**Rice County** Environmental Services 320 Third Street NW Faribault, MN 55021

# Wolf Creek Autobahn – Preliminary Development Plan Project Narrative

# **Project Description**

Wolf Creek Motorsports, LLC. (project proposer) is proposing to construct a new combined residential and commercial development centered on an automotive recreation complex called Wolf Creek Autobahn. The new development will be located on 452.98 acres located in Forest Township, Rice County, Minnesota.

Project Site - Existing Conditions

The 452.98 acre project site is located east of Bagley Avenue (aka County State-Aid Highway (CSAH) 46) and west of US Interstate 35. 124.48 acres are located south of Millersburg Boulevard (aka CSAH 1) and 328.50 acres are located north of Millersburg Boulevard.

The main current use at the project site is agricultural lands, including crop fields and several farmsteads. The site also includes some wetland and forested areas. Wolf Creek is located immediately to the south of the site and Heath Creek flows through the northeastern most corner of the project site. The Wolf Creek Autobahn development will not disturb either creek. The project site includes six parcels which are summarized in Table 1.

Parcel ID	Parcel Size	Current Use	Project Details
0613225001	122.70 ac	Agricultural	Farmstead to be removed
		Homestead	
0612325001	72.85 ac	Agricultural	No existing infrastructure
0612300001	51.74 ac	Agricultural	Portion of forest to be removed
0612225001	138.64 ac	Agricultural	Farmstead to be removed
		Homestead	
0601350001	65.28	Agricultural	Farmstead to be removed
		Homestead	
0613250001	1.78	Agricultural	Farmstead to be removed
		Homestead	

#### Table 1: Parcels within the project site

### Proposed Project

The project is proposed to include multiple components of the Wolf Creek Autobahn project in a phased development, including:

- A 5.7-mile recreational automotive road course
- 300 villas with garage units
- Half-mile cart course with 100 stall parking area and 4,000 sf service building
- 20,000 square foot member clubhouse
- Four-acre entertainment area with room for temporary outdoor seating for events such as concerts and festivals.

- 150-unit Recreation Vehicle (RV) park
- 10,000 square foot retail convenience mart and fueling station
- 65,000 square feet of commercial and retail space for automotive sales and services
- Development amenities including paved trails and picnic areas

Wolf Creek Autobahn will provide memberships for use of the road course, cart track, club house, and other amenities. Memberships at Wolf Creek Autobahn for use of the road course are included with villa ownership, which will account for up to 300 memberships. Membership at Wolf Creek Autobahn will be similar to a golf and tennis style country club, where members will be able to reserve time on the road course to drive their personal vehicles, attend social/dinner events, and participate in other activities. There will also up to 400 corporate and social memberships available at Wolf Creek Autobahn, which will allow access to the road course and club house without villa ownership. There will be an onsite vehicle fueling station for members of the Autobahn to fuel their vehicles for the road course. The onsite fueling station will also be available to serve road course vehicles at the Autobahn for events. The onsite fueling station will not be open to the public or used by members for their normal daily driving vehicles.

A management company will oversee the villa association maintenance, road course and grounds maintenance, club house, cart course, event center, and RV park. The management company will oversee road course operations, including coordination of member reservations for track time, and scheduling of road course events as well as events for the entertainment area. The management company will include several road course instructors who will lead driving school classes on the road course. The management company will include approximately 30 employees to operate all facets of Wolf Creek Autobahn.

In addition to the members utilizing the road course, there will also be organized events where patrons that are not members at Wolf Creek can register for and participate in recreational driving events. The events will be sponsored or hosted by automotive manufacturers, dealerships, or automotive clubs (e.g. Porsche Club of America). The road course can be configured to host multiple events at one time. Road course events and member reserved course time could occur any day of the week.

The planned hours of operation for the road course will be 7:00 am to 10:00 PM. The planned hours of operation for the clubhouse and event center will be 7:00 am to 12:00 am. The development will include street lighting to serve the villas, trails, and commercial businesses. Additionally, an inner portion of the track will have lighting to allow for evening events. The lights for the road course will be similar in height and intensity to lights on the residential roadways within the development near the villas. It is estimated that typical road course events will have from 10 to 30 vehicles participating, with approximately 100 to 200 people accessing the site, including road course users and event spectators. The event center will be located in the center of the property and will host various events including concerts and festivals. It is anticipated that the larger events would occur approximately one time per month during the summer with 1,000 to 5,000 people accessing the site including road course users, spectators, and event attendees. The road course will be in operation, for both members as well as planned events, as track conditions allow during the ice-free months, typically from April through October each year. The club house and event center will be open to host events year-round.

A total of five site entrances would be added to serve the development. There will be main site entrance off Bagley Avenue, that will include a new right turn lane constructed from the proposed project for north bound traffic on Bagley Avenue. A secondary site access point from Bagley Avenue will be located north of the main site entrance. Both access points serve the villa owners, automotive road course, club house, and entertainment area. A third and fourth site access point off of Bagley Avenue will be located south of Millersburg Boulevard to serve the RV Park and cart course. A fifth site access point will be located off Millersburg Boulevard providing access to the convenience mart, fueling station, and commercial properties.

