AGENDA

REGULAR MEETING OF THE
WINDSOR HEIGHTS BOARD OF ADJUSTMENT
Wednesday, February 21, 2024 - 5:30 PM
WINDSOR HEIGHTS COUNCIL CHAMBERS - 1133 66th ST
ZOOM: https://us02web.zoom.us/j/7832856334
Meeting ID: 783 285 6334

1. **Call to Order/Roll Call**
2. **Approval of Agenda**
3. **Approval of Minutes:**
   A. Approval of 10.31.23 Minutes
   B. Approval of 1.17.24 Minutes
4. **Consideration of Conditional Use Permit - 1011 64th St**
   A.
   - Staff Report and Application Materials
5. **Consideration of Conditional Use Permit - 6961 University Ave**
   A. Staff Report and Application Materials
6. **Adjourn**

The agenda was posted on the official bulletin boards, posted to www.windsorheights.org, and city social media platforms in compliance with the requirements of city ordinances and the open meetings law.

AGENDA
REGULAR MEETING OF THE WINDSOR HEIGHTS BOARD OF ADJUSTMENT
Wednesday, March 1, 2023 - 5:30 PM
WINDSOR HEIGHTS COUNCIL CHAMBERS - 1133 66th ST

1. **Call to Order/Roll Call**

   Chaden Halfhill called the meeting to order at 5:35 PM. Members present: John Villotti and Donna Markley. Members absent: Chris Kannapel. Staff Present: City Clerk Adam Strait, Deputy City Clerk Nate Leuthold, and Trey Rouse of Bolton & Menk

2. **Approval of Agenda**

   Motion by Donna Markley to approve. Seconded by John Villotti. Motion passed 3-0.

3. **Approval of Minutes**

   A. Consideration of the August 16, 2023 Minutes

   Motion by Donna Markley to approve. Seconded by John Villotti. Motion passed 3-0.

4. **Public Hearing on Conditional Use Permit – 1010 69th St**

   Motion by John Villotti to open Public Hearing at 5:37 PM. Seconded by Donna Markley. Motion passed 3-0. No public comment. Motion to close Public Hearing by John Villotti at 5:38 PM. Seconded by Donna Markley. Motion passed 3-0.

5. **Consideration of Conditional Use Permit – 1010 69th St**

   Trey Rouse presented the staff report. Motion by Chaden Halfhill to approve. Seconded by John Villotti. Motion passed 3-0.

   A. Staff Report and Application Materials

6. **Appoint Chairperson**

   Motion by John Villotti to appoint Chaden Halfhill as Chairperson and Donna Markley as Vice-Chairperson. Seconded by Donna Markley. Motion passed 3-0.

7. **Adjourn**

   Motion by John Villotti to adjourn at 5:45 PM. Seconded by Vice Chair Donna Markley. Motion passed 3-0.

The agenda was posted on the official bulletin boards, posted to www.windsorheights.org, and city social media platforms in compliance with the requirements of city ordinances and the open meetings law.

AGENDA
REGULAR MEETING OF THE WINDSOR HEIGHTS BOARD OF ADJUSTMENT
Wednesday, January 17, 2024 - 5:30 PM
WINDSOR HEIGHTS COUNCIL CHAMBERS - 1133 66th ST
ZOOM: https://us02web.zoom.us/j/7832856334
Meeting ID: 783 285 6334

1. **Call to Order/Roll Call**

   Donna Markley called the meeting to order at 5:31 PM. Members present: John Villotti, Paul Walter, and Carole Tillotson. Members absent: Chaden Halfhill. Staff present: City Clerk Adam Strait, Deputy City Clerk Nate Leuthold, and Acting City Planner Trey Rouse of Bolton & Menk

2. **Approval of Agenda**

   Motion by John Villotti to approve. Seconded by Carole Tillotson. Motion passed 4-0.

3. **Approval of Minutes:**

   Motion to table by John Villotti due to lack of quorum. Seconded by Paul Walter. Motion passed 4-0.

   A. Consideration of the October 31, 2023 Minutes

4. **Public Hearing on Conditional Use Permit - 1011 64th St**

   Kathryn Dickel of 1007 64th Street presented about Pollinate Hive House. Donna Markley opened the Public Hearing at 5:58 PM. Victoria Gallinsky of 1015 64th Street spoke opposing the CUP. LeeAnn Allbright of 1663 70th Street asked a question about insurance. Carter Miller of 7118 BelAire Avenue asked about parking and traffic. Nate Leuthold read comments from Nicole Crain of 7022 Del Matro Avenue opposing the CUP and raising questions regarding property taxes. Donna Markley closed the Public Hearing

   A. Staff Report and Application Materials

5. **Consideration of Conditional Use Permit - 1011 64th St**

   Kathryn Dickel of 1007 64th Street spoke in rebuttal to the opposition and provided two letters of recommendation from neighbors. Trey Rouse provided a staff report recommending approval of CUP. Carole Tillotson spoke regarding obtaining more information about property taxes. Motion by Carole Tillotson to table. Seconded by John Villotti. Motion passed 4-0.

6. **Public Hearing on Conditional Use Permit - 6961 University Ave**

   Casey's Project Manager Aaron Wolfe of 1 SE Convenience Boulevard, Ankeny, IA 50021 presented the application from Casey's.
   Donna Markley opened the Public Hearing at 6:52 PM. The following people spoke in opposition:
   William Strate of 7015 Sunset Terrace
   Allison Van Pell of 7209 Sunset Terrace

The agenda was posted on the official bulletin boards, posted to www.windsorheights.org, and city social media platforms in compliance with the requirements of city ordinances and the open meetings law.

Angie Pizali of 1316 University Avenue
Abigail Smith of 1313 62nd Street
Carter Miller of 7118 BelAire Avenue
Phillip Cole of 1233 70th Street
Sam Brooks of 1253 70th Street
Colleen Keleher 6529 Colby Avenue
Janet Strate of 7015 Sunset Terrace
LeeAnn Albright of 1663 70th Street
Nate Leuthold read comments from the following individuals in opposition:
Bridget McNerney of 6411 Sunset Terrace
Erika Kenny of 1073 66th Street
Tim Shearouse of 1240 70th Street
Lee Dwyer of 6750 School Street Unit 206
Mike Jones of 1902 80th Street
Sandra Dreyer of 7104 Washington Avenue
Blake Jeffrey of 1927 68th Street
Lance Foshe of 6552 Colby Avenue
Bill Strate of 7015 Sunset Terrace
Andrew and Stacie Schmidt of 1234 70th Street
Donna Markley closed the Public Hearing at 7:30 PM.

A. Staff Report and Application Materials

7. **Consideration of Conditional Use Permit - 6961 University Ave**

Casey's Project Manager Aaron Wolfe of 1 SE Convenience Boulevard, Ankeny, IA 50021 spoke in rebuttal of the opposition. Pelds Design Services representative Wally Pelds of 2323 Dixon Street, Des Moines, IA 50316 spoke regarding the traffic study Casey's conducted and environmental impact. Casey's General Store representative Erik Nikkel of 1 SE Convenience Boulevard, Ankeny, IA 50021 spoke regarding pest control. Trey Rouse gave a staff recommendation to approve the CUP. Donna Markley spoke regarding obtaining the comprehensive plan. Carole Tillotson spoke regarding obtaining the landscaping plan and plant list. John Villotti spoke regarding obtaining a more thorough traffic study for the board to consider. Motion by John Villotti to table. Donna Markley seconded. Motion passed 3-1. Yea: Donna Markley, John Villotti, and Carole Tillotson. Nay: Paul Walter.

8. **Adjourn**

Motion by Carole Tillotson to adjourn the meeting at 8:06 PM. Seconded by Paul Walter. Motion passed 4-0.

The agenda was posted on the official bulletin boards, posted to www.windsorheights.org, and city social media platforms in compliance with the requirements of city ordinances and the open meetings law.

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STAFF REPORT

Date: February 21st, 2024

To: Windsor Heights Board of Adjustment

From: Justin Ernst, PE
Trey Rouse

Subject: Conditional Use Review: Civic Organization Staff Report
(1011 64th Street)

General Information

Applicant: Kathryn Dickel
1011 64th Street
Windsor Heights, IA 50324

Property Owner: Kathryn Dickel
1007 64th Street
Windsor Heights, IA 50324

Proposed Use: Civic Organization

Zoning: R-2 (Single Family Residential District – Urban Density)

Location: 1011 64th Street

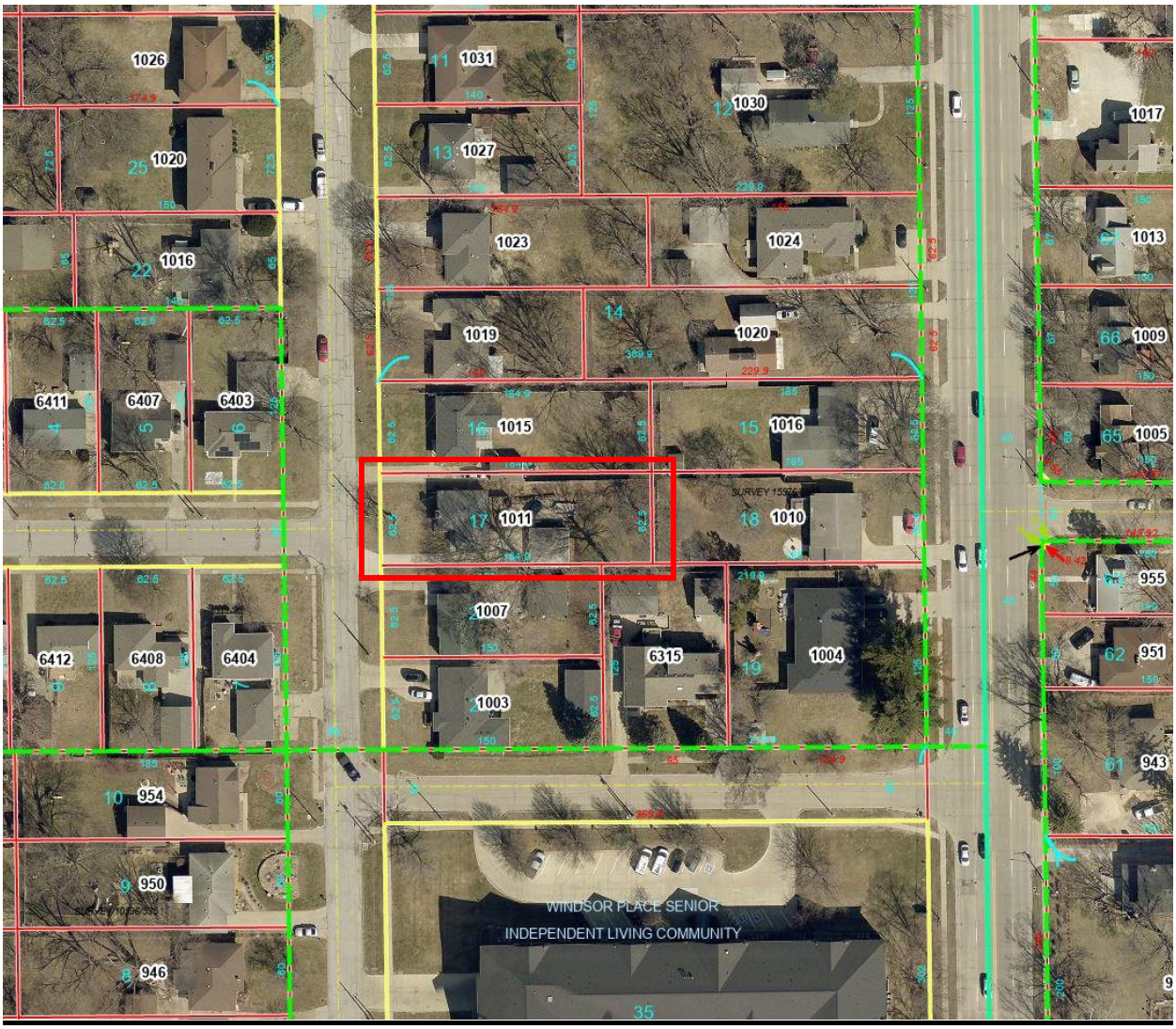
Summary

The applicant, Kathryn Dickel, is requesting a conditional use permit in R-2 – Single Family Residential Zoning District (Urban Density) for the use of the property listed at 1011 64th Street to change from Residential, Single Family to Civic Organization to be a civic organization that brings community and personal services to neighborhoods. The R-2 Single Family Residential Zoning District (Urban Density) allows for the Civic Organization use to be approved conditionally. Staff has completed a review of the conditional use permit application. The submitted application materials are attached to this report.

Existing Conditions

The 0.265-acre lot is in the R-2 – Single Family Residential Zoning District (Urban Density). The lot currently has a 2,000 sq. ft. home as the primary structure with one accessory structure consisting of a detached garage on the property. This property has a single driveway on the west side of the property. This property has a fenced in backyard currently.

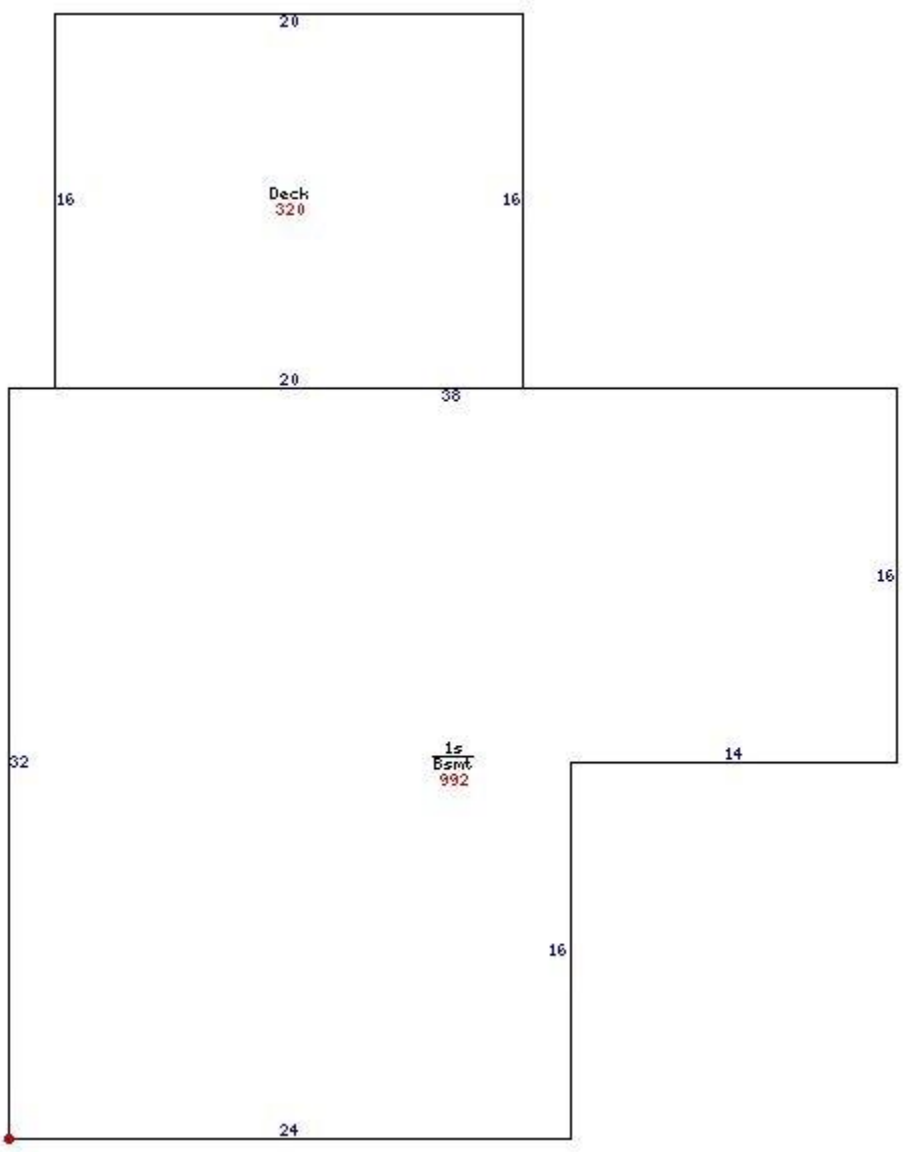
Property Location and Surrounding Properties



Legal Description of Property

LOT 17 LONGLEY PLACE PLAT 2

Existing Layout of Primary Structure on Property



Background

December 15th, 2023: Applicant applied for and filled out the Conditional Use Permit Application

Applicable Code Sections

166.03 Definitions of Terms

44. “Civic Organizations” means uses providing meeting, recreational, or social facilities for a private, nonprofit, or non-commercial association, primarily for use by members and guests.

Table 168-2 Permitted Uses by Zoning District

Table 168-2 – Permitted Uses by Zoning District

Use Types	R-1	R-2	R-3	MH	CC	UC	LI
Administration	C	C	C	C	P	P	P
Adult Entertainment							C
Agricultural Sales/Service					C		P
Alternative Energy Production Devices	C	C	C	C	C		P
Amateur Radio Tower	P	P	P	P	P	P	P
Animal Production							C
Auto Rental/Sales					P		P
Auto Services					P	C	P
Bars					P	P	P
Bed and Breakfast	C	C	C		P	P	
Body Repair					C		P
Broadcasting Tower					C		C
Business Support					P	P	P
Business/Trade School					P	P	P
Cemetery	C	C	C				
Civic Organizations	C	C	C	C	P	P	
College/University	C	C	C	C	P	C	
Commercial Breeders							P

Chapter 180.06 Standards of Approval

1. The Board of Adjustment shall review the proposed development for conformance to the following Standards of Approval:
    a. Compatibility. The proposed buildings or use shall be constructed, arranged and operated so as to be compatible with the character of the zoning district and immediate vicinity, and not to interfere with the development and use of adjacent property in accordance with the applicable district regulations. The proposed development shall not be unsightly, obnoxious or offensive in appearance to abutting or nearby properties.
    b. Transition. The development shall provide for a suitable transition, and if necessary, buffer between the proposed buildings or use and surrounding properties.

c. Traffic. The development shall provide for adequate ingress and egress, with particular attention to vehicular and pedestrian safety and convenience, traffic flow and control, and emergency access.

d. Parking and Loading. The development shall provide all off-street parking and loading areas as required by this ordinance, and adequate service entrances and areas. Appropriate screening shall be provided around parking and service areas to minimize visual impacts, glare from headlights, noise, fumes or other detrimental impacts.

e. Signs and Lighting. Permitted signage shall be in accordance with the applicable district regulations and shall be compatible with the immediate vicinity. Exterior lighting, if provided, shall be with consideration given to glare, traffic safety and compatibility with property in the immediate vicinity.

f. Environmental Protection. The development shall be planned and operated in such a manner that will safeguard environmental and visual resources. The development shall not generate excessive noise, vibration, dust, smoke, fumes, odor, glare, groundwater pollution or other undesirable, hazardous or nuisance conditions, including weeds.

2. The request shall be approved if the Board of Adjustments finds that the proposed development meets all Standards of Approval.

3. The request shall be denied if the Board of Adjustment finds a strong probability that any of the following with regards to the proposed development:

    a. Not adequately safeguard the health, safety and general welfare of persons residing or working in adjoining or surrounding property, or

    b. Impair an adequate supply (including quality) of light and air to surrounding property, or

    c. Unduly increase congestion in the roads, or the hazard from fire, flood or similar dangers, or

    d. Diminish or impair established property values on adjoining or surrounding property, or

    e. Not be in accord with the intent, purpose and spirit of the zoning ordinance or comprehensive plan.

Chapter 180.08 Board of Adjustment Action on Applications

1. In considering whether to approve an application for a conditional use permit, the Board of Adjustment shall proceed according to the following format:

    a. The Board of Adjustment shall establish findings of fact based upon information contained in the application, the staff report, and information gathered at the Board of Adjustment hearing.

    b. The board shall consider such reasonable requirements or conditions for the permit as will ensure the development will satisfy the requirements of this chapter. A vote may be taken on such conditions before consideration of whether the permit should be approved or denied for any of the reasons set forth in 3 or 4.

    c. The Board of Adjustment shall consider whether the application complies with all of the applicable Standards for Approval set forth in 180.06. Separate votes may be taken with respect to each criterion. If the Board of Adjustment concludes that the application fails to meet one or more of the criteria, the application shall be denied.

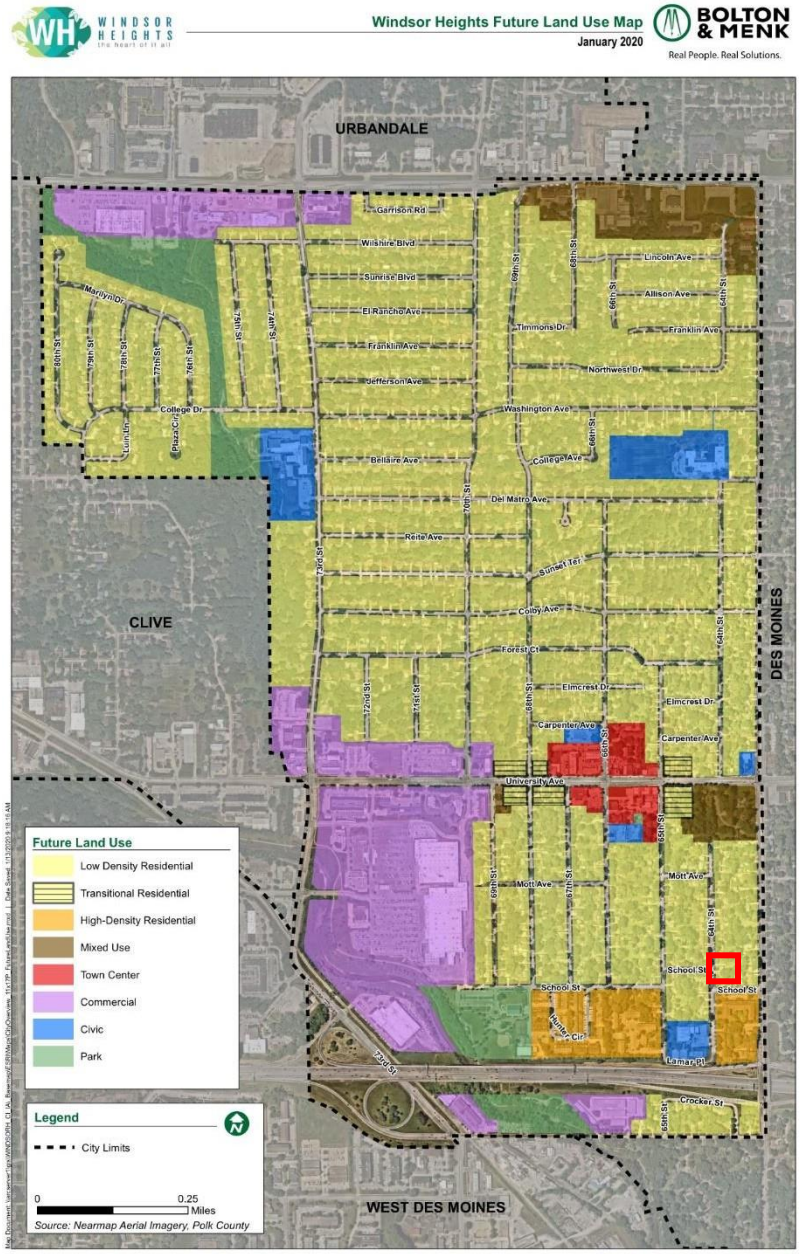
    d. If the Board of Adjustment concludes that all such criteria have been met, the application shall be approved unless it adopts a motion that the application fails to meet any of the approval standards set forth in 178.06. Separate votes may be taken with respect to each standard. Any such motion regarding compliance or noncompliance of the application to the development criteria or Standards for Approval shall specify the supporting reasons for the motion. It shall be presumed the application complies with all criteria and standards not specifically found to be unsatisfied. Without limiting the foregoing, the Board of Adjustment may attach to a permit a condition it deems necessary to protect the health, safety, and general welfare of the public. All conditions or requirements shall be entered on the permit.

    The Board of Adjustments shall not grant a conditional use permit for any home occupation/home-based business which is otherwise prohibited under this zoning code.

Future Land Use Map

The future land use map should be used as guidance for areas throughout the City. The map identifies this location as low density residential, which is defined on page 40 of the 2017 Comprehensive Plan. “Low-Density Residential

Figure 1: Current Future Land Use Map



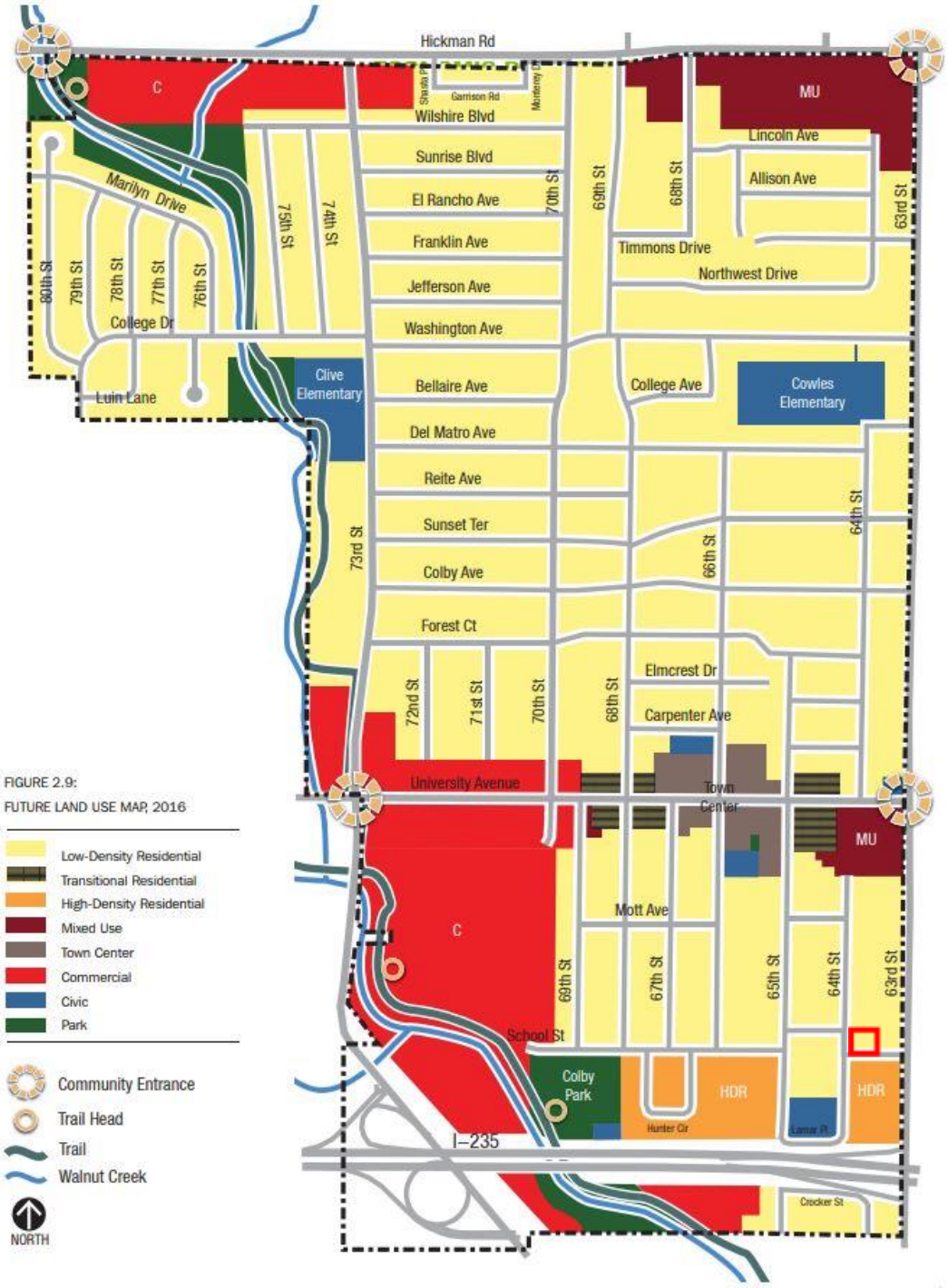
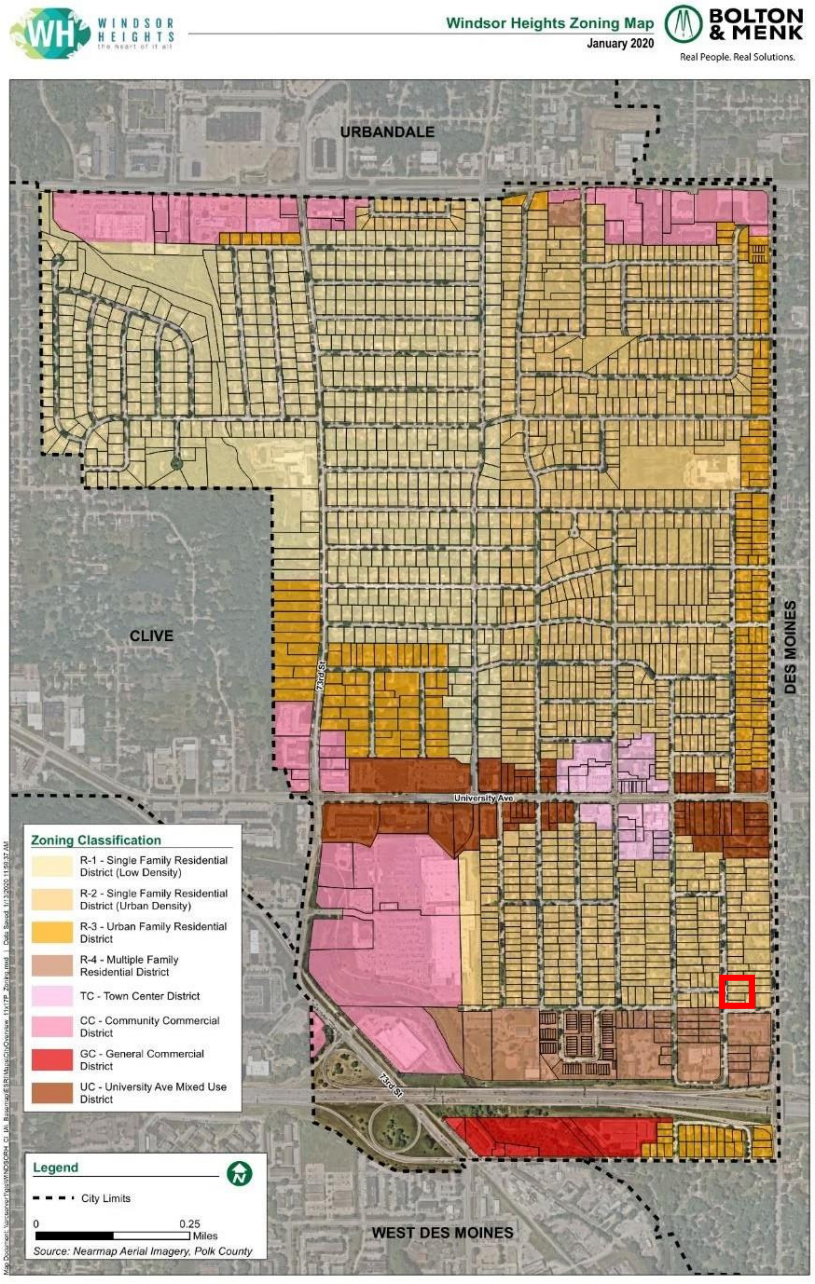


Figure 2: Windsor Heights' 2017 Comprehensive Plan's
Future Land Use Map

Zoning Map

The parcel is currently zoned for Single Family Residential (Urban Density) which is defined in Table 168-1 Purposes of Zoning Districts as "This district is intended to provide for medium-density residential neighborhoods, characterized by single-family dwellings on small to moderately sized lots and low-density, multiple-family development. It provides special regulations to encourage innovative forms of housing development. It adapts to both established and newer neighborhoods, as well as transitional areas between single-family and multi-family neighborhoods. Its regulations are intended to minimize traffic congestion and to assure that density is consistent with the carrying capacity of infrastructure."

Figure 3: Current Zoning Map



Comprehensive Plan Review

The Windsor Heights Comprehensive Plan was reviewed by City Staff to determine if the proposed project at its current location would coincide with the goals and ideals of the Comprehensive Plan. This project aims to meet some of the outlined goals that the Comprehensive Plan has laid out for Housing and Economic Development. These goals that it seeks to meet are outlined below. The Comprehensive Plan supports this project.

Housing:

1. Promote aging in place.
2. Celebrate neighborhood character.

Economic Development:

1. Attract new businesses to Windsor Heights.

Recommendation

The staff recommends approval of the Conditional Use Permit for the property located at 1011 64th Street for a change in use from Residential, Single Family to Civic Organization as long as it adheres and abides by all conditions attached to the permit.
The following conditions are attached to the permit:

1. The Property at 1011 64th Street will come into complete compliance with ADA requirements which includes but is not limited to:
    a. Ramp Access to the Primary Structure
    b. Paved walkways from any and all customer parking to the primary structure
    c. Accessible doorways within the Primary Structure
    d. Accessible Bathrooms and other facilities within the Primary Structure
    e. Must accommodate for one (1) Handicap Parking Space
2. Any and all signage for the Civic Organization and business at the property must go through the Signage Code and meet the requirements for not only the use on the property but the Zoning District the property resides in.
3. The City of Windsor Heights and Zoning Board of Adjustments reserves the right to revoke the Conditional Use Permit (if approved) to the property located at 1011 64th Street if nuisance complaints are received based on the following, but it not limited to:
    a. Traffic Congestion
    b. On-Street Parking or Parking Congestion
    c. Noise
    d. Light
    e. Odors
4. Any proposed updates, changes, or construction on the property will be reported to the City and

go through the appropriate permitting and approval process determined by the City of Windsor Heights.

a. If a permitting process is required, the City of Windsor Heights reserves the right to require that the property go through the Site Plan Approval Process as well to make sure all necessary procedures are followed.

Attachments

1. Application Materials (as submitted)
2. Hive House Proposal Letter

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STAFF REPORT

Date:	February 21st, 2024
To:	Windsor Heights Board of Adjustment
From:	Justin Ernst, PE
	Trey Rouse
Subject:	Conditional Use Review: Auto Services Staff Report
	(6961 University Avenue)

General Information

Applicant:	Casey's Marketing Company
	One SE Convenience Boulevard
	Ankeny, IA 50021
Property Owner:	Charles I & Ruth Colby National
	Development Trust
Proposed Use:	Auto Services
Zoning:	UC District (Urban Center District)
Location:	6961 University Avenue

Summary

The applicant, Casey's Marketing Company, is requesting a conditional use permit in UC District (Urban Center District) for the use of the property listed at 6961 University Avenue to change from its current use of Commercial to Auto Services to be a gas station that is located along University Avenue. The UC District (Urban Center District) allows for the Auto Services use to be approved conditionally. Staff has completed a review of the conditional use permit application. The submitted application materials are attached to this report.

Description of Property Use from Applicant

Demolition of underperforming office infrastructure and construction of 4,283 sq. ft. Casey's Convenience Store and Gas Station. The redevelopment effort constitutes $3-$5 million in building and development costs and will produce significant property tax benefits to the city. The sale of motor fuel, prepared foods, and other goods will generate significant local option sales tax benefits. Between 25 & 35 full & part-time jobs are created with construction of each new Casey's store.

Existing Conditions

The 1.29-acre lot is in the UC – Urban Center Zoning District. The lot currently has a 16,700 sq. ft. retail and office space building as the primary structure with two parking lots located on the south and north sides of the building connected through the east side of the property. This property has three access points through driveways located on University Avenue and two access driveways located along 70th Street. Currently there are no active businesses within the structures.

Property Location and Surrounding Properties



Legal Description of Property

EX BEG SE COR LT 41 W 199.95F N 299.46F E 4F S 269.44F E 10F S 20F E 185.94F S 10F TO POB-LTS 40, 41 & 42 MOTT PLACE

Site Plan for Development



Background

March 31, 2023: Pre-Application Meeting with City Staff Occurred/1st Submittal of Documentation

September 27, 2023: 2nd Submittal of Documentation with Comments Addressed

November 11, 2023: 3rd Submittal of Documentation with Comments Addressed

December 11, 2023: 4th Submittal of Documentation with Comments Addressed

January 2, 2024: Applicant applied for and filled out the Conditional Use Permit Application

Applicable Code Sections

166.03 Definitions of Terms

15. "Auto Services" Provision of fuel, lubricants, parts and accessories, and incidental services to motor vehicles; and washing and cleaning and/or repair of automobiles, non-commercial trucks, motorcycles,

motor homes, recreational vehicles, or boats, including the sale, installation, and servicing of equipment and parts. Typical uses include service stations, car washes, muffler shops, auto repair garages, tire sales and installation, wheel and brake shops, and similar repair and service activities but exclude dismantling, salvage, or body and fender repair services.

Table 168-2 Permitted Uses by Zoning District

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Alternative Energy Production Devices	C	C	C	C	C		P
Amateur Radio Tower	P	P	P	P	P	P	P
Animal Production							C
Auto Rental/Sales					P		P
Auto Services					P	C	P
Bars					P	P	P
Bed and Breakfast	C	C	C		P	P	
Body Repair					C		P
Broadcasting Tower					C		C
Business Support					P	P	P
Business/Trade School					P	P	P
Cemetery	C	C	C				
Civic Organizations	C	C	C	C	P	P	
College/University	C	C	C	C	P	C	
Commercial Breeders							P

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    b. Transition. The development shall provide for a suitable transition, and if necessary, buffer between the proposed buildings or use and surrounding properties.

c. Traffic. The development shall provide for adequate ingress and egress, with particular attention to vehicular and pedestrian safety and convenience, traffic flow and control, and emergency access.

d. Parking and Loading. The development shall provide all off-street parking and loading areas as required by this ordinance, and adequate service entrances and areas. Appropriate screening shall be provided around parking and service areas to minimize visual impacts, glare from headlights, noise, fumes or other detrimental impacts.

e. Signs and Lighting. Permitted signage shall be in accordance with the applicable district regulations and shall be compatible with the immediate vicinity. Exterior lighting, if provided, shall be with consideration given to glare, traffic safety and compatibility with property in the immediate vicinity.

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2. The request shall be approved if the Board of Adjustments finds that the proposed development meets all Standards of Approval.

3. The request shall be denied if the Board of Adjustment finds a strong probability that any of the following with regards to the proposed development:

    a. Not adequately safeguard the health, safety and general welfare of persons residing or working in adjoining or surrounding property, or

    b. Impair an adequate supply (including quality) of light and air to surrounding property, or

    c. Unduly increase congestion in the roads, or the hazard from fire, flood or similar dangers, or

    d. Diminish or impair established property values on adjoining or surrounding property, or

    e. Not be in accord with the intent, purpose and spirit of the zoning ordinance or comprehensive plan.

Chapter 180.08 Board of Adjustment Action on Applications

1. In considering whether to approve an application for a conditional use permit, the Board of Adjustment shall proceed according to the following format:

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    b. The board shall consider such reasonable requirements or conditions for the permit as will ensure the development will satisfy the requirements of this chapter. A vote may be taken on such conditions before consideration of whether the permit should be approved or denied for any of the reasons set forth in 3 or 4.

    c. The Board of Adjustment shall consider whether the application complies with all of the applicable Standards for Approval set forth in 180.06. Separate votes may be taken with respect to each criterion. If the Board of Adjustment concludes that the application fails to meet one or more of the criteria, the application shall be denied.

    d. If the Board of Adjustment concludes that all such criteria have been met, the application shall be approved unless it adopts a motion that the application fails to meet any of the approval standards set forth in 178.06. Separate votes may be taken with respect to each standard. Any such motion regarding compliance or noncompliance of the application to the development criteria or Standards for Approval shall specify the supporting reasons for the motion. It shall be presumed the application complies with all criteria and standards not specifically found to be unsatisfied. Without limiting the foregoing, the Board of Adjustment may attach to a permit a condition it deems necessary to protect the health, safety, and general welfare of the public. All conditions or requirements shall be entered on the permit.

    The Board of Adjustments shall not grant a conditional use permit for any home occupation/home-based business which is otherwise prohibited under this zoning code.

Comprehensive Plan Review

The Windsor Heights Comprehensive Plan has been reviewed by City Staff to make sure that this project aligns with the goals and ideals of the Comprehensive Plan. The proposed Casey's project meets several of the goals identified and outlined within the Comprehensive Plan and addresses the following goals as determined by the City Staff. The Comprehensive Plan supports the proposed project as it is presented.

Economic Development Goals:

1. Attract new businesses to Windsor Heights.
2. Support strategic redevelopment along key corridors, including University Avenue, Hickman Road, 73rd Street, and 63rd Street.

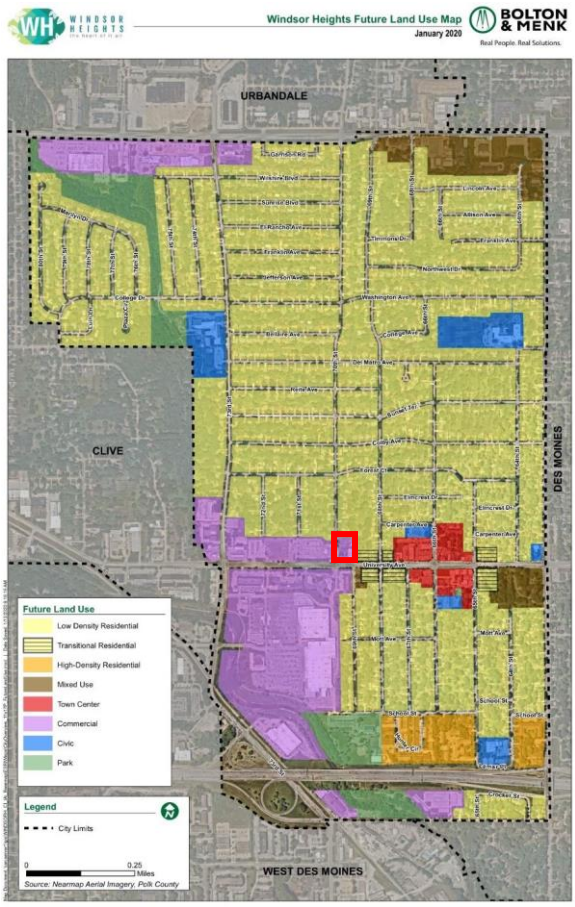
Transportation Goal:

1. Create a connected sidewalk network, especially along arterial roads, schools, parks, trails, and retail.

Future Land Use Map

The future land use map should be used as guidance for areas throughout the City. The map identifies this location as commercial, which is defined on page 40 of the 2017 Comprehensive Plan. "Commercial and office uses that are typically more auto oriented." This use aligns with the Future Land Use Map of the City of Windsor Heights.

