PLAT OF SURVEY

—OF—

THREE CROWNS PARK, EVANSTON, ILLINOIS

Legal Description:

Lots 1 through 5, inclusive, in Lions Subdivision of the north 129 feet of the east 190 feet of Block 7 of John Culver's Subdivision, Lots 1 through 11, inclusive, in Broomell's Subdivision of Block 7 (except the east 190 feet and except the north 150 feet thereof) of John Culver's Subdivision, and Block 7 in John Culver's Subdivision except for the land previously described, all in the Northwest ¼ of the Southwest ¼ of Section 12, Township 41 North, Range 13, East of the Third Principal Meridian, in Cook County, Illinois.

Also known as

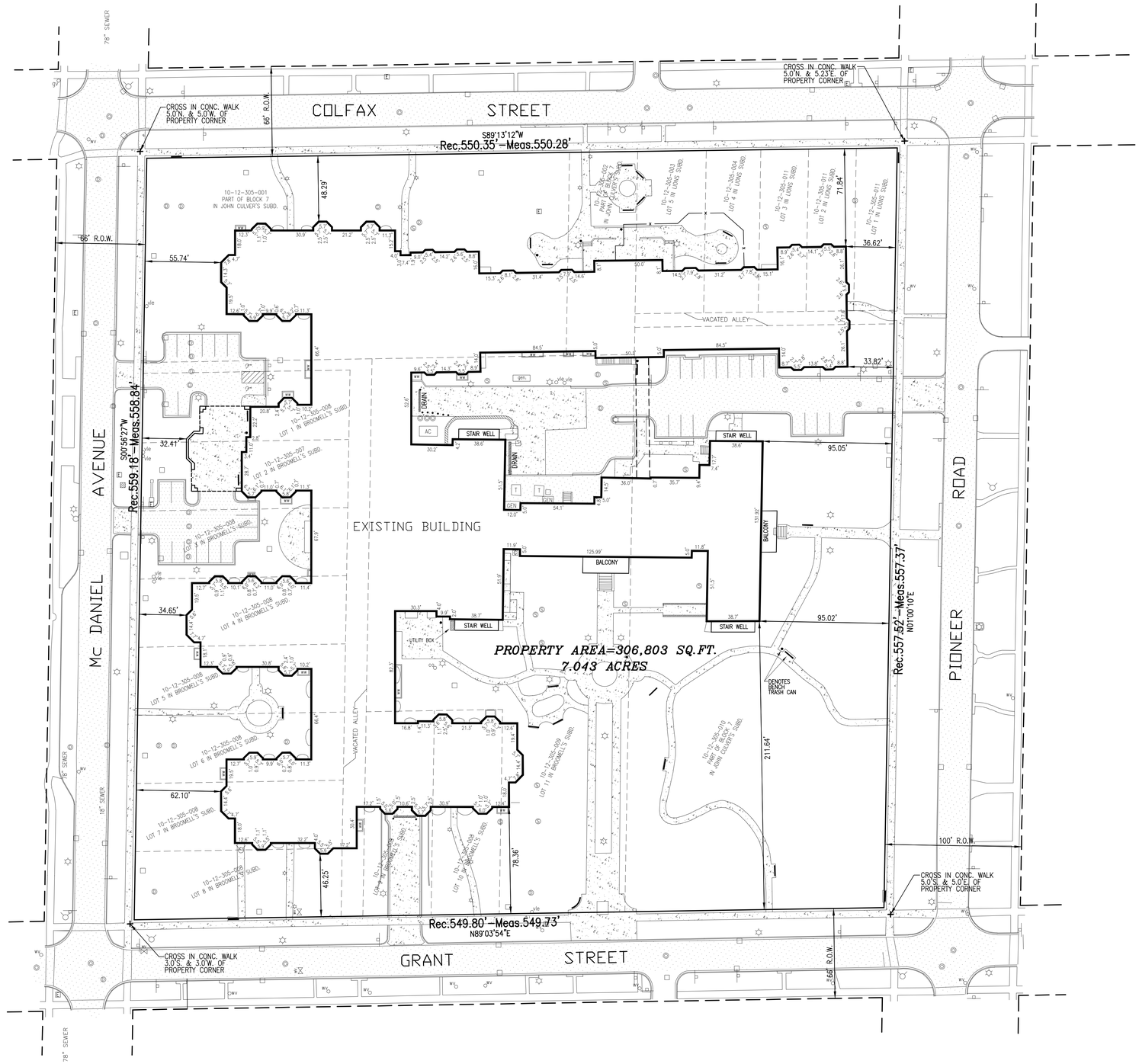
All of Block 7 in John Culver's Subdivision in the Northwest ¼ of the Southwest ¼ of Section 12, Township 41 North, Range 13 East of the Third Principal Meridian in Cook County, Illinois.

LEGEND OF SYMBOLS

- COMBINED MANHOLE
- DRAINAGE STRUCTURE
- STORM MANHOLE
- SANITARY MANHOLE
- FIRE HYDRANT
- WATER VALVE
- CLEANOUT
- GAS VALVE
- LIGHT POLE
- ELECTRIC MANHOLE
- GAS METER
- FENCE
- PEDESTAL
- SIGN

N W E S

SCALE: 1" = 40'



THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

COMPARE YOUR POINTS BEFORE BUILDING BY THE SAME AND REPORT ANY DIFFERENCES IMMEDIATELY.

CHECK LEGAL DESCRIPTION WITH DEED AND REPORT ANY DISCREPANCY IMMEDIATELY. REFER TO TITLE POLICY OR VILLAGE ZONING CODE FOR POSSIBLE ADDITIONAL EASEMENTS OR BUILDING LINES NOT SHOWN HEREON.

STATE OF ILLINOIS)
COUNTY OF COOK)SS

I, JASON R. DOLAND, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT THE ABOVE DESCRIBED PROPERTY HAS BEEN SURVEYED, UNDER MY SUPERVISION, IN THE MANNER REPRESENTED ON THE PLAT HEREON DRAWN.

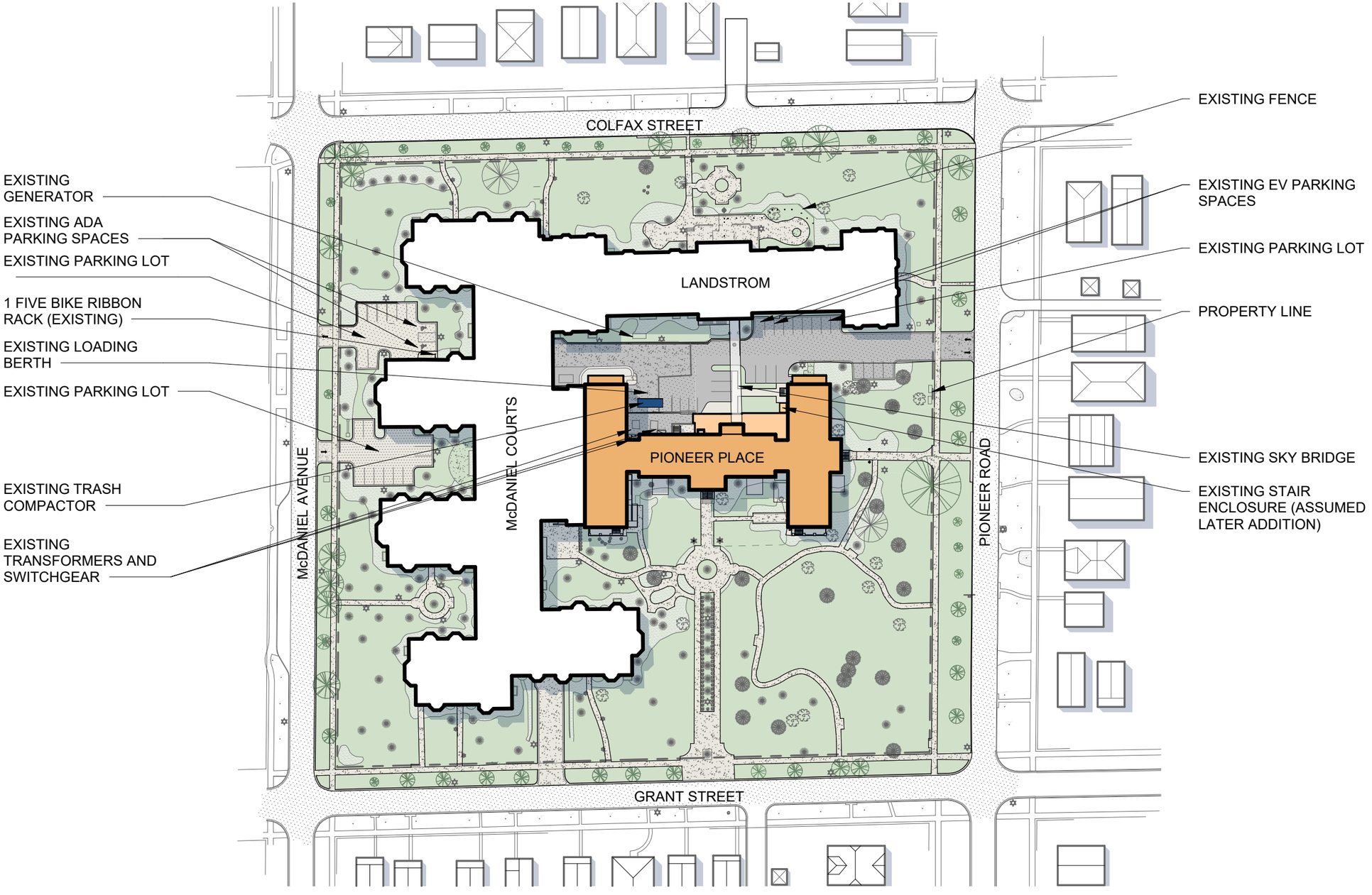
DIMENSIONS ARE SHOWN IN FEET AND DECIMAL PARTS THEREOF.