The villas will be one-, two-, or three-bedroom units that will include garages. It is anticipated that the villas will include approximately 25% full-time occupants who are residents at the development and 75% weekend/seasonal occupants. The villas will be located around the exterior and interior of the road course to give owners views of the course, ponds, and surrounding landscape. The internal roadways constructed to serve the villas will include bridges over the road course. The bridges will be constructed to allow for emergency vehicles to travel both over the bridge on the residential roadway or under the bridge on the road course to ensure first responders can access potential incidents in all areas of the development.

In addition to the road course and villas, the project site will also include commercial development. The commercial development will be located along the south side of Millersburg Boulevard. One commercial property will contain a retail convenience store with fueling station, which will be located adjacent to Interstate 35. The retail convenience store and fueling station will be open to the public to serve both the Wolf Creek Autobahn development residents as well as residents of Rice County, and travelers along the interstate. The convenience store will be approximately 10,000 square feet, have 18 vehicle fueling stations including diesel fuel, and a carwash. The convenience store will not provide or allow overnight stay from over-the-road truckers.

There will be up to five additional commercial properties located along Millersburg Boulevard with a focus of serving automotive recreation and Wolf Creek Autobahn. The planned businesses could include a high-end body shop with automotive restoration services, a detail shop, a tire shop, a specialty automotive sales shop, and a specialty automotive repair shop. While these commercial businesses will be developed to serve the members at Wolf Creek Autobahn, they will be available for patronage by the general public.

All infrastructure needed to support Wolf Creek Autobahn will be constructed as part of the proposed project including internal roadways and utilities. There are four existing farmsteads located on the project site. The farmsteads and many of the associated farm buildings will be demolished and removed to facilitate construction and development of the project. Some of the existing farm buildings, such as sheds or out buildings, may be saved and repurposed for equipment storage to serve the Wolf Creek Autobahn development.

The project proposer will construct Wolf Creek Autobahn as a phased development. The project will be constructed in several steps: demolition; site preparation and infrastructure; construction of the road course and villas; and construction of commercial businesses. Infrastructure needed to support phases of the condominium buildings and commercial properties will be constructed as development progresses.

Development of the project is anticipated to take approximately five years, beginning in 2019 with full build out and project completion anticipated by 2023.

- Phase 1 Demolition is anticipated to occur in 2019 with the demolition and proper removal and disposal of the existing farmstead buildings on project site.
- Phase 2 Site Preparation and Infrastructure is anticipated to begin 2019, continuing through 2021, and include land clearing, site grading, installation of sewer and water infrastructure, and street construction.
- Phase 3 Road Course Construction is anticipated to begin in 2019. Site preparations that take place under Phase 2 will be coordinated to facilitate the construction of the road course.
- Phase 4 Villa Construction is anticipated to begin following completion of Phases 1 and 2 in 2019. The initial villa building to be constructed will include approximately 40 units (see Figure 3) and would be constructed in early 2020. Construction of additional villa buildings will be dependent on the purchase of the units from the initial buildings. Construction of villas will occur over time as the market dictates with full buildout (i.e. all 300 units have been constructed) anticipated by in 2023.
- Phase 5 Commercial Construction is anticipated to begin following completion of Phases 1 and 2 and is targeted for summer 2020. The initial commercial property to be development will be the convenience store (see Figure 3). Additional commercial properties will be developed as business partners are identified. Completion of all commercial properties within the development is anticipated to be complete by 2023. The club house, event center, and go-cart track will be developed during Phases 4 and 5 as dictated by market conditions.

# Zoning and Land Use

The 2002 Comprehensive Plan identifies the land use for the project site as "Commercial Industrial" and the site is currently zoned as Highway Commercial. Per the applicable zoning ordinance (as amended), the purposes of the Highway Commercial district include implementation of relevant goals and objectives of the Comprehensive Plan related to promoting employment and generating tax base in Rice County. This includes taking advantage of proximity to the Interstate highway system; high quality development is encouraged around the interchanges with Interstate 35 to serve the travelling public. The proposed project is compatible with these goals and objectives due to the proximity to Interstate 35 and the creation of jobs and tax revenue.

The proposed project will be a mix of commercial, recreation, and residential uses which is compatible with the desire for varied tax revenue sources (not reliant solely on residential development). The residential units proposed as part of the mixed-use development are also compatible with plan Goal #50 which encourages clustering of rural residential development near roads.

