

HASTINGS PLANNING COMMISSION

A meeting of the Hastings Planning Commission has been scheduled for Tuesday, June 15, 2021 at 4:00 PM in the Hastings Public Library, Conference Room A/B, 314 N Denver Ave.

AGENDA:

1. Call to Order
2. Roll Call
3. Pledge of Allegiance
4. Motion to adopt the current agenda for the Planning Commission Meeting
5. Public Notice - Official Notice of the Regular Meeting was published in the Hastings Tribune on Friday, June 11, 2021. Pursuant to Nebraska Revised Statute Section 84-1412, the public is advised that a copy of today's agenda and all reproducible written material which will be discussed at today's meeting is located at the back of the Hastings Public Library, Conference Room A/B. Also, a current copy of the Nebraska Open Meetings Act is posted in Conference Room A/B of the Hastings Public Library which is accessible to members of the public.
6. Approval of Minutes
 - a. May 18th, 2021
7. Special Order of Business
8. Unfinished Business
9. Public Hearings.
 - a. **2021-036.** Public hearing on a request for an amendment to Conditional Use Permit for Pine Patch Second Subdivision to allow for the construction of a new barn for the existing business and special events, property is commonly addressed as 780 E 26th St, City of Hastings, Adams County, Nebraska.

Motion to recommend approval of the request for an amendment for Conditional Use Permit for Pine Patch Second Subdivision to allow for the construction of a new barn for the existing business and special events, property is commonly addressed as 780 E 26th St, City of Hastings, Adams County, Nebraska.
 - b. **2021-024.** Public hearing to recommend a request for a Conditional Use Permit (CUP) for TK's CNC for limited manufacturing at property commonly addressed as 214 E 2nd Street, City of Hastings, Adams County, Nebraska.

Motion to recommend approval for a CUP resolution for property commonly addressed as 214 E 2nd Street, City of Hastings, Adams County, Nebraska.
 - c. **2021-038.** Public hearing to recommend a request for Randal Chick regarding Plan Modification No. 2021-4 to Redevelopment Area Number 4, potential Bienkowski Subdivision for the following collective property, to wit: Lots Seven (7) through Twenty Four (24), Block Fifteen (15), D.W. Palmer's Prospect Park Addition to the City of Hastings, Adams County, Nebraska.

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Motion to recommend approval of a resolution for Plan Modification No. 2021-4 to Redevelopment Area Number 4, potential Bienkowski Subdivision for the following collective property, to wit: Lots Seven (7) through Twenty Four (24), Block Fifteen (15), D.W. Palmer's Prospect Park Addition to the City of Hastings, Adams County, Nebraska.

- d. **2021-037.** Public hearing on a request for a Planned District Development Plan for Theatre District LLC commonly addressed as 3101 W 12th Street, City of Hastings, Adams County, Nebraska.

Motion to recommend approval of a resolution for a Planned District Development Plan for Theatre District LLC commonly addressed as 3101 W 12th Street, City of Hastings, Adams County, Nebraska.

10. Subdivisions

- a. **2021-034.** Final Plat for Mary Lanning Memorial Hospital Association, commonly addressed 715 N. Saint Joseph Avenue, City of Hastings, Adams County, Nebraska.

11. Reports

Adjourn

CITY OF HASTINGS, NEBRASKA
MINUTES OF PLANNING COMMISSION
Tuesday, May 18, 2021

Pursuant to due call and notice thereof, a meeting of the Hastings Planning Commission was conducted in the City Building, 220 North Hastings Avenue, on May 18, 2021.

The meeting was called to order at 4:00 P.M. in Regular Session by Chair Gaines with the following members present: Ann Hinton, Marshall Gaines, LaDaun Schoenhals, Greg Sinner, Michelle Lewis, Rakesh Srivastava, Willis Hunt. Absent: Lou Kully, Gavin Raitt, Jacque Cranson.

The Chair led the Commission in recital of the Pledge of Allegiance to the United States of America.

Moved by Sinner, seconded by Hunt, to adopt the current agenda for the Planning Commission Meeting. Roll Call: Ayes: Lewis, Hunt, Sinner, Gaines, Srivastava, Hinton, Schoenhals. Nays: None. Absent: Kully, Raitt, Cranson. The motion carried.

Public Notice - Official Notice of the Regular Meeting was published in the Hastings Tribune on Friday, May 14th, 2021. Pursuant to Nebraska Revised Statute Section 84-1412, the public is advised that a copy of today's agenda and all reproducible written material which will be discussed at today's meeting is located at the back of the Council Chambers. Also, a current copy of the Nebraska Open Meetings Act is posted on the south wall of the Council Chambers which is accessible to members of the public.

Moved by Hinton, seconded by Schoenhals, to approve the minutes of April 20th, 2021 Planning Commission Meeting. Roll Call: Ayes: Lewis, Hunt, Sinner, Gaines, Srivastava, Hinton, Schoenhals. Nays: None. Absent: Kully, Raitt, Cranson. The motion carried.

8. Unfinished Business

a. 2021-019 Public hearing to recommend a request for a Conditional Use Permit (CUP) for First Presbyterian Church Peace Center commonly addressed as 715 W 7th Street, City of Hastings, Adams County, Nebraska.

Lisa Parnell-Rowe discussed the agenda item.

The First Presbyterian Church purchased this property in September 17, 2007. Previous to this the property was used as the Middle School Gymnasium. A change in use was not assessed during the exchange of property filed as Deed #20083846. In December 2020 Staff was approached by members for the church to evaluate the possibilities to place a food truck in the Peace Center parking lot. At this time staff confirmed that the Peace Center, though used as a community center for quite some time, had not been permitted with an approved Conditional Use Permit (CUP). The Peace Center houses 3 very important food missions for our community and others (even in other countries). A large mixture of uses from dog obedience to dance classes are also accomplished in this structure. This property is currently zoned R-1, Single Family Residential, and in this use district a community center or *assembly, neighborhood*, is not allowed without a CUP. The R-1 use district is intended for urban single-family residential areas with low to medium population densities, but commercial uses are not permitted in this district. Additionally, the use of a restaurant or a food truck is currently not addressed at all in the City Code. Staff felt that with this particular use, and the fact that an assembly, neighborhood use in the R-1 zone already would require a CUP, that processing the use of the food truck with a CUP was the best course of action. The First Presbyterian Church views this food truck as a part of the overall mission for outreach to the Latino

community and the church as the property owner will not profit from this business. Therefore, it is the Directors decision to require one CUP that would be vetted by internal review and a public hearing for both this community center use and the food truck use in one CUP. If Planning Commission does not agree with this logic then the preference of Staff would be to still approve the Peace Center for the CUP and then Staff will advise FPC of a second option to Rezone the Peace Center. Either way, no matter what the zoning district, the CUP would have been necessary.

As with all CUP requests, we have reviewed this use to the CUP criteria as laid out in City Code Section 34-402. The discussion that follows addresses how this criteria is met.

1. The proposed development will integrate compatibility with existing land uses and with permitted uses that may be established within any area to be affected by the proposed development.

Surrounding land uses are:

North: CMP, Campus Institutional District and R-3 Multiple Family

South: C-3, Commercial Business and C-2, Central Business districts

East: C-O, Commercial Office Non-retail District and CMP, Campus Institutional District;

West: Directly to the west of this location there is also R-3, Multiple Family Residential District & C-3, Commercial business

When considering the use of a Community Center in this area we look not just to the zoning of the property itself but also the surrounding properties. Though this property is zoned residential R-1, Urban Single Family Residential, some surrounding properties to the east and south are commercially zoned. In fact, the Peace Center faces the heavily traversed Minor Arterial of 7th Street that is just one block east of our Principal Arterial, Burlington Avenue. It's not surprising to staff that this previously used public structure was originally zoned R-1, as the vast majority of public-owned structures have been and continue to be zoned R-1 in the absence of a Public/Semi-Public Zoning District. In May of 2010 the main portion of that school was rezoned to change the use of that structure to accommodate more commercial uses. At that time the portion of the property where the main school building sits was rezoned from this R-1 zoning district to C-2, Central Business District in Ordinance No. 4254. Though there is some R-3, Multiple-family residential zoning to the west, northwest and north, the uses in these areas are predominantly public and community in nature as well. The First Presbyterian Church sits on the R-3 zoning to the west, the City park is northwest and is nestled behind a bank while the apartment building directly north and across 7th Street is called Maryland Living Center and is actually a transitional living facility for homeless youth ages 16-21. If anything, this makes the Peace Center and the many free classes, resources and food pantries even more appropriately positioned. There are also many commercial uses and professional businesses within walking distance in all directions from this area due to its close proximity to Burlington Avenue. Great Western Bank, Dunkin Donuts, Pinnacle Bank and Mary Lanning Hospital are all in the surrounding area. Therefore, we do not feel that the use of a Neighborhood Assembly, or even the subsidiary mission of this food truck is incompatible to the surrounding area. In fact, staff views it as a resource to the surrounding area.

2. The use does not have a permanent negative impact that is substantially greater than the impact anticipated from development permitted in the base zone district.

Pedestrian and vehicular traffic circulation and safety. This area has optimal vehicular traffic circulation with local street access off of Lincoln and Hastings avenues into a large parking lot to the south of the Peace Center. The Peace Center also fronts off of 7th Street which is a Minor Arterial so there is also appropriate connections to circulate traffic to and from this center. Additionally, there is a large ingress/egress access point into and out of this parking lot to accommodate large semi-trucks that bring food in for the United Harvest Mobile Food Pantry once a month. The parking lot does have large potholes and needs repair, but the church is in the process of patching these holes and also is addressing the maintenance of this parking lot for the long-term with an

action plan. The food truck will be making monthly donations towards the parking lot repair and maintenance fund in return for being allowed usage of the parking lot. The church has provided a section on their off-street parking lot and Staff has assessed parking to the maximum occupancy allowed in the Peace Center of 299. An assembly requires 1 space for every 3 seats. For events at maximum occupancy of 299, there would be 99 spaces needed. The parking lot is just shy of this but Staff feels that other than for special events in the parking lot, there would be enough for larger events within the Peace Center if you include the parking spaces across the street at the church parking lot. As for pedestrian access there are areas that are also in need of repair and updates for ADA compliance. The church is within the 4-block radius of the City Hall northern parking lot that has been awarded a Mobility CDBG grant and they are working with the Civil Engineer to address these areas. The City Civil Engineer has stated that the church being a Civic organization the serves the public would fall into the priority group to receive these upgrades.

Reasonable and economic extension of public utilities and facilities. As this is within City limits and already serviced by the City there is no extension of service required for the Peace Center. However, the Food Truck did require a separate meter and the church has installed a new power pole in the parking lot with its own separate meter.

Noise, fumes, dust or other environmental pollution. No noise, fumes and/or environmental pollution are anticipated as part of the programs accomplished in the Peace Center or with the Food Truck. The church is, however, proposing a maximum of 6 special outdoor events each year where they would have a more extensive Food Truck Roundup. With special events of this magnitude there could be more noise and pollution. The church has provided general event details to demonstrate what these events might entail and their forethought to mitigating these factors. There may be music during these events, but events will be for a short period of time starting at 4 P.M. and ending at 8 P.M. Section 18-113.01 (1) does make an exception to noise in conjunction with any activity coordinated for a church. They would contract for extra trash receptacles and the Peace Center would be unlocked to allow attendees access to bathrooms. Staff has expressed some concern for special events in the parking lot attracting more than the occupancy maximum allows for within the Peace Center if more than one food truck at a time is allowed. However, if these special events were limited to summer months only or when the sun stays up for longer hours, and the church were to provide copies of State licensure of these trucks then any concerns we might have for the food preparation and storage standards or noise would be vetted. The State licensure indicates that the food truck owner meets FDA Food Code 2017 requirements and the food truck owner must comply to these standards. However, the enforcement of these regulations being met falls back on the municipality the food truck resides in. Therefore, as part of this CUP, Staff is recommending that any food trucks being utilized (i.e., daily or for special event) should provide a copy or picture of this certificate to the Development Services department to maintain on file prior to each event or once a year when it is annually renewed. The applicants have been advised that there are State requirements for temporary food establishments that must be met and enforced locally. They understand that this includes not operating in the same spot for more than 14 consecutive days. Though they were informed, they would like to stay in one spot due to the owner of the food truck having physical limitations to perform this maneuver regularly. Locally, we would enforce this only if there were complaints filed.

The maintenance of logical and efficient development patterns and land use mixtures. The development pattern of uses in this area has been somewhat displaced due to the limitations of appropriate district categories in our current zoning. We have seen this issue in the past and Staff is aware of the need to add a Public/Semi-Public category to current zoning. This is something we are hoping to rectify in our next zoning code update, along with adding appropriate types for restaurants and food trucks. As previously stated, this area was originally zoned R-1 because it was a public school. Despite this property and some surrounding properties being zoned residential, the uses found in these zones are not necessarily residential in nature. Those that are would benefit from these services and not be adversely impacted. development of this plaza which appears to have all along been known to house commercial professional personal services and retail. In fact, the

northern portion of this complex is zoned C-3, Commercial business district. A good majority of the adjacent property is also commercial-used and zoned, yet there are areas in close proximity of high density residential that will benefit from another community-oriented assembly.

The maintenance of property values in accordance with established and permitted land uses.

If anything, having a neighborhood assembly and church within walking distance of residential can be seen as a perk for a property owner to easily integrate into the community and may have more of a positive impact on property values than a negative impact in this area. Adjacent property owner letters were sent to property owners within 300 feet and Staff has only received a few calls that by the time the matter was explained, seemed supportive of the use.

3. The conditions imposed are necessary to ensure the maintenance of property values and the safety, health, comfort, and repose of the residents.

Staff has conducted a site visit and assessed the building capacity to its condition. Though the building condition is well-maintained, the maximum occupancy of all spaces within this large structure of over 24,000 SF if fully utilized would require the building to meet today's standards. Doing these improvements would be far too costly for the church. As such, Staff is willing to lower the allowable occupancy to a level that would not require them to do these improvements and place a condition on this permit. According to the NFPA and IBC codes if your occupancy remains less than 300 one could avoid these improvements. The church does not feel that they ever exceed 300 and has agreed to comply to no more than 299 people at one time. This new occupancy will be posted and old occupancy listed in each room will be adjusted and re-posted accordingly. The upstairs areas violate many building codes and could compromise safety. Head clearance, step width, electrical outlets and much more are disconcerting. Building and Fire inspector agree that if these areas were locked and inaccessible to the public that this would be an agreeable solution at this time. Applicant agrees and has added this to his narrative but Staff will also add a condition to address this formally as part of permit approval.

4. That the use, subject to conditions, maintains compliance with the Comprehensive Plan and the purpose and intent of the zoning regulations.

The Comprehensive Plan Future Land Use for this property is Urban Residential which is compatible to the current zoning of R-1, Urban Single Family Residential. Though it is compatible to the zone, it is not necessarily compatible to the use; however, the rest of this area is not necessarily compatible to use of Urban Residential either. We have seen many areas in the FLU that were once Urban Residential slated but now, due to urban sprawl and growth on the outskirts are no longer appropriately slated. The CUP corrects this variance in use and places conditions on the use to ensure it will better meet the area needs. However, in this scenario, in order to have an *assembly, neighborhood* use a CUP would be required in all zoning districts. Staff feels the Peace Center provides valuable services and programs to our community and surrounding communities. Though the food truck ministry is unique and not a norm, it would fit if just looking at the area uses. Though we would not prescribe to allow this use in a residential zone as a norm, for all practical purposes this zone is not particularly appropriate for the area.

Moved by Hunt, seconded by Sinner, to recommend approval to the Mayor and City Council a Resolution for First Presbyterian Church Peace Center commonly addressed as 715 W 7th Street, City of Hastings, Adams County, Nebraska. Roll Call: Ayes: Lewis, Hunt, Sinner, Gaines, Srivastava, Hinton, Schoenhals. Nays: None. Absent: Kully, Raitt, Cranson. The motion carried.

9. Public Hearings

a. 2021-026 Public hearing for a change of zoning for remaining unplatted property southeast of Cimarron Meadows 9th Addition, east of Cimarron Meadows 7th Addition, north of Cimarron Meadows Subdivision #4, and west of Fisherman Lane from "CP-3, Commercial Business Planned" to "R-1, Urban Single Family Residential", and to amend the Official

Zoning District Map

Lisa Parnell-Rowe discussed the agenda item.

Surrounding zoning is as follows:

North – R-1 Urban Single Family Residential & CP-3 Commercial Business District with Planned District Overlay

South – R-1 Urban Single Family Residential

East – CP-3 Commercial Business District with Planned District Overlay

West – R-1 Urban Single Family Residential

Our applicant, Mr. Dennis Engel, has submitted his preliminary plat and a final plat with addition to City. These cases are all expected to be presented to Planning Commission at the June meeting and have not yet been fully reviewed.

Currently, this crescent-like area is zoned CP-3. However, in reviewing the current zoning for this stretch of land to Mr. Engel's concept for housing that will be placed here staff came to understand that the homes to be placed on the west side of Fisherman Lane are a best fit for meeting R-1, *Urban Single Family Residential home* zoning requirements. It seemed odd then that this seemingly stand-alone section of unfinished land was not a continuation of the R-1, *Urban Single Family Residential home* zoning district. Fisherman Lane and 38th street rights-of-way (ROWs) would both serve as logical separations where a change in zoning should occur for the CP-3 Zoning District to the north and east. In this way we could better control for consistency in setbacks along the same section as the lots aligned to the ROW to the southwest of Fisherman Lane. In fact, the most recent approved version of Preliminary Plat did actually indicate that this stretch was anticipated to be R-1. Though this Preliminary Plat is being updated, you will see this same expectation in the latest revision (to be approved in June). In discussing this matter further with the applicant there appears to have been a mis-interpretation on the part of my predecessor. This section was rezoned to CP-3 by mistake in Ordinance 4587 on April 22nd 2019. This rezone is intended to correct this error so that when the Final Plat does get processed the appropriate zoning will be in place.

Moved Lewis, seconded by Srivastava, to recommend approval to the Mayor and City Council for an ordinance and to amend the Official Zoning District Map to rezone unplatted property southeast of Cimarron Meadows 9th Addition, east of Cimarron Meadows 7th Addition, north of Cimarron Meadows Subdivision #4, and west of Fisherman Lane from "CP-3, Commercial Business Planned" to "R-1, Urban Single Family Residential". Roll Call: Ayes: Lewis, Hunt, Sinner, Gaines, Srivastava, Hinton, Schoenhals. Nays: None. Absent: Kully, Raitt, Cranson. The motion carried.

b. 2021-032 Public hearing to recommend approval for an ordinance to amend the Hastings City Code Section 34-320, regulating solar energy uses to provide for appropriate easements.

Mark Evans discussed this agenda item.

This change is primarily a housekeeping change to clarify when a solar access easement is required for privately owned Individual Solar Conversion Systems (ISCS's), located on private property.

Section 34-320(3)(iv) currently reads:

"(iv) All ISCS's shall have an agreed to solar access easement, on the south side of the yard, from any neighboring properties. Said easement shall be filed as an instrument to each property's deed and said easement shall stay in place as long as the ground-mounted ISCS is in place and operational."

This section contains conflicting language, where it begins with "All ISCS's shall have..." and later refers only to, "ground-mounted ISCS". This implies that every private solar conversion system would require a solar access easement from their neighbor, where in reality only ground-mounted

solar conversion systems were intended to require the solar access easement, to protect the system from shading by trees or structures.

This came to light when an application for a solar conversion system was held up by the solar access easement requirement. This particular application was for a roof-mounted ISCS that would have a very low probability of being shaded even if the adjacent property had a tree that grew to a height of over 45 feet. It was then realized that there was an omission of the words, "ground-mounted" in the section requiring the solar access easement.

Staff has taken this issue back to the consultant that prepared the solar uses section of the code, and the consultant concurs that this was an omission, and that the section was intended to only require a solar access easement for ground-mounted solar conversion systems.

Staff proposes that the Planning Commission recommends to City Council the following language to clarify this issue:

"(iv) All ground-mounted ISCS's shall have an agreed to solar access easement, on the south side of the yard, from any neighboring properties. Said easement shall be filed as an instrument to each property's deed and said easement shall stay in place as long as the ground-mounted ISCS is in place and operational."

Moved by Sinner, seconded by Hunt, to recommend approval to the Mayor and City Council for an ordinance to amend the Hastings City Code Section 34-320, regulating solar energy uses to provide for appropriate easements. Roll Call: Ayes: Lewis, Hunt, Sinner, Gaines, Srivastava, Hinton, Schoenhals. Nays: None. Absent: Kully, Raitt, Cranson. The motion carried.

c. 2021-030 Public hearing for a change of zoning for property generally located between 825 S Elm Ave and 1007 S Elm Ave from "I-2, Heavy Industrial" to "R-1A, Single Family Large Lot Residential," and to amend the Official Zoning District Map.

Lisa Parnell-Rowe discussed the agenda item.

Surrounding zoning is as follows:

North – I-2, Heavy Industrial

South – I-2, Heavy Industrial

East – I-2, Heavy Industrial

West – I-2, Heavy Industrial

Last month we recommended and you reviewed and approved a change to the Comprehensive Plan Future Land Use map that recommended this area be re-slated for Suburban Residential. On May 10th City Council approved this recommendation in a vote of 8-0. In that Planning Commission Staff Report I mentioned a legal non-conforming residential use lot where the property owner had approached us about rezoning to R1-A, Single Family Large Lot residential in order to do an addition to his legal non-conforming house built in 1936, which was prior to inception of zoning regulations.

This property is commonly addressed 901 S. Elm Avenue. Property owners, Ron and Karen Sekora seek a rezone to their property from its current zoning of I-2, Heavy Industrial. for the A, Agricultural District. R-1A, Single Family Large Lot residential zoning is often found on the outskirts of a community and best accommodates larger lot sizes due to its minimum of 20,000 square feet.

R-1A, Single Family Large Lot Residential is the most compatible residential zone district to its corresponding sister Future Land Use category of Suburban Residential. Now that the Comprehensive Plan Future Land Use Map has been changed and the future outlook for this area is Suburban Residential, this change in zoning is a nice fit for the future.

Moved by Hinton, seconded by Hunt, to recommend approval to the Mayor and City Council for an ordinance and the amendment to the Official Zoning District Map to rezone property generally located between 825 S Elm Ave and 1007 S Elm Ave from "I-2, Heavy Industrial" to "R-1A, Single Family Large Lot Residential". Roll Call: Ayes: Lewis, Hunt, Sinner, Gaines, Srivastava, Hinton, Schoenhals. Nays: None. Absent: Kully, Raitt, Cranson. The motion carried.

d. 2021-000 Public hearing to consider an ordinance to amend the City of Hastings Comprehensive Plan Future Land Use Map by changing land use South of 2nd Street, East of Marian Road to Chestnut Avenue and south to the railroad from Urban Residential to Mixed Use – Neighborhood, Public/Semi-public and Employment/Industrial.

Lisa Parnell-Rowe discussed the agenda item.

Staff first reviewed this matter when initially approached about a Plan Modification that was to be submitted for the Community Redevelopment Authority (CRA). All Plan modifications must be reviewed by staff for a recommendation to Planning Commission and City Council. This particular Plan Modification was for a commercial workshop space south of 2315 W. 2nd Street and between West and Liard avenues. However, in reviewing this property to existing zoning and comparing it the Future Land Use Map, it was discovered that this entire area looked a lot different than what one would expect in a long-time commercial/industrial area. The area south of 2nd street is active with business ventures and does not appear to have any existing residential uses. Though north of 2nd Street does have some residential remaining from pre-urban sprawl, the south side does not and this does not seem to be pattern that would need to change in the future.

The western portion of this area is being utilized for community assembly purposes and consists of the YWCA and the Landmark Center. Both of these uses fit very well into a Mixed Use-Neighborhood future outlook, yet only a portion of this is present in the FLU. This should be expanded to cover the area more appropriately. In addition, a good majority of this area is also owned and utilized by the City of Hastings and would be more appropriately reserved for future zoning of Public/Semi-Public than a residential zoning category. The portion of area to the farthest southwest corner of this area is known as "Don Henry". This is City-owned property that is utilized as an electrical substation. A second area owned by the City is located between the YWCA and West Avenue. This area is known to be the "Peak Shaver", This area is where propane is stored.

This stored commodity is used to top off natural gas during high usage winter months; therefore, avoiding costly penalty fees to our provider. Moving east from West Avenue to Chestnut Avenue there are well-established "high impact" businesses. The Slammer Night Club, Companions Choice Animal Hospital and Gingerbread daycare all line the south side of 2nd street in this proposed area.

Many have been located in this area for quite some time. These businesses are termed high impact to better characterize their potential impacts on surrounding community. All of these businesses have one thing in common; none of these uses would be permitted in an Urban Residential or any residential zone for that matter. In fact, some of these uses are not even permitted in a commercial zone and are listed in our Table of Districts and Uses as conditional even in the districts that allow our highest impacts, which are the Industrial zoning districts. For example, with a Veterinarian Hospital, which is conditional and requires a CUP even in the Industrial zoning districts we might allow for dog kennels. Dog kennels can have noise, odor and other impacts that must be addressed prior to allowing the use in any area.

The closer you move to the Burlington Northern Railroad the less desirable it would be to have residential adjacent zoning. In modern planning practices your higher impact zones would be most appropriately placed near these areas. The southern perimeter of the length of this entire area is where the Burlington Northern Railroad cuts through the center of our community.

In summary, this area is currently identified in the FLU for residential use and placing this outlook in a well-established high impact commercial area is not a realistic outlook. This has potential to discourage long-time businesses from continuing to grow and develop and is now a roadblock to opportunities with TIF funding that would otherwise be available if approved in the Plan Modification process. The proximity to the Burlington Northern Railroad would not make this area a good spot for residential in the future. Therefore, changing this area to more appropriately map to what it will continue to be used for establishes a more accurate outlook.

Moved by Sinner, seconded by Lewis, to recommend approval to the Mayor and City Council for an ordinance to amend the City of Hastings Comprehensive Plan Future Land Use Map by changing land use South of 2nd Street, East of Marian Road to Chestnut Avenue and south to the railroad from Urban Residential to Mixed Use – Neighborhood, Public/Semi-public and Employment/Industrial. Roll Call: Ayes: Lewis, Hunt, Sinner, Gaines, Srivastava, Hinton, Schoenhals. Nays: None. Absent: Kully, Raitt, Cranson. The motion carried.

11. Reports

Lisa Parnell-Rowe reported the City Buildings' mask mandate being lifted.

Lisa Parnell-Rowe reported and informed the Commission members that future meetings will be held in the Library beginning in June.

Lisa Parnell-Rowe reported that her vacation has been cancelled and that the June meeting will meet as originally scheduled for June 15th, 2021.

Moved by Schoenhals, seconded by Hinton to adjourn.

Chairman

Department: Development Services
Staff Contact: Lisa Parnell-Rowe
Planning Commission Meeting Date: 6/15/2021
File No: 2021-036
Prepared By: Emilia Kienbaum, Administrative Assistant

AGENDA ITEM SUMMARY SHEET

Description of Item:

Public hearing on a request for an amendment to Conditional Use Permit for Pine Patch Second Subdivision to allow for the construction of a new barn for the existing business and a new use of assembly, neighborhood for property commonly addressed as 780 E 26th St, City of Hastings, Adams County, Nebraska.

Motion to recommend approval of the request for an amendment for Conditional Use Permit for Pine Patch Second Subdivision to allow for the construction of a new barn for the existing business and a new use of assembly, neighborhood for property commonly addressed as 780 E 26th St, City of Hastings, Adams County, Nebraska.

Names of People/Business affected by this action:

The applicant, the people of Hastings, and the City

Why Planning Commission action is required:

Neb. Rev. Stat. 19-902 provides the city council shall receive the advice of the planning commission before taking definite action on any contemplated amendment, supplement, change, modification, or repeal, and no such regulation, restriction, or boundary shall become effective until after separate public hearings are held by both the planning commission and the city council in relation thereto, at which parties in interest and citizens shall have an opportunity to be heard. Notice of the time and place of such hearing shall be given by publication thereof in a legal newspaper in or of general circulation in such municipality at least one time ten days prior to such hearing.

Type of action requested:

Motion

Suggested motion:

Motion to recommend continuance for for an amendment to a Conditional Use Permit for Pine Patch Second Subdivision allow for the construction of a new barn for the existing business and a new use of assembly, neighborhood for property commonly addressed as 780 E 26th St, City of Hastings, Adams County, Nebraska.

Deadlines associated with action:

This item is rescheduled to be heard at the next regular Planning Commission Meeting July 20, 2021.

Department head comments:

Joe and Nikayla Kindig, of 780 East 26th Street are the applicants. They are the new owners of the Pine Patch Tree Farm which has been in operation since 1887 selling Christmas Trees. The existing barn on this property that has been used for this business in past needs replaced. The applicants also desire to also use this barn once it is reconstructed as a potential event venue in its off season. An amendment to their existing CUP is necessary because of conditions of the original CUP dated 7/25/05 which states, "Any changes in the described specifications will require approval of the Development Services Director. Changes in use or structures not anticipated in this application will require an amendment to the Conditional Use Permit". At first when the Kindigs purchased the property and inquired into what would need to happen with the barn we reviewed the original CUP as we believed that replacing the barn would not trigger an amendment since it was a part of this property. At that time we had them sign and file an affirmation that they understood the existing conditions to the original CUP when they made the purchase of this property in January. However, upon further review of that original file we discovered there was nothing specifically discussing the use of a barn for the Pine Patch business so though the barn is new and replacing an old barn, staff feels the original barn was never considered with the original use. In fact, the applicant believes that the use of the barn with their business came about through time after it further developed to having Christmas events to sell the trees. Additionally, after further discussions with the applicant we determined that their desire to use the barn for events other than their Christmas Tree sales and related events would also trigger a new use not originally assessed: an assembly, neighborhood use. The original CUP was for a Tree Nursery and not for holding events. So, in fact, this new CUP will amend the original to include a second conditional use above and beyond this property's already established CUP for use as a nursery, which is conditional. This property is zoned

R-1, *Single Family Residential*, and in this use district a assembly, neighborhood use requires a Conditional Use Permit. Assembly, neighborhood is defined as having occupancy of less than 350. *A civic use that conducts organized services, assemblies, or programs on a periodic or occasional basis, primarily for the convenience, entertainment, education, and social or spiritual welfare of nearby residents.* Neighborhood assemblies typically have buildings and supporting facilities designed for a capacity of no more than 350 people for any one event. Common examples include meeting halls, neighborhood association club houses, or smaller neighborhood churches.

At this time Staff is requesting that the public hearing on this item be opened to address any potential public that will be coming to speak for or against this item, but then continued for more time to prepare for this case. First submittal of this application and supporting narrative and site plans were incomplete and the second submittal of the narrative did not fully address crucial details for the addition of the assembly, neighborhood use in a revised narrative. What was resubmitted was received late and not in time to reanalyze for staff report and Planning Commission packet distribution. The CUP portion of this permit to allow the existing use of the nursery with consideration of a new barn has been addressed and fully vetted. However, the additional details regarding the added use of assembly, neighborhood is incomplete and needs more time to be fully vetted with greater details incorporated on hours, days and noise mitigation. We also feel that

there will need to be more time to allow for discussions to occur with regard to an updated easement agreement with the new owners.

Staff is recommending at this time that this application be continued in the July 20, 2021 agenda after there is more time to assess the assembly, neighborhood use in greater detail and fully vet a crucial easement between neighbors.

Recommendation:

Motion to recommend that this application be continued to the July 20, 2021 agenda after there is more time to assess the assembly, neighborhood use in greater detail and fully vet a crucial easement updates between neighbors.



Permit #: 21036

Permit Date: 05/17/21

Permit Type: Conditional Use Amendment

Title: Pine Patch Plot

Site Address: 780 E 26th St

Owner Name: Joseph Kindig

Owner Address: 200 E 7th St

City State Zip: Hastings, NE 68901

Owner Phone: 402-469-6772

Owner Email: pinepatchtreefarm@gmail.com

Applicant Name: Joe Kindig

Applicant Address: 200 E 7th St

City, State, Zip: Hastings, NE 68901

Phone Number: 402-469-6772

Applicant Email: pinepatchtreefarm@gmail.com

Proposed Use: Christmas Tree sales, holiday items sales, landscape tree sales, rentable space

Description: Maximizing barn utility and update facility

Number of Cases: 0

Project Cost: 0

Square Feet: 2000

Within City Limits: Yes

Current Zoning:

Current Zoning

Explained:

Proposed Zoning:

Conditions:

Conditions Defined:

1st PN & Agenda Send By 06/02/2021
(11:30):

1st PN & Agenda Due 06/02/2021
Date:

1st PN & Agenda Sent:

2nd PN & Agenda Send By
(11:30):

2nd PN & Agenda Due
Date:

2nd PN & Agenda Sent:

Sign / Website Posting - 06/03/2021
Post By:

Sign / Website Posting -
Posted:

APO Letter - Send By:

APO Letter - Sent:

PC Approval - Date
Approved:

PC Outcome Letter - Due: 06/16/2021

PC Outcome - Completed:

CRA Approval - Meeting
Date:

CRA Approval -
Approved:

CC Packet - Goal Load 07/06/2021
Date:

CC Packet - Due Date: 07/06/2021

CC Packet - Completed:

CC Out/Admin Due Date: 07/13/2021

CC Out/Admin -
Completed:

Stage: Awaits Applicant Revision
Status: Open
Assigned To: Lisa Parnell-Rowe

Property

Parcel #	Address	Legal Description	Owner Name	Owner Phone	Zoning
010019201	780 E 26th St		Joseph Kindig		R-1 Urban Single Family Residential

Inspections

Date	Inspection Type	Description	Scheduled Date	Completed Date	Inspector	Status
05/18/2021	City Council Meeting		07/12/2021		Lisa Parnell-Rowe	Open
05/18/2021	Planning Commission Meeting		06/15/2021		Lisa Parnell-Rowe	Open

Fees

Fee	Description	Notes	Amount
Document Filing Fee	Enter number of pages.		\$16.00
Conditional Use Permit or Amendments			\$400.00
Total			\$416.00

Payments

Date	Paid By	Description	Payment Type	Accepted By	Amount
06/10/2021	Joseph R Kindig	223884			\$416.00
Outstanding Balance					\$0.00

**Pine Patch Tree Farm
780 East 26th Street
Hastings, NE 68901**

Request for an amendment to the current CUP from Joe and Nikayla Kindig

Narrative:

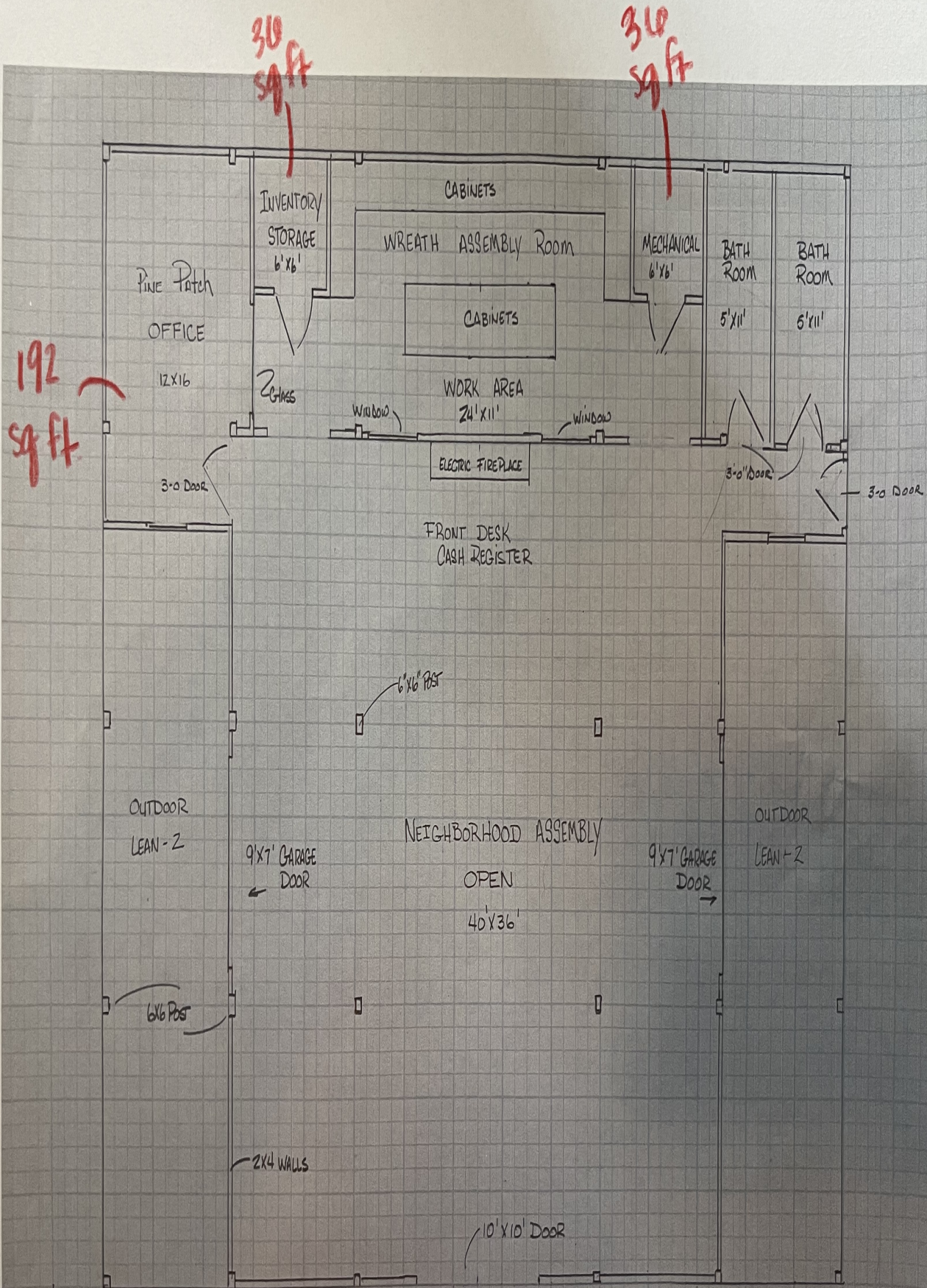
The Pine Patch Tree Farm has operated as a Tree Nursery since 1887, primarily selling Christmas Trees from the original owners, the Stoneciphers, during the Christmas season. The Pine Patch was later sold to the Glass family who began selling ornamental landscape trees, in addition to Christmas trees/wreaths/garland, and providing other services such as soil drenching, ornamental/evergreen tree spraying, tree injections, commercial weed spraying, and tree spade transplanting. Currently, the seasonal schedule is as follows: January/February: tree pruning and maintenance; March: soil drenching; April: ornamental tree spraying, commercial weed spraying, landscape tree sales; May: ornamental tree spraying, tree spade transplanting, tree planting; June/July: evergreen tree spraying; August: maintenance at the farm; September: tree spade transplanting, landscape tree sales; October/November: tree spade transplanting, preparation for Christmas tree sales; December: Christmas tree, Christmas wreath, garland, tree stand, and Holiday item sales. The current Morton building (old barn) is used as storage for equipment and inventory such as tree stands and other materials used during the Christmas season sales, and accommodates guests during the Christmas season as they purchase their trees and other items. It is also where the wreaths and all Holiday items are assembled and sold.

In January of 2021, my wife and I purchased the Pine Patch Tree Farm and have been operating it as follows in the description above. The original barn (Morton Building) that exists on Pine Patch property is long overdue for repair and is a project we would like to accomplish this summer of 2021. We feel it would be more cost effective to build a new barn, rather than repairing a dilapidated barn that no longer fulfills the demands of the Pine Patch. The new barn would be built in essentially the same location on our lot as the old barn, but would be slightly larger to better accommodate our guests and employees during the Christmas tree season. We would also like to maximize the use of the Pine Patch barn, as the barn is currently only used during November and December during the Christmas tree season (opening the Friday after Thanksgiving and concluding our season by the third week in December). We would like to add a Pine Patch office to our new barn which would significantly help us in running our business more efficiently. The Christmas Tree Farm will always be our first priority and main use for our barn, but we would like to make the barn available to rent for use such as showers, reunions, and other small gatherings (99 people or less) during months when the barn is typically vacant and unused. We feel it would be a great addition to our community to offer another rentable space and would better justify our decision to invest in repairing our barn by making it available for use outside of the Christmas Season. The new barn would consist of the main showroom where our check-out counter and retail items during the Christmas season would be located. This would also be the space that would accommodate guests in the instance we are able to rent out the barn. The new barn would include a workroom where wreaths and other Christmas items are assembled and stored, an office for filing and organizing documents or paperwork,

two utility rooms for the furnace and other utility items, and two public restrooms to accommodate our guests and employees. We are aiming for two single-stall, wheelchair accessible, unisex restrooms. Water and sewer will be a necessary addition to the new barn for the restrooms. The barn would have a lean-to on each side to store Christmas trees during the Christmas season, but could also serve as outdoor seating for small gatherings during the off-season. The current parking lot will remain the same and accommodates 30 or more parking stalls. There are currently no drainage issues on Pine Patch property. Culvert is located on each side of the drive entrance (in the ditch) into the tree farm from 26th street. The majority of gross sales are acquired through tree farm sales, we would just like to maximize the barn utility outside of tree sales season.

We are continuing the tradition of a family-owned business providing other families with a holiday tradition. We plan to continue the tree operation as it has operated in the past, while adding a few amenities to better serve our customers and a community we care so much about.

We thank you very much for your consideration,
Joe and Nikayla Kindig



1" = 4'-0"
1/4" = 1'-0"

South

Parking Stalls
90° stall → 8.5' x 20'

Parking stall #1-#9

281.44'

NEW BARN
48' x 60'

80'-0"

EXISTING
BUILDING
(REMOVING)

136.06'

parking stalls
#21-#31

98.37'

137.50'

SHED

LOT 2

80.00'

LOT 1

93.0'

parking
stalls
#32-#34
if needed

Parking Stalls
#10-#20

LOT 3

379.99'

137.50'

517.49'

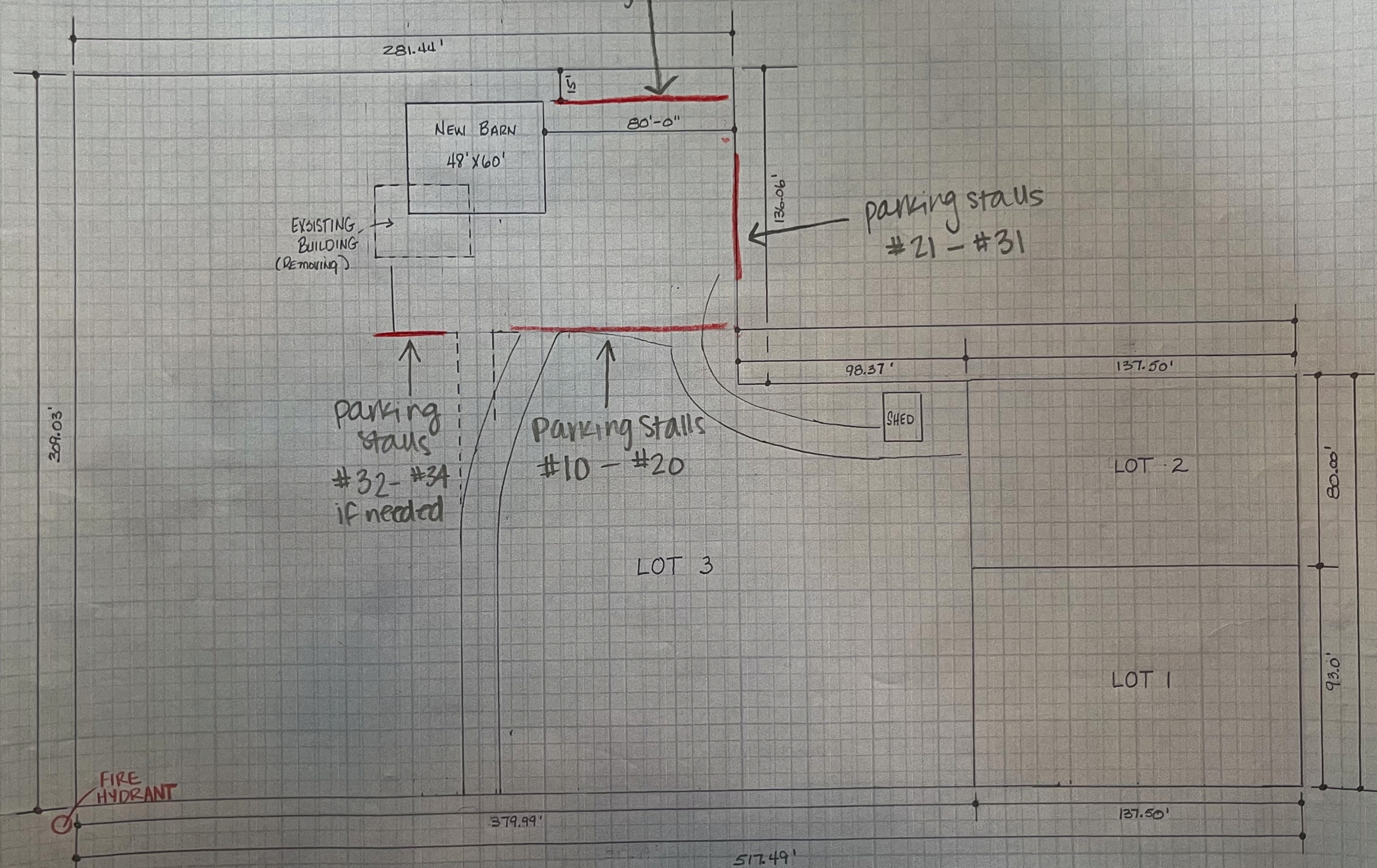
FIRE
HYDRANT

SCALE = 1" = 28'
1/4" = 7'

North

West

East



KRUEGER LAND SURVEYING

May 20, 2021

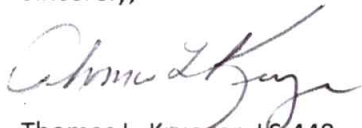
Mark Evans
Building Inspector
Hastings City Offices
220 N Hastings Ave
Hastings, NE 68901

RE: Conditional Use Permit
Pine Patch Building Elevation

Mark:

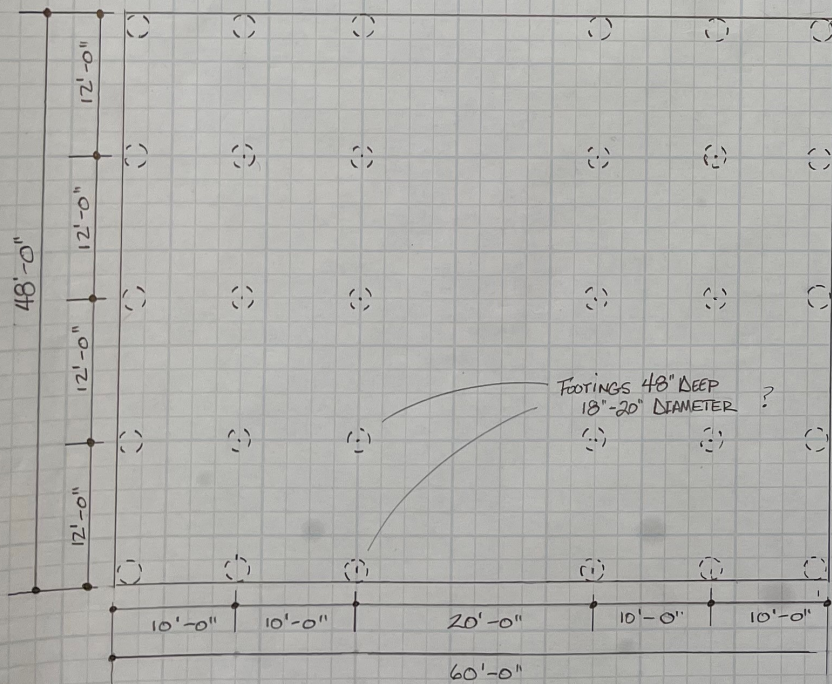
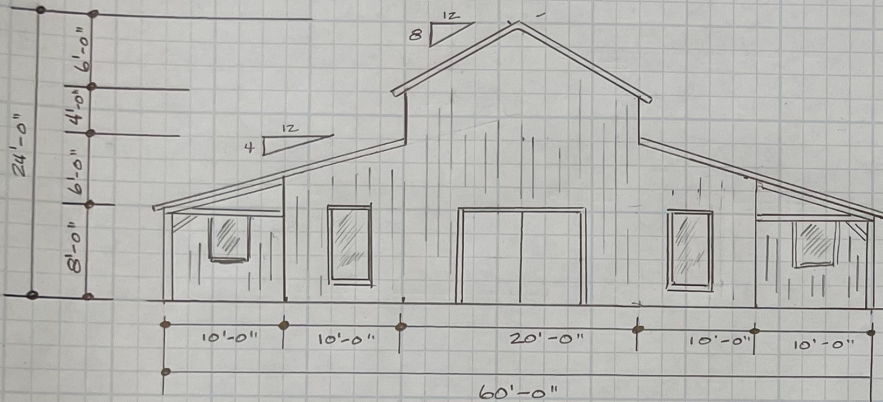
I have measured the finished floor elevation of the existing building on Lot 2 of Pine Patch Second Subdivision at 1913.51 feet (NAVD 88). A 5/8" rebar is set as a benchmark west of the existing building near the wood fence with an elevation of 1914.51 feet. The finished floor elevation of the proposed building will be confirmed after construction.

Sincerely,

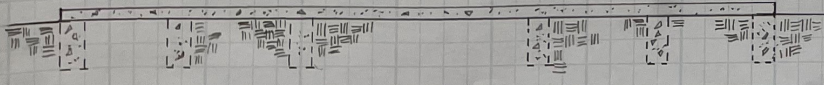


Thomas L. Krueger, LS-448
Professional Licensed Surveyor

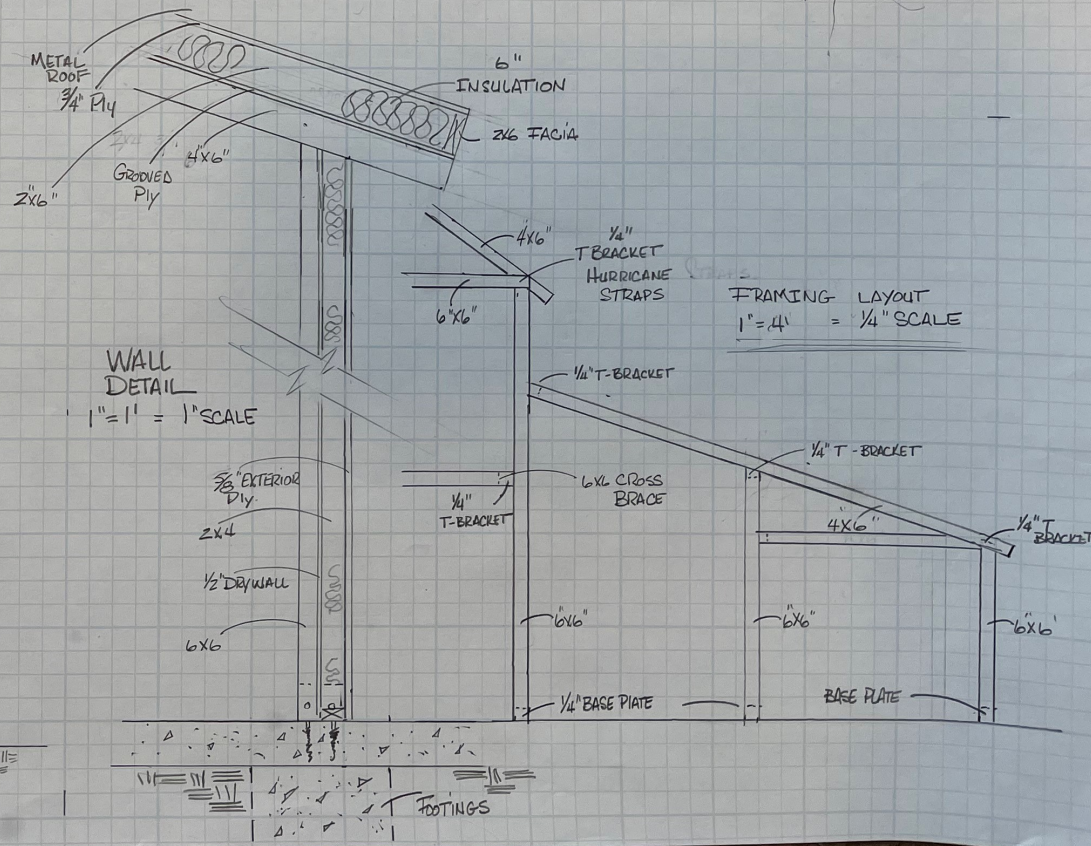
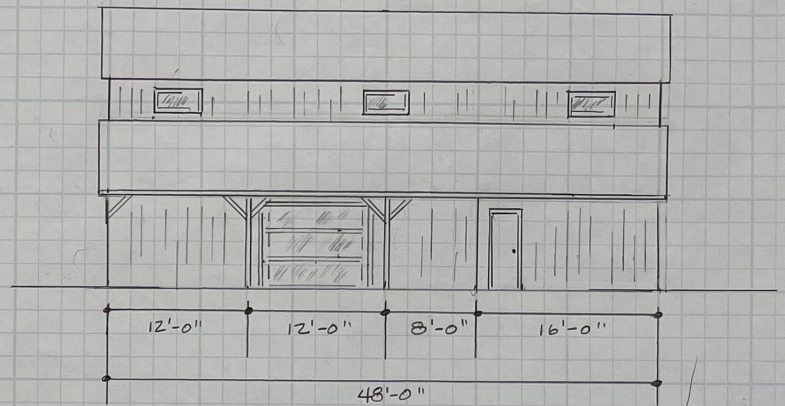
FRONT ELEVATION
1" = 8' - 1/8" SCALE



FOUNDATION LAYOUT


$$1'' = 8' = \frac{1}{8}'' \text{ SCALE}$$

SIDE ELEVATION
1" = 8' 1/8" SCALE



Topography Contours



Source: USGS 3 meter dem

Interval(ft): 1.0

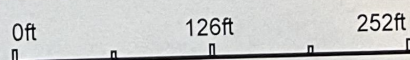
Min: 1,906.5

Max: 1,916.3

Range: 9.8

Average: 1,912.0

Standard Deviation: 2.46 ft



5/10/2021

5-7N-9W
Adams County
Nebraska

Map Center: 40° 36' 39.89, -98° 22' 21.33

Maps Provided By:



© AgnData, Inc. 2021

www.AgnDataInc.com

Field borders provided by Farm Service Agency as of 5/21/2008.

Acknowledgement of Conditional Use Permit

Date 1/17/21

Re: The Pine Patch
Tree Nursery
2516 N. Elm Ave.
Hastings, NE 68901

This Acknowledgement certifies that we, the undersigned, have received a true and accurate copy of the Conditional Use Permit which pertains to the Conditions of the Permit for the following:

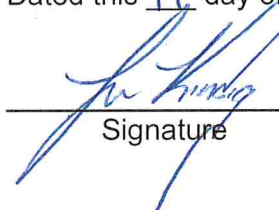
Address: The Pine Patch
Tree Nursery
2516 N. Elm Ave.
Hastings, NE 68901

Former Legal: The Pine Patch Subdivision
City of Hastings, Adams County, Nebraska

Current Legal: Pine Patch Second Subdivision, Lot 2
City of Hastings, Adams County, Nebraska

We, the undersigned, have read and understand the Conditions of the aforementioned Conditional Use Permit, attached as Exhibit 1, and agree to comply with the Conditions listed therein. We accept full responsibility without further condition.

Dated this 17th day of January ~~2020~~ ²⁰²¹



Signature



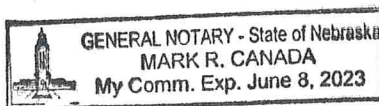
Signature

STATE OF NEBRASKA)
)ss:
COUNTY OF ADAMS)

The foregoing was acknowledged before me this 17th day of January ~~2020~~ ²⁰²¹ by

Joseph R. Kindig

N. Kayla L. Kindig





Notary Public

CITY OF HASTINGS, NEBRASKA
APPLICATION FOR A CONDITIONAL USE PERMIT

PAID

DATE: 7-25-05

FEE: \$100.00

THE UNDERSIGNED RESPECTFULLY MAKES APPLICATION FOR A CONDITIONAL USE PERMIT TO THE MAYOR AND CITY COUNCIL AS FOLLOWS:

INTENDED USE: Tree Nursery

ADDRESS: _____

LEGAL DESCRIPTION: Lot 2, The Pine Patch

BUILDING 24 x 30 SQ. FT. AND/OR LAND _____ SQ. FT. (acres)

OWNER'S ADDRESS: 1406 Heritage Dr.

TELEPHONE: 402-463-6500 SIGNATURE: Dan Glass
Sharon Stonecipher 715 Leisure Lane
463-6507

PLANNING RECOMMENDATION: Approved with one condition
CHAIRMAN: Keith Napier DATE: August 15, 2005

CONDITIONAL USE PERMIT FOR Tree Nursery GRANTED BY CITY COUNCIL ACTION ON THE DAY 12th OF September, 2005 UNDER THE FOLLOWING CONDITIONS AND/OR LIMITATIONS, ALL OF WHICH MUST BE COMPLIED WITH BY APPLICANT FOR SAID PERMIT TO CONTINUE VALID FOR THE PERIOD GRANTED AS FOLLOWS:

Moved by Kully, seconded by Yilk that the Mayor and Council approve the request of Sharon Stonecipher for a Conditional Use Permit to allow a tree nursery at the southeast corner of North Elm Avenue and East 26th Street, subject to the following condition:

1. ~~The applicant shall operate the facility as described in the application. Any changes in the described specifications will require approval of the Development Services Director. Changes in use or structures not anticipated in this application will require an amendment to the Conditional Use Permit.~~

Roll Call: Ayes: Will, Sinner, Kully, Ruberson, Goebel, Glen, Peterson, Yilk. Nays: None. The motion carried.

Corinne Hartman
CITY CLERK

Matthew D. Ross
MAYOR

CERTIFICATION OF THE CITY CLERK

STATE OF NEBRASKA)
COUNTY OF ADAMS) SS
CITY OF HASTINGS)

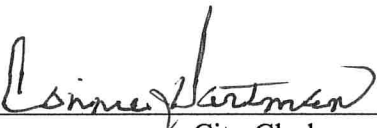
I, CONNIE HARTMAN, duly qualified and appointed City Clerk in and for the City of Hastings, Adams County, Nebraska do hereby certify that the foregoing is a true and exact excerpt taken from the Council Minutes of September 12, 2005 on file in the City Clerk's Office and the same was duly passed at a meeting which was posted, publicized and held in open session:

"Moved by Kully, seconded by Yilk that the Mayor and Council approve the request of Sharon Stonecipher for a Conditional Use Permit to allow a tree nursery at the southeast corner of North Elm Avenue and East 26th Street, subject to the following condition:

1. The applicant shall operate the facility as described in the application. Any changes in the described specifications will require approval of the Development Services Director. Changes in use or structures not anticipated in this application will require an amendment to the Conditional Use Permit.

Roll Call: Ayes: Will, Sinner, Kully, Ruberson, Goebel, Glen, Peterson, Yilk.
Nays: None. The motion carried."

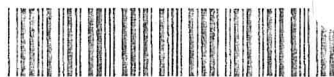
IN WITNESS WHEREOF, I hereby set my hand and affix the seal of this City this 13th day of September, 2005.



City Clerk



FILED BY: Dave Glass



20054126

ADAMS COUNTY, NE.
FILED
INST. NO. 20054126

RETURNED TO: Dave Glass

'05 AUG 30 P1:33

406 Heritage Dr. Hastings, NE 68901

FEE: \$1.00 CHG(PD)

#4238

5-7-9

NUM: Pine Patch Tr.

RD COMP: x AK 9:37 8/31/05

COMPARE: 299

CADAS: AO

Janice D Johnson

REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS RECORDING SPACE,
ADAMS COUNTY NE

EASEMENT

THIS AGREEMENT made and entered into this 5 day of August, 2005, by and between John M. Northrop and Michele L. Northrop, Husband and Wife, hereafter referred to as "GRANTORS", and David Glass and Nytha Glass, Husband and Wife, and Sharon Stonecipher, a Widow, hereinafter referred to as "GRANTEES",

WITNESSETH:

WHEREAS, Grantors are the owners of the following described parcel of real estate, to-wit:

Commencing at a point on the West line of Section Five (5), Township Seven (7) North, Range Nine (9) West of the 6th P.M., Adams County, Nebraska, 350.14 feet South of the Northwest Corner of said Section; thence South on the West line thereof, 308.89 feet to the Southwest corner of the NW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of said Section; Thence East along the South line of said NW $\frac{1}{4}$ of the NW $\frac{1}{4}$ a distance of 660.8 feet To the Southeast corner of said NW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of the NW $\frac{1}{4}$; thence North along the East line thereof 309 feet to a point 350.25 feet South of the Northeast corner of said NW $\frac{1}{4}$ of the NW $\frac{1}{4}$; thence West 660.62 feet, more or less, to the point of commencement; except public roadway on the West side thereof.

WHEREAS, Grantees are the owners of the following described real estate, located adjacent and north of the Grantor's property, and more particularly described as;

Lot 2, The Pine Patch Subdivision Adams County, Nebraska

NOW, THEREFORE, Grantors do hereby grant to Grantees, the right to use their private driveway which is located along their North property line and exits onto North Elm Avenue. The driveway to be used annually for vehicles exiting Lot 2, The Pine Patch Subdivision during the Christmas Tree selling season so long as the same shall be mutually agreed by the legal owners of the properties involved.

IN WITNESS WHEREOF, the parties have executed this Agreement the day and year first above written.

John M. Northrop
John M. Northrop, Grantor

Michele L. Northrop
Michele L. Northrop, Grantor

David D. Glass
David D. Glass, Grantee

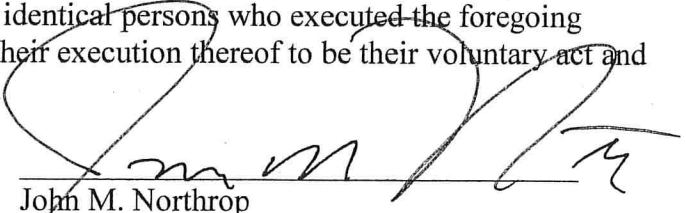
Nytha Glass
Nytha Glass, Grantee

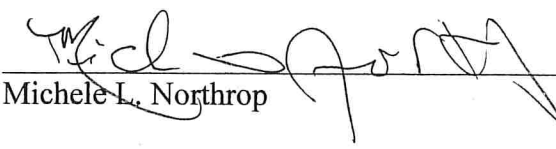
Sharon Stonecipher
Sharon Stonecipher, Grantee

2004

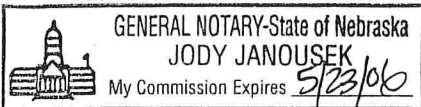
STATE OF NEBRASKA)
)ss.
COUNTY OF ADAMS)

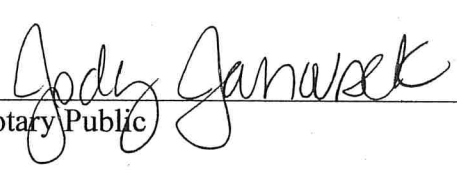
Now on this 5 day of August, 2005, there personally appeared before me, the undersigned Notary Public in and for said county, John M. Northrop and Michele L. Northrop, known to me to be the identical persons who executed the foregoing Easement, and they acknowledged their execution thereof to be their voluntary act and deed for the purposes stated therein.


John M. Northrop


Michele L. Northrop

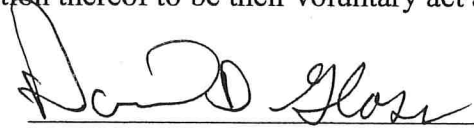
SUBSCRIBED AND SWORN to before me this _____ day of _____, 2005.

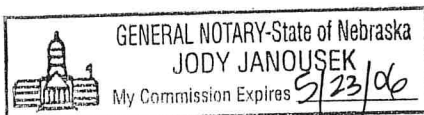


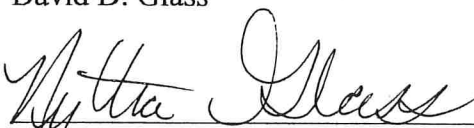

Notary Public

STATE OF NEBRASKA)
)ss.
COUNTY OF ADAMS)

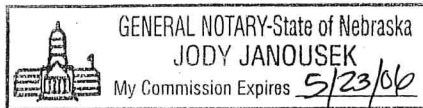
Now on this 5 day of August, 2005, there personally appeared before me, the undersigned Notary Public in and for said county, David D. Glass and Nytha Glass, known to me to be the identical persons who executed the foregoing Easement, and they acknowledged their execution thereof to be their voluntary act and deed for the purposes stated therein.


David D. Glass




Nytha Glass

SUBSCRIBED AND SWORN to before me this 5 day of August,
2005.



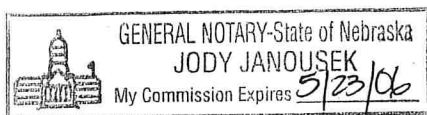
Jody Janousek
Notary Public

STATE OF NEBRASKA)
)ss.
COUNTY OF ADAMS)

Now on this 5 day of August, 2005, there personally appeared before me, the undersigned Notary Public in and for said county, Sharon Stonecipher, known to me to be the identical person who executed the foregoing Easement, and she acknowledged their execution thereof to be her voluntary act and deed for the purposes stated therein.

Sharon Stonecipher
Sharon Stonecipher

SUBSCRIBED AND SWORN to before me this 5 day of August,
2005.



Jody Janousek
Notary Public

Department: Development Services
Staff Contact: Lisa Parnell-Rowe
Planning Commission Meeting Date: 6/15/2021
File No: 2021-024
Prepared By: Emilia Kienbaum, Administrative Assistant

AGENDA ITEM SUMMARY SHEET

Description of Item:

Public hearing to recommend a request for a Conditional Use Permit (CUP) for limited manufacturing at property commonly addressed as 214 E 2nd Street, City of Hastings, Adams County, Nebraska.

Motion to recommend approval for a CUP resolution for property commonly addressed as 214 E 2nd Street, City of Hastings, Adams County, Nebraska.

Names of People/Business affected by this action:

The applicant, the people of Hastings, and the City

Why Planning Commission action is required:

Neb. Rev. Stat. 19-929 requires a conditional use permit to be approved by the City Council unless the City Council has, through a zoning ordinance or special ordinance, generally authorized the Planning Commission to exercise such power and has approved the standards and procedures adopted by the Planning Commission for equitably and judiciously granting such conditional uses or special exceptions. City Code 34-401 requires a recommendation from the Planning Commission before City Council can approve a CUP.

Type of action requested:

Motion

Suggested motion:

Motion to recommend approval for a CUP resolution for property commonly addressed as 214 E 2nd Street, City of Hastings, Adams County, Nebraska subject to following conditions:

- 1) Improvements to pave driveway into business and at minimum add crushed concrete or rock that is able to sustain weight in amount of 75,000 pounds for emergency vehicles to the approach and the parking area will be required when property is fully purchased by applicant from property owner.
- 2) Should applicant decide to incorporate powder coating processes into the processing done at this location rather than subcontracting out at a separate location then an amendment to this CUP will be required.
- 3) There shall be compliance with any other applicable City, County, State or Federal regulations that shall apply.
- 4) This resolution shall be filed with the registrar of deeds so as to provide notice to any person

examining the real estate records of the existence of this CUP. The recording costs incurred to comply with this section shall be paid by the applicant for the CUP.

Deadlines associated with action:

This item will be heard at the regular City Council Meeting to be held on July 12, 2021.

Department head comments:

Mr. Thomas Karr is our applicant. He makes signs and other metal material artwork. Mr. Karr's passion for what started out as a hobby is also his goal for a fulltime business in our community. As a hobby he had been working out of his garage at his residence. This property is zoned R-1, Single Family Residential, and in this use district a business that consists of limited manufacturing is not a permitted use. Manufacturing, limited is defined as an industrial use where small-scale activities produce no by products such as smoke, odor, dust or noise discernable from the outside of the building in which it is located. Individual facilities typically occupy less than 10,000 square feet of gross leasable area, it requires no outside storage, and distribution and deliveries are commonly made by general consumer delivery services, requiring no significant truck access. A retail, showroom, or service component is often associated with the use. Examples include artist studios, metal and wood shops, arts and crafts manufacturing, small appliance or machine repairs, or other small-scale assembly of finished parts or products from previously prepared materials. Mr. Karr desires to comply with City zoning laws and still build on this hobby to make this a fulltime business venture. Mr. Karr has located property at 214 East 2nd Street for which he can rent to own that he feels will be the next step in building this business. Here he would have a small retail store in the back southwest corner of the structure for customers to come browse his signage and art for purchase and then also an area to produce the creations up to the point of powder coating, where it will then be sent to a more appropriate facility for this last processing application. This property is owned by Dale and Coleen Schendt and is zoned C-1, Local Business District. Limited manufacturing in this district requires a Conditional Use Permit.

As with all CUP requests, we have reviewed this use to the CUP criteria as laid out in City Code Section 34-402. The discussion that follows addresses how this criteria is met.

1. The proposed development will integrate compatibility with existing land uses and with permitted uses that may be established within any area to be affected by the proposed development. Surrounding land uses:

North: C-1, Local Business

South: Railroad right-of-way and R-2, Mixed Density Neighborhood District

East: C-1, Local Business

West: C-1, Local Business & C-3, Commercial business

When considering the use of a light manufacturer in this area we look not just to the zoning of the property for where this business will be located but we also assess the surrounding properties. Though there are some residentially-zoned properties to the south, there is significant buffer created by the railroad between this C-1, Local Business District and this residential zone. The remaining surrounding properties to the north, east and west are all commercially zoned. There are

a few homes in these areas but these are clearly legal non-conforming and have remained in these areas despite the commercial zoning. In fact, there is a gas station one lot to the west that serves as a reminder of the long-term commercial intent of this area. The front of this structure faces the heavily traversed Minor Arterial of 2nd Street. Therefore, we do not feel that the use of a sign and metal art business is incompatible to the surrounding area. In fact, applicant has already discussed this potential business with the neighbor to the west whom is supportive and the home on the lot east of this lot is believed to be vacant as many of the windows are boarded up.

2. The use does not have a permanent negative impact that is substantially greater than the impact anticipated from development permitted in the base zone district.

Pedestrian and vehicular traffic circulation and safety. This lot has optimal vehicular circulation with ingress/egress off of 2nd Street and spills into a large dirt parking lot on the north side of the structure where there is ample area to turn around. The ingress/egress and parking lot into this business are not asphalt or concrete covered and does have large concave areas where water can pool and driving across could be bumpy. However, the closer you get to the building the more crushed rock there appears to be settled into the ground. The owner has provided a section for parking in his Site Plan showing where he intends to have off-street parking available for customers. Parking for this business has been assessed to require a total of 2.6 spaces. This is based on an industrial processing area of 2256 SF that requires 1 space for each two employees at maximum employment on a single shift and for the retail area 3.3 spaces per 1,000 square feet of total building area. Staff figured 1 space for applicant and his one employee to park for processing area and 1.6 spaces for retail area. Applicant has provided 3 parking spaces. As for pedestrian access there is a sidewalk around the front of the building and a brick inlay sidewalk out by the street right of way. Though there clearly could be some improvements made to better stabilize the dirt drive, the applicant has not decided yet as to whether this will be his long-term facility or he might move to something bigger where he can also do his own powder coating. This is just not cost effective at this juncture. Staff recommends that if the applicant should decide to remain at this location long-term and purchase the property that at that time he be required as a condition to add rock able to sustain weight of 75,000 pounds for emergency vehicles or concrete the driveway in and the parking area. That will give him time to grow his business and yet still require him to improve the driveway and parking area should he decide to stay at this location.

Reasonable and economic extension of public utilities and facilities. As this is within City limits and already serviced by the City there is no extension of service required for the applicant. Noise, fumes, dust or other environmental pollution. Staff has reviewed and agrees that that plasma water table should not create fumes, dust or noise that would affect adjacent properties. Trailer for metal recycling has been addressed. Powder coating will be subcontracted out and not accomplished at this site which will alleviate requirements to install sprinklers and create separation. However, applicant will be still installing an 8-foot wall between the areas to ensure the safety of any potential customers.

The maintenance of logical and efficient development patterns and land use mixtures. The development pattern of uses in this area has been to move toward commercial. Despite some surrounding properties being used for residential purposes, the City of Hastings Zoning Code does demonstrate the intent for commercial businesses to use this area. The property owners would benefit from this service and not be adversely impacted.

The maintenance of property values in accordance with established and permitted land uses. Allowing for commercial businesses in this area should not adversely affect the property values. Having businesses within walking distance of residential can be seen as a perk for a property owner to easily integrate into the community and may have more of a positive impact on property values than a negative impact in this area. Adjacent property owner letters were sent on 6/4/21 to adjacent property owners within 300 feet to ensure that neighbors have an opportunity to speak on this CUP, if concerned or supportive. To date we have only received one inquiry and this property owner was not concerned with this use by the end of the phone conversation.

3. The conditions imposed are necessary to ensure the maintenance of property values and the safety, health, comfort, and repose of the residents. Staff has conducted a site visit and feels this structure would work for processing that should not include the powder coating without incorporating more costly upgrades to the building like sprinklers. Staff has agreed to allow applicant to move forward with their dream so long as he send the powder coating portion of their process to a subcontractor at a different facility. This will allow the applicant to better ensure he wants to buy this facility first before putting costly improvements into effect. Additionally, applicant is proposing in his narrative an 8-foot wall to keep customers out of the shop area which will protect their eyes from the plasma table when it is running.

4. That the use, subject to conditions, maintains compliance with the Comprehensive Plan and the purpose and intent of the zoning regulations. The Comprehensive Plan Future Land Use Map for this property is slated Urban Residential. This is not a match to the existing zoning in this area. However, when a use backs to a railroad the planning practice would be to consider zoning the adjacent area to a higher impact zone of commercial and /or Industrial. This property backs to the railroad. Additionally, when looking at the existing businesses located between Eastside Boulevard and California Street we can see that a metal sign and craftsman would fit well into this area as a use. Again, there is a Fill & Chill Convenience Store on the corner of Pine and 2nd Street, just 2 lots west of the lot, and we also have several other commercial businesses lining both the north and south sides of 2nd Street in the swatch between Eastside Boulevard and California Avenue. Werner Construction Co. and Molina Auto Sales to name a few. Therefore, Staff is convinced that though there is Urban Residential FLU anticipated for this area, that this goal FLU zoning is dated and does not accurately address for the buildout urban sprawl factor of the last 12 years. When we consider the Comprehensive Plan we must evaluate this urban sprawl factor with such a dated plan. A sign and metal maker in this area fits to the industrial nature of the railroad to its south and is compatible to the existing commercial uses we see to the north and west and east of this area.

Recommendation:

Staff recommends a motion to recommend approval for a CUP resolution for TK's CNC & powder coating commonly addressed as 214 East 2nd Street, City of Hastings, Adams County, Nebraska with the following conditions:

1) Improvements to pave driveway into business and at minimum add crushed concrete or rock that is able to sustain weight in amount of 75,000 pounds for emergency vehicles to the approach and the parking area will be required when property is fully purchased by applicant from property

owner.

2) Should applicant decide to incorporate powder coating processes into the processing done at this location rather than subcontracting out at a separate location then an amendment to this CUP will be required.

3) There shall be compliance with any other applicable City, County, State or Federal regulations that shall apply.

4) This resolution shall be filed with the registrar of deeds so as to provide notice to any person examining the real estate records of the existence of this CUP. The recording costs incurred to comply with this section shall be paid by the applicant for the CUP.



Zoning Application

Date: 04/14/2021

Project

Permit Type:	Conditional Use	Existing Zoning:	C-1, Local Business
Project Name:	TK's Fabrication	Proposed Zoning:	C-1, Local Business
Project Address:	214 E 2nd Street	Comprehensive Plan:	
City, State, Zip:	HASTINGS, NE 68901	Gross Area:	10050
In City Limits:	Yes	# of Lots:	1
Legal:	Lot 5, Block 5, Bellangees 2nd Addition to the City of Hastings, Adams County, Nebraska	Proposed Use:	retail and metal sign shop

Reason for Request: to use the building for signs, yard art and more

Applicant / Owner

Applicant Name:	Thomas R Karr	Owner Name:	SCHENDT, DALE E & COLLEEN M
Company:	TK's Fabrication	Address:	1420 W 2ND ST
Address:	726 N Webster Ave	City, State, Zip:	HASTINGS, NE 68901-0000
City, State, Zip:	Hastings NE 68901	Phone:	
Phone:	4027053545	Email:	
Email:	tkarr82@gmail.com		

Key Contact

Key Contact:	Address:
Company:	City, State, Zip:
Phone:	Email:

I do hereby certify that the information contained herein is true and correct.

Thomas R Karr

Applicant

04/14/2021

Date

04/14/2021

Date



Owner's Authorization Letter

I/we hereby certify that I/we are the owner(s) of the property described herein. I/we am/are respectfully requesting processing and approval of the application(s) referenced herein. I/we hereby authorize the Applicant(s) listed on this application to act on my/our behalf during the processing and presentation of the request. The person(s) identified as Applicant shall be the principal contact with the City in processing this application.

Project: Conditional Use Permit

Address/Location: 214 E. 2nd St.

Applicant(s): Tommy Karr

[Signature]
Owner: _____ Owner's Signature

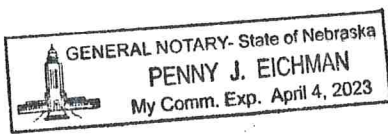
Owner: _____ Owner's Signature

State of Nebraska)

) ss:

County of Adams)

The foregoing document was acknowledged before me this 21st day of April
2021, by Dale E. Schendt



[Signature]
Notary Public



Permit #: 21024

Address: 214 E 2ND ST

City: HASTINGS

State: NE

Zip: 68901

Receipt #: 20

Date: 04/23/2021

Paid By: Thomas Karr

Description:

Payment Type: Card

Payment Type Description: v7454

Accepted By:

Fees Paid

Fee Name	Description	Factor	Total Fee Amount	Amount Paid
Conditional Use Permit or Amendments		0.00	400.00	400.00
Document Filing Fee	Enter number of pages.	2.00	16.00	16.00
			Total:	\$416.00

I am writing this to get a conditional zoning permit for 214 E 2nd St. The name I was trying to use is not available and am trying to get a LLC made as we speak. Right now it's going to be TK's CNC & powder coating. I also will have liability insurance. I'm going to be making custom signs with a retail store inside.

My idea of this place is to have a little retail store in the back south west corner I would only be open for business from Monday, Tuesday, Thursday, and Friday 4:30pm to 9pm. Then also Saturday from 9am to 5pm. The retail store inside will only be open on the hours above I don't anticipate any more than 3 customers at once so it shouldn't be bad. I would expect people to come browse and put in custom orders. I would have a computer and card reader to have people pay for the items they would like to purchase.

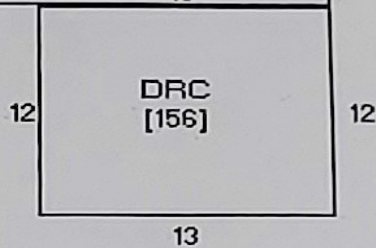
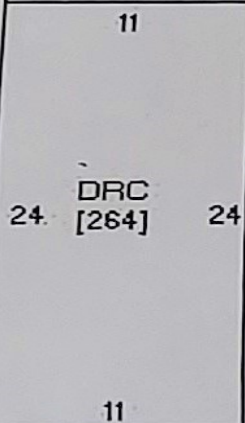
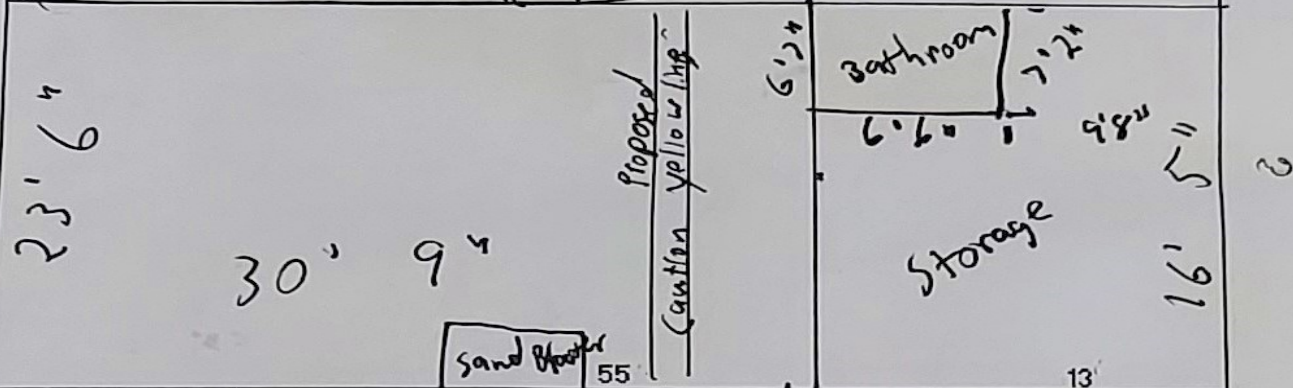
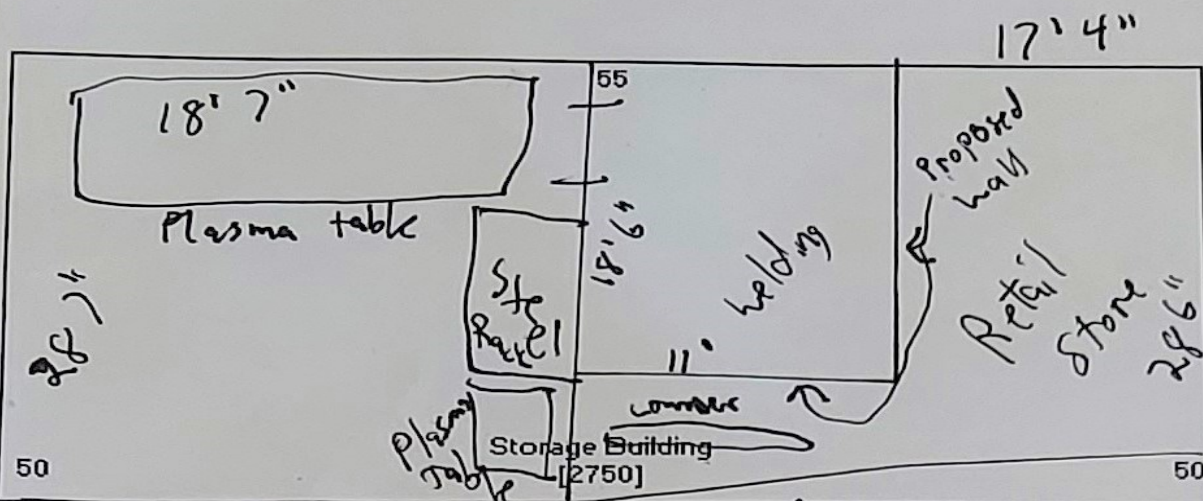
I have a full time job during the day and plan on doing this at night and Saturday. The plasma table would be located in the south east corner Will be running is a water table and won't be hardly any fumes with the water table. It would only be the Oil or residue on the surface. Once something is cut I would have a metal trailer out front as stated on my Site plan to dispose of the metal for recycling. It also isn't very loud to run so it wouldn't disturb the neighbors. I talked to the one neighbor to the west and he is ok with me being there and stated that he would be coming over for me to do some things for him. The neighbor on the east doesn't live there to my knowledge with the windows boarded up I would assume not.

The building is owned by Dale Schendt and I have a choice to rent with option to buy. Signage will only be on the building but would like to put one close to the road because of where I am located I don't think people will see me back there if it is allowed by code other than that I wouldn't have anything outside.

I have a proposed 8ft wall to keep customers out of the shop area to protect their eyes from looking at the plasma table when running or if I have to something on it. I want to make sure everyone has a good experience when coming there and their safety is my first concern.

So let's go through how the process would work a customer would come in to the shop and put an order in whether it's a custom one or not would be paid for then. I would then design it on the computer and cut it out on the plasma table would then clean it up getting the dross and water off of it. Then it would go to the sand blasting cabinet to get prepped for powder coating. This is where I would send it out to Midwest powder coating to get done To make it for the retail store or customers. I would like to have this as my full time job and have an employee, is my dream. I would have my customers park on the West Side of the parking facing west.

Thanks for your consideration and I hope I answered all your questions.
Tommy Karr



parking

parking

parking, parking



James Sub
James Add

Rockwoods Add

Thompsons Add

3RD ST E

3RD ST E

EASTSIDE BLVD

CALIFORNIA AV

ODE ISLAND AVE N

CEDAR AVE N

2ND ST E

2ND ST E

PINE AVE N

James Sub

Dietrichs Sub

Bellangees 3rd Add

Norans Add

Bellangees 1st Add

Bellangees 2nd Add

Lindstrom Elser Hyde Sub

Ganga Sub

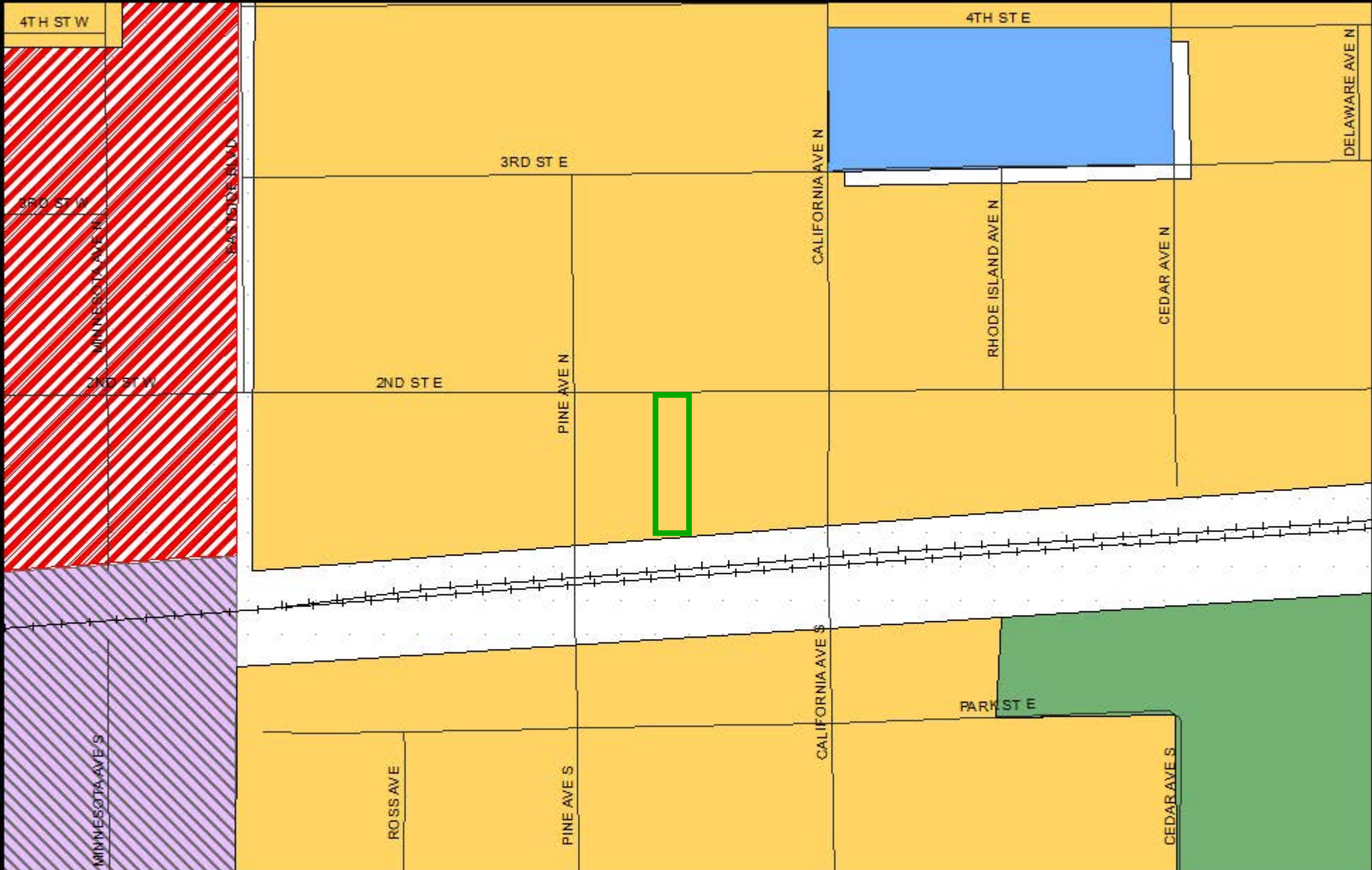
East Side Add

Ross Add

Siekman's Add

TL 3

TL 2



Future Land Use

City of Hastings, Nebraska

0 100 200 400 Feet



Land Use:

- Rural Residential
- Suburban Residential
- Urban Residential

- Mixed-Use - Neighborhood
- Mixed-Use - Community
- Mixed-Use Downtown
- Commercial/Retail
- Employment/Industrial

- Public / Semi-Public
- Parks & Recreation
- Agriculture

Overlay Districts:

- South Burlington Overlay
- Highway 6 Overlay
- Urban Industrial Overlay
- Floodplain
- City Boundary
- ETJ Boundary



50

50

50

50

50

210

218

22

202

Belangere
2nd Add

Department: Development Services
Staff Contact: Lisa Parnell-Rowe
Planning Commission Meeting Date: 6/15/2021
File No: 2021-038
Prepared By: Emilia Kienbaum, Administrative Assistant

AGENDA ITEM SUMMARY SHEET

Description of Item:

Public hearing to recommend a request for Randal Chick regarding Plan Modification No. 2021-4 to Redevelopment Area Number 4, potential Bienkowski Subdivision for the following collective property, to wit: Lots Seven (7) through Twenty Four (24), Block Fifteen (15), D.W. Palmer's Prospect Park Addition to the City of Hastings, Adams County, Nebraska.

