

# Grimes Planning and Zoning Commission

**Grimes Community Complex**  
410 SE Main Street, Room 202  
Grimes, Iowa 50111  
Phone | 515.986.4050  
www.grimesiowa.gov

**Commission Members | Scott Almeida, Russ Lickteig, Craig Patterson, Danielle Smid, Courtney Strutt Todd  
Council Liaison | Andrew Borcharding**

## Mission Statement

The mission of Grimes City Government is to provide excellent/exceptional city services and facilities in a financially responsible and community-friendly manner through a high performing city team that result in adding value to resident's lives.

## **Planning and Zoning Commission September 22, 2022 In Person at Grimes Community Complex, 410 SE Main Street, Room 202**

Any person wishing to speak at the meeting will need to attend in person. Below is the Zoom information for those who wish to listen in on the meeting only.

### **Join Zoom Meeting**

<https://us06web.zoom.us/j/86727014182?pwd=MGExUHNuMS9kVkJHN1Zyd2pBaHpIU09>

**Meeting ID: 867 2701 4182**

**Passcode: 1234**

## **GENERAL AGENDA ITEMS**

1. Call to Order
2. Roll Call: Scott Almeida, Russ Lickteig, Craig Patterson, Danielle Smid, Courtney Strutt Todd, Council Liaison Andrew Borcharding
3. Approval of the Agenda
4. Approval of the Previous Minutes

## **PUBLIC AGENDA ITEMS**

1. Project # 22-1031: Rock Creek Plat 1 – Preliminary Plat
2. Project # 22-1032: Rock Creek Building 1 – Site Plan
3. General Regulations Amendment Discussion #2

## **REPORTS**

1. Department Update
2. Council Liaison Update
3. Old Business
4. New Business

## **ADJOURNMENT**



101 NE Harvey Street, Grimes, Iowa 50111 | P: 515.986.3036

This meeting of the Grimes Planning and Zoning Commission was called to order Tuesday, August 2, 2022 at 5:30 P.M.

Roll Call: Present: Scott Almeida, Courtney Strutt-Todd, Russ Lickteig

Staff: Alex Pfaltzgraff, Evann Martin, Molly Mannel, Rachel Greving

Absent: Craig Patterson, Danielle Smid, Council Liaison: Andrew Borcharding

**A. GENERAL AGENDA ITEMS**

**1. APPROVAL OF THE AGENDA**

Motion by Lickteig, Second by Strutt-Todd, to approve the agenda

Roll Call: Ayes-All; Nays-0 Motion passes: 3-0

**2. APPROVAL OF THE MINUTES**

Motion by Strutt-Todd, Second by Lickteig, to approve the minutes from the July 5, 2022 meeting

Roll call: Ayes-All: Nays-0 Motion passes: 3-0

**B. PUBLIC AGENDA ITEMS**

**Project #22-1027: Seedorf Masonry, Inc. and Architectural Wall Systems (SMI-AWS) – Preliminary Plat**

Staff member Martin presents the details of the project. The parcel is zoned M-1A and not within an overlay district. The preliminary plat is to combine the two existing lots into one, so the building can be in the lot without being on the lot line. Staff recommends approval.

Motion by Lickteig, Second by Strutt-Todd to approve Seedorf Masonry, Inc. and Architectural Wall Systems (SMI-AWS) – Preliminary Plat

Roll Call: Aye-All Nay-0 **Motion Passes 3-0**

**Project #22-1028: Seedorf Masonry, Inc. and Architectural Wall Systems (SMI-AWS) – Site Plan**

Staff member Martin presents the details of the site plan. It will have two access points off of SE 25<sup>th</sup> Street and parking along SE 25<sup>th</sup> Street and in the rear. There will be paved outdoor storage on the south side of the site and landscaping throughout to help enhance the site. Overhead doors will face the east and west. Staff recommends approval.

The owner of the project commented that truck traffic would be low.

Motion by Strutt-Todd, Second by Lickteig to approve Seedorf Masonry, Inc. and Architectural Wall Systems (SMI-AWS) – Site Plan

Roll Call: Aye-All Nay-0 **Motion Passes 3-0**

**Project #22-1029: M-Keds Home Place Plat 4 – Final Plat**

Staff member Martin presents the details of the plat. This is the final item for the previous two projects. Staff recommends approval.

Motion by Lickteig, Second by Strutt-Todd to approve M-Keds Home Place Plat 4 – Final Plat

Roll Call: Aye-All Nay-0 **Motion Passes 3-0**

**Project #22-1030: 3800 SE Beisser Drive – Site Plan Amendment**

Staff member Martin presented the details of the project. It is zoned M-3 and not within an overlay district. The site was originally constructed in 2006 before it burned down. The applicant is requesting to build a new building in the footprint of the original building. The applicant would also like to regrade the existing basin in the northeast corner. Landscaping will be added to the street frontage and the elevations meet requirements.

Motion by Strutt-Todd, Second by Lickteig to approve 3800 SE Beisser Drive – Site Plan Amendment

Roll Call: Aye-All Nay-0 **Motion Passes 3-0**

**Project #22-1034: 3600 SE Mieke Drive – Elevation Amendment**

Staff members Pfaltzgraff and Martin presented the details of the project. This was recently approved at Planning and Zoning, but now the applicant would like to make a few modifications due to financing. The main change is that the roof will no longer be pitched. The same materials as before will be used, and it still meets the technical requirements.

Motion by Lickteig, Second by Strutt-Todd to approve 3600 SE Mieke Drive – Elevation Amendment

Roll Call: Aye-All Nay-0 **Motion Passes 3-0**

**General Regulations Amendment Discussion**

Staff members Mannel and Pfaltzgraff present the details for possible changes to the general regulations for accessory buildings and accessory structures.

**C. PUBLIC FORUM – None**

**D. REPORTS**

1. **Department Update – Staff provided an update on development and capital projects around the City.**
2. **Council Liaison Update – N/A**
3. **Old Business – N/A**
4. **New Business – N/A**
5. **Next meeting September 22, 2022**

Meeting is adjourned at 6:34 p.m.

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Chairperson Signature

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Clerk Signature



# Planning & Zoning Staff Report



TO: Planning and Zoning Commission  
FROM: Molly Mannel, Assistant Planner  
DATE: September 6, 2022  
RE: Rock Creek Plat 1 – Preliminary Plat

## GENERAL INFORMATION:

**Applicant:**

Downing Construction

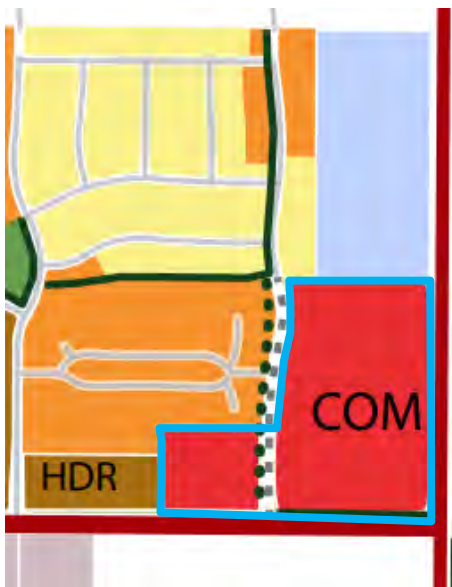
**Requested Action**

Preliminary Plat

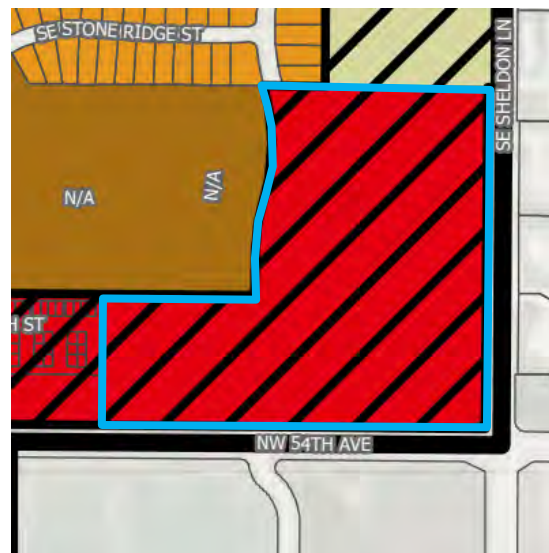
**Location**

NW corner of NW 100<sup>th</sup> Street and SE 37<sup>th</sup> Street

## SUPPORTING INFORMATION:



Location Map



Zoning Map

## **LAND USES & ZONING:**

| <b>Location</b> | <b>Existing Land Use</b> | <b>Land Use Plan Designation</b>    | <b>Current Zoning</b> |
|-----------------|--------------------------|-------------------------------------|-----------------------|
| Subject Site    | Vacant                   | Commercial                          | C-2                   |
| North           | Vacant                   | Public Facility                     | A-1                   |
| South           | Urbandale                | Urbandale                           | Urbandale             |
| East            | Johnston                 | Johnston                            | Johnston              |
| West            | Condominiums             | Medium and High Density Residential | C-2 and R-3           |

## **BACKGROUND:**

The applicant is requesting approval of a preliminary plat for Rock Creek Plat 1, which will allow for future subdivision for the 26.69-acre property. The preliminary plat consists of two lots and one outlot. The property will also provide a roadway connection, connecting SE Keystone Drive to NW 100<sup>th</sup> Street. This site resides within the C-2 zoning district, and within the Transportation Corridor Mixed Use Development Overlay District.

## **ANALYSIS:**

### *Site Layout:*

The site will consist of two development lots, one outlot to the north, and a roadway connection connecting SE Keystone Drive to NW 100<sup>th</sup> Street. The site will contain three access points from SE 37<sup>TH</sup> Street, NW 100<sup>th</sup> Street, and SE Keystone Drive. A private roadway will provide separation between Lots 1 and 2.

A 5' sidewalk connection will extend down NW 100<sup>th</sup> and connect to the existing sidewalk along SE 35<sup>th</sup> Street. An 8' sidewalk will line along the west and south sides of SE Keystone Drive/SE 35<sup>th</sup> Street and connect inside Lot 1.

### *Landscaping/Streetscape:*

Landscaping will be placed along SE 37<sup>th</sup> Street, NW 100<sup>th</sup> Street, and SE Keystone Drive/SE 35<sup>th</sup> Street. A landscaped buffer will be planted bordering the lots to the west to provide screening between the commercial and residential uses. Additional landscaping and buffering will be planted to comply with the Transportation Corridor Mixed Use Development Overlay District landscaping requirements.

### *Utilities:*

Water will connect from SE Stonegate Drive and extend along the private roadway between Lots 1 and 2, up to SE Keystone Drive and SE 35<sup>th</sup> Street. The sanitary sewer will connect from SE 37<sup>th</sup> Street and extend north up to SE Keystone Drive and SE 35<sup>th</sup> Street. Water and sanitary sewer will be stubbed into Lot 1 and Outlot X. An existing storm sewer and overland flowage easement in Lot 1 will be maintained through underground detention and drain to the southeast.

**STAFF RECOMMENDATION:**

Staff would recommend approval of the Rock Creek Plat 1 preliminary plat subject to any remaining staff comments.

**CITY OF GRIMES**

Molly Mannel  
Assistant Planner



**Development Services**

410 SE Main St, Suite 102

Grimes, IA 50111

(515)986-4050

[www.grimesiowa.gov](http://www.grimesiowa.gov)

~~August 3, 2022~~

~~August 18, 2022~~

September 10, 2022

**McClure Engineering**

Attn: Ricardo Corona

1360 NW 121<sup>st</sup> St

Clive, IA 50325

**RE: Rock Creek Preliminary Plat**

Dear Mr. Corona:

The Development Services Department is in receipt of a proposed Preliminary Plat for the Rock Creek. Based on the review of the provided submittal materials, staff have the following comments:

**General Comments:**

1. ~~Provide typical road section detail.~~
2. ~~Please provide sheet with lot dimensions labeled for the new lots.~~ **Please label dimensions for Outlot X and Y.**
3. Label the sidewalk and trail widths and show in gray scale like the street. **Show 10' trail along SE 37<sup>th</sup> St in grayscale with width labeled. Please show the trail in grayscale and call it out.**
4. ~~Please update the lots to the following addresses:~~
  - ~~Lot 1/main building: 3201 SE 37<sup>th</sup> Street~~
  - ~~Lot 2: 3001 SE 37<sup>th</sup> Street~~
5. ~~Please update the new road name to the following: (the road will change name at the midpoint of the curve)~~
  - ~~E/W road: SE 35<sup>th</sup> Street~~
  - ~~N/S road: SE Keystone Drive~~
6. **Please install sidewalk on 100<sup>th</sup> Street up to Keystone SE 35<sup>th</sup> Street. Please show the sidewalk on the preliminary plat.**

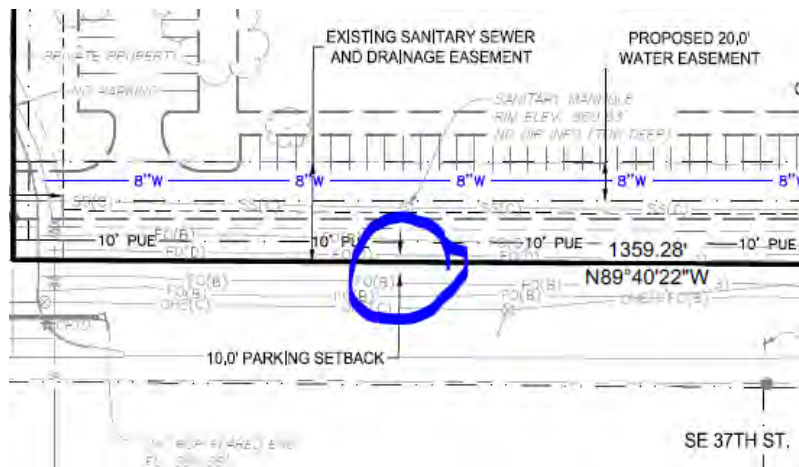
7. ~~Please show how water and sanitary will connect and serve Outlot X and tower site to the north.~~

### PP-01

1. ~~Please update the zoning to C-2 and the Transportation Corridor Mixed Use Development Overlay District.~~
2. ~~Update property owner information.~~
3. Please provide parking calculations. Please delineate patient, visitor, and staff parking. 10% of hospital outpatient parking is required to be ADA. Please list the following parking calculations on the cover sheet:
  - i. 157 patient/visitor stalls (and 18 patient/visitor ADA stalls)
  - ii. 154 staff stalls (and 6 staff ADA stalls)
4. ~~Update plat name to Rock Creek Plat 1.~~

### PP-03

1. Revise the 10' parking setback label along SE 37<sup>th</sup> St. It is shifted south too far. The label was not shifted. Please fix. Please change the label from 15' parking setback to 10' parking setback. The parking setback line and remain where it is.



2. ~~Please label each easement as either existing or proposed.~~

3. ~~Label the existing 50' by 50' ingress/egress easement at the southwest corner of the site.~~
4. ~~Revise 5' parking setback to 8' parking setback along the west property line.~~
5. Please label SE 35<sup>TH</sup> Street.

#### **PP-04**

1. Please label SE 35<sup>TH</sup> Street.

#### **PP-05**

1. ~~Update the Lot 1 parking concept to match the site plan. The parking on the east side of the private drive is shown within the sloped area.~~
2. Please label SE 35<sup>TH</sup> Street.

#### **PP-06**

1. ~~Please also provide a 37' typical section.~~



## **Storm Water Management Plan (SWMP)**

A separate storm water management plan will need to be submitted for the site plan, as the preliminary plat covers all lots.

- ~~1. Design Criteria: The assumption of existing site is all Hydrologic Soil Group C for this report is acceptable, however each site will have to be analyzed based on the soils from that site. Soil map from Site Plans submittal shows 75% of the area as Soil Group B.~~
- ~~2. Add contour labels to existing drainage map.~~
- ~~3. Provide runoff coefficient and curve number calculations.~~
- ~~4. Provide soil analysis in this report as well.~~
- ~~5. Intakes 102A and 102 do not appear to be in a sump condition. Plan and profile sheets show a continuous grade. Provide a sump condition at a location/s to capture the 100-yr storm event.~~
- ~~6. Provide 100-yr intake and pipe spreadsheets as well.~~
- ~~7. Pipe Design Spreadsheet: Update information for pipe L-102.~~
- ~~8. L-102 appears to be very large compared to the flow coming to it on the spreadsheet. Is there a reason for the increased pipe size?~~
- ~~9. Move hydrograph table of contents to the beginning of the section.~~
- ~~10. Hydrograph: Orifice B and PrfRsr should be set as multi-stage outlets, if they are tied to orifice A.~~
- ~~11. Verify capacity of existing storm sewer along NW 100th Street.~~
12. Runoff coefficient calculations: Fix percentages used in the 10-yr and 100-yr calculations. Should be 63% instead of 93%?
13. Standpipe summary detail and hydrograph report do not match detail #4 on plans. Please fix plans or update SWMP.

**Please provide a letter addressing all comments on this comment letter and/or state what was modified on the site plan to address said comments.**

**SITE PLAN SUBMITTAL SCHEDULE:**

**SUBMITTAL DATE:**       ~~August 10, 2022~~  
                                  ~~August 25, 2022~~  
                                  September 19, 2022  
                                  **(1 PDF of Preliminary Plat)**

**PLANNING & ZONING:**       September 22, 2022, at 5:30 at the Grimes City Hall

**COUNCIL MEETING:**       October 11, 2022, at 5:30 at the Grimes City Hall

Please feel free to contact me at [mmannel@grimesiowa.gov](mailto:mmannel@grimesiowa.gov) or at (515) 986-4050 if you have any questions or need additional information.

Sincerely,

Molly Mannel  
Assistant Planner



# ROCK CREEK PLAT 1 PRELIMINARY PLAT

## GRIMES, IA



1360 NW 121ST. Street  
Clive, Iowa 50325  
515-964-1229  
fax 515-964-2370

NOTICE:  
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### OWNER

ROCK CREEK INVESTMENTS LLC  
450 LAUREL ST SUITE A  
DES MOINES, IA 50314-3045

### APPLICANT

DOWNING CONSTRUCTION  
509 EAST SCENIC VALLEY AVENUE  
INDIANOLA, IA 50125  
ATTN: JOSH RIDGELY

### ENGINEER/SURVEYOR

McCLURE ENGINEERING  
1360 NW 121ST STREET  
CLIVE, IOWA 50325  
(515) 964-1229  
TSMITH@MECRESULTS.COM  
ATTN: TRENT SMITH

### BULK REGULATIONS

C-2:  
FRONT SETBACK =25'  
SIDE SETBACK = 25'  
REAR SETBACK = 25'

### LEGAL DESCRIPTION

WARRANTY DEED FILED IN BOOK 18853 PAGE 390:

OUTLOT "A" EXCEPT THAT PART DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHEAST CORNER OF SAID OUTLOT "A"; THENCE NORTH 89°31'52" WEST ALONG THE SOUTH LINE OF SAID OUTLOT "A", 59.82 FEET; THENCE NORTH 58°29'11" EAST, 70.42 FEET TO THE EAST LINE OF SAID OUTLOT "A"; THENCE SOUTH 00°19'39" WEST ALONG SAID EAST LINE, 37.30 FEET TO THE POINT OF BEGINNING AND CONTAINING 0.03 ACRES (1,116 S.F. ) ALL IN GLENSTONE TRAIL PLAT 2, AN OFFICIAL PLAT, NOW INCLUDED IN AND FORMING A PART OF THE CITY OF GRIMES, POLK COUNTY, IOWA.

### ZONING INFORMATION

ZONING: C-2

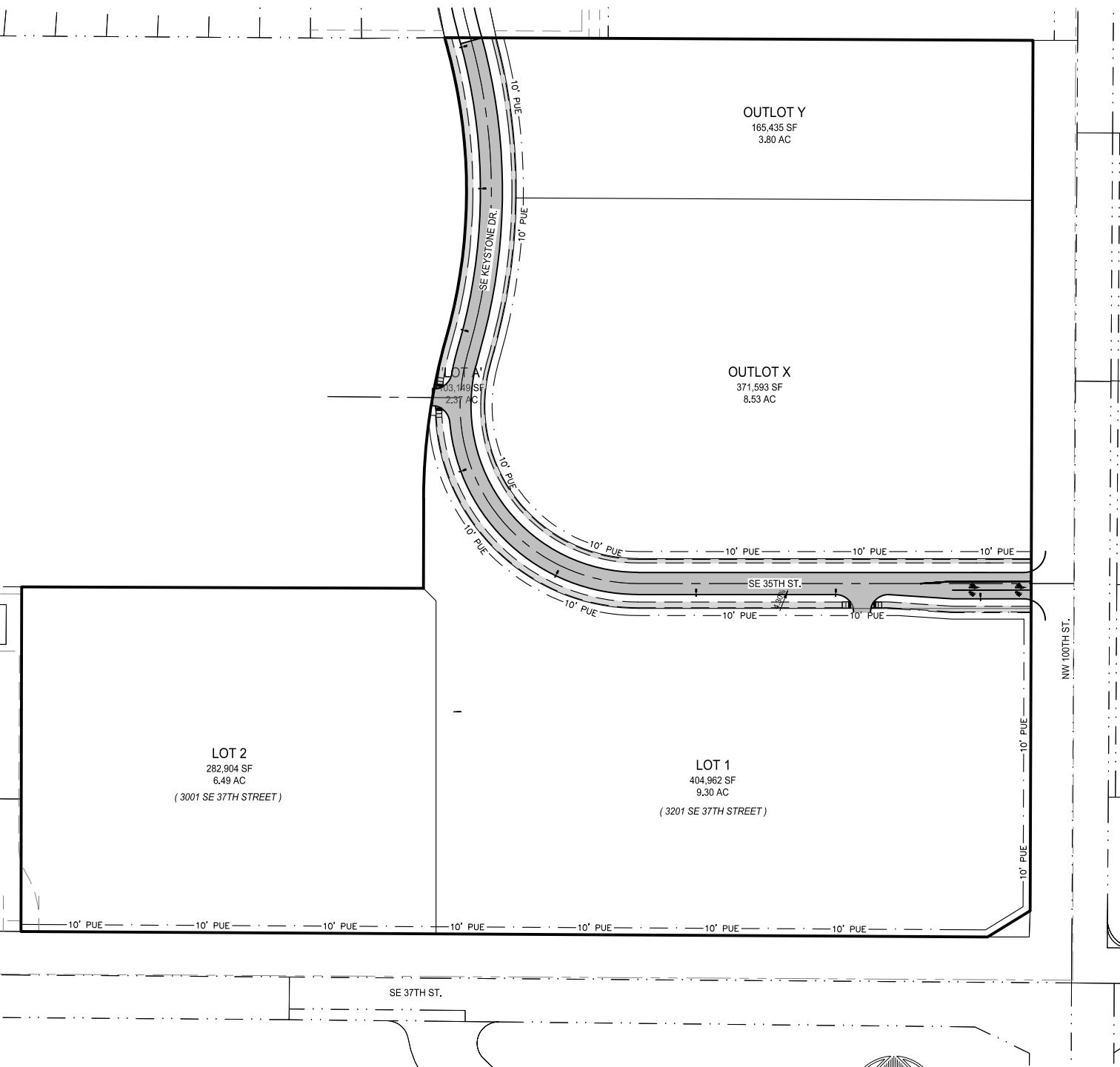
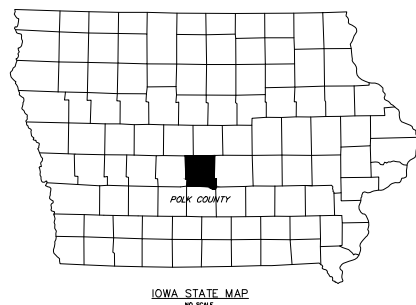
TRANSPORTATION CORRIDOR MIXED USE  
DEVELOPMENT OVERLAY DISTRICT

### PARKING:

LOT 1:

REQUIRED = 176 STALLS (3 STALL PER 1,000 SQ. FT. GROSS BLDG. AREA)

PROVIDED = 335 STALLS (INCLUDE 24 ADA STALLS)



| Control Point Table |            |             |           |                                                 |
|---------------------|------------|-------------|-----------|-------------------------------------------------|
| Point No.           | Northing   | Easting     | Elevation | Description                                     |
| 1                   | 7513277.14 | 18488246.33 | 962.02    | CP REBAR                                        |
| 2                   | 7513232.94 | 18488282.03 | 961.70    | CP                                              |
| 3                   | 7513227.86 | 18489179.60 | 944.48    | CP\X CUT IN SW QUAD 100TH AND 54TH SW           |
| 4                   | 7513517.64 | 18489270.52 | 950.43    | CP\X CUT IN MEDIAN 100TH                        |
| 5                   | 7513763.00 | 18489225.77 | 957.90    | CP\X CUT TOC N SIDE EAST ENTRANCE IN PROP       |
| 6                   | 7514473.06 | 18489300.75 | 977.65    | CP\X CUT TOC E SIDE 100TH                       |
| 7                   | 7514507.76 | 18488442.17 | 966.75    | CP\X CUT TOC E SIDE KEYSTONE DR END OF PAVEMENT |
| 8                   | 7513723.98 | 18488391.00 | 965.43    | CP\ 1/2 REBAR BCAP MEC                          |
| 9                   | 7513704.02 | 18487825.88 | 966.61    | CP\ 1/2 REBAR BCAP MEC                          |
| 10                  | 7513216.85 | 18487812.05 | 958.49    | CP\X CUT TOC STONEGATE AND 37TH                 |
| 21002               | 7514671.45 | 18488347.17 | 967.10    | BM 3 BURIED BOLT ON HYDRANT - H96-007           |

NOTE: NOT ALL POINTS SHOWN IN TABLE ABOVE ARE SHOWN IN PLAN VIEW ON THIS PAGE.





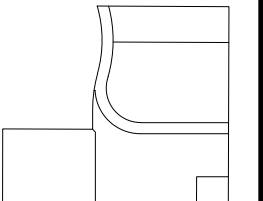
# McCLURE™

making **lives** better

1360 NW 121ST. Street  
Clive, Iowa 50325  
515-964-1229  
fax 515-964-2370

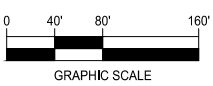
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**PRELIMINARY**

EXISTING CONDITIONS AND  
SURVEY CONTROL



ROCK CREEK PLAT 1  
PRELIMINARY PLAT  
GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022

ENGINEER  
**T. SMITH**

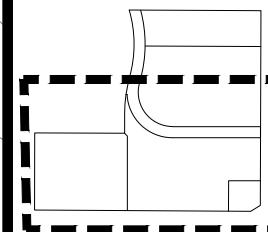
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**R. CORONA**

CHECKED BY  
FIELD BOOK NO.

DRAWING NO.  
**PP-02**

SHEET NO.  
**02 / 06**



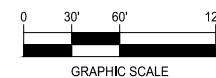


**PRELIMINARY**

GENERAL LAYOUT AND  
DIMENSION PLAN



NORTH



GRAPHIC SCALE

ROCK CREEK PLAT 1  
PRELIMINARY PLAT

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022

ENGINEER  
T. SMITH

DRAWN BY  
R. CORONA

CHECKED BY

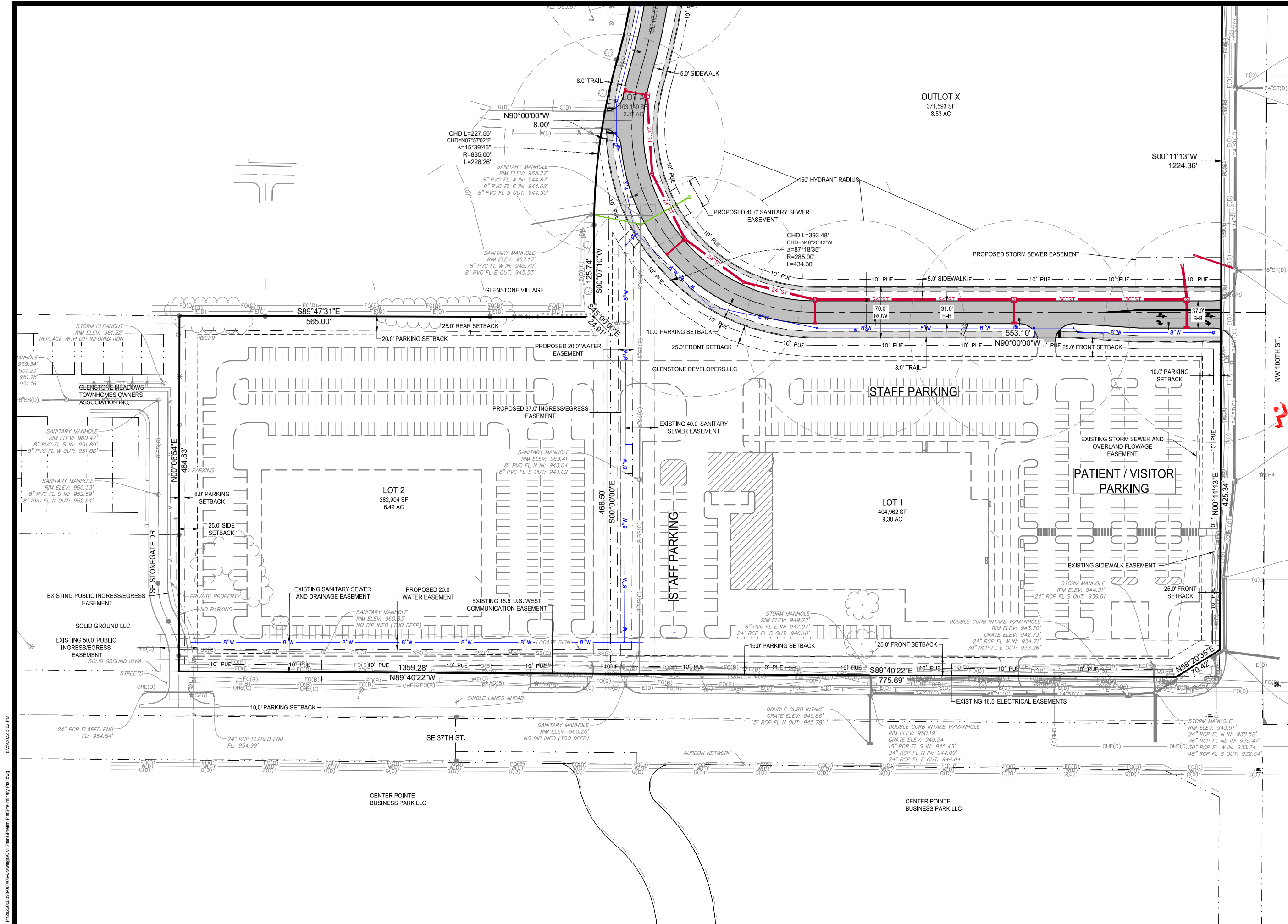
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DRAWING NO.

PP-03

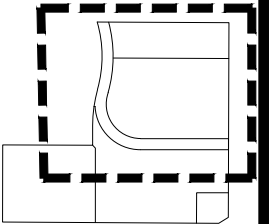
SHEET NO.

