

**Due to the COVID-19 concerns and social distancing recommendations, a virtual meeting is being offered. Participants wishing to speak on a topic should message the meeting moderator. All participants are asked to mute their individual computers at times when they are not speaking to minimize background noise. Join: <https://us02web.zoom.us/j/84767994567>*

**NOTICE OF A REGULAR MEETING
BONDURANT PLANNING AND ZONING COMMISSION
JANUARY 12, 2023**

NOTICE IS HEREBY GIVEN that a Regular Meeting of the City Council will be held at 6:00 PM on January 12, 2023, in the Bondurant City Center, 200 Second Street, Northeast, Bondurant, Polk County, Iowa. Said meeting is open and the public is encouraged to attend.

AGENDA

1. Call to Order
2. Roll Call
3. Perfecting and Approval of the Agenda
4. Approval of Minutes
 - a. December 8, 2022
5. Guests requesting to address the Planning and Zoning Commission
6. Action Items
 - a. 2023 Annual Election of Officers
 - b. 2022 Planning & Zoning Commission Annual Report
 - c. - RESOLUTION NO PZ-230112-01 considering recommended approval of the Heartland LM Kellogg Plat 1 Preliminary Plat, a subdivision in unincorporated Polk County within two miles of Bondurant's city limits
 - d. - RESOLUTION NO. PZ-230112-02 considering recommended approval of a waiver of review of the Nehring Estates Plat of Survey, a boundary line adjustment in unincorporated Polk County within two miles of Bondurant's city limits
 - e. - RESOLUTION NO. PZ-230112-03 considering recommended approval of the Hawthorne Crossing 2 Site Plan/Preliminary Plat
7. Discussion Items -
8. Reports / Comments and appropriate action thereon:
 - a. Commission Members
 - b. Commission Chair
 - c. Planning & Community Development Director
 - d. City Administrator
 - e. City Council Liaison
9. Adjournment

City of Bondurant

Planning and Zoning Commission
200 2nd St NE, PO Box 37
Bondurant, IA 50035



Meeting Minutes

DATE: December 8, 2022 Torey Cuellar, Chair

1. Call to Order 6:00 pm

Place Bondurant City Hall (200 2nd St NE, PO Box 37)

Special Note: Due to concerns of the COVID-19 virus and social distancing recommendations, access to the meeting was also provided through a virtual meeting.

2. Roll Call

Members Present: Brian Clayton, Wes Hoyer, Karen Keeran, Kristin Brostrom, Andy Mains

Members Absent: Torey Cuellar, Lisa Cameron

City Official Present: City Administrator Marketa Oliver, Community Development Director Maggie Murray, City Planner Isaac Pezley, City Council Liaison Matt Sillanpaa

3. Perfecting and Approval of the Agenda

Motion by Commission Member Mains, seconded by Commission Member Clayton to approve of the December 8, 2022, meeting agenda. Vote on Motion 5-0-0. Motion carried.

4. Approval of Minutes

Motion by Commission Member Mains, seconded by Commission Member Clayton to approve of the November 10, 2022, meeting minutes. Vote on Motion 5-0-0. Motion carried.

5. Guests requesting to address the Planning and Zoning Commission

None

6. Action Items

- A. Public Hearing: Rezoning from the Medium Industrial (M-2) District to the Central Business (C-4) District and the High Density (R-3) District at Parcel 231/00220-017-000 (excluding the southern portions of this parcel that front 2nd Street SE and are currently zoned Medium Density (R-2) District).

Commission Member Keeran opens the Public Hearing at 6:03.

Murray stated this is a staff and City Council initiated rezoning. The City had rezoned other portions of nearby properties that were rezoned. This property was not rezoned at that time as there were commercial plans to develop that property, those plans have since fallen through.

Staff has requested to rezone this property after the adoption of the new Future Land Use map. The new Future Land Use map shows this property as Flex Commercial Use and High Density Residential. Staff's recommendation is capping the maximum amount of residential developed on this property would be 12 units per acre. Murray stated there are some infrastructure plans just to the north of the property the City is confident will go through in the future.

Murray stated property owners were notified and staff received no comments from neighbors

James Holside, addressed the Commission. Holside asked if there are any plans for the property currently or is just to downzone the property. Oliver stated currently

Austin Sullivan, 2nd Street, asked where R-3 would be located on the property. Murray stated R-3 would generally allow for apartment building development but the Building Bondurant states townhome/rowhome development would be more appropriate for this location.

Kyle Lindman, 412 2nd Street SE, addressed the Commission. Lindner stated there are duplexes he rents out and there are currently pine trees separating his properties from this property. Lindner asked if there would be required landscaping before a more intense development. Murray stated the existing tree line will likely remain but any developer would need to address landscaping requirements.

Lindman asked what type of landscaping barriers would be required, trees, shrubs, fence? Murray stated she is not sure but there are landscaping requirements a developer would need to address.

Murray stated staff is recommending approval taking into account the maximum density requirement. Clayton asked if there is any benefit to rezoning the property to R-5

Murray stated the existing warehouse building is a unique situation where a R-5 zoning may be beneficial. Mains asked if a developer wants to rezone the property to R-5 if they would be required to come back to the Commission. Murray stated that is correct and if a developer comes forward with a R-5 use the Commission could address any concerns at that time. Murray stated they would still be required to meet the Future Land Use map.

Commission Member Keeran close the Public Hearing at 6:13.

Roll Call – Ayes: Commission Member Hoyer, Commission Member Clayton, Commission Member Mains, Commission Member Keeran, Commission Member Brostrom. Nays: none. Abstentions: none. Vote on Motion 5-0-0. Motion carried.

- B. RESOLUTION NO. PZ-221208-40 considering recommended approval of the rezoning from the Medium Industrial (M-2) District to the Central Business (C-

4) District and the High Density Residential (R-3) District at Parcel 231/00220-017-000 (excluding the southern portions of this parcel that front 2nd Street SE and are currently zoned Medium Density Residential (R-2) District).

Motion by Commission Member Mains, seconded by Commission Member Clayton to recommended approval of the rezoning from the Medium Industrial (M-2) District to the Central Business (C-4) District and the High Density Residential (R-3) District at Parcel 231/00220-017-000 (excluding the southern portions of this parcel that front 2nd Street SE and are currently zoned Medium Density Residential (R-2) District).

Roll Call – Ayes: Commission Member Hoyer, Commission Member Clayton, Commission Member Mains, Commission Member Keeran, Commission Member Brostrom. Nays: none. Abstentions: none. Vote on Motion 5-0-0. Motion carried.

7. Discussion Items – None.

8. Reports / Comments and appropriate action thereon

a. Commission Members

Brostrom – Thanked staff for letting her join via Zoom.

Hoyer – none.

Mains – none.

Clayton – none.

Keeran – none.

b. Commission Chair – Murray stated Council approved meeting dates for 2023. The approved meeting dates were for one Planning and Zoning Commission meeting per month. The meeting schedule was approved with the understanding that special meeting may be called when required. Keeran asked if we were going to keep the Zoom meeting option, Murray stated yes. Murray stated multiple text amendments at the last Commission meeting has been approved by the City Council. Clayton asked about setback requirements for ponds, Murray stated staff is still researching.

c. City Administrator – none.

d. City Liaison – Council is on the same page as the Commission and thanked them for their recommendations.

7. Adjournment

Motion by Commissioner Mains, seconded by Commissioner Clayton to adjourn the meeting. Vote on Motion 5-0-0. Motion carried. Meeting adjourned at 6:18.



**BUSINESS OF THE PLANNING AND ZONING COMMISSION
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 6.a.
For Meeting of 1/12/2023
Resolution

TITLE: 2023 Annual Election of Officers

CONTACT PERSON:

Maggie Murray, Planning & Community Development Director

BRIEF HISTORY & ANALYSIS: Chapter 23 of the City Code states the Commission shall choose annually at its first regular meeting one of its members to act as Chair and another as Vice Chair. In 2022 Torey Cuellar served as Chair and Karen Keeran served as Vice Chair. If both are still interested in serving in this capacity in 2023, staff would recommend approval of Torey Cuellar as Chair and Karen Keeran as Vice Chair.

FUNDING SOURCE: N/A

STAFF RECOMMENDATION: Staff recommends a discussion and then a motion to elect the 2023 Chair and Vice Chair.

APPROVED FOR SUBMITTAL:

ATTACHMENTS: None



**BUSINESS OF THE PLANNING AND ZONING COMMISSION
BONDURANT, IOWA
AGENDA STATEMENT**

Item No. 6.b.
For Meeting of 1/12/2023
Receive and File

TITLE: 2022 Planning & Zoning Commission Annual Report

CONTACT PERSON:

Maggie Murray, Planning & Community Development Director

BRIEF HISTORY & ANALYSIS: Chapter 23 of the Bondurant City Code states that each year the Planning & Zoning Commission shall make a report to the Mayor and Council of its proceedings. The attached report serves as the Commission's 2022 Annual Report.

FUNDING SOURCE: N/A

STAFF RECOMMENDATION: Receive and file.

APPROVED FOR SUBMITTAL:

ATTACHMENTS:

1. 2022 P&Z Annual Report

Planning and Zoning Commission

2022 Annual Report



BACKGROUND

Chapter 23 of the [Bondurant City Code](#) states that each year the Planning & Zoning Commission shall make a report to the Mayor and Council of its proceedings. This report will serve as the Commission's 2022 Annual Report.

The Bondurant Planning & Zoning Commission has seven members and met the 2nd and 4th Thursday of the month in 2022 at 6:00 p.m. in the Bondurant Community Center at 200 2nd Street NE. A Zoom meeting attendance option was/is also available to the Commission and public.

The Commission is primarily and routinely involved in land use planning topics, including: Comprehensive Plan and area plan reviews, rezonings, subdivisions, site plans, street and easement vacations, annexations, Zoning and Subdivision Code text amendments, and other miscellaneous development topics. The Commission researches each case and then reviews the information at a meeting. A recommendation for or against the case is subsequently made to the Bondurant City Council citing the Commission's basic reasoning.

MEMBERSHIP

In 2022 Torey Cuellar served as Chair, and Karen Keeran served as Vice-Chair. There were no changes in Planning & Zoning Commission membership in 2022. Councilman Matt Sillanpaa acted as the City Council liaison to the Commission in 2022.

Chapter 23 of the City Code notes that a review of attendance will be made at the end of each year. The Code notes that a member cannot exceed three unexcused absences within a 6-month period. The Code also notes that a Commission member cannot miss more than 40% of the total calendar meetings in a calendar year.

Below is a chart of 2022 member attendance.

2022 Member Attendance Chart

	Torey Cuellar	Karen Keeran	Lisa Cameron	Brian Clayton	Andy Mains	Wes Hoyer	Kristin Brostrom
1 - 1/13/2022	Present	Present	Present	Present	Present	Present	Present
2 - 1/27/2022	Present	Present	Absent	Present	Present	Present	Present
3 - 1/31/2022 (Joint Comp Plan Session)	Present	Present	Present	Present	Present	Present	Present
4 - 2/10/2022	Present	Present	Absent	Present	Present	Present	Present
5 - 3/24/2022	Present	Present	Present	Present	Present	Present	Present
6 - 4/14/2022	Present	Present	Present	Present	Present	Present	Present
7 - 4/28/2022	Absent	Present	Present	Present	Present	Present	Present
8 - 5/12/2022	Present	Present	Present	Present	Absent	Present	Present
9 - 5/26/2022	Present	Present	Present	Present	Present	Present	Present
10 - 6/9/2022	Present	Absent	Present	Present	Present	Present	Present
11 - 6/21/2022 (Joint Comp Plan Session)	Present	Present	Present	Present	Present	Absent	Absent (excused)
12 - 7/14/2022	Present (staff failed to admit from Zoom waiting room)	Present	Absent	Present	Present	Present	Absent (excused)
13 - 7/28/2022	Present	Present	Absent	Present	Absent	Present	Absent (excused)
14 - 8/11/2022	Present	Present	Present	Present	Present	Present	Absent (excused)

15 - 8/25/2022	Present	Present	Present	Present	Present	Absent	Present
16 - 9/6/2022	Present	Present	Absent	Present	Present	Present	Present
17 - 9/22/2022	Present	Present	Present	Present	Present	Present	Present
18 - 10/13/2022	Present	Present	Present	Present	Present	Present	Absent
19 - 10/27/2022	Present	Present	Present	Present	Absent	Present	Present
20 - 11/10/2022	Absent	Present	Absent	Present	Present	Present	Present
21 - 12/8/2022	Absent	Present	Absent	Present	Present	Present	Present
Total Meetings	21	21	21	21	21	21	21
Attended	18	20	14	21	18	19	16
% Attended	86%	95%	67%	100%	86%	90%	76%

SUMMARY OF REVIEWS:

1. Text Amendments:

Case #	Proposal Summary	P&Z Recommendation	Council Action
2022.TA.1	Text amendments to Section 178.06.4.J to increase the minimum driveway length requirement within the R-5 District from 20' to 30'.	Recommended approval on 5/12/2022	Approved on 7/5/2022
2022.TA.2	Text amendments to Sections 175.02, 177.09, and 178.13 to allow Fitness Center and Dance Studio uses in M-1 (and M-2) Districts, establish parking standard for Fitness Center, remove fireworks regulations from M-1 District (since state does not allow cities to regulate by zoning).	Tabled on 7/28/2022 Recommended approval on 10/13/2022	Approved on 12/5/2022
2022.TA.3	Text amendments to Sections 175.02, 177.15 and 178 to update regulations regarding Home Occupations for consistency with 2022 State Code change which restricts how cities can regulate such uses.	Recommended approval on 9/22/2022	Approved on 11/21/2022
2022.TA.4	Text amendments to Sections 178.02, 178.03, 178.06, and 180.05 regarding requirement basements in the R-1 and R-2 Districts, and including language regarding this topic in the R-5 District. Also includes updates to sanitary sewer extension and size requirements in Subdivision Code.	Recommended approval on 11/10/2022	Approved on 12/19/2022
2022.TA.5	Text Amendments to Sections 177.10, 178.07, 178.08, 178.09, 178.10, 178.11, 178.13, 178.14, 179 regarding code cleanup related to the following topics: outdoor storage, screening, and landscaping.	Recommended approval on 11/10/2022	Approved on 11/21/2022
2022.TA.6	Text Amendments to Sections 177.07.8, 178.02, and 178.03 to increase minimum lot width in R-2 District from 65' to 70', increase minimum side yard setback to 7.5' on each side (was previously 5' for ranch and 7' for 2-story, with a minimum 15' combined for the 2 side yards), update for clarification that ZLL split is allowed in R-2 District.	Recommended approval on 11/10/2022	Approved on 12/5/2022

2. Easement & Right-of-Way Vacations – none.

3. Requests for Rezoning and/or Future Land Use Map Changes:

Case #	Proposal Summary	P&Z Recommendation	Council Action
2022.R.1	Request for rezoning from Medium Density Residential (R-2) to Planned Unit Development (R-5) within the Highpoint Estates development area.	TABLED on 1/27/2022 Then pulled by Developer	N/A - Pulled by Developer
2022.R.2	Request for rezoning from Agricultural (A-1) to Limited Industrial (M-1) and Conservancy (U-1) at Parcel 170/00027-000-000 and update to the 2012 Future Land Use Plan from Reserve Office to Industrial.	Recommended approval on 2/10/2022	Approved on 3/7/2022
2022.R.3	Request for rezoning from Agricultural (A-1) to Limited Industrial (M-1) on Parcels 230/00453-002-000 & 230/00462-000-000 , excluding the west 140'; and update to the 2012 Future Land Use Plan from Reserve Industrial and Reserve Agricultural/Residential to Industrial.	Recommended approval on 5/12/2022	Approved on 6/20/2022
2022.R.4	Request for rezoning from Agricultural (A-1) to Medium Industrial (M-2) at the Civic Campus.	Recommended approval on 4/28/2022	Approved on 6/6/2022
2022.R.5	Request for rezoning from Agricultural (A-1) to Planned Unit Development (R-5) at Petocka Run .	Recommended approval on 8/11/2022	Approved on
2022.R.6	Request for rezoning from Conservancy (U-1) to Limited Industrial at Alan's Seamless Gutters at 1601 Garfield Street SW and on land to the north at Parcel 231/00020-007-009 , excluding land located within the 100-year floodplain.	Recommended approval on 10/27/2022	Approved on 9/6/2022
2022.R.7	Request for rezoning from Agricultural (A-1) to Medium Industrial (M-2) at Parcels 140/00062-000-000 and 140/00050-002-000 , pending annexation finalization.	Recommended approval on 11/10/2022	In Process
2022.R.8	Request for rezoning from Agricultural (A-1) to Limited Industrial (M-1) at Parcel 170/00002-000-000 , pending annexation finalization.	Recommended approval on 11/10/2022	In Process
2022.R.9	Request for rezoning from Agricultural (A-1) to Medium Industrial (M-2) at Parcels 140/00053-000-000 , 140/00052-005-000 , and 140/00054-001-000 , pending annexation finalization.	Recommended approval on 11/10/2022	In Process

2022.R.10	Request for rezoning from Agricultural (A-1) to Limited Industrial (M-1) within the Timmins Acres Final Plat area and on Parcels 140/00058-000-000 and 140/00057-001-000 , pending annexation finalization.	Recommended approval on 11/10/2022	In Process
2022.R.11	Request for rezoning from Agricultural (A-1) to Limited Industrial on Parcels 230/00463-000-000 , 230/00464-002-003 , 230/00466-003-000 , 230/00466-004-000 , and 230/00466-001-000 , pending annexation finalization.	Recommended approval on 11/10/2022	In Process
2022.R.12	Rezoning from Medium Industrial (M-2) to Central Business (C-4) and High Density Residential (R-3) on Parcel 231/00220-017-000 .	Recommended approval of 12/8/2022	In Process

4. Subdivisions and Plats of Survey:

Case #	Proposal Summary	P&Z Recommendation	Council Action
2022.S.1	Everett Mauch Estate Preliminary Plat (unincorporated Polk County)	Recommended approval on 1/13/2022	Approved final plat on 4/4/2022
2022.S.2	Black Oak Farm Plat 1 Preliminary Plat (Polk County)	Recommended approval on 1/27/2022	Approved final plat on 4/4/2022
2022.S.3	Loren Mauch Plat of Survey (Polk County)	Recommended approval on 3/24/2022	Approved on 4/4/2022
2022.S.4	Shiloh Rose Business Park Plat 2, Lot 5 & 6 Reconfiguration	Recommended approval on 3/24/2022	Pulled by Developer
2022.S.5	Wisteria Crossing Preliminary Plat	Tabled on 7/28/2022 Tabled on 8/11/2022 Recommended approval on 8/25/2022	Tabled on 9/6/2022 Tabled on 9/26/2022 Pulled by Developer
2022.S.6	Fredrickson Plat of Survey	Recommended approval on 7/28/2022	Approved on 8/1/2022
2022.S.7	Petocka Run Preliminary Plat (formerly called Park Side Estates)	Recommended approval on 9/22/2022	Approved on 9/26/2022

5. Site Plans:

Case #	Proposal Summary	P&Z Recommendation	Council Action	Project Summary
SP22-01	2510 Robinson Avenue NE Site Plan	Recommended approval on 1/13/2022	Approved on 2/7/2022	15,840 SF structure for M-2 use in the Bondurant Industrial Park
SP22-02	Temple Industrial Site Plan	Recommended approval on 2/10/2022	Approved on 2/22/2022	The first two buildings of a phased M-1 industrial flex development in the Shiloh Rose Business Park. Building A is 32,280 SF and Building B is 20,800 SF.
SP22-03	A-3 Auto Expansion Site Plan, 108 NE Hubbell Avenue	Tabled on 4/14/2022 Recommended approval on 4/28/2022	Approved on 5/2/2022	1,296 SF addition to existing A-3 Auto building and expansion of paved parking/drive area
SP22-04	1001 23 rd Street SW Site Plan	Recommended approval on 3/24/2022	Pulled by Developer	Pulled by Developer
SP22-05	Edgeland Villas Site Plan/Preliminary Plat	Recommended approval on 3/24/2022	Tabled on 4/4/2022 Approved on 4/18/2022	47 townhome units
SP22-06	Featherstone Townhomes Plat 1 Site Plan/Preliminary Plat	Recommended approval on 5/26/2022	Approved on 6/6/2022	74 townhome units
SP22-07	88 Paine Circle SE Site Plan	Recommended approval on 6/9/2022	Approved on 6/20/2022	19,313 SF building to be used for C-2 use in the Bondurant Commercial Business Park

Case #	Proposal Summary	P&Z Recommendation	Council Action	Project Summary
SP22-08	3410 Henry Street SW Site Plan	Recommended approval on 8/11/2022	Approved on 8/15/2022	10,700 SF building to be used for C-2 use in the Clement Estates Subdivision
SP22-09	Amazon Truck Wash Site Plan, 2300 Shiloh Rose Parkway SW	Recommended approval on 9/8/2022	Approved on 9/26/2022	3,671 SF truck wash bay at the Amazon site at 2300 Shiloh Rose Parkway SW
SP22-10	Midstates Precast Products Expansion Site Plan, 2340 SW Hubbell Avenue	Recommended approval on 9/8/2022	Approved on 9/26/2022	5,512 SF office building and paved parking lot at Midstates Precast Products
SP22-11	2514 Robinson Avenue NE Site Plan	Recommended approval on 9/22/2022	Approved on 9/26/2022	14,000 SF structure for M-2 use in the Bondurant Industrial Park

6. Annexations:

Case #	Proposal Summary	P&Z Recommendation	Council Action
2022.A.1	57.77-acre Civic Campus annexation area (formerly owned by Knuth), a 100% voluntary annexation within 2 miles of the City of Altoona's city limits	1/13/2022	2/7/2022
2022.A.2	37.38-acre Gholds LLC annexation area, a 100% voluntary annexation within 2 miles of the City of Altoona's city limits	7/14/2022	7/18/2022
2022.A.3	1,009.09-acre SE Water Study annexation area, an 80/20 annexation within 2 miles of the City of Altoona's and the City of Mitchellville's city limits	11/10/2022	12/19/2022 Currently being reviewed by the City Development Board

7. Other Planning Items Reviewed/Discussed:

- A. 2022 Annual Election of Officers during 1/13/2022 meeting.
- B. 2021 P&Z Annual Report during 1/13/2022 meeting.
- C. Acknowledgement of minor Quail Run Phase 2 PUD Conceptual Plan Amendment during the Commission's 2/10/2022 meeting. Outlot Z originally approved for commercial use, minor amendment allows the option for single-family detached lot use in accordance with already-approved lot size & bulk regulations with remaining single-family detached lots of the Phase 2 area. Since not considered a substantial amendment, no formal P&Z or Council review/approval necessary.
- D. A status update of the Central District Stormwater Improvements Master Plan was provided to the Commission on 5/12/2022. City Council adopted this [Plan](#) during their meeting on 11/7/2022.
- E. Welcomed Isaac Pezley, City Planner, and Tiffany Luing, Economic Development Coordinator, to the Planning & Community Development Department in August 2022.
- F. Provided feedback to the property owner of the Highpoint Estates development area on expectations that proposed uses shall comply with the Future Land Use Plan included as part of the Building Bondurant Comprehensive Plan on 9/8/2022.
- G. Reviewed and recommended approval of the [Building Bondurant Comprehensive Plan](#) on 9/8/2022. City Council adopted the Building Bondurant Comprehensive Plan on 9/26/2022.





**BUSINESS OF THE PLANNING AND ZONING COMMISSION
BONDURANT, IOWA
AGENDA STATEMENT**

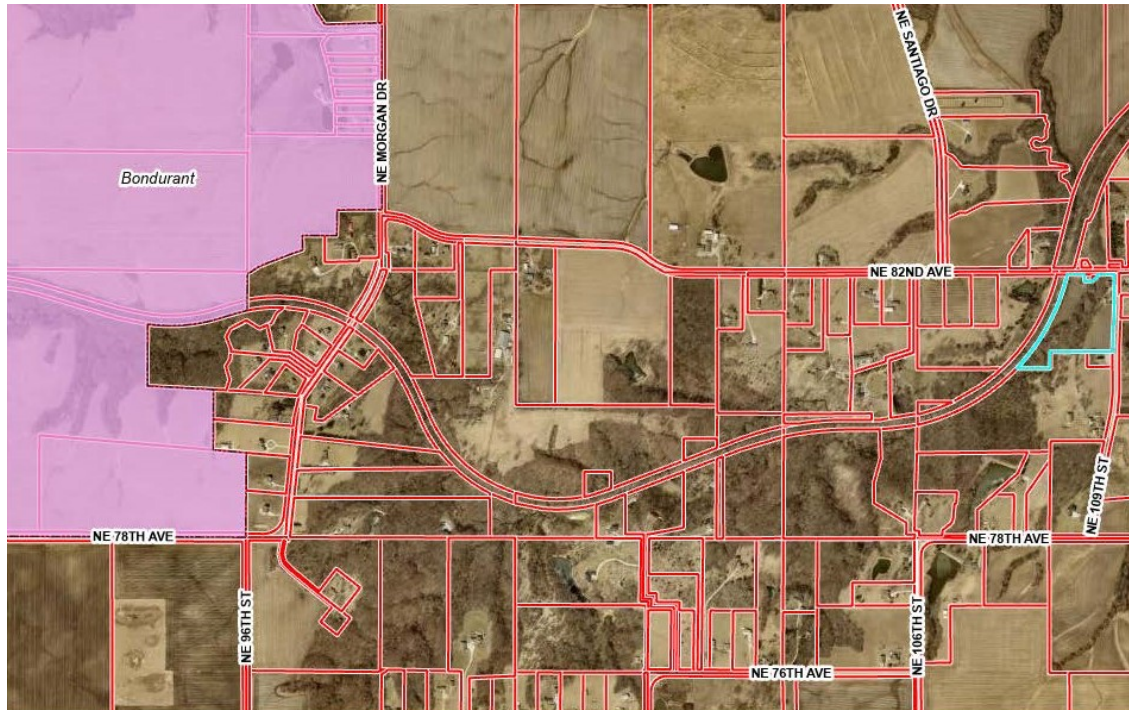
Item No. 6.c.
For Meeting of 1/12/2023
Resolution

TITLE: RESOLUTION NO. PZ-230112-01: Considering recommended approval of the Heartland LM Kellogg Plat 1 Preliminary Plat, a subdivision in unincorporated Polk County within two miles of Bondurant's city limits.

CONTACT PERSON:

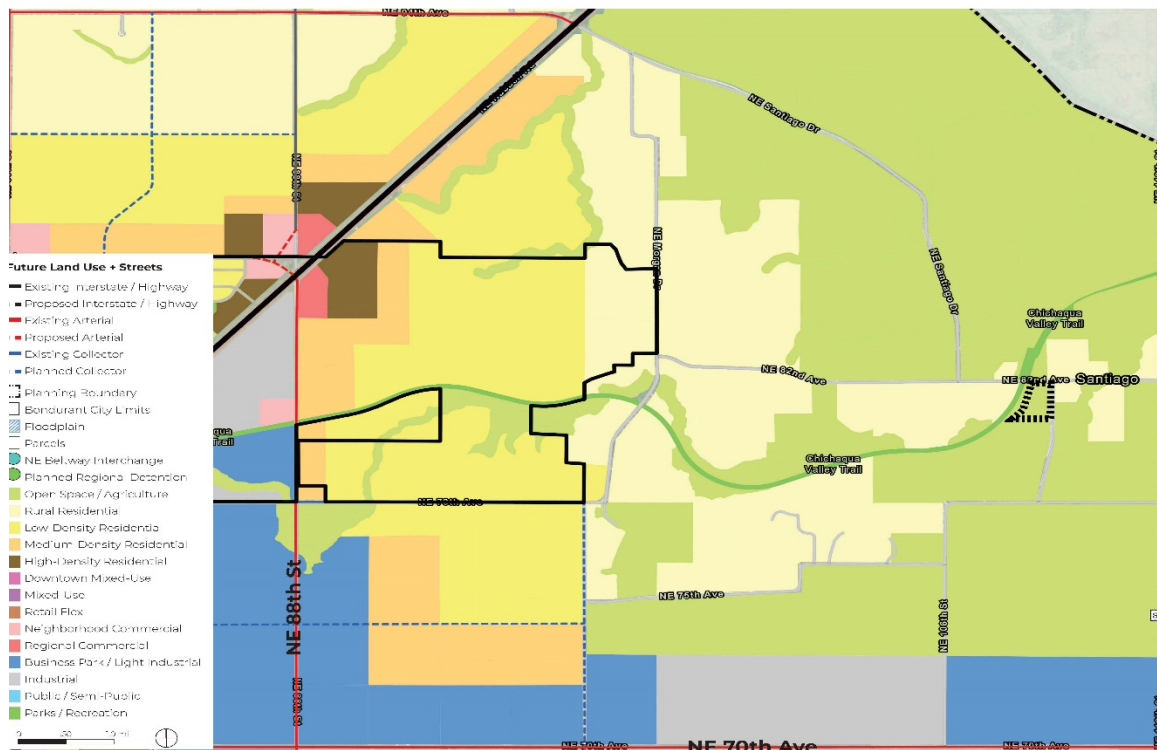
Maggie Murray, Planning & Community Development Director

BRIEF HISTORY & ANALYSIS: The City is in receipt of the attached Heartland LM Kellogg Plat 1 Preliminary Plat. This preliminary plat is situated in unincorporated Polk County along NE 109th Street and NE 82nd Avenue in the area highlighted below. This area is situated approximately 1.4 miles east of City limits. The subdivision will look to establish two residential lots which front the existing NE 109th Street.



Since this land is situated within 2 miles of Bondurant's city limits, a Subdivision Code review is required by the Planning & Zoning Commission and City Council prior to recording. Staff reviewed Section 180.05 of the Subdivision Code, titled Subdivision Design Standards, and sees no concerns with the subdivision proposed.

Since this land is located in unincorporated Polk County, Polk County has zoning jurisdiction on this land - this means that a permitted use review is conducted by Polk County and not the City of Bondurant. The City's Future Land Use Map included as part of the Comprehensive Plan appears to guide for Open Space/Agricultural on this property as such, the proposed subdivision is consistent with the City's Future Land Use Map.



FUNDING SOURCE: N/A

STAFF RECOMMENDATION: The following options exist for the Planning & Zoning Commission:

1. Recommended approval of Resolution PZ-230112-01.
2. Recommended approval of Resolution PZ-230112-01, subject to Subdivision Code clarification comments.
3. Recommended denial of the Resolution PZ-230112-01.
4. Table pending additional comment/feedback.

Staff recommends approval of PZ-230112-01 regarding recommended approval of the Heartland LM Kellogg Plat 1 Preliminary Plat.

APPROVED FOR SUBMITTAL:

ATTACHMENTS:

1. RES. PZ-230112-01
2. Heartland LM Kellogg Plat 1 Preliminary Plat

PLANNING AND ZONING COMMISSION
RESOLUTION NO. PZ-230112-01

RESOLUTION REGARDING RECOMMENDED APPROVAL THE HEARTLAND LM
KELLOGG PLAT 1 PRELIMINARY PLAT, A SUBDIVISION IN UNINCORPORATED
POLK COUNTY WITHIN TWO MILES OF BONDURANT'S CITY LIMITS.

WHEREAS, Logan Robert Kellogg has submitted a preliminary plat Heartland LM Kellogg Plat, which is described as follows:

ALL THAT PART OF LOTS 1, 12, 13 AND 14 OF THE SUBDIVISION OF SECTION 26 AND 35 IN TOWNSHIP 80 NORTH, RANGE 22 WEST OF THE 5TH P.M. LYING EAST OF THE RIGHT-OF-WAY OF THE CHICAGO GREAT WESTERN RAILWAY COMPANY, IN POLK COUNTY, IOWA, EXCEPT EASEMENTS FOR PUBLIC HIGHWAYS FILED IN BOOK 18629 PAGE 214 AND BOOK 19133 PAGE 545

NOW, THEREFORE, BE IT RESOLVED, that the Planning & Zoning Commission recommends approval of the submitted Heartland LM Kellogg Plat 1 Preliminary Plat, , subject to the following Code clarification item:

1. That should any review comments be received by City Engineering, Public Works, or Emergency Services, that the plat of survey document be updated accordingly.

Moved by _____, Seconded by _____ to adopt.

ATTEST: I, Maggie Murray, Planning & Community Development Director, City of Bondurant, hereby certify that at a meeting of the Planning and Zoning Commission held on January 12, 2023; among other proceedings the above was recommended.

IN WITNESS WHEREOF, I have hereunto set my hand the day and year above written.

Maggie Murray, Planning & Community Development Director

Action	Yay	Nay	Abstain	Absent
Cameron				
Clayton				
Mains				
Keeran				
Cuellar				
Hoyer				
Brostrom				

Torey Cuellar, Commission Chair

MAJOR PRELIMINARY PLAT

HEARTLAND ML KELLOGG
 PLAT I

SHEET I OF I

OWNER/DEVELOPER

LOGAN ROBERT KELLOGG
 9180 NE 104TH STREET
 BONDURANT, IA 50169
 Phone #: (515) 571-0788
 Email: logankellogg93@yahoo.com

ZONING

ER - ESTATE RESIDENTIAL DISTRICT

BULK REGULATIONS

DEVELOPMENT OPTION: SINGLE FAMILY
 FRONT YARD SETBACK- 75'
 REAR YARD SETBACK- 75'
 SIDE YARD SETBACK- 25'

LEGAL DESCRIPTION

All that part of Lots 1, 12, 13 and 14 of the Subdivision of Sections 26 and 35 in Township 80 North, Range 22 West of the 5th P.M., lying East of the right-of-way of the Chicago Great Western Railway Company, in Polk County, Iowa, except Easements for Public Highways filed in Book 18629 Page 214 and Book 19133 Page 545

GENERAL NOTES

- IT SHALL BE THE DEVELOPER'S RESPONSIBILITY TO APPLY FOR AND OBTAIN ANY STORM WATER DISCHARGE PERMITS FROM THE IOWA DEPARTMENT OF NATURAL RESOURCES IF SAID PERMITS ARE REQUIRED OF THIS PROJECT.
- STORM RUNOFF: DURING CONSTRUCTION & GRADING INDIVIDUAL LOT OWNERS WILL ALTER EXISTING TOPOGRAPHY AND SHALL BECOME RESPONSIBLE, THE LOT OWNER THEMSELVES ARE RESPONSIBLE NOT THE DEVELOPER OF THE PLAT OR THE ENGINEER OF THE PLAT FOR THE FOLLOWING:
 - INDIVIDUAL LOT OWNERS ARE RESPONSIBLE FOR ENSURING POST DEVELOPMENT RUNOFF FROM THEIR SITE DOES NOT ADVERSELY AFFECT DOWNSTREAM DRAINAGE FACILITIES OR PROPERTY OWNERS.
 - INDIVIDUAL LOT OWNERS ARE RESPONSIBLE FOR GRADING THEIR LOT TO CONVEY RUNOFF GENERATED FROM THEIR LOT AND RUNOFF GENERATED FROM ADJACENT LOTS IN SUCH A MANNER AS TO "NOT":
 - DAMAGE DOWN STREAM PROPERTY.
 - RESTRICT OFF SITE FLOW FROM BEING CONVEYED ACROSS THEIR LOT.
 - CHANGE THE GENERAL DIRECTION OF FLOW OF RUNOFF.
 - INDIVIDUAL LOT OWNERS ARE RESPONSIBLE FOR ENSURING THEIR SITE IS GRADED TO PROTECT THEIR PRIVATE PROPERTY FROM ANY AND ALL DAMAGE FROM STORM RUNOFF GENERATED ONSITE OR OFF SITE.
 - INDIVIDUAL LOT OWNERS SHALL NOT GRADE ANY PORTION OF THEIR LOT TO CAUSE RUNOFF TO BECOME CONCENTRATED FLOW WITHOUT PROVIDING PROTECTION FOR DOWNSTREAM PROPERTY.
- RELOCATION OF ANY ENTRANCE OR UTILITY TO CONFORM TO THE REQUIREMENTS OF THIS PLAT WILL BE AT THE DEVELOPERS EXPENSE.
- ALL MAILBOXES LOCATED IN POLK COUNTY RIGHT-OF-WAY MUST BE OF BREAKAWAY DESIGN.
- UTILITY EASEMENTS ARE DEDICATED FOR THE USE OF ANY PUBLIC UTILITY.
- SEWER SYSTEM: LATERAL FIELD AND SEPTIC TANK, ALTERNATE WASTE WATER SYSTEMS MAY BE REQUIRED.
- DUE TO SOIL TYPES, LIMITATIONS, AND DISTURBANCE, ALTERNATIVE SEPTIC SYSTEMS MAY BE REQUIRED. INDIVIDUAL WASTEWATER TREATMENT SYSTEMS SHALL BE DESIGNED BY AN ENGINEER.
- THE INDIVIDUAL OWNERS ARE RESPONSIBLE FOR MAINTENANCE OF THE DRAINAGE EASEMENT ON THEIR PROPERTY.
- DRAINAGE EASEMENT CROSSING: ANY CULVERTS TO BE USED FOR CROSSING DRAINAGE EASEMENTS MUST BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER.
- SUBSURFACE DRAINAGE FACILITIES: ANY SUBSURFACE DRAINAGE FACILITIES THAT ARE DISTURBED MUST BE RESTORED BY THE PROPERTY OWNER.
- ALL SERVICES TO UTILITIES LOCATED ON THE OPPOSITE SIDE OF THE ROADWAY MUST BE BORED UNDER THE ROADWAY AT THE LOT OWNERS EXPENSE.
- FUTURE DEVELOPMENT OF THE PROPERTY IS SUBJECT TO ARTICLE 1, SECTION 4, "NATURAL RESOURCE PROTECTION, WOODLANDS" OF THE POLK COUNTY ZONING ORDINANCE, WHICH PRESERVES UNIMPAIRED AREAS OF THE PROPERTY. YOUNG WOODLANDS SHALL BE PROTECTED OR MITIGATED AT A MINIMUM OF 50% AND MATURE WOODLANDS AT A MINIMUM OF 75%.
- ANY NEW ENTRANCE WILL REQUIRE A POLK COUNTY ENTRANCE PERMIT.
- ANY WORK IN THE ROW OTHER THAN FOR AN ENTRANCE WILL REQUIRE A POLK COUNTY ROW GRANT PERMIT.
- LOT A & B SHALL BE DEEDED TO POLK COUNTY FOR ROADWAY PURPOSES.

CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAT, SURVEYING DOCUMENT WAS PREPARED BY ME, AND THAT I AM A LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF IOWA.
 LICENSE NUMBER: DATE: DEC 31 2018 PAGES COVERED BY THIS SEAL: THIS PAGE ONLY

SIGNED: GREGORY L. ROSS P.L.S. 13286

DATE:

LEGEND

- | | | |
|---|--|---|
| <ul style="list-style-type: none"> MONUMENT FOUND AS NOTED SECTION CORNER FOUND AS NOTED SECTION CORNER FOUND AS NOTED SANITARY MANHOLE AS NOTED STORM MANHOLE AS NOTED TRAFFIC MANHOLE AS NOTED UTILITY MANHOLE AS NOTED PHONE MANHOLE AS NOTED ELECTRIC MANHOLE AS NOTED GAS METER AS NOTED GAS VALVE AS NOTED UTILITY POLE AS NOTED WELL AS NOTED | <ul style="list-style-type: none"> FIREHYDRANT AS NOTED EXISTING WATER VALVE PROPOSED WATER VALVE CURB INTAKE AS NOTED AREA INTAKE AS NOTED HANDICAPPED PARKING AS NOTED ELECTRIC TRANSFORMER BOX UTILITY BOX AS NOTED PERK TEST SITE AS NOTED EXISTING SPOT ELEVATION GAS METER AS NOTED MEASURED DISTANCE OR BEARING RECORDED DISTANCE OR BEARING | <ul style="list-style-type: none"> EXISTING CONTOUR 100' PROPOSED CONTOUR FENCE LINE AS NOTED BURIED TELEVISION AS NOTED BURIED ELECTRIC AS NOTED OVERHEAD UTILITIES GAS MAIN AS NOTED WATER MAIN AS NOTED STORM SEWER AS NOTED SANITARY SEWER AS NOTED BURIED TELEPHONE BURIED CABLE/UTILITIES |
|---|--|---|

ASSOCIATED ENGINEERING
AEC COMPANY OF IOWA
 1830 SE Princeton Dr. Ste M Grimes, IA 50111
 Phone: (515) 255-3156 Fax: (515) 255-3157

PROJECT #: 210368

FIRST SUBMITTAL DATE: 07-23-21



**BUSINESS OF THE PLANNING AND ZONING COMMISSION
BONDURANT, IOWA
AGENDA STATEMENT**

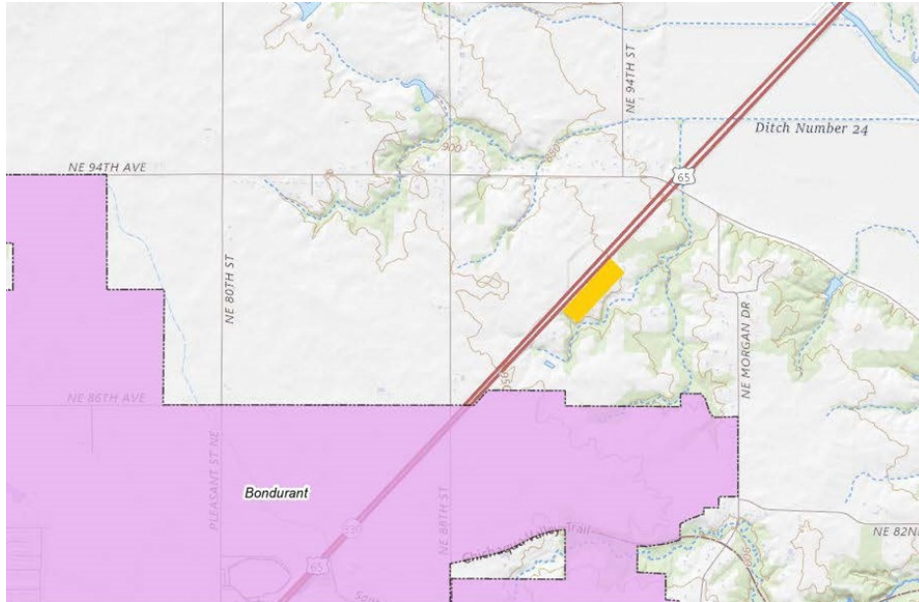
Item No. 6.d.
For Meeting of 1/12/2023
Resolution

TITLE: - RESOLUTION NO. PZ-230112-02 considering recommended approval of a waiver of review of the Nehring Estates Plat of Survey, a boundary line adjustment in unincorporated Polk County within two miles of Bondurant's city limits

CONTACT PERSON:

Maggie Murray, Planning & Community Development Director

BRIEF HISTORY & ANALYSIS: The City is in receipt of a plat of survey request located in unincorporated Polk County within 2 miles of Bondurant's city limits. The subject property is located north-northeast of the Bondurant's corporate limits, just south of NE Hubbell Avenue. The subject property currently contains an agricultural dwelling. The highlighted area in yellow shows the location of the proposed split. Polk County is considering this a boundary line adjustment, as the attached plat of survey will convey a portion of the existing Lot 3 to the existing Lot 1. No new buildable tax parcel will be created where this parcel will tie to the adjoining parcel to the southwest being Lot 1. In the past when Polk County has considered a plat of survey to be reviewed under their 'Boundary Line Adjustment' review category, the City of Bondurant has waived the community's right to review the plat of survey, due to the limited impact of the splitting proposed.