The current zoning, Highway Commercial, includes a Mixed Use Planned Unit Development (PUD) Overlay that allows for property in the Highway Commercial district to be rezoned for mixed use development projects, such as the proposed Wolf Creek Autobahn project. The purpose of the overlay is to "provide for the integration and coordination of land parcels, as well as the combination or mixture of varying types of residential, commercial, and recreational land

uses". The proposed project is compatible with the purposes of the PUD Overlay. Residential development may consist of a variety of dwelling types and a mixed use PUD shall incorporate other commercial and recreational land uses (not just residential housing). The project proposes a 5.7-mile recreational automotive road course, 300 villa and garage units, a Recreation Vehicle (RV) park, a convenience mart and fueling station, entertainment area, and commercial and retail space. The proposed land use is compatible with the current zoning ordinance. Per the zoning ordinance, a conditional use permit for the project will be required.

The project has concurrently submitted applications to Rice County to request amendments to two separate aspects of the zoning code. The first would be to allow development within 100 feet of a creek, as the current zoning code includes a development restriction setback of 300 feet from a waterbody. The second would be to allow the use of billboards on property owned by the project proposer, to advertise and promote the project.

# **Building**

### AutoBahn Villas

The AutoBahn Villas at Wolf Creek are a unique intersection of machine garage with living quarters organized around a world class road course defining Wolf Creek AutoBahn's unique brand. Wolf Creek AutoBahn Community will offer three basic models: a one level villa with rooftop patio; a loft style unit with a rooftop patio; and a garage villa with a deck overlooking the road course. Our building concept is based on multiples of 34.67' lots. Each of these lots, or combination of lots, will provide the building blocks for flexibility and custom designs of the autobahn villas. Within the gated community, our villas will feature: smart home connectivity; state of the art kitchens and bathrooms; rooftop patios with solar pergolas; fire-tables; outdoor kitchens and K-9 area; home-elevators and dumbwaiters to the rooftop patios; panoramic patio doors; glass sectional overhead air doors; chip seal or polyaspartic garage floors with trench drain; fully sprinklered (fire protection) and CO2 sensored units; car stacker options; custom-tailored garage solutions including garage cabinets and workbench systems. The autobahn villa construction will use highly energy efficient SIP panels, also providing high levels of sound attenuation between units. Exterior materials are sustainable and maintenance free combinations of composite siding materials, metal and masonry/stone.

### Club House

The Club House is the major social aspect of our road course centric country club. This facility will feature a restaurant and lounge, collaborative training rooms, meeting rooms, familyoriented flex area, outdoor area activities will include a lap pool, swimming pool, spa, sport court, tennis and pickle ball courts, and an outdoor connection to the lounge and restaurant. The Club House will have an outdoor veranda viewing the road course.

# <u>Site</u>

The project site is located in a rural, undeveloped community (Forest Township) in Rice County, directly south of the Twin Cities Metropolitan Area. Nearby developing communities include Northfield, Dundas, Faribault, Lonsdale, and Elko-New Market. While the area around the proposed project in Rice County is primarily rural and agricultural, adjacent counties to the north

of Carver, Scott and Dakota have the fastest growing populations from 2010 to 2017 within Minnesota (MN State Demographic Center, 2018).

There are no state, county, or municipal parks or trails within the project site. However, three MN DNR Wildlife Management Areas (WMAs) are located within a few miles of the project site. The Paulson WMA is approximately 0.5 miles west, the Milest WMA is approximately 1 mile west, and the LB IIIsley WMA is approximately 1.5 miles south. The nearest Minnesota State Park is Nerstrand Big Woods State Park, located approximately 9 miles southeast of the project site. The nearest state trail is the Mill Towns State Trail, located approximately 4.5 miles east in the city of Northfield. The majority of the site is considered prime farmland and/or farmland of statewide importance.

### Park Dedication

Public Park Dedication will be required as part of the proposed development. No area within the development will be donated to the County for parkland. The developer will coordinate with the County the park dedication fees to be included in the developer's agreement.

# **Tree Preservation**

Though the majority of the existing land is vacant agricultural, there are trees lining the two creeks and a stand of trees NW of the CR1 and 35W interchange. We plan to preserve all the trees along the creeks. To provide interest for the users of the road course we intend to direct the road course through the trees north of CR1 along 35W. We will do additional tree identification prior to final development plan submittal to try and avoid any mature high-quality trees. The development will meet any tree replacement requirements put forth by the County.

# Grading and Stormwater Treatment

Stormwater will be managed on site through the construction of stormwater ponds and infiltration basins as well as ditches and storm sewer infrastructure. The new stormwater system will collect and treat stormwater from the road course, villas, and commercial properties.

