



## #2022-140 U Haul Final PUD Amendment Project Review for Planning and Zoning Commission

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<b><u>Meeting Date:</u></b>	November 2, 2022
<b><u>Request:</u></b>	Final PUD Amendment to allow a new storage building with variations from the maximum 70% impervious surface coverage to allow 76.06% and from the maximum 150 square feet of signage to allow 726.5 square feet.
<b><u>Location:</u></b>	4504 Northwest Highway
<b><u>Acreage:</u></b>	Approximately 8.2 acres
<b><u>Zoning:</u></b>	M PUD Manufacturing
<b><u>Surrounding Properties:</u></b>	North: M Manufacturing South: B-2 PUD General Commercial East: M PUD Manufacturing West: B-2 PUD General Commercial
<b><u>Staff Contact:</u></b>	Elizabeth Maxwell (815.356.3615)

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### **Background:**

- **Previous Approvals:**
  - The property was annexed in 2016 and zoned M PUD. They received a Special Use Permit for Bulk Inside Storage and Outside Storage.
  - June 7, 2022, they received a sign variation to paint the water tower with 260 square feet of signage.
- **Existing Use:** U Haul operates the facility for inside and outside storage.

### **Development Analysis:**

#### **Request:**

- To allow a new bulk storage building for the storing of the U Boxes, which are the pack your own portable storage and moving containers with variations for impervious surface coverage and wall signage.

#### **Land Use:**

- **Zoning:** The site is zoned M PUD Manufacturing. The zoning district is appropriate for the storage use.
- **Land Use:** The land use map shows the area as Commerce. This land use designation is appropriate for service and storage.

Elevations

- U-Haul provided an elevation with various materials and design elements
- Window bays provide relief to the wall panels.
- The building is mainly comprised of a paneling system, which features Surrey Beige and Sandstone colored panels.
- The main front corner of the building includes a wood style paneling and brick veneer base.
- The “Lyrical Articulated Design Element” panels project from the façade and create interest, shade and shadow, and pick up colors from other parts of the façade.
- There is a teal top cap over the front corner which really stands out against the dark wood paneling. This teal is also repeated above the windows.
- Faux storage building doors are incorporated into the corners of the building. It is suggested that these be removed and replaced with brick veneer.

Signage:

- Wall signage is proposed on two sides of the building. The following table lists the signs and the sizes:

Sign	Square Footage	Quantity	Total Square Footage
U-Haul Logo Cabinet Sign	54 SF	2	108 SF
U-Box Cabinet Sign	165 SF	2	330 SF
Moving Containers Channel Letters	81 SF	2	162 SF
Self-Storage Channel Letters	63.25	2	126.5 SF

**Total 726.5 square feet**

- Staff is suggesting reducing the signage by eliminating duplicate signs. Since the main building already states Self-Storage and the water tower states U-Haul, these signs could be eliminated from this building. Eliminating these signs would leave the U-Box Cabinet Sign and the Moving Containers channel letters taking the signs down to 492 square feet.

**Findings of Fact:**

**Final Planned Unit Development Amendment**

The petitioner is requesting approval of an amendment to a Final Planned Unit Development to allow a new bulk inside storage building with variations to allow 76.06% impervious and 726.5 square feet of signage. A Planned Unit Development is a Special Use and Special Uses require separate review because of their potential to impact surrounding properties and the orderly development of the City.

Section 2-400 B General Standards for all special uses in the Unified Ordinance establishes standards for all special uses in Crystal Lake. Briefly, the criteria are as follows:

1. The use is necessary or desirable, at the proposed location, to provide a service or facility which will further the public convenience and general welfare.  
 *Meets*             *Does not meet*
2. The use will not be detrimental to area property values.  
 *Meets*             *Does not meet*
3. The use will comply with the zoning districts regulations.  
 *Meets*             *Does not meet*
4. The use will not negatively impact traffic circulation.  
 *Meets*             *Does not meet*
5. The use will not negatively impact public utilities or municipal service delivery systems. If required, the use will contribute financially to the upgrading of public utilities and municipal service delivery systems.  
 *Meets*             *Does not meet*
6. The use will not negatively impact the environment or be unsightly.  
 *Meets*             *Does not meet*
7. The use, where possible will preserve existing mature vegetation, and provide landscaping and architecture, which is aesthetically pleasing, compatible or complementary to surrounding properties and acceptable by community standards.  
 *Meets*             *Does not meet*
8. The use will meet requirements of all regulating governmental agencies.  
 *Meets*             *Does not meet*
9. The use will conform to any conditions approved as part of the issued Special Use Permit.  
 *Meets*             *Does not meet*
10. The use will conform to the regulations established for specific special uses, where applicable.  
 *Meets*             *Does not meet*

**Planned Unit Development Variation**

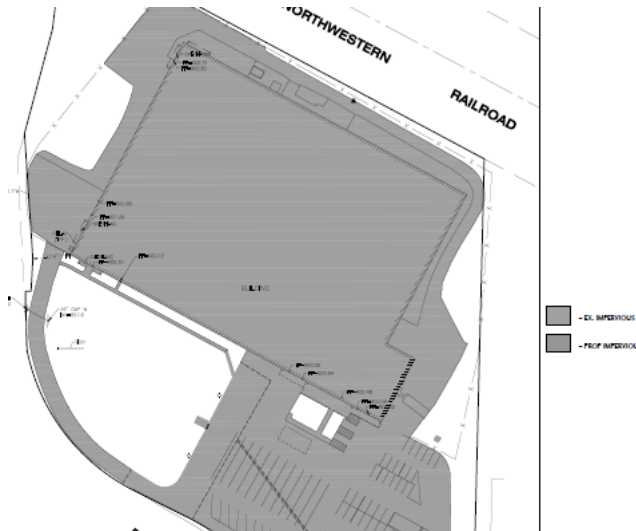
The purpose of Planned Unit Developments is to encourage and allow more creative and imaginative design of land developments than is possible under district zoning regulations. Planned Unit Developments are, in the form of relief from compliance with conventional zoning ordinance site and design therefore, intended to allow substantial flexibility in planning and designing a proposal. This flexibility is often requirements.

Ideally, this flexibility results in a development that is better planned, contains more amenities, and is ultimately more desirable than one that would have been produced through compliance with typical zoning ordinance and subdivision controls.

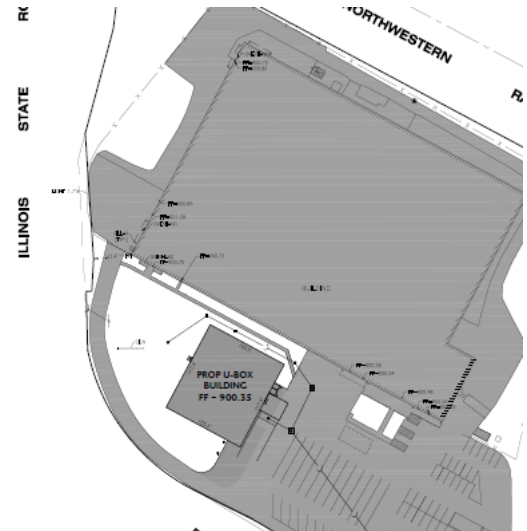
Therefore more lenient site requirements may be granted where the Planned Unit Development contains features not normally required of traditional developments. If the evidence is not found to justify such conditions, that fact shall be reported to the City Council with a recommendation that the variation request be lessened or denied.

Variations are being requested from:

- Article 3 from the maximum impervious surface coverage of 70%. The new building and paving to the building will increase the total impervious coverage to 75.6%, which is a variation of 5.6%.



**Existing**



**Proposed**

- U Haul is requesting a variation from Article 4-1000 Commercial Signs to allow signage on the new building at 726.5 square feet.
  - Staff is suggesting reducing the signage by eliminating redundant signs “Self-Storage” and “U-Haul” bringing it to 492 square feet.



Signs can be evaluated based on certain for the hardship:

- A. The proposed variation will not serve merely as a convenience, but alleviate some demonstrable and unusual hardship.
- B. The proposed variation will not be materially detrimental to the public welfare or injurious to other property or improvements in the neighborhood. The proposed variation will not by itself, or with other signs, contribute to the creation of a visual distraction which may lead to personal injury or a substantial reduction in the value of the property.
- C. The proposed variation is in harmony with the intent, purpose and objectives of the Ordinance.

**Comprehensive Land Use Plan 2030 Vision Summary Review:**

The Comprehensive Plan designates the subject property as Commerce, which allows for existing and future commercial and business uses. The following goals are applicable to this request:

Land Use – Commerce

**Goal: Maintain a dynamic and sustainable base of commercial uses that provides a solid tax base, goods, services and jobs to the city as well as the surrounding region through coordination in the Unified Development Ordinance, Comprehensive Land Use Plan and Economic Development Strategic Plan.**

This can be accomplished with the following supporting actions:

**Supporting Action:** Promote, retain and attract businesses that provide a diverse tax base.

**Recommended Conditions:**

If a motion is made to recommend approval of the petitioner’s request, the following conditions are recommended:

1. Approved plans, to reflect staff and advisory board comments, as approved by the City Council:
  - A. Application (Heimsoth, received 06/20/22).
  - B. Elevations (a&m, dated 09/30/22, received 10/04/22)
  - C. Engineering Plans (Condon, dated 10/14/22, received 10/24/22)
  - D. Impervious Surface Exhibit (Condon, dated 10/14/22, received 10/24/22)
  - E. Engineering Report, dated 10/14/22, received 10/24/22)
2. The signage on the new U Box storage building shall be reduced to 492 square feet.
3. Work with city staff to replace the faux storage unit doors at the corners of the building with a brick veneer to complement the main building.
4. The colored “Lyrical Articulated Design Elements” attached to the ATAS Sandstone portion of the façade cannot be illuminated.

5. The petitioner shall comply with all of the requirements of the Community Development Department.

PIQ Map  
4504 Northwest Highway



# City of Crystal Lake Development Application

Office Use Only

File # \_\_\_\_\_

Project Title: U-Haul Crystal Lake U-Box Building

## Action Requested

Annexation

Comprehensive Plan Amendment

Conceptual PUD Review

Final PUD

Final PUD Amendment

Final Plat of Subdivision

Preliminary PUD

Preliminary Plat of Subdivision

Rezoning

Special Use Permit

Variation

Other

## Petitioner Information

Name: Brian Heimsoth

Address: 2482 Technology Dr.  
Elgin IL, 60124

Phone: 847-920-5859

Fax: 224-699-9650

E-mail: brian@bcentinc.com

## Owner Information (if different)

Name: UH STORAGE DE LTD PRTNRSH

Address: U HAUL MOVING PRTNRS INC  
PO BOX 29046  
PHOENIX, AZ, 85038-9046

Phone: 602-263-6555 / 815-477-7389

Fax: N/A

E-mail: heather\_skelton@uhaul.com

## Property Information

Project Description: Construction of a 13,775 U-Box storage building with loading dock.

Project Address/Location: 4504 Northwest Hwy. Crystal Lake, IL 60014

PIN Number(s): 19-03-451-001, 002



**Development Team**

Please include address, phone, fax and e-mail

Developer: B+C Enterprises, Inc. 2482 Technology Drive, Elgin, IL 60124 Brian Heimsoth  
815-482-5722 brian@bcentinc.com; heather@bcentinc.com

Architect: RB Custom Designs, Inc. Rick Bierman 2108 Johnson Rd, Johnsonburg, IL 60051  
815-759-9459 rbcusdesgn@comcast.net

Attorney: UHAHL Legat Department, 2727 N. Central Ave., Phoenix, AZ 800-528-0463  
85004-1120  
J. Condon & Associates, Inc. Meghan Michel, P.E. 5415 Business Parkway, Ringwood IL 60072  
815-404-1358 mmichel@jcondoninc.com

Engineer: \_\_\_\_\_

Landscape Architect: HKM Architects + Planners; Mark Kurensky - mkurensky@hkm-arch.com  
847-392-9200 - 43 S. Vail Ave; Arlington Heights, IL 60005

Planner: \_\_\_\_\_

Surveyor: Vanderstappen Land Surveying, Inc. Arthur Gritmacker artg@vandersinc.com (815) 337-8310  
1316 N. Madison Street Woodstock IL 60098

Other: \_\_\_\_\_

**Signatures**

Brian Heimsoth 6/20/22  
PETITIONER: Print and Sign name (if different from owner) Date

As owner of the property in question, I hereby authorize the seeking of the above requested action.

Heather Skelton 6/10/22  
OWNER: Print and Sign name Date

NOTE: If the property is held in trust, the trust officer must sign this petition as owner. In addition, the trust officer must provide a letter that names all beneficiaries of the trust.

PUBLIC NOTICE BEFORE THE PLANNING AND ZONING COMMISSION OF THE CITY  
OF CRYSTAL LAKE, MCHENRY COUNTY, ILLINOIS

IN THE MATTER OF THE PETITION OF  
UH Storage DE LTD Partnership

LEGAL NOTICE

Notice is hereby given in compliance with the Unified Development Ordinance of the City of Crystal Lake, Illinois that a public hearing will be held before the Planning and Zoning Commission upon the application by Heather Skelton, representing UH Storage DE LTD Partnership for a Final Planned Unit Development Amendment, relating to the property at 4504 Northwest Highway in Crystal Lake, Illinois 60014. PIN: 19-03-451-001.

This application is filed for the purpose of seeking an amendment to an approved Final Planned Unit Development to allow a new storage building with variations from the maximum 70% impervious surface coverage to allow 76.06% and from the maximum 150 square feet of signage to allow 726.5 square feet and any other changes as presented at the hearing, pursuant to Article 3, Article 4 and Article 9. Plans for this project can be viewed at the Crystal Lake Community Development Department at City Hall.