Polk County has zoning jurisdiction on this land - meaning that a permitted use review is conducted by Polk County and not the City of Bondurant. The Polk County Zoning Map shows this land as being zoned Estate Residential. The Future Land Use Plan included as part of the 2022 Building Bondurant Comprehensive Plan identifies a future land use category of Medium-Density Residential. The description of the Medium-Density Residential use category acknowledges that occasionally, single-family detached homes are included in this land use category.

Comments from City Officials: The following City departments were notified of the submitted plat of survey:

1. City Engineering – no review comments received to date. The attached resolution takes into account if any changes are requested by the department
2. Public Works – no review comments received to date. The attached resolution takes into account if any change are requested by the department.
3. Emergency Services – no review comments received to date. The attached resolution takes into account if any changes are requested by the department.

FUNDING SOURCE: N/A

STAFF RECOMMENDATION: The following options exist for the Planning & Zoning Commission:

1. Recommended approval of RESOLUTION NO. PZ-230112-02.
2. Recommended approval of RESOLUTION NO. PZ-230112-02, subject to certain Subdivision Code clarification items being addressed.
3. Recommended denial of RESOLUTION NO. PZ-230112-02.
4. Table pending additional information.

Staff recommends approval of RESOLUTION NO. PZ-230112-02 regarding recommended approval of a waiver of review of the Nehring Estates Plat of Survey.

APPROVED FOR SUBMITTAL:

ATTACHMENTS:

1. RES. PZ-230112-02
2. Nehring Estates Plat of Survey
3. Easement Plat
4. Vacation Easement

PLANNING AND ZONING COMMISSION
RESOLUTION NO. PZ-230112-02

RESOLUTION REGARDING RECOMMENDED APPROVAL OF A WAIVER OF
REVIEW OF THE NEHRING ESTATES PLAT OF SURVEY, A BOUNDARY LINE
ADJUSTMENT IN UNINCORPORATED POLK COUNTY WITHIN TWO MILES OF
BONDURANT'S CITY LIMITS

WHEREAS, Snyder & Associates has submitted a plat of survey on the behalf of the property owner, Blake Pagliai, for Lot 3 of Nehring Estates Plat 1, which is described as follows:

BEGINNING AT THE WESTERLY CORNER OF SAID LOT 3; THENCE NORTH 43°07'52" EAST ALONG THE NORTHERLY LINE OF SAID LOT 3, A DISTANCE OF 484.09 FEET; THENCE SOUTH 46°52'08" EAST, 418.08 FEET TO THE SOUTHERLY LINE OF SAID LOT 3; THENCE SOUTH 46°33'08" WEST ALONG SAID SOUTHERLY LINE OF LOT 3, A DISTANCE OF 388.30 FEET; THENCE SOUTH 44°21'56" WEST ALONG SAID SOUTHERLY LINE OF LOT 3, A DISTANCE OF 96.51 FEET TO THE SOUTHERLY CORNER OF SAID LOT 3; THENCE NORTH 46°52'08" WEST ALONG THE WESTERLY LINE OF SAID LOT 3, A DISTANCE OF 392.83 FEET TO THE POINT OF BEGINNING AND CONTAINING 4.49 AC (195,562 S.F.).

PROPERTY SUBJECT TO ANY AND ALL EASEMENTS OF RECORD

NOW, THEREFORE, BE IT RESOLVED, that the Planning & Zoning Commission recommends approval of a waiver of review of the submitted Plat of Survey, subject to the following Code clarification item:

1. That should any review comments be received by City Engineering, Public Works, or Emergency Services, that the plat of survey document be updated accordingly.

Moved by _____, Seconded by _____ to adopt.

ATTEST: I, Maggie Murray, Planning & Community Development Director, City of Bondurant, hereby certify that at a meeting of the Planning and Zoning Commission held on January 12, 2023; among other proceedings the above was recommended.

IN WITNESS WHEREOF, I have hereunto set my hand the day and year above written.

Maggie Murray, Planning & Community Development Director

Action	Yay	Nay	Abstain	Absent
Cameron				
Clayton				
Mains				
Keeran				
Cuellar				
Hoyer				
Brostrom				

Torey Cuellar, Commission Chair

INDEX LEGEND

SURVEYOR'S NAME / RETURN TO:
TERRY COADY
SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BOULEVARD
ANKENY, IOWA 50023
515-964-2020
TLCOADY@SNYDER-ASSOCIATES.COM
SERVICE PROVIDED BY:
SNYDER & ASSOCIATES, INC.
SURVEY LOCATED:
PT LOT 3
NEHRING ESTATES PLAT 1
SECTION 21-80N-22W
REQUESTED BY:
BLAKE PAGLIAI

PLAT OF SURVEY
"BOUNDARY LINE ADJUSTMENT"

PARCEL 2022-1221
A PART OF LOT 3, NEHRING ESTATES PLAT 1, AN OFFICIAL PLAT NOW INCLUDED IN
AND FORMING A PART OF POLK COUNTY, IOWA AND DESCRIBED AS FOLLOWS:

BEGINNING AT THE WESTERLY CORNER OF SAID LOT 3; THENCE NORTH 43°07'52"
EAST ALONG THE NORTHERLY LINE OF SAID LOT 3, A DISTANCE OF 484.09 FEET;
THENCE SOUTH 46°52'08" EAST, 418.08 FEET TO THE SOUTHERLY LINE OF SAID
LOT 3; THENCE SOUTH 46°33'08" WEST ALONG SAID SOUTHERLY LINE OF LOT 3, A
DISTANCE OF 388.30 FEET; THENCE SOUTH 44°21'56" WEST ALONG SAID SOUTHERLY
LINE OF LOT 3, A DISTANCE OF 96.51 FEET TO THE SOUTHERLY CORNER OF SAID
LOT 3; THENCE NORTH 46°52'08" WEST ALONG THE WESTERLY LINE OF SAID LOT
3, A DISTANCE OF 392.83 FEET TO THE POINT OF BEGINNING AND CONTAINING 4.49
AC (195,562 S.F.).

PROPERTY SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

CURVE TABLE

CURVE NO.	DELTA	RADIUS	ARC LENGTH	TANGENT	CHORD	BEARING/DISTANCE
A1	59°14'52"	RT165.45'	160.00'	90.98'	N65°51'59"W	158.18'

DATE OF SURVEY

04-23-2021

SITE ADDRESSES

LOT 1 - 8991 NE HUBBELL RD
BONDURANT, IA 50035

OWNER

BLAKE W. & CARLIE PAGLIAI
9265 NE HUBBELL RD
BONDURANT, IA 50035

LOT 3 - 9265 NE HUBBELL RD
BONDURANT, IA 50035

LEGEND

Survey	Found	Set
Section Corner	▲	△
1/2" Rebar, Yellow Plastic Cap #18643 (Unless Otherwise Noted)	●	○
ROW Rail	I	
Calculated Point	+	
Platted Distance	P	
Measured Bearing & Distance	M	
Recorded As	R	
Deed Distance	D	
Calculated Distance	C	
Centerline	-----	
Section Line	_____	
1/4 Section Line	_____	
1/4 1/4 Section Line	_____	
Easement Line	-----	

LICENSED PROFESSIONAL LAND SURVEYOR

TERRY COADY

18643

IOWA

DRAFT

I hereby certify that this land surveying document was prepared and the related survey work was performed by me or under my direct personal supervision and that I am a duly licensed Professional Land Surveyor under the laws of the State of Iowa.

Terry Coady, PLS

Date

License Number

18643

My license expires on

Date is December 31, 2023

Page or sheets covered by this seal:

PT LOT 3, NEHRING ESTATES PLAT 1	SHEET 1 OF 2
PLAT OF SURVEY - "BOUNDARY LINE ADJUSTMENT"	PN: 1221548
S SNYDER & ASSOCIATES 2727 S.W. SNYDER BLVD. ANKENY, IA 50023 (515) 964-2020	FLD BK: 823F PG: 37
	DATE: 12/07/22
	PM/TECH: TLC/JDP

PLAT OF SURVEY
"BOUNDARY LINE ADJUSTMENT"

NE HUBBELL RD

PARCEL 2022-1221
 4.49 AC
 (195,562 SF)

NEHRING ESTATES PLAT 1

LOT 1

LOT 2

LOT 3

LOT 4

PT LOT 3

Remainder Area
 3.73 AC
 (162,282 SF)

Westerly Corner Lot 3 Point of Beginning

Southerly Corner Lot 3

End 1/2" Rebar Yellow Plastic Cap #11804

Boundary Measurements and Bearings:

- N43°07'19"E 309.88'M&R
- N43°07'52"E 349.51'
- N43°07'52"E 520.00'M&R
- N43°07'52"E 218.83'M&R
- N43°07'52"E 35.91'
- N43°07'52"E 484.09'
- N46°52'08"W 392.83'M&R
- N46°52'08"W 418.08'
- N46°33'08"W 74.04'
- N52°00'31"W 5.04'M&R
- N61°25'28"W 107.92'M&R
- S37°09'46"W 304.84'M&R
- S61°25'28"E 389.94'M&R
- S29°34'08"E 100.00'M&R
- N60°25'52"E 85.35'M&R
- S46°33'08"W 462.34'M&R
- S46°33'08"E 418.08'
- S44°21'56"W 96.51'M&R
- S44°21'56"W 303.17'M&R
- S44°21'56"W 206.66'M&R
- S0°15'58"E 393.65'M&R
- S89°44'02"W 270.00'M&R
- N0°15'58"W 259.41'M&R
- S84°30'35"W 164.36'
- N36°14'33"W 27.53'M&R
- A7

DRAFT

OWNERS

LOT 1 LMO INVESTMENTS LLC
 8994 NE HUBBELL RD
 BONDURANT, IA 50035

LOT 2 BRET NEHRING
 8977 NE HUBBELL RD
 BONDURANT, IA 50035

SCALE (FEET)

0 200

LOT 1 LMO INVESTMENTS LLC
8994 NE HUBBELL RD
BONDURANT, IA 50035

LOT 2 BRET NEHRING
8977 NE HUBBELL RD
BONDURANT, IA 50035

DRAFT



PT LOT 3, NEHRING ESTATES PLAT 1		SHEET 2 OF 2
PLAT OF SURVEY - "BOUNDARY LINE ADJUSTMENT"		PN: 1221548
 SNYDER & ASSOCIATES		FLD BK: 823F PG: 37
		DATE: 12/07/22
		PM/TECH: TLC/JDP
2727 S.W. SNYDER BLVD. ANKENY, IA 50023 (515) 964-2020		

SURVEYOR'S NAME / RETURN TO:
TERRY COADY
SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BOULEVARD
ANKENY, IOWA 50023
515-964-2020
TLCOADY@SNYDER-ASSOCIATES.COM

SERVICE PROVIDED BY:
SNYDER & ASSOCIATES, INC.

SURVEY LOCATED:
PT LOT 3
NEHRING ESTATES PLAT 1
SECTION 21-80N-22W

REQUESTED BY:
BLAKE PAGLIAI

PUBLIC UTILITY EASEMENT
A PART OF PARCEL 2022-1221 OF LOT 3, NEHRING ESTATES PLAT 1, AN OFFICIAL
PLAT NOW INCLUDED IN AND FORMING A PART OF POLK COUNTY, IOWA AND
DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHERLY CORNER OF SAID PARCEL 2022-1221 AND THE SOUTHERLY CORNER OF SAID LOT 3; THENCE NORTH 46°52'08" WEST ALONG THE WESTERLY LINE OF SAID PARCEL 2022-1221 AND THE WESTERLY LINE OF SAID LOT 3, A DISTANCE OF 10.00 FEET; THENCE NORTH 44°21'56" EAST, 96.92 FEET; THENCE NORTH 46°33'08" EAST, 377.87 FEET; THENCE NORTH 46°52'08" WEST, 407.46 FEET TO THE NORTHERLY LINE OF SAID PARCEL 2022-1221 AND THE NORTHERLY LINE OF SAID LOT 3; THENCE NORTH 43°07'52" EAST ALONG SAID NORTHERLY LINE, 10.00 FEET TO THE NORTHERLY CORNER OF SAID PARCEL 2022-1221; THENCE SOUTH 46°52'08" EAST, 418.08 FEET ALONG THE EASTERLY LINE OF SAID PARCEL 2022-1221 TO THE CORNER OF SAID PARCEL 2022-1221 AND TO THE SOUTHERLY LINE OF SAID LOT 3; THENCE SOUTH 46°33'08" WEST ALONG SAID SOUTHERLY LINE, 388.30 FEET; THENCE SOUTH 44°21'56" WEST CONTINUING ALONG SAID SOUTHERLY LINE, 96.51 FEET TO THE POINT OF BEGINNING AND CONTAINING 0.20 AC (8,926 S.F.).

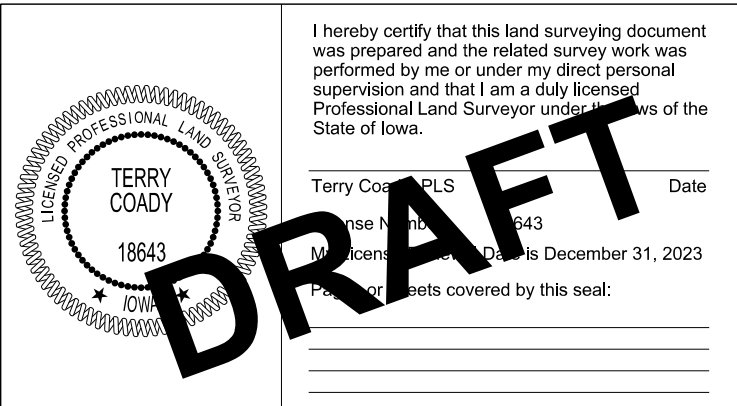
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CURVE NO.	DELTA	RADIUS	ARC LENGTH	TANGENT	CHORD BEARING/DISTANCE
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04-23-2021

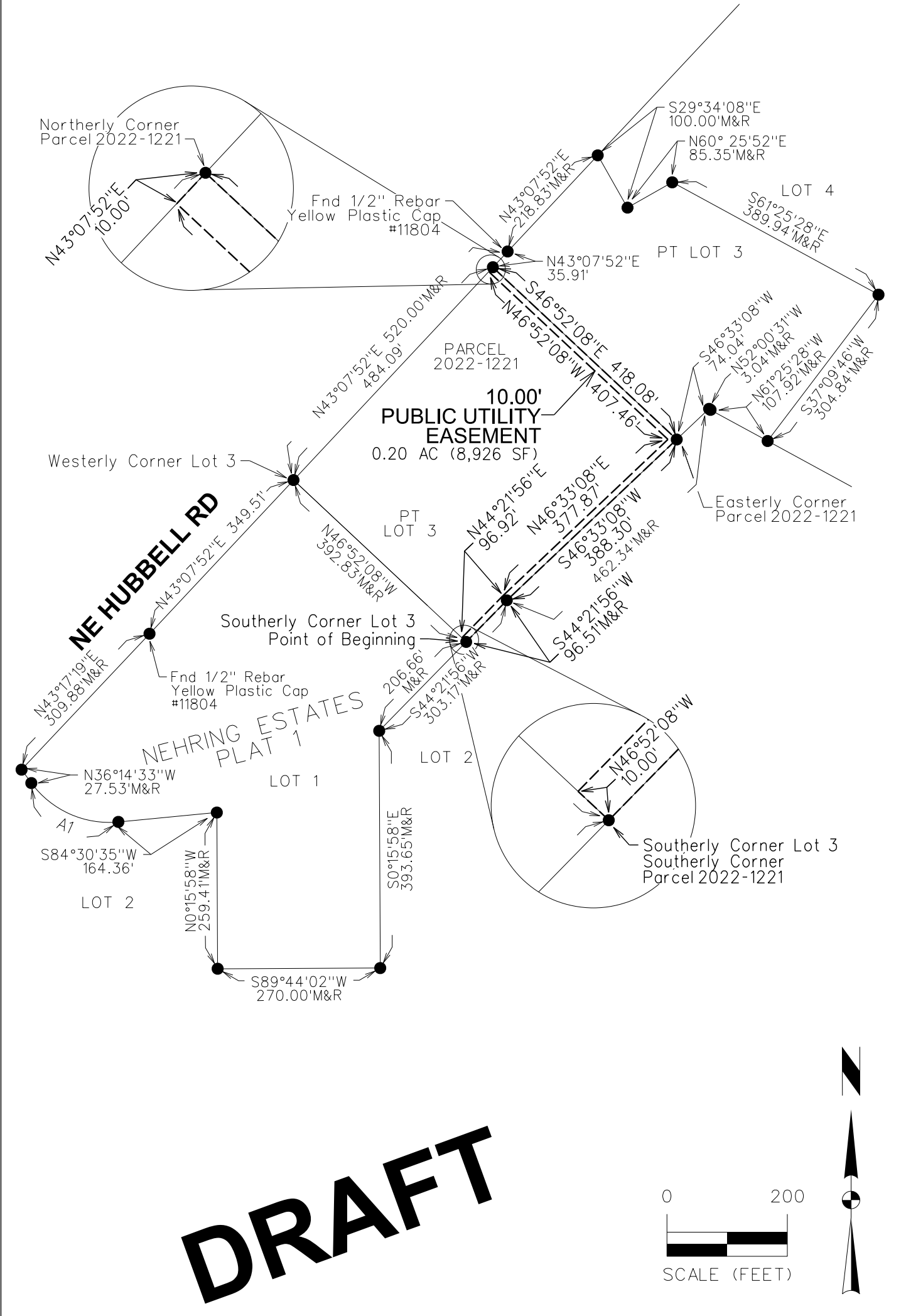
BLAKE W. & CARLIE PAGLIAI
9265 NE HUBBELL RD
BONDURANT, IA 50035

<u>Survey</u>	<u>Found</u>	<u>Set</u>
Section Corner	▲	△
1/2" Rebar, Yellow Plastic Cap #18643 (Unless Otherwise Noted)	●	○
ROW Rail	⚡	
Calculated Point	+	
Platted Distance	P	
Measured Bearing & Distance	M	
Recorded As	R	
Deed Distance	D	
Calculated Distance	C	
Centerline	-----	
Section Line	=====	
1/4 Section Line	=====	
1/4 1/4 Section Line	=====	
Easement Line	-----	



PT LOT 3, NEHRING ESTATES PLAT 1		SHEET 1 OF 2
PUBLIC UTILITY EASMENT		PN: 1221548
 SNYDER & ASSOCIATES		FLD BK: 823F PG: 37
		DATE: 12/07/22
		PM/TECH: TLC/JDP
2727 S.W. SNYDER BLVD. ANKENY, IA 50023 (515) 964-2020		

EASEMENT PLAT



PT LOT 3, NEHRING ESTATES PLAT 1 PUBLIC UTILITY EASMENT	SHEET 2 OF 2
	PN: 1221548
	FLD BK: 823F PG: 37
	DATE: 12/07/22
 SNYDER & ASSOCIATES 2727 S.W. SNYDER BLVD. ANKENY, IA 50023 (515) 964-2020	PM/TECH: TLC/JDP

SURVEYOR'S NAME / RETURN TO:
TERRY COADY
SNYDER & ASSOCIATES, INC.
2727 SW SNYDER BOULEVARD
ANKENY, IOWA 50023
515-964-2020
TLCOADY@SNYDER-ASSOCIATES.COM

SERVICE PROVIDED BY:
SNYDER & ASSOCIATES, INC.

SURVEY LOCATED:
PT LOT 1
NEHRING ESTATES PLAT 1
SECTION 21-80N-22W

REQUESTED BY:
BRET NEHRING

A PART OF LOT 1, NEHRING ESTATES PLAT 1, AN OFFICIAL PLAT NOW INCLUDED IN
AND FORMING A PART OF POLK COUNTY, IOWA AND DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID LOT 1; THENCE SOUTH 46°52'08" EAST ALONG THE NORTHEASTERLY LINE OF SAID LOT 1, A DISTANCE OF 10.00 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 46°52'08" EAST ALONG SAID NORTHEASTERLY LINE OF LOT 1, A DISTANCE OF 372.83 FEET; THENCE SOUTH 44°21'56" WEST, 10.00 FEET; THENCE NORTH 46°52'08" WEST, 372.61 FEET TO THE EASTERLY LINE OF AN EXISTING 10.00 FOOT PUBLIC UTILITY EASEMENT; THENCE NORTH 43°07'52" EAST ALONG SAID EASTERLY LINE, 10.00 FEET TO THE POINT OF BEGINNING AND CONTAINING 0.09 AC (3,727 S.F.).

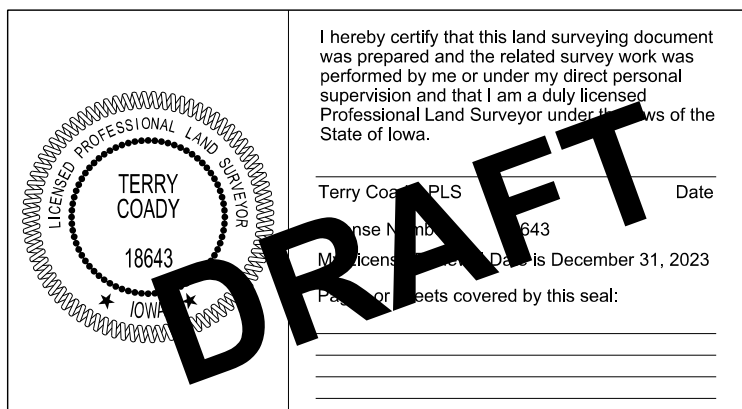
PROPERTY SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

03-27-2020

LMO INVESTMENTS LLC
8994 NE HUBBELL RD
BONDURANT, IA 50035

LOT 1 - 8991 NE HUBBELL DR
BONDURANT, IA 50035

<u>Survey</u>	<u>Found</u>	<u>Set</u>
Section Corner	▲	△
1/2" Rebar, Yellow Plastic Cap #18643 (Unless Otherwise Noted)	●	○
ROW Rail	⚡	
Calculated Point	+	
Platted Distance	P	
Measured Bearing & Distance	M	
Recorded As	R	
Deed Distance	D	
Calculated Distance	C	
Centerline	-----	-----
Section Line	-----	-----
1/4 Section Line	-----	-----
1/4 1/4 Section Line	-----	-----
Easement Line	-----	-----



PT LOT 1, NEHRING ESTATES PLAT 1

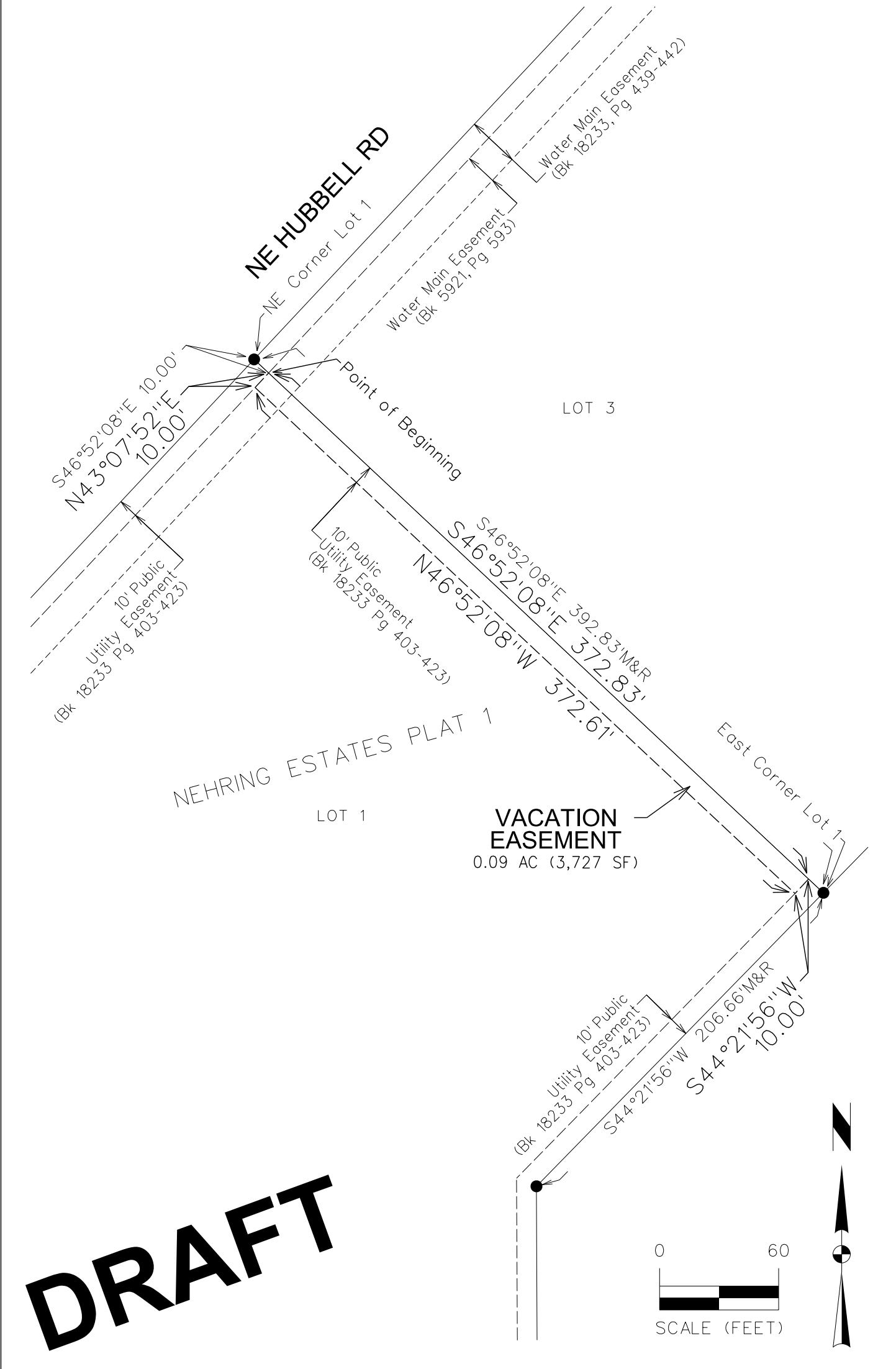
VACATION EASEMENT



2727 S.W. SNYDER BLVD.
ANKENY, IA 50023 (515) 964-2020

SHEET 1 OF 2
PN: 1221548
FLD BK: 823F PG: 37
DATE: 12/07/22
PM/TECH: TLC/JDP

VACATION EASEMENT



PT LOT 1, NEHRING ESTATES PLAT 1	SHEET 2 OF 2
	PN: 1221548
	FLD BK: 823F PG: 37
	DATE: 12/07/22
VACATION EASEMENT	PM/TECH: TLC/JDP
 SNYDER & ASSOCIATES	2727 S.W. SNYDER BLVD. ANKENY, IA 50023 (515) 964-2020



**BUSINESS OF THE PLANNING AND ZONING COMMISSION
BONDURANT, IOWA
AGENDA STATEMENT**

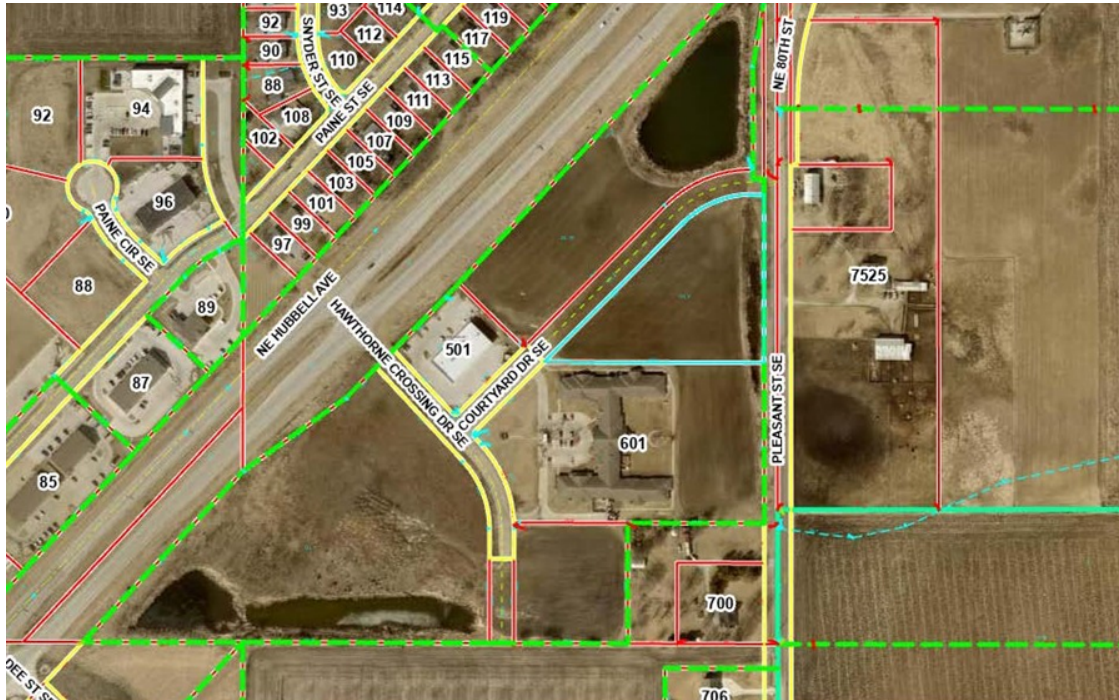
Item No. 6.e.
For Meeting of 1/12/2023
Resolution

TITLE: - RESOLUTION NO. PZ-230112-03 considering recommended approval of the Hawthorne Crossing 2 Site Plan/Preliminary Plat

CONTACT PERSON:

Maggie Murray, Planning & Community Development Director

BRIEF HISTORY & ANALYSIS: The City is in receipt of a multi-family development site plan/preliminary plat for review by the Planning & Zoning Commission and City Council for the existing 3.00-acre parcel of land accessed from a proposed extended Courtyard Drive SE. Courtyard Drive SE currently deadends at this development site's western edge. As part of this development, the developer will extend Courtyard Drive SE east so that it connects over to Pleasant Street SE. The site plan/preliminary plat applicant is The Crossing Development LLC. The site plan/preliminary plat was prepared by Snyder & Associates, Inc. The applicant is proposing three multi-family residential buildings with an additional clubhouse. Two 12-unit multi-family residential buildings will be located along the eastern and southern property lines, a 16-unit multi-residential unit will be located along the northwest property line. This property is zoned as being within the City's High Density Residential (R-3) District. The use of the property will remain the same.



When the Planning & Zoning Commission and City Council review site plans, they review for consistency with the following documents: Comprehensive Plan; Zoning Code; and Comments from City Officials.

Consistency with the City's Comprehensive Plan: An R-3 development at this location is consistent with the 2022 Comprehensive Plan which guides for High Density Residential at this location.

Consistency with the City's Zoning Code: Below are notes detailing how the Zoning Code is met for this request or what additional information is needed to ensure the Code will be met for this development.

General Residential Use & Bulk

- The use proposed is a permitted use of the R-3 District. Three high-density residential buildings are proposed for this site. Two buildings will have 12-residential units and one building will have 16-residential units, for a total of 40 units total or 13 units per acre. The R-3 District allows for up to 20 units per acre.
- The site plan labels the required setbacks at this location - a 50' front yard setback along Courtyard Drive SE, a 50' rear yard setback along the east property line and 11' side yard setbacks along the southern property line.

Parking/Drive Areas

- Access to the site is from two driveways on the east side of Courtyard Drive SE and at the southwest and north corners of the site. The City Engineer has reviewed the location of these driveways and has noted they are satisfactory.
- The site plan shows that no part of any parking/drive area (excluding driveways) will be located closer than 10' away from the front property lines, as is required by Section 177.10.1.
- The site plan shows that all parking/drive areas will be paved as required by Section 177.10.2 of the Zoning Code.
- Section 177.09.7.C of the Zoning Code will be applied when determining minimum parking stall count requirements at this location. This section reads: Multi-family Dwellings: for each one (1) bedroom unit – 1½ parking spaces; for each two (2) bedroom unit, or larger – 2 parking spaces.
- The development will have 12 1-bedroom units and 28 2-bedroom units, the proposed development requires 74 parking spaces. The site plan shows 75 parking spaces, including 9 handicap accessible parking stalls.
- The site plan shows parking spaces will be provided with raised curbing or equivalent, as is required by Section 177.10.8.
- The City Engineer has noted the following: Although a traffic impact study is not triggered for this multi-family project, a review of the project and the previous evaluation in this area would support the conclusion that turning lanes are not required as a result of this project.

Stormwater, Utilities & Natural Features

- A stormwater management report has been submitted for review by the City Engineer.
- The site plan should be updated to remove out the ERU reference of 4,000 SF, as this is incorrect.
- Page 8 contains the required utility plan. Sanitary sewer, water, electric and gas are all being extended from existing utility lines along Courtyard Drive SE.
- This site is not located within a water or sanitary sewer connection fee district.
- This site is not situated within FEMA's 100-year floodplain.
- This site is not situated within the City's Stream Buffer Ordinance area.
- Staff commented that any lighting used to illuminate the parking area will be arranged so as to reflect lighting away from any adjacent residential use. This can be accomplished by installing full cut-off lighting. Pages 14-22 address the provided parking lot lighting.

Landscaping Plan

- Pages 7-13 of the site plan shows the required landscaping plan. Notes on this:

- The site plan notes the existing landscaping buffer provided in the front yard setback area.
- $75 \text{ parking spaces} / 18 = \text{at least } 6 \text{ interior trees}$. The site plan shows 7 interior trees proposed. 1 tree per 50 linear feet of frontage is required, $1,065 \text{ LF} / 50 = 22 \text{ trees}$. The site plan shows 23 trees proposed.
- Site plan applicant to confirm that at least 5% interior greenspace must be provided for any parking area visible from the public right-of-way.
- The site plan shows that the required general trees will be located at least 4' away from the front property line as required by Section 182.05.E of the Zoning Code.
- Section 182.04 of the Zoning Code requires deciduous trees conform to the minimum of 1 ¾ inch caliper in size at time of planting. The plant schedule is provided on page 10.
- The site plan notes that 42% (47,225 square feet) of this site will be open space. This exceeds the R-3 minimum requirement of 20%.

Architectural Elevations

- Site plan submittal includes the required building elevations. Notes on this:
 - Elevations are provided in color.
 - Proposed building height will be 22 feet.
 - All roof mounted mechanical units will be screened from view of the public right-of-way. *Currently no such units are proposed.*
 - This submitted site plan proposes construction of multi-family dwellings and is subject to the following Zoning Code requirements:
 - Building Materials:
 - Hard Surface Requirements
 - At least 20% of multi-family structures shall be brick, stone, or a similar substantial material. This requirement applies to both those facades that face the public right-of-way and those facades that do not face the public right-of-way which are not screened. If a non-street facing façade is screened, the primary materials must be present as at least trim. Door and window openings can count toward this 20% requirement if surrounded by brick, stone, or another substantial material. *Page 1 of the elevations sheet shows brick veneer being utilized. Appears to be meeting just fine, but elevations to be updated to provide a brick/stone calculation requirement for each building façade elevation of each building.*
 - The balance of net exterior wall area may be lap siding, synthetic stucco (EIFS), architecturally designed concrete tilt-up panels, or another similar material. *The elevations note that balance of the building materials proposed include: horizontal engineered wood lap siding (smooth), engineered wood panel siding with board & batten (smooth). These are acceptable materials.*
 - Prohibited exterior building materials include: rough sawn board and batten wood, smooth-faced or gray concrete block, painted concrete block, field painted or pre-finished standard corrugated

- metal siding, standard single or double tee concrete systems. *None shown on the provided elevations worksheets.*
- If the underlying building is constructed using either metal or concrete form walls, the metal or concrete portion of the walls on the front of the building face must be totally covered with acceptable materials as listed in the Zoning Code. *Applicant to confirm this requirement is being met.*
 - The Zoning Code requires that roof materials shall be high quality, durable material such as, but not limited to: wood shake shingles, clay or concrete tiles, composition shingles, asphalt shingles and rubber roofs. *The submitted elevations show this requirement as being met, as 30-year architectural singles are proposed.*
 - Building Design:
 - Building Mass and Form
 - Multi-family building design should incorporate visually heavier and more massive elements at the building base, and lighter elements above the base. *The elevation show this requirement as being met.*
 - At least every fifty linear feet (50'), wall and roof planes shall contain offsets or setbacks with a differential in horizontal plane of at least two feet (2'). *Site plan applicant to confirm this is being met for all elevations.*
 - Architectural Detail:
 - Each building in a multi-family development should have a definitive, consistent style. *Elevations show this as being met.*
 - Multi-family buildings shall incorporate façade modulation in all building elevations to preserve building scale and reduce the aesthetic impact of long, large expansive wall surfaces. The variation in wall surfaces can be accomplished either by physical offsets (i.e. the use of bays, insets, balconies, porches, or stoops), or by the use of color, pattern, or texture. *Elevations show this as being met.*
 - All multi-family building elevations shall contain windows, except when their omission is necessary to assure privacy for adjacent property owners. *Elevations show this as being met.*
 - On buildings where sloping roofs are the predominant roof type, each building shall have a variety of roof forms.
 - Roof forms shall be designed to correspond and denote building elements and functions such as entrances and arcades. *Elevations show this as being met.*
 - Accessory structures shall incorporate compatible materials, scale, colors, architectural details, wall articulations, and roof slopes as the primary multi-family buildings, except that flat and shed roofs are prohibited. *Elevations show this as being met.*

Other Site Plan Features

- Staff commented the project name needs to be changed to avoid confusion with the City's The Crossing project; the City's project will be located in the downtown area as an extension of the CVT through the former railroad land in the general Landus redevelopment area.
- Applicant to pay the \$120 site plan application review fee. Applicant to also pay the \$160 preliminary plat application fee.
- The site plan/preliminary plat does not address the required public right-of-way sidewalks required along Pleasant Street SE.
- A note that while sign permits are reviewed and approved administratively and separately from site plan approval, the site plan must show any detached signage proposed. The site plan shows a detached sign along Courtyard Drive SE. A sign contractor must receive an approved sign permit prior to signage installation. All signage proposed must meet Section 181.12 of the Sign Code.

Comments from City Officials:

The following City departments were notified of the submitted site plan/preliminary plat:

1. Public Works - reviewed and provided the following comments/concerns.
 - Sheet C100 & Sheet C200-Utility contact information is incorrect. Water and sanitary sewer contact information are both:

City of Bondurant
John Horton
515-985-5110
jhorton@cityofbondurant.com

- Sheet 302-Utility Plan – The 8-inch public water main installation along the Courtyard Drive SE extension should be noted for contractor to remove blowoff and connect to existing water main on southern end of project. Same applies for connecting to existing stub off 12-inch main that runs parallel to Pleasant St. SE on Northeasterly side of project.
- Standard practice is for the use of C900 instead of ductile iron water main internally on site unless there are environmental concerns on the site. Additional information is requested to justify the use of ductile iron.
- A valve needs to be added to the northeasterly connection point from the site to the public water main along Courtyard Drive SE.
- The developer should note that each building is required to be service by one master meter. The City will not allow individual meters for each residential unit.
- A service valve should be added to the private main to eliminate the need to turn off service to the entire complex.

- Discrepancies in information provided on the site design sheets and the public street documents. Both sets of plans should be consistent and show the same information.

1. Engineering – reviewed and provided the following comments/concerns.

- The submittal indicates that Courtyard Drive SE will be paved from its current terminus to Pleasant Street SE. The preliminary plat and site plan show the proposed pavement involving a 31-foot wide back to back pavement. No details regarding the paving design are included with the submittal. It is assumed the paving design will be submitted as a part of a separate set of construction plans
- The submittal shows the public water main and the proposed private water main. It is suggested the submittal differentiate between existing water main and new water main
- The method of connection to the existing water main should be shown
- Valves will be required at each connection to the existing water main. If a tapping sleeve and valve connection is utilized the valve on the fitting is satisfactory. If a tee connection is utilized a separate valve will be required.
- Although the new water main is private the City would prefer the valves to not be located under the driveways as currently shown
- In accordance with the City's standard practice an internal valve would be required in the water main loop for reliability purposes to allow partial isolation in the event of an outage
- The depiction of the end of the new private service and the existing public sanitary sewer do not appear to be consistent
- Although the City has allowed lighting levels in excess of its policy, the 0.74 foot-candles average lighting would be considered well above any level the City has approved for a public street. It is suggested the City request Snyder & Associates, Inc. to evaluate an alternate lighting plan that would reduce the number of fixtures in order to bring the lighting level closer to the City's target level.
- A quit claim deed to the City of Bondurant shall be provided for the existing Pleasant Street SE roadway. A warranty deed to the City of Bondurant shall be given for the area noted 'future right-of-way line'. Related to this – the applicant shall prepare a maintenance agreement indicating they are responsible for maintaining the entire existing detention pond in this area.

2. Fire Department - reviewed and noted no comments/concerns.

FUNDING SOURCE: N/A

STAFF RECOMMENDATION: The following options exist for the Planning & Zoning Commission:

1. Recommended approval of RESOLUTION NO. PZ-230112-03.

2. Recommended approval of RESOLUTION NO. PZ-230112-03, subject to certain Zoning Code clarification items being addressed.
3. Recommended denial of RESOLUTION NO. PZ-230112-03.
4. Table pending additional information.

Staff recommends approval of RESOLUTION NO. PZ-230112-03, regarding recommended approval of the Hawthorne Crossing Apartment site plan, subject to the City Code clarification items listed in the attached resolution.

APPROVED FOR SUBMITTAL:

ATTACHMENTS:

1. RESNO. PZ-230112-03
2. Hawthorne Crossing Apartment Site Plan
3. Hawthorne Crossing Apartment Elevations

PLANNING AND ZONING COMMISSION
RESOLUTION NO. PZ-230112-03

RESOLUTION REGARDING RECOMMENDED APPROVAL OF THE SITE
PLAN/PRELIMINARY FOR HAWTHORNE CROSSING 2

WHEREAS, Snyder & Associates, Inc. submitted the site plan for Hawthorne Crossing 2 described as follows; AND

OUTLOT "V" AND OUTLOT "Z", HAWTHORNE CROSSING, AN OFFICIAL PLAT IN THE CITY OF BONDURANT, POLK COUNTY, IOWA.

WHEREAS, the zoning for the property is High Density Residential (R-3) and a multi-family residential use is a permitted use per Sections 178.04.1.C of the Zoning Code; AND

NOW, THEREFORE, BE IT RESOLVED, that the Planning & Zoning Commission recommends approval of the submitted site plan/preliminary plat for Hawthorne Crossing 2, subject to the following City Code/Policy clarification recommendation items:

1. That the developer changes the name of the project to avoid confusion with the City's "The Crossing" project.
2. That the site plan shall be updated to comply with the following Zoning Code comments noted in the agenda statement:
 - a. Site plan to be updated to remove out the ERU reference of 4,000 SF.
 - b. Site plan to be updated to show that at least 5% interior greenspace must be provided for any parking area visible from the public right-of-way.
 - c. Elevations to be updated to provide a brick/stone calculation requirement for each building façade elevation of each building.
 - d. Applicant to confirm the following will be met: If the underlying building is constructed using either metal or concrete form walls, the metal or concrete portion of the walls on the front of the building face must be totally covered with acceptable materials as listed in the Zoning Code.
 - e. Applicant to confirm the following will be met: At least every fifty linear feet (50'), wall and roof planes shall contain offsets or setbacks with a differential in horizontal plane of at least two feet (2').
 - f. Applicant to pay the site plan application and preliminary plat application review fees.
 - g. Site plan to be updated to address the required Pleasant Street SE right-of-way sidewalks.
3. That the developer shall update the site plan based on V&K's review comments dated January 3, 2023, Public Works review comments dated January 5, 2023 and any additional comments provide by City Engineering, Public Works, or Emergency Services, including but not limited to the following:
 - a. A quit claim deed to the City of Bondurant shall be provided for the existing Pleasant Street SE roadway. A warranty deed to the City of

Bondurant shall be given for the area noted ‘future right-of-way line’.
Related to this – the applicant shall prepare a maintenance agreement indicating they are responsible for maintaining the entire existing detention pond in this area.

