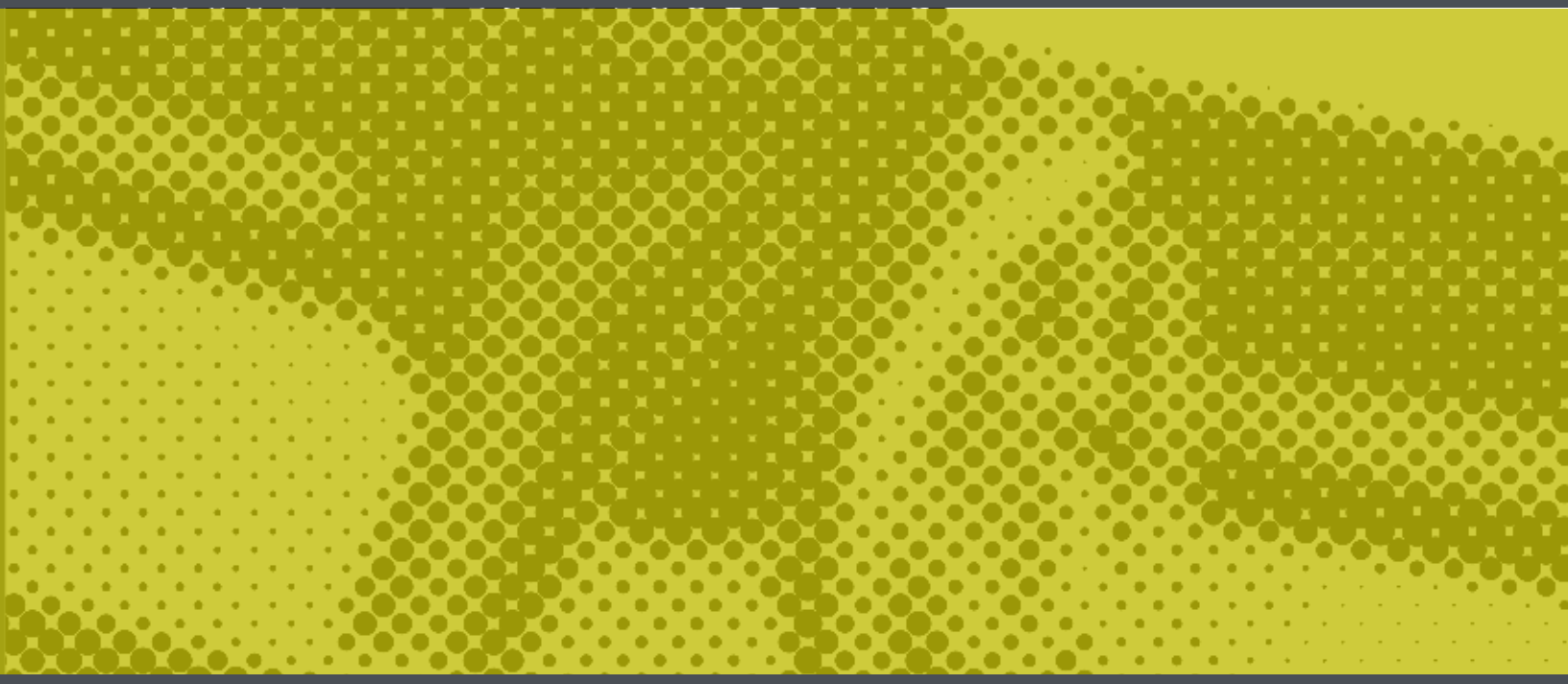
January 2017

FACILITATING ELECTRIC VEHICLE TRAVEL AT AMERICA'S CROSSROADS

State of Iowa proposal to Electrify America



On behalf of Iowa Economic Development Authority and the Iowa Department of Transportation

IOWA economic development

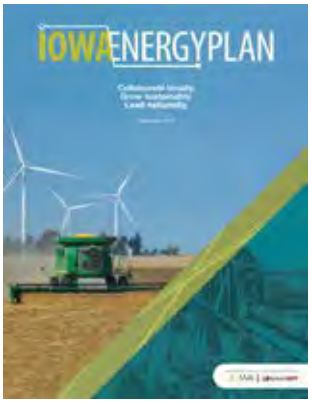
IOWA DOT

I. Introduction

The state of Iowa submits this proposal to Electrify America, the company investing in Zero Emission Vehicle (ZEV) infrastructure on behalf of Volkswagen to comply with the partial settlement *United States v. Volkswagen Group of America et al*.

The state's lead agency on electric vehicle related matters is the Iowa Economic Development Authority, which houses the Iowa Energy Office and the Iowa Clean Cities program (ICC). Iowa Clean Cities has been in existence since 2005, is designated by the U.S. Department of Energy, and incorporates a variety of public and private stakeholders to coordinate education and technical assistance on alternative fuels and advanced vehicle technologies. IEDA's recent initiatives surrounding electric vehicles include the *Advancing Iowa's Electric Vehicle Market* study, discussed in this proposal, numerous stakeholder meetings and webinars, and three consumer education events for the 2016 National Drive Electric Week.

The Iowa Department of Transportation is coordinating the state's response and associated implementation of the Volkswagen settlement dollars, has provided assistance with this proposal, and will remain engaged in the ZEV investment activities going forward. Electric vehicle charging station implementation could be beneficial for the Iowa DOT's work surrounding connected and automated vehicles. One of their projects, called Ignite Iowa, is intended to initially deploy technologies that support automated vehicles regionally along several project locations in Iowa in the Cedar Rapids-Iowa City transportation network. The corridor that connects these communities is Interstate 380, which connects to Interstate 80, both of which are incorporated into the locations for DC Fast Charging submitted for Volkswagen/ Electrify America consideration. The Iowa DOT is pursuing additional funding to allow deployment of technologies that support automated vehicles in the Des Moines and Ames metropolitan area. These communities are connected by Interstate 35, also incorporated into this proposal for DC Fast Charging.



The state of Iowa recently released the *Iowa Energy Plan*, an initiative chaired by Iowa Lieutenant Governor Kim Reynolds, with leadership support from the Iowa Economic Development Authority and the Iowa Department of Transportation. The plan outlines clear goals and strategies to keep energy costs low, further facilitate economic development, and solidifies Iowa's place as a global trailblazer for energy initiatives. The Iowa Energy Plan can be reviewed in detail at www.iowaenergyplan.org. The plan includes several strategies that are complimentary to the Electrify America initiative:

- Plan for Electric Vehicle Charging Corridors
- Alternative Fuel Vehicles Station Code Education
- Electric Vehicle Charging Station Business Model Development
- Incentives for Alternative Vehicle Fueling Infrastructure

The state of Iowa's approach to the Electrify America initiative, specifically for DC Fast Charging corridors, is comprehensive and collaborative.

The Iowa proposal includes detailed information on electricity and the EV market in Iowa, and fifty-one locations that are a result of outreach statewide. IEDA and the Iowa DOT developed outreach materials and a survey to collect information from stakeholders that wanted to express interest in hosting a publically available DC Fast Charging station on their property or in their community. It targeted areas along interstates but also accepted submissions near other highly traveled highways. Since the time period of considering this opportunity has been relatively short, many of these locations are not expressing a firm commitment without having more details on VW's terms and plans. Some highlights of the survey responses include:

- A majority of the survey responses were completed by the property owner, with the exception of a few from community/ economic development leaders that are suggesting a location.
- Seven locations are potentially time-sensitive, with the underground wiring and electrical infrastructure in place for DC Fast Charging and/or planning new construction in 2017 that would potentially be more cost effective before wiring and concrete are in place.
- Twenty locations on behalf of one convenience store retailer and six locations on behalf of another convenience store retailer. Each of these retailers has priority sites within their submission and that information could be available upon request from VW.
- Several locations are within walking distance to significant tourist attractions, including the Iowa Speedway, Adventureland, John and Mary Pappajohn Sculpture Park in downtown Des Moines, John Deere Tractor Museum, the Mississippi River Museum and several others.
- Locations at or nearby major retail centers, including two outlet malls.

Two other proposals being submitted to Electrify America for DC Fast Charging also have some of the same Iowa locations and interests identified:

- A proposal for Interstate 80 covering the length of the Federal Highway Administration's Alternative Fuel Corridor designation, from Council Bluffs, Iowa to Teaneck, New Jersey.
- A proposal for Interstate 35 covering Minnesota, Iowa, Missouri and Kansas.

Iowa's approach to develop DC Fast Charging corridors demonstrates leadership in identifying specific potential projects, the ability to work with a wide variety of stakeholders statewide, and the multi-state partnerships necessary to help facilitate longer distance travel for electric vehicles. We hope that Volkswagen will choose to partner with the state of Iowa when making investment decisions, so that we can assist in coordinating activities and serving the interests of our stakeholders.

II. Iowa's Electric Vehicle Market

IEDA has been engaged in the electric vehicle (EV) market through its active Iowa Clean Cities Coalition, designated by the U.S. Department of Energy, which coordinates stakeholder education efforts and provides technical assistance. Additionally, IEDA funded the completion of a market study released in July 2016, titled *Advancing Iowa's Electric Vehicle Market* and assisted with consultant support through BCS, Incorporated. The full study can be found at IEDA's website: www.iowaeconomicdevelopment.com/userdocs/documents/ieda/AdvancingIowasElectricVehicleMarketReport.pdf. The following summary draws on findings from this study and the interests of stakeholders in Iowa.

EV Registrations in Iowa

As of June 2016, the Iowa Department of Transportation identified 163 battery electric vehicles (BEVs) and 854 plug-in hybrid electric vehicles (PHEVs) registered in the state, totaling 1,017 EVs in Iowa. Calculating PHEVs required a query of hybrid vehicles by make and model and identifying the plug-in models, since registration data does not delineate whether a vehicle is a plug-in hybrid.

The following list highlights the cities in Iowa with more than 10 registered EVs. Approximately one third of the state's electric vehicles are in the greater Des Moines metropolitan area, which is the most heavily populated urban area of the state. Des Moines is the state capital and is conveniently located at the crossroads of Interstates 80 and 35, with Interstate 235 connecting the region through downtown Des Moines.

- 80 in Des Moines
- 70 in Ankeny
- 60 in West Des Moines
- 48 in Iowa City
- 47 in Cedar Rapids
- 41 in Urbandale
- 45 in Ames
- 32 in Dubuque
- 21 in Davenport
- 19 in Decorah
- 17 in Cedar Falls
- 17 in Marion
- 17 in Johnston
- 16 in Sioux City
- 16 in Bettendorf
- 15 in Clive
- 13 in Fairfield
- 13 in Waukee
- 12 in Council Bluffs
- 10 in Altoona
- 10 in De Witt
- 10 in Grinnel

Iowa shares metropolitan areas with neighboring states, to include the Omaha-Council Bluffs metropolitan area and the Quad Cities. Despite being in different states, the economies and markets of these areas are closely connected. Therefore, understanding the EV market in the entire metropolitan area is essential for getting the full picture. The Omaha-Council Bluffs Metropolitan Area Planning Agency provided EV registration data for the Omaha area by zip codes. There were 204 EVs identified within the city of Omaha, which especially impacts EV travel in western Iowa and along I-80. On the border of Iowa and Illinois, the Quad Cities metropolitan area spans both states yet our study was not able to obtain EV registration data from the state of Illinois.

Electricity in Iowa

As of 2014, Iowa had 182 utilities that provide service to 1.58 million customers. These include:

- Two investor-owned utilities (IOUs) that serve 72.26 percent of customers;
- 136 municipal utilities that serve 13.38 percent of customers; and
- 44 rural electric cooperatives that serve 14.36 percent of customers.

Iowa's average retail price of electricity for the residential sector for 2015 was 10.61 cents/ kilowatt-hour (kWh) and 9.05 cents/kWh for the commercial sector, ranking it 17th in the U.S. in terms of cheapest commercial electricity prices.

Preliminary 2015 data from the U.S. Energy Information Administration (EIA) show that Iowa generated 57,171,989 megawatt-hours (MWh) of electricity. Iowa's wind energy accounted for nearly 18 million MWh in 2015, or 31 percent of the state's electricity generation. This makes Iowa the only state to pass the 30 percent mark for wind generation and ranks Iowa as second only to Texas in terms of total wind power generation in the nation.

Additionally, many Iowa utilities are increasing investment in renewable energy. Two of the largest investments involve the investor-owned utilities:

- MidAmerican Energy, which is headquartered in Des Moines announced in April 2016 that it is planning a project called Wind XI which will add up to 2,000 megawatts (MW) of wind generation in Iowa. This $3.6 billion project will be MidAmerican's largest wind project as well as the largest economic development project in Iowa's history.
- Alliant Energy, with a corporate office in Cedar Rapids announced in July 2016 that it is planning to invest approximately $1 billion to expand its Whispering Willow Wind Farm in Franklin County, Iowa, which will add up to 500 MW of wind generation.

Adding renewable energy sources like wind to the state's electricity generation profile only helps to further improve EVs' life cycle emissions and environmental impacts when compared to their gasoline counterparts. It also makes Iowa an attractive place to travel through and visit for EV drivers that want to use renewable energy to power their vehicle.

Iowa's electricity generation in 2014 (2015 data is not yet available) produced 33,653,635 metric tons of carbon dioxide (CO_2) equivalent or 74.19 billion pounds. Given this, Iowa's average emissions rate is 1.30 pounds of CO_2 per kWh of electricity. Assuming each EV in Iowa uses approximately 4,250 kWh per year, this means that each EV contributes to 5,525 pounds of CO_2 emissions.

Assuming the average gasoline vehicle produces 440 grams or 0.97 pounds of CO_2 per mile and the average Iowa driver will drive 12,500 miles each year, this would result in 12,125 pounds of CO_2 emissions. An EV driver in Iowa, therefore, reduces their vehicle's CO_2 emissions by more than 50 percent when compared to the average gasoline vehicle.

Electric Vehicle Infrastructure

Iowa presently has nearly 100 locations for publically-available electric vehicle charging stations, primarily Level 2 charging stations. Some of the leaders and early adopters include:

- The supermarket chain Hy-Vee installs Level 2 charging stations at any new store or remodel in Iowa, resulting in five locations offering Level 2 charging. They also host three Tesla superchargers at Iowa stores along I-80.
- Alliant Energy launched a Transportation Electrification Program in earnest via a charger rebate program in April of 2016. The program provides a $500 rebate for residential customers in Alliant Energy's service territory in both Iowa and Wisconsin. They also have a $1,000—$1,500 rebate for single and dual port Level 2 chargers in workplace applications. Since initiating the program, we have issued 86 rebates—76 residential rebates and 10 commercial rebates. They continue to build interest and add to their suite of electric vehicle programs. Alliant Energy's internal activities include participation in the U.S. Department of Energy's Workplace Charging Challenge and the addition of 5 plug-in hybrid electric vehicles to their fleet.
- The University of Iowa has an electric vehicle charging station for its fleet with a solar canopy and receives many inquiries from electric vehicle owners to use it when they travel to Iowa City for a sporting event. They are planning on installing Level 2 charging at various locations on campus with hopes to secure VW funding for a DC Fast Charging station at one of their parking lots.
- The City of Des Moines and City of Coralville, both along I-80, have installed public Level 2 charging stations on city property.
- Kum & Go was an early adopter of Level 2 charging stations at several of their stores.
- Iowa employers that offer workplace charging include John Deere, Schneider Electric, Van Meter, and ACT.

