Inver Grove Heights Planning Commission
Wednesday, August 7, 2024 at 7:00 PM
8150 Barbara Avenue, Inver Grove Heights, MN 55077

AGENDA

NOTICE TO RESIDENTS: Individuals may submit written public comments in advance of the meeting by emailing comments to Stacy Bodsberg (sbodsberg@ighmn.gov). Comments received prior to 4:00 p.m. on Wednesday, August 7, 2024, will be provided to the Council at or before the August 7, 2024 meeting.

1. **Call to Order**
2. **Roll Call**
3. **Consent Agenda**
   - **A.** Minutes of the July 16, 2024, Planning Commission Meeting.
4. **Public Hearing**
   - **A.** Variance from the required setback to install a fence on the front perimeter of the property located at 6202 Concord Boulevard. (Landscapes Unlimited - Case No. 24-25V)
   - **B.** Variance from the maximum fence height allowed at the property located at 1260 105th Street East. (Xcel Energy - 24-26V)
   - **C.** Comprehensive Plan Amendment and Rezoning portions of the properties located at 6570 S. Robert Trail, 6680 S. Robert Trail, & 1401 70th Street East. (National Land Holdings, LLC - Case No. 24-22PAZ)
5. **Regular Business**
   - **A.** Final Plat & Final Planned Unit Development to develop a 159-unit townhouse and 2 building retail development located at 7101 Argenta Trail. (Stuart Development Corporation - Case No. 24-24PUD)
6. **Adjourn**

This document is available upon a three (3) business day request in alternate formats such as braille, large print, audio recording, etc. Please contact Stacy Bodsberg, Community Development Support Specialist, at 651.450.2545 or sbodsberg@ighmn.gov.

PLANNING COMMISSION MINUTES – CITY OF INVER GROVE HEIGHTS
Tuesday, July 16, 2024 – 7:00 p.m.
City Council Chambers – 8150 Barbara Avenue

1. CALL TO ORDER
Chair Weber called the Planning Commission Meeting to order at 7:00 p.m.

The Pledge of Allegiance was recited.

2. ROLL CALL

Commissioners Present:	Jonathan Weber *(Chair)* Scott Clancy (Vice-Chair) Trisha Presley *(Secretary)* Jason Teiken Lance Twedt Robert Heidenreich Amy Hunting
Commissioners Absent:	Aida Schaefer – excused Dennis Wippermann – excused
Staff Present:	Allan Hunting, City Planner Heather Botten, Associate Planner Stacy Bodsberg, Community Development Support Specialist

3. CONSENT AGENDA
A. Minutes of the June 18, 2024, Planning Commission Meeting.
Motion by Twedt, Second by Presley, to approve the minutes as submitted.
Ayes: 6 (Hunting Abstained)
Nays: 0 Motion Carried.

4. PUBLIC HEARING
A. Planned Unit Development Amendment to allow for the use of a business and trade school in the Bishop Heights District located at 5786 Blackshire Path. (Hilda Ortiz Vega – Case No. 24-18PUD)

Reading of Public Notice
Secretary Presley read the Public Hearing Notice.

Presentation of Request
City Planner Hunting presented a summary of the staff report.

The applicant is opening a beauty school. The operation will involve one to three students, plus the instructor. Parking needs would not exceed the spaces designated for each unit in the Blackberry Town Office Park. The proposal is to amend the Southeast Quadrant PUD Ordinance, which required uses to be specifically approved due to past traffic concerns.

Planning Commission Discussion
Commissioner Hunting questioned if the wording could be changed to specifically add beauty schools as an approved use, rather than trade schools generally, to avoid allowing more disruptive types of trade schools.

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City Planner Hunting confirmed that was possible.

Opening of Public Hearing
Hilda Ortiz Vega, 2045 Safari Heights Trail, Eagan, Applicant, stated that she has read and understands the staff report.

Commissioner Hunting inquired how the applicant knew that a Planned Unit Development Amendment was required.

Ms. Ortiz Vega stated that City approval was needed as part of the application paperwork for the business.

Chair Weber closed the Public Hearing.

Planning Commission Discussion
Commissioner Hunting recommended rewording the Amendment to specifically allow beauty schools.

Chair Weber agreed.

Planning Commission Recommendation
Motion by Hunting, Second by Clancy, to approve an Amendment to the Southeast Quadrant PUD Ordinance to recommend the allowed use be listed as beauty school within Blackberry Town Office Park.
Ayes: 7
Nays: 0 Motion Carried.

The item is tentatively scheduled to go before the City Council on July 22, 2024.

B. Variance from Ordinance 10-15-17 for the exterior building materials of a structure located at 11300 Rich Valley Boulevard. (Republic Services – Case No. 24-20V)

Reading of Public Notice
Secretary Presley read the Public Hearing Notice.

Presentation of Request
Associate Planner Botten presented a summary of the staff report.

The site is zoned I-1, Limited Industry. This is an after-the-fact Variance request to allow steel siding on more than 1/3 of the building. Steel siding is currently on the entire perimeter of the structure. The building is an accessory use on the property. The structure complies with other zoning requirements, such as setbacks and impervious surfaces.

The primary rationale for the exterior building materials requirement is aesthetic appeal. This structure is used as a control room and blowers for the nearby RNG facility, the structure is not visible from the public right-of-way or open to the public. Therefore, staff recommends approval of the request with one condition listed.

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Commissioner Heidenreich inquired if the two property owners nearby were served public hearing notices. Botten confirmed that they were. There have been no comments from abutting property owners.

Commissioner Hunting inquired if the property owners of the abutting properties are able to see the building. Botten stated that they cannot. Hunting questioned about any non-aesthetic rationales for the exterior building materials requirement. Botten stated that the rationale for the requirement is aesthetic.

Commissioner Clancy inquired about the background behind the Variance request. Botten stated that the applicant's contractor had applied for a building permit when the structure was being put in, and at the time, it was noted that a Variance was needed. There was a change in contractors, and the building was subsequently constructed without an approved permit. Site owners then checked on permitting, and the need for a Variance was reasserted.

Opening of Public Hearing

Aaron Janusz, 2495 117th Street East, Republic Services, Applicant, stated that he has read and understands the staff report.

Chair Weber closed the Public Hearing.

Planning Commission Discussion

Commissioner Hunting stated that if the building was visible from the road, she would not be in favor of the Variance. But given that the building isn't visible, she is in favor.

Commissioner Clancy agreed.

Commissioner Heidenreich noted that this sets a precedent.

Chair Weber stated that setting precedent was an issue for him as well; the lack of visibility from the right-of-way is reason enough for him to approve the Variance.

Commissioner Clancy stated that the building's use and lot type are additional reasons to approve the request in this case.

Chair Weber recommended removing the language about not being visible from public right-of-way to avoid setting precedent.

Commissioner Clancy suggested replacing the visibility rationale with language about the specific use of the property.

Planning Commission Recommendation

Motion by Clancy, Second by Teiken, to approve a Variance from the exterior building materials requirements subject to the one condition replacing the "non-visible" portion of the rationale with the specific use of the owner of the land.
Ayes: 7
Nays: 0 Motion Carried.

The item is tentatively scheduled to go before the City Council on August 12, 2024.

DRAFT

C. Conditional Use Permit for an Essential Service Building to expand an existing electrical power substation; and a Variance from Ordinance 10-15-12 for the installation of a ten-foot-high fence located at 2015 105th Street East. (Xcel Energy – 24-23V)

Reading of Public Notice
Secretary Presley read the Public Hearing Notice.

Presentation of Request
City Planner Hunting presented a summary of the staff report.

Xcel Energy power substation that has been in existence since at least 1962. The applicant is proposing to expand the equipment on site. By code definition, Essential Service Structures (and equipment) require a Conditional Use Permit.

The Variance is for a ten-foot fence in order to meet federal guidelines that require electric operators to provide more security at substations.

Staff are not aware of any concerns about adding equipment and supports approving the Variance due to the practical difficulty of the federal regulations. Staff recommends approval of both requests as presented.

Planning Commission Discussion
Commissioner Clancy inquired if there were landscaping requirements.

City Planner Hunting answered no; they're just providing additional landscaping because of the residence to the east to provide additional screening. However, there's no requirement for that per Code.

Opening of Public Hearing
Michael Wilhelmi, 1700 E. County Road E., White Bear Lake, Xcel Energy, Applicant, stated he has read and understands the staff report.

Chair Weber closed the Public Hearing.

Planning Commission Discussion
Commissioner Hunting stated that she is familiar with the site and is in favor of approving the Conditional Use Permit and the Variance.

Planning Commission Recommendation
Motion by Clancy, Second by Presley, to approve the Conditional Use Permit for an Essential Service Structure to allow expansion of the existing electrical substation subject to the two conditions listed and the Variance to allow a ten (10) foot tall fence whereas seven (7) feet is the maximum allowed by City Code (with the practical difficulty that the fence needs to be in compliance with the Federal Energy Regulatory Commission) subject to the conditions listed in the staff report.
Ayes: 7
Nays: 0 Motion Carried.

The item is tentatively scheduled to go before the City Council on August 12, 2024.

DRAFT

D. Preliminary and Final Plat to consolidate two parcels; Vacation of certain Drainage and Utility Easements; and a Conditional Use Permit Amendment for the expansion of an automobile and off-highway vehicle sales lot located at 1290 50th Street East. (RJ Ryan Construction – Case No. 24-19CS)

Reading of Public Notice
Secretary Presley read the Public Hearing Notice.

Presentation of Request
Associate Planner Botten presented a summary of the staff report.

This property is zoned B-3, General Business. This is a three-part request: replat of a two-lot subdivision (Whitaker Addition), vacation of the internal Drainage and Utility easements, and Conditional Use Permit Amendment to add a 13,900 square foot building, along with parking lot and storm water improvements

The new plat is a one-lot subdivision to be known as Lot 1, Block 1, Whitaker 2nd Addition. Park dedication would be required on the outlot portion (3.82 acres at $7,000/acre). Park dedication is not required for existing Lot 1, as it would have been paid for at the time of site development for that parcel. The plat was sent to MnDOT for their review as the property abuts a highway.

The original plat had internal Drainage and Utility Easements. The new plat would have perimeter easements on the property (standard for access purposes). The request includes vacating an old roadway easement; the access to the property is off 50th Street, so that access is no longer necessary. Engineering has reviewed the plans and is working with the applicant on storm water requirements. They are agreeable to the proposed vacation of the easements on the original plat.

The proposed new building is to the south of the existing building. The access to the property is not changing. The proposed building and parking lot meet and exceed setback requirements. The proposed building consists of painted concrete panels, complying with exterior building materials requirements. Applicant has submitted landscaping plans that comply with landscaping requirements.

The proposed expansion and site improvements are consistent with the goals and policies of the Comprehensive Plan. The future land use of this parcel is designated as regional commercial, and vehicle sales is consistent with the uses envisioned within that district. There do not appear to be negative effects on city facilities. Engineering, Fire, and Building Inspections are all reviewing plans and will review the civil and building plans prior to any approval for work being done on the site.

Thus, staff recommend approval of all the requests with the conditions listed. There have been no comments from surrounding property owners.

Chair Weber confirmed that the Planning Commission recently allowed parking on the back lot of this site.

Opening of Public Hearing
Jack Grotkin, 6390 129th Street, Apple Valley, RJ Ryan Construction, Applicant, noted that the application indicates that the building will be painted, but they decided to do an exposed

aggregate structure instead. Mr. Grotkin stated that he has read and understands the staff report.

Chair Weber closed the Public Hearing.

Planning Commission Discussion
Commissioner Clancy stated that this seems like a straightforward request due to compliance with Code requirements.

Planning Commission Recommendation
Motion by Clancy, Second by Hunting, to approve the Preliminary & Final Plat of Whitaker 2nd Addition subject to the four conditions listed in the staff report; Approval of the Vacation of certain Drainage and Utility Easements subject to the condition listed in the staff report; and Conditional Use Permit for the expansion subject to the 13 conditions listed in the staff report.
Ayes: 7
Nays: 0 Motion Carried.

The item is tentatively scheduled to go before the City Council on August 12, 2024.

5. REGULAR BUSINESS
City Planner Hunting stated that the next regular Planning Commission meeting will be on Wednesday, August 7th, 2024.

6. ADJOURN
Motion to adjourn the meeting at 7:35 p.m.

Respectfully submitted by Will Clashe, Recording Secretary.

DRAFT

Agenda Item 4.A.

Planning Commission Report

MEETING DATE:	August 7, 2024
CASE NO:	24-25V
APPLICANT:	Landscapes Unlimited
PROPERTY OWNER:	Same.
REQUEST:	Variance to allow a fence within the front yard setback.
LOCATION:	6202 Concord Boulevard
COMPREHENSIVE PLAN:	MU, Mixed Use
ZONING:	I-1, Limited Industry
STAFF CONTACT:	Heather Botten, 651.450.2569

ACTION REQUESTED

The request consists of the following:

- Variance from City Code Section 10-15-12 to allow a six-foot chain link fence within the front yard setback.

BACKGROUND

The applicant is requesting a Variance to construct a six-foot chain link fence within the front yard area of the property located at 6202 Concord Boulevard. City Code states that fences in the front yard area shall provide no less than seventy-five percent (75%) clear visibility and shall be no higher than forty-eight inches (48"). The proposed fence is chain link, complying with the 75% clear visibility requirement, but the applicant is requesting a seventy-two-inch fence (6 feet) vs the permitted forty-eight inches (4 feet) in the front yard. The fence complies with City Code requirements along the side and rear areas of the property.

The applicant owns a landscape business on this property located along Concord Boulevard. The proposed fence would be located along the front property line, abutting the sidewalk. The gate at the access point would be located thirty feet (30') back to provide safe access to and from Concord Boulevard. The gate would remain open during business hours to avoid any back-up along Concord Boulevard. The purpose of the fence is to provide security during non-business hours.

EVALUATION OF REQUEST

SURROUNDING USES

The following land uses, zoning districts, and comprehensive plan designations surround the subject property:

North & South	Industrial	Zoned: I-1, Limited Industry	Guided: MU, Mixed Use
West	Concord Boulevard & Single-Family Residential	Zoned: R-1C, Low Density Residential	Guided: MU, Mixed Use
East	Railroad / Heritage Village Park	Zoned: P, Public/Institutional	Guided: Public Open Space

VARIANCE REVIEW

City Code Title 10, Chapter 3. Variances, states that the City Council may grant Variances when they are in harmony with the general purposes and intent of the Zoning Ordinance and consistent with the Comprehensive Plan and establishes that there are practical difficulties in complying with the official control. In order to grant the requested Variance, City Code identifies criteria which are to be considered practical difficulties. The applicant's request is reviewed below against those criteria.

1. *The Variance request is in harmony with the general purpose and intent of the City Code and consistent with the Comprehensive Plan.*

The purpose of the fence requirements in the City Code is for visibility and safety. A second reason could be aesthetics, both in uniformity with front views and visual appeal.

2. *The property owner proposes to use the property in a reasonable manner not permitted by the Zoning Ordinance.*

To provide better privacy, security and to distinguish the location of the property boundaries, the property owners are requesting to install a fence that would encroach within the front yard area.

One of the functions of the fencing requirements is for consistency of structure placement and aesthetic qualities from street, and neighboring views. The six-foot fence is proposed to be located along the front lot line, abutting the sidewalk. The applicant could comply with setback requirements, but would lose parking space on site. The gate would be located 30 feet back from the property line at the access point, providing for safe access to and from Concord Boulevard.

3. *The plight of the landowner is due to circumstances unique to the property not created by the landowner.*

The request for the location of the six-foot fence to be located within the front yard area may be considered a convenience to the applicant, not a practical difficulty as the fence could be located outside the front yard area, but then there would be a reduction in on-site parking space and a reduced turn around radius for truck and trailers.

4. *The Variance will not alter the essential character of the locality.*

The location of the fence would have a visual impact along Concord Boulevard as it would be abutting the sidewalk, right along the property line. If the Variance is approved, staff would recommend at least a 5-foot separation between the sidewalk and the fence for snow removal.

5. *Economic considerations alone do not constitute an undue hardship.*

Economic considerations do not appear to be a basis for this request.

ALTERNATIVES

The Planning Commission has the following actions available for the proposed request:

A. Approval. If the Planning Commission finds the request acceptable, the Commission should make the following recommendation:

- Approval of a Variance to construct a six-foot chain link fence within the front yard setback with the following conditions:

1. The site shall be developed in substantial conformance with the site plan on file with the Planning Department except as modified by the second condition below.

2. The fence must be located at least five feet back from the sidewalk.

Practical Difficulty: To be stated by the Planning Commission if supported.

B. Denial. If the Planning Commission does not support the proposed request, the Commission could recommend denial, which could be based on the following rationale:

1. Denying the Variance request does not preclude the applicant from reasonable use of the property as there is room on the property to comply with the location requirement and still operate the business.

2. Approval of the Variance request could set a precedent for other fence encroachments along Concord Boulevard.

3. The facts presented did not satisfy the criteria needed to show a practical difficulty on the lot to support granting a Variance. Allowing the six-foot fence within the front yard area appears to be a convenience to the property owner and not dictated by unique circumstances of the property.

RECOMMENDATION

Based on the information in the preceding report and the reasons listed in Alternative B, staff does not believe there is sufficient rationale to support the request and therefore recommends denial of the request for a Variance to allow a six-foot chain link fence within the front yard setback.

ATTACHMENTS

1. Zoning and Location Map
2. Narrative
3. Site Plan

Case No. 24-25V
6202 Concord Blvd

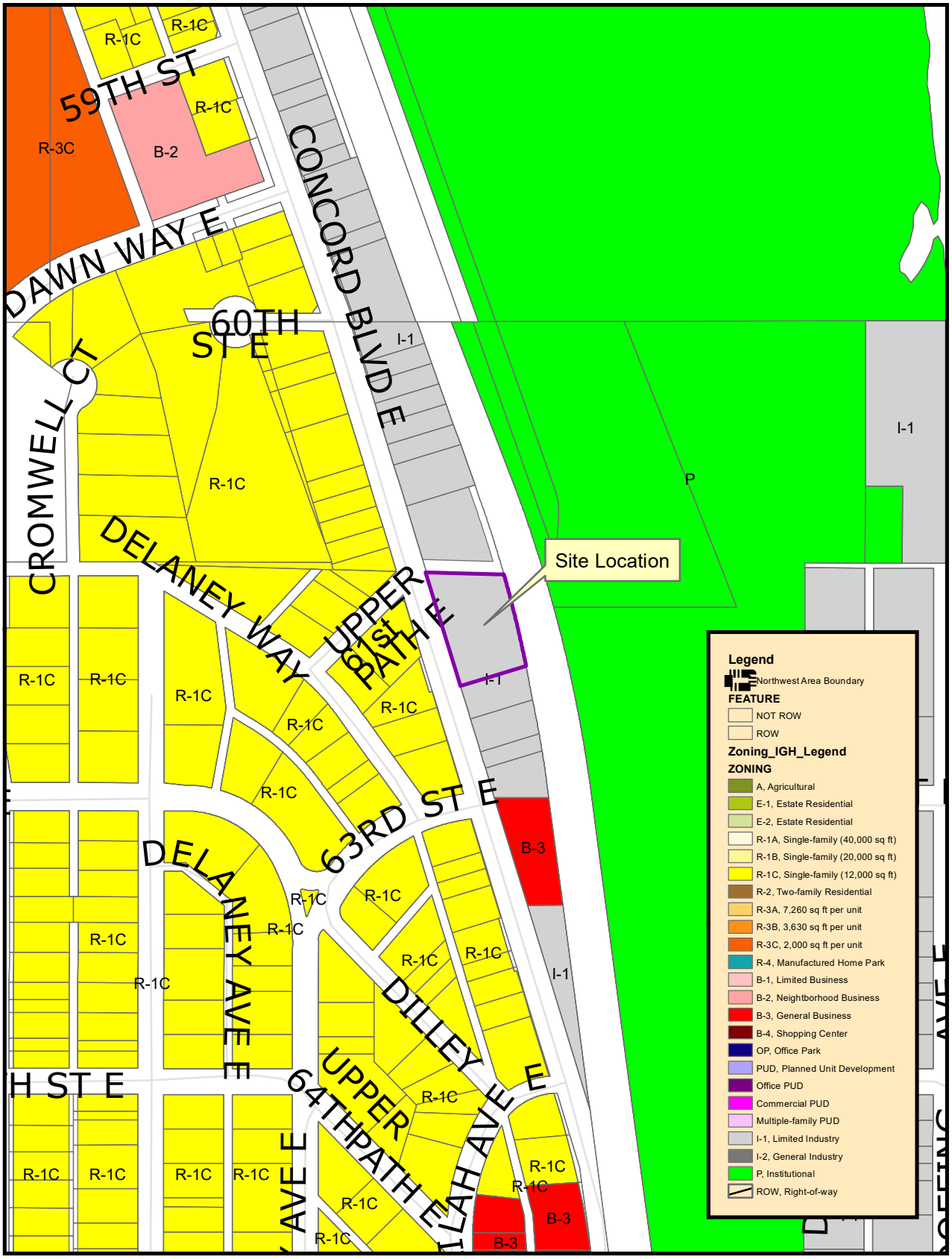

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Exhibit A

Zoning and Location Map

Narrative:

Landscapes Unlimited on 6202 Concord Blvd proposes to erect a six-foot-high black chain link fence as show on the attached diagram. The single gate and access from Concord would be open during business hours so as to not obstruct traffic visibility and allow traffic to enter and exit the facility with ease.

The gate would be set back 30 feet from the property line to allow a truck to park and open and/or close the gate without being on the sidewalk or road. With the gate being set back 30 feet from the sidewalk, it will allow good visibility for vehicles entering and exiting the property.

We are seeking a variance to erect the fence near the property line parallel to Concord blvd. at a height of six feet.

The purpose of the fence is to secure the property, building and equipment during hours when employees are not on site. A 48' high fence would not meet the needs to provide adequate security for the property.

The 30 feet set back requirement for the fence is not practical for operation of a landscape business for the following reasons.

1.) The business would have a 30 foot by 160 foot area along Concord that would not be usable space, essentially wasted space.
2.) If the fence were erected with the 30-foot set back, truck and trailers would not have adequate turning radius to safety turn and park.
3.) Reduced parking on site.

-Proposed fence in light blue

-30 foot set back

4.4 ft
Gate
Proposed Fence
Current parking for 17-18 vehicles
30' Setback
New parking with 30' set back fence
16-17 parking stalls
31'
Parking area for trucks and trailers
45'
6214
6212

Agenda Item 4.B.

Planning Commission Report

MEETING DATE:	August 7, 2024
CASE NO:	24-26V
APPLICANT:	Xcel Energy
PROPERTY OWNER:	Northern States Power Company
REQUEST:	Variance from Fence Height
LOCATION:	1260 105th Street
COMPREHENSIVE PLAN:	RDR, Rural Density Residential
ZONING:	A, Agricultural District
STAFF CONTACT:	Heather Botten, 651.450.2569

ACTION REQUESTED

The applicant is requesting the following:

- Variance to allow a ten-foot-tall chain link fence whereas seven feet is the maximum height allowed.

BACKGROUND

Xcel Energy is requesting a Variance from the maximum fence height to construct a ten-foot-tall, chain link security fence around the perimeter of the property located at 1260 105th Street. The maximum fence height allowed by City Code is seven feet. The additional three feet of fence height is being requested to enhance physical security measures to lessen overall vulnerability against physical attacks of the gas distribution facility.

EVALUATION OF REQUEST

SURROUNDING USES

The following land uses, zoning districts and comprehensive plan designations surround the subject property:

North	Rich Valley Park	Zoned: P, Public/Institutional	Guided: Public Open Space
West, East and South	Property Owned by Flint Hills and Large Lot Residential	Zoned: A, Agricultural District	Guided: Rural Density Residential

VARIANCE REVIEW

Title 10, Chapter 15, Section 12 states that the maximum fence height shall not exceed seven feet (7') in height. The applicant is proposing to construct a ten foot (10') tall chain link fence around the

perimeter of the property.

City Code Title 10, Chapter 3. Variances, states that the City Council may grant Variances when they are in harmony with the general purposes and intent of the Zoning Ordinance and consistent with the Comprehensive Plan and establishes that there are practical difficulties in complying with the official control. In order to grant the requested Variance, the City Code identifies criteria which are to be considered practical difficulties. The applicant's request is reviewed below against those criteria.

1. *The Variance request is in harmony with the general purpose and intent of the City Code and consistent with the Comprehensive Plan.*

The use of the property is an essential service, which is a permitted use in the Agricultural zoning district. The site is currently protected by a chain link fence. A taller fence with one inch chain link openings installed for security purposes appears to be in harmony with allowing essential service uses in residential areas.

2. *The property owner proposes to use the property in a reasonable manner not permitted by the Zoning Ordinance.*

The essential service use on the property of a gas distribution center has an existing chain link fence that is subject to security risks due to its height and size of the grid openings, which allows for easier scaling of the fence. The security upgrades include installing a new fence around the facility that will discourage unauthorized access; improve safety; and prevent damage to the equipment inside. There is no barbed wire proposed, only a 10-foot-tall fence with smaller opening chain link.

3. *The plight of the landowner is due to circumstances unique to the property not created by the landowner.*

The property is unique due to the proximity to Rich Valley Park and a proposed regional trail, which poses certain risks to both company assets and the safety and protection of the nearby community. The proposed ten-foot-tall fence would discourage unauthorized access, improve safety, and prevent damage to the equipment inside.

4. *The Variance will not alter the essential character of the locality.*

One of the functions of height requirements is the aesthetic qualities from street and neighboring views. Staff does not believe the additional height would alter the essential character of the neighborhood as the closest neighboring home is over 300 feet to the east and the closest use at the park is a parking lot located across Rich Valley Boulevard, over 100 feet away.

5. *Economic considerations alone do not constitute an undue hardship.*

Economic considerations do not appear to be a basis or a sole basis for this request.

ALTERNATIVES

The Planning Commission has the following actions available for the proposed request:

A. Approval. If the Planning Commission finds the request acceptable, the Commission should make the following recommendations:

- Approval of the Variance to allow a fence ten feet tall whereas seven feet is the maximum allowed by City Code subject to the following condition:

1. The fencing shall be consistent with the site plan on file with the Planning Department.

Rationale: The proposed ten-foot chain link fence does not appear to have an adverse impact on the neighborhood or affect visibility along 105th Street. The property's use is an essential service. The property is unique due to the proximity to Rich Valley Park and a proposed regional trail which pose certain risks to both the essential service use and the safety and protection of the nearby community.

B. Denial. If the Planning Commission does not support the request, the Commission could recommend denial of the proposed request. With a recommendation for denial, findings or the basis for the denial should be given.

RECOMMENDATION

Based on the information in the preceding report and the condition listed in Alternative A, staff is recommending approval of the Variance as presented.

ATTACHMENTS

1. Zoning and Location Map
2. Narrative
3. Site Plan

Case No. 24-26V
1260 105th Street

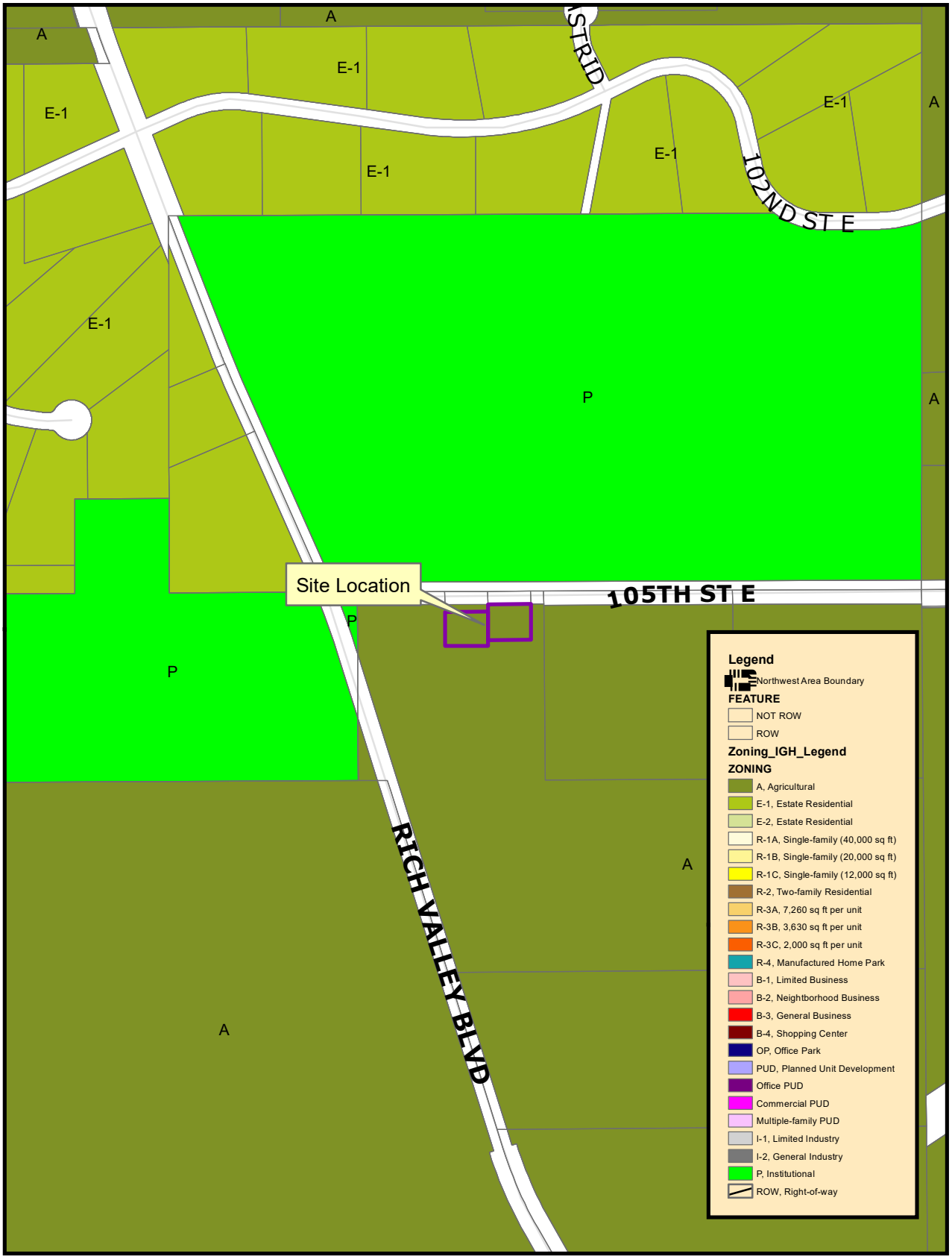

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Exhibit A

Zoning and Location Map

July 8th , 2024

Planning and City Council Members
City of Inver Grove Heights – Permits & Inspections
8150 Barbara Ave
Inver Grove Heights, MN 55077
Heather Botten and Jordan Doucette

Variance Request – Fence Height
Xcel Energy Gas Distribution Facility
Address: 1260 105th St E
PID: 200290075014 and 205120001010

To the Planning and City Council Members of Inver Grove Heights,

Ensuring the natural gas distribution system is secure from cyber and physical threats is a top priority for Xcel Energy and our partners across the natural gas industry. As advancements in technology is deployed, this responsibility grows. This technology uses several devices that are interconnected, and it is critical that we not only keep the devices secured, but also safeguard the connection and information being transmitted. Various security measures have been developed and are in place to help Xcel Energy deliver on our commitment to operational excellence.

To ensure the protection of employees, contractors, the general public, and company property and equipment Xcel Energy has adopted measures to ensure the safe operation of our facilities. The gas facility and the structures and devices that support the facility are an integral part to the delivery of gas to our customers. The risk of interrupted service and injury is high for unauthorized access to our equipment. Only specially trained and equipped personal may enter these areas.

In response to the obligation to increase security at our facilities, Xcel Energy implemented new fence standards for securing properties. The new fence standards increase the difficulty of gaining unlawful access into the property. Analysis has shown that increasing the fence height to 10' and limiting the mesh size to openings that are less than 1" increases the difficulty of scaling the fence - deterring unauthorized access into the property. Another safety consideration is the ability to visually survey the facility prior to entering the fenced area. In the case of an emergency or unlawful trespass first responders and Xcel Energy employees need the ability to evaluate the situation prior to entering the facility.

Recent inspections by Xcel Energy identified the need to implement security measures that will reduce the possibility of unauthorized access to the property and equipment located at 1260 105th St E. Located on the property are regulator stations the reduce pressure of the natural gas so that it can be safely used by businesses and residents in the community. Also located at the facility is a renewable gas facility, which inserts gas collected from the nearby landfill and inserts into the natural gas distribution system.

Xcel Energy is proposing to construct a new security fence around the facility with a height of 10'. The fence material will be 9-gauge galvanized chain link with 1" openings, The fence upgrades are part of Xcel Energy's comprehensive efforts to secure our gas facilities in the communities we serve. The specific provision in the City Code in which this variance is requested is 10-15-12, Section B: Yard Fences, Part 1: "All fences constructed in other areas than the front yard and corner lot side yard clearance areas may be no more than seven feet (7') in height." The 7' height standard is difficult to comply with as a 7' fence does not provide an adequate amount of security for a facility that has natural gas equipment and could prove to be dangerous to individuals who enter without necessary safety equipment or training. This variance is in harmony with the goals of the ordinance in maintaining the character of the area as well as to promote health safety and welfare of the public. The Comprehensive Plan of the city is also consistent with our request as the plan outlines the importance of utility upkeep to prevent community risk and environmental harm. By replacing the fence around our facility, we seek to maintain the community development standards of safety and community wellness.

Xcel Energy (Northern States Power Co.) is the owner of this property. The contact information for Xcel is an address of 414 Nicollet Mall, Minneapolis, MN 55401, and a phone number of 612.216.9229. The property is rectangular in shape and approximately 6,750 square ft. in size. The legal description is attached.

The property is bounded by 105th Street E to the north, and agricultural fields to the west and south, and a proposed regional trail to the east and large lot residential beyond the trail. North of 105th Street E is the Rich Valley Athletic complex, which brings in large amounts of pedestrian traffic. A new regional trail is proposed to be constructed to the east of the facility, increasing the visibility and access to the facility. Currently, the existing chain link fence is approximately 7' tall and is subject to security risks due to its height and size of the grid openings that allows for easier scaling of the fence. The security upgrades include installing a new fence around the facility that will discourage unauthorized access; improve safety; and prevent damage to the equipment inside. The situation is unique to our facility because as a gas distribution center, there are multiple ways in which unauthorized individuals could disrupt the supply of natural gas and could cause injury to themselves. This property's proximity to a large athletic facility and regional trail, poses certain risks to both company assets and the safety and protection of the nearby community. The practical difficulty that exists at this location is the concern of safety and security. With plentiful pedestrian and vehicular traffic nearby, there is risk to the facility and Xcel Energy employees and the public with the current fence in place. The grant of a variance will not diminish the essential character of the surrounding properties. There is already an existing chain link fence on the property, and upgrading to a slightly taller and newer fence would promote the health, safety and welfare of the community and improve the aesthetic quality of the property. With farm and athletic fields to the south, west and north and a new pedestrian trail separating the residential use to the east, the essential character of the neighborhood will not change and impacts to surrounding properties is minimal.

The estimated valued of the fence improvements is approximately $45,000 for all construction materials and labor costs. Overall, Xcel Energy is requesting the following variance to the fence ordinance.

- Replace the existing fence with a 10 foot, 9-gauge fence. The fence will be constructed with of 11-gauge, 1" Galvanized Diamond Mesh Chain-Link. Fence flashing is to be 24 GA with a 1" hem top and bottom mounted outside of fence on top. All pipe material is SCH. 40. All gate connections are welded and designed to open outward. There will be a pipe/tension bar installed to fill the gap between the gate and gate post. Crushed rock will be placed up to the fence along both sides of the entire perimeter to prevent the entrance of small animals to the facility. Xcel Energy requests that the variance lasts for the life of the gas facility..

The existing gas facility is an approved use and is an essential service that supplies natural gas to the business and residents of Inver Grove Heights and the surrounding communities. The security upgrades proposed will help ensure the safety of the public and employees of Xcel Energy; and help provide safe and reliable power for years to come. Attached for your review and approval is variance application, site plan and photos of the property. Xcel Energy respectfully requests your approval of our variance request.

Furthermore, this facility will be maintained and inspected at regular intervals and operated to ensure reliable delivery of natural gas and this fence will be able to have regularly scheduled maintenance checkups to ensure the secureness of the area, repair any potential damages, and do regular upkeep of the facility.

The three conditions of uniqueness to the property, the project remaining consistent with public interest, and lack of reasonable use without the variance are covered in our project description. In terms of being unique to the property, the site contains an essential service. With the implementation of new security standards and the construction of a new trail near the property, there is a strong need to secure the property. This project is not contrary to the public interest as the proposed facility supports these interests by providing safe and reliable nature gas to the surrounding community. By adding a 10' fence, Xcel seeks to further protect the public interests of safety, security, and reliability of an essential service. Last, there is no reasonable use of the land without the variance. Without the ability to prevent unlawful access the facility, the reasonable use of the land as an essential service and protecting the facility from unlawful access is non-existent. Not only does this fence provide secureness for our facility, but it promotes community safety and increased insurance of protection from potentially harmful machinery that exists within a natural gas facility. It is paramount to keep this area safe and protected, hence the need for a 10' fence.

Regards,

Sydney Gabriel
Xcel Energy Siting and Land Rights
P: (612) 216-9229
E: sydney.gabriel@xcelenergy.com

Brian Sullivan
Siting and Land Rights
P: 612.216.8083 | C:612.366.0234
E: brian.e.sullivan@xcelenergy.com

Legal Description of the Property

That part of the N 1/2 N 1/2 SE 1/4 of Section 29, Township 27 North, Range 22 West, Dakota County, Minnesota, described as follows:

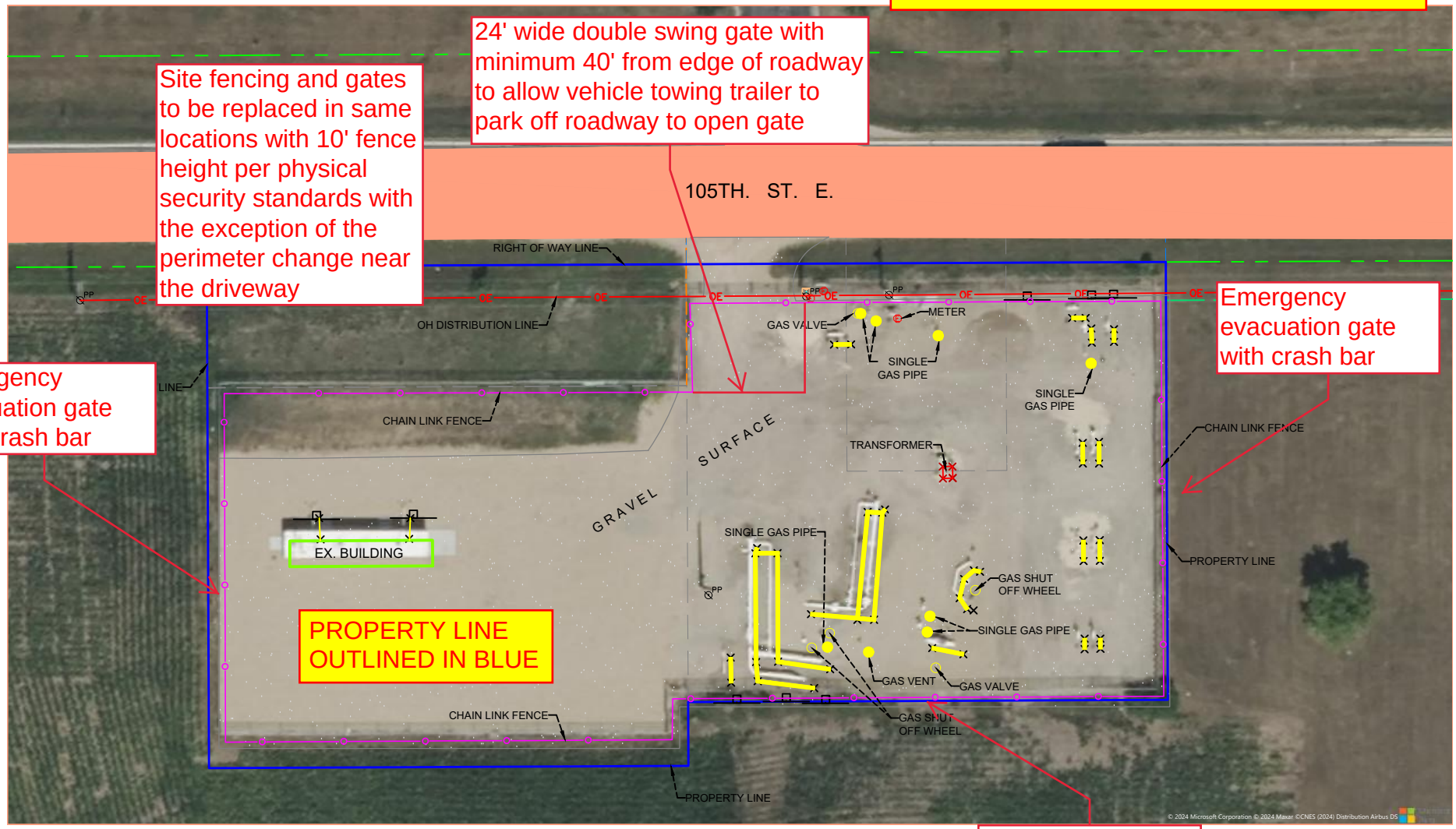
Beginning at a point on the North line of said Southeast Quarter a distance of 1365.00 feet West of the East Quarter corner of said Section 29; thence South perpendicular to said North line 170.00 feet; thence West and parallel with said North line 150.00 feet; thence North perpendicular to said North line 170.00 feet; thence East along said North line 50 feet; thence South perpendicular to said North line 98 feet; thence East and parallel to said North line 50 feet; thence North perpendicular to said North line 98 feet; thence East to the point of beginning, subject to County Road No. 73 over the Northerly 45 feet thereof.

and

Lot 1 Block 1, NSP Rich Valley Station, Dakota County MN

PID NO.: 20-02900-75-014
20-51200-01-010

ADDRESS: 1260 105 ST. E.
INVER GROVE HEIGHTS,
MN 55077



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Agenda Item 4.C.

Planning Commission Report

MEETING DATE:	August 7, 2024
CASE NO:	24-22PAZ
APPLICANT:	National Land Holdings, LLC
PROPERTY OWNER:	Thomas & Deborah Lund, and M&E Investments, LLC
REQUEST:	Comprehensive Plan Amendment and Rezoning
LOCATION:	6470 & 6680 S. Robert Trail and 1401 70th Street E.
COMPREHENSIVE PLAN:	LDR, Low Density Residential and LMDR, Low-Medium Density Residential
ZONING:	A, Agricultural
STAFF CONTACT:	Allan Hunting, 651.450.2554

ACTION REQUESTED

The request consists of the following:

- Comprehensive Plan Amendment to change a portion of the land use to HDR, High Density Residential and Public/Institutional.
- Rezoning the single-family area to R-1C PUD, the townhome area to R-3B PUD, the apartment area to R-3C PUD and Public Institutional for the park areas.

BACKGROUND

The applicant is proposing to amend the Comprehensive Plan land use plan and Rezoning of three parcels containing approximately 108 acres located on the east side of South Robert (Highway 3) between 70th Street and 65th Street.

The proposed changes to the land use and zoning on the parcels are based on a concept plan consisting of 524 apartments, 145 townhome units and 83 single family lots. Densities in the individual neighborhoods would range from 2.4 units per acre up to 25.2 units per acre. The overall density of the project would be just over 8 units per acre.

The street network would include extensions of Allen Way and Angus Avenue as the main north-south roads and construct portions of 65th Street consistent with the 65th Street Small Area Plan that the City Council adopted in May 2024.

If the Comprehensive Plan Amendment is successful, an application for platting and planned unit development for the project will be required before development can occur. This subsequent process provides for public review and comment on the actual site plan.

SURROUNDING USES
The subject property is surrounded by:

North	Large Lot Residential	Zoned: A, Agricultural	Guided: LDR, Low Density Residential
East	Large Lot Residential	Zoned: E-1, Estate District	Guided: LDR, Low Density Residential
West	Large Lot Residential / Vacant, Single-Family Residential	Zoned: A, Agricultural, PUD, Planned Unit Development	Guided: MDR, Medium Density Residential; HDR, High Density Residential; Mixed Use; and LMDR, Low-Medium Density Residential
South	Large Lot Residential, Single-Family Residential	Zoned: A, Agricultural, PUD, Planned Unit Development	Guided: LDR, Low Density Residential; LMDR, Low-Medium Density Residential; and Mixed Use

EVALUATION OF REQUEST

COMPREHENSIVE PLAN AMENDMENT REVIEW

The subject parcels are currently guided LDR, Low Density Residential and LMDR, Low-Medium Density Residential. In 2022, the city received a land use application from the Summergate group proposing a Comprehensive Plan Amendment to change to LDR, Low Density Residential for the entire M&E Investments parcel (1401 70th Street East). The City Council approved a resolution on January 24, 2022, approving the change but with the condition that the Comprehensive Plan change would only go into effect once a Rezoning and PUD Development Plan was also approved by the city. The applicant never submitted a Rezoning or PUD plan request and therefore the existing land use designation of LMDR, Low-Medium Density Residential, still stands for the M&E Investments parcel (1401 70th Street East).

LDR, Low Density Residential is defined in the 2040 Comprehensive Plan as follows:

“The low-density residential category encompasses traditional “urban” density development in Inver Grove Heights. LDR includes lots or parcels ranging from 1 unit per acre to 4 units per net acre. Substantial portions of the low-density residential area are anticipated to develop at a density of two-three units per net acre. Housing types in the low-density residential category include single-family detached homes, twin units and lower density, townhome-style developments. In all cases, low-density residential development will be served by public water and sanitary sewer systems.”

Low-Medium Density Residential is defined in the 2040 Comprehensive Plan as:

“The low-medium density residential category includes a combination of single family attached, and single family detached housing that is generally at a greater density than traditional single family housing in Inver Grove Heights. Density of the LMDR category ranges from 4 to 8 units per net acre. This land use category is principally isolated to the Northwest Area."

Along with proposing to maintain some of the existing LMDR, Low-Medium Density Residential category, the applicant is proposing to guide the areas where the higher density would be to HDR,

High Density Residential.

High Density Residential is defined in the 2040 Comprehensive Plan as:

“Areas designated as high density residential are intended to accommodate multi-family housing at densities exceeding 12 units per net acre. Uses in this category will be principally limited to higher density apartment or condominium buildings for either general occupancy or for specific segments of the population such as senior housing.”

The two areas planned for public parks would be guided Public/Institutional.

This area of the city is located in the Future Development Area as defined in the 2040 Comprehensive Plan. Some of the policies listed in the Comprehensive Plan that appear relevant to this proposal include:

- Create a quality living environment that is adapted to the natural environment.
- Establish a collector road system that deters the use of local streets for non-local vehicular trips.
- Establish a local street system that deters the use of collector and arterial streets for local vehicular trips.
- Require that future street alignments fit the contours of the natural landscape.
- Encourage diverse housing styles consistent with the inherent characteristics of the site.
- Encourage development that incorporates natural features as integral elements of the residential environment.
- Encourage cluster development practices that preserve significant natural resources by concentrating on building locations.

<u>REZONING REVIEW</u>
The applicant is proposing to Rezone the land consistent with the proposed Comprehensive Plan Amendment.

The proposed Rezonings include R-3C, Multiple Family/Planned Unit Development, R-3B, Multiple Family/Planned Unit Development, R-1C, Single Family/Planned Unit Development and Public Institutional for the park areas.

The two apartment complex areas in the northwest and south central part of the lot are proposed R-3C/PUD to match the density and product type for apartments. The north central part of the lot is proposed R-3B/PUD to match the density and product type of townhomes, and the eastern boundary is proposed R-1C/PUD to match the density and product type of detached single family homes.

The City Code, Title 10-3-5 states that a rezoning request must be “in the best interest of the physical development of the City” in order to be approved. This suggests that the request should be reviewed against such factors as infrastructure availability; compatibility with existing land uses in the neighborhood; and consistency with the Comprehensive Plan.

- Sewer and water are available to the site from Allen Way. Further extension and water looping would be required as the parcel develops.
- The site is designed to provide a transition between density and open space from the lowest density with border open space abutting the existing large lot residential on the east to the townhouse to higher density apartments on the west side closest to the busiest roads

(Highway 3) and across the street from future guided medium density and a higher density development.
- The proposed rezoning would be consistent with the proposed Comprehensive Plan land use changes.

ALTERNATIVES
The Planning Commission has the following alternatives available for the proposed request:

A. Approval. If the Planning Commission finds the application acceptable, the Commission should make the following recommendations:

- Approving the Comprehensive Plan Amendment from LDR and portions of existing LMDR to HDR and Public Institutional subject to the following conditions:

  1. The Metropolitan Council shall not require any significant modifications to the Comprehensive Plan Amendment.

  2. The Metropolitan Council shall not make a finding that the Comprehensive Plan Amendment has a substantial impact or contains a substantial departure from any metropolitan systems plan.

- Approving the Rezoning from A, Agricultural to R-1C/PUD, Single Family Residential PUD, R-3B/PUD, Multiple Family Residental PUD, R-3C/PUD Multiple Family Residential PUD and P/PUD, Institutional PUD.

B. Denial. If the Planning Commission does not favor the Comprehensive Plan Amendment and Rezoning, a recommendation of denial should be forwarded to the City Council. With a recommendation of denial, findings or the basis for the denial should be given.

RECOMMENDATION
This report provides definitions of the existing and proposed Comprehensive Plan land use designations and lists the relevant policies for the Future Development Area of the city as defined in the 2040 Comprehensive Plan. The existing development pattern is a mix of medium density detached single family to rural density subdivision on 2.5 acre lots to large lot residential. The Canvas project to the south on the west side of the project area has an apartment building approved as part of the preliminary PUD so some of the proposed densities would be consistent with the unit type pattern already approved. This project would include continuation of north-south collector roads that will eventually provide access to the properties to the north and the construction of portions of 65th Street consistent with the approved 65th Street Small Area Plan.

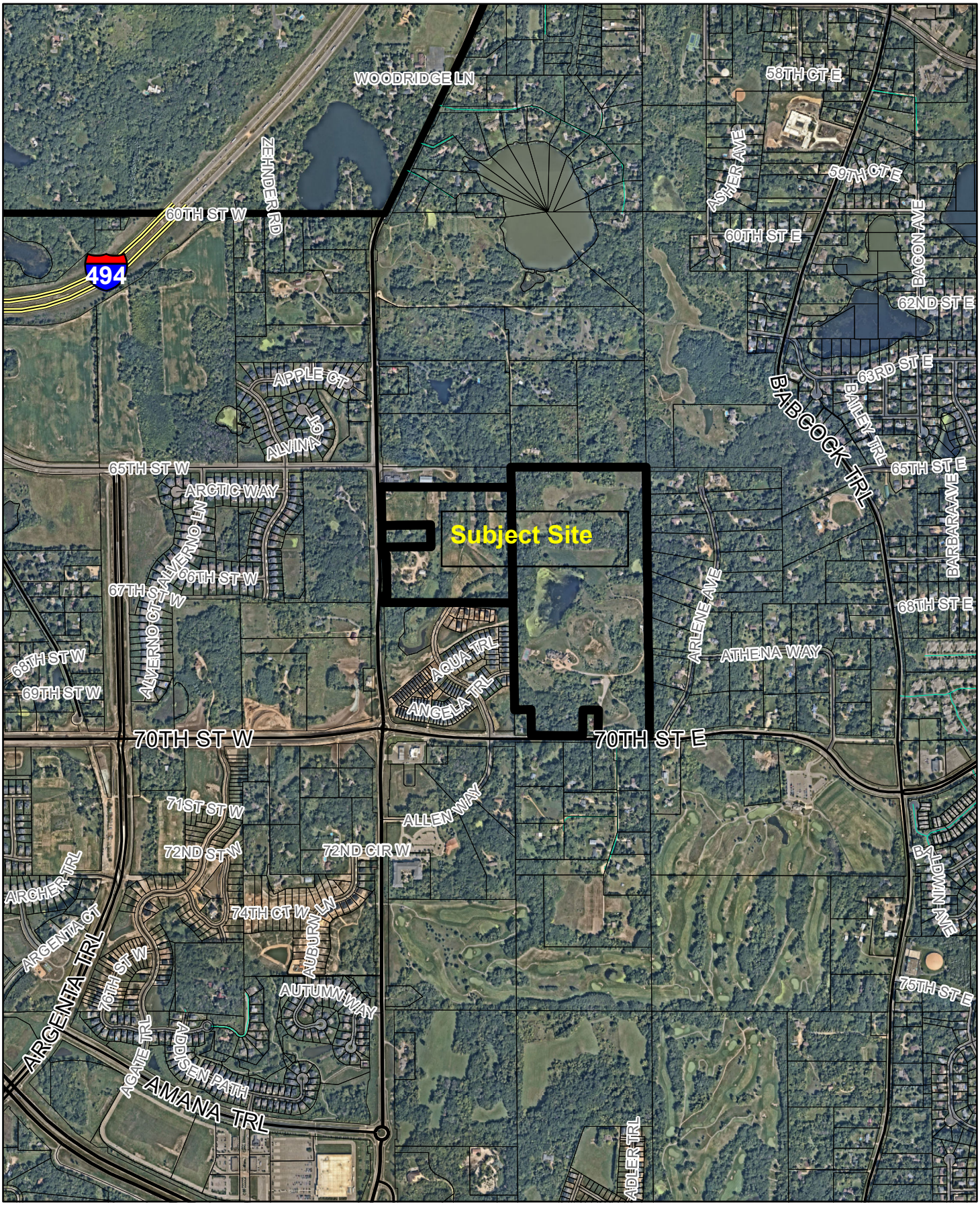
The concept of the land use designations seems to fit other policies in the Comprehensive Plan addressing open space, preserving and developing to the nature of the land. The street system would be consistent with the Allen Way collector by having no direct individual driveway access.

Staff feels this proposal takes into account the surrounding existing land uses, street networks, providing public park space and working around the existing features of the site plus providing a buffer/unit type transition to the rural subdivision to the east.

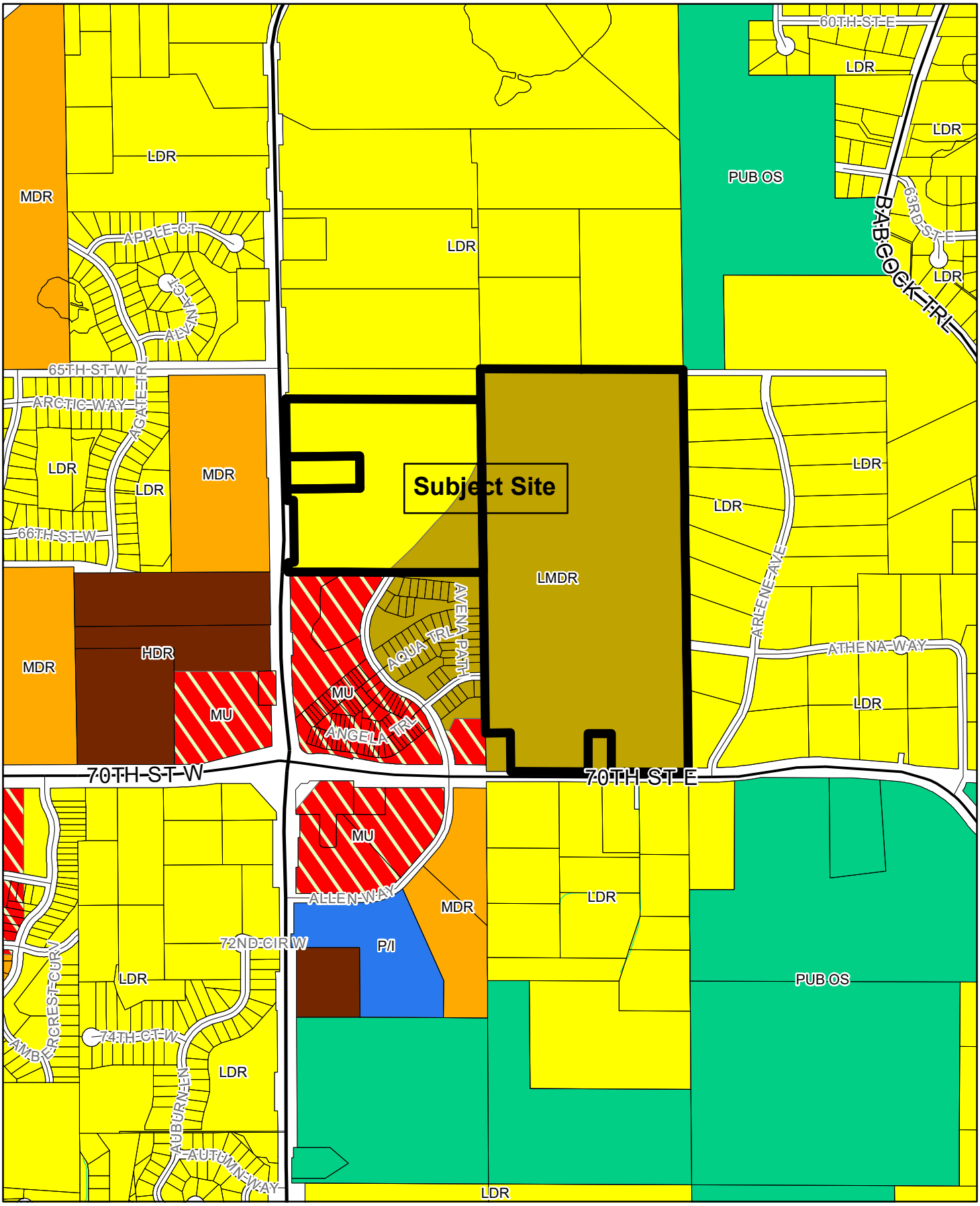
ATTACHMENTS

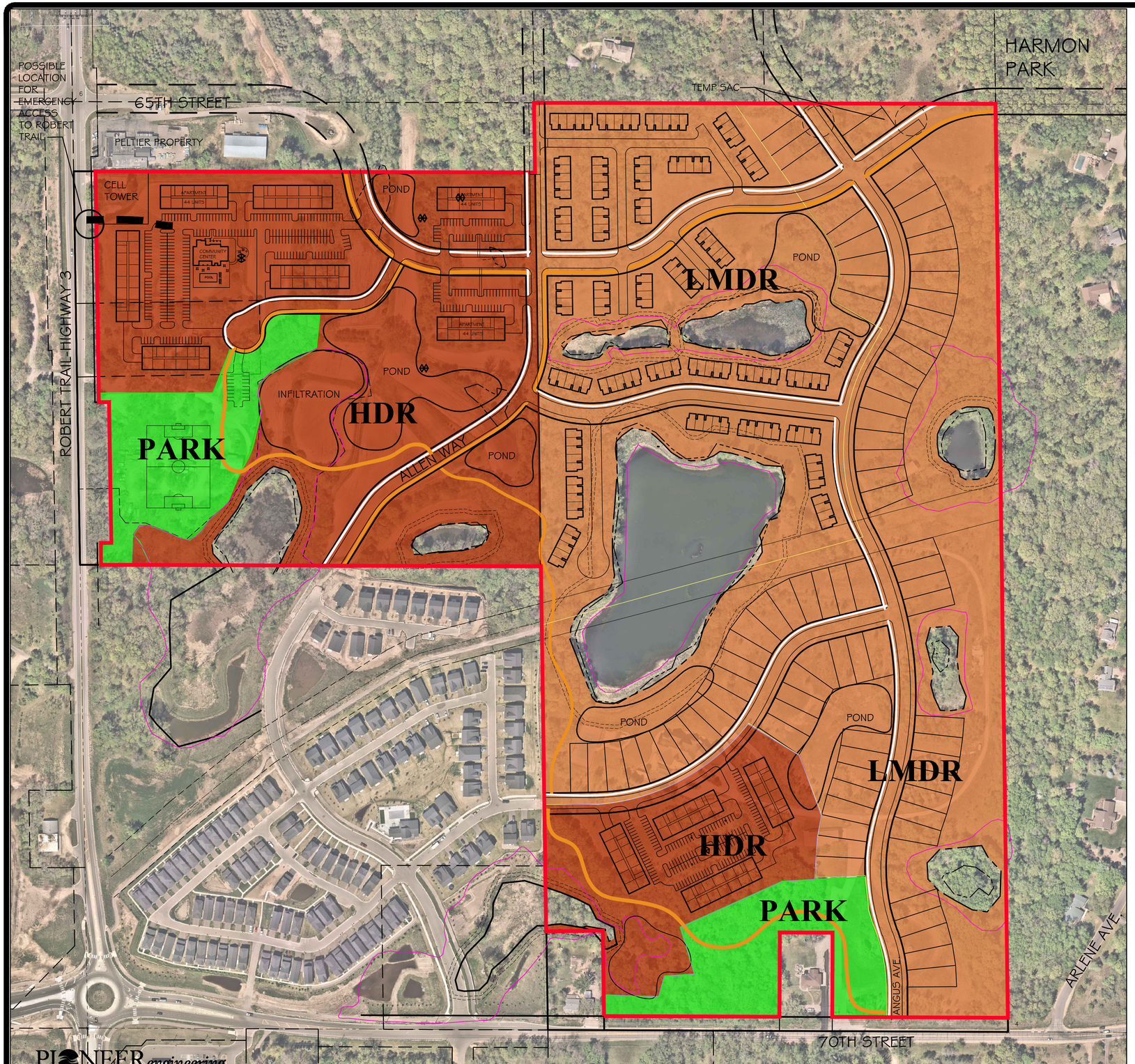
1. Location Map
2. Existing Comprehensive Plan Map
3. Proposed Comprehensive Plan Map
4. Proposed Rezoning Map
5. Concept Plan
6. Applicant Narrative
7. Applicant Provided Examples of Building Types

Location Map
Case No. 24-22PAZ



Existing Comprehensive Plan Map
Case No. 24-22PAZ





SITE DATA:

PROJECT AREA: ±108 ACRES GROSS (±77 ACRES ME, ±31 ACRES LUND)
WETLAND: 11 ACES
CELL TOWER AREA: ±0.5 ACRE
DEDICATED PARK: ±8 ACRES (UPLAND ONLY, WETLANDS AND BASINS EXCLUDED)

NET DEVELOPABLE AREA: ±88.5 ACRES

CURRENT ZONING: AG
2040 GUIDE PLAN: LOW DENSITY (1-4 UNITS/ACRE) LUND AND LOW-MEDIUM DENSITY (4-8 UNITS/ACRE) ME PROPERTY AND SOUTHEAST CORNER OF LUND PROPERTY

PROPOSED ZONING: PUD NORTHWEST AREA (R-1C, R-3B, R-3C)

PROPOSED UNITS: 752
APARTMENTS LUND PROPERTY: 340
APARTMENTS ME PROPERTY: 184
TOWNHOME UNITS: 145
50' WIDE SINGLE FAMILY: 83

PROPOSED LAND USE WITHIN EACH PRODUCT AREA
(NET AREAS EXCLUDE WETLANDS AND DEDICATED PARK)

HIGH DENSITY RESIDENTIAL (12+ UNITS/ACRE)
LUND APARTMENTS
NET AREA: ±25.8 ACRES
UNITS: ±340
NET DENSITY: ±13.1 UNITS/ACRE

HIGH DENSITY RESIDENTIAL (12+ UNITS/ACRE)
ME APARTMENTS
NET AREA: 7.3 ACRES
UNITS: ±184
NET DENSITY: 25.2 UNITS/ACRE

LOW-MEDIUM DENSITY RESIDENTIAL (4-8 UNITS/ACRE)
THE CURRENT LAND USE; NO AMENDMENT IN THIS AREA
SINGLE FAMILY AND ROW TOWNHOMES
NET AREA: 55.4 ACRES
UNITS: ±228
NET DENSITY: 4.1 UNITS/ACRE

PUBLIC PARKS AND OPEN SPACE (±4 ACRES ON WEST SIDE, ±4 ACRES ON EAST)

PROJECT AREA
REGIONAL BASIN
ESTIMATED WETLAND
PROPOSED TRAIL

N

0 75 150 300
GRAPHIC SCALE IN FEET

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date

Revisions
7-23-2024 adjusted land use boundaries

Date	6-17-2024
Designed	JLT
Drawn	JLT

LAND USE PLAN

NATIONAL LAND HOLDINGS, LLC

INVER WOOD VILLAGE
INVER GROVE HEIGHTS, MINNESOTA

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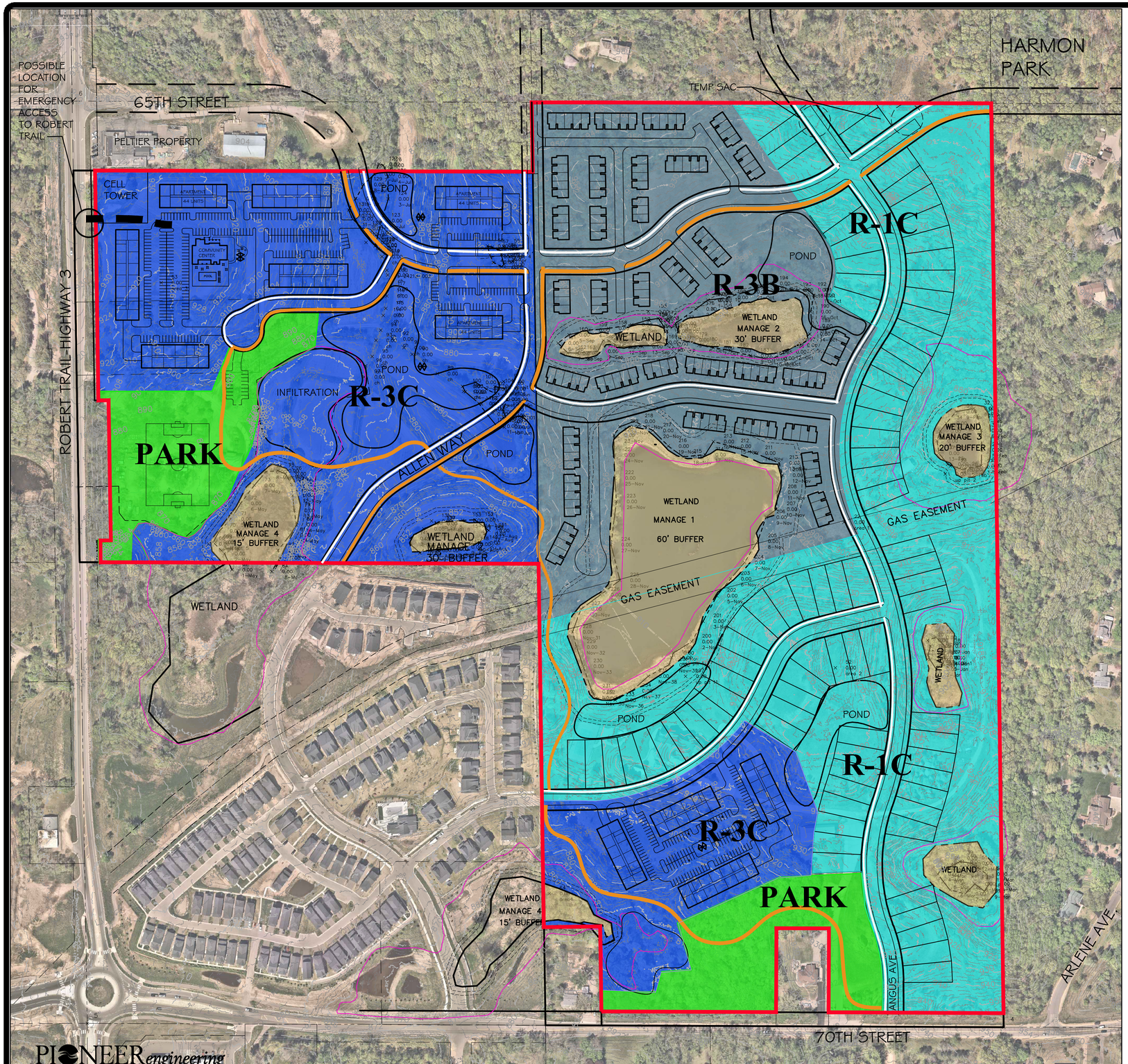


SITE DATA:

PROJECT AREA: ±108 ACRES GROSS (±77 ACRES ME, ±31 ACRES LUND)
WETLAND: 11 ACES
CELL TOWER AREA: ±0.5 ACRE
DEDICATED PARK: ±8 ACRES (UPLAND ONLY, WETLANDS AND BASINS EXCLUDED)

NET DEVELOPABLE AREA: ±88.5 ACRES

CURRENT ZONING: AG
2040 GUIDE PLAN: LOW DENSITY (1-4 UNITS/ACRE) LUND AND LOW-MEDIUM DENSITY (4-8 UNITS/ACRE) ME PROPERTY AND SOUTHEAST CORNER OF LUND PROPERTY

PROPOSED ZONING: PUD NORTHWEST AREA (R-1C, R-3B, R-3C)

PROPOSED UNITS: 752
APARTMENTS LUND PROPERTY: 340
APARTMENTS ME PROPERTY: 184
TOWNHOME UNITS: 145
50' WIDE SINGLE FAMILY: 83

ZONING WITHIN EACH PRODUCT AREA (NET AREAS EXCLUDE WETLANDS AND DEDICATED PARK)

R-3C (PUD NW AREA)
LUND APARTMENTS
NET AREA: ±25.8 ACRES
UNITS: 340

R-3C (PUD NW AREA)
ME APARTMENTS
NET AREA: 7.3 ACRES
UNITS: 184

R-3B (PUD NW AREA)
ROW TOWNHOMES
NET AREA: 20.9 ACRES
UNITS: 145

R-1C (PUD NW AREA)
SINGLE FAMILY DETACHED
NET AREA: 34.5 ACRES
LOTS: 83

P PUBLIC INSTITUTIONAL
PARK (±4 ACRES ON WEST SIDE, ±4 ACRES ON EAST)

OPEN SPACE EXCLUDING DEDICATED PARK: ±40 ACRES
20% OPEN SPACE REQUIRED FOR NORTHWEST AREA PUD
(APPROX 22 ACRES REQUIRED)

N

0 75 150 300
GRAPHIC SCALE IN FEET

PROJECT AREA
REGIONAL BASIN
ESTIMATED WETLAND
PROPOSED TRAIL

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota

Name Jennifer L. Thompson
Reg. No. 44763 Date

Revisions
7-23-2024-adjusted road aligment on site plan

Date	6-17-2024
Designed	JLT
Drawn	JLT

ZONING MAP

NATIONAL LAND HOLDINGS, LLC

INVER WOOD VILLAGE
INVER GROVE HEIGHTS, MINNESOTA

© 2021 Pioneer Engineering, P.A.

INVER WOOD VILLAGE

Inver Grove Heights, Minnesota

Site Data:
Net Developable Area: 88.5 Acres

Proposed Units: 752
Single Family: 83
Townhomes: 145
Apartments: 524
Overall Net Density: 8.5 Units/Acre

Concept plan is for illustration purposes only and subject to change.

