



**AGENDA**  
**MANDAN PLANNING & ZONING COMMISSION**  
**COMMISSION ROOM 5:30 P.M.**  
**MONDAY, JANUARY 27, 2020**

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**Roll Call, Reading and Approval of the December 18, 2019 minutes.**

**PUBLIC HEARINGS**

**1. A request from Dr. Eric Belanger for consideration of approval of an amendment to the City of Mandan's Land Use and Transportation Plan that serves as the City's Comprehensive Plan. Said property is in part of Sections 8, 9, 16 & 17, in Township 139N; Range 81W.**

A. Staff report   B. Open for public comment   C. Close public comment   D. Commission action

*Staff Recommendation: Recommend approval of the amendment to the land use and transportation plan.*

**2. Consider recommending approval of a Zoning Ordinance to amend and re-enact Section 101-1-13 related to Amendments, amend and re-enact Section 105-1-12 related to Board of Adjustment, and remove Section 105-3-1 related to Applicability of Standards of the Mandan Code of Ordinances.**

A. Staff report   B. Open for public comment   C. Close public comment   D. Commission action

*Staff Recommendation: Recommend approval of the ordinance as presented in Exhibit 1.*

**OTHER BUSINESS**

**1. Introduction of Multi-Use Shop Ordinance.**

**ADJOURN**

MANDAN PLANNING AND ZONING COMMISSION  
MANDAN CITY HALL  
December 18, 2019

The Planning and Zoning Commission of Mandan duly met in session in the meeting room of the Mandan City Hall on December 18, 2019, at 5:30 p.m. CDT.

**ROLL CALL**

Commissioners Present: Boehm, Knoll, Helbling, Leingang, Liepitz, Renner, Camisa, Vayda, Robinson

Commissioners Absent: Klemisch, Klein, Frank

*Commissioner Leingang motions to approve the November 25, 2019 minutes. Commissioner Camisa seconds. Upon vote, the motion passes unanimously.*

**PUBLIC HEARINGS**

**1. A request from Travis & Calantha Kerzman for a front setback variance for an accessibility ramp at 813 John's Drive NE. Said property is Lot 2, Block 2, Diane's 1<sup>st</sup> Addition in Section 27, Township 139N, Range 81W.**

**A. Staff report**

John Van Dyke, city planner, presents. Mr. and Mrs. Kerzman are seeking a variance to the front setback from twenty (20) feet to nine (9) feet to install an accessibility ramp. The residence as constructed and lot topography prohibit alternative construction of the ramp. The applicant has provided pictures and a sketch of the ramp to be constructed with their application, if the variance is approved (See Exhibit 1).

Below are the requirements under the Mandan Code of Ordinances in granting a variance.

Variance may be granted under the following circumstances (See Sec. 105-1-12):

*1. There are special circumstances or conditions, fully described in the findings of the board, applying to the land or buildings for which the variance is sought, which circumstances or conditions are peculiar to such land or building, and do not apply generally to land or buildings in the neighborhood, and have not resulted from any act of the applicant taken subsequent to the adoption of this chapter, whether in violation of the provisions of the chapter, or not;*

The attached garage for the dwelling resides at a different elevation than the main floor for which the ramp is desired. Locating the ramp within the garage would therefore provide no benefit to the applicant. Further, the sloping topography would require substantial excavation and create additional storm water runoff issues that would need to be addressed if the ramp were installed running parallel to the street.

*2. For reasons fully set forth in the findings of the board, the circumstances or conditions so found are such that the strict application of the provisions of this*

*chapter would deprive the applicant of the reasonable use of said land or building, and the granting of the variance is necessary for the reasonable use of the land or building, and that the variance as granted by the board is the minimum variance that will accomplish the relief sought by the applicant;*

As noted previously, the existing dwelling construction coupled with the topography of the land creates a unique circumstance that does not apply to every building or property individually. A strict application of the front setback would require a substantial excavation resulting in additional storm water mitigation measures.

*3. The grant of the variance will be in harmony with the general purposes and intent of this chapter, and not be injurious to the neighborhood or otherwise detrimental to the public welfare.*

The granting of the variance will be in harmony and not be injurious to the neighborhood or otherwise detrimental to the public welfare.

Engineering and Planning recommend approval of the variance to the front setback from 20' to 9' for the purposes of accessibility ramp construction based on the findings in Exhibit 2.

#### **B. Open public hearing**

Mayor Helbling would like the \$400 variance fee refunded to the home owner. Other commissioners agree.

A representative from Leingang Home Center is in attendance. They will be building the ramp. The rep will make sure the home owner is credited the \$400.

#### **C. Close public hearing**

#### **D. Commission action.**

*Commissioner Leingang motions to recommend approval of the setback variance and to refund the \$400 variance fee. Commissioner Camisa seconds. Upon vote, the motion passes unanimously.*

### **OTHER BUSINESS**

#### **1. Appointment of Chair, Vice Chair and Secretary.**

*Commissioner Knoll motions to appoint Bill Robinson to Chair, Karl Liepitz to Vice Chair, and Nancy Moser to Secretary. Commissioner Leingang seconds. Upon vote, the motion passes unanimously.*

#### **2. 2020 Meeting Dates. Dates with an \* fall on or near a holiday. Consider rescheduling.**

**January 27**

**February 24**

**March 23**

**April 27**

**\*May 25 – Memorial Day (suggested change to Wednesday, May 27)**

**June 22**

**July 27**

**August 24**

**September 28**

**October 26**

**November 23**

**\*December 28 – (Date o.k? Other options are Wednesday, Dec. 23 or 30)**

*Commissioner Camisa motions to schedule the meeting dates as shown with changes to May 27 and December 28. Commissioner Knoll seconds. Upon vote, the motion passes unanimously.*

*Commissioner Camisa motions to adjourn. Commissioner Knoll seconds. Motion passes unanimously.*

*Meeting adjourns at 5:41 p.m.*

# **PUBLIC HEARING # 1**

**PUBLIC HEARING # 1**

Mandan Planning and Zoning Commission Agenda Item PH1  
 For Meeting on January 27, 2020  
 Mandan Engineering and Planning Office Report  
**Sunset AveNew Comprehensive Plan Amendment**  
 Requested Action  
**Amendment to the City's Comprehensive Plan**  
**(Mandan Land Use and Transportation Plan)**

Application Details				
Applicant	Owner	Subdivision	Legal Description	
Eric Bellanger/Wendy McNicols	Jon McCreary	McCreary Amendment to the Comprehensive Plan	See Page 3 of Exhibit 5 for Legal Description of Area	
Location		Proposed Land Use	Parcel Size	Number of Lots
Area North of Mandan Middle School (North Mandan)		Residential, Commercial, Public Use	550+ acres total	N/a
Existing Land Use	Adjacent Land Uses	Current Zoning	Proposed Zoning	Adjacent Zoning
Bare Land	Bare Land/Single-family/Multi-family/Public (School)	Agriculture	N/a	R7/RM Residential
Fees	Date Paid	Adjacent Property Notification Sent	Legal Notices Published	
No Charge	N/a	January 10, 2020	January 17, 2020 and January 24, 2020	

Project Description
<p>Eric Belanger and Wendy McNichols have submitted an application for an amendment to the comprehensive plan for approximately 550 acres in north Mandan.</p> <p>City staff from multiple departments met with the applicant or the applicant's representatives Steve Iverson and Jerod Klabunde on a number of occasions to address concerns or issues that needed to be addressed in order to provide a recommendation of approval to this Commission.</p> <p>Exhibits 1 and 2 highlight the land use and transportation changes overlaid on one another for ease of review of the proposed changes. Exhibits 3 and 4 include the broader plan document providing analysis and evaluation related to the provision of utilities, such as water, waste water, and storm sewer.</p> <p>One of the primary changes is a proposed school site at the intersection of 38<sup>th</sup> and Sunset Dr. This site will be used as the anchor for other surrounding residential and commercial development in the vicinity. Other changes, include adjustments to the alignment of an extension of Jude Ln. (collector) and to the alignment of Sunset Dr. (arterial). Another change is the removal of some high and low density designations and replaced with medium density.</p> <p>If approved, this amendment to the comprehensive plan would replace the future land uses and preliminary road layout presently planned for the area.</p> <p>Staff is recommending approval of the amendment to the land use and transportation plan.</p>
Agency & Other Department Comments
<p>Parks comments can be found in Exhibit 6.</p>

Metropolitan Planning Organization (MPO)

The MPO has concerns regarding the spacing of intersections on 38<sup>th</sup>, which is to be a bypass in the future. Also a concern was having the school site located along the intersection of two major roadways.

**Engineering & Planning Staff Comments**

Staff asks the Planning and Zoning Commission to focus on the uses which may be inherent in each of these proposed designations and their spatial relationship to one-another and determine if this plan is superior than the one presently adopted by this Commission for this area.

**Engineering & Planning Recommendation**

The Engineering and Planning Department recommend approval of the amendment to the comprehensive plan as presented in Exhibits 1 and 2 and supported by analysis and other documentation provided in Exhibits 3 and 4.

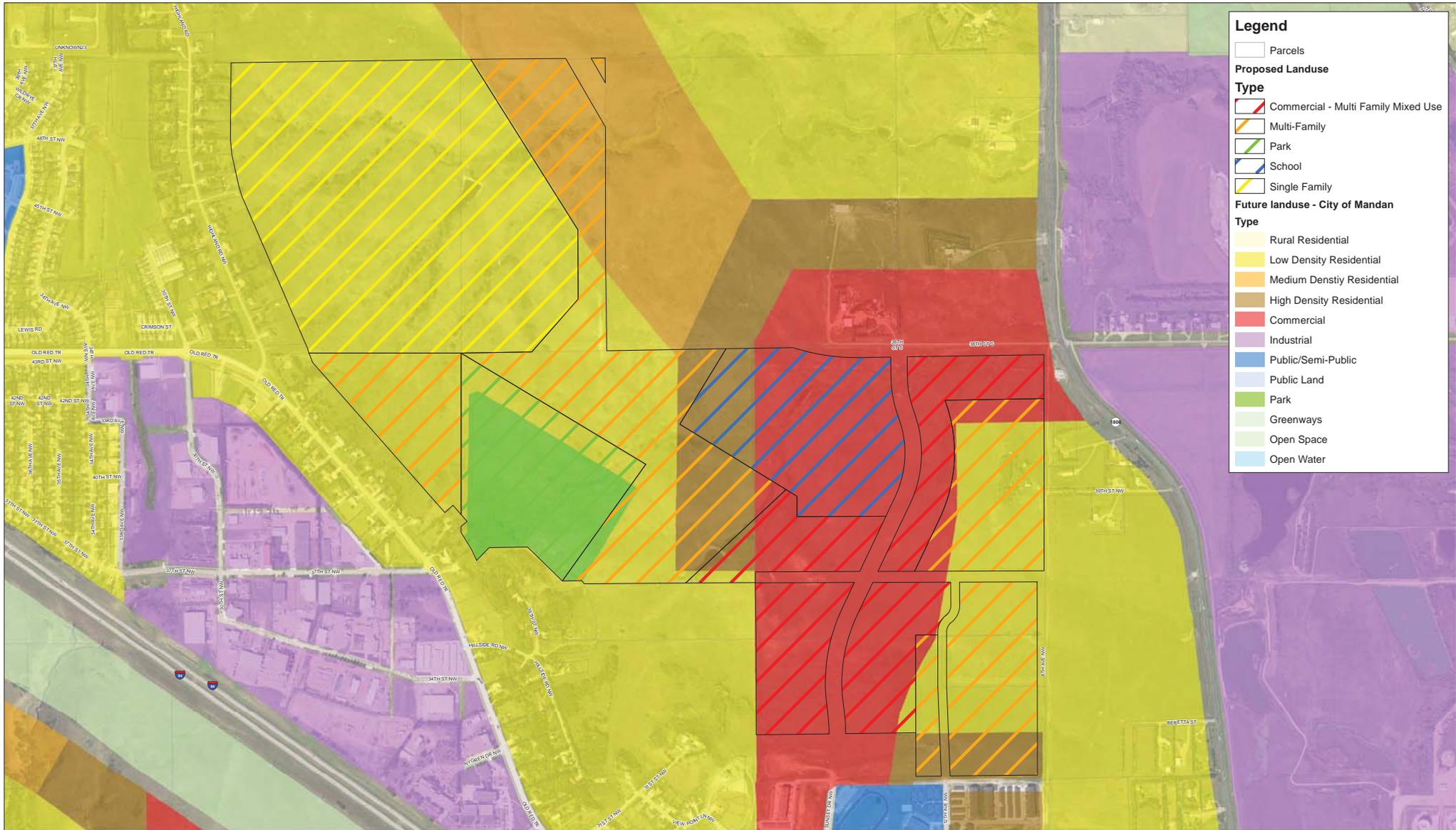
**Proposed Motion**

I move to approve the amendment to the comprehensive plan as presented in Exhibits 1 through 2, supported by analysis and other documentation provided in Exhibits 3 and 4.

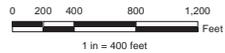
List of Exhibits:

- Exhibit 1 – Proposed Land Use Comparison
- Exhibit 2 – Proposed Transportation Comparison
- Exhibit 3 – Sunset AveNew Plan Document
- Exhibit 4 – Sunset AveNew Plan Figures
- Exhibit 5 – Resolution Amending Mandan Land Use and Transportation Plan
- Exhibit 6 – Comments Received from Parks

# EXHIBIT 1



**PROPOSED LAND USE MAP  
SUNSET AVE VICINITY  
MANDAN, NORTH DAKOTA**



Created By: TJS Date Created: 12/26/19 Date Saved: 01/06/20 Date Plotted: NEVER Date Exported: 01/06/20  
 Plotted By: isabell.schmidt Parcel Date: N/A Aerial Image: 2018 County NAIP SIDS Elevation Data: Lidar  
 Horizontal Datum: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet Vertical Datum: NAVD1988  
 T:\Projects\20700\20707\20707\_Proposed\_Land\_Use.mxd



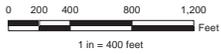
# EXHIBIT 2



**Legend**

- Proposed Roadway Centerlines
- Future Roadway Centerlines - City of Mandan
- ▭ Parcels

**PROPOSED LAND USE MAP  
SUNSET AVE VICINITY  
MANDAN, NORTH DAKOTA**



Created By: TJS    Date Created: 12/26/19    Date Saved: 01/03/20    Date Plotted: NEVER    Date Exported: 01/03/20  
 Plotted By: Ismael.schmidt    Parcel Date: N/A    Aerial Image: 2018 County NAIP SIDS    Elevation Data: Lidar  
 Horizontal Datum: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet    Vertical Datum: NAVD1988  
 T:\Projects\207000\207070\20707\_Proposed\_Transportation.mxd





## EXHIBIT 3

2911 N 14<sup>th</sup> Street  
Suite 301  
Bismarck, ND 58503

P: 701.282.4692  
F: 701.282.4530



December 17, 2019

Mandan City Engineering and Planning Department  
205 Second Avenue NW  
Mandan, ND 58554

RE: Memorandum  
Sunset AveNew  
Project No. 20707

This memorandum provides an assessment of the following issues related to the development of the Belanger properties in Mandan, North Dakota to be known as Sunset AveNew:

1. Summary of direction from applicable planning documents, related policies and land use restrictions
2. Development phasing
3. Stakeholder coordination
4. Transportation assessment
5. Utility needs assessment
6. Storm water approach

This information is based on the preferred master plan (See figure 2) under consideration as of the date of this memorandum.

### Applicable Planning Documents, Policies, and Restrictions

#### Mandan Land Use and Transportation Plan (2015)

The Planned Future Land Use Map designates the subject property a mix of all land use designations with the exception of Industrial. The southern end of the property that abuts existing development will be primarily mixed use retail/office/residential along Sunset Drive to the future 38<sup>th</sup> Street, and the extension of 12<sup>th</sup> Avenue to 37<sup>th</sup> Street will be primarily medium-high density residential. The development's core is a 50+/- acre site set aside for the new Mandan High School. South of the school provides areas for mixed use/recreational type uses along with medium-high density residential west and southwest of the school site. Single family residential is anticipated in the northwestern part of the master plan.

The master plan is consistent with the uses shown and the intent of the Planned Future Land Use Map

The Mandan Land Use and Transportation Plan identifies the extension of Sunset Drive to the future arterial/north side bypass that will be 38<sup>th</sup> Street.

- The master plan follows the future classification system provided in the City Plan.

### **Fringe Area Road Master Plan (Morton County-Mandan, 2014)**

The MPO's Fringe Area Road Master Plan (FARMP) identifies future corridors for arterial and collector roadways across the property. These corridor alignments are similar to what is provided in the Mandan Land Use and Transportation Plan's Future Transportation Classification Map. The exception is that the alignment (8<sup>th</sup> Avenue NW) that runs north/south along the east edge of property is a collector in the FARMP, rather than an arterial as shown in the City's Plan.

- The master plan follows the future classification system provided in the FARMP.

### **I-94 Corridor Study**

This MPO study identified needed improvements to the Sunset Drive Interchange (south of the property) and identified a future I-94 grade separation to access Old Red Trail 1 mile west of the property.

- The buildout of the master plan is NOT dependent upon the completion of the grade separation.

### **North Mandan Subarea Transportation Study and Arrive 2045**

The North Mandan Subarea Transportation Study and the (2013) and Arrive 2045 (in process) are two relevant studies applicable to the area created by the Bismarck Mandan MPO. These MPO documents mirror the City's Land Use and Transportation Plan Future Transportation

Classification System. Shared-use path alignments are also shown to extend into the site, following the future minor arterial corridors.

- The master plan follows the North Mandan Subarea Transportation Study direction provided for the property's future arterial and collector roadways, as well the need to extend pedestrian and bicycle access to the property with shared-use paths.

### **Mandan Zoning Classifications**

Figure 1 depicts existing land uses for areas adjacent to the master plan. The proposed land uses in the master plan are shown with corresponding city zoning classifications to be considered upon future subdivision.

### **North Dakota Main Street Initiative**

The City of Mandan has been making great strides in recent years to follow the Main Street Initiative, for example by focusing planning and infrastructure investments in the downtown area. Understanding the City's desire to follow the Initiative on a community-wide basis, noted below are the main goals (referred to as "pillars") of the Initiative and how the master plan intends to follow each.

### ***1. Healthy, vibrant communities***

Recreation. A central focus of the Sunset AveNew Master Plan is the open space afforded by the site's unique terrain and existing parkland dedication. In conjunction with over 45 acres of open space available onsite, recreation will be a key component of the project, not to mention an attraction for the whole City. The open space corridors in the master plan are envisioned to provide trail corridors for hiking, biking, and other passive recreational opportunities in mixed prairie, woodland, and riparian habitat.

Mixed use neighborhood center. Just to the south of the future high school site will be a large area of mixed use office, retail, and residential uses. The developer envisions a large mixed use complex similar to Three Forks in Winnipeg, MB with a variety of small retail service outlets, office, and residential all incorporated into an indoor/year round entertainment facility.

Support to Downtown Mandan. At buildout, the master plan will accommodate an estimated additional 5,700 residents in the City of Mandan. This will help to increase activity downtown and lead to greater success downtown. The master plan is not intended to compete with Downtown by offering different housing options in a different setting than the unique experience only a downtown can offer. In addition, the mixed use neighborhood center is intended to support the local neighborhood needs of the master plan area, not targeted to the community as a whole. There is a national indoor entertainment franchise tentatively looking at the south end of the project that would provide the City/metro and regional draw.

### ***2. 21st Century workforce***

Education. Schools are a critical component of creating a 21st century workforce. The master plan accommodates a future high school site (replacement of Mandan's existing high school—see further detail under the stakeholder coordination section). Schools also serve as centers of community gathering and activity. Based on Mandan School District needs as part of later phases of the development, the master plan is flexible to accommodate any possible elementary school needs.

Jobs. The master plan focuses on creating jobs with wages that can support a family. The retail/commercial and mixed-use areas are intended to provide limited retail, office, entertainment, and professional/personal service opportunities. As a result, capacity is available for an estimated 2,000 family-wage jobs.

### ***3. Smart, efficient infrastructure***

The development of infrastructure to support the master plan will depend on a strong public private partnership. This includes Dr. Eric Belanger and his holdings, City of Mandan, State Department of Transportation, School District, Park District, and adjacent property owners. At this initial, conceptual stage of the development these partnerships are still being formed. More information pertaining to coordination with these entities can be found under the Stakeholder Coordination section of this document.

## **Development Phasing**

Given the significant size of the proposed master plan (over 550 acres), a phasing plan has been developed. Four phases are identified, with the first phase to be developed in the southeast corner of the master plan. Refer to figure 3 for the phasing plan.

## **Stakeholder Coordination**

### **Mandan Public Schools**

Development of the master plan has involved close coordination with the Mandan School District. The District is currently looking at multiple sites to relocate the existing high school. The master plan looks to help the District solve the need for a new high school site and identifies the central core of the master plan for the future high school. Discussion is ongoing with the District.

### **Mandan Park District**

Coordination has also taken place with the Park District. At this time, discussion has involved future shared use paths on the property (and connecting the property to the developed portion of the City). Coordination will continue into the future regarding park space needs, use of open space within the master plan, and parks and recreation funding.

### **JAMS Properties LLP**

JAMS Properties LLP, a development company, owns property between the master plan area and the developed portion of the City along Sunset Drive. The owner is open to the use of the property to provide ingress/egress across the property in the form of transportation and sewer improvements. This property is planned for a mix of residential and commercial development in the City's Comprehensive Plan. It is anticipated that infrastructure connections built on the property will help initiate development of the property. Discussion with the development company is ongoing and positive.

## **Transportation Assessment**

### **Traffic Operations**

The purpose of this section is to provide an overview of the preliminary transportation assessment approach, findings, and key considerations. Significant information includes a summary of land uses associated with four development phases, access management, and phasing/implementation considerations. Additional detail with respect to specific traffic controls and turn lanes are expected to be evaluated at a future time.

A key component to evaluating the Sunset AveNew's site transportation system was to review previous Bismarck Mandan Metropolitan Planning Organization (MPO) and City of Mandan planning documents (i.e. Mandan Land Use and Transportation Plan (2015), the Fringe Area Road Master Plan (Morton County-Mandan, 2014), the I-94 Corridor Study, and Envision 2040). These resources have identified key corridors to enhance short-term and long-term vehicular and pedestrian/bicycle connectivity.

### **Land Use & Traffic Generation**

Land uses proposed for each development phase were evaluated to determine associated estimated trip generation per cumulative phases. A summary of the land uses and equivalent average daily traffic volumes for each phase are illustrated in Table 1.

*Table 1. Proposed Development Phases Trip Generation Summary*

Phases 1 and 2		
Master Plan Land Use Type (ITE Code)	Approximate Size	Daily Trips
Low-Rise Multi-Family Housing (220)	730 DU (10 UPA)	6,205
High School (530)	1,400 Students	2,842
Mixed use office, retail, residential users	3.3 MM SF	6,600
Phases 1 and 2 Subtotal		15,750
Phase 3		
Master Plan Land Use Type (ITE Code)	Approximate Size	Daily Trips
Single Family Housing (210)	75 DU (3 UPA)	725
Low-Rise Multi-Family Housing (220)	800 DU	6,800
Park (411)	45 acres	90
Phase 3 Subtotal		7,625
Phase 4		
Master Plan Land Use Type (ITE Code)	Approximate Size	Daily Trips
Single Family Housing (210)	450 DU	4,275
Low Rise Multi-/Family Housing (220)	200 DU	1,900
Phase 4 subtotal		6,175
Phases 1 - 4 / Full Build - Out, Total Site Trips		28,000

## Roadway Connections

Potential future connections are identified in Figure 5. This graphic's focus is on the primary roadways (i.e. arterials and collectors) within the site for all four phases. However, as development occurs, several internal public/private roadways are expected to be included to help circulation and access within the area, reducing dependence on the primary roadways within the site.

A key connection within the development is at the existing terminus of Sunset Drive and also 11<sup>th</sup> Ave NE. Both thoroughfares will funnel the higher density/intensity uses envisioned for the southerly portion of the development south under the interstate at Sunset Drive or to Old Trail NW and ultimately under/to the interstate at 1806.

An essential component to the property's transportation network is the proposed major north side bypass and bridge crossing at 38<sup>th</sup> Street which the MPO has studied since 2005. This centrally located roadway provides an additional option to access future northerly growth of Mandan and easy direct access to north Bismarck.