Motion to recommend approval of a resolution for Plan Modification No. 2021-4 to Redevelopment Area Number 4, potential Bienkowski Subdivision for the following collective property, to wit: Lots Seven (7) through Twenty Four (24), Block Fifteen (15), D.W. Palmer's Prospect Park Addition to the City of Hastings, Adams County, Nebraska.

Names of People/Business affected by this action:

The applicant, the people of Hastings, the Community Redevelopment Authority, and the City.

Why Planning Commission action is required:

Prior to recommending a redevelopment plan to the governing body for approval, an authority shall submit such plan to the planning commission or board of the city in which the redevelopment project area is located for review and recommendations as to its conformity with the general plan for the development of the city as a whole. The planning commission or board shall submit its written recommendations with respect to the proposed redevelopment plan to the authority within thirty days after receipt of the plan for review. Upon receipt of the recommendations of the planning commission or board or, if no recommendations are received within such thirty days, then without such recommendations, an authority may recommend the redevelopment plan to the governing body of the city for approval (N.R.S. 18-2112).

Type of action requested:

Motion

Suggested motion:

Staff is also working to approve an Administrative Plat in concurrent review.

Deadlines associated with action:

The City Council will also review and approve this Plan Modification on July 12, 2021.

Department head comments:

West 2nd Properties LLC will purchase property located on Lots Seven (7) through Twenty-Four (24), Block Fifteen (15), D.W. Palmer's Prospect Park Addition to the City of Hastings, Adams County, Nebraska. The developer intends to build an 8,000 SF ft building on the approximately 20,287 sq. ft site located just south of W. 2nd Street on N. Laird Avenue. The project will result in the construction of an 8,000 sq. ft. workshop facility containing up to 9 units. Specific uses have not yet been determined for this space, but examples of wood or metal shop was provided as an example to the type of workshop. The developer is in the process of finalizing development plans and will provide evidence that they have secured adequate debt financing and equity to cover the costs associated with the remodeling and rehabilitation of this building prior to the execution of a Redevelopment Contract. Development of this project is anticipated to be completed between June 2021 and December 2021.

The applicant intends to utilize Tax Increment Financing (TIF) to aid for the acquisition, site preparation/grading, out of district utility fees, public driveways, parking and landscaping, engineering and legal fees, and construction of the building.

Total anticipated project costs are approximately \$365,000 for acquisition, site preparation, utility fees and construction. The total TIF eligible expenses for this project are \$60,000. The anticipated project valuation when completed is \$242,000 and the developer projects an incremental valuation increase of approximately \$230,000.

Future Land Use for this area has now been amended to Employment/Industrial. On May 18th, Planning Commission reviewed and voted 7-0 to recommend approval of this future land use change and at the time of this report it is still pending review and approval at City Council. This recommended change will be reviewed on Monday June 14th, so just prior to your review of this plan modification. I will update you during my verbal staff report of the outcome. If this amended FLU change is approved, then this would make the FLU compatible to the existing zoning of Light Industrial. The use of a workshop facility that does not require outdoor storage, but is for the small-scale assembly such as metal and wood shops, arts & crafts manufacturing, small appliances or machine repairs, research labs or small electronic manufacturing are a permitted uses in the I-1, Light Industrial District. Uses requiring outside storage and wholesale distribution would not be allowed in Light Industrial as these are only allowed in Heavy Industrial Use Districts.

Plan Modification 2021-4, attached, details further information.

Recommendation:

Recommend a motion to recommend approval of a resolution for Plan Modification #2021-4 for Redevelopment Area Number 4, West 2nd Properties LLC Redevelopment Project, for property located at Lots Seven (7) through Twenty-Four (24), Block Fifteen (15), D.W. Palmer's Prospect Park Addition to the City of Hastings, Adams County, Nebraska with the following condition:

Use of this workshop shall not include any outside storage and/or wholesale distribution as these types of manufacturing are considered heavy manufacturing and would only be appropriate in the I-2, Heavy Industrial zone.

DATE 5 / 25 / 2021

FILE NO.

**PROJECT APPLICATION**

City of Hastings – Development Services
220 N. Hastings Avenue, Hastings, NE 68901
Phone: (402) 461-2302; Fax: (402) 461-2304
www.cityofhastings.org

Please check the appropriate box below to indicate the type of application you are requesting. Contact Development Services for minimum requirements. Incomplete applications will not be processed.

All applications must be completed by applicant prior to submission with all of the requested support materials by the last Monday of each month or they will be held until the next deadline to be processed.

- | | | | |
|---|---|--|--|
| ☐ Preliminary Plat | ☐ Final Plat | ☐ Short Plat | ☐ Administrative Plat |
| ☐ Code Amendment | ☐ Zoning Change | ☐ Vacation (Plat / ROW / Easements) | |
| ☐ Conditional Use Permit / Amendment | ☐ Planned District / Amendment ☒ Plan Modification to Redevelopment Plan | | |
| ☐ Comprehensive Plan / Amendment | ☐ Annexation Petition / Addition to the City | | |

PROJECT INFORMATION

Project Name: Plan Modification No. 2021-4 to REdevelopment Area #4

Project Address: 100 Block of N. Laird Avenue in Hastings, Nebraska Within City Limit ☒ Yes ☐ No

Existing Zoning: I-1 Light Industrial Proposed Zoning / Use: I-1 Light Industrial

Existing Comprehensive Plan Designation: Urban Residential Gross Area: .47 acres

Legal Description: Lots Seven (7) through Twenty Four (24), Block Fifteen (15), D.W. Palmer's Prospect Park Addition to the City of Hastings, Adams County, Nebraska, according to the recorded plat thereof. Number of Lots: One lot

APPLICANT INFORMATION

Applicant: Community Redevelopment Authority, Randal Chick Director Company: Community Redevelopment Authority

Address: 301 S. Burlington Tel: 402-461-8415 Fax: _____

City: Hastings State: NE Zip: 68901 Email: bidcra@gmail.com

Property Owner: Butch & Diana Bienkowski Company: West 2nd Properties, LLC

Address: 4890 W. 12th Tel: _____ Fax: _____

City: Hastings State: NE Zip: 68901 Email: wcb9988@hotmail.com

Key Contact: Bo Bienkowski Company: West 2nd Properties, LLC

Address: 906 Brentwood Avenue Tel: 402.902.9379 Fax: _____

City: Hastings State: NE Zip: 68901 Email: braeton21@gmail.com

I hereby acknowledge that all information provided with this application is true to the best of my knowledge.

<u>Walter C. Bienkowski</u>	<u>5/25/2021</u>	<u>Randal Chick</u>	<u>5/25/2021</u>
Property Owner Signature	Date	Applicant Signature	Date

DEPARTMENTAL USE ONLY

Fees: \$400.00 Receipt No. _____

Accepted by Staff: _____ Case No. _____

Signature



Permit #: 21038

Address: 141 N LAIRD AVE

City: HASTINGS

State: NE

Zip: 68901

Receipt #: 26

Date: 06/04/2021

Paid By: 727 Properties, LLC - Bienkowski

Description:

Payment Type: Check

Payment Type Description: ck 3332

Accepted By:

Fees Paid

Fee Name	Description	Factor	Total Fee Amount	Amount Paid
Redevelopment Plan Adoption		0.00	400.00	400.00
			Total:	\$400.00

REDEVELOPMENT PLAN#4
PLAN MODIFICATION NO. 2021-4
(West 2nd Properties LLC - Redevelopment Project)

The Community Redevelopment Authority (CRA) of the City of Hastings intends to amend the Redevelopment Plan for Area #4 within the city, pursuant to the Nebraska Community Development Law (the "Act") and provide for the financing of a specific redevelopment related project in Area #4.

Executive Summary:

Project Description

The project consists of the redevelopment of the property located on Lots Seven (7) through Twenty-Four (24), Block Fifteen (15), D.W. Palmer's Prospect Park Addition to the City of Hastings, Adams County, Nebraska. The developer intends to use Tax Increment Financing to aid in the site development including necessary site work, engineering, surveying and other consultant costs associated with and necessary for the redevelopment of the property. The developer intends to build an 8,000 SF ft building on the approximately 20,287 sq. ft site located just south of W. 2nd Street on N. Laird Avenue. The use of Tax Increment Financing is an integral part of the development plan and necessary to make this project financially feasible. The project will result in the construction of an 8,000 sq. ft. workshop facility. This project would not be possible without the use of TIF.

The use of Tax Increment Financing will aid with construction of a workshop building containing up to 9 units. The use of Tax Increment Financing is an integral part of the development plan and necessary to make this project affordable.

West 2nd Properties LLC is in the process of finalizing development plans and will provide evidence that they have secured adequate debt financing and equity to cover the costs associated with preparation of the site and construction of this building prior to the execution of a Redevelopment Contract. The Hastings Community Redevelopment Authority (CRA) intends to pledge the ad valorem taxes generated over the 15-year period beginning January 1, 2022 towards the allowable costs and associated financing for rehabilitation.

TAX INCREMENT FINANCING TO PAY FOR DEVELOPMENT OF THE PROPERTY WILL COME FROM THE FOLLOWING REAL PROPERTY:

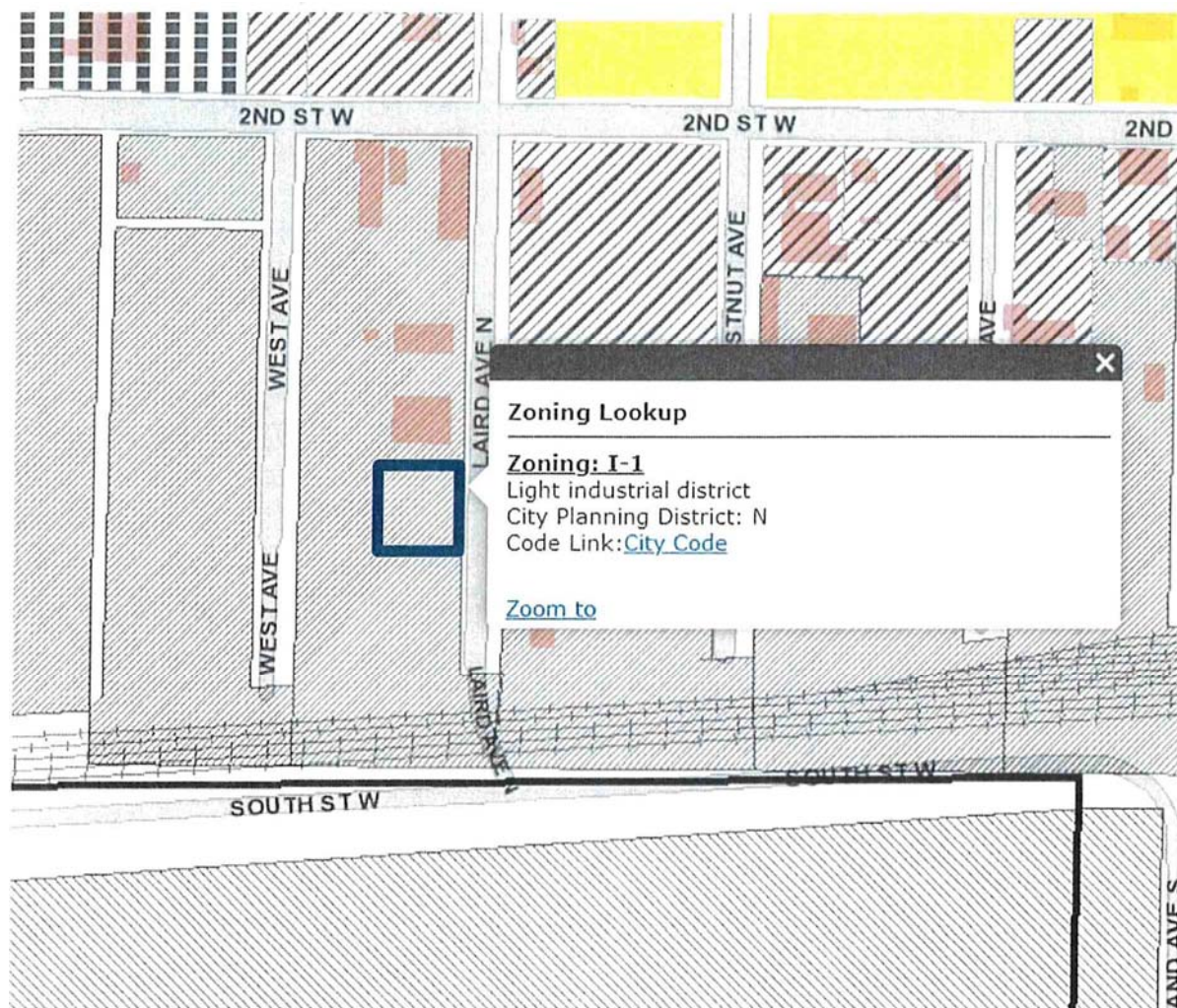
Property Description (the "Redevelopment Project Area")

100 Block of N. Laird Avenue in Hastings, Nebraska

Legal Description: Lots Seven (7) through Twenty-Four (24), Block Fifteen (15), D.W. Palmer's Prospect Park Addition to the City of Hastings, Adams County, Nebraska.

West 2nd Properties, LLC will utilize Tax Increment Financing to aid in site acquisition, site preparation, utility costs, architectural, engineering and planning costs, capitalized interest, and legal fees, public parking, landscaping and any other eligible public improvements essential for public uses in accordance with the Redevelopment Plan.

Map of Existing Land Use and Proposed Redevelopment Site



City of Hastings Zoning

The tax increment will be captured for the tax years the payments for which become delinquent in years 2022 through 2036 inclusive.

The real property ad valorem taxes on the current valuation will continue to be paid to the normal taxing entities. The increase in value will come from the construction of an approximately 8,000 square foot commercial workshop building permitted in the I-I Light Industrial Zoning District. The tax increment will be captured for the tax years 2022 through 2036 inclusive. Provided, however, if there is no increase in valuation for the 2022 tax year, the increment will be captured beginning in the year when an increase in value is available for capture and ending fifteen years later.

Project costs for the acquisition, site preparation, out of district utility fees and construction of the building are estimated to be \$365,000. The anticipated project valuation when completed is \$242,000 and the developer projects an incremental valuation increase of approximately \$230,000.

Statutory Pledge of Taxes.

In accordance with Section 18-2147 of the Act and the terms of the Resolution providing for the issuance of the TIF Note, the Authority hereby provides that any ad valorem tax on the Redevelopment Project Area for the benefit of any public body be divided for a period of fifteen years after the effective date of this provision as set forth in the Redevelopment Contract, consistent with this Redevelopment Plan, Said taxes shall be divided as follows:

- a) That portion of the ad valorem tax which is produced by levy at the rate fixed each year by or for each public body upon the redevelopment project valuation shall be paid into the funds, of each such public body in the same proportion as all other taxes collected by or for the bodies; and
- b) That portion of the ad valorem tax on real property in the redevelopment project in excess of such amount, if any, shall be allocated to and, when collected, paid into a special fund of the Authority to pay the principal of; the interest on, and any premiums due in connection with the bonds, loans, notes, or advances on money to, or indebtedness incurred by, whether funded, refunded, assumed, or otherwise, such Authority for financing or refinancing, in whole or in part, a redevelopment project. When such bonds, loans, notes, advances of money, or indebtedness including interest and premium due have been paid, the Authority shall so notify the County Assessor and County Treasurer and all ad valorem taxes upon real property in such redevelopment project shall be paid into the funds of the respective public bodies.

Pursuant to Section 18-2150 of the Act, the ad valorem tax so divided is hereby pledged to the repayment of loans or advances of money, or the incurring of any indebtedness, whether funded, refunded, assumed, or otherwise, by the CRA to finance or refinance, in whole or in part, the redevelopment project, including the payment of the principal of, premium, if any, and interest on such bonds, loans, notes, advances, or indebtedness.

Redevelopment Plan Amendment Complies with the Act:

The Community Development Law requires that a Redevelopment Plan and Project consider and comply with a number of requirements. This Plan Amendment meets the statutory qualifications as set forth below.

1. The Redevelopment Project Area was first declared blighted and substandard by action of the Hastings City Council on October 24, 1991. Such declaration was made after a public hearing with full compliance with the public notice requirements of 518-2115 of the Act,
2. Conformation to the General Plan for the Municipality as a whole. (S18-2103 /13) (a) and 5182110)

Hastings adopted a Comprehensive Plan on February 24, 2009 which planned for the future land use of this property as Urban Residential. The Hastings City Council adopted ordinance No. 4668 on June 14, 2021 to amend the Comprehensive Land Use Plan by changing this area from Urban Residential to Mixed Use — Neighborhood, Public/Semi-public and Employment/industrial. This redevelopment plan amendment and project is now consistent with the City's Comprehensive Development Plan. This redevelopment plan provides funding for the developer to build a commercial workshop building on this property as defined by the current and effective zoning regulations. The Hastings Planning Commission held a public hearing at their meeting on June 16, 2021 to approve Plan Modification No. 2021-4 to Redevelopment Plan #4 confirming that this project is consistent with the Comprehensive Development Plan for the City of Hastings.

3. The Redevelopment Plan must be sufficiently complete to address the following items:
(5182103/13) (b)
 - a. Land Acquisition:

The Redevelopment Plan for Area #4 provides for real property acquisition and this plan amendment does not prohibit such acquisition. Butch and Diana Bienkowski are the current owners of the site on which the Project will be constructed and the developer plans to acquire the property.

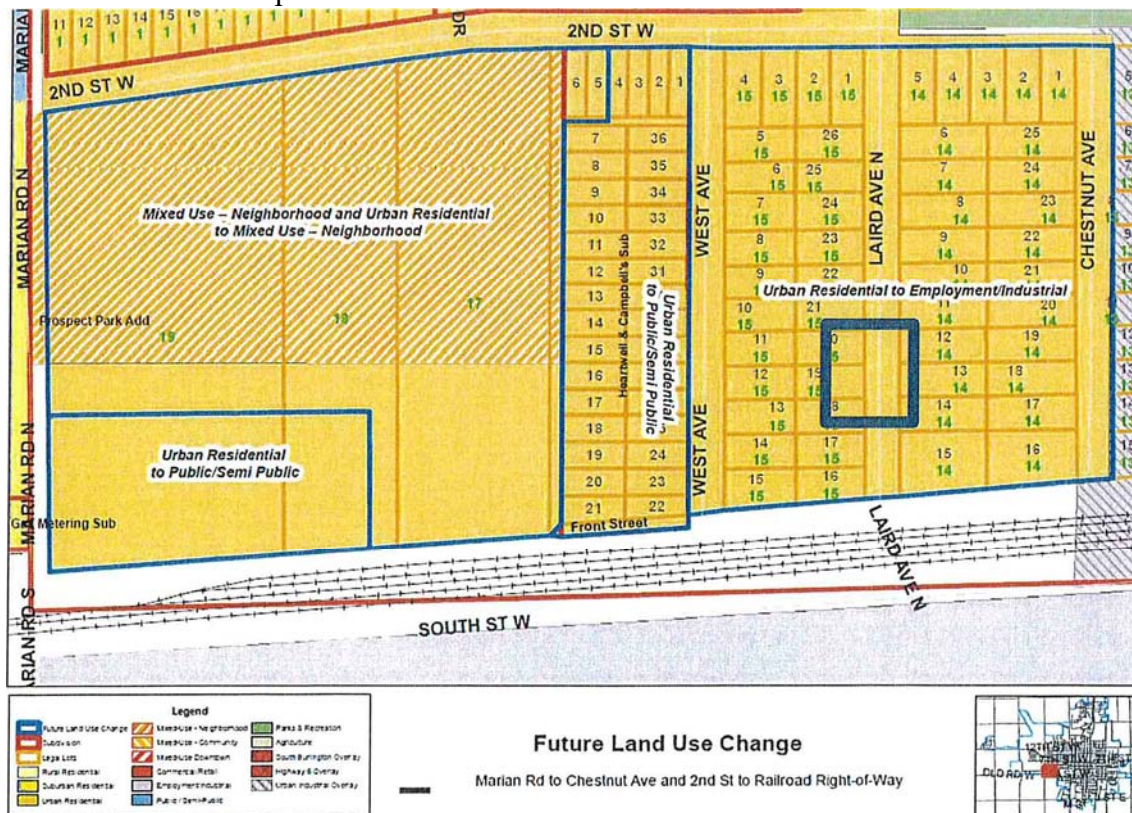
b. Demolition and Removal of Structures:

The project to be implemented with this plan does not provide for the demolition and removal of any structures on this property.

c. Future Land Use Plan

See the attached map from the Hastings Comprehensive Development Plan modified June 14, 2021. All of the area around the site in private ownership is planned Mixed Use — Neighborhood, Public/Semipublic and Employment/Industrial development; this includes commercial and workshop spaces within the same structure. The attached map also is an accurate site plan of the area after redevelopment. [5 182111(5)]

Future Land Use Map



d. Changes to zoning, street layouts and grades or building codes or ordinances or other planning changes

The area is zoned I-I Light Industrial and no zoning changes are anticipated with this project. No changes are anticipated in street layouts or grades. No changes are anticipated in building codes or ordinances nor are any other planning changes contemplated. [5 18-2103(b) and 18-2111]

e. Site Coverage and intensity of Use

The developer is constructing a new building which will meet the applicable regulations regarding site coverage and intensity of use. [518-2103(b) and S 18-21 1 1]

f. Additional Public Facilities or Utilities

Sewer, water, gas and electric are available to support this development.

4. The Act requires a Redevelopment Plan provide for relocation of individuals and families displaced as a result of plan implementation. This property has previously been utilized for commercial related uses and no relocation is contemplated or necessary. A18-2103.021
5. No member of the Authority, nor any employee thereof holds any interest in any property in this Redevelopment Project Area. [18-21061
6. Section 18-2114 of the Act requires that the Authority consider:
 1. Method and cost of acquisition and preparation for redevelopment and estimated proceeds from disposal to redevelopers.

The developer plans to acquire the property and acquisition is part of the request for tax increment financing. The CRA has been asked to provide \$45,000 in TIF funding to this project to offset the cost of TIF eligible expenditures. The CRA has identified the following TIF eligible expenses for the project;

- a) site acquisition - \$15,000
- b) site prep/grading - \$13,000
- c) Utility out of district fees for water and sewer - \$8,000
- d) Public driveways, parking and landscaping — 16,000
- e) planning related expenses for Engineering, legal services and fees - \$4,000
- f) capitalized interest on TIF loan - \$4,000

The total TIF eligible expenses for this project are \$60,000. The property will be acquired by the developer and the developer will provide and secure all necessary financing.

2. Statement of proposed method of financing the redevelopment project.

The developer will provide all necessary financing for the project. The Authority will assist the project by granting the sum of \$45,000 from the proceeds of the TIF. The proceeds from TIF after the interest is paid will result in approximately \$60,060 of direct aid to the project. This indebtedness will be repaid from the Tax Increment Revenues generated from the project. TIF revenues shall be made available to repay the original debt and associated interest after January 1, 2022 through December 2036.

3. Statement of feasible method of relocating displaced families.

No families will be displaced as a result of this plan.

7. Section 18-2113 of the Act requires:

Prior to recommending a redevelopment plan to the governing body for approval, an authority shall

consider whether the proposed land uses and building requirements in the redevelopment project area are designed with the general purpose of accomplishing, in conformance with the general plan, a coordinated, adjusted, and harmonious development of the city and its environs which will, in accordance with present and future needs, promote health, safety, morals, order, convenience, prosperity, and the general welfare, as well as efficiency and economy in the process of development, including, among other things, adequate provision for traffic, vehicular parking, the promotion of safety from fire, panic, and other dangers, adequate provision for light and air, the promotion of the healthful and convenient distribution of population, the provision of adequate transportation, water, sewerage, and other public utilities, schools, parks, recreational and community facilities, and other public requirements, the promotion of sound design and arrangement, the wise and efficient expenditure of public funds, and the prevention of the recurrence of insanitary or unsafe dwelling accommodations or conditions of blight.

The Authority has considered these elements in proposing this Plan Amendment. This amendment, in and of itself will promote consistency with the Hastings Comprehensive Development Plan. This will have the intended result of preventing recurring elements of unsafe buildings and blighting conditions. This will accomplish the goal of both the Community Redevelopment Authority and the Hastings City Council of the prevention of the recurrence of insanitary or unsafe dwelling accommodations or conditions of blight.

8. Time Frame for Development

Development of this project is anticipated to be completed between June 2021 and December 2021. Excess valuation should be available for this project for 15 years beginning with the 2022 tax year.

9. Justification of Project

Acquisition, site grading and engineering and architecture costs are necessary to facilitate redevelopment of this site. The redevelopment of this property will result in a new, workspace project and provide much needed opportunities for small businesses and start-ups as well as increased sales tax revenue. The Hastings Economic Development Corporation and the Hastings City Council have made it clear with previous decisions that they support development that will increase commercial and job creation opportunities.

10. Cost Benefit Analysis

Section 18-2113 of the Act, further requires the Authority conduct a cost benefit analysis of the plan amendment in the event that Tax Increment Financing will be used. This analysis must address specific statutory issues.

As authorized in the Nebraska Community Development Law, S 18-2147, Neb. Rev. Stat. (2012), the City of Hastings has analyzed the costs and benefits of the proposed Redevelopment Project, including: Project Sources and Uses.

Approximately \$58,583 in public funds from tax increment financing provided by the Hastings Community Redevelopment Authority will be required to complete the project. This investment by the Authority and the City will leverage \$365,000 in private sector financing; a private investment of \$6.23 for every public/TIF dollar of investment.

USE OF FUNDS		SOURCE OF FUNDS	
Site Acquisition/site development	\$28,000	Bank Financing	\$283,500
Construction Costs	\$325,000	Owner Equity	\$36,500
Utilities	\$8,000	TIF	\$45,000

Capitalized Interest on TIF Loan	\$4,000		
TOTALS	\$365,000	TOTALS	\$365,000

Tax Revenue. The property to be redeveloped is anticipated to have a January 1, 2021, valuation of approximately \$12,000. Based on the 2020 levy of .02258475 this would result in real property taxes of approximately \$271.02 which will be paid out to all the existing taxing entities. It is anticipated that the assessed value will increase by \$240,000 upon full completion, as a result of the building redevelopment. This development will result in an additional estimated tax increase of over \$5,420 annually. This tax increment gained from the Redevelopment Project Area would not be available for use as city general tax revenues, for a period of 15 years, or such shorter time as may be required to amortize the TIF bond, but would be used for eligible private redevelopment costs to enable this project to be realized.

Actual 2020 assessed value:	\$12,000
Estimated value after completion	\$252,000
Increment value	\$240,000
Annual TIF generated (estimated)	\$5,420
TIF bond issue	\$45,000

Statement Identifying Financial Gap and Necessity for use of Tax Increment Financing for proposed Project:

A large financial gap exists on this project after conventional financing is utilized. A combination of owner equity, TIF and other incentives are needed to make the project feasible. The developer is contributing owner equity/bank financing of \$3 6,500 and TIF funding is intended to fill the remaining gap, making this project feasible. The project is asking for \$45,000 in a TIF loan amortized over 15 years. Without the availability of TIF funding for the project, it would not be feasible for the developer to proceed with this redevelopment. Please see the table below which shows rate of returns from 3.27% without TIF funding which is an unacceptable return on investment in today's market.

Proforma Operating Statement w/o TIF	
	<u>Year 1</u>
Rent Revenue	\$ 33,750
Expenses	\$ (9,180)
NOI Without TIF	\$ 24,570
Debt Service	\$ (23,376)
Cash Flow Without TIF	\$ 1,194
Cash on cash return wo/TIF	3.27%

Equity Investment 36,500

Proforma with TIF

Proforma Operating Statement
with TIF

	<u>Year 1</u>
	\$ 33,750
Rent Revenue	\$ (9,180)
Expenses	\$ 24,570
NOI With TIF	\$ (20,172)
Debt Service	\$ 4,398
Cash Flow Without TIF	12.00%
Cash on cash return wo/TIF	
	\$ 36,500

Equity Investment

- (a) Tax shifts resulting from the approval of the use of Tax Increment Financing;

The redevelopment project area currently has an estimated valuation of \$12,000. The proposed redevelopment will create additional valuation of \$240,000. No tax shifts are anticipated from the project. The project creates new valuation from the construction of a new commercial building which will support taxing entities long after the project is paid off.

- (b) Public infrastructure and community public service needs impacts and local tax impacts arising from the approval of the redevelopment project;

No additional public service needs have been identified. Existing water and waste water facilities will not be impacted by this development. The electric utility has sufficient capacity to support the development. Fire and police protection are available and should not be negatively impacted by this development.

- (c.) Impacts on employers and employees of firms locating or expanding within the boundaries of the area of the redevelopment project; and

This project will not have a negative impact on employers and employees of firms locating within the boundaries of the redevelopment area but will create new opportunities for these same firms to lease commercial workshop space.

- (d.) Impacts on other employers within the city or village and the immediate area that are located outside of the boundaries of the area of the redevelopment project; and

This project will not have a negative impact on other employers in any manner different from any other expanding business within the Hastings area.

- (e) Impacts on student populations of school districts within the City or Village:

There is no additional housing associated with this project and it is not anticipated that this will impact schools in any significant way.

- (e) Any other impacts determined by the authority to be relevant to the consideration of costs and benefits arising from the redevelopment project.

This project is consistent with the goals of the City Council and the Community Redevelopment Authority to support the creation of new commercial space. The project will support construction jobs and provide needed commercial workshop space for small business owners and startups.

- (f) Any other impacts determined by the authority to be relevant to the consideration of costs and benefits arising from the redevelopment project.

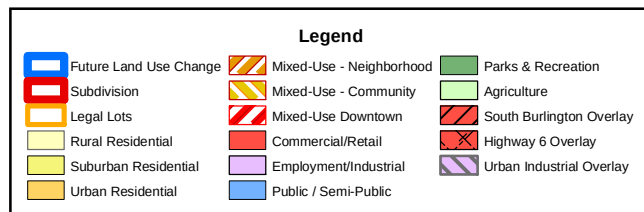
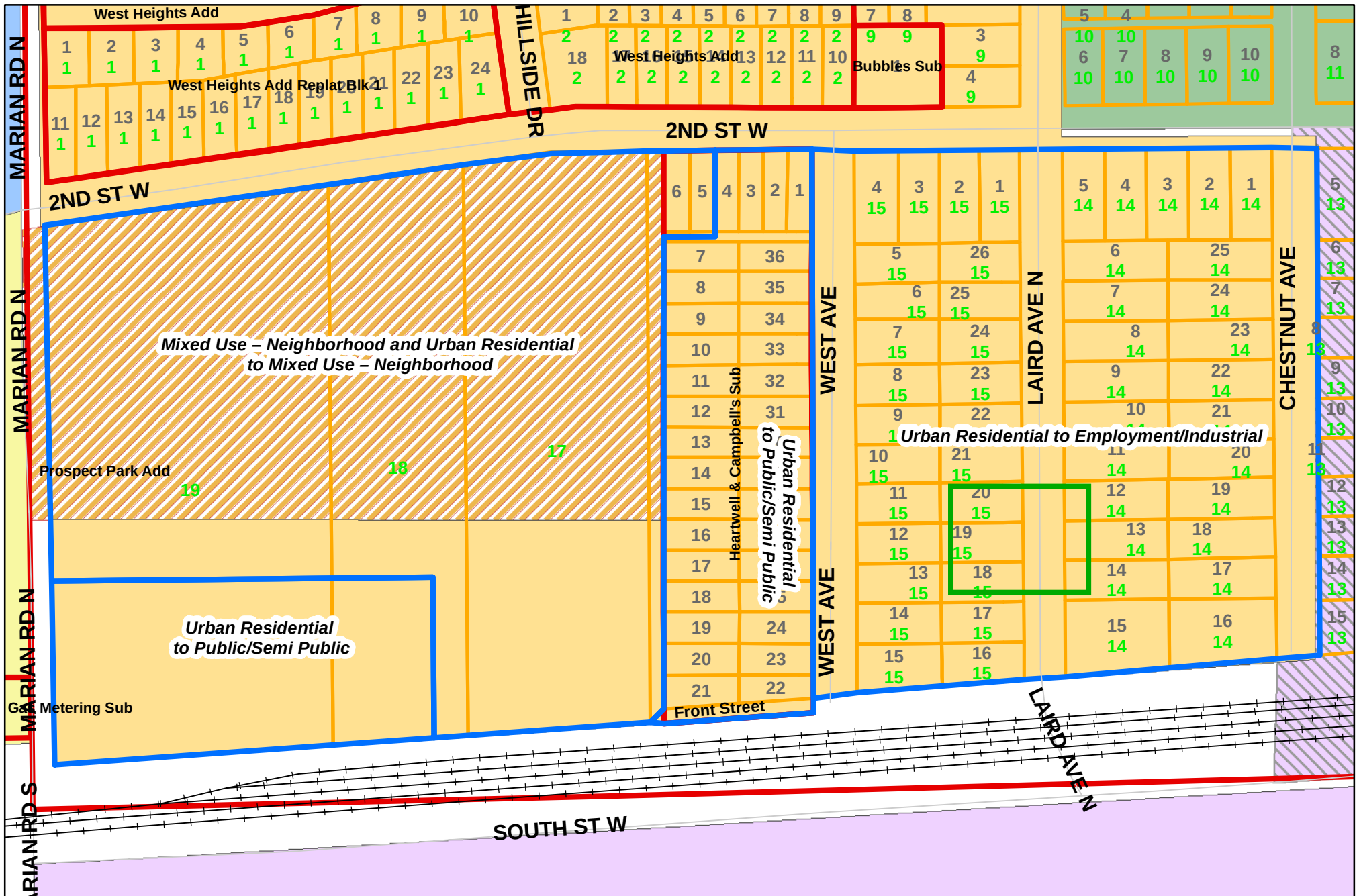
This project is consistent with the goals of the City's Comprehensive Plan.

Time Frame for Development

Development of this project is anticipated to be completed between June of 2021 and December of 2021. The base tax year should be calculated on the value of the property as of January 2021.

Excess valuation should be available for this project for 15 years beginning in 2022 with taxes due in 2023. Excess valuation will be used to pay the TIF Indebtedness issued by the CRA per the contract between the CRA and the developer for a period not to exceed 15 years on an amount not to exceed \$45,000 the projected amount of increment based upon the anticipated value of the project and current tax rate.

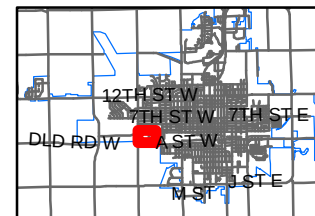




= Project Site

Future Land Use Change

Marian Rd to Chestnut Ave and 2nd St to Railroad Right-of-Way



Department: Development Services
Staff Contact: Lisa Parnell-Rowe
Planning Commission Meeting Date: 6/15/2021
File No: 2021-037
Prepared By: Emilia Kienbaum, Administrative Assistant

AGENDA ITEM SUMMARY SHEET

Description of Item:

Public hearing on a request for a Planned District Development Plan for Theatre District LLC commonly addressed as 3101 W 12th Street, City of Hastings, Adams County, Nebraska.

Motion to recommend approval of a resolution for a Planned District Development Plan for Theatre District LLC commonly addressed as 3101 W 12th Street, City of Hastings, Adams County, Nebraska.

Names of People/Business affected by this action:

The applicant, the City of Hastings

Why Planning Commission action is required:

34-215 (6) (b) The Planning Commission shall advertise and hold a public hearing on the application and plan, as provided in Section 34-801(2) for any changes, amendments or appeals. The Commission shall recommend approval or denial Zoning of the plan and report. At the conclusion of the public hearing, the plan and supporting data shall be sent on to the City Council for action.

Type of action requested:

Motion

Suggested motion:

Deadlines associated with action:

This item is scheduled to be heard at the City Council meeting on June 28, 2021.

Department head comments:

The Theatre District Development Subdivision has a planned district overlay. This subdivision carries a base district zoning of C-3. Together this is a zoning district we refer to as CP-3. The base district of C-3 is characterized as inclusive of those areas which are heavily exposed to automobile traffic and which have been developed with general commercial uses. The district is intended specifically for those areas surrounding major arterial intersections where personal services, convenience goods, and auto-related service facilities are desirable and appropriate land uses. In general, this development will need to meet the base district requirements for C-3, but

then, if additional allowances are permissible within the Planned District overlay for commercial or residential, the applicants can enjoy the benefits of these allowances so long as they spell these deviations out in the submittal of a Development Plan.

The planned district overlay is intended *“to provide maximum flexibility in the development of property and at the same time to preserve and maintain the character and integrity of adjacent lands. It is an alternative to the base district standards where a plan for development equally or better meets the intent of the district or districts uses, better addresses site specific conditions including transitions to adjacent areas, and better service the public purpose than would otherwise occur under base standards.”*

In a commercial or industrial zone that carries a planned overlay, *“Buildings may be constructed on platted tracts which are smaller than the minimum lot size requirements where other adjacent permanent open space is provided. Buildings may be grouped in clusters or around courts and may be served by private drives in lieu of public streets. Buildings may be located closer to lot lines than otherwise permitted, provided such buildings are architecturally suitable for such a relationship to adjoining buildings and property”.*

The allowances for a residential planned overlay are similar, *“Each building need not face on a public street, and more than one building may be located on a lot. Buildings may be constructed on platted tracts which are smaller than the minimum lot size requirements where other adjacent permanent open space is provided. Buildings may be grouped in clusters or around courts and may be served by private drives in lieu of public streets. Buildings may be located closer to lot lines than otherwise permitted, provided such buildings are architecturally suitable for such a relationship to adjoining buildings and property. Any building or portion thereof may be owned in condominium under applicable state laws governing the same.”*

DEVIATIONS: The Development Plan for Theatre Development District incorporates the following deviations from the base C-3 District requirements and a few site plan requirements as allowable in the planned district overlay. Staff feels the adaptations that have been made are done in genuine interest of surrounding and adjacent properties in order to, “better service the public purpose than would otherwise occur under base standards” and to “preserve and maintain the character and integrity of adjacent lands”. Those proposed deviations follow:

1. **Grocery Store Use:** As stated in Section F of the applicants’ narrative, the applicant is proposing a retail/small grocery use of approximately 17,800 SF. The original rendering shows this use slated for Lot 1 of Block 2. Applicant is asking to limit this lot to this use in exchange for permitting it outright as part of this Development Plan as a neighborhood grocery store. The Districts and Use Table slates grocery stores are in 2 categories: less than 45K SF are considered neighborhood in nature and are not permitted in the base district. Over 45K SF are considered supermarkets and are permitted in the C-3 Base District. Staff finds it shocking that the smaller neighborhood grocery store would not be permitted, but yet the supermarket, much larger in area is permitted in the C-3 Base District. The FLU slated this area as mixed-use community so it is felt that permitting a neighborhood grocery would better meet the intent of this particular FLU zoning district and

better align this use architecturally to adjoining buildings and properties in this development. A supermarket over 45,000 SF is felt to be too large in scale for the existing vision of this development with it incorporating both commercial and residential uses as a mixed-use community.

2. **Open Space: Residential Requirement:** Applicants are deviating slightly in fulfilling their residential open space requirement. Table 305-2 addresses required Open Space for residential in a development. Applicant is providing a much-needed connection to the Pioneer Spirit Trail on the west side of the new public street right-of-way. This will allow a safer connection from 12th Street to Marian Road and will re-route pedestrians around a busy intersection where a round-about may be some day incorporated as suggested in the Traffic Study. In fact, I do believe that the City Engineer is adding this to the 1 & 6 year plan for 2022. Applicants added this trail connection at the request of Staff, but it is a slight change from the latest version of the Pioneer Spirit Trail Plan. Their requirement for open space based on their residential use is calculated as 150 total dwelling units (DUs) X 500 SF = 75,000 SF. The description of a greenway or green belt is suggestive to include a pedestrian trail and that it may border a street and include pedestrian connections. The public street will do all of this; however, it does not fully meet the first design characteristic that it is a long corridor of natural vegetation, typically following a stream or a natural resource. This is obviously a man-made public street and though it will be landscaped with trees the type of trees and landscaping will be sensitive to height restrictions as part of growth patterns. However, this ROW is calculated at approximately 78,000 SF and would exceed the requirement to provide 75,000 SF. It also assists the City in mitigating for a potential safety issue in the pre-established trails plan that has been caused by growth. It will, *“better service the public purpose than would otherwise occur under base standards”*.
3. **Landscape:** During review, concerns for large canopy trees over time creating overgrowth and potentially interfering in air zoning were expressed. This concern was made particularly for street trees by the Parks and Recreation Director. We are allowing ornamental and medium canopy trees at a greater distance apart than is prescribed in City Code Section 34, Table 305-4 Street Trees for the street frontage along Block 2. Block 2 is, of course, much closer in proximity to the more restrictive airspace in the development. Allowing this deviation will eliminate future concerns for air zoning when trees grow and mature and will prevent owners from having to modify landscaping or disfigure the tops of trees. This will better address site specific conditions not found in other areas of the City. Though the landscaping in Block 2 will be adjusted to not include large canopy trees, these large canopy trees will be intermingled at a higher concentration the further west you move. For the most part (see deviation #4) there will be appropriate buffering between the adjacent R-3, *Multi-family Residential District* and this development and trees will be incorporated at the required distances in the entirety of Block 1 to ensure appropriate transitions to these adjacent areas.
4. **Parking:** Commercial parking in Development Plan is shown and figured at 1 parking stall for 300 square feet. Due to the fact that final uses have not yet been established for the commercial lots and many will not be established until after sale we are approving this deviation. The applicant is requesting that all of the commercial lots combined can provide the aggregated number of 834 parking stalls and that all lots be subjected to a *Reciprocal Cross-Parking and Access Easement and Maintenance Agreement*. Some of the individual

lots may contain fewer stalls than is required in the City Code Section 34-308, while other lots may contain more parking stalls than are required in this code section. However, the aggregate number of stalls should comply with the number of stalls required and all of the commercial uses shall be shared parking for all of the commercial users in the district. Applicant also understands that the condition that parking requirements will be reassessed with uses as lots are sold off and building permits are applied to each lot.

5. **Buffer:** There is one area between the R-3, *Multi-family Residential District* to the west of Theatre Development District Lot 4 of Block 1 that has pavement within the buffer depth. This area does not allow for additional landscaping. This is a short distance and will slightly deviate from that requirement due to site specific limitations.
6. **Setback Deviation: Residential:**

The southeast side yard setback for the apartment building on Lot 2, Block 1 is approximately 13.00' from the southeast property line. Based on the required setback of 25.00' the applicant proposes this multi-family structure sits closer to the lot line with a deviation of 12.00'.

Note: All other setbacks shown on Site Plan meet the base district requirements.

Staff notes that the following C-3 Base District requirements have otherwise been met: minimum lot area, lot width, lot coverage and building height.

SITE REQUIREMENTS MET: The following is a summary of additional site plan/other requirements that the applicant's proposal has demonstrated to meet in the base district requirements.

1. **Air Zoning:** Theatre District LLC has completed their Airspace Zoning Review Permit for the Development Plan portion of their project. They have successfully submitted their Federal Aviation Administration (FAA) Form 7460-1 with recommendations received on 3 of approximately 80 initial areas submitted for review as part of the Development Plan. These recommendations were to reduce utility pole height noted at area S21 and to ensure the proposed structures noted as B5 & B6 are marked/lite in accordance with FAA Advisory circular 70/7460-1 M, Obstruction Marking and Lighting red lights found in Chapters 4, 5 (Red), & 15. Theatre District LLC will be responsible for submitting the follow-on Forms 7460-2, Notice of Actual Construction or Alteration as stipulated in the return letters of *Determination of No Hazard to Air Navigation* (See attached). The applicants are also aware of the determination expiration dates and their options with the FAA determinations moving forward with this project. It is important to understand that this Airspace Zoning Review Permit is for the Development Plan only and that Theatre District LLC will need to submit such a permit and additional forms 7460-1 for each permit pulled, to include project functions (like Grading) that might include large and tall equipment. Therefore, as the outlots for this Development Plan are to be developed when lots are sold off and developed individually, Staff has incorporated conditions for these with recommendation. Any area development that might be affected by Airport Zoning regulations requires the Airport Advisory Boards review for recommendations to Planning Commission and City Council, as stated in City Code Section 34-217 (9). The Airspace

Zoning Review Permit for the Development Plan was discussed with the Airport Advisory Board at their May 13, 2021 Meeting. Staff recommended they motion to approve forwarding their approval to Planning Commission of this permit following FAA review and findings that were discussed. This Board voted to X to X to approve this recommendation.

2. **Open Space: Commercial Requirement:** *Open space shall be provided at a rate of one square foot of open space for each 50 square feet of non-residential building footprint area. Plus, an additional square foot of open space for every 100 square feet of floor area above the first story except that the I-1 and I-2 districts are exempt from any open space requirement.* $137,000 \text{ (existing buildings)} + 78,730 \text{ (proposed new retail/office uses)} = 215,730/50 = 4,314.6 \text{ SF Open Space Required.}$ All commercial is one story. However, if more were added or needed this open space requirement for commercial would still be met by 50% of Outlot A, which will serve as detention and mitigate drainage as well. This outlot is 238,044.91 SF total and only 50% of this per 34-305 (2) (e) (i) qualifies for a pond. Half is 119,022.45 SF and this should more than fulfill the necessary open space for the commercial calculation.
3. **Lighting requirements:** The site lighting will be full cutoff and will meet requirements found in Section 34-305 of Hasting City code. The parking lot light poles will be 25' in height. However, applicant and staff agree that if there are alterations needed for lighting to comply with recommendations made by the FAA, these will be incorporated into the requirement accordingly through the airspace review permitting process.
4. **Sidewalks:** 4' Sidewalks are incorporated into east side of the public street ROW. City engineers have reviewed and approved. This meets the requirements. Required sidewalks to and from each structure will be incorporated into the building plans when submitted for building permit.
5. **Sign:** The Theatre District proposed monument sign, to be located on Outlot A and all business and residential signage within will comply to City Code Section 34-309, but must also be fully vetted through the airspace review permitting process as required in City Code 34-217 and determined to have no hazard to air navigation during required reviews with the FAA. Signage will also not infringe on sight triangle and must not hinder visibility for those entering or leaving this development.
6. **Dumpster:** Trash enclosures will be in screened areas conveniently located for the commercial and residential users of the Theatre District. Specific location of the trash enclosures will be detailed on the building plans.
7. **Trail:** The Pioneer Spirit Trail that follows Theatre Drive on the west side will be 8'. Section 38-303 (5) states a minimum of 8' and maximum of 10' based on the street. Parks and Recreation Director agreed to the minimum width for this section of the trail.
8. **Water and Sewer:** Water and Sewer have been initially reviewed by City Utilities. The applicants will continue to revise and update until final approval is received from Utilities Coordinator. We will place a condition for this approval to be obtained prior to approval of final building permits.
9. **Public Street/Traffic Study:** Public Street plan has been initially reviewed by City Engineer and discussions have occurred with the applicants Traffic Study consultant, Lonnie Burkland of JEO. However, a final Traffic Study was received and but was just received and has not be fully reviewed. The applicants will continue to revise and update this plan and

study prior to final approval from City Engineer. We will place a condition for this approval to be obtained prior to approval of final building permits.

10. **Stormwater/Drainage:** The Drainage Plan and Study have been initially reviewed by Civil Engineer and feedback for revisions was sent to the applicants. Discussions to fine tune these plans will continue until final approval has been met. We will place a condition for this approval to be obtained prior to approval of final building permits.

Recommendation:

Staff recommends motion to recommend approval of a resolution for a Planned District Development Plan for Theatre District LLC commonly addressed as 3101 W 12th Street, City of Hastings, Adams County, Nebraska with the following conditions:

1. Applicant must incorporate final lighting that meet City Code Section 34-305 requirements and are full cutoff prior to approval for each building permit. Any lighting recommendations of the FAA will be incorporated into City requirements.
2. Applicant must incorporate location of dumpsters and enclosures to meet City Code Section 34-305 (b) (iii) prior to approval for each building permit.
3. Applicant must submit a development permit for monument Theatre District signage that will meet the regulations described in Zoning Code 34-309, as well as airspace zoning review requirements found in Section 34-217. Additional business and residential signage must also comply to these codes.
4. Parking requirements will be reassessed as part of building permits for development of each lot.
5. Theatre District LLC will be responsible for submitting the follow-on Forms 7460-2, Notice of Actual Construction or Alteration as stipulated in the return letters of Determination of No Hazard to Air Navigation.
6. All recommendations from FAA with Development Plan and any permits pulled and reviewed by FAA within the Theatre District Subdivision shall be implemented and maintained accordingly by the owners of the lots as they are developed.
7. Any changes to building footprint and/or increase in height proposed in this Development Plan for Block 2 will require a Development Plan Amendment.
8. Any increase to building heights proposed in this Development Plan for Block 1 will require a Development Plan Amendment.
9. Final approval of Water and Sewer plans must be approved by Utilities Coordinator prior to approval of final building permits.
10. Final approval of Public Street Plan & Traffic Study must be approved by City Engineer prior to approval of final building permits.
11. Final approval of Stormwater & Drainage must be approved by Civil Engineer prior to approval of final building permits.



Permit #: 21037

Permit Date: 05/25/21

Permit Type: Development Plan

Title: Theatre District Development Plan (excluding old K-mart)

Site Address: 3101 West 12th Street

Owner Name:

Owner Address:

City State Zip:

Owner Phone:

Owner Email:

Applicant Name: Tom Huston

Applicant Address: 9200 Andermatt Drive, Suite A

City, State, Zip: Lincoln, NE 68526

Phone Number: 402-488-1666 Ext, 118

Applicant Email: thuston@perryreid.com

Proposed Use: Mixed-Use

Description: Redevelopment of the former Imperial Mall into the Theatre District

Number of Cases: 0

Project Cost: 0

Square Feet: 37

Within City Limits: Yes

Current Zoning: C-3, General Business

Current Zoning Explained:

Proposed Zoning: C-3, General Business

Conditions: Yes

Conditions Defined:

**1st PN & Agenda Send By 06/02/2021
(11:30):**

1st PN & Agenda Due Date: 06/04/2021

1st PN & Agenda Sent:

**2nd PN & Agenda Send By
(11:30):**

2nd PN & Agenda Due Date:

2nd PN & Agenda Sent:

**Sign / Website Posting - Post 06/03/2021
By:**

**Sign / Website Posting -
Posted:**

APO Letter - Send By: 06/04/2021

APO Letter - Sent:

**PC Approval - Date
Approved:**

PC Outcome Letter - Due: 06/16/2021

PC Outcome - Completed:

**CRA Approval - Meeting
Date:**

CRA Approval - Approved:

CC Packet - Goal Load Date: 06/18/2021

CC Packet - Due Date: 06/22/2021

CC Packet - Completed:

CC Out/Admin Due Date:

CC Out/Admin - Completed:

Stage: Pending PC Approval

Status: Open

Assigned To: Lisa Parnell-Rowe

Property

Parcel #	Address	Legal Description	Owner Name	Owner Phone	Zoning
010013610	3101 W 12TH ST		THEATRE DISTRICT LLC		

Inspections

Date	Inspection Type	Description	Scheduled Date	Completed Date	Inspector	Status
05/26/2021	City Council Meeting		06/28/2021		Lisa Parnell-Rowe	Open
05/26/2021	Planning Commission Meeting		06/15/2021			Open

Uploaded Files

Date	File Name
05/26/2021	8895088-Theatre Recipe for Way Ahead.msg
05/26/2021	8894497-FW_June Hastings PC Meeting.msg
05/25/2021	59109b10c4463fa6d13456f2f8f1e263_theatre_district_pd_amendment_-_site_plan.pdf
05/25/2021	471e133f9870195b8c3e1a66223d5897_theatre_district_pd_amendment_-_landscape_plan.pdf
05/25/2021	701614a4e27c9a32d66860e0feb14d1d_narrative_statement_for_pd_amendment_to_city_of_hastings.docx
05/25/2021	16c14548c9875780321edd2fa169644a_architectural_elevations_phase_1_apartment_building.pdf

Narrative Statement Theatre District Redevelopment Project

Introduction:

Theatre District, LLC (the “Owner”) is the owner of the former Imperial Mall located Southwest of the intersection of Marian Street and 12th Street in Hastings, NE on land currently legally described as:

- PARCELS A, B, AND C, BLOCK 9, IMPERIAL VILLAGE ADDITION TO THE CITY OF HASTINGS, ADAMS COUNTY, NEBRASKA; and
- Lot One (1), Imperial Theatre Subdivision to the City of Hastings, Adams County, Nebraska according to the plat filed November 22, 1988 as Instrument #883615

A. Redevelopment Project. The Theatre District project is intended to be a redevelopment project and the Owner intends to work closely with the Community Redevelopment Authority of the City of Hastings (“CRA”) to implement the redevelopment project. As a preliminary matter, following a public hearing held December 14, 2020, the City of Hastings, acting through its City Council, approved a Resolution which approved and adopted an Amendment to the Redevelopment Plan for Redevelopment Area #13 incorporating the Redevelopment Project into the Redevelopment Plan. The next step is to move forward with a Redevelopment Agreement with the CRA which step is being pursued.

B. Land Use Approvals. In addition to the Redevelopment process outlined above, the Owner needs to obtain certain land use approvals from the City of Hastings.

C. Demolition. As part of the Phase 1 project, Redeveloper has undertaken the demolition of the surplus portion of the former mall structure. Prior to demolition, the mall contained approximately 370,000 square feet contained in two buildings. As of January 2021, approximately 250,000 square feet of the mall structure has been demolished and the demolition debris hauled to the Hastings landfill as required by Hastings municipal code. The Redeveloper has retained and intends to repurpose: i) the former Sunmart building which contains approximately 35,000 square feet; and ii) the former Kmart building which contains approximately 90,000 square feet.

D. Phase 1 Project. Phase 1 of the Redevelopment Project shall include:

1. Public Street: The construction of a new public street identified as Theatre Drive traversing the project site connecting Marian Road to 12th Street to improve the access to the newly-platted lots. The Redeveloper intends to construct this new public street and dedicate it to the City of Hastings pursuant to the Final Plat which will be pursued for the

development

2. Multifamily Development: Redeveloper intends to develop an approximately 75 dwelling unit multifamily housing project targeted for residents at age 55 and over, which qualifies as a “Workforce Housing” project under the Nebraska Community Development Law;
3. Kmart Structure: The developer determined to withdraw the former Kmart structure from Phase One and it will be added to a subsequent Phase. It is located on Lot 1, Block 1, Theatre District Subdivision;
4. Sunmart Structure: The re-use and repurposing of the former SunMart building into a multi-tenant building providing needed neighborhood services. The uses could include retail and office uses. If no user has been identified concurrent to the Phase 1 development, at a minimum, the façade of the former Sunmart structure will be renovated to be consistent with the design theme and intent of the Theatre District. The developer also intends to install the parking lot and landscaping as part of the exterior renovation of the former grocery store. Several users are interested in occupying this space and if the interior renovations can occur concurrently with the exterior façade improvements, the Phase One project would be expanded to include the interior work also; and
5. Office Building: The developer intends to proceed with the development of an approximately 10,080 square foot office building on Lot 8, Block 1, Theatre District Subdivision due to the level of interest in the Theatre District subdivision. No specific user or use has been identified yet but the developer believes that the construction activity planned for the site during Phase One will lead to a permanent user for the office building and intends to proceed with it as part of the initial phase.

The repurposing of the former Kmart and Sunmart buildings may occur as subsequent subphases following the development of the multifamily component of the Phase 1 project although it is intended to complete the exterior renovation of such buildings to set the stage for the development. The creative use of the establishment of “Effective Dates” shall be required to be further defined in the Redevelopment Agreement.

E. Phase 2 Project. The Phase 2 Project of the Theatre District is envisioned to be a second multifamily structure containing another approximately 75 dwelling units, the timing of which will depend on the absorption and stabilization of the occupancy of the building developed in Phase 1. Once the first multifamily building is completed and the occupancy has stabilized, then the Redeveloper shall be in a position to move forward with the second multifamily building also containing approximately 75 dwelling units.

F. Subsequent Phases and Square Footage. Subsequent phases of the

Theatre District Project could include the development of the peripheral pad sites into a Mixed-Use center to provide locations for retail, hospitality and other neighborhood support services. As shown on the Site Plan, such new uses could include:

- A re-use/renovation of the former Kmart building containing approximately 90,000 square feet;
- a re-use/renovation of the former theatre building which contains 14,000 square feet;
- a coffee kiosk containing approximately 700 square feet;
- medical office use containing 10,650 square feet;
- A retail/small grocery use containing 17,800 square feet;
- Two (2) pad sites for restaurant uses each accommodating 8,000 square feet;
- General office use containing 9500 square feet.

These new uses reflected on the Site Plan include approximately 78,730 square feet of retail or office uses as part of the Theatre District. Interested neighbors and city officials have expressed a need in West Hastings for a grocery store or market to be developed as part of the Project. Obviously, such a use will depend on the willingness of an operator to take advantage of such an opportunity. This project would seek to accommodate a smaller type of grocery store or market. A deviation from the minimum square footage of 45,000 is sought to accommodate a grocery store as part of the development. Thus, the total uses and square footage planned as a conceptual development of the Theatre District would include the following components:

1. Multifamily (Residential) Uses: 150 dwelling units total or 164,800 square feet
2. Existing Buildings (former Sunmart and Kmart buildings): 137,000 square feet
3. New Retail- Office uses: 78,730

TOTAL: 380,530 square feet

Thus, the total development including the multifamily, the existing buildings and the new uses would be capped at the total of 380,530 square feet. (the "Development Cap"). The Redeveloper envisions some flexibility on the timing of the implementation of the various phases and components of the Project. For example, the market may prove weak for the development of the second multifamily structure. In that event, the Redeveloper would envision an amendment to the PD Plan to adjust the amount of retail/office uses as long as the maximum square footage does not exceed the Development Cap of 380,530 square feet. Further, if a user is identified which wants to occupy an office building containing 15,000 square feet, one of the new uses can be adjusted and the square footage can be removed from one of the other undeveloped pad sites to accommodate such additional use.

- G. Subdivision:** Redeveloper intends that each use be located on a separately platted lot. The requirements of real estate financing require such a structure so that lender's limit and quantify a given credit transaction. Consequently, the Redeveloper envisions a new preliminary and final plat which will separate each of the uses and buildings onto a separate buildable lot of record. The subdivision will also provide the opportunity for the Redeveloper to dedicate the new public street to the City of Hastings pursuant to the Hastings Subdivision Ordinance.
- H. Lighting.** The Developer shall utilize a parking lots lighting plan which fully complies with Section 34-305(5) of the Hastings Zoning Code as it relates to the mounting height of the light standards. However, if the requirements of the FAA approval of the lighting standard height differs from the requirements of the Hastings Code, then the FAA dictates shall control. The parking lot lighting shall be full cutoff as required by the zoning code for lights mounted above 25 feet or all lights with 450 watts or more.
- I. Dumpsters/Trash Enclosures:** The Theatre District shall locate dumpsters and trash enclosures in screened areas conveniently located for the commercial and residential users of the Theatre District. The conceptual locations of the Trash Enclosures for the Phase One projects are reflected on the Site Plan. As each lot or property is developed, the specific location of the trash enclosures will be detailed on the building plans.
- J. Signage:** Theatre District envisions a large private monument sign for the entire district while the individual users shall comply with the Hastings code requirements for wall and monument signage for the individual businesses and the residential uses. The large district monument sign is reflected on the Site Plan to be located on Outlot "A" adjacent to Lot 3, Block 2, Theatre District Subdivision. The specific location of the signs shall be provided with the individual building plans submitted at the time of building permit applications.
- K. Parking.** As indicated on the Final Plat which will enable the Developer to implement the phased approach to the Planned Development, the Theatre District is anticipated to contain eleven (11) buildable lots of record plus one (1) non-buildable outlot.
- (i) Residential Uses:** The multifamily structures are to be constructed on Lot Two (2), Block One (1), and Lot Three (3), Block One (1), Theatre District Addition. Under Table 308-1 of the Hastings Municipal Zoning Ordinance, the residential uses are required to provide 1.5 parking stalls per dwelling unit. Each multifamily structure shall contain a minimum of 113 parking stalls nor more than 124 parking stalls on each of the lots identified for the multifamily residential use. If the second multifamily building is constructed, then the residential uses shall be required to have 225 parking stalls;
 - (ii) Commercial Uses:** The commercial uses to be developed and repurposed in the Theatre District shall utilize **shared parking** as permitted by Hastings Mun. Code Section 34-308(4). The lots as designated on the final plat which will be developed into commercial uses include those described below which also reflects the minimum number of parking stalls required for that use. All of the commercial

lots shall provide the aggregated number of 834 parking stalls and will be subjected to a **Reciprocal Cross-Parking and Access Easement and Maintenance Agreement**. Some of the individual lots may contain fewer stalls than is required while other lots may contain more parking stalls than are required. However, the aggregate number of stalls complies with the number of stalls required and all of the commercial uses shall be shared parking for all of the commercial users in the district. Thus, as long as the total number of 834 parking stalls are located on the commercial lots identified in the parking table below, the Theatre District shall be in compliance with the Shared Parking requirements of the Hastings Municipal Parking requirements. The provisions of a Reciprocal Cross-Parking and Access Easement and Maintenance Agreement shall be in compliance with the requirements of the Shared Parking provision if they are otherwise contained in a Declaration of Covenants recorded against all of the lots of the Theatre District Subdivision. As mentioned, the Phase One project uses are determined but the future phases are not yet certain. The precise parking requirements shall be determined as the future uses are finalized and the parking requirements shall be determined as part of the building plan review for the future uses.

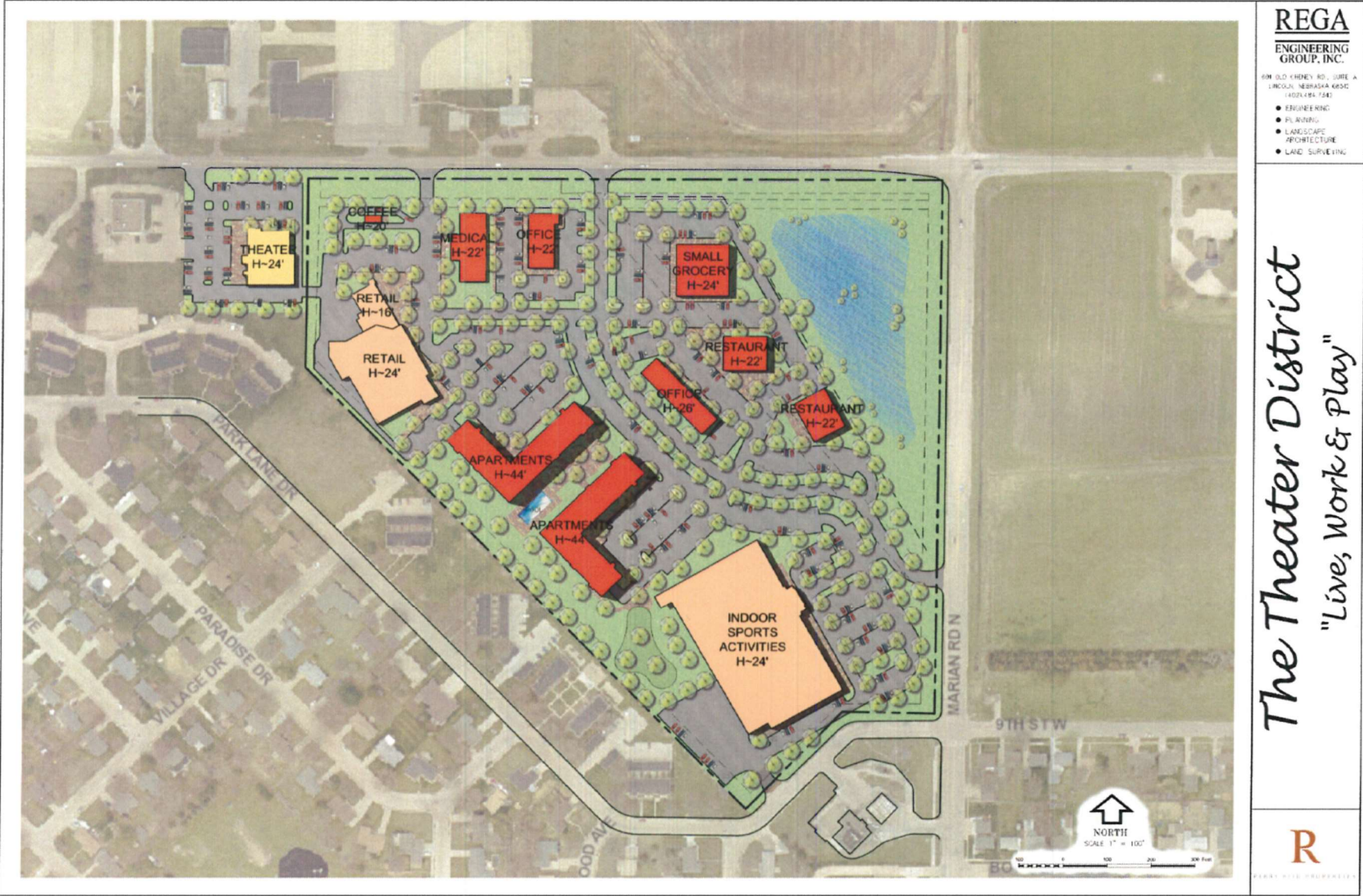
The Parking Table for the project which reflects the required and actual provided number of parking stalls for both the commercial development and the residential uses is set forth below:

LAND USE PARKING TABLE						
ZONING	USE	PARKING RATIO	QUANTITY (DWELLING UNITS)	GROSS FLOOR AREA	REQUIRED PARKING STALLS	PROVIDED PARKING STALLS
'C-3'	COMMERCIAL	1 STALL/300 S.F.	-	250,000	834	847
'C-3'	RESIDENTIAL	1.5 STALLS/UNIT	150	-	225	228
TOTAL					1059	1075

NOTE:

THE ABOVE LAND USE PARKING TABLE SHALL BE USED FOR CALCULATING THE TOTAL BASE PARKING STALL REQUIREMENTS OF THE OVERALL DEVELOPMENT. THE DEVELOPER RESERVES THE RIGHT TO ADJUST INDIVIDUAL PAD SITE SQUARE FOOT AREAS TO ACCOMMODATE ADDITIONAL USES. AMENDMENTS TO THIS PLAN SHALL BE GRANTED WHEN MORE STRICT PARKING REGULATIONS APPLY.

Site Plan of the Proposed Mixed Use Theatre District:







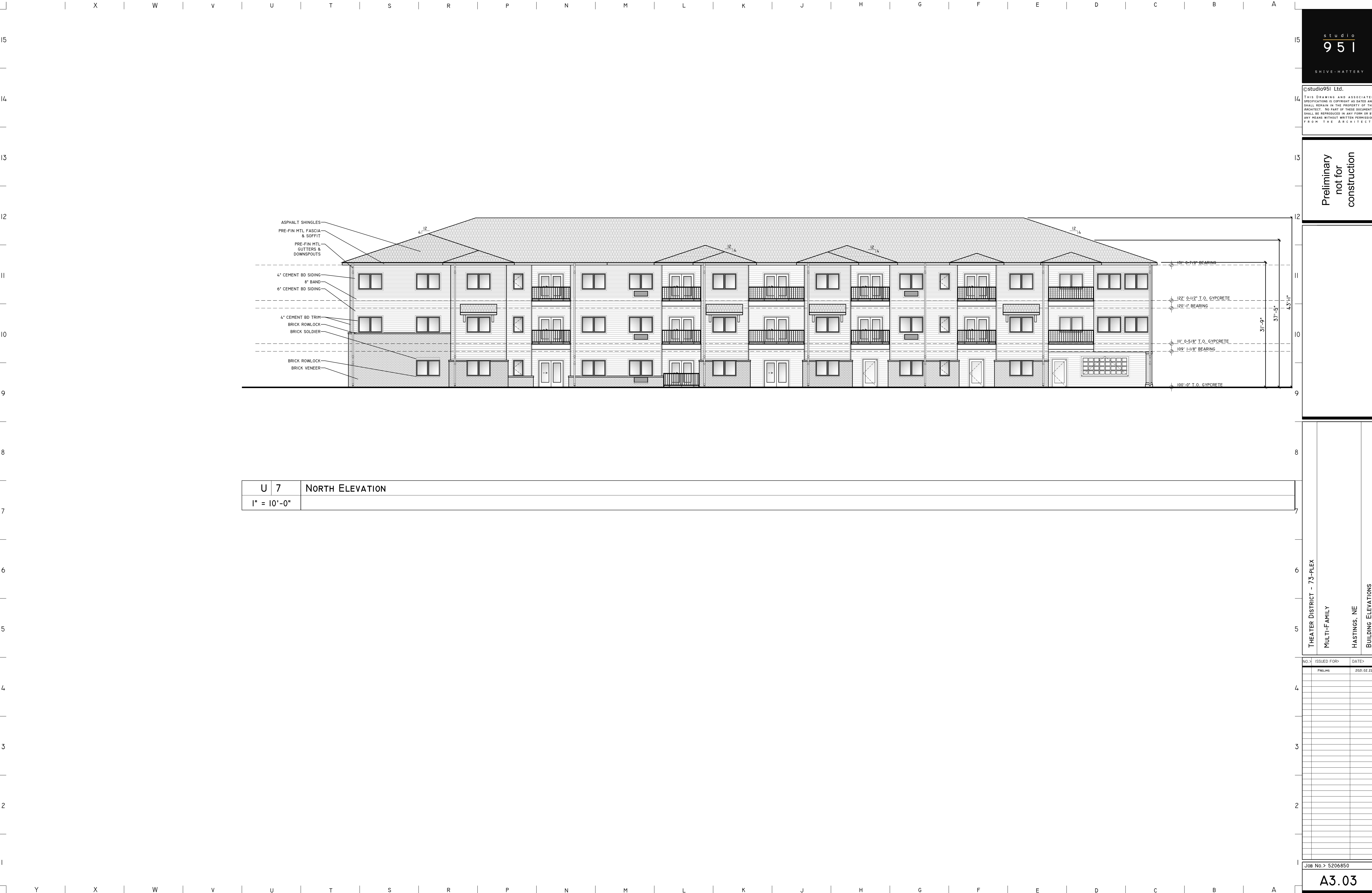
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Preliminary
not for
construction

THEATER DISTRICT - 73-PLEX
MULTI-FAMILY
HASTINGS, NE
BUILDING ELEVATIONS

NO. >	ISSUED FOR>	DATE>
1	PRELIMS	2021.02.22
2		
3		
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Job No.> 5206850



PLANNED DISTRICT DEVELOPMENT PLAN
THEATRE DISTRICT SUBDIVISION



SCALE 1" = 50'

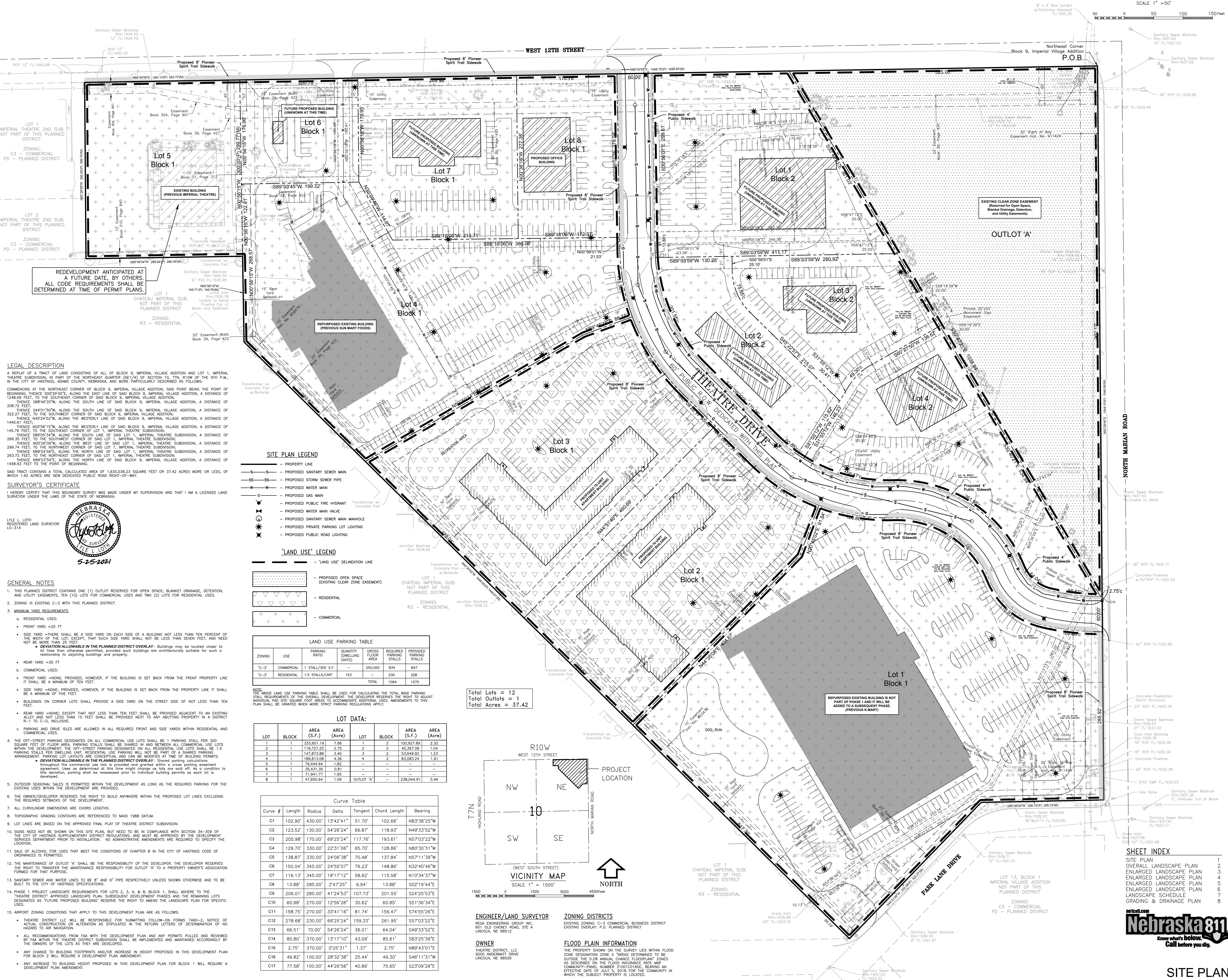
PROJECT
201055

REGA
ENGINEERING
GROUP, INC.

601 OLD CHENEY RD., SUITE A
LINCOLN, NEBRASKA 68512
(402) 484.7342

- ENGINEERING
- PLANNING
- LANDSCAPE ARCHITECTURE
- LAND SURVEYING

ISSUED FOR DATE
DRAFT SUBMIT 05/14/21
PD AMENDMENT 05/25/21
CITY COMMENTS 06/10/21

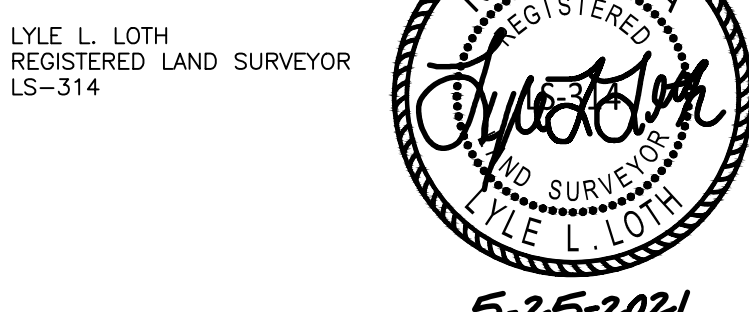


LEGAL DESCRIPTION

A REPLAT OF A TRACT OF LAND CONSISTING OF ALL OF BLOCK 9, IMPERIAL VILLAGE ADDITION AND LOT 1, IMPERIAL THEATRE SUBDIVISION, IN PART OF THE NORTHEAST QUARTER (NE1/4) OF SECTION 10, T7N, R10W OF THE 6TH P.M., IN THE CITY OF HASTINGS, ADAMS COUNTY, NEBRASKA, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT THE NORTHEAST CORNER OF BLOCK 9, IMPERIAL VILLAGE ADDITION, SAID POINT BEING THE POINT OF BEGINNING; THENCE S89°03'59\"/>

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS BOUNDARY SURVEY WAS MADE UNDER MY SUPERVISION AND THAT I AM A LICENSED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NEBRASKA.



GENERAL NOTES

- THIS PLANNED DISTRICT CONTAINS ONE (1) OUTLOT RESERVED FOR OPEN SPACE, BLANKET DRAINAGE, DETENTION, AND UTILITY EASEMENTS, TEN (10) LOTS FOR COMMERCIAL USES AND TWO (2) LOTS FOR RESIDENTIAL USES.
- ZONING IS EXISTING C-3 WITH THIS PLANNED DISTRICT.
- MINIMUM YARD REQUIREMENTS
 - a. RESIDENTIAL USES:
 - FRONT YARD = 25 FT
 - SIDE YARD = THERE SHALL BE A SIDE YARD ON EACH SIDE OF A BUILDING NOT LESS THAN TEN PERCENT OF THE WIDTH OF THE LOT, BUT NOT LESS THAN SIX FEET. SIDE YARD SHALL NOT BE LESS THAN SIX FEET AND NOT MORE THAN 25 FEET.
 - REAR YARD = 30 FT
 - b. COMMERCIAL USES:
 - FRONT YARD = NONE; PROVIDED, HOWEVER, IF THE BUILDING IS SET BACK FROM THE FRONT PROPERTY LINE IT SHALL BE A MINIMUM OF TEN FEET.
 - SIDE YARD = NONE; PROVIDED, HOWEVER, IF THE BUILDING IS SET BACK FROM THE PROPERTY LINE IT SHALL BE A MINIMUM OF TEN FEET.
 - BUILDINGS ON CORNER LOTS SHALL PROVIDE A SIDE YARD ON THE STREET SIDE OF NOT LESS THAN TEN FEET.
 - REAR YARD = NONE; EXCEPT THAT NOT LESS THAN TEN FEET SHALL BE PROVIDED ADJACENT TO AN EXISTING ALLEY AND NOT LESS THAN 15 FEET SHALL BE PROVIDED NEXT TO ANY ADJUTING PROPERTY IN A DISTRICT R-1 TO C-3, INCLUSIVE.
 - c. PARKING AND DRIVE ISLES ARE ALLOWED IN ALL REQUIRED FRONT AND SIDE YARDS WITHIN RESIDENTIAL AND COMMERCIAL USES.
- THE OFF-STREET PARKING DESIGNATED ON ALL COMMERCIAL USE LOTS SHALL BE 1 PARKING SPACE PER 300 SQUARE FEET OF FLOOR AREA. PARKING STALLS SHALL BE SHARED IN AND BETWEEN ALL COMMERCIAL USE LOTS WITHIN THE DEVELOPMENT. THE OFF-STREET PARKING DESIGNATED ON ALL RESIDENTIAL USE LOTS SHALL BE 1.5 PARKING STALLS PER DWELLING UNIT. RESIDENTIAL USE PARKING WILL NOT BE PART OF A SHARED PARKING ARRANGEMENT. PARKING LAYOUTS ARE CONCEPTUAL AND CAN BE MODIFIED AT TIME OF BUILDING PERMITS.
 - DEVIATION ALLOWABLE IN THE PLANNED DISTRICT OVERLAY: Shared parking calculations throughout the development are conceptual and can be modified at time of building permit. Uses as determined at this time might change as lots are sold off. As a condition to this deviation, parking shall be reassessed prior to individual building permits as each lot is developed.
- OUTDOOR SEASONAL SALES IS PERMITTED WITHIN THE DEVELOPMENT AS LONG AS THE REQUIRED PARKING FOR THE EXISTING USES WITHIN THE DEVELOPMENT ARE PROVIDED.
- THE OWNER/DEVELOPER RESERVES THE RIGHT TO BUILD ANYWHERE WITHIN THE PROPOSED LOT LINES EXCLUDING THE REQUIRED SETBACKS OF THE DEVELOPMENT.
- ALL CURVILINEAR DIMENSIONS ARE CHORD LENGTHS.
- TOPOGRAPHIC GRADING CONTOURS ARE REFERENCED TO NAVD 1988 DATUM.
- LOT LINES ARE BASED ON THE APPROVED FINAL PLAT OF THEATRE DISTRICT SUBDIVISION.
- SIGNS NEED NOT BE SHOWN ON THIS SITE PLAN, BUT NEED TO BE IN COMPLIANCE WITH SECTION 34-309 OF THE CITY OF HASTINGS SUPPLEMENTARY DISTRICT REGULATIONS, AND MUST BE APPROVED BY THE DEVELOPMENT SERVICES DEPARTMENT PRIOR TO INSTALLATION. NO ADMINISTRATIVE AMENDMENTS ARE REQUIRED TO SPECIFY THE LOCATION.
- SALE OF ALCOHOL FOR USES THAT MEET THE CONDITIONS OF CHAPTER 8 IN THE CITY OF HASTINGS CODE OF ORDINANCES IS PERMITTED.
- THE MAINTENANCE OF OUTLOT 'A' SHALL BE THE RESPONSIBILITY OF THE DEVELOPER. THE DEVELOPER RESERVES THE RIGHT TO TRANSFER THE MAINTENANCE RESPONSIBILITY FOR OUTLOT 'A' TO A PROPERTY OWNER'S ASSOCIATION FORMED FOR THAT PURPOSE.
- SANITARY SEWER AND WATER LINES TO BE 8" AND 6" PIPE RESPECTIVELY UNLESS SHOWN OTHERWISE AND TO BE BUILT TO THE CITY OF HASTINGS SPECIFICATIONS.
- PHASE 1 PROJECT LANDSCAPE REQUIREMENTS FOR LOTS 2, 3, 4, & 8, BLOCK 1, SHALL ADHERE TO THE "THEATRE DISTRICT" APPROVED LANDSCAPE PLAN. SUBSEQUENT DEVELOPMENT PHASES AND THE REMAINING LOTS DESIGNATED AS "FUTURE PROPOSED BUILDING" RESERVE THE RIGHT TO AMEND THE LANDSCAPE PLAN FOR SPECIFIC USES.
- AIRPORT ZONING CONDITIONS THAT APPLY TO THIS DEVELOPMENT PLAN ARE AS FOLLOWS:
 - THEATRE DISTRICT LLC WILL BE RESPONSIBLE FOR SUBMITTING FOLLOW-ON FORMS 7460-2, NOTICE OF ACTUAL CONSTRUCTION OR ALTERATION AS STIPULATED IN THE RETURN LETTERS OF DETERMINATION OF NO HAZARD TO AIR NAVIGATION.
 - ALL RECOMMENDATIONS FROM FAN WITH THE DEVELOPMENT PLAN AND ANY PERMITS PULLED AND REVIEWED BY FAN WITHIN THE THEATRE DISTRICT SUBDIVISION SHALL BE IMPLEMENTED AND MAINTAINED ACCORDINGLY BY THE OWNERS OF THE LOTS AS THEY ARE DEVELOPED.
 - ANY CHANGE TO BUILDING FOOTPRINTS AND/OR INCREASE IN HEIGHT PROPOSED IN THIS DEVELOPMENT PLAN FOR BLOCK 2 WILL REQUIRE A DEVELOPMENT PLAN AMENDMENT.
 - ANY INCREASE TO BUILDING HEIGHT PROPOSED IN THIS DEVELOPMENT PLAN FOR BLOCK 1 WILL REQUIRE A DEVELOPMENT PLAN AMENDMENT.

SITE PLAN LEGEND

- PROPERTY LINE
- - - - - PROPOSED SANITARY SEWER MAIN
- - - - - PROPOSED STORM SEWER PIPE
- - - - - PROPOSED WATER MAIN
- - - - - PROPOSED GAS MAIN
- - - - - PROPOSED PUBLIC FIRE HYDRANT
- - - - - PROPOSED WATER MAIN VALVE
- - - - - PROPOSED SANITARY SEWER MAIN MANHOLE
- - - - - PROPOSED PRIVATE PARKING LOT LIGHTING
- - - - - PROPOSED PUBLIC ROAD LIGHTING

'LAND USE' LEGEND

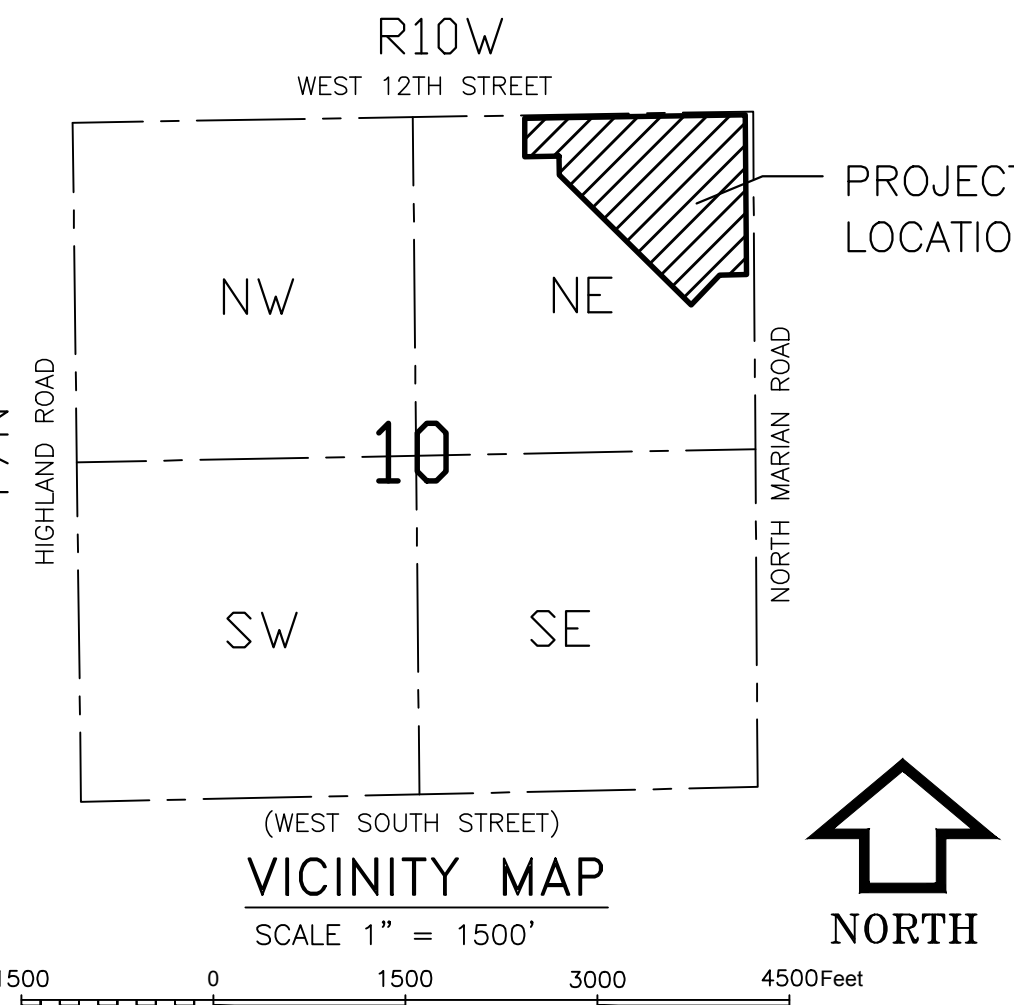
- - - - - 'LAND USE' DELINEATION LINE
- - - - - PROPOSED OPEN SPACE (EXISTING CLEAR ZONE EASEMENT)
- - - - - RESIDENTIAL
- - - - - COMMERCIAL

LAND USE PARKING TABLE					
ZONING	USE	PARKING RATIO	QUANTITY (DWELLING UNITS)	REQUIRED PARKING STALLS	PROVIDED PARKING STALLS
C-3	COMMERCIAL	1 STALL/300 S.F.	250,000	834	847
C-3	RESIDENTIAL	1.5 STALLS/UNIT	153	230	228
TOTAL				1064	1075

NOTE: THE ABOVE LAND USE PARKING TABLE SHALL BE USED FOR CALCULATING THE TOTAL BASE PARKING STALL REQUIREMENTS OF THE OVERALL DEVELOPMENT. THE DEVELOPER RESERVES THE RIGHT TO ADJUST INDIVIDUAL PLOT SITE SQUARE FOOT AREA TO ACCOMMODATE ADDITIONAL USES. AMENDMENTS TO THIS PLAN SHALL BE GRANTED WHEN MORE STRICT PARKING REGULATIONS APPLY.