Moved by _____, Seconded by _____to adopt.

ATTEST: I, Maggie Murray, Planning & Community Development Director, City of Bondurant, hereby certify that at a meeting of the Planning and Zoning Commission held on January 12, 2023; among other proceedings the above was recommended.

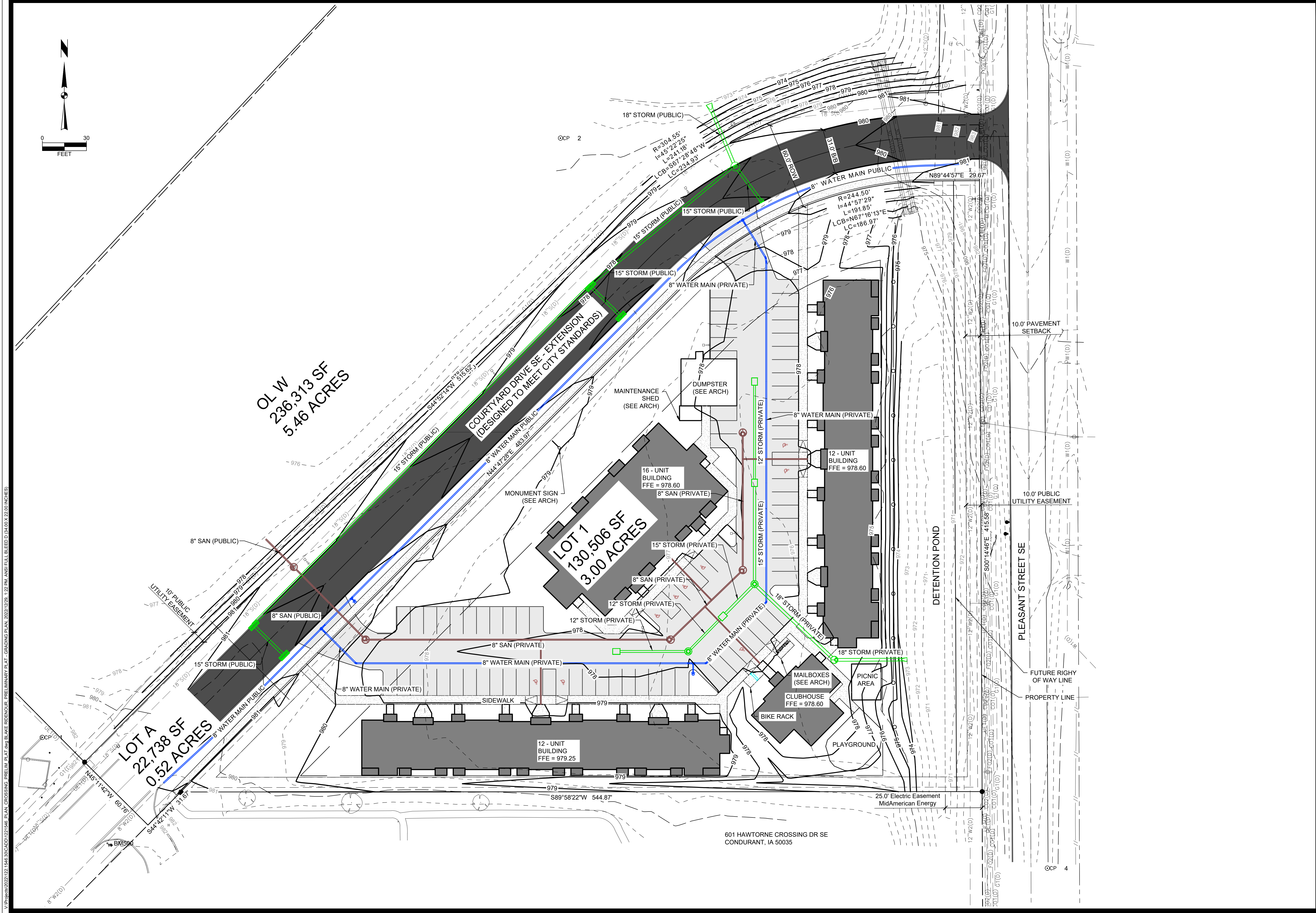
IN WITNESS WHEREOF, I have hereunto set my hand the day and year above written.

Maggie Murray, Planning & Community Development Director

Action	Yay	Nay	Abstain	Absent
Cameron				
Clayton				
Mains				
Keeran				
Cuellar				
Hoyer				
Brostrom				

Torey Cuellar, Commission Chair

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THE CROSSING

PRELIMINARY PLAT - GRADING PLAN

SNYDER & ASSOCIATES, INC. |



SNYDER & ASSOCIATES

Project No: 122.1546.30
Sheet C400

BONDURANT, POLK COUNTY, IOWA

2727 S.W. SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com

MARK

REVISION

DATE

BY

Engineer: BCA

Checked By: MLC

Scale: 1" = 30'

Technician: GCB

Date: 12-28-22

T-R-S: TTN-RRW-SS

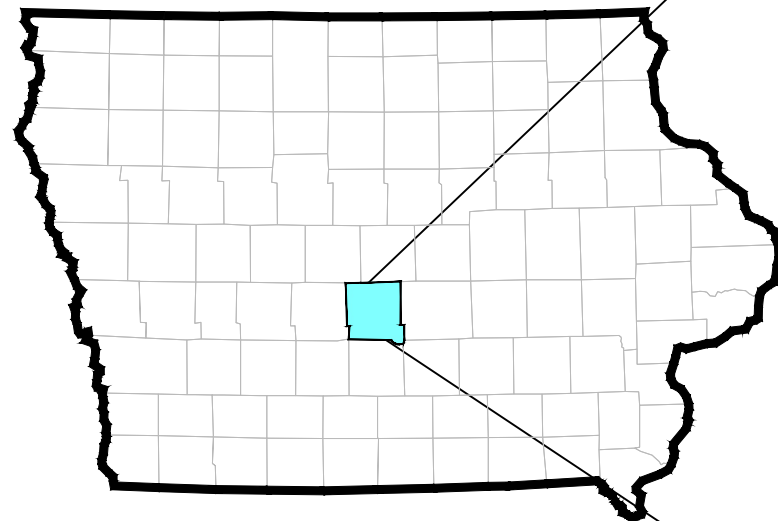
Sheet C400

Page 46 of 86

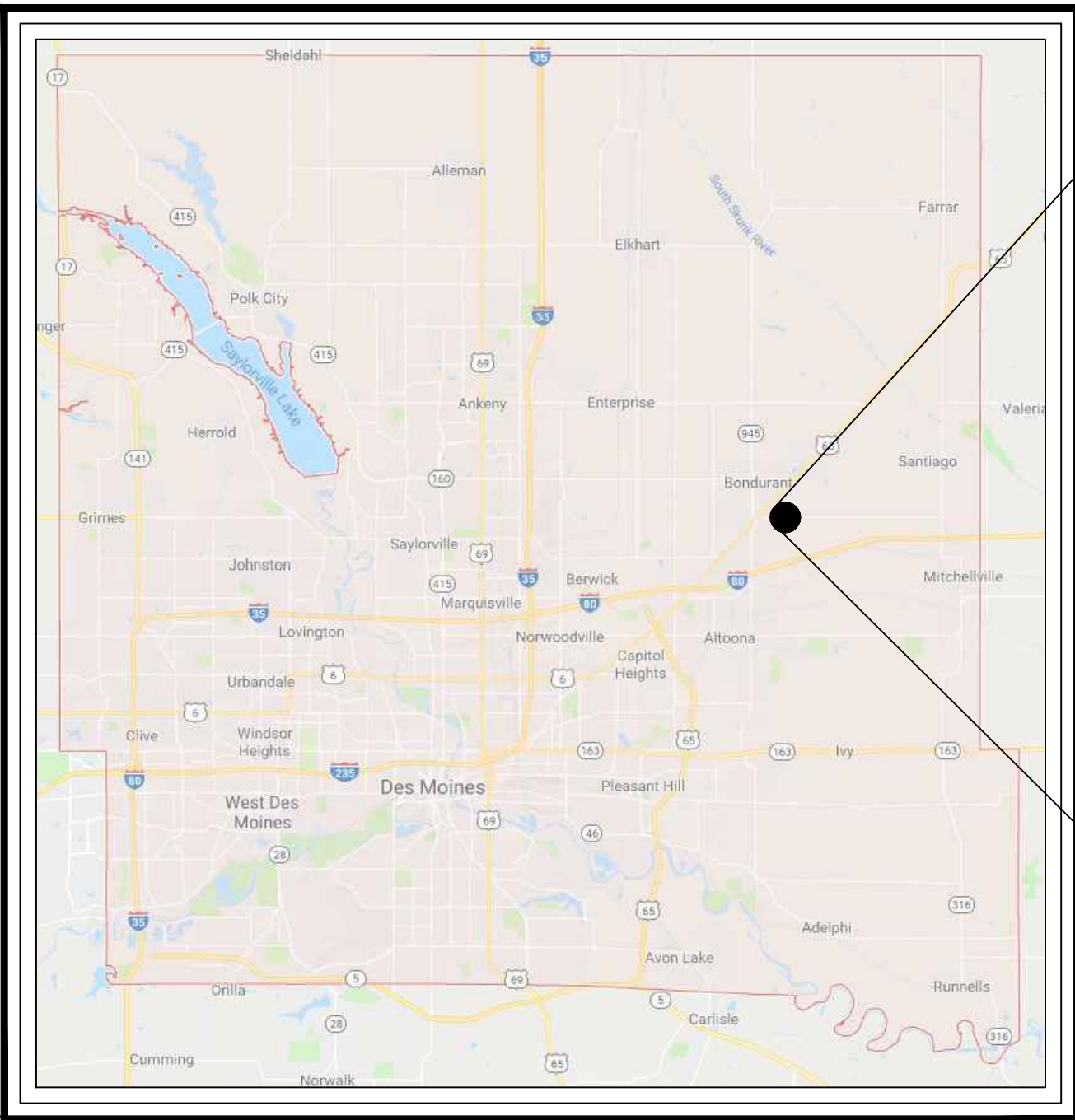
THE CROSSING - CITY OF BONDURANT

SITE PLAN

SECTION 31, TOWNSHIP 80N, RANGE 22W

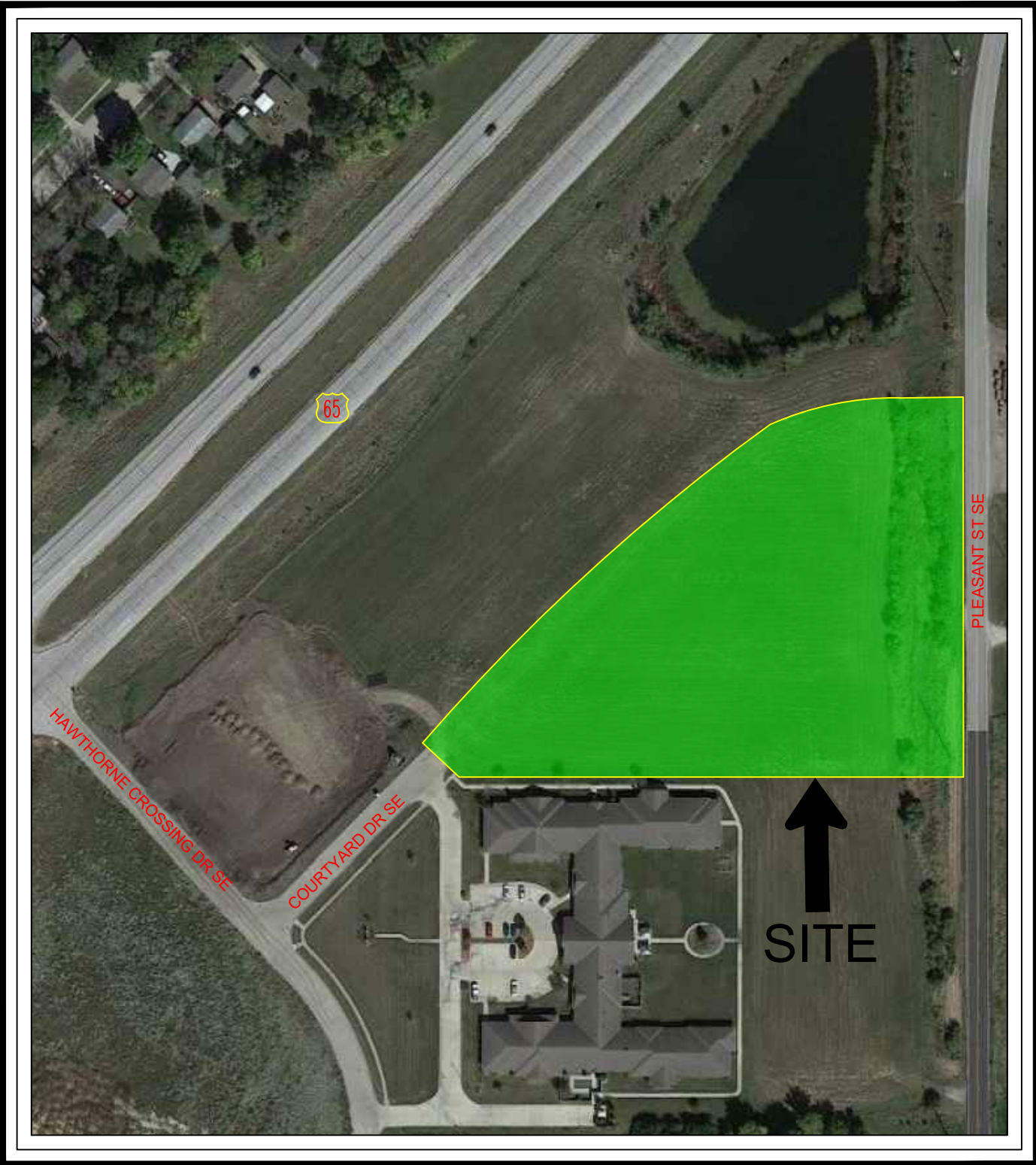


REGIONAL MAP



POLK COUNTY

POLK COUNTY, IOWA



SITE LOCATION MAP

CITY OF BONDURANT,
POLK COUNTY, IOWA

OWNER/APPLICANT
THE CROSSING DEVELOPMENT, LLC

Sheet List Table	
Sheet Number	Sheet Title
C 100	TITLE
C200	PROJECT INFORMATION
C300	OVERALL SITE LAYOUT
C301	DIMENSION PLAN
C302	UTILITY PLAN
C400	GRADING AND EROSION CONTROL PLAN
L 100	LANDSCAPE NOTES
L200	PLANTING PLAN
L201	PLANTING PLAN
L300	LANDSCAPE DETAILS

THE CROSSING

TITLE

BONDURANT, POLK COUNTY, IOWA

SNYDER & ASSOCIATES, INC. |



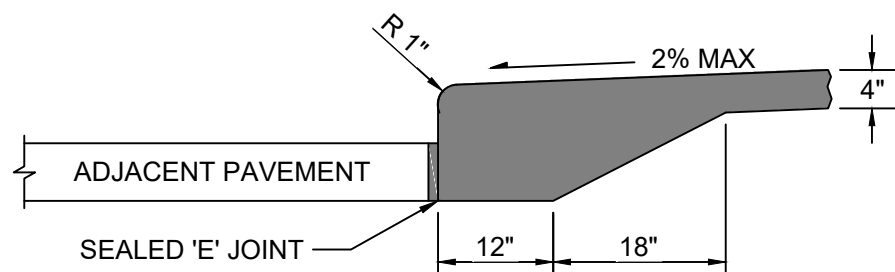
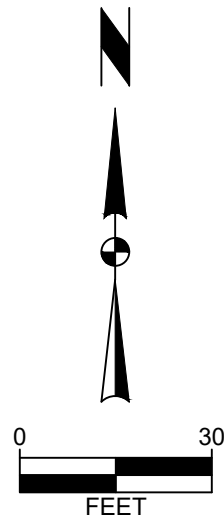
Project No: 122.1546.30

Sheet C 100

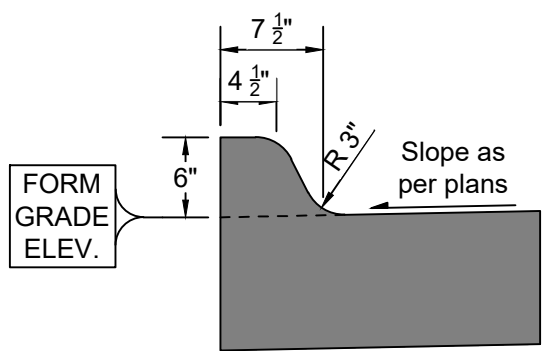
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Technician: GCB	Date: 12-28-2022	T-R-S: TTN-RRW-SS	
Project No: 122.1546.30		Sheet C 100	

2727 S.W. SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com

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1 INTEGRAL SIDEWALK AND CURB DETAIL
C300/ NO SCALE



2 6" STANDARD CURB
C300/ NO SCALE

LEGEND	
	BUILDINGS AND STOOPS
	PAVEMENT
	SIDEWALK

THE CROSSING

OVERALL SITE LAYOUT

BONDURANT, POLK COUNTY, IOWA

SNYDER & ASSOCIATES, INC.



Project No: 122.1546.30

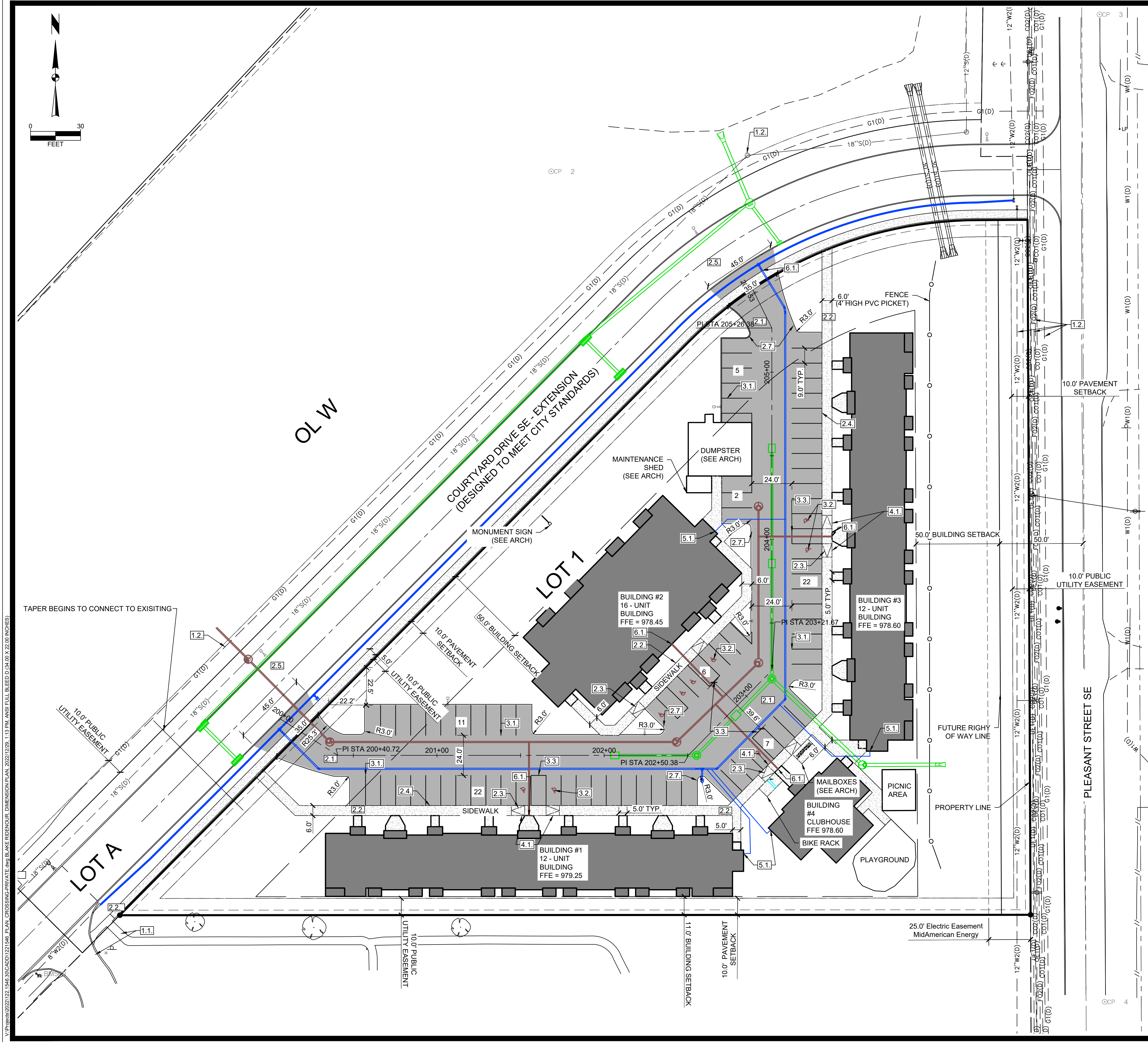
Sheet C300

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Technician: GCB	Date: 12-28-2022	T-R-S: TTN+RRW+SS	

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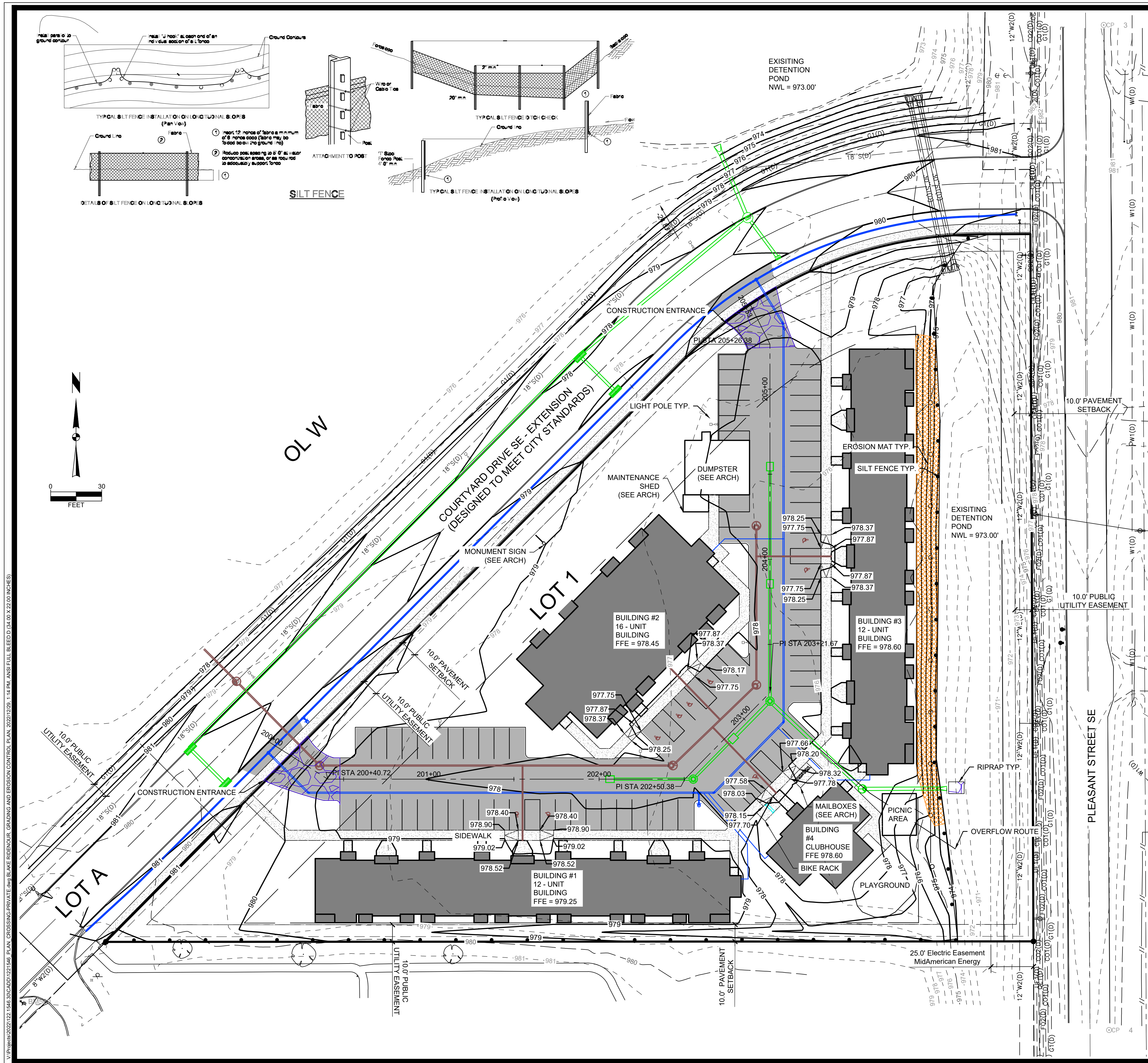
Sheet C300

Project No: 122.1546.30



- ### DIMENSION PLAN CONSTRUCTION NOTES
- EXISTING FEATURES PROTECT THE FOLLOWING:
 - A. PAVEMENTS TO REMAIN
 - PROTECT EXISTING UTILITIES
 - PAVEMENTS PROVIDE THE FOLLOWING :
 - PCC DRIVES AND PARKING, 6" DEPTH PAVEMENT WITH INTEGRAL CURB.
 - PCC SIDEWALKS, 4" DEPTH PAVEMENT.
 - PEDESTRIAN RAMP WITH A MAXIMUM SLOPE OF 8.33%. PROVIDE DETECTABLE WARNING SYSTEM AT RAMP WHERE SHOWN.
 - INTEGRAL SIDEWALK AND CURB. SEE DETAIL SHEET 3.
 - 7" DEPTH PAVEMENT WITH INTEGRAL CURB.
 - TRANSFORMER PAD. CONTRACTOR TO COORDINATE WITH
 - STANDARD 6" CURB.
 - PAVEMENT MARKINGS, PROVIDE THE FOLLOWING:
 - 4" WIDE PAINTED PARKING STALL LINES.
 - PAINTED STATE OF IOWA APPROVED ACCESSIBLE PARKING SYMBOL.
 - ACCESSIBLE AISLE. 45° STRIPING AT 3' ON CENTER SPACING WHERE SHOWN.
 - SIGNS, PROVIDE THE FOLLOWING:
 - PROVIDE VAN ACCESSIBLE PARKING SIGNAGE AS PER ADAAG REQUIREMENTS AND FINE AMOUNT OF \$100.
 - WATER SERVICES, PROVIDE THE FOLLOWING:
 - 6" WATER SERVICE LINE. THE SERVICE LINES TO THE CURB STOP ARE A PART OF THE CROSSING IMPROVEMENTS.
 - CONNECT TO BUILDING WATER SERVICE. VERIFY LOCATION, SIZE, AND ELEVATION WITH MECHANICAL PLANS PRIOR TO CONSTRUCTION.
 - SANITARY SEWER SERVICES, PROVIDE THE FOLLOWING:
 - 6" SANITARY SEWER SERVICE LINE AT MINIMUM 1/8TH INCH PER FOOT. CONNECT TO THE 6" SANITARY SEWER SERVICE INSTALLED AS PART OF THE CROSSING IMPROVEMENTS.
 - CONNECT TO BUILDING SANITARY SERVICE. VERIFY LOCATION, SIZE, AND ELEVATION WITH MECHANICAL PLANS PRIOR TO CONSTRUCTION.
 - SITE AMENITIES, PROVIDE THE FOLLOWING:
 - TRASH BIN LOCATION
 - DOWNSPOUT LOCATION. SPLASH PADS TO BE PLACED AT ALL DOWNSPOUT LOCATIONS.

THE CROSSING		BONDURANT, POLK COUNTY, IOWA		Sheet C301	
DIMENSION PLAN					
SNYDER & ASSOCIATES, INC.		2727 S.W. SNYDER BLVD ANKENY, IOWA 50023 515-964-2020 www.snyder-associates.com			
Project No: 122.1546.30		Sheet C301			



- | GRADING NOTES | |
|---------------|---|
| 1. | CONTRACTOR TO STRIP AND STOCKPILE TOPSOIL ON ALL AREAS TO BE CUT OR FILLED. RESPREAD TO MINIMUM 8" DEPTH TO FINISH GRADES. |
| 2. | ANY EXCESS CUT TO BE SPREAD ON SITE AS DIRECTED BY ENGINEER DURING CONSTRUCTION. PLACE TOPSOIL OVER ALL AREAS DISTURBED. |
| 3. | ALL DRAINAGE SWALES AND SLOPES 5 TO 1 OR GREATER TO BE SEEDED USING COMMERCIALY AVAILABLE EROSION CONTROL SEED. MIXTURE APPLIED AT RATE RECOMMENDED BY SUPPLIER. |
| 4. | EROSION CONTROL SEED THE SITE AFTER ROUGH GRADING HAS BEEN COMPLETED PLACE SILT FENCE AND MAINTAIN IN PROBLEM AREAS AFTER GROUND COVER HAS BEEN ESTABLISHED. COMPLY WITH EROSION CONTROL LAW. |
| 5. | PROVIDE BELOW GRADE INLET PROTECTION IN PAVED AREAS FOLLOWING PAVING OPERATIONS. |

[illegible]

THE CROSSING

GRADING AND EROSION CONTROL PLAN

SNYDER & ASSOCIATES, INC.



Project No: 122.1546.30

Sheet C400

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GENERAL LANDSCAPE NOTES

1. UTILITY WARNING: THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEY FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.
2. NOTIFY UTILITY OWNERS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR DETERMINING EXISTENCE, EXACT LOCATION AND DEPTH OF ALL UTILITIES. AVOID DAMAGE TO UTILITIES AND SERVICES DURING CONSTRUCTION. ANY DAMAGE DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. COORDINATE AND COOPERATE WITH UTILITY COMPANIES DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL FOLLOW THE LANDSCAPE PLANS AS CLOSELY AS POSSIBLE. ANY SUBSTITUTION OR ALTERATION SHALL NOT BE ALLOWED WITHOUT APPROVAL OF THE OWNER'S REPRESENTATIVE. OVERALL PLANT QUANTITY AND QUALITY SHALL BE CONSISTENT WITH THE PLANS.
4. ALL PLANT MATERIAL SHALL AT LEAST MEET MINIMUM REQUIREMENTS SHOWN IN THE "AMERICAN STANDARDS FOR NURSERY STOCK" (ANSI Z60.1-LATEST EDITION).
5. MULCH SHALL NOT BE PLACED AROUND THE COLLAR OF SHRUB OR TREE. PROVIDE A MINIMUM OF 2" BETWEEN MULCH AND COLLAR OF SHRUB OR TREE.
6. ALL PLANT MATERIAL SHALL BE GROWN IN ZONE CAPABLE OF WITHSTANDING LOCAL CLIMATE AND GROWING CONDITIONS.
7. TREE OR SHRUB SHALL STAND PLUMB. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACK FILLING.
8. LIVE PLANTS CAN BE PLANTED IN THE FIELD DURING THE GROWING SEASON FROM MAY 1 THROUGH OCTOBER 1. ANY SUGGESTED PLANTING TIMES NOT IN THIS WINDOW SHALL BE APPROVED BY LANDSCAPE ARCHITECT. IF PLANTING OCCURS OUTSIDE OF THIS WINDOW, ADDITIONAL MEASURES MAY NEED TO BE TAKEN (I.E. MULCH) TO ENSURE PLANT SURVIVAL. IN THESE INSTANCES, THE CONTRACT PRICE MAY NEED TO BE ADJUSTED ACCORDINGLY.
9. PLANTS SHOULD BE WATERED IN AFTER INSTALLATION TO ENSURE THEIR SURVIVAL. THIS TYPICALLY INVOLVES WATERING AT TIME OF INSTALLATION AND 2 TIMES WEEKLY FOR A ONE MONTH PERIOD OR UNTIL GROUND FREEZE UP IF NATURAL RAINFALLS ARE INSUFFICIENT. A SINGLE WATERING EVENT INVOLVES WATERING THE SOIL IN THE PLANTED AREAS TO THE POINT OF SATURATION BUT STOPPING SHORT OF SOIL DISPLACEMENT. SHOULD VERY DRY CONDITIONS DEVELOP WITHIN ONE YEAR OF PLANTING, ADDITIONAL WATERINGS MAY BE NECESSARY. CONSULTANT OR LANDSCAPE ARCHITECT WILL DETERMINE THIS AND CONTRACT PRICES MAY BE ADJUSTED TO ACCOMMODATE THIS ACTION.
10. ALL PLANT MATERIAL SHALL BE SPECIMEN QUALITY, HEALTHY, FREE OF DISEASE AND INSECTS AND SHALL HAVE HEALTHY, WELL-DEVELOPED ROOT SYSTEMS. PLANTS SHALL ALSO BE FREE FROM PHYSICAL DAMAGE OR OTHER CONDITIONS THAT WOULD PREVENT VIGOROUS GROWTH.
11. ALL PROPOSED PLANTS SHALL BE LOCATED AS SHOWN ON PLANS. ALL TREES TO BE PLANTED A MINIMUM DISTANCE OF 5 FEET FROM PAVEMENTS AND 6 FEET FROM ALL HYDRANTS.
12. CONTRACTOR IS RESPONSIBLE FOR PLANTS AWAITING INSTALLATION AND SHALL PROTECT THEM FROM INJURY AND THEFT.
13. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES. GRAPHIC QUANTITIES TAKES PRECEDENCE OVER WRITTEN QUANTITIES.
14. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO INSPECT AND TAG ALL PLANT MATERIAL PRIOR TO SHIPPING TO THE SITE. IN ALL CASES, THE OWNER'S REPRESENTATIVE MAY REJECT PLANT MATERIAL AT THE SITE IF MATERIAL IS DAMAGED, DISEASED, OR DECLINING IN HEALTH AT THE TIME OF ONSITE INSPECTIONS OR IF THE PLANT MATERIAL DOES NOT MEET THE MINIMUM SPECIFIED STANDARD IDENTIFIED ON THE PLANS. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVE FOR INSPECTION AND APPROVAL OF ALL MATERIALS AND PRODUCTS PRIOR TO INSTALLATION.
15. THE OWNER'S REPRESENTATIVE MAY ELECT TO UPSIZE PLANT MATERIAL AT THEIR DISCRETION BASED ON SELECTION, AVAILABILITY, OR TO ENHANCE SPECIFIC AREAS OF THE PROJECT. THE CONTRACTOR SHALL VERIFY PLANT MATERIAL SIZES WITH OWNER'S REPRESENTATIVE PRIOR TO PURCHASING, SHIPPING OR STOCKING OF PLANT MATERIALS. SUBMIT CHANGE ORDER REQUEST TO OWNER'S REPRESENTATIVE FOR APPROVAL IF ADDITIONAL COST IS REQUESTED BY THE CONTRACTOR PRIOR TO INSTALLATION. RE-STOCKING CHARGES WILL NOT BE APPROVED IF THE CONTRACTOR FAILS TO SUBMIT A REQUEST FOR MATERIAL CHANGES.
16. THE CONTRACTOR SHALL WARRANTY ALL CONTRACTED WORK AND MATERIALS FOR A PERIOD OF ONE YEAR AFTER SUBSTANTIAL COMPLETION HAS BEEN ISSUED BY THE OWNER'S REPRESENTATIVE FOR THE ENTIRE PROJECT UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.
17. LANDSCAPE MATERIAL LOCATIONS SHALL HAVE PRECEDENCE OVER IRRIGATION MAINLINE AND LATERAL LOCATIONS. IF IRRIGATION IS INCLUDED, COORDINATE INSTALLATION OF IRRIGATION EQUIPMENT SO THAT IT DOES NOT INTERFERE WITH THE PLANTING OF TREES OR OTHER LANDSCAPE MATERIAL.
18. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING POSITIVE DRAINAGE EXISTS IN ALL LANDSCAPE AREAS. SURFACE DRAINAGE ON LANDSCAPE AREAS SHALL NOT FLOW TOWARD STRUCTURES AND FOUNDATIONS. MAINTAIN SLOPE AWAY FROM FOUNDATIONS PER THE GEOTECHNICAL REPORT RECOMMENDATIONS. ALL LANDSCAPE AREAS BETWEEN WALKS AND CURBS SHALL DRAIN FREELY TO THE CURB UNLESS OTHERWISE IDENTIFIED ON THE GRADING PLAN. IN NO CASE SHALL THE GRADE, TURF THATCH, OR OTHER LANDSCAPE MATERIALS DAM WATER AGAINST WALKS. MINIMUM SLOPES ON LANDSCAPE AREAS SHALL BE 2%; MAXIMUM SLOPE SHALL BE 25% UNLESS SPECIFICALLY IDENTIFIED ON THE PLANS OR APPROVED BY THE OWNER'S REPRESENTATIVE.

19. PRIOR TO INSTALLATION OF PLANT MATERIALS, AREAS THAT HAVE BEEN COMPACTED OR DISTURBED BY CONSTRUCTION ACTIVITY SHALL BE THOROUGHLY LOOSENEED TO A DEPTH OF 8" - 12".
20. ALL LANDSCAPED AREAS ARE TO RECEIVE ORGANIC SOIL PREPARATION PER RATE IDENTIFIED BY A SOIL TEST.
21. TREES SHALL NOT BE LOCATED IN DRAINAGE SWALES, DRAINAGE AREAS, OR UTILITY EASEMENTS. CONTACT OWNER'S REPRESENTATIVE FOR RELOCATION OF PLANTS IN QUESTIONABLE AREAS PRIOR TO INSTALLATION.
22. THE CENTER OF EVERGREEN TREES SHALL NOT BE PLACED CLOSER THAN 8' AND THE CENTER OF ORNAMENTAL TREES CLOSER THAN 6' FROM A SIDEWALK, STREET OR DRIVE LANE. EVERGREEN TREES SHALL NOT BE LOCATED ANY CLOSER THAN 15' FROM IRRIGATION ROTOR HEADS. NOTIFY OWNER'S REPRESENTATIVE IF TREE LOCATIONS CONFLICT WITH THESE STANDARDS FOR FURTHER DIRECTION.
23. ALL EVERGREEN TREES SHALL BE FULLY BRANCHED TO THE GROUND AND SHALL NOT EXHIBIT SIGNS OF ACCELERATED GROWTH AS DETERMINED BY THE OWNER'S REPRESENTATIVE.
24. ALL TREES ARE TO BE STAKED AND GUYED PER DETAILS FOR A PERIOD OF 1 YEAR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING STAKES AT THE END OF 1 YEAR FROM ACCEPTANCE OF LANDSCAPE INSTALLATION BY THE OWNER'S REPRESENTATIVE. OBTAIN APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO REMOVAL.
25. ALL TREES INSTALLED ABOVE RETAINING WALLS UTILIZING GEO-GRID MUST BE HAND DUG TO PROTECT GEO-GRID. IF GEO-GRID MUST BE CUT TO INSTALL TREES, APPROVAL MUST BE GIVEN BY OWNER'S REPRESENTATIVE PRIOR TO DOING WORK.
26. ALL TREES IN SEED OR TURF AREAS SHALL RECEIVE MULCH RINGS. OBTAIN APPROVAL FROM OWNER'S REPRESENTATIVE FOR ANY TREES THAT WILL NOT BE MULCHED FOR EXCESSIVE MOISTURE REASONS.
27. EXISTING TURF AREAS THAT ARE DISTURBED DURING CONSTRUCTION, ESTABLISHMENT AND THE MAINTENANCE PERIOD SHALL BE RESTORED WITH NEW SOD TO MATCH EXISTING TURF SPECIES. DISTURBED NATIVE AREAS WHICH ARE TO REMAIN SHALL BE OVER SEEDED AND RESTORED WITH SPECIFIED SEED MIX.
28. WHEN COMPLETE, ALL GRADES SHALL BE WITHIN +/- 1/8" OF FINISHED GRADES AS SHOWN ON THE PLANS.
29. WHEN PLANTER POTS ARE SHOWN ON PLANS, CONTRACTOR SHALL INCLUDE THE FOLLOWING: PLANTER MIX, ANNUAL FLOWER PLANTING PROGRAM (INCLUDES 2 PLANTINGS FOR THE 1ST YEAR (SPRING AND FALL) AND WINTER HAND-WATERING AS NEEDED. UNLESS OTHERWISE SPECIFIED, CONTRACTOR TO PROVIDE ANNUAL PLANTING SELECTION FOR REVIEW BY OWNER. IRRIGATION FOR PLANTERS TO BE ON SEPARATE ZONE(S). CONTRACTOR TO COORDINATE PLACEMENT OF NECESSARY SLEEVEING PRIOR TO PLACEMENT OF PAVEMENT.
30. PRIOR TO THE PLACEMENT OF MULCH AND WEED FABRIC, A GRANULAR, PRE-EMERGENT, WEED CONTROL AGENT SHALL BE ADDED TO ALL PLANTING BEDS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTION, EXCEPT AROUND ORNAMENTAL GRASSES.
31. THE CONTRACTOR IS EXPECTED TO KNOW AND UNDERSTAND THE CITY AND COUNTY SPECIFICATIONS FOR LANDSCAPE AND IRRIGATION. IN CASES OF DISCREPANCIES THE HIGHER OF THE TWO STANDARDS SHALL HAVE PRECEDENCE.
32. ALL TREES PLANTED WITHIN RIGHT-OF-WAY WILL INCLUDE CITY APPROVED ROOT BARRIERS.