### Pre-Construction Site Runoff

Currently, the site is primarily agricultural land, including five farm residences. The site is under conventional agricultural production with reduced tillage, maintaining some crop residue over bare soil. Site runoff is consistent with other agricultural runoff, containing sediment and potential herbicide, insecticide, and fertilizer used on site. Traditionally, agricultural runoff is nutrient-rich and a source of phosphorus and nitrogen, as well as suspended solids. There are eight water and sediment control basins (WASCOBs) on site. The purpose of the existing WASCOBs are to improve farmability of sloping land, reduce erosion, trap sediment, and manage runoff from the contributing drainage areas. Only a small portion (roughly 8 percent) of the site drain to the eight WASCOBS. Approximately 30% of the site is drain tiled, which facilitates subsurface drainage by removing water from the soil profile. The drain tile discharges to Heath Creek to the north and Wolf Creek to the south. The drain tile also discharges into roadside ditches which ultimately drain to the creeks to the north and south. The rest of the stormwater from the site naturally infiltrates the soil, is temporarily collected in wetland and other depressional areas, and/or runs off the site. Stormwater that does not infiltrate or collect in

depressional areas flows overland and is collected in grassed waterways and roadside ditches which ultimately discharge to Heath Creek to the north and Wolf Creek to the south.

### Construction Stormwater and Erosion Control BMPs

The project would involve disturbance of more than one acre of land, and therefore requires application for coverage under the National Pollutant Discharge Elimination System (NPDES) General Construction Stormwater Permit. An application for this permit would be submitted to the MPCA prior to initiating earthwork on the site. This permit is required for discharge of stormwater during construction activity and requires that Best Management Practices (BMPs) be used to control erosion, and that erosion controls be inspected after each rainfall event. Erosion control practices that would be implemented on the site include, but are not limited to:

- 1. Silt fence and other erosion control features installed prior to initiation of earthwork and maintained until viable turf or ground cover is established on exposed areas.
- 2. Street level inlet protection.
- 3. Periodic street cleaning and installation of a rock construction entrance to reduce tracking of sediment onto paved surfaces.
- 4. Diversion ditches with rock check dams.
- 5. Temporary sedimentation basin to provide treatment of runoff before it leaves the construction site.
- 6. Stabilization of exposed soils, phased with grading.
- 7. Seeding and landscaping to stabilize exposed surface soils after final grading.
- 8. Future permanent BMPs will include filtration basins and wet ponds.

Because the above BMPs would be implemented during and after construction, potential adverse effects from construction-related sediment and erosion on water quality would be minimized. Stormwater treatment facilities will be designed to meet MPCA requirements.

#### Post-Construction Site Runoff

The Wolf Creek Autobahn project proposes disturbance exceeding 50 acres and ultimately discharges within one mile of and flows to impaired waters. As result a Stormwater Pollution Prevention Plan (SWPPP) will be submitted to the MPCA with the NPDES General Construction Stormwater Permit application. The MPCA NPDES General Construction Stormwater Permit requires that projects creating a net increase of one or more acres of impervious surface treat a water quality volume of one inch of runoff over the net increase in impervious surface using a permanent stormwater treatment system.

This project proposes a permanent stormwater treatment system consisting of infiltration/filtration basins and wet sedimentation basins. The existing draintile system will be discontinued and removed as necessary for the proposed development. MPCA rules require that stormwater routed to infiltration and filtration systems must receive pretreatment and drawdown within 48 hours. Filtration systems must also be designed to remove at least 80 percent of influent total suspended solids (TSS). Wet sedimentation basins must provide 1,800 cubic feet of permanent storage per acre of contributing drainage area. The water quality volume of wet sedimentation basins cannot discharge at rates greater than 5.66 cubic feet per second (cfs) per acre of surface area of the basin.

A portion of the project site discharges to a drainage ditch along Interstate 35, maintained by the Minnesota Department of Transportation (MnDOT). Therefore, a MnDOT Drainage Permit will be required. In addition to the previously described requirements of the MPCA General

Construction Stormwater Permit, MnDOT requires that the post-project discharges not exceed the pre-project discharges to MnDOT Right of Way.

Where soils allow, the MCPA requires that infiltration practices be proposed, rather than filtration practices. Soil borings at proposed infiltration/filtration basin locations are forthcoming, however, preliminary soil investigations at the site indicate that Type C and D soils are present across the project site. Therefore, following MPCA requirements, preliminary design assumes Type D soils and utilizes filtration basins, rather than infiltration basins, across the project site. If soil additional soil investigations contradict this assumption, infiltration basins will be designed where appropriate.

The Wolf Creek Autobahn project will increase impervious surfaces, which is anticipated to increase the potential for stormwater runoff from the site. New impervious surfaces at the project site include but are not limited to paved areas (e.g. the road course, driveways, streets, parking areas, and trails), residential villas, a club house, and commercial buildings. Stormwater will be routed via overland flow and storm sewer to the permanent stormwater treatment features. As currently proposed, the permanent stormwater treatment system consists of three wet sedimentation basins and twelve filtration basins. These practices will be designed to meet the stormwater management requirements discussed above, prior to discharge offsite into existing drainage ditches.