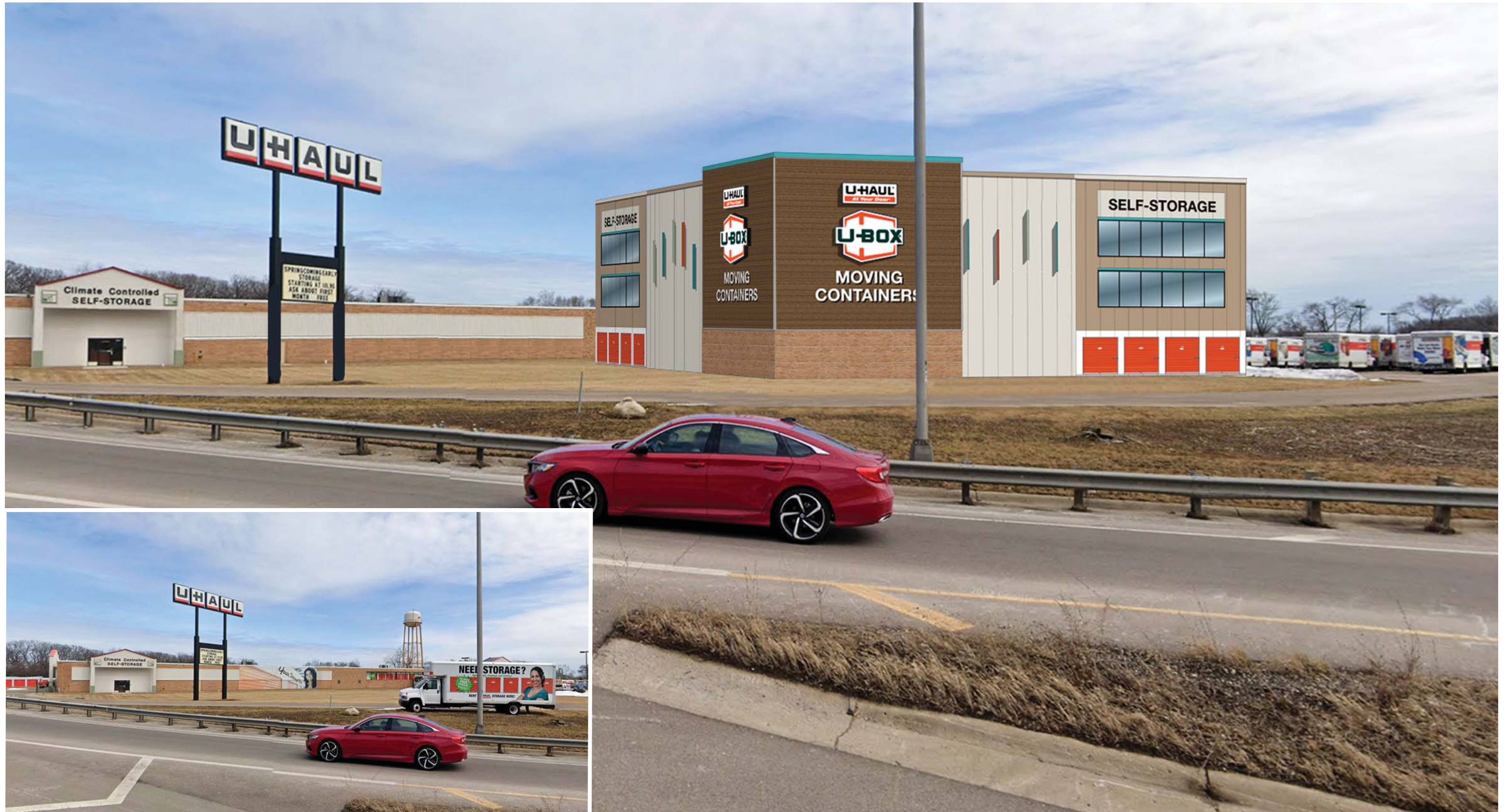
A public hearing before the Planning and Zoning Commission for this request will be held at 7:00 p.m. on Wednesday November 2, 2022, at the Crystal Lake City Hall, 100 West Woodstock Street, at which time and place any person determining to be heard may be present.

Jeff Greenman, Chairperson  
Planning and Zoning Commission  
City of Crystal Lake

(Published in the Northwest Herald on October 15, 2022) 2025143

# MOVING & STORAGE AT CRYSTAL LAKE

4504 Northwest Hwy., Crystal Lake, IL 60014



# MOVING & STORAGE AT CRYSTAL LAKE

4504 Northwest Hwy., Crystal Lake, IL 60014



ARCHITECTURAL WOOD PANELING ENHANCES RETAIL APPEARANCE

ARTISTIC USE OF MATERIAL CREATES AN EXTRUDED LYRICAL ARTICULATED DESIGN ELEMENT

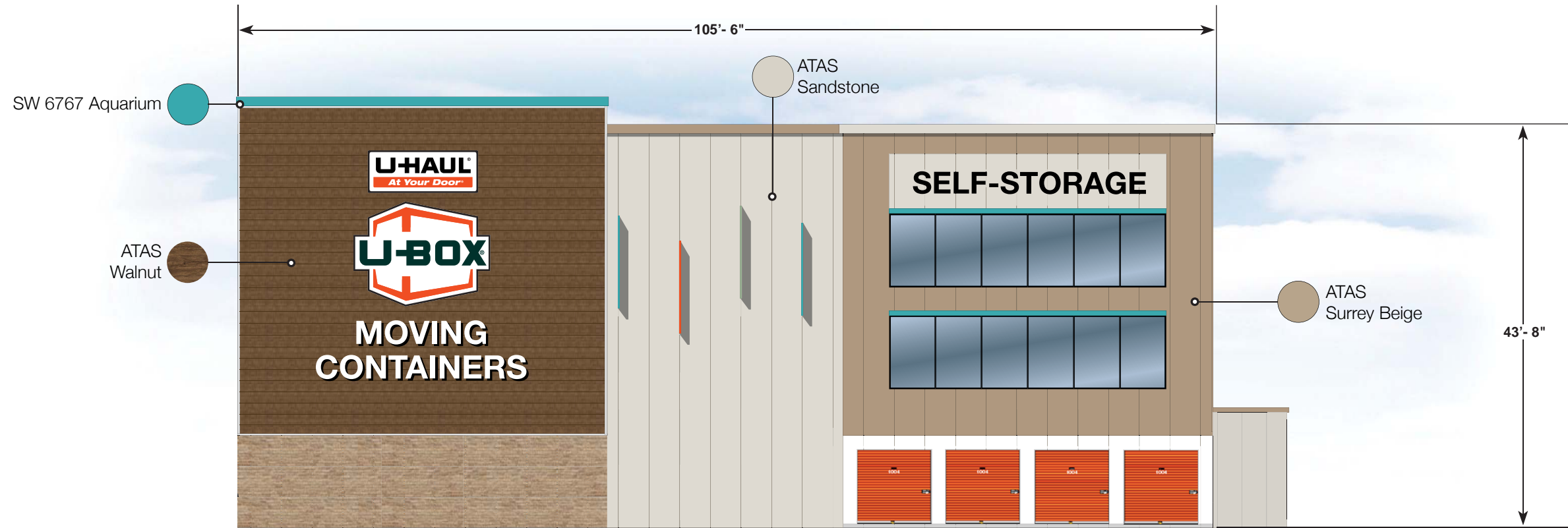
3" THICK IMP MEETS SUSTAINABLE LEED STANDARDS BY PROVIDING SUPERIOR R-VALUE INSULATION FOR GREATER THERMAL EFFICIENCY

WINDOWS ENHANCES RETAIL UNIFORMITY

BRICK VANNER TO MATCH EXISTING

# MOVING & STORAGE AT CRYSTAL LAKE

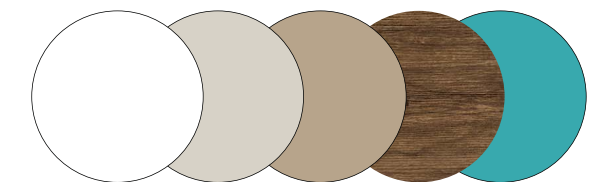
4504 Northwest Hwy., Crystal Lake, IL 60014



SOUTH ELEVATION

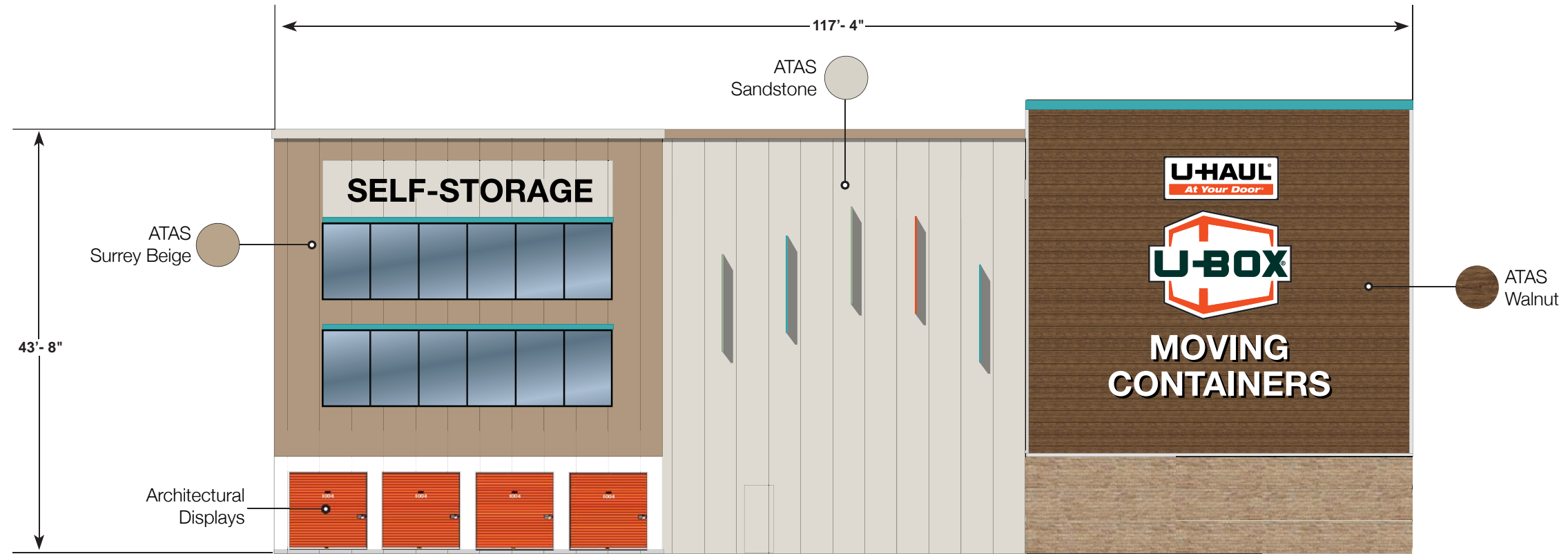


NORTH ELEVATION



# MOVING & STORAGE AT CRYSTAL LAKE

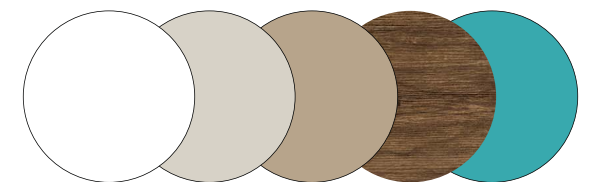
4504 Northwest Hwy., Crystal Lake, IL 60014