03 / 06



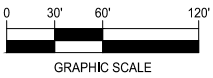
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**PRELIMINARY**

GENERAL LAYOUT AND  
DIMENSION PLAN



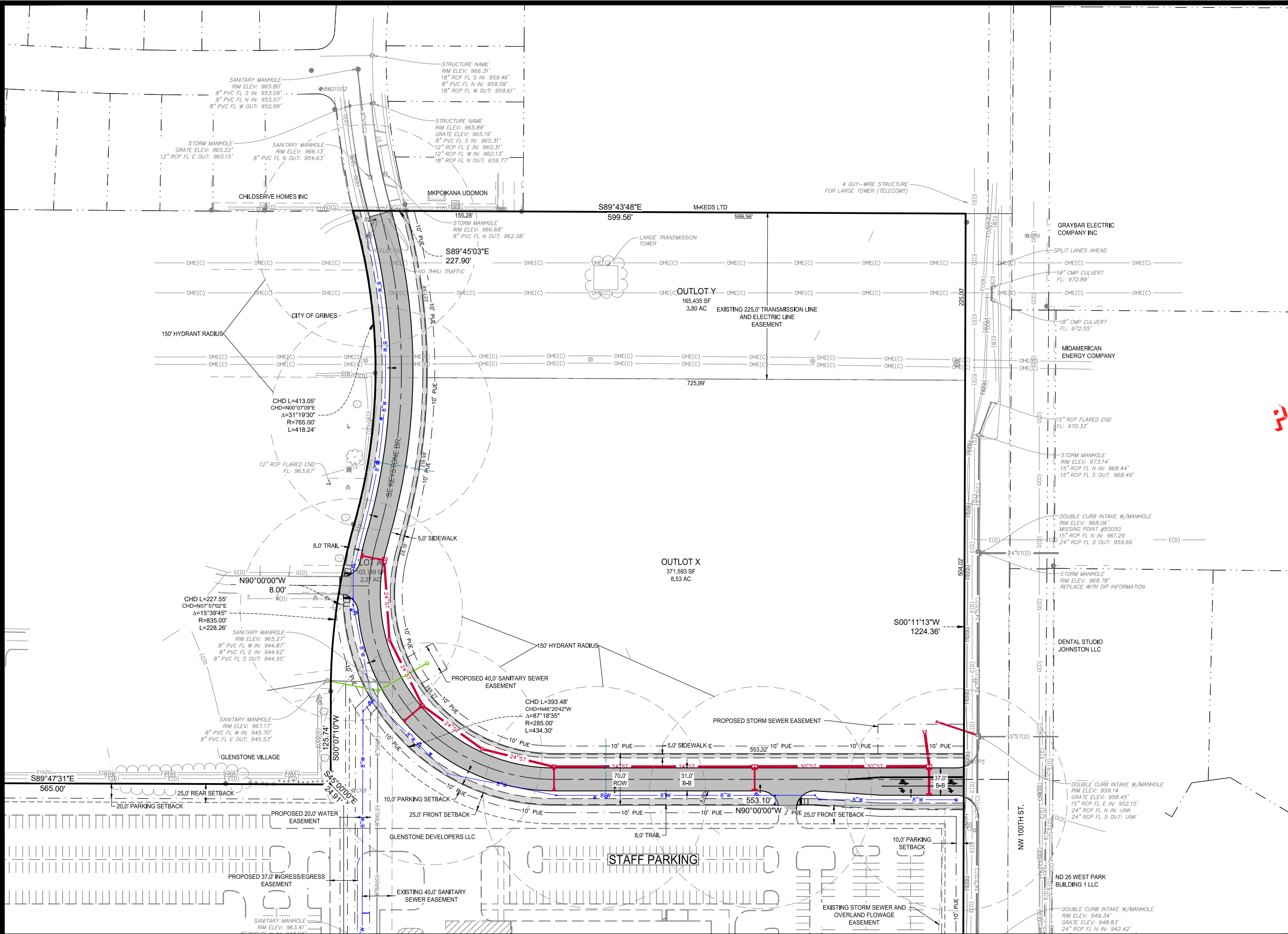
ROCK CREEK PLAT 1  
PRELIMINARY PLAT  
GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022

ENGINEER  
T. SMITH  
DRAWN BY  
R. CORONA

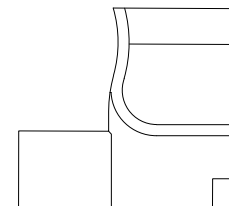
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DRAWING NO.  
PP-04  
SHEET NO.  
04 / 06



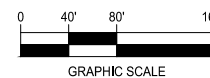
P:\2022\00398-000\04-Drawings\Civil\Plans\Prelim Plats\Preliminary Plat.dwg 8/25/2022 5:02 PM





**PRELIMINARY**

GRADING PLAN



ROCK CREEK PLAT 1  
PRELIMINARY PLAT

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022

ENGINEER  
T. SMITH

DRAWN BY  
R. CORONA

CHECKED BY

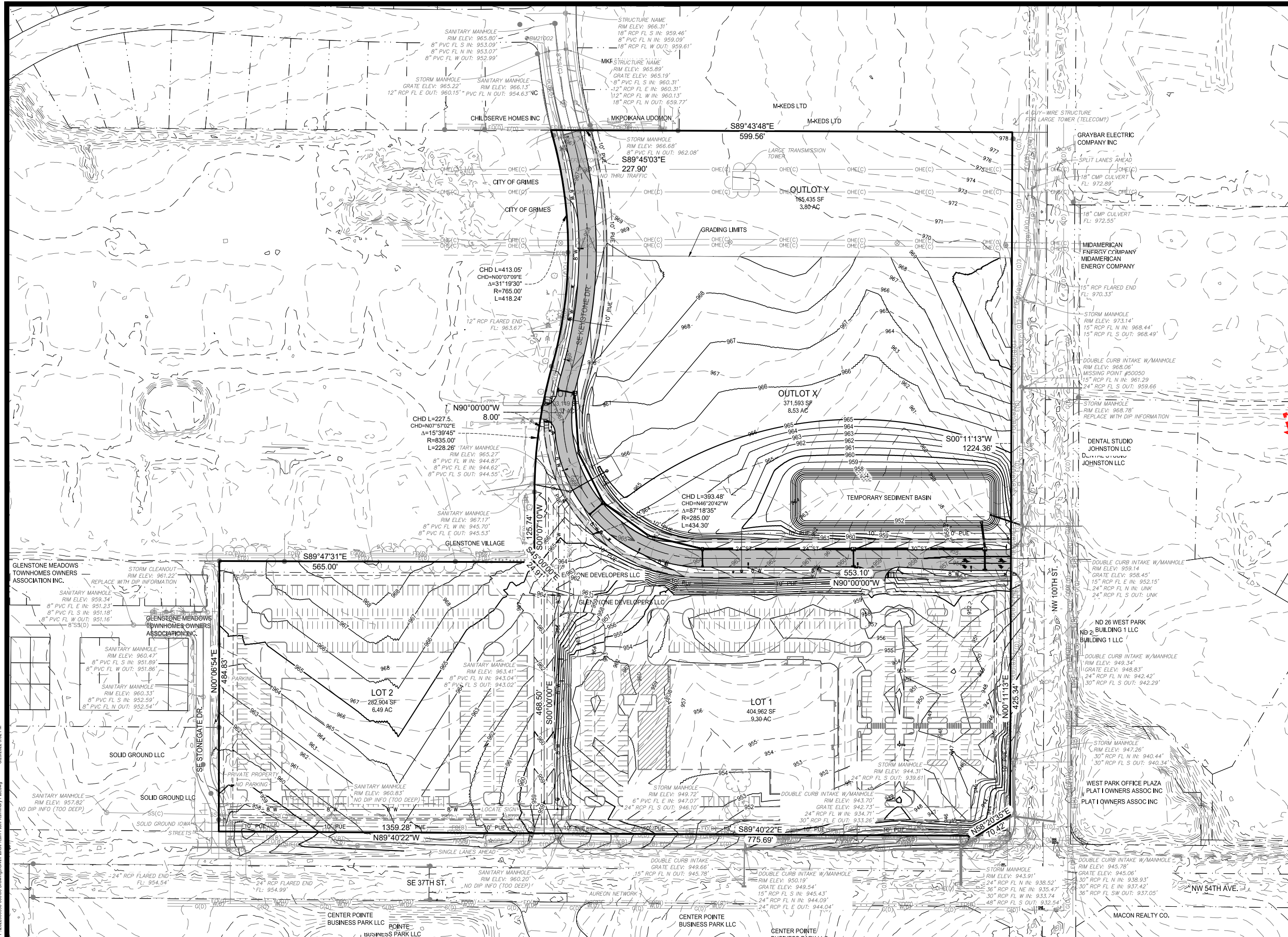
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DRAWING NO.

PP-05

SHEET NO.

05 / 06

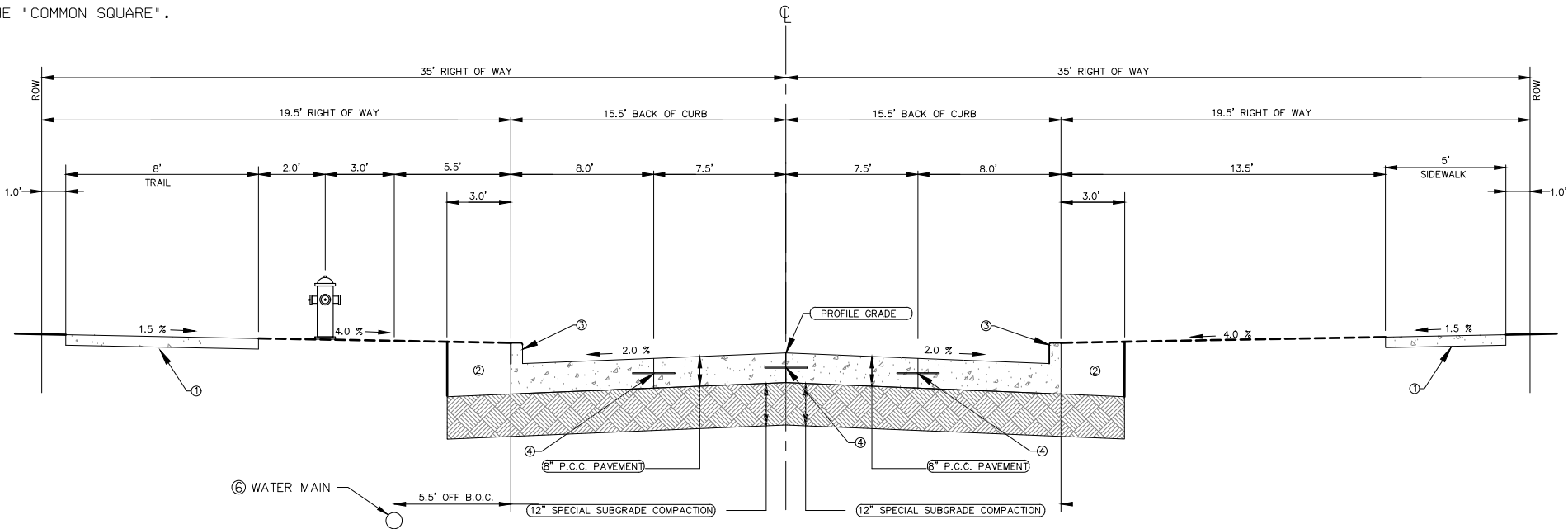


- ① CONTRACTOR RESPONSIBLE FOR SIDEWALK RAMPS UP TO AND INCLUDING THE "COMMON SQUARE".  
② EXCAVATE AND BACKFILL 3.0'.  
③ 6" STANDARD CURB  
④ L-1 JOINT  
⑤ CD BASKETS ARE REQUIRED  
⑥ WATER MAIN IS ON EITHER NORTH OR EAST SIDE OF STREET

NOTE:  
1. NORMAL SECTIONS SHOWN MAY BE APPROPRIATELY MODIFIED FOR AREAS SPECIFICALLY DESIGNATED BY THE ENGINEER SUCH AS INTERSECTIONS. REFER TO OTHER DRAWINGS FOR DETAILS.

**TYPICAL SECTION**  
**31' BACK TO BACK PCC PAVEMENT**

NO SCALE

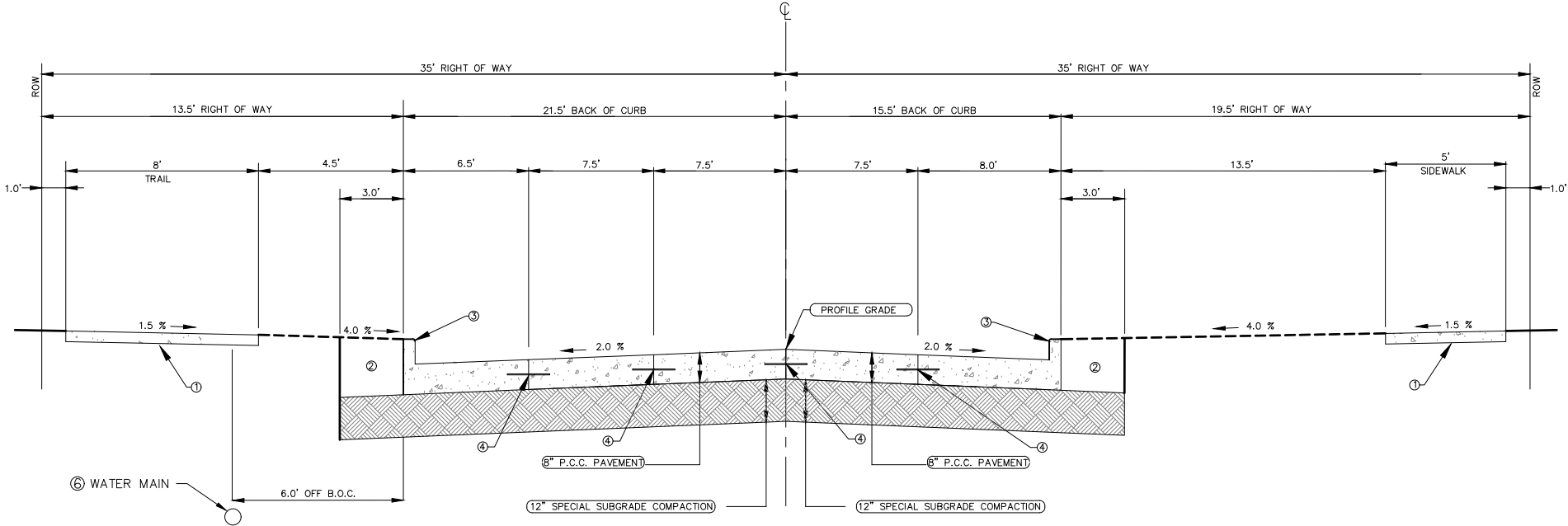


- ① CONTRACTOR RESPONSIBLE FOR SIDEWALK RAMPS UP TO AND INCLUDING THE "COMMON SQUARE".  
② EXCAVATE AND BACKFILL 3.0'.  
③ 6" STANDARD CURB  
④ L-1 JOINT  
⑤ CD BASKETS ARE REQUIRED  
⑥ WATER MAIN IS ON EITHER NORTH OR EAST SIDE OF STREET

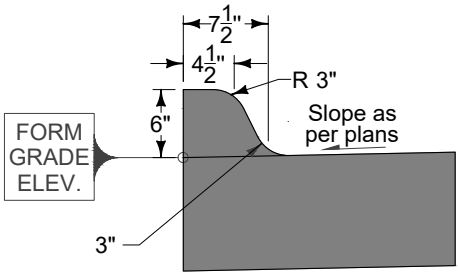
NOTE:  
1. NORMAL SECTIONS SHOWN MAY BE APPROPRIATELY MODIFIED FOR AREAS SPECIFICALLY DESIGNATED BY THE ENGINEER SUCH AS INTERSECTIONS. REFER TO OTHER DRAWINGS FOR DETAILS.

**TYPICAL SECTION**  
**37' BACK TO BACK PCC PAVEMENT**

NO SCALE



**1 TYPICAL PAVING SECTIONS (31' & 37' BACK TO BACK PAVEMENT)**  
NOT TO SCALE

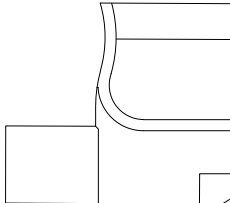


**6" STANDARD CURB**  
**6" STANDARD CURB**  
**(SUDAS 7010.102)**  
NOT TO SCALE

1360 NW 121ST. Street  
Clive, Iowa 50325  
515-964-1229  
fax 515-964-2370

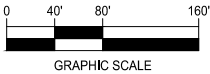
NOTICE:  
McClure Engineering Company waives any and all responsibility and liability for problems which arise from failure to follow these Plans, Specifications, and the engineering intent they convey, or for problems which arise from failure to obtain and/or follow the engineers guidance with respect to any errors, omissions, inconsistencies, ambiguities, or conflicts which are alleged.

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**PRELIMINARY**

**DETAILS**



**ROCK CREEK PLAT 1**  
**PRELIMINARY PLAT**  
GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022

ENGINEER  
T. SMITH

DRAWN BY  
R. CORONA

CHECKED BY

FIELD BOOK NO.

DRAWING NO.  
PP-06

SHEET NO.  
06 / 06



# Planning & Zoning Staff Report



TO: Planning and Zoning Commission  
FROM: Molly Mannel, Assistant Planner  
DATE: September 6, 2022  
RE: Rock Creek Building 1 – Site Plan

## GENERAL INFORMATION:

**Applicant:**

Downing Construction

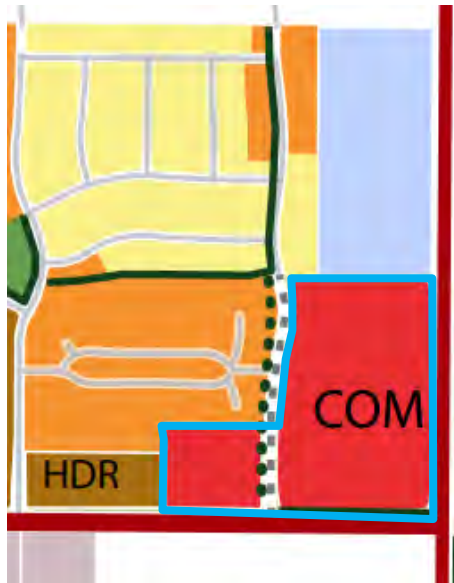
**Requested Action**

Site Plan

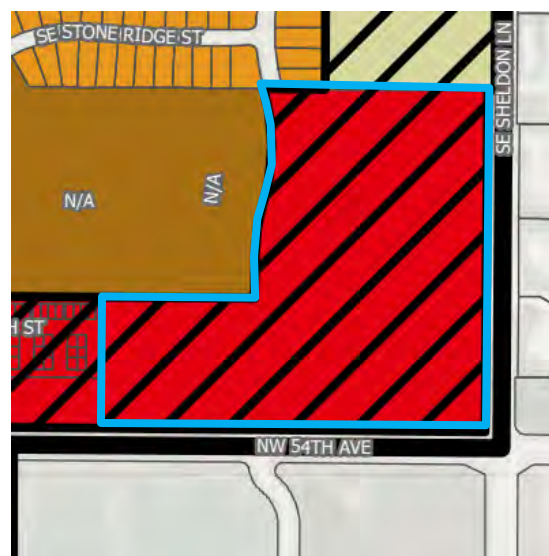
**Location**

3201 SE 37<sup>TH</sup> Street

## SUPPORTING INFORMATION:



Location Map



Zoning Map

## LAND USES & ZONING:

| Location     | Existing Land Use | Land Use Plan Designation           | Current Zoning |
|--------------|-------------------|-------------------------------------|----------------|
| Subject Site | Vacant            | Commercial                          | C-2            |
| North        | Vacant            | Public Facility                     | A-1            |
| South        | Urbandale         | Urbandale                           | Urbandale      |
| East         | Johnston          | Johnston                            | Johnston       |
| West         | Condominiums      | Medium and High Density Residential | C-2 and R-3    |

## BACKGROUND:

The applicant is requesting an approval of a site plan for a 58,580 square foot surgery center and medical campus. The site will be accessed off SE 37<sup>th</sup> Street, NW 100<sup>th</sup> Street, and SE 35<sup>th</sup> Street. In addition to the building, a new roadway connection will be constructed connecting SE Keystone Drive to NW 100<sup>th</sup> Street. This site resides within the C-2 zoning district, and within the Transportation Corridor Mixed Use Development Overlay District.

## ANALYSIS:

### *Building/Elevations:*

The building will be primarily constructed out of red brick veneer. Vertical nichiha siding will line the building sides and consist of a random colored pattern. The nichiha will line the upper portions of the building to maintain patient privacy. A detached canopy made of prefinished fascia will be constructed to the north and provide overhead screening for some physician parking. The dumpster enclosures will be constructed of the same material as the primary building and have an opaque gate to screen from outside view.

### *Site Layout:*

The site will contain three access points off SE 37<sup>th</sup> Street, NW 100<sup>th</sup> Street, and SE 35<sup>th</sup> Street. Parking to the east will be for visitors, and parking to the north and west will be for physicians and staff. The parking lots will be distinguished by signage. Three drop off lanes will be in front of the building for visitors coming off SE 37<sup>th</sup> Street to drop off patients at the front door.

Sidewalks will connect from the front entrance to SE 35<sup>th</sup> Street and SE 37<sup>th</sup> Street. A future building is proposed to be constructed at the southeast corner of the site and will be submitted in a separate site plan.

### *Parking:*

Parking spots for visitors and physicians will be separated by signage. Visitor parking is compliant with the 10% (18) ADA hospital outpatient parking spots required from the 175 visitor spots provided. Part of the physician's staff parking and will be covered by a canopy connected to the north elevation of the building. Striped crosswalks and an 8' sidewalk will provide a safe accessway for visitors to cross through the visitor parking lot to the front entrance.



*Landscaping/Streetscape:*

Landscaping will be placed along SE 37th Street, NW 100th Street, and SE Keystone Drive/SE 35th Street. A landscaped buffer will be planted bordering the lots to the west to provide screening between the commercial and residential uses. Parking islands will consist of shrubs, and additional landscaping and buffering will be planted to comply with the Transportation Corridor Mixed Use Development Overlay District landscaping requirements.

*Utilities:*

Water will be stubbed from a connection to SE Stonegate Drive, with sanitary stubbing from SE 37<sup>th</sup> Street. Erosion stone will be placed within the curb cuts of the visitor parking lot, and stormwater will filter through to be collected through the underground storm sewer and detention, ultimately draining to the southeast.

**STAFF RECOMMENDATION:**

Staff would recommend approval of the site plan for Rock Creek Building 1, subject to any remaining staff comments.

**CITY OF GRIMES**

Molly Mannel  
Assistant Planner



**Development Services**

410 SE Main St, Suite 102

Grimes, IA 50111

(515)986-4050

[www.grimesiowa.gov](http://www.grimesiowa.gov)

~~August 3, 2022~~

~~August 18, 2022~~

September 10, 2022

**McClure Engineering**

Attn: Ricardo Corona

1360 NW 121<sup>st</sup> Street

Clive, IA 50325

**RE: Rock Creek Building 1 Site Plan**

Dear Mr. Corona:

The Development Services Department is in receipt of a proposed Site Plan for the Rock Creek Building 1. Based on the review of the provided submittal materials, staff have the following comments:

**General Comments:**

1. What is the proposed usage for the Future Building? What is the proposed use for the small building at the corner of SE 37<sup>th</sup> and 100<sup>th</sup>? **Provide a concept for the coffee shop. How will the area around the coffee shop circulate? Where will the cars stack? 5 stacking spaces minimum are required.**
2. Please provide a copy of the SWPPP once available. **Please provide.**
3. ~~Verify sight triangles at the intersection of 100th and 37th.~~
4. ~~Is any truck traffic anticipated within the site? If so, please provide turning movements.~~ **No turning movements were provided.**
5. ~~Provide detail for curb cuts and label type of erosion stone used.~~ **Please provide.**
6. ~~Verify groundwater elevations on site with 18' of cut for ADS system.~~
7. ~~Please provide building elevations.~~
8. ~~Staff would prefer no stripped islands.~~ **Please show turning movements.**

9. ~~Please update the new road name to the following: (the road will change name at the midpoint of the curve)~~

- ~~E/W road: SE 35<sup>th</sup> Street~~
- ~~N/S road: SE Keystone Drive~~

#### **GN-01**

1. ~~Please update zoning to C-2 and the Transportation Corridor Mixed Use Development Overlay District.~~

2. ~~Update property owner info.~~

3. ~~Update legal description. Update to Rock Creek Plat 1 Lot 1~~

4. Provide estimated construction schedule. Please provide.

5. ~~Provide proposed use description. Please provide.~~

6. ~~Please update the lots to the following addresses:~~

- a. ~~Lot 1/main building: 3201 SE 37th Street~~
- b. ~~Future building: 3211 SE 37th Street~~

1. Please delineate patient, visitor, and staff parking. 10% of hospital outpatient parking is required to be ADA. Please list the following parking calculations on the cover sheet:

- a. 157 patient/visitor stalls (and 18 patient/visitor ADA stalls)
- b. 154 staff stalls (and 6 staff ADA stalls)

#### **GN-02:**

1. ~~Please include the City of Grimes Standard Notes. They are attached.~~

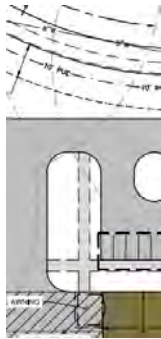
#### **GN-03**

1. ~~Remove sawcut along SE 37<sup>th</sup> St. Type A driveways are required. Curb shall be ground down.~~

- ~~2. Are intakes being removed permanently, or is this where new storm pipes on the site will outlet?~~
- ~~3. How will existing intakes be capped along SE 37<sup>th</sup> Street?~~

### **SP-01**

- ~~1. Staff would like to see a sidewalk connection to SE 37<sup>th</sup> Street—please wrap the existing sidewalk around the building and connect south to SE 37<sup>th</sup>~~
- ~~2. Please provide a sidewalk connection to the north, making a connection to SE Keystone Drive.~~



- ~~3. Please show 150' fire hydrant routes instead of radiuses. Please provide. Please provide 150' hydrant routes – not radiuses. City of Grimes ordinance required route coverage to be shown via an approved route of travel for the fire apparatus (please see attachment drawing).~~
- ~~4. Please state the sidewalk easement as future. Please install sidewalk on 100<sup>th</sup> street, up to SE 35<sup>th</sup> Street.~~
- ~~5. Is the entrance by the staff patio for staff only? Or an entrance for patients?~~
- ~~6. Please label the distance of the east driveway to the intersection. Please label distance of driveway to 100<sup>th</sup> Street.~~
- ~~7. Staff questions how the area around the future building will be finished. Staff is concerned that the area will be largely un-managed until the area is finished. Curbing may be necessary to help manage the traffic patterns. Please address once known.~~

- ~~8. Staff would suggest utilizing a 3-lane section at the main entrance off SE 37<sup>th</sup>. Given the anticipated traffic volumes, having dedicated turning movements may be necessary.~~
9. Staff would ask that the applicant consider moving the closest east-west movement after the access point from SE 37<sup>th</sup> Street further to the north. While we understand the applicant likely desires to have more free-flowing movement around the building, having the access points that close the intersection may cause them to not function efficiently. Please address once known.
- ~~10. Please add raised islands at the southern end of the underground basin area.~~
11. Label the location and type of the screening for the generators and chillers. Architecture elevations do not show generator and chiller screening type. Please provide.

#### **SP-02**

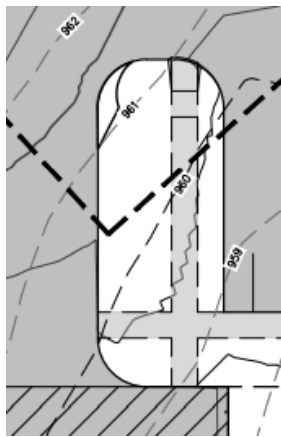
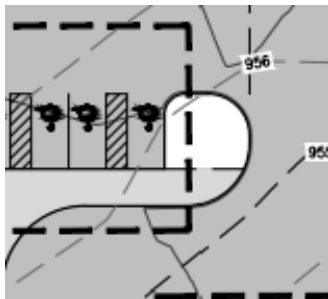
- ~~1. Provided dimensions for the ADA stalls and access aisles. Add labels to east parking lot and revise labels on the north parking lot.~~
2. Show ADA signage on sheet and label. ADA signs not shown. Please revise. Please show ADA signage for northern and southern stalls.
3. Show proper signage and arrows for the 3-lane drop-off. Not shown. Please revise. Are cars able to come in from the North/SE 35<sup>th</sup> Street and drop off? If not, please include a "DO NOT ENTER" signage.
- ~~4. Please move 3 ADA spots on the other side of the north entrance near staff patio. The ADA spots under the physician canopy need to be placed near the staff patio door.~~

#### **GR-01**

- ~~1. Add pavement hatch for better clarity.~~
- ~~2. Please provide more proposed contour labels. Please label contours.~~
- ~~3. Provide spot elevations at all low points. Add spot elevations and slope labels.~~
- ~~4. Label Finish floor elevation.~~
- ~~5. Please fix overlapping labels.~~



6. Verify slope on the north side of the site from the ROW to the parking lot. 4:1 preferred, 3:1 allowed. Please provide a minimum 2-foot safety shelf on the building side of the sidewalk.
7. Grading does not show a sump condition at intakes 104 and 104A. Provide a sump to capture the 100-year storm event.
8. How will the sidewalks tie into the pavement? Label spot elevations. Are ramps required? If so, provide ramps details.



## GR-02

1. Provided labels at low points. Please label.
2. Label Type of ADS Chamber system used and 100-Yr elevation. Please label the 100-year elevation.
3. Please provide spot grade elevations around the building.

4. ~~Clearly label transition from full curb to no curb along the drop off lanes. Does the pavement come up or the sidewalk drop down? Please clarify where the curb stops. Is there no curb between the two labels?~~



5. ~~How does trash enclosure drain? Regrade or provide weep holes on dumpster elevations. Please clarify how the trash enclosure will drain.~~
6. ~~Label slopes on the SE grass area. 4:1 preferred, 3:1 allowed. Labels are not shown.~~
7. ~~Please provide the slope ratio for the sidewalk and driveway north into SE Keystone Drive.~~
8. ~~The low point in the grading appears to be to the side of INT-108.~~
9. Grading around the SW entrance does not seem to match the 2D linework.
10. Staff have concerns about the slope between SE 35th Street and the north parking lot. Staff finds that the slope is too severe, as there are several portions of the hillside that is over 30% slope. Is this area going to be maintainable?

- ~~1. Show spot elevations for access aisle on NE stall.~~
- ~~2. Adjust some of the cross slopes for the parking spaces. Some are over 2%.~~

#### **GR-05**

1. Provide safety shelf for the sidewalk connection from the parking lot to Keystone sidewalk. Please provide.
2. Staff has concerns with the finished floor elevation (954.10) being 12 feet lower than Keystone Drive (966.16 TS). Please revise or explain.
3. Grading detail – F: There are portions of the sidewalk that exceeds 2% of cross slope, please adjust sidewalk to not exceed 2% of cross slope.

#### **UT-01**

1. Please shift watermain along SE 37<sup>th</sup> Street out of the 10' PUE.
- ~~2. Label all critical crossings of exiting watermain and storm sewer. Please label the critical crossing with sanitary as well.~~
- ~~3. See CD comments about stubbing watermain and connecting into the stubbed out main. Please address.~~
- ~~4. Please provided FDC and a hydrant within 100' of the FDC. Please show.~~
- ~~5. Provide Sanitary cleanout for sanitary service over 150 LF. Please provide.~~
6. Show shutoff valves for 6" water service and 2" domestic services if needed. Please provide. Are shutoff valves for the 6" water service and 2' domestic service needed? If so, please show on the site.
- ~~7. We suggest stubbing out services on Public Improvement plans.~~
- ~~8. Please change BOC Elev to Rim Elevation on INT 101 for clarity.~~
- ~~9. INT 201, INT 202, INT 301, and INT 302 shall be SW 511 with traffic rated grates.~~
- ~~10. Verify storm sun P 303 and P 404 for conflicts with the Underground Storage layout. Please verify.~~

- ~~11. Please label the type of ADS system.~~
- ~~12. Show and label roof drain connections.~~ Please label.
- ~~13. Please provide critical crossing labels.~~
- ~~14. How is the building be captured?~~
15. Provide detail for STMH-1001.
16. Label transformer locations. Locations not shown. Staff didn't see the transformers labeled on the SP sheets. Please provide.
17. Building does not have adequate fire main looping. Please provide loop around building, and hydrants. Hydrants must be spaced to provide 150-foot route coverage to all areas of building, by routes of travel for the fire apparatus. The 150-foot routes cannot be obstructed by parking, landscaping, etc. Please provide 150' hydrant routes – not radiuses. City of Grimes ordinance required route coverage to be shown via an approved route of travel for the fire apparatus.
- ~~18. Please relocate hydrants on the west side of the site—to the islands nearer the west side of the building to provide adequate coverage for the west side of the building.~~
19. The north, east, and south sides of the building are unprotected. Please provide hydrants along here that will meet the 150' linear routes. Please relocate the hydrant on the southwest corner of the building to the island closer to the southwest corner building. This will provide adequate coverage for the west side of the building.
20. The hydrants along Keystone are located up a steep grade and will not be useable due to the grade and during periods of snow cover. Please assess. Staff is confused where the hydrants are located. Are they along the sidewalk and at sidewalk grade? Or within the ditch at a lower grade? Please explain.
- ~~21. Please label the FDC location. The plan does not depict a fire service main or FDC. A fire hydrant shall be located within 100 feet of the FDC per Section 507.5.1.1 of the City of Grimes Fire Code.~~
- ~~22. Please label the Knox Box location. The location of the Knox Box shall be near the main entrance of the building unless a separate outside entrance will be used to gain access to the fire sprinkler and alarm systems. In that case, the Knox Box shall be located outside of that room.~~

## UT-02

1. Show a split water service outside of the building.

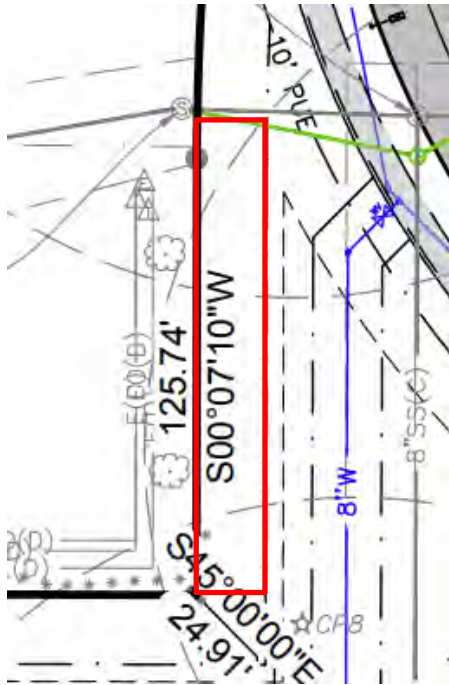
## LA-01

1. ~~Please shift trees out of the utilities along SE 37<sup>th</sup>, NW 100<sup>th</sup> Street, and SE Keystone Drive.~~ Please shift the most northwest corner tree out of the PUE along SE Keystone Drive.

