15%?	700	JBS Packing Plant, East Truck Bypass and City of Grand Island
Shady Bend Road	US Hwy 34 to Airport Road	3.7	4P to 4T	10.5?	2,630	22%	580	East Truck Bypass, Subdivisions, Airport and City of Grand Island
Airport Road	US Hwy 281 to Sky Park Road	1.7	37C & 37D	8.0?	2,280	15%	340	North Truck Bypass and City of Grand Island
Engleman Road	1/8 mile S of Old Potash to 1/2 mile N of 13th	1.6		7.5	1,815	15%	270	Subdivisions and City of Grand Island
Bismark Road	W of Shady Bend Road to Gunbarrel Road	1.5			1,712	15%	260	Subdivisions and City of Grand Island
Locust Street	Lepin Road to I-80	5.6	8D thru 8J	8.5 to 11.0	1,575	15%	240	Doniphan and I-80
Giltner Road	Blaine Street to Hamilton County	4.0	11A thru 11D	8.5	1,195	20%	240	Subdivisions and City of Grand Island
Engleman Road	1/2 mile S & N of Stolley Park Road	1.0		7.5	1,325	15%	200	Farm to Market and Doniphan
Wiseman Road	Burmood Road to US Hwy 30	1.0	50F	7.5?	1,000	20%	200	Cedar Hollow School and City of Grand Island
Gunbarrel Road	US Hwy 34 to US Hwy 30	4.6	2P to 2S	5.5 & up	890	20%	180	Subdivisions and City of Grand Island
Engleman Road	Guenther to Husker Hwy	3.0	18L, 18M & 18N	7.5 to 9.0	1,140	15%	170	Shelton Elevator and City of Shelton
Husker Highway	Buffalo County Line to US Hwy 30	15.5	27J thru 27Z	9.5 to 10.5	828	20%	170	Subdivisions and City of Grand Island
Engleman Road	1/2 mile N of Capital to Abbott Road	1.5		7.5	1,097	15%	160	Cedar Hollow School
Chapman Road	US Hwy 281 to Merrick County Line	4.0	45A thru 45D	7.5	990	15%	150	Farm to Market and Chapman
Alda Road	Adams County to I-80	7.0	26A thru 26G	10.5	703	20%	140	Graver Pit, East Truck Bypass, Subdivisions
Old Potash Hwy	95th Road to Engleman Road	5.7	31J to 31P	7.5 to 8.5	580	20%	120	Landfill, HHD, and Farm to Market
Capital Avenue	US Hwy 30 to Gunbarrel Rd (Merrick County)	0.5	35A	9.0	1,000	10%	100	Farm to Market, Gravel Pits, I-80
Rosedale Road	Prosser Spur to US Hwy 34/281	10.0	3G thru 3R	8.0 & 8.5	407	20%	80	Transfer Station and Farm to Market
Airport Road	NE Hwy 11 to Engleman Road	10.0	37J thru 37T	7.5 to 8.0	358	20%	70	One R School
Schultz Road	Wood River NE to Alda Link L40C	5.5	17N thru 17T	9.5	305	22%	70	One R School, Farm to Market and Grand Island
13th Street	60th to Engleman Road	2.2	33J & 33K		400	15%	60	Farm to Market and Amick Acres
90th Road	Abbot Rd/NE Hwy 2 to Howard County	5.2	28V thru 28Z	5.5	398	15%	60	Farm to Market, Gravel Pits
Wildwood Drive	West of Engleman Road	0.1	23K	5.5?	1,000	5%	50	Farm to Market
Burmood Road	Buffalo County Line to NE Hwy 11	7.0	11U thru 11Z	6.0 to 9.0	255	20%	50	Dannebrog & Farm to Market
One R Road	Monitor Road to US Hwy 281	4.0	43E thru 43J	5.0 to 5.5	440	10%	40	Farm to Market
Webb Road	US Hwy 281/Airport Rd to One R Rd	3.0	14U, 14V & 14W	6.0 & 7.0	430	10%	40	Wood River Ethanol Plant, Farm to Market and City of Wood River
Platte River Drive	Alda Road to US Hwy 34/281	7.0	11G to 11K, 9.5L,	7.5	420	10%	40	Subdivisions and City of Grand Island
130th Road	N & S of US Hwy 30	0.7	36J		217	20%	40	Wood River School & Farm to Market
Barrows Road	East of US Hwy 34/281	0.5	1E	5.5	200	20%	40	Shelton Elevator and City of Shelton
Guenther Road	Alda Link L40C to US Hwy 34/281	5.0	21H thru 21L	5.5 to 9.0	200	20%	40	Wood River Ethanol Plant and City of Wood River
Lowry Road	US Hwy 34/281 to Locust Street	2.0	15D & 15E	5.5	200	15%	30	Hansen Elevator
Nine Bridge Road	Doniphan to Cedarview Road	0.5	10.5F		200	15%	30	Gravel Pits, Cedar Hollow School
Blaine Street	Schimmer Road to Floodway	0.5	10N	7.5	200	15%	30	Farm to Market
Wood River Road	North Road to US Hwy 34/281	1.0	19G	5.5 and 9.0	130	25%	30	Feed Lot and Village of Doniphan
St Paul Road	Capital Ave to Airport Road	1.0	8T	?	300	5%	20	Gravel Pit, Platte Valley Industrial Park and City of Grand Island
Wood River Road	Bluff Center Road to US Hwy 30	6.0	19S to 19X	7.0 to 8.5	285	8%	20	Subdivisions and City of Grand Island

Capital Avenue	Monitor Road to Engleman Road	1.0	35J	5.5	200	10%	20	Subdivisions and City of Grand Island
Airport Road	Engleman Road to Webb Road	2.0	37 G & 37H	5.5	200	10%	20	Amick Acres, Cedarview Cemetery and Farm to Market
One R Road	NE Hwy 11 to 90th Road	4.5	43P to 43T	5.5 to 8.5	185	10%	20	City of Grand Island
Cedarview Road	Hilltop Road to Locust Street	3.0	13D, 13E & 13G	6.5 to 7.0	200	5%	10	Local Property Access
Seedling Mile Road	Shady Bend Road to Gunbarrel Road	0.7	33.5A	7.5?	200	5%	10	Cairo and Farm to Market
Stolley Park Road	Stuhr Road to Shady Bend Road	1.0	28B		200	5%	10	Bosselman's Truck Plaza
Hilltop Road	Platte River Drive to Cedarview Road	1.0	16F	7	100	5%	10	Amick Acres
Stolley Park Road	Cameron Cemetery to NE Hwy 11	2.3	29U to 29W	5.5 to 7.0	100	5%	10	Cameron Cemetery
95th Road	Old Potash Hwy to 13th Street	1.0			100	10%	10	Local Property Access
and more								

Area Roads	Percent Trucks	
I-80	almost 40%	
NE Hwy 2	7% to 16%	
illips Exit (NE Hwy 2)	16.0%	
US Hwy 281 Nof I-80	17.5%	
d River Rd - by WRHS	8.0%	Peak Hour Lane was 6.9% of Total ADT
130th (Old NE Hwy 11 btw Schultz & Hwy 30)	15% to 18%	
Schultz Rd E of 130th	22% to 23%	
Airport Rd - 281 to Sky Park	15.1% to 15.6%	Peak Hour Lane was 3.9% of Total ADT
US Hwy 281 N of GI	7.7%	
US Hwy 30 west	7.9% to 8.2%	
US Hwy 30 east	14.0%	
US Hwy 281 S of I-80	9.9%	
S Hwy 34 E of Locust	15.8%	
Alda Link	9.7%	
NE Hwy 11 N of Wood River	9.8%	Peak Hour Lane was 6.5% of Total ADT
Webb Road - Airport to One-R		Peak Hour Lane was 9.4% of Total ADT
		6.7%

Airport Road	Engleman Road to Webb Road	2.0	37 G & 37H	5.5	200	10%	20	Subdivisions and City of Grand Island
Cedarview Road	Hilltop Road to Locust Street	3.0	13D, 13E & 13G	6.5 to 7.0	200	5%	10	Amick Acres, Cedarview Cemetery and Farm to Market
Seedling Mile Road	Shady Bend Road to Gunbarrel Road	0.7	33.5A	7.5?	200	5%	10	City of Grand Island
Stolley Park Road	Stuhr Road to Shady Bend Road	1.0	28B		200	5%	10	Local Property Access
One R Road	NE Hwy 11 to 90th Road	4.5	43P to 43T	5.5 to 8.5	185	10%	20	Cairo and Farm to Market
Wood River Road	North Road to US Hwy 34/281	1.0	19G	5.5 and 9.0	130	25%	30	Bosselman's Truck Plaza
Hilltop Road	Platte River Drive to Cedarview Road	1.0	16F	7	100	5%	10	Amick Acres
Stolley Park Road	Cameron Cemetery to NE Hwy 11	2.3	29U to 29W	5.5 to 7.0	100	5%	10	Cameron Cemetery
95th Road	Old Potash Hwy to 13th Street	1.0			100	10%	10	Local Property Access
and more								

Area Roads	Percent Trucks	
I-80	almost 40%	
NE Hwy 2	7% to 16%	
illips Exit (NE Hwy 2)	16.0%	
US Hwy 281 Nof I-80	17.5%	
d River Rd - by WRHS	8.0%	Peak Hour Lane was 6.9% of Total ADT
130th (Old NE Hwy 11 btw Schultz & Hwy 30)	15% to 18%	
Schultz Rd E of 130th	22% to 23%	
Airport Rd - 281 to Sky Park	15.1% to 15.6%	Peak Hour Lane was 3.9% of Total ADT
US Hwy 281 N of GI	7.7%	
US Hwy 30 west	7.9% to 8.2%	
US Hwy 30 east	14.0%	
US Hwy 281 S of I-80	9.9%	
S Hwy 34 E of Locust	15.8%	
Alda Link	9.7%	
NE Hwy 11 N of Wood River	9.8%	Peak Hour Lane was 6.5% of Total ADT
Webb Road - Airport to One-R		Peak Hour Lane was 9.4% of Total ADT
		6.7%

PLANTMIX ASPHALT INDUSTRY OF KENTUCKY

AASHTO 1993 ESAL Calculator for Flexible Pavements

Project Name:	Stuhr Road
Project Number:	US Hwy 34 to Stolley Park Road
Description:	
Prepared By:	S Riehle Date: 09/03/15
Checked By:	Date:
Reference:	AASHTO Guide for Design of Pavement Structures 1993

Vehicle Description	Traffic Volume			Analysis Period (years)	Axle Load and Type						Gross Weight (pounds)	Equivalency Factors			ESAL's
	Quantity in the Design Lane	Days per Week	Weeks per Year		Axle 1 (kips)		Axle 2 (kips)		Axle 3 (kips)			Axle 1	Axle 2	Axle 3	
Car or Pickup	2,657	7	52	20	2	s	2	s			4,000	0.0002	0.0002	0	7,740
Loaded 18 wheeler-240 ADT	886	7	52	20	34	t	34	t	12	s	80,000	1.08	1.08	0.189	15,146,960
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Terminal Serviceability, ρ_t	2.0
Assumed Structural Number, SN	3

Summary:

Total AASHTO ESAL's	15,154,700
Suggested Mixture Class	ESAL Class 3
Suggested Binder Grade	PG 76-22

PLANTMIX ASPHALT INDUSTRY OF KENTUCKY

AASHTO 1993 ESAL Calculator for Flexible Pavements

Project Name:	Shady Bend Road
Project Number:	US Hwy 34 to US Hwy 30
Description:	
Prepared By:	S Riehle Date: 09/03/15
Checked By:	Date:
Reference:	AASHTO Guide for Design of Pavement Structures 1993

Vehicle Description	Traffic Volume			Analysis Period	Axle Load and Type						Gross Weight	Equivalency Factors			ESAL's
	Quantity in the Design Lane	Days per Week	Weeks per Year	(years)	Axle 1 (kips)		Axle 2 (kips)		Axle 3 (kips)		(pounds)	Axle 1	Axle 2	Axle 3	
Car or Pickup	2,051	7	52	20	2	s	2	s			4,000	0.0002	0.0002	0	5,970
Loaded 18 wheeler-240 ADT	579	7	52	20	34	t	34	t	12	s	80,000	1.08	1.08	0.189	9,894,480
											0	0	0	0	0
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Terminal Serviceability, ρ_t	2.0
Assumed Structural Number, SN	3

Summary:

Total AASHTO ESAL's	9,900,450
Suggested Mixture Class	ESAL Class 3
Suggested Binder Grade	PG 76-22

PLANTMIX ASPHALT INDUSTRY OF KENTUCKY

AASHTO 1993 ESAL Calculator for Flexible Pavements

Project Name:	Locust Street
Project Number:	Lepin Road to I-80
Description:	
Prepared By:	S Riehle Date: 09/03/15
Checked By:	Date:
Reference:	AASHTO Guide for Design of Pavement Structures 1993

Vehicle Description	Traffic Volume			Analysis Period	Axle Load and Type						Gross Weight	Equivalency Factors			ESAL's
	Quantity in the Design Lane	Days per Week	Weeks per Year	(years)	Axle 1 (kips)		Axle 2 (kips)		Axle 3 (kips)		(pounds)	Axle 1	Axle 2	Axle 3	
Car or Pickup	1,360	7	52	20	2	s	2	s			4,000	0.0002	0.0002	0	3,960
Loaded 18 wheeler-240 ADT	120	7	52	20	34	t	34	t	12	s	80,000	1.08	1.08	0.189	2,052,090
Empty 18 wheeler	50	7	52	20	15	t	15	t	7	s	37,000	0.0395	0.0395	0.0235	37,310
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Terminal Serviceability, ρ_t	2.0
Assumed Structural Number, SN	3

Summary:

Total AASHTO ESAL's	2,093,360
Suggested Mixture Class	ESAL Class 2
Suggested Binder Grade	PG 70-22

PLANTMIX ASPHALT INDUSTRY OF KENTUCKY

AASHTO 1993 ESAL Calculator for Flexible Pavements

Project Name:	Schultz Road
Project Number:	130th Road to Alda Link L40C
Description:	
Prepared By:	S Riehle Date: 09/03/15
Checked By:	Date:
Reference:	AASHTO Guide for Design of Pavement Structures 1993

Vehicle Description	Traffic Volume			Analysis Period (years)	Axle Load and Type						Gross Weight (pounds)	Equivalency Factors			ESAL's
	Quantity in the Design Lane	Days per Week	Weeks per Year		Axle 1 (kips)		Axle 2 (kips)		Axle 3 (kips)			Axle 1	Axle 2	Axle 3	
Car or Pickup	238	7	52	20	2	s	2	s			4,000	0.0002	0.0002	0	690
Loaded 18 wheeler-240 ADT	67	7	52	20	34	t	34	t	12	s	80,000	1.08	1.08	0.189	1,147,460
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Terminal Serviceability, ρ_t	2.0
Assumed Structural Number, SN	3

Summary:

Total AASHTO ESAL's	1,148,150
Suggested Mixture Class	ESAL Class 2
Suggested Binder Grade	PG 70-22

PLANTMIX ASPHALT INDUSTRY OF KENTUCKY

AASHTO 1993 ESAL Calculator for Flexible Pavements

Project Name:	Wood River Road
Project Number:	NE Hwy 11 to US Hwy 30
Description:	by Wood River School
Prepared By:	S Riehle Date: 09/03/15
Checked By:	Date:
Reference:	AASHTO Guide for Design of Pavement Structures 1993

Vehicle Description	Traffic Volume			Analysis Period	Axle Load and Type						Gross Weight	Equivalency Factors			ESAL's
	Quantity in the Design Lane	Days per Week	Weeks per Year	(years)	Axle 1 (kips)		Axle 2 (kips)		Axle 3 (kips)		(pounds)	Axle 1	Axle 2	Axle 3	
Car or Pickup	262	7	52	20	2	s	2	s			4,000	0.0002	0.0002	0	760
Loaded 18 wheeler-240 ADT	23	7	52	20	34	t	34	t	12	s	80,000	1.08	1.08	0.189	389,900
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Terminal Serviceability, ρ_t	2.0
Assumed Structural Number, SN	3

Summary:

Total AASHTO ESAL's	390,660
Suggested Mixture Class	ESAL Class 2
Suggested Binder Grade	PG 64-22

2015 Report on Paved Roads in Hall County

Draft

2015-09-03
Steve Riehle

Hall County Road Grid Set Up

Hall County's grid of county roads was set out in the mid to late 1800's by surveyors with most county roads following section lines in a south-north or west-east direction. The roads were opened by county boards with Hall County eventually transitioning from township maintained roads to county maintained roads.

Paved Roads across the Nation

As traffic on the nation's roads shifted away from horse drawn wagons to motorized vehicles, there was a push though "Seedling Miles" to pave roads. The federal and state highways were first in line followed by many city streets, with many county roads being paved last.

Hall County has over 175 miles of paved county roads and almost 640 miles of gravel roads. Most of the county's paved roads are asphaltic concrete, with the section of Wood River Road north of Bosselman's Truck Plaza being the only significant section of county road paved with Portland cement concrete. Gravel roads make up the largest percentage of Hall County's roads because county roads carry lower traffic volumes then the interstate, federal highways, state highways. Gravel roads are cheaper to build and maintain then a paved road when traffic counts are low. As traffic counts increase, the cost to build and maintain gets more and the public expectation is no different then what the nations experienced in the early 1900's and people want paved roads to get out of the mud.

Classification of Roads

A State Functional Classification map was created as part of legislation that created the Nebraska Board of Public Roads Classifications and Standards. A National Functional Classification map was created following federal classification standards. The process helped prioritize classification and therefore prioritize spending with roads classified as Rural Major Collector and higher being eligible for federal aid.

A network of roads is created to serve abutting properties to meet local transportation needs. The network of roads also serves regional or national transportation needs such as farm to market roads, state highways, federal highways and the interstate. The lower classification of roads carry mainly local traffic. The higher classification of roads have vehicular and truck traffic volumes that are higher with destinations beyond the local road.

Funding to Pave Roads

Hall County's roads were paved using both federal aid and local funds. Federal aid funds for county roads in Nebraska have been mostly replaced with the Federal Funds Purchase Program (FFPP). There is FFPP funding for bridges and FFPP funding for roads. There is still a federal aid program for off-system bridges per the Highway Bill, but until the FFPP goes away, there will be no federal aid roads paved in Hall County.

up kids when school gets out. The same is not true for One R School where there is significant traffic on Webb Road and sometimes even on One R Road. While the stopped traffic lasts only 30 to 45 minutes, it's a safety concern. Perhaps a safety project, road widening or on-site traffic circulation and storage is needed.

Pavement Design Criteria

As a general rule, county roads carry less overall traffic and less heavy commercial traffic then state highways or the interstate, so the pavement is thinner. Some local roads are thicker because they are former state highways that were relinquished to the county or city like Old NE Hwy 2, Old NE Hwy 11 east of Wood River, Old US Hwy 30 or Old Hwy 281 to Doniphan (Locust Street & Giltner Road).