LANDSCAPE REGULATIONS

OPEN SPACE REQUIREMENTS:
113,557 SF X 20% MIN. OPEN SPACE = 22,712 SF

PROVIDED: 47,225 SF

TREE LANDSCAPE REQUIREMENTS:
1 TREE PER 50 FEET OF FRONTAGE OR 1 TREE PER 6 PARKING SPACES (WHICHEVER IS GREATER)

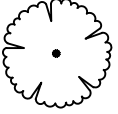
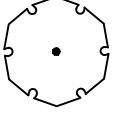
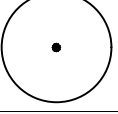
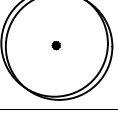
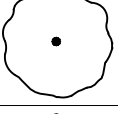
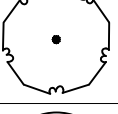
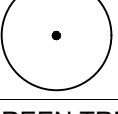
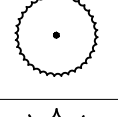
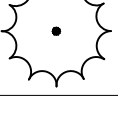
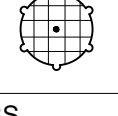
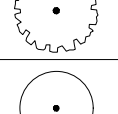
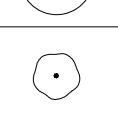
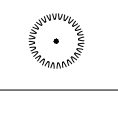
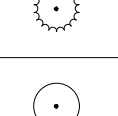
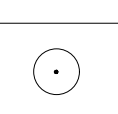
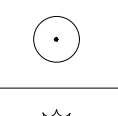
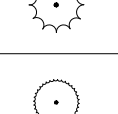
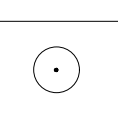
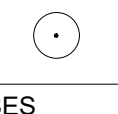
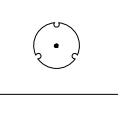
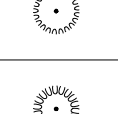
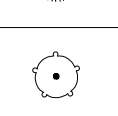
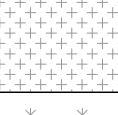
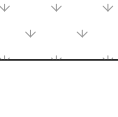
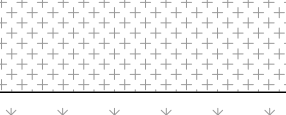
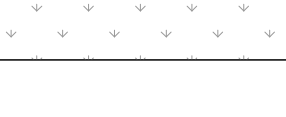
1,065 LF / 50 = 22 TREES (USED TO MEET REQUIREMENT)
OR
75 STALLS / 6 = 13 TREES

PROVIDED: 23 TREES

PARKING LOT REQUIREMENTS:
1 TREE FOR EVERY 18 PARKING SPACES.
75 STALLS / 18 = 5 TREES

PROVIDED: 7 TREES

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
	BN	4	Betula nigra	River Birch Multi-Trunk	1.75" Cal.	B&B
	CB	3	Catalpa bignonioides	Southern Catalpa	1.75" Cal.	B&B
	CO	3	Celtis occidentalis	Common Hackberry	1.75" Cal.	B&B
	GB	3	Ginkgo biloba	Maidenhair Tree	1.75" Cal.	B&B
	GS	2	Gleditsia triacanthos inermis 'Shademaster'	Shademaster Honey Locust	1.75" Cal.	B&B
	GD2	5	Gymnocladus dioica 'Espresso'	Kentucky Coffeetree	1.75" Cal.	B&B
	QB	7	Quercus bicolor	Swamp White Oak	1.75" Cal.	B&B
EVERGREEN TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
	JS	5	Juniperus scopulorum 'Skyrocket'	Skyrocket Juniper	5' Ht.	B&B
	PP	3	Picea pungens 'Fat Albert'	Fat Albert Colorado Spruce	5' Ht.	B&B
	TT	6	Thuja occidentalis 'Techny'	Techny Arborvitae	5' Ht.	B&B
SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
	AG2	2	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Apple Serviceberry	#7	Pot
	CS	1	Cornus alba 'Sibirica'	Redbark Dogwood	3 gal.	Pot
	CF	4	Cornus sericea 'Farrow' TM	Arctic Fire Red Twig Dogwood	3 gal.	Pot
	JH2	19	Juniperus horizontalis	Creeping Juniper	3 gal.	Pot
	JB	9	Juniperus horizontalis 'Blue Chip'	Blue Chip Juniper	3 gal.	Pot
	PL	18	Perovskia atriplicifolia 'Little Spire'	Little Spire Russian Sage	3 gal.	Pot
	PO	18	Physocarpus opulifolius 'Donna May' TM	Little Devil Dwarf Ninebark	3 gal.	Pot
	PK	5	Physocarpus opulifolius 'UMNHarpell' TM	Fireside Ninebark	3 gal.	Pot
	PP2	11	Pinus mugo 'Pumilio'	Dwarf Mugo Pine	3 gal.	Pot
	PW	13	Pinus mugo 'White Bud'	White Bud Mugo Pine	3 gal.	Pot
	SB	44	Spiraea betulifolia 'Tor Gold' TM	Glow Girl Birchleaf Spirea	3 gal.	Pot
	VC	3	Viburnum carlesii	Koreanspice Viburnum	3 gal.	Pot
GRASSES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
	AS	39	Andropogon scoparius	Little Bluestem	1 gal.	Pot
	CK	12	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	1 gal.	Pot
	PS	47	Panicum virgatum 'Shenandoah'	Shenandoah Switch Grass	1 gal.	Pot
	SP	100	Sporobolus heterolepis	Prairie Dropseed	1 gal.	Pot
GROUND COVERS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
	TD	38,278 sf	Turf Seed Drought Tolerant Dwarf Fescue Blend	Turf Seed	seed	
	TS	6,478 sf	Turf Sod	Drought Tolerant Fescue Blend	---	

THE CROSSING

LANDSCAPE NOTES

BONDURANT, POLK COUNTY, IOWA

SNYDER & ASSOCIATES, INC. |



Project No: 122.1546.30

Sheet L100

2727 S.W. SNYDER BLVD
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Sheet L100

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SNYDER & ASSOCIATES, INC. |



Project No: 122.1546.30

Sheet L100



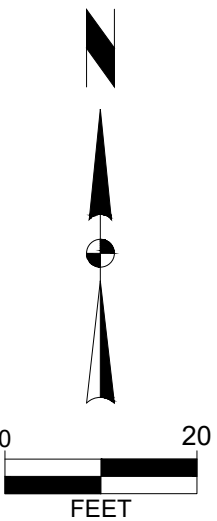
SOD

TURF SEED

WOOD MULCH: PROVIDE 3" DEPTH SHREDDED HARDWOOD MULCH AROUND ALL STAND-ALONE TREES TO A MIN. 3-FOOT PERIMETER, AND IN ALL AREAS NOTED ON PLANS OVER GEOTEXTILE WEED CONTROL FABRIC. MULCHED LANDSCAPE BEDS SHALL HAVE A METAL EDGE WHEN PERIMETER IS NOT CONCRETE CURB. NO WEED FABRIC AT GROUND COVER OR PERENNIAL PLANTS.

METAL LANDSCAPE EDGER, RE: DETAIL 3/L300

LANDSCAPE BOULDERS, RE: DETAIL 4/L300



Scale: 1" = 20'

T-R-S: TTN-HRW-SS

Sheet L200

Project No: 122.1546.30

MARK	REVISION	DATE	BY
Engineer: BCA	Checked By: MLC		
Technician: GCB	Date: 12-28-2022		

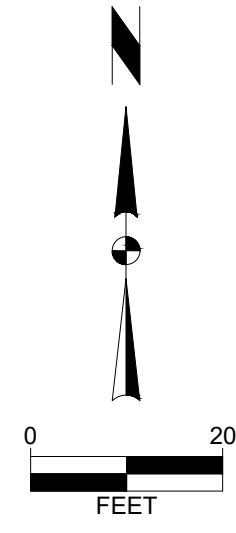
THE CROSSING

PLANTING PLAN



Project No:	122.1546.30
Sheet	L200

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GRASSES	COMMON NAME
AS	Little Bluestem
CK	Karl Foerster Feather Reed Grass
PS	Shenandoah Switch Grass
SP	Prairie Dropseed

Turf Seed

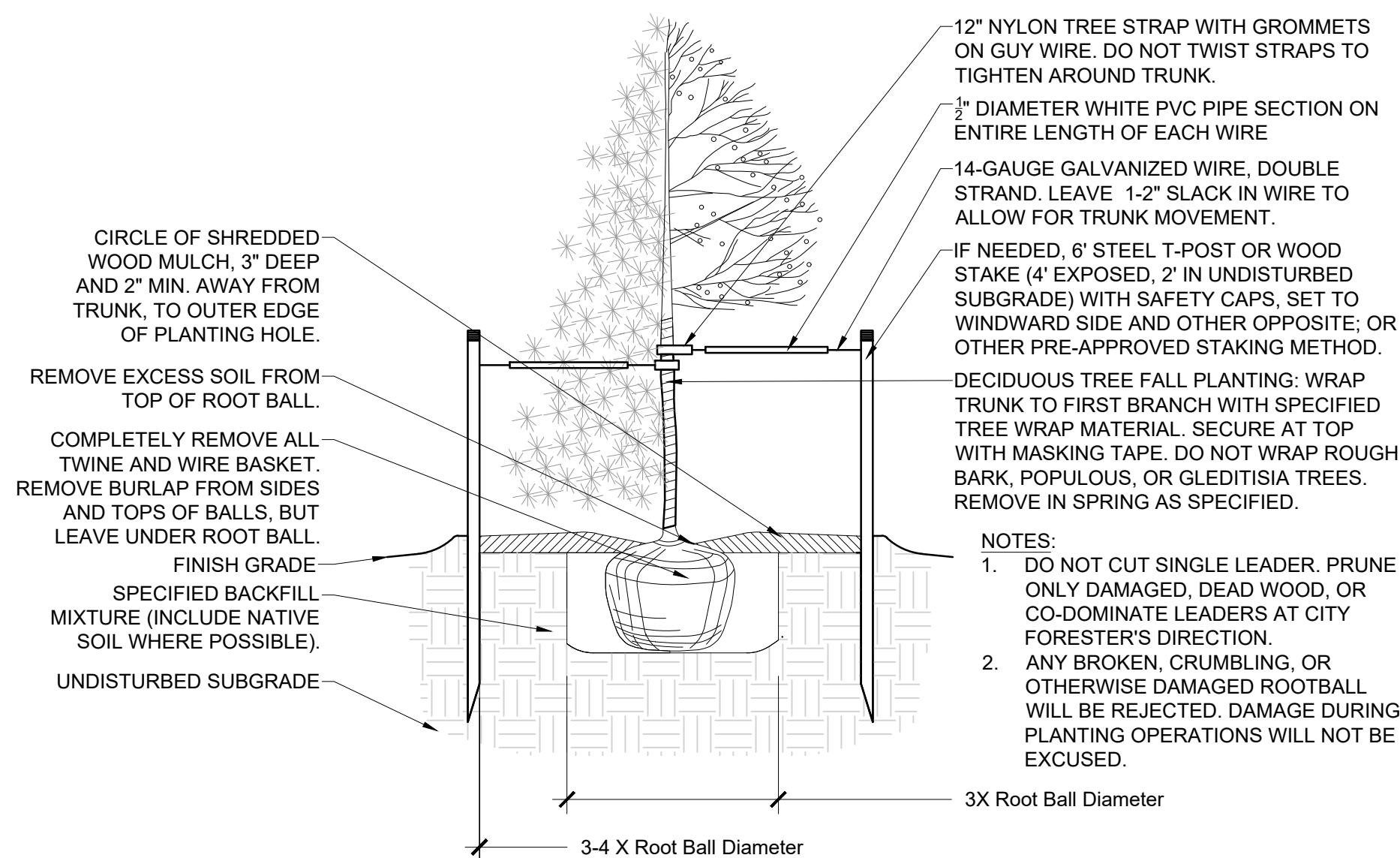
WOOD MULCH: PROVIDE 3" DEPTH SHREDDED HARDWOOD MULCH AROUND ALL STAND-ALONE TREES TO A MIN. 3-FOOT PERIMETER, AND IN ALL AREAS NOTED ON PLANS OVER GEOTEXTILE WEED CONTROL FABRIC. MULCHED LANDSCAPE BEDS SHALL HAVE A METAL EDGE WHEN PERIMETER IS NOT CONCRETE CURB. NO WEED FABRIC AT GROUND COVER OR PERENNIAL PLANTS.

METAL LANDSCAPE EDGER, RE: DETAIL 3/L300

LANDSCAPE BOULDERS, RE: DETAIL 4/L300

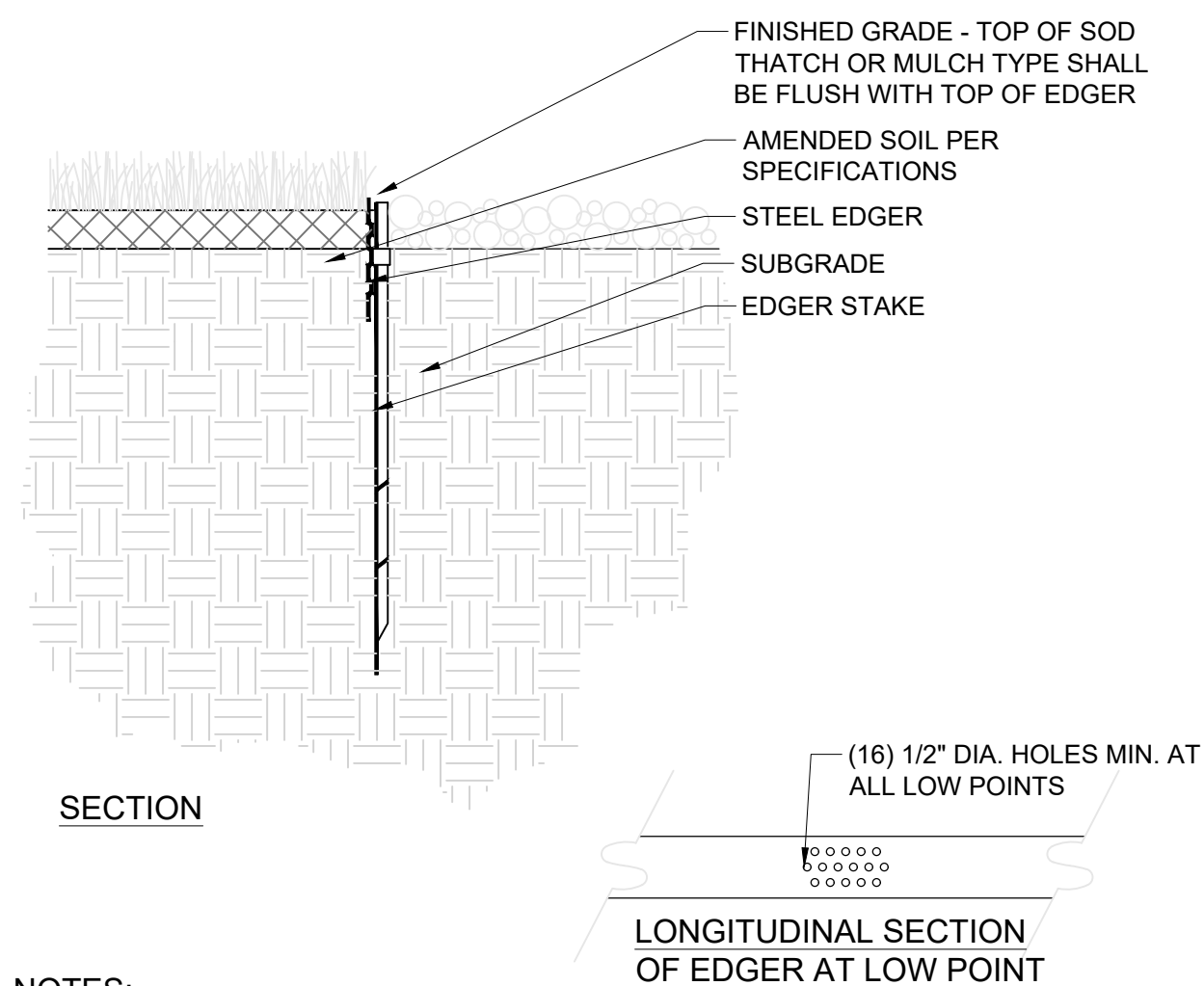


SNYDER
& ASSOCIATES



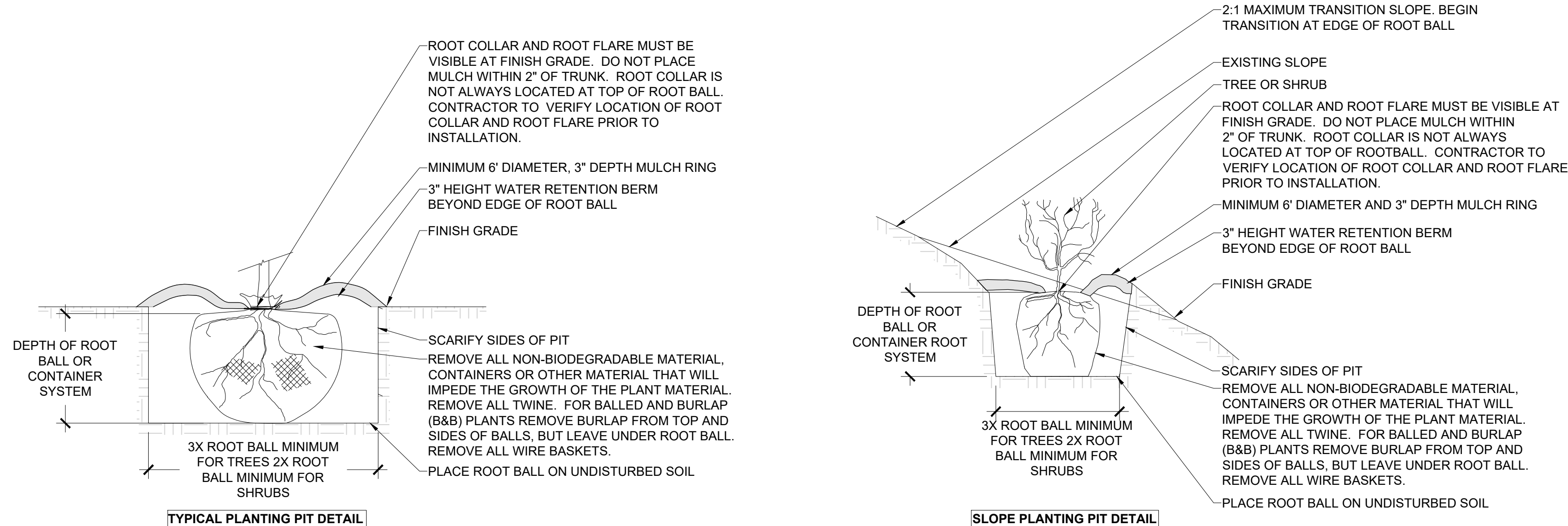
1 TREE PLANTING

SCALE: 1/2" = 1'-0'



3 STEEL EDGER

SCALE: 1" = 1'-0'



BOULDER - FREE STANDING

SCALE: 3/4" = 1'-0"

The Crossing
Bondurant, Iowa

Lighting Construction Notes:

1. Provide traffic control in accordance with the MUTCD. Submit a Lane Closure, Layout, and Traffic Control Plan to the City of Bondurant Public Works Department at least 48 hours prior to closing any traffic lanes.
2. Contact the City of Bondurant Public Works Department at least 48 hours prior to starting any utility work for City sanitary and storm locate information.
3. Construction to be in compliance with City of Bondurant Guidelines for Public Improvements.

Standard Specifications for Utility Placement,

General

1. Maintain six feet (6') of clearance from back of curb.
2. Do not place beneath sidewalk or trails except to cross.

Sewers

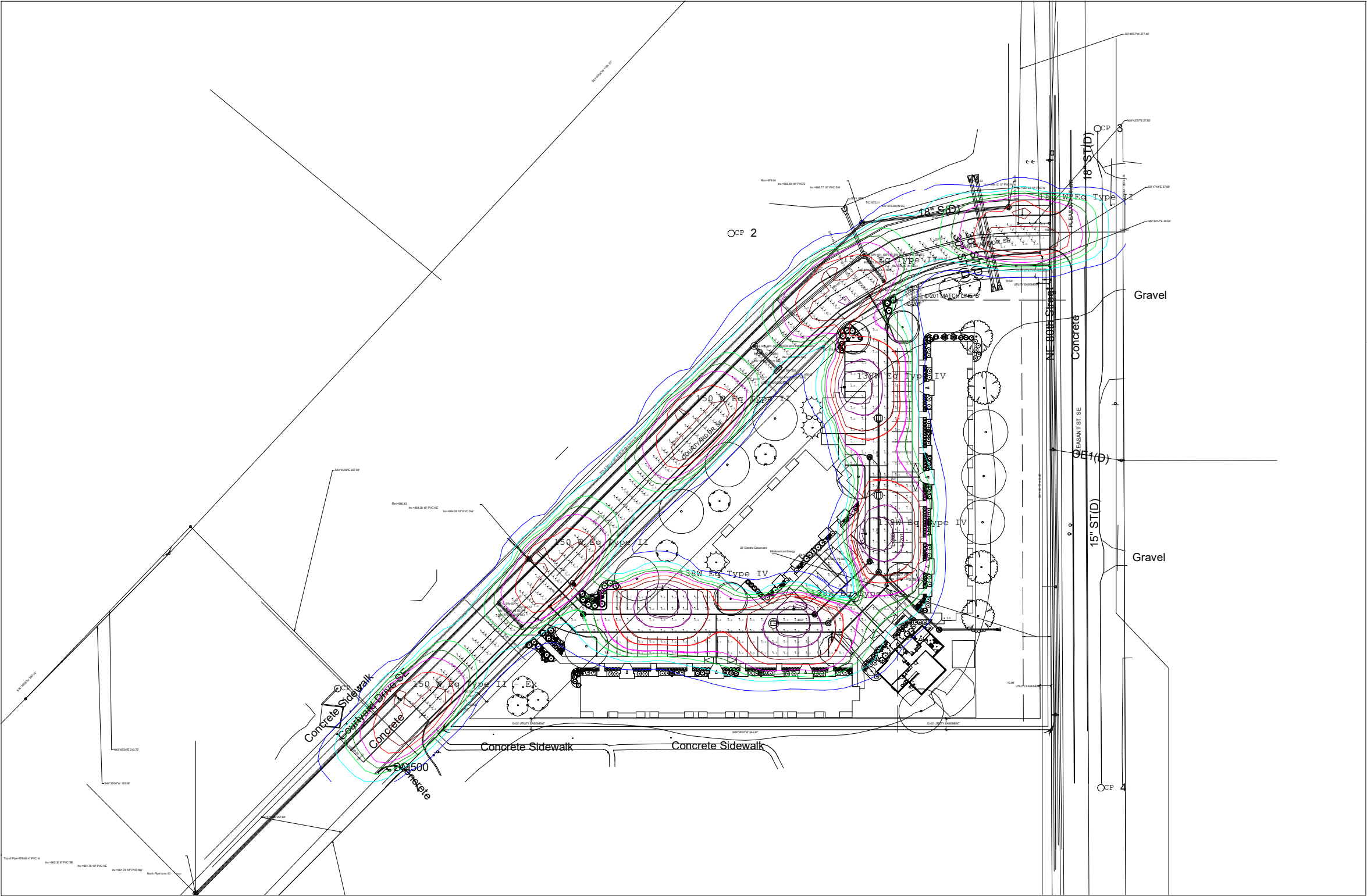
- 3a. Maintain five foot (5') of horizontal clearance from storm sewer pipes and structures.
- 3b. Maintain five feet (5') of horizontal clearance from sanitary sewer pipes and structures.
- 3c. Cross both storm and sanitary sewers at an angle of 90 degrees wherever possible.

Water

- 4a. Maintain five feet (5') of horizontal clearance from water mains.
- 4b. Do not cross above a fire hydrant branch within four feet (4') of a hydrant.
- 4c. Maintain eighteen inches (18") of horizontal clearance behind hydrants.
- 4d. Cross water mains at an angle of 90 degrees wherever possible.

Traffic

- 5a. Maintain five feet (5') of horizontal clearance from signal poles and traffic cabinets. Do not exceed 5 feet (5') deep within 10 feet.
- 5b. Maintain one foot (1') vertical clearance from signal conduit.
- 5c. Maintain two feet (2') horizontal clearance from fiber and interconnect lines and two feet (2') vertical clearance when crossing.
- 5d. Maintain one foot (1') horizontal clearance from handholes.
- 5e. Cross fiber optic and interconnect lines at an angle of 90 degrees wherever possible.



Scale: 1 inch= 100 Ft. Snyder & Associates, Inc. #122.1546.30 12-20-2022

Isoline Legend

Value (Fc)	Color	Value (Fc)	Color	Value (Fc)	Color
0.01	Black	0.4	Green	1.5	Purple
0.1	Blue	0.5	Magenta	2	Dark Purple
0.2	Cyan	0.75	Red		
0.3	Bright Green	1	Brown		

Assumptions:

- Proposed LED 150W Equivalent, Type II Distribution
- Cooper Lighting Solutions Type - 323-332797
- 6' Luminaire Arm. Offset from back of curb equal to arm length unless utility conflicts
- 4 Proposed Type II Fixture Locations, 30' mounting height
- 1 Existing Type II Fixture Locations, 30' mounting height

- Proposed LED 138W, Type IV Distribution
- Lithonia Lighting Type - DSX1 LED
- 33" Luminaire Arm.
- 4 Proposed Type IV Fixture Locations, 25' mounting height

Illumination Calculation Summary					
Label	Units	Avg	Max	Min	Avg/Min
Courtyard Dr SE	Fc	0.74	1.7	0.2	3.70
Parking Lot	Fc	1.02	2.8	0.1	10.20



D-Series Size 1

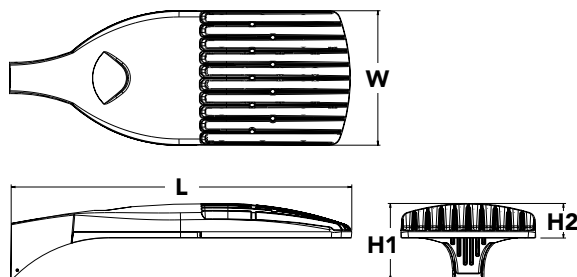
LED Area Luminaire

d#series



Specifications

EPA:	1.01 ft ² (0.09 m ²)
Length:	33" (83.8 cm)
Width:	13" (33.0 cm)
Height H1:	7-1/2" (19.0 cm)
Height H2:	3-1/2"
Weight (max):	27 lbs (12.2 kg)



Catalog

Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 750W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: DSX1 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX1 LED							
Series	LEDs	Color temperature		Distribution		Voltage	Mounting
DSX1 LED	Forward optics	30K	3000 K	T1S	Type I short (Automotive)	T5VS	Type V very short ²
	P1 P4 P7	40K	4000 K	T2S	Type II short	T5S	Type V short ²
	P2 P5 P8	50K	5000 K	T2M	Type II medium	T5M	Type V medium ²
	P3 P6 P9			T3S	Type III short	T5W	Type V wide ²
	Rotated optics			T3M	Type III medium	BLC	Backlight control ³
	P10 ¹ P12 ¹			T4M	Type IV medium	LCCO	Left corner cutoff ³
	P11 ¹ P13 ¹			TFTM	Forward throw medium	RCCO	Right corner cutoff ³
Control options						Other options	
Shipped installed						Shipped installed	
NLTAIR2	nLight AIR generation 2 enabled ⁸			PIR	High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc ^{16,17}	HS	House-side shield ¹⁸
PIRHN	Network, high/low motion/ambient sensor ⁹			PIRH	High/low, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc ^{16,17}	SF	Single fuse (120, 277, 347V) ⁵
PER	NEMA twist-lock receptacle only (controls ordered separate) ¹⁰			PIR1FC3V	High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc ^{16,17}	DF	Double fuse (208, 240, 480V) ⁵
PER5	Five-pin receptacle only (controls ordered separate) ^{10,11}			PIRH1FC3V	Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc ^{16,17}	L90	Left rotated optics ¹
PER7	Seven-pin receptacle only (controls ordered separate) ^{10,11}			FAO	Field adjustable output ¹⁵	R90	Right rotated optics ¹
DMG	0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) ¹³					Shipped separately	
DS	Dual switching ^{13,14,15}					BS	Bird spikes ¹⁹
						EGS	External glare shield
						Finish (required)	
						DDBXD	
						DBLXD	
						DNAXD	
						DWHXD	
						DDBTXD	
						DBLBXD	
						DNATXD	
						DWHGXD	

Ordering Information

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) ²⁰
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) ²⁰
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) ²⁰
DSHORT SBK U	Shorting cap ²⁰
DSX1HS 30C U	House-side shield for P1, P2, P3, P4 and P5 ¹⁸
DSX1HS 40C U	House-side shield for P6 and P7 ¹⁸
DSX1HS 60C U	House-side shield for P8, P9, P10, P11 and P12 ¹⁸
PUMBA DDBXD U*	Square and round pole universal mounting bracket (specify finish) ²¹
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) ⁷
DSX1EGS (FINISH) U	External glare shield

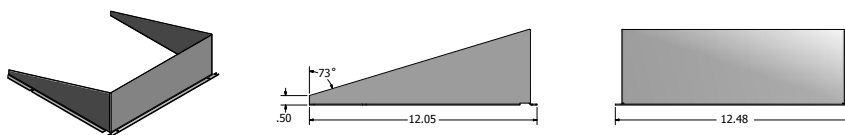
For more control options, visit [DTL](#) and [ROAM](#) online.

NOTES

- P10, P11, P12 or P13 and rotated optics (L90, R90) only available together.
- Any Type 5 distribution with photocell, is not available with WBA.
- Not available with HS.
- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
- Universal mounting brackets intended for retrofit on existing, pre-drilled poles only. 1.5 G vibration load rating per ANCI C136.31.
- Must order fixture with SPA option. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" mast arm (not included).
- Must be ordered with PIRHN. Sensor cover available only in dark bronze, black, white and natural aluminum colors.
- Must be ordered with NLTAR2. For more information on nLight Air 2 visit [this link](#).
- Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Not available with DS option. Shorting cap included.
- If ROAM[®] node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Node with integral dimming.
- DMG not available with PIRHN, PER5, PER7, PIR, PIRH, PIR1FC3V or PIRH1FC3V.
- Provides 50/50 fixture operation via (2) independent drivers. Not available with PER, PER5, PER7, PIR or PIRH. Not available P1, P2, P3, P4 or P5.
- Requires (2) separately switched circuits with isolated neutral. See Outdoor Control Technical Guide for details.
- Reference Motion Sensor table on page 4.
- Reference controls options table on page 4 to see functionality.
- Not available with other dimming controls options
- Not available with BLC, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
- Must be ordered with fixture for factory pre-drilling.
- Requires luminaire to be specified with PER, PER5 or PER7 option. See PER Table on page 3.
- For retrofit use only.

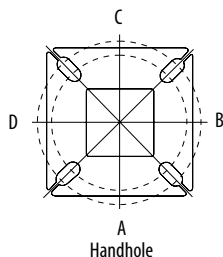
Options

EGS - External Glare Shield



Drilling

HANDHOLE ORIENTATION



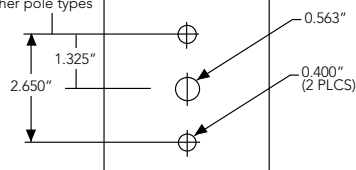
Tenon Mounting Slipfitter**

Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @ 120	3 @ 90	4 @ 90
2-3/8"	SPA/RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 320	AS3-5 390	AS3-5 490
	SPUMBA	AS3-5 190	AS3-5 280	AS4-5 290	AS3-5 320	AS4-5 390	AS4-5 490
	RUPUMBA	AS3-5 190	AS3-5 280		AS3-5 320		
2-7/8"	SPA/RPA	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
	SPUMBA	AST25-190	AST25-280		AST25-320		
	RUPUMBA	AST25-190	AST25-280		AST25-320		
4"	SPA/RPA	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490
	SPUMBA	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490
	RUPUMBA	AST35-190	AST35-280		AST35-320		

Template #8

Top of Pole

1.75" for aluminum poles
2.75" for other pole types



Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS

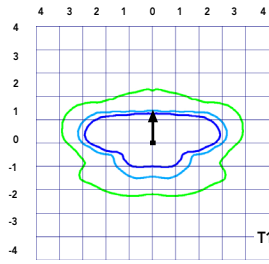
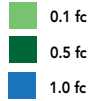
	Drilling Template	Minimum Acceptable Outside Pole Dimension					
SPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
RPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
SPUMBA	#5	2-7/8"	3"	4"	4"	3.5"	4"
RUPUMBA	#5	2-7/8"	3.5"	5"	5"	3.5"	5"

Photometric Diagrams

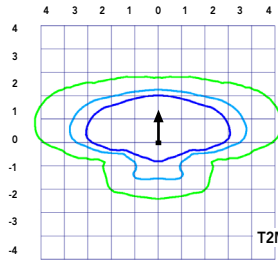
To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's [D-Series Area Size 1 homepage](#).

Isofootcandle plots for the DSX1 LED 60C 1000 40K. Distances are in units of mounting height (25').

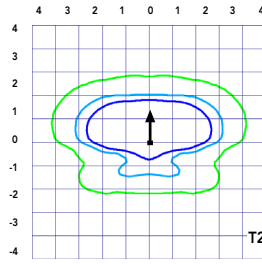
LEGEND



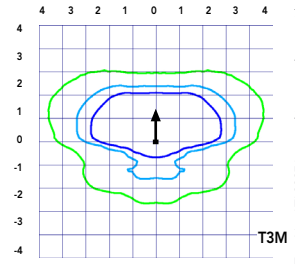
Test No. LTL23211 tested in accordance with IESNA LM-79-08.



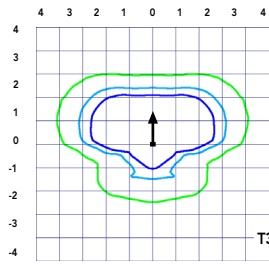
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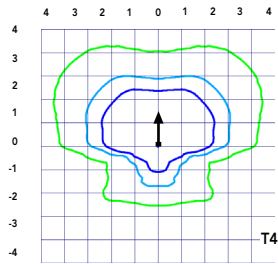
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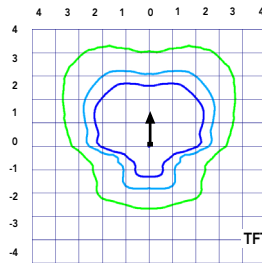
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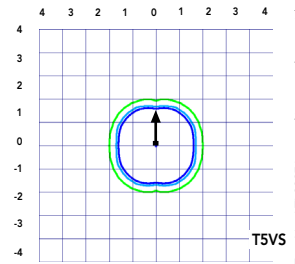
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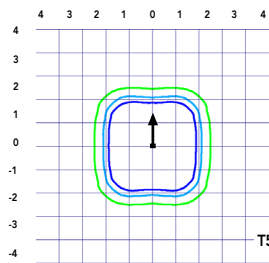
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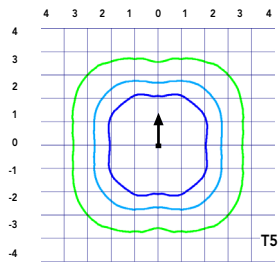
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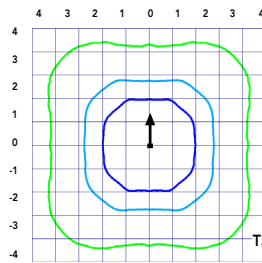
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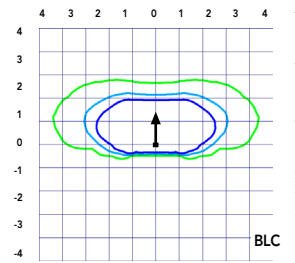
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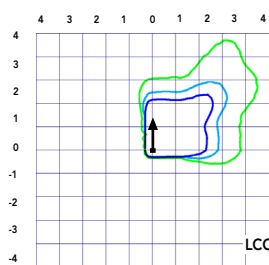
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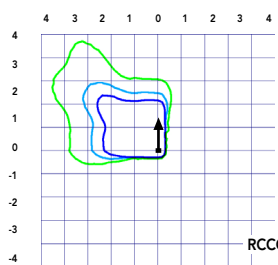
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Test No. LTL23271 tested in accordance with IESNA LM-79-08.



Test No. LTL23211 tested in accordance with IESNA LM-79-08.



Test No. LTL23164B tested in accordance with IESNA LM-79-08.

Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
5°C	41°F	1.04
10°C	50°F	1.03
15°C	59°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	Lumen Maintenance Factor
0	1.00
25,000	0.96
50,000	0.92
100,000	0.85

Motion Sensor Default Settings						
Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min

*for use when motion sensor is used as dusk to dawn control.

Electrical Load

					Current (A)					
	Performance Package	LED Count	Drive Current	Wattage	120	208	240	277	347	480
Forward Optics (Non-Rotated)	P1	30	530	54	0.45	0.26	0.23	0.19	0.10	0.12
	P2	30	700	70	0.59	0.34	0.30	0.25	0.20	0.16
	P3	30	1050	102	0.86	0.50	0.44	0.38	0.30	0.22
	P4	30	1250	125	1.06	0.60	0.52	0.46	0.37	0.27
	P5	30	1400	138	1.16	0.67	0.58	0.51	0.40	0.29
	P6	40	1250	163	1.36	0.78	0.68	0.59	0.47	0.34
	P7	40	1400	183	1.53	0.88	0.76	0.66	0.53	0.38
	P8	60	1050	207	1.74	0.98	0.87	0.76	0.64	0.49
	P9	60	1250	241	2.01	1.16	1.01	0.89	0.70	0.51
Rotated Optics (Requires L90 or R90)	P10	60	530	106	0.90	0.52	0.47	0.43	0.33	0.27
	P11	60	700	137	1.15	0.67	0.60	0.53	0.42	0.32
	P12	60	1050	207	1.74	0.99	0.87	0.76	0.60	0.46
	P13	60	1250	231	1.93	1.12	0.97	0.86	0.67	0.49

Controls Options

Nomenclature	Description	Functionality	Primary control device	Notes
FA0	Field adjustable output device installed inside the luminaire; wired to the driver dimming leads.	Allows the luminaire to be manually dimmed, effectively trimming the light output.	FA0 device	Cannot be used with other controls options that need the 0-10V leads
DS	Drivers wired independently for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two separately switched circuits. Consider nLight AIR as a more cost effective alternative.
PERS or PER7	Twist-lock photocell receptacle	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire
PIR or PIRH	Motion sensors with integral photocell. PIR for 8-15' mounting; PIRH for 15-30' mounting	Luminaires dim when no occupancy is detected.	Acuity Controls SBGR	Also available with PIRH1FC3V when the sensor photocell is used for dusk-to-dawn operation.
NLTAR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Eclipse.	nLight AIR rSDGR	nLight AIR sensors can be programmed and commissioned from the ground using the CIAIRity Pro app.



COMMERCIAL OUTDOOR

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DSX1-LED

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Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts Contact factory for performance data on any configurations not shown here.

Forward Optics																			
LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
30	530	P1	54W	T1S	6,457	2	0	2	120	6,956	2	0	2	129	7,044	2	0	2	130
				T2S	6,450	2	0	2	119	6,949	2	0	2	129	7,037	2	0	2	130
				T2M	6,483	1	0	1	120	6,984	2	0	2	129	7,073	2	0	2	131
				T3S	6,279	2	0	2	116	6,764	2	0	2	125	6,850	2	0	2	127
				T3M	6,468	1	0	2	120	6,967	1	0	2	129	7,056	1	0	2	131
				T4M	6,327	1	0	2	117	6,816	1	0	2	126	6,902	1	0	2	128
				TFTM	6,464	1	0	2	120	6,963	1	0	2	129	7,051	1	0	2	131
				TSVS	6,722	2	0	0	124	7,242	3	0	0	134	7,334	3	0	0	136
				TSS	6,728	2	0	1	125	7,248	2	0	1	134	7,340	2	0	1	136
				TSM	6,711	3	0	1	124	7,229	3	0	1	134	7,321	3	0	2	136
				TSW	6,667	3	0	2	123	7,182	3	0	2	133	7,273	3	0	2	135
				BLC	5,299	1	0	1	98	5,709	1	0	2	106	5,781	1	0	2	107
				LCCO	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80
				RCCO	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80
30	700	P2	70W	T1S	8,249	2	0	2	118	8,886	2	0	2	127	8,999	2	0	2	129
				T2S	8,240	2	0	2	118	8,877	2	0	2	127	8,989	2	0	2	128
				T2M	8,283	2	0	2	118	8,923	2	0	2	127	9,036	2	0	2	129
				T3S	8,021	2	0	2	115	8,641	2	0	2	123	8,751	2	0	2	125
				T3M	8,263	2	0	2	118	8,901	2	0	2	127	9,014	2	0	2	129
				T4M	8,083	2	0	2	115	8,708	2	0	2	124	8,818	2	0	2	126
				TFTM	8,257	2	0	2	118	8,896	2	0	2	127	9,008	2	0	2	129
				TSVS	8,588	3	0	0	123	9,252	3	0	0	132	9,369	3	0	0	134
				TSS	8,595	3	0	1	123	9,259	3	0	1	132	9,376	3	0	1	134
				TSM	8,573	3	0	2	122	9,236	3	0	2	132	9,353	3	0	2	134
				TSW	8,517	3	0	2	122	9,175	4	0	2	131	9,291	4	0	2	133
				BLC	6,770	1	0	2	97	7,293	1	0	2	104	7,386	1	0	2	106
				LCCO	5,038	1	0	2	72	5,427	1	0	2	78	5,496	1	0	2	79
				RCCO	5,038	1	0	2	72	5,427	1	0	2	78	5,496	1	0	2	79
30	1050	P3	102W	T1S	11,661	2	0	2	114	12,562	3	0	3	123	12,721	3	0	3	125
				T2S	11,648	2	0	2	114	12,548	3	0	3	123	12,707	3	0	3	125
				T2M	11,708	2	0	2	115	12,613	2	0	2	124	12,773	2	0	2	125
				T3S	11,339	2	0	2	111	12,215	3	0	3	120	12,370	3	0	3	121
				T3M	11,680	2	0	2	115	12,582	2	0	2	123	12,742	2	0	2	125
				T4M	11,426	2	0	3	112	12,309	2	0	3	121	12,465	2	0	3	122
				TFTM	11,673	2	0	2	114	12,575	2	0	3	123	12,734	2	0	3	125
				TSVS	12,140	3	0	1	119	13,078	3	0	1	128	13,244	3	0	1	130
				TSS	12,150	3	0	1	119	13,089	3	0	1	128	13,254	3	0	1	130
				TSM	12,119	4	0	2	119	13,056	4	0	2	128	13,221	4	0	2	130
				TSW	12,040	4	0	3	118	12,970	4	0	3	127	13,134	4	0	3	129
				BLC	9,570	1	0	2	94	10,310	1	0	2	101	10,440	1	0	2	102
				LCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	76
				RCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	76
30	1250	P4	125W	T1S	13,435	3	0	3	107	14,473	3	0	3	116	14,657	3	0	3	117
				T2S	13,421	3	0	3	107	14,458	3	0	3	116	14,641	3	0	3	117
				T2M	13,490	2	0	2	108	14,532	3	0	3	116	14,716	3	0	3	118
				T3S	13,064	3	0	3	105	14,074	3	0	3	113	14,252	3	0	3	114
				T3M	13,457	2	0	2	108	14,497	2	0	2	116	14,681	2	0	2	117
				T4M	13,165	2	0	3	105	14,182	2	0	3	113	14,362	2	0	3	115
				TFTM	13,449	2	0	3	108	14,488	2	0	3	116	14,672	2	0	3	117
				TSVS	13,987	4	0	1	112	15,068	4	0	1	121	15,259	4	0	1	122
				TSS	13,999	3	0	1	112	15,080	3	0	1	121	15,271	3	0	1	122
				TSM	13,963	4	0	2	112	15,042	4	0	2	120	15,233	4	0	2	122
				TSW	13,872	4	0	3	111	14,944	4	0	3	120	15,133	4	0	3	121
				BLC	11,027	1	0	2	88	11,879	1	0	2	95	12,029	1	0	2	96
				LCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72
				RCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72
30	1400	P5	138W	T1S	14,679	3	0	3	106	15,814	3	0	3	115	16,014	3	0	3	116
				T2S	14,664	3	0	3	106	15,797	3	0	3	114	15,997	3	0	3	116
				T2M	14,739	3	0	3	107	15,878	3	0	3	115	16,079	3	0	3	117
				T3S	14,274	3	0	3	103	15,377	3	0	3	111	15,572	3	0	3	113
				T3M	14,704	2	0	3	107	15,840	3	0	3	115	16,040	3	0	3	116
				T4M	14,384	2	0	3	104	15,496	3	0	3	112	15,692	3	0	3	114
				TFTM	14,695	2	0	3	106	15,830	3	0	3	115	16,030	3	0	3	116
				TSVS	15,283	4	0	1	111	16,464	4	0	1	119	16,672	4	0	1	121
				TSS	15,295	3	0	1	111	16,477	4	0	1	119	16,686	4	0	1	121
				TSM	15,257	4	0	2	111	16,435	4	0	2	119	16,644	4	0	2	121
				TSW	15,157	4	0	3	110	16,328	4	0	3	118	16,534	4	0	3	120
				BLC	12,048	1	0	2	87	12,979	1	0	2	94	13,143	1	0	2	95
				LCCO	8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3	71
				RCCO	8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3	71