Figure 1: Updated Future Land Use Map



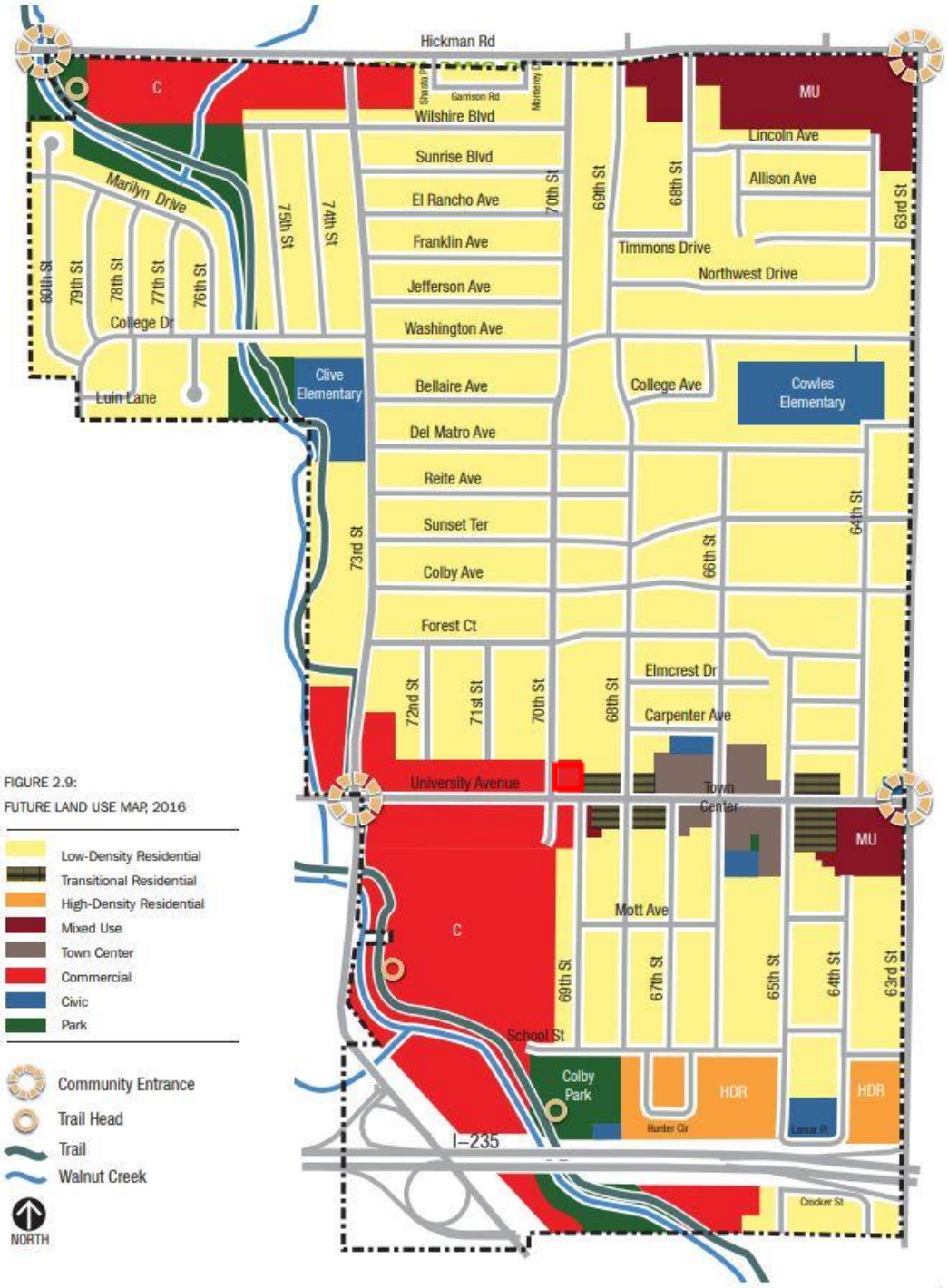


Figure 2: Windsor Heights' 2017 Comprehensive Plan's
Future Land Use Map

Public Comments Received

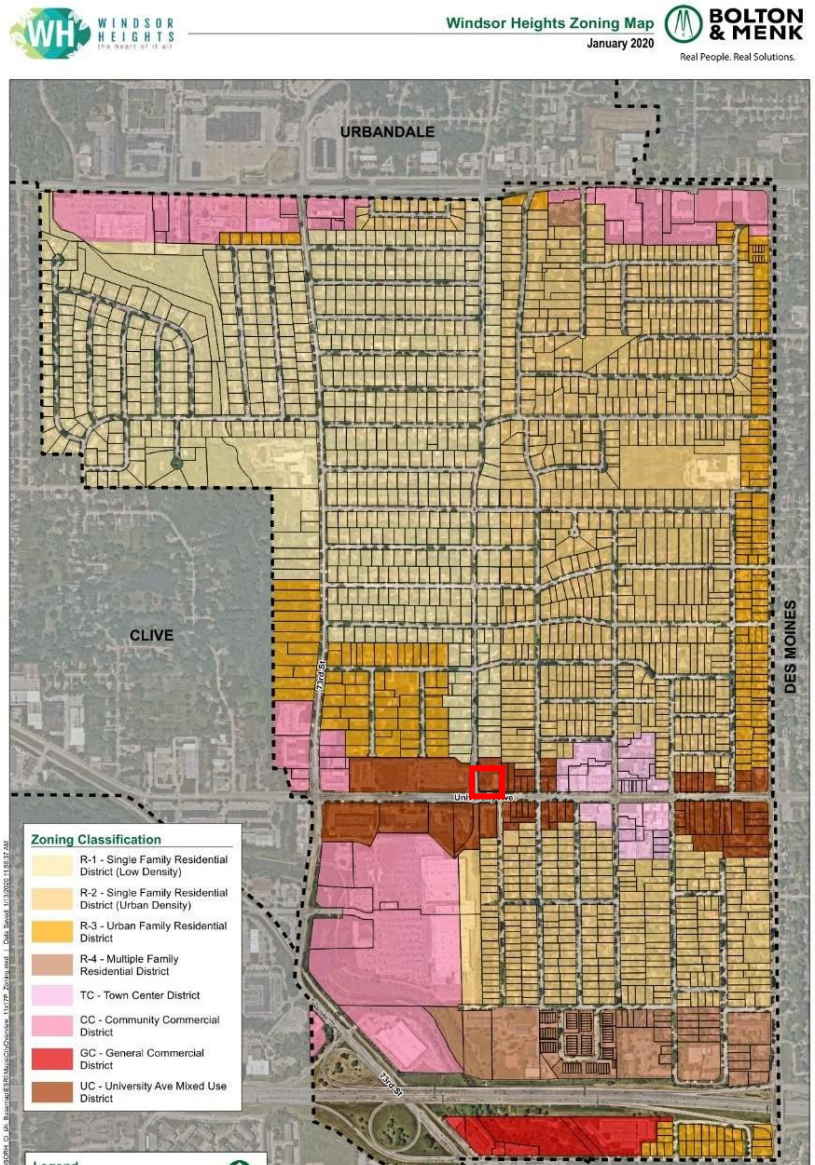
The City of Windsor Heights received public comment on the proposed project of the Casey's (Gas Station) at this property. Several emails and calls were made to the City about their concerns about the project and its location in comparison to residential properties. It was also commented that there are businesses such as these within close proximity and does not conform to the Comprehensive Plan. All comments were read and noted by the public.

These comments were from the public and were not the thoughts or review of City Staff.

Zoning Map

The parcel is currently zoned for Urban Center District which is defined in Table 168-1 Purposes of Zoning Districts as "This district recognizes the mixed-use character primarily along the University Avenue corridor, which is the principal route through central Windsor Heights. This district contains a combination of residential, commercial, and office uses and is known for its walkability and main street feel."

Figure 3: Current Zoning Map



Traffic Study

At the request of the City, the applicant completed a traffic study on the University Avenue and 70th Street corridor and determined the project's contribution to the current traffic in the corridor. The traffic study was completed in December 2023 and reviewed by City Staff. The traffic study shows that the traffic created by the Casey's project would not create further issues with the current congestion noticed by the University Avenue and 70th Street corridor.

Recommendation

The staff recommends approval of the Conditional Use Permit for the property located at 6961 University Avenue for a change in use from Commercial to Auto Services as long as it adheres and abides by all conditions attached to the permit. The following conditions are attached to the permit:

1. The Property at 6961 University Avenue goes through the entire Site Plan Review and Approval process and is approved by the Planning and Zoning Commission and City Council. This includes:
    a. All comments from City Staff and Departments are addressed in their entirety
    b. All processes through the Site Plan Review process are followed
    c. All Fees are paid for the Site Plan Review process
2. All appropriate permits for development and construction are acquired prior to the beginning of development and construction on the site.
3. Approval of signs and utility from Safe Building.
4. Approval of streets and access from Iowa Department of Transportation.
5. Provide 10 ft. of fully screened buffer between the site and abutting Residential districts.
6. Abide by all other conditions placed on this Conditional Use Permit as decided by the City of Windsor Heights Zoning Board of Adjustments.

Attachments

1. Application Materials (as submitted)
2. Preliminary Site Plan - Draft

February 15, 2024

To: City Staff and Board of Adjustment

From: Aaron Wolfe, AICP, Sr. Site Development Manager Casey's General Stores

Re: Request for conditional use permit to construct a convenience store and gas station at 6961 University Avenue in Windsor Heights.

Casey's proposes to construct a 4,283 s.f. convenience store with six fuel pumps at the NE corner of University Avenue and 70th Street. The property is located directly east of HY-VEE on the opposite side of 70th Street and is currently occupied by an office building constructed in 1973. The property is zoned Urban center district which does allow for the proposed use by issuance of a conditional use permit provided certain standards are met as outlined in Chapter 180.06 of the City of Windsor Heights Code of Ordinances.

Redevelopment of the subject property will demolish a blighted and underperforming office complex, generate an estimated $45-$55,000 in property tax annually for the City of Windsor Heights, rectify several existing access issues of the current development to help with traffic safety, provide a buffer between commercial and adjacent residential uses that doesn't currently exist, and reduce impervious area and provide stormwater management controls on a property where none are currently present.

At Casey's, our purpose is "To make life better for communities and guests every day". Between 2019-2022 we donated $15M in the communities we serve. Casey's gives back to our communities because we *are* our communities. We are your neighbors, your friends, and your family. We take pride in supporting efforts that strengthen our communities because our families also live and work in your community. We're proud to be **#HereForGood!** and we want to be "Here For Good" in Windsor Heights. Among the various attachments to this letter, please find our 2023 Community Impact Report for further information about how we positively impact the communities we serve.

This supplement to our earlier application is intended to provide additional data and resources to help address any questions and comments from the January 17th Board of Adjustment meeting. Attached are the ordinance criteria outlined in Chapter 180.06 and an accompanying narrative to address each of those criteria. Also attached are a number of reference documents as listed on the following page.

Thank you for your consideration. I look forward to presenting our case to the Board of Adjustment at the February 21, 2024 meeting.

Sincerely,

Aaron Wolfe
Sr. Site Development Manager

List of Attachments

- Chapter 180.06
- Detailed narrative addressing standards for approval outlined in Chapter 180.06
- Allowed Uses Table 168-2
- Architectural Rendering
- Site plan
- Building elevation drawings
- Canopy renderings
- Site lighting plan/photometric layout
- Proposed Signage
- Emergency Fuel Spill Response
- Overview of Fuel System and Safety Features
- Summary of 2023 crime stats for Convenience Stores in Windsor Heights from WHPD
- 2023 Casey's Community Impact Report

Chapter 180.06 of the City of Windsor Heights Code of Ordinances outlines "Standards for Approval" the Board of Adjustment is required to consider when granting a Conditional Use Permit. Chapter 180.06 is listed below in its entirety and the following pages offer a detailed narrative to address each of the standards.

180.06 STANDARDS FOR APPROVAL.

1) **The Board of Adjustment shall review the proposed development for conformance to the following Standards of Approval:**

   A. Compatibility. The proposed buildings or use shall be constructed, arranged and operated so as to be compatible with the character of the zoning district and immediate vicinity, and not to interfere with the development and use of adjacent property in accordance with the applicable district regulations. The proposed development shall not be unsightly, obnoxious or offensive in appearance to abutting or nearby properties.
   B. Transition. The development shall provide for a suitable transition, and if necessary, buffer between the proposed buildings or use and surrounding properties.
   C. Traffic. The development shall provide for adequate ingress and egress, with particular attention to vehicular and pedestrian safety and convenience, traffic flow and control, and emergency access.
   D. Parking and Loading. The development shall provide all off-street parking and loading areas as required by this ordinance, and adequate service entrances and areas. Appropriate screening shall be provided around parking and service areas to minimize visual impacts, glare from headlights, noise, fumes or other detrimental impacts.
   E. Signs and Lighting. Permitted signage shall be in accordance with the applicable district regulations and shall be compatible with the immediate vicinity. Exterior lighting, if provided, shall be with consideration given to glare, traffic safety and compatibility with property in the immediate vicinity.
   F. Environmental Protection. The development shall be planned and operated in such a manner that will safeguard environmental and visual resources. The development shall not generate excessive noise, vibration, dust, smoke, fumes, odor, glare, groundwater pollution or other undesirable, hazardous or nuisance conditions, including weeds.

2) **The request shall be approved if the Board of Adjustment finds that the proposed development meets all Standards of Approval.**

3) **The request shall be denied if the Board of Adjustment finds a strong probability that any of the following with regards to the proposed development:**

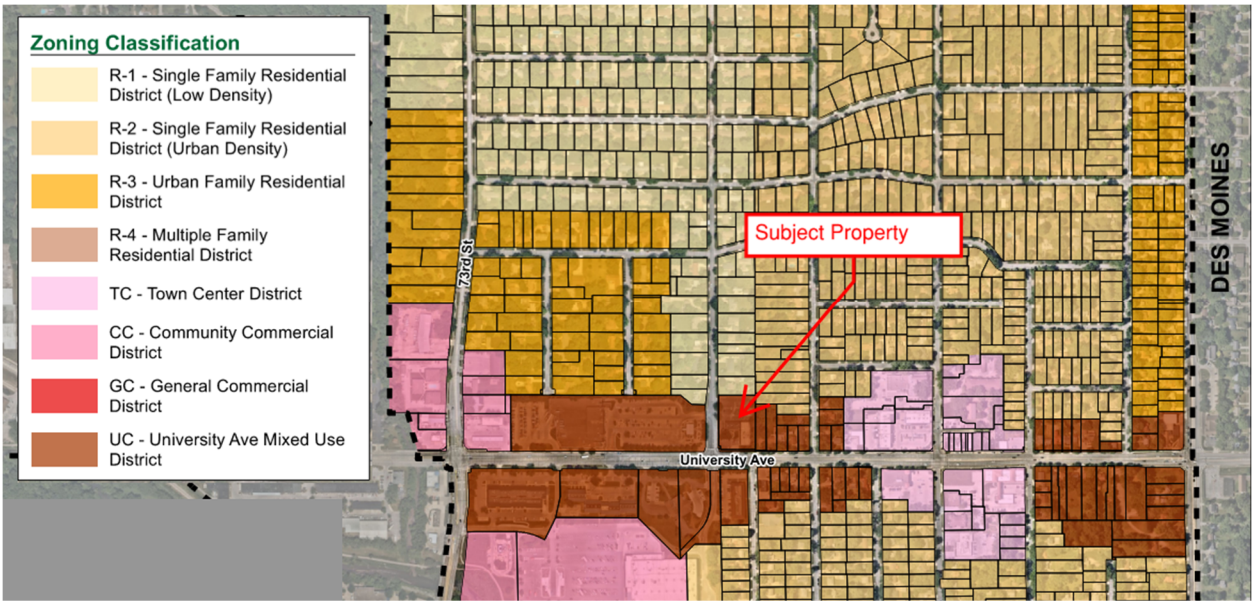
   A. Not adequately safeguard the health, safety and general welfare of persons residing or working in adjoining or surrounding property, or
   B. Impair an adequate supply (including quality) of light and air to surrounding property, or
   C. Unduly increase congestion in the roads, or the hazard from fire, flood or similar dangers, or
   D. Diminish or impair established property values on adjoining or surrounding property,or
   E. Not be in accord with the intent, purpose and spirit of the zoning ordinance or comprehensive plan.

A. Compatibility. The proposed buildings or use shall be constructed, arranged and operated so as to be compatible with the character of the zoning district and immediate vicinity, and not to interfere with the development and use of adjacent property in accordance with the applicable district regulations. The proposed development shall not be unsightly, obnoxious or offensive in appearance to abutting or nearby properties.

Compatibility with character of the district:

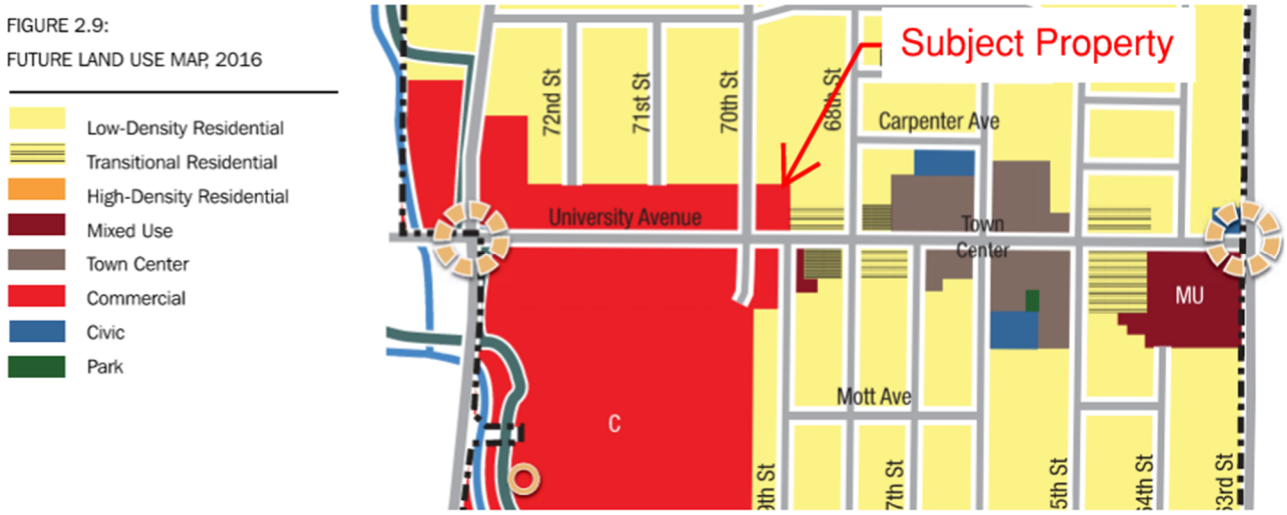
University Avenue is classified as an arterial roadway on the Federal Functional Classification system and the Iowa Department of Transportation estimates the portion of University Avenue passing through Windsor Heights averages between 10,600 and 12,600 annual average daily trips. Prudent land use planning dictates commercial uses be located adjacent to arterial roadways. Both the Windsor Heights Zoning Map and Comprehensive Plan recognize this fact and excerpts are shown below.

The subject property is zoned UC, University Avenue Mixed Use District on the City's Zoning Map. Permitted uses of the UC district are listed in Chapter 168.08 of the City of Windsor Heights Code of Ordinances (table 168-2 attached). "Auto Services" are allowed in the district by issuance of a conditional use permit. Auto Services is rather broadly defined by Chapter 166.03.15 of the City of Windsor Heights Code of Ordinances and includes Gas Station/Convenience stores.



Likewise, the subject property is shown as "Commercial" on the Windsor Heights Comprehensive Plan Future Land Use Map shown below. The Comprehensive Plan defines “Commercial” land use category as “Commercial and office uses that are typically more auto-oriented”.

FIGURE 2.9:
FUTURE LAND USE MAP, 2016



Compatibility with immediate vicinity:

Through the site design process we have taken care to insure our use will not be unsightly, obnoxious or offensive in appearance to abutting or nearby properties.

Under the current use there is no buffer between the office building and associated parking lot and the surrounding residential uses. The Casey’s site plan indicates use of a buffer with 6’ solid privacy fence between the subject property and north-adjacent single-family residential district. While the east-adjacent property is currently occupied residentially, the property is zoned University Avenue Mixed Use District and is shown on the Comprehensive Plan Land Use Map as “Transitional Residential”. Both the current zoning and city’s future land use map recognize the property may redevelop in the future to a more intense use; however, our site plan shows use of shrubs and evergreens to help buffer the current residential use of the property (see following section “’B’. Transition”0. Re-alignment of the 70th street access moves customer traffic further away from the adjacent residential uses. The building itself sits between active portions of the site and north-adjacent property, the building’s solid walls further helping to buffer lighting and noise.

Dumpsters and Pest Control: Questions were raised at the January 17th Board of Adjustment meeting regarding trash collection and pest control. Dumpsters are emptied at least two times each week, and more often on an as-needed basis. Casey’s also enters into a pest control contract for every store with a professional pest elimination service. The pest control contractor employs a comprehensive service approach which includes inspection, pest monitoring, sanitation and structural recommendations, mechanical trapping, and biological and targeted product applications. The service contract entails monthly visits by a pest control specialist. However, if an issue is discovered staff call a service hotline and pest control will visit the site and return as many times as needed to get rid of the nuisance.

Crime: At least one resident provided public comment asserting the proposed use would be a significant generator of crime. Casey's reached out to the Windsor Heights Police Department for crime statistics relevant to convenience stores to determine if the data supports the assertion that convenience stores are a disproportionate driver of crime in the city. The 2023 arrest data specific to two existing gas station/convenience stores in Windsor Heights appears below:

Kum & Go at University and 73rd – Four total arrests (one of which was for a crime that did not occur on the property - OWI where driver pulled into parking lot):

- 23-00421: Public Intoxication and warrant arrest
- 23-00323: Upset customer charged with assault; threw an item at the clerk
- 23-00272: OWI charge; customer called in a drunk driver who had pulled into the parking lot
- 23-00227: Arrest for theft of alcohol

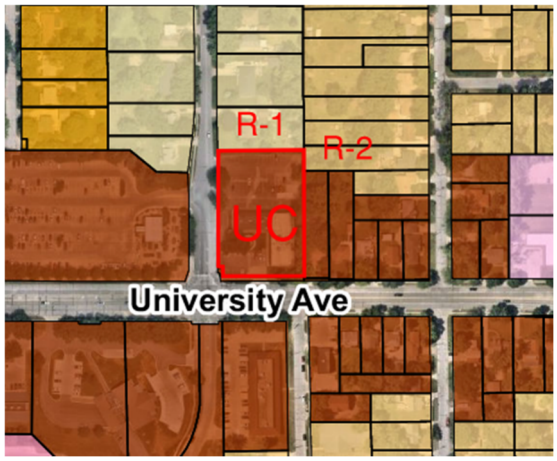
Hy-Vee Fast and Fresh on Hickman Road and 73rd - Two arrests total (one of which was for a crime that did not occur on the property - traffic arrest where driver pulled into property):

- 23-00635: Traffic-related arrest. The vehicle pulled into this location.
- 23-00355: Trespass Violation. Call for a welfare check call for service; an uncooperative person that had already been trespassed from this location.

The Windsor Heights Police Department further reported all arrests in 2023 totaled 293 (but also acknowledged a change in method of recordkeeping that may mean the total number of arrests city-wide is actually a larger number). These statistics suggest the two reported existing convenience store/gas stations are responsible for .02% or less of total arrests in Windsor Heights in 2023.

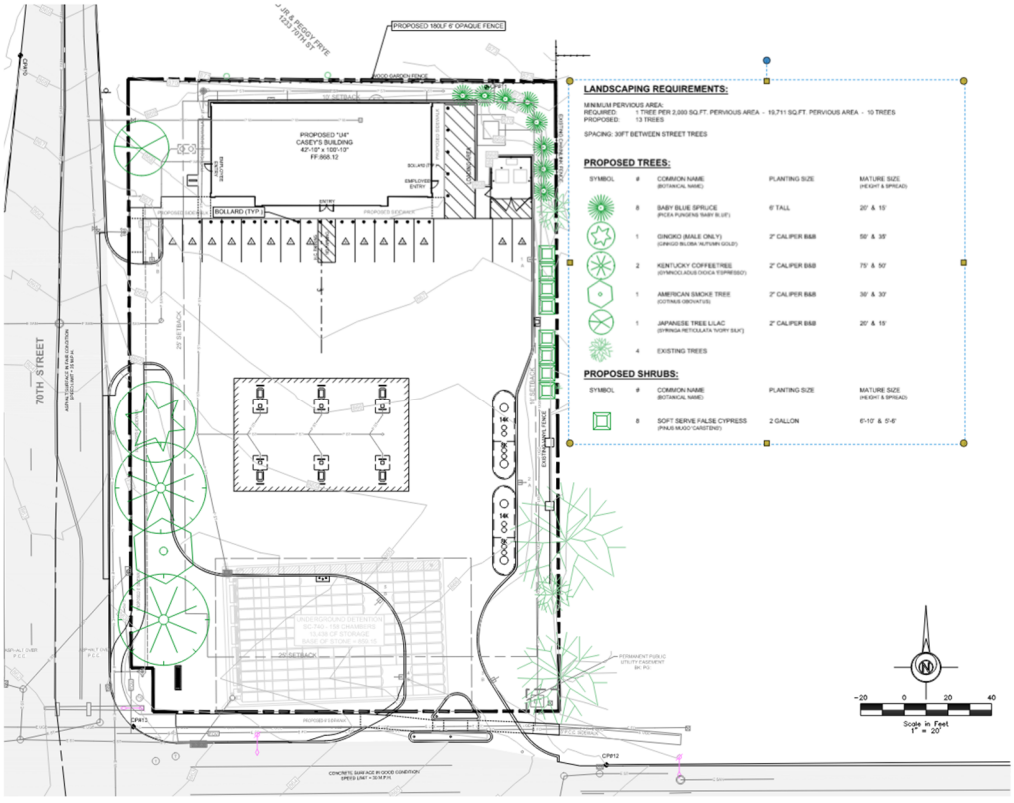
B. Transition. The development shall provide for a suitable transition, and if necessary, buffer between the proposed buildings or use and surrounding properties.

North-adjacent R-1: Chapter 173.05 of the Windsor Heights Code of Ordinances governs buffer requirements between differing zoning districts. Said chapter requires a 10' screened buffer between properties zoned UC and R-1/R-2/R-3. In addition, Chapter 173.06 requires a 6' opaque screening barrier consisting of a solid fence or landscaped screen that utilizes 50% evergreen plant material. The proposed site plan shows use of a 180' fence 6' in height to meet the screening requirements along the north property boundary adjacent to property zoned R-1.



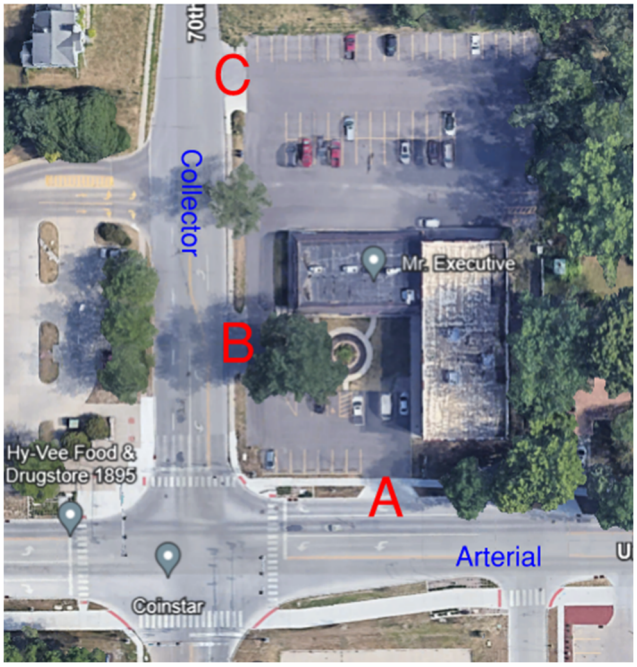
East-adjacent R-2: Approximately 50' of the NE corner of the subject property abuts property zoned R-2 to the east. The site plans indicate use of five, 6' Baby Blue Spruce to meet the screening requirements of code required adjacent to the R-2 district.

East/West/South-adjacent UC: There is no code-required buffer between any of the other adjacent properties because they share the same zoning classification as the subject property; however, in recognition of the east-adjacent lawful non-conforming residential use, the site plans show installation of eight False Cypress trees, and retention of an existing vinyl fence and multiple existing trees to provide screening between the two uses.

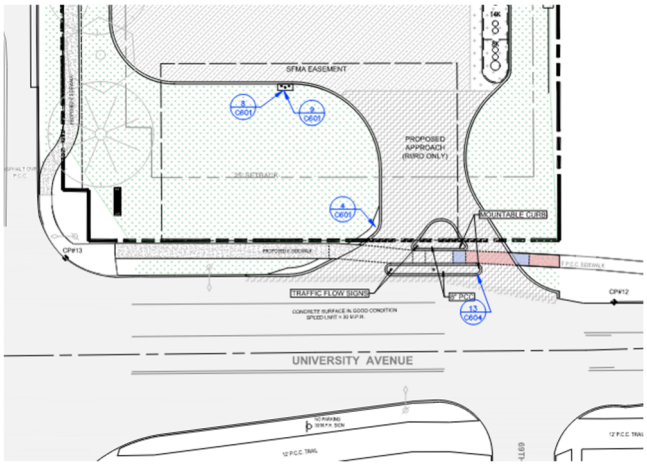


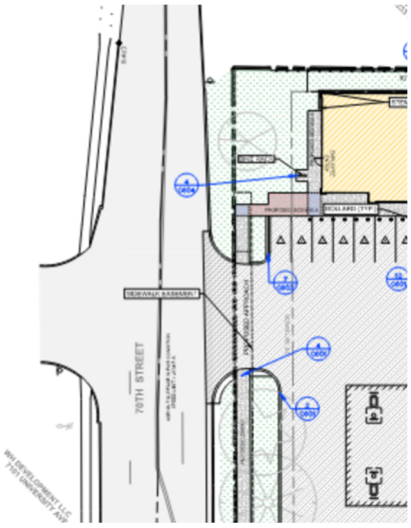
C. Traffic. The development shall provide for adequate ingress and egress, with particular attention to vehicular and pedestrian safety and convenience, traffic flow and control, and emergency access.

Existing Condition: The existing site currently has three full access locations: one on University Avenue ('A' in pic at right) and two on 70th Street ('B' and 'C' at right). None of the existing access locations meet code requirements for separation of entrance from intersection or separation from access locations on opposite side of street. In addition, neither access 'A' nor 'B' would be allowed to function as a full access under today's code requirements.



Proposed Redevelopment: The University Avenue access ('A' above) will be restricted to a right-in, right-out access (depicted below), eliminating possibility of a dangerous eastbound left turn movement across traffic. The access will also be moved further east to increase distance of the entrance to intersection. Access 'B' will be removed altogether. Access 'C' will shift south to align with the Hy-Vee access on the opposite side of the street. Such an alignment moves customer traffic further away from the adjacent residential properties but also eliminates the possibility of conflicting traffic movements. By placing access connections directly across from each other crossing maneuvers can be made directly from one connection to the other. And, left-turn-in maneuvers from opposing directions do not involve a conflict, nor do left-turns out from the opposing access connections (below).





Trip Generation: Below is a table indicating the amount of traffic that will be added to the surrounding road network based on proposed uses of the property. The numbers are estimated using trip generation data formulated by the Institute of Transportation Engineers (ITE) Trip Generation Manual. University Avenue is an arterial roadway carrying between 10,600 and 12,600 annual average daily trips through Windsor Heights. A convenience store at the subject property is expected to experience 82 vehicles entering the site during AM peak hour. Of those 82 trips, 62 trips are generated by pass-by traffic, or traffic that is already on the road network enroute to another destination, and 20 trips are new users added to the road network. The PM peak hour sees similar numbers with 96 vehicles entering the site, 72 of which are generated by pass-by traffic and 24 being new users added to the road network. New users during AM and PM peak hours are highlighted in the table below. The number of new users generated by a convenience store can be compared and contrasted with other potential land uses allowed in the UC district. The column at far left lists uses permitted both by-right and those allowed by conditional use permit. The table shows a convenience store use will add less traffic to the surrounding road network than nearly all other uses shown in the table.

Use	AM/PM	Total Trips	Entering	Pass-by	New	Exiting
Drinking Place (p)	AM	0	0	0	0	0
	PM	62	42	25	17	20
Vet Clinic (p)	AM	11	6	0	6	5
	PM	11	6	0	6	5
Liquor Store (p)	AM	31	16	7	9	15
	PM	106	53	24	29	53
C-Store (c)	AM	165	82	62	20	83
	PM	191	96	72	24	95
Stip Retail (p)	AM	122	61	37	24	61
	PM	212	114	68	46	98
Restaurant (p)	AM	82	47	20	27	35
	PM	98	50	22	28	48
Daycare (p)	AM	59	31	0	31	28
	PM	59	28	0	28	31
Gen Office (p)	AM	36	32	0	32	4
	PM	38	6	0	38	32
Fast Food W/D Thru (c)	AM	152	79	40	39	73
	PM	153	78	39	39	75
Discount Store (p)	AM	96	49	10	39	47
	PM	111	56	11	45	55
Multi-Fam Hsg (p)	AM	109	26	0	26	83
	PM	132	82	0	82	50
USPS (p)	AM	322	158	71	87	164
	PM	393	200	90	110	193

*C - Conditional Use

*P - Permitted by-right

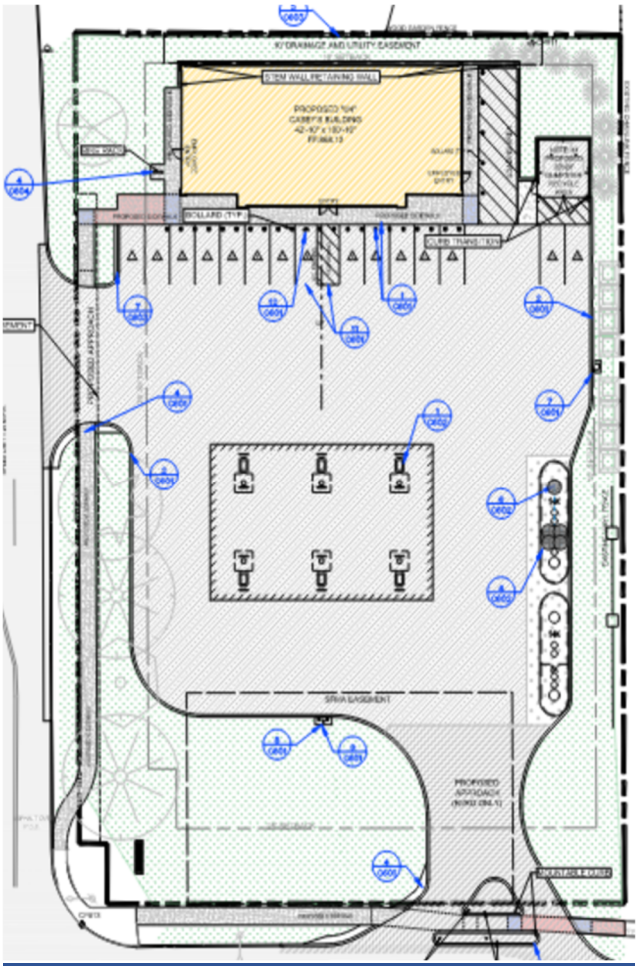
Walkability: Sidewalk on 70th Street is currently located immediately at back of curb. Pedestrians avoid using the sidewalk because it does not feel safe to be in such close proximity to moving traffic.



Pedestrians also avoid using this sidewalk in the winter because it is difficult to keep it cleared of snow and ice as every pass with a plow loads the sidewalk with mounds of snow.

The sidewalk adjacent to 70th Street will be moved to the east onto private property with a sidewalk easement granted to the city (see below). Moving the sidewalk creates distance between traffic and pedestrian and makes a safer and more inviting walking path and also creates storage for plowed snow, keeping the sidewalk clear in the winter.

A direct path from the sidewalk to the storefront is provided at the southwest corner of the building to insure pedestrians have a safe path of travel and do not have to walk across the parking lot. Street trees are provided along 70th Street to shade the sidewalk and provide a more inviting and comfortable walking path in the hot summer months. Sidewalk along University Avenue will be widened to 6' to meet recently adopted code requirements.



D. Parking and Loading. The development shall provide all off-street parking and loading areas as required by this ordinance, and adequate service entrances and areas. Appropriate screening shall be provided around parking and service areas to minimize visual impacts, glare from headlights, noise, fumes or other detrimental impacts.

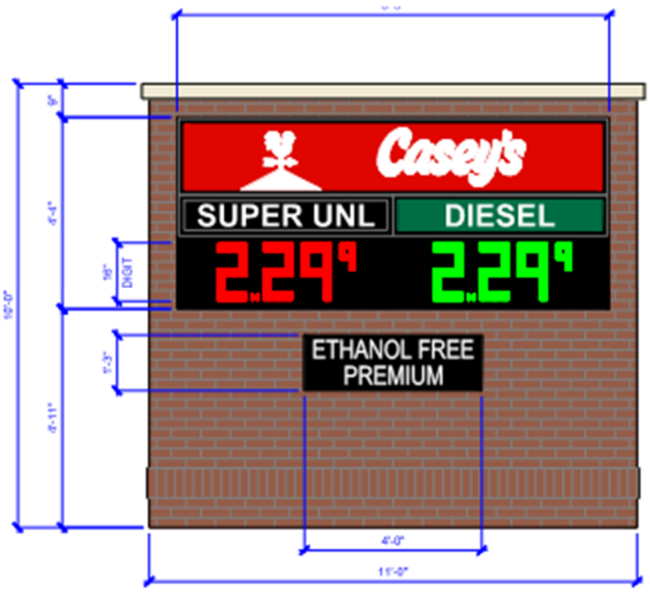
Parking: Chapter 174.04 of the City of Windsor Heights Code of Ordinances stipulates the number of parking spaces required based on the use of the property. Auto Service uses require 1 space per 500 s.f.. The proposed building is 4,283 s.f. which lends a parking requirement of 9 stalls. The Casey's site plan indicates 15 parking stalls in satisfaction of ordinance requirements. All ADA parking requirements have been met.

Screening: The site plans is designed with a 6' privacy fence at the north property line to intercept and screen headlight glare from the north-adjacent property and landscape plantings to intercept and screen headlight glare from the east-adjacent property. See narrative above at lettered item 'B' regarding transition between surrounding properties.

E. Signs and Lighting. Permitted signage shall be in accordance with the applicable district regulations and shall be compatible with the immediate vicinity. Exterior lighting, if provided, shall be with consideration given to glare, traffic safety and compatibility with property in the immediate vicinity.

SIGNS: Chapter 175.09-04 of the City of Windsor Heights Code of Ordinances allows for both attached and ***detached*** signs totaling 150 s.f. total in the UC Zoning District. Of the aforementioned 150 s.f., up to 90 s.f. may be utilized for detached signage and detached signs may not exceed 10' in height. The proposed Casey's site plan shows one detached monument sign at the SE corner of University Avenue and 70th Street. Said sign is 47.25 s.f. and 10' in height in satisfaction of the above-listed code requirements. The monument sign will be internally lit and will also exhibit electronic changeable copy as allowed by Chapter 175.09-02 of code but will not utilize flashing moving or rotating images or symbols. The proposed monument sign is shown at right.

Monument sign totaling 47.25 s.f.



The balance of the 150 s.f. total sign allowance in the UC district will be utilized for "Attached" signs. Casey's proposes signage on the south and west sides of the convenience store totaling 71.15 s.f. and the north/south/east sides of the fuel pump canopy totaling 18.42 s.f.. Attached signage will be internally lit as allowed by code. The cumulative total of all attached and detached signage proposed is 136.82 s.f. in satisfaction of code requirements. All sign lighting is extinguished outside of business hours.

Attached signage totaling 71.15 s.f.:

1



SOUTH

2



WEST

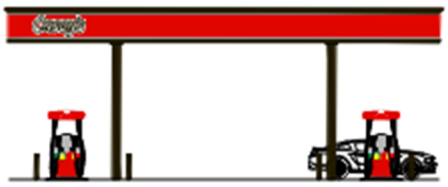
Attached canopy signage totaling 18.42 s.f.:

3

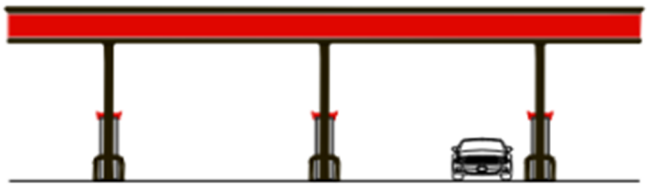


SOUTH

3



EAST



WEST

3



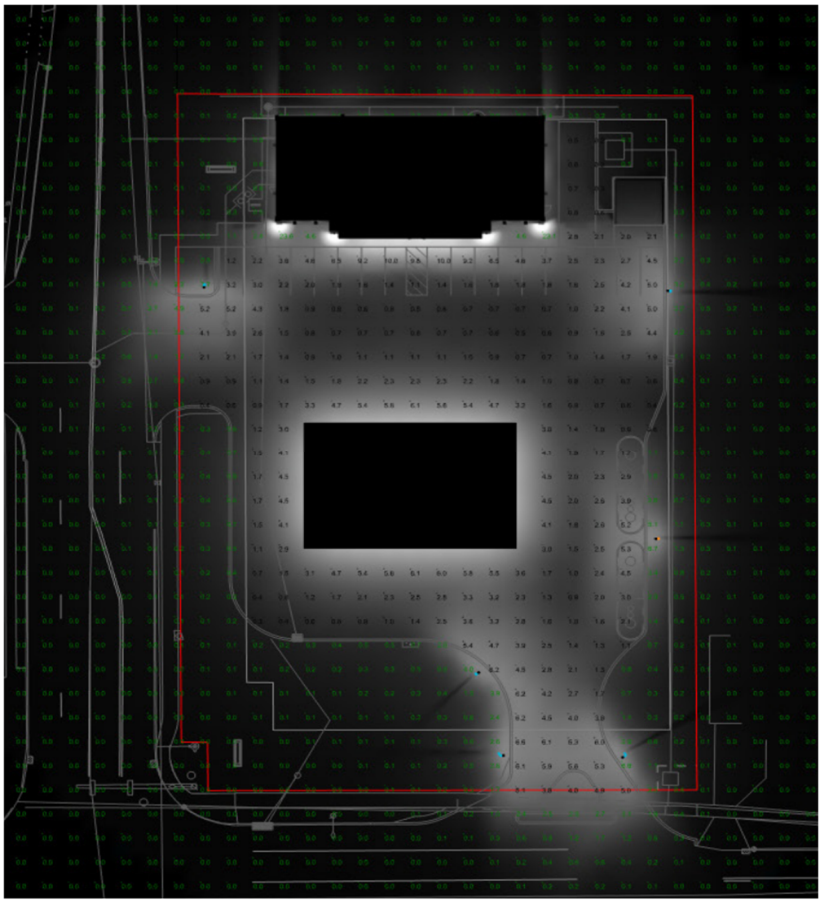
NORTH

Exterior Lighting: The City of Windsor Heights has strict outdoor lighting requirements governed by Chapter 172.13 of the City of Windsor Heights Code of Ordinances. Said code chapter requires site lighting to automatically extinguish during daylight hours and to be reduced by at least 30% by 12:00 AM. There are also ordinance requirements for limiting total site lumens and backlight, uplight and glare (BUG) at Chapter 172.13.5. The site lighting plan proposed for the subject property meets all ordinance requirements. A full site lighting design package is included as an attachment.

Total Lumens: Per said ordinance requirements the max total lumens allowed for the site is 5 lumens per s.f. of impervious area, or 196,205 lumens. The site is in compliance with 192,634 total lumens.

The photometric layout included in the site lighting design package indicates Light levels that traverse the north and east property lines are limited to .1 to .3 lumens (one lumen is roughly the light of one candle shining on a one-foot square from one foot away). Light levels on the west and south property lines will be at 0.0 before the opposite side of the right-of-way. These lumen levels do not take into account screening methods described above in the section on buffering and transitions; therefore, the lumen levels will be even less than what is shown on the photometric layout.

3D illumination mapping of the site is available at the following link: https://rlasiteplans.com/caseys/rl-9171/s1-r3/terheeheht/



F. Environmental Protection. The development shall be planned and operated in such a manner that will safeguard environmental and visual resources. The development shall not generate excessive noise, vibration, dust, smoke, fumes, odor, glare, groundwater pollution or other undesirable, hazardous or nuisance conditions, including weeds.

Flooding and Stormwater Runoff: Chapter 5 of the 2017 Destination Windsor Heights Comprehensive Plan addresses the natural environment and is entitled "Improving Amenities". A stated goal of the plan is to enhance Walnut Creek for improved water quality/quantity outcomes, and enhance streambank protection.

Page 78 of said plan states annual streamflow in Walnut Creek has increased 37% since 1981 and flood events have impacted residences and businesses located along Walnut Creek. To address flooding the city has adopted design criteria established by the Iowa Stormwater Management Manual (ISWMM) to address both water quality and quantity.

Page 79 of said document states "Nearly 30,000 tons of sediment each year is washed through Walnut Creek to the Raccoon River. The three largest sources of this sediment are believed to be streambank erosion, gully erosion and construction site runoff".

In its current condition the subject property exhibits 76% impervious area that is undetained. Stormwater runs freely off the site without restriction to the city's stormsewer system. The Casey's site plan not only reduces impervious area to 70% but is designed to comply with the City's strenuous stormwater management requirements. A system of underground detention cells is shown near the SW corner of the lot. Said detention cells detain water quality volume to the requirements of city code, encourage stormwater infiltration, and releases stormwater slowly to the city's stormsewer system. These practices allow suspended sediments to settle out of the water column before it enters Walnut Creek and helps to eliminate flooding and streambank erosion.

Construction Site Runoff: All new construction projects in the city are required to develop a stormwater pollution prevention plan and obtain a Construction Site Erosion and Sediment Control Ordinance Permit (COSESCO) to insure construction site runoff does not enter the city's stormsewer system and the proposed Casey's project is not immune from said requirement. All construction activities will be performed under the watchful eyes of the city inspectors who will insure strict adherence to COSESCO requirements during construction.