Two collectors have been identified by past studies and reports to bisect and serve the site. The first collector proposed is 31<sup>st</sup> Street NW, which would connect Sunset Drive to 1806, as would the second collector 37<sup>th</sup> Street NW. 37<sup>th</sup> Street NW in concept connects Old Red Trail over to 1806.

Note this master plan DOES NOT require any additional interstate access or over/underpass improvements to service it. As development occurs and traffic counts rise, there will invariably be some level of improvements to intersections along Sunset Drive and 1806, but those can be addressed as time passes and development warrants it during the platting and dedication phase.

### Preliminary Trip Distribution

Figure 5 shows anticipated trips generated for Phases 1-4 of the development and buildout. Note that the trip distribution analysis was qualitative and not based from the regional travel demand model. The travel demand model would and will produce a more accurate projection of possible trip distribution from the development as the development advances. Note the heavy share of total trips projected to use Sunset Drive and 12<sup>th</sup> Avenue NW in Phase I and continuing to grow through buildout. Development of the Seven Winds property to the east will alleviate some of the burden with a future connection to 1806 at 37<sup>th</sup> Street NW.

### Transportation Network Phase Implementation

Results of the proposed transportation network indicates that the roadways illustrated in Figure 5 are expected to provide sufficient capacity to accommodate Phase 1 and most of 2 development conditions. Subsequent phases will likely require additional “ways in and out” to satiate EMS needs and requirements. In this instance, either a connection to 1806 through the Seven Winds land, or a segment of the north side bypass to connect 38<sup>th</sup> Street NW from Sunset Drive to 1806 would satisfy those requirements.

### Access Control

As development occurs and the roadway network is developed, adherence to the Fringe Road Design Criteria – Access Location recommendations (see Table 2 below) should occur.

*Table 2. Relationship between Functional Classification and Design Characteristics*

Functional Classification	Distance Served (and Length of Route)	Intersection Spacing/Access Points	Direct Land Access?
Other Principal Arterial	Multiple miles to across the region	5 per mile (1/880')	No
Major Collector	Multiple miles	9 per mile (1/600')	No
Minor Collector	1 to 2 miles	Could provide direct land access	Allowed

source: Fringe Road Area Master Plan, September 2014

## Traffic Controls

Once the internal roadway network has been identified and confirmed with specific and objectively defined end users/trip generation, additional analysis is expected to occur to refine specific traffic control and turn lane needs, as well as the approximate implementation timeframe. This too will occur in conjunction with future platting/dedication activities.

## Pedestrian and Bicycle Connections

Discussion with Cole Higlin, Park District Director, confirmed the District's desire to extend existing shared-use paths as contemplated in the Mandan Land Use and Transportation Plan, as well as in Envision 2040.

The developers of Sunset AveNew envision a comprehensive path network throughout the development, creating a walkable/healthy community. Paths will be incorporated with major collector roadway projects, and extended/connected into each subsequent phase of the project as specific projects are developed.

## Utility Needs Assessment

There are a number of existing easements and pipelines that cross the development property that need to be incorporated into the master plan. Among them are:

- City of Mandan has an existing water distribution easement and transmission line running east-west across the site. Information provided by the developer's team is currently being coordinated between the City and their consultant.
- Marathon Oil has an existing easement and transmission line running northwest – southeast across the site. The developer has been in contact with their representatives to coordinate future easement widths and access allowances.

A full copy of the easements has been described in the attorney's title opinion, which has been provided to the developer and City. While these easements create obstacles, they are generally conveying below-ground piping which gives the opportunity for green space and multi-use pedestrian trail corridors throughout the development. Although a constraint and consideration, they potentially set the table to create the walkable-community setting that the developers are intending for this neighborhood. The master plan has been designed to avoid conflicts with and considers these utility corridors.

Today, the areas are not yet served with water distribution and sewer collection facilities. High-level, conceptual water and sanitary sewer system extension concepts, based on the City's master plans, have been further developed for the master plan. These conceptual plans are figures 6 & 7 of the master plan.

### Mandan Sewer Master Plan

Buildout will require significant extensions to the City’s sanitary sewer system, but land use is generally in line with the intention of the Growth Area a masterplan for the community. The City of Mandan’s comprehensive Wastewater and Collection System Master Plan (2012) analyzed the expansion of the community’s sanitary sewer system and put significant planning into the sizes and locations of future sewer main pipes and lift stations. The study anticipated significant growth for the development area being planned, and refers to this as Growth Area A for the community. A critical 21” trunk sewer main is planned to be installed to accommodate the entire Growth Area A and is planned to be installed under a 2021 NDDOT project, shown in Figure 1. Major development (more than 10-15%) of this area will need to be restricted until the completion of the critical sewer infrastructure in 2021.



Figure 1: 2021 Trunk Sewer Main Extension

The 550+ acres of development property included within this master plan spreads across Growth Area A, more specifically sub-areas A2, A3, A4 and A5. The timing and order of development will require modifications to the phasing and layout of the Master Plan for Growth Area A. Two Amendments to Growth Area A have been submitted to the City for review and approval separate from this Master Plan.

Amendment #1 to Growth Area A proposes that Sunset AveNew Phase 1 sewage flows be diverted to the Terra Vallee lift station. Amendment #1 is included in the Appendix to this report.

Amendment #2 to Growth Area A proposes that the lift stations for Growth Areas A2, A4, and A5 be combined into one lift station located within A5. Amendment #2 is included in the Appendix to this report.

It is important to first note that three separate utility lines currently cross the master plan area. These are shown in Figure 2 (Master Plan graphic) and include the following:

- Gas transmission line running east/west across the center of the site parallel 38<sup>th</sup> Street NW.
- Oil transmission line running SE/NW bisecting the site.
- Water transmission line running east/west across the southern 1/3 of the site.



Figure 2: Growth Area a Master Plan

## **Mandan Water System Master Plan (Amended 2013)**

There is a 30" water transmission line bisecting the master plan from east to west that is scheduled to be replaced and relocated in 2020.

### **Stormwater Approach**

#### **Existing Condition**

The existing land use of the proposed 550+ acre development site consists of pasture land for cattle. Topography is steep, generally sloping toward the northeast towards the Missouri River with a series of coulees that accumulate flow to 3 distinct discharge points from the site. It appears that 3 stock ponds for watering cattle were built with earthen berms through the bottoms of the coulees. These ponds do provide some storm water benefit by reducing peak discharge rates.

#### **Proposed Condition**

The proposed 550+ acre development includes the addition of commercial and residential areas, adding roughly 360 acres of new impervious surface. Due to the steep terrain it is assumed that flow patterns will match the existing conditions. The new roadways will have curb and gutter, allowing for roadway and development drainage to be picked up in storm sewer and directed towards the storm water ponds located at the downstream ends of the existing coulees. It is not anticipated that any storm sewer pumping stations will be required.

#### **Regulatory Environment**

The project site is located within the City of Mandan City Limits but downstream drainage areas are outside the city limits and fall within the jurisdiction of the Morton County Water Resource District. The City is the local government unit for water resources-related permitting within the District, and the project will have to be designed to meet their requirements.

A wetland field delineation was completed in November 2019 by Wenck Associates in Mandan. They are currently preparing the wetland delineation report that will be used to complete a jurisdictional request with the U.S. Army Corps of Engineers (USACE). The preliminary wetland delineation findings indicate wetlands occur along the creek and ravines on the project site and that these wetlands will likely be considered jurisdictional by the USACE due to the downstream connectivity of the wetlands to the Missouri River. Impacts to jurisdictional wetlands will require permitting and mitigation under Section 404 of the Clean Water Act (CWA), and therefore, the Master Plan will be designed to avoid and minimize potential impacts to wetlands by considering placement of buildings and crossings. These design consideration will be completed with the intent of more efficiently completing permitting and minimizing any potentially required wetland mitigation.

#### **Water Quantity and Volume Control**

Storm water generated from the project areas flows into the coulees and exits the site to the northeast. Storm water rules required discharge rates for the 2-year, 10-year and 100-year storm events to be less than or equal to existing peak discharge rates using the Intensity-Duration-Frequency curve. In addition, City rules state that detention basins should provide a minimum of one foot of freeboard above the 100-year surface elevation.

## Water Quality

Facilities will be designed to enhance the quality of storm water runoff. For planning level purposes, it is assumed that the storm water detention basins will be sized to provide minimum dead storage volume for water quality treatment.

## Pond Design

Preliminary locations are shown for future detention ponds. These ponds will be designed in detail with the development and the appropriate phases.

A HydroCAD hydrologic/hydraulic model was developed to analyze runoff volume and peak flow rates from the site. The model utilizes Atlas-14 precipitation depths as seen below in the table below:

Rainfall Duration	2-Year	10-Year	100-Year
24-Hour	2.06	3.10	5.24

Rainfall distribution was modeled utilizing the SCS Type II 24-hour distribution. Time of Concentration (T<sub>c</sub>) was calculated within HydroCAD utilizing tools based on Part 630, Chapter 15 of the National Engineering Handbook. Curve numbers for the site were developed from the Hydrologic Soil Groups (B=15%, C=27%, D=58%) found from the NRCS soil map.

The drainage basin outlet rates were preliminarily established as shown in the table below. As previously stated, the exact location and sizes of each detention pond will be provided at a future date. Note this table does include parts of drainage areas outside of the master planned area (approximately 267 acres not in the master plan).

Basin	Drainage Area (Acres)	2-Year (CFS)	10-Year (CFS)	100-Year (CFS)
North Rock Haven	230	36	98	255
Rock Haven	417	70	163	304
North Terra Vallee	225	40	110	286

# Wastewater & Collection System Master Plan (2012)

## Amendment #1: Update to Growth Area A (2019)

Prepared for:  
City of Mandan – Engineering Department



December 23, 2019

Prepared by  
Erik Gilbertson, PE

QC Review:  
Jerod Klabunde, PE



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## **I. Project Background**

Advanced Engineering & Environmental Services (AE2S), under the direction of the City of Mandan, prepared a Wastewater and Collection System Master Plan in 2012. This Master Plan provided an analysis of the existing wastewater facilities within the City of Mandan and also provided recommendations for growth inside and outside the current City limits. At the time of the study, the City's existing sanitary sewer system was as shown in Exhibit A. Since the study was finalized, there have been modifications to the City's wastewater collection system and additional improvements are planned in the near future.

The focus of this amendment will be to discuss updates to the planned expansion of the sanitary sewer system on the north side of the community referred to as Growth Area A. Growth Area A is situated in close proximity to the I-94 corridor and has the potential to be an area of great expansion for the community. Complicating things and restricting growth has been the steep terrain, coordinating multiple land owners with varying interest, city limit boundaries, and the extremely high cost to develop.

Within the original study, Growth Area A was divided up into 9 sub areas (Sub Area A1, A2, A3, etc.) which would eventually be served by 6 separate lift stations (see Exhibit B). The original study predicted that sub-areas A1, A2 and A3 would be the first and quickest to develop, but growth trends could happen in a differing order. Ultimately, regardless of which sub area grows first, a trunk sewer main and regional lift station(s) are considered essential infrastructure to serve the entire Growth Area A.

As shown in Exhibit C, the City is currently planning to extend the large diameter gravity trunk sewer main to serve the entire Growth Area A with the work scheduled to be constructed under a NDDOT project during the 2021 construction season. This trunk sewer main is one piece of the essential infrastructure needed to accommodate the overall Growth Area A, regardless of the order in which the sub areas develop.

Today, the sub area identified as A3 is 100% developed and is served by an existing lift station locally referred to as Lift Station #10 or the Terra Vallee Lift Station. Eventually, it is the intention of the community's masterplan to retire the Terra Vallee Lift Station and to serve a much larger area with the future, regional lift station (A2 or other).

## II. Potential Growth Being Planned

Driving the need for this Amendment is that the City is reviewing the Master Plan of a 500+ acre development referred to as The Sunset AveNew development which is located within portions of Growth Areas A2, A4, and A5 (see Figure 1).

Primarily pasture land, Growth Areas A2, A4, and A5 require the installation of a new wastewater collection system, including gravity sewer mains, lift stations, and sewage force mains. These Growth Areas will converge in a new collection system to be constructed along the Old Red Trail, and ultimately pumped to the trunk sewer being installed in the 2021 NDDOT project.

Phase 1 of the Sunset AveNew development is located in the southwest portion of Area A2, just north of Area A3.

This report will examine the possibility of modifying the boundaries between the proposed A2 and A3 sub areas because of the order of development being planned. Developers are willing to invest and develop in the western portion of the A2 sub area. The primary issue is that the A2 lift station needs to be built along the far east end of the A2 sub area and is not anticipated to be constructed in the near future.

In order to facilitate this short term growth in the area north of A3, the Terra Vallee lift station could be used in the interim. By adding this portion of A2 to the Terra Vallee lift station, an additional  $\pm 60$  acres of land could be developed utilizing infrastructure in place today. Short term, the Terra Vallee lift station would be utilized; however, long term it is understood that when the Terra Vallee lift station is retired, this portion of A2 would be connected to the rest of the A2 sub area and utilize the future regional lift station. In the end, all of the sub areas within Growth Area A would eventually end up in the same location, the trunk sewer main being installed under the planned 2021 project.

This report is needed to analyze the existing capacity of the Terra Vallee lift station, the exact area that could be added (confirm elevations to ensure gravity flow) and that the lift station can sufficiently handle the additional wastewater generated by the growth area.

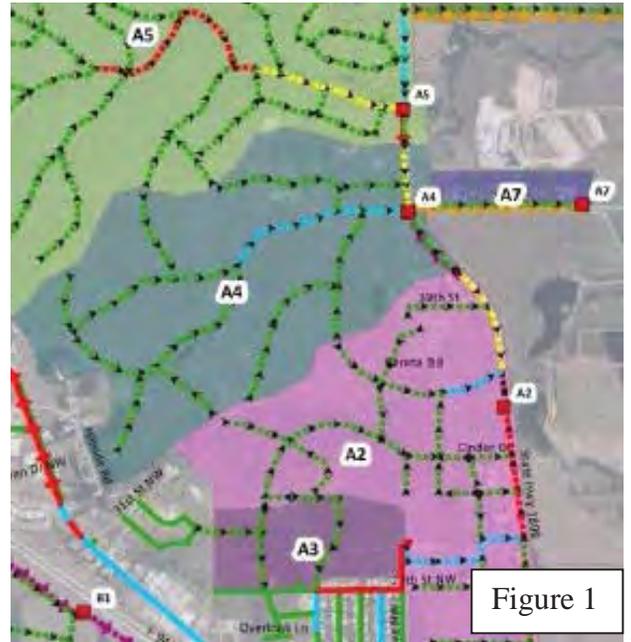
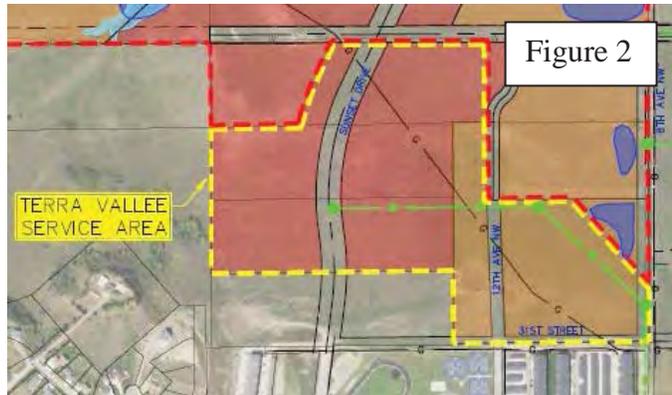


Figure 1

Sunset AveNew – Phase 1 of the Sunset AveNew Development will be located directly north of the termination point of Sunset Avenue. The Phase 1 development will include approximately 50.6 acres of developable land, but for the purposes of this analysis an additional 13.1 acres of adjacent land owned by others is included. Figure 2 shows the approximate 64 acres of future development land to be included in the Terra Vallee lift station. Exhibit D shows the preliminary rim and invert elevations for the gravity flow sewer system that would serve the area.



The flows for the 64 acres were calculated using the methodology utilized in the Mandan Wastewater Collection System Master Plan. The master plan provided typical flow rates to apply to undeveloped land. These flowrates were developed from existing water usage records within the City.

Land Use	Area	Average Day Flow*	Equivalent Population	Flow gpd	Flow gpm
School	3.3	0.36	17	1,711	1.19
Mixed Use Commercial / Multi Family	30.8	0.36	160	15,967	11.1
Multi Family	16.6	0.50	120	11,952	8.3
Unknown Use (by Others)	13.1	0.50	94	9,432	6.6
	63.8		391	39,061.4	27.1
<b>Peaking Factor</b>		<b>4.03</b>			
<b>Peak Flowrate (gpm)</b>		<b>109</b>			

\* Average Day Flow taken from Table 2-6 of the Mandan Wastewater Collection System Master Plan

As shown in the table above, the proposed increase of 64 acres of land being added to the service area of the Terra Vallee lift station will result in an increase of approximately 39,000 gallons per day.

### III. Terra Vallee Lift Station Evaluation

The Terra Vallee lift station was constructed in 1997 and consists of a two pump dry well station. The pump capacity of the lift station is measured at 350 gallons per minute.

The run times of the lift station were analyzed over the last 5 years. As shown in Figure 3, there has been a steady increase over that time period, but over the last two years, the flows have averaged approximately 200

minutes per day or about 3.3 hours, which equates to 70,000 gallons per day at a pump flow rate of 350 gallons per day(as shown in the master plan).

Lift stations can reasonably be considered at capacity when at 8 hours/day run time on average, which yields a maximum average day capacity of the Terra Vallee lift station equivalent to 168,000 gal/day.

The Mandan Wastewater Collection System Master Plan identified a 72.7 acre service area for Growth Area A3 which also includes offsite flows from existing areas to the west. The Master Plan calculated a flowrate of 46 gallons per minute (peak of 156 gallons per minute) or 66,240 gallons per day for the Terra Valle lift station. The current flow of approximately 70,000 gpd exceed the estimate from the Master Plan, but is within 10%, which is reasonable.

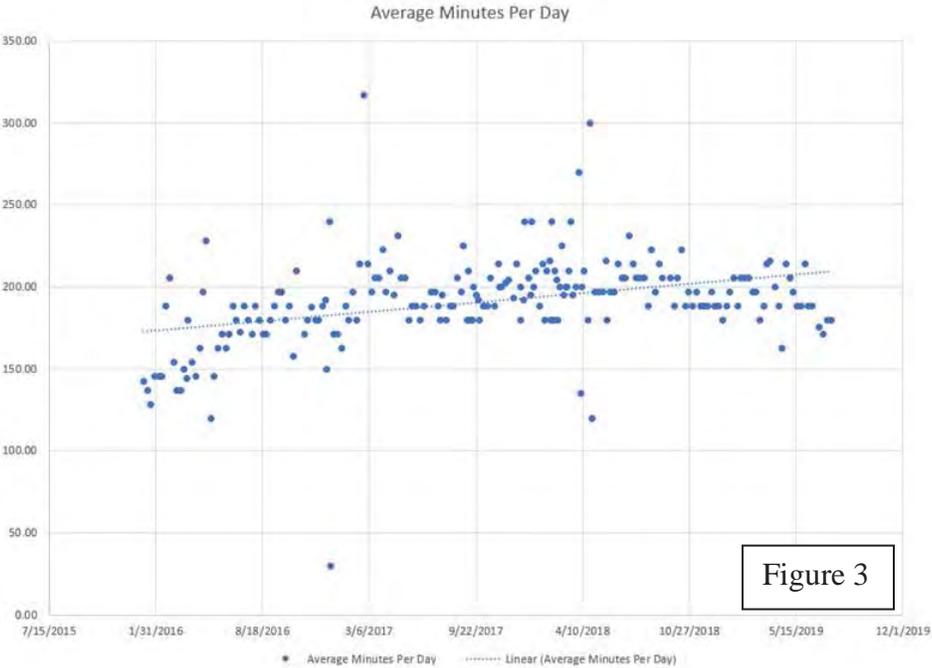


Figure 3

#### IV. Recommendations

As discussed in the analysis of the Terra Valle lift station, the current daily flows exceed those indicated in the Mandan Wastewater Collection System Master Plan. The table below summarizes the impact to the lift station if Phase 1 of Sunset AveNew is added to the service area (using the existing flows Terra Vallee flows).

	Existing Terra Vallee (A3)*	Sunset AveNew	Total System
Population	523	391	914
Flowrate (gpm)	46	27	73
Peak Flow (gpm)	156	109	265
Total Daily Flow (gpd)	70,000	39,061	109,061

\* Higher of Average Day Flow taken from Table 2-6 of the Mandan Wastewater Collection System Master Plan and actual runtime data from Terra Vallee lift station.

As shown in the table, the total daily flow after adding Phase 1 of Sunset AveNew is approximately 109,061 gallons per day, which brings the Terra Valley lift station to 65% of the 168,000 gallons per day capacity discussed above.

Given the data represented in the Mandan Wastewater Collection System Master Plan and the information provided by the City for pump run times, there is capacity to add Phase 1 of Sunset AveNew to the Terra Vallee lift station service area. As previously noted, the Terra Vallee lift station will be decommissioned when Growth Area A2 develops in the future.

We recommend that City Public Works staff provide an inspection of the Terra Vallee lift station to verify the performance, wear, and potential maintenance needs of the lift station before the Master Plan Amendment is approved.