LOT DATA:							
LOT	BLOCK	AREA (S.F.)	AREA (Acre)	LOT	BLOCK	AREA (S.F.)	AREA (Acre)
1	1	335,501.19	7.66	1	2	100,927.89	2.32
2	1	119,727.25	2.75	2	2	45,397.08	1.04
3	1	147,873.88	3.40	3	2	53,649.92	1.23
4	1	189,813.08	4.36	4	2	83,083.24	1.91
5	1	79,444.64	1.82	—	—	—	—
6	1	35,431.39	0.81	—	—	—	—
7	1	71,941.77	1.65	—	—	—	—
8	1	47,650.64	1.09	OUTLOT 'A'	—	238,044.91	5.46

Curve Table						
Curve #	Length	Radius	Delta	Tangent	Chord Length	Bearing
C1	102.90'	430.00'	13°42'41"	51.70'	102.66'	N83°38'25"W
C2	123.52'	130.00'	54°26'24"	66.87'	118.93'	N49°33'52"W
C3	205.98'	170.00'	69°25'24"	117.76'	193.61'	N57°03'22"W
C4	129.70'	330.00'	22°31'06"	65.70'	128.86'	N80°30'31"W
C5	138.87'	330.00'	24°06'38"	70.48'	137.84'	N57°11'39"W
C6	150.04'	345.00'	24°55'07"	76.23'	148.86'	N32°40'46"W
C7	116.13'	345.00'	19°17'12"	58.62'	115.58'	N10°34'37"W
C8	13.88'	285.00'	2°47'25"	6.94'	13.88'	S02°19'44"E
C9	206.01'	285.00'	41°24'53"	107.73'	201.55'	S24°25'53"E
C10	60.98'	270.00'	12°56'28"	30.62'	60.85'	S51°36'34"E
C11	158.75'	270.00'	33°41'16"	81.74'	156.47'	S74°55'26"E
C12	278.68'	230.00'	69°25'24"	159.33'	261.95'	S57°03'22"E
C13	66.51'	70.00'	54°26'24"	36.01'	64.04'	S49°33'52"E
C14	85.80'	370.00'	13°17'10"	43.09'	85.61'	S83°25'39"E
C15	2.75'	370.00'	0°25'31"	1.37'	2.75'	N89°43'01"E
C16	49.82'	100.00'	28°32'38"	25.44'	49.30'	S46°11'31"W
C17	77.58'	100.00'	44°26'56"	40.86'	75.65'	S23°09'29"E



ENGINEER/LAND SURVEYOR
REGA ENGINEERING GROUP, INC.
601 OLD CHENEY ROAD, STE A
LINCOLN, NE 68512

OWNER
THEATRE DISTRICT, LLC
2200 ANDERSON DRIVE
LINCOLN, NE 68526

ZONING DISTRICTS
EXISTING ZONING: C-3 COMMERCIAL, BUSINESS DISTRICT
EXISTING OVERLAY: P.D. PLANNED DISTRICT

FLOOD PLAIN INFORMATION
THEATRE DISTRICT LLC HAS BEEN DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ZONES AND DISCLOSED ON THE FLOOD INSURANCE RATE MAP. COMMUNITY-PANEL NUMBER 3100101600; BEARING AN EFFECTIVE DATE OF JULY 5, 2018 FOR THE COMMUNITY IN WHICH THE SUBJECT PROPERTY IS LOCATED.

SHEET INDEX

- 1 SITE PLAN
- 2 OVERALL LANDSCAPE PLAN
- 3 ENLARGED LANDSCAPE PLAN
- 4 ENLARGED LANDSCAPE PLAN
- 5 ENLARGED LANDSCAPE PLAN
- 6 ENLARGED LANDSCAPE PLAN
- 7 LANDSCAPE SCHEDULE
- 8 GRADING & DRAINAGE PLAN

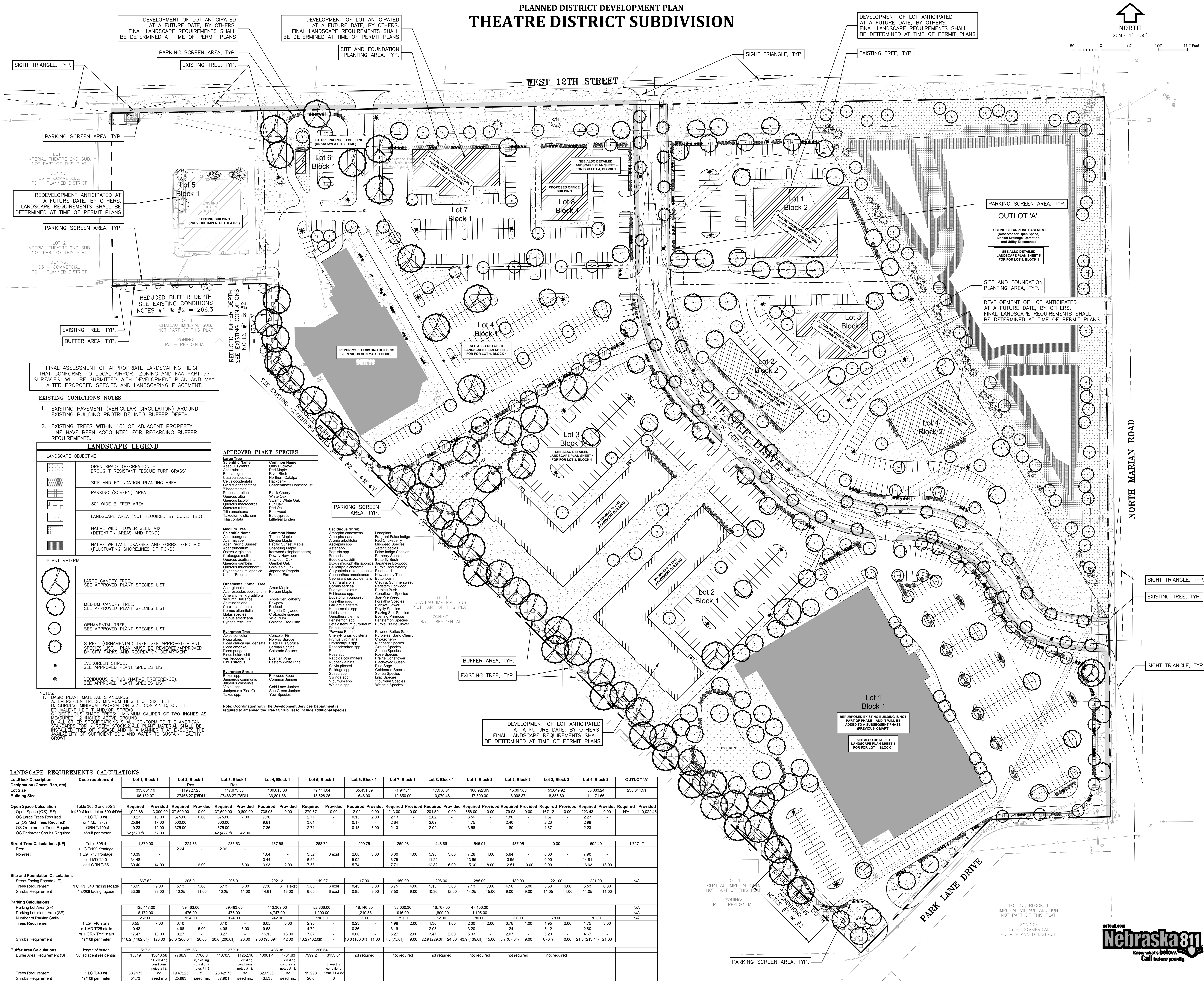


SITE PLAN

THEATRE DISTRICT SUBDIVISION
PLANNED DISTRICT DEVELOPMENT PLAN
W. 12TH ST. & N. MARIAN RD.
HASTINGS, NEBRASKA

SHEET NO.
1 of 8

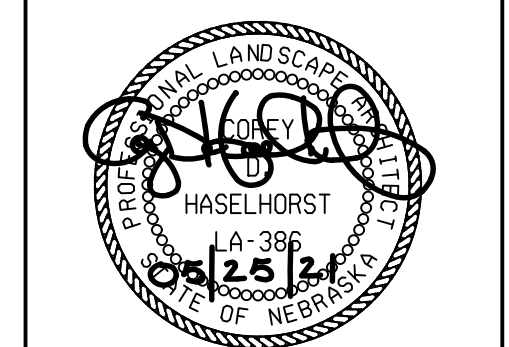
PLANNED DISTRICT DEVELOPMENT PLAN
THEATRE DISTRICT SUBDIVISION



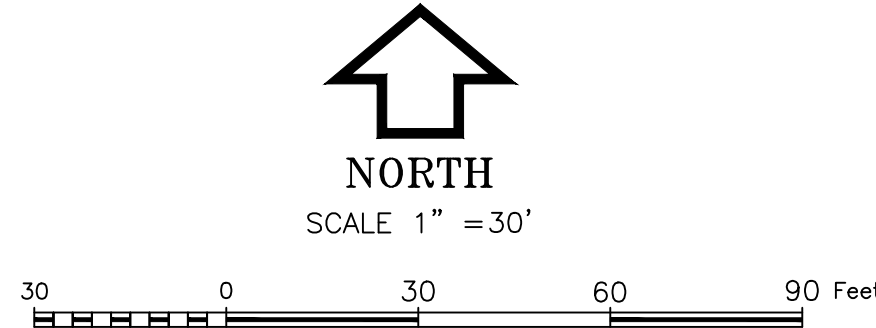
PROJECT
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(402) 484-7342
• ENGINEERING
• PLANNING
• LANDSCAPE
ARCHITECTURE
• LAND SURVEYING

ISSUED FOR DATE
DRAFT SUBMIT 05/14/21
PD AMENDMENT 05/25/21
CITY COMMENTS 06/10/21

THEATRE DISTRICT SUBDIVISION
PLANNED DISTRICT DEVELOPMENT PLAN
W. 12TH ST. & N. MARIAN RD.
HASTINGS, NEBRASKA



PLANNED DISTRICT DEVELOPMENT PLAN
THEATRE DISTRICT SUBDIVISION

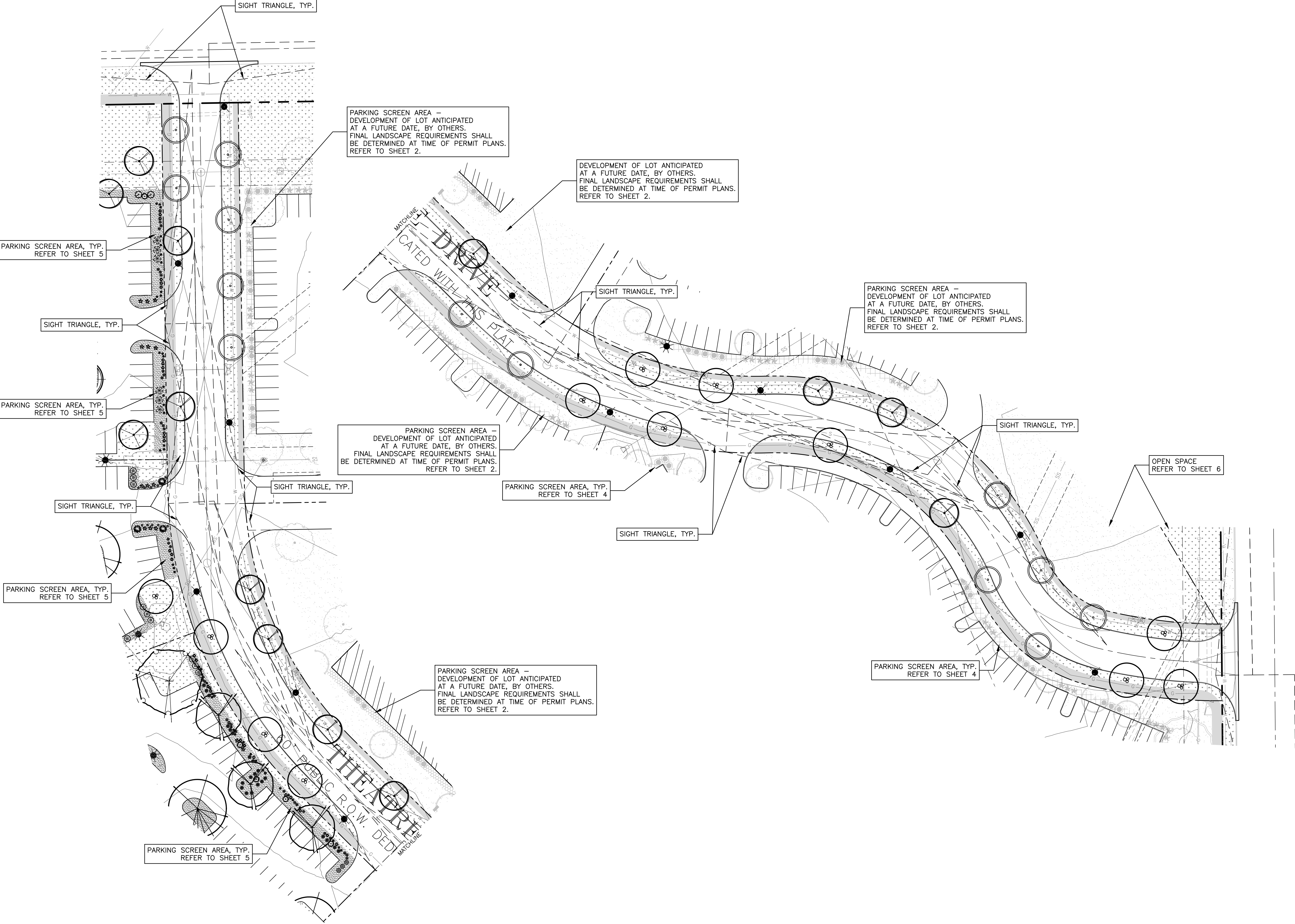


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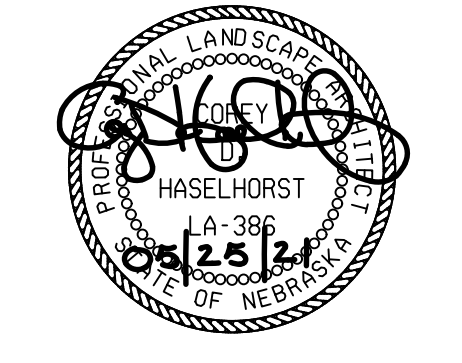
ISSUED FOR	DATE
DRAFT SUBMIT	05/14/21
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CITY COMMENTS	06/10/21

LANDSCAPE LEGEND	
	TREES — LARGE SHADEMASTER HONEYLOCUST KENTUCKY COFFEETREE RED MAPLE
	TREES — MEDIUM FRONTIER ELM EASTERN HOP HORNBEAM DOWNY HAWTHORN
	TREES — ORNAMENTAL PRAIRIE FIRE CRABAPPLE APPLE SERVICEBERRY PAGODA DOGWOOD EASTERN REDBUD
	SHRUBS — EVERGREEN SEA GREEN JUNIPER BIRDSNEST SPRUCE GOLD TIP JUNIPER JAPANESE BOXWOOD
	SHRUBS — DECIDUOUS JAPANESE BARBERRY NANHO PURPLE BUTTERFLY BUSH MAGIC CARPET SPIREA REDOSIER DOGWOOD TIGER EYES SUMAC NINEBARK 'TINY WINE' SUMMERSWEET, CLETHRA
	ORNAMENTAL GRASSES FEATHER REED GRASS 'KARL FOERSTER' INDIAN GRASS
	GROUNDCOVERS / PERENNIALS BLACK-EYED SUSAN CORAL BELLS PURPLE CONEFLOWER PENSTEMON 'HUSKER RED' TURF AREA PLANTING AREA — MULCH NATIVE WILD FLOWER SEED MIX NATIVE WETLAND GRASSES AND FORBS SEED MIX

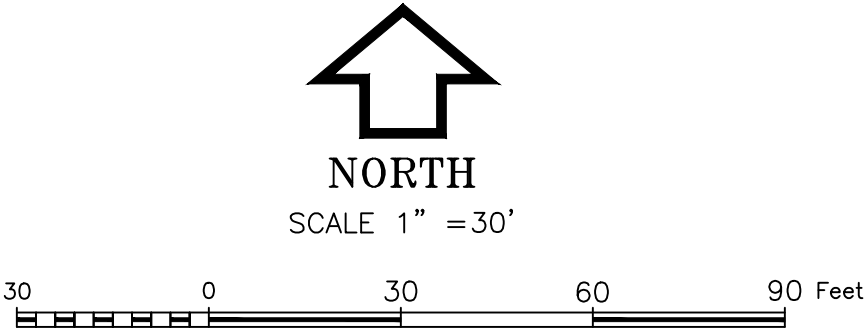
NOTE: REFER TO SHEET 7 FOR FULL PLANTING SCHEDULE.



THEATRE DISTRICT SUBDIVISION
PLANNED DISTRICT DEVELOPMENT PLAN
W. 12TH ST. & N. MARIAN RD.
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PLANNED DISTRICT DEVELOPMENT PLAN
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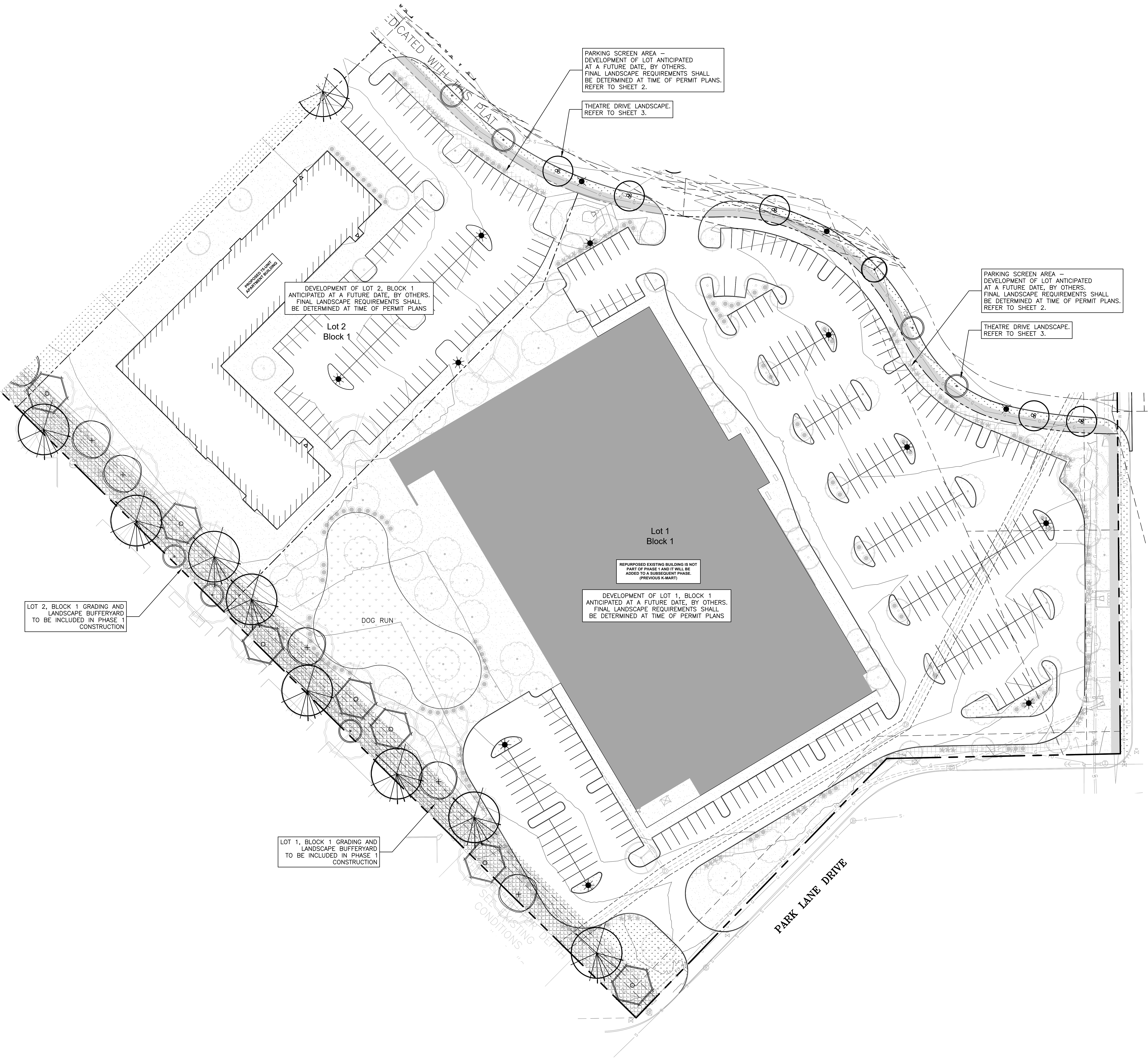
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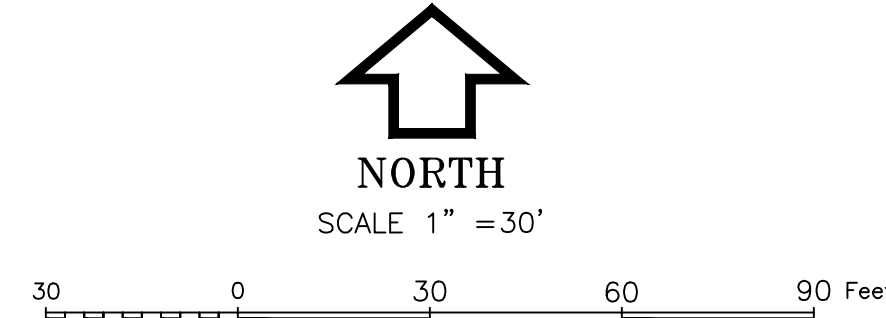
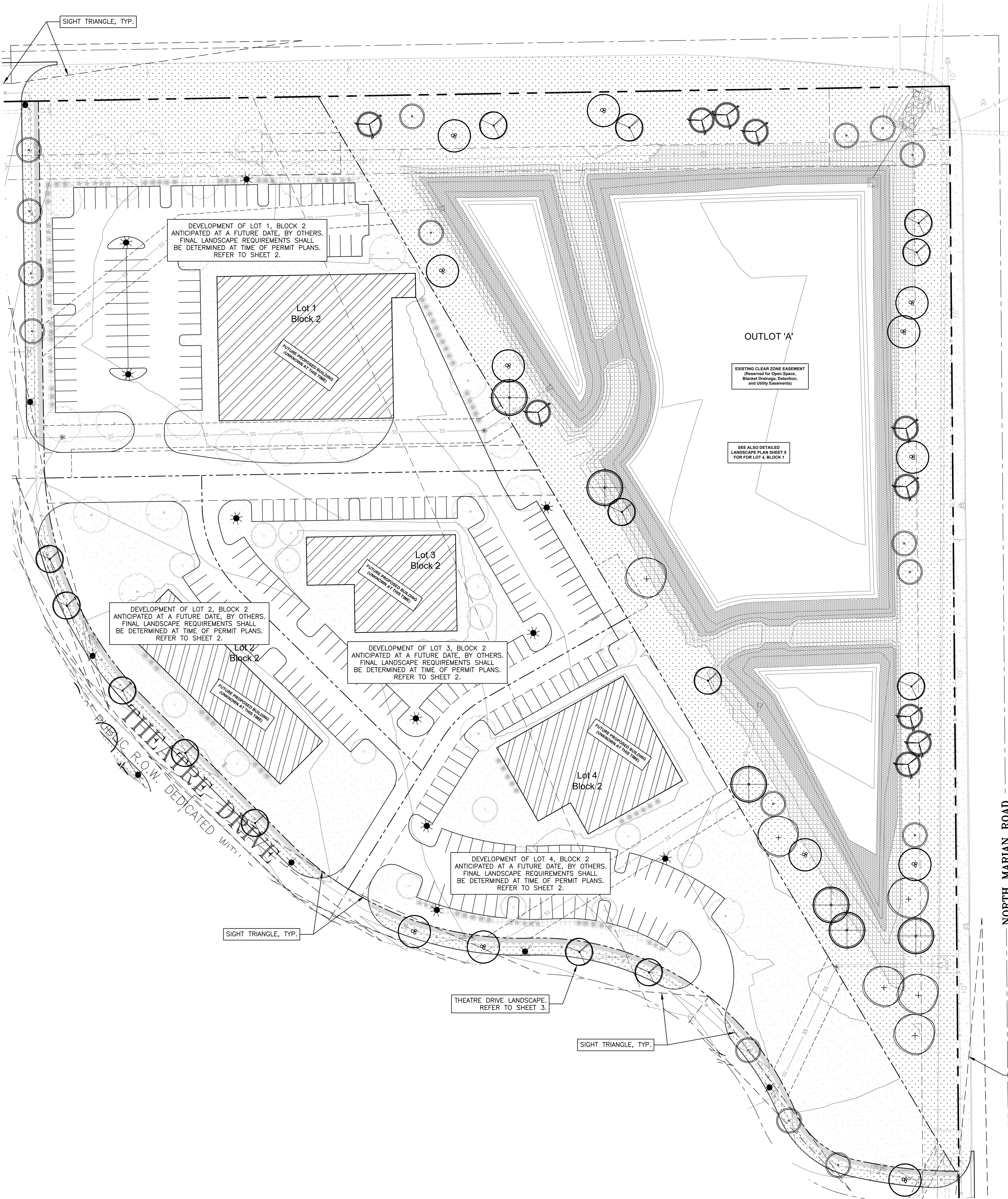
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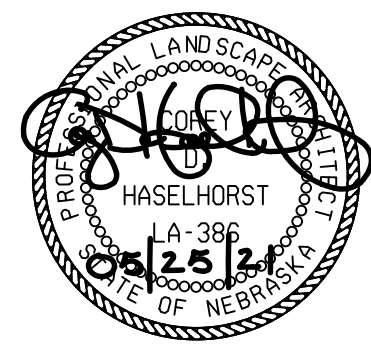
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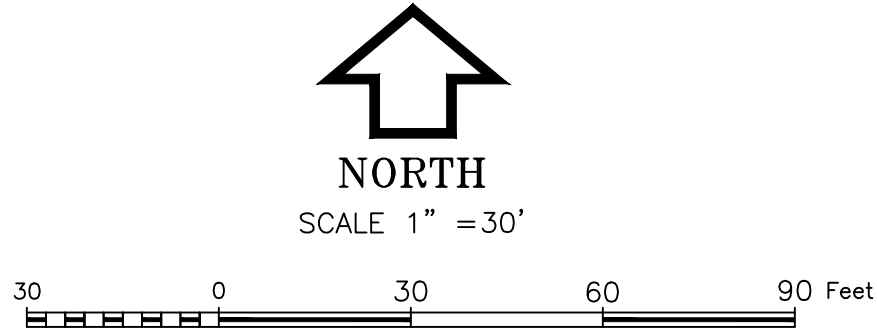
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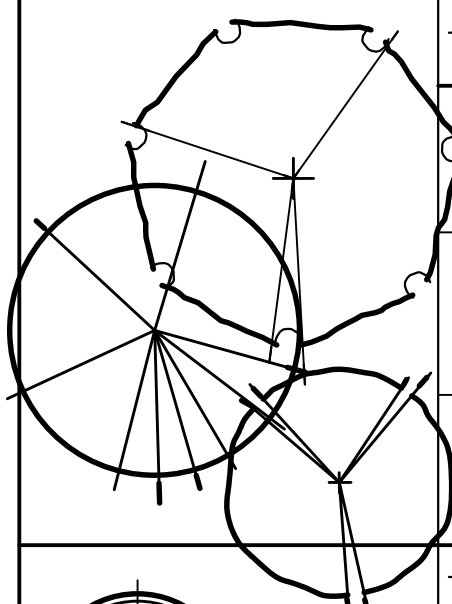
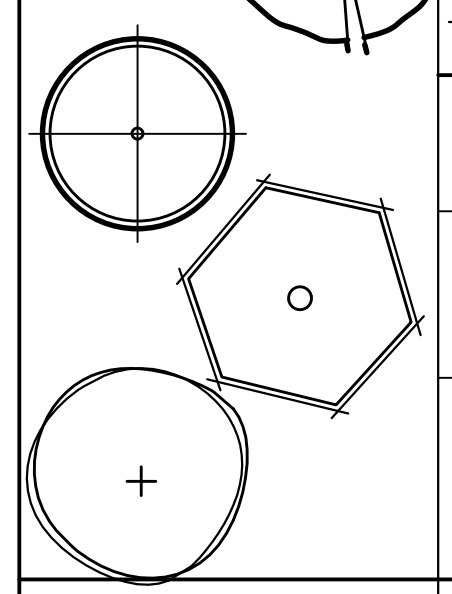
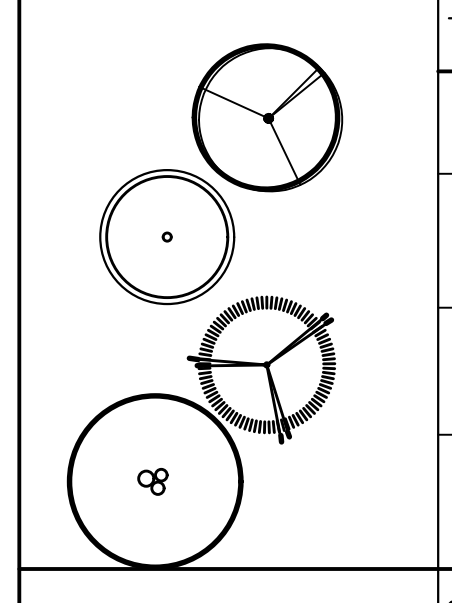
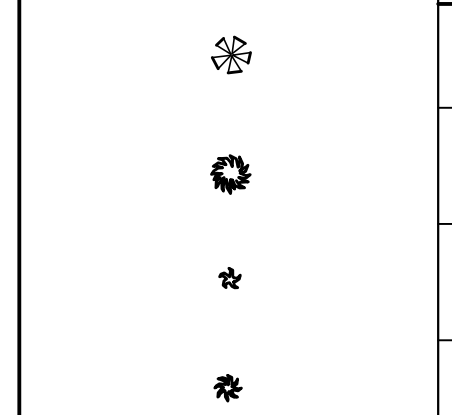
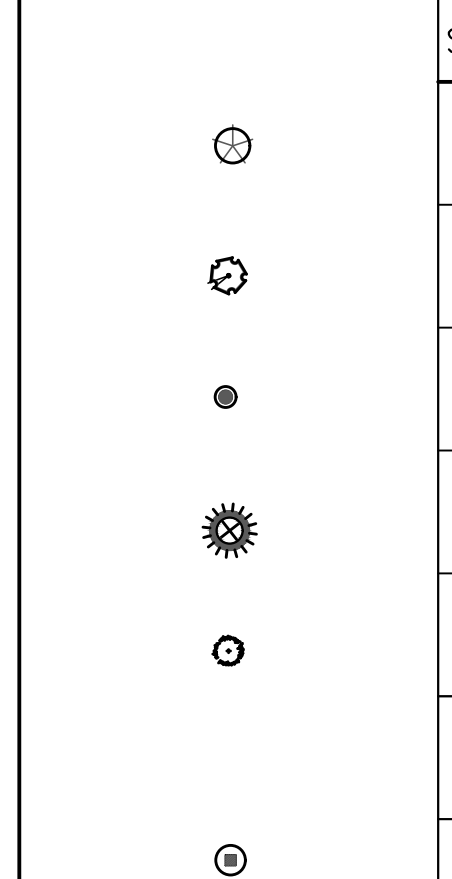
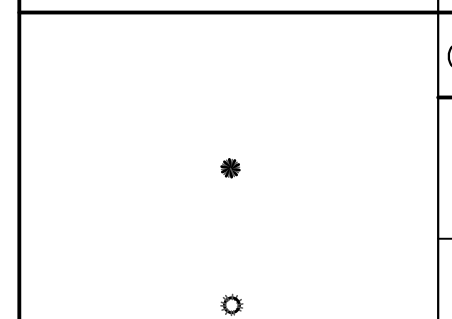
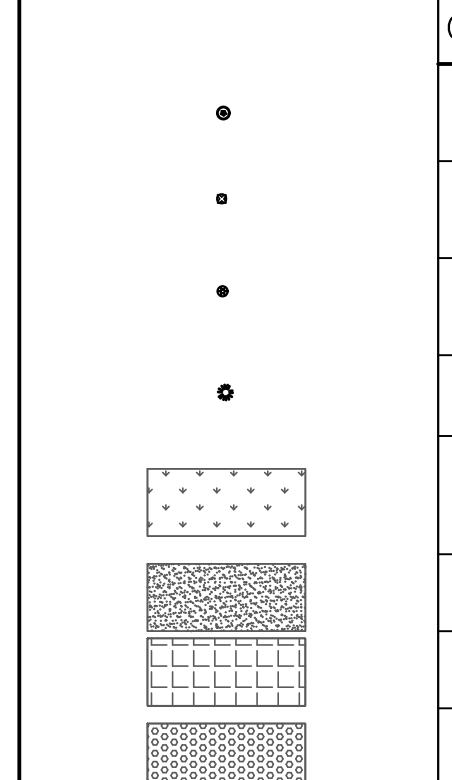
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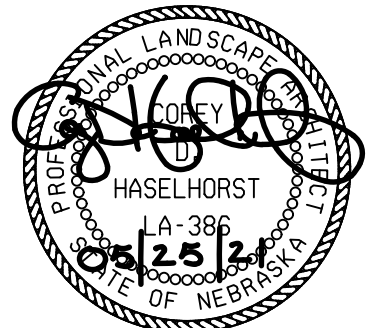
DATE
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LANDSCAPE SCHEDULE																			
	COMMON NAME	SCIENTIFIC NAME	HEIGHT	WIDTH	METHOD	SIZE	QUANTITY PER LOT, BLOCK (L ₁ ,B ₁)*												
							THEATRE DRIVE	L1,B1	L2,B1	L3,B1	L4,B1	L5,B1	L6,B1	L7,B1	L8,B1	L1,B2	L2,B2	L3,B2	L4,B2
	TREES – LARGE																		
	SHADEMASTER HONEYLOCUST	GLEDITSIA TRIACANTHOS	60'–80'	60'–80'	B&B	2" CAL.	X	X	X	X	X	X	X	X	X	X	X	X	X
	KENTUCKY COFFEETREE	GYMNOCLADUS DIOICUS	60'–75'	40'–50'	B&B	2" CAL.	X	X	X	X	X	X	X	X	X	X	X	X	X
	RED MAPLE	ACER RUBRUM	40'–70'	30'–50'	B&B	2" CAL.	X	X	X	X	X	X	X	X	X	X	X	X	X
	TREES – MEDIUM																		
	FRONTIER ELM	ULMUS 'FRONTIER'	30'	20'	B&B	2" CAL.	X	X	X	X	X	X	X	X	X	X	X	X	X
	EASTERN HOP HORNBEAM	OSTRYA VIRGINIANA	25'–40'	20'–30'	B&B	2" CAL.	X	X	X	X	X	X	X	X	X	X	X	X	X
	DOWNY HAWTHORN	CRATAEGUS MOLLIS	20'–30'	25'–40'	B&B	2" CAL.	X	X	X	X	X	X	X	X	X	X	X	X	X
	TREES – ORNAMENTAL																		
	PRAIRIE FIRE CRABAPPLE	MALUS x 'PRAIRIE FIRE'	25'	22'	B&B	2" CAL.	X	X	X	X	X	X	X	X	X	X	X	X	X
	APPLE SERVICEBERRY	ALEMANCHIER x GRANDIFLORA 'AUTUMN BRILLIANCE'	15'–25'	15'–25'	B&B	2" CAL.	X	X	X	X	X	X	X	X	X	X	X	X	X
	PAGODA DOGWOOD	CORNUS ALTERNIFOLIA	15'–25'	15'–25'	B&B	2" CAL.	X	X	X	X	X	X	X	X	X	X	X	X	X
	EASTERN REDBUD	CERCIS CANADENSIS	20'–30'	25'–35'	B&B	2" CAL.	X	X	X	X	X	X	X	X	X	X	X	X	X
	SHRUBS – EVERGREEN																		
	SEA GREEN JUNIPER	JUNIPERUS X PFITZERIANA 'SEA GREEN'	4'–6'	5'–8'	GALLON	#5	X	X	X	X	X	X	X	X	X	X	X	X	X
	BIRDSNEST SPRUCE	PICEA ABIES 'NIDIFORMIS'	2'–3'	4'–6'	GALLON	#5	X	X	X	X	X	X	X	X	X	X	X	X	X
	GOLD TIP JUNIPER	JUNIPERUS X PHITZERIANA 'AUREA IMPROVED'	3'	4'	GALLON	#5	X	X	X	X	X	X	X	X	X	X	X	X	X
	JAPANESE BOXWOOD	BUXUS MICROPHYLLA 'JAPONICA'	4'–6'	4'–6'	GALLON	#5	X	X	X	X	X	X	X	X	X	X	X	X	X
	SHRUBS – DECIDUOUS																		
	JAPANESE BARBERRY	BERBERIS THUNBERGII	3'–6'	4'–7'	GALLON	#2	X	X	X	X	X	X	X	X	X	X	X	X	X
	NANHO PURPLE BUTTERFLY BUSH	BUDDLEIA DAVIDII 'NANHO PURPLE'	3'–5'	3'–5'	GALLON	#2	X	X	X	X	X	X	X	X	X	X	X	X	X
	MAGIC CARPET SPIREA	SPIRAEA JAPONICA 'WALBUMA' MAJIC CARPET	1'–2'	2'–3'	GALLON	#2	X	X	X	X	X	X	X	X	X	X	X	X	X
	REDOSIER DOGWOOD	CORNUS SERICEA 'CARDINAL'	8'–10'	10'	GALLON	#2	X	X	X	X	X	X	X	X	X	X	X	X	X
	TIGER EYES SUMAC	RHUS TYPHINA 'BAILTIGER' TIGER EYES	3'–6'	3'–6'	GALLON	#2	X	X	X	X	X	X	X	X	X	X	X	X	X
	NINEBARK 'TINY WINE'	BERBERIS THUNGERGII 'ROSE GLOW'	4'–5'	4'–5'	GALLON	#2	X	X	X	X	X	X	X	X	X	X	X	X	X
	SUMMERSWEET, CLETHRA	CLETHRA ALNIFOLIA	3'–8'	4'–6'	GALLON	#2	X	X	X	X	X	X	X	X	X	X	X	X	X
	ORNAMENTAL GRASSES																		
	FEATHER REED GRASS 'KARL FOERSTER'	CALAMAGROSTIS ACUTIFLORA 'KARL FOERSTER'	4'	2'	GALLON	#2	X	X	X	X	X	X	X	X	X	X	X	X	X
	INDIAN GRASS	SORGHASTRUM NUTANS	3'–5'	2'	GALLON	#2	X	X	X	X	X	X	X	X	X	X	X	X	X
	GROUNDCOVERS / PERENNIALS																		
	BLACK-EYED SUSAN	RUDBECKIA HIRTA 'INDIAN SUMMER'	2'–5'	1.5'–2'	GALLON	#1	X	X	X	X	X	X	X	X	X	X	X	X	X
	CORAL BELLS	HEUCHERA 'SHANGHAI'	2'–5'	1.5'–2'	GALLON	#1	X	X	X	X	X	X	X	X	X	X	X	X	X
	PURPLE CONEFLOWER	ECHINACEA PURPUREA	2'–5'	1.5'–2'	GALLON	#1	X	X	X	X	X	X	X	X	X	X	X	X	X
	PENSTEMON 'HUSKER RED'	PENSTEMON SP. 'HUSKER RED'	2'–3'	1.5'–2'	GALLON	#1	X	X	X	X	X	X	X	X	X	X	X	X	X
	RHIZOMATOUS TALL FESCUE (RTF) SEED (MILLER SEED, PREFERRED TURF MIX) OR APPROVED EQUAL						~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf
	PLANTING AREA – HARDWOOD / ROCK MULCH						~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf
	NATIVE WILD FLOWER SEED MIX						~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf
	NATIVE WETLAND GRASSES AND FORBS SEED MIX						~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf	~xxxxsf

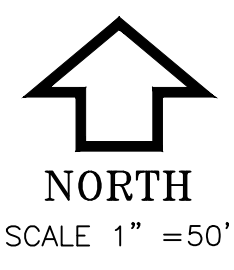
* PHASE 1 CONSTRUCTION INCLUDES THEATRE DRIVE, LOTS 1, 3, 4 AND 8 OF BLOCK 1, OUTLOT 'A' AND PERIMETER GRADING AND BUFFER LANDSCAPE FOR BLOCKS 1 AND 2.

NOTES:
1. BASIC PLANT MATERIAL STANDARDS:
a. EVERGREEN TREES: MINIMUM HEIGHT OF SIX FEET.
b. SHRUBS: MINIMUM TWO-GALLON SIZE CONTAINER, OR THE EQUIVALENT HEIGHT AND/OR SPREAD.
c. GROUND COVER SHRUBS: MINIMUM SPACING UPON INSTALLATION OF 18 INCHES ON CENTER.
d. DECIDUOUS SHADE TREES: MINIMUM CALIPER OF TWO INCHES AS MEASURED SIX INCHES ABOVE GROUND.
e. ALL OTHER SPECIFICATIONS SHALL CONFORM TO THE AMERICAN STANDARDS FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN FOR THAT TYPE OF TREE OR SHRUB AT THE TIME OF INSTALLATION.
2. ALL PLANT MATERIAL SHALL BE INSTALLED FREE OF DISEASE AND IN A MANNER THAT ENSURES THE AVAILABILITY OF SUFFICIENT SOIL AND WATER TO SUSTAIN HEALTHY GROWTH.
3. ALL PLANT MATERIAL SHALL BE PLANTED WITH A MINIMUM OF SIX INCHES OF ORGANIC SOIL AND MULCHED TO A DEPTH OF THREE INCHES.

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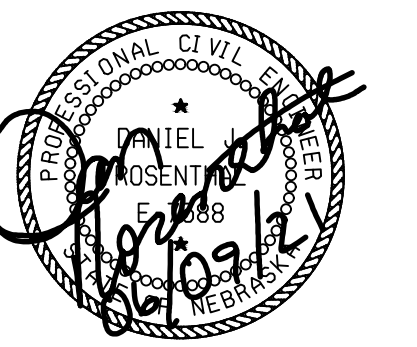
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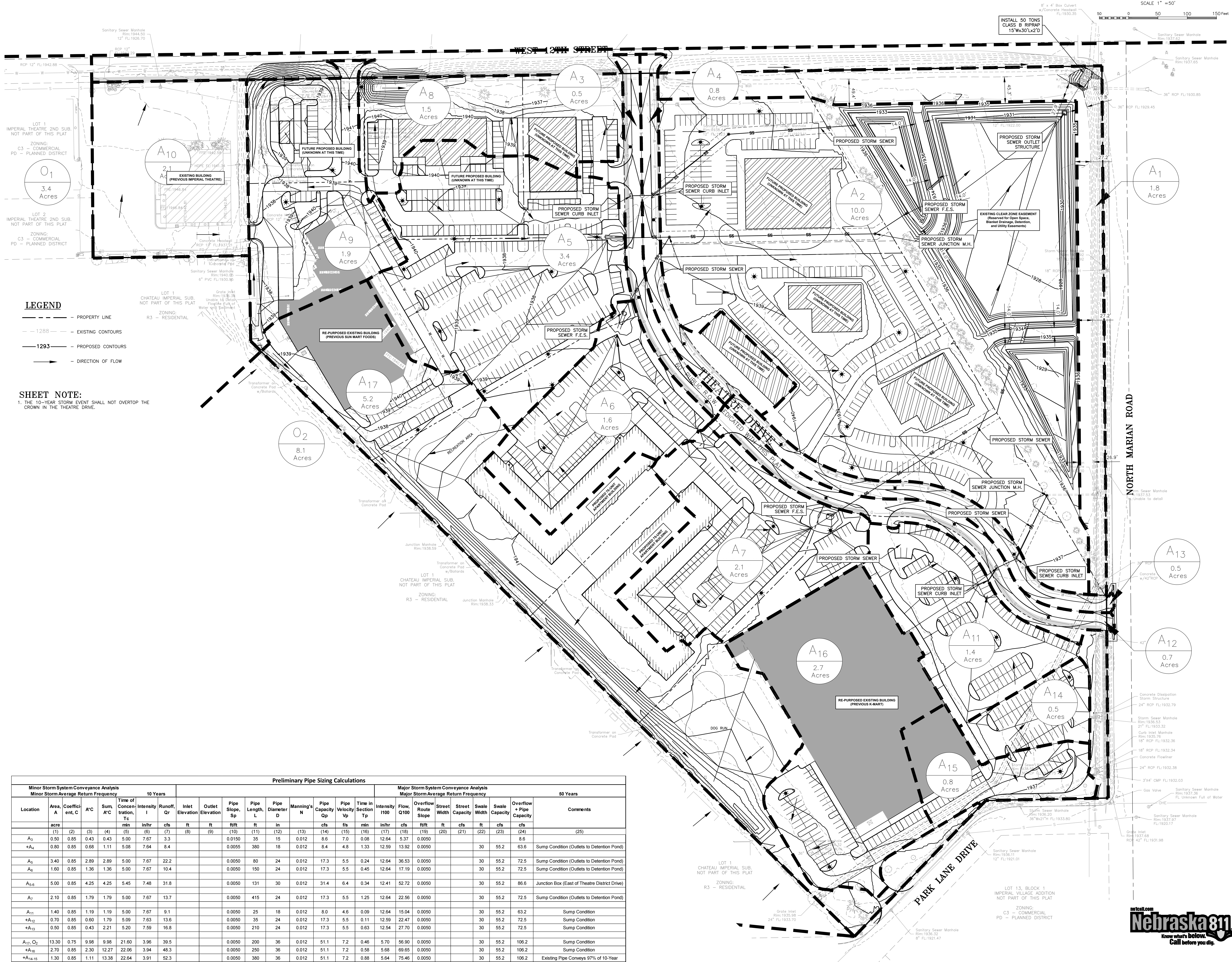
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SHEET NO.
8 of 8



LEGEND
--- PROPERTY LINE
--- 1288 --- EXISTING CONTOURS
--- 1293 --- PROPOSED CONTOURS
--- DIRECTION OF FLOW

SHEET NOTE:
1. THE 10-YEAR STORM EVENT SHALL NOT OVERTOP THE CROWN IN THE THEATRE DRIVE.

Preliminary Pipe Sizing Calculations																										
Minor Storm System Conveyance Analysis										Major Storm System Conveyance Analysis																
Minor Storm Average Return Frequency										Major Storm Average Return Frequency																
10 Years										50 Years																
Location	Area, A	Coefficient, C	A/C	Sum, A/C	Time of Concentration, Tc	Intensity, I	Runoff, Qr	Inlet Elevation	Outlet Elevation	Pipe Slope, Sp	Pipe Length, L	Pipe Diameter, D	Manning's N	Pipe Capacity Qp	Pipe Velocity Vp	Time in Section Tp	Intensity I100	Flow, Q100	Overflow Route Slope	Street Width	Street Capacity	Swale Width	Swale Capacity	Overflow + Pipe Capacity	Comments	
	acre	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
A3	0.50	0.85	0.43	0.43	5.00	7.67	3.3			0.0150	35	15	0.012	8.6	7.0	0.08	12.64	5.37	0.0050							8.6
+A4	0.80	0.85	0.68	1.11	5.08	7.64	8.4			0.0055	380	18	0.012	8.4	4.8	1.33	12.59	13.92	0.0050				30	55.2	63.6	Sump Condition (Outlets to Detention Pond)
A5	3.40	0.85	2.89	2.89	5.00	7.67	22.2			0.0050	80	24	0.012	17.3	5.5	0.24	12.64	36.53	0.0050				30	55.2	72.5	Sump Condition (Outlets to Detention Pond)
A6	1.60	0.85	1.36	1.36	5.00	7.67	10.4			0.0050	150	24	0.012	17.3	5.5	0.45	12.64	17.19	0.0050				30	55.2	72.5	Sump Condition (Outlets to Detention Pond)
A9-6	5.00	0.85	4.25	4.25	5.45	7.48	31.8			0.0050	131	30	0.012	31.4	6.4	0.34	12.41	52.72	0.0050				30	55.2	86.6	Junction Box (East of Theatre District Drive)
A7	2.10	0.85	1.79	1.79	5.00	7.67	13.7			0.0050	415	24	0.012	17.3	5.5	1.25	12.64	22.56	0.0050				30	55.2	72.5	Sump Condition (Outlets to Detention Pond)
A11	1.40	0.85	1.19	1.19	5.00	7.67	9.1			0.0050	25	18	0.012	8.0	4.6	0.09	12.64	15.04	0.0050				30	55.2	63.2	Sump Condition
+A12	0.70	0.85	0.60	1.79	5.09	7.63	13.6			0.0050	35	24	0.012	17.3	5.5	0.11	12.59	22.47	0.0050				30	55.2	72.5	Sump Condition
+A13	0.50	0.85	0.43	2.21	5.20	7.59	16.8			0.0050	210	24	0.012	17.3	5.5	0.63	12.54	27.70	0.0050				30	55.2	72.5	Sump Condition
A17, O2	13.30	0.75	9.98	9.98	21.60	3.96	39.5			0.0050	200	36	0.012	51.1	7.2	0.46	5.70	56.90	0.0050				30	55.2	106.2	Sump Condition
+A18	2.70	0.85	2.30	12.27	22.06	3.94	48.3			0.0050	250	36	0.012	51.1	7.2	0.58	5.68	69.65	0.0050				30	55.2	106.2	Sump Condition
+A14-15	1.30	0.85	1.11	13.38	22.64	3.91	52.3			0.0050	380	36	0.012	51.1	7.2	0.88	5.64	75.46	0.0050				30	55.2	106.2	Existing Pipe Conveys 97% of 10-Year

Revised 06/09/2021

GRADING & DRAINAGE PLAN

DRAINAGE STUDY REPORT

THEATRE DISTRICT

Hastings, Nebraska

March 10th, 2021

Revised March 23rd, 2021

Revised June 9th, 2021

REGA PROJECT 201055

PREPARED FOR:

City of Hastings

PREPARED BY:

REGA ENGINEERING GROUP, INC.

LINCOLN, NEBRASKA

REGA

**ENGINEERING
GROUP, INC.**



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DRAINAGE SUMMARY

THEATRE DISTRICT DRAINAGE STUDY

PURPOSE

The primary objective of this study was to analyze pre- and post-development drainage areas for the proposed Planned District development in order to attenuate the peak post-development runoff. Lastly, the proposed district development falls under development criteria specified in Chapter 42 of the Hastings Municipal Code and will demonstrate the ability to meet these water quality requirements.

PROJECT LOCATION & DESCRIPTION

The proposed project is located to the southwest of West 12th Street and North Marian Road. The parcels, approximately 37.5 acres, were used for a retail center. Recently, the mall has been demolished. Pre-development conditions are shown in **Figure 1: Pre-development conditions for the Theatre District**. The proposed project consists of re-developing the site into 11 commercial lots and repurposing two existing buildings. The site is adjacent to townhouse and residential to the south and west, the Hastings Airport to the north of West 12th Street and agricultural ground east of North Marian Road. Half of the existing site sheet flows to the northeast corner of the property, while the west half drains to an existing concrete liner that conveys runoff along the edges of the property. Both the existing site and off-site areas drain to the existing box culvert under West 12th Street. The open ditches flow north along North Marian Road and east along West 12th Street, and both converge at the existing box culvert under West 12th Street before continuing in an open ditch along the east side of the City of Hasting's Airport.



Figure 1: Pre-development conditions for Theatre District

STUDY PROCEDURE

A hydrologic analysis was performed using HydroCAD to determine the impacts of the proposed drainage on post-construction conditions. The NRCS Method was used to model storm events and estimate hydrologic conditions for this study. This method relates runoff rates to precipitation depths, land use and topography. The peak runoff rate is determined by an empirical equation that relates the quantity of runoff from a given area to a total rainfall falling at a uniform rate on the same area. Inputs required for the NRCS method include:

- Drainage area (acres)
- Curve Number (CN)
- Time of concentration (Tc)
- Storm distribution

NRCS curve numbers, used for predicting peak runoff, are based on the various land uses and soil types as determined by the National Cooperative Soil Survey published by the United States Department of Agriculture Natural Resources Conservation Service, see **APPENDIX E** for the *USDA Web Soil Survey*. In the case of multiple land uses, a weighted average is calculated. The low curve number of 74 was used for the well vegetated open space with type C soils. The high curve number of 98 was used for interconnected parking lots and building roofs with an estimated 50% impervious area with type C/D soils. The sub basin area, land use, hydrologic soil group, curve number and time of concentration for each sub-basin were calculated and are shown below in **Table 1: Pre-development sub-basin information** and **Table 2: Post-development sub-basin information**.

Table 1: Pre-development sub-basin information

Designation	Area	Land Use	Curve Number*	Time of Concentration**
	(Acres)			(minutes)
A	37.50	Parking/Roofs & Open Space	93	30.0
Off-Site #1	3.40	Residential (1/8 Acre)	90	20.1
Off-Site #2	8.13	Residential (1/8 Acre)	90	13.5

Table 2: Post-development sub-basin information

Designation	Area	Land Use	Curve Number*	Time of Concentration**
	(Acres)			(minutes)
A ₁ , A ₈ -A ₁₇	19.15	Parking/Roofs & Open Space	90	21.6
A ₂ -A ₇	18.35	Parking/Roofs & Open Space	89	12.9
Off-Site #1	3.40	Residential (1/8 Acre)	90	20.1
Off-Site #2	8.13	Residential (1/8 Acre)	90	13.5

* Calculations for the Curve Number were calculated in HydroCAD

** Time of concentration was calculated in HydroCAD

Time of concentration was calculated using the TR-55 method, which takes into account the average basin slope and hydraulic length for each subarea. The hydraulic length is the

distance required from the most remote point in the drainage area to the catchment point. Time of concentration was calculated with HydroCAD. The maximum sheet flow distance used was 150 feet.

A type II rainfall distribution, which has a storm duration of 24 hours, was used to model the 2, 10 and 100-year storm event. The design rainfall intensity rates were from the Hastings Drainage Criteria Manual, Chapter 2, Table 2-9 and are shown below in **Table 3: City of Hastings, NE 24-hour design rainfall**.

Table 3: City of Hastings, NE 24-hour design rainfall

Frequency	24-hr Rainfall (in.)
Water Quality	0.53
2-Year	2.85
10-Year	4.16
100-Year	6.64

PRE-DEVELOPMENT RUNOFF CONDITIONS

The land was previously used for as a commercial shopping center with nearly 80% of the land comprised of impervious pavement or rooftops. The existing site had a high point and stormwater runoff was directed to the property's perimeter where it was conveyed by a concrete liner, storm sewer pipes, or an open ditch before exiting the property through a box culvert under West 12th Street. One drainage sub-basin was used to represent the property within the Planned District Development and two off-site sub-basins were used for areas contributing to the perimeter flows. These drainage sub-areas and their flow paths are illustrated in **Figure 2: Pre-development drainage plan**.

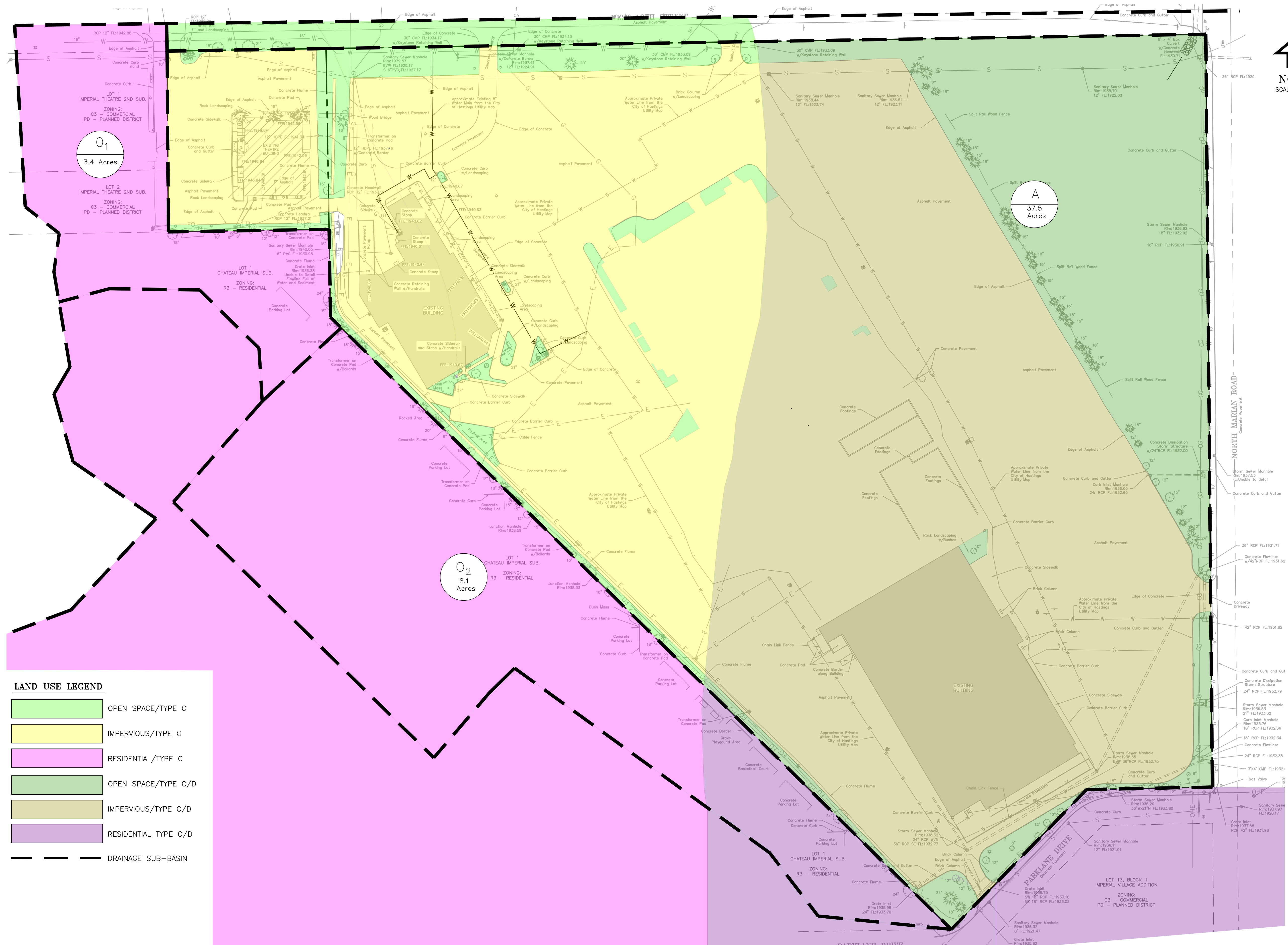
POST-DEVELOPMENT RUNOFF CONDITIONS

The post-development sub-basins is comprised of two sub-basins which can be viewed as the area draining to the proposed retention pond and the remaining areas that continue to drain to the existing open ditches along West 12th Street and North Marian Road. The rational method was used to size new or modified storm sewer pipes, ditches, and inlets, while the NRCS (formerly known as the SCS) method was used to compare the pre- and post-development runoff rates. The post development drainage areas and flow paths are illustrated in **Figure 3: Post-development drainage plan**.

HYDROCAD MODEL

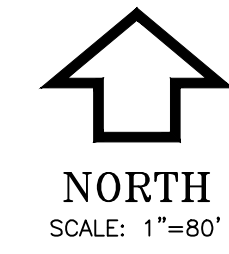
The hydrographs established for the pre-development and post-development sub-basins are shown in **Appendix B: HydroCAD models**. The resulting flow rates and water surface elevations for the pre-development and post-development sub-basins and proposed retention pond are summarized in **Table 4: Hydrologic Results**.

While the proposed development has less impervious area than the existing conditions, the stormwater runoff will be more efficiently conveyed to the northeast corner of the site resulting in higher post-development runoff rates. The proposed retention and water quality pond is in the northeast corner of the site. An outlet structure will be constructed to reduce the flow during the water quality event, while also providing enough storage for a 1-foot freeboard during the 100-year storm event.



LAND USE LEGEND

[Green Box]	OPEN SPACE/TYPE C
[Yellow Box]	IMPERVIOUS/TYPE C
[Pink Box]	RESIDENTIAL/TYPE C
[Light Green Box]	OPEN SPACE/TYPE C/D
[Light Yellow Box]	IMPERVIOUS/TYPE C/D
[Purple Box]	RESIDENTIAL TYPE C/D
[Dashed Line]	DRAINAGE SUB-BASIN



PROJECT
201055

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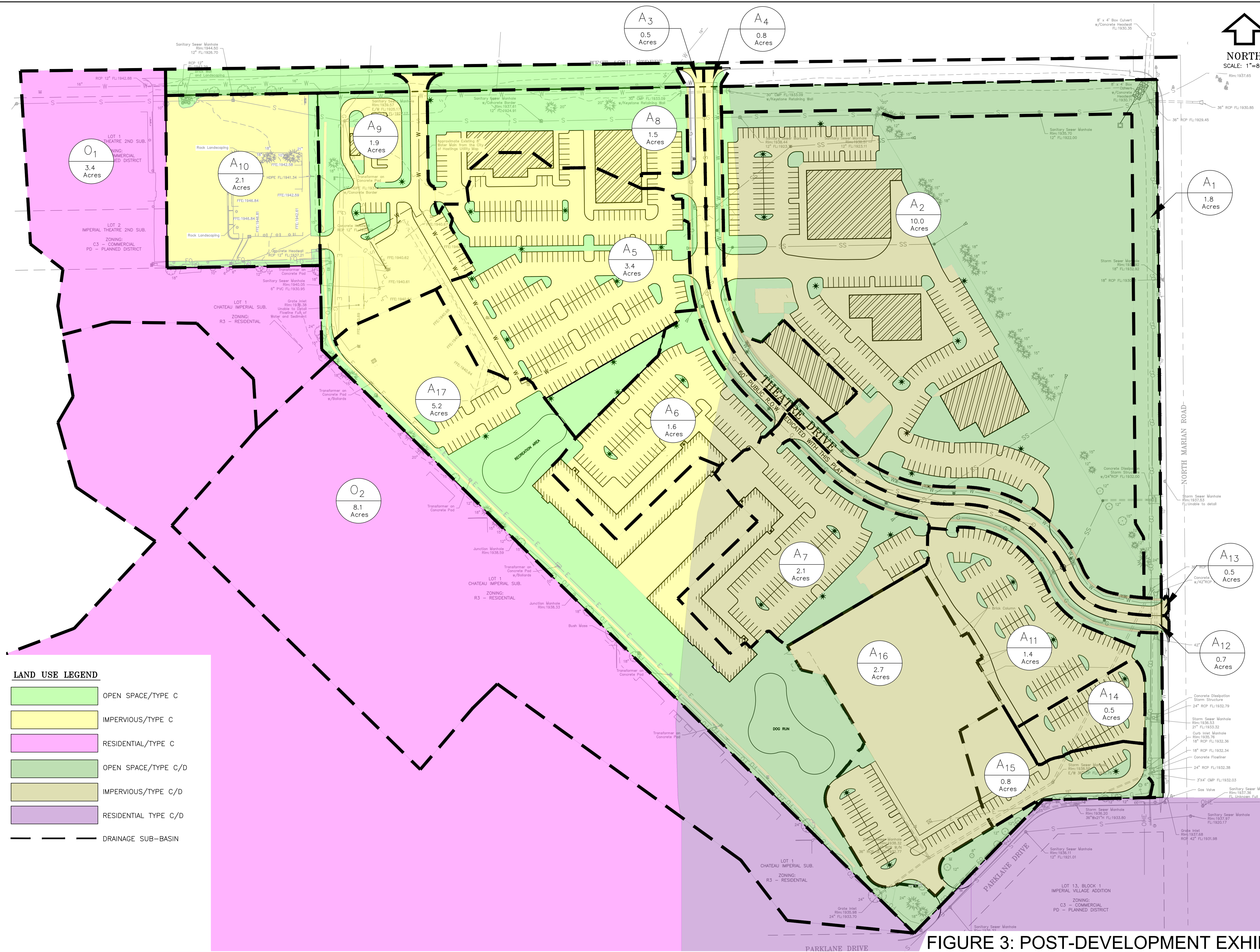
- ENGINEERING
- PLANNING
- LANDSCAPE ARCHITECTURE
- LAND SURVEYING

ISSUED FOR	DATE
PD SET	02/19/21
PD SET	03/23/21
PD SET	06/09/21

**THEATRE DISTRICT
PLANNED DISTRICT DEVELOPMENT
WEST 12TH STREET & NORTH MARIAN ROAD
HASTINGS, NEBRASKA**

SHEET NO.
1 of 4

FIGURE 2: PRE-DEVELOPMENT EXHIBIT



PROJECT

201055

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- ENGINEERING
- PLANNING
- LANDSCAPE
ARCHITECTURE
- LAND SURVEYING

[illegible]

THEATRE DISTRICT
PLANNED DISTRICT DEVELOPMENT
WEST 12TH STREET & NORTH MARIAN ROAD
HASTINGS, NEBRASKA

SHEET NO.

2 of 4

Table 4: Hydrologic Results

Table 4: Hydrologic Analysis Results							
	Peak Runoff Rate (CFS)			Maximum Water Surface Elevation (Ft.)			
	2-Year	10-Year	100-Year	2-Year	10-Year	100-Year	Top of Pond
Pre-Development							
A - generated	67.52	105.90	177.60	---	---	---	---
Off-Site #1 - generated	6.90	11.28	19.55	---	---	---	---
Off-Site #2 - generated	20.06	32.67	56.38	---	---	---	---
Overall Pre-Development (PRE)	83.16	131.97	223.12				
Post-Development							
A ₂ -A ₇ - generated	49.79	78.68	132.68	---	---	---	---
A ₂ -A ₇ - attenuated	0.7	1.31	9.19	1932.6	1933.19	1933.85	1935.50
A ₁ , A ₈ -A ₁₇ - generated	35.75	59.44	104.33	---	---	---	---
Off-Site #1 - generated	6.90	11.28	19.55	---	---	---	---
Off-Site #2 - generated	20.06	32.67	56.38	---	---	---	---
Overall Post-Development (POST)	59.88	99.05	174.11				

*Top of Pond includes 1-foot of freeboard.

In addition to the flow rates from HydroCAD, it was desirable to see what the output velocity would be from the 30" RCP daylighting from the retention pond to the existing ditch. The outlet velocity was modeled with two different software to double-check from scour potential. The resulting velocities for the 2, 10, and 100-year storm events are shown in **Table 5: Storm Sewer Outlet Structure Velocity**. Results of the analysis show the proposed pipe velocities are below 10 ft/second which is the regulated velocity for requiring scour measures.

Table 5: Storm Sewer Outlet Structure Velocity

Storm Water Event	30" RCP Velocity from HydroCAD (ft/sec)	30" RCP Velocity from HY-8 (ft/sec)
2-Year	3.6	4.2
10-Year	4.3	4.7
100-Year	7.7	7.4

WATER QUALITY

The City of Hastings Drainage Manual was referenced for water quality calculations. Water Quality for this project was separated into two different categories (Flow Rate and Volume-Based). The first category was based on discharge rates from Table 9-2 of the Hastings Drainage Manual. Table 9-2 describes depicts the water quality flow rate for drainage areas that have impervious surface areas of 6 acres or less. This methodology was applied to the Vegetative Filter Strips, Grass Swale and Area Inlet Filter.

Sub-basins A₈ and A₁₇ utilize the previously mentioned vegetative buffers with native grasses to help slow the sheet flow runoff from the proposed apartments and small parking lots. These areas will receive a native seed mix and shall have a maximum slope of 2%. The impervious areas for each of the sub-basins were determined and applied to the Central Region from Table 9-2. For example, Sub-basin A₈ has an impervious area of 1.0 acres, therefore from Table 9-2 the designed Water Quality Discharge rate is 0.8 cfs. This is shown below in **Table 6: Post-Construction Stormwater Management Plan** for STF #2.

The existing concrete low flow liner on the south side of the property will be removed and replaced with an 8-foot-wide native grass swale with a 6" perforated underdrain pipe. The maximum side slopes will be 4:1. Due to the proposed swale length, rock check dams will be installed every 200 feet to allow for sedimentation and ease of maintenance. Similarly, to the vegetative filter strips, the contributing drainage areas were converted to cfs.

Sub-basin A₁₁ drains to an interior parking lot with a proposed area inlet filter. This will collect sediment and trash before discharging into the ditch along North Marian Road. The area inlet filter proposed is a Flexstorm FX Standard-S. The specification of this has been added to the drainage report. The proposed vegetative filter strip, area inlet filter, and grass swales are BMP's designed from a flow rate. **Table 6: Post-Construction Stormwater Management Plan** summarizes the planned best management practices (BMP's) and correlates the contributing area from each affected sub-basin.

Table 6: Post-Construction Stormwater Management Plan

STF Identification Number	STF Type	STF Location (Lat/Long)	Drainage Area (Acres)	Impervious Area (Acres)	Design WQCV (CF) or QWQ (CFS)	WQCV (CF) or QWQ (CFS) Provided
1	Vegetative Filter Strip	40°35'38.52"/98°25'25.01"	2.6 [A ₁₇]	0.7	0.6	N/A
2	Vegetative Filter Strip	40°35'48.20"/98°25'27.30"	1.0 [A ₈]	1.0	0.8	N/A
3	Grass Swale	40°35'45.48"/98°25'33.55"	4.0 [A ₉₋₁₀]	3.6	3.0	3.0
4	Grass Swale	40°35'40.82"/98°25'28.82"	10.6 [A ₁₇ & O ₂]	6.0	5.1	5.1
5	Area Inlet Filter	40°35'40.06"/98°25'17.44"	1.4 [A ₁₁]	1.4	1.2	1.2
6	Retention Pond	40°35'16.49"/98°25'17.49"	18.4 [A ₂₋₇]	11.0	21,345	21,484

Table 7: Stormwater Treatment Facilities (STF) #3 & #4, provides the design details for the two proposed grass swales for the water quality event, 2-year, and 100-year storm events. The intention is to design the swale to have a water quality control velocity less than 1 foot per second.

Table 7: Stormwater Treatment Facilities (STF) #3 & #4

STF #3 [A ₉₋₁₀]			STF #4 [A ₁₇ & O ₂]		
Bottom Width, W _s	8	ft	Bottom Width, W _s	8	ft
Manning's Roughness, n	0.24		Manning's Roughness, n	0.24	
Channel Bottom Slope, S	0.005	ft/ft	Channel Bottom Slope, S	0.005	ft/ft
Side Slope, z (horizontal:vertical) z:1	4		Side Slope, z (horizontal:vertical) z:1	4	
Flow Rate, WQCV	3.00	cfs	Flow Rate, WQCV	5.10	cfs
Flow Rate, 2-Year	14.39	cfs	Flow Rate, 2-Year	24.16	cfs
Flow Rate, 100-Year	37.12	cfs	Flow Rate, 100-Year	70.61	cfs
Flow Depth, WQCV	0.68	ft	Flow Depth, WQCV	0.82	ft
Flow Depth, 2-Year	1.16	ft	Flow Depth, 2-Year	1.37	ft
Flow Depth, 100-Year	1.57	ft	Flow Depth, 100-Year	1.89	ft
Flow Area, WQCV	7.29	ft ²	Flow Area, WQCV	9.25	ft ²
Flow Area, 2-Year	14.66	ft ²	Flow Area, 2-Year	18.47	ft ²
Flow Area, 100-Year	22.42	ft ²	Flow Area, 100-Year	29.41	ft ²
Velocity, WQCV	0.41	ft/s	Velocity, WQCV	0.55	ft/s
Velocity, 2-Year	0.98	ft/s	Velocity, 2-Year	1.31	ft/s
Velocity, 100-Year	1.66	ft/s	Velocity, 100-Year	2.40	ft/s
Minimum Swale Length	497	ft	Minimum Swale Length	720	ft

As discussed, the second category for water quality was volume-based calculations. Drainage sub-basins A₂₋₇ were modeled based on the volume-based formula found in section 9.4.4.1. Drainage sub-basins A₂₋₇ represent a total of 18.4 acres. The retention pond is in the northeast corner of the site near the intersection of West 12th Street and North Marian Road was modeled to handle this water quality volume. During the water quality event, the pond's outlet structure slowly releases runoff through a 4" opening and a 2" slot at the top of the retention pond. This allowed the water quality to drawdown within approximately 30 hours.

Table 8: Proposed Water Quality Control Volume Table

A	Area (Acres)	18.40
P	Relevant Storm (in.)	0.53
I	% impervious of drainage area	61.44
Required Volume (cubic feet)		21,345
Design Volume (cubic feet)		21,484

The post development BMP's and retention facility are illustrated in **Figure 4: Post Construction Stormwater Management Plan (PCSMP)**.

ENVIRONMENTAL IMPACTS

The Information for Planning and Consultation (IPaC) for U.S. Fish and Wildlife Services was used to generate a preliminary list of threatened and endangered species that may be affected by the development of the parcels. There were four threatened, endangered, or candidate species in the vicinity of the project, but none were determined to have any critical habitats. More information can be found in ***APPENDIX D: ENDANGERED AND THREATENED SPECIES LIST***.

FINDINGS

The Theatre District is comprised of approximately 37.5 acres of mostly impervious surfacing, except for areas where the FAA has height restrictions. While the proposed plan significantly cuts down on the impervious surfaces, the efficiencies gained in stormwater routing required detention to attenuate the post-development's peak runoff rate to below the pre-development conditions. The existing concrete swale is being removed and replaced with a grass swale planted with native grasses and vegetative buffers intercepting site sheet flows. Furthermore, the proposed pond's outlet structure is configured to comply with the Hastings Drainage Criteria Manual's water quality requirements. The two existing ditches along West 12th Street and North Marian Road and the existing box culvert structure are not being re-developed and therefore have not been included within this study.

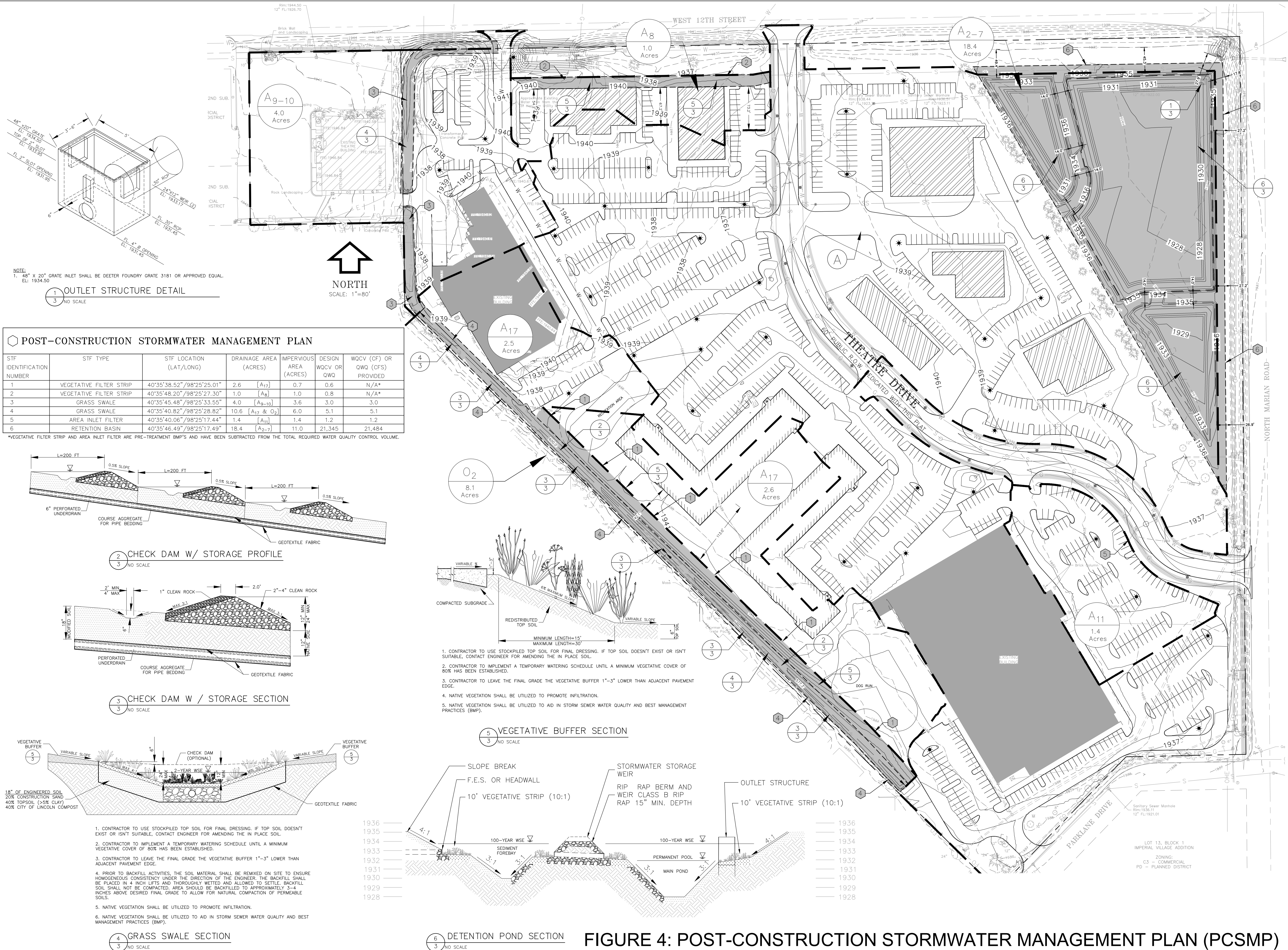
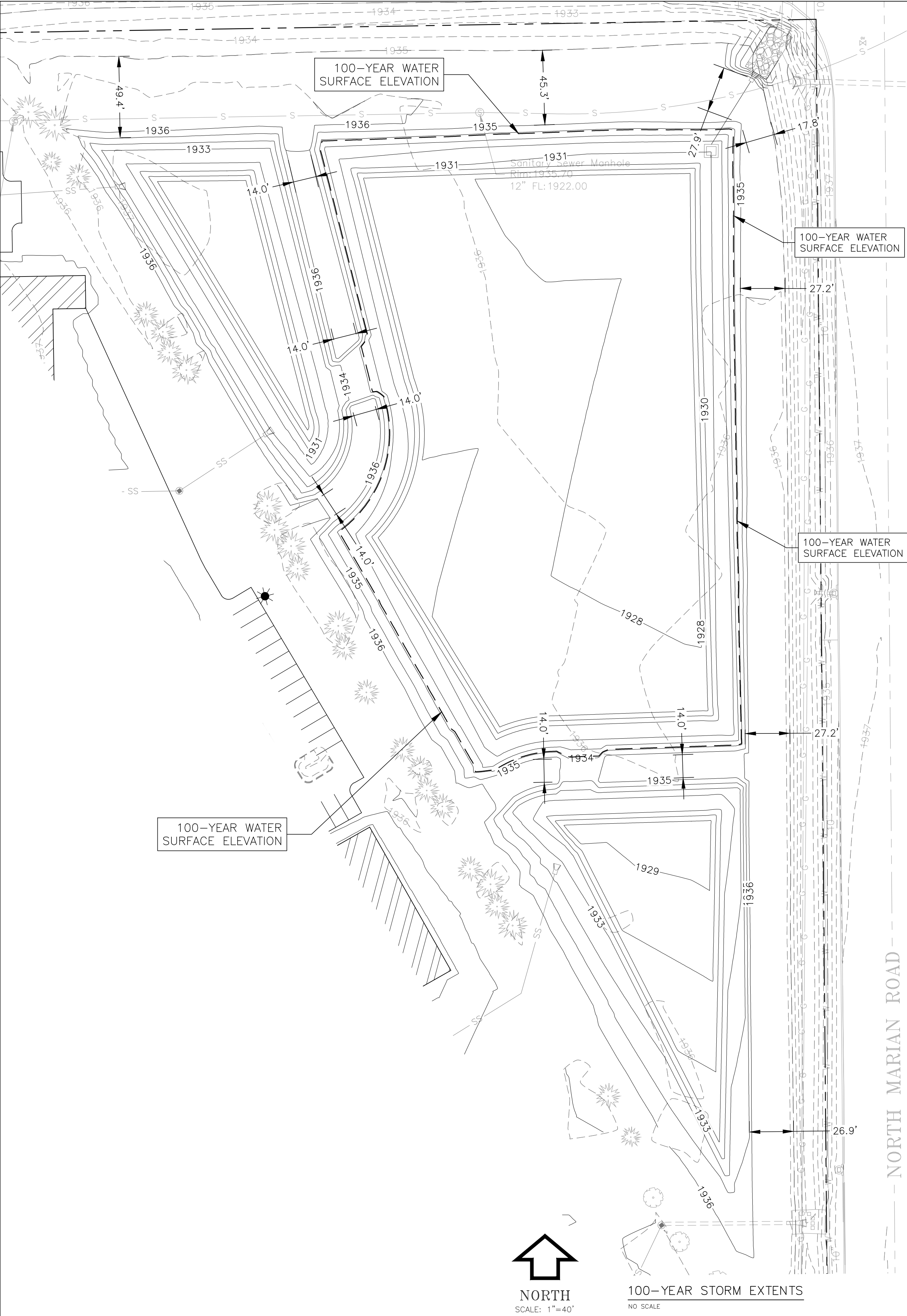


FIGURE 4: POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN (PCSMP)



APPENDIX A

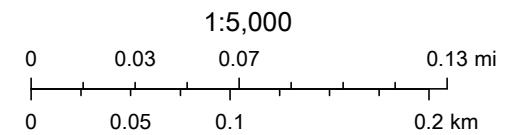
Hastings GIS Map

Imperial Mall - Hastings, Nebraska



January 25, 2021

 Limits  OneMile  TwoMile

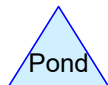
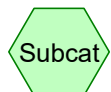
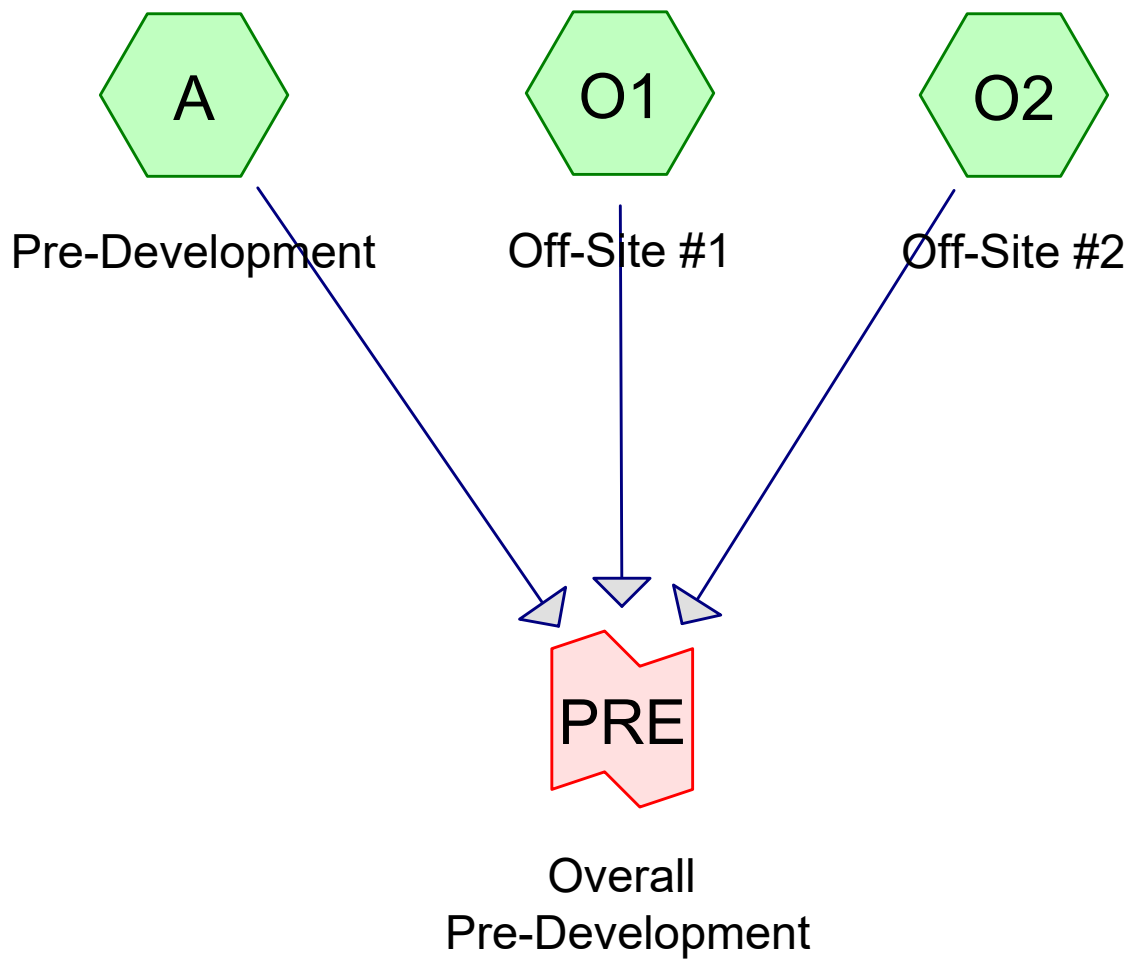


APPENDIX B

HydroCad Models (WQ, 2-year, 10-year, 100-year)

PRE-DEVELOPMENT

POST-DEVELOPMENT



Routing Diagram for 201055 Pre Development Hydrologic Model

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201055 Pre Development Hydrologic Model

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
10.230	90	1/8 acre lots, 65% imp, HSG C (O1, O2)
1.300	91	1/8 acre lots, 65% imp, HSG C/D (O2)
1.920	74	>75% Grass cover, Good, HSG C (A)
6.410	77	>75% Grass cover, Good, HSG C/D (A)
16.850	98	Unconnected pavement, HSG C/D (A)
12.320	98	Unconnected roofs, HSG C (A)
49.030	92	TOTAL AREA

201055 Pre Development Hydrologic Model

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Page 3

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
49.030	HSG C	A, O1, O2
0.000	HSG D	
0.000	Other	
49.030		TOTAL AREA

201055 Pre Development Hydrologic Model

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	11.530	0.000	0.000	11.530	1/8 acre lots, 65% imp	O1, O2
0.000	0.000	8.330	0.000	0.000	8.330	>75% Grass cover, Good	A
0.000	0.000	16.850	0.000	0.000	16.850	Unconnected pavement	A
0.000	0.000	12.320	0.000	0.000	12.320	Unconnected roofs	A
0.000	0.000	49.030	0.000	0.000	49.030	TOTAL AREA	

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Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	A	0.00	0.00	360.0	0.0027	0.012	24.0	0.0	0.0
2	A	0.00	0.00	380.0	0.0027	0.012	36.0	0.0	0.0
3	O2	0.00	0.00	100.0	0.0035	0.012	15.0	0.0	0.0

201055 Pre Development Hydrologic Model

Type II 24-hr 2-Year Rainfall=2.85"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentA: Pre-Development

Runoff Area=37.500 ac 77.79% Impervious Runoff Depth>1.96"
Flow Length=3,488' Tc=30.0 min CN=93 Runoff=67.52 cfs 6.139 af