Fuel Leaks, Spills and Vapors: Primary environmental concerns voiced at the January 17th Board of Adjustment meeting were centered around ***fuel leaks*** from underground storage tanks/piping/dispensers, ***fuel spills*** and ***airborne fuel vapors***. As a matter of course Casey's implements the following measures for every store to safeguard the aforementioned environmental concerns:

Fuel Leaks

The United States Environmental Protection Agency (EPA) has primary authority over Underground Storage Tank (UST) regulations which can be found at Chapter 40 of the Code of Federal Regulations parts 80 and 81. Said regulations require that the UST have a secondary containment system in case of a leak and be equipped with a system to detect a release from any portion of the tank and/or the connected underground piping. The regulations also require an

annual test of the system to insure continued reliability and function. Casey's complies with or exceeds all federal and state regulations applicable to the location of every UST owned or operated by Casey's. Please refer to the ***attached Fuel System Overview*** for a detailed explanation of the methods utilized to protect against and monitor fuel leaks (also summarized below):

- ***Underground Storage Tank (UST).*** The UST's are made of corrosion-resistant fiberglass. Tanks are constructed with a secondary containment around the full circumference of the tank (double walled tank). If there is ever an issue with the primary tank, the outer tank both contains the leak and while a leak detection alarm is generated to the operator.
- ***Piping.*** All piping is a multiple layer pipe system that also has secondary containment (double walled piping). If there is ever an issue with the primary pipe, the outer pipe contains the leak while a leak detection alarm is generated to the operator.
- ***Sumps.*** Tank sumps and dispenser sumps are used for secondary containment of piping connections. The sumps contain potential drips or leaks from the dispenser or submersible pump and allows for any leak to be detected.
- ***Automatic Tank Guage (ATG).*** An automatic tank gauge continuously monitors the fuel system for changes in pressure or volume to detect leaks. If there are any issues the ATG will sound an alarm and/or shut down the fuel system (see Casey's Alarm Response below).
- ***Line Leak Detection***. The ATG compares the pressure at the submersible pump to the pressure in the piping to determine whether the pipe is leaking. If a leak is detected the submersible pump will shut down and the ATG alarms (see Casey's Alarm Response below).

Fuel Spills:

While fuel spills are infrequent, the aforementioned federal EPA regulations also mandate operator training, including training for store employees, on how to respond to alarms and spills. The ***Casey's fuel spill response protocols are included as an attachment*** and summarized below:

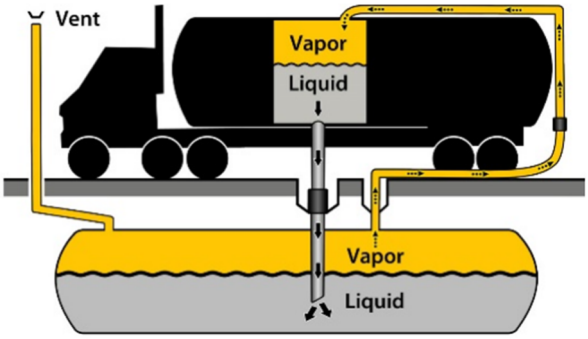
- ***Dispenser.*** Piping to the dispenser utilizes an emergency valve that provides protection against fire or collision with the dispenser. If either occur, the emergency valve will close and stop the flow of fuel below the dispenser. Each hose also has an emergency breakaway. If a nozzle is left in the vehicle when it drives away, the breakaway will protect against damage to the hose and dispenser. Fuel flow is also stopped when the breakaway is activated.
- ***Emergency Stop.*** In the event of a spill, fire or other emergency, an emergency stop will shut off power to the entire fuel system and canopy area.
- ***Fill Spill Container.*** During fuel tanker drops there is the potential to spill small amounts of fuel. The spill container will contain up to 5 gallons of fuel that would otherwise be released.
- ***Overfill Prevention.*** The overfill prevention valve closes when the tank is 95% full to prevent the tank from being overfilled and potentially releasing fuel.
- ***Product Probe.*** The probe continuously monitors the volume of the tank and the ATG alarms if the level changes unexpectedly (see Casey's Alarm Response below).
- ***Liquid Sensor.*** Sensors in the tank sumps and dispenser sumps detect liquid in the sump that may be from leaking equipment. When liquid is detected the ATG will sound an alarms (see Casey's Alarm Response below).

Casey's Alarm Response: Casey's operates over 2,000 UST locations and has a team of professionals dedicated to designing, installing, and monitoring our UST systems. Automatic Tank Gauge Alarms are connected to the store managers work station and readings are sent to the Environmental Compliance director at Casey's corporate office. Casey's has a 24/7 service dispatch team that can be dispatched by a store employee or by the corporate office. Both store employees and Casey's tanker drivers have spill kits for containing a surface release and have been trained on using them. Casey's training includes how to respond to an alarm, how to respond to a surface release, and requires that any release, regardless of amount, be reported.

Airborne Fuel Vapors:

Fuel vapors are present in the UST's and within the gas tank of automotive vehicles. Vapors can be forced from both the UST's and a vehicles gas tank when fuel is added. Exposure to those vapors is controlled in two fashions:

Stage 1 Vapor Recovery. The United States EPA requires Stage I Vapor Recovery during the refueling of fuel tanks to reduce hydrocarbon emissions. Vapors in the tank, which are displaced by the incoming fuel, are routed through a hose into the cargo tanker, instead of being vented to the atmosphere. Vent caps seal vapors in the tank when pressure is equalized.



Onboard refueling vapor recovery system (ORVR). An ORVR is a vehicle fuel vapor emission control system that captures volatile organic compounds during refueling. An ORVR carbon-filled canister (installed on modern vehicles) is designed to capture fuel vapors displaced while refueling, and then to inject them into the intake manifold later on, so that they are burned along with the regular fuel during normal engine operation. In the United States, ORVR has been mandated on all passenger cars since the year 2000 and light trucks up to 10,000 lbs gross vehicle weight rating since 2006.

Table 168-2 – Permitted Uses by Zoning District

Use Types	R-1	R-2	R-3	MH	CC	UC	LI
Administration	C	C	C	C	P	P	P
Adult Entertainment							C
Agricultural Sales/Service					C		P
Alternative Energy Production Devices	C	C	C	C	C		P
Amateur Radio Tower	P	P	P	P	P	P	P
Animal Production							C
Auto Rental/Sales					P		P
Auto Services					P	C	P
Bars					P	P	P
Bed and Breakfast	C	C	C		P	P	
Body Repair					C		P
Broadcasting Tower					C		C
Business Support					P	P	P
Business/Trade School					P	P	P
Cemetery	C	C	C				
Civic Organizations	C	C	C	C	P	P	
College/University	C	C	C	C	P	C	
Commercial Breeders							P
Commercial Recreation (General)					C	C	P
Commercial Recreation (Limited)					P	P	P
Communications Services					P	P	P
Construction Batch Plant							P
Construction Sales/Service					P		P
Construction Yards							C
Consumer Services					P	P	P
In-Patient Services	C	C	C	C	P	C	
Convenience Storage					C		P
Crop Production							
Cultural Services	C	C	P	P	P	P	P
Custom Manufacturing					C	C	P
Day Care (General)	C	C	P	C	P	P	C
Day Care (Limited)	P	P	P	P	P	P	C

DRAFT

Use Types	R-1	R-2	R-3	MH	CC	UC	LI
Pawn Shop							C
Detention Facilities							C
Emergency Residential	C	C	C	C	P	P	C
Equipment Rental/Sales							P
Equipment Repair							P
Family Home	C	C	P	C		P	
Financial Services			C		P	P	P
Firework Sales							P
Food Sales (Convenience)					P	C	
Food Sales (General)					P	C	
Food Sales (Limited)					P	P	
Funeral Services		C	C		P	P	
Gaming Facility					C	C	
General Industry							C
General Offices			C		P	P	P
General Retail (Large-Scale)					P	C	
General Retail (Small-Scale)					P	P	
Group Care Facility	C	C	P	C	P	P	C
Group Home	C	C	P	P	P	P	
Guidance Services			C		P	P	P
Health Care (Large-Scale)			C		C	C	C
Health Care (Small-Scale)		C	C		P	P	P
Heavy Industry							C
Horticulture					C		
Landfill (Putrescible)							C
Landfill (Non-Putrescible)							C
Laundry Services					P	C	P
Liquor Sales					P	P	
Light Industry							P
Lodging					P	P	
Maintenance Facility							P
Manufactured Housing Residential	P	P	P	P			

DRAFT

Use Types	R-1	R-2	R-3	MH	CC	UC	LI
Medical Offices			C		P	P	P
Mobile Home Park				C			
Off-Street Parking					C	C	P
Parking Structure					C	P	P
Parks/Recreation	P	P	P	P	P	P	P
Pet Services					P	C	P
Postal Facilities					P	P	P
Primary Education	P	P	P	P	P	P	
Public Assembly	P	P	P	P	P	P	
Railroad Facilities							P
Recycling Collection					C		P
Recycling Processing							C
Repair Services							P
Research Services					P	P	P
Residential, Accessory Dwelling Unit	C	P	P				
Residential, Downtown						P	
Residential, Duplex	C	P	P			P	
Residential, Multi-Family		C	P		C	P	
Residential, Single-Family Detached	P	P	P	P		P	
Residential, Townhouse		C	P		C	P	
Resource Extraction							C
Restaurants (Drive-In)					P	C	P
Restaurants (General)					P	P	C
Retirement Residential	C	C	P	C		C	
Safety Services	C	C	P	P	P	P	P
Salvage Services							C
Secondary Education	C	C	C	C	P	P	
Surplus Sales					C	C	P
STVR (Short Term Vacation Rental)	P	P	P	P	P	P	
Trade Services					P	C	P
Transportation Terminal					P	C	P
Truck Terminal							C

DRAFT

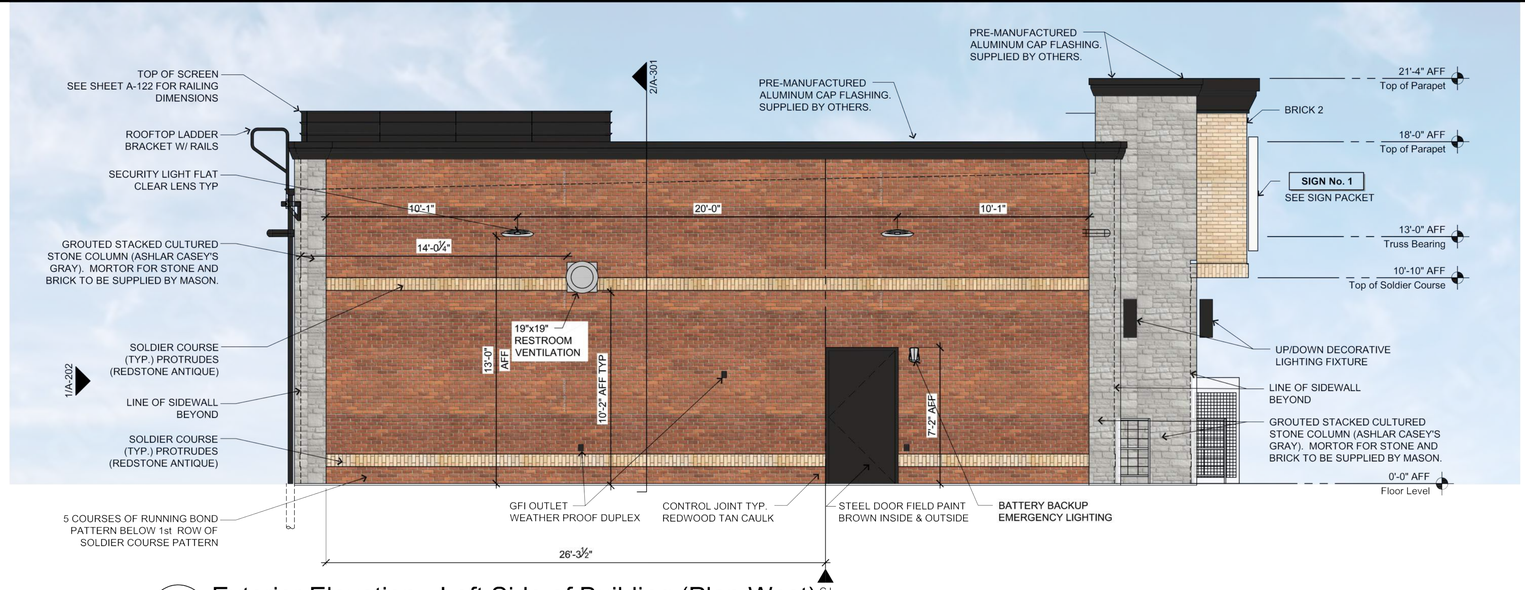
Use Types	R-1	R-2	R-3	MH	CC	UC	LI
Utilities	C	C	C	C	P	P	P
Vehicle Storage (Short-term)							P
Vehicle Storage (Long-term)							C
Veterinary Services					P	P	P
Warehousing							C

Note:

P = Uses Permitted by Right

C = Uses Permitted by Conditional Use permit approval according to Sec. 177.03.

Blank = Use Not Permitted



2 Exterior Elevation - Left Side of Building (Plan West)

1/4"=1'-0"



1 Exterior Elevation - Front of Building (Plan South)

1/4"=1'-0"

PRIMARY MATERIALS	FRONT	BACK	RIGHT	LEFT
GLASS	231 SF			
STONE	206 SF	44 SF	142 SF	142 SF
BRICK 1	982 SF	1098 SF	659 SF	659 SF
BRICK 2 (THIN SET)	469 SF		24 SF	24 SF
SECONDARY MATERIALS				
CONCRETE		379 SF		
METAL FLASHING	145 SF	60 SF	50 SF	50 SF
ACM PANELS				
TOTAL AREA OF ELEVATION	2,033 SF	1194 SF	902 SF	902 SF
PERCENT TOTAL OF BRICK (EXCLUSIVE OF GLASS)	80.52%	95.64%	75.72%	75.72%
PERCENT TOTAL OF REMAINING MATERIALS (EXCLUSIVE OF GLASS)	19.48%	4.36%	24.28%	24.28%

General Notes

1. REVIEW AND COORDINATE WITH ALL DETAIL PAGES REFERENCED ON THIS PLAN, NOTIFY ARCHITECT AND OWNER OF DISCREPANCIES
2. **RELATED DRAWING SHEETS**: REFER TO THE FOLLOWING:
   AL-101: FOR BUILDING LOCATION ON SITE
   AL-601: FOR INFORMATION RELATING TO SIGNAGE
   A-101: PRIMARY FLOOR PLAN FOR CONSTRUCTION LAYOUT
   A-121: ROOF PLAN/ROOF TOP EQUIPMENT
   A-601: DOOR & WINDOW SCHEDULES AND NOTES
   S-101: FOOTINGS AND FOUNDATIONS
   S-102: ROOF TRUSSES
3. **WORKING POINT**: THE WORKING POINT (***WP***) INDICATED ON THE DRAWINGS IS RELATIVE TO THE FACE OF SHEATHING ON THE EXTERIOR WALL AND IS A COMMON POINT OF REFERENCE WHERE EVER USED IN THESE DRAWINGS
4. ALL VENT PENETRATIONS ON BACK OF BACKSIDE OF ROOF.

OPTION 2

PELDS DESIGN SERVICES
Architecture | Engineering | Surveying
2323 Dixon Street, Des Moines, Iowa 50316 | P.O. Box 4626 Des Moines, Iowa 50305 | P: 515-265-8196 F: 515-266-2259
PELDS JOB NO. 22-201

CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., P.O. Box 3001, Ankeny, Ia. 50021 515-965-6100

PROJECT: UNIVERSITY AVE. & 70TH ST. WINDSOR HEIGHTS, IA	PUBLISHED: 03/15/23; REVISED ON: 09/15/23
PROTOTYPE AND VERSION: 2023 - U4 - V.01	DRAWING INFORMATION: EXTERIOR ELEVATIONS
DRAWN BY: Arlon Goforth III; CHECKED BY: D. WILLRICH	A-201

SITE IMPROVEMENTS
FOR
CASEY'S STORE #4372
6961 UNIVERSITY AVE
WINDSOR HEIGHTS, IA

SITE ADDRESS
6961 UNIVERSITY AVE
WINDSOR HEIGHTS, IA 50324

SITE AREA
1.29 ACRES (56,374 SQ.FT.)

ZONING
EXISTING: UC
ADJACENT ZONING:
N: R1 E: UC S: UC W: UC

SETBACKS
FRONT SETBACK: 25
STREET SIDE SETBACK: 25
INTERIOR SIDE SETBACK: 0
REAR SETBACK: 10

BUILDINGS
EXISTING: 9,926 SQ. FT.
PROPOSED: ~ 42'-10" x 100'-10" - 4,569 SQ.FT.

BUILDING USES
RETAIL STORE

BUILDING HEIGHT
MAX BUILDING HEIGHT: 45'
PROPOSED HEIGHT: 25

MAX FLOOR AREA RATIO
1.00

PAVING
APPROACHES: 8" THICK NON REINFORCED P.C.C. WITH MINIMUM 6" CRUSHED ROCK SUBBASE***
PARKING LOT: 6" THICK NON REINFORCED P.C.C. WITH MINIMUM 6" CRUSHED ROCK SUBBASE**
CURB: 6" TALL STANDARD CURB
SIDEWALK 6" THICK P.C.C
UGST: 8" THICK REINFORCED P.C.C. WITH MINIMUM 6" CRUSHED ROCK SUBBASE***

***6" CRUSHED ROCK SUBBASE THAT COMPLIES WITH AASHTO M147 GRADE C OR GRADE D AND SUBGRADE THAT IS COMPACTED TO 95% STANDARD PROCTOR DENSITY. VERIFY SUBBASE DEPTH WITH ENGINEER PRIOR TO CONSTRUCTION.

MAXIMUM JOINT SPACING = PAVEMENT THICKNESS * 1.5 = 6 * 1.5 = 9 FT

OPEN SPACE
EXISTING: 24% (13,3 SQ.FT.)
PROPOSED: 30% (17,133 SQ.FT.)
REQUIRED: 20% (11,275 SQ. FT.)

IMPERVIOUS SPACE
EXISTING: 76% (42,844 SQ.FT.)
PROPOSED: 70% (39,241 SQ.FT.)

PARKING
REQUIRED:
10 SPACES (4,569 SQ.FT. BLDG. => 4,569 / 500 = 10)

PROPOSED:
15 SPACES (INCLUDING 1 HANDICAP PARKING STALL)
1 LOADING SPACE (12'X52')

SIGNS
PROPOSED CASEY'S 2-PRODUCT PYLON - NORTH OF WEST ENTRANCE
PROPOSED CASEY'S 2-PRODUCT PYLON - WEST OF SOUTH ENTRANCE

DISTURBED AREAS
ESTIMATED: 60,612 SQ.FT.
ALL DISTURBED AREAS SHALL BE SEEDED OR SODDED.
THE DISTURBED AREA FOR THIS SITE IS MORE THAN 1 ACRE, THEREFORE A NPDES PERMIT IS REQUIRED.

GEOTECHNICAL REPORT
REFERENCE REPORT #232040CWH COMPLETED 4/18/2023 BY CONSTRUCTION MATERIALS TESTING (CMT)

LEAKING UNDERGROUND STORAGE TANKS
THIS SITE IS NOT A LUST SITE

FLOODPLAIN
PER FEMA MAP #19153C0327F, THE SITE IS LOCATED IN ZONE X, AREA OF MINIMAL HAZARD

FAA
PER FAA NOTICE CRITERIA TOOL, SITE DOES NOT EXCEED NOTICE CRITERIA UP TO 100 FT HEIGHT (FOR POSSIBLE CRANE HEIGHT) AND THEREFORE FILING WITH THE FAA IS NOT REQUIRED

VICINITY MAP



SHEET INDEX

C-001 - COVER SHEET
C-002 - NOTE SHEET
C-003 - TOPO SHEET
C-100 - DEMO SHEET
C-101 - LAYOUT SHEET
C-103 - DIMENSION SHEET
C-201 - GRADING SHEET
C-301 - UTILITY SHEET
C-401 - EROSION CONTROL SHEET
C-501 - TRAFFIC CONTROL SHEET
C-601 - DETAIL SHEET
C-602 - DETAIL SHEET
C-603 - DETAIL SHEET
C-604 - DETAIL SHEET
C-701 - LANDSCAPING SHEET

LEGAL DESCRIPTION:
LOTS 40, 41, AND 42 OF MOTTS PLACE, AN OFFICAL PLAT, NOW INCLUDED IN AND FORMING A PART OF THE CITY OF WINDSOR HEIGHTS, POLK COUNTY, IOWA, EXCEPT THAT PART DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF LOT 41 OF SAID MOTT PLACE; THENCE ALONG THE SOUTH LINE OF SAID LOTS 41 AND 41 HAVING AN ASSUMED BEARING OF NORTH 90°00'00" WEST, A DISTANCE OF ONE HUNDRED NINETY FOUR AND NINETY FIVE HUNDRETHS (194.95) FEET; THENCE NORTH 00°13'53" WEST, A DISTANCE OF TWENTY (20.00) FEET; THENCE NORTH 90°00'00" WEST A DISTANCE OF FIVE (5.00) FEET TO A POINT ON THE WEST LINE OF SAID LOT 40; THENCE NORHT 00°13'53" WEST, A DISTANCE OF TWO HUNDRED SIXTY NINE AND FORTY FOUR HUNDRETHS (269.44) FEET; THENCE NORTH 90°00'00" EAST, A DISTANCE OF TEN (10.00) FEET; THENCE SOUTH 00°13'53" EAST, A DISTANCE OF TWENTY (20.00) FEET; THENCE NORTH 90°00'00" EAST, A DISTANCE OF ONE HUNDRED EIGHTY FIVE AND NENTY FOUR (185.94) FEET TO A POINT ON THE EAST LINE OF SAID LOT 41; THENCE SOUTH 00°13'53" EAST, A DISTANCE OF TEN (10.00) FEET TO THE POINT OF BEGINNING.

ITEM	QUANTITY INFORMATION*	UNITS
6" CONCRETE PAVEMENT	ON-SITE: 27,163 - OFF-SITE: NONE	SQ. FT.
8" REINFORCED CONCRETE PAVEMENT	1,353	SQ. FT.
8" CONCRETE PAVEMENT	ON-SITE/APPROACHES: 4,553 - OFF-SITE: NONE	SQ. FT.
CONCRETE CURB	912	LIN. FT.
SIDEWALK, NOT ADJACENT TO STORE	1,747	SQ. FT.
DETENTION SYSTEM	ADS UNDERGROUND - 13,438	CU. FT.
SEWER SERVICE	DIRECT BURY: 120 - BORE: NONE	LIN. FT.
WATER SERVICE	DIRECT BURY: 56 - BORE:NONE	LIN. FT.
8" HDPE STORM SERVICE	195	LIN. FT.
10" HDPE STORM SERVICE	157	LIN. FT.
12" HDPE STORM SERVICE	65	LIN. FT.
15" RCP STORM SERVICE	26	LIN. FT.
STRUCTURES - SW-512	1	EACH
STRUCTURES - NYLOPLAST BASIN WITH INTAKE	1	EACH
STRUCTURES - NYLOPLAST BASIN	1	EACH
STRUCTURES - STORM CLEANOUT	3	EACH
STRUCTURES - SANITARY CLEANOUT	1	EACH
STRUCTURES - WATER VALVE	1	EACH
EARTHWORK CUT & HAUL	1,077	CU. YD.
EARTHWORK CUT & RESPREAD	174	CU. YD.
TOPSOIL REQUIRED	327	CU. YD.
FENCING	180 - 6' OPAQUE	LIN. FT.
SOD AREA	17, 702	SQ. FT.
ASPHALT PAVEMENT DEMOLITION	29,577	SQ. FT.
CONCRETE PAVEMENT DEMOLITION	4,019	SQ. FT.
BUILDING DEMOLITION	DEMO BY PREVIOUS OWNER	SQ. FT.
TREE DEMOLITION	4	EACH
RETAINING WALL	270	VERT. SQ. FT

IN THE EVENT OF A DISCREPANCY BETWEEN THE QUANTITY ESTIMATES AND THE DETAILED PLANS, THE DETAILED PLANS SHALL GOVERN
CONTRACTOR TO PROVIDE A COMPLETE PROJECT PER THE CONSTRUCTION DOCUMENTS, QUANTITIES PROVIDED AS PART OF THIS SUMMARY ARE FOR REFERENCE PURPOSES ONLY AND ARE NOT A BASIS FOR CHANGE ORDER IF ADDITIONAL QUANTITY IS INSTALLED AS PART OF THE ORIGINAL BID DOCUMENTS

CASEY'S SDM
CASEYS MARKETING COMPANY
ONE SE CONVENIENCE BLVD
ANKENY, IOWA 50021
PROJECT CONTACT: ERIK NIKKEL
PHONE: (515) 381-5722
EMAIL: ERIK.NIKKEL@CASEYS.COM

SITE OWNER
CHARLES I & RUBY COLBY NATL DEV TRUST
6961 UNIVERSITY AVE
WINDSOR HEIGHTS, IOWA 50324

CITY ENGINEER
BOLTON & MENK, INC.
430 E GRAND AVE, STE 101
DES MOINES, IOWA 50309
CITY ENGINEER: JUSTIN ERNST
PROJECT CONTACT: TREY ROUSE
PHONE: (515) 259-9190
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CITY CONTACT
CITY OF WINDSOR HEIGHTS
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ENGINEER/ LAND SURVEYOR
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(CTLIA01) CENTURYLINK
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Contact Email: sadie.hull@lumen.com

(DWW) DES MOINES WATER WORKS
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Contact Email: onecallmaps@dmww.com

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Contact Email: Justin.grev@consolidated.com

(ICN) IOWA COMMUNICATIONS NETWORK
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Contact Phone: 8005723940
Contact Email: icnoutsideplantiowaonecall@iowa.gov

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Contact Email: asg.investigationsteam@asginc.us

(POLKIA1) MEDIACOM
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Contact Phone: 5152466668
Contact Email: KCOLLINS1@MEDIACOMCC.COM

(UPN) UNITE PRIVATE NETWORKS, LLC
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Contact Phone: 8164253556
Contact Email: upngis@upnfiber.com

(VER01) VERIZON WIRELESS
Contact Name: Ryan Schaffer
Contact Phone: 5152015382
Contact Email: ryan.schaffer@verizonwireless.com

(WHC) WINDSOR HEIGHTS, CITY OF
Contact Name: Dalton Jacobus
Contact Phone: 5156456825
Contact Email: djacobus@windsorheights.org

(WINIA) WINDSTREAM COMMUNICATIONS
Contact Name: Locate Desk
Contact Phone: 8002891901
Contact Email: LOCATE.DESK@WINDSTREAM.COM

(ZAY) ZAYO GROUP LLC
Contact Name: John Ferraresi
Contact Phone: 3122160450
Contact Email: john.ferraresi@zayo.com

(CLV) CLIVE, CITY OF
Contact Name: Jared Acheson
Contact Phone: 5152236231
Contact Email: rowpermits@cityofclive.com

(MET) METRO FIBERNET, LLC
Contact Name: Korie Nellis
Contact Phone: 8122131050
Contact Email: 811design@metronet.com

LEGEND:

	CALCULATED SECTION CORNER	Ⓔ	ELEC. MANHOLE		SINGLE INTAKE
	FOUND SECTION CORNER	EV	ELEC. VAULT		AREA INTAKE
	PARKING SPACE		GUY ANCHOR		THROAT INTAKE
F.F.	FINISHED FLOOR		UTILITY PEDESTAL		FLARED END SECTION
+/-	MORE OR LESS	TV	CABLE TV JUNCTION BOX		VALVE
123.45G	GUTTER ELEVATION		GAS VALVE		FIRE HYDRANT
123.45TC	TOP OF CURB ELEVATION	GM	GAS METER		WATER METER
123.45/ 123.45	EXISTING/ PROPOSED ELEVATION	Ⓢ	SANITARY SEWER MANHOLE		WATER VALVE
FL	FLOWLINE ELEVATION	Ⓢ	STORM SEWER MANHOLE		WATER TEE
	CONTROL POINT	ET	ELEC. TRANSFORMER	P XX	PROPOSED UTILITY LINE
	CALCULATED CORNER	EM	ELEC. METER	E XX	EXISTING UTILITY LINE
	FOUND CORNER	EB	ELEC. BOX	D	DOWNSPOUT

CATV	CABLE TELEVISION
FO	FIBER OPTIC
G	GAS LINE
OHE	OVERHEAD ELEC.
OHT	OVERHEAD TEL.
SAN	SANITARY SEWER
ST	STORM SEWER
UGE	UNDERGROUND ELEC.
UGT	UNDERGROUND TEL.
W	WATER
	FENCE LINE

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

VOLDEMARS L. PELDS, P.E. IA. LIC. NO. 18842 DATE

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2025

ADDITIONAL PAGES OR SHEETS COVERED BY THIS SEAL (NONE UNLESS INDICATED HERE): C-001 - C-701

PELDS DESIGN SERVICES
Architecture | Engineering | Surveying
2323 Dixon Street, Des Moines, Iowa 50316 | PO Box 4626, Des Moines, Iowa 50305 | Ph: 515 265 8196

TITLE:
CASEY'S STORE #4372
6961 UNIVERSITY AVE
WINDSOR HEIGHTS, IA

BENCHMARK:
REVISIONS: PRELIMINARY

COPYRIGHT DATE:	DRAWN BY:	SCALE:	LATEST REVISION:	DRAWING NO:
----	N. DAY	———	1-16-2024	22-201

FILE PATH: J:\2022 Projects\22-201 CGS Windsor Height\Engineering\Sheet Set
C-001 - COVER SHEET

CIVIL ENGINEERING NOTES
FOR
CASEY'S STORE #4372
6961 UNIVERSITY AVE
WINDSOR HEIGHTS, IA

GENERAL NOTES

1. THE CITY OF WINDSOR HEIGHTS MUST BE NOTIFIED BY ALL CONTRACTORS 48 HOURS PRIOR TO COMMENCING WORK.
2. ALL PROPOSED MATERIALS AND STRUCTURES SHALL BE APPROVED BY THE CITY OF WINDSOR HEIGHTS AND BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS
3. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT O.S.H.A. CODES AND STANDARDS. NOTHING INDICATED ON THESE PLANS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE APPROPRIATE SAFETY REGULATIONS.
4. ALL NECESSARY CONSTRUCTION SIGNS, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES REQUIRED DURING CONSTRUCTION WILL BE FURNISHED BY THE CONTRACTOR. SIGNS, BARRICADES, AND OTHER TRAFFIC CONTROL DEVICES MUST BE IN CONFORMANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS."
5. PELDS DESIGN SERVICES SHALL NOT BE LIABLE FOR ANY INJURIES THAT HAPPEN ON SITE. THIS SHALL INCLUDE BUT NOT BE LIMITED TO TRENCH COLLAPSES FROM VARYING SOIL CONDITIONS OR INJURIES CAUSED BY UNDERGROUND UTILITIES INCLUDING UTILITIES THAT ARE NOT SHOWN ON PLAN.
6. THE CONTRACTOR IS LIABLE FOR ALL DAMAGES TO PUBLIC OR PRIVATE PROPERTY CAUSED BY THEIR ACTION OR INACTION IN PROVIDING FOR STORM WATER FLOW DURING CONSTRUCTION. DO NOT RESTRICT FLOWS IN EXISTING DRAINAGE CHANNELS, STORM SEWER, OR FACILITIES.
7. IF A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THIS MEETING.
8. LABORATORY TESTS SHALL BE PERFORMED BY THE OWNER UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL PROVIDE SAMPLES OF MATERIAL REQUIRED FOR LABORATORY TESTS AND TESTING IN ACCORDANCE WITH THE URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
9. THE CONTRACTOR SHALL PROTECT ALL STRUCTURES NOT SHOWN AS REMOVALS ON THE PLANS.
10. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS PRIOR TO ANY CONSTRUCTION. CONTRACTOR SHALL WORK WITH OWNER OR OWNER'S REPRESENTATIVE ON ALL REQUIRED STORM WATER DISCHARGE PERMITS FROM THE IOWA DEPARTMENT OF NATURAL RESOURCES AND THE CITY OF WINDSOR HEIGHTS.
11. THE CONTRACTOR SHALL PICK UP ANY DEBRIS SPILLED ONTO THE ADJACENT RIGHT OF WAY OR ABUTTING PROPERTIES AS THE RESULT OF CONSTRUCTION, AT THE END OF EACH WORK DAY.
12. THE CONTRACTOR IS RESPONSIBLE FOR THE PROMPT REMOVAL OF ALL MUD THAT HAS BEEN TRACKED OR WASHED UNTO ADJACENT PROPERTY OR RIGHT OF WAY UNTIL SUCH TIME THAT PERMANENT VEGETATION HAS BEEN ESTABLISHED.
13. DISPOSE OF ALL EXCESS MATERIALS AND TRASH IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS. PROVIDE WASTE AREAS OR DISPOSAL SITES OR EXCESS MATERIALS NOT DESIRABLE FOR INCORPORATION INTO THE PROJECT.
14. ALL CONSTRUCTION WITHIN THE PUBLIC R.O.W/EASEMENTS, AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS SHALL COMPLY WITH THE CITY OF WINDSOR HEIGHTS.
15. THE CONTRACTOR SHALL CONTACT THE CITY OF WINDSOR HEIGHTS TO SCHEDULE ANY REQUIRED INSPECTIONS AT LEAST ONE WEEK PRIOR TO ANY CONSTRUCTION WITHIN PUBLIC R.O.W/EASEMENTS, AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS
16. IN THE EVENT OF ANY CONFLICTING NOTES BETWEEN THE COVER SHEET AND ALL OTHER SHEETS, THE NOTES ON THE COVER SHEET SHALL SUPERCEDE ALL OTHERS
17. IN THE EVENT OF ANY CONFLICTING INFORMATION BETWEEN THE LABEL, ELECTRONIC CAD FILE, AND THE ELECTRONIC SURFACE, THE DESIGN ENGINEER SHALL BE CONTACTED FOR CLARIFICATION
18. THE CITY OF WINDSOR HEIGHTS HAS NO SPECIFIC REQUIREMENTS FOR TANK BALLAST WATER

SURVEY NOTES

1. SURVEY WORK WAS COMPLETED BY PELDS DESIGN SERVICES IN NOVEMBER 2022. SEE SITE SURVEY PROVIDED AS PART OF THIS SET OF PLANS FOR EXISTING SITE CONDITIONS AND BOUNDARY INFORMATION.

STAKING NOTES

1. IT IS RECOMMENDED FOR THE CONTRACTOR TO HAVE ALL STAKING DONE UNDER THE SUPERVISION OF A LICENSED LAND SURVEYOR AND IN COORDINATION WITH THE PROJECT ENGINEER.
2. IT IS RECOMMENDED FOR THE CONTRACTOR TO HAVE ALL STAKING DONE DIRECTLY UNDER THE GENERAL CONTRACTOR BY A SINGLE COMPANY.
3. STAKING DOES NOT RELIEVE CONTRACTOR OF ULTIMATE RESPONSIBILITY TO CONSTRUCT THE PROJECT PER PLAN.

DEMO NOTES

1. SAWCUT & REMOVE ALL PAVEMENT TO FULL DEPTH OF SLAB.
2. PROTECT ALL TREES NOT CALLED OUT FOR REMOVAL WITH ORANGE CONSTRUCTION FENCE AT THE DRIP LINE.
3. PAVEMENT STRIPING CALLED OUT FOR REMOVAL SHALL BE SANDBLASTED. NO GRINDING WILL BE ALLOWED.
4. PROPERLY DISCONNECT ALL PUBLIC AND PRIVATE UTILITIES, AS NECESSARY.
5. COMPLY WITH LOCAL, STATE, AND FEDERAL REGULATIONS TO REMOVE AND PROPERLY DISPOSE OF SIDEWALKS, STEPS, DRIVEWAYS, AND STRUCTURES (INCLUDING BOTH ABOVE GROUND AND BELOW GROUND ELEMENTS).
6. COMPLY WITH LOCAL, STATE, AND FEDERAL REGULATIONS TO REMOVE FUEL TANKS, SEPTIC TANKS, CISTERNS, AND ANY OTHER UNDERGROUND FACILITIES; AND TO PROPERLY DISPOSE OF ANY LIQUIDS OR PRODUCTS CONTAINED WITHIN THESE ITEMS.
7. PLACE BACKFILL MATERIAL IN HOLES AND DEPRESSIONS, GRADE THE SITE, AND ESTABLISH GROUND COVER.
8. PROTECT EXISTING FIRE HYDRANTS, STREET LIGHTS, TRAFFIC SIGNALS, UTILITY POLES, FIRE ALARM BOXES, WIRE CABLES, UNDERGROUND UTILITIES, AND OTHER APPURTENANCES IN THE VICINITY OF THE DEMOLITION SITE
9. COMPLY WITH NOISE POLLUTION REQUIREMENTS AND ANY WORKING HOUR RESTRICTIONS OF THE JURISDICTION.
10. MAINTAIN OR RE-ESTABLISH ALL TILES, ROADWAY SUBDRAINS, CULVERTS, OR OTHER DRAINAGE FACILITIES NOT IDENTIFIED IN THE CONTRACT DOCUMENTS FOR REMOVAL.
11. IMPLEMENT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN FOR EACH SITE PRIOR TO INITIATING DEMOLITION BY PLACING ALL REQUIRED DEVICES; INCLUDE MEASURES TO PREVENT TRACKING OF MUD ONTO ADJACENT STREETS OR ALLEYS.
12. COMPLY WITH ALL APPLICABLE AIR POLLUTION REQUIREMENTS OF THE JURISDICTION. USE WATER OR APPROPRIATE CHEMICALS FOR CONTROL OF DUST IN THE DEMOLITION AREA, ON HAULING EQUIPMENT, ON ADJACENT ROADWAYS, AND WHEN GRADING THE SITE.
13. TAKE STEPS TO PREVENT THE GENERATION OF LITTER DURING DEMOLITION AND COLLECT ALL LITTER FROM THE DEMOLITION AREA AT THE END OF EACH WORKING DAY. LOAD TRUCKS TO PREVENT LEAKAGE OR BLOWING OF DEBRIS.
14. REMOVE ALL CONCRETE, ASPHALT, OR MASONRY SLABS AND APPURTENANCES.
15. REMOVE AND DISPOSE OF ALL BRUSH, SHRUBS, TREES, LOGS, DOWNED TIMBER, AND OTHER YARD WASTE ON THE SITE UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS. DO NOT MIX WITH DEMOLITION MATERIAL. REMOVE STUMPS TO A MINIMUM OF 2 FEET BELOW FINISH GRADE. PROTECT ANY TREES OR OTHER VEGETATION NOT DESIGNATED FOR REMOVAL BY PLACING A FENCE AT THE DRIP LINE ENCOMPASSING THE ENTIRE TREE AND KEEPING ALL OPERATIONS OUTSIDE OF THE FENCED IN AREA, INCLUDING STORAGE OF EQUIPMENT OR MATERIALS. AT NO ADDITIONAL COST TO THE CONTRACTING AUTHORITY, REPLACE ANY TREES THAT ARE DESIGNATED FOR PROTECTION BUT ARE DAMAGED BEYOND TREATMENT. THE ENGINEER WILL DETERMINE SIZE AND SPECIES OF THE REPLACEMENT TREE.
16. SAW-CUT ALL HARD SURFACING AT LOCATION OF REMOVAL LIMITS.
17. WHERE SELECTIVE DEMOLITION IS SHOWN AT PAVED AREAS, DEMOLISH THE EXISTING PAVING BACK TO AN EXISTING CONTROL JOINT NEAR THE LOCATION SHOWN.

WETLAND NOTES

1. PELDS DESIGN SERVICES DOES NOT PERFORM WETLAND STUDIES OR WETLAND MITIGATION. IT IS THE OWNER'S RESPONSIBILITY TO DETERMINE IF ANY WETLANDS ARE LOCATED ON THE PROJECT SITE AND PERFORM ANY NECESSARY MITIGATION PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

DISCLAIMER

1. THIS DRAWING IS BEING MADE AVAILABLE BY PELDS DESIGN SERVICES (P.D.S.) FOR USE ON THIS PROJECT IN ACCORDANCE WITH P.D.S.'S AGREEMENT FOR PROFESSIONAL SERVICES. P.D.S. ASSUMES NO RESPONSIBILITY OR LIABILITY (CONSEQUENTIAL OR OTHERWISE) FOR ANY USE OF THESE DRAWINGS (OR ANY PART THEREOF) EXCEPT IN ACCORDANCE WITH THE TERMS OF SAID AGREEMENT.
2. P.D.S DISCLAIMS ANY AND ALL LIABILITY OR RESPONSIBILITY FOR INFORMATION THAT DOES NOT BEAR THE ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL IN CHARGE.

UTILITY NOTES

1. QUANTITY CALLOUTS ON PIPE LENGTHS ARE APPROXIMATE AND SHOULD BE USED FOR REFERENCE ONLY.
2. PIPE LENGTHS CALLED OUT ON PLANS DO NOT INCLUDE FLARED END SECTION, WHERE APPLICABLE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES. ANY DAMAGE TO SAID UTILITIES SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTORS EXPENSE.
4. THE CONTRACTOR SHALL RELOCATE EXISTING UTILITIES AS NECESSARY, SHOWN OR NOT SHOWN.
5. THE CONTRACTOR SHALL COORDINATE WITH THE CITY ON ALL SIZE, DEPTHS, AND MATERIALS OF ALL PROPOSED UTILITIES.
6. THE CONTRACTOR MUST PROVIDE AS-BUILTS OF ALL UTILITIES, INCLUDING DEPTH AND LOCATION OF ALL SERVICES IF REQUIRED BY CITY.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE APPROPRIATE UTILITY COMPANIES PRIOR TO CONNECTION OR DISCONNECTION OF A SERVICE LINE.
8. CONTRACTOR IS TO COMPLY WITH THE LATEST SUDAS SPECIFICATIONS FOR MAINTENANCE, INSTALLATION, AND TESTING FOR CONSTRUCTION.
9. THE CONTRACTOR SHALL COORDINATE THE ADJUSTMENT OF ANY AND ALL EXISTING AND PROPOSED UTILITIES TO PROPOSED GRADES. EXISTING UTILITIES SHALL BE RAISED OR LOWERED IN ACCORDANCE WITH THE UTILITY OWNER REQUIREMENTS. ANY NECESSARY ADJUSTMENTS SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
10. ACTIVE EXISTING FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE REPAIRED, REROUTED, OR CONNECTED TO PUBLIC OR PRIVATE STORM SEWER TO REMAIN IN SERVICE. THE TILE SHOULD BE DIRECTED TO PUBLIC STORM SEWER IF POSSIBLE. THE CONTRACTOR SHALL RECORD THE ELEVATION AND LOCATION OF ALL TILES.
11. ALL RIP RAP CALLED OUT ON PLANS SHALL BE UNDERLAIN WITH ENGINEERING FABRIC.
12. ALL STRUCTURE SIZES CALLED OUT ON PLANS ARE MINIMUM INSIDE WALL DIMENSIONS.
13. ALL PROPOSED UTILITIES SHALL BE PRIVATE, UNLESS NOTED OTHERWISE.
14. ALL STRUCTURES CALLED OUT AS "MODIFIED" OR "SPECIAL" SHALL BE ENGINEERED BY THE PRECASTER TO ENSURE STRUCTURE STABILITY. MODIFICATIONS INCLUDE ADDITIONAL WALL LENGTH TO ACCOUNT FOR LARGE PIPE DIAMETERS AND ADDITIONAL WALL WIDTH & BASE DEPTH TO ACCOUNT FOR DEEPER STRUCTURES. ANY AND ALL MODIFICATIONS TO STANDARD STRUCTURES SHALL BE CONSIDERED INCIDENTAL TO BID

ELECTRICAL SERVICE NOTES

15. ALL SITE LIGHTING SHALL NOT SPILL ONTO ADJACENT PROPERTIES OR RIGHT-OF-WAYS
16. TRANSFORMER PAD IS SHOWN FOR REFERENCE ONLY AND MAY NOT BE DRAWN TO ACTUAL SIZE. PAD SHALL CONFORM TO ALL UTILITY COMPANY DESIGN STANDARDS AND SPECIFICATIONS.

SANITARY SERVICE NOTES

17. SANITARY SEWER SERVICE CONNECTIONS SHALL BE PLACED AT A SLOPE OF NO LESS THAN 2% FOR A 4" PIPE AND 1% FOR A 6" PIPE. SERVICES SHALL MAINTAIN 18" OF VERTICAL SEPARATION FROM THE WATER MAIN WITH 18" OF COMPACTED LOW PERMEABILITY SOIL BETWEEN THE UTILITIES WITHIN 10' OF THE CROSSING.