WEST ELEVATION

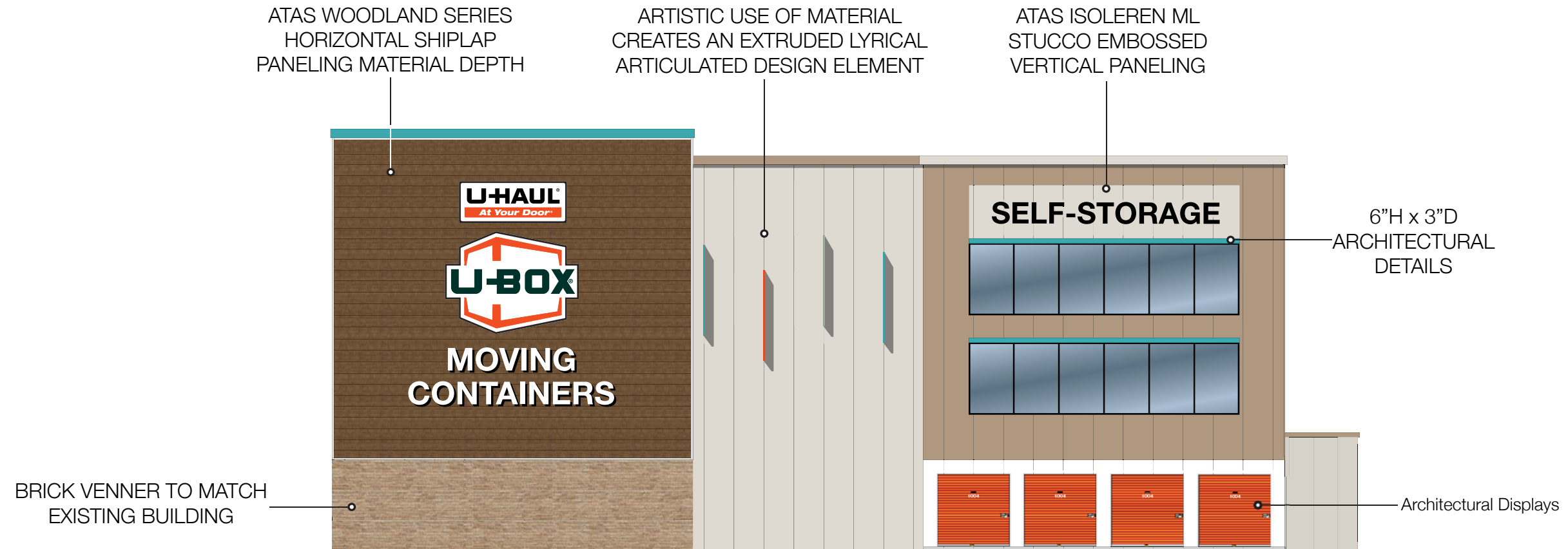


EAST ELEVATION

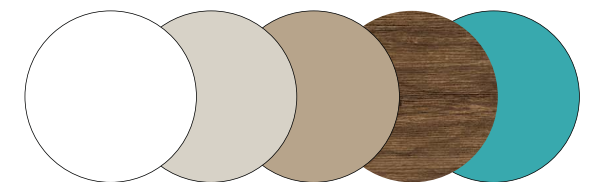


# MOVING & STORAGE AT CRYSTAL LAKE

4504 Northwest Hwy., Crystal Lake, IL 60014

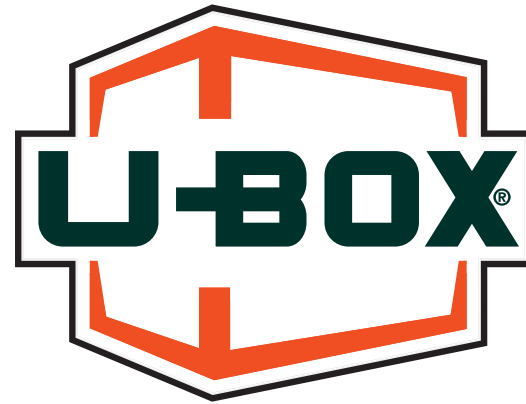


**SOUTH ELEVATION**





Cabinet Sign  
12'W X 4.5'H  
54 SQFT



Cabinet Sign  
15'W X 11'H  
165 SQFT

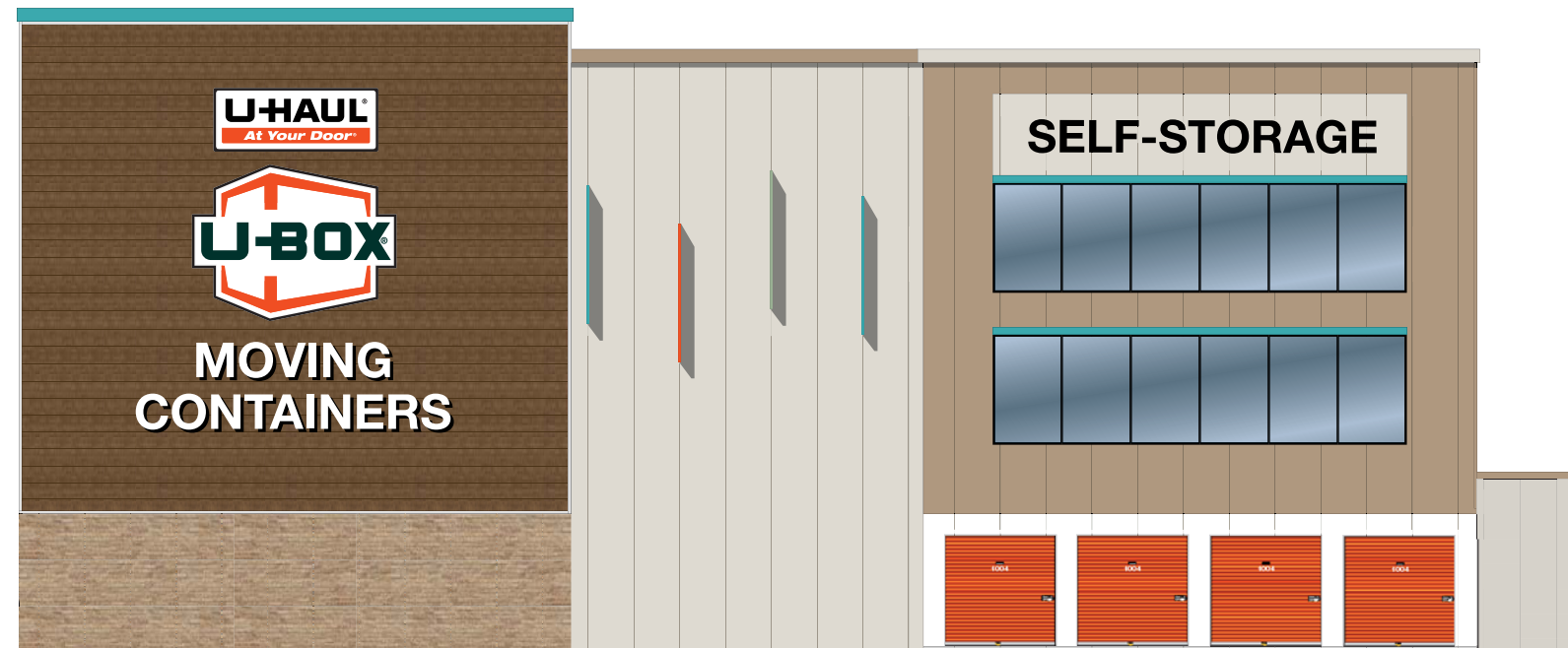
# SELF-STORAGE

PLASTIC FORMED  
CHANNEL LETTER  
25.3'W X 2.5'H  
63.25 SQFT

# MOVING CONTAINERS

PLASTIC FORMED  
CHANNEL LETTER  
14'W X 2.5'H 35 SQFT

PLASTIC FORMED  
CHANNEL LETTER  
23'W X 2.5'H 46 SQFT



SOUTH ELEVATION

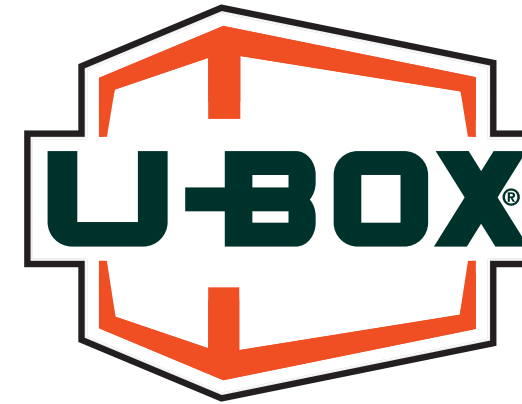


# SELF-STORAGE

PLASTIC FORMED  
CHANNEL LETTER  
25.3"W X 2.5"H  
63.25 SQFT



Cabinet Sign  
12'W X 4.5'H  
54 SQFT

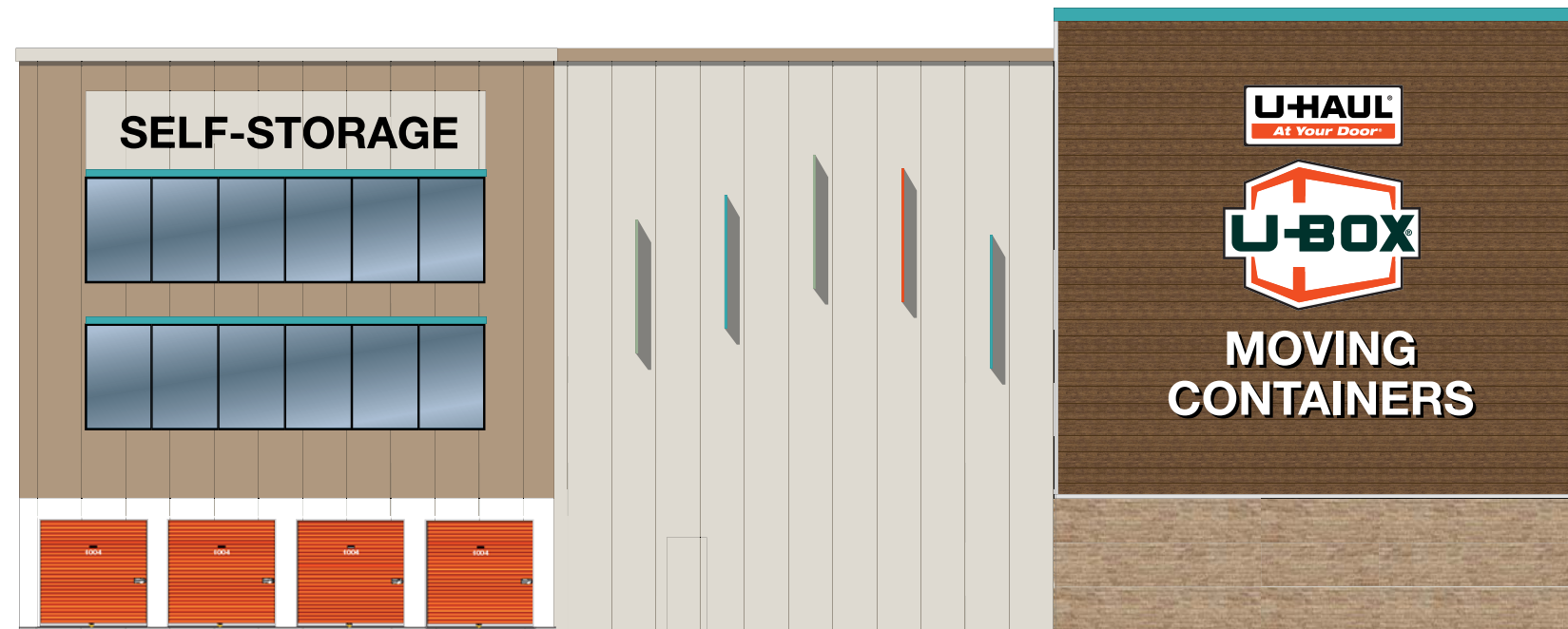


Cabinet Sign  
15'W X 11'H  
165 SQFT

# MOVING CONTAINERS

PLASTIC FORMED  
CHANNEL LETTER  
14'W X 2.5'H 35 SQFT

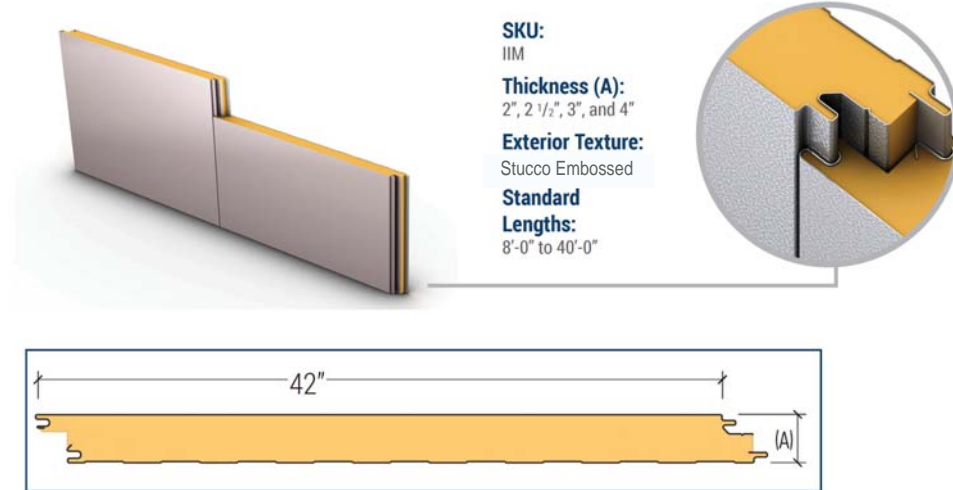
PLASTIC FORMED  
CHANNEL LETTER  
23'W X 2.5'H 46 SQFT



WEST ELEVATION

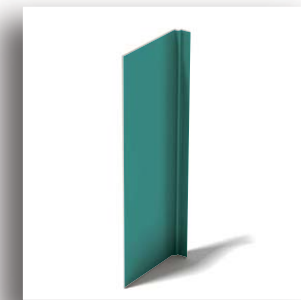
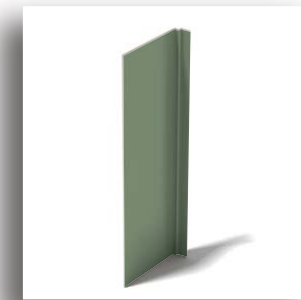


# Isoleren IM



SKU:  
IIM  
Thickness (A):  
2", 2 1/2", 3", and 4"  
Exterior Texture:  
Stucco Embossed  
Standard  
Lengths:  
8'-0" to 40'-0"

## 9"D Lyrical Articulated Design Element



ATAS  
WOODLAND SERIES  
HORIZONTAL LAP SIDING  
EMBOSSED WALNUT  
EXAMPLE



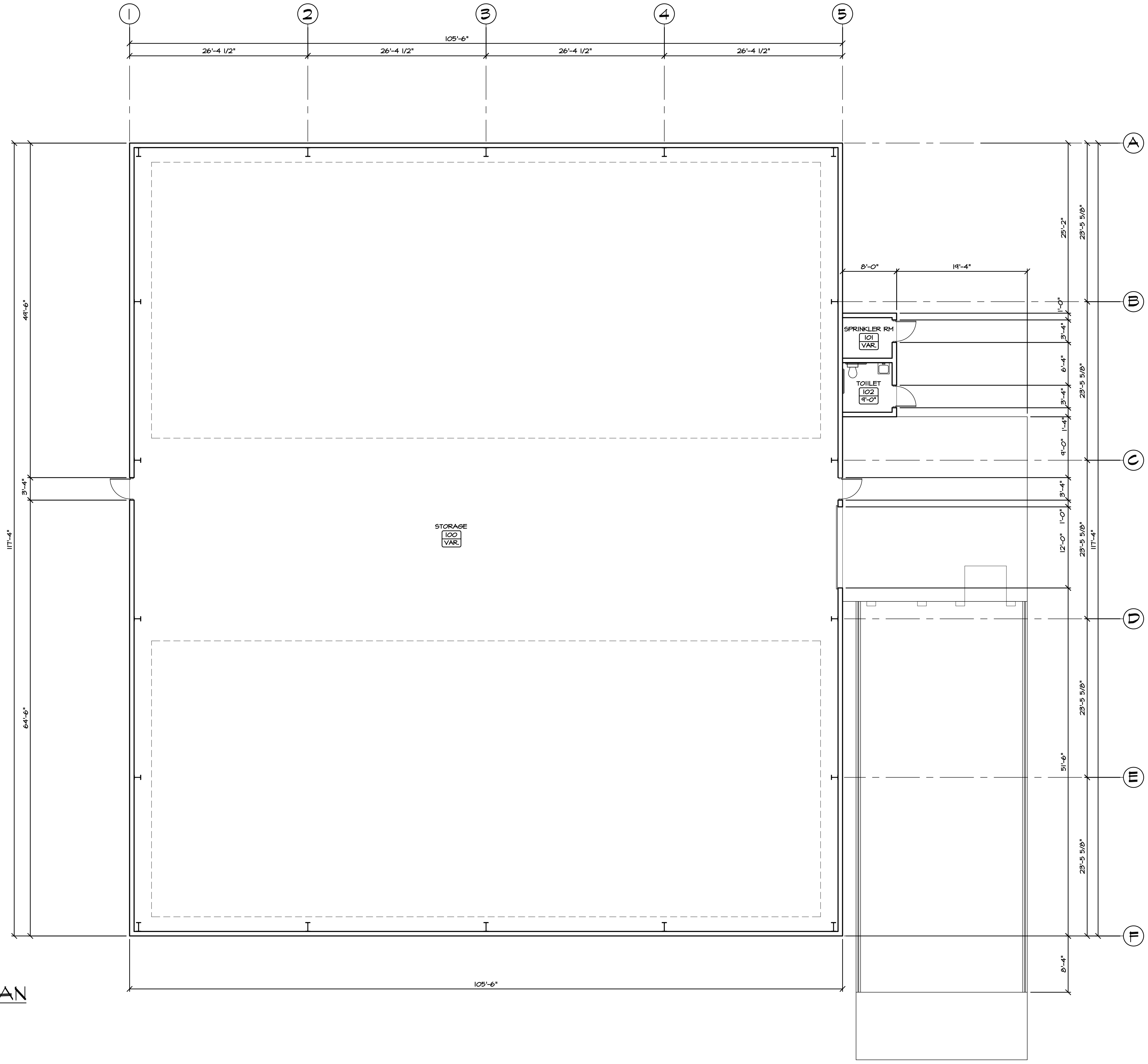
ATAS Isoleren  
STUCCO EMBOSSED  
EXAMPLE



BRICK Veneer  
TO MATCH EXISTING



**FLOOR PLAN**  
SCALE: 1/8" = 1'-0"



REVISIONS	BY

FLOOR PLAN

NEW BUILDING FOR:  
136050  
U-HALL OF CRYSTAL LAKE  
4504 NORTHWEST HIGHWAY  
CRYSTAL LAKE, ILLINOIS 60014

**R.B. CUSTOM DESIGNS INC.**  
2108 N. Johnsonburg Road  
Johnsonburg, Illinois 60051  
Phone: 815-756-4454 Fax: 815-307-8200