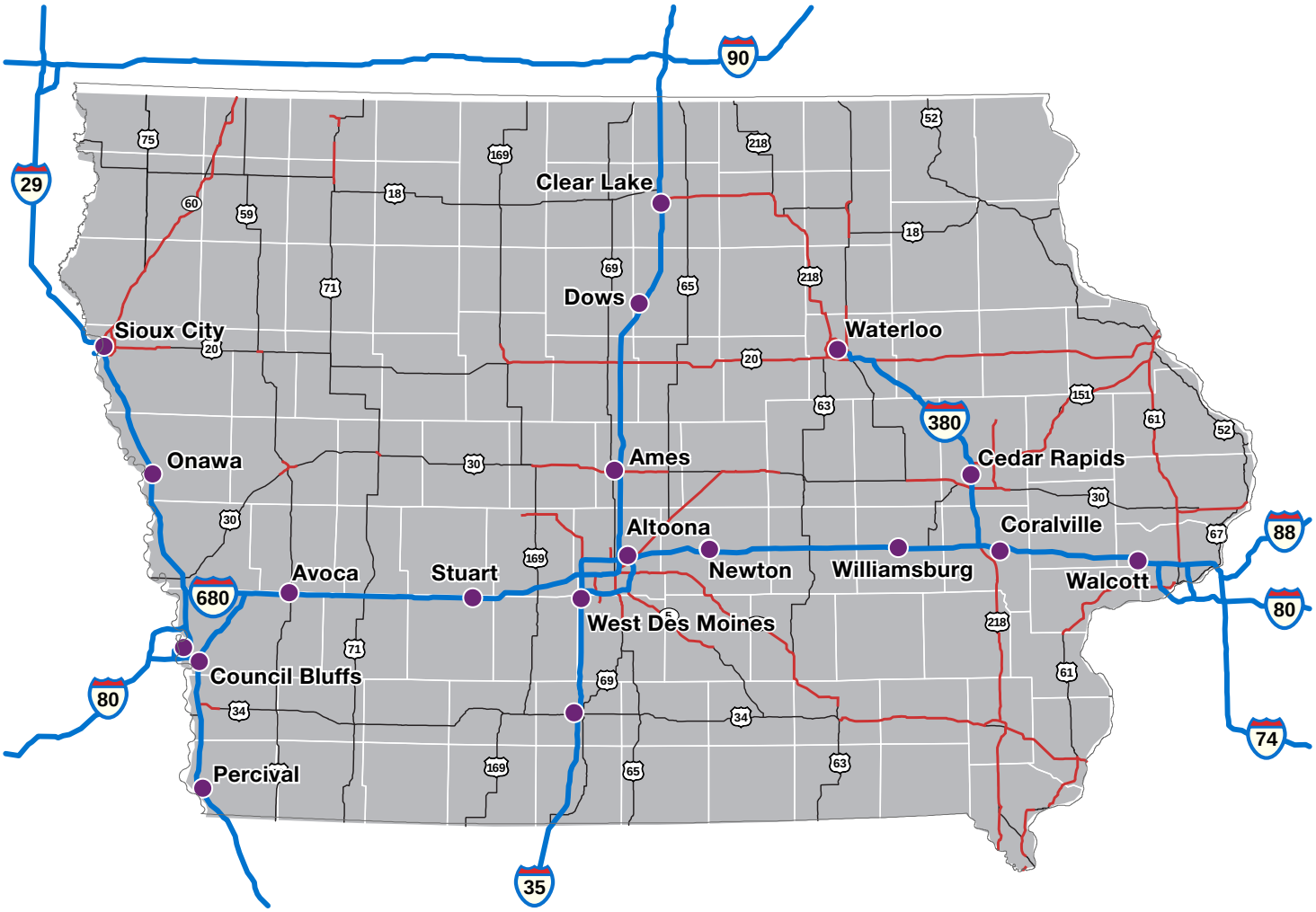
Development of Electric Highway Corridors

Focusing specifically on Iowa, the Advancing Iowa's Electric Vehicle Market study looked into the potential of developing an Electric Highway on interstates (I-80, I-35, I-380 and I-29) across the state, as well as where EV charging stations could be located based on an established set of criteria. The criteria set for an Iowa Electric Highway included the following:

- Level 3 charging station
- Charging stations located no further than approximately 50 miles apart
- Charging stations located no further than 1 mile from the interstate.

An Electric Highway plan in Iowa was suggested to include I-80, running West-East across the state for approximately 306 miles; I-35, running North-South across the state for a distance of approximately 219 miles; I-29, running North-South along the western edge of the state approximately 151 miles in length; and I-380, running from Coralville to Waterloo and approximately 73 miles in length.

As a result of the analysis of Iowa's interstates, the following concept was established to map key locations at nineteen interstate exits.



As a compliment to the electric highway corridor concept, or in some instances as a possible alternative to an area immediately adjacent to the interstate, other DC Fast Charging Stations can be located within walkable areas of communities. Some of these locations have other benefits that include:

- Offering electric vehicle drivers the choice to be in a higher density walkable setting, patronizing locally-owned businesses and attractions, and providing a uniquely local tourist experience.
- Providing a greater variety and choice of what they can do in the time they are charging their vehicle.
- Close proximity to a bicycle trail for EV drivers that want to bring and use their bicycle on their travels.

III. Potential locations

IEDA and the Iowa DOT developed outreach materials and a survey to collect information from stakeholders that wanted to express interest in hosting a publicly available DC Fast Charging station on their property or in their community. It targeted areas along interstates but also accepted submissions near other highly traveled highways. Since the time period of considering this opportunity has been relatively short, many of these locations are not expressing a firm commitment without having more details on terms and conditions.

Utilities have expressed a commitment to assisting with their customers which would host the charging stations. Utilities that have been in contact with IEDA in this proposal's development include Alliant Energy, MidAmerican Energy, City of Ames Electric Department, and Shelby Municipal Utilities. IEDA can put VW in contact with applicable utilities about locations of interest for investment.

Some of the sites included in this proposal have been analyzed by their utility regarding the electrical service on-site and the extent to which additional load requirements are needed. Several of the property owners have experience in hosting electric vehicle charging stations, either Level 2 or DC Fast Charging stations. This information can be provided to VW and Electrify America by request.

The state seeks to be in contact with VW regarding investment in Iowa locations, especially to support industry efforts to facilitate private investment and successful business models. Although hosting an electric vehicle charging station will bring new patrons and travelers to a business or community, station hosts will incur additional electricity expenses. In some instances, only having a couple of DC Fast Charging stations installed, with the infrastructure underground to expand, would be advantageous. Some locations could leverage additional outside investment to install Level 2 stations on the same site. Depending on the ownership structure for the equipment, maintenance expenses may also be a consideration. Collecting a fee for a parking spot or some type of revenue could be a discussion item for some stakeholders in advance of a commitment with VW. Flexibility on behalf of VW and coordination with the state and its stakeholders will be helpful to ensure success of the locations that are selected.

The locations presented on behalf of the state of Iowa are intended to be a comprehensive response to Electrify America's interest in facilitating cross-country travel. Instead of filtering the responses and narrowing the list, it was decided that presenting all of the interest would be the preferred approach. There is a lot of variety in types of locations and the experience they would offer electric vehicle drivers. Provided below is a table of the interested locations by each highway/ interstate, along with a map of every interested location. On the map, each location name can be clicked on to bring the reviewer to the particular location's description.

Potential locations adjacent to I-380/ Hwy 218 and Hwy 20

Name/ Owner of Location	Street Address	City	Highway/ Interstate	Nearest Highway/ Interstate Exit #	Estimated Distance
University of Iowa, Hawkeye Commuter Parking Lot	W Hawkeye Park Rd.	Iowa City	Hwy 218	93	1 mi. and 3.5 mi from I-80
Kum & Go Convenience Store	30 Four Oaks Drive SW	Cedar Rapids	I-380	16A	1.3 mi.
Cedar Rapids City Hall, downtown	101 1st St. SE	Cedar Rapids	I-380	20A	0.5 mi.
Crossing Point Shopping Center	2060 Sovia Dr.	Waterloo	Hwy 218	72	1,300 Ft.
Future Marriott Courtyard Hotel (complete June 2017)	360 Westfield Ave.	Waterloo	Hwy 218	181B	0.4 mi. and approx. 6 mi. to Hwy 218/I-380
Casey's General Stores	2424 Ranchero Rd.	Waterloo	Hwy 20	227	0.1 mi and approx. 6 mi. to Hwy 218/I-380
Kwik Star Convenience Store	7500 Nordic Dr.	Cedar Falls	Hwy 20	225	0.8 mi. and approx. 9.5 mi to Hwy 218/I-380
City of Dubuque	1000 E 12th St	Dubuque	Hwy 20	Downtown Exit	0.5 mi.

Potential locations adjacent to I-80 not including I-80/I-35 and I-235 in Des Moines metro area

Name/ Owner of Location	Street Address	City	Highway/ Interstate	Nearest Highway/ Interstate Exit #	Estimated Distance
Kum & Go Convenience Store	29356 298th St.	Neola	I-80	23	0.4 mi.
Taylor Quik-Pik	11 E. St.	Shelby	I-80	34	500 ft.
BP Corn Crib Fuel Stop	12 E. St.	Shelby	I-80	34	500 ft.
Casey's General Stores	1019 N. Chestnut St.	Avoca	I-80	40	1 mi.
Kum & Go Convenience Store	629 S Division Street	Stuart	I-80	93	0.3 mi
Kum & Go Convenience Store	3105 Grand Prairie Pkwy	Waukee	I-80	118	1.1 mi.
Kum & Go Convenience Store	5308 University Ave.	West Des Moines	I-80	124	0.6 mi.
Kum & Go Convenience Store	5050 NW 2nd	Des Moines	I-80	135	0.4 mi.

Name/ Owner of Location	Street Address	City	Highway/ Interstate	Nearest Highway/ Interstate Exit #	Estimated Distance
Outlets of Des Moines	801 Bass Pro Drive NW	Altoona	I-80	142	0.8 mi.
Kum & Go Convenience Store	4960 E. Broadway Ave.	Des Moines	I-80	142	1.5 mi.
Casey's General Stores	407 8th St. SW	Altoona	I-80	143	1.8 mi.
Kum & Go Convenience Store	1200 N. Walnut	Colfax	I-80	155	0.3 mi.
Hardee's	1205 W 19th St. S	Newton	I-80	164	0.5 mi
Jasper County Museum	1700 S 15th Ave. W	Newton	I-80	164	0.5 mi.
Boulders Inn & Suites	4222 S 22nd Ave. E	Newton	I-80	168	0.1 mi.
Kum & Go Convenience Store	715 Lang Creek Ave.	Grinnell	I-80	182	0.3 mi.
Casey's General Stores	130 W. Evans St.	Williamsburg	I-80	220	0.2 mi.
Kum & Go Convenience Store	822 1st Ave	Coralville	I-80	242	0.3 mi.
Iowa 80 Truckstop	755 W. Iowa 80 Rd.	Walcott	I-80	284	0 ft

Potential locations adjacent to I-80/I-35 and I-235 around Des Moines metro area

Name/ Owner of Location	Street Address	City	Highway/ Interstate	Nearest Highway/ Interstate Exit #	Estimated Distance
Kum & Go Convenience Store	2110 Guthrie Ave	Des Moines	I-235	11	0.3 mi.
City of Des Moines 5th and Keo Way Parking Ramp	555 5th Ave.	Des Moines	I-235	8A	0.4 mi.
City of Des Moines 3rd and Court Parking Ramp	210 2nd Ave.	Des Moines	I-235	8A	0.6 mi.
City of Des Moines 4th and Grand Parking Garage	400 Grand Ave.	Des Moines	I-235	8A	0.5 mi.
JKoester Properties, future restaurants development	6580 University Ave.	Windsor Heights	I-235	4	0.8 mi.

Name/ Owner of Location	Street Address	City	Highway/ Interstate	Nearest Highway/ Interstate Exit #	Estimated Distance
Caribou Coffee, Einstein Bagels, Jimmy Johns, Fresh Fit Meals, 5 Star Nutrition, Great Clips, and CryoSpa Therapy	11895 Hickman Rd.	Urbandale	I-80/I-35	125	0.1 mi.
Casey's General Stores	4901 86th St.	Urbandale	I-80/I-35	129	0.1 mi.

Potential locations adjacent to I-35

Name of Owner/ Location	Street Address	City	Highway/ Interstate	Nearest Highway/ Interstate Exit #	Estimated Distance
TBD w/ Osceola Chamber Main Street	TBD	Osceola	I-35	33	N/A
Kum & Go Convenience Store	1453 County Highway G76	New Virginia	I-35	43	0.2 mi.
Kum & Go Convenience Store	101 E Highway 92	Bevington	I-35	56	0.3 mi.
Absolute Transportation	401 N 44th St.	Cumming	I-35	65	1.0 mi.
Kum & Go Convenience Store	3603 NE Otter View Circle	Ankeny	I-35	94	0.6 mi.
Gateway Expresse	2400 University Blvd.	Ames	Hwy 30	146	3.5 mi. from I-35
Southgate Expresse, Burgie's Coffee&Tea	110 Airport Rd.	Ames	Hwy 30	148	2 mi. from I-35
Kum & Go Convenience Store	2801 E. 13Th St.	Ames	I-35	113	0.6 mi.
Casey's General Stores	1625 E. Broad St.	Story City	I-35	124	0.1 mi.
Kum & Go Convenience Store	1111 IA Highway 175	Ellsworth	I-35	133	0.3 mi.
Dows Junction	904 Cardinal Ave.	Dows	I-35	159	0.4 mi.
Kum & Go Convenience Store	2905 4th Ave South	Clear Lake	I-35	193	0.3 mi.
Kum & Go Convenience Store	2005 US Highway 18 E	Clear Lake	I-35	194	0.4 mi.
Casey's General Stores	6 Plaza Drive	Clear Lake	I-35	194	0.2 mi.
Kum & Go Convenience Store	818 Highway 105	Northwood	I-35	214	0.5 mi.