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Forward Optics																			
LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
40	1250	P6	163W	T1S	17,654	3	0	3	108	19,018	3	0	3	117	19,259	3	0	3	118
				T2S	17,635	3	0	3	108	18,998	3	0	3	117	19,238	3	0	3	118
				T2M	17,726	3	0	3	109	19,096	3	0	3	117	19,337	3	0	3	119
				T3S	17,167	3	0	3	105	18,493	3	0	3	113	18,727	3	0	3	115
				T3M	17,683	3	0	3	108	19,049	3	0	3	117	19,290	3	0	3	118
				T4M	17,299	3	0	3	106	18,635	3	0	4	114	18,871	3	0	4	116
				TFTM	17,672	3	0	3	108	19,038	3	0	4	117	19,279	3	0	4	118
				TSVS	18,379	4	0	1	113	19,800	4	0	1	121	20,050	4	0	1	123
				T5S	18,394	4	0	2	113	19,816	4	0	2	122	20,066	4	0	2	123
				TSM	18,348	4	0	2	113	19,766	4	0	2	121	20,016	4	0	2	123
				TSW	18,228	5	0	3	112	19,636	5	0	3	120	19,885	5	0	3	122
				BLC	14,489	2	0	2	89	15,609	2	0	3	96	15,806	2	0	3	97
				LCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72
				RCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72
40	1400	P7	183W	T1S	19,227	3	0	3	105	20,712	3	0	3	113	20,975	3	0	3	115
				T2S	19,206	3	0	3	105	20,690	3	0	3	113	20,952	3	0	3	114
				T2M	19,305	3	0	3	105	20,797	3	0	3	114	21,060	3	0	3	115
				T3S	18,696	3	0	3	102	20,141	3	0	3	110	20,396	3	0	4	111
				T3M	19,258	3	0	3	105	20,746	3	0	3	113	21,009	3	0	3	115
				T4M	18,840	3	0	4	103	20,296	3	0	4	111	20,553	3	0	4	112
				TFTM	19,246	3	0	4	105	20,734	3	0	4	113	20,996	3	0	4	115
				TSVS	20,017	4	0	1	109	21,564	4	0	1	118	21,837	4	0	1	119
				T5S	20,033	4	0	2	109	21,581	4	0	2	118	21,854	4	0	2	119
				TSM	19,983	4	0	2	109	21,527	5	0	3	118	21,799	5	0	3	119
				TSW	19,852	5	0	3	108	21,386	5	0	3	117	21,656	5	0	3	118
				BLC	15,780	2	0	3	86	16,999	2	0	3	93	17,214	2	0	3	94
				LCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70
				RCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70
60	1050	P8	207W	T1S	22,490	3	0	3	109	24,228	3	0	3	117	24,535	3	0	3	119
				T2S	22,466	3	0	4	109	24,202	3	0	4	117	24,509	3	0	4	118
				T2M	22,582	3	0	3	109	24,327	3	0	3	118	24,635	3	0	3	119
				T3S	21,870	3	0	4	106	23,560	3	0	4	114	23,858	3	0	4	115
				T3M	22,527	3	0	4	109	24,268	3	0	4	117	24,575	3	0	4	119
				T4M	22,038	3	0	4	106	23,741	3	0	4	115	24,041	3	0	4	116
				TFTM	22,513	3	0	4	109	24,253	3	0	4	117	24,560	3	0	4	119
				TSVS	23,415	5	0	1	113	25,224	5	0	1	122	25,543	5	0	1	123
				T5S	23,434	4	0	2	113	25,244	4	0	2	122	25,564	4	0	2	123
				TSM	23,374	5	0	3	113	25,181	5	0	3	122	25,499	5	0	3	123
				TSW	23,221	5	0	4	112	25,016	5	0	4	121	25,332	5	0	4	122
				BLC	18,458	2	0	3	89	19,885	2	0	3	96	20,136	2	0	3	97
				LCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
				RCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
60	1250	P9	241W	T1S	25,575	3	0	3	106	27,551	3	0	3	114	27,900	3	0	3	116
				T2S	25,548	3	0	4	106	27,522	3	0	4	114	27,871	3	0	4	116
				T2M	25,680	3	0	3	107	27,664	3	0	3	115	28,014	3	0	3	116
				T3S	24,870	3	0	4	103	26,791	3	0	4	111	27,130	3	0	4	113
				T3M	25,617	3	0	4	106	27,597	3	0	4	115	27,946	3	0	4	116
				T4M	25,061	3	0	4	104	26,997	3	0	4	112	27,339	3	0	4	113
				TFTM	25,602	3	0	4	106	27,580	3	0	4	114	27,929	3	0	4	116
				TSVS	26,626	5	0	1	110	28,684	5	0	1	119	29,047	5	0	1	121
				T5S	26,648	4	0	2	111	28,707	5	0	2	119	29,070	5	0	2	121
				TSM	26,581	5	0	3	110	28,635	5	0	3	119	28,997	5	0	3	120
				TSW	26,406	5	0	4	110	28,447	5	0	4	118	28,807	5	0	4	120
				BLC	20,990	2	0	3	87	22,612	2	0	3	94	22,898	2	0	3	95
				LCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4	71
				RCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4	71

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Rotated Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
60	530	P10	106W	T1S	13,042	3	0	3	123	14,050	3	0	3	133	14,228	3	0	3	134
				T2S	12,967	4	0	4	122	13,969	4	0	4	132	14,146	4	0	4	133
				T2M	13,201	3	0	3	125	14,221	3	0	3	134	14,401	3	0	3	136
				T3S	12,766	4	0	4	120	13,752	4	0	4	130	13,926	4	0	4	131
				T3M	13,193	4	0	4	124	14,213	4	0	4	134	14,393	4	0	4	136
				T4M	12,944	4	0	4	122	13,945	4	0	4	132	14,121	4	0	4	133
				TFTM	13,279	4	0	4	125	14,305	4	0	4	135	14,486	4	0	4	137
				TSVS	13,372	3	0	1	126	14,405	4	0	1	136	14,588	4	0	1	138
				TSS	13,260	3	0	1	125	14,284	3	0	1	135	14,465	3	0	1	136
				TSM	13,256	4	0	2	125	14,281	4	0	2	135	14,462	4	0	2	136
				TSW	13,137	4	0	3	124	14,153	4	0	3	134	14,332	4	0	3	135
				BLC	10,906	3	0	3	103	11,749	3	0	3	111	11,898	3	0	3	112
				LCCO	7,789	1	0	3	73	8,391	1	0	3	79	8,497	1	0	3	80
				RCCO	7,779	4	0	4	73	8,380	4	0	4	79	8,486	4	0	4	80
60	700	P11	137W	T1S	16,556	3	0	3	121	17,835	3	0	3	130	18,061	4	0	4	132
				T2S	16,461	4	0	4	120	17,733	4	0	4	129	17,957	4	0	4	131
				T2M	16,758	4	0	4	122	18,053	4	0	4	132	18,281	4	0	4	133
				T3S	16,205	4	0	4	118	17,457	4	0	4	127	17,678	4	0	4	129
				T3M	16,748	4	0	4	122	18,042	4	0	4	132	18,271	4	0	4	133
				T4M	16,432	4	0	4	120	17,702	4	0	4	129	17,926	4	0	4	131
				TFTM	16,857	4	0	4	123	18,159	4	0	4	133	18,389	4	0	4	134
				TSVS	16,975	4	0	1	124	18,287	4	0	1	133	18,518	4	0	1	135
				TSS	16,832	4	0	1	123	18,133	4	0	2	132	18,362	4	0	2	134
				TSM	16,828	4	0	2	123	18,128	4	0	2	132	18,358	4	0	2	134
				TSW	16,677	4	0	3	122	17,966	5	0	3	131	18,193	5	0	3	133
				BLC	13,845	3	0	3	101	14,915	3	0	3	109	15,103	3	0	3	110
				LCCO	9,888	1	0	3	72	10,652	2	0	3	78	10,787	2	0	3	79
				RCCO	9,875	4	0	4	72	10,638	4	0	4	78	10,773	4	0	4	79
60	1050	P12	207W	T1S	22,996	4	0	4	111	24,773	4	0	4	120	25,087	4	0	4	121
				T2S	22,864	4	0	4	110	24,631	5	0	5	119	24,943	5	0	5	120
				T2M	23,277	4	0	4	112	25,075	4	0	4	121	25,393	4	0	4	123
				T3S	22,509	4	0	4	109	24,248	5	0	5	117	24,555	5	0	5	119
				T3M	23,263	4	0	4	112	25,061	4	0	4	121	25,378	4	0	4	123
				T4M	22,824	5	0	5	110	24,588	5	0	5	119	24,899	5	0	5	120
				TFTM	23,414	5	0	5	113	25,223	5	0	5	122	25,543	5	0	5	123
				TSVS	23,579	5	0	1	114	25,401	5	0	1	123	25,722	5	0	1	124
				TSS	23,380	4	0	2	113	25,187	4	0	2	122	25,506	4	0	2	123
				TSM	23,374	5	0	3	113	25,181	5	0	3	122	25,499	5	0	3	123
				TSW	23,165	5	0	4	112	24,955	5	0	4	121	25,271	5	0	4	122
				BLC	19,231	4	0	4	93	20,717	4	0	4	100	20,979	4	0	4	101
				LCCO	13,734	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
				RCCO	13,716	4	0	4	66	14,776	4	0	4	71	14,963	4	0	4	72
60	1250	P13	231W	T1S	25,400	4	0	4	110	27,363	4	0	4	118	27,709	4	0	4	120
				T2S	25,254	5	0	5	109	27,205	5	0	5	118	27,550	5	0	5	119
				T2M	25,710	4	0	4	111	27,696	4	0	4	120	28,047	4	0	4	121
				T3S	24,862	5	0	5	108	26,783	5	0	5	116	27,122	5	0	5	117
				T3M	25,695	5	0	5	111	27,680	5	0	5	120	28,031	5	0	5	121
				T4M	25,210	5	0	5	109	27,158	5	0	5	118	27,502	5	0	5	119
				TFTM	25,861	5	0	5	112	27,860	5	0	5	121	28,212	5	0	5	122
				TSVS	26,043	5	0	1	113	28,056	5	0	1	121	28,411	5	0	1	123
				TSS	25,824	4	0	2	112	27,819	5	0	2	120	28,172	5	0	2	122
				TSM	25,818	5	0	3	112	27,813	5	0	3	120	28,165	5	0	3	122
				TSW	25,586	5	0	4	111	27,563	5	0	4	119	27,912	5	0	4	121
				BLC	21,241	4	0	4	92	22,882	4	0	4	99	23,172	4	0	4	100
				LCCO	15,170	2	0	4	66	16,342	2	0	4	71	16,549	2	0	4	72
				RCCO	15,150	5	0	5	66	16,321	5	0	5	71	16,527	5	0	5	72

Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a **shaded background**. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability¹
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a **shaded background**¹

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: [Link to Roam](#); [Link to DTL DLL](#)

FEATURES & SPECIFICATIONS

INTENDED USE

The sleek design of the D-Series Size 1 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and streetscapes.

CONSTRUCTION

Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (1.01 ft²) for optimized pole wind loading.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS

Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in standard 3000 K, 4000 K and 5000 K (70 CRI) configurations. The D-Series Size 1 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L85/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS

The DSX1 LED area luminaire has a number of control options. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. Integrated motion sensors with on-board photocells feature field-adjustable programming and are suitable for mounting heights up to 30 feet.

nLIGHT AIR CONTROLS

The DSX1 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaires can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclipse. Additional information about nLight Air can be found [here](#).

INSTALLATION

Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 1 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 1 utilizes the AERIS™ series pole drilling pattern (template #8). NEMA photocontrol receptacle are also available.

LISTINGS

UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D672,492 S. International patent pending.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product.

Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

WARRANTY

5-year limited warranty. Complete warranty terms located at:

www.acuitybrands.com/support/customer-support/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.



COMMERCIAL OUTDOOR

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DSX1-LED

Rev. 02/05/20

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Memorandum

To: City of Bondurant

Date: 12/29/2022

From: Brian Arcand, P.E.

CC:

RE: The Crossing – Stormwater Management

Per discussions with Mr. Bob Veenstra, Snyder & Associates has prepared a memorandum pertaining to the stormwater management requirements for Outlot “V” and Outlot “Z” of the Hawthorne Crossing Final Plat. Mr. Veenstra referenced a 2006 stormwater management design, which is attached as Exhibit A of this memorandum. Outlot “V” and Outlot “Z” will outlet to the “Pond North” (see the recorded plat, Exhibit B). Per Exhibit A, this drainage area shall have a turf area of at least 5.21 acres and a surfaced area of 9.629 acres over the total drainage area of 14.839 acres. This is an impervious coverage area of 65%. Per Exhibit C, the proposed site plan of Outlot “V” and Outlot “Z” have an impervious area of 66,763 square feet out of a total area of 173,560 square feet which includes the existing portion of “Pond North” as impervious area at its Normal Water Level of 973 that is located on Outlot “V”. This is an impervious area of 38.5%, well below the 65% design constraint. Per the proposed grading plan included as Exhibit D, this development will not disturb the existing “Pond North” areas, therefore maintaining the design storage area of the pond.

Storm sewer is designed to carry the 5-year storm event without surcharging. Gutter spread within the roadway was verified by spacing intakes so that there is one 12-foot lane free of water in the 5-year storm event. In a 100-year storm event no water exceeds the curb height.

The following assumptions were used for storm sewer calculations:

1. Runoff Coefficient of 0.90
2. Minimum Time of Concentration used was 15 minutes
3. Five Year storm intensity used was 4.12 inches per hour
4. One-hundred Year storm intensity used was 7.44 inches per hour

Enclosures:

- Exhibit A – 2006 Stormwater Design Calculations
- Exhibit B – Hawthorne Crossing Final Plat
- Exhibit C – Impervious Area Map
- Exhibit D – Proposed Grading Plan
- Exhibit E – Storm Sewer Catchment Area Map
- Exhibit F – Storm Sewer Calculations

STORM WATER DETENTION CALCULATIONS**Project: Hawthorn Crossing - Bondurant Assisted Living Facility***Calculations completed May 26, 2006 by EBH***Pond North****Post-Construction Totals:**

RUN-OFF AREA	14.839 ACRES
SURFACED AREA (S)	9.629 ACRES
TURF AREA (A)	5.210 ACRES

Formulas (Rational Method)

$$C_S = 0.90$$

$$C_T = 0.25$$

$$CA = C_S (S) + C_T (A) = 9.969$$

$$Q = CIA = (1.55) * (5.28 \text{ in/hr}) * 0.25 = 2.046 \text{ cfs} = Q_{R \text{ (RELEASE)}}$$

Time (MIN)	Intensity (IN/HR)	CA	Q ₁₀₀	Q _{R (RELEASE)}	Q _S	Storage Ft. ³
5	9.48	9.969	94.502	2.046	92.456	27737
10	8.30	9.969	82.739	2.046	80.693	48416
15	7.12	9.969	70.976	2.046	68.930	62037
20	6.38	9.969	63.600	2.046	61.554	73864
30	4.90	9.969	48.846	2.046	46.800	84240
35	4.60	9.969	45.872	2.046	43.826	92035
40	4.30	9.969	42.898	2.046	40.852	98045
45	4.01	9.969	39.924	2.046	37.878	102271
50	3.71	9.969	36.950	2.046	34.904	104713
55	3.41	9.969	33.976	2.046	31.930	105370
60	3.11	9.969	31.002	2.046	28.956	104243
65	3.01	9.969	30.010	2.046	27.964	109058
70	2.91	9.969	29.017	2.046	26.971	113278
75	2.81	9.969	28.024	2.046	25.978	116902
80	2.71	9.969	27.032	2.046	24.986	119930
85	2.61	9.969	26.039	2.046	23.993	122363
90	2.51	9.969	25.046	2.046	23.000	124201
95	2.41	9.969	24.053	2.046	22.007	125442
100	2.31	9.969	23.061	2.046	21.015	126088
105	2.21	9.969	22.068	2.046	20.022	126139
110	2.11	9.969	21.075	2.046	19.029	125593
115	2.01	9.969	20.083	2.046	18.037	124452
120	1.92	9.969	19.090	2.046	17.044	122716

(Proposed Development) ==> Storage volume required (cu. ft.) 126139

STORM WATER DETENTION CALCULATIONS (CONT.)

Project: Hawthorn Crossing - Bondurant Assisted Living Facility

Calculations completed May 26, 2006 by EBH

ORIFICE SIZING

$$Q_R = C(2gh)^{1/2}A$$

$$Q_R = 2.046 \text{ c.f.s.}$$

$$C = 0.64$$

$$g = 32.20 \text{ ft}^2/\text{s}$$

$$h = 1.21 \text{ ft (depth reflects required storage volume)}$$

$$A = 0.362 \text{ ft}^2$$

$$= 52.15 \text{ in}^2$$

$$= 8.15 \text{ inch diameter orifice}$$

Use 12" R.C.P. with 8.15" orifice

STORAGE VOLUME OF PROPOSED DETENTION POND

ELEVATION	AREA SQ.FT.	AVERAGE AREA SQ.FT.	DEPTH FT.	VOLUME CU.FT.
975.00	114301			
		110590.50	1.00	110590.50
974.00	106880			
		103236.50	1.00	103236.50
973.00	99593			

100-YEAR POOL ELEVATION = 973.00 ft. (1.00 ft. FREEBOARD PROVIDED)

TOTAL 213827 cu. ft.

STORM WATER DETENTION CALCULATIONS

Project: Hawthorn Crossing - Bondurant Assisted Living Facility

Calculations completed May 26, 2006 by EBH

Pond South

Post-Construction Totals:

RUN-OFF AREA	14.954 ACRES
SURFACED AREA (S)	11.216 ACRES
TURF AREA (A)	3.738 ACRES

Formulas (Rational Method)

$$C_S = 0.90$$

$$C_T = 0.25$$

$$CA = C_S (S) + C_T (A) = 11.029$$

$$Q = CIA = (13.810) * (3.92 \text{ in/hr}) * 0.25 = 13.534 \text{ cfs} = Q_R (\text{RELEASE})$$

Time (MIN)	Intensity (IN/HR)	CA	Q ₁₀₀	Q _R (RELEASE)	Q _S	Storage Ft. ³
5	9.48	11.029	104.554	13.534	91.020	27306
10	8.30	11.029	91.540	13.534	78.006	46804
15	7.12	11.029	78.526	13.534	64.992	58493
20	6.38	11.029	70.364	13.534	56.830	68196
30	4.90	11.029	54.042	13.534	40.508	72914
35	4.60	11.029	50.751	13.534	37.217	78156
40	4.30	11.029	47.461	13.534	33.927	81425
45	4.01	11.029	44.171	13.534	30.637	82719
50	3.71	11.029	40.880	13.534	27.346	82039
55	3.41	11.029	37.590	13.534	24.056	79385
60	3.11	11.029	34.300	13.534	20.766	74757
65	3.01	11.029	33.202	13.534	19.668	76704
70	2.91	11.029	32.103	13.534	18.569	77991
75	2.81	11.029	31.005	13.534	17.471	78619
80	2.71	11.029	29.907	13.534	16.373	78589
85	2.61	11.029	28.808	13.534	15.274	77899
90	2.51	11.029	27.710	13.534	14.176	76551
95	2.41	11.029	26.612	13.534	13.078	74544
100	2.31	11.029	25.514	13.534	11.980	71877
105	2.21	11.029	24.415	13.534	10.881	68552
110	2.11	11.029	23.317	13.534	9.783	64567
115	2.01	11.029	22.219	13.534	8.685	59924
120	1.92	11.029	21.120	13.534	7.586	54622

(Proposed Development) ==> Storage volume required (cu. ft.) 82719

STORM WATER DETENTION CALCULATIONS (CONT.)

Project: Hawthorn Crossing - Bondurant Assisted Living Facility

Calculations completed May 26, 2006 by EBH

ORIFICE SIZING

$$Q_R = C(2gh)^{1/2}A$$

$$Q_R = 13.534 \text{ c.f.s.}$$

$$C = 0.64$$

$$g = 32.20 \text{ ft}^2/\text{s}$$

$$h = 0.92 \text{ ft (depth reflects required storage volume)}$$

$$A = 2.747 \text{ ft}^2$$

$$= 395.61 \text{ in}^2$$

$$= 22.44 \text{ inch diameter orifice}$$

Use 24" R.C.P. with 22.44" orifice

STORAGE VOLUME OF PROPOSED DETENTION POND

ELEVATION	AREA SQ.FT.	AVERAGE AREA SQ.FT.	DEPTH FT.	VOLUME CU.FT.
976.00	87256			
		83863.00	1.00	83863.00
975.00	80470			
		77108.00	1.00	77108.00
974.00	73746			

100-YEAR POOL ELEVATION = 974.00 ft. (1.00 ft. FREEBOARD PROVIDED)

TOTAL 160971 cu. ft.

THE PROPOSED STORMWATER CONTROL FOR THIS DEVELOPMENT MEETS THE REQUIREMENTS OF THE CHAPTER II, SECTION 8.4 OF THE URBAN DESIGN STANDARDS MANUAL.

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.

AIVARS LEO PELDS, P.E. & L.S. IA. LIC. NO. 4640 DATE

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2007

ADDITIONAL PAGES OR SHEETS COVERED BY THIS SEAL (NONE UNLESS INDICATED HERE): _____

File path: S:\Wil-Ron\storm water calcs 5-26-06

OWNER: PAINE HEIGHTS PLAT 3

OWNER: EDWARDS PROPERTIES INC

OWNER: C STONER ENTERPRISES INC

HWY 65 / HUBBELL AVENUE

OWNER-DEVELOPER:
WIL-RON PROPERTIES
3304 PARKVIEW DRIVE
URBANDALE, IOWA 50322
PH: (515) 229-8070
FAX: (515) 278-1103

SITE ADDRESS:
TO BE ASSIGNED BY CITY

ZONING NOTES:

1. EXISTING AND PROPOSED ZONING ==> R-3 "MULTI-FAMILY RESIDENTIAL"
2. BULK REGULATIONS:
MAX. HEIGHT 35 feet
FRONT YARD 50 feet
REAR YARD 50 feet
MIN. OPEN SPACE 20%

EROSION CONTROL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR EROSION AND POLLUTION CONTROL.
2. CONTROLS MUST BE IN GOOD OPERATING CONDITION UNTIL THE CONSTRUCTION ACTIVITY IS COMPLETE AND FINAL STABILIZATION HAS BEEN REACHED.
3. THE CONTRACTOR SHALL INSPECT THE SITE AT A MINIMUM OF ONCE EVERY SEVEN DAYS AND WITHIN 24 HOURS OF THE END OF A 0.5 INCH OR GREATER RAINFALL. ALL DISTURBED AREAS OF THE SITE, MATERIAL STORAGE LOCATIONS, WHERE CONSTRUCTION VEHICLES ENTER/EXIT AND ANY CONTROL SYSTEMS SHALL BE INSPECTED.
4. THE CONTRACTOR SHALL TAKE NECESSARY ACTIONS TO CORRECT DEFICIENCIES FOUND DURING INSPECTIONS AS SOON AS PRACTICAL BUT NO LATER THAN A WEEK FROM THE INSPECTION IN WHICH THE DEFICIENCY WAS FOUND.
5. THE CONTRACTOR SHALL KEEP A LOG AND PREPARE WEEKLY REPORTS DETAILING THE INSPECTIONS AND MEASURES TAKEN TO CORRECT ANY AND ALL DEFICIENCIES FOUND IN THE EROSION AND POLLUTION CONTROL MEASURES. THE REPORTS SHALL CONFORM TO THE STANDARDS SET BY THE IOWA DEPARTMENT OF NATURAL RESOURCES. COPIES OF THESE REPORTS SHALL BE FORWARDED TO THE CITY OF BONDURANT AND A. LEO PELDS ENGINEERING COMPANY.
6. PERMANENT SEEDING SHALL BE DONE AFTER THE COMPLETION OF THE FINAL GRADING.
7. DISTURBED AREAS THAT DO NOT SHOW PROGRESS A WEEK AFTER SEEDING SHALL BE RESEED.
8. ANY SOIL OR DEBRIS SPILLED, WASHED, TRACKED OR DROPPED ON TO ADJACENT PROPERTIES OR R.O.W. SHALL BE REMOVED BY THE CONTRACTOR WITHIN 24 HOURS.

EARTHWORK NOTES:

1. THE EARTHWORK SHALL BE BALANCED ON SITE.
2. THE PAVEMENT SPOT ELEVATIONS SHOWN ARE TO THE TOP OF THE SLAB.

GRADING NOTES:

1. STRIP TOPSOIL (6") FROM ALL THE AREAS WHICH ARE TO BE FILLED OR CUT FOR BORROW.
2. ALL AREAS TO RECEIVE STRUCTURAL FILL SHALL BE BENCHMARKED.
3. PREPARE BOTTOM OF BENCH FOR FILL BY DISKING TO A DEPTH OF 4 INCHES AND COMPACT. ANY LOCALIZED AREAS WHICH CANNOT BE SATISFACTORILY COMPACTED OR WHICH SHOW EVIDENCE OF PUMPING ACTION SHALL BE UNDERCUT AND RECOMPACTED WITH ON-SITE FILL MATERIALS.
4. ALL STRUCTURAL FILL SHALL BE COMPACTED TO A DENSITY THAT IS NOT LESS THAN 95% STANDARD PROCTOR.
5. ALL AREAS WHICH ARE TO RECEIVE PAVING SHALL HAVE THE TOP 12 INCHES DISKED AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
6. MAINTAIN ALL CUT AND FILL AREAS TO ACCOMMODATE SURFACE DRAINAGE.
7. THE CONTRACTOR SHALL PROTECT ALL UTILITIES AND STRUCTURES. ANY DAMAGE SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER OF THE UTILITIES.
8. MAXIMUM ALLOWABLE GRADE ON ALL PROPOSED SLOPES IS 3:1.
9. TOPSOIL SHALL BE SPREAD TO A MINIMUM THICKNESS OF 6 INCHES ON ALL DISTURBED AREAS.
10. THE MOISTURE CONTENT SHALL NOT DEVIATE FROM THE OPTIMUM BY MORE THAN 2% IN STRUCTURAL FILL.
11. ONE WEEK PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL NOTIFY THE CITY OF BONDURANT.
12. QUALIFIED PERSONNEL SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER.
13. EXISTING VEGETATION IS TO BE PRESERVED WHENEVER POSSIBLE. PERMANENT SEEDING AND/OR SODDING, AND VEGETATIVE BUFFER STRIPS ARE TO BE USED THROUGHOUT THE GRADING SITE.

MISCELLANEOUS NOTES:

1. THE CONTRACTOR SHALL CONTACT THE CITY PRIOR TO PERFORMING ANY WORK IN THE RIGHT-OF-WAYS.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH "URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS."
3. ALL SIGNAGE SHALL BE IN COMPLIANCE WITH THE CITY OF BONDURANT SIGN ORDINANCE.
4. IF A FIELD TILE IS CUT DURING CONSTRUCTION, IT SHALL BE REPAIRED OR TIED INTO THE SITE'S DRAINAGE SYSTEM.

PAVEMENT NOTES:

1. THE PROPOSED PAVING SHALL BE 6" H.M.A. IN THE DRIVES AND PARKING AREAS. THE PAVING AT THE SITE ENTRANCES SHALL BE 7" H.M.A.
2. THE REQUIRED PARKING IS 1-1/2 SPACE PER 1-BEDROOM UNIT AND 2 SPACE PER 2-BEDROOM UNITS = $[20 \times 1.5 = (30) + 20 \times 2 = (40)] ==> 30 + 40 = 70$. THE TOTAL REQUIRED IS 70 SPACES.
3. THERE ARE 28 PARKING SPACES PROVIDED, 28 - 9'x18' TYPICAL PARKING STALLS AND 4 HANDICAPPED STALLS.
4. ANY DEBRIS SPILLED ON TO ADJACENT PROPERTIES OR RIGHT-OF-WAYS SHALL BE PROMPTLY REMOVED.

BUILDING NOTES:

1. THE PROPOSED BUILDING WILL BE USED AS AN ASSISTED LIVING FACILITY.
2. THE PROPOSED BUILDING WILL BE ONE-STORY WITH A MAXIMUM ROOF HEIGHT OF 25ft. AND AN AREA OF 40,633 sq.ft.
3. THE LIGHTING SHALL BE DIRECTED SO AS TO NOT DIRECTLY ILLUMINATE ADJACENT PROPERTIES.

A. LEO PELDS ENGINEERING COMPANY

2323 DIXON STREET
DES MOINES, IOWA 50316
PHONE: (515) 265-8196



P.O. BOX 4626
DES MOINES, IOWA 50306
FAX: (515) 268-2259

Surveyors

Engineers

Planners

EXISTING UTILITIES NOTE:
THE LOCATIONS OF THE EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE. THEY HAVE BEEN PLOTTED FROM AVAILABLE SURVEY RECORDS. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ANY EXISTING UTILITIES (SHOWN OR NOT SHOWN) ARE NOT DAMAGED DURING CONSTRUCTION. IOWA ONE-CALL (1-800-252-5589).

NOTE:
THIS DRAWING IS BEING MADE AVAILABLE BY A. LEO PELDS ENGINEERING COMPANY (A.L.P.E.C.) FOR USE ON THIS PROJECT IN ACCORDANCE WITH A.L.P.E.C.'S AGREEMENT FOR PROFESSIONAL SERVICES. A.L.P.E.C. ASSUMES NO RESPONSIBILITY OR LIABILITY (CONSEQUENTIAL OR OTHERWISE) FOR ANY USE OF THESE DRAWINGS (OR ANY PART THEREOF) EXCEPT AN AGREEMENT WITH THE TERMS OF SAID AGREEMENT.

LEGEND:

STANDARD SYMBOLS:

- IRON ROD OR PIPE FOUND
- SET IRON ROD WITH #4640 CAP
- ▲ SECTION CORNER MONUMENT FOUND
- △ SECTION CORNER MONUMENT SET
- ⊕ POWER POLE
- ⊙ LIGHT POLE
- FF FINISHED FLOOR

+/-

---X---X---

⊕

○

⊕

⊙

FF

MORE OR LESS

FENCE LINE

FIRE HYDRANT

MANHOLE

VALVE

125x3

N.T.S.

A.C.C./P.C.C. ASPHALTIC/PORTLAND CEMENT CONCRETE

CATV

---XXX---

W

G

S

ST

UGE/T

OHE/T

CABLE TELEVISION

UTILITY LINE OR PIPE

WATER

GAS

SANITARY SEWER

STORM SEWER

UNDERGROUND ELEC. / TEL.

OVERHEAD ELEC. / TEL.

CABLE TELEVISION

TITLE
Preliminary Plat/Site Plan
Hawthorn Crossing Plat
Bondurant, Iowa

BENCHMARK: Tied out to elevation on

Shelter House to the North

SCALE: NEW

FILE PATH: S:/Wil-Ron Properties/Site Plan 4-25-06

REVISIONS:

DATE: 4-28-06

BY: E. Hopkins

DRAWING NO: 10734



LEGAL DESCRIPTION:

A part of the Northeast 1/4 of SECTION 31, TOWNSHIP 80 NORTH, RANGE 22 WEST of the 5th PM, all being in and forming a part of the City of Bondurant, Polk County, Iowa, more particularly described as follows:

Commencing at the East 1/4 Corner of said SECTION 31, TOWNSHIP 80 NORTH, RANGE 22 WEST of the 5th PM, all being in and forming a part of the City of Bondurant, Polk County, Iowa, more particularly described as follows:

THENCE North 43°07'13" East along the Easterly Right-of-Way line of US Highway 65, a distance of 581.00 feet;

THENCE continuing along the Easterly Right-of-Way line of US Highway 65, North 44°45'16" East a distance of 350.14 feet;

THENCE continuing along the Easterly Right-of-Way line of US Highway 65, North 43°07'04" East a distance of 1,151.55 feet to a point on the Westerly Right-of-Way line of NE 80th Street;

THENCE South 00°08'36" East along the Westerly Right-of-Way line of NE 80th Street, a distance of 108.49 feet;

THENCE continuing along the Westerly Right-of-Way line of NE 80th Street, South 07°51'54" West a distance of 162.00 feet;

THENCE continuing along the Westerly Right-of-Way line of NE 80th Street, South 00°45'24" West a distance of 277.35 feet;

THENCE continuing along the Westerly Right-of-Way line of NE 80th Street, North 89°51'24" East a distance of 27.00 feet;

THENCE continuing along the Westerly Right-of-Way line of NE 80th Street, South 00°08'36" East a distance of 849.38 feet;

THENCE North 89°53'15" West a distance of 338.84 feet;

THENCE South 00°07'17" East a distance of 298.86 feet to the POINT OF BEGINNING, containing 29.635 acres, more or less.

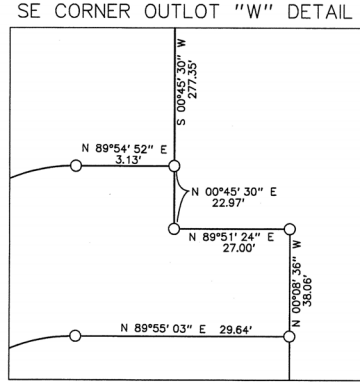
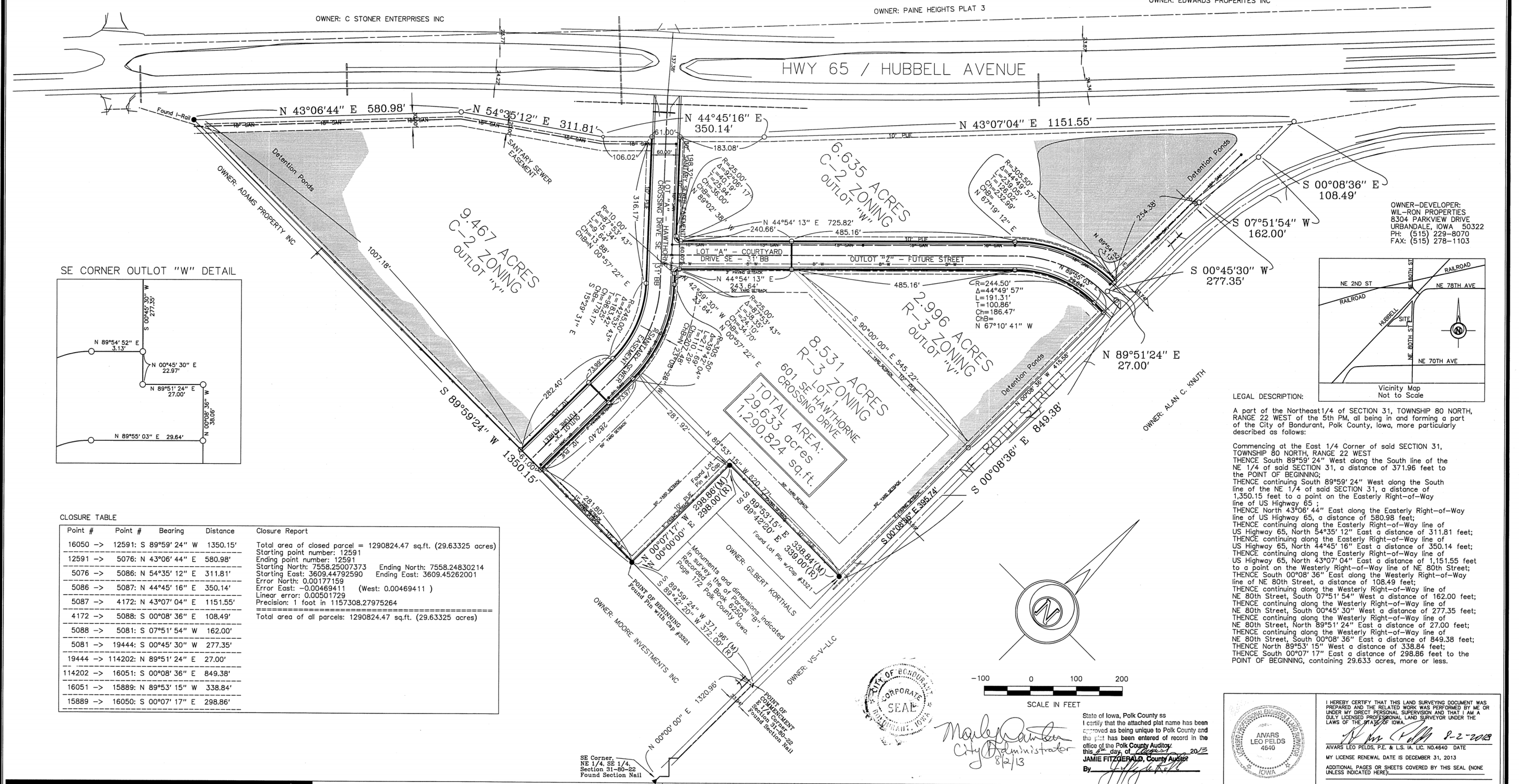
I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

ANARS LEO PELDS, P.E. & L.S. I.A. LIC. NO. 4640 DATE
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2007
ADDITIONAL PAGES OR SHEETS COVERED BY THIS SEAL (NONE UNLESS INDICATED HERE)

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

ANARS LEO PELDS, P.E. & L.S. I.A. LIC. NO. 4640 DATE
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2007
ADDITIONAL PAGES OR SHEETS COVERED BY THIS SEAL (NONE UNLESS INDICATED HERE)

HAWTHORNE CROSSING FINAL PLAT



CLOSURE TABLE				Closure Report
Point #	Point #	Bearing	Distance	
16050 ->	12591: S 89°59' 24" W		1350.15'	Total area of closed parcel = 1290824.47 sq.ft. (29.63325 acres) Starting point number: 12591 Ending point number: 12591 Starting North: 7558.25007373 Ending North: 7558.24830214 Starting East: 3609.44792590 Ending East: 3609.45262001 Error North: 0.00177159 Error East: -0.00469411 (West: 0.00469411) Linear error: 0.00501729 Precision: 1 foot in 1157308.27975264 Total area of all parcels: 1290824.47 sq.ft. (29.63325 acres)
12591 ->	5076: N 43°06' 44" E		580.98'	
5076 ->	5086: N 54°35' 12" E		311.81'	
5086 ->	5087: N 44°45' 16" E		350.14'	
5087 ->	4172: N 43°07' 04" E		1151.55'	
4172 ->	5088: S 00°08' 36" E		108.49'	
5088 ->	5081: S 07°51' 54" W		162.00'	
5081 ->	19444: S 00°45' 30" W		277.35'	
19444 ->	114202: N 89°51' 24" E		27.00'	
114202 ->	16051: S 00°08' 36" E		849.38'	
16051 ->	15889: N 89°53' 15" W		338.84'	
15889 ->	16050: S 00°07' 17" E		298.86'	

LEGAL DESCRIPTION:
A part of the Northeast 1/4 of SECTION 31, TOWNSHIP 80 NORTH, RANGE 22 WEST of the 5th PM, all being in and forming a part of the City of Bondurant, Polk County, Iowa, more particularly described as follows:
Commencing at the East 1/4 Corner of said SECTION 31, TOWNSHIP 80 NORTH, RANGE 22 WEST
THENCE South 89°59' 24" West along the South line of the NE 1/4 of said SECTION 31, a distance of 371.96 feet to the POINT OF BEGINNING;
THENCE continuing South 89°59' 24" West along the South line of the NE 1/4 of said SECTION 31, a distance of 1,350.15 feet to a point on the Easterly Right-of-Way line of US Highway 65;
THENCE North 43°06' 44" East along the Easterly Right-of-Way line of US Highway 65, a distance of 580.98 feet;
THENCE continuing along the Easterly Right-of-Way line of US Highway 65, North 54°35' 12" East a distance of 311.81 feet;
THENCE continuing along the Easterly Right-of-Way line of US Highway 65, North 44°45' 16" East a distance of 350.14 feet;
THENCE continuing along the Easterly Right-of-Way line of US Highway 65, North 43°07' 04" East a distance of 1,151.55 feet to a point on the Westerly Right-of-Way line of NE 80th Street;
THENCE South 00°08' 36" East along the Westerly Right-of-Way line of NE 80th Street, a distance of 108.49 feet;
THENCE continuing along the Westerly Right-of-Way line of NE 80th Street, South 07°51' 54" West a distance of 162.00 feet;
THENCE continuing along the Westerly Right-of-Way line of NE 80th Street, South 00°45' 30" West a distance of 277.35 feet;
THENCE continuing along the Westerly Right-of-Way line of NE 80th Street, North 89°51' 24" East a distance of 27.00 feet;
THENCE continuing along the Westerly Right-of-Way line of NE 80th Street, South 00°08' 36" East a distance of 849.38 feet;
THENCE North 89°53' 15" West a distance of 338.84 feet;
THENCE South 00°07' 17" East a distance of 298.86 feet to the POINT OF BEGINNING, containing 29.633 acres, more or less.

A. LEO ENGINEERING COMPANY

Engineering | Planning | Surveying

2323 Dixon Street, Des Moines, IA 50316 - P.O. Box 4626, Des Moines, IA 50305 - P: (515) 265-8196 F: (515) 266-2259

EXISTING UTILITIES NOTE:
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 (1-800-292-6989).

NOTE:
THIS DRAWING IS BEING MADE AVAILABLE BY A. LEO FIELDS ENGINEERING COMPANY (A.L.F.E.C.) FOR USE ON THIS PROJECT IN ACCORDANCE WITH A.L.F.E.C.'S AGREEMENT FOR PROFESSIONAL SERVICES. A.L.F.E.C. 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.

LEGEND:

STANDARD SYMBOLS:

- IRON ROD OR PIPE FOUND
- SET IRON ROD WITH #4640 CAP
- ▲ SECTION CORNER MONUMENT FOUND
- △ SECTION CORNER MONUMENT SET
- ⊕ POWER POLE
- ⊙ LIGHT POLE
- F.F. FINISHED FLOOR

OTHER SYMBOLS:

- +/- FENCE LINE
- ⊕ FIRE HYDRANT
- MANHOLE
- VALVE
- 125x3 SPOT ELEVATION (@ x)
- N.T.S. NOT TO SCALE
- A.C.C./P.C.C. ASPHALTIC/PORTLAND CEMENT CONCRETE

UTILITY LINE OR PIPE:

- W WATER
- G GAS
- S SANITARY SEWER
- ST STORM SEWER
- UGE/T UNDERGROUND ELEC. / TEL.
- OHE/T OVERHEAD ELEC. / TEL.
- CATV CABLE TELEVISION

State of Iowa, Polk County ss
I certify that the attached plat name has been approved as being unique to Polk County and the plat has been entered of record in the office of the Polk County Auditor.
this 8th day of August, 2013
JAMIE FITZGERALD, County Auditor
By: [Signature]

I HEREBY CERTIFY THAT THIS LAND SURVEYING DOCUMENT WAS PREPARED AND THE RELATED WORK WAS PERFORMED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF IOWA.