SubcatchmentO1: Off-Site #1

Runoff Area=3.400 ac 65.00% Impervious Runoff Depth>1.71"
Flow Length=675' Tc=20.1 min CN=90 Runoff=6.90 cfs 0.485 af

SubcatchmentO2: Off-Site #2

Runoff Area=8.130 ac 65.00% Impervious Runoff Depth>1.72"
Flow Length=475' Tc=13.5 min CN=90 Runoff=20.06 cfs 1.163 af

Link PRE: Overall Pre-Development

Inflow=83.16 cfs 7.787 af
Primary=83.16 cfs 7.787 af

Total Runoff Area = 49.030 ac Runoff Volume = 7.787 af Average Runoff Depth = 1.91"
25.22% Pervious = 12.365 ac 74.78% Impervious = 36.665 ac

201055 Pre Development Hydrologic Model

Type II 24-hr 2-Year Rainfall=2.85"

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Summary for Subcatchment A: Pre-Development

Runoff = 67.52 cfs @ 12.24 hrs, Volume= 6.139 af, Depth> 1.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.85"

Area (ac)	CN	Description
1.920	74	>75% Grass cover, Good, HSG C
* 6.410	77	>75% Grass cover, Good, HSG C/D
12.320	98	Unconnected roofs, HSG C
* 16.850	98	Unconnected pavement, HSG C/D
37.500	93	Weighted Average
8.330		22.21% Pervious Area
29.170		77.79% Impervious Area
29.170		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	150	0.0060	0.76		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.15"
1.7	150	0.0051	1.45		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.9	68	0.0043	1.33		Shallow Concentrated Flow, Paved Kv= 20.3 fps
3.8	180	0.0015	0.79		Shallow Concentrated Flow, Paved Kv= 20.3 fps
14.6	1,315	0.0009	1.50	76.72	Channel Flow, Concrete Liner Area= 51.1 sf Perim= 176.4' r= 0.29' n= 0.013 Concrete, trowel finish
1.5	360	0.0027	4.05	12.73	Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
1.2	380	0.0027	5.31	37.55	Pipe Channel, 36.0" Round Area= 7.1 sf Perim= 9.4' r= 0.75' n= 0.012
3.0	885	0.0015	4.92	437.12	Channel Flow, Area= 88.9 sf Perim= 34.5' r= 2.58' n= 0.022 Earth, clean & straight
30.0	3,488	Total			

201055 Pre Development Hydrologic Model

Prepared by REGA Engineering Group

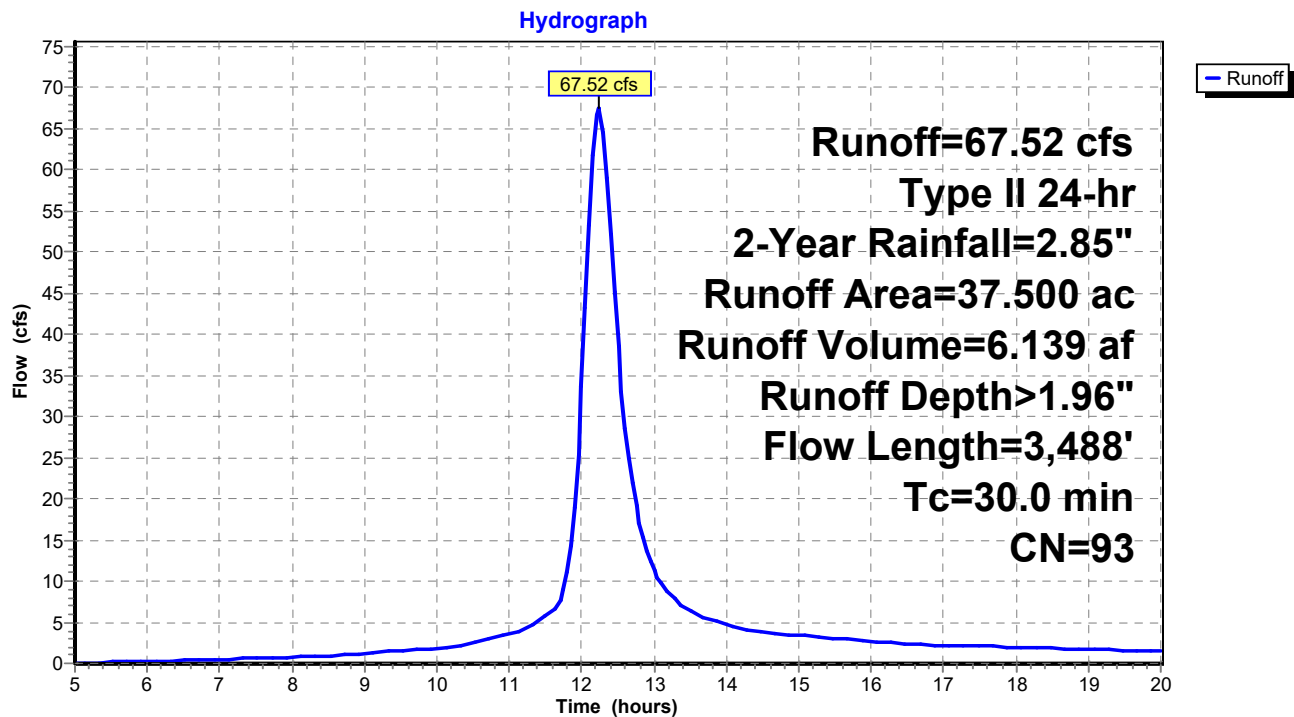
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Type II 24-hr 2-Year Rainfall=2.85"

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Subcatchment A: Pre-Development



201055 Pre Development Hydrologic Model

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Type II 24-hr 2-Year Rainfall=2.85"

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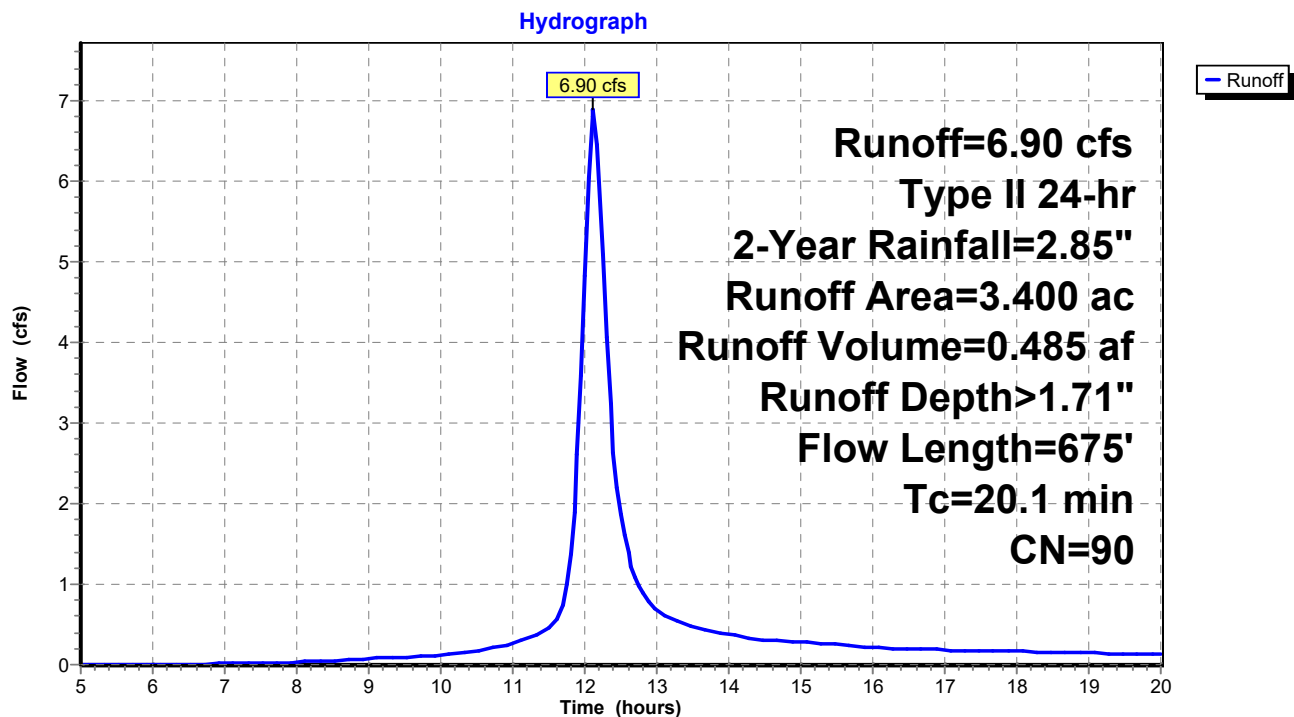
Summary for Subcatchment O1: Off-Site #1

Runoff = 6.90 cfs @ 12.12 hrs, Volume= 0.485 af, Depth> 1.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.85"

Area (ac)	CN	Description
3.400	90	1/8 acre lots, 65% imp, HSG C
1.190		35.00% Pervious Area
2.210		65.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0200	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.15"
4.4	300	0.0050	1.14		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.2	300	0.0025	0.81		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
20.1	675	Total			

Subcatchment O1: Off-Site #1

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Type II 24-hr 2-Year Rainfall=2.85"

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Summary for Subcatchment O2: Off-Site #2

Runoff = 20.06 cfs @ 12.05 hrs, Volume= 1.163 af, Depth> 1.72"

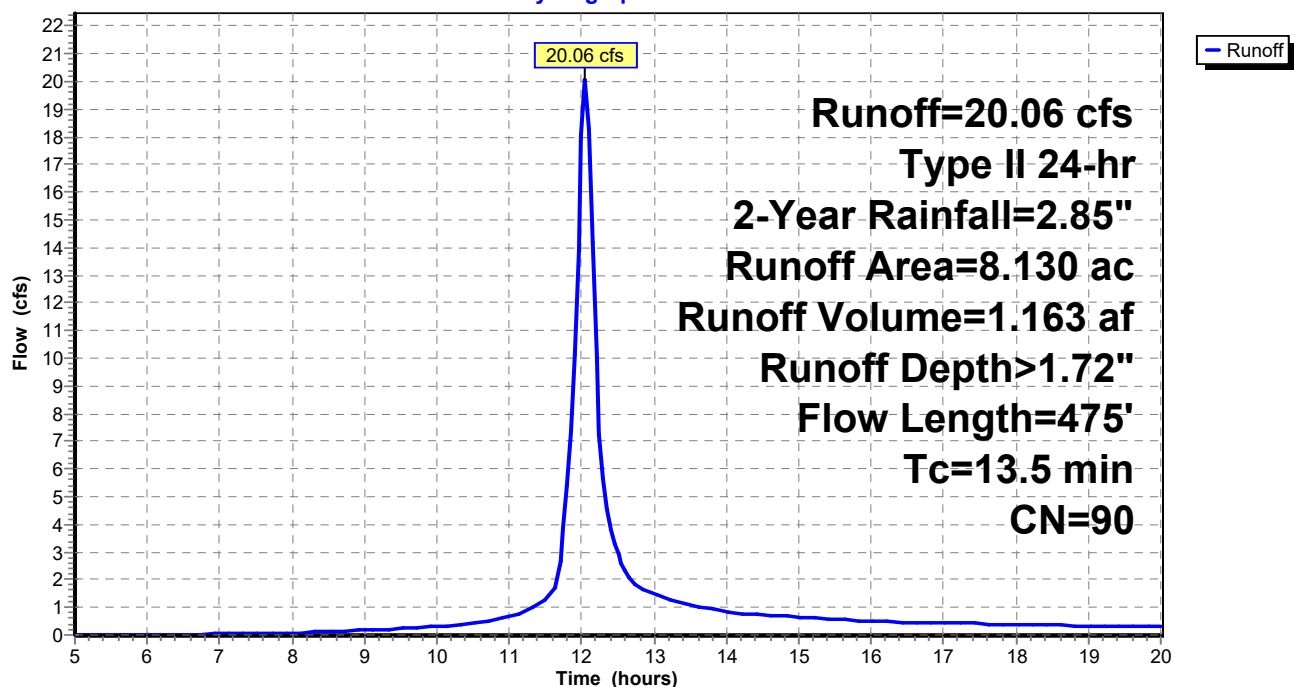
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.85"

Area (ac)	CN	Description
6.830	90	1/8 acre lots, 65% imp, HSG C
* 1.300	91	1/8 acre lots, 65% imp, HSG C/D
8.130	90	Weighted Average
2.845		35.00% Pervious Area
5.284		65.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0200	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.15"
3.5	300	0.0050	1.44		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.5	100	0.0035	3.37	4.14	Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
13.5	475	Total			

Subcatchment O2: Off-Site #2

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.85"

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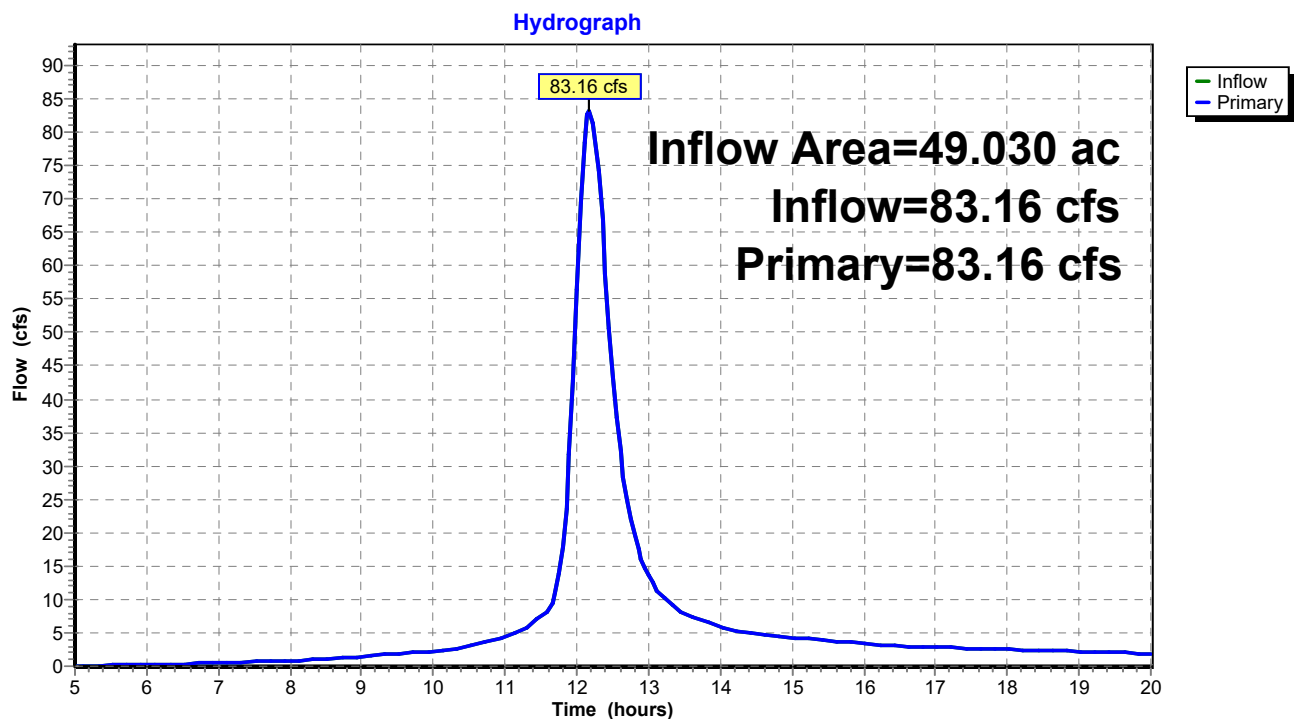
Page 11

Summary for Link PRE: Overall Pre-Development

Inflow Area = 49.030 ac, 74.78% Impervious, Inflow Depth > 1.91" for 2-Year event
Inflow = 83.16 cfs @ 12.18 hrs, Volume= 7.787 af
Primary = 83.16 cfs @ 12.18 hrs, Volume= 7.787 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link PRE: Overall Pre-Development



201055 Pre Development Hydrologic Model

Type II 24-hr 10-Year Rainfall=4.16"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentA: Pre-Development

Runoff Area=37.500 ac 77.79% Impervious Runoff Depth>3.15"
Flow Length=3,488' Tc=30.0 min CN=93 Runoff=105.90 cfs 9.841 af

SubcatchmentO1: Off-Site #1

Runoff Area=3.400 ac 65.00% Impervious Runoff Depth>2.87"
Flow Length=675' Tc=20.1 min CN=90 Runoff=11.28 cfs 0.812 af

SubcatchmentO2: Off-Site #2

Runoff Area=8.130 ac 65.00% Impervious Runoff Depth>2.87"
Flow Length=475' Tc=13.5 min CN=90 Runoff=32.67 cfs 1.945 af

Link PRE: Overall Pre-Development

Inflow=131.97 cfs 12.598 af
Primary=131.97 cfs 12.598 af

Total Runoff Area = 49.030 ac Runoff Volume = 12.598 af Average Runoff Depth = 3.08"
25.22% Pervious = 12.365 ac 74.78% Impervious = 36.665 ac

201055 Pre Development Hydrologic Model

Type II 24-hr 10-Year Rainfall=4.16"

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Summary for Subcatchment A: Pre-Development

Runoff = 105.90 cfs @ 12.23 hrs, Volume= 9.841 af, Depth> 3.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=4.16"

Area (ac)	CN	Description
1.920	74	>75% Grass cover, Good, HSG C
* 6.410	77	>75% Grass cover, Good, HSG C/D
12.320	98	Unconnected roofs, HSG C
* 16.850	98	Unconnected pavement, HSG C/D
37.500	93	Weighted Average
8.330		22.21% Pervious Area
29.170		77.79% Impervious Area
29.170		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	150	0.0060	0.76		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.15"
1.7	150	0.0051	1.45		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.9	68	0.0043	1.33		Shallow Concentrated Flow, Paved Kv= 20.3 fps
3.8	180	0.0015	0.79		Shallow Concentrated Flow, Paved Kv= 20.3 fps
14.6	1,315	0.0009	1.50	76.72	Channel Flow, Concrete Liner Area= 51.1 sf Perim= 176.4' r= 0.29' n= 0.013 Concrete, trowel finish
1.5	360	0.0027	4.05	12.73	Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
1.2	380	0.0027	5.31	37.55	Pipe Channel, 36.0" Round Area= 7.1 sf Perim= 9.4' r= 0.75' n= 0.012
3.0	885	0.0015	4.92	437.12	Channel Flow, Area= 88.9 sf Perim= 34.5' r= 2.58' n= 0.022 Earth, clean & straight
30.0	3,488	Total			

201055 Pre Development Hydrologic Model

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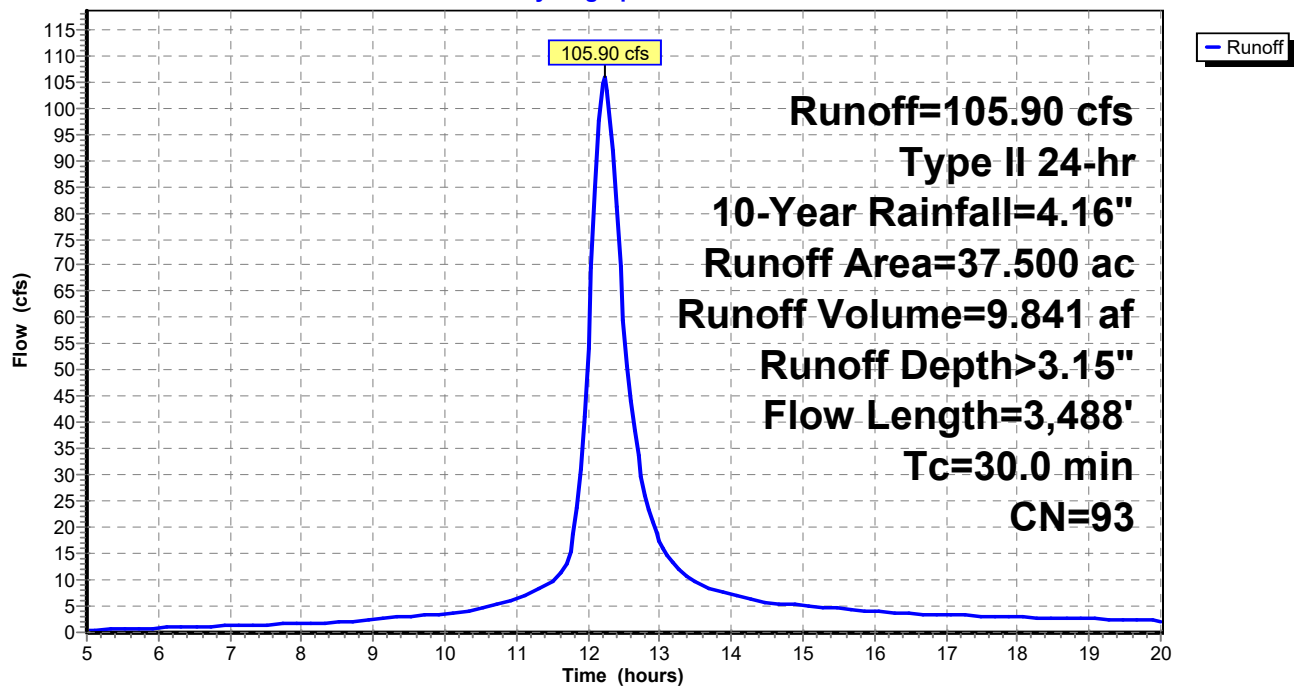
Type II 24-hr 10-Year Rainfall=4.16"

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Subcatchment A: Pre-Development

Hydrograph



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Type II 24-hr 10-Year Rainfall=4.16"

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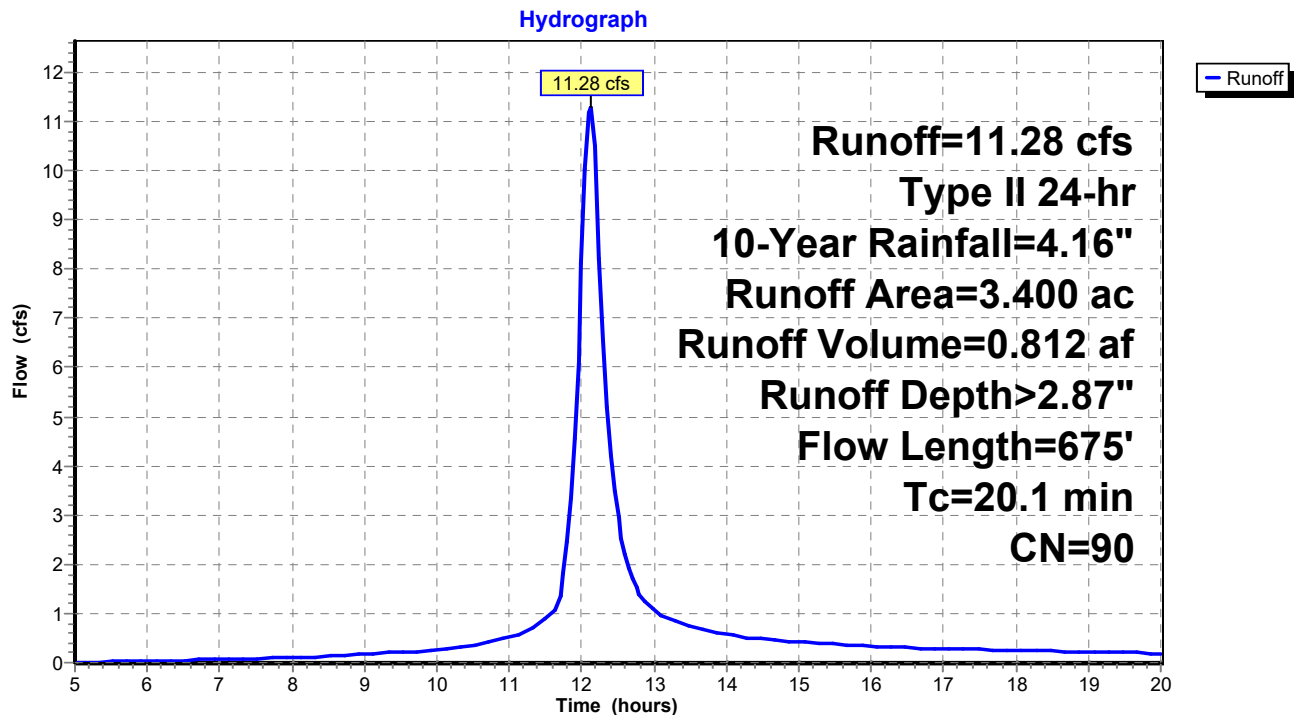
Summary for Subcatchment O1: Off-Site #1

Runoff = 11.28 cfs @ 12.12 hrs, Volume= 0.812 af, Depth> 2.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=4.16"

Area (ac)	CN	Description
3.400	90	1/8 acre lots, 65% imp, HSG C
1.190		35.00% Pervious Area
2.210		65.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0200	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.15"
4.4	300	0.0050	1.14		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.2	300	0.0025	0.81		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
20.1	675	Total			

Subcatchment O1: Off-Site #1

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Type II 24-hr 10-Year Rainfall=4.16"

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Summary for Subcatchment O2: Off-Site #2

Runoff = 32.67 cfs @ 12.05 hrs, Volume= 1.945 af, Depth> 2.87"

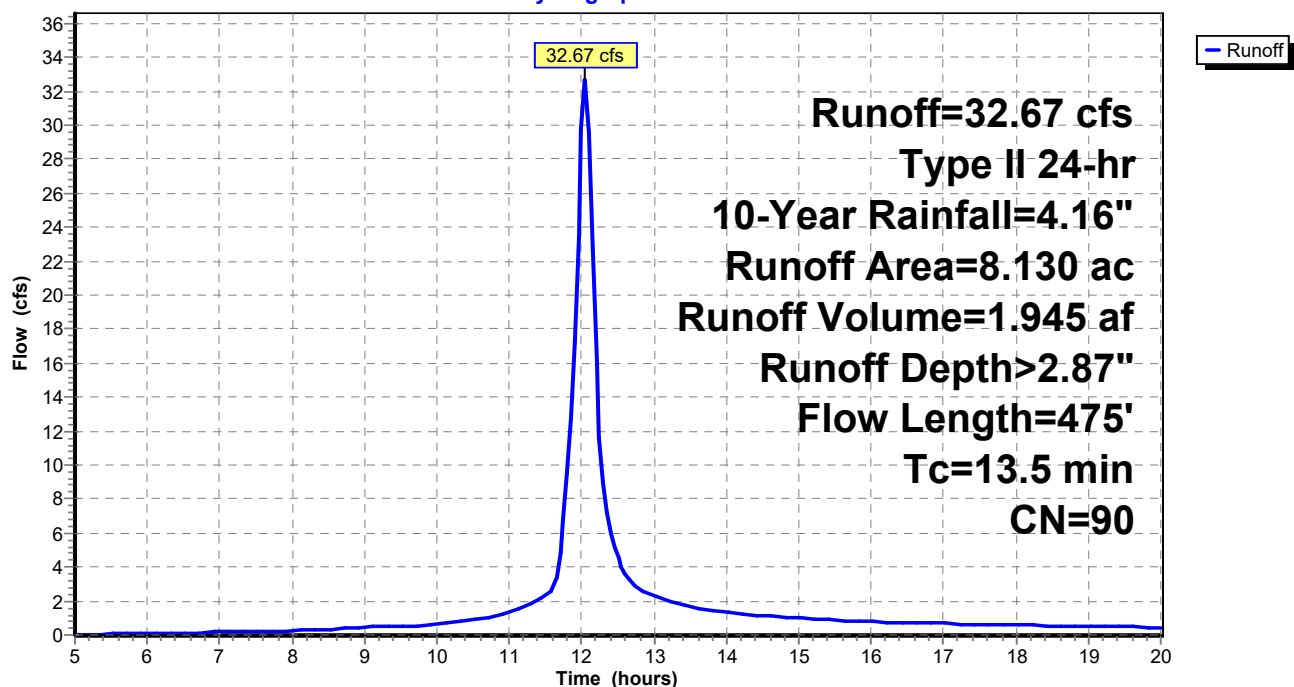
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=4.16"

Area (ac)	CN	Description
6.830	90	1/8 acre lots, 65% imp, HSG C
* 1.300	91	1/8 acre lots, 65% imp, HSG C/D
8.130	90	Weighted Average
2.845		35.00% Pervious Area
5.284		65.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0200	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.15"
3.5	300	0.0050	1.44		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.5	100	0.0035	3.37	4.14	Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
13.5	475	Total			

Subcatchment O2: Off-Site #2

Hydrograph



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Type II 24-hr 10-Year Rainfall=4.16"

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Summary for Link PRE: Overall Pre-Development

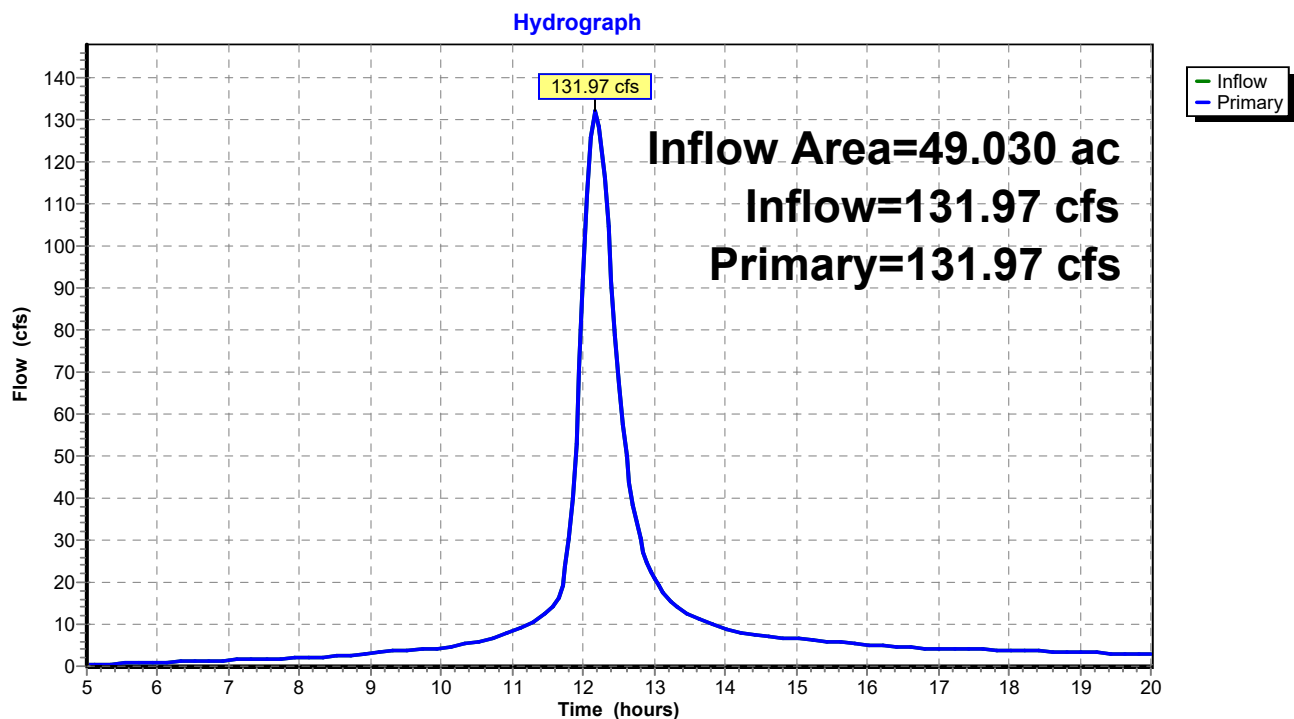
Inflow Area = 49.030 ac, 74.78% Impervious, Inflow Depth > 3.08" for 10-Year event

Inflow = 131.97 cfs @ 12.17 hrs, Volume= 12.598 af

Primary = 131.97 cfs @ 12.17 hrs, Volume= 12.598 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link PRE: Overall Pre-Development



201055 Pre Development Hydrologic Model

Type II 24-hr 100-Year Rainfall=6.64"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentA: Pre-Development

Runoff Area=37.500 ac 77.79% Impervious Runoff Depth>5.41"
Flow Length=3,488' Tc=30.0 min CN=93 Runoff=177.60 cfs 16.910 af

SubcatchmentO1: Off-Site #1

Runoff Area=3.400 ac 65.00% Impervious Runoff Depth>5.11"
Flow Length=675' Tc=20.1 min CN=90 Runoff=19.55 cfs 1.449 af

SubcatchmentO2: Off-Site #2

Runoff Area=8.130 ac 65.00% Impervious Runoff Depth>5.12"
Flow Length=475' Tc=13.5 min CN=90 Runoff=56.38 cfs 3.469 af

Link PRE: Overall Pre-Development

Inflow=223.12 cfs 21.828 af
Primary=223.12 cfs 21.828 af

Total Runoff Area = 49.030 ac Runoff Volume = 21.828 af Average Runoff Depth = 5.34"
25.22% Pervious = 12.365 ac 74.78% Impervious = 36.665 ac

201055 Pre Development Hydrologic Model

Type II 24-hr 100-Year Rainfall=6.64"

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Summary for Subcatchment A: Pre-Development

Runoff = 177.60 cfs @ 12.23 hrs, Volume= 16.910 af, Depth> 5.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=6.64"

Area (ac)	CN	Description
1.920	74	>75% Grass cover, Good, HSG C
* 6.410	77	>75% Grass cover, Good, HSG C/D
12.320	98	Unconnected roofs, HSG C
* 16.850	98	Unconnected pavement, HSG C/D
37.500	93	Weighted Average
8.330		22.21% Pervious Area
29.170		77.79% Impervious Area
29.170		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	150	0.0060	0.76		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.15"
1.7	150	0.0051	1.45		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.9	68	0.0043	1.33		Shallow Concentrated Flow, Paved Kv= 20.3 fps
3.8	180	0.0015	0.79		Shallow Concentrated Flow, Paved Kv= 20.3 fps
14.6	1,315	0.0009	1.50	76.72	Channel Flow, Concrete Liner Area= 51.1 sf Perim= 176.4' r= 0.29' n= 0.013 Concrete, trowel finish
1.5	360	0.0027	4.05	12.73	Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
1.2	380	0.0027	5.31	37.55	Pipe Channel, 36.0" Round Area= 7.1 sf Perim= 9.4' r= 0.75' n= 0.012
3.0	885	0.0015	4.92	437.12	Channel Flow, Area= 88.9 sf Perim= 34.5' r= 2.58' n= 0.022 Earth, clean & straight
30.0	3,488	Total			

201055 Pre Development Hydrologic Model

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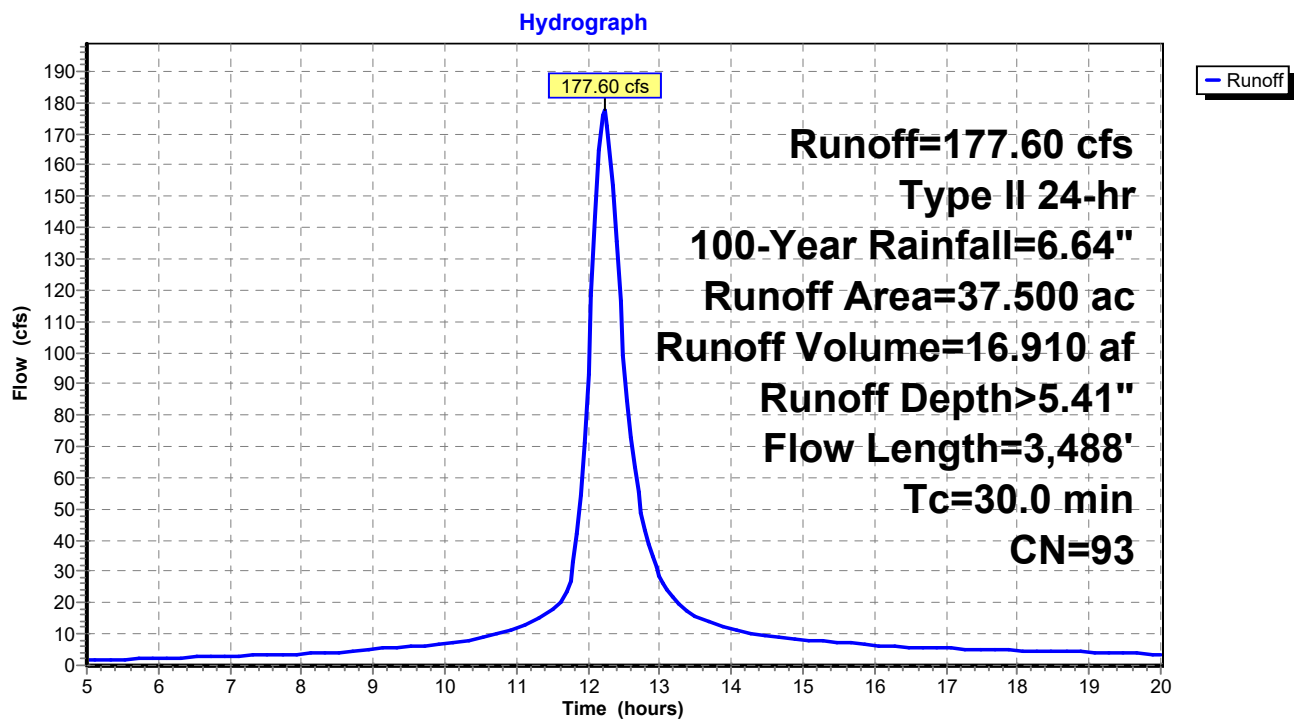
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Type II 24-hr 100-Year Rainfall=6.64"

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Subcatchment A: Pre-Development



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Type II 24-hr 100-Year Rainfall=6.64"

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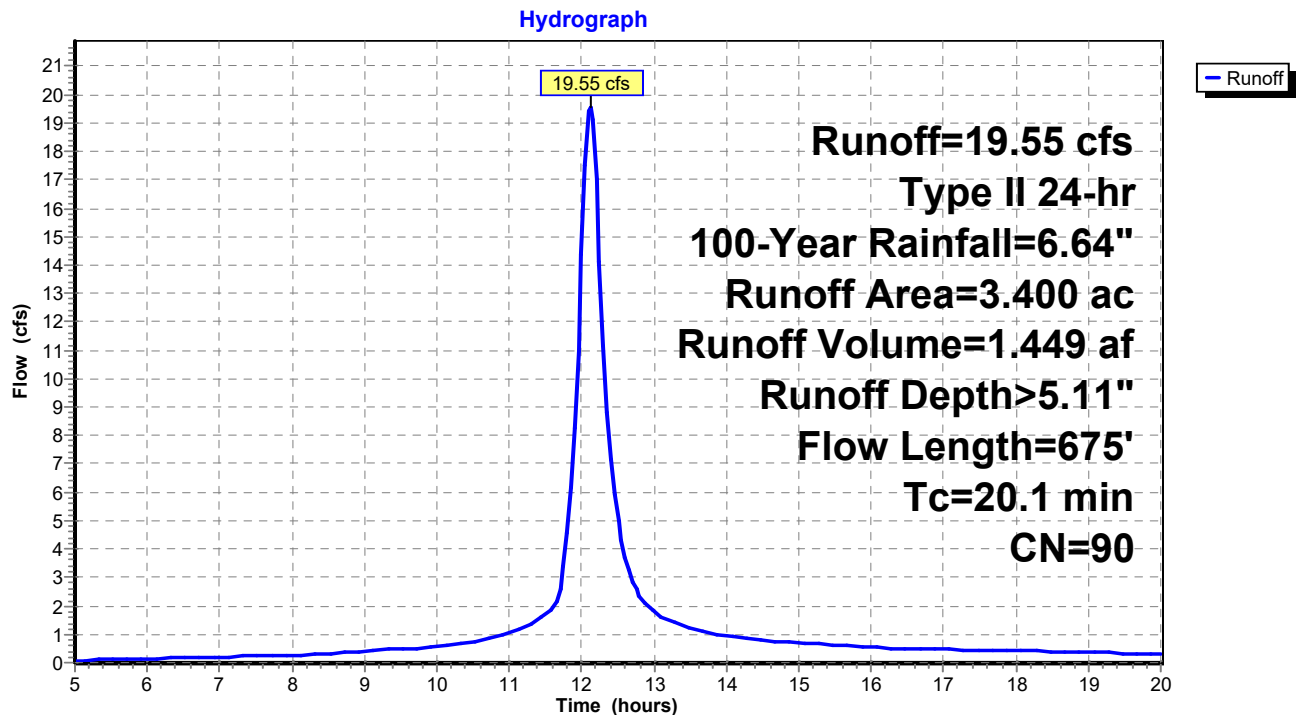
Summary for Subcatchment O1: Off-Site #1

Runoff = 19.55 cfs @ 12.12 hrs, Volume= 1.449 af, Depth> 5.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=6.64"

Area (ac)	CN	Description
3.400	90	1/8 acre lots, 65% imp, HSG C
1.190		35.00% Pervious Area
2.210		65.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0200	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.15"
4.4	300	0.0050	1.14		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.2	300	0.0025	0.81		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
20.1	675	Total			

Subcatchment O1: Off-Site #1

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Type II 24-hr 100-Year Rainfall=6.64"

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Summary for Subcatchment O2: Off-Site #2

Runoff = 56.38 cfs @ 12.05 hrs, Volume= 3.469 af, Depth> 5.12"

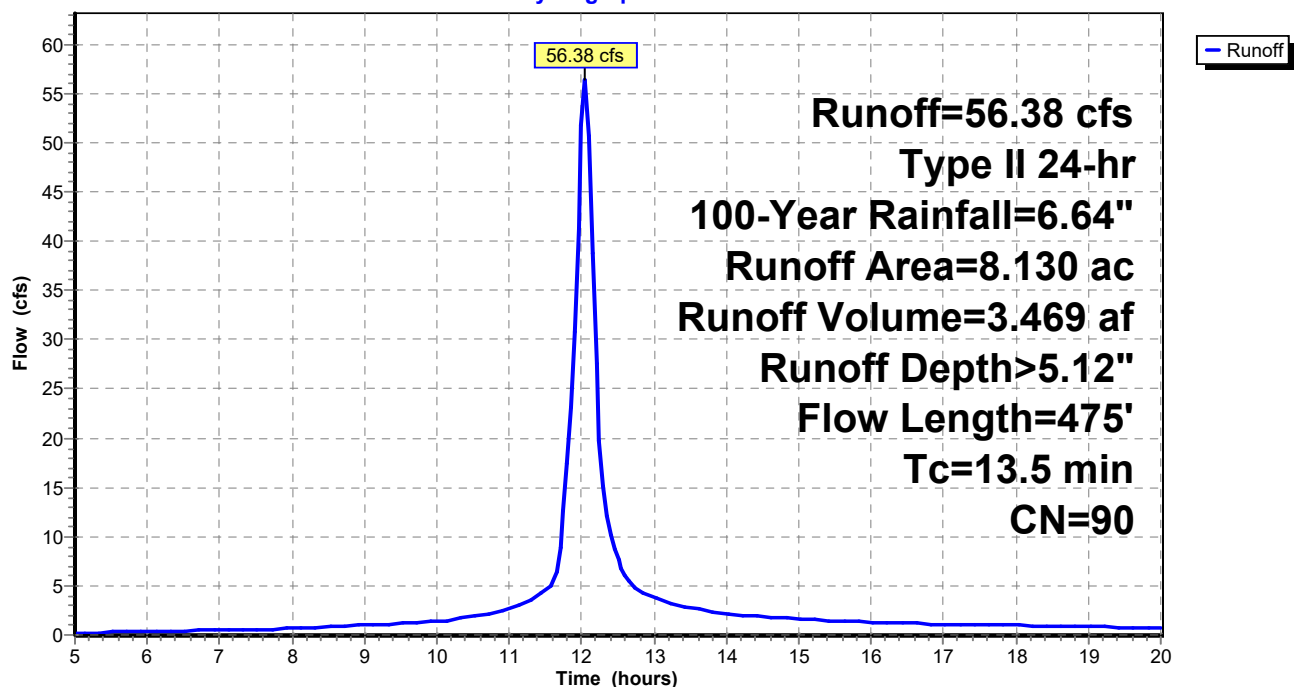
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=6.64"

Area (ac)	CN	Description
6.830	90	1/8 acre lots, 65% imp, HSG C
* 1.300	91	1/8 acre lots, 65% imp, HSG C/D
8.130	90	Weighted Average
2.845		35.00% Pervious Area
5.284		65.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0200	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.15"
3.5	300	0.0050	1.44		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.5	100	0.0035	3.37	4.14	Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
13.5	475	Total			

Subcatchment O2: Off-Site #2

Hydrograph



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Type II 24-hr 100-Year Rainfall=6.64"

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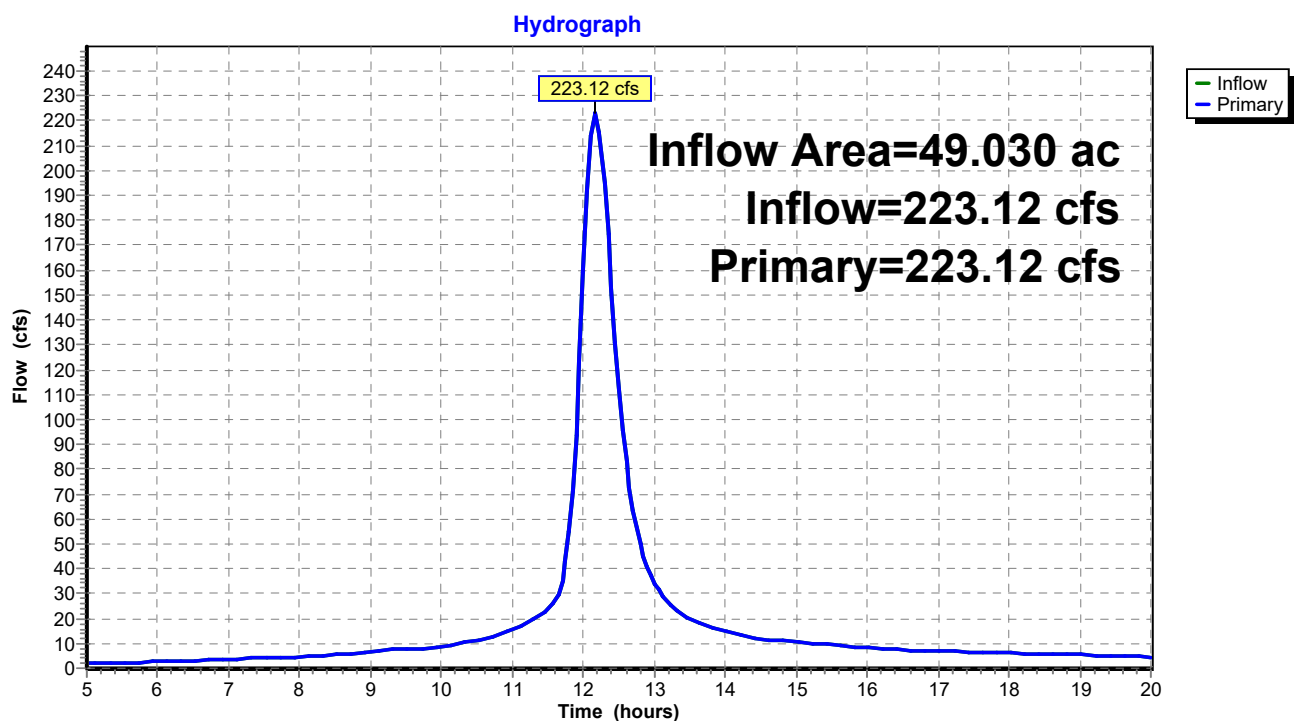
Page 23

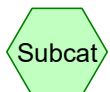
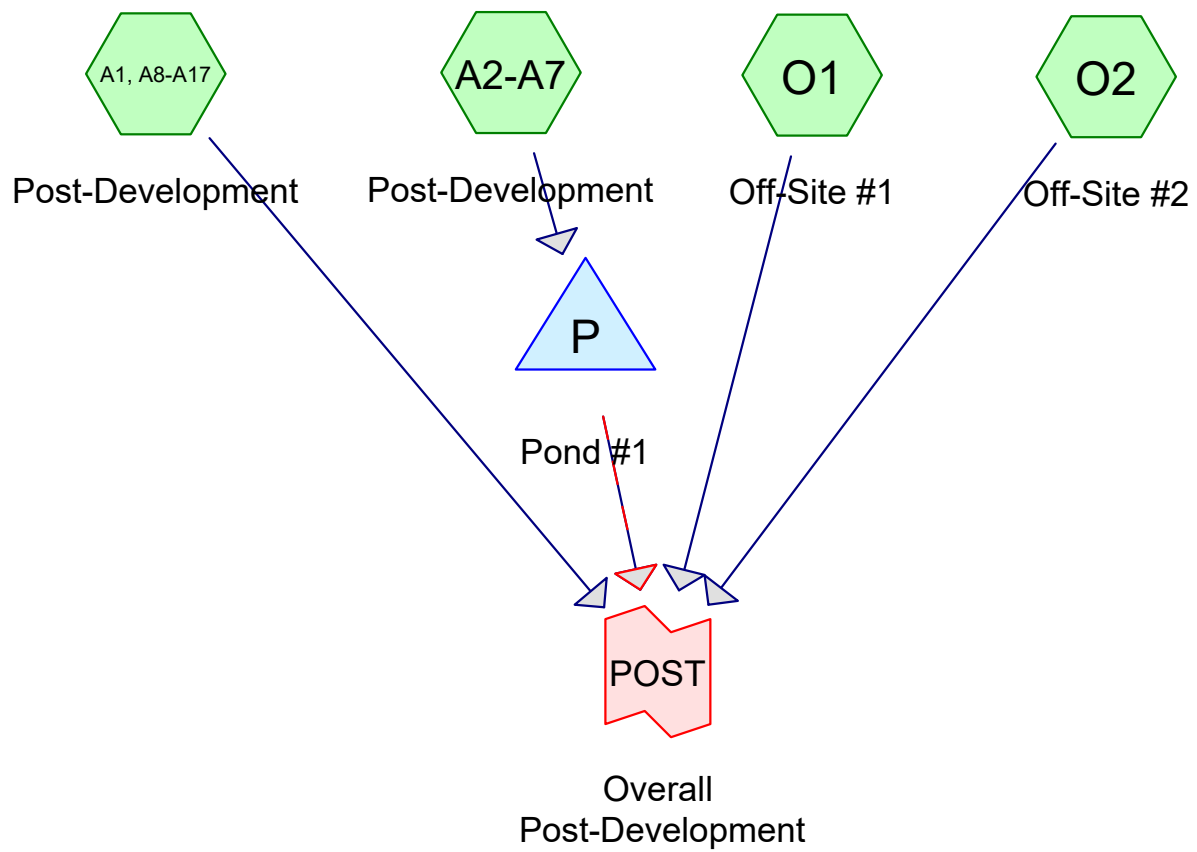
Summary for Link PRE: Overall Pre-Development

Inflow Area = 49.030 ac, 74.78% Impervious, Inflow Depth > 5.34" for 100-Year event
Inflow = 223.12 cfs @ 12.17 hrs, Volume= 21.828 af
Primary = 223.12 cfs @ 12.17 hrs, Volume= 21.828 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link PRE: Overall Pre-Development

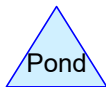




Subcat



Reach



Pond



Link

Routing Diagram for 201055 Revised Post Development Hydrologic Model

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201055 Revised Post Development Hydrologic Model

Prepared by {enter your company name here}

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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
10.230	90	1/8 acre lots, 65% imp, HSG C (O1, O2)
1.300	91	1/8 acre lots, 65% imp, HSG C/D (O2)
4.000	74	>75% Grass cover, Good, HSG C (A1, A8-A17, A2-A7)
8.590	77	>75% Grass cover, Good, HSG C/D (A1, A8-A17, A2-A7)
12.710	98	Unconnected pavement, HSG C/D (A1, A8-A17, A2-A7)
10.250	98	Unconnected roofs, HSG C (A1, A8-A17, A2-A7)
1.950	98	Water Surface, HSG D (A2-A7)
49.030	91	TOTAL AREA

201055 Revised Post Development Hydrologic Model

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Pipe Listing (selected nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	A1, A8-A17	0.00	0.00	360.0	0.0027	0.012	24.0	0.0	0.0
2	A1, A8-A17	0.00	0.00	380.0	0.0027	0.012	36.0	0.0	0.0
3	A2-A7	0.00	0.00	490.0	0.0050	0.012	24.0	0.0	0.0
4	O2	0.00	0.00	100.0	0.0035	0.012	15.0	0.0	0.0
5	P	1,931.45	1,931.00	52.0	0.0087	0.012	30.0	0.0	0.0

201055 Revised Post Development Hydrologic Model Type II 24-hr 2-Year Rainfall=2.85"

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Time span=5.00-60.00 hrs, dt=0.05 hrs, 1101 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentA1, A8-A17:

Runoff Area=19.150 ac 61.62% Impervious Runoff Depth=1.76"
Flow Length=3,488' Tc=21.6 min CN=89 Runoff=35.75 cfs 2.816 af

SubcatchmentA2-A7: Post-Development

Runoff Area=18.350 ac 71.44% Impervious Runoff Depth=2.02"
Flow Length=753' Tc=12.9 min CN=92 Runoff=49.79 cfs 3.089 af

SubcatchmentO1: Off-Site #1

Runoff Area=3.400 ac 65.00% Impervious Runoff Depth=1.85"
Flow Length=675' Tc=20.1 min CN=90 Runoff=6.90 cfs 0.523 af

SubcatchmentO2: Off-Site #2

Runoff Area=8.130 ac 65.00% Impervious Runoff Depth=1.85"
Flow Length=475' Tc=13.5 min CN=90 Runoff=20.06 cfs 1.251 af

Pond P: Pond #1

Peak Elev=1,932.60' Storage=106,528 cf Inflow=49.79 cfs 3.089 af
Primary=0.70 cfs 1.970 af Secondary=0.00 cfs 0.000 af Outflow=0.70 cfs 1.970 af

Link POST: Overall Post-Development

Inflow=59.88 cfs 6.560 af
Primary=59.88 cfs 6.560 af

Total Runoff Area = 49.030 ac Runoff Volume = 7.679 af Average Runoff Depth = 1.88"
33.91% Pervious = 16.626 ac 66.09% Impervious = 32.405 ac

Summary for Subcatchment A1, A8-A17: Post-Development

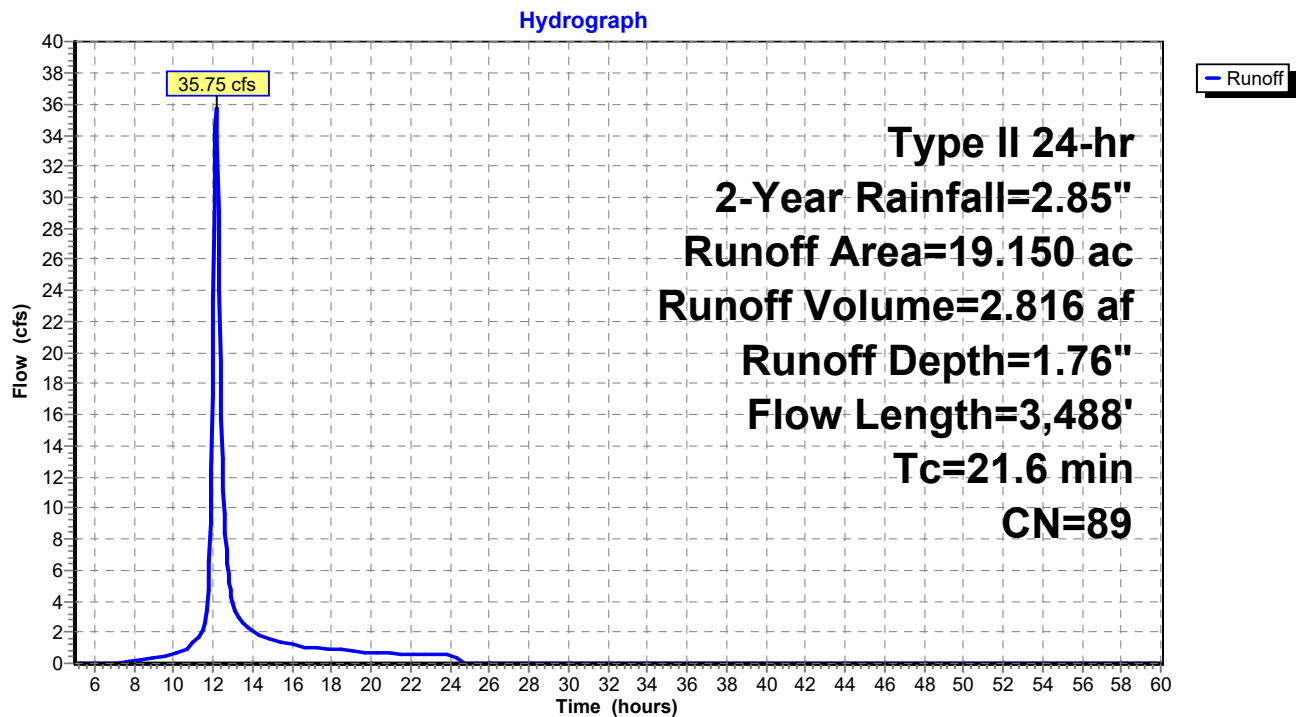
Runoff = 35.75 cfs @ 12.14 hrs, Volume= 2.816 af, Depth= 1.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs
 Type II 24-hr 2-Year Rainfall=2.85"

Area (ac)	CN	Description
2.900	74	>75% Grass cover, Good, HSG C
* 4.450	77	>75% Grass cover, Good, HSG C/D
5.670	98	Unconnected roofs, HSG C
* 6.130	98	Unconnected pavement, HSG C/D
19.150	89	Weighted Average
7.350		38.38% Pervious Area
11.800		61.62% Impervious Area
11.800		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	150	0.0060	0.76		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.15"
1.7	150	0.0051	1.45		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.9	68	0.0043	1.33		Shallow Concentrated Flow, Paved Kv= 20.3 fps
3.8	180	0.0015	0.79		Shallow Concentrated Flow, Paved Kv= 20.3 fps
6.2	1,315	0.0050	3.54	180.83	Channel Flow, Concrete Liner Area= 51.1 sf Perim= 176.4' r= 0.29' n= 0.013 Concrete, trowel finish
1.5	360	0.0027	4.05	12.73	Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
1.2	380	0.0027	5.31	37.55	Pipe Channel, 36.0" Round Area= 7.1 sf Perim= 9.4' r= 0.75' n= 0.012
3.0	885	0.0015	4.92	437.12	Channel Flow, Area= 88.9 sf Perim= 34.5' r= 2.58' n= 0.022 Earth, clean & straight
21.6	3,488	Total			

Subcatchment A1, A8-A17: Post-Development



201055 Revised Post Development Hydrologic Model Type II 24-hr 2-Year Rainfall=2.85"

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Summary for Subcatchment A2-A7: Post-Development

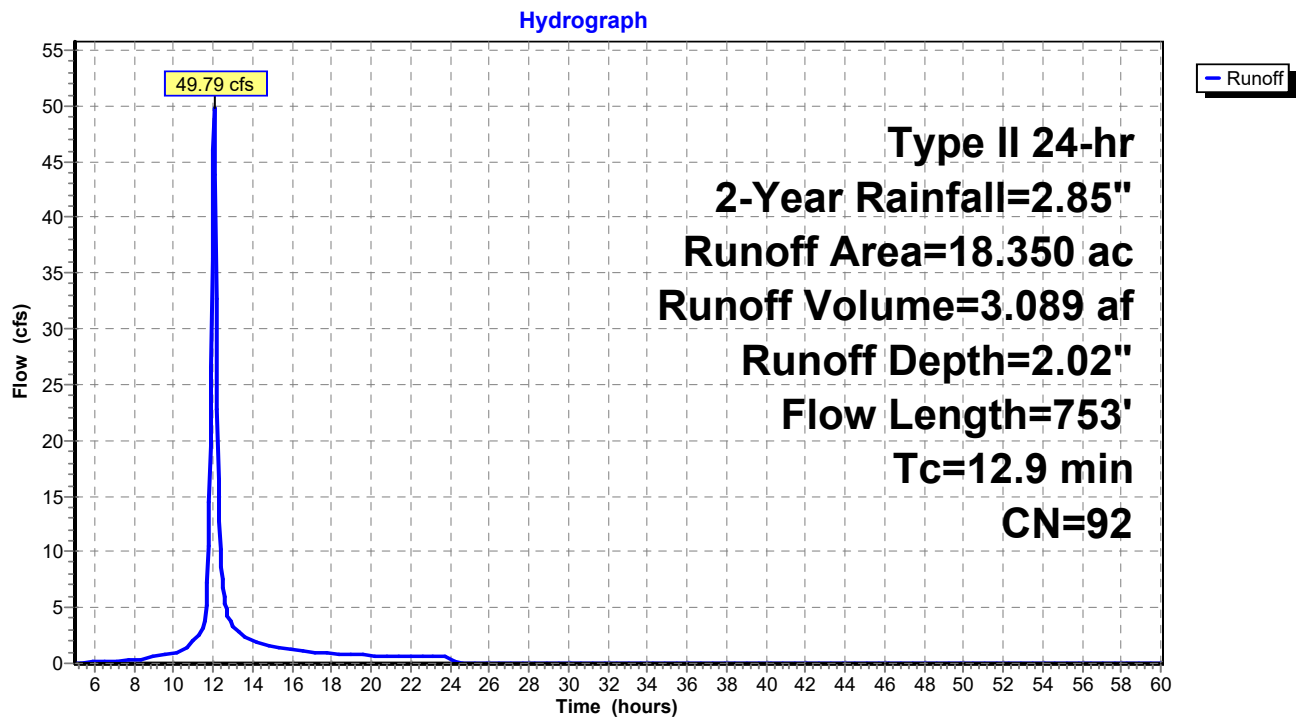
Runoff = 49.79 cfs @ 12.04 hrs, Volume= 3.089 af, Depth= 2.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.85"

Area (ac)	CN	Description
1.100	74	>75% Grass cover, Good, HSG C
* 4.140	77	>75% Grass cover, Good, HSG C/D
4.580	98	Unconnected roofs, HSG C
* 6.580	98	Unconnected pavement, HSG C/D
1.950	98	Water Surface, HSG D
18.350	92	Weighted Average
5.240		28.56% Pervious Area
13.110		71.44% Impervious Area
11.160		85.13% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	45	0.0100	0.09		Sheet Flow, Grass: Short n= 0.150 P2= 2.15"
2.2	150	0.0051	1.15		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.9	68	0.0040	1.28		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.5	490	0.0050	5.52	17.33	Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012
12.9	753	Total			

Subcatchment A2-A7: Post-Development



Summary for Subcatchment O1: Off-Site #1

Runoff = 6.90 cfs @ 12.12 hrs, Volume= 0.523 af, Depth= 1.85"

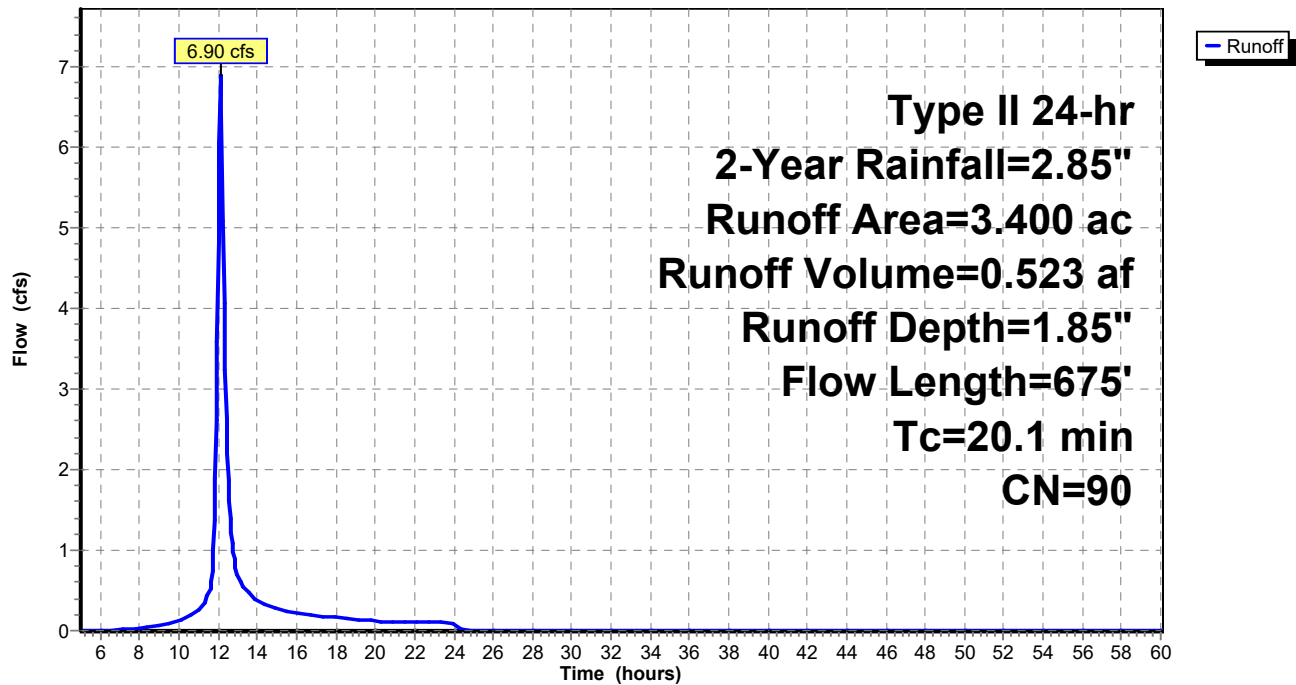
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs
 Type II 24-hr 2-Year Rainfall=2.85"

Area (ac)	CN	Description
3.400	90	1/8 acre lots, 65% imp, HSG C
1.190		35.00% Pervious Area
2.210		65.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0200	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.15"
4.4	300	0.0050	1.14		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.2	300	0.0025	0.81		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
20.1	675	Total			

Subcatchment O1: Off-Site #1

Hydrograph



Summary for Subcatchment O2: Off-Site #2

Runoff = 20.06 cfs @ 12.05 hrs, Volume= 1.251 af, Depth= 1.85"

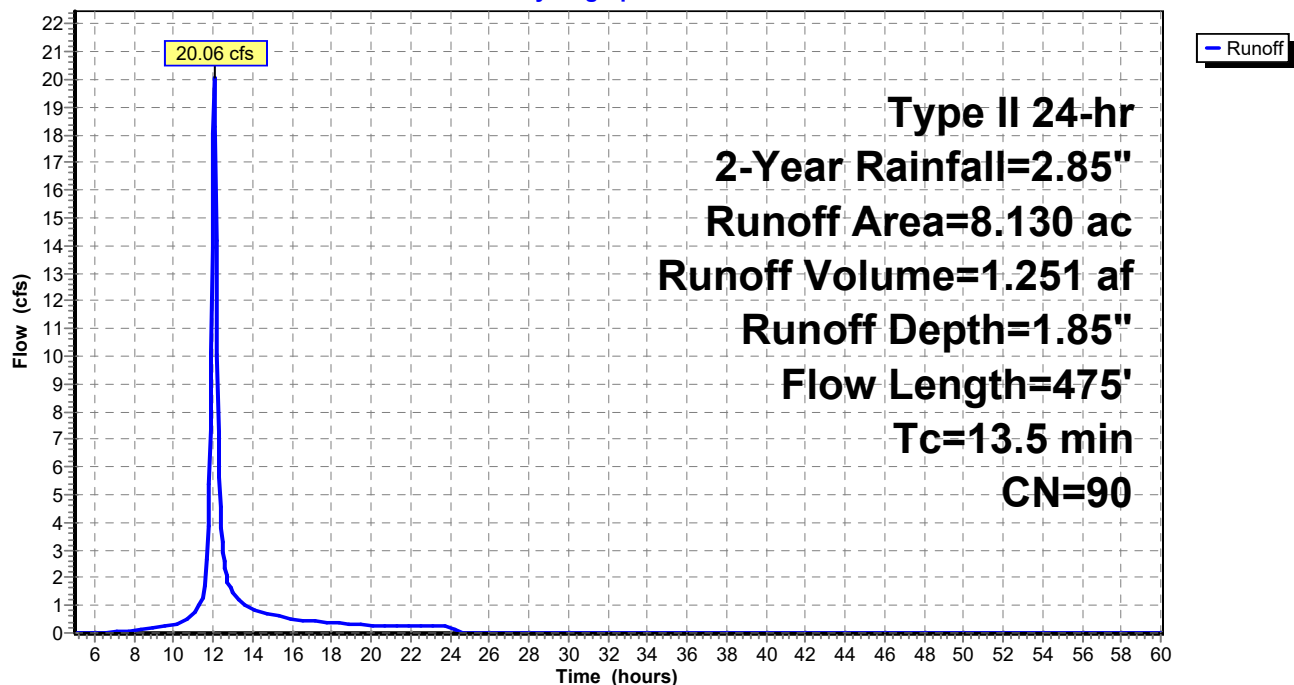
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs
 Type II 24-hr 2-Year Rainfall=2.85"

Area (ac)	CN	Description
6.830	90	1/8 acre lots, 65% imp, HSG C
* 1.300	91	1/8 acre lots, 65% imp, HSG C/D
8.130	90	Weighted Average
2.845		35.00% Pervious Area
5.284		65.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0200	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.15"
3.5	300	0.0050	1.44		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.5	100	0.0035	3.37	4.14	Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
13.5	475	Total			

Subcatchment O2: Off-Site #2

Hydrograph



Summary for Pond P: Pond #1

Inflow Area = 18.350 ac, 71.44% Impervious, Inflow Depth = 2.02" for 2-Year event
 Inflow = 49.79 cfs @ 12.04 hrs, Volume= 3.089 af
 Outflow = 0.70 cfs @ 19.73 hrs, Volume= 1.970 af, Atten= 99%, Lag= 461.3 min
 Primary = 0.70 cfs @ 19.73 hrs, Volume= 1.970 af
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,932.60' @ 19.73 hrs Surf.Area= 102,316 sf Storage= 106,528 cf

Plug-Flow detention time= 1,224.2 min calculated for 1.970 af (64% of inflow)
 Center-of-Mass det. time= 1,120.7 min (1,926.0 - 805.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,931.45'	515,742 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,931.45	0	0	0
1,931.50	86,971	2,174	2,174
1,932.00	94,074	45,261	47,436
1,932.50	101,181	48,814	96,249
1,933.00	106,797	51,995	148,244
1,933.50	111,784	54,645	202,889
1,934.00	116,794	57,145	260,034
1,934.50	122,357	59,788	319,821
1,935.00	127,592	62,487	382,309
1,935.50	135,381	65,743	448,052
1,936.00	135,381	67,691	515,742

Device	Routing	Invert	Outlet Devices
#1	Primary	1,931.45'	30.0" Round Culvert L= 52.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,931.45' / 1,931.00' S= 0.0087 ' / Cc= 0.900 n= 0.012, Flow Area= 4.91 sf
#2	Device 1	1,931.45'	4.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	1,931.95'	2.0" W x 24.0" H Vert. Orifice/Grate C= 0.600
#4	Device 1	1,933.17'	24.0" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#5	Device 1	1,934.50'	11.7" x 2.4" Horiz. Orifice/Grate X 2.00 columns X 7 rows C= 0.600 in 30.0" x 30.0" Grate (44% open area) Limited to weir flow at low heads
#6	Secondary	1,935.50'	250.0' long x 14.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.64 2.67 2.70 2.65 2.64 2.65 2.65 2.63

Primary OutFlow Max=0.70 cfs @ 19.73 hrs HW=1,932.60' (Free Discharge)

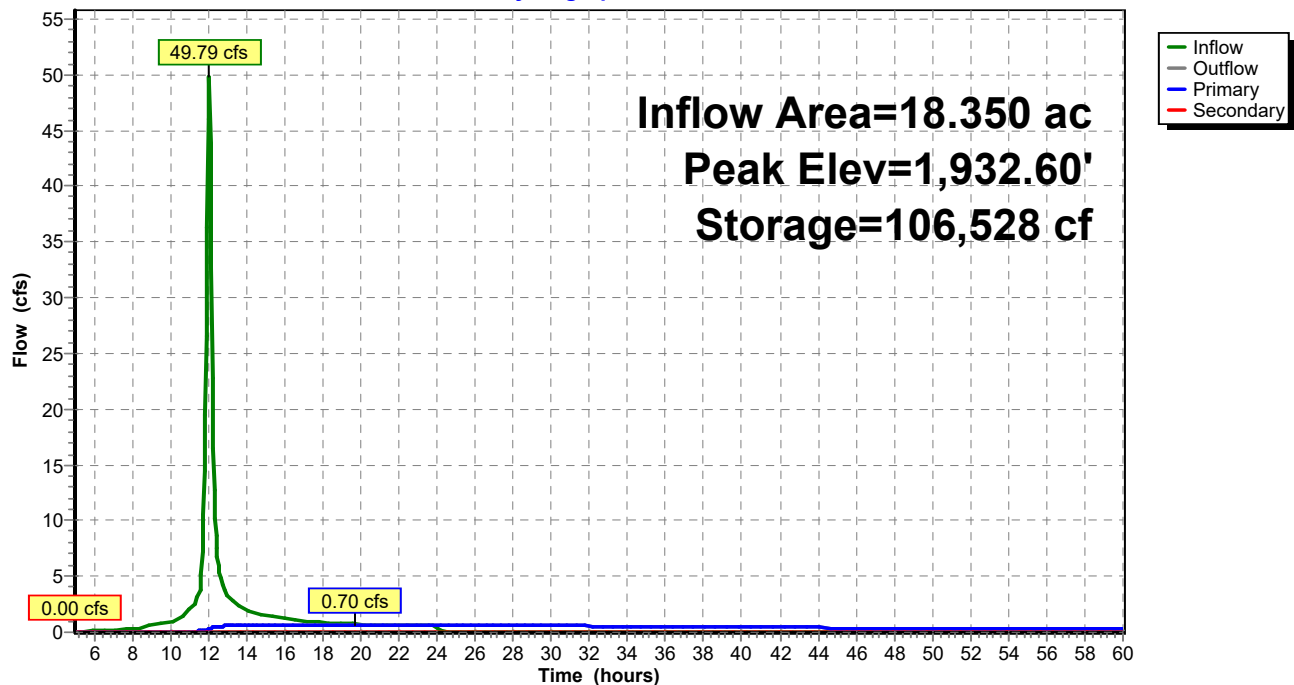
- 1=Culvert (Passes 0.70 cfs of 7.18 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.42 cfs @ 4.78 fps)
- 3=Orifice/Grate (Orifice Controls 0.28 cfs @ 2.59 fps)
- 4=Orifice/Grate (Controls 0.00 cfs)
- 5=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,931.45' (Free Discharge)

- 6=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond P: Pond #1

Hydrograph

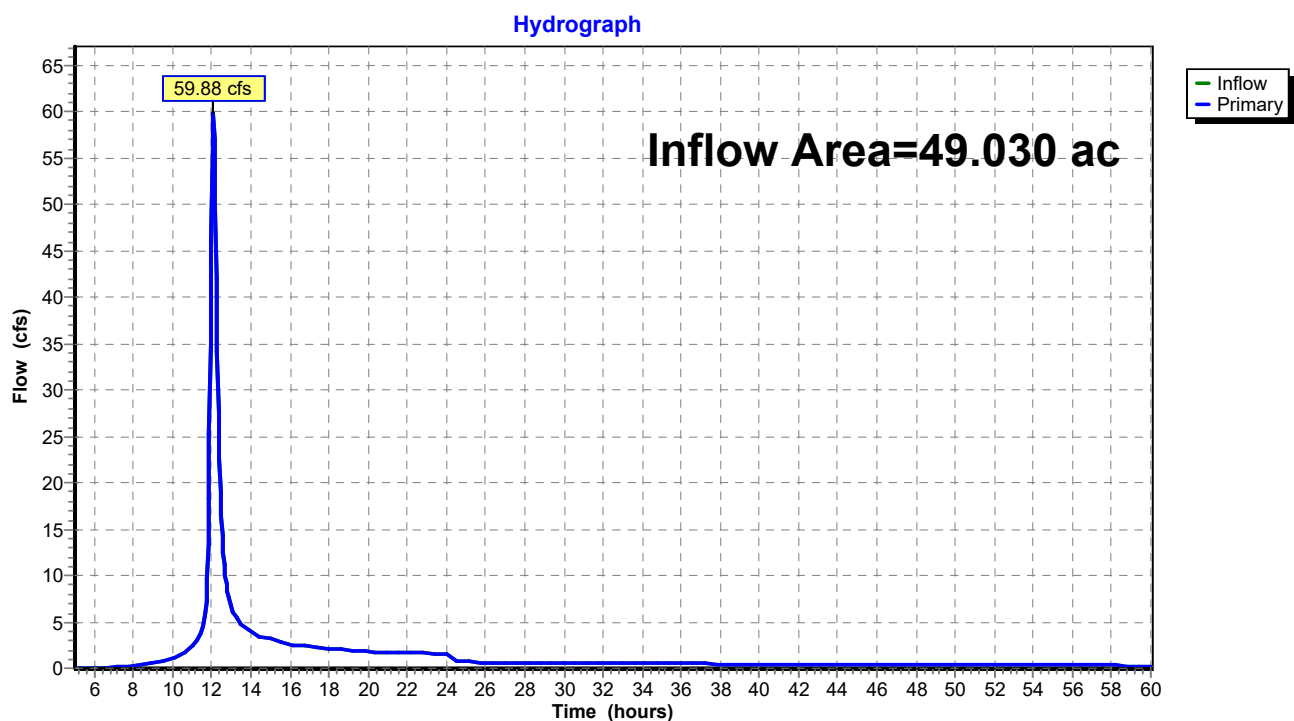


Summary for Link POST: Overall Post-Development

Inflow Area = 49.030 ac, 66.09% Impervious, Inflow Depth > 1.61" for 2-Year event
Inflow = 59.88 cfs @ 12.10 hrs, Volume= 6.560 af
Primary = 59.88 cfs @ 12.10 hrs, Volume= 6.560 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs

Link POST: Overall Post-Development



201055 Revised Post Development Hydrologic Model Type II 24-hr 10-Year Rainfall=4.16"

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Time span=5.00-60.00 hrs, dt=0.05 hrs, 1101 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentA1, A8-A17:

Runoff Area=19.150 ac 61.62% Impervious Runoff Depth>2.97"
Flow Length=3,488' Tc=21.6 min CN=89 Runoff=59.44 cfs 4.745 af

SubcatchmentA2-A7: Post-Development

Runoff Area=18.350 ac 71.44% Impervious Runoff Depth>3.27"
Flow Length=753' Tc=12.9 min CN=92 Runoff=78.68 cfs 4.995 af

SubcatchmentO1: Off-Site #1

Runoff Area=3.400 ac 65.00% Impervious Runoff Depth>3.07"
Flow Length=675' Tc=20.1 min CN=90 Runoff=11.28 cfs 0.870 af

SubcatchmentO2: Off-Site #2

Runoff Area=8.130 ac 65.00% Impervious Runoff Depth>3.07"
Flow Length=475' Tc=13.5 min CN=90 Runoff=32.67 cfs 2.080 af

Pond P: Pond #1

Peak Elev=1,933.19' Storage=168,717 cf Inflow=78.68 cfs 4.995 af
Primary=1.31 cfs 3.391 af Secondary=0.00 cfs 0.000 af Outflow=1.31 cfs 3.391 af

Link POST: Overall Post-Development

Inflow=99.05 cfs 11.087 af
Primary=99.05 cfs 11.087 af

Total Runoff Area = 49.030 ac Runoff Volume = 12.691 af Average Runoff Depth = 3.11"
33.91% Pervious = 16.626 ac 66.09% Impervious = 32.405 ac

201055 Revised Post Development Hydrologic Model Type II 24-hr 10-Year Rainfall=4.16"

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Summary for Subcatchment A1, A8-A17: Post-Development

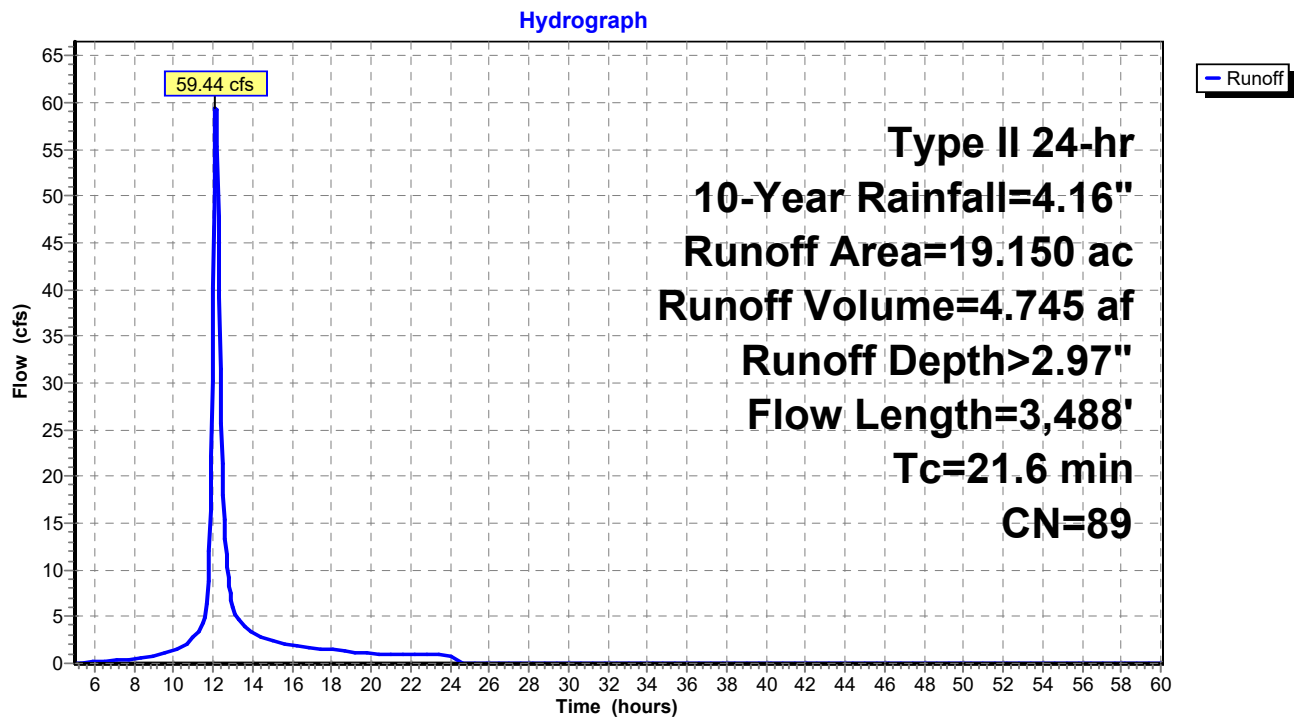
Runoff = 59.44 cfs @ 12.14 hrs, Volume= 4.745 af, Depth> 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=4.16"

Area (ac)	CN	Description
2.900	74	>75% Grass cover, Good, HSG C
* 4.450	77	>75% Grass cover, Good, HSG C/D
5.670	98	Unconnected roofs, HSG C
* 6.130	98	Unconnected pavement, HSG C/D
19.150	89	Weighted Average
7.350		38.38% Pervious Area
11.800		61.62% Impervious Area
11.800		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	150	0.0060	0.76		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.15"
1.7	150	0.0051	1.45		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.9	68	0.0043	1.33		Shallow Concentrated Flow, Paved Kv= 20.3 fps
3.8	180	0.0015	0.79		Shallow Concentrated Flow, Paved Kv= 20.3 fps
6.2	1,315	0.0050	3.54	180.83	Channel Flow, Concrete Liner Area= 51.1 sf Perim= 176.4' r= 0.29' n= 0.013 Concrete, trowel finish
1.5	360	0.0027	4.05	12.73	Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
1.2	380	0.0027	5.31	37.55	Pipe Channel, 36.0" Round Area= 7.1 sf Perim= 9.4' r= 0.75' n= 0.012
3.0	885	0.0015	4.92	437.12	Channel Flow, Area= 88.9 sf Perim= 34.5' r= 2.58' n= 0.022 Earth, clean & straight
21.6	3,488	Total			

Subcatchment A1, A8-A17: Post-Development



201055 Revised Post Development Hydrologic Model Type II 24-hr 10-Year Rainfall=4.16"

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Summary for Subcatchment A2-A7: Post-Development

Runoff = 78.68 cfs @ 12.04 hrs, Volume= 4.995 af, Depth> 3.27"

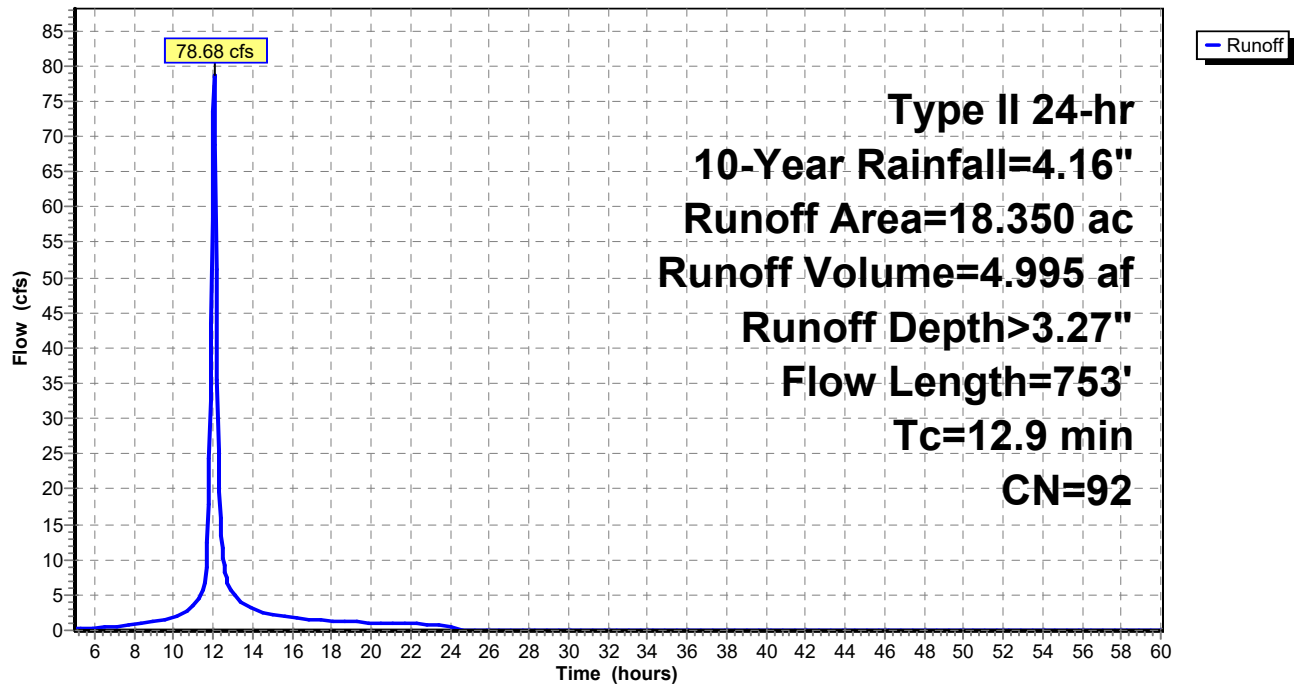
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=4.16"

Area (ac)	CN	Description
1.100	74	>75% Grass cover, Good, HSG C
* 4.140	77	>75% Grass cover, Good, HSG C/D
4.580	98	Unconnected roofs, HSG C
* 6.580	98	Unconnected pavement, HSG C/D
1.950	98	Water Surface, HSG D
18.350	92	Weighted Average
5.240		28.56% Pervious Area
13.110		71.44% Impervious Area
11.160		85.13% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	45	0.0100	0.09		Sheet Flow, Grass: Short n= 0.150 P2= 2.15"
2.2	150	0.0051	1.15		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.9	68	0.0040	1.28		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.5	490	0.0050	5.52	17.33	Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012
12.9	753	Total			

Subcatchment A2-A7: Post-Development

Hydrograph



Summary for Subcatchment O1: Off-Site #1

Runoff = 11.28 cfs @ 12.12 hrs, Volume= 0.870 af, Depth> 3.07"