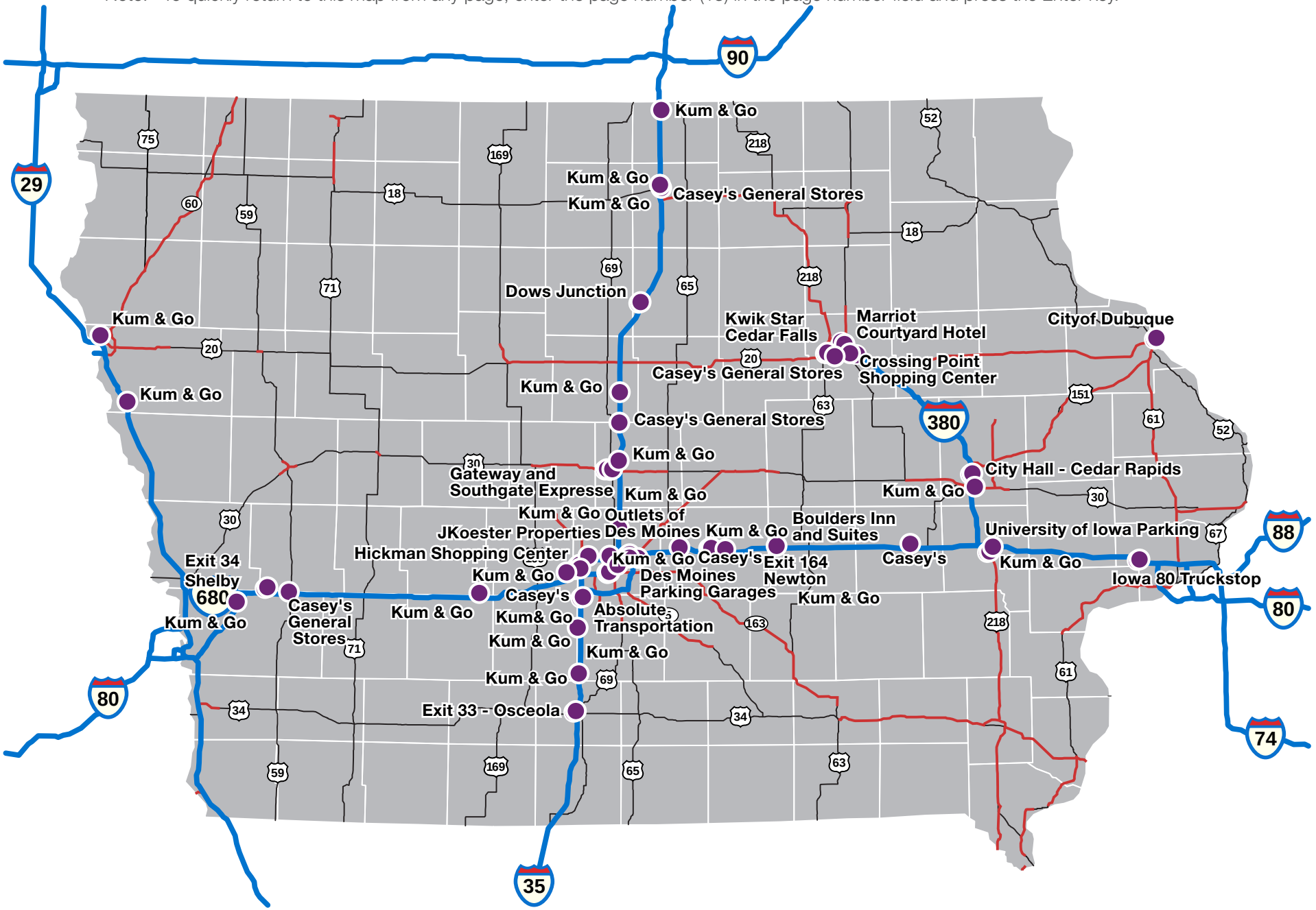
Potential locations adjacent to I-29

Name of Owner/ Location	Street address	City	Highway/ Interstate	Nearest Highway/ Interstate exit #	Estimated Distance
Kum & Go Convenience Store	1864 Old Hwy 141	Sloan	I-29	127	0.4 mi.
Kum & Go Convenience Store	1005 Gordon Dr	Sioux City	I-29	147	0.3 mi.

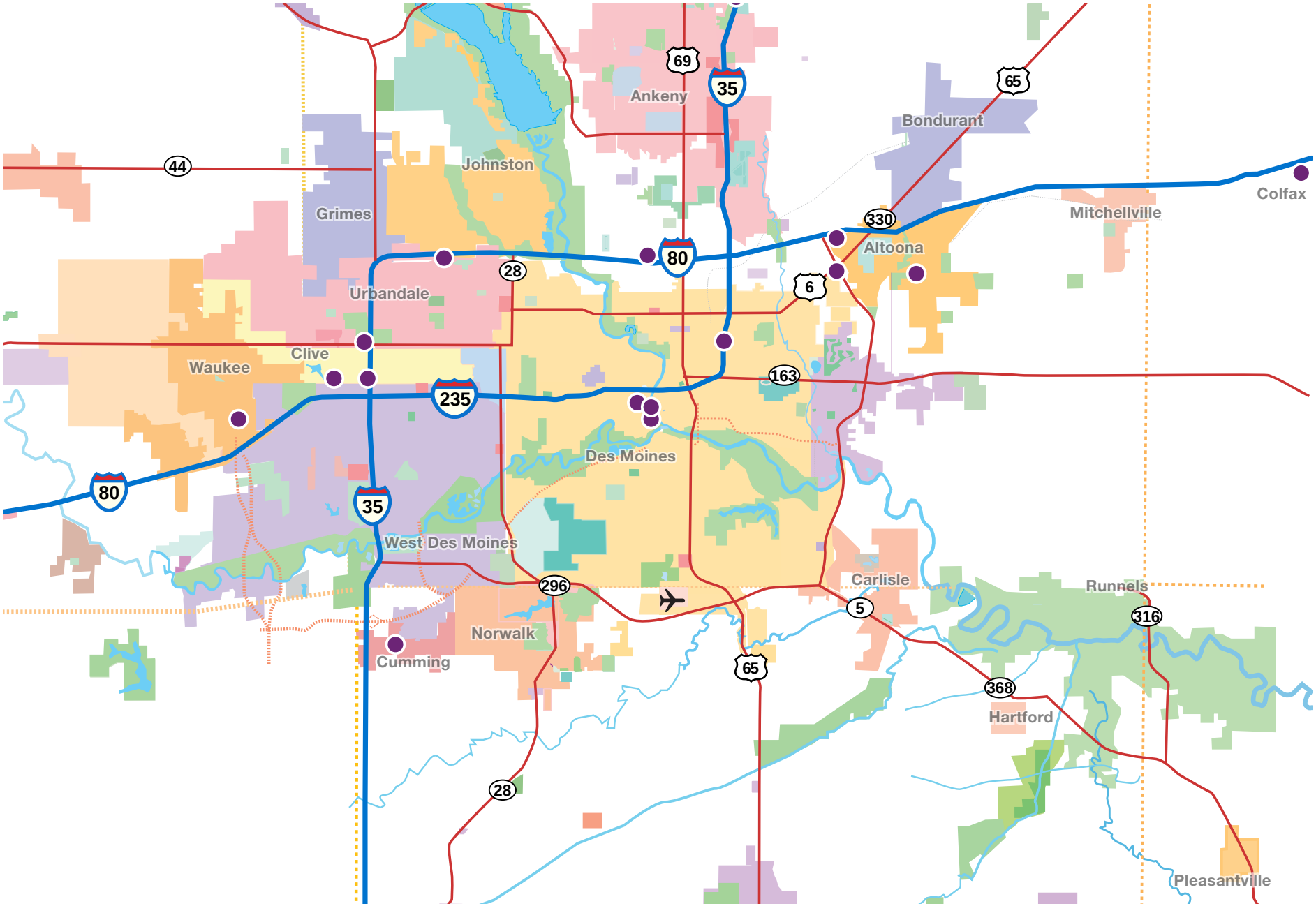
Potential DC Fast Charging Locations in Iowa

Select a location name to view the description page.

Note: To quickly return to this map from any page, enter the page number (13) in the page number field and press the Enter key.



Potential DC Fast Charging Locations in the Des Moines metro area



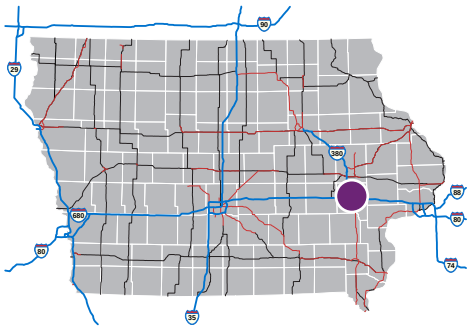
University of Iowa Parking

Hawkeye Park Road | Iowa City, Iowa

Sources: Google Earth

The University of Iowa has been wanting to install a level 3 station in their Hawkeye Commuter Parking Lot. This parking lot is approximately 1 mile from the U.S. Hwy 218 interchange and 3.5 miles fromInterstate 80.

The University is in the process of preparing a Request for Proposal to install level 2 charging stations in various locations on campus, including this location. The infrastructure to support a DC Fast Charging station can be installed by the end of March 2017.



Kum & Go - Cedar Rapids

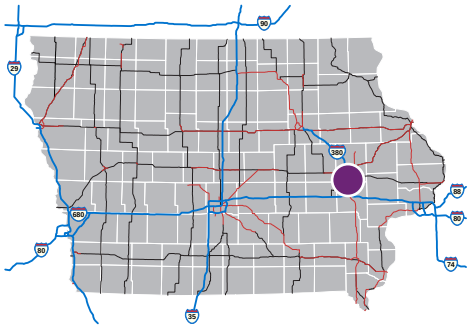
30 Four Oaks Drive Southwest | Cedar Rapids, Iowa

Sources: Google Earth; Google Map

Kum & Go is submitting numerous possible charging station locations.

This convenience store is located approximately a mile off of Interstate 380,Exit 16A. This location is within walking distance to several restaurants and apartment complexes.

MidAmerican, Alliant Energy, and local rural electric cooperatives (RECs) have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



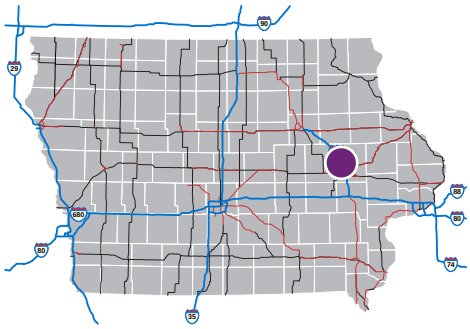
City Hall - Cedar Rapids

101 1st Street Southeast | Cedar Rapids, Iowa

Sources: Google Earth

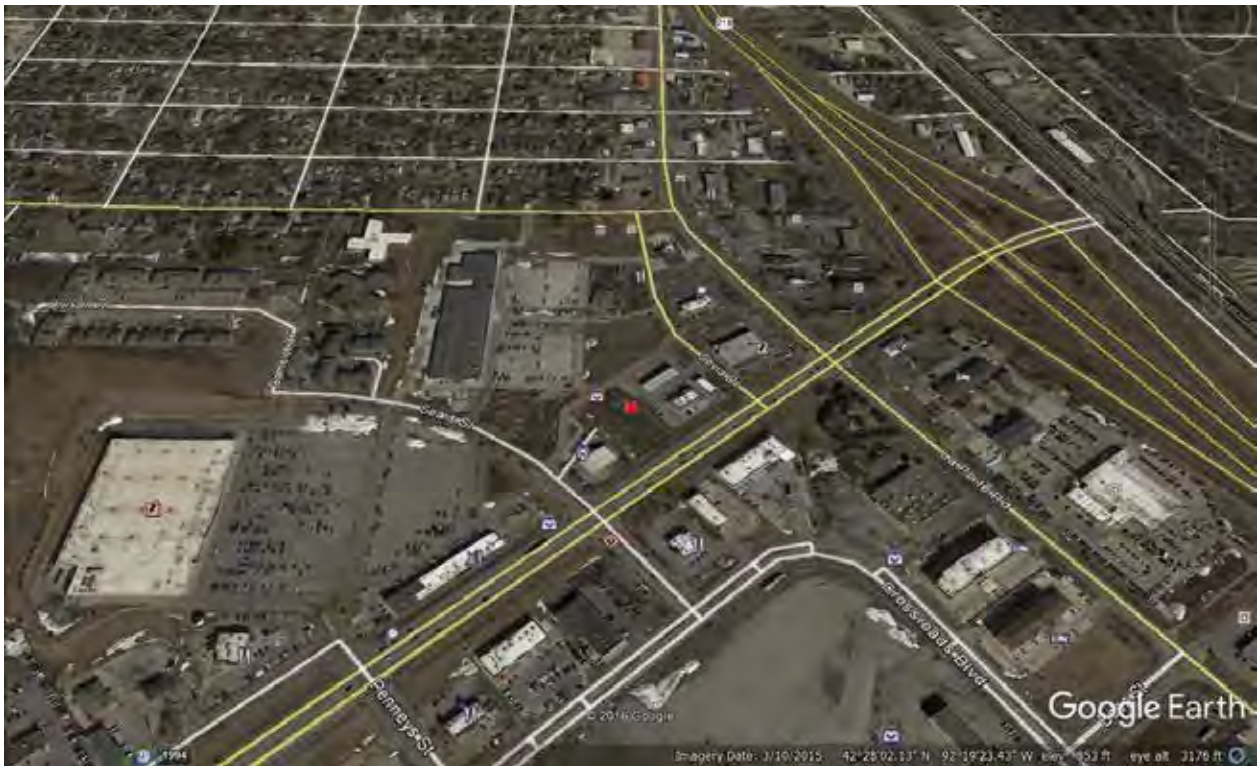
City Hall is located in downtown Cedar Rapids which is less than a half-mile from Interstate 380.

This location is an easy walk to nearby retail, restaurants, and a hotel. There are also museums and a library in the area.



Crossing Point Shopping Center

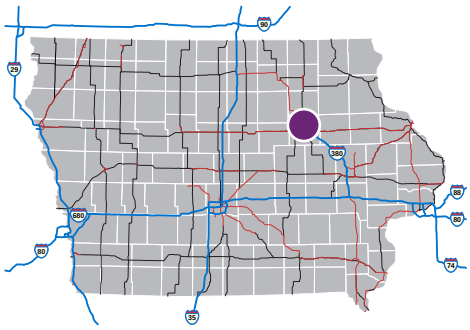
2060 Sovia Drive | Waterloo, Iowa



Sources: Google Earth; http://bloximages.chicago2.vip.townnews.com/wcfcourier.com/content/tncms/assets/v3/editorial/f/38/f38f5474-b3dc-5809-b963-d4d9827b473e/53094f0750ae8.image.jpg

This strip mall contains many new restaurants and retail businesses with availability for additional retail and restaurant development.

It is located 1300 feet from exit 72 on US 218 and is within walking distance to many other retail stores, including Target, Walmart, and the Crossroads Mall.