### BACKYARD PRAIRIE MIX



2. ~~Please shift trees out of the 8' SS in the west parking island.~~
3. Per the overlay ordinance, a minimum of 20 trees along SE 37<sup>th</sup> Street shall be planted. The connecting driveway is considered part of the parking area. Please add required plantings.
4. Please add additional trees within the island to the west of the facility (near dumpsters), as well as in front of the building. Yes, the trees along the western edge near the dumpster are fine. Please place more trees to suffice comment #3 above.
5. Provide landscape screening to shield transformers from view from the ROW. Please provide.
6. Provide 5' buffer of evergreen trees along the townhome property to the northwest. These plantings need to be shown and installed with the site plan improvements. Please add.



7. Provide continuous 3' screening along SE 37<sup>th</sup> St as noted in the table. **Not shown. Please add.**
8. Install a minimum of 8 trees within the parking lot islands to meet the landscape median planting requirements. **Not shown. Please add.**

#### **LI-01**

1. Label footcandles at the property lines. **Please label up to the lot line. They are currently labeled only up to the pavement/ROW.**
2. **Please relabel SE Keystone Drive to SE 35<sup>TH</sup> Street.**

#### **DT-01**

- ~~1. Where are the bollards located on the site plan?~~

#### **DT-02**

1. Provide updated ADS details once final layout is completed. **Please provide.**



## **EC-01**

1. ~~Provide map key for sediment and erosion controls.~~
2. ~~Be sure to provide proper inlet protection for area intakes vs paved intakes~~
3. ~~Is the underground detention to be built early within the project? If so, it is recommended to move the proposed staging area.~~
4. ~~Provide temporary stockpile location and include sediment controls around base of stockpile to meet topsoil preservation requirement~~
5. ~~Clearly label discharge point.~~
6. ~~Be sure concrete washouts and portable toilets are located at least 50 feet from storm infrastructure.~~
7. ~~Be sure to include temporary stabilization for any areas that will sit disturbed for more than 14 days to meet 0-14 day stabilization rule stated in the GP2.~~
8. ~~What kind of structure does the discharge point flow to? Is this designed to handle the runoff from this site along with its normal volume?~~
9. ~~Please show perimeter controls.~~

## **Stormwater Management Plan (SWMP)**

1. ~~All the stormwater from this area should be conveyed through the storm sewer stubs along the southern border of this site.~~
2. ~~Existing site conditions and Soil Map: Map shows site as primarily type B soils. Please update allowable release rates utilizing type B soils.~~
3. ~~Post-Developed Site: Narrative states allowable release rates will be less than natural conditions and 5-yr existing conditions. Please provide hydrographs for existing conditions.~~
4. ~~Proposed Conditions Map: Change “Detained Area #1”, to “Undetained Area #1”.~~
5. ~~Runoff Curve Number Calculations: Change names from “Composite C Factor” to “Runoff Curve Number”.~~

6. Is Offsite Area #1 intended to provide its own stormwater management, and will be owned by the same part as Lot 1?
7. Proposed conditions hydrograph shows a CN of 88 on the offsite property. The calculations provided show a CN value of 85. Is the CN value in the model for future conditions?
- ~~8. Pond 1 in the hydrograph does not match the site plan.~~
9. Please provide the pond report with the proposed hydrograph.
10. Undetained Area hydrograph and Curve Number Calculations: Update value based on ground cover in that area. Utilizing Commercial CN value maybe higher than the CN value that should be used here.
- ~~11. CPv is for the entire site, not just what is detained.~~
12. Intake Spreadsheet: Update intake type on structures 201, 202, 301, and 302, if they are all SW-511 instead of SW-501.
13. Provide 100-yr pipe and intake spreadsheets as well.
14. Include roof drain connections on intake and pipe spreadsheets.
15. If structures 104 and 104A are sage intakes, provide capacity calculations.

**Elevations:** Please provide updated elevations, and include details discussed via our Zoom discussion.

1. Please provide the elevations for the physician parking canopy cover. Please provide a concept.
- ~~2. Please provide material calculations/percentages for each side of the building.~~
- ~~3. Provide building material labels/details.~~
- ~~4. Please widen the brick edge on the NW corner.~~
- ~~5. Staff questions why spandril is being used. Please explain.~~
6. Provide dumpster enclosure details. Please provide.

7. Provide generator/chiller screening elevations. Please provide.
8. On the NW corner of the building, please extend brick up to the parapet and then extend roof line up to provide more roof articulation. This will enhance the corner and break up the plane of niches. Staff prefers this – architect has made note via Zoom discussion.
9. ~~Is this pattern the pattern you are going to build? We expect the elevation to match the final construction.~~
10. Staff questions how the 40% of the building façade length along the ROW is being met. Please ensure 40% of the building length is glazing.
11. ~~Based on the material provided, a 4/5 vote of approval is required by council.~~

**Please provide a letter addressing all comments on this comment letter and/or state what was modified on the site plan to address said comments.**

**SITE PLAN SUBMITTAL SCHEDULE:**

|                               |                                                                                                                                            |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SUBMITTAL DATE:</b>        | <del>August 10, 2022</del><br><del>August 25, 2022</del><br>September 19, 2022<br><b>(1 PDF of Site plan with Elevation Plan included)</b> |
| <b>PLANNING &amp; ZONING:</b> | September 22, 2022, at 5:30 at the Grimes City Hall                                                                                        |
| <b>COUNCIL MEETING:</b>       | October 11, 2022, at 5:30 at the Grimes City Hall                                                                                          |

Please feel free to contact me at [mmannel@grimesiowa.gov](mailto:mmannel@grimesiowa.gov) or at (515) 986-4050 if you have any questions or need additional information.

Sincerely,

Molly Mannel  
Assistant Planner

ROCK CREEK  
BUILDING 1 SITE PLAN  
GRIMES, IOWA

OWNER:

ROCK CREEK INVESTMENTS LLC  
2208 WOODLANDS PKWY  
CLIVE, IA 50325

APPLICANT:

DOWNING CONSTRUCTION  
509 EAST SCENIC VALLEY AVENUE  
INDIANOLA, IA 50125  
ATTN: JOSH RIDLEY

PROPOSED USAGE

MEDICAL BUILDING

ENGINEER/SURVEYOR:

McCLURE ENGINEERING  
1360 NW 121ST STREET  
CLIVE, IOWA 50325  
(515) 964-1229  
tsmith@mcclurevision.com  
ATTN: TRENT SMITH

BULK REGULATIONS:

C-2:  
FRONT SETBACK = 25'  
SIDE SETBACK = 25'  
REAR SETBACK = 25'  
PARKING SETBACK = 10'

SITE ADDRESS:

LOT 1/ MAIN BUILDING: 3201 SE 37TH STREET  
FUTURE BUILDING: 3211 SE 37TH STREET

BUILDING SUMMARY:

TOTAL NUMBER OF BUILDINGS = 1  
TOTAL BUILDING S.F. = 53,580± S.F.  
INTENDED USE = MEDICAL BUILDING

PARKING:

REQUIRED = 176 STALLS (3 STALL PER 1,000 SQ. FT. GROSS BLDG. AREA)  
PROVIDED = 335 STALLS (INCLUDES 24 ADA STALLS)

LEGAL DESCRIPTION:

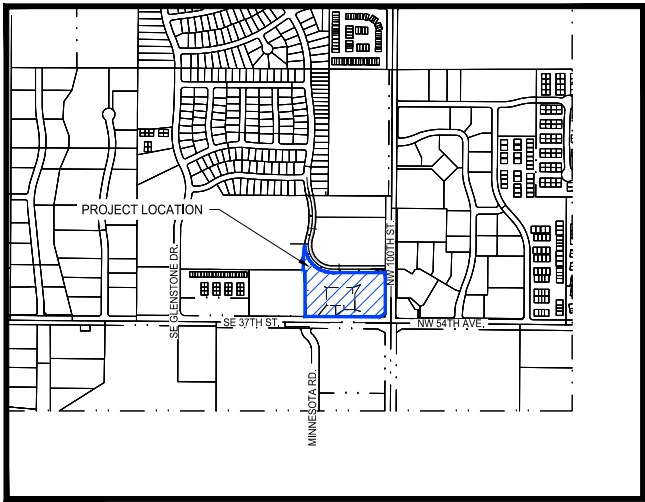
ROCK CREEK PLAT 1; LOT 1

DEVELOPMENT SUMMARY:

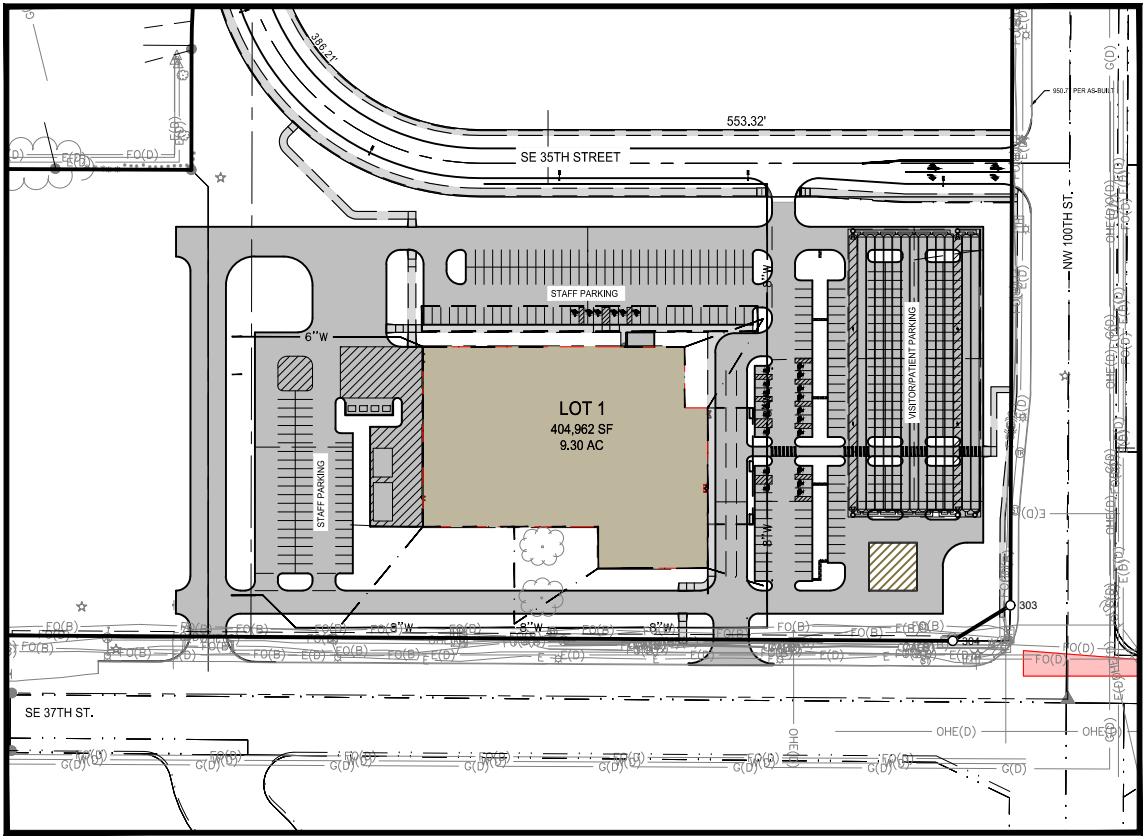
GROSS LAND AREA: =404,962± S.F. (9.30± AC.)  
PROJECT IMPERVIOUS AREA:  
PAVING AREA =231,056± S.F. (57.1%)  
BUILDING AREA =53,580± S.F. (13.2%)  
TOTAL =284,636± S.F. (70.3%)  
PROJECT OPEN SPACE:  
REQUIRED = 40,496± S.F. (10.0%)  
PROVIDED = 120,327± S.F. (29.7%)

ZONING INFORMATION

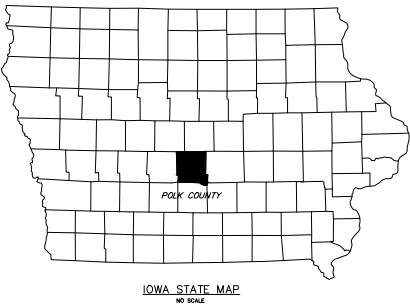
- C-2
- TRANSPORTATION CORRIDOR MIXED USE DEVELOPMENT OVERLAY DISTRICT



VICINITY MAP  
NOT TO SCALE

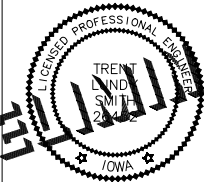
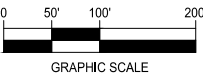


| SHEET LIST TABLE |             |                                   |
|------------------|-------------|-----------------------------------|
| SHEET NUMBER     | SHEET TITLE | SHEET DESCRIPTION                 |
| 01               | GN-01       | COVER SHEET                       |
| 02               | GN-02       | GENERAL LEGEND AND NOTES          |
| 03               | GN-03       | EXISTING CONDITIONS AND REMOVALS  |
| 04               | SP-01       | OVERALL LAYOUT                    |
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| 06               | SP-03       | SITE PLAN                         |
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| 08               | GR-02       | GRADING PLAN                      |
| 09               | GR-03       | GRADING PLAN                      |
| 10               | GR-04       | GRADING PLAN                      |
| 11               | GR-05       | GRADING PLAN                      |
| 12               | EC-01       | SEDIMENT AND EROSION CONTROL PLAN |
| 13               | UT-01       | UTILITY PLAN                      |
| 14               | LI-01       | LIGHTING PLAN                     |
| 15               | LI-02       | LIGHTING CUT SHEETS               |
| 16               | LA-01       | LANDSCAPE PLAN                    |
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| 20               | DT-03       | ADS STORMTECH DETAILS             |
| 21               | DT-04       | ADS STORMTECH DETAILS             |
| 22               | DT-05       | ADS STORMTECH DETAILS             |
| 23               | DT-06       | ADS STORMTECH DETAILS             |



| SUBMITTAL AND REVISION TABLE |            |                   |
|------------------------------|------------|-------------------|
| SUBMITTAL                    | DATE       | DESCRIPTION       |
| 1                            | 07/25/2022 | CITY SUBMITTAL #1 |
| 2                            | 08/10/2022 | CITY SUBMITTAL #2 |
|                              |            |                   |
|                              |            |                   |
|                              |            |                   |

ALL CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE 2022 IOWA STATEWIDE URBAN DESIGN STANDARD AND SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AS ACCEPTED BY THE CITY OF GRIMES AND THE GRIMES SUPPLEMENTAL SPECIFICATIONS EXCEPT WHERE ALTERED OR AMENDED BY THE CITY OF GRIMES.



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TRENT LUNDY SMITH, PE NO. 26452 DATE: \_\_\_\_\_  
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2022  
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PRELIMINARY

COVER SHEET

ROCK CREEK BUILDING  
1 SITE PLAN

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022

ENGINEER T. SMITH  
DRAWN BY R. CORONA

CHECKED BY FIELD BOOK NO.

DRAWING NO. GN-01  
SHEET NO. 01 / 25

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| GENERAL LEGEND      |  |     |                     |  |                               |                     |  |                       |  |
|---------------------|--|-----|---------------------|--|-------------------------------|---------------------|--|-----------------------|--|
| EXISTING / PROPOSED |  |     | EXISTING / PROPOSED |  |                               | EXISTING / PROPOSED |  |                       |  |
|                     |  | SS  |                     |  | SANITARY SEWER MAIN           |                     |  | BOLLARD (BUMPER POST) |  |
|                     |  | SS  |                     |  | SANITARY SEWER SERVICE        |                     |  | ROADWAY SIGN          |  |
|                     |  | FM  |                     |  | SANITARY SEWER FORCE MAIN     |                     |  | MAILBOX               |  |
|                     |  | ST  |                     |  | STORM SEWER MAIN OR CULVERT   |                     |  | WELL                  |  |
|                     |  | ST  |                     |  | SECONDARY STORM SEWER MAIN    |                     |  | DECIDUOUS TREE        |  |
|                     |  | ST  |                     |  | SECONDARY STORM SEWER SERVICE |                     |  | EVERGREEN TREE        |  |
|                     |  | W   |                     |  | WATER MAIN                    |                     |  | SHRUB OR BUSH         |  |
|                     |  | W   |                     |  | WATER SERVICE                 |                     |  | TREE OR SHRUB LINE    |  |
|                     |  | E   |                     |  | UNDERGROUND ELECTRIC          |                     |  | STUMP                 |  |
|                     |  | OHE |                     |  | OVERHEAD ELECTRIC             |                     |  | MONITORING WELL       |  |
|                     |  | T   |                     |  | UNDERGROUND TELEPHONE         |                     |  | SOIL BORINGS          |  |
|                     |  | FO  |                     |  | UNDERGROUND FIBER OPTIC       |                     |  | FLAG POLE             |  |
|                     |  | TV  |                     |  | UNDERGROUND CABLE TV          |                     |  | SATELLITE DISH        |  |
|                     |  | G   |                     |  | GAS MAIN OR SERVICE           |                     |  | SLOPE INDICATORS      |  |
|                     |  |     |                     |  | CONTOUR LINES INTERMEDIATE    |                     |  | CONTROL POINT         |  |
|                     |  |     |                     |  | CONTOUR LINES INDEX           |                     |  | BENCH MARK            |  |
|                     |  |     |                     |  | PROPERTY LINE / LOT LINE      |                     |  | SECTION CORNER        |  |
|                     |  |     |                     |  | SECTION LINE                  |                     |  | IRON PIN SET          |  |
|                     |  |     |                     |  | EASEMENT                      |                     |  | IRON PIN FOUND        |  |
|                     |  |     |                     |  | GUARD RAIL                    |                     |  | DRAWING NUMBER        |  |
|                     |  | X   |                     |  | FIELD FENCE                   |                     |  |                       |  |
|                     |  | O   |                     |  | CHAIN LINK FENCE              |                     |  |                       |  |
|                     |  |     |                     |  | WOODEN FENCE                  |                     |  |                       |  |
|                     |  |     |                     |  | ROAD CENTERLINE               |                     |  |                       |  |
|                     |  |     |                     |  | GRADING LIMITS                |                     |  |                       |  |
|                     |  |     |                     |  | CONSTRUCTION LIMITS           |                     |  |                       |  |
|                     |  | AG  |                     |  | AG LINE                       |                     |  |                       |  |
|                     |  |     |                     |  | WATERWAY FLOWLINE             |                     |  |                       |  |
|                     |  |     |                     |  | TOP OF SLOPE                  |                     |  |                       |  |
|                     |  |     |                     |  | BOTTOM OF SLOPE               |                     |  |                       |  |
|                     |  | X   |                     |  | SILT FENCE                    |                     |  |                       |  |

| ABBREVIATIONS |  |                 |
|---------------|--|-----------------|
| T/S           |  | TOP OF SLAB     |
| BC            |  | BACK OF CURB    |
| TC            |  | TOP OF CURB     |
| FL            |  | FLOWLINE        |
| CL            |  | CENTERLINE      |
| C             |  | CUT             |
| F             |  | FILL            |
| (S)           |  | OFFSET          |
| TOP           |  | TOP OF SLOPE    |
| BOT           |  | BOTTOM OF SLOPE |
| EP            |  | EDGE OF PAVING  |

## GENERAL NOTES:

- A. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT VERSION OF THE IOWA STATEWIDE URBAN DESIGN AND SPECIFICATIONS FOR PUBLIC IMPROVEMENTS ON THE DATE OF APPROVAL AND THE CITY OF GRIMES SUPPLEMENTAL SPECIFICATIONS.
- B. A PRECONSTRUCTION MEETING IS REQUIRED PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THIS MEETING. CONTACT CITY OF GRIMES ENGINEERING DEPT. (515.986.4050).
- C. ALL PERMITS (IDNR, SWP, IDOT, ARMY CORP., ETC.) SHALL BE OBTAINED PRIOR TO THE START OF CONSTRUCTION.
- D. THE DEVELOPER AND/OR CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE THE CITY OF GRIMES WITH RECORD DRAWINGS OF ALL IMPROVEMENTS AS PER CITY STANDARD PROCEDURES.
- E. TYPICAL BUILDING SERVICE LAYOUT TO REFLECT THE CITY'S SERVICE ORDER FROM LEFT TO RIGHT FACING THE LOT, SANITARY, WATER, AND SUMP.
- F. A KNOX BOX IS REQUIRED BY THE FIRE DEPARTMENT AND SHALL BE OBTAINED AT KNOXBOX.COM.
- G. ALL SITE LIGHTING SHALL NOT SPILL ONTO ADJACENT PROPERTIES OR RIGHT-OF-WAYS.
- H. PROVIDE A 4-YEAR MAINTENANCE BOND FOR ALL PUBLIC IMPROVEMENTS.
- I. OUTDOOR STORAGE IS PROHIBITED.
- J. NO EXPOSED DUMPSTERS ARE PERMITTED OUTSIDE

## SANITARY SEWER NOTES:

- A. THE CONTRACTOR IS REQUIRED TO PLACE A TEMPORARY PLUG IN THE EXISTING DOWNSTREAM SANITARY SEWER MANHOLE PRIOR TO THE START OF CONSTRUCTION. THE PLUG SHALL BE REMOVED FOLLOWING APPROVAL OF CONSTRUCTION BY THE CITY OF GRIMES.
- B. SANITARY GRAVITY PIPE MATERIAL SHALL BE PVC SDR 26 OR TRUSS (8" TO 15").
- C. SANITARY GRAVITY SERVICE PIPE MATERIAL SHALL BE PVC SDR 23.5 (4" TO 6").
- D. ALL SANITARY SEWER MANHOLES SHALL HAVE STEPS.
- E. ALL SANITARY SEWER MANHOLES CASTINGS SHALL BE SEALED WITH HEAT SHRINK SLEEVES.
- F. ALL SANITARY SEWER MANHOLE CASTINGS LOCATED WITHIN PAVEMENT SHALL BE TYPE B:PCC W/ADJUSTING MECHANISM.
- G. SANITARY SEWER TESTING, CLEANING & TELEVISION SHALL BE COMPLETED PRIOR TO PAVING. THE SEWER SYSTEM SHALL BE FLUSHED WITH WATER PRIOR TO TELEVISION.

## WATER MAIN NOTES:

- A. ALL FIRE HYDRANTS SHALL BE AMERICAN FLOW CONTROL-WATEROUS PACER WB-67-250, MUELLER SUPER CENTURION 250 (3-WAY A-423), OR CLOW MEDALLION F-2545. ALL HYDRANTS SHALL HAVE THE FOLLOWING: 6" MJ SHOE, 2-1/2" HOSE NOZZLE, 4-1/2" STEAMER NOZZLE, NST THREADS, PENTAGON OPERATING NUT, CHAIN ON CAP, OPEN LEFT, 5-1/2' BURY, AND FACTORY PAINTED RED. THE MINIMUM SPOOL PIPE LENGTH FROM AUXILIARY VALVE TO HYDRANT SHOE SHALL BE 2.0'.
- B. ALL HYDRANTS WILL IMMEDIATELY BE COVERED WITH A BLACK PLASTIC BAG (OR EQUIVALENT) ONCE THE HYDRANT IS INSTALLED. THE CITY OF GRIMES WILL NOTIFY THE CONTRACTOR WHEN THE BAGS CAN BE REMOVED.
- C. A TRACER WIRE RECEPTACLE SHALL BE INSTALLED AT EACH HYDRANT, AA MANUFACTURING TRACER WIRE RECEPTACLE MODEL TW-18-2.
- D. ALL VALVES SHALL BE RESILIENT WEDGE GATE VALVES.
- E. WATER SERVICE SHALL BE 1-INCH RESIDENTIAL, 2" COMMERCIAL MINIMUM TYPE K COPPER.
- F. PROPOSED WATER MAIN SHALL BE PRESSURE TESTED AND CHLORINATED BY THE DEVELOPER. THE FILLING OF THE WATER MAIN SHALL BE DONE BY THE CITY OF GRIMES. THE BACTERIA TEST AND SUBMITTAL OF TEST TO LAB SHALL BE DONE BY THE DEVELOPER AND RESULTS PROVIDED TO THE CITY OF GRIMES ENGINEERING DEPT. AND BY FAX TO US WATER AT 515-986-7300. IF THE TEST DOES NOT PASS, THE CONTRACTOR WILL BE REQUIRED TO PAY FOR ALL THE WATER USED TO REPEAT THE TEST.
- G. ALL WATERMAIN FITTINGS TO BE RESTRAINED JOINT, MEGA-LUG OR APPROVED EQUAL.

## STORM SEWER NOTES:

- A. ALL STORM SEWER IN THE ROW SHALL BE ROP, UNLESS OTHERWISE APPROVED BY THE CITY.
- B. ALL FLARED END SECTIONS SHALL HAVE FOOTINGS AND APRON GRATES. THE LAST 3 PIPE SECTIONS AND THE FLARED END SECTION ON ALL CULVERTS SHALL BE TIED. ALL STORM SEWER JOINTS SHALL BE WRAPPED WITH ENGINEERING FABRIC.
- C. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY FIELD TILE DAMAGED DURING CONSTRUCTION. THE TILE SHOULD BE DIRECTED TO PUBLIC STORM SEWER IF POSSIBLE. THE CONTRACTOR SHALL RECORD THE ELEVATION AND LOCATION OF ALL TILES.
- D. STORM SEWER CLEANING & TELEVISION SHALL BE COMPLETED PRIOR TO PAVING. THE SEWER SYSTEM SHALL BE FLUSHED WITH WATER PRIOR TO TELEVISION.
- E. USE O RING GASKETS ON STORM SEWERS CROSSING OVER WATERMAIN PER IDNR REQUIREMENT.

## SIGNAGE NOTES:

- A. ALL SIGNAGE SHALL BE SUPPLIED AND INSTALLED BY THE DEVELOPER.
- B. ALL SIGN POSTS SHALL BE TELES PAR 2"x2" SQUARE TUBE GALVANIZED STEEL (14-GAUGE MIN.) WITH 7/16" KNOCK-OUT STYLE PERFORATIONS THAT ARE PRE-PUNCHED.
- ## GRADING NOTES:
1. ALL SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
2. ALL DIMENSIONS TO BACK-OF-CURB UNLESS NOTED OTHERWISE. ALL DIMENSIONS TO BE FIELD VERIFIED.
3. CURB INTAKE RIM ELEVATIONS = PAVING TOP OF CURB ELEVATIONS.
4. CONTRACTOR TO ADJUST ALL TOP OF CASTING ELEVATIONS WITHIN THE PROJECT LIMITS TO THE FINAL ELEVATIONS SHOWN ON THE PLANS.
5. ALL SPOT ELEVATIONS ARE TO THE TOP OF FINISHED GRADE, UNLESS OTHERWISE NOTED.
6. ALL SLOPES IN UNPAVED AREAS SHALL BE GRADED TO DRAIN.

THE CONTRACTOR SHALL NOTIFY IOWA ONE CALL NO LESS THAN 48 HRS. IN ADVANCE OF ANY DIGGING OR EXCAVATION.



WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATION AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK.



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PRELIMINARY

## GENERAL LEGEND AND NOTES

## ROCK CREEK BUILDING 1 SITE PLAN

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022

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•  
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ENGINEER  
T. SMITH

DRAWN BY  
R. CORONA

CHECKED BY

FIELD BOOK NO.

•

•

DRAWING NO.

SHEET NO.

GN-02

02 / 25

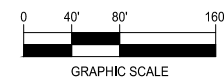


PRELIMINARY

EXISTING CONDITIONS  
AND REMOVALS



NORTH



GRAPHIC SCALE

ROCK CREEK BUILDING  
1 SITE PLAN

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022

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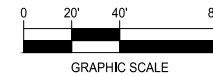
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03 / 25

PRELIMINARY

OVERALL LAYOUT



ROCK CREEK BUILDING  
1 SITE PLAN

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

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AUGUST 10, 2022

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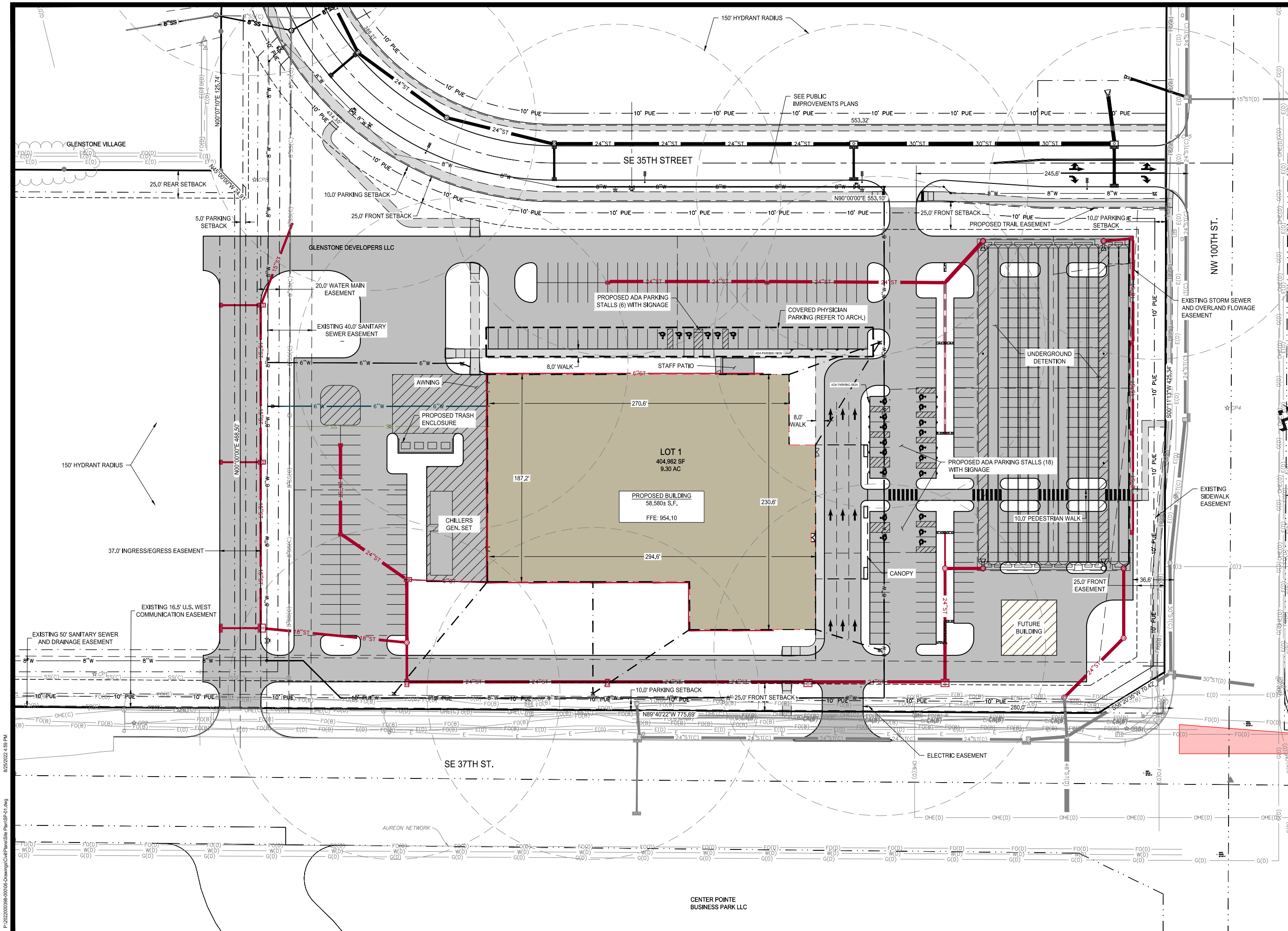
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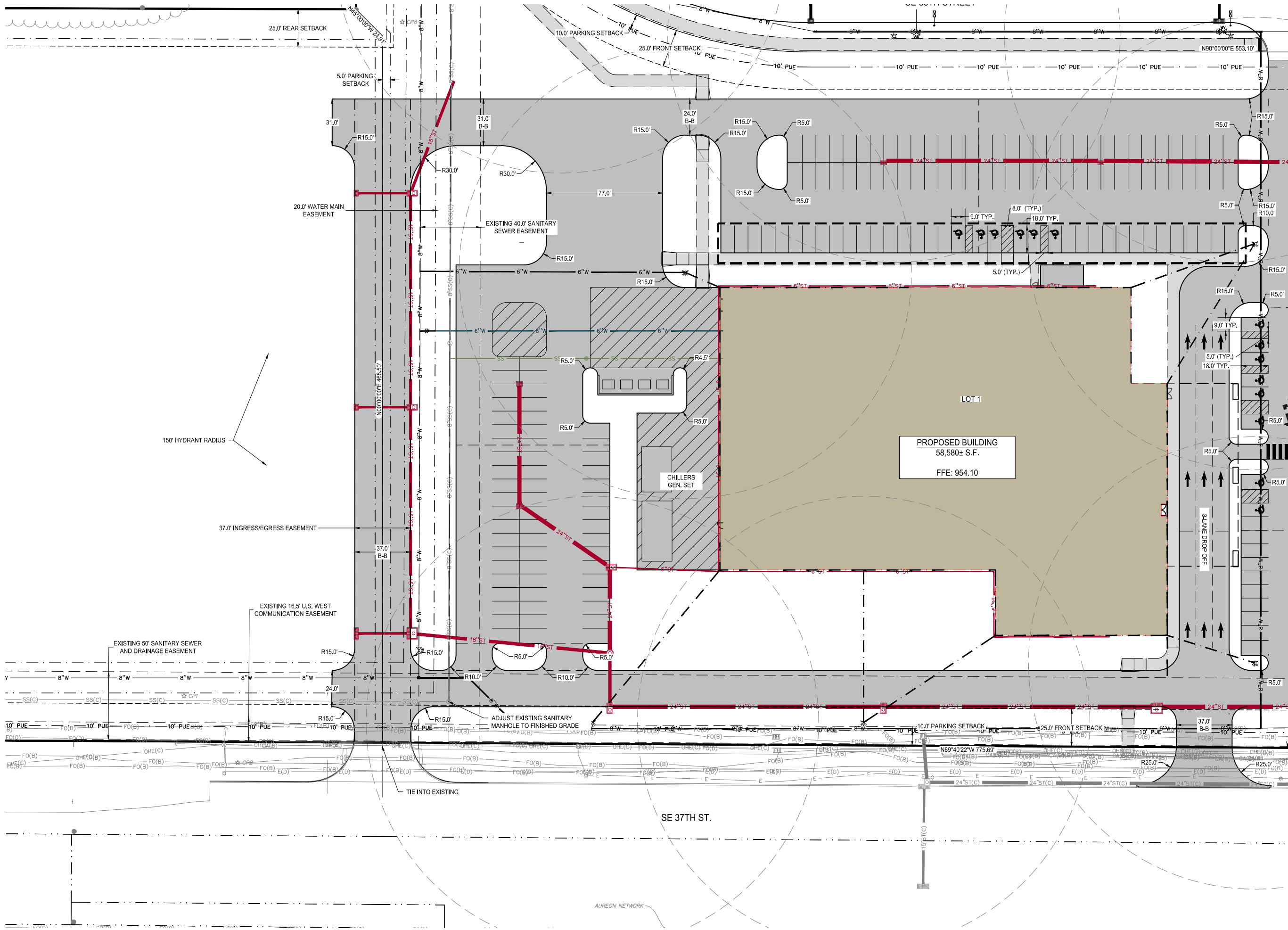
SP-01

SHEET NO.