PIONEER engineering

CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS

MENDOTA HEIGHTS
CORPORATE OFFICE
2422 Enterprise Drive
Mendota Heights, MN 55120
phone (651) 681-1914
fax (651) 681-9488

www.pioneereng.com

Date: June 17, 2024

To: City of Inver Grove Heights

From: Pioneer Engineering, Inc. John Molinaro, President
National Land Holdings, LLC (the "Developer")

Re: Inver Hills Village
Lund and M&E Properties Comprehensive Plan Amendment and Re-Zoning
6570 South Robert Trail Inver Grove Heights, MN 55077
6680 South Robert Trail Inver Grove Heights, MN 55077
1401 70th Street East, Inver Grove Heights, MN 55077

Thank you for taking the time to review this application for amendment of the City's Comprehensive Plan and rezoning.

The Properties

The project area consists of approximately 31 gross acres on the Lund property and 77 acres on the M&E property for a total of 108 acres. Land parcels are located on the east side of Highway 3 and north of 70th Street. This property is directly north of the newly platted Canvas at Inver Grove Heights development and west of Inver Grove Acres. Parcels are comprised of rolling terrain with areas of woodland, regional basins, and wetlands.

Comprehensive Plan

The project plan addresses a number of objectives identified in planning for development of the Northwest Area which were incorporated in the City's 2040 Comprehensive Plan.

- Utilize recent investments in sewer and water infrastructure;
- Update and adjust land uses based on development constraints, property owner interests, capital improvement costs and market conditions;
- Guide development to ensure infrastructure investments are adequately funded;
- Utilize Planned Unit Development Process (PUD);
- Focus new development within the Northwest Area while ensuring that mitigation measures preserve and protect the environment;
- Continue implementing the Northwest Area zoning ordinances as a model for innovative stormwater management and development patterns;
- Manage stormwater within the development utilizing infiltration methods;
- Provide for a fair and reasonable open space pattern;

- Acquire parks in the Northwest Area for new planned residential growth, including neighborhood parks; and
- Provide trail connections to open space, parks, and regional trail system.

Land Use

The property currently has two land use designations. The majority of the site north of Allen Way on the Lund property is low density residential allowing 1-4 units/acre. However, staff recommended higher density in close proximity to Robert Trail. The entirety of the M & E property and the far southeast corner of the Lund property are designated low-medium density residential allowing 4-8 units/acre. This application is requesting a Comprehensive Plan amendment allowing different land use designations throughout the project area. Single family homes will fall into low density (1-4 units/acre), the townhome area will remain at low-medium density (4-8 units/acre), and the two apartment areas will be high density residential (12+ units/acre).

We understand the City has recently approved Comprehensive Plan amendments to reguide a number properties in the Northwest Area to lower density than designated in the Comprehensive Plan. This was due to physical constraints of the rolling, wooded Northwest Area that has regional basins and wetlands, but also due to the market demands of the past 10-15 years. The Developer proposes to increase the density for portions of the property as there is demand in this market for higher density apartments in addition to townhomes and single-family lots creating a mixed-use development with life cycle housing suitable for several demographics. Sewer capacity studies are completed and the concept plan is within sewer capacity limits.

Proposed land use designations are depicted on the submitted concept plan. Apartments border Highway 3 to the west, a commercial property and ultimately 65th Street to the north. Apartments shown on the M&E property are located north of 70th Street. The south end of the Lund property proposes a large buffer comprised of open space, dedicated park, and wetlands providing separation to the Canvas development. The eastern portion of the development provides a buffer of land between the proposed single family homes and the existing single family homes in Inver Grove Acres.

Zoning

As part of the Northwest Area, the developer is submitting an application for a rezoning to PUD, as required. Proposed is an overlay of the PUD onto zoning districts most suitable for the underlying products and Comprehensive Plan land uses. The Developer is requesting rezoning the single family area to R-1C PUD, the townhomes to R-3B PUD, and the apartments to R-3C PUD. The goal of the concept plan is to create mixed-use neighborhood fully compliant with the letter of both the zoning ordinance and the comprehensive plan.

Infrastructure
The property is served by sewer and water extension from the south through the Canvas development. It has been determined by the City engineer and third-party consulting engineer that there is infrastructure capacity to serve 340 units on the Lund property and 412 units on the M & E property. Sanitary sewer is entirely gravity, and no lift stations are anticipated.

Allen Way will continue north from Canvas to the proposed 65th street extension. A sidewalk and a trail abut Allen Way.

The 65th Street Extension has been discussed for many years. After substantial discussion with City staff, Planning Commission, City Council, and area residents, the City determined the best alignment options for a future 65th Street extension is from the intersection at Robert Trail following the natural contours of the land through the development to the northeast corner of the M&E property on the south side of Harmon Park. Right of way for 65th Street is proposed at 74-feet in width, starting at the intersection north of the Peltier property on Robert Trail and continuing east past the commercial buildings. It will extend through the Lund property to the east, through the northerly portion of the project, and then to the northeast corner of the project area. This road will have limited individual driveway access and will conform to all City engineering standards for a collector road including minimum curve radii. A trail is proposed on one side of 65th Street and a sidewalk on the other side.

Park and Open Space
As part of a PUD in the Northwest Area, a minimum of 20% is required open space. The site plan exceeds this requirement. Substantial open space is proposed along the eastern boundary and southern Lund boundary adjacent to Canvas. Trails are situated along the future 65th alignment and are extended to the trails and sidewalks on Allen Way in Canvas to 65th Street. In addition to the trails along the right of way (ROW), an interior trail will connect the two public park areas.

Based on a number of meetings with City Staff and the Parks Director, the Developer has proposed dedication of public parks in two locations within the project as follows: (a) approximately 4-acres on the Lund property along Highway 3; and approximately 4-acres on the south end of the M&E property along 70th Street. Parks will be dedicated to the City and open to the public. Programming and design for these parks is the responsibility of the City.

Product
Apartments
Proposed are high-quality market rate apartments with underground parking and EV charging stations including features typical of new construction in the market area. Examples of completed apartment developments are included in the application. Proposed are 1-3 bedrooms appealing to professionals and senior residents desiring single level living with substantial amenities.

Townhomes and Villas

Townhomes and villas are 2-3 level buildings with attached 2-car garages. The demographic attracted to these products are families seniors, and professionals. Examples of previously completed developments are included in the application.

Single Family

The Developer is in discussions with third-party builders to construct the single-family and villas homes. Examples are included in the application.

We appreciate the City's time in reviewing our application and look forward to working with the City on this new neighborhood.

4866-2479-0217, v. 2

1634
1638

LP
LINCOLN PARC
Luxury Apartment Homes
Executive Office Suites
12100 Singletree Lane

RETAIL
RETAIL

WYNGATE
AT MAPLEWOOD

Agenda Item 5.A.

Planning Commission Report

MEETING DATE:	August 7, 2024
CASE NO:	24-24PUD
APPLICANT:	Stuart Development Corporation
PROPERTY OWNER:	GlenLin Properties, LLC
REQUEST:	Final Plat and Final PUD Development Plan
LOCATION:	7101 Argenta Trail
COMPREHENSIVE PLAN:	Mixed Use
ZONING:	R-3C/PUD and B-3/PUD
STAFF CONTACT:	Allan Hunting, 651.450.2554

ACTION REQUESTED

The applicant is requesting the following:

- Final Plat and Final Development Plan for the plat of Archer Trail.

BACKGROUND

An application has been submitted for the Final Plat and Final Development Plan for the plat of Archer Trail. The project consists of 159 townhome lots and one outlot for future commercial development.

The City Council approved the Preliminary Plat and development plans on April 24, 2024.

EVALUATION OF REQUEST

The final plan review is limited to a review of the plans against the preliminary plat conditions of approval for compliance. The review will address each of the 17 conditions. A copy of the resolution approving the preliminary plans, including the conditions, is attached.

Condition #1 Relating to Consistency with Preliminary Plans. The submitted final plans are consistent with the preliminary plans approved by the City Council except in one area. One block of townhomes has been modified in the southwest corner of the site. The preliminary plat identified a four-unit building in the southwest corner of the site. The final plan set contains a six-unit building at this location. The unit increase brings the total unit count from 157 to 159. Section 10-13J-5 of the Northwest Area Overlay District contains a provision by which the City Council can approve the total number and location of housing units and housing types for a specific property through the final PUD approval. The two unit increase is a minor change that council can approve with the final PUD. Staff have no issues with the two unit count increase. All other plans are consistent with the preliminary plans. Condition has been satisfied.

Condition #2 Relating to Approval of the Final Grading, Drainage and Erosion Control Plans. The plans are consistent with the preliminary plans. Engineering has reviewed with some minor changes still to be approved. These plans will be finalized at the time of Council approval. Condition has been satisfied.

Condition #3 Relating to Approved Flexibility. The final plans are consistent with the flexibility granted for setbacks and building coverage. Condition has been satisfied.

Condition #4 Relating to Drainage and Utility Easements on the Final Plat. Engineering has made comments regarding some of the internal drainage and utility easements that were shown on the preliminary plat. Since many of the internal sewer, water and streets are private, no public easements are needed and these have been removed on the final plat. Condition has been satisfied.

Condition #5 Relating to Boundaries of Open Space with Marker Posts. Engineering has created a post and sign template for developers to use to mark the open space boundary. The final location of the posts will be approved by Engineering and will be field inspected.

Condition #6 Relating to Park Dedication and Recommendations from the Park and Recreation Advisory Commission. At preliminary plat approval, City Council approved the park dedication consisting of a cash contribution in the amount of $4,000 per unit. The total park dedication payment will be $636,000. The payment will be collected at the time of plat release.

Condition #7 Relating to Plans Reviewed by the Fire Marshal. Fire Marshal reviewed preliminary plans and had no issues since the project is accessed via multiple public streets.

Condition #8 Relating to Stormwater Facilities Maintenance Agreement. As part of the development agreement documents, a Stormwater Facilities Maintenance Agreement will be drafted by the City Attorney. These documents will be approved by City Council with the final plat.

Condition #9 Relating to Protecting Undisturbed Areas. Areas to remain undisturbed in Outlot A, B and C are shown on the grading plan with limits of grading silt fence.

Condition #10 Relating to Acknowledgment of Future City Approvals. This condition was drafted by the City Attorney to clarify in all developments in the Northwest Area what changes require Administrative or City Council review. This language will be carried over into the development contract.

Condition # 11 Relating to Acknowledgment of PUD Zoning. This condition was drafted by the City Attorney to indicate an acknowledgment will be recorded with Dakota County for each development indicating the zoning and regulations placed on the property. It puts on record for any future landowners that there are special regulations on the property. This same type of notification was used in Arbor Pointe.

Condition #12 Relating to Entering into a Development Contract. Staff has met with the developer to address obligations to be covered in the developer agreement. A development contract will be drafted and reviewed by the City Council during their review of the final plan set.

Condition #13 Relating to Payment of Plat Utility Fees. The development contract will address the specific fees that the developer must pay before plat release as part of the funding for the infrastructure of the sewer and water for the Northwest Area. The City Council previously approved an amended payment structure which allowed fees for outside the Northwest Area to be paid by the developer.

Condition #14 Relating to Street Lighting. Street lights are to be installed by the developer and are covered in the required improvements in the development agreement.

Condition #15 Relating to Wetland Approvals. The plans identify a small wetland being affected by grading for the site. The applicant has applied for all necessary applications through the Wetland Conservation Act. The Dakota County Soil and Water Conservation District reviews all wetland applications for the city. The wetland disturbance was small enough that it did not require any mitigation. No further wetland review or mitigation is required. This condition has been satisfied.

Condition #16 Relating to New Drainage and Utility Easement Dedicated with the Plat. The preliminary approval included vacating a portion of an existing easement that was needed for an extension of 71st Street, which will now not happen. The final plat identities to new easement as required. The old easement will be vacated along with the final action on the final plat.

Condition #17 Relating to Responsibility of Maintenance of Required Open Space. This topic will be addressed through the development contract discussions. All necessary open space will be addressed in the homeowners association documents that will be approved by the City Council.

ALTERNATIVES

A. Approval. If the Planning Commission finds the proposed Final Plat and Final PUD Development Plans for Archer Trail acceptable, a recommendation of approval should be made subject to the following conditions:

1. The project shall be developed in substantial conformance with the following plans on file with the Planning Department except as may be modified by the conditions below:

Final Plat	dated 6/17/24
Final Site Plan (7 sheets)	dated 6/17/24
Final Grading Plan (7 sheets)	dated 6/17/24
Final Erosion Control Plan	dated 6/17/24
Final Sanitary Sewer & Watermain Plan (4 sheets)	dated 6/17/24
Final Street & Storm Sewer Plan (7 sheets)	dated 6/17/24
Final Utility Plan (6 sheets)	dated 6/17/24
Final Open Space Plan	dated 6/17/24
Final Landscape Plan (8 sheets)	dated 6/17/24

**The final list of approved plans and date of plans shall be identified in the development contract.*

2. All plans are subject to the review and approval of the City Engineer, including comments from city consultants reviewing the plans prior to work commencing on the site.

3. Prior to any work commencing on the site, the developer shall enter into a development contract with the City. The development contract will address all other preliminary conditions of approval relating to other agreements required, park dedication, and other pertinent specific performance standards for this phase of the PUD.

B. Denial. If the Planning Commission does not find the application to be acceptable, a recommendation of denial should be made. Specific findings supporting a basis for denial must be stated by the Commission if such a recommendation is made.

RECOMMENDATION

Based on this review, the Planning Division and Engineering recommends approval of the Final Plat and PUD Development Plans for Archer Trail, subject to the conditions stated above.

ATTACHMENTS

1. Location Map
2. Preliminary PUD Conditions of Approval Resolution
3. Final Plat
4. Final Plan Set (Complete 56 Sheets)

Location Map
Case No. 24-24PUD

CITY OF INVER GROVE HEIGHTS
DAKOTA COUNTY, MINNESOTA

RESOLUTION NO. 24-2024-085

A RESOLUTION APPROVING A PRELIMINARY PLAT AND PRELIMINARY PUD DEVELOPMENT PLAN CONSISTING OF 157 TOWNHOME UNIT, 15,000 SQUARE FEET OF RETAIL AND A PLAT CONSISTING OF THREE LOTS AND TWO OUTLOTS FOR THE PLAT AND PLANNED DEVELOPMENT TO BE KNOWN AS ARCHER TRAIL

CASE NO. 23-46PDZ

WHEREAS, a preliminary plat and preliminary PUD development plan application has been submitted to the City for property legally described as;

See Exhibit A

WHEREAS, a public hearing concerning the preliminary plat and preliminary PUD development plan was held before the Inver Grove Heights Planning Commission in accordance with Minnesota Statues, Section 462.357, Subdivision 3 on December 5, 2023;

NOW, THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF INVER GROVE HEIGHTS that, the Preliminary Plat and Preliminary PUD development plan for the planned development of Archer Trail is hereby approved subject to the following conditions:

1. The final plat and accompanying site plans and Final PUD Plan shall be in substantial conformance with the following plans on file with the Planning Department except as may be modified by the conditions below.

Preliminary Plat	dated 10/25/23
Site Plan	dated 11/20/23
Open Space Plan	dated 11/20/23
Grading Plan	dated 11/20/23
Utility Plan	dated 11/20/23
Landscape Plan (3 sheets)	dated 11/20/23
Tree Preservation Plans	dated 11/20/23

***The final list of approved plans and date of plans shall be identified in the development contract.**

2. Prior to final plat and plan approval, the final grading, drainage and erosion control, street plans and utility plans shall be approved by the City Engineer and subject to all conditions noted by the City Engineer and consultants in their review memos.

3. The PUD shall be approved with the following specific standards:
   a) Building setbacks from right-of-way. Ten (10) feet along side of building along Archer Trail and 15 feet from rear of building along 71st Street.
   b) Building front setback from right-of-way. Fifteen (15) feet along 73rd Street.
   c) Clubhouse setback along 72nd Street: 20 feet.
   d) Multiple family building coverage.

4. Drainage and utility easements shall be provided on the final plat as required by the City Engineer.

5. The developer shall be responsible for installing marker posts at reasonable locations to define the boundary of the open space. This provides identification for future land owners to know boundaries of the open space areas. The final PUD plans must show the location of the marker posts.

6. Park dedication shall be made in the form of a cash contribution based on the recommendation of the Parks and Recreation Advisory Commission.

7. The final plan set shall be subject to the review and approval of the city Fire Marshal.

8. Prior to execution of the plat by the City and prior to recording of the plat with the County, the Owner shall execute a Storm Water Facilities Maintenance Agreement with the City whereby the developer shall be responsible for the maintenance of storm water improvements on the lots and outlots within the development.

9. The developer shall be responsible to ensure the undisturbed area shown on the Open Space Plan remains undisturbed through all construction grading.

10. In the Development Contract, the Developer and Owner shall agree that the following elements of the Planned Unit Development shall not be altered, changed or removed without first obtaining the following consents:

Site Plan Element	**Consent Required By**
Building Location	City Council
Driveways and Private Roads	Planning Department
Landscaping	Planning Department
Location of Utilities	Engineering Department

Location of Conservation Easement and Open Space	City Council

11. The Developer and Owner shall execute an Acknowledgement of Planned Unit Development Zoning. This Acknowledgement shall state that property within the plat is subject to the approved PUD plans and PUD zoning and that the development on the property must conform to the PUD plans and PUD zoning. This Acknowledgement shall be recorded when the plat is recorded.

12. The Developer and Owner shall enter into a Development Contract with the City and such other related agreements, the form and terms of which shall be acceptable to the City.

13. Northwest Area plat connection fees are due at time of final plat release for each phase. The connection fees will be listed in the development contract. The Northwest Area building permit connection fees are due with building permit for each unit.

14. Street lighting shall be required along all public streets. The street lighting plans shall be approved by the City prior to installation.

15. Prior to City Council approval of final plans, a wetland delineation must be approved through the WCA process and if any mitigation is necessary, wetland mitigation plans must be submitted, reviewed and approved through the WCA approval process.

16. A new drainage and utility easement shall be dedicated on the final plat replacing the existing drainage and utility easement recorded with the Office of the Dakota County Recorder, Document No. 3127042, and vacation of that easement shall occur in conjunction with recording of the final plat.

17. The developer shall be responsible to ensure the open space as shown on the Open Area Exhibit remains in open space and is controlled by Developer, a homeowners' association, or other entity acceptable to the City.. An agreement suitable to the city shall be filed by the owner to assure the continued operation and maintenance of the open space areas and amenities.

Passed this 22nd day of April, 2024.

AYES: 5
NAYS: 0

Brenda Dietrich, Mayor

ATTEST:

Rebecca Kiernan, City Clerk

EXHIBIT A

The Northeast 1/4 of the Northwest 1/4 of Section 7, Township 27 North, Range 22 West, EXCEPT the West 620.12 feet thereof.

FURTHER EXCEPTING from the above described property:

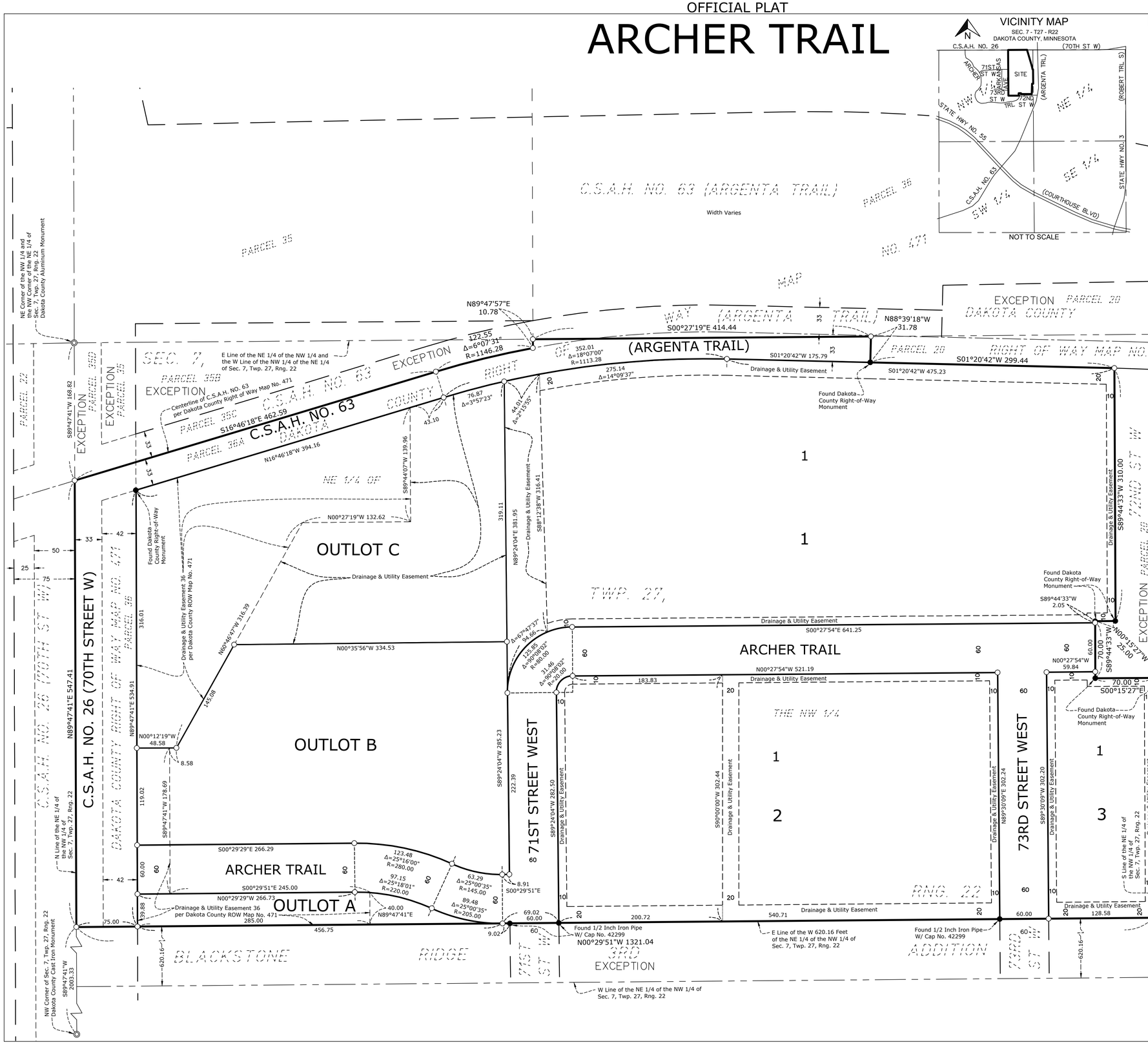
That part of the NE 1/4 of the NW 1/4 of Section 7, Township 27 North, Range 22 West, Dakota County, Minnesota described as follows:

> Beginning at the northeast corner of said NE 1/4 of the NW 1/4; thence West (assumed bearing) along the north line thereof a distance of 167.51 feet to the centerline of S.A.H. No. 63; thence South 16 degrees 27 minutes 56 seconds East along said centerline a distance of 557.51 feet; thence southeasterly along said centerline along a tangential curve concave to the west radius of 549.30 feet and a central angle of 2 degrees 57 minutes 13 seconds a distance of 28.32 feet; thence East, parallel with said north line, not tangent to last described curve a distance of 344.59 feet, more or less, to a point 994.89 feet west of the east line of the NW 1/4 of the NE 1/4 of said Section 7; thence North 00 degrees 08 minutes 40 seconds West parallel with said east line a distance of 562.00 feet to the north line of said NW 1/4 of the NE 1/4; thence West along said north line a distance of 341.01 feet, more or less, to the point of beginning.

AND EXCEPTING Parcel 20, Dakota County Road Right of Way Map. No. 435.

OFFICIAL PLAT

ARCHER TRAIL



KNOW ALL PERSONS BY THESE PRESENTS: That Argenta Townhomes, LLC, a Minnesota limited liability company, fee owner of the following described property:

The Northeast 1/4 of the Northwest 1/4 of Section 7, Township 27 North, Range 22 West, EXCEPT the West 620.12 feet thereof

AND EXCEPTING Parcels 35, 35B, 35C and 35D, DAKOTA COUNTY ROAD RIGHT OF WAY MAP NO. 471.

AND EXCEPTING Parcel 20, DAKOTA COUNTY ROAD RIGHT OF WAY MAP. NO. 435.

Has caused the same to be surveyed and platted as ARCHER TRAIL and does hereby dedicate to the public, for public use, the public way and the drainage and utility easements as created by this plat..

In witness whereof said Argenta Townhomes, LLC, a Minnesota limited liability company, has caused these presents to be signed by its proper officer

this _____day of _____, 20_____.

Argenta Townhomes, LLC

By:_____ Its_____

STATE OF _____, COUNTY OF _____

This instrument was acknowledged before me this _____day of _____, 20_____,

By:_____, _____

of Argenta Townhomes, LLC, a Minnesota limited liability company, on behalf of the company.

_____ _____

Notary Public, Signature Notary Public, Printed Name

Notary Public _____County,_____

My Commission Expires:_____

SURVEYORS CERTIFICATE

I Rory L. Synstelien, do hereby certify that this plat was prepared by me or under my direct supervision; that I am a duly Licensed Land Surveyor in the State of Minnesota; that this plat is a correct representation of the boundary survey; that all mathematical data and labels are correctly designated on this plat; that all monuments depicted on this plat have been, or will be correctly set within one year; that all water boundaries and wet lands, as defined in Minnesota Statutes, Section 505.01, Subd. 3, as of the date of the surveyor's certification are shown and labeled on this plat; and all public ways are shown and labeled on this plat.

Dated this _____day of _____, 20_____.

_____

Rory L. Synstelien, Land Surveyor
Minnesota License No. 44565

STATE OF MINNESOTA, COUNTY OF HENNEPIN

This instrument was acknowledged before me this _____day of _____, 20_____, by Rory L. Synstelien, a Licensed Land Surveyor.

_____ _____

Notary Public, Signature Notary Public, Printed Name

Notary Public _____County, Minnesota

My Commission Expires:_____

CITY COUNCIL OF INVER GROVE HEIGHTS, COUNTY OF DAKOTA, STATE OF MINNESOTA

This plat was approved by the City Council of the City of Inver Grove Heights, Minnesota at a regular meeting thereof held this_____ day of _____, 20_____, and hereby certifies compliance with all the requirements as set forth in Minnesota Statutes, Section 505.03, Subd. 2.

By:_____, Mayor

By: _____, City Clerk

COUNTY SURVEYOR, COUNTY OF DAKOTA, STATE OF MINNESOTA

I hereby certify that in accordance with Minnesota Statutes, Section 505.021, Subd. 11, this plat has been reviewed and approved

this _____ day of _____, 20_____.

By_____

Todd B. Tollefson, Dakota County Surveyor

COUNTY BOARD, COUNTY OF DAKOTA, STATE OF MINNESOTA

We do hereby certify that on the 1st day of December, 2020, the Board of Commissioners of Dakota County, Minnesota approved this plat of ARCHER TRAIL and said plat is in compliance with the provisions of Minnesota Statutes, Section 505.03, Subd. 2, and pursuant to the Dakota County Contiguous Plat Ordinance.

By_____ Attest _____

Chair, County Board

DEPARTMENT OF PROPERTY TAXATION AND RECORDS, COUNTY OF DAKOTA, STATE OF MINNESOTA

Pursuant to Minnesota Statutes, Section 505.021, Subdivision 9, taxes payable in the year 20_____ on real estate hereinbefore described, have been paid. Also pursuant to Minnesota Statutes, Section 272.12, there are no delinquent taxes and transfers entered on

this _____ day of _____, 20_____.

By_____

Amy A. Koethe, Director, Department of Property Taxation and Records

COUNTY RECORDER, COUNTY OF DAKOTA, STATE OF MINNESOTA

I hereby certify that this plat of ARCHER TRAIL was filed in the office of the County Recorder for public record on this_____day of _____, 20____, at _____o'clock____M. and was duly filed in Book_____of Plats, Page_____, as Document Number _____.

By_____

Amy A. Koethe, County Recorder

N

60 30 0 30 60 120

SCALE IN FEET

Bearings are based on the north line of the NE 1/4 of the NW 1/4 of Sec. 7, Twp. 27, Rng. 22 having an assumed bearing of N 89°47'41" E.

(Desc=) Denotes Dimensions per Description

● Denotes a Found Iron Monument (Type as shown on plat)

○ Denotes a 1/2 inch by 14 inch Rebar Marked "RLS 44565"

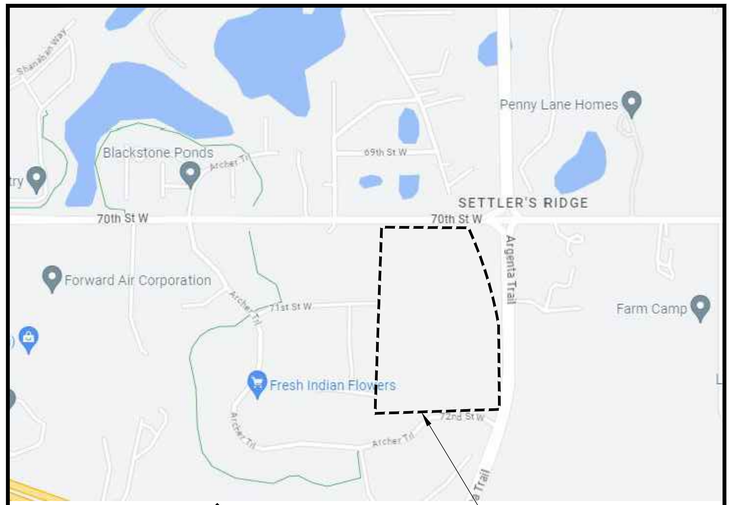
◎ Denotes a Dakota County Monument.

CivilSite GROUP

ARGENTA TRAIL

INVER GROVE HEIGHTS, MINNESOTA

ISSUED FOR: FINAL PLAT / PUD SUBMITTAL



SITE LOCATION MAP N

PROJECT CONTACTS		
	NAME & ADDRESS	CONTACT
CIVIL ENGINEER	CIVIL SITE GROUP 5000 GLENWOOD AVE GOLDEN VALLEY, MN 55422	MATT PAVEK 612-615-0060 MPAVEK@CIVILSITEGROUP.COM
LANDSCAPE ARCHITECT	CIVIL SITE GROUP 5000 GLENWOOD AVE GOLDEN VALLEY, MN 55422	ROB BINDER 612-615-0060 RBINDER@CIVILSITEGROUP.COM
DEVELOPER	STUART DEVELOPMENT CORPORATION 1000 WEST 80TH STREET MINNEAPOLIS, MN 55420	RYAN DUNLAY 952-948-9546 RDUNLAY@STUARTCO.COM
PROPERTY OWNER	GLENLIN PROPERTIES, LLC 17970 EVENING LANE LAKEVILLE, MN 55044	LINDA FLANNERY 612-719-4571
ARCHITECT	KAAS WILSON ARCHITECTS 1301 AMERICAN BLVD E, SUITE 100 BLOOMINGTON, MN 55425	NECMI KARAMAN 612-879-6000 NECMIK@KAASWILSON.COM
SURVEYOR	CIVIL SITE GROUP 5000 GLENWOOD AVE GOLDEN VALLEY, MN 55422	RORY SYNSTELIEN 612-615-0060 RORY@CIVILSITEGROUP.COM
GEOTECHNICAL ENGINEER	BRAUN INTERTEC 11001 HAMPSHIRE AVENUE S MINNEAPOLIS, MN 55438	NATHAN MCKINNEY 952-995-2228 NMCKINNEY@BRAUNINTERTEC.COM

ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTACT "GOPHER STATE ONE CALL" (651-454-0002 OR 800-252-1166) FOR UTILITY LOCATIONS, 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.

811 Know what's **below.** **Call** before you dig.

SHEET INDEX

SHEET NUMBER	SHEET TITLE
C0.0	TITLE SHEET
C0.1	GENERAL PROJECT NOTES
C1.0	REMOVALS PLAN
C1.1	TREE PRESERVATION PLAN
C2.0	SITE PLAN - OVERALL
C2.1	SITE PLAN - NORTHEAST CORNER
C2.2	SITE PLAN - NORTHWEST CORNER
C2.3	SITE PLAN - EAST CENTER
C2.4	SITE PLAN - WEST CENTER
C2.5	SITE PLAN - SOUTHEAST CORNER
C2.6	SITE PLAN - SOUTHWEST CORNER
C2.7	SITE PLAN - OPEN SPACE EXHIBIT
C3.0	GRADING PLAN - OVERALL
C3.1	GRADING PLAN - NORTHEAST CORNER
C3.2	GRADING PLAN - NORTHWEST CORNER
C3.3	GRADING PLAN - EAST CENTER
C3.4	GRADING PLAN - WEST CENTER
C3.5	GRADING PLAN - SOUTHEAST CORNER
C3.6	GRADING PLAN - SOUTHWEST CORNER
C4.0	OVERALL SANITARY AND WATER MAIN UTILITY PLAN
C4.1	SANITARY AND WATER MAIN PLAN AND PROFILE
C4.2	SANITARY AND WATER MAIN PLAN AND PROFILE
C4.3	SANITARY AND WATER MAIN PLAN AND PROFILE
C4.4	OVERALL STREET AND STORM WATER UTILITY PLAN
C4.5	STREET AND STORM WATER PLAN AND PROFILE
C4.6	STREET AND STORM WATER PLAN AND PROFILE
C4.7	STREET AND STORM WATER PLAN AND PROFILE
C4.8	STREET AND STORM WATER PLAN AND PROFILE
C4.9	STREET AND STORM WATER PLAN AND PROFILE
C4.10	STREET AND STORM WATER PLAN AND PROFILE
C4.11	UTILITY PLAN
C4.12	UTILITY PLAN
C4.13	UTILITY PLAN
C4.14	UTILITY PLAN
C4.15	UTILITY PLAN
C4.16	UTILITY PLAN
C5.0	CIVIL DETAILS
C5.1	CIVIL DETAILS
C5.2	CIVIL DETAILS
C5.3	CIVIL DETAILS
C5.4	CIVIL DETAILS
C5.5	CIVIL DETAILS
L1.0	LANDSCAPE PLAN - OVERALL
L1.1	LANDSCAPE PLAN - NORTHEAST CORNER
L1.2	LANDSCAPE PLAN - NORTHWEST CORNER
L1.3	LANDSCAPE PLAN - EAST CENTER
L1.4	LANDSCAPE PLAN - WEST CENTER
L1.5	LANDSCAPE PLAN - SOUTHEAST CORNER
L1.6	LANDSCAPE PLAN - SOUTHWEST CORNER
L1.7	LANDSCAPE PLAN - NOTES & DETAILS
SW1.0	SWPPP - EXISTING CONDITIONS
SW1.1	SWPPP - PROPOSED CONDITIONS
SW1.2	SWPPP - DETAILS
SW1.3	SWPPP - NARRATIVE
SW1.4	SWPPP - ATTACHMENTS
SW1.5	SWPPP - ATTACHMENTS

CivilSite GROUP
Civil Engineering · Surveying · Landscape Architecture
5000 Glenwood Avenue
Golden Valley, MN 55422
civilsitegroup.com
612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
ARGENTA TRAIL
SOUTHWEST CORNER OF 70th STREET WEST & ARGENTA TRAIL INTERSECTION, INVER GROVE HEIGHTS
STUART DEVELOPMENT CORPORATION
1000 WEST 80TH STREET, MINNEAPOLIS, MN 55420

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Matthew R. Pavek

DATE 06/17/2024 LICENSE NO. 44263

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
10/23/2023	PRELIMINARY PLAT/PUD
11/20/2023	PRELIMINARY PLAT/PUD RESUBMITTAL
6/7/2024	PRICING SET
6/17/2024	FINAL PLAT / PUD SUBMITTAL

DRAWN BY	MP, RB, AM, MD,JR,MS,
REVIEWED BY	MP, RB
PROJECT MANAGER	MP
PROJECT NUMBER	23131

REVISION SUMMARY

DATE	DESCRIPTION

TITLE SHEET

C0.0

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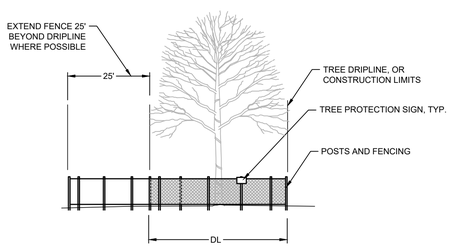
REMOVAL NOTES:

1. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTACT "GOPHER STATE ONE CALL" (651-454-0002 OR 800-252-1166) FOR UTILITY LOCATIONS, 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.
2. SEE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) PLAN FOR CONSTRUCTION STORM WATER MANAGEMENT PLAN.
3. REMOVAL OF MATERIALS NOTED ON THE DRAWINGS SHALL BE IN ACCORDANCE WITH MNDOT, STATE AND LOCAL REGULATIONS.
4. REMOVAL OF PRIVATE UTILITIES SHALL BE COORDINATED WITH UTILITY OWNER PRIOR TO CONSTRUCTION ACTIVITIES.
5. EXISTING PAVEMENTS SHALL BE SAWCUT IN LOCATIONS AS SHOWN ON THE DRAWINGS OR THE NEAREST JOINT FOR PROPOSED PAVEMENT CONNECTIONS.
6. REMOVED MATERIALS SHALL BE DISPOSED OF TO A LEGAL OFF-SITE LOCATION AND IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
7. ABANDON, REMOVAL, CONNECTION, AND PROTECTION NOTES SHOWN ON THE DRAWINGS ARE APPROXIMATE. COORDINATE WITH PROPOSED PLANS.
8. EXISTING ON-SITE FEATURES NOT NOTED FOR REMOVAL SHALL BE PROTECTED THROUGHOUT THE DURATION OF THE CONTRACT.
9. PROPERTY LINES SHALL BE CONSIDERED GENERAL CONSTRUCTION LIMITS UNLESS OTHERWISE NOTED ON THE DRAWINGS. WORK WITHIN THE GENERAL CONSTRUCTION LIMITS SHALL INCLUDE STAGING, DEMOLITION AND CLEAN-UP OPERATIONS AS WELL AS CONSTRUCTION SHOWN ON THE DRAWINGS.
10. MINOR WORK OUTSIDE OF THE GENERAL CONSTRUCTION LIMITS SHALL BE ALLOWED AS SHOWN ON THE PLAN AND PER CITY REQUIREMENTS. FOR ANY WORK ON ADJACENT PRIVATE PROPERTY, THE CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION FROM THE ADJACENT PROPERTY OWNER PRIOR TO ANY WORK.
11. DAMAGE BEYOND THE PROPERTY LIMITS CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED IN A MANNER APPROVED BY THE ENGINEER/LANDSCAPE ARCHITECT OR IN ACCORDANCE WITH THE CITY.
12. PROPOSED WORK (BUILDING AND CIVIL) SHALL NOT DISTURB EXISTING UTILITIES UNLESS OTHERWISE SHOWN ON THE DRAWINGS AND APPROVED BY THE CITY PRIOR TO CONSTRUCTION.
13. SITE SECURITY MAY BE NECESSARY AND PROVIDED IN A MANNER TO PROHIBIT VANDALISM, AND THEFT, DURING AND AFTER NORMAL WORK HOURS, THROUGHOUT THE DURATION OF THE CONTRACT. SECURITY MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY.
14. VEHICULAR ACCESS TO THE SITE SHALL BE MAINTAINED FOR DELIVERY AND INSPECTION ACCESS DURING NORMAL OPERATING HOURS. AT NO POINT THROUGHOUT THE DURATION OF THE CONTRACT SHALL CIRCULATION OF ADJACENT STREETS BE BLOCKED WITHOUT APPROVAL BY THE CITY PRIOR TO CONSTRUCTION ACTIVITIES.
15. ALL TRAFFIC CONTROLS SHALL BE PROVIDED AND ESTABLISHED PER THE REQUIREMENTS OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD) AND THE CITY. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, SIGNAGE, BARRICADES, FLASHERS, AND FLAGGERS AS NEEDED. ALL PUBLIC STREETS SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES. NO ROAD CLOSURES SHALL BE PERMITTED WITHOUT APPROVAL BY THE CITY.
16. SHORING FOR BUILDING EXCAVATION MAY BE USED AT THE DISCRETION OF THE CONTRACTOR AND AS APPROVED BY THE OWNERS REPRESENTATIVE AND THE CITY PRIOR TO CONSTRUCTION ACTIVITIES.
17. STAGING, DEMOLITION, AND CLEAN-UP AREAS SHALL BE WITHIN THE PROPERTY LIMITS AS SHOWN ON THE DRAWINGS AND MAINTAINED IN A MANNER AS REQUIRED BY THE CITY.
18. ALL EXISTING SITE TRAFFIC/REGULATORY SIGNAGE TO BE INVENTORIED AND IF REMOVED FOR CONSTRUCTION SHALL BE RETURNED TO LGU.
19. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTACT "GOPHER STATE ONE CALL" (651-454-0002 OR 800-252-1166) FOR UTILITY LOCATIONS, 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.



FURNISH A AND INSTALL TEMPORARY FENCE AT THE TREE'S DRIP LINE OR CONSTRUCTION LIMITS AS SHOWN ON PLAN, PRIOR TO ANY CONSTRUCTION. WHERE POSSIBLE PLACE FENCE 25' BEYOND DRIP LINE. PLACE TREE PROTECTION SIGN ON POSTS, ONE PER INDIVIDUAL TREE (FACING CONSTRUCTION ACTIVITY), OR ONE EVERY 100' LF ALONG A GROVE OR MULTI-TREE PROTECTION AREA.

1 TREE PROTECTION
N T S

CITY OF INVER GROVE HEIGHTS REMOVAL NOTES:

1. DEMOLITION PERMITS WILL BE NEEDED FOR BUILDING REMOVALS.

SITE LAYOUT NOTES:

1. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTACT "GOPHER STATE ONE CALL" (651-454-0002 OR 800-252-1166) FOR UTILITY LOCATIONS, 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.
2. CONTRACTOR SHALL VERIFY LOCATIONS AND LAYOUT OF ALL SITE ELEMENTS PRIOR TO BEGINNING CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, LOCATIONS OF EXISTING AND PROPOSED PROPERTY LINES, EASEMENTS, SETBACKS, UTILITIES, BUILDINGS AND PAVEMENTS. CONTRACTOR IS RESPONSIBLE FOR FINAL LOCATIONS OF ALL ELEMENTS FOR THE SITE. ANY REVISIONS REQUIRED AFTER COMMENCEMENT OF CONSTRUCTION, DUE TO LOCATIONAL ADJUSTMENTS SHALL BE CORRECTED AT NO ADDITIONAL COST TO OWNER. ADJUSTMENTS TO THE LAYOUT SHALL BE APPROVED BY THE ENGINEER/LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF MATERIALS. STAKE LAYOUT FOR APPROVAL.
3. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, INCLUDING A RIGHT-OF-WAY AND STREET OPENING PERMIT.
4. THE CONTRACTOR SHALL VERIFY RECOMMENDATIONS NOTED IN THE GEO TECHNICAL REPORT PRIOR TO INSTALLATION OF SITE IMPROVEMENT MATERIALS.
5. CONTRACTOR SHALL FIELD VERIFY COORDINATES AND LOCATION DIMENSIONS & ELEVATIONS OF THE BUILDING AND STAKE FOR REVIEW AND APPROVAL BY THE OWNERS REPRESENTATIVE PRIOR TO INSTALLATION OF FOOTING MATERIALS.
6. LOCATIONS OF STRUCTURES, ROADWAY PAVEMENTS, CURBS AND GUTTERS, BOLLARDS, AND WALKS ARE APPROXIMATE AND SHALL BE STAKED IN THE FIELD, PRIOR TO INSTALLATION, FOR REVIEW AND APPROVAL BY THE ENGINEER/LANDSCAPE ARCHITECT.
7. CURB DIMENSIONS SHOWN ARE TO FACE OF CURB. BUILDING DIMENSIONS ARE TO FACE OF CONCRETE FOUNDATION. LOCATION OF BUILDING IS TO BUILDING FOUNDATION AND SHALL BE AS SHOWN ON THE DRAWINGS.
8. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR SAMPLES AS SPECIFIED FOR REVIEW AND APPROVAL BY THE ENGINEER/LANDSCAPE ARCHITECT PRIOR TO FABRICATION FOR ALL PREFABRICATED SITE IMPROVEMENT MATERIALS SUCH AS, BUT NOT LIMITED TO THE FOLLOWING, FURNISHINGS, PAVEMENTS, WALLS, RAILINGS, BENCHES, FLAGPOLES, LANDING PADS FOR CURB RAMPS, AND LIGHT AND POLES. THE OWNER RESERVES THE RIGHT TO REJECT INSTALLED MATERIALS NOT PREVIOUSLY APPROVED.
9. PEDESTRIAN CURB RAMPS SHALL BE CONSTRUCTED WITH TRUNCATED DOME LANDING AREAS IN ACCORDANCE WITH A.D.A. REQUIREMENTS-SEE DETAIL.
10. CROSSWALK STRIPING SHALL BE 24" WIDE WHITE PAINTED LINE, SPACED 48" ON CENTER PERPENDICULAR TO THE FLOW OF TRAFFIC. WIDTH OF CROSSWALK SHALL BE 5' WIDE. ALL OTHER PAVEMENT MARKINGS SHALL BE WHITE IN COLOR UNLESS OTHERWISE NOTED OR REQUIRED BY ADA OR LOCAL GOVERNING BODIES.
11. SEE SITE PLAN FOR CURB AND GUTTER TYPE. TAPER BETWEEN CURB TYPES-SEE DETAIL.
12. ALL CURB RADII ARE MINIMUM 3' UNLESS OTHERWISE NOTED.
13. CONTRACTOR SHALL REFER TO FINAL PLAT FOR LOT BOUNDARIES, NUMBERS, AREAS AND DIMENSIONS PRIOR TO SITE IMPROVEMENTS.
14. FIELD VERIFY ALL EXISTING SITE CONDITIONS, DIMENSIONS.
15. PARKING IS TO BE SET PARALLEL OR PERPENDICULAR TO EXISTING BUILDING UNLESS NOTED OTHERWISE.
16. ALL PARKING LOT PAINT STRIPPING TO BE WHITE, 4" WIDE TYP.
17. BITUMINOUS PAVING TO BE "LIGHT DUTY" UNLESS OTHERWISE NOTED. SEE DETAIL SHEETS FOR PAVEMENT SECTIONS.
18. ALL TREES THAT ARE TO REMAIN ARE TO BE PROTECTED FROM DAMAGE WITH A CONSTRUCTION FENCE AT THE DRIP LINE. SEE LANDSCAPE DOCUMENTS.
19. CONTRACTOR IS RESPONSIBLE TO INSTALL ANY SIDEWALK AND CURBING PER DESIGN PLAN. CONTRACTOR TO VERIFY ALL CURBS AND SIDEWALKS WILL DRAIN PROPERLY IN FIELD CONDITIONS. **CONTRACTOR MUST CONTACT THE CIVIL ENGINEER 24-HOURS PRIOR TO ANY CURB AND/OR SIDEWALK INSTALLATION TO REVIEW AND INSPECT CURB STAKES. CONTRACTOR IS RESPONSIBLE FOR ANY CURB OR SIDEWALK REPLACEMENT IF THIS PROCEDURE IS NOT FOLLOWED.**

OPERATIONAL NOTES	
SNOW REMOVAL	ALL SNOW SHALL BE STORED ON-SITE OUTSIDE PARKING LOT OR ON GREEN SPACE. WHEN FULL, REMOVAL CO. SHALL REMOVE EXCESS OFF-SITE.
TRASH REMOVAL	TRASH SHALL BE PLACED IN EXTERIOR TRASH AREA AND REMOVED BY COMMERCIAL CO. WEEKLY.
DELIVERIES	DELIVERIES SHALL OCCUR AT THE FRONT DOOR VIA STANDARD COMMERCIAL DELIVERY VEHICLES (UPS, FED-EX, USPS).

CITY OF INVER GROVE HEIGHTS SITE SPECIFIC NOTES:

1. RESERVED FOR CITY SPECIFIC SITE NOTES.

GENERAL GRADING NOTES:

1. **CONTRACTOR SHALL VERIFY ALL BUILDING ELEVATIONS, (FFE, LFE, GFE), PRIOR TO CONSTRUCTION BY CROSS CHECKING WITH ARCHITECTURAL, STRUCTURAL AND CIVIL ELEVATIONS FOR EQUIVALENT "100" ELEVATIONS. THIS MUST BE DONE PRIOR TO EXCAVATION AND INSTALLATION OF ANY FOOTING MATERIALS. VERIFICATION OF THIS COORDINATION SHALL BE CONFIRMED IN WRITING BY CIVIL, SURVEYOR, ARCHITECTURAL, STRUCTURAL AND CONTRACTOR PRIOR TO CONSTRUCTION.**
2. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTACT "GOPHER STATE ONE CALL" (651-454-0002 OR 800-252-1166) FOR UTILITY LOCATIONS, 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.
3. SEE SITE PLAN FOR HORIZONTAL LAYOUT & GENERAL GRADING NOTES.
4. THE CONTRACTOR SHALL COMPLETE THE SITE GRADING CONSTRUCTION (INCLUDING BUT NOT LIMITED TO SITE PREPARATION, SOIL CORRECTION, EXCAVATION, EMBANKMENT, ETC.) IN ACCORDANCE WITH THE REQUIREMENTS OF THE OWNER'S SOILS ENGINEER. ALL SOIL TESTING SHALL BE COMPLETED BY THE OWNER'S SOILS ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED SOIL TESTS AND INSPECTIONS WITH THE SOILS ENGINEER.
5. ANY ELEMENTS OF AN EARTH RETENTION SYSTEM AND RELATED EXCAVATIONS THAT FALL WITHIN THE PUBLIC RIGHT OF WAY WILL REQUIRE A "RIGHT OF WAY EXCAVATION PERMIT". CONTRACTOR IS RESPONSIBLE FOR AQUIRING THIS PERMIT PRIOR TO CONSTRUCTION IF APPLICABLE
6. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTACT "GOPHER STATE ONE CALL" (651-454-0002 OR 800-252-1166) FOR UTILITY LOCATIONS, 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.
7. GRADING AND EXCAVATION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS & PERMIT REQUIREMENTS OF THE CITY.
8. PROPOSED SPOT GRADES ARE FLOW-LINE FINISHED GRADE ELEVATIONS, UNLESS OTHERWISE NOTED.
9. GRADES OF WALKS SHALL BE INSTALLED WITH 5% MAX. LONGITUDINAL SLOPE AND 1% MIN. AND 2% MAX. CROSS SLOPE, UNLESS OTHERWISE NOTED.
10. PROPOSED SLOPES SHALL NOT EXCEED 3:1 UNLESS INDICATED OTHERWISE ON THE DRAWINGS. MAXIMUM SLOPES IN MAINTAINED AREAS IS 4:1.
11. PROPOSED RETAINING WALLS, FREESTANDING WALLS, OR COMBINATION OF WALL TYPES GREATER THAN 4' IN HEIGHT SHALL BE DESIGNED AND ENGINEERED BY A REGISTERED RETAINING WALL ENGINEER. DESIGN DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF GRADE STAKES THROUGHOUT THE DURATION OF CONSTRUCTION TO ESTABLISH PROPER GRADES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR A FINAL FIELD CHECK OF FINISHED GRADES ACCEPTABLE TO THE ENGINEER/LANDSCAPE ARCHITECT PRIOR TO TOPSOIL AND SODDING ACTIVITIES.
13. IF EXCESS OR SHORTAGE OF SOIL MATERIAL EXISTS, THE CONTRACTOR SHALL TRANSPORT ALL EXCESS SOIL MATERIAL OFF THE SITE TO AN AREA SELECTED BY THE CONTRACTOR, OR IMPORT SUITABLE MATERIAL TO THE SITE.
14. EXCAVATE TOPSOIL FROM AREAS TO BE FURTHER EXCAVATED OR REGRADED AND STOCKPILE IN AREAS DESIGNATED ON THE SITE. THE CONTRACTOR SHALL SALVAGE ENOUGH TOPSOIL FOR RESPREADING ON THE SITE AS SPECIFIED. EXCESS TOPSOIL SHALL BE PLACED IN EMBANKMENT AREAS, OUTSIDE OF BUILDING PADS, ROADWAYS AND PARKING AREAS. THE CONTRACTOR SHALL SUBCUT CUT AREAS, WHERE TURF IS TO BE ESTABLISHED, TO A DEPTH OF 6 INCHES. RESPREAD TOPSOIL IN AREAS WHERE TURF IS TO BE ESTABLISHED TO A MINIMUM DEPTH OF 6 INCHES.
15. FINISHED GRADING SHALL BE COMPLETED. THE CONTRACTOR SHALL UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING, INCLUDING ADJACENT TRANSITION AREAS. PROVIDE A SMOOTH FINISHED SURFACE WITHIN SPECIFIED TOLERANCES, WITH UNIFORM LEVELS OR SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE SHOWN, OR BETWEEN SUCH POINTS AND EXISTING GRADES. AREAS THAT HAVE BEEN FINISH GRADED SHALL BE PROTECTED FROM SUBSEQUENT CONSTRUCTION OPERATIONS, TRAFFIC AND EROSION. REPAIR ALL AREAS THAT HAVE BECOME RUTTED BY TRAFFIC OR ERODED BY WATER OR HAS SETTLED BELOW THE CORRECT GRADE. ALL AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO EQUAL OR BETTER THAN ORIGINAL CONDITION OR TO THE REQUIREMENTS OF THE NEW WORK.
16. PRIOR TO PLACEMENT OF THE AGGREGATE BASE, A TEST ROLL WILL BE REQUIRED ON THE STREET AND/OR PARKING AREA SUBGRADE. THE CONTRACTOR SHALL PROVIDE A LOADED TANDEM AXLE TRUCK WITH A GROSS WEIGHT OF 25 TONS. THE TEST ROLLING SHALL BE AT THE DIRECTION OF THE SOILS ENGINEER AND SHALL BE COMPLETED IN AREAS AS DIRECTED BY THE SOILS ENGINEER. THE SOILS ENGINEER SHALL DETERMINE WHICH SECTIONS OF THE STREET OR PARKING AREA ARE UNSTABLE. CORRECTION OF THE SUBGRADE SOILS SHALL BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SOILS ENGINEER. NO TEST ROLL SHALL OCCUR WITHIN 10' OF ANY UNDERGROUND STORM RETENTION/DETENTION SYSTEMS.
17. TOLERANCES
    - 17.1. THE BUILDING SUBGRADE FINISHED SURFACE ELEVATION SHALL NOT VARY BY MORE THAN 0.30 FOOT ABOVE, OR 0.30 FOOT BELOW, THE PRESCRIBED ELEVATION AT ANY POINT WHERE MEASUREMENT IS MADE.
    - 17.2. THE STREET OR PARKING AREA SUBGRADE FINISHED SURFACE ELEVATION SHALL NOT VARY BY MORE THAN 0.05 FOOT ABOVE, OR 0.10 FOOT BELOW, THE PRESCRIBED ELEVATION OF ANY POINT WHERE MEASUREMENT IS MADE.
    - 17.3. AREAS WHICH ARE TO RECEIVE TOPSOIL SHALL BE GRADED TO WITHIN 0.30 FOOT ABOVE OR BELOW THE REQUIRED ELEVATION, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
    - 17.4. TOPSOIL SHALL BE GRADED TO PLUS OR MINUS 1/2 INCH OF THE SPECIFIED THICKNESS.
18. MAINTENANCE
    - 18.1. THE CONTRACTOR SHALL PROTECT NEWLY GRADED AREAS FROM TRAFFIC AND EROSION, AND KEEP AREA FREE OF TRASH AND DEBRIS.
    - 18.2. CONTRACTOR SHALL REPAIR AND REESTABLISH GRADES IN SETTLED, ERODED AND RUTTED AREAS TO SPECIFIED TOLERANCES. DURING THE CONSTRUCTION, IF REQUIRED, AND DURING THE WARRANTY PERIOD, ERODED AREAS WHERE TURF IS TO BE ESTABLISHED SHALL BE RESEEDED AND MULCHED.
    - 18.3. WHERE COMPLETED COMPACTED AREAS ARE DISTURBED BY SUBSEQUENT CONSTRUCTION OPERATIONS OR ADVERSE WEATHER, CONTRACTOR SHALL SCARIFY, SURFACE, RESHAPE, AND COMPACT TO REQUIRED DENSITY PRIOR TO FURTHER CONSTRUCTION.

CITY OF INVER GROVE HEIGHTS SITE SPECIFIC GRADING NOTES:

1. ALL RETAINING WALLS 4 FEET OR HIGHER, OR SUPPORTING A SURCHARGE, REQUIRE A SEPARATE BUILDING PERMIT. A REGISTERED ENGINEER WILL BE REQUIRED FOR THE DESIGN AT THAT TIME.
2. ALL RETAINING WALLS SHOWN ON THE GRADING PLAN SHALL BE CONSTRUCTED DURING THE GRADING PHASE.
3. UPON COMPLETION OF THE SITE GRADING, A CERTIFICATION LETTER AND AS-BUILT SURVEY, FROM A REGISTERED ENGINEER OR LAND SURVEYOR SHALL BE PROVIDED TO THE CITY CERTIFYING THAT THE SITE GRADES ARE AS SHOWN.

GENERAL UTILITY NOTES:

1. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTACT "GOPHER STATE ONE CALL" (651-454-0002 OR 800-252-1166) FOR UTILITY LOCATIONS, 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.
2. SEE SITE PLAN FOR HORIZONTAL DIMENSIONS AND LAYOUT.
3. CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF DISCREPANCIES OR VARIATIONS FROM THE PLANS.
4. UTILITY INSTALLATION SHALL CONFORM TO THE CURRENT EDITION OF "STANDARD SPECIFICATIONS FOR WATER MAIN AND SERVICE LINE INSTALLATION" AND "SANITARY SEWER AND STORM SEWER INSTALLATION" AS PREPARED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA (CEAM), AND SHALL CONFORM WITH THE REQUIREMENTS OF THE CITY AND THE PROJECT SPECIFICATIONS.
5. CASTINGS SHALL BE SALVAGED FROM STRUCTURE REMOVALS AND RE-USED OR PLACED AT THE DIRECTION OF THE OWNER.
6. ALL WATER PIPE SHALL BE CLASS 52 DUCTILE IRON PIPE (DIP) AWWA C151, ASME B16.4, AWWA C110, AWWA C153 UNLESS OTHERWISE NOTED.
7. ALL SANITARY SEWER SHALL BE SDR 26 POLYVINYL CHLORIDE (PVC) ASTM D3034 & F679, OR SCH 40 ASTM D1785, 2665, ASTM F794, 1866) UNLESS OTHERWISE NOTED.
8. ALL STORM SEWER PIPE SHALL BE HDPE ASTM F714 & F2306 WITH ASTM D3212 SPEC FITTINGS UNLESS OTHERWISE NOTED.
9. PIPE LENGTHS SHOWN ARE FROM CENTER TO CENTER OF STRUCTURE OR TO END OF FLARED END SECTION.
10. UTILITIES ON THE PLAN ARE SHOWN TO WITHIN 5' OF THE BUILDING FOOTPRINT. THE CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR THE FINAL CONNECTION TO BUILDING LINES. COORDINATE WITH ARCHITECTURAL AND MECHANICAL PLANS.
11. CATCH BASINS AND MANHOLES IN PAVED AREAS SHALL BE SUMPED 0.04 FEET. ALL CATCH BASINS IN GUTTERS SHALL BE SUMPED 0.15 FEET PER DETAILS. RIM ELEVATIONS SHOWN ON THIS PLAN DO NOT REFLECT SUMPED ELEVATIONS.
12. ALL FIRE HYDRANTS SHALL BE LOCATED 5 FEET BEHIND BACK OF CURB UNLESS OTHERWISE NOTED.
13. HYDRANT TYPE, VALVE, AND CONNECTION SHALL BE IN ACCORDANCE WITH CITY REQUIREMENTS. HYDRANT EXTENSIONS ARE INCIDENTAL.
14. A MINIMUM OF 8 FEET OF COVER IS REQUIRED OVER ALL WATERMAIN, UNLESS OTHERWISE NOTED. EXTRA DEPTH MAY BE REQUIRED TO MAINTAIN A MINIMUM OF 18" VERTICAL SEPARATION TO SANITARY OR STORM SEWER LINES. EXTRA DEPTH WATERMAIN IS INCIDENTAL.
15. A MINIMUM OF 18 INCHES OF VERTICAL SEPARATION AND 10 FEET OF HORIZONTAL SEPARATION IS REQUIRED FOR ALL UTILITIES, UNLESS OTHERWISE NOTED.
16. ALL CONNECTIONS TO EXISTING UTILITIES SHALL BE IN ACCORDANCE WITH CITY STANDARDS AND COORDINATED WITH THE CITY PRIOR TO CONSTRUCTION.
17. CONNECTIONS TO EXISTING STRUCTURES SHALL BE CORE-DRILLED.
18. COORDINATE LOCATIONS AND SIZES OF SERVICE CONNECTIONS WITH THE MECHANICAL DRAWINGS.
19. COORDINATE INSTALLATION AND SCHEDULING OF THE INSTALLATION OF UTILITIES WITH ADJACENT CONTRACTORS AND CITY STAFF.
20. ALL STREET REPAIRS AND PATCHING SHALL BE PERFORMED PER THE REQUIREMENTS OF THE CITY. ALL PAVEMENT CONNECTIONS SHALL BE SAWCUT. ALL TRAFFIC CONTROLS SHALL BE PROVIDED BY THE CONTRACTOR AND SHALL BE ESTABLISHED PER THE REQUIREMENTS OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD) AND THE CITY. THIS SHALL INCLUDE BUT NOT BE LIMITED TO SIGNAGE, BARRICADES, FLASHERS, AND FLAGGERS AS NEEDED. ALL PUBLIC STREETS SHALL BE OPEN TO TRAFFIC AT ALL TIMES. NO ROAD CLOSURES SHALL BE PERMITTED WITHOUT APPROVAL BY THE CITY.
21. ALL STRUCTURES, PUBLIC AND PRIVATE, SHALL BE ADJUSTED TO PROPOSED GRADES WHERE REQUIRED. THE REQUIREMENTS OF ALL OWNERS MUST BE COMPLIED WITH. STRUCTURES BEING RESET TO PAVED AREAS MUST MEET OWNERS REQUIREMENTS FOR TRAFFIC LOADING.
22. CONTRACTOR SHALL COORDINATE ALL WORK WITH PRIVATE UTILITY COMPANIES.
23. CONTRACTOR SHALL COORDINATE CONNECTION OF IRRIGATION SERVICE TO UTILITIES. COORDINATE THE INSTALLATION OF IRRIGATION SLEEVES NECESSARY AS TO NOT IMPACT INSTALLATION OF UTILITIES.
24. CONTRACTOR SHALL MAINTAIN AS-BUILT PLANS THROUGHOUT CONSTRUCTION AND SUBMIT THESE PLANS TO ENGINEER UPON COMPLETION OF WORK.
25. ALL JOINTS AND CONNECTIONS IN STORM SEWER SYSTEM SHALL BE GASTIGHT OR WATERTIGHT. APPROVED RESILIENT RUBBER JOINTS MUST BE USED TO MAKE WATERTIGHT CONNECTIONS TO MANHOLES, CATCHBASINS, OR OTHER STRUCTURES.
26. ALL PORTIONS OF THE STORM SEWER SYSTEM LOCATED WITHIN 10 FEET OF THE BUILDING OR WATER SERVICE LINE MUST BE TESTED IN ACCORDANCE WITH MN RULES, CHAPTER 4714, SECTION 1109.0.
27. FOR ALL SITES LOCATED IN CLAY SOIL AREAS, DRAIN TILE MUST BE INSTALLED AT ALL LOW POINT CATCH BASINS 25' IN EACH DIRECTION. SEE PLAN AND DETAIL. INSTALL LOW POINT DRAIN TILE PER PLANS AND GEOTECHNICAL REPORT RECOMMENDATIONS AND REQUIREMENTS.

CITY OF INVER GROVE HEIGHTS SITE SPECIFIC UTILITY NOTES:

1. THE CITY WILL MANAGE AND MAINTAIN THE STORMWATER POND.
2. EXISTING 16" WATER MAIN RUNS UNDERNEATH PROPOSED STORM CBMH 26. FIELD VERIFY DEPTH OF WATER MAIN. MAINTAIN MIN 2' OF SEPARATION BETWEEN TOP OF WATER MAIN AND BOTTOM OF PROPOSED STORM STRUCTURE (EXPECTED SEPARATION ≈ 4.5') PROVIDE INSULATION UNDERNEATH CBMH 26 AND CONTACT CIVIL ENGINEER & CITY IF 2' OF SEPARATION IS NOT POSSIBLE DUE TO HIGHER THAN EXPECTED WATER MAIN.

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Golden Valley, MN 55422
civilsitegroup.com
612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
ARGENTA TRAIL
SOUTHWEST CORNER OF 70th STREET WEST & ARGENTA TRAIL INTERSECTION, INVER GROVE HEIGHTS

STUART DEVELOPMENT CORPORATION
1000 WEST 80TH STREET, MINNEAPOLIS, MN 55420

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Matthew R. Pavek
DATE 06/17/2024 LICENSE NO. 44263

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
10/23/2023	PRELIMINARY PLAT/PUD
11/20/2023	PRELIMINARY PLAT/PUD RESUBMITTAL
6/7/2024	PRICING SET
6/17/2024	FINAL PLAT / PUD SUBMITTAL

DRAWN BY	MP, RB, AM, MD,JR,MS,
REVIEWED BY	MP, RB
PROJECT MANAGER	MP
PROJECT NUMBER	23131

REVISION SUMMARY

DATE	DESCRIPTION

GENERAL PROJECT NOTES

C0.1

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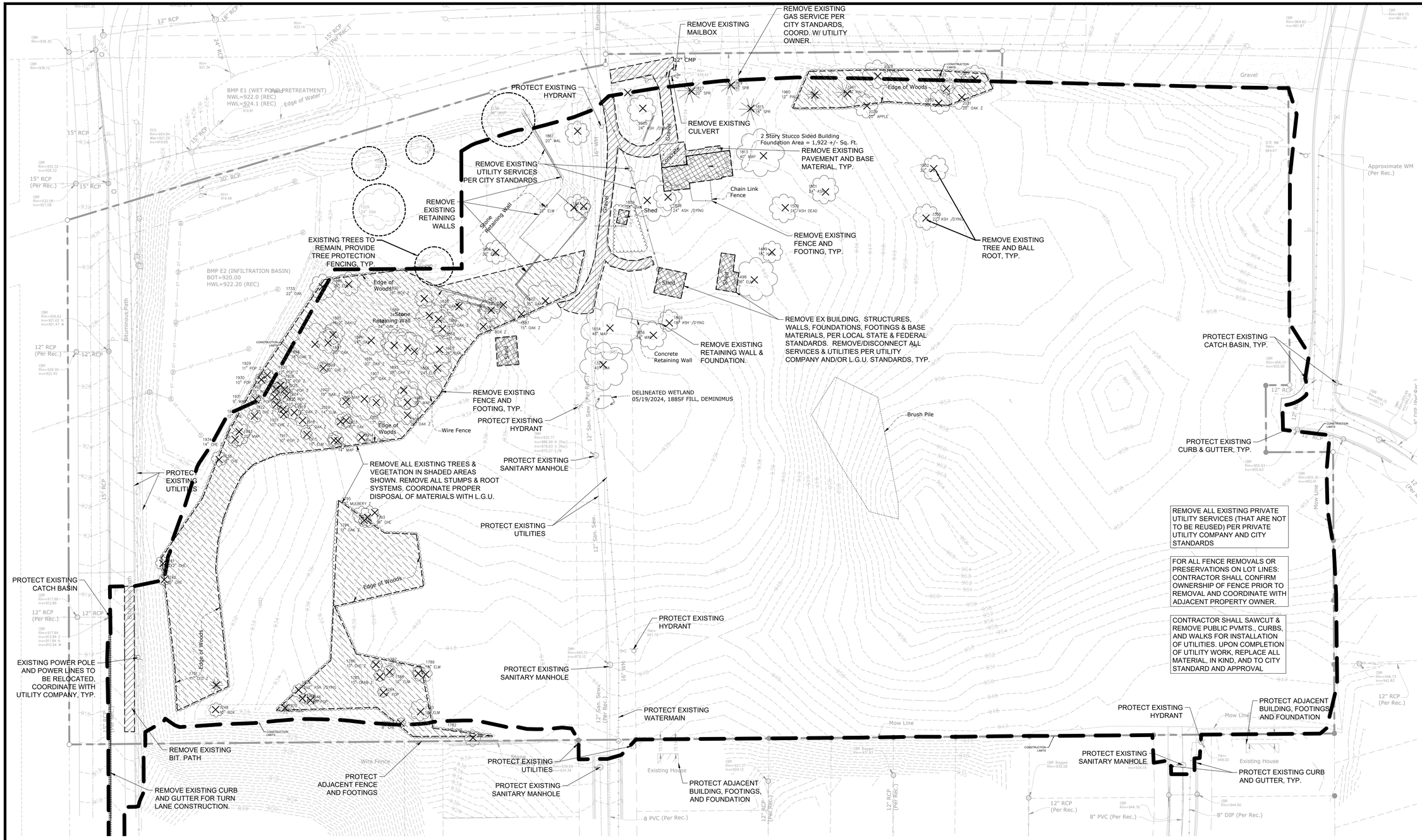

CITY OF INVER GROVE HEIGHTS REMOVAL NOTES:

1. RESERVED FOR CITY SPECIFIC REMOVAL NOTES.

EROSION CONTROL NOTES:

SEE SWPPP ON SHEETS SW1.0 - SW1.5

OWNER INFORMATION

GLENLIN PROPERTIES, LLC
17970 EVENING LANE
LAKEVILLE, MN 55044
LINDA FLANNERY
612-719-4571

SEE SHEET C0.1 FOR GENERAL REMOVAL NOTES

REMOVALS LEGEND:

- REMOVAL OF PAVEMENT AND ALL BASE MATERIAL, INCLUDING BIT., CONC., AND GRAVEL PVMTS.
- REMOVAL OF STRUCTURE INCLUDING ALL FOOTINGS AND FOUNDATIONS.
- REMOVAL OF TREES AND VEGETATION INCLUDING STUMPS AND ROOT SYSTEMS
- CONSTRUCTION LIMITS
- PROPERTY LINE
- REMOVE CURB AND GUTTER. IF IN RIGHT-OF-WAY, COORDINATE WITH LOCAL GOVERNING UNIT.
- TREE PROTECTION
- TREE REMOVAL - INCLUDING ROOTS AND STUMPS

Know what's below. Call before you dig.