Marriot Courtyard Hotel

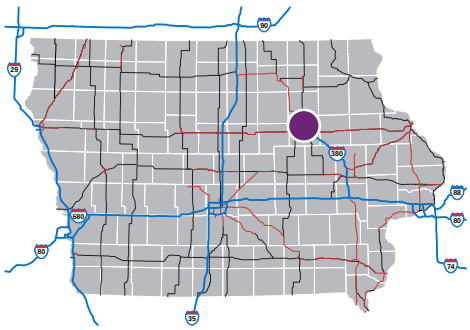
360 Westfield Avenue | Waterloo, Iowa

Sources: Google Earth; Google Map; http://www.turnerhospitality.com/2012/10/12/courtyard-by-marriott/

This future site of a Marriot Courtyard Hotel is about a quarter of a mile from the U.S. 218 interchange.

The hotel is to be constructed in June 2017, and the owner plans to install solar panels on the parking lot.

The hotel will be within walking distance of several businesses and restaurants. It is also located near the Hawkeye Community College campus and the John Deere Tractor and Engine Museum.



Casey's General Store - Waterloo

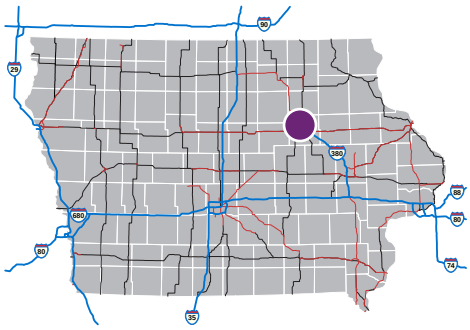
2424 Ranchero Road | Waterloo, Iowa

Sources: Google Earth; https://www.caseys.com/general-store/2879/ia/waterloo/3260-university-ave

Casey's is submitting numerous possible charging station locations, and is open to additional locations.

This site in Waterloo is located just off Exit 227 on US Hwy 20.

MidAmerican and Alliant Energy have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



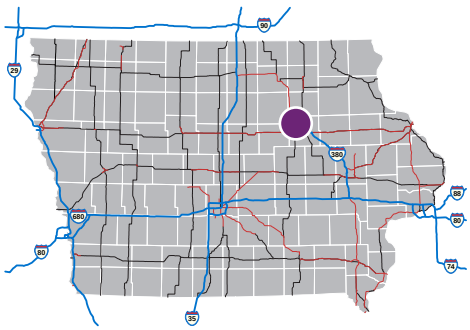
Kwik Star - Cedar Falls

7500 Nordic Drive | Cedar Falls, Iowa

Sources: Google Earth

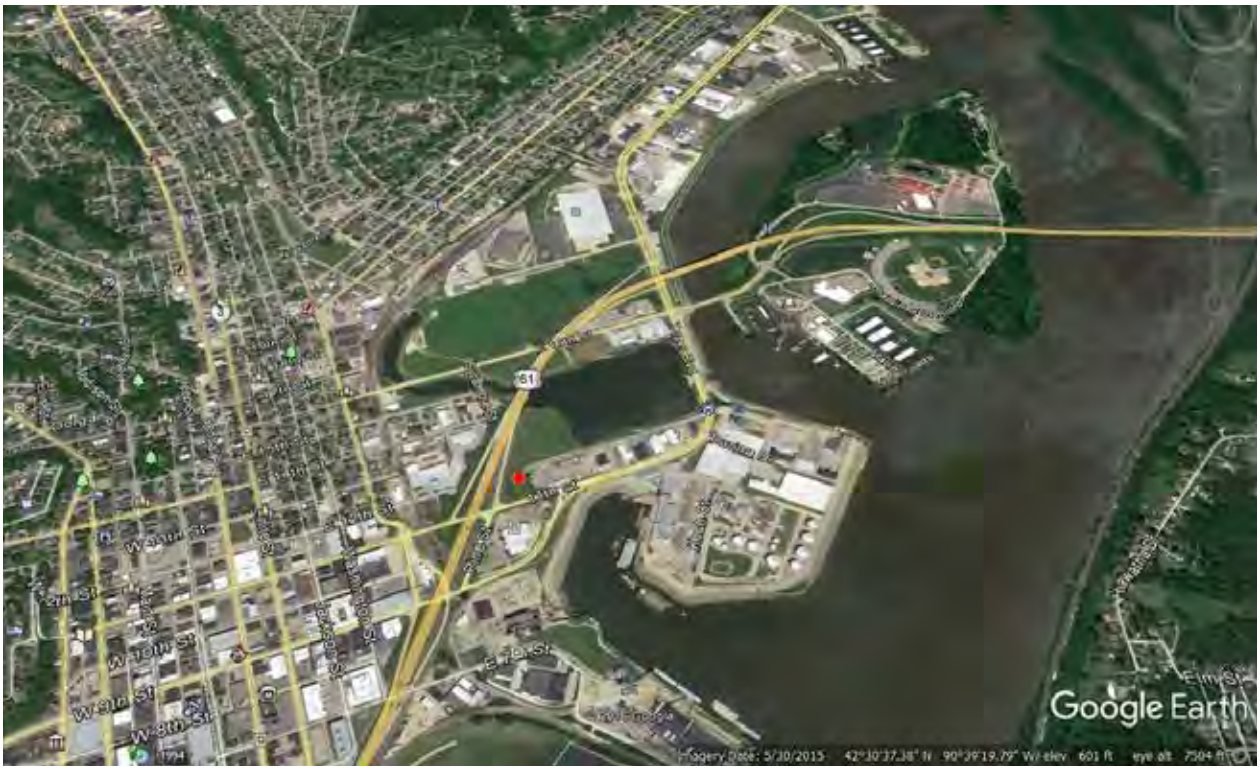
This Kwik Star Convenience Store is located just 1/8th of a mile from Exit 225 on U.S. 20. It is open 24 hours-a-day/7 days-a-week.

This location is at the interchange of Highway 20 and Highway 27/58 (Avenue of the Saints) and would be a prime location along these heavily-traveled highways. Kwik Star has installed CNG filling pumps at this location, as well as a Level 1 charging station.



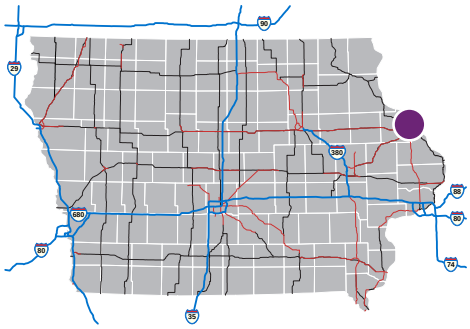
City of Dubuque

1000 East 12th Street | Dubuque, Iowa



Sources: Google Earth; http://www.history.com/topics/us-states/iowa/pictures/iowa/mississippi-river-and-town-of-dubuque-iowa-usa

In the spring of 2017 a collaboration of public and private partners will be developing a solar field and demonstration park adjacent to this site. Capacity for EV charging facilities is easily incorporated within the project (set for completion summer 2017). There would be no delay for infrastructure needed at this site. City will also be completing the adjacent bike and walking trail. The site is located across the street from a new municipal service center and one block north of an existing Alliant Energy transmission facility. There is new commercial construction occurring within 1,000 yds in three directions. It is also adjacent to the riverfront, museum and downtown districts. Recent estimates place annual tourist visitors to Dubuque at 1,500,000 (one and one-half million).



Kum & Go - Neola

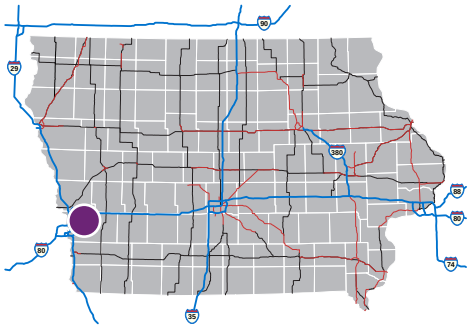
29356 298th Street | Neola, Iowa

Sources: Google Earth; Google Map

Kum & Go is submitting numerous possible charging station locations.

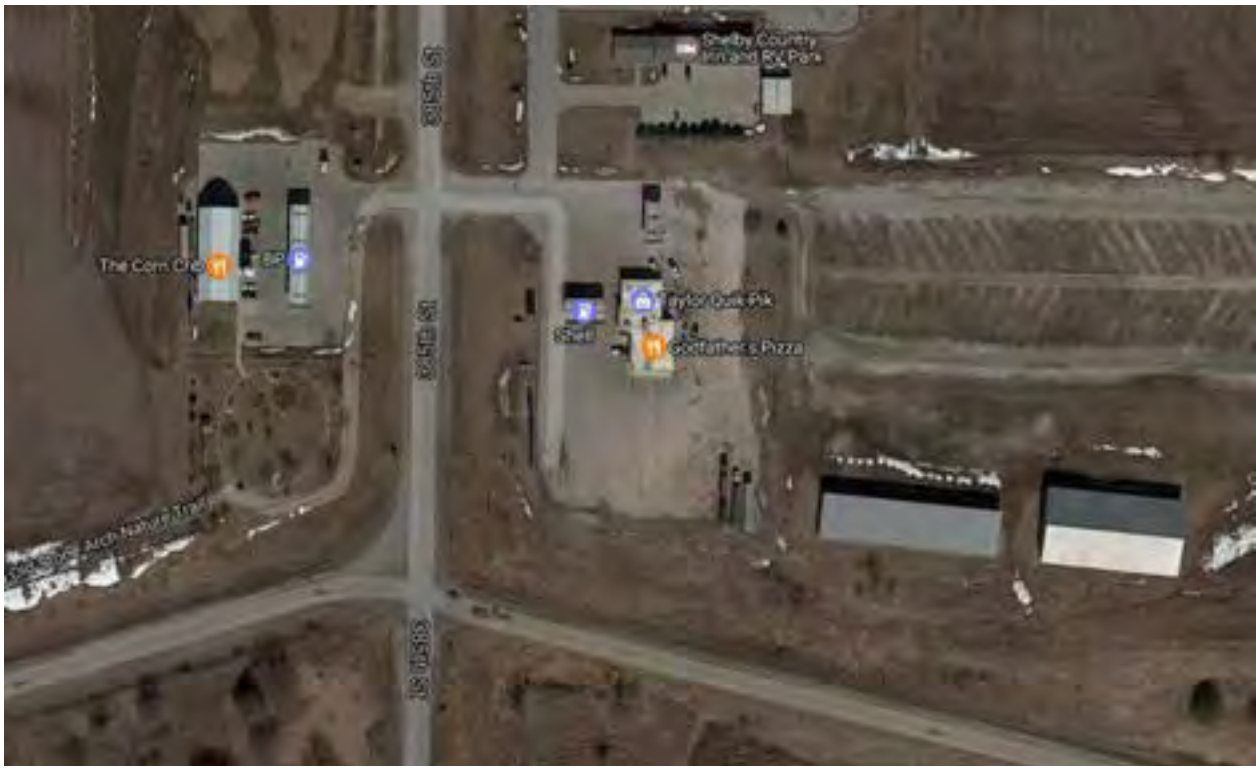
This convenience store is located just off of Interstate 80, Exit 123.

MidAmerican, Alliant Energy, and local rural electric cooperatives (RECs) have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



Exit 34 - Shelby

12 East Street and 13 East Street | Shelby, Iowa



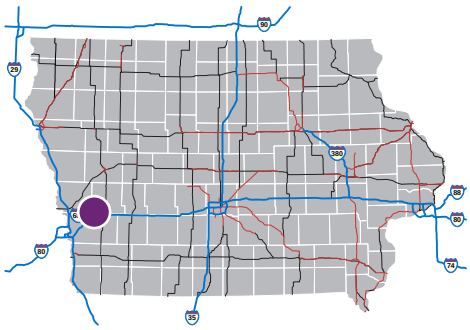
Sources: Google Earth; Google Map; http://thecorncribshelbyiowa.com;

There are two potential locations directly off of Interstate 80's Exit 34 to Shelby, Iowa.

The first location is on 12 East Street and is called The Corn Crib. It is a BP gas station with a restaurant serving home-style food inside a large red barn.

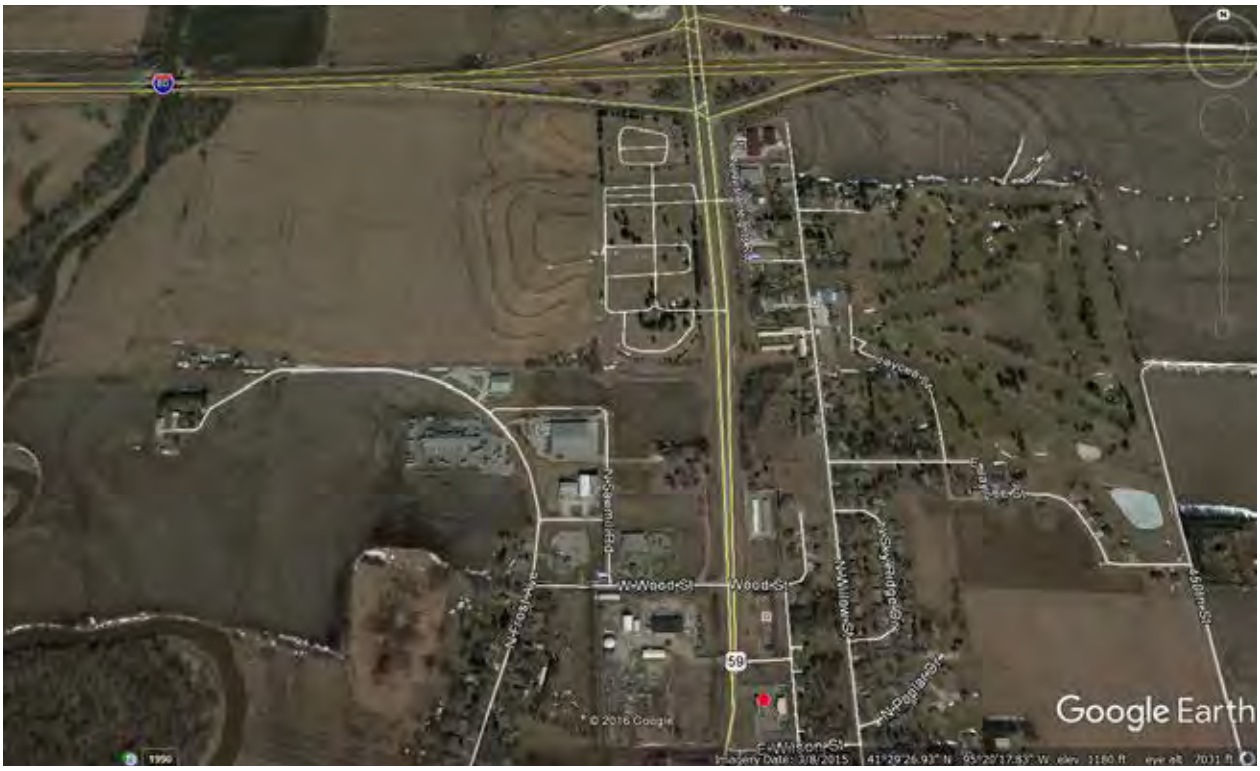
The second location is on 11 East Street and is called Taylor Quik-Pik. It is a Shell gas station, has a diner, fast food, and a convenience store.