STORM WATER SERVICE NOTES

18. ALL STORM SEWER IN THE ROW SHALL BE RCP (CLASS III RCP), UNLESS OTHERWISE SPECIFIED.
19. ALL PROPOSED RCP STORM SEWER PIPE JOINTS SHALL BE FABRIC WRAPPED AND THE LAST 3 PIPE SECTIONS ON THE APRON SHALL BE TIED WITH RF-14 TYPE II CONNECTORS. ALL APRONS SHALL HAVE A STANDARD FOOTING AND TRASH GUARD.
20. ALL SUMP SERVICE LINES SHALL HAVE TRACE WIRE

WATER SERVICE NOTES

21. WATER SERVICE SHALL BE TYPE K COPPER, DIP OR HDPE, DEPENDING ON SIZE AND JURISDICTIONAL REQUIREMENTS. IF CONTAMINATED OR "HOT" SOILS, ENSURE APPROPRIATE PIPE IS BEING UTILIZED. SIZE OF WATER MAIN AS SHOWN ON PLANS.
22. TRACER WIRE SHALL BE ADDED TO ALL WATER MAIN, AND BROUGHT TO THE SURFACE AT EVERY HYDRANT.
23. THRUST BLOCKS SHALL BE INSTALLED AS REQUIRED AND SHALL BE CONSIDERED INCIDENTAL TO WATER MAIN CONSTRUCTION.
24. ANY AND ALL HYDRANT AND VALVE EXTENSIONS, TOGETHER WITH VERTICAL BENDS, SHALL BE CONSIDERED INCIDENTAL TO WATER MAIN CONSTRUCTION. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR INCIDENTAL ITEMS.
25. ALL WATER LINES SHALL HAVE A MINIMUM OF 5.5 FEET OF COVER UNLESS NOTED OTHERWISE.

EXISTING UTILITIES NOTE

1. THE LOCATIONS OF THE EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE. THEY HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND/OR RECORDS. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ANY EXISTING UTILITIES (SHOWN OR NOT SHOWN) ARE NOT DAMAGED DURING CONSTRUCTION: IOWA ONE-CALL (1-800-292-8989).

UTILITY CONFLICT NOTES

1. UTILITY CONFLICTS MAY EXIST ACROSS THE SITE WITH NEW UTILITIES, GRADING, PAVING ETC. MOST UTILITY CONFLICTS HAVE BEEN CALLED OUT FOR CONTRACTOR CONVENIENCE.
2. CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY CONFLICTS BETWEEN AN EXISTING UTILITY AND PROPOSED CONSTRUCTION THAT ARE EITHER CALLED OUT ON THE PLANS OR NOT CALLED OUT.
3. CONTRACTOR SHALL COMPLY WITH ALL DNR REQUIREMENTS FOR PIPE MATERIAL, PIPE JOINTS, AND ANY OTHER APPLICABLE REQUIREMENTS ANY TIME A STORM SEWER OR SANITARY SEWER CROSSES OVER OR LESS THAN 18" BELOW A WATER MAIN.
4. FOR ALL CRITICAL CROSSINGS WITH EXISTING UTILITIES, THE ELEVATION OF THE EXISTING UTILITY SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION. NOTIFY PELDS DESIGN SERVICES PRIOR TO CONSTRUCTION IF A CONFLICT EXISTS.

SPECIFICATIONS NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST VERSION OF THE URBAN STANDARDS SPECIFICATIONS FOR PUBLIC IMPROVEMENTS ON THE DATE OF APPROVAL AND THE CITY OF WINDSOR HEIGHTS SUPPLEMENTAL SPECIFICATIONS.
2. IN THE EVENT OF A DISCREPANCY BETWEEN THE PROJECT SPECIFICATIONS AND THE CITY OF WINDSOR HEIGHTS REQUIREMENTS AND SPECIFICATIONS, PLUMBING CODE, AND URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENT, THE CITY OF WINDSOR HEIGHTS STANDARD SPECIFICATIONS SHALL GOVERN.
3. FOR ALL SPECIFICATION DISCREPANCIES, THE PROJECT ENGINEER SHALL BE CONTACTED PRIOR TO PROCEEDING WITH CONSTRUCTION. IF THE ENGINEER IS NOT CONTACTED, CONTRACTOR SHALL BE RESPONSIBLE FOR ANY PROBLEMS THAT RESULT FROM SAID DISCREPANCIES.

REQUIRED AS-BUILT NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COST OF AS-BUILT TOPO, IF REQUIRED BY CITY.
2. CONTRACTOR SHALL CONTACT PELDS DESIGN SERVICES TO PERFORM SAID AS-BUILT SURVEYS.
3. IF ANYTHING HAS BEEN CONSTRUCTED INCORRECTLY, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SUBSEQUENT AS-BUILT SURVEYS UNTIL ISSUES HAVE BEEN RECTIFIED.

PAVING NOTES

1. THE PAVING/ GRADING CONTRACTOR SHALL BACKFILL THE PAVING SLAB AND FINE GRADE THE RIGHT OF WAY AS SOON AFTER THE PAVING AS POSSIBLE. ALL AREAS SHALL BE SODDED IN ACCORDANCE WITH CITY OF WINDSOR HEIGHTS SPECIFICATIONS AND THE LATEST VERSION OF SUDAS.
2. SEE DETAILS FOR ALL PAVEMENT THICKNESS.
3. DETECTABLE WARNING PANEL(S) CALLED OUT ON PLANS SHALL BE PER A.D.A. REGULATIONS. PANEL TYPE & COLOR SHALL BE PER CITY STANDARD.
4. SIDEWALKS SHALL HAVE EXPANSION JOINTS AT 100 FOOT INTERVALS AS REQUIRED BY CITY CODE
5. ALL WALKS, PARKING LOTS, HANDICAP PARKING, RAMPS, ETC. SHALL COMPLY WITH ALL A.D.A. AND CITY CODES. HANDICAP PARKING SIGNAGE IS REQUIRED FOR ALL HANDICAP STALLS AND SHALL BE CONSIDERED INCIDENTAL. IN EVENT OF A DISCREPANCY BETWEEN THE PLANS AND THE A.D.A./CITY CODES THE A.D.A./CITY CODES SHALL GOVERN. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING A.D.A. CODES ARE MET.

PAVEMENT SAWCUT NOTES

1. CONTRACTOR TO PROVIDE SAWCUT JOINTING PLAN PRIOR TO ANY CONCRETE PAVEMENT INSTALLATION.
2. PAVEMENT MAY BE REQUIRED TO BE REMOVED AND REPLACED IF PLACED WITHOUT AN APPROVED PLAN.
3. LONGITUDINAL JOINTS IN DRIVE LANES & THE OUTER MOST JOINT OF ALL PARKING AREAS SHALL BE SUDAS TYPE 'L-1' OR 'L-2' JOINTS AND HAVE STEEL. INTERIOR PARKING LOT JOINTS, OTHER THAN THE OUTER MOST JOINT, DO NOT NEED STEEL AND SHALL BE SUDAS TYPE 'B' OR TYPE 'K' JOINTS. ALL TRANSVERSE JOINTS SHALL BE SUDAS TYPE 'C' OR TYPE 'DW' JOINTS WITH STEEL IN THE CASE OF A DAY'S WORK JOINT.

SOIL NOTES

1. STRIP AND STOCKPILE THE TOP 8 INCHES OF SOIL ON ALL DISTURBED AREAS. GRADING CONTRACTOR SHALL STOCKPILE TOPSOIL FOR SHOULDERING.
2. SOD REQUIREMENT PER SUDAS: IN AREAS WHERE TOPSOIL HAS BEEN STRIPPED, A SODBED SHOULD BE CONSTRUCTED BY SPREADING A MINIMUM OF 6 INCHES OF TOPSOIL PRIOR TO SODDING. DEEPER TOPSOIL DEPTHS (8 TO12 INCHES OR GREATER) ARE DESIRABLE AS THEY INCREASE THE ORGANIC MATTER AVAILABLE FOR USE BY THE PLANTS, ALLOW FOR DEEPER ROOT PENETRATION AND INCREASE THE MOISTURE HOLDING ABILITY OF THE SOIL.
3. PERMANENT SEED REQUIREMENT PER SUDAS: IN ORDER TO PROVIDE AN ADEQUATE GROWING MEDIUM, A MINIMUM OF 8 INCHES OF TOPSOIL SHOULD BE PLACED OVER THE DISTURBED AREA PRIOR TO SEEDING. DEEPER TOPSOIL DEPTHS (8-12 INCHES OR GREATER) ARE DESIRABLE AS THEY INCREASE THE ORGANIC MATTER AVAILABLE FOR USE BY THE PLANTS, ALLOW FOR DEEPER ROOT PENETRATION AND INCREASE THE MOISTURE HOLDING ABILITY OF THE SOIL.
4. TOPSOIL SHALL BE FREE OF ALL ROCK AND DEBRIS LARGER THAN 3/4" IN SIZE.
5. TOPSOIL IS DEFINED AS: FERTILE, FRIABLE LOAM, CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH, FROM WELL DRAINED SITE FREE FROM FLOODING, NOT IN FROZEN OR MUDDY CONDITIONS; REASONABLE FREE FROM SUBSOIL, CLAY LUMPS, ROOTS, GRASS, WEEDS, STONES LARGER THAN 3/4 INCH IN DIAMETER, AND FOREIGN MATTER; ACIDITY RANGE (PH) OF 5.5 TO 7.5; CONTAINING MINIMUM 4 PERCENT AND MAXIMUM 20 PERCENT ORGANIC MATTER.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL TOPSOIL REQUIREMENTS OF NPDES GENERAL PERMIT NO. 2 ARE MET.
7. REFERENCE GEOTECHNICAL REPORT FOR ADDITIONAL SOILS INFORMATION INCLUDING BUT NOT LIMITED TO SUBGRADE INFORMATION, FOOTING DESIGN, AND ANY POSSIBLE OVER EXCAVATION DUE TO POOR SOILS. PAVEMENT SECTIONS ON THE PLANS GOVERN OVER PAVEMENT THICKNESS IN THE SOILS REPORT.

GRADING NOTES

1. AREAS TO RECEIVE STRUCTURAL FILL SHALL BE BENCHED. STRUCTURAL FILL SHALL BE COMPACTED TO A DENSITY THAT IS NOT LESS THAN 95% STANDARD PROCTOR.
2. PREPARE BOTTOM OF BENCH FOR FILL BY DISKING TO A DEPTH OF 12 INCHES AND COMPACT. ANY LOCALIZED AREAS WHICH CANNOT BE SATISFACTORILY COMPACTED OR WHICH SHOW EVIDENCE OF PUMPING ACTION SHALL BE UNDERCUT AND RE-COMPACTED WITH ON-SITE FILL MATERIALS.
3. ALL AREAS WHICH ARE TO RECEIVE PAVING SHALL HAVE THE TOP 12 INCHES DISKED AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
4. MAINTAIN ALL CUT AND FILL AREAS TO ACCOMMODATE SURFACE DRAINAGE.
5. FINISH GRADE ON ALL NON-PAVED AREAS SHALL BE WITHIN 0.20 FT, AND PAVED AREAS SHALL BE WITHIN 0.10 FT OF THE PROPOSED GRADES SHOWN ON THE PLAN
6. MAXIMUM ALLOWABLE GRADE ON ALL PROPOSED SLOPES IS 3:1.
7. THE MOISTURE CONTENT SHALL NOT DEVIATE FROM THE OPTIMUM BY MORE THAN 2% IN STRUCTURAL FILL.
8. MAXIMUM 2% CROSS-SLOPE ON ALL SIDEWALKS.
9. GRADING AND EROSION CONTROL SHALL BE DONE IN ACCORDANCE WITH THE APPROVED GRADING PLAN, SWPPP, NPDES DOCUMENTS, AND IOWA DEPARTMENT OF NATURAL RESOURCES REQUIREMENTS.

LANDSCAPING NOTES

1. ALL SODDING & LANDSCAPE PLANTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE URBAN STANDARD SPECIFICATIONS, UNLESS SPECIFIED OTHERWISE.
2. SEED OR SOD ALL DISTURBED AREAS WITHIN THE CONTRACT LIMITS, UNLESS NOTED OTHERWISE. SOD LIMITS SHOWN ON PLAN ARE FOR REFERENCE ONLY. FINAL LIMITS MAY CHANGE BASED ON CONSTRUCTION ACTIVITIES. SEED ALL DISTURBED AREAS OFF-SITE
3. STAKE SOD ON ALL SLOPES 4:1 OR GREATER.
4. PLANT QUANTITIES ARE FOR CONTRACTORS CONVENIENCE, THE DRAWING SHALL PREVAIL IF A CONFLICT OCCURS.
5. ALL PLANT MATERIAL SHALL CONFORM TO THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1).
6. CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE.
7. CONTRACTOR SHALL PLACE SHREDDED HARDWOOD MULCH OR BRICK CHIPS OR WASHED STONE AROUND ALL TREES, SHRUBS AND GROUND COVER BEDS TO A DEPTH OF 4 INCHES, UNLESS NOTED.
8. PROVIDE 6MIL MINIMUM PLASTIC BELOW ROCK/BRICK.
9. THE LANDSCAPING CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED BEFORE STARTING ANY SITE WORK OR PLANTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES.
10. CONTRACTOR SHALL BE RESPONSIBLE MAINTAINING APPROPRIATE LEVEL OF WATERING FOR ALL NEW PLANTS FOR A PERIOD OF 30 DAYS.
11. CONTRACTOR SHALL DESIGN AND PROVIDE IRRIGATION SYSTEM. COORDINATION WITH ARCHITECT REQUIRED.
12. ALL BEDS TO RECEIVE GRANULAR PRE-EMERGENT WEED CONTROL BEFORE AND AFTER MULCH IS INSTALLED.

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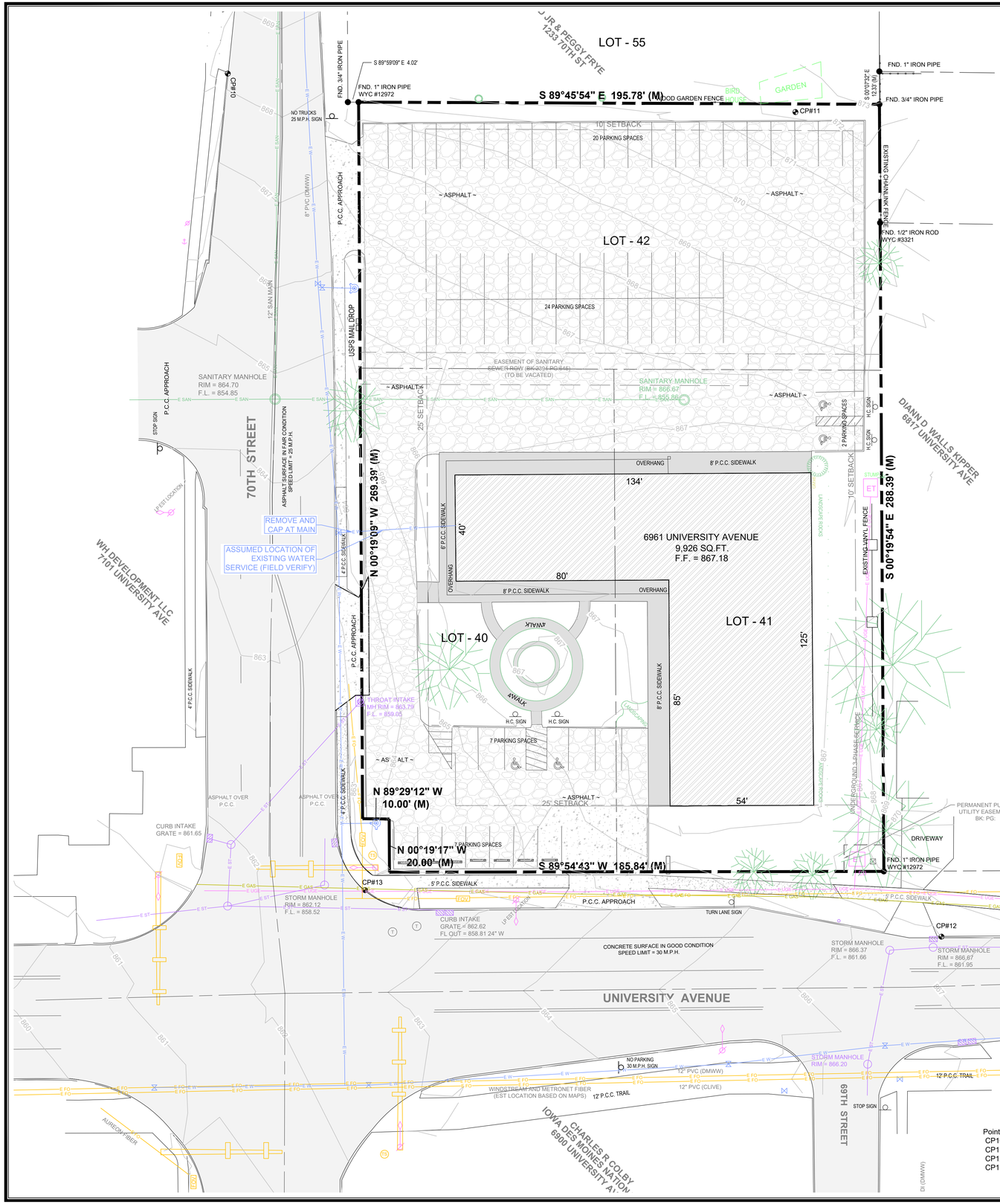
C-002 - NOTE SHEET



Point#	North	East	Elevation	Description
CP10:	583503.565	1582130.005	868.533	CUT-X
CP11:	583489.079	1582343.416	872.326	CONTROL CAP
CP12:	583179.092	1582398.289	867.109	CUT-X
CP13:	583196.586	1582181.659	862.831	CUT-X

LEGEND:

+/-	MORE OR LESS	E	ELEC. MANHOLE
F.F.	FINISHED FLOOR	S	SANITARY SEWER MANHOLE
123.45G	GUTTER ELEVATION	ST	STORM SEWER MANHOLE
123.45TC	TOP OF CURB ELEVATION	T	TRAFFIC MANHOLE
123.45/ 123.45	EXISTING/ PROPOSED ELEVATION	C	CLEANOUT
FL	FLOWLINE ELEVATION	D	DOWNSPOUT
	CONTROL POINT		AREA INTAKE
	CALCULATED CORNER		SINGLE INTAKE
	FOUND CORNER		THROAT INTAKE
	CALCULATED SECTION CORNER		FLARED END SECTION
	FOUND SECTION CORNER		GAS VALVE
	PARKING SPACE		FIRE HYDRANT
	SIGN		WATER VALVE
	STREET LIGHT	P XX	PROPOSED UTILITY LINE
	POWER POLE	E XX	EXISTING UTILITY LINE
	LIGHT POLE	CATV	CABLE TELEVISION
	AREA LIGHT	FO	FIBER OPTIC
	GUY ANCHOR	GAS	GAS LINE
	UTILITY PEDESTAL	OHE	OVERHEAD ELEC.
ET	ELEC. TRANSFORMER	OHT	OVERHEAD TEL.
EM	ELEC. METER	SS	SANITARY SEWER
EB	ELEC. BOX	ST	STORM SEWER
EV	ELEC. VAULT	UGE	UNDERGROUND ELEC.
FOV	FIBER OPTIC VAULT	UGT	UNDERGROUND TEL.
GM	GAS METER	W	WATER
TV	CABLE TV JUNCTION BOX		FENCE LINE
WM	WATER METER		

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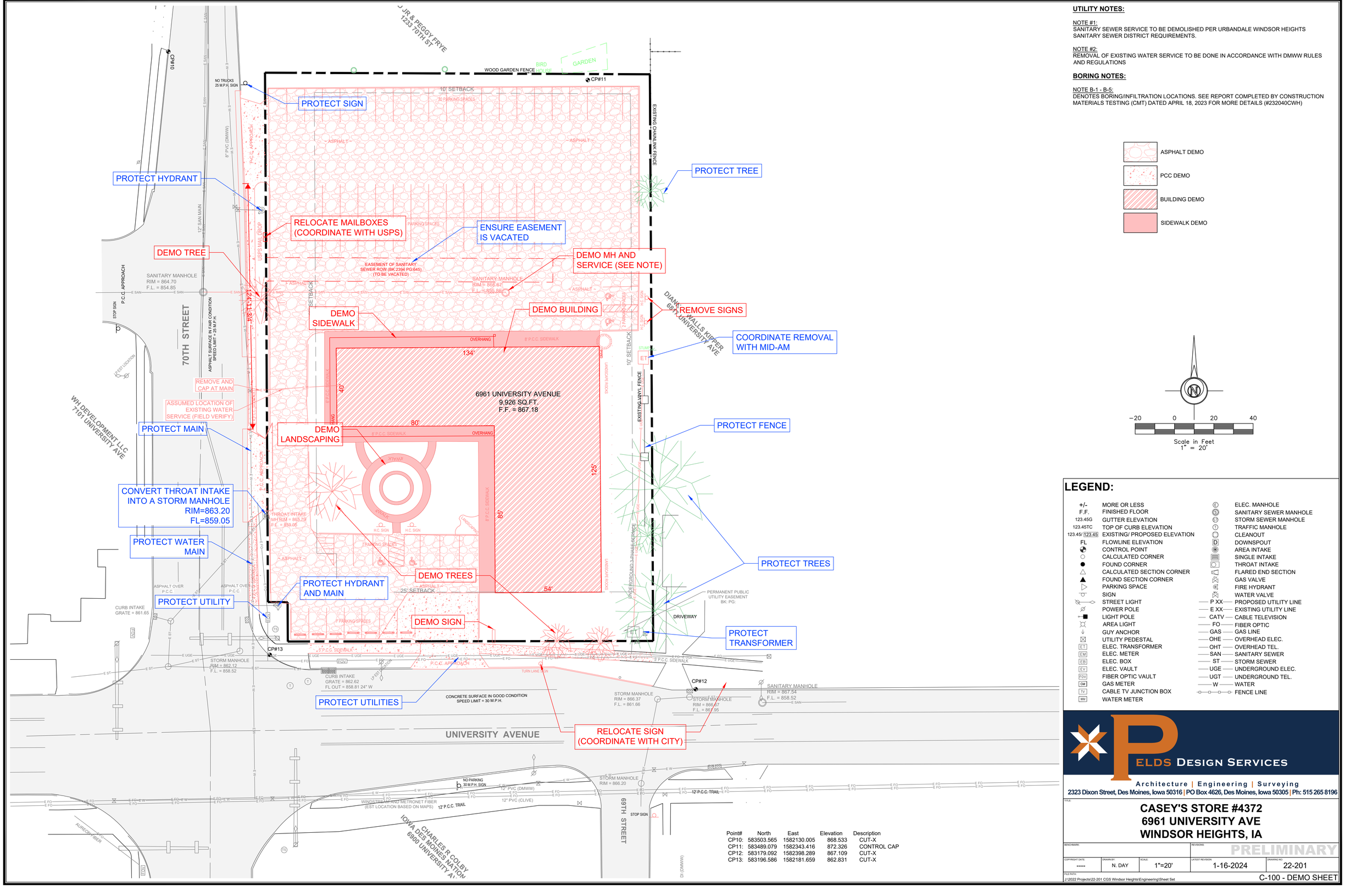
C-003 - TOPO SHEET



UTILITY NOTES:

NOTE #1:
SANITARY SEWER SERVICE TO BE DEMOLISHED PER URBANDALE WINDSOR HEIGHTS SANITARY SEWER DISTRICT REQUIREMENTS.

NOTE #2:
REMOVAL OF EXISTING WATER SERVICE TO BE DONE IN ACCORDANCE WITH DMWW RULES AND REGULATIONS

BORING NOTES:

NOTE B-1 - B-5:
DENOTES BORING/INFILTRATION LOCATIONS. SEE REPORT COMPLETED BY CONSTRUCTION MATERIALS TESTING (CMT) DATED APRIL 18, 2023 FOR MORE DETAILS (#232040CWH)

- ASPHALT DEMO
- PCC DEMO
- BUILDING DEMO
- SIDEWALK DEMO

−20 0 20 40
Scale in Feet
1" = 20'

Point#	North	East	Elevation	Description
CP10:	583503.565	1582130.005	868.533	CUT-X
CP11:	583489.079	1582343.416	872.326	CONTROL CAP
CP12:	583179.092	1582398.289	867.109	CUT-X
CP13:	583196.586	1582181.659	862.831	CUT-X

LEGEND:

+/-	MORE OR LESS	E	ELEC. MANHOLE
F.F.	FINISHED FLOOR	S	SANITARY SEWER MANHOLE
123.45G	GUTTER ELEVATION	ST	STORM SEWER MANHOLE
123.45TC	TOP OF CURB ELEVATION	T	TRAFFIC MANHOLE
123.45/123.45	EXISTING/ PROPOSED ELEVATION		CLEANOUT
FL	FLOWLINE ELEVATION	D	DOWNSPOUT
	CONTROL POINT		AREA INTAKE
	CALCULATED CORNER		SINGLE INTAKE
	FOUND CORNER		THROAT INTAKE
	CALCULATED SECTION CORNER		FLARED END SECTION
	FOUND SECTION CORNER		GAS VALVE
	PARKING SPACE		FIRE HYDRANT
	SIGN		WATER VALVE
	STREET LIGHT	P XX	PROPOSED UTILITY LINE
	POWER POLE	E XX	EXISTING UTILITY LINE
	LIGHT POLE	CATV	CABLE TELEVISION
	AREA LIGHT	FO	FIBER OPTIC
	GUY ANCHOR	GAS	GAS LINE
	UTILITY PEDESTAL	OHE	OVERHEAD ELEC.
ET	ELEC. TRANSFORMER	OHT	OVERHEAD TEL.
EM	ELEC. METER	SAN	SANITARY SEWER
EB	ELEC. BOX	ST	STORM SEWER
EV	ELEC. VAULT	UGE	UNDERGROUND ELEC.
FOV	FIBER OPTIC VAULT	UGT	UNDERGROUND TEL.
GM	GAS METER	W	WATER
TV	CABLE TV JUNCTION BOX		FENCE LINE
WM	WATER METER		

ELDS DESIGN SERVICES
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2323 Dixon Street, Des Moines, Iowa 50316 | PO Box 4626, Des Moines, Iowa 50305 | Ph: 515 265 8196

TITLE:
CASEY'S STORE #4372
6961 UNIVERSITY AVE
WINDSOR HEIGHTS, IA

BENCHMARK:
REVISIONS: PRELIMINARY

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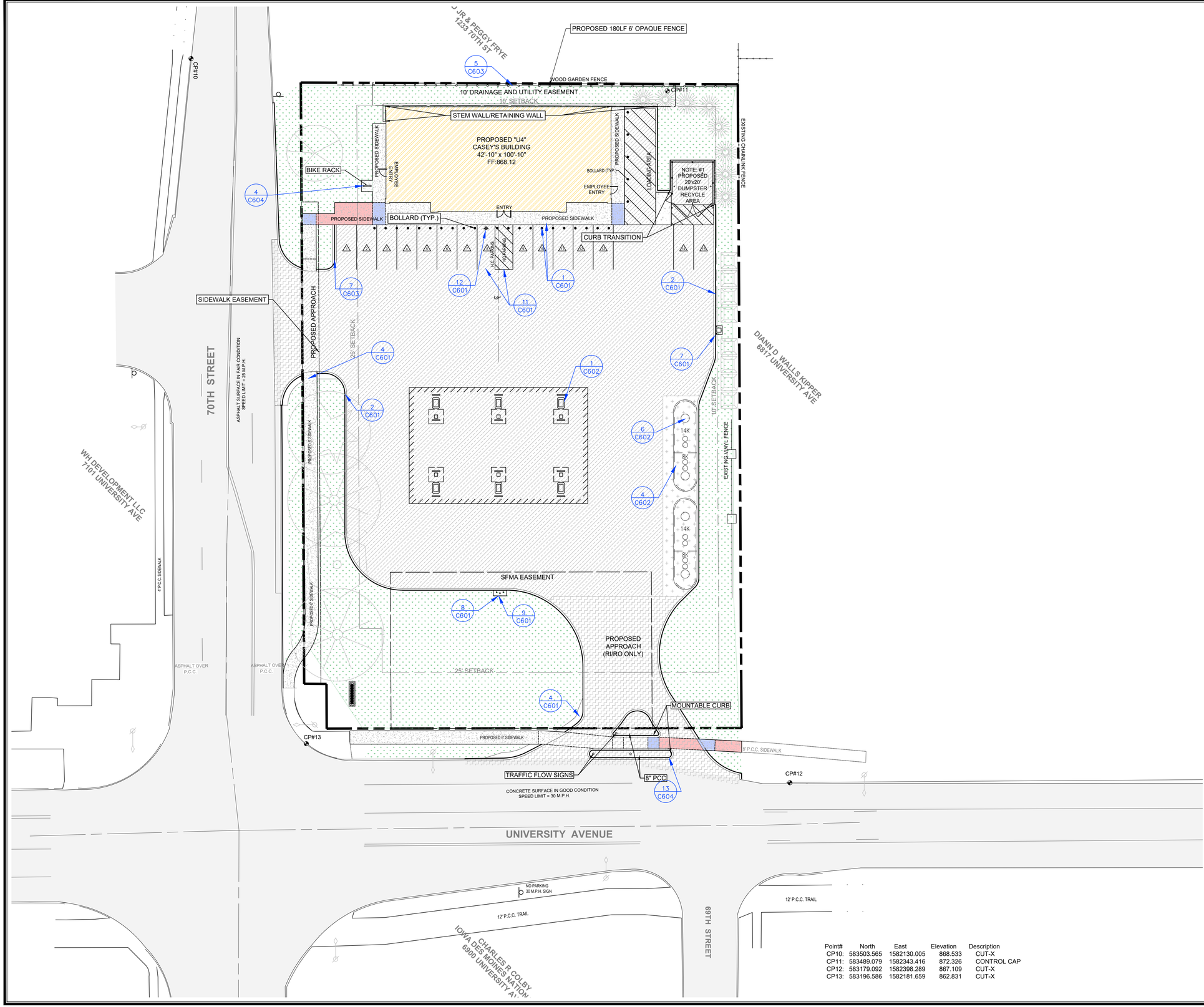
C-100 - DEMO SHEET



NOTES:

ALL WORK IN/ON THE R.O.W. AREA IS SUBJECT TO THE CITY OF WINDSOR HEIGHTS APPROVAL AND SPECIFICATIONS

CONTRACTOR IS RESPONSIBLE FOR DESIGN AND INSTALL OF IRRIGATION SYSTEM

- PROPOSED SIDEWALK
- 8" P.C.C.
- 8" REINFORCED P.C.C.
- 6" P.C.C.
- PROPOSED BUILDING
- EXISTING PAVEMENT
- SOD & IRRIGATION LIMITS
- SIDEWALK LANDING
- SIDEWALK RAMP

−20 0 20 40

Scale in Feet
1" = 20'

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LEGEND:

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123.45/123.45	EXISTING/ PROPOSED ELEVATION		CLEANOUT
FL	FLOWLINE ELEVATION	D	DOWNSPOUT
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	CALCULATED SECTION CORNER		FLARED END SECTION
	FOUND SECTION CORNER		GAS VALVE
	PARKING SPACE		FIRE HYDRANT
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	UTILITY PEDESTAL	OHE	OVERHEAD ELEC.
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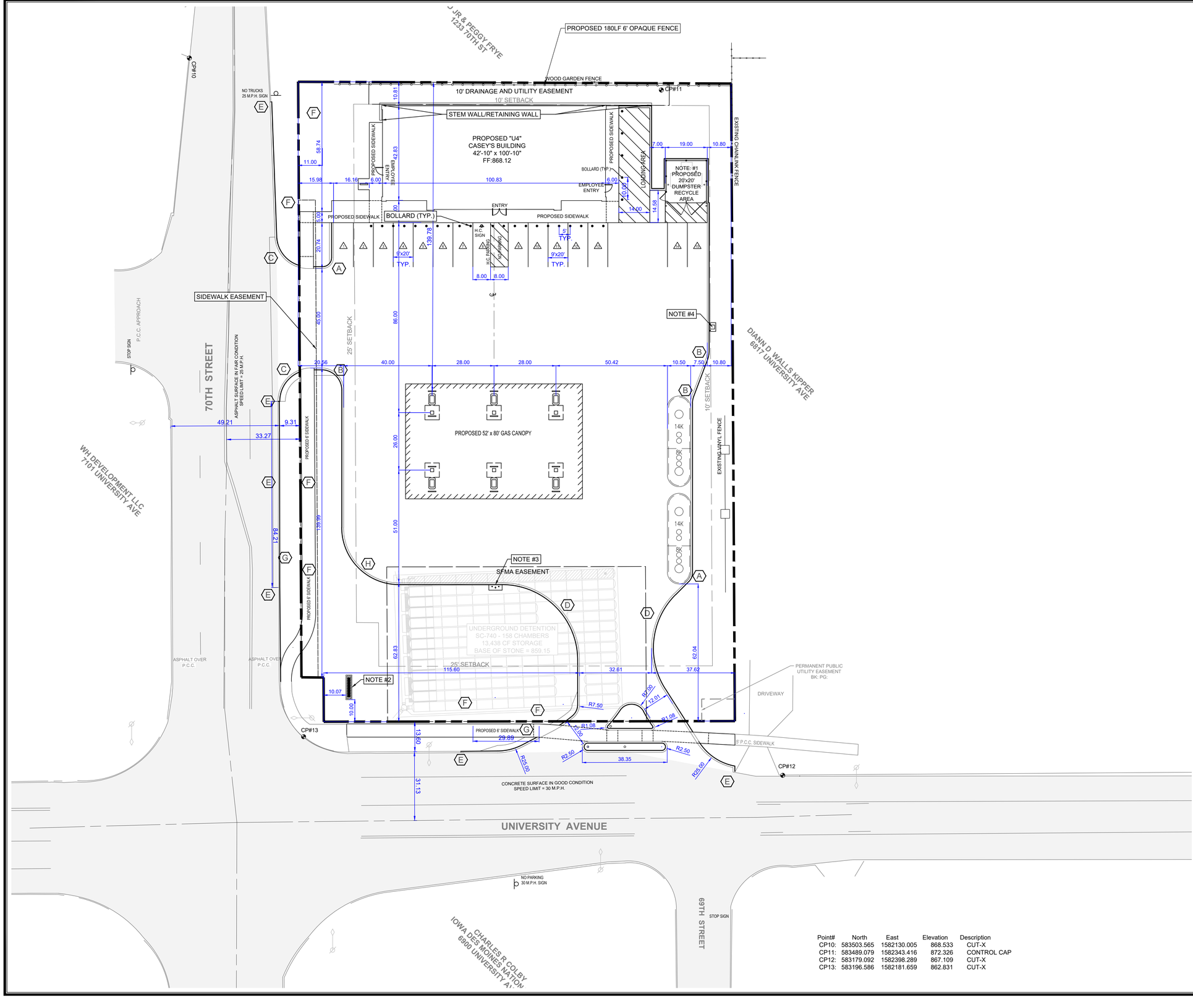
C-101 - LAYOUT SHEET



Point#	North	East	Elevation	Description
CP10:	583503.565	1582130.005	868.533	CUT-X
CP11:	583489.079	1582343.416	872.326	CONTROL CAP
CP12:	583179.092	1582398.289	867.109	CUT-X
CP13:	583196.586	1582181.659	862.831	CUT-X

General Notes

Note #1:
BRICK DUMPSTER ENCLOSURE 6' HEIGHT W/ METAL GATES
2-9' GATES AND 4' SERVICE GATE

Note #2
2 PRODUCT MONUMENT PRICE SIGN - REFER TO SIGN PACKET

Note #3
ALL FUEL DISPENSERS FALL WITHIN A 100 FOOT RADIUS OF THE EMERGENCY SHUT-OFF SWITCH LOCATED INSIDE AT THE SALES COUNTER FOR THE CONVENIENCE STAFF. A SECONDARY SHUTOFF SHALL BE INSTALLED ON A POST AT THE CURB IF ALL FUEL DISPENSERS **DO NOT** FALL WITHIN A 100 RADIUS.

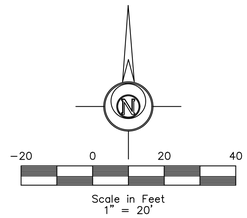
Note #4
AIR COMPRESSOR BOX, SEE SHEET C-601 SITE DETAILS.
110 VOLT-60HZ-5.5 AMP. #12 WIRE (20 AMP, SINGLE PHASE) WITH GROUND.

Note #5
ALL WORK IN/ON THE R.O.W. AREA IS SUBJECT TO THE CITY OF WINDSOR HEIGHTS APPROVAL AND SPECIFICATIONS

Keyed Construction Notes

- (A) PROPOSED 5' RADIUS
- (B) PROPOSED 10' RADIUS
- (C) PROPOSED 15' RADIUS
- (D) PROPOSED 35' RADIUS
- (E) TIE INTO AND MATCH EXISTING CURB & FLOW LINE.
- (F) REMOVE EXISTING APPROACH
- (G) REPLACE EXISTING SIDEWALK
- (H) PROPOSED 25' RADIUS

EXISTING PAVEMENT



LEGEND:

+/-	MORE OR LESS	(E)	ELEC. MANHOLE
F.F.	FINISHED FLOOR	(S)	SANITARY SEWER MANHOLE
123.45G	GUTTER ELEVATION	(ST)	STORM SEWER MANHOLE
123.45TC	TOP OF CURB ELEVATION	(T)	TRAFFIC MANHOLE
123.45/123.45	EXISTING/ PROPOSED ELEVATION	(C)	CLEANOUT
FL	FLOWLINE ELEVATION	D	DOWNSPOUT
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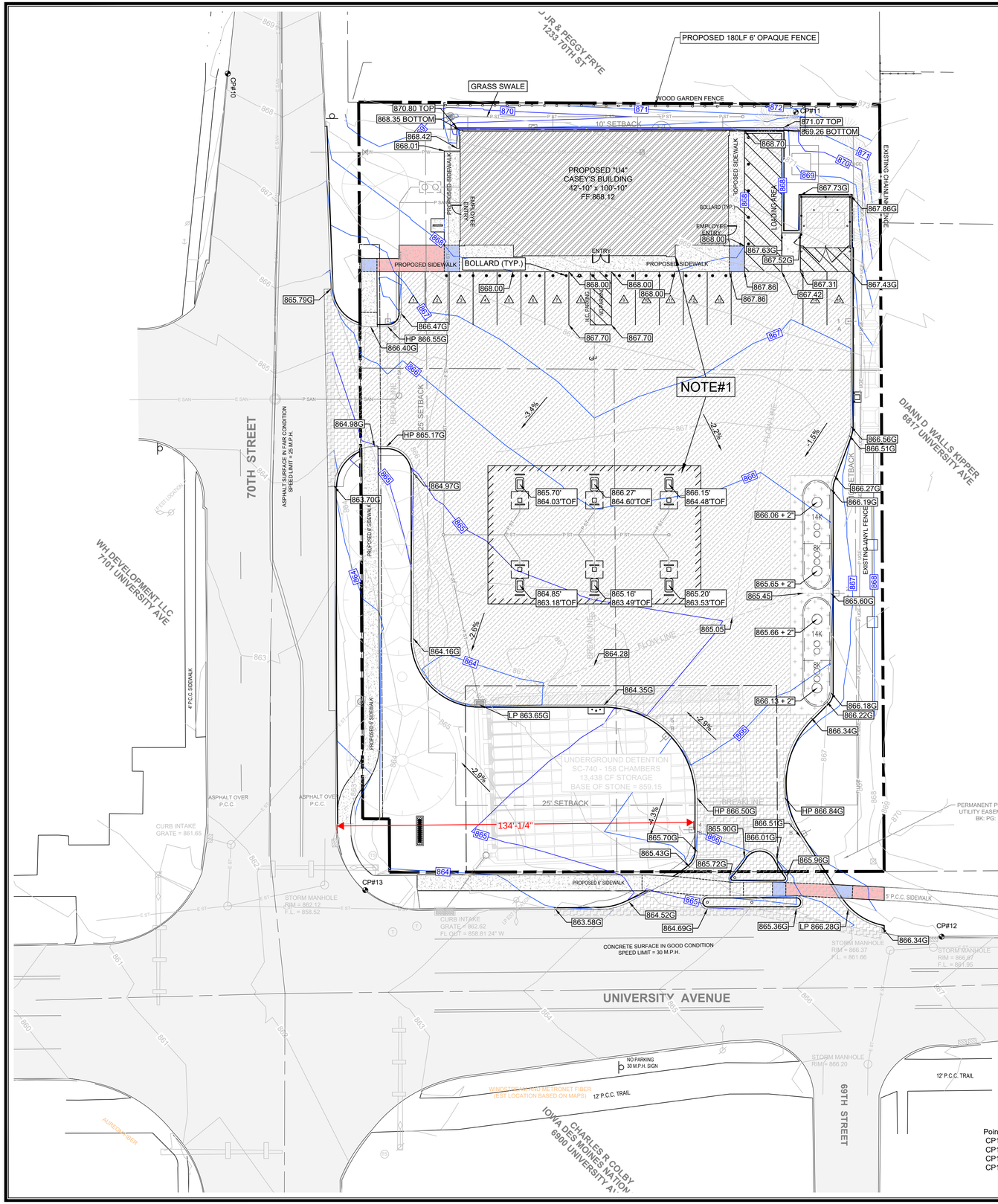
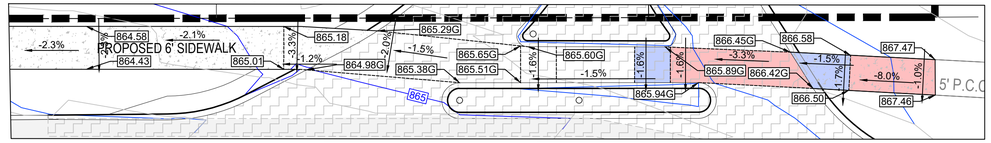
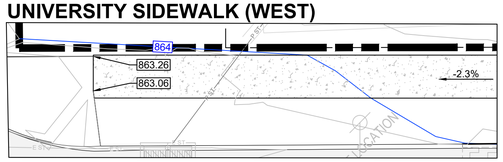
C-103 - DIMENSION SHEET



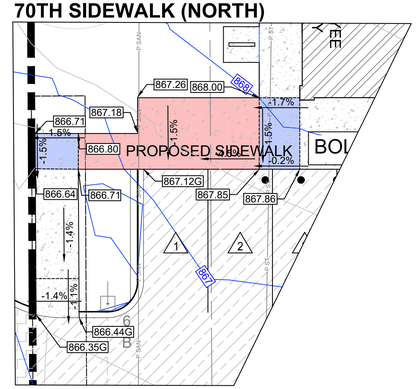
UNIVERSITY SIDEWALK (EAST)



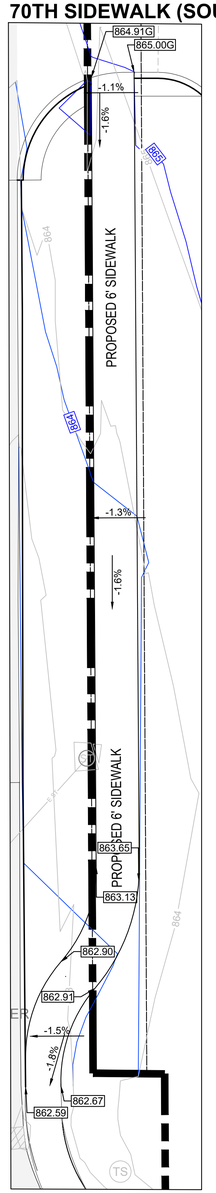
UNIVERSITY SIDEWALK (WEST)



70TH SIDEWALK (NORTH)

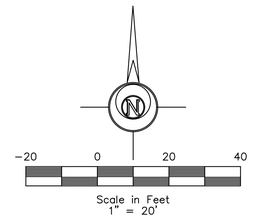


70TH SIDEWALK (SOUTH)



NOTES:

#1: MAINTAIN A MINIMUM 2' SEPARATION BETWEEN BOTTOM OF FOOTINGS AND EXPANSIVE SOILS



PROPOSED SIDEWALK
8" P.C.C.
8" REINFORCED P.C.C.
6" P.C.C.
PROPOSED BUILDING
EXISTING PAVEMENT
SIDEWALK LANDING
SIDEWALK RAMP

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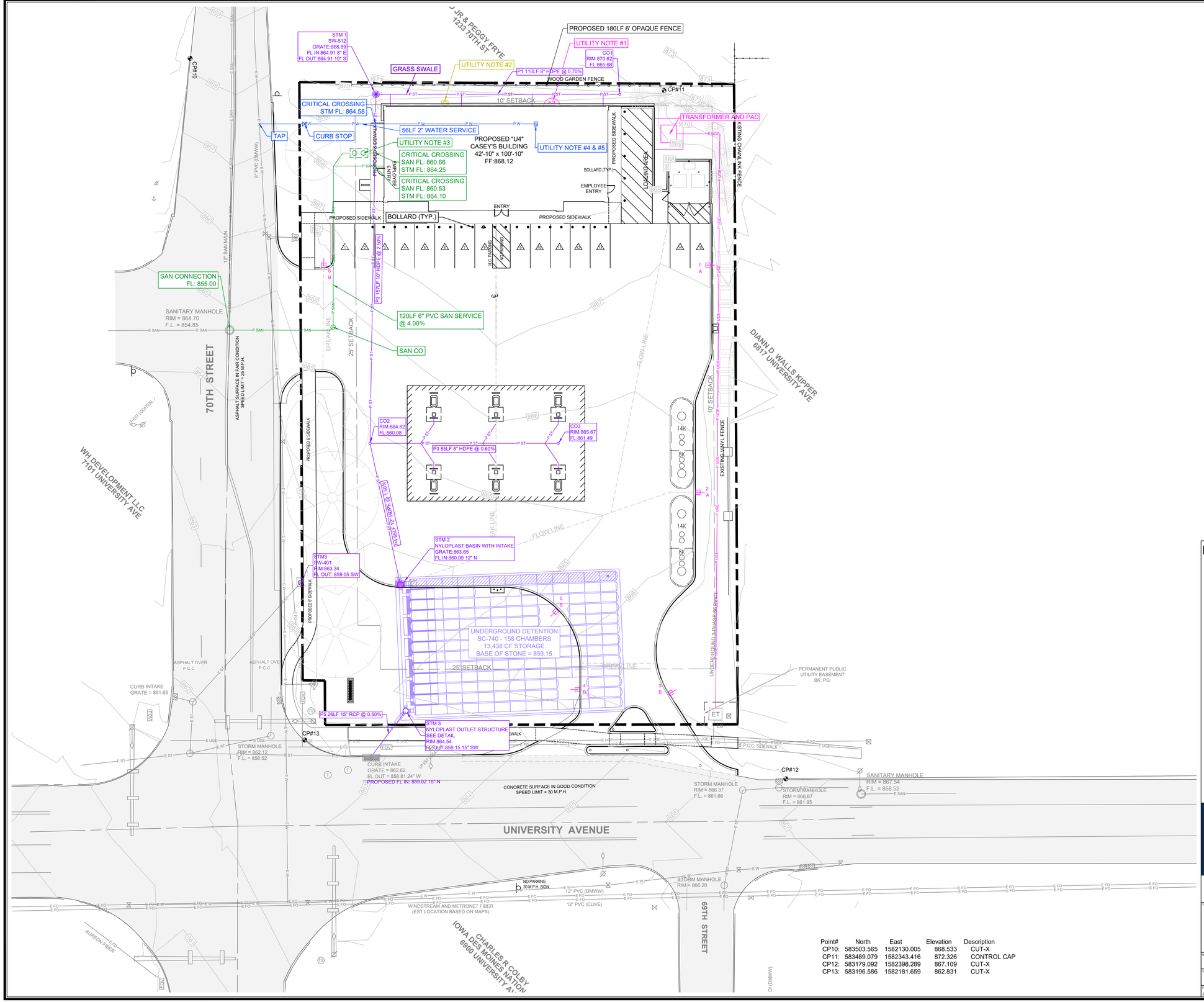
C-201 - GRADING SHEET



Utility Notes

UTILITY NOTE #1: ELECTRICAL (C-STORE): ELECTRICAL SERVICE ENTRANCE.
-ELECTRIC 3 PHASE, 800 AMP., [illegible] VOLTS, 4 WIRE
-TELEPHONE 20 PAIR, 8 LINES

UTILITY NOTE #2: GAS (C-STORE): SERVICE ENTRANCE.
BLACK SCHEDULE 40 SCREWED PIPE (SIZED BY SERVICE PROVIDER)
CONNECTION LOAD IS 985 MBH. TOTAL CONNECTED LOAD IS 985,000 BTU
985 CU/FT. HR.