1" = 50'-0"
25'-0" 0 50'-0"

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612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT

ARGENTA TRAIL

SOUTHWEST CORNER OF 70th STREET WEST & ARGENTA TRAIL INTERSECTION, INVER GROVE HEIGHTS

STUART DEVELOPMENT CORPORATION

1000 WEST 80TH STREET, MINNEAPOLIS, MN 55420

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DRAWN BY	MP, RB, AM; MD,JR,MS,
REVIEWED BY	MP, RB
PROJECT MANAGER	MP
PROJECT NUMBER	23131

REVISION SUMMARY

DATE	DESCRIPTION

REMOVALS PLAN

C1.0

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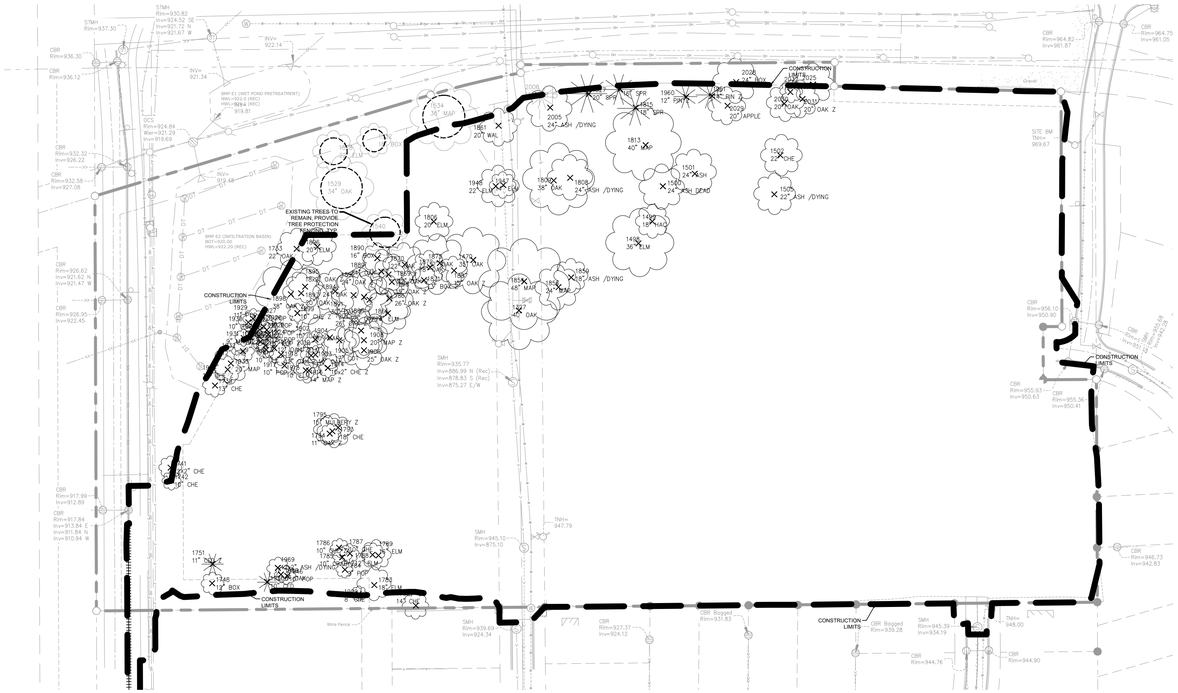

	PRESERVED			REMOVED			TOTAL			40% IN R DISTRICTS, 50% IN BUSINESS ALLOWABLE REMOVAL		REPLACEMENT OBLIGATION	REPLACEMENT FACTOR		REPLACEMENT	
	NUMBER	CAL. IN	% OF CAL.	NUMBER	CAL. IN	% OF CAL.	NUMBER	CAL. IN.	% OF CAL.	NUMBER	CAL. IN.	CAL. IN.				CAL. IN.
RES. AREA HERITAGE TREES	0	0	0.0%	5	202	100.0%	5	202	100.0%	2	80.8	121.2	CLASS C	100%		121.2
RES. AREA SIGNIFICANT TREES	0	0	0.0%	12	224	100.0%	12	224	100.0%	4.8	89.6	134.4	CLASS B	100%		134.4
RES. AREA COMMON TREES	0	0	0.0%	0	0	0.0%	0	0	#DIV/0!	0	0	0	CLASS B	100%		0
TOTAL	0	0		17	426		17	426		6.8	170.4	255.6			103	255.6
BUS. AREA HERITAGE TREES	2	70	23.4%	7	229	76.6%	9	299	100.0%	4.5	149.5	79.5	CLASS C	100%		79.5
BUS. AREA SIGNIFICANT TREES	2	46	5.1%	57	863	94.9%	59	909	100.0%	29.5	363.6	499.4	CLASS B	100%		499.4
BUS. AREA COMMON TREES	0	0	#DIV/0!	0	0	#DIV/0!	0	0	#DIV/0!			0	CLASS B	100%		0
TOTAL	4	116		64	1092		68	1208		34	513.1	578.9			232	578.9
TOTALS	4	116		81	1518		85	1634		40.8	683.5					
										TOTAL CAL. IN REPLACEMENT REQ. (HERITIAGE + SIGNIFICANT)						834.5
										NUMBER OF TREES @ 2.5" CAL.						239

EXIST. TREE STOCK CLASS BREAKDOWN		
CLASS	CAL. IN.	% OF TOTAL
A	28	31.1%
B	48	53.3%
C	14	15.6%

TREE SPECIES	CLASS
ASH	B
BOX ELDER	A
CEDAR	B
CHERRY	B
COTTONWOOD	A
CRABAPPLE	B
ELM	A
HACKBERRY	B
MULBERRY	A
MAPLE	B
OAK	B
PINE	B
POPLAR	A
SPRUCE	B
WALNUT	B

NO	TYPE	SIZE	SPECIES	NOTES	HERITAGE	SIGNIFICANT	COMMON	CLASS	AREA IN PUD	REMOVE
1327	TRD	40	OAK		X			C	R	X
1470	TRD	35	OAK		X			C	B	X
1498	TRD	36	ELM		X			C	R	X
1499	TRD	18	HACKBERRY			X		B	R	X
1500	TRD	24	ASH	DEAD					R	X
1501	TRD	24	ASH			X		B	R	X
1502	TRD	22	CHERRY			X		B	R	X
1505	TRD	22	ASH	DEAD					R	
1528	TRD	22	ELM			X		A	B	
1529	TRD	34	OAK		X			C	B	
1532	TRD	18	BOX ELDER					A	B	
1534	TRD	36	MAPLE		X			C	B	
1540	TRD	24	OAK			X		B	B	
1733	TRD	22	OAK			X		B	B	X
1738	TRD	13	CHERRY			X		B	B	X
1741	TRD	24	CHERRY	12X2 DOUBLE TR		X		B	B	X
1742	TRD	10	CHERRY			X		B	B	X
1748	TRD	12	BOX ELDER					A	B	X
1751	TRC	11	CEDAR			X		B	B	X
1782	TRD	14	CHERRY			X		B	B	X
1783	TRD	18	ELM			X		A	B	X
1784	TRD	9	POPLAR			X		A	B	X
1785	TRD	10	CRABAPPLE			X		B	B	X
1786	TRD	10	CHERRY			X		B	B	X
1787	TRD	10	CHERRY			X		B	B	X
1788	TRD	12	ELM			X		A	B	X
1789	TRD	16	ELM			X		A	B	X
1793	TRD	18	CHERRY			X		B	B	X
1794	TRD	11	OAK			X		B	B	X
1795	TRD	15	MULBERRY			X		A	B	X
1806	TRD	20	ELM			X		A	B	X
1808	TRD	24	ASH	DEAD					R	X
1809	TRD	38	OAK		X			C	R	X
1813	TRD	40	MAPLE		X			C	R	X
1815	TRC	18	SPRUCE			X		B	R	X
1819	TRC	16	SPRUCE			X		B	R	X
1827	TRC	20	SPRUCE			X		B	R	X
1854	TRD	48	MAPLE		X			C	R	X
1856	TRD	24	MAPLE			X		B	R	X
1859	TRD	18	ASH	DEAD					R	X
1861	TRD	20	WALNUT			X		B	R	X
1866	TRD	24	ELM			X		A	B	X
1867	TRD	26	OAK			X		B	B	X
1868	TRD	15	OAK			X		B	B	X
1869	TRD	22	OAK			X		B	B	X
1870	TRD	22	OAK			X		B	B	X
1871	TRD	13	BOX ELDER					A	B	X
1872	TRD	18	OAK			X		B	B	X
1875	TRD	32	OAK		X			C	B	X
1887	TRD	15	OAK			X		B	B	X
1889	TRD	24	OAK			X		B	B	X
1890	TRD	16	BOX ELDER					A	B	X
1891	TRD	30	OAK		X			C	B	X
1892	TRD	24	OAK			X		B	B	X
1893	TRD	28	OAK		X			C	B	X
1894	TRD	24	OAK			X		B	B	X
1895	TRD	36	OAK	18X2 DOUBLE TR	X			C	B	X
1896	TRD	20	ELM			X		A	B	X
1897	TRD	20	OAK			X		B	B	X
1898	TRD	38	OAK		X			C	B	X
1899	TRD	10	CHERRY			X		B	B	X
1902	TRD	10	OAK			X		B	B	X
1903	TRD	10	OAK			X		B	B	X
1904	TRD	30	MAPLE		X			C	B	X
1905	TRD	17	COTTONWOOD					A	B	X
1906	TRD	25	OAK			X		B	B	X
1907	TRD	26	OAK			X		B	B	X
1908	TRD	20	MAPLE			X		B	B	X
1914	TRD	20	CHERRY	10X2 DOUBLE TR		X		B	B	X
1915	TRD	10	ELM			X		A	B	X
1916	TRD	14	MAPLE			X		B	B	X
1917	TRD	10	POPLAR			X		A	B	X
1918	TRD	12	OAK			X		B	B	X
1919	TRD	12	OAK			X		B	B	X
1920	TRD	10	POPLAR			X		A	B	X
1921	TRD	10	CHERRY			X		B	B	X
1922	TRD	9	CHERRY			X		B	B	X
1923	TRD	10	POPLAR			X		A	B	X
1924	TRD	12	POPLAR			X		A	B	X
1925	TRD	12	POPLAR			X		A	B	X
1926	TRD	12	POPLAR			X		A	B	X
1927	TRD	12	POPLAR			X		A	B	X
1928	TRD	10	POPLAR			X		A	B	X
1929	TRD	11	POPLAR			X		A	B	X
1930	TRD	10	POPLAR			X		A	B	X
1931	TRD	9	MAPLE			X		B	B	X
1932	TRD	12	CHERRY			X		B	B	X
1933	TRD	20	MAPLE			X		B	B	X
1934	TRD	14	CHERRY			X		B	B	X
1947	TRD	14	ELM			X		A	R	X
1948	TRD	22	ELM			X		A	R	X
1960	TRC	12	PINE			X		B	R	X
1961	TRC	14	PINE			X		B	R	X
2019	TRD	14	ELM			X		A	B	X

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DRAWN BY	MP, RB, AM, MD,JR,MS,
REVIEWED BY	MP, RB
PROJECT MANAGER	MP
PROJECT NUMBER	23131

REVISION SUMMARY

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TREE PRESERVATION PLAN

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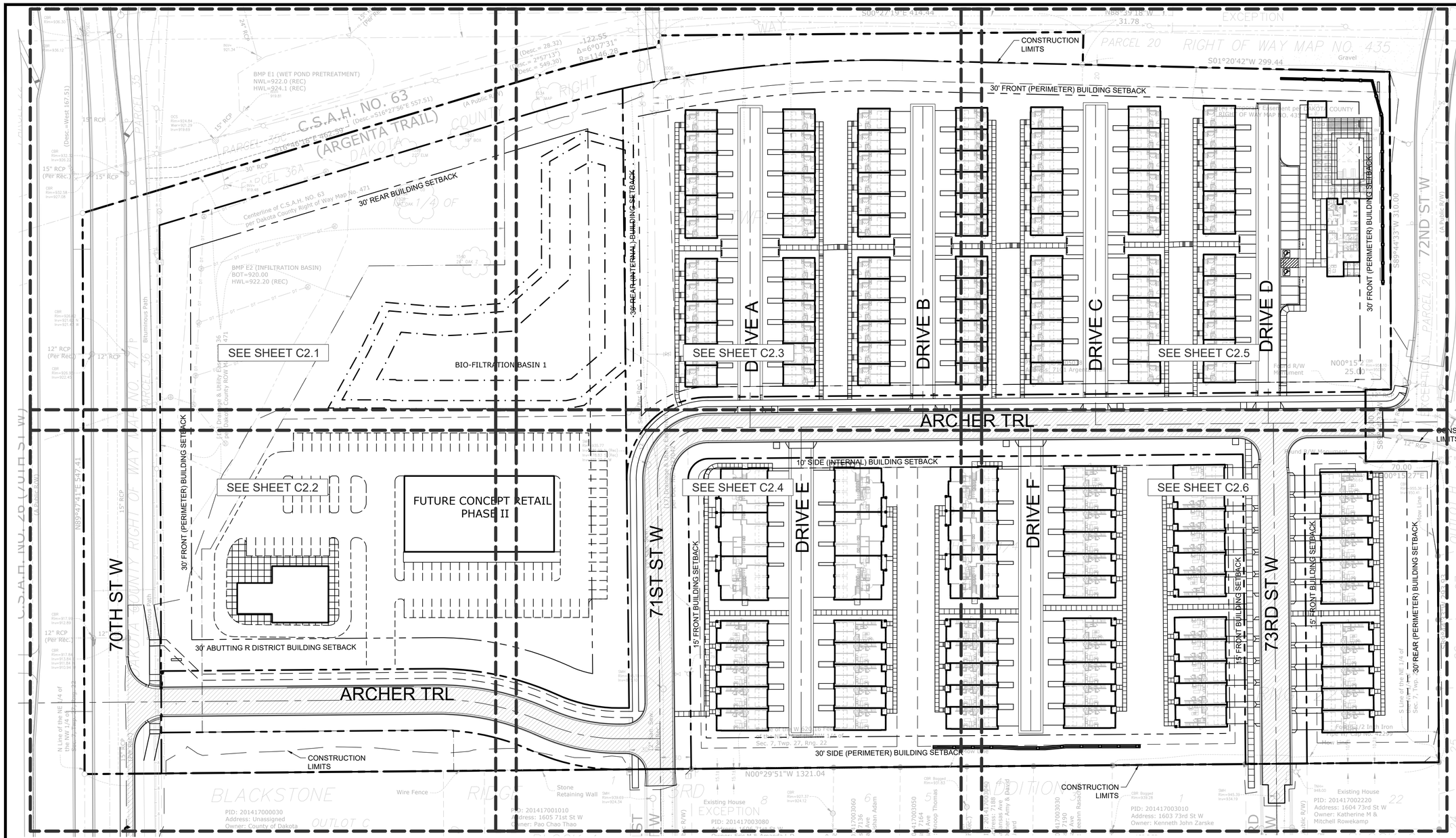

SITE AREAS CALCULATIONS:

SITE AREA CALCULATIONS

	EXISTING CONDITION			PROPOSED CONDITION		
TOWNHOME LOT AREA						
IMPERVIOUS SURFACES						
BUILDING COVERAGE	9,080 SF	2.1%		124,566 SF	28.2%	
PAVEMENT	48,480 SF	11.0%		127,251 SF	28.8%	
TOTAL IMPERVIOUS SURFACE	57,560 SF	13.0%	1.32 AC	251,817 SF	56.9%	5.78 AC
PERVIOUS SURFACES						
TOTAL PERVIOUS SURFACE	384,672 SF	87.0%	8.83 AC	190,415 SF	43.1%	4.37 AC
TOTAL TOWNHOME LOT AREA	442,232		10.15 AC	442,232		10.15 AC

	EXISTING CONDITION			PROPOSED CONDITION		
OUTLOT A						
IMPERVIOUS SURFACES						
BUILDING COVERAGE	0 SF	0.0%		0 SF	0.0%	
PAVEMENT	0 SF	0.0%		0 SF	0.0%	
TOTAL	0 SF	0.0%	0.00 AC	0 SF	0.0%	0.00 AC
PERVIOUS SURFACES						
TOTAL	14,305 SF	100.0%	0.33 AC	14,305 SF	100.0%	0.33 AC
TOTAL OUTLOT A AREA	14,305 SF		0.33 AC	14,305 SF		0.33 AC

	EXISTING CONDITION			PROPOSED CONDITION		
OUTLOT B (RETAIL AREA)						
IMPERVIOUS SURFACES						
BUILDING COVERAGE	0 SF	0.0%		14,854 SF	14.2%	
PAVEMENT	0 SF	0.0%		50,754 SF	48.6%	
TOTAL	0 SF	0.0%	0.00 AC	65,608 SF	62.8%	1.51 AC
PERVIOUS SURFACES						
TOTAL	104,464 SF	100.0%	2.40 AC	38,856 SF	37.2%	0.89 AC
TOTAL OUTLOT B AREA	104,464 SF		2.40 AC	104,464 SF		2.40 AC

	EXISTING CONDITION			PROPOSED CONDITION		
OUTLOT C						
IMPERVIOUS SURFACES						
BUILDING COVERAGE	556 SF	0.4%		0 SF	0.0%	
PAVEMENT	144 SF	0.1%		0 SF	0.0%	
TOTAL	700 SF	0.6%	0.00 AC	0 SF	0.0%	0.00 AC
PERVIOUS SURFACES						
TOTAL	126,013 SF	99.4%	2.89 AC	126,713 SF	100.0%	2.91 AC
TOTAL OUTLOT B AREA	126,713 SF		2.91 AC	126,713 SF		2.91 AC

	EXISTING CONDITION			PROPOSED CONDITION		
PUBLIC ROADS (DEDICATED ROW AREA)						
IMPERVIOUS SURFACES						
BUILDING COVERAGE	0 SF	0.0%		0 SF	0.0%	
PAVEMENT	0 SF	0.0%		71,159 SF	67.1%	
TOTAL	0 SF	0.0%	0.00 AC	71,159 SF	67.1%	1.63 AC
PERVIOUS SURFACES						
TOTAL	105,999 SF	100.0%	2.43 AC	34,840 SF	32.9%	0.80 AC
TOTAL ROW AREA	105,999 SF		2.43 AC	105,999 SF		2.43 AC
TOTAL SITE AREA						
TOTAL IMPERVIOUS AREA	57,560 SF	8.6%	1.32 AC	388,401 SF	48.9%	8.92 AC
TOTAL PERVIOUS AREA	609,440 SF	91.4%	14.0 AC	314,918 SF	39.7%	7.23 AC
TOTAL SITE AREA NET DEVELOPABLE	667,000 SF		15.31 AC	793,713 SF		18.22 AC
TOTAL DEDICATED COUNTY ROW	197,806		4.54 AC	71,093		1.63 AC
GROSS SITE AREA	864,806		19.85 AC	864,806		19.85 AC
DIFFERENCE (EX. VS PROP.)	330,841 SF	40.3%				
DISTURBED AREA	737,000 SF	16.9 AC				

RETAIL SETBACKS

	COMMERCIAL B-2 (PERIMETER)	NWA B-2 (10-13J-5) (INTERNAL)	PROPOSED
FRONT	30 FEET	MIN: 10 FEET MAX: 30 FEET	30 FEET
REAR	30 FEET	30 FEET	30 FEET
SIDE	10 FEET	20 FEET BETWEEN BUILDINGS	N/A
ABUTTING R DISTRICT	30 FEET	N/A	30 FEET

PARKING CALCULATIONS

TOTAL NUMBER OF UNITS	159	UNITS	
TOTAL REQUIRED PARKING	398	STALLS	2.5 STALLS X NUMBER OF UNITS
GARAGES	300	STALLS	18 SINGLE GARAGE + 141 DOUBLE GARAGE
DRIVEWAY PARKING	300	STALLS	18 SINGLE STALL + 141 DOUBLE STALL
ADDITIONAL PARKING	14	STALLS	PROVIDED AT THE CLUBHOUSE
ADDITIONAL GUEST PARKING	14	STALLS	HALFWAY UP PRIVATE DRIVES (EAST SIDE)
TOTAL PROVIDED PARKING	628	STALLS	

RESIDENTIAL (R3-C) SETBACKS

	TOWNHOME (10-15B-2) (PERIMETER)	NWA R3-C (10-13J-5) (INTERNAL)	PROPOSED	COMPLIANT OR FLEXABILITY REQUEST
FRONT	30 FEET	MIN: 20 FEET MAX: 30 FEET	PERIM: 30 FEET INTERN: 15 FEET	PERIM: COMPLIANT INTERN: FLEX. REQUEST
REAR	30 FEET	30 FEET	PERIM: 30 FEET INTERN: 15 FEET	PERIM: COMPLIANT INTERN: FLEX. REQUEST
SIDE	30 FEET	20 FEET BETWEEN BUILDINGS	PERIM: 30 FEET INTERN: 10 FEET MIN. 18 FEET BETWEEN BUILDINGS	PERIM: COMPLIANT INTERN: FLEX. REQUEST
LOCAL STREET	40 FEET	N/A	10 FEET	FLEX. REQUEST
BUILDING COVERAGE	20% MAX.	NA	28.2%, SEE AREA TABLE	FLEX. REQUEST

ZONING

CURRENT	A- AGRICULTURAL
PROPOSED	B-2 PUD, R-3 PUD

Know what's below. Call before you dig.

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25'-0" 0 50'-0"

SITE PLAN LEGEND:

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- HEAVY DUTY BITUMINOUS PAVEMENT (IF APPLICABLE). SEE GEOTECHNICAL REPORT FOR AGGREGATE BASE & WEAR COURSE DEPTH, SEE DETAIL.
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- PROPERTY LINE
- CONSTRUCTION LIMITS

SEE SHEET C0.1 FOR GENERAL SITE NOTES

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REVIEWED BY	MP, RB
PROJECT MANAGER	MP
PROJECT NUMBER	23131

REVISION SUMMARY

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SITE PLAN - OVERALL

C2.0

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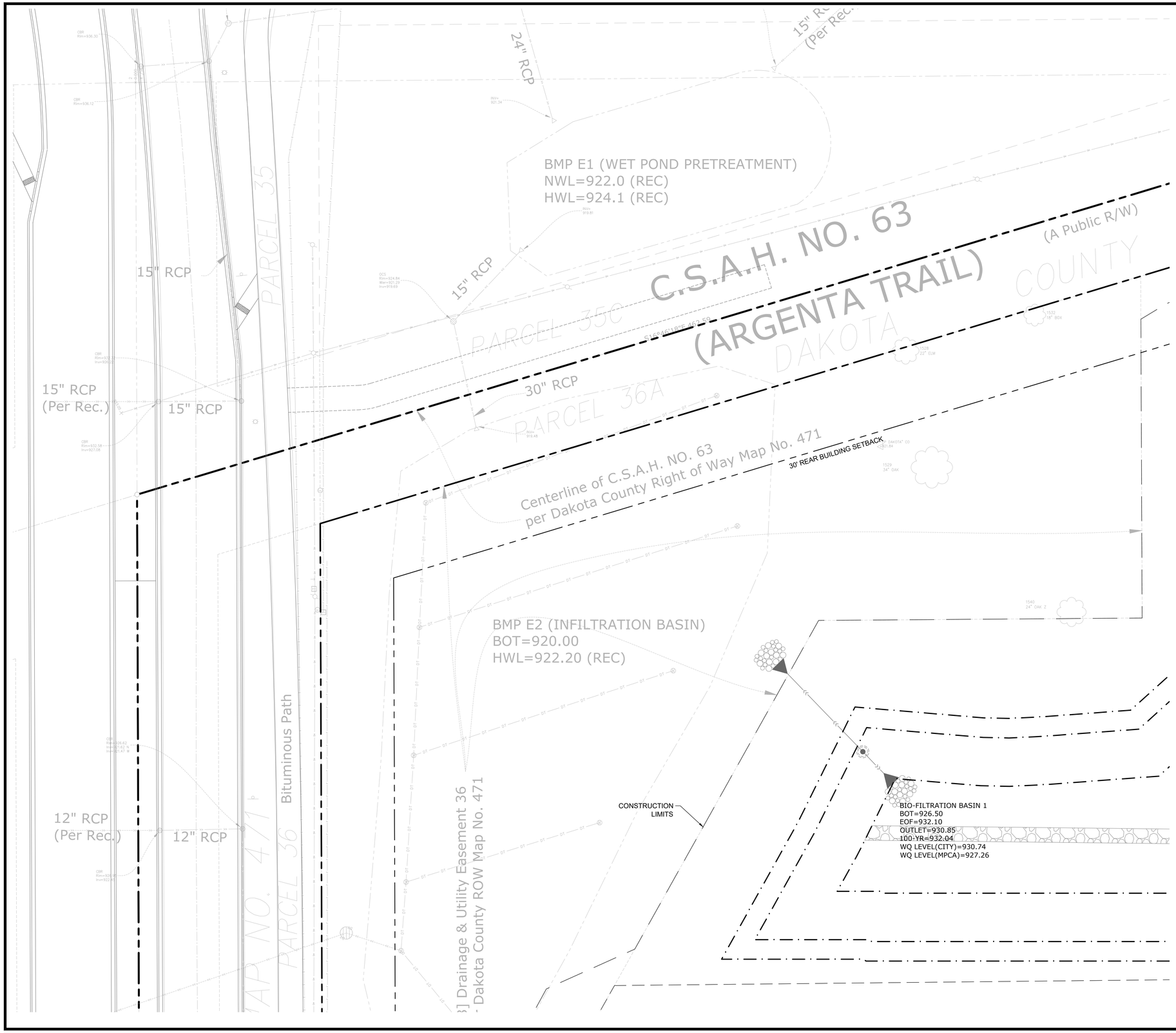

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SITE PLAN - NORTHEAST CORNER

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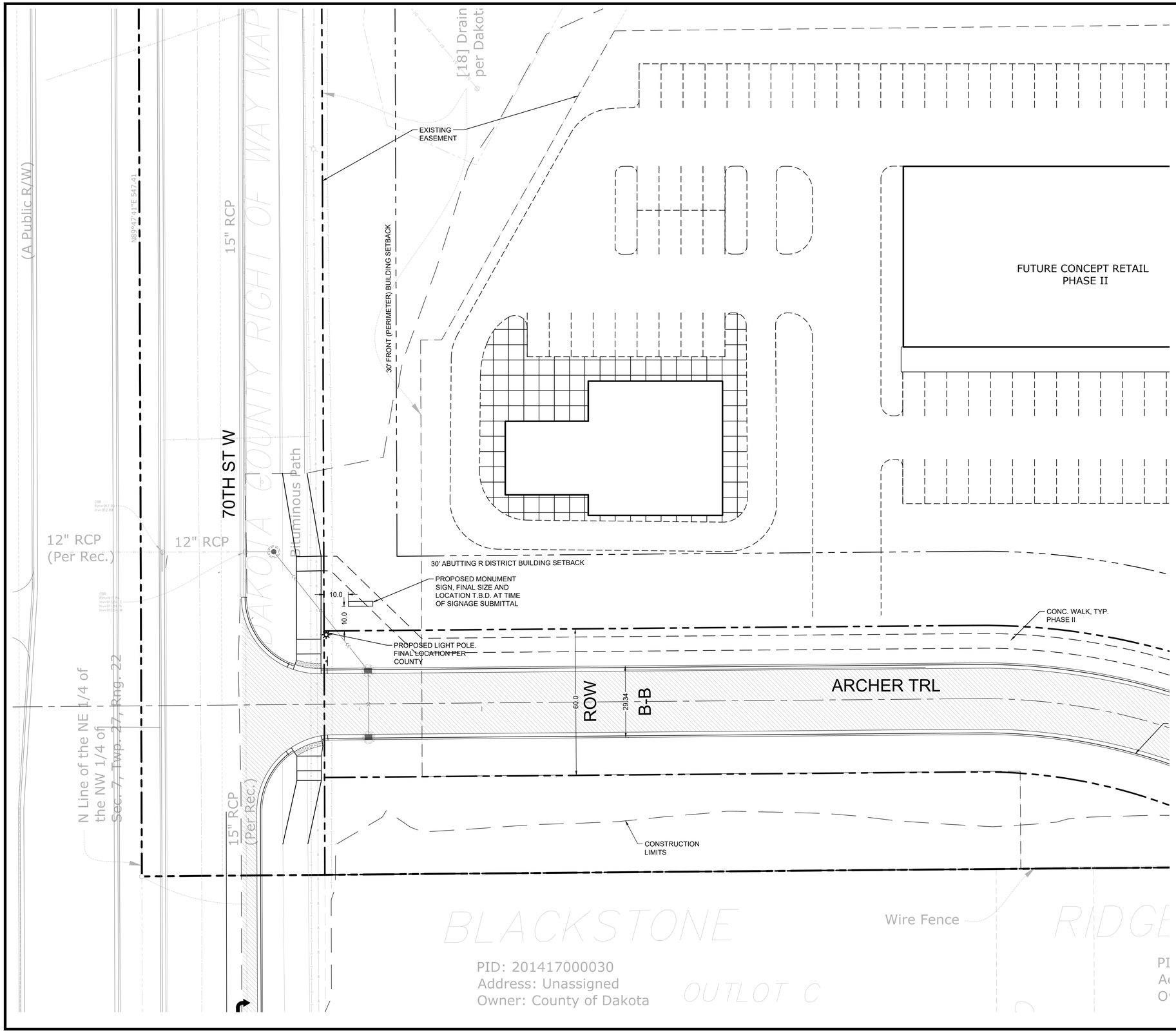

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REVISION SUMMARY

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SITE PLAN - NORTHWEST CORNER

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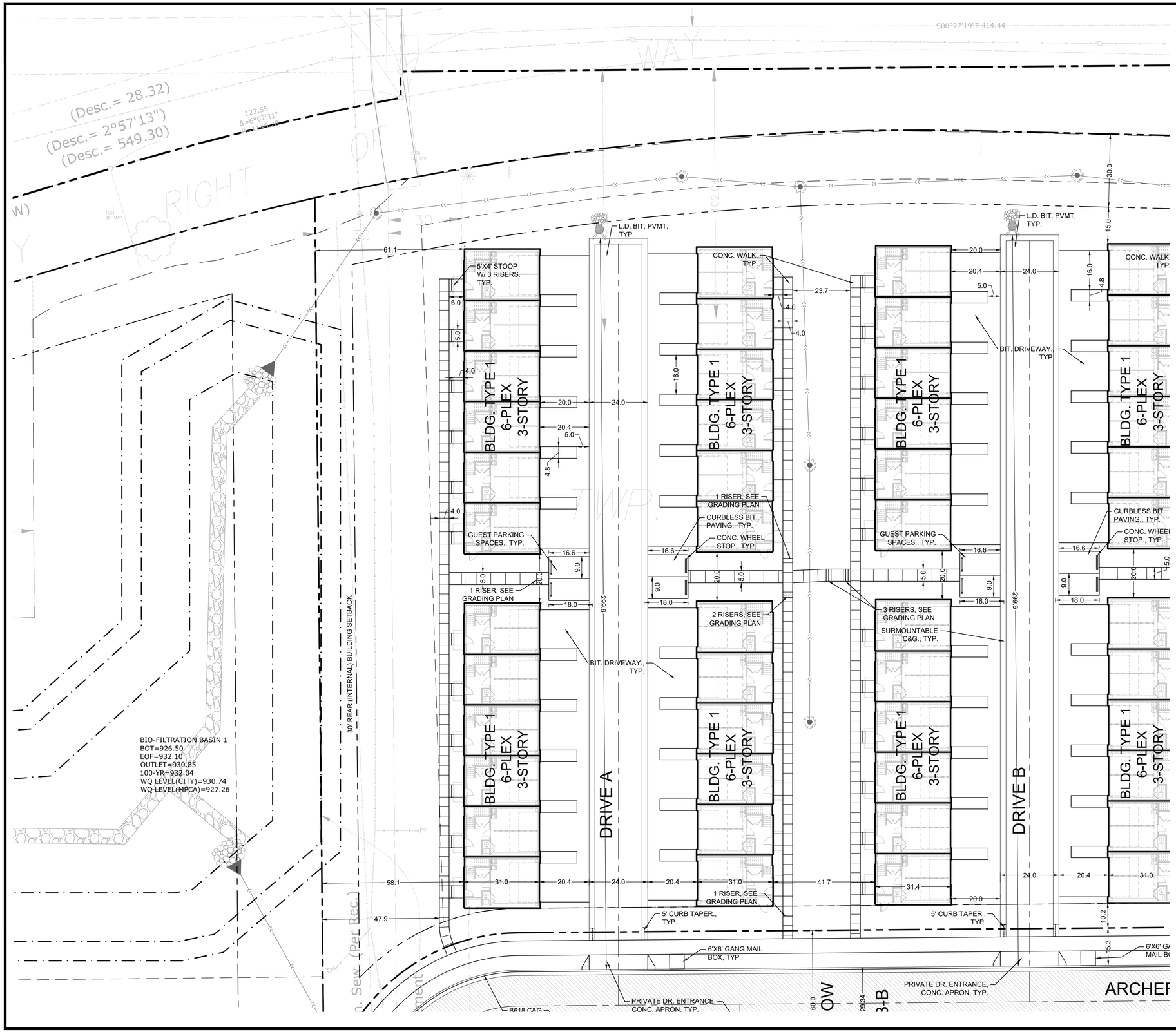

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11/20/2023	PRELIMINARY PLAT/PUD RESUBMITTAL
6/7/2024	PRICING SET
6/17/2024	FINAL PLAT / PUD SUBMITTAL

DRAWN BY	MP, RB, AM, MD,JR,MS,
REVIEWED BY	MP, RB
PROJECT MANAGER	MP
PROJECT NUMBER	23131

REVISION SUMMARY

DATE	DESCRIPTION

SITE PLAN - EAST CENTER

C2.3

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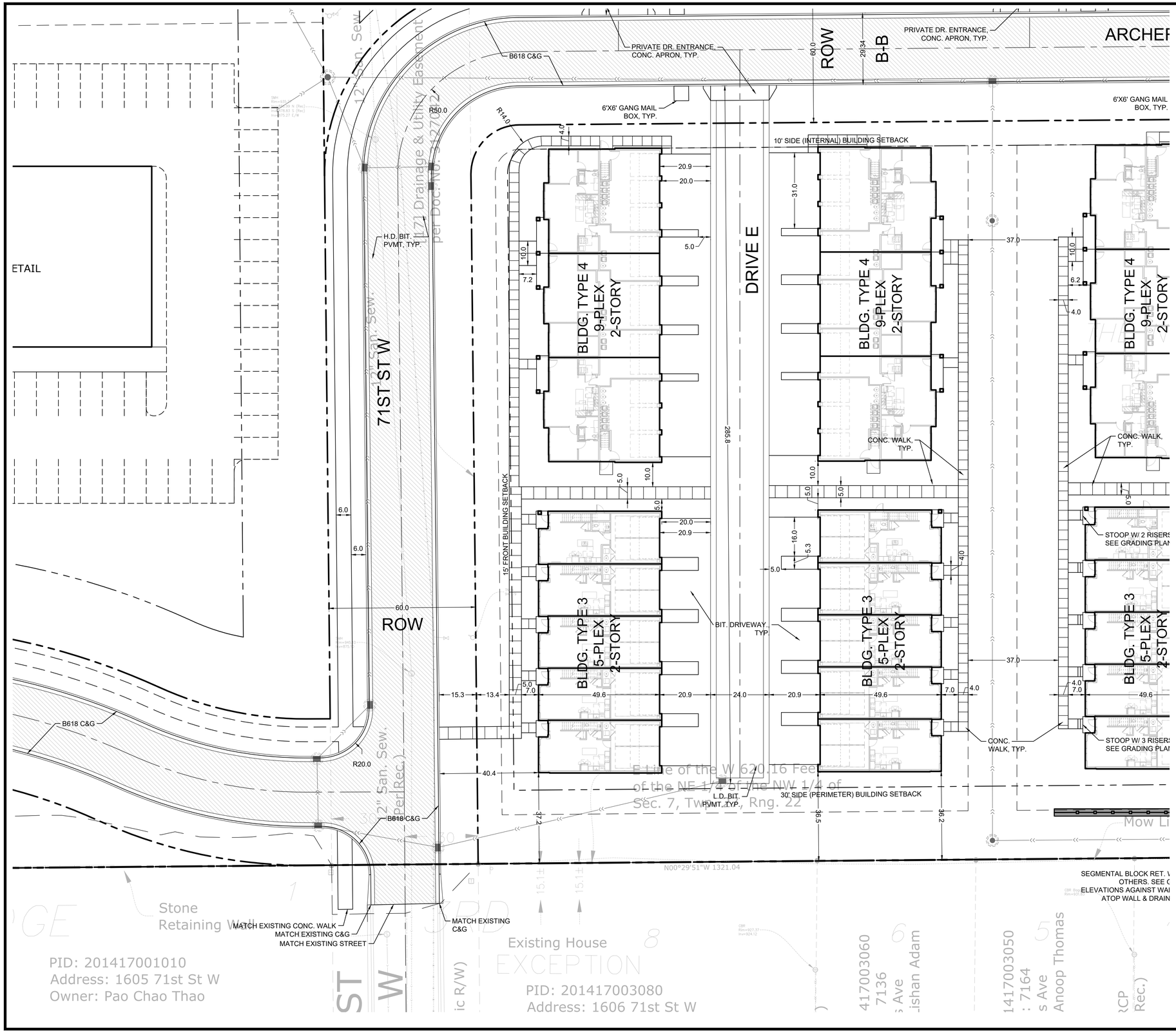

SEE SHEET C0.1 FOR GENERAL SITE NOTES

SITE PLAN LEGEND:

- BITUMINOUS PAVEMENT. SEE GEOTECHNICAL REPORT FOR AGGREGATE BASE & WEAR COURSE DEPTH, SEE DETAIL.
- CURB AND GUTTER-SEE NOTES (T.O.) TIP OUT GUTTER WHERE APPLICABLE-SEE PLAN
- CONCRETE PAVEMENT (IF APPLICABLE) AS SPECIFIED (PAD OR WALK) SEE GEOTECHNICAL REPORT FOR AGGREGATE BASE & CONCRETE DEPTHS, WITHIN ROW SEE CITY DETAIL, WITHIN PRIVATE PROPERTY SEE CSG DETAIL
- PROPERTY LINE

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10'-0" 0 20'-0"

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PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT

ARGENTA TRAIL

SOUTHWEST CORNER OF 70th STREET WEST & ARGENTA TRAIL
INTERSECTION, INVER GROVE HEIGHTS

STUART DEVELOPMENT CORPORATION

1000 WEST 80TH STREET, MINNEAPOLIS, MN 55420

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Matthew R. Pavek

DATE 06/17/2024 LICENSE NO. 44263

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SITE PLAN - WEST CENTER

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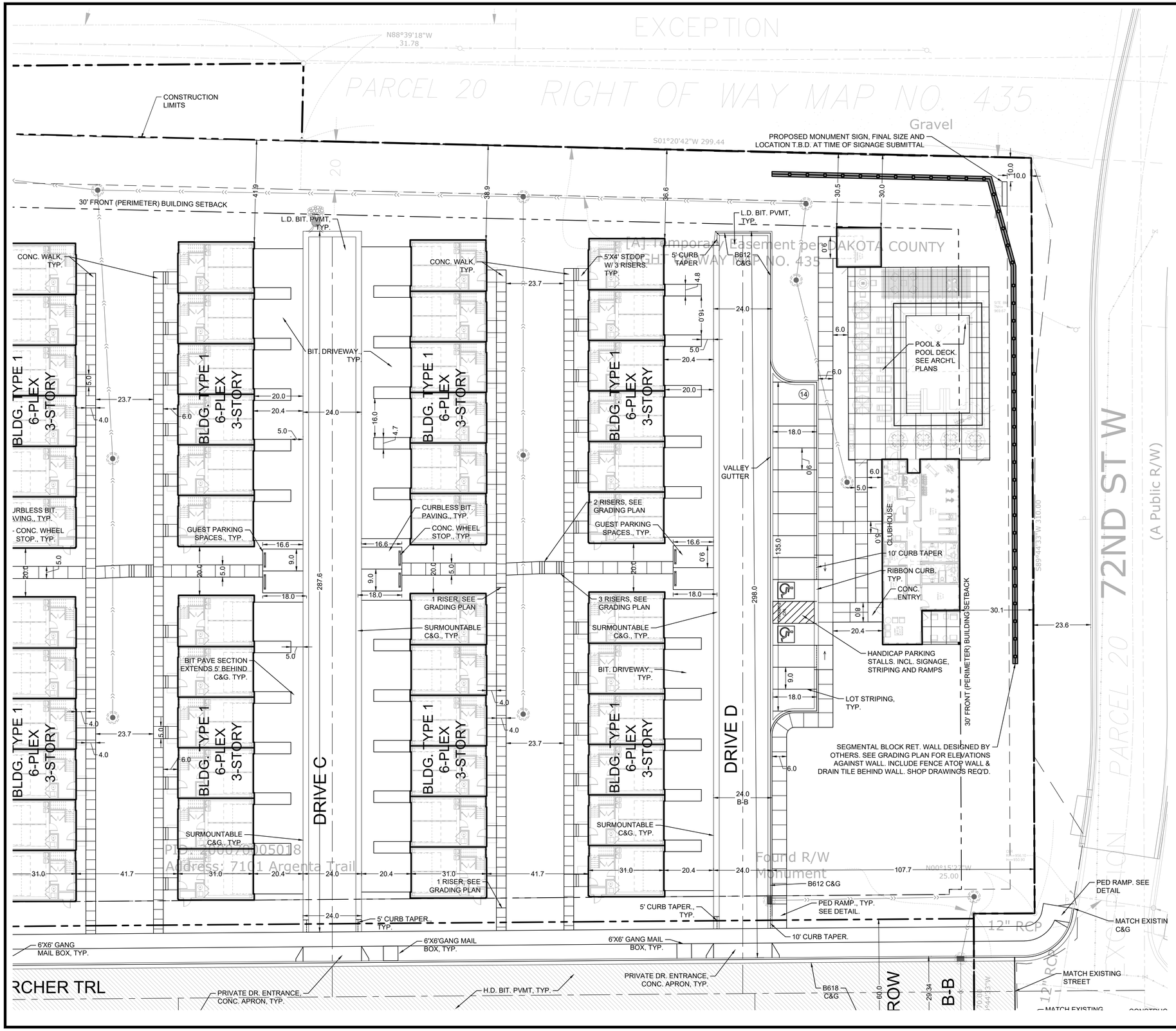

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SITE PLAN - SOUTHEAST CORNER

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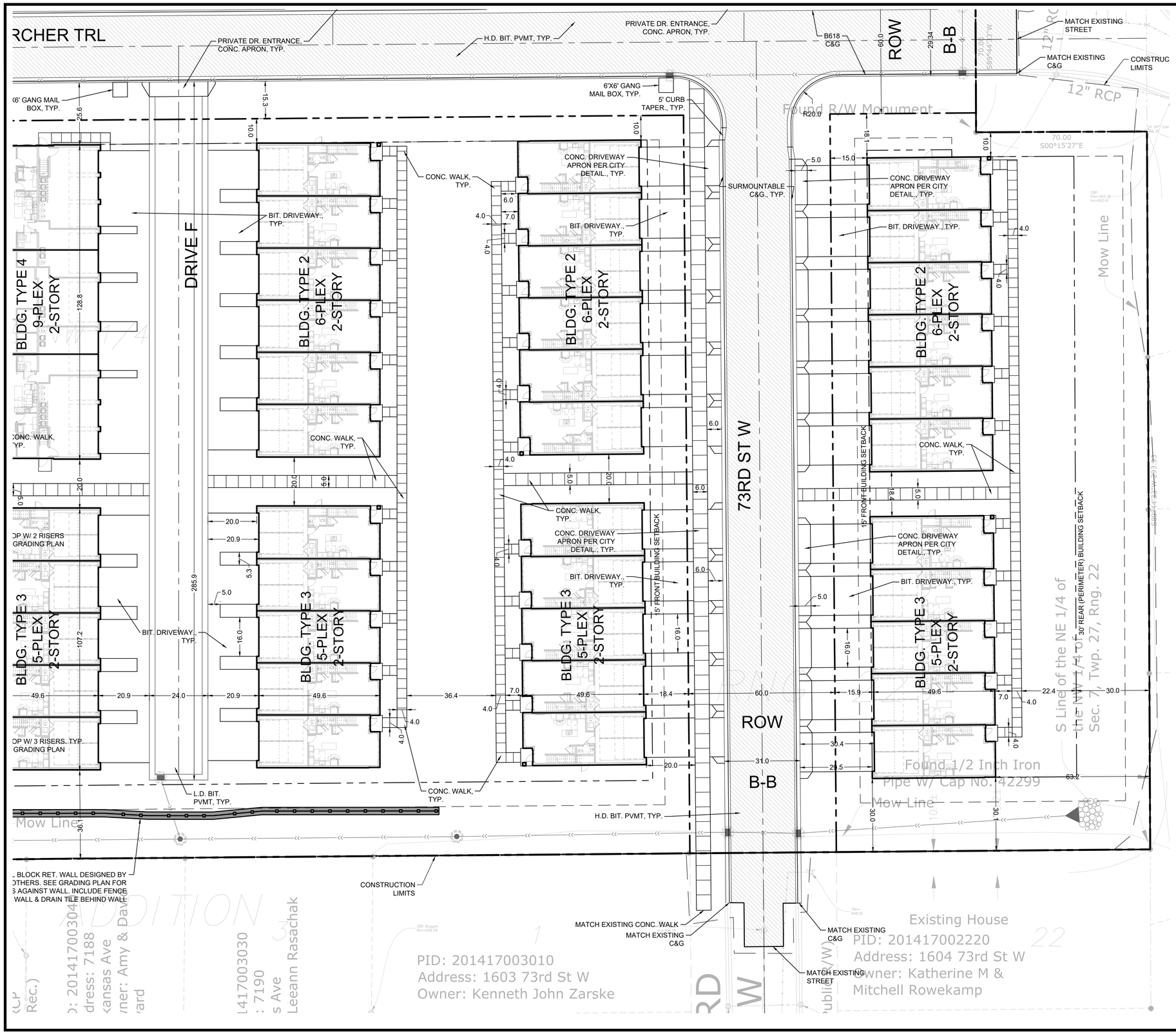

SEE SHEET C0.1 FOR GENERAL SITE NOTES

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SITE PLAN SOUTHWEST CORNER

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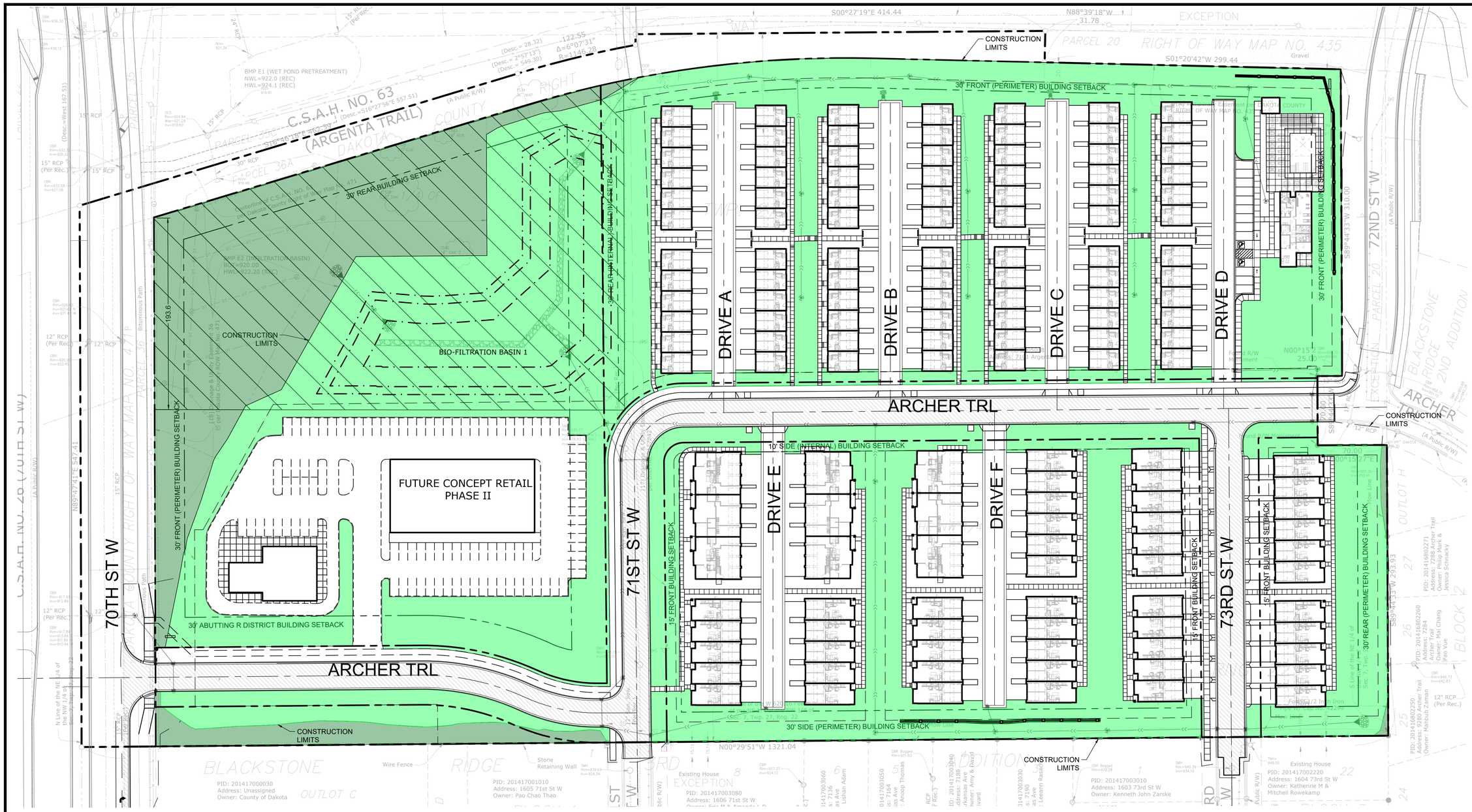

LEGEND:

- DISTURBED OPEN SPACE
- UNDISTURBED OPEN SPACE
- CONTIGUOUS OPEN SPACE (100' WIDTH MINIMUM)

AREA CALCULATIONS

TOTAL SITE, GROSS AREA	19.85 ACRES
PROPOSED COUNTY ROW	1.63 ACRES
BELOW OHW LEVEL	N/A ACRES
WITHIN WETLAND BOUNDRARIES	N/A ACRES
BLUFFS ABUTTING TO PUBLIC WATERS	N/A ACRES
PARK LAND TO BE DEDICATED	0.00 ACRES
TOTAL NET DEVELOPABLE AREA	18.22 ACRES

OPEN SPACE CALCULATIONS

NET DEVELOPABLE	18.2 ACRES	GROSS SITE AREA
REQUIRED TOTAL OPEN SPACE	3.6 ACRES	NET DEVELOPABLE AREA X 20%
REQUIRED CONTIGUOUS OPEN SPACE (100' MINIMUM WIDTH)	2.7 ACRES	REQUIRED OPEN SPACE X 75%
REQUIRED UNDISTURBED OPEN SPACE	1.8 ACRES	REQUIRED OPEN SPACE X 50%
PROVIDED TOTAL OPEN SPACE	6.4 ACRES	MEETS REQUIREMENT
PROVIDED CONTIGUOUS OPEN SPACE	2.9 ACRES	MEETS REQUIREMENT
PROVIDED UNDISTURBED OPEN SPACE	1.8 ACRES	MEETS REQUIREMENT

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25'-0" 0 50'-0"

SITE PLAN LEGEND:

- BITUMINOUS PAVEMENT. SEE GEOTECHNICAL REPORT FOR AGGREGATE BASE & WEAR COURSE DEPTH, SEE DETAIL.
- HEAVY DUTY BITUMINOUS PAVEMENT (IF APPLICABLE). SEE GEOTECHNICAL REPORT FOR AGGREGATE BASE & WEAR COURSE DEPTH, SEE DETAIL.
- CURB AND GUTTER-SEE NOTES (T.O.) TIP OUT GUTTER WHERE APPLICABLE-SEE PLAN
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SEE SHEET C0.1 FOR GENERAL SITE NOTES

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SITE PLAN - OPEN SPACE EXHIBIT

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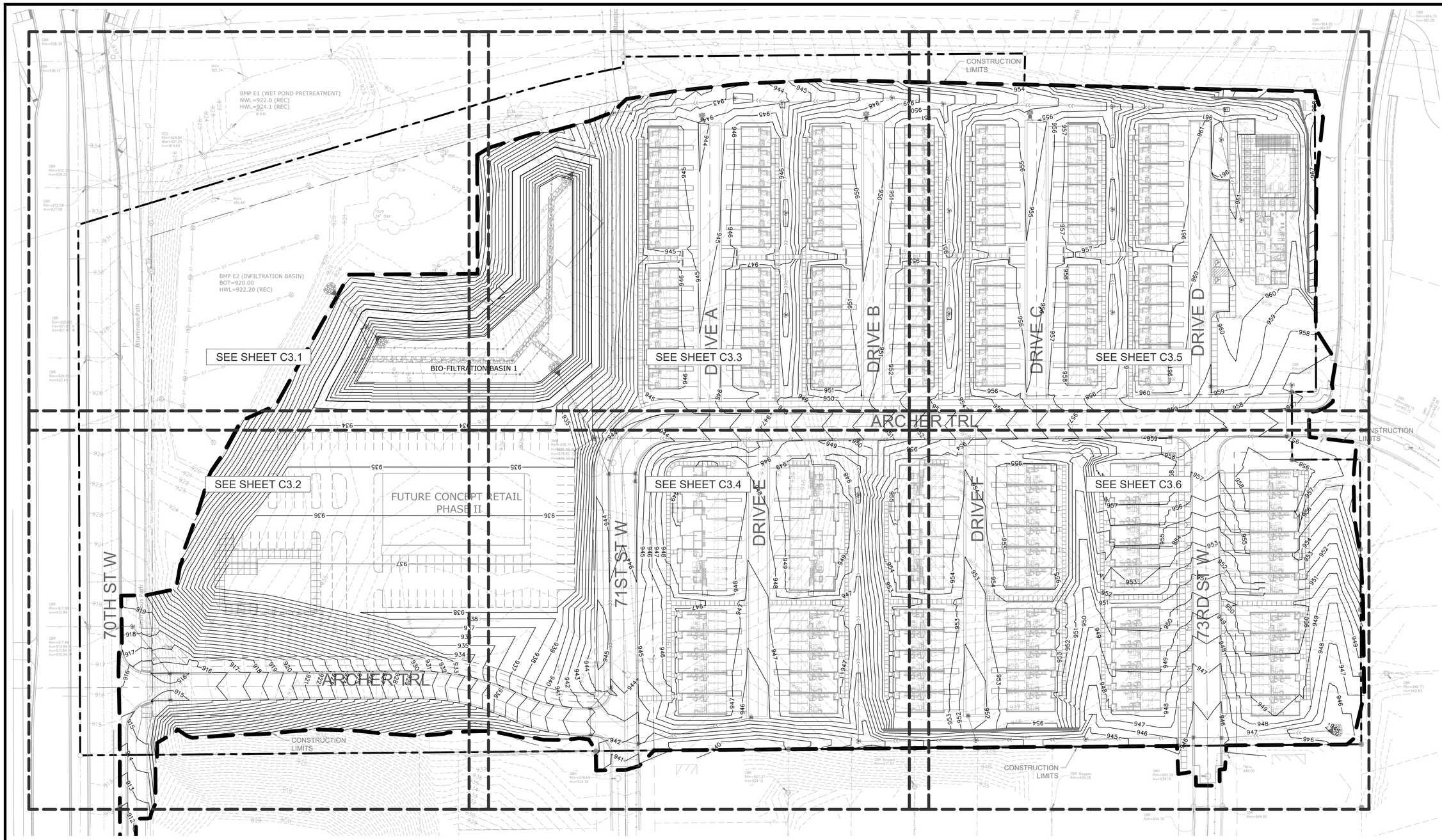

EROSION CONTROL NOTES:

SEE SWPPP ON SHEETS SW1.0 - SW1.5

SEE SHEET C0.1 FOR GENERAL GRADING NOTES

ROUGHLY ESTIMATED EARTHWORK:
±2000 CY FILL

SITE TO BALANCE

Elevations are based on the NGVD 29 Datum. Site Benchmark is the top nut of the fire hydrant located on the north side of 72nd Street W, approximatley 73 feet southwest of the southeast corner of the subject property, as shown hereon. Elevation = 969.97

GRADING PLAN LEGEND:

41.26	SPOT GRADE ELEVATION (GUTTER/FLOW LINE UNLESS OTHERWISE NOTED)
891.00 G	SPOT GRADE ELEVATION GUTTER
891.00 TC	SPOT GRADE ELEVATION TOP OF CURB
891.00 BS/TS	SPOT GRADE ELEVATION BOTTOM OF STAIRS/TOP OF STAIRS
891.00 ME	SPOT GRADE ELEVATION MATCH EXISTING
GB	GRADE BREAK - HIGH POINTS
891.00 HP	SPOT GRADE ELEVATION HIGH POINT
891.00 LP	SPOT GRADE ELEVATION LOW POINT
891.00 CB	SPOT GRADE ELEVATION CATCH BASIN
891.00 EOF	SPOT GRADE ELEVATION EMERGENCY OVERFLOW
1126	EX. 1' CONTOUR ELEVATION INTERVAL
1138	1.0' CONTOUR ELEVATION INTERVAL
TO	CURB AND GUTTER (T.O = TIP OUT)
EOF=1135.52	EMERGENCY OVERFLOW
	CONSTRUCTION LIMITS

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GRADING PLAN - OVERALL

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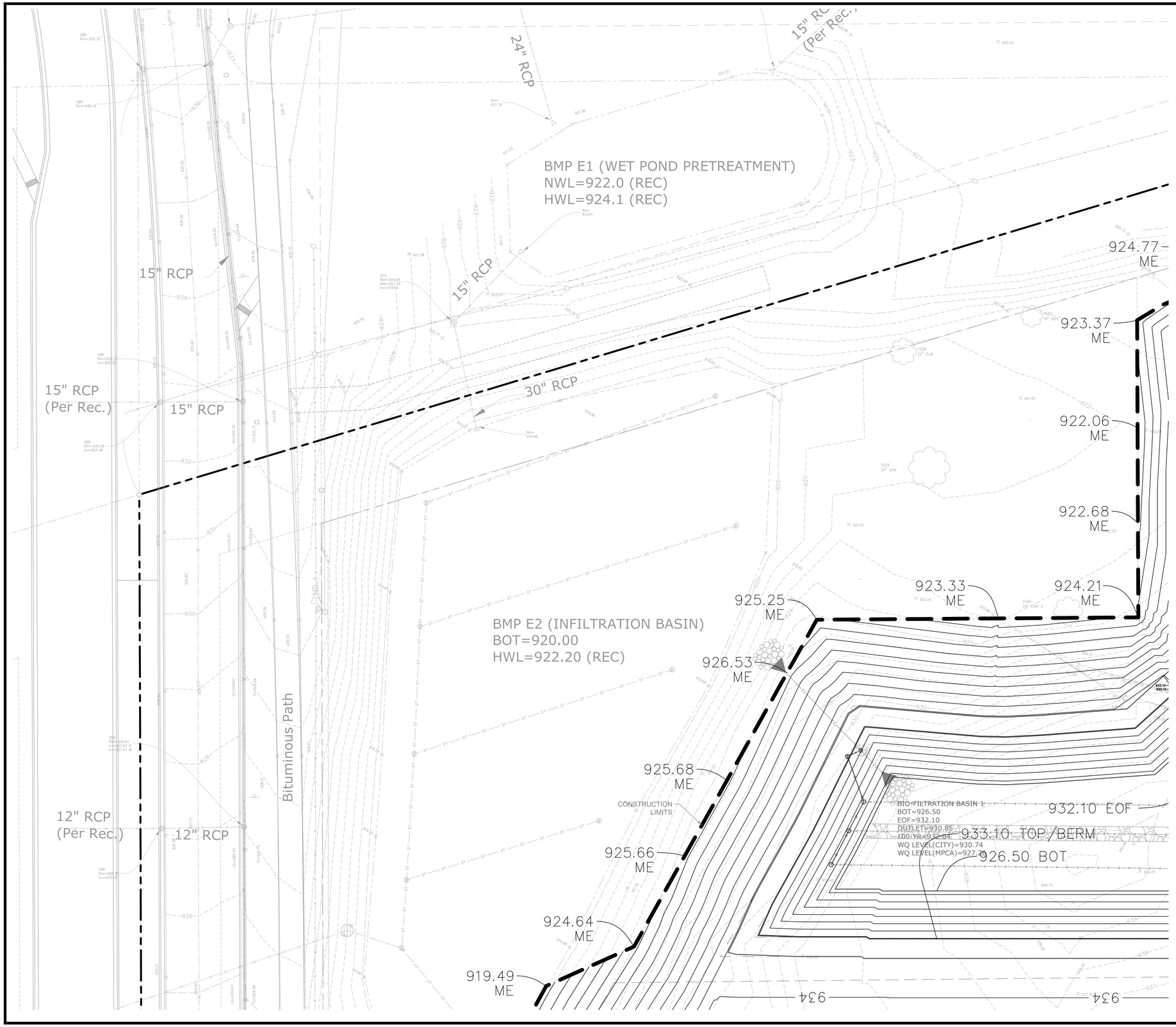

GRADING PLAN LEGEND:

1125	EX. 1' CONTOUR ELEVATION INTERVAL
1137	1.0' CONTOUR ELEVATION INTERVAL
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891.00 CB	SPOT GRADE ELEVATION CATCH BASIN
891.00 EOF	SPOT GRADE ELEVATION EMERGENCY OVERFLOW
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GRADING PLAN - NORTHEAST CORNER

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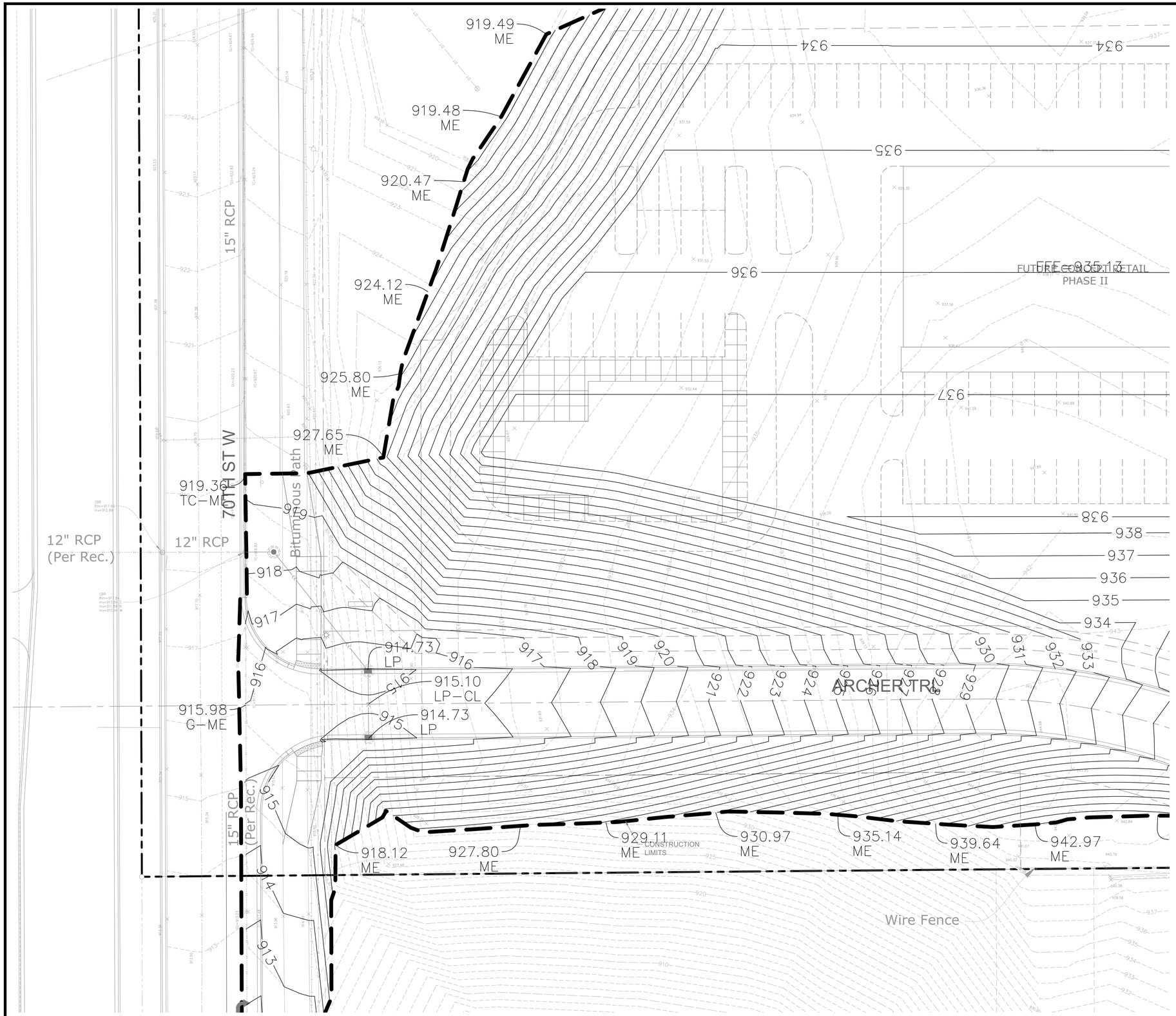

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GRADING PLAN - NORTHWEST CORNER

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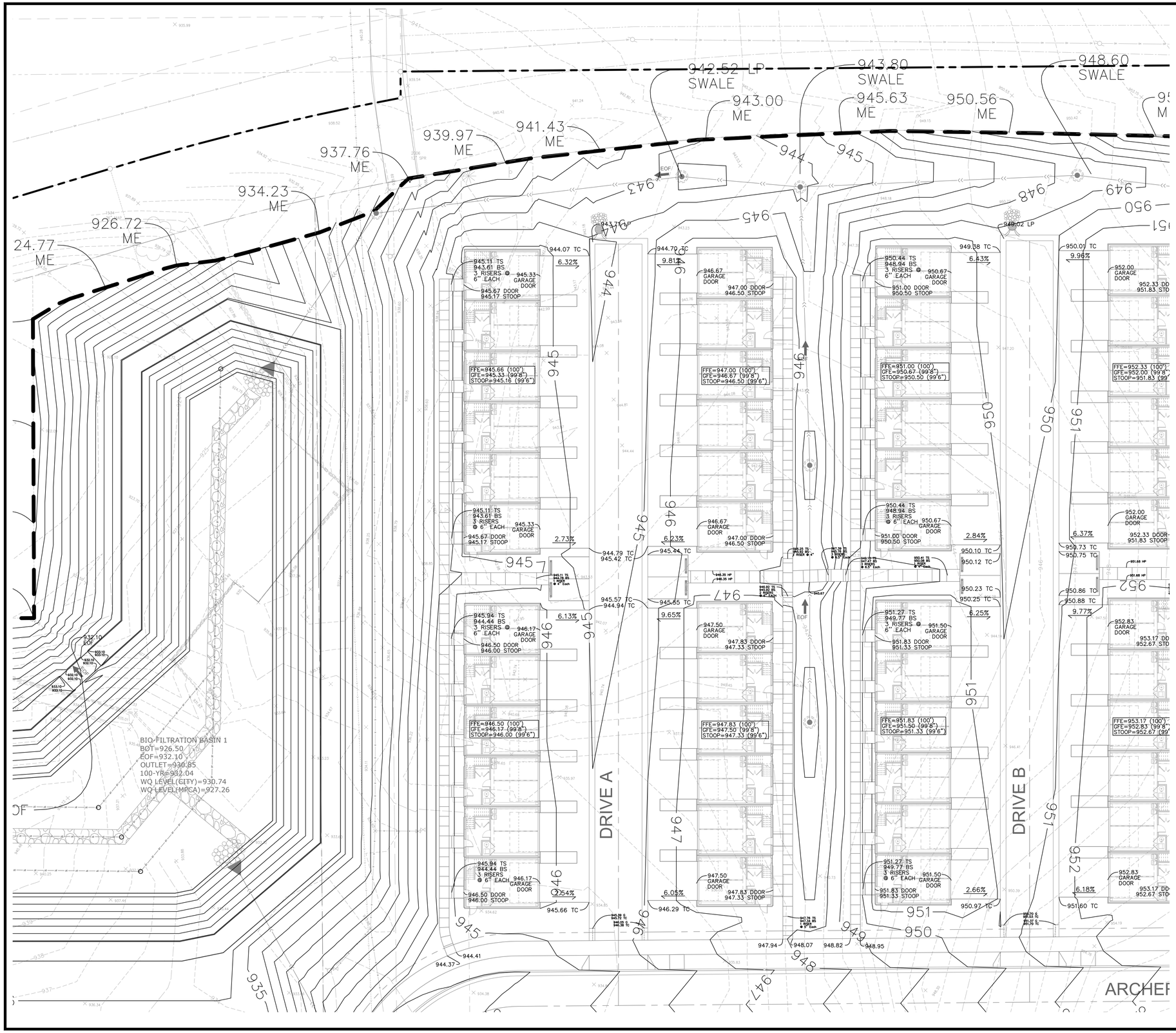

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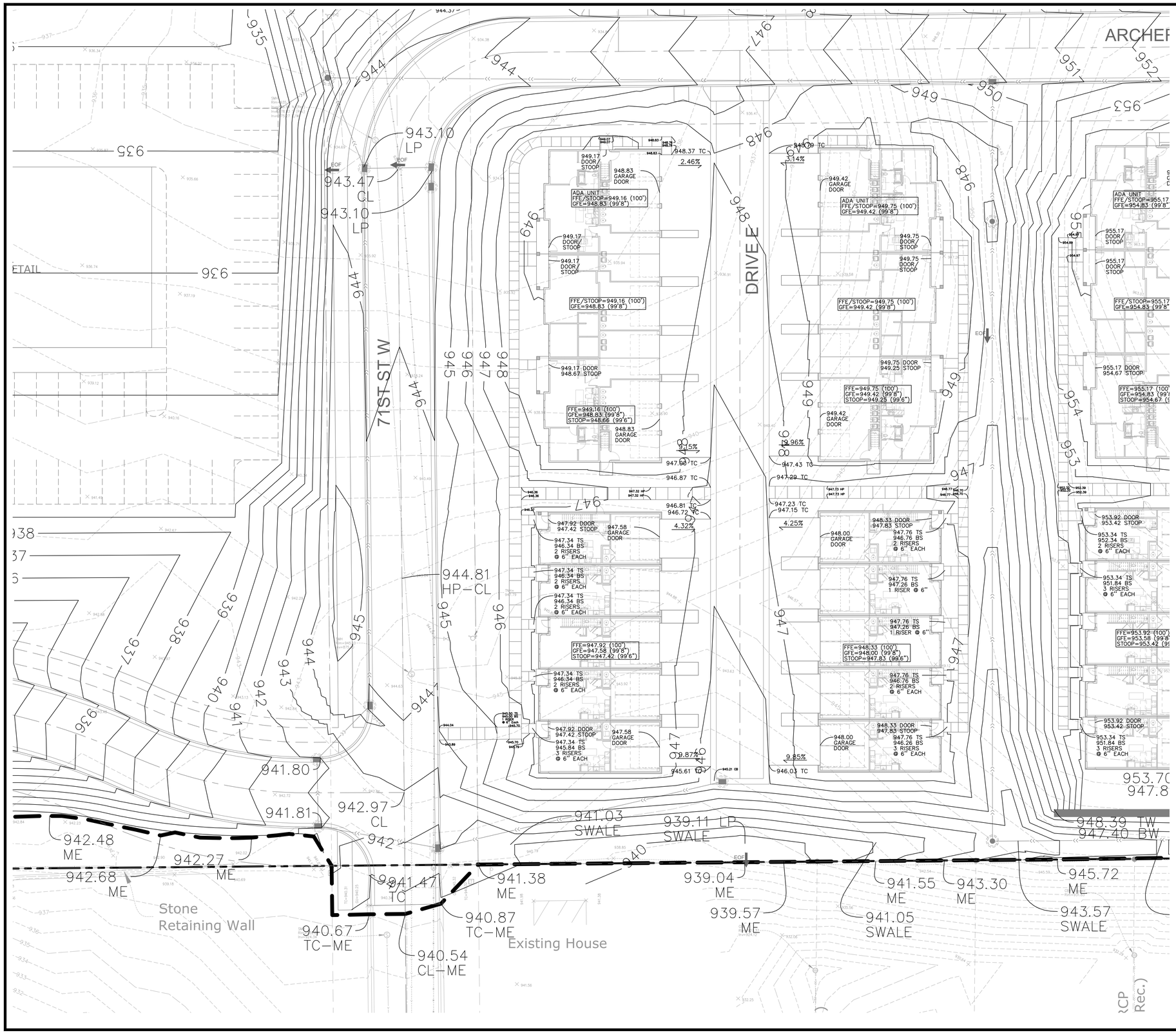