DATED AT PALATINE, ILLINOIS 07/24/24

JASON R. DOLAND 3548 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS PALATINE, ILLINOIS

ILLINOIS PROFESSIONAL LAND SURVEYOR

DOLAND ENGINEERING, LLC
-CIVIL ENGINEERING ~ LAND SURVEYING ~ LAND PLANNING-
334 E. COLFAX STREET, SUITE C,
PALATINE, ILLINOIS 60067
(847) 991-5088 (847) 934-3427-FAX



EXISTING SITE PLAN

2320 PIONEER ROAD, EVANSTON, IL 60201

1" = 100'-0"

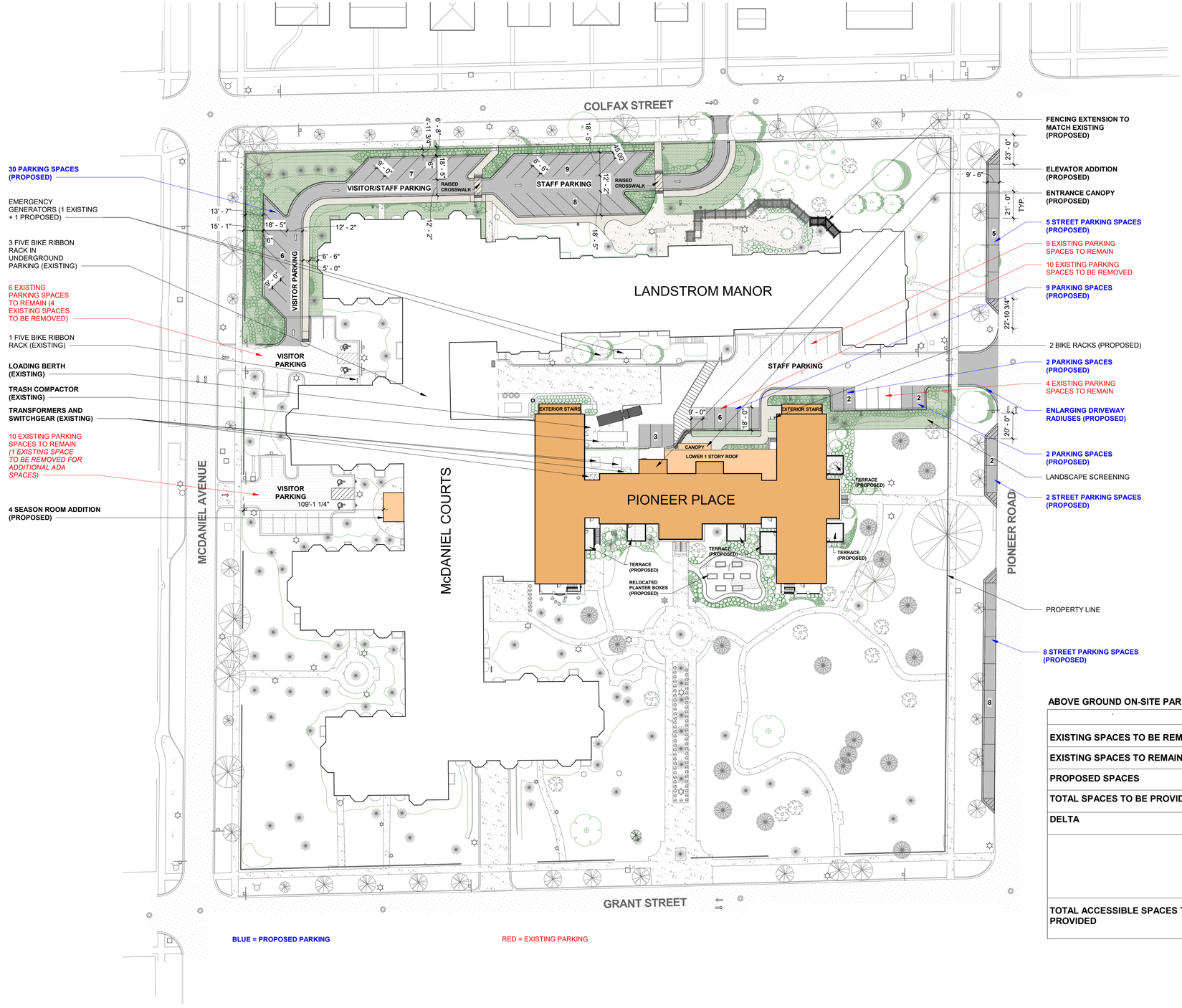
0' 50' 100' 200' 400'

11.25.2025

BLDD ARCHITECTS

BLDD Project No. 234SX01.400

11/25/2025
REVISION 1 - 3/11/2026



BLUE = PROPOSED PARKING

RED = EXISTING PARKING

ABOVE GROUND ON-SITE PARKING SPACES BREAKDOWN

	EXISTING	PROPOSED
EXISTING SPACES TO BE REMOVED	-	(6)
EXISTING SPACES TO REMAIN	44	38
PROPOSED SPACES	-	34
TOTAL SPACES TO BE PROVIDED	44	72
DELTA	-	+28 SPACES

	EXISTING	PROPOSED *(INCLUDES EXISTING)*
TOTAL ACCESSIBLE SPACES TO BE PROVIDED	2	4

PROPOSED SITE PLAN

1 SITE PLAN - REVISED PARKING
1" = 40'-0"

0' 20' 40' 80' 160'

BLDD ARCHITECTS

GARDEN LEVEL PLAN

GARDEN LEVEL FLOOR PLAN.
1/8" = 1'-0"

0' 4' 8' 16' 32'

BLDD ARCHITECTS

FIRST FLOOR PLAN

FIRST FLOOR PLAN.
1/8" = 1'-0"

0' 4' 8' 16' 32'