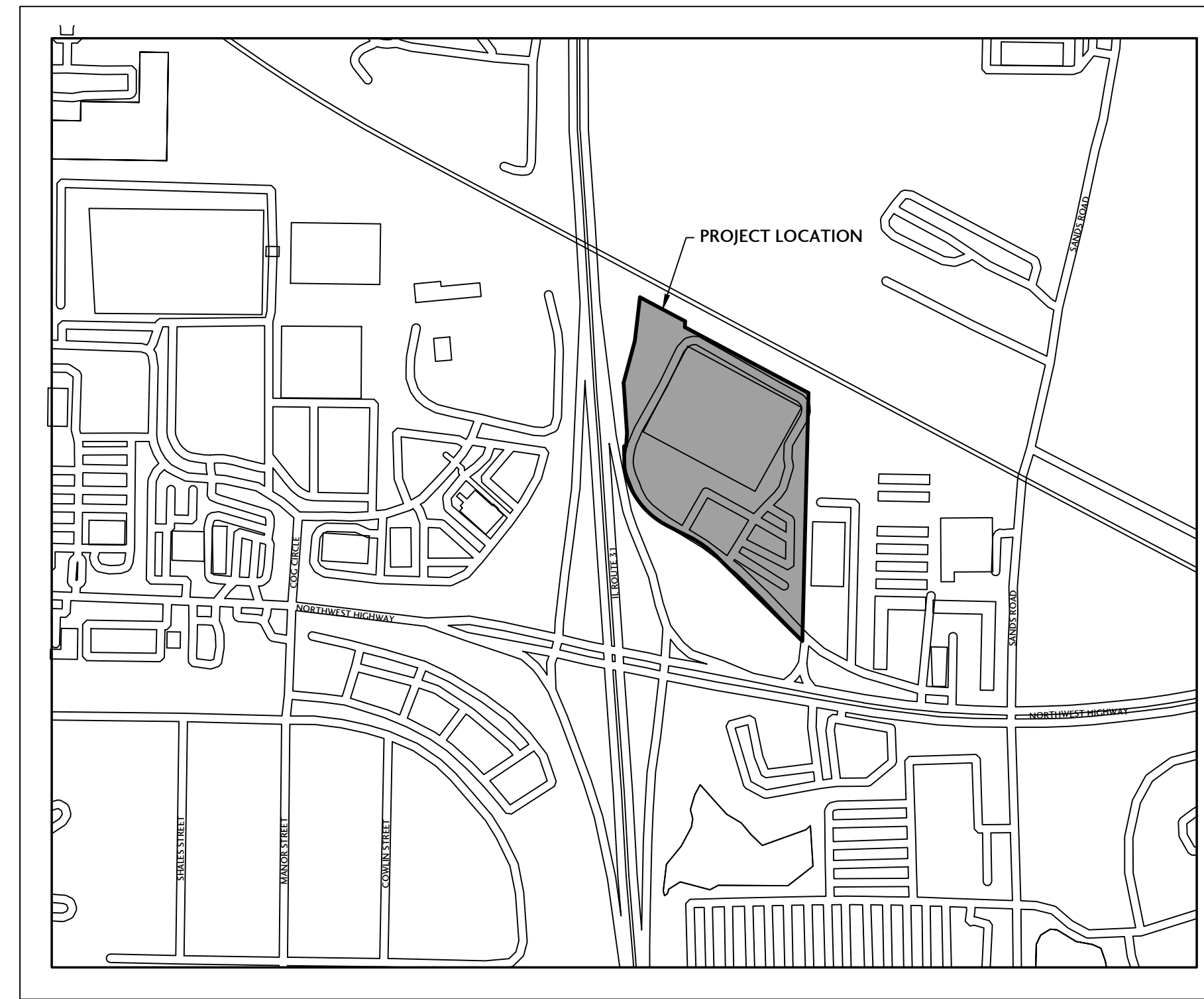
Date	10/25/22
Scale	AS NOTED
Drawn	RJB
Job	202280
Sheet	A-2
OF	2
Sheets	

© 2022 R.B. CUSTOM DESIGNS INC.

PRELIMINARY  
NOT FOR CONSTRUCTION

# ENGINEERING PLANS FOR U-HAUL CRYSTAL LAKE U-BOX BUILDING 4504 NORTHWEST HWY CRYSTAL LAKE, IL 60014

PLANS PREPARED FOR:  
**MR. BRIAN HEIMSOOTH**  
B&C ENTREPRISES  
2482 TECHNOLOGY DRIVE  
ELGIN, IL 60124



LOCATION MAP  
N.T.S.

EXISTING	DESCRIPTION	PROPOSED
⊖	DOWN GUY	⊖
⊖	DRAIN	⊖
⊖	ELECTRIC TELEPHONE TV RISERS	⊖
⊖	UTILITY HANDHOLE MANHOLE	⊖
⊖	ELECTRIC GAS WATER METER	⊖
⊖	UTILITY MARKER	⊖
⊖	LIFT STATION	⊖
⊖	SPIGOT	⊖
⊖	TRAFFIC CONTROL BOX	⊖
⊖	TRAFFIC CONTROL SIGNAL	⊖
⊖	TRANSFORMER	⊖
⊖	WELL	⊖
⊖	SOIL BORING	⊖
⊖	A/C UNIT	⊖
⊖	FLAG POLE	⊖
⊖	CURB INLET	⊖
⊖	SANITARY MANHOLE	⊖
⊖	STORM MANHOLE	⊖
⊖	STORM CATCH BASIN	⊖
⊖	STORM INLET	⊖
⊖	FLARED END SECTION	⊖
⊖	VALVE VAULT	⊖
⊖	WATER VALVE	⊖
⊖	FIRE HYDRANT	⊖
⊖	SIGN POST	⊖
⊖	LIGHT POLE	⊖
⊖	DOWNSPOUT	⊖
⊖	BOLLARD	⊖
⊖	UTILITY POLE	⊖
⊖	CLEANOUT	⊖
⊖	MAILBOX	⊖
⊖	WATERMAIN	⊖
⊖	SANITARY SEWER	⊖
⊖	STORM SEWER	⊖
⊖	FENCE	⊖
⊖	OVERHEAD ELECTRIC	⊖
⊖	ELECTRIC SERVICE	⊖
⊖	TELEPHONE SERVICE	⊖
⊖	GAS SERVICE	⊖
⊖	COMBINED SEWER	⊖
⊖	MAJOR CONTOUR	⊖
⊖	MINOR CONTOUR	⊖

**BENCHMARK**  
SITE BENCHMARK:  
CROSS IN HEADWALL  
ELEV=901.85 NAVD88



Know what's below.  
Call before you dig.

OPERATES  
24 Hours  
365 Days

CALL JULIE 1-800-892-0123  
WITH THE FOLLOWING:  
COUNTY MCHENRY  
CITY-TOWNSHIP CITY OF CRYSTAL LAKE  
SEC. & 1/4 SEC. NO.# SE 1/4 SEC 3, T43N, R8E  
48 Hours Before You Dig.  
EXCLUDING SAT., SUN., & HOLIDAYS

**SHEET INDEX:**  
C0.0 COVER SHEET  
C0.1 SPECIFICATIONS AND TYPICAL SECTIONS  
C1.0 EXISTING CONDITIONS AND DEMOLITION PLAN  
C2.0 OVERALL SITE PLAN  
C3.0 GRADING & EROSION CONTROL PLAN  
C4.0 STANDARD DETAILS  
C4.1 STANDARD DETAILS



I HEREBY CERTIFY THAT THE PLANS WITH THE FIRM'S NAME LISTED BELOW WERE PREPARED UNDER MY DIRECT SUPERVISION. FURTHERMORE, THE PROPOSED PROJECT WILL NOT RESULT IN DRAINAGE, EROSION OR RUNOFF WHICH ADVERSELY IMPACTS ADJACENT PROPERTIES OR THE PUBLIC RIGHT-OF-WAY. THE PLANS PREPARED MEET THE MINIMUM REQUIREMENTS OF THE MCHENRY COUNTY STORMWATER MANAGEMENT ORDINANCE. DATED AT RINGWOOD, ILLINOIS THIS 14th DAY OF OCTOBER, 2022

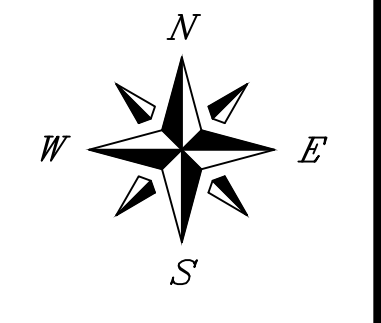
Meghan A. Michel

MEGHAN A. MICHEL, P. E., J. CONDON & ASSOCIATES, INC.  
ILLINOIS REG. PROF. ENGINEER No. 062-057170 EXPIRATION DATE 11-30-2023  
ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION FIRM NUMBER: 184-006759

**J. CONDON & ASSOCIATES, INC.**  
CONSULTING ENGINEERS  
5415 BUSINESS PARKWAY  
RINGWOOD, ILLINOIS 60072  
815.728.0068  
IL DESIGN FIRM # 184-006759

**B&C ENTREPRISES**

ELGIN,  
ILLINOIS



SCALE  
N/A  
ISSUE DATE  
06/03/2022  
PROJECT MANAGER  
MAM  
DESIGNER  
MAM  
QUALITY CONTROL  
JEC

**U-HAUL CRYSTAL LAKE U-BOX BUILDING**  
CRYSTAL LAKE, ILLINOIS

NO.	DATE	DESCRIPTION
1	10/14/22	PER CITY REVIEW AND NEW BUILDING SIZE

LIMITATION OF WARRANTY OF ENGINEER'S INSTRUMENTS OF SERVICE  
THE ENGINEER AND HIS CONSULTANTS DO NOT WARRANT OR GUARANTEE THE ACCURACY AND COMPLETENESS OF THE DELIVERABLES HEREIN BEYOND A REASONABLE DILIGENCE. IF ANY MISTAKES, OMISSIONS, OR DISCREPANCIES ARE FOUND TO EXIST WITHIN THE DELIVERABLES, THE ENGINEER SHALL BE PROMPTLY NOTIFIED SO THAT HE MAY HAVE THE OPPORTUNITY TO TAKE THE NECESSARY STEPS TO RESOLVE THEM. FAILURE TO PROMPTLY NOTIFY THE ENGINEER OF SUCH CONDITIONS SHALL ABSOLVE THE ENGINEER FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES OF SUCH FAILURE. ACTIONS TAKEN WITHOUT THE KNOWLEDGE AND CONSENT TO THE ENGINEER, OR IN CONTRADICTION TO THE ENGINEER'S DELIVERABLES FOR RECOMMENDATIONS, SHALL BECOME THE RESPONSIBILITY NOT OF THE ENGINEER BUT OF THE PARTIES RESPONSIBLE FOR TAKING SUCH ACTION.

PROJECT NUMBER  
BCEI-21046-3  
SHEET TITLE  
COVER SHEET  
SHEET NUMBER  
C0.0

PRELIMINARY  
NOT FOR CONSTRUCTION

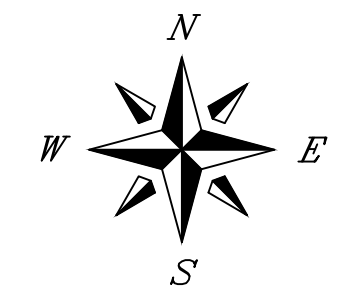




J. CONDON & ASSOCIATES, INC.  
CONSULTING ENGINEERS  
5415 BUSINESS PARKWAY  
RINGWOOD, ILLINOIS 60072  
815-728-0068  
IL DESIGN FIRM # 184-006759

**B&C ENTERPRISES**

ELGIN,  
ILLINOIS



SCALE  
1" = 60'  
ISSUE DATE  
06/03/2022

PROJECT MANAGER  
MAM  
DESIGNER  
MAM  
QUALITY CONTROL  
JEC

**U-HAUL CRYSTAL  
LAKE U-BOX  
BUILDING**  
CRYSTAL LAKE,  
ILLINOIS

NO.	DATE	DESCRIPTION
1	10/14/22	PER CITY REVIEW AND NEW BUILDING SIZE

SITE DATA TABLE	
EXISTING IMPERVIOUS AREA:	6.23 ACRES
EXISTING PERVIOUS AREA:	2.50 ACRES
EXISTING PROPERTY AREA:	8.73 ACRES
PROPOSED IMPERVIOUS AREA:	6.60 ACRES (16,139 SF NEW)
PROPOSED DISTURBANCE AREA:	0.95 ACRES

PROJECT NUMBER  
BCEI-21046-3

SHEET TITLE  
EXISTING  
CONDITIONS AND  
DEMOLITION PLAN

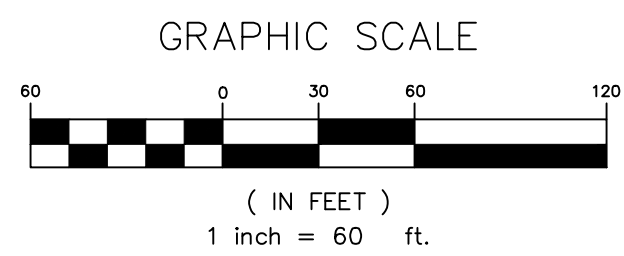
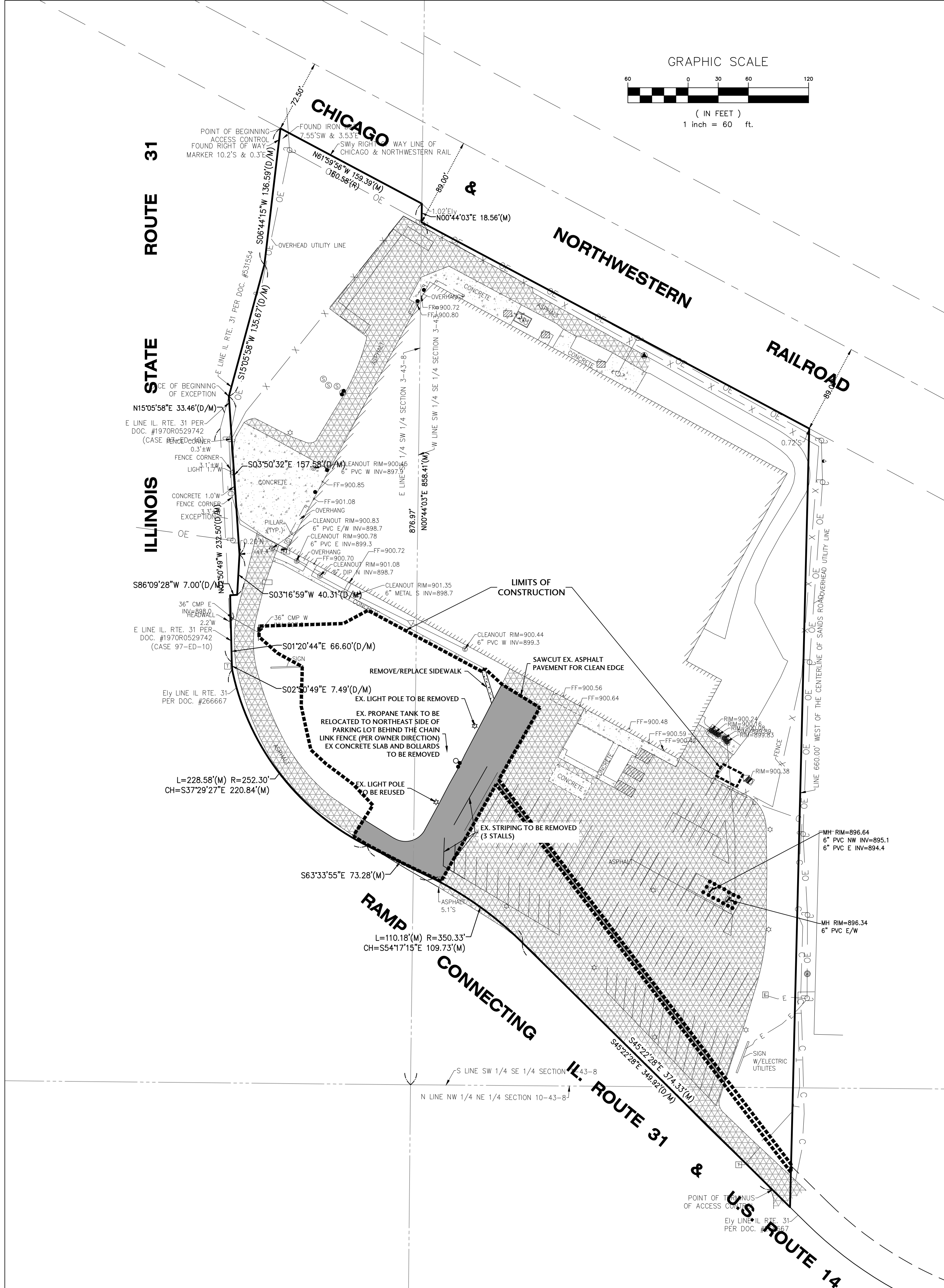
SHEET NUMBER