04 / 25







PRELIMINARY

SITE PLAN



ROCK CREEK BUILDING  
1 SITE PLAN

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022

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FIELD BOOK NO.

DRAWING NO.  
SP-02

SHEET NO.  
05 / 25



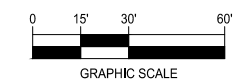
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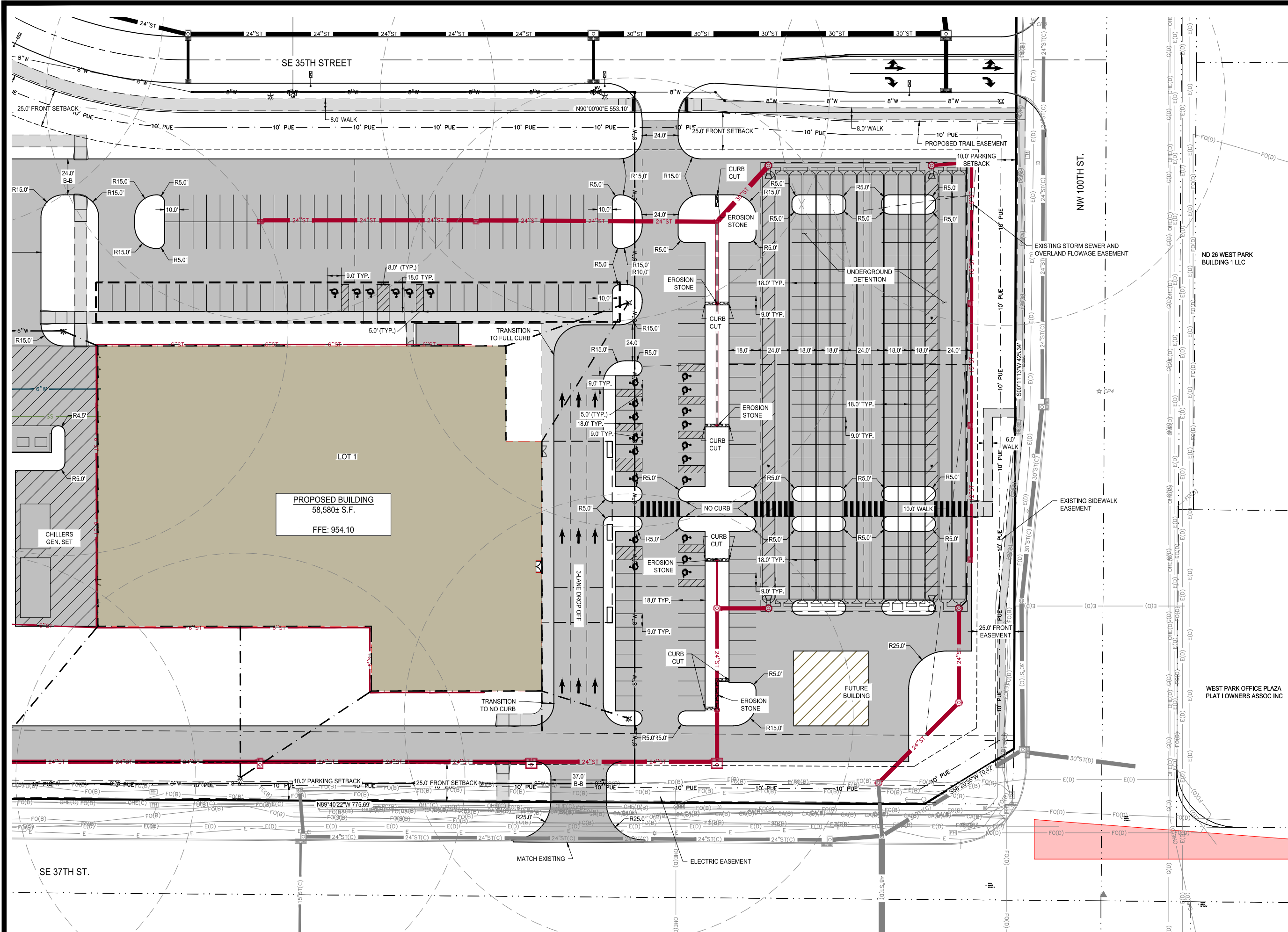
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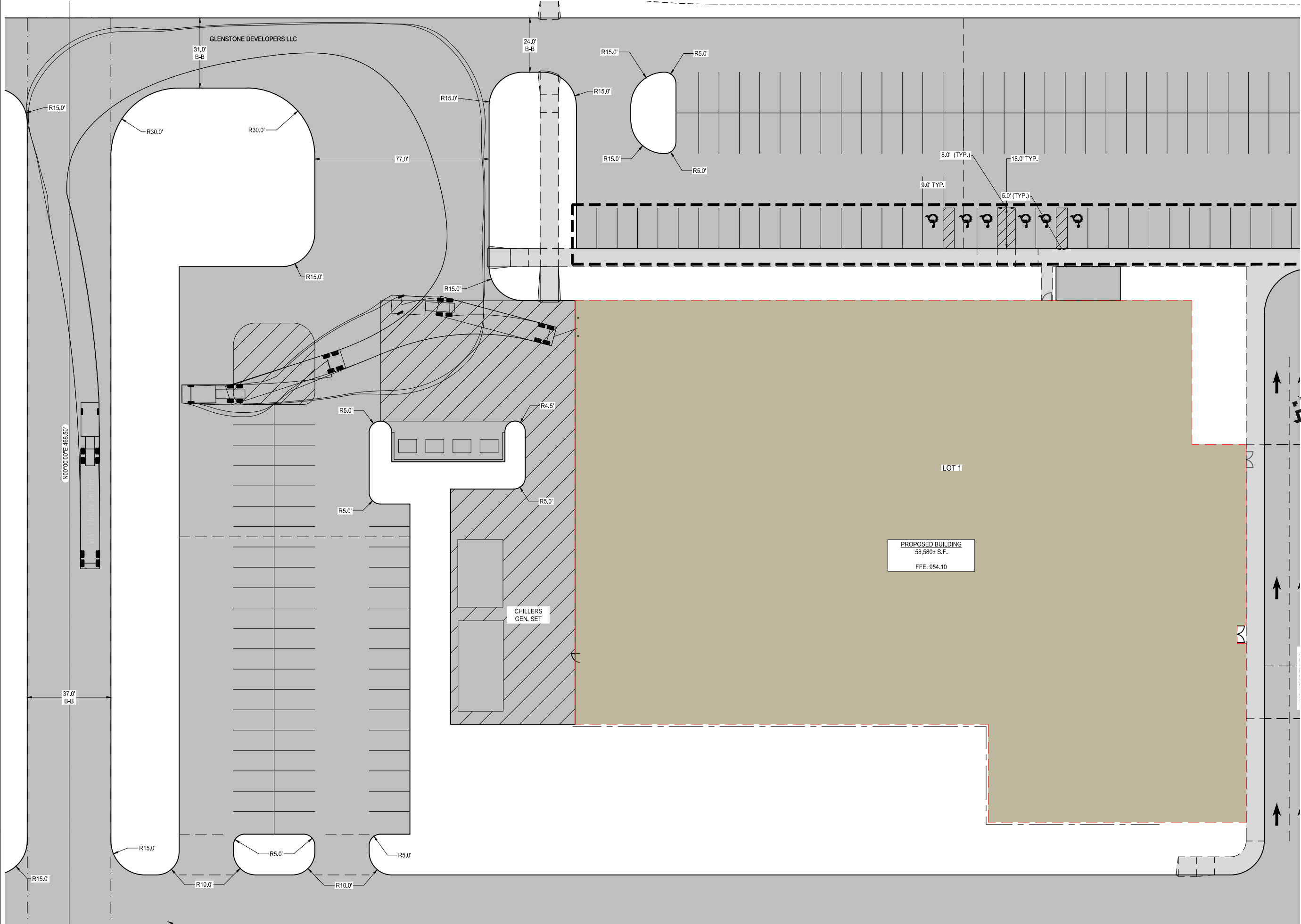
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**PRELIMINARY**

TURNING TEMPLATE  
WB-67



NORTH



GRAPHIC SCALE

ROCK CREEK BUILDING  
1 SITE PLAN

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022

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•  
•

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SHEET NO.

SP-04

07 / 25



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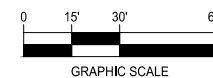
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PRELIMINARY

GRADING PLAN



NORTH



GRAPHIC SCALE

ROCK CREEK BUILDING  
1 SITE PLAN

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

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GR-01

SHEET NO.

08 / 25

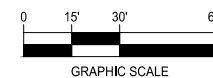


PRELIMINARY

GRADING PLAN



NORTH



GRAPHIC SCALE

ROCK CREEK BUILDING  
1 SITE PLAN

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

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AUGUST 10, 2022

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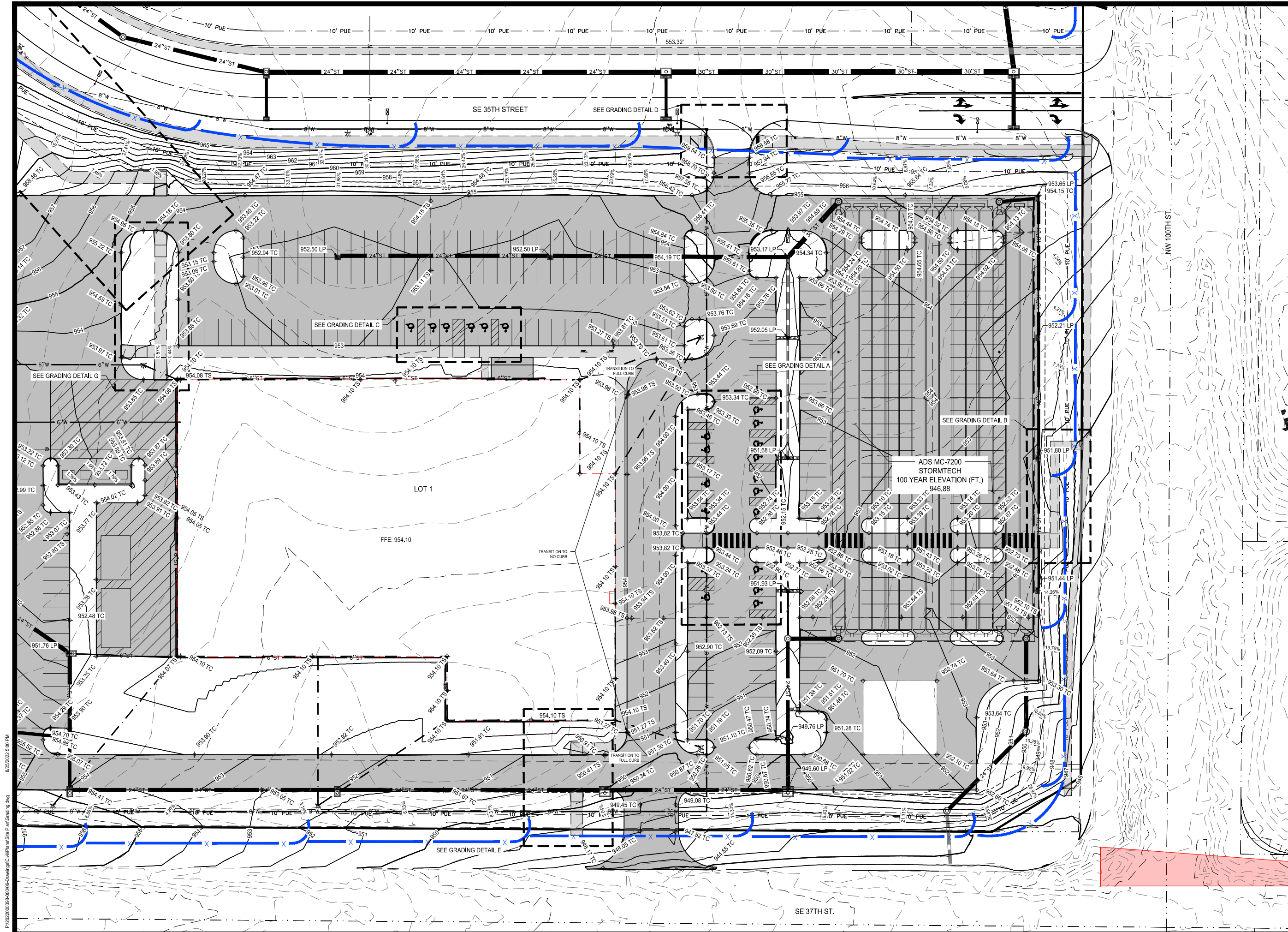
FIELD BOOK NO.

DRAWING NO.

GR-02

SHEET NO.

09 / 25

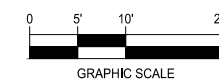




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GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
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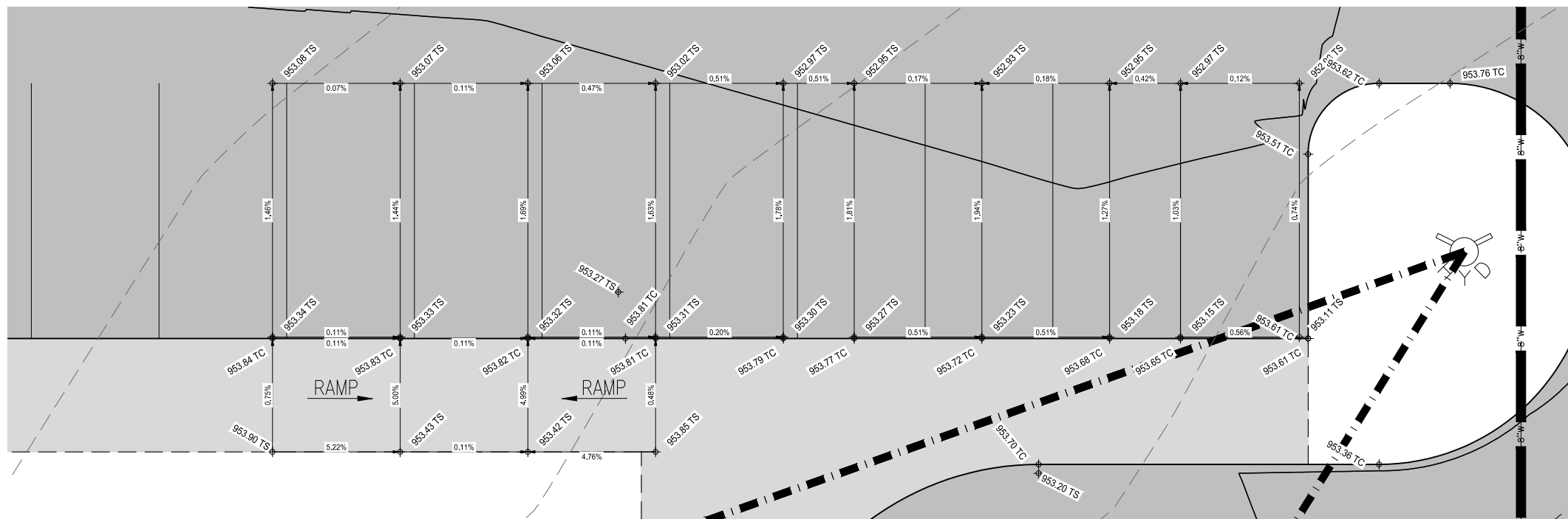
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SHEET NO.

GR-03 10 / 25



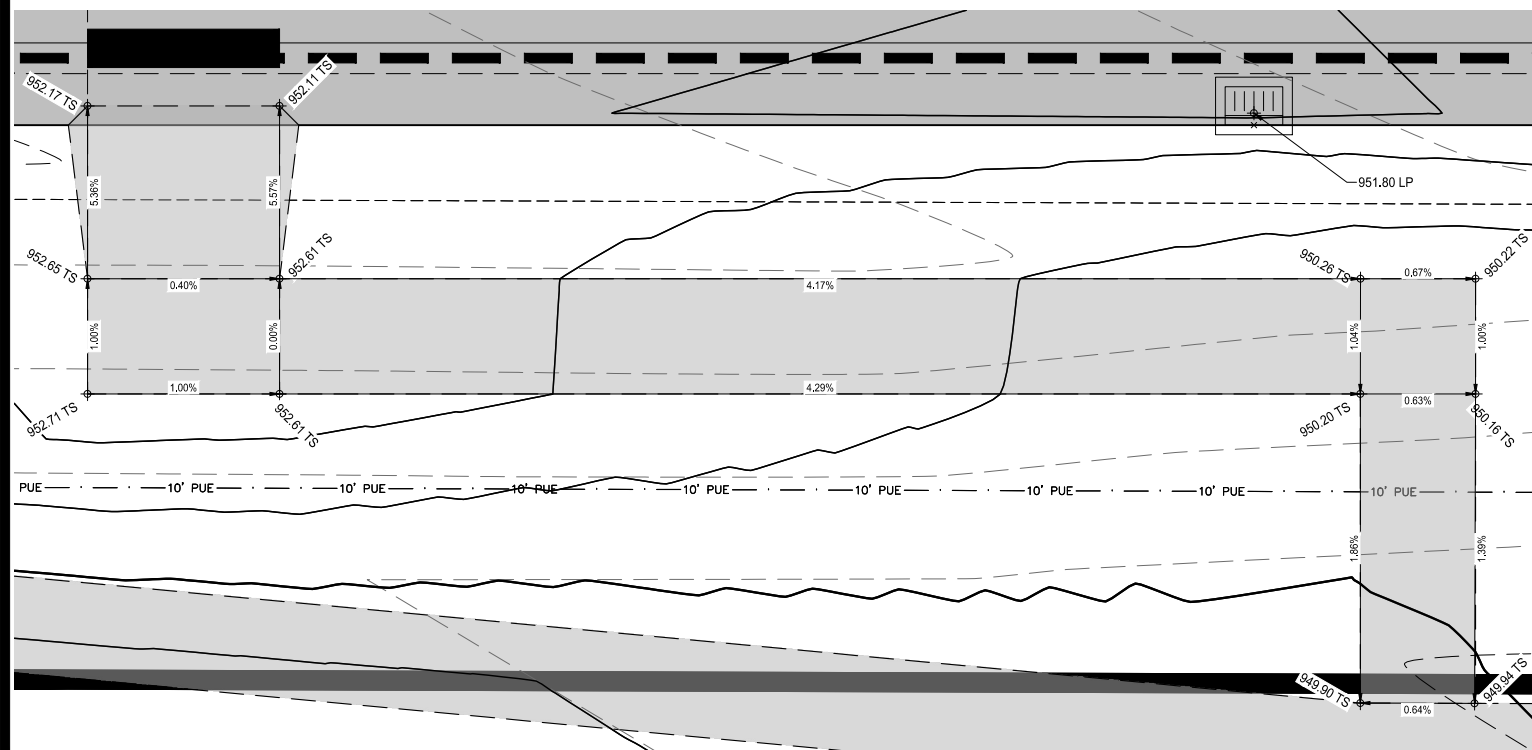


GRADING DETAIL - C  
SCALE: 1" = 5'



NORTH

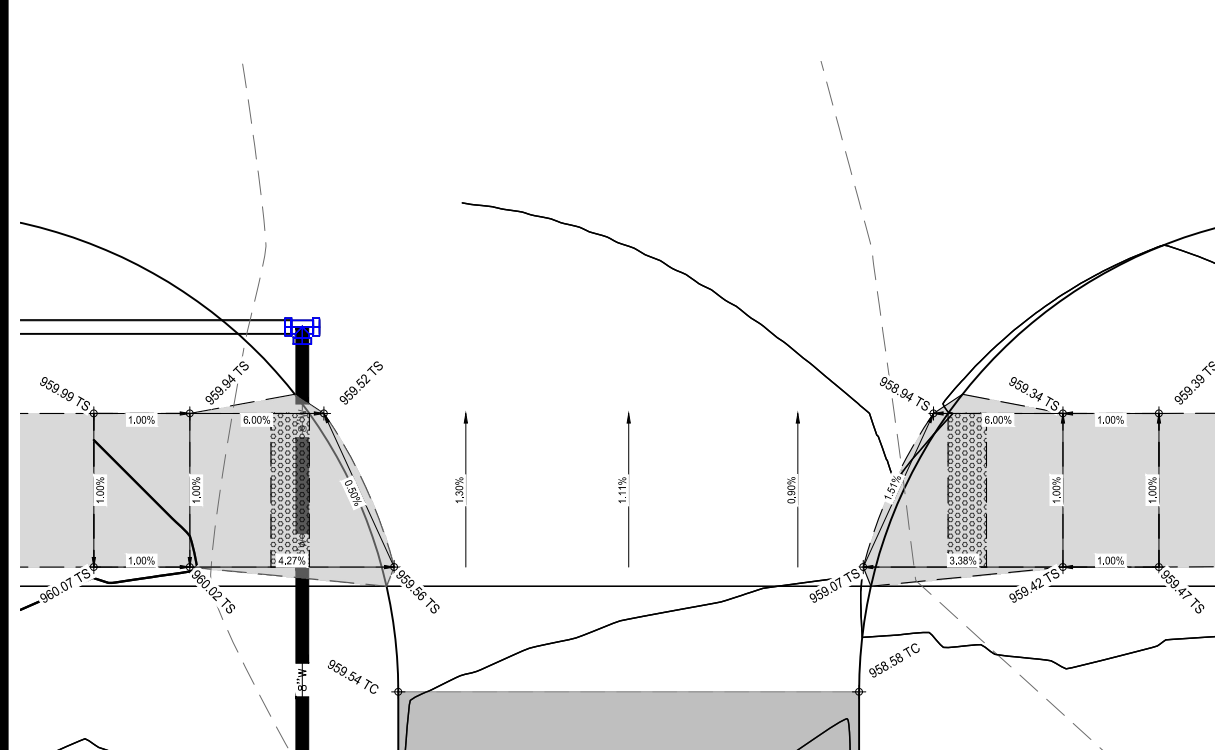
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GRADING DETAIL - B  
SCALE: 1" = 5'



NORTH



GRADING DETAIL - D  
SCALE: 1" = 5'



NORTH

GRADING PLAN

ROCK CREEK BUILDING  
1 SITE PLAN

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022

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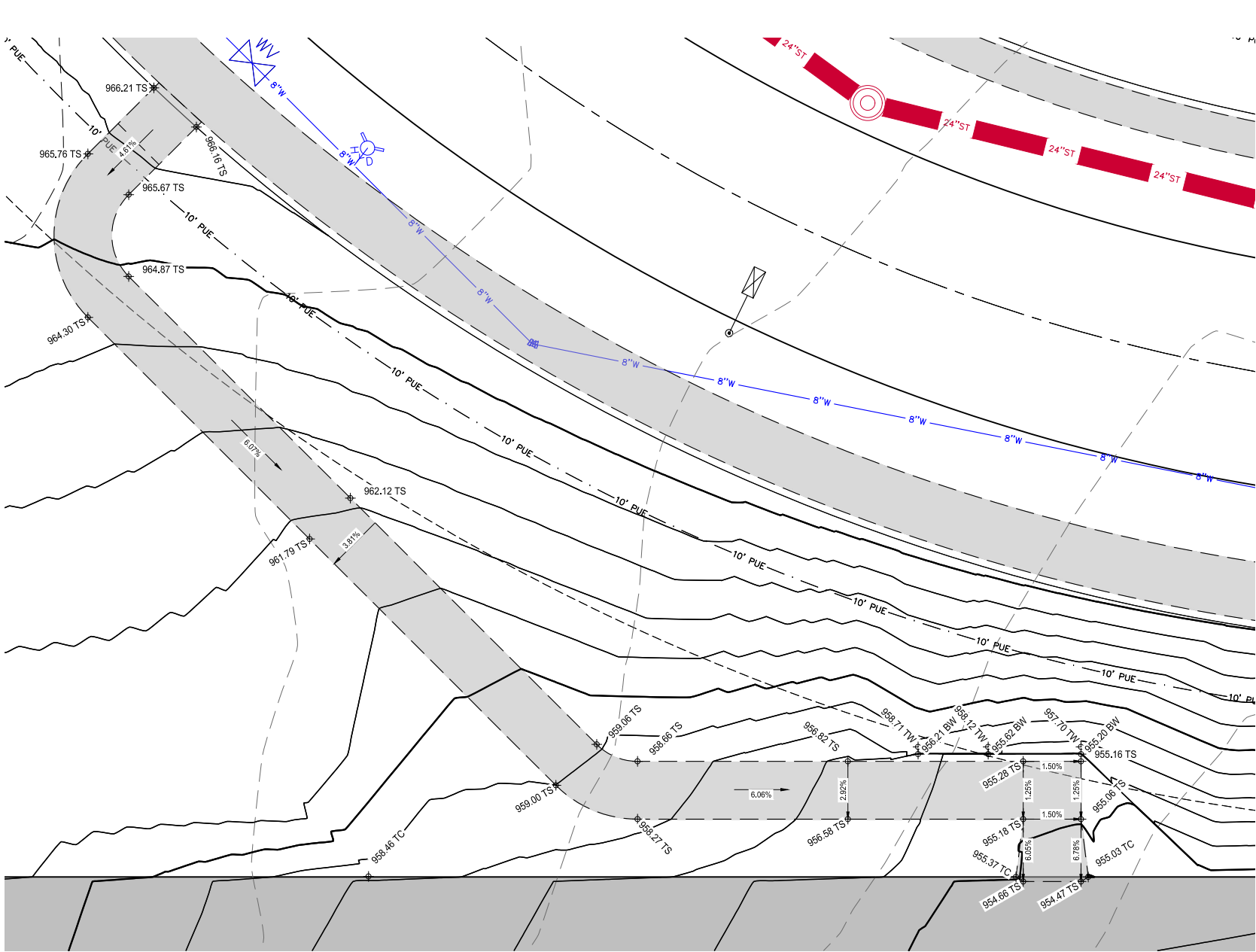
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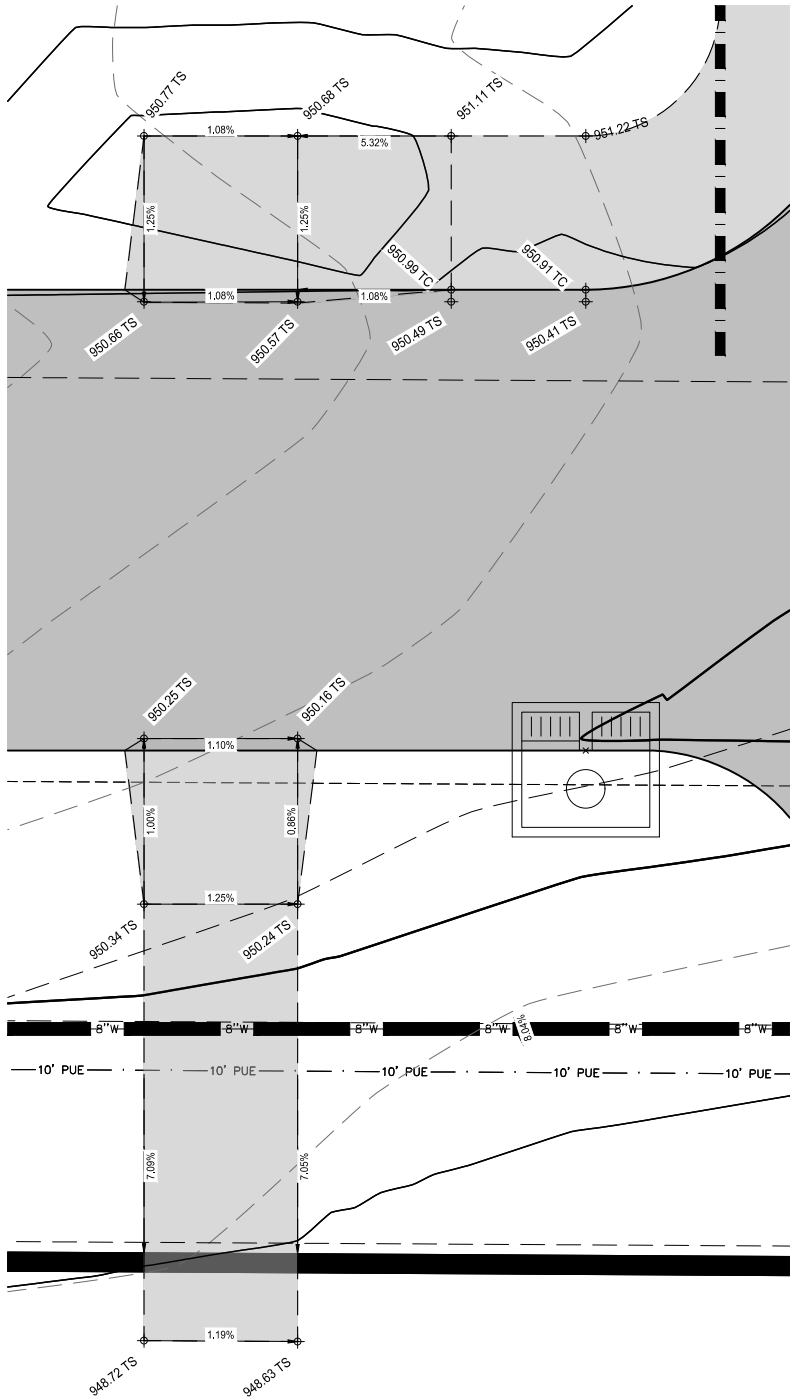
GR-04

SHEET NO.