Both locations are near a Dairy Queen, RV campground, motel, walking trail, and a small Welcome Center Park.



Casey's General Store - Avoca

1019 North Chestnut 12th Streeet | Avoca, Iowa

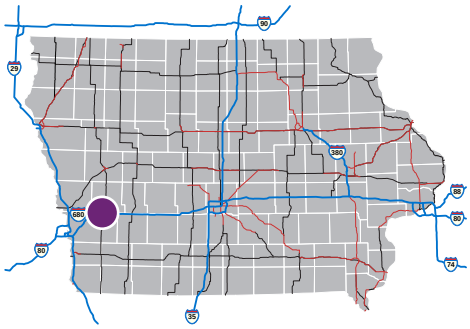


Sources: Google Earth; https://www.caseys.com/general-store/2835/ia/avoca/1019-n-chestnut-st

Casey's is submitting numerous possible charging station locations, and is open to additional locations.

The site in Avoca has the potential for partnership aspects with MidAmerican Energy. It is located approximately 1 mile south of Exit 40 on Interstate 80.

MidAmerican and Alliant Energy have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



Kum & Go - Stuart

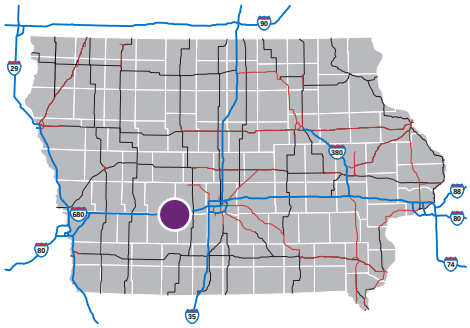
629 South Division Street | Stuart, Iowa

Sources: Google Earth; Google Map

Kum & Go is submitting numerous possible charging station locations.

This site is located just off of Interstate 80, Exit 93. It is within walking distance to several restaurants and a hotel.

MidAmerican, Alliant Energy, and local rural electric cooperatives (RECs) have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



Kum & Go - Waukee

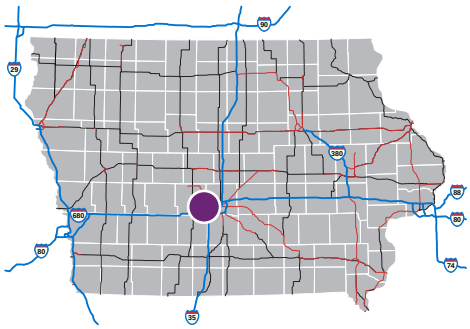
3105 Grand Prairie Parkway | Waukee, Iowa

Sources: Google Earth; Google Map

Kum & Go is submitting numerous possible charging station locations.

This is a new site located just about a mile off of Interstate 80, Exit 118.

MidAmerican, Alliant Energy, and local rural electric cooperatives (RECs) have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



Kum & Go - West Des Moines

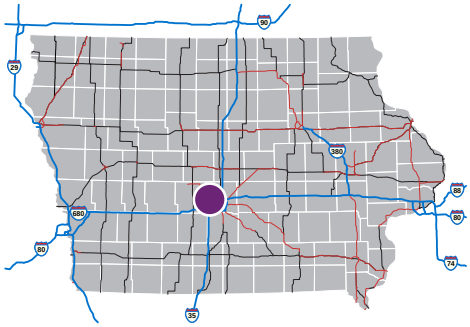
5308 University Avenue | West Des Moines, Iowa

Sources: Google Earth; Google Map

Kum & Go is submitting numerous possible charging station locations.

This site is located just off of Interstate 35/80, Exit 124. There are several restaurants, retail stores, and hotels within walking distance of this location.

MidAmerican, Alliant Energy, and local rural electric cooperatives (RECs) have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



Kum & Go - Des Moines

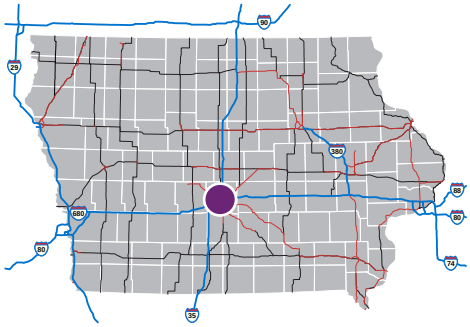
5050 Northwest 2nd Avenue | Des Moines, IA

Sources: Google Earth; Google Map

Kum & Go is submitting numerous possible charging station locations.

This site is located just off of Interstate 35/80, Exit 135. There are several restaurants and retail stores within walking distance of this location.

MidAmerican, Alliant Energy, and local rural electric cooperatives (RECs) have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



Outlets of Des Moines

801 Bass Pro Drive Northwest | Altoona, Iowa

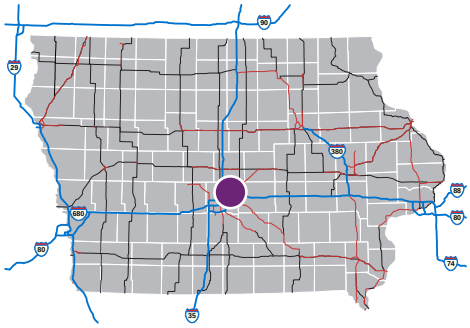
Sources: Google Earth, http://www.outletsofdesmoines.com/location

The Outlets of Des Moines will feature approximately 70 major-label outlet stores and restaurants.

The Outlets is expected to attract over 1.5 million visitors annually and is adjacent to the only Bass Pro Shops in Iowa and one of the initial phases of the 176-acre Shoppes at Prairie Crossing development.

The location is within walking distance to a casino & racetrack, as well as an amusement park featuring over 100 rides, shows, and attractions.

Underground conduit is in place to serve charging stations. Construction on the buildings is ongoing and will be substantially complete on July 2017. The Outlets will be open for business on October 20, 2017.



Kum & Go - Des Moines

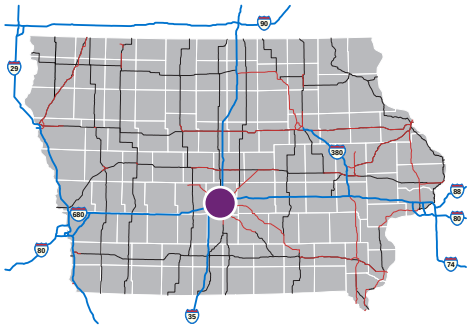
4960 East Broadway Avenue | Des Moines, Iowa

Sources: Google Earth; Google Map

Kum & Go is submitting numerous possible charging station locations.

This site is located 1.5 miles off of Interstate 80, Exit 142. It is within walking distance to hotels and several retail shops.

MidAmerican, Alliant Energy, and local rural electric cooperatives (RECs) have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



Casey's General Store - Altoona

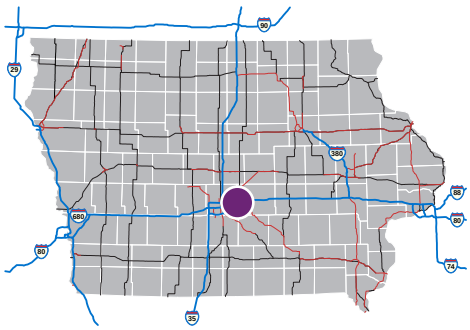
1419 1st Avenue North | Altoona, Iowa

Sources: Google Earth; https://www.caseys.com/general-store

Casey's is submitting numerous possible charging station locations, and is open toadditional locations.

The site in Altoona has the potential for partnership aspects with MidAmerican Energy. It is located approximately 2 miles from Exit 143 on Interstate 80 and is open 24 hours.

MidAmerican and Alliant Energy have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



Kum & Go - Colfax

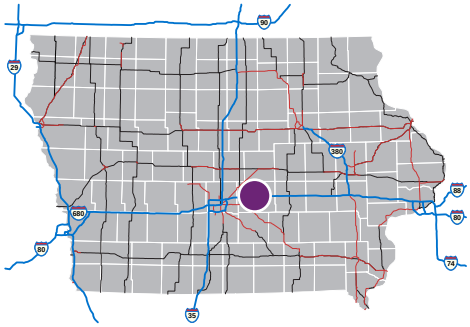
1200 North Walnut | Colfax, Iowa

Sources: Google Earth; Google Map

Kum & Go is submitting numerous possible charging station locations.

This site is located just off of Interstate 80 Exit 155. There are several gas stations located near this location.

MidAmerican, Alliant Energy, and local rural electric cooperatives (RECs) have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



Exit 164 - Newton

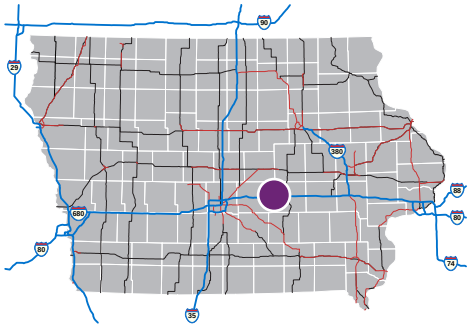
1205 West 19th Street South and 1700 South 15th Avenue West | Newton, Iowa

Sources: Google Earth; http://koa.com/content/campgrounds/newton/attractions/museumoj4uukjaosq.jpg.axd?preset=campgroundphoto;; http://www.allenindustries.com/wpcontent/uploads/2014/11/Hardees-400x500.jpg

Interstate 80 exit 164 in Newton has two locations that are interested in hosting DC Fast Charging stations.

The first location is on the west of Iowa 14, and is a new construction project for a Hardees fast food restaurant. This location is at the head of Newton's Hike and Bike Trail and is located less than ½ mile from the museum and the city park.

The second location is the Jasper County Museum, which features industrial, agricultural, commercial and societal exhibits. The museum is open daily from May 1 - September 30 from 1:00 pm - 4:00 pm.



Boulders Inn and Suites

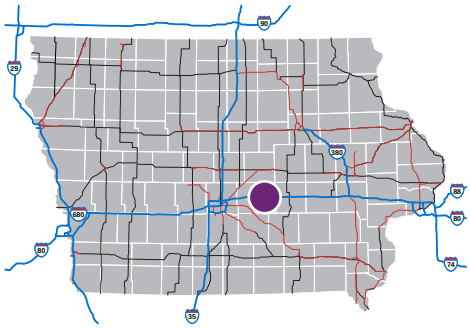
4222 South 22nd Avenue East | Newton, Iowa

Sources: Google Earth

Boulders Inn and Suites in Newton is located off of Exit 168 on Interstate 80. It is located near several gas stations, convenience stores, and fast food restaurants.

The Iowa Speedway is also located off of this exit. This tourist attraction was designed with influence from Rusty Wallace and is on the NASCAR circuit.

This business is open 24 hours-a -day/ 7-days-a-week and offers wireless internet.



Kum & Go - Grinnell

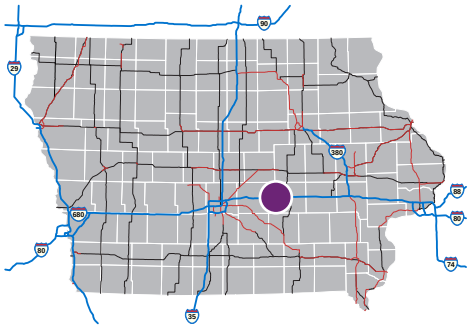
715 Lang Creek Avenue | Grinnell, Iowa

Sources: Google Earth; Google Map

Kum & Go is submitting numerous possible charging station locations.

This convenience store is located just off of Interstate 80, Exit 182. It is within walking distance to several hotels.

MidAmerican, Alliant Energy, and local rural electric cooperatives (RECs) have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



Casey's General Store - Williamsburg

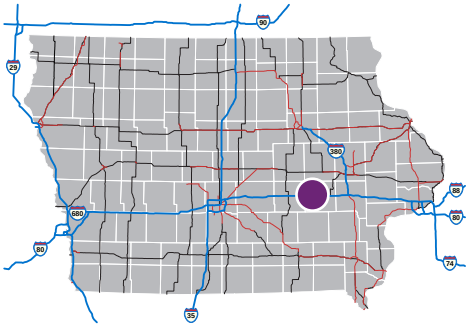
130 West Evans | Williamsburg, Iowa

Sources: Google Earth; Google Map

Casey's is submitting numerous possible charging station locations, and is open to additional locations.

This site in Williamsburg is located just off Exit 220 on Interstate 80. The Tanger Outlet Center and restaurants are within walking distance from this Casey's.

MidAmerican and Alliant Energy have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



Kum & Go - Coralville

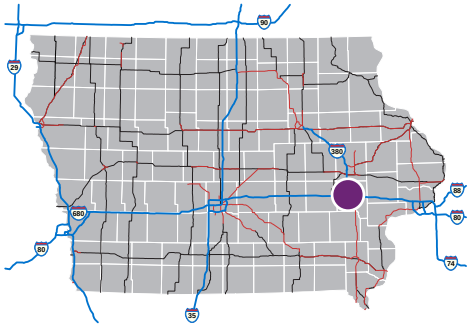
822 1st Avenue | Coralville, Iowa

Sources: Google Earth; Google Map

Kum & Go is submitting numerous possible charging station locations.

This site is located just off of Interstate 80, Exit 242. There are several restaurants, retail stores, and hotels within walking distance of this location.

MidAmerican, Alliant Energy, and local rural electric cooperatives (RECs) have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



Iowa 80 Truckstop

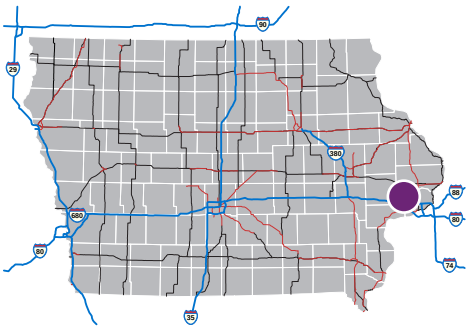
755 West Iowa 80 Road | Walcott, Iowa

Sources: Google Earth, https://media-cdn.tripadvisor.com/media/photo-s/03/d8/98/49/iowa-80-world-s-largest.jpg; http://static.panoramio.com/photos/original/20929209.jpg

Marketed as the “World’s Largest Truckstop,” this establishment serves over 5,000 customers a day. The Iowa 80 Truckstop is an iconic travel destination in Iowa and has been featured in newspapers and on television.