Exhibit A (Exhibit 6-2 of Mandan Wastewater Collection System Master Plan)

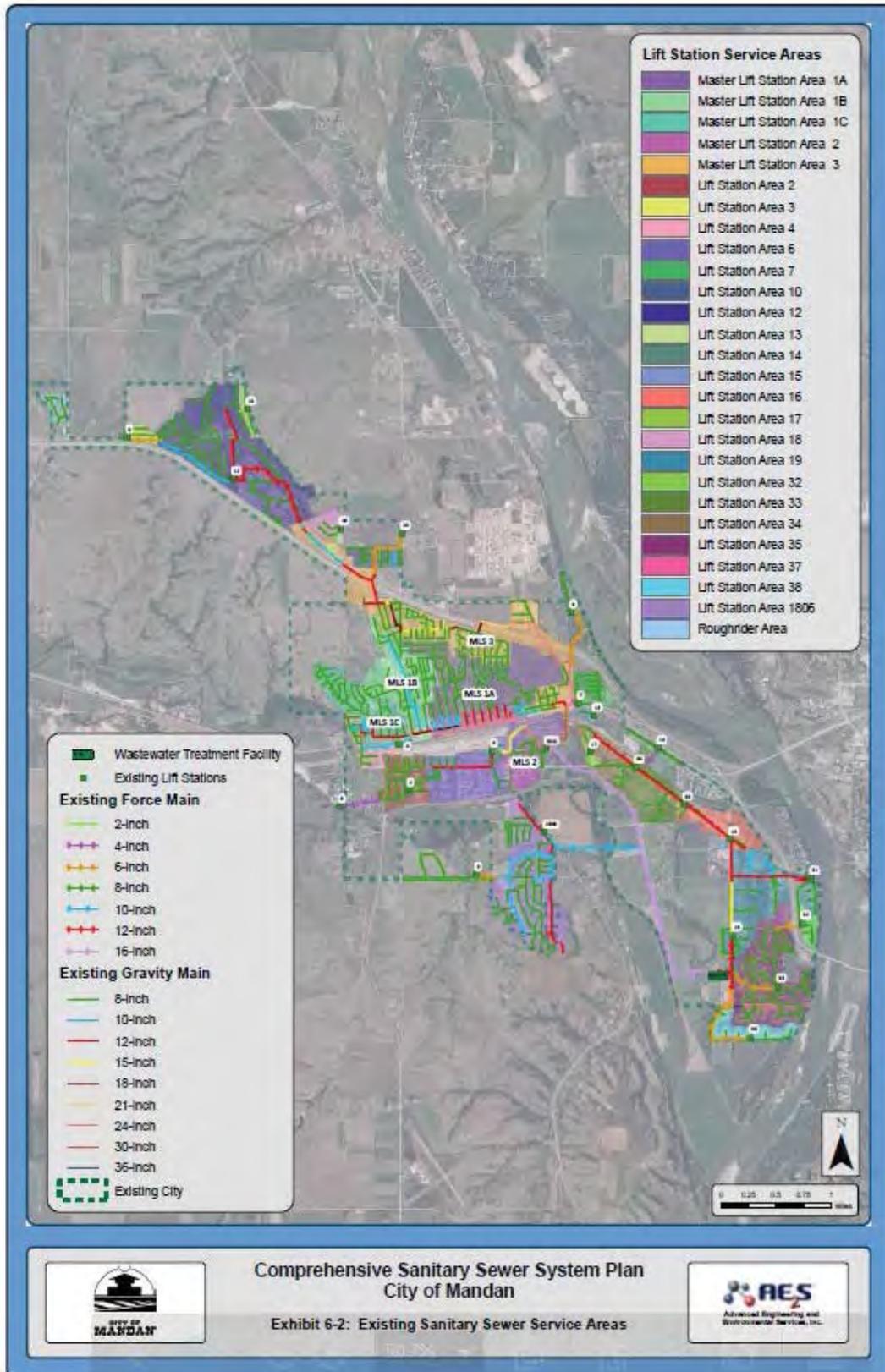


Exhibit B (Exhibit 6-21 of Mandan Wastewater Collection System Master Plan)

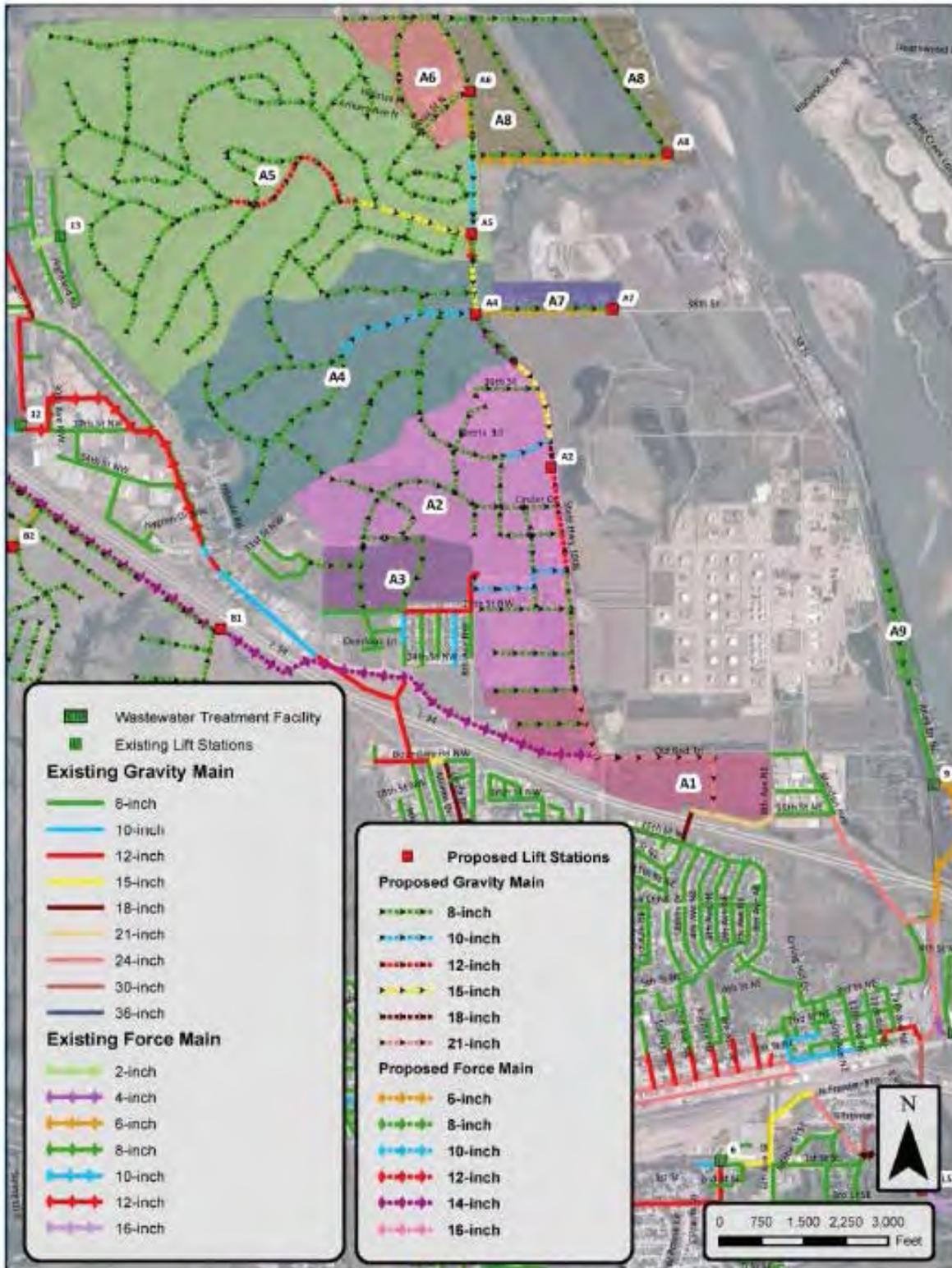
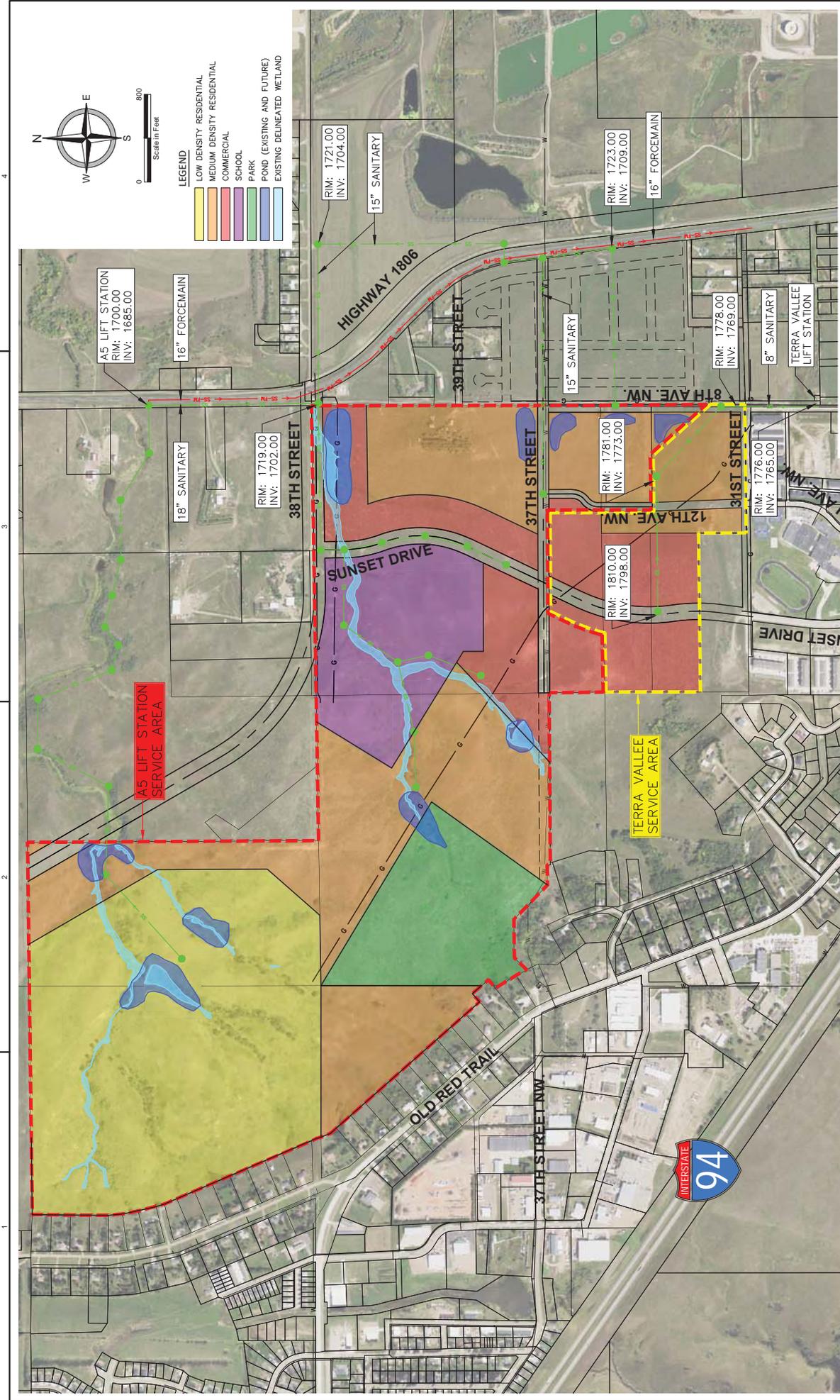


Exhibit 6-21: Conceptual Layout of Growth Area A

### Exhibit C (Old Red Trail Sewer Trunk Main)



## **Exhibit D (Growth Area A)**



PROJECT No.	20707
DATE	01/22/21
DRAWN BY	KAS
REVIEWER	EAS

WASTEWATER COLLECTION SYSTEM  
 AMENDMENT #1 & #2 - GROWTH AREA A  
 SUNSET AVENUE  
 MANDAN, NORTH DAKOTA



# Wastewater & Collection System Master Plan (2012)

## Amendment #2: Update to Growth Area A (2019) Sunset Ave New Master Plan

Prepared for:  
City of Mandan – Engineering Department



December 23, 2019

Prepared by  
Erik Gilbertson, PE

QC Review:  
Jerod Klabunde, PE



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## **I. Project Background**

Advanced Engineering & Environmental Services (AE2S), under the direction of the City of Mandan, prepared a Wastewater and Collection System Master Plan in 2012. This Master Plan provided an analysis of the existing wastewater facilities within the City of Mandan and also provided recommendations for growth inside and outside the current City limits. At the time of the study, the City's existing sanitary sewer system was as shown in Exhibit A. Since the study was finalized, there have been modifications to the City's wastewater collection system and additional improvements are planned in the near future.

The focus of this amendment will be to discuss updates to the planned expansion of the sanitary sewer system on the north side of the community referred to as Growth Area A. Growth Area A is situated in close proximity to the I-94 corridor and has the potential to be an area of great expansion for the community. Complicating things and restricting growth has been the steep terrain, coordinating multiple land owners with varying interest, city limit boundaries, and the extremely high cost to develop.

Within the original study, Growth Area A was divided up into 9 sub areas (Sub Area A1, A2, A3, etc.) which would eventually be served by 6 separate lift stations (see Exhibit B). The original study predicted that sub-areas A1, A2 and A3 would be the first and quickest to develop, but growth trends could happen in a differing order. Ultimately, regardless of which sub area grows first, a trunk sewer main and regional lift station(s) are considered essential infrastructure to serve the entire Growth Area A.

As shown in Exhibit C, the City is currently planning to extend the large diameter gravity trunk sewer main to serve the entire Growth Area A with the work scheduled to be constructed under a NDDOT project during the 2021 construction season. This trunk sewer main is one piece of the essential infrastructure needed to accommodate the overall Growth Area A, regardless of the order in which the sub areas develop.

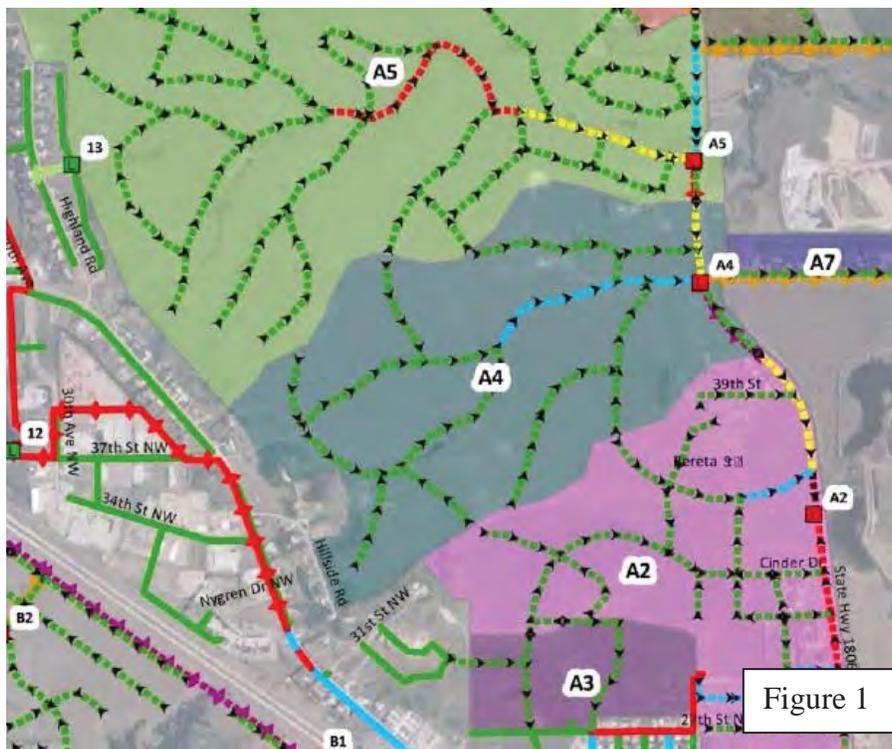
No development has taken place within the Sunset Ave New Master Plan area (Growth Areas A2, A4, and A5).

## II. Potential Growth Being Planned

Driving the need for this Amendment is that the City is reviewing the Master Plan of a 500+ acre development referred to as The Sunset AveNew development which is located within portions of Growth Areas A2, A4, and A5 (see Figure 1). The Master Plan and first Addition will be considered by the City of Mandan in the winter of 2019/2020. If the proposed plans are approved construction could take place in 2020. The work that could take place in 2020 will be dependent upon the decisions discussed within this report.

Primarily pasture land, Growth Areas A2, A4, and A5 require the installation of a new wastewater collection system, including gravity sewer mains, lift stations, and sewage force mains. These Growth Areas will converge in a new collection system to be constructed along the Old Red Trail, and ultimately pumped to the trunk sewer being installed in the 2021 NDDOT project.

The original Wastewater & Collection System Master Plan for the City of Mandan depicted a series of lift stations for conveying the wastewater south along Highway 1806. The Sunset AveNew area includes three of these lift stations. Per the Plan, Growth Area A5 will include a lift station that will pump the sewage to a gravity system which will flow to a lift station in Growth Area A4. The lift station in Area A4 will pump the sewage to a gravity system which will flow to a lift station in Growth Area A2. The lift station in Area A2 will pump the sewage to the gravity system proposed on the southern end of Highway 1806 to the system along the Old Red Trail.



### III. Collection System Summary

This report is proposing that the three lift stations (A2, A4, and A5), within the Sunset AveNew areas be combined into one lift station. This will include the construction of gravity sewer from the proposed A2 location north to the proposed A4 location, then north from A4 to the proposed A5 location. The gravity sewer will include excavations of approximately 25-28 feet for portions of the route (see Figure 2 and Exhibit D).

The route will cross properties not owned by the developer and will require obtaining easements across those properties. At the time of preparation of this report, the easements are not in place.

The proposed lift station within Growth Area A5 will pump the sewage within a force main that will be constructed south along Highway 1804 to the proposed gravity system on the southern end of the Highway near the Old Red Trail.

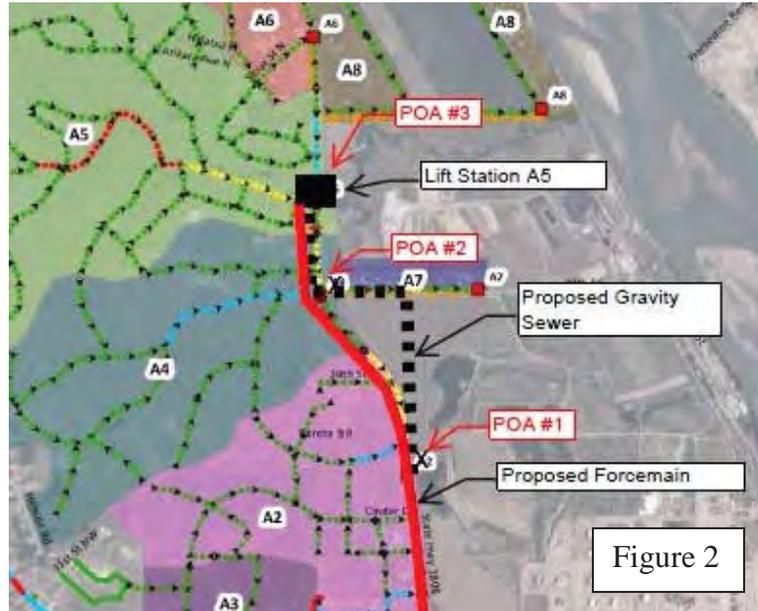


Figure 2

The total service area for the lift station in Growth Area A5 will match that of the total service area of Growth Area A2 in the original Master Plan, yielding a peak flowrate of approximately 2,500 gpm. Table 6-5 of the Master Plan was recreated to account for the lift station service areas. The original table included Areas A1 and A9 which are located outside of this Amendment area and are excluded from the table below.

#### Area A Characteristics

	Land Area (Acres)				Average Daily Flow (GPM)	Contributing Area Flows (GPM)								Total Average Daily Flow (gpm)	Peak Flow (gpm)		
	Residential (Rural)	Residential (Urban)	Mixed Use	Commercial / Industrial		LS10	LS18	A2	A3	A4	A5	A6	A7			A8	
A2		292	30.6	6.2	159	14	1.4		36							211	759
A3		72.7			36	14	1.4									52	207
A4		243.5	59	71.2	167	14	1.4	159	36				9			387	1,315
A5	16.7	752.4	32.2	12.1	396	14	1.4	159	36	167		23	9	24		830	2,572
A6	58.8	16.3			23											23	91
A7				25.7	9											9	35
A8	95.2				24											24	95
	170.7	1376.9	121.8	115.2	814.1												

The reconfigured alignment and pumping scenario will require modifications to the sizes of the collection system. The collection system was analyzed at three Points of Analysis (POA) as

shown in Figure 2. The location, peak flowrate, and preliminary downstream pipe size is summarized in the table below.

#### Point of Analysis Summary Table

	POA #1	POA #2	POA #3
Peak Flowrate (GPM)	760	1,320	2,570
Minimum Pipe Size	12"	18"	FM

#### IV. Proposed Growth Area A5 Lift Station

As previously mention, the proposed service area for Growth Area A5 will match that of Growth Area A2 from the Master Plan, although the pumping conditions will be increased. The peak flowrate of 2,500 GPM is still valid for preliminary sizing. Prior to designing the lift station, the land uses within the final Sunset AveNew Master Plan need to be compared to the assumptions from the Wastewater and Collection System Master Plan.

Attached in the appendix is minimum sizing information for the proposed A5 lift station. The proposed lift station will consist of a typical wet well and valve vault layout with submersible pumps. In reviewing the preliminary sizing information, it was determined that going with a three (3) pump configuration, instead of a typical duplex system, would provide benefits to the power loading (horsepower) of the system. Preliminary pump sizing is included in the appendix for the three (3) pump system. Estimates for constructing the lift station, gravity system from the proposed school to the lift station, and force main to the existing gravity system are included in the Appendix. The cost for this work is estimated at \$2.45 million.

#### V. Recommendations

The proposed modifications to the layout of Growth Area A provide benefits to the developer and the City. There is an opportunity to reduce the overall capital costs and provide lower operations & maintenance (O&M) costs by reducing the total number of lift stations to be maintained within the system.

Potential development of a school in the northern portions of Growth Area A4 also lends to the modified lift station layout. The original master plan relied on an orderly south to north development schedule. With the multiple property owners involved within this stretch, that sequencing may not take place, especially if the school does develop in the northern region.

As previously stated, the assumptions in this report will need to be validated as development takes place to ensure that the capacity constraints are not exceeded.

Exhibit A (Exhibit 6-2 of Mandan Wastewater Collection System Master Plan)

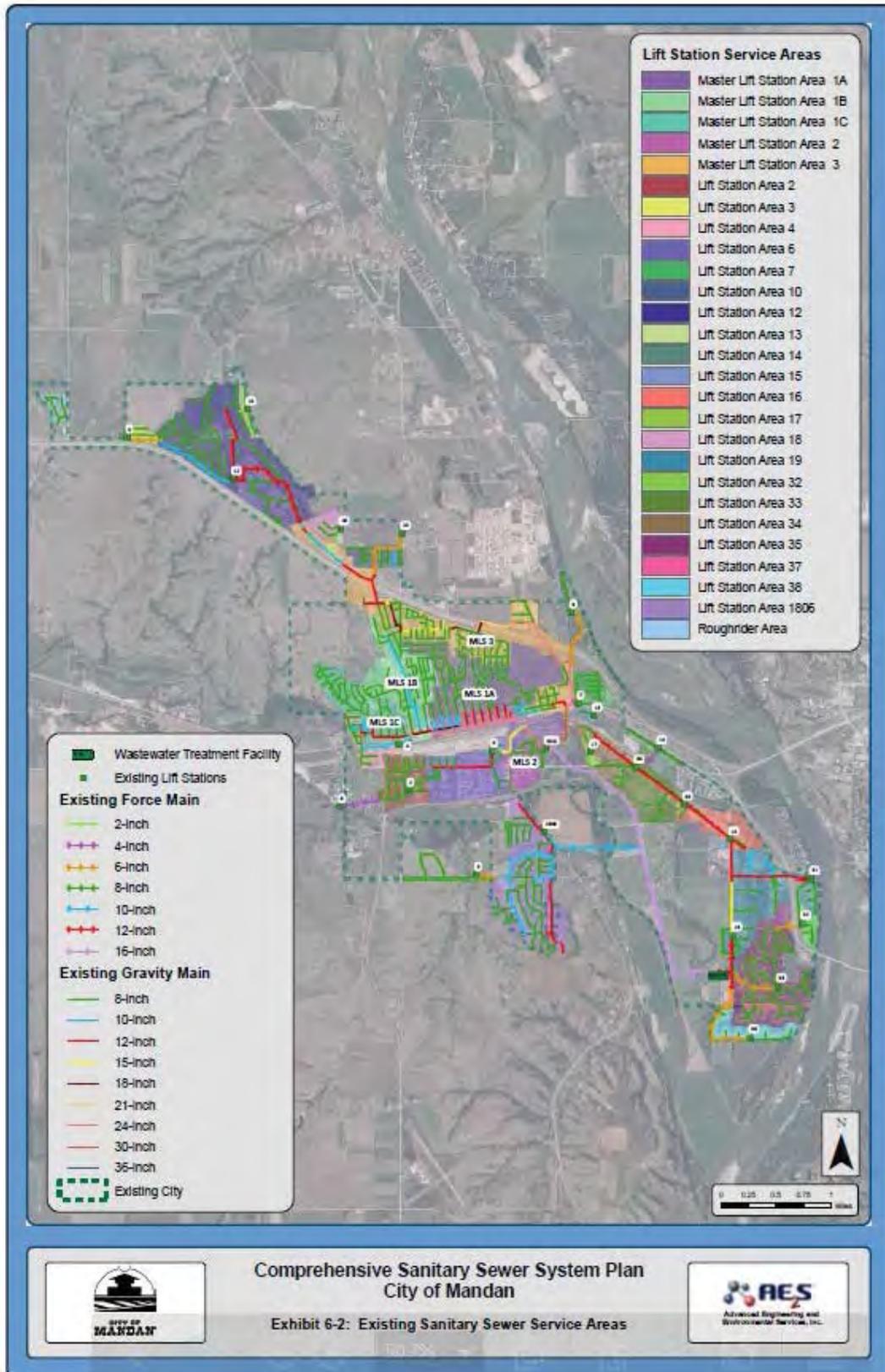


Exhibit B (Exhibit 6-21 of Mandan Wastewater Collection System Master Plan)