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GRADING PLAN - WEST CENTER

C3.4

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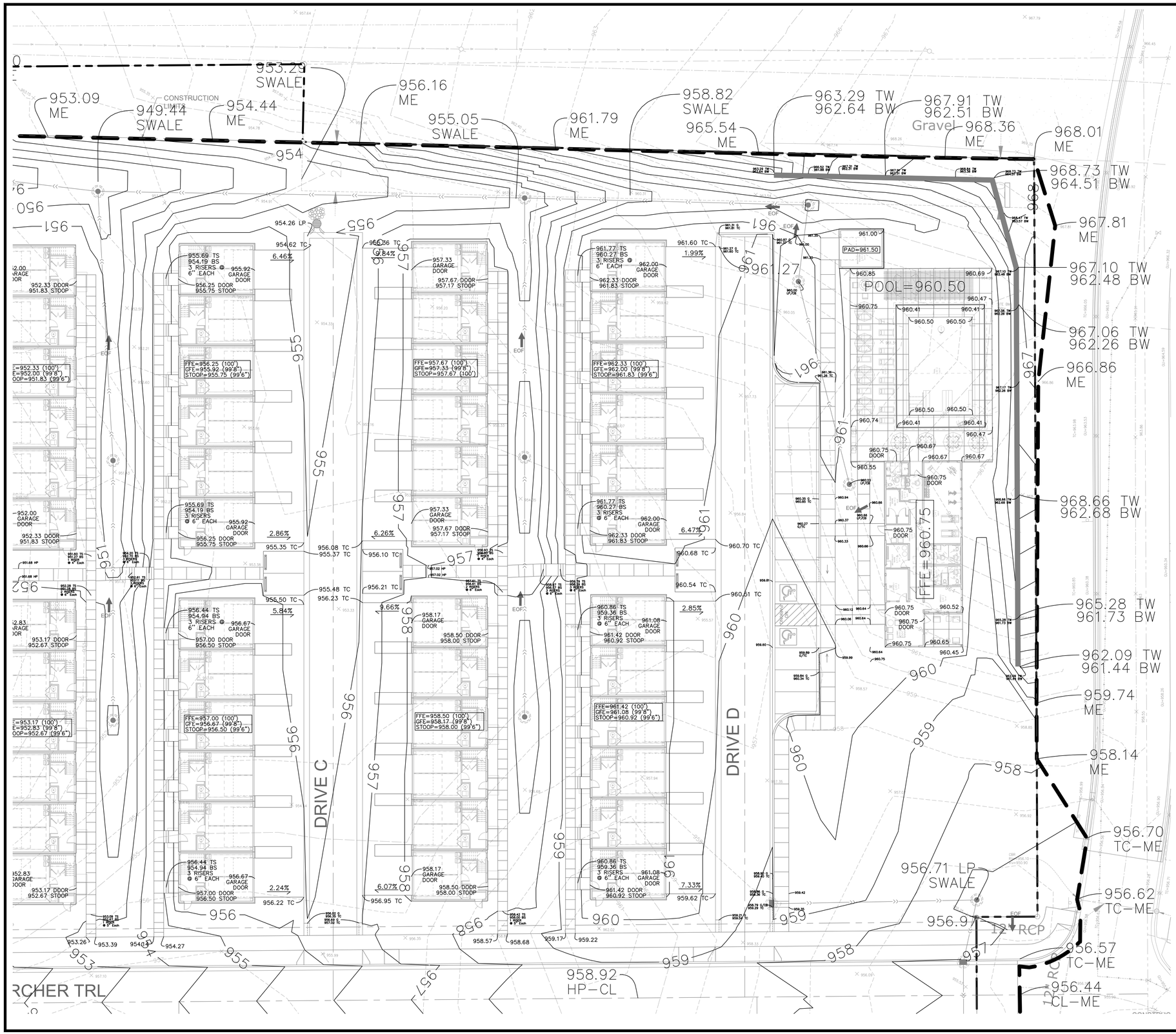

GRADING PLAN LEGEND:

1125	EX. 1' CONTOUR ELEVATION INTERVAL
1137	1.0' CONTOUR ELEVATION INTERVAL
41.26	SPOT GRADE ELEVATION (GUTTER/FLOW LINE UNLESS OTHERWISE NOTED)
891.00 G	SPOT GRADE ELEVATION GUTTER
891.00 TC	SPOT GRADE ELEVATION TOP OF CURB
891.00 BS/TS	SPOT GRADE ELEVATION BOTTOM OF STAIRS/TOP OF STAIRS
891.00 ME	SPOT GRADE ELEVATION MATCH EXISTING
891.00 HP	SPOT GRADE ELEVATION HIGH POINT
891.00 LP	SPOT GRADE ELEVATION LOW POINT
891.00 CB	SPOT GRADE ELEVATION CATCH BASIN
891.00 EOF	SPOT GRADE ELEVATION EMERGENCY OVERFLOW
GB	GRADE BREAK - HIGH POINTS
TO	CURB AND GUTTER (T.O = TIP OUT)
EOF=1135.52	EMERGENCY OVERFLOW
	CONSTRUCTION LIMITS

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1" = 50'-0"
25'-0" 0 50'-0"

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PROJECT

ARGENTA TRAIL

SOUTHWEST CORNER OF 70th STREET WEST & ARGENTA TRAIL INTERSECTION, INVER GROVE HEIGHTS

STUART DEVELOPMENT CORPORATION

1000 WEST 80TH STREET, MINNEAPOLIS, MN 55420

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Matthew R. Pavek

DATE 06/17/2024 LICENSE NO. 44263

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
10/23/2023	PRELIMINARY PLAT/PUD
11/20/2023	PRELIMINARY PLAT/PUD RESUBMITTAL
6/7/2024	PRICING SET
6/17/2024	FINAL PLAT / PUD SUBMITTAL

DRAWN BY	MP, RB, AM, MD,JR,MS,
REVIEWED BY	MP, RB
PROJECT MANAGER	MP
PROJECT NUMBER	23131

REVISION SUMMARY

DATE	DESCRIPTION

GRADING PLAN - SOUTHEAST CORNER

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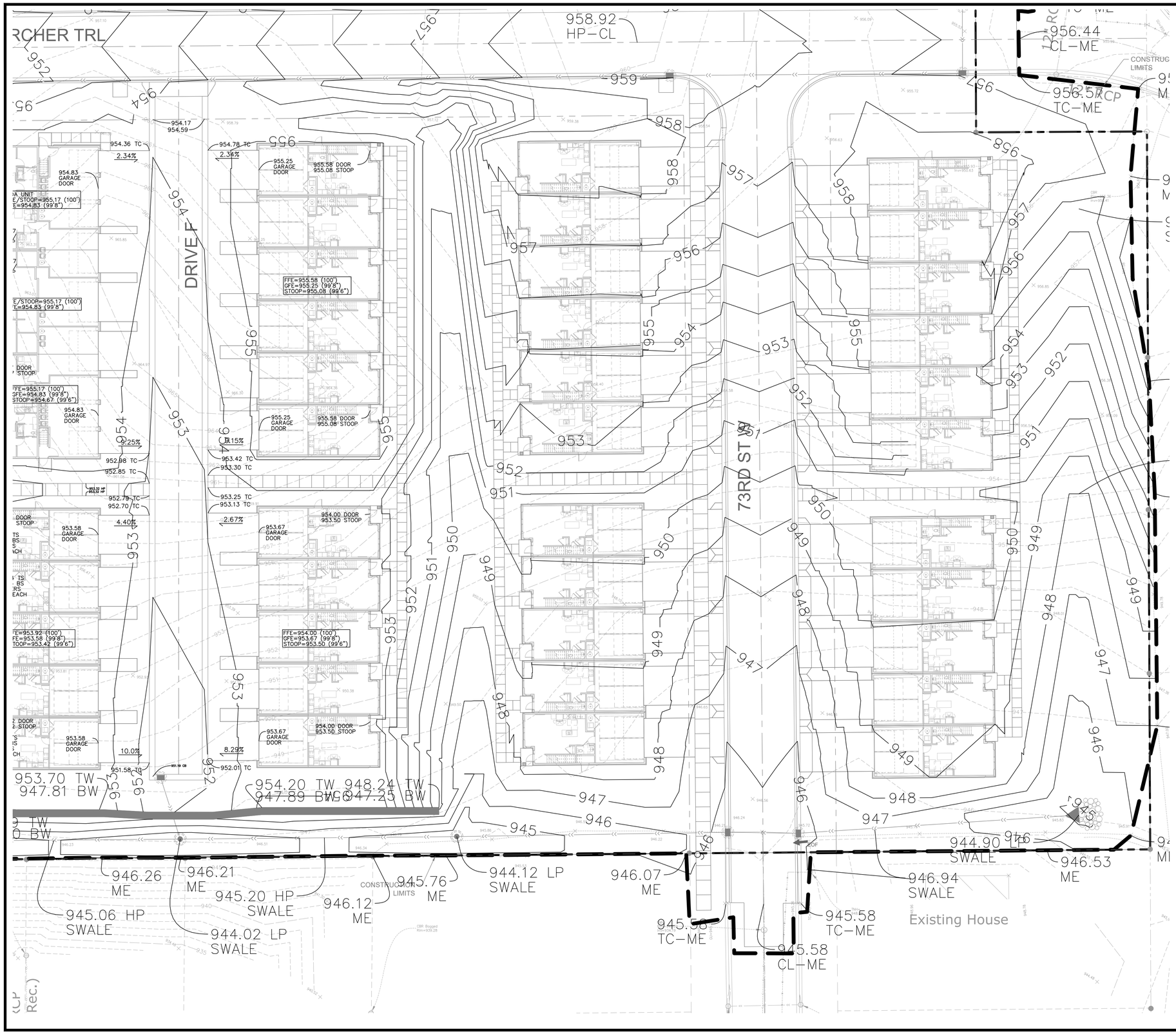

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GB	GRADE BREAK - HIGH POINTS
TG	CURB AND GUTTER (T.O = TIP OUT)
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PROJECT MANAGER	MP
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REVISION SUMMARY

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GRADING PLAN - SOUTHWEST CORNER

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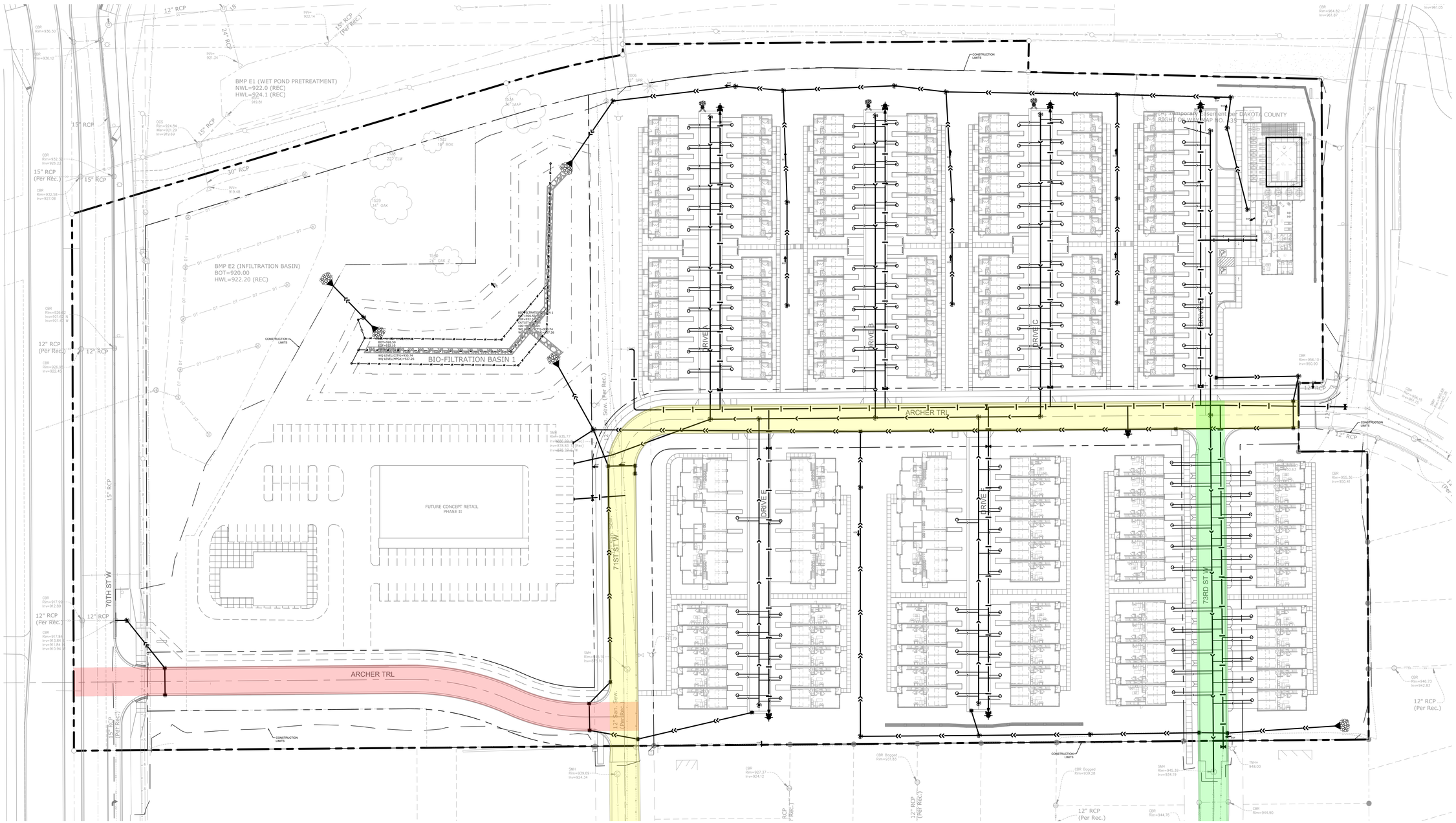

PROFILE LEGEND:

	C4.1
	C4.2
	C4.3

UTILITY LEGEND:

- CATCH BASIN
- MANHOLE
- GATE VALVE AND VALVE BOX
- PROPOSED FIRE HYDRANT
- WATER MAIN
- SANITARY SEWER
- STORM SEWER
- FES AND RIP RAP
- CONSTRUCTION LIMITS

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PROJECT NUMBER	23131

REVISION SUMMARY

DATE	DESCRIPTION

OVERALL SANITARY AND WATER MAIN UTILITY PLAN

C4.0

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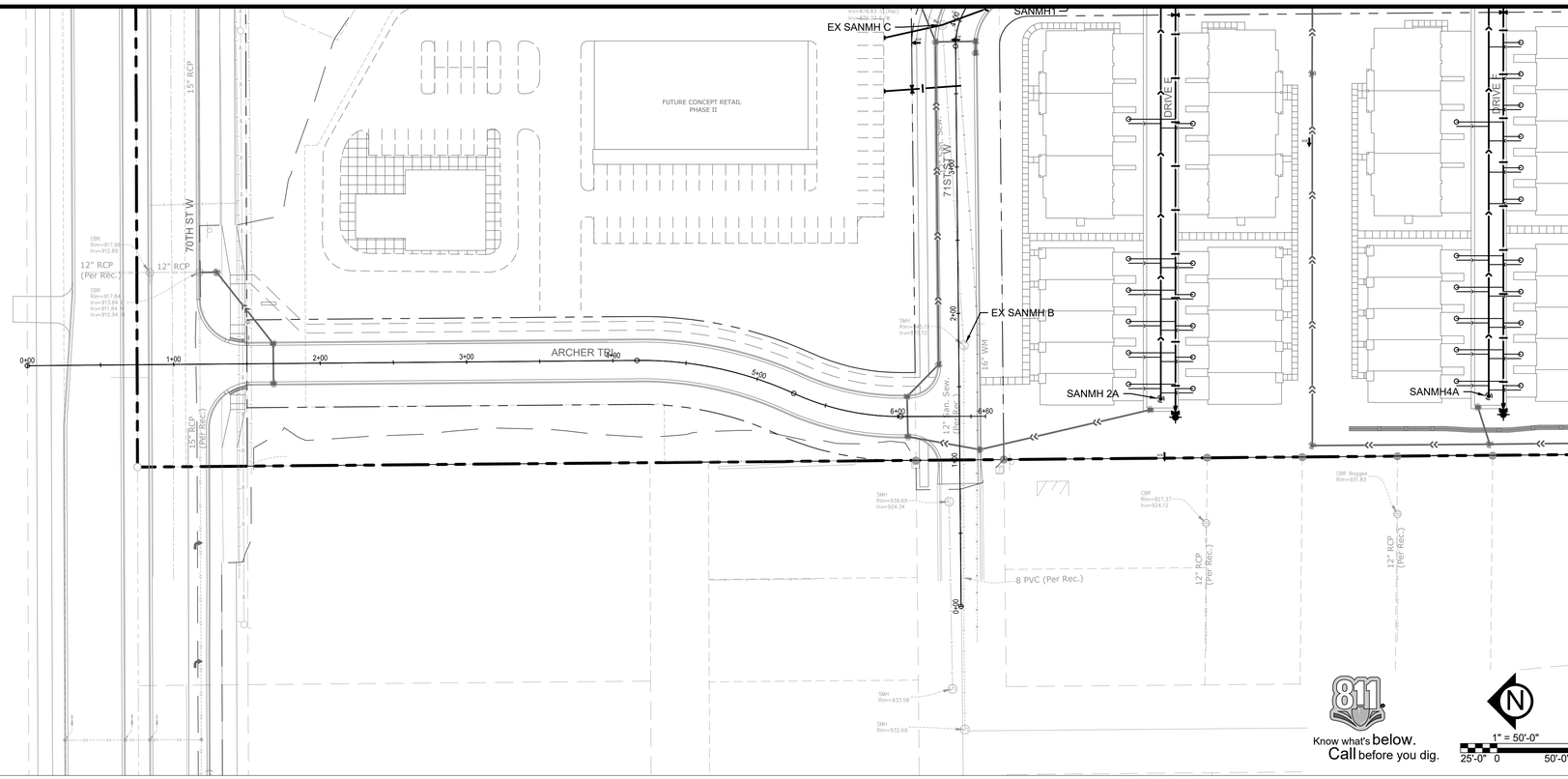

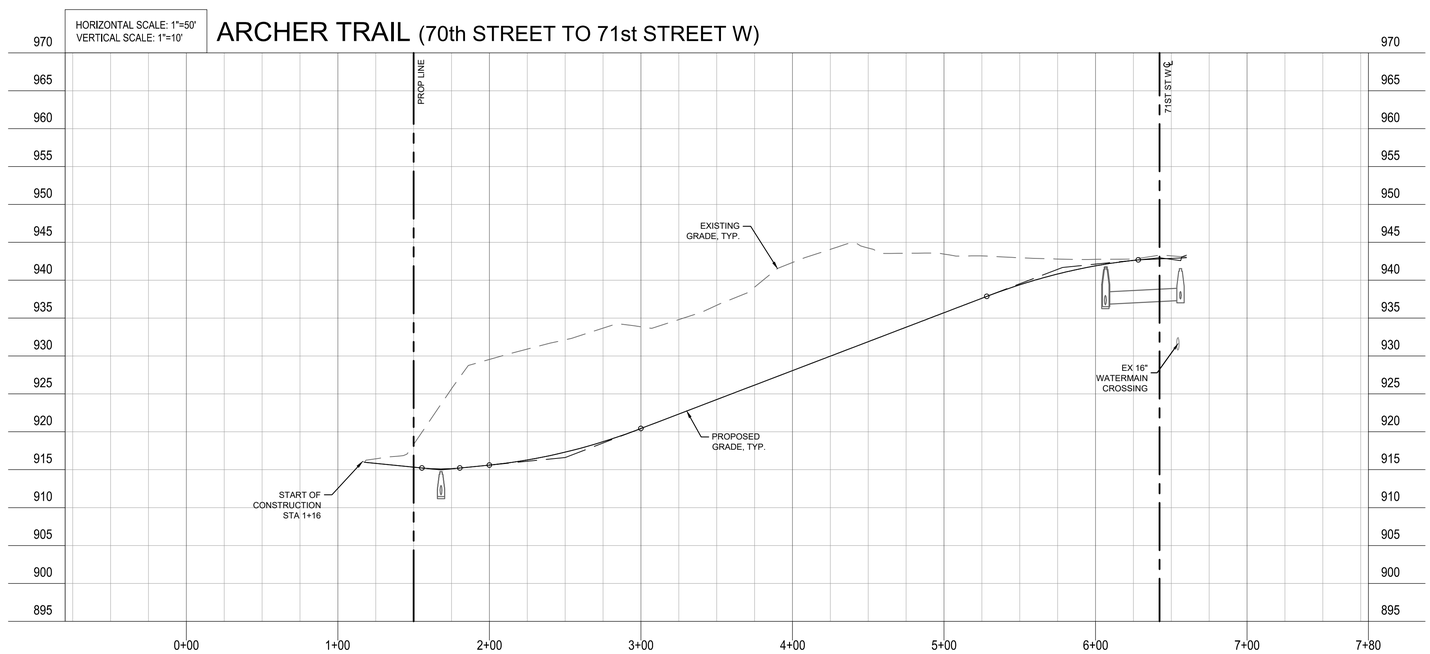

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PROJECT MANAGER	MP
PROJECT NUMBER	23131

REVISION SUMMARY

DATE	DESCRIPTION

SANITARY AND WATER MAIN PLAN AND PROFILE

C4.1

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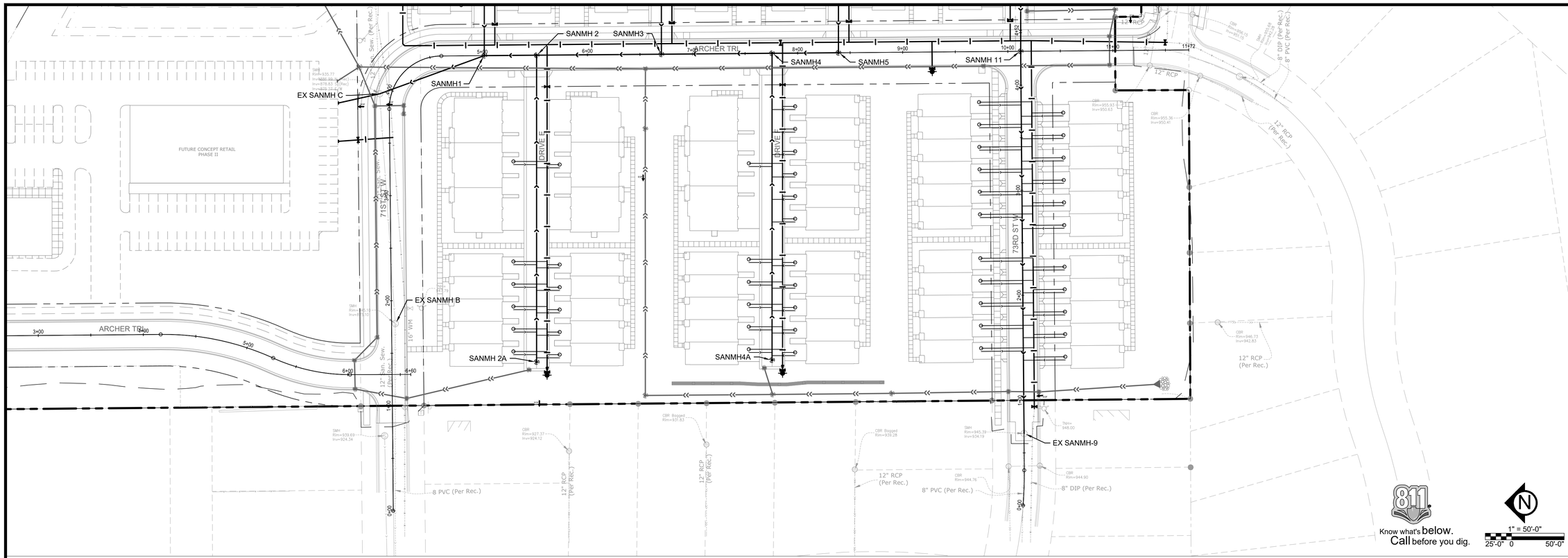
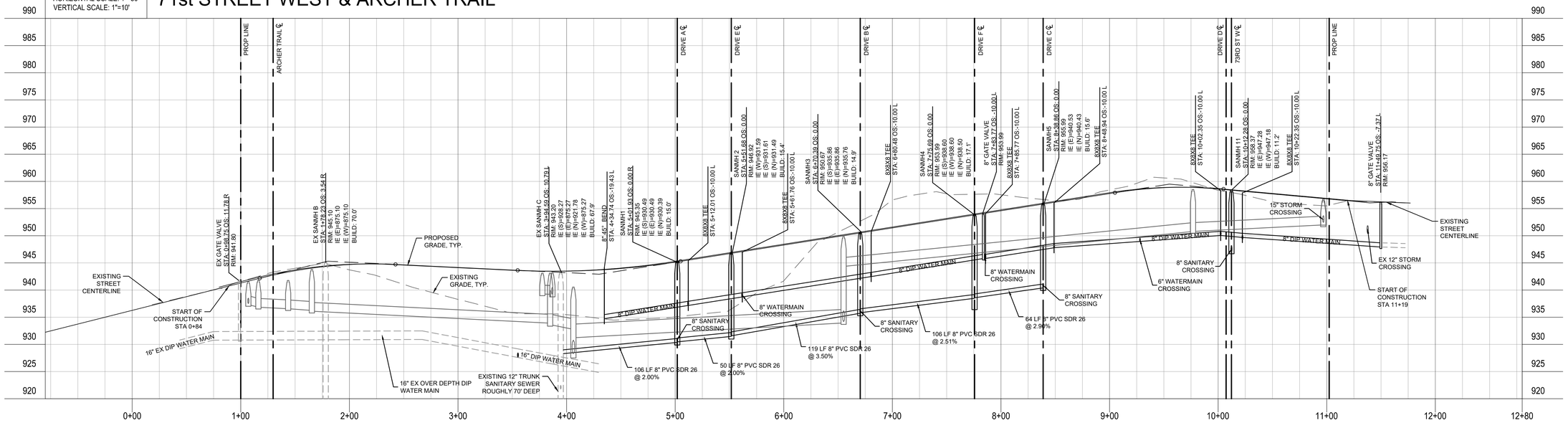


HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=10'

71st STREET WEST & ARCHER TRAIL



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REVISION SUMMARY

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SANITARY AND WATER MAIN PLAN AND PROFILE

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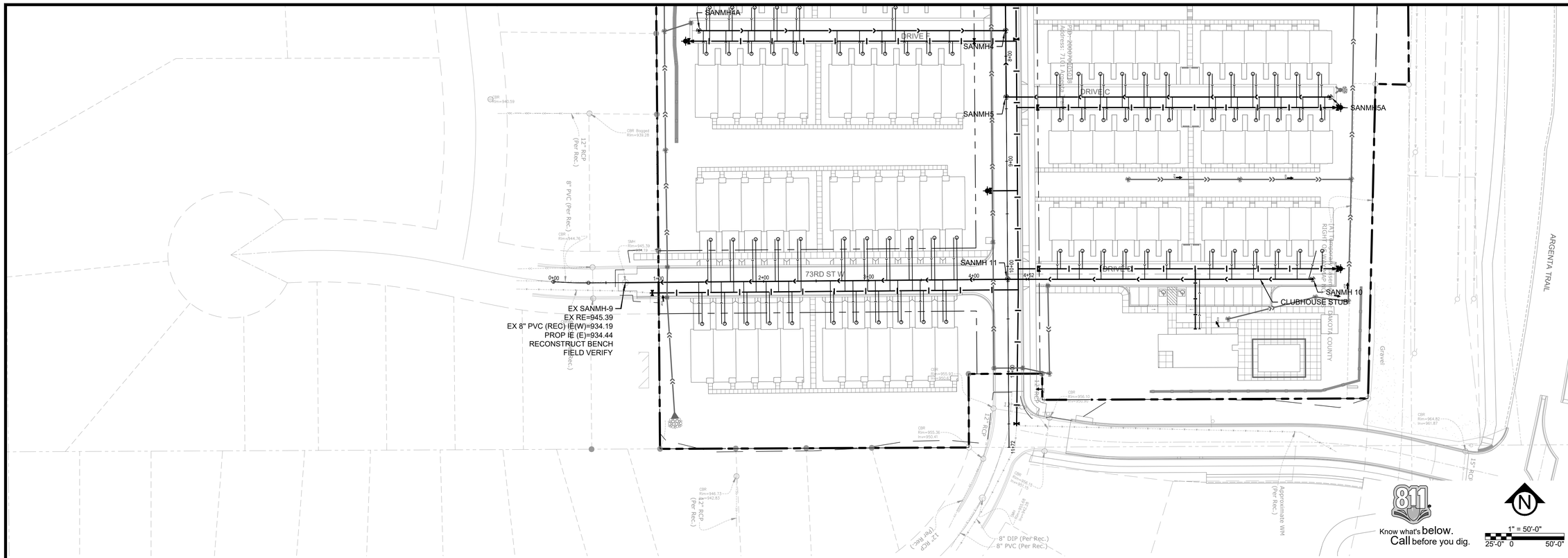

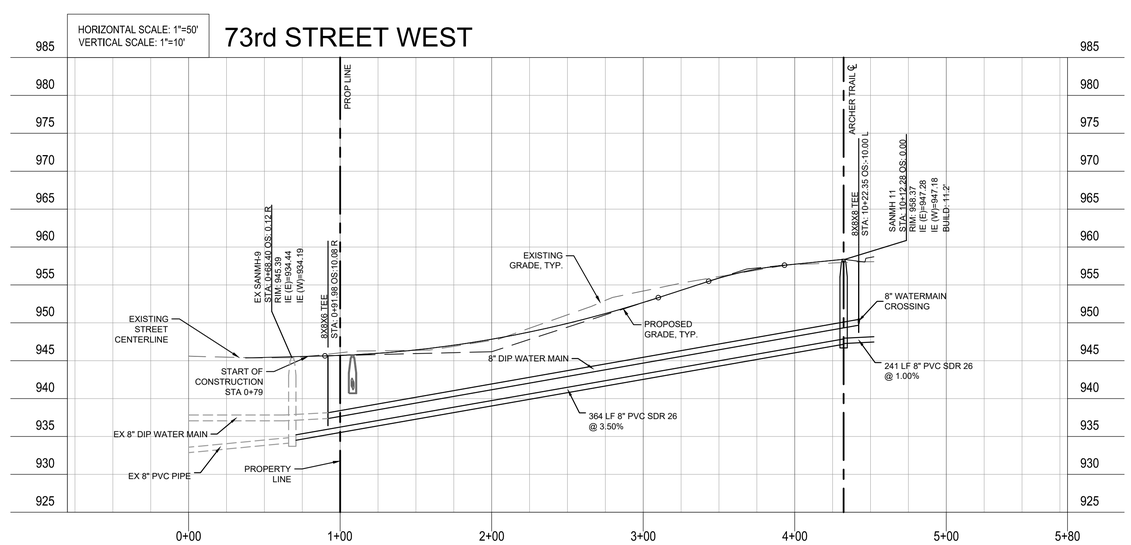

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PROJECT NUMBER	23131

REVISION SUMMARY

DATE	DESCRIPTION

SANITARY AND WATER MAIN PLAN AND PROFILE

C4.3

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PROFILE LEGEND:

	C4.5
	C4.6
	C4.7
	C4.8
	C4.9
	C4.10

UTILITY LEGEND:

- CATCH BASIN
- MANHOLE
- GATE VALVE AND VALVE BOX
- PROPOSED FIRE HYDRANT
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- SANITARY SEWER
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REVISION SUMMARY

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OVERALL STREET AND STORM WATER PLAN

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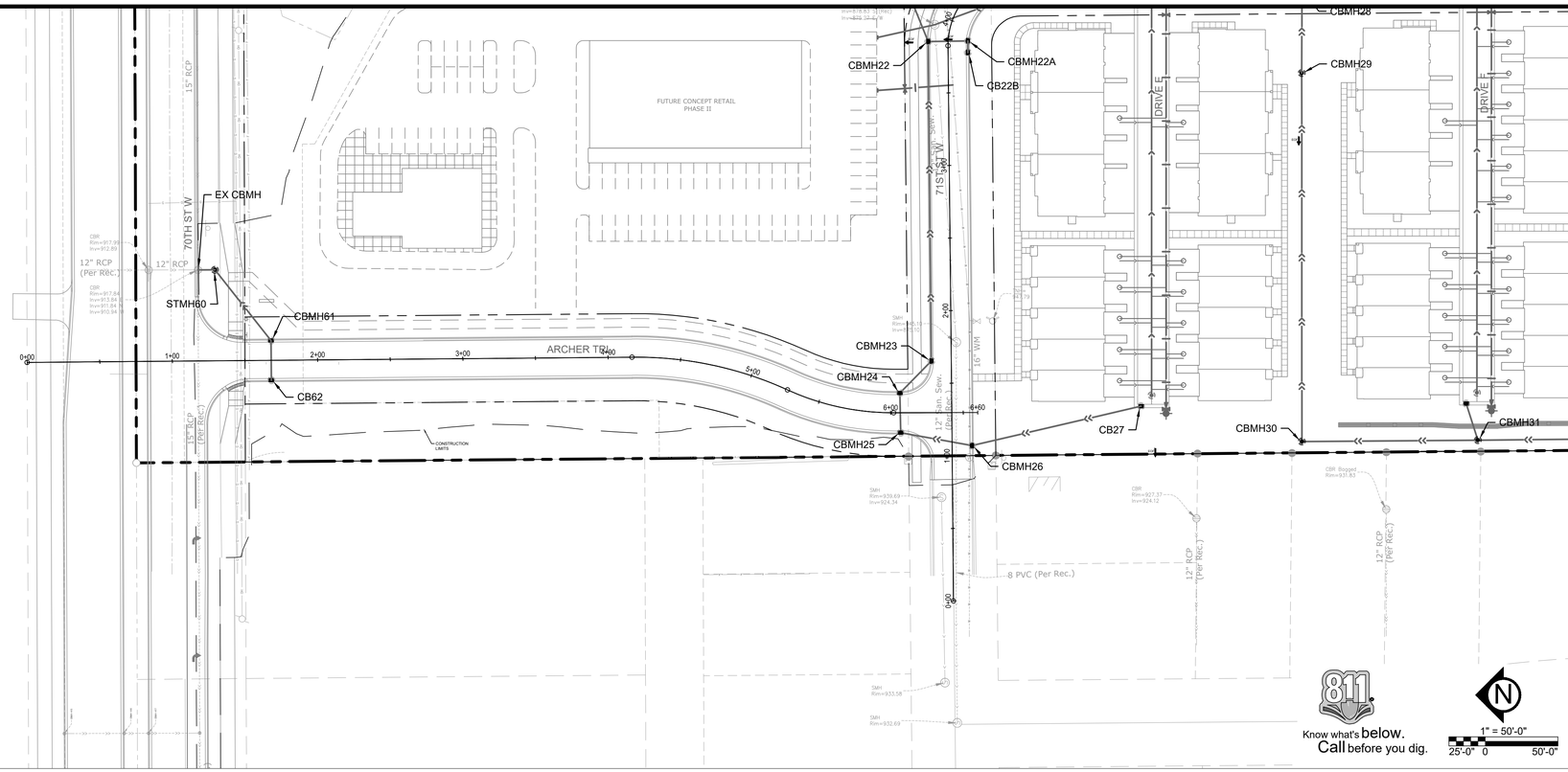
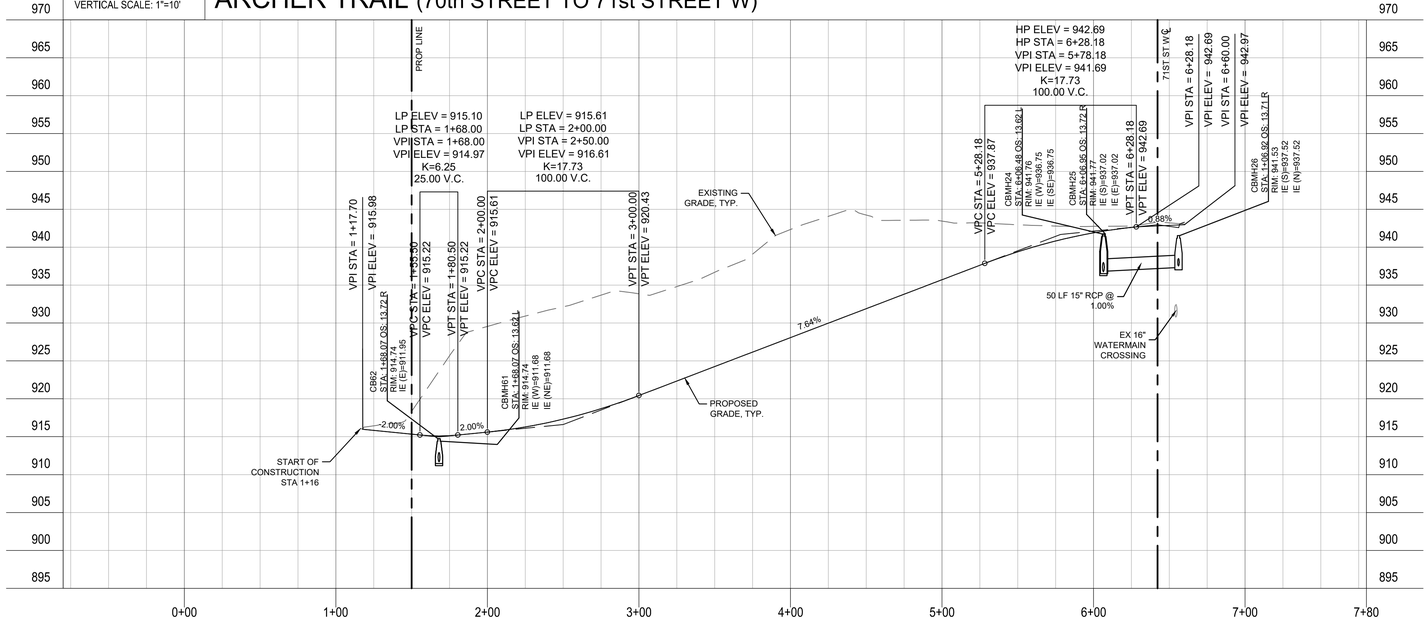


HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=10'

ARCHER TRAIL (70th STREET TO 71st STREET W)



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PROJECT NUMBER	23131

REVISION SUMMARY

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STREET AND STORM WATER PLAN AND PROFILE

C4.5

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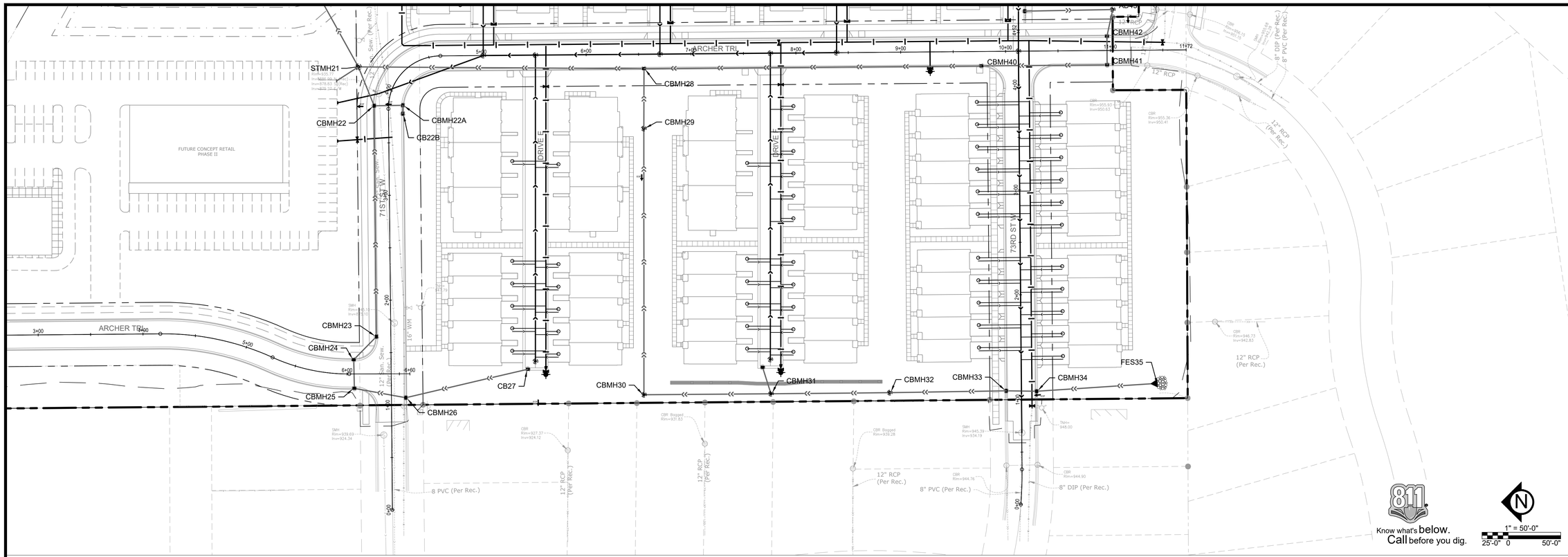
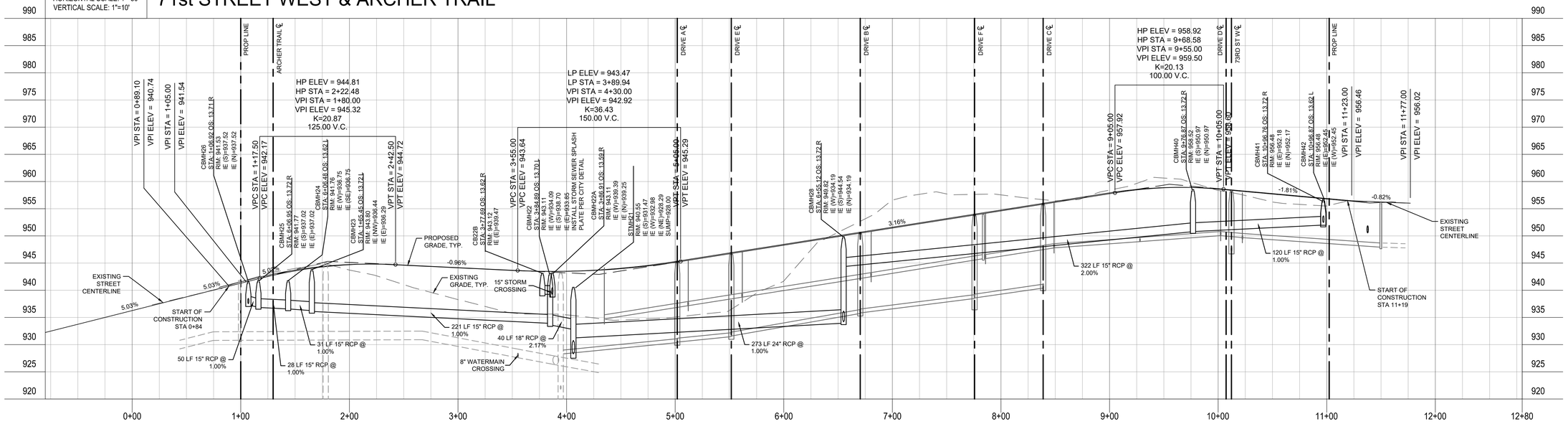


HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=10'

71st STREET WEST & ARCHER TRAIL



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STREET AND STORM WATER PLAN AND PROFILE

C4.6

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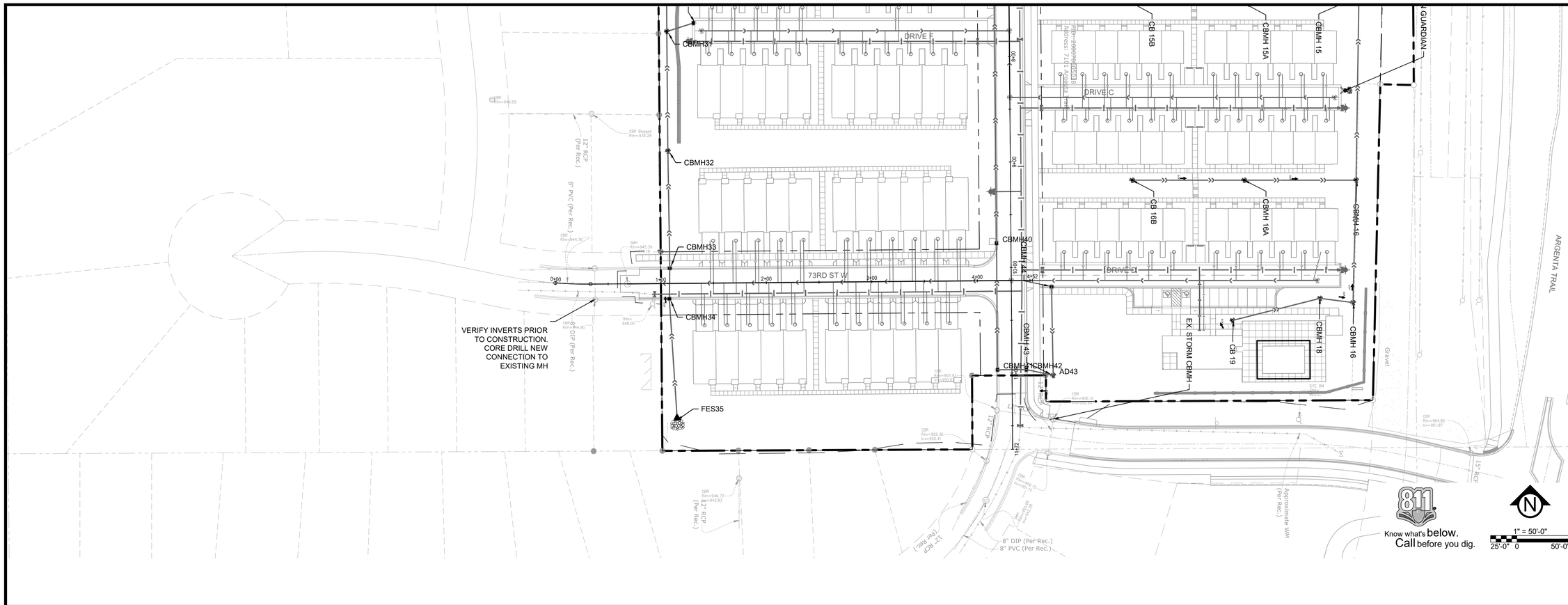

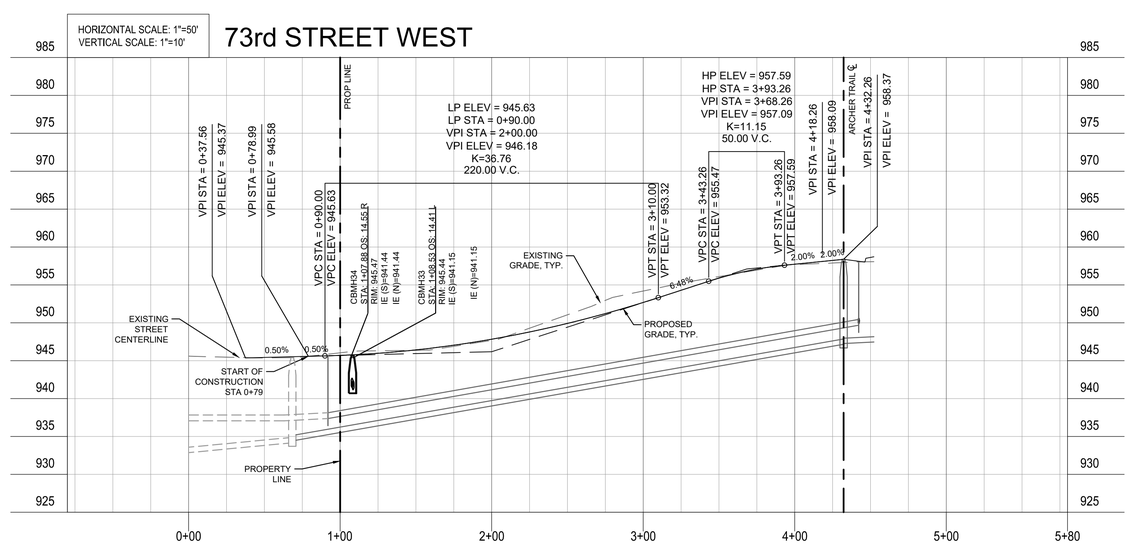

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STREET AND STORM WATER PLAN AND PROFILE

C4.7

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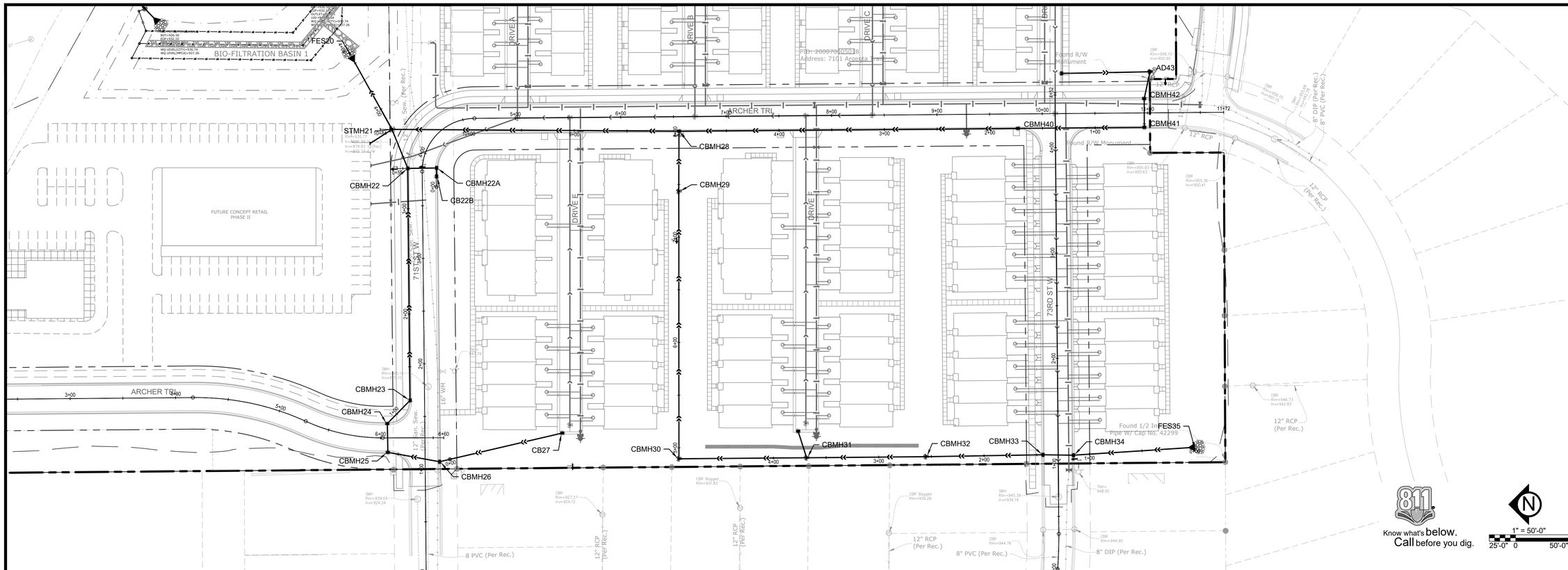

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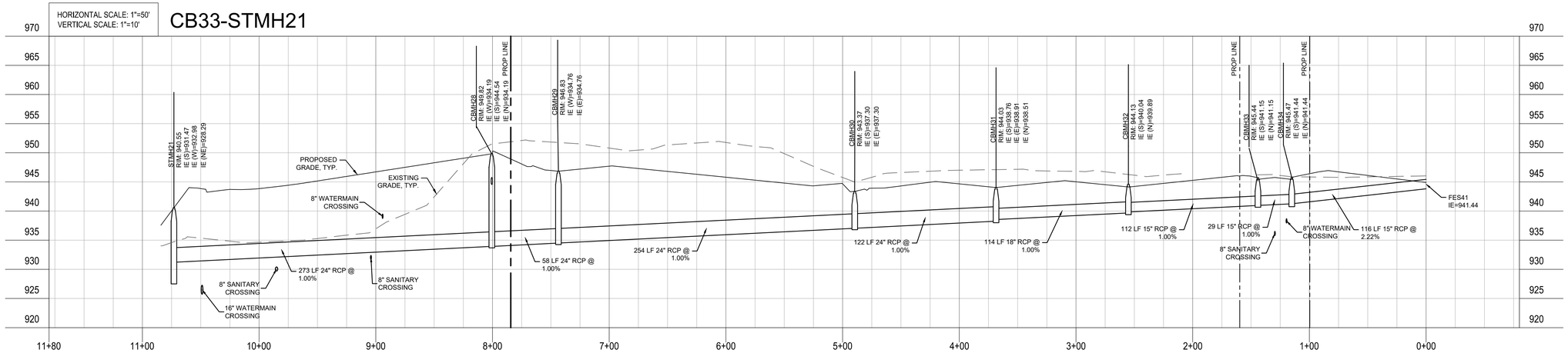
VERTICAL SCALE: 1"=10'

CB33-STMH21



HORIZONTAL SCALE: 1"=50'

CBMH42-CBMH28

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REVIEWED BY	MP, RB
PROJECT MANAGER	MP
PROJECT NUMBER	23131

REVISION SUMMARY

DATE	DESCRIPTION

STREET AND STORM WATER PLAN AND PROFILE

C4.8

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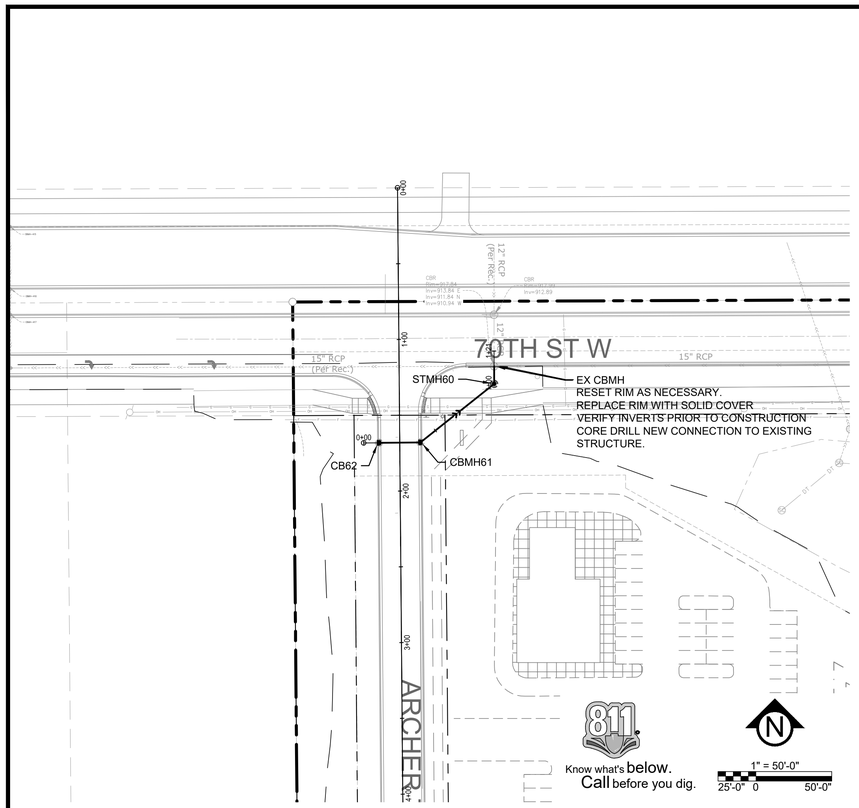

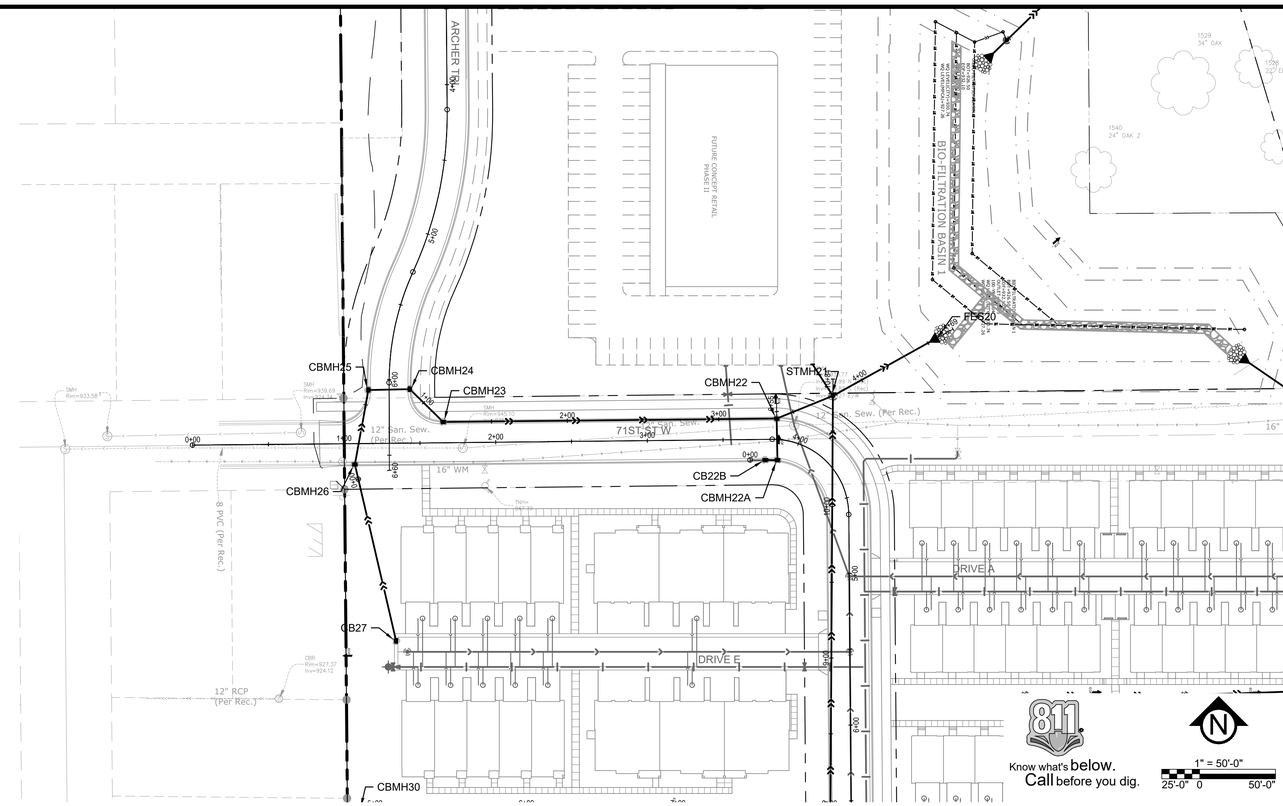

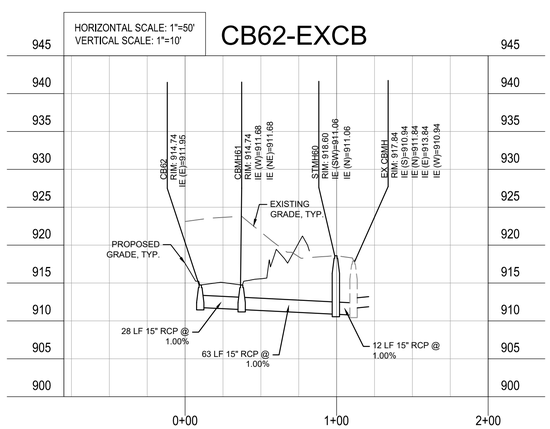

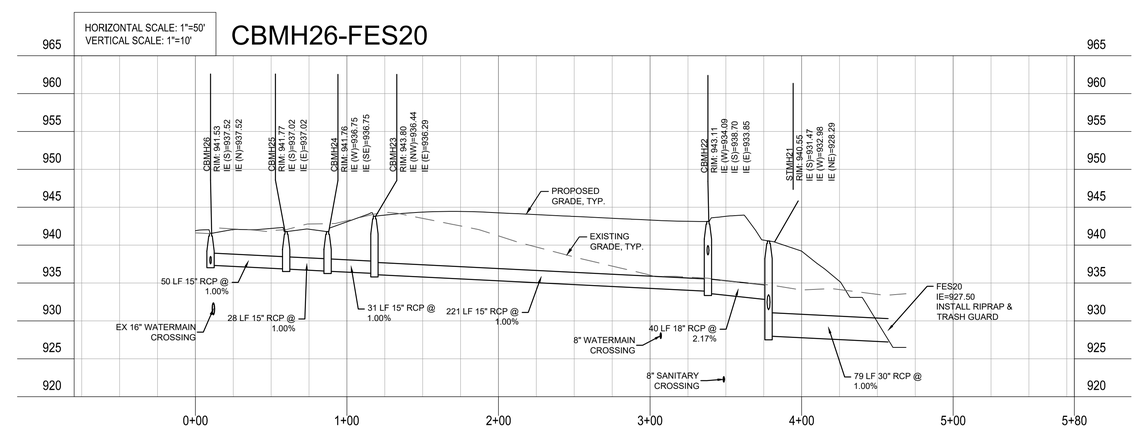

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civil@civilsitegroup.com
612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT

ARGENTA TRAIL

SOUTHWEST CORNER OF 70th STREET WEST & ARGENTA TRAIL INTERSECTION, INVER GROVE HEIGHTS

STUART DEVELOPMENT CORPORATION

1000 WEST 80TH STREET, MINNEAPOLIS, MN 55420

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Matthew R. Pavek

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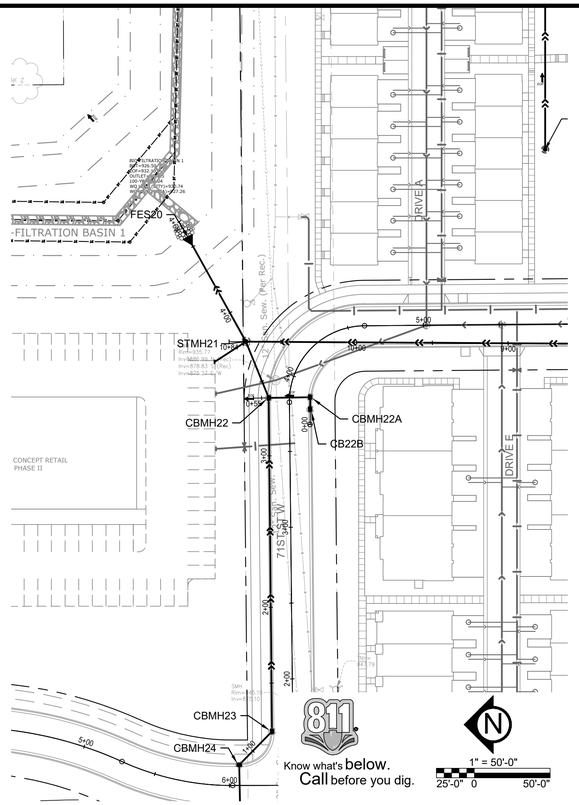

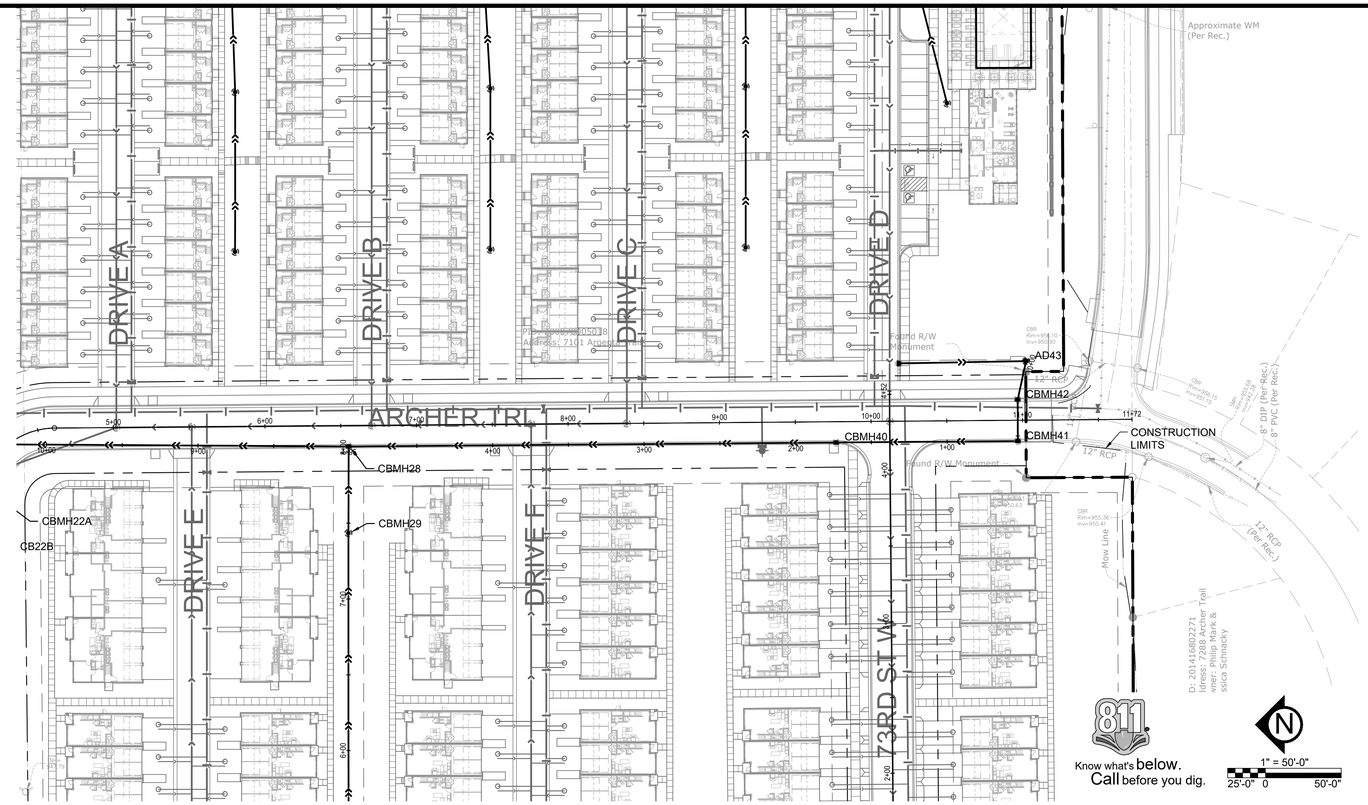

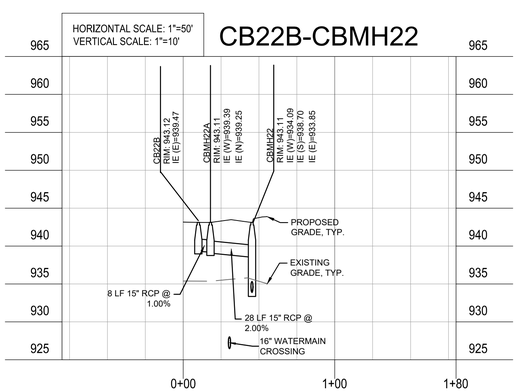

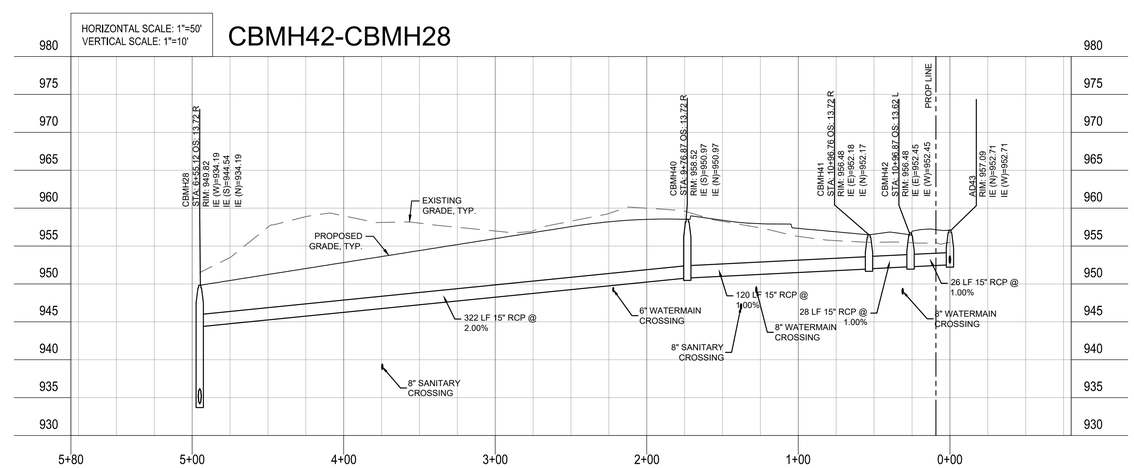

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STREET AND STORM WATER PLAN AND PROFILE