AVARS LEO FIELDS, P.E. & L.S., I.C. NO. 4640 DATE 08-01-2013 - Per City of Bondurant - EBJ

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2013

ADDITIONAL PAGES OR SHEETS COVERED BY THIS SEAL (NONE UNLESS INDICATED HERE):

TITLE: Final Plat for Hawthorne Crossing Bondurant, Iowa

BENCHMARK: Tied out to elevation on Shelter House to the North

SCALE: 1" = 100'

FILE PATH: S://W-Ron Properties/Final Plat.Site Plan 7-8-08

REVISIONS: 6-26-08 - Per City of Bondurant - EBJ
1-3-11 - Per City of Bondurant - EBJ
08-01-2013 - Polk Co Auditor - EBJ

DRAWN BY: E. Jondle

DRAWING NO.: 10734-1

V:\Projects\2022\122.1546.30\DCD\122.1546.30.dwg:BLAKE REBERQUIR IMPERVIOUS AREAS: 2022\12-29 1:56 PM, ANSI FULL BLEED D (34.00 X 22.00 INCHES)



THE CROSSING
IMPERVIOUS AREAS

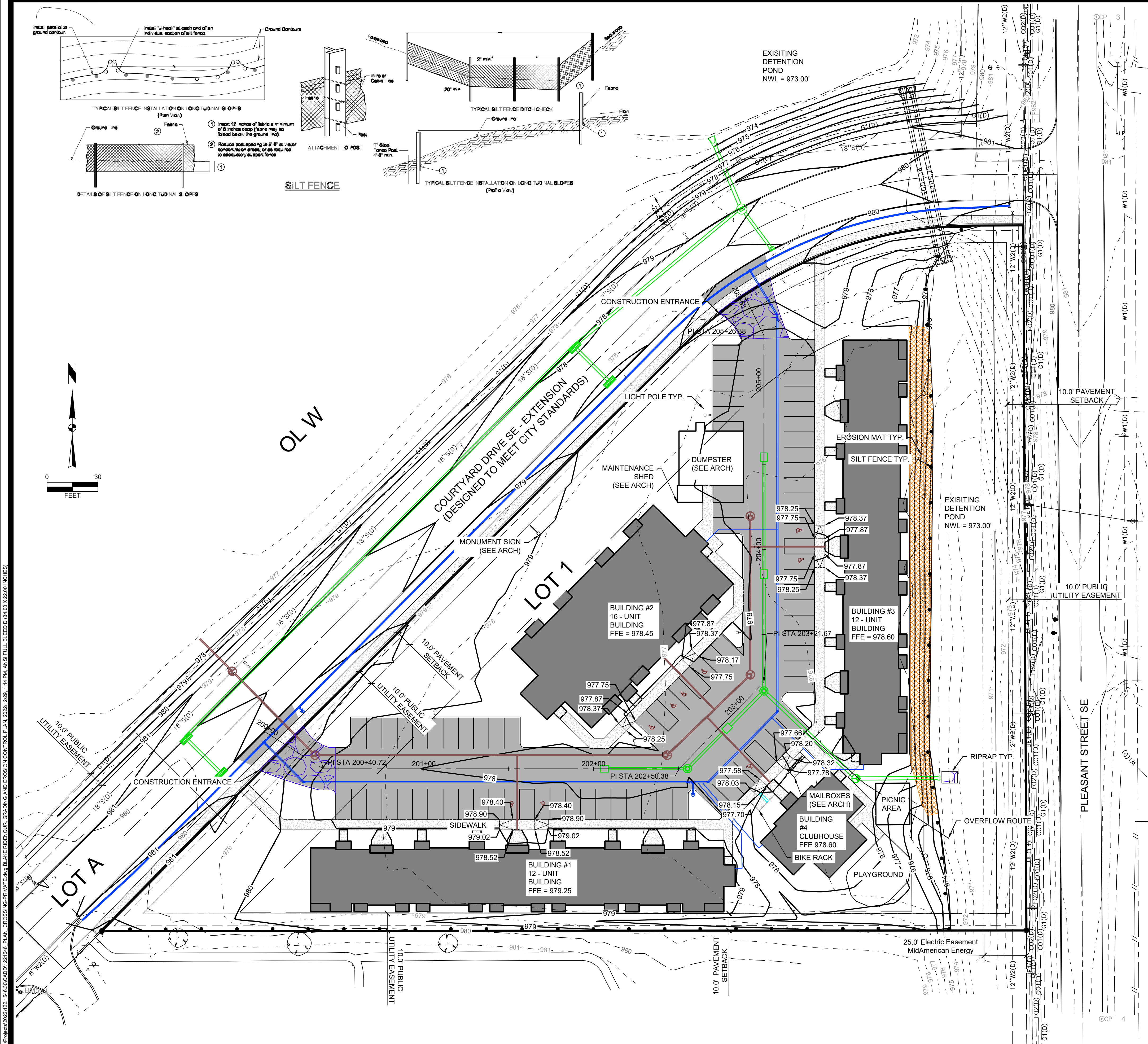
BONDURANT, POLK COUNTY, IOWA

SNYDER & ASSOCIATES, INC. |
2727 S.W. SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com

Project No: 122.1546.30
Sheet EXBT

MARK	REVISION	DATE	BY
Engineer: BCA	Checked By: MLC	Scale: 1" = 30'	
Technician: GCB	Date: 12-28-2022	T-R-S: TTN+RRW-SS	
Project No: 122.1546.30			Sheet EXBT

V:\Projects\2021\1221546-30CADD\1221546-PLAN_CROSSING-PRIVATE.dwg, BLAKE RIVER/GR, GRADING AND EROSION CONTROL PLAN, 20211228, 1:14 PM, ANSI FULL BLEED (34.00 X 22.00 INCHES)



GRADING NOTES

1. CONTRACTOR TO STRIP AND STOCKPILE TOPSOIL ON ALL AREAS TO BE CUT OR FILLED. RESPREAD TO MINIMUM 8" DEPTH TO FINISH GRADES.
2. ANY EXCESS CUT TO BE SPREAD ON SITE AS DIRECTED BY ENGINEER DURING CONSTRUCTION. PLACE TOPSOIL OVER ALL AREAS DISTURBED.
3. ALL DRAINAGE SWALES AND SLOPES 5 TO 1 OR GREATER TO BE SEEDED USING COMMERCIALY AVAILABLE EROSION CONTROL SEED. MIXTURE APPLIED AT RATE RECOMMENDED BY SUPPLIER.
4. EROSION CONTROL SEED THE SITE AFTER ROUGH GRADING HAS BEEN COMPLETED PLACE SILT FENCE AND MAINTAIN IN PROBLEM AREAS AFTER GROUND COVER HAS BEEN ESTABLISHED. COMPLY WITH EROSION CONTROL LAW.
5. PROVIDE BELOW GRADE INLET PROTECTION IN PAVED AREAS FOLLOWING PAVING OPERATIONS.

THE CROSSING

GRADING AND EROSION CONTROL PLAN

BONDURANT, POLK COUNTY, IOWA

SNYDER & ASSOCIATES, INC. |



Project No: 122.1546.30

Sheet C400

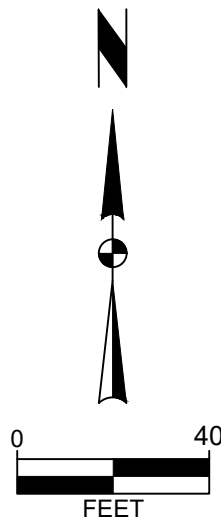
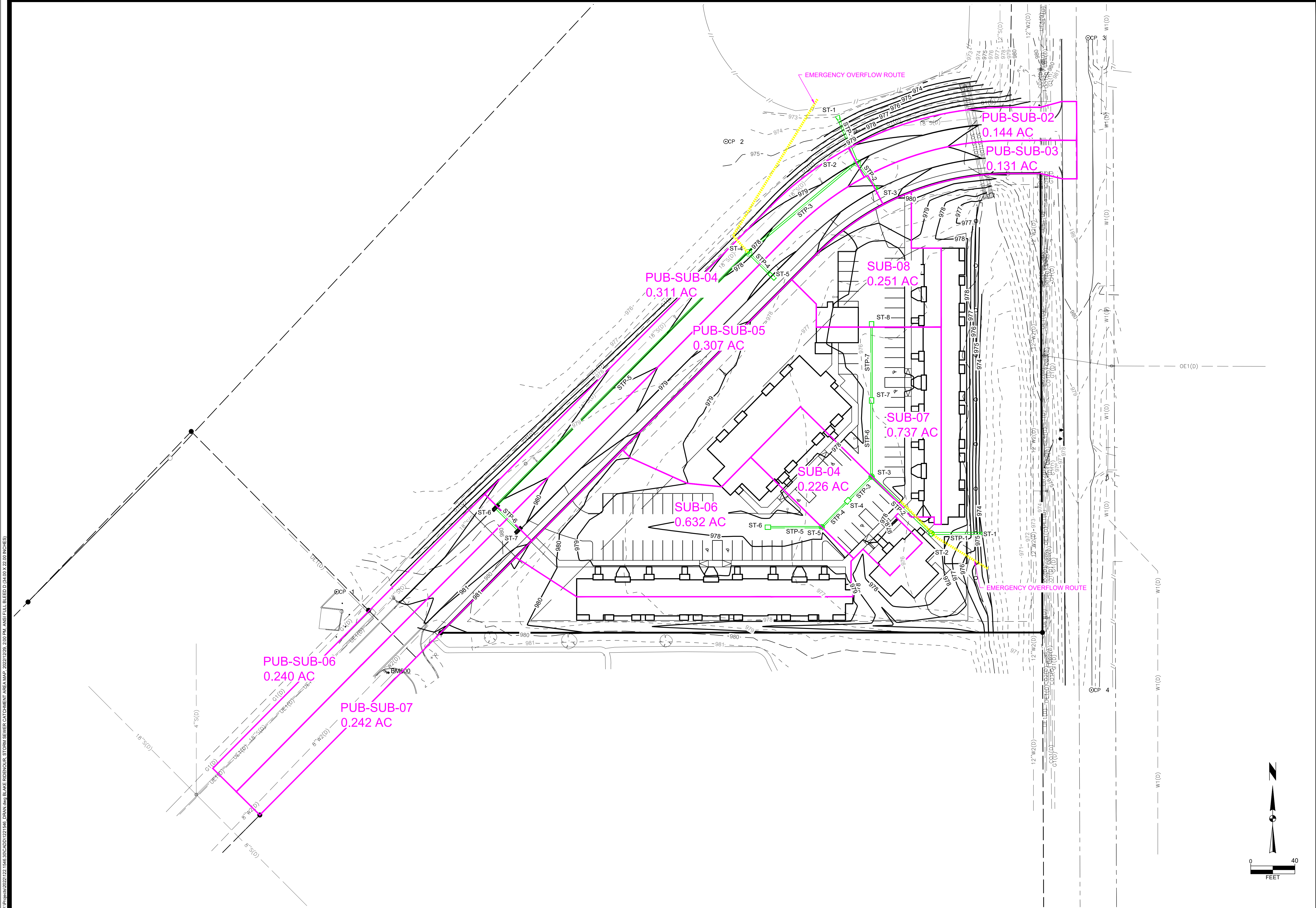
MARK	REVISION	DATE	BY
Engineer: BCA	Checked By: MLC	Scale: 1" = 30'	
Technician: GCB	Date: 12-28-2022	T-R-S: TTN-RRW-SS	

Project No: 122.1546.30

Sheet C400

2727 S.W. SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com

V:\Projects\2021\122.1546.30\ADD\122.1546.30.dwg, PLANE BONDURANT, STORM SEWER CATCHMENT AREA MAP, 2021.12.29, 2:00 PM, ANSI FULL BLEED D (34.00 X 22.00 INCHES)



Project No: 122.1546.30
Sheet EXBT

THE CROSSING ROAD EXTENSION

STORM SEWER CATCHMENT AREA MAP

BONDURANT, POLK COUNTY, IOWA

SNYDER & ASSOCIATES, INC.

2727 S.W. SNYDER BLVD
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com

MARK	REVISION	DATE	BY
Engineer: BCA	Checked By: MLC	Scale: 1" = 40'	
Technician: GCB	Date: 12-22-22	T-R-S: TTN-RRW-SS	
Project No: 122.1546.30			Sheet EXBT

PROJECT: BONDURANT, IA - THE CROSSING STORM SEWER

SUBJECT: DRAINAGE AREA SUMMARY & RUNOFF FACTOR COMPUTATIONS

NO: 122.1546.30

DATE: December 21, 2022

BY: BMR CK: BCA

PAGE: 1 OF: 5



Drainage Area ID See Map	Location On-site Off-site	Total Area (sf)	Total Area (acres)					Pervious				Impervious - Roof Drainage Area								Total Area (acres)	Composite Runoff Coeff., C	Comment
				Runoff Coeff., C	Sub-area (sf)	Sub-area (acres)	% Total Area	Runoff Coeff., C	Sub-area (sf)	Sub-area (acres)	% Total Area	Runoff Coeff., C	Sub-area (sf)	Sub-area (acres)	% Total Area	Runoff Coeff., C	Sub-area (sf)	Sub-area (acres)	% Total Area			
-	-	-	-	0.98		-	-	0.55		-	-	0.98		-	-	0.9		-	-	-	-	
PUB-SUB-02	On	6280	0.144	0.98		0.000	0%	0.55		0.000	0%	0.98		0.000	0%	0.9	6280	0.144	100%	0.144	0.90	
PUB-SUB-03	On	5726	0.131	0.98		0.000	0%	0.55		0.000	0%	0.98		0.000	0%	0.9	5726	0.131	100%	0.131	0.90	
PUB-SUB-04	On	13537	0.311	0.98		0.000	0%	0.55		0.000	0%	0.98		0.000	0%	0.9	13537	0.311	100%	0.311	0.90	
PUB-SUB-05	On	13380	0.307	0.98		0.000	0%	0.55		0.000	0%	0.98		0.000	0%	0.9	13380	0.307	100%	0.307	0.90	
PUB-SUB-06	On	10435	0.240	0.98		0.000	0%	0.55		0.000	0%	0.98		0.000	0%	0.9	10435	0.240	100%	0.240	0.90	
PUB-SUB-07	On	10543	0.242	0.98		0.000	0%	0.55		0.000	0%	0.98		0.000	0%	0.9	10543	0.242	100%	0.242	0.90	
						0.000				0.000				0.000			0	0.000				
SUB-04	On	9828	0.226	0.98		0.000	0%	0.55		0.000	0%	0.98		0.000	0%	0.9	9828	0.226	100%	0.226	0.90	
SUB-06	On	27550	0.632	0.98		0.000	0%	0.55		0.000	0%	0.98		0.000	0%	0.9	27550	0.632	100%	0.632	0.90	
SUB-07	On	32111	0.737	0.98		0.000	0%	0.55		0.000	0%	0.98		0.000	0%	0.9	32111	0.737	100%	0.737	0.90	
SUB-08	On	10915	0.251	0.98		0.000	0%	0.55		0.000	0%	0.98		0.000	0%	0.9	10915	0.251	100%	0.251	0.90	
						0.000				0.000				0.000			0	0.000				
						0.000				0.000				0.000			0	0.000				
						0.000				0.000				0.000			0	0.000				
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Comments:

1. Any drainage area, storm structure, or pipe that has "PUB" in it's name is the public storm sewer utilities. This is the storm sewer within the roadway.

NO: 122.1546.30

DATE: December 21, 2022

BY: BMR CK: BCA

PAGE: 2 OF: 5



Iowa Climatic Section:

5 - Central

* Refer to SUDAS Design Manual, Chapter 2 - Stormwater, Section 2B-2 Rainfall and Runoff Periods (2015 Edition)

Storm Recurrence Interval:

5-year

[illegible]

Comments:

1. Any drainage area, storm structure, or pipe that has "PUB" in it's name is the public storm sewer utilities. This is the storm sewer within the roadway.
2. Design calculations based on Rational Method peak runoff flows and Manning's full flow pipe capacity.

PROJECT: BONDURANT, IA - THE CROSSING STORM SEWER

NO: 122.1546.30

SUBJECT: STORM SEWER DESIGN CHECK - 100YR

DATE: December 21, 2022

BY: BMR CK: BCA

PAGE: 3 OF: 5

Iowa Climatic Section:
Storm Recurrence Interval:

5 - Central

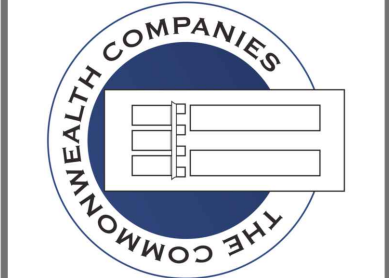
* Refer to SUDAS Design Manual, Chapter 2 - Stormwater, Section 2B-2 Rainfall and Runoff Periods (2015 Edition)

100-year

SECTION See Map for Location	Pipe Name	Drainage Area (acres) A	Runoff Coeff. C	Equiv. Area (acres) CA	Time of Concen. (min) T	Rainfall Intensity (in/hr) I	Other Flow (cfs)	TOTAL RUNOFF (cfs) Q=(ΣCA)I	Pipe Length (ft) L	Pipe Slope (ft/ft) S	Req'd Pipe Size (in) D	PIPE SIZE (in) D	Full Flow Velocity (fps) V _{full}	Full Flow Capacity (cfs) Q _{full}	Time in Section (min) t	Type of Pipe	Comment
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PUB-SUB-07	PUB-STP-6	0.24	0.90	0.22	15	7.44		1.62	31.0	0.0100	8.9	15	5.28	6.48	0.10	RCP	
PUB-SUB-06	PUB-STP-5	0.24	0.90	0.22	15	7.44	1.62	3.23	325.0	0.0054	13.0	15	3.88	4.76	1.40	RCP	
PUB-SUB-05	PUB-STP-4	0.31	0.90	0.28	15	7.44		2.06	31.0	0.0100	9.8	15	5.28	6.48	0.10	RCP	
PUB-SUB-04	PUB-STP-3	0.31	0.90	0.28	15	7.44	5.28	7.37	128.0	0.0048	18.1	15	3.66	4.49	0.58	RCP	
PUB-SUB-03	PUB-STP-2	0.13	0.90	0.12	15	7.44		0.88	31.4	0.0631	5.0	15	13.26	16.27	0.04	RCP	
PUB-SUB-02	PUB-STP-1	0.14	0.90	0.13	15	7.44	8.24	9.21	45.1	0.0044	20.0	18	3.95	6.99	0.19	RCP	
		#N/A	0.00	0.00													
SUB-08	STP-7	0.25	0.90	0.23	15	7.44		1.68	68.9	0.0045	10.5	12	3.05	2.40	0.38	RCP	
SUB-07	STP-6	0.74	0.90	0.66	15	7.44	1.68	6.62	68.9	0.0033	18.6	15	3.03	3.72	0.38	RCP	
SUB-06	STP-5	0.63	0.90	0.57	15	7.44		4.23	48.9	0.0045	14.9	12	3.05	2.40	0.27	RCP	
	STP-4	#N/A	0.00	0.00	15	7.44	4.23	4.23	33.4	0.0045	14.9	12	3.05	2.40	0.18	RCP	
SUB-04	STP-3	0.23	0.90	0.20	15	7.44	4.23	5.75	30.8	0.0036	17.4	15	3.17	3.89	0.16	RCP	
	STP-2	#N/A	0.00	0.00	15	7.44	12.36	12.36	74.8	0.0047	22.0	18	4.09	7.22	0.31	RCP	
	STP-1	#N/A	0.00	0.00	15	7.44	12.36	12.36	55.0	0.0049	21.8	18	4.17	7.37	0.22	RCP	
		#N/A	0.00	0.00			0.00										
		#N/A	0.00	0.00			0.00										
		#N/A	0.00	0.00			0.00										
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Comments:

1. Any drainage area, storm structure, or pipe that has "PUB" in it's name is the public storm sewer utilities. This is the storm sewer within the roadway.
2. Design calculations based on Rational Method peak runoff flows and Manning's full flow pipe capacity.



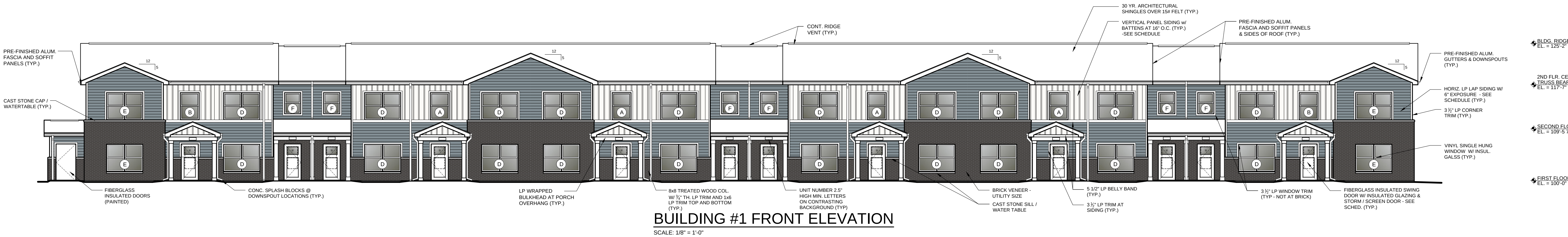
PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

WINDOW SCHEDULE			
MARK	MAT'L	DESCRIPTION	NOM. UNIT SIZE (W x H)
(A)*	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-6" x 5'-0"
(B)*	VINYL	ADA SINGLE HUNG WINDOW	UNIT: 3'-6" x 5'-0"
(C)	VINYL	FIXED WINDOW	UNIT: (2) 3'-4" x 2'-6"
(D)*	VINYL	SINGLE HUNG WINDOW	UNIT: (2) 3'-4" x 5'-0"
(E)*	VINYL	ADA SINGLE HUNG WINDOW	UNIT: (2) 3'-4" x 5'-0"
(F)	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-0" x 4'-0"

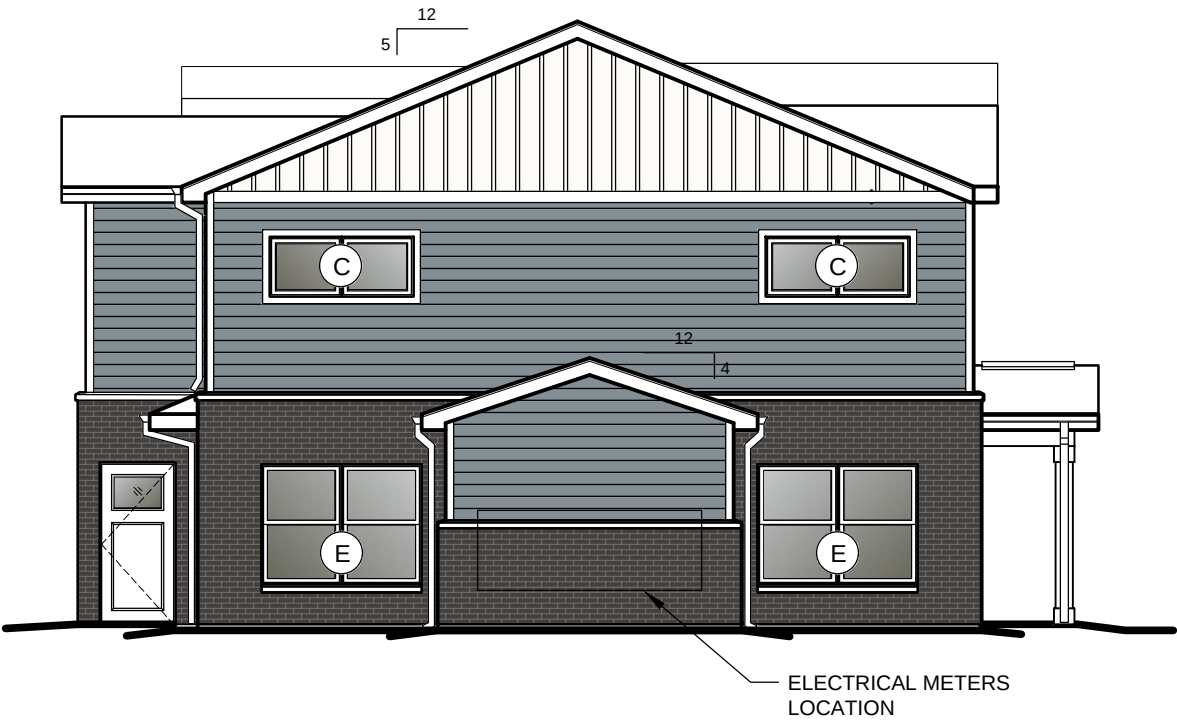
- GENERAL WINDOW NOTES:
- ENERGY STAR WINDOWS
 - ASTERISK (*) INDICATES WINDOWS SHALL MEET MIN. EGRESS SIZE REQUIREMENTS IN SLEEPING ROOMS PER IBC.
 - 20" CLEAR WIDTH
24" CLEAR HEIGHT
5.7 S.F. (MIN.)
 - PER SPS 321.05 (3) SAFETY GLAZING ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN 24"
 - WINDOW MANUFACTURER SHALL REVIEW WINDOW LOCATIONS AND PROVIDE SAFETY GLAZING IN ALL LOCATIONS REQUIRED BY IBC CHAPTER 24
 - SEE TYP UNIT FLOOR PLANS FOR ALL ADA WINDOW LOCATIONS - REFER TO DETAIL 1304.0 FOR ADA WINDOW SASH REQUIREMENTS. (PROVIDE ADA LIFT HANDLE @ BOTTOM SASH)
 - PROVIDE SCREENS FOR ALL OPERABLE WINDOWS

EXTERIOR COLOR SCHEDULE		
MAT'L	MFR.	COLOR
HORIZ. ENGINEERED WOOD LAP SIDING 6" EXPOSURE (SMOOTH)	LP SMARTSIDE	SUMMIT BLUE
ENGINEERED WOOD PANEL SIDING W/ BOARD & BATTEN @ 16" O.C. (SMOOTH)	LP SMARTSIDE	SNOWSCAPE WHITE
BRICK VENEER - 4" UTILITY	INTERSTATE BRICK	COAL
DOOR, WINDOW TRIM & BELLY BAND	LP SMARTSIDE	SNOWSCAPE WHITE
PORCH COLUMN & BULKHEAD	LP SMARTSIDE	SNOWSCAPE WHITE
UNIT ENTRY DOORS	THERMA TRU	SW 7076 CYBERSPACE
ALUMINUM ENTRY DOORS & STOREFRONTS	KAWNEER	CLEAR ANODIZED ALUMINUM
UTILITY DOORS	THERMA TRU	SW 7076 CYBERSPACE
VINYL WINDOWS	ALLIANCE	WHITE
SOFFIT, FASCIA, AND DRIP EDGE	ALCOA	WHITE
GUTTERS & DOWNSPOUTS	WILCO	WHITE
ASPHALT SHINGLES & RIDGE VENT	TAMCO	PEWTER
MISC. GRILLES, EXHAUST VENTS, ETC.	PAINTED	MATCH ADJ. MATERIAL
CMU SPLIT-FACE	COUNTY MATERIALS	COCOA BEANS
ALUM. CAP	ALCOA	GRAY
DUMPSTER FENCE GATE	TBD	VINYL SLATED CHAIN LINK - GRAY

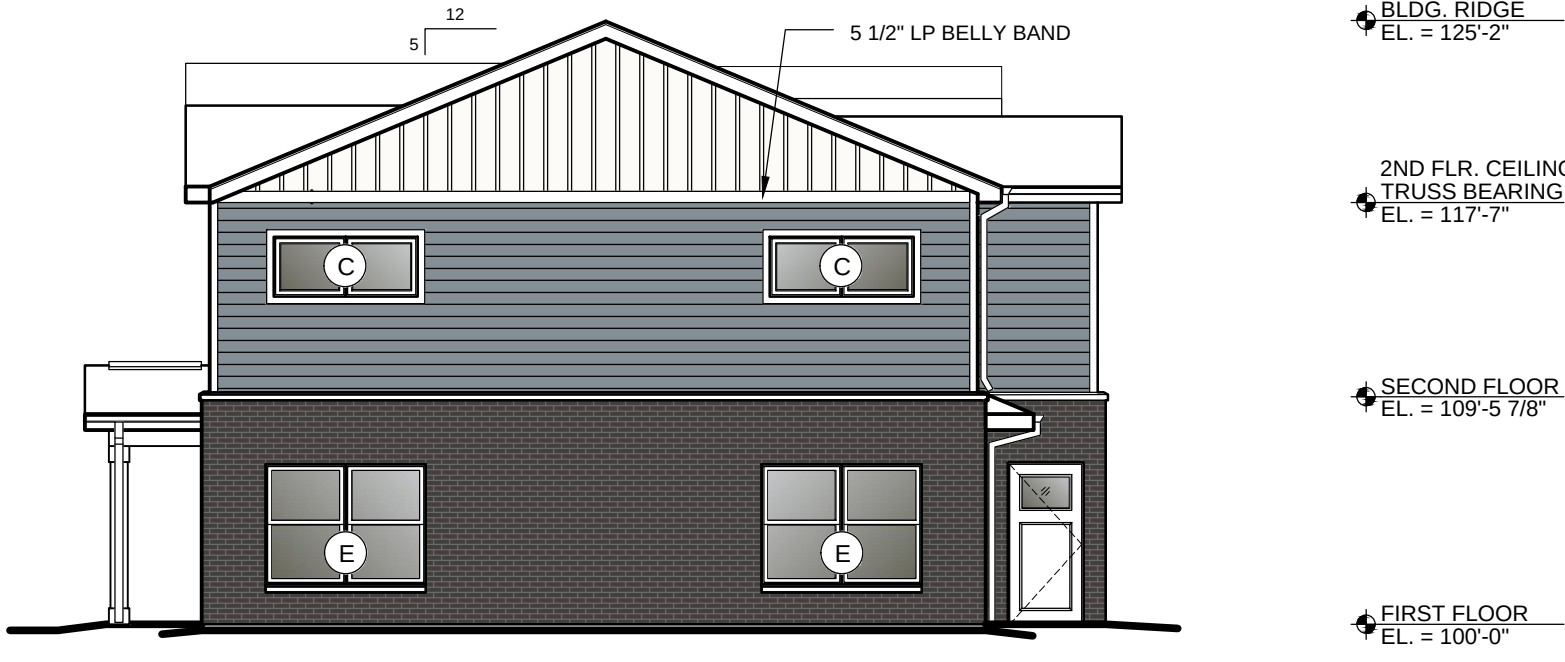
- EXTERIOR COLOR NOTES:
- VERIFY COLORS AND MATERIALS WITH OWNER AND ARCHITECT PRIOR TO ORDERING
 - ALL SIDING, SOFFIT, FASCIA, AND TRIM BOARDS TO BE FACTORY PRE-FINISHED
 - ALL PROPOSED RANGE HOOD VENT, DRYER VENT, AND BATHROOM VENTS TO EXTERIOR SHALL BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION



BUILDING #1 FRONT ELEVATION
SCALE: 1/8" = 1'-0"



BUILDING #1 ELEVATION
SCALE: 1/8" = 1'-0"



BUILDING #1 ELEVATION
SCALE: 1/8" = 1'-0"

TOTAL BUILDING #1 SF:	8,009 SF
TOTAL BUILDING #1 BRICK SF:	3,476 SF
TOTAL PERCENTAGE BRICK PROVIDED:	43%
PERCENTAGE OF BRICK REQ:	40%



BUILDING #1 REAR ELEVATION
SCALE: 1/8" = 1'-0"

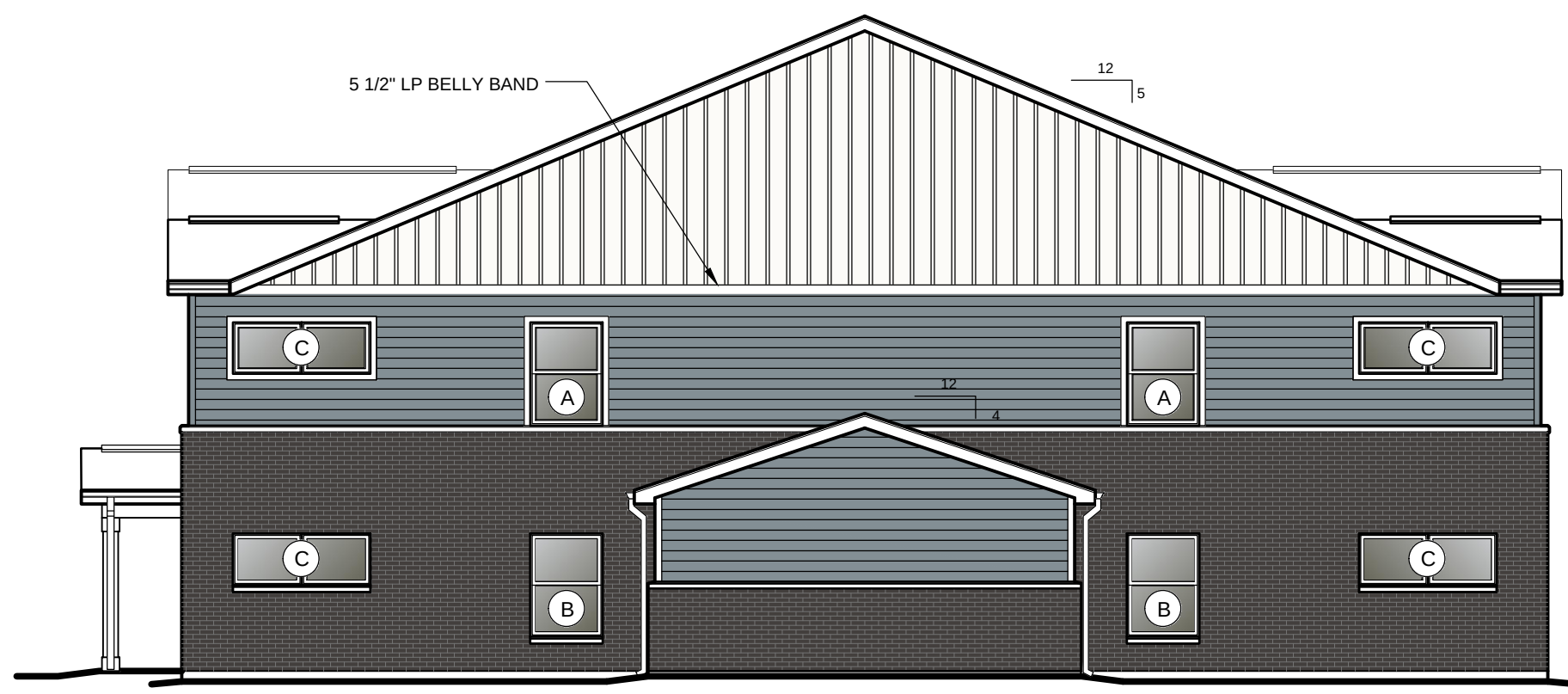
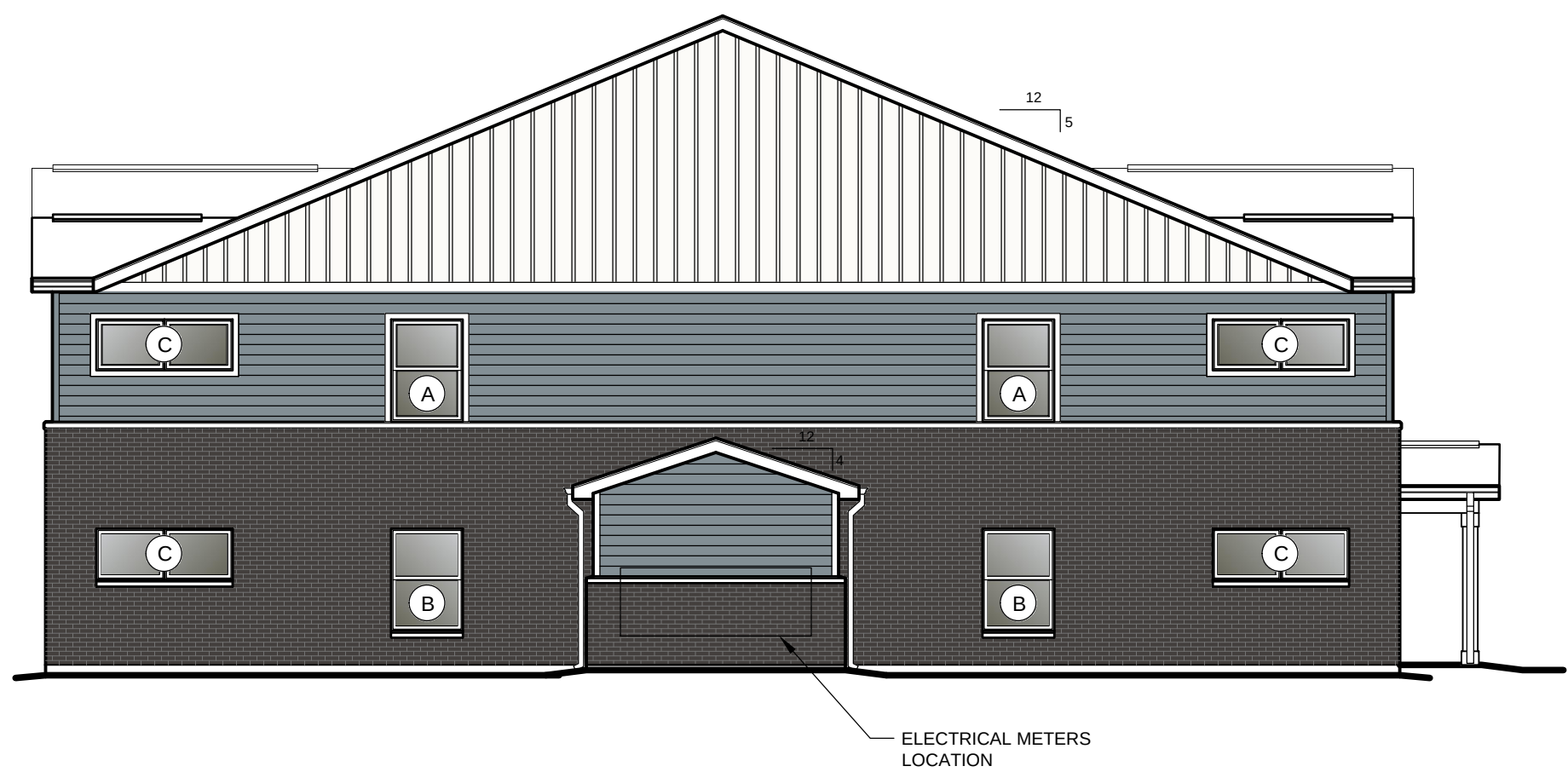
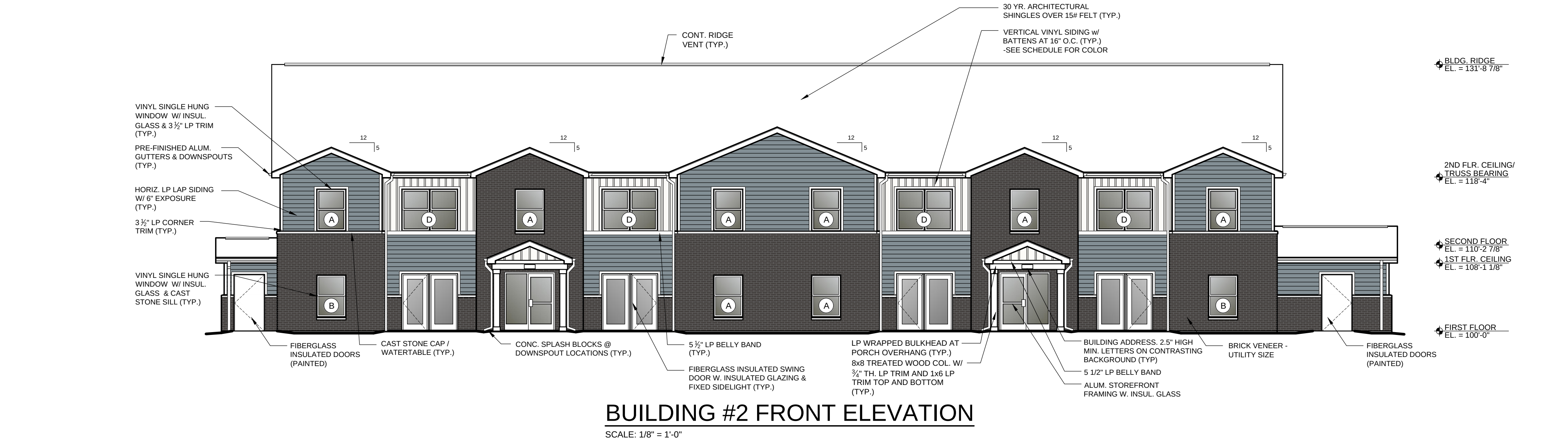
PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

WINDOW SCHEDULE			
MARK	MAT'L	DESCRIPTION	NOM. UNIT SIZE (W x H)
(A)*	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-6" x 5'-0"
(B)*	VINYL	ADA SINGLE HUNG WINDOW	UNIT: 3'-6" x 5'-0"
(C)	VINYL	FIXED WINDOW	UNIT: (2) 3'-4" x 2'-6"
(D)*	VINYL	SINGLE HUNG WINDOW	UNIT: (2) 3'-4" x 5'-0"
(E)*	VINYL	ADA SINGLE HUNG WINDOW	UNIT: (2) 3'-4" x 5'-0"
(F)	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-0" x 4'-0"

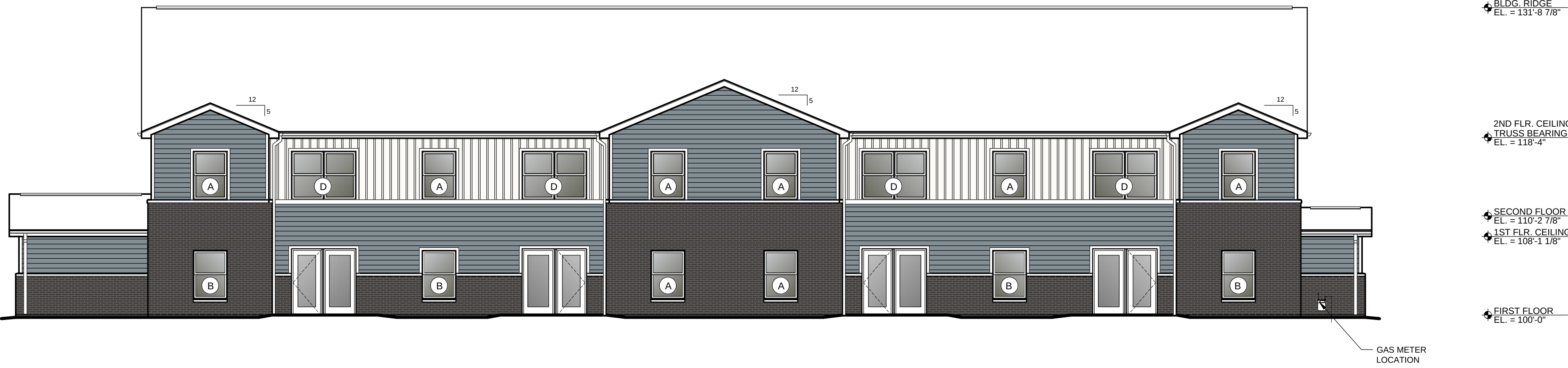
- GENERAL WINDOW NOTES:
- ENERGY STAR WINDOWS
 - ASTERISK (*) INDICATES WINDOWS SHALL MEET MIN. EGRESS SIZE REQUIREMENTS IN SLEEPING ROOMS PER IBC.
 - 20" CLEAR WIDTH
24" CLEAR HEIGHT
5.7 S.F. (MIN.)
 - PER SPS 321.05 (3) SAFETY GLAZING ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN 24"
 - WINDOW MANUFACTURER SHALL REVIEW WINDOW LOCATIONS AND PROVIDE SAFETY GLAZING IN ALL LOCATIONS REQUIRED BY IBC CHAPTER 24
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 - PROVIDE SCREENS FOR ALL OPERABLE WINDOWS

EXTERIOR COLOR SCHEDULE		
MAT'L	MFR.	COLOR
HORIZ. ENGINEERED WOOD LAP SIDING 6" EXPOSURE (SMOOTH)	LP SMARTSIDE	SUMMIT BLUE
ENGINEERED WOOD PANEL SIDING W/ BOARD & BATTEN @ 16" O.C. (SMOOTH)	LP SMARTSIDE	SNOWSCAPE WHITE
BRICK VENEER - 4" UTILITY	INTERSTATE BRICK	COAL
DOOR, WINDOW TRIM & BELLY BAND	LP SMARTSIDE	SNOWSCAPE WHITE
PORCH COLUMN & BULKHEAD	LP SMARTSIDE	SNOWSCAPE WHITE
UNIT ENTRY DOORS	THERMA TRU	SW 7076 CYBERSPACE
ALUMINUM ENTRY DOORS & STOREFRONTS	KAWNEER	CLEAR ANODIZED ALUMINUM
UTILITY DOORS	THERMA TRU	SW 7076 CYBERSPACE
VINYL WINDOWS	ALLIANCE	WHITE
SOFFIT, FASCIA, AND DRIP EDGE	ALCOA	WHITE
GUTTERS & DOWNSPOUTS	WILCO	WHITE
ASPHALT SHINGLES & RIDGE VENT	TAMCO	PEWTER
MISC. GRILLES, EXHAUST VENTS, ETC.	PAINTED	MATCH ADJ. MATERIAL
CMU SPLIT-FACE	COUNTY MATERIALS	COCOA BEANS
ALUM. CAP	ALCOA	GRAY
DUMPSTER FENCE GATE	TBD	VINYL SLATED CHAIN LINK - GRAY