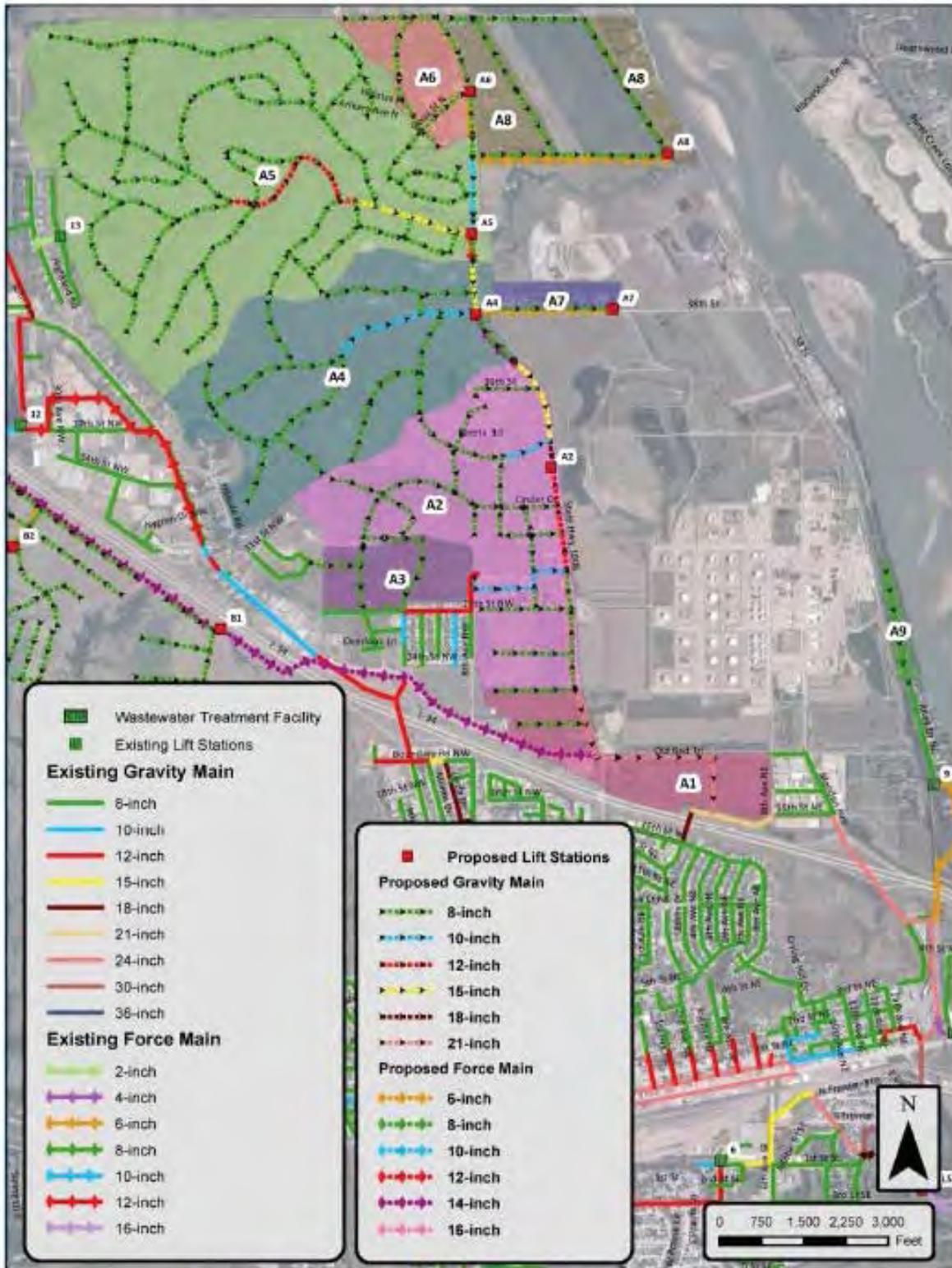
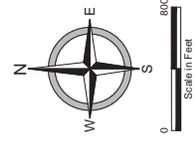
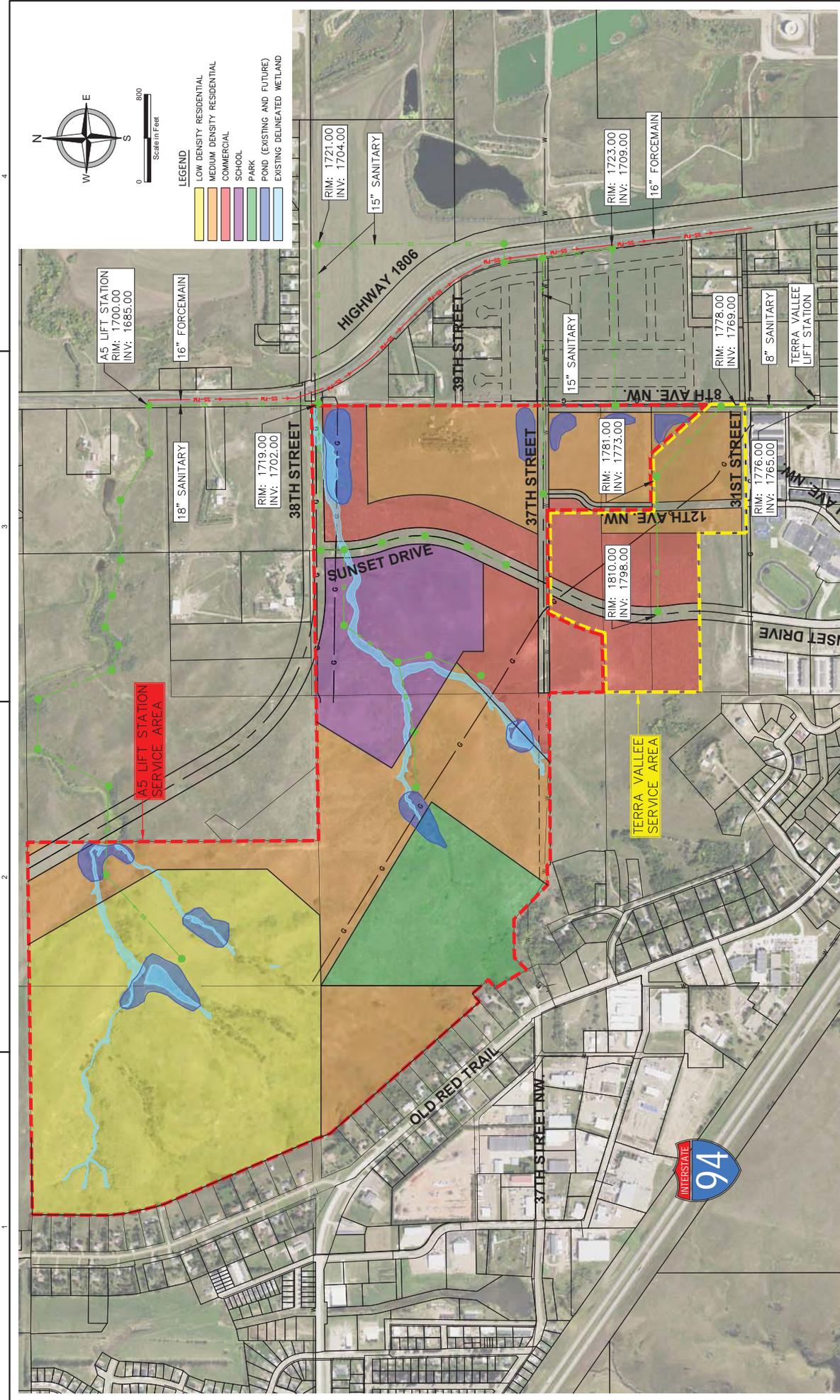


Exhibit 6-21: Conceptual Layout of Growth Area A

### Exhibit C (Old Red Trail Sewer Trunk Main)



**Exhibit D (Growth Area A)**



- LEGEND**
- LOW DENSITY RESIDENTIAL
  - MEDIUM DENSITY RESIDENTIAL
  - COMMERCIAL
  - SCHOOL
  - PARK
  - POND (EXISTING AND FUTURE)
  - EXISTING DELINEATED WETLAND

PROJECT No.	20707
DATE	01/22/21
DRAWN BY	KAS
REVIEWER	EAS

WASTEWATER COLLECTION SYSTEM  
 AMENDMENT #1 & #2 - GROWTH AREA A  
 SUNSET AVENUE  
 MANDAN, NORTH DAKOTA



**Appendix**  
**Lift Station A5 Sizing Information**

**Mandan Lift Options**  
**Approximate Pump Sizing**

	<u>Unit</u>	<u>A5 Force</u>
Flow Rate - Design Point	gpm	2,500
Pipeline Velocity	ft/sec	3.99
Nominal Diameter		16"
Pipe Material		DI
Type/Class		
Actual Pipe Inside Diameter	inches	16.00
Hydraulic Flow Area	ft <sup>2</sup>	1.40
Equivalent Roughness (e )	ft	0.0015
Temperature Fluid Assumed	°F	50
Kinematic Viscosity Fluid	ft <sup>2</sup> /s	1.41E-05
Specific Weight of Liquid	lb/ft <sup>3</sup>	62.40
Reynold's Number		3.77E+05
Calculated Friction Factor (f)		0.021

Pipe Friction Headloss

Length of Pipe (ft)	ft	8,870
Equivalent C Factor		121
Velocity per Hazen-Williams		3.99
h <sub>f</sub> per 100 feet		0.39
<hr/>		
Total h <sub>f</sub> , (ft)	ft	34.6

Valve Head Losses

	Qty	Cv	Flow
16" Plug Valve		7,300	0.3
10" Plug Valve			
10" Check Valve			

<hr/>		
Total Valve Losses	ft	0.3

Minor Losses

Pipe Entrance		1.0
Bends		0.6

<hr/>		
Minor Losses Total K		1.6
<hr/>		
Total Minor Losses	ft	0.4

Static Head

Pump Station Water Level	ft	1700.00
Discharge Elevation	ft	1795.00
Static Head	ft	95.0

Segment Dynamic Head	ft	130.3
<b>Total Dynamic Head</b>	<b>ft</b>	<b>130.3</b>

Pump Sizing

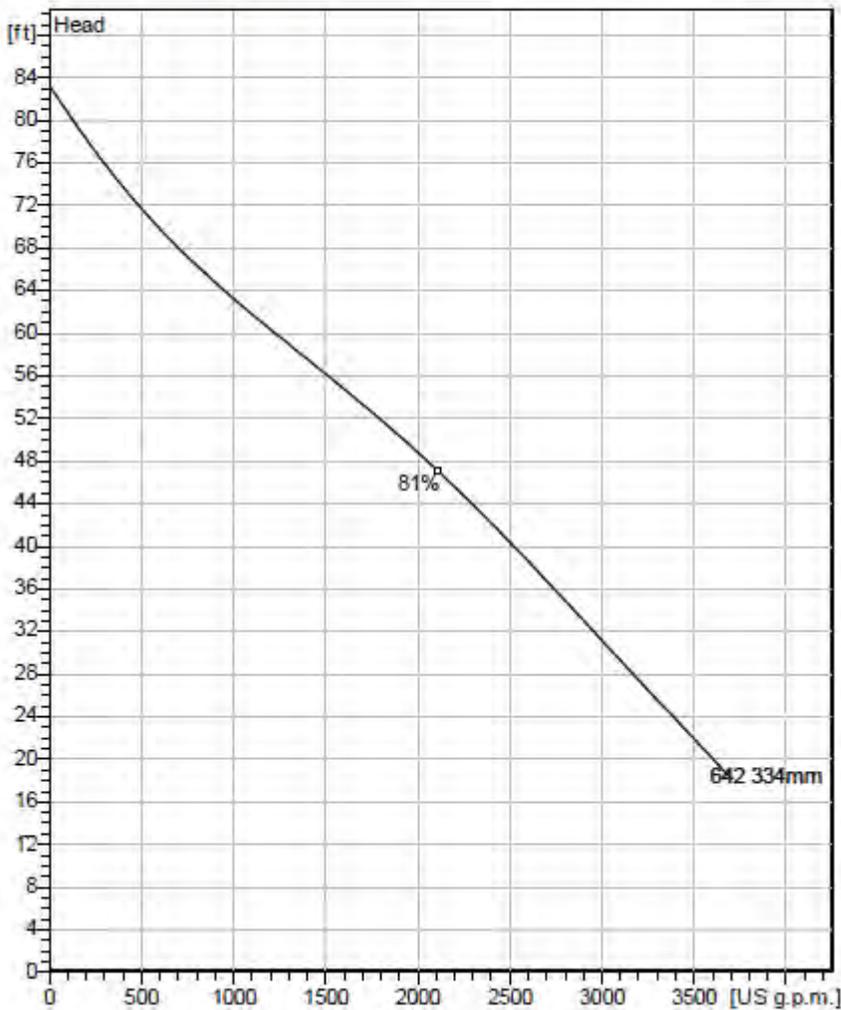
Impeller Efficiency  
Total Horsepower Required

Volume and Exchange

Volume in Pipe gal

**NT 3202 MT 3~ 642**

**Technical specification**



## NP 3202 HT 3~ 456

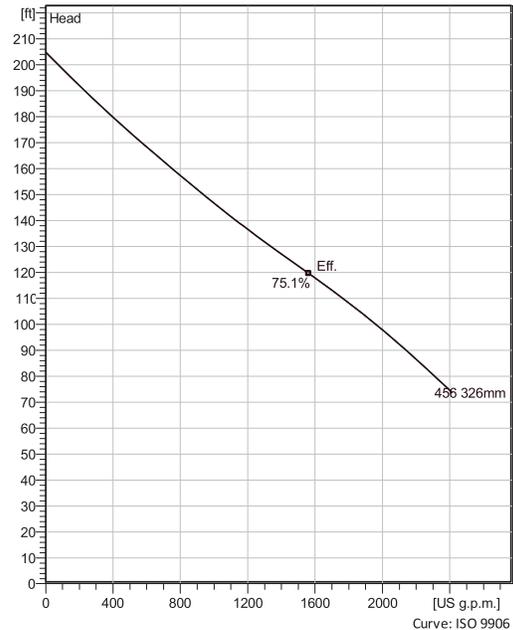
Patented self cleaning semi-open channel impeller, ideal for pumping in waste water applications. Possible to be upgraded with Guide-pin® for even better clogging resistance. Modular based design with high adaptation grade.



### Technical specification



Curves according to: Water, pure [100%], 39.2 °F, 62.42 lb/ft<sup>3</sup>, 1.69E-5 ft<sup>2</sup>/s



### Configuration

<b>Motor number</b> N3202.180 30-29-4AA-W 70hp	<b>Installation type</b> P - Semi permanent, Wet
<b>Impeller diameter</b> 326 mm	<b>Discharge diameter</b> 5 7/8 inch

### Pump information

<b>Impeller diameter</b> 326 mm
<b>Discharge diameter</b> 5 7/8 inch
<b>Inlet diameter</b> 200 mm
<b>Maximum operating speed</b> 1775 rpm
<b>Number of blades</b> 2

### Materials

<b>Impeller</b> Grey cast iron
-----------------------------------

<b>Project</b> Block	<b>Created by</b> Created on 8/7/2019	<b>Last update</b>
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# NP 3202 HT 3~ 456

## Technical specification



### Motor - General

<b>Motor number</b> N3202.180 30-29-4AA-W 70hp	<b>Phases</b> 3~	<b>Rated speed</b> 1775 rpm	<b>Rated power</b> 70 hp
<b>Approval</b> No	<b>Number of poles</b> 4	<b>Rated current</b> 79 A	<b>Stator variant</b> 1
<b>Frequency</b> 60 Hz	<b>Rated voltage</b> 460 V	<b>Insulation class</b> H	<b>Type of Duty</b> S1

### Motor - Technical

<b>Power factor - 1/1 Load</b> 0.90	<b>Motor efficiency - 1/1 Load</b> 92.5 %	<b>Total moment of inertia</b> 10.6 lb ft <sup>2</sup>	<b>Starts per hour max.</b> 30
<b>Power factor - 3/4 Load</b> 0.87	<b>Motor efficiency - 3/4 Load</b> 93.0 %	<b>Starting current, direct starting</b> 550 A	
<b>Power factor - 1/2 Load</b> 0.80	<b>Motor efficiency - 1/2 Load</b> 93.0 %	<b>Starting current, star-delta</b> 183 A	

**Project**  
Block

**Created by**  
**Created on** 8/7/2019

**Last update**

# NP 3202 HT 3~ 456

Performance curve

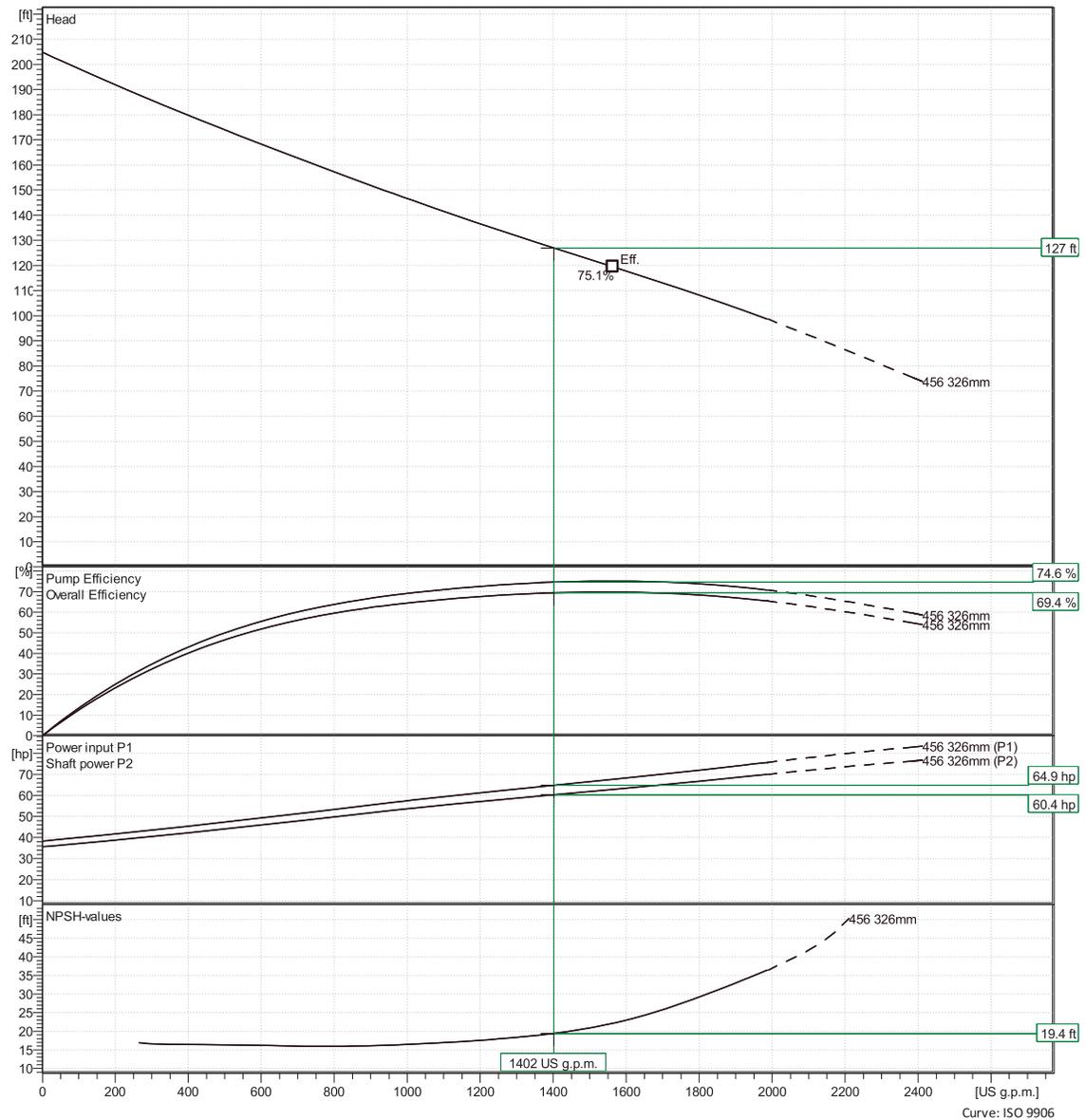


## Duty point

Flow  
1400 US g.p.m.

Head  
127 ft

Curves according to: Water, pure [100%], 39.2 °F, 62.42 lb/ft<sup>3</sup>, 1.69E-5 ft<sup>2</sup>/s



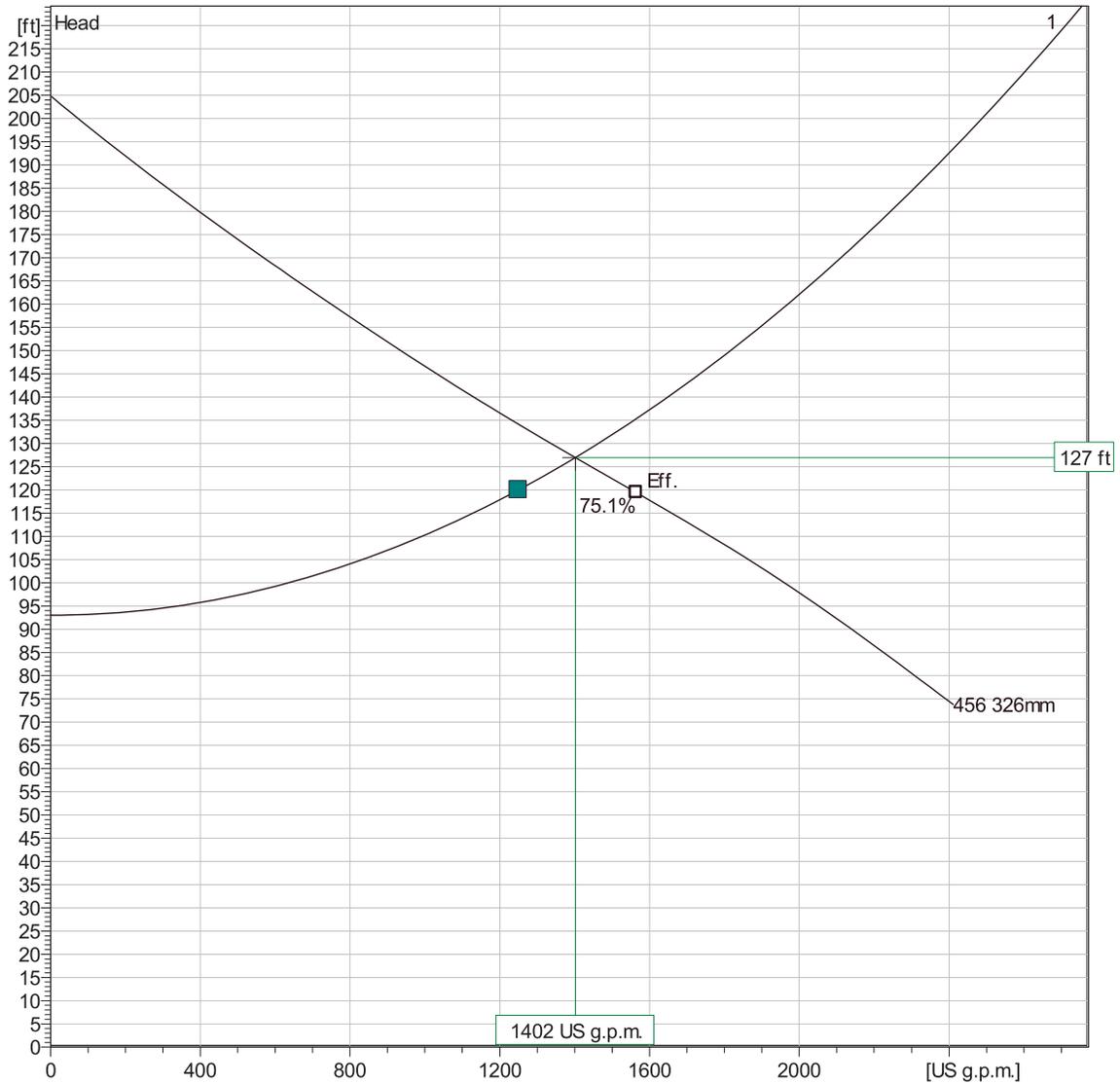
Project	Created by	Last update
Block	Created on 8/7/2019	

# NP 3202 HT 3~ 456

## Duty Analysis



Curves according to: Water, pure [100%], 39.2 °F, 62.42 lb/ft<sup>3</sup>, 1.69E-5 ft<sup>2</sup>/s



Curve: ISO 9906

### Operating characteristics

Pumps/Systems	Flow	Head	Shaft power	Flow	Head	Shaft power	Hydr. eff.	Specific energy	NPSHr
1	1400 US g.p.m.	127 ft	60.4 hp	1400 US g.p.m.	127 ft	60.4 hp	74.6 %	575 kWh/US Mc	19.4 ft