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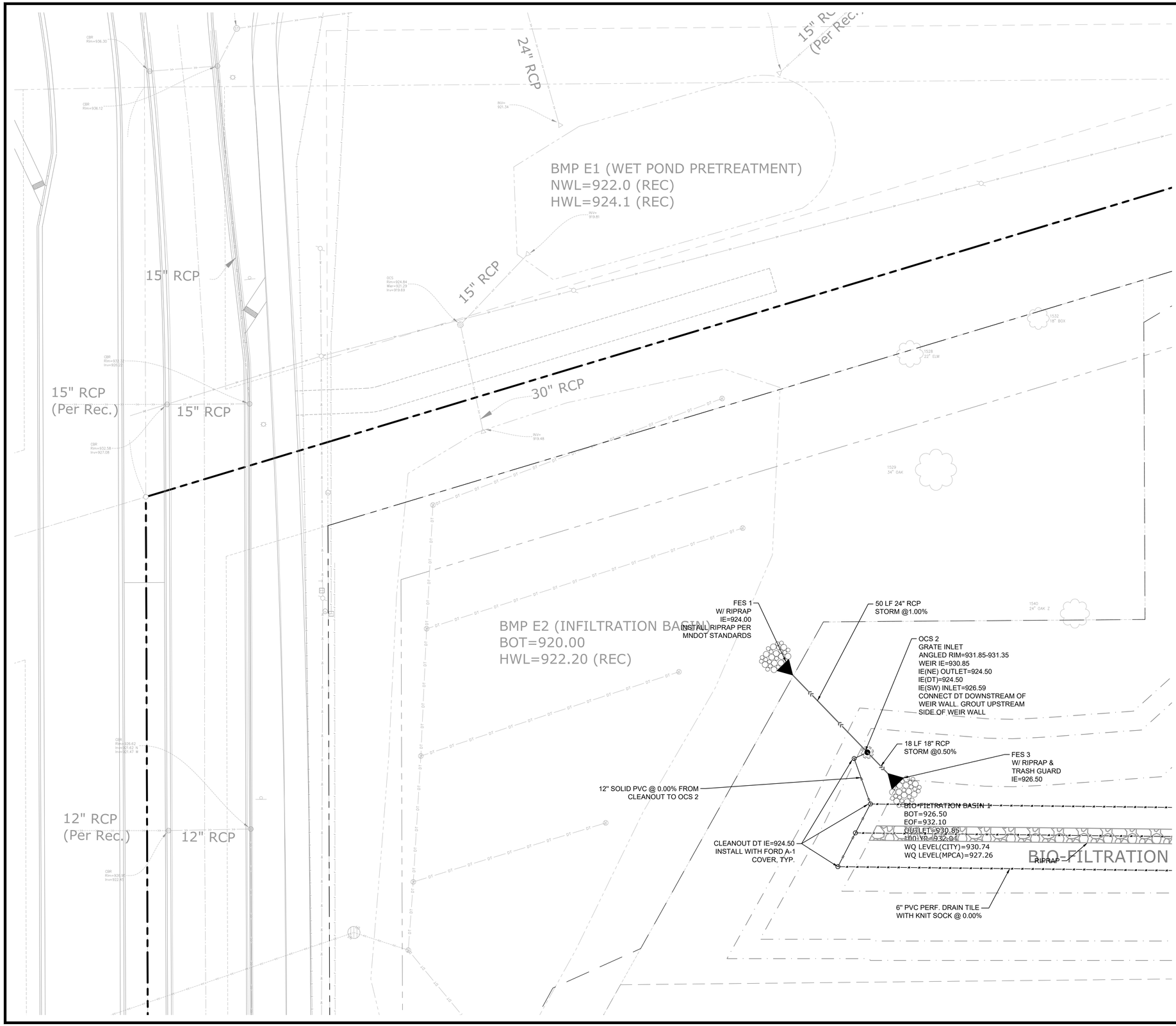

UTILITY LEGEND:

- CATCH BASIN
- MANHOLE
- GATE VALVE AND VALVE BOX
- PROPOSED FIRE HYDRANT
- WATER MAIN
- SANITARY SEWER
- STORM SEWER
- FES AND RIP RAP
- CONSTRUCTION LIMITS

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UTILITY PLAN

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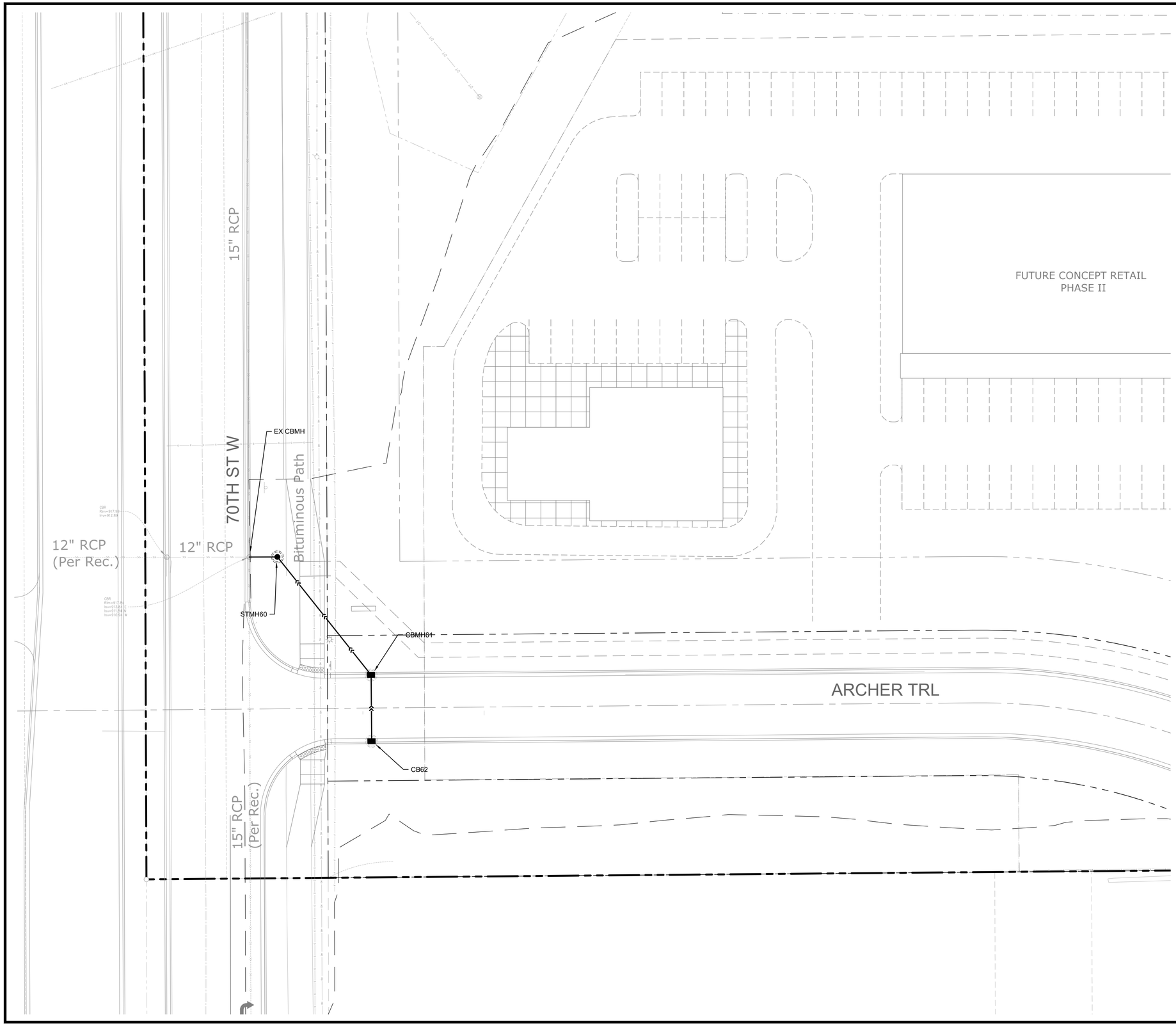

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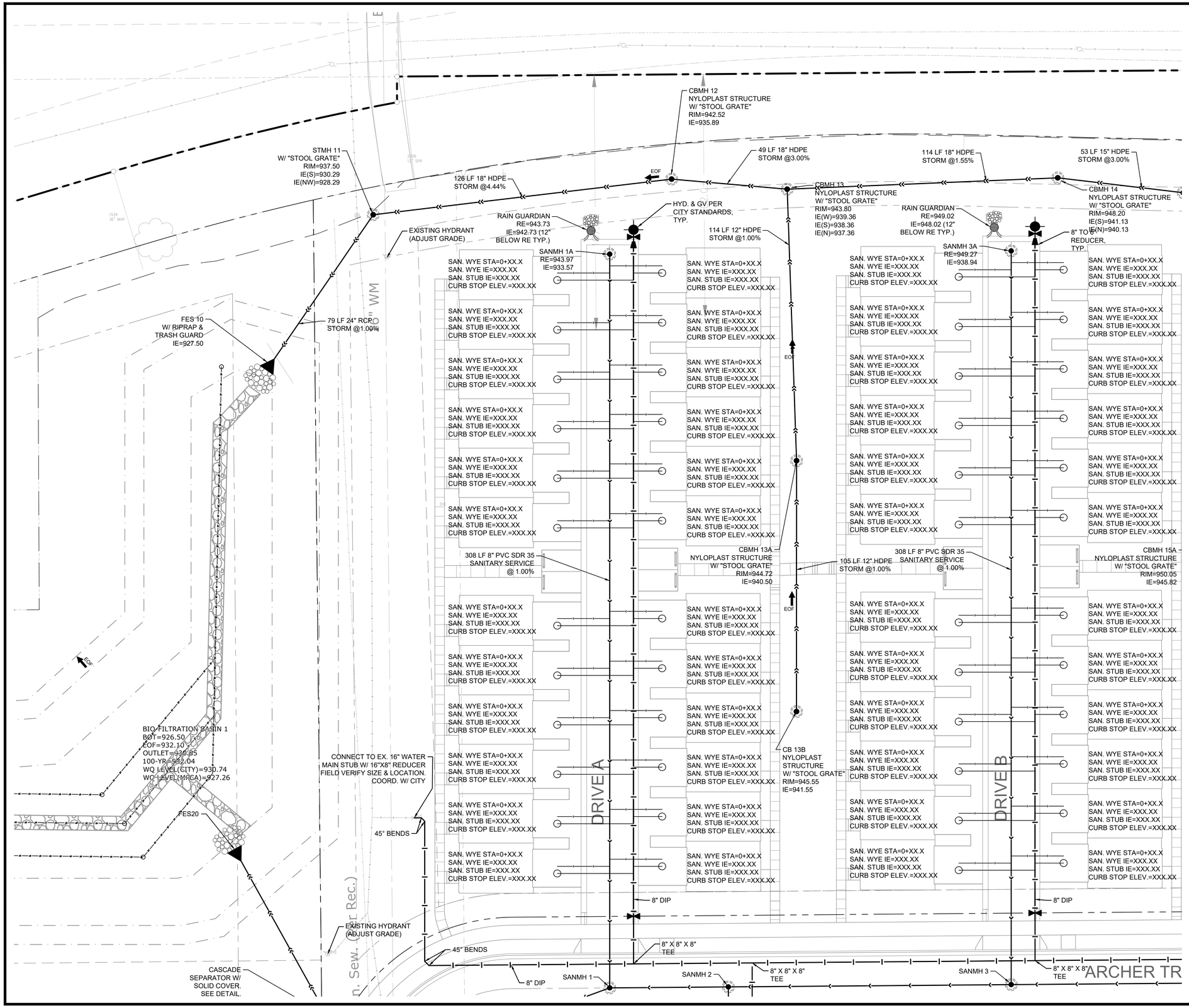

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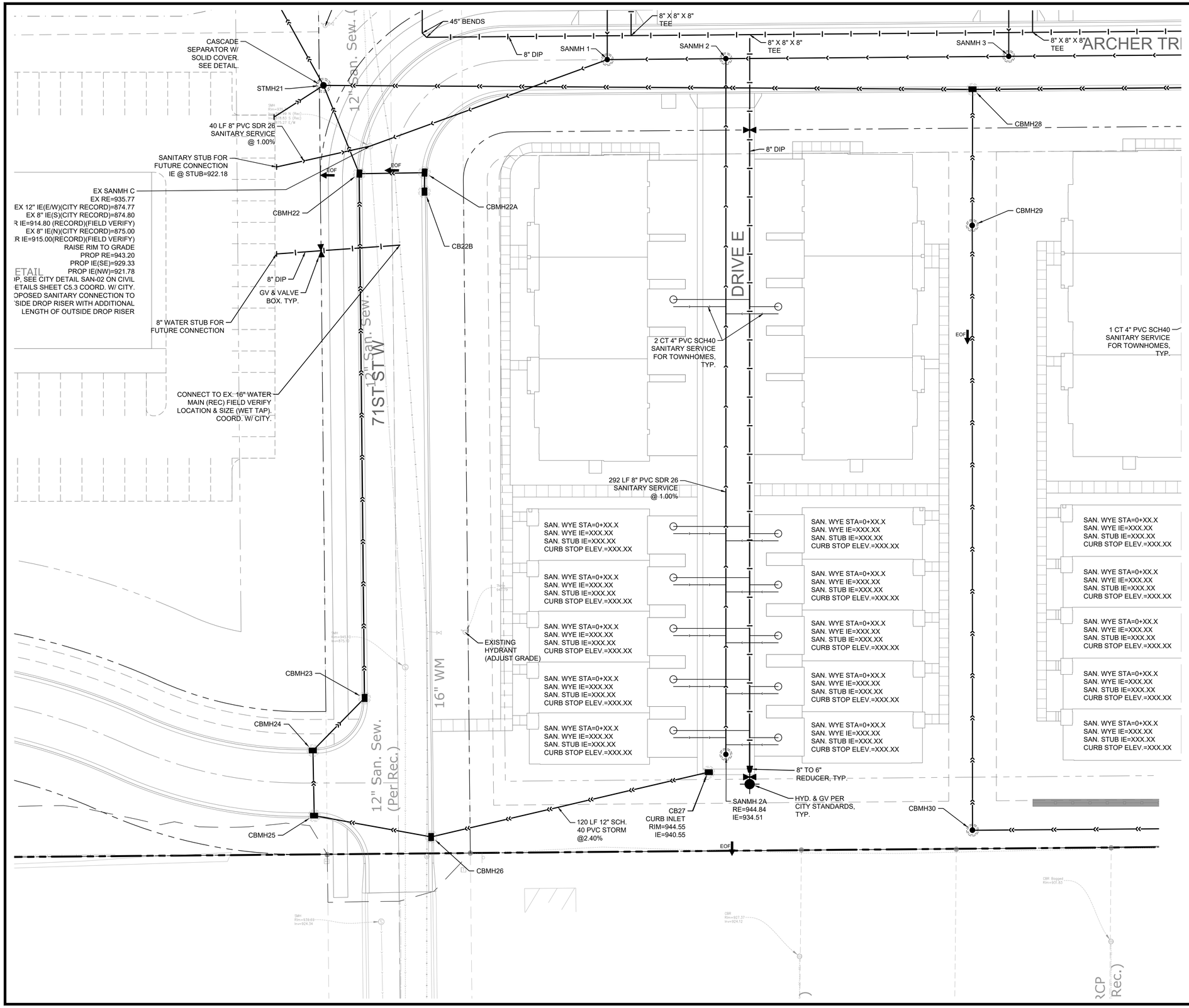

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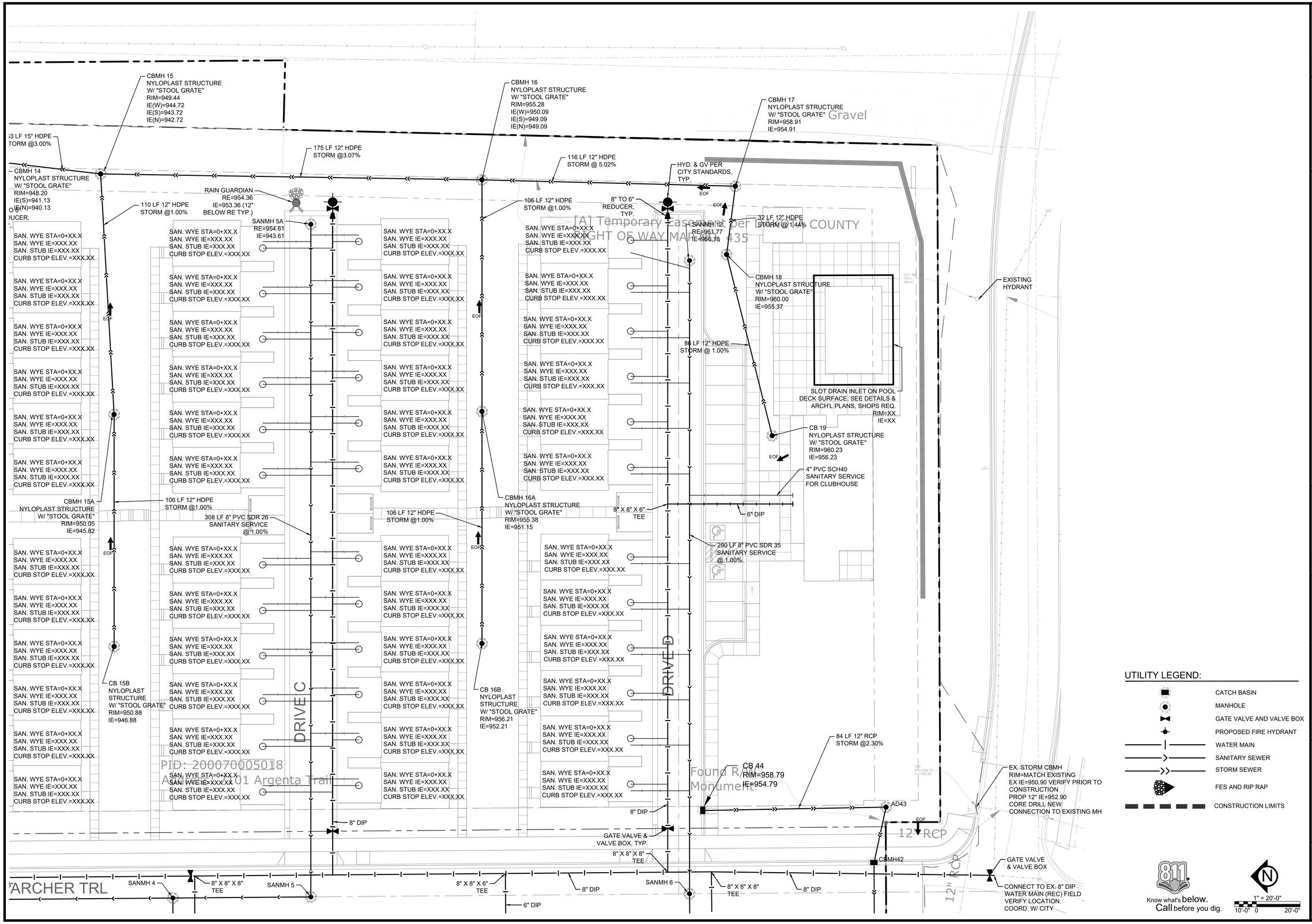

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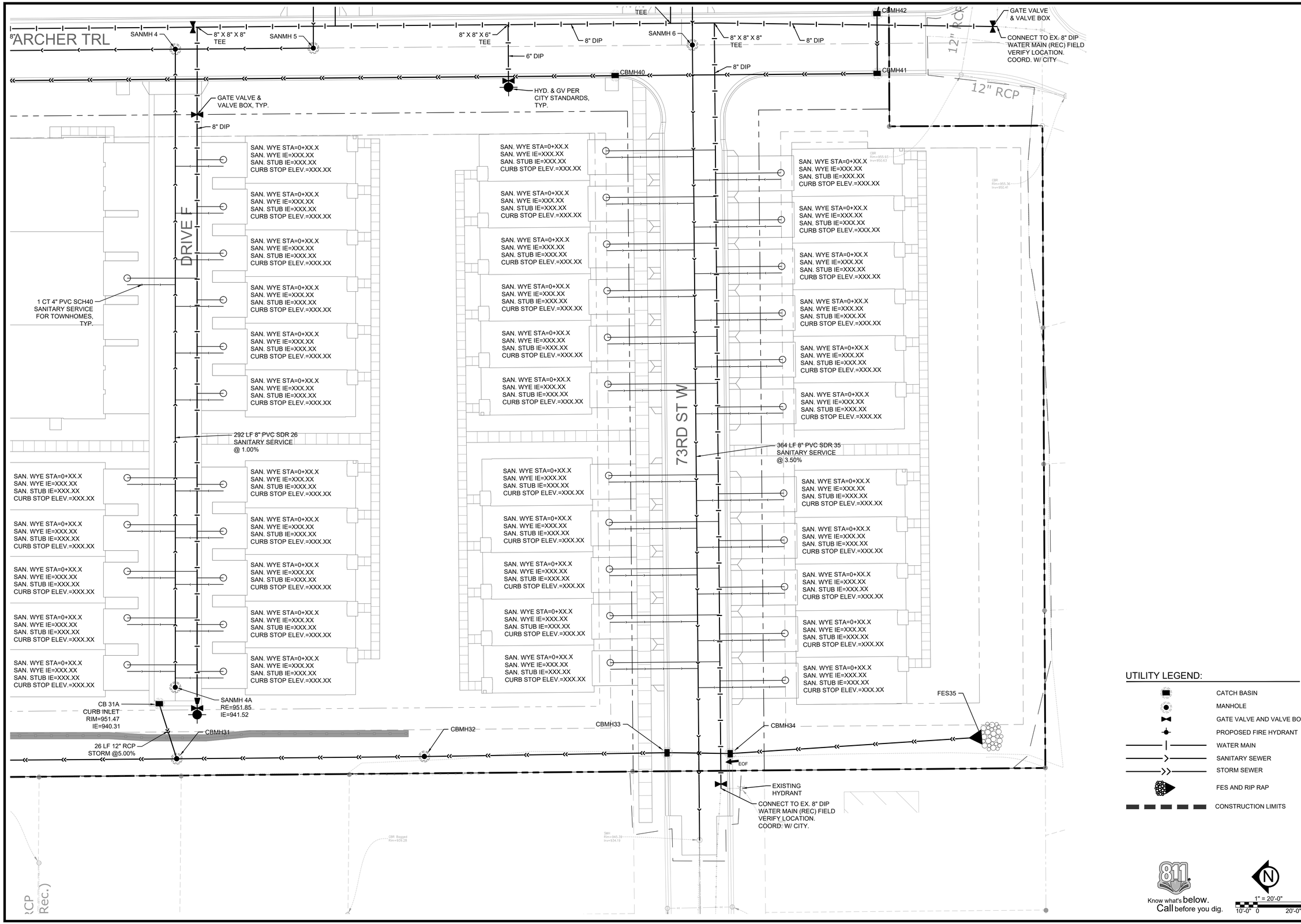

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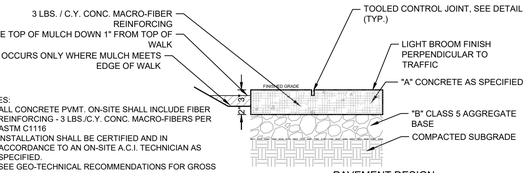


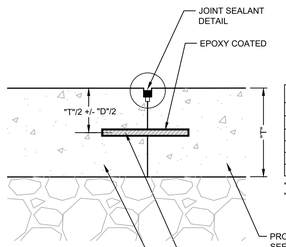
NOTES:
1. ALL CONCRETE PVMT. ON-SITE SHALL INCLUDE FIBER REINFORCING - 3 LBS./C.Y. CONC. MACRO-FIBERS PER ASTM C1116
2. INSTALLATION SHALL BE CERTIFIED AND IN ACCORDANCE TO AN ON-SITE A.C.I. TECHNICIAN AS SPECIFIED.
3. SEE GEO-TECHNICAL RECOMMENDATIONS FOR GROSS WEIGHT REQUIREMENTS.
4. SEE LAYOUT DRAWINGS FOR LIMITS OF WALKS.
5. SEE CONCRETE JOINT DETAIL FOR REQUIREMENTS.
6. 1/2" WIDE EXPANSION JOINT AND SEALANT AT ALL CURBS.
7. IF NO DESIGN IS DEFINED IN CHART, SEE GEOTECH REPORT FOR FINAL PAVEMENT SECTION.
8. IF DESIGN IS DEFINED IN CHART, IT SHOULD BE CONSIDERED FOR BIDDING PURPOSES ONLY. REFER TO GEOTECH FOR FINAL PAVEMENT SECTION.

PAVEMENT DESIGN

TYPE	CONC. (A)	AGG.(B)
WALKS	4"	6"
CONC. PVMT.	X"	X"

1. CURING:
   - 1.1. APPLY CURING COMPOUNDS IMMEDIATELY UPON FINISHING OF CONC. SURFACE.
   - 1.2. ALL CONC. SURFACES SHALL HAVE CURING COMPOUNDS ALLIED PER ASTM C-309. AT 200 S.F. PER GAL.
   - 1.3. ALL CURING COMPOUNDS SHALL BE TYPE 1 (CLEAR) AND CONTAIN ACRYLIC BASED CLASS B RESTRICTED RESIN SOLIDS.

1 CONCRETE PVMT./WALK/PAD
N T S (PRIVATE PROPERTY)



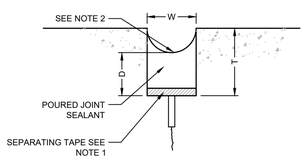
NOTES:
1. EITHER ONE PIECE OR THREADED SPLIT-TYPE DOWEL MAY BE USED.
2. USED THICKENED EDGE ON NEW PAVEMENT WHEN EXISTING PAVEMENT HAS THICKENED EDGE.

DOWEL SCHEDULE

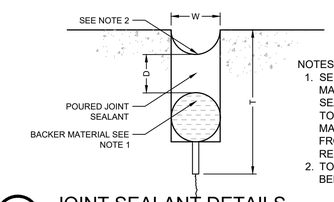
DOWEL SIZE	DIA.	LENGTH	SPACING
8" OR LESS	½"	16"	12" O.C.
9" - 11"	1"	16"	12" O.C.
12"-15"	1-1/4"	20"	15" O.C.
16" OR MORE	1-1/2"	20"	18" O.C.
16" OR MORE	1-1/2"	22"	24" O.C.

D - DENOTES DOWEL DIAMETER
T - DENOTES PAVEMENT THICKNESS

2 DOWELED JOINT BETWEEN TWO PAVEMENTS
N T S

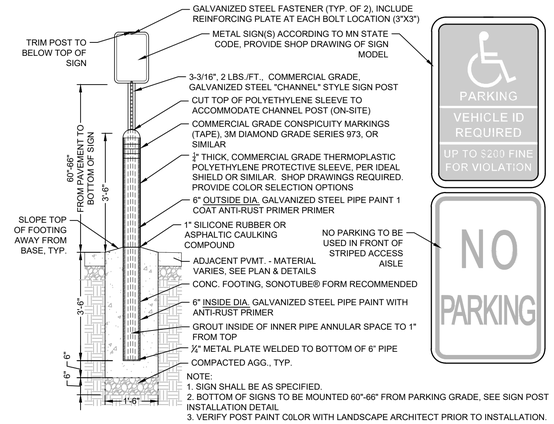


W= WIDTH OF SEALANT RESERVOIR
1/2" MINIMUN
5/8" MAXIMUM
EXCEPT FOR 3/4" EXPANSION JOINTS
D= DEPTH OF SEALANT
1.0 TO 1.5 TIMES W
T= DEPTH OF INTIAL SAWCUT, 1/4 OF THE SLAB THINKNESS FOR PAVEMENT LESS THAN 12"



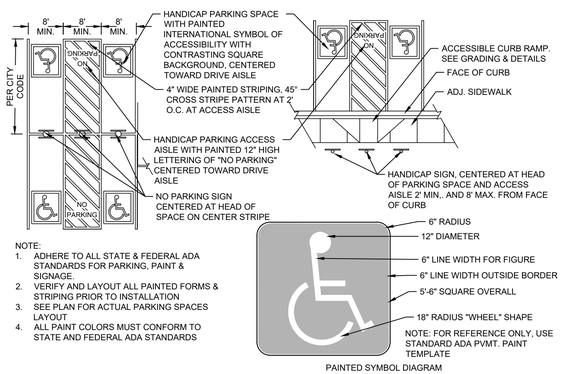
NOTES:
1. SEPARATING TAPE OR BACKER MATERIAL REQUIRED TO PREVENT JOINT SEALANT FROM FLOWING INTO SAWCUT, TO SEPARATE NONCOMPATIBLE MATERIALS AND TO PREVENT SEALANT FROM BONDING TO BOTTOM OF RESERVOIR.
2. TOP OF SEALANT WILL BE 1/8" TO 1/4" BELOW TOP OF PAVEMENT.

3 JOINT SEALANT DETAILS
N T S



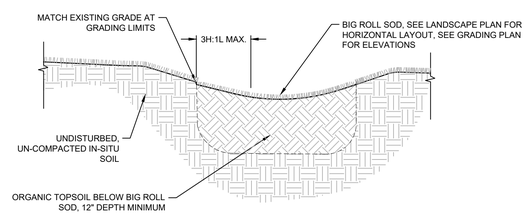
NOTE:
1. SIGN SHALL BE AS SPECIFIED.
2. BOTTOM OF SIGNS TO BE MOUNTED 60"-66" FROM PARKING GRADE, SEE SIGN POST INSTALLATION DETAIL
3. VERIFY POST PAINT COLOR WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

4 ACCESSIBLE SIGN & CHANNEL POST - LOT LOCATION
N T S



NOTE:
1. ADHERE TO ALL STATE & FEDERAL ADA STANDARDS FOR PARKING, PAINT & SIGNAGE.
2. VERIFY AND LAYOUT ALL PAINTED FORMS & STRIPING PRIOR TO INSTALLATION
3. SEE PLAN FOR ACTUAL PARKING SPACES LAYOUT
4. ALL PAINT COLORS MUST CONFORM TO STATE AND FEDERAL ADA STANDARDS

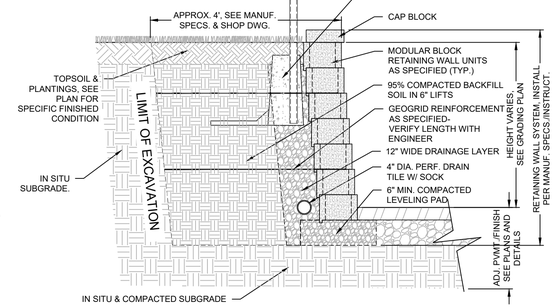
5 ACCESSIBLE PARKING PAVEMENT MARKING
N T S



TYPICAL SECTION VIEW

6 VEGETATED SWALE SECTION DETAIL (BIG ROLL SOD)
N T S

NOTES:
1. THESE SECTIONS ARE FOR ESTIMATING PURPOSES ONLY. CONTRACTOR TO SUBMIT TO LANDSCAPE ARCHITECT CERTIFIED DRAWING BY A MINNESOTA PROFESSIONAL ENGINEER ON STAFF WITH RETAINING WALL MANUFACTURE PRIOR TO WALL INSTALLATION. PREPARATION AND CERTIFICATION TO BE PAID FOR BY THE CONTRACTOR. SECTION AND ELEVATION OF EACH WALL REQUIRED.
2. ALL SOIL PARAMETERS SHALL BE VERIFIED BY A GEOTECHNICAL CONSULTANT OR SITE ENGINEER PRIOR TO CONSTRUCTION. IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE ASSUMED, NOTIFY MANUFACTURER OF C.M.U. RETAINING WALL 72 HOURS PRIOR TO INSTALLATION.
3. RAILING IS REQUIRED ON RETAINING WALLS IN LOCATIONS WHERE DIFFERENCES IN GRADE ON EITHER SIDE OF THE WALL ARE IN EXCESS OF 2.5' AND ARE LOCATED CLOSER THAN 4' TO A WALK, PATH, PARKING AREA, OR DRIVE ACCESS ON THE HIGH SIDE-SEE PLANS.
4. COORDINATE LOCATION AND INSTALLATION OF RAILING POSTS AND FOOTINGS DURING THE INSTALLATION OF WALL MATERIALS.
5. COORDINATE INSTALLATION OF RAIL POSTS AND FOOTINGS WITH INSTALLATION AND LOCATION OF GEOGRID REINFORCEMENT. AT NO POINT THROUGHOUT THE DURATION OF THE CONTRACT SHALL CONTRACTOR ALTER THE INTEGRITY OF THE GEOGRID OR WALL MATERIALS.
6. AIR DRIVE RAILING FOOTINGS AS SPECIFIED AND IN A MANNER TO NOT DISTURB THE WALL GEOGRID AS RECOMMENDED BY THE WALL MANUFACTURER. COORDINATE INSTALLATION AND SCHEDULING OF RAILING FOOTING WITH WALL MANUFACTURER TO OBSERVE INSTALLATION OF RAILING FOOTINGS.



7 RETAINING WALL
N T S

GENERAL DETAILS NOTES:

CONTRACTOR SHALL REVIEW ALL CIVIL AND ARCHITECTURAL DETAILS PRIOR TO WORK. ANY REDUNDANT, CONTRADICTORY OR CONFLICTING INFORMATION PRESENTED IN ANY PLAN OR DETAIL THROUGHOUT THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ARCHITECT AND CIVIL ENGINEER AND RESOLVED PRIOR TO WORK COMMENCING.

CivilSite GROUP
Civil Engineering · Surveying · Landscape Architecture
5000 Glenwood Avenue
Golden Valley, MN 55422
civilsitegroup.com 612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
ARGENTA TRAIL
SOUTHWEST CORNER OF 70th STREET WEST & ARGENTA TRAIL
INTERSECTION, INVER GROVE HEIGHTS

STUART DEVELOPMENT CORPORATION
1000 WEST 80TH STREET, MINNEAPOLIS, MN 55420

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Matthew R. Pavek
DATE 06/17/2024 LICENSE NO. 44263

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
10/23/2023	PRELIMINARY PLAT/PUD
11/20/2023	PRELIMINARY PLAT/PUD RESUBMITTAL
6/7/2024	PRICING SET
6/17/2024	FINAL PLAT / PUD SUBMITTAL

DRAWN BY	MP, RB, AM, MD,JR,MS,
REVIEWED BY	MP, RB
PROJECT MANAGER	MP
PROJECT NUMBER	23131

REVISION SUMMARY

DATE	DESCRIPTION

CIVIL DETAILS

C5.0

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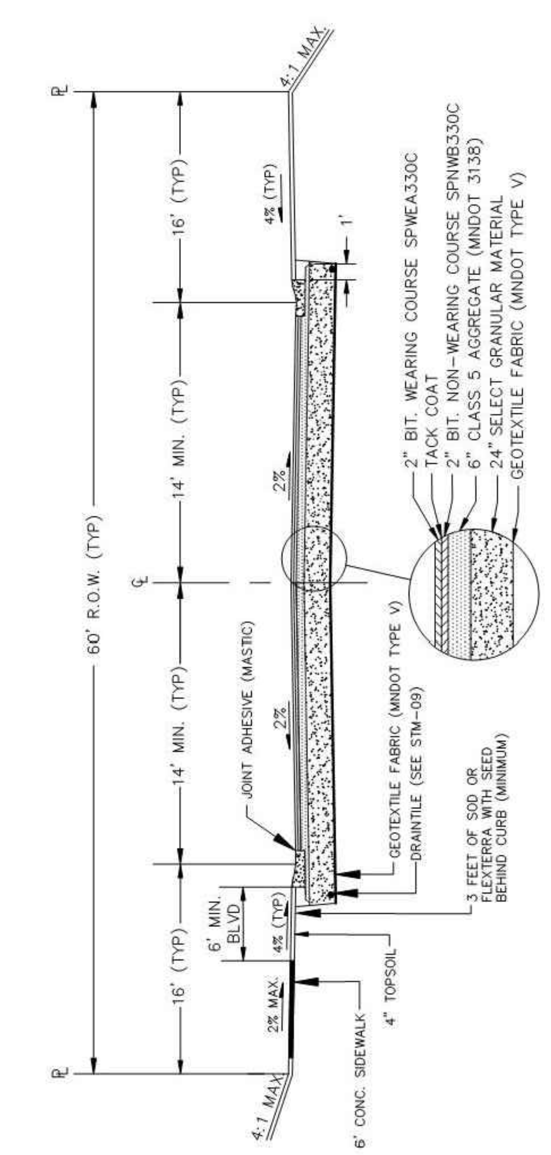

1. ALL RADII SHALL BE B6 CURB AND GUTTER WITH 5' TRANSITIONS FROM EACH SIDE OF RADIUS.
2. FOR CATCHBASIN TRANSITIONS SEE STR-07
3. DRAINTILE SHALL BE INSTALLED AT ALL CATCHBASINS AND AS DIRECTED BY THE ENGINEER.
4. BOTH CONCRETE SIDEWALK AND BITUMINOUS TRAIL TO BE INSTALLED ON URBAN COLLECTOR STREETS.
5. TRAIL SHALL BE INSTALLED ON THE NORTH AND EAST SIDE OF STREET.
6. SIDEWALK TO BE INSTALLED ON THE SOUTH AND WEST SIDE OF STREET.
7. SEE STR-15 FOR TRAIL AND SIDEWALK SECTIONS
8. SIDEWALK AND TRAIL TYPICALLY PLACED 1' FROM PROPERTY LINE.
9. MUST MAINTAIN A MINIMUM OF 6' BOULEVARD FOR SNOW STORAGE.
10. IF STREET IS PLACED ON A 50' RIGHT OF WAY A SIDEWALK EASEMENT WILL BE REQUIRED TO MAINTAIN THE 6' BOULEVARD FOR SNOW STORAGE.
11. JOINT ADHESIVE (MASTIC) SHALL BE APPLIED TO THE FACE OF THE GUTTER PAN PRIOR TO PLACING WEAR COURSE

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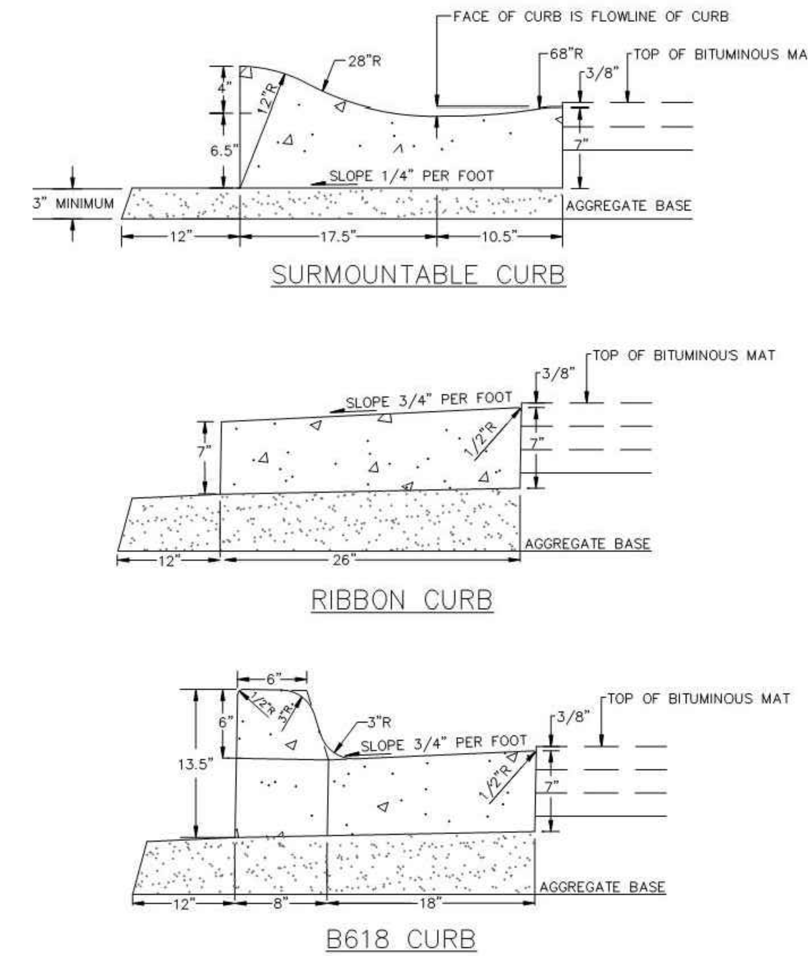
URBAN STREET DESIGN
LOCAL STREET

CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT | 12/21 | PLATE NO. STR–02



NOTES: 1. FOR CATCH BASIN TRANSITIONS SEE PLATE NO. STR–07.
2. EXPANSION SHALL BE PLACED EVERY 200 LF, AT ALL CATCH BASIN TRANSITIONS, AND AT ALL BEGINNING RADII.
3. CONTRACTION JOINTS SHALL BE PLACED EVERY 10 FEET.
4. FOUR #4 REINFORCING RODS, TWO PER SIDE, AT ALL CATCH BASINS, MINIMUM 10 FEET.
5. ONE #4 REINFORCING ROD IN FRONT OF CASTING, MINIMUM 5 FEET FOR SURMOUNTABLE CURB.

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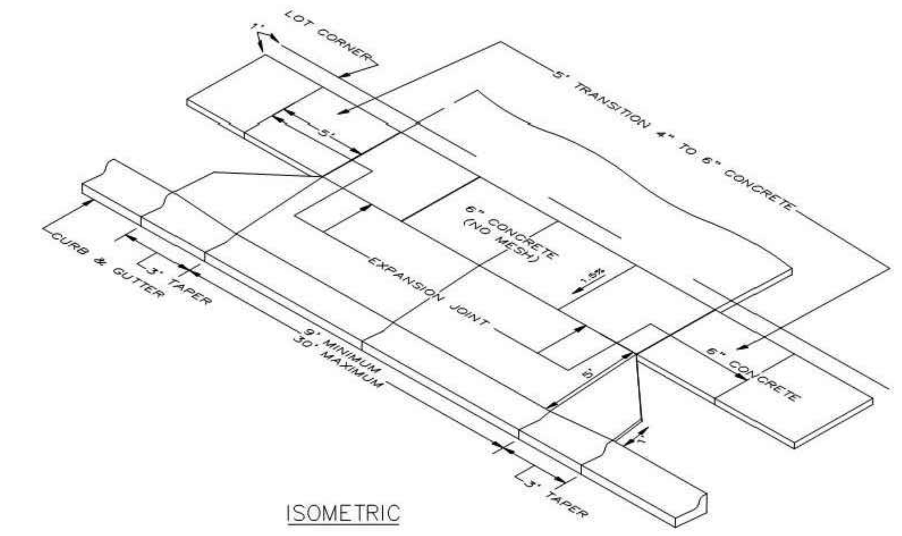
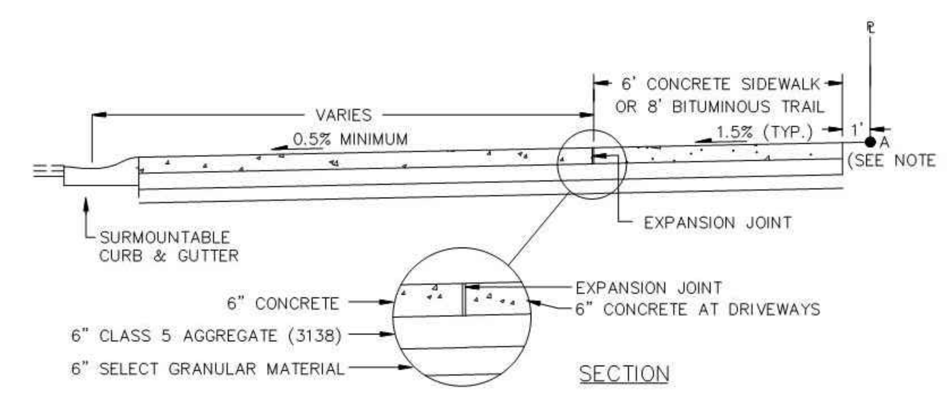
CURB & GUTTER

CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT | 1/17 | PLATE NO. STR–06





NOTES:
1. CONCRETE PANELS SHALL NOT EXCEED 9' IN ANY DIRECTION
2. SIDEWALK PANELS SHALL BE FORMED 1 FOOT FROM PROPERTY LINE.
3. CURB, SIDEWALK AND DRIVEWAY SHALL BE POURED SEPERATELY.
4. POINT 'A' SHALL BE A MINIMUM OF 4 INCHES ABOVE THE FLOWLINE.

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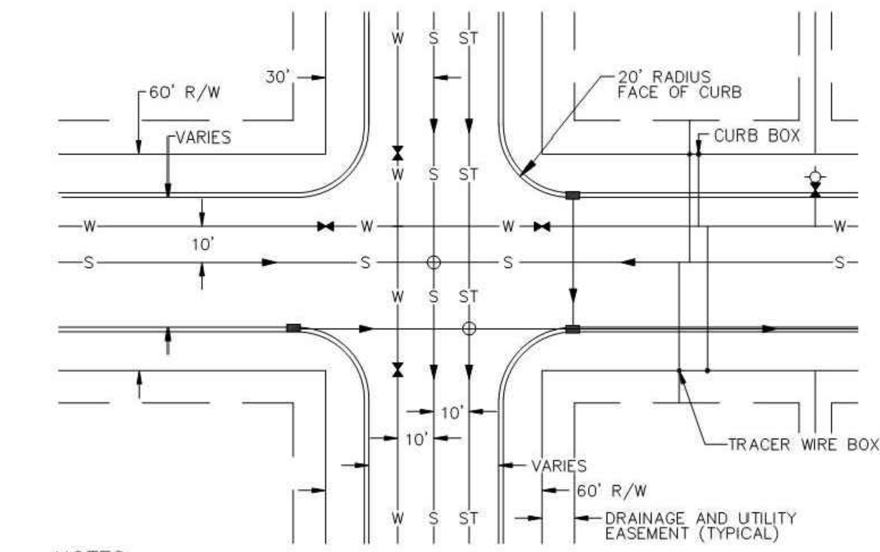
RESIDENTIAL DRIVEWAY
WITH SIDEWALK

CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT | 3/19 | PLATE NO. STR–10



NOTES:

1. A PERMIT IS REQUIRED TO WORK IN THE PUBLIC ROW. THIS INCLUDES INSTALLATION OF SMALL UTILITIES. CONTACT THE CITY OF IGH'S ENGINEERING DEPARTMENT TO OBTAIN THE PERMIT OR FOR FURTHER INFORMATION 651–450–2500.
2. ALL UTILITIES INCLUDING ABOVE GROUND TRANSFORMERS AND PEDESTALS TO BE IN EASEMENT, BUT LOCATED A MINIMUM OF 10' FROM CITY FACILITIES OR STRUCTURES.
3. ALL UTILITY CROSSINGS SHALL BE SHOWN IN PROFILE DRAWINGS

SANITARY SEWER

1. SANITARY SEWER SHALL BE PLACED ON CENTERLINE.
2. SANITARY MANHOLES SHALL BE SPACED A MAXIMUM OF 400 FEET.
3. SANITARY SERVICES TO BE LOCATED DOWNSTREAM OF WATERMAIN SERVICES.
4. SANITARY SERVICES SHALL BE INSTALLED WITH TRACER WIRE BOXES

WATERMAIN

1. WATERMAIN OFFSET 10' NORTH OR WEST OF CENTERLINE.
2. HYDRANTS SHALL BE LOCATED 4' BACK OF CURB.
3. CURB BOX TO BE INSTALLED AT THE PROPERTY LINE.
4. WATERMAIN SERVICES TO BE LOCATED UPSTREAM FROM SANITARY SERVICES.

STORM SEWER

1. STORM SEWER SHALL BE PLACED 10' SOUTH OR EAST OF CENTERLINE OR UNDER CURB ON OPPOSITE SIDE OF WATERMAIN.
2. CATCH BASINS TO BE AT END OF RADIUS.

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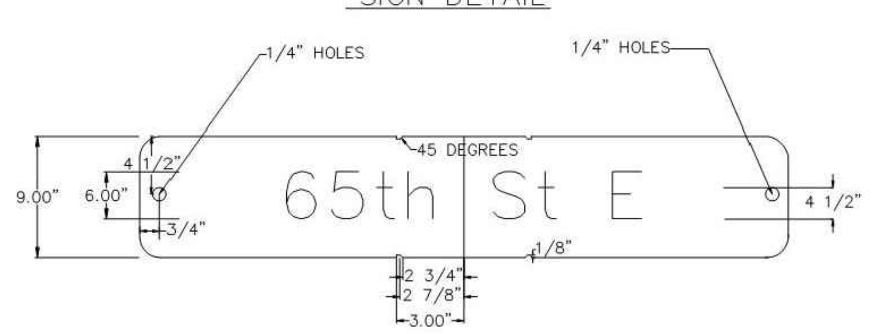
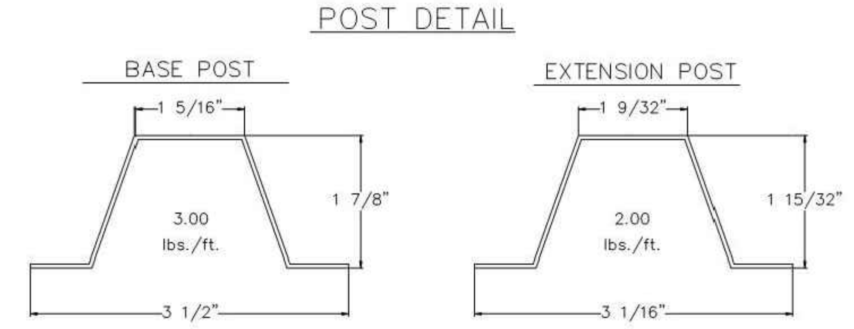
INTERSECTION DETAIL

CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT | 12/21 | PLATE NO. STR–13

SIGN DETAIL



POST DETAIL



STANDARD CONSTRUCTION NOTES FOR STREET NAME SIGNS AND POSTS

1. ALL STREET SIGNS SHALL BE DUAL BLADE, DIAMOND GRADE DG3 REFLECTIVE.
2. ALL STREET SIGNS SHALL BE 0.080 THICK AND HAVE 1.5" ROUNDED CORNERS.
3. ALL STREET SIGNS WILL BE PUNCHED AND NOTCHED BLADES.
4. ALL PUBLIC STREET NAME BLADES SHALL BE DIAMOND GRADE DG3 GREEN TRANSPARENT . LETTERING ON ALL STREET NAME BLADES SHALL BE DIAMOND GRADE DG3 "WHITE" IN COLOR. FONT SHALL BE SERIES C
5. ALL POSTS SHALL BE GALVANIZED, NOT PAINTED.
6. BASE POSTS SHALL BE 7 FEET LONG, 3 FEET DRIVEN INTO THE GROUND.
7. EXTENSION POSTS SHALL BE 8 FEET LONG.
8. PROVIDE E–450 KIT FOR 9" BLADE (GREEN) FOR CHANNEL POST.

PLATE	MAX CHARACTERS
24"	8
30"	10
36"	13
42"	15
48"	17

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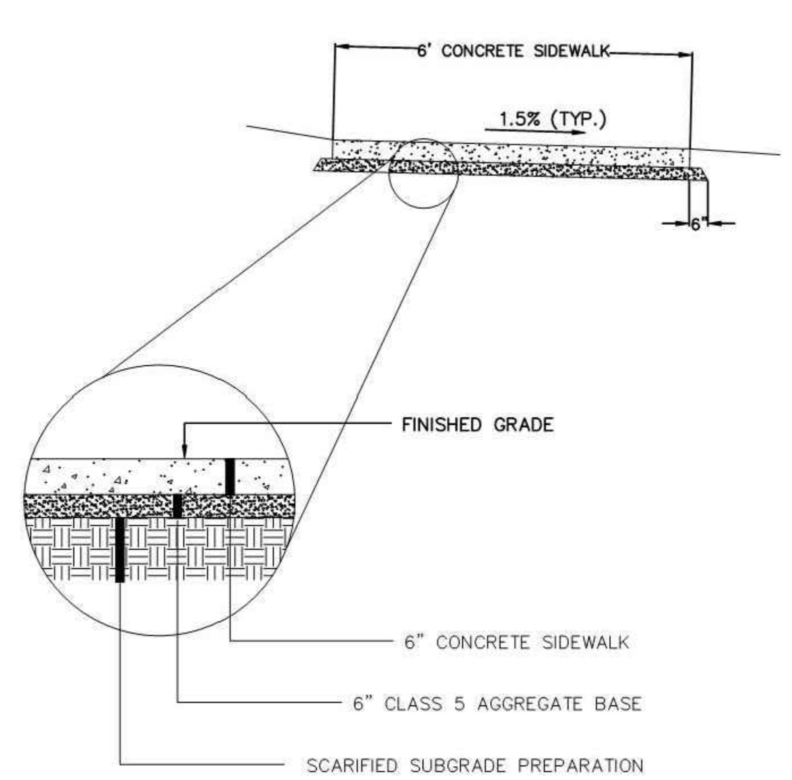
STREET SIGN DETAILS

CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT | 9/16 | PLATE NO. STR–18



CONCRETE PANELS SHALL NOT EXCEED 6' IN ANY DIRECTION

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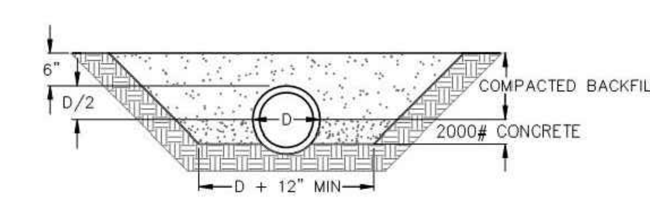
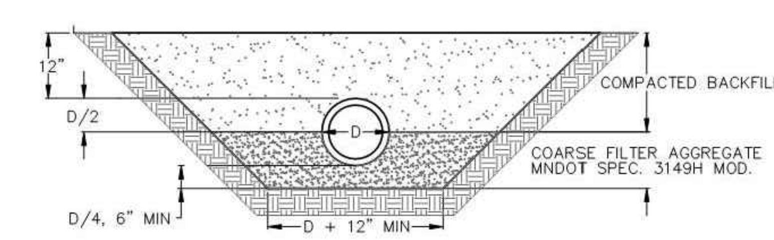
CONCRETE SIDEWALK

CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT | 3/19 | PLATE NO. STR–19

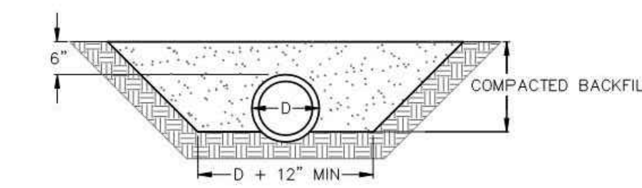
CLASS A
LOAD FACTOR 2.3



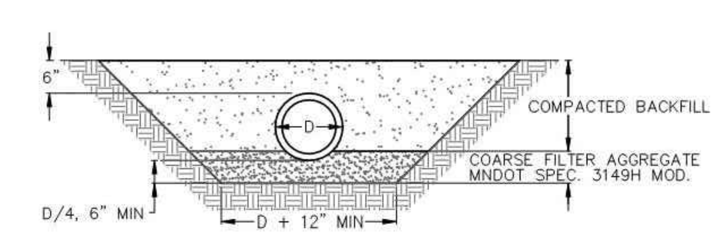
CLASS B
LOAD FACTOR 1.9
HAND SHAPED FROM ANGULAR BEDDING MATERIAL



CLASS C–1
LOAD FACTOR 1.5
HAND SHAPED FROM ANGULAR BEDDING MATERIAL



CLASS C–2
LOAD FACTOR 1.5
HAND SHAPED FROM ANGULAR BEDDING MATERIAL



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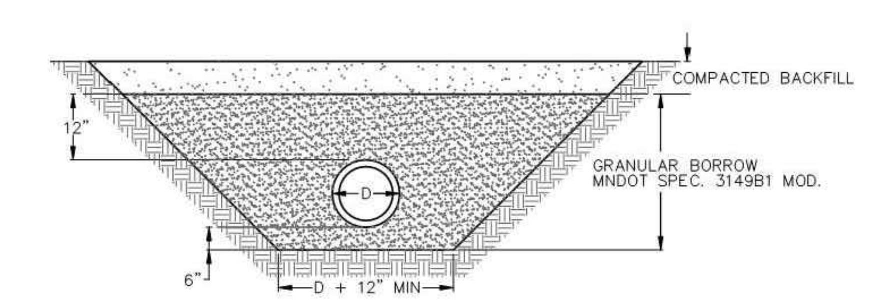
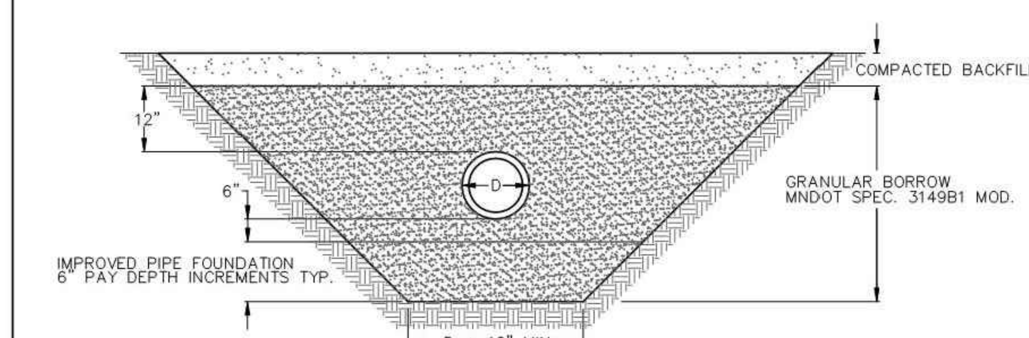
BEDDING METHODS
RCP AND DIP

CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT | 4/11 | PLATE NO. MISC–03

PIPE FOUNDATION AND BEDDING IN GOOD SOILS



PIPE FOUNDATION AND BEDDING IN POOR SOILS



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BEDDING METHODS
PVC

CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT | 4/11 | PLATE NO. MISC–04

CivilSite GROUP
Civil Engineering · Surveying · Landscape Architecture
5000 Glenwood Avenue
Golden Valley, MN 55422
civilsitegroup.com 612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
ARGENTA TRAIL
SOUTHWEST CORNER OF 70th STREET WEST & ARGENTA TRAIL
INTERSECTION, INVER GROVE HEIGHTS

STUART DEVELOPMENT CORPORATION
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DRAWN BY	MP, RB, AM, MD,JR,MS,
REVIEWED BY	MP, RB
PROJECT MANAGER	MP
PROJECT NUMBER	23131

REVISION SUMMARY

DATE	DESCRIPTION

CIVIL DETAILS

C5.1

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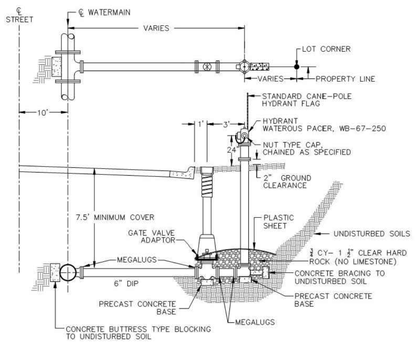

NOTES:

1. ALL HYDRANTS SHALL BE 8.0' BURY.
2. HYDRANT VALVES TO BE LOCATED 3' FROM HYDRANT.
3. GATE VALVES TO CONFORM WITH AWWA C509-80 STANDARDS.
4. POURED CONCRETE OR PRECAST BLOCKS TO BE USED FOR BRACING. (NO WOOD, CURBING, SIDEWALK, ETC.)
5. ALL JOINTS SHALL BE RESTRAINED USING MEGALUGS WITH STAINLESS STEEL T-BOLTS (MIN GRADE 304) AND TEFLON COATED NUTS. IN LIEU OF MEGALUGS, HYDRANTS CAN BE RODDED TO THE VALVE AND THE VALVE RODDED TO THE WATERMAIN USING TWO ¾" STAINLESS STEEL TIE RODS WITH TEFLON COATED NUTS.
6. VERTICAL OFFSETS ARE NOT PERMITTED WITHOUT PERMISSION OF THE ENGINEER.

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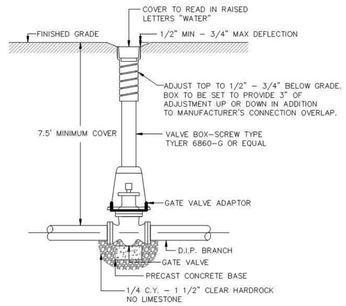
HYDRANT INSTALLATION		
CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT	12/21	PLATE NO. WTR-01



NOTES:

1. HYDRANT, STUB, & SERVICE VALVES SHALL BE RODDED TO THE MAIN.
2. GATE VALVES TO CONFORM WITH AWWA C509-80 STANDARDS.
3. TIE RODS TO BE 5/8" DIAMETER THREADED STEEL.
4. ALL TIE RODS TO BE SPRAYED WITH A BITUMINOUS COAL TAR PROTECTIVE COATING I.E. LOCTITE HEAVY DUTY RUBBERIZED UNDERCOATING, OR APPROVED EQUAL.
5. ALL WATERMAIN BOLTS ARE CORE-BLUE OR APPROVED EQUAL.
6. NO INSIDE ADJUSTMENT SECTIONS ALLOWED (IE. NO INSERTS).
7. MARKING POST SHALL BE INSTALLED AT ALL GATE VALVES LOCATED OUTSIDE OF STREET SECTIONS. SEE PLATE NO. MISC-01.

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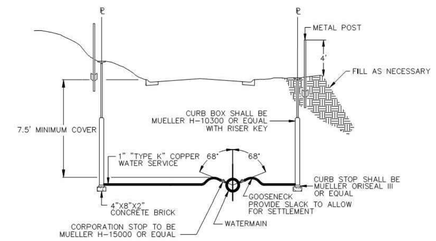
VALVE BOX INSTALLATION		
CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT	2/14	PLATE NO. WTR-02



NOTES:

1. NO COPPER TO COPPER CONNECTIONS SHALL BE MADE IN THE PUBLIC RIGHT OF WAY.
2. COPPER SERVICE SHALL NOT EXTEND BEYOND THE CURB BOX (NO PIGTAILS).
3. INSTALL CURB BOX WITH RISER KEY.
4. CURB BOX TO BE PLACED AT HALF EXTENSION.
5. FORD TYPE A-1 SINGLE LID COVER (4" BURY DEPTH) OR EQUAL FOR CURB BOXES IN DRIVEWAYS, SIDEWALKS, OR PARKING AREAS.
6. INSTALL METAL TEE FENCE POST 6" TO 12" BEHIND CURB BOX LOCATION. FENCE POST SHALL BE GREEN WITH TOP PAINTED BLUE.

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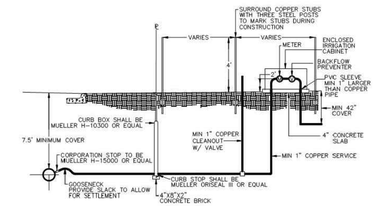
TYPICAL RESIDENTIAL WATER SERVICE		
CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT	4/18	PLATE NO. WTR-03



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5. INSTALL METAL TEE FENCE POST 6" TO 12" BEHIND CURB BOX LOCATION. FENCE POST SHALL BE GREEN WITH TOP PAINTED BLUE.

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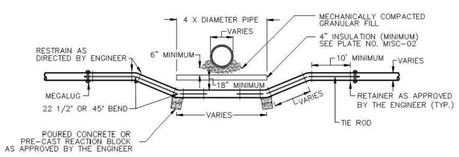
TYPICAL RESIDENTIAL WATER SERVICE		
CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT	4/18	PLATE NO. WTR-04



NOTE:

1. ALL TIE RODS TO BE SPRAYED WITH A BITUMINOUS COAL TAR PROTECTIVE COATING (I.E. LOCTITE HEAVY DUTY RUBBERIZED UNDERCOATING OR APPROVED EQUAL)
2. TIE RODS TO BE 5/8" DIAMETER THREADED STEEL.
3. ALL WATERMAIN BOLTS ARE CORE-BLUE OR APPROVED EQUAL.
4. PVC MEGALUGS WILL BE USED ON ALL CAST IRON PIPE.

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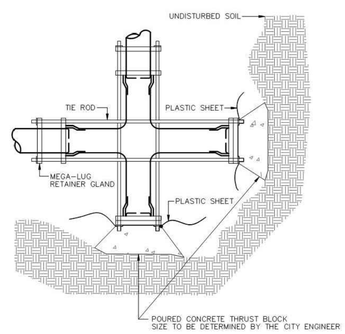
WATERMAIN ADJUSTMENT		
CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT	3/11	PLATE NO. WTR-05



NOTES:

1. TYING BACK PLUG (TIE RODS) SHALL BE DONE IN ADDITION TO THRUST BLOCKING.
2. TIE RODS TO BE 5/8" DIAMETER THREADED STEEL.
3. ALL TIE RODS TO BE SPRAYED WITH A BITUMINOUS COAL TAR PROTECTIVE COATING I.E. LOCTITE HEAVY DUTY RUBBERIZED UNDERCOATING OR APPROVED EQUAL.
4. TYING BACK PLUG IS INCIDENTAL TO WATERMAIN INSTALLATION.
5. ALL WATERMAIN BOLTS ARE CORE-BLUE OR APPROVED EQUAL.
6. POURED CONCRETE OR PRECAST BLOCKS TO BE USED FOR BLOCKING (NO WOOD, CURBING, SIDEWALK, ETC.)
7. PRECAST BLOCKS (MANHOLE BLOCKS OR EQUAL) MAY BE USED ON 6" OR 8" WATERMAIN.
8. PLASTIC SHEETING SHALL BE WRAPPED AROUND PLUG PRIOR TO POURING CONCRETE.
9. CONCRETE SHALL NOT BE POURED AROUND SIDES OF PLUG.
10. CONCRETE SHALL BE 4000 PSI.
11. ALL SERVICE STUBS AND FUTURE WATERMAIN EXTENSIONS MUST HAVE A 1" CORP AND 1" TYPE "K" BLEED OFF AS DIRECTED BY THE CITY ENGINEER.

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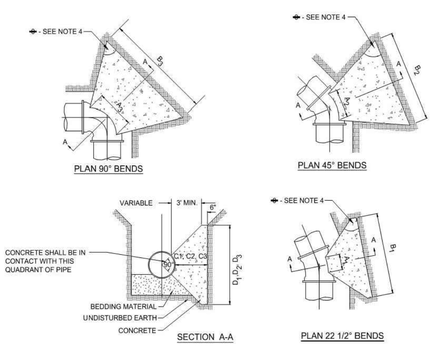
TYPICAL WATERMAIN PLUG		
CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT	3/11	PLATE NO. WTR-06

NOTES:

1. SHAPE OF BACK OF BUTTRESS MAY VERY AS LONG AS POURED AGAINST FIRM UNDISTURBED EARTH.
2. DIMENSION C1,C2,C3 SHOULD BE LARGE ENOUGH TO MAKE ANGLE ≤ EQUAL TO OR LARGER THAN 45°.
3. DIMENSION A1,A2,A3 SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERING WITH MJ BOLTS.
4. 0 = 45° MINIMUM.
5. PLACE POLYETHYLENE BETWEEN CONCRETE & PIPE.

BUTTRESS DIMENSIONS						
PIPE SIZE	22 1/2° BEND		45° BEND		90° BEND	
	B_1	D_1	B_2	D_2	B_3	D_3
6"	1'-5"	1'-5"	1'-5"	1'-5"	2'-1"	1'-6"
8"	1'-5"	1'-5"	2'-1"	1'-6"	2'-8"	2'-0"
12"	1'-10"	1'-10"	3'-4"	2'-0"	4'-9"	2'-6"
16"	3'-0"	2'-0"	3'-10"	3'-0"	6'-2"	3'-6"
20"	3'-6"	2'-8"	5'-6"	3'-4"	8'-4"	4'-0"
24"	4'-4"	3'-0"	6'-10"	3'-10"	9'-8"	5'-0"
30"	-	-	9'-3"	6'-0"	17'-0"	6'-0"



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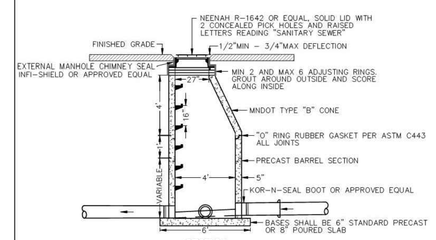
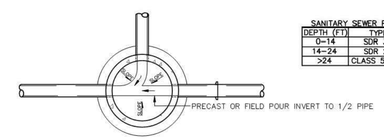
CONCRETE THRUST BLOCKING DETAIL		
CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT	01/22	PLATE NO. WTR-11





SANITARY SEWER PIPE	
DEPTH (FT)	TYPE
0-14	SDR 35
14-24	SDR 26
>24	CLASS 52 DIP

NOTES:

1. A MINIMUM FALL OF .10' ON MANHOLES THROUGH STRUCTURES AND A MINIMUM FALL OF .20' ON MANHOLES WITH 90° BENDS IS REQUIRED.
2. MANHOLES SHALL BE INSTALLED AT DISTANCES NO GREATER THAN 400' APART.
3. MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.
4. GROUT ALL DOGHOUSES AND LIFT HOLES.
5. MARKING POSTS SHALL BE INSTALLED AT ALL MANHOLES LOCATED OUTSIDE OF STREET SECTION. SEE PLATE NO. MISC-01.
6. SERVICES SHALL NOT ENTER MANHOLES.
7. OUTSIDE DROPS ARE REQUIRED WHEN THE LOWEST AND HIGHEST INVERT ELEVATION DIFFERENCES EXCEED 2'. FOR ALL DROPS LESS THAN 2', SLOPED BENCHES ARE REQUIRED.
8. AN EXTERNAL MANHOLE CHIMNEY SEAL SHALL BE INSTALLED AROUND THE RINGS AND CASTING.

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SANITARY STANDARD MANHOLE		
CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT	8/13	PLATE NO. SAN-01

CivilSite GROUP
Civil Engineering · Surveying · Landscape Architecture
5000 Glenwood Avenue
Golden Valley, MN 55422
civilsitegroup.com 612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT

ARGENTA TRAIL

SOUTHWEST CORNER OF 70th STREET WEST & ARGENTA TRAIL INTERSECTION, INVER GROVE HEIGHTS

STUART DEVELOPMENT CORPORATION

1000 WEST 80TH STREET, MINNEAPOLIS, MN 55420

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Matthew R. Pavek

DATE 06/17/2024 LICENSE NO. 44263

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
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11/20/2023	PRELIMINARY PLAT/PUD RESUBMITTAL
6/7/2024	PRICING SET
6/17/2024	FINAL PLAT / PUD SUBMITTAL

DRAWN BY	MP, RB, AM, MD,JR,MS,
REVIEWED BY	MP, RB
PROJECT MANAGER	MP
PROJECT NUMBER	23131

REVISION SUMMARY

DATE	DESCRIPTION

CIVIL DETAILS

C5.2

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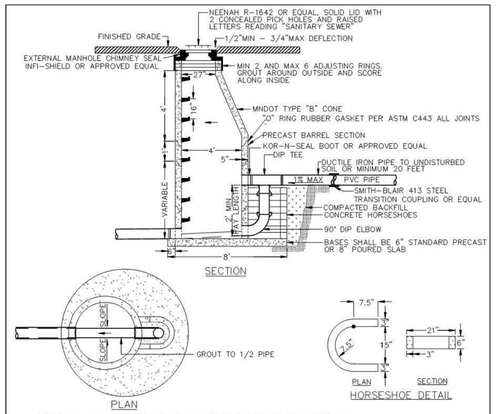

NOTES:
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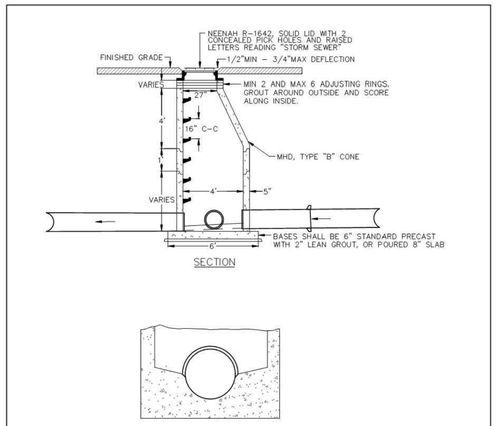
2. MANHOLES SHALL BE INSTALLED AT DISTANCES NO GREATER THAN 400' APART.
3. MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.
4. GROUT ALL DOGHOUSES AND LIFT HOLES.
5. MARKING POSTS SHALL BE INSTALLED AT ALL MANHOLES LOCATED OUTSIDE OF STREET SECTION. SEE PLATE NO. MISC-01.
6. SERVICES SHALL NOT ENTER MANHOLES.
7. NO CONSTRUCTED INSIDE DROPS ALLOWED.
8. HORSESHOES FILLED WITH CONCRETE MORTAR ON ALL SIDES.
9. AN EXTERNAL MANHOLE CHIMNEY SEAL SHALL BE INSTALLED AROUND THE RINGS AND CASTING.
10. ALL CONNECTIONS BETWEEN DIP AND PVC SHALL BE MADE WITH SMITH BLAIR 413 STEEL TRANSITION COUPLING OR APPROVED EQUAL.