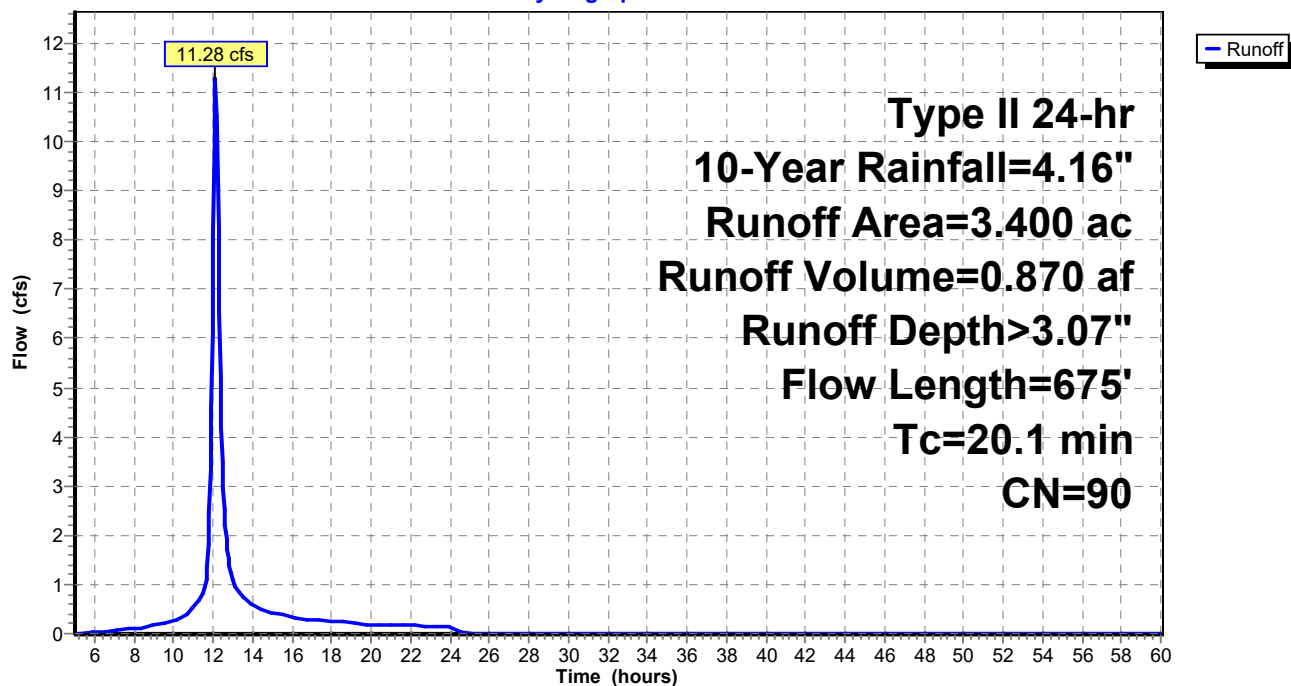
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-Year Rainfall=4.16"

Area (ac)	CN	Description
3.400	90	1/8 acre lots, 65% imp, HSG C
1.190		35.00% Pervious Area
2.210		65.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0200	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.15"
4.4	300	0.0050	1.14		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.2	300	0.0025	0.81		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
20.1	675	Total			

Subcatchment O1: Off-Site #1

Hydrograph



Summary for Subcatchment O2: Off-Site #2

Runoff = 32.67 cfs @ 12.05 hrs, Volume= 2.080 af, Depth> 3.07"

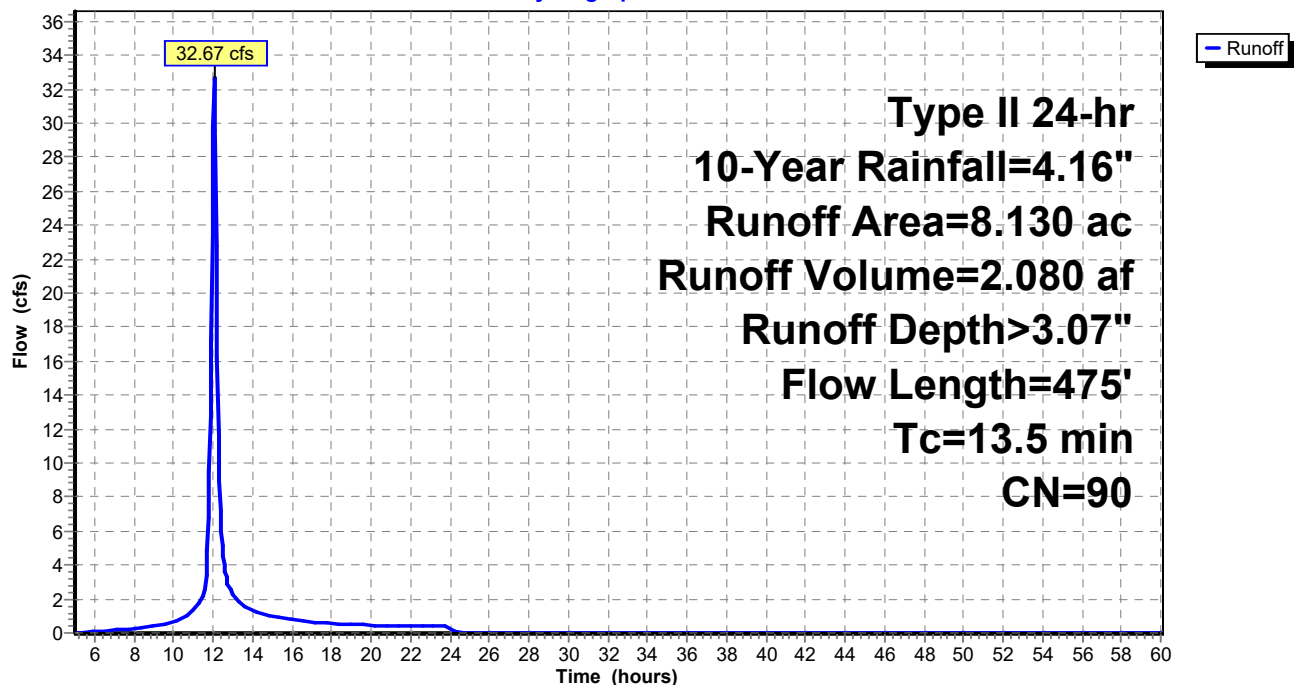
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-Year Rainfall=4.16"

Area (ac)	CN	Description
6.830	90	1/8 acre lots, 65% imp, HSG C
* 1.300	91	1/8 acre lots, 65% imp, HSG C/D
8.130	90	Weighted Average
2.845		35.00% Pervious Area
5.284		65.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0200	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.15"
3.5	300	0.0050	1.44		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.5	100	0.0035	3.37	4.14	Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
13.5	475	Total			

Subcatchment O2: Off-Site #2

Hydrograph



Summary for Pond P: Pond #1

[82] Warning: Early inflow requires earlier time span

Inflow Area = 18.350 ac, 71.44% Impervious, Inflow Depth > 3.27" for 10-Year event
 Inflow = 78.68 cfs @ 12.04 hrs, Volume= 4.995 af
 Outflow = 1.31 cfs @ 18.31 hrs, Volume= 3.391 af, Atten= 98%, Lag= 376.2 min
 Primary = 1.31 cfs @ 18.31 hrs, Volume= 3.391 af
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,933.19' @ 18.31 hrs Surf.Area= 108,692 sf Storage= 168,717 cf

Plug-Flow detention time= 1,176.2 min calculated for 3.391 af (68% of inflow)
 Center-of-Mass det. time= 1,078.2 min (1,870.9 - 792.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,931.45'	515,742 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,931.45	0	0	0
1,931.50	86,971	2,174	2,174
1,932.00	94,074	45,261	47,436
1,932.50	101,181	48,814	96,249
1,933.00	106,797	51,995	148,244
1,933.50	111,784	54,645	202,889
1,934.00	116,794	57,145	260,034
1,934.50	122,357	59,788	319,821
1,935.00	127,592	62,487	382,309
1,935.50	135,381	65,743	448,052
1,936.00	135,381	67,691	515,742

Device	Routing	Invert	Outlet Devices
#1	Primary	1,931.45'	30.0" Round Culvert L= 52.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,931.45' / 1,931.00' S= 0.0087 ' / ' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf
#2	Device 1	1,931.45'	4.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	1,931.95'	2.0" W x 24.0" H Vert. Orifice/Grate C= 0.600
#4	Device 1	1,933.17'	24.0" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#5	Device 1	1,934.50'	11.7" x 2.4" Horiz. Orifice/Grate X 2.00 columns X 7 rows C= 0.600 in 30.0" x 30.0" Grate (44% open area) Limited to weir flow at low heads
#6	Secondary	1,935.50'	250.0' long x 14.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.64 2.67 2.70 2.65 2.64 2.65 2.65 2.63

Primary OutFlow Max=1.30 cfs @ 18.31 hrs HW=1,933.19' (Free Discharge)

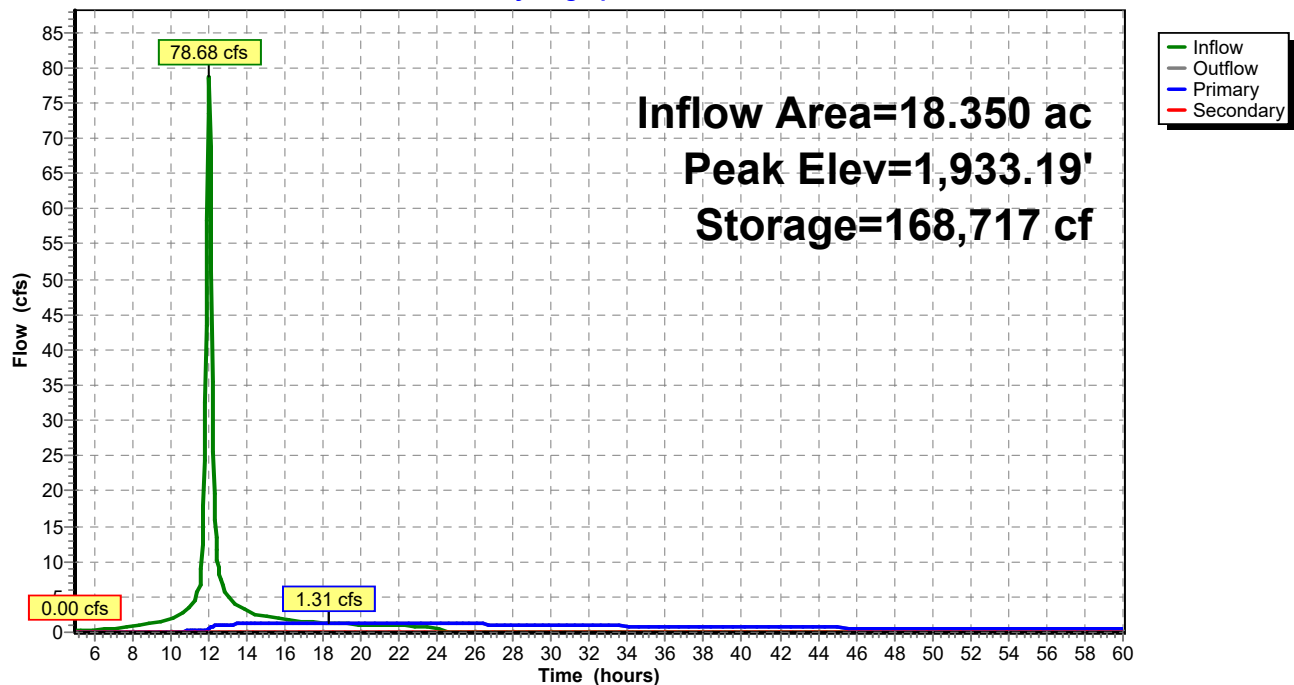
- 1=Culvert (Passes 1.30 cfs of 14.21 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.53 cfs @ 6.04 fps)
- 3=Orifice/Grate (Orifice Controls 0.74 cfs @ 3.57 fps)
- 4=Orifice/Grate (Orifice Controls 0.04 cfs @ 0.45 fps)
- 5=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,931.45' (Free Discharge)

- 6=Broad-Crested Rectangular Weir(Controls 0.00 cfs)

Pond P: Pond #1

Hydrograph

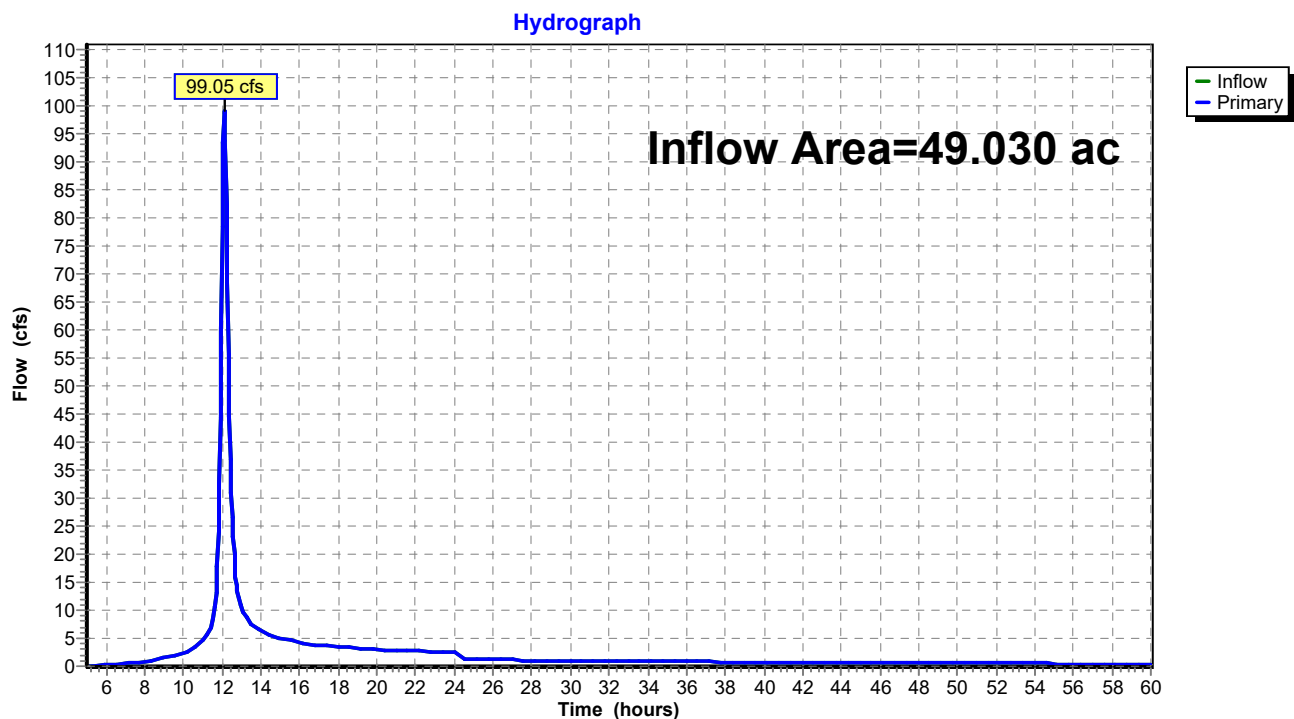


Summary for Link POST: Overall Post-Development

Inflow Area = 49.030 ac, 66.09% Impervious, Inflow Depth > 2.71" for 10-Year event
Inflow = 99.05 cfs @ 12.10 hrs, Volume= 11.087 af
Primary = 99.05 cfs @ 12.10 hrs, Volume= 11.087 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs

Link POST: Overall Post-Development



201055 Revised Post Development Hydrologic Model Type II 24-hr 100-Year Rainfall=6.64"

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Time span=5.00-60.00 hrs, dt=0.05 hrs, 1101 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentA1, A8-A17:

Runoff Area=19.150 ac 61.62% Impervious Runoff Depth>5.34"
Flow Length=3,488' Tc=21.6 min CN=89 Runoff=104.33 cfs 8.528 af

SubcatchmentA2-A7: Post-Development

Runoff Area=18.350 ac 71.44% Impervious Runoff Depth>5.65"
Flow Length=753' Tc=12.9 min CN=92 Runoff=132.68 cfs 8.647 af

SubcatchmentO1: Off-Site #1

Runoff Area=3.400 ac 65.00% Impervious Runoff Depth>5.45"
Flow Length=675' Tc=20.1 min CN=90 Runoff=19.55 cfs 1.544 af

SubcatchmentO2: Off-Site #2

Runoff Area=8.130 ac 65.00% Impervious Runoff Depth>5.45"
Flow Length=475' Tc=13.5 min CN=90 Runoff=56.38 cfs 3.691 af

Pond P: Pond #1

Peak Elev=1,933.85' Storage=242,336 cf Inflow=132.68 cfs 8.647 af
Primary=9.19 cfs 6.931 af Secondary=0.00 cfs 0.000 af Outflow=9.19 cfs 6.931 af

Link POST: Overall Post-Development

Inflow=174.11 cfs 20.694 af
Primary=174.11 cfs 20.694 af

Total Runoff Area = 49.030 ac Runoff Volume = 22.410 af Average Runoff Depth = 5.48"
33.91% Pervious = 16.626 ac 66.09% Impervious = 32.405 ac

Summary for Subcatchment A1, A8-A17: Post-Development

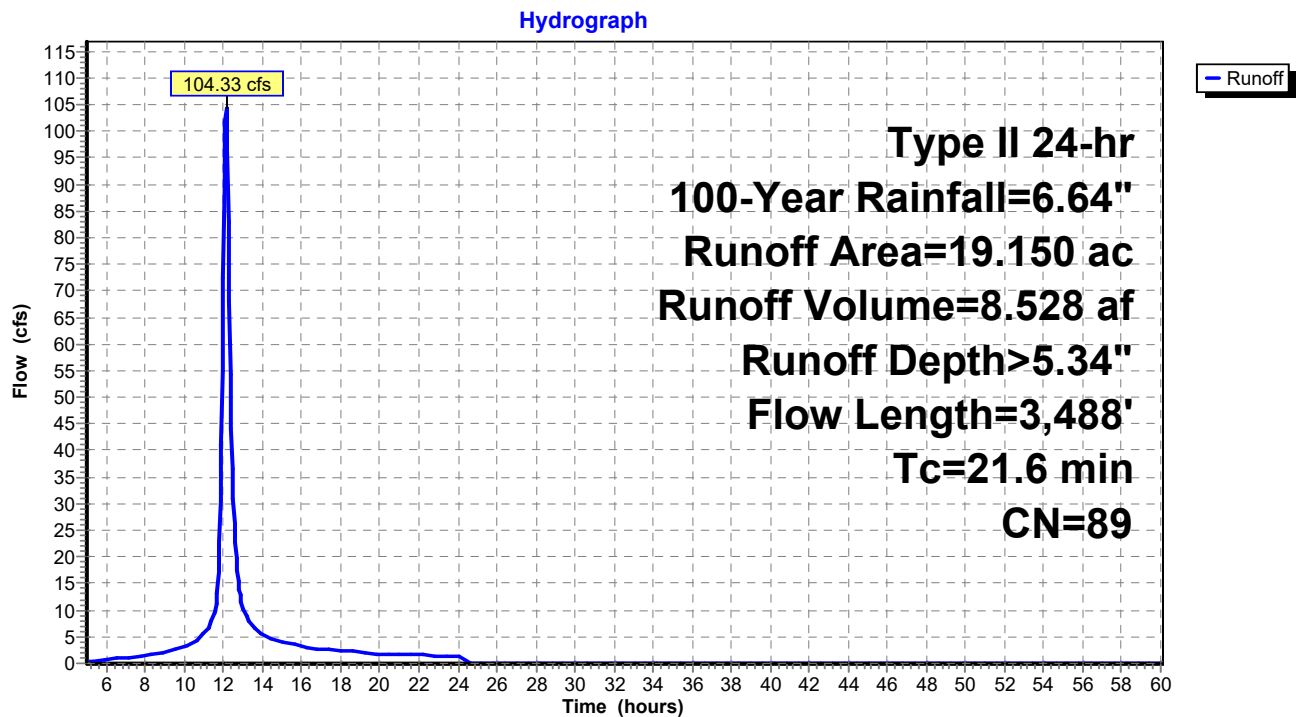
Runoff = 104.33 cfs @ 12.14 hrs, Volume= 8.528 af, Depth> 5.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-Year Rainfall=6.64"

Area (ac)	CN	Description
2.900	74	>75% Grass cover, Good, HSG C
* 4.450	77	>75% Grass cover, Good, HSG C/D
5.670	98	Unconnected roofs, HSG C
* 6.130	98	Unconnected pavement, HSG C/D
19.150	89	Weighted Average
7.350		38.38% Pervious Area
11.800		61.62% Impervious Area
11.800		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	150	0.0060	0.76		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.15"
1.7	150	0.0051	1.45		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.9	68	0.0043	1.33		Shallow Concentrated Flow, Paved Kv= 20.3 fps
3.8	180	0.0015	0.79		Shallow Concentrated Flow, Paved Kv= 20.3 fps
6.2	1,315	0.0050	3.54	180.83	Channel Flow, Concrete Liner Area= 51.1 sf Perim= 176.4' r= 0.29' n= 0.013 Concrete, trowel finish
1.5	360	0.0027	4.05	12.73	Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
1.2	380	0.0027	5.31	37.55	Pipe Channel, 36.0" Round Area= 7.1 sf Perim= 9.4' r= 0.75' n= 0.012
3.0	885	0.0015	4.92	437.12	Channel Flow, Area= 88.9 sf Perim= 34.5' r= 2.58' n= 0.022 Earth, clean & straight
21.6	3,488	Total			

Subcatchment A1, A8-A17: Post-Development



Summary for Subcatchment A2-A7: Post-Development

Runoff = 132.68 cfs @ 12.04 hrs, Volume= 8.647 af, Depth> 5.65"

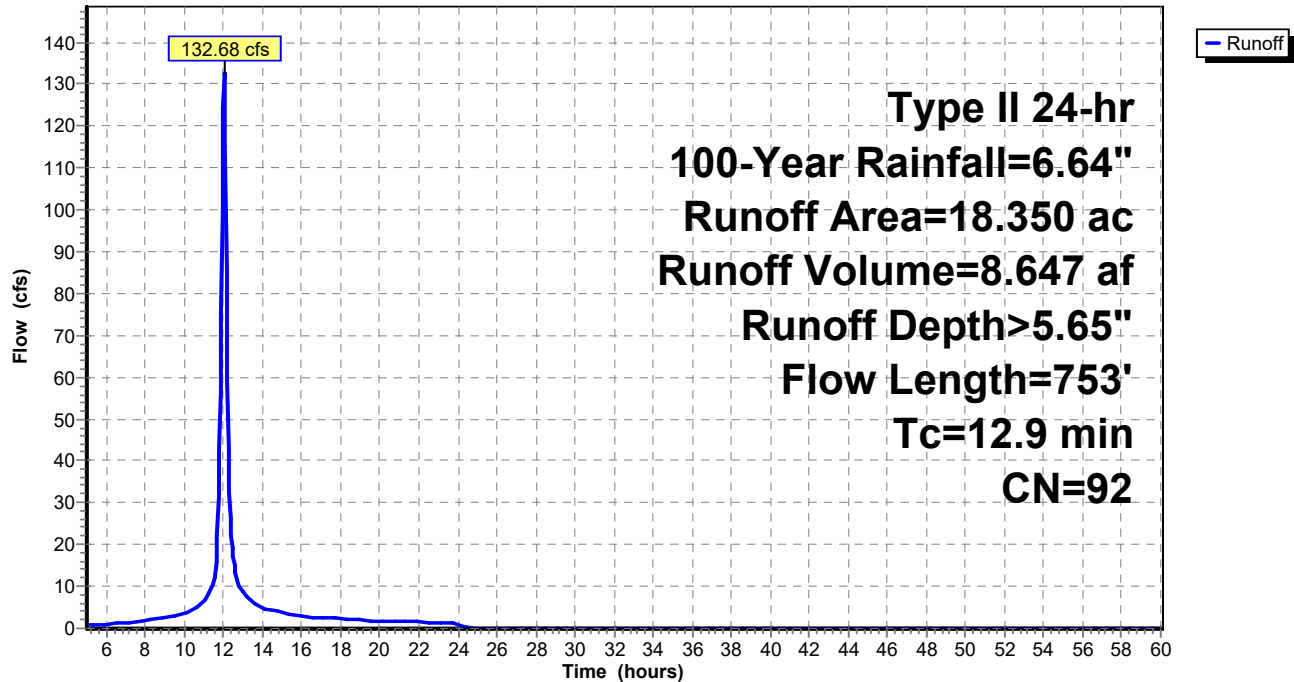
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-Year Rainfall=6.64"

Area (ac)	CN	Description
1.100	74	>75% Grass cover, Good, HSG C
* 4.140	77	>75% Grass cover, Good, HSG C/D
4.580	98	Unconnected roofs, HSG C
* 6.580	98	Unconnected pavement, HSG C/D
1.950	98	Water Surface, HSG D
18.350	92	Weighted Average
5.240		28.56% Pervious Area
13.110		71.44% Impervious Area
11.160		85.13% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	45	0.0100	0.09		Sheet Flow, Grass: Short n= 0.150 P2= 2.15"
2.2	150	0.0051	1.15		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.9	68	0.0040	1.28		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.5	490	0.0050	5.52	17.33	Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012
12.9	753	Total			

Subcatchment A2-A7: Post-Development

Hydrograph



Summary for Subcatchment O1: Off-Site #1

Runoff = 19.55 cfs @ 12.12 hrs, Volume= 1.544 af, Depth> 5.45"

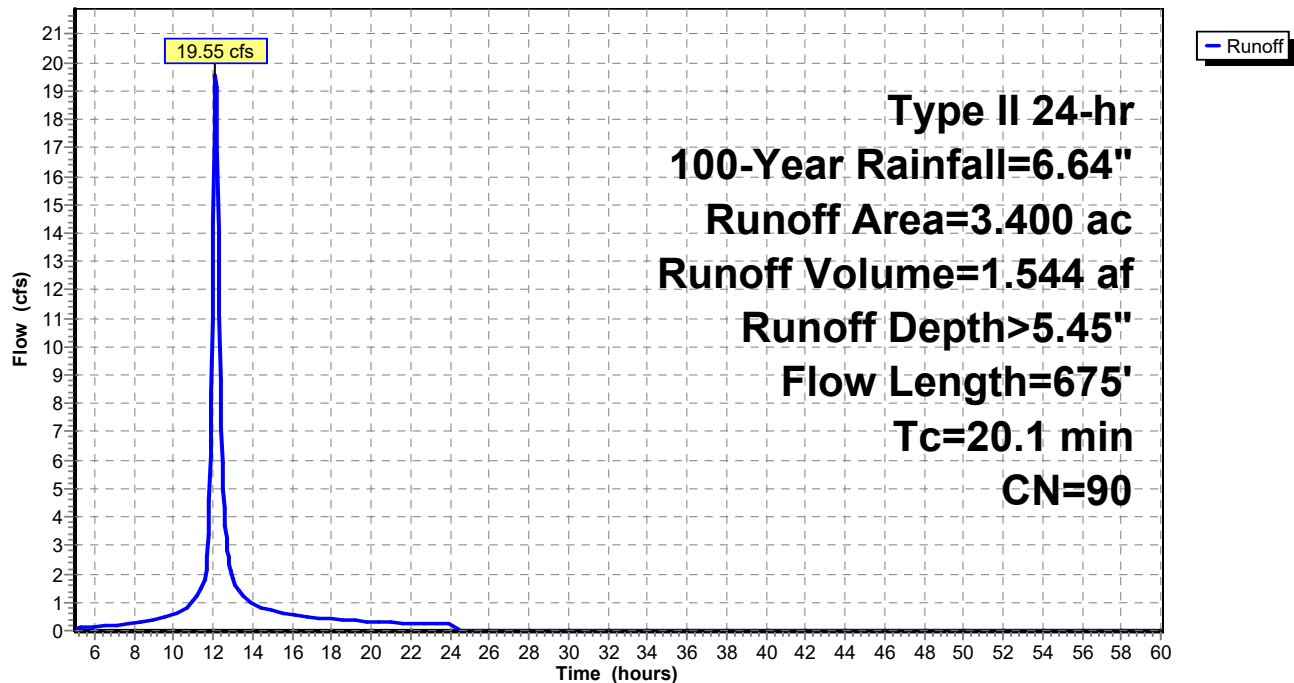
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-Year Rainfall=6.64"

Area (ac)	CN	Description
3.400	90	1/8 acre lots, 65% imp, HSG C
1.190		35.00% Pervious Area
2.210		65.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0200	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.15"
4.4	300	0.0050	1.14		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.2	300	0.0025	0.81		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
20.1	675	Total			

Subcatchment O1: Off-Site #1

Hydrograph



Summary for Subcatchment O2: Off-Site #2

Runoff = 56.38 cfs @ 12.05 hrs, Volume= 3.691 af, Depth> 5.45"

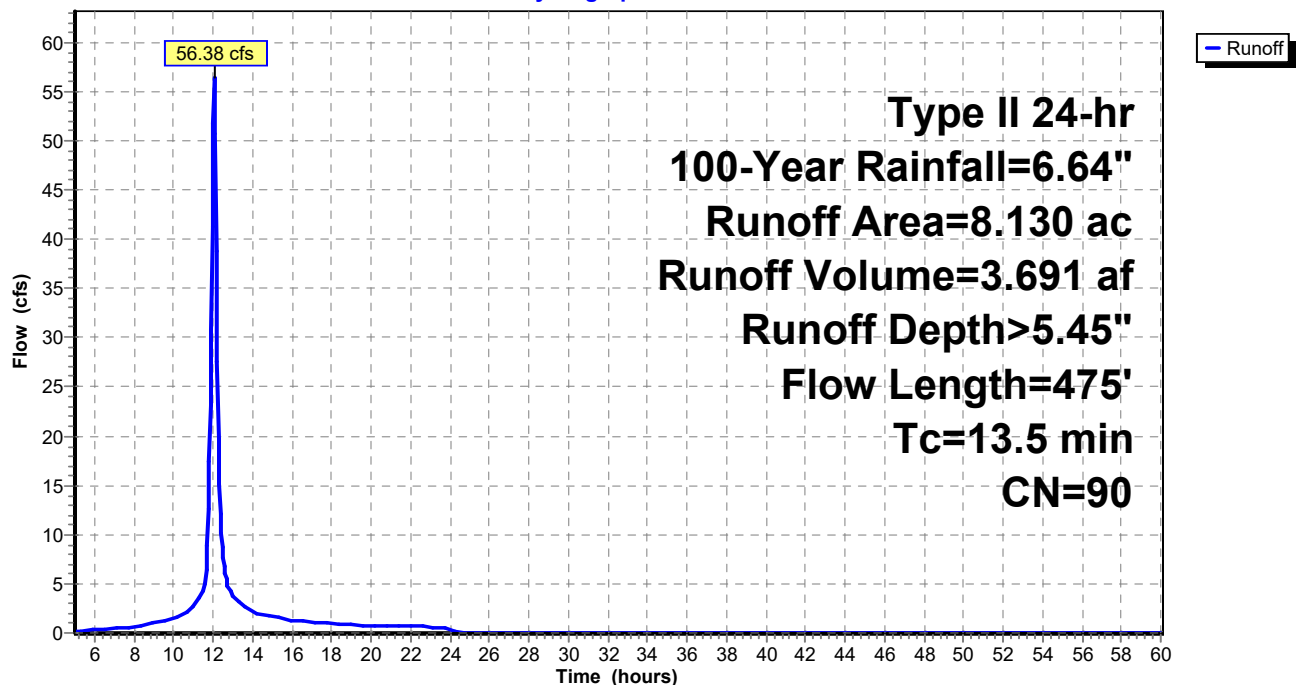
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-Year Rainfall=6.64"

Area (ac)	CN	Description
6.830	90	1/8 acre lots, 65% imp, HSG C
* 1.300	91	1/8 acre lots, 65% imp, HSG C/D
8.130	90	Weighted Average
2.845		35.00% Pervious Area
5.284		65.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0200	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.15"
3.5	300	0.0050	1.44		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.5	100	0.0035	3.37	4.14	Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
13.5	475	Total			

Subcatchment O2: Off-Site #2

Hydrograph



Summary for Pond P: Pond #1

[82] Warning: Early inflow requires earlier time span

Inflow Area = 18.350 ac, 71.44% Impervious, Inflow Depth > 5.65" for 100-Year event
 Inflow = 132.68 cfs @ 12.04 hrs, Volume= 8.647 af
 Outflow = 9.19 cfs @ 12.91 hrs, Volume= 6.931 af, Atten= 93%, Lag= 52.2 min
 Primary = 9.19 cfs @ 12.91 hrs, Volume= 6.931 af
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,933.85' @ 12.91 hrs Surf.Area= 115,266 sf Storage= 242,336 cf

Plug-Flow detention time= 739.0 min calculated for 6.930 af (80% of inflow)
 Center-of-Mass det. time= 659.8 min (1,441.1 - 781.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,931.45'	515,742 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,931.45	0	0	0
1,931.50	86,971	2,174	2,174
1,932.00	94,074	45,261	47,436
1,932.50	101,181	48,814	96,249
1,933.00	106,797	51,995	148,244
1,933.50	111,784	54,645	202,889
1,934.00	116,794	57,145	260,034
1,934.50	122,357	59,788	319,821
1,935.00	127,592	62,487	382,309
1,935.50	135,381	65,743	448,052
1,936.00	135,381	67,691	515,742

Device	Routing	Invert	Outlet Devices
#1	Primary	1,931.45'	30.0" Round Culvert L= 52.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,931.45' / 1,931.00' S= 0.0087 ' / Cc= 0.900 n= 0.012, Flow Area= 4.91 sf
#2	Device 1	1,931.45'	4.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	1,931.95'	2.0" W x 24.0" H Vert. Orifice/Grate C= 0.600
#4	Device 1	1,933.17'	24.0" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#5	Device 1	1,934.50'	11.7" x 2.4" Horiz. Orifice/Grate X 2.00 columns X 7 rows C= 0.600 in 30.0" x 30.0" Grate (44% open area) Limited to weir flow at low heads
#6	Secondary	1,935.50'	250.0' long x 14.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.64 2.67 2.70 2.65 2.64 2.65 2.65 2.63

Primary OutFlow Max=9.18 cfs @ 12.91 hrs HW=1,933.85' (Free Discharge)

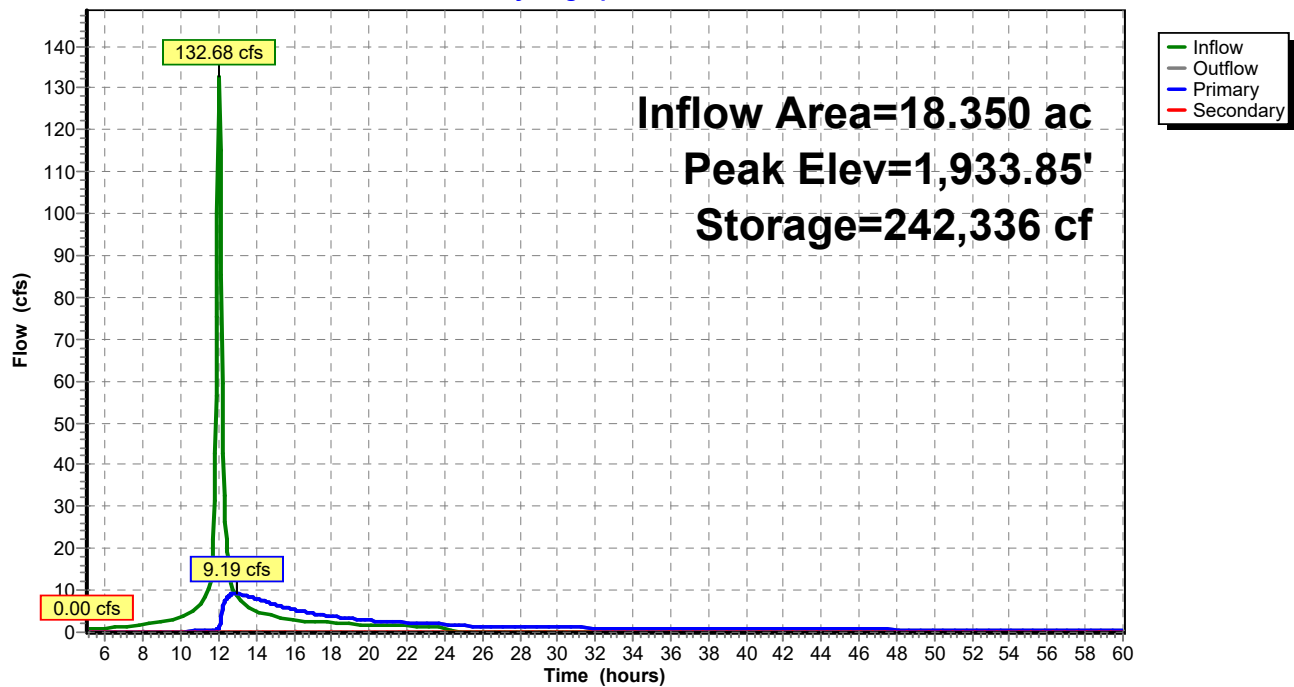
- 1=Culvert (Passes 9.18 cfs of 23.01 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.63 cfs @ 7.19 fps)
- 3=Orifice/Grate (Orifice Controls 1.40 cfs @ 4.42 fps)
- 4=Orifice/Grate (Orifice Controls 7.16 cfs @ 2.64 fps)
- 5=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,931.45' (Free Discharge)

- 6=Broad-Crested Rectangular Weir(Controls 0.00 cfs)

Pond P: Pond #1

Hydrograph

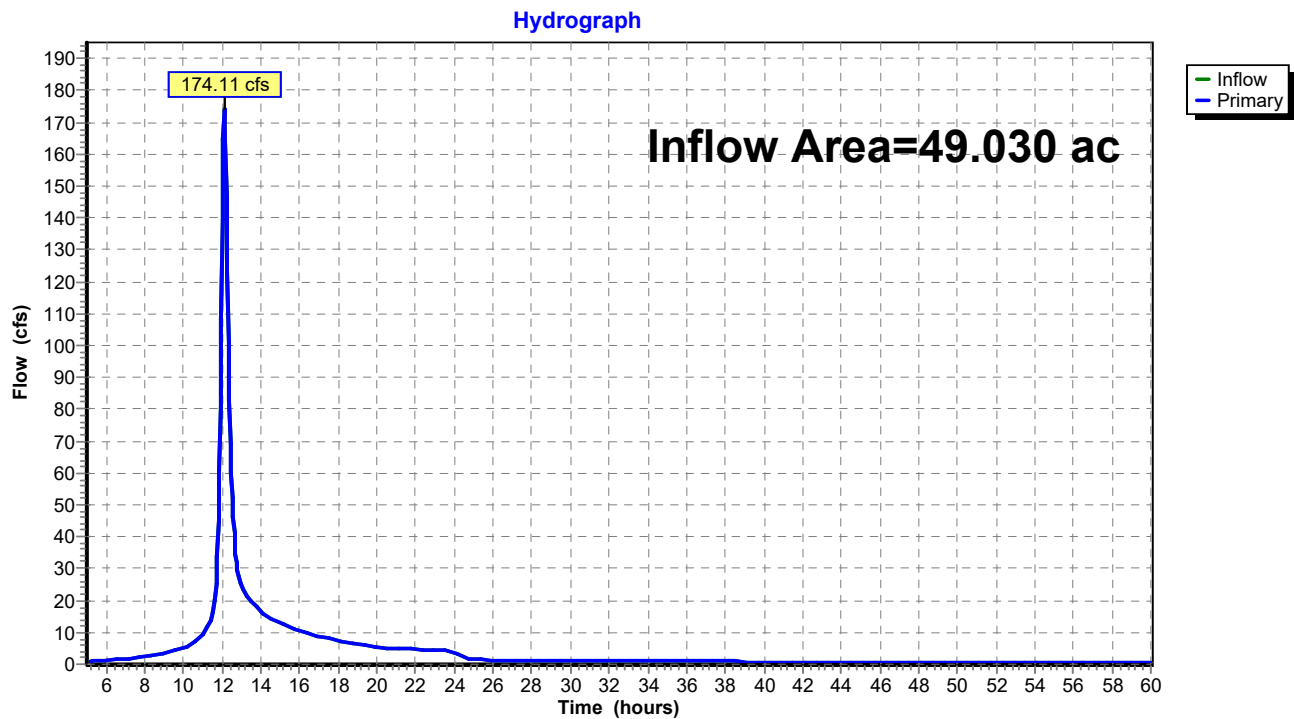


Summary for Link POST: Overall Post-Development

Inflow Area = 49.030 ac, 66.09% Impervious, Inflow Depth > 5.06" for 100-Year event
Inflow = 174.11 cfs @ 12.10 hrs, Volume= 20.694 af
Primary = 174.11 cfs @ 12.10 hrs, Volume= 20.694 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs

Link POST: Overall Post-Development



201055 Revised Post Development Hydrologic Model Type II 24-hr 500-Year Rainfall=8.68"

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Time span=5.00-60.00 hrs, dt=0.05 hrs, 1101 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentA1, A8-A17:

Runoff Area=19.150 ac 61.62% Impervious Runoff Depth>7.31"
Flow Length=3,488' Tc=21.6 min CN=89 Runoff=140.89 cfs 11.669 af

SubcatchmentA2-A7: Post-Development

Runoff Area=18.350 ac 71.44% Impervious Runoff Depth>7.62"
Flow Length=753' Tc=12.9 min CN=92 Runoff=176.55 cfs 11.653 af

SubcatchmentO1: Off-Site #1

Runoff Area=3.400 ac 65.00% Impervious Runoff Depth>7.42"
Flow Length=675' Tc=20.1 min CN=90 Runoff=26.27 cfs 2.102 af

SubcatchmentO2: Off-Site #2

Runoff Area=8.130 ac 65.00% Impervious Runoff Depth>7.41"
Flow Length=475' Tc=13.5 min CN=90 Runoff=75.65 cfs 5.023 af

Pond P: Pond #1

Peak Elev=1,934.43' Storage=310,798 cf Inflow=176.55 cfs 11.653 af
Primary=19.02 cfs 9.906 af Secondary=0.00 cfs 0.000 af Outflow=19.02 cfs 9.906 af

Link POST: Overall Post-Development

Inflow=242.18 cfs 28.700 af
Primary=242.18 cfs 28.700 af

Total Runoff Area = 49.030 ac Runoff Volume = 30.448 af Average Runoff Depth = 7.45"
33.91% Pervious = 16.626 ac 66.09% Impervious = 32.405 ac

Summary for Subcatchment A1, A8-A17: Post-Development

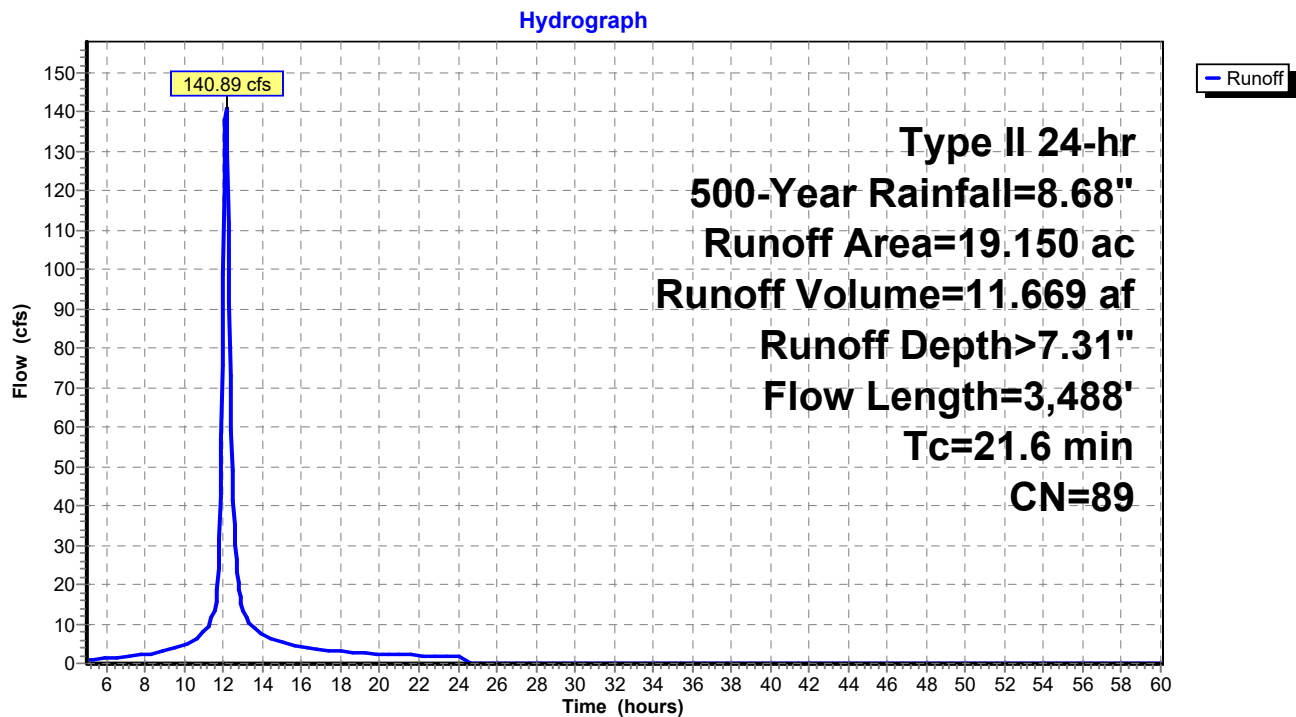
Runoff = 140.89 cfs @ 12.14 hrs, Volume= 11.669 af, Depth> 7.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs
 Type II 24-hr 500-Year Rainfall=8.68"

Area (ac)	CN	Description
2.900	74	>75% Grass cover, Good, HSG C
* 4.450	77	>75% Grass cover, Good, HSG C/D
5.670	98	Unconnected roofs, HSG C
* 6.130	98	Unconnected pavement, HSG C/D
19.150	89	Weighted Average
7.350		38.38% Pervious Area
11.800		61.62% Impervious Area
11.800		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	150	0.0060	0.76		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.15"
1.7	150	0.0051	1.45		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.9	68	0.0043	1.33		Shallow Concentrated Flow, Paved Kv= 20.3 fps
3.8	180	0.0015	0.79		Shallow Concentrated Flow, Paved Kv= 20.3 fps
6.2	1,315	0.0050	3.54	180.83	Channel Flow, Concrete Liner Area= 51.1 sf Perim= 176.4' r= 0.29' n= 0.013 Concrete, trowel finish
1.5	360	0.0027	4.05	12.73	Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
1.2	380	0.0027	5.31	37.55	Pipe Channel, 36.0" Round Area= 7.1 sf Perim= 9.4' r= 0.75' n= 0.012
3.0	885	0.0015	4.92	437.12	Channel Flow, Area= 88.9 sf Perim= 34.5' r= 2.58' n= 0.022 Earth, clean & straight
21.6	3,488	Total			

Subcatchment A1, A8-A17: Post-Development



Summary for Subcatchment A2-A7: Post-Development

Runoff = 176.55 cfs @ 12.04 hrs, Volume= 11.653 af, Depth> 7.62"

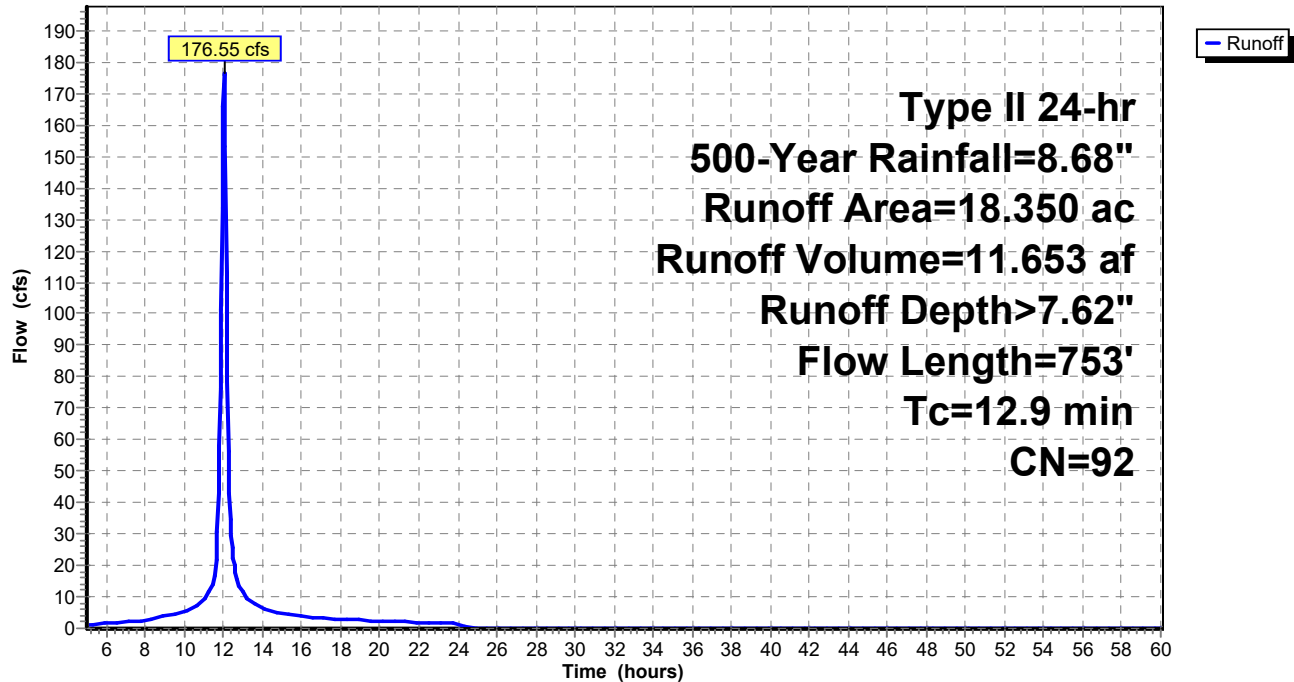
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs
 Type II 24-hr 500-Year Rainfall=8.68"

Area (ac)	CN	Description
1.100	74	>75% Grass cover, Good, HSG C
* 4.140	77	>75% Grass cover, Good, HSG C/D
4.580	98	Unconnected roofs, HSG C
* 6.580	98	Unconnected pavement, HSG C/D
1.950	98	Water Surface, HSG D
18.350	92	Weighted Average
5.240		28.56% Pervious Area
13.110		71.44% Impervious Area
11.160		85.13% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	45	0.0100	0.09		Sheet Flow, Grass: Short n= 0.150 P2= 2.15"
2.2	150	0.0051	1.15		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.9	68	0.0040	1.28		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.5	490	0.0050	5.52	17.33	Pipe Channel, 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012
12.9	753	Total			

Subcatchment A2-A7: Post-Development

Hydrograph



Summary for Subcatchment O1: Off-Site #1

Runoff = 26.27 cfs @ 12.12 hrs, Volume= 2.102 af, Depth> 7.42"

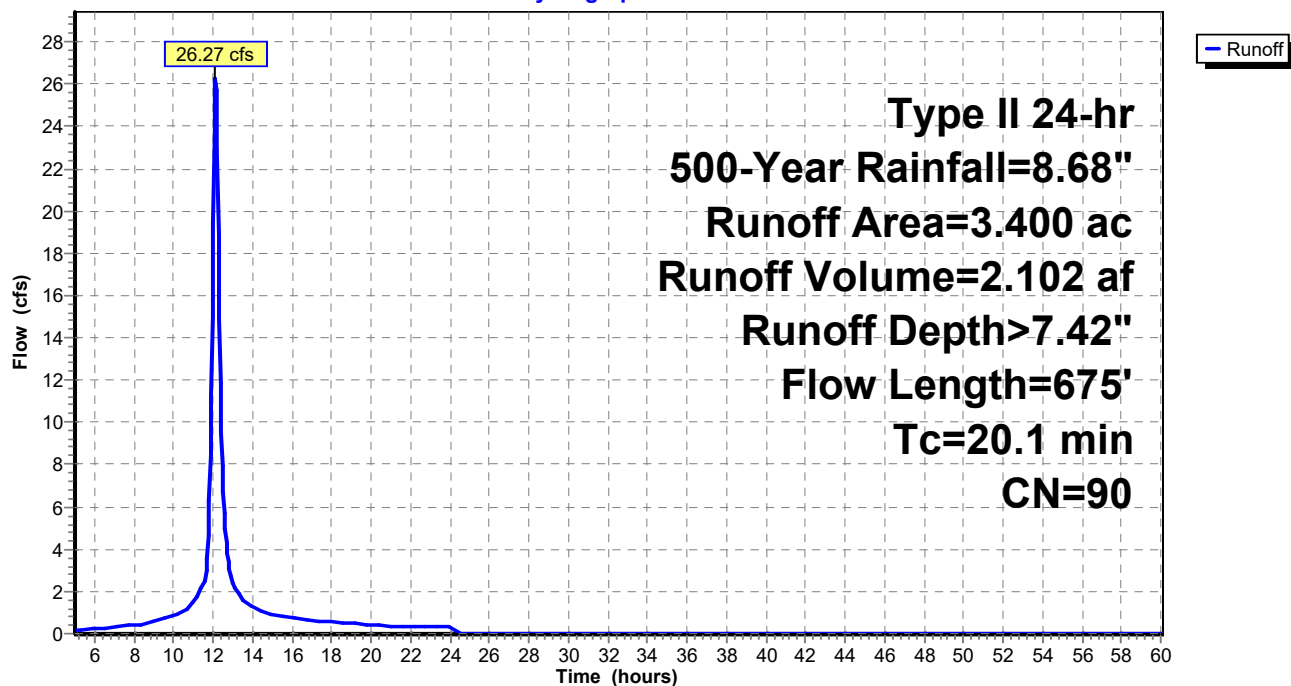
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs
 Type II 24-hr 500-Year Rainfall=8.68"

Area (ac)	CN	Description
3.400	90	1/8 acre lots, 65% imp, HSG C
1.190		35.00% Pervious Area
2.210		65.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0200	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.15"
4.4	300	0.0050	1.14		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.2	300	0.0025	0.81		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
20.1	675	Total			

Subcatchment O1: Off-Site #1

Hydrograph



Summary for Subcatchment O2: Off-Site #2

Runoff = 75.65 cfs @ 12.05 hrs, Volume= 5.023 af, Depth> 7.41"

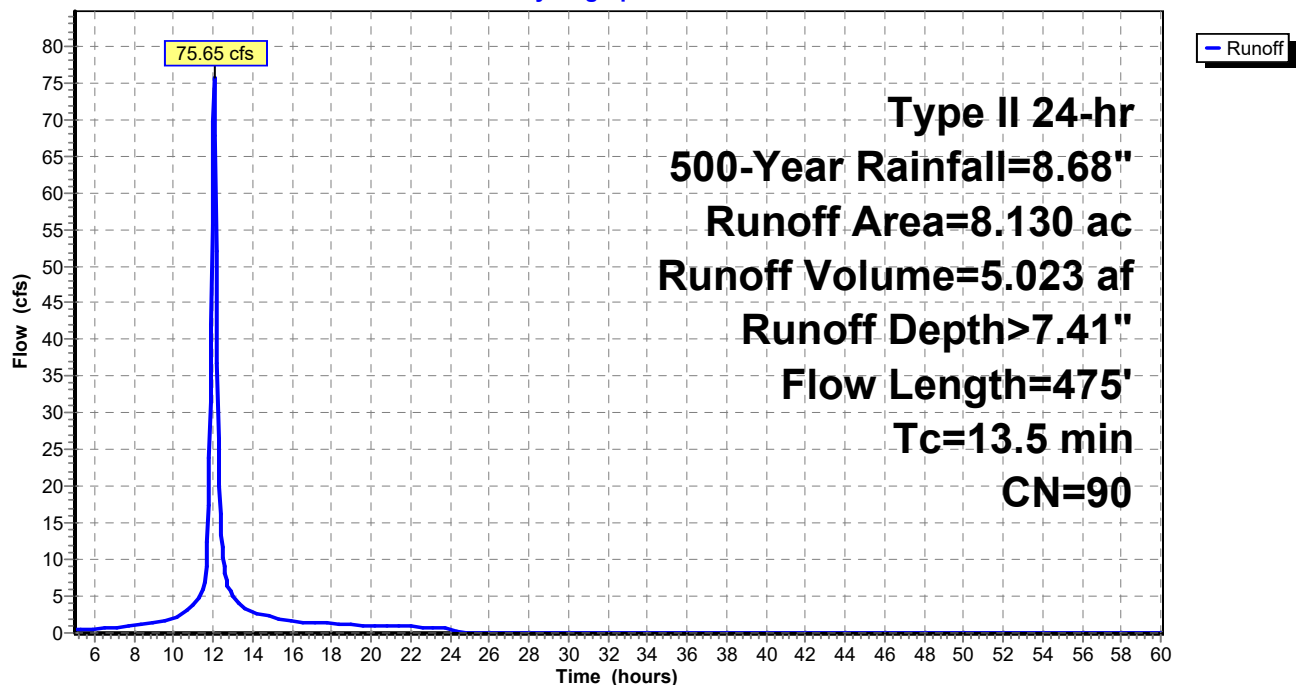
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs
 Type II 24-hr 500-Year Rainfall=8.68"

Area (ac)	CN	Description
6.830	90	1/8 acre lots, 65% imp, HSG C
* 1.300	91	1/8 acre lots, 65% imp, HSG C/D
8.130	90	Weighted Average
2.845		35.00% Pervious Area
5.284		65.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0200	0.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.15"
3.5	300	0.0050	1.44		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.5	100	0.0035	3.37	4.14	Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
13.5	475	Total			

Subcatchment O2: Off-Site #2

Hydrograph



Summary for Pond P: Pond #1

[82] Warning: Early inflow requires earlier time span

Inflow Area = 18.350 ac, 71.44% Impervious, Inflow Depth > 7.62" for 500-Year event
 Inflow = 176.55 cfs @ 12.04 hrs, Volume= 11.653 af
 Outflow = 19.02 cfs @ 12.57 hrs, Volume= 9.906 af, Atten= 89%, Lag= 31.8 min
 Primary = 19.02 cfs @ 12.57 hrs, Volume= 9.906 af
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,934.43' @ 12.57 hrs Surf.Area= 121,534 sf Storage= 310,798 cf

Plug-Flow detention time= 578.6 min calculated for 9.903 af (85% of inflow)
 Center-of-Mass det. time= 511.0 min (1,287.4 - 776.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,931.45'	515,742 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,931.45	0	0	0
1,931.50	86,971	2,174	2,174
1,932.00	94,074	45,261	47,436
1,932.50	101,181	48,814	96,249
1,933.00	106,797	51,995	148,244
1,933.50	111,784	54,645	202,889
1,934.00	116,794	57,145	260,034
1,934.50	122,357	59,788	319,821
1,935.00	127,592	62,487	382,309
1,935.50	135,381	65,743	448,052
1,936.00	135,381	67,691	515,742

Device	Routing	Invert	Outlet Devices
#1	Primary	1,931.45'	30.0" Round Culvert L= 52.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,931.45' / 1,931.00' S= 0.0087 ' / Cc= 0.900 n= 0.012, Flow Area= 4.91 sf
#2	Device 1	1,931.45'	4.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	1,931.95'	2.0" W x 24.0" H Vert. Orifice/Grate C= 0.600
#4	Device 1	1,933.17'	24.0" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#5	Device 1	1,934.50'	11.7" x 2.4" Horiz. Orifice/Grate X 2.00 columns X 7 rows C= 0.600 in 30.0" x 30.0" Grate (44% open area) Limited to weir flow at low heads
#6	Secondary	1,935.50'	250.0' long x 14.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.64 2.67 2.70 2.65 2.64 2.65 2.65 2.63

Primary OutFlow Max=19.02 cfs @ 12.57 hrs HW=1,934.43' (Free Discharge)

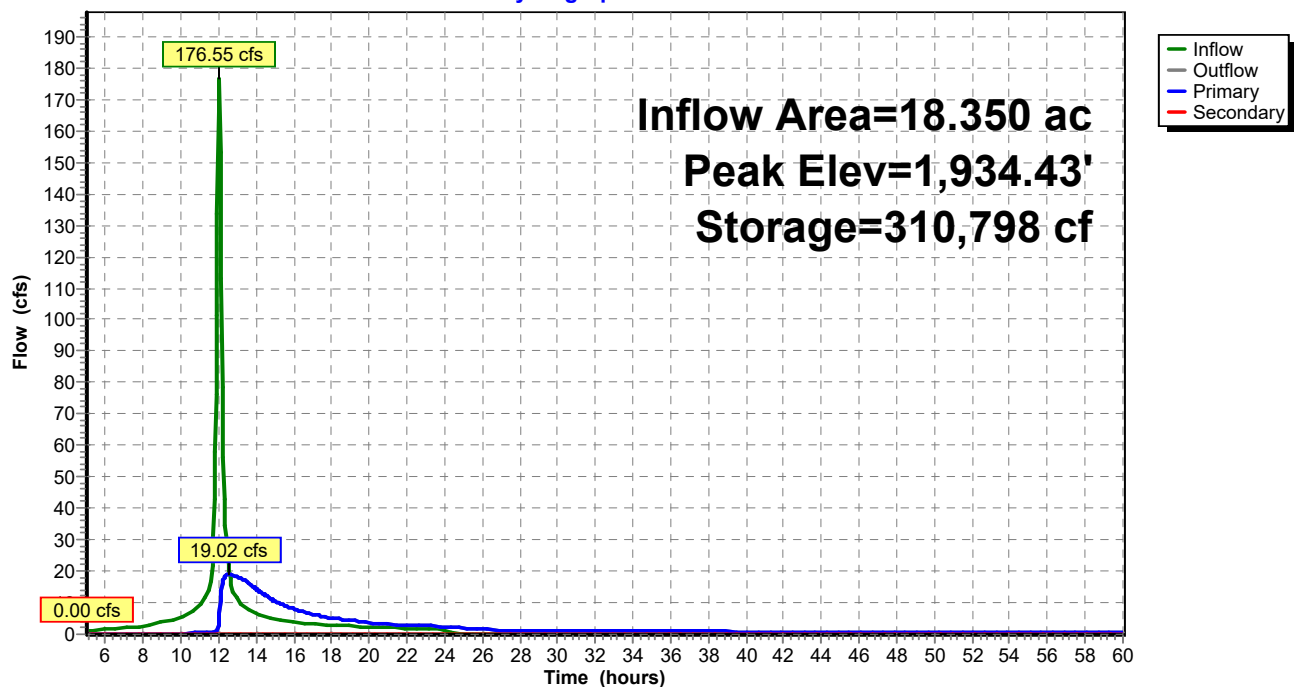
- 1=Culvert (Passes 19.02 cfs of 30.04 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.70 cfs @ 8.07 fps)
- 3=Orifice/Grate (Orifice Controls 1.91 cfs @ 5.73 fps)
- 4=Orifice/Grate (Orifice Controls 16.41 cfs @ 4.10 fps)
- 5=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,931.45' (Free Discharge)

- 6=Broad-Crested Rectangular Weir(Controls 0.00 cfs)

Pond P: Pond #1

Hydrograph

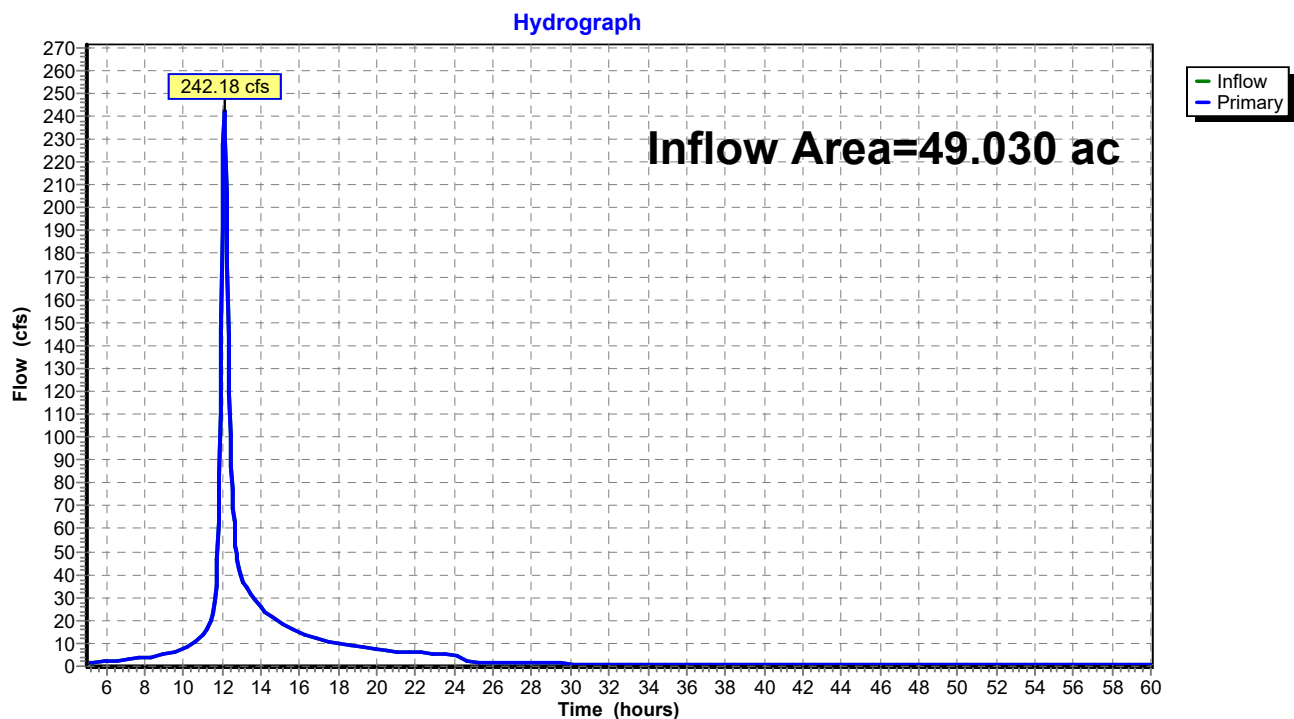


Summary for Link POST: Overall Post-Development

Inflow Area = 49.030 ac, 66.09% Impervious, Inflow Depth > 7.02" for 500-Year event
Inflow = 242.18 cfs @ 12.10 hrs, Volume= 28.700 af
Primary = 242.18 cfs @ 12.10 hrs, Volume= 28.700 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-60.00 hrs, dt= 0.05 hrs

Link POST: Overall Post-Development



APPENDIX C

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN (PCSMP) SUBMITTAL CHECKLIST

NEBRASKA
H₂O

Post-Construction Stormwater Management Plan (PCSMP)
Submittal Checklist

Preliminary submittals required by the City will include preliminary information. Final submittals shall be representative of the intended construction bid package.

PROJECT NAME: Theatre District - Hastings, Nebraska

PLANS

- ☒ Site topography including existing contours, property lines and easements, utilities, and site features such as existing water bodies, trees and shrubs, pavement and other structures
- ☒ Proposed contours
- ☒ Proposed inlets, storm sewer, culverts, and drainageways
- ☒ Proposed STFs and/or detention facilities
- ☒ Proposed roadways, parking, building footprints, and other structures
- ☒ A table shall be provided in construction drawings that includes, for each Stormwater Treatment Facility (STF) The information shall be provided on drawings in a format that is consistent with the following:

STF Identification Number	STF Type	STF Location (Lat/Long)	Drainage Area (Acres)	Design WQCV (cf) or Q _{WQ} (cfs)	WQCV (cf) or Q _{WQ} (cfs) Provided

CALCULATIONS

- ☒ Water Quality Volume (WQCV) or Water Quality Volume Discharge Rate (Q_{WQ}) for each STF (To be included with a site design or subdivision drainage study)
- ☒ Drainage Study

AGREEMENTS

A maintenance agreement is required for neighborhood level and lot level STFs. If an agreement is made for mitigation off site or other agreements are made, make note and describe below

- ☒ Inspection and Maintenance Agreement
- ☐ Other Agreement

CERTIFICATION OF PERMANENT STFs

Unless otherwise indicated by the City, a Hold on the Certificate of Occupancy will be placed on the project until the STF has been certified. If applicable, check “Hold” until certification is received. If not applicable, check N/A.

- ☒ Hold on C.O.
- ☐ N/A

Submitted upon completion of a project; a statement by a professional engineer licensed in the State of Nebraska or person(s) under the direct supervision of a professional engineer licensed in the State of Nebraska attesting that the completed project is in compliance with the approved Final Plan.

- ☐ Certification of Permanent STFs
- ☐ Record Drawings (if required by City)

☐ Hold on C.O. Released (if applicable)

Released By:

APPENDIX D

THREATENED AND ENDANGERED SPECIES LIST



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Nebraska Ecological Services Field Office
9325 B South Alda Rd., Ste B
Wood River, NE 68883-9565
Phone: (308) 382-6468 Fax: (308) 384-8835
<http://www.fws.gov/nebraskaes>

In Reply Refer To:
Consultation Code: 06E22000-2021-SLI-0238
Event Code: 06E22000-2021-E-00365
Project Name: Imperial Mall - Hastings, Nebraska

February 05, 2021

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:

<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>;

<http://www.towerkill.com>; and

[http://](http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html)

www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
 - Migratory Birds
 - Wetlands
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Nebraska Ecological Services Field Office

9325 B South Alda Rd., Ste B

Wood River, NE 68883-9565

(308) 382-6468

Project Summary

Consultation Code: 06E22000-2021-SLI-0238

Event Code: 06E22000-2021-E-00365

Project Name: Imperial Mall - Hastings, Nebraska

Project Type: DEVELOPMENT

Project Description: REGA Engineering Group, Inc. is applying for a Planned District Development to re-develop the commercial area known as the Imperial Mall in Hastings, Nebraska. The commercial development will remove all the old paving and infrastructure to create a new public street with commercial lots on either side. We are projecting 11 building pads comprised of potential grocery stores, apartments, fast-food restaurants, and retail space. The site demolition will occur in early 2021 with site grading finishing up around June 2021. The majority of the existing trees are to remain, except for trees that were within the old parking lot islands. The public utilities will be completed by the end of 2021. The timeline to achieve the full build out is unknown at this time.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.5949407,-98.42279262296589,14z>



Counties: Adams County, Nebraska

Endangered Species Act Species

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Birds

NAME	STATUS
Piping Plover <i>Charadrius melodus</i> Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Whooping Crane <i>Grus americana</i> Population: Wherever found, except where listed as an experimental population There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/758	Endangered

Fishes

NAME	STATUS
Pallid Sturgeon <i>Scaphirhynchus albus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7162	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

■ probability of presence ■ breeding season | survey effort — no data

SPECIES JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Red-headed
Woodpecker
BCC Rangewide
(CON)



Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

APPENDIX E

USDA WEB SOIL SURVEY



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Adams County, Nebraska**

Imperial Mall - Hastings, NE



January 25, 2021

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

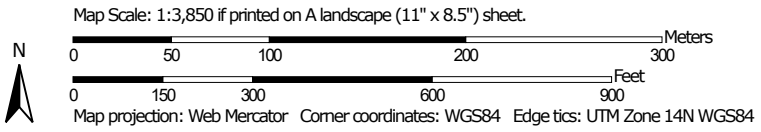
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

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Soil Map may not be valid at this scale.



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MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Adams County, Nebraska

Survey Area Data: Version 23, Jun 3, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 2, 2015—Mar 2, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
3820	Butler silt loam, 0 to 1 percent slopes	24.3	61.5%
3864	Hastings silt loam, 0 to 1 percent slopes	11.1	28.1%
3880	Holder silt loam, 1 to 3 percent slopes	4.1	10.4%
Totals for Area of Interest		39.6	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Adams County, Nebraska

3820—Butler silt loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2qsjx
Elevation: 1,130 to 2,770 feet
Mean annual precipitation: 23 to 31 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 149 to 175 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Butler and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Butler

Setting

Landform: Swales
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Loess

Typical profile

Ap - 0 to 9 inches: silt loam
E - 9 to 13 inches: silt loam
Bt - 13 to 34 inches: silty clay
BC - 34 to 41 inches: silty clay loam
C - 41 to 79 inches: silty clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 4 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 4 percent
Maximum salinity: Nonsaline (0.0 to 0.6 mmhos/cm)
Available water capacity: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): 2w
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C/D
Ecological site: R075XY057NE - Clayey Plains
Forage suitability group: Wet (G075XY900NE)
Other vegetative classification: Wet (G075XY900NE)

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Hydric soil rating: No

Minor Components

Fillmore, frequently ponded

Percent of map unit: 8 percent

Landform: Playas

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: R075XY049NE - Closed Upland Depression

Other vegetative classification: Closed Upland Depression (G075XY910NE)

Hydric soil rating: Yes

Crete

Percent of map unit: 6 percent

Landform: Hillslopes

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Interfluve

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R075XY057NE - Clayey Plains

Hydric soil rating: No

Olbut, occasionally ponded

Percent of map unit: 1 percent

Landform: Playas

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: R075XY083NE - Saline Depression

Other vegetative classification: Saline (G075XY895NE)

Hydric soil rating: Yes

3864—Hastings silt loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2qsjy

Elevation: 1,130 to 2,770 feet

Mean annual precipitation: 23 to 31 inches

Mean annual air temperature: 50 to 54 degrees F

Frost-free period: 149 to 175 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Hastings and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hastings

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess

Typical profile

Ap - 0 to 6 inches: silt loam
A - 6 to 13 inches: silty clay loam
BA - 13 to 17 inches: silty clay loam
Bt - 17 to 32 inches: silty clay loam
Bk - 32 to 39 inches: silty clay loam
C - 39 to 79 inches: silt loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 2 percent
Maximum salinity: Nonsaline (0.0 to 0.8 mmhos/cm)
Available water capacity: High (about 11.5 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 1
Hydrologic Soil Group: C
Ecological site: R075XY058NE - Loamy Plains
Forage suitability group: Loam (G075XY100NE)
Other vegetative classification: Loam (G075XY100NE)
Hydric soil rating: No

Minor Components

Crete

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R075XY057NE - Clayey Plains
Hydric soil rating: No

Fillmore, frequently ponded

Percent of map unit: 4 percent
Landform: Playas

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Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R075XY049NE - Closed Upland Depression
Other vegetative classification: Closed Upland Depression (G075XY910NE)
Hydric soil rating: Yes

Butler

Percent of map unit: 4 percent
Landform: Swales
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Concave
Across-slope shape: Linear
Ecological site: R075XY057NE - Clayey Plains
Other vegetative classification: Wet (G075XY900NE)
Hydric soil rating: No

Holder

Percent of map unit: 2 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R075XY058NE - Loamy Plains
Other vegetative classification: Loam (G075XY100NE)
Hydric soil rating: No

3880—Holder silt loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2qskd
Elevation: 1,130 to 2,770 feet
Mean annual precipitation: 23 to 31 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 149 to 175 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Holder and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Holder

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit

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Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loess

Typical profile

Ap - 0 to 10 inches: silt loam
BA - 10 to 14 inches: silty clay loam
Bt - 14 to 28 inches: silty clay loam
BC - 28 to 36 inches: silt loam
C - 36 to 79 inches: silt loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 2 percent
Maximum salinity: Nonsaline (0.0 to 0.8 mmhos/cm)
Available water capacity: High (about 11.9 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: R075XY058NE - Loamy Plains
Forage suitability group: Loam (G075XY100NE)
Other vegetative classification: Loam (G075XY100NE)
Hydric soil rating: No

Minor Components

Hastings

Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R075XY058NE - Loamy Plains
Other vegetative classification: Loam (G075XY100NE)
Hydric soil rating: No

Butler

Percent of map unit: 5 percent
Landform: Swales
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Concave
Across-slope shape: Linear
Ecological site: R075XY057NE - Clayey Plains
Other vegetative classification: Wet (G075XY900NE)

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Hydric soil rating: No

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

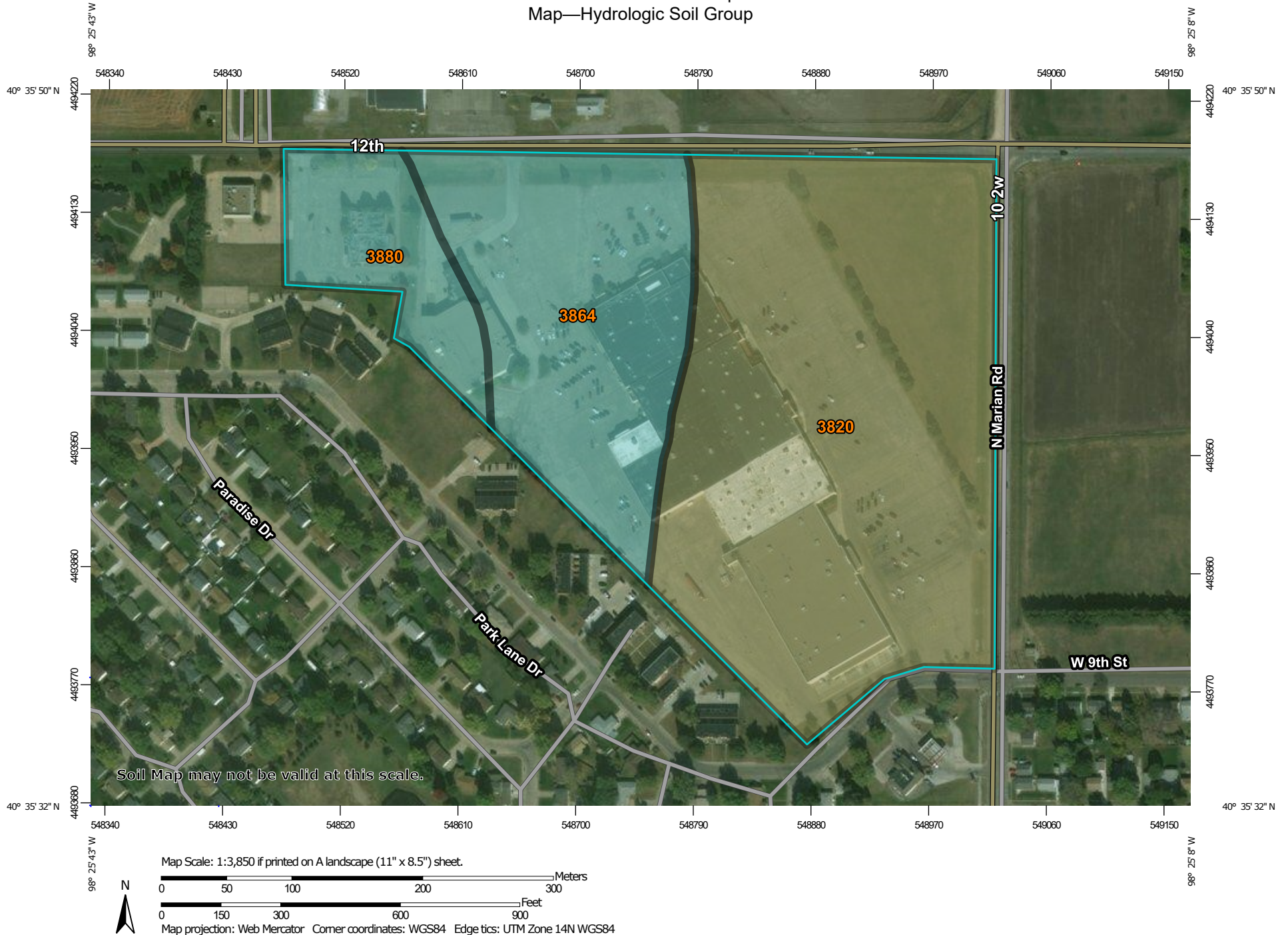
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Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Custom Soil Resource Report Map—Hydrologic Soil Group



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MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points

 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Adams County, Nebraska
Survey Area Data: Version 23, Jun 3, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 2, 2015—Mar 2, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
3820	Butler silt loam, 0 to 1 percent slopes	C/D	24.3	61.5%
3864	Hastings silt loam, 0 to 1 percent slopes	C	11.1	28.1%
3880	Holder silt loam, 1 to 3 percent slopes	C	4.1	10.4%
Totals for Area of Interest			39.6	100.0%

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

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ENGINEERING ■ ARCHITECTURE ■ SURVEYING ■ PLANNING

Imperial Mall Redevelopment Traffic Impact Study

Hastings, NE

JEO Project No. 201293.00

***Prepared for:
Perry Reid Properties***

*Prepared by:
JEO Consulting Group*

*Date:
June 10, 2021*



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Appendix A: Imperial Mall Concept Plan

Introduction

This report documents results of the traffic impact study conducted for the proposed redevelopment of the former Imperial Mall site located on the southwest corner of N Marian Road and W 12th Street in Hastings, Nebraska.

1.1 Objective

The primary objective of this traffic impact study was to evaluate the expected impacts associated with the development of the former Imperial Mall site in Hastings, Nebraska. Specifically, this study was conducted to answer the following questions:

- How will the development of the proposed site affect the study area intersections?
- What potential traffic control and geometric street modifications will be needed to support the proposed development?

1.2 Project Description

The former Imperial Mall site on the southwest corner of N Marian Road and W 12th Street is planned for redevelopment into a mixed use development. This new development is planned to include an apartment complex, some office and retail space, a grocery store, two restaurants, a drive-thru coffee business and an indoor sports complex. A site plan for this development is included as Appendix A. Further details regarding the Imperial Mall study area as well as the identification of study intersections are shown on the vicinity map in Figure 1.

1.3 Report Organization

The remainder of this report is organized as follows:

- 2.0 Existing Conditions
- 3.0 Existing Plus Site Conditions
- 4.0 Year 2045 Conditions
- 5.0 N Marian Road Cross Section
- 6.0 Auxiliary Lane Warrant Analysis
- 7.0 N Marian Road and W 12th Street Intersection Alternatives
- 8.0 Conclusions and Recommendations



Figure 1: Vicinity Map

2.0 Existing Conditions

This section of the report summarizes the existing study area conditions.

2.1 Existing Geometrics

The Imperial Mall study area includes the following streets and intersections:

2.1.1 N Marian Road

South of W 12th Street, N Marian Road is a four-lane, two-way, undivided street that is classified as an other arterial, according to the state functional classification map. N Marian Road has a width of 52', back-of-curb to back-of-curb (BOC to BOC) and curb and gutter as well as a drainage ditch provided on both sides. North of S 12th Street, N Marian Road is a two-lane, two-way, undivided unpaved street that is classified as local, according to the state functional classification map. N Marian Road has a width of 30', edge of gravel to edge of gravel, and unpaved shoulders and a drainage ditch on both sides of the road. There is no sidewalk or trail provided anywhere on N Marian Road in the study area except South of W 9th Street where the Pioneer Spirit Trail is present on the west side of the roadway. N Marian Road has a speed limit of 35 mph and a picture of N Marian Road is provided in Figure 2.



Figure 2: N Marian Road Just North of W 9th Street (Looking North)

2.1.2 W 9th Street

W 9th Street is a 36' wide (BOC to BOC) two-lane, two-way, undivided street that is classified as collector, according to the state functional classification map. W 9th Street has curb and gutter and allows parking on both sides of the street. Sidewalks are provided only on the south side of the street. The speed limit is 25 mph and a picture of W 9th Street is provided in Figure 3.



Figure 3: W 9th Street Just East of N Marian Road (Looking East)

2.1.3 Parklane Drive

Parklane Drive is a 36' wide (BOC to BOC) two-lane, two-way, undivided street that is classified as local, according to the state functional classification map. Parklane Drive has a curb and gutter and allows parking on both sides of the street. There is a sidewalk directly adjacent to the BOC provided on the south side of the street. No sidewalk is provided on the north side. Parklane Drive has a speed limit of 25 mph and a picture of Parklane Drive is provided in Figure 4.



Figure 4: Parklane Drive Just West of N Marian Road (Looking West)

2.1.4 W 12th Street

W 12th Street is a two-lane, two-way, undivided street that is classified as other arterial, according to the state functional classification map. W 12th Street has a width of 30' from edge of pavement to edge of pavement (EOP to EOP). There is unpaved shoulder and drainage ditches provided on both sides of the street, however, there are no sidewalks on either side. W 12th Street has a speed limit of 35 mph and a picture of W 12th Street is provided in Figure 5.



Figure 5: W 12th Street Just West of N Marian Road (Looking West)

2.1.5 The Intersection of N Marian Road and Parklane Drive/W 9th Street

The signalized intersection of N Marian Road and Parklane Drive/W 9th Street is a 4-leg intersection with N Marian Road forming the northbound and southbound legs, Parklane Drive forming the eastbound leg, and W 9th Street forming the westbound leg. Both N Marian Road approaches consist of one shared through and left-turn lane and one shared through and right-turn lane. Although there are no pavement markings on either approach, both the eastbound and westbound approaches appear to consist of a single shared left, through, and right-turn lane. This intersection is lit via a luminaire on each corner. Permitted left-turn phasing is provided for all approaches. There are pedestrian signals, push-buttons, and a crosswalk provided to cross the south leg only.



Figure 6: The Intersection of N Marian Road and Parklane Drive/W 9th Street (Looking Northwest)

2.1.6 The Intersection of N Marian Road and W 12th Street

The all-way stop intersection of N Marian Road and W 12th Street is a 4-leg intersection with N Marian Road forming the northbound and southbound approaches and W 12th Street forming the eastbound and westbound approaches. The northbound approach consists of a dedicated right-turn lane drop and a shared through and left-turn lane. Although the southbound approach is not paved and has no pavement markings, it appears to consist of one shared left, through, and right-turn lane. Both the eastbound and westbound approaches also consist of one shared left, through, and right-turn lane. However, the pavement for both the eastbound and westbound approaches does widen it approaches the intersection, and it was observed that some eastbound right-turning vehicles do use this extra pavement as a dedicated right-turn lane. A picture of this intersection is provided in Figure 7.

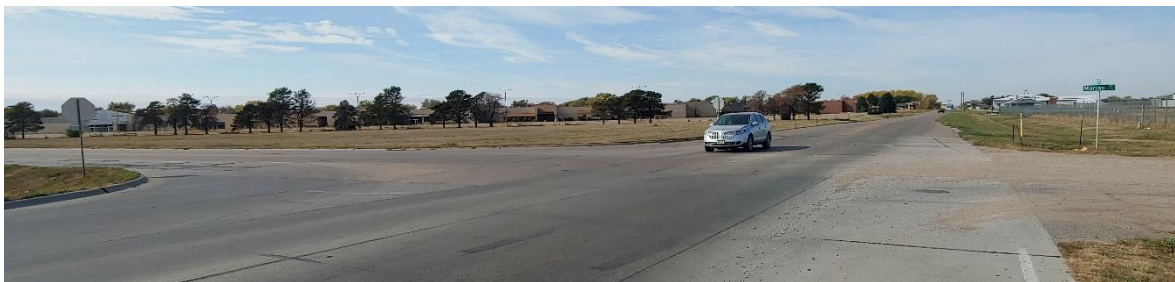


Figure 7: The Intersection of N Marian Road and W 12th Street (Looking Southwest)

Further details on lane geometrics and traffic control throughout the study area are shown in Figure 8.

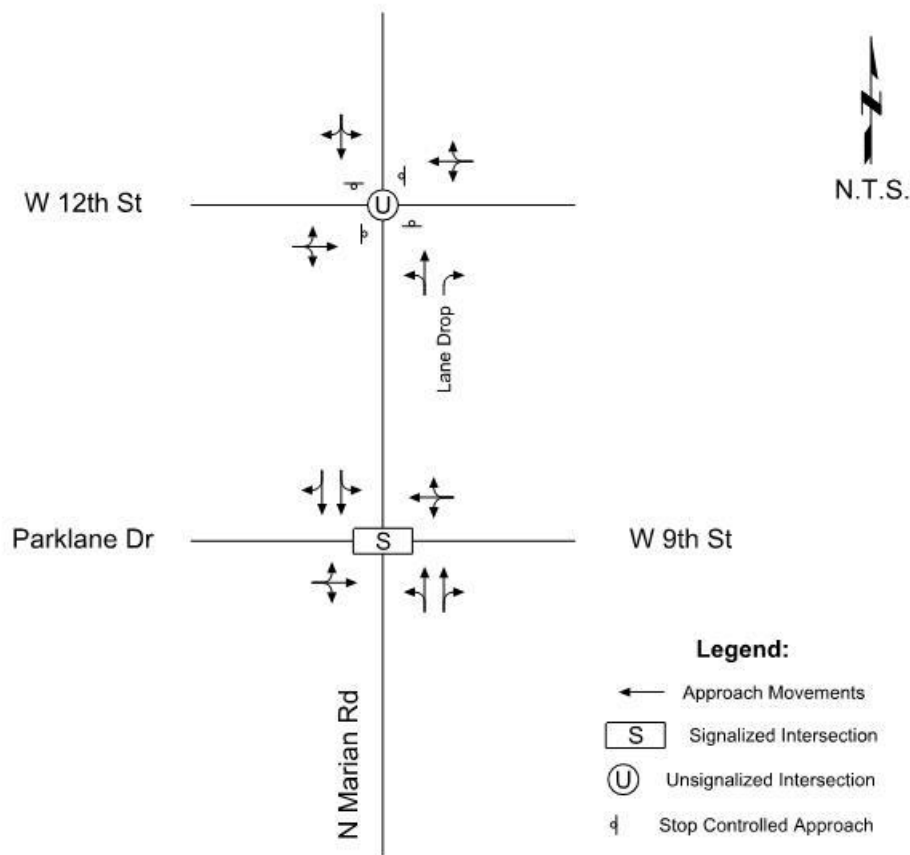


Figure 8: Existing Geometrics and Traffic Control

2.2 Existing Traffic Volumes

Existing turning movement volumes were collected on Tuesday, October 20th, 2020 using Miovision Scout Cameras. The observed AM peak hour was 7:15 – 8:15 AM and the observed commuter PM peak hour was 4:45 – 5:45 PM. These existing peak hour volumes are shown in Figure 9. It should be noted that existing volumes were not reported at the existing mall driveways due to the negligible amount of existing traffic entering/exiting the previous Imperial Mall site.