BLDD ARCHITECTS

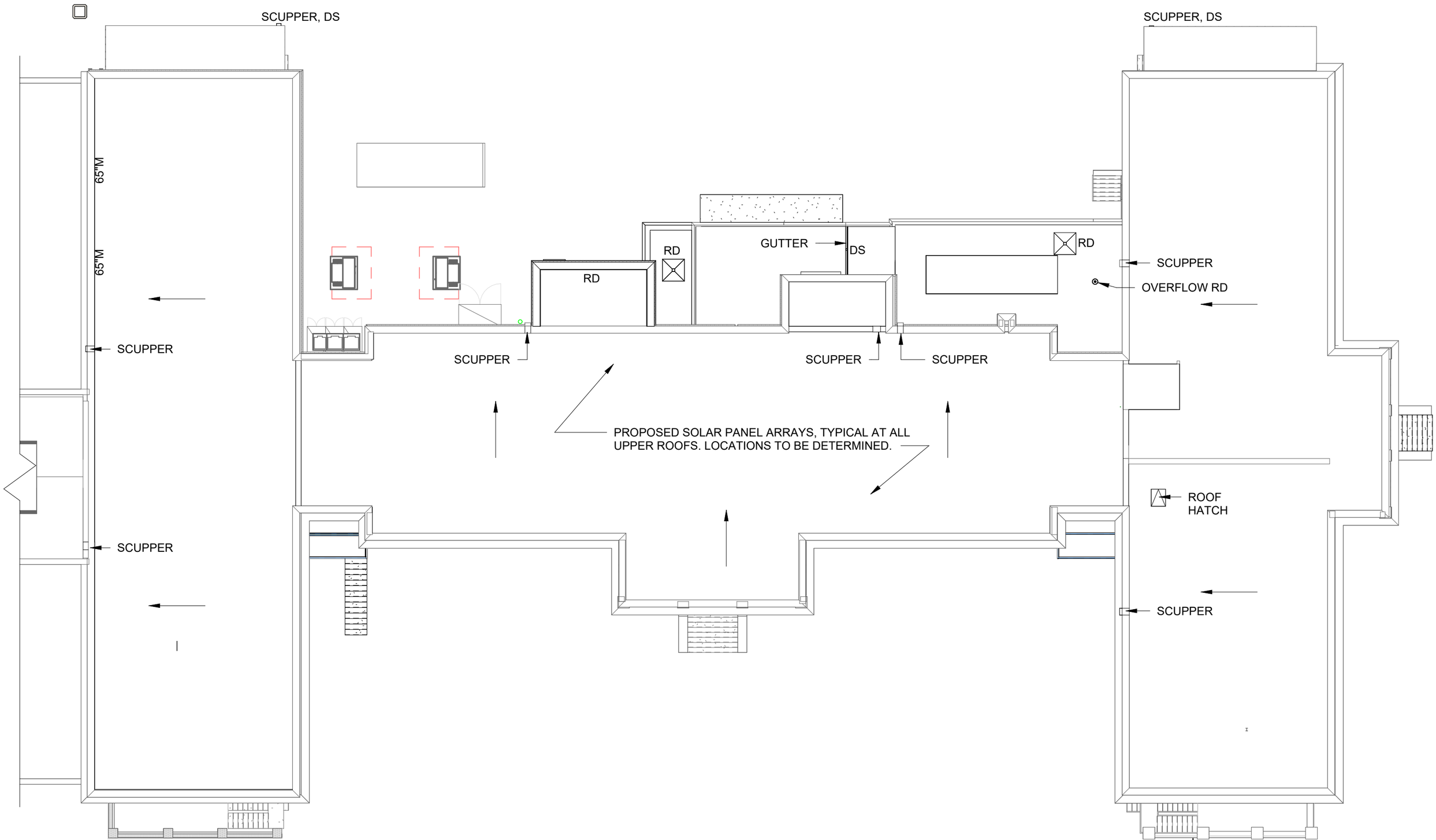
11/25/2025

SECOND FLOOR PLAN

SECOND FLOOR PLAN.
1/8" = 1'-0"

0' 4' 8' 16' 32'

BLDD ARCHITECTS



ROOF PLAN

2320 PIONEER ROAD, EVANSTON, IL 60201

0' 8' 16' 32' 64'

11.25.2025

BLDD ARCHITECTS

BLDD Project No. 234SX01.400

COURTYARD ELEVATOR ADDITION RENDERING

11.25.2025

2320 PIONEER ROAD, EVANSTON, IL 60201

BLDD ARCHITECTS

BLDD Project No. 234SX01.400

SOUTH ELEVATION RENDERING

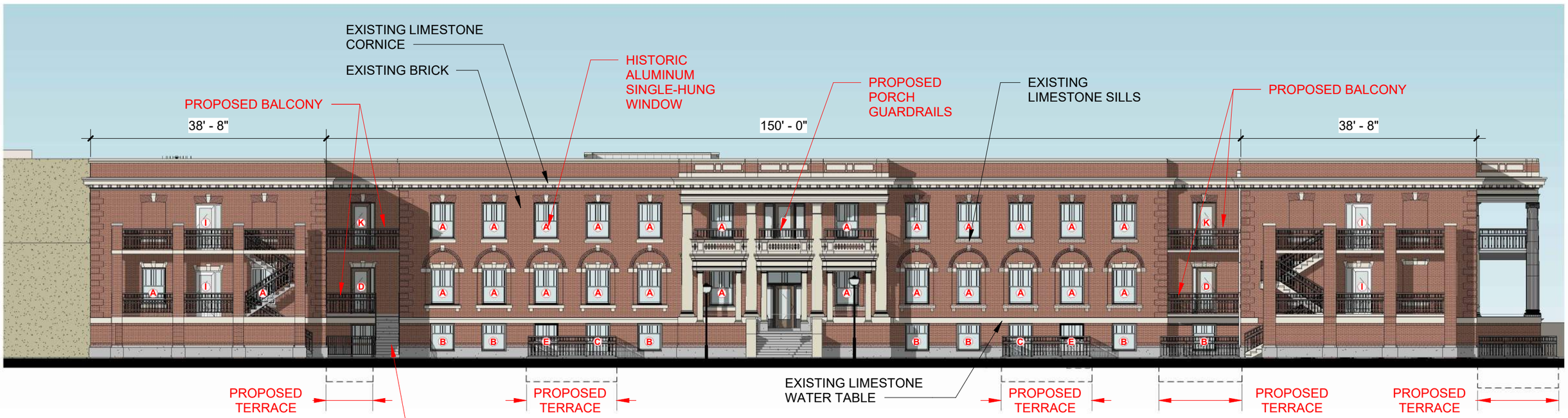
11.25.2025

2320 PIONEER ROAD, EVANSTON, IL 60201

BLDD ARCHITECTS

BLDD Project No. 234SX01.400

1 SOUTH ELEVATION - EXISTING_
1/16" = 1'-0"



2 SOUTH ELEVATION - PROPOSED_
1/16" = 1'-0"

SOUTH ELEVATION

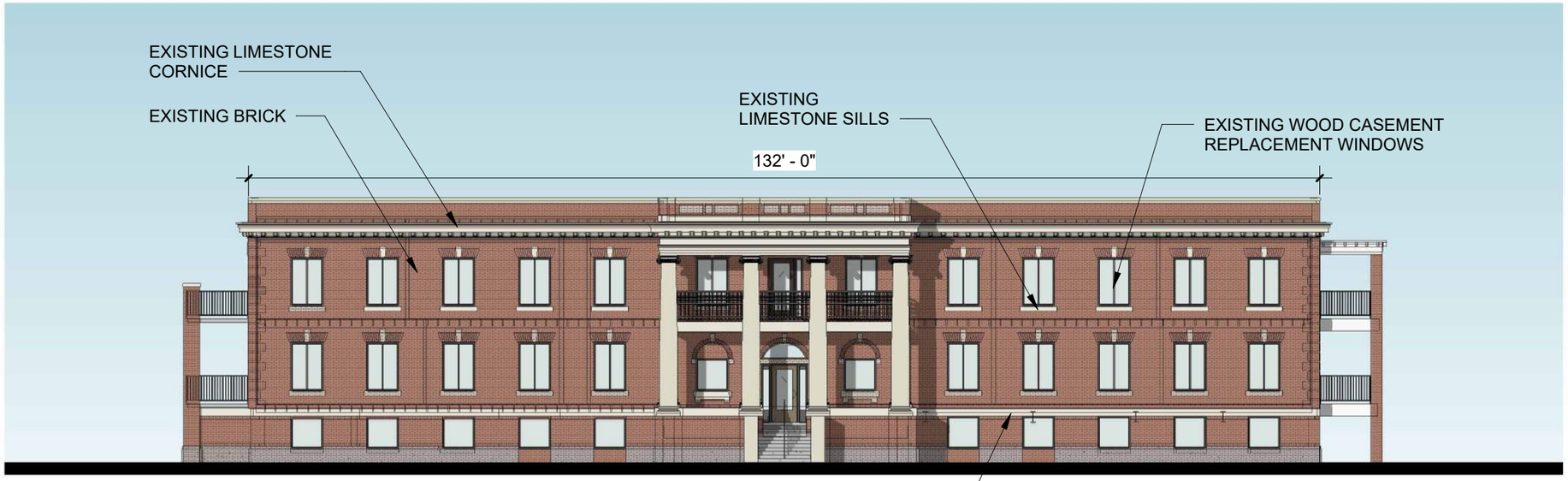
2320 PIONEER ROAD, EVANSTON, IL 60201

0' 8' 16' 32' 64'