SANITARY SEWER PIPE

DEPTH (FT)	TYPE
0–14	SDR 35
14–24	SDR 26
>24	CLASS 52 DIP

Printed On Dec-21

SANITARY DROP MANHOLE
CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT | 1/15 | PLATE NO. SAN-02



NOTES:
1. ALL MANHOLES MUST BE A MINIMUM OF 4' IN DEPTH.
2. MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.
3. PROVIDE POURED CONCRETE INVERTS AND DOGHOUSES.
4. GROUT ALL LIFT HOLES.
5. MARKING POSTS SHALL BE INSTALLED AT ALL MANHOLES LOCATED OUTSIDE OF STREET SECTION. SEE PLATE NO. MISC-01. 6. MINIMUM 48" DIAMETER WHEN PIPE IS 36" OR SMALLER MINIMUM 72" DIAMETER WHEN PIPE IS LARGER THAN 36"

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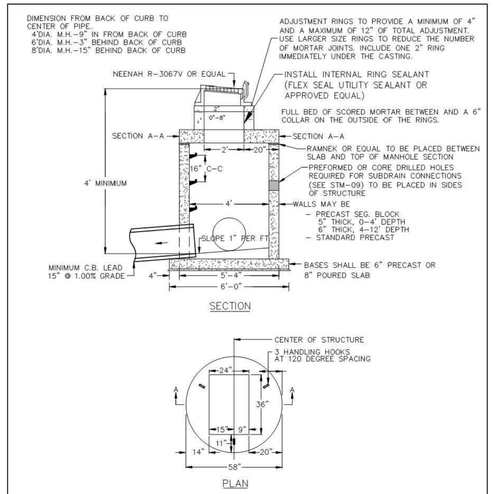
STORM STANDARD MANHOLE
CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT | 6/21 | PLATE NO. STM-01



NOTES:
1. ALL CATCH BASIN/MANHOLES MUST BE A MINIMUM OF 4' IN DEPTH.
2. PROVIDE POURED CONCRETE INVERTS AND DOGHOUSES.
3. GROUT ALL LIFT HOLES.
4. DRAINTILE SHALL BE INSTALLED AT ALL CATCH BASINS. SEE PLATE NO. STM-09.
5. STEPS SHALL BE PLACE IN EITHER FRONT CORNER DEPENDING ON PIPE CONFIGURATION.

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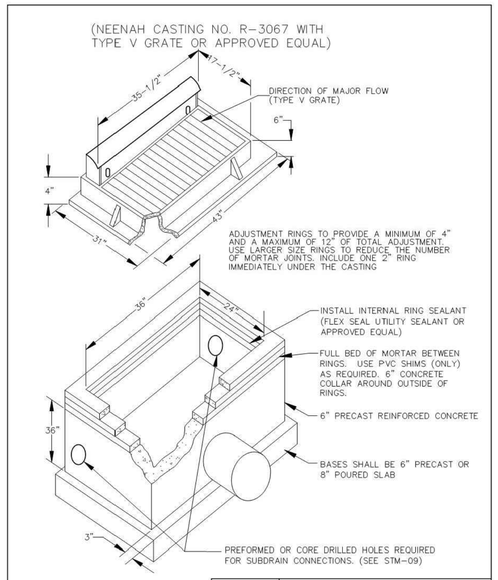
CATCH BASIN/MANHOLE WITH RECTANGULAR LID
CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT | 12/21 | PLATE NO. STM-02



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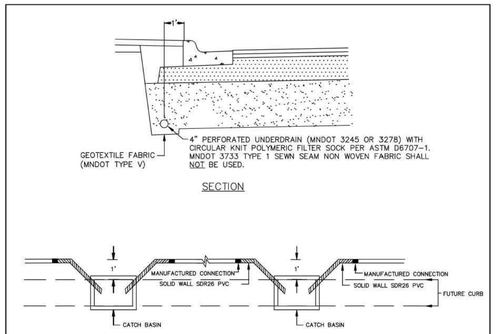
2' x 3' CATCH BASIN
CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT | 12/21 | PLATE NO. STM-03



1. DRAINTILE SHALL BE PLACED CONTINUOUS IN BOTH SIDES OF THE STREET FROM CATCHBASIN TO CATCHBASIN. AT TERMINAL CATCHBASINS THE DRAINTILE SHALL BE EXTENDED A MINIMUM OF 30 FEET.
2. THE FIRST 18" AT THE CATCHBASIN SHALL BE NON PERFORATED SOLID WALL SDR 26 PVC. CONNECTIONS BETWEEN PVC AND HDPE SHALL BE MADE WITH MANUFACTURED CONNECTIONS (FERNCO FITTINGS OR EQUAL).
4. DRAINTILE SHALL BE PLACED IN THE DESIGN SECTION OF THE STREET, 6" BELOW SUBGRADE OR AT THE BOTTOM OF THE SELECT GRANULAR SECTION, AND 1' BEHIND THE PROPOSED CURBLINE.
5. DRAINTILE SHALL BE PLACED ON THE STREET SIDE OF THE CATCHBASIN AT THE REQUEST OF THE ENGINEER.
6. DRAINTILE SHALL BE PLACED AT THE SAME TIME THE SELECT GRANULAR SECTION IS PLACED AND FOLLOW THE STREET GRADE.
7. CONNECTIONS TO CATCH BASIN SHALL BE PRE FORMED OR CORE DRILLED. VOIDS AT CONNECTION TO BE GROUTED.
8. IF SUMP DISCHARGE CONNECTIONS ARE BEING INSTALLED, THE DRAIN TILE MUST RIGID PVC TO THE NEXT DOWNSTREAM CATCHBASIN.

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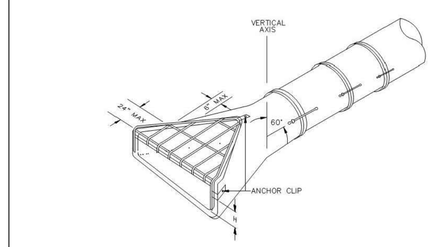
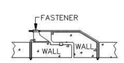
STREET DRAINTILE
CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT | 01/17 | PLATE NO. STM-09





TIE BOLT & FASTENER ASSEMBLY

TRASH GUARD SIZING

PIPE SIZE (IN.)	BOLT DIAMETER (IN.)	BARS (IN.)	H (IN.)
15	5/8	3/4	4
18	5/8	3/4	4
21	3/4	1	6
24	3/4	1	6
27	3/4	1	6
30	3/4	1	6
36	3/4	1	6
42	3/4	1	6
48	1	1 1/4	12

NOTES:
1. USE TWO TIE BOLT FASTENERS PER JOINT INSTALLED AT 60' FROM TOP OF PIPE.
2. LAST THREE JOINTS SHALL BE TIED.
3. TYING AND TRASH GUARD SHALL BE INCLUDED IN UNIT PRICE BID FOR END SECTION.
4. BARS AND PLATES ARE HOT-ROLLED STEEL.
5. BARS, PLATES, PIPE, AND BOLTS ARE GALVANIZED.
6. VERTICAL OPENING SHALL BE A MAXIMUM OF 6" AND A MINIMUM OF 4" HIGH
7. FOR RIP RAP PLACEMENT SEE DETAIL STM-12
8. TRASH GUARDS ON 15-18" FLARED END SECTIONS SHALL BE PLACED ON POND OUTLETS ONLY. DO NOT PLACE ON POND INLETS OR CULVERTS.

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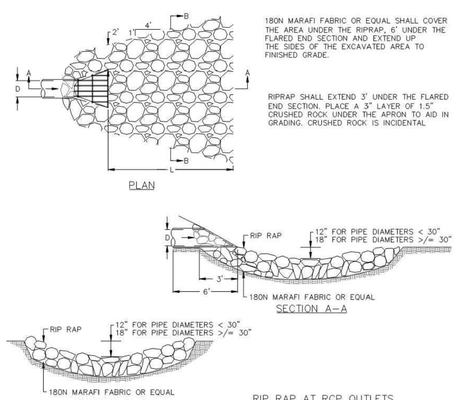
RIP-RAP REFERENCE
CITY PLATE STM-12

STANDARD FLARED END SECTION AND TRASH GUARD
CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT | 4/17 | PLATE NO. STM-10



180N MARAFI FABRIC OR EQUAL SHALL COVER THE AREA UNDER THE RIPRAP, 6' UNDER THE FLARED END SECTION AND EXTEND UP THE SIDES OF THE EXCAVATED AREA TO FINISHED GRADE.

RIPRAP SHALL EXTEND 3' UNDER THE FLARED END SECTION. PLACE A 3" LAYER OF 1.5" CRUSHED ROCK UNDER THE APRON TO AID IN GRADING. CRUSHED ROCK IS INCIDENTAL

RIP RAP AT RCP OUTLETS

DIAMETER OF ROUND PIPE (IN)	L (FT)	CLASS II (6") 12" DEPTH (CY)	CLASS III (9") 18" DEPTH (CY)	CLASS IV (12") 24" DEPTH (CY)
15	8	3.5	5.3	7.0
18	10	4.5	6.8	9.0
21	10	4.8	7.3	9.8
24	12	6.1	9.2	12.3
27	12	6.5	9.7	13.0
30	14	8.0	11.9	15.9
36	16	10.0	15.0	20.0
42	18	11.7	17.5	23.4
48	20	13.8	20.70	27.6

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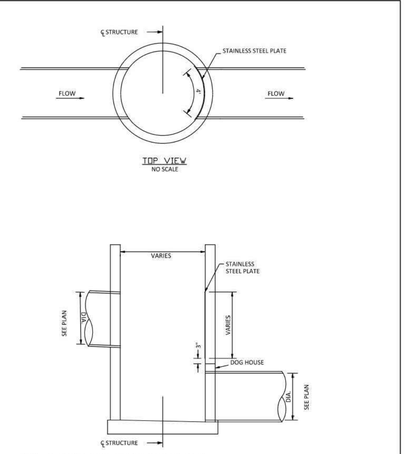
RIP RAP
CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT | 2/15 | PLATE NO. STM-12



NOTES:
1) REQUIRED FOR ALL STORM SEWER DROP STRUCTURES.
2) STEEL PLATE SHALL BE 4' X 1/2" CONCAVE STAINLESS STEEL PLATES FASTENED TO STRUCTURE WALL W/ 1/2" STAINLESS STEEL ANCHOR BOLTS. INSTALL PLATE SEGMENTS 3" ABOVE LOWER DOG HOUSE TO CROWN OF UPPER PIPE.
3) SCOUR PLATE SHALL BE BUILT TO FIT AND INSTALLED PRIOR TO LID AND CASTING REPLACEMENT.

Printed On Jan-22

STORM SEWER SPLASH PLATE DETAIL
CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT | 12/21 | PLATE NO. STM-22

CivilSite GROUP
Civil Engineering · Surveying · Landscape Architecture
5000 Glenwood Avenue
Golden Valley, MN 55422
civilsitegroup.com 612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
ARGENTA TRAIL
SOUTHWEST CORNER OF 70th STREET WEST & ARGENTA TRAIL INTERSECTION, INVER GROVE HEIGHTS

STUART DEVELOPMENT CORPORATION
1000 WEST 80TH STREET, MINNEAPOLIS, MN 55420

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Matthew R. Pavek
DATE 06/17/2024 LICENSE NO. 44263

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11/20/2023	PRELIMINARY PLAT/PUD RESUBMITTAL
6/7/2024	PRICING SET
6/17/2024	FINAL PLAT / PUD SUBMITTAL

DRAWN BY	MP, RB, AM, MD,JR,MS,
REVIEWED BY	MP, RB
PROJECT MANAGER	MP
PROJECT NUMBER	23131

REVISION SUMMARY

DATE	DESCRIPTION

CIVIL DETAILS

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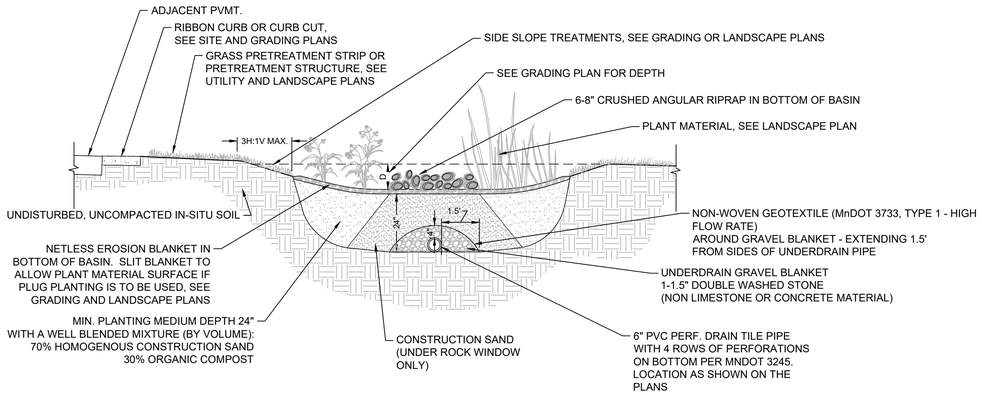


CONSTRUCTION SEQUENCING

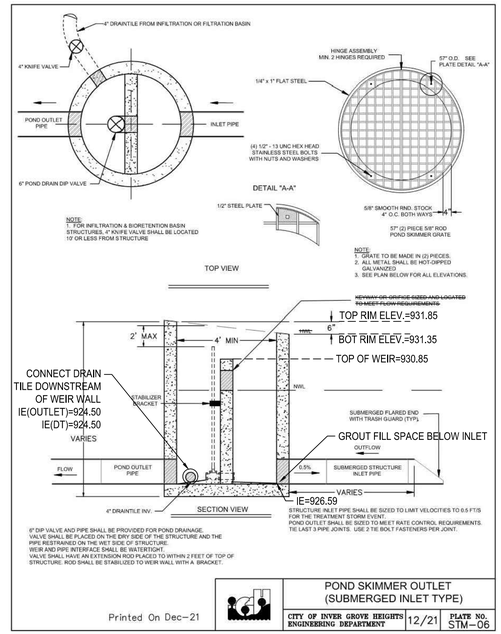
1. INSTALL SILT FENCE AND/OR OTHER APPROPRIATE TEMPORARY EROSION CONTROL DEVICES TO PREVENT SEDIMENT FROM LEAVING OR ENTERING THE PRACTICE DURING CONSTRUCTION.
2. ALL DOWN-GRADIENT PERIMETER SEDIMENT CONTROL BMP'S MUST BE IN PLACE BEFORE ANY UP-GRADIENT LAND DISTURBING ACTIVITY BEGINS.
3. PERFORM CONTINUOUS INSPECTIONS OF EROSION CONTROL PRACTICES.
4. INSTALL UTILITIES (WATER, SANITARY SEWER, ELECTRIC, PHONE, FIBER OPTIC, ETC) PRIOR TO THE STORMWATER SYSTEM.
5. ROUGH GRADE THE SITE. IF BIORETENTION AREAS ARE BEING USED AS TEMPORARY SEDIMENT BASINS, LEAVE A MINIMUM OF 3 FEET OF COVER OVER THE PRACTICE TO PROTECT THE UNDERLYING SOILS FROM CLOGGING.
6. PERFORM ALL OTHER SITE IMPROVEMENTS.
7. PLANT ALL AREAS AFTER DISTURBANCE.
8. CONSTRUCT BIORETENTION DEVICE UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA.
9. IMPLEMENT TEMPORARY AND PERMANENT EROSION CONTROL PRACTICES.
10. PLANT AND/OR ROCK MULCH BIORETENTION DEVICE.
11. REMOVE TEMPORARY EROSION CONTROL DEVICES AFTER THE CONTRIBUTING DRAINAGE AREA IS ADEQUATELY VEGETATED.

GENERAL NOTES

1. IN THE EVENT THAT SEDIMENT IS INTRODUCED INTO THE BMP DURING OR IMMEDIATELY FOLLOWING EXCAVATION, THIS MATERIAL SHALL BE REMOVED FROM THE PRACTICE PRIOR TO CONTINUING CONSTRUCTION.
2. GRADING OF BIORETENTION DEVICES SHALL BE ACCOMPLISHED USING LOW-COMPACTION EARTH-MOVING EQUIPMENT TO PREVENT COMPACTION OF UNDERLYING SOILS.
3. ALL SUB MATERIALS BELOW THE SPECIFIED BIORETENTION DEPTH (ELEVATION) SHALL BE UNDISTURBED, UNLESS OTHERWISE NOTED.
4. TOP LAYER OF SUB-BASE OR IN SITU-SOIL BELOW THE SPECIFIED BIORETENTION DEPTH(ELEVATION) SHALL BE SCARIFIED TO PROMOTE INFILTRATION.(12-18" DEPTH)
5. SEE UTILITY PLAN / SHOP DRAWINGS FOR SYSTEM LAYOUT.

1 BIO-FILTRATION BASIN (RAIN GARDEN - TYP.)

N T S



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REVIEWED BY	MP, RB
PROJECT MANAGER	MP
PROJECT NUMBER	23131

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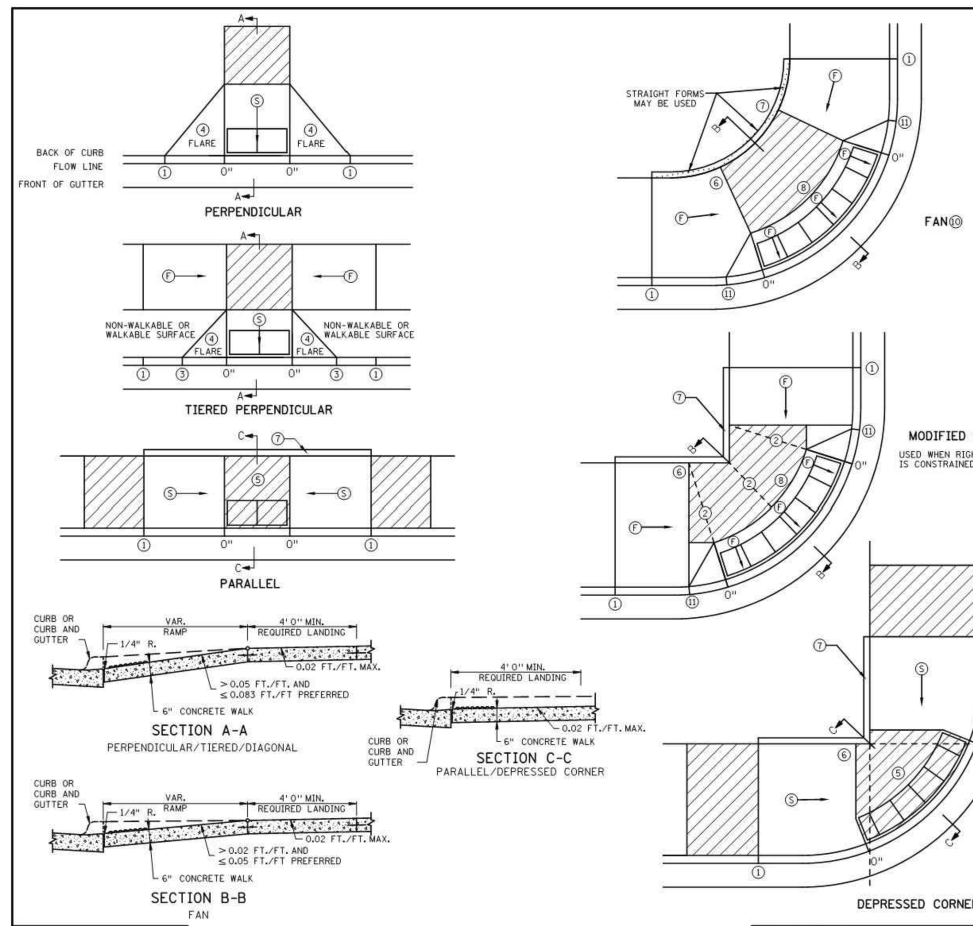


NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE GREATER THAN 2%.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE. ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL RUNNING SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOPS OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL. THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH. (EXCEPT AS STATED IN ⑥ BELOW.

TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 OF 6 FOR ALL SEPARATELY POURED INITIAL LANDINGS.

WHEN SIDEWALK IS AT BACK OF CURB, TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

MAINTAIN POSITIVE BOULEVARD DRAINAGE TO TOP OF CURB.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.

WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RECTANGULAR DETECTABLE WARNINGS SHALL BE SETBACK 3" FROM THE BACK OF CURB. RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB.

① MATCH FULL HEIGHT CURB.
② 4' MINIMUM DEPTH LANDING REQUIRED ACROSS TOP OF RAMP.
③ 3" HIGH CURB WHEN USING A 3' LONG RAMP, 4" HIGH CURB WHEN USING A 4' LONG RAMP.
④ SEE SHEET 4 OF 6, TYPICAL SIDE TREATMENT OPTIONS, FOR DETAILS ON FLARES AND RETURNED CURBS.
⑤ DETECTABLE WARNINGS MAY BE PART OF THE 4' X 4' MIN. LANDING AREA IF IT IS NOT FEASIBLE TO CONSTRUCT THE LANDING OUTSIDE OF THE DETECTABLE WARNING AREA.
⑥ THE GRADE BREAK SHALL BE PERPENDICULAR TO THE BACK OF WALK. THIS WILL ENSURE THAT THE GRADE BREAK IS PERPENDICULAR TO THE DIRECTION OF TRAVEL. (TYPICAL FOR ALL)
⑦ WHEN ADJACENT TO GRASS, GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS LESS THAN 5% RUNNING SLOPE SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.
⑧ A 7' MIN TOP RADIUS GRADE BREAK IS REQUIRED TO BE CONSTRUCTIBLE.
⑨ PAVE FULL WALK WIDTH.
⑩ "S" SLOPES ON FANS SHALL ONLY BE USED WHEN ALL OTHER FEASIBLE OPTIONS HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL.
⑪ INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3" CURB HEIGHT. REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

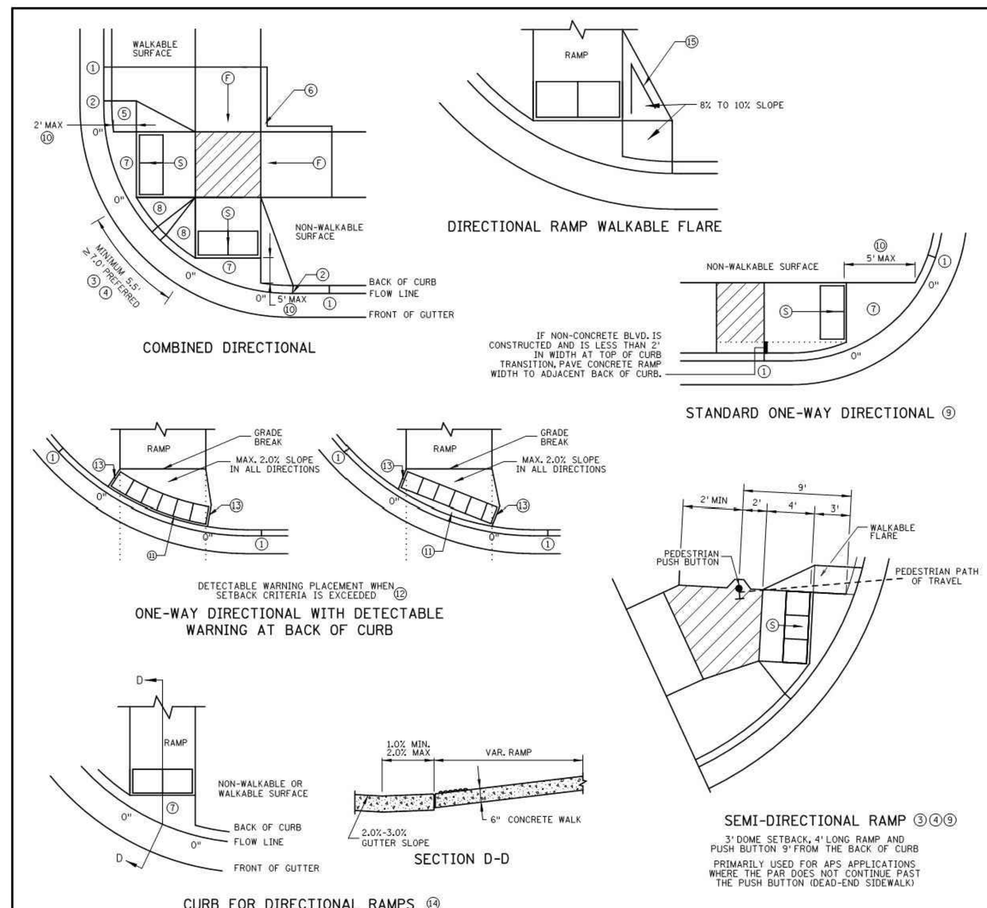
- Ⓢ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.
- Ⓕ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.
- LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.
- X" CURB HEIGHT

REVISION:
APPROVED: 11-04-2021
JEFFREY PERKINS, OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION | STANDARD PLAN 5-297.250 | 1 OF 6 | APPROVED: 11-04-2021 REVISED: | THOMAS STYRBICKI, STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS



NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE. ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOP GRADE BREAK OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL. THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH.

TO ENSURE INITIAL RAMPS AND INITIAL LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS SHALL BE CAST SEPARATELY. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 AND THE ADA SPECIAL PROVISION (PROSECUTION OF WORK).

TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

WHEN THE BOULEVARD IS 4' WIDE OR LESS, THE TOP OF CURB TAPER SHALL MATCH THE RAMP SLOPES TO REDUCE NEGATIVE BOULEVARD SLOPES FROM THE TOP BACK OF CURB TO THE PAR.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.

WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB. SEE NOTES ⑩ & ⑪ FOR INFORMATION REGARDING RECTANGULAR DETECTABLE WARNING PLACEMENT.

① MATCH FULL CURB HEIGHT.
② 3" HIGH CURB WHEN USING A 3' LONG RAMP. 4" HIGH CURB WHEN USING A 4' LONG RAMP.
③ 3" MINIMUM CURB HEIGHT (5.5' MIN. DISTANCE REQUIRED BETWEEN DOMES) 4" PREFERRED (7' MIN. DISTANCE REQUIRED BETWEEN DOMES).
④ THE "BUMP" IN BETWEEN THE RAMPS SHOULD NOT BE IN THE PATH OF TRAVEL FOR COMBINED DIRECTIONAL RAMPS. IF THIS OCCURS MODIFY THE RAMP LOCATION OR SWITCH RAMP TO A FAN/DEPRESSED CORNER.
⑤ WHEN USING CONCRETE PAVED FLARES ON THE OUTSIDE OF DIRECTIONAL RAMPS, AND ADJACENT TO A WALKABLE SURFACE, DIRECTIONAL RAMP FLARES SHALL BE USED. SEE THE DETAIL ON THIS SHEET.
⑥ GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.
⑦ MAX. 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK AND DRAIN TO FLOW LINE. SHALL BE CONSTRUCTED INTEGRAL WITH CURB AND GUTTER.
⑧ 8% TO 10% WALKABLE FLARE.
⑨ PLACE DOMES AT THE BACK OF CURB WHEN ALLOWABLE SETBACK CRITERIA IS EXCEEDED.
⑩ FRONT EDGE OF DETECTABLE WARNING SHALL BE SET BACK 2' MAXIMUM WHEN ADJACENT TO WALKABLE SURFACE, AND 5' MAXIMUM WHEN ADJACENT TO NON-WALKABLE SURFACE WITH ONE CORNER SET 3" FROM BACK OF CURB. A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.
⑪ RECTANGULAR DETECTABLE WARNINGS MAY BE SETBACK UP TO 9" FROM THE BACK OF CURB WITH CORNERS SET 3" FROM BACK OF CURB. IF 9" SETBACK IS EXCEEDED USE RADIAL DETECTABLE WARNINGS.
⑫ FOR DIRECTIONAL RAMPS WITH THE DETECTABLE WARNINGS PLACED AT THE BACK OF CURB, THE DETECTABLE WARNINGS SHALL COVER THE ENTIRE WIDTH OF THE WALK/PATH. THIS ENSURES A DETECTABLE EDGE AND HELPS ELIMINATE THE CURB TAPER OBSTRUCTING THE PATH OF PEDESTRIAN TRAVEL.
⑬ THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE BACK OF CURB. MAINTAIN 3" BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.
⑭ TO BE USED FOR ALL DIRECTIONAL RAMPS, EXCEPT WHERE DOMES ARE PLACED ALONG THE BACK OF CURB.
⑮ PLACE 2 NO. 4 BARS 4 INCHES FROM SIDE OF FORMS WITH A MINIMUM 2 INCHES OF CONCRETE COVER ALONG EACH SIDE OF FLARE (INCIDENTAL).

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

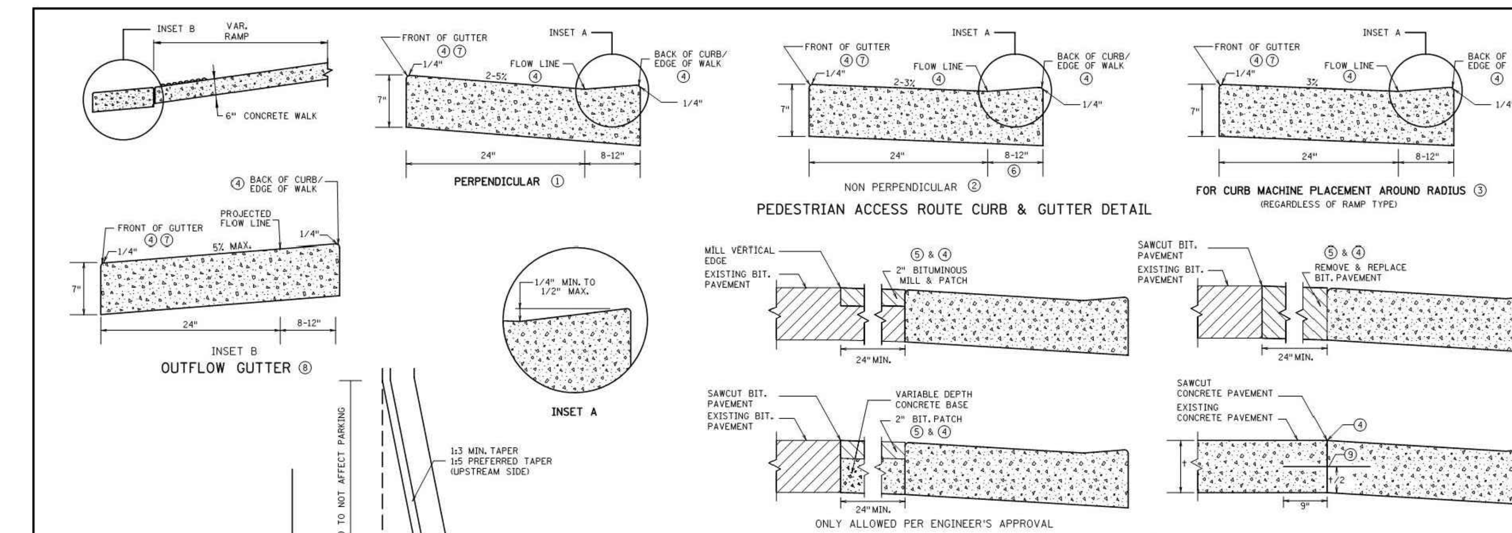
- Ⓢ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.
- Ⓕ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.
- LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.
- X" CURB HEIGHT

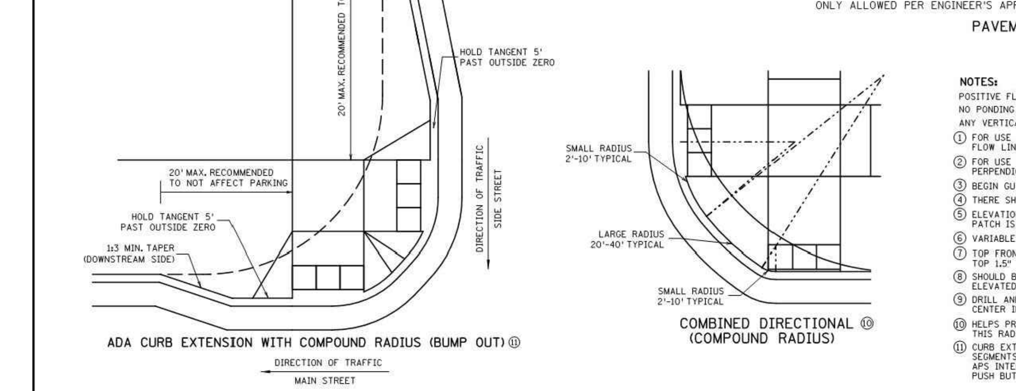
REVISION:
APPROVED: 11-04-2021
JEFFREY PERKINS, OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION | STANDARD PLAN 5-297.250 | 2 OF 6 | APPROVED: 11-04-2021 REVISED: | THOMAS STYRBICKI, STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (T.H.) SHEET NO. OF SHEETS





NOTES:

POSITIVE FLOW LINE DRAINAGE SHALL BE MAINTAINED THROUGH THE PEDESTRIAN ACCESS ROUTE (PAR) AT A 2% MAXIMUM. NO PONDING SHALL BE PRESENT IN THE PAR.

ANY VERTICAL LIP THAT OCCURS AT THE FLOW LINE SHALL NOT BE GREATER THAN 1/4 INCH.

① FOR USE AT CURB CUTS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: PERPENDICULAR, TIERED PERPENDICULAR, PARALLEL, AND DIAGONAL RAMPS.
② FOR USE AT CURB RAMPS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED NON PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: FANS & DEPRESSED CORNERS.
③ BEGIN GUTTER SLOPE TRANSITION 10' OUTSIDE OF ALL CURB RAMPS.
④ THERE SHALL BE NO VERTICAL DISCONTINUITIES GREATER THAN 1/4".
⑤ ELEVATION CHANGE TAKES PLACE FROM THE EXISTING TO NEW FRONT OF GUTTER. PATCH IS USED TO MATCH THE NEW GUTTER FACE INTO THE EXISTING ROADWAY.
⑥ VARIABLE WIDTH FOR DIRECTIONAL CURB APPLICATIONS. SEE SHEET 2 FOR DIRECTIONAL CURB SLOPE REQUIREMENTS.
⑦ TOP FRONT OF GUTTER SHALL BE CONSTRUCTED FLUSH WITH PROPOSED ADJACENT PAVEMENT ELEVATION. TOP 1.5" OF THE GUTTER FACE MUST BE A FORMED EDGE. PAR GUTTER SHALL NOT BE OVERLAID.
⑧ SHOULD BE USED AT VERTICALLY CONSTRAINED AREAS WHEN AT A DRAINAGE HIGH POINT OR SUPER ELEVATED ROADWAY SEGMENTS.
⑨ DRILL AND GROUT NO. 4 EPOXY-COATED 18" LONG TIE BARS AT 30" CENTER TO CENTER INTO EXISTING CONCRETE PAVEMENT 1' MINIMUM FROM ALL JOINTS.
⑩ HELPS PROVIDE TWO SEPARATE RAMPS, REDUCES THE DOME SETBACK LENGTH AND MINIMIZES DIRECTIONAL CURB. THIS RADIUS DESIGN CLOSELY FOLLOWS THE TURNING VEHICLE PATH WHILE OPTIMIZING CURB RAMP LENGTH.
⑪ CURB EXTENSIONS SHOULD BE USED IN VERTICALLY CONSTRAINED AREAS, USUALLY IN DOWNTOWN ROADWAY SEGMENTS WHERE ON-STREET PARKING IS AVAILABLE. CURB EXTENSIONS SHOULD BE CONSIDERED FOR APS INTERSECTIONS WHERE SPACE IS LIMITED. PUSH BUTTONS MUST MEET APS CRITERIA AS DESCRIBED IN THE PUSH BUTTON LOCATION DETAIL SHEET.

REVISION:
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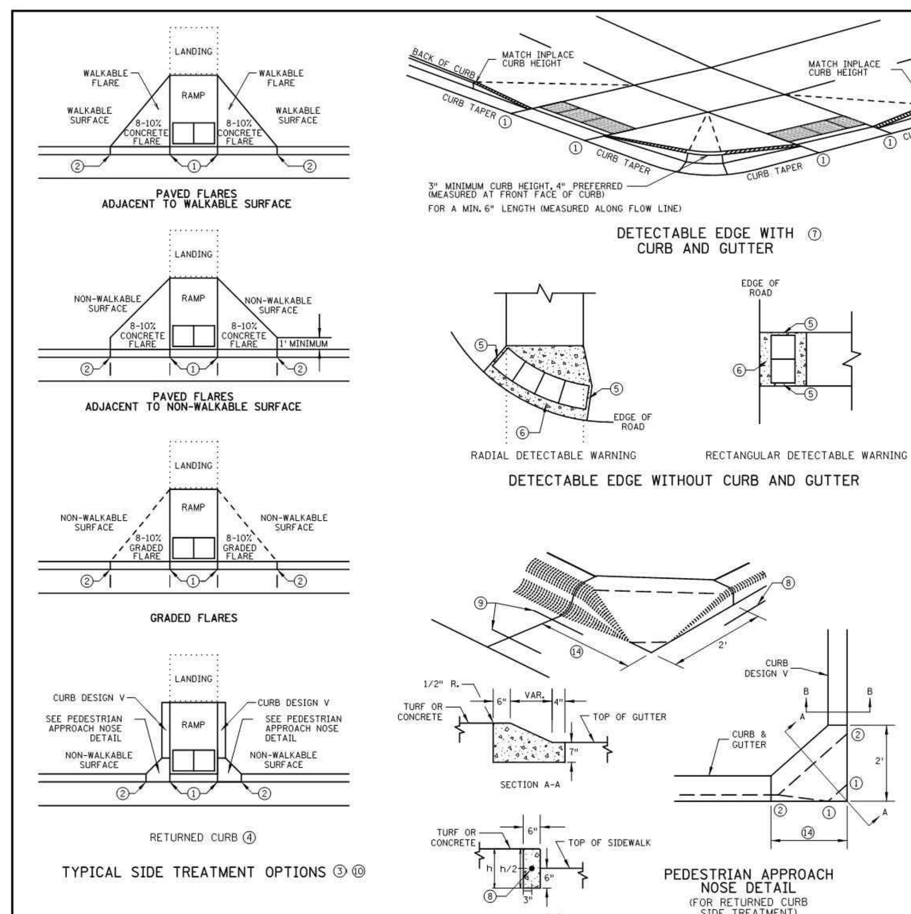
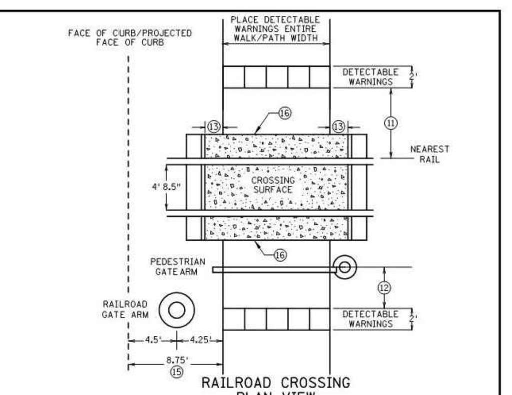
MINNESOTA DEPARTMENT OF TRANSPORTATION | STANDARD PLAN 5-297.250 | 3 OF 6 | APPROVED: 11-04-2021 REVISED: | THOMAS STYRBICKI, STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS





NOTES:

INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3 INCH CURB HEIGHT. INCREASE CURB TAPER LENGTH AT LESS THAN 8% OR REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

SEE STANDARD PLATE 7038 AND THIS SHEET FOR ADDITIONAL DETAILS ON DETECTABLE WARNING.

A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

CONCRETE FLARE LENGTHS ADJACENT TO NON-WALKABLE SURFACES SHOULD BE LESS THAN 8' LONG MEASURED ALONG THE RAMPS FROM THE BACK OF CURB.

① 0" CURB HEIGHT. SEE INSET A ON SHEET 3 OF 6.
② FULL CURB HEIGHT.
③ SIDE TREATMENTS ARE APPLICABLE TO ALL RAMP TYPES AND SHOULD BE IMPLEMENTED AS NEEDED AS FIELD CONDITIONS DICTATE. THE ENGINEER SHALL DETERMINE THE RAMP SIDE TREATMENTS BASED ON MAINTENANCE OF BOTH ROADWAY AND SIDEWALK, ADJACENT PROPERTY CONSIDERATIONS, AND MITIGATING CONSTRUCTION IMPACTS.
④ TYPICALLY USED FOR MEDIANS AND ISLANDS.
⑤ WHEN NO CONCRETE FLARES ARE PROPOSED, THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE EDGE OF ROADWAY. MAINTAIN 3" MAX. BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.
⑥ IF NO CURB AND GUTTER IS PLACED IN RURAL SECTIONS, DETECTABLE WARNINGS SHALL BE PLACED 1' FROM THE EDGE OF BITUMINOUS ROADWAY AND/OR BITUMINOUS SHARED-USE PATH TO PROVIDE VISUAL CONTRAST.
⑦ ALL CONSTRUCTED CURBS MUST HAVE A CONTINUOUS DETECTABLE EDGE FOR THE VISUALLY IMPAIRED. THIS DETECTABLE EDGE REQUIRES DETECTABLE WARNINGS WHEREVER THERE IS ZERO-INCH HIGH CURB. CURB TAPERS ARE CONSIDERED A DETECTABLE EDGE WHEN THE TAPER STARTS WITHIN 3" OF THE EDGE OF THE DETECTABLE WARNINGS, AND UNIFORMLY RISES TO A 3-INCH MINIMUM CURB HEIGHT. ANY CURB NOT PART OF A CURB TAPER AND LESS THAN 3 INCHES IN HEIGHT IS NOT CONSIDERED A DETECTABLE EDGE AND THEREFORE IS NOT COMPLIANT WITH ACCESSIBILITY STANDARDS.
⑧ DRILL AND GROUT 1 - NO. 4 12" LONG REINFORCEMENT BAR (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE V CURB.
⑨ DRILL AND GROUT 2 - NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE CURB AND GUTTER.
⑩ SIDE TREATMENT EXAMPLES SHOWN ARE WHEN THE INITIAL LANDING IS APPROXIMATELY LEVEL WITH THE FULL HEIGHT CURB (I.E. 6' LONG RAMP FOR 6" HIGH CURB). WHEN THE INITIAL LANDING IS MORE THAN 1" BELOW FULL HEIGHT CURB REFER TO SHEETS 1 & 2 TO MODIFY THE CURB HEIGHT TAPERS AND MAINTAIN POSITIVE BOULEVARD DRAINAGE. CONSTRUCT THESE TAPERS AT 0"-3" AT 8-10%, THEN LESS THAN 5% FROM 3" CURB TO FULL CURB HEIGHT.
⑪ NEAREST EDGE OF DETECTABLE WARNING SURFACES SHALL BE PLACED 12' MINIMUM TO 15' MAXIMUM FROM THE NEAREST RAIL. FOR SKEWED RAILWAYS IN NO INSTANCE SHALL THE DETECTABLE WARNING BE CLOSER THAN 12' MEASURED PERPENDICULAR TO THE NEAREST RAIL.
⑫ WHEN PEDESTRIAN GATES ARE PROVIDED, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE SIDE OF THE GATES OPPOSITE THE RAIL, 2' FROM THE APPROACHING SIDE OF THE GATE ARM. THIS CRITERIA GOVERNS OVER NOTE ⑪.
⑬ CROSSING SURFACE SHALL EXTEND 2' MINIMUM PAST THE OUTSIDE EDGE OF WALK OR SHARED-USE PATH.
⑭ 3' FOR MEDIANS AND SPLITTER ISLANDS. NOSE CAN BE REDUCED TO 2' ON FREE RIGHT ISLANDS.
⑮ SIDEWALK TO BE PLACED 8.75' MIN. FROM THE FACE OF CURB/PROJECTED FACE OF CURB. THIS ENSURES MIN. CLEARANCE BETWEEN THE SIDEWALK AND GATE ARM COUNTERWEIGHT SUPPORTS.
⑯ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.

REVISION:
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MINNESOTA DEPARTMENT OF TRANSPORTATION | STANDARD PLAN 5-297.250 | 4 OF 6 | APPROVED: 11-04-2021 REVISED: | THOMAS STYRBICKI, STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

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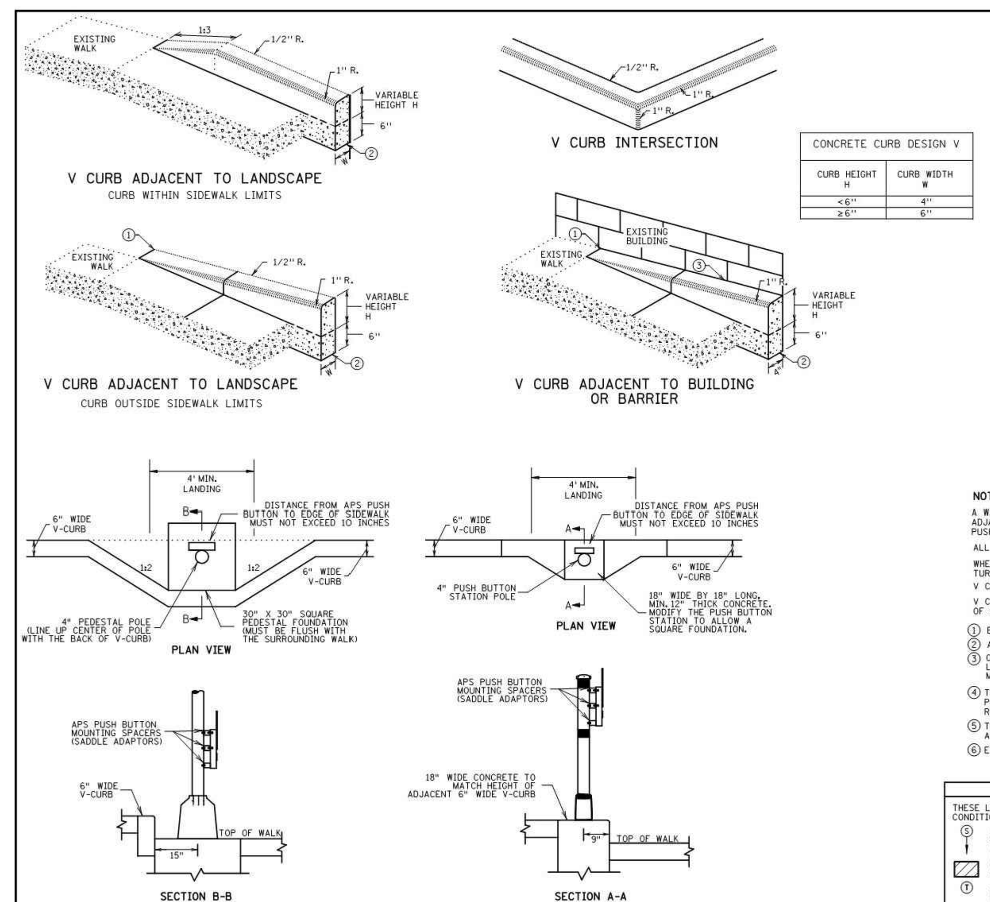

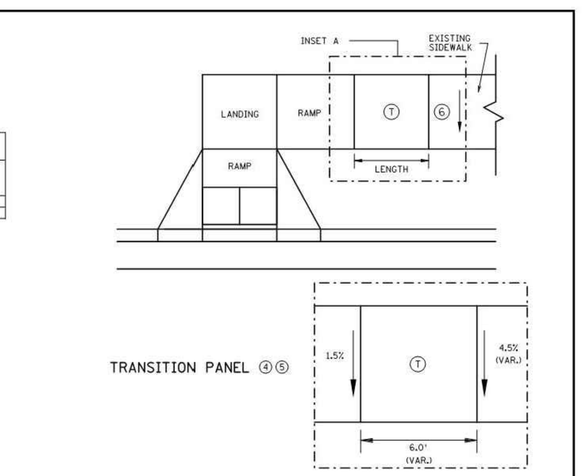

NOTES:

A WALKABLE FLARE IS AN 8-10% CONCRETE FLARE THAT IS REQUIRED WHEN THE FLARE IS ADJACENT TO A WALKABLE SURFACE, OR WHEN THE PEDESTRIAN PATH OF TRAVEL OF A PUSH BUTTON TRAVERSES THE FLARE.

ALL V CURB CONTRACTION JOINTS SHALL MATCH CONCRETE WALK JOINTS.

WHERE RIGHT-OF-WAY ALLOWS, USE OF V CURB SHOULD BE MINIMIZED. GRADING ADJACENT TURF OR SLOPING ADJACENT PAVEMENT IS PREFERRED.

V CURB SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS.

V CURB NEXT TO BUILDING SHALL BE A 4" WIDTH AND SHALL MATCH PREVIOUS TOP OF SIDEWALK ELEVATIONS.

① END TAPERS AT TRANSITION SECTION SHALL MATCH INPLACE SIDEWALK GRADES.
② ALL V CURB SHALL MATCH BOTTOM OF ADJACENT WALK.
③ CONSTRUCT USING APPROVED EXPANSION MATERIAL PER MNDOT TYPE A-E EXPANSION. LEAVE A MINIMUM ½" TOP GAP AND SEAL WITH MNDOT APPROVED SILICONE PER MNDOT SPEC 3722.
④ THE MAX. RATE OF CROSS SLOPE TRANSITIONING IS 1' LINEAR FOOT OF SIDEWALK PER HALF PERCENT CROSS SLOPE. WHEN PAR WIDTH IS GREATER THAN 6' OR THE RUNNING SLOPE IS GREATER THAN 5%, DOUBLE THE CALCULATED TRANSITION LENGTH.
⑤ TRANSITION PANELS ARE TO ONLY BE USED AFTER THE RAMP, OR IF NEEDED, LANDING ARE AT THE FULL CURB HEIGHT (TYPICAL SECTION).
⑥ EXISTING CROSS SLOPE GREATER THAN 2.0%.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

- Ⓢ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.
- LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.
- Ⓣ TRANSITION PANEL(S) - TO BE USED FOR TRANSITIONING THE CROSS-SLOPE OF A RAMP TO THE EXISTING WALK CROSS-SLOPE. RATE OF TRANSITION SHOULD BE 0.5% PER 1 LINEAR FOOT OF WALK. SEE THIS SHEET FOR ADDITIONAL INFORMATION.

REVISION:
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MINNESOTA DEPARTMENT OF TRANSPORTATION | STANDARD PLAN 5-297.250 | 5 OF 6 | APPROVED: 11-04-2021 REVISED: | THOMAS STYRBICKI, STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

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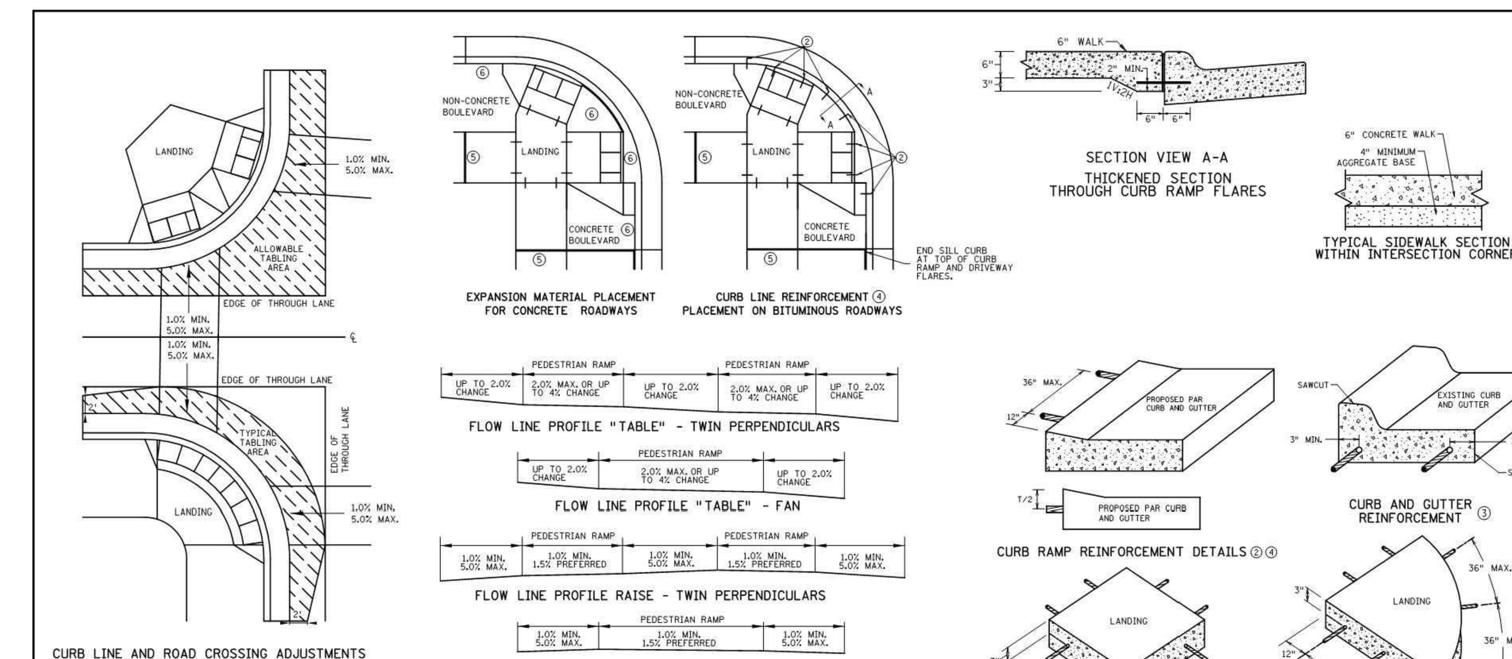

GENERAL NOTES:

"TABLING" OF CROSSWALKS MEANS MAINTAINING LESS THAN 2% CROSS SLOPE WITHIN A CROSSWALK, IS REQUIRED WHEN A ROADWAY IS IN A STOP OR YIELD CONDITION AND THE PROJECT SCOPE ALLOWS.

RECONSTRUCTION PROJECTS: ON FULL PAVEMENT REPLACEMENT PROJECTS "TABLING" OF ENTIRE CROSSWALK SHALL OCCUR WHEN FEASIBLE.

MILL & OVERLAY PROJECTS: "TABLING" OF FLOW LINES, IN FRONT OF THE PEDESTRIAN RAMP, IS REQUIRED WHEN THE EXISTING FLOW LINE IS GREATER THAN 2%. WARPING OF THE BITUMINOUS PAVEMENT CAN NOT EXTEND INTO THE THROUGH LANE. TABLE THE FLOW LINE TO 2% OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA:
1) 1.0% MIN. CROSS-SLOPE OF THE ROAD
2) 5.0% MAX. CROSS-SLOPE OF THE ROAD
3) "TABLE" FLOW LINE UP TO 4% CHANGE FROM EXISTING SLOPE IN FRONT OF PEDESTRIAN RAMP
4) UP TO 2% CHANGE IN FLOW LINE FROM EXISTING SLOPE BEYOND THE PEDESTRIAN CURB RAMP

STAND-ALONE ADA RETROFITS: FOLLOW MILL & OVERLAY CRITERIA ABOVE HOWEVER ALL PAVEMENT WARPING IS DONE WITH BITUMINOUS PATCHING ON BITUMINOUS ROADWAYS AND FULL-DEPTH APRON REPLACEMENT ON CONCRETE ROADWAYS.

RAISING OF CURB LINES SHOULD OCCUR IN VERTICALLY CONSTRAINED AREAS. RAISE THE CURB LINES ENOUGH TO ALLOW COMPLIANT RAMPS OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA:
1) 1.0% MIN. AND 5.0% MAXIMUM CROSS-SLOPE OF THE ROAD
2) 1.0% MIN. FLOW LINE (ON EITHER SIDE OF PEDESTRIAN RAMP) TO MAINTAIN POSITIVE DRAINAGE
3) 5.0% RECOMMENDED MAX. FLOW LINE
4) LONGITUDINAL THROUGH LANE ROADWAY TAPERS SHOULD BE 1" VERTICAL PER 15' HORIZONTAL

NOTES:

① TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON THIS SHEET FOR ALL SEPARATELY POURED INITIAL LANDINGS.
② DRILL AND GROUT NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) AT 36" MAXIMUM CENTER TO CENTER MINIMUM 12" SPACING FROM CONSTRUCTION JOINTS. BARS TO BE ADJUSTED TO MATCH RAMP GRADE. BARS TO BE PAID BY EACH.
③ DRILL AND GROUT 2 - NO. 4 X 12" LONG (6" EMBEDDED) REINFORCEMENT BARS (EPOXY COATED). REINFORCEMENT REQUIRED FOR ALL CONSTRUCTION JOINTS. BARS TO BE PAID BY EACH.
④ THIS CURB LINE REINFORCEMENT DETAIL SHALL BE USED ON BITUMINOUS ROADWAYS. FOR CONCRETE ROADWAYS, SEE NOTE 6.
⑤ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.
⑥ USE AN APPROVED TYPE F (1/4 INCH THICK) SEPARATION MATERIAL. SEPARATION MATERIAL SHALL MATCH FULL HEIGHT DIMENSION OF ADJACENT CONCRETE.

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MINNESOTA DEPARTMENT OF TRANSPORTATION | STANDARD PLAN 5-297.250 | 6 OF 6 | APPROVED: 11-04-2021 REVISED: | THOMAS STYRBICKI, STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

CivilSite GROUP
Civil Engineering · Surveying · Landscape Architecture
5000 Glenwood Avenue
Golden Valley, MN 55422
civilsitegroup.com 612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT

ARGENTA TRAIL

SOUTHWEST CORNER OF 70th STREET WEST & ARGENTA TRAIL INTERSECTION, INVER GROVE HEIGHTS

STUART DEVELOPMENT CORPORATION

1000 WEST 80TH STREET, MINNEAPOLIS, MN 55420

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Matthew R. Pavek
DATE 06/17/2024 LICENSE NO. 44263

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
10/23/2023	PRELIMINARY PLAT/PUD
11/20/2023	PRELIMINARY PLAT/PUD RESUBMITTAL
6/7/2024	PRICING SET
6/17/2024	FINAL PLAT / PUD SUBMITTAL

DRAWN BY	MP, RB, AM, MD,JR,MS,
REVIEWED BY	MP, RB
PROJECT MANAGER	MP
PROJECT NUMBER	23131

REVISION SUMMARY

DATE	DESCRIPTION

CIVIL DETAILS

C5.5

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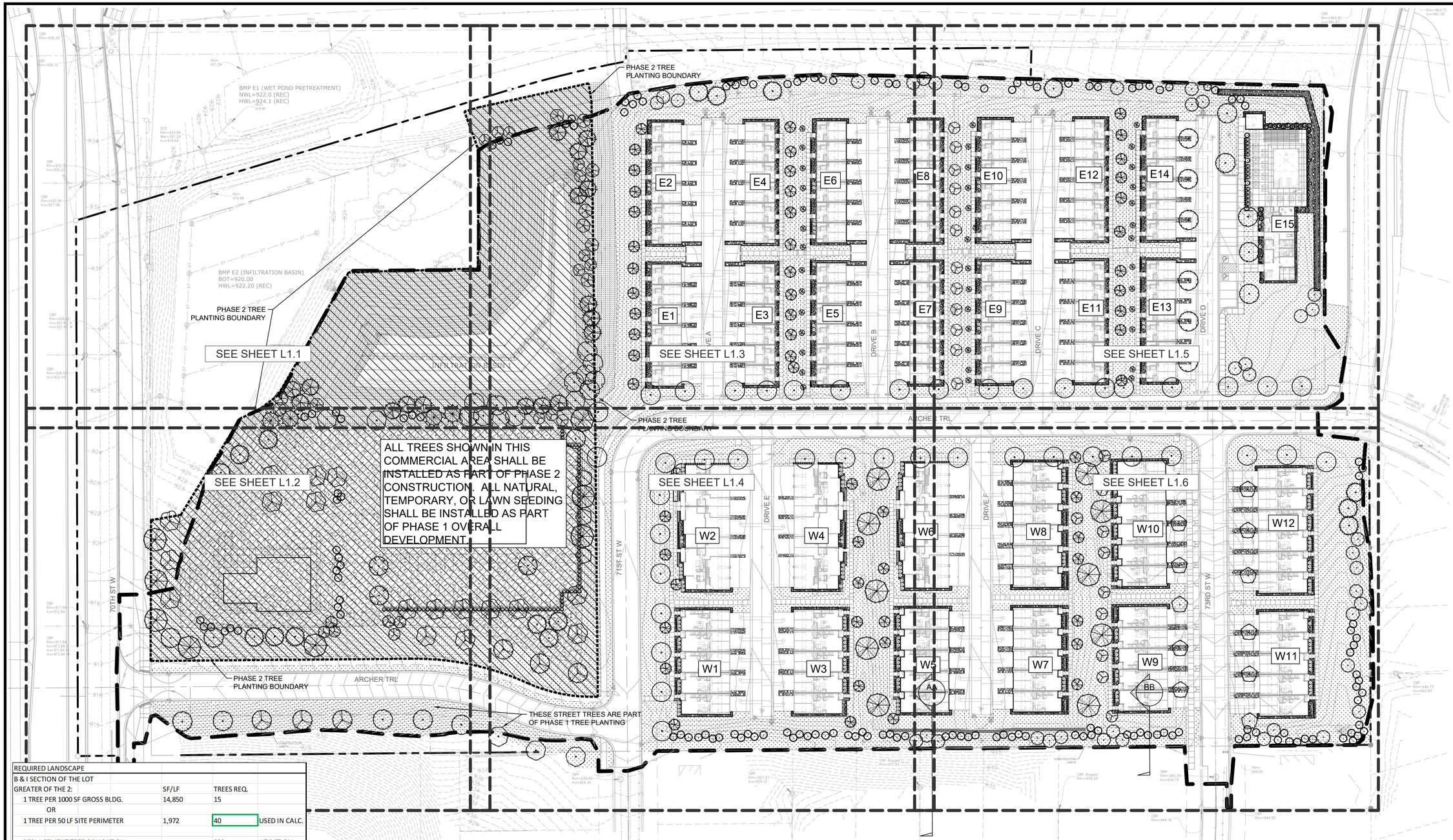

REQUIRED LANDSCAPE			
B & I SECTION OF THE LOT			
GREATER OF THE 2:	SF/LF	TREES REQ.	
1 TREE PER 1000 SF GROSS BLDG.	14,850	15	
OR			
1 TREE PER 50 LF SITE PERIMETER	1,972	40	USED IN CALC.
REPLACEMENT TREE OBLIGATION		232	AT 2.5" CAL
SUBTOTAL		272	
R SECTION OF THE SITE			
1 TREE PER DWELLING UNIT		159	
REPLACEMENT TREE OBLICATION		103	AT 2.5" CAL
SUBTOTAL		262	
TOTAL		534	

DESIGN TREES R SECTION OF SITE	MIN	MAX
TREES	78.5	157
ORNAMENTAL TREES	0	157
SHRUBS	0	638

PROPOSED LANDSCAPE SUMMARY	
COMMERCIAL/BUSINESS TREES (OR EQIV.)	151
RESIDENTIAL TREES (OR EQUIV.)	381
TOTAL	532

LEGEND

PLANT SCHEDULE - GROUND COVER PH 1 &PH 2			
SYMBOL	COMMON / BOTANICAL NAME	QTY	SIZE
GROUND COVERS			
	32-241 Native Construction Seed Mix / Install at 38 lbs/AC, include cover crop per MNDOT Seeding Manual (current edition)	83,400 sf	Seed Mix
	33-261 Stormwater South & West Seed Mix / Install at 35 lbs/AC, include cover crop per MNDOT Seeding Manual (current edition)	17,114 sf	Seed Mix
	35-221 Dry Prairie General Mix / Install at 36.5 lbs/AC, include cover crop per MNDOT Seeding Manual (current edition)	57,465 sf	Seed Mix
	Decorative Rock Mulch / Decorative Rock Mulch 2"-4" decorative, provide samples	27,114 sf	Mulch
	Shooting Star Sunny Lawn Mix / Install at 200 lbs./AC, include cover crop per supplier	216,256 sf	Seed Mix

PHASE 2 TREE PLANTING AREA. ALL TREES SHOWN IN THIS COMMERCIAL AREA SHALL BE INSTALLED AS PART OF PHASE 2 CONSTRUCTION. ALL NATURAL, TEMPORARY, OR LAWN SEEDING SHALL BE INSTALLED AS PART OF PHASE 1 OVERALL DEVELOPMENT.

PROPOSED CANOPY TREE SYMBOLS - SEE PLANT SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES

PROPOSED EVERGREEN TREE SYMBOLS - SEE PLANT SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES

PROPOSED ORNAMENTAL TREE SYMBOLS - SEE PLANT SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES

PROPOSED DECIDUOUS AND EVERGREEN SHRUB SYMBOLS - SEE PLANT SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES

PROPOSED PERENNIAL PLANT SYMBOLS - SEE PLANT SCHEDULE AND PLAN FOR SPECIES AND PLANTING SIZES

EDGING - SHALL BE COMMERCIAL GRADE, 5" DEPTH HVY. DUTY VINYL BLACK OR DARK GREEN IN COLOR, INCLUDE ALL CONNECTORS, STAKES, & ALL APPURTENANCES PER MANUF. INSTALL PER MANUF. INSTRUC./SPECS.
DECORATIVE BOULDERS (ROUNDED & BLOCK STYLE), 18"-30" DIA.

CONSTRUCTION LIMITS

SEE SHEET L1.7 FOR GENERAL LANDSCAPE & IRRIGATION NOTES

Know what's below. Call before you dig.