Standard design for a paved county road was 5 1/2" o asphalt since 16970's. Some roads such as Engleman Road were paved on a bituminous stabilized base with 5" of asphalt.

Because all county roads are truck routes, we should take that into account as we design our roads. Some paved roads have very little truck traffic because they serve a cemetery or a former significant business. Some paved roads, such as those at the former CAAP carry so little traffic and are more expensive to maintain, are being converted to gravel.

The traffic volume of cars and pickups related to the capacity of the road to safely carry the traffic. The volume of heavy commercial traffic (trucks) is related to the structural capacity of the road to carry traffic. For low volume roads, it's Mother Nature that damages our roads. Freeze thaw cycles make moisture the # 1 enemy of pavement because water expands 9% to 10% when it freezes.

Equivalent Axle Loadings (ESAL's)

Roads have been designed for over 50 years using Equivalent Single Axle Loadings (ESAL's). from AASHTO. A single ESAL is an 18,000 pound axle. The impact of axle weights and loadings on pavement is exponential. An increase of 20 times in weight from a 4,000 pound passenger vehicle to an 80,000 pound truck is not just 20 times the pavement impact, more like 300 times the pavement impact.

When designing a road for ESAL's, the design usually reduces the truck count by somewhere close to 50% to account for close to half the trucks being empty. This is because the ESAL's for an empty truck is significantly less than for a fully loaded semi. A passenger car is approximately 0.003 ESAL's. The ESAL's for an empty semi is around 0.10 and a loaded semi is around 2.33. Using ESAL's, it takes over 300 cars/pickups or 20 empty 18 wheelers to equal one fully loaded 18 wheeler when measuring the impact of ESAL's on a pavements life.

New Paving Projects

I anticipate the budget will put emphasis on maintaining our existing paved roads. The only expansions of paved roads I see as possible in the next 10 years is finishing the 4 mile gap on One R Road so it's paved from NE Highway 11 in Cairo to US Highway 281 north of Grand

Island. Another future paving project could be paving 60th Road between Wildwood Drive and US Hwy 30 east of Alda. Beyond that perhaps paving Locust Street from Lepin Road south for 3 miles to Adams County.

Coordination on Projects

We need to anticipate the City of Grand Island completing the connection of Swift Road north of JBS to Shady Bend Road and the impact it will have on truck traffic and the pavement on Shady Bend Road. I have no doubt that a left turn lane will be needed for northbound traffic on Shady Bend Road waiting to turn west on Swift Road. We will also coordinate our projects with Alda, Cairo, Doniphan, and Wood River as well as the adjoining counties of Adams, Buffalo, Hamilton, Howard, and Merrick Counties, and of course, with the Nebraska Department of Roads.

Conclusion and Recommendation

1. Evaluate and choose a pavement management software
2. Input historical pavement information into the software
    a. Original Construction:
        i. Year
        ii. Thickness
        iii. Type of Mix
        iv. Cost
    b. Resurfacing: Same info as above
3. Perform field inspections on each mile of paved road to gather data
    a. Patching
    b. Cracking
    c. Rutting
    d. Roughness
    e. Photos
4. Create GIS interface to display road condition on maps.
    a. PSI, RSL of PCI
    b. Age, Thickness, etc.
5. Use information to recommend road future road maintenance strategy that includes:
    a. Budget
    b. Crack Sealing
    c. Fog Sealing
    d. Slurry Sealing
    e. Chip Seals
    f. Resurfacing
        i. Asphaltic Concrete Resurfacing
        ii. Portland Cement Concrete Overlays (White Topping)

Standards (NBIS) for over 20' long bridges. We can have something for roads if we implement a pavement management software.

Safety Considerations as Part of Resurfacing Projects

Safety improvement should always be considered as resurfacing projects are developed. Safety improvements could include:

- Surfaced shoulders wider than 2' should only be considered where traffic counts are very high (over 2,000 VPD0 or where there is significant bicycle or pedestrian traffic.
- Safety Improvements for Hall County related to the pavement can include
- Safety edge on roadways with edge drop of crashes or turf shoulders that are hard to maintain
- 2' shoulders on curves (Like Plate River Drive west of Doniphan or the Locust Street to Giltner Road curve east of Doniphan
- 2' shoulders on roads with high volumes of truck traffic such as Stuhr Road or Shady Bend Road
- 8' shoulders on roads with significant traffic volumes (over 2,00 VPD) and significant bicycle/pedestrian traffic
- Bypass lanes or left turn lanes when meet warrants. Areas that come to mind where there are significant traffic generators include Webb Road in front of One R School, Engleman Road in front of Cedar Hollow School, or even Wood River School.

Safety Considerations – Left Turn Lane

The warrants and considerations for left turn lanes are significant enough that they deserve their own section. The asphaltic concrete resurfacing projects should consider:

1. Adding bypass or left turn lanes at areas with concentrated turning movements.
    a. These can be safety projects if they are related to traffic generators such as schools like Cedar Hollow School, One-R School, or Wood River School.
    b. Added bypass or left turn lanes should be the responsibility of the traffic generator if built at locations such as the NDOR had with the Syngenta facility on US Hwy 34 near Phillips. The warrants for a left turn lane are

The Nebraska Department of Roads - Roadway Design Manual April 2012 Chapter Four: Intersections, Driveways and Channelization Page 4-20 reads "Left turn lanes may be necessary on two-lane highways where traffic volumes are high." The report from the National Cooperative highway Research Program (NCHRP) report 745 titled "Left-Turn Accommodations at Unsignalized Intersections" covers the warrants for bypass lanes and left turn lanes very well. If a roadway is busy with through traffic (50 to 200 peak hour vehicles per lane), there can be enough turning traffic to warrant construction of bypass lane or a left turn lane.
The first option should be a bypass lane with a left turn lane as a second option.

Off road parking and storage on site has the ability to help get left turning traffic off of the main road. For example, consider how traffic entering the Walgreens or Super Saver parking lots sometime back up onto US Hwy 30 (2nd Street). We don't experience this much at Cedar Hollow and Wood River Schools because they have a lot of staging and parking area for parents to pick

Roads are paved for a number of reasons

1. To get out of the mud – Seedling Miles and cemetery roads
2. Eliminate dust – Seedling Miles
3. Safety
4. Emergency access
5. To create a grid or network of county roads – such as paving collectors, etc.
6. National Defense - Interstate and paved roads to former Cornhusker Army Ammunition Plant
7. Service to adjacent properties - subdivision streets in Amick Acres, Davis & Hidden Lakes, etc.
8. Because of traffic volumes - Webb Road south of One-R School.
9. Cost - It's cheaper to build and maintain a paved road when traffic volumes are high.

Which Roads to Resurface

The available dollars are not enough to meet the needs. Hall County has almost 180 miles of paved asphalt roads. Busy county roads with significant traffic (over 500 vehicles per day VPD) should be resurfaced every 10 to 12 years. Lower traffic roads should be resurfaced every 15 to 20 years. If Hall County tried to resurface their asphalt roads every 15 years, using an estimated cost of $100,000 to $150,000 per mile for a 2" to 3" asphaltic concrete overlay, Hall County would need $1,200,000 to $1,800,000 per budget year.

Paved Roads Aging

Many of our asphalt pavements don't get overlaid for 20 plus years. The roads in the fall 2015 asphaltic concrete resurfacing program are between 15 and 22 years old. There are still over 26 miles of roads in Hall County that haven't been resurfaced for 20 years or more. Verify

Fall 2015 Resurfacing Projects

- Old Potash Highway between Alda Road and Monitor Road was resurfaced in 1999.
- Guenther Road between Monitor Road and Engleman Road was last resurfaced in 2000.
- One R Road between Webb Road and US Hwy 281 was paved in 1983.
- Burmood Road between Cameron Road and 40th Road was paved in 1992.

Three of the above roads carry considerable truck traffic volumes with over 300 total vehicles per day and trucks counts around 60. The truck counts on most county roads are currently estimated and should actually be counted with tube counters as we move forward because truck counts could vary substantially from estimates.

Hall County 1980's thru 2005 Pavement Management System (B.C.)

Hall County's pavement management system before Casey (B.C.) consisted of judgement calls by the Highway Superintendent and County Board on how much money to spend on asphalt and on what roads. Many asphalt roads were paved in the 1970's through 1990's. Hall County has had an annual asphalt resurfacing program for a number of years to overlay many of those roads.

Table 2. Recommended left-turn lane warrants for rural four-lane highways.

Left-Turn Lane Peak-Hour Volume (veh/hr)	Three-Leg Intersection, Major Four-Lane Highway Peak-Hour Volume (veh/hr/ln) That Warrants a Left-Turn Lane	Four-Leg Intersection, Major Four-Lane Highway Peak-Hour Volume (veh/hr/ln) That Warrants a Left-Turn Lane
5	75	50
10	75	25
15	50	25
20	50	25
25	50	< 25
30	50	< 25
35	50	< 25
40	50	< 25
45	50	< 25
50 or More	50	< 25

Table 3. Recommended left-turn lane warrants for urban and suburban arterials.

Left-Turn Lane Peak-Hour Volume (veh/hr)	Three-Leg Intersection, Major Urban and Suburban Arterial Volume (veh/hr/ln) That Warrants a Left-Turn Lane	Four-Leg Intersection, Major Urban and Suburban Arterial Volume (veh/hr/ln) That Warrants a Left-Turn Lane
5	450	50
10	300	50
15	250	50
20	200	50
25	200	50
30	150	50
35	150	50
40	150	50
45	150	< 50
50 or More	100	< 50

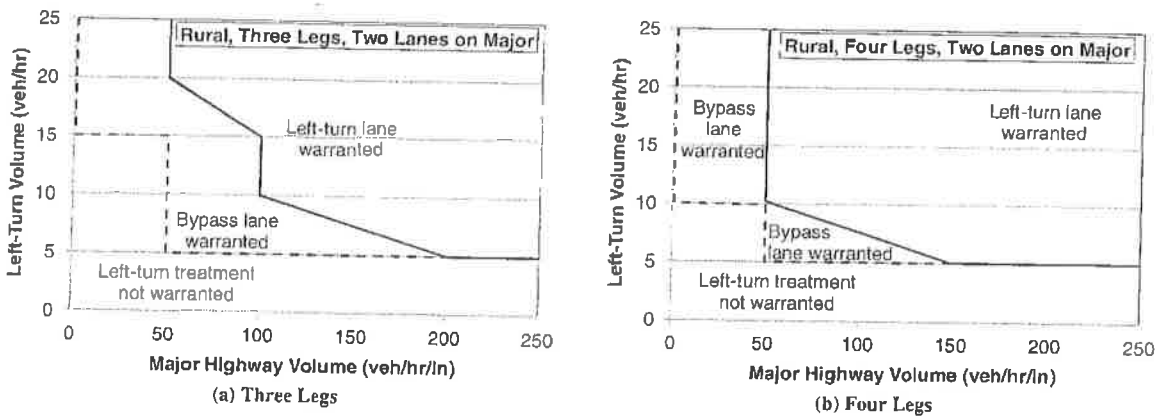

Figure 2. Recommended left-turn treatment warrants for intersections on rural two-lane highways.

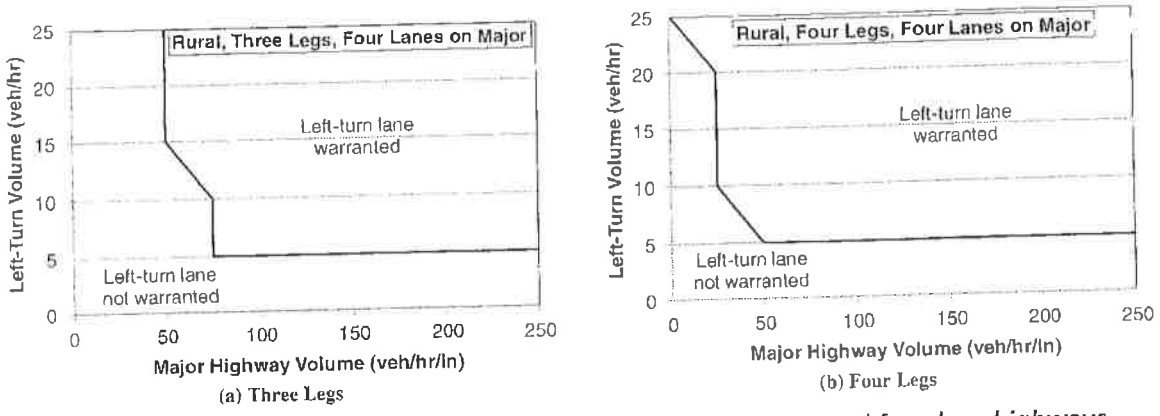

Figure 3. Recommended left-turn lane warrants for intersections on rural four-lane highways.

- Crash modification factors available in the AASHTO *Highway Safety Manual* (*4*), and
- Construction costs.

For rural conditions, different safety performance functions are provided for two- and four-lane highways and for three- and four-leg intersections. For urban and suburban arterials, prediction equations are provided for three-leg and four-leg intersections. Separate urban and suburban prediction equations are not provided based on the number of lanes on the major road approach. The prediction equations are not a function of speed limit; therefore, the developed warrants also are not a function of speed limit.

A range of values was used in the benefit-cost evaluation to identify volume conditions when the installation of a left-turn lane at unsignalized intersections and major driveways would be cost-effective. Plots and tables were developed that indicate combinations of major road traffic and left-turn lane volume where a left-turn lane would be recommended. Warrants were developed using the following:

- A range of values for the economic value of a statistical life,
- Crash costs based on values in the *Highway Safety Manual*,
- A range of construction costs, and
- A benefit-cost ratio of 1.0 and 2.0.

The research team suggested a benefit-cost ratio of 1.0 along with the mid-range economic value of a statistical life and moderate construction cost to identify the warrants for a left-turn treatment. For urban and suburban areas, that is a left-turn lane. For rural areas, that is a bypass lane. Benefit-cost ratio of 2.0 has been argued as being a more practical value to use to offset the potential variability in other assumptions. The warrants based on a benefit-cost ratio of 2.0 were selected for a left-turn lane on rural highways. These values were similar to the warrants that resulted when the lower crash costs based on older *Highway Safety Manual* costs were used.

Left-turn lanes can reduce the potential for collisions and improve capacity by removing stopped vehicles from the main travel lane. Left-turn lane warrants were developed as part of NCHRP Project 3-91 using an economic analysis procedure for rural, two-lane highways; rural, four-lane highways; and urban and suburban roadways. The methodology presented in the NCHRP Project 3-91 report (*1*) could also be used if a transportation agency has available local values for delay

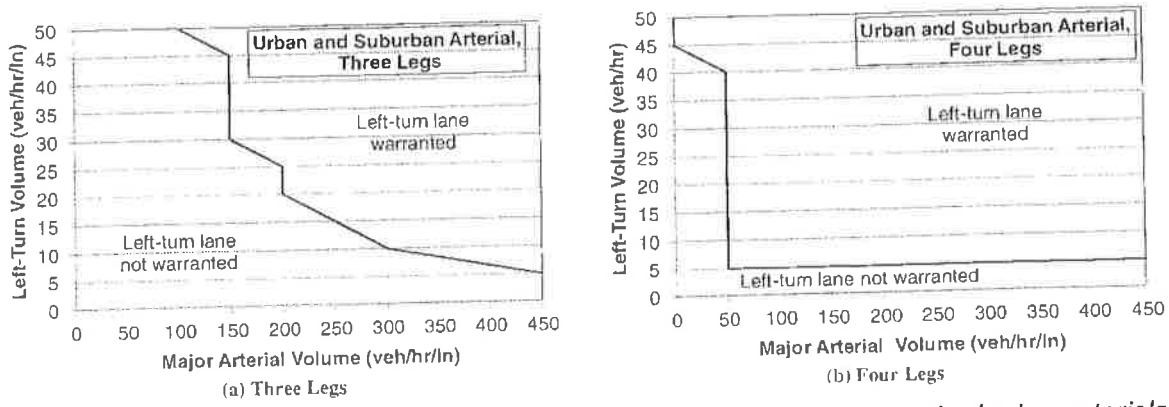

Figure 4. Recommended left-turn lane warrants for intersections on urban and suburban arterials.

reductions due to the installation of a left-turn lane, crash frequency or crash predictions, crash reduction factors, crash costs, and/or construction costs. If crash and/or delay data are available for a specific location, the benefit-cost method as described in the research report can be used to evaluate the potential benefit of installing a left-turn lane at a specific location. The available crash data should be combined with the crash predictions for the site using an empirical Bayes (EB) approach. Both the crash prediction and the EB procedures are discussed in the *Highway Safety Manual* (4). The EB technique is properly exercised by statisticians who have familiarity with this method and interpretation of its results. Highway agencies that desire to use this method but do not have personnel with relevant EB experience should consider employing the resources of a consultant who is experienced in the use of the method.

Prepare Designs

Once the decision to install the left-turn lane has been finalized, and the planning process has been completed—considering all of the important contributing factors in the placement of the left-turn lane—designs for the specific dimensions of the lane must be prepared. Depending on the characteristics of the intersection, it may be appropriate to prepare more than one design option and compare their relative strengths and weaknesses. Alternatively, individual design elements can be discussed and evaluated as part of an overall design plan. Either way, the elements comprising the design need to be created according to accepted geometric design principles that account for factors such as design speed and design vehicle, sight distance, storage area, deceleration area, grade, and channelization. These principles and others are discussed in Chapter 3.

NCHRP

REPORT 745

NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

Left-Turn Accommodations at Unsignalized Intersections

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

NCHRP REPORT 745

Left-Turn Accommodations at Unsignalized Intersections

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FOREWORD

By B. Ray Derr
Staff Officer
Transportation Research Board

This report presents guidance for the selection and design of left-turn accommodations at unsignalized intersections. Eleven case studies of typical situations illustrate the use of the guidance. The report will be useful to geometric designers and traffic engineers that deal with unsignalized intersections.

Maximizing the potential capacity of existing roadways is a priority in light of growing traffic demands and the diminishing resources to develop more capacity. Left turns at unsignalized intersections, including driveways, cause delay and may reduce safety. The decision to install a left-turn accommodation is a complex one as state and local transportation agencies weigh the left-turn demand, the cost of the accommodation, and the anticipated operational and safety benefits. Clear and consistent application of left-turn accommodations is important for mitigating the impacts of left turns, both for reconstruction projects and for the permitting of new access points.

In NCHRP Project 03-91, the Texas A&M Transportation Institute and their research team interviewed state and local elected officials and transportation agency administrators, business owners, and developers to determine their concerns related to providing left-turn accommodations at unsignalized intersections and identify performance measures that may influence these decisions. They then developed a process for determining whether a left-turn accommodation is justified at an unsignalized intersection and, if so, the types of accommodations that are appropriate. The process considers safety, operational efficiency, and construction costs. Design guidance was then developed for typical left-turn accommodations. The likely benefits and impacts of accommodations are described.