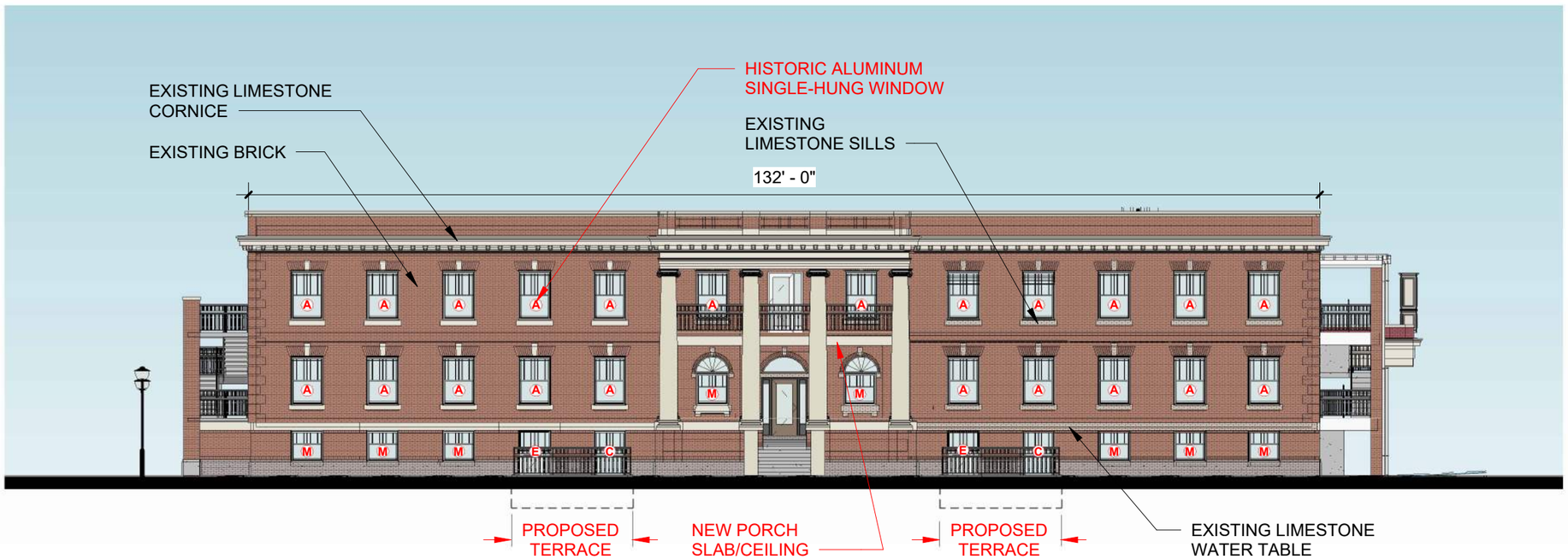
11.25.2025

BLDD ARCHITECTS

BLDD Project No. 234SX01.400



1 EAST ELEVATION - EXISTING_
1/16" = 1'-0"



2 EAST ELEVATION - PROPOSED_
1/16" = 1'-0"

EAST ELEVATION

2320 PIONEER ROAD, EVANSTON, IL 60201

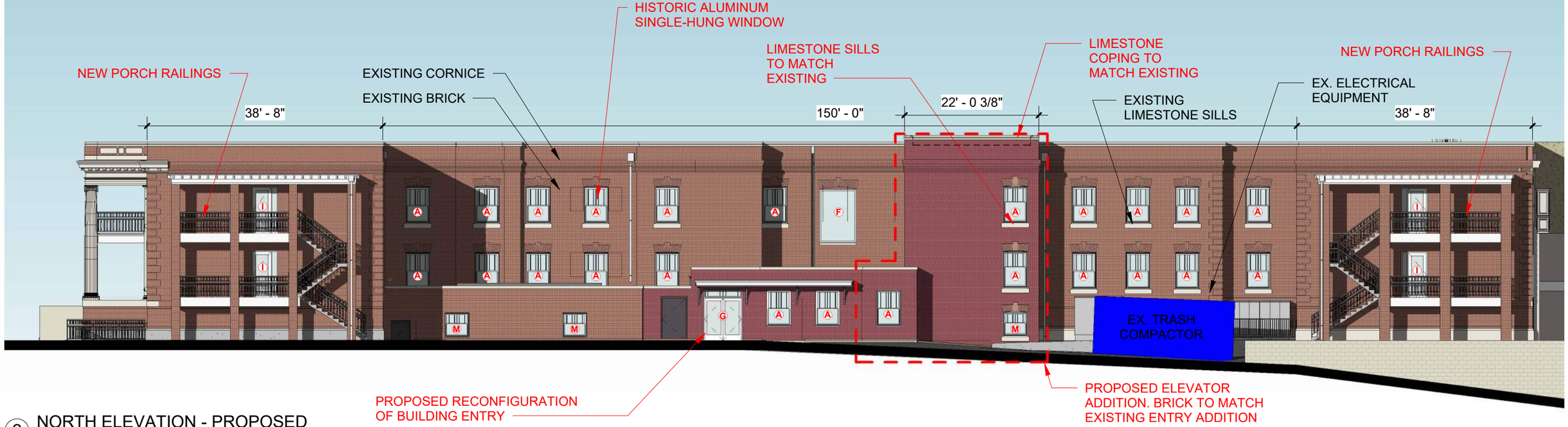
11.25.2025

0' 8' 16' 32' 64'

BLDD ARCHITECTS

BLDD Project No. 234SX01.400

1 NORTH ELEVATION - EXISTING
1/16" = 1'-0"



2 NORTH ELEVATION - PROPOSED
1/16" = 1'-0"

NORTH ELEVATION

2320 PIONEER ROAD, EVANSTON, IL 60201

0' 8' 16' 32' 64'

11.25.2025

BLDD ARCHITECTS

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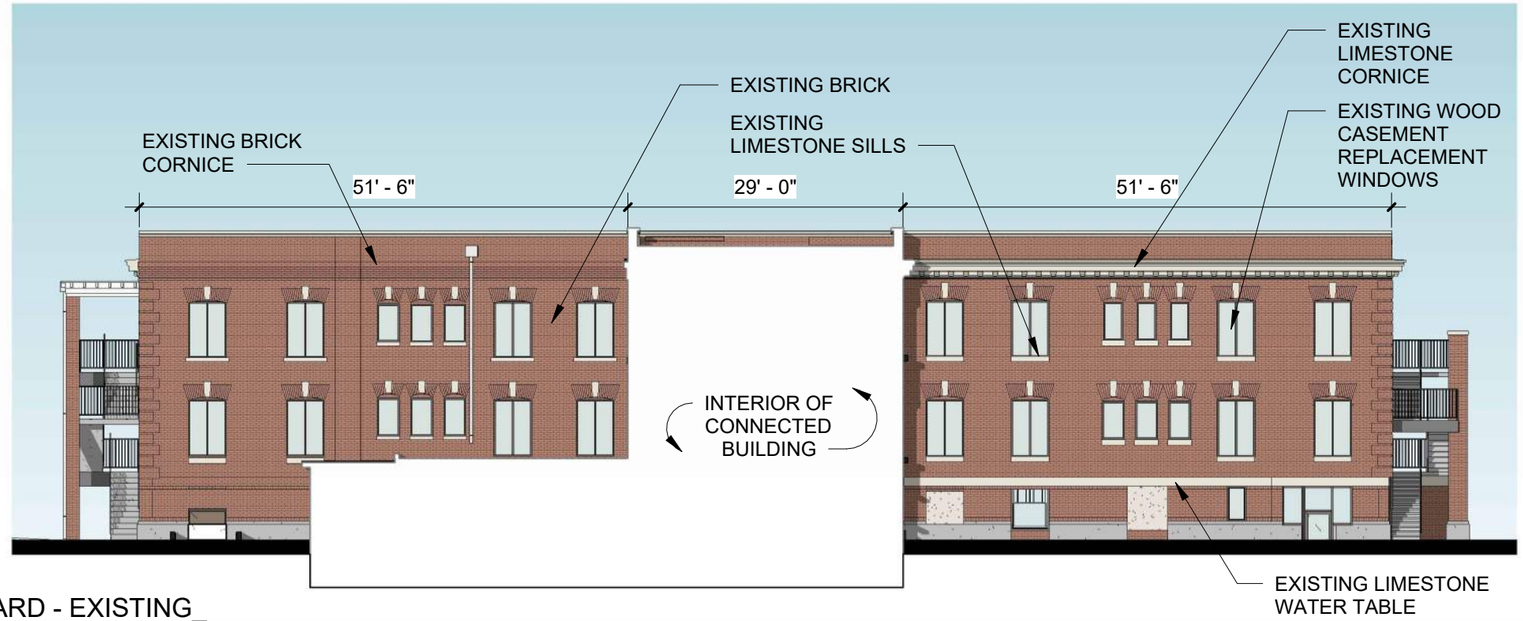
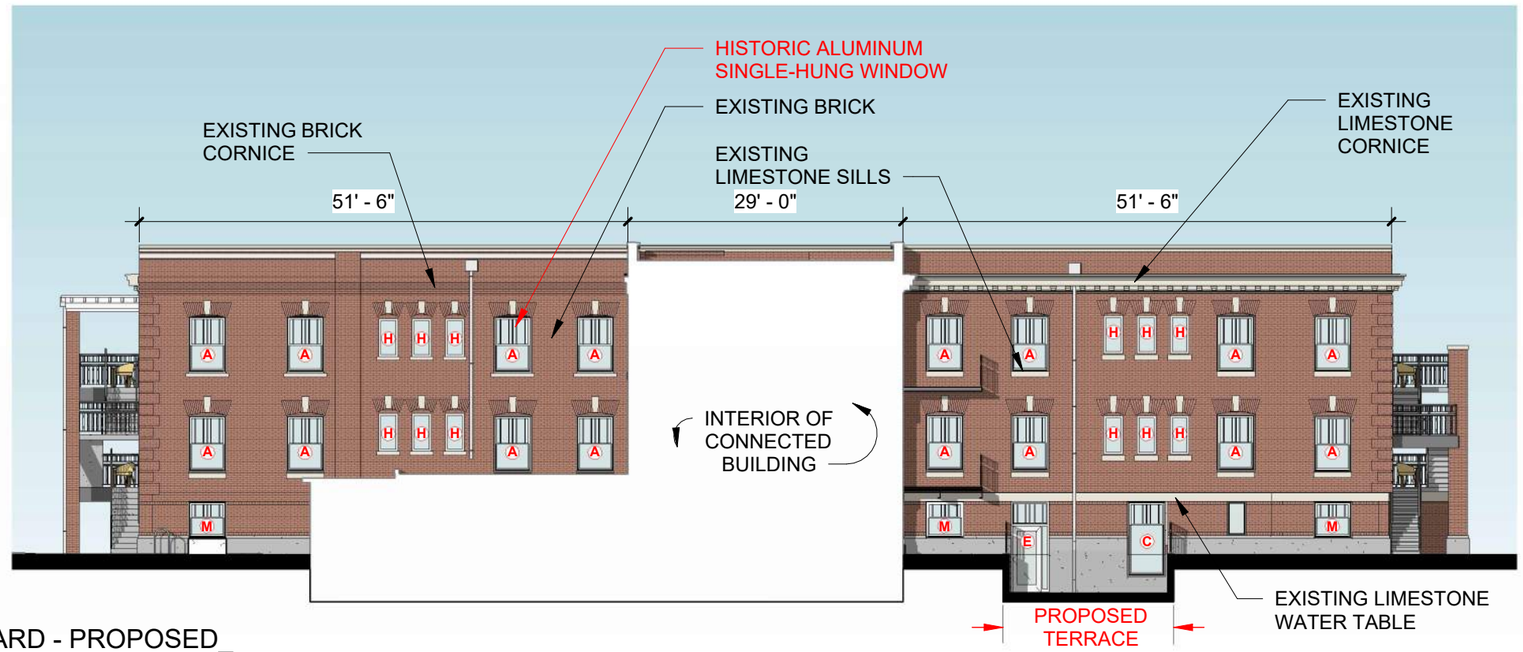