- EXTERIOR COLOR NOTES:
- VERIFY COLORS AND MATERIALS WITH OWNER AND ARCHITECT PRIOR TO ORDERING
 - ALL SIDING, SOFFIT, FASCIA, AND TRIM BOARDS TO BE FACTORY PRE-FINISHED
 - ALL PROPOSED RANGE HOOD VENT, DRYER VENT, AND BATHROOM VENTS TO EXTERIOR SHALL BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION



TOTAL BUILDING #2 SF:	6,741 SF
TOTAL BUILDING #2 BRICK SF:	3,323 SF
TOTAL PERCENTAGE BRICK PROVIDED:	49%
PERCENTAGE OF BRICK REQ:	40%



BUILDING #2 ELEVATIONS

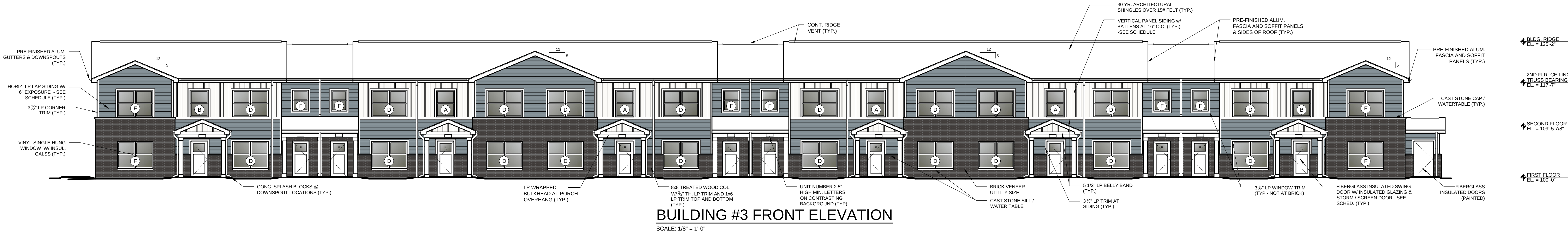
SCALE: 1/8" = 1'-0"

WINDOW SCHEDULE			
MARK	MAT'L	DESCRIPTION	NOM. UNIT SIZE (W x H)
(A)*	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-6" x 5'-0"
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(E)*	VINYL	ADA SINGLE HUNG WINDOW	UNIT: (2) 3'-4" x 5'-0"
(F)	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-0" x 4'-0"

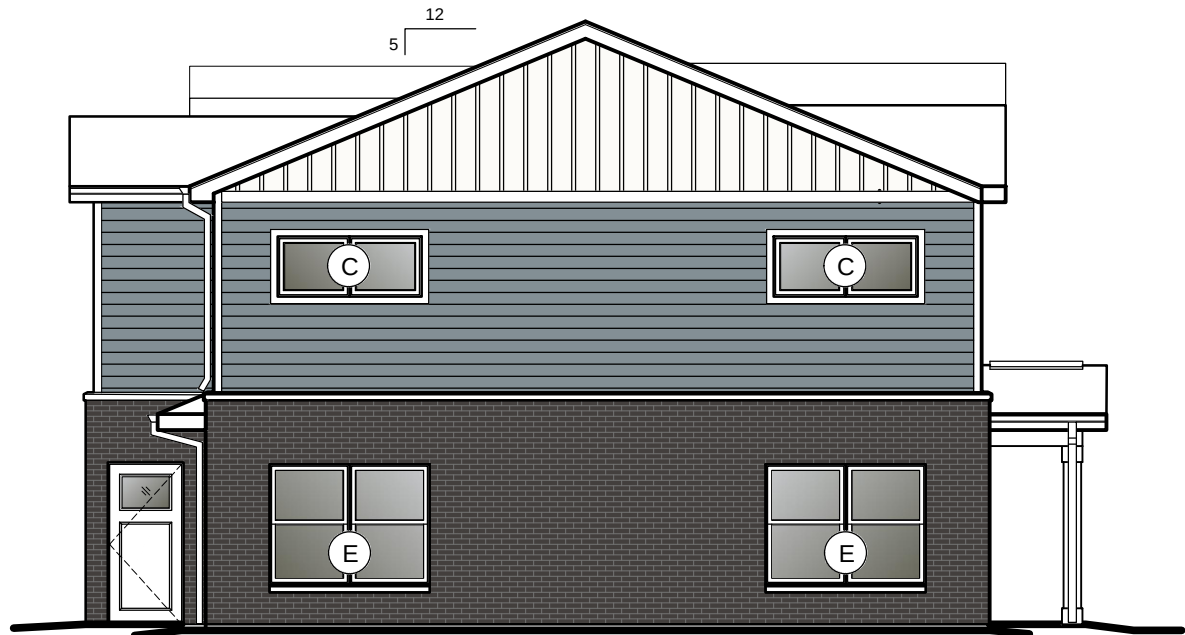
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 - PROVIDE SCREENS FOR ALL OPERABLE WINDOWS

EXTERIOR COLOR SCHEDULE		
MAT'L	MFR.	COLOR
HORIZ. ENGINEERED WOOD LAP SIDING 6" EXPOSURE (SMOOTH)	LP SMARTSIDE	SUMMIT BLUE
ENGINEERED WOOD PANEL SIDING W/ BOARD & BATTEN @ 16" O.C. (SMOOTH)	LP SMARTSIDE	SNOWSCAPE WHITE
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DOOR, WINDOW TRIM & BELLY BAND	LP SMARTSIDE	SNOWSCAPE WHITE
PORCH COLUMN & BULKHEAD	LP SMARTSIDE	SNOWSCAPE WHITE
UNIT ENTRY DOORS	THERMA TRU	SW 7076 CYBERSPACE
ALUMINUM ENTRY DOORS & STOREFRONTS	KAWNEER	CLEAR ANODIZED ALUMINUM
UTILITY DOORS	THERMA TRU	SW 7076 CYBERSPACE
VINYL WINDOWS	ALLIANCE	WHITE
SOFFIT, FASCIA, AND DRIP EDGE	ALCOA	WHITE
GUTTERS & DOWNSPOUTS	WILCO	WHITE
ASPHALT SHINGLES & RIDGE VENT	TAMKO	PEWTER
MISC. GRILLES, EXHAUST VENTS, ETC.	PAINTED	MATCH ADJ. MATERIAL
CMU SPLIT-FACE	COUNTY MATERIALS	COCOA BEANS
ALUM. CAP	ALCOA	GRAY
DUMPSTER FENCE GATE	TBD	VINYL SLATED CHAIN LINK - GRAY

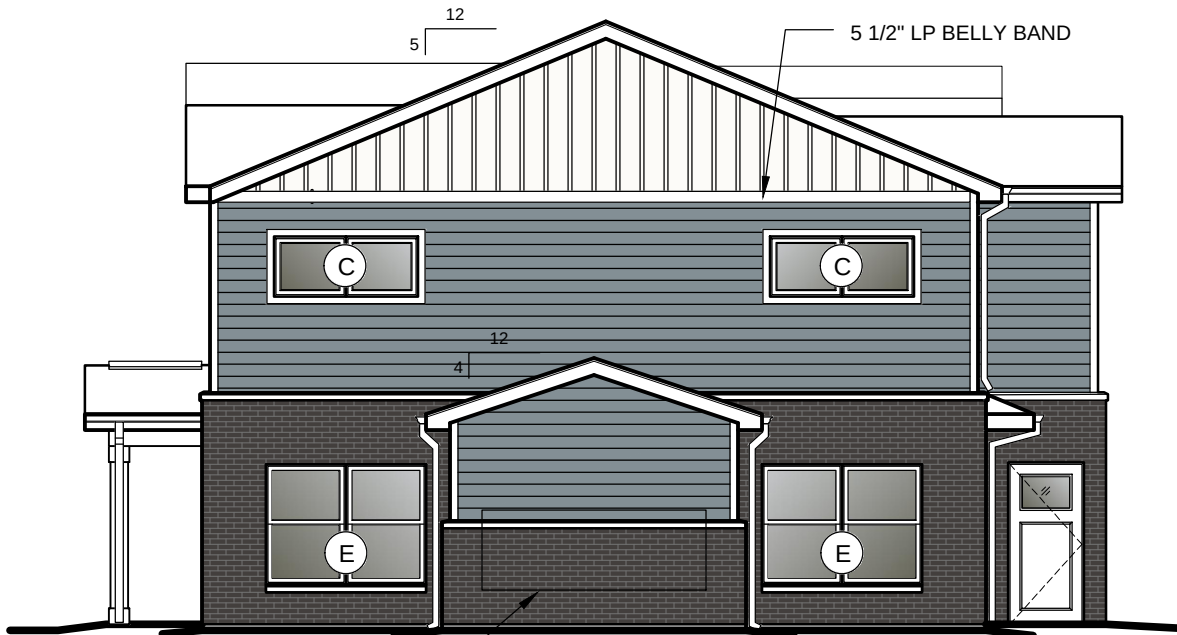
- EXTERIOR COLOR NOTES:
- VERIFY COLORS AND MATERIALS WITH OWNER AND ARCHITECT PRIOR TO ORDERING
 - ALL SIDING, SOFFIT, FASCIA, AND TRIM BOARDS TO BE FACTORY PRE-FINISHED
 - ALL PROPOSED RANGE HOOD VENT, DRYER VENT, AND BATHROOM VENTS TO EXTERIOR SHALL BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION



BUILDING #3 FRONT ELEVATION
SCALE: 1/8" = 1'-0"



BUILDING #3 ELEVATION
SCALE: 1/8" = 1'-0"



BUILDING #3 ELEVATION
SCALE: 1/8" = 1'-0"

TOTAL BUILDING #3 SF:	8,009 SF
TOTAL BUILDING #3 BRICK SF:	3,476 SF
TOTAL PERCENTAGE BRICK PROVIDED:	43%
PERCENTAGE OF BRICK REQ:	40%



BUILDING #3 REAR ELEVATION
SCALE: 1/8" = 1'-0"

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

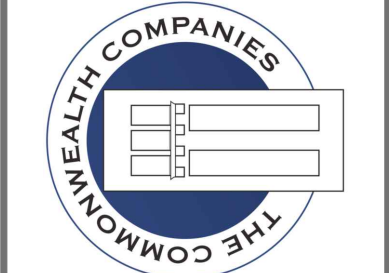
PRELIMINARY SHEET DATES:
12/29/2022

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THE CROSSING

COURTYARD DRIVE SE
BONDURANT, IA 50035

JOB NUMBER:	2021.07
SHEET	A2.3

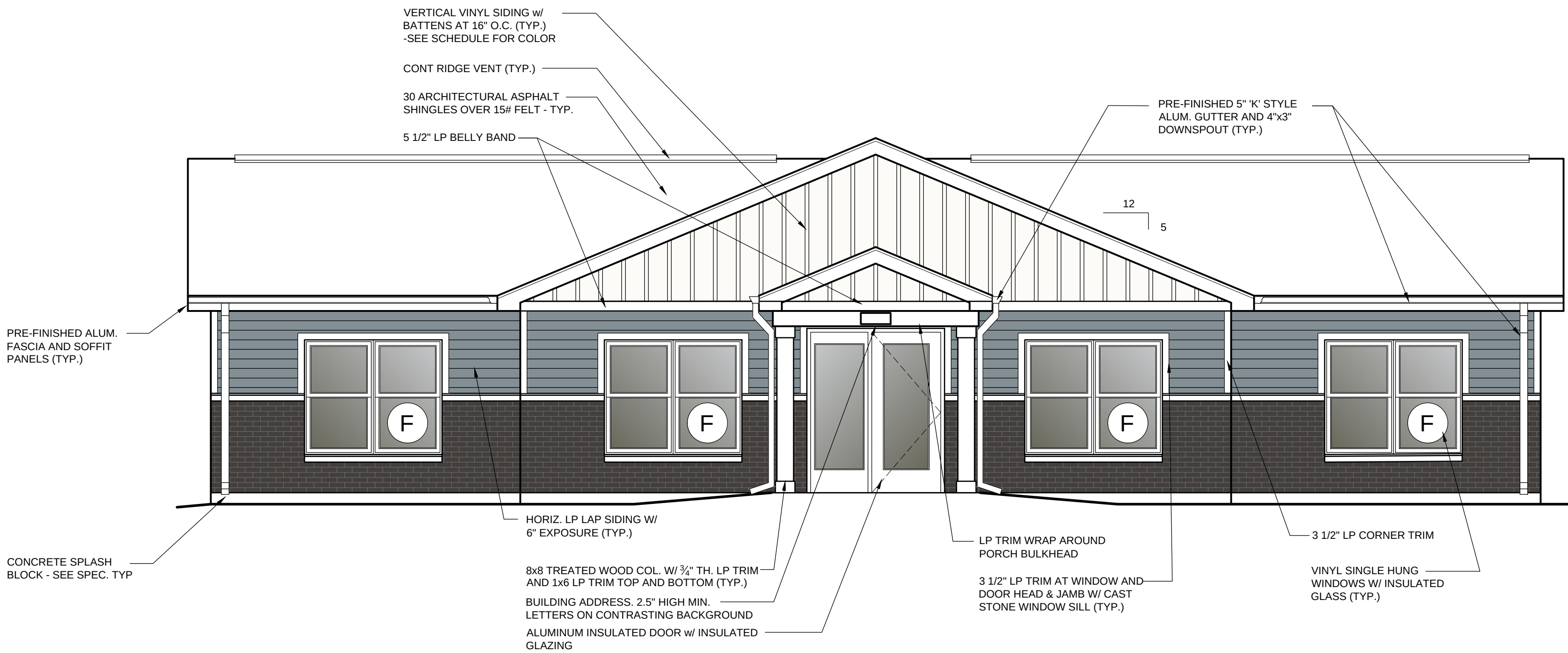
PRELIMINARY DRAWING - NOT FOR CONSTRUCTION

CLUBHOUSE WINDOW SCHEDULE			
SYM.	MAT'L	DESCRIPTION	NOM. UNIT SIZE W.X.H.
(B)	VINYL	ADA SINGLE HUNG WINDOW	UNIT: 3'-6" x 5'-0"
(F)	VINYL	ADA SINGLE HUNG WINDOW	UNIT: (2) 3'-0" x 5'-0"
(J)	VINYL	ADA SINGLE HUNG WINDOW	UNIT: (3) 3'-0" x 5'-0"

- GENERAL WINDOW NOTES:
- ENERGY STAR WINDOWS
 - PER SPS 321.05 (3) SAFETY GLAZING ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN 24"
 - WINDOW MANUFACTURER SHALL REVIEW WINDOW LOCATIONS AND PROVIDE SAFETY GLAZING IN ALL LOCATIONS REQUIRED BY IBC CHAPTER 24
 - SEE TYP UNIT FLOOR PLANS FOR ALL ADA WINDOW LOCATIONS-
 - REFER TO DETAIL 18/A.0 FOR ADA WINDOW SASH REQUIREMENTS. (PROVIDE ADA LIFT HANDLE @ BOTTOM SASH)
 - PROVIDE SCREENS FOR ALL OPERABLE WINDOWS

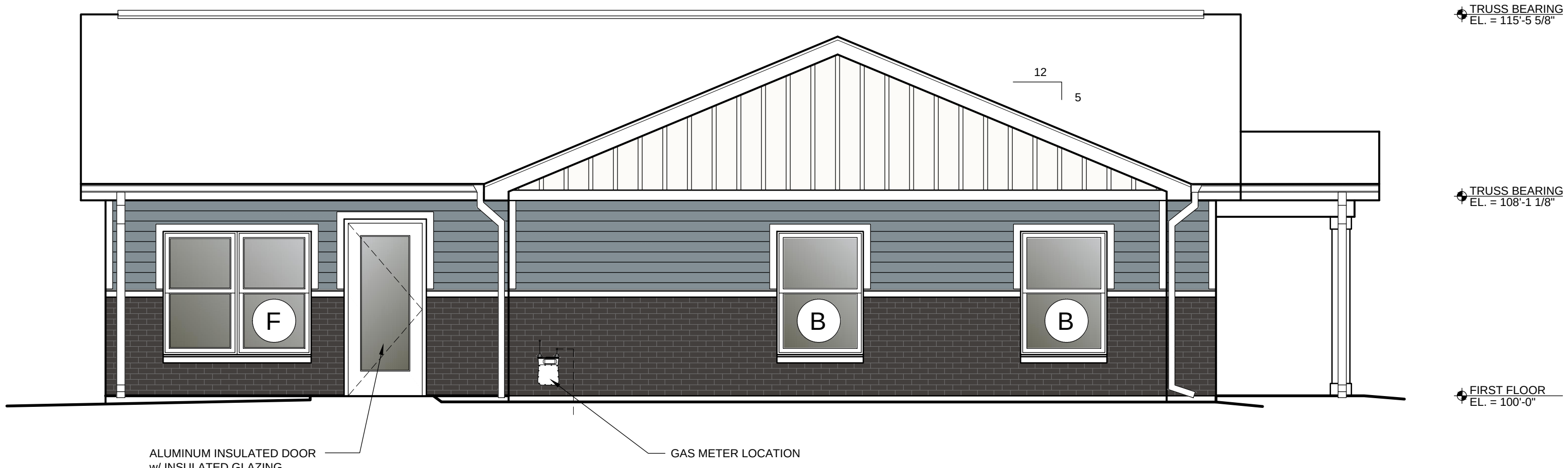
EXTERIOR COLOR SCHEDULE		
MAT'L	MFR.	COLOR
HORIZ. ENGINEERED WOOD LAP SIDING 6" EXPOSURE (SMOOTH)	LP SMARTSIDE	SUMMIT BLUE
ENGINEERED WOOD PANEL SIDING W/ BOARD & BATTEN @ 16" O.C. (SMOOTH)	LP SMARTSIDE	SNOWSCAPE WHITE
BRICK VENEER - 4" UTILITY	INTERSTATE BRICK	COAL
DOOR, WINDOW TRIM & BELLY BAND	LP SMARTSIDE	SNOWSCAPE WHITE
PORCH COLUMN & BULKHEAD	LP SMARTSIDE	SNOWSCAPE WHITE
UNIT ENTRY DOORS	THERMA TRU	SW 7076 CYBERSPACE
ALUMINUM ENTRY DOORS & STOREFRONTS	KAWNEER	CLEAR ANODIZED ALUMINUM
UTILITY DOORS	THERMA TRU	SW 7076 CYBERSPACE
VINYL WINDOWS	ALLIANCE	WHITE
SOFFIT, FASCIA, AND DRIP EDGE	ALCOA	WHITE
GUTTERS & DOWNSPOUTS	WILCO	WHITE
ASPHALT SHINGLES & RIDGE VENT	TAMKO	PEWTER
MISC. GRILLES, EXHAUST VENTS, ETC.	PAINTED	MATCH ADJ. MATERIAL
CMU SPLIT-FACE	COUNTY MATERIALS	COCOA BEANS
ALUM. CAP	ALCOA	GRAY
DUMPSTER FENCE GATE	TBD	VINYL SLATED CHAIN LINK - GRAY

- EXTERIOR COLOR NOTES:
- VERIFY COLORS AND MATERIALS WITH OWNER AND ARCHITECT PRIOR TO ORDERING
 - ALL SIDING, SOFFIT, FASCIA, AND TRIM BOARDS TO BE FACTORY PRE-FINISHED
 - ALL PROPOSED RANGE HOOD VENT, DRYER VENT, AND BATHROOM VENTS TO EXTERIOR SHALL BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION

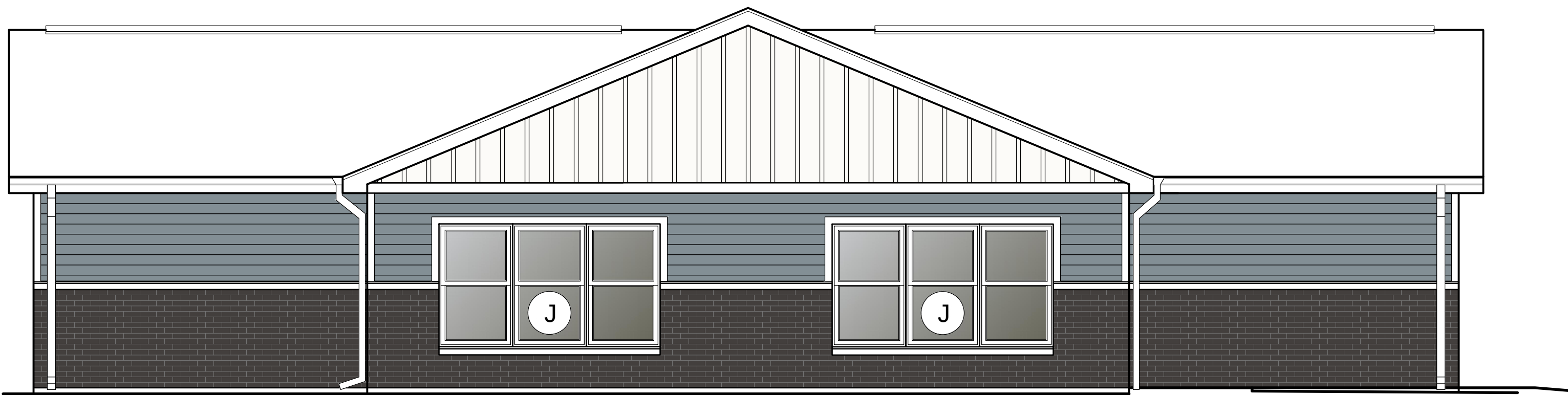


BUILDING #4
ELEVATION CLUBHOUSE
SCALE: 1/4" = 1'-0"

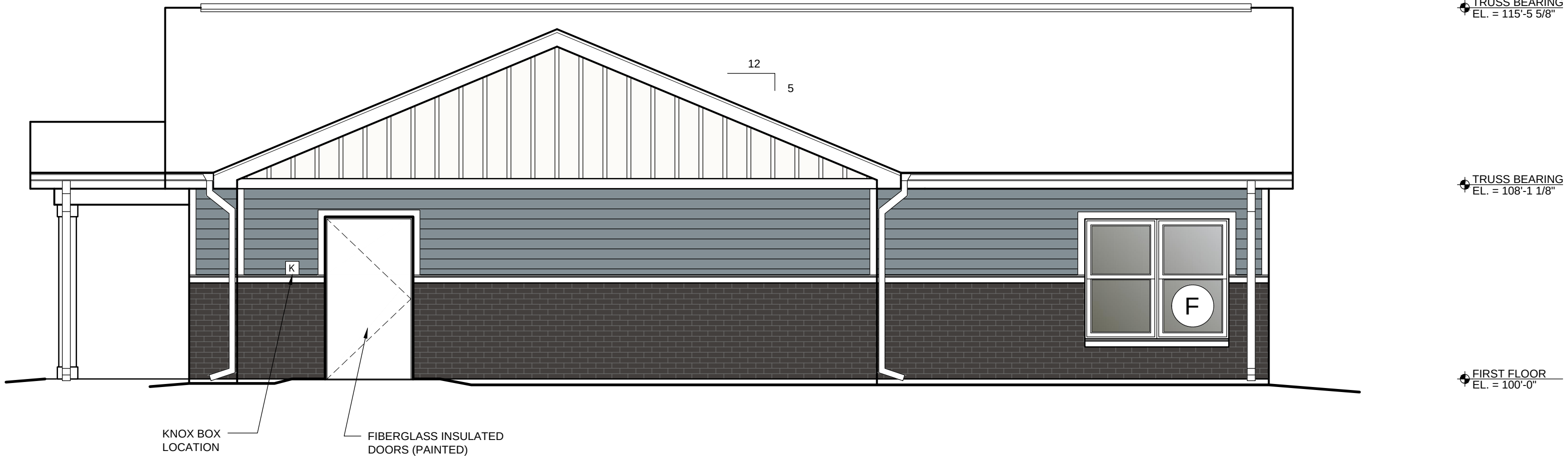
TOTAL BUILDING #4 SF:	1,674 SF
TOTAL BUILDING #4 BRICK SF:	673 SF
TOTAL PERCENTAGE BRICK PROVIDED:	40%
PERCENTAGE OF BRICK REQ:	40%



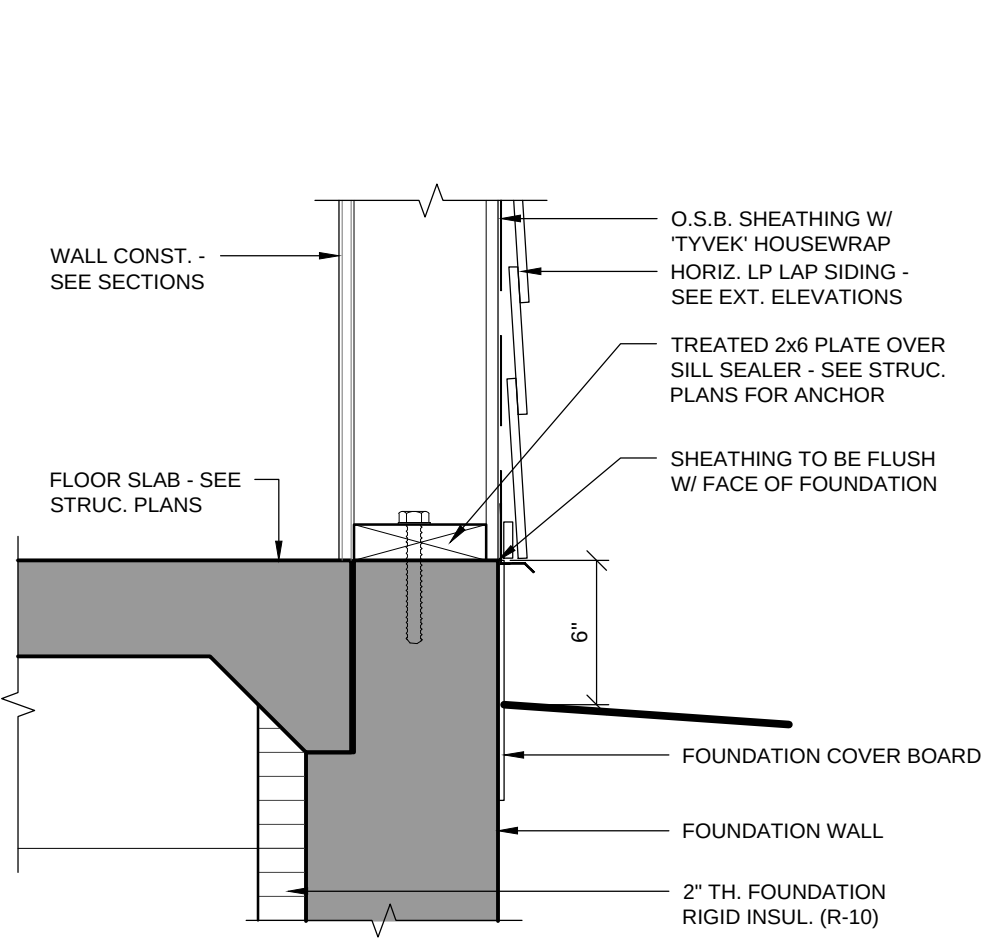
BUILDING #4
ELEVATION CLUBHOUSE
SCALE: 1/4" = 1'-0"



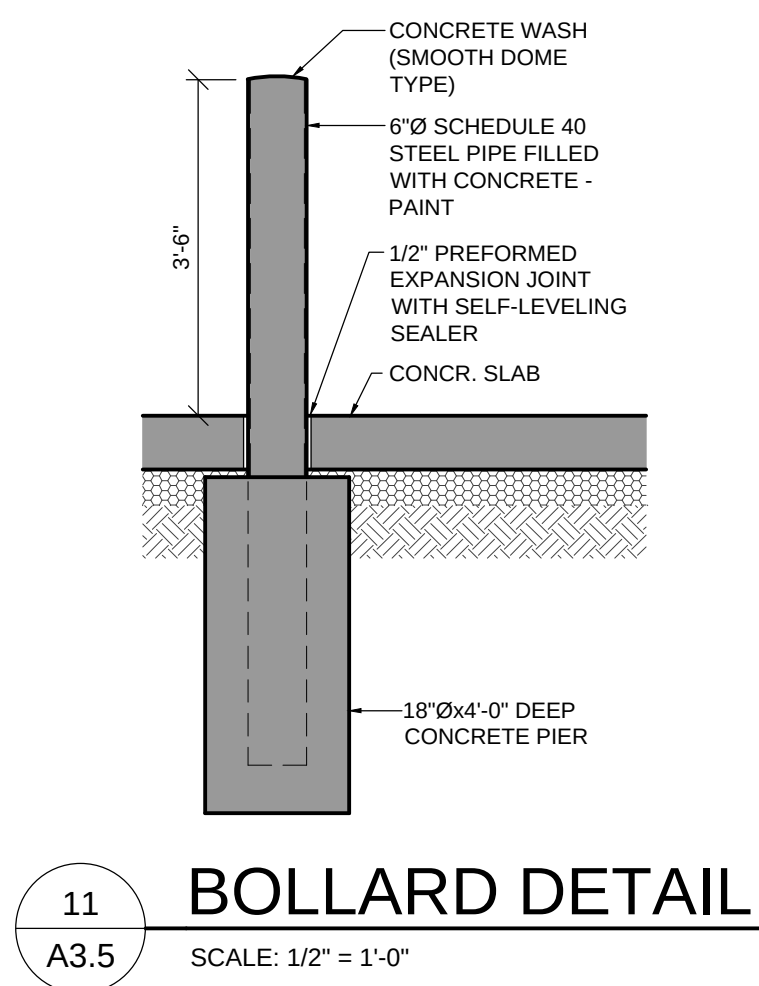
BUILDING #4
ELEVATION CLUBHOUSE
SCALE: 1/4" = 1'-0"



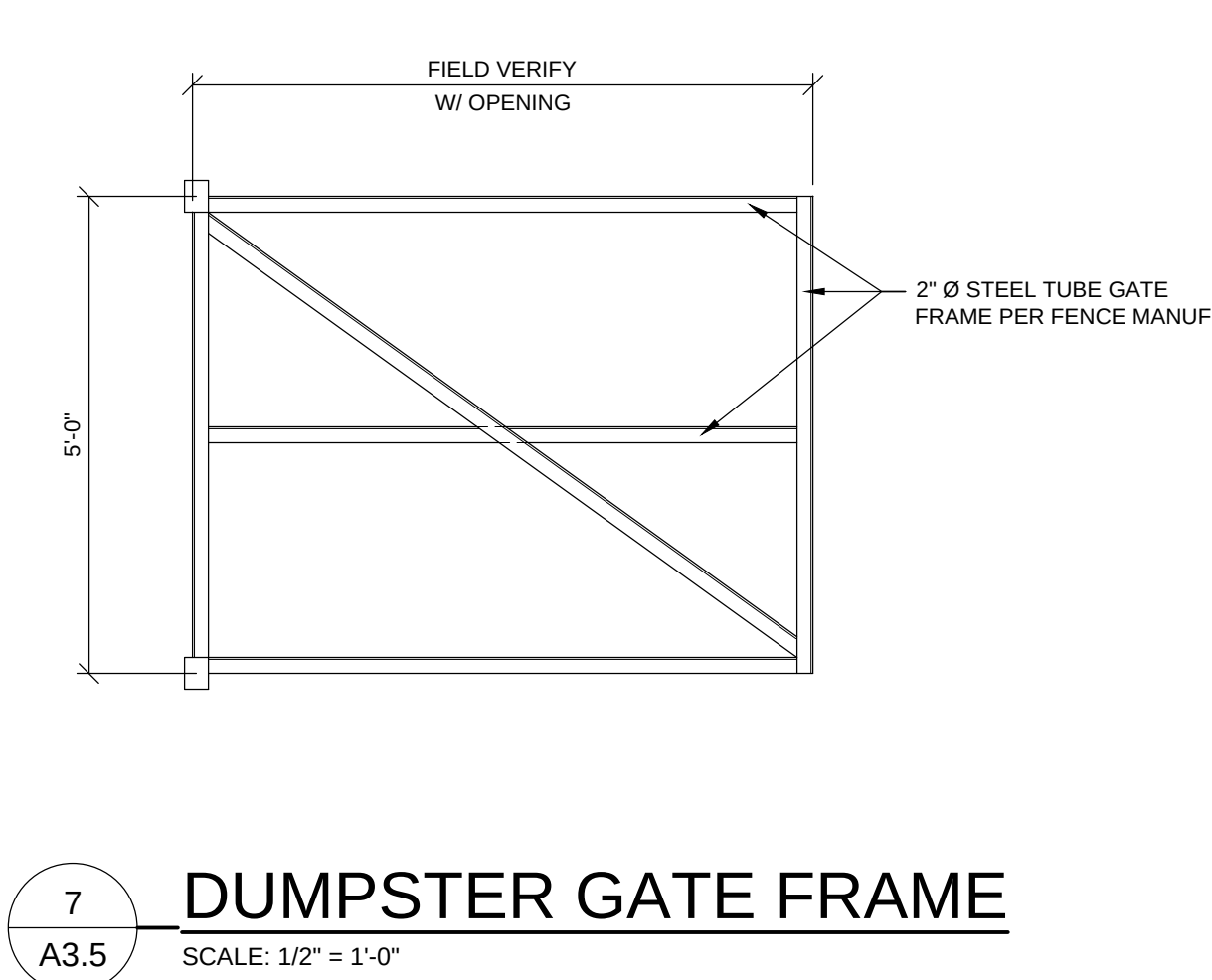
BUILDING #4
ELEVATION CLUBHOUSE
SCALE: 1/4" = 1'-0"



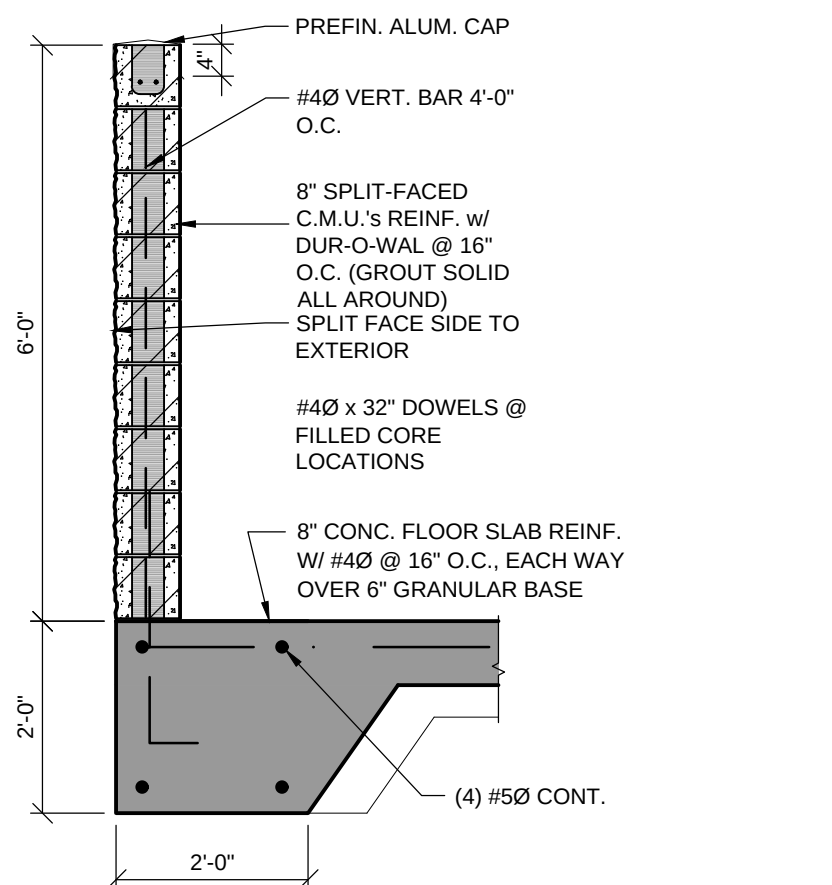
15 GARAGE WALL BASE
A3.5 SCALE: 1 1/2" = 1'-0"
TYPICAL AT GARAGE WALLS



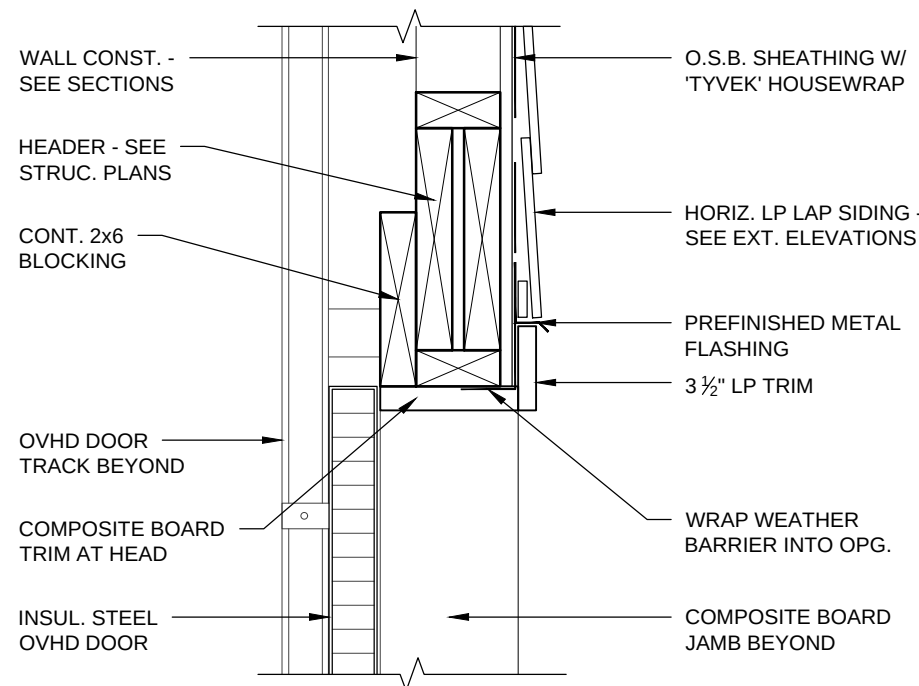
11 BOLLARD DETAIL
A3.5 SCALE: 1/2" = 1'-0"



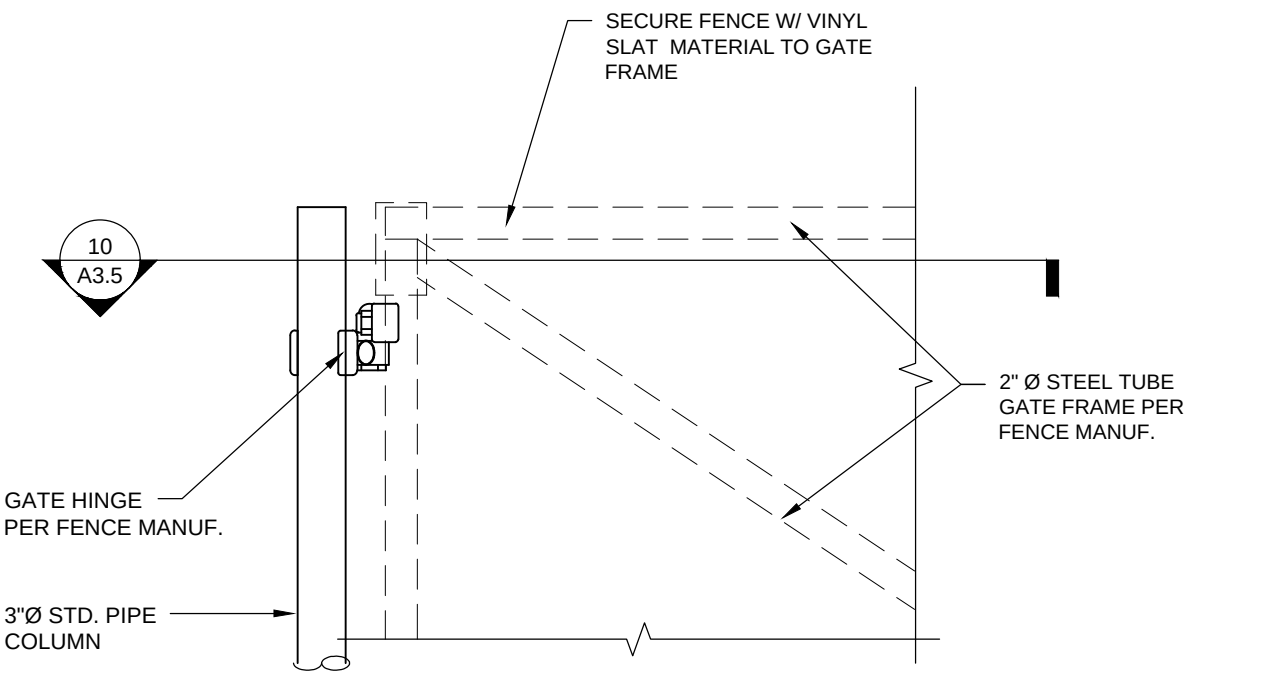
7 DUMPSTER GATE FRAME
A3.5 SCALE: 1/2" = 1'-0"



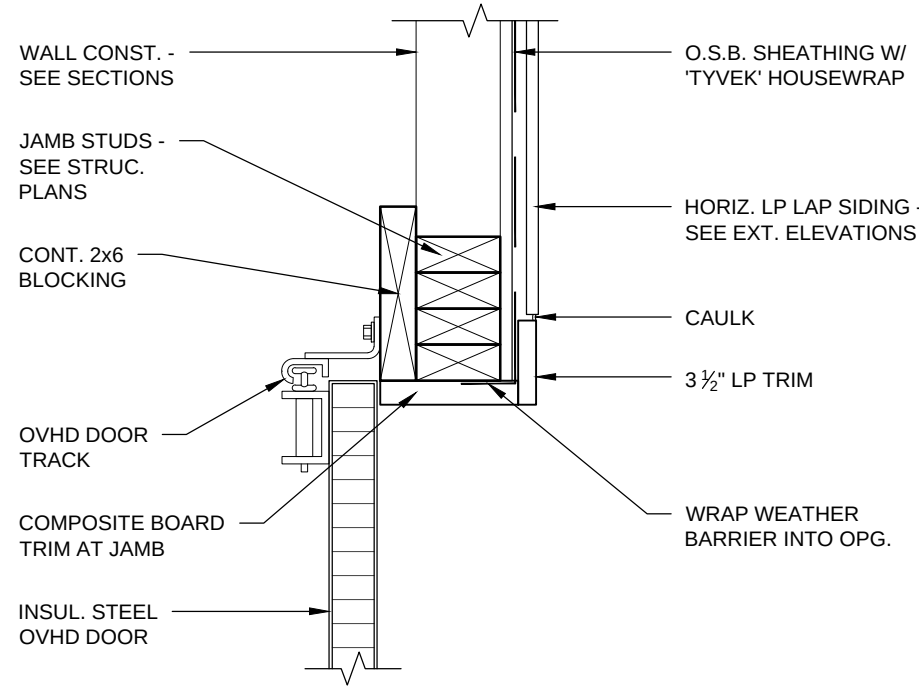
8 DUMPSTER WALL SECTION
A3.5 SCALE: 1/2" = 1'-0"