This report includes eleven design examples illustrating use of the guidance. These examples are based on actual locations where left-turn treatments were considered, evaluated, and/or installed. Two of the examples involve analysis of a proposed development.

The contractor's final report providing background information for the project is available on the TRB website. In addition to describing the work that was done, Appendix F presents a legal review of the impact of essential nexus and rough proportionality on development considerations.

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SUMMARY

Left-Turn Accommodations at Unsignalized Intersections

NCHRP Project 3-91, "Left-Turn Accommodations at Unsignalized Intersections," had two primary research goals:

- Develop an objective and clear process for the selection of left-turn accommodations at unsignalized intersections and
- Provide guidance on the design of these accommodations.

The second of those goals led to the decision to create this design guide to facilitate the distribution of findings from that project and to assist practitioners in their efforts when installing, or deciding when to install, left-turn lanes at unsignalized intersections.

Left-turn movements at unsignalized intersections and driveways, especially those that are made from lanes that are shared with through traffic, cause delays and adversely impact safety. The warrants used by many jurisdictions for when to provide left-turn lanes are based on volume thresholds and a queuing model introduced in research from the mid-1960s. Recent research has indicted that many of the assumptions used in those warrants are dated and need to be reexamined.

The left-turn lane warrants developed from NCHRP Project 3-91 include consideration of the following:

- Rural or urban/suburban environment,
- Number of lanes on the major roadway,
- Number of approaches to the intersection,
- Peak hour left-turn lane volume, and
- Major roadway volume.

This design guide was developed with a focus on practitioner use. It does not contain a comprehensive description of NCHRP Project 3-91 or how the conclusions were developed. Rather, it focuses on designs and traffic control treatments for left-turn lanes. Details of the research project are documented in the final research report, which is separate from this design guide.

The design guide discusses the basic information (e.g., traffic volumes, speeds, crash history, and delay or gap acceptance data) a practitioner needs to make a decision on whether to install a left-turn lane and how the practitioner can compile that information. It also sets forth a process by which the practitioner can establish and apply design criteria, both in the decision to install a left-turn lane and in the process of determining the specific design elements for that lane.

Warrants for installing left-turn lanes are provided in tabular and graphical form for rural two-lane roadways, rural four-lane roadways, and urban/suburban arterials. Warrants for bypass lanes on rural two-lane roadways also are included. The volume thresholds for these warrants are

CHAPTER 1

Introduction

Background of Study

Left-turn movements at unsignalized intersections, including driveways—especially movements that are made from lanes that are shared with through traffic—cause delays and adversely impact safety. The warrants used by many jurisdictions for when to provide left-turn lanes are based on volume thresholds and a queuing model introduced in research from the mid-1960s. Recent research has indicted that many of the assumptions used in those warrants are dated and need to be reexamined. Part of the concerns regarding the existing warrants were other factors that should be considered when researching left-turn lane warrants, such as the cost element, particularly when right-of-way issues are involved, and the rational nexus, when the left-turn accommodation may be related to a proposed new development.

These and related issues led to the creation of NCHRP Project 3-91, "Left-Turn Accommodations at Unsignalized Intersections." The project had two primary research goals:

- Develop an objective and clear process for the selection of left-turn accommodations at unsignalized intersections and
- Provide guidance on the design of these accommodations.

The second of these goals led to the decision to create this design guide to facilitate the distribution of findings from that project and to assist practitioners in their efforts when installing, or deciding when to install, left-turn lanes at unsignalized intersections. Documentation of how the left-turn lane warrants were developed is contained in the final research report from the project (*1*).

The left-turn lane warrants developed from NCHRP Project 3-91 include consideration of the following:

- Rural or urban/suburban environment,
- Number of lanes on the major roadway,
- Number of approaches to the intersection,
- Peak-hour left-turn lane volume, and
- Major roadway volume.

Technical warrants are an important element of the decision-making process; however, other factors also should be considered when deciding whether to install a left-turn lane, including:

- Sight distance relative to the position of the driver and
- Design consistency within the corridor.

These factors should be considered in conjunction with the numerical warrants. For example, if volumes indicate that a left-turn lane is not warranted but there is insufficient sight distance at the location for the left-turning vehicles, then the left-turn lane should be considered along with other potential changes (e.g., remove sight obstructions, realign the highway, etc.).

The practitioner must consider a number of issues when making decisions about planning and designing the lane. Some of these issues include:

- Design vehicle,
- Width of the turn lane,
- Need for an island of appropriate size for pedestrian refuge,
- Pedestrian facilities,
- Length for deceleration,
- Taper/transition length,
- Length storage for turning vehicles,
- Signage,
- Pavement markings,
- Illumination,
- Position of driveways/intersections in the vicinity of the left-turn lane, and

CHAPTER 2

Planning and Design Process

Introduction

Before installing a left-turn lane (or any other roadway improvement), it is necessary to consider the characteristics of the location where it would be installed. These characteristics guide the practitioner's decisions about whether to install the lane and what specific design criteria need to be emphasized to optimize the operation of the lane at that location. This chapter sets forth guidelines for establishing and applying decision criteria for providing left-turn lanes at unsignalized intersections. These guidelines can be useful to transportation agencies in planning new roadways and upgrading existing facilities.

The information in this chapter is closely related to that presented in Chapter 3 because much of the information necessary to make the fundamental decision to install a left-turn lane is also used in the subsequent decisions about the details of the design of the lane. Therefore, the practitioner should consider the material in that chapter in conjunction with the following sections when making decisions early in the process of planning and designing a left-turn lane installation.

Assemble Basic Information

There are some common reasons that practitioners consider the installation of a left-turn lane to improve an intersection.

- Speeds are too high to safely make left turns to or from a particular roadway.
- There is a trend or pattern of crashes involving left-turning vehicles, or rear-end or sideswipe/weaving crashes as through vehicles interact with queued vehicles.
- Drivers have to wait a long time to make a left turn.
- There are a high number of left-turning vehicles.

The thresholds that practitioners apply to these situations (e.g., what speed is "too high") can vary depending on local or state guidelines, previous experience with left-turn lanes in that area, and input from local stakeholders. In addition, the perception of these issues (whether real or imagined) also can initiate a review of an intersection, particularly when it comes to speed and/or crashes. As a result, basic information needed to assess the validity of those issues is commonly collected at the start of the planning process. In addition to the items discussed below, information also is needed regarding other conditions in the area, such as how left turns are treated at other locations along the corridor in question and the spacing between a location under study and upstream and downstream traffic signals.

The basic information needed for use with the developed left-turn lane warrants includes:

- Development (rural or urban/suburban),
- Number of lanes on the major roadway (two or four),
- Number of approaches (three legs or four legs),
- Peak-hour left-turn lane volume (left-turn vehicles per hour), and
- Major roadway volume (vehicles per hour per lane).

Other information traditionally used in traffic engineering studies includes:

- Volume,
- Speed,
- Crashes, and
- For selected locations delay and/or gap acceptance.

Basic Information

The basic geometry of the intersection needed for use with the warrants is the number of lanes on the major roadway and the number of approaches to the intersection. The number of approaches and the development type (rural or urban/suburban) are included in the warrants because the crash prediction methodology used to develop the warrants varied by these features. Rural crash prediction equations vary by

compares it to the amount of time it would take the same vehicles to travel through the intersection under free-flow conditions. A discussion of delay and gap acceptance studies for two-way and all-way stop-controlled intersections, as well as the recommended procedure and equations to use, can be found in the *Highway Capacity Manual* (3).

It is important to review delay in the context of crashes. Sites with a left-turn crash problem may have high delay, but sites without a crash problem may also have delay because increasing delay can be a precursor to an increasing crash rate. As drivers wait longer to turn, they can become impatient and attempt turns when it is not actually safe to do so.

Establish and Apply Decision Criteria

While the practitioner is still early in the planning and design process, the criteria for making decisions about left-turn lane installation need to be defined. In other words, what factors are important for determining the characteristics that the lane needs to have? Some of these factors depend on the issues identified in the previous section; whether some combination of these factors is an influence on the site will partially determine what other factors need to be considered when planning and designing the new lane.

In addition to the basic contributors, other factors might be:

- Access to adjacent development, in conjunction with access management considerations and requirements;
- Available right-of-way;
- Existing roadway width;
- Safety or crash history;
- Consistency with nearby intersections;
- Sight distance restrictions;
- Speed differential concerns;
- Pedestrian traffic;
- Existing or proposed medians; and
- Available budget.

Decisions relating to left-turn installation, particularly for a left-turn lane into a new development, may be governed by access management provisions of the agencies with jurisdiction. In order to preserve mobility and provide safety for the traveling public, many transportation agencies have established regulations and programs to manage access to their roadway network. For access to a new development, state and local agencies typically use access permitting to apply access management standards to guide decisions regarding where and what access would be allowed as well as any restrictions to this access. In general, the regulations are more restrictive for major arterials, the roadways intended to accommodate higher volumes and speeds.

These factors must then be considered in conjunction with the corresponding geometric design criteria and applicable policies on planning and access management to make appropriate decisions about specific characteristics of that particular left-turn lane. For example, on an intersection approach under consideration for a left-turn lane, there is a driveway upstream of the intersection where left turns also commonly occur. Vehicles turning into that driveway may also queue in the same through lane and cause confusion both to through drivers and to drivers intending to turn left at the intersection. In order to improve operations for through vehicles and reduce the likelihood of delay or rear-end crashes as through vehicles approach queued vehicles turning into the driveway, it may be desirable or preferable to provide a left-turn lane at this location as well. The spacing between the intersection and driveway will be a major consideration in establishing the appropriate treatment. An option may be to extend the left-turn lane upstream from the intersection to the driveway to provide storage for all left-turning vehicles. However, it may also be prudent to completely restrict left-turn access to that driveway through the use of a raised median, where possible, in order to reduce confusion among left-turning drivers; prohibiting turns into the driveway would prevent the formation of two intermingled queues (one for the driveway and one for the intersection) within the same lane, and it would eliminate the subsequent potential for "jockeying for position" within the left-turn lane and the adjacent through lane as drivers turning at the intersection try to avoid the queue for the driveway.

The practitioner should identify and list all such influencing factors and document them as decisions are made throughout the planning and design phases of the installation. The decision flowchart shown in Figure 1 is an example

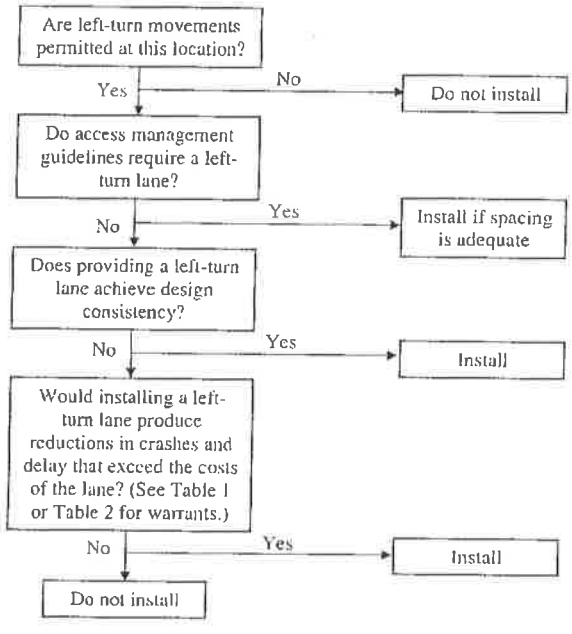

Figure 1. Example decision flowchart for installation of left-turn lane.

of the steps a designer could take to determine whether a left-turn lane is appropriate for a particular location. Where there are no applicable access management guidelines, adequate spacing and design consistency are both essential requirements to consider.

Apply Left-Turn Lane Warrants

Warrants

After compiling all of the relevant information pertaining to a particular intersection, it is necessary to determine whether that information indicates that a left-turn lane is indeed necessary or beneficial. Left-turn lanes can reduce the potential for collisions and improve capacity by removing stopped vehicles from the main travel lane. The recommended left-turn lane warrants developed based on the NCHRP Project 3-91 research (*1*) are:

- Rural, two-lane highways (see Table 1),
- Rural, four-lane highways (see Table 2), and
- Urban and suburban roadways (see Table 3).

Table 1 also present warrants for a bypass lane treatment on two-lane rural highways. Given a peak-hour left-turn volume and a particular intersection configuration (i.e., number of legs, number of lanes on the major highway), the tables show the minimum peak-hour volume on the major highway that warrants a left-turn lane or bypass lane. Figure 2 displays the warrants for rural two-lane highways graphically. Figure 3 shows graphical warrants for four-lane rural highways, and Figure 4 shows the recommended warrants for urban and suburban arterials.

Technical warrants are an important element of the decision-making process; however, other factors should also be considered when deciding whether to install a left-turn lane, including:

- Sight distance relative to the position of the driver and
- Design consistency within the corridor.

These factors should be considered in conjunction with the numerical warrants. For example, if volumes indicate that a left-turn lane is not warranted but there is insufficient sight distance at the location for the left-turning vehicles, then the left-turn lane should be considered along with other potential changes (e.g., remove sight obstructions, realign the highway, etc.).

Source of Warrants—Benefit-Cost Approach

A benefit-cost approach was conducted as part of NCHRP Project 3-91 (*1*) to determine when a left-turn lane would be justified. Economic analysis can provide a useful method for combining traffic operations and safety benefits of left-turn lanes to identify situations in which left-turn lanes are and are not justified economically. The development steps included:

- Simulation to determine delay savings from installing a left-turn lane,
- Crash costs,
- Crash reduction savings determined from safety performance functions available in the AASHTO *Highway Safety Manual* (Chapter 10 discusses rural two-lane, two-way roads; Chapter 11 discusses rural multilane highways; and Chapter 12 discusses urban and suburban arterials) (*4*),

Table 1. Recommended left-turn treatment warrants for rural two-lane highways.

Left-Turn Lane Peak-Hour Volume (veh/hr)	Three-Leg Intersection, Major Two-Lane Highway Peak-Hour Volume (veh/hr/ln) That Warrants a Bypass Lane	Three-Leg Intersection, Major Two-Lane Highway Peak-Hour Volume (veh/hr/ln) That Warrants a Left-Turn Lane	Four-Leg Intersection, Major Two-Lane Highway Peak-Hour Volume (veh/hr/ln) That Warrants a Bypass Lane	Four-Leg Intersection, Major Two-Lane Highway Peak-Hour Volume (veh/hr/ln) That Warrants a Left-Turn Lane
5	50	200	50	150
10	50	100	< 50	50
15	< 50	100	< 50	50
20	< 50	50	< 50	< 50
25	< 50	50	< 50	< 50
30	< 50	50	< 50	< 50
35	< 50	50	< 50	< 50
40	< 50	50	< 50	< 50
45	< 50	50	< 50	< 50
50 or More	< 50	50	< 50	< 50

number of lanes on the major roadway, so the warrants for rural highways also vary by number of lanes.

Volume

The peak-hour left-turn volume and major road volume are needed for use in the left-turn warrants.

Quantifying the overall traffic volumes at a candidate intersection can provide a better understanding of the conditions at a site. An aggregate volume count can be conducted with a speed study if automated traffic counters are used. The two studies can then cover the same amount of time and be reviewed for patterns over time of day or day of the week.

However, it is also important that these volumes are identified not only by time of day, but by turning movement. A comprehensive turning-movement count quantifies the number of vehicles on each leg of the intersection that turned left, turned right, or proceeded straight through the intersection. These turning-movement counts must be done manually or be collected by video and later manually reviewed. While this type of count is more resource intensive, it provides the information needed to know what the left-turn demand is on each approach, and it also identifies the opposing traffic volumes through which turning drivers must complete their turning maneuvers. When analyzing the existing counts, it is important to consider growth in future left-turn demand associated with plans for future development.

If the lane is being considered because of a particular traffic generator (e.g., a sporting or concert venue or a seasonal event), then the volume data should be collected when that generator is expected to produce the traffic being considered.

Speed

A speed study to determine the prevailing speeds at a particular intersection is a straightforward way to evaluate the effect of speeds on turning movements. Commonly, these speeds are collected through the use of automated traffic counters, usually deployed at selected spot locations on each approach (and perhaps departure) leg of the intersection. Alternatively, radar or laser speed devices can be used to collect a sample of spot speeds for a particular period of time, such as the peak hour.

Detailed procedures on conducting spot-speed studies can be found in other sources (*2*). If concerns exist about changing conditions, speed data can be collected on several days or through the course of a week to identify speed patterns over time. An entire week allows the practitioner to see trends on weekdays versus weekends, day versus night, and other time-sensitive comparisons that could influence the decisions related to the left-turn lane.

The result of such a study is a spreadsheet of data showing basic speed statistics (e.g., average, minimum, maximum, 85th percentile) for the entire study period as well as other divisions of time (e.g., 24-hour periods, 6-hour periods, 1-hour periods for peak times). These statistics help illustrate patterns and trends in operating speeds at the intersection, which can be used to make informed decisions about the design of the turning lane.

Crash History

If an intersection has a problem (or a perceived problem) with left-turn-related crashes, then a crash study is necessary to determine the extent of the problem. A review of recent crash reports can provide insight into the nature of the problem and how a left-turn lane may be a suitable countermeasure. For example, if crashes are occurring predominantly on one leg of the intersection, then it may be necessary to install a left-turn lane only on that leg, rather than on multiple legs. Left-turn-related crashes may include rear-end crashes at or near the intersection or driveway as well as sideswipe crashes, especially for multilane streets.

Often a crash study considers the previous 12 months, though a 24- or 36-month study may be useful, particularly if the practitioner desires to estimate the effects of adjacent development or other recent changes at that location. For example, if crashes increased after the completion of a new housing development, then the intersection may need a left-turn lane, a need that did not exist prior to its completion.

Depending on the jurisdiction or the classification of the roadway, there may be an electronic database of crash data that can be searched for information. Use of the electronic database can be helpful in searching through a large number of crashes in a short period of time; however, electronic records typically do not contain the level of detail provided by printed copies of the law enforcement officers' original reports. The full report shows a diagram of the intersection that includes the movements of vehicles and locations of key objects. The report also contains a narrative of the sequence of events leading to the crash, as the officer states it in his or her own words. The details provided by the diagram and the narrative are extremely valuable in identifying patterns related to crashes and crash history at a given intersection.

Delay

A study of the delay and/or gap acceptance at an intersection can provide useful information to determine if there is a potential problem that a left-turn lane can address. If left-turning drivers must wait a lengthy amount of time to complete their turns, it can lead to further delay for the drivers waiting in the queue behind them, whether they intend to turn or travel straight through the intersection. A left-turn lane would provide storage for turning vehicles and remove impediments to through vehicles.