1 EAST ELEVATION AT COURTYARD - EXISTING_
1/16" = 1'-0"



2 EAST ELEVATION AT COURTYARD - PROPOSED_
1/16" = 1'-0"

EAST ELEVATION AT COURTYARD

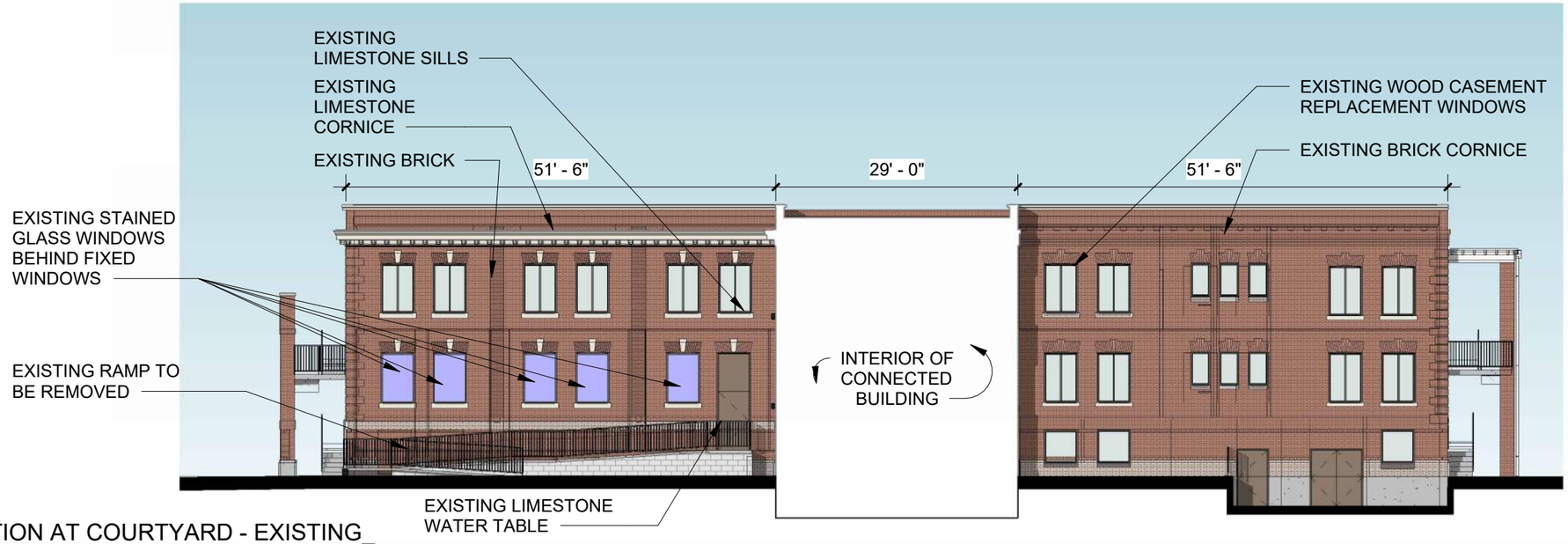
2320 PIONEER ROAD, EVANSTON, IL 60201

0' 8' 16' 32' 64'

11.25.2025

BLDD ARCHITECTS

BLDD Project No. 234SX01.400



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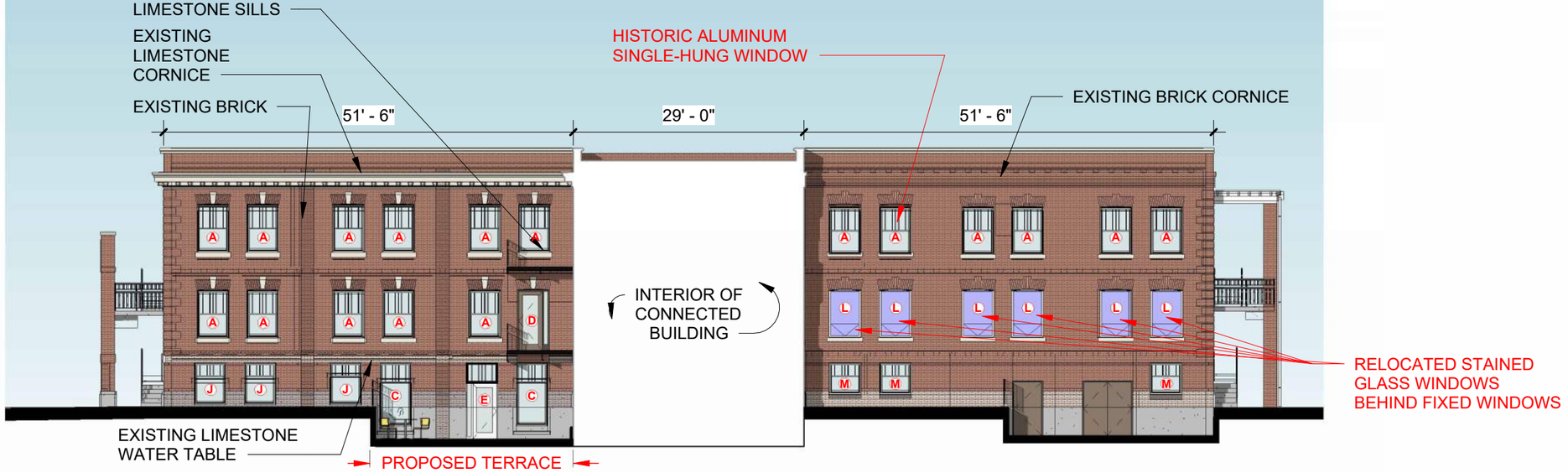