11 / 25



GRADING DETAIL - F  
SCALE: 1" = 10'



GRADING DETAIL - E  
SCALE: 1" = 5'



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PRELIMINARY

GRADING PLAN



NORTH

ROCK CREEK BUILDING  
1 SITE PLAN

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022

ENGINEER  
T. SMITH

CHECKED BY

DRAWN BY  
R. CORONA

FIELD BOOK NO.

DRAWING NO.  
GR-05

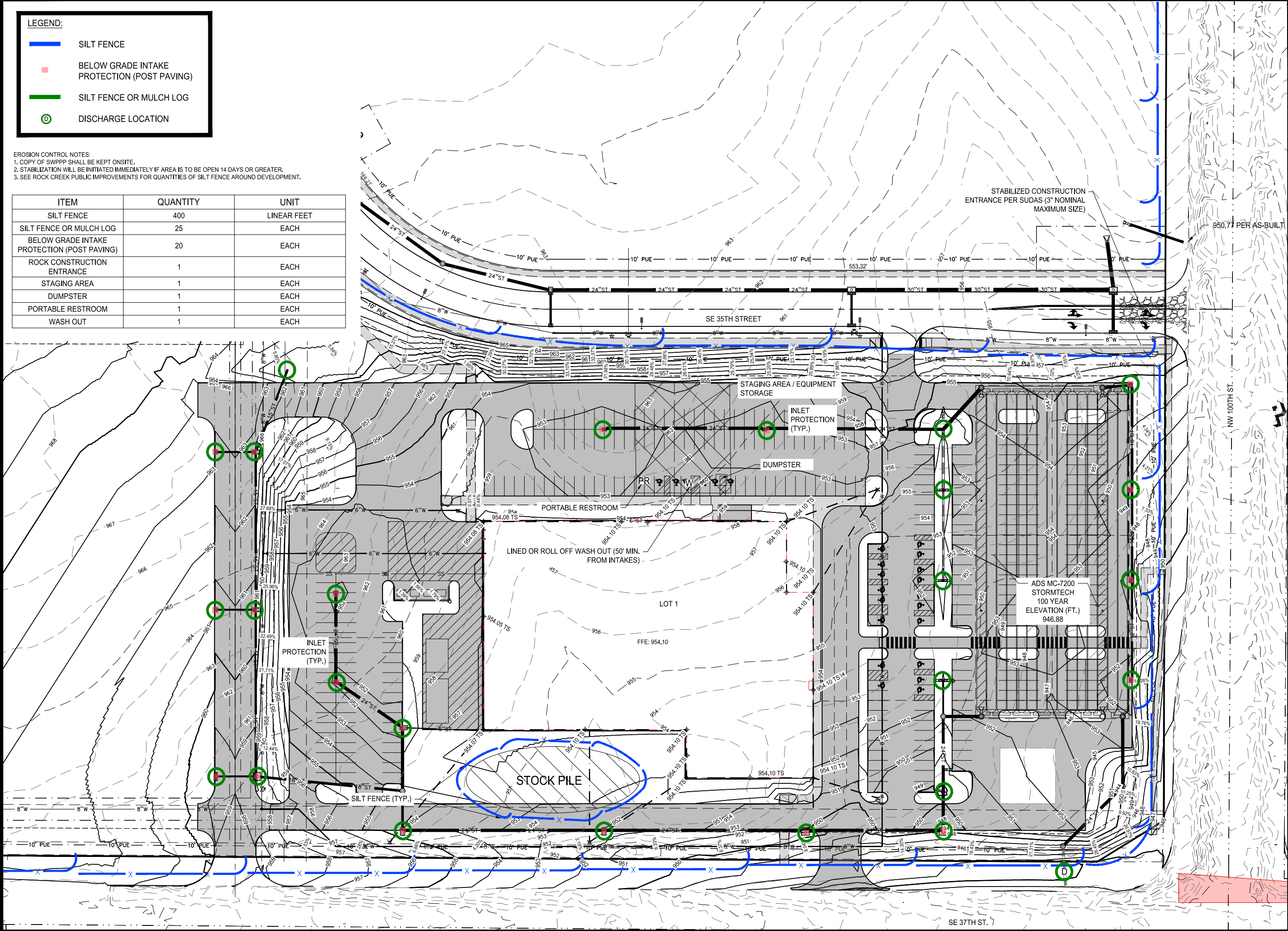
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12 / 25

LEGEND:

- SILT FENCE
- BELOW GRADE INTAKE PROTECTION (POST PAVING)
- SILT FENCE OR MULCH LOG
- DISCHARGE LOCATION

EROSION CONTROL NOTES:  
1. COPY OF SWPPP SHALL BE KEPT ONSITE.  
2. STABILIZATION WILL BE INITIATED IMMEDIATELY IF AREA IS TO BE OPEN 14 DAYS OR GREATER.  
3. SEE ROCK CREEK PUBLIC IMPROVEMENTS FOR QUANTITIES OF SILT FENCE AROUND DEVELOPMENT.

| ITEM                                        | QUANTITY | UNIT        |
|---------------------------------------------|----------|-------------|
| SILT FENCE                                  | 400      | LINEAR FEET |
| SILT FENCE OR MULCH LOG                     | 25       | EACH        |
| BELOW GRADE INTAKE PROTECTION (POST PAVING) | 20       | EACH        |
| ROCK CONSTRUCTION ENTRANCE                  | 1        | EACH        |
| STAGING AREA                                | 1        | EACH        |
| DUMPSTER                                    | 1        | EACH        |
| PORTABLE RESTROOM                           | 1        | EACH        |
| WASH OUT                                    | 1        | EACH        |



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PRELIMINARY

SEDIMENT AND EROSION CONTROL PLAN



ROCK CREEK BUILDING 1 SITE PLAN

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

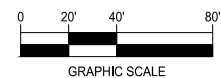
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T. SMITH  
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R. CORONA  
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PRELIMINARY

UTILITY PLAN



ROCK CREEK BUILDING  
1 SITE PLAN

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022

ENGINEER  
T. SMITH

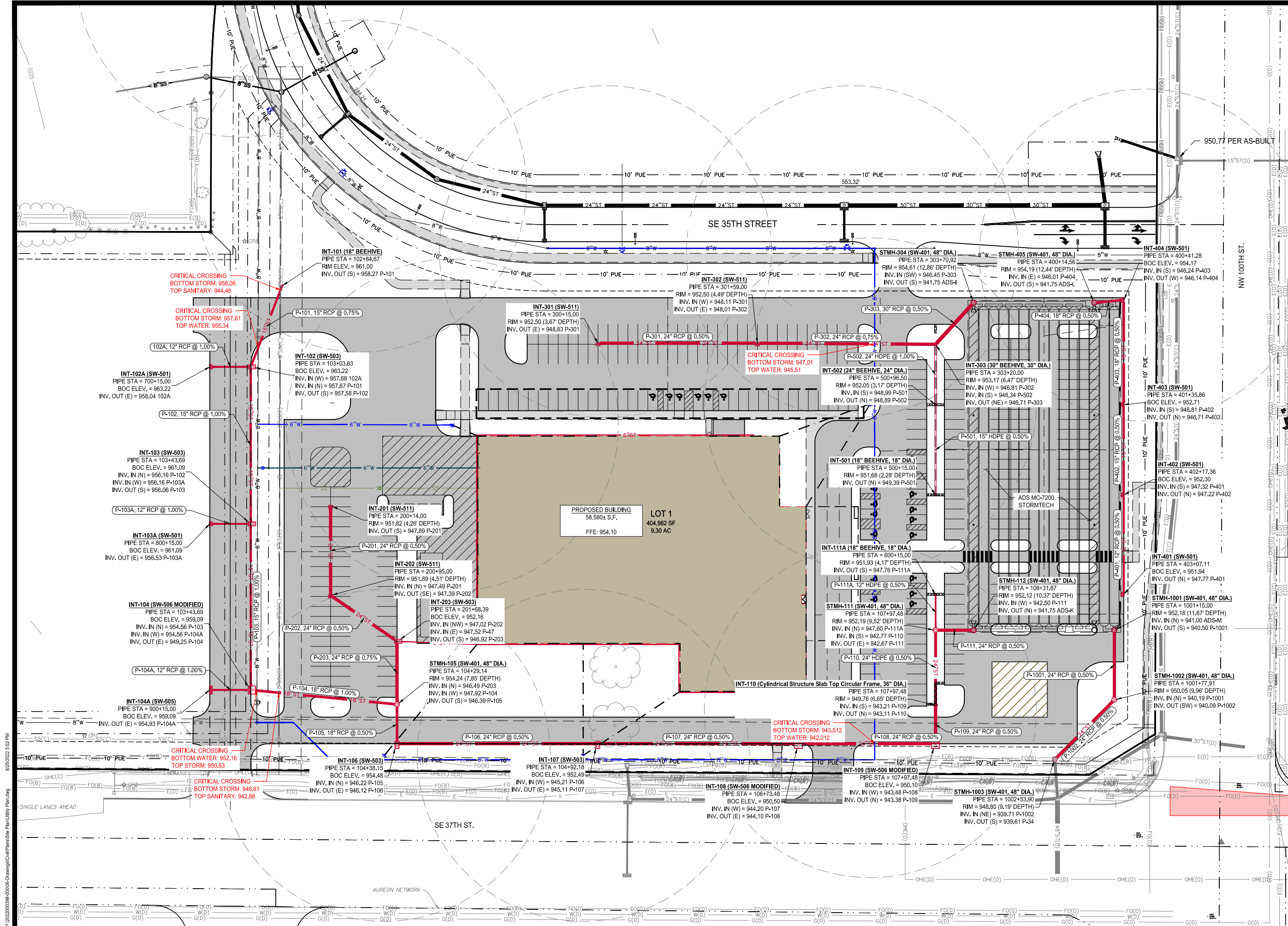
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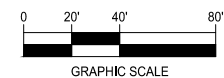
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PRELIMINARY

UTILITY PLAN



ROCK CREEK BUILDING  
1 SITE PLAN

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022

ENGINEER  
T. SMITH

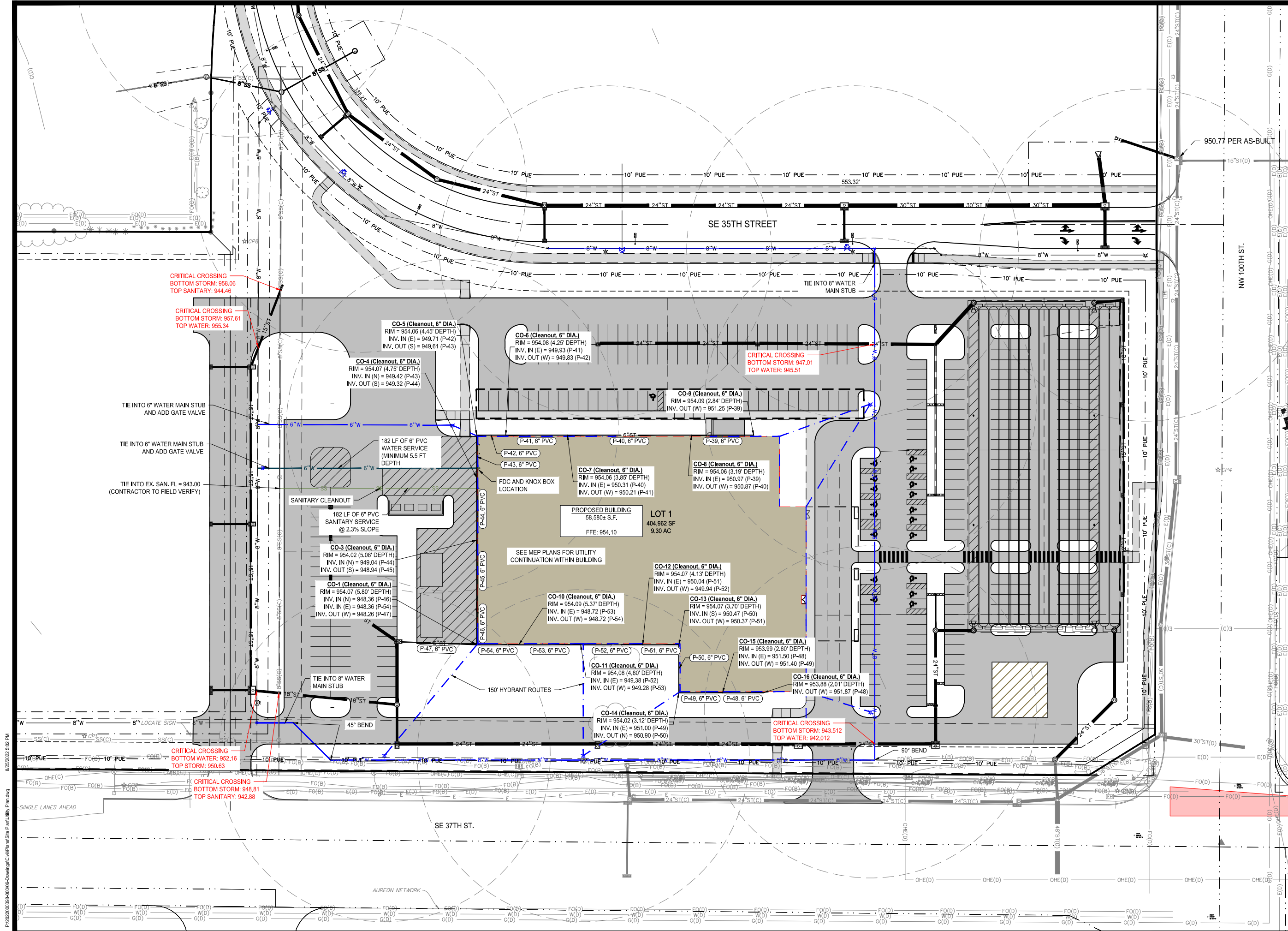
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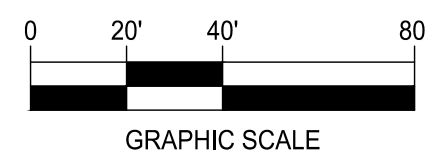




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JULY 25, 2022

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AUGUST 10, 2022

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SHEET NO.  
**16 / 25**



NOTES:

1. ALL LIGHT POLES SHALL BE AS FOLLOWS:  
A) ECOFORM 20.0' MOUNTING HEIGHT ABOVE FINISHED GRADE.  
2. ALL LIGHTS SHALL BE LED FIXTURES.  
3. TOTAL NUMBER OF LIGHTS PROPOSED = 23 LIGHTS.  
4. LIGHT POLES TYPICALLY PLACED 2' FROM BACK OF CURB.

| Statistics  |         |          |         |         |
|-------------|---------|----------|---------|---------|
| Description | Avg     | Max      | Min     | Avg/Min |
| Parking Lot | 1.83 fc | 12.64 fc | 0.09 fc | 20.3:1  |

| Schedule |                           |                                                                                                    |                                                |                 |                   |         |
|----------|---------------------------|----------------------------------------------------------------------------------------------------|------------------------------------------------|-----------------|-------------------|---------|
| Quantity | Catalog Number            | Description                                                                                        | Lamp                                           | Lumens Per Lamp | Light Loss Factor | Wattage |
| 7        | ECF-S-48L-900-NW-G2-2-HIS | EcoForm Area LED ECF - Small, 48 LED's, 4000K CCT, TYPE 2-HIS OPTIC, House-side Internal Shielding | (3) LEDGINE SLD LIGHT ARRAY(S) DRIVEN AT 900mA | 13797           | 0.85              | 135.1   |
| 2        | ECF-S-48L-900-NW-G2-2     | EcoForm Area LED ECF - Small, 48 LED's, 4000K CCT, TYPE 2-HIS OPTIC, No Shield                     | (3) LEDGINE SLD LIGHT ARRAY(S) DRIVEN AT 900mA | 13797           | 0.85              | 135.1   |
| 1        | ECF-S-48L-900-NW-G2-3     | EcoForm Area LED ECF - Small, 48 LED's, 4000K CCT, TYPE 3 OPTIC, No Shield                         | (3) LEDGINE SLD LIGHT ARRAY(S) DRIVEN AT 900mA | 17626           | 0.85              | 135.1   |
| 7        | ECF-S-48L-900-NW-G2-4-HIS | EcoForm Area LED ECF - Small, 48 LED's, 4000K CCT, TYPE 4-HIS OPTIC, House-side Internal Shielding | (3) LEDGINE SLD LIGHT ARRAY(S) DRIVEN AT 900mA | 14459           | 0.85              | 135.1   |
| 3        | ECF-S-48L-900-NW-G2-4     | EcoForm Area LED ECF - Small, 48 LED's, 4000K CCT, TYPE 4 OPTIC, No Shield                         | (3) LEDGINE SLD LIGHT ARRAY(S) DRIVEN AT 900mA | 18439           | 0.85              | 135.1   |
| 3        | ECF-S-48L-900-NW-G2-5     | EcoForm Area LED ECF - Small, 48 LED's, 4000K CCT, TYPE 5 OPTIC, No Shield                         | (3) LEDGINE SLD LIGHT ARRAY(S) DRIVEN AT 900mA | 18939           | 0.85              | 540.4   |

Site & Area

EcoForm

ECF-S small area light

Project:

Location:

Cat.No:

Type:

Lamps:

Qty:

Notes:

Gardco EcoForm Gen-2 combines economy with performance in an LED area luminaire. Capable of delivering up to 27,800 lumens or more in a compact, low profile LED luminaire, EcoForm offers a new level of customer value. EcoForm features an innovative retrofit arm kit, simplifying site conversions to LED by eliminating the need to drill additional holes in most existing poles. Integral control systems available for further energy savings. Includes Service Tag, our innovative way to provide assistance throughout the life of the product.

Ordering guide

example: ECF-S-64L-900-NW-G2-AR-5-120-HIS-MGY

| Profile | Number of LEDs               | Driver Current                                                                | LED Color - Generation                                          | Mounting                                                                                                                                  | Distribution                                                                                                                                                                                                                 | Wattage                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                              |                                                                                                                  |
|---------|------------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| ECF-S   |                              |                                                                               |                                                                 |                                                                                                                                           |                                                                                                                                                                                                                              |                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                              |                                                                                                                  |
| ECF-S   | EcoForm site and area, small | 32L 32 LEDs (2 modules)<br>530 530mA<br>700 700mA<br>1A 1050mA<br>1.2A 1200mA | 965 965mA<br>530 530mA<br>700 700mA<br>1A 1050mA<br>1.2A 1200mA | NW-G2 Warm White 3000K, 70CRI Generation 2<br>NW-G2 Neutral White 4000K, 70CRI Generation 2<br>CW-G2 Cool White 5000K, 70CRI Generation 2 | AR* Arm Mount (standard)<br>The following mounting kits must be ordered separately (See accessories)<br>SP* Slip Fitter Mount.<br>WS Wall mount with surface conduit rear entry permitted.<br>Retrofit arm mount kit.<br>RAM | Type 2 2 Type 2<br>2-90 Rotated left 90°<br>2-270 Rotated right 270°<br>Type 3 3 Type 3<br>3-90 Rotated left 90°<br>3-270 Rotated right 270°<br>Type 4 4 Type 4<br>4-90 Rotated left 90°<br>4-270 Rotated right 270°<br>Type 5 5 Type 5<br>5W | AFR Auto Front Row<br>AFR-90 Auto Front Row, Rotated left 90°<br>AFR-270 Auto Front Row, Rotated right 270°<br>BLC Back Light Control<br>BLC-90 Back Light Control rotated at 90°<br>BLC-270 Back Light Control rotated at 270°<br>LCL* LED Corner Optic Left<br>RCL* LED Corner Optic Right | 120 120V<br>208 208V<br>240 240V<br>277 277V<br>347 347V<br>480 480V<br>120-277V (60/60Hz)<br>347-480V (60/60Hz) |

Options

| Dimming controls                                                                                                                                                                                                                                                                                                                                                                                                                                   | Motion sensing lens                                            | Photo-sensing                                                                                                                                  | Electrical                                                                                                                                                                                                                                                            | Luminaire                                                                                                                                                           | Finish                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DD** 0-10V External dimming (for controls by others)<br>DCC*** Dual Circuit Control<br>FAWS*** Field Adjustable Wattage Selector<br>LLC*** Integral wireless module<br>BL*** Bi-level functionality<br>SRDR*** SR driver connected to Zhaga socket<br>DynaDimmer Automatic Profile Dimming<br>CS50** Safety 50% Dimming, 7 hours<br>CM50** Median 50% Dimming, 8 hours<br>CS30** Safety 30% Dimming, 7 hours<br>CM30** Median 30% Dimming, 8 hours | IMRIS** Integral with #3 lens<br>IMRIT** Integral with #7 lens | PCB** Photocontrol Button<br>TLRDS** Integral with 6 Pin<br>TLRD7** Twist Lock Receptacle 7 Pin<br>TLRPC*** Twist Lock Receptacle w/ Photocell | Fusing F1* Single (120, 277, 347VAC)<br>F2* Double (208, 240, 480VAC)<br>Pole Mount Fusing FP1* Single (120, 277, 347VAC)<br>FP2* Double (208, 240, 480VAC)<br>FP3* Canadian Double Pole (208, 240, 480VAC)<br>Surge Protection (UL94 standard)<br>SP2 Increased 20KA | Square Pole Adapter included in standard product<br>TB** Terminal Block<br>RP** Round Pole Adapter (fits to 3" - 3.9" O.D. pole)<br>HS** Internal House Side Shield | Textured BK Black<br>WH White<br>BZ Bronze<br>DG Dark Gray<br>MG Medium Gray<br>Customer specified<br>RAL Specify optional color or RAL (ex: RAL7024)<br>Custom color (Must supply color chip for required factory quote)<br>CC |

1. BL-IMRIS/7 equipped with out-boarded sensor housing when voltage is HVU (347-480V)  
2. Mounts to a 4" round pole with adapter included for square poles.  
3. Limited to a maximum of 45 degree aiming above horizontal.  
4. Not available with other dimming control options.  
5. Not available with motion sensor.  
6. Not available with photocell control.  
7. Must specify a motion sensor lens.  
8. Not available in 347 or 480V.  
9. Must specify input voltage.  
10. TLRDS, TLRD7 and TLRPC receptacle pins 4 & 5 are capped off when ordered with any of the Dimming controls DD or FAWS or LLC.  
11. Not available in 480V. Order photocell separately with TLRDS/7.  
12. Not available with DCC.  
13. Not available with SP and WS. RPAs provided with black finish standard.  
14. HS not available with Type 5, SW, BLC, BLC-90, BLC-270, LCL or RCL optics.  
15. Not available with DD, DCC, and FAWS dimming control options.  
16. Not available with DD, DCC, FAWS and LLC dimming control options.  
17. When ordering SRDR controller (by others) to be used on socket must be SR compatible (See specifications for more details). Consult factory for lead time. All 7 pins in NEMA receptacle are connected to SR driver. SRDR not available with TLRDS or TLRPC.  
18. 0-10V dimming driver standard.  
19. LCL and RCL not available with 48L-1.2A or 64L-1A.

ECF-S\_EcoForm\_area\_small 01/22 page 1 of 9

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LIGHTING CUT SHEETS

ROCK CREEK BUILDING  
1 SITE PLAN

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022  
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ENGINEER  
T. SMITH  
DRAWN BY  
R. CORONA

CHECKED BY  
FIELD BOOK NO.

DRAWING NO.  
LI-02  
SHEET NO.  
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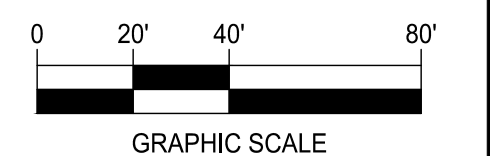
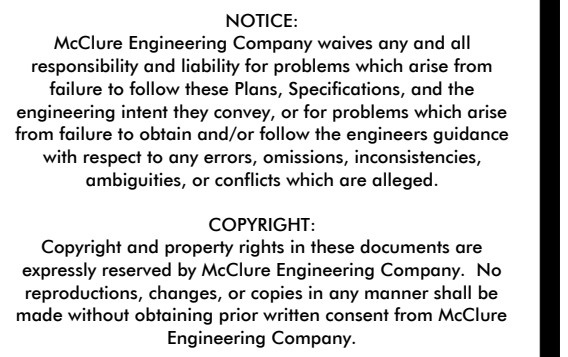
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|                                |                                                                            |
|--------------------------------|----------------------------------------------------------------------------|
| <b><u>TREES</u></b>            | <b><u>BOTANICAL / COMMON NAME</u></b>                                      |
| GT                             | Ginkgo biloba 'The President' TM / Presidential Ginkgo                     |
| QA                             | Quercus alba / White Oak                                                   |
| TR                             | Tilia americana 'Redmond' / Redmond American Linden                        |
| UC                             | Ulmus x 'Frontier' / Frontier Elm                                          |
|                                | KCMO Approved Street Tree                                                  |
| <b><u>ORNAMENTAL TREES</u></b> | <b><u>BOTANICAL / COMMON NAME</u></b>                                      |
| AG                             | Amelanchier x 'Autumn Brilliance' / Multi-Stem Serviceberry                |
| <b><u>SHRUBS</u></b>           | <b><u>BOTANICAL / COMMON NAME</u></b>                                      |
| CA                             | Cornus sericea 'Farrow' TM / Arctic Fire Red Twig Dogwood                  |
| HP2                            | Hydrangea macrophylla 'Penny Mac' / Penny Mac Hydrangea                    |
| JE                             | Hydrangea macrophylla 'PIIHM-II' TM / Bloomstruck Endless Summer Hydrangea |
| JB                             | Juniperus sabinia 'Broadmoor' / Broadmoor Juniper                          |
| RG                             | Rhus aromatica 'Gro-Low' / Gro-Low Sumac                                   |
| RA                             | Ribes alpinum / Alpine Currant                                             |
| TD                             | Taxus x media 'Densiformis' / Dense Yew                                    |
| VM                             | Viburnum dentatum 'All That Glitters' / Glitter Viburnum                   |
| <b><u>GRASSES</u></b>          | <b><u>BOTANICAL / COMMON NAME</u></b>                                      |
| MS                             | Miscanthus sinensis 'Adagio' / Adagio Eulalia Grass                        |

|                                                                                   |                                                                      |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------|
|  | Festuca var. / Heal-Tolerant Fescue Sod                              |
|  | Rock Mulch / Native Buff Rock                                        |
|  | SHORT BACKYARD PRAIRIE MIX FROM / THE PRAIRIE FARM OR APPROVED EQUAL |

| LANDSCAPE REQUIREMENTS                                                         |                                                                                                  |                                                              |
|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| PER SECTION 17 OF THE CITY OF TRANSPORTATION CORRIDOR OVERLAY FOR GRMES, IOWA. |                                                                                                  |                                                              |
| MINIMUM PLANT UNIT REQUIREMENTS                                                |                                                                                                  |                                                              |
| <u>PARKING LOT LANDSCAPE (17.B)</u>                                            | <u>REQUIREMENT</u>                                                                               | <u>PROVIDED</u>                                              |
| PARKING LOT INTERIOR SIDE                                                      | 1 TREE PER 40 LF OF PARKING PERIMETER (310 LF)                                                   | 7.8 TREES REQUIRED - 8 TREES PROVIDED                        |
| PARKING LOT R.O.W SIDE (SE KEYSTONE)                                           | 1 TREE PER 40 LF OF PARKING PERIMETER (807 LF)<br>CONTINUOUS 3' HEIGHT SCREENING ALONG PERIMETER | 20.2 TREES REQUIRED - 21 TREES PROVIDED<br>PROVIDED PER PLAN |
| PARKING LOT R.O.W SIDE (SE 37TH STREET)                                        | 1 TREE PER 40 LF OF PARKING PERIMETER (311 LF)<br>CONTINUOUS 3' HEIGHT SCREENING ALONG PERIMETER | 7.8 TREES REQUIRED - 8 TREES PROVIDED<br>PROVIDED PER PLAN   |
| PARKING LOT R.O.W SIDE (NW 100TH STREET)                                       | 1 TREE PER 40 LF OF PARKING PERIMETER (328 LF)<br>CONTINUOUS 3' HEIGHT SCREENING ALONG PERIMETER | 8.2 TREES REQUIRED - 8 TREES PROVIDED<br>PROVIDED PER PLAN   |
| <u>FOUNDATION PLANTINGS (17.C)</u>                                             | <u>REQUIREMENT</u>                                                                               | <u>PROVIDED</u>                                              |
| COMMERCIAL BUILDINGS                                                           | DECIDUOUS AND CONIFERS ALONG FRONT AND SIDE OF BUILDING                                          | PROVIDED PER PLAN                                            |



GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022

ENGINEER  
T. SMITH

DRAWN BY  
R. CORONA

CHECKED BY \_\_\_\_\_ FIELD BOOK NO. \_\_\_\_\_

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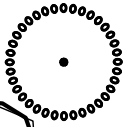
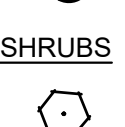
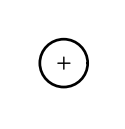
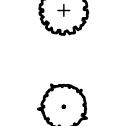
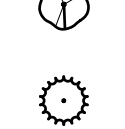
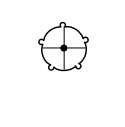
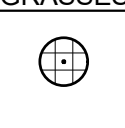
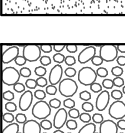
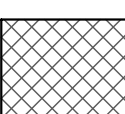
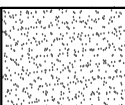
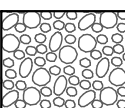
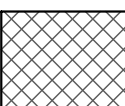


- LANDSCAPE NOTES:
- THIS LANDSCAPE PLAN IS DESIGNED TO BE IN CONFORMANCE WITH THE GRIMES, IOWA UNIFIED DEVELOPMENT STANDARDS AND SHALL FUNCTION AS PART OF A COORDINATED DOCUMENT. THE LANDSCAPE ARCHITECT WILL COORDINATE CLOSELY WITH THE CITY OF GRIMES, IOWA TO MAKE SURE FINAL DEVELOPMENT AND PERMIT PLANS ARE IN CONFORMANCE WITH THIS CODE.
  - FIELD VERIFY UTILITIES SHOWN ON PLANS PRIOR TO WORK COMMENCEMENT. INFORMATION SHOWN ON PLAN IS FROM AVAILABLE INFORMATION AND ALL LOCATIONS SHOWN SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE TO UTILITIES MADE FROM CONSTRUCTION ACTIVITY. IMMEDIATELY NOTIFY PROJECT LANDSCAPE ARCHITECT AND ENGINEER IF DISCREPANCIES ARISE.
  - COMPLETE REQUIRED LANDSCAPING FOR THE ENTIRE SITE IN CONFORMANCE TO THE PLANS AND SPECIFICATIONS, INCLUDING BUT NOT LIMITED TO: SEEDED AREAS, SODDED AREAS, NATIVE VEGETATION, SHRUB BEDS, PARKING LOT ISLANDS, AND SITE CLEAN-UP.
  - VERIFY QUANTITIES PRIOR TO COMMENCING WORK. REPORT DISCREPANCIES TO THE LANDSCAPE ARCHITECT. PLANT MATERIAL TO BE SPACED AS SHOWN, UNLESS OTHERWISE NOTED.
  - VEGETATION SUBSTITUTIONS SHALL BE APPROVED BY PROJECT LANDSCAPE ARCHITECT. SUBSTITUTIONS MADE WITHOUT WRITTEN APPROVAL WILL BE REPLACED WITH APPROVED SELECTIONS AT CONTRACTOR'S COST.
  - DISTURBED AREAS DUE TO CONSTRUCTION ACTIVITIES NOT IDENTIFIED ON THESE PLANS SHALL BE REPAIRED AND RESTORED TO ORIGINAL OR BETTER CONDITIONS AT CONTRACTOR'S COST. SOD SHALL BE PROVIDED FOR AREAS NOT DESIGNATED AS BEDS & PAVEMENT.
  - CONTRACTOR SHALL COMPLY WITH APPLICABLE CODES AND ORDINANCES REGARDING LANDSCAPING. REFER TO SPECIFICATIONS FOR PLANT MATERIAL, SOILS, AND INSTALLATION METHODS.
  - PLANT MATERIAL SHALL COMPLY WITH ALL SIZING AND GRADING STANDARDS OF LATEST EDITION OF "AMERICAN STANDARD FOR NURSERY STOCK".
  - INSTALL PLANT MATERIAL IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF NURSERYMEN LANDSCAPE STANDARDS.
  - INSTALL FINISHED GRADES OF SOD, LANDSCAPE BEDS, AND MULCH 1/2" TO 1" BELOW ABUTTING PAVEMENT SURFACES TO ALLOW UNINHIBITED DRAINAGE TO NON-PAVEMENT SURFACES.
  - MULCH TO 3" MIN. DEPTH WITH DARK BROWN, DOUBLE SHREDDED HARDWOOD MULCH FOR ALL TREE AND LANDSCAPE BEDS OR AS SPECIFIED, PINE STRAW, BARK MULCH, GORILLA HAIR, OR EQUIVALENT IS NOT AN ACCEPTABLE MULCH. ROCK MULCH TO 3" MIN. DEPTH PER PLANS OR AS SPECIFIED. ADD PREEN OR SNAPSHOT TO LANDSCAPE BEDS BEFORE AND AFTER MULCHING FROM MARCH 1 TO OCTOBER 1; IF WINTER INSTALLATION, RETURN NEXT SPRING & INSTALL PREEN/SNAPSHOT WITH NEW MULCH. INSTALL PLANTING BEDS AND ROCK BEDS WITH SPECIFIED WEED BARRIER FABRIC UNDERLAYMENT.