A delay study looks at the time it takes vehicles to travel through the intersection under prevailing conditions and

- Potential of signalizing the intersection in the foreseeable future.

Proper consideration of these issues, and the ability to make informed decisions about them, will improve the likelihood that a left-turn lane is installed at an appropriate location and that its design will lead to improved operations during its service life.

Purpose and Scope of Guidelines

The design guide was developed with a focus on practitioner use. It does not contain a comprehensive description of the research project or how the conclusions were developed. Rather, it focuses on designs and traffic control treatments for left-turn lanes. Details about the research project are documented elsewhere (*1*).

Organization of Design Guide

This design guide has five chapters, including this introductory chapter. Chapter 2 discusses key steps in the planning and design process and how to compile and use the necessary information to complete those steps. It also contains the warrants the practitioner should consider when deciding whether to install a left-turn lane at a particular location. Chapter 3 provides a summary of key geometric design criteria and considerations specific to left-turn lanes at unsignalized intersections. Chapter 4 discusses appropriate traffic control devices and illumination, including provisions for future signalization. Chapter 5 contains a variety of case studies. The practitioner can refer to these case studies for examples of prior left-turn lane installations, which illustrate decisions and considerations made by other practitioners in similar situations.

typically lower than those described in various states' manuals and other guidance documents, with installations warranted for as few as five left-turning vehicles in the peak hour, depending on the opposing through volume. These warrants are based on a benefit-cost analysis conducted in NCHRP Project 3-91.

The design guide also contains recommendations for appropriate dimensions for specific design elements, such as:

- Lane width (as wide as the adjacent through lane, but at least 10 ft),
- Taper length (8:1 [L:T] for design speeds up to 30 mph and 15:1 [L:T] for design speeds of 50 mph) and type (bay taper or approach taper; "shadowed" or direct entry),
- Deceleration length (preference for no deceleration in the through lane, though 10 mph may be allowed), and
- Storage length (enough to store expected number of design vehicles during a critical period, but at least 40–50 ft, or two passenger car lengths).

A discussion of intersection sight distance, median design, and channelization and offset are included, as well as general principles for bypass lane design and pedestrian accommodation.

Traffic control devices are important complements to the geometric design of unsignalized intersections. The guide discusses commonly used signs, markings, and illumination, based on guidance from the MUTCD and lighting guides from AASHTO, ITE, and IESNA. The appropriate types (e.g., regulatory, warning, guide), sizes, and placement of signs are described, as are application guidelines for both signs and markings. Commonly used principles related to type, intensity, and location of lighting are explained, and provisions for accommodating future signalization are also included.

The guide also contains a series of 11 design example case studies, based on actual intersections where left-turn treatments were evaluated and installed. These case studies include installations of exclusive left-turn lanes in developing areas, a left-turn lane as part of a road diet program, a J-turn intersection, a bypass lane (or "passing blister"), and a signalized left-turn lane. Design examples provide the practitioner with "real-world" scenarios that are similar to those the practitioner would actually encounter, along with possible solutions and the methods by which those solutions can be evaluated and installed.

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Note: Many of the photographs, figures, and tables in this report have been converted from color to grayscale for printing. The electronic version of the report (posted on the Web at www.trb.org) retains the color versions.

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COOPERATIVE RESEARCH PROGRAMS

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NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

Systematic, well-designed research provides the most effective approach to the solution of many problems facing highway administrators and engineers. Often, highway problems are of local interest and can best be studied by highway departments individually or in cooperation with their state universities and others. However, the accelerating growth of highway transportation develops increasingly complex problems of wide interest to highway authorities. These problems are best studied through a coordinated program of cooperative research.

In recognition of these needs, the highway administrators of the American Association of State Highway and Transportation Officials initiated in 1962 an objective national highway research program employing modern scientific techniques. This program is supported on a continuing basis by funds from participating member states of the Association and it receives the full cooperation and support of the Federal Highway Administration, United States Department of Transportation.

The Transportation Research Board of the National Academies was requested by the Association to administer the research program because of the Board's recognized objectivity and understanding of modern research practices. The Board is uniquely suited for this purpose as it maintains an extensive committee structure from which authorities on any highway transportation subject may be drawn; it possesses avenues of communications and cooperation with federal, state and local governmental agencies, universities, and industry; its relationship to the National Research Council is an insurance of objectivity; it maintains a full-time research correlation staff of specialists in highway transportation matters to bring the findings of research directly to those who are in a position to use them.

The program is developed on the basis of research needs identified by chief administrators of the highway and transportation departments and by committees of AASHTO. Each year, specific areas of research needs to be included in the program are proposed to the National Research Council and the Board by the American Association of State Highway and Transportation Officials. Research projects to fulfill these needs are defined by the Board, and qualified research agencies are selected from those that have submitted proposals. Administration and surveillance of research contracts are the responsibilities of the National Research Council and the Transportation Research Board.

The needs for highway research are many, and the National Cooperative Highway Research Program can make significant contributions to the solution of highway transportation problems of mutual concern to many responsible groups. The program, however, is intended to complement rather than to substitute for or duplicate other highway research programs.

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Exhibit 13

Feedlots around Hall County – Grand Island/Doniphan Area

G.I./HALL CO
T & E Cattle Co (Capital Heights Area)
4444 W. 13th St. – Grand Island
Tom Baxter
20,000 Head

Five B Corp
3678 S. Monitor Rd - Grand Island
Brett Baxter
7,500 Head

DONIPHAN
Robb Feed Yard
10255 S. Nine Bridge Rd – Doniphan
Office: 102 E. Plum St.

Sullivan & Sullivan Feeding Inc.
9312 S. Shady Bend Rd – Doniphan

Circle "L" Land & Cattle
11525 S. Hwy 281 – Doniphan
Lynn Lautenschlager

GILTNER
Coats Cattle
308 S. H Rd – Giltner

ST. LIBORY
Mamot Feedlot & Trucking
233 Friend Rd - St. Libory

CAIRO
Ford Feedlot
19471 W. White Cloud Rd- Cairo

CENTRAL CITY
Kucera Feedlots
1696 15th – Central City

Christensen Cattle Co -12,00 head
Sandy Ridge Feedlot -18,000 head
Operates 2 – 5 miles S. of Fullerton

WOOD RIVER
Rathman Farm (Feedlot)
13130 W. Cederview Rd
Wood River

HAMPTON
Triple K Cattle
2407 E. 17th Rd - Hampton
Dean Klute

Dose Land & Cattle

HENDERSON
Circle Five Feed Yard
316 Road B - Henderson

HASTINGS
Quirk Land & Cattle Co
400 N. Minnesota Ave - Hastings
also: Amerifax Cattle Assn Inc