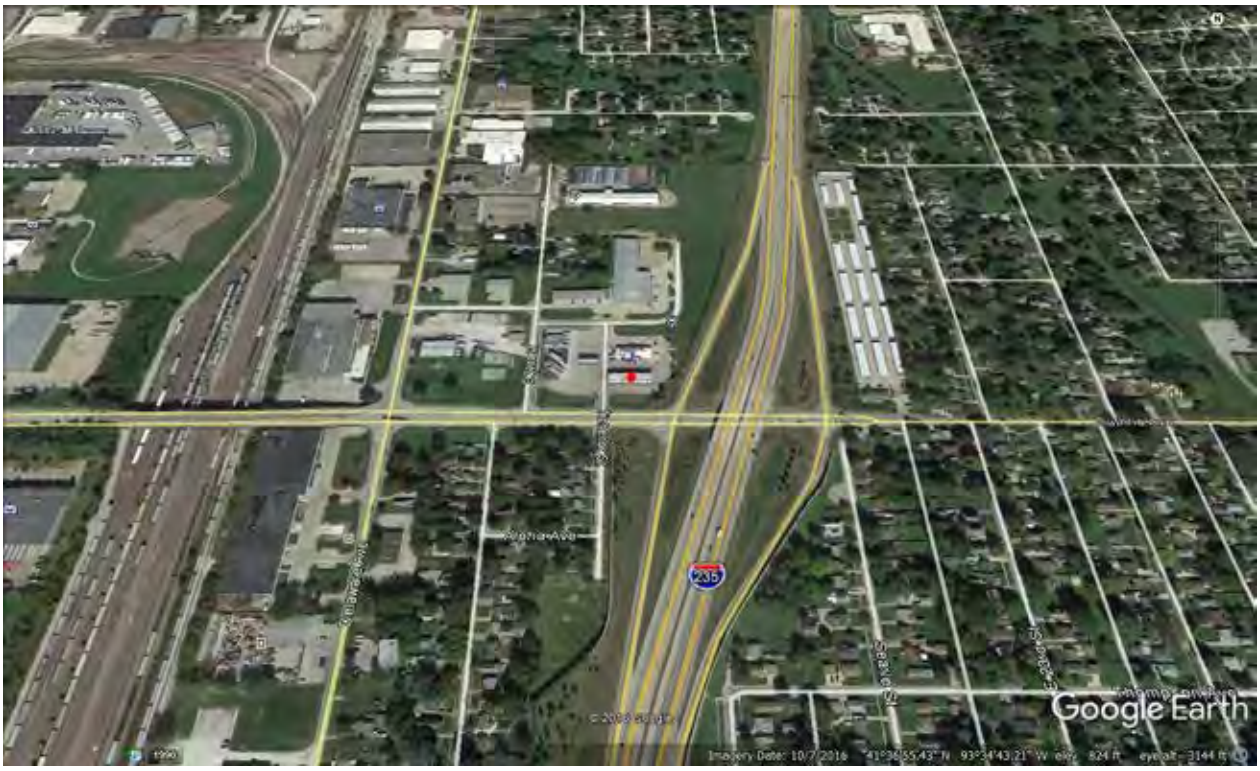
It is located on the eastern edge of Iowa between Chicago and Des Moines, along Interstate 80. They have 212 acres and have developed 90 acres to include eight different restaurants, gift store, and a convenience store. The Iowa 80 Trucking Museum is on site, which is free to the public and contains over 75 antique trucks, and includes two 1911 Walker electric trucks.

They are currently working on an expansion project that will start in the 2nd quarter of 2017.



Kum & Go - Des Moines

2110 Guthrie Avenue | Des Moines, Iowa

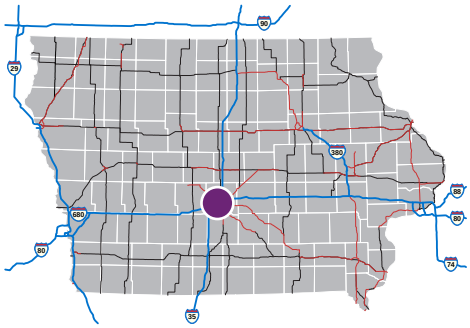


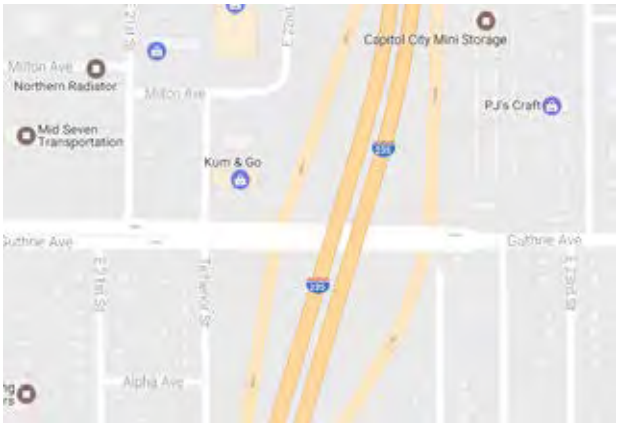
Sources: Google Earth; Google Map

Kum & Go is submitting numerous possible charging station locations.

This convenience store is located just off of Interstate 235, Exit 11. This location currently has Level 2 EV charging stations available.

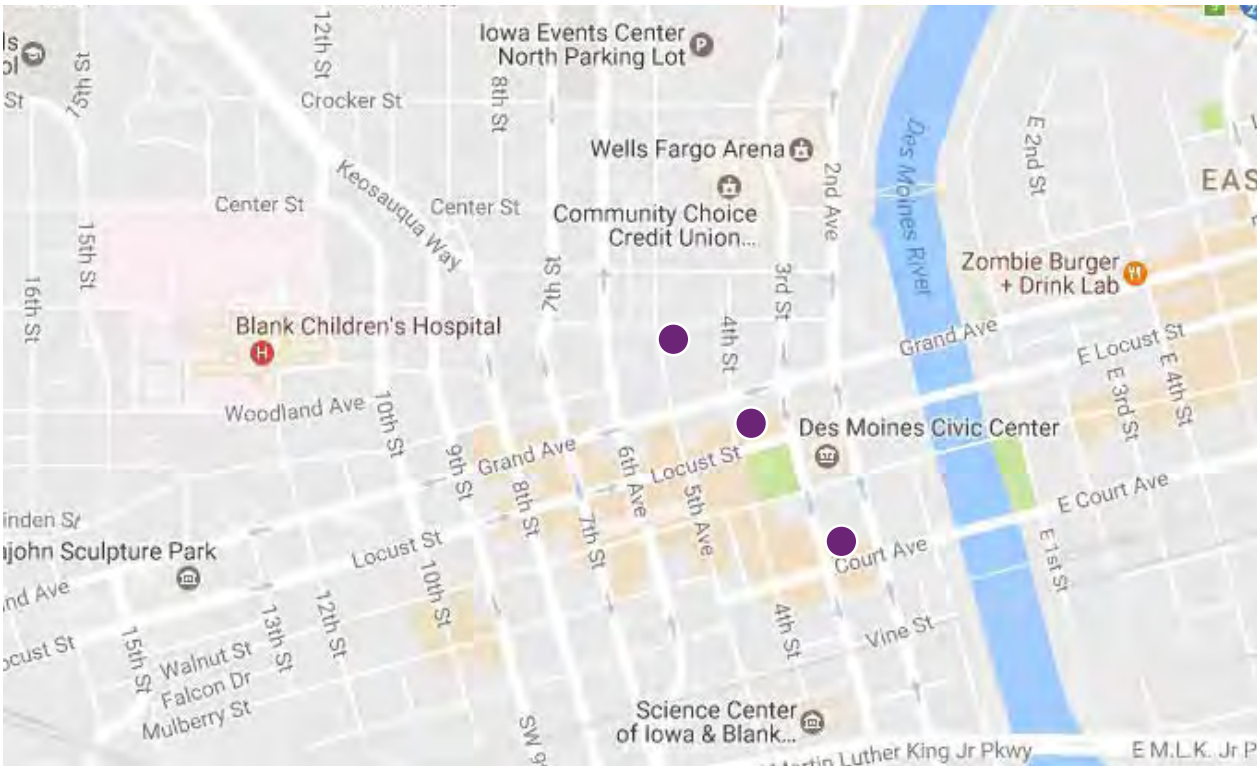
MidAmerican, Alliant Energy, and local rural electric cooperatives (RECs) have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.





Des Moines Parking Garages

Parking Ramps at: 3rd and Court, 4th and Grand, 5th and Keo Way | Des Moines, Iowa



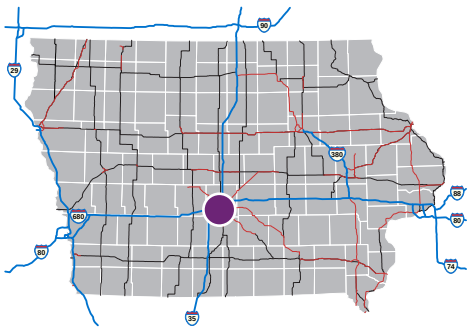
Sources: Google Earth; Google Maps

The city of Des Moines has proposed installing DC Fast Charging stations in three parking ramps which are located in the downtown area near many amenities and attractions near Interstate 235.

The first location is on 3rd and Court Ave.They will need to find a suitable parking stall location on the 2nd floor due to existing ground lease. This parking garage is located within the Des Moines Farmers Market area.

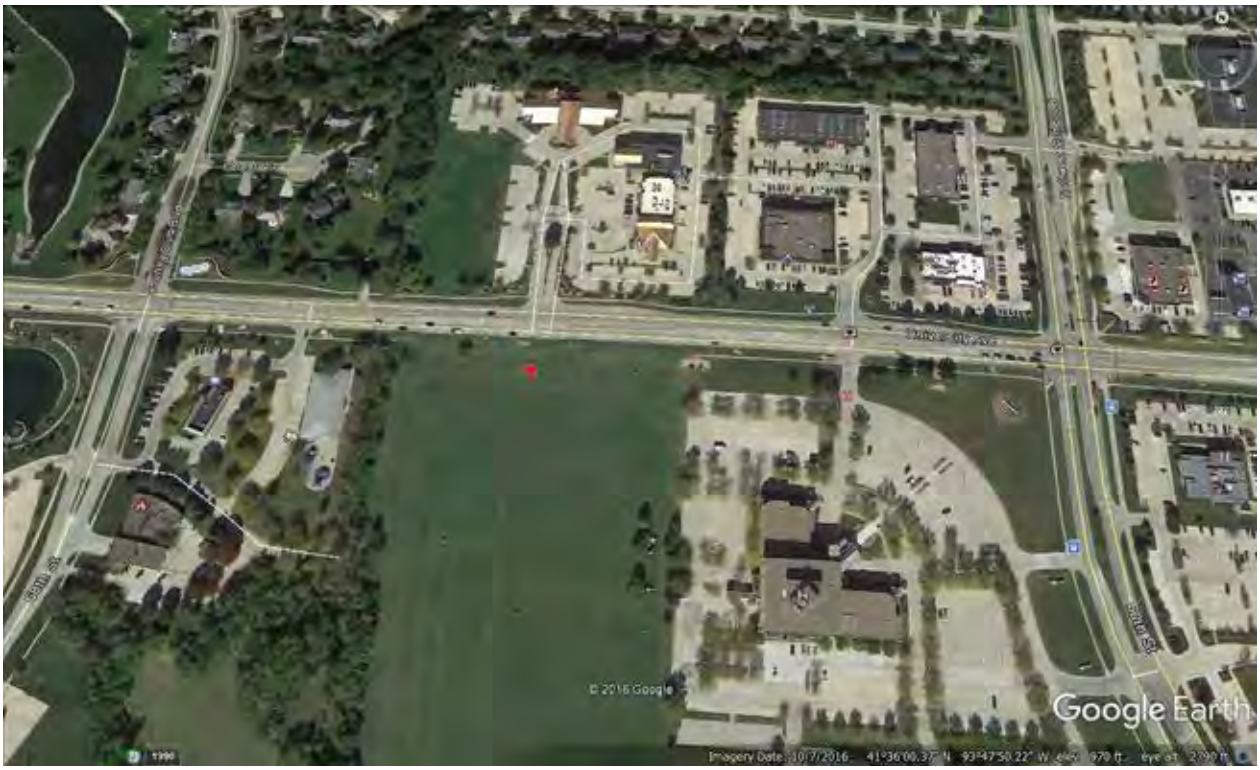
The other locations are on 4th and Grand Avenue and 5th and Keo Way. The owners of these parking garages have experience with electric vehicle charging stations.

Both of these garages will be undergoing structural repairs in the near future.



JKoester Properties

6580 University Avenue | Windsor Heights, Iowa

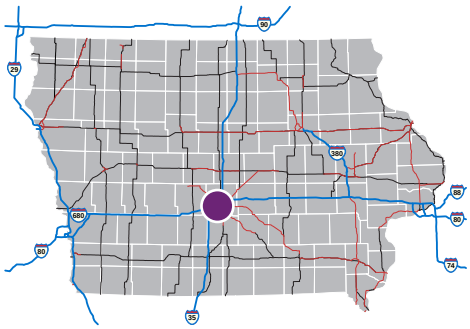


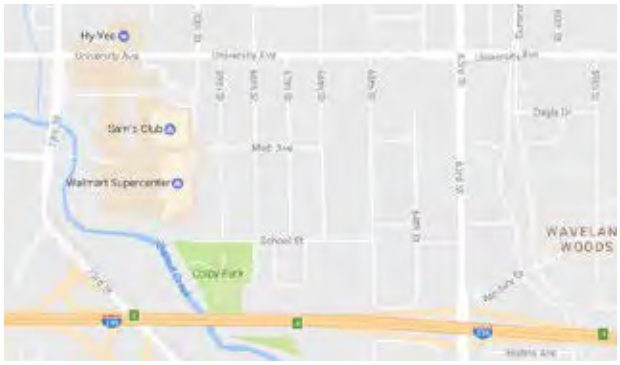
Sources: Google Earth, Google Maps

This is a new 53,000 square foot building planned for construction in May 2017. It will consist of three restaurants and an office space.

It is conveniently located approximately one mile from the Interstate 35/80 and 63rd Street interchange in Windsor Heights.

The location is within walking distance to a variety of restaurants, retail shops, and business offices.





Hickman Shopping Center

11895 Hickman Road | Urbandale, Iowa

Sources: Google Earth; http://x.lnimg.com/photo/poster_1920/12b78595a40642df8fc170569f11dfab.jpg

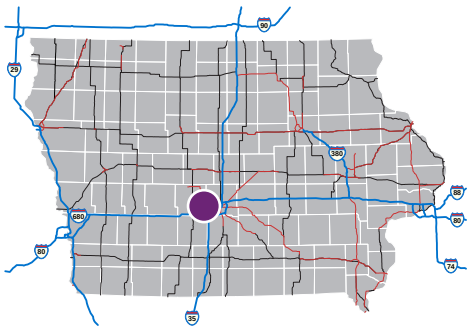
This new construction shopping center currently has seven tenants and one future tenant. It is scheduled to open in the next six months.

The current tenants consist of Caribou Coffee, Einstein Bagels, Jimmy Johns, Fresh Fit Meals, 5-Star Nutrition, Great Clips, and CryoSpa Therapy.