## 6 LANDSCAPE NOTES

NTS

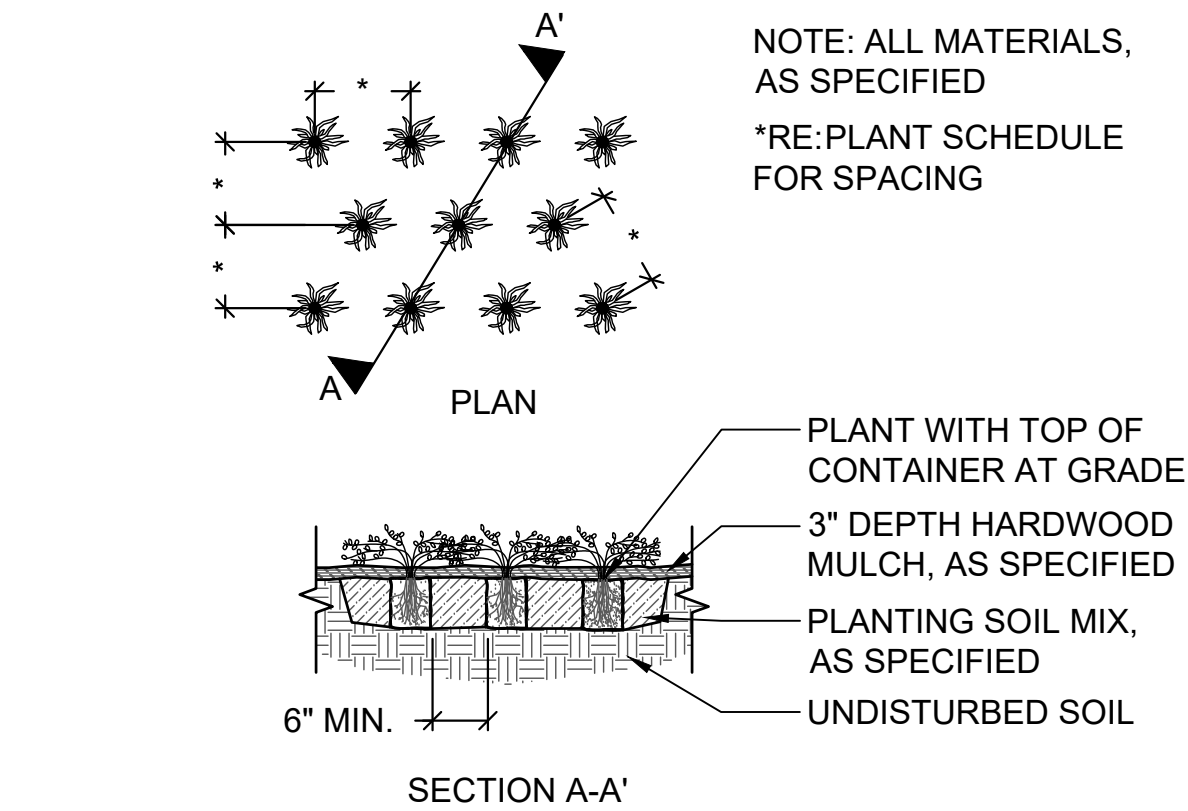
### PLANT SCHEDULE LOT 1

| TREES                                                                               | CODE | QTY       | BOTANICAL / COMMON NAME                                                    | CONT           |
|-------------------------------------------------------------------------------------|------|-----------|----------------------------------------------------------------------------|----------------|
|    | GT   | 9         | Ginkgo biloba 'The President' TM / Presidential Ginkgo                     | B&B, 2" Cal.   |
|   | QA   | 15        | Quercus alba / White Oak                                                   | B&B, 2" Cal.   |
|  | TR   | 14        | Tilia americana 'Redmond' / Redmond American Linden                        | B&B, 2" Cal.   |
|  | UC   | 7         | Ulmus x 'Frontier' / Frontier Elm<br>KCMO Approved Street Tree             | B&B, 2" Cal.   |
| ORNAMENTAL TREES                                                                    | CODE | QTY       | BOTANICAL / COMMON NAME                                                    | CONT           |
|  | AG   | 5         | Amelanchier x 'Autumn Brilliance' / Multi-Stem Serviceberry                | B&B, 1.5" Cal. |
| SHRUBS                                                                              | CODE | QTY       | BOTANICAL / COMMON NAME                                                    | CONT           |
|  | CA   | 76        | Cornus sericea 'Farrow' TM / Arctic Fire Red Twig Dogwood                  | 3 gal          |
|  | HP2  | 10        | Hydrangea macrophylla 'Penny Mac' / Penny Mac Hydrangea                    | 3 gal          |
|  | HE   | 14        | Hydrangea macrophylla 'PIIHM-II' TM / Bloomstruck Endless Summer Hydrangea | 5 gal          |
|  | JB   | 114       | Juniperus sabina 'Broadmoor' / Broadmoor Juniper                           | 3 gal          |
|  | RG   | 11        | Rhus aromatica 'Gro-Low' / Gro-Low Sumac                                   | 3 gal          |
|  | RA   | 16        | Ribes alpinum / Alpine Currant                                             | 3 gal          |
|  | TD   | 77        | Taxus x media 'Densiformis' / Dense Yew                                    | 3 gal          |
|  | VM   | 24        | Viburnum dentatum 'All That Glitters' / Glitter Viburnum                   | 3 gal          |
| GRASSES                                                                             | CODE | QTY       | BOTANICAL / COMMON NAME                                                    | CONT           |
|  | MS   | 156       | Miscanthus sinensis 'Adagio' / Adagio Eulalia Grass                        | 3 gal          |
| GROUND COVERS                                                                       | CODE | QTY       | BOTANICAL / COMMON NAME                                                    | CONT           |
|  | FH   | 43,493 sf | Festuca var. / Heal-Tolerant Fescue Sod                                    | SF             |
|  | RR   | 4,117 sf  | Rock Mulch / Native Buff Rock                                              | SF             |
|  | SM   | 6,392 sf  | SHORT BACKYARD PRAIRIE MIX FROM / THE PRAIRIE FARM OR APPROVED EQUAL       | SF             |

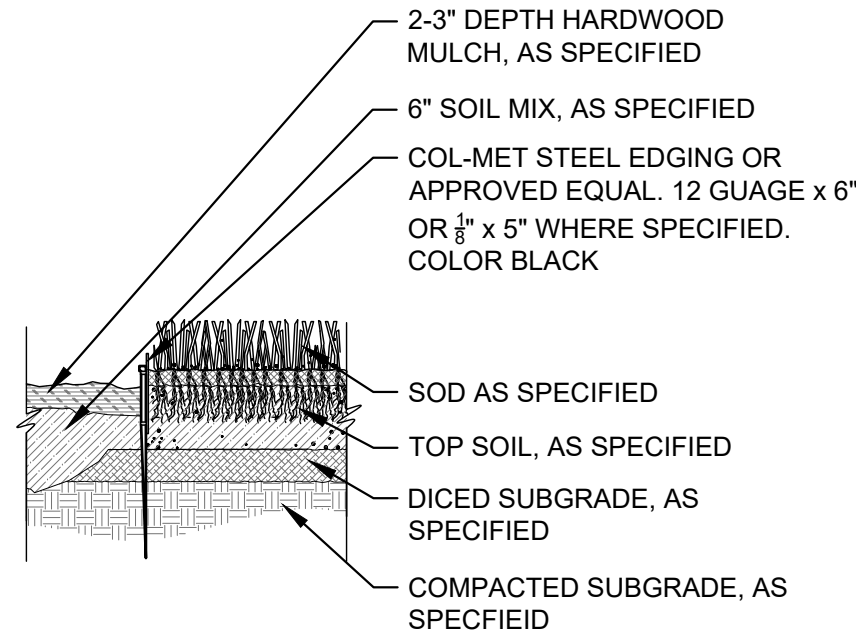
## 1 PLANT SCHEDULE

NTS

- REMOVE ALL TWINE, WIRE, AND BURLAP FROM TREE AND SHRUB ROOT BALLS. REMOVE ALL PLASTIC WRAP, FABRIC ROPE, ROT PROOF WRAP, AND PLANT IDENTIFICATION TAGS.
- STAKE ALL TREES WITH A MINIMUM OF TWO (2) STAKES. STAKES TO BE REMOVED AFTER ONE (1) YEAR OF INSTALLATION BY TENANT.
- TREES SHALL NOT BE PLANTED CLOSER THAN EIGHT HORIZONTAL FEET OF UNDERGROUND UTILITIES UNLESS OTHERWISE NOTED OR PER PLANS. MODIFICATIONS TO TREE PLACEMENT SHALL BE COORDINATED WITH THE LANDSCAPE ARCHITECT AND CAN BE SUBJECT TO CITY REVIEW AND APPROVAL. CONTRACTOR IS RESPONSIBLE FOR UNAPPROVED RELOCATION(S) OR MODIFICATION(S) TO TREE LOCATIONS.
- TREE TIES SHALL BE DEWITT 20" STRAPS FOR TREE STAKING. USE 10 GAUGE ELECTRIC WIRE. TREES AND STAKES SHALL BE STRAIGHT, PLUMB AND TAUT. TREE STAKES TO BE REMOVED WINTER OF YEAR 2 AFTER INSTALLATION.
- PROVIDE NATURAL TOPSOIL THAT IS FERTILE, FRIABLE, WITHOUT MIXTURE OF SUBSOIL MATERIALS, AND OBTAINED FROM A WELL DRAINED, AVAILABLE SITE. IT SHALL NOT CONTAIN SUBSTANCES WHICH MAY BE HARMFUL TO PLANT GROWTH. TOPSOIL SHALL BE SCREENED AND FREE FROM CLAY, LUMPS, STONES, ROOTS, PLANTS, OR SIMILAR SUBSTANCES 1" OR MORE IN DIAMETER, DEBRIS, OR OTHER OBJECTS WHICH MIGHT BE A HINDRANCE TO PLANTING OPERATIONS. TOPSOIL SHALL CONTAIN AT LEAST 4-6% ORGANIC MATTER BY WEIGHT AND HAVE A PH RANGE OF 5.5 TO 7.0.
- PLANT MATERIAL AND IRRIGATION SYSTEM TO BE GUARANTEED FOR ONE (1) YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION AND ACCEPTANCE. PLANT MATERIALS SHALL BE A ONE-TIME-REPLACEMENT AND RECORDS KEPT BY THE LANDSCAPE CONTRACTOR FOR ALL REPLACEMENTS.
- PLANT MATERIAL SHALL BE OF EXCELLENT QUALITY, FREE OF DISEASE & INFESTATION-TRUE TO TYPE, VARIETY, SIZE SPECIFIED, & FORM PER ANSI STANDARDS.
- WATER-IN EACH PLANT IMMEDIATELY FOLLOWING INSTALLATION AND CONTINUE WATERING ROUTINE UNTIL SUBSTANTIAL PROJECT COMPLETION. CONTRACTOR IS REQUIRED TO COORDINATE WATERING REQUIREMENTS TO THE OWNER THEREAFTER.
- DELEGATED DESIGN: IRRIGATE LANDSCAPED AND TURF AREAS SHALL BE WITH A PERMANENT, AUTOMATED SYSTEM. PROVIDE A DESIGN TO COVER THE NEW LANDSCAPE AREAS WITH HEAD TO HEAD COVERAGE. ONLY RAINBIRD OR HUNTER IRRIGATION PARTS & EQUIPMENT ARE TO BE USED. DRIP IS PERMITTED. CONTRACTOR TO PROVIDE SITE DRAWINGS DISPLAYING ALL PIPES, HEADS, VALVES, CONTROLLER, WIRE, AND SLEEVES. SLEEVES SHALL BE INSTALLED BY THE GENERAL CONTRACTOR AND COORDINATED WITH THE LANDSCAPE / IRRIGATION CONTRACTOR. 4" PVC SLEEVES WITH CAPS RECOMMENDED. PLACE SLEEVES AND MARK CLEARLY ABOVE GROUND FOR EASE OF FINDING. COORDINATE BACKFLOW, TAP & METER WITH THE GENERAL CONTRACTOR (GC) AND THE GC'S LICENSED PLUMBER. THE IRRIGATION DESIGN / SUBMITTALS SHALL BE SUBMITTED TO THE OWNER AND OWNERS REPRESENTATIVE & LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO ORDERING OR INSTALLING ANY MATERIALS FOR THE IRRIGATION SYSTEM. GENERAL CONTRACTOR SHALL MAKE SURE THAT THE METER & BACKFLOW ARE COVERED IN THE BID, AS THE IRRIGATION CONTRACTOR IS LIKELY TO EXCLUDE THESE ITEMS. COORDINATE THESE ITEMS AND SLEEVES.



NOTE: ALL MATERIALS,  
AS SPECIFIED  
\*RE:PLANT SCHEDULE  
FOR SPACING

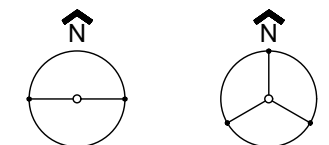


## 4 GROUNDCOVER PLANTING

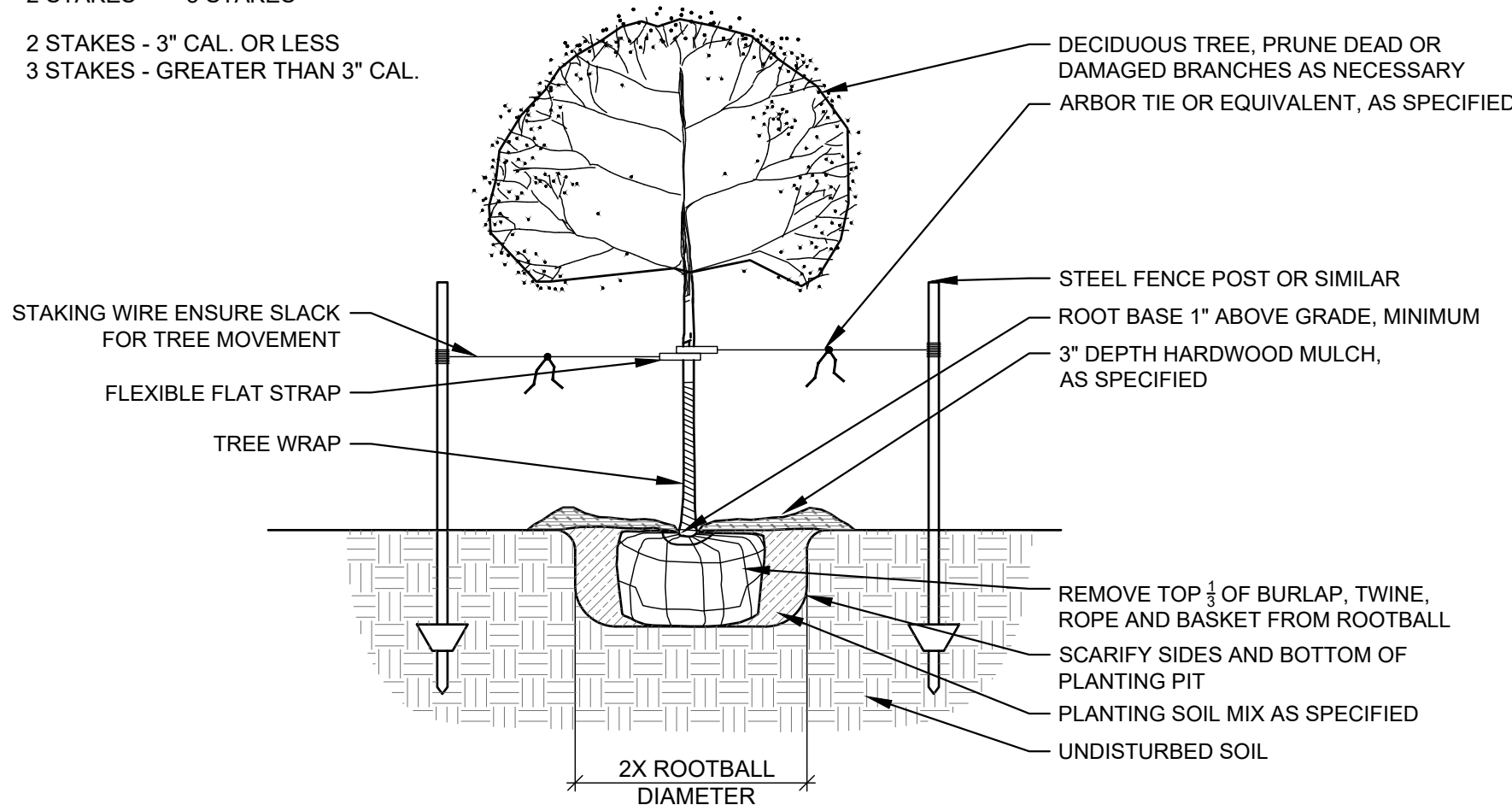
1" = 1'-0"

329333-03

### STAKING ORIENTATION



2 STAKES      3 STAKES  
2 STAKES - 3" CAL. OR LESS  
3 STAKES - GREATER THAN 3" CAL.



## 2 DECIDUOUS TREE PLANTING

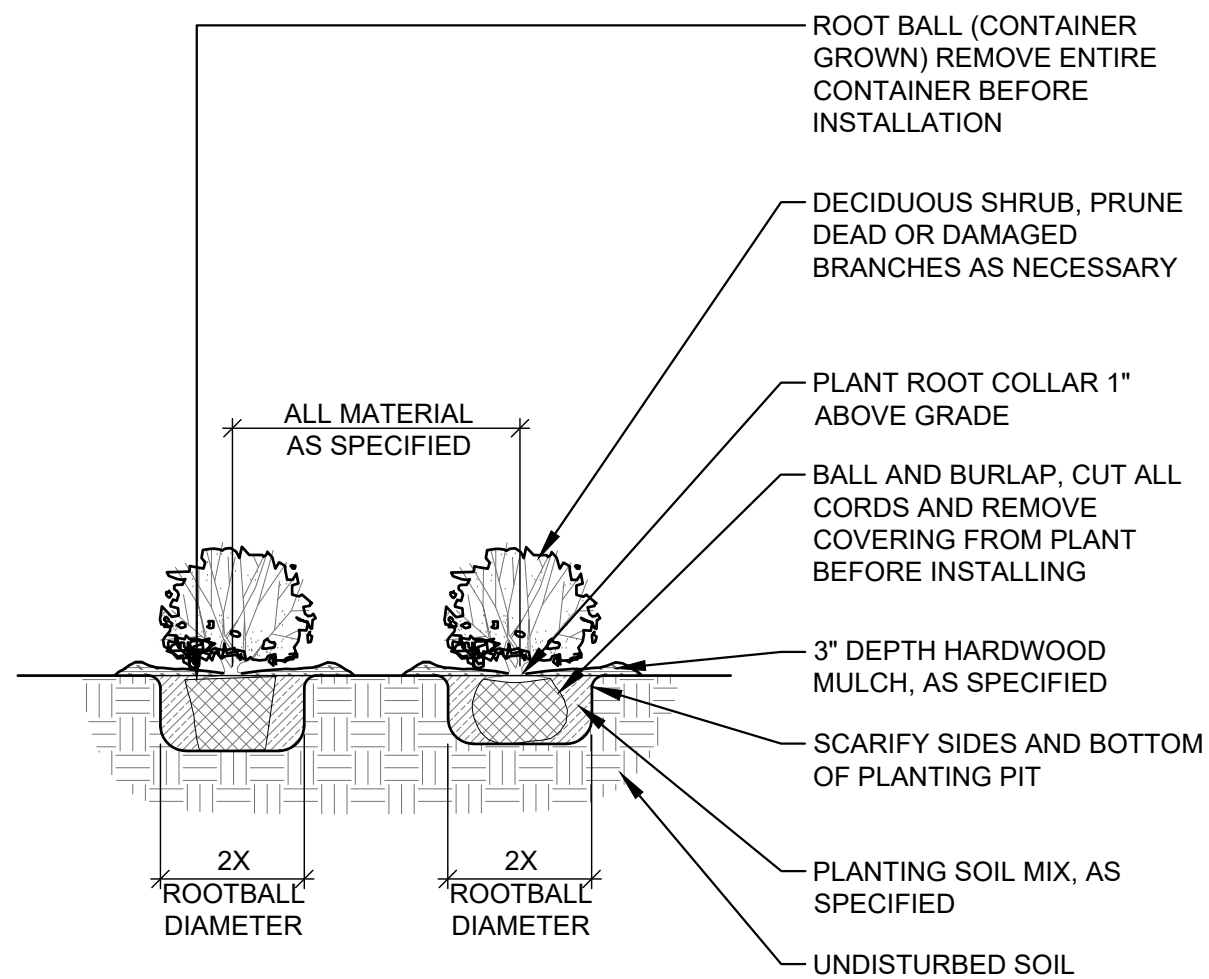
1/2" = 1'-0"

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## 5 METAL EDGING

1" = 1'-0"

329413.14-02



## 3 SHRUB AND PERENNIAL PLANTING

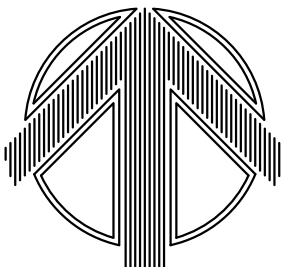
1/2" = 1'-0"

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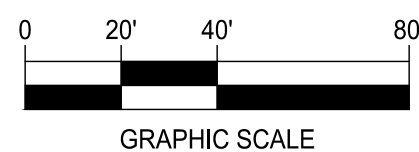
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## LANDSCAPE NOTES



NORTH



GRAPHIC SCALE

## ROCK CREEK BUILDING 1 SITE PLAN

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022

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ENGINEER  
T. SMITH

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DRAWN BY  
R. CORONA

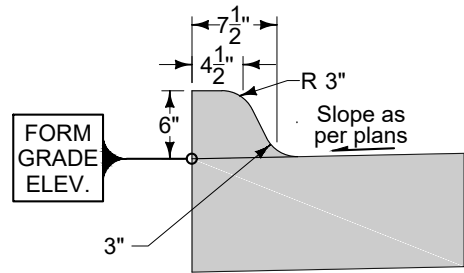
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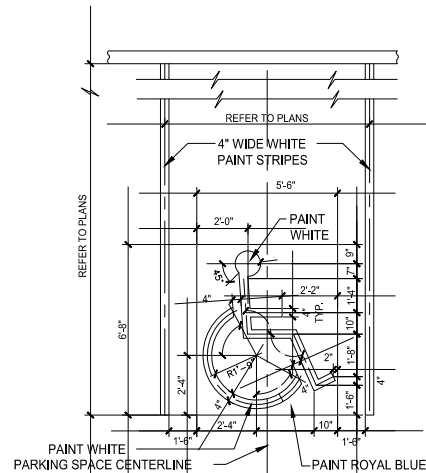
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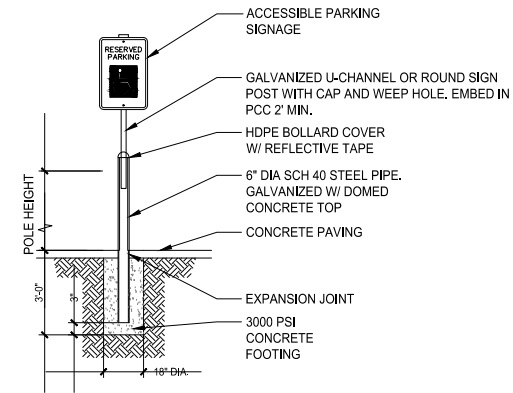


**6' STANDARD CURB  
(SUDAS 7010.102)**  
NOT TO SCALE



**ACCESSIBLE PARKING SPACE  
PAINT DETAIL**

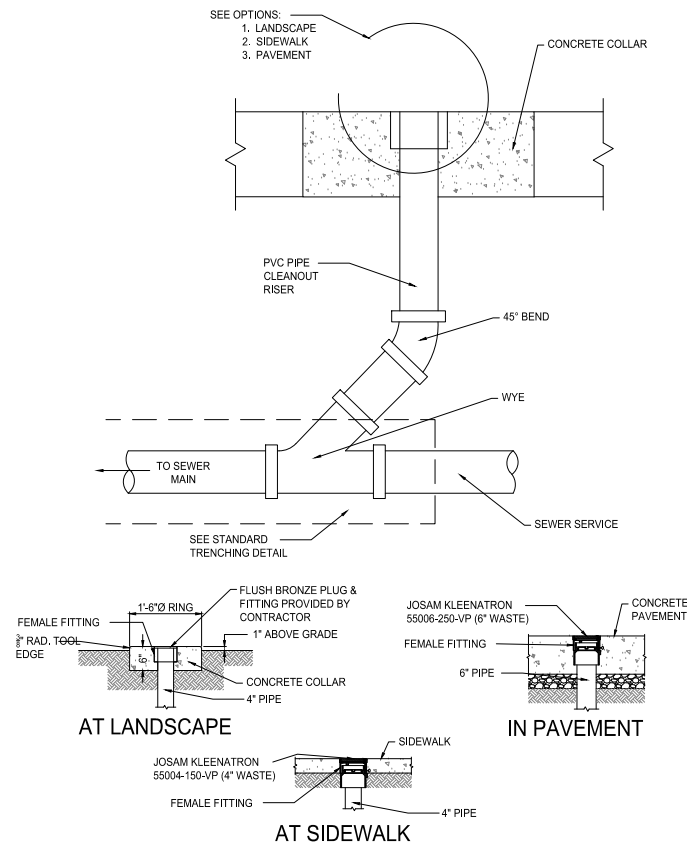
NOTE: CENTER PAINTED SYMBOL IN THE  
MIDDLE OF PARKING SPACE OPENING.



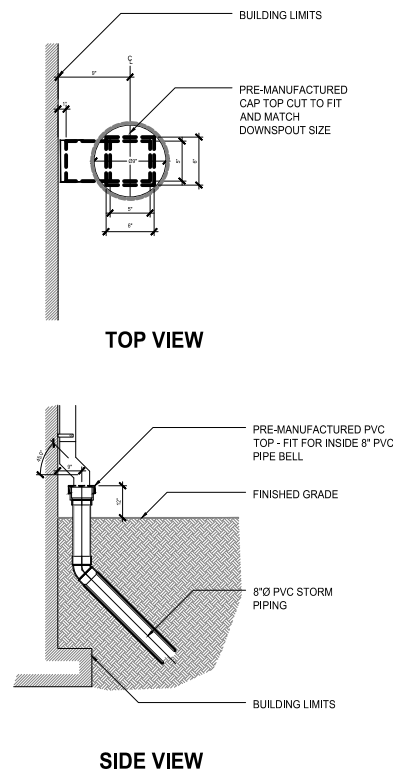
**ACCESSIBLE PARKING  
SIGN DETAIL**

## HANDICAPPED PARKING SPACE PAINT, ACCESSIBILITY AND SIGN DETAILS

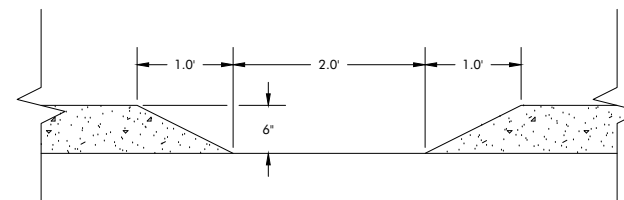
NOT TO SCALE



**SEWER CLEANOUT DETAIL**  
NOT TO SCALE



**DOWNSPOUT CONNECTION AT BUILDING**  
NOT TO SCALE



**CURB CUT DETAIL**  
NOT TO SCALE

## TYPICAL DETAILS

## ROCK CREEK BUILDING 1 SITE PLAN

GRIMES, IOWA  
2022000398-000  
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AUGUST 10, 2022

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| PROJECT INFORMATION        |  |
|----------------------------|--|
| ENGINEERED PRODUCT MANAGER |  |
| ADS SALES REP              |  |
| PROJECT NO.                |  |



# GRIMES LOT 1 CONCEPT

## GRIMES, IA

### MC-7200 STORMTECH CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH MC-7200.
- CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60x101.
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
  - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
  - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
  - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
  - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
  - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
  - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

### IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-7200 CHAMBER SYSTEM

- STORMTECH MC-7200 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH MC-7200 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-7200 CONSTRUCTION GUIDE".
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
  - STONESHOOTER LOCATED OFF THE CHAMBER BED.
  - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
  - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM - 9" (230 mm) SPACING BETWEEN THE CHAMBER ROWS.
- INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
- EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
- STONE SHALL BE BROUGHT UP EVENLY AROUND CHAMBERS SO AS NOT TO DISTORT THE CHAMBER SHAPE. STONE DEPTHS SHOULD NEVER DIFFER BY MORE THAN 12" (300 mm) BETWEEN ADJACENT CHAMBER ROWS.
- STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIAL BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

### NOTES FOR CONSTRUCTION EQUIPMENT

- STORMTECH MC-7200 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-7200 CONSTRUCTION GUIDE".
- THE USE OF EQUIPMENT OVER MC-7200 CHAMBERS IS LIMITED:
  - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
  - NO RUBBER TIRED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-7200 CONSTRUCTION GUIDE".
  - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-7200 CONSTRUCTION GUIDE".
- FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.



1360 NW 121ST. Street  
Clive, Iowa 50325  
515-964-1229  
fax 515-964-2370

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PRELIMINARY

ADS STORMTECH  
DETAILS

ROCK CREEK BUILDING  
1 SITE PLAN

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022

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ENGINEER  
T. SMITH

DRAWN BY  
R. CORONA

CHECKED BY

FIELD BOOK NO.

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DRAWING NO.

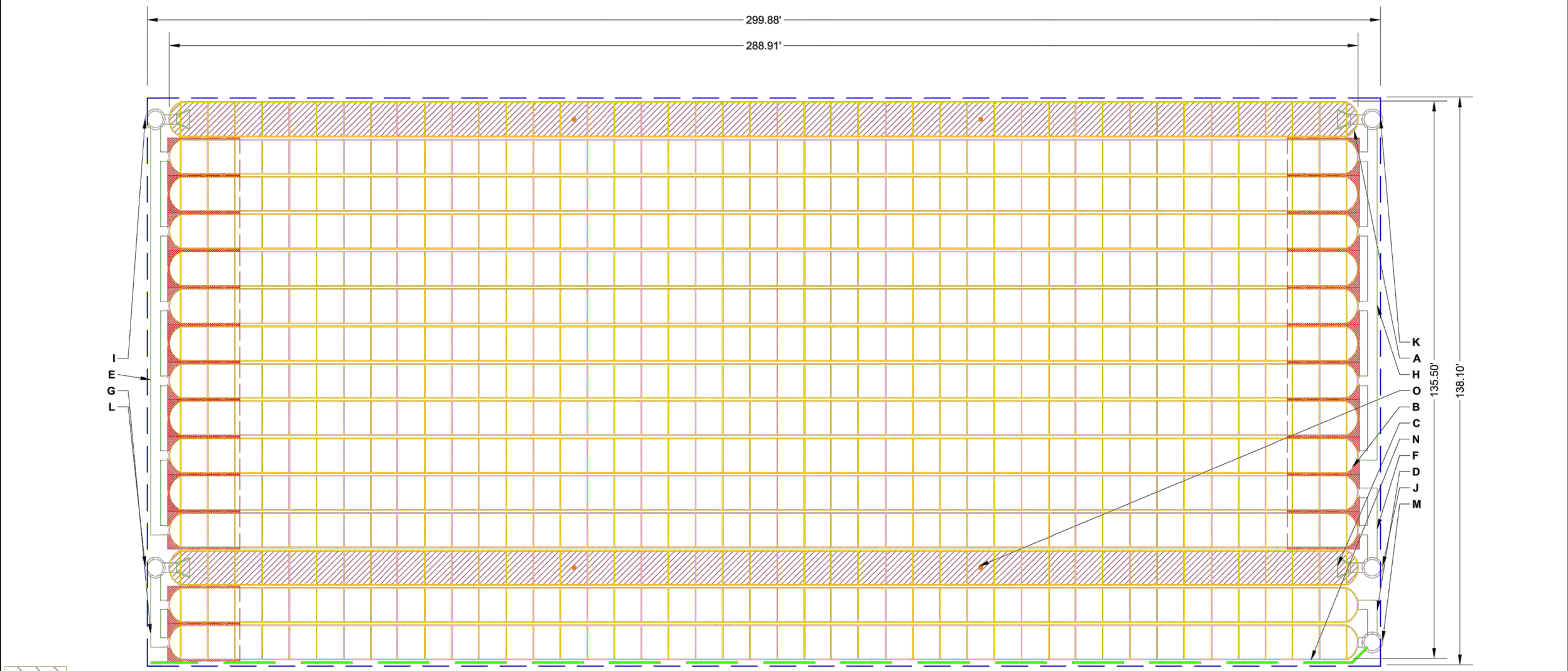
SHEET NO.