Gottsch Cattle Co.
3303 W. 12th St. - Hastings

Krabel Land & Cattle Co.
2300 S. Southern Hills Dr
also: Stock yard

JUNIATA
Juniata Feed Yard
5120 N. Liberty Ave - Juniata

KENESAW
Mousel Cattle Co.
4320 S. Constitution Ave - Kenesaw

ST. PAUL
Bunker Hill Cattle Co. Inc
858 Eagle Rd – St. Paul

KEARNEY
Lewis Feedlot
8720 Keystone Rd – Kearney

YORK
York Feedlot
1303 Rd 19 – York

LINDSAY
Johnston Feed Lots
Located 3 miles west of Lindsay

GLENVIL
R Lazy K – Glenvil
(402) 771-2145

PALMER
Gary Bader & Son's Feedyard
108 R Road – Palmer
(308) 894 – 5222

COLUMBUS
Mid-Plains Cattle Co.
Columber area – 10,000 head
(402) 563-4712

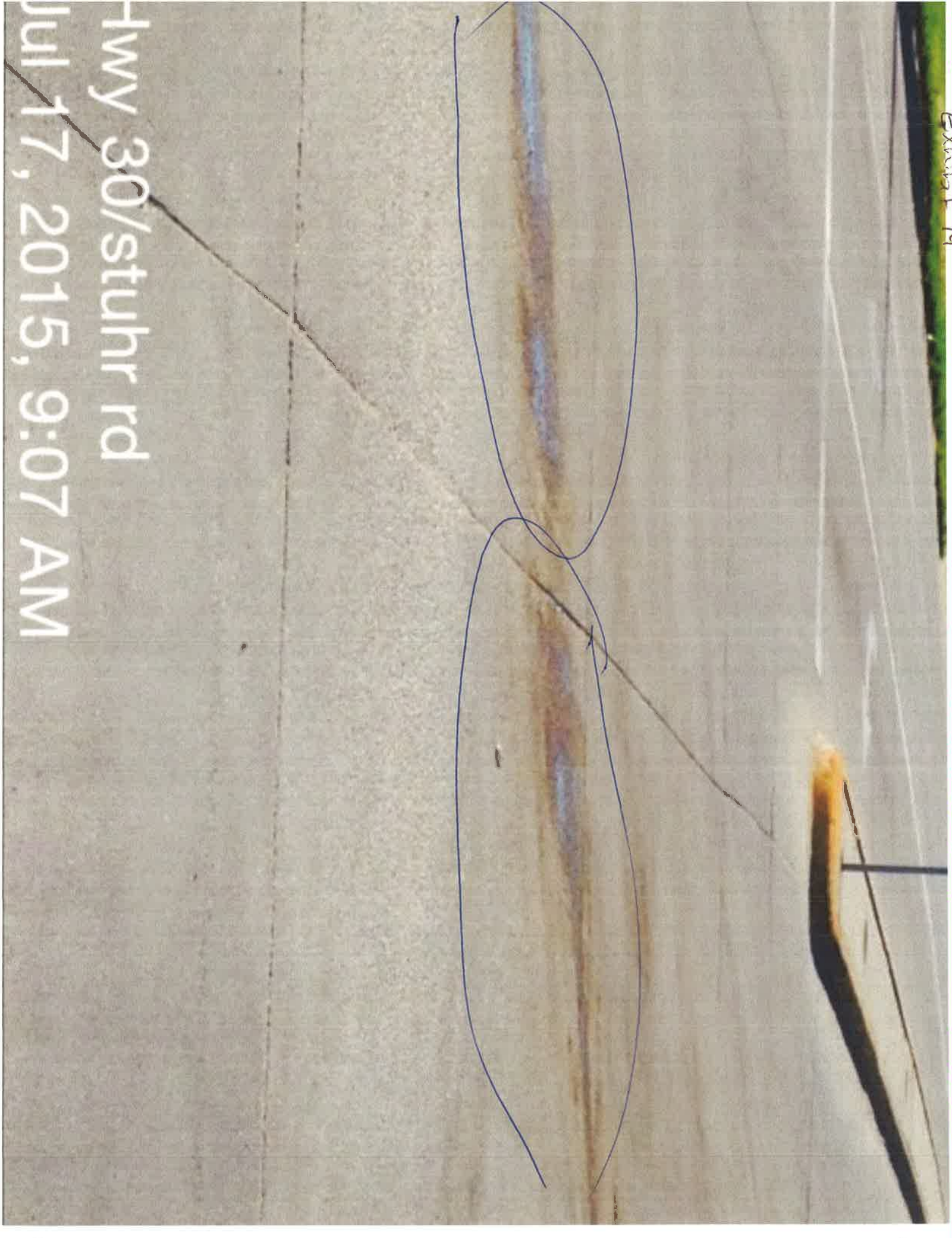
PACKAGING HOUSES

Swift & Company
555 S. Stuhr Road
Grand Island, NE
(308) 384 – 5330

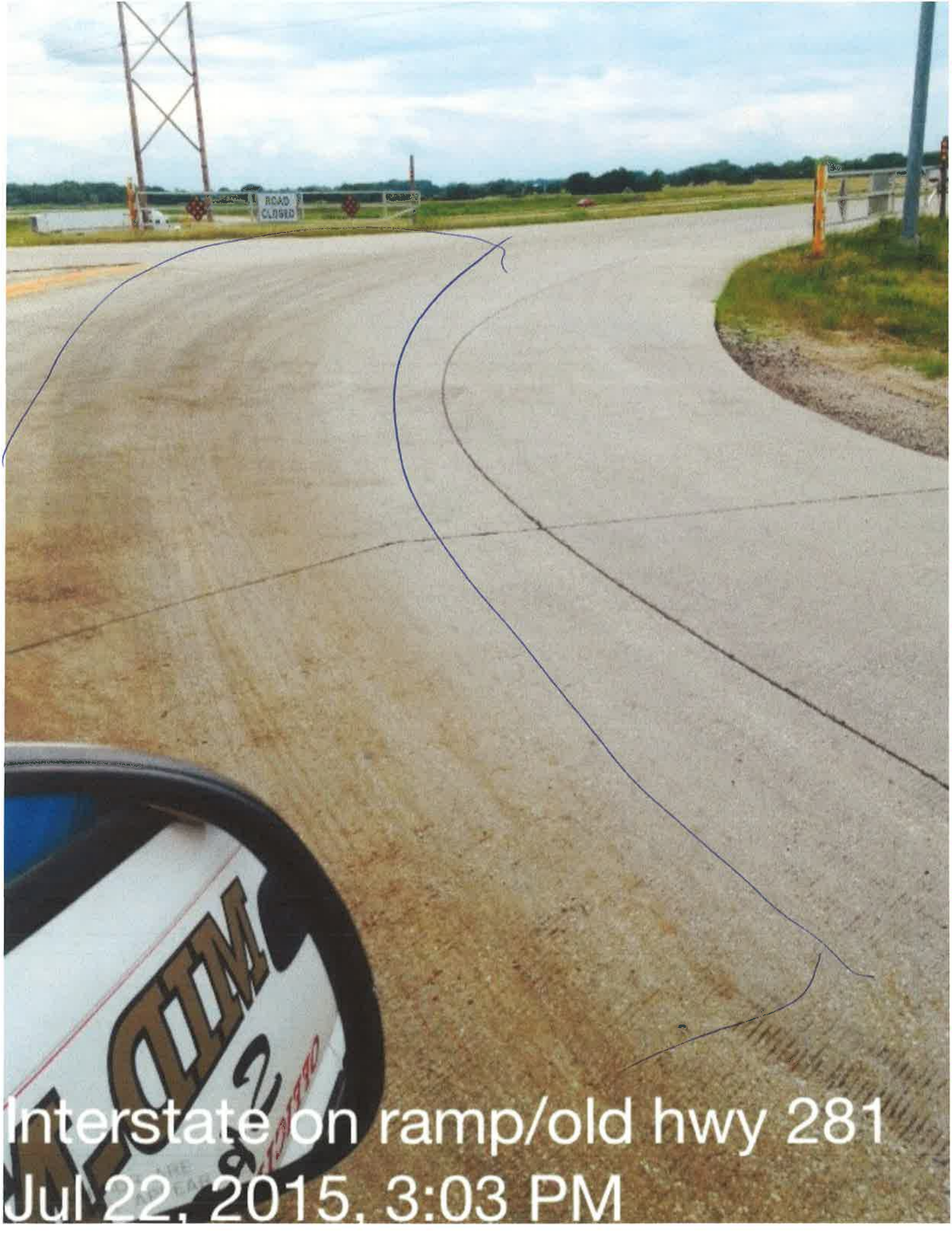
kill 5,000/Day X 7/wk
40 hd/Truck

Hastings Pork
Industrial Park – E. Hwy 6
Hastings, NE
(402) 463-0551

Gibbon Packing
218 Hwy 30
Gibbon, NE


Hwy 30/stuhr rd
Jul 17, 2015, 9:07 AM

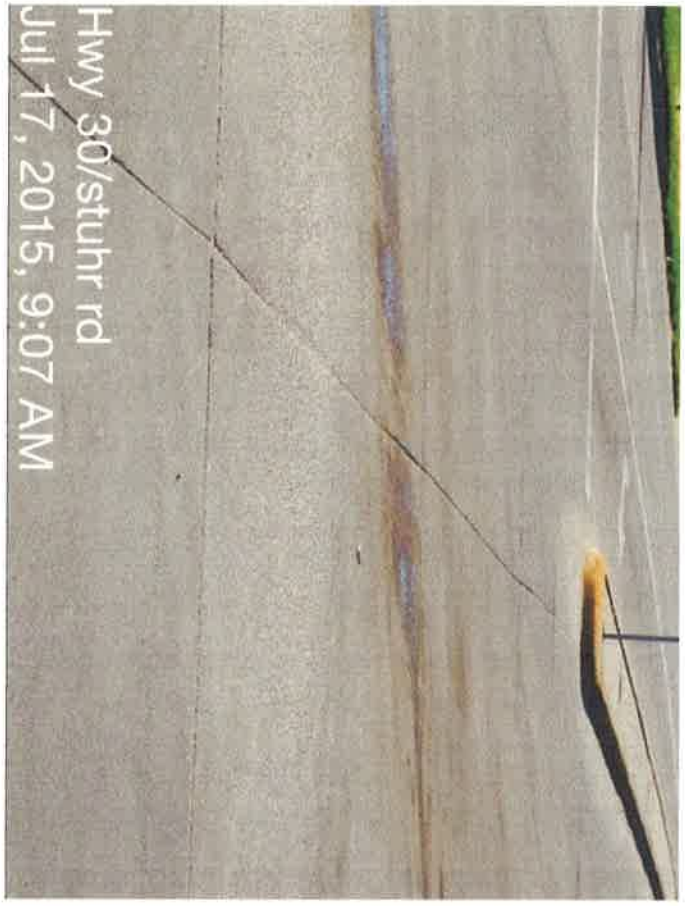
1st curve
Jul 22 2015 1:37 PM


ROAD
CLOSED
Interstate on ramp/old hwy 281
Jul 22, 2015, 3:03 PM

Hwy 30/stuhr rd
Jul 21, 2015, 10:40 AM

Hwy 30/stuhr rd
Jul 17, 2015, 9:11 AM

Hwy 30/stuhr rd
Jul 17, 2015, 9:11 AM


Hwy 30/stuhr rd
Jul 17, 2015, 9:07 AM

Hwy 30/stuhr rd
Jul 17, 2015, 9:07 AM

Hwy 30/stuhr rd
Jul 17, 2015, 9:11 AM

Hwy
2015, 11:29 AM

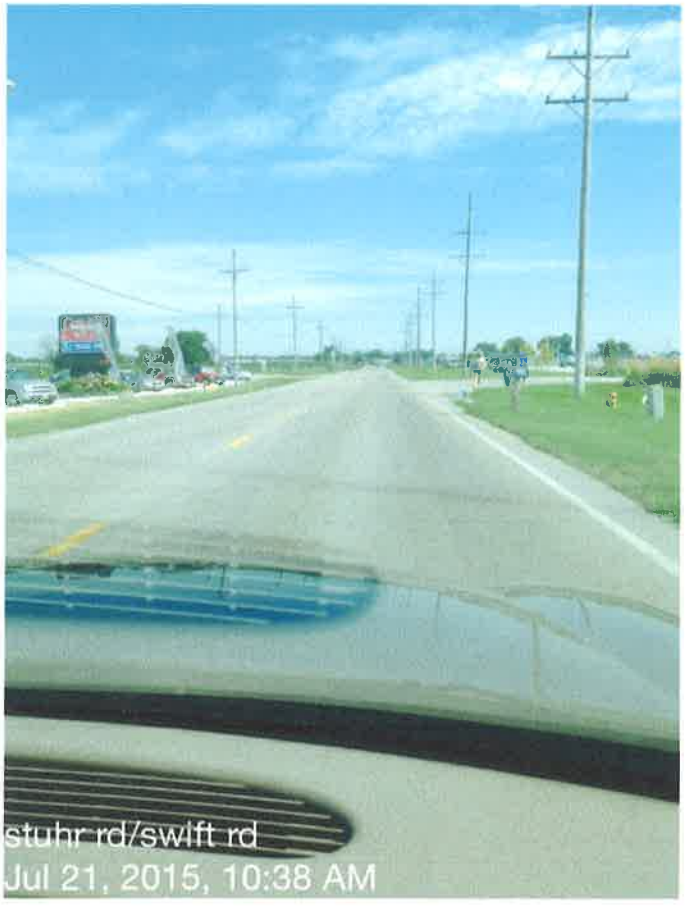
Hwy 2
Jul 20, 2015, 11:29 AM

300 blk of stuhr rd
Jul 21, 2015, 10:37 AM

500 blk of stuhr rd
Jul 21, 2015, 10:37 AM

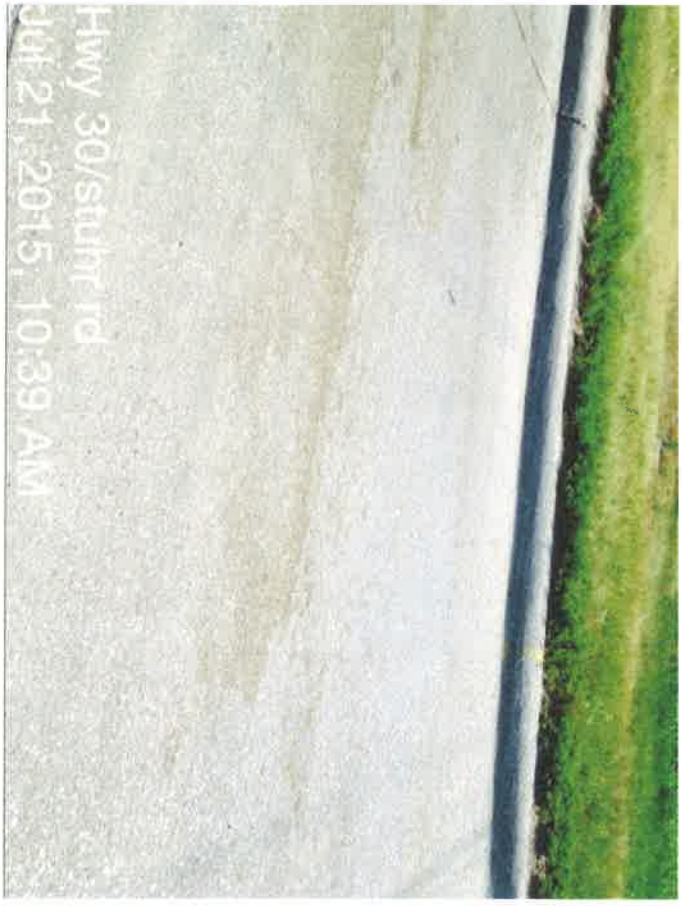
500 blk of stuhr rd
Jul 21, 2015, 10:37 AM

500 blk of stuhr rd
Jul 21, 2015, 10:37 AM


stuhr rd/swift rd
Jul 21, 2015, 10:38 AM

Hwy 30/stuhr rd
Jul 21, 2015, 10:39 AM

Hwy 30/stuhr rd
Jul 21, 2015, 10:39 AM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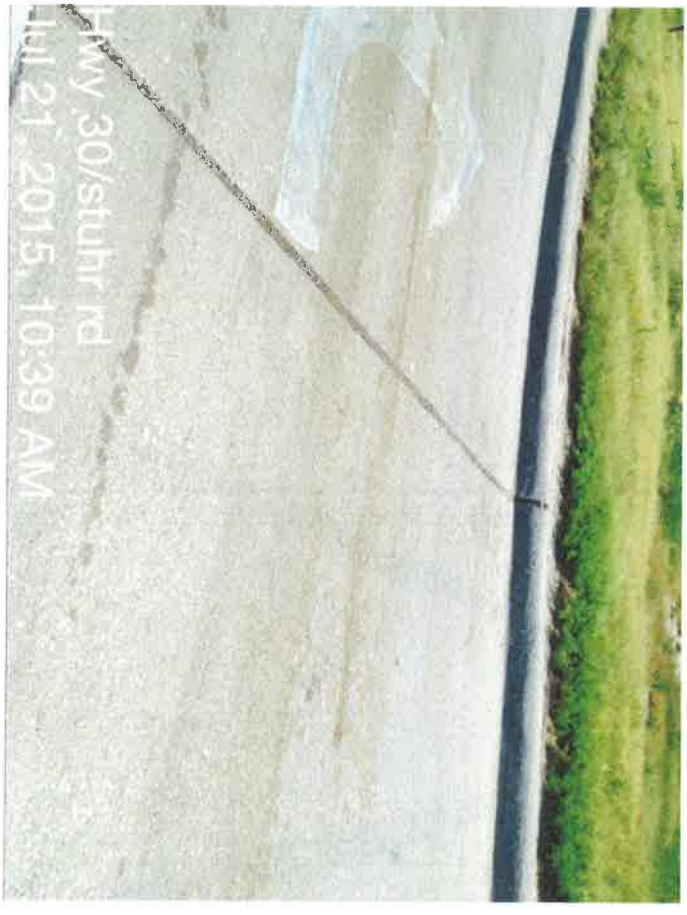
Jul 21, 2015, 10:39 AM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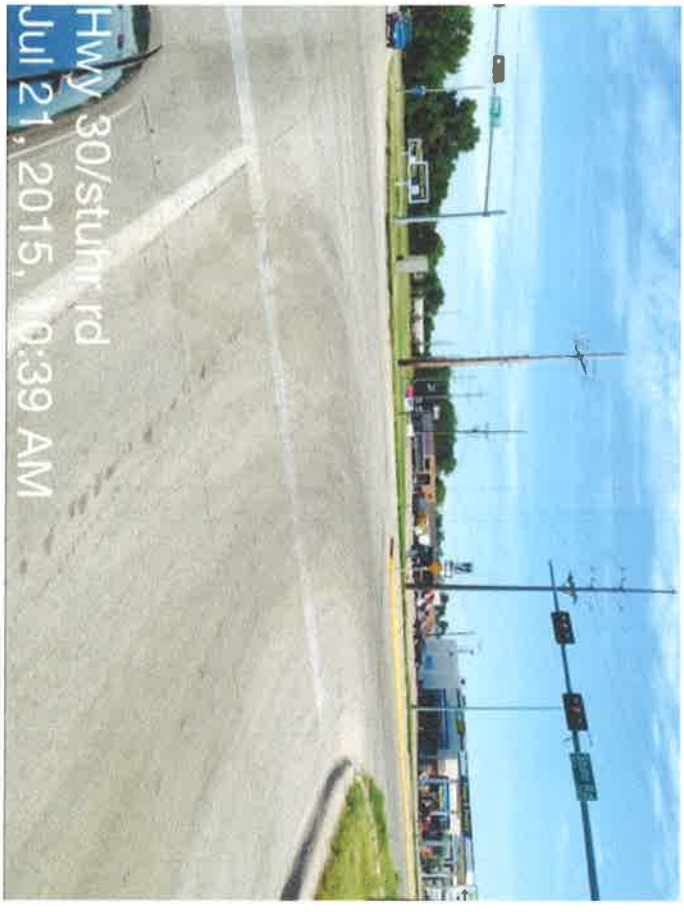

Hwy 30/stuhr rd
Jul 21, 2015, 10:39 AM

Hwy 30/stuhr rd
Jul 21, 2015, 10:40 AM

Hwy 30
Jul 21, 2015, 10:41 AM

Stuhr rd
Jul 21, 2015, 10:41 AM

Stuhr rd
Jul 21, 2015, 10:41 AM

Hwy 34
Jul 21, 2015, 4:34 PM

Hwy 34
Jul 21, 2015, 4:34 PM

Hwy 30 overpass between grant st & blaine
Jul 22, 2015, 12:25 PM

Hwy 30 overpass between grant st & blaine
Jul 22, 2015, 12:25 PM

Hwy 30 overpass
Jul 22, 2015, 12:25 PM

Hwy 30 overpass/ grant st
Jul 22, 2015, 12:25 PM

2nd st curve into 1st st
Jul 22, 2015, 1:37 PM

2nd st curve into 1st st
Jul 22, 2015, 1:37 PM

1st st curve
Jul 22, 2015, 1:37 PM

1st curve
Jul 22, 2015, 1:37 PM

1st st/ eddy st
Jul 22, 2015, 1:38 PM

Hwy 30/ stuhr rd
Jul 22, 2015, 1:41 PM

Hwy 30/ stuhr rd
Jul 22, 2015, 1:41 PM

Hwy 30
Hwy 30/ stuhr rd
Jul 22, 2015, 1:41 PM

9400 blk of old hwy 281
Jul 22, 2015, 2:59 PM

9400 blk of old hwy 281
Jul 22, 2015, 2:59 PM

9400 blk of old hwy 281
Jul 22, 2015, 2:59 PM

9400 blk of old hwy 281
Jul 22, 2015, 3:00 PM

Interstate off ramp/ old hwy 281
Jul 22, 2015, 3:02 PM

Interstate off ramp/ old hwy 281
Jul 22, 2015, 3:02 PM

Interstate off ramp/ old hwy 281
Jul 22, 2015, 3:02 PM

Interstate off ramp/old hwy 281
Jul 22, 2015, 3:02 PM

Interstate on ramp/old hwy 281
2015, 3:03 PM

Interstate on ramp/old hwy 281
Jul 22, 2015, 3:03 PM

Interstate on ramp/old hwy 281
Jul 22, 2015, 3:03 PM

Hwy 34
Jul 23, 2015, 8:51 AM

Hwy 34/s locust st
Jul 23, 2015, 8:52 AM

Hwy 34/ S locust st
Jul 23, 2015, 8:52 AM

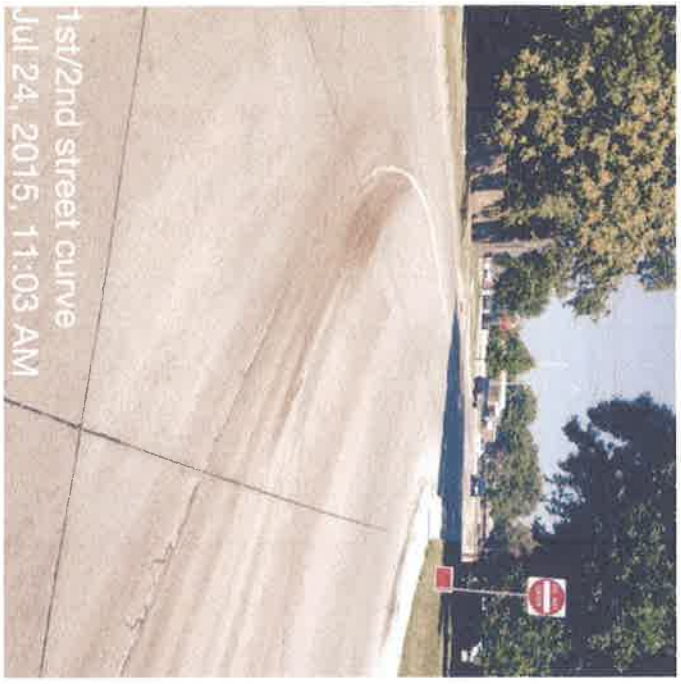
Hwy 34/ s locust st
Jul 23, 2015, 8:54 AM

Hwy 30/ stuhr rd
Jul 23, 2015, 9:00 AM

Intersection of S Locust/ hwy 2
Jul 20, 2015, 11:25 AM

Hwy 2
Jul 20, 2015, 11:27 AM

35
Bismark rd/stuhr rd
Jul 28, 2015, 2:33 PM


1st/2nd street curve
Jul 24, 2015, 11:03 AM

Midwest Laboratories
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MID AMERICA TRUCK WASH LLC - 27507
321 E CATHY STREET
FREMONT, NE 68025

Project: Monthly Wastewater

Project Manager: CHAD RUDA

Reported:
2015-08-31 16:27

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monthly Wastewater	1506182-01	Aqueous	2015-08-25 11:00	2015-08-26 11:20

Containers used for the following Analyses:

* 1506182-01 A: EPA 1664A-SPE

1506182-01 B: SM 2540 D-1997, SM 4500-H+ B-2000, SM 5210 B-2001

1506182-01 C: PAI-DK 01

* Note: Indicates environmental chemistry container was received unpreserved and was preserved at the laboratory.

Work Order: 1506182

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FREMONT, NE 68025

Project: Monthly Wastewater

Project Manager: CHAD RUDA

Reported:
2015-08-31 16:27

Sample ID: Monthly Wastewater
Laboratory ID: 1506182-01
Sampled Date/Time: 2015-08-25 11:00

Analyte	Result	Reporting Limit	Units	Method	Prepared	Analyzed	Reviewer	(Container) / Notes
Environmental Chemistry								
Biochemical Oxygen Demand	1930	40	mg/L	SM 5210 B-2001	2015-08-26/13:35	2015-08-31/10:33	cmw2	(B)
Hexane Extractable Material (HEM)	76.8	20.0	mg/L	EPA 1664A-SPE	2015-08-28	2015-08-28	mjs5	(A)
Total Kjeldahl Nitrogen	380	50.0	mg/L	PAI-DK 01	2015-08-28	2015-08-28	mjs5	(C)
Total Suspended Solids	2020	4	mg/L	SM 2540 D-1997	2015-08-27	2015-08-27	cmw2	(B)
Environmental Chemistry (in lab, exceeds regulatory hold time)								
pH	7.48		S.U.	SM 4500-H+ B-2000	2015-08-26/13:25	2015-08-26/13:25	cmw2	(B)

Work Order: 1506182

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MID AMERICA TRUCK WASH LLC - 27507
321 E CATHY STREET
FREMONT, NE 68025

Project: Monthly Wastewater

Project Manager: CHAD RUDA

Reported:
2015-08-31 16:27

Environmental Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B506415										
Blank (B506415-BLK1)				Prepared: 2015-08-26 Analyzed: 2015-08-31						
Biochemical Oxygen Demand	<	2	mg/L							
LCS (B506415-BS1)				Prepared: 2015-08-26 Analyzed: 2015-08-31						
Biochemical Oxygen Demand	220.8	2	mg/L	198		112	84.6-115.4			
Duplicate (B506415-DUP1)		Source: 1507078-01		Prepared: 2015-08-26 Analyzed: 2015-08-31						
Biochemical Oxygen Demand	2049	40	mg/L		1989			2.97	20	
Batch B506449										
Blank (B506449-BLK1)				Prepared & Analyzed: 2015-08-27						
Total Suspended Solids	<	4	mg/L							
LCS (B506449-BS1)				Prepared & Analyzed: 2015-08-27						
Total Suspended Solids	50.0	4	mg/L	46.0		109	90-110			
LCS (B506449-BS2)				Prepared & Analyzed: 2015-08-27						
Total Suspended Solids	48.0	4	mg/L	46.0		104	90-110			
Duplicate (B506449-DUP1)		Source: 1506137-01		Prepared & Analyzed: 2015-08-27						
Total Suspended Solids	16.0	4	mg/L		16.0			0.00	10	
Duplicate (B506449-DUP2)		Source: 1507483-01		Prepared & Analyzed: 2015-08-27						
Total Suspended Solids	504.0	4	mg/L		480.0			4.88	10	
Batch B506487										
Blank (B506487-BLK1)				Prepared & Analyzed: 2015-08-28						
Hexane Extractable Material (HEM)	<	5.0	mg/L							

Work Order: 1506182

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321 E CATHY STREET
FREMONT, NE 68025

Project: Monthly Wastewater

Project Manager: CHAD RUDA

Reported:
2015-08-31 16:27

Environmental Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B506487										
Blank (B506487-BLK2)				Prepared & Analyzed: 2015-08-28						
Hexane Extractable Material (HEM)	<	5.0	mg/L							
LCS (B506487-BS1)				Prepared & Analyzed: 2015-08-28						
Hexane Extractable Material (HEM)	18.30	5.0	mg/L	20.0		91.5	78-114			
LCS Dup (B506487-BSD1)				Prepared & Analyzed: 2015-08-28						
Hexane Extractable Material (HEM)	17.00	5.0	mg/L	20.0		85.0	78-114	7.37	18	
Matrix Spike (B506487-MS1)		Source: 1506936-01		Prepared & Analyzed: 2015-08-28						
Hexane Extractable Material (HEM)	19.20	5.0	mg/L	20.0	<	96.0	78-114			
Batch B506527										
Blank (B506527-BLK1)				Prepared & Analyzed: 2015-08-28						
Total Kjeldahl Nitrogen	<	10.0	mg/L							
LCS (B506527-BS1)				Prepared & Analyzed: 2015-08-28						
Total Kjeldahl Nitrogen	99.90	10.0	mg/L	100		99.9	90-110			
Matrix Spike (B506527-MS1)		Source: 1507048-01		Prepared & Analyzed: 2015-08-28						
Total Kjeldahl Nitrogen	294.0	20.0	mg/L	200	193.0	50.5	90-110			
Matrix Spike Dup (B506527-MSD1)		Source: 1507048-01		Prepared & Analyzed: 2015-08-28						
Total Kjeldahl Nitrogen	397.0	20.0	mg/L	200	193.0	102	90-110	29.8	10	

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FREMONT, NE 68025

Project: Monthly Wastewater

Project Manager: CHAD RUDA

Reported:
2015-08-31 16:27

Environmental Chemistry (in lab, exceeds regulatory hold time) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B506456										
LCS (B506456-BS1)				Prepared & Analyzed: 2015-08-26						
pH	9.99		S.U.	10.0		99.9	90-110			
Duplicate (B506456-DUP1)		Source: 1506093-01		Prepared & Analyzed: 2015-08-26						
pH	7.46		S.U.		7.44			0.268	10	

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MID AMERICA TRUCK WASH LLC - 27507
321 E CATHY STREET
FREMONT, NE 68025

Project: Monthly Wastewater

Project Manager: CHAD RUDA

Reported:
2015-08-31 16:27

Certified Analyses included in this Report

Method	Analyte	Certifications
EPA 1664A-SPE in Aqueous	Hexane Extractable Material (HEM)	KS,FL,TX,UT,IA
PAI-DK 01 in Aqueous	Total Kjeldahl Nitrogen	FL,KS,IA
SM 2540 D-1997 in Aqueous	Total Suspended Solids	FL,KS,TX,UT,IA,OK
SM 4500-H+ B-2000 in Aqueous	pH	FL,KS
SM 5210 B-2001 in Aqueous	Biochemical Oxygen Demand	KS,TX,FL,UT,IA,OK

Code	Description	Number	Expires
FL	Florida Department of Health	E87918	06/30/2016
IA	Iowa Department of Natural Resources	064 - Extension Granted	05/01/2015
KS	Kansas Department of Health and Environment	E-10402	09/30/2015
OK	Oklahoma Department of Environmental Quality	2013-11B	08/31/2015
TX	Texas Commission on Environmental Quality	T104704416-13-5	07/31/2016
UT	State of Utah Department of Health	NE000012013-3	07/31/2016
WA	State of Washington Department of Ecology	C912	06/07/2016

Work Order: 1506182

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MID AMERICA TRUCK WASH LLC - 27507 321 E CATHY STREET FREMONT, NE 68025	Project: Monthly Wastewater Project Manager: CHAD RUDA	**Reported:** 2015-08-31 16:27

Notes and Definitions

<	Less than reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

EPA 624, EPA 8260, OA-1, and GRO analyses are conducted in the facility located at 13606 B Street, Omaha, NE 68144. All other analyses are conducted in the main facility located at 13611 B Street, Omaha, NE 68144.