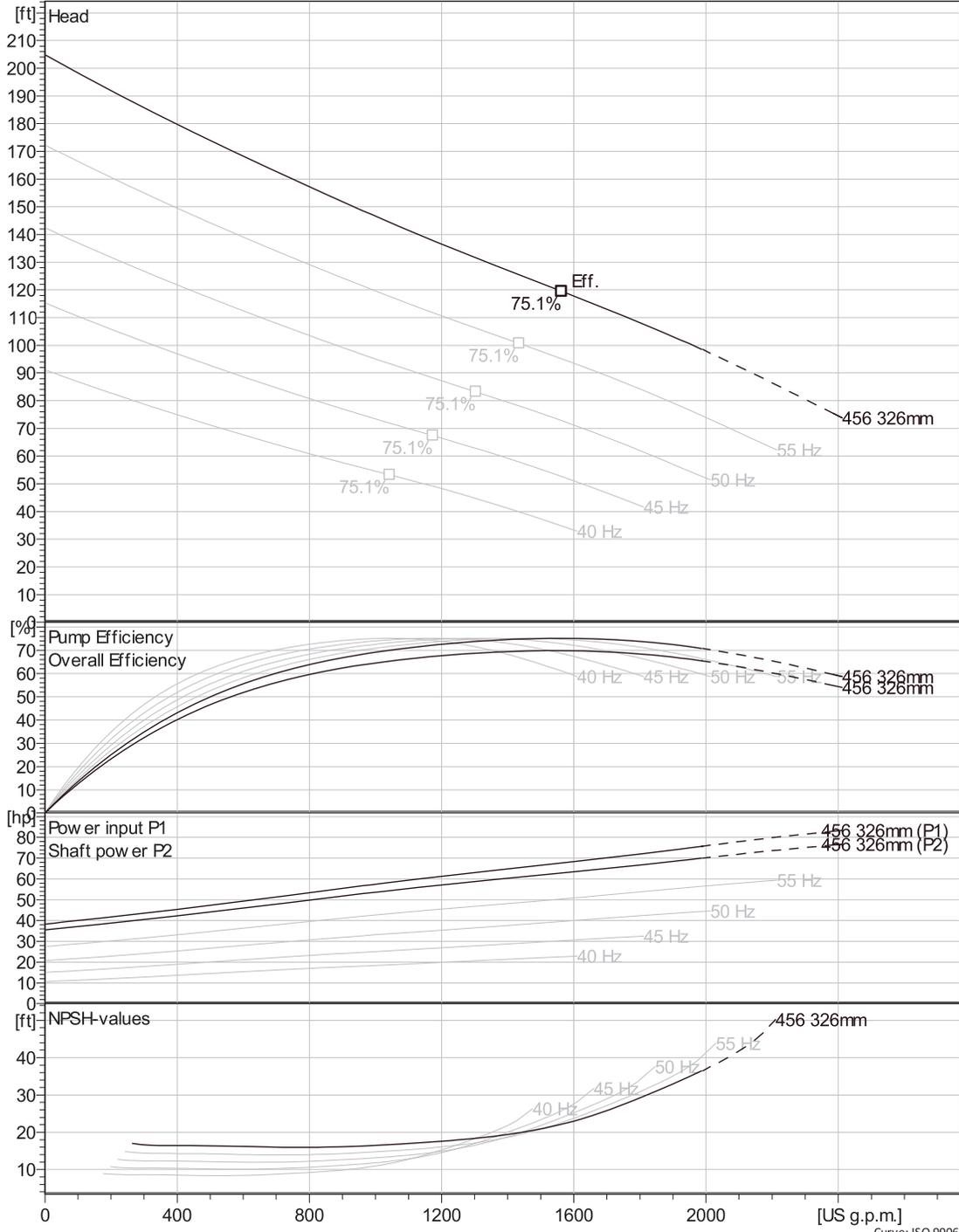
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Block	Created on 8/7/2019	

# NP 3202 HT 3~ 456

## VFD Curve



Curves according to: Water, pure [100%], 39.2 °F, 62.42 lb/ft³, 1.69E-5 ft²/s



Project	Created by	Last update
Block	Created on 8/7/2019	

Curve: ISO 9906

# NP 3202 HT 3~ 456

## VFD Analysis



Curve: ISO 9906

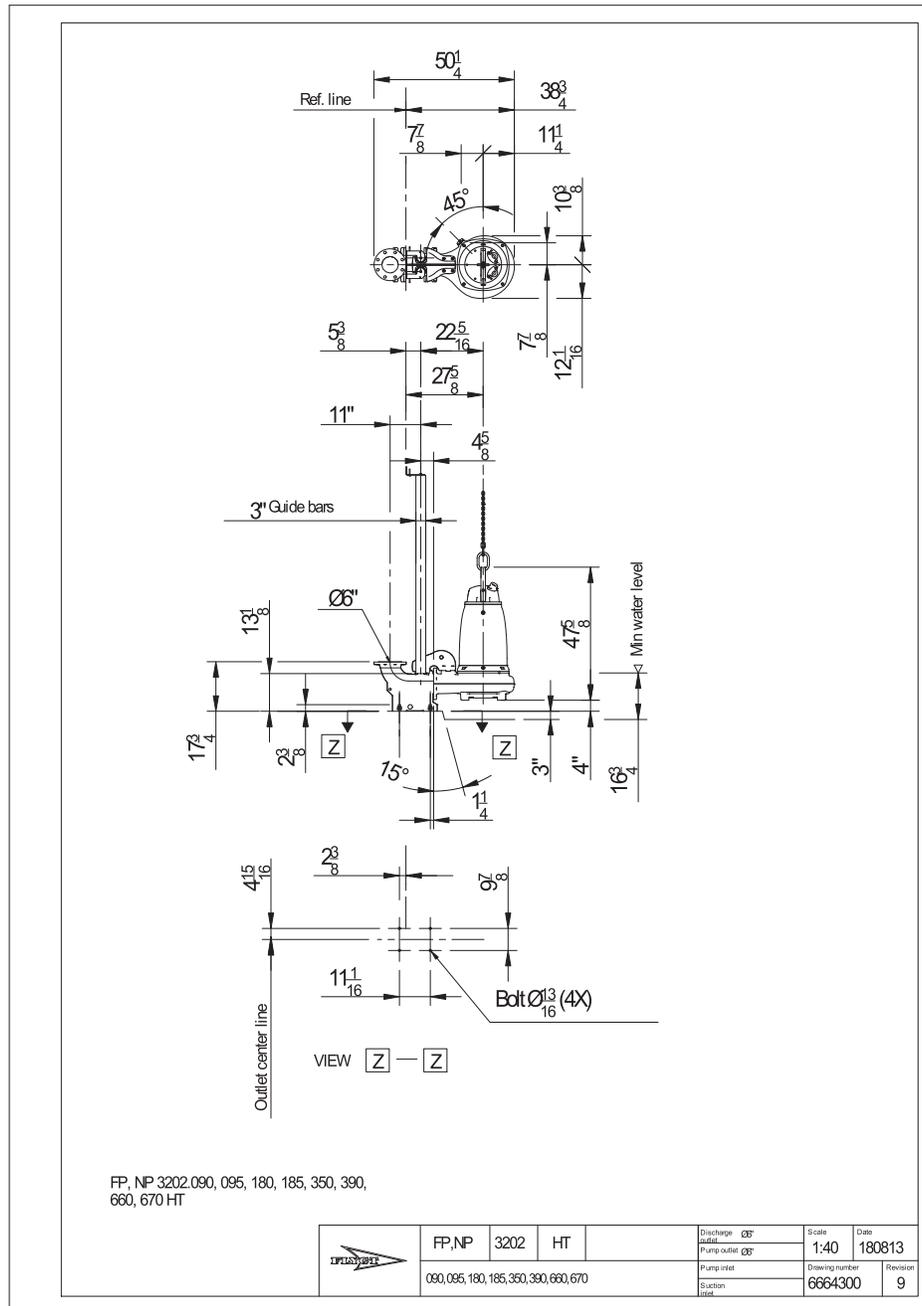
### Operating Characteristics

Pumps/Systems	Frequency	Flow	Head	Shaft power	Flow	Head	Shaft power	Hydr.eff.	Specific energy	NPSHr
1	60 Hz	1400 US g.p.m.	127 ft	60.4 hp	1400 US g.p.m.	127 ft	60.4 hp	74.6 %	575 kWh/US M	19.4 ft
1	55 Hz	1110 US g.p.m.	114 ft	44.3 hp	1110 US g.p.m.	114 ft	44.3 hp	72.7 %	531 kWh/US M	15.4 ft
1	50 Hz	792 US g.p.m.	104 ft	30.6 hp	792 US g.p.m.	104 ft	30.6 hp	68 %	518 kWh/US M	12.2 ft
1	45 Hz	421 US g.p.m.	96.1 ft	19.1 hp	421 US g.p.m.	96.1 ft	19.1 hp	53.5 %	620 kWh/US M	10.3 ft
1	40 Hz									

Project	Created by	Last update
Block	Created on 8/7/2019	

# NP 3202 HT 3~ 456

Dimensional drawing



Project	Created by	Last update
Block	Created on 8/7/2019	

**Sunset AveNew**  
**Amendment #2: Update to Growth Area A (2019)**  
**Sanitary Sewer Improvements**  
**Mandan, ND**

*Engineer's Preliminary Opinion of Probable Cost*

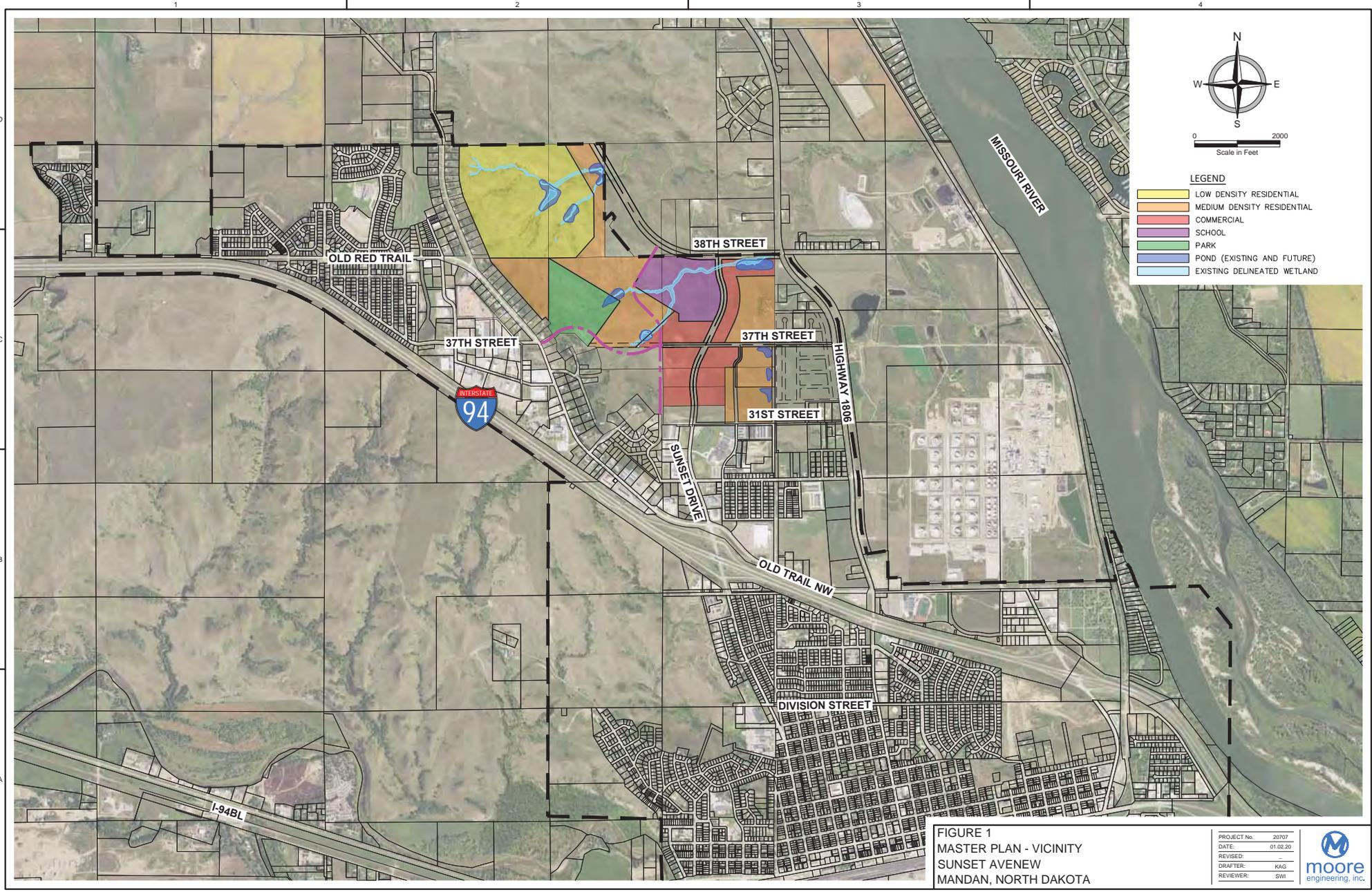
<i>BID ITEM NO. &amp; DESCRIPTION</i>	<i>UNIT</i>	<i>QUANTITY</i>	<i>UNIT PRICE</i>	<i>TOTAL</i>
1. 702.0100 Mobilization	L SUM	1	\$180,000.00	\$180,000.00
2. 330561 Sanitary Sewer Manhole	EA	8	\$9,000.00	\$72,000.00
3. 333111 Sanitary Sewer - 10"	LF	1,400	\$70.00	\$98,000.00
4. 333111 Sanitary Sewer - 18"	LF	600	\$120.00	\$72,000.00
5. 333112 Sanitary Sewer - 18" (Deep Excavation)	LF	1,000	\$200.00	\$200,000.00
6. 333123 Sanitary Sewer Force Main - 16"	LF	8,800	\$75.00	\$660,000.00
7. 333211 Sanitary Sewer Lift Station A5	L SUM	1	\$600,000.00	\$600,000.00
8. 302.0120 Aggregate Base Course CI 5	TON	20	\$25.00	\$500.00
9. 251.0350 Seeding Class III	ACRE	5	\$1,500.00	\$7,350.00
10. 253.0201 Hydraulic Mulch	ACRE	5	\$2,000.00	\$9,800.00
11. 704.1100 Traffic Control	L SUM	1	\$5,000.00	\$4,000.00
12. 000.000 Construction Contingencies (10%)	L SUM	1	\$200,000.00	\$200,000.00
Construction Subtotal				\$2,104,000.00
Topographical Survey & Design Engineering				\$170,000.00
Soil Borings & Geotechnical Services				\$10,000.00
Construction Staking				\$10,000.00
Construction Engineering (Contract Admin, Contracts, Shops, Management)				\$50,000.00
Resident Project Representative - Full Time				\$110,000.00
<b>TOTAL PROJECT COST</b>				<b>\$2,454,000.00</b>

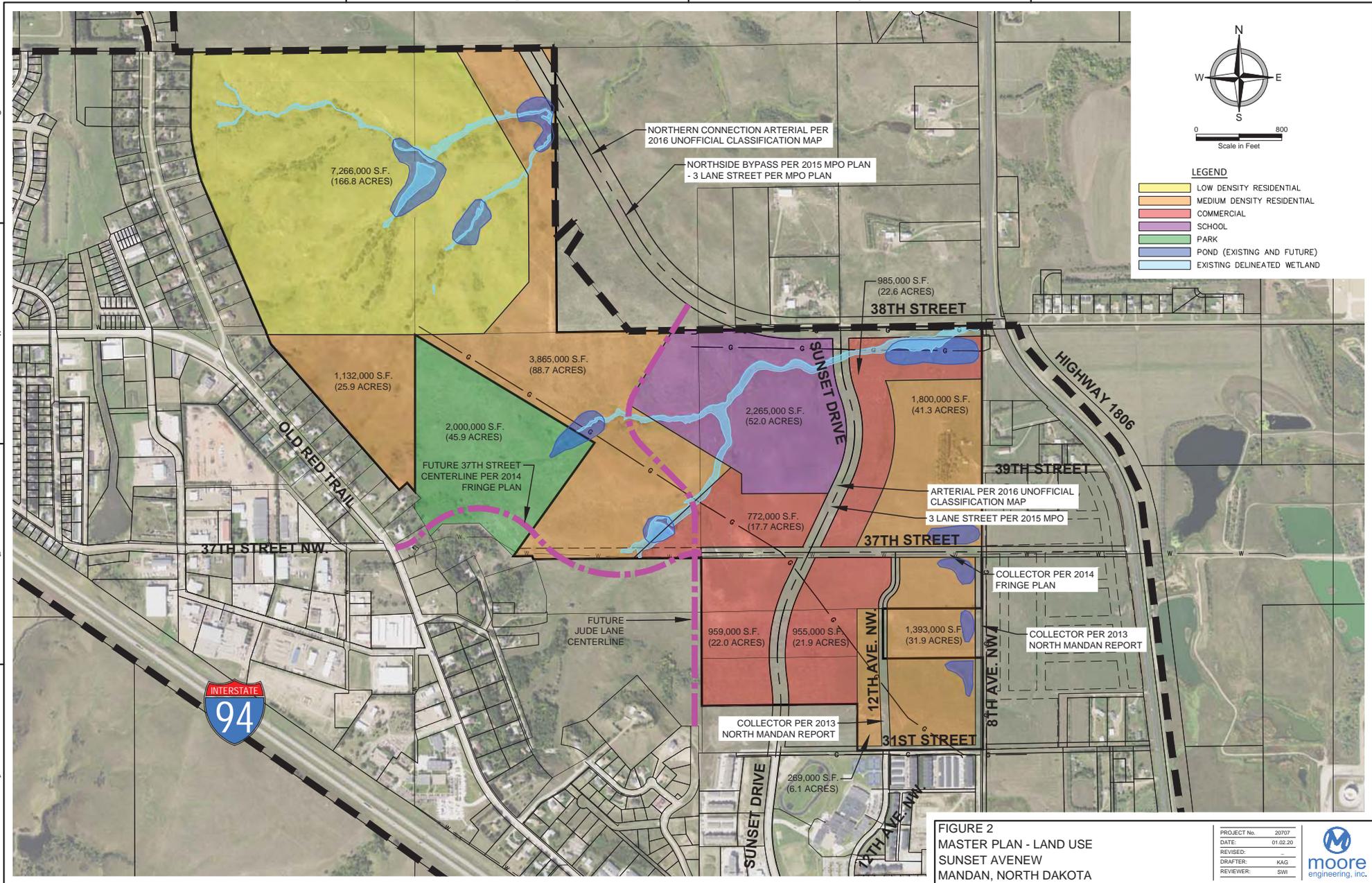
List of Assumptions

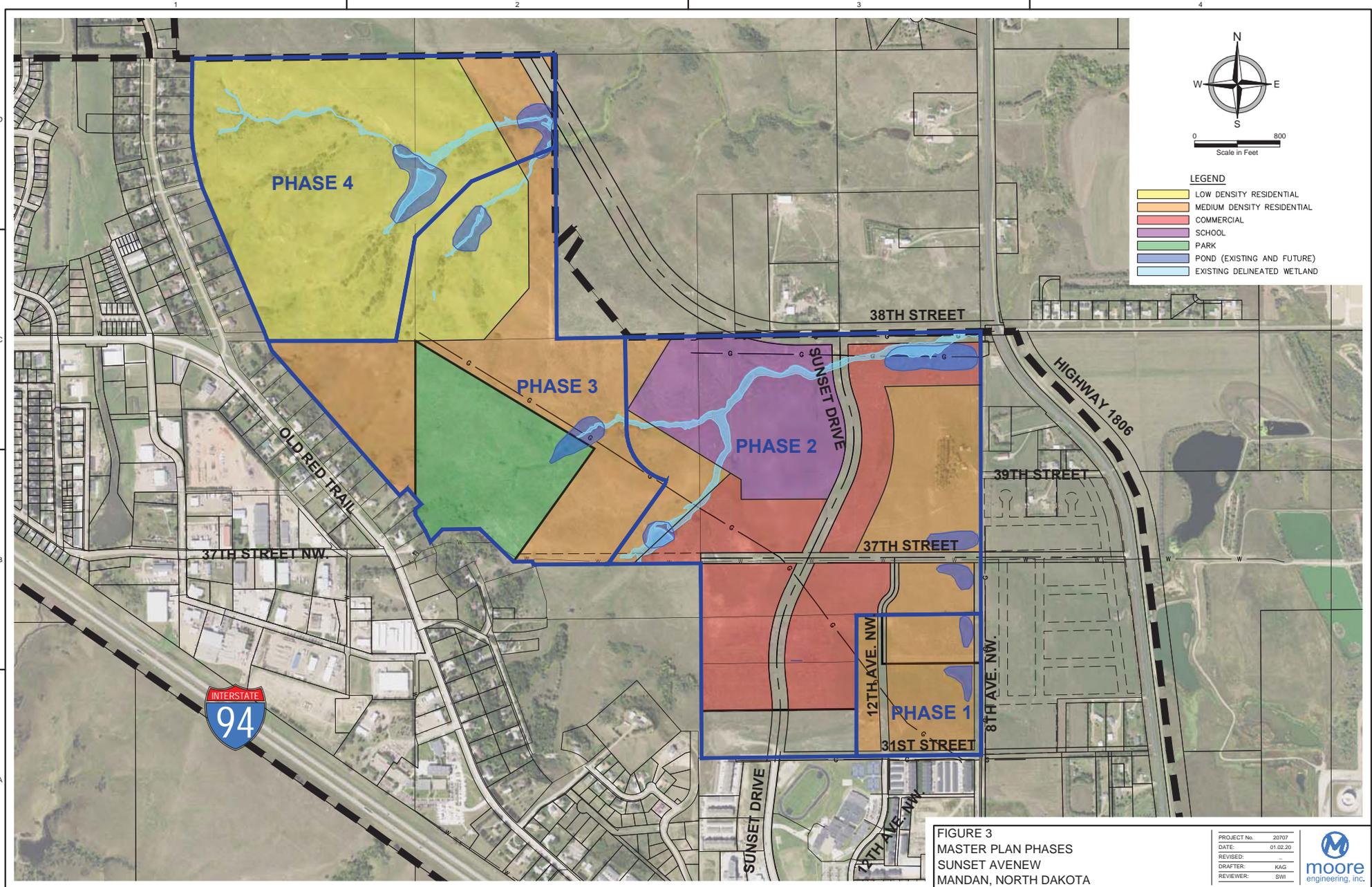
1. Assume typical sewer depths of less than 15', except as noted
2. Gravity sewer installed from 38th Street north to A5. No other gravity pipe included in the estimate.
3. Force main to be installed from A5 lift to the proposed new gravity (city project).
4. Assume 18 week construction schedule, 5 staking requests from contractor.
5. Assume project is privately constructed; no city bonding expenses.
6. No street, water, or storm sewer infrastructure included in costs.
7. Assume soil borings and recommendations for 1 lift stations
8. Topo, Design, and plan prep. Will be completed in Civil 3D and based on City standards (no NDDOT).
9. Engineering costs are assumed costs only. No agreement in place.
10. Construction staking, RPR and Construction engineering is dependent on contractor's schedule. Full time RPR assumed.