### **Wetlands**

There are seven wetland basins that have been identified and delineated during field investigations of the project site (see Table 6). These delineated wetland basins total 14.03 acres. The project will result in impacts to two of the delineated wetland basins. Impacts will occur to Wetlands 2 and 3 (see Figure 8). Both wetlands will be impacted by the construction and placement of race track. Wetland 3 (0.07 acres) will be entirely impacted by grading and fill activities for the construction of the track. Wetland 2 will by only partially impact by grading and filling activities; the race track has been aligned to cross Wetland 2 at its narrowest point minimizing impacts to this wetland. The track alignment through Wetland 2 will include a box culvert to further reduce wetland impacts and maintain wetland hydrology. The track alignment and residential developments were designed in order to avoid as many wetland basins as possible. Specifically, the track has been shifted from crossing Wetland 2 at a wider point to reduce impacts. Additionally, Wetlands 4, 5, 6, and 7 were completely avoided by the alignment of the design and the placement of condos.

Wetland impacts will be permitted through the submittal of a MN Joint Application to the Wetland Conservation Act (WCA) Local Government Unit (LGU) and the U.S. Army Corps of Engineers (USACE). Wetland impacts will be mitigated through the purchase of wetland bank credits as approved by the respective agencies. The Rice County Soil and Water Conservation District is the LGU for WCA and the local regulatory body for wetlands in Rice County. The Rice SWCD does not enforce required wetland buffers; however, a 20-foot building setback is applicable to all wetlands under Rice County building regulations and has been included in the project design.

The project will require the construction of an approximately seven-mile sanitary sewer force main to connect with the City of Faribault's existing sewer lines and wastewater treatment system. The force main will be installed within road ditches running south from the northwest project boundary and connecting with an existing manhole seven miles to the south. The force

main will be installed through a combination of open trench and HDD bore methods, the latter which will be used to avoid impacts to wetlands, waterbodies, and other sensitive resources that intersect the force main route.

### **Utilities**

### Waste water

The new force main will transport wastewater approximately 6.8 miles south to the City of Faribault, where it will connect to existing city infrastructure and be conveyed to the wastewater treatment plant. The new force-main will be constructed along Bagley Avenue (CSAH 46) within platted Rice County right-of-way. A Subordinate Sewer District (SSD) will be formed by the County to manage the wastewater system. Water will be supplied to the development through the construction of two new wells and public water supply system. The domestic water needs of the development will be similar to other residential developments and commercial developments, including providing fire protection.

The Wolf Creek Autobahn project will include a conventional gravity sewer collection system to serve all residential and commercial development areas. Most RVs have a holding tank and then discharge their wastewater a disposal location. The wastewater infrastructure at the project site will include a disposal location for RVs to empty their wastewater, which will be connected to the overall development sewage collection system.

A sewage pumping station, wastewater sewer force main, and gravity sanitary sewer will also be constructed to connect to the City of Faribault sanitary sewer system. The force main will consist of a new 6-inch pressure sewer pipe that will extend from the site a distance of about 6.8 miles. The gravity sanitary sewer system will consist of approximately 3,000 feet of 10-inch diameter sewer main and manholes. The force main and gravity sanitary sewer system will be installed within the Co. Rd 46 (Bagley Avenue) right-of-way and to connect to an existing City of Faribault gravity sanitary sewer manhole. This manhole is located adjacent to the Aldi Warehouse property.

The City of Faribault has reviewed this proposed connection point and has determined that adequate capacity exists in the sanitary sewer system for the additional flow proposed from this development. The City has expressed willingness to accept this wastewater and enter into a long-term agreement with the Wolf Creek Motorsports, LLC. A Subordinate Sewer District (SSD) will be formed by the County to manage the wastewater system.

The City of Faribault has confirmed that the City's wastewater treatment plant has sufficient available capacity to receive the wastewater flow and load proposed from this development and that the flow and load falls within the existing permitted capacity of the treatment facility.

The wastewater from the proposed development is expected to be domestic strength and will not require any pretreatment or special handling before being discharged to the City of Faribault sanitary sewer system.

#### Water Supply

The proposed project will require domestic water for the residents at the villas, clubhouse, convenience mart and fueling station, commercial business, and RV park.

The proposed water system is anticipated to include two (2) water supply wells to meet the water demand. Wells in the area are completed in the Jordan Sandstone aquifer and are typically approximately 400 feet deep. The water bearing sandstone in the region is at approximately 300-400 feet in depth below grade. The proposed water supply wells will consist of 12" steel casing to a depth of approximately 300 feet with the remainder of the borehole open to the water bearing sandstone. Based on discussion with several well drillers in the project area, the required water quantity is anticipated to be available from the aquifer; however, the water contains concentrations of iron and manganese. An iron manganese removal filter is included as part of the proposed water system design.

Two high service pumps are proposed to provide normal water flow within the development. The pumps will be 40 hp, vertical centrifical pumps with a capacity of 650 gallons per minute (gpm) each. The pumps will be on a variable frequency drive which will maintain a constant pressure; providing a distribution system pressure of between 55 and 60 pounds per square inch (psi). Two 28,000-gallon pressure tanks (sized for a drawdown factor of 0.23) will be installed to maintain pressure and capacity in the distribution system upon peak demands. The well pump schedule will alternate between the two wells and will be controlled by float switches located in a ground storage reservoir or the filter. As the water level drops or raises, the pumps will start/stop accordingly at prescheduled depths.