This location is right off the interchange of I-35/I-80 and Hickman Road in Urbandale.

It is within walking distance to several restaurants, the Clive Greenbelt Trail, and other retail establishments, to include car dealerships.

This property is located on a stretch of road that is commonly referred to as the Hickman Auto Mile due to the many car dealerships located on Hickman Road.



Casey's General Store - Urbandale

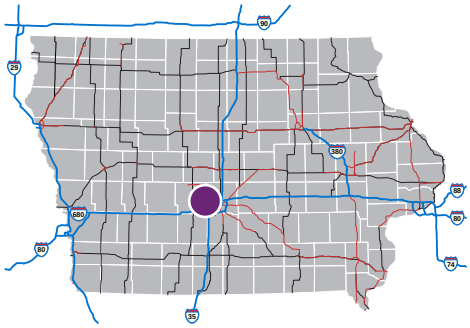
4901 86th Street | Urbandale, Iowa

Sources: Google Earth; https://www.caseys.com/general-store/2364/ia/urbandale/3935-nw-urbandale-dr

Casey's is submitting numerous possible charging station locations, and is open to additional locations.

The site in Urbandale is located just off Exit 129 on Interstate 35/80. It is located near several restaurants and retail shops.

MidAmerican and Alliant Energy have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



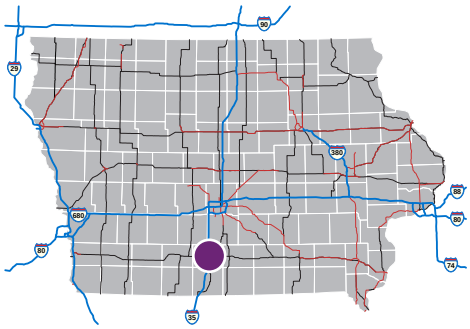
Exit 33 - Osceola

Osceola, Iowa

Sources: Google Earth

The Osceola Chamber Main Street is very excited about the opportunity, but would like to know more about the short vs. long term expenses, ongoing maintenance, expectations of the business, etc.

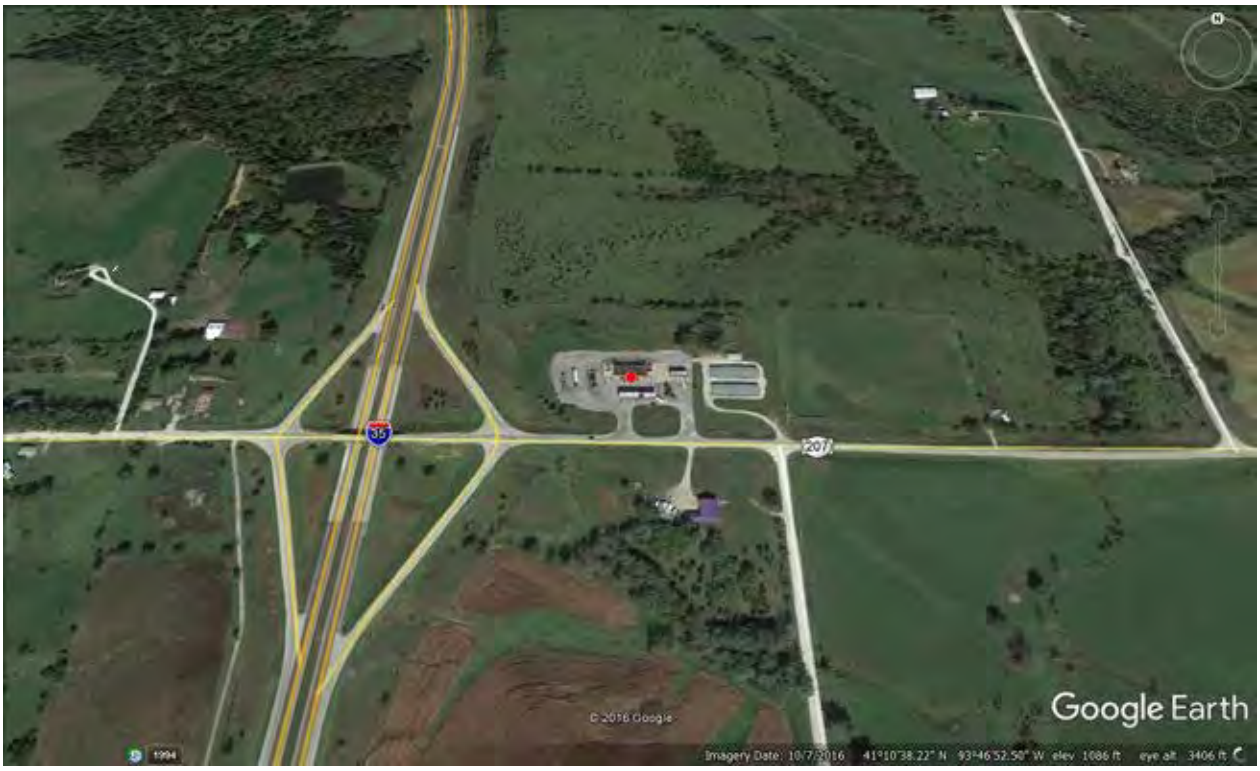
According to the Chamber, there are a few places located near Exit 33 off of Interstate 35 that would meet the qualifications for DC Fast Charging Stations.



OSCEOLA CHAMBER • MAIN STREET

Kum & Go - New Virginia

1453 County Highway G76 | New Virginia, Iowa

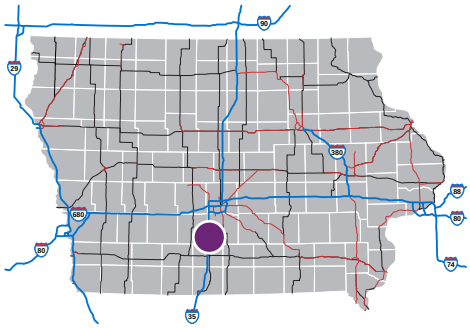


Sources: Google Earth; Google Map

Kum & Go is submitting numerous possible charging station locations.

This convenience store is located off of Interstate 35, Exit 43. There is a restaurant on the site.

MidAmerican, Alliant Energy, and local rural electric cooperatives (RECs) have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



Kum & Go - Bevington

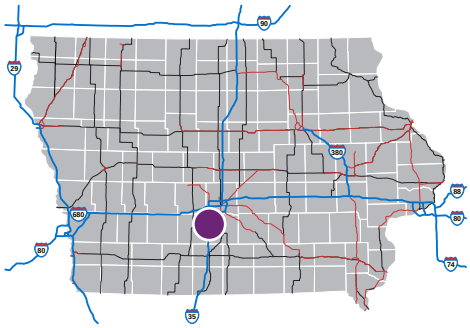
1111 IA Highway 175 | Bevington, Iowa

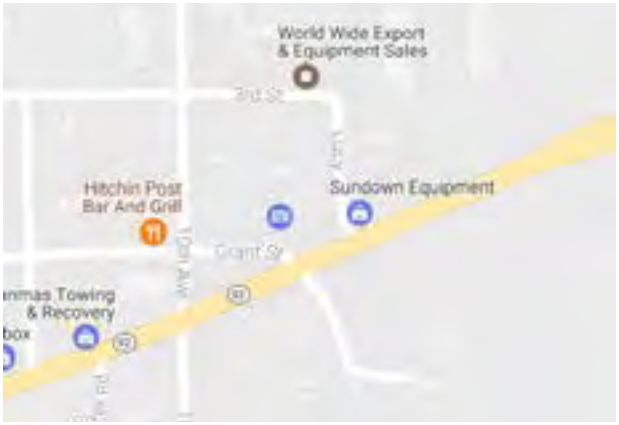
Sources: Google Earth; Google Map

Kum & Go is submitting numerous possible charging station locations.

This convenience store is located just off of Interstate 35, Exit 56. It offers free wireless internet and is walking distance to restaurants.

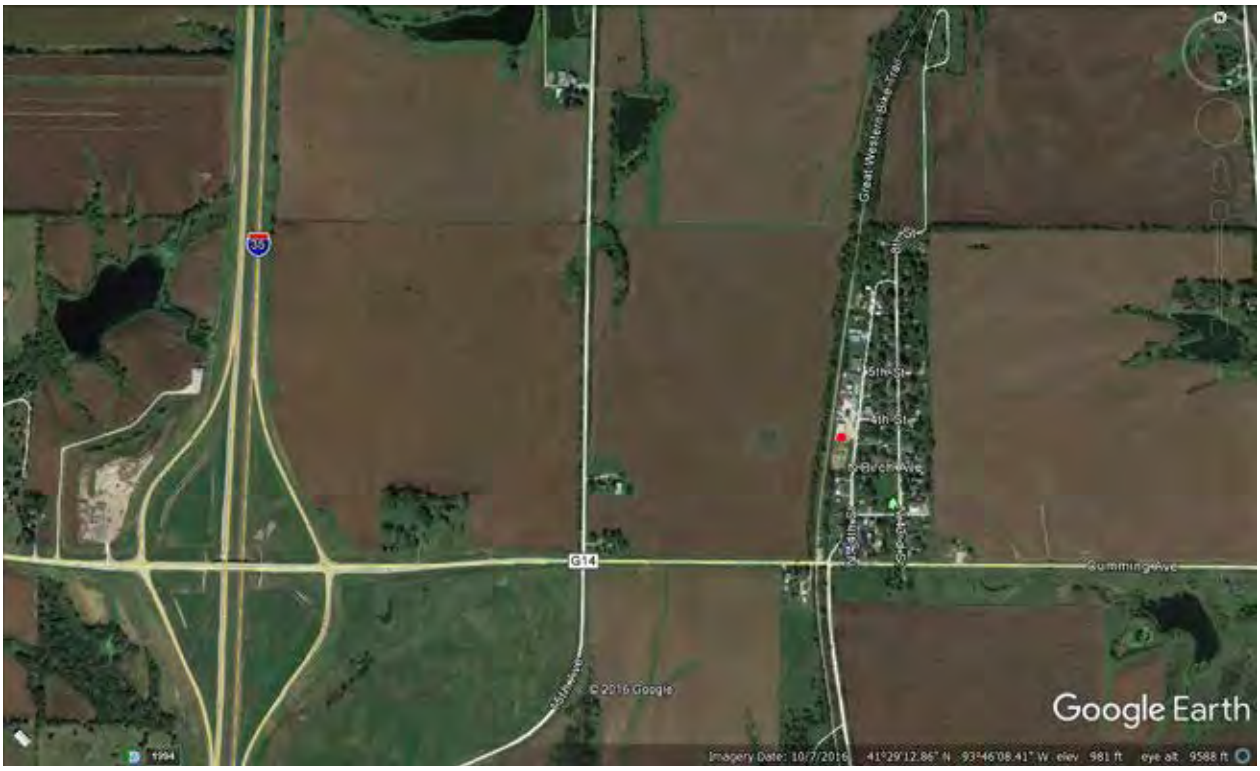
MidAmerican, Alliant Energy, and local rural electric cooperatives (RECs) have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.





Absolute Transportation

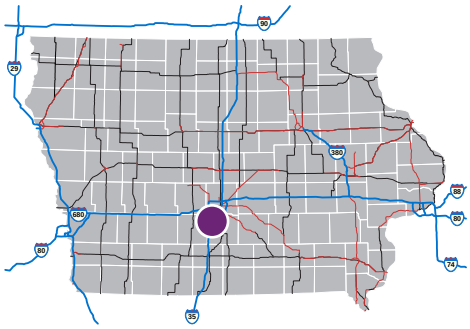
401 North 44th Street | Cumming, Iowa



Sources: Google Earth, Google Maps

Absolute Transportation is a Party/Event transportation company that boasts Iowa's "most diverse fleet of buses, trolleys, and limousines."

They have an office in Cumming, Iowa which is located just a mile off of Interstate 35.



Kum & Go - Ankeny

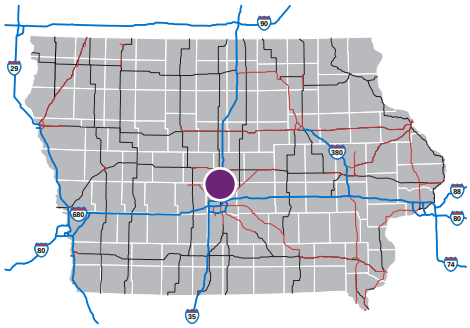
3603 Northeast Otter Creek | Ankeny, Iowa

Sources: Google Earth; Google Map

Kum & Go is submitting numerous possible charging station locations.

This convenience store is located just off of Interstate 35, Exit 94. It is within walking distance to restaurants, retail shops, and a golf course.

MidAmerican, Alliant Energy, and local rural electric cooperatives (RECs) have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



Gateway and Southgate Expresse

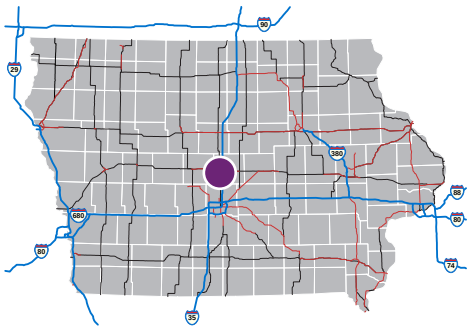
2400 University Boulevard and 110 Airport Road | Ames, Iowa

Sources: Google Earth

Gateway Expresse and Southgate Expresse in Ames are both located near U.S. 30 in Ames, which is home to Iowa State University.

Southgate Expresse is located approximately 2 miles from the Interstate 35/US 30 interchange. This location has a coffee shop and small convenience store and is near several retail businesses, including four car dealerships, Sam's Club, and Lowes.

Gateway Expresse is located approximately 3.5 miles from the Interstate 35/US 30 interchange. This location is within walking distance to several hotels and a conference center.



Kum & Go - Ames

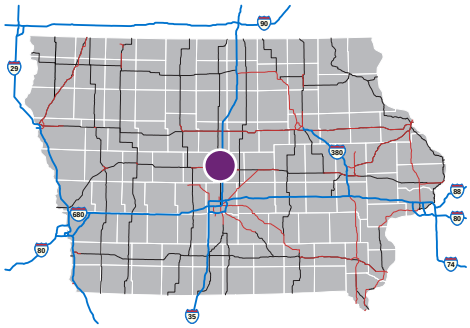
2801 East 13th Street | Ames, Iowa

Sources: Google Earth; Google Map

Kum & Go is submitting numerous possible charging station locations.

This convenience store is located just off of Interstate 35, Exit 113. It is within walking distance to several restaurants and hotels.