2 WEST ELEVATION AT COURTYARD - PROPOSED_
1/16" = 1'-0"

WEST ELEVATION AT COURTYARD

2320 PIONEER ROAD, EVANSTON, IL 60201

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BLDD ARCHITECTS

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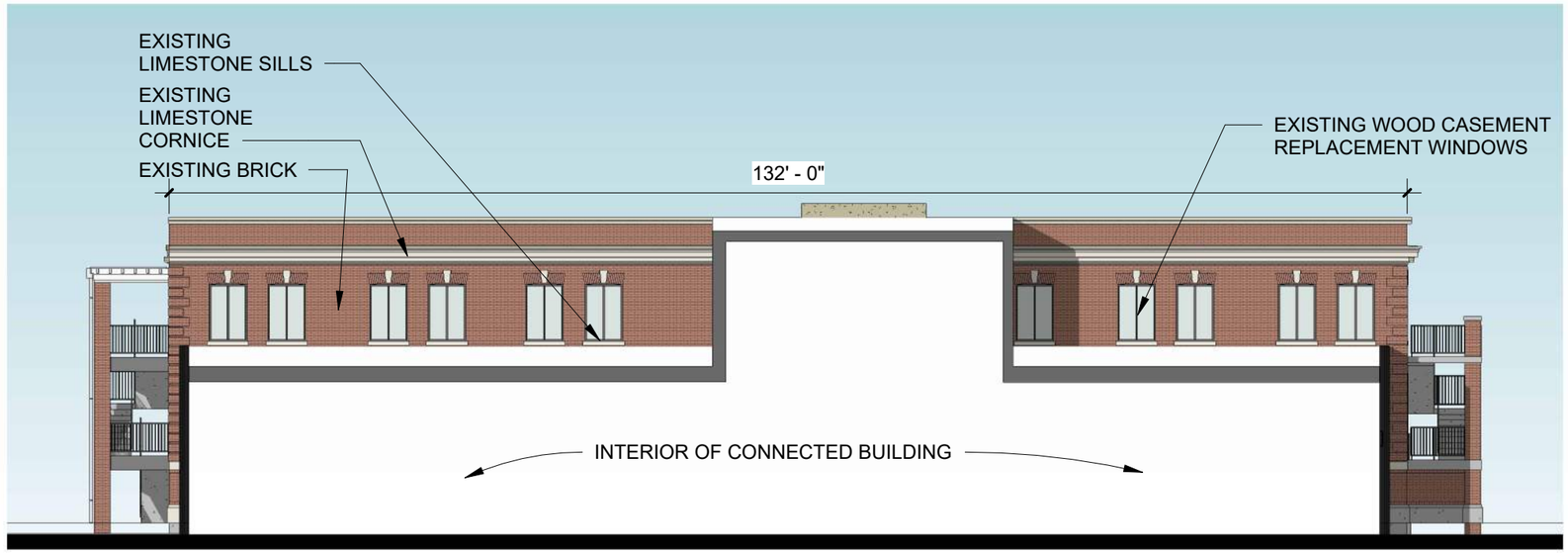

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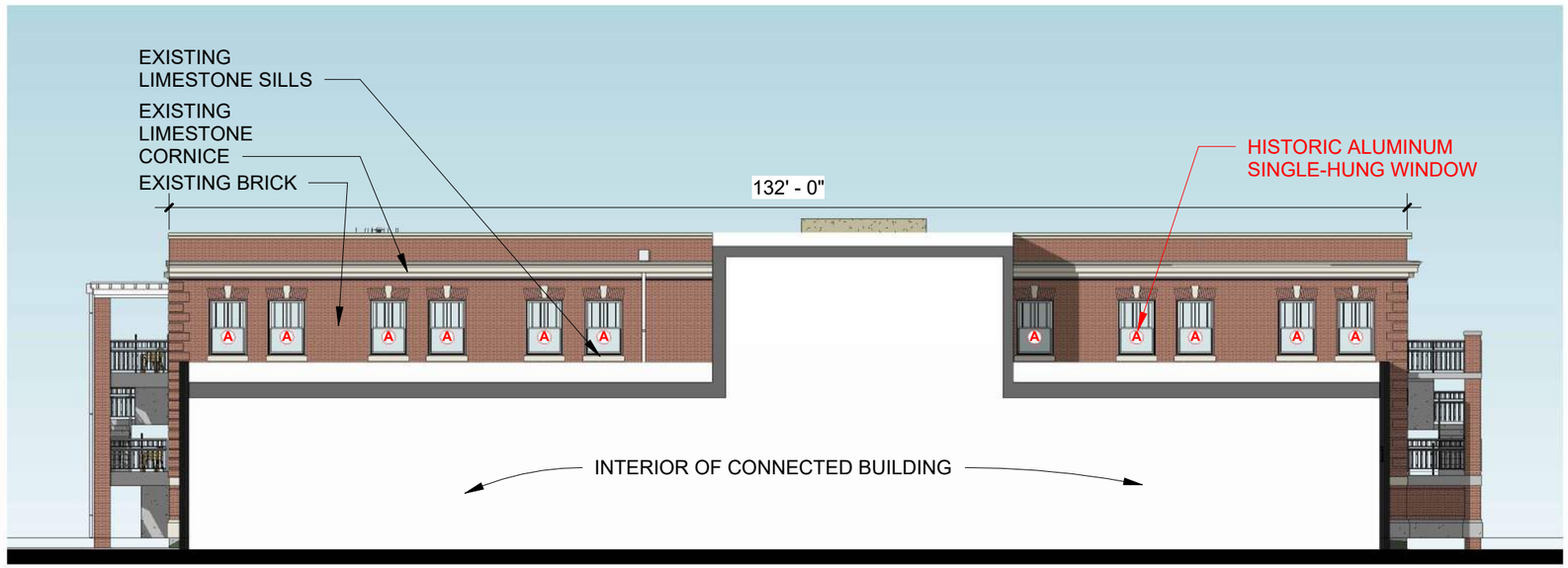

2 WEST ELEVATION - PROPOSED_
1/16" = 1'-0"

WEST ELEVATION

2320 PIONEER ROAD, EVANSTON, IL 60201

0' 8' 16' 32' 64'

11.25.2025

BLDD ARCHITECTS

BLDD Project No. 234SX01.400

MCDANIEL COURTS 4 SEASON ROOM ADDITION ELEVATION

11/25/2025

2323 MCDANIEL AVE, EVANSTON, IL 60201

BLDD ARCHITECTS

BLDD Project No. 234SI09.400

NEW AND EXISTING FENCE

2320 PIONEER ROAD, EVANSTON, IL 60201

0' 4' 8' 16' 32'

11.25.2025

BLDD ARCHITECTS

BLDD Project No. 234SX01.400

NEW/REPLACED DOOR/WINDOW TYPES

- (A) 48" x 72" SINGLE HUNG HISTORIC WINDOW
- (B) 48" x 56" SINGLE HUNG HISTORIC WINDOW
- (C) 48" x 96" SINGLE HUNG HISTORIC WINDOW
- (D) 3'-0" x 7'-6" DOOR WITH SIDELITE
- (E) 3'-0" x 7'-0" DOOR WITH TRANSOM AND SIDELITE
- (F) 6'-0" x 8'-8" FIXED HISTORIC WINDOW
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ALSO SEE PROPOSED ELEVATION SHEETS FOR LOCATIONS OF NEW/REPLACED DOOR/WINDOW TYPES.

SOUTH ELEVATION PHOTO_1

11.25.2025

2320 PIONEER ROAD, EVANSTON, IL 60201

BLDD ARCHITECTS

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ALSO SEE PROPOSED ELEVATION SHEETS FOR LOCATIONS OF NEW/REPLACED DOOR/WINDOW TYPES.

SOUTH ELEVATION PHOTO_2

11.25.2025

2320 PIONEER ROAD, EVANSTON, IL 60201

BLDD ARCHITECTS

BLDD Project No. 234SX01.400

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ALSO SEE PROPOSED ELEVATION SHEETS FOR LOCATIONS OF NEW/REPLACED DOOR/WINDOW TYPES.

EAST ELEVATION PHOTO

11.25.2025

2320 PIONEER ROAD, EVANSTON, IL 60201

BLDD ARCHITECTS

BLDD Project No. 234SX01.400

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ALSO SEE PROPOSED ELEVATION SHEETS FOR LOCATIONS OF NEW/REPLACED DOOR/WINDOW TYPES.