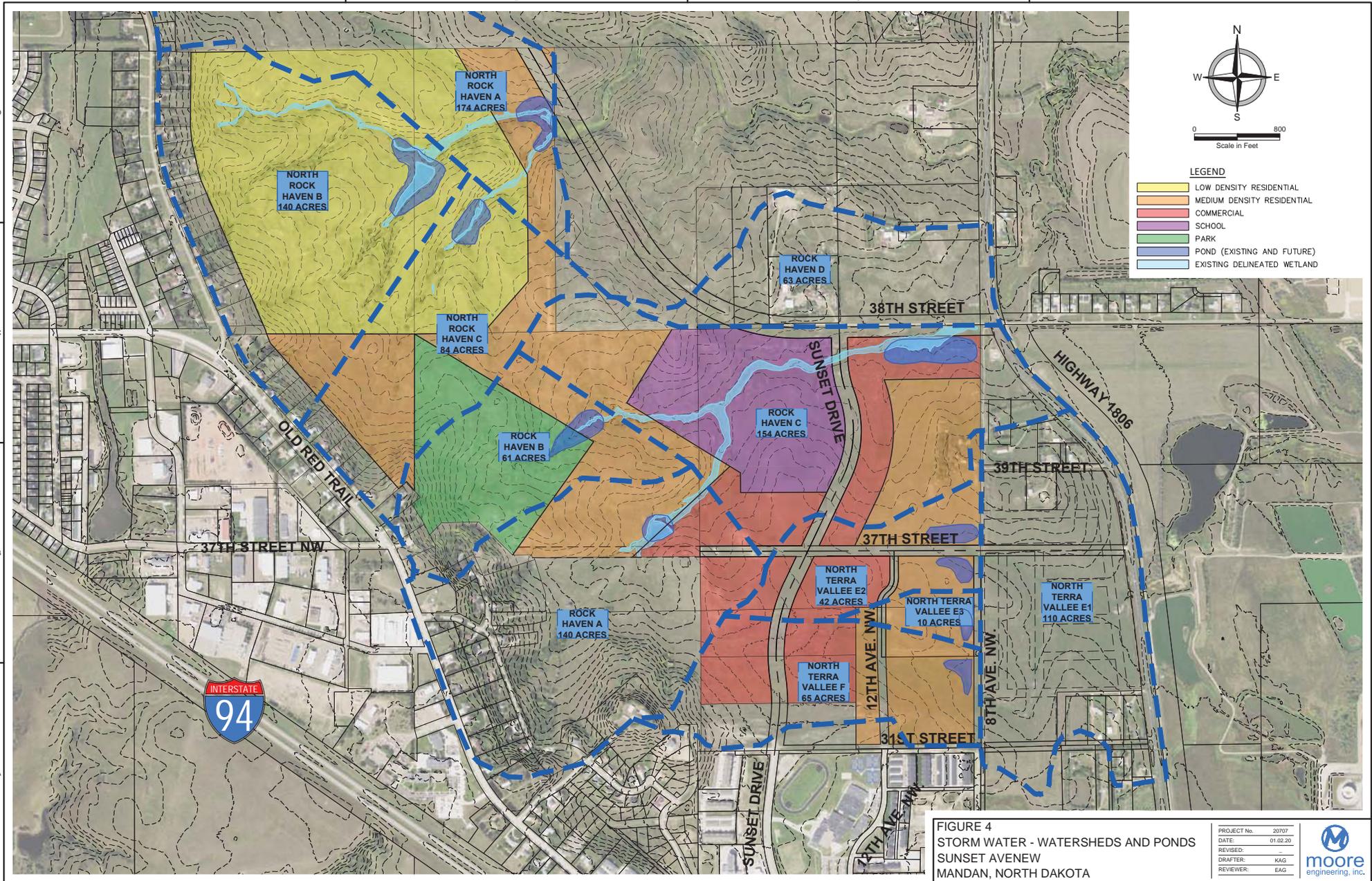
# EXHIBIT 4

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**FIGURE 4**  
 STORM WATER - WATERSHEDS AND PONDS  
 SUNSET AVENUE  
 MANDAN, NORTH DAKOTA

PROJECT No.	20707
DATE	01.02.20
REVISED:	
DRAFTER:	KAG
REVIEWER:	EAG

**moore**  
engineering, inc.

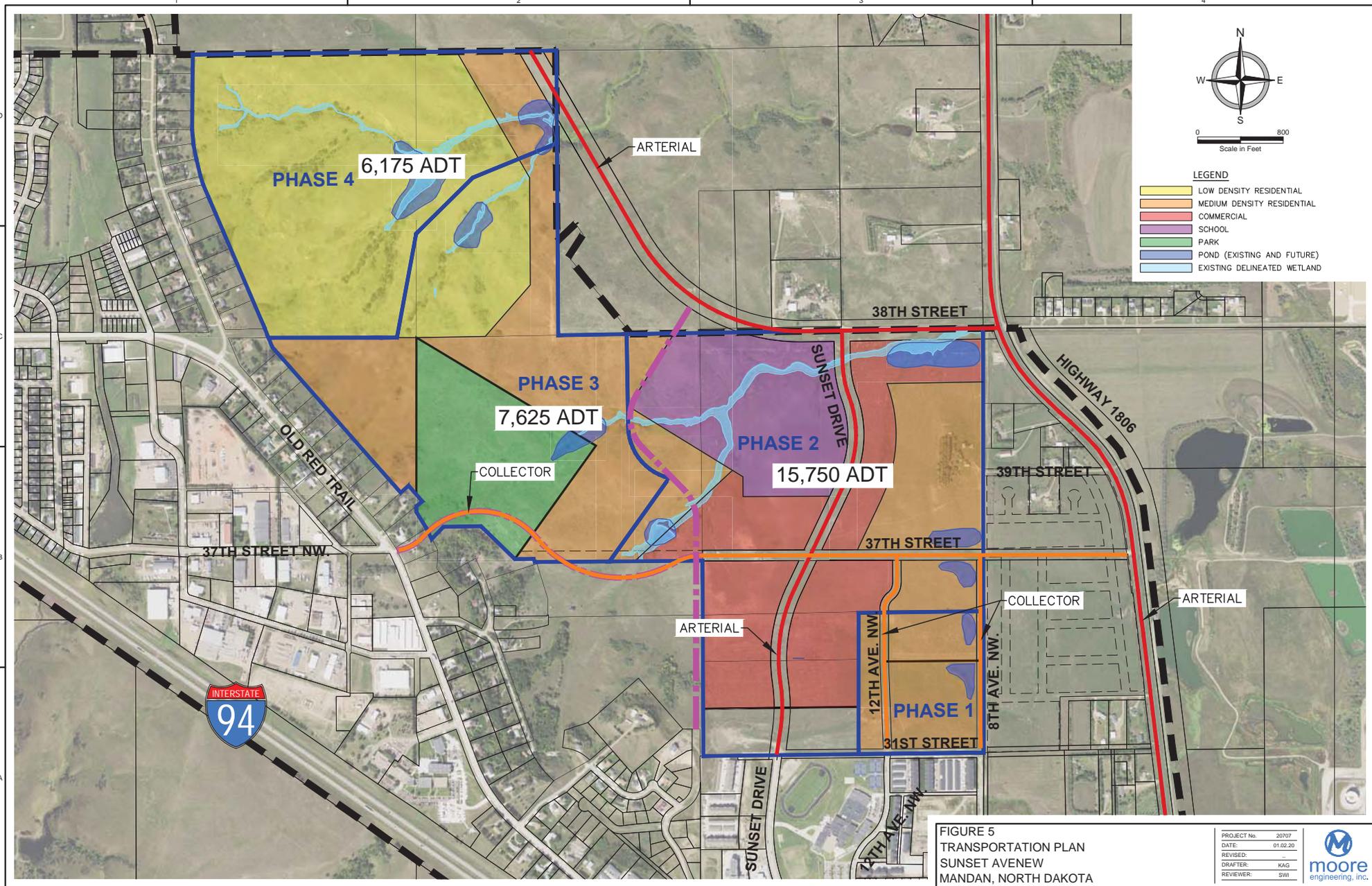
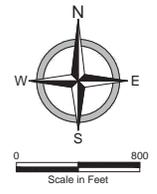
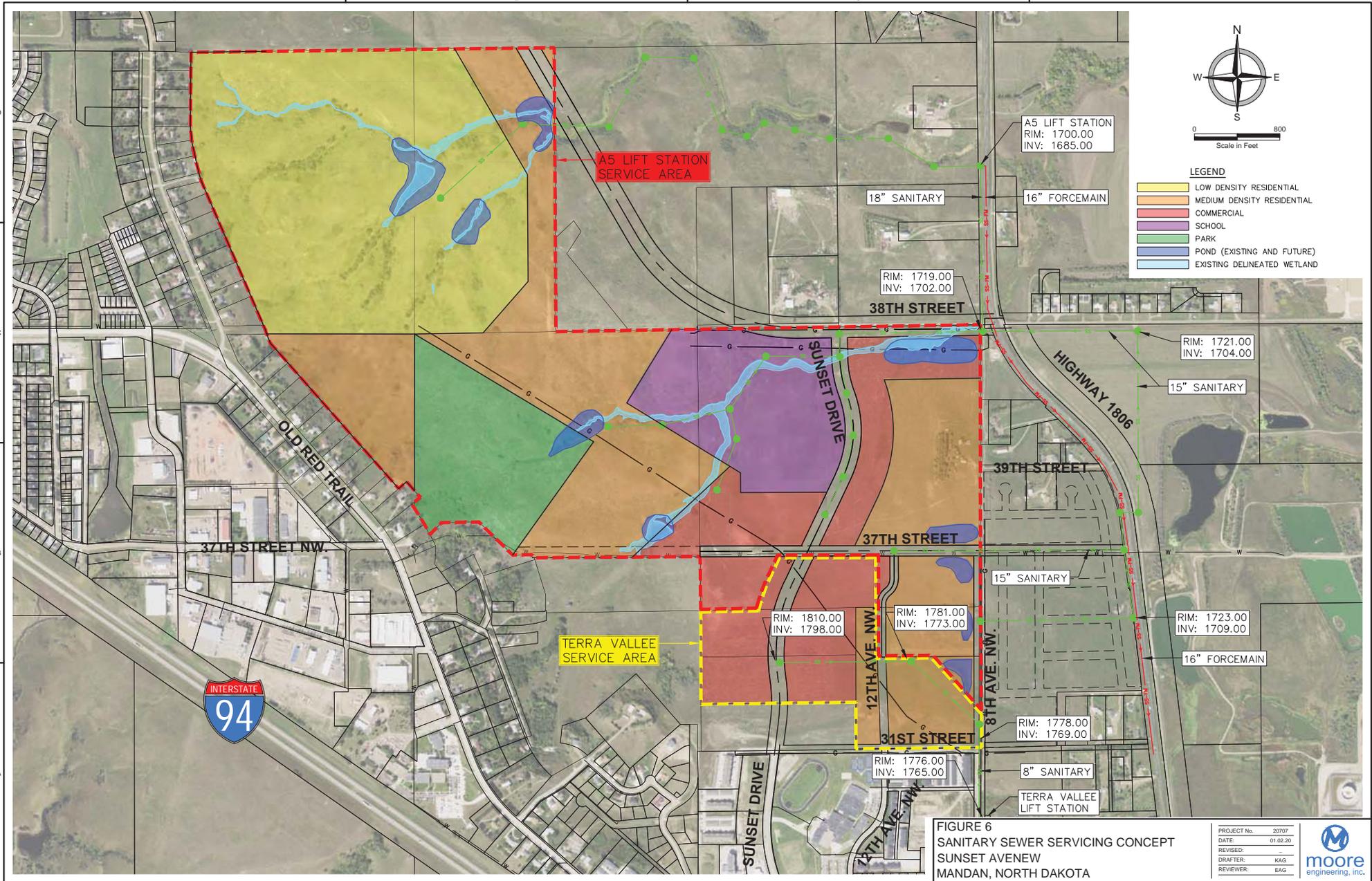


FIGURE 5  
TRANSPORTATION PLAN  
SUNSET AVENUE  
MANDAN, NORTH DAKOTA

PROJECT No. 20707  
DATE: 01.02.20  
REVISED:  
DRAFTER: KAG  
REVIEWER: SWI



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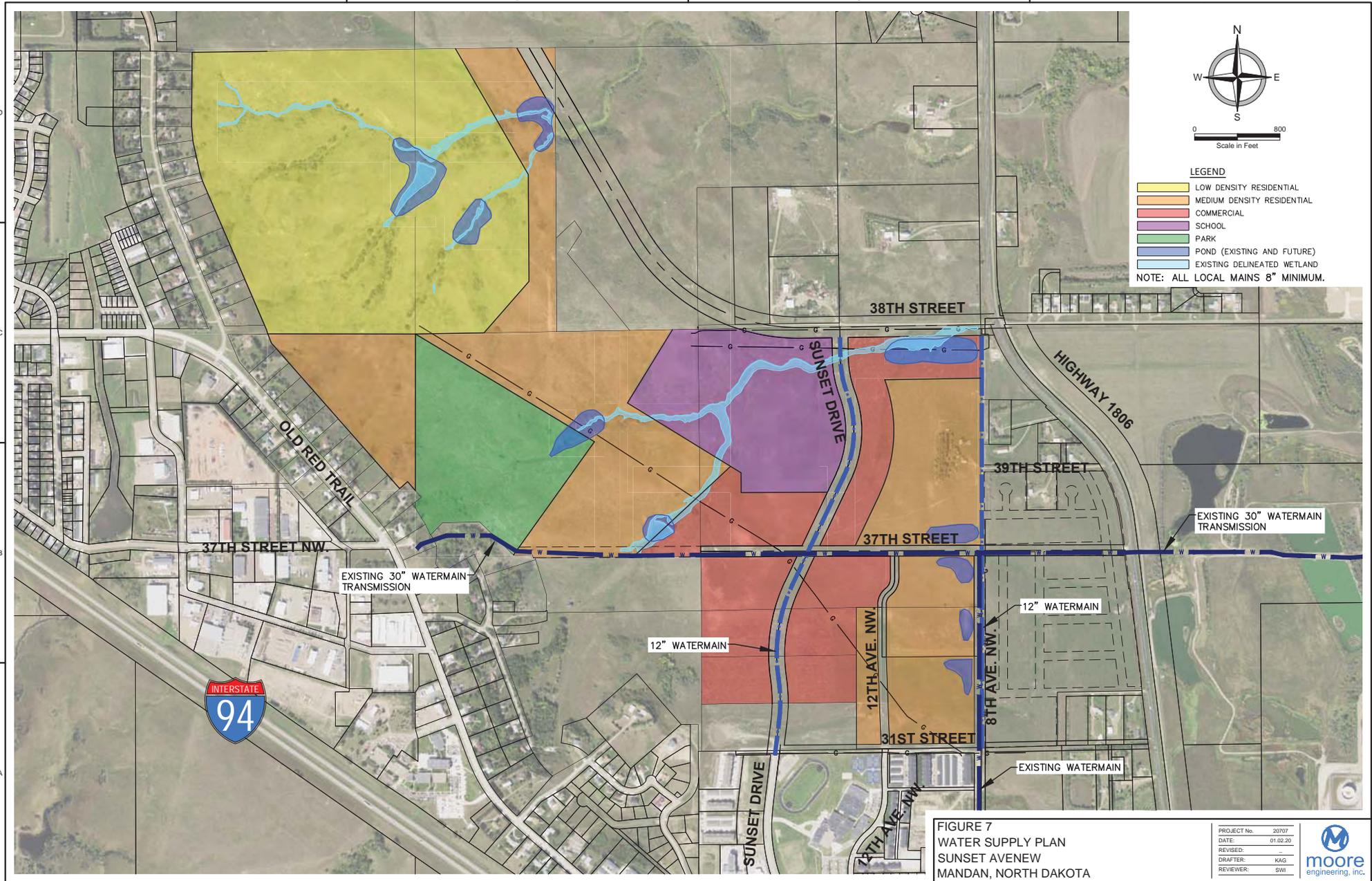


- LEGEND**
- LOW DENSITY RESIDENTIAL
  - MEDIUM DENSITY RESIDENTIAL
  - COMMERCIAL
  - SCHOOL
  - PARK
  - POND (EXISTING AND FUTURE)
  - EXISTING DELINEATED WETLAND

**FIGURE 6**  
**SANITARY SEWER SERVICING CONCEPT**  
**SUNSET AVENUE**  
**MANDAN, NORTH DAKOTA**

PROJECT No. 20707  
 DATE: 01.02.20  
 REVISED:  
 DRAFTER: KAG  
 REVIEWER: EAG



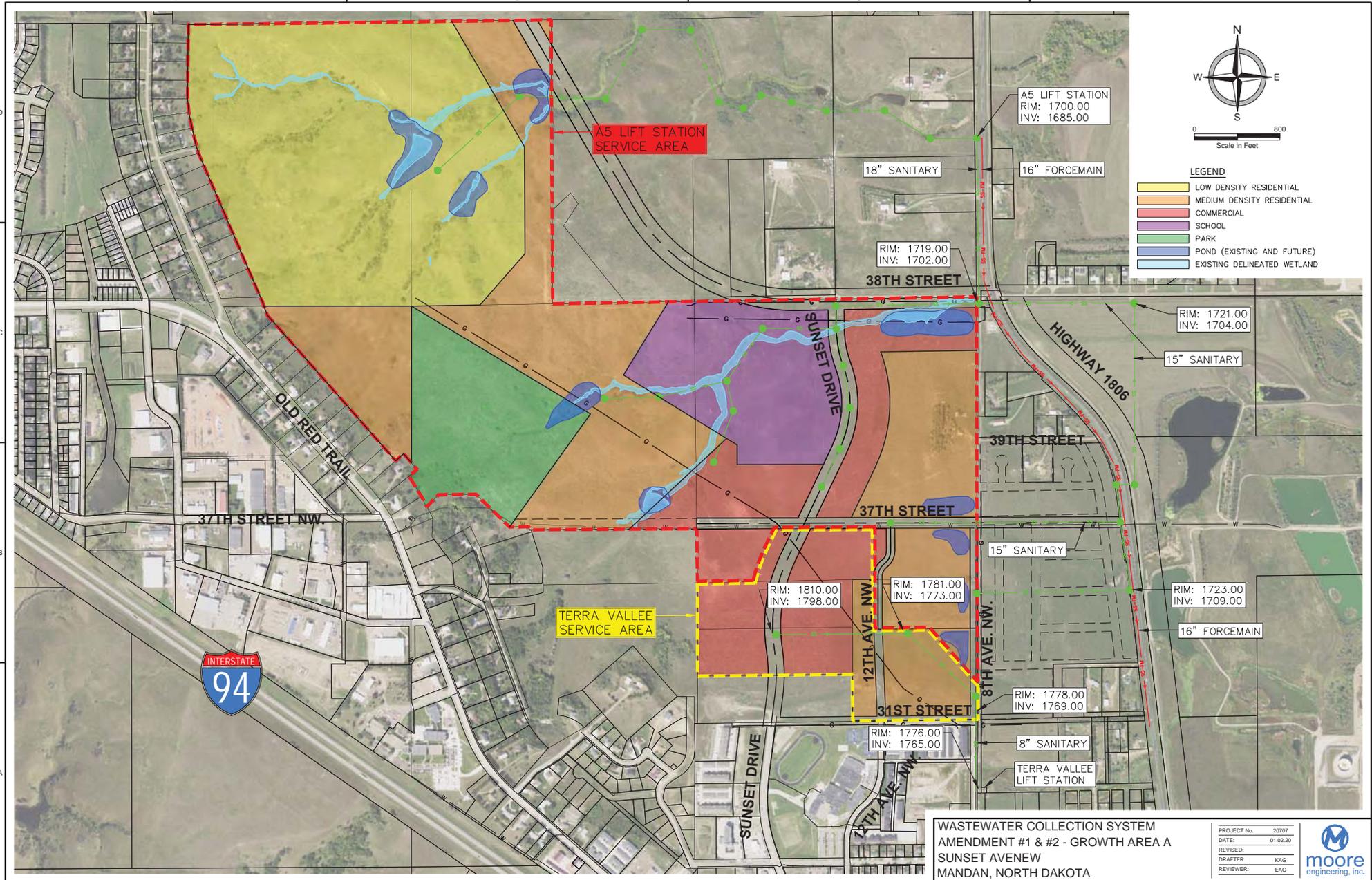


**FIGURE 7**  
**WATER SUPPLY PLAN**  
**SUNSET AVENUE**  
**MANDAN, NORTH DAKOTA**

PROJECT No. 20707  
 DATE: 01.02.20  
 REVISED:  
 DRAFTER: KAG  
 REVIEWER: SWI



FILE LOCATION: R:\Civil 3D\Projects\2017\DRAWINGS\PRESENTATION\2017-EXHIBIT-SunsetAve\New.dwg



A5 LIFT STATION SERVICE AREA

TERRA VALLEE SERVICE AREA

A5 LIFT STATION  
RIM: 1700.00  
INV: 1685.00

18" SANITARY

16" FORCEMAIN

RIM: 1719.00  
INV: 1702.00

38TH STREET

RIM: 1721.00  
INV: 1704.00

15" SANITARY

HIGHWAY 1806

39TH STREET

37TH STREET NW

37TH STREET

15" SANITARY

RIM: 1723.00  
INV: 1709.00

16" FORCEMAIN

INTERSTATE  
94

RIM: 1810.00  
INV: 1798.00

RIM: 1781.00  
INV: 1773.00

12TH AVE. NW

8TH AVE. NW

RIM: 1778.00  
INV: 1769.00

8" SANITARY

TERRA VALLEE LIFT STATION

RIM: 1776.00  
INV: 1765.00

31ST STREET

SUNSET DRIVE

14TH AVE. NW

WASTEWATER COLLECTION SYSTEM  
AMENDMENT #1 & #2 - GROWTH AREA A  
SUNSET AVENUE  
MANDAN, NORTH DAKOTA

PROJECT No. 20707  
DATE: 01.02.20  
REVISED:  
DRAFTER: KAG  
REVIEWER: EAG



# EXHIBIT 5

## RESOLUTION AMENDING THE COMPREHENSIVE PLAN FOR THE DEVELOPMENT OF THE CITY OF MANDAN, NORTH DAKOTA Planning and Zoning Commission City of Mandan, North Dakota

WHEREAS, North Dakota Century Code Section 40-48-08 requires that the planning commission make and adopt a master plan for the physical development of the municipality and of any land outside its boundaries which, in the commission's judgement, bears a relation to the planning of the municipality; and

WHEREAS, North Dakota Century Code Section 40-48-09 requires that the planning commission make careful and comprehensive surveys and studies of present conditions and future growth of the municipality with due regard to its relation to neighboring territory; and

WHEREAS, North Dakota Century Code Section 40-48-10 requires that before adopting the master plan or any part of it or any substantial amendment thereof, the planning commission hold at least one public hearing thereon; and

WHEREAS, The property owner, in consultation with Moore Engineering, Inc., have conducted an in-depth evaluation of the subject area named "Sunset AveNew", as included in Exhibit A; and

WHEREAS, The amendment is greatly informed by other plans, including the Mandan Land Use and Transportation Plan, Fringe Area Road Master Plan, I-94 Corridor Study, and Envision 2040; and

WHEREAS, The amended configuration of roads and land uses are found to be superior to those previously adopted; and

WHEREAS, City staff met with the applicant and their consultant numerous times to adjust the layout that would solicit staff recommendation of approval and align with the desires of the applicant; and

WHEREAS, Nothing in this amendment is a guarantee of City financial assistance or assurance of support of any development application that is deemed too premature in its timing.

NOW, THEREFORE, BE IT RESOLVED BY THE PLANNING AND ZONING COMMISSION OF THE CITY OF MANDAN, NORTH DAKOTA, THAT:

1. The Future Land Use Map of the Comprehensive Plan is hereby amended; and
2. If any goal, objective, or policy of the originally adopted Comprehensive Plan shall be found to be in conflict with the amendment, the originally adopted Comprehensive Plan shall prevail; and
3. The Comprehensive Plan shall be presented to the City Commission for approval as required by North Dakota Century Code Section 40-48-11; and
4. Upon approval by the City Commission, staff is instructed to publish and distribute the plan; and

5. Staff in instructed to report back to the Planning and Zoning Commission at least annually regarding implementation of the plan.

Dated this 27<sup>th</sup> day of January 2020

---

President, Planning and Zoning Commision

ATTEST:

---

Planning and Zoning Secretary

**EXHIBIT 'A'**  
**"SUNSET AVENEW"**

All of the Northeast Quarter of Section 16, Township 139 North, Range 81 West of the Fifth Principal Meridian, Morton County, North Dakota.

AND

The north half of the Southeast Quarter of said Section 16, LESS the south one third of the west 1481.78 feet of the north half of the Southeast Quarter of said Section 16.

AND

All of Tract 16A in the Northwest Quarter of said Section 16, according to Document No. 437329 on file and of record in the office of the recorder, said Morton County.

AND

All of Tract 17A in the Northeast Quarter of Section 17, Township 139 North, Range 81 West of the Fifth Principal Meridian, Morton County, North Dakota, according to Document No. 437330 on file and of record in the office of said recorder.

AND

All of Tract 8A in the Southeast Quarter of Section 8, Township 139 North, Range 81 West of the Fifth Principal Meridian, Morton County, North Dakota, according to Document No. 437327 on file and of record in the office of said recorder.

AND

All of the Southwest Quarter of Section 9, Township 139 North, Range 81 West of the Fifth Principal Meridian, Morton County, North Dakota.

AND

The Northwest Quarter of the Southeast Quarter of said Section 9.

# EXHIBIT 6

**John W. Van Dyke**

---

**From:** Cole Higlin <CHiglin@mandanparks.com>  
**Sent:** Thursday, January 09, 2020 2:31 PM  
**To:** John W. Van Dyke  
**Subject:** Sunset Master Plan- Dr. B

John-

The Mandan Park District has no issues with Dr. B proposal for as presented for medium density surrounding our 45.9 acres.

I do support a regional detention pond that we discussed with Steve Iverson and the park district is willing to discuss this matter further while developing a “developers agreement” detailing all parties responsibilities. I do not support having multiple storm water detention ponds throughout this area, unless we cannot agree on cost allocation vs benefits of adjacent property owners.

As far as the road going through park property, I support the new “S” curve route and I am curious how this will be handled. The Park District isn’t willing to give land/right of way for free to construct a road. We will need to discuss potential land swap or special assessment allocations to offset loss of land.

I would like to see a 10’ wide multi-purpose trail placed along the future 37<sup>th</sup> Street from Old Red Trail east and tie into Highway 1806. In addition a 10’ multi-purpose trail from Hwy 1806 along 38<sup>th</sup> Street running west connecting to Highland Road.