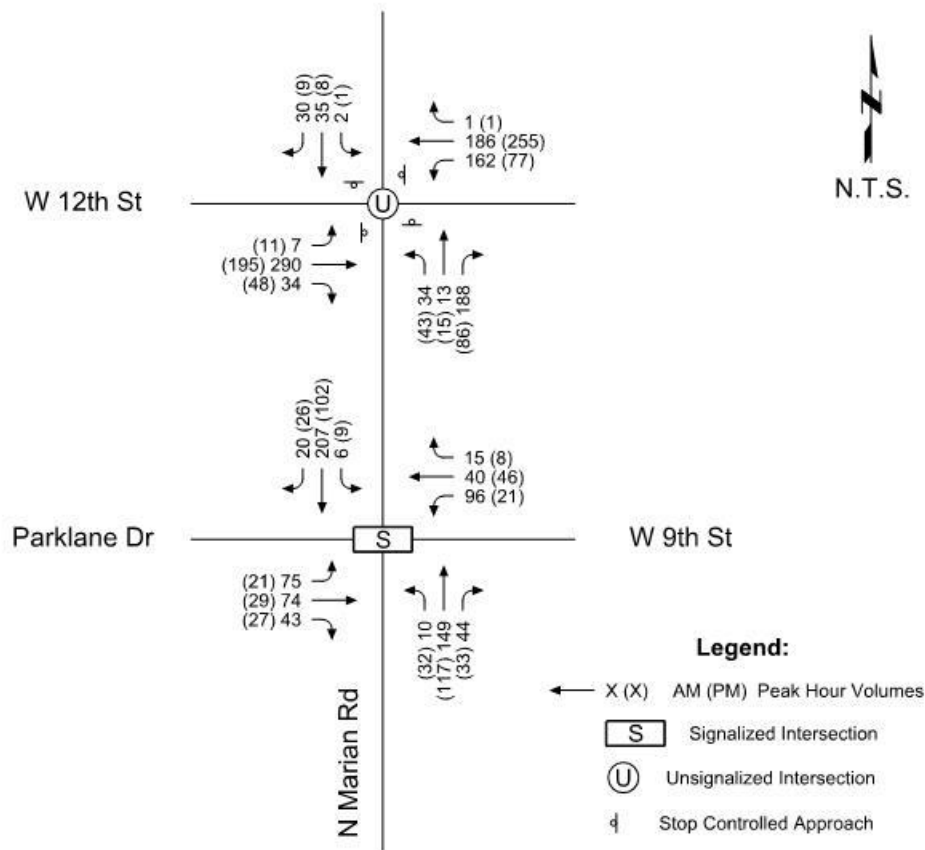


Figure 9: Existing Peak Hour Volumes

2.3 Study Methodology

The peak hour volumes for the study area intersections were analyzed using the signalized and unsignalized intersection capacity analysis procedures outlined in the Highway Capacity Manual, 6th Edition (HCM). Per the HCM, Level of Service (LOS) is presented as a letter grade (A through F) based on the calculated average delay for an intersection or movement during a specific time period (such as the AM and PM peak hours). LOS A represents free flow movement with very little to no delay, while LOS F represents congested flow at or exceeding the capacity of the roadway. Further explanations and detail about the LOS methodology can be found in Table 1. 95th percentile queue lengths and volume to capacity (V/C) ratios provide further information about an approach. The 95th percentile queue is a statistical metric that defines the length at which 95% of queues will be shorter. The V/C ratio is a measure of how close a movement is to its capacity. A ratio above one would indicate that the movement is over capacity.

Table 1: Level of Service Interpretation

Level of Service	Description	Signalized Intersection Delay (seconds per vehicle)	Stop-Controlled Intersection & Roundabout Delay (seconds per vehicle)
A	Free-flow operations. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream.	< 10	< 10
B	Reasonably free flow. The ability to maneuver within the traffic stream is only slightly restricted.	>10 and < 20	>10 and < 15
C	At or near free flow. Freedom to maneuver within the traffic stream is noticeably restricted.	>20 and < 35	>15 and < 25
D	Speeds begin to decline slightly. Freedom to maneuver within the traffic stream is noticeably limited.	>35 and < 55	>25 and < 35
E	At capacity. Maneuverability within the traffic stream is extremely limited.	>55 and < 80	>35 and < 50
F	Breakdown. Vehicles are jammed. Generally, queues form behind the breakdown condition.	> 80	> 50

Source: Highway Capacity Manual, Special Report 209, Transportation Research Board, Washington, D.C., 2000.

2.4 Existing Conditions Peak Hour Capacity Analysis

The existing weekday AM and commuter PM peak hour traffic conditions were analyzed using the existing traffic volumes and intersection geometrics described previously. As shown in Figure 10, all intersections and approaches operate acceptably at LOS D or better with most operating at LOS C or better. The eastbound and westbound approaches to the intersection of N Marian Road and W 12th Street operate at LOS D during the AM peak hour. During this AM peak hour, the westbound approach has a 95th percentile queue of 168' and a V/C ratio of 0.821. Also, during the AM peak hour, the eastbound approach has a 95th percentile queue of 142' and a V/C ratio of 0.769. These queues were confirmed during a site visit and a picture of an eastbound queue during the AM peak hour is provided in Figure 11.

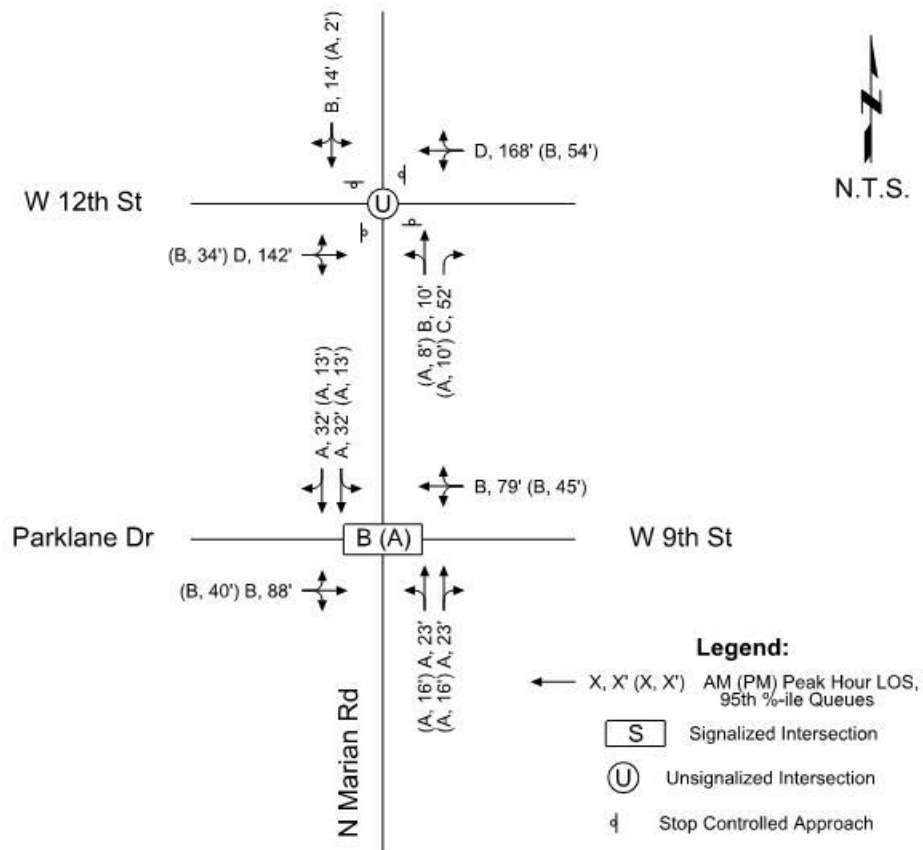


Figure 10: Existing Peak Hour Level of Service



Figure 11: 200'+ Westbound Queue During Morning Peak Hour

3.0 Existing Plus Site Conditions

This section of the report presents potential geometric and operational changes, trip generation estimates to and from the redevelopment site, site trip assignment, and development of buildout traffic volumes within the study area.

3.1 Geometric Configuration Changes

As vehicles will now be using the existing driveways into and out of the former Imperial Mall site, these three existing driveways were included as study intersections for the development buildout scenario. The geometric and traffic control characteristics of these new study intersections are shown in Figure 12.

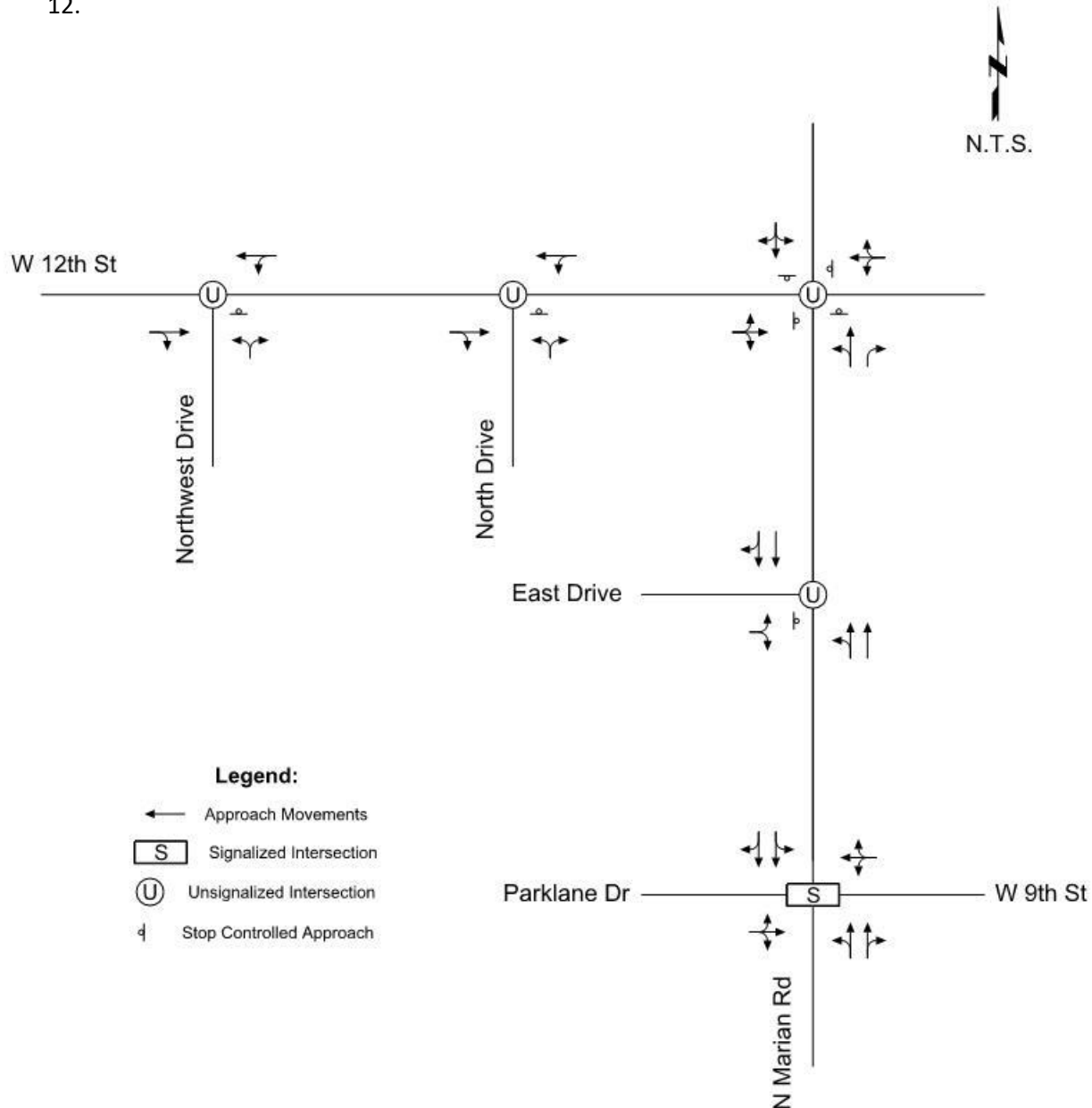


Figure 12: Existing Geometrics and Traffic Control – Including Site Driveways

3.2 Imperial Mall Site Buildout

The trip generation characteristics for most proposed land uses were provided by the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 10 Edition. However, trip generation characteristics for the sports complex was based on a trip generation study of the Iowa West Fieldhouse in Council Bluffs to provide more accurate local generation rates. Trip generation calculations for the Imperial Mall site are summarized in Tables 2 and 3. These tables also include a mixed-use reduction. This reduction is applied to account for an estimated number of trips that would be coming from within the development or linked and would not be counted as an external trip. AM trip estimates are likely on the conservative side as some land uses are not expected to be open until after traditional commuter peak hours, such as the 'discount supermarket'. This is expected to be an Aldi's, which typically do not open until 9 AM.

Table 2: Imperial Mall AM Peak Hour Trip Generation

ITE Land Use Code	Usage	Size	Trip Generation		Directional Distribution		Total	Mixed Use Reduction	Total Trips	External Trips	
			Unit	Rate	In	Out				In	Out
221	Multifamily Housing (Mid-Rise)	150	Dwelling Unit	0.36	26%	74%	54	-	54	14	40
630	Clinic	10.65	1000 SF GFA	3.69	78%	22%	39	-	39	31	9
710	General Office Building	19.58	1000 SF GFA	0.94(X)+26.49	86%	14%	45	-	45	39	6
820	Shopping Center	41.32	1000 SF GFA	0.94	62%	38%	39	-4	35	22	13
854	Discount Supermarket	17.80	1000 SF GFA	2.53	58%	42%	45	-5	41	24	17
932	High-Turnover Sit-down Restaurant	8.00	1000 SF GFA	9.94	55%	45%	80	-8	72	39	32
932	High-Turnover Sit-down Restaurant	8.00	1000 SF GFA	9.94	55%	45%	80	-8	72	39	32
937	Coffee/Donut Shop with Drive-Thru Window	0.65	1000 SF GFA	88.99	51%	49%	57	-6	52	26	25
N/A	Sport Complex	-	-	-	-	-	-	-	-	0	0
Total:										234	175

Note: Due to rounding, some sums may not add as expected.

Table 3: Imperial Mall Commuter PM Peak Hour Trip Generation

ITE Land Use Code	Usage	Size	Trip Generation		Directional Distribution		Total	Mixed Use Reduction	Total Trips	External Trips	
			Unit	Rate	In	Out				In	Out
221	Multifamily Housing (Mid-Rise)	150	Dwelling Unit	.44	61%	39%	66		66	40	26
630	Clinic	10.65	1000 SF GFA	3.28	78%	22%	35		35	27	8
710	General Office Building	19.58	1000 SF GFA	$\ln(T)=0.95\ln(X)+0.36$	16%	84%	24		24	4	20
820	Shopping Center	41.32	1000 SF GFA	$\ln(T)=0.74\ln(X)+2.89$	48%	52%	283	-28	254	122	132
854	Discount Supermarket	17.80	1000 SF GFA	$\ln(T)=0.89\ln(X)+2.59$	58%	42%	173	-17	156	90	65
932	High-Turnover Sit-down Restaurant	8.00	1000 SF GFA	9.77	55%	45%	78	-8	70	39	32
932	High-Turnover Sit-down Restaurant	8.00	1000 SF GFA	9.77	55%	45%	78	-8	70	39	32
937	Coffee/Donut Shop with Drive-Thru Window	0.65	1000 SF GFA	43.38	50%	50%	28	-3	25	13	13
N/A	Sport Complex	8	Courts	14.75	83%	17%	118		118	98	20
Note: Due to rounding, some sums may not add as expected.										Total:	472 347

These new trips were then distributed to the existing road network based on observed directional flows and locations of residential origin/destinations. In general, these trips were distributed to/from the west on W 12th Street (10%), to/from the east on W 12th Street (40%), to/from the east on W 9th Street (20%), and to/from the south on N Marian Road (30%). These distributed site trips, as well as distribution percentages, are shown in Figure 13.

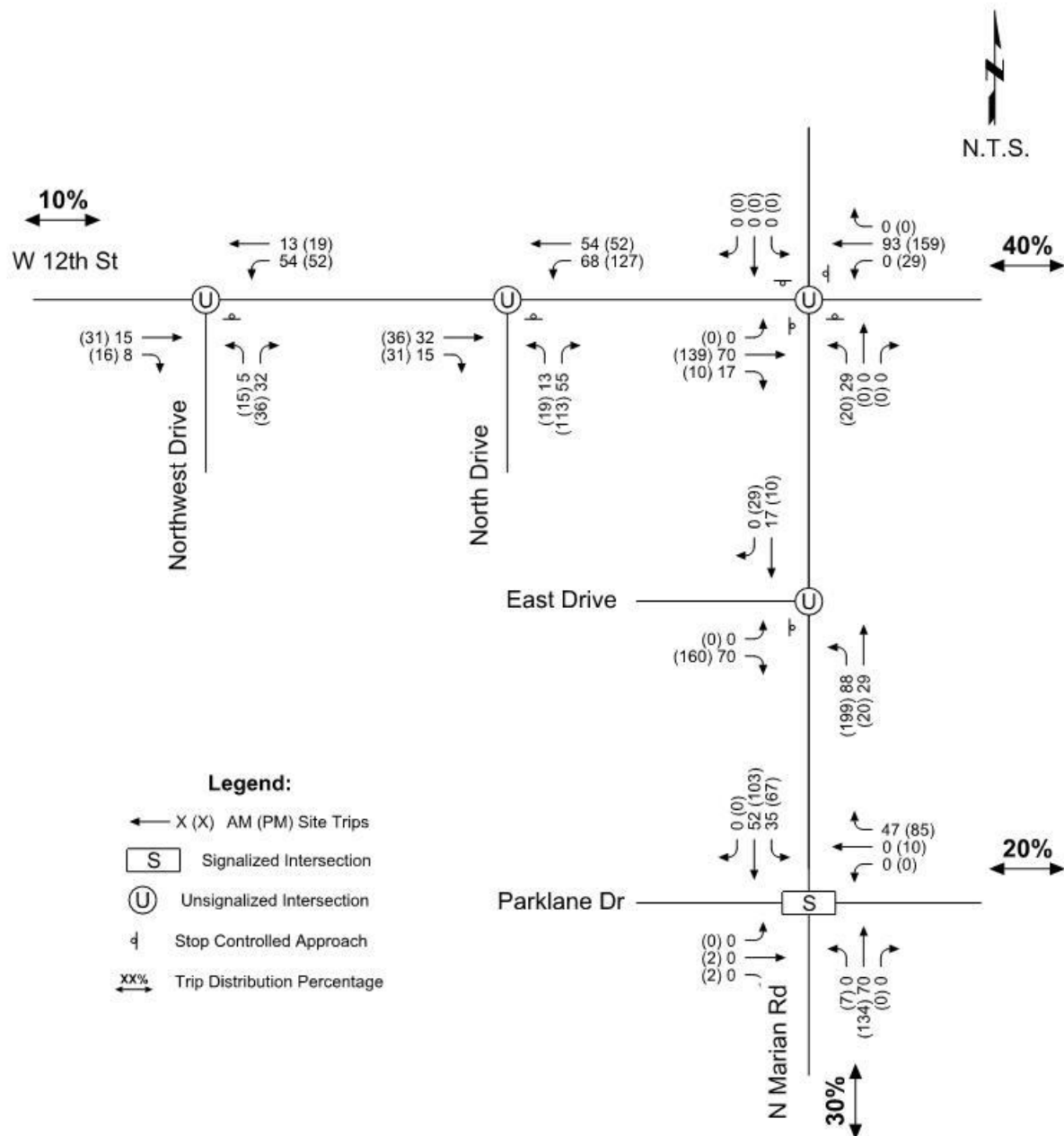


Figure 13: AM and PM Site Trips

3.3 Existing Plus Site Peak Hour Volumes

These distributed site trips were then added to the background peak hour volumes to develop existing plus site peak hour volumes. These peak hour volumes are depicted in Figure 14.

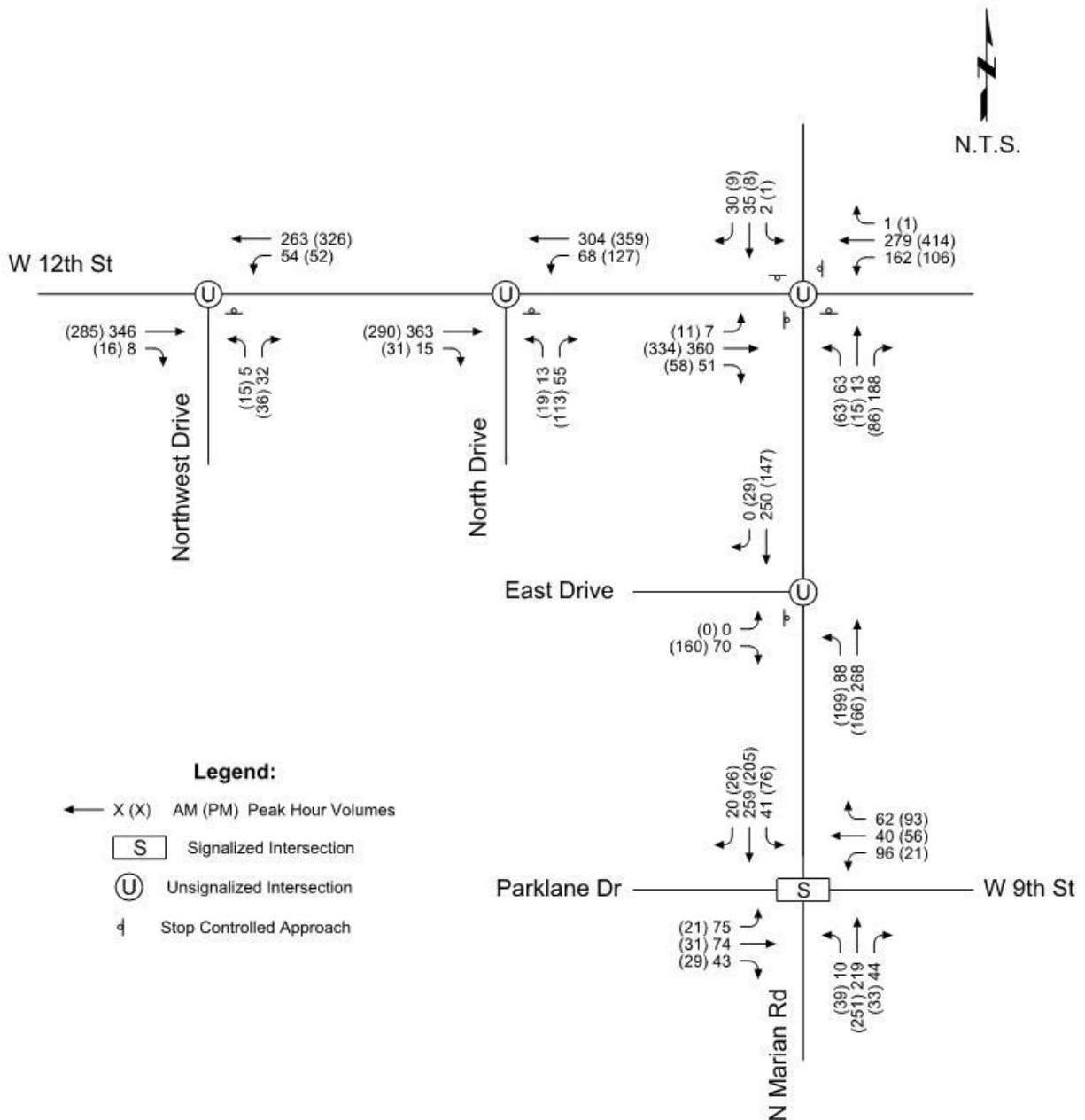


Figure 14: Existing Plus Site Peak Hour Volumes

3.4 Existing Plus Site Capacity Analysis

Like the existing conditions capacity analysis, the study intersections were analyzed again using the existing plus site peak hour volumes. As shown in Figure 15, all movements and intersections operate at LOS D or better during both peak hours apart from the eastbound and westbound approaches to the intersection of N Marian Road and W 12th Street, which operate at LOS F during the AM peak hour. The eastbound approach has a 95th percentile queue of 312' and a V/C ratio of 1.064, while the westbound approach has a 95th percentile queue of 380' and a V/C ratio of 1.135. This indicates that both approaches are over capacity.

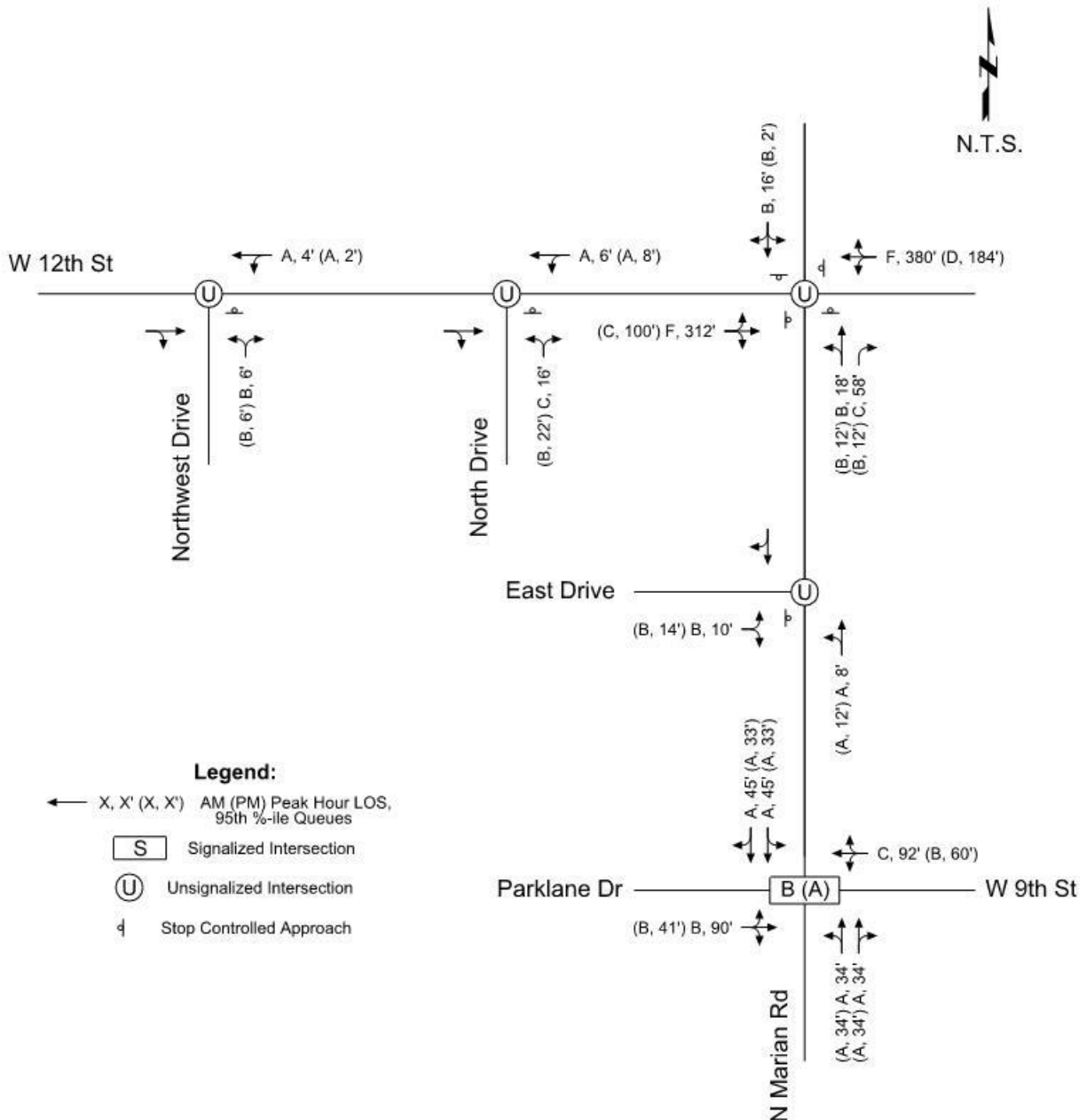


Figure 15: Existing Plus Site Peak Hour Level of Service

4.0 Year 2045 Conditions

This section of the report represents the results of the projected Year 2045 traffic conditions.

4.1 Year 2045 Background Peak Hour Volumes

A review of historical traffic counts provided by the Nebraska Department of Transportation (NDOT) revealed both relatively low and, in a couple of cases, negative growth trends on area roadways. To account for the possibility of future growth, and to provide a conservative analysis, the existing mainline background traffic volumes were grown at a modest average annual growth rate of 0.5% for 25 years to estimate 2045 background peak hour volumes. This 0.5% growth rate was chosen after These Year 2045 background peak hour volumes are shown in Figure 16.

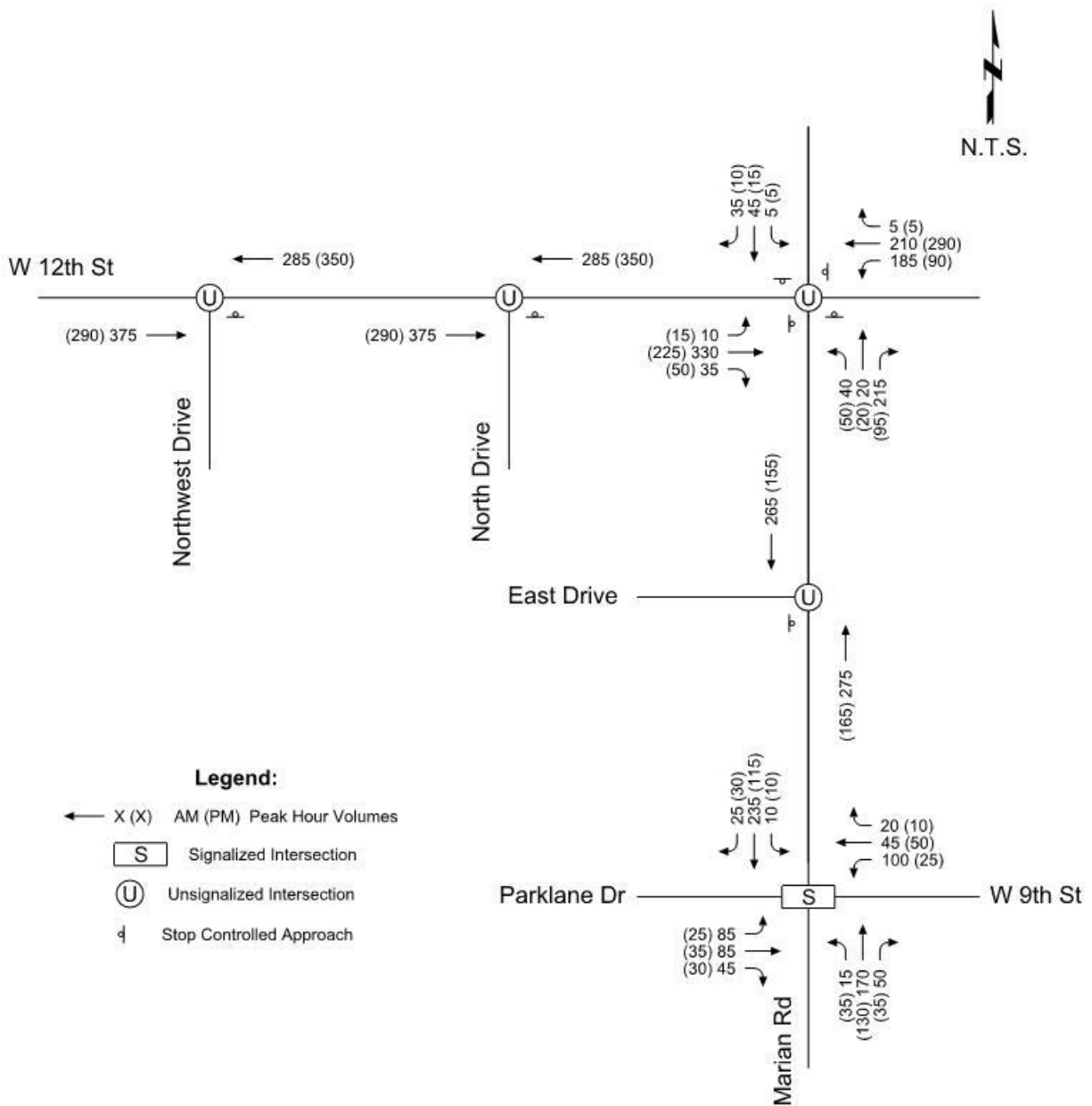


Figure 16: Year 2045 Background Peak Hour Volumes

4.2 Year 2045 Background Plus Site Peak Hour Volumes

The distributed site trips discussed previously were then added to the Year 2045 background peak hour volumes to develop Year 2045 background plus site peak hour volumes. These volumes are shown in Figure 17.

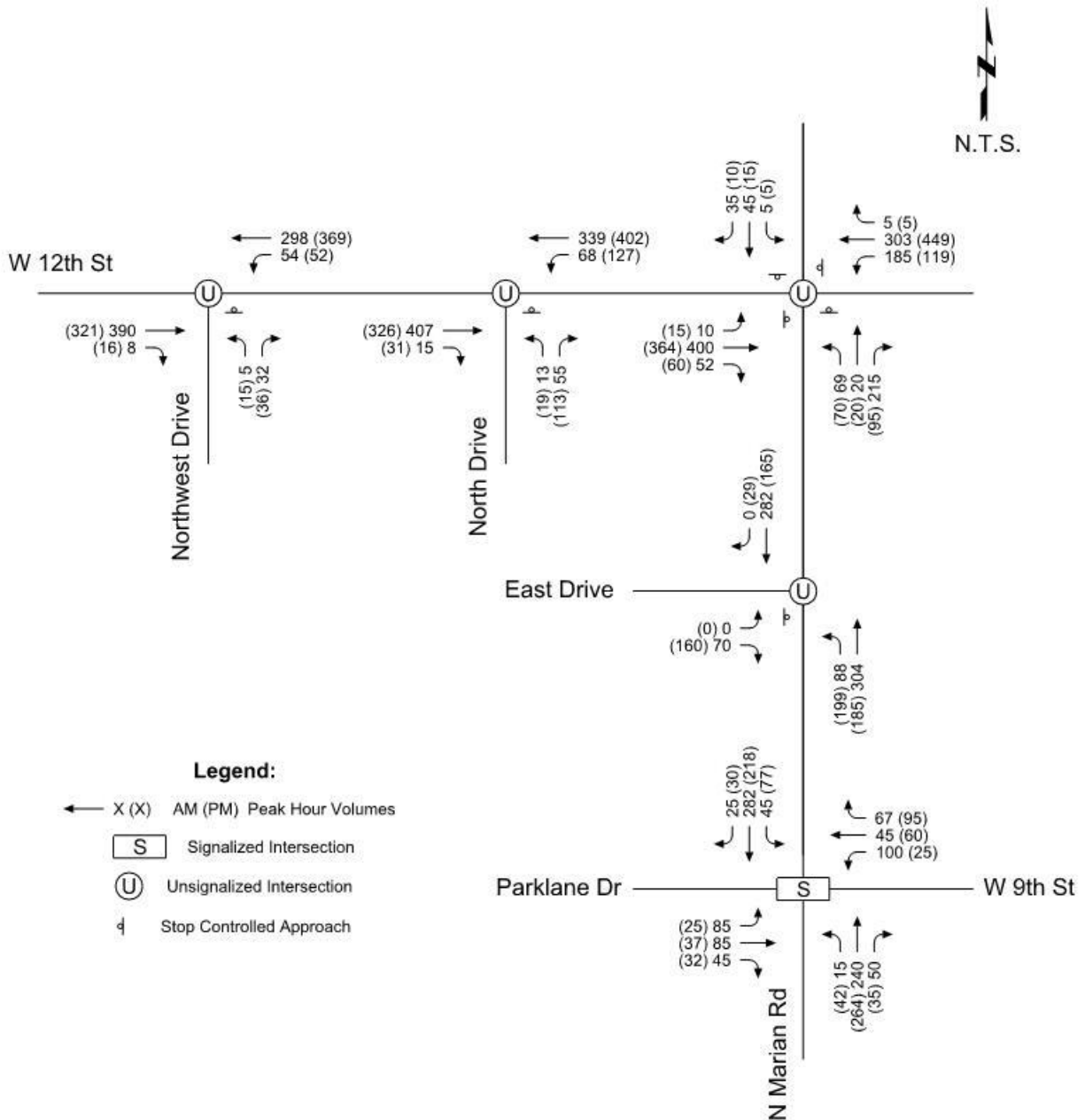


Figure 17: Year 2045 Background Plus Site Peak Hour Volumes

4.3 Year 2045 Background Plus Site Capacity Analysis

The Year 2045 background plus site peak hour volumes were then analyzed using the signalized and unsignalized intersection capacity analysis procedures described previously. As shown in Figure 18, all approaches and intersections continue to operate at LOS D or better during both peak hours, apart from the eastbound (AM peak hour) and westbound (AM and PM peak hour) approaches to the intersection of N Marian Road and W 12th Street. The eastbound approach during the AM peak hour operates at LOS F and is over capacity with a V/C ratio of 1.281 and a 95th percentile queue of over 430'. The westbound approach during the AM peak hour is also operating at LOS F and is over capacity with a V/C ratio of 1.37 and a 95th percentile queue of over 535' (LOS F, 0.962, and 278' in the PM peak hour, respectively).

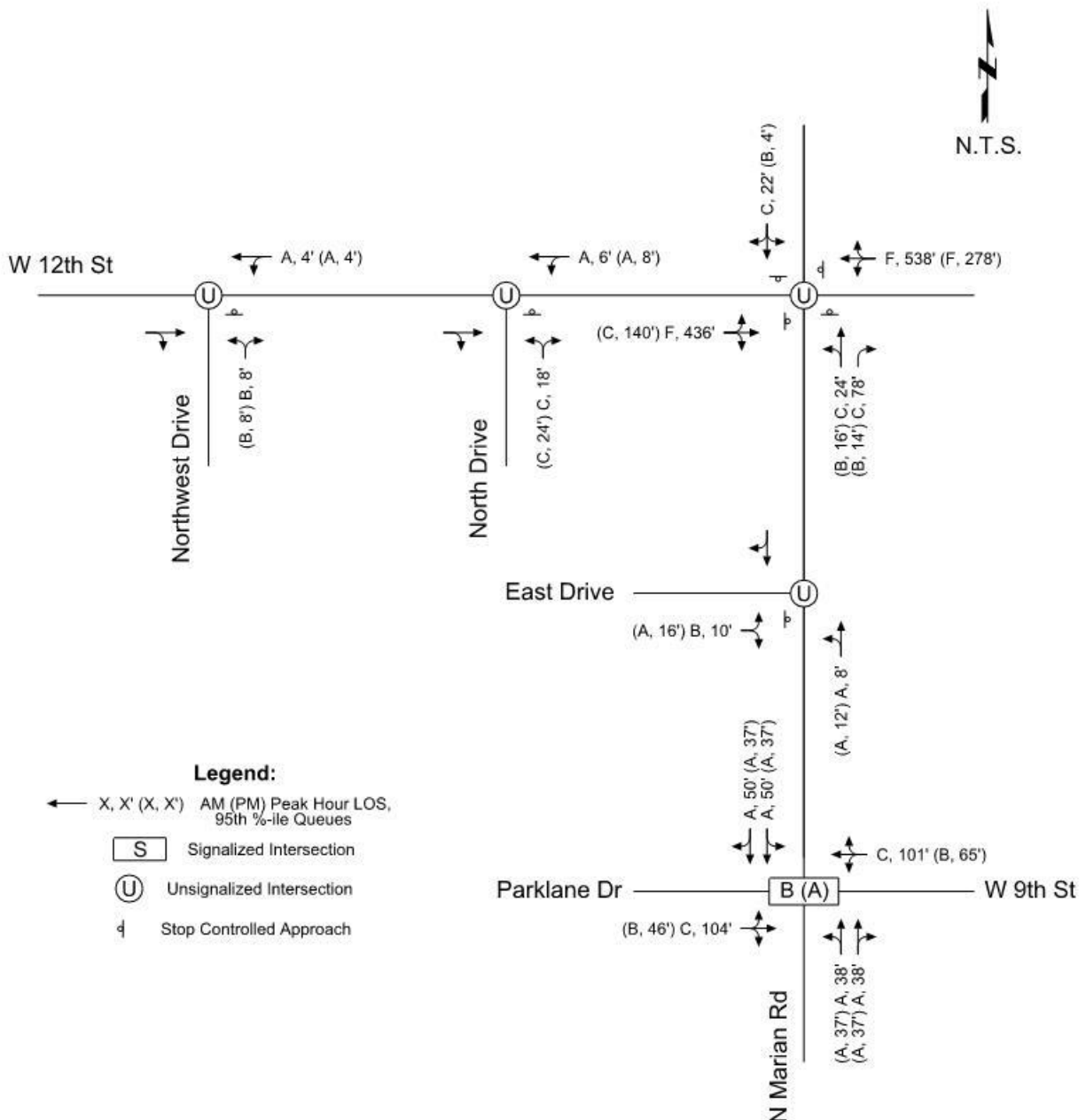


Figure 18: Year 2045 Background Plus Site Peak Hour Level of Service

5.0 N Marian Road Cross Section

This section discusses potential safety and operational benefits of reducing the number of through lanes and adding a two-way left-turn lane (TWLTL) on N Marian Road.

5.1 Safety Concerns

The addition of nearly 200 left turns off of N Marian Road at the intersection with the East Drive in the PM peak hour introduces a safety concern with vehicles stopping in a through lane as they wait for a gap in opposing traffic to complete their left-turn movement. Due to this stoppage, through vehicles tend towards the outside lane, forcing the four-lane road to operate as a two-lane road, as shown on the left in Figure 19. It should also be noted that in this scenario, the northbound left-turning green vehicle cannot see the southbound grey vehicle that is changing lanes. This can lead to a safety issue with the lack of sight distance of opposing vehicles. However, this is not the case on the right in Figure 19 as cars in the opposing lane are clearly visible.

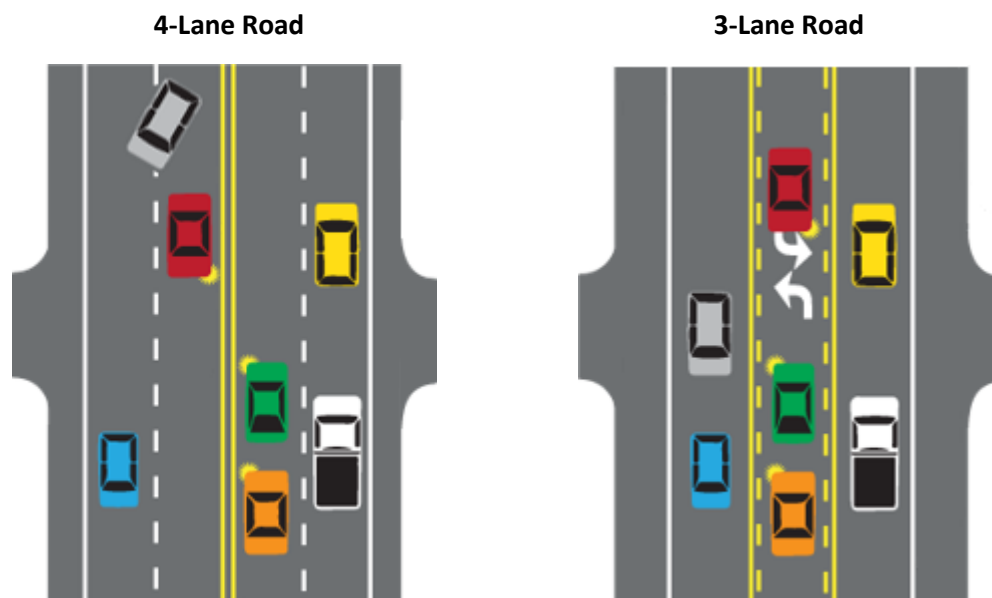


Figure 19: Four-Lane Section vs. Three-Lane Section

This three lane street contains one lane in each direction as well as a center TWLTL. A conversion from a four-lane undivided section to a three-lane section with a TWLTL is generally called a road diet.

Furthermore, figure 20 shows the conflict points and safety issues related to turning movements for a four-lane undivided roadway as compared to a three-lane road. As shown, a road diet can reduce the number of mid-block conflict points, crossing and through traffic conflict points, and improve major-street left-turn sight distance. The following is a summary of the safety benefits as applied to N Marian Road:

- The additional safety benefit of a road diet on N Marina Road with regards to mid-block conflict points is the potential reduction of left-turn crashes (both rear-end and angle crashes) that may occur due to the increase in stopped left-turning traffic, especially at the intersection with the East Driveway.

- For crossing and through traffic, the number of conflict points reduces from eight to four for four-legged intersections and reduces from six to four for three-legged intersections. This is a result of vehicles only having to cross one through lane in each direction.
- For major-street left-turn sight distance, the implementation of a road diet mitigates site distance restrictions illustrated in both Figures 19 and 20.

With the publication of the Highway Safety Manual in 2010, research is now available in the form of crash modification/reduction factors that can help assess the impact on the frequency of crashes. Table 4 summarizes the anticipated crash reduction of a road diet on N Marian Road based on the 2010 Highway Safety Manual and the Crash Modification Clearinghouse Website, which publishes the most current research.

Based on the findings in Table 4, a road diet would be expected to provide improved safety by reducing conflicts along the N Marian Road corridor.

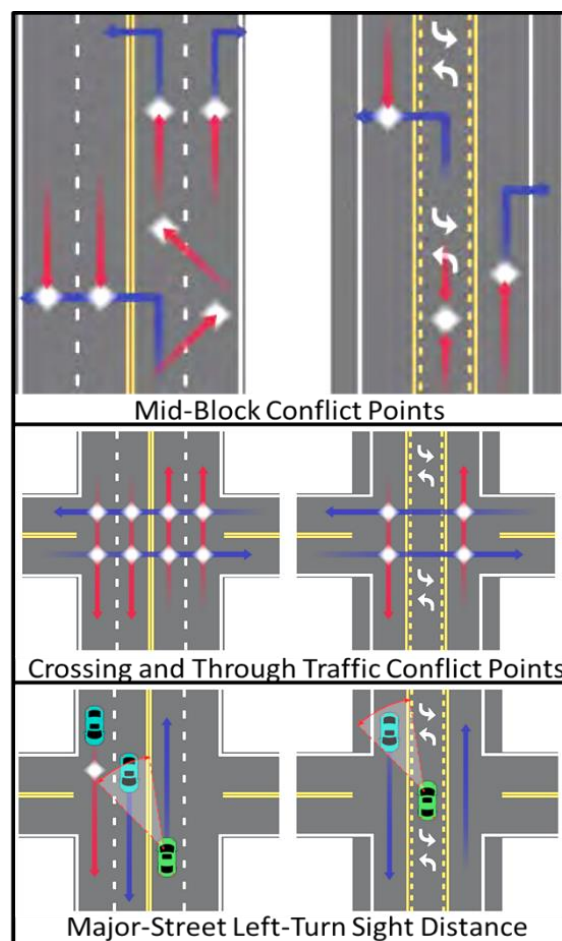


Figure 20: Safety Benefits of a Road Diet (FHWA)

Table 4: Road Diet Countermeasure and the Corresponding Predicted Crash Reduction

Countermeasure	Condition	Predicted Crash Reduction/Increase (%)		
		All Crashes	Angle Crashes	Rear End Crashes
Narrow Cross Section (4 to 3 lanes with two way left turn lane)	Urban	-37%	-24%	-31%

5.2 Average Daily Traffic on N Marian Road

According to information provided by NDOT, the average daily traffic (ADT) on N Marian Road varies from 2365 just south of W 2nd Street, rises to 5270 just south of W 7th Street, and falls back to 3145 just south of W 12th Street. Exhibit 16-16 in the Highway Capacity Manual (HCM) contains generalized daily service volumes for two and four-lane Urban Street Facilities. To further examine the possibility of a road diet on N Marian Road, existing traffic demands were compared to generalized daily service volumes. There have been several three-lane street sections implemented across the country in recent years comparable to N Marian Road. In most cases, a three-lane section can carry upwards of 18,000 to 20,000 vehicles per day depending on intersection spacing, traffic control, and the presence of right-turn lanes. As shown in Figure 21, the existing demands are significantly less than the capacity of a two-lane roadway. This suggests that a two-lane cross section with a TWLTL would be a feasible alternative on N Marian Road. A three-lane section was proposed to be implemented along this entire stretch back when the new school facility was built, and traffic signal control was deployed at the intersection with 5th Street.

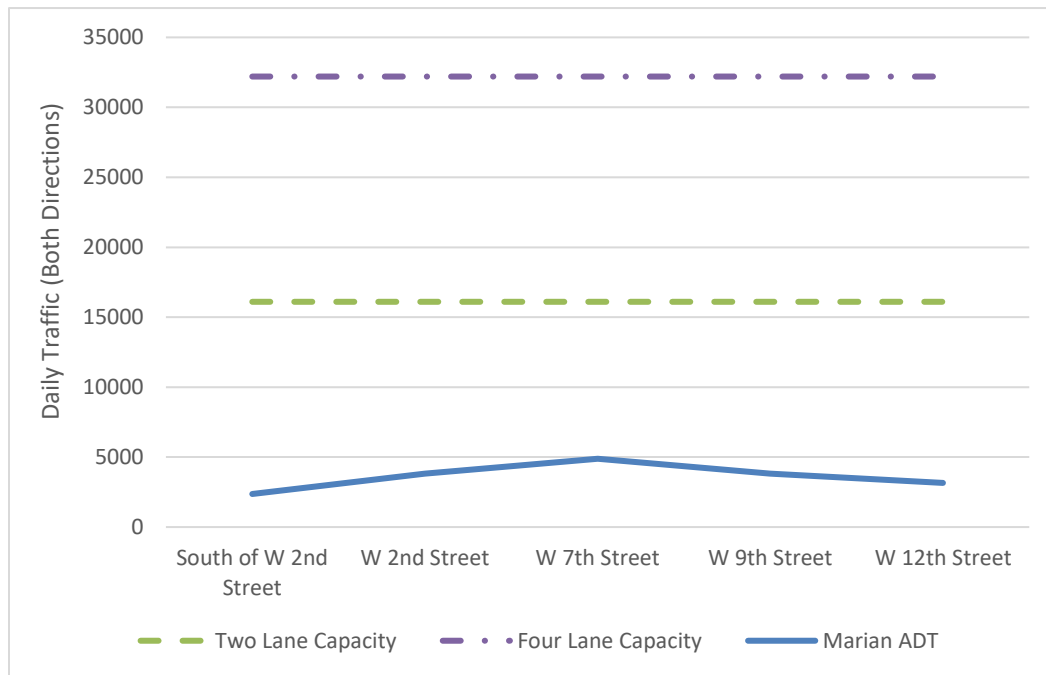


Figure 21: N Marian Road Existing Corridor Demands

6.0 Auxiliary Lane Warrant Analysis

The need for auxiliary lanes at two-way stop-controlled intersections was evaluated using the current NDOT accepted methodology from Report 457 of the National Highway Cooperative Highway Research Program (NCHRP).

6.1 Dedicated Major Road Left-Turn Lane Analysis

The need for dedicated left-turn lanes was evaluated at the study intersections of N Marian Road and East Drive, W 12th Street and North Drive, and W 12th Street and Northwest Drive. The results of this analysis are shown in Table 5 below. It should be noted that this left-turn analysis was based upon the assumption that both N Marian Road and W 12th Street are two lane roads.

Table 5: NCHRP 457 – Dedicated Left-Turn Lane Warrant Analysis Summary

Intersection	Existing Plus Site (2020)				Future Plus Site (2045)			
	NBL		WBL		NBL		WBL	
	AM	PM	AM	PM	AM	PM	AM	PM
N Marian Road and East Drive	Yes	Yes	-	-	Yes	Yes	-	-
W 12 th Street and North Drive	-	-	Yes	Yes	-	-	Yes	Yes
W 12 th Street and Northwest Drive	-	-	No	Yes	-	-	Yes	Yes

As shown in Table 5, mainline left-turns are warranted and should be constructed for all three site driveways. If a three-lane section is adopted for N Marian Road, the addition of a TWLTL would provide the needed northbound left-turn lane for the N Marian Road and East Drive intersection.

6.2 Dedicated Major Road Right-Turn Lane Analysis

The need for dedicated right-turn lanes was evaluated at the study intersections of N Marian Road and East Drive, W 12th Street and North Drive, and W 12th Street and Northwest Drive. No intersections satisfy the warrant for a major road right-turn lane. As such, right-turn lanes are not recommended at any site drives.

6.3 Minor Road Approach Geometry

The minor road need for dual approach lanes was evaluated at the study intersections of N Marian Road and East Drive, W 12th Street and North Drive, and W 12th Street and Northwest Drive. All side road (East Drive, North Drive, and Northwest Drive) approaches do not warrant dual lane approaches and should be constructed as single lane approaches.

7.0 N Marian Road and W 12th Street Intersection Alternatives

A warrant analysis was conducted for the intersection of N Marian Road and W 12th Street to determine if existing or projected 2045 traffic demands would satisfy 2009 Manual on Uniform Traffic Control Devices (MUTCD) signal warrants. Warrants 1 (eight hour) and 2 (four hour) were used. While the intersection of N Marian Road and W 12th Street does not satisfy either of these warrants under the existing conditions and likely would not under existing plus site, it is highly likely that both will be satisfied in 2045.

A roundabout was also examined for this intersection. According to Exhibit 3-12 in the NCHRP Report 672 – *Roundabouts An Informational Guide*, conditions at the N Marian Road and W 12th Street intersection would allow a roundabout to operate acceptably. Due to the moderate volumes, the higher left-turn movements on specific approaches, and the general variability in traffic at this intersection, a roundabout would be recommended to provide the best overall operational and safety characteristics. In addition, operation and maintenance costs and overall lifecycle return on investment are far superior with a roundabout intersection when compared to a traffic signal control for an intersection such as W 12th Street and N Marian Road.

A figure showing the recommended geometry for the study area is shown in Figure 22. Year 2045 background plus site peak hour volumes were then analyzed using this recommended geometry and the (un)signalized and roundabout intersection capacity analysis procedures outlined in the HCM. As shown in Figure 23, the roundabout operates at LOS A for all approaches during both peak hours, while the signal operates at LOS C or better during both peak hours. For this reason, the roundabout is the preferred option at the intersection of N Marian Road and W 12th Street.

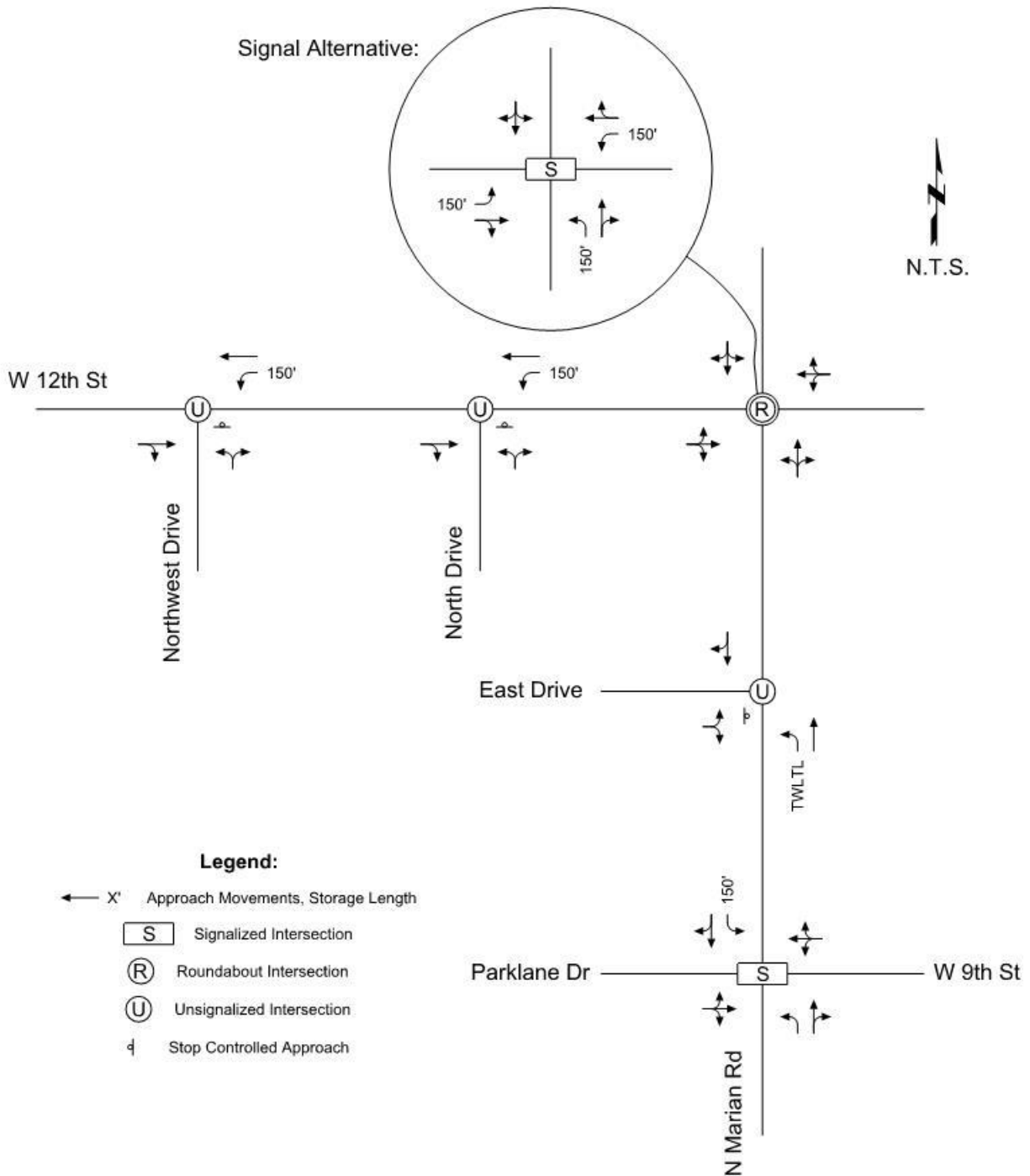


Figure 22: Recommended Intersection Geometry and Traffic Control

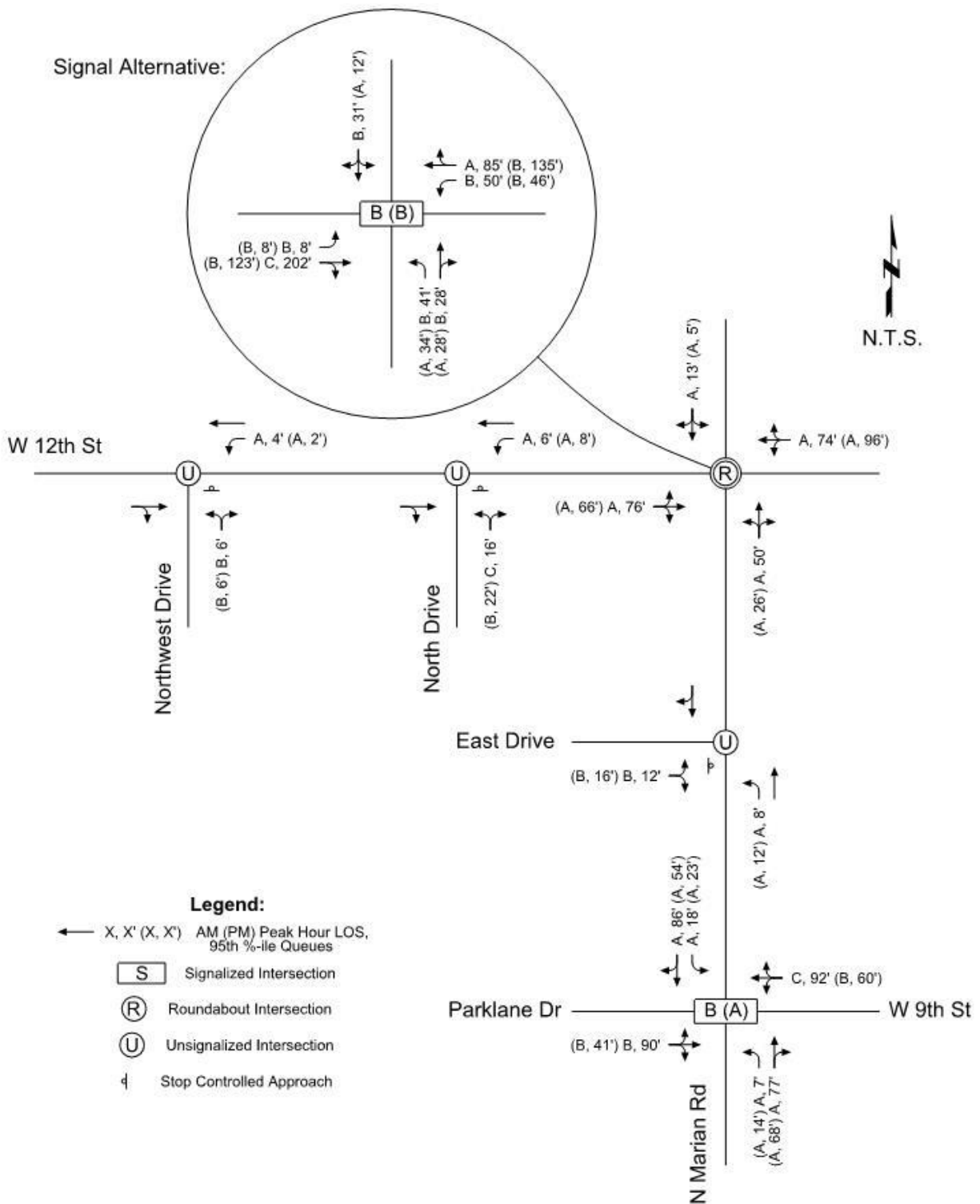


Figure 23: Year 2045 Background Plus Site LOS with Recommended Geometry

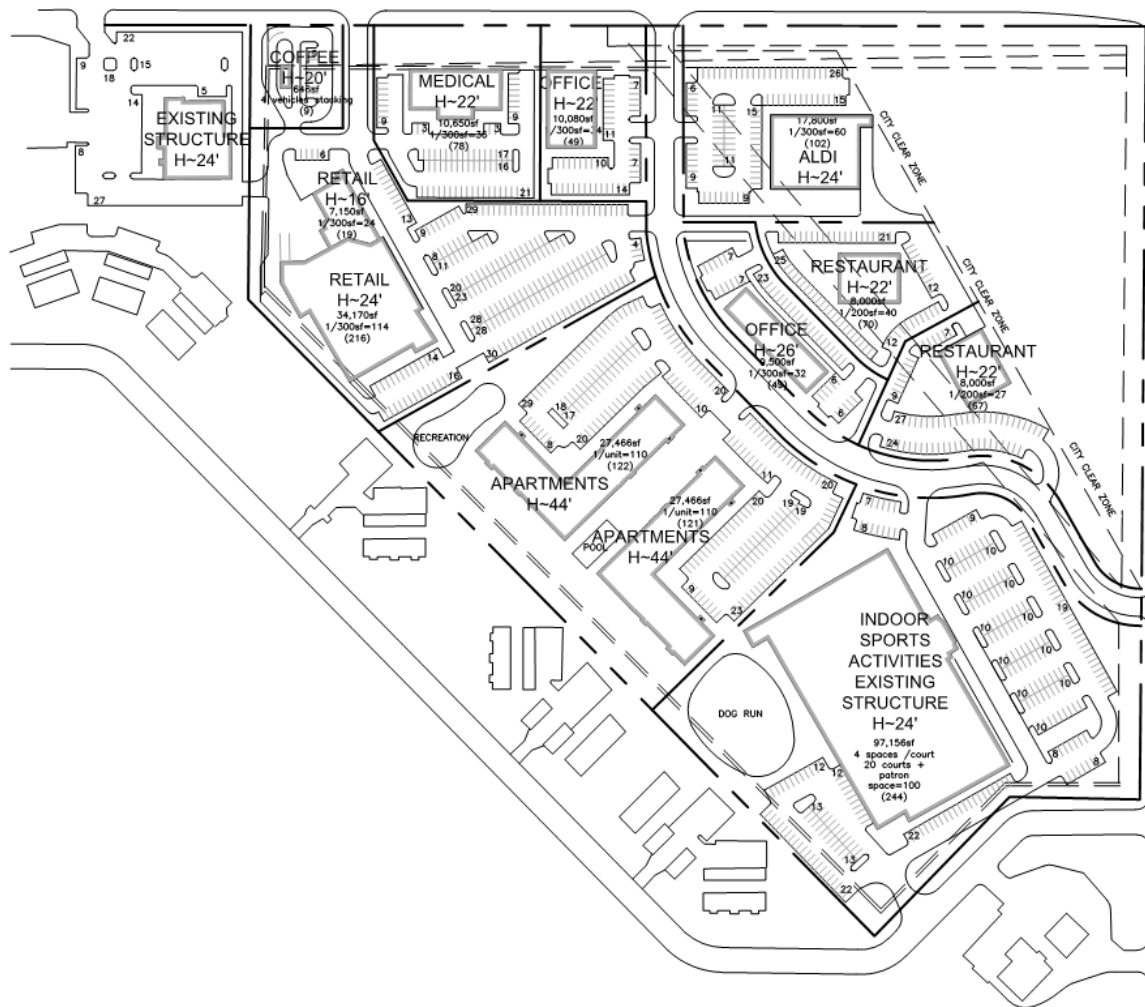
8.0 Conclusions and Recommendations

Based upon the analyses and evaluation of study area streets and traffic control, the following recommendations are provided:

- N Marian Road should be reconfigured from a four-lane, undivided street section to a three-lane section with center two-way left-turn lane for its entire distance. The capacity of a three-lane street section has been shown to carry up to approximately 20,000 vehicle per day depending on intersection spacing, traffic control, and presence of auxiliary turn lanes. For traffic volumes of 15,000 vehicles per day and under this three-lane facility is an obvious choice for improved safety and operations. Additional width along each side of the street can be reserved as shoulder space or marked as bicycle lanes as desired to provide improved mobility.
- The intersection of N Marian Road and W 12th Street should be reconfigured with a single-lane roundabout. The existing all-way stop is overcapacity on multiple approaches. The roundabout is also projected to operate at a higher LOS than a traffic signal, provide long-turn life cycle benefits, and improve the overall safety and operations of the intersection.
- Dedicated major road left-turn lanes should be provided at all three site drives for vehicles entering the proposed site (left-turn lanes along N Marian Road can be accommodated with the simple re-striping and implementation of a three-lane section). Based upon the analysis, no exclusive right-turn lanes are warranted.

Appendix A

Imperial Mall Concept Plan



GENERAL NOTES

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17. CONTRACTOR TO FIELD VERIFY ALL UTILITIES. IF CONFLICT OCCURS BETWEEN EXISTING AND PROPOSED CONTACT ENGINEER BEFORE BUILDING.
18. CONTRACTOR SHALL LEAVE THE SITE CLEAN AND SMOOTH GRADED.
19. THE STORM SEWER CONTRACTOR SHALL REMOVE FROM THE SITE AND PROPERLY DISPOSE OF ALL RUBBLE AND WASTE PRODUCED BY CONSTRUCTION.
20. CONTRACTOR SHALL RE-SEED ALL DISTURBED GRASS AREAS TO MATCH EXISTING GRASS.

BENCHMARKS:

1. SAN. SEWER MH LOCATED AT THE INTERSECTION OF W. 9TH ST. & MARIAN RD.
EL: 1937.97 - NAVD 88
2. SAN. SEWER MH LOCATED AT THE INTERSECTION OF W. 12TH ST. & MARIAN RD.
EL: 1937.62 - NAVD 88
3. SEWER MH LOCATED AT THE INTERSECTION OF PARKLANE DR. & VALLEY CHASE AVE.
EL: 1937.62 - NAVD 88

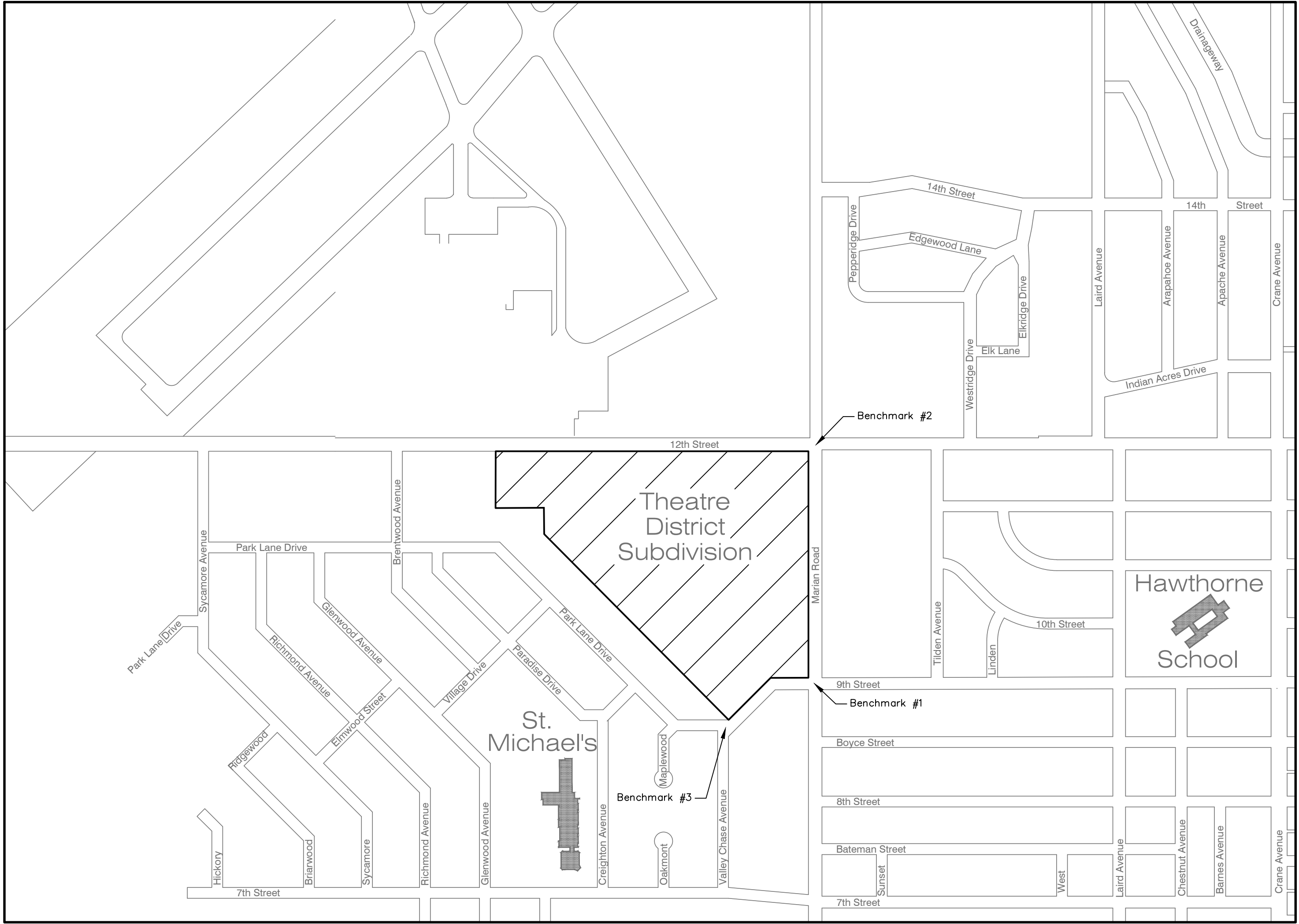
Hastings Utilities

2021

Storm Sewer Area

SS-XXX

Theatre District Subdivision
W. 12th St. - N. Marian Rd.
SSR-XXX



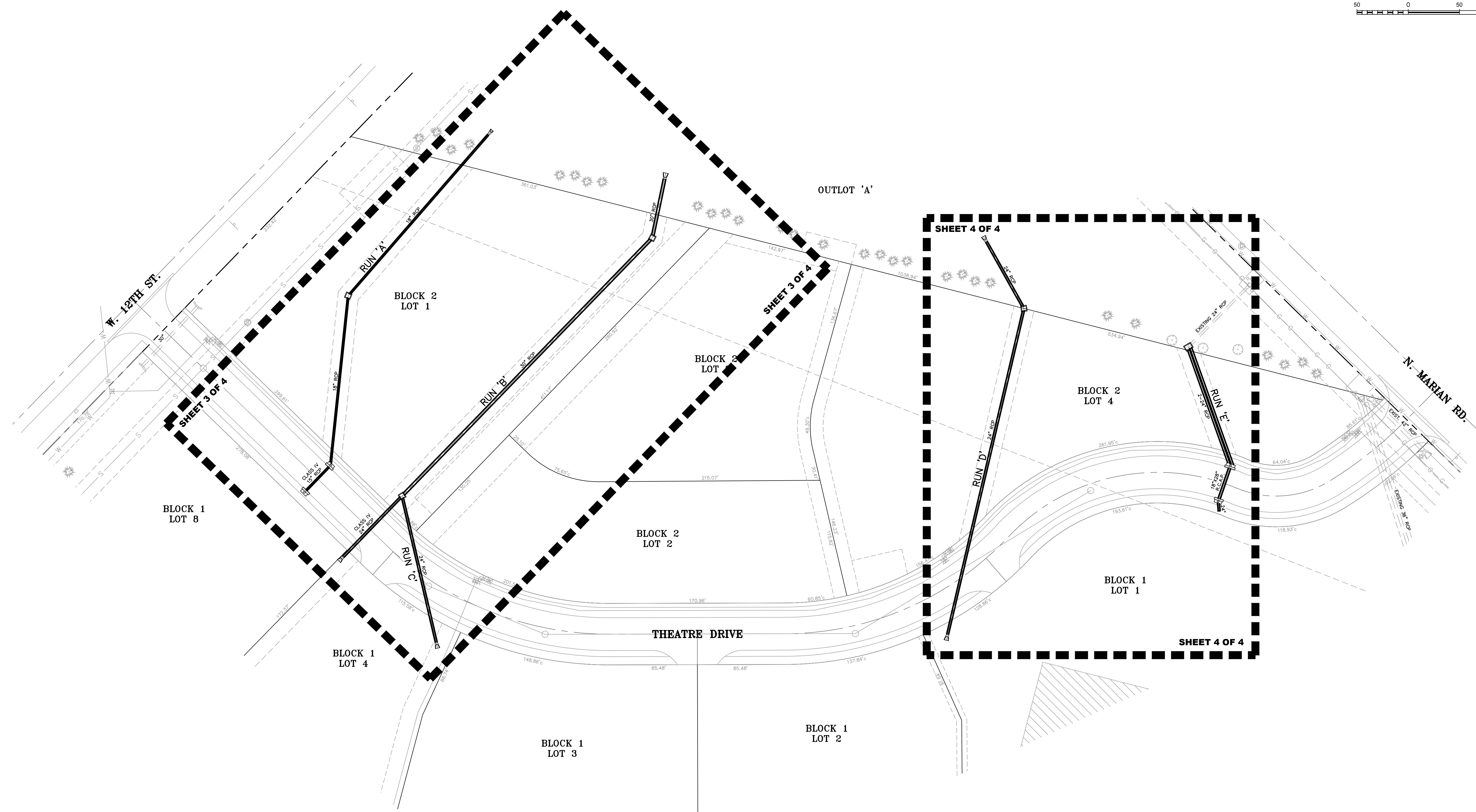
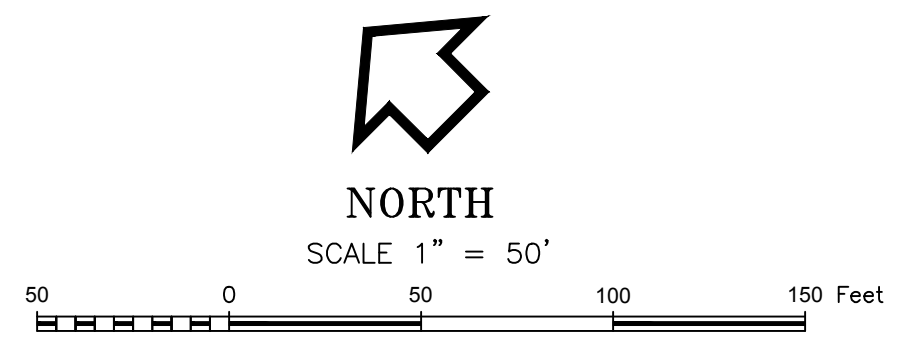
VICINITY MAP
NO SCALE

SCHEDULE OF APPROXIMATE QUANTITIES		
DESCRIPTION	UNIT	QUANTITY
15" RCP STORM SEWER, C1.IV	LF	37
18" RCP STORM SEWER, C1.III	LF	375
24" RCP STORM SEWER, C1.III	LF	822
24" RCP STORM SEWER, C1.IV	LF	83
30" RCP STORM SEWER, C1.III	LF	410
18" x 28" R.C. ARCH PIPE	LF	37
18" RCP F.E.S.	EA	1
24" RCP F.E.S.	EA	4
30" RCP F.E.S.	EA	1
24" BRICK PLUG	EA	1
BUILD 72" STRAIGHT CURB INLET	EA	3
BUILD 90" STRAIGHT CURB INLET	EA	1
BUILD STORM SEWER MANHOLE	EA	5
CURB INLET PROTECTION	EA	4
SILT FENCE	LF	234
NDOR TYPE B RIP-RAP W/ FILTER FABRIC, IN PLACE	TON	112

LEGEND

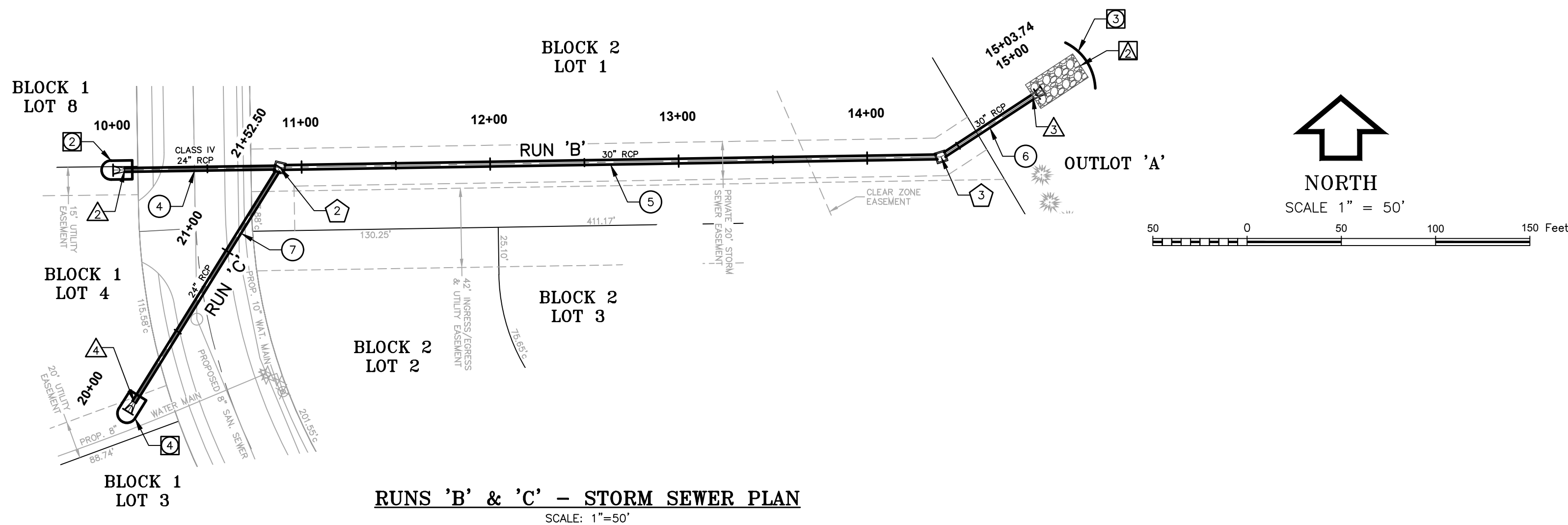
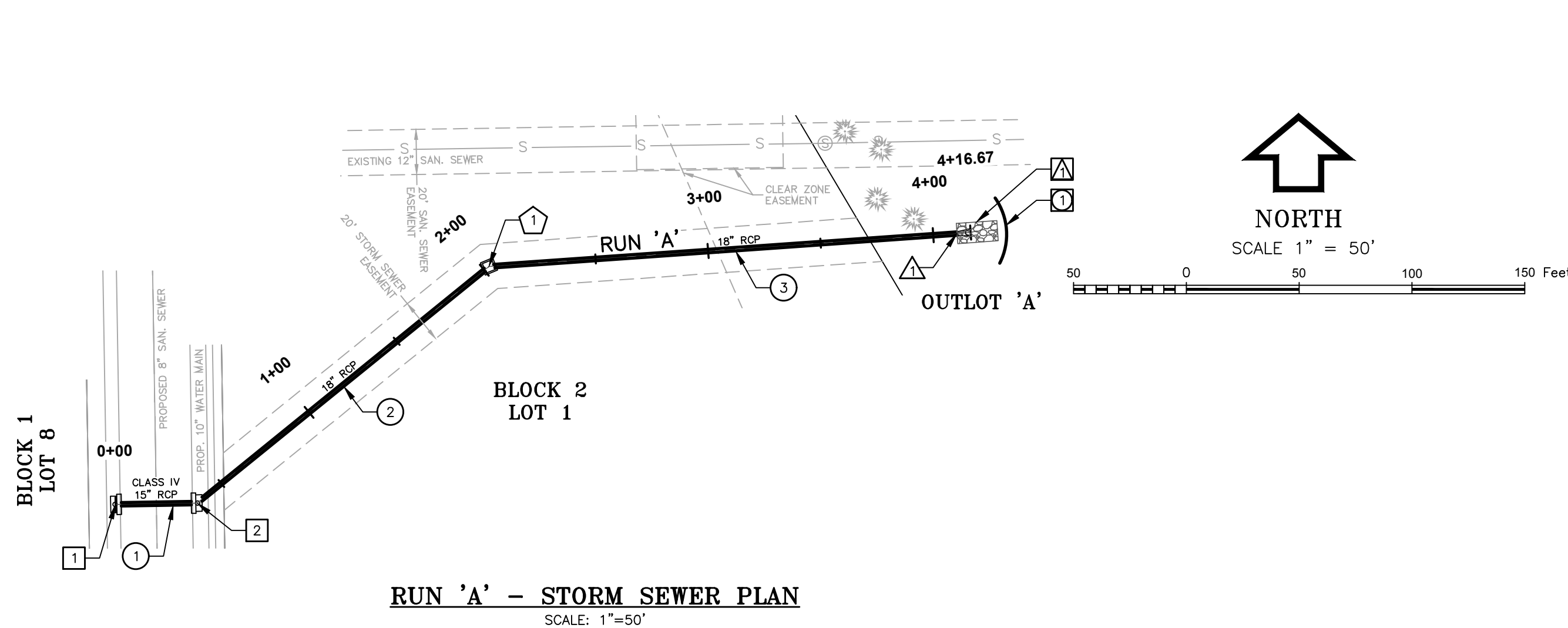
- BOUNDARY LINE
- STREET CENTERLINE
- EASEMENT LINE
- EXISTING UNDERGROUND STORM SEWER PIPE (AS NOTED)
- EXISTING UNDERGROUND UTILITY PIPE (AS NOTED)
- LOT LINE
- PROPOSED UTILITY LINE (AS NOTED)
- EXISTING SANITARY SEWER MH
- PROPOSED WATER VALVE
- PROPOSED CURB INLET
- PROPOSED SANITARY SEWER FLOW DIRECTION
- PROPOSED SANITARY SEWER MH
- PROPOSED WATER HYDRANT
- PROPOSED UTILITY PLUG (AS NOTED)

PRELIMINARY PLAN
NOT FOR CONSTRUCTION



OVERALL STORM SEWER PLAN
SCALE: 1"=50'

PRELIMINARY PLAN
NOT FOR CONSTRUCTION



**INSTALL RIP-RAP
W/FILTER FABRIC**

NO.	TYPE	SIZE	TON
1	"B"	9' X 18' X 1.5'	20
2	"B"	15' X 30' X 1.5'	56

INSTALL SILT FENCE

NO.	LENGTH
1	30'
2	48'
3	30'
4	48'

R.C.P. STORM SEWER

NO.	SIZE	LENGTH	CLASS	STATION
1	15"	36.17'	IV	0+00.00 TO 0+36.17
2	18"	166.48'	III	0+36.17 TO 2+02.65
3	18"	207.94'	III	2+02.65 TO 4+10.59
4	24"	82.31'	IV	10+06.13 TO 10+88.44
5	30"	350.81'	III	10+88.44 TO 14+39.25
6	30"	58.34'	III	14+39.25 TO 14+97.59
7	24"	146.37'	III	20+06.13 TO 21+52.50

INSTALL R.C. F.E.S.