UTILITY NOTE #3: SANITARY SEWER (C-STORE): 6" SCHEDULE 40 PVC SANITARY SEWER CONNECTION.
1,000 GALLON BELOW GRADE GREASE INTERCEPTOR WITH 2 MANHOLES

UTILITY NOTE #4: WATER (C-STORE): 2" CTS, HDPE, SDR9 C5--200 PSI WATER SERVICE CONNECTION

UTILITY NOTE #5: IRRIGATION (C-STORE): IRRIGATION DESIGNED AND PROVIDED BY DEVELOPER

UTILITY NOTE #6 ANY EXISTING SERVICES AND/OR STUBS WILL NEED TO BE REMOVED AT THE MAIN

UTILITY NOTE #7 ALL NEWLY-INSTALLED CABLE, TRANSMISSION, OR OTHER UTILITY SYSTEMS WILL BE INSTALLED UNDERGROUND

UTILITY NOTE #8 MAINTAIN A MINIMUM HORIZONTAL DISTANCE OF 10' BETWEEN SANITARY AND WATER SERVICES

EXISTING PAVEMENT

N

−20 0 20 40

Scale in Feet
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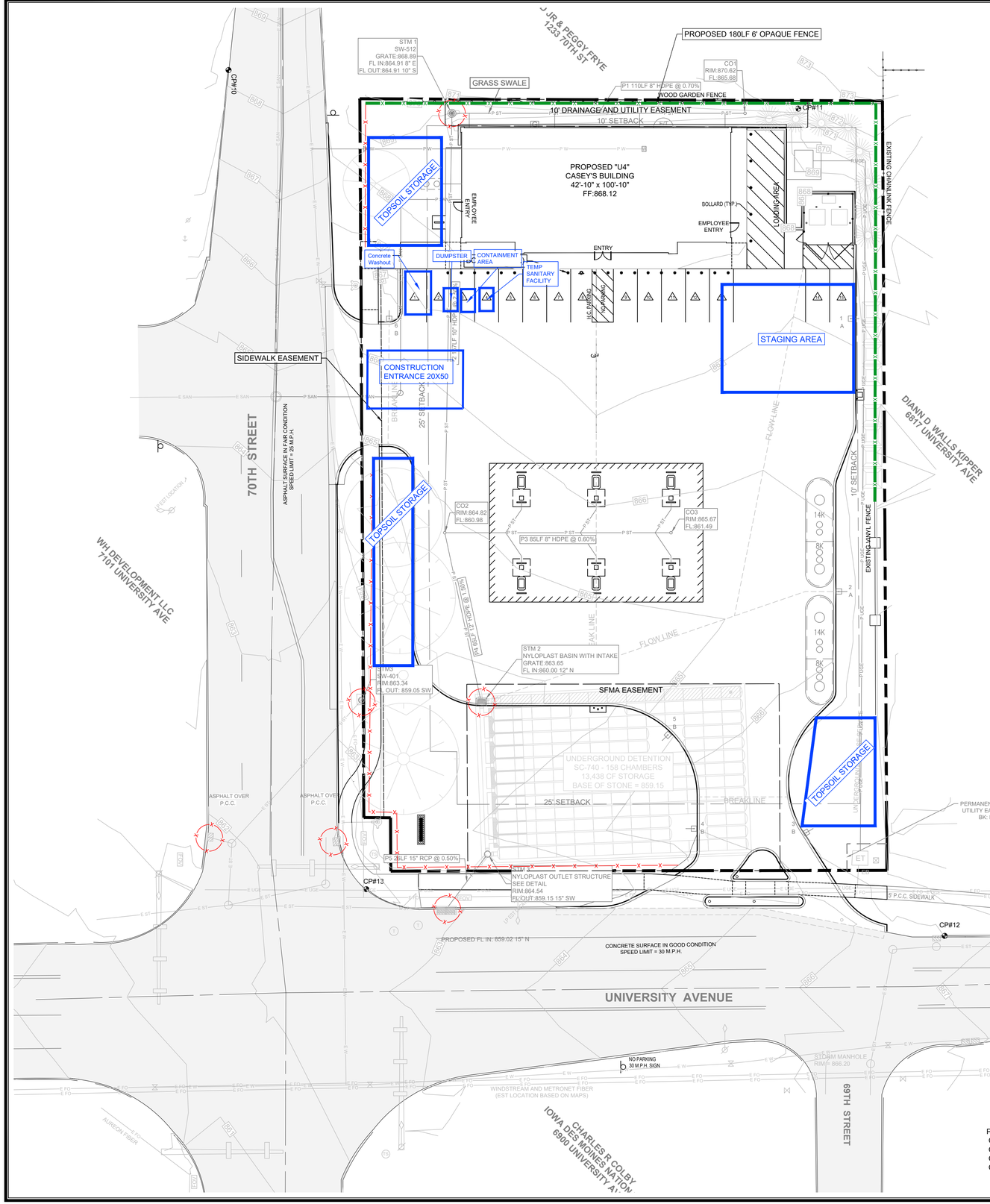
C-301 - UTILITY SHEET



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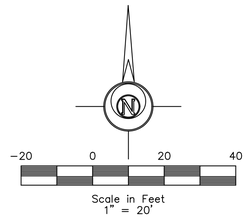
SWPPP NOTES:

1. LOCATION OF STAGING AREAS TO CONTAIN: JOB TRAILERS, FUELING LOCATION, TEMPORARY SANITARY FACILITIES, MATERIALS STORAGE, CONCRETE WASHOUT AREA. CONTROL RUNOFF WITH DIVERSION BERMS OR SILT FENCE AND DIRECT TO SEDIMENT BASIN WHERE POSSIBLE.
2. ALL INTERIOR & PERIMETER SILT FENCE NOT SHOWN. SEE EROSION CONTROL PLAN.
3. MULCH OR SOD ALL DISTURBED AREAS NOT PAVED OR DEVELOPED.
4. ADDITIONAL CONTROLS MAY BE REQUIRED DEPENDING ON PHASING & SITE CONDITIONS. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING, NOTING & IMPLEMENTING.
5. A MINIMUM 6" LAYER OF TOPSOIL SHALL BE RESPREAD FROM THE STOCKPILE ONSITE TO SODDED PERVIOUS SURFACES THAT WERE DISTURBED DURING CONSTRUCTION. SEEDED AREAS TO RECEIVE A MINIMUM 8" OF TOPSOIL
6. ALL BARE AREAS THAT WILL REMAIN INACTIVE FOR 14 DAYS OR MORE REQUIRE IMMEDIATE STABILIZATION MEASURES (TEMPORARY SEEDING OR MULCHING)
7. ALL SLOPES 4:1 OR GREATER REQUIRE SEEDING AND MATTING

FILTER SOCK

CONSTRUCTION FENCE



LEGEND:

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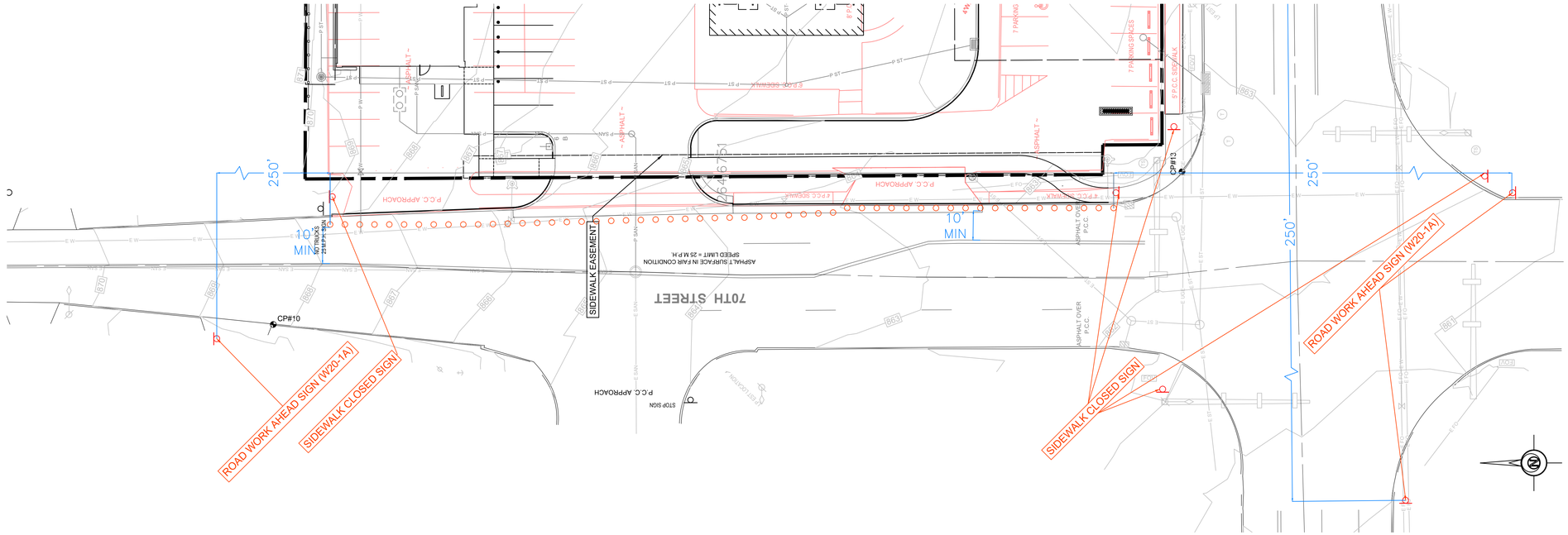
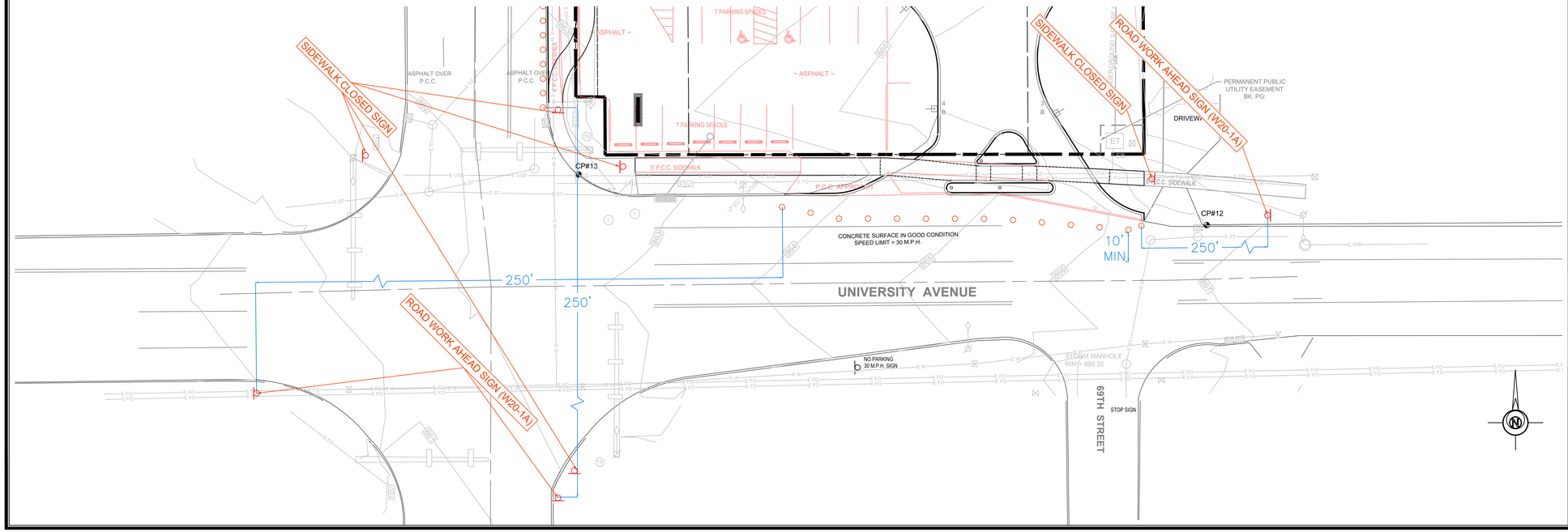
C-401 - EROSION CONTROL SHEET





−20 0 20 40

Scale in Feet
1" = 20'

LEGEND:

+/-	MORE OR LESS	E	ELEC. MANHOLE
F.F.	FINISHED FLOOR	S	SANITARY SEWER MANHOLE
123.45G	GUTTER ELEVATION	ST	STORM SEWER MANHOLE
123.45TC	TOP OF CURB ELEVATION	T	TRAFFIC MANHOLE
123.45/123.45	EXISTING/ PROPOSED ELEVATION	C	CLEANOUT
FL	FLOWLINE ELEVATION	D	DOWNSPOUT
	CONTROL POINT		AREA INTAKE
	CALCULATED CORNER		SINGLE INTAKE
	FOUND CORNER		THROAT INTAKE
	CALCULATED SECTION CORNER		FLARED END SECTION
	FOUND SECTION CORNER		GAS VALVE
	PARKING SPACE		FIRE HYDRANT
	SIGN		WATER VALVE
	STREET LIGHT	P XX	PROPOSED UTILITY LINE
	POWER POLE	E XX	EXISTING UTILITY LINE
	LIGHT POLE	CATV	CABLE TELEVISION
	AREA LIGHT	FO	FIBER OPTIC
	GUY ANCHOR	GAS	GAS LINE
	UTILITY PEDESTAL	OHE	OVERHEAD ELEC.
ET	ELEC. TRANSFORMER	OHT	OVERHEAD TEL.
EM	ELEC. METER	SAN	SANITARY SEWER
EB	ELEC. BOX	ST	STORM SEWER
EV	ELEC. VAULT	UGE	UNDERGROUND ELEC.
FOV	FIBER OPTIC VAULT	UGT	UNDERGROUND TEL.
GM	GAS METER	W	WATER
TV	CABLE TV JUNCTION BOX		FENCE LINE
WM	WATER METER		

PELDS DESIGN SERVICES
Architecture | Engineering | Surveying
2323 Dixon Street, Des Moines, Iowa 50316 | PO Box 4626, Des Moines, Iowa 50305 | Ph: 515 265 8196

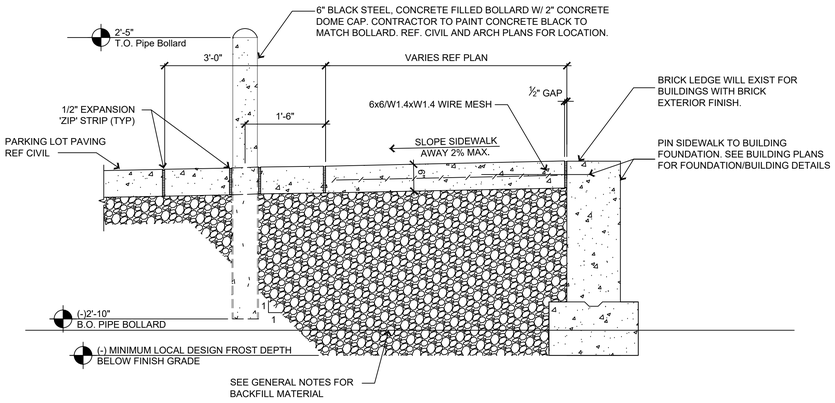
TITLE:

CASEY'S STORE #4372
6961 UNIVERSITY AVE
WINDSOR HEIGHTS, IA

BENCHMARK:			REVISIONS: PRELIMINARY	
COPYRIGHT DATE:	DRAWN BY:	SCALE:	LATEST REVISION:	DRAWING NO:
----	N. DAY	1"=20'	1-16-2024	22-201

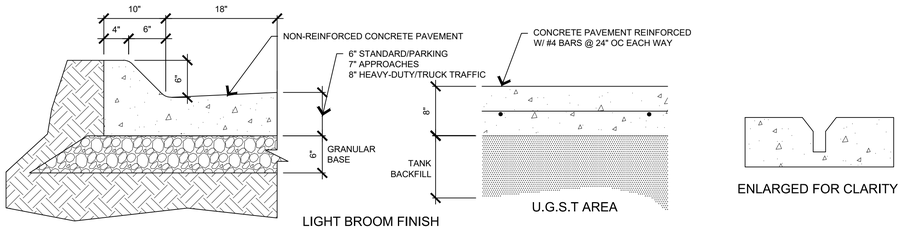
FILE PATH: J:\2022 Projects\22-201 CGS Windsor Heights\Engineering\Sheet Set

C-501 - TRAFFIC CONTROL SHEET



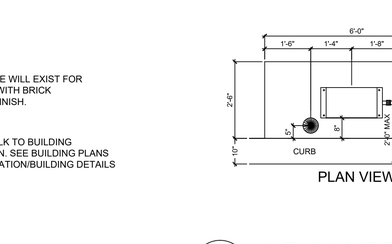
1 TYPICAL BUILDING SIDEWALK AND BOLLARD

3/4" = 1'-0"



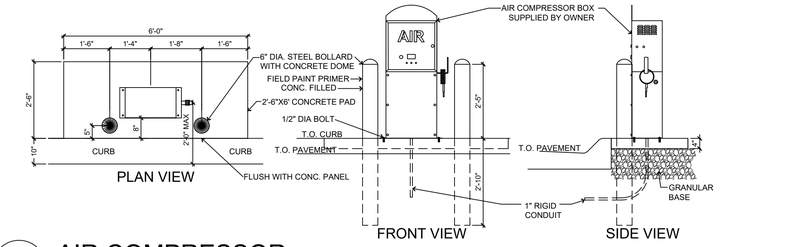
2 CONCRETE PAVING AND CURB

Not to Scale



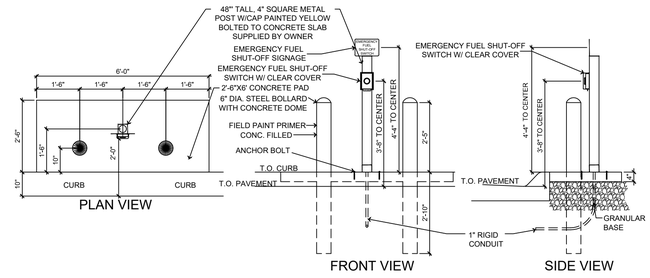
3 PAVING SAW-CUT

Not to Scale



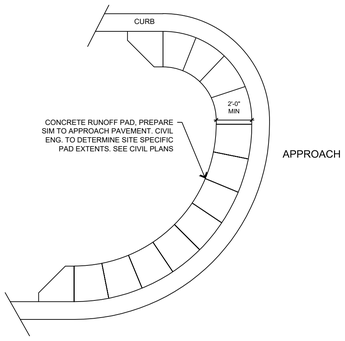
7 AIR COMPRESSOR

1/2" = 1'-0"



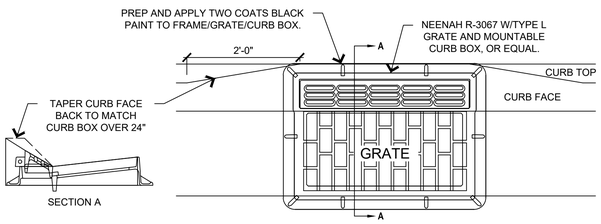
8 EMERGENCY STOP

1/2" = 1'-0"



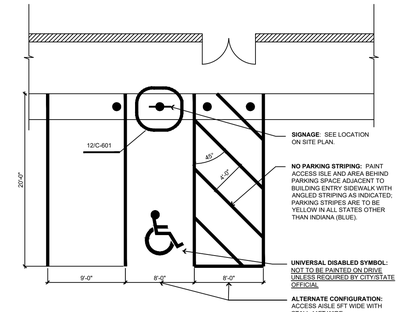
4 LANDSCAPE PROTECTOR

Not to Scale



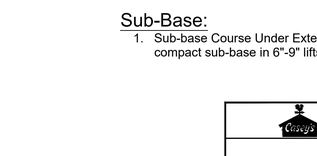
6 CURB INLET

Not to Scale



11 ADA PARKING SPACES

3/16" = 1'-0"



12 ADA PARKING SIGN

1/4" = 1'-0"

General Notes

Concrete:

1. All concrete and reinforcing work shall conform to the latest edition of the American Concrete Institute's "Standard Building Code Requirements for Reinforced Concrete," (ACI 318) and "Specifications for Structural Concrete for Buildings," (ACI 301).
2. Concrete shall use type II cement. Concrete mix designs shall meet the following requirements:

	MINIMUM 28-DAY f'c	MAXIMUM W/C RATIO	SLUMP	AIR ENTRAIN.
Exterior exposed concrete	4,000 psi	0.42	4" ± 1"	6% ± 1%

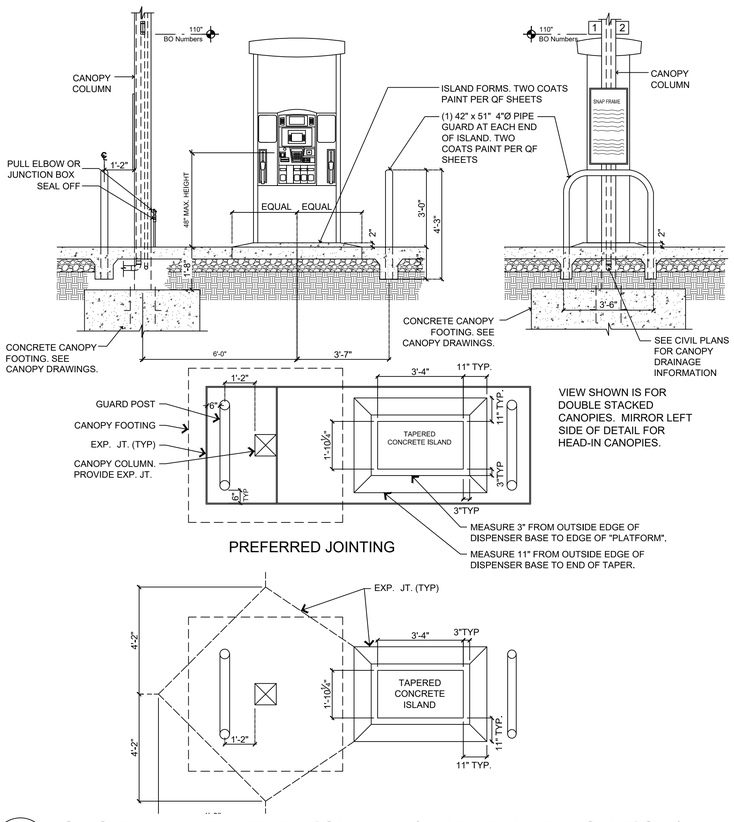
   If Contractor desires to increase slump above allowable limits to facilitate placement or pumping, this shall be done utilizing a superplasticizer approved by the Ready Mix Designer at a dosage rate provided by Ready Mix Designer.
3. The Contractor shall reject any concrete that exceeds the slump limits noted above (prior to adding superplasticizer) or concrete that can not be placed within ninety (90) minutes of batch time.
4. No aluminum shall be placed in concrete.
5. All concrete is reinforced unless specifically noted as Unreinforced. Reinforce all concrete not otherwise shown with the same reinforcing as in similar sections or areas.
6. During hot weather (80 degrees F and above), the Contractor shall comply with the recommendations ACI-305 "Hot Weather Concrete". During cold weather (40 degrees and below), the Contractor shall comply with the recommendations of ACI-306 "Cold Weather Concreting".
7. The concrete mix designs are to be submitted as a formal submittal to the Owner for acceptance PRIOR to concrete being delivered to the site.
8. Verify with local authorities the required thickness of poured concrete for approaches and parking lot.

Sub-Base:

1. Sub-base Course Under Exterior Concrete Paved Surfaces: Spread and compact sub-base in 6"-9" lifts compacted to 98% Standard Proctor.

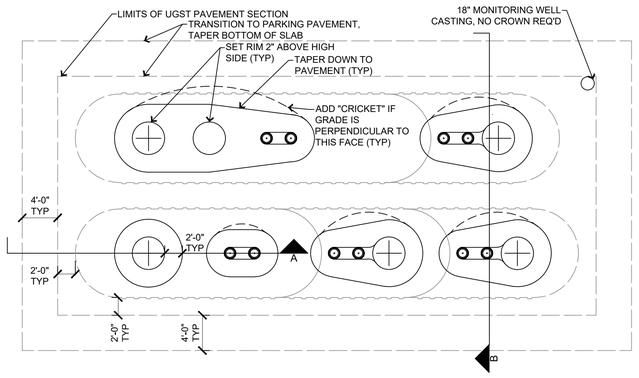
CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., Ankeny, IA. 50021 515-965-6100

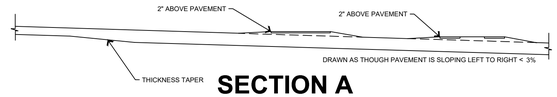
PROJECT:	PUBLISHED:	DRAWING INFORMATION:
2023 Civil Details	01/10/23	CIVIL DETAILS
	1 03/08/23	
DRAWING INFORMATION: CONSTRUCTION DIVISION		C-601
DRAWN BY: ARLON GOFORTH III	CHECKED BY:	



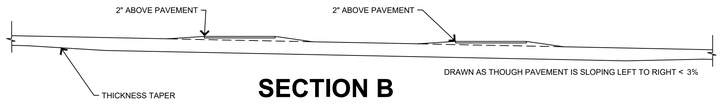
1 GAS TAPERED FUEL ISLAND (PREFERRED OPTION)

Not to Scale





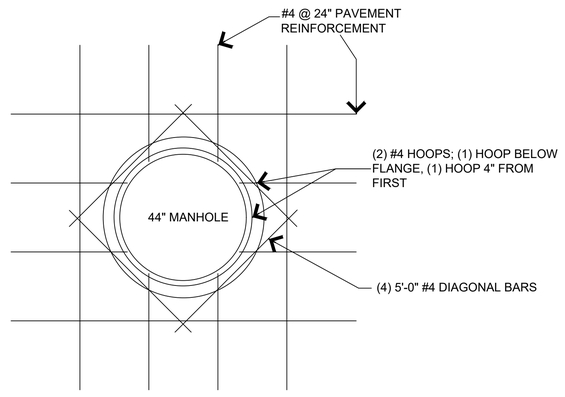
SECTION A



SECTION B

4 UGST PAVING FOR PAVEMENT SLOPE <3%

Not to Scale



General Notes:

1 ALL REINFORCING IS CENTER OF SLAB.

6 UGST Manhole Detail

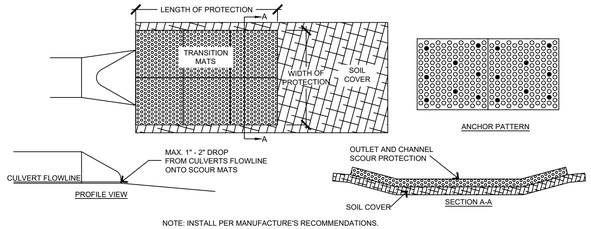
1/2" = 1'-0"

CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., Ankeny, IA. 50021 515-965-6100

PROJECT: 2023 Civil Details
PUBLISHED: 01/10/23
REVISED: 1 03/08/23
DRAWING INFORMATION: CONSTRUCTION DIVISION
DRAWN BY: ARLON GOFORTH III
CHECKED BY:

DRAWING INFORMATION: CIVIL DETAILS

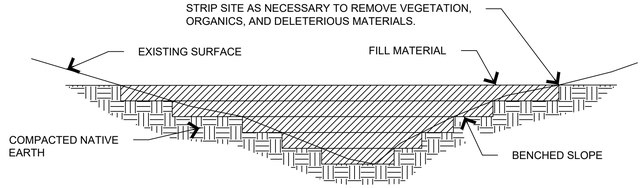
C-602



NOTE: INSTALL PER MANUFACTURE'S RECOMMENDATIONS.

1 SCOUR STOP EROSION CONTROL

Not to Scale

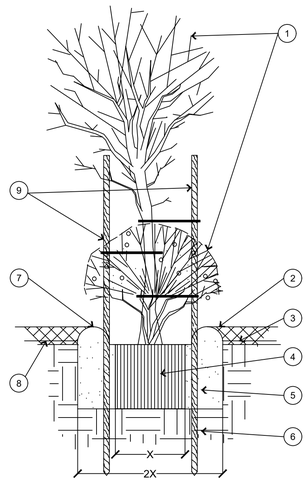


NOTES:

1. BENCH SLOPES TO MAINTAIN VERTICAL SIDE SLOPES AT FILL LIMITS +/- 3' VERTICAL TO +/- 8' HORIZONTAL.
2. COMPACTION SHALL BE IN 8" LIFTS TO 95% STANDARD PROCTOR OR OTHERWISE SPECIFIED IN GEOTECHNICAL REPORT.
3. SCARIFY ORIGINAL GROUND AND BLEND WITH FIRST LIFT ON EACH BENCH.
4. ALL FILL MATERIALS, INCLUDING FILL GENERATED ON-SITE, SHALL BE OF SUITABLE MATERIAL. UNSUITABLE FILL MATERIAL INCLUDES, BUT IS NOT LIMITED TO, SOIL THAT CONTAINS LARGE ROCKS, TREE AND PLANT ROOTS, CONCRETE, TRASH, ETC.

2 TYPICAL FILL SECTION

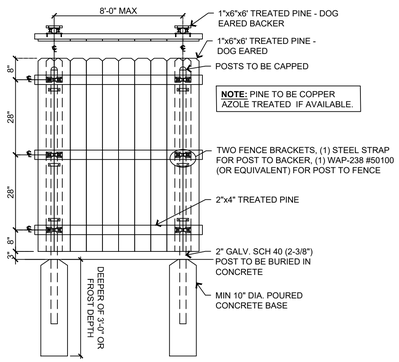
Not to Scale



1. TREE/SHRUB, PERENNIAL, OR ORNAMENTAL GRASS.
2. GROUNDCOVER: 3" DEPTH OF 3/4" WASHED STONE OR WASHED BRICK CHIPS AS INDICATED IN LANDSCAPING PLAN.
3. FINISH GRADE.
4. ROOT BALL.
5. BACKFILL. AMEND AND FERTILIZE AS RECOMMENDED BY LOCAL SUPPLIER
6. UNDISTURBED NATIVE SOIL.
7. 3" HIGH EARTHEN WATERING BASIN.
8. HEAVY WEED FABRIC UNDER GROUNDCOVER.
9. FOR TREES, 2 STAKES/GUIDEPOSTS MIN; 3 REQ ON SLOPES WITH TIES

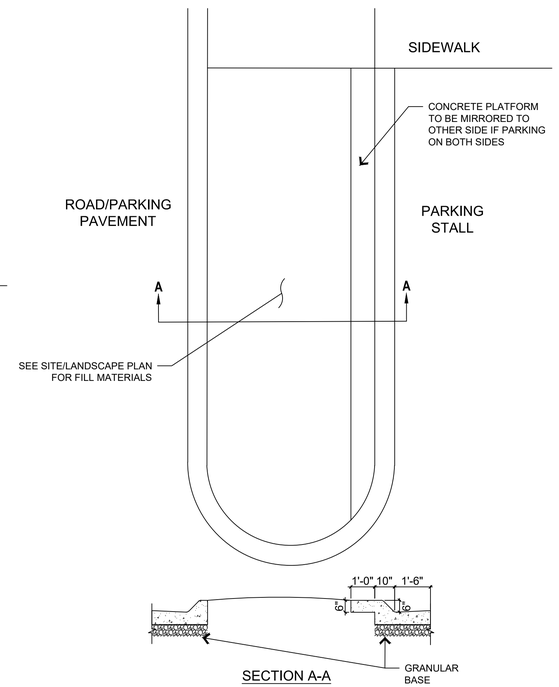
4 PLANT/TREE INSTALLATION

Not to Scale



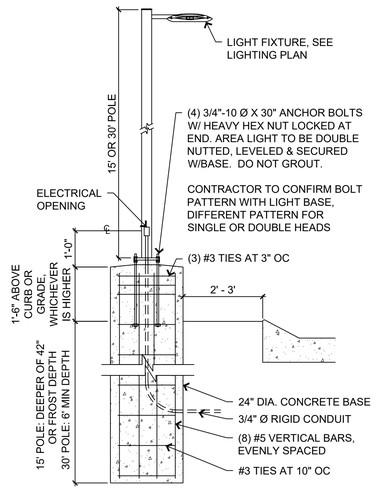
5 SCREEN/PRIVACY FENCE

Not to Scale



7 PARKING LANDSCAPE ISLAND DETAIL

3/8" = 1'-0"



8 AREA LIGHTING

1/2" = 1'-0"

CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., Ankeny, IA. 50021 515-965-6100

PROJECT:
2023 Civil Details

PUBLISHED: 01/10/23
REVISED: 03/08/23 (1)

DRAWING INFORMATION:
CIVIL DETAILS

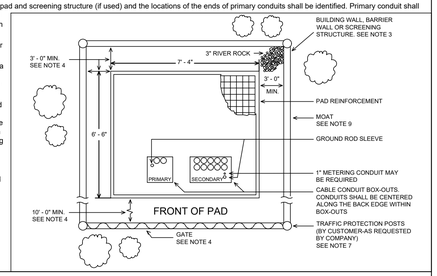
DRAWING INFORMATION:
CONSTRUCTION DIVISION

DRAWN BY: ARLON GOFORTH III
CHECKED BY:

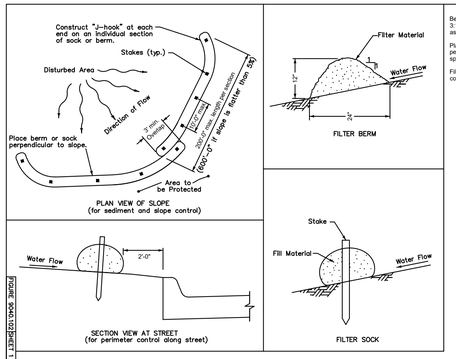
C-603

Three-phase transformer pads must be:

1. Installed by the customer at the customer's expense. Ongoing maintenance and repair to the pad are the responsibility of the customer.
2. Constructed in a manner satisfactory to the Company, in a mutually agreed upon location with hard surface access and unobstructed work space for large vehicles.
3. The installation of a screening or barrier structure may be required by your local governing authority. It is the customer's responsibility to determine if a barrier structure is required. If screening or a barrier structure is required, or installed as an optional feature, the clearance limitations of notes 2 and 3 must be maintained.
4. A 3'-0" minimum clearance is to be maintained from pad sides and back, to the nearest structure or plantings. A level graded, 10'-0" minimum clearance is to be maintained from the front of pad, to the nearest fixed structure or plantings. If a full length gate is installed, it shall be hinged and no closer than 3'-0" from pad front. Local government, fire protection, and building codes may require greater clearances. Customer will avoid plantings or construction that interferes with Company's required maintenance access to its equipment. If a fence or barrier is to be installed, it must be coordinated with the Company.
5. All conduits shall extend 5'-0" beyond the pad and screening structure (if used) and the locations of the ends of primary conduits shall be identified. Primary conduit shall be installed between 42" and 48" below final grade. Secondary conduit shall be installed between 30" and 42" below final grade.
6. When metallic conduit is utilized, customer shall install grounding bushings.
7. When necessary for traffic protection, set a 4" diameter concrete-filled galvanized steel post 3'-0" from pad Post shall be 8' long with a 4' concrete embedment.
8. All Company transformers shall be located in mutually agreed upon location with hard surface access and unobstructed work space for large vehicles. If special equipment, such as a crane, is required for setting or replacing the transformer, the customer shall pay all expenses.
9. A trench 2'-0" deep and 3'-0" wide will be dug on all four sides. The trench will be lined with silt fence fabric and filled with 3" screened river rock to final grate. Contact local engineering representative if design needs modification.



1. TRANSFORMER PAD



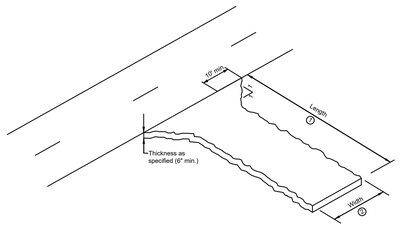
Berm shown is typical for slopes flatter than 3:1. For steeper slopes, increase berm size as directed by the Engineer.

Place berm in uncompacted windrow perpendicular to the slope at locations specified in the contract documents.

Filter sock diameter as specified in the contract documents.

TYPICAL PLACEMENT OF BERM OR SOCK

2. 9040-102 FILTER BERM AND FILTER SOCK



1. Remove vegetation and excavate soft soils from entrance area. Thoroughly compact subgrade prior to placing stone.
2. Install culvert under entrance if necessary to maintain drainage.
3. Grade entrance to prevent runoff from flowing onto street. Direct all runoff from entrance to a sediment retention device.
4. When specified, install subgrade stabilization fabric prior to placing crushed stone.
5. Install layer of crushed stone to the thickness (6 in. min.) and dimensions specified.

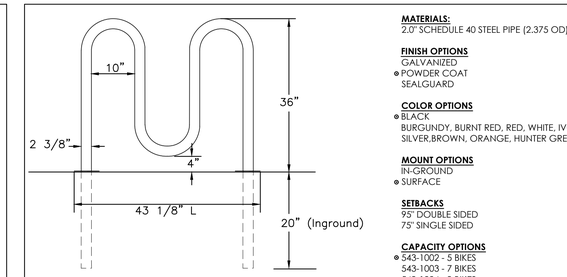
① Entrance length: 50 ft. minimum (30 ft. for single family residential), or as specified. Length of entrance may be increased if sediment track-out occurs.

② Entrance width: 20 ft. minimum.

SUDAS	REVISION NO.
	REVISION DATE 10/17/06
FIGURE: 9040.120	SHEET 1 OF 1

STABILIZED CONSTRUCTION ENTRANCE

3. STABILIZED CONSTRUCTION ENTRANCE



MATERIALS:
2.0" SCHEDULE 40 STEEL PIPE (2.375 OD)

FINISH OPTIONS
GALVANIZED
• POWDER COAT
SEALGUARD

COLOR OPTIONS
• BLACK
BURGUNDY, BURNT RED, RED, WHITE, IVORY, SILVER,BROWN, ORANGE, HUNTER GREEN

MOUNT OPTIONS
IN-GROUND
• SURFACE

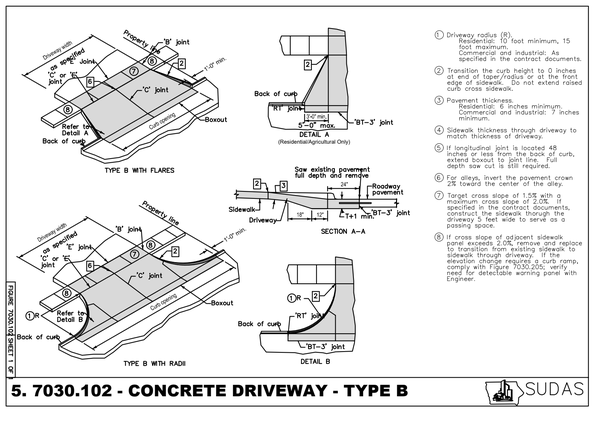
SETBACKS
9.5" DOUBLE SIDED
7.5" SINGLE SIDED

CAPACITY OPTIONS
• 543-1002 - 5 BIKES
543-1003 - 7 BIKES
543-1004 - 9 BIKES
543-1005 - 11 BIKES
543-1006 - 13 BIKES
543-1007 - 15 BIKES

MODEL # 543-1002

thepark LAND AND FACILITIES CATALOG

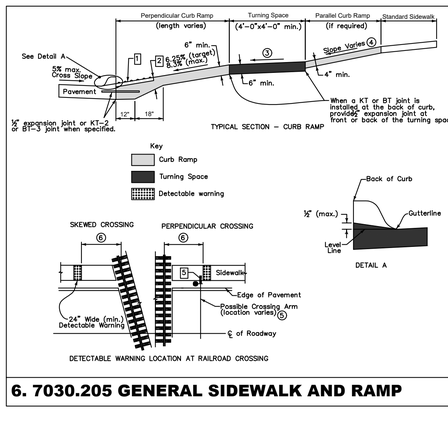
4. BIKE RACK - WAVE STYLE



PSHMF 7030.102 SHEET 1 OF 1

1. Driveway radius (R): Residential: 10 foot minimum, 15 foot maximum. Commercial and Industrial: As specified in the contract documents.
2. Transition the curb height to 0 inches at end of taper/radius or at the front edge of sidewalk. Do not extend raised curb cross sidewalk.
3. Pavement thickness: Residential: 6 inches minimum. Commercial and Industrial: 7 inches minimum.
4. Sidewalk thickness through driveway to match thickness of driveway.
5. If longitudinal joint is located 48 inches or less from the back of curb, extend boxout to joint line. Full depth saw cut is still required.
6. For alleys, invert the pavement crown 2% toward the center of the alley.
7. Target cross slope of 1.5% with a maximum cross slope of 2.0%, or as specified in the contract documents, construct the sidewalk through the driveway 5 feet wide to serve as a passing space.
8. If cross slope of adjacent sidewalk exceeds 2.0%, provide a 5 foot level landing to transition from existing sidewalk to sidewalk through driveway. If the elevation change requires a curb ramp, comply with Figure 7030.205, verify need for detectable warning panel with Engineer.