As part of the road project, the park district would be willing to be special assessed for a small parking area for citizens to access our park along 37<sup>th</sup> street.

If you have any questions or need some clarifications, give me a call. Cole

**COLE HIGLIN**

Mandan Park District | Director

Office 701-751-6161 Direct 701-751-6163 Cell 701-220-1474

www.mandanparks.com | 2600 46th Ave, SE, Mandan, ND 58554

# **PUBLIC HEARING #2**

**PUBLIC HEARING #2**

Mandan Planning and Zoning Commission Agenda Item PH2  
 For Meeting on January 27, 2020  
 Mandan Engineering and Planning Office Report  
**Zoning Ordinance Application Procedures Ordinance**  
 Requested Action  
**Zoning Ordinance Text Amendment**

Application Details				
Applicant Staff	Owner	Subdivision	Legal Description	
	N/a	N/a	N/a	
Location N/a		Proposed Land Use N/a	Parcel Size N/a	Number of Lots N/a
Existing Land Use N/a	Adjacent Land Uses N/a		Current Zoning N/a	Proposed Zoning N/a
	Date Paid N/a	Adjacent Property Notification Sent N/a	Legal Notices Published January 17, 2020 & January 24, 2020	

**Project Description**

The proposed zoning text amendment surrounds application procedures for zoning applications in the City of Mandan. Presently, application procedures are located throughout the Mandan Code of Ordinances and not easily identifiable. The application procedures have been created in conjunction with the Zoning Ordinance Workgroup, which is comprised of several departments, two planning and zoning commissioners, the Morton County Planning Director, and City legal staff. The amendments are being proposed for the following reasons:

- 1) Clarity of procedure is important to the applicant, city staff overseeing and facilitating the process, and general public to ensure the integrity of due process.
- 2) Consolidating procedures of land use applications related to zoning creates efficiency for staff by reducing the amount of labor resources required to explain said procedure to prospective applicants.
- 3) Future staff may more easily understand the various land use application procedures related to zoning if it is clearly outlined in a step-by-step procedure.
- 4) Various nuances of each land use application procedure are more easily compared when consolidated in one Section and share the same organizational structure.

**Agency & Other Department Comments**

Legal staff provided comments since preliminary ordinance was presented to P&Z in December 2019. Changes have been incorporated into the ordinance as presented in Exhibit 1.

**Engineering & Planning Staff Comments**

Engineering and Planning believe this to be an important first step in restructuring and streamlining the zoning ordinance as it is written today.

**Engineering & Planning Recommendation**

Engineering and Planning recommend approval of the ordinance as presented in Exhibit 1.

**Proposed Motion**

I move to recommend approval of the ordinance as presented in Exhibit 1.

**List of Exhibits:**

Exhibit 1 – DRAFT Zoning Application Procedures Ordinance

# EXHIBIT 1

## ORDINANCE NO. 13XX

An Ordinance to Amend and Re-enact Sec. 101-1-13 related to Amendments, Amend and Re-enact Sec. 105-1-5 related to Special Uses, Amend and Re-enact Sec. 105-1-12 related to Board of Adjustment, and Remove Sec. 105-3-1 related to Applicability of Standards of the Mandan Code of Ordinances

WHEREAS, Clarity of procedure is important to the applicant, city staff overseeing and facilitating the process, and general public to ensure the integrity of due process; and

WHEREAS, Consolidating procedures of land use applications related to zoning creates efficiency for staff by reducing the amount of labor resources required to explain said procedure to prospective applicants; and

WHEREAS, Future staff may more easily understand the various land use application procedures related to zoning if it is clearly outlined in a step-by-step procedure; and

WHEREAS, Various nuances of each land use application procedure are more easily compared when consolidated in one Section and share the same organizational structure.

NOW, THEREFORE, BE IT ORDAINED by the Board of City Commissioners of the City of Mandan, Morton County, North Dakota, as follows:

### *Section 1. Sec. 105-1-5 is Amended and Re-enacted.*

Sec. 105-1-5. - ~~Special uses~~Use Standards.

- (a) *Purpose.* In order to carry out the purposes of this chapter, the board of city commissioners finds it necessary to require that certain uses, because of unusual size, safety hazards, infrequent occurrence, effect on surrounding area or other reasons, include additional standards to ensure the health, safety, and overall harmony on and surrounding be reviewed by the planning and zoning commission prior to the board voting on whether or not to approve the use at a specific site.
- ~~(b) — Application submittal. An application for a special use shall be submitted to the city planner. Whenever possible, applications should be submitted electronically.~~
- ~~(c) — General provisions. The uses listed in this section are conditional uses that require increased investigation before considering approval.~~
- ~~(1) — The planning and zoning commission must conduct a public hearing on such application, notice of the time and place of which hearing has been given in a newspaper of general circulation in the city at least ten days prior to the date of such hearing.~~
- ~~(2) — Notices must be mailed at least ten days prior to the hearing to all property owners within 500 feet of the boundary of the proposed project.~~

~~(3) In order to give a favorable recommendation, the planning and zoning commission must consider the following:~~

~~a. The proposed use is in harmony with the purpose and intent of this chapter;~~

~~b. The proposed use is not in conflict with the adopted comprehensive plan of the city;~~

~~c. The proposed use will not adversely affect the health and safety of the public and the workers and residents in the area;~~

~~d. The proposed use will not be detrimental to the use or development of adjacent properties or of the surrounding neighborhood; and~~

~~e. The proposed use meets all appropriate regulations for the district in which it will be located.~~

~~(4) The planning and zoning commission may require the submission of additional plans, special studies or reports during review of the application.~~

~~(5) The planning and zoning commission may recommend special requirements for the proposed use. The reasons for the special requirements must be documented.~~

~~(6) Once the planning and zoning commission has acted, the city commission must hold a public hearing and then act to ratify the recommendation of the planning commission, modify the recommendation of the planning commission or reject the application.~~

~~(db)~~ *Airports and heliports.* An airport may be permitted as a special use in an A agricultural district in the extraterritorial zone and a heliport may be permitted as a special use associated with a medical facility within the zoning jurisdiction of the city, provided that:

(1) The area is sufficient to meet the federal requirements for the class of airport or heliport proposed;

(2) There are no existing flight obstructions, such as towers, chimneys, or other tall structures, or natural obstructions outside the boundaries of the proposed airport or heliport which would fall within the approach zone to any of the proposed runways or landing strips of the airport or heliport;

(3) There is sufficient distance between the end of each useable landing strip and the airport boundary to satisfy the requirements of the federal aviation administration or any other appropriate authority. In cases where air rights or easements have been acquired from the owners of abutting properties, in which approach zones may fall, satisfactory evidence thereof shall be submitted with the application;

(4) Any building, hangar or other structure shall be at least 100 feet from any street or property boundary;

(5) Adequate space for off-street parking has been provided. A traffic study must be submitted to document the need for the number of spaces proposed; and

(6) The application for authorization of an airport or heliport shall be accompanied by plans meeting the requirements of the FAA, other regulatory agencies and the city.

~~(ec)~~ *Cemetery.* A cemetery, mausoleum, or columbarium may be permitted in an industrial or A district as a special use, provided that:

(1) No graves shall be located less than 100 feet distant from any property line;

- (2) There shall be a strip at least 75 feet in width adjacent to all boundaries of the cemetery landscaped and maintained as a green area;
- (3) In any cemetery in which there will be permitted monuments and grave markers rising above the surface of the ground, the green area shall include a dense evergreen hedge at least six feet in height; and
- (4) No mausoleum, columbarium, or cemetery chapel shall be erected within 200 feet of any boundary of the lot or parcel on which it is located.

(fd) *Golf driving range or miniature golf course.* A golf driving range or miniature golf course may be permitted in an A or industrial district as a special use, provided that:

- (1) The area within 500 feet of all boundaries of the lot is not developed in residences to a greater density than one family per acre;
- (2) Any flood-lights used to illuminate the premises are so directed and shielded as to prevent the direct lighting area from extending beyond the property boundary;
- (3) When the area within 500 feet of the property boundary is undeveloped, any approval is limited to one year and must be renewed annually. If residential development exceeding a density of one dwelling unit per acre is approved within this 500-foot area, the approval for this use may be withdrawn unless all property owners within the 500-foot area sign written consents to allow the use to continue on a year to year basis.

(ge) *Fire or emergency medical response.* A facility providing fire and/or emergency medical response services may be permitted in any zoning district as a special use, provided that:

- (1) Ingress and egress from the street shall be so designed and constructed as to provide safe traffic movement. A demand activated traffic control signal for emergency vehicle egress from the site may be required,
- (2) Sufficient parking shall be provided to accommodate the maximum number of personnel per shift plus at least two visitor spaces; and,
- (3) If the use is approved, landscaping, signage and design of the building exterior shall be reviewed and approved by the Mandan Architectural Review Commission.

(hf) *Day care center.* A day care center is a facility providing services to more than 12 children or any number of adults. A day care center requires a special use approval and must comply with the following criteria:

- (1) The facility must receive state approval before an occupancy permit can be issued;
- (2) For a facility catering to children, each building shall provide not less than 35 square feet of interior play area per child;
- (3) For a facility catering to children, a fenced outdoor play area of not less than 75 square feet per child shall be provided that is located no closer than ten feet to an adjoining residential lot;
- (4) For a facility catering to adults, there shall be an outdoor lawn area and covered porch offering either active recreation or passive activities for groups or individuals;
- (5) As a minimum, onsite parking shall be provided at the ratio of one space per manager and employee per shift plus one space for each 12 clients; and

(6) Drop off and pickup of clients shall be in an area off the public street that is separate from parking spaces.

(ig) *Correctional facility.* A correctional facility may be permitted in an industrial or A district as a special use, provided that:

- (1) The facility fronts on an arterial street;
- (2) There are no churches, schools or residentially developed property within 500 feet;
- (3) The primary illumination field for exterior lighting shall not extend beyond the property boundary;
- (4) No building shall be closer than 35 feet to any property line; and
- (5) As a minimum, onsite parking shall be provided at a ratio of one space for each employee per shift plus one space per four inmates.

(jh) *Drug or alcohol outpatient treatment or counseling facility.* A drug or alcohol outpatient treatment or counseling facility may be permitted as a special use in a regional commercial, industrial or A district and must comply with the following criteria:

- (1) The facility fronts on an arterial street;
- (2) As a minimum, onsite parking shall be provided at a ratio of one space for each employee per shift plus one space per two clients per hour;
- (3) Hours of operation are limited to between 6:00 a.m. and 8:00 p.m.;
- (4) The facility is no closer than 1,000 feet to a school, daycare facility or residentially developed property; and
- (5) The facility is no closer than 500 feet to an establishment selling alcohol.

(k) *[Reserved.]*

(Code 1957, § 14-0210; Code 1994, § 21-03-08; Ord. No. 534, § 1, 1976; Ord. No. 535, § 4, 1976; Ord. No. 610, § 1, 1979; Ord. No. 636, § 2, 1981; Ord. No. 657, § 2, 1982; Ord. No. 923, § 3, 7-17-2001; Ord. No. 963, § 7, 6-17-2003; Ord. No. 1223, § 7, 11-3-2015; Ord. No. 1299, §§ 3, 4, 4-16-2019; Ord. No. 1320, § 1, 9-3-2019)

## ***Section 2. Sec. 105-1-12 is Amended and Re-enacted.***

Sec. 105-1-12. - Board of Adjustment.

- (a) The board of city commissioners may create a board of adjustment as authorized by N.D.C.C. or may perform the functions themselves.
- (b) The board of adjustment is an administrative board whose powers and duties are limited generally by state laws and particularly by the powers and duties set forth in this section. The board of adjustment shall not have the power to amend this chapter on zoning, nor to permit nor prohibit any actions which accomplish an amendment of this chapter on zoning, nor to permit any action nor fail to prohibit any action which would violate this chapter. However, it is the declared intent of this section that any actions taken by the

board of adjustment, in full compliance with the provisions of this section, shall be deemed to be administrative actions and shall not be interpreted as unauthorized amendments to the chapter. In addition to the powers provided by law, the board of adjustment shall have the following powers and duties:

- (1) Variances. On appeal from an order, requirement, decision or determination made by an administrative official, the board of adjustment may vary or adjust the strict application of any of the requirements of this chapter in the case of an exceptionally irregular, narrow, shallow or steep lot or other exceptional physical or topographical condition, by reason of which the strict application of the provisions of the chapter would result in unnecessary hardship that would deprive the owner of a reasonable use of the land or building involved, but in no other case.
  - ~~a. On appeal from an order, requirement, decision or determination made by an administrative official, the board of adjustment may vary or adjust the strict application of any of the requirements of this chapter in the case of an exceptionally irregular, narrow, shallow or steep lot or other exceptional physical or topographical condition, by reason of which the strict application of the provisions of the chapter would result in unnecessary hardship that would deprive the owner of a reasonable use of the land or building involved, but in no other case.~~
  - ~~b. No adjustment in the strict application of any provisions of this chapter shall be granted by the board of adjustment unless it finds that:
    - ~~1. There are special circumstances or conditions, fully described in the findings of the board, applying to the land or buildings for which the variance is sought, which circumstances or conditions are peculiar to such land or building, and do not apply generally to land or buildings in the neighborhood, and have not resulted from any act of the applicant taken subsequent to the adoption of this chapter, whether in violation of the provisions of the chapter, or not;~~
    - ~~2. For reasons fully set forth in the findings of the board, the circumstances or conditions so found are such that the strict application of the provisions of this chapter would deprive the applicant of the reasonable use of said land or building, and the granting of the variance is necessary for the reasonable use of the land or building, and that the variance as granted by the board is the minimum variance that will accomplish the relief sought by the applicant;~~
    - ~~3. The grant of the variance will be in harmony with the general purposes and intent of this chapter, and not be injurious to the neighborhood or otherwise detrimental to the public welfare.~~~~
- (2) Conditional variance. In granting any variance, the board of adjustment shall prescribe any conditions applying thereto that it may deem necessary or desirable to carry out the general purposes of this chapter or preserve the neighborhood or general welfare from injury.
- (3) Allocation of unlisted uses. Upon application of a property owner, or upon a request of the building official or other administrative official or of any official, agency or board of the city, or on its own initiative, the board of adjustment shall add to any use group

established by section 105-1-4, any other similar use which conforms to the conditions set forth in the special finding required and listed in this subsection:

- a. Such use is not listed in any other use group, nor is it listed individually as a permitted use.
  - b. Such use is more appropriate in the use group to which it is added than in any other use group.
  - c. Such use conforms to the basic characteristics of the use group to which it is added as set forth in the general description of the use group.
  - d. Such use does not adversely affect the character of any of the districts in which the use group to which it is added is permitted.
  - e. Such use is not likely to create any more traffic than the other uses listed in the use group to which it is added, nor does it create any more offensive noise, vibration, dust, heat, smoke, odor, glare, health or safety hazard or other objectionable influence than the minimum amount normally resulting from the other uses listed in the use group to which it is added.
  - f. When any use has been added to any use group in accordance with the procedure set forth in this section, such use shall thereafter be deemed to be permitted in any district in which such use group is permitted, and to be prohibited from any district in which such use group is prohibited. Such use shall be added to the use group in the published text of this chapter at the first convenient opportunity, with a notation indicating that the addition was made in accordance with this section.
- (4) Renewal of certificate of occupancy for nonconforming use. The board of adjustment shall have the power to renew a certificate of occupancy for nonconforming use in accordance with the provisions of section 105-1-1. In granting such renewal, the board of adjustment shall determine that the temporary continuation will not be injurious to the neighborhood, nor to the public welfare, and that there are unusual circumstances or conditions which would create an unnecessary hardship on the applicant for extension if such extension were refused. The board of adjustment may refuse to grant an extension to the certificate of occupancy for a nonconforming use if application for such extension is received by the board of adjustment less than 15 days prior to the expiration of the original certificate of occupancy.
- (5) Renewal of automatically revoked building permit. Upon appeal by any person holding a building permit automatically revoked by the provisions of this Code, the board of adjustment shall hear and determine whether or not such revoked building permit will be renewed. The board of adjustment shall authorize such renewal only where it specifically finds:
- a. Construction of the building has, in fact, been started.
  - b. Substantial expenditures have been made for such construction.
  - c. The plans for the building and actual construction of the building are in full compliance with the zoning ordinances in effect at the date of issuance of the building permit and in full compliance with the building code and any other city ordinances.

~~(6) Special uses. The board of adjustment shall, on application, hear a request for a special use in accordance with the provisions of section 105-1-5. The board of adjustment shall grant a permit for such special use if and only if it finds that such use is in full conformity with all standards relating thereto as specified in section 105-1-5, and with any other conditions, regulations and standards specified elsewhere in this chapter and applicable to said special use.~~

(76) Off-street parking. The board of adjustment shall, upon application, hear and decide any question relating to the decrease of required off-street parking or off-street loading spaces, as set forth in section 105-1-6.

(78) Airport zoning. The board of adjustment shall have all powers and duties granted to it by this chapter relating to airport zoning regulation.

(89) Recommendations to planning and zoning commission. The board of adjustment is authorized to recommend to the city planning and zoning commission, for study or action, any changes or amendments to the text or district zoning maps that the board finds desirable. The planning and zoning commission shall consider such recommendations and may prepare appropriate amendments for the consideration of the board of city commissioners to carry out said recommendation.

(94) Special permit for large-scale development. The board of adjustment shall hear and pass upon an application for a special permit for a large-scale development in accordance with the provisions of section 105-4-5.

(104) Miscellaneous powers and duties. The board of adjustment shall have such other powers and duties as may be authorized by this chapter, or any amendment thereto.

(112) Rules. The board of adjustment is authorized to establish such rules of procedure, not in conflict with any provisions of the laws of this state, this chapter, or any other ordinance of the city, as it may deem necessary to carry out the provisions of this chapter.

(Code 1957, § 14-0224; Code 1994, § 21-06-02)

### **Section 3. Sec. 105-1-13 is Amended and Re-enacted.**

#### **Sec. 105-1-13. - Zoning Application Procedures Amendments.**

~~Whenever the public necessity, convenience, general welfare or good zoning practice requires, the board of city commissioners may amend, supplement or change the regulations in the zoning ordinance, or the zoning boundaries or classification of property on the zoning map, as set forth in this chapter.~~

~~(a) Initiation of amendments. A proposed amendment may be initiated by the board of city commissioners upon its own motion, or upon receipt of a request therefor from the planning and zoning commission, or upon receipt of a petition therefor from any interested person or their agents.~~

~~(b) Report by planning and zoning commission; public hearing. The board shall require a report from the planning and zoning commission on a proposed amendment before taking final action thereon. The planning and zoning commission shall thereupon make a~~

~~tentative report and hold a public hearing thereon with notice the same as required for a public hearing by the board of city commissioners, before submitting its final report. Such final report shall be submitted within 90 days of the referral of the proposed amendment to the planning and zoning commission unless the board is agreeable to an extension of time.~~

~~(e) *Action by board of city commissioners; public hearing.* After the receipt of the required final report on any amendment from the planning and zoning commission, or in the event of the failure of the planning and zoning commission to so report within 90 days following the time of referral of the proposed amendment to the planning and zoning commission, the board shall hold a public hearing, after which the board may make a final determination on the proposed amendment. A hearing shall be granted to any person interested at the time and place specified.~~

(a) General Provisions.

(1) Purpose. The following Section outlines the requirements and procedures for land use applications that fall within the purview of Chapter 105. Specific application and procedural requirements for planned unit developments and large-scale developments shall follow those provided within Sec. 105-4-3 and Sec. 105-4-5 respectively.

(2) Definitions. For the meanings of zoning terms or words not found in Section 101-1-3 related to definitions, the city staff shall rely upon the latest A Planners Dictionary, edited by Michael Davidson and Fay Dolnick, American Planning Association and Planning Advisory Service, for interpretation purposes.

(3) Complete Application. A complete application shall include the following:

a. Development application as established by the Engineering and Planning Department.

b. Fee, as established by the board of city commissioners.

c. Site plan.

d. Letter of intent containing:

1. A summary of the purpose for the application; and

2. How negative externalities resulting from the change in land use will be addressed.

e. Additional submittals as required by the respective land use application that falls within the purview of this Section.

f. Additional plans, studies, or other information as may be required from time to time from the Planning and Zoning Commission or city staff.

(4) Period of Review. The planning office shall review a submitted application within ten (10) business days to determine whether an application is complete. If the application is determined to be a complete application, the planning office shall notify the applicant or applicant representative of the determination and the application shall be considered accepted. If the application is determined to be incomplete, the planning office shall notify the applicant or applicant representative of the missing components necessary to consider the application complete.

(b) Zoning Ordinance Map Amendment. Whenever the public necessity, convenience, general welfare, or good zoning practice requires, the board of city commissioners may amend, supplement, or change the zoning boundaries or classification of property on the zoning map as set forth in this Section.

(1) Initiation of Amendments. A proposed zoning map amendment as described in Section 105-2-2 may be initiated by the board of city commissioners upon its own motion, or upon receipt of a request therefor from the Planning and Zoning Commission, or upon receipt of a petition therefor from any interested person or their agents.

(2) Additional Submittals. A zoning ordinance map amendment application shall include the following additional submittals:

a. Map or written statement evidencing conformity with the future land use map of the City of Mandan Land Use and Transportation Plan and/or any corresponding goals, objectives, policies, and other information contained therein. Evidence of conformity shall include:

1. Where the requested zoning district(s) aligns with the future land use map designation(s); OR

2. Where two or more future land use map designations apply to an area that is part of the application for a zoning ordinance map amendment and only one future land use map designation aligns with the requested zoning district, the applicant shall outline how the application also aligns with the goals, objectives, policies, and other information contained within the City of Mandan Land Use and Transportation Plan; OR

3. If no future land use designations apply to the area that is part of the zoning ordinance map amendment, the applicant shall be required to successfully amend the future land use map as outlined in this Section.

b. An ESRI shapefile (.shp) of the zoning ordinance map amendment area projected in spatial reference well-known ID (WKID) 102721.

c. Map of area, including the subject property and surrounding three-hundred (300) feet. The map shall include the current and proposed zoning of the subject property and neighboring property's current zoning, including street names and base aerial imagery for reference. If the nearest road is greater than three-hundred (300) feet from the subject property, the map shall be scaled back to incorporate the nearest street intersection for reference but is not required to include zoning information for properties outside the three-hundred (300) foot surrounding area.

(3) Complete Application Received. A complete application shall be received no less than 30 days prior to the desired planning and zoning commission meeting date.

(4) Public Hearing Noticing Requirements. Notice of the hearings described in subsections 5 and 6 must be published once a week for two successive weeks before the time set for the hearing in the official newspaper of the city. Property owners within three-hundred (300) feet of the boundary of the area of the proposed amendment shall be notified by mail. The property owner notice requirement shall be considered to be met if reasonable effort is made to contact applicable property owners, even if some are inadvertently omitted from notification. The notice must contain the following items:

a. The time and place of the hearing.

b. A description of any property involved in any zoning change, by street address if streets have been platted or designated in the area affected.

c. A description of the nature, scope, and purpose of the proposed regulation, restriction, or boundary.

d. A statement of the times at which the application will be available to the public for inspection and copying at the office of the city auditor or his/her designee.

(5) Planning and Zoning Public Hearing Required. The planning and zoning commission shall hold a public hearing to review the application for a zoning ordinance map amendment. The planning and zoning commission may recommend approval, recommend approval with restrictions, recommend denial, or table the public hearing

to a future date. A recommendation shall include or reference findings of fact related to the application and forwarded to the board of city commissioners. A motion to table the application to a future date shall be limited to no longer than 60 days.

(6) City Commission Public Hearing Required – First Consideration. The board of city commissioners shall hold a public hearing no sooner than is possible to follow the public hearing noticing requirements. The public hearing shall be the first consideration of the ordinance. The board of city commissioners may approve, approve with restrictions, deny, or table the public hearing to a future date. A decision shall include or reference findings of fact related to the application. A motion to table the application to a future date shall be limited to no longer than 60 days. A decision to deny the application is final and no second consideration is required. If substantial changes to the zoning map amendment are required the public hearing shall be repeated and follow the public hearing noticing requirements.

(7) City Commission Public Meeting Required – Second Consideration. The board of city commissioners shall hold a public meeting no sooner than ten (10) days following the first consideration of the zoning ordinance map amendment. The zoning ordinance map amendment shall not substantially differ from that presented at the preceding public hearing. The board of city commissioners may, at their discretion, hear public testimony related to the application. The board of city commissioners may approve, approve with restrictions, deny, or table the public hearing to a future date. A decision shall include or reference findings of fact related to the application. A motion to table the application to a future date shall be limited to no longer than 60 days. A decision to deny the application is final.