NO.	SIZE	START STATION	END STATION	START F.L.	END F.L.	COORDINATES
1	18"	4+10.59	4+16.67	1932.55	1932.50	N: 282041.67 E: 2078440.19
2	24"	10+00.00	10+06.13	1935.02	1934.99	N: 281850.42 E: 2078049.45
3	30"	14+97.59	15+03.74	1932.53	1932.50	N: 281889.29 E: 2078531.33
4	24"	20+00.00	20+06.13	1935.34	1935.31	N: 281727.42 E: 2078054.46

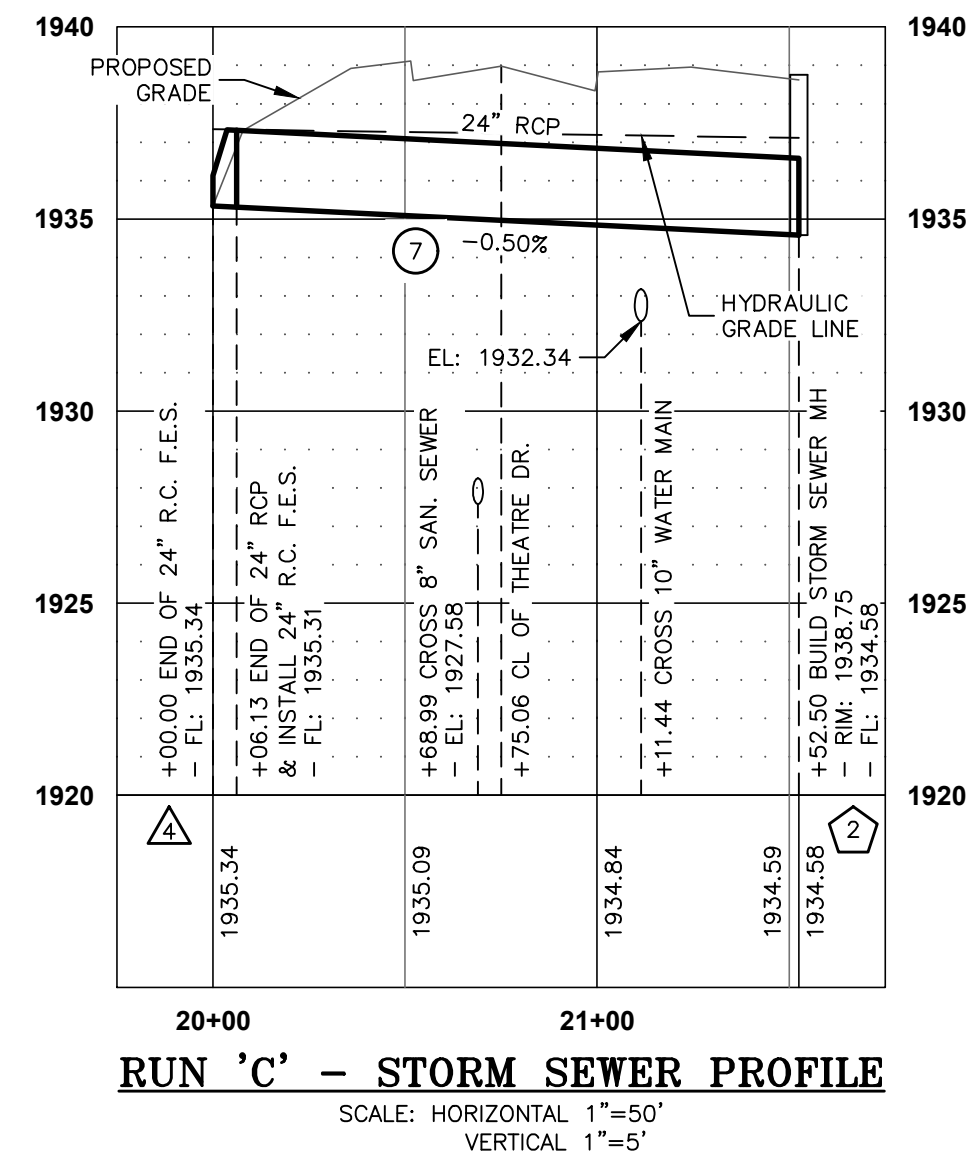
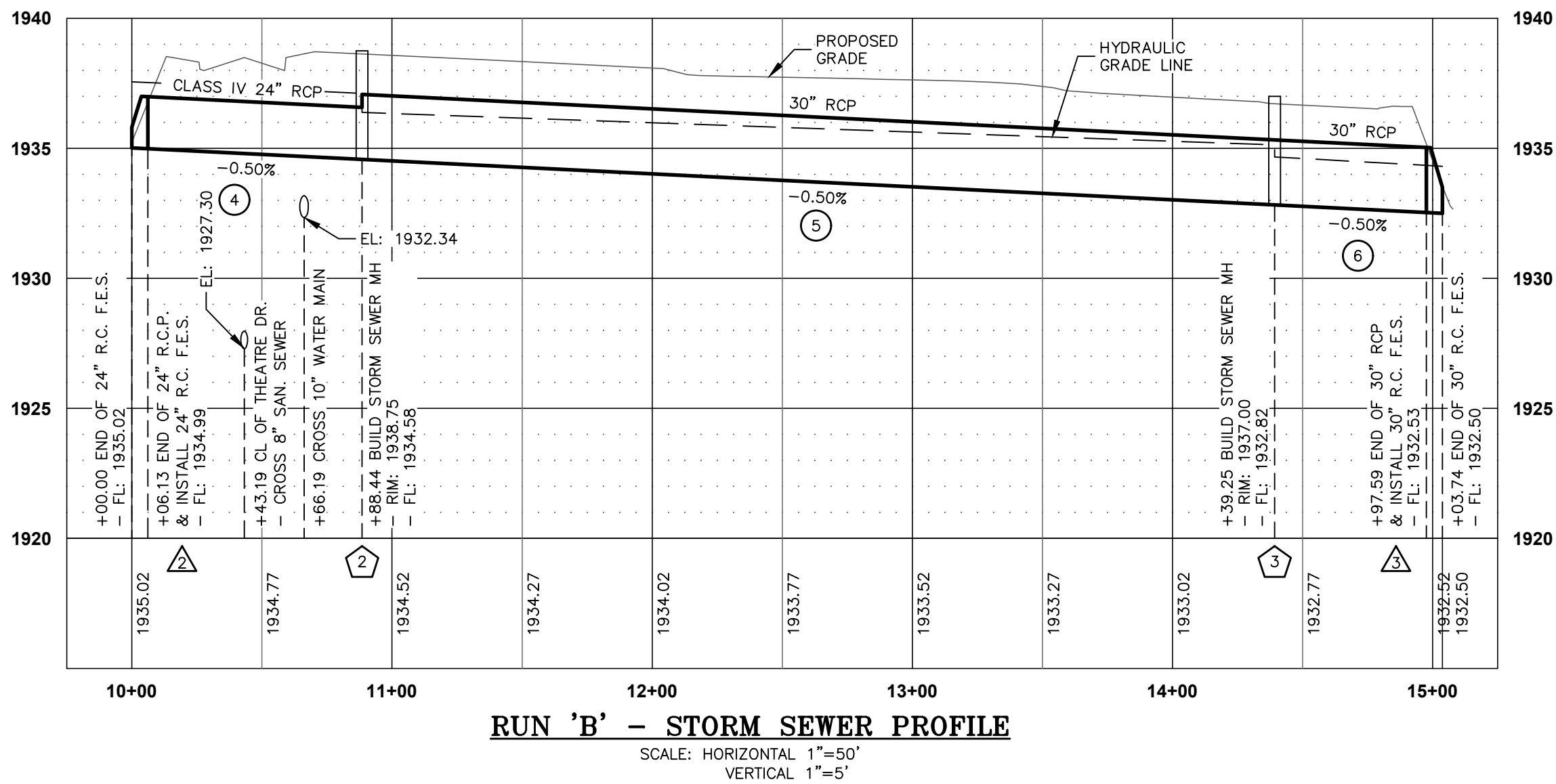
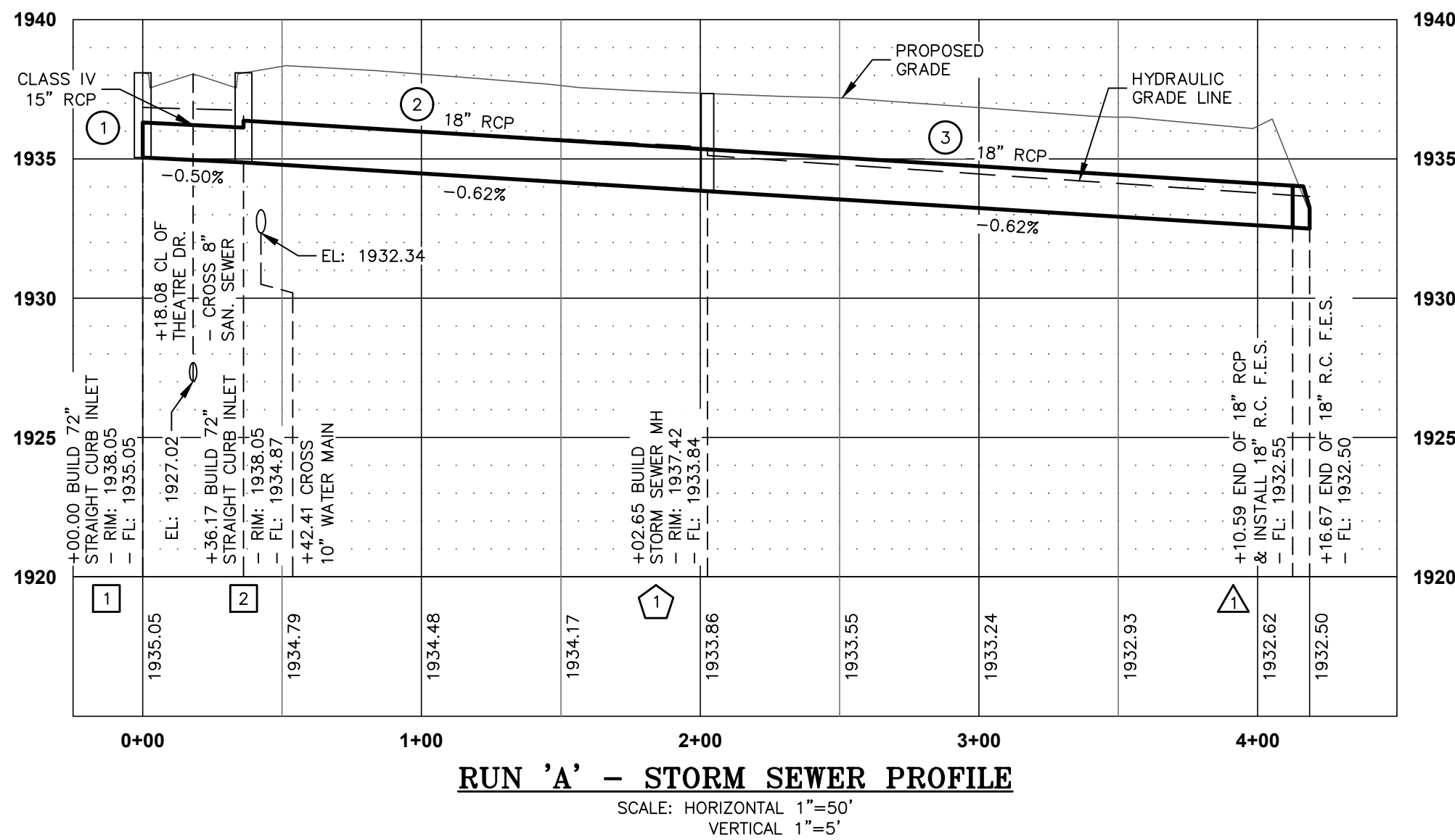
BUILD STORM SEWER MANHOLE

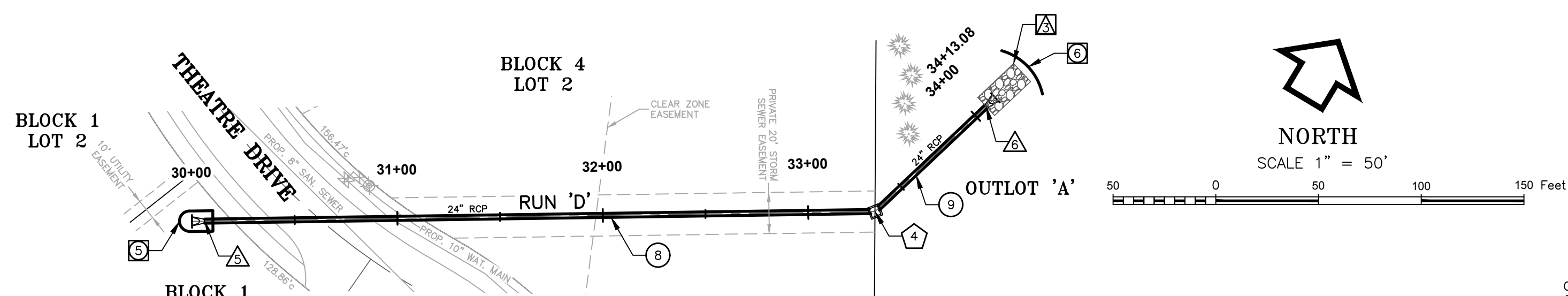
NO.	STATION	DESCRIPTION	RIM	F.L.	COORDINATES
1	2+02.65	BUILD STORM SEWER MH	1937.42	1933.84	N: 282027.06 E: 2078232.77
2	10+88.44 21+52.50	BUILD STORM SEWER MH	1938.75	1934.58	N: 281851.73 E: 2078131.75
3	14+39.25	BUILD STORM SEWER MH	1937.00	1932.82	N: 281857.33 E: 2078482.51

BUILD CURB INLET & CURB INLET PROTECTION

NO.	STATION	DESCRIPTION	RIM	F.L.	COORDINATES
1	0+00.00	BUILD 72" STRAIGHT CURB INLET & INSTALL CURB INLET PROTECTION	1938.05	1935.05	N: 281921.64 E: 2078067.27
2	0+36.17	BUILD 72" STRAIGHT CURB INLET & INSTALL CURB INLET PROTECTION	1938.05	1934.87	N: 281922.22 E: 2078103.44

PRELIMINARY PLAN
NOT FOR CONSTRUCTION





RUN 'D' - STORM SEWER PLAN
SCALE: 1"=50'

INSTALL RIP-RAP W/FILTER FABRIC				
NO.	TYPE	SIZE	TON	
3	"B"	12" X 24" X 1.5'	36	

INSTALL SILT FENCE	
NO.	LENGTH
5	48'
6	30'

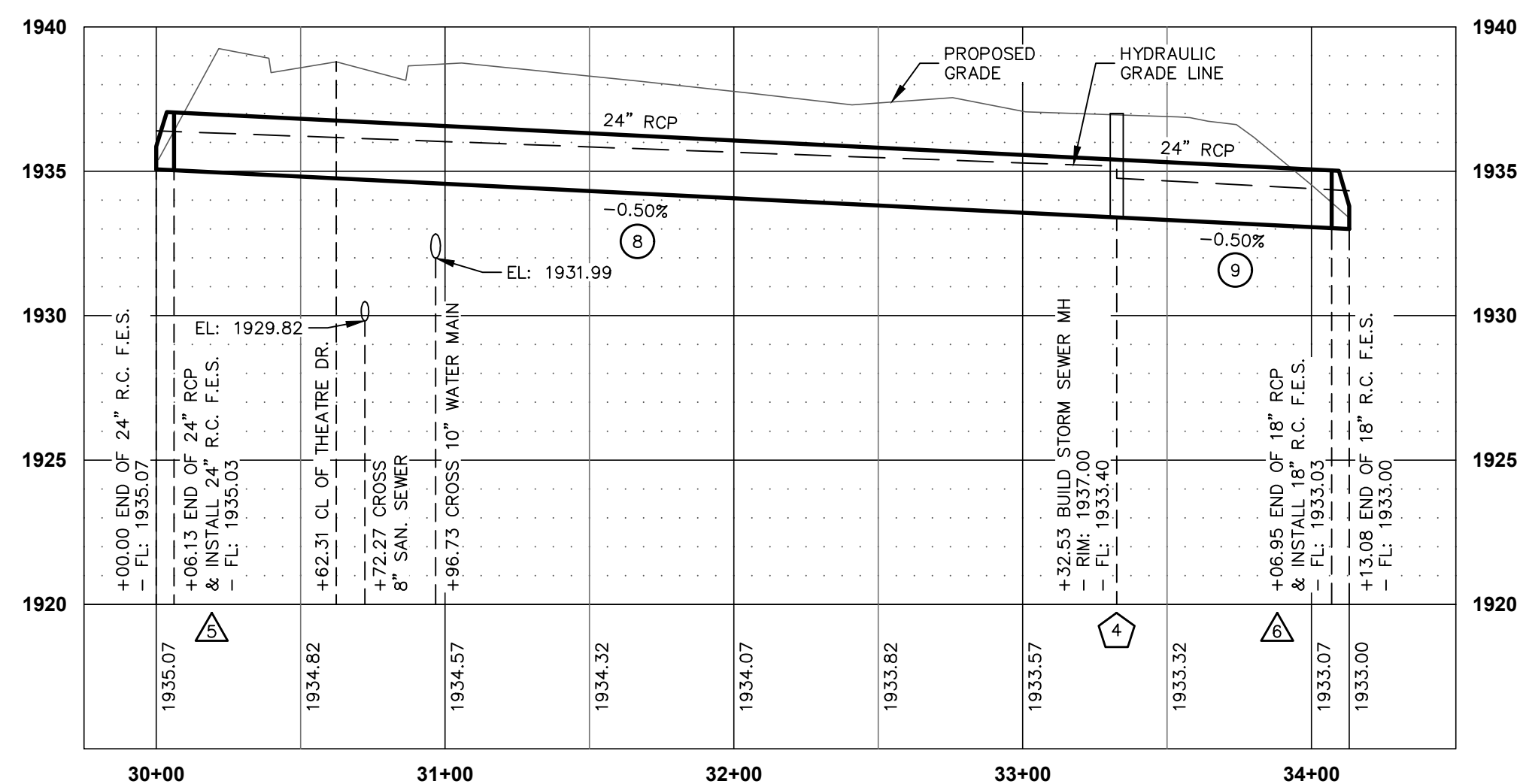
R.C.P. STORM SEWER				
NO.	SIZE	LENGTH	CLASS	STATION
8	24"	326.40'	III	30+06.13 TO 33+32.53
9	24"	74.42'	III	33+32.53 TO 34+06.95
10	24"	9.64'	III	40+00.00 TO 40+09.64
11	18"x28"	36.17'	ARCH	40+09.64 TO 40+45.81
12	2-24"	246.56'	III	40+45.81 TO 41+69.09

BRICK PLUG				
NO.	STATION	DESCRIPTION	F.L.	COORDINATES
1	40+00.00	INSTALL TEMPORARY 24" BRICK PLUG.	1933.50	N: 281277.84 E: 2078685.11

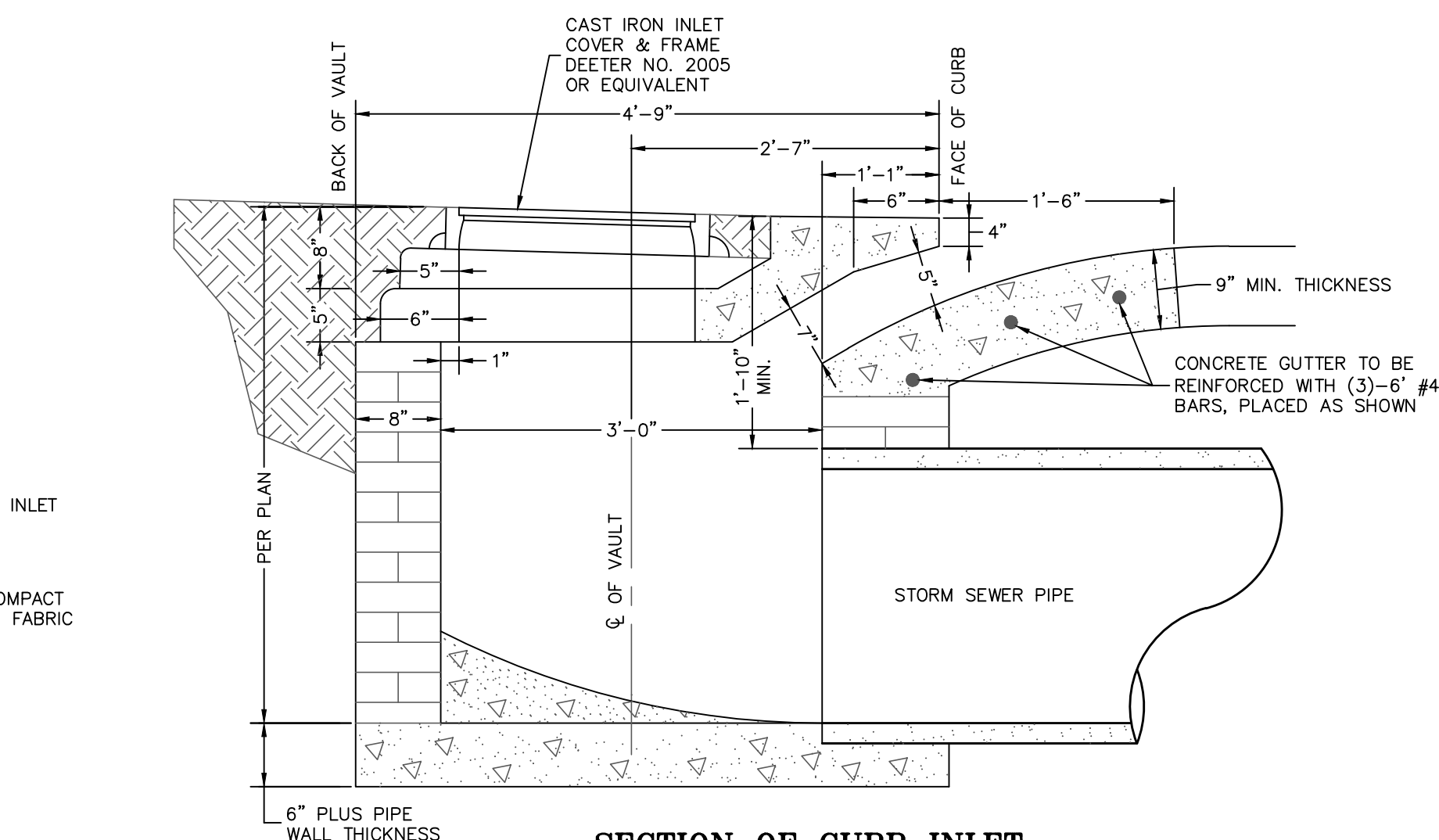
INSTALL R.C. F.E.S.						
NO.	SIZE	START STATION	END STATION	START F.L.	END F.L.	COORDINATES
5	24"	30+00.00	30+06.13	1935.07	1935.03	N: 281380.10 E: 2078412.73
6	24"	34+06.95	34+13.08	1933.03	1933.00	N: 281623.87 E: 2078710.18

BUILD STORM SEWER MANHOLE					
NO.	STATION	DESCRIPTION	RIM	F.L.	COORDINATES
4	33+32.53	BUILD STORM SEWER MH	1937.00	1933.40	N: 281552.21 E: 2078690.07
5	41+69.09	BUILD STORM SEWER MH OVER EXISTING 24" RCP. SEE DETAIL "B" ON SHEET 4 OF 4	1936.25	1932.65 (FIELD VERIFY)	N: 281412.29 E: 2078777.06

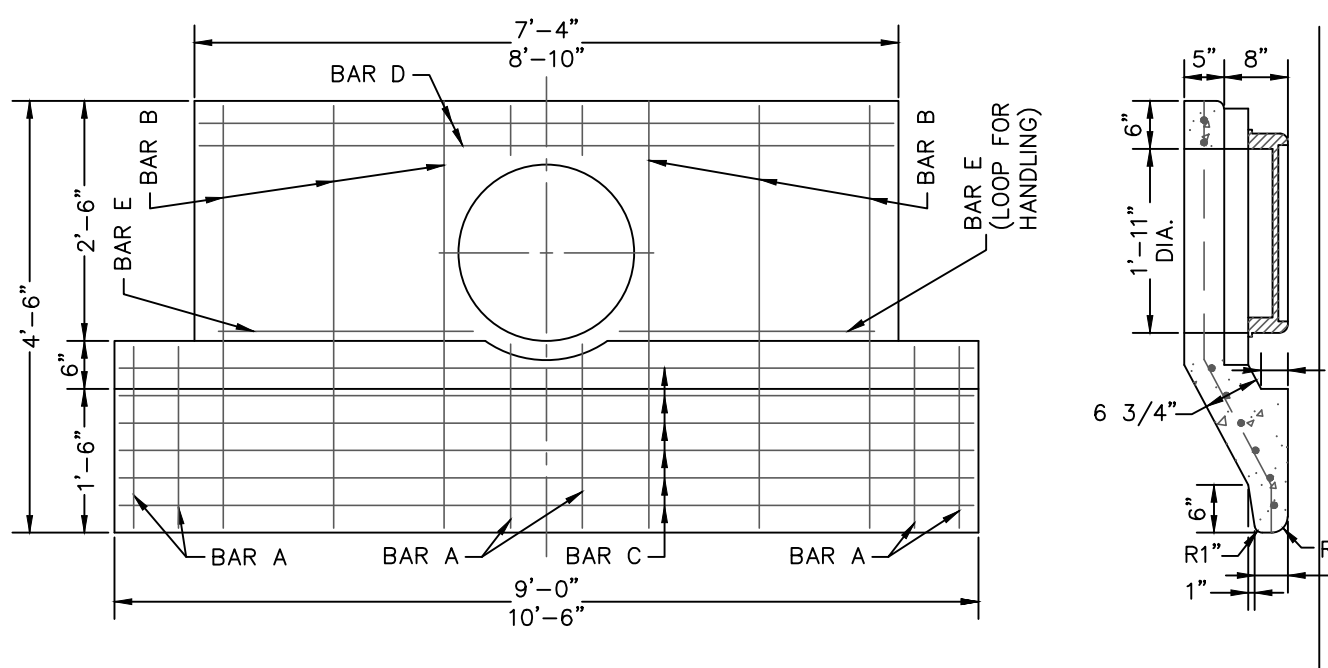
BUILD CURB INLET & CURB INLET PROTECTION					
NO.	STATION	DESCRIPTION	RIM	F.L.	COORDINATES
3	40+09.64	BUILD 72" CANTED CURB INLET & INSTALL CURB INLET PROTECTION	1936.72	1933.45	N: 281285.24 E: 2078691.29
4	40+45.81	BUILD 90" STRAIGHT CURB INLET. SEE DETAIL "A" ON SHEET 4 OF 4, & INSTALL CURB INLET PROTECTION.	1936.72	1933.27	N: 281301.11 E: 2078723.79



RUN 'D' - STORM SEWER PROFILE
SCALE: HORIZONTAL 1"=50'
VERTICAL 1"=5'

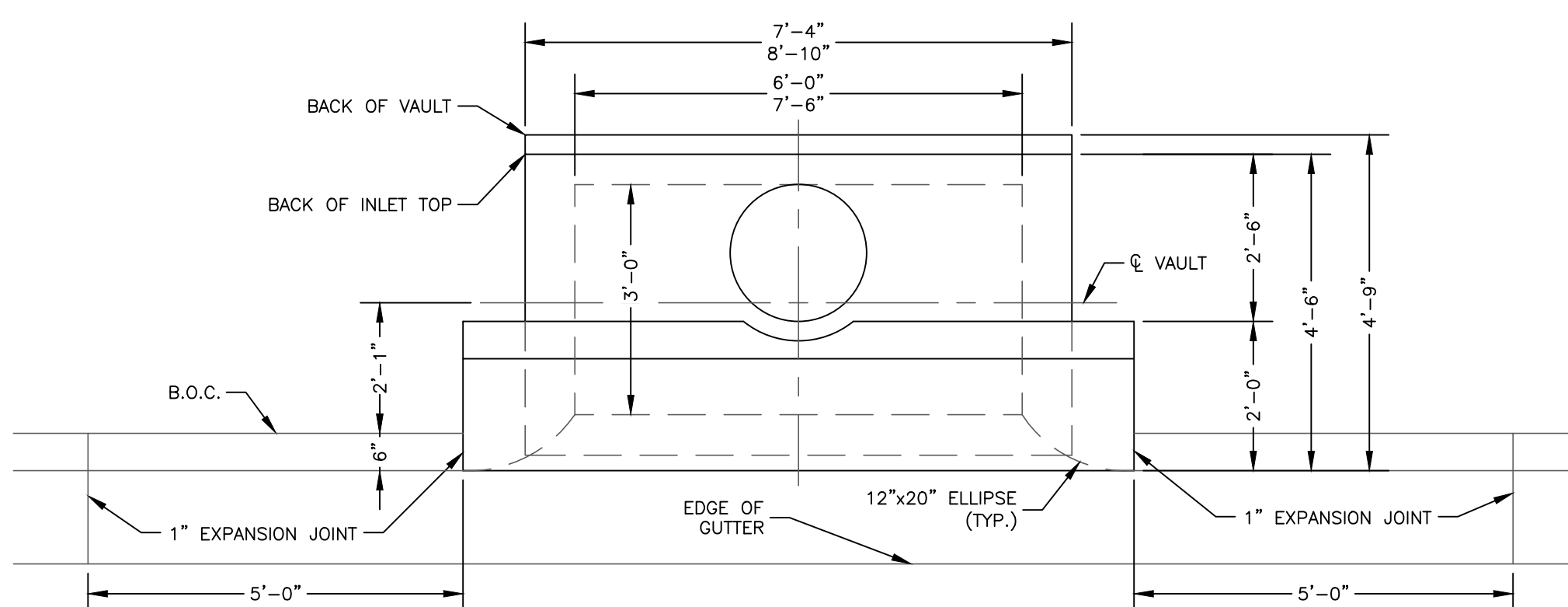


SECTION OF CURB INLET
NO SCALE



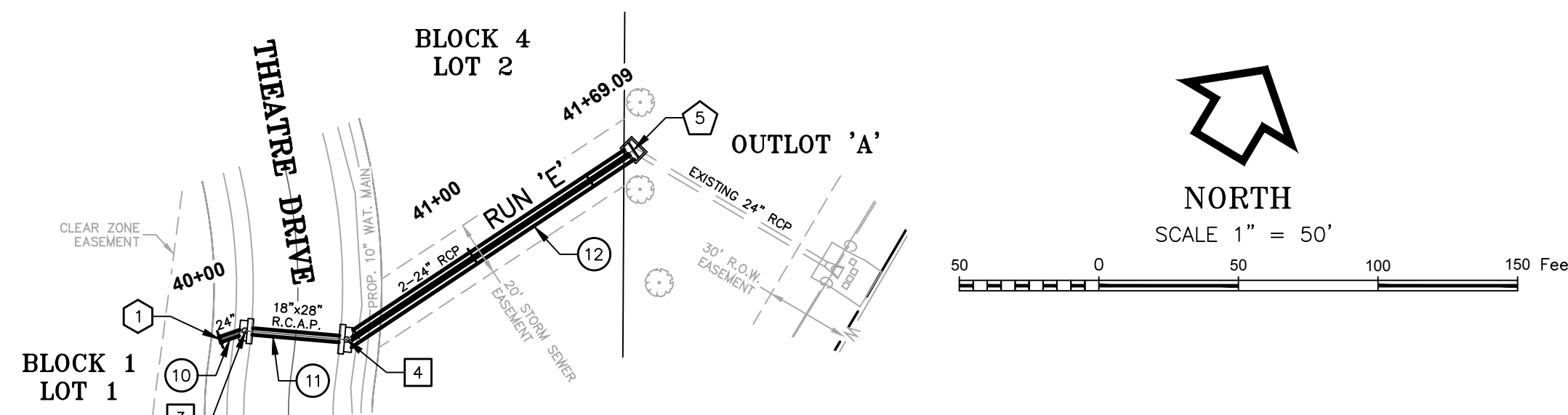
PRECAST REINFORCED CONCRETE INLET TOP
NO SCALE

SCHEDULE OF REINFORCEMENT FOR PRECAST CONCRETE INLET TOP				
BAR	SHAPE	INLET OPENING: 72" OR 90"	NO.	SIZE
A		6	#4	1'-9 1/2"
B		10	#4	4'-6"
C		8	#4	8'-9" 10'-3"
D		2	#4	7'-0" 8'-6"
E		2	#4	3'-0" 4'-6"

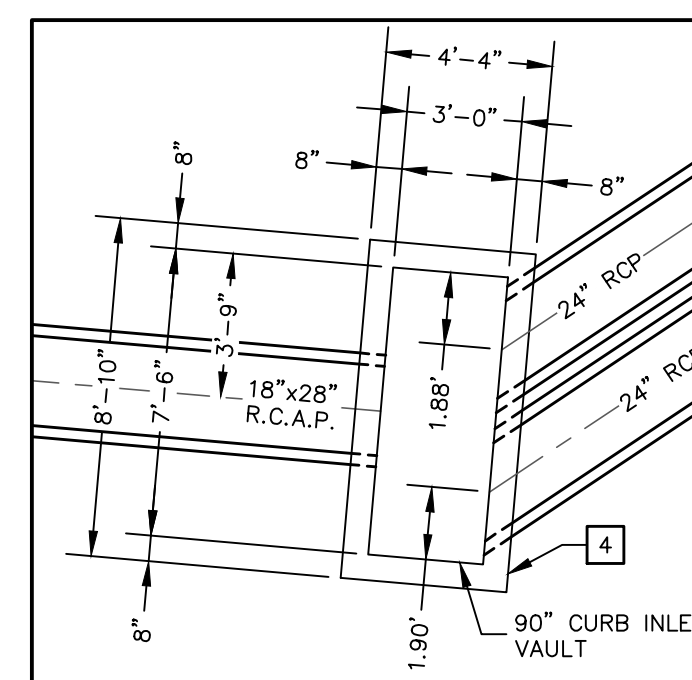


NOTES:
1. ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO A.S.T.M. SERIAL DESIGNATION A-305-507 AND SHALL SATISFY THE BEND TEST REQUIREMENTS FOR STRUCTURAL GRADE STEEL IN ACCORDANCE WITH THE REQUIREMENTS.
2. MINIMUM DEPTH OF EMBEDMENT FOR REINFORCING STEEL SHALL BE 2" UNLESS OTHERWISE NOTED.
3. ALL CONCRETE SHALL BE NDOT CLASS 47-B CONCRETE.
4. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
5. THE CAST IRON MANHOLE RING AND COVER SHALL BE SET IN A BED OF MORTAR, AND CAREFULLY ADJUSTED TO PROPOSED GRADE.

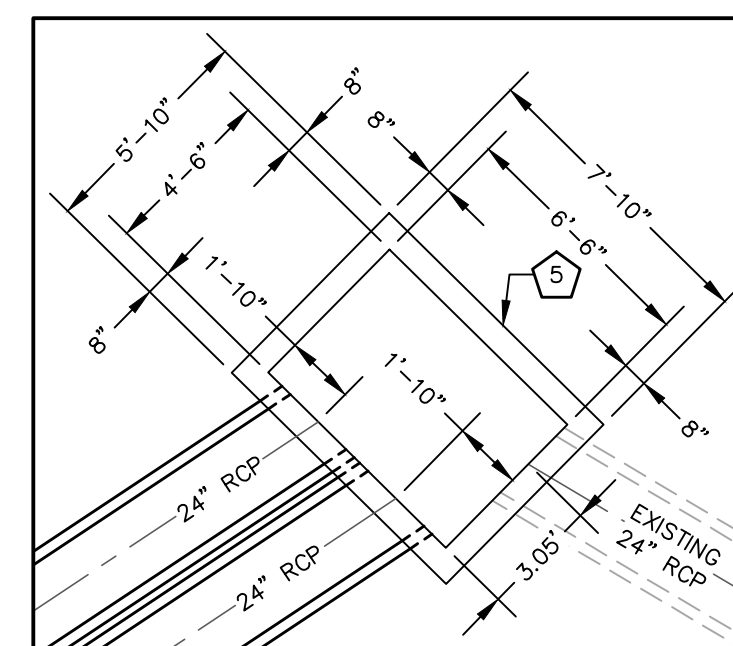
CANTED CURB INLET
NO SCALE



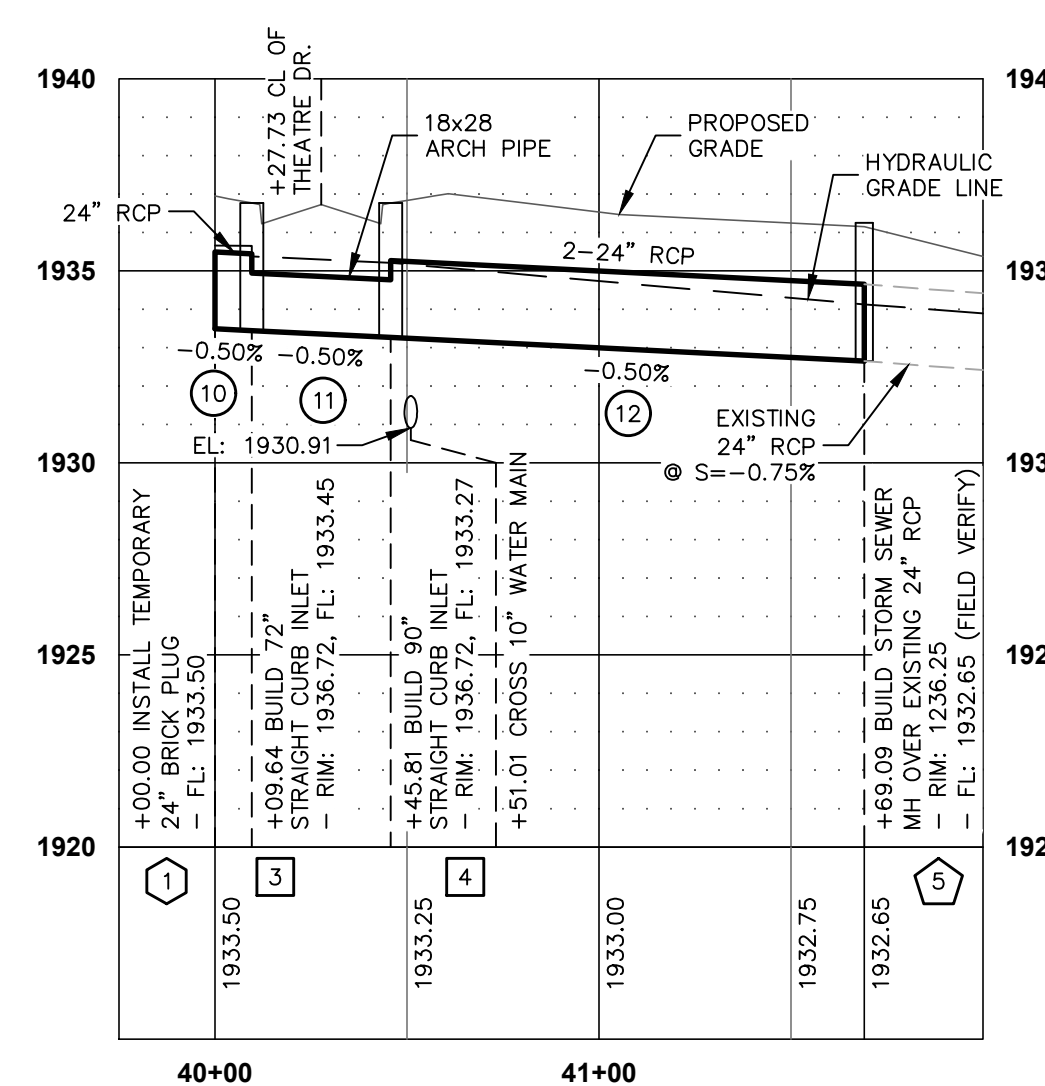
RUN 'E' - STORM SEWER PLAN
SCALE: 1"=50'



DETAIL "A"
SCALE: 1"=5'
NORTH



DETAIL "B"
SCALE: 1"=5'
NORTH



RUN 'E' - STORM SEWER PROFILE
SCALE: HORIZONTAL 1"=50'
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15. DIMENSIONS SHOWN ARE TO CENTERLINE OF PIPES OR FITTINGS AND ARE FROM PROPERTY LINES, CENTERLINES OF DRIVEWAYS, BACK OF CURBS, EDGES OF SIDEWALKS OR FACES OF WALLS.
16. CONTRACTOR TO VERIFY ALL LOCATIONS OF UTILITIES BEFORE BORING AND TRENCHING.
17. CONTRACTOR TO FIELD VERIFY ALL UTILITIES. IF CONFLICT OCCURS BETWEEN EXISTING AND PROPOSED CONTACT ENGINEER BEFORE BUILDING.
18. CONTRACTOR SHALL LEAVE THE SITE CLEAN AND SMOOTH GRADED.
19. THE WATER MAIN CONTRACTOR SHALL REMOVE FROM THE SITE AND PROPERLY DISPOSE OF ALL RUBBLE AND WASTE PRODUCED BY CONSTRUCTION.
20. CONTRACTOR SHALL RE-SEED ALL DISTURBED GRASS AREAS TO MATCH EXISTING GRASS.
21. ALL FITTINGS SHALL BE DUCTILE IRON, WRAPPED WITH POLYWRAP.
22. POLYWRAP SHALL BE LINEAR LOW DENSITY POLYETHYLENE FILM MANUFACTURED OF VIOIRN POLYETHYLENE MATERIAL. MINIMUM THICKNESS SHALL BE 8 MIL. POLYWRAP SHALL BE IN ACCORDANCE WITH DRAFT AWWA C105 REVISION, DOUBLED WRAPPED (2 LAYERS) AND TAPED PER CITY OF HASTINGS STANDARD SPECIFICATIONS.
23. ALL LINE VALVES & REDUCERS SHALL BE RESTRAINED.
24. WHERE A HYDRANT EXTENSION IS NECESSARY TO MEET THE REQUIRED GRADE, ONLY ONE EXTENSION WILL BE PERMITTED ON A HYDRANT. THE CONTRACTOR SHALL REMOVE AND RESET ALL HYDRANTS WHICH CANNOT BE ADJUSTED TO GRADE WITH ONE EXTENSION. CONTRACTOR SHALL PAY ALL COSTS ASSOCIATED WITH THE INSTALLATION OF HYDRANT EXTENSIONS.
25. ALL DEAD-END HYDRANT ASSEMBLIES SHALL BE INSTALLED AT A MAXIMUM SLOPE OF 2.0%.
26. CONTRACTOR SHALL ROTATE HYDRANT TEE SO THAT THE HYDRANT FLANGE WILL BE BETWEEN 3" AND 6" ABOVE TOP OF CURB.
27. ONE FULL LENGTH OF WATER PIPE (20' NOMINAL) SHALL BE CENTERED ON UTILITY WHEN CROSSING STORM SEWER OR SANITARY SEWER PER SECTION 8.8.3b OF THE RECOMMENDED STANDARDS FOR WATER WORKS, 2007 EDITION.
28. DIP FITTINGS SHALL MEET AWWA STANDARDS PER SECTION 8.1.1a OF THE RECOMMENDED STANDARDS FOR WATER WORKS, 2007 EDITION.
29. PLACING HYDRANTS SHALL MEET AWWA STANDARDS PER SECTION 4.3.7.2 OF THE RECOMMENDED STANDARDS FOR WATER WORKS, 2007 EDITION. FIRE HYDRANTS SHALL COMPLY WITH AWWA C502.
30. GATE VALVES SHALL MEET AWWA C515.
31. WATER MAIN PIPE SHALL MEET AWWA C600.
32. ALL COMPACT FITTING WEIGHTS WILL BE MEASURED BY AWWA C110 AND C152 FOR BASE WEIGHTS.
33. TRACER WIRE, TRACER WIRE RISERS, MARKING TAPE, AND ANODES WILL BE SUPPLIED BY HASTINGS UTILITIES AND INSTALLED BY THE CONTRACTOR.

BENCHMARKS:

1. SAN. SEWER MH LOCATED AT THE INTERSECTION OF W. 9TH ST. & MARIAN RD.
EL: 1937.97 – NAVD 88
2. SAN. SEWER MH LOCATED AT THE INTERSECTION OF W. 12TH ST. & MARIAN RD.
EL: 1937.62 – NAVD 88
3. SEWER MH LOCATED AT THE INTERSECTION OF PARKLANE DR. & VALLEY CHASE AVE.
EL: 1937.62 – NAVD 88



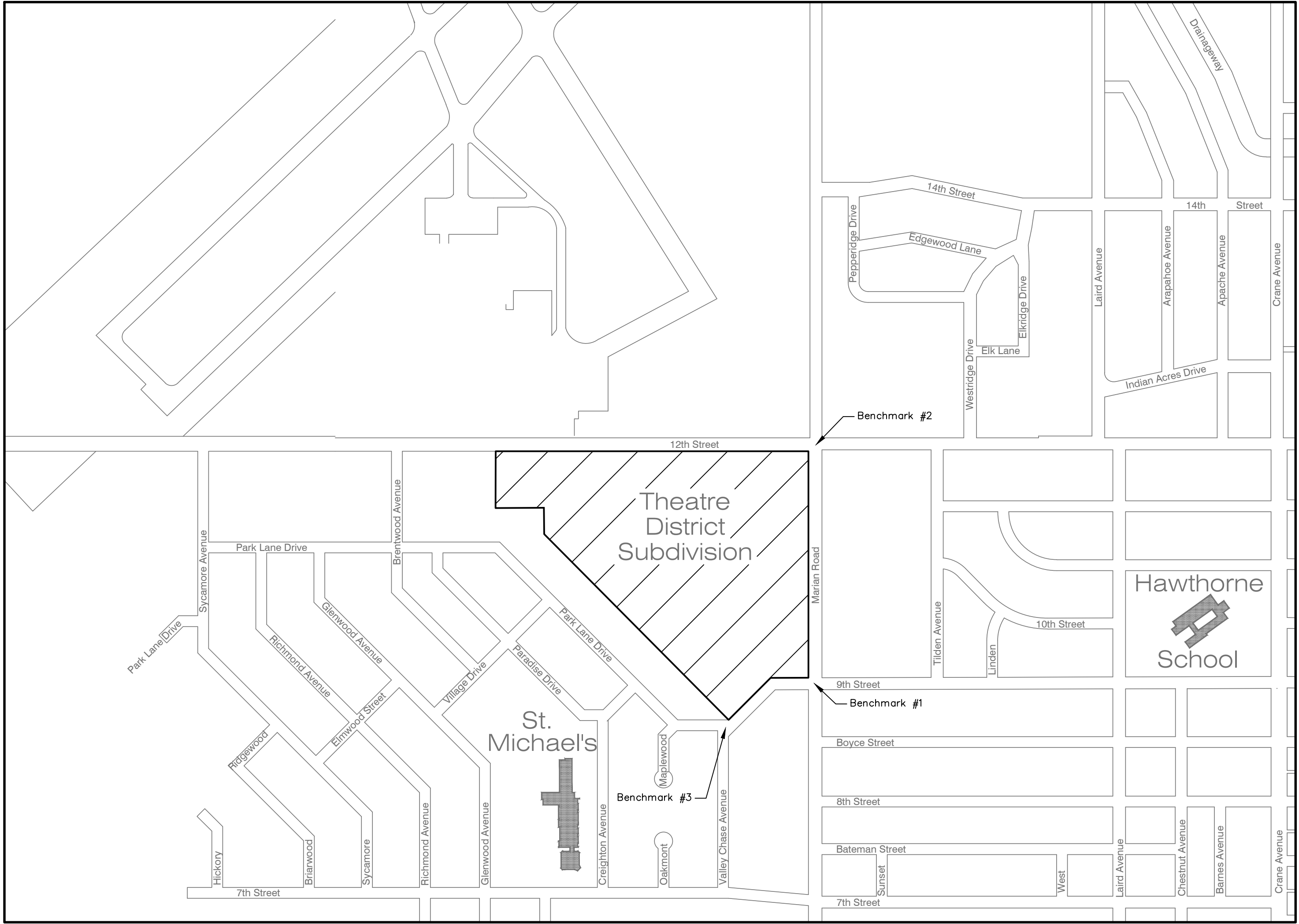
Hastings Utilities

2021

Water Main Area

WA-XXX

Theatre District Subdivision
W. 12th St. - N. Marian Rd.
WR-XXX



VICINITY MAP
NO SCALE

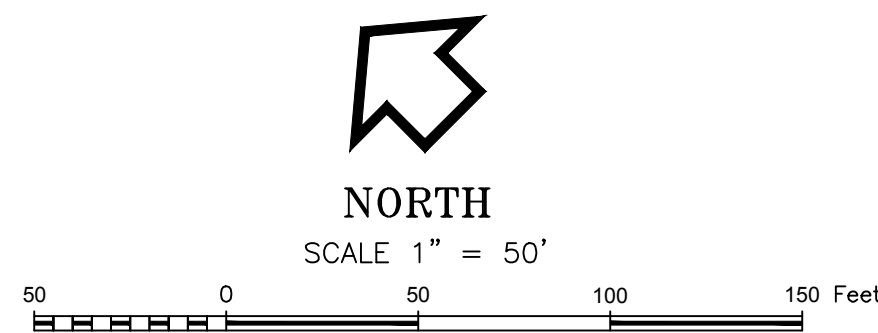
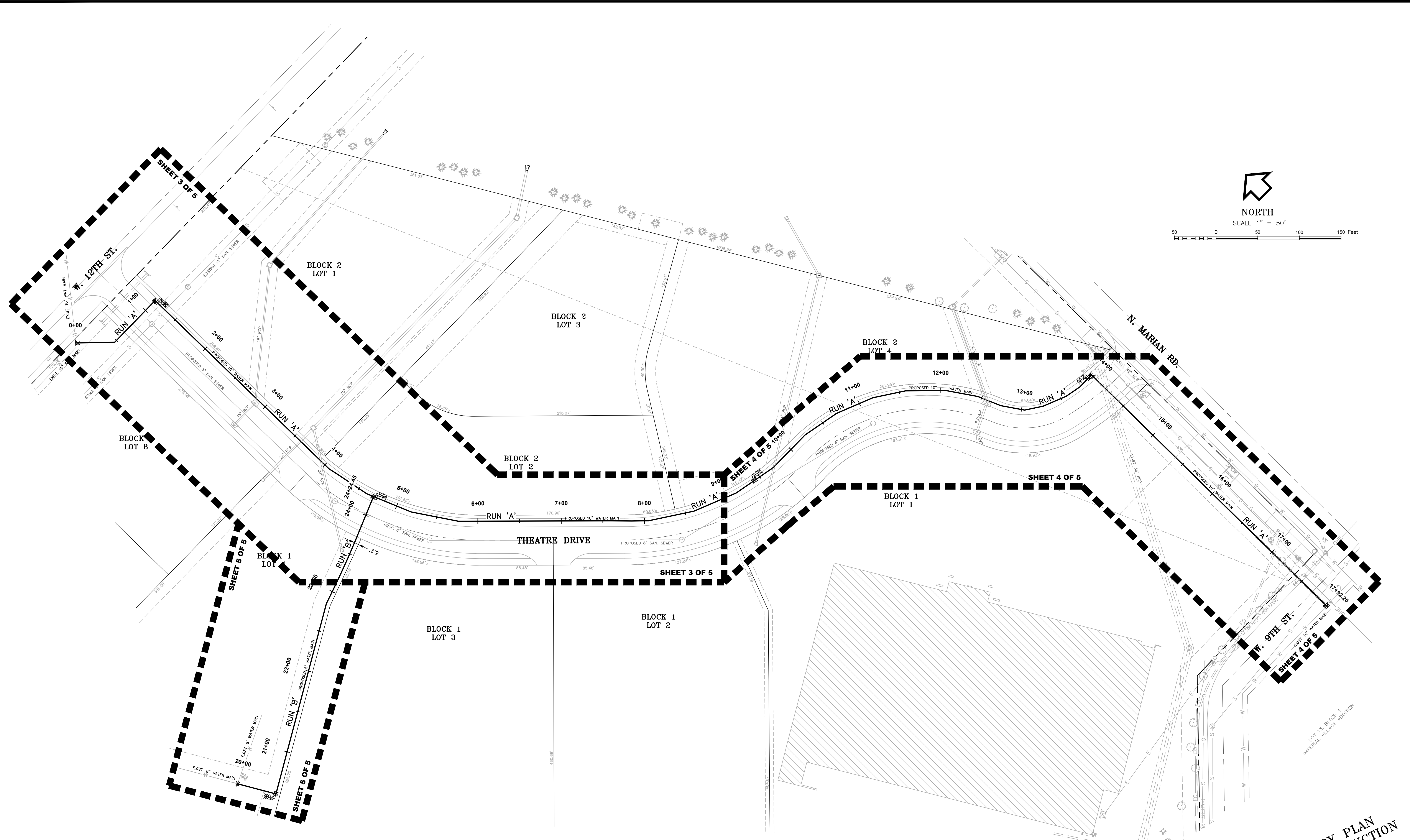
LEGEND	
	BOUNDARY LINE
	STREET CENTERLINE
	EASEMENT LINE
	EXISTING UNDERGROUND STORM SEWER PIPE (AS NOTED)
	EXISTING UNDERGROUND UTILITY PIPE (AS NOTED)
	LOT LINE
	PROPOSED UTILITY LINE (AS NOTED)
	EXISTING SANITARY SEWER MH
	PROPOSED WATER VALVE
	PROPOSED CURB INLET
	PROPOSED SANITARY SEWER FLOW DIRECTION
	PROPOSED SANITARY SEWER MH
	PROPOSED WATER HYDRANT
	PROPOSED UTILITY PLUG (AS NOTED)

SCHEDULE OF APPROXIMATE QUANTITIES		
DESCRIPTION	UNIT	QUANTITY
10" PVC WATER MAIN	LF	1,678
10" PVC CERTA-LOCK RESTRAINED JOINT WATER MAIN	LF	115
16"ø X 0.250"th. STEEL ENCASEMENT	LF	115
BORING FOR 10" PVC CERTA-LOCK RESTRAINED JOINT WATER MAIN	LF	115
8" PVC WATER MAIN	LF	425
16" X 10" TAPPING SLEEVE & VALVE, M.J.	EA	1
10" GATE VALVE, M.J.	EA	12
8" GATE VALVE, M.J.	EA	4
6" GATE VALVE, M.J.	EA	5
10" X 10" TEE, M.J. (3 EA.)	LBS	396
10" X 8" TEE, M.J. (1 EA.)	LBS	116
10" X 6" TEE, M.J. (4 EA.)	LBS	396
10" X 10" PIGGING TEE, M.J. (3 EA.)	LBS	396
8" X 8" TEE, M.J. (2 EA.)	LBS	178
8" X 8" PIGGING TEE, M.J. (2 EA.)	LBS	178
10" X 11.25" BEND, M.J. (20 EA.)	LBS	1,160
10" X 22.5" BEND, M.J. (1 EA.)	LBS	67
10" X 45" BEND, M.J. (1 EA.)	LBS	75
8" X 11.25" BEND, M.J. (1 EA.)	LBS	42
10" X 24" OFFSET, M.J. (2 EA.)	LBS	840
8" X 24" OFFSET, M.J. (1 EA.)	LBS	280
8" X 6" REDUCER, M.J. (1 EA.)	LBS	39
10" PLUG, M.J. (5 EA.)	LBS	180
8" PLUG, M.J. (2 EA.)	LBS	52
10" SOLID SLEEVE, M.J. (L=12") (2 EA.)	LBS	136
8" SOLID SLEEVE, M.J. (L=12") (2 EA.)	LBS	98
10" RETAINER GLANDS, M.J.	EA	59
8" RETAINER GLANDS, M.J.	EA	10
10" FOSTER ADAPTOR	EA	20
8" FOSTER ADAPTOR	EA	9
6" X 36" SWIVEL X SWIVEL ADAPTER (5 EA.)	LBS	435
6" X 90" SWIVEL HYDRANT ELL (5 EA.)	LBS	260
5-1/4" PUMPER HYDRANT, M.J. (L=6.5')	EA	5
3 LB. ANODE	EA	1
TRACER WIRE RISER	EA	5
BLUE WATER MAIN WARNING TAPE	LF	2,218
BLUE TRACER WIRE	LF	2,218
TEMPORARY HYDRANT	EA	2
REMOVE & SALVAGE 8" X 90" BEND, M.J.	EA	1
CONCRETE FOR TEE, PLUG & THRUST BLOCKS	EA	32

PRELIMINARY PLAN
NOT FOR CONSTRUCTION

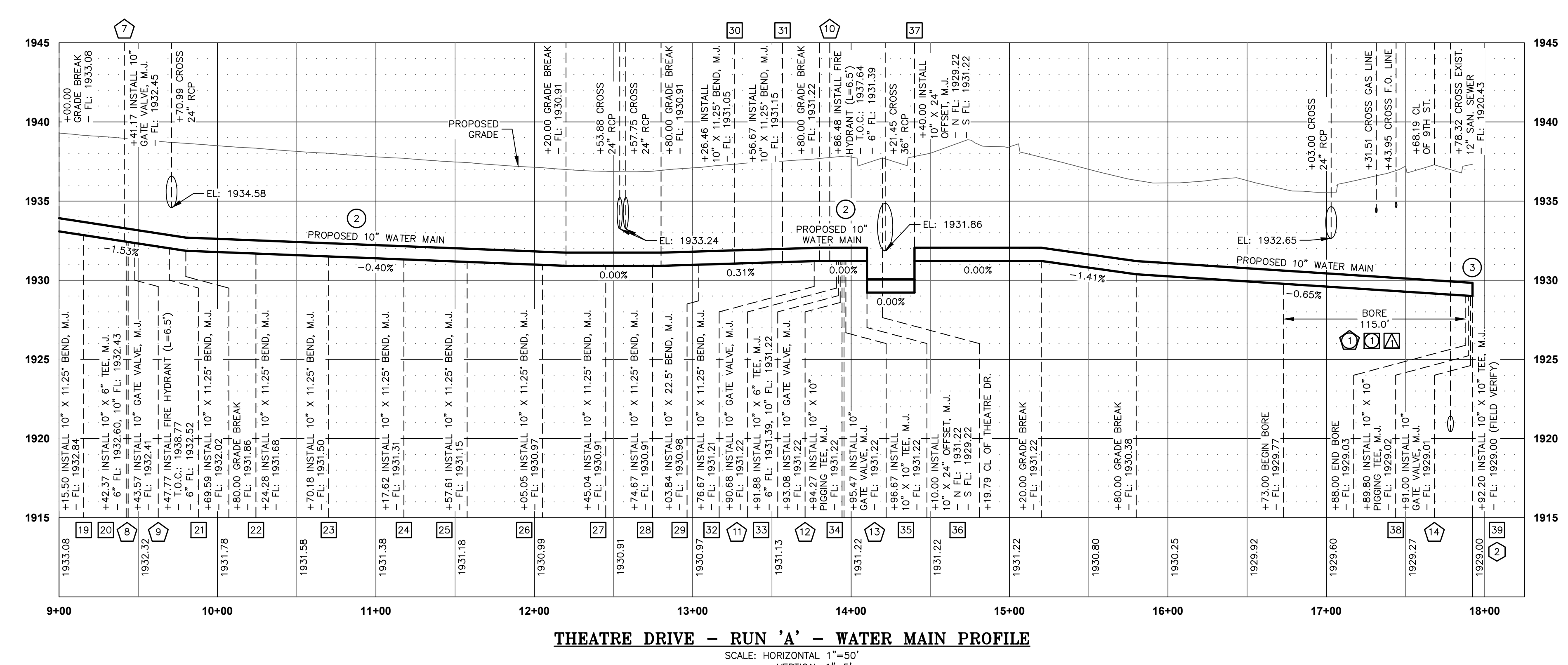
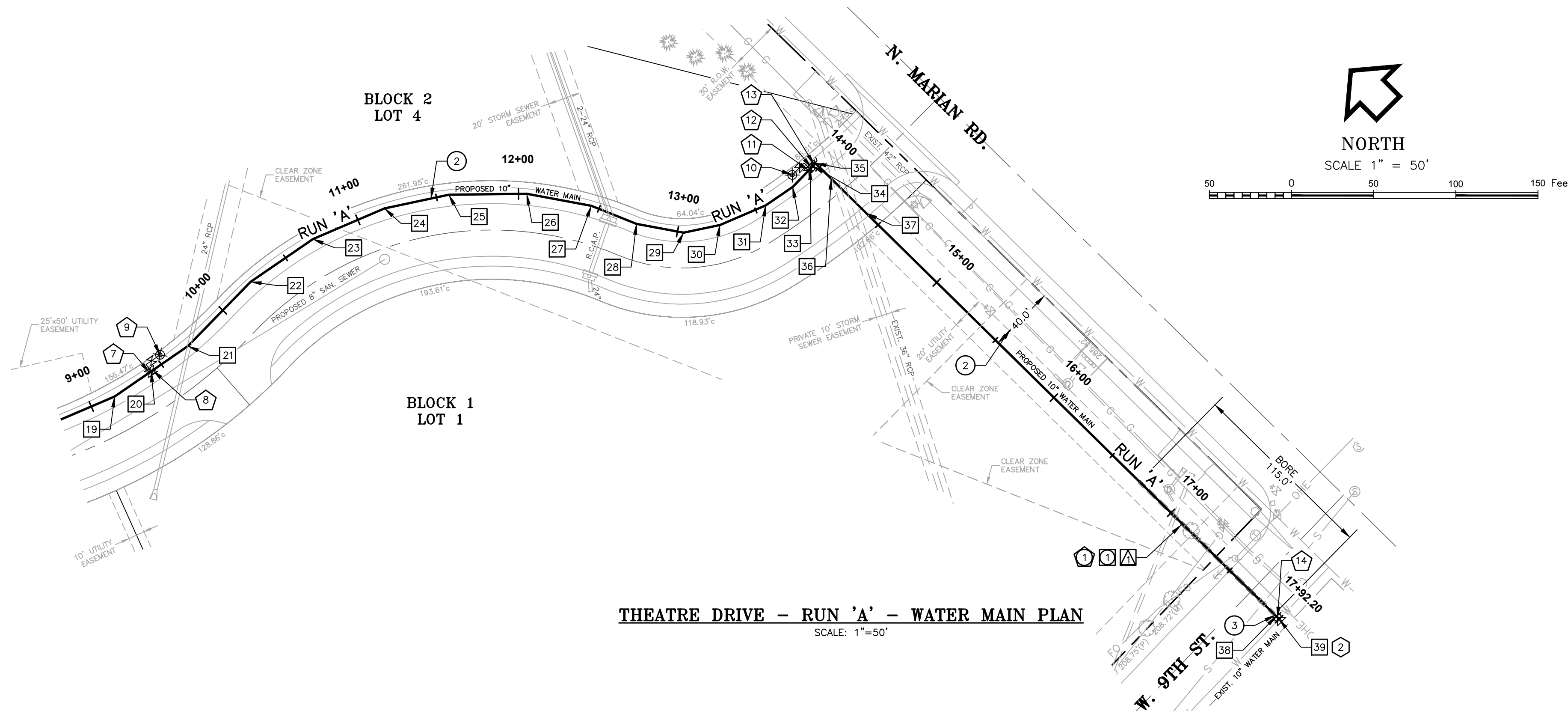


No.
WR-xxx
(Paid by Developer)



OVERALL WATER MAIN PLAN
SCALE: 1"=50'

PRELIMINARY PLAN
NOT FOR CONSTRUCTION



BORE WATER MAIN			
NO.	STATION	LENGTH	SIZE
1	16+73.00 TO 17+88.00	115.00'	10"

INSTALL CERTA-LOCK RESTRAINED JOINT AWWA C900 PVC WATER MAIN			
NO.	STATION	LENGTH	SIZE
1	16+73.00 TO 17+88.00	115.00'	10"

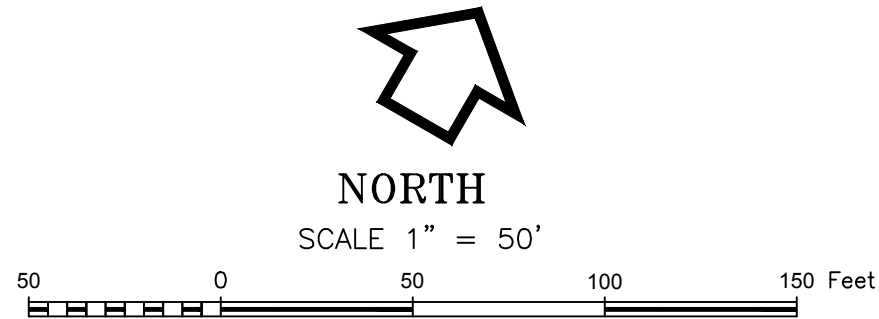
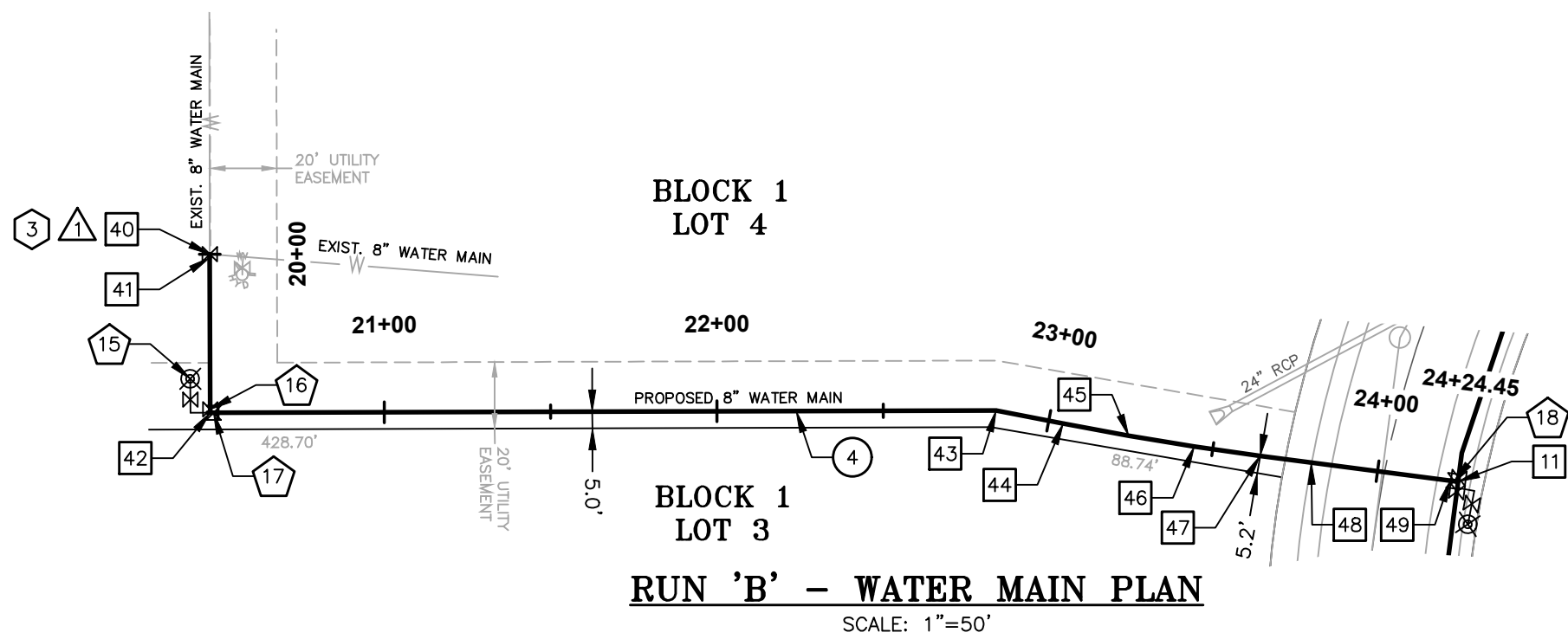
INSTALL 16"Ø STEEL ENCASEMENT W/ 0.250" TH. WALL			
NO.	STATION	LENGTH	
1	16+73.00 TO 17+88.00	115.00'	

INSTALL PVC WATER MAIN			
NO.	STATION	LENGTH	SIZE
2	9+00.00 TO 16+73.00	773.00'	10"
3	17+88.00 TO 17+92.20	4.20'	10"

WATER VALVE AND/OR HYDRANT					
NO.	STATION	DESCRIPTION	T.O.C. EL.	F.L.	COORDINATES
7	9+41.17	INSTALL 10" GATE VALVE, M.J., 10" FOSTER ADAPTOR, & 1-10" RETAINER GLAND, M.J.	-	FL: 1932.45	N: 281433.06 E: 2078460.38
8	9+43.57	INSTALL 10" GATE VALVE, M.J., 10" FOSTER ADAPTOR, & 1-10" RETAINER GLAND, M.J.	-	FL: 1932.41	N: 281432.62 E: 2078462.74
9	9+47.77	INSTALL FIRE HYDRANT (L=6.5'), 6" GATE VALVE, M.J., 6" X 36" SW. X SW. ADAPTER, 6" X 90" SW. HYDRANT ELL, & TRACER WIRE RISER.	1938.77	6" FL: 1932.52	N: 281432.88 E: 2078467.06
10	13+86.48	INSTALL FIRE HYDRANT (L=6.5'), 6" GATE VALVE, M.J., 6" X 36" SW. X SW. ADAPTER, 6" X 90" SW. HYDRANT ELL, & TRACER WIRE RISER.	1937.64	6" FL: 1931.39	N: 281237.26 E: 2078826.92
11	13+90.68	INSTALL 10" GATE VALVE, M.J., 10" FOSTER ADAPTOR, & 1-10" RETAINER GLAND, M.J.	-	FL: 1931.22	N: 281236.26 E: 2078631.13
12	13+93.08	INSTALL 10" GATE VALVE, M.J. & 2-10" FOSTER ADAPTORS	-	FL: 1931.22	N: 281236.29 E: 2078833.53
13	13+95.47	INSTALL 10" GATE VALVE, M.J. & 2-10" FOSTER ADAPTORS	-	FL: 1931.22	N: 281236.32 E: 2078835.92
14	17+91.00	INSTALL 10" GATE VALVE, M.J. & 2-10" FOSTER ADAPTORS	-	FL: 1929.01	N: 280842.02 E: 2078840.53

DUCTILE IRON WATER MAIN FITTINGS, M.J.				
ID	STATION	DESCRIPTION	F.L.	COORDINATES
19	9+15.50	INSTALL 10" X 11.25' BEND, M.J., 2-10" RETAINER GLANDS, M.J., & CONC. THRUST BLOCK - DEFL: 11.25' LT.	FL: 1932.84	N: 281437.76 E: 2078435.14
20	9+42.37	INSTALL 10" X 6" TEE, M.J.	6" FL: 1932.60 10" FL: 1932.43	N: 281432.84 E: 2078461.56
21	9+69.59	INSTALL 10" X 11.25' BEND, M.J., 2-10" RETAINER GLANDS, M.J., & CONC. THRUST BLOCK - DEFL: 11.25' LT.	FL: 1932.02	N: 281427.86 E: 2078488.32
22	10+24.28	INSTALL 10" X 11.25' BEND, M.J., 2-10" RETAINER GLANDS, M.J., & CONC. THRUST BLOCK - DEFL: 11.25' RT.	FL: 1931.68	N: 281428.53 E: 2078543.00
23	10+70.18	INSTALL 10" X 11.25' BEND, M.J., 2-10" RETAINER GLANDS, M.J., & CONC. THRUST BLOCK - DEFL: 11.25' RT.	FL: 1931.50	N: 281420.12 E: 2078588.13
24	11+17.62	INSTALL 10" X 11.25' BEND, M.J., 2-10" RETAINER GLANDS, M.J., & CONC. THRUST BLOCK - DEFL: 11.25' RT.	FL: 1931.31	N: 281402.51 E: 2078632.18
25	11+57.61	INSTALL 10" X 11.25' BEND, M.J., 2-10" RETAINER GLANDS, M.J., & CONC. THRUST BLOCK - DEFL: 11.25' RT.	FL: 1931.15	N: 281380.70 E: 2078665.70
26	12+05.05	INSTALL 10" X 11.25' BEND, M.J., 2-10" RETAINER GLANDS, M.J., & CONC. THRUST BLOCK - DEFL: 11.25' RT.	FL: 1930.97	N: 281347.57 E: 2078699.65
27	12+45.04	INSTALL 10" X 11.25' BEND, M.J., 2-10" RETAINER GLANDS, M.J., & CONC. THRUST BLOCK - DEFL: 11.25' RT.	FL: 1930.91	N: 281314.59 E: 2078722.27
28	12+74.67	INSTALL 10" X 11.25' BEND, M.J., 2-10" RETAINER GLANDS, M.J., & CONC. THRUST BLOCK - DEFL: 11.25' LT.	FL: 1930.91	N: 281287.36 E: 2078733.94
29	13+03.84	INSTALL 10" X 22.5' BEND, M.J., 2-10" RETAINER GLANDS, M.J., & CONC. THRUST BLOCK - DEFL: 22.50' LT.	FL: 1930.98	N: 281263.30 E: 2078750.45
30	13+26.46	INSTALL 10" X 11.25' BEND, M.J., 2-10" RETAINER GLANDS, M.J., & CONC. THRUST BLOCK - DEFL: 11.25' LT.	FL: 1931.05	N: 281250.97 E: 2078769.41
31	13+56.67	INSTALL 10" X 11.25' BEND, M.J., 2-10" RETAINER GLANDS, M.J., & CONC. THRUST BLOCK - DEFL: 11.25' LT.	FL: 1931.15	N: 281239.75 E: 2078797.46
32	13+76.67	INSTALL 10" X 11.25' BEND, M.J., 2-10" RETAINER GLANDS, M.J., & CONC. THRUST BLOCK - DEFL: 11.25' LT.	FL: 1931.21	N: 281236.09 E: 2078817.12
33	13+91.88	INSTALL 10" X 6" TEE, M.J.	6" FL: 1931.39 10" FL: 1931.22	N: 281236.28 E: 2078832.33
34	13+94.27	INSTALL 10" X 10" PIGGING TEE, M.J. & 10" PLUG, M.J.	FL: 1931.22	N: 281236.31 E: 2078834.72
35	13+96.67	INSTALL 10" X 10" TEE, M.J., 10" PLUG, M.J., CONC. TEE BLOCK, & CONC. PLUG BLOCK.	FL: 1931.22	N: 281236.34 E: 2078837.12
36	14+10.00	INSTALL 10" X 24" OFFSET, M.J. & 2-10" RETAINER GLANDS, M.J.	N FL: 1931.22 S FL: 1929.22	N: 281223.01 E: 2078837.24
37	14+40.00	INSTALL 10" X 24" OFFSET, M.J. & 2-10" RETAINER GLANDS, M.J.	N FL: 1929.22 S FL: 1931.22	N: 281193.01 E: 2078837.50
38	17+89.80	INSTALL 10" X 10" PIGGING TEE, M.J., 10" PLUG, M.J., & 1-10" RETAINER GLAND, M.J.	FL: 1929.02	N: 280843.22 E: 2078840.52
39	17+92.20	INSTALL 10" X 10" TEE, M.J., 2-10" GATE VALVES, M.J., 2-10" SOLID SLEEVES, M.J. (L=12"), 4-10" FOSTER ADAPTORS, 2-10" RETAINER GLANDS, M.J., & CONC. TEE BLOCK.	FL: 1929.00 (FIELD VERIFY)	N: 280840.83 E: 2078840.54

PRELIMINARY PLAN
NOT FOR CONSTRUCTION



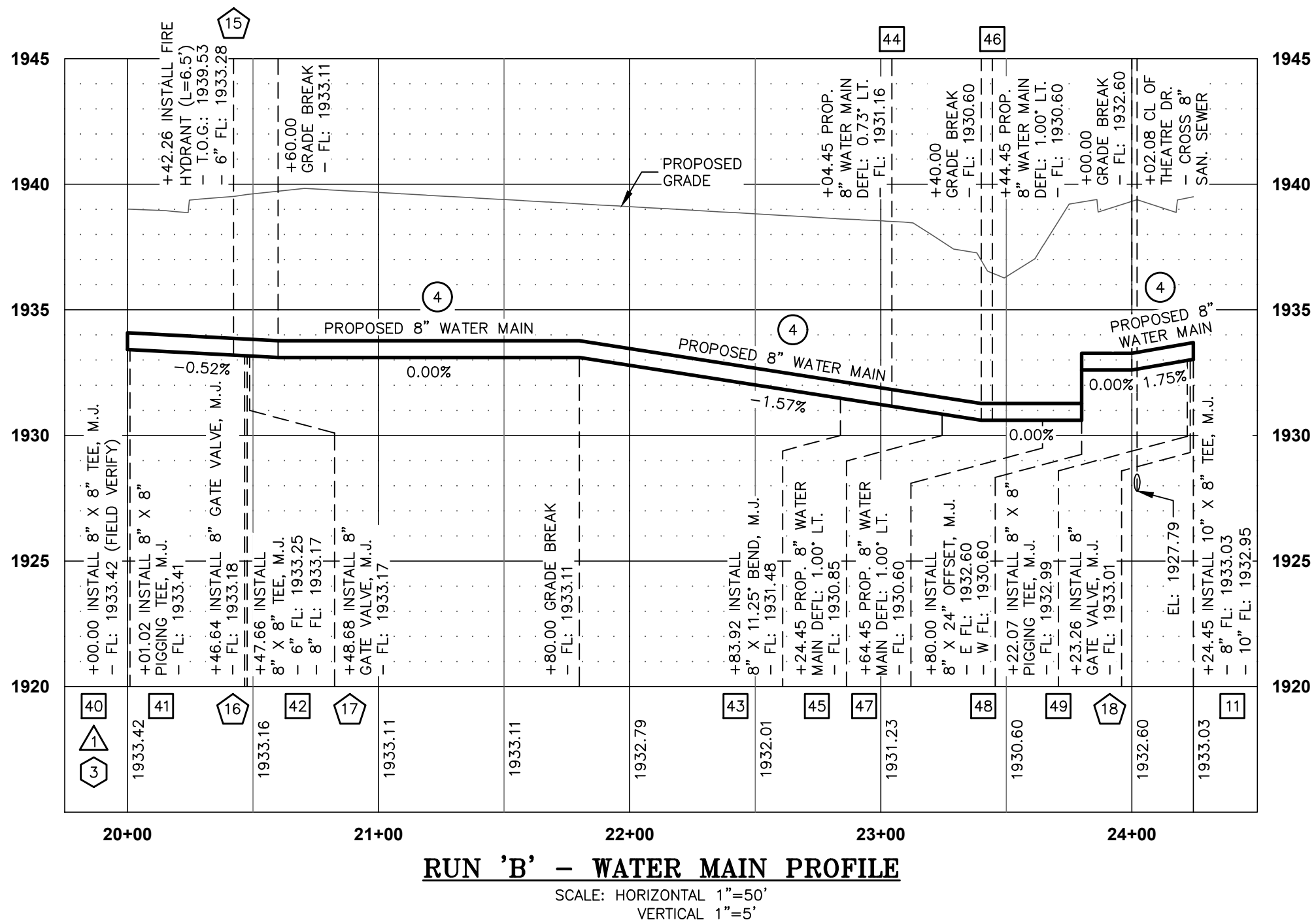
TEMPORARY HYDRANT		
NO.	STATION	DESCRIPTION
3	20+00.00	INSTALL TEMPORARY HYDRANT & REMOVE AFTER TESTING & DISINFECTING NEW MAIN.

INSTALL PVC WATER MAIN			
NO.	STATION	LENGTH	SIZE
4	20+00.00 TO 24+24.45	424.45'	8"

REMOVE & SALVAGE 8" X 90° BEND, M.J.				
NO.	STATION	DESCRIPTION	F.L.	COORDINATES
1	20+00.00	REMOVE & SALVAGE 8" X 90° BEND, M.J.	1933.42 (FIELD VERIFY)	N: 281614.13 E: 2077765.42

WATER VALVE AND/OR HYDRANT					
NO.	STATION	DESCRIPTION	T.O.C. EL.	F.L.	COORDINATES
15	20+42.26	INSTALL FIRE HYDRANT (L=6.5'), 6" GATE VALVE, M.J., 6" X 3/8" SW. X SW. ADAPTER, 6" X 90° SW. HYDRANT ELL. & TRACER WIRE RISER.	T.O.G.: 1939.53	6" FL: 1933.28	N: 281577.07 E: 2077785.75
16	20+46.64	INSTALL 8" GATE VALVE, M.J., 8" FOSTER ADAPTOR, & 1-8" RETAINER GLAND, M.J.	-	FL: 1933.18	N: 281573.80 E: 2077788.86
17	20+48.68	INSTALL 8" GATE VALVE, M.J., 8" FOSTER ADAPTOR, & 1-8" RETAINER GLAND, M.J.	-	FL: 1933.17	N: 281573.43 E: 2077790.25
18	24+23.26	INSTALL 8" GATE VALVE, M.J. & 2-8" FOSTER ADAPTORS	-	FL: 1933.01	N: 281742.07 E: 2078123.48

DUCTILE IRON WATER MAIN FITTINGS, M.J.				
ID	STATION	DESCRIPTION	F.L.	COORDINATES
11	4+69.99 24+24.45	INSTALL 10" X 8" TEE, M.J. & CONC. TEE BLOCK.	8" FL: 1933.03 10" FL: 1932.95	N: 281742.53 E: 2078124.58
40	20+00.00	INSTALL 8" X 8" TEE, M.J., 8" GATE VALVES, M.J., 2-8" SOLID SLEEVES, M.J. (L=12'), 4-8" FOSTER ADAPTORS, 2-8" RETAINER GLANDS, M.J., & CONC. TEE BLOCK.	FL: 1933.42 (FIELD VERIFY)	N: 281614.13 E: 2077765.42
41	20+01.02	INSTALL 8" X 8" PIGGING TEE, M.J., 8" PLUG, M.J., & 1-8" RETAINER GLAND, M.J.	FL: 1933.41	N: 281613.25 E: 2077765.93
42	20+47.66	INSTALL 8" X 8" TEE, M.J., 8" X 6" REDUCER, M.J., 8" FOSTER ADAPTOR, & CONC. TEE BLOCK.	6" FL: 1933.25 8" FL: 1933.17	N: 281572.92 E: 2077788.37
43	22+83.92	INSTALL 8" X 11.25" BEND, M.J., 2-8" RETAINER GLANDS, M.J., & CONC. THRUST BLOCK - DEFL: 11.25' RT.	FL: 1931.48	N: 281691.63 E: 2077993.64
44	23+04.45	PROPOSED 8" WATER MAIN DEFLECTS: 0.73' LT.	FL: 1931.16	N: 281698.28 E: 2078013.06
45	23+24.45	PROPOSED 8" WATER MAIN DEFLECTS: 1.00' LT.	FL: 1930.85	N: 281705.01 E: 2078031.89
46	23+44.45	PROPOSED 8" WATER MAIN DEFLECTS: 1.00' LT.	FL: 1930.60	N: 281712.06 E: 2078050.61
47	23+64.45	PROPOSED 8" WATER MAIN DEFLECTS: 1.00' LT.	FL: 1930.60	N: 281719.43 E: 2078069.20
48	23+80.00	INSTALL 8" X 24" OFFSET, M.J. & 2-8" RETAINER GLANDS, M.J.	E FL: 1932.60 W FL: 1930.60	N: 281725.42 E: 2078083.55
49	24+22.07	INSTALL 8" X 8" PIGGING TEE, M.J., 8" PLUG, M.J., & 1-8" RETAINER GLAND, M.J.	FL: 1932.99	N: 281741.61 E: 2078122.39



PRELIMINARY PLAN
NOT FOR CONSTRUCTION

After recording please return to:
Thomas C. Huston
Cline Williams Wright Johnson
& Oldfather, LLP
233 South 13th Street, Suite 1900
Lincoln, NE 68508

RECIPROCAL ACCESS AND CROSS PARKING EASEMENT AGREEMENT

This Reciprocal Access and Cross-Parking Easement Agreement ("Agreement") is made this ____ day of _____, 2021, by Theatre District, LLC, a Nebraska limited liability company ("Theater District").

RECITALS

- A. Theater District is the owner and developer of that certain real property comprised of a former retail mall being repurposed for a mixed-use development on real estate legally described as:

Lots One (1), Four (4), Five (5), Six (6), Seven (7), and Eight (8), Block One (1), and Lots One (1) through Four (4), Block Two (2), inclusively, and Outlot "A", Theatre Subdivision, Hastings, Adams County, Nebraska (the "Theatre District Property").

- B. Theatre District intends to develop the Theatre District Property into a mixed-use community with residential uses located on Lots Two and Three, Block One, and retail, office, and other neighborhood support services located on the remaining lots within the Theatre District Subdivision.
- C. Theatre District intends to provide for private easements benefitting and burdening some of the lots of the Theatre District Subdivision
- D. Theatre District desires to impose a common access easement on the Theatre District Property in the driveways and drive-aisles reflected on the Site Plan attached as Exhibit "A" and incorporated by this reference.
- E. Theatre District further desires to grant a reciprocal cross parking easement over and across the commercial use lots of the Theatre District Property, as provided herein.

NOW THEREFORE, in consideration of the mutual promises described herein and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged, _____ and Theater District agree as follows:

1. Grant of Parking Easements.

a. Subject to the construction of the Retail Parking Lot, Theater District, as owner of the Theater District Property, for itself, its successors and assigns, hereby declares, creates, grants and establishes a perpetual easement for _____, its tenants, employees, invitees, agents, successors or assigns for access to and use of the Retail Parking Lot to park vehicles and all reasonably related activities, including but not limited to ingress and egress to the Retail Parking Lot, the Theater District Property and the _____ Property. The parties agree and acknowledge that this easement is non-exclusive and that the Retail Parking Lot may be used by Theater District its tenants, employees, invitees, agents, successors or assigns, provided that no use of the Retail Parking Lot by any other party shall unreasonably interfere with _____'s use of the Retail Parking Lot.

b. Subject to the construction of the Sports Parking Lot, _____, as owner of the _____ Property, for itself, its successors and assigns, hereby declares, creates, grants and establishes a perpetual easement for Theater District, its tenants, employees, invitees, agents, successors or assigns for access to and use of the Sports Parking Lot to park vehicles and all reasonably related activities, including but not limited to ingress and egress to the Sports Parking Lot, the Theater District Property and the _____ Property. The parties agree and acknowledge that this easement is non-exclusive and that the Sports Parking Lot may be used by _____ its tenants, employees, invitees, agents, successors or assigns, provided that no use of the Sports Parking Lot by any other party shall unreasonably interfere with Theater District's use of the Sports Parking Lot.

2. Maintenance.

a. Theater District shall, at its sole expense, maintain (including removal of snow and ice), replace and repair the Retail Parking Lot, which shall be kept and maintained in good condition and repair.

b. _____ shall, at its sole expense, maintain (including removal of snow and ice), replace and repair the Sports Parking Lot, which shall be kept and maintained in good condition and repair.

c. Notwithstanding anything to the contrary in paragraphs 2.a. or 2.b., above, Theater District shall be required to pay for any repair or maintenance that is reasonably necessary due to the actions and/or use of the Sports Parking Lot by Theater District, its tenants, employees, invitees, agents, successors or assigns, or any other person that is authorized to use the Sports Parking Lot, normal wear and tear excepted. Similarly, _____ shall be required to pay for any repair or maintenance that is reasonably necessary due to the actions and/or use of the Retail Parking Lot by

_____, its tenants, employees, invitees, agents, successors or assigns, or any other person that is authorized to use the Retail Parking Lot, normal wear and tear excepted.

3. **Release of Injury Claims.** Each party waives and releases any and all claims against the other in respect to injuries or damage to persons or property sustained by the other party or any other person, arising from any existing or future condition or from any accident or other occurrence on or about the Retail Parking Lot and/or the Sports Parking Lot or arising from any act or omission of the released party or any other party unless such injuries or damage shall be caused by the affirmative acts of negligence or recklessness of the released party.

4. **Binding Effect.** This Agreement and the grant of the easements shall run with the land and be binding upon the all present and future owners, and their respective successors and assigns.

5. **Other Agreements.** This Agreement shall constitute the entire reciprocal cross easement and agreement between the owners of the Theater District Property and the _____ Property with respect to the subject matter hereof and supersedes all prior easements of record, if any, relating to the property referenced herein.

6. **Termination.** This agreement and the easements shall be perpetual. This Agreement and the easements may only be terminated upon written consent of Theater District and _____.

7. **Amendments.** Except as provided in paragraphs 5 and 6, above, this Agreement shall not be amended or modified in any manner without written consent of Theater District and _____. Any purported amendment or modification without such written consent shall be null and void and of no force and effect.

8. **Further Assurances.** Each undersigned party will, whenever it shall be reasonably requested to do so by the other, promptly execute, acknowledge, and deliver, or cause to be executed, acknowledged, or delivered, any and all such further conveyances, confirmations, instruments, or further assurances and consents as may be necessary or proper, in order to effectuate the covenants and agreements herein provided. Each of the undersigned parties shall cooperate in good faith with the other and shall do any and all other acts and execute, acknowledge and deliver any and all documents so requested in order to satisfy the conditions set forth herein and carry out the intent and purposes of this Agreement.

(Signature and Notary Page follows)

This Parking Lot Easement is dated this ____ day of _____, 2021.

“ _____ ”

a Nebraska _____

“THEATER DISTRICT”

Theater District, LLC,
a Nebraska limited liability company

By: _____

Name: _____

Title: _____

By: _____

Name: _____

Title: _____

STATE OF _____)

_____) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this ____ day of _____, 2021, by _____, _____ of _____, a Nebraska _____, on behalf of the _____.

Notary Public

STATE OF NEBRASKA)

_____) ss.
COUNTY OF LANCASTER)

The foregoing instrument was acknowledged before me this ____ day of _____, 2021, by _____, _____ of Theater District, LLC, a Nebraska limited liability company, on behalf of the company.