Work Order: 1506182

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CHAIN OF CUSTODY

Lab Work Order Number: 1506182
Date Generated: 07/06/2015

Page 1 of 1

Client Name: MID AMERICA TRUCK WASH LLC - 27507	Project Name: Monthly Wastewater
Client Contact: CHAD RUDA	Project Description:
Address: 321 E CATHY STREET	Purchase Order Number:
City: FREMONT	Midwest Labs Contact: Heather Ramig
State/Zip: NE, 68025	Regulatory (Circle One): YES / No
Phone: 4027276400 / Fax: 0	Regulatory Agency: NDEQ
Sampler Name (printed):	Sample Type (Circle One - See Below): D G W S/H U P

Lab ID	Sample Name or Field ID	Collection Date	Collection Time	Sample Matrix	Method Code	Container Count	BOD, pH, TSS	HEM	TKN-Titration							Comments
							Preservation Code:									
							1	6	4							
01	Monthly Wastewater	8-25-15	11:00am	W	A	3	1	1	1							

1506182
COC
Sticker #: 1

Relinquished By	Date/Time	Received By	Date/Time
[signature]	8-25-15 11:00am	CP	8-26-15 10:20
Relinquished By	Date/Time	Received By	Date/Time

Temperature Upon Receipt: 5.4 °C
Cooler Numbers:
Notes:

Comments:

Matrix Codes: Aqueous

Preservation Codes: 1=Cool 6°C,4=pH<2; H2SO4,6=pH<2; HCl

Sample Type Codes: D = Drinking Water (Safe Drinking Water Act), G = Groundwater, W = Wastewater (Clean Water Act), S/H = Solid/Hazardous Waste (RCRA), U = Underground Storage Tank (UST), P = Process Water

Chain of Custody will have a signature upon receipt but no subsequent signatures.

MWL#1506182-1

COC Form 15 - Effective 10/31/2013

Page 9 of 11

1506182

Midwest Laboratories

13611 B Street, Omaha, Nebraska 68144 (402) 334-7770 FAX (402) 334-9121 www.midwestlabs.com

Regulatory

This sheet MUST be filled out before samples can be processed. To ensure that holding times are met, it is your responsibility that a completed form comes attached to the Chain of Custody.

Is this sample for regulatory/permit reporting? ☑ Yes ☐ No

What city/state was your sample collected in? Fremont NE.

What agency/state are you reporting to? NSDEQ

What type of sample? (Circle One) **Drinking Water** **Ground Water** **Wastewater**

Solid waste **Hazardous Waste** **UST**

Storm Water **Process Water**

1506182
COC
Sticker #: 2

4

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Checklist

SAMPLE ACCEPTANCE CHECKLIST
Document Number: [illegible] Effective Date: [illegible]
Revision Number: [illegible]
Page 1 of 1 Approval: [illegible]

Lab Number: 1506182

Thermometer Used: Therm. Fisher IR 11

Sample Temperature (°C): 5.4°C

Cooler Intact: (Yes) No
Received on Ice: (Yes) No
Hand Delivered: Yes (No)

Date & Initials of person accepting samples: CP 8-26-15

				Comments:
Chain of Custody present?	(Yes)	No	N A	
Chain of Custody complete?	Yes	(No)	N A	
Sample ID(s):	(Yes)	No	N A	
Sample Location(s):	(Yes)	No	N A	
Client Contact:	(Yes)	No	N/A	
Analysis Requested:	(Yes)	No	N/A	
Sampler name on COC?	Yes	(No)	N A	
Date & Time of collection:	(Yes)	No	N A	
Sample labels match COC?	(Yes)	No	N/A	
Written in indelible ink?	(Yes)	No	N A	
Labels indicate proper preservation?	(Yes)	No	N A	
Chain of Custody relinquished with signature?	(Yes)	No	N A	
Samples arrived within hold time?	(Yes)	No	N A	
Sufficient volume?	(Yes)	No	N A	
Appropriate containers used?	(Yes)	No	N A	
Filtered volume received for dissolved tests?	Yes	No	(N/A)	
Headspace in VOA vials?	Yes	No	(N/A)	
Trip Blank present?	(Yes)	No	N/A	
Temperature Blank present?	(Yes)	No	N/A	

Client Notification/Resolution: Date/Time Contacted: _____

Person Contacted: _____ Contacted By: _____

Comments/Resolution: _____

1506182
COC
Sticker #: 3

Page 11 of 11

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03 September 2015

Work Order: 1506184

CHAD RUDA
MID AMERICA WASHOUT SSC - 35685
321 E CATHY ST
FREMONT, NE 68025

RE: Monthly Wastewater

Enclosed are the results of analyses for samples received by the laboratory on 2015-08-26 13:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Heather Ramig

Heather Ramig
Project Manager
heather@midwestlabs.com
402-829-9891

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MID AMERICA WASHOUT SSC - 35685
321 E CATHY ST
FREMONT, NE 68025

Project: Monthly Wastewater
Project Number: South Sioux City Location
Project Manager: CHAD RUDA

Reported:
2015-09-03 11:55

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Washout	1506184-01	Aqueous	2015-08-26 13:00	2015-08-26 13:00

Containers used for the following Analyses:

1506184-01 A:	PAI-DK 01, SM 4500-NH3 C-1997
1506184-01 B:	EPA 353.2, SM 4500-P F-1999
1506184-01 C:	SM 2320 B-1997, SM 2540 C-1997, SM 4500-CL E-1997, SM 4500-H+ B-2000

Work Order: 1506184

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MID AMERICA WASHOUT SSC - 35685
321 E CATHY ST
FREMONT, NE 68025

Project: Monthly Wastewater
Project Number: South Sioux City Location
Project Manager: CHAD RUDA

Reported:
2015-09-03 11:55

Sample ID: Washout
Laboratory ID: 1506184-01
Sampled Date/Time: 2015-08-26 13:00

Analyte	Result	Reporting Limit	Units	Method	Prepared	Analyzed	Reviewer	(Container) / Notes
Environmental Chemistry								
Alkalinity, Total (as CaCO3)	2440	400	mg/L	SM 2320 B-1997	2015-08-27	2015-08-27	mjs5	(C)
Ammonia as N	304	10.0	mg/L	SM 4500-NH3 C-1997	2015-08-31	2015-08-31	cmw2	(A)
Chloride	335	25	mg/L	SM 4500-CL E-1997	2015-08-28	2015-08-28	mjs5	(C)
Total Kjeldahl Nitrogen	1170	50.0	mg/L	PAI-DK 01	2015-08-28	2015-08-28	mjs5	(A)
Nitrate/Nitrite Nitrogen	<	0.20	mg/L	EPA 353.2	2015-08-28	2015-08-28	cmw2	(B)
Phosphorus	165	2.50	mg/L	SM 4500-P F-1999	2015-08-31	2015-09-01	cmw2	(B)
Total Dissolved Solids	2950	10	mg/L	SM 2540 C-1997	2015-09-01	2015-09-02	cmw2	(C)
Environmental Chemistry (in lab, exceeds regulatory hold time)								
pH	7.44		S.U.	SM 4500-H+ B-2000	2015-08-27/12:31	2015-08-27/12:31	cmw2	(C)

Work Order: 1506184

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MID AMERICA WASHOUT SSC - 35685
321 E CATHY ST
FREMONT, NE 68025

Project: Monthly Wastewater
Project Number: South Sioux City Location
Project Manager: CHAD RUDA

Reported:
2015-09-03 11:55

Environmental Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B506476										
Blank (B506476-BLK1)				Prepared & Analyzed: 2015-08-27						
Alkalinity, Total (as CaCO3)	<	10	mg/L							
LCS (B506476-BS1)				Prepared & Analyzed: 2015-08-27						
Alkalinity, Total (as CaCO3)	1008	10	mg/L	1000		101	90-110			
Duplicate (B506476-DUP1)	Source: 1504801-01			Prepared & Analyzed: 2015-08-27						
Alkalinity, Total (as CaCO3)	176.0	10	mg/L		176.0			0.00	10	
Batch B506496										
Blank (B506496-BLK1)				Prepared & Analyzed: 2015-08-26						
Chloride	<	1	mg/L							
LCS (B506496-BS1)				Prepared & Analyzed: 2015-08-26						
Chloride	10.0	1	mg/L	10.0		99.5	90-110			
Matrix Spike (B506496-MS1)	Source: 1507653-04			Prepared & Analyzed: 2015-08-26						
Chloride	9.5	1	mg/L	5.00	4.4	102	90-110			
Matrix Spike Dup (B506496-MSD1)	Source: 1507653-04			Prepared & Analyzed: 2015-08-26						
Chloride	9.6	1	mg/L	5.00	4.4	104	90-110	0.700	10	
Batch B506506										
Blank (B506506-BLK1)				Prepared & Analyzed: 2015-08-26						
Nitrate/Nitrite Nitrogen	<	0.20	mg/L							

Work Order: 1506184

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MID AMERICA WASHOUT SSC - 35685
321 E CATHY ST
FREMONT, NE 68025

Project: Monthly Wastewater
Project Number: South Sioux City Location
Project Manager: CHAD RUDA

Reported:
2015-09-03 11:55

Environmental Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B506506										
LCS (B506506-BS1)				Prepared & Analyzed: 2015-08-28						
Nitrate/Nitrite Nitrogen	4.96	0.20	mg/L	5.00		99.2	90-110			
Matrix Spike (B506506-MS1)	Source: 1506177-02			Prepared & Analyzed: 2015-08-28						
Nitrate/Nitrite Nitrogen	3.92	0.20	mg/L	4.00	<	98.0	90-110			
Matrix Spike (B506506-MS2)	Source: 1507653-03			Prepared & Analyzed: 2015-08-28						
Nitrate/Nitrite Nitrogen	11.79	0.40	mg/L	8.00	4.40	92.4	90-110			
Matrix Spike Dup (B506506-MSD1)	Source: 1506177-02			Prepared & Analyzed: 2015-08-28						
Nitrate/Nitrite Nitrogen	3.94	0.20	mg/L	4.00	<	98.4	90-110	0.484	10	
Matrix Spike Dup (B506506-MSD2)	Source: 1507653-03			Prepared & Analyzed: 2015-08-28						
Nitrate/Nitrite Nitrogen	11.96	0.40	mg/L	8.00	4.40	94.5	90-110	1.38	10	
Batch B506527										
Blank (B506527-BLK1)				Prepared & Analyzed: 2015-08-28						
Total Kjeldahl Nitrogen	<	10.0	mg/L							
LCS (B506527-BS1)				Prepared & Analyzed: 2015-08-28						
Total Kjeldahl Nitrogen	99.90	10.0	mg/L	100		99.9	90-110			
Matrix Spike (B506527-MS1)	Source: 1507048-01			Prepared & Analyzed: 2015-08-28						
Total Kjeldahl Nitrogen	311.0	20.0	mg/L	200	193.0	59.0	90-110			
Matrix Spike Dup (B506527-MSD1)	Source: 1507048-01			Prepared & Analyzed: 2015-08-28						
Total Kjeldahl Nitrogen	313.0	20.0	mg/L	200	193.0	60.0	90-110	0.641	10	

Work Order: 1506184

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Midwest Laboratories
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Omaha, NE 68144
P 402-334-7770
F 402-334-9121
www.midwestlabs.com

MID AMERICA WASHOUT SSC - 35685
321 E CATHY ST
FREMONT, NE 68025

Project: Monthly Wastewater
Project Number: South Sioux City Location
Project Manager: CHAD RUDA

Reported:
2015-09-03 11:55

Environmental Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B506561										
Blank (B506561-BLK1)				Prepared: 2015-08-31 Analyzed: 2015-09-01						
Phosphorus	<	0.05	mg/L							
LCS (B506561-BS1)				Prepared: 2015-08-31 Analyzed: 2015-09-01						
Phosphorus	0.494	0.05	mg/L	0.500		98.8	90-110			
Matrix Spike (B506561-MS1)	Source: 1506734-02			Prepared: 2015-08-31 Analyzed: 2015-09-01						
Phosphorus	0.475	0.05	mg/L	0.500	0.014	92.2	90-110			
Matrix Spike (B506561-MS2)	Source: 1506734-13			Prepared: 2015-08-31 Analyzed: 2015-09-01						
Phosphorus	0.494	0.05	mg/L	0.500	0.013	96.2	90-110			
Matrix Spike Dup (B506561-MSD1)	Source: 1506734-02			Prepared: 2015-08-31 Analyzed: 2015-09-01						
Phosphorus	0.502	0.05	mg/L	0.500	0.014	97.6	90-110	5.53	10	
Matrix Spike Dup (B506561-MSD2)	Source: 1506734-13			Prepared: 2015-08-31 Analyzed: 2015-09-01						
Phosphorus	0.475	0.05	mg/L	0.500	0.013	92.4	90-110	3.92	10	
Batch B506570										
Blank (B506570-BLK1)				Prepared & Analyzed: 2015-08-31						
Ammonia as N	<	1.00	mg/L							
LCS (B506570-BS1)				Prepared & Analyzed: 2015-08-31						
Ammonia as N	21.00	1.00	mg/L	20.0		105	90-110			
Matrix Spike (B506570-MS1)	Source: 1507461-01			Prepared & Analyzed: 2015-08-31						
Ammonia as N	111.0	5.00	mg/L	100	15.10	95.9	90-110			

Work Order: 1506184

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MID AMERICA WASHOUT SSC - 35685
321 E CATHY ST
FREMONT, NE 68025

Project: Monthly Wastewater
Project Number: South Sioux City Location
Project Manager: CHAD RUDA

Reported:
2015-09-03 11:55

Environmental Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B506570										
Matrix Spike Dup (B506570-MSD1)		**Source: 1507461-01**		Prepared & Analyzed: 2015-08-31						
Ammonia as N	110.0	5.00	mg/L	100	15.10	94.9	90-110	0.905	10	
Batch B506582										
Blank (B506582-BLK1)				Prepared: 2015-09-01 Analyzed: 2015-09-02						
Total Dissolved Solids	<	10	mg/L							
LCS (B506582-BS1)				Prepared: 2015-09-01 Analyzed: 2015-09-02						
Total Dissolved Solids	1006	10	mg/L	1000		101	90-110			
Duplicate (B506582-DUP1)		**Source: 1505219-07**		Prepared: 2015-09-01 Analyzed: 2015-09-02						
Total Dissolved Solids	404.0	10	mg/L		418.0			3.41	10	
Duplicate (B506582-DUP2)		**Source: 1505219-08**		Prepared: 2015-09-01 Analyzed: 2015-09-02						
Total Dissolved Solids	612.0	10	mg/L		594.0			2.99	10	

Work Order: 1506184

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MID AMERICA WASHOUT SSC - 35685 321 E CATHY ST FREMONT, NE 68025	Project: Monthly Wastewater Project Number: South Sioux City Location Project Manager: CHAD RUDA	**Reported:** 2015-09-03 11:55

Environmental Chemistry (in lab, exceeds regulatory hold time) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B506488										
LCS (B506488-BS1)				Prepared & Analyzed: 2015-08-27						
pH	7.00		S.U.	7.00		100	90-110			
Duplicate (B506488-DUP1)		Source: 1506184-01		Prepared & Analyzed: 2015-08-27						
pH	7.40		S.U.		7.44			0.539	10	

Work Order: 1506184

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MID AMERICA WASHOUT SSC - 35685	Project: Monthly Wastewater	
321 E CATHY ST	Project Number: South Sioux City Location	**Reported:**
FREMONT, NE 68025	Project Manager: CHAD RUDA	2015-09-03 11:55

Certified Analyses included in this Report

Method	Analyte	Certifications
EPA 353.2 in Aqueous	Nitrate/Nitrite Nitrogen	TX,FL,UT,OK,IA
PAI-DK 01 in Aqueous	Total Kjeldahl Nitrogen	FL,KS,IA
SM 2320 B-1997 in Aqueous	Alkalinity, Total (as CaCO3)	FL,TX,KS,UT,IA,OK
SM 2540 C-1997 in Aqueous	Total Dissolved Solids	IA,FL,KS,OK,TX,WA
SM 4500-CL E-1997 in Aqueous	Chloride	KS,TX,FL,IA,OK
SM 4500-H+ B-2000 in Aqueous	pH	FL,KS
SM 4500-NH3 C-1997 in Aqueous	Ammonia as N	FL,KS,TX,UT,IA,OK
SM 4500-P F-1999 in Aqueous	Phosphorus	FL,IA,TX,OK,KS

Code	Description	Number	Expires
FL	Florida Department of Health	E87918	06/30/2016
IA	Iowa Department of Natural Resources	064 - Extension Granted	05/01/2015
KS	Kansas Department of Health and Environment	E-10402	09/30/2015
OK	Oklahoma Department of Environmental Quality	2013-11B	08/31/2015
TX	Texas Commission on Environmental Quality	T104704416-13-5	07/31/2016
UT	State of Utah Department of Health	NE000012013-3	07/31/2016
WA	State of Washington Department of Ecology	C912	06/07/2016

Work Order: 1506184

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MID AMERICA WASHOUT SSC - 35685 321 E CATHY ST FREMONT, NE 68025	Project: Monthly Wastewater Project Number: South Sioux City Location Project Manager: CHAD RUDA	**Reported:** 2015-09-03 11:55

Notes and Definitions

<	Less than reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

EPA 624, EPA 8260, OA-1, and GRO analyses are conducted in the facility located at 13606 B Street, Omaha, NE 68144. All other analyses are conducted in the main facility located at 13611 B Street, Omaha, NE 68144.