NORTH ELEVATION PHOTO_1

11.25.2025

2320 PIONEER ROAD, EVANSTON, IL 60201

BLDD ARCHITECTS

BLDD Project No. 234SX01.400

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NORTH ELEVATION PHOTO_2

11.25.2025

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BLDD ARCHITECTS

BLDD Project No. 234SX01.400

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ALSO SEE PROPOSED ELEVATION SHEETS FOR LOCATIONS OF NEW/REPLACED DOOR/WINDOW TYPES.

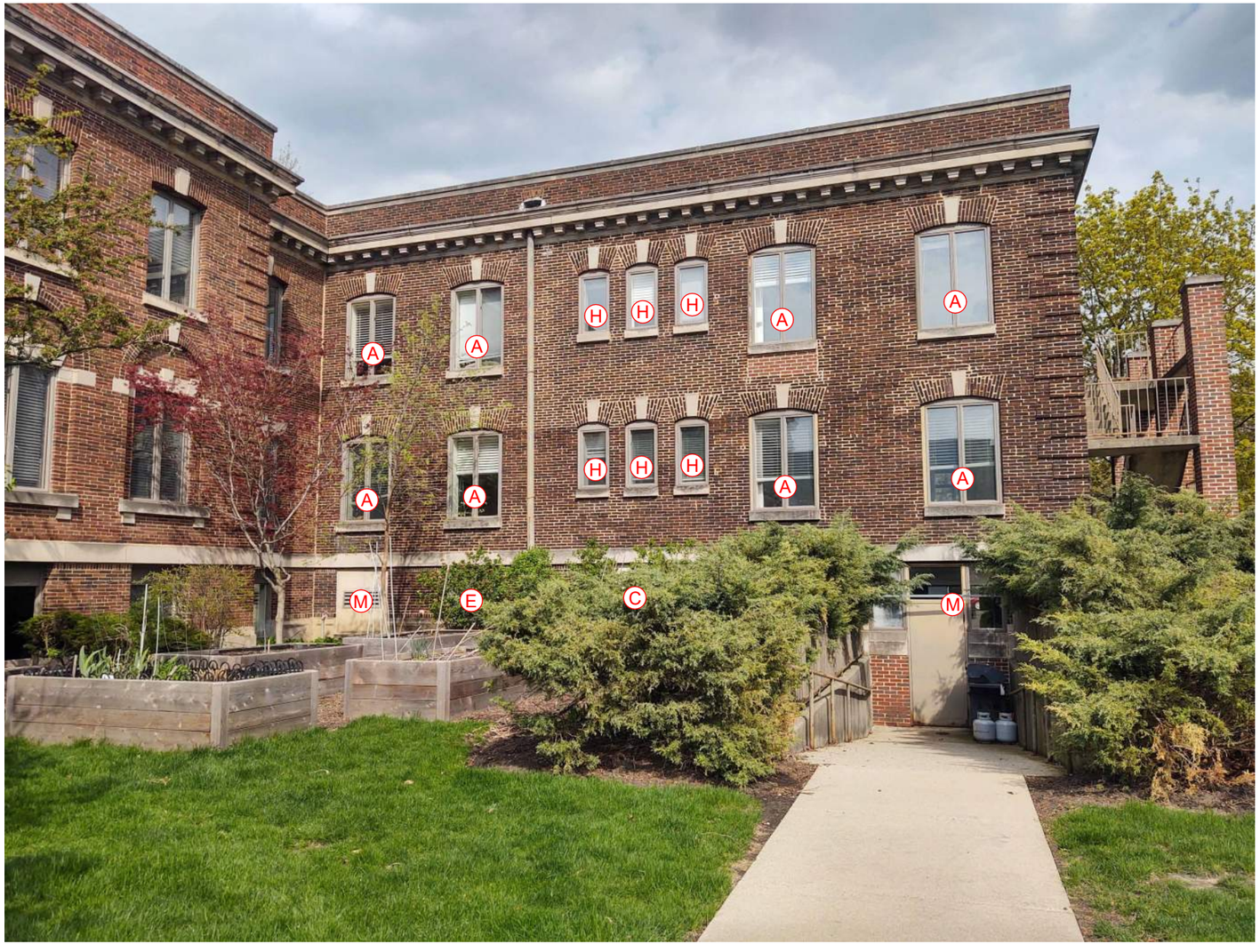
EAST ELEVATION AT COURTYARD PHOTO_1

11.25.2025

2320 PIONEER ROAD, EVANSTON, IL 60201

BLDD ARCHITECTS

BLDD Project No. 234SX01.400



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ALSO SEE PROPOSED ELEVATION SHEETS FOR LOCATIONS OF NEW/REPLACED DOOR/WINDOW TYPES.

EAST ELEVATION AT COURTYARD PHOTO_2

11.25.2025

2320 PIONEER ROAD, EVANSTON, IL 60201

BLDD ARCHITECTS

BLDD Project No. 234SX01.400

EXISTING RAMP TO BE REMOVED

EXISTING BRICK TO BE REMOVED AT FORMER WINDOW LOCATIONS AND HISTORIC ALUMINUM WINDOWS INSTALLED - TYPICAL

EXISTING STAIN GLASS WINDOWS TO BE REMOVED AND RELOCATED TO NORTH SIDE OF WEST WING - TYPICAL

NEW/REPLACED DOOR/WINDOW TYPES

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ALSO SEE PROPOSED ELEVATION SHEETS FOR LOCATIONS OF NEW/REPLACED DOOR/WINDOW TYPES.

WEST ELEVATION AT COURTYARD PHOTO_1

11.25.2025

2320 PIONEER ROAD, EVANSTON, IL 60201

BLDD ARCHITECTS

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NEW/REPLACED DOOR/WINDOW TYPES

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WEST ELEVATION AT COURTYARD PHOTO_2

11.25.2025

2320 PIONEER ROAD, EVANSTON, IL 60201

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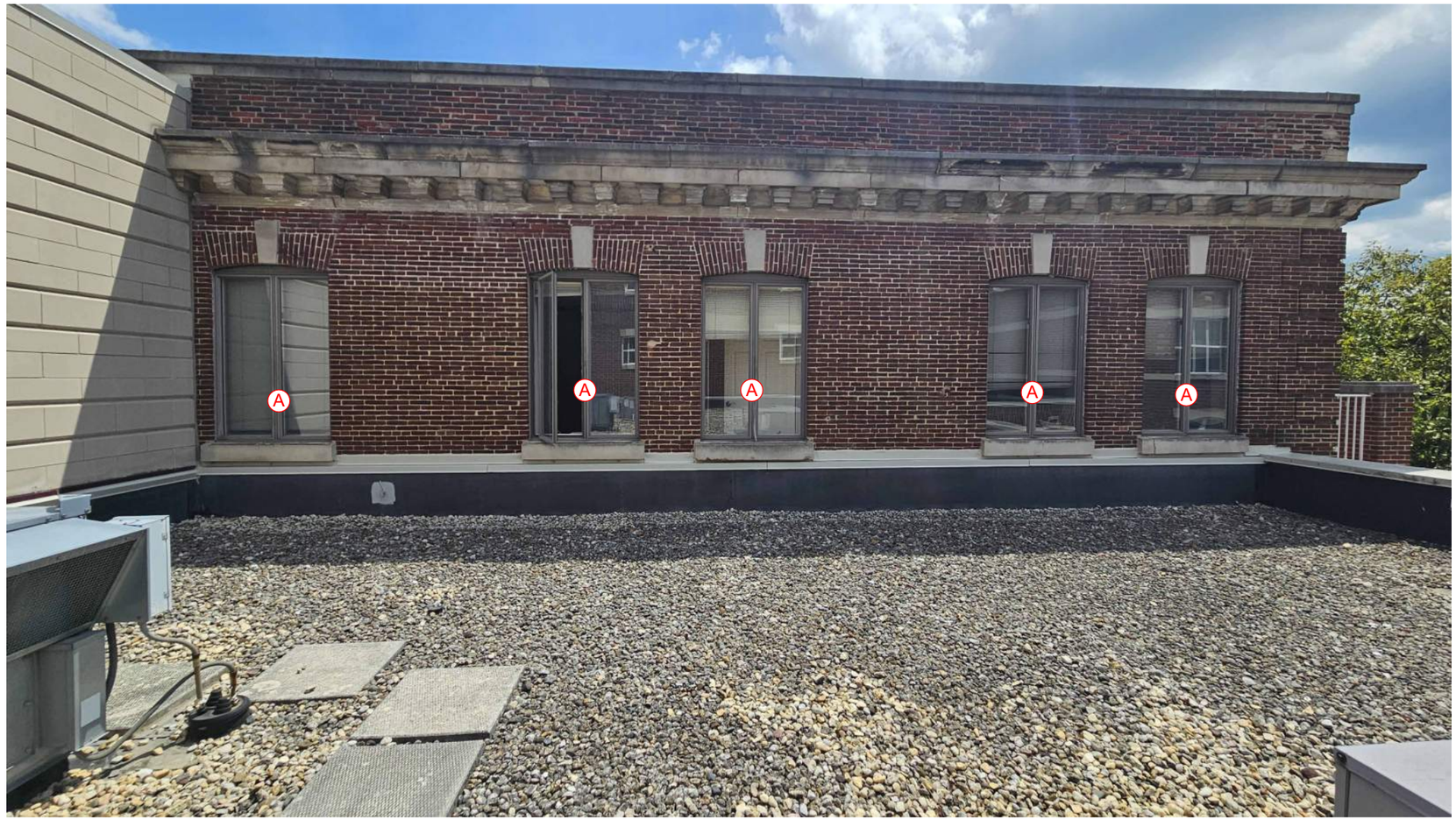