Notary Public

GENERAL NOTES

1. THE CONTRACTOR WILL BE RESPONSIBLE FOR NOTIFYING THE CITY STREET DEPARTMENT OFFICE AT 402-461-2341 AND THE COMMUNICATIONS CENTER AT 402-461-2364 FOR ALL TEMPORARY STREET CLOSINGS.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE TRAFFIC CONTROL AND CLOSURE OF ANY LANES OF TRAFFIC AND IS SUBSIDIARY TO THE BID.
3. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF HASTINGS STANDARD SPECIFICATIONS AND STANDARD PLANS FOR MUNICIPAL CONSTRUCTION, AND ITS MOST CURRENT REVISIONS. ALL STANDARD SPECIFICATIONS AND ADDENDUMS SHALL APPLY.
4. ALL PROJECT PRODUCTS, MATERIAL BONDS AND RESERVES SHALL CONFORM TO THE CITY OF HASTINGS STANDARD SPECIFICATIONS, AND ANY ADDITIONS THERE TO ON FILE WITH THE CITY ENGINEER. THE CONTRACTOR SHALL PAY ALL PERMIT FEES AND OTHER ASSOCIATED FEES REQUIRED TO SUCCESSFULLY COMPLETE THE PROJECT. ANY COSTS BE CONSIDERED AS INCIDENTAL TO THE PROJECT.
5. CONSTRUCTION STAKING WILL BE PROVIDED BY REGA ENGINEERING GROUP.
6. THE LOCATIONS OF ALL AERIAL AND UNDERGROUND UTILITY FACILITIES ARE APPROXIMATE OR MAY NOT BE INDICATED IN THESE PLANS. UNDERGROUND FACILITIES, WHETHER INDICATED OR NOT, WILL BE LOCATED AND FLAGGED BY THE UTILITIES AT THE REQUEST OF THE CONTRACTOR. NO EXCAVATION WILL BE PERMITTED IN THE AREA UNTIL ALL SUCH UNDERGROUND UTILITY FACILITIES HAVE BEEN LOCATED AND IDENTIFIED TO THE SATISFACTION OF ALL PARTIES, AND THEN ONLY WITH EXTREME CARE TO AVOID ANY POSSIBILITY OF DAMAGE TO THE UTILITY FACILITY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL EXISTING UTILITIES, PAVEMENT, AND OTHER IMPROVEMENTS NOT DESIGNATED FOR REMOVAL OR ABANDONMENT. ANY DAMAGE TO EXISTING UTILITIES AND/OR PAVED STREETS NOT DESIGNATED FOR REMOVAL OR ABANDONMENT CAUSED BY CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE. IN ALL CASES, WITH NO EXCEPTION THE CONTRACTOR, BEFORE BEGINNING CONSTRUCTION OF ANY NEW UNDERGROUND FACILITIES, SHALL LOCATE, UNCOVER AND DETERMINE THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND FACILITIES WHICH MAY POTENTIALLY CONFLICT WITH HIS WORK, OR ARE TO BE INCORPORATED INTO THE NEW WORK. BEFORE PROCEEDING, THE CONTRACTOR SHALL CONFIRM THAT A CONFLICT DOES NOT EXIST AND THE UNDERGROUND WORK MAY BE PERFORMED AS SHOWN ON THE PLANS. IF THE CONTRACTOR DETERMINES THAT A PROBLEM DOES EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER WHO WILL MAKE THE FINAL DETERMINATION FOR RESOLVING THE CONFLICT. THE CONTRACTOR WILL RECEIVE NO ADDITIONAL COMPENSATION FOR ANY DELAYS OR WORK RESULTING FROM A CONFLICT WHICH HAS NOT THOROUGHLY BEEN INVESTIGATED PRIOR TO PROCEEDING WITH THE WORK. THE CONTRACTOR MAY REQUEST ADDITIONAL COMPENSATION FOR ANY ADDITIONAL WORK PERFORMED TO DIRECTLY RESOLVE THE CONFLICT AS DIRECTED IN WRITING BY THE ENGINEER. THE TIME LIMIT TO COMPLETE THE WORK IS AS STATED IN THE SPECIFICATIONS.
7. THE CONTRACTOR SHALL CALL DIGGERS HOT LINE OF NEBRASKA FOR THE EXISTING UTILITY LOCATION STAKES (1-800-331-5666) 48 HOURS PRIOR TO DIGGING.
8. THE CONTRACTOR SHALL ADJUST TO GRADE ALL WATER AND GAS VALVE BOXES AND MANHOLES THAT FALL WITHIN THE LIMITS OF THIS CONTRACT (NO PAY ITEM). THE CONTRACTOR SHALL KEEP ALL SAID WATER, GAS, AND EXISTING SEWERS AND THEIR APPURTENANCES FREE OF DEBRIS AND OPERABLE AT ALL TIMES DURING CONSTRUCTION.
9. ALL GPS READINGS TAKEN WERE USING THE STATE PLANE COORDINATE SYSTEM. - NAD 83 (H); NAVD 88 (V).
10. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY BARRICADES, WARNING SIGNS, LIGHTS AND FLAGMAN AS NECESSARY. (NO PAY ITEM)
11. ANY TYPE OF POTHOLES OR EXCAVATING OF EXISTING UTILITIES NEEDED TO COMPLETE THIS PROJECT IS SUBSIDIARY TO THE BID.
12. PROTECT, BY WHATEVER MEANS REQUIRED, ALL TRAFFIC SIGNALS, MAILBOXES, FENCES, SIGNS, STRUCTURES, DRIVEWAYS, SIDEWALKS, STREETS, POLES, BUSHES, TREES, IRRIGATION SYSTEMS, ETC. WHICH ARE NOT DESIGNATED FOR REMOVAL OR ARE OUTSIDE THE LIMITS OF CONSTRUCTION. ANY DAMAGE OR DESTRUCTION CAUSED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT A MINIMUM TO THE ORIGINAL CONDITION, AS DIRECTED BY THE ENGINEER, AND AT THE COST OF THE CONTRACTOR.
13. PROVIDE POSITIVE DRAINAGE AT ALL TIMES WITHIN THE CONSTRUCTION AND PROJECT AREAS. NO PONDING OF WATER SHALL BE ALLOWED EXCEPT AS DESIGNATED ON THE SITE GRADING AND EROSION CONTROL PLAN MAINTAIN ALL EXISTING DRAINAGE PATTERNS ANY COSTS SHALL BE CONSIDERED INCIDENTAL TO OTHER PAY ITEMS. (NO ADDITIONAL PAYMENT WILL BE MADE).
14. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY EROSION CONTROL DEVICES, AS SHOWN ON THE PLANS IN CONFORMANCE WITH THE SWPPP PERMIT OR AS MANDATED BY THE ENGINEER. ADDITIONAL EROSION CONTROL MEASURES AS NEEDED SHALL BE WORKED OUT BETWEEN THE ENGINEER AND OWNER AT THE COST OF THE OWNER. UPON COMPLETION, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES UNLESS DIRECTED OTHERWISE BY THE ENGINEER. AFTER SUFFICIENT GROUND COVER HAS BEEN ESTABLISHED AS DETERMINED BY THE ENGINEER, THE CONTRACTOR SHALL REMOVE THE TEMPORARY EROSION CONTROL DEVICES INCLUDING SILT FENCING AND SEDIMENT CONTROL BASINS, AND ESTABLISH GROUND COVER IN DISTURBED AREAS.
15. A DIAMOND EDGE SAW BLADE SHALL BE USED FOR CUTTING ALL REQUIRED CONTRACTION AND LONGITUDINAL PAVEMENT JOINTS AND CONCRETE REMOVAL. ALL REMOVAL SHALL BE FULL DEPTH SAW CUT.
16. DIMENSIONS SHOWN ARE TO CENTERLINE OF PIPES OR FITTINGS AND ARE FROM PROPERTY LINES, CENTERLINES OF DRIVEWAYS, BACK OF CURBS, EDGES OF SIDEWALKS OR FACES OF WALLS.
17. CONTRACTOR TO VERIFY ALL LOCATIONS OF UTILITIES BEFORE BORING AND TRENCHING.
18. CONTRACTOR TO FIELD VERIFY ALL UTILITIES. IF CONFLICT OCCURS BETWEEN EXISTING AND PROPOSED CONTACT ENGINEER BEFORE BUILDING.
19. CONTRACTOR SHALL LEAVE THE SITE CLEAN AND SMOOTH GRADED.
20. THE PAVING CONTRACTOR SHALL REMOVE FROM THE SITE AND PROPERLY DISPOSE OF ALL RUBBLE AND WASTE PRODUCED BY CONSTRUCTION.
21. CONTRACTOR SHALL RE-SEED ALL DISTURBED GRASS AREAS TO MATCH EXISTING GRASS.
22. EXCAVATION IS SUBSIDIARY TO PAVING.
23. CONTRACTOR SHALL PROVIDE A WIDER CURB OPENING FOR THE 8.0' BIKE TRAILS.
24. ALL CURB RAMPS SHALL BE CONSTRUCTED ACCORDING TO THE CURRENT ADA REGULATIONS.

BENCHMARKS:

1. SAN. SEWER MH LOCATED AT THE INTERSECTION OF W. 9TH ST. & MARIAN RD.
EL: 1937.97 - NAVD 88
2. SAN. SEWER MH LOCATED AT THE INTERSECTION OF W. 12TH ST. & MARIAN RD.
EL: 1937.62 - NAVD 88
3. SEWER MH LOCATED AT THE INTERSECTION OF PARKLANE DR. & VALLEY CHASE AVE.
EL: 1937.62 - NAVD 88

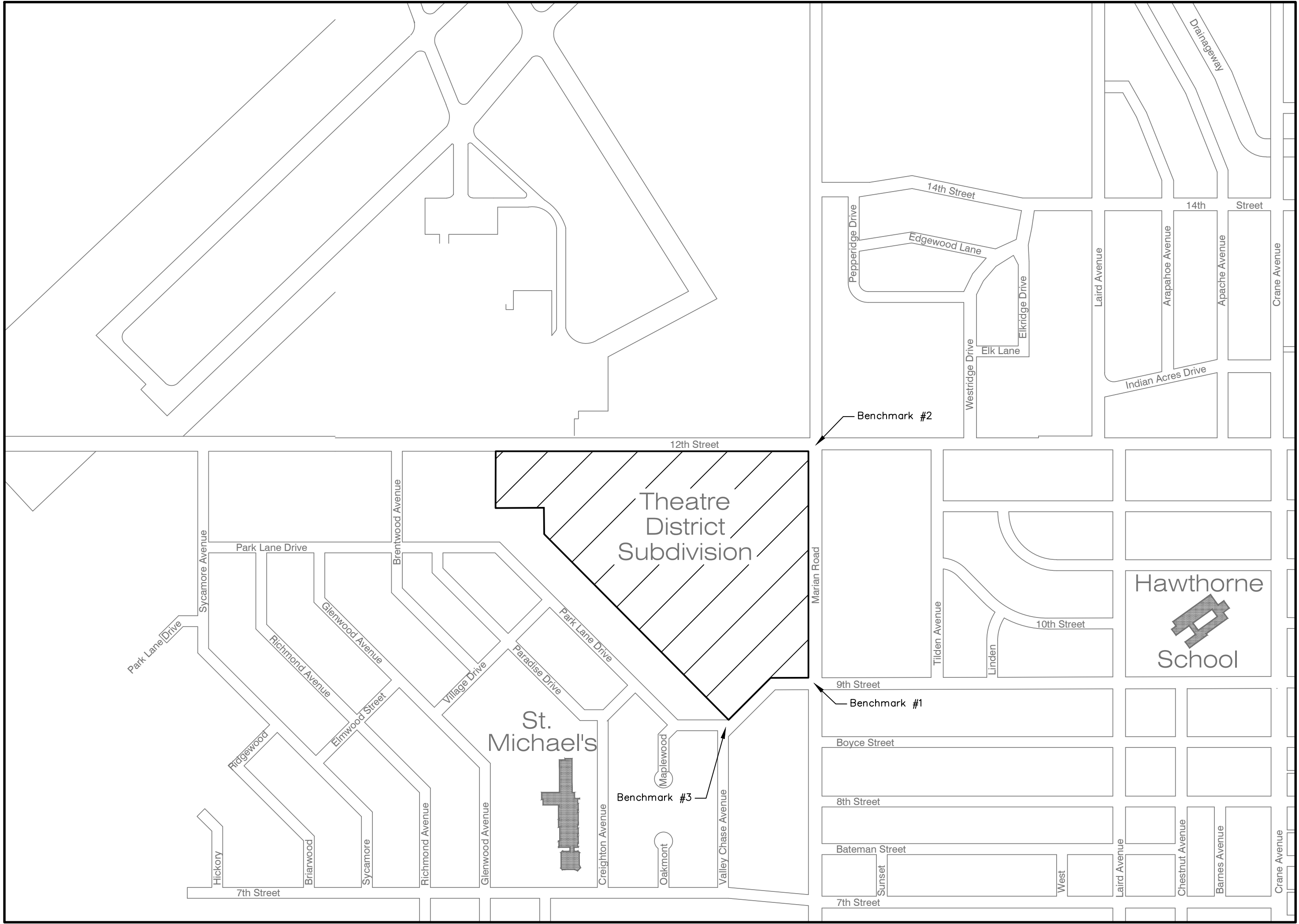
Hastings Utilities

2021

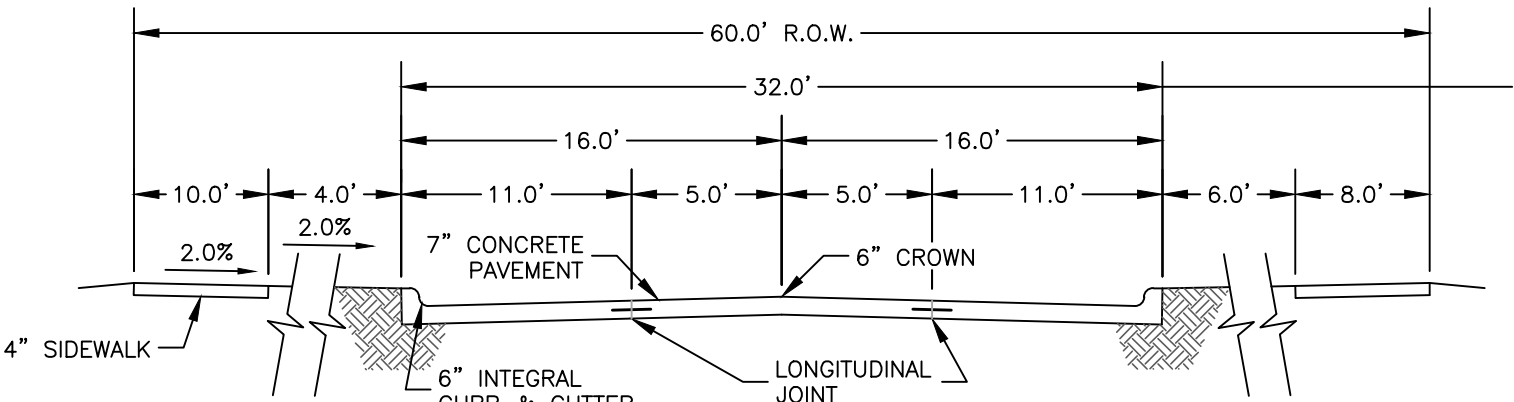
Pavement Area

PA-XXX

Theatre District Subdivision
W. 12th St. - N. Marian Rd.
PR-XXX



VICINITY MAP
NO SCALE



TYPICAL STREET CROSS SECTION
NO SCALE

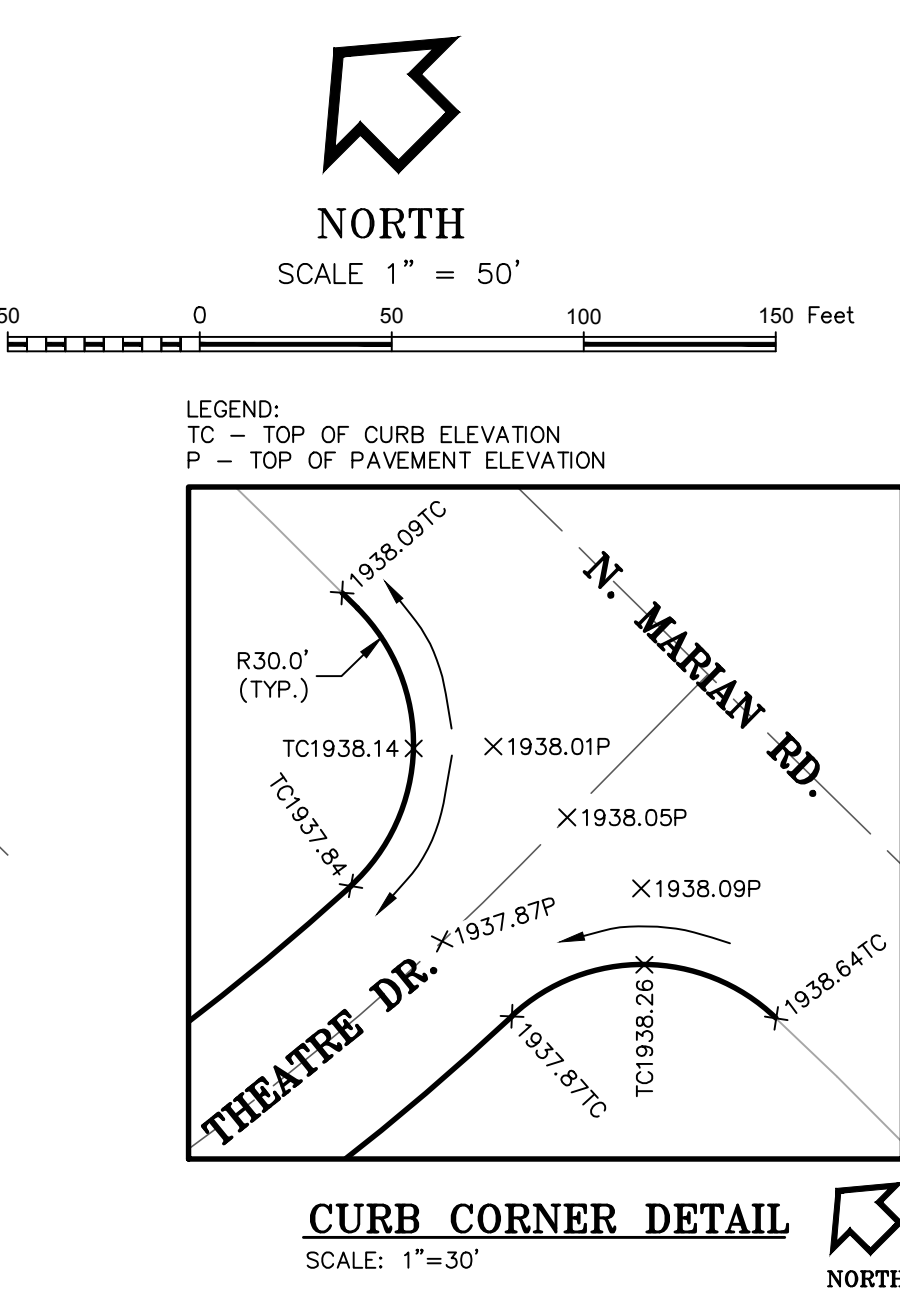
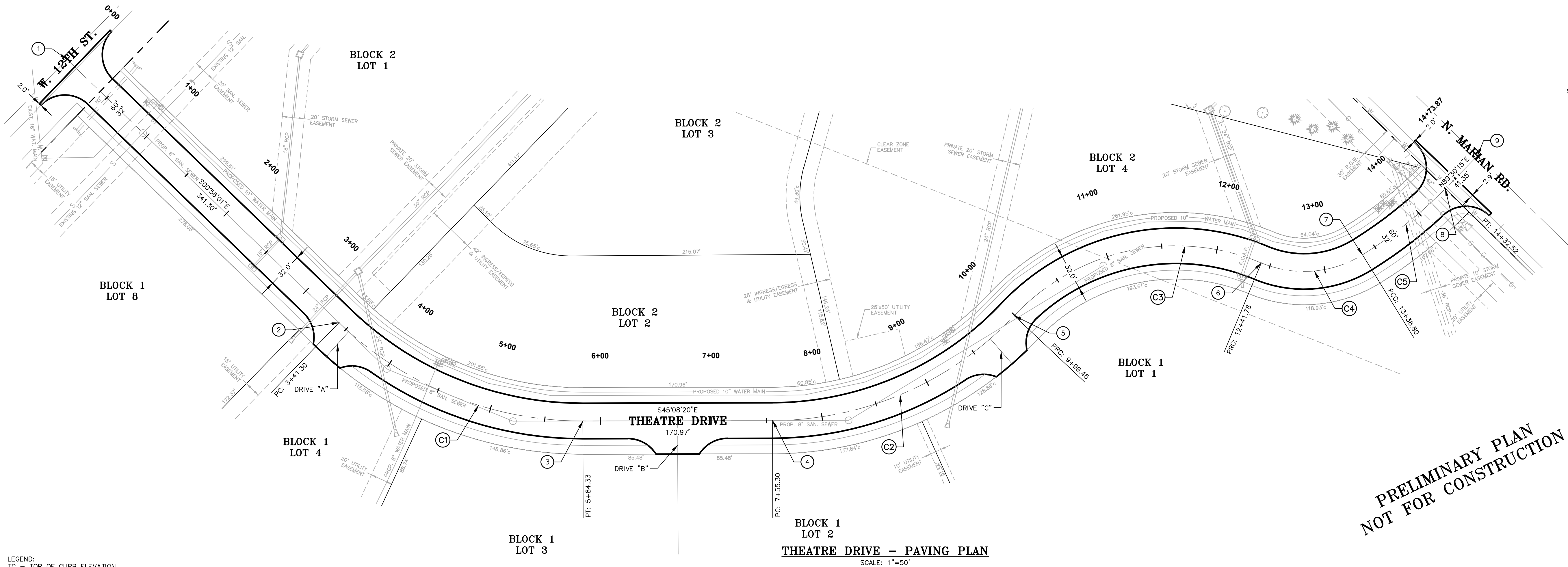
SCHEDULE OF APPROXIMATE QUANTITIES		
DESCRIPTION	UNIT	QUANTITY
7" P.C.C. PAVEMENT W/ INTEGRAL CURB	SY	5,456
PAVEMENT REMOVAL	CY	14
TYPE "A" SAWING	LF	100
TYPE "B" SAWING	LF	100
ADJUST WATER VALVE BOX TO GRADE	EA	19
ADJUST MANHOLE TO GRADE	EA	5
ADJUST CURB INLET TO GRADE	EA	4
REMOVE CURB INLET PROTECTION	EA	4

LEGEND

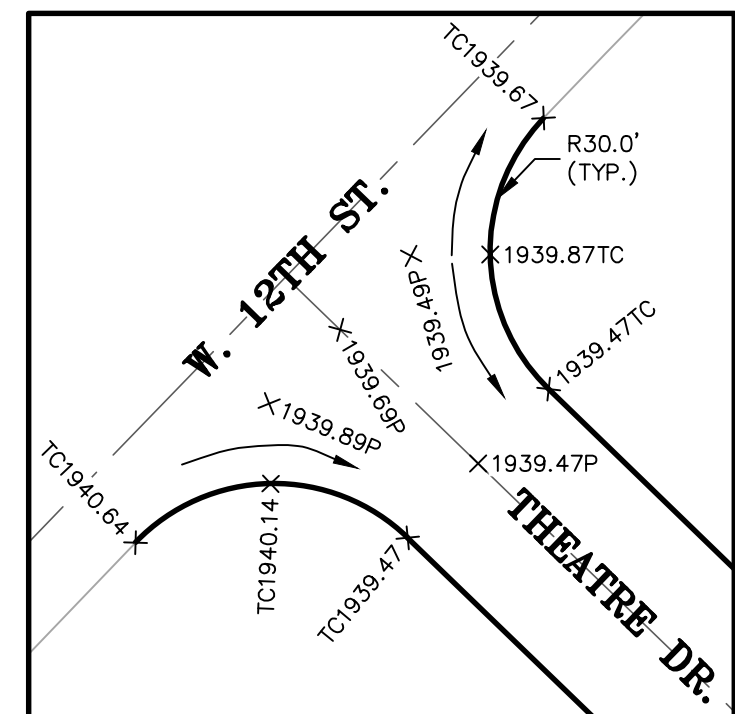
- BOUNDARY LINE
- - - STREET CENTERLINE
- - - EASEMENT LINE
- == EXISTING UNDERGROUND STORM SEWER PIPE (AS NOTED)
- == EXISTING UNDERGROUND UTILITY PIPE (AS NOTED)
- == LOT LINE
- PROPOSED UTILITY LINE (AS NOTED)
- ⊗ EXISTING SANITARY SEWER MH
- ⊗ PROPOSED WATER VALVE
- ⊗ PROPOSED CURB INLET
- ⊗ PROPOSED SANITARY SEWER FLOW DIRECTION
- ⊗ PROPOSED SANITARY SEWER MH
- ⊗ PROPOSED WATER HYDRANT
- ⊗ PROPOSED UTILITY PLUG (AS NOTED)



No. PR-xxx
(Paid by Developer)

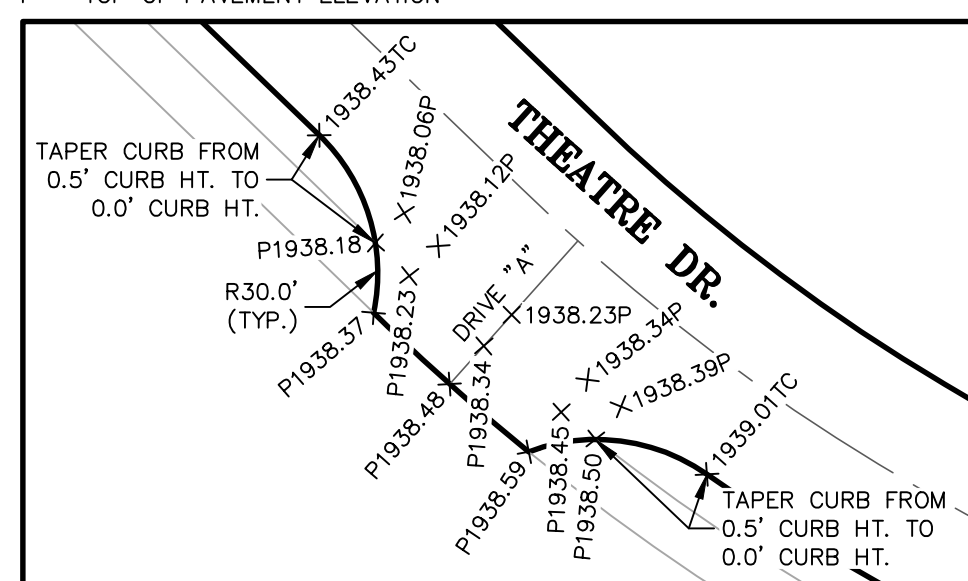


LEGEND:
TC - TOP OF CURB ELEVATION
P - TOP OF PAVEMENT ELEVATION



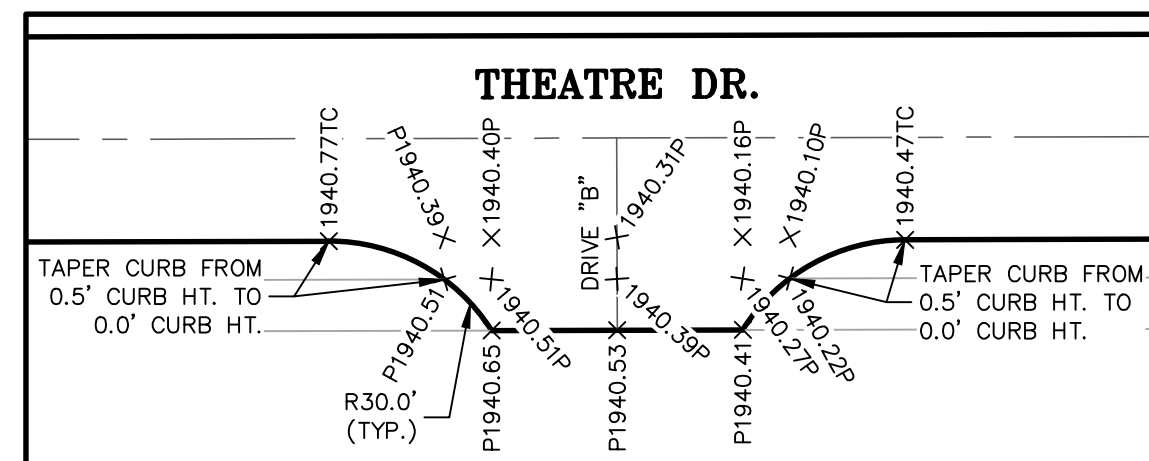
CURB CORNER DETAIL
SCALE: 1"=30'

LEGEND:
TC - TOP OF CURB ELEVATION
P - TOP OF PAVEMENT ELEVATION



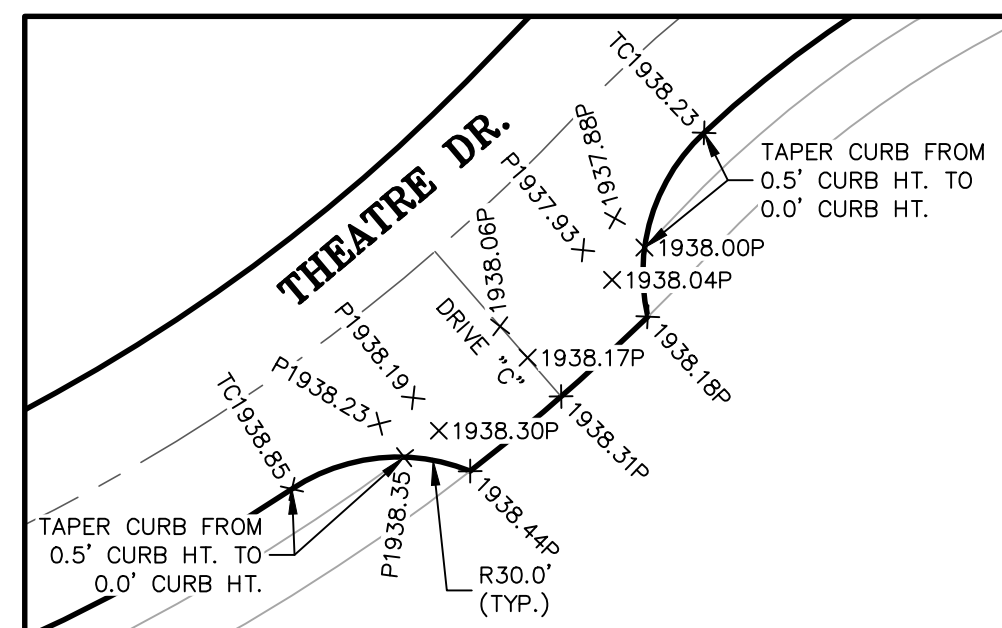
CURB CORNER DETAIL
SCALE: 1"=30'

LEGEND:
TC - TOP OF CURB ELEVATION
P - TOP OF PAVEMENT ELEVATION



CURB CORNER DETAIL
SCALE: 1"=30'

LEGEND:
TC - TOP OF CURB ELEVATION
P - TOP OF PAVEMENT ELEVATION



CURB CORNER DETAIL
SCALE: 1"=30'

PAVEMENT REMOVAL

STATION	SIDE	CY
0+09.87 - 0+11.87	LT. & RT.	7
14+42.52 - 14+45.45	LT. & RT.	7

SAWING

STATION	SIDE	TYPE	LF
0+09.87 - 0+11.87	LT. & RT.	"A"	100'
14+42.52 - 14+45.45	LT. & RT.	"B"	100'

7" P.C.C. PAVEMENT W/INTEGRAL CURB

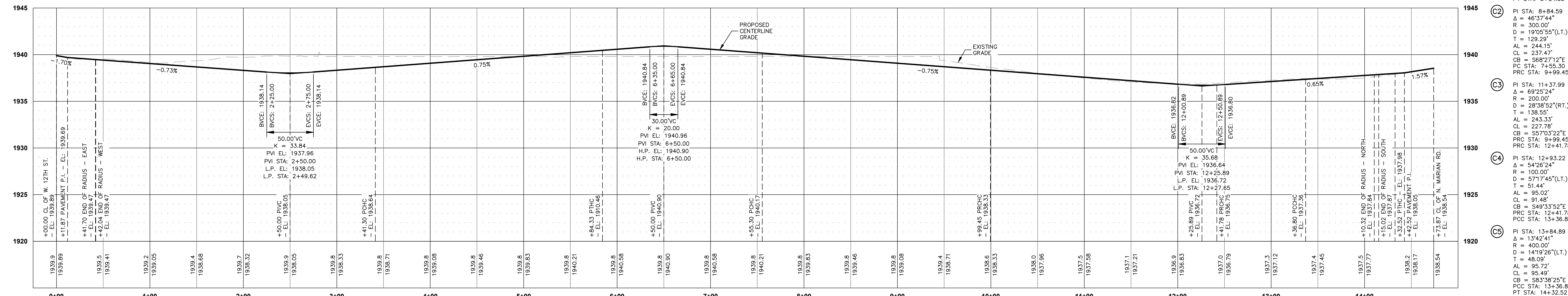
STATION	SIDE	SY
0+09.87 TO 14+45.45	LT. & RT.	5,456

HORIZONTAL CONTROL:

- P.O.B. STA: 0+00.00
INTERSECTION OF W. 12TH ST. & THEATRE DR.
N: 282172.55, E: 2078081.27
- PCHC STA: 3+41.30
N: 281831.29, E: 2078086.83
- PHC STA: 5+84.33
N: 281613.15, E: 2078179.59
- PCHC STA: 7+55.30
N: 281492.55, E: 2078300.77
- PRCHC STA: 9+99.45
N: 281405.34, E: 2078521.65
- PRCHC STA: 12+41.78
N: 281281.47, E: 2078712.80
- PRCHC STA: 13+36.80
N: 281222.13, E: 2078782.43
- PT STA: 14+32.52
N: 281211.56, E: 2078877.34
- P.O.E. STA: 14+73.87
INTERSECTION OF THEATRE DR. & N. MARIAN RD.
N: 281211.91, E: 2078918.68

CURVE DATA

- (C1) PI STA: 4+69.23
Δ = 44°12'19"
R = 315.00'
D = 18°11'21"(LT.)
T = 127.92'
AL = 243.03'
CL = 237.05'
CB = S23°02'10"E
PC STA: 3+41.30
PT STA: 5+84.33
- (C2) PI STA: 8+84.59
Δ = 46°37'44"
R = 300.00'
D = 19°05'55"(LT.)
T = 129.29'
AL = 244.15'
CL = 237.47'
CB = S68°27'12"E
PC STA: 7+55.30
PT STA: 9+99.45
- (C3) PI STA: 11+37.99
Δ = 69°25'24"
R = 200.00'
D = 28°38'52"(RT.)
T = 138.55'
AL = 243.33'
CL = 227.78'
CB = S57°03'22"E
PC STA: 9+99.45
PT STA: 12+41.78
- (C4) PI STA: 12+93.22
Δ = 54°26'24"
R = 300.00'
D = 18°11'21"(LT.)
T = 127.92'
AL = 243.03'
CL = 237.05'
CB = S23°02'10"E
PC STA: 3+41.30
PT STA: 5+84.33
- (C5) PI STA: 13+84.89
Δ = 13°42'41"
R = 400.00'
D = 14°19'26"(LT.)
T = 45.09'
AL = 95.72'
CL = 95.49'
CB = S83°38'25"E
PC STA: 13+36.80
PT STA: 14+32.52



THEATRE DRIVE - PAVING PROFILE

SCALE: HORIZONTAL 1"=50'
VERTICAL 1"=5'



No. PR-xxx
(Paid by Developer)

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- CONTRACTOR SHALL LEAVE THE SITE CLEAN AND SMOOTH GRADED.
- THE STORM SEWER CONTRACTOR SHALL REMOVE FROM THE SITE AND PROPERLY DISPOSE OF ALL RUBBLE AND WASTE PRODUCED BY CONSTRUCTION.
- CONTRACTOR SHALL RE-SEED ALL DISTURBED GRASS AREAS TO MATCH EXISTING GRASS.
- EXCAVATION IS SUBSIDIARY TO PAVING.
- UNLESS NOTED OTHERWISE, ALL 6" SANITARY SEWER SERVICE STUBS SHALL EXTEND TO THE PROPERTY LINE, AND SHALL BE LAID OUT AT A SLOPE OF 0.00600 FT./FT. THE STUB LENGTH SHALL BE A MINIMUM OF 3.0'
- SANITARY SEWERS SHALL BE LAID AT SUCH AN ELEVATION THAT THE TOP OF THE SANITARY SEWER IS AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. AT WATER MAIN CROSSINGS, THE SANITARY SEWER PIPE SHALL BE LAID SO THAT THE SANITARY SEWER JOINTS ARE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN.
- SANITARY SEWERS SHALL BE SEPARATED BY AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED PARALLEL WATER MAINS.
- THE "TEN STATE STANDARDS" FOR SEWER AND WATER SEPARATION SHALL BE CONFORMED TO.

BENCHMARKS:

- SAN. SEWER MH LOCATED AT THE INTERSECTION OF W. 9TH ST. & MARIAN RD.
EL: 1937.97 - NAVD 88
- SAN. SEWER MH LOCATED AT THE INTERSECTION OF W. 12TH ST. & MARIAN RD.
EL: 1937.62 - NAVD 88
- SEWER MH LOCATED AT THE INTERSECTION OF PARKLANE DR. & VALLEY CHASE AVE.
EL: 1937.62 - NAVD 88

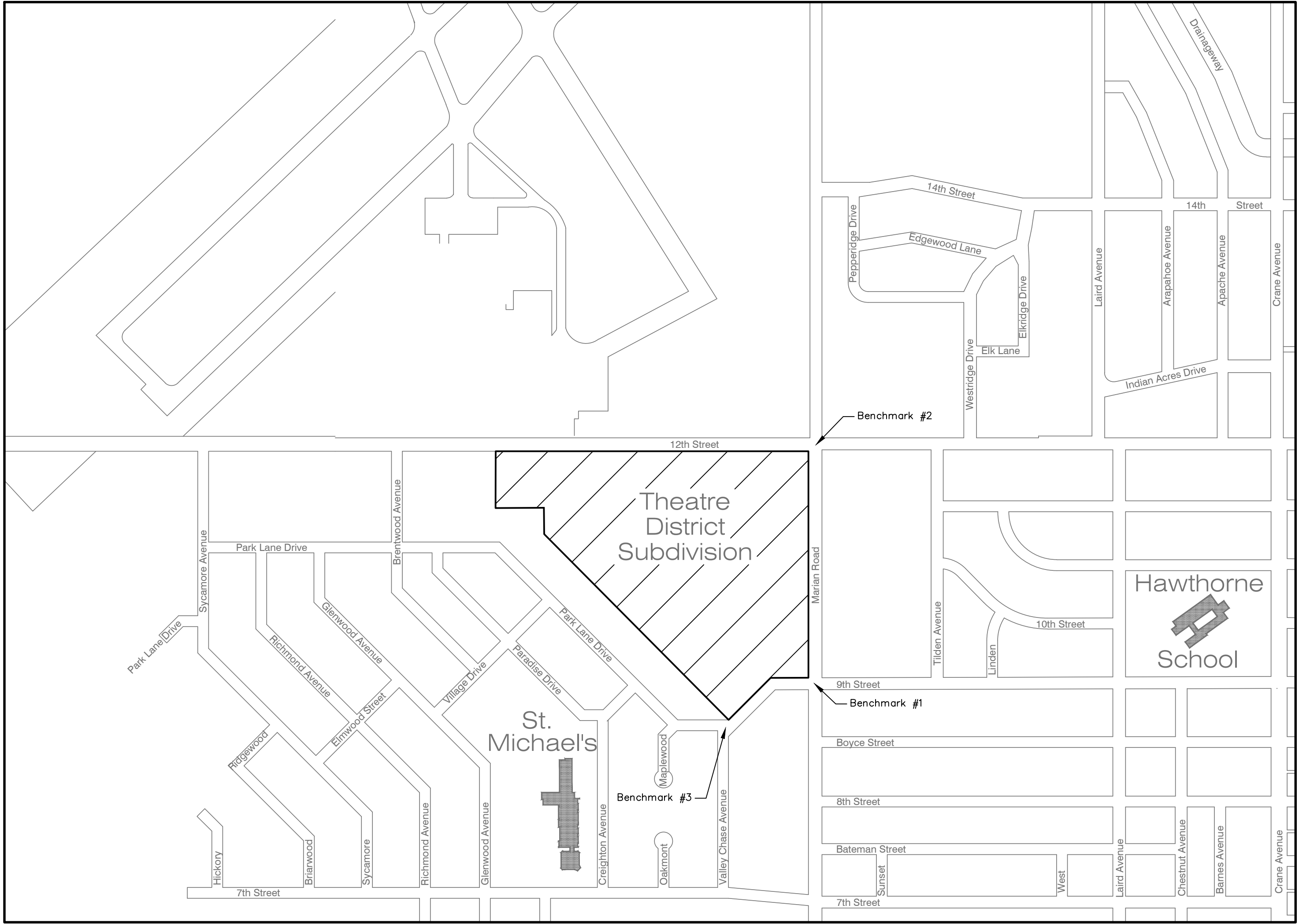
Hastings Utilities

2021

Sanitary Area

SW-XXX

Theatre District Subdivision
W. 12th St. - N. Marian Rd.
SR-XXX



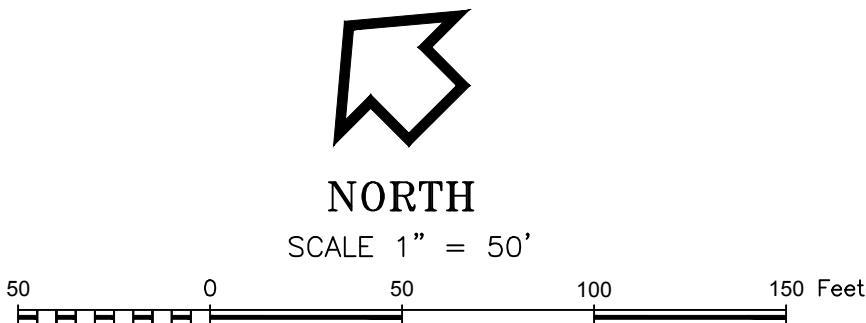
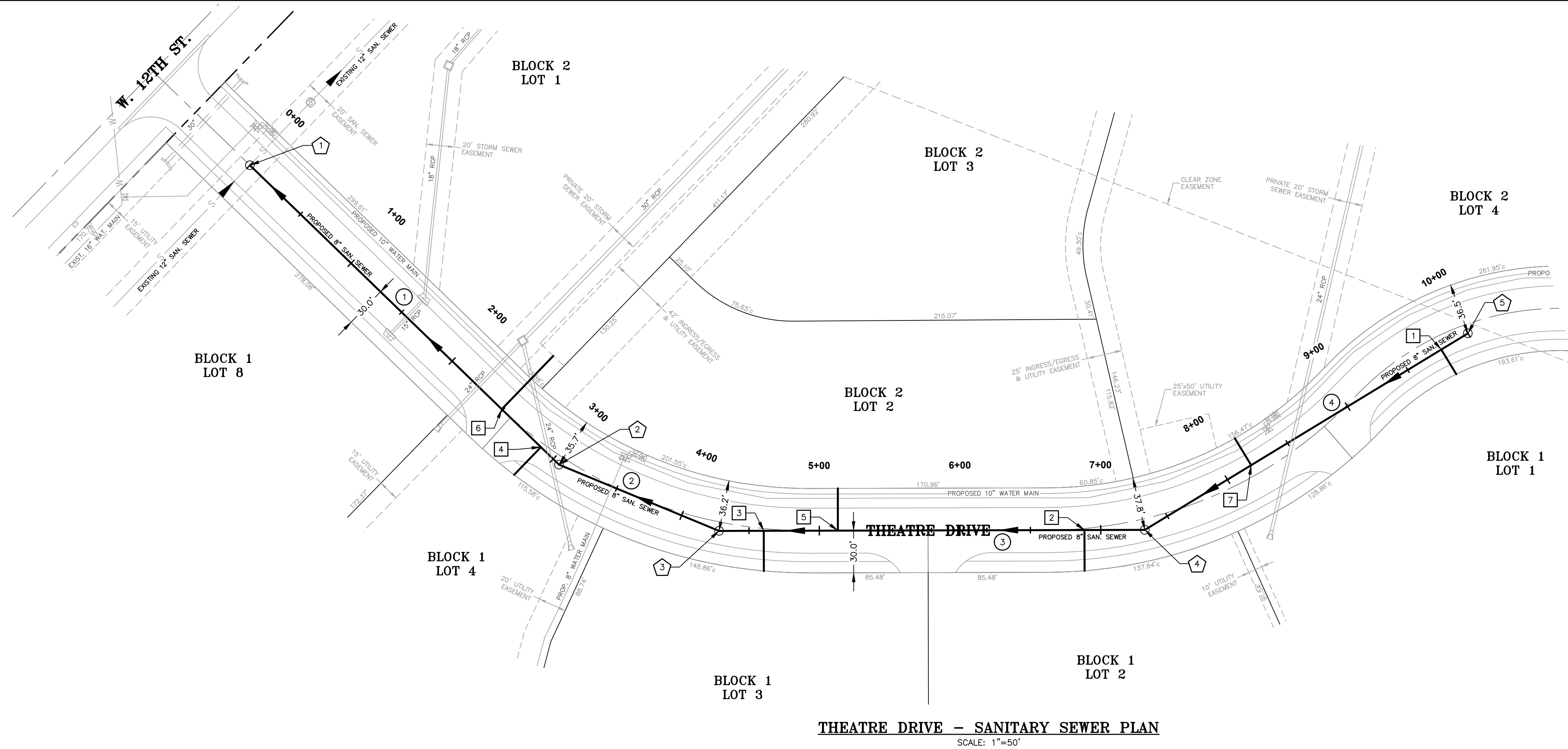
VICINITY MAP
NO SCALE

SCHEDULE OF APPROXIMATE QUANTITIES		
DESCRIPTION	UNIT	QUANTITY
8" SANITARY SEWER	LF	1,000
6" SANITARY SEWER SERVICE PIPE, SCH. 40 PVC	LF	211
CONSTRUCT 6" SANITARY SEWER SERVICE	EA	7
8" X 6" TEE	EA	7
SANITARY SEWER MH	EA	4
SANITARY SEWER MH	VF	41
DROP SANITARY SEWER MH	EA	1
DROP SANITARY SEWER MH	VF	16
CRUSHED ROCK FOUNDATION MATERIAL, IN PLACE	CY	56

LEGEND

- BOUNDARY LINE
- STREET CENTERLINE
- EASEMENT LINE
- EXISTING UNDERGROUND STORM SEWER PIPE (AS NOTED)
- EXISTING UNDERGROUND UTILITY PIPE (AS NOTED)
- LOT LINE
- PROPOSED UTILITY LINE (AS NOTED)
- EXISTING SANITARY SEWER MH
- PROPOSED WATER VALVE
- PROPOSED CURB INLET
- PROPOSED SANITARY SEWER FLOW DIRECTION
- PROPOSED SANITARY SEWER MH
- PROPOSED WATER HYDRANT
- PROPOSED UTILITY PLUG (AS NOTED)

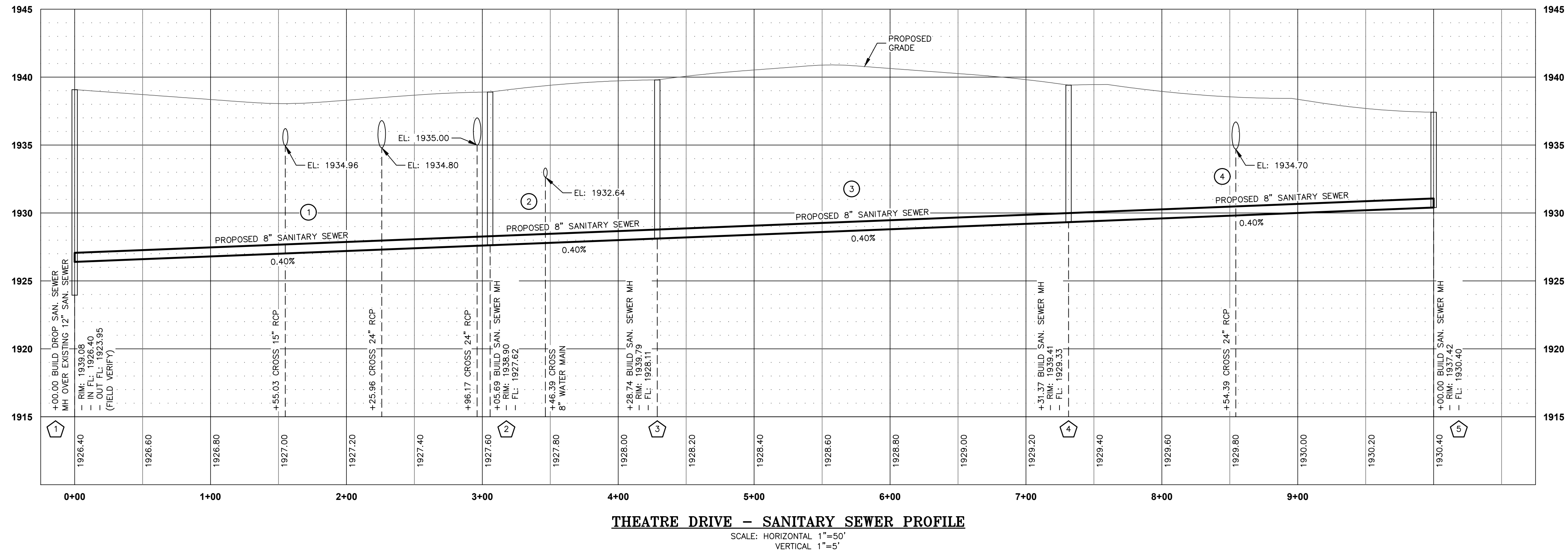
PRELIMINARY PLAN
NOT FOR CONSTRUCTION



BUILD SANITARY SEWER PIPE				
NO.	LENGTH	STATION	SIZE	
1	305.69'	0+00.00 TO 3+05.69	8"	
2	123.05'	3+05.69 TO 4+28.74	8"	
3	302.63'	4+28.74 TO 7+31.37	8"	
4	288.63'	7+31.37 TO 10+00.00	8"	

6" SANITARY SEWER SERVICE TABLE							
BLOCK NO.	LOT NO.	NO.	STATION	LENGTH	F.L. 8"	F.L. 6" @ TEE	F.L. 6" PROP. LINE
1	1	1	9+77.88	20.42'	1930.31	1931.31	1931.43
	2	2	6+88.44	29.00'	1929.15	1930.15	1930.32
	3	3	4+60.50	28.58'	1928.24	1929.24	1929.41
2	4	4	2+87.82	27.42'	1927.55	1928.55	1928.71
	2	5	5+13.22	30.00'	1928.45	1929.45	1929.63
	3	6	2+49.05	52.65'	1927.40	1928.40	1928.72
	4	7	8+19.77	22.37'	1929.68	1930.68	1930.81

BUILD SANITARY SEWER MANHOLE					
NO.	STATION	DESCRIPTION	RIM	F.L.	COORDINATES
1	0+00.00	BUILD DROP SAN. SEWER MH OVER EXIST. 12" SAN. SEWER	1939.08	IN FL: 1926.40 OUT FL: 1923.95 (FIELD VERIFY)	N: 282076.94 E: 2078082.83
2	3+05.69	BUILD SAN. SEWER MH	1938.90	1927.62	N: 281771.29 E: 2078087.81
3	4+28.74	BUILD SAN. SEWER MH	1939.79	1928.11	N: 281657.61 E: 2078134.91
4	7+31.37	BUILD SAN. SEWER MH	1939.41	1929.33	N: 281444.14 E: 2078349.42
5	10+00.00	BUILD SAN. SEWER MH	1937.42	1930.40	N: 281380.45 E: 2078610.40



PRELIMINARY PLAN
NOT FOR CONSTRUCTION



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2021-ACE-2457-OE

Issued Date: 05/10/2021

Deb Bergmann
Hastings
220 N Hastings Avenue
Hastings, NE 68901

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Light Pole S21
Location:	Hastings, NE
Latitude:	40-35-48.13N NAD 83
Longitude:	98-25-22.28W
Heights:	1938 feet site elevation (SE) 17 feet above ground level (AGL) 1955 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

☐ At least 10 days prior to start of construction (7460-2, Part 1)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

This determination expires on 11/10/2022 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2021-ACE-2447-OE

Issued Date: 05/11/2021

Deb Bergmann
Hastings
220 N Hastings Avenue
Hastings, NE 68901

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building B5
Location:	Hastings, NE
Latitude:	40-35-47.34N NAD 83
Longitude:	98-25-20.48W
Heights:	1938 feet site elevation (SE) 24 feet above ground level (AGL) 1962 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 M, Obstruction Marking and Lighting, red lights-Chapters 4,5(Red),&15.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- ☒ At least 10 days prior to start of construction (7460-2, Part 1)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

This determination expires on 11/11/2022 unless:



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2021-ACE-2448-OE

Issued Date: 05/11/2021

Deb Bergmann
Hastings
220 N Hastings Avenue
Hastings, NE 68901

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building B6
Location:	Hastings, NE
Latitude:	40-35-45.18N NAD 83
Longitude:	98-25-20.10W
Heights:	1940 feet site elevation (SE) 24 feet above ground level (AGL) 1964 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 M, Obstruction Marking and Lighting, red lights-Chapters 4,5(Red),&15.

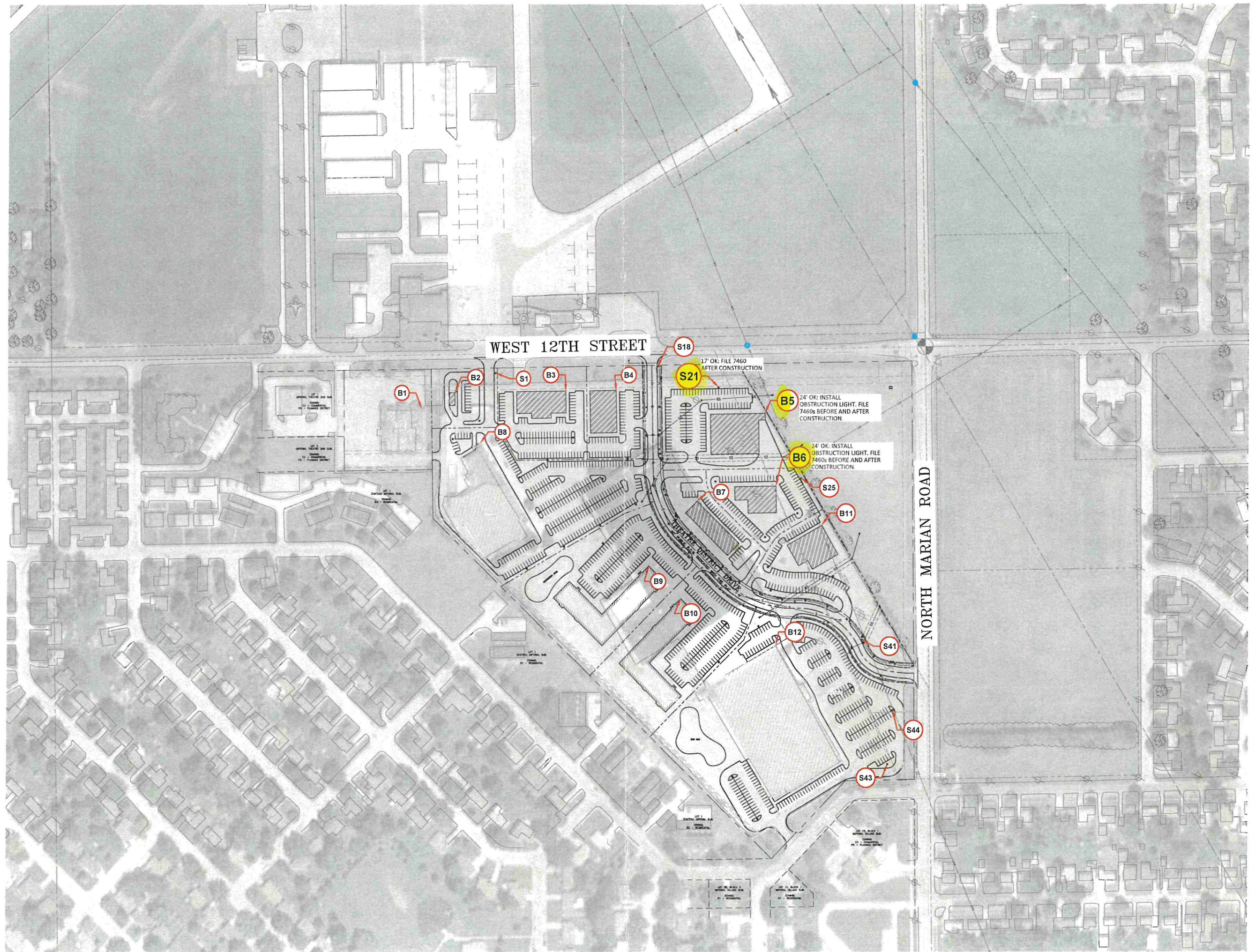
Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

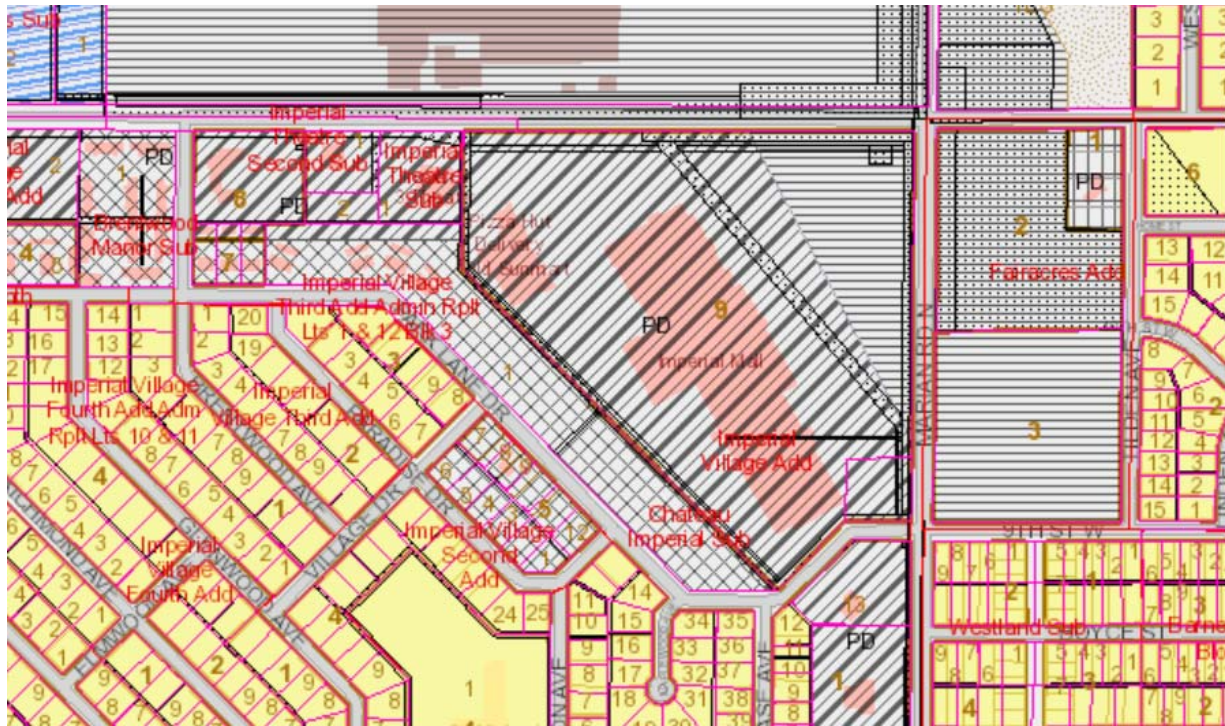
- ☒ At least 10 days prior to start of construction (7460-2, Part 1)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

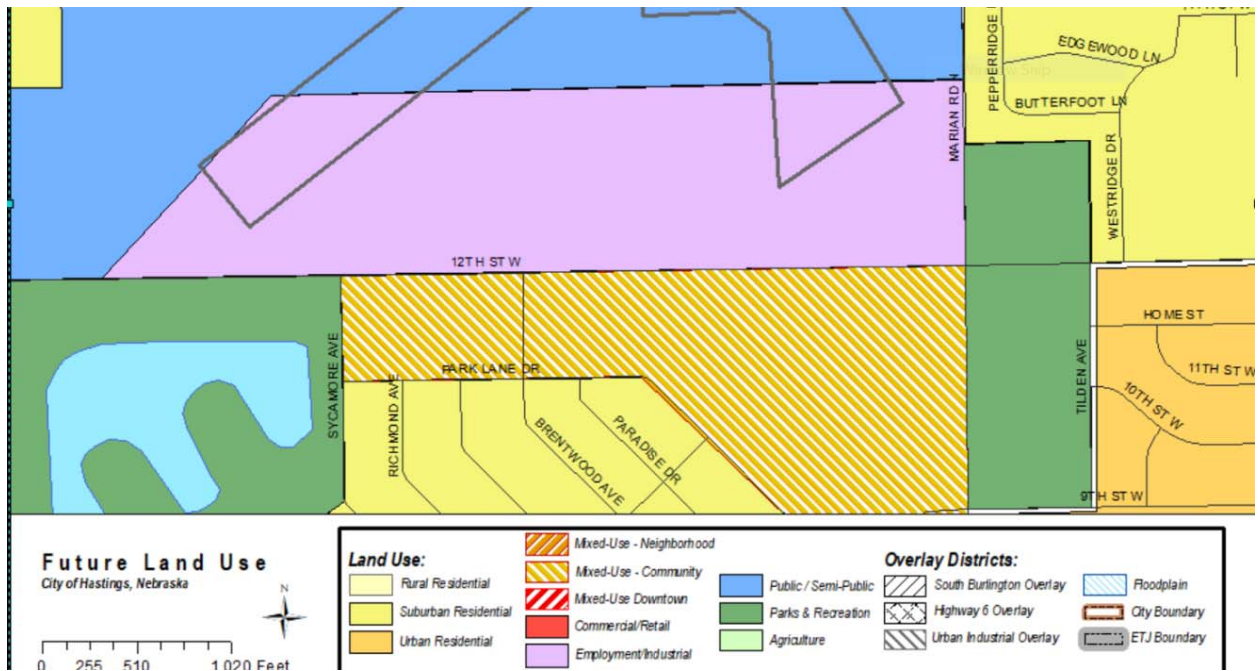
This determination expires on 11/11/2022 unless:



IMPERIAL MALL



Future Map: Mixed use – Community



Department: Development Services
Staff Contact: Lisa Parnell-Rowe
Planning Commission Meeting Date: 6/15/2021
File No: 2021-034
Prepared By: Emilia Kienbaum, Administrative Assistant

AGENDA ITEM SUMMARY SHEET

Description of Item:

Final Plat for Mary Lanning Memorial Hospital Association, commonly addressed 715 N. Saint Joseph Avenue, City of Hastings, Adams County, Nebraska.

Names of People/Business affected by this action:

The applicant, the City and the citizens of the City of Hastings

Why Planning Commission action is required:

Neb. Rev. Stat. 19-929 states the City Council shall not take final action on subdivision development matters without the recommendation of the Planning Commission.

Type of action requested:

Motion

Suggested motion:

Motion to recommend approval of Final plat for Mary Lanning Second Subdivision

Deadlines associated with action:

This Final plat case will be presented for approval at City Council Regular Meeting to be held on June 28, 2021. The applicant will also need to apply for relevant building permits for placing the Mary Lanning Medical Services Building on Lot 1 of this subdivision once it is approved and fully filed.

Department head comments:

Re-platting a portion of land commonly addressed 715 N. Saint Joseph Avenue, City of Hastings, Adams County, Nebraska. This subdivision replats part of lots 6, 7, 8, 13, 14 & 15, Block 3 of Buswell Addition. Replatting this land will allow Mary Lanning Memorial Hospital Association to relocate utilities and necessary easements that will lay the ground work for the Medical Office Building Expansion. This expansion was discussed briefly as part of the Campus Master Plan Amendment in late fall of 2020. The Development Department and Plat Track review teams (to include County officials) have reviewed this final subdivision plat and the applicant has incorporated all recommendations found to be relevant with subdivision design standards and

regulations in City Code Section 38-203. All related utilities easement relocations have been reviewed and approved by the Utilities Coordinator as part of this final plat process.

Recommendation:

Staff recommends motion to recommend approval of Final plat for Mary Lanning Second Subdivision.



Permit #: 21034

Permit Date: 05/03/21

Permit Type: Final Plat

Title: Mary Lanning

Site Address: 715 North St. Joseph Ave

Owner Name:

Owner Address:

City State Zip:

Owner Phone:

Owner Email:

Applicant Name: Steve Ardiana

Applicant Address: 715 N. St. Joseph Ave

City, State, Zip: Hastings

Phone Number: 4024615268

Applicant Email: steven.ardiana@marylanning.org

Proposed Use: Hospital Addition

Description: Hospital Addition

Number of Cases: 0

Project Cost: 0

Square Feet: 0

Within City Limits: Yes

Current Zoning: CMP, Institutional Campus

Current Zoning Explained:

Proposed Zoning: CMP, Institutional Campus

Conditions:

Conditions Defined:

1st PN & Agenda Send By (11:30):

1st PN & Agenda Due Date:

1st PN & Agenda Sent:

2nd PN & Agenda Send By (11:30):

2nd PN & Agenda Due Date:

2nd PN & Agenda Sent:

Sign / Website Posting - Post By:

Sign / Website Posting - Posted:

APO Letter - Send By:

APO Letter - Sent:

PC Approval - Date Approved:

PC Outcome Letter - Due: 06/16/2021

PC Outcome - Completed:

CRA Approval - Meeting Date:

CRA Approval - Approved:

CC Packet - Goal Load Date: 06/21/2021

CC Packet - Due Date: 06/22/2021

CC Packet - Completed:

CC Out/Admin Due Date:

CC Out/Admin - Completed:

Stage: Pending PC Approval

Status: Open

Assigned To: Lisa Parnell-Rowe

Property

Parcel #	Address	Legal Description	Owner Name	Owner Phone	Zoning
010016781	715 N St Joseph Ave	1528.00-LOTS 1 & 2 & VACATED ABUTTING STREET EX SO 20' OF LT 1 SCOFIELD'S ADD	MARY LANNING MEMORIAL HOSPITAL ASSOCIATION		CMP Campus Institutional

Inspections



Permit #: 21034

Address: 715 N St Joseph Ave

City: Hastings

State: NE

Zip: 68901

Receipt #: 22

Date: 05/05/2021

Paid By: Adam Goertzen

Description: 209970

Payment Type: IBX CC

Payment Type Description:

Accepted By:

Fees Paid

Fee Name	Description	Factor	Total Fee Amount	Amount Paid
Final Subdivision Plat Application	# of Lots	1.00	320.00	320.00
Subdivision Plats - 24" x 36"	Input # of Pages	2.00	100.00	100.00

Total: \$420.00

MARY LANNING 2ND SUBDIVISION

FINAL PLAT

A REPLAT OF A PART OF LOTS 6, 7, 8, 13, 14, AND 15, BLOCK 3, BUSWELL ADDITION AND THE ADJACENT VACATED ST. JOSEPH AVENUE TO THE CITY OF HASTINGS ADAMS COUNTY, NEBRASKA

LEGAL DESCRIPTION:

A PARCEL OF LAND LOCATED IN LOTS 7 AND 14, A PART OF LOTS 6, 8, 13, AND 15, BLOCK 3, BUSWELL ADDITION AND THE ADJACENT EAST 33 FEET OF THE VACATED ST. JOSEPH AVENUE, IN THE CITY OF HASTINGS, ADAMS COUNTY, NEBRASKA, BEING DESCRIBED AS FOLLOWS: REFERRING TO THE NORTHEAST CORNER OF LOT 6 OF SAID BLOCK 3, BUSWELL ADDITION; THENCE S00°33'15"W (ASSUMED BEARING) ON THE EAST LINE OF SAID LOT 6, A DISTANCE OF 90.00 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING S00°33'15"W ON THE EAST LINE OF SAID LOTS 6 THROUGH 8, A DISTANCE OF 245.00 FEET; THENCE N89°28'25"W, A DISTANCE OF 300.20 FEET TO THE WEST LINE OF SAID LOT 13; THENCE CONTINUING N89°28'25"W, A DISTANCE OF 33.00 FEET; THENCE N00°31'35"E, A DISTANCE OF 242.30 FEET; THENCE S89°56'13"E, PARALLEL WITH THE WESTERLY EXTENSION OF THE NORTH LINE OF SAID LOTS 6 AND 15, A DISTANCE OF 33.00 FEET TO THE WEST LINE OF SAID LOT 15; THENCE S89°56'13"E, PARALLEL WITH SAID NORTH LINE, A DISTANCE OF 300.32 FEET TO THE POINT OF BEGINNING, CONTAINING 1.86 ACRES, MORE OR LESS, NOW KNOWN AS MARY LANNING 2ND SUBDIVISION.

SURVEYOR'S REPORT:

THIS SURVEY WAS PERFORMED AT THE REQUEST OF MARY LANNING MEMORIAL HOSPITAL ASSOCIATION. THE PURPOSE OF THIS SURVEY WAS TO ESTABLISH THE PERIMETER OF LOTS 7 AND 14, A PART OF LOTS 6, 8, 13, AND 15, BLOCK 3, BUSWELL ADDITION AND THE ADJACENT EAST 33 FEET OF THE VACATED ST. JOSEPH AVENUE, IN THE CITY OF HASTINGS, ADAMS COUNTY, NEBRASKA AND REPLAT INTO ONE LOT.

EXISTING MONUMENTS OF RECORD WERE FOUND AT LOCATIONS SHOWN ON THIS PLAT. ALL MONUMENTS FOUND ARE DESCRIBED ON THIS PLAT.

ALL LINES WERE PRODUCED AND ANGLES AND DISTANCES MEASURED WITH A TRIMBLE R10 GNSS RECEIVER UTILIZING THE SEILER INSTRUMENTS REAL TIME NETWORK.

FLOOD PLAIN NOTE:

THE PROPERTY SHOWN ON THIS FINAL PLAT IS LOCATED IN ZONE "X", AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, ACCORDING TO THE FLOOD HAZARD BOUNDARY MAPS AS PROVIDED BY THE U.S. DEPARTMENT OF HOMELAND SECURITY, FEDERAL INSURANCE ADMIN., COMMUNITY PANEL NO. 31001C0160C, EFFECTIVE DATE OF 7/05/2018.

OWNER NAME AND ADDRESS:

MARY LANNING MEMORIAL HOSPITAL ASSOCIATION
ERIC BARBER, PRESIDENT
715 NORTH ST. JOSEPH AVENUE
HASTINGS, NE 68901

ZONED: CMP CAMPUS INSTITUTIONAL DISTRICT

LEGEND

- MONUMENT FOUND
- MONUMENT SET
- CALCULATED POINT
- M MEASURED DISTANCE
- D1 DEEDED DISTANCE (INST. NO. 20192925)
- D2 DEEDED DISTANCE (INST. NO. 841698)
- P PLATTED DISTANCE
- R RECORDED DISTANCE
- FR RECORDED DISTANCE (FRANCIS ROTTER 7/12/1979)

NOTE: ALL BEARINGS ARE ASSUMED.

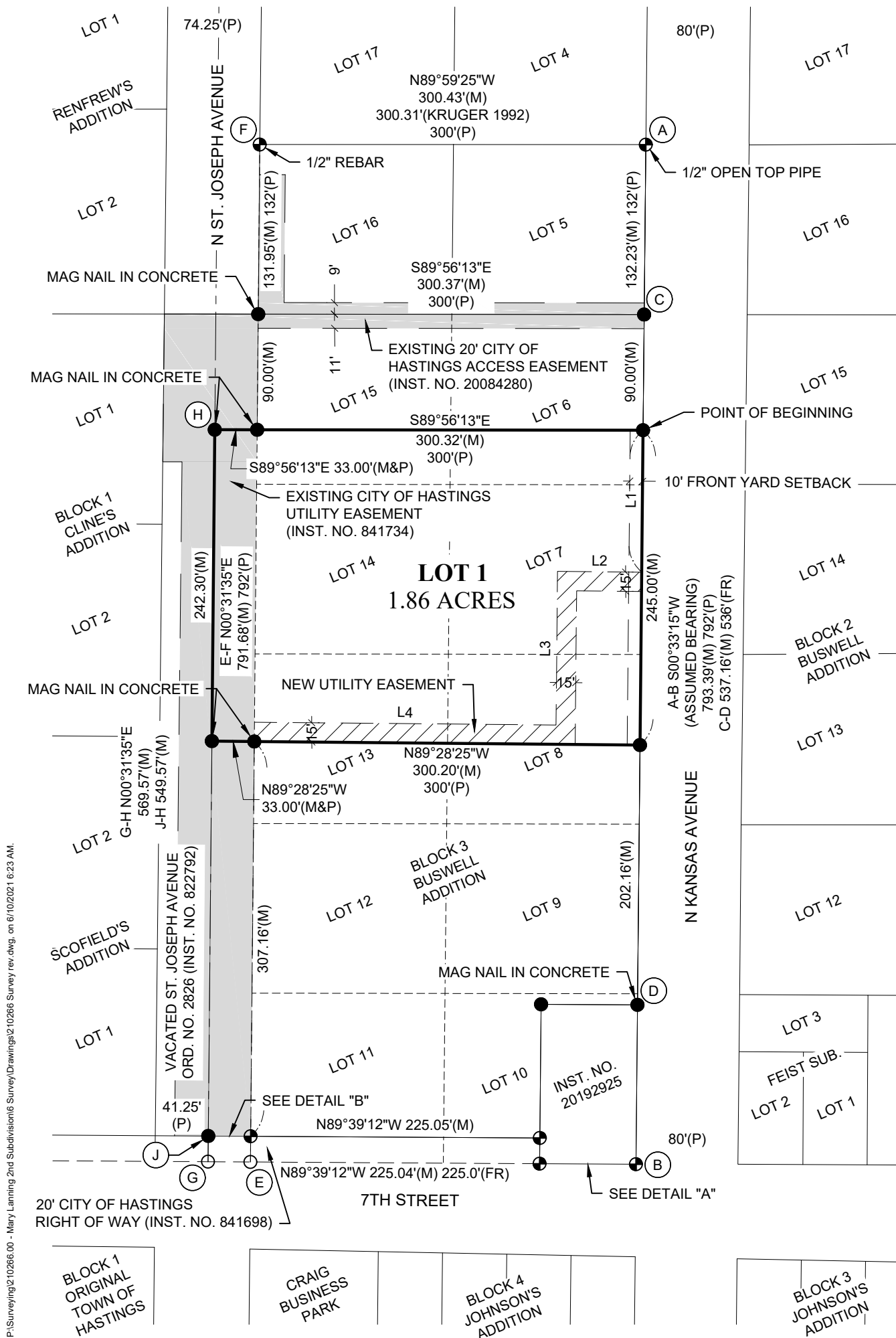
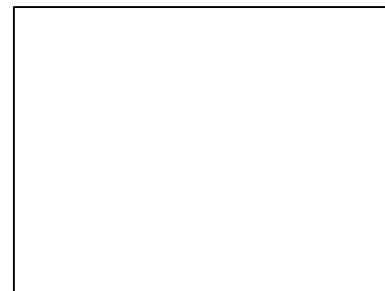
GRAPHIC SCALE



VICINITY SKETCH:



REPOSITORY STAMP



P:\Surveying\210266.00 - Mary Lanning 2nd Subdivision\6 Survey\Drawings\210266 Survey rev.dwg, on 6/10/2021 6:23 AM.

MARY LANNING 2ND SUBDIVISION
FINAL PLAT
A REPLAT OF A PART OF LOTS 6, 7, 8, 13, 14, AND 15, BLOCK 3,
BUSWELL ADDITION AND THE ADJACENT VACATED
ST. JOSEPH AVENUE TO THE CITY OF HASTINGS
ADAMS COUNTY, NEBRASKA

OWNER'S CERTIFICATE:

KNOW ALL MEN BY THESE PRESENT, THAT MARY LANNING MEMORIAL HOSPITAL ASSOCIATION, A NEBRASKA NON-PROFIT CORPORATION, AKA MARY LANNING MEMORIAL HOSPITAL, THE OWNER OF RECORD OF THE LAND SHOWN ON THIS PLAT AND DESCRIBED IN THE LEGAL DESCRIPTION HEREON, HAS CAUSED THE SAME TO BE SURVEYED, SUBDIVIDED, PLATTED AND DESIGNATED AS "MARY LANNING 2ND SUBDIVISION", IN THE CITY OF HASTINGS, ADAMS COUNTY, NEBRASKA, AND THAT SAID SURVEYING, SUBDIVIDING, PLATTING AND DESIGNATION WAS DONE WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES AND WISHES OF THE UNDERSIGNED OWNER. BE IT FURTHER KNOWN, THAT SAID OWNER DO HEREBY DEDICATE ALL EASEMENTS SHOWN ON THIS PLAT TO THE CITY OF HASTINGS, ADAMS COUNTY, NEBRASKA.

SIGNED THIS _____ DAY OF _____, 2021.

ERIC A. BARBER, PRESIDENT / CEO, MARY LANNING MEMORIAL HOSPITAL ASSOCIATION

C.M. (GARY) ANDERSON, SECRETARY / TREASURER, MARY LANNING MEMORIAL HOSPITAL ASSOCIATION

ACKNOWLEDGEMENT:

STATE OF)
COUNTY OF) SS

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME ON THE _____ DAY OF _____, 2021,
BY ERIC A. BARBER, PRESIDENT / CEO, MARY LANNING MEMORIAL HOSPITAL ASSOCIATION

MY COMMISSION EXPIRES THE _____ DAY OF _____, _____.

(SEAL) _____
NOTARY

ACKNOWLEDGEMENT:

STATE OF)
COUNTY OF) SS

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME ON THE _____ DAY OF _____, 2021,
BY C.M. (GARY) ANDERSON, SECRETARY / TREASURER, MARY LANNING MEMORIAL HOSPITAL ASSOCIATION

MY COMMISSION EXPIRES THE _____ DAY OF _____, _____.

(SEAL) _____
NOTARY

CITY ENGINEER'S APPROVAL:

THIS PLAT OF MARY LANNING 2ND SUBDIVISION, IN THE CITY OF HASTINGS, ADAMS COUNTY, NEBRASKA HAS BEEN RECEIVED AND REVIEWED BY ME AND IS IN COMPLIANCE WITH THE PROVISIONS OF CHAPTER 38 OF THE CITY CODE FOR THE CITY OF HASTINGS, ADAMS COUNTY, NEBRASKA, PROVIDING FOR THE APPROVAL OF SUBDIVISIONS AND PLATS BY THE CITY ENGINEER UNDER CERTAIN CIRCUMSTANCES. APPROVED THIS _____ DAY OF _____, 2021.

CITY ENGINEER

CITY PLANNING COMMISSION RECOMMENDATION:

THIS PLAT OF MARY LANNING 2ND SUBDIVISION IN THE CITY OF HASTINGS, ADAMS COUNTY, NEBRASKA HAS BEEN SUBMITTED TO AND REVIEWED BY THE CITY PLANNING COMMISSION FOR APPROVAL AND IS HEREBY TRANSMITTED TO THE GOVERNING BODY OF THE CITY OF HASTINGS, ADAMS COUNTY, NEBRASKA WITH THE RECOMMENDATION THAT SAID PLAT BE APPROVED THIS _____ DAY OF _____, 2021.

CHAIRMAN

DIRECTOR

MAYOR AND CITY COUNCIL ACTION:

THIS PLAT OF MARY LANNING 2ND SUBDIVISION, IN THE CITY OF HASTINGS, ADAMS COUNTY, NEBRASKA IS HEREBY APPROVED THIS _____ DAY OF _____, 2021.

MAYOR

CITY CLERK

SURVEYOR'S CERTIFICATE:

I HEREBY CERTIFY THAT THIS PLAT OF A SURVEY WAS MADE BY ME OR UNDER MY SUPERVISION AND IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE, AND THAT I AM A DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NEBRASKA.

ADAM J. GOERTZEN, LS 704



FINAL PLAT
MARY LANNING MEMORIAL
HOSPITAL ASSOCIATION

A REPLAT OF A PART OF LOTS 6, 7, 8, 13, 14,
AND 15, BLOCK 3, BUSWELL ADDITION AND
ADJACENT VACATED ST. JOSEPH AVE.
TO THE CITY OF HASTINGS
ADAMS COUNTY, NEBRASKA

PROJECT NO.
R210266

DATE
6/7/2021

DRAWN BY
AG

FILE NAME
210266 Survey rev.dwg

FIELD BOOK
HASTINGS #56

FIELD CREW
BS

SURVEY FILE NO.
2021-27

P:\Surveying\210266.00 - Mary Lanning 2nd Subdivision\6 Survey\Drawings\210266 Survey rev.dwg, on 6/10/2021 6:23 AM.

MARY LANNING 2ND SUBDIVISION
FINAL PLAT
A REPLAT OF A PART OF LOTS 6, 7, 8, 13, 14, AND 15, BLOCK 3,
BUSWELL ADDITION AND THE ADJACENT VACATED
ST. JOSEPH AVENUE TO THE CITY OF HASTINGS
ADAMS COUNTY, NEBRASKA

COUNTY TREASURER'S CERTIFICATE:

I HEREBY CERTIFY THAT THE RECORDS OF MY OFFICE SHOW NO TAXES ARE DUE OR DELINQUENT UPON THE
PROPERTY DESCRIBED IN THE LEGAL DESCRIPTION ON THIS PLAT AS OF THIS
_____ DAY OF _____, 2021.

ADAMS COUNTY TREASURER

CITY TREASURER'S CERTIFICATE:

I HEREBY CERTIFY THAT THE RECORDS OF MY OFFICE SHOW NO SPECIAL ASSESSMENTS ARE DELINQUENT UPON
THE PROPERTY DESCRIBED IN THE LEGAL DESCRIPTION ON THIS PLAT AS OF THIS
_____ DAY OF _____, 2021.

CITY OF HASTINGS TREASURER

REGISTER OF DEEDS CERTIFICATE:

STATE OF NEBRASKA)
COUNTY OF ADAMS) SS

THIS IS TO CERTIFY THAT THIS INSTRUMENT WAS FILED FOR RECORD IN THE REGISTER OF DEEDS OFFICE OF ADAMS COUNTY,
NEBRASKA.

DATE: _____ TIME: _____ INSTRUMENT NO.: _____

REGISTER OF DEEDS

WAIVER FOR STREET GRADES:

THE APPLICANTS HEREBY WAIVE ANY AND ALL CLAIMS FOR DAMAGES OCCASIONED BY THE ESTABLISHMENT OF GRADES OR THE
ALTERATION OF THE SURFACE OF ANY PORTION OF THE STREETS AND ALLEYS TO CONFORM TO SAID GRADES ESTABLISHED.

MARY LANNING MEMORIAL HOSPITAL ASSOCIATION

BY: _____

CONSENT OF LIENHOLDER:

I, _____ (PRINT NAME), _____ (TITLE) OF U.S. BANK NATIONAL
ASSOCIATION, BEING A LIENHOLDER OF THE DESCRIBED TRACT OF LAND, HEREBY APPROVE AND AGREE TO THE PLATTING OF
"MARY LANNING 2ND SUBDIVISION", IN THE CITY OF HASTINGS, ADAMS COUNTY, NEBRASKA, ON THIS _____ DAY
OF _____, 2021, ON BEHALF OF SAID U.S. BANK NATIONAL ASSOCIATION.

(SIGNATURE)

(PRINTED NAME AND TITLE)

ACKNOWLEDGEMENT:

STATE OF)
COUNTY OF) SS

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME ON THE _____ DAY OF _____, 2021,
BY _____, U.S. BANK NATIONAL ASSOCIATION

MY COMMISSION EXPIRES THE _____ DAY OF _____, _____.

(SEAL) _____
NOTARY

CONSENT OF LIENHOLDER:

I, _____ (PRINT NAME), _____ (TITLE) OF WELLS FARGO BANK,
NATIONAL ASSOCIATION, BEING A LIENHOLDER OF THE DESCRIBED TRACT OF LAND, HEREBY APPROVE AND AGREE TO THE
PLATTING OF "MARY LANNING 2ND SUBDIVISION", IN THE CITY OF HASTINGS, ADAMS COUNTY, NEBRASKA, ON THIS _____
DAY OF _____, 2021, ON BEHALF OF SAID WELLS FARGO BANK, NATIONAL ASSOCIATION.

(SIGNATURE)

(PRINTED NAME AND TITLE)

ACKNOWLEDGEMENT:

STATE OF)
COUNTY OF) SS

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME ON THE _____ DAY OF _____, 2021,
BY _____, WELLS FARGO BANK, NATIONAL ASSOCIATION

MY COMMISSION EXPIRES THE _____ DAY OF _____, _____.

(SEAL) _____
NOTARY



FINAL PLAT
MARY LANNING MEMORIAL
HOSPITAL ASSOCIATION

A REPLAT OF A PART OF LOTS 6, 7, 8, 13, 14,
AND 15, BLOCK 3, BUSWELL ADDITION AND
ADJACENT VACATED ST. JOSEPH AVE.
TO THE CITY OF HASTINGS
ADAMS COUNTY, NEBRASKA

PROJECT NO.
R210266
DATE
6/7/2021
DRAWN BY
AG
FILE NAME
210266 Survey rev.dwg
FIELD BOOK
HASTINGS #56
FIELD CREW
BS
SURVEY FILE NO.
2021-27

- North of the existing Ambulance Headquarters Building is currently available and vacant. Previous building was demolished due to not being occupied and capable of meeting code compliance. Solution creates more compact facility and limits sprawl potential.

4.2 Medical Office Building Expansion

EAST SOLUTION

- With some exceptions, MLH currently owns all the property required to accommodate the East Solution.
- South of the existing Medical Services Building. Parking south and east of the proposed construction site would be required to vacate and close.
- Solution creates more compact facility and limits sprawl potential.
- East Side Main Entrance drop-off would require closure, rerouting admission and visitors to the North Admissions entrance traffic, leaving access to the East End only employee entrance. Access from Kansas Avenue and 7th Street would be limited.
- Additional access points to new facilities would be necessary on Kansas, increasing congestion deeper into the East End.
- New Medical Office Building (MOB) development connected to existing Medical Service Building outpatient areas at each floor with the connection to the inpatient area via existing link. This making departmental efficiencies and care delivery a challenge.
- The buildable footprint available for the MOB development would be sufficient for the anticipated building program. The overall height of the expansion would remain the same as current Medical Service Building. Without further impacting the adjacent neighborhood.
- Development to the east straddles Zoning Districts CMP and R-1. Rezoning to allow the new use would require City of Hastings and Open Meetings.
- Street-level connectivity between new construction and existing presents safety challenges to pedestrians crossing Kansas.
- Kansas Avenue drop-off and parking access would require entrance changes to process site access traffic. Patient and visitor access to front door is problematic.
- Internal connectivity and circulation becomes inefficient and problematic between the medical office building (MOB) expansion and the main hospital during the construction phase of the first (1) floor.
- Development to the east across Kansas Avenue straddles Zoning Districts CMP and R-1. Rezoning to allow the new use would be required as well as the area would need to be replatted

SOUTH SOLUTION

- Mary Lanning does not currently own the property required to accommodate the South Solution.

- Additional access points would be necessary on 7th Street, and Kansas Avenue intersection would increase congestion deeper into the East parking area.
- Expansion to the south causes redevelopment of the east and west sides of the existing hospital.
- Access to the Surgery Department and South Admissions becomes challenging.

WEST SOLUTION

- Locating the hospital development to the west of the existing building would necessitate a Denver Avenue drop-off for expanded and relocated services, increasing vehicular traffic on Denver Avenue. New medical office building would be required to be located on the north side of 7th Street, further increasing congestion. Locating building access along Denver Avenue would also increase pedestrian crossing at street level, increasing the opportunity for vehicular conflict. The 7th Street and Denver Avenue intersection would increase congestion deeper into the 7th Street.
- Emergency department traffic would be potentially be impacted, possibly creating a dead end at the Emergency Department entrance.
- A new parking lot will provide an additional 107 parking spots. It will be constructed between Denver Ave and Hastings Ave. It will also include a change to the entrance / Exit of the lot on the corner of Hastings Ave and 7th St. The plan has two (2) access drives to Hastings Avenue and one (1) access drive to Denver Avenue. The driveway modifications will improve traffic circulation.
- New hospital development not connected to clinics or existing inpatient areas, making departmental efficiencies and care delivery a challenge. Location increases.

NORTH SOLUTION

- New and existing primary hospital functions like surgery, emergency department, and associated support functions connect to create a horizontally integrated care model.
- Traffic circulation becomes inefficient and problematic at the 9th Street and Denver Avenue, due to Longfellow School traffic and lack of school access parking. Although, the resultant congestion could be mitigated.
- Vacation of St Joseph Avenue between 8th and 9th is desired to allow control of setbacks and maximize buildable footprint.
- The North Solution distributes increased traffic volume, driven by Mary Lanning development around the facility, rather than at a single point.

PREFERRED SOLUTION Medical Service Building location

As illustrated, the East Solution ranks best of all locations explored for the Medical Office Building expansion. However, perceived execution of the concept necessitates a parking vacation and entrance closure to allow existing traffic to access east parking. Medical Service Building departments on all floors, containing some of the more expensive and heavily invested space, to expand horizontally. As previously discussed, contiguous space within key departments is operationally and fiscally more efficient. A detailed look at current floor spaces relative to proposed expansion illustrates the challenge

of maintaining the parking and street access. Thus, the solution would impact public infrastructure. In this case, existing departments needing large contiguous space could move into the structure to a floor capable of supporting this need, without causing abandonment of multi-million dollars' worth of previous investment and sacrificing current relationships. It would allow for consolidation of supporting ancillary functions. Following are a conceptual rendering illustrating the specific condition described.