**C1.0**

- DEMOLITION NOTES**
- CONTRACTOR SHALL FIELD VERIFY EXISTING UTILITY LOCATIONS AND ELEVATIONS PRIOR TO DEMOLITION. SOME UTILITIES MAY NOT BE SHOWN.
  - COORDINATE WITH LOCAL AUTHORITIES AND UTILITY PURVEYORS FOR THE REMOVAL/RELOCATION OF EXISTING UTILITIES.
  - SAWCUTTING OF EXISTING PAVEMENT SHALL BE FULL DEPTH TO PROVIDE A CLEAN VERTICAL FACE TO MATCH PROPOSED PAVEMENT.
  - KEEP ALL PUBLIC AND PRIVATE STREETS CLEAR OF CONSTRUCTION DEBRIS, TRASH, AND MATERIALS. ALL ADJOINING PUBLIC AND PRIVATE PROPERTIES SHALL BE PROTECTED FROM DAMAGED CAUSED BY CONSTRUCTION.
  - ALL WASTE MATERIALS SHALL BE DISPOSED OF OFFSITE IN AN APPROVED FACILITY.
  - ALL WASTE MATERIALS SHALL BE REMOVED IN A MANNER THAT PREVENTS INJURY OR DAMAGE TO PERSONS, ADJOINING PROPERTIES AND/OR RIGHT-OF-WAY.
  - ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO DEMOLITION OPERATIONS.
  - THE SITE SHALL BE GRADED TO MINIMIZE ACCUMULATION OF WATER OR DAMAGE TO ANY FOUNDATIONS ON THE PREMISES OF ADJOINING PROPERTY.

**LEGEND**

- [Pattern] = EXISTING BITUMINOUS PAVEMENT
- [Pattern] = EXISTING CONCRETE SIDEWALK
- [Pattern] = EXISTING GRAVEL
- [Pattern] = EXISTING BUILDING
- [Pattern] = PAVEMENT TO BE REMOVED
- [Pattern] = CONCRETE PAVEMENT TO BE REMOVED
- [Dashed Line] = FULL DEPTH SAWCUT
- [Thick Dashed Line] = LIMITS OF WORK AREA

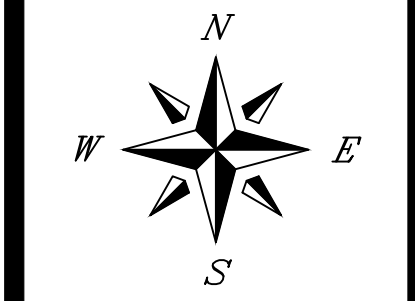




J. CONDON & ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 5415 BUSINESS PARKWAY  
 RINGWOOD, ILLINOIS 60072  
 815.728.0068  
 IL DESIGN FIRM # 184-006759

**B&C ENTERPRISES**

ELGIN,  
 ILLINOIS



SCALE  
 1" = 30'  
 ISSUE DATE  
 06/03/2022  
 PROJECT MANAGER  
 MAM  
 DESIGNER  
 MAM  
 QUALITY CONTROL  
 JEC

**U-HAUL CRYSTAL  
 LAKE U-BOX  
 BUILDING**  
 CRYSTAL LAKE,  
 ILLINOIS

NO.	DATE	DESCRIPTION
1	10/14/22	PER CITY REVIEW AND NEW BUILDING SIZE

PROJECT NUMBER  
**BCEI-21046-3**  
 SHEET TITLE  
**OVERALL SITE PLAN**  
 SHEET NUMBER  
**C2.0**



**LEGEND**

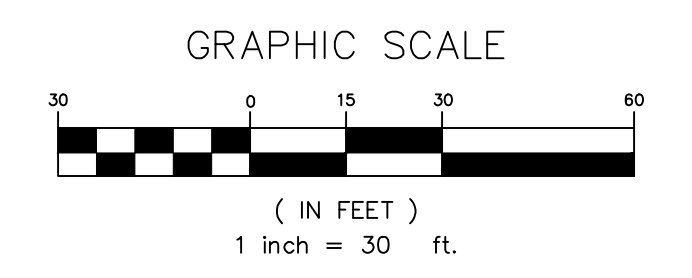
- = EXISTING BITUMINOUS PAVEMENT
- = EXISTING CONCRETE PAVEMENT
- = EXISTING CONCRETE SIDEWALK
- = EXISTING BUILDING
- = PROPOSED BUILDING
- = PROPOSED PARKING LOT PAVEMENT
- = PROPOSED HEAVY DUTY PAVEMENT
- = PROPOSED CONCRETE PAVEMENT
- = PROPOSED CONCRETE SIDEWALK

**STORM SEWER TAGS**

- P1. PROP 12" FES W/GRATE  
INV = 897.00
- P2. PROP 58 LF 12" ST SEWER @ 0.86%
- P3. PROP CB TC 3' DIA, T8GR  
RIM = 899.50  
INV = 896.50 (SW, SE)
- P4. PROP 41 LF 12" ST SEWER @ 0.98%
- P5. PROP CB TC 3' DIA, T8GR  
RIM = 899.25  
INV = 896.10 (E, W)
- P6. PROP 85 LF 12" ST SEWER @ 0.53%
- P7. PROP CB TC 3' DIA, T8GR  
RIM = 899.30  
INV = 895.65 (E, W)
- P8. PROP 38 LF 12" ST SEWER @ 0.53%
- P9. PROP CB TC 3' DIA, T8GR  
RIM = 899.35  
INV = 895.45 (NW, SE)
- P10. PROP 60 LF 12" ST SEWER @ 0.50%
- P11. PROP CB TA, 4' DIA, TIF OL  
W/ SNOUT DEBRIS HOOD  
RIM = 899.00  
INV = 895.15 (N)  
INV = 893.90 (W, SE)
- P12. PROP CB TA, 3' DIA, TIF OL  
RIM = 896.25  
INV = 894.15
- P13. PROP 33 LF 12" ST SEWER @ 0.76%
- P14. PROP 477 LF 15" ST SEWER @ 0.30%
- P15. PROP 15" FES W/GRATE  
INV = 892.45

**OVERALL NOTES**

1. ALL SIGNING AND PAVEMENT MARKINGS SHALL MEET MUTCD STANDARDS.
2. PAVEMENT MARKINGS TO BE 4" WIDE PAINT UNLESS OTHERWISE NOTED.
3. ALL ACCESSIBLE PARKING SIGNS (R7-8) SHALL BE PLACED AT THE CENTER OR THE PARKING SPACE AND WITHIN 5' OF THE SPACE.
4. ALL DIMENSIONS ARE TO BACK OF CURB, EDGE OF PAVEMENT, AND OUTSIDE OF BUILDING FOUNDATION UNLESS OTHERWISE NOTED.
5. STRIPING DIMENSIONS ARE FROM CENTER TO CENTER OF PAVEMENT MARKING.

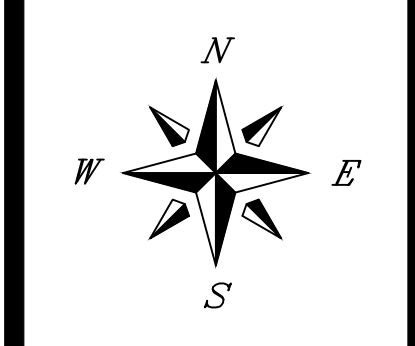




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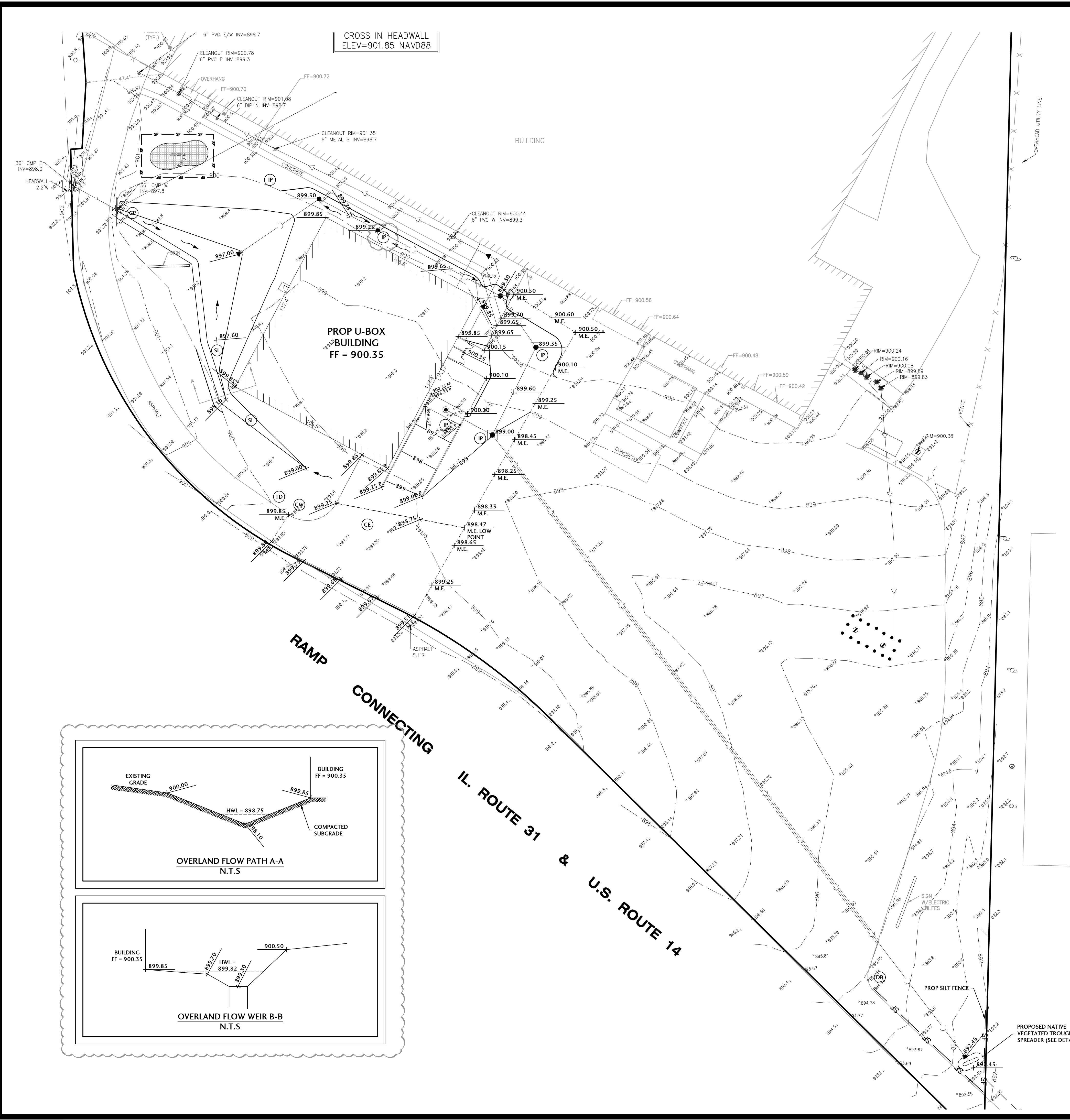


SCALE  
**1" = 30'**  
 ISSUE DATE  
 06/03/2022  
 PROJECT MANAGER  
 MAM  
 DESIGNER  
 MAM  
 QUALITY CONTROL  
 JEC

**U-HAUL CRYSTAL  
LAKE U-BOX  
BUILDING**  
 CRYSTAL LAKE,  
ILLINOIS

NO.	DATE	DESCRIPTION
1	10/14/22	PER CITY REVIEW AND NEW BUILDING SIZE

PROJECT NUMBER  
**BCEI-21046-3**  
 SHEET TITLE  
**GRADING PLAN**  
 SHEET NUMBER  
**C3.0**



**GRADING & EROSION CONTROL LEGEND**

DRAINAGE ARROW: X-XXX

OVERLAND OVERFLOW ROUTE: [Symbol]