Well water will be pumped to the proposed iron manganese filter which will improve water quality to concentrations less than 0.03 mg/l. Water will enter the filter in the aeration/detention cell through a 6-inch header with a number of pressure atomizing nozzles to distribute the water into the aeration stream. The aeration stream will be brought into the chamber with a fan and exhausted through a louver. The air oxidizes the iron so it can precipitate. Chlorine. Potassium permanganate will be added just below the header and spray nozzles for further oxidation to promote precipitation. Water will then flow from the detention/aeration cell of the filter to the media cell. The filtering will consist of nozzles in a false bottom under-drain with 1-foot of support gravel (1/8" to  $\frac{3}{4}$ " in size) above the under drain. The proposed filter media is 24-inches of green sand with 12-inches of anthracite coal. The filter media will trap the coagulated iron and manganese and the treated water will flow through the support gravels to the nozzles of the underdrain. The filtered (clean) water will then flow through face piping to the ground storage tank.

After the filter run time (plugging of the filter), the media will be backwashed with filtered water from the ground storage tank; backwash water will flow to a backwash tank. MDH regulations allow 10% of the incoming water to the filter to be recycled from the backwash tank. This will dewater the backwash tank between backwash events. The filtering process will produce approximately 1,500 pounds of iron manganese sludge each year which will be removed and either land applied or landfilled for disposal.

Fire flows are anticipated to be 2,000 gpm for a duration of 120 minutes or 240,000 gallons. Fire protection for the proposed project will be provided by two 2,000 gpm fire pumps and a 300,000-gallon ground storage tank. Filtered water will be discharged into the tank. The tank capacity will allow for additional time for fire protection. The proposed water supply wells will be capable of providing an additional 1,000 gpm of flow utilizing the high service pumps and will be able to be directly connected into the distribution system inside of the filter building.

Well drilling and installation will be performed by an MDH licensed and registered well and boring contractor. The iron manganese filter was designed based on industry design standards

(i.e. detention time, filter media dimensions, backwash rate, etc.) and state standards to meet MDH water quality requirements. MDH also requires a 10-year well head protection area. The anticipated protection zone for the proposed water system is 951 feet in diameter based on the following:

10 Year Flow, gal	849,355,000
10 Year Flow, c.f.	113,550,134
Depth of Aquifer, ft	80
Porosity	0.25
Wellhead Protection Area Diameter, ft	951 (2 Wells)

A water appropriation permit will be required for the new wells from the Minnesota DNR. As part of the water appropriation permit, the DNR will require a pump test. For wells of this type the pump test is typically conducted for a 72-hour period with monitoring wells located at 100 feet and 1,000 feet from the pumping wells. Design and/or operational details, discussed in this section, for the new wells may be adjusted based on the results of the pump test.

Based on conformance with applicable industry design and state standards (MDH), completion of required permitting, proper disposal of produced bi-products, and anticipated aquifer production capacity, additional measures to avoid, minimize, or mitigate environmental effects will not be required for the proposed water system construction, operation, or water appropriation.

# **Traffic**

A Traffic Impact Study was completed and will be available to the county. The study examined weekday a.m. and p.m. peak hour and Saturday peak hour traffic impacts of the proposed development at the following intersections:

- CSAH 1/I-35 east ramp
- CSAH 1/I-35 west ramp
- CSAH 1/CSAH 46
- CSAH 1/retail access (future only)
- CSAH 46/north access (future only)
- CSAH 46/south access (future only)
- CSAH 46/event parking access (future only)
- CSAH 46/RV park access (future only)

The proposed project will include the following uses:

Land Use	Size
Gas station and convenience store	10,000 square foot store, 18 vehicle fueling positions
Auto care center	15,000 square feet
Tire super store	10,000 square feet
Auto parts and service center	10,000 square feet
High turnover sit down restaurant	6,000 square feet
Auto sales	23,000 square feet
RV Park	150 sites

### South side of CSAH 1

North side of CSAH 1

Land Use	Size
Villas	300 dwelling units
Road course area with entertainment area and club house	345 acres

The road course portion of the development will operate on weekdays and weekends. The majority of the operation will consist of 200 to 1,000 people on-site using the road course and amenities. Special events with 5,000 people on site are expected to occur 6 times per year. The number of people on-site for each time period is shown below.

- Typical weekday occupancy of road course area
  - o 20 employees on site
  - 200 road course users and spectators = 80 vehicles
- Typical Saturday occupancy of road course area
  - 1,000 people including employees, road course users, and spectators
  - Majority of users enter site between 7-8 a.m., leave the site between 7-8 p.m.
- Saturday special event occupancy
  - 5,000 people including employees, road course users, and spectators
  - o Occurs 6 times per year
  - Majority of users enter site between 7-8 a.m., leave the site between 10-11 p.m.