5. 7030.102 - CONCRETE DRIVEWAY - TYPE B



② Provide a minimum 2 foot width of detectable warning surfaces in the direction of travel that extends across the full width of the curb ramp and turning space, exclusive of curbs or flares.

③ Provide a minimum of 6 inches of concrete below the detectable warning panel.

④ Minimum 4 feet by 4 feet. Target cross slope of 1.5% with a maximum cross slope of 2.0%.

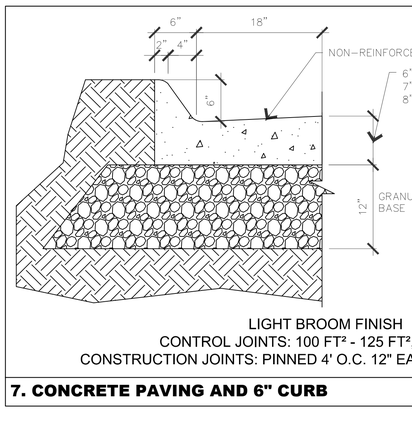
⑤ If normal sidewalk elevation cannot be achieved with the perpendicular ramp between the street and landing due to limited ramp length, provide a parallel ramp to make up the elevation difference between the landing and the standard sidewalk.

The length of the parallel ramp is not required to exceed 15 feet, regardless of the ramp's slope. Do not exceed 8.3% slope for parallel ramps shorter than 15 feet.

⑥ If crossing gate conflicts with detectable warning panel, or if pedestrian crossing gate is provided, place detectable warning panel in advance of the crossing gate.

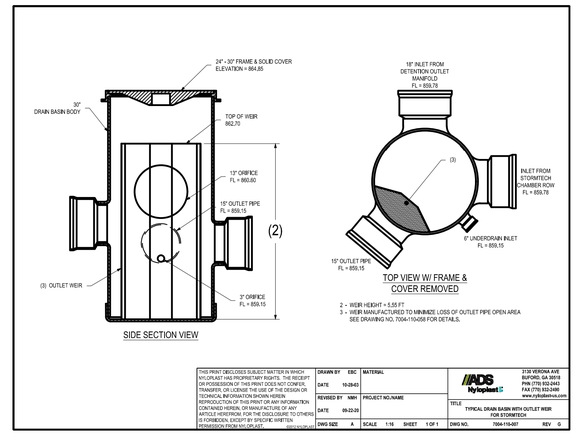
⑦ Locate front edge of detectable warning panel 12 to 15 feet from centerline of nearest rail. Orient truncated domes parallel to the direction of pedestrian travel.

6. 7030.205 GENERAL SIDEWALK AND RAMP



LIGHT BROOM FINISH
CONTROL JOINTS: 100 FT² - 125 FT², 25% DEEP
CONSTRUCTION JOINTS: PINNED 4' O.C. 12" EACH WAY W/ #4 REBAR

7. CONCRETE PAVING AND 6" CURB



2 - WEIR HEIGHT = 5.55 FT
3 - WEIR MANUFACTURED TO MINIMIZE LOSS OF OUTLET PIPE OPEN AREA SEE DRAWING NO. 7004-110-056 FOR DETAILS.

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DRAWN BY	EBC	MATERIAL		ADS HydroNext	3130 VERONA AVE BUFORD, GA 30518 PH: (770) 932-2409 FAX (770) 932-2490 www.mydadsinvo.com
DATE	10-28-03				
REVISED BY	NMH	PROJECT NO./NAME		TITLE	TYPICAL DRAIN BASIN WITH OUTLET WEIR FOR STORMTECH
DATE	09-22-20				
DWG SIZE	A	SCALE 1:16	SHEET 1 OF 1	DWG NO.	7004-110-057 REV G

13. 6" SLOPED (ROLLED) CURB

PELDS DESIGN SERVICES
Architecture | Engineering | Surveying
2323 Dixon Street, Des Moines, Iowa 50316 | PO Box 4626, Des Moines, Iowa 50305 | Ph: 515 265 8196

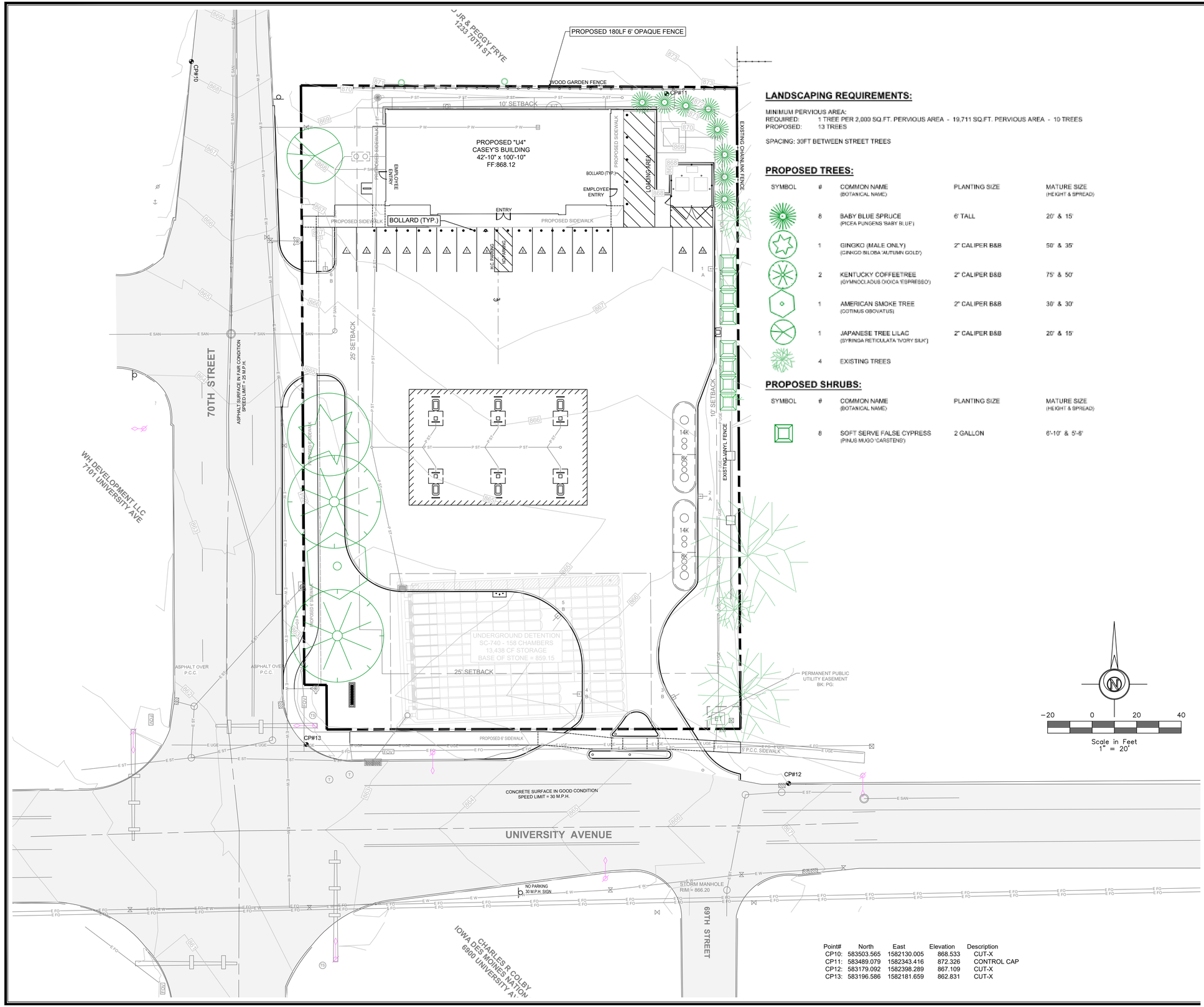
TITLE:
CASEY'S STORE #4372
6961 UNIVERSITY AVE
WINDSOR HEIGHTS, IA

BENCHMARK: | REVISIONS: PRELIMINARY

COPYRIGHT DATE:	DRAWN BY:	SCALE:	LATEST REVISION:	DRAWING NO:
----	N. DAY		1-16-2024	22-201

FILE PATH: J:\2022 Projects\22-201 CGS Windsor Heights\Engineering\Sheet Set

C-604 - DETAIL SHEET



LANDSCAPING REQUIREMENTS:

MINIMUM PERVIOUS AREA:
REQUIRED: 1 TREE PER 2,000 SQ.FT. PERVIOUS AREA - 19,711 SQ.FT. PERVIOUS AREA - 10 TREES
PROPOSED: 13 TREES

SPACING: 30FT BETWEEN STREET TREES

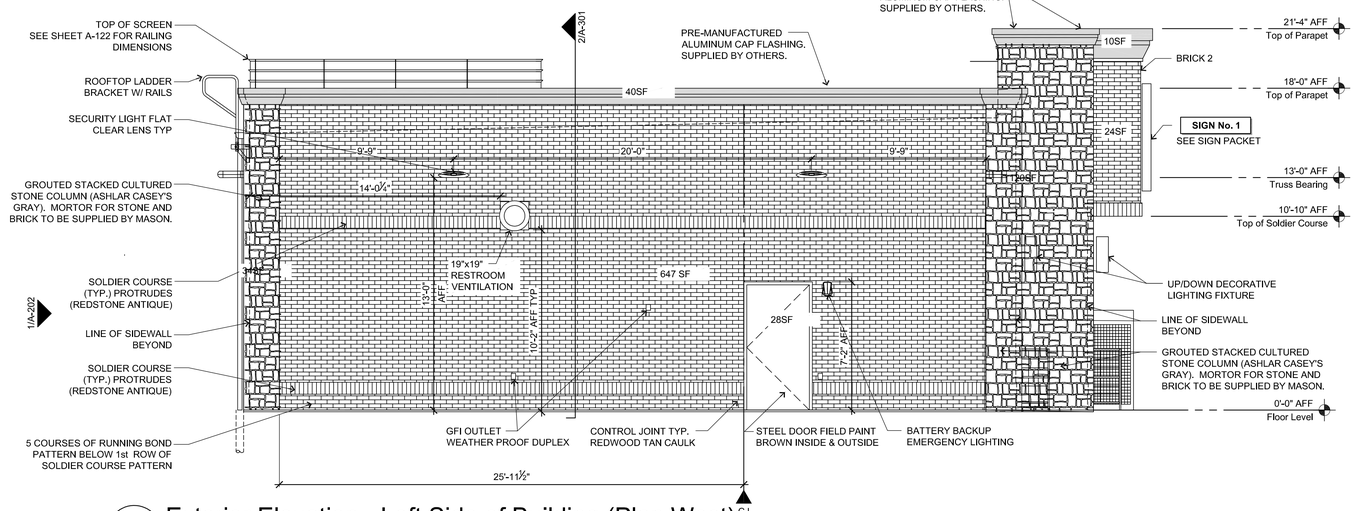
PROPOSED TREES:

SYMBOL	#	COMMON NAME (BOTANICAL NAME)	PLANTING SIZE	MATURE SIZE (HEIGHT & SPREAD)
	8	BABY BLUE SPRUCE (PICEA PUNGENS 'BABY BLUE')	6' TALL	20' & 15'
	1	GINGKO (MALE ONLY) (GINKGO BILOBA 'AUTUMN GOLD')	2" CALIPER B&B	50' & 35'
	2	KENTUCKY COFFEETREE (GYMNOCLADUS DIOICA 'ESPRESSO')	2" CALIPER B&B	75' & 50'
	1	AMERICAN SMOKE TREE (COTINUS OBOVATUS)	2" CALIPER B&B	30' & 30'
	1	JAPANESE TREE LILAC (SYRINGA RETICULATA 'IVORY SILK')	2" CALIPER B&B	20' & 15'
	4	EXISTING TREES		

PROPOSED SHRUBS:

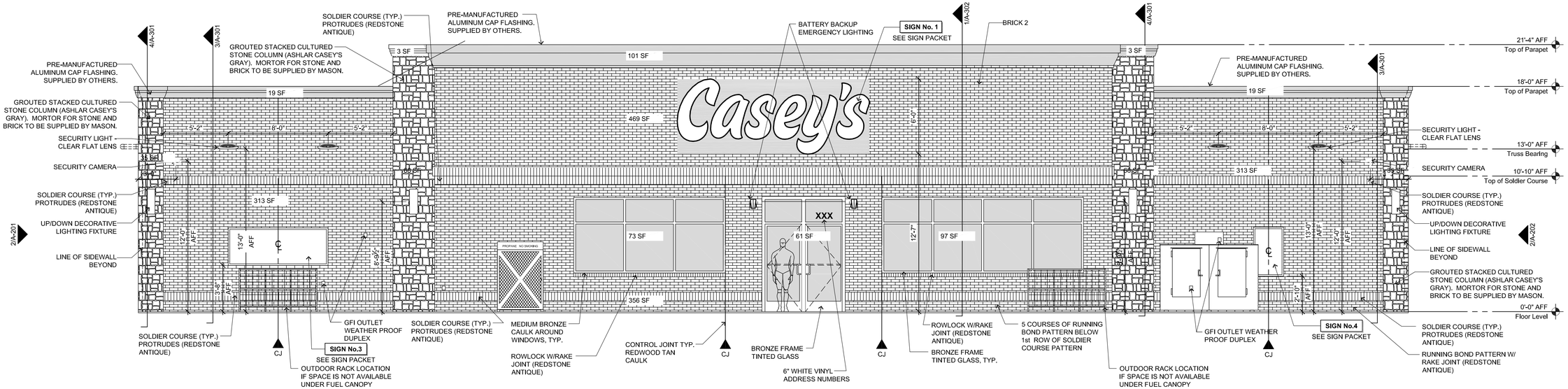
SYMBOL	#	COMMON NAME (BOTANICAL NAME)	PLANTING SIZE	MATURE SIZE (HEIGHT & SPREAD)
	8	SOFT SERVE FALSE CYPRESS (PINUS MUGO 'CARSTENS')	2 GALLON	6'-10" & 5'-6"

Point#	North	East	Elevation	Description
CP10:	583503.565	1582130.005	868.533	CUT-X
CP11:	583489.079	1582343.416	872.326	CONTROL CAP
CP12:	583179.092	1582398.289	867.109	CUT-X
CP13:	583196.586	1582181.659	862.831	CUT-X



2 Exterior Elevation - Left Side of Building (Plan West)

1/4"=1'-0"



1 Exterior Elevation - Front of Building (Plan South)

1/4"=1'-0"

PRIMARY MATERIALS	FRONT		BACK		RIGHT		LEFT	
GLASS	231 SF							
STONE	206 SF	12%	44 SF	3%	154 SF	18%	154 SF	18%
BRICK 1	982 SF	54%	1098 SF	69%	647 SF	74%	647 SF	74%
BRICK 2 (THIN SET)	469 SF	26%			24 SF	3%	24 SF	3%
SECONDARY MATERIALS								
CONCRETE			379 SF	24%				
METAL FLASHING	145 SF	8%	60 SF	4%	50 SF	6%	50 SF	6%
ACM PANELS								
TOTAL AREA OF ELEVATION	2,033 SF		60 SF		50 SF		50 SF	
PERCENT TOTAL OF PRIMARY MATERIALS (EXCLUSIVE OF GLASS)	91.95%		95.64%		88.70%		88.70%	
PERCENT TOTAL OF SECONDARY MATERIALS (EXCLUSIVE OF GLASS)	8.05%		4.36%		11.30%		11.30%	

General Notes

1. REVIEW AND COORDINATE WITH ALL DETAIL PAGES REFERENCED ON THIS PLAN, NOTIFY ARCHITECT AND OWNER OF DISCREPANCIES
2. **RELATED DRAWING SHEETS**: REFER TO THE FOLLOWING:
   AL-101: FOR BUILDING LOCATION ON SITE
   AL-601: FOR INFORMATION RELATING TO SIGNAGE
   A-101: PRIMARY FLOOR PLAN FOR CONSTRUCTION LAYOUT
   A-121: ROOF PLAN/ROOF TOP EQUIPMENT
   A-601: DOOR & WINDOW SCHEDULES AND NOTES
   S-101: FOOTINGS AND FOUNDATIONS
   S-102: ROOF TRUSSES
3. **WORKING POINT**: THE WORKING POINT (***WP***) INDICATED ON THE DRAWINGS IS RELATIVE TO THE FACE OF SHEATHING ON THE EXTERIOR WALL AND IS A COMMON POINT OF REFERENCE WHERE EVER USED IN THESE DRAWINGS
4. ALL VENT PENETRATIONS ON BACK OF BACKSIDE OF ROOF.

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PELDS JOB NO. 22-201

Casey's

CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., P.O. Box 3001, Ankeny, Ia. 50021 515-965-6100

PROJECT:
UNIVERSITY AVE. & 70TH ST.
WINDSOR HEIGHTS, IA

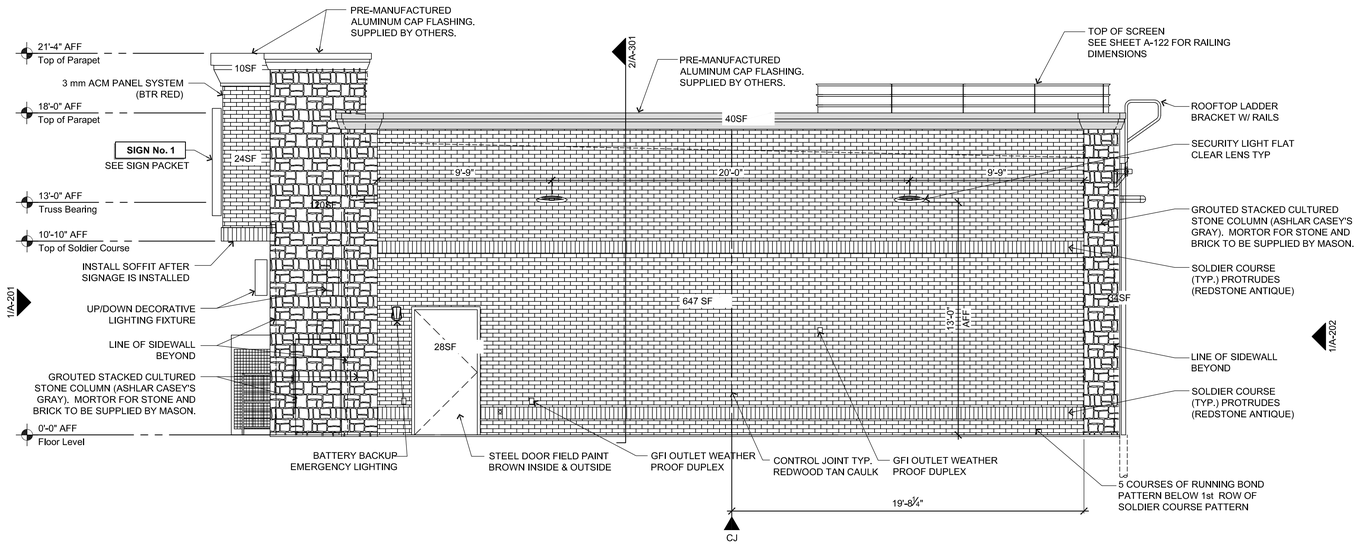
PUBLISHED: 03/15/23
REVISED: 09/15/23

PROTOTYPE AND VERSION: 2023 - U4 - V.01

DRAWN BY: Arlon Goforth III
CHECKED BY: D. WILLRICH

DRAWING INFORMATION:
EXTERIOR ELEVATIONS

A-201



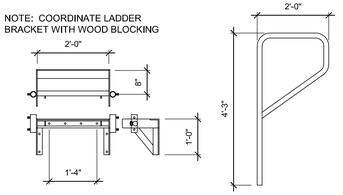
2 Exterior Elevation - Right Side of Building (Plan East)

1/4"=1'-0"

General Notes

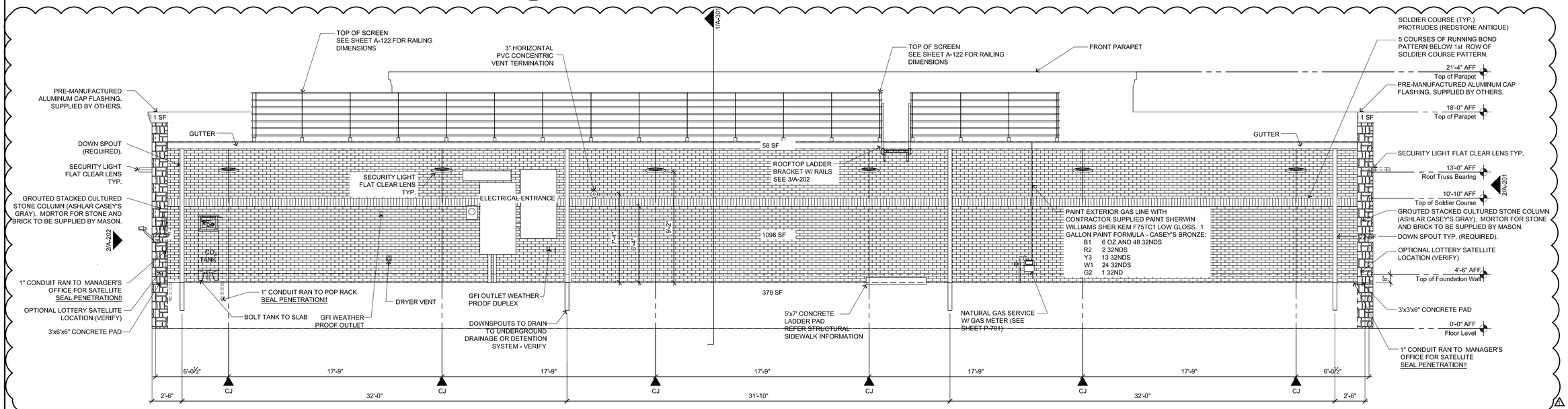
1. REVIEW AND COORDINATE WITH ALL DETAIL PAGES REFERENCED ON THIS PLAN, NOTIFY ARCHITECT AND OWNER OF DISCREPANCIES
2. **RELATED DRAWING SHEETS**: REFER TO THE FOLLOWING:
   AL-101: FOR BUILDING LOCATION ON SITE
   AL-601: FOR INFORMATION RELATING TO SIGNAGE
   A-101: PRIMARY FLOOR PLAN FOR CONSTRUCTION LAYOUT
   A-121: ROOF PLAN/ROOF TOP EQUIPMENT
   A-601: DOOR & WINDOW SCHEDULES AND NOTES
   S-101: FOOTINGS AND FOUNDATIONS
   S-102: ROOF TRUSSES
3. **WORKING POINT**: THE WORKING POINT (***WP***) INDICATED ON THE DRAWINGS IS RELATIVE TO THE FACE OF SHEATHING ON THE EXTERIOR WALL AND IS A COMMON POINT OF REFERENCE WHERE EVER USED IN THESE DRAWINGS
4. ALL VENT PENETRATIONS ON BACK OF BACKSIDE OF ROOF.

NOTE: COORDINATE LADDER BRACKET WITH WOOD BLOCKING



3 Ladder Bracket

1/2"=1'-0"



1 Exterior Elevation - Back of Building (Plan North)

1/4"=1'-0"

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PELDS JOB NO. 22-201

CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., P.O. Box 3001, Ankeny, Ia. 50021 515-965-6100

PROJECT: UNIVERSITY AVE. & 70TH ST. WINDSOR HEIGHTS, IA	PUBLISHED: 03/15/23; REVISED: 09/15/23
PROTOTYPE AND VERSION: 2023 - U4 - V.01	DRAWING INFORMATION: EXTERIOR ELEVATIONS
DRAWN BY: Arlon Goforth III; CHECKED BY: D. WILLRICH	A-202



FRONT

Casey's Canopy
6 in Row Brick

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BACK

Casey's Canopy
6 in Row Brick

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FRONT ELEVATION



RIGHT ELEVATION

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BACK ELEVATION



LEFT ELEVATION

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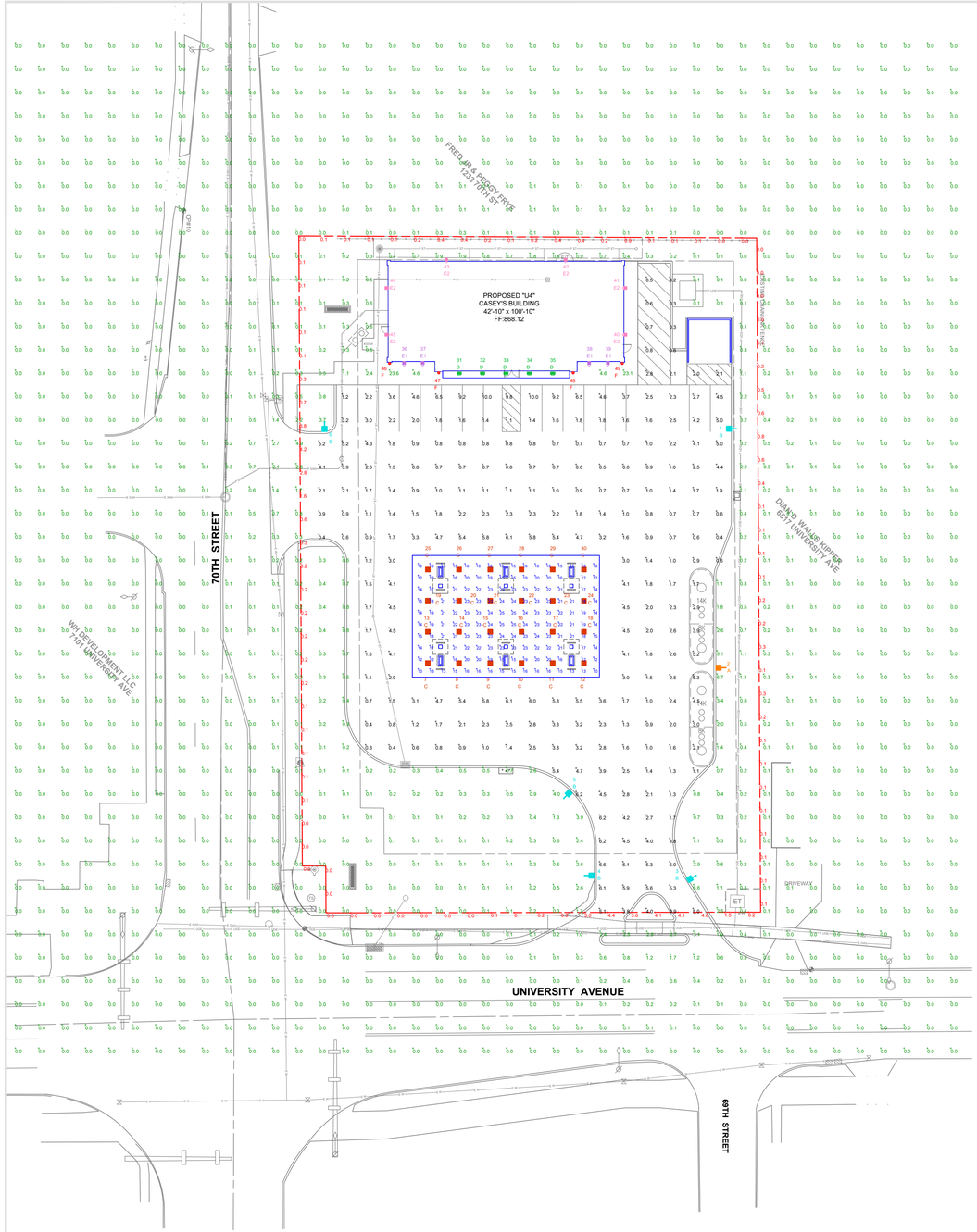

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HORIZONTAL CALC POINTS AT PROPERTY LINE

LUMINAIRE LOCATION SUMMARY		
LUM NO.	LABEL	MTG. HT.
1	B	17
2	A	17
3	B	17
4	B	17
5	B	17
6	B	17
7	C	16.5
8	C	16.5
9	C	16.5
10	C	16.5
11	C	16.5
12	C	16.5
13	C	16.5
14	C	16.5
15	C	16.5
16	C	16.5
17	C	16.5
18	C	16.5
19	C	16.5
20	C	16.5
21	C	16.5
22	C	16.5
23	C	16.5
24	C	16.5
25	C	16.5
26	C	16.5
27	C	16.5
28	C	16.5
29	C	16.5
30	C	16.5
31	D	10
32	D	10
33	D	10
34	D	10
35	D	10
36	E1	13
37	E1	13
38	E1	13
39	E1	13
40	E2	13
41	E2	13
42	E2	13
43	E2	13
44	E2	13
45	E2	13
46	F	8.75
47	F	8.75
48	F	8.75
49	F	8.75

NOTES:
- ALL AREA LIGHTS ARE ON NEW 17 FT. POLES MOUNTED ON 2 FT. CONCRETE BASES.

- THIS SITE IS LOCATED IN A REGION WHERE LIGHTING IS REGULATED BY LOCAL ORDINANCES.

FOOTCANDLE LEVELS CALCULATED AT GRADE USING INITIAL LUMEN VALUES					
LABEL	AVG	MAX	MIN	AVG/MIN	MAX/MIN
01_UNDER CANOPY	18.65	25	10	1.87	2.50
02_PAVED AREA	2.63	10.0	0.2	13.15	50.00
03_PROPERTY LINE - HORIZONTAL	0.55	4.8	0.0	N.A.	N.A.
04_UNDEFINED AREA	0.18	23.6	0.0	N.A.	N.A.

LUMINAIRE SCHEDULE										
SYMBOL	QTY	LABEL	ARRANGEMENT	LUMENS	LLF	BUG RATING	WATTS/LUMINAIRE	TOTAL WATTS	MANUFACTURER	CATALOG LOGIC
	1	A	SINGLE	8150	1.020	B1-U0-G2	76	76	CREE, INC.	OSQ-ML-C-DA-XX + OSQM-C-16L-30K7-3B-UL-NM-XX-Q5
	5	B	SINGLE	7450	1.020	B1-U0-G1	76	380	CREE, INC.	OSQ-ML-C-DA-XX + OSQM-C-16L-30K7-4B-UL-NM-XX-Q5
	24	C	SINGLE	4400	1.020	B2-U2-G1	29	696	CREE, INC.	CP5-8L-30K8-DF-UL-RC-XX-Q2 + CP5-BZ-SP-XX
	5	D	SINGLE	3058	1.030	B2-U0-G0	34	170	CREE, INC.	SFT-228-PS-RM-03-E-12-XX-350-30K (SPECIAL ORDER)
	4	E1	SINGLE	2790	1.030	B1-U0-G1	37	148	CREE, INC.	SEC-EDG-3M-WM-02-E-UL-XX-525-30K
	6	E2	SINGLE	1560	1.030	B0-U0-G1	25	150	CREE, INC.	SEC-EDG-2MB-WM-02-E-UL-XX-350-30K-DIM (BXSE9291&) 180 DEGREE OPTICS
	4	F	SINGLE	1456	1.000	B2-U0-G0	53	212	FC LIGHTING, INC.	FCC600-18-WM-UNV-930-15L-XXX-15-LD

REDLEONARD ASSOCIATES
1340 Kemper Meadow Dr, Forest Park, OH 45240
513-574-9500 | redleonard.com

REV.	BY	DATE	DESCRIPTION
R1	RCF	12/20/2023	REVISED TO MEET CITY REQUIREMENTS.
R2	RCF	01/16/2023	REVISED TO MEET CITY REQUIREMENTS (CALCULATIONS).
R3	RCF	02/08/2024	REVISED TO MEET THE MAX LUMEN REQUIREMENT OF 196,205 LUMENS (OR LESS). (5 LUMENS PER S.F. OF HARDSCAPE x 39,241 S.F. OF IMPERVIOUS AREA.)

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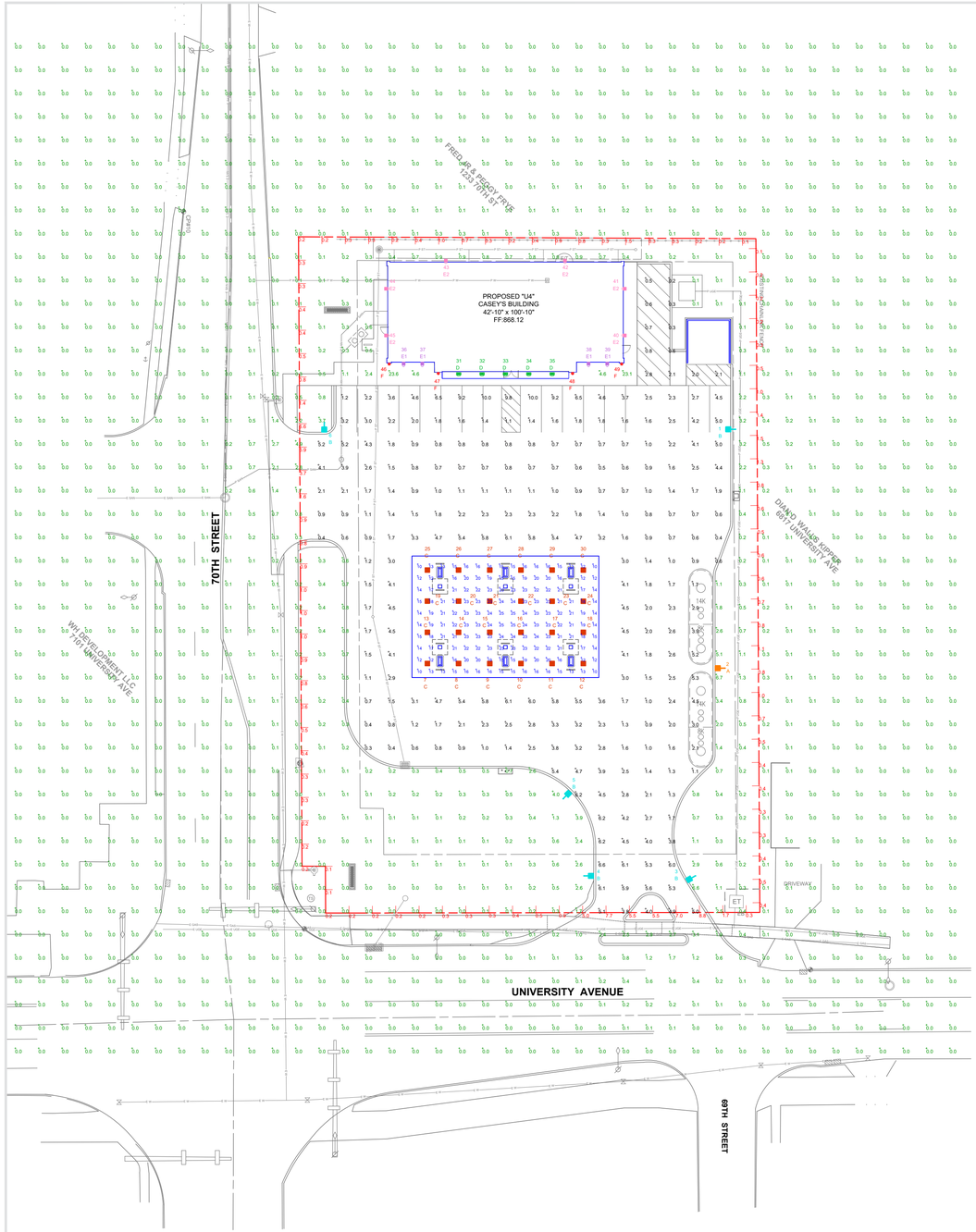
SCALE: 1" = 30'
LAYOUT BY: RCF
DWG SIZE: D
DATE: 10/04/2023

PROJECT NAME:
CASEY'S
WINDSOR HEIGHTS, IA
DRAWING NUMBER:
RL-9171-S1-R3



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LUMINAIRE LOCATION SUMMARY		
LUM NO.	LABEL	MTG. HT.
1	B	17
2	A	17
3	B	17
4	B	17
5	B	17
6	B	17
7	C	16.5
8	C	16.5
9	C	16.5
10	C	16.5
11	C	16.5
12	C	16.5
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14	C	16.5
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21	C	16.5
22	C	16.5
23	C	16.5
24	C	16.5
25	C	16.5
26	C	16.5
27	C	16.5
28	C	16.5
29	C	16.5
30	C	16.5
31	D	10
32	D	10
33	D	10
34	D	10
35	D	10
36	E1	13
37	E1	13
38	E1	13
39	E1	13
40	E2	13
41	E2	13
42	E2	13
43	E2	13
44	E2	13
45	E2	13
46	F	8.75
47	F	8.75
48	F	8.75
49	F	8.75

NOTES:
- ALL AREA LIGHTS ARE ON NEW 17 FT. POLES MOUNTED ON 2 FT. CONCRETE BASES.

- THIS SITE IS LOCATED IN A REGION WHERE LIGHTING IS REGULATED BY LOCAL ORDINANCES.

FOOTCANDLE LEVELS CALCULATED AT GRADE USING INITIAL LUMEN VALUES					
LABEL	AVG	MAX	MIN	AVG/MIN	MAX/MIN
01_UNDER CANOPY	18.65	25	10	1.87	2.50
02_PAVED AREA	2.63	10.0	0.2	13.15	50.00
03_PROPERTY LINE - VERTICAL @ 5FT	1.08	8.8	0.1	10.80	88.00
04_UNDEFINED AREA	0.18	23.6	0.0	N.A.	N.A.

LUMINAIRE SCHEDULE										
SYMBOL	QTY	LABEL	ARRANGEMENT	LUMENS	LLF	BUG RATING	WATTS/LUMINAIRE	TOTAL WATTS	MANUFACTURER	CATALOG LOGIC
	1	A	SINGLE	8150	1.020	B1-U0-G2	76	76	CREE, INC.	OSQ-ML-C-DA-XX + OSQM-C-16L-30K7-3B-UL-NM-XX-Q5
	5	B	SINGLE	7450	1.020	B1-U0-G1	76	380	CREE, INC.	OSQ-ML-C-DA-XX + OSQM-C-16L-30K7-4B-UL-NM-XX-Q5
	24	C	SINGLE	4400	1.020	B2-U2-G1	29	696	CREE, INC.	CP5-8L-30K8-DF-UL-RC-XX-Q2 + CP5-BZ-SP-XX
	5	D	SINGLE	3058	1.030	B2-U0-G0	34	170	CREE, INC.	SFT-228-PS-RM-03-E-12-XX-350-30K (SPECIAL ORDER)
	4	E1	SINGLE	2790	1.030	B1-U0-G1	37	148	CREE, INC.	SEC-EDG-3M-WM-02-E-UL-XX-525-30K
	6	E2	SINGLE	1560	1.030	B0-U0-G1	25	150	CREE, INC.	SEC-EDG-2MB-WM-02-E-UL-XX-350-30K-DIM (BXSE9291&) 180 DEGREE OPTICS
	4	F	SINGLE	1456	1.000	B2-U0-G0	53	212	FC LIGHTING, INC.	FCC600-18-WM-UNV-930-15L-XXX-15-LD

REDLEONARD ASSOCIATES
1340 Kemper Meadow Dr, Forest Park, OH 45240
513-574-9500 | redleonard.com

REV.	BY	DATE	DESCRIPTION
R1	RCF	12/20/2023	REVISED TO MEET CITY REQUIREMENTS.
R2	RCF	01/16/2023	REVISED TO MEET CITY REQUIREMENTS (CALCULATIONS).
R3	RCF	02/08/2024	REVISED TO MEET THE MAX LUMEN REQUIREMENT OF 196,205 LUMENS (OR LESS). (5 LUMENS PER S.F. OF HARDSCAPE x 39,241 S.F. OF IMPERVIOUS AREA.)

DISCLAIMER
ANY SITE PLAN(S), FLOOR PLAN(S), RENDERING(S), LIGHTING LAYOUT(S) AND PHOTOMETRIC PLAN(S) INCLUDING BUT NOT LIMITED TO ANY PROJECT(S) CREATED/PRODUCED BY RED LEONARD ASSOCIATES INC., ARE ONLY INTENDED FOR ILLUSTRATION AND QUOTING PURPOSES ONLY. RED LEONARD ASSOCIATES HAS THE RIGHT TO USE THIRD PARTY LASERS, SCANNERS, AND CAMERAS BUT ACTUAL PROJECT CONDITIONS, DIMENSIONS, AND ACCURACY OF MEASUREMENTS MAY DIFFER FROM THESE OR ANY PARAMETERS. RED LEONARD ASSOCIATES INC. ASSUMES NO LIABILITY FOR WHAT IS CREATED/PRODUCED IN THESE RECREATIONS. THIS INCLUDES BUT IS NOT LIMITED TO THE USE OF, INSTALLATION OF AND/OR INTEGRITY OF EXISTING BUILDING(S), SURROUNDING AREA FOR PRODUCT(S) SUCH AS EXISTING POLE(S), ANCHOR BOLT(S), BASE(S), ARCHITECTURAL AND SIGNAGE STRUCTURE(S), LANDSCAPING PLAN(S), LIGHTING PLAN(S), FIXTURE SELECTION(S) AND PLACEMENT, MATERIAL(S), COLOR ACCURACY, TEXTURE(S), AND ANYTHING ATTRIBUTED TO PHOTO REALISM THAT IS CREATED. FURTHERMORE, RED LEONARD ASSOCIATES INC., DOES NOT ASSUME LIABILITY WHATSOEVER FOR ANY PURCHASES MADE BY CLIENT BEFORE, DURING, OR AT THE CONCLUSION OF THE PUBLISHED WORK. THE CUSTOMER, ITS RELATIVE AFFILIATES, AS WELL AS ANY OTHER PERSON(S) IN VIEWING OF THIS PRODUCT IS RESPONSIBLE FOR VERIFYING COMPLIANCE WITH ANY BUT NOT LIMITED TO ALL CODES, PERMITS, RESTRICTIONS, INSTRUCTIONS, PURCHASES, AND INSTALLATIONS OF OBJECTS VIEWED WITHIN THIS DOCUMENT(S) OR PROJECT(S). SYMBOLS ARE NOT DRAWN TO SCALE. SIZE IS FOR CLARITY PURPOSES ONLY. SIZES AND DIMENSIONS ARE APPROXIMATE, ACTUAL MEASUREMENTS MAY VARY. DRAWINGS ARE NOT INTENDED FOR ENGINEERING OR CONSTRUCTION USE. THIS DOCUMENT, ANY RED LEONARD DRAWING(S), OR PROJECT(S) IS NOT TO BE USED AND/OR INTENDED FOR ENGINEERING OR CONSTRUCTION PURPOSES, BUT FOR ILLUSTRATIVE PURPOSES ONLY. ANY LOCATIONS OF EMERGENCY LIGHTING SHOWN WERE PROVIDED BY OTHERS. RED LEONARD ASSOCIATES IS NOT RESPONSIBLE FOR INSUFFICIENT LIGHTING DURING AN EMERGENCY EVENT. ANY USE OF THIS DOCUMENTATION AND/OR OTHER ARTICLES PRODUCED BY RED LEONARD WITHOUT WRITTEN AUTHORIZATION FROM JAYME J. LEONARD IS STRICTLY PROHIBITED.

SCALE: 1" = 30'
LAYOUT BY: RCF
DWG SIZE: D
DATE: 10/04/2023

PROJECT NAME:
CASEY'S
WINDSOR HEIGHTS, IA
DRAWING NUMBER:
RL-9171-S1-R3

	QTY	LABEL	DESCRIPTION
AREA	1	A	OSQ-ML-C-DA-XX + OSQM-C-16L-30K7-3B-UL-NM-XX-Q5
	5	B	OSQ-ML-C-DA-XX + OSQM-C-16L-30K7-4B-UL-NM-XX-Q5

	QTY	LABEL	DESCRIPTION
CANOPY	24	C	CP5-8L-30K8-DF-UL-RC-XX-Q2 + CP5-BZ-SP-XX

	QTY	LABEL	DESCRIPTION
SOFFIT	5	D	SFT-228-PS-RM-03-E-12-XX-350-30K (SPECIAL ORDER)

	QTY	LABEL	DESCRIPTION
WALL MOUNTED	4	E1	SEC-EDG-3M-WM-02-E-UL-XX-525-30K
	6	E2	SEC-EDG-2MB-WM-02-E-UL-XX-350-30K-DIM (BXSE92918) 180 DEGREE OPTICS

	QTY	LABEL	DESCRIPTION
WALL MOUNTED	4	F	FCC600-18-WM-UNV-930-15L-XXX-15-LD

ADDITIONAL FIXTURE INFO

OSQ Series

OSQ™ LED Area/Flood Luminaire featuring Patented NanoComfort™ Technology – Version C

Rev. Date: V3 04/17/2023

Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weathertight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site. Complete with a multi-voltage, factory-installed, surge protector. Medium is suitable upgrade for HID applications up to 400 Watts. Large is suitable upgrade for HID applications up to 1000 Watts. Extra Large is suitable upgrade for HID applications up to multiple 1000 Watts.
Applications: Parking lots, walkways, campuses, car dealerships, office complexes, high-mast and internal roadways.