(8) Required Vote for Passage. If a protest against an amendment is signed by the owners of twenty percent or more:

a. Of the area of the lots included in such proposed change; or

b. Of the area adjacent, extending one-hundred-fifty (150) feet from the area to be changed, excluding the width of streets,

the amendment shall not become effective except by the favorable vote of four of the five members of the governing body of the city.

(9) Restrictions. Zoning ordinance map amendments which list allowable uses shall not be construed to be permission to conduct uses in perpetuity. Listed allowable uses shall be further limited by any zoning ordinance text amendment that affects, excludes, alters, or relates to a use contained in said list. The required land use application procedure shall be followed per Chapter 105 DISTRICT REGULATIONS (ZONING) at the time of initiation of any use.

(10) Evaluative Criteria. In order to provide a favorable recommendation by the Planning and Zoning Commission or final decision by the board of city commissioners, the following must be considered:

a. How the proposed zoning district aligns with the City of Mandan Land Use and Transportation Plan and other plans as may be adopted by the board of city commissioners. Alignment includes:

1. Fulfilling the goals, objectives, and policies of the future land use plan;
2. Fulfilling the goals, objectives, and policies of other plans as may be adopted by the city; and
3. Fulfillment of the zoning-future land use crosswalk where one is adopted by the planning and zoning commission.

(c) Zoning Ordinance Text Amendment. Whenever the public necessity, convenience, general welfare or good zoning practice requires, the board of city commissioners may amend, supplement, or change the regulations in the zoning ordinance as set forth in this Section.

(1) Initiation of Amendments. A proposed zoning text amendment may be initiated by the board of city commissioners, Planning and Zoning Commission, the planning office, or any interested person or their agent.

(2) Additional Submittals. A zoning text amendment application shall include the following additional submittals:

- a. Summary of the goal(s) intended to be achieved by the amendment; and
- b. Word document with tracked changes enabled, showing all mark-up of the existing ordinance and proposed changes.

(3) Complete Application Received. A complete application shall be received no less than 30 days prior to the desired planning and zoning commission meeting date.

(4) Public Hearing Noticing Requirements. Notice of the hearing must be published once a week for two successive weeks before the time set for the hearing in the official newspaper of the city. The notice must contain the following items:

- a. The time and place of the hearing.
- b. A description of the nature, scope, and purpose of the proposed regulation, restriction, or boundary.

c. A statement of the times at which the application will be available to the public for inspection and copying at the office of the city auditor or his/her designee.

(5) Planning and Zoning Public Hearing Required. The planning and zoning commission shall hold a public hearing to review the application for a zoning ordinance text amendment. The planning and zoning commission may recommend approval, recommend approval subject to changes, recommend denial, or table the public hearing to a future date. A motion to table the application to a future date is limited to no longer than 60 days.

(6) City Commission Public Hearing Required – First Consideration. The board of city commissioners shall hold a public hearing no sooner than is possible to follow the public hearing noticing requirements. The public hearing shall be the first consideration of the ordinance. The board of city commissioners may approve, approve subject to changes, deny, or table the public hearing to a future date. A motion to table the application to a future date shall be limited to no longer than 60 days. A decision to deny the application is final and no second consideration is required. If substantial changes to the ordinance are required the public hearing shall be repeated and follow the public hearing noticing requirements.

(7) City Commission Public Meeting Required – Second Consideration. The board of city commissioners shall hold a public meeting no sooner than ten (10) days following the first consideration of the zoning ordinance text amendment. The zoning ordinance text amendment shall not substantially differ from that presented at the preceding public hearing. The board of city commissioners may, at their discretion, hear public testimony related to the application. The board of city commissioners may approve, approve subject to changes, deny, or table the public hearing to a future date. A motion to table the application to a future date shall be limited to no longer than 60 days. A decision to deny the application is final.

(8) Evaluative Criteria. In order to provide a favorable recommendation by the Planning and Zoning Commission or final decision by the board of city commissioners, the following must be considered:

a. How the proposed zoning ordinance text amendment serves the public interest; and

b. How the proposed zoning ordinance text amendment aligns with the goals, objectives, and policies outlined in the City of Mandan Land Use and Transportation Plan and other plans as may be adopted by the board of city commissioners.

(d) Conditional/Special Use Permit. In order to carry out the purposes of this chapter, the board of city commissioners finds it necessary to require that certain uses, because of unusual size, safety hazards, infrequent occurrence, effect on surrounding area or other reasons, be reviewed by the planning and zoning commission prior to the board voting on whether or not to approve the use at a specific site.

(1) Additional Submittals. A special or conditional use permit application shall include the following additional submittals:

a. An answer with explanation for each of the following questions:

1. Will the proposed use be designed, constructed, operated, and maintained so as to be compatible in appearance with the existing or intended character of the neighborhood?
2. Will the proposed use involve activities, processes, materials, equipment, or conditions of operation that will be incompatible with the neighborhood due to the production of traffic, noise, smoke, fumes, glare, or odors?
3. Will the hours of operation of the proposed use be different than the adjacent uses?
4. Will the proposed use require exterior lighting of a type and intensity greater than the adjacent uses?
5. Will the site of the proposed use have sufficient area to provide the parking required for the use?
6. Will the proposed use require adjustments to the normal lot size, height, and setback requirements of the district?

(2) Complete Application Received. A complete application shall be received no less than 30 days prior to the desired planning and zoning commission meeting date.

(3) Public Hearing Noticing Requirements. Notice of the hearing must be published at least ten (10) days before the time set for the hearing in the official newspaper of the city. Property owners within five-hundred (500) feet of the boundary of the area of the proposed conditional use shall be notified by mail. The property owner notice requirement shall be considered to be met if reasonable effort is made to contact applicable property owners, even if some are inadvertently omitted from notification. The notice must contain the following items:

- a. The time and place of the hearing.
- b. A description of the nature, scope, and purpose of development requiring a special use permit.

c. A statement of the times at which the application will be available to the public for inspection and copying at the office of the city auditor or his/her designee.

(4) Planning and Zoning Public Hearing Required. The planning and zoning commission shall hold a public hearing to review the application for a special use permit. The planning and zoning commission may recommend approval, recommend approval with conditions, deny, or table the public hearing to a future date. A recommendation to approve or approve with conditions shall include or reference findings of fact related to the application and forwarded to the board of city commissioners. Conditions of approval shall be related and roughly proportional to mitigate negative externalities affecting nearby property owners and the general public and to fulfill the intent of the adopted plans of the City. A decision to table the application to a future date shall be limited to no longer than 60 days. A decision to deny is final.

(5) City Commission Ratification of Approval Required. If the planning and zoning commission recommends to approve or approve with conditions and no appeal is filed as provided in this Section, the action by the board of city commissioners may be by consent. The board of city commissioners may approve, approve with conditions, deny, or table the item to a future date. Conditions of approval shall be related and roughly proportional to mitigate negative externalities affecting nearby property owners and the general public and to fulfill the intent of the adopted plans of the City. A motion to table the item to a future date shall be limited to no longer than 60 days. A decision to deny is final.

(6) Evaluative Criteria. In order to provide a favorable recommendation by the planning and zoning commission or final decision by the board of city commissioners, the following must be considered:

- a. The proposed use is in harmony with the purpose and intent of this chapter;
- b. The proposed use is not in conflict with the adopted comprehensive plan of the city;
- c. The proposed use will not adversely affect the health, safety, and general welfare of the public and the workers and residents in the area;
- d. The proposed use will not be detrimental to the use or development of adjacent properties or of the surrounding neighborhood;
- e. The proposed use meets all appropriate regulations for the district in which it will be located;

- f. The proposed use will not result in the destruction, loss or damage of a natural, scenic, or historic feature of importance to the community;
- g. The proposed use includes adequate screening or buffering to compensate for any departure that the proposed use has from existing adjacent uses; and
- h. The proposed use includes adequate provisions for those individuals who are mobility impaired.

(7) Permit Expiration. Conditional/special use approval is valid for one year. Should a building permit not be issued within one year of receiving special/conditional use approval from the city commission, the approval will lapse. An extension may be granted by the board of city commissioners upon receipt of a written request prior to the one-year expiration.

(e) Zoning Variance. On appeal from an order, requirement, decision, or determination made by an administrative official, the board of city commissioners may vary or adjust the strict application of any of the requirements of this chapter in the case of an exceptionally irregular, narrow, shallow, or steep lot or other exceptional physical or topographical condition, by reason of which the strict application of the provisions of the chapter would result in unnecessary hardship that would deprive the owner of a reasonable use of the land or building involved, but in no other case.

(1) Additional Submittals. A zoning variance application shall include the following additional submittals:

a. Detailed statement including the following:

1. The circumstances or conditions applying to the land or buildings for which the variance is sought;
2. How the applicant is deprived of a reasonable use of said land or building;
3. How the grant of a variance will not be injurious to the neighborhood or otherwise detrimental to the public welfare; and
4. The minimum variance that will accomplish the relief sought.

(2) Complete Application Received. A complete application shall be received no less than 30 days prior to the desired planning and zoning commission meeting date.

(3) Public Hearing Noticing Requirements. Notice of the hearing must be published at least ten (10) days before the time set for the hearing in the official newspaper of the city. Property owners within one-hundred-fifty (150) feet of the boundary of the area

of the proposed variance shall be notified by mail. The property owner notice requirement shall be considered to be met if reasonable effort is made to contact applicable property owners, even if some are inadvertently omitted from notification. The notice must contain the following items:

- a. The time and place of the hearing.
- b. A description of the nature, scope, and purpose of the variance request.
- c. A statement of the times at which the application will be available to the public for inspection and copying at the office of the city auditor or his/her designee.

(4) Planning and Zoning Public Hearing Required. The planning and zoning commission shall hold a public hearing to review the application for a variance. The planning and zoning commission may recommend approval, recommend approval with conditions, recommend denial, or table the public hearing to a future date. A recommendation shall include or reference findings of fact related to the application and forwarded to the board of city commissioners. Conditions of approval shall be related and roughly proportional to mitigate negative externalities affecting nearby property owners and the general public and to fulfill the intent of the adopted plans of the City. A motion to table the application to a future date shall be limited to no longer than 60 days.

(5) City Commission Public Hearing Required. The board of city commissioners shall hold a public hearing no sooner than is possible to follow the public hearing noticing requirements. The board of city commissioners may approve, approve with conditions, deny, or table the public hearing to a future date. Conditions of approval shall be related and roughly proportional to mitigate negative externalities affecting nearby property owners and the general public and to fulfill the intent of the adopted plans of the City. A motion to table the application to a future date shall be limited to no longer than 60 days. A decision to deny the variance is final.

(6) Evaluative Criteria. No adjustment in the strict application of any provisions of this chapter shall be recommended by the planning and zoning commission or granted by the board of city commissioners unless it finds that:

- a. There are special circumstances or conditions, fully described in the findings of the board, applying to the land or buildings for which the variance is sought, which circumstances or conditions are peculiar to such land or building, and do not apply generally to land or buildings in the neighborhood, and have not resulted from any act of the applicant taken subsequent to the adoption of this chapter, whether in violation of the provisions of the chapter, or not;

- b. For reasons fully set forth in the findings of the board, the circumstances or conditions so found are such that the strict application of the provisions of this chapter would deprive the applicant of the reasonable use of said land or building, and the granting of the variance is necessary for the reasonable use of the land or building, and that the variance as granted by the board is the minimum variance that will accomplish the relief sought by the applicant; and
- c. The grant of the variance will be in harmony with the general purposes and intent of this chapter, and not be injurious to the neighborhood or otherwise detrimental to the public welfare.

(f) Future Land Use Map/Plan Amendment.

- (1) Initiation of Amendments. A proposed future land use map/plan amendment may be initiated by the board of city commissioners upon its own motion, or upon receipt of a request therefor from the Planning and Zoning Commission, or upon receipt of a petition therefor from any interested person or their agents. The amendments are limited to the planned land uses for a subject property and do not include amendments to other components of the Land Use and Transportation Plan or other plans that have been adopted by the city.
- (2) Additional Submittals. A future land use map amendment application shall include the following additional submittals:
  - a. An explanation of how the application aligns with the goals, objectives, policies, and other information contained within the City of Mandan Land Use and Transportation Plan and other plans adopted by the city; and
  - b. How any amendment, if approved, would not further create potential for disharmonious adjacent land uses; and
  - c. An ESRI shapefile (.shp) of the future land use map amendment area and projected in spatial reference well-known ID (WKID) 102721.
- (3) Complete Application Received. A complete application shall be received no less than 30 days prior to the desired planning and zoning commission meeting date.
- (4) Public Hearing Noticing Requirements. Notice of the hearing must be published once a week for two successive weeks before the time set for the hearing in the official newspaper of the city. Property owners within five-hundred (500) feet of the boundary of the area of the proposed amendment shall be notified by mail. The property owner notice requirement shall be considered to be met if reasonable effort is made to contact applicable property owners, even if some are inadvertently omitted from notification. The notice must contain the following items:

- a. The time and place of the hearing.
- b. A description of any property involved in any future land use map amendment, by street address if streets have been platted or designated in the area affected.
- c. A description of the nature, scope, and purpose of the proposed regulation, restriction, or boundary.
- d. A statement of the times at which the application will be available to the public for inspection and copying at the office of the city auditor or his/her designee.

(5) Planning and Zoning Public Hearing Required. The planning and zoning commission shall hold a public hearing to review the application for a future land use map amendment. The planning and zoning commission may approve, deny, or table the public hearing to a future date. The adoption of the amendment shall be by a resolution of the commission carried by the affirmative votes of not less than two-thirds of the members thereof. An attested copy of the amendment shall be certified to the governing body of the municipality. A decision shall include or reference findings of fact related to the application. A motion to table the application to a future date shall be limited to no longer than 60 days.

(6) Evaluative Criteria. In order to provide a favorable decision by the planning and zoning commission, the following must be considered:

- a. Does the proposed amendment align with the goals, objectives, policies, and other information contained within the City of Mandan Land Use and Transportation Plan and other plans adopted by the city; and
- b. Will the amendment, if approved, further create potential for disharmonious adjacent land uses; and
- c. Does the amendment contribute toward the general purpose of guiding and accomplishing a coordinated, adjusted, and harmonious development of the municipality and its environs, which, in accordance with present and future needs, best will promote the amenities of life, health, safety, morals, order, convenience, prosperity, and general welfare as well as efficiency and economy in the process of development, including adequate provision for light and air, distribution of population, good civic design and arrangement, wise and efficient expenditure of public funds, the adequate provision of public utilities and other public requirements, the improvement and control of architecture, and the general embellishment of the area under its jurisdiction.

(g) Request for Reconsideration.

- (1) Request for Reconsideration. The applicant who originally initiated the application may file a one-time appeal with the city planner within thirty (30) days of the final decision for land use applications contained in Chapter 105. The request shall be of reconsideration of a final decision by the board of city commissioners.
- (2) Complete Application. The request for reconsideration shall include a complete summary of the reasons for the request, including any new evidence or information if applicable. Public Hearing Noticing Requirements. Public and neighboring property owner noticing of the hearing must follow the public hearing noticing requirements of the respective land use application for the hearing body for which a final decision is rendered. The property owner notice requirement shall be considered to be met if reasonable effort is made to contact applicable property owners, even if some are inadvertently omitted from notification. The notice must contain the following items:
- a. The time and place of the hearing;
  - b. A description of any property involved in the request, by street address if streets have been platted or designated in the area affected;
  - c. A description of the nature, scope, and purpose of the proposed regulation, restriction, or boundary; and
  - d. A statement of the times at which the application will be available to the public for inspection and copying at the office of the city auditor or his/her designee.
- (3) Public Hearing Required. The board of city commissioners shall hold a public hearing no sooner than is possible to follow the public hearing noticing requirements of the respective land use application of the hearing body for which a final decision is rendered. The board of city commissioners may approve, approve with conditions, deny, or table the public hearing to a future date. Conditions of approval shall be related and roughly proportional to mitigate negative externalities affecting nearby property owners and the general public and to fulfill the intent of the adopted plans of the City. A motion to table the application to a future date shall be limited to no longer than 60 days. A decision rendered for the request for reconsideration is final, and any further appeals must be made to the district court.

If a request for reconsideration results in reversing a denied zoning ordinance map or text amendment, the zoning ordinance map or text amendment will be considered an approval of the first consideration, and a second consideration is required subject to the procedures outlined in this Section.

(Code 1957, §§ 14-0223, 14-0226; Code 1994, §§ 21-06-01, 21-07-01, 21-07-02)

**State Law reference**— Board of adjustment and appeals, N.D.C.C. § 40-47-07 et seq.; amendments to zoning ordinances, N.D.C.C. § 40-47-05.

***Section 3. Sec. 105-3-1 related to applicability of standards is removed.***

~~Sec. 105-3-1. — Reserved. Applicability of standards.~~

- ~~(a) When making computations to determine compliance with these standards, where appropriate, the result shall be rounded to the nearest whole number. Where a standard sets a minimum requirement, the computation shall not be rounded.~~
- ~~(b) Conditional uses are to be evaluated on the following criteria to the extent applicable to the proposed conditional use:
  - ~~(1) Does the proposed use meet the goals and objectives for the area as expressed in the adopted comprehensive plan?~~
  - ~~(2) Will the proposed use be designed, constructed, operated and maintained so as to be compatible in appearance with the existing or intended character of the neighborhood?~~
  - ~~(3) Will the proposed use be served adequately by essential facilities and services including streets, police and fire protection, drainage, refuse disposal, potable water and sanitary sewer services, emergency services and schools?~~
  - ~~(4) Will the proposed use not create additional requirements for public facilities and services at public cost and will not be detrimental to the economic welfare of the community?~~
  - ~~(5) Will the proposed use involve activities, processes, materials, equipment or conditions of operation that will be incompatible with the neighborhood due to the production of traffic, noise, smoke, fumes, glare or odors?~~
  - ~~(6) Will the proposed use have vehicular approaches to the property which do not create traffic congestion or interfere with traffic on surrounding public streets?~~
  - ~~(7) Will the proposed use result in the destruction, loss or damage of a natural, scenic, or historic feature of importance to the community?~~
  - ~~(8) Will the proposed use depreciate surrounding property values?~~
  - ~~(9) Will the hours of operation of the proposed use be different than the adjacent uses?~~
  - ~~(10) Will the proposed use require exterior lighting of a type and intensity greater than the adjacent uses?~~
  - ~~(11) Will the site of the proposed use have sufficient area to provide the parking required for the use?~~
  - ~~(12) Will the proposed use require adjustments to the normal lot size, height and setback requirements of the district?~~
  - ~~(13) Has adequate provision been made for those individuals who are mobility impaired?~~
  - ~~(14) Will screening or buffering be required to compensate for any departure that the proposed use has from existing adjacent uses?~~~~
- ~~(c) When recommending approval of a conditional use, the planning and zoning commission may specify certain design parameters to be applied to the approval.~~

- ~~(d) Conditional uses approved by the planning and zoning commission shall be ratified by the city commission.~~
- ~~(e) Should any person object to the approval by the planning and zoning commission of a conditional use, they may file an appeal as provided for in Chapter 101, Article 3.~~
- ~~(f) If an appeal is filed and the appeal is scheduled for consideration by the city commission, the action on the appeal by the city commission shall be taken after holding a public hearing.~~
- ~~(g) If no appeal of a planning and zoning recommendation for a conditional use is received, the action by the city commission may be by consent.~~
- ~~(h) Conditional use approval is valid for one year. Should a building permit not be issued within one year of receiving conditional use approval from the city commission, the approval will lapse.~~

(Ord. No. 1242, § 5, 12-20-2016)

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Timothy A. Helbling, President  
Board of City Commissioners

Attest:

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James Neubauer,  
City Administrator

Planning and Zoning:  
First Consideration:  
Second Consideration and Final Passage:

TBD 20XX  
TBD 20XX  
TBD 20XX

**OTHER BUSINESS # 1**

**OTHER BUSINESS # 1**

<p>Mandan Planning and Zoning Commission Agenda Item Other #1          For Meeting on January 27, 2020          Mandan Engineering and Planning Office Report  <b>Multi-use Shops DRAFT Ordinance Update</b>          Requested Action  <b>Review</b></p>
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Application Details				
Applicant Staff	Owner	Subdivision	Legal Description	
N/a	N/a	N/a	N/a	
Location N/a		Proposed Land Use N/a	Parcel Size N/a	Number of Lots N/a
Existing Land Use N/a	Adjacent Land Uses N/a		Current Zoning N/a	Proposed Zoning N/a
		Adjacent Zoning N/a		
Fees No Charge	Date Paid N/a	Adjacent Property Notification Sent N/a	Legal Notices Published N/a	

Project Description
<p>The attached in Exhibit 1 contains a preliminary DRAFT for code changes related to multi-use shops, commonly referred to as shop condos. The structures have become a popular type of construction. Since they have come around several issues have been arisen.</p> <p>The ordinance seeks to address these deficiencies moving forward for all NEW multi-use shop construction. Existing shops could voluntarily apply if the owners collectively decided to apply.</p>
Agency & Other Department Comments
N/a
Engineering & Planning Staff Comments
N/a
Engineering & Planning Recommendation
N/a
Proposed Motion
N/a

List of Exhibits:  
 Exhibit 1 – DRAFT PRELIMINARY Multi-use Shop Ordinance

# EXHIBIT 1

## ORDINANCE NO. 13XX

An Ordinance to Amend and Re-enact Section 101-1-3 and Add Section 105-1-5 (k) of the Mandan Municipal Code related to multi-use shops.

WHEREAS, Multiple complaints have been received from occupants of multi-use shops regarding commercial rates being charged for utilities and insurance when the occupant is utilizing their respective unit for residential storage purposes, requesting the City provide a solution to this issue; and

WHEREAS, Multi-use shops are being divided and used for purposes that they were not constructed to accommodate, creating health and safety hazards for all occupants within the structure.

WHEREAS, When the number of units and corresponding square footage of each unit is amended the administration of special assessments for each resulting unit is unnecessarily burdensome; and

WHEREAS, Public Works Department has indicated multiple times that shut-offs for individual units are inaccessible, leading the City to continue providing services without receiving payment for such services.

NOW, THEREFORE, BE IT ORDAINED by the Board of City Commissioners of the City of Mandan, Morton County, North Dakota, as follows:

**Section 1. Amended. Section 101-1-3 is hereby amended, adding a definition for shop condo immediately after the definition for Service group B as follows:**

Multi-use shop means two or more attached units that are designed and constructed as a single structurally dependent building or designed and constructed to allow individual units to be structurally independent from each other sharing a common wall on one or more sides. These are sometimes referred to as "shop-condos". These structures are unique from a twin/row home in that the residential use is accessory in nature. They are unique from a commercial strip mall in that they often include a large garage or RV bay and rarely include the retail of products and visitation by the general public.

**Section 2. Added. Section 105-1-5 (k) related to multi-use shops requiring a special use permit and outlining minimum standards:**

Multi-use shops. Each multi-use shop development may be permitted as a special use subject to the following minimum standards:

- (1) Each individual unit within the structure shall have an open space/yard or public way on no more than three sides.
- (2) Each individual unit within the structure shall have its own separate means of egress.
- (3) Such units shall only contain group Business, Factory, Mercantile, or Storage occupancy classifications as set for by Section 3 of the North Dakota State Building Code.
- (4) Uses, whether commercial or accessory to residential, shall be declared at the time of the conditional use permit issuance. No change in use may be conducted unless reevaluated through the special use permitting process and the structure meets all building code requirements for the desired change of use.
- (5) Traditional mixed-use (residential and commercial combined) multi-use shops shall not be permitted. The declaration of either commercial or accessory to residential shall apply to all units within the structure and the structure will be constructed according to the minimum standards of the building code for the declared use.
- (6) Minimum off-street parking requirements shall be planned and provided for based on the declared uses. Any inadequate provision of parking within the development for a combination of uses may result in the revocation of the special use permit.
- (7) Each structure shall be limited to one (1) curb stop accessible by City staff.
- (8) The declaration of commercial or accessory to residential shall in no way affect the way valuation, special assessments, utility rates, and other city fees are determined. These shall remain determined by separate city policy.

**Section 3. Sec 101-1-3 is amended and re-enacted.**

**Section 4. Sec. 105-1-5 (k) is enacted.**

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Timothy A. Helbling, President  
Board of City Commissioners

Attest:

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James Neubauer,  
City Administrator

First Consideration:  
Second Consideration and Final Passage:

TBD  
TBD