Access for the retail uses will be provided on CSAH 1 midway between the I-35 west ramp and CSAH 46. Access for the road course and condominiums will be provided at two locations on CSAH 46 north of CSAH 1. Access for the event parking and the RV park will be provided on CSAH 46 south of CSAH 1.

The project is expected to be completed by the end of 2025.

The conclusions drawn from the information and analyses presented in this report are as follows:

- The proposed project is estimated to generate the following number of tips:
  - Weekday 674 trips during the weekday a.m. peak hour, 778 trips during the weekday p.m. peak hour, and 8590 weekday trips.
  - Saturday a.m. peak hour without an event 905 trips during the 7-8 a.m. peak hour, 978 trips during the 7-8 p.m. peak hour, 262 trips during the 10-11 p.m. hour, and 10,389 daily trips.
  - Saturday a.m. peak hour with an event 1,609 trips during the 7-8 a.m. peak hour, 1,132 trips during the 7-8 p.m. peak hour, 1,190 trips during the 10-11 p.m. hour, and 14,489 daily trips.
- All movements and intersections are expected to operate at acceptable levels of service (LOS) under the 2019, 2026 No-Build, 2026 Build -No Event, and 2039 No-Build

scenarios.

- Under the 2039 Build No Event scenario, the southbound movements at the CSAH 1/I-35 west ramp operate at LOS E during the weekday p.m. peak hour. The overall intersection operates at LOS B. All other movements and intersections operate at LOS D or better under the 2039 Build – No Event.
- Under the 2026 Build with Event scenario, the following movements operate at LOS E or F:
  - During the Saturday 7-8 am hour, the northbound movements at the CSAH 1/I-35 east ramp operate at LOS E. The overall intersection operates at LOS C.
  - During the Saturday 7-8 am hour, the westbound left turn at the CSAH 46/Event access operates at LOS F. The overall intersection operates at LOS A.
  - During the Saturday 10-11 pm hour, the northbound movements at the CSAH 1/I-35 east ramp operate at LOS E. The overall intersection operates at LOS A.
- Under the 2039 Build with Event scenario, the following movements operate at LOS E or F:
  - During the Saturday 7-8 am hour, the northbound movements at the CSAH 1/I-35 east ramp operate at LOS F. The overall intersection operates at LOS C.
  - During the Saturday 7-8 am hour, the southbound movements at the CSAH 1/I-35 west ramp operate at LOS E. The overall intersection operates at LOS B.
  - During the Saturday 7-8 am hour, the northbound left turn at the CSAH 46/Retail access operates at LOS E. The overall intersection operates at LOS A.
  - During the Saturday 7-8 am hour, the westbound left turn at the CSAH 46/Event access operates at LOS F. The overall intersection operates at LOS A.
  - During the Saturday 7-8 pm hour, the northbound movements at the CSAH 1/I-35 east ramp operate at LOS E. The overall intersection operates at LOS B.
  - During the Saturday 10-11 pm hour, the northbound movements at the CSAH 1/I-35 east ramp operate at LOS E. The overall intersection operates at LOS A.
- Analysis of vehicle queues for movements with LOS E or F indicates that all 95<sup>th</sup> percentile queues are less than the available queuing space. These queue lengths are acceptable and are not expected to have significant impacts to traffic operations.
- In order to accommodate the future traffic volumes, the following items are recommended:
  - CSAH 1/I-35 east ramp Stripe the northbound approach with a left turn lane and a through/right turn lane.
  - CSAH 1/I-35 west ramp Stripe the southbound approach with a left turn lane and a through/right turn lane.
  - CSAH 1/retail access Construct a westbound left turn lane and an eastbound right turn lane on CSAH 1 and construct the northbound approach exiting the site with a left turn lane and a right turn lane.

- CSAH 46/north access Construct a northbound right turn lane on CSAH 46 and construct the westbound approach exiting the site with a left turn lane and a right turn lane.
- CSAH 46/south access Construct a northbound right turn lane on CSAH 46 and construct the westbound approach exiting the site with a left turn lane and a right turn lane.
- CSAH 46/event parking access Construct the westbound approach exiting the site with a left turn lane and a right turn lane.
- CSAH 46/RV park access Construct the westbound approach exiting the site with a left turn lane and a right turn lane.
- Special Events Develop a detailed Traffic Management Plan for special events with large attendance. The plan should include details on temporary traffic control at key intersections, a shuttle service between the event parking and course area, pedestrian accommodations, and bus parking accommodations.

### <u>Noise</u>

The construction and operation of the Wolf Creek Autobahn development will generate noise. Noise in Minnesota is defined as unwanted sounds and is regulated by the MPCA under Minnesota Rules 7030. The amount of allowable noise differs between daytime and nighttime conditions where less noise is allowed at night. Additionally, the amount of allowable noise differs based on the noise area classification (NCA). Residential areas have the lowest allowable noise limits, followed by commercial areas, and industrial areas have the highest allowable noise limits. Agricultural areas have the same NAC as industrial areas.