1" = 50'-0"
25'-0" 0 50'-0"

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PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT

ARGENTA TRAIL

SOUTHWEST CORNER OF 70th STREET WEST & ARGENTA TRAIL INTERSECTION, INVER GROVE HEIGHTS

STUARTDEVELOPMENT CORPORATION

1000 WEST 80TH STREET, MINNEAPOLIS, MN 55420

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Robert L. Binder

DATE 06/17/2024 LICENSE NO. 25821

ISSUE/SUBMITTAL SUMMARY

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11/20/2023	PRELIMINARY PLAT/PUD RESUBMITTAL
6/7/2024	PRICING SET
6/17/2024	CITY RESUBMITTAL

DRAWN BY	MP, RB, AM, MD,JR,MS,
REVIEWED BY	MP, RB
PROJECT MANAGER	MP
PROJECT NUMBER	23131

REVISION SUMMARY

DATE	DESCRIPTION

LANDSCAPE PLAN - OVERALL

L1.0

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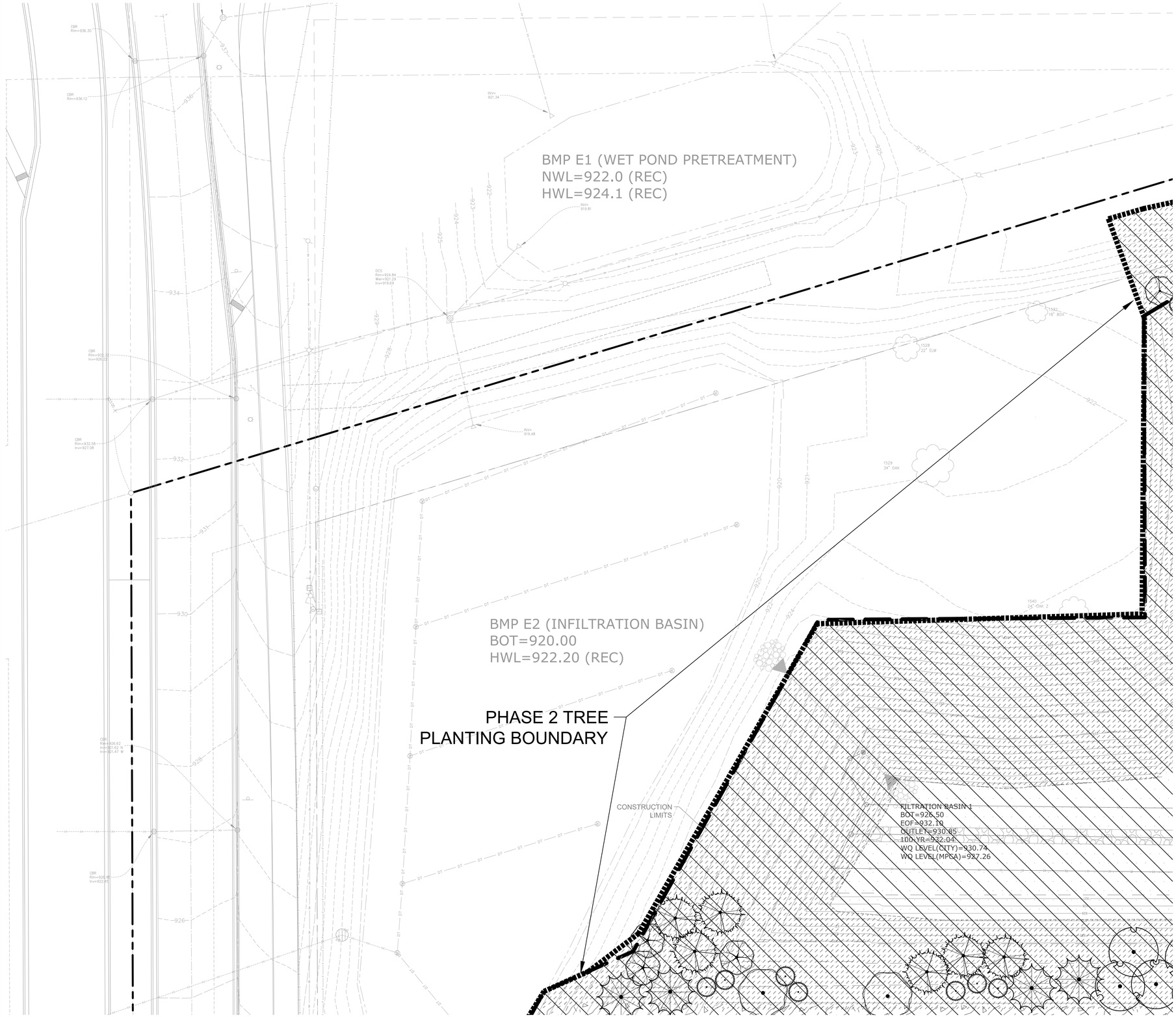

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LANDSCAPE PLAN - NORTHEAST CORNER

L1.1

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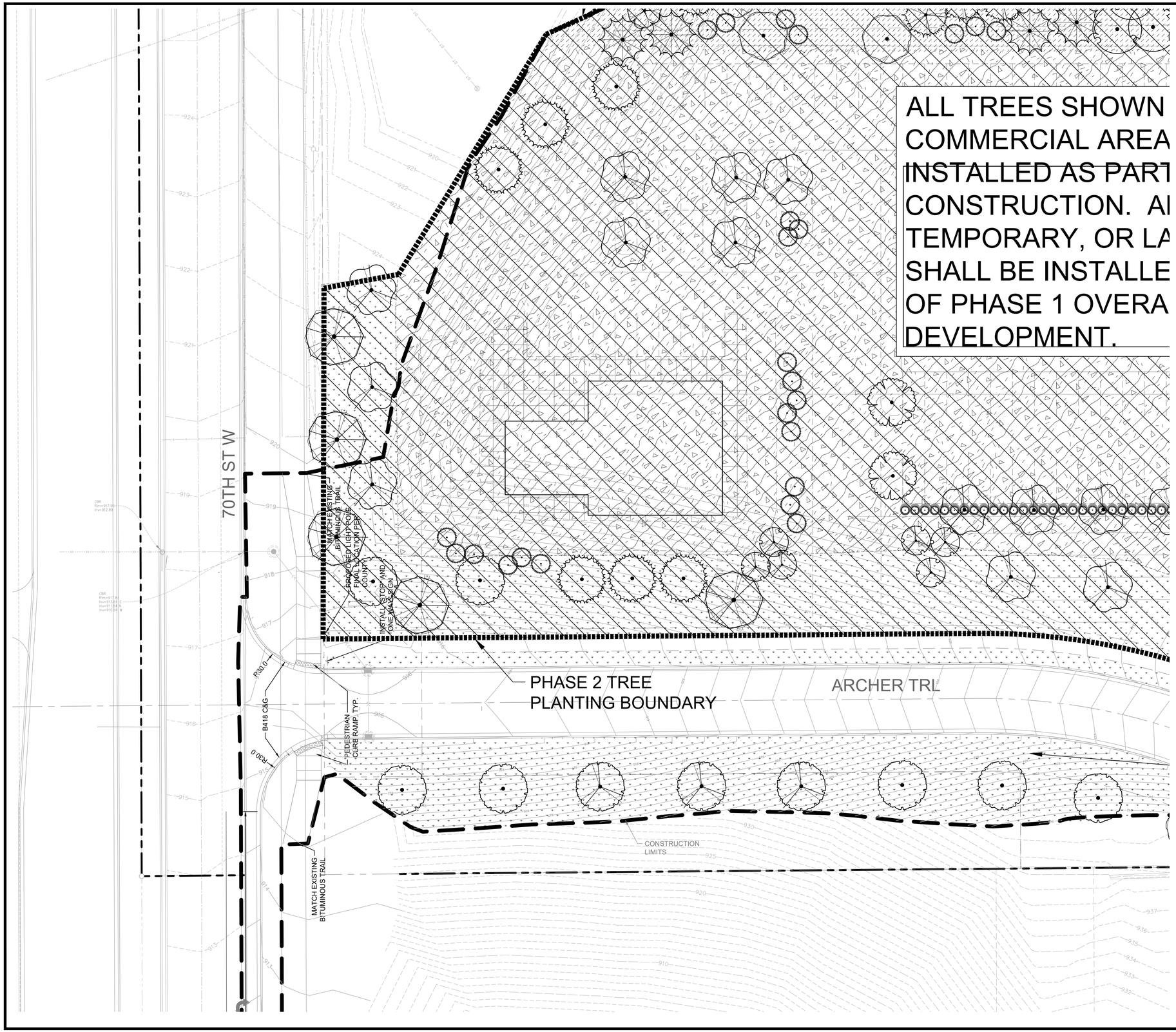

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LANDSCAPE PLAN - NORTHWEST CORNER

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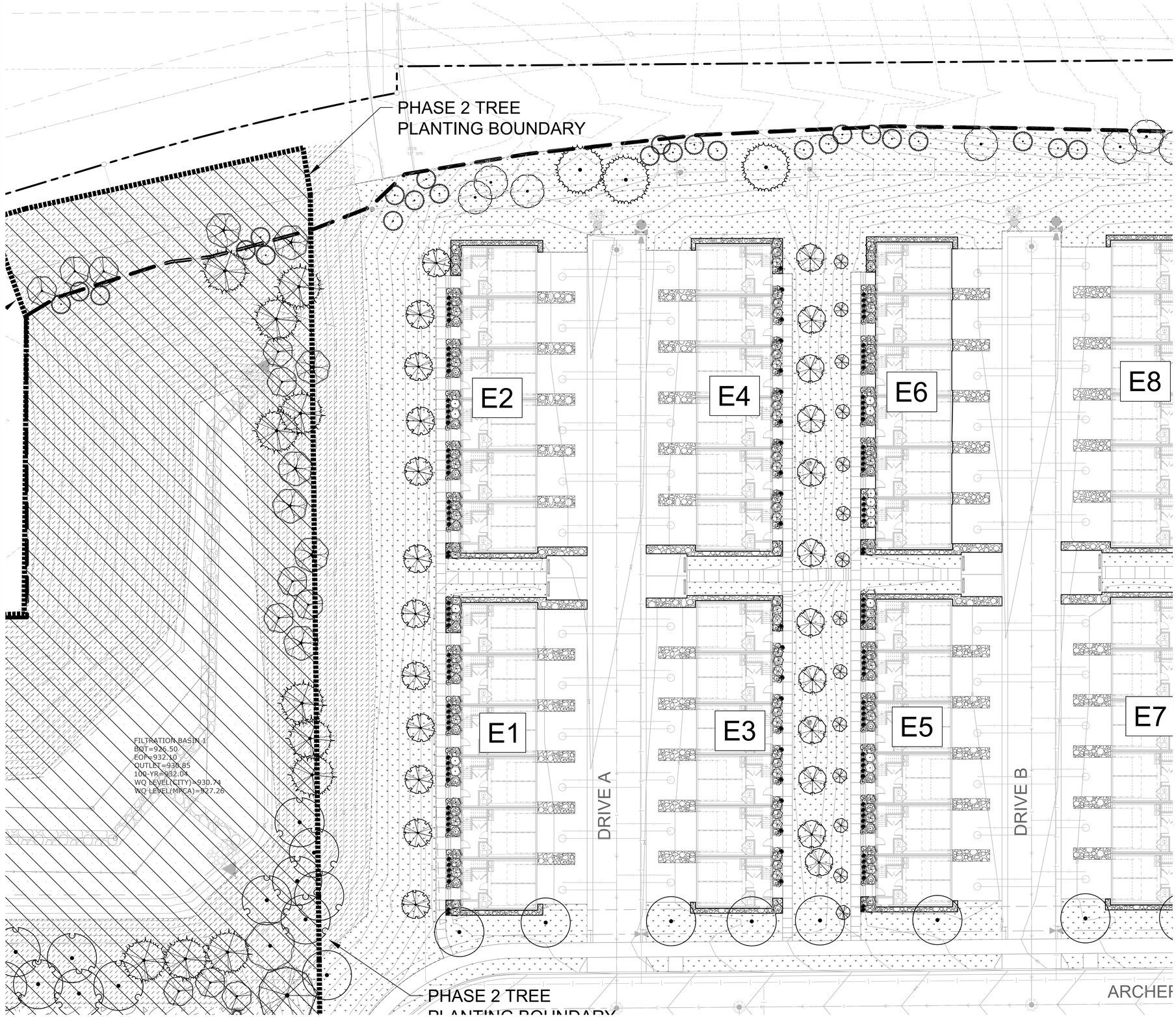

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LANDSCAPE PLAN - EAST CENTER

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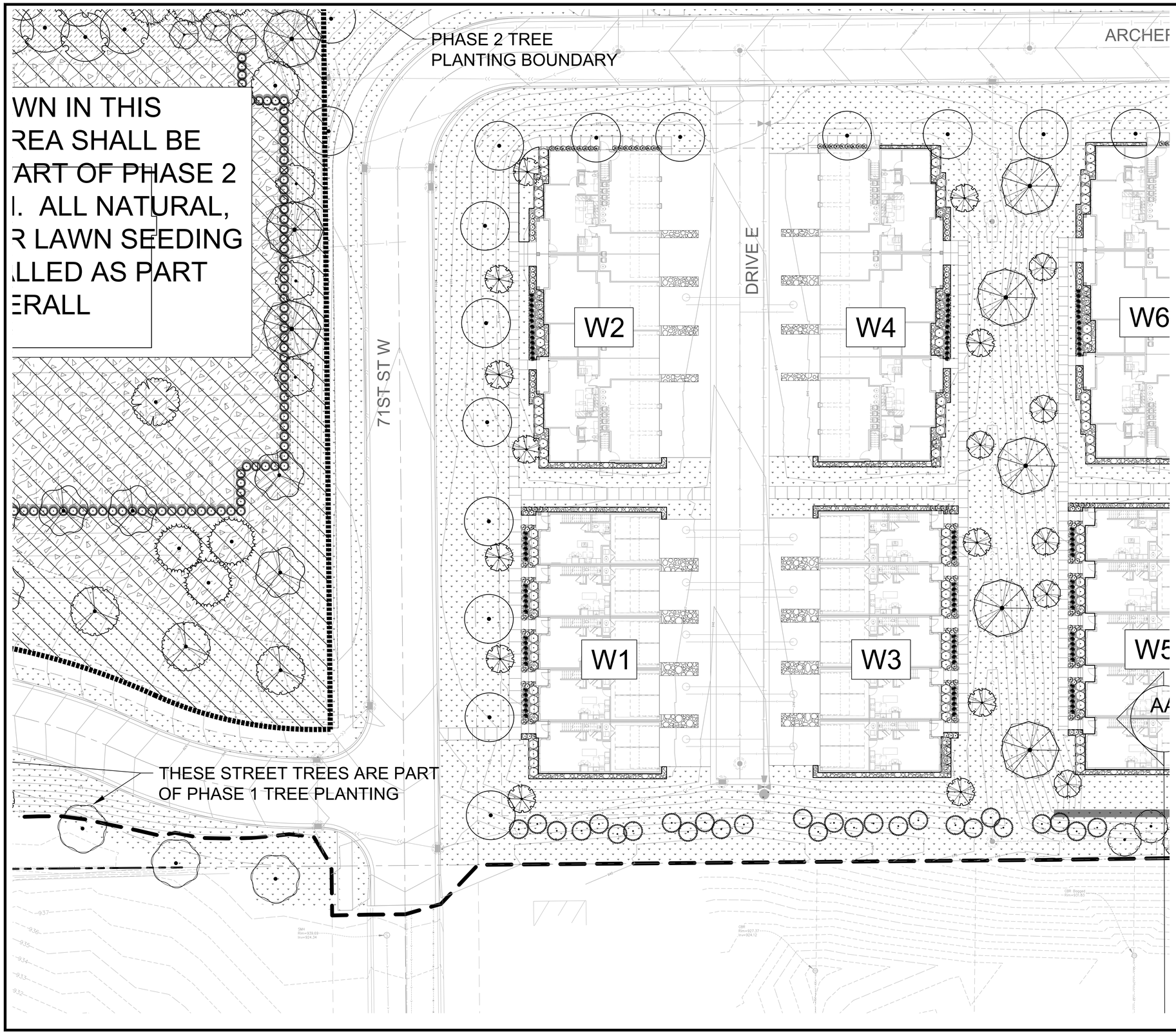

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LANDSCAPE PLAN - WEST CENTER

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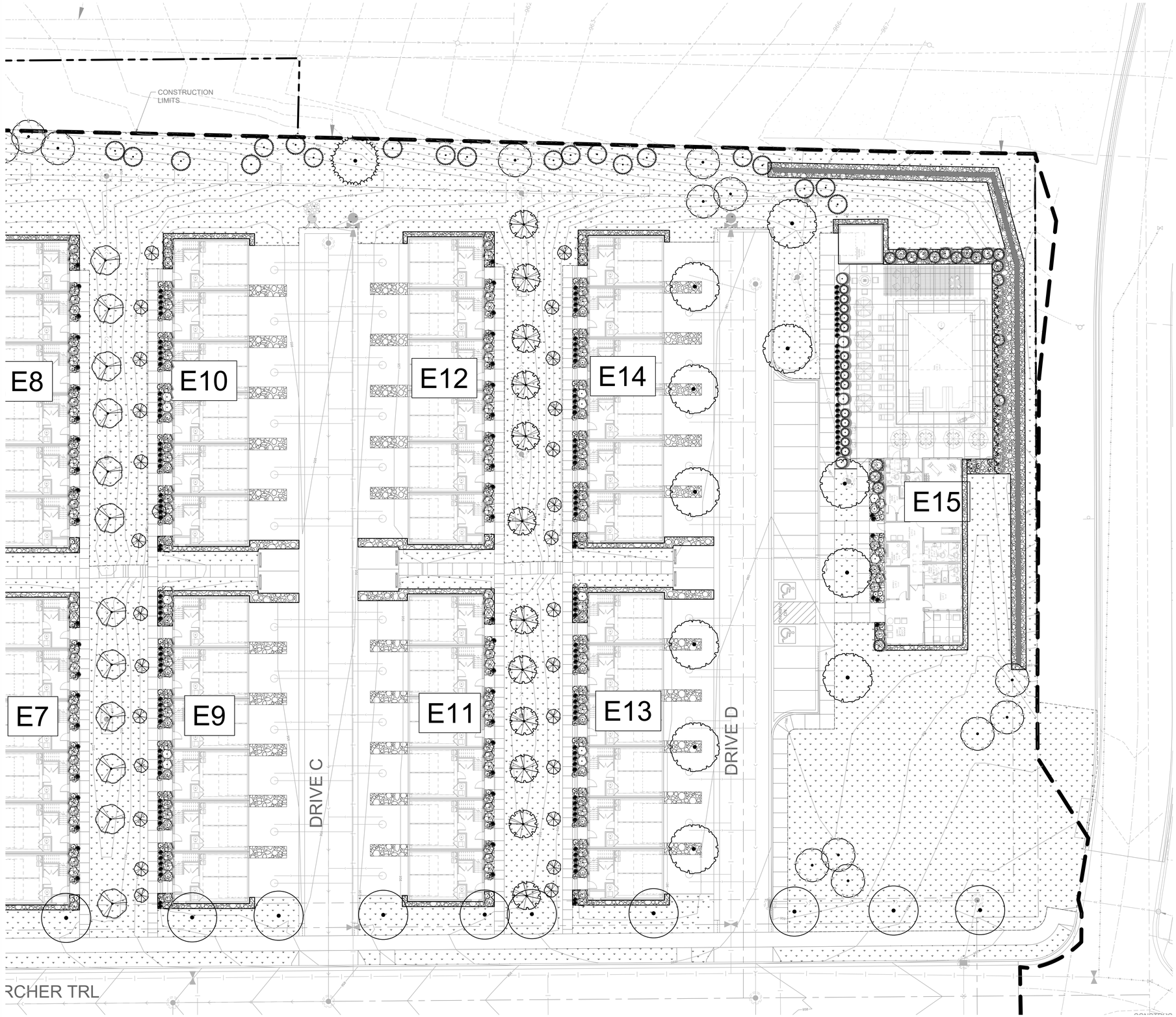

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LANDSCAPE PLAN - SOUTHEAST CORNER

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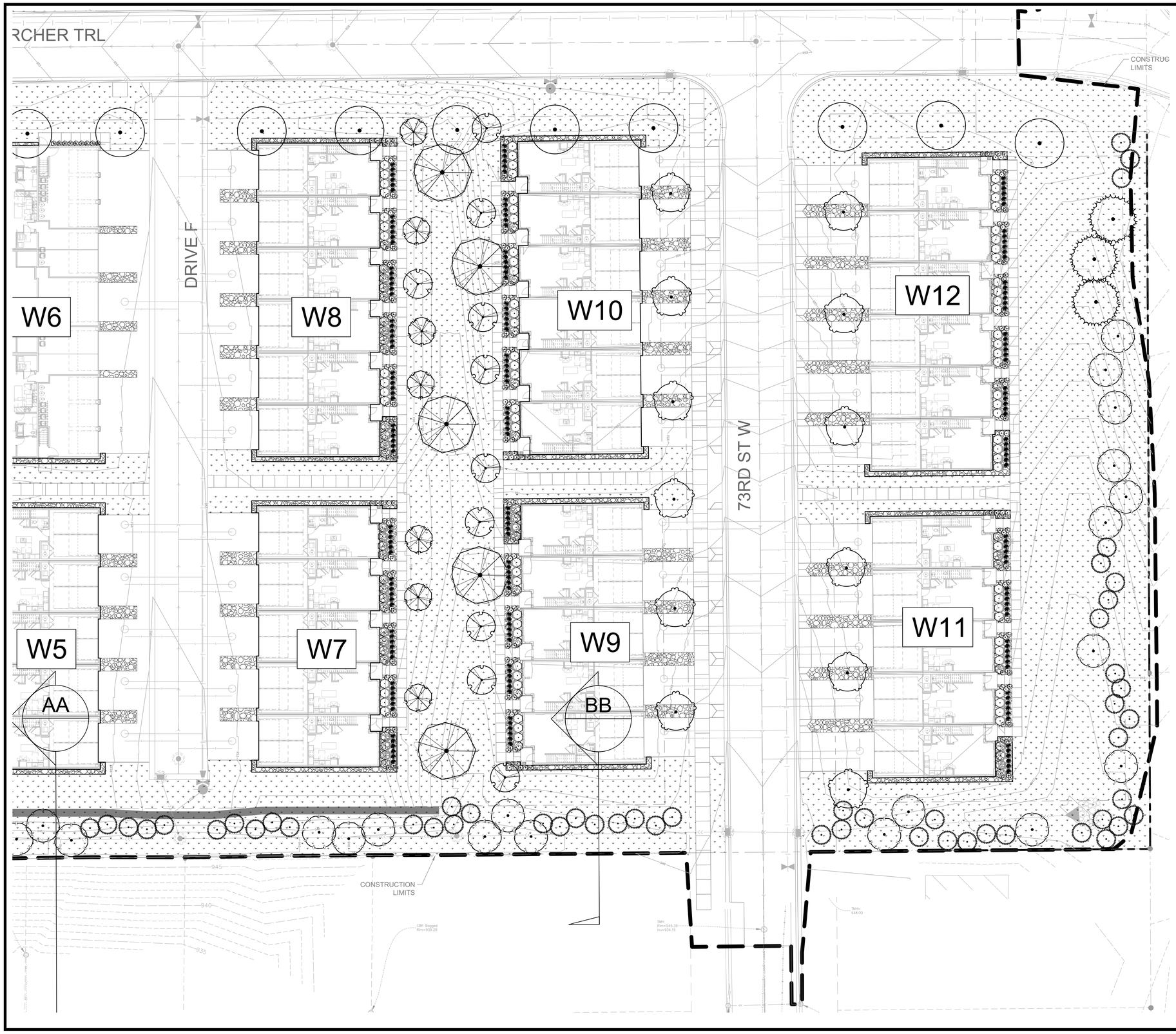

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REVISION SUMMARY

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LANDSCAPE PLAN - SOUTHWEST CORNER

L1.6

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PLANT SCHEDULE NORTH PH 1

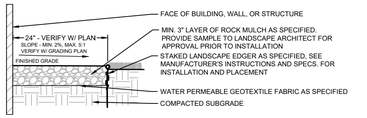
SYMBOL	CODE	QTY	COMMON / BOTANICAL NAME	CONT	NATIVE PLANTS	POLLINATOR FRIENDLY
TREES						
	EK	5	Espresso Kentucky Coffeetree / Gymnocladus dioica `Espresso`	2.5" Cal. B&B	NATIVE CULTIVAR	N
	QB	3	Swamp White Oak / Quercus bicolor	2.5" Cal. B&B	NATIVE	Y
	UN	3	New Horizon American Elm / Ulmus americana `New Horizon`	2.5" Cal. B&B	NATIVE CULTIVAR	Y
		11	SUBTOTAL:			

PLANT SCHEDULE NORTH

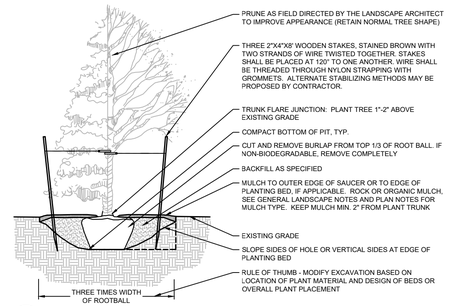
SYMBOL	CODE	QTY	COMMON / BOTANICAL NAME	CONT	NATIVE PLANTS	POLLINATOR FRIENDLY
TREES						
	AN	2	Northwood Red Maple / Acer rubrum `Northwood`	2.5" Cal. B&B	NATIVE CULTIVAR	Y
	AB2	17	Autumn Blaze Maple / Acer x freemanii `Jeffsred` TM	2.5" Cal. B&B	NATIVE CULTIVAR	
	BV	8	Prairie Dream Paper Birch / Betula papyrifera 'Varen' TM	2.5" CAL. B&B	NATIVE CULTIVAR	N
	GD	3	Street Keeper Honey Locust / Gleditsia triacanthos `Draves` TM	2.5" Cal. B&B	NATIVE CULTIVAR	N
	SH	3	Skyline Thornless Honey Locust / Gleditsia triacanthos inermis `Skycole` TM	2.5" Cal. B&B	NATIVE CULTIVAR	N
	EK	3	Espresso Kentucky Coffeetree / Gymnocladus dioica `Espresso`	2.5" Cal. B&B	NATIVE CULTIVAR	N
	PP	12	Prairie Gold® Quaking Aspen / Populus tremuloides 'NE Arb'	2.5" CAL. B&B	NATIVE CULTIVAR	N
	QB	3	Swamp White Oak / Quercus bicolor	2.5" Cal. B&B	NATIVE	Y
	QG	10	Top Gun Bur Oak / Quercus macrocarpa 'Top Gun'	2.5" CAL. B&B	NATIVE CULTIVAR	N
	UN	3	New Horizon American Elm / Ulmus americana `New Horizon`	2.5" Cal. B&B	NATIVE CULTIVAR	Y
		64	SUBTOTAL:			
EVERGREEN TREES						
	JE	30	Eastern Red Cedar / Juniperus virginiana	6` B&B	NATIVE	
	PD	9	Black Hills Spruce / Picea glauca `Densata`	6` B&B	NATIVE CULTIVAR	
	PB	4	Jack Pine / Pinus banksiana	6` HT. B&B	NATIVE	N
	PR	17	Red Pine / Pinus resinosa	6` HT. B&B	NATIVE	N
		60	SUBTOTAL:			
ORNAMENTAL TREES						
	CV	11	Thornless Cockspur Hawthorn / Crataegus crus-galli inermis TM	1.5" Cal. B&B	NATIVE	Y
	MP	6	Prairifire Crabapple / Malus x `Prairifire`	1.5" Cal. B&B	NATIVE CULTIVAR	Y
		17	SUBTOTAL:			
SYMBOL	CODE	QTY	COMMON / BOTANICAL NAME	SIZE	NATIVE PLANTS	POLLINATOR FRIENDLY
SHRUBS						
	SGJ	102	Sea Green Juniper / Juniperus chinensis `Sea Green`	#5 CONT	NOT NATIVE	N
		102	SUBTOTAL:			

IRRIGATION NOTES:

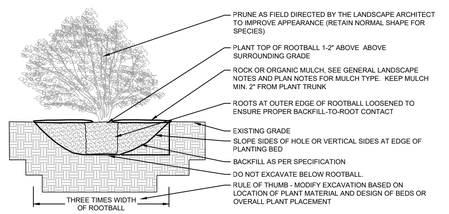
1. ENTIRE SITE SHALL BE FULLY IRRIGATED. THE CONTRACTOR SHALL SUBMIT IRRIGATION SHOP DRAWINGS FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
2. PROVIDE SITE WIDE IRRIGATION SYSTEM DESIGN AND INSTALLATION. SYSTEM SHALL BE FULLY PROGRAMMABLE AND CAPABLE OF ALTERNATE DATE WATERING. THE SYSTEM SHALL PROVIDE HEAD TO HEAD OR DRIP COVERAGE AND BE CAPABLE OF DELIVERING ONE INCH OF PRECIPITATION PER WEEK. SYSTEM SHALL EXTEND INTO THE PUBLIC RIGHT-OF-WAY TO THE EDGE OF PAVEMENT/BACK OF CURB.
3. CONTRACTOR SHALL SECURE APPROVAL OF PROPOSED IRRIGATION SYSTEM INLCUDING PRICING FROM OWNER, PRIOR TO INSTALLATION.
4. SEE MECHANICAL AND ELECTRICAL PLANS AND SPECIFICATIONS FOR IRRIGATION WATER, METER, AND POWER CONNECTIONS.
5. CONTRACTOR TO VERIFY LOCATION OF ALL UNDERGROUND/ABOVE GROUND FACILITIES PRIOR TO ANY EXCAVATION/INSTALLATION. ANY DAMAGE TO UNDERGROUND/ABOVE GROUND FACILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND COSTS ASSOCIATED WITH CORRECTING DAMAGES SHALL BE BORNE ENTIRELY BY THE CONTRACTOR.
6. SERVICE EQUIPMENT AND INSTALLATION SHALL BE PER LOCAL UTILITY COMPANY STANDARDS AND SHALL BE PER NATIONAL AND LOCAL CODES. EXACT LOCATION OF SERVICE EQUIPMENT SHALL BE COORDINATED WITH THE LANDSCAPE ARCHITECT OR EQUIVALENT AT THE JOB SITE.
7. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANY FOR THE PROPOSED ELECTRICAL SERVICE AND METERING FACILITIES.
8. IRRIGATION WATER LINE CONNECTION SIZE IS 1-½" AT BUILDING. VERIFY WITH MECHANICAL PLANS.
9. ALL MAIN LINES SHALL BE 18" BELOW FINISHED GRADE.
10. ALL LATERAL LINES SHALL BE 12" BELLOW FINISHED GRADE.
11. ALL EXPOSED PVC RISERS, IF ANY, SHALL BE GRAY IN COLOR.
12. CONTRACTOR SHALL LAY ALL SLEEVES AND CONDUIT AT 2'-0" BELOW THE FINISHED GRADE OF THE TOP OF PAVEMENT. EXTEND SLEEVES TO 2'-0" BEYOND PAVEMENT.
13. CONTRACTOR SHALL MARK THE LOCATION OF ALL SLEEVES AND CONDUIT WITH THE SLEEVING MATERIAL "ELLED" TO 2'-0" ABOVE FINISHED GRADE AND CAPPED.
14. FABRICATE ALL PIPE TO MANUFACTURE'S SPECIFICATIONS WITH CLEAN AND SQUARE CUT JOINTS. USE QUALITY GRADE PRIMER AND SOLVENT CEMENT FORMULATED FOR INTENDED TYPE OF CONNECTION.
15. BACKFILL ALL TRENCHES WITH SOIL FREE OF SHARP OBJECTS AND DEBRIS.
16. ALL VALVE BOXES AND COVERS SHALL BE BLACK IN COLOR.
17. GROUP VALVE BOXES TOGETHER FOR EASE WHEN SERVICE IS REQUIRED. LOCATE IN PLANT BED AREAS WHENEVER POSSIBLE.
18. IRRIGATION CONTROLLER LOCATION SHALL BE VERIFIED ON-SITE WITH OWNER'S REPRESENTATIVE.
19. CONTROL WIRES: 14 GAUGE DIRECT BURIAL, SOLID COPPER IRRIGATION WIRE. RUN UNDER MAIN LINE. USE MOISTURE-PROOF SPLICES AND SPLICE ONLY AT VALVES OR PULL BOXES. RUN SEPARATE HOT AND COMMON WIRE TO EACH VALVE AND ONE (1) SPARE WIRE AND GROUND TO FURTHEST VALVE FROM CONTROLLER. LABEL OR COLOR CODE ALL WIRES.
20. AVOID OVER SPRAY ON BUILDINGS, PAVEMENT, WALLS AND ROADWAYS BY INDIVIDUALLY ADJUSTING RADIUS OR ARC ON SPRINKLER HEADS AND FLOW CONTROL ON AUTOMATIC VALVE.
21. ADJUST PRESSURE REGULATING VALVES FOR OPTIMUM PRESSURE ON SITE.
22. USE SCREENS ON ALL HEADS.
23. A SET OF AS-BUILT DRAWINGS SHALL BE MAINTAINED ON-SITE AT ALL TIMES IN AN UPDATED CONDITION.
24. ALL PIPE 3" AND OVER SHALL HAVE THRUST BLOCKING AT EACH TURN.
25. ALL AUTOMATIC REMOTE CONTROL VALVES WILL HAVE 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL UNDERNEATH VALVE AND VALVE BOX. GRAVEL SHALL EXTENT 3" BEYOND PERIMETER OF VALVE BOX.
26. THERE SHALL BE 3" MINIMUM SPACE BETWEEN BOTTOM OF VALVE BOX COVER AND TOP OF VALVE STRUCTURE.



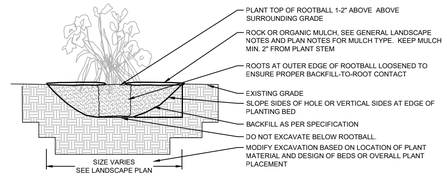
1 AGGREGATE MAINTENANCE STRIP
NTS



2 DECIDUOUS & CONIFEROUS TREE PLANTING
NTS



3 DECIDUOUS & CONIFEROUS SHRUB PLANTING
NTS



4 PERENNIAL BED PLANTING
NTS

MULCH SCHEDULE

AREA	MULCH TYPE	EDGING	FABRIC	REMARKS
TREE RINGS	4" DEPTH, SHREDDED CEDAR	YES	NO	SEE DETAIL SHT. L1.1
PLANTING BEDS	1-1/2" CRUSHED LIMESTONE, 4" DEPTH,	YES	NO	
MAINT. STRIP AT BUILDING FOUNDATION	1-1/2" CRUSHED LIMESTONE, 4" DEPTH,	YES	YES	SEE DETAIL SHT. L1.1
MAINT. STRIP BETWEEN DRIVEWAYS	2"-4" CRUSHED LIMESTONE, 4" DEPTH,	YES	YES	SEE DETAIL SHT. L1.1
NATIVE SEED AREAS	STRAW MULCH	NO	NO	INSTALL PER SEED SUPPLIER SPECS., SEE GRADING PLAN AND SPECS. FOR SLOPE BLANKET AND STABILIZATION, COORD. WITH GRADING CONTRACTOR

NOTE: COORDINATE ALL MULCH AND PLANTING BED MATERIAL PRIOR TO INSTALLATION, PROVIDE SAMPLES AND SHOP DRAWINGS/PHOTOS/DATA SHEETS OF ALL MATERIALS

PLANT SCHEDULE SOUTH

SYMBOL	CODE	COMMON / BOTANICAL NAME	QTY	CONT	NATIVE PLANTS	POLLINATOR FRIENDLY
TREES						
	AN	Northwood Red Maple / Acer rubrum `Northwood`	40	2.5" Cal. B&B	NATIVE CULTIVAR	Y
	BV	Prairie Dream Paper Birch / Betula papyrifera 'Varen' TM	10	2.5" CAL. B&B	NATIVE CULTIVAR	N
	GD	Street Keeper Honey Locust / Gleditsia triacanthos `Draves` TM	12	2.5" Cal. B&B	NATIVE CULTIVAR	N
	EK	Espresso Kentucky Coffeetree / Gymnocladus dioica `Espresso`	11	2.5" Cal. B&B	NATIVE CULTIVAR	N
		SUBTOTAL:	73			
EVERGREEN TREES						
	JE	Eastern Red Cedar / Juniperus virginiana	118	6` B&B	NATIVE	
	PD	Black Hills Spruce / Picea glauca `Densata`	7	6` B&B	NATIVE CULTIVAR	
	WP	White Pine / Pinus strobus	37	6` B&B	NATIVE	
		SUBTOTAL:	162			
ORNAMENTAL TREES						
	CV	Thornless Cockspur Hawthorn / Crataegus crus-galli inermis TM	12	1.5" Cal. B&B	NATIVE	Y
	MP	Prairifire Crabapple / Malus x `Prairifire`	10	1.5" Cal. B&B	NATIVE CULTIVAR	Y
	MPS	Professor Sprenger Crabapple / Malus x `Professor Sprenger`	25	1.5" Cal. B&B	NATIVE CULTIVAR	Y
	MB	Red Barron Crabapple / Malus x 'Red Barron'	42	1.5" CAL. B&B	NOT NATIVE	Y
	SI	Ivory Silk Japanese Tree Lilac / Syringa reticulata `Ivory Silk`	36	1.5" Cal. B&B	NOT NATIVE	Y
		SUBTOTAL:	125			
SYMBOL	CODE	COMMON / BOTANICAL NAME	QTY	SIZE	NATIVE PLANTS	POLLINATOR FRIENDLY
SHRUBS						
	DL	Dwarf Bush Honeysuckle / Diervilla lonicera	255	#5 CONT	NATIVE	Y
	HA	Annabelle Hydrangea / Hydrangea arborescens `Annabelle`	18	#5 CONT	NOT NATIVE	Y
	SGJ	Sea Green Juniper / Juniperus chinensis `Sea Green`	14	#5 CONT	NOT NATIVE	N
	JM2	Medora Juniper / Juniperus scopulorum `Medora`	23	#5 CONT	NOT NATIVE	N
	RE	Como Park Easy Elegance Rose / Rosa x `BAlark` TM	328	#5 CONT	NOT NATIVE	Y
		SUBTOTAL:	638			
GRASSES						
	CK	Feather Reed Grass / Calamagrostis x acutiflora `Karl Foerster`	735	#1 CONT	NOT NATIVE	N
	HA2	All Gold Japanese Forest Grass / Hakonechloa macra `All Gold`	36	#1 CONT	NOT NATIVE	N
		SUBTOTAL:	771			
PERENNIALS						
	HA3	Daylily / Hemerocallis x `Chicago Apache`	647	#1 CONT	NOT NATIVE	Y
		SUBTOTAL:	647			

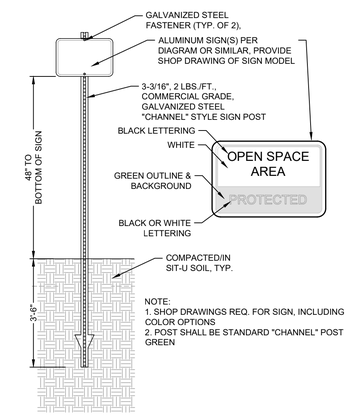
LANDSCAPE NOTES:

1. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTACT "GOPHER STATE ONE CALL" (651-454-0002 OR 800-252-1166) FOR UTILITY LOCATIONS, 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.
2. SEE MULCH SCHEDULE FOR MULCH AND GROUND COVER PROTECTION AS SPECIFIED
3. IF SHOWN ON PLAN, RANDOM SIZED LIMESTONE BOULDERS COLOR AND SIZE TO COMPLIMENT NEW LANDSCAPING. OWNER TO APPROVE BOULDER SAMPLES PRIOR TO INSTALLATION.
4. PLANT MATERIALS SHALL CONFORM WITH THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS AND SHALL BE OF HARDY STOCK, FREE FROM DISEASE, DAMAGE AND DISFIGURATION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PLUMPNESS OF PLANT MATERIAL FOR DURATION OF ACCEPTANCE PERIOD.
5. UPON DISCOVERY OF A DISCREPANCY BETWEEN THE QUANTITY OF PLANTS SHOWN ON THE SCHEDULE AND THE QUANTITY SHOWN ON THE PLAN, THE PLAN SHALL GOVERN.
6. CONDITION OF VEGETATION SHALL BE MONITORED BY THE LANDSCAPE ARCHITECT THROUGHOUT THE DURATION OF THE CONTRACT. LANDSCAPE MATERIALS PART OF THE CONTRACT SHALL BE WARRANTED FOR TWO (2) FULL GROWING SEASONS FROM SUBSTANTIAL COMPLETION DATE.
7. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL RECEIVE 6" LAYER TOPSOIL AND SOD AS SPECIFIED UNLESS OTHERWISE NOTED ON THE DRAWINGS.
8. COORDINATE LOCATION OF VEGETATION WITH UNDERGROUND AND OVERHEAD UTILITIES, LIGHTING FIXTURES, DOORS AND WINDOWS. CONTRACTOR SHALL STAKE IN THE FIELD FINAL LOCATION OF TREES AND SHRUBS FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
9. ALL PLANT MATERIALS SHALL BE WATERED AND MAINTAINED UNTIL ACCEPTANCE.
10. REPAIR AT NO COST TO OWNER ALL DAMAGE RESULTING FROM LANDSCAPE CONTRACTOR'S ACTIVITIES.
11. SWEEP AND MAINTAIN ALL PAVED SURFACES FREE OF DEBRIS GENERATED FROM LANDSCAPE CONTRACTOR'S ACTIVITIES.
12. PROVIDE SITE WIDE IRRIGATION SYSTEM DESIGN AND INSTALLATION. SYSTEM SHALL BE FULLY PROGRAMMABLE AND CAPABLE OF ALTERNATE DATE WATERING. THE SYSTEM SHALL PROVIDE HEAD TO HEAD OR DRIP COVERAGE AND BE CAPABLE OF DELIVERING ONE INCH OF PRECIPITATION PER WEEK. SYSTEM SHALL EXTEND INTO THE PUBLIC RIGHT-OF-WAY TO THE EDGE OF PAVEMENT/BACK OF CURB.
13. CONTRACTOR SHALL SECURE APPROVAL OF PROPOSED IRRIGATION SYSTEM INCLUDING PRICING FROM OWNER, PRIOR TO INSTALLATION.

PLANTING SEASON SCHEDULE

SEASON	CONIFEROUS	DECIDUOUS	REMARKS
SPRING PLANTING	APRIL 15 - JUNE 15	APRIL 15 - JUNE 15	
FALL PLANTING	AUGUST 21 - SEPTEMBER 30	AUGUST 15 - NOVEMBER 15	

NOTE: ADJUSTMENTS TO PLANTING DATES MUST BE APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT.



NOTE:
1. SHOP DRAWINGS REQ. FOR SIGN, INCLUDING COLOR OPTIONS
2. POST SHALL BE STANDARD "CHANNEL" POST GREEN

SIGN - OPEN SPACE W/POST
NTS

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PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
ARGENTA TRAIL
SOUTHWEST CORNER OF 70th STREET WEST & ARGENTA TRAIL INTERSECTION, INVER GROVE HEIGHTS

STUART DEVELOPMENT CORPORATION
1000 WEST 80TH STREET, MINNEAPOLIS, MN 55420

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

Robert L. Binder
DATE 06/17/2024 LICENSE NO. 25821

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
10/23/2023	PRELIMINARY PLAT/PUD
11/20/2023	PRELIMINARY PLAT/PUD RESUBMITTAL
6/7/2024	PRICING SET
6/17/2024	FINAL PLAT / PUD SUBMITTAL

DRAWN BY	MP, RB, AM, MD,JR,MS,
REVIEWED BY	MP, RB
PROJECT MANAGER	MP
PROJECT NUMBER	23131

REVISION SUMMARY

DATE	DESCRIPTION

LANDSCAPE PLAN NOTES & DETAILS

L1.7

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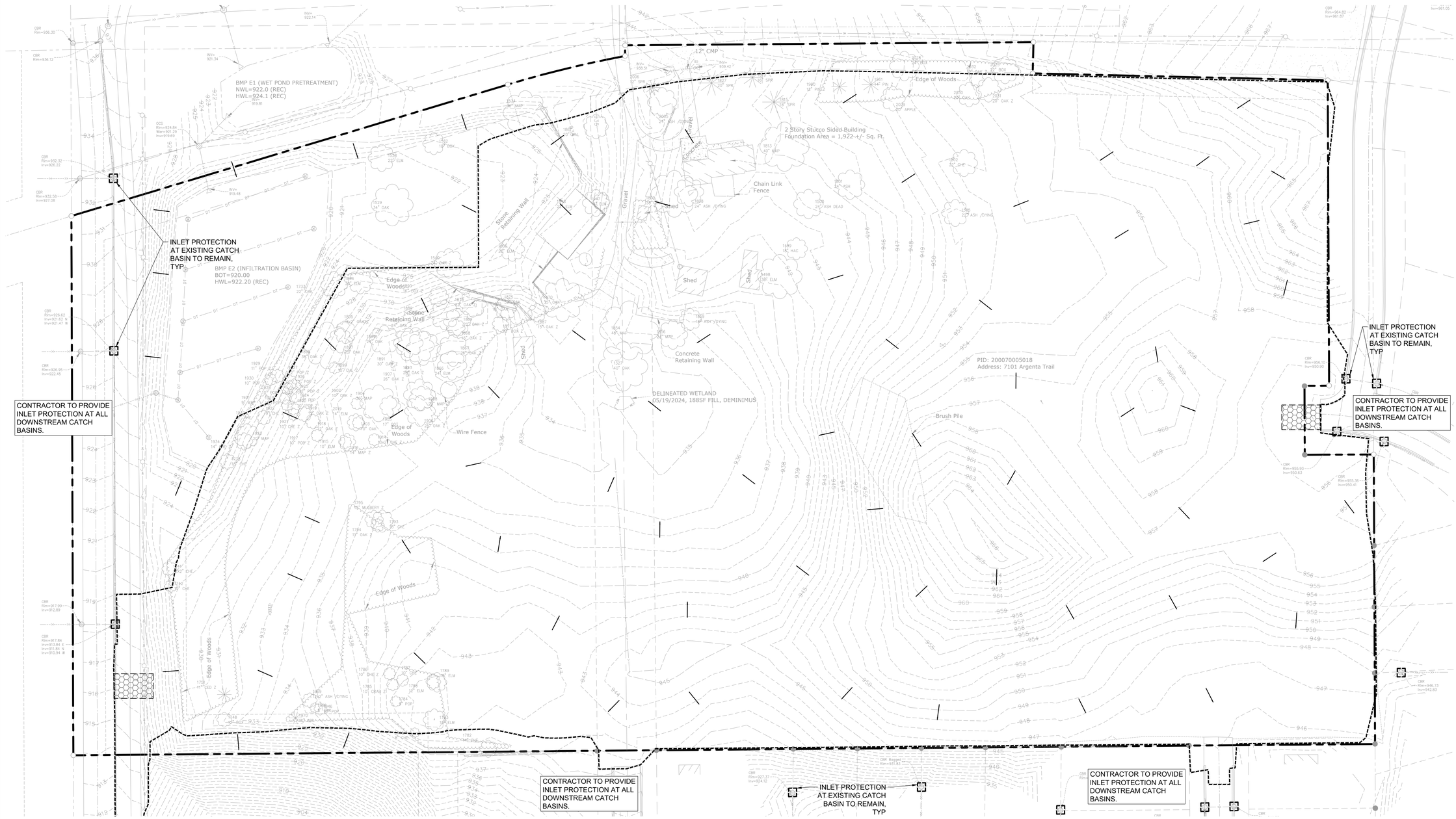

CITY OF INVER GROVE HEIGHTS EROSION CONTROL NOTES:

1. REFER TO THE LANDSCAPE PLAN SHEETS FOR THE PERMANENT RESTORATION PLAN (SEEDING PLAN)

SWPPP NOTES:

1. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTACT "GOPHER STATE ONE CALL" (651-454-0002 OR 800-252-1166) FOR UTILITY LOCATIONS, 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.
2. THIS PROJECT IS GREATER THAN ONE ACRE AND WILL REQUIRE AN MPCA NPDES PERMIT. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY EROSION CONTROL PERMITS REQUIRED BY THE CITY.
3. SEE SHEETS SW1.0 - SW1.5 FOR ALL EROSION CONTROL NOTES, DESCRIPTIONS, AND PRACTICES.
4. SEE GRADING PLAN FOR ADDITIONAL GRADING AND EROSION CONTROL NOTES.
5. CONTRACTOR IS RESPONSIBLE FOR SWPPP IMPLEMENTATION, INSPECTIONS, AND COMPLIANCE WITH NPDES PERMIT.

ALL SPECIFIED EROSION AND SEDIMENT CONTROL PRACTICES, AND MEASURES CONTAINED IN THIS SWPPP ARE THE MINIMUM REQUIREMENTS. ADDITIONAL PRACTICES MAY BE REQUIRED DURING THE COURSE OF CONSTRUCTION.

LEGEND:

- 1125 — EX. 1' CONTOUR ELEVATION INTERVAL
- DRAINAGE ARROW
- SILT FENCE / BIOROLL - GRADING LIMIT
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE

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1" = 50'-0"
25'-0" 0 50'-0"

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PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT

ARGENTA TRAIL

SOUTHWEST CORNER OF 70th STREET WEST & ARGENTA TRAIL INTERSECTION, INVER GROVE HEIGHTS

STUART DEVELOPMENT CORPORATION

1000 WEST 80TH STREET, MINNEAPOLIS, MN 55420

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Matthew R. Pavek

DATE 06/17/2024 LICENSE NO. 44263

ISSUE/SUBMITTAL SUMMARY

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11/20/2023	PRELIMINARY PLAT/PUD RESUBMITTAL
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DRAWN BY	MP, RB, AM, MD,JR,MS,
REVIEWED BY	MP, RB
PROJECT MANAGER	MP
PROJECT NUMBER	23131

REVISION SUMMARY

DATE	DESCRIPTION

SWPPP - EXISTING CONDITIONS

SW1.0

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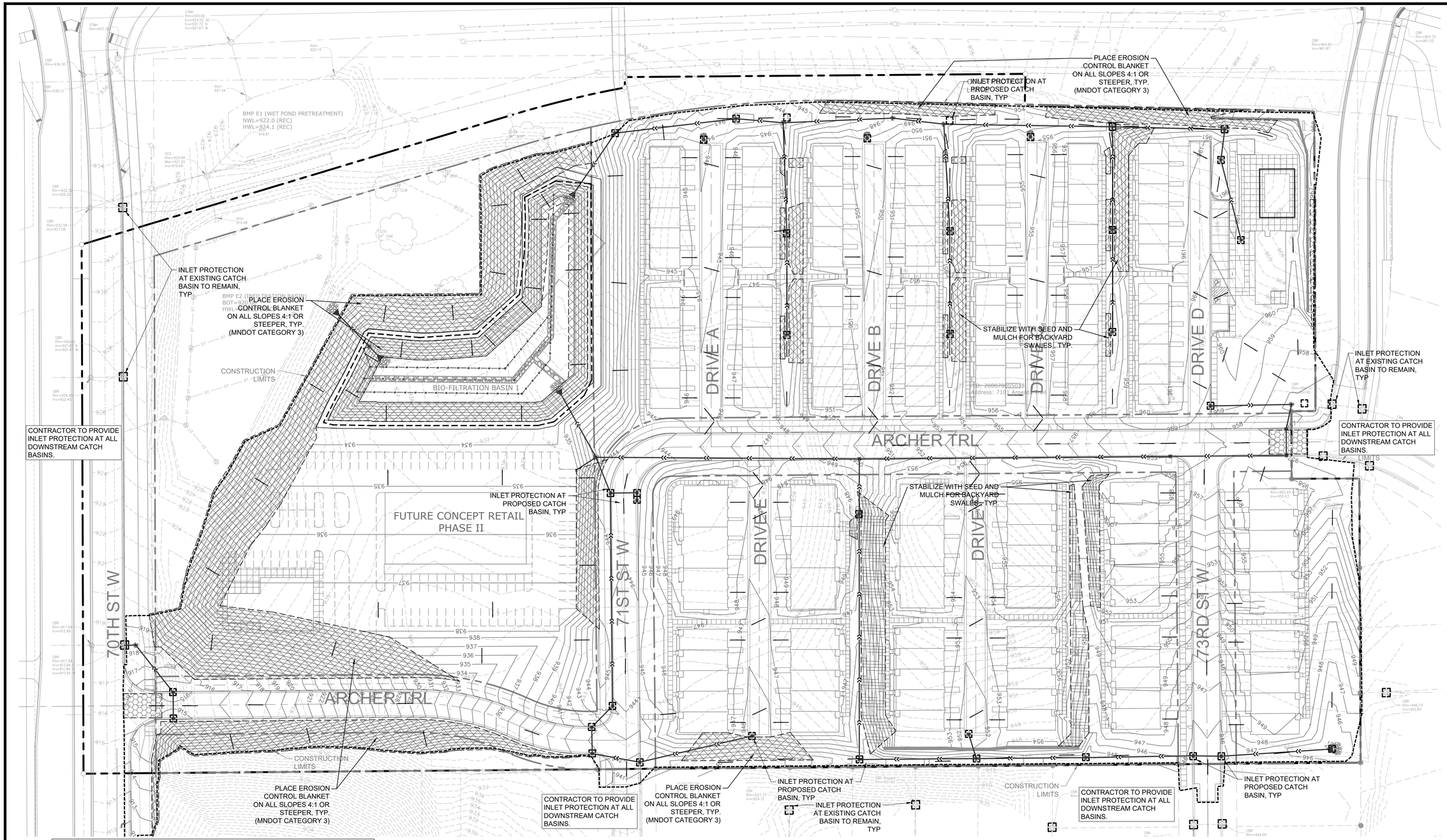

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ALL SPECIFIED EROSION AND SEDIMENT CONTROL PRACTICES, AND MEASURES CONTAINED IN THIS SWPPP ARE THE MINIMUM REQUIREMENTS. ADDITIONAL PRACTICES MAY BE REQUIRED DURING THE COURSE OF CONSTRUCTION.

LEGEND:

- 1125 — EX. 1' CONTOUR ELEVATION INTERVAL
- 1137 — 1.0' CONTOUR ELEVATION INTERVAL
- DRAINAGE ARROW
- SILT FENCE / BIOROLL - GRADING LIMIT
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE
- EROSION CONTROL BLANKET
- STABILIZE WITH SEED AND MULCH

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1" = 50'-0"
25'-0" 0 50'-0"

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DRAWN BY	MP, RB, AM, MD,JR,MS,
REVIEWED BY	MP, RB
PROJECT MANAGER	MP
PROJECT NUMBER	23131

REVISION SUMMARY

DATE	DESCRIPTION

SWPPP - PROPOSED CONDITIONS

SW1.1

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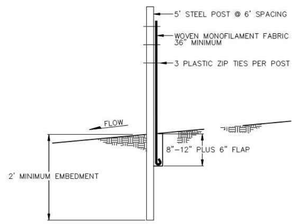

MACHINE SLICED SILT FENCE

NOTES:
1. WOOD POSTS MAY BE USED IN NON–CRITICAL AREAS. WOOD POST SPACING AT 4' MAXIMUM. STEEL POSTS ARE REQUIRED WHEN HEAVY DUTY SILT FENCE IS SPECIFIED.
2. SILT FENCE MUST BE CLEANED OR REPLACED WHEN SILT DEPTH IS 1/3 HEIGHT OF FABRIC.

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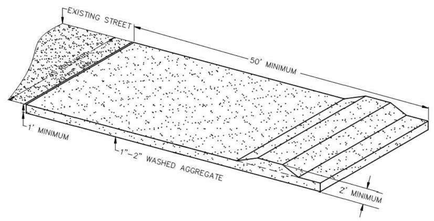
SILT FENCE		
CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT	4/11	PLATE NO. EC–02



NOTES:
1. ROCK CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED PRIOR TO CONSTRUCTION ACTIVITY.
2. FOR RESIDENTIAL CONSTRUCTION, CLASS 5 MAY BE INSTALLED AS A ROCK CONSTRUCTION ENTRANCE
3. AGGREGATE SHALL BE CLEANED, MAINTAINED, OR REPLENISHED AS NECESSARY.
4. SILT TRACKED ONTO THE STREET SHALL BE SWEPT THE SAME DAY BY A WATER BASED SWEEPER.
5. LENGTH MAY BE MODIFIED AND 1' HIGH RIDGE MAY BE ELIMINATED FOR RESIDENTIAL CONSTRUCTION.

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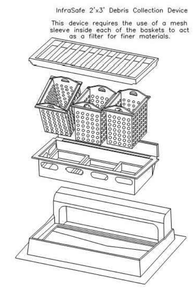
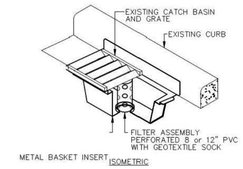
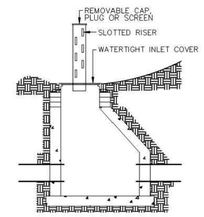
ROCK CONSTRUCTION ENTRANCE		
CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT	4/11	PLATE NO. EC–03





METAL BASKET TYPE



SLOTTED RISER INLET FILTER

NOTES:
1. EACH STORM WATER INLET REQUIRES AN APPROVED INLET PROTECTION DEVICE FROM THE TIME THE CASTING AND RINGS ARE PLACED UNTIL THE SURROUNDING AREAS ARE ESTABLISHED, OR UNTIL DIRECTED BY THE CITY ENGINEER.
2. THESE DEVICES SHALL BE REMOVED WHEN THERE IS FROST IN THE GROUND AND REINSTALLED WHEN THE GROUND THAWS.
3. THE CONTRACTOR IS RESPONSIBLE FOR THE PLACEMENT, MAINTENANCE, AND REMOVAL OF ALL INLET PROTECTION DEVICES.
4. SEALING THE SORM SEWER INLET WITH FABRIC IS NOT AN APPROVED METHOD OF INLET PROTECTION.

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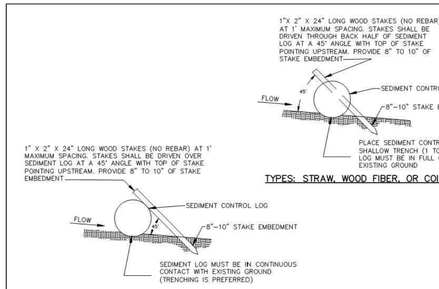
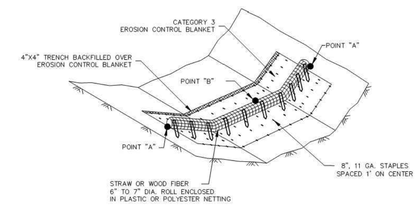
STORM SEWER INLET PROTECTION		
CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT	4/11	PLATE NO. EC–04



TYPES: STRAW, WOOD FIBER, OR COIR

TYPES: WOOD CHIP, COMPOST, OR ROCK



- POINT 'A' SHALL BE A MINIMUM OF 6 INCHES HIGHER THAN POINT 'B' TO ENSURE WATER FLOWS OVER THE BIOROLL AND DOES NOT FLANK THE EDGES AND CAUSE EROSION.
- DITCH CHECK SPACING SHALL BE DETERMINED FROM THE FOLLOWING FORMULA:
  APPROXIMATE SPACING OF DITCH CHECKS (FT) = $\frac{\text{DITCH CHECK HEIGHT (FT)}}{\text{\% CHANNEL SLOPE}} \times 100$

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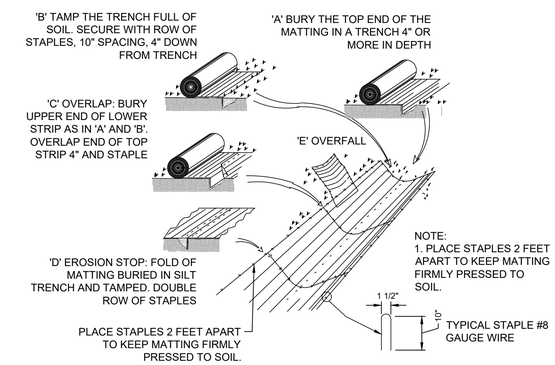
SEDIMENT LOG INSTALLATION		
CITY OF INVER GROVE HEIGHTS ENGINEERING DEPARTMENT	3/15	PLATE NO. EC–07



NOTE:
1. PLACE STAPLES 2 FEET APART TO KEEP MATTING FIRMLY PRESSED TO SOIL.

1 EROSION BLANKET
N T S

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civil@civilsitegroup.com
612–615–0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT

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SOUTHWEST CORNER OF 70th STREET WEST & ARGENTA TRAIL INTERSECTION, INVER GROVE HEIGHTS

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DRAWN BY	MP, RB, AM, MD,JR,MS,
REVIEWED BY	MP, RB
PROJECT MANAGER	MP
PROJECT NUMBER	23131

REVISION SUMMARY

DATE	DESCRIPTION

SWPPP - DETAILS

SW1.2

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THE CONTRACTOR AND ALL SUBCONTRACTORS INVOLVED WITH A CONSTRUCTION ACTIVITY THAT DISTURBS SITE SOIL OR WHO IMPLEMENT A POLLUTANT CONTROL MEASURE IDENTIFIED IN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MUST COMPLY WITH THE REQUIREMENTS OF THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT (DATED AUGUST 1, 2018 # MNR100001) AND ANY LOCAL GOVERNING AGENCY HAVING JURISDICTION CONCERNING EROSION AND SEDIMENTATION CONTROL.

STORMWATER DISCHARGE DESIGN REQUIREMENTS

SWPPP

THE NATURE OF THIS PROJECT WILL BE CONSISTENT WITH WHAT IS REPRESENTED IN THIS SET OF CONSTRUCTION PLANS AND SPECIFICATIONS. SEE THE SWPPP PLAN SHEETS AND SWPPP NARRATIVE (ATTACHMENT A: CONSTRUCTION SWPPP TEMPLATE) FOR ADDITIONAL SITE SPECIFIC SWPPP INFORMATION. THE PLANS SHOW LOCATIONS AND TYPES OF ALL TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL BMP'S. STANDARD DETAILS ARE ATTACHED TO THIS SWPPP DOCUMENT.

THE INTENDED SEQUENCING OF MAJOR CONSTRUCTION ACTIVITIES IS AS FOLLOWS:
1. INSTALL STABILIZED ROCK CONSTRUCTION ENTRANCE
2. INSTALLATION OF SILT FENCE AROUND SITE
3. INSTALL ORANGE CONSTRUCTION FENCING AROUND INFILTRATION AREAS
4. INSTALL INLET PROTECTION AT ALL ADJACENT AND DOWNSTREAM CATCH BASINS
5. CLEAR AND GRUB FOR TEMPORARY SEDIMENT BASIN / POND INSTALL
6. CONSTRUCT TEMPORARY SEDIMENT BASIN / POND (SECTION 14)
7. CLEAR AND GRUB REMAINDER OF SITE
8. STRIP AND STOCKPILE TOPSOIL
9. ROUGH GRADING OF SITE
10. STABILIZE DENUDED AREAS AND STOCKPILES
11. INSTALL SANITARY SEWER, WATER MAIN STORM SEWER AND SERVICES
12. INSTALL SILT FENCE / INLET PROTECTION AROUND CB'S
13. INSTALL STREET SECTION
14. INSTALL CURB AND GUTTER
15. BITUMINOUS ON STREETS
16. FINAL GRADE BOULEVARD, INSTALL SEED AND MULCH
17. REMOVE ACCUMULATED SEDIMENT FROM BASIN / POND
18. FINAL GRADE POND / INFILTRATION BASINS (DO NOT COMPACT SOILS IN INFILTRATION AREAS.)
19. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED BY EITHER SEED OR SOD/LANDSCAPING, REMOVE SILT FENCE AND RESEED ANY AREAS DISTURBED BY THE REMOVAL.

RECORDS RETENTION:

THE SWPPP (ORIGINAL OR COPIES) INCLUDING, ALL CHANGES TO IT, AND INSPECTIONS AND MAINTENANCE RECORDS MUST BE KEPT AT THE SITE DURING CONSTRUCTION BY THE PERMITTEE WHO HAS OPERATIONAL CONTROL OF THAT PORTION OF THE SITE. THE SWPPP CAN BE KEPT IN EITHER THE FIELD OFFICE OR IN AN ON SITE VEHICLE DURING NORMAL WORKING HOURS.

ALL OWNER(S) MUST KEEP THE SWPPP, ALONG WITH THE FOLLOWING ADDITIONAL RECORDS, ON FILE FOR THREE (3) YEARS AFTER SUBMITTAL OF THE NOT AS OUTLINED IN SECTION 4. THIS DOES NOT INCLUDE ANY RECORDS AFTER SUBMITTAL OF THE NOT.

1. THE FINAL SWPPP;
2. ANY OTHER STORMWATER RELATED PERMITS REQUIRED FOR THE PROJECT;
3. RECORDS OF ALL INSPECTION AND MAINTENANCE CONDUCTED DURING CONSTRUCTION (SEE SECTION 11, INSPECTIONS AND MAINTENANCE);
4. ALL PERMANENT OPERATION AND MAINTENANCE AGREEMENTS THAT HAVE BEEN IMPLEMENTED, INCLUDING ALL RIGHT OF WAY, CONTRACTS, COVENANTS AND OTHER BINDING REQUIREMENTS REGARDING PERPETUAL MAINTENANCE; AND
5. ALL REQUIRED CALCULATIONS FOR DESIGN OF THE TEMPORARY AND PERMANENT STORMWATER MANAGEMENT SYSTEMS.

SWPPP IMPLEMENTATION RESPONSIBILITIES:

1. THE OWNER AND CONTRACTOR ARE PERMITTEE(S) AS IDENTIFIED BY THE NPDES PERMIT.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE IMPLEMENTATION OF THE SWPPP, INCLUDING THE ACTIVITIES OF ALL OF THE CONTRACTOR'S SUBCONTRACTORS.
3. CONTRACTOR SHALL PROVIDE A PERSON(S) KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMPS TO OVERSEE ALL INSTALLATION AND MAINTENANCE OF BMPS AND IMPLEMENTATION OF THE SWPPP.
4. CONTRACTOR SHALL PROVIDE PERSON(S) MEETING THE TRAINING REQUIREMENTS OF THE NPDES PERMIT TO CONDUCT INSPECTION AND MAINTENANCE OF ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS IN ACCORDANCE WITH THE REQUIREMENTS OF THE PERMIT. ONE OF THESE INDIVIDUAL(S) MUST BE AVAILABLE FOR AN ONSITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY MPCA. CONTRACTOR SHALL PROVIDE TRAINING DOCUMENTATION FOR THESE INDIVIDUAL(S) AS REQUIRED BY THE NPDES PERMIT. THIS TRAINING DOCUMENTATION SHALL BE RECORDED IN OR WITH THE SWPPP BEFORE THE START OF CONSTRUCTION OR AS SOON AS THE PERSONNEL FOR THE PROJECT HAVE BEEN DETERMINED. DOCUMENTATION SHALL INCLUDE:
   - 4.1. NAMES OF THE PERSONNEL ASSOCIATED WITH THE PROJECT THAT ARE REQUIRED TO BE TRAINED PER SECTION 21 OF THE PERMIT.
   - 4.2. DATES OF TRAINING AND NAME OF INSTRUCTOR AND ENTITY PROVIDING TRAINING.
   - 4.3. CONTENT OF TRAINING COURSE OR WORKSHOP INCLUDING THE NUMBER OF HOURS OF TRAINING.
5. FOLLOWING FINAL STABILIZATION AND THE TERMINATION OF COVERAGE FOR THE NPDES PERMIT, THE OWNER IS EXPECTED TO FURNISH LONG TERM OPERATION AND MAINTENANCE (O & M) OF THE PERMANENT STORM WATER MANAGEMENT SYSTEM.

CONSTRUCTION ACTIVITY REQUIREMENTS

SWPPP AMENDMENTS (SECTION 6):

1. ONE OF THE INDIVIDUALS DESCRIBED IN ITEM 21.2.A OR ITEM 21.2.B OR ANOTHER QUALIFIED INDIVIDUAL MUST COMPLETE ALL SWPPP CHANGES. CHANGES INVOLVING THE USE OF A LESS STRINGENT BMP MUST INCLUDE A JUSTIFICATION DESCRIBING HOW THE REPLACEMENT BMP IS EFFECTIVE FOR THE SITE CHARACTERISTICS.
2. PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPS AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS HAVING A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER.
3. PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPS AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER INSPECTIONS OR INVESTIGATIONS BY THE SITE OWNER OR OPERATOR, USEPA OR MPCA OFFICIALS INDICATE THE SWPPP IS NOT EFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER OR THE DISCHARGES ARE CAUSING WATER QUALITY STANDARD EXCEEDANCES (E.G., NUISANCE CONDITIONS AS DEFINED IN MINN. R. 7050.0210, SUBP. 2) OR THE SWPPP IS NOT CONSISTENT WITH THE OBJECTIVES OF A USEPA APPROVED TMDL.

BMP SELECTION AND INSTALLATION (SECTION 7):

1. PERMITTEES MUST SELECT, INSTALL, AND MAINTAIN THE BMPS IDENTIFIED IN THE SWPPP AND IN THIS PERMIT IN AN APPROPRIATE AND FUNCTIONAL MANNER AND IN ACCORDANCE WITH RELEVANT MANUFACTURER SPECIFICATIONS AND ACCEPTED ENGINEERING PRACTICES.

EROSION PREVENTION (SECTION 8):

1. BEFORE WORK BEGINS, PERMITTEES MUST DELINEATE THE LOCATION OF AREAS NOT TO BE DISTURBED.
2. PERMITTEES MUST MINIMIZE THE NEED FOR DISTURBANCE OF PORTIONS OF THE PROJECT WITH STEEP SLOPES. WHEN STEEP SLOPES MUST BE DISTURBED, PERMITTEES MUST USE TECHNIQUES SUCH AS PHASING AND STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES (E.G., SLOPE DRAINING AND TERRACING).
3. PERMITTEES MUST STABILIZE ALL EXPOSED SOIL AREAS, INCLUDING STOCKPILES. STABILIZATION MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION WHEN CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. STABILIZATION MUST BE COMPLETED NO LATER THAN 14 CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY HAS CEASED. STABILIZATION IS NOT REQUIRED ON CONSTRUCTED BASE COMPONENTS OF ROADS, PARKING LOTS AND SIMILAR SURFACES. STABILIZATION IS NOT REQUIRED ON TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) BUT PERMITTEES MUST PROVIDE SEDIMENT CONTROLS AT THE BASE OF THE STOCKPILE.
4. FOR PUBLIC WATERS THAT THE MINNESOTA DNR HAS PROMULGATED "WORK IN WATER RESTRICTIONS" DURING SPECIFIED FISH SPAWNING TIME FRAMES, PERMITTEES MUST COMPLETE STABILIZATION OF ALL EXPOSED SOIL AREAS WITHIN 200 FEET OF THE WATER'S EDGE, AND THAT DRAIN TO THESE WATERS, WITHIN 24 HOURS DURING THE RESTRICTION PERIOD.
5. PERMITTEES MUST STABILIZE THE NORMAL WETTED PERIMETER OF THE LAST 200 LINEAR FEET OF TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALES THAT DRAIN WATER FROM THE SITE WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE. PERMITTEES MUST COMPLETE STABILIZATION OF REMAINING PORTIONS OF TEMPORARY OR PERMANENT DITCHES OR SWALES WITHIN 14 CALENDAR DAYS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE AND CONSTRUCTION IN THAT PORTION OF THE DITCH TEMPORARILY OR PERMANENTLY CEASES.
6. TEMPORARY OR PERMANENT DITCHES OR SWALES BEING USED AS A SEDIMENT CONTAINMENT SYSTEM DURING CONSTRUCTION (WITH PROPERLY DESIGNED ROCK-DITCH CHECKS, BIO ROLLS, SILT DIKES, ETC.) DO NOT NEED TO BE STABILIZED. PERMITTEES MUST STABILIZE THESE AREAS WITHIN 24 HOURS AFTER THEIR USE AS A SEDIMENT CONTAINMENT SYSTEM CEASES
7. PERMITTEES MUST NOT USE MULCH, HYDROMULCH, TACKIFIER, POLYACRYLAMIDE OR SIMILAR EROSION PREVENTION PRACTICES WITHIN ANY PORTION OF THE NORMAL WETTED PERIMETER OF A TEMPORARY OR PERMANENT DRAINAGE DITCH OR SWALE SECTION WITH A CONTINUOUS SLOPE OF GREATER THAN 2 PERCENT.
8. PERMITTEES MUST PROVIDE TEMPORARY OR PERMANENT ENERGY DISSIPATION AT ALL PIPE OUTLETS WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER OR PERMANENT STORMWATER TREATMENT SYSTEM.
9. PERMITTEES MUST NOT DISTURB MORE LAND (I.E., PHASING) THAN CAN BE EFFECTIVELY INSPECTED AND MAINTAINED IN ACCORDANCE WITH SECTION 11.