MidAmerican, Alliant Energy, and local rural electric cooperatives (RECs) have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



Casey's General Store - Story City

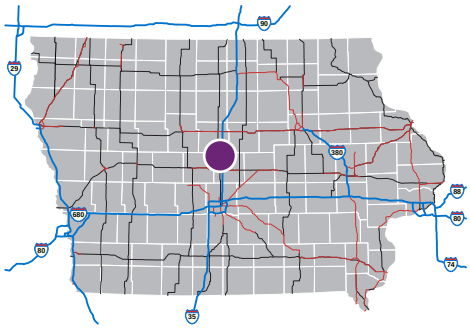
1625 East Broad Street | Story City, Iowa

Sources: Google Earth; https://www.caseys.com/general-store/

Casey's is submitting numerous possible charging station locations, and is open to additional locations.

The site in Story City is located just off Exit 124 on Interstate 35 and is open 24 hours. It is located near several restaurants and retail shops, to include an antique shop and an outlet mall.

MidAmerican and Alliant Energy have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



Kum & Go - Ellsworth

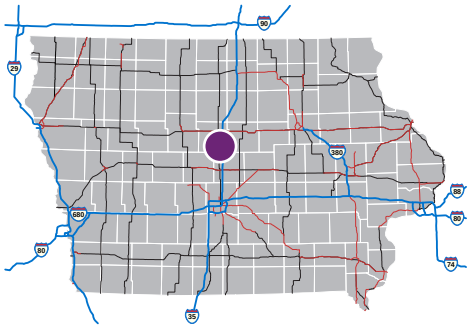
1111 IA Highway 175 | Ellsworth, Iowa

Sources: Google Earth; Google Map

Kum & Go is submitting numerous possible charging station locations.

This convenience store is located just off of Interstate 35, Exit 133. It is walking distance to several restaurants.

MidAmerican, Alliant Energy, and local rural electric cooperatives (RECs) have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



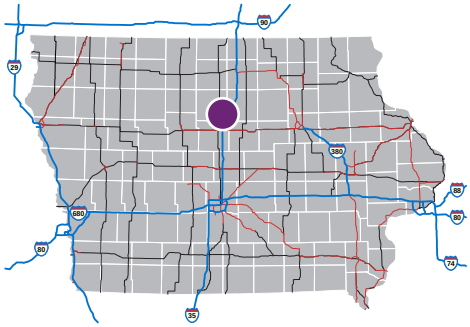
Dows Junction

904 Cardinal Avenue | Dows, Iowa

Sources: Google Earth, https://s3-media2.fl.yelpcdn.com/bphoto/exkJI5keTUiyNLfSMrLC2A/o.jpg

Dows Junction is located at exit 159 off of Interstate I-35 and is across from the Iowa Visitor Center rest stop.

The travel center is open 24 hours-a-day/ 7 days-a-week and features a convenience store, restaurants, lounge, and wireless internet.



Kum & Go - Clear Lake

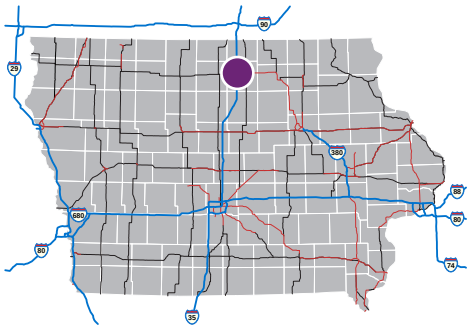
2905 4th Avenue South | Clear Lake, Iowa

Sources: Google Earth; Google Map

Kum & Go is submitting numerous possible charging station locations.

This site is located just off of Interstate 35 Exit 193. There are several restaurants and convenience stores near this location.

MidAmerican, Alliant Energy, and local rural electric cooperatives (RECs) have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



Kum & Go - Clear Lake

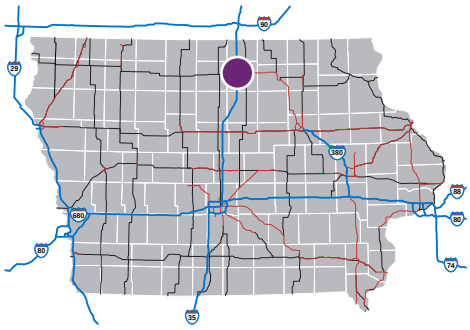
2005 US Highway 18 | Clear Lake, Iowa

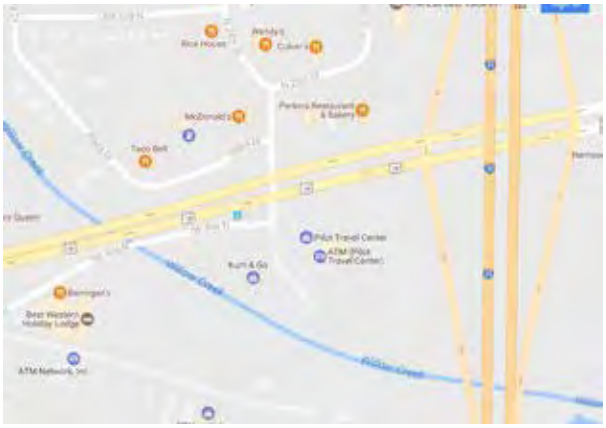
Sources: Google Earth; Google Map

Kum & Go is submitting numerous possible charging station locations.

This site is located just off of Interstate 35 Exit 194. There are several restaurants and convenience stores near this location.

MidAmerican, Alliant Energy, and local rural electric cooperatives (RECs) have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.





Casey's General Store - Clear Lake

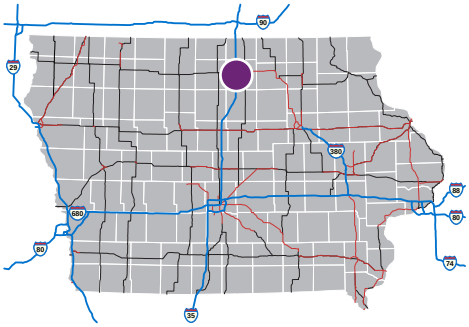
6 Plaza Drive | Clear Lake, Iowa

Sources: Google Earth; https://www.caseys.com/general-store/1427/ia/clear-lake/6-plaza-dr

Casey's is submitting numerous possible charging station locations, and is open to additional locations.

This site is located just off of Interstate 35 Exit 194. There are several restaurants and convenience stores near this location.

MidAmerican and Alliant Energy have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



Kum & Go - Northwood

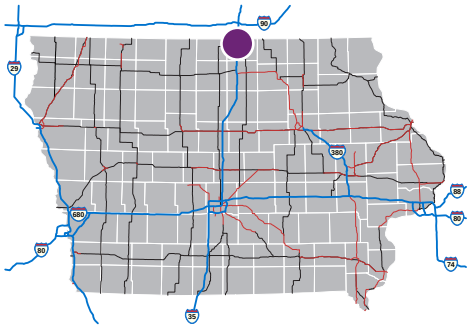
818 Highway 105 | Northwood, Iowa

Sources: Google Earth; Google Map

Kum & Go is submitting numerous possible charging station locations.

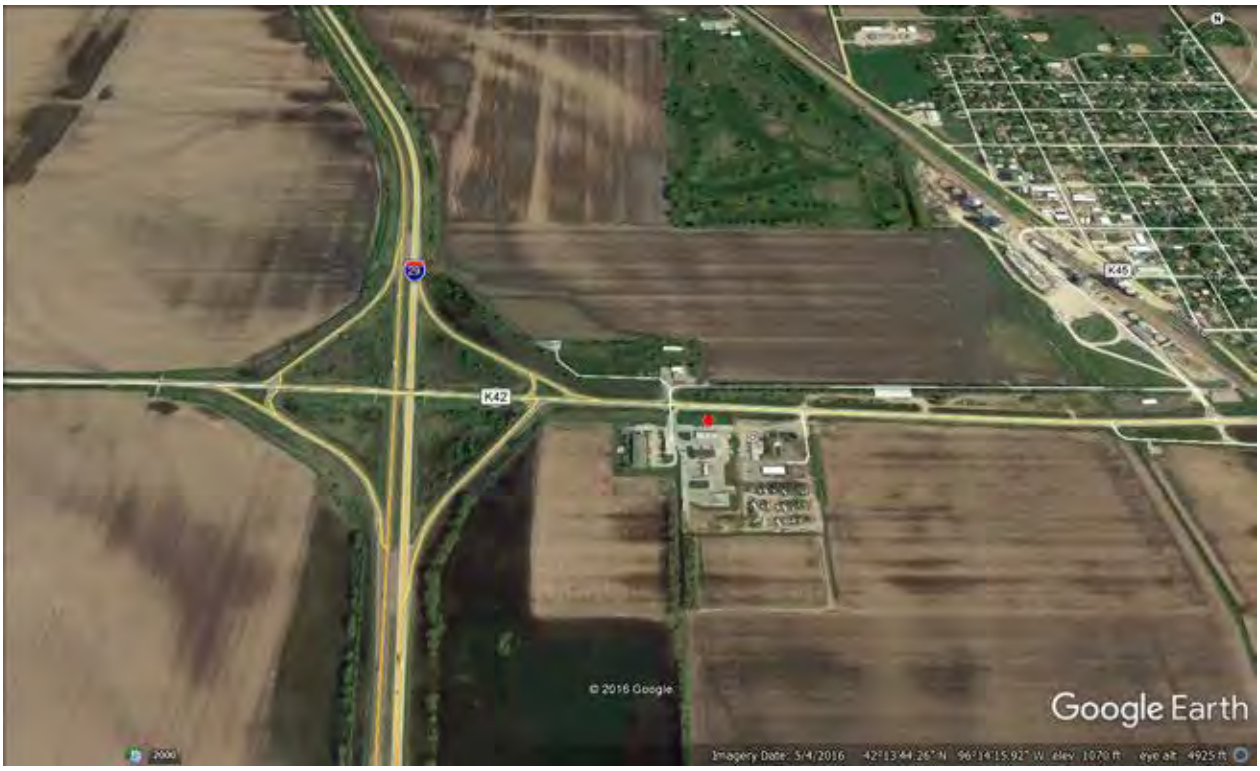
This convenience store is located just off of Interstate 35, Exit 214. It is within walking distance to several restaurants, a Welcome Center, hotel, and Diamond Jo's Casino.

MidAmerican, Alliant Energy, and local rural electric cooperatives (RECs) have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



Kum & Go - Sloan

1864 Old Hwy 141 | Sloan, Iowa

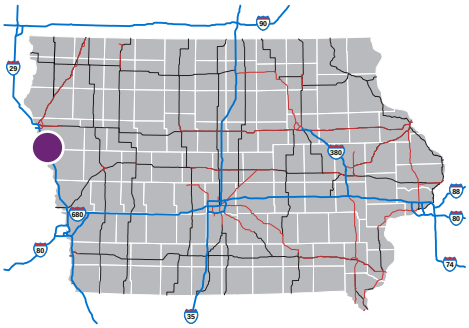


Sources: Google Earth; Google Map

Kum & Go is submitting numerous possible charging station locations.

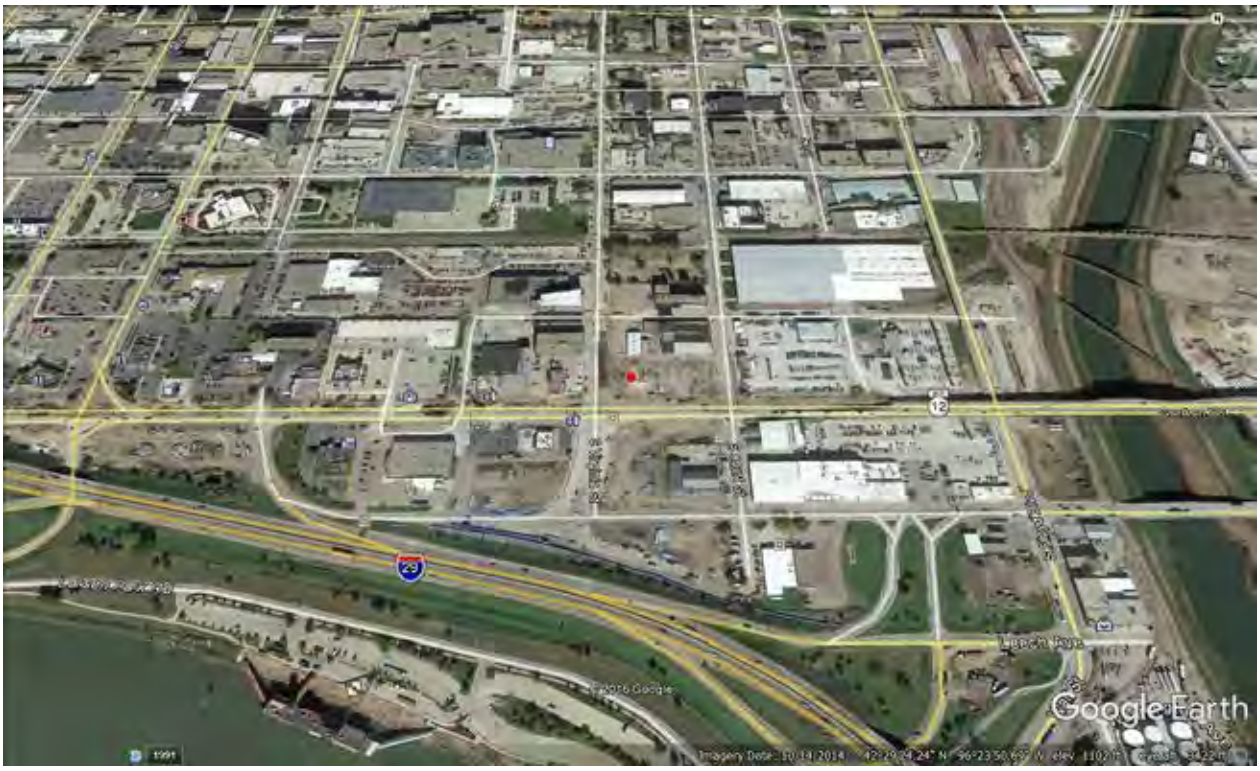
This convenience store is located just off of Interstate 29, Exit 127. It is within walking distance to restaurants and hotels.

MidAmerican, Alliant Energy, and local rural electric cooperatives (RECs) have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.



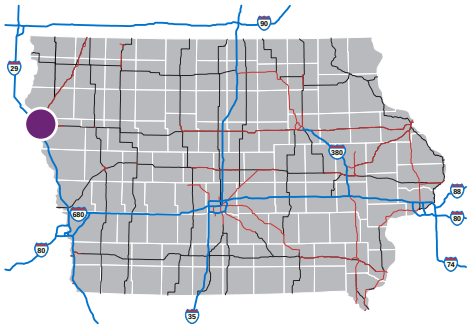
Kum & Go - Sioux City

1005 Gordon Drive | Sioux City, Iowa



Sources: Google Earth; Google Map

Kum & Go is submitting numerous possible charging station locations.

This convenience store is located just off of Interstate 29, Exit 147b. It is within walking distance to several restaurants, retail shops, car dealerships, and hotels.

MidAmerican, Alliant Energy, and local rural electric cooperatives (RECs) have indicated that they would provide infrastructure on sites within their service territories to serve additional load requirements.