Work Order: 1506184

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CHAIN OF CUSTODY

Lab Work Order Number: 1506184
Date Generated: 07/06/2015

Page 1 of 1

Client Name: MID AMERICA WASHOUT SSC - 35685	Project Name: Monthly Wastewater
Client Contact: CHAD RUDA	Project Description: South Sioux City Location
Address: 321 E CATHY ST	Purchase Order Number:
City: FREMONT	Midwest Labs Contact: Heather Ramig
State/Zip: NE, 68025	Regulatory (Circle One): Yes No
Phone: 4027276400 Fax: 0	Regulatory Agency:
Sampler Name (printed):	Sample Type (Circle One - See Below): D G W S/H U P

Requested Analyses (Test Name): Alkalinity, Chloride-Discrete, pH, TDS; Ammonia-Titration, Nitrate/Nitrite, TKN-Titration, Total Phosphorus

Lab ID	Sample Name or Field ID	Sampled Date	Sampled Time	Sample Code	Matrix Code	Container Count	Preservation Code 1	Preservation Code 4								Sample Comments
01	Washout	8.26.15	1:00pm	W	A	3	1	2								

1506184
COC
Sticker #: 1

Relinquished By	Date/Time	Received By	Date/Time
[signature]	8.26.15 1:00pm	CP	8-27-15 10:45
Relinquished By	Date/Time	Received By	Date/Time

Comments:

Temperature Upon Receipt: 1.0° C
Cooler Numbers:
Notes:

Matrix Codes: A=Aqueous

Preservation Codes: 1=Cool 6°C, 4=pH<2; H2SO4

Sample Type Codes: D = Drinking Water (Safe Drinking Water Act), G = Groundwater, W = Wastewater (Clean Water Act), S/H = Solid/Hazardous Waste (RCRA), U = Underground Storage Tank (UST), P = Process Water

Chain of Custody will have a signature upon receipt but no subsequent signatures.

Form 15 - Effective 10/31/2013

MWLE1506184-1

1506184

Midwest Laboratories

1506184
COC
Sticker #: 2

13611 B Street, Omaha, Nebraska 68144 (402) 334-7770 FAX (402) 334-9121 www.midwestlabs.com

Regulatory

This sheet **MUST** be filled out before samples can be processed. To ensure that holding times are met, it is your responsibility that a completed form comes attached to the Chain of Custody.

Is this sample for regulatory/permit reporting? ☑ Yes ☐ No

What city/state was your sample collected in? South Sioux City NE

What agency/state are you reporting to? NDEQ

What type of sample? (Circle One)

Drinking Water	**Ground Water**	**Wastewater**
Solid waste	**Hazardous Waste**	**UST**
Storm Water	**Process Water**	

RC FORM 14

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Midwest Laboratories

SAMPLE ACCEPTANCE CHECKLIST

Document Number: RC CHKLIST 001
Revision Number: 1 | Effective Date: 2.12.13
Page 1 of 1 | Approval: DFJ

Checklist

1506184
COC
Sticker #: 3

1506184.

Thermometer Used: Therm Fisher IR 12

Sample Temperature (°C): 1.0°C

Cooler Intact: (Yes) No
Received on Ice: (Yes) No
Hand Delivered: Yes (No)

Date & Initials of person accepting samples: CP 8-27-15

				Comments:
Chain of Custody present?	(Yes)	No	N/A	
Chain of Custody complete?	Yes	(No)	N/A	
Sample ID(s):	(Yes)	No	N/A	
Sample Location(s):	(Yes)	No	N/A	
Client Contact:	(Yes)	No	N/A	
Analysis Requested:	(Yes)	No	N/A	
Sampler name on COC?	Yes	(No)	N/A	
Date & Time of collection:	(Yes)	No	N/A	
Sample labels match COC?	(Yes)	No	N/A	
Written in indelible ink?	(Yes)	No	N/A	
Labels indicate proper preservation?	(Yes)	No	N/A	
Chain of Custody relinquished with signature?	(Yes)	No	N/A	
Samples arrived within hold time?	(Yes)	No	N/A	
Sufficient volume?	(Yes)	No	N/A	
Appropriate containers used?	(Yes)	No	N/A	
Filtered volume received for dissolved tests?	Yes	No	(N/A)	
Headspace in VOA vials?	Yes	No	(N/A)	
Trip Blank present?	Yes	(No)	N/A	
Temperature Blank present?	Yes	(No)	N/A	

Client Notification/Resolution: Date/Time Contacted: _____

Person Contacted: _____ Contacted By: _____

Comments/Resolution: _____

Exhibit 15A

AREA RESIDENTS

Rhonda Spiehs
50 E. Cedarview Rd
Doniphan
- St. Francis Medical Center

Ramona Schafer
11080 S. Blaine St.
Doniphan
- Village of Alda

Brian Gallagher
55 A Kuester Lake
Grand Island
- GI Family Radio

Dianne Hunkins
27 Jansen Circle
St. Paul
- Dana Cole & Company

Dave Guzinski
502 W. Medina
Cairo
- Baasch Welding (Cairo)

Lori Neighbors
107 S. Memphis St.
Cairo
- VA/Grand Island

Eugene Ulmer
2204 W. Anna
Grand Island
- CPA/Dana Cole & Co.

Steve Oseka
Cairo

Seth Meyers
2660 N. Carleton Ave #2
Grand Island
- NE Fire Sprinkler - Alda

John Wemhoff
1475 S. Gunbarrel
Grand Island
- Fireman/York Fire Dept

Kathleen Niece
1107 Sun Valley Dr
Grand Island
- self-employed

Florence Rozendal
822 E. Bismark Rd
Grand Island
- retired

Scott Bills
921 E. Bismark Rd
Grand Island
- sales

Tim Garnar
4339 W. Stolley Park Rd
Alda
- self-employed

Gordon & Shirley Scarborough
833 E. Bismark Rd
Grand Island
- retired

Cheryl Yada
707 Pleasant View Dr
Grand Island

Melissa Poe
214 S. Shady Bend Rd
Grand Island
- Humane Society Animal Control
1312 N. Sky Park Rd

Alfred Nabity
1730 Gretchen Ave
Grand Island
- self-employed/retired

Roger & Carol Mueller
617 Plum Rd
Grand Island

Cindy Lowenstein
1103 E. Sunset Ave
Grand Island
- owns lot next to Stuhr Rd

Ron & Kathryn Fimple
623 W. 12th St.
Grand Island
- Retired

Judy Seely
Doniphan
- Choice Care Chiropractic

Eldon Kluthe
512 S. Suez St.
Cairo
- Retired

Robert Rathman
11963 W. Airport
Cairo
- farmer

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE:

Dear Hall County Board of Supervisors:

My name is Rhonda K. Spiehs. I live at 50E Cedarview Rd, Doniphan, NE

I work at St Francis Medical Center located at Faidley Ave, Grand Island

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because

I have seen manure spills at Interstate 80 exit 314.
Also at S. Locust & Hwy 34 intersection

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☒ I have seen cow manure in the street while conducting my daily routine
- ☒ I have witnessed cow manure spill from a cattle trailer
- ☐ Other:

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Rhonda K. Spiehs

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE:

Dear Hall County Board of Supervisors:

My name is Ramona Schafer. I live at 11080 S. Blaine St, Doniphan, NE

I work at Village of Alda located at Alda Ne.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because I beleive there is a great need for the facility in this area. To My understanding there are two others in Neb., but they are located 50 to 100 miles away. Since we do have meat packing plants in Grand Island & Gibbon. I also beleive this will be a facility that will be a state of the art.

Please check the following that apply:

- ☑ I have seen cow manure in the street near my house
- ☑ I have seen cow manure in the street near my place of work
- ☑ I have seen cow manure in the street while conducting my daily routine
- ☑ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Ramona Schafer

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 7/31/15

Dear Hall County Board of Supervisors:

My name is Brian Gallagher I live at 55A Kuester Lake, Grand Island

I work at GI Family Radio located at Grand Island.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because THE NEED EXISTS BUT IS NOT BEING MET. THE PROPOSED FACILITY HAS A SOLID RECORD OF PERFORMANCE IN THEIR OTHER LOCATIONS, INCLUDING CLEANLINESS. IGNORING THE ISSUE WON'T MAKE IT GO AWAY — NEW IDEAS TO SOLVE OLD PROBLEMS MUST BE SERIOUSLY CONSIDERED

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☑ I have seen cow manure in the street near my place of work
- ☑ I have seen cow manure in the street while conducting my daily routine
- ☑ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Brian Gallagher

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE:

Dear Hall County Board of Supervisors:

My name is Dianne Huntsinger I live at 27 Jansen Circle St. Paul, NE

I work at Dana Cole + Co located at 503 West Third Grand Island, NE.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because _____

_____

_____

_____

_____

_____

_____

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☒ I have seen cow manure in the street while conducting my daily routine
- ☒ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Dianne Huntsinger

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE:

Dear Hall County Board of Supervisors:

My name is DAVE GUZINSKI. I live at 502 W. MEDINA,

I work at RAASCH WELDING located at CAIRO

Doug Stange has asked me to voice my opinion on a truck wash facility being propos built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am a truck wash out facility because

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☒ I have seen cow manure in the street near my place of work
- ☒ I have seen cow manure in the street while conducting my daily routine
- ☒ I have witnessed cow manure spill from a cattle trailer
- ☐ Other:

I think that the truckers need a convenient place to clean out their trailers and I am in f building a facility in Hall County. Please consider favorably the conditional use applic truck washout submitted by Doug Stange.

Sincerely,

Dave Guz

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE:

Dear Hall County Board of Supervisors:

My name is Lori Neighbors. I live at _____

I work at VA located at Grand Islan

Doug Stange has asked me to voice my opinion on a truck wash facility being propose built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am i a truck wash out facility because _____

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☑ I have seen cow manure in the street near my place of work
- ☑ I have seen cow manure in the street while conducting my daily routine
- ☐ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in f building a facility in Hall County. Please consider favorably the conditional use applic truck washout submitted by Doug Stange.

Sincerely,

Lori Neighbors

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE:

Dear Hall County Board of Supervisors:

My name is Eugene Ulmer. I live at 2304 W. Anna, GI.

I work at Dana Cole & Co., LLP located at 503 W. Third, GI.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☐ I have seen cow manure in the street while conducting my daily routine
- ☒ I have witnessed cow manure spill from a cattle trailer
- ☐ Other:

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Eugene Ulmer

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE:

Dear Hall County Board of Supervisors:

My name is Steve Oseka. I live at 207 Swag Cairo.

I work at _____ located at _____

Doug Stange has asked me to voice my opinion on a truck wash facility being propos built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am a truck wash out facility because _____

Please check the following that apply:

- ☑ I have seen cow manure in the street near my house
- ☑ I have seen cow manure in the street near my place of work
- ☑ I have seen cow manure in the street while conducting my daily routine
- ☑ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in building a facility in Hall County. Please consider favorably the conditional use appli truck washout submitted by Doug Stange.

Sincerely,

Steven P. Oseka

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8-19-15

Dear Hall County Board of Supervisors:

My name is Seth Meyers. I live at 2660 N. Carleton Ave #2.

I work at NE Fire Sprinkler located at Appollo Ave Alda NE.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because

I Believe that this is A needed operation & will be a benificial small Business for Hall County. Truck washes keep our streets & Highways Clean, & this Location would be Ideal for those hauling animals.

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☒ I have seen cow manure in the street near my place of work
- ☐ I have seen cow manure in the street while conducting my daily routine
- ☑ I have witnessed cow manure spill from a cattle trailer
- ☐ Other:

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Seth Meyers

379-1651

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 7-31-15

Dear Hall County Board of Supervisors:

My name is John Wemhoff. I live at 1475 S Gunbarrel.

I work at York Fire Dept located at York Nebraska.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☐ I have seen cow manure in the street while conducting my daily routine
- ☑ I have witnessed cow manure spill from a cattle trailer
- ☐ Other:

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 7-30-15

Dear Hall County Board of Supervisors:

My name is Kathleen Niece. I live at 1107 Sun Valley Drive, GI

I work at self-employed located at _____.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because there isn't a facility available for public use and not washing out the trucks is an environmental hazard for local residents who have to contend with the manure spillage.

Please check the following that apply:

- [x] I have seen cow manure in the street near my house (Bismark, Sturh)
- [ ] I have seen cow manure in the street near my place of work
- [x] I have seen cow manure in the street while conducting my daily routine
- [ ] I have witnessed cow manure spill from a cattle trailer
- [ ] Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Kathleen Niece

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 7-30-15

Dear Hall County Board of Supervisors:

My name is Florence Rozendal. I live at 822 E. Bismark Rd.

I work at Retired located at _____.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because _____

Please check the following that apply:

- [x] I have seen cow manure in the street near my house
- [ ] I have seen cow manure in the street near my place of work
- [x] I have seen cow manure in the street while conducting my daily routine
- [x] I have witnessed cow manure spill from a cattle trailer
- [x] Other: Trucks are driving faster than the speed limit thus more stuff does falls off Should watch the speeds also!!

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Florence Rozendal

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 9-7-15

Dear Hall County Board of Supervisors:

My name is Scott Bills. I live at 921 E Bismark GI.

I work at _____ located at _____.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because _____

Please check the following that apply:

- [x] I have seen cow manure in the street near my house
- [ ] I have seen cow manure in the street near my place of work
- [x] I have seen cow manure in the street while conducting my daily routine
- [ ] I have witnessed cow manure spill from a cattle trailer
- [ ] Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Scott Bills

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8-7-15

Dear Hall County Board of Supervisors:

My name is Tim. I live at 4337 W. Stolley Park Rd.

I work at Self located at Alda, NE.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because

We have a Swift plant nearby and need a facility like this.

Please check the following that apply:

- [x] I have seen cow manure in the street near my house
- [ ] I have seen cow manure in the street near my place of work
- [x] I have seen cow manure in the street while conducting my daily routine
- [x] I have witnessed cow manure spill from a cattle trailer
- [ ] Other:

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Tim Hansen

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8/10/15

Dear Hall County Board of Supervisors:

My name is Shirley Scarborough. I live at 833 E. Bismark, Grand Island, NE. 68801

I work at _____ located at _____.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because _____

With our packing plant, a great asset to Grand Island and Hall County, processing several thousand, daily, this facility would be an attribute to our County, with keeping cleanliness (such as a Truck Wash Facility) uppermost. Thus, it would make it better (in the streets/roads) for our population. I am definitely in favor of the Truck Wash Facility, for this, and for many associated reasons.

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☒ I have seen cow manure in the street while conducting my daily routine
- ☒ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8/10/15

Dear Hall County Board of Supervisors:

My name is Gordon J. Scarborough. I live at 833 E Bismark Rd, G.I., NE.

I work at _____ located at _____.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because our area has no Truck Washout Facility any where near. We have several hundred pots going to Swift every week That need to be washed out after unloading. Swift is about ½ mile from my house

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☒ I have seen cow manure in the street while conducting my daily routine
- ☒ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Gordon J. Scarborough

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8-21-15

Dear Hall County Board of Supervisors:

My name is Cheryl Yada. I live at 707 Pleasant View Dr - Grand Island

I work at N/A located at _____.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because cattle trucks must be cleaned out somewhere. I understand the proposed facility would address the issue in a well-thought-out way.

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☒ I have seen cow manure in the street while conducting my daily routine
- ☐ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Cheryl Yada

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 7-30-15

Dear Hall County Board of Supervisors:

My name is Melissa Poe. I live at 214 S. Shady Bend Rd.

I work at Humane Society Animal control located at 1312 N. SKyPark Rd.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because I have seen lots of spills during my daily drives of the city. I dont believe its safe or good for our city.

Please check the following that apply:

- [x] I have seen cow manure in the street near my house
- [x] I have seen cow manure in the street near my place of work
- [x] I have seen cow manure in the street while conducting my daily routine
- [x] I have witnessed cow manure spill from a cattle trailer
- [ ] Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Melissa Poe

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8-8-15

Dear Hall County Board of Supervisors:

My name is ALFRED NABITY. I live at 1730 GRETCHEN AVE. GRAND ISLAND, NE.

I work at SELF EMP./RETIRED located at "SAME".

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because

I PERSONALLY FEEL THAT THIS ENDEAVOR WOULD NOT CREATE MUCH ADDITIONAL HARDSHIPS FOR THE AREA.

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☐ I have seen cow manure in the street while conducting my daily routine
- ☑ I have witnessed cow manure spill from a cattle trailer
- ☐ Other:

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Alfred Nabity

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE:

Dear Hall County Board of Supervisors:

My name is Roger + Carol Mueller. I live at 617 Plum Rd G.I. Ne.

I work at _____ located at _____.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because _____

I think it would be very beneficial for truckers to have a place to wash out their trucks + trailers after hauling Cattle rather than spilling it over the roads

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☐ I have seen cow manure in the street while conducting my daily routine
- ☑ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Carol Mueller

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE:

Dear Hall County Board of Supervisors:

My name is Cindy Loewenstein I live at 1103 E Sunset GI

I work at _____ located at _____.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because I'm tired of seeing shit on Stuhr Rd & Hwy 34. Then when you drive on it you need to wash your truck or car.

Please check the following that apply:

- ☑ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☑ I have seen cow manure in the street while conducting my daily routine
- ☑ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Cindy Loewenstein

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE:

Dear Hall County Board of Supervisors:

My name is Ronald Fimple. I live at 623 W 12th St Grand Island, NE

I work at retired located at _____.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because of the reasons listed below.

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☑ I have seen cow manure in the street while conducting my daily routine
- ☑ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

★ I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Ronald Fimple

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE:

Dear Hall County Board of Supervisors:

My name is Kathryn Fimple live at 623 W. 12th ST Grand Island, NE

I work at _____ located at _____.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because

I feel Hall Co. needs a truck wash facility for sanitary reasons.

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☑ I have seen cow manure in the street near my place of work
- ☐ I have seen cow manure in the street while conducting my daily routine
- ☑ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Kathryn Fimple

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8-14-15

Dear Hall County Board of Supervisors:

My name is Judy Seely. I live at Doniphan.

I work at Choice Care Chiropractic located at G.I.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because

It would provide jobs
A new business on the tax rolls.

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☐ I have seen cow manure in the street while conducting my daily routine
- ☒ I have witnessed cow manure spill from a cattle trailer
- ☐ Other:

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Judy Seely

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE:

Dear Hall County Board of Supervisors:

My name is Elden Kleuthe. I live at CAIRO

I work at Retired located at _____

Doug Stange has asked me to voice my opinion on a truck wash facility being propose built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am i a truck wash out facility because _____

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☑ I have seen cow manure in the street while conducting my daily routine
- ☐ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in fi building a facility in Hall County. Please consider favorably the conditional use applic truck washout submitted by Doug Stange.