SEDIMENT CONTROL (SECTION 9):

1. PERMITTEES MUST ESTABLISH SEDIMENT CONTROL BMPS ON ALL DOWNGRADIENT PERIMETERS OF THE SITE AND DOWNGRADIENT AREAS OF THE SITE THAT DRAIN TO ANY SURFACE WATER, INCLUDING CURB AND GUTTER SYSTEMS. PERMITTEES MUST LOCATE SEDIMENT CONTROL PRACTICES UPGRADIENT OF ANY BUFFER ZONES. PERMITTEES MUST INSTALL SEDIMENT CONTROL PRACTICES BEFORE ANY UPGRADIENT LAND-DISTURBING ACTIVITIES BEGIN AND MUST KEEP THE SEDIMENT CONTROL PRACTICES IN PLACE UNTIL THEY ESTABLISH PERMANENT COVER.
2. IF DOWNGRADIENT SEDIMENT CONTROLS ARE OVERLOADED, BASED ON FREQUENT FAILURE OR EXCESSIVE MAINTENANCE REQUIREMENTS, PERMITTEES MUST INSTALL ADDITIONAL UPGRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPS TO ELIMINATE THE OVERLOADING AND AMEND THE SWPPP TO IDENTIFY THESE ADDITIONAL PRACTICES AS REQUIRED IN ITEM 6.3.
3. TEMPORARY OR PERMANENT DRAINAGE DITCHES AND SEDIMENT BASINS DESIGNED AS PART OF A SEDIMENT CONTAINMENT SYSTEM (E.G., DITCHES WITH ROCK-CHECK DAMS) REQUIRE SEDIMENT CONTROL PRACTICES ONLY AS APPROPRIATE FOR SITE CONDITIONS.
4. A FLOATING SILT CURTAIN PLACED IN THE WATER IS NOT A SEDIMENT CONTROL BMP TO SATISFY ITEM 9.2 EXCEPT WHEN WORKING ON A SHORELINE OR BELOW THE WATERLINE. IMMEDIATELY AFTER THE SHORT TERM CONSTRUCTION ACTIVITY (E.G., INSTALLATION OF RIP RAP ALONG THE SHORELINE) IN THAT AREA IS COMPLETE, PERMITTEES MUST INSTALL AN UPLAND PERIMETER CONTROL PRACTICE IF EXPOSED SOILS STILL DRAIN TO A SURFACE WATER.
5. PERMITTEES MUST RE-INSTALL ALL SEDIMENT CONTROL PRACTICES ADJUSTED OR REMOVED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES, IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY IS COMPLETED. PERMITTEES MUST RE-INSTALL SEDIMENT CONTROL PRACTICES BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE.
6. PERMITTEES MUST PROTECT ALL STORM DRAIN INLETS USING APPROPRIATE BMPS DURING CONSTRUCTION UNTIL THEY ESTABLISH PERMANENT COVER ON ALL AREAS WITH POTENTIAL FOR DISCHARGING TO THE INLET.
7. PERMITTEES MAY REMOVE INLET PROTECTION FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (E.G. STREET FLOODING/FREEZING) IS IDENTIFIED BY THE PERMITTEES OR THE JURISDICTIONAL AUTHORITY (E.G., CITY/COUNTY/TOWNSHIP/MINNESOTA DEPARTMENT OF TRANSPORTATION ENGINEER). PERMITTEES MUST DOCUMENT THE NEED FOR REMOVAL IN THE SWPPP.
8. PERMITTEES MUST PROVIDE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS AT THE BASE OF STOCKPILES ON THE DOWNGRADIENT PERIMETER.
9. PERMITTEES MUST LOCATE STOCKPILES OUTSIDE OF NATURAL BUFFERS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER.
10. PERMITTEES MUST INSTALL A VEHICLE TRACKING BMP TO MINIMIZE THE TRACK OUT OF SEDIMENT FROM THE CONSTRUCTION SITE OR ONTO PAVED ROADS WITHIN THE SITE.
11. PERMITTEES MUST USE STREET SWEEPING IF VEHICLE TRACKING BMPS ARE NOT ADEQUATE TO PREVENT SEDIMENT TRACKING ONTO THE STREET.
12. PERMITTEES MUST INSTALL TEMPORARY SEDIMENT BASINS AS REQUIRED IN SECTION 14.
13. IN ANY AREAS OF THE SITE WHERE FINAL VEGETATIVE STABILIZATION WILL OCCUR, PERMITTEES MUST RESTRICT VEHICLE AND EQUIPMENT USE TO MINIMIZE SOIL COMPACTION.
14. PERMITTEES MUST PRESERVE TOPSOIL ON THE SITE, UNLESS INFEASIBLE.
15. PERMITTEES MUST DIRECT DISCHARGES FROM BMPS TO VEGETATED AREAS UNLESS INFEASIBLE.
16. PERMITTEES MUST PRESERVE A 50 FOOT NATURAL BUFFER OR, IF A BUFFER IS INFEASIBLE ON THE SITE, PROVIDE REDUNDANT (DOUBLE) PERIMETER SEDIMENT CONTROLS WHEN A SURFACE WATER IS LOCATED WITHIN 50 FEET OF THE PROJECT'S EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER. PERMITTEES MUST INSTALL PERIMETER SEDIMENT CONTROLS AT LEAST 5 FEET APART UNLESS LIMITED BY LACK OF AVAILABLE SPACE. NATURAL BUFFERS ARE NOT REQUIRED ADJACENT TO ROAD DITCHES, JUDICIAL DITCHES, COUNTY DITCHES, STORMWATER CONVEYANCE CHANNELS, STORM DRAIN INLETS, AND SEDIMENT BASINS. IF PRESERVING THE BUFFER IS INFEASIBLE, PERMITTEES MUST DOCUMENT THE REASONS IN THE SWPPP. SHEET PILING IS A REDUNDANT PERIMETER CONTROL IF INSTALLED IN A MANNER THAT RETAINS ALL STORMWATER.
17. PERMITTEES MUST USE POLYMERS, FLOCCULANTS, OR OTHER SEDIMENTATION TREATMENT CHEMICALS IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES, DOSING SPECIFICATIONS AND SEDIMENT REMOVAL DESIGN SPECIFICATIONS PROVIDED BY THE MANUFACTURER OR SUPPLIER. THE PERMITTEES MUST USE CONVENTIONAL EROSION AND SEDIMENT CONTROLS PRIOR TO CHEMICAL ADDITION AND MUST DIRECT TREATED STORMWATER TO A SEDIMENT CONTROL SYSTEM FOR FILTRATION OR SETTLEMENT OF THE FLOC PRIOR TO DISCHARGE.

DEWATERING AND BASIN DRAINING (SECTION 10):

1. PERMITTEES MUST DISCHARGE TURBID OR SEDIMENT-LADEN WATERS RELATED TO DEWATERING OR BASIN DRAINING (E.G., PUMPED DISCHARGES, TRENCH/DITCH CUTS FOR DRAINAGE) TO A TEMPORARY OR PERMANENT SEDIMENT BASIN ON THE PROJECT SITE UNLESS INFEASIBLE. PERMITTEES MAY DEWATER TO SURFACE WATERS IF THEY VISUALLY CHECK TO ENSURE ADEQUATE TREATMENT HAS BEEN OBTAINED AND NUISANCE CONDITIONS (SEE MINN. R. 7050.0210, SUBP. 2) WILL NOT RESULT FROM THE DISCHARGE. IF PERMITTEES CANNOT DISCHARGE THE WATER TO A SEDIMENTATION BASIN PRIOR TO ENTERING A SURFACE WATER, PERMITTEES MUST TREAT IT WITH APPROPRIATE BMPS SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE SURFACE WATER OR DOWNSTREAM PROPERTIES.
2. IF PERMITTEES MUST DISCHARGE WATER CONTAINING OIL OR GREASE, THEY MUST USE AN OIL-WATER SEPARATOR OR SUITABLE FILTRATION DEVICE (E.G., CARTRIDGE FILTERS, ABSORBENTS PADS) PRIOR TO DISCHARGE.
3. PERMITTEES MUST DISCHARGE ALL WATER FROM DEWATERING OR BASIN-DRAINING ACTIVITIES IN A MANNER THAT DOES NOT CAUSE EROSION OR SCOUR IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS OR INUNDATION OF WETLANDS IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS THAT CAUSES SIGNIFICANT ADVERSE IMPACT TO THE WETLAND.
4. IF PERMITTEES USE FILTERS WITH BACKWASH WATER, THEY MUST HAUL THE BACKWASH WATER AWAY FOR DISPOSAL, RETURN THE BACKWASH WATER TO THE BEGINNING OF THE TREATMENT PROCESS, OR INCORPORATE THE BACKWASH WATER INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION.

INSPECTIONS AND MAINTENANCE (SECTION 11):

1. PERMITTEES MUST ENSURE A TRAINED PERSON, AS IDENTIFIED IN ITEM 21.2.B, WILL INSPECT THE ENTIRE CONSTRUCTION SITE AT LEAST ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 1/2 INCH IN 24 HOURS.
2. PERMITTEES MUST INSPECT AND MAINTAIN ALL PERMANENT STORMWATER TREATMENT BMPS.
3. PERMITTEES MUST INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS AND POLLUTION PREVENTION MANAGEMENT MEASURES TO ENSURE INTEGRITY AND EFFECTIVENESS. PERMITTEES MUST REPAIR, REPLACE OR SUPPLEMENT ALL NONFUNCTIONAL BMPS WITH FUNCTIONAL BMPS BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY UNLESS ANOTHER TIME FRAME IS SPECIFIED IN ITEM 11.5 OR 11.6. PERMITTEES MAY TAKE ADDITIONAL TIME IF FIELD CONDITIONS PREVENT ACCESS TO THE AREA.
4. DURING EACH INSPECTION, PERMITTEES MUST INSPECT SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS BUT NOT CURB AND GUTTER SYSTEMS, FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION. PERMITTEES MUST REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS AND RESTABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. PERMITTEES MUST COMPLETE REMOVAL AND STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. PERMITTEES MUST USE ALL REASONABLE EFFORTS TO OBTAIN ACCESS. IF PRECLUDED, REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF OBTAINING ACCESS. PERMITTEES ARE RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK IN SURFACE WATERS.
5. PERMITTEES MUST INSPECT CONSTRUCTION SITE VEHICLE EXIT LOCATIONS, STREETS AND CURB AND GUTTER SYSTEMS WITHIN AND ADJACENT TO THE PROJECT FOR SEDIMENTATION FROM EROSION OR TRACKED SEDIMENT FROM VEHICLES. PERMITTEES MUST REMOVE SEDIMENT FROM ALL PAVED SURFACES WITHIN ONE (1) CALENDAR DAY OF DISCOVERY OR, IF APPLICABLE, WITHIN A SHORTER TIME TO AVOID A SAFETY HAZARD TO USERS OF PUBLIC STREETS.
6. PERMITTEES MUST REPAIR, REPLACE OR SUPPLEMENT ALL PERIMETER CONTROL DEVICES WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE DEVICE.
7. PERMITTEES MUST DRAIN TEMPORARY AND PERMANENT SEDIMENTATION BASINS AND REMOVE THE SEDIMENT WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME.
8. PERMITTEES MUST ENSURE THAT AT LEAST ONE INDIVIDUAL PRESENT ON THE SITE (OR AVAILABLE TO THE PROJECT SITE IN THREE (3) CALENDAR DAYS) IS TRAINED IN THE JOB DUTIES DESCRIBED IN ITEM 21.2.B.
9. PERMITTEES MAY ADJUST THE INSPECTION SCHEDULE DESCRIBED IN ITEM 11.2 AS FOLLOWS:
   - a. INSPECTIONS OF AREAS WITH PERMANENT COVER CAN BE REDUCED TO ONCE PER MONTH, EVEN IF CONSTRUCTION ACTIVITY CONTINUES ON OTHER PORTIONS OF THE SITE; OR
   - b. WHERE SITES HAVE PERMANENT COVER ON ALL EXPOSED SOIL AND NO CONSTRUCTION ACTIVITY IS OCCURRING ANYWHERE ON THE SITE, INSPECTIONS CAN BE REDUCED TO ONCE PER MONTH AND, AFTER 12 MONTHS, MAY BE SUSPENDED COMPLETELY UNTIL CONSTRUCTION ACTIVITY RESUMES. THE MPCA MAY REQUIRE INSPECTIONS TO RESUME IF CONDITIONS WARRANT; OR
   - c. WHERE CONSTRUCTION ACTIVITY HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, INSPECTIONS MAY BE SUSPENDED. INSPECTIONS MUST RESUME WITHIN 24 HOURS OF RUNOFF OCCURRING, OR UPON RESUMING CONSTRUCTION, WHICHEVER COMES FIRST.
10. PERMITTEES MUST RECORD ALL INSPECTIONS AND MAINTENANCE ACTIVITIES WITHIN 24 HOURS OF BEING CONDUCTED AND THESE RECORDS MUST BE RETAINED WITH THE SWPPP. THESE RECORDS MUST INCLUDE:
   - a. DATE AND TIME OF INSPECTIONS; AND
   - b. NAME OF PERSONS CONDUCTING INSPECTIONS; AND
   - c. ACCURATE FINDINGS OF INSPECTIONS, INCLUDING THE SPECIFIC LOCATION WHERE CORRECTIVE ACTIONS ARE NEEDED; AND
   - d. CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES); AND
   - e. DATE OF ALL RAINFALL EVENTS GREATER THAN 1/2 INCHES IN 24 HOURS, AND THE AMOUNT OF RAINFALL FOR EACH EVENT. PERMITTEES MUST OBTAIN RAINFALL AMOUNTS BY EITHER A PROPERLY MAINTAINED RAIN GAUGE INSTALLED ONSITE, A WEATHER STATION THAT IS WITHIN ONE (1) MILE OF YOUR LOCATION, OR A WEATHER REPORTING SYSTEM THAT PROVIDES SITE SPECIFIC RAINFALL DATA FROM RADAR SUMMARIES; AND
   - f. IF PERMITTEES OBSERVE A DISCHARGE DURING THE INSPECTION, THEY MUST RECORD AND SHOULD PHOTOGRAPH AND DESCRIBE THE LOCATION OF THE DISCHARGE (I.E., COLOR, ODOR, SETTLED OR SUSPENDED SOLIDS, OIL SHEEN, AND OTHER OBVIOUS INDICATORS OF POLLUTANTS); AND
   - g. ANY AMENDMENTS TO THE SWPPP PROPOSED AS A RESULT OF THE INSPECTION MUST BE DOCUMENTED AS REQUIRED IN SECTION 6 WITHIN SEVEN (7) CALENDAR DAYS.

POLLUTION PREVENTION MANAGEMENT (SECTION 12):

1. PERMITTEES MUST PLACE BUILDING PRODUCTS AND LANDSCAPE MATERIALS UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) OR PROTECT THEM BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER. PERMITTEES ARE NOT REQUIRED TO COVER OR PROTECT PRODUCTS WHICH ARE EITHER NOT A SOURCE OF CONTAMINATION TO STORMWATER OR ARE DESIGNED TO BE EXPOSED TO STORMWATER.
2. PERMITTEES MUST PLACE PESTICIDES, FERTILIZERS AND TREATMENT CHEMICALS UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) OR PROTECT THEM BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER.
3. PERMITTEES MUST STORE HAZARDOUS MATERIALS AND TOXIC WASTE, (INCLUDING OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT SOLVENTS, PETROLEUM-BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH. 7045 INCLUDING SECONDARY CONTAINMENT AS APPLICABLE.
4. PERMITTEES MUST PROPERLY STORE, COLLECT AND DISPOSE SOLID WASTE IN COMPLIANCE WITH MINN. R. CH. 7035.
5. PERMITTEES MUST POSITION PORTABLE TOILETS SO THEY ARE SECURE AND WILL NOT TIP OR BE KNOCKED OVER. PERMITTEES MUST PROPERLY DISPOSE SANITARY WASTE IN ACCORDANCE WITH MINN. R. CH. 7041.
6. PERMITTEES MUST TAKE REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS, INCLUDING FUEL, FROM ANY AREA WHERE CHEMICALS OR FUEL WILL BE LOADED OR UNLOADED INCLUDING THE USE OF DRIP PANS OR ABSORBENTS UNLESS INFEASIBLE. PERMITTEES MUST ENSURE ADEQUATE SUPPLIES ARE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS AND THAT AN APPROPRIATE DISPOSAL METHOD IS AVAILABLE FOR RECOVERED SPILLED MATERIALS. PERMITTEES MUST REPORT AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINN. STAT. 115.061, USING DRY CLEAN UP MEASURES WHERE POSSIBLE.
7. PERMITTEES MUST LIMIT VEHICLE EXTERIOR WASHING AND EQUIPMENT TO A DEFINED AREA OF THE SITE. PERMITTEES MUST CONTAIN RUNOFF FROM THE WASHING AREA IN A SEDIMENT BASIN OR OTHER SIMILARLY EFFECTIVE CONTROLS AND MUST DISPOSE WASTE FROM THE WASHING ACTIVITY PROPERLY. PERMITTEES MUST PROPERLY USE AND STORE SOAPS, DETERGENTS, OR SOLVENTS.
8. PERMITTEES MUST PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS (E.G., CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS) RELATED TO THE CONSTRUCTION ACTIVITY. PERMITTEES MUST PREVENT LIQUID AND SOLID WASHOUT WASTES FROM CONTACTING THE GROUND AND MUST DESIGN THE CONTAINMENT SO IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR AREAS. PERMITTEES MUST PROPERLY DISPOSE LIQUID AND SOLID WASTES IN COMPLIANCE WITH MPCA RULES. PERMITTEES MUST INSTALL A SIGN INDICATING THE LOCATION OF THE WASHOUT FACILITY.

PERMIT TERMINATION (SECTION 4 AND SECTION 13):

1. PERMITTEES MUST SUBMIT A NOT WITHIN 30 DAYS AFTER ALL TERMINATION CONDITIONS LISTED IN SECTION 13 ARE COMPLETE.
2. PERMITTEES MUST SUBMIT A NOT WITHIN 30 DAYS AFTER SELLING OR OTHERWISE LEGALLY TRANSFERRING THE ENTIRE SITE, INCLUDING PERMIT RESPONSIBILITY FOR ROADS (E.G., STREET SWEEPING) AND STORMWATER INFRASTRUCTURE FINAL CLEAN OUT, OR TRANSFERRING PORTIONS OF A SITE TO ANOTHER PARTY. THE PERMITTEES' COVERAGE UNDER THIS PERMIT TERMINATES AT MIDNIGHT ON THE SUBMISSION DATE OF THE NOT.
3. PERMITTEES MUST COMPLETE ALL CONSTRUCTION ACTIVITY AND MUST INSTALL PERMANENT COVER OVER ALL AREAS PRIOR TO SUBMITTING THE NOT. VEGETATIVE COVER MUST CONSIST OF A UNIFORM PERENNIAL VEGETATION WITH A DENSITY OF 70 PERCENT OF ITS EXPECTED FINAL GROWTH. VEGETATION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA DICTATES NO VEGETATION, SUCH AS IMPERVIOUS SURFACES OR THE BASE OF A SAND FILTER.
4. PERMITTEES MUST CLEAN THE PERMANENT STORMWATER TREATMENT SYSTEM OF ANY ACCUMULATED SEDIMENT AND MUST ENSURE THE SYSTEM MEETS ALL APPLICABLE REQUIREMENTS IN SECTION 15 THROUGH 19 AND IS OPERATING AS DESIGNED.
5. PERMITTEES MUST REMOVE ALL SEDIMENT FROM CONVEYANCE SYSTEMS PRIOR TO SUBMITTING THE NOT.
6. PERMITTEES MUST REMOVE ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMPS PRIOR TO SUBMITTING THE NOT. PERMITTEES MAY LEAVE BMPS DESIGNED TO DECOMPOSE ON-SITE IN PLACE.
7. FOR RESIDENTIAL CONSTRUCTION ONLY, PERMIT COVERAGE TERMINATES ON INDIVIDUAL LOTS IF THE STRUCTURES ARE FINISHED AND TEMPORARY EROSION PREVENTION AND DOWNGRADIENT PERIMETER CONTROL IS COMPLETE, THE RESIDENCE SELLS TO THE HOMEOWNER, AND THE PERMITTEE DISTRIBUTES THE MPCA'S "HOMEOWNER FACT SHEET" TO THE HOMEOWNER.
8. FOR CONSTRUCTION PROJECTS ON AGRICULTURAL LAND (E.G., PIPELINES ACROSS CROPLAND), PERMITTEES MUST RETURN THE DISTURBED LAND TO ITS PRECONSTRUCTION AGRICULTURAL USE PRIOR TO SUBMITTING THE NOT.

SEED NOTES:

ALL SEED MIXES AND APPLICATION SHALL BE IN ACCORDANCE WITH THE MNDOT SEEDING MANUAL.

GENERAL RECOMMENDATIONS:
THE CONTRACTOR IS RESPONSIBLE TO SALVAGE AND PRESERVE EXISTING TOPSOIL NECESSARY FOR FINAL STABILIZATION AND TO ALSO MINIMIZE COMPACTION IN ALL LANDSCAPE AREAS. IMMEDIATELY BEFORE SEEDING THE SOIL SHALL BE TILLED TO A MINIMUM DEPTH OF 3 INCHES.

TEMPORARY EROSION CONTROL SEEDING, MULCHING & BLANKET.

SEED
- TEMPORARY SEED SHALL BE MNDOT SEED MIX 21-112 (WINTER WHEAT COVER CROP) FOR WINTER AND 21-111 (OATS COVER CROP) FOR SPRING/SUMMER APPLICATIONS. BOTH SEED MIXES SHALL BE APPLIED AT A SEEDING RATE OF 100 LBS/ACRE.

MULCH
- IMMEDIATELY AFTER SEEDING, WITHIN 24 HOURS, MNDOT TYPE 1 MULCH SHOULD BE APPLIED TO PROTECT AND ENHANCE SEED GERMINATION. MULCH SHALL BE APPLIED AT 90% COVERAGE (2 TONS PER ACRE OF STRAW MULCH)

SLOPES
- 3:1 (HORIZ/VERT.) OR FLATTER MUCH SHALL BE COVERED WITH MULCH
- SLOPES STEEPER THAN 3:1 OR DITCH BOTTOMS SHALL BE COVERED WITH EROSION CONTROL BLANKET.
- SEE PLAN FOR MORE DETAILED DITCH AND STEEP SLOPE EROSION CONTROL TREATMENTS.

TRAINING SECTION 21

DESIGN ENGINEER: DAVID J. KNAEBLE P.E.
TRAINING COURSE: DESIGN OF SWPPP
TRAINING ENTITY: UNIVERSITY OF MINNESOTA
INSTRUCTOR: JOHN CHAPMAN
DATES OF TRAINING COURSE: 8/22/2012- 8/23/2012
TOTAL TRAINING HOURS: 12
DATE OF RECERTIFICATION: 4/22/22
EXPIRATION: 5/31/2025

OWNER INFORMATION

GLENLIN PROPERTIES, LLC
17970 EVENING LANE
LAKEVILLE, MN 55044
LINDA FLANNERY
612-719-4571

AREAS AND QUANTITIES:

TOTAL SITE AREA

TOTAL IMPERVIOUS AREA	57,560 SF	8.6%	1.32 AC	388,401 SF	48.9%	8.92 AC
TOTAL PERVIOUS AREA	609,440 SF	91.4%	14.0 AC	314,918 SF	39.7%	7.23 AC
TOTAL SITE AREA NET DEVELOPABLE	667,000 SF		15.31 AC	793,713 SF		18.22 AC
TOTAL DEDICATED COUNTY ROW	197,806		4.54 AC	71,093		1.63 AC
GROSS SITE AREA	864,806		19.85 AC	864,806		19.85 AC
DIFFERENCE (EX. VS PROP.)	330,841 SF	40.3%				
DISTURBED AREA	737,000 SF	16.9 AC				

EROSION CONTROL QUANTITIES	
DISTURBED AREA	737,000 SF
SILT FENCE/BIO-ROLL	±4800 LF
EROSION CONTROL BLANKET	±95000 SF
INLET PROTECTION DEVICES	±50 EA

NOTE: QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL DETERMINE FOR THEMSELVES THE EXACT QUANTITIES FOR BIDDING AND CONSTRUCTION.

SWPPP CONTACT PERSON

CONTRACTOR:

SWPPP INSPECTOR TRAINING:
ALL SWPPP INSPECTIONS MUST BE PERFORMED BY A PERSON THAT MEETS THE TRAINING REQUIREMENTS OF THE NPDES CONSTRUCTION SITE PERMIT. TRAINING CREDENTIALS SHALL BE PROVIDED BY THE CONTRACTOR AND KEPT ON SITE WITH THE SWPPP

PARTY RESPONSIBLE FOR LONG TERM OPERATION AND MAINTENANCE OF PERMANENT STORM WATER MANAGEMENT SYSTEM

PERMANENT STORMWATER MANAGEMENT IS REQUIRED AS PART OF THIS PROJECT TO MEET NPDES PERMIT REQUIREMENTS. THE PROPERTY OWNER IS RESPONSIBLE FOR THE LONG TERM OPERATION AND MAINTENANCE OF THE PROPOSED STORMWATER SYSTEM.

SWPPP ATTACHMENTS (ONLY APPLICABLE IF SITE IS 1 ACRE OR GREATER):

CONTRACTOR SHALL OBTAIN A COPY OF THE FOLLOWING SWPPP ATTACHMENTS WHICH ARE A PART OF THE OVERALL SWPPP PACKAGE:
ATTACHMENT A. CONSTRUCTION SWPPP TEMPLATE - SITE SPECIFIC SWPPP DOCUMENT
ATTACHMENT B. CONSTRUCTION STORMWATER INSPECTION CHECKLIST
ATTACHMENT C. MAINTENANCE PLAN FOR PERMANENT STORM WATER TREATMENT SYSTEMS
ATTACHMENT D: STORMWATER MANAGEMENT REPORT - ON FILE AT THE OFFICE OF PROJECT ENGINEER. AVAILABLE UPON REQUEST.
ATTACHMENT E: GEOTECHNICAL EVALUATION REPORT - ON FILE AT THE OFFICE OF PROJECT ENGINEER. AVAILABLE UPON REQUEST.

SUPPLEMENTARY SITE SPECIFIC EROSION CONTROL NOTES:

THESE NOTES SUPERCEDE ANY GENERAL SWPPP NOTES.

THIS PROJECT IS GREATER THAN 1.0 ACRES SO AN NPDES PERMIT IS REQUIRED AND NEEDS TO BE SUBMITTED TO THE MPCA. THE CONTRACTOR IS REQUIRED TO FOLLOW THE GUIDELINES IN THE NPDES PERMIT THROUGHOUT CONSTRUCTION.

PROJECT NARRATIVE:

PROJECT IS A REDEVELOPMENT OF AN EXISTING VACANT LOT INTO A TOWNHOUSE DEVELOPMENT AND RETAIL SITE. SITE, GRADING, UTILITY AND LANDSCAPE IMPROVEMENTS WILL OCCUR.

NATIVE BUFFER NARRATIVE:

PRESERVING A 50 FOOT NATURAL BUFFER AROUND WATER BODIES IS NOT REQUIRED OF THIS PROJECT BECAUSE WATER BODIES ARE NOT LOCATED ON SITE.

INFILTRATION NARRATIVE:

INFILTRATION IS PROVIDED AS PART OF THE PROJECTS PERMANENT STORM WATER MANAGEMENT SYSTEM.

SOIL CONTAMINATION NARRATIVE:

SOILS ONSITE HAVE NOT BEEN IDENTIFIED AS CONTAMINATED.

SPECIAL TMDL BMP REQUIREMENTS SITE SPECIFIC (IF REQUIRED):

THIS PROJECT IS WITHIN ONE MILE AND DISCHARGES TO UNNAMED POND - UNNAMED POND IS NOT IDENTIFIED AS AN IMPAIRED WATER BODY PER THE MPCA'S 303(D) IMPAIRED WATERS LIST. BMPS AS DEFINED IN THE NPDES PERMIT ITEMS 23.9 AND 23.10 APPLY. THESE ARE AS FOLLOWS:

1. DURING CONSTRUCTION:
   A. STABILIZATION OF ALL EXPOSED SOIL AREAS MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION BUT IN NO CASE COMPLETED LATER THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
   B. TEMPORARY SEDIMENT BASIN REQUIREMENTS DESCRIBED IN SECTION 14. MUST BE USED FOR COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH FIVE (5) OR MORE ACRES DISTURBED AT ONE TIME.

PERMANENT STABILIZATION NOTES SITE SPECIFIC:

PERMANENT SEED MIX
- FOR THIS PROJECT ALL AREAS THAT ARE NOT TO BE SODDED OR LANDSCAPED SHALL RECEIVE A NATIVE PERMANENT SEED MIX.
  - AREAS IN BUFFERS AND ADJACENT TO OR IN WET AREAS MNDOT SEED MIX 33-261 (STORMWATER SOUTH AND WEST) AT 35 LBS PER ACRE.
  - DRY AREAS MNDOT SEED MIX 35-221 (DRY PRAIRIE GENERAL) AT 40 LBS PER ACRE.
- MAINTENANCE SHALL BE IN ACCORDANCE TO THE MNDOT SEEDING MANUAL.

CivilSite GROUP
Civil Engineering · Surveying · Landscape Architecture
5000 Glenwood Avenue
Golden Valley, MN 55422
civilsitegroup.com
612–615–0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
ARGENTA TRAIL
SOUTHWEST CORNER OF 70th STREET WEST & ARGENTA TRAIL INTERSECTION, INVER GROVE HEIGHTS

STUART DEVELOPMENT CORPORATION
1000 WEST 80TH STREET, MINNEAPOLIS, MN 55420

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Matthew R. Pavek
DATE 06/17/2024 LICENSE NO. 44263

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
10/23/2023	PRELIMINARY PLAT/PUD
11/20/2023	PRELIMINARY PLAT/PUD RESUBMITTAL
6/7/2024	PRICING SET
6/17/2024	FINAL PLAT / PUD SUBMITTAL

DRAWN BY	MP, RB, AM, MD,JR,MS,
REVIEWED BY	MP, RB
PROJECT MANAGER	MP
PROJECT NUMBER	23131

REVISION SUMMARY

DATE	DESCRIPTION

SWPPP - NARRATIVE

SW1.3

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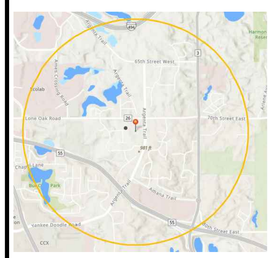
ATTACHMENT A: SITE SPECIFIC SWPPP DOCUMENT

PROJECT LOCATION			
ADDRESS	70TH ST W & ARGENTA TRAIL	CITY/TOWNSHIP	INVER GROVE HEIGHTS
STATE	MN	COUNTY	DAKOTA
ZIP CODE	55077	PROJECT SIZE	18.3 ACRES
LATTITUDE/LONGITUDE OF APPROX. CENTROID OF PROJECT		44.845823 N, -93.097123 E	
METHOD OF LAT/LONG COLLECTION		ONLINE TOOL	
PROJECT TYPE		RESIDENTIAL AND ROAD CONSTRUCTION	
IMPERVIOUS SURFACES			
EXISTING			
PROPOSED			
DIFFERENCE			
ESTIMATED CONSTRUCTION TIMELINE			
START	3/24	END	9/25
CONSTRUCTION ACTIVITY		CONSTRUCTION OF A TOWNHOUSE DEVELOPMENT WITH NEW ROAD AND RETAIL SITE.	
SOIL TYPES		SILT LOAM, SILTY CLAY LOAM, SANDY LOAM	

RECEIVING WATER BODIES					
	WATER BODY ID	NAME OF WATER BODY	WATER BODY TYPE	SPECIAL WATER (Y/N)	IMPAIRED WATER (Y/N)
1	NA	UNNAMED	POND	N	N
2					
3					
4					

SITE LOCATION MAP -



GENERAL SITE INFORMATION (5.1)
1. DESCRIBE THE LOCATION AND TYPE OF ALL TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMP'S). INCLUDE THE TIMING FOR INSTALLATION AND PROCEDURES USED TO ESTABLISH ADDITIONAL TEMPORARY BMP'S AS NECESSARY. (5.5)
THE PROJECT IS PROTECTED BY TWO (W) MAIN BMP'S, SILT FENCE AND INLET PROTECTION DEVICES. THE SILT FENCE WILL BE INSTALLED AT THE DOWNHILL LOCATIONS OF THE SITE AND MONITORED AS NECESSARY. INLET PROTECTION DEVICES WILL BE INSTALLED IN ALL CATCH BASINS ON THE SITE AND ANY OFF SITE THAT WILL RECEIVE STORMWATER RUNOFF FROM THIS SITE. AS THE PROJECT PROGRESSES ADDITIONAL BMP'S SUCH AS EROSION CONTROL BLANKET MAY BE UTILIZED.
2. ATTACH TO THIS SWPPP A TABLE WITH THE ANTICIPATED QUANTITIES FOR THE LIFE OF THE PROJECT FOR ALL EROSION PREVENTION AND SEDIMENT CONTROL BMP'S (5.7). SEE PAGE SW1.3
3. ATTACH TO THIS SWPPP A SITE MAP THAT INCLUDES THE FOLLOWING FEATURES (5.9):
EXIST AND FINAL GRADES, INCLUDING DIVIDING LINES AND DIRECTION OF FLOW FOR ALL PRE AND POST-CONSTRUCTION STORMWATER RUNOFF DRAINAGE AREAS LOCATED WITHIN THE PROJECT LIMITS.

LOCATIONS OF IMPERVIOUS SURFACES AND SOIL TYPES.
- EXISTING AND FINAL GRADES, INCLUDING DIVIDING LINES AND DIRECTION OF FLOW FOR ALL PRE AND POST-CONSTRUCTION STORMWATER RUNOFF DRAINAGE AREAS LOCATED WITHIN PROJECT LIMITS.
- LOCATIONS OF AREAS NOT TO BE DISTURBED.
- LOCATION OF AREAS OF PHASED CONSTRUCTION.
- ALL SURFACE WATERS AND EXISTING WETLANDS WITHIN ONE MILE FROM THE PROJECT BOUNDARIES THAT WILL RECEIVE STORMWATER RUNOFF FROM THE SITE (IDENTIFIABLE ON MAPS SUCH AS USGS 7.5 MINUTE QUADRANGLE MAPS OR EQUIVALENT. WHERE SURFACE WATERS RECEIVING RUNOFF ASSOCIATED WITH CONSTRUCTION ACTIVITY WILL NOT FIT ON THE PLAN SHEET, THEY MUST BE IDENTIFIED WITH AN ARROW, INDICATING BOTH DIRECTION AND DISTANCE TO THE SURFACE WATER.
- METHODS TO BE USED FOR FINAL STABILIZATION OF ALL EXPOSED SOIL AREA

4. WERE STORMWATER MITIGATION MEASURES REQUIRED AS THE RESULT OF AN ENVIRONMENTAL, ARCHAEOLOGICAL, OR OTHER REQUIRED LOCAL, STATE OR FEDERAL REVIEW OF THE PROJECT? NO
IF YES, DESCRIBE HOW THESE MEASURES WERE ADDRESSED IN THE SWPPP. (5.16)
N/A

SELECTION OF A PERMANENT STORMWATER MANAGEMENT SYSTEM (SECTION 15)

1. WILL THE PROJECT CREATE A NEW CUMULATIVE IMPERVIOUS SURFACE GREATER THAN OR EQUAL TO ONE ACRE? YES

IF YES, A WATER QUALITY VOLUME OF ONE INCH OF RUNOFF FROM THE CUMULATIVE NEW IMPERVIOUS SURFACES MUST BE RETAINED ON SITE (SEE 16.7 OF THE PERMIT) THROUGH INFILTRATION UNLESS PROHIBITED DUE TO ONE OF THE REASONS IN ITEMS 16.4 THROUGH 16.21. IF INFILTRATION IS PROHIBITED IDENTIFY OTHER METHOD OF MEETING WATER QUALITY REQUIREMENTS (E.G., FILTRATION SYSTEM, WET SEDIMENTATION BASIN, REGIONAL PONDING OR EQUIVALENT METHOD

2. DESCRIBE WHICH METHOD WILL BE USED TO TREAT RUNOFF FROM THE NEW IMPERVIOUS SURFACES CREATED BY THE PROJECT:

INCLUDE ALL CALCULATIONS AND DESIGN INFORMATION FOR THE METHOD SELECTED. SEE SECTION 23 OF THE PERMIT FOR SPECIFIC REQUIREMENTS ASSOCIATED WITH EACH METHOD.

INFILTRATION

EROSION PREVENTION PRACTICES (SECTION 8.1)
DESCRIBE THE TYPES OF TEMPORARY EROSION PREVENTION BMP'S EXPECTED TO BE IMPLEMENTED ON THIS SITE DURING CONSTRUCTION:
1. DESCRIBE CONSTRUCTION PHASING, VEGETATIVE BUFFER STRIPS, HORIZONTAL SLOPE GRADING, AND OTHER CONSTRUCTION PRACTICES TO MINIMIZE EROSION. DELINEATE AREAS NOT TO BE DISTURBED (E.G., WITH FLAGS, STAKES, SIGNS, SILT FENCE, ETC.) BEFORE WORK BEGINS.
SILT FENCE WILL BE INSTALLED AT THE DOWNHILL LOCATIONS OF THE SITE.
2. DESCRIBE METHODS OF TEMPORARILY STABILIZING SOILS AND SOIL STOCKPILES (E.G., MULCHES, HYDRAULIC TACKIFIERS, EROSION BLANKETS, ETC.):
TEMPORARY EROSION PROTECTION WILL BE SEED AND MULCH AND EROSION BLANKETS WHERE REQUIRED, WITH PERMANENT COVER BEING EITHER SOD OR LANDSCAPE FEATURES.
3. DESCRIBE METHODS OF DISSIPATING VELOCITY ALONG STORMWATER CONVEYANCE CHANNELS AND AT CHANNEL OUTLETS (E.G., CHECK DAMS, SEDIMENT TRAPS, RIP RAP, ETC.):
SOD WILL BE UTILIZED ALONG CHANNELS.
4. DESCRIBE METHODS TO BE USED FOR STABILIZATION OF DITCH AND SWALE WETTED PERIMETERS (NOTE THAT MULCH, HYDRAULIC SOIL TACKIFIERS, HYDROMULCHES, ETC. ARE NOT ACCEPTABLE SOIL STABILIZATION METHODS FOR ANY PART OF A DRAINAGE DITCH OR SWALE)
FINAL STABILIZATION OF SWALES WILL BE SOD
5. DESCRIBE METHODS TO BE USED FOR ENERGY DISSIPATION AT PIPE OUTLETS (E.G., RIP RAP, SPLASH PADS, GABIONS, ETC.)
RIP RAP WILL BE UTILIZED AT PIPE OUTLETS

5. IS THE PROJECT LOCATED IN A KARST AREA SUCH THAT ADDITIONAL MEASURES WOULD BE NECESSARY TO PROJECT DRINKING WATER SUPPLY MANAGEMENT AREAS AS DESCRIBED IN MINN. R. CHAPTERS 7050 AND 7060? NO
IF YES, DESCRIBE THE ADDITIONAL MEASURES TO BE USED. (SECTION 23)
N/A
6. DOES THE SITE DISCHARGE TO A CALCEREOUS FEN LISTED IN MINN. R. 7050.0180, SUBP. 6.B? NO
IF YES, A LETTER OF APPROVAL FROM THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES MUST BE OBTAINED PRIOR TO APPLICATION FOR THIS PERMIT.
7. DOES THE SITE DISCHARGE TO A WATER THAT IS LISTED AS IMPAIRED FOR THE FOLLOWING POLLUTANT(S) OR STRESSOR(S): PHOSPHORUS, TURBIDITY, DISSOLVED OXYGEN OR BIOTIC IMPAIRMENT? USE THE SPECIAL AND IMPAIRED WATERS SEARCH TOOL AT: WWW.PCA.STATE.MN.US/WATER/STORMWATER/STORMWATER-C.HTML
NO
IF NO, SKIP TO TRAINING
DOES THE IMPAIRED WATER HAVE AN APPROVED TOTAL MAXIMUM DAILY LOADS (TMDL) WITH AN APPROVED WASTE LOAD ALLOCATION FOR CONSTRUCTION ACTIVITY? N/A
IF YES:
A. LIST THE RECEIVING WATER, THE AREAS OF THE SITE DISCHARGING TO IT, AND THE POLLUTANT(S) IDENTIFIED IN THE TMDL.
B. LIST THE BMP'S AND ANY OTHER SPECIFIC CONSTRUCTION STORMWATER RELATED IMPLEMENTATION ACTIVITIES IDENTIFIED IN THE TMDL.

IF THE SITE HAS A DISCHARGE POINT WITHIN ONE MILE OF THE IMPAIRED WATER AND THE WATER FLOWS TO THE IMPAIRED WATER BUT NO SPECIFIC BMPS FOR CONSTRUCTION ARE IDENTIFIED IN THE TMDL, THE ADDITIONAL BMPS IN SECTION 23 MUST BE ADDED TO THE SWPPP AND IMPLEMENTED (15.19). THE ADDITIONAL BMPS ONLY APPLY TO THOSE PORTIONS OF THE PROJECT THAT DRAIN TO ONE OF THE IDENTIFIED DISCHARGE POINTS.

N/A

8. IDENTIFY ADJACENT PUBLIC WATERS WHERE THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES (DNR) HAS DECLARED "WORK IN WATER RESTRICTIONS" DURING FISH SPAWNING TIMEFRAMES

N/A

CALCULATIONS ARE WITHIN THE SITE STORM WATER MANAGEMENT REPORT AND PART OF THIS SWPPP AS ATTACHMENT D.

3. IF IT IS NOT FEASIBLE TO MEET THE TREATMENT REQUIREMENT FOR THE WATER QUALITY VOLUME, DESCRIBE WHY. THIS CAN INCLUDE PROXIMITY TO BEDROCK OR ROAD PROJECTS WHERE THE LACK OF RIGHT OF WAY PRECLUDES THE INSTALLATION OF ANY PERMANENT STORMWATER MANAGEMENT PRACTICES. DESCRIBE WHAT OTHER TREATMENT, SUCH AS GRASS SWALES, SMALLER PONDS, OR GRIT CHAMBERS, WILL BE IMPLEMENTED TO TREAT RUNOFF PRIOR TO DISCHARGE TO SURFACE WATERS. (15.8)

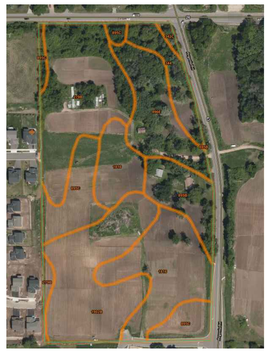
IT IS FEASIBLE TO MEET REQUIREMENT FOR WATER QUALITY VOLUME.

4. FOR PROJECTS THAT DISCHARGE TO TROUT STREAMS, INCLUDING TRIBUTARIES TO TROUT STREAMS, IDENTIFY METHOD OF INCORPORATING TEMPERATURE CONTROLS INTO THE PERMANENT STORMWATER MANAGEMENT SYSTEM.

N/A

6. DESCRIBE METHODS TO BE USED TO PROMOTE INFILTRATION AND SEDIMENT REMOVAL ON THE SITE PRIOR TO OFFSITE DISCHARGE, UNLESS INFEASIBLE (E.G., DIRECT STORMWATER FLOW TO VEGETATED AREAS):
DISCONNECTED IMPERVIOUS AREA AND INFILTRATION AREAS WILL BE UTILIZED
7. FOR DRAINAGE OR DIVERSION DITCHES, DESCRIBE PRACTICES TO STABILIZE THE NORMAL WETTED PERIMETER WITHIN 200 LINEAL FEET OF THE PROPERTY EDGE OR POINT OF DISCHARGE TO SURFACE WATER. THE LAST 200 LINEAL FEET MUST BE STABILIZED WITHIN **24 HOURS** AFTER CONNECTING TO SURFACE WATERS AND CONSTRUCTION IN THAT PORTION OF THE DITCH HAS TEMPORARILY OR PERMANENTLY CEASED FOR ALL DISCHARGES TO SPECIAL, IMPAIRED OR "WORK IN WATER RESTRICTIONS". ALL OTHER REMAINING PORTIONS OF THE TEMPORARY OR PERMANENT DITCHES OR SWALES WITHIN 14 CALENDAR DAYS AFTER CONNECTING TO A SURFACE WATER, PROPERTY EDGE AND CONSTRUCTION IN THAT AREA HAS TEMPORARILY OR PERMANENTLY CEASED.
N/A, NO DITCHES ON SITE
8. DESCRIBE ADDITIONAL EROSION PREVENTION MEASURES THAT WILL BE IMPLEMENTED AT THE SITE DURING CONSTRUCTION (E.G., CONSTRUCTION PHASING, MINIMIZING SOIL DISTURBANCE, VEGETATIVE BUFFERS, HORIZONTAL SLOPE GRADING, SLOPE DRAINING/TERRACING, ETC.):
OTHER EROSION CONTROL PRACTICES INCLUDE BUT ARE NOT LIMITED TO; MINIMIZING SITE EXPOSURE WHEN POSSIBLE.
9. IF APPLICABLE, INCLUDE ADDITIONAL REQUIREMENTS IN APPENDIX A PART C.3 REGARDING MAINTAINING A 100-FOOT BUFFER ZONE OR INSTALLING REDUNDANT BMPS FOR PORTIONS OF THE SITE THAT DRAIN TO SPECIAL WATERS).
N/A
10. IF APPLICABLE, DESCRIBE ADDITIONAL EROSION PREVENTION BMPS TO BE IMPLEMENTED AT THE SITE TO PROTECT PLANNED FILTRATION AREAS
MINIMIZE SITE EXPOSURE IN AREAS ADJACENT TO FILTRATION AREAS.

SOILS INFORMATION



MAP UNIT SYMBOL	MAP UNIT NAME
279B	OTTERHOLT SILT LOAM
342C	KINGSLEY SANDY LOAM
344	QUAM SILT LOAM
895B	KINGSLEY MAHTOMEDI SPENCER COMPLEX
895C	KINGSLEY MAHTOMEDI SPENCER COMPLEX
896E	KINGSLEY MAHTOMEDI COMPLEX
1816	KENNEBEC

SEDIMENT CONTROL PRACTICES (SECTION 9.1)
DESCRIBE THE METHODS OF SEDIMENT CONTROL BMPS TO BE IMPLEMENTED AT THIS SITE DURING CONSTRUCTION TO MINIMIZE SEDIMENT IMPACTS TO SURFACE WATERS, INCLUDING CURB AND GUTTER SYSTEMS
1. DESCRIBE METHODS TO BE USED FOR DOWN GRADIENT PERIMETER CONTROL:
SILT FENCE WILL BE INSTALLED AROUND THE ENTIRE PERIMETER OF THE SITE
2. DESCRIBE METHODS TO BE USED TO CONTAIN SOIL STOCKPILES:
SEED AND MULCH AS WELL AS EROSION CONTROL BLANKETS WILL BE UTILIZED AS NECESSARY
3. DESCRIBE METHODS TO BE USED FOR STORM DRAIN INLET PROTECTION:
SEE INLET PROTECTION DETAILS
4. DESCRIBE METHODS TO MINIMIZE VEHICLE TRACKING AT CONSTRUCTION EXITS AND STREET SWEEPING ACTIVITIES:
THE PROJECT WILL UTILIZE A ROCK CONSTRUCTION ENTRANCE.
5. DESCRIBE METHODS, IF APPLICABLE, ADDITIONAL SEDIMENT CONTROLS (E.G., DIVERSION BERMS) TO BE INSTALLED TO KEEP RUNOFF AWAY FROM PLANNED INFILTRATION AREAS WHEN EXCAVATED PRIOR TO FINAL STABILIZATION OF THE CONTRIBUTING DRAINAGE AREA:
SILT FENCE TO BE INSTALLED IMMEDIATELY AFTER GRADING TO PROTECT INFILTRATION AREAS.
6. DESCRIBE METHODS TO BE USED TO MINIMIZE SOIL COMPACTION AND PRESERVE TOP SOIL (UNLESS INFEASIBLE) AT THIS SITE:
LIGHT TRACKED EQUIPMENT WILL BE USED, TOPSOIL WILL BE STRIPPED AND STOCKPILED

7. DESCRIBE PLANS TO PRESERVE A 50-FOOT NATURAL BUFFER BETWEEN THE PROJECT'S SOIL DISTURBANCE AND A SURFACE WATER OR PLANS FOR REDUNDANT SEDIMENT CONTROLS IF A BUFFER IS INFEASIBLE:
N/A
8. DESCRIBE PLANS FOR USE OF SEDIMENTATION TREATMENT CHEMICALS (E.G., POLYMERS, FLOCCULANTS, ETC.) SEE PART 9.18 OF THE PERMIT:
N/A
9. IS THE PROJECT REQUIRED TO INSTALL A TEMPORARY SEDIMENT BASIN DUE TO 10 OR MORE ACRES DRAINING TO A COMMON LOCATION OR 5 ACRES OR MORE IF THE SITE IS WITHIN 1 MILE OF A SPECIAL OR IMPAIRED WATER?
YES
IF YES, DESCRIBE (OR ATTACH PLANS) SHOWING HOW THE BASIN WILL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH SECTION 14.
PROPOSED FILTRATION BASINS WILL SERVE AS TEMPORARY SEDIMENTS BASINS THAT WILL THEN BE CONVERTED TO PERMANENT FILTRATIONS BASINS.

DEWATERING AND BASIN DRAINING (SECTION 10.1)

1. WILL THE PROJECT INCLUDE DEWATERING OR BASIN DRAINING? NO

IF YES, DESCRIBE MEASURES TO BE USED TO TREAT/DISPOSE OF TURBID OR SEDIMENT-LADEN WATER AND METHOD TO PREVENT EROSION OR SCOUR OF DISCHARGE POINTS (SEE 10.2 THROUGH 10.4 OF THE PERMIT):

N/A

2. WILL THE PROJECT INCLUDE USE OF FILTERS FOR BACKWASH WATER? NO

IF YES, DESCRIBE HOW FILTER BACKWASH WATER WILL BE MANAGED ON THE SITE OR PROPERLY DISPOSED (10.5):

N/A

ADDITIONAL BMP'S FOR SPECIAL WATERS AND DISCHARGES TO WETLANDS (SECTION 23.1)
1. SPECIAL WATERS. DOES YOUR PROJECT DISCHARGE TO SPECIAL WATERS? NO
2. IF PROXIMITY TO BEDROCK OR ROAD PROJECTS WHERE THE LACK OF RIGHT OF WAY PRECLUDES THE INSTALLATION OF ANY OF THE PERMANENT STORMWATER MANAGEMENT PRACTICES, THEN OTHER TREATMENT SUCH AS GRASSED SWALES, SMALLER PONDS, OR GRIT CHAMBERS IS REQUIRED PRIOR TO DISCHARGE TO SURFACE WATERS. DESCRIBE WHAT OTHER TREATMENT WILL BE PROVIDED.
N/A
3. DESCRIBE EROSION AND SEDIMENT CONTROLS FOR EXPOSED SOIL AREAS WITH A CONTINUOUS POSITIVE SLOPE TO A SPECIAL WATERS, AND TEMPORARY SEDIMENT BASINS FOR AREAS THAT DRAIN FIVE OR MORE ACRES DISTURBED AT ONE TIME.
N/A
4. DESCRIBE THE UNDISTURBED BUFFER ZONE TO BE USED (NOT LESS THAN 100 LINEAR FEET FROM THE SPECIAL WATER).
N/A

5. DESCRIBE HOW THE PERMANENT STORMWATER MANAGEMENT SYSTEM WILL ENSURE THAT THE PRE AND POST PROJECT RUNOFF RATE AND VOLUME FROM THE 1, AND 2-YEAR 24-HOUR PRECIPITATION EVENTS REMAINS THE SAME.
N/A
6. DESCRIBE HOW THE PERMANENT STORMWATER MANAGEMENT SYSTEM WILL MINIMIZE ANY INCREASE IN THE TEMPERATURE OF TROUT STREAM RECEIVING WATERS RESULTING IN THE 1, AND 2-YEAR 24-HOUR PRECIPITATION EVENTS.
N/A
7. **WETLANDS.** DOES YOUR PROJECT DISCHARGE STORMWATER WITH THE POTENTIAL FOR SIGNIFICANT ADVERSE IMPACTS TO A WETLAND (E.G., CONVERSION OF A NATURAL WETLAND TO A STORMWATER POND)? NO
IF YES, DESCRIBE THE WETLAND MITIGATION SEQUENCE THAT WILL BE FOLLOWED IN ACCORDANCE WITH SECTION 22 OF THE PERMIT.
N/A

INSPECTIONS AND MAINTENANCE (SECTION 11.1)
DESCRIBE PROCEDURES TO ROUTINELY INSPECT THE CONSTRUCTION SITE:
- ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND
- WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS, AND WITHIN (7) DAYS AFTER THAT

INSPECTIONS MUST INCLUDE STABILIZED AREAS, EROSION PREVENTION,AND SEDIMENT CONTROL BMP'S AND INFILTRATION AREAS.
INSPECTOR WILL FOLLOW REQUIREMENTS SPECIFIED ABOVE AND FILL OUT "ATTACHMENT B - CONSTRUCTION STORMWATER INSPECTION CHECKLIST"
1. DESCRIBE PRACTICES FOR STORAGE OF BUILDING PRODUCTS WITH A POTENTIAL TO LEACH POLLUTANTS TO MINIMIZE EXPOSURE TO STORMWATER:
ALL BUILDING PRODUCTS WILL BE SEALED AND STORED IN A MANNER TO MINIMIZE EXPOSURE
2. DESCRIBE PRACTICES FOR STORAGE OF PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TREATMENT CHEMICAL, AND LANDSCAPE MATERIALS:
ALL LANDSCAPE TREATMENT CHEMICALS WILL BE SEALED AND STORED IN A MANNER TO MINIMIZED EXPOSURE
3. DESCRIBE PRACTICES FOR STORAGE AND DISPOSAL OF HAZARDOUS MATERIALS OR TOXIC WASTE (E.G., OIL, FUEL, HYDRAULIC FLUIDS, PAINT SOLVENTS, PETROLEUM-BASED PRODUCTS, WOOD PRESERVATIVE, ADDITIVES, CURING COMPOUNDS, AND ACIDS) ACCORDING TO MINN. R. CH. 7045, INCLUDING RESTRICTED ACCESS AND SECONDARY CONTAINMENT:
ALL HAZARDOUS WASTE WILL BE APPROPRIATELY DISPOSED OF OFF SITE ACCORDING TO LOCAL AND STATE LAWS.
4. DESCRIBE COLLECTION, STORAGE AND DISPOSAL OF SOLID WASTE IN COMPLIANCE WITH MINN. R. CH. 7035:
ALL CONSTRUCTION DEBRIS AND SOLID WASTER WILL BE APPROPRIATELY DISPOSED OF OFF SITE ACCORDING TO LOCAL AND STATE LAWS
5. DESCRIBE MANAGEMENT OF PORTABLE TOILETS TO PREVENT TIPPING AND DISPOSAL OF SANITARY WASTES IN ACCORDANCE WITH MINN. R. CH. 7040:
SANITARY AND SEPTIC SERVICES WILL BE PROVIDED TO WORKERS WITH PORTABLE FACILITIES MAINTAINED AS NEEDED BY THE PROVIDER.
6. DESCRIBE SPILL PREVENTION AND RESPONSE FOR FUELING AND EQUIPMENT OR VEHICLE MAINTENANCE:
EMPLOYEES WILL BE TRAINED IN TECHNIQUES DESIGNED TO MINIMIZE SPILLS. VEHICLES AND EQUIPMENT SHALL BE CHECKED FOR LEAKS.
7. DESCRIBE CONTAINMENT AND DISPOSAL OF VEHICLE AND EQUIPMENT WASH WATER AND PROHIBITING ENGINE DEGREASING ON THE SITE:
ALL CONSTRUCTION VEHICLES SHALL BE WASHED OFF SITE
8. DESCRIBE STORAGE AND DISPOSAL OF CONCRETE AND OTHER WASHOUT WASTES SO THAT WASTES DO NOT CONTACT THE GROUND:
ALL CONCRETE WASHOUT SHALL OCCUR OFF SITE.

FINAL STABILIZATION (25.22)
1. DESCRIBE METHOD OF FINAL STABILIZATION (PERMANENT COVER) OF ALL DISTURBED AREAS:
FINAL STABILIZATION WILL BE ACCOMPLISHED WITH PAVEMENT, SOD AND LANDSCAPE MATERIALS.
2. DESCRIBE METHODS USED TO CLEAN ALL STORMWATER TREATMENT SYSTEMS AND STORMWATER CONVEYANCE SYSTEMS OF ACCUMULATED SEDIMENT (25.22):
CLEANING OF STORMWATER TREATMENT SYSTEMS SHALL BE DONE BY HAND SUCH AS THE USE OF A SHOVEL.
3. DESCRIBE METHODS FOR REMOVING ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMP'S:
REMOVAL OF TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMP'S CAN BE DONE BY HAND AND PROPERLY DISPOSED OF.

CivilSite GROUP
Civil Engineering · Surveying · Landscape Architecture
5000 Glenwood Avenue
Golden Valley, MN 55422
civil@civilsitegroup.com
612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
ARGENTA TRAIL
SOUTHWEST CORNER OF 70th STREET WEST & ARGENTA TRAIL INTERSECTION, INVER GROVE HEIGHTS

STUART DEVELOPMENT CORPORATION
1000 WEST 80TH STREET, MINNEAPOLIS, MN 55420

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Matthew R. Pavek
DATE 06/17/2024 LICENSE NO. 44263

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
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11/20/2023	PRELIMINARY PLAT/PUD RESUBMITTAL
6/7/2024	PRICING SET
6/17/2024	FINAL PLAT / PUD SUBMITTAL

DRAWN BY	MP, RB, AM, MD,JR,MS,
REVIEWED BY	MP, RB
PROJECT MANAGER	MP
PROJECT NUMBER	23131

REVISION SUMMARY

DATE	DESCRIPTION

SWPPP - ATTACHMENTS

SW1.4

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ATTACHMENT B: SWPPP INSPECTION FORM

NOTE: THIS INSPECTION REPORT DOES NOT ADDRESS ALL ASPECTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM/STATE DISPOSAL SYSTEM (NPDES/SDS) CONSTRUCTION STORMWATER PERMIT (PERMIT) ISSUED ON AUGUST 1, 2018. THE COMPLETION OF THIS CHECKLIST DOES NOT GUARANTEE THAT ALL PERMIT REQUIREMENTS ARE IN COMPLIANCE; IT IS THE RESPONSIBILITY OF THE PERMITTEE(S) TO READ AND UNDERSTAND THE PERMIT REQUIREMENTS.

FACILITY INFORMATION
SITE NAME:
SITE ADDRESS: PERMIT NUMBER:
CITY: STATE: ZIP CODE:

INSPECTION INFORMATION
INSPECTOR NAME: _____ PHONE NUMBER: _____
ORGANIZATION/COMPANY MAN: _____
DATE (MM/DD/YYYY): _____ TIME: _____ AM / PM

	Y	N
IS THE INSPECTOR CERTIFIED IN SEDIMENT AND EROSION CONTROL AND IS IT DOCUMENTED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP)?	☐	☐

IS THIS INSPECTION ROUTINE OR IN RESPONSE TO A STORM EVENT:

7 DAY	RAIN
☐	☐

RAINFALL AMOUNT (IF APPLICABLE): _____

	Y	N
IS SITE WITHIN ONE AERIAL MILE OF SPECIAL OR IMPAIRED WATER THAT CAN POTENTIALLY RECEIVE DISCHARGE FROM THE SITE?	☐	☐

IF YES, FOLLOW SECTION 23 AND OTHER APPLICABLE PERMIT REQUIREMENTS

NOTE: IF N/A IS SELECTED AT ANY TIME, SPECIFY WHY IN THE COMMENT AREA FOR THAT SECTION.

EROSION CONTROL REQUIREMENT (SECTION 8.1)

	Y	N	N/A
1. ARE SOILS STABILIZED WHERE NO CONSTRUCTION ACTIVITY HAS OCCURRED FOR 14 DAYS (INCLUDING STOCKPILES)? (7 DAYS WHERE APPLICABLE, OR 24 HOURS DURING MINNESOTA DEPARTMENT OF NATURAL RESOURCES [DNR] FISH SPAWNING RESTRICTIONS)	☐	☐	☐
2. HAS THE NEED TO DISTURB STEEP SLOPES BEEN MINIMIZED?	☐	☐	☐
3. IF STEEP SLOPES ARE DISTURBED, ARE STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES USED?	☐	☐	☐
4. ALL DITCHES/SWALES STABILIZED 200' BACK FROM POINT OF DISCHARGE OR PROPERTY EDGE WITHIN 24 HOURS? (MULCH, HYDROMULCH, TACKIFIER, OR SIMILAR BEST MANAGEMENT PRACTICES [BMPS] ARE NOT ACCEPTABLE IN DITCHES/SWALES IF THE SLOPE IS GREATER THAN 2%)ARE APPROPRIATE BMP'S INSTALLED PROTECTING INLETS/OUTLETS?	☐	☐	☐
5. DO PIPE OUTLETS HAVE ENERGY DISSIPATION (WITHIN 24 HOURS OF CONNECTION)?	☐	☐	☐
6. IS CONSTRUCTION PHASING BEING FOLLOWED IN ACCORDANCE WITH THE SWPPP?	☐	☐	☐
7. ARE AREAS NOT TO BE DISTURBED MARKED OFF (FLAGS, SIGNS, ETC.)?	☐	☐	☐

COMMENTS:

SEDIMENT CONTROL REQUIREMENTS (SECTION 9.1)

	Y	N	N/A
1. ARE PERIMETER SEDIMENT CONTROLS INSTALLED PROPERLY ON ALL DOWN GRADIENT PERIMETERS?	☐	☐	☐
2. ARE APPROPRIATE BMPS INSTALLED PROTECTING INLETS, CATCH BASINS, AND CULVERT INLETS?	☐	☐	☐
3. IS A 50 FOOT NATURAL BUFFER PRESERVED AROUND ALL SURFACE WATERS DURING CONSTRUCTION?	☐	☐	☐
3.1. IF NO, HAVE REDUNDANT SEDIMENT CONTROLS BEEN INSTALLED?	☐	☐	☐
4. DO ALL ERODIBLE STOCKPILES HAVE PERIMETER CONTROL IN PLACE?	☐	☐	☐
5. IS THERE A TEMPORARY SEDIMENT BASIN ON SITE, AND IS IT BUILT AS REQUIRED IN SECTION 14 OF THE PERMIT?	☐	☐	☐
6. IS SOIL COMPACTION BEING MINIMIZED WHERE NOT DESIGNED FOR COMPACTION?	☐	☐	☐
7. IS TOPSOIL BEING PRESERVED UNLESS INFEASIBLE?	☐	☐	☐
8. IF CHEMICAL FLOCCULANTS ARE USED, IS THERE A CHEMICAL FLOCCULANT PLAN IN PLACE?	☐	☐	☐

COMMENTS:

MAINTENANCE AND INSPECTIONS (SECTION 11)

	Y	N	N/A
1. ARE ALL PREVIOUSLY STABILIZED AREAS MAINTAINING GROUND COVER?	☐	☐	☐
2. ARE PERIMETER CONTROLS MAINTAINED AND FUNCTIONING PROPERLY, SEDIMENT REMOVED WHEN ONE-HALF FULL?	☐	☐	☐
3. ARE INLET PROTECTION DEVICES MAINTAINED AND ADEQUATELY PROTECTING INLETS?	☐	☐	☐
4. ARE THE TEMPORARY SEDIMENT BASINS BEING MAINTAINED AND FUNCTIONING PROPERLY?	☐	☐	☐
5. ARE VEHICLE TRACKING BMPS AT SITE EXISTS IN PLACE AND MAINTAINED AND FUNCTIONING PROPERLY?	☐	☐	☐
6. IS ALL TRACKED SEDIMENT BEING REMOVED WITHIN 24 HOURS?	☐	☐	☐
7. HAVE ALL SURFACE WATERS, DITCHES, CONVEYANCES, AND DISCHARGE POINTS BEEN INSPECTED?	☐	☐	☐
8. WERE ANY DISCHARGES SEEN DURING THIS INSPECTION (I.E., SEDIMENT, TURBID WATER, OR OTHERWISE)?	☐	☐	☐

IF YES, RECORD THE LOCATION OF ALL POINTS OF DISCHARGE. PHOTOGRAPH AND DESCRIBE THE DISCHARGE (SIZE, COLOR, ODOR, FOAM, OIL SHEEN, TIME, ETC.). DESCRIBE HOW THE DISCHARGE WILL BE ADDRESSED. WAS THE DISCHARGE A SEDIMENT DELTA? IF YES, WILL THE DELTA BE RECOVERED WITHIN SEVEN DAYS AND IN ACCORDANCE WITH ITEM 11.5 OF THE PERMIT?

COMMENTS:

POLLUTION PREVENTION (SECTION 12)

	Y	N	N/A
1. ARE ALL CONSTRUCTION MATERIALS THAT CAN LEACH POLLUTANTS UNDER COVER OR PROTECTED?	☐	☐	☐
2. ARE HAZARDOUS MATERIALS BEING PROPERLY STORED?	☐	☐	☐
3. ARE APPROPRIATE BMPS BEING USED TO PREVENT DISCHARGES ASSOCIATED WITH FUELING AND MAINTENANCE OF EQUIPMENT OR VEHICLES?	☐	☐	☐
4. ARE ALL SOLID WASTES BEING PROPERLY CONTAINED AND DISPOSED OF?	☐	☐	☐
5. IS THERE A CONCRETE/OTHER MATERIAL WASHOUT AREA ON SITE AND IS IT BEING USED?	☐	☐	☐
6. IS THE CONCRETE WASHOUT AREA MARKED WITH A SIGN?	☐	☐	☐
7. ARE THE CONCRETE/OTHER MATERIAL WASHOUT AREAS PROPERLY MAINTAINED?	☐	☐	☐

COMMENTS:

OTHER

	Y	N	N/A
1. IS A COPY OF THE SWPPP, INSPECTION RECORDS, AND TRAINING DOCUMENTATION LOCATED ON THE CONSTRUCTION SITE, OR CAN IT BE MADE AVAILABLE WITHIN 72 HOURS?	☐	☐	☐
2. HAS THE SWPPP BEEN FOLLOWED AND IMPLEMENTED ON SITE, AND AMENDED AS NEEDED?	☐	☐	☐
3. IS ANY DEWATERING OCCURRING ON SITE?	☐	☐	☐
IF YES, WHAT BMPS ARE BEING USED TO ENSURE THAT CLEAN WATER IS LEAVING THE SITE AND THE DISCHARGE IS NOT CAUSING EROSION OR SCOUR?	☐	☐	☐
4. WILL A PERMANENT STORMWATER MANAGEMENT SYSTEM BE CREATED FOR THIS PROJECT IF REQUIRED AND IN ACCORDANCE WITH SECTION 15 OF THE PERMIT (IF ADDING AN ACRE OR MORE OF NEW IMPERVIOUS SURFACE)?	☐	☐	☐
IF YES, DESCRIBE:			
5. IF INFILTRATION/FILTRATION SYSTEMS ARE BEING CONSTRUCTED, ARE THEY MARKED AND PROTECTED FROM COMPACTION AND SEDIMENTATION?	☐	☐	☐

6. DESCRIPTION OF AREAS OF NON-COMPLIANCE NOTED DURING THE INSPECTION, REQUIRED CORRECTIVE ACTIONS, AND RECOMMENDED DATE OF COMPLETION OF CORRECTIVE ACTIONS:

7. PROPOSED AMENDMENTS TO THE SWPPP:

8. POTENTIAL AREAS OF FUTURE CONCERN:

9. ADDITIONAL COMMENTS

DISCLOSURES:

- AFTER DISCOVERY, THE PERMIT REQUIRES MANY OF THE DEFICIENCIES THAT MAY BE FOUND ON SITE BE CORRECTED WITHIN A SPECIFIED PERIOD OF TIME. SEE PERMIT FOR MORE DETAILS.
- THE PERMITTEE(S) IS/ARE RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE OF TEMPORARY AND PERMANENT WATER QUALITY MANAGEMENT BMPS AS WELL AS EROSION PREVENTION AND SEDIMENT CONTROL BMPS UNTIL ANOTHER PERMITTEE HAS OBTAINED COVERAGE UNDER THIS PERMIT ACCORDING TO SECTION 3, OR THE PROJECT HAS MET THE TERMINATION CONDITIONS OF THE PERMIT AND A NOTICE OF TERMINATION HAS BEEN SUBMITTED TO THE MINNESOTA POLLUTION CONTROL AGENCY.

ATTACHMENT C: MAINTENANCE PLAN FOR PERMANENT STORM WATER TREATMENT SYSTEM

ATTACHMENT C - ABOVE-GROUND
FACILITY MANAGEMENT SCHEDULE

1. ALL STORMWATER RETENTION, DETENTION AND TREATMENT BASINS MUST BE INSPECTED AT LEAST ONCE A YEAR TO DETERMINE THAT BASIN RETENTION AND TREATMENT CHARACTERISTICS ARE ADEQUATE. A STORAGE TREATMENT BASIN WILL BE CONSIDERED INADEQUATE IF SEDIMENT HAS DECREASED THE WET STORAGE VOLUME BY 50 PERCENT OR DRY STORAGE VOLUME BY 25 PERCENT OF ITS ORIGINAL DESIGN VOLUME. BASED ON THIS INSPECTION, IF A STORMWATER BASIN REQUIRES SEDIMENT CLEANOUT, THE BASIN WILL BE RESTORED TO ITS ORIGINAL DESIGN CONTOURS AND VEGETATED STATE WITHIN ONE YEAR OF THE INSPECTION DATE.
2. ALL OUTLET STRUCTURES, CULVERTS, OUTFALL STRUCTURES AND OTHER STORMWATER FACILITIES FOR WHICH MAINTENANCE REQUIREMENTS ARE NOT OTHERWISE SPECIFIED HEREIN MUST BE INSPECTED IN THE SPRING, SUMMER AND FALL OF EACH YEAR. WITHIN 30 DAYS OF THE INSPECTION DATE, ALL ACCUMULATED SEDIMENT AND DEBRIS MUST BE REMOVED SUCH THAT EACH STORMWATER FACILITY OPERATES AS DESIGNED AND PERMITTED. CONTRIBUTING DRAINAGE AREAS MUST BE KEPT CLEAR OF LITTER AND VEGETATIVE DEBRIS, INFLOW PIPES AND OVERFLOW SPILLWAYS KEPT CLEAR, INLET AREAS KEPT CLEAN, AND UNDESIRABLE VEGETATION REMOVED. EROSION IMPAIRING THE FUNCTION OR INTEGRITY OF THE FACILITIES, IF ANY, WILL BE CORRECTED, AND ANY STRUCTURAL DAMAGE IMPAIRING OR THREATENING TO IMPAIR THE FUNCTION OF THE FACILITIES MUST BE REPAIRED.
3. VOLUME CONTROL FACILITIES AND CONTRIBUTING DRAINAGE AREAS MUST BE INSPECTED EVERY THREE MONTHS DURING THE OPERATIONAL PERIOD (BETWEEN SPRING SNOWMELT AND FIRST SUBSTANTIAL SNOWFALL) AND MONITORED AFTER RAINFALL EVENTS OF 1 INCH OR MORE TO ENSURE THAT THE CONTRIBUTING DRAINAGE AREA IS CLEAR OF LITTER AND DEBRIS, INFLOW PIPES AND OVERFLOW SPILLWAYS ARE CLEAR, INLET AREAS ARE CLEAN, UNDESIRABLE VEGETATION IS REMOVED AND THERE IS NO EROSION IMPAIRING OR THREATENING TO IMPAIR THE FUNCTION OF A FACILITY. IF SEDIMENT HAS ACCUMULATED IN A INFILTRATION FEATURE, WITHIN 30 DAYS OF INSPECTION DEPOSITED SEDIMENTS MUST BE REMOVED, THE INFILTRATION CAPACITY OF THE UNDERLYING SOILS MUST BE RESTORED, AND ANY SURFACE DISTURBANCE MUST BE STABILIZED. INSPECTION MUST ENSURE THAT SEDIMENT TRAPS AND FOREBAYS ARE TRAPPING SEDIMENT AND THAT MORE THAN 50 PERCENT OF THE STORAGE VOLUME REMAINS, THE CONTRIBUTING DRAINAGE AREA IS STABLE (I.E., NO EROSION IS OBSERVED), AND INLETS AND OUTLET/OVERFLOW SPILLWAYS ARE IN GOOD CONDITIONS WITH NO EROSION. MAINTENANCE TECHNIQUES USED MUST PROTECT THE INFILTRATION CAPACITY OF THE PRACTICE BY LIMITING SOIL COMPACTION TO THE GREATEST EXTENT POSSIBLE (E.G., BY USING LOW-IMPACT EARTH-MOVING EQUIPMENT).

CivilSite GROUP
Civil Engineering · Surveying · Landscape Architecture
5000 Glenwood Avenue
Golden Valley, MN 55422
civil@civilsitegroup.com
612-615-0060

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SWPPP - ATTACHMENTS

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