SILT FENCE: SF

TEMPORARY TYPE II / TYPE III TRAFFIC BARRICADES: TB

OPEN-LID INLET PROTECTION: IP

RIP RAP PROTECTION: RR

SEDIMENT LOG (CURLEX SEDIMENT LOG 6") : SL

STABILIZED CONSTRUCTION ENTRANCE (USE EX. PAVEMENT): CE

PERMIT DISPLAY BOARD: DB

PORTABLE CONCRETE WASHOUT AREA: CW

ONSITE TRASH DUMPSTER: TD

SEDIMENT LOG CULVERT PROTECTION: CP

**PROPOSED ELEVATIONS:**

TOP OF CONCRETE CURB: C XXX.XX

EDGE OF CONCRETE/BITUMINOUS PAVEMENT: P XXX.XX

EDGE OF CONCRETE SIDEWALK: W XXX.XX

TOP OF WALL: T/W XXX.XX

BOTTOM OF WALL: B/W XXX.XX

TOP OF FOUNDATION: T/F XXX.XX

FIRST FLOOR ELEVATION: FF XXX.XX

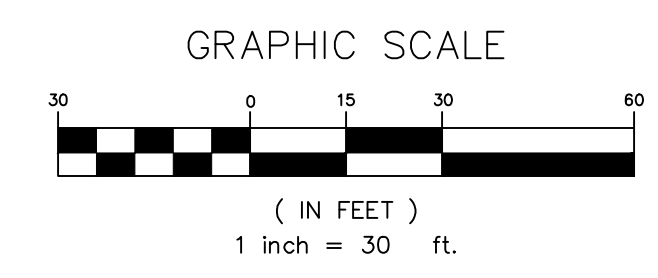
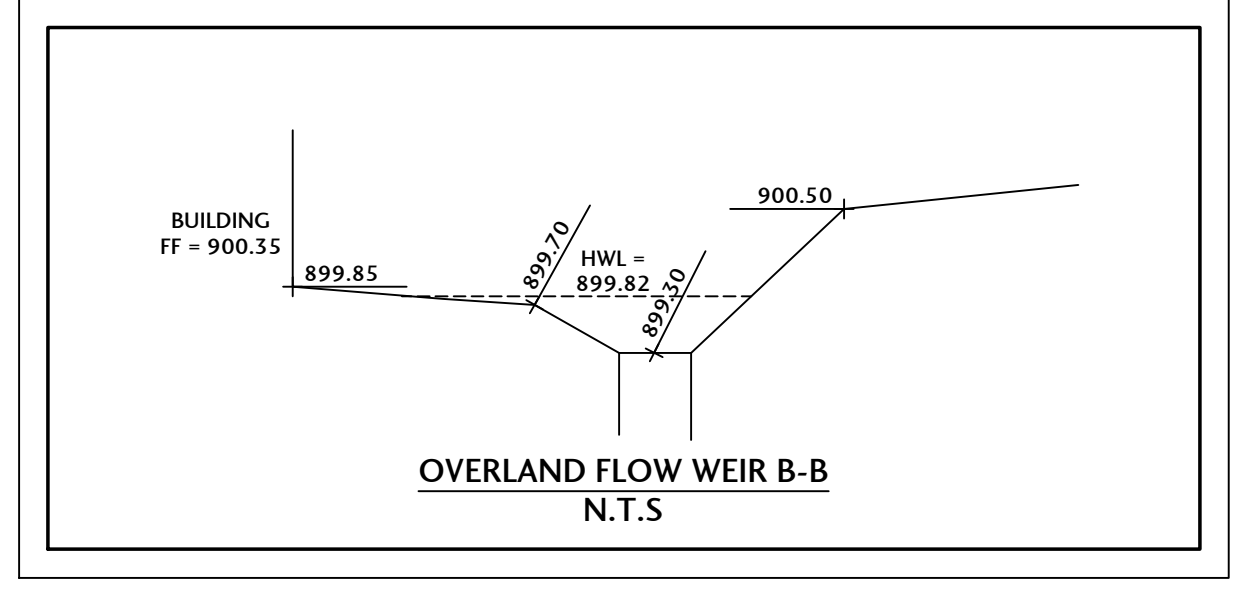
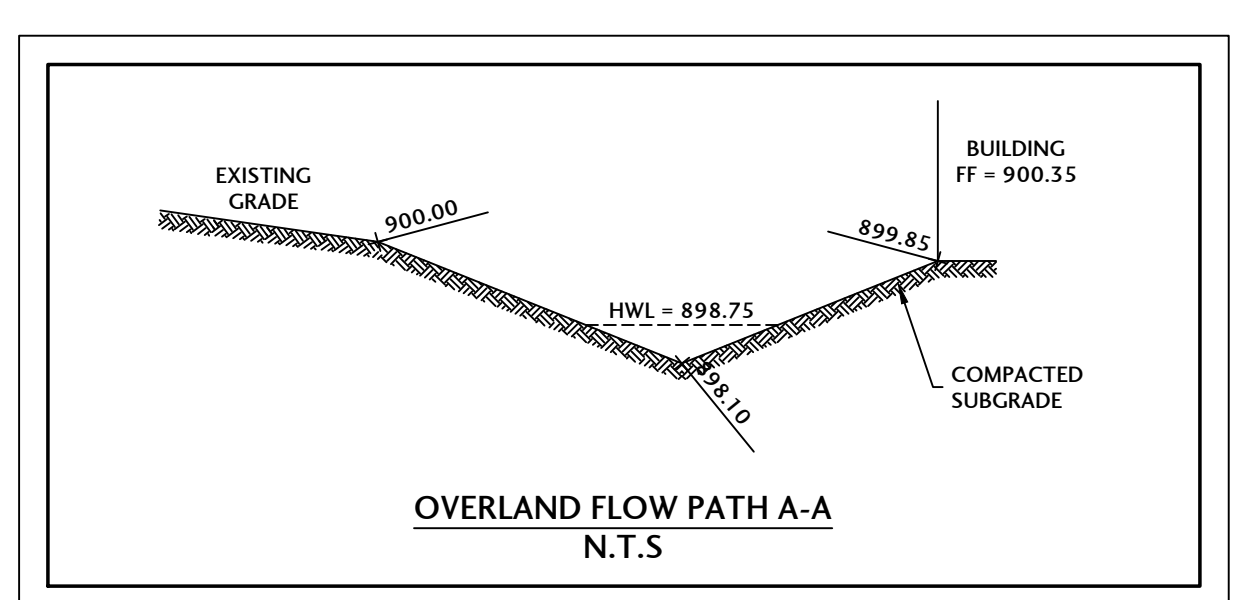
FINISHED GRADE: XXX.XX

- GRADING & EROSION CONTROL NOTES:**
- ALL DISTURBED AREAS SHALL BE STABILIZED WITH NA GREEN D575 EROSION BLANKET OR APPROVED EQUAL OR HYDROSEED UNLESS OTHERWISE NOTED WITHIN THE PLAN SET.
  - CONTRACTOR RESPONSIBLE FOR MAINTENANCE/REPAIR OF EROSION CONTROL MEASURES UNTIL ADEQUATE VEGETATION GROWTH HAS OCCURRED. MAINTENANCE/REPAIR WORK SHALL BE INCIDENTAL TO THE INSTALLATION COSTS.
  - CONTRACTOR RESPONSIBLE FOR ADDITIONAL EROSION CONTROL MEASURES AS RECOMMENDED BY THE ENFORCEMENT OFFICER OR THE DESIGNATED EROSION INSPECTOR AS SITE CONDITIONS WARRANT.
  - ALL TRAPPED SEDIMENT IS TO BE PROPERLY STABILIZED OR DISPOSED OF.
  - IF CONTRACTOR NEEDS TO DEWATER WHEN EXCAVATING, THEY MUST PUMP TO A "DIRT BAG" OR APPROVED EQUAL.
  - WHERE THE USE OF TREE PROTECTION FENCING DOES NOT PROVIDE AMPLE ROOM FOR CONSTRUCTION, TREE TRUNK PROTECTION SHALL BE USED.
  - TEMPORARY SEEDING SHALL BE REQUIRED TO TEMPORARILY STABILIZE DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH CONSTRUCTION WILL BE STOPPED FOR A PERIOD OF MORE THAN 14 DAYS. THE COVER CROP SEED MIX SHALL BE UTILIZED FOR TEMPORARY SEEDING.
  - CONTRACTOR IS RESPONSIBLE TO EMPLOY DUST CONTROL METHODS TO REDUCE & PREVENT THE SURFACE AND AIR TRANSPORT OF DUST DURING CONSTRUCTION. IN ADDITION TO MINIMIZATION OF SOIL DISTURBANCE, CONTRACTOR SHALL UTILIZE MULCHING METHODS (DOT 251.03 OR 251.04), IRRIGATION AND BARRIERS.

- SEQUENCE OF CONSTRUCTION/EROSION CONTROL MEASURES**
- Installation of sedimentation and erosion control measures.
  - Site clearing and topsoil stripping.
  - Excavation and grading.
  - Placement of topsoil on disturbed areas.
  - Seeding, landscaping and final stabilization. Seeding to be completed within 7 days of final grading.
  - All temporary erosion control measures shall be removed and disposed of within 30 days of final stabilization. All trapped sediment is required to be stabilized or disposed of offsite.

- EROSION CONTROL NOTES**
- Construction on this site shall comply with all Crystal Lake ordinances pertaining to erosion control.
  - All disturbed areas shall be stabilized within 7 days of active disturbance.
  - All roadways shall be cleaned at the end of each day.
  - Silt Sack/approved equal measure shall be placed between all open frame and grades.
  - All erosion and sediment control practices shall be maintained and repaired as needed to ensure effective performance of the required erosion control measures.
  - All temporary erosion control measures shall be removed and disposed of within 30 days of final stabilization. All trapped sediment is required to be stabilized or disposed of.
  - All erosion and sediment control work shall conform to the Illinois Urban Manual for erosion control.

- STORM SEWER TAGS**
- P1. PROP 12" FES W/GRATE  
INV = 897.00
  - P2. PROP 58 LF 12" ST SEWER @ 0.86%
  - P3. PROP CB TC 3' DIA, T8GR  
RIM = 899.50  
INV = 896.50 (SW, SE)
  - P4. PROP 41 LF 12" ST SEWER @ 0.98%
  - P5. PROP CB TC 3' DIA, T8GR  
RIM = 899.25  
INV = 896.10 (E, W)
  - P6. PROP 85 LF 12" ST SEWER @ 0.53%
  - P7. PROP CB TC 3' DIA, T8GR  
RIM = 899.30  
INV = 895.65 (E, W)
  - P8. PROP 38 LF 12" ST SEWER @ 0.53%
  - P9. PROP CB TC 3' DIA, T8GR  
RIM = 899.35  
INV = 895.45 (NW, SE)
  - P10. PROP 60 LF 12" ST SEWER @ 0.50%
  - P11. PROP CB TA, 4' DIA, TIF OL  
W/ SNOOT DEBRIS HOOD  
RIM = 899.00  
INV = 895.15 (N)  
INV = 893.90 (W, SE)
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INV = 892.45



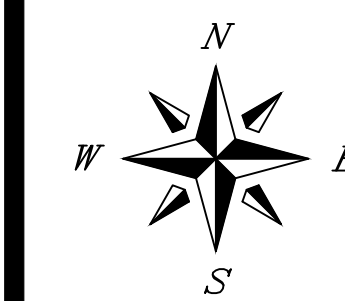
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 RINGWOOD, ILLINOIS 60072  
 815.728.0068  
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**B&C ENTERPRISES**  
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SCALE  
 N/A  
 ISSUE DATE  
 06/03/2022  
 PROJECT MANAGER  
 MAM  
 DESIGNER  
 MAM  
 QUALITY CONTROL  
 JEC

**U-HAUL CRYSTAL LAKE U-BOX BUILDING**  
 CRYSTAL LAKE, ILLINOIS

NO.	DATE	DESCRIPTION
1	10/14/22	PER CITY REVIEW AND NEW BUILDING SIZE

NO.	DATE	DESCRIPTION
1	10/14/22	PER CITY REVIEW AND NEW BUILDING SIZE

PROJECT NUMBER  
**BCEI-21046-3**

SHEET TITLE  
**STANDARD DETAILS**

SHEET NUMBER  
**C4.0**

**RD-06**

**PAVEMENT CUT AND REPLACEMENT**

Revised: 1. 06/12/2015  
 2.  
 3.  
 4.

Drawing Name: [Blank]

Drawing Number: **RD-06**

Date: 05/19/2015  
 Drawn: JH  
 Checked: AW

City of Crystal Lake, Illinois

**EC-01**

**SILT FENCE**

Revised: 1. 06/12/2015  
 2.  
 3.  
 4.

Drawing Name: [Blank]

Drawing Number: **EC-01**

Date: 12/4/2012  
 Drawn: DD  
 Checked: AW

City of Crystal Lake, Illinois

**UD-01c**

**CATCH BASIN TYPE C**

Revised: 1. 06/12/2015  
 2.  
 3.  
 4.

Drawing Name: [Blank]

Drawing Number: **UD-01c**

Date: 05/19/2015  
 Drawn: JH  
 Checked: AW

City of Crystal Lake, Illinois

**GE-02b**

**TOPSOIL STOCKPILING:**

- Location of any on-site topsoil stockpiles shall be identified on the approved plans with silt fence installed around the perimeter of the stockpile.
- Topsoil stockpiled for future use shall be relatively free from large rocks, sticks, weeds, brush, stones larger than one (1) inch diameter, or other litter and waste products including other extraneous materials not conducive to plant growth.
- Topsoil shall be stockpiled in sequence to eliminate any re-handling or double movements by the Contractor. Failure to properly sequence the stockpiling operations shall not constitute a claim for additional compensation. No material shall be stockpiled in front yards, in utility easements, or in the right-of-way lines.
- If a stockpile is to remain in place for more than (14) calendar days, it is required that the stockpile meet the requirements as outlined in section 555 of the City Code.

**UNDERGROUND UTILITY:**

- The Contractor shall coordinate water main, water service, sanitary and storm sewer inspections and testing with the Community Development at least 24 hours in advance.
- All main line sanitary shall be cleaned and televised (provide DVD to the City's Engineering Division).
- All manhole or valve covers shall be imprinted "City of Crystal Lake Sanitary", or "City of Crystal Lake Storm", or "City of Crystal Lake Water" as directed by the City.
- Reference the latest edition of the Standard Specifications for Water and Sewer Main Construction in Illinois.
- Existing manholes to be circular cored and booted.

**EROSION CONTROL:**

- All specified erosion control measures shall be installed and maintained per the requirements of the Crystal Lake Stormwater Ordinance in accordance with the active NPDES permit.
- All slopes 4:1 or steeper shall be sodded or blanketed immediately after mass earthwork.
- All overland flow routes to be stabilized by sod or blanket.
- Erosion control measures to be inspected and approved by City Engineering Division prior to additional work on site.
- Continuous monitoring of erosion control measures is required. Maintain records of weekly reports per the City of Crystal Lake Stormwater Ordinance.
- The Contractor shall implement any additional erosion control measures deemed necessary by the City per the standards of the City of Crystal Lake Stormwater Ordinance.
- All storm sewer catch basins, sumps and/or retention basins provided are to be cleaned at the end of construction of the project prior to final acceptance. Cleaning may also be required during the course of the construction of the project if it is determined that the silt and debris traps are not properly functioning and their performance is impaired.
- Rip-rap material RR 2 (6") - RR4 (16") shall be in accordance with Article 281 and grouted in place according to Article 601 of the IDOT Standard Specifications.
- Projects of 1 Acre or greater must obtain an NPDES permit prior to commencement of any construction activity.

Revised: 1. 06/12/2015  
 2.  
 3.  
 4.

Drawing Name: [Blank]

Drawing Number: **GE-02b**

Date: 01/30/15  
 Drawn: DD  
 Checked: AW

City of Crystal Lake, Illinois

**EC-02**

**CONSTRUCTION ENTRANCE**

Revised: 1. 06/12/2015  
 2.  
 3.  
 4.

Drawing Name: [Blank]

Drawing Number: **EC-02**

Date: 07/31/2012  
 Drawn: DD  
 Checked: AW

City of Crystal Lake, Illinois

**UD-01b**

**CATCH BASIN TYPE A**

Revised: 1. 06/12/2015  
 2.  
 3.  
 4.