The proposed project layout and the nearby noise sensitive areas/receptors (NSAs) relative to the layout of the road course is displayed in Figure 13. All NSAs near the project site are residences on zoned agricultural land. The NSAs do not include hospitals, schools, parks, or places of worship in the immediate area. The area is currently agricultural land with Interstate 35 (I35) bordering the project site. Preconstruction noise data for the area near the project site has not been collected. Based on the proximity of the site to Interstate 35, traffic on the highway is the primary noise source for the area with seasonal agricultural activities also contributing to the existing noise levels.

Construction noise will include heavy equipment noise from grading, landscaping, truck traffic, paving, and construction of onsite buildings. These operations will take place during daytime hours (7 a.m. to 10 p.m. as defined by Minnesota Rules 7030.0020 Subp. 3.) and will be no different than typical construction noise. Heavy construction, including site grading, road course construction, and utility installation is expected to take place over the course of 8 to 12 months. Building construction for the residential villas, club house, commercial properties, and other buildings will take place for 24 to 36 months. Construction will not be continuous and the actual schedule and timing for construction will be driven by market conditions. The amount of noise from the site will depend on the type construction activity. For example, grading, paving, and landscaping will primarily be engine noise from earth moving equipment while building

construction will primarily be truck traffic and hand-held tools (hammers, drills, ect...). No pilings are anticipated to be required for construction at this time.

During operation of the proposed project the primary noise sources at Wolf Creek Autobahn will be road course cars lapping on the track. Engine noise from the road course cars will be the primary source of noise but tire squeal will likely also be audible at times. Carts and other onsite vehicle traffic will also generate noise including vehicle traffic at the commercial properties. However, the road course cars will have louder engines and be traveling at higher speeds than the carts and other onsite traffic, therefore contributing more noise to the area. Minnesota Statute 116.07.2a exempts motor vehicle race tracks built before July 1, 1996 from Minnesota noise standards. Since the proposed track would be constructed after July 1, 1996, Wolf Creek Autobahn will conform to the noise standards set forth in Minn. Rule 7030.0040. The surrounding area is zoned agricultural and transportation and are considered Noise Classification Area 3. The nearby residences are considered Noise Classification Area 1 and are identified as NSAs on Figure 13.

Track operations will be limited to daytime hours (7 a.m to 10 p.m as defined by Minn. Rule 7030.0020 Subp. 3.) with daily operating hours within that time varying based on the events that are scheduled. The daytime noise limits for Noise Classification 1 Areas are 65 dBA L10 and 60 dBA L50 per MN Rule 7030.0040. L10 and L50 are hourly average limits and not instantaneous limits. The proposed noise limit to road course cars by the management company for the Wolf Creek Autobahn would be 105 dBA measured at 50 feet. This limit will be enforced by the use of sound level meter(s) by employees of the management company. Based on the current layout, NSA location, and proposed noise limit, the instantaneous noise level for a road course car will be 82 dBA at the nearest NSA. This calculation is based on a simple analysis assuming only hemispherical spreading of sound energy over flat, hard ground and does not include mitigation from atmospheric absorption, vegetation, variable ground hardness, grading, obstacles, or duty cycle from inconsistent road course traffic. This estimated noise level is above the daytime L10 and L50 noise limits for residential receptors and therefore Wolf Creek Autobahn will be required to provide noise mitigation measures to ensure noise standards are met.

Potential mitigation measures include, but are not limited to:

- Onsite and perimeter grading as well as condo siting to break the line of site from the track to the NSA,
- the use of acoustical barriers attached to spectator fencing,
- the use of acoustical barriers attached to the perimeter fencing,
- lowering the track enforced allowable decibel limit for road course cars, and
- limiting the number of road course cars on track at the same time.

Wolf Creek Autobahn proposes to complete noise modeling to further define the specific noise measures that would be implemented. Noise modeling will be used to optimize the location and height of noise barriers and site grading, as well as condo location to reduce the amount of noise experienced by the adjacent residential NSAs receptors. Use of the model will also give a more realistic estimate of the far field noise levels for the surrounding area during track operations. Wolf Creek Autobahn intends to include Interstate 35 traffic information from MNDOT in the model to demonstrate the difference between current conditions and during track operations.

A part of the noise modeling and identification of mitigation measures, Wolf Creek Autobahn proposed to create a noise mitigation plan to be implemented during site operations. The plan will detail the noise measurement procedures and limits for cars utilizing the road course, track operating times, identifying mitigation measures in place and required maintenance schedules, and track contact information for potential noise complaints or concerns. The plan will also identify additional noise mitigation measures that can potentially needed after project construction in the event that additional noise reduction is needed to meet noise level rules.