Performance Summary

Utilizes Patented NanoComfort™ Technology

Utilizes Cree TrueWhite® Technology on 5000K Luminaires

Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: 4,000 - 75,000

Efficacy: Up to 171 LPW

CRI: Minimum 70 CRI (3000K, 4000K & 5700K); 90 CRI (5000K)

CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty*: 10 years for luminaire; 10 years for ColorTast DeltaGuard® finish, 5 years for BML sensor; up to 5 years for Synapse® accessories; 1 year for luminaire accessories

* See http://creelighting.com/warranty for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

Ordering Information

Fully assembled luminaire is composed of two components that must be ordered separately:
Example: **Mount.** OSQ-ML-C-DA-BK + **Luminaire.** OSQM-C-GL-30K7-2M-UL-NM-BK

Mount Luminaire must be ordered separately!*

OSQ-

Mounting Options		Color Options	
Medium/Large Mounts	**Extra Large Mounts**	**SV** Silver	**BZ** Bronze
OSQ-ML-C-AA Adjustable Arm	**OSQ-EX-C-AA** Adjustable Arm	**BK** Black	**WH** White
OSQ-ML-C-DA Direct Arm	**OSQ-EX-C-DA** Direct Arm		
OSQ-ML-C-TA Trunnion Mount			

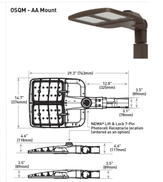
* Mounting Kit options ETA, and pole / antique pole availability data beginning on page 1a.

Luminaire (Mount must be ordered separately)

OSQ		C									
Family	**Size**	**Series**	**Lumen Package***	**ESTAR CRI**	**Optic**	**Voltage**	**Mount**	**Color Options**	**Controls***	**Options**
OSQ	M Medium L Large X Extra Large	C	**Medium:** **4L** 4,000 Lumens **6L** 6,000 Lumens **8L** 8,000 Lumens **10L** 10,000 Lumens **12L** 12,000 Lumens **16L** 16,000 Lumens **20L** 20,000 Lumens **Large:** **25L** 25,000 Lumens **30L** 30,000 Lumens **35L** 35,000 Lumens **40L** 40,000 Lumens **45L** 45,000 Lumens **50L** 50,000 Lumens **Extra Large:** **60L** 60,000 Lumens **70L** 70,000 Lumens **75L** 75,000 Lumens	**Y** ESTAR CRI	**(blank)** Standard CRI **2M** Type 2 Medium **2MRW** Type 2 Medium Rotatable Wireless **3M** Type 3 Medium **3MRW** Type 3 Medium Rotatable Wireless **4M** Type 4 Medium **4MRW** Type 4 Medium Rotatable Wireless **5M** Type 5 Medium **5MRW** Type 5 Medium Rotatable Wireless **2W** Type 2 Wide **3W** Type 3 Wide **4W** Type 4 Wide **5W** Type 5 Wide **TFTM** Type TFTM **TG** Type TG	**AA** Adjustable Arm **DA** Direct Arm **TA** Trunnion Arm **Accessories:** **PE** Photocell - Button Type **DMG** 0-10V Dimming Wires Pigtail **DS** Dual Switching **PER** Five Pin Receptacle **PERS** Five Pin Receptacle with Shorting Cap **SF** Single Fuse (120V) **DF** Double Fuse (208V, 240V, 277V, 347V or 480V) **WG** Wire Guard **VG** Vandal Guard **BSP** Bird Spikes **FA** Fusing Accessories **Shipping Packaging:** **IPHD** Individual Packaging Horizontal Display **IPVD** Individual Packaging Vertical Display **MP** Multi-Pack Packaging	**UNV** 10,000V Surge Protection, Universal Voltage (120V-277V) **HVOLT** 10,000V Surge Protection, High Voltage (347V-480V) **120** 120V **208** 208V **240** 240V **277** 277V **347** 347V **480** 480V	**Mount:** **NA** No Mount (Use with Specific Mount Only) **WM** Wall Mount **Color Options:** **BK** Black **SV** Silver **WH** White	**Controls*:** **DML Bluetooth® Technology Enabled Multi-Level Sensor** - Replaces standard 10kV/5kA surge protection. - Compatible with CR6, CT7+ or SiteOps (+ re-install). - Consult factory if tuning is required for 208V, 240V or 480V (please re-phase). - When side-mounting, use Wire Guard (WG). - **Utility-Label and NOVA® Lot & Lot-1 Pre-Molested Luminaires:** - Available only with DSDM-8-DSL luminaires. - Not available with DSDM-8-DSL luminaires. - Available only with DSDM-8-DSL luminaires. - Luminaire ordered with DSDM-8-DSL luminaires with maximum 42° tilt. - Factory-commissioned CR6 BAC node. - Requires photocell or shorting cap by others. - Refer to page 7 for compatible Synapse control offerings. **DMG Bluetooth® Technology Enabled Multi-Level Sensor** - Replaces standard 10kV/5kA surge protection. - Refer to BDM-CPM spec sheet for details. - Requires NEMA/ANSI C136.41 7-Pin Dimming Receptacle. - Refer to SYNAPSE spec sheet for details. **SNAP Synapse® Intelligent Control** - Refer to SYNAPSE spec sheet for details. **Synapse Wireless Control Accessories** **Twist-Lock Configuration** TL7-B2 - Suitable for 120-277V (+/- 10%) voltage only - Requires NEMA/ANSI C136.41 7-Pin Dimming Receptacle - Refer to TL7-B2 spec sheet for details **Synapse Wireless Sensor** WDN-STM - Refer to WDN-STM spec sheet for details **Synapse Wireless Controller** SNAP-ENDPOINT-SERIES - Refer to ENDPOINT spec sheet for details **Synapse Wireless Expansion Input Accessory** EMG-DIM-102 - Required for BACnet integration - Refer to EMG-DIM-102 spec sheet for details **Outdoor Antennas:** **Optional, for increased range, 8dB gain!** **ANT-ANTM-OMNI** - Kit includes antenna, 30' cable and bracket **ANT-ANTM3** - Kit includes antenna, 30' cable and bracket - Refer to Outdoor antenna spec sheet for details **NOTE: Twist-length must be a minimum of 3.75" (95mm), and lumen must be sized**

* Luminaire Package codes identify approximate light output only. Actual lumen output levels vary by CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values.
** Luminaire ordered with 0-10V dimming.

OSQM - AA Mount



Luminaire	Weight
OSQM	19.3 lbs. (8.8kg)

Note: For OSL, OSX and additional mounts, refer to drawings beginning on page 2a.

Electrical Data*							
Lumen Package	System Watts 120-277V	System Watts 347-480V	Total Current (A)				
			120V	208V	240V	277V	347V	480V
4L**	34	30	0.21	0.12	0.11	0.09	N/A	N/A
6L	51	46	0.33	0.18	0.15	0.13	0.11	0.08
8L	55	48	0.44	0.27	0.23	0.20	0.14	0.12
10L	68	70	0.57	0.33	0.28	0.25	0.20	0.14
12L	97	100	0.81	0.47	0.40	0.35	0.28	0.20
16L	131	130	1.09	0.63	0.55	0.47	0.38	0.27
20L	175	180	1.46	0.84	0.73	0.63	0.50	0.36
25L	226	240	1.96	1.13	0.98	0.85	0.68	0.47
30L	297	N/A	2.48	1.43	1.24	1.07	0.86	0.62
40L	384	N/A	3.20	1.85	1.60	1.39	1.11	0.80
75L	647	N/A	5.73	2.75	1.86	1.61	1.29	0.93

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V, 277-480V or 347-480V.
** Available with UL voltage only.

OSQ-C Series Ambient Adjusted Lumen Maintenance†

Ambient	Initial LMF	25K hr Reported* LMF	50K hr Reported* LMF	75K hr Reported* LMF	100K hr Reported* LMF
5°C (41°F)	1.02	0.99	0.93	0.88	0.83
10°C (50°F)	1.02	0.98	0.93	0.87	0.82
15°C (59°F)	1.01	0.98	0.92	0.87	0.82
20°C (68°F)	1.01	0.97	0.92	0.86	0.81
25°C (77°F)	1.00	0.97	0.91	0.86	0.81

† Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the Temperature Data Reference Document for outdoor average nighttime ambient temperatures.
** In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to or the tested duration in the IES LM-80 report for LED.

Accessories

Field-Installed

Backlight Shield
- Shield-B (Standard Medium)
- OSQ-L-C-BLSFSP (Large)
- OSQ-X-C-BLSFSP (Extra Large)
- Not for use with rotated optics

Mounting Shield
- OSQ-M-C-BRDSPK
- OSQ-L-C-BRDSPK
- OSQ-X-C-BRDSPK

Shorting Cap
- XA-SCLSHRT

CREE LIGHTING

Product Specifications

CREE LIGHTING NANOCOMFORT™ TECHNOLOGY
Cree Lighting's NanoComfort™ Technology ends the trade-offs in outdoor lighting by providing superior glare reduction and visual comfort. Only NanoComfort™ Technology delivers a uniform field of light that is free of glare. The secret is a black-of NanoComfort™ is a compound that array of LEDs. Each of the 16 LEDs in a module is in contact with its own NanoComfort™ Technology. Unlike other LED luminaires, the LEDs in OSQ™ luminaires are recessed in the acrylic optics are cut and sculpted into facets that relieve the glare and harshness while improving visual comfort – all while retaining superb efficacy and control.

CREE TRUEWHITE® TECHNOLOGY
Cree TrueWhite® Technology delivers high-quality white light. Cree TrueWhite® Technology is engineered and tested to provide the ideal combination of 90+ CRI, beautiful light characteristics, and lifelong color consistency, all while maintaining high luminous efficacy – a true no-compromise solution.

CONSTRUCTION & MATERIALS
- Slim, low-profile design minimizes wind load requirements
- Luminaire housing is rugged die cast aluminum with an integral, weathertight LED driver compartment and high-performance heat sink
- Acrylic optic w/clear tempered glass lens
- Luminaire can be direct mounted to a wall and surface wired
- Luminaire can be mounted using (2) Tenon's of larger square or round pole, secured by two 5/16-18 UNC bolts spaced on 2" (51mm) center. Refer to page 1a for fixture mounting drill pattern.
- Adjustable arm mount adapters are rugged die cast aluminum
- Arm can be adjusted in 5° increments from horizontal to 45° above horizontal. 2.375" (60mm) ID tenon and can be adjusted 180° in 2.5° increments.
- OSQ-X-C-AA mounts to a horizontal or vertical 3" (76mm) OD 2.375-2.500" (60.45mm) O.D. tenon and can be adjusted 180° in 2.5° increments. **NOTE: Tenon length must be a minimum of 3.75" (95mm), and lumen must be sized**
- Trunnion mount is constructed of 6000 and A7011 steel and is rotatable from 0° adjustable from 0° to 15°, degree increments. Trunnion mount secures to surface with (1) 5/8" bolt or (2) 1/2" or 3/8" bolts.
- Luminaires include 15" (381mm) 18/5 cord exiting the luminaire
- Designed for sunlight and downlight applications. Uplight orientation not suitable for use with N or R optics
- Exclusive ColorTast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Silver, bronze, black, and white are available.

Weight: Refer to table on page 1.

ELECTRICAL SYSTEM
- **Input Voltage:** 120-277V or 347-480V; 50/60Hz
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 10kV/5kA surge suppression protection standard, 20kV/10kA surge suppression protection optional.
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Designed with 0-10V dimming capabilities. Controls by others
- Refer to Dimming spec sheet for details
- **Maximum 10V Source Current:** 1.8mA
- **Operating Temperature Range:** -40°C - +40°C (-40°F - +104°F)

REGULATORY & VOLUNTARY QUALIFICATIONS
- cULus Listed (UL 1598)
- Suitable for wet locations
- Meets NOM-031-ZT standards
- Drivers and LEDs are UL certified in accordance with UL8750
- Certified to ANSI C136.31 2010, 3G vibration level (3 x 60K cycles) when ordered without N or R options
- Certified to ANSI C136.31 2014, 5G vibration level when ordered with appropriate vibration standards
- ANSI C136.2 10kV/5kA (standard) and 20kV/10kA (optional) surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Luminaire is IP66 rated per IEC 60598-2
- Assembled in the USA by Cree Lighting from US and imported parts
- Meets Buy American requirements within ARRA
- RoHS compliant. Consult factory for additional details
- Dark Sky Friendly, IDA Approved when ordered with 30K CCT and direct arm mount only. Please refer to https://www.darksky.org/our-work/lighting/lighting-for-industry/fsa/fsa-products/ for most current information.
- ⚠ **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

SYNAPSE® SIMPLYSNAP INTELLIGENT CONTROL
The Synapse SimplySNAP platform is a highly-reverse connected lighting solution featuring zone dimming, motion sensing, and daylight harvesting with utility-grade power monitoring and support of up to 1000 nodes per gateway. The system features a reliable and robust self-healing mesh network with a browser-based commissioning tool and intuitive mobile application. Refer to SNAP spec sheet for details. Requires (1) of: TL7-HBD and Site Controller ES420-0021 (see the OSQ Series for a new performance) plateau, providing secure energy productivity, code compliance and a better right experience.

Synapse Wireless Control Accessories

Twist-Lock Configuration
TL7-B2
- Suitable for 120-277V (+/-) voltage only
- Requires NEMA/ANSI C136.41 7-Pin Dimming Receptacle
- Refer to TL7-B2 spec sheet for details

- Provides On/Off switching, power metering, digital sensor input, and status monitoring of luminaire
- Refer to TL7-HD spec sheet for details

Synapse Wireless Sensor
WDN-STM
- Versatile™ LTE-enabled
- Designed for indoor applications
- Refer to SYNAPSE spec sheet for details

Synapse Wireless Controller
SNAP-ENDPOINT-SERIES
- Required for BACnet integration
- Refer to ENDPOINT spec sheet for details

Outdoor Antennas:
Optional, for increased range, 8dB gain!
ANT-ANTM-OMNI
- Kit includes antenna, 30' cable and bracket
ANT-ANTM3
- Kit includes antenna, 30' cable and bracket
- Refer to Outdoor antenna spec sheet for details

Electrical Data*

Lumen Package	System Watts 120-480V	Utility Watts Multiplier	Total Current (A)				
			120V	208V	240V	277V	347V	480V
4L**	34	30	0.21	0.12	0.11	0.09	N/A	N/A
6L	51	46	0.33	0.18	0.15	0.13	0.11	0.08
8L	55	48	0.44	0.27	0.23	0.20	0.14	0.12
10L	68	70	0.57	0.33	0.28	0.25	0.20	0.14
16L	97	100	0.81	0.47	0.40	0.35	0.28	0.20
20L	131	130	1.09	0.63	0.55	0.47	0.38	0.27
30L	175	180	1.46	0.84	0.73	0.63	0.50	0.36
40L	226	240	1.96	1.13	0.98	0.85	0.68	0.47
50L	297	N/A	2.48	1.43	1.24	1.07	0.86	0.62
60L	384	N/A	3.20	1.85	1.60	1.39	1.11	0.80
75L	647	N/A	5.73	2.75	1.86	1.61	1.29	0.93

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V, 277-480V or 347-480V.
** Available with UL voltage only.

OSQ-C Series Ambient Adjusted Lumen Maintenance†

Ambient	Initial LMF	25K hr Reported* LMF	50K hr Reported* LMF	75K hr Reported* LMF	100K hr Reported* LMF
5°C (41°F)	1.02	0.99	0.93	0.88	0.83
10°C (50°F)	1.02	0.98	0.93	0.87	0.82
15°C (59°F)	1.01	0.98	0.92	0.87	0.82
20°C (68°F)	1.01	0.97	0.92	0.86	0.81
25°C (77°F)	1.00	0.97	0.91	0.86	0.81

† Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the Temperature Data Reference Document for outdoor average nighttime ambient temperatures.
** In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to or the tested duration in the IES LM-80 report for LED.

Accessories

Field-Installed

Backlight Shield
- Shield-B (Standard Medium)
- OSQ-L-C-BLSFSP (Large)
- OSQ-X-C-BLSFSP (Extra Large)
- Not for use with rotated optics

Mounting Shield
- OSQ-M-C-BRDSPK
- OSQ-L-C-BRDSPK
- OSQ-X-C-BRDSPK

Shorting Cap
- XA-SCLSHRT

CREE LIGHTING

CPY500™ Series

CPY500™ LED Recessed Canopy, Car Wash, Hook & Cord or Pendant Mount Luminaire

Rev. Date: V5 05/02/2023

Product Description

The CPY500™ Series LED luminaire features a large 11" X 11" glass optic that delivers the best in visual comfort and performance. Diffused optics minimize glare and increase visual comfort while delivering top-of-category 73% LPW efficiency and high-performance light distribution. Its sleek and low-profile form blends into the canopy while still being easily serviceable from below. Additional car wash, hook & cord and pendant mounts provide a consistent aesthetic for different applications within a site.
Applications: Petroleum canopies, CNG fueling stations, convenience stores, drive-thru banks and restaurants, retail and grocery

Performance Summary

Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: Up to 20,900

Efficacy: Up to 171 LPW

CRI: Minimum 70 CRI (40K, 50K, 57K); 80 CRI (30K); 90 CRI (40K, 50K)

CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish/up to 5 years for Synapse® accessories/1 year on field-installed accessories

IP66 optics/IP66 driver housing

Class I, Division 2 Hazardous Location for select models

* See http://creelighting.com/warranty for warranty terms.

Accessories

Field-Installed Accessories

Synapse® SimplySnap 10kV Interface
CNYS-220F
CNYS-347F
- Requires other Synapse components to complete system
- Refer to CNYS-220F spec sheet for details

Pendant Mount Kits (for use with P2 Mount)
- Kit includes 6" (152mm) pendant
- Kit includes 12" (305mm) pendant
- Kit includes 24" (610mm) pendant
- Includes two conduit fittings and (4) ¼ NPT pipe threaded on two ends.

RC Mount



Lumen Package	Weight
3L, 4L, 6L, 8L, 10L, 12L, 16L, 20L	13.6 lbs. (6.2kg)
25L, 30L	14.3 lbs. (6.5kg)
40L, 50L, 60L, 75L	15.6 lbs. (7.2kg)

Refer to page 6 for line drawings of 16L, 40L and 75 mount.

Ordering Information
Example: CPY-12L-57K7-DF-UL-RM-03-E-12-WH-350

CPY-

Product	Lumen Package*	CCT/CRI	Optic	Voltage	Mounting**	Color Options	Controls (specify one)	Options
CPY	3L (1,800 Lumens) 4L (2,400 Lumens) 6L (3,600 Lumens) 8L (4,800 Lumens) 10L (6,000 Lumens) 12L (7,200 Lumens) 16L (9,600 Lumens) 20L (12,000 Lumens)	**30K8** 3000K, 80 CRI **40K7** 4000K, 70 CRI **40K8** 4000K, 80 CRI **50K7** 5000K, 70 CRI **50K8** 5000K, 80 CRI **57K7** 5700K, 70 CRI	**DF** Diffuse Lumiberlux Lens **LB** Lumiberlux	**UL** Universal 120-277V or 347-480V **E** 347-480V	**RM** Recessed **PD** Pendant **RC** Recessed Rainheat	**BK** Black **SV** Silver **WH** White	**10V** 0-10V Dimming - Refer to Dimming spec sheet for details **DML** Bluetooth® Technology Enabled Multi-Level Sensor - Refer to BDM-CPM spec sheet for details **DMG** Bluetooth® Technology Enabled Multi-Level Sensor - Refer to BDM-CPM spec sheet for details **SNAP** Synapse® Intelligent Control - Refer to SYNAPSE spec sheet for details	**10KV** 10kV/5kA Surge Suppression Protection - Replaces standard 10kV/5kA surge protection. **PE** Photocell - Compatible with CR6, CT7+ or SiteOps (+ re-install). - Consult factory if tuning is required for 208V, 240V or 480V (please re-phase). - When side-mounting, use Wire Guard (WG). **DSDU** Dual Switching, Utility-Level - Versatile™ LTE-enabled - Designed for indoor applications - Refer to SYNAPSE spec sheet for details **Synapse® Wireless Control Accessories** EMG-DIM-102 - Required for BACnet integration - Refer to EMG-DIM-102 spec sheet for details **Outdoor Antennas:** **Optional, for increased range, 8dB gain!** **ANT-ANTM-OMNI** - Kit includes antenna, 30' cable and bracket **ANT-ANTM3** - Kit includes antenna, 30' cable and bracket - Refer to Outdoor antenna spec sheet for details

* 3L mounted directly to plywood is suitable through 40°C only.

* Lumen Package codes identify approximate light output only. Actual lumen output levels vary by CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values.
** Direct and recessed soffit mounts are also available. Refer to https://www.creelighting.com/products/canopy-and-soffits for spec sheets for these additional mounts.

Electrical Data*

Lumen Package	CCT/CRI	System Watts 120-277V	System Watts 347-480V	Total Current (A)				
				120V	208V	240V	277V	347V	480V
3L	30K8 (80 CRI) 40K7 (70 CRI) 40K8 (80 CRI) 50K7 (70 CRI) 50K8 (80 CRI)	17	N/A	0.14	0.08	0.07	0.06	N/A	N/A
4L	57K7 (70 CRI)	25	27	0.21	0.12	0.11	0.09	0.07	0.05
6L	All	50	55	0.42	0.24	0.21	0.18	0.15	0.11
10L	All	81	89	0.69	0.39	0.34	0.29	0.25	0.18
20L	All	137	137	1.08	0.62	0.54	0.47	0.39	0.27

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347-480V or 10%.

CPY500™ Series Ambient Adjusted Lumen Maintenance†

Mounting	Luminaire Mounting Temp	Initial LMF	25K hr Reported* LMF	50K hr Reported* LMF	100K hr Reported* LMF
5°C (41°F)	2L-13L Plywood*	1.02	0.99	0.96	0.94
	2L-20L Metal				
10°C (50°F)	2L-13L Plywood*	1.02	0.98	0.96	0.93
	2L-20L Metal				
15°C (59°F)	2L-13L Plywood*	1.02	0.98	0.95	0.91
	2L-20L Metal				
20°C (68°F)	2L-13L Plywood*	1.01	0.97	0.95	0.90
	2L-20L Metal				
25°C (77°F)	2L-13L Plywood*	1.00	0.97	0.93	0.90
	2L-20L Metal				
30°C (86°F)	2L-13L Plywood*	0.99	0.96	0.93	0.89
	2L-20L Metal				
35°C (95°F)	2L-13L Plywood*	0.98	0.95	0.92	0.88
	2L-20L Metal				
40°C (104°F)	2L-13L Plywood*	0.96	0.94	0.91	0.87
	2L-20L Metal				
45°C (113°F)	2L-13L Plywood*	0.95	0.93	0.90	0.86
	2L-20L Metal				
50°C (122°F)	2L-13L Plywood*	0.93	0.92	0.89	0.85
	2L-20L Metal				

* 2XL mounted directly to plywood is suitable through 40°C only.

† Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the Temperature Data Reference Document for outdoor average nighttime ambient temperatures.
** In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to or the tested duration in the IES LM-80 report for LED.

Operating Temperature Range

Lumen Package	Direct Mount to Plywood	Direct Mount to Sheet Metal	Class 1, Division 2 Hazardous Location (RC Mount only)
			Direct Mount to Plywood
2L - 13L	-40°C to +50°C	-40°C to +50°C	-40°C to +40°C
20L	-40°C to +40°C	-40°C to +40°C	

NOTE: Luminaire in UL rated at 40°C, but will operate in the ambients listed above.
WARNING: Exceeding maximum operating temperature may result in thermal foldback

CREE LIGHTING

Product Specifications

CONSTRUCTION & MATERIALS
- Slim, low profile light engine is constructed of rugged cast aluminum with integral heatsinks specifically designed for LED
- Large uniform light panel features 0.157" molded borosilicate glass lens w/ micro-optics
- RC mount housing is constructed from aluminum with a factory-applied foam gasket. For use in 16" wide single- and double-slot canopies with 16-24 gauge thickness. It features a 7.5" wide, 16 ga. steel trim which sandwiches the canopy and attaches with four screws. The light engine attaches to housing with (4) captive 10-32 x 0.5" screws. The housing has (4) knockouts for ½" conduit. Center chamber that allows for access from below the luminaire. 2.1", 48 rated 600V, 18/5 cable exits luminaire
- HC mount housing is constructed from aluminum with a factory-applied foam gasket. It includes a stainless-steel bracket with hook that mounts to the PEM studs on the housing. It includes a cable gland with 3' cord out of the luminaire
- PD mount housing is constructed from aluminum with factory-applied foam gasket. It includes a galvanized steel mounting bracket that mounts to the PEM studs on the housing. It includes a galvanized steel cover plate for customer wiring. It is intended to be mounted by 3/4 NPT pendant (by others). PD mount version may also be surface mounted using the designated mounting holes on top of the housing. Cover plate has (4) knockouts for ½" or 3/4" conduit
- Includes wire harness pigtail and quick connects between light engine and driver compartment for ease of service
- Corrosion resistant and captive screws
- Exclusive ColorTast DeltaGuard® finish which features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver and white are available

Weight: Refer to table on page 1.

ELECTRICAL SYSTEM
- **Input Voltage:** 120-277V or 347-480V; 50/60Hz
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 4kV/3kA surge suppression protection standard, 10kV/5kA optional
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current

CONTROLS
- Continuous dimming to 10% with 0-10V DC control protocol
- **10V Source Current:** 2L-8L: 0.15mA; 10L - 14L: 0.25mA; 20L - 0.15mA
- Use only lighting controls with neutral connection or controls intended for use with LED fixtures
- Reference LED lighting controls wiki sheet for additional dimming information

REGULATORY & VOLUNTARY QUALIFICATIONS
- cULus Listed
- Suitable for wet locations (HA, HC & RC mounts)
- Suitable for damp locations (PD mount)
- PD driver compartment and light engine enclosures meet IP66 requirements per IEC 60529. HA, HC and RC mounts meet IP54 requirements per IEC60529
- ANSI C136.2 4kV/3kA (standard) and 10kV/5kA (optional) surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Assembled in the USA by Cree Lighting from US and imported parts
- Meets Buy American requirements within ARRA
- RoHS compliant. Consult factory for additional details
- Class I, Division 2 Hazardous Location rated only when ordered with RC mount with HZ option. Rated for Groups A, B, C & D. Bears a T4A, T120°C temperature classification within a 40°C ambient
- Dark Sky Friendly, IDA Approved when ordered with 3000K CCT. Please refer to https://www.darksky.org/our-work/lighting/lighting-for-industry/fsa/fsa-products/ for most current information.
- DLC Premium qualified. Please refer to https://legi.designlights.org/solid-state-lighting for most current information
- ⚠ **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

CREE LIGHTING

228 Series™

LED Soffit Luminaire – Non-IC Rated

Rev. Date: V4 04/24/2020

Product Description

High-performance energy-efficient LED down light for new construction and remodel soffit applications. The recessed mount is for use in drywall, plywood or hard lid ceilings with 14" (460mm) to 24" (610mm) on center building construction. Heavy gauge steel recessed mounting frame features 1.5" (38mm) deep aperture throat to accommodate most standard ceiling thickn

AREA



CANOPY



SOFFIT

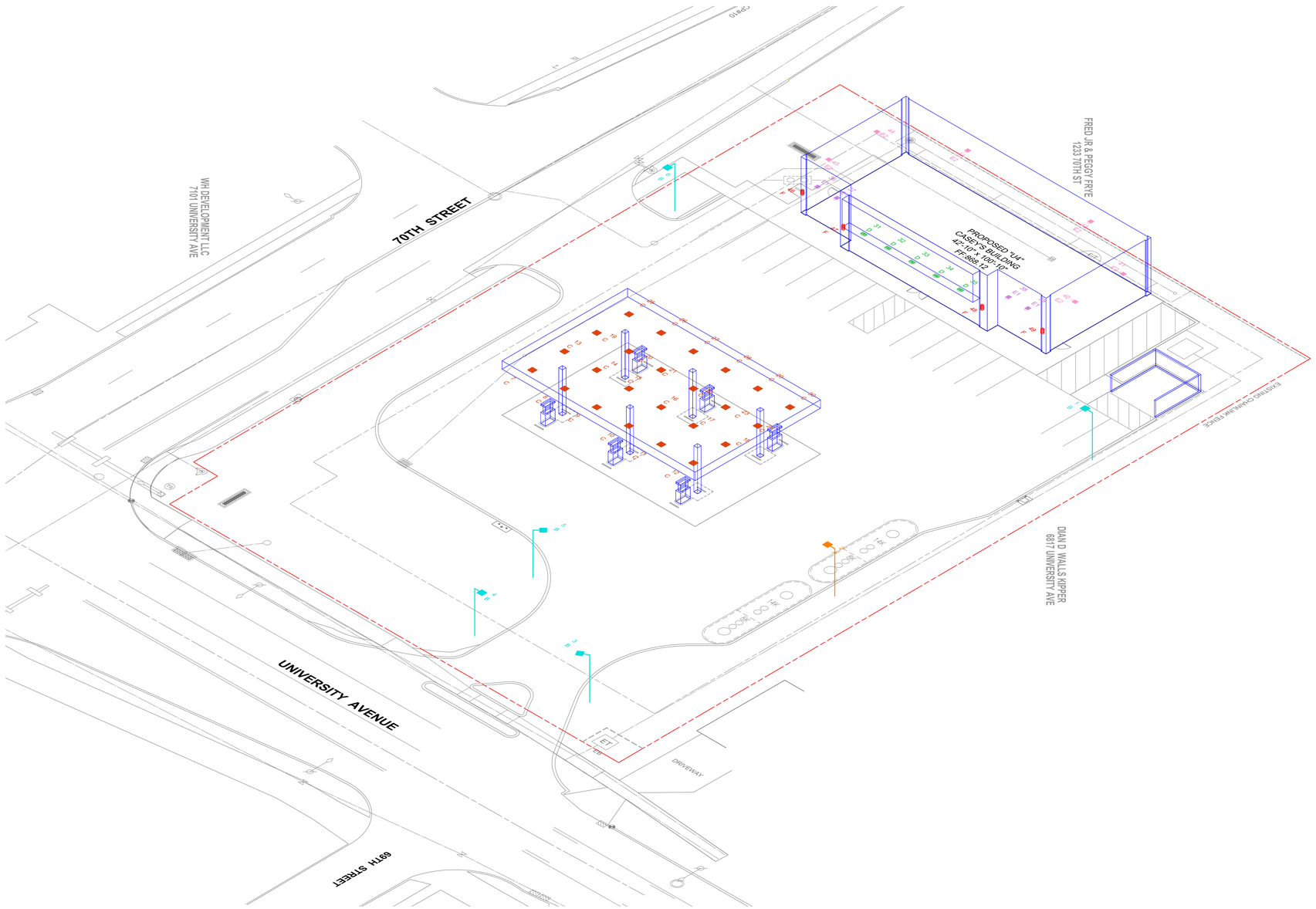


WALL MOUNTED



WALL MOUNTED





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1340 Kemper Meadow Dr, Forest Park, OH 45240
513-574-9500 | redleonard.com

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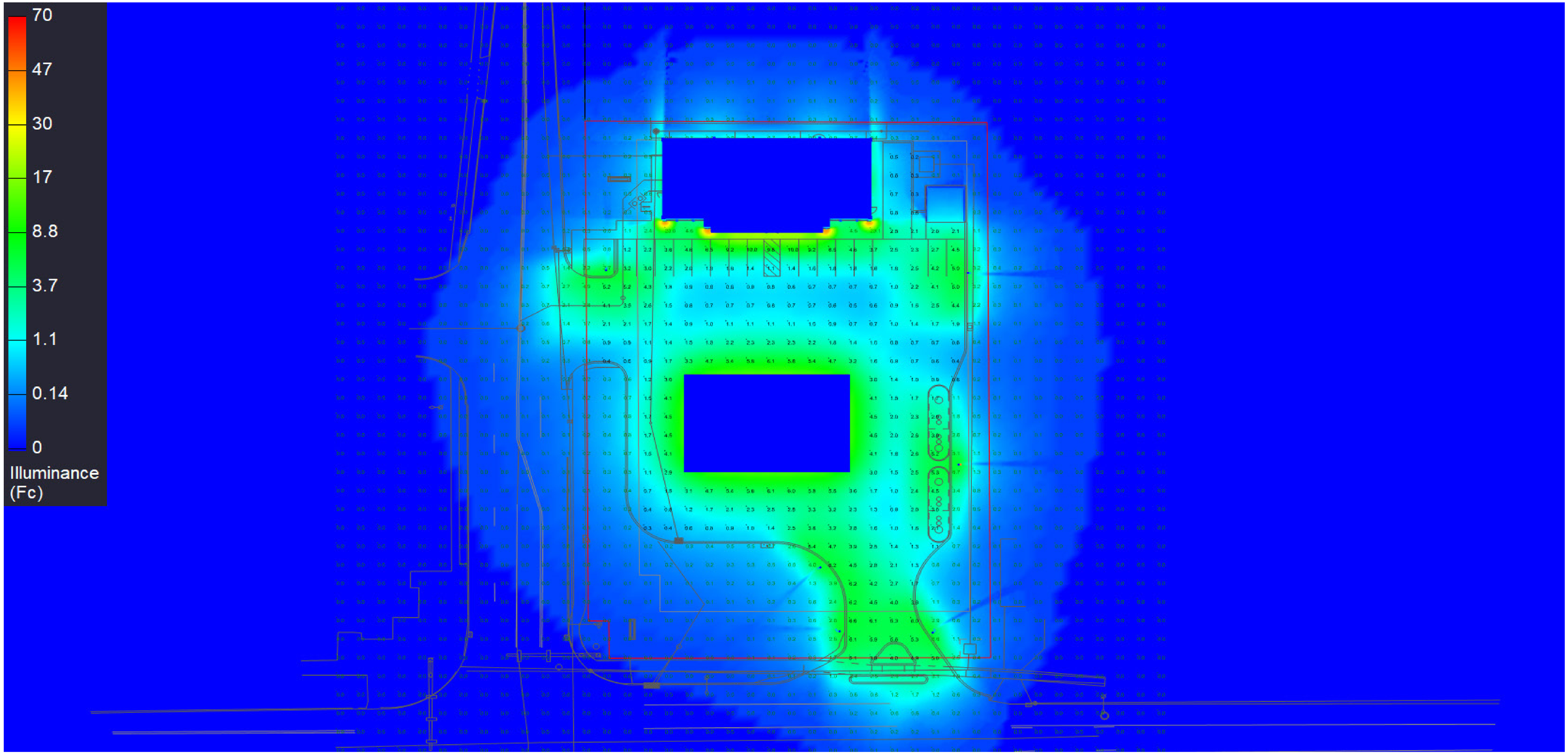
WINDSOR HEIGHTS, IA
DRAWING NUMBER:
RL-9171-S1-R3



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DRAWING NUMBER:
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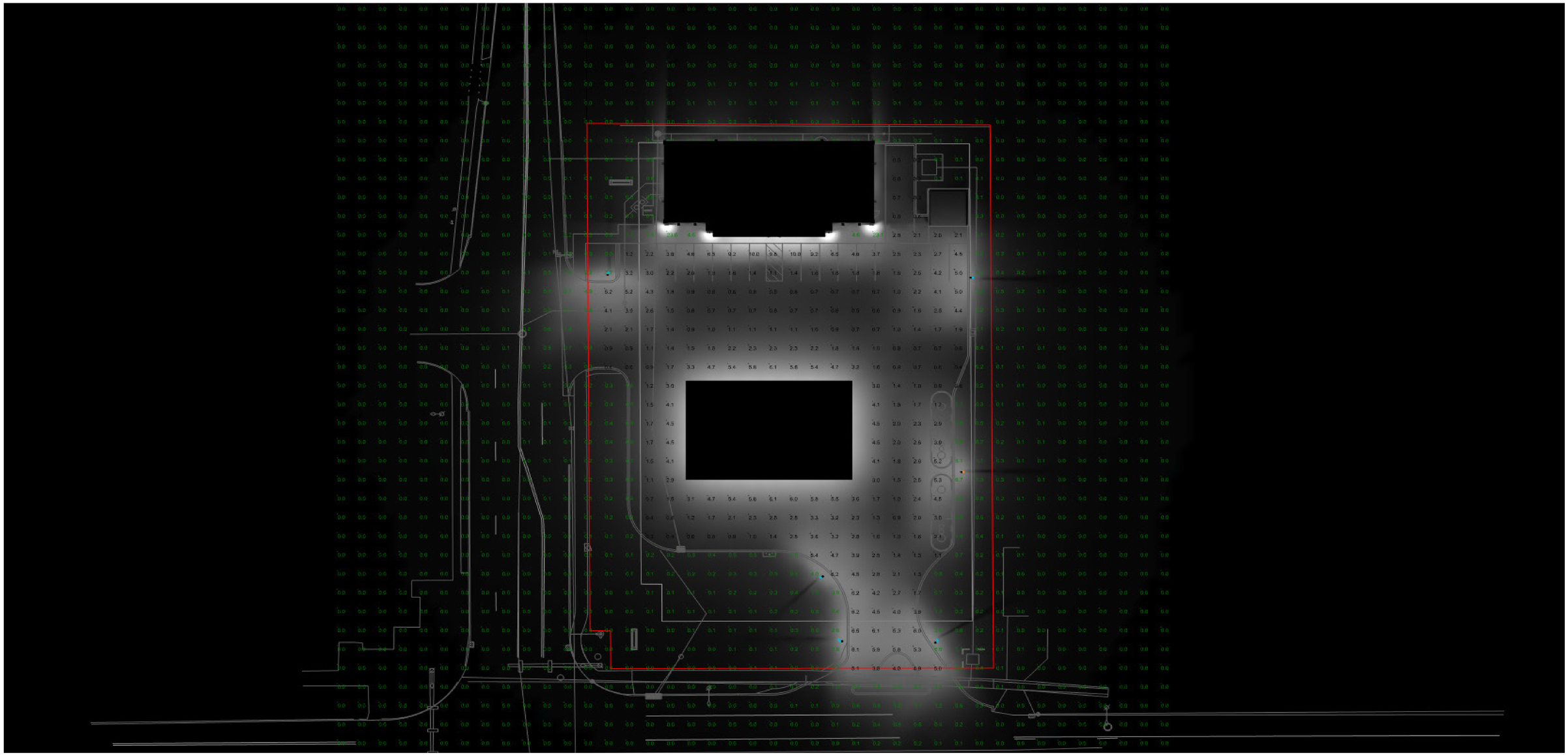
Casey's



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PROJECT NAME:
CASEY'S
WINDSOR HEIGHTS, IA
DRAWING NUMBER:
RL-9171-S1-R3

Casey's SIGN PACKET

JACOB CLARK
jacob.clark@caseys.com

Windsor Heights, IA #4372

University & 70th

New Store

10-21-23

Building & Wall Signs (U4 Flat Roof)

Sign #	Sign	Type	Location	Illumination	Dimensions				
					Height	Width	Bottom	Top	Area Ft²
1	"Casey's"	Surface	Building Front	Internal	6'-0"	15' 4-1/4"	12' 7"	18' 7"	37.85
2	House Logo	Surface	Building Side	Internal	5' 0"	9' 2-11/16"	8' 8"	13' 8"	33.3
								Total	71.15

Canopy

Sign #	Sign	Type	Location	Illumination	Dimensions				
					Height	Width	Bottom	Top	Area Ft²
3	"Casey's"	Surface	Canopy Front	Internal	2' 5"	6' 2-3/16"	17' 3"	19' 8"	6.14
3	"Casey's"	Surface	Canopy Side	Internal	2' 5"	6' 2-3/16"	17' 3"	19' 8"	6.14
3	"Casey's"	Surface	Canopy Side	Internal	2' 5"	6' 2-3/16"	17' 3"	19' 8"	6.14
								Total	18.42

Brick Monument Sign (10' OAH)

Sign #	Sign	Type	Location	Illumination	Dimensions				
					Height	Width	Bottom	Top	Area Ft²
4	Price Sign	Freestanding	Street	Internal	4' 4"	9' 9"	0' 11"	5' 3"	42.25
	Product Tag	Freestanding	Street	N/A	2' 0"	4' 0"	3' 1"	4' 4"	5
								Total	47.25

Max Allowed Site Signage = 150 Ft²	Total	136.82

1



SOUTH

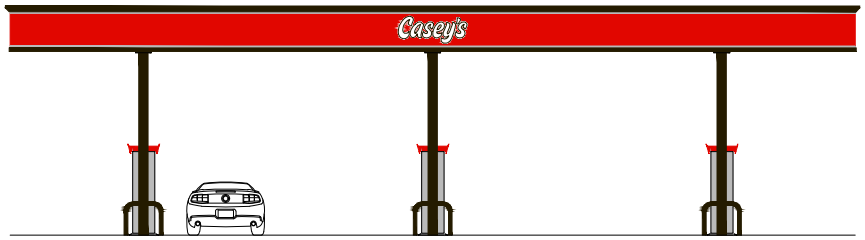
2



WEST

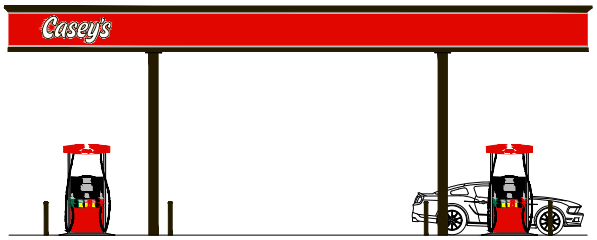
SIGN 3

3

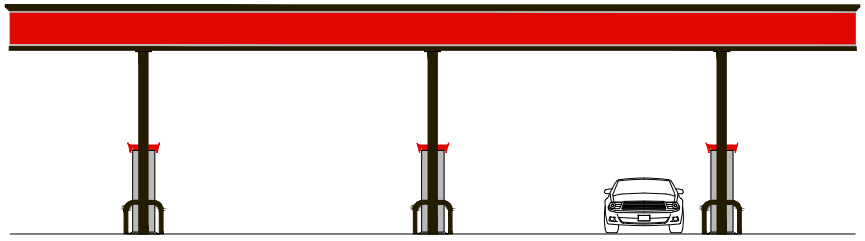


SOUTH

3

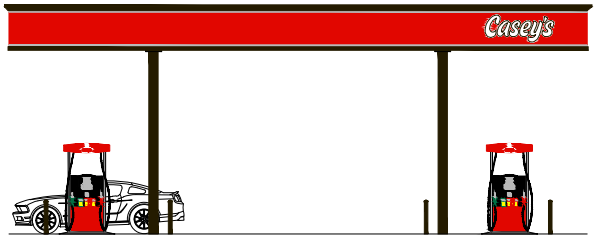


EAST



WEST

3



NORTH

GAS CANOPY

6 DOUBLE STACK HEAD-IN

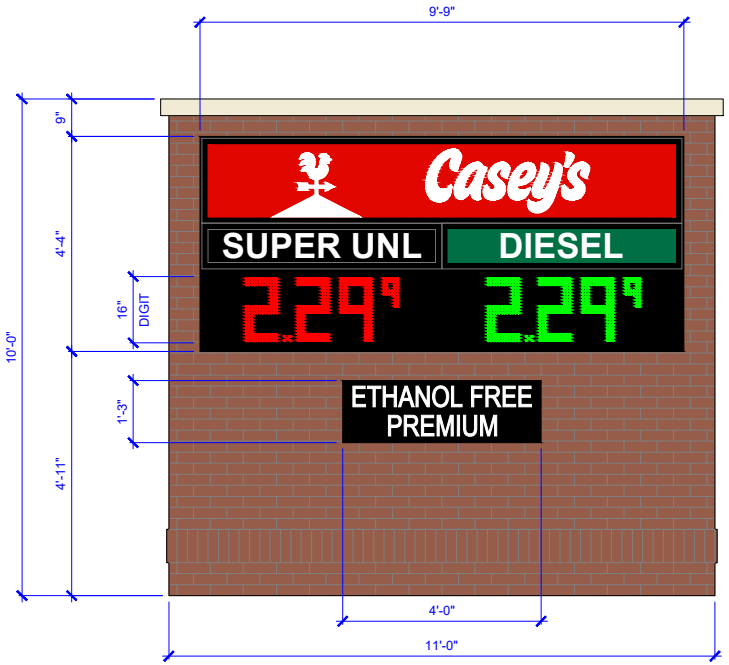
DRAWN BY: J. CLARK

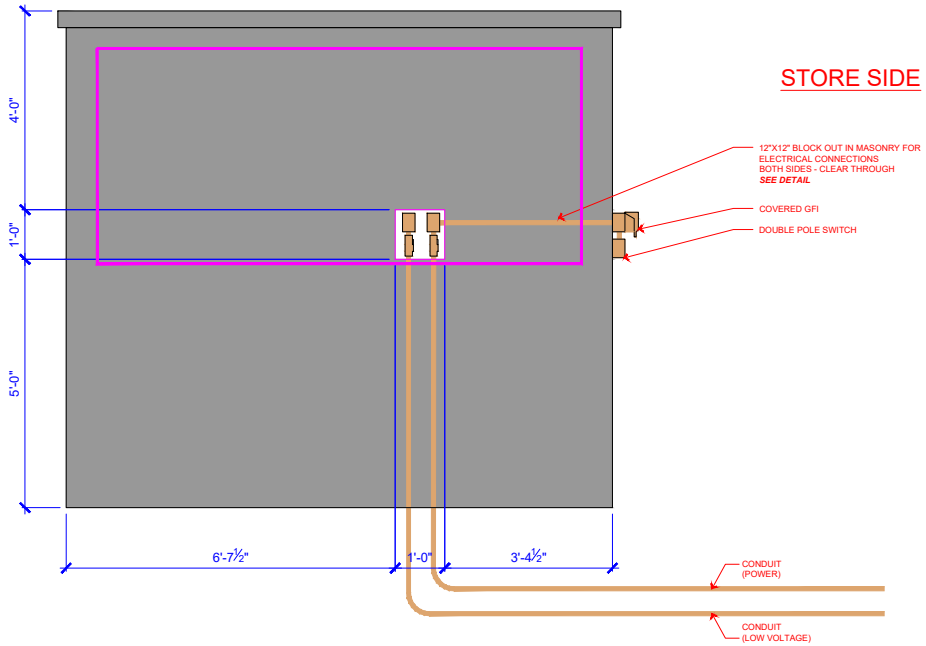
DATE: 02-08-21

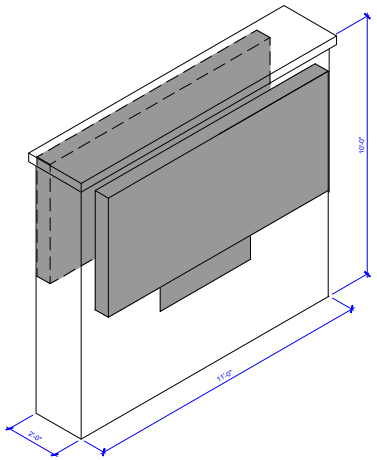
Brick Monument Sign (10' OAH)