Sincerely,

Elden Kleuthe

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE:

Dear Hall County Board of Supervisors:

My name is [redacted]. I live at [redacted]

I work at [redacted] located at [redacted]

Doug Stange has asked me to voice my opinion on a truck wash facility being propos built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am a truck wash out facility because _____

Please check the following that apply:

- ☑ I have seen cow manure in the street near my house
- ☑ I have seen cow manure in the street near my place of work
- ☑ I have seen cow manure in the street while conducting my daily routine
- ☑ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in f building a facility in Hall County. Please consider favorably the conditional use applic truck washout submitted by Doug Stange.

Sincerely,

[redacted]

Exhibit 15 B

Businesses

O'Connor Enterprises
Ray O'Connor
611 Fleetwood Rd
Bus: 2502 N. Webb Rd

Nebraska Peterbilt
Mike Milhan
1815 Stagecoach Rd
Bus: 8225 S. US Hwy 281

Roy's Grand Dodge
Roy Neneman
18 Lillian Lane – Doniphan
Bus: 1803 S. Locust

T & E Cattle Co
Tom Baxter
4461 W. Capital
Bus: 4444 W. 13th

Wilson Trailer Sales
Tracy Howard
205 Bruce Cir.
Bus: 2314 E. Hwy 30

Murphy Tractor & Equip.
Lyle Karsten
4027 Palace Dr
Bus: 3204 S. Engleman

Super 8 Motel
Gene McCloud
609 S. Gunbarrel Rd
Bus: 2603 S. Locust

MRL Crane Service & Equip Rental
Mike Lilienthal
5700 S. Locust
Bus: 4331 Juergen Rd

Equitable Bank
Dave Richardson
221 E. Ashton Ave
Bus: 619 Diers

Baasch & Sons Welding & Repair
Dean Neighbors
107 S. Memphis St.
Bus: 207 S. High St.

Mid-Nebr Disposal
Barry Hopkins
2212 W. Anna
Bus: 3080 W. 2nd

Shelter Insurance
Paul Hoos
4020 Craig Dr
Bus: 204 S. Locust

Auto Outlet
Don Razey
520 Midaro Dr
Bus: 2924 S. Locust

Kensinger Service & Supply
Rick Grudzinski
106 Wainwright St.
Bus: 1810 E. Hwy 30

Hydro Tech
Howard Schmitt
3016 E. Bismark Rd
Bus: 2219 E. Hwy 30

Auto Outlet
Jeremy Bonahoom
Bus: 2924 S. Locust St

Ken's Auto Service
Ken Friesen
414 S. Gunbarrel Rd
Bus: 823 W. Anna St.

Real Estate Group
Ann Ottman
1519 Newcastle Rd
Bus: 1824 W. 2nd

Auto World
Doug Westerby
3620 Catfish Ave
Bus: 223 E. 2nd St.

Dick's Motor Company
Steve Hanquist
3532 Schroeder Ave
Bus: 716 W. 5th St.

Choice Care Chiropractic
Ryan Waind
504 Fleetwood Circle
Bus: 2222 W. 2nd St.

Bill Nesiba Sign Studio
Billy Nesiba
3562 W. Old Hwy 30
Bus: 3562 W. Old Hwy 30

Roses For You
Judy Rosenburg
3106 Memphis Pl
Bus: 937 S. Locust St.

Concrete Critters
John Lantz
3028 Avon Ave
Bus: 1103 S. Locust

Coney Island
George Katrouzos
3020 Brentwood Blvd
Bus: 104 E. 3rd St.

Diet Center
Karen Johnson
3022 W. 10th
Bus: 511 N. Eddy

CP Products
Mike Collins
108 S. Ingalls Rd – Cairo

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8 - 3 - 15

Dear Hall County Board of Supervisors:

My name is RAYMOND O'CONNOR. I live at 611 FLEETWOOD RD. GRAND ISLAND, NE.

I work at O'CONNOR ENTERPRISES located at 2502 N WEBB RD. GRAND ISLAND, NE

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because THE PROGRAM PRESENTED AT THE RECENT PUBLIC HEARING BY THE PROPOSED DEVELOPER WAS BASED ON SCIENTIFIC FACTS AND SUPPORTED BY A SOUND BUSINESS PLAN. I HAVE EXPRESSED THE SAME OBJECTION (NIMBY) "NOT IN MY BACK YARD" WHEN I PROPOSED AN APARTMENT COMMUNITY MANY YEARS AGO — THE DEVELOPMENT WAS SUCCESSFUL AND PROVIDED A MUCH NEEDED ASSET TO OUR COMMUNITY. PROGRESS SHOULD MOVE FORWARD IN THIS SITUATION.

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☒ I have seen cow manure in the street while conducting my daily routine
- ☒ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 7-30-15

Dear Hall County Board of Supervisors:

My name is Mike M. Ihm. I live at 1815 STAGECOACH RD GI NE

I work at Nebraska Peterbilt located at 8225 S US 281 GI NE

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because

5000 HEAD of Cattle come into Grand Island every day to be processed at Swift Packing Plant The trucks that come here need a place to clean their trailers so they don't splash or leak manure. I would like the facilty above to be approved to locate such facilty

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☒ I have seen cow manure in the street near my place of work
- ☒ I have seen cow manure in the street while conducting my daily routine
- ☒ I have witnessed cow manure spill from a cattle trailer
- ☐ Other:

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Mike M. Ihm Pres Nebraska Peterbilt

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8-14-15

Dear Hall County Board of Supervisors:

My name is Roy Neneman. I live at 18 Lillian Lane Doniphan
I work at Roys Grand Dodge located at 1803 S. Locust

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because

Doug has a willing buyer. I haven't heard, read or seen anything that should keep him from selling his property.

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☐ I have seen cow manure in the street while conducting my daily routine
- ☐ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: [redacted]

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Roy Neneman

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8-11-15

Dear Hall County Board of Supervisors:

My name is Tom Baxter. I live at 4461 West Capital.

I work at T & E Cattle Co. located at 4444 West 13th.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because at one time Hall County was known for livestock operations which brought great wealth to our businesses in G.I. It still does thru taxes, equipment purchases, jobs, grain purchases & the largest employer in all of central Nebraska. This request has very little down side & a great deal of benefit. If managed properly it will be a great addition & improves all listed below!

Please check the following that apply:

- [x] I have seen cow manure in the street near my house
- [x] I have seen cow manure in the street near my place of work
- [x] I have seen cow manure in the street while conducting my daily routine
- [x] I have witnessed cow manure spill from a cattle trailer
- [x] Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Tom Baxter

Wilson TRAILER SALES Grand Island
Since 1890...A Good Name to Have Behind You!

2314 East Highway 30
P.O. Box 2421
Grand Island, NE 68802
Phone 308-381-1800
Toll Free 800-381-1802
Fax 308-381-4845
Mobile 308-380-0450

Tracy Howard
Sales Representative

www.wilsontrailer.com • email: tracy.howard@wilsontrailer.com

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8-4-15

Dear Hall County Board of Supervisors:

My name is Tracy Howard. I live at 305 Bruce Cr.

I work at Wilson Trailer Co. located at 2314 E. Hwy 30.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because

We sell the Wilson Trailer LV. product and work on many. Our policy is to have them cleaned out so we can work safely on and weld them. I have had guys dump manure on our lot.

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☒ I have seen cow manure in the street near my place of work
- ☐ I have seen cow manure in the street while conducting my daily routine
- ☒ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

T Howard

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8-4-15

Dear Hall County Board of Supervisors:

My name is Lyle Karsten. I live at 4027 Palace Dr.

I work at Murphy Tractor located at 3204 S. Engleman.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because

We can get the streets Cleaned up.

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☑ I have seen cow manure in the street near my place of work
- ☑ I have seen cow manure in the street while conducting my daily routine
- ☑ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Lyle Karsten

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8-4-15

Dear Hall County Board of Supervisors:

My name is Gene McCloud. I live at 609 S Gunbarrel Rd G.I.

I ~~work~~ own at Super 8 Motel located at 2603 S. Locust G.I.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because it will be good for the city of G.I.

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☒ I have seen cow manure in the street while conducting my daily routine
- ☒ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Gene McCloud

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE:

Dear Hall County Board of Supervisors:

My name is Mike Lilienthal. I live at 5700 S. Locust.

I work at MRL Crane located at 4331 Juergen Rd.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because

There is a need for this in Grand Island, I don't see the location creating any problems.

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☑ I have seen cow manure in the street while conducting my daily routine
- ☑ I have witnessed cow manure spill from a cattle trailer
- ☐ Other:

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 6-14-15

Dear Hall County Board of Supervisors:

My name is Dave Richardson. I live at 221 E Ashton Ave GI, NE.

I work at Equitable Bank located at 619 Diers, EI, NE.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because I see the trucks are washing into other ponds & outlets that are not regulated or safe. With the JBS Plant, Central NE location, State Fair, etc. this facility is needed in our community. Owner has picked a perfect location & has a good business plan.

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☑ I have seen cow manure in the street near my place of work
- ☑ I have seen cow manure in the street while conducting my daily routine
- ☑ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Dave Richardson

MID-NEBR Speedway

308-381-0088

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE:

Dear Hall County Board of Supervisors:

My name is Dear Neighbors I live at _____

I work at BAASCK located at Cairo

Doug Stange has asked me to voice my opinion on a truck wash facility being propose built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am i a truck wash out facility because _____

Please check the following that apply:

- ☑ I have seen cow manure in the street near my house
- ☑ I have seen cow manure in the street near my place of work
- ☑ I have seen cow manure in the street while conducting my daily routine
- ☑ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in f building a facility in Hall County. Please consider favorably the conditional use applic truck washout submitted by Doug Stange.

Sincerely,

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8-7-15

Dear Hall County Board of Supervisors:

My name is Barry Hopkins. I live at 2212 W Anna.

I work at Mid Nebr Disposal located at ~~2212 W Anna~~ 3080 W 2nd.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because I don't understand with all the Feed lots in the County we need this type of facility that is regulated make Sence. the Problem of dump + washing cattle trailers is there. You have unregulated dumping now.

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☒ I have seen cow manure in the street while conducting my daily routine
- ☐ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8-3-15

Dear Hall County Board of Supervisors:

My name is Paul Hoos. I live at 4020 Craig Dr.

I work at Shelter Insurance located at 204 S Locust.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because of the number of cattle trucks traveling through our county.

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☒ I have seen cow manure in the street while conducting my daily routine
- ☐ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Paul Hoos

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 7-30-15

Dear Hall County Board of Supervisors:

My name is Don Razey. I live at 520 Midaro Dr Grand Island NE

I work at Auto Outlet located at 2924 S Locust St Grand Island NE

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because we need to keep trucks cleaned out.

Please check the following that apply:

- [x] I have seen cow manure in the street near my house
- [x] I have seen cow manure in the street near my place of work
- [ ] I have seen cow manure in the street while conducting my daily routine
- [x] I have witnessed cow manure spill from a cattle trailer
- [ ] Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Don Razey

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 7-31-15

Dear Hall County Board of Supervisors:

My name is Rich Grudzinski. I live at 106 S. Wainwright.

I work at Kensinger Ser located at 1810 E Hwy 30.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because _____

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☒ I have seen cow manure in the street near my place of work
- ☐ I have seen cow manure in the street while conducting my daily routine
- ☒ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Richard Grudzinski

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 7-31-15

Dear Hall County Board of Supervisors:

My name is HOWARD Schmitt. I live at 3016 E. BISMARK RD.

I work at HYDRO Tech located at 2219 E. HWY 30.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because

Please check the following that apply:

- [x] I have seen cow manure in the street near my house
- [x] I have seen cow manure in the street near my place of work
- [x] I have seen cow manure in the street while conducting my daily routine
- [x] I have witnessed cow manure spill from a cattle trailer
- [ ] Other:

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Howard L. Schmitt

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 7-20-15

Dear Hall County Board of Supervisors:

My name is JEREMY BONAHOOM. I live at _____.

I work at AUTO OUTLET located at 2924 S LOCUST ST GI NE

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because_____

Please check the following that apply:

- ☒ I have seen cow manure in the street near my house
- ☒ I have seen cow manure in the street near my place of work
- ☒ I have seen cow manure in the street while conducting my daily routine
- ☒ I have witnessed cow manure spill from a cattle trailer
- ☒ Other:_____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8-4-15

Dear Hall County Board of Supervisors:

My name is Kenneth Friesen. I live at 4145 Gunbarrel Rd GI NE 68801
I work at own Kens Auto Service located at 823 W Anna St.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because the local industry indicates a need for such a facility. The Stange property has some of the infrastructure for such. The interested party has a proven track record of complience.

The city of Hastings just Pd a large Claim to an Accident Victim in their City. As Per Article in GI Independent.

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☒ I have seen cow manure in the street while conducting my daily routine
- ☒ I have witnessed cow manure spill from a cattle trailer
- ☐ Other:_____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Kenneth J Friesen

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8-6-15

Dear Hall County Board of Supervisors:

My name is Ann Ottman. I live at 1519 Newcastle Rd GI.

I work at RealEstateGroup located at 1824 W 2nd.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because _____

Please check the following that apply:

- ☑ I have seen cow manure in the street near my house
- ☑ I have seen cow manure in the street near my place of work
- ☑ I have seen cow manure in the street while conducting my daily routine
- ☑ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Ann E. Ottman

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE

DATE: 8-11-15

Dear Hall County Board of Supervisors:

My name is Doug Westerly. I live at 3620 Catfish Ave.

I work at Artwold located at 223 E. 2d St.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because it all has to go somewhere why not have a location that is capable of taking care of a problem. There needs to be somewhere here to take care of it. Remember our economy was built on the farming and cattle. Why now are we turning our backs on this - doesn't make sense.

Please check the following that apply:

- [x] I have seen cow manure in the street near my house
- [x] I have seen cow manure in the street near my place of work
- [x] I have seen cow manure in the street while conducting my daily routine
- [x] I have witnessed cow manure spill from a cattle trailer
- [ ] Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

[signature]

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8-11-15

Dear Hall County Board of Supervisors:

My name is Steve Hanquist. I live at 3532 Schroeder ave.
I work at Dicks Motor Company inc. located at 716 W 5th st Grand Islnd Ne

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because Brings More Taxes Dollars To our County More Buiness To our Town

Please check the following that apply:

- [x] I have seen cow manure in the street near my house
- [ ] I have seen cow manure in the street near my place of work
- [x] I have seen cow manure in the street while conducting my daily routine
- [x] I have witnessed cow manure spill from a cattle trailer
- [ ] Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Steve Hanquist

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8-7-15

Dear Hall County Board of Supervisors:

My name is Billy Nesiba. I live at 3562 W. Old Hwy 30. GI

I work at Bill Nesiba Sign Studio located at SNA.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because Sounds like a Great opportunity for Jobs and Clean up

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☑ I have seen cow manure in the street near my place of work
- ☑ I have seen cow manure in the street while conducting my daily routine
- ☑ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8-14-15

Dear Hall County Board of Supervisors:

My name is Ryan Wald. I live at 504 Fleetwood Circle. GI 68803

I work at Choice Care Chiropractic located at 2222 W. 2nd Street. GI 68803

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because I do not believe you as a board of supervisors should be telling the general public how to operate a business or use their private ground.

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☐ I have seen cow manure in the street while conducting my daily routine
- ☐ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8-5-15

Dear Hall County Board of Supervisors:

My name is Judy Rosenburg I live at 3106 Memphis Pl.
I work at Roses for you located at 937 S. Locust St. G.I.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because I have seen Crap leaking out of the back of a truck & dumping it on our streets in town. If the Company says he will take care of the flies & smell then it only makes sense to clean the trucks up, so its not leaking on our City Streets

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☑ I have seen cow manure in the street near my place of work
- ☑ I have seen cow manure in the street while conducting my daily routine
- ☑ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Judy Rosenburg

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8 - 5 - 15

Dear Hall County Board of Supervisors:

My name is John Lantz. I live at 3028 Avon Ave.

I work at Concrete Critters located at 1103 S. locust.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because

Please check the following that apply:

- [x] I have seen cow manure in the street near my house
- [x] I have seen cow manure in the street near my place of work
- [x] I have seen cow manure in the street while conducting my daily routine
- [x] I have witnessed cow manure spill from a cattle trailer
- [ ] Other:

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

John Lantz

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8-4-15

Dear Hall County Board of Supervisors:

My name is George Kastrom. I live at 3020 Brentwood Blvd.

I work at Cony FLW located at Grand Island.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because _____

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☑ I have seen cow manure in the street near my place of work
- ☐ I have seen cow manure in the street while conducting my daily routine
- ☑ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 7-31-15

Dear Hall County Board of Supervisors:

My name is Karen Johnson. I live at 3000 W. 10th GI.

I work at Diet Center located at 511 N. Eddy GI.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because cleaner street

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☑ I have seen cow manure in the street near my place of work
- ☑ I have seen cow manure in the street while conducting my daily routine
- ☑ I have witnessed cow manure spill from a cattle trailer
- ☐ Other:

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

Karen

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE:

Dear Hall County Board of Supervisors:

My name is Mike Collins. I live at Cairo

I work at C P Products located at Cairo

Doug Stange has asked me to voice my opinion on a truck wash facility being propose built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am i a truck wash out facility because

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☑ I have seen cow manure in the street while conducting my daily routine
- ☑ I have witnessed cow manure spill from a cattle trailer
- ☐ Other:

I think that the truckers need a convenient place to clean out their trailers and I am in f building a facility in Hall County. Please consider favorably the conditional use applic truck washout submitted by Doug Stange.

Sincerely,

Mike Co

Exhibit 15C

MAYORS

ST. PAUL – Tracy Howard
205 Bruce Cir.
St. Paul

TO: Hall County Board of Supervisors
121 S Pine Street
Grand Island, NE
DATE: 8-4-15

Dear Hall County Board of Supervisors:

My name is Tracy Howard. I live at 205 Bruce Cr. St. Paul, NE

I work at _____ located at _____.

Doug Stange has asked me to voice my opinion on a truck wash facility being proposed to be built at 9551 S. Locust Street, Doniphan, NE 68832. I would like to tell you that I am in favor of a truck wash out facility because

Trailers come thrugh town & will leave a trail because they are full of manure. Drains get kicked open.

Please check the following that apply:

- ☐ I have seen cow manure in the street near my house
- ☐ I have seen cow manure in the street near my place of work
- ☒ I have seen cow manure in the street while conducting my daily routine
- ☒ I have witnessed cow manure spill from a cattle trailer
- ☐ Other: _____

I think that the truckers need a convenient place to clean out their trailers and I am in favor of building a facility in Hall County. Please consider favorably the conditional use application for a truck washout submitted by Doug Stange.

Sincerely,

T Howard Mayor of St. Paul, NE