DT-02

21 / 25

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| PROPOSED LAYOUT |                                                                                                               |                                                           | CONCEPTUAL ELEVATIONS |  | *INVERT ABOVE BASE OF CHAMBER |                |                                                                                                                 |         |              |
|-----------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-----------------------|--|-------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------|---------|--------------|
|                 |                                                                                                               |                                                           |                       |  | PART TYPE                     | ITEM ON LAYOUT | DESCRIPTION                                                                                                     | INVERT* | MAX FLOW     |
| 645             | STORMTECH MC-7200 CHAMBERS                                                                                    | MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):        | 12.75                 |  |                               |                |                                                                                                                 |         |              |
| 30              | STORMTECH MC-7200 END CAPS                                                                                    | MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):           | 8.25                  |  |                               |                |                                                                                                                 |         |              |
| 12              | STONE ABOVE (in)                                                                                              | MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):             | 7.75                  |  | PREFABRICATED END CAP         | A              | 24" BOTTOM PARTIAL CUT END CAP, PART#: MC7200IEPP24B / TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS | 2.26"   |              |
| 9               | STONE BELOW (in)                                                                                              | MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT): | 7.75                  |  | PREFABRICATED END CAP         | B              | 24" TOP PARTIAL CUT END CAP, PART#: MC7200IEPP24T / TYP OF ALL 24" TOP CONNECTIONS                              | 23.05"  |              |
| 40              | STONE VOID                                                                                                    | MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):      | 7.75                  |  | FLAMP                         | C              | INSTALL FLAMP ON 24" ACCESS PIPE / PART#: MC720024RAMP (TYP 4 PLACES)                                           |         |              |
| 180603          | INSTALLED SYSTEM VOLUME (CF)<br>(PERIMETER STONE INCLUDED)<br>(COVER STONE INCLUDED)<br>(BASE STONE INCLUDED) | TOP OF STONE:                                             | 6.75                  |  | MANIFOLD                      | D              | 24" x 24" BOTTOM MANIFOLD, ADS N-12                                                                             | 2.26"   |              |
|                 |                                                                                                               | TOP OF MC-7200 CHAMBER:                                   | 5.75                  |  | MANIFOLD                      | E              | 24" x 24" TOP MANIFOLD, ADS N-12                                                                                | 23.05"  |              |
|                 |                                                                                                               | 24" x 24" TOP MANIFOLD INVERT:                            | 2.67                  |  | MANIFOLD                      | F              | 24" x 24" TOP MANIFOLD, ADS N-12                                                                                | 23.05"  |              |
|                 |                                                                                                               | 24" x 24" TOP MANIFOLD INVERT:                            | 2.67                  |  | MANIFOLD                      | G              | 24" x 24" TOP MANIFOLD, ADS N-12                                                                                | 23.05"  |              |
| 41414           | SYSTEM AREA (SF)                                                                                              | 24" x 24" TOP MANIFOLD INVERT:                            | 2.67                  |  | MANIFOLD                      | H              | 24" x 24" TOP MANIFOLD, ADS N-12                                                                                | 23.05"  |              |
| 876.0           | SYSTEM PERIMETER (ft)                                                                                         | 24" x 24" TOP MANIFOLD INVERT:                            | 2.67                  |  | MANIFOLD                      | I              | 24" x 24" TOP MANIFOLD, ADS N-12                                                                                | 23.05"  |              |
|                 |                                                                                                               | 24" x 24" BOTTOM MANIFOLD INVERT:                         | 0.94                  |  | CONCRETE STRUCTURE            | J              | (DESIGN BY ENGINEER / PROVIDED BY OTHERS)                                                                       |         | 33.2 CFS IN  |
|                 |                                                                                                               | 24" ISOLATOR ROW PLUS INVERT:                             | 0.94                  |  | CONCRETE STRUCTURE            | K              | (DESIGN BY ENGINEER / PROVIDED BY OTHERS)                                                                       |         | 19.0 CFS IN  |
|                 |                                                                                                               | 24" ISOLATOR ROW PLUS INVERT:                             | 0.94                  |  | CONCRETE STRUCTURE            | L              | (DESIGN BY ENGINEER / PROVIDED BY OTHERS)                                                                       |         | 33.2 CFS IN  |
|                 |                                                                                                               | 24" ISOLATOR ROW PLUS INVERT:                             | 0.94                  |  | CONCRETE STRUCTURE            | M              | (DESIGN BY ENGINEER / PROVIDED BY OTHERS)                                                                       |         | 19.0 CFS IN  |
|                 |                                                                                                               | 24" ISOLATOR ROW PLUS INVERT:                             | 0.94                  |  | CONCRETE STRUCTURE            | N              | OCS (DESIGN BY ENGINEER / PROVIDED BY OTHERS)                                                                   |         | 14.0 CFS OUT |
|                 |                                                                                                               | 24" BOTTOM CONNECTION INVERT:                             | 0.94                  |  | UNDERDRAIN                    | O              | 6" ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN                                                                |         |              |
|                 |                                                                                                               | BOTTOM OF MC-7200 CHAMBER:                                | 0.75                  |  | INSPECTION PORT               |                | 4" SEE DETAIL (TYP 4 PLACES)                                                                                    |         |              |
|                 |                                                                                                               | UNDERDRAIN INVERT:                                        | 0.00                  |  |                               |                |                                                                                                                 |         |              |
|                 |                                                                                                               | BOTTOM OF STONE:                                          | 0.00                  |  |                               |                |                                                                                                                 |         |              |



ISOLATOR ROW PLUS  
(SEE DETAIL/TYP 2 PLACES)

PLACE MINIMUM 17.50' OF ADSPLUS175 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS

#### NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

GRIMES LOT 1 CONCEPT

GRIMES, IA

DRAWN: JM

CHECKED: N/A

DATE:

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ADS

50'  
25'  
0'

SHEET

2 OF 5

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PRELIMINARY

ADS STORMTECH  
DETAILS

ROCK CREEK BUILDING  
1 SITE PLAN

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022

ENGINEER  
T. SMITH  
DRAWN BY  
R. CORONA  
CHECKED BY  
FIELD BOOK NO.

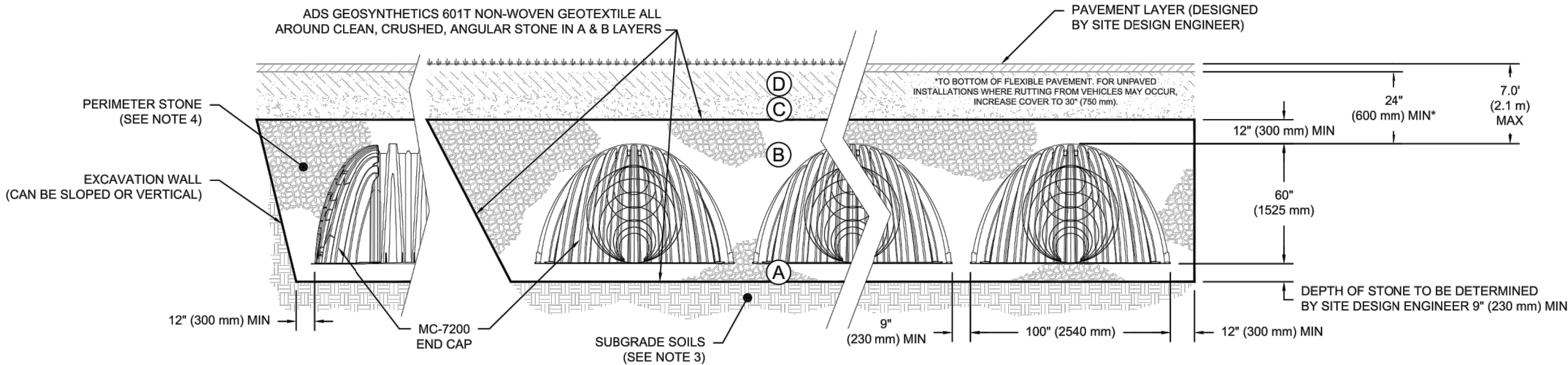


ACCEPTABLE FILL MATERIALS: STORMTECH MC-7200 CHAMBER SYSTEMS

| MATERIAL LOCATION |                                                                                                                                                                                                           | DESCRIPTION                                                                                                                                                | AASHTO MATERIAL CLASSIFICATIONS                                                                                                                   | COMPACTION / DENSITY REQUIREMENT                                                                                                                                                                                                                      |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| D                 | FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER  | ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.                                            | N/A                                                                                                                                               | PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.                                                                                                                               |
| C                 | INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER. | GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE.<br><br>MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER. | AASHTO M145 <sup>1</sup><br>A-1, A-2-4, A-3<br><br>OR<br><br>AASHTO M43 <sup>1</sup><br>3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10 | BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. |
| B                 | EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.                                                                                              | CLEAN, CRUSHED, ANGULAR STONE                                                                                                                              | AASHTO M43 <sup>1</sup><br>3, 4                                                                                                                   | NO COMPACTION REQUIRED.                                                                                                                                                                                                                               |
| A                 | FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.                                                                                                           | CLEAN, CRUSHED, ANGULAR STONE                                                                                                                              | AASHTO M43 <sup>1</sup><br>3, 4                                                                                                                   | PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. <sup>2,3</sup>                                                                                                                                                                                       |

PLEASE NOTE:

- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
- STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
- WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
- ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60x101
- MC-7200 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
  - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
  - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
  - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT<sup>3</sup>%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

GRIMES LOT 1 CONCEPT

GRIMES, IA

DRAWN: JM

CHECKED: N/A

DATE:

PROJECT #:

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3 OF 5

ADS STORMTECH  
DETAILS

ROCK CREEK BUILDING  
1 SITE PLAN

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022

ENGINEER  
T. SMITH

DRAWN BY  
R. CORONA

CHECKED BY

FIELD BOOK NO.

DRAWING NO.

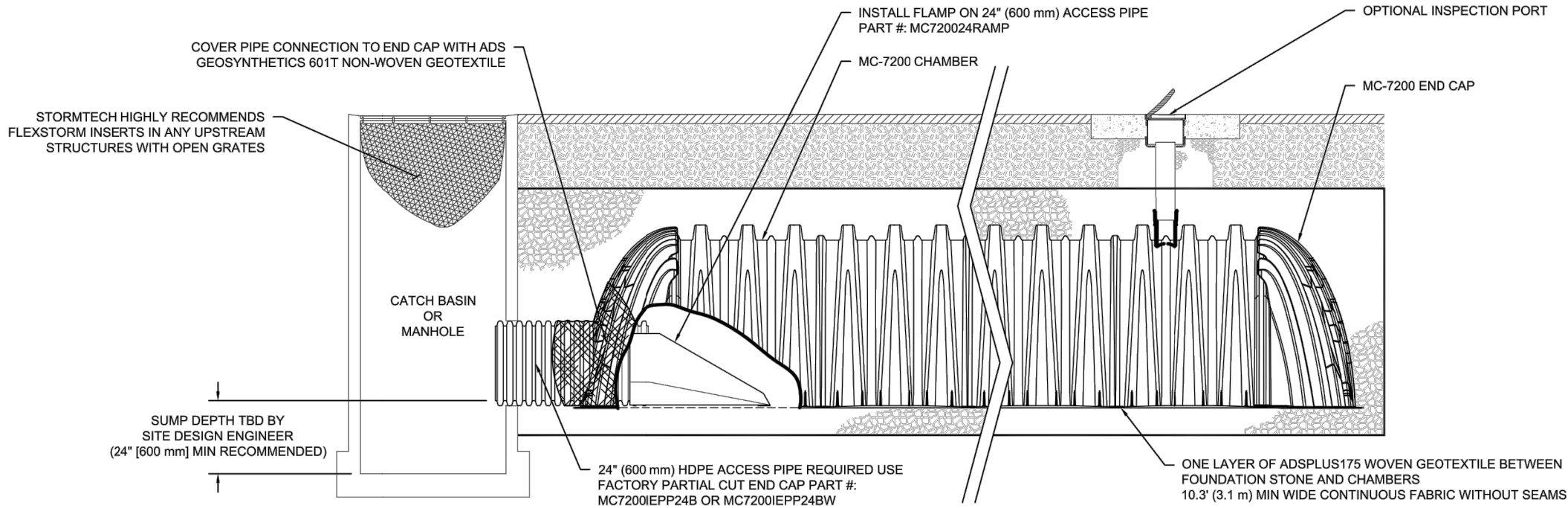
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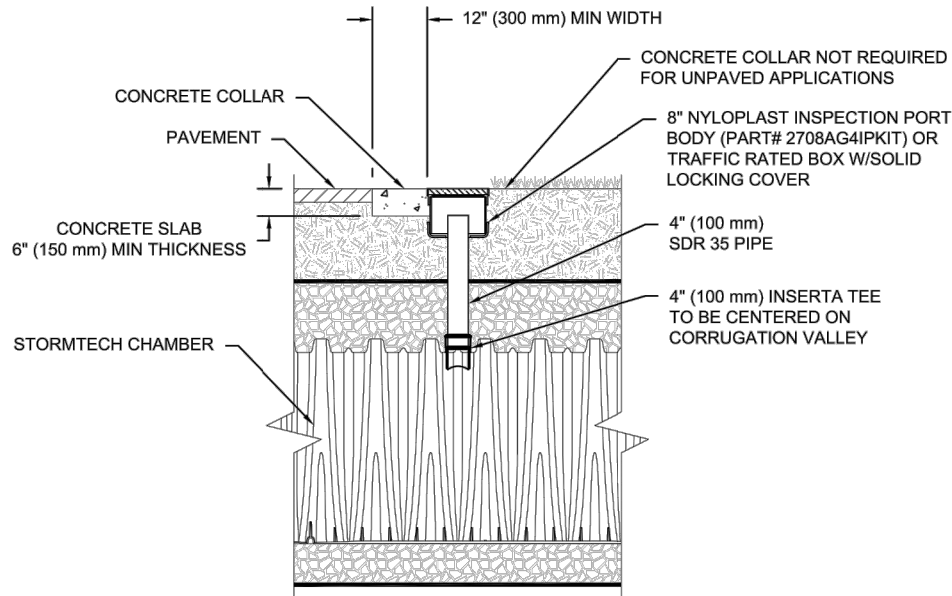
MC-7200 ISOLATOR ROW PLUS DETAIL  
NTS

### INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
- A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
- A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
- A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
- A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
- A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
- B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
- B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
- i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
- ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
- B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

### NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



NOTE:  
INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION VALLEY.

4" PVC INSPECTION PORT DETAIL  
(MC SERIES CHAMBER)  
NTS

GRIMES LOT 1 CONCEPT

GRIMES, IA

DRAWN: JM

CHECKED: N/A

DATE:

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ADS STORMTECH  
DETAILS

ROCK CREEK BUILDING  
1 SITE PLAN

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022

ENGINEER  
T. SMITH

CHECKED BY

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R. CORONA

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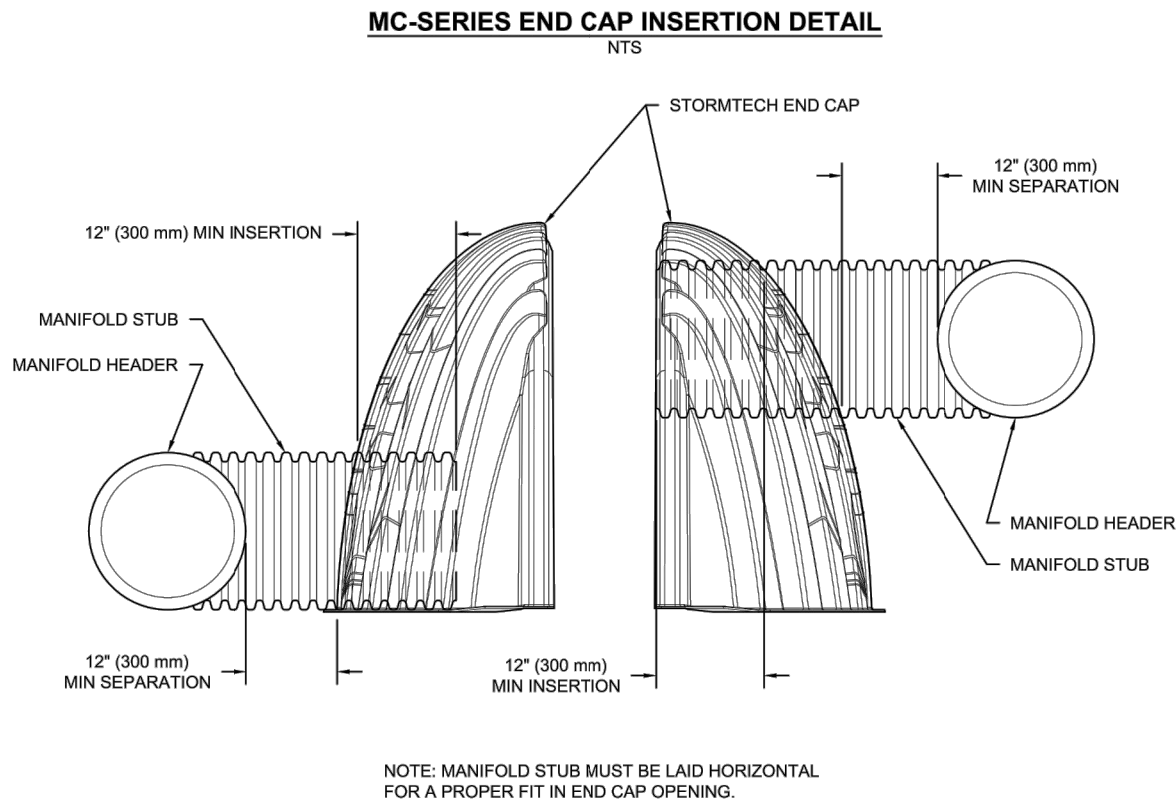
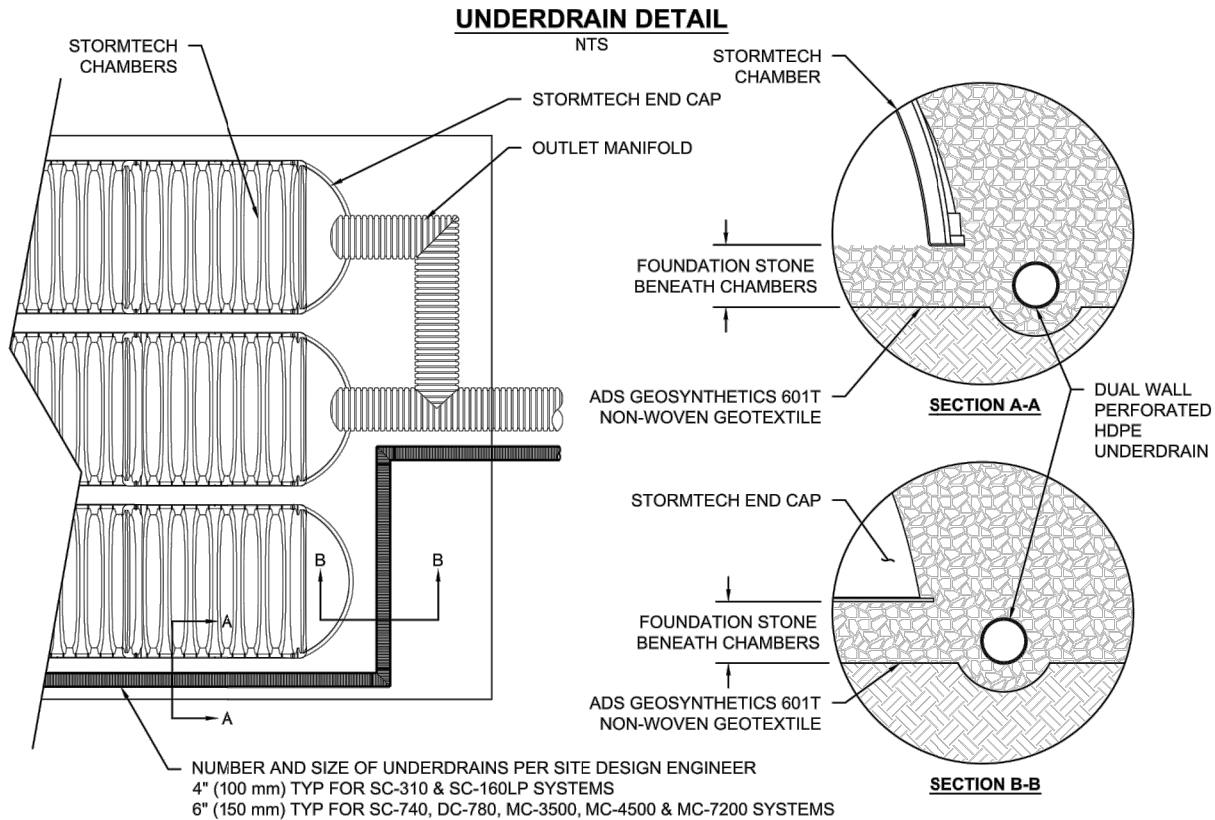
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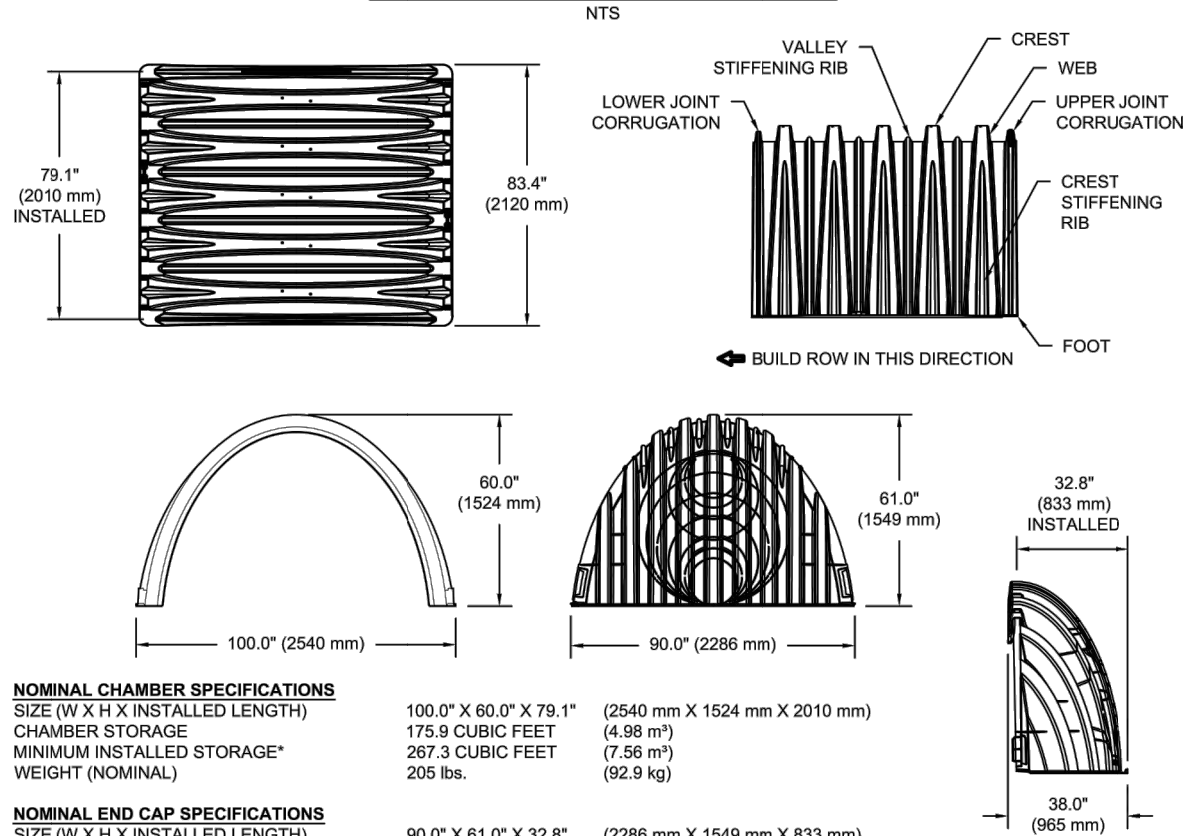
24 / 25



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**MC-7200 TECHNICAL SPECIFICATION**  
NTS

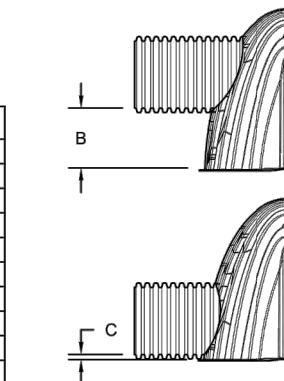


\*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION AND BETWEEN CHAMBERS, 12" (305 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY.

PARTIAL CUT HOLES AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"  
PARTIAL CUT HOLES AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"  
END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

| PART #         | STUB          | B                | C             |
|----------------|---------------|------------------|---------------|
| MC7200IEPP06T  | 6" (150 mm)   | 42.54" (1081 mm) | —             |
| MC7200IEPP06B  | —             | —                | 0.86" (22 mm) |
| MC7200IEPP08T  | 8" (200 mm)   | 40.50" (1029 mm) | —             |
| MC7200IEPP08B  | —             | —                | 1.01" (26 mm) |
| MC7200IEPP10T  | 10" (250 mm)  | 38.37" (975 mm)  | —             |
| MC7200IEPP10B  | —             | —                | 1.33" (34 mm) |
| MC7200IEPP12T  | 12" (300 mm)  | 35.69" (907 mm)  | —             |
| MC7200IEPP12B  | —             | —                | 1.55" (39 mm) |
| MC7200IEPP15T  | 15" (375 mm)  | 32.72" (831 mm)  | —             |
| MC7200IEPP15B  | —             | —                | 1.70" (43 mm) |
| MC7200IEPP18T  | 18" (450 mm)  | 29.36" (746 mm)  | —             |
| MC7200IEPP18TW | —             | —                | 1.97" (50 mm) |
| MC7200IEPP18B  | —             | —                | —             |
| MC7200IEPP18BW | —             | —                | —             |
| MC7200IEPP24T  | 24" (600 mm)  | 23.05" (585 mm)  | —             |
| MC7200IEPP24TW | —             | —                | 2.26" (57 mm) |
| MC7200IEPP24B  | —             | —                | —             |
| MC7200IEPP24BW | —             | —                | —             |
| MC7200IEPP30BW | 30" (750 mm)  | —                | 2.95" (75 mm) |
| MC7200IEPP36BW | 36" (900 mm)  | —                | 3.25" (83 mm) |
| MC7200IEPP42BW | 42" (1050 mm) | —                | 3.55" (90 mm) |

NOTE: ALL DIMENSIONS ARE NOMINAL



CUSTOM PREFABRICATED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-7200 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

GRIMES LOT 1 CONCEPT

GRIMES, IA

DRAWN: JM

CHECKED: N/A

DATE:

PROJECT #:

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ADS STORMTECH  
DETAILS

ROCK CREEK BUILDING  
1 SITE PLAN

GRIMES, IOWA  
2022000398-000  
JULY 25, 2022

REVISIONS  
AUGUST 10, 2022

ENGINEER  
T. SMITH

DRAWN BY  
R. CORONA

CHECKED BY

FIELD BOOK NO.