SIGN 4

Sign #	Sign	Type	Location	Illumination	Dimensions				
					Height	Width	Bottom	Top	Area Ft²
6	Price Sign	Freestanding	Street	Internal	4' 4"	9' 9"	0' 11"	5' 3"	42.25
	Product Tag	Freestanding	Street	N/A	2' 0"	4' 0"	3' 1"	4' 4"	5
								Total	47.25







PRICER NOTES:

- 13" RED AND GREEN LED DIGITS
- STATIC LABELS, NON-INTERCHANGEABLE
- DIESEL ON THE RIGHT, BOTH SIDES

OTHER NOTES

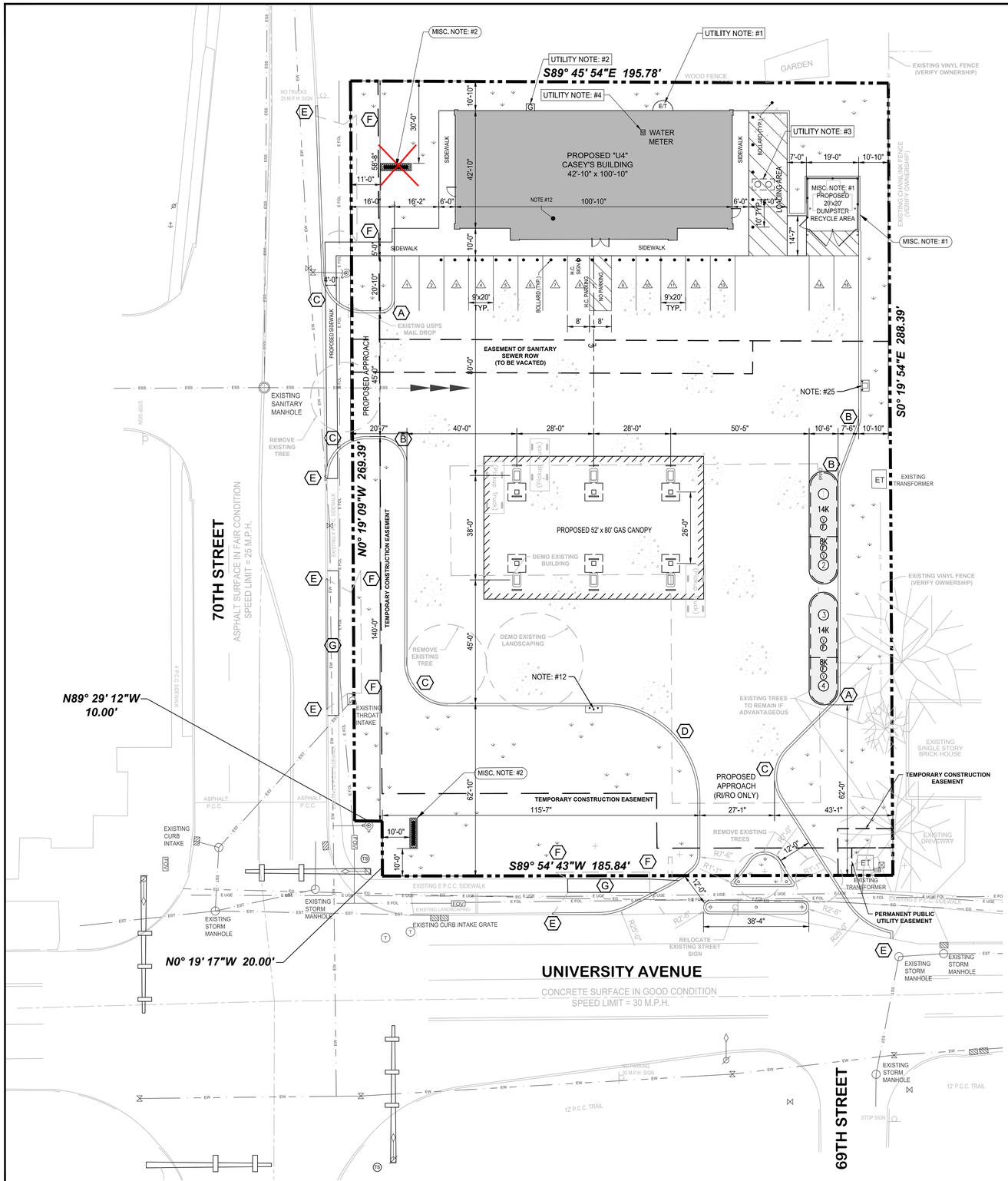
- PRODUCT "TAG" IS NON-ILLUMINATED
- CABINET IS BLACK IN COLOR
- 300' WIRELESS KEYPAD RANGE

BRICK MONUMENT SIGN

10' OAH - 2 PRODUCT

DRAWN BY: J. CLARK

DATE: 07-20-22



TRUE PLAN NORTH NORTH

A1 Site Layout Plan

1" = 20'

NOTE:

SYMBOL INDICATES EXISTING UTILITY TO EXISTING STRUCTURE TO BE REMOVED OR DISCONNECTED BY APPROPRIATE CONTRACTOR. VERIFY WITH UTILITY COMPANY REPRESENTATIVE.

Legal Description

LOTS 40, 41 AND 42 OF MOTTS PLACE, AN OFFICIAL PLAT, NOW INCLUDED IN AND FORMING A PART OF THE CITY OF WINDSOR HEIGHTS, POLK COUNT Y, IOWA, EXCEPT THAT PART DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF LOT 41 OF SAID MOTT PLACE; THENCE ALONG THE SOUTH LINE OF SAID LOTS 41 AND 40 HAVING AN ASSUMED BEARING OF NORTH 90°00'00" WEST, A DISTANCE OF ONE HUNDRED NINETY FOUR AND NINETY FIVE HUNDREDTHS (194.95) FEET; THENCE NORTH 00°13'53" WEST, A DISTANCE OF TWENTY (20.00) FEET; THENCE NORTH 90°00'00" WEST A DISTANCE OF FIVE (5.00) FEET TO A POINT ON THE WEST LINE OF SAID LOT 40; THENCE NORTH 00°13'53" WEST, A DISTANCE OF TWO HUNDRED SIXTY NINE AND FORTY FOUR HUNDREDTHS (269.44) FEET; THENCE NORTH 90°00'00" EAST, A DISTANCE OF TEN (10.00) FEET; THENCE SOUTH 00°13'53" EAST, A DISTANCE OF TWENTY (20.00) FEET; THENCE NORTH 90°00'00" EAST, A DISTANCE OF ONE HUNDRED EIGHTY FIVE AND NINETY FOUR (185.94) FEET TO A POINT ON THE EAST LINE OF SAID LOT 41; THENCE SOUTH 00°13'53" EAST, A DISTANCE OF TEN (10.00) FEET TO THE POINT OF BEGINNING.

Zoning Information

(UC University Avenue Corridor Mixed Use District)

Building Setbacks:

Front:	25'
Side:	25' (street), 0' (inferior)
Rear:	10'
Max. Building Height:	45'
Required Green Space:	20% of lot area. Landscaping plan required.
Parking Required:	One space / 200 SF of building area. (4,206/200=21.03) = 22 Spaces Required Min. size: 9'x18'. ADA space per 25 spaces. 27 Spaces Provided (15 shown, 12 at the pumps, 1 ADA space.)

Utility Notes

UTILITY NOTE #1: ELECTRICAL SERVICE ENTRANCE. REFER TO ARCH & CIVIL PLANS FOR SIZING AND LOCATION.

UTILITY NOTE #2: GAS SERVICE ENTRANCE.. REFER TO ARCH & CIVIL PLANS FOR SIZING AND LOCATION.

UTILITY NOTE #3: GREASE TRAP TO BE PROCURED AND INSTALLED BY CONTRACTOR. GREASE TRAP TO BE PROCURED FROM SCHIER PRODUCTS, UTILIZE THE FOLLOWING URL: https://schierproducts.com/stocking-dealers. CONTACT SCHIER PRODUCTS WITH ANY QUESTIONS OR CASEY'S TEAM MEMBER IF THERE IS AN ISSUE.

UTILITY NOTE #4: WATER SERVICE ENTRANCE. REFER TO ARCH & CIVIL PLANS FOR SIZING AND LOCATION.

Misc. Notes

Misc. #1:
BRICK DUMPSTER ENCLOSURE 6' HEIGHT W/ METAL GATES
2-9' GATES AND 4' SERVICE GATE

Misc. #2
2 PRODUCT MONUMENT PRICE SIGN - REFER TO SIGN PACKET

Keyed Construction Notes

NOTICE: ALL WORK IN/ON THE R.O.W. AREA IS SUBJECT TO THE CITY OF WINDSOR HEIGHTS APPROVAL AND SPECIFICATIONS.

- (A) PROPOSED 5' RADIUS
- (B) PROPOSED 10' RADIUS
- (C) PROPOSED 15' RADIUS
- (D) PROPOSED 35' RADIUS
- (E) TIE INTO AND MATCH EXISTING CURB & FLOW LINE.
- (F) REMOVE EXISTING APPROACH
- (G) REPLACE EXISTING SIDEWALK

Legend

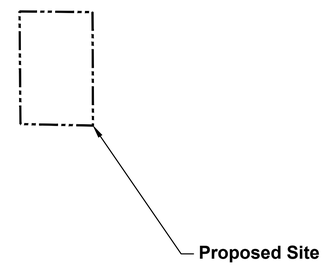
- MARKED PARKING SPACES (PAINT LINES AS INDICATED)
- TYP. CONCRETE PAVING OR SIDEWALKS (35,033 SQ. FT.)
- AREA TO BE SOD
- AREA LIGHTS (0 SHOWN) REFER TO LIGHTING PLAN RL-?-S1 DONE BY RED LEONARD

General Notes

1. **RELATED SHEETS**. FOR ADDITIONAL INFORMATION NOT DIRECTLY REFERENCED, SEE CIVIL PLANS DONE BY PELDS DESIGN & ENGINEERING:

Vicinity Map

NTS



General Construction Notes

PETROLEUM:

1.) DISPENSED PRODUCTS:
BIODIESEL, 87E15, 87C, 89C, 91C
2.) TANK SETTING DETAILS PAGE QF-301
3.) FILL PIPE AND MANHOLE DETAIL PAGE QF-301
4.) GILBARCO WIRING PAGE QF-601
5.) GAS ISLAND SIZE - 3' x 5' W/DUAL GUARD PIPE
6.) 6 - GAS GILBARCO 700 S DISPENSERS (BLENDED)
4 = NL1 4 NOZZLES & 6 METERS EACH
2 = NL3 6 NOZZLES & 8 METERS EACH
7.) ISLAND DETAILS PAGE AL-501
8.) ISLAND CONDUIT DETAIL PAGE E-602
9.) DO NOT PLACE PRODUCT PIPING UNDER ISLAND
10.) 18" MIN. FROM TANK PIPING TO FINISH SURFACE
11.) RUN VENT LINES UP SEPARATE CANOPY COLUMN, VERIFY
12.) ALL FUEL DISPENSERS FALL WITHIN A 100 FOOT RADIUS OF THE EMERGENCY SHUT-OFF SWITCH LOCATED INSIDE AT THE SALES COUNTER FOR THE CONVENIENCE STAFF. A SECONDARY SHUTOFF SHALL BE INSTALLED ON A POST AT THE CURB IF ALL FUEL DISPENSERS **DO NOT** FALL WITHIN A 100 RADIUS.

APPROACHES/CONCRETE:

13.) DRIVEWAY JOINTS TO BE PACKED & CAULKED
14.) CONCRETE DRIVE TROWELED WITH LIGHT BROOM FINISH
15.) CONTROL JOINTS - MIN. 100 sq.ft. - MAX. 125 sq.ft. - 25% DEEP
16.) CONSTRUCTION JOINTS - PINNED 4' O.C. 12" EACH WAY WITH 1/2" REBAR #4
17.) APPROACHES TO BE 7" NON-REINFORCED OR AS PER STATE/CITY SPEC.
18.) SLOPE MAX. 2% FOR BUILDING SIDEWALK, H.C PARKING 1:50 ALL DIRECTIONS
ALL ACCESS ISLE STRIPING AT 45 DEGREE ANGLE BEING MAX. 4' SEPARATION
19.) 2% MAX. CROSS-SLOPE IN APPROACH/SIDEWALK AREA
20.) 10" ROLL-OVER CURB TYP. - SEE STANDARD CIVIL DETAILS
21.) CANOPY FOOTING: SIZE 6'-3" LENGTH x 6'-3" WIDTH x 3'-0" DEPTH.
CONCRETE: MINIMUM COMPRESSIVE STRENGTH OF F'C-3000 p.s.i.
CONCRETE REINFORCING: ASTM A-615 GRADE 60,
REBAR CAGE: (8) #6 HORIZONTAL TIES LENGTH WISE TOP AND BOTTOM 12" MAXIMUM SPACING.
22.) SIGN BASE AND DETAILS PAGE AL-601

SITE ITEMS:

23.) VERIFY ALL UTILITY LOCATIONS AND DIMENSIONS.
24.) IRRIGATION REQUIRED WITH RAIN SENSOR MOUNTED ON BACK RAILING OF ROOF.
25.) AIR COMPRESSOR BOX, SEE SHEET C-601 SITE DETAILS.
110 VOLT-60HZ-5.5 AMP. #12 WIRE (20 AMP, SINGLE PHASE) WITH GROUND.
26.) SPECIAL TRUCK TYPE AIR COMPRESSOR. SEE SHEET C-601 SITE DETAILS, 7.5 HP COMPRESSOR AND ENCLOSURE. AIR REELS MOUNTED TO CANOPY COLUMNS ON ENTRANCE SIDE, HDPE PIPING FROM COMPRESSOR TO REELS. SEE SHEET QF-401 FOR DETAILS.
27.) JUNGE BIO BLENDING CONTROL PANEL INSTALLED ON 4' x 6' CONCRETE PAD.

U.G.S.T. Notes

2 - 22,000 GALLON DOUBLE WALL FIBERGLASS TANKS
TANK 1 - 14,000 GALLON (87E15)
TANK 2 - 14,000 GALLON (BIODIESEL)
TANK 3 - 8,000 GALLON (87C)
TANK 4 - 8,000 GALLON (91C)

(F) FILL W/SPILL CONTAINMENT & OVERFILL PROTECTION (TYP.)

(1)(2)(3)(4) TURBINE ENCLOSURE TYP. CONTAINS; SUB-PUMB W/LINE LEAK DETECTION, TANK PROBE FOR FUEL MONITORING, INTERSTITIAL SENSOR AND TANK SUMP SENSOR - REFER TO QF-301 FOR NUMBER OF SUMPS

(V) VENT W/SPILL CONTAINMENT & EXTRACTOR

SUMP SENSOR @ EACH DISPENSER.

SPECIAL REQUIREMENTS:
LANDSCAPING BUFFER/SCREENING REQUIRED
KNOX BOX REQUIRED
ROOFTOP EQUIPMENT SCREENING REQUIRED
ONSITE STORMWATER DETENTION REQUIRED
(2) BRICK MONUMENT SIGNS REQUIRED

Casey's

CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., P.O. Box 3001, Ankeny, IA 50021 515-965-6100

PROJECT:
#4372 Windsor Heights, IA #2
University Ave. & 70th Street
"U4" - STYLE STORE

DRAWING INFORMATION:
CONSTRUCTION DIVISION

DRAWN BY: Kevin McFarland
CHECKED BY:

PUBLISHED: 02.17.23
REVISIONS: 03.03.23, 05.05.23, 07.12.23

DRAWING INFORMATION: SITE PLAN

AL-101

Emergency Fuel Spill Response

Use the following guide in the event of a fuel spill.

Note: All on-site personnel must be aware of how to respond to a fuel spill.

Large Fuel Spill (Greater Than 5 Gallons)

Step	Task	
1	Immediately press the emergency stop button if: • The fuel spill has not stopped OR • A Guest or Team Member is in danger.	
2	Call 911 if the fuel spill is too large to be properly contained with the equipment in the fuel spill kit.	
3	Get the Absorbent Boom from the Emergency Fuel Spill Kit. Place the boom in front of any fuel flowing towards a storm drain, soil, or property line.	
4	Use the Absorbent Material from the Emergency Fuel Spill Kit to contain the spill by: • Building a berm around the spill to prevent it from spreading further, • Sprinkling the absorbent material over the spill to help absorb the fuel. ⚠ If the spill cannot be safely contained, wait for emergency responders.	
5	Bag off the pump where the spill occurred. ⚠ Instruct guests to stay clear of the area.	

Step	Task
6	Call Casey's EPA team through Service Dispatch and report the spill. • (888)-Caseys-0, Option 2, Option 1, Option 2 • Dispatch will call ON-CALL EPA ⚠ Report all spills to Casey's EPA regardless of time of day or size of spill.
7	The EPA team will gather information on the spill and provide instructions on how to clean up any used absorbent material.

Small Fuel Spill (Less Than 5 Gallons)

Step	Task	
1	Immediately press the emergency stop button if: • The fuel spill has not stopped OR • A Guest or Team Member is in danger.	
2	Call 911 if the fuel spill is too large to be properly contained with the equipment in the fuel spill kit.	
3	Use the Absorbent Material from the Emergency Fuel Spill Kit to contain the spill by: • Building a berm around the spill to prevent it from spreading further, • Sprinkling the absorbent material over the spill to help absorb the fuel. ⚠ If the spill cannot be safely contained, wait for emergency responders.	
4	Call Casey's EPA team through Service Dispatch and report the spill. • (888)-Caseys-0, Option 2, Option 1, Option 2 • Dispatch will call ON-CALL EPA ⚠ Report all spills to Casey's EPA regardless of time of day or size of spill.	
5	The EPA team will gather information on the spill and provide instructions on if and how to clean up any used oil dry.	

Casey's General Stores
Overview of Fuel System and Safety Features



Fuel System Overview
Casey's General Stores utilizes several different materials, methods of monitoring and leak detection to ensure that any potential fuel system issues can be prevented or identified as quickly as possible. Casey's employees are trained on how to respond to any issue involving the underground storage tanks or fuel spills. The regulations governing fuel systems, the safety and redundancy components of the fuel system, and Casey's procedures are outlined below.

Fuel System Regulations
The fuel system is designed to comply with applicable regulations and codes. The Environmental Protection Agency has primary authority over the Underground Storage Tank (UST) regulations. States have the option of adopting their own more restrictive versions of the regulations. Applicable federal regulations can be found at 40 CFR 80 and 40 CFR 81.

The federal regulations require that the UST:

- Have a secondary containment system (in case of a leak)
- Can detect a release from any portion of the tank and the connected underground piping that contains product;

Applicable regulations also require that at least annually, a test of the system must be performed which covers the following components:

- Automatic tank gauge and other controllers: test alarm; verify system configuration; test battery backup;
- Probes and sensors: inspect for residual buildup; ensure floats move freely; ensure shaft is not damaged; ensure cables are free of kinks and breaks; test alarm operability and communication with controller;
- Automatic line leak detector: test operation to meet criteria in §280.44(a) by simulating a leak;
- Vacuum pumps and pressure gauges: ensure proper communication with sensors and controller; and

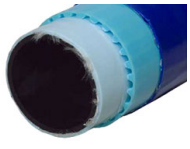
In addition, the federal EPA regulations mandate operator training, including training for store employees on how to respond to alarms and spills. Casey's complies with or exceeds all federal and state regulations applicable to the location of every UST owned or operated by Casey's.

(A) Underground Storage Tank (UST)
The largest component of the fuel system is the USTs. The tanks are made of corrosion-resistant fiberglass. Tanks are constructed with a secondary containment around the full circumference of the tank (double walled tank). If there is ever an issue with the primary tank, the outer tank both contains the leak and while a leak detection alarm is generated to the operator.



(B) Piping
Flexible piping is used for the Casey's fuel system. The piping is a multiple layer pipe system that also has secondary containment (double walled piping). If there is ever an issue with the primary pipe, the outer pipe contains the leak while a leak detection alarm is generated to the operator.





(C) Sumps
Tank sumps and dispenser sumps are used for secondary containment of piping connections. The sumps contain potential drips or leaks from the dispenser or submersible pump and allows for any leak to be detected.





(D) Dispenser

Fuel dispensers are used at the fuel island to dispense duel into a consumer's vehicle. The piping to the dispenser utilizes an emergency valve. The emergency valve provides protection against fire or collision with the dispenser. If either occur, the emergency valve will close and stop the flow of fuel below the dispenser. Each hose also has an emergency breakaway. If a nozzle is left in the vehicle when it drives away, the breakaway will protect against damage to the hose and dispenser. Fuel flow is also stopped when the breakaway is activated.









(E) Automatic Tank Gauge (ATG)

An automatic tank gauge continuously monitors the fuel system for changes in pressure or volume to detect leaks. If there are any issues the ATG will sound an alarm and/or shut down the fuel system (see Casey's Alarm Response below).



(F) Line Leak Detection

The ATG compares the pressure at the submersible pump to the pressure in the piping to determine whether the pipe is leaking. If a leak is detected the submersible pump will shut down and the ATG alarms (see Casey's Alarm Response below).

(G) Fill Spill Container

During fuel tanker drops there is the potential to spill small amounts of fuel. The spill container will contain up to 5 gallons of fuel that would otherwise be released.

(H) Overfill Prevention

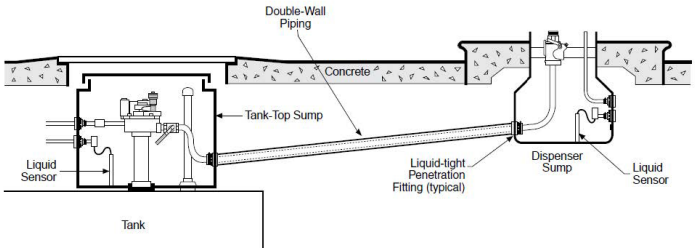
The overfill prevention valve closes when the tank is 95% full to prevent the tank from being overfilled and potentially releasing fuel.

(I) Product Probe

The probe continuously monitors the volume of the tank and the ATG alarms if the level changes unexpectedly (see Casey's Alarm Response below). The probe is also able to detect water in the tank.

(J) Liquid Sensor

Sensors in the tank sumps and dispenser sumps detect liquid in the sump that may be from leaking equipment. When liquid is detected the ATG alarms (see Casey's Alarm Response below).

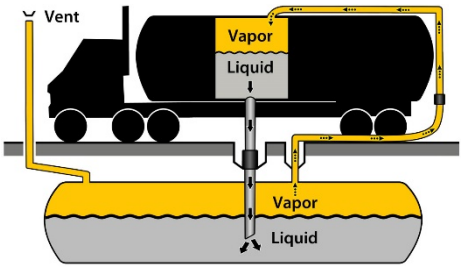


Double Wall Containment

Tanks and piping are constructed so that if the primary containment fails, there is a secondary layer of containment. Any single wall pipe fittings at the tanks or dispensers are secondarily contained within a sump, preventing a release into the ground.

(K) Stage 1 Vapor Recovery

Stage I Vapor Recovery is used during the refueling of fuel tanks to reduce hydrocarbon emissions. Vapors in the tank, which are displaced by the incoming fuel, are routed through a hose into the cargo tanker, instead of being vented to the atmosphere. Vent caps seal vapors in the tank when pressure is equalized.



Emergency Stop

In the event of a spill, fire or other emergency, the emergency stop will shut off power to the entire fuel system and canopy area.



Casey's Alarm Response: Casey's operates over 2,000 UST locations and has a team of professionals dedicated to designing, installing, and monitoring our UST systems. Automatic Tank Gauge Alarms are connected to the store managers work station and readings are sent to the Environmental Compliance director at Casey's corporate office. Casey's has a 24/7 service dispatch team that can be dispatched by a store employee or by the corporate office. Both store employees and Casey's tanker drivers have spill kits for containing a surface release and have been trained on using them. Casey's training includes how to respond to an alarm, how to respond to a surface release, and requires that any release, regardless of amount, be reported.

Kum & Go Arrest Reports for 2023 (four for 2023)
Calls for service 76 total in 2023 – some of the incidents would be traffic stops where the vehicle pulls into the lot.

23-00642: Theft from Sam's Club; subject located at Kum & Go (not affiliated with the business)

23-00580: OWI charge stemming from a traffic stop that started on 73rd Street (traffic stop – not affiliated with the business)

23-00421: Public Intoxication and warrant arrest

23-00323: Upset customer charged with assault; threw an item at the clerk

23-00272: OWI charge; customer called in a drunk driver who had pulled into the parking lot

23-00227: Arrest for theft of alcohol

23-00345 Robbery incident (two charges – not affiliated with the business, theft of sneakers from an individual using the parking lot to sell them)

Four total arrests can be attributed to the business. The others ended up in the parking lot.

*Note: Case 23-00345 was a robbery that occurred at this location. This case had two arrests in it, but both arrests were at different locations, so therefore the arrest report does not show for this address.

Hy-Vee Fast & Fresh Arrest Reports for 2023 (one for 2023)
Calls for service 79 total 2023 – some of these would include traffic stops that the vehicle pulls into the parking lot.

2 arrest reports showing the address of 7220 Hickman Road

23-00635: Traffic-related arrest. The vehicle pulled into this location.

23-00355: Trespass Violation. Call for a welfare check call for service; an uncooperative person that had already been trespassed from this location.

HERE FOR GOOD

Community Impact

May 2023



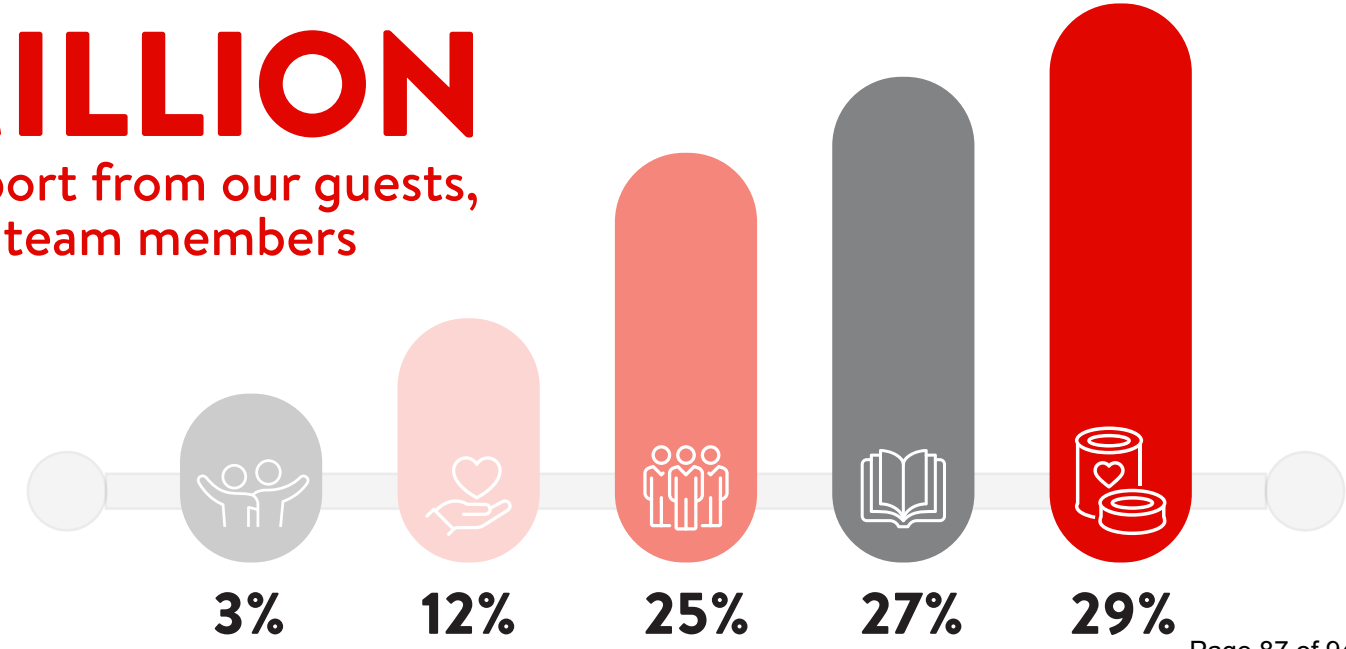




$5.3 MILLION

donated with support from our guests, partners and team members

- Hunger
- Education
- Community Servants
- Community Spaces/Events
- Youth Activities/Other



HERE TO FIGHT HUNGER

FEEDING AMERICA®

> *We appreciate dedicated partners like Casey's and their commitment to giving back to the communities they serve, because we know that working together will always achieve greater results. Families, children and individuals across the country continue to feel the impact of inflation.*

Lauren Biedron, Vice President of Corporate Partnerships at Feeding America®



Casey's and their generous guests contributed over

10 million meals

to support food hunger and food availability.

SERVED 53 FOOD BANKS

Arkansas
Arkansas Foodbank
Food Bank of Northeast Arkansas
Northwest Arkansas Food Bank
River Valley Regional Food Bank

Iowa
Food Bank of Iowa
HACAP Food Reservoir
Northeast Iowa Food Bank
River Bend Food Bank

Illinois
Central Illinois Foodbank
Eastern Illinois Foodbank
Greater Chicago Food Depository
Northern Illinois Food Bank

Indiana
Community Harvest Food Bank of Northeast Indiana, Inc.
Food Bank of Northern Indiana
Food Bank of Northwest Indiana
Food Finders Food Bank
Gleaners Food Bank of Indiana, Inc.
Hoosier Hills Food Bank
Second Harvest Food Bank of East Central

Indiana
Terre Haute Catholic Charities Foodbank
Tri-State Food Bank, Inc.

Kansas
Kansas Food Bank

Kentucky
Dare to Care Food Bank
Feeding America, Kentucky's Heartland
God's Pantry Food Bank, Inc.

Michigan
Feeding America West Michigan

Minnesota
Channel One Regional Food Bank
North Country Food Bank, Inc.
Second Harvest Heartland
Second Harvest North Central Food Bank

Missouri
Harvesters - The Community Food Network
Ozarks Food Harvest
Second Harvest Community Food Bank
Southeast Missouri Food Bank
St. Louis Area Foodbank
The Food Bank for Central & Northeast Missouri

North Dakota
Great Plains Food Bank

Nebraska
Food Bank for the Heartland
Food Bank of Lincoln

Ohio
Freestore Foodbank
Mid-Ohio FoodBank
Second Harvest Food Bank of Clark, Champaign & Logan Counties
Shared Harvest Foodbank
The Foodbank, Inc.
West Ohio Food Bank

Oklahoma
Community Food Bank of Eastern Oklahoma
Regional Food Bank of Oklahoma

South Dakota
Feeding South Dakota

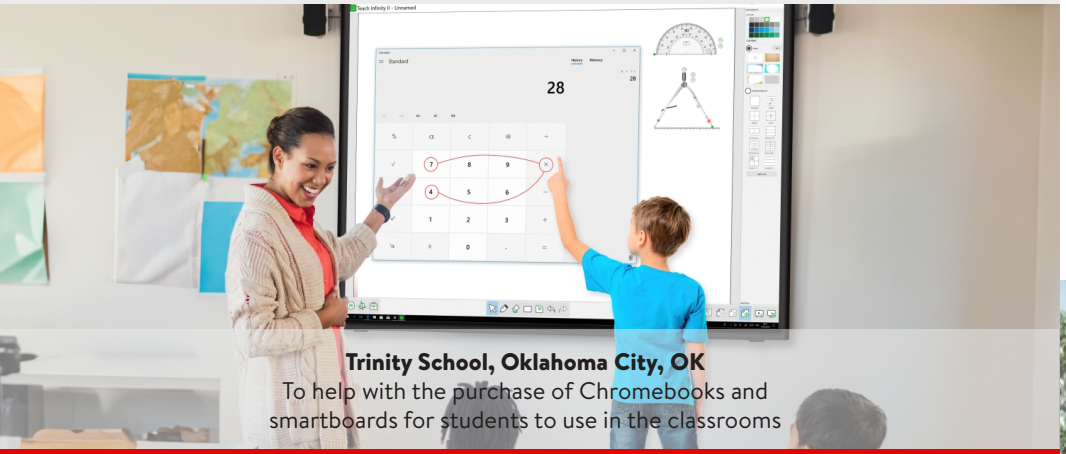
Tennessee
Mid-South Food Bank
Second Harvest Food Bank of East Tennessee
Second Harvest Food Bank of Middle Tennessee

Wisconsin
Feeding America Eastern Wisconsin
Second Harvest Foodbank of Southern Wisconsin

HERE FOR SCHOOLS

Together, Casey's and its dedicated team members and generous guests donated over $1 million to schools in 2023. Our funding helped provide new technology, build playgrounds, purchase books, and security equipment.

$1 million awarded in Cash for Classroom grants



Trinity School, Oklahoma City, OK
To help with the purchase of Chromebooks and smartboards for students to use in the classrooms

United Way of Central Iowa

Casey's United Way campaign led to **663 students** getting access and support for food while at school.



Clinton Intermediate School, Clinton, MO
The Cash for Classroom grant will help Clinton Intermediate schools build a walk climbing wall for students to work on their upper body strength.

Casey's REWARDS

Rewards Members donated nearly $140,000 through Rewards points to K-12 Schools in FY 2023



Corning Community School District, Corning, IA
Donated $10,000 to help the school purchase a new scoreboard for their football stadium

HERE FOR COMMUNITY SERVANTS

> *Support from Fallen Patriots has offered unexpected hope. Growing up, I knew that seeking a quality education would be a tangible way to honor my father's sacrifice. I knew patriots like you were inspired by his valor and wanted to help. Your educational support has made me more resilient. You are honoring my father's life by helping me achieve the bright future he wanted for me. And being on the receiving end of your support encourages me to boldly follow in his legacy. Though he isn't with us, my siblings and I feel his presence through care from our community and from inspiring patriots like all of you.*

Isabella Gilbert Ravella, Daughter of Maj (USAF) Troy Gilbert, KIA, Iraq 2006

20 STUDENT SCHOLARSHIPS

provided to military children who've lost a parent in the line of duty.

FALLEN PATRIOTS®
COLLEGE FOR THEIR CHILDREN

HOPE For The WARRIORS®

630

military service members and their families were provided resources and personalized support for critical needs such as housing, food, and utilities.

MAKING AN IMPACT



Wanatah, IN - Cass-Clinton Volunteer Fire Department

We helped the fire department upgrade their portable radios and communication equipment. The equipment is vital in helping the department communicate during high-stress situations and can lead to faster recovery times when trying to save lives.



Shawnee, OK - Water Donation

After deadly tornadoes struck the Shawnee, OK area, Casey's and it's team members rose to the occasion and delivered trucks full of water to help those in the town.



Dawson Springs, KY - Tornado Relief/Rebuild Little League Fields

After an EF-4 tornado ripped apart the town of Dawson Springs, KY, our team members played a central role in the emergency response. To help with the ongoing efforts to rebuild Dawson Springs, Casey's partnered with Gatorade to donate $100,000 to support the Dawson Springs Community.

Casey's and their generous guests awarded **over $1.3 million** to veterans and first responders this past year.

From Tim Shearouse, 1240 70th Street:

Multiple citizens have raised concerns about diminished property values. In several cases, these concerns were based on cited opinions from local realtors and/or appraisers. While the Casey's representatives dismissed these concerns as anecdotal, the Casey's representatives themselves only produced anecdotal claims to the contrary. Are they able to produce data that quantifies the effect of a new Casey's store on neighboring residential property values? Since neighboring property values are one of the consideration criteria, would the board consider requesting a study to measure the effect on property values?

Thanks,

Tim

From Phillip Kohl, 1233 70th Street:

i live at 1233 70th st and want to comment on casey,y relocation, befors i moved to windsor heights i managed an apartment building downtown by the hospital we were next to a quick trip store and between the constant sewage smell from their grease trap and the rats that would come from their garbage we had a hard time renting the the side where the quik trip was on. i talked to the employees from several caseys and they told me there are constant anamals and insects in their trash! is the city going to handle the overload of rats and other animals in the neibhorhood? caseys have a polocy of throughing away the old food tnstead of donating it to charity.. please reconsidder this! i wonder if caseys nkows that they are building right over an old coal mine! i dont think that colby told them that.

From Carter Miller, 7118 Bellaire Avenue

Questions and Observations for Board of Adjusters' Meeting Re: proposed Casey's location at 73rd and University.

In the January Board of Adjusters' Meeting, the person that presented traffic study information for Casey's indicated that:

Most traffic to the Casey's would be traffic that would normally be passing by that corner anyway and would not be going to the location as a primary destination. So, the projected traffic increase to/past the location due to Casey's being at that corner was not expected to be significant.
If I remember correctly, a figure stated was an increase of 20 vehicles. It was not clear if this was 20 vehicles per day, per hour, per minute or an increase of 20 percent over present. Please provide clarification and a percent increase clarification.

How do the traffic-study figures and assumptions 'square' with the similar type of traffic study that was done by Aldi's?
How well did the Aldi's traffic study predict actual traffic seen as a result of Aldi's?
In hind-sight, was the impact of Aldi's business on traffic congestion on University acceptable?
If we saw a similar additional impact from Casey's on top of what we have seen from Aldi's will that be acceptable?

If the traffic impact study and projections commissioned by Casey's are accurate, and there is some impact but it might be acceptable at this time; at what traffic natural ongoing traffic volume increase will the tipping-point be reached, so that congestion will become unmanageable with the current roadway?
If Casey's were not in the picture how many additional years would Windsor Height's likely have before the tipping point would be reached when the city would be forced to make necessary adjustment?
What would the likely cost of that upgrade project be? Would businesses such as Casey's be on the hook to bear a part of that upgrade?

What is the number of customer cars per hour, (turns into and turns back out of), needed for this site to be sufficiently profitable for Casey?
How would traffic disruption from this compare to other businesses that have less customers entering the location but a longer stay-duration?.
From a Colby Interest viewpoint, what is the likelihood that Colby Interests might instead attract these other types of businesses?

If we assume that traffic to Casey's is fed mostly from pass-by traffic, then we would have to assume that

- Inbound traffic to Casey's From the West would have to make a left turn North from University onto 73rd at the light and then right into Casey's entrance/exit.
  Traffic from this flow that wishes to go North will likely then come back out of and turn right at the 73rd street entrance/exit.
  Whereas traffic that would have continued East on University will now have to turn left across traffic at the exit on 73rd , simply stay in the left hand lane and then turn left at the light onto University before proceeding on East.
  Without signage directing that traffic headed to the East University NOT turn across West-bound lane to enter Casey's from the South, this may be legal but would definitely be an a traffic snarl. Is there an appropriate place on or above the road at this location to locate such signage
- Inbound traffic to Casey's From the North would turn left across North-bound traffic into the Casey's 73rd street entrance.
  Traffic from this flow that wishes to continue East would then have to turn left across traffic at the exit on 73rd , head South, simply stay in the left hand lane and then turn left at the light onto University before proceeding on East.
  Whereas traffic that would have continued West on University will either:
  Turn left across traffic at the exit on 73rd , head South, cross into the far right lane, and then turn right at the light onto University and proceed West.
  OR Turn right onto University at the Casey's South exit onto University just East of the light and proceed West through the light.
- Inbound traffic to Casey's From the East would turn right from University, before the light at 73rd into Casey's lot.
  Traffic from this flow that would have continued West on University will either:
  Turn left across traffic at the exit on 73rd , head South, cross into the far right lane, and then turn right at the light onto University and proceed West.
  OR Turn right onto University at the Casey's South exit onto University just East of the light and proceed West through the light.

Traffic from this flow that wishes to go North will likely then come back out of and turn right at the 73rd street entrance/exit.

Although the above navigations may not increase the overall number of cars using the roadway, these would seem to likely have significant impact to traffic flow, and likely increase the number of cars occupying the roadway at any given busy time in the immediate area.

From Alan S. Foster, 1430 64th Street

My reaction to this proposal is that it is not necessary. We have two gas stations already. It would be nice if the space could be used to bring a new service that is additive to the city. The revenue would be good for the city,I am sure, but Casey's is not bringing new.

A good reason to deny this request is the traffic congestion at 70th & University which is already bad news when you try to leave the Hy-Vee parking lot to the East.

Best Regards,

Alan S. Foster

From Bob Palmer, owner of HBS Plumbing, 7606 Hickman Road

It has come to my attention that there possibly could be a new Casey's store being built in Windsor Heights

I would like to see that happen as I have a gas account with Casey's for my business, and my business is in Windsor Heights. That would be very convenient for me and my workmen.

Lisa Grell of Fabrics & Fun, 7660 Hickman Road

I've heard Casey's is coming to Windsor Heights (70th & University). That is Great News. Their pizza is the best. I really hope they establish a store here.

Coleen Kelleher, 6529 Colby Avenue

Board of Adjustment:

The property at 70th & University is an ideal location for a retail shop or similar business that would enhance our community. Another gas station, with two others in close proximity, is NOT a good fit for our community nor for that location. Please do not grant Casey's request for a variance from the terms of the current zoning ordinance for this property.

Thank you for your consideration.

Melissa Rohwedder, 1225 66th Street

I am writing to express my excitement at hearing of the potential opportunity of adding a new Casey's General Store in the City of Windsor Heights. As a resident of this charming & comfortable community, I believe that Casey's would be a valuable addition that enhances our local economy and the overall convenience to residents. With only one local convenient store available in the area (Kum & Go at 7229 University Ave, Windsor Heights, IA 50324) it is difficult to get in and out in a timely manner, which is the main reason for stopping at a convenient store... convenience! It is also quite difficult to find a parking space with most of the residents stopping there before & after work; this is not only inconvenient but also a safety concern with an already very busy main roadway at the corner of 73rd & University. It creates a high stress environment trying to navigate the parking lot, lines of customers and leaving the lot safely. When I visit a convenient store, I like it to be an enjoyable experience vs. congested and rushed.

With Casey’s ever growing service profile, product selection, and involvement in supporting local communities, I see no downside to the new & exciting opportunities it will bring to Windsor Heights. Along with a much-needed makeover to the area it plans to reside in, it will increase the economy with the sales of goods & services, as well as new job opportunities. It will also help alleviate some of the stress us residents experience, and of course we can’t forget about Casey’s pizza!!!

In conclusion, I urge you to strongly consider and support the proposal for Casey's General Store to come to Windsor Heights. The benefits it would bring to our community are significant, ranging from increased convenience for residents to economic growth and community engagement.

Thank you for your attention to this matter, I look forward to seeing Casey's become an integral part of our vibrant city.