Drawing Name: [Blank]

Drawing Number: **UD-01b**

Date: 09/18/2012  
 Drawn: DD  
 Checked: AW

City of Crystal Lake, Illinois

**GE-02a**

**GENERAL SITE-WORK:**

- Pre-Construction meeting shall be conducted with City Staff and all Contractors prior to commencing any grading or underground utility construction activities (schedule meeting with the Community Development Department at 815-356-3655).
- 24-hour Emergency contact numbers shall be provided to City Staff at the Pre-Construction meeting.
- Working hours shall be limited to the hours of 7:00 a.m. and 7:00 p.m. on weekdays only (except in cases of emergency). Non-emergency work on weekends or holidays is not permitted per City Code except under written permission from the City Engineer. The owner is responsible for the City Inspector cost of overtime inspection beyond the normal eight (8) hour day, including weekends and holidays.
- Public/private streets shall be kept free of dirt and debris with regular cleaning, sweeping, and scraping conducted by the Contractor. Junk and debris shall not be allowed to accumulate, blow, or scatter onto streets or adjacent properties.
- U.I.U.I.E. shall be contacted for utility locations on-site and in the adjacent rights-of-way.
- Contractor shall provide and maintain fencing, barricades, traffic control signs, and other safeguarding measures during the course of all work to protect the public from the construction operations.
- Maintain access to adjacent streets during construction. No closing of streets unless approval is first obtained from the agency with jurisdiction (City of Crystal Lake, McHenry County Department of Transportation, Illinois Department of Transportation, etc.).
- Any damage to public right-of-way, public utilities, streets, curb, etc. shall be repaired/replaced as soon as possible and as directed by the City Engineer.
- The contractor shall give the City of Crystal Lake, Illinois Department of Transportation, and any other governmental agency having jurisdiction, at least two (2) working days notice excluding Saturday and Sunday prior to the initiation of any phase of construction. Contractor shall immediately notify if construction has ceased and renew the two (2) working day notification thereafter.
- The Contractor shall be responsible for obtaining all required permits for construction prior to commencement along or across existing streets or highways. The Contractor shall make arrangements for the proper bracing, shoring and other protection of all roadways before construction begins.

**GRADING:**

- The grading and construction of the site improvements shall not cause ponding of storm sewer water. All areas adjacent to these improvements shall be graded to allow positive drainage.
- The proposed grading elevations shown on the plans are finished grade. A minimum of six (6) inches of topsoil is to be placed below finished grade elevations are achieved.
- Embarkment material within parkway and open space areas shall be compacted to a minimum of ninety percent (90%) of maximum density in accordance with ASTM Specification D-1557 (modified proctor method), or to such other density as may be determined appropriate by the soils engineer.
- All subgrade material shall have a minimum CBR (California Bearing Ratio) of 3.0 as determined by the soils engineer, or base replacement and pavement design revisions shall be provided which are adequate to obtain equivalent pavement strength.
- Proposed pavement areas, building pads, driveways and sidewalks and yard/open space areas shall be excavated or filled plus or minus 0.1 foot of design subgrade elevations by the Contractor.
- Any borrow pit locations shall be identified by the Contractor on a copy of the approved site plans and forwarded to the Engineering Division at least 24-hours prior to excavation. Provide backfill compaction reports from a geotechnical engineer and scull plans to the Engineering Division for any borrow pit area.
- Backfill shall be monitored by a geotechnical engineer on-site with compaction reports forwarded to the Engineering Division for review.
- Water lock shall be on-site at all times during mass-grading operations and be available as needed for the purpose of dust control or at the request of City Staff.
- Use of City fire hydrants is not allowed unless approved (separate from this permit) by the Public Works Department and a hydrant meter and RPZ is obtained from the City of Crystal Lake Water Division (815-356-3614). Only the City of Crystal Lake Water Division may operate valves and hydrants.

Revised: 1. 06/12/2015  
 2.  
 3.  
 4.

Drawing Name: [Blank]

Drawing Number: **GE-02a**

Date: 01/30/15  
 Drawn: DD  
 Checked: AW

City of Crystal Lake, Illinois

**EC-04**

**INLET SEDIMENT CONTROL DEVICE**

Revised: 1. 06/12/2015  
 2.  
 3.  
 4.

Drawing Name: [Blank]

Drawing Number: **EC-04**

Date: 11/22/2007  
 Drawn: EM  
 Checked: AW

City of Crystal Lake, Illinois

**UD-01a**

**DRAINAGE STRUCTURES: INLET, TYPE A**

Revised: 1. 06/12/2015  
 2.  
 3.  
 4.

Drawing Name: [Blank]

Drawing Number: **UD-01a**

Date: 05/28/2015  
 Drawn: JH  
 Checked: AW

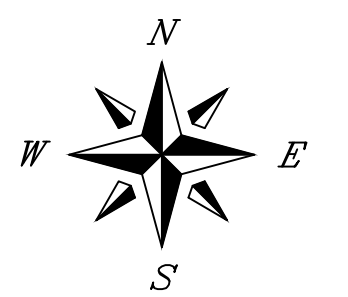
City of Crystal Lake, Illinois



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5415 BUSINESS PARKWAY  
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**B&C ENTERPRISES**

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ILLINOIS



SCALE  
N/A  
ISSUE DATE  
06/03/2022  
PROJECT MANAGER  
MAM  
DESIGNER  
MAM  
QUALITY CONTROL  
JEC

**U-HAUL CRYSTAL  
LAKE U-BOX  
BUILDING**  
CRYSTAL LAKE,  
ILLINOIS

DESCRIPTION  
PER CITY REVIEW AND NEW BUILDING SIZE

DATE  
1/01/14/22

NO. 1  
PROJECT NUMBER  
BCEI-21046-3  
SHEET TITLE

STANDARD DETAILS  
SHEET NUMBER  
C4.1

### FLARED END SECTION (PRECAST CONCRETE PIPE)

**NOTES:**

1. CONCRETE FLARED END SECTIONS SHOULD BE CONSIDERED FOR USE WITH CONCRETE PIPE CULVERTS HAVING SKEWS NO GREATER THAN 15 DEGREES.
2. PRECAST CONCRETE FLARED END SECTIONS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF ASHMO M-170 CLASS III, WALL B REINFORCED CONCRETE PIPE.
3. PRECAST CONCRETE FLARED END SECTION FOR PIPE DIAMETER REQUIRED SHALL BE AS INDICATED ON DETAIL PLAN FOR EACH INDIVIDUAL INSTALLATION.
4. THE END BLOCK SHALL BE PLACED PRIOR TO THE INSTALLATION OF THE FLARED END SECTION. THE END BLOCK SHALL BE BACKFILLED IN ACCORDANCE WITH ART. 502.10 OF THE STANDARD SPECIFICATIONS. THIS COST SHALL BE INCIDENTAL TO EACH END SECTION.
5. RIPRAP SHALL CONFORM TO SECT. 281 OF THE STANDARD SPECIFICATIONS.
6. INSTALL FILTER FABRIC UNDER ALL RIPRAP AND BEDDING. FILTER FABRIC SHALL CONFORM TO SECT. 282 OF THE STANDARD SPECIFICATIONS.
6. STANDARD IDOT GALVANIZED GRATE REQUIRED FOR 15" DIAMETER AND LARGER.

Revised: 1. 06/12/2015  
2. 8/27/2015  
3.  
4.

Drawing Name: **FLARED END SECTION (PRECAST CONCRETE PIPE)**

Drawing Number: **UD-02d**

Date: 04/15/2007

Drawn: DD  
Checked: AW

City of Crystal Lake, Illinois

### STORM MANHOLE TYPE A

**CASTING SCHEDULE**

LOCATION	EJW	NEENAH
B or M.6.12	7235 M2	R5502-A
DEPR. CURB	7210 M3	R-2511
	PAVED	1920 R-1713
	NON-PAVED	1920 R-2535

Revised: 1. 06/12/2015  
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Drawing Name: **STORM MANHOLE TYPE A**

Drawing Number: **UD-01d**

Date: 05/19/2015

Drawn: JH  
Checked: AW

City of Crystal Lake, Illinois

### TYPICAL TRENCH CROSS SECTION

**LEGEND:**

1. TRENCH BACKFILL TO SUBGRADE AND WITHIN 2 FEET OF PROPOSED PAVEMENT, DRIVEWAY, CURB AND GUTTER OR SIDEWALK. TRENCH BACKFILL MATERIALS SHALL BE DOT APPROVED GRADATION CA-6, GRADE 7, 8, OR 9.
2. INITIAL BACKFILL TO DEPTH AS INDICATED. MATERIAL SHALL BE DOT APPROVED GRADATION CA-6, GRADE 7, 8, OR 9.
3. PIPE BEDDING SHALL BE FRACTURED GRANULAR MATERIAL IDOT GRADATION CA-7 OR CA-11 FROM 4 INCHES BELOW BOTTOM OF PIPE TO HORIZONTAL CENTER OF PIPE.
4. UNSUITABLE MATERIAL TO BE REMOVED WHERE DIRECTED BY THE ENGINEER AND REPLACED WITH COMPACTED SUITABLE MATERIAL.
5. TRENCH WIDTH:  
PIPE O.D. + 12 INCHES MINIMUM  
PIPE I.D. + 18 INCHES MAXIMUM
6. CONTRACTORS SHALL COMPLY WITH ALL CURRENT OSHA STANDARDS.

\* NOTE: ALL DUCTILE IRON SHALL BE SUBJECT TO POLY WRAP PER CITY ENGINEER

Revised: 1. 06/12/2015  
2.  
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4.

Drawing Name: **TYPICAL TRENCH CROSS SECTION**

Drawing Number: **UG-03**

Date: 05/29/2015

Drawn: JH  
Checked: AW

City of Crystal Lake, Illinois

### COVER CROP MIX (TEMP. SEEDING)

Scientific Name	Common Name	Amount/Ac
<i>Avena sativa</i>	Oats	65 lbs
<i>Lolium multiflorum</i>	Annual Ryegrass	25 lbs

**NOTES:**

1. The cover crop rate listed above is for spring and summer, in the event the seed is sown for the fall the Oats shall be sown at 130 lbs/ac.
2. Seedbed shall be prepared of loose soil to a depth of 3-4 inches prior to temporary seeding occurring.
3. Temporary seed shall be evenly applied with a cyclone seeder, drill, cultipacker seeder or hydroseeder. Small grains should be planted no more than 1 inch deep, grasses no deeper than 1/2 inch. Cover broadcast seed by cultipacking, dragging a harrow or raking.
4. Temporary seeding shall be mulched in accordance with IDOT specifications (Article 251.03 or 251.04).

### TURF GRASS SEED MIX (IDOT Class 1) (ONSITE AREAS)

Common Name	Amount/Ac
Kentucky Bluegrass	100 lbs
Perennial Ryegrass	60 lbs
Creeping Red Fescue	40 lbs

\* FINAL SEEDING ON ALL DISTURBED AREAS UPON CONSTRUCTION COMPLETION

### TEMPORARY CONCRETE WASHOUT FACILITY - BARRIER WALL

**NOTES:**

1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardpan concrete and/or slurry and returning the facilities to a functional condition.
2. Facility shall be cleaned or reconstructed in a new area once washout becomes two-thirds full.

Revised: 1. 06/12/2015  
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Drawing Name: **TEMPORARY CONCRETE WASHOUT FACILITY - BARRIER WALL**

Drawn: JH  
Checked: AW

### NATIVE VEGETATED "TROUGH" LEVEL SPREADER

Revised: 1. 06/12/2015  
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Drawing Name: **NATIVE VEGETATED "TROUGH" LEVEL SPREADER**

Drawn: JH  
Checked: AW

### CURLEX® SEDIMENT LOG® DITCH CHANNEL APPLICATION DETAIL

Channel	3 1/2 in. Curlex Sediment Log	3 in. Curlex Sediment Log	2 1/2 in. Curlex Sediment Log	20 in. Curlex Sediment Log
ES01	11.7	10.4	10.4	10.4
ES02	11.7	10.4	10.4	10.4
ES03	11.7	10.4	10.4	10.4
ES04	11.7	10.4	10.4	10.4
ES05	11.7	10.4	10.4	10.4
ES06	11.7	10.4	10.4	10.4
ES07	11.7	10.4	10.4	10.4
ES08	11.7	10.4	10.4	10.4
ES09	11.7	10.4	10.4	10.4
ES10	11.7	10.4	10.4	10.4
ES11	11.7	10.4	10.4	10.4
ES12	11.7	10.4	10.4	10.4
ES13	11.7	10.4	10.4	10.4
ES14	11.7	10.4	10.4	10.4
ES15	11.7	10.4	10.4	10.4
ES16	11.7	10.4	10.4	10.4
ES17	11.7	10.4	10.4	10.4
ES18	11.7	10.4	10.4	10.4
ES19	11.7	10.4	10.4	10.4
ES20	11.7	10.4	10.4	10.4
ES21	11.7	10.4	10.4	10.4
ES22	11.7	10.4	10.4	10.4
ES23	11.7	10.4	10.4	10.4
ES24	11.7	10.4	10.4	10.4
ES25	11.7	10.4	10.4	10.4
ES26	11.7	10.4	10.4	10.4
ES27	11.7	10.4	10.4	10.4
ES28	11.7	10.4	10.4	10.4
ES29	11.7	10.4	10.4	10.4
ES30	11.7	10.4	10.4	10.4
ES31	11.7	10.4	10.4	10.4
ES32	11.7	10.4	10.4	10.4
ES33	11.7	10.4	10.4	10.4
ES34	11.7	10.4	10.4	10.4
ES35	11.7	10.4	10.4	10.4
ES36	11.7	10.4	10.4	10.4
ES37	11.7	10.4	10.4	10.4
ES38	11.7	10.4	10.4	10.4
ES39	11.7	10.4	10.4	10.4
ES40	11.7	10.4	10.4	10.4
ES41	11.7	10.4	10.4	10.4
ES42	11.7	10.4	10.4	10.4
ES43	11.7	10.4	10.4	10.4
ES44	11.7	10.4	10.4	10.4
ES45	11.7	10.4	10.4	10.4
ES46	11.7	10.4	10.4	10.4
ES47	11.7	10.4	10.4	10.4
ES48	11.7	10.4	10.4	10.4
ES49	11.7	10.4	10.4	10.4
ES50	11.7	10.4	10.4	10.4

AMERICAN EXCELSIOR COMPANY  
ARLINGTON, TEXAS

DATE: 03/01/18  
SCALE: NONE  
PROJECT NO.:  
SHEET NO.: 4

### EROSION CONTROL BLANKET INSTALLATION DETAILS

**NOTES:**

1. Staples shall be placed in a diamond pattern at 2 per s.y. for stiched blankets. Non-stiched shall use 4 staples per s.y. of material. This equates to 200 staples with stiched blanket and 400 staples with non-stiched blanket per 100 s.y. of material.
2. Staple or push pin lengths shall be selected based on soil type and conditions. (minimum staple length is 6")
3. Erosion control material shall be placed in contact with the soil over a prepared seedbed.
4. All anchor slots shall be stapled at approximately 12" intervals.