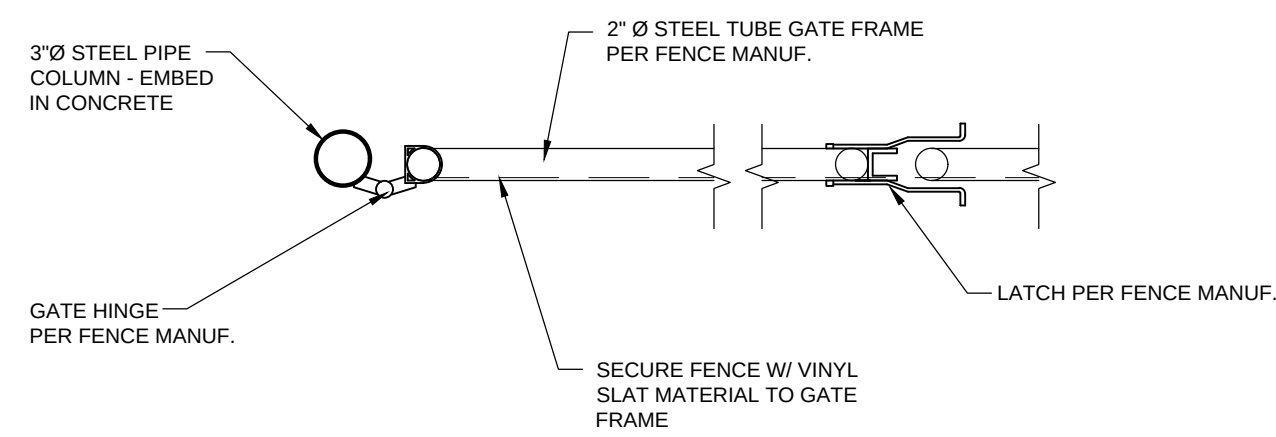
12 OVHD DOOR HEAD
A3.5 SCALE: 1 1/2" = 1'-0"
TYPICAL OVERHEAD DOOR



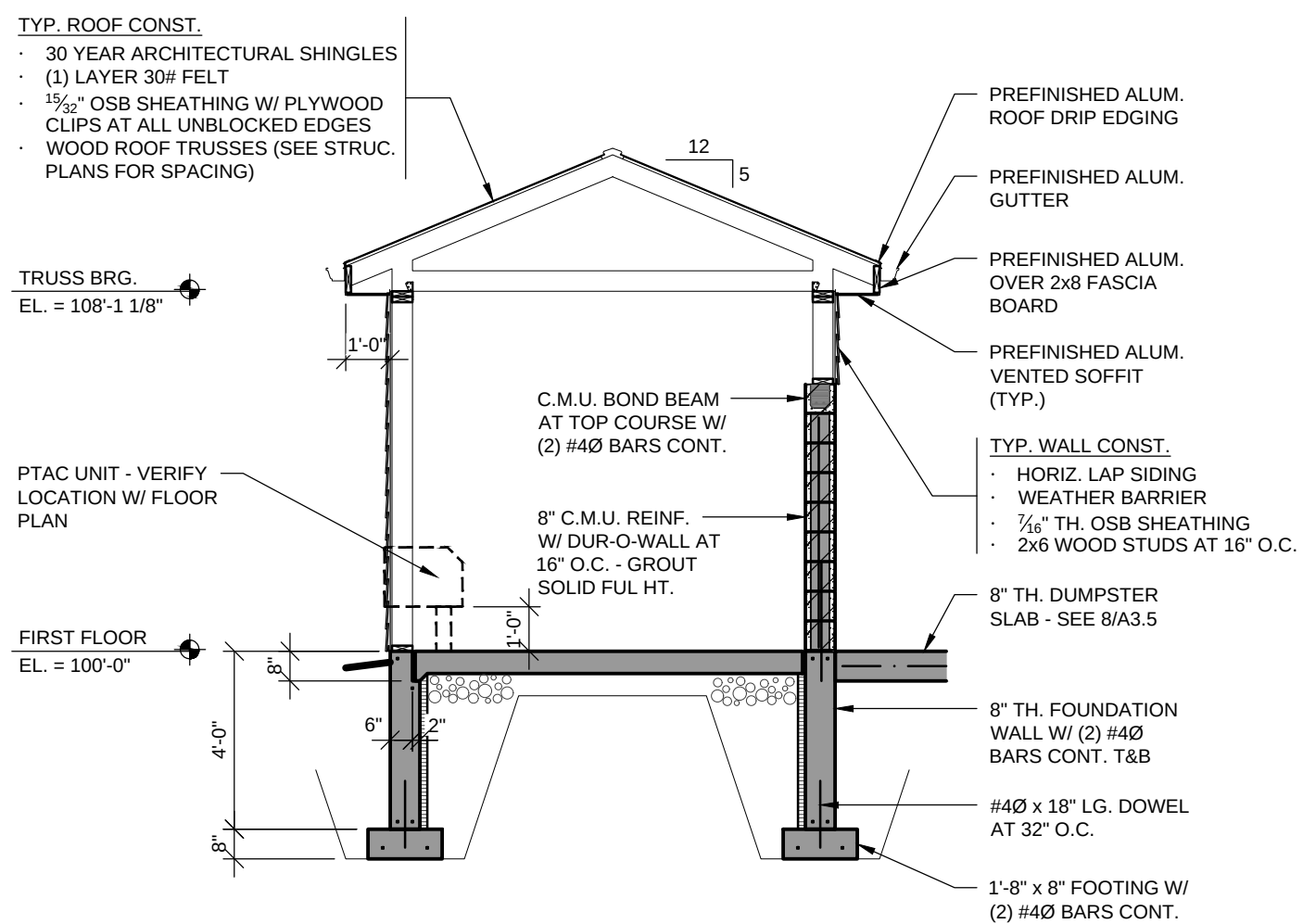
9 GATE HINGE ELEVATION
A3.5 SCALE: 1" = 1'-0"



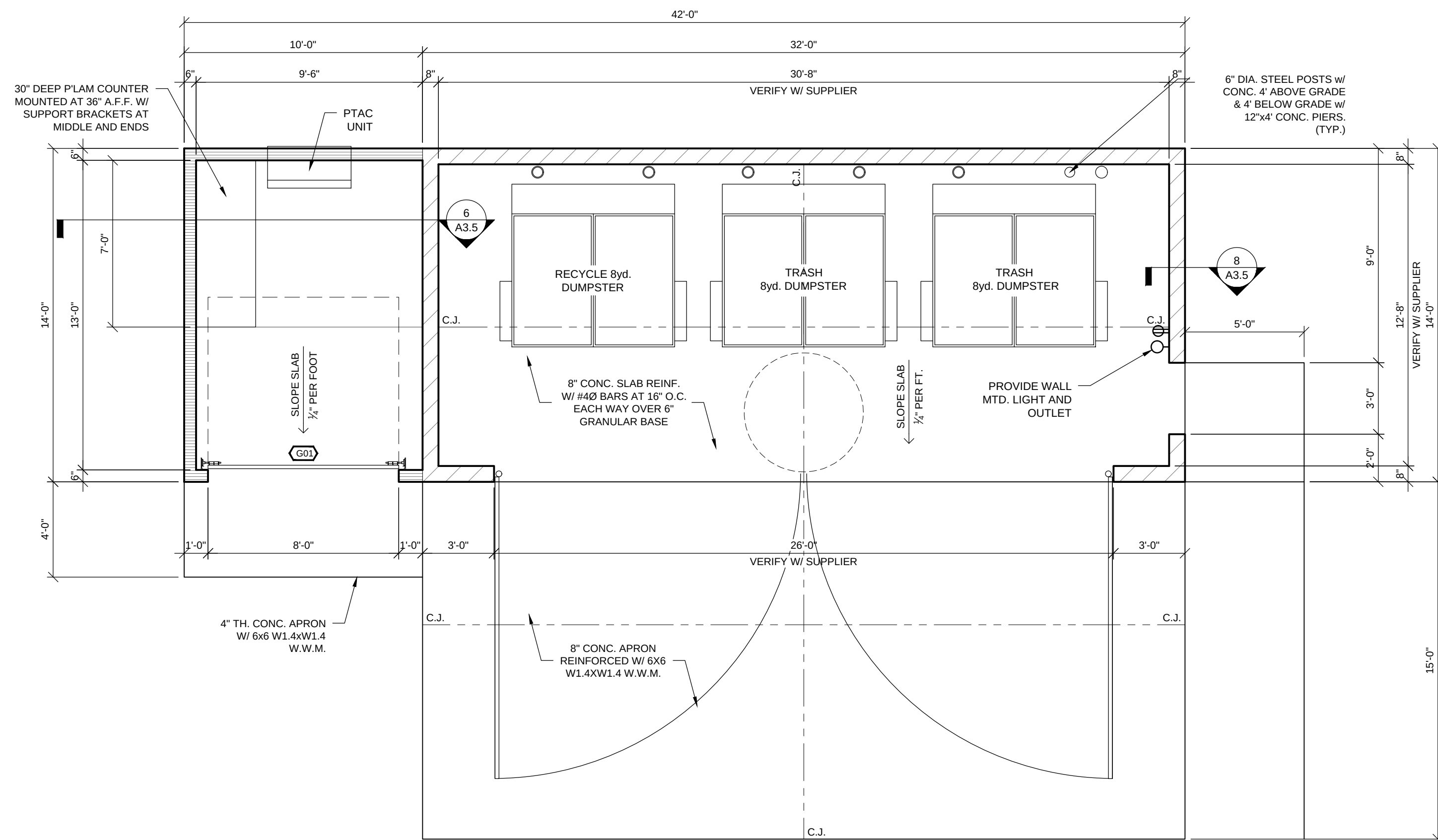
13 OVHD DOOR JAMB
A3.5 SCALE: 1 1/2" = 1'-0"
TYPICAL OVERHEAD DOOR



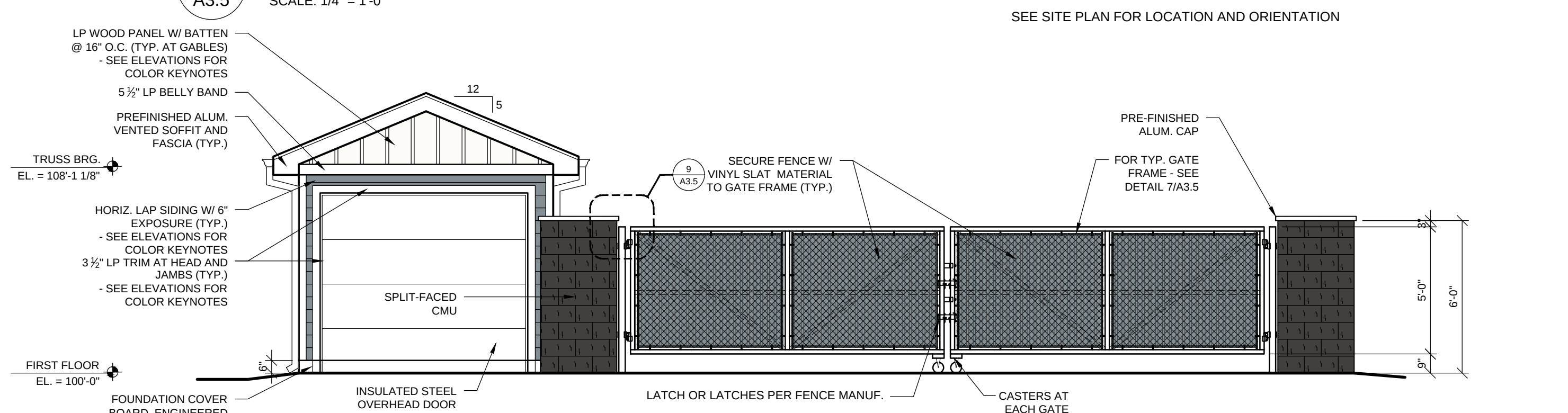
10 TRASH ENCLOSURE GATE
A3.5 SCALE: 1" = 1'-0"



6 MAINTENANCE SHED SECTION
A3.5 SCALE: 1/4" = 1'-0"
SEE SITE PLAN FOR LOCATION AND ORIENTATION



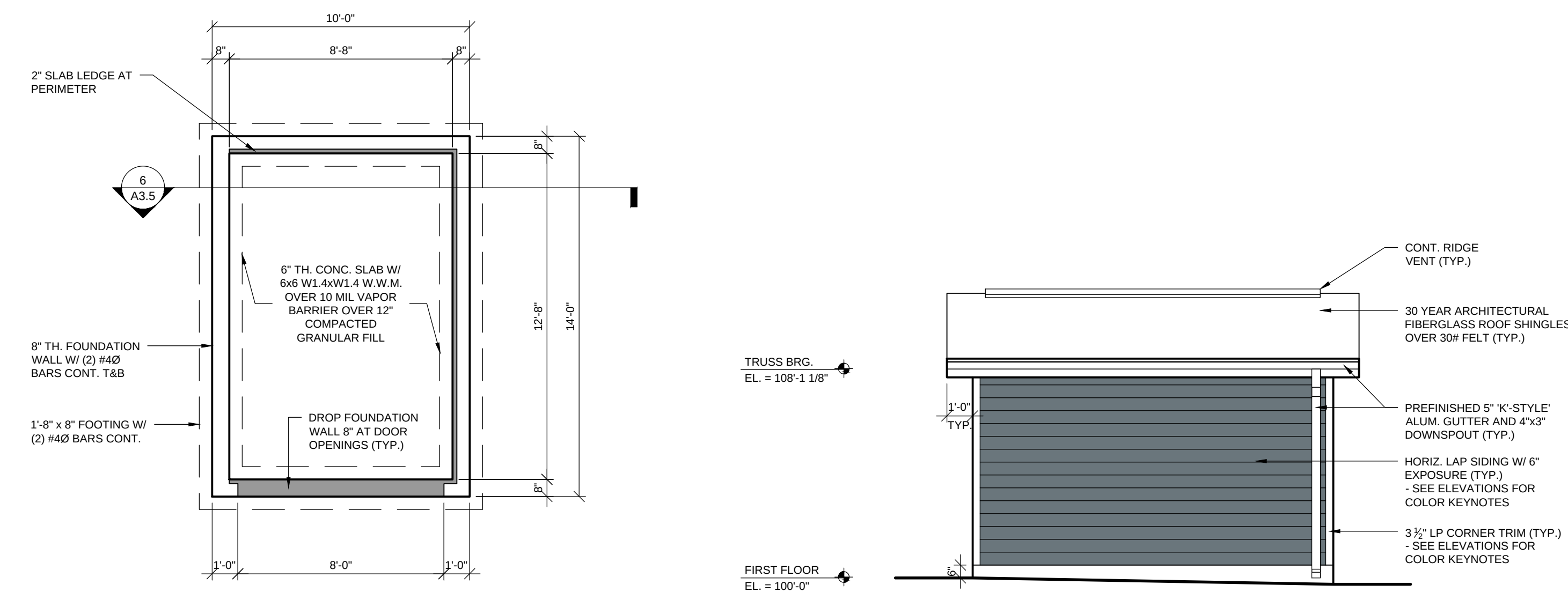
1 DUMPSTER ENCLOSURE / MAINTENANCE SHED FLOOR PLAN
A3.5 SCALE: 1/4" = 1'-0"



2 DUMPSTER ENCLOSURE / MAINTENANCE SHED FRONT ELEVATION
A3.5 SCALE: 1/4" = 1'-0"



3 DUMPSTER ENCLOSURE / MAINTENANCE SHED REAR ELEVATION
A3.5 SCALE: 1/4" = 1'-0"

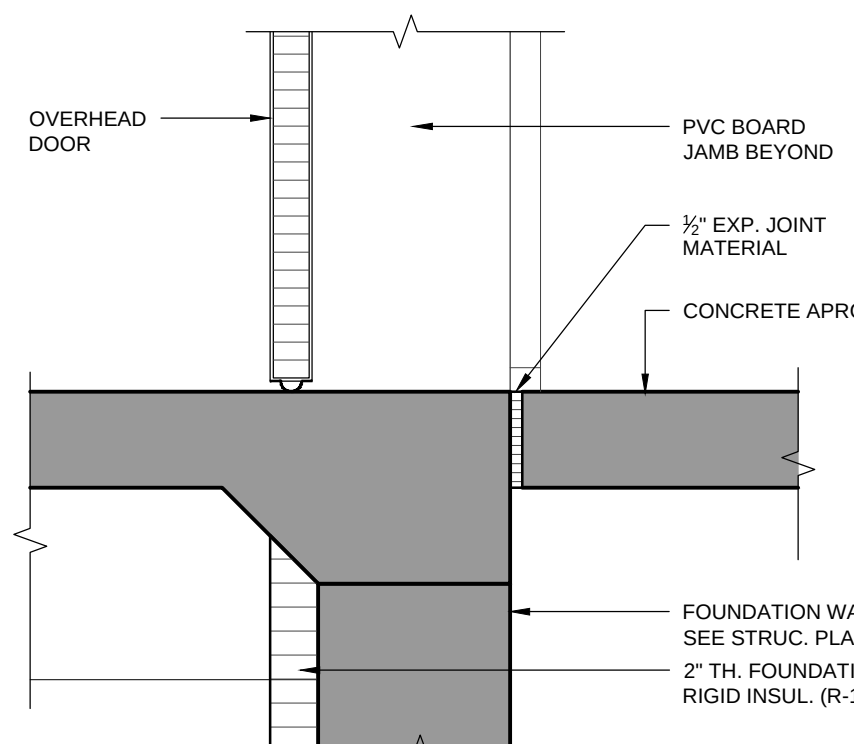


5 MAINTENANCE SHED FOUNDATION PLAN
A3.5 SCALE: 1/4" = 1'-0"
SEE SITE PLAN FOR LOCATION AND ORIENTATION

4 MAINTENANCE SHED SIDE ELEVATION
A3.5 SCALE: 1/4" = 1'-0"

EXTERIOR COLOR SCHEDULE		
MATL	MFR.	COLOR
HORIZ. ENGINEERED WOOD LAP SIDING 6" EXPOSURE (SMOOTH)	LP SMARTSIDE	SUMMIT BLUE
ENGINEERED WOOD PANEL SIDING W/ BOARD & BATTEN @ 16" O.C. (SMOOTH)	LP SMARTSIDE	SNOWSCAPE WHITE
BRICK VENEER - 4" UTILITY	INTERSTATE BRICK	COAL
DOOR, WINDOW TRIM & BELLY BAND	LP SMARTSIDE	SNOWSCAPE WHITE
PORCH COLUMN & BULKHEAD	LP SMARTSIDE	SNOWSCAPE WHITE
UNIT ENTRY DOORS	THERMA TRU	SW 7076 CYBERSPACE
ALUMINUM ENTRY DOORS & STOREFRONTS	KAWNEER	CLEAR ANODIZED ALUMINUM
UTILITY DOORS	THERMA TRU	SW 7076 CYBERSPACE
VINYL WINDOWS	ALLIANCE	WHITE
SOFFIT, FASCIA, AND DRIP EDGE	ALCOA	WHITE
GUTTERS & DOWNSPOUTS	WILCO	WHITE
ASPHALT SHINGLES & RIDGE VENT	TAMKO	PEWTER
MISC. GRILLES, EXHAUST VENTS, ETC.	PAINTED	MATCH ADJ. MATERIAL
CMU SPLIT-FACE	COUNTY MATERIALS	COCOA BEANS
ALUM. CAP	ALCOA	GRAY
DUMPSTER FENCE GATE	TBD	VINYL SLATED CHAIN LINK - GRAY

EXTERIOR COLOR NOTES:
- VERIFY COLORS AND MATERIALS WITH OWNER AND ARCHITECT PRIOR TO ORDERING
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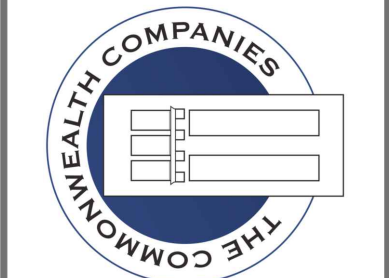


14 OVHD DOOR SILL
A3.5 SCALE: 1 1/2" = 1'-0"
TYPICAL OVERHEAD DOOR

PRELIMINARY SHEET DATES:	
12/29/2022	

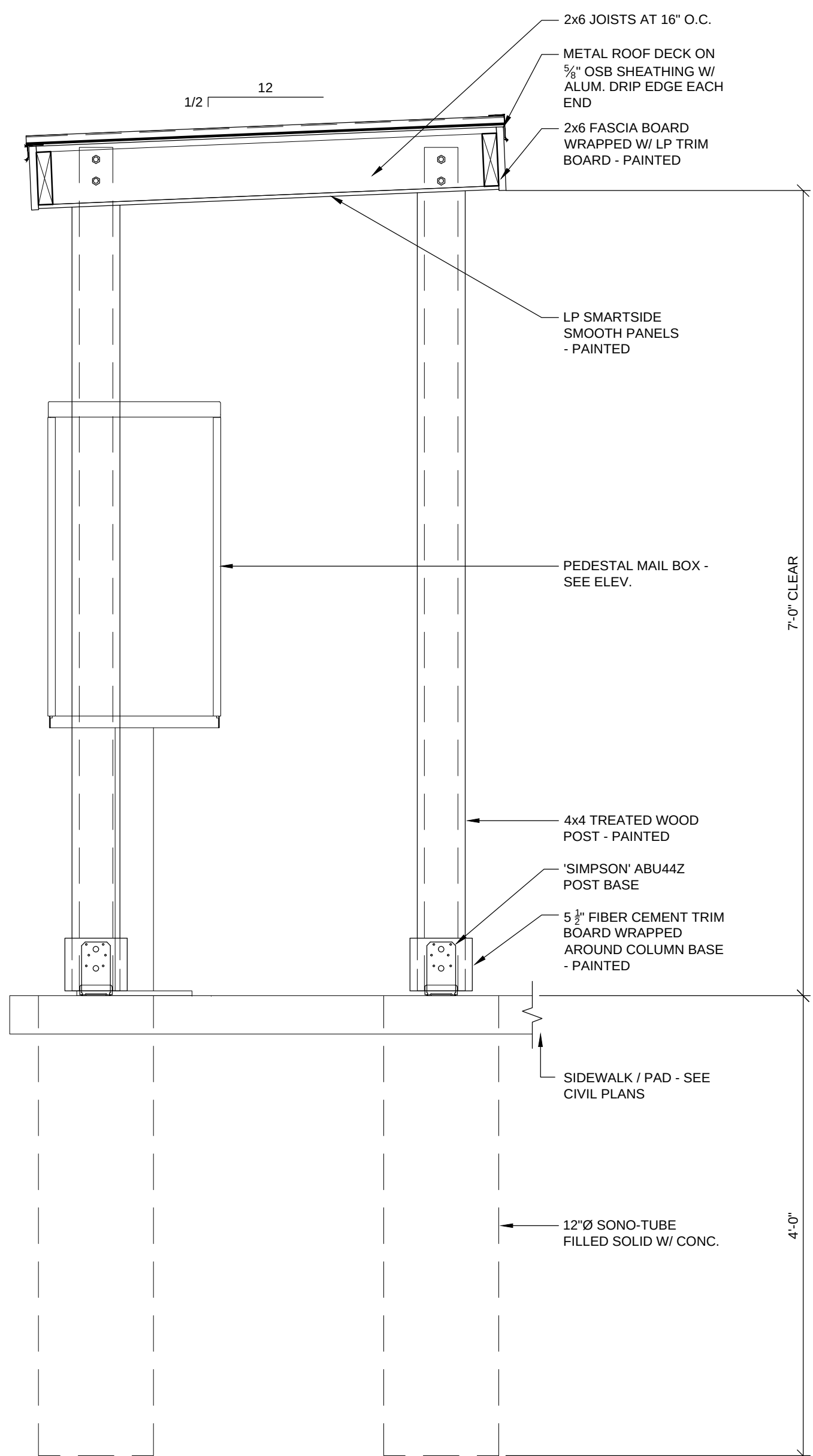
M+A DESIGN, INC.
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THE CROSSING
COURTYARD DRIVE SE
BONDURANT, IA 50035

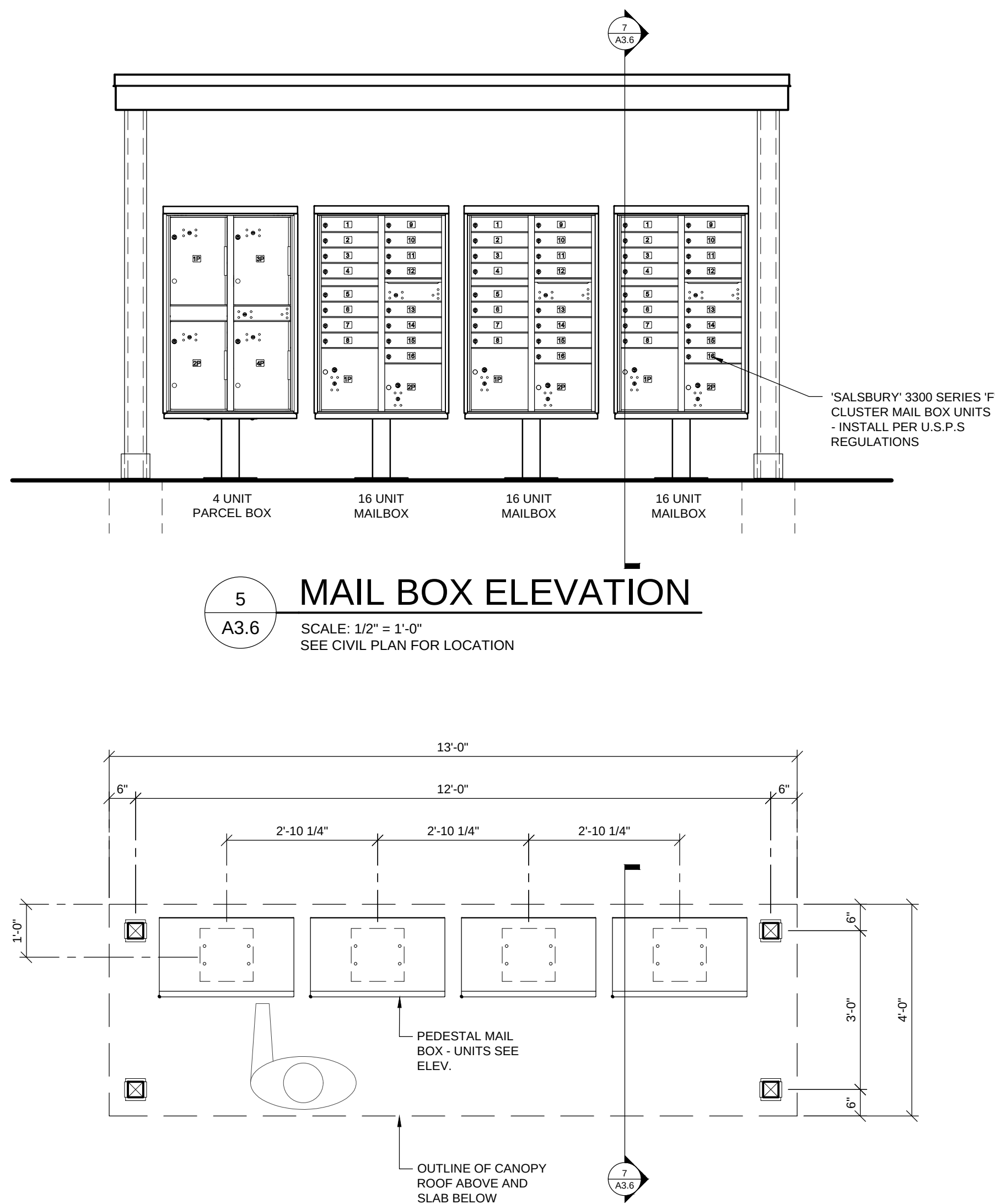
JOB NUMBER:	2021.07
SHEET	A3.5



7 MAIL BOX CANOPY SECTION
A3.6 SCALE: 1" = 1'-0"

MAILBOX CANOPY COLORS	
MATERIAL	COLOR
ALUM. COPING	TO MATCH LP TRIM
METAL ROOF	TO MATCH LP TRIM
LP SOFFIT/ FASCIA (SMOOTH PANEL)	SNOWSCAPE WHITE
LP COLUMN WRAP (SMOOTH PANEL)	SNOWSCAPE WHITE

* VERIFY COLORS AND MATERIALS WITH ARCHITECT

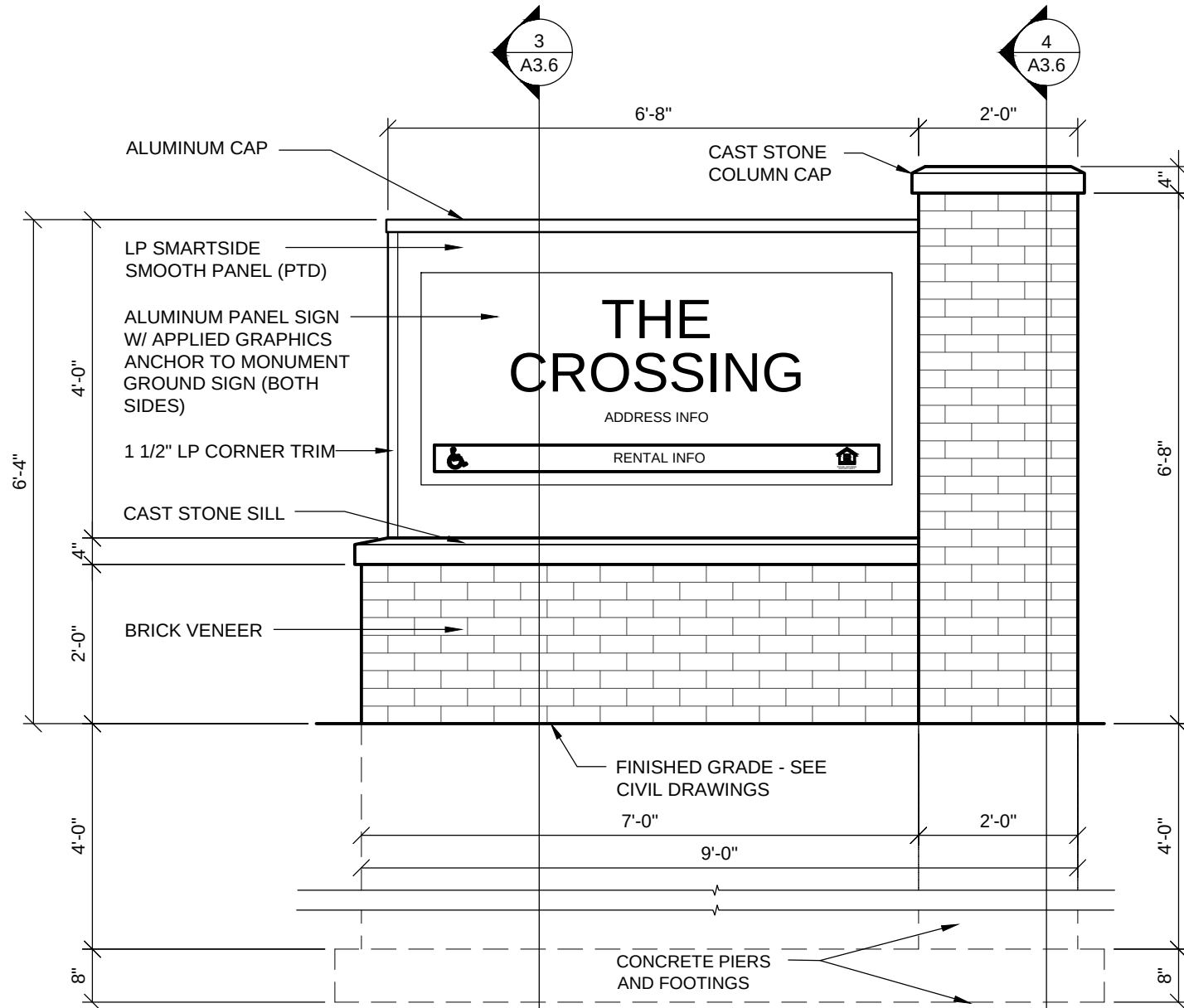


5 MAIL BOX ELEVATION
A3.6 SCALE: 1/2" = 1'-0"
SEE CIVIL PLAN FOR LOCATION

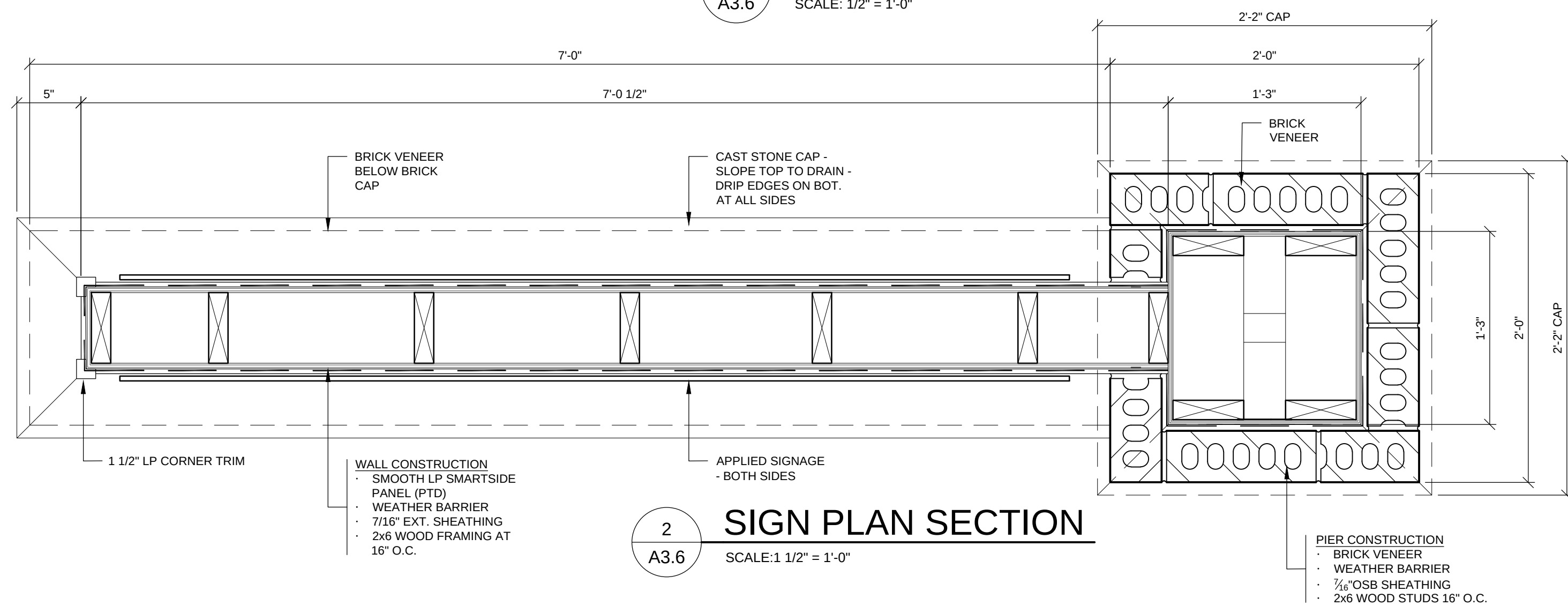
6 EXTERIOR MAILBOX PLAN
A3.6 SCALE: 1/2" = 1'-0"
SEE CIVIL PLAN FOR LOCATION

SIGNAGE COLORS	
MATERIAL	COLOR
BRICK VENEER	MATCH BUILDING
CAST STONE	GREY
ENGINEERED WOOD PANEL	LP SMARTSIDE - SUMMIT BLUE
ALUMINUM CAP	GREY
ALUMINUM SIGN PANEL	DESIGNED BY OWNER - SUPPLIED AND INSTALLED BY G.C.

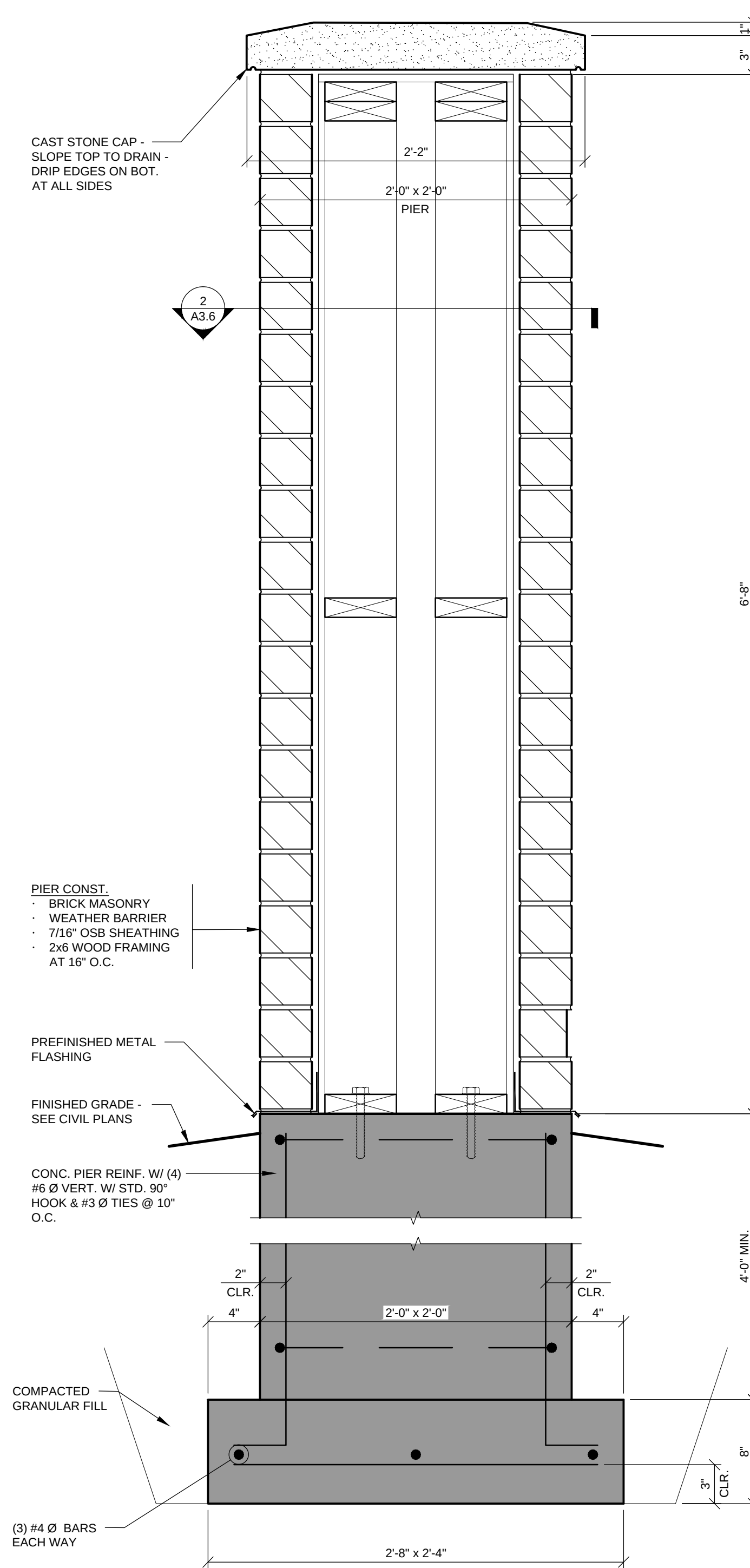
- VERIFY COLORS AND MATERIALS WITH ARCHITECT
- SIGNAGE LETTERING AND INFORMATION ON BOTH SIDES OF MONUMENT STRUCTURE
- SIGNAGE IS NOT ILLUMINATED
- ALL PERMITS BY SIGNAGE SUPPLIER - MODIFY THESE DRAWINGS AS REQUIRED TO ACCOMMODATE LOCAL SIGN CODE



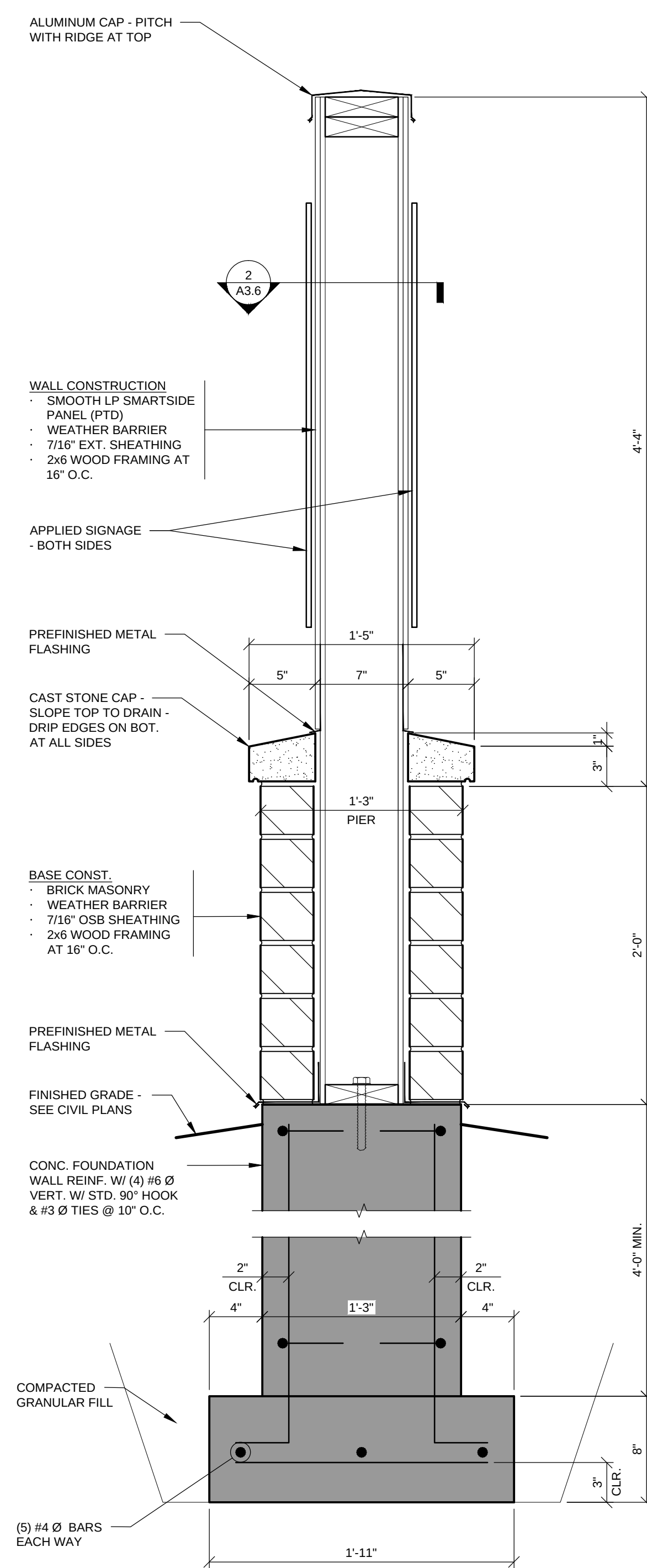
1 MONUMENT SIGN ELEVATION
A3.6 SCALE: 1/2" = 1'-0"



2 SIGN PLAN SECTION
A3.6 SCALE: 1 1/2" = 1'-0"



4 SIGN END PIER SECTION
A3.6 SCALE: 1 1/2" = 1'-0"



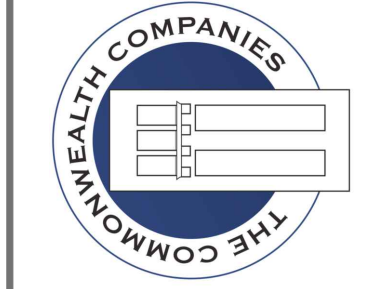
3 SIGN PANEL SECTION
A3.6 SCALE: 1 1/2" = 1'-0"

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