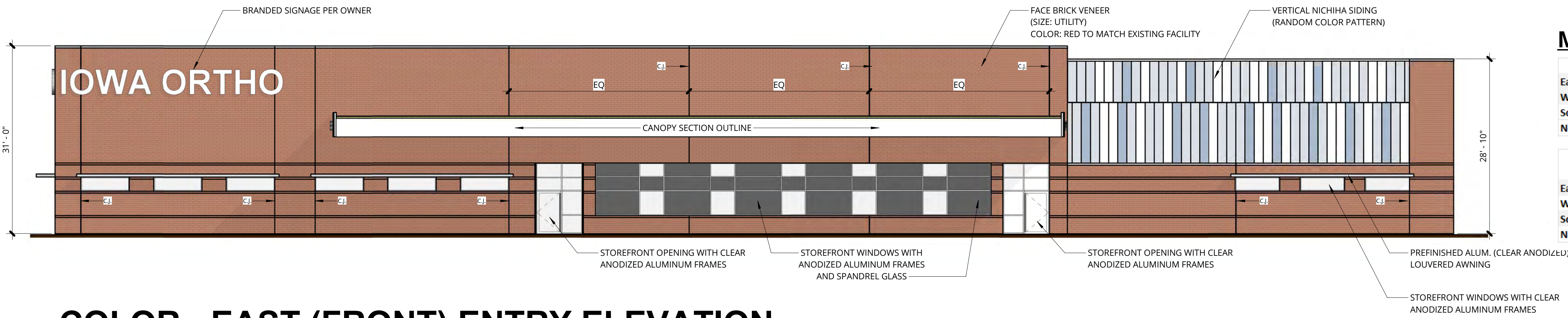
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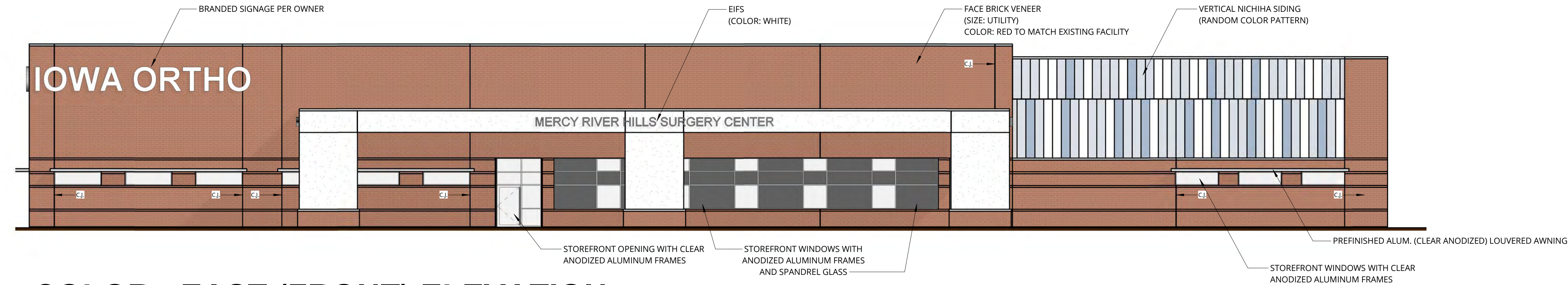
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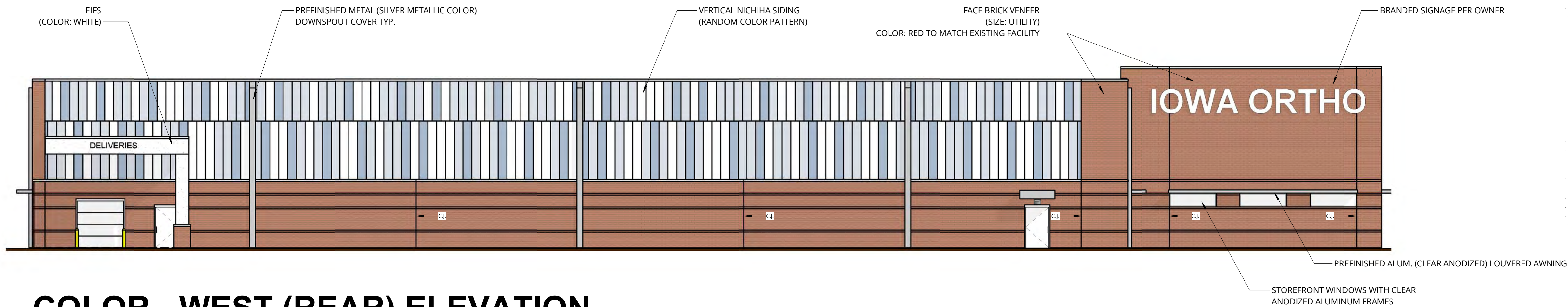
## COLOR - EAST (FRONT) ENTRY ELEVATION

SCALE: 3/32" = 1'-0"



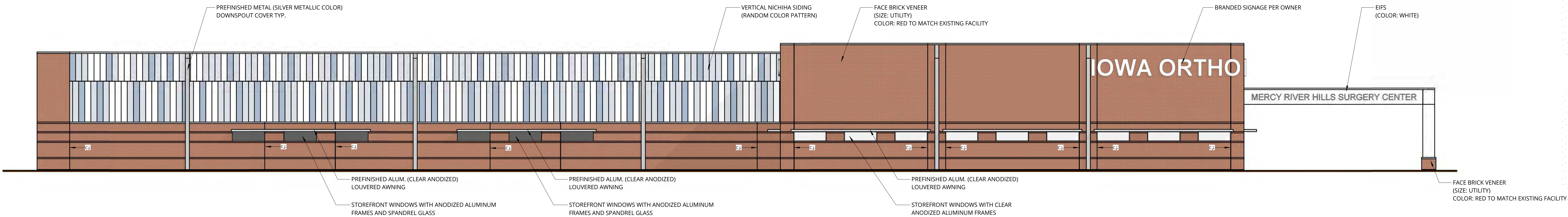
## COLOR - EAST (FRONT) ELEVATION

SCALE: 3/32" = 1'-0"



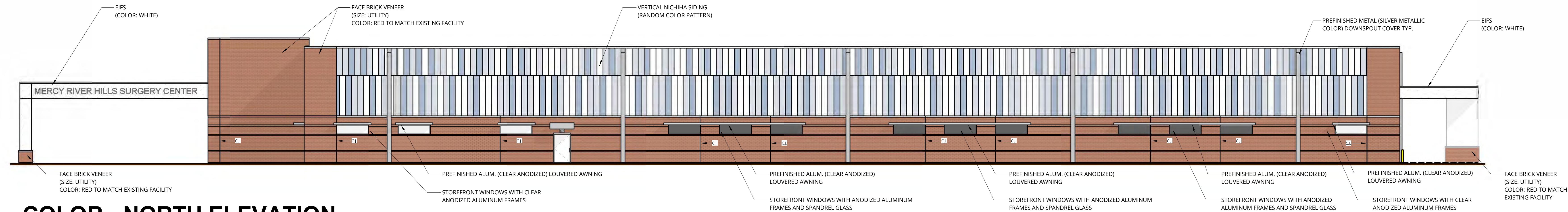
## COLOR - WEST (REAR) ELEVATION

SCALE: 3/32" = 1'-0"



## COLOR - SOUTH ELEVATION

SCALE: 3/32" = 1'-0"



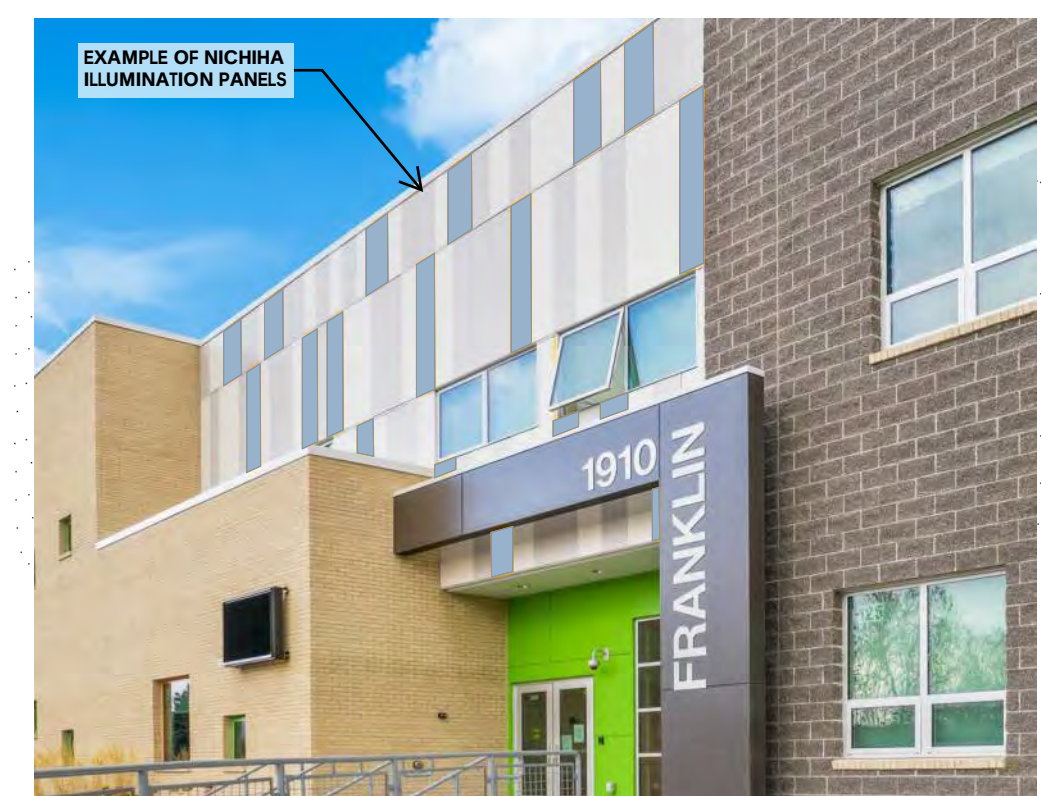
## COLOR - NORTH ELEVATION

SCALE: 3/32" = 1'-0"

### MATERIAL CALCULATIONS

|              | Brick veneer (SF) | Brick veneer (%) | Nichiha (SF) | Nichiha (%) | Glazing (SF) | Glazing (%) | Misc trim (SF) | Misc trim (%) | Total (SF) |
|--------------|-------------------|------------------|--------------|-------------|--------------|-------------|----------------|---------------|------------|
| East façade  | 4,531             | 70.5%            | 938          | 14.6%       | 913          | 14.2%       | 48             | 0.7%          | 6,430      |
| West façade  | 3,346             | 50.2%            | 3,001        | 45.0%       | 189          | 2.8%        | 126            | 1.9%          | 6,662      |
| South façade | 5,417             | 62.8%            | 2,769        | 32.1%       | 282          | 3.3%        | 158            | 1.8%          | 8,626      |
| North façade | 3,635             | 42.9%            | 4,399        | 51.9%       | 281          | 3.3%        | 158            | 1.9%          | 8,473      |

|              | Façade Length (LF) | Glazing Length (LF) | Glazing Length Percentage |
|--------------|--------------------|---------------------|---------------------------|
| East façade  | 230.5              | 152.5               | 66.2%                     |
| West façade  | 230.5              | 40.3                | 17.5%                     |
| South façade | 296.0              | 120.0               | 40.5%                     |
| North façade | 272.0              | 109.0               | 40.1%                     |



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ROCK CREEK ASC

GRIMES, IA

DESIGN DEVELOPMENT PLAN(S) - NOT FOR CONSTRUCTION

DEVELOP

DISCOVER/ ANALYZE

COMMIT

DELIVER

DRAWN BY: Precon. Team

ORIGINAL  
CONSTRUCTION DOCUMENT  
07/15/2021

REVISIONS

08/05/2022 - Exterior Revs.  
08/12/2022 - DD/ Coord. Set  
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PLAN NO. = 90-126

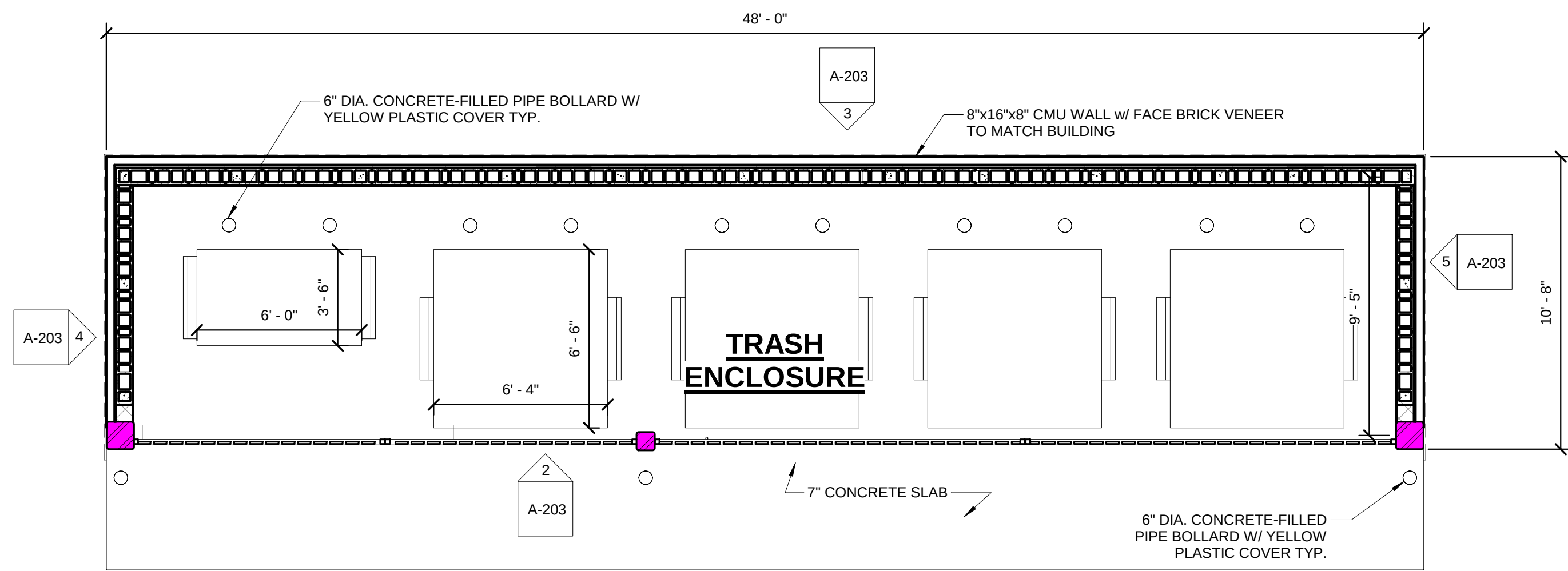
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COLOR EXTERIOR  
ELEVATIONS

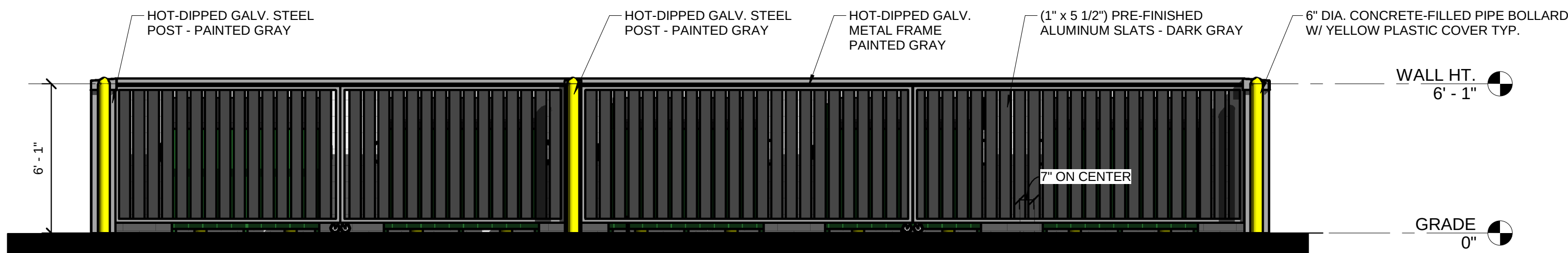
SHEET NO.

A-202

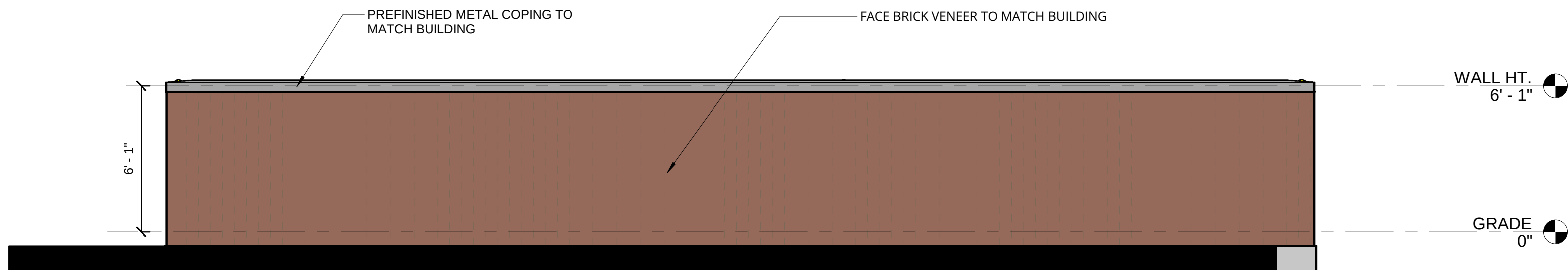




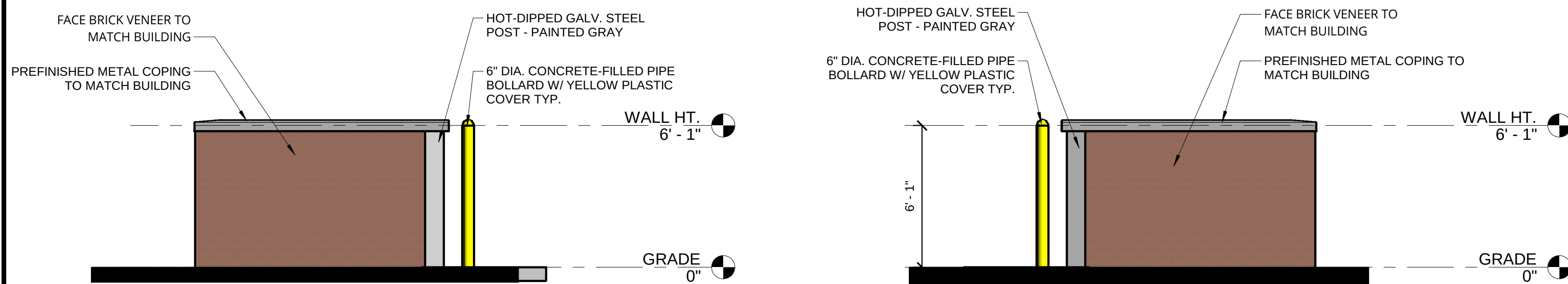
1 TRASH ENCLOSURE PLAN  
SCALE: 1/4" = 1'-0"



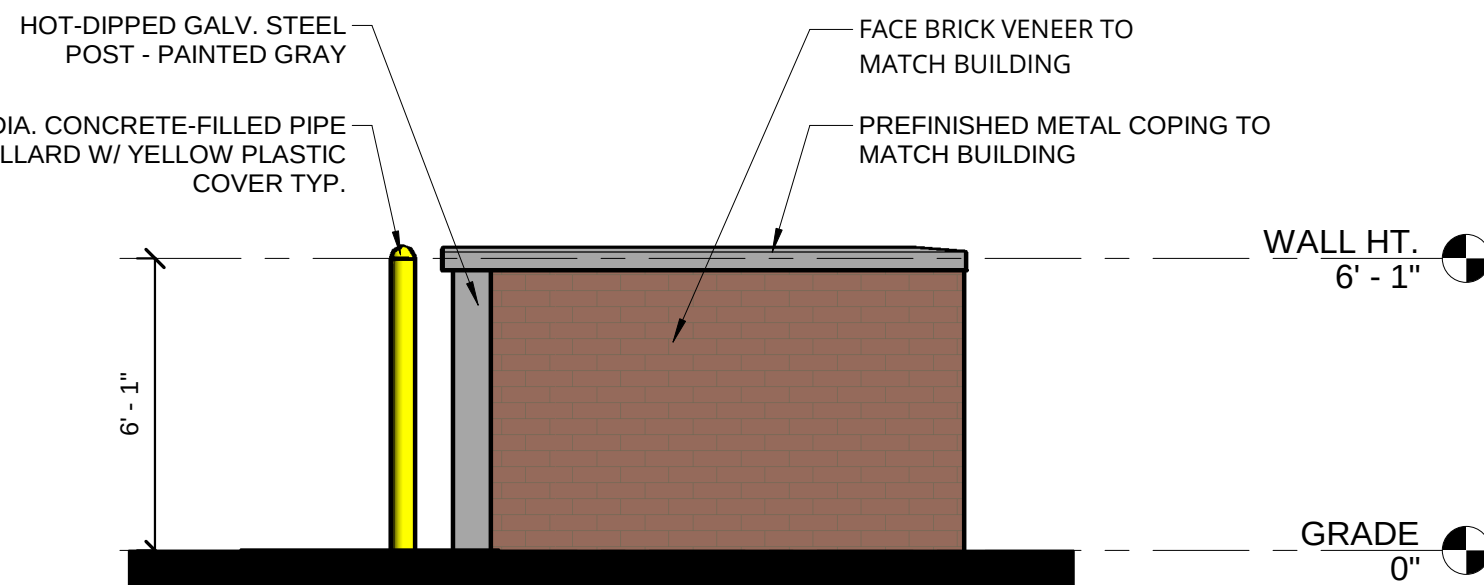
2 ELEVATION - FRONT  
SCALE: 1/4" = 1'-0"



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



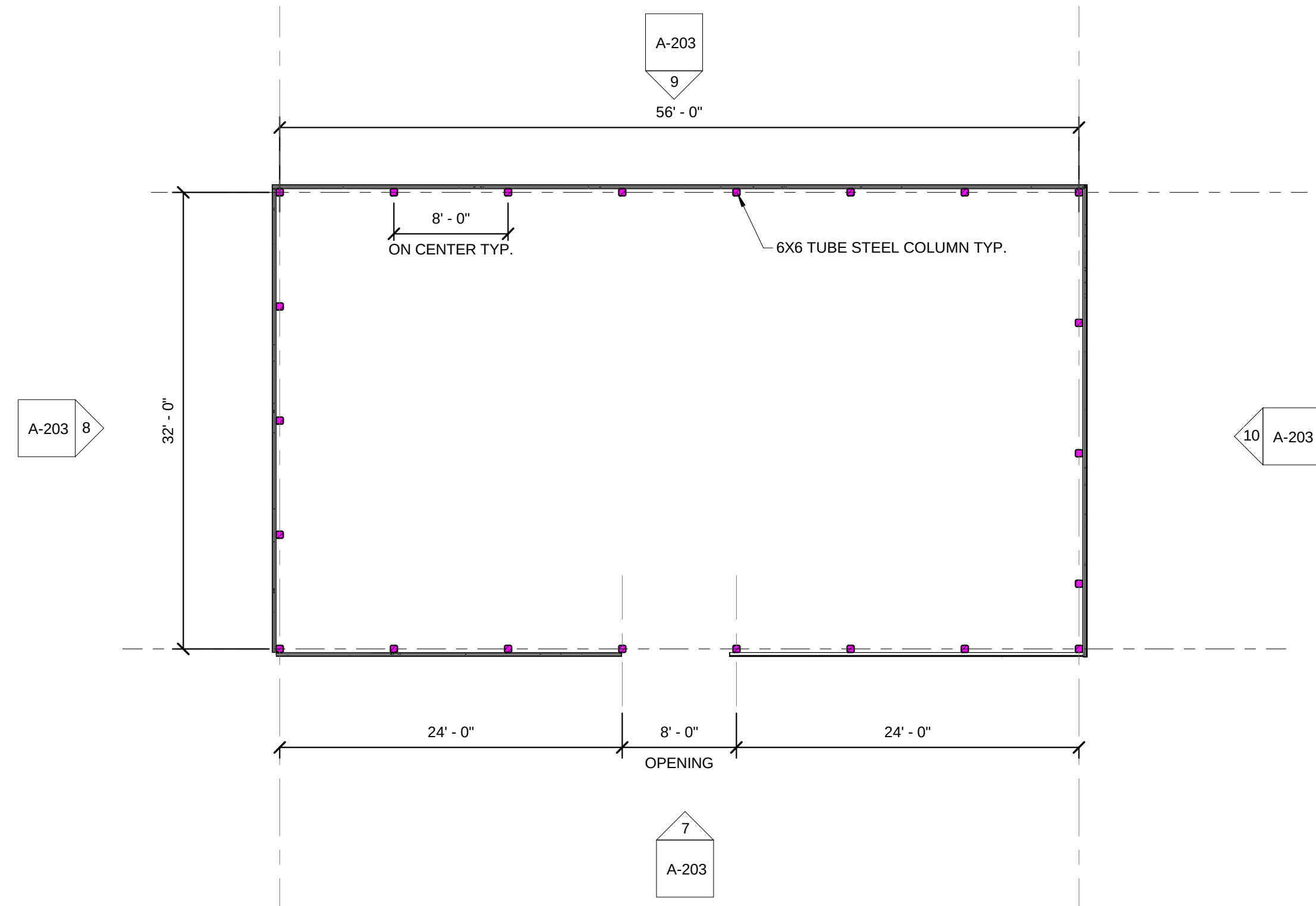
4 ELEVATION - SIDE  
SCALE: 1/4" = 1'-0"



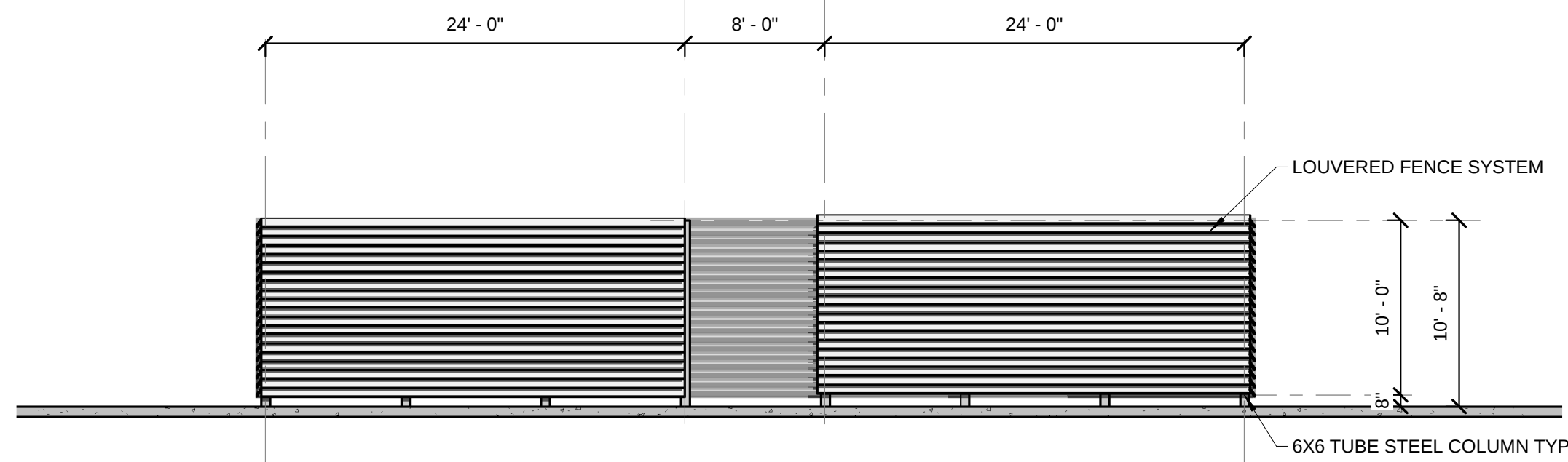
5 ELEVATION - SIDE  
SCALE: 1/4" = 1'-0"



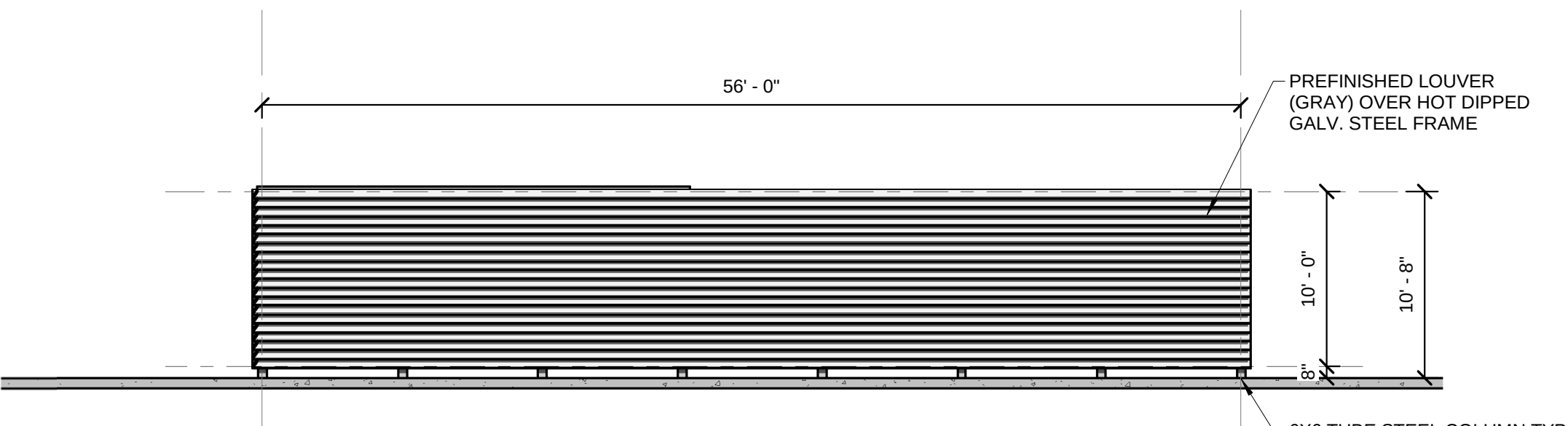
PARKING CANOPY CONCEPTUAL RENDERINGS



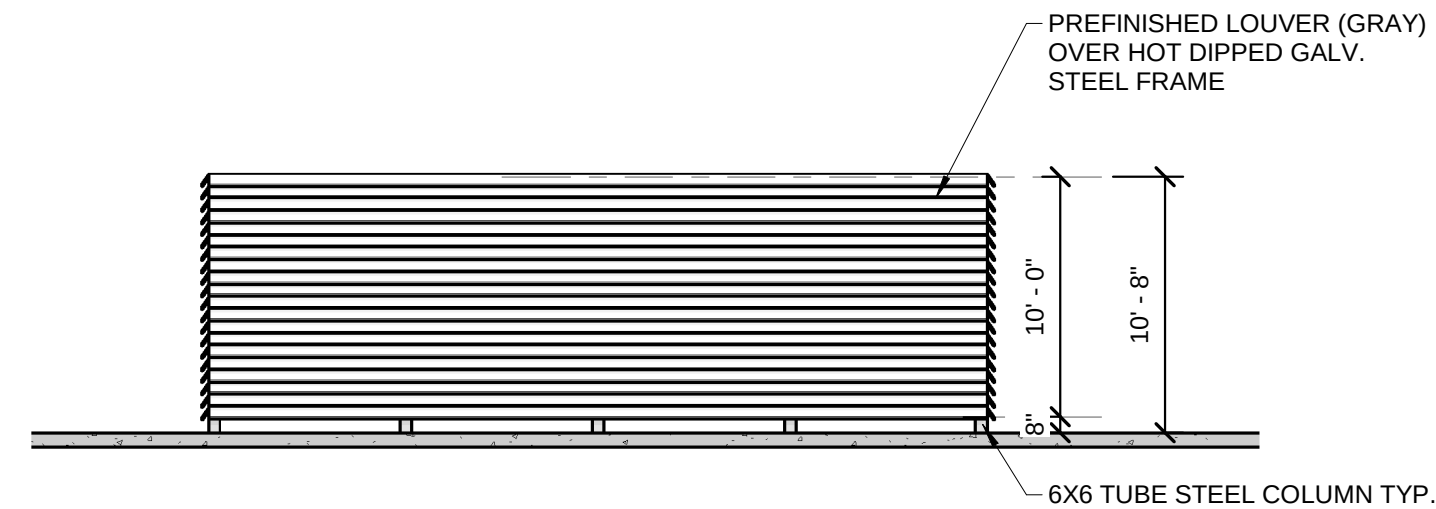
6 EQUIPMENT SCREEN PLAN  
SCALE: 1/8" = 1'-0"



7 EQUIPMENT SCREEN ELEVATION - BUILDING SIDE  
SCALE: 1/8" = 1'-0"



9 EQUIPMENT SCREEN FRONT ELEVATION  
SCALE: 1/8" = 1'-0"



8 EQUIPMENT SCREEN SIDE ELEVATION  
SCALE: 1/8" = 1'-0"



10 EQUIPMENT SCREEN SIDE ELEVATION  
SCALE: 1/8" = 1'-0"





# Planning & Zoning Memo



TO: Planning and Zoning Commission  
FROM: Evann Martin, Assistant Planner  
DATE: September 22, 2022  
RE: General Regulations Discussion #2

## INTRODUCTION:

Staff has begun developing a draft for an amendment to the General Regulations within the Zoning Ordinance which includes a variety of topics including accessory buildings, fences, decks, communication towers, etc. Over the past few years, a number of issues have come up related to our current general regulations. These issues include missing components and unknown intents and purposes. Based upon our initial research, it also appears that our current ordinance is not consistent with our neighboring communities.

Our goal with this re-write is to create clear and comprehensive regulations that are comparable to other communities in the Des Moines Metro Area, while ensuring that the vision for our growing community is upheld.

Below is an outline of the proposed draft amendment for some of the general regulation sections to begin the discussion. Note that this is a complete re-write, therefore a redline copy has not been provided. For your reference, the existing ordinances are provided.

## PROPOSED AMENDMENTS:

### Decks

- Decks must meet the 5' side and rear yard setback, with a 10' setback in secondary street frontage yards.
- All decks within the front yard shall be at least 15' from the front property line.
- Decks shall project no more than 8' from the front of the primary building and shall be connected to the non-garage portion of the building.
- Decks covered by a permanent roof must comply with the primary building setbacks.
- Accessory structures, which include decks, shall occupy no more than 50% rear yard coverage and no more than 30% for side and front yards.

## **Outdoor Temporary Uses**

- Permit required except for the following:
  - Food trucks and pushcarts
  - Yard sales
  - Private parties on residential property
  - Sales held by non-profit organizations
  - Sales/events on public property with Council approval
- Temporary sales permitted up to 120 days per year
- Special events permitted up to 7 days per event
- Establish flat fee for permits and remove bond requirement
- Allow sales and events on any surface (grass, paving, gravel) but paved parking is required.
- Signage to meet the temporary sign requirements

## **Outdoor Storage**

- Permitted within industrial zoning districts only.
- All outdoor storage areas are required to be screened with opaque fence/wall or berm.
- In addition to the fence/wall or berm, landscaping will be required as part of the screening when outdoor storage areas are located along public right-of-way or non-industrial uses.
- Outdoor storage areas next to other industrial property will not be required to install landscaping as part of the screening.

## **Outdoor Product Display and Outdoor Sales**

- Products for display or sale in outdoor areas
- Items cannot be placed within parking stalls or drive lanes or interfere with site circulation
- Items to be 10 feet from property lines
- Items to be on a paved surface adjacent to the building or an approved accessory structure
- Alternative surfacing may be considered based on the nature of the product being displayed.
- Maintain minimum 5-foot walking paths

## **Automobile Sales and Display Lots**

- Minimum one acre lot

- Maintain minimum 25% open space
- Minimum 2000 square foot building, and not permitted as a tenant within a multi-tenant building
- Property must contain a parking lot capable of displaying a minimum of 15 vehicles in addition to the required parking spaces for the building.

#### **DISCUSSION POINTS:**

Below are some discussion points staff would like the Commission to consider and provide guidance regarding the proposed changes to the general regulations.

1. Based on our last discussion regarding decks in the front yard, does the 8' maximum projection address your concerns with area? The last recommendation was to limit decks to 50 sf which the Commission felt was too small.
2. For temporary sales and special events, does the Commission have any thoughts on how to regulate the timeframe for each sale/event period? For example, if a business wants two 60-day sales periods rather than one 120-day, would that be acceptable? If a business wants seven one-day events per year, would that be acceptable or should the businesses only be allowed to hold a certain number of events per year? Are these time frames too long or short?
3. When bringing existing properties into compliance, would the Commission be open to allowing alternative materials (i.e. metal or composite decking) for dumpster enclosures instead of requiring masonry as is required today? All new development would still be required to construct enclosures with masonry.

#### **CITY OF GRIMES**

Evann Martin  
Assistant Planner