Revised: 1. 06/12/2015  
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Drawing Name: **EROSION CONTROL BLANKET INSTALLATION DETAILS**

Drawn: JH  
Checked: AW

### TEMPORARY SOIL STOCKPILE DETAIL

**NOTES:**

1. Stockpile slopes should be based on angle of repose of the soil material to avoid potential sloughing of the slope.
2. Soil stockpile to be stabilized in accordance with practical standards.
3. Do not locate stockpile within overland drainage flow path, designated floodways, drip line or over the root crown of adjacent trees.
4. Provisions for sediment control practices may be required along haul roads and entrance/exit locations for access the soil stockpile that can create flow path for stormwater runoff.
5. Installation of benches, terraces, or slope interrupters should be considered.
6. Avoid building soil stockpiles on impervious surfaces.
7. Linear sediment trap surrounding the stockpile base may be used to control sediment.

Revised: 1. 06/12/2015  
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Drawing Name: **TEMPORARY SOIL STOCKPILE DETAIL**

Drawn: JH  
Checked: AW

### INLET PROTECTION LOG TYPE

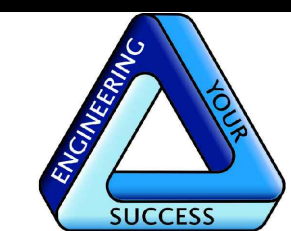
**NOTES:**

1. 2" x 2" nominal hardwood stakes, 4 foot minimum length, driven into ground approximately 18 inches, stakes driven a minimum width of 12 inches away from the drop inlet.
2. Area inside the log, from edge of fabric to structure, must be stabilized with erosion control blanket, Turf Reinforcement Mat, Geotextile 592 Table 2 Class 2 or CA-7 stone.
3. The maximum distance between the stakes should be 4 feet.
4. A maintenance schedule must maintain a sediment accumulation of less than 50% of the height of the log.

Revised: 1. 06/12/2015  
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Drawing Name: **INLET PROTECTION LOG TYPE**

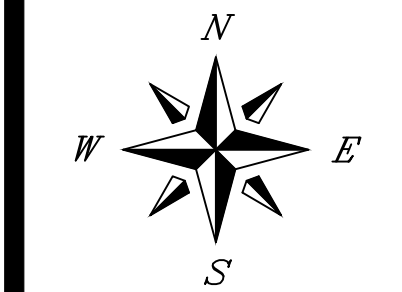
Drawn: JH  
Checked: AW



J. CONDON & ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 5415 BUSINESS PARKWAY  
 RINGWOOD, ILLINOIS 60072  
 815.728.0068  
 IL DESIGN FIRM # 184-006759

**B&C ENTERPRISES**

ELGIN,  
ILLINOIS

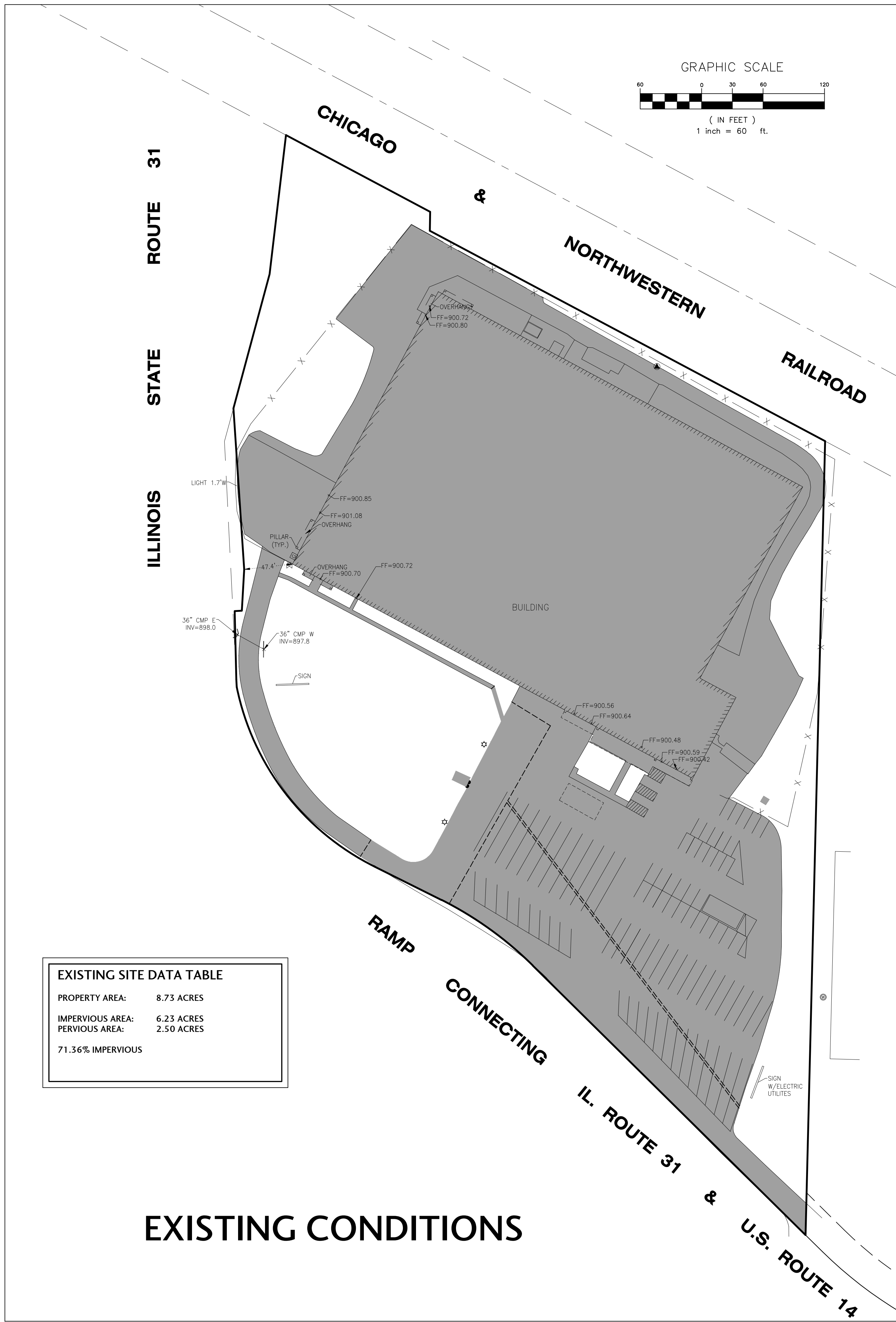


SCALE  
 1" = 60'  
 ISSUE DATE  
 06/03/2022  
 PROJECT MANAGER  
 MAM  
 DESIGNER  
 MAM  
 QUALITY CONTROL  
 JEC

**U-HAUL CRYSTAL  
 LAKE U-BOX  
 BUILDING**  
 CRYSTAL LAKE,  
ILLINOIS

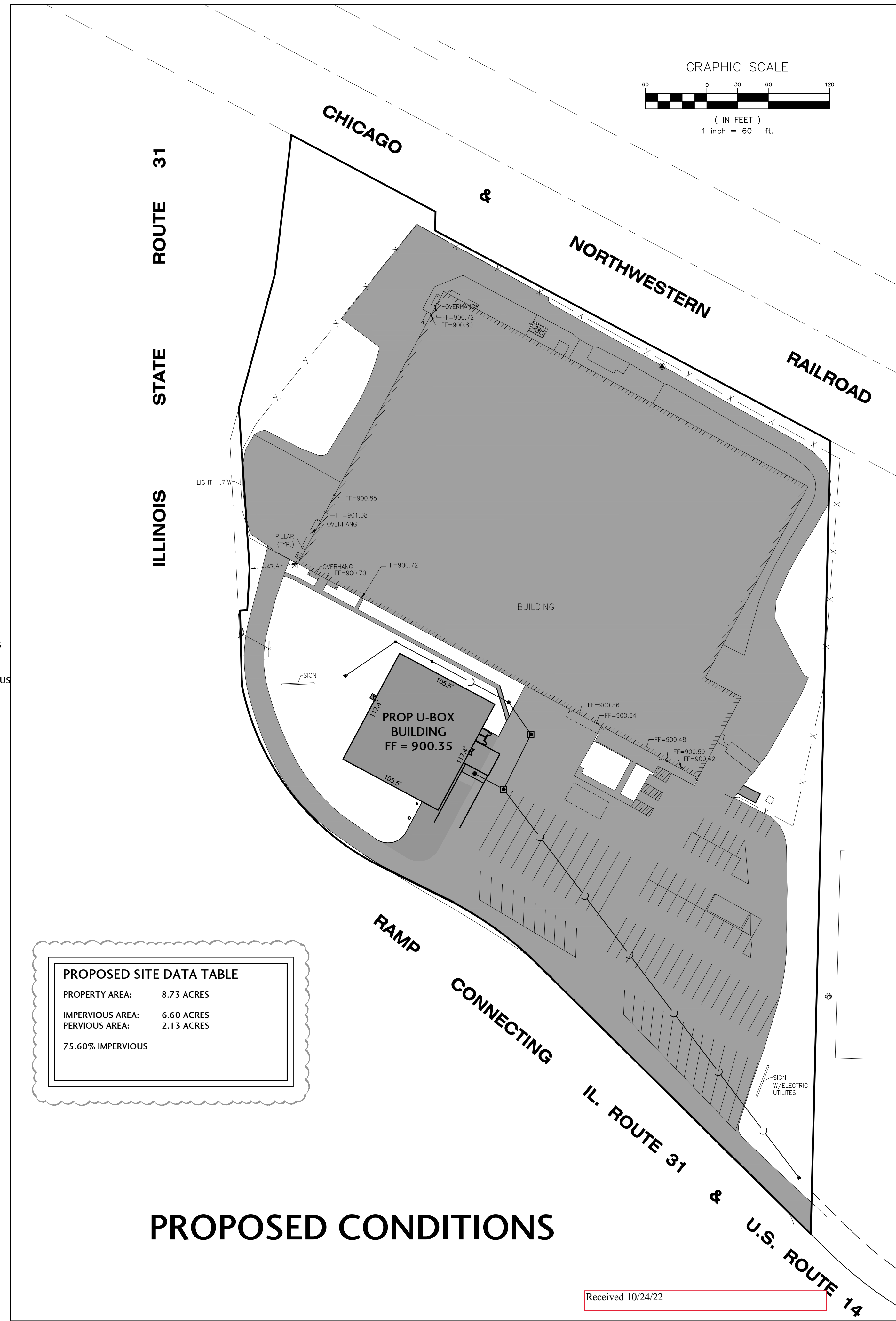
NO.	DATE	DESCRIPTION
1	10/14/22	PER CITY REVIEW AND NEW BUILDING SIZE

PROJECT NUMBER	BCEI-21046-3
SHEET TITLE	IMPERVIOUS SURFACE VARIANCE REQUEST
SHEET NUMBER	VX1.0



PROPERTY AREA:	8.73 ACRES
IMPERVIOUS AREA:	6.23 ACRES
PERVIOUS AREA:	2.50 ACRES
71.36% IMPERVIOUS	

**EXISTING CONDITIONS**



PROPERTY AREA:	8.73 ACRES
IMPERVIOUS AREA:	6.60 ACRES
PERVIOUS AREA:	2.13 ACRES
75.60% IMPERVIOUS	

**PROPOSED CONDITIONS**

Received 10/24/22

X:\2021\21046\21046-3.dwg, 10/24/2022, 12:07:47 PM, DWG to PDF, p.1, 1/1

# U-Haul Crystal Lake U-Box Building

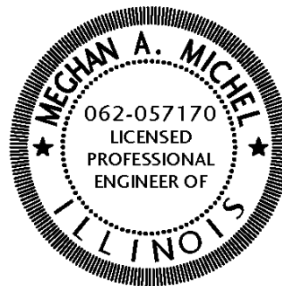
## ENGINEERING REPORT BCEI-21046-3

*For:*

Mr. Brian Heimsoth  
B&C Enterprises  
2482 Technology Drive  
Elgin, IL 60124

June 3, 2022

*Revised 10/14/22*



EXPIRES 11/30/2023



J. CONDON & ASSOCIATES, INC.  
CONSULTING ENGINEERS

5415 Business Parkway  
Ringwood, Illinois 60072  
(815) 728-0068  
Email: mmichel@jcondoninc.com  
IL Design Firm # 184-006759

Received 10/24/22

## **General Information**

The proposed development is located at the northeast corner of Route 14 and the frontage road to IL Route 31 in the City of Crystal Lake. The parcel is located in the Southeast Quarter of Section 3 Township 43 North Range 8 East. The overall site is approximately 8.73 acres containing the existing 125,000+/- sf U-Haul facility and the associated parking lot and outside storage areas. The proposed improvements are comprised of the following items:

1. Construction of a 12,385 sf U-Box storage building with loading dock.
2. Storm sewer and drainage improvements onsite.
3. Water and sewer services.

## **Site Data:**

### **Existing Conditions (Pre-2004)**

*Impervious Area:* 6.23 Acres

*Pervious Area:* 2.50 Acres

*Property Area:* 8.73 Acres

### **Proposed Conditions**

*Impervious Area:* 6.60 Acres

*Pervious Area:* 2.13 Acres

*Property Area:* 8.73 Acres

*Disturbed Area:* 0.95 Acres

## **Site Access and Parking**

The site will continue to use the existing driveway and parking facilities for the new storage building.

## **Sewer and Water Services**

A 4" combined water service and a 6" sanitary sewer service will be connected to the existing septic system and well.

## **Stormwater Management**

The proposed development will create 16,139 sf of new impervious area, thus no detention will be required.

On-site storm sewer has been designed to convey runoff to the existing discharge point at the southeast corner of the site. The storm sewer outlet will release to a native vegetated level spreader. A snout oil and debris hood will be installed on the most downstream catch basin to reduce contaminants and pollutants from leaving the site.

There is an existing 36" culvert that crosses the U-Haul driveway on the west side of the property. Exhibit CX1.1 demonstrates that the reconfiguration of the Route 31/14 intersection in the late 1990's reduced the tributary area to that culvert. The tributary area is shown in Exhibit CX1.0.

The onsite storm sewer is designed to accommodate the 10-year storm event. Supporting calculations have been included in the Appendix of the report.

**Overflow Design:**

The overland flow path capacity has been verified to confirm building freeboard requirements are met at two critical locations. The results indicate that the ordinance freeboard requirement has been met. (See supporting calculations)

**Floodplain Design**

Per FEMA Firm panel number 17111C0335J, effective November 16, 2006, there is no floodplain located within the project area.

**Wetland Design**

Per the U.S. Fish and Wildlife Service National Wetlands Inventory, there are no wetlands within the vicinity of the project. A copy of the referenced map is located in the appendix portion of this report.

**Miscellaneous Information**

Since the site was previously fully developed, a drain tile survey has not been included in the site design work as neither exist on the site due to the previous developments.