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- (E) 3'-0" x 7'-0" DOOR WITH TRANSOM AND SIDELITE
- (F) 6'-0" x 8'-8" FIXED HISTORIC WINDOW
- (G) 6'-0 x 7'-0" DOUBLE DOOR WITH TRANSOM
- (H) 24" x 48" FIXED HISTORIC WINDOW
- (I) 3'-0" x 7'-6" DOOR WITH SIDELITE
- (J) 48" x 64" SINGLE HUNG HISTORIC WINDOW
- (K) 3'-0 x 7'-8" DOOR WITH SIDELITE
- (L) 48" x 64" STAINED GLASS WINDOWS BEHIND FIXED HISTORIC WINDOWS
- (M) 48" x 48" SINGLE HUNG HISTORIC WINDOW

ALSO SEE PROPOSED ELEVATION SHEETS FOR LOCATIONS OF NEW/REPLACED DOOR/WINDOW TYPES.

WEST ELEVATION PHOTO_1

11.25.2025

2320 PIONEER ROAD, EVANSTON, IL 60201

BLDD ARCHITECTS

BLDD Project No. 234SX01.400

NEW/REPLACED DOOR/WINDOW TYPES

- (A) 48" x 72" SINGLE HUNG HISTORIC WINDOW
- (B) 48" x 56" SINGLE HUNG HISTORIC WINDOW
- (C) 48" x 96" SINGLE HUNG HISTORIC WINDOW
- (D) 3'-0" x 7'-6" DOOR WITH SIDELITE
- (E) 3'-0" x 7'-0" DOOR WITH TRANSOM AND SIDELITE
- (F) 6'-0" x 8'-8" FIXED HISTORIC WINDOW
- (G) 6'-0 x 7'-0" DOUBLE DOOR WITH TRANSOM
- (H) 24" x 48" FIXED HISTORIC WINDOW
- (I) 3'-0" x 7'-6" DOOR WITH SIDELITE
- (J) 48" x 64" SINGLE HUNG HISTORIC WINDOW
- (K) 3'-0 x 7'-8" DOOR WITH SIDELITE
- (L) 48" x 64" STAINED GLASS WINDOWS BEHIND FIXED HISTORIC WINDOWS
- (M) 48" x 48" SINGLE HUNG HISTORIC WINDOW

ALSO SEE PROPOSED ELEVATION SHEETS FOR LOCATIONS OF NEW/REPLACED DOOR/WINDOW TYPES.

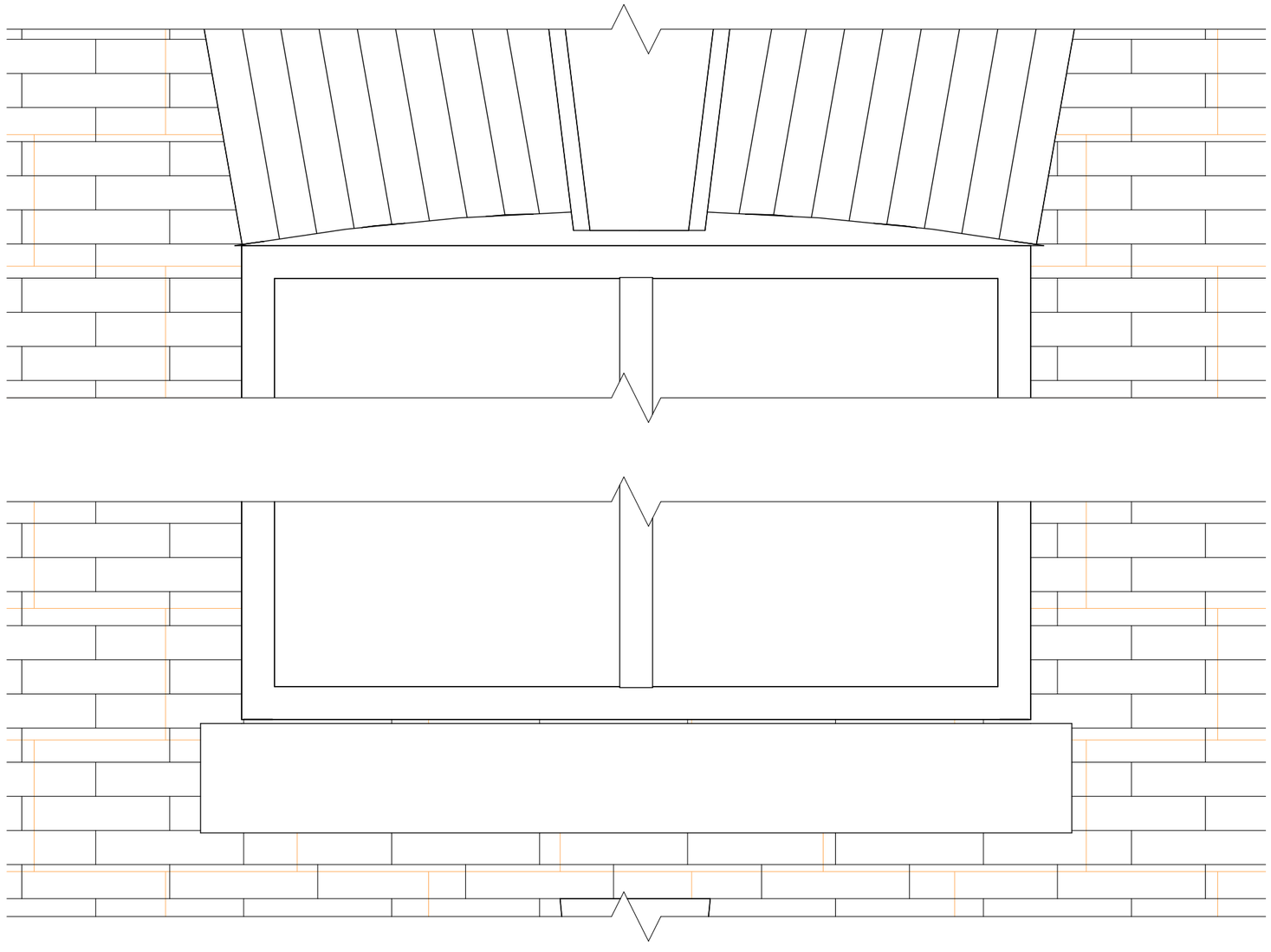
WEST ELEVATION PHOTO_2

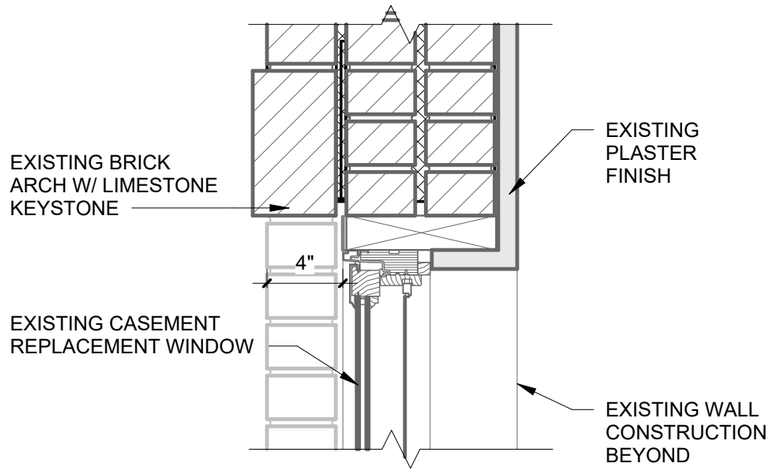
11.25.2025

2320 PIONEER ROAD, EVANSTON, IL 60201

BLDD ARCHITECTS

BLDD Project No. 234SX01.400





1 CURRENT WINDOW DETAILS
1 1/2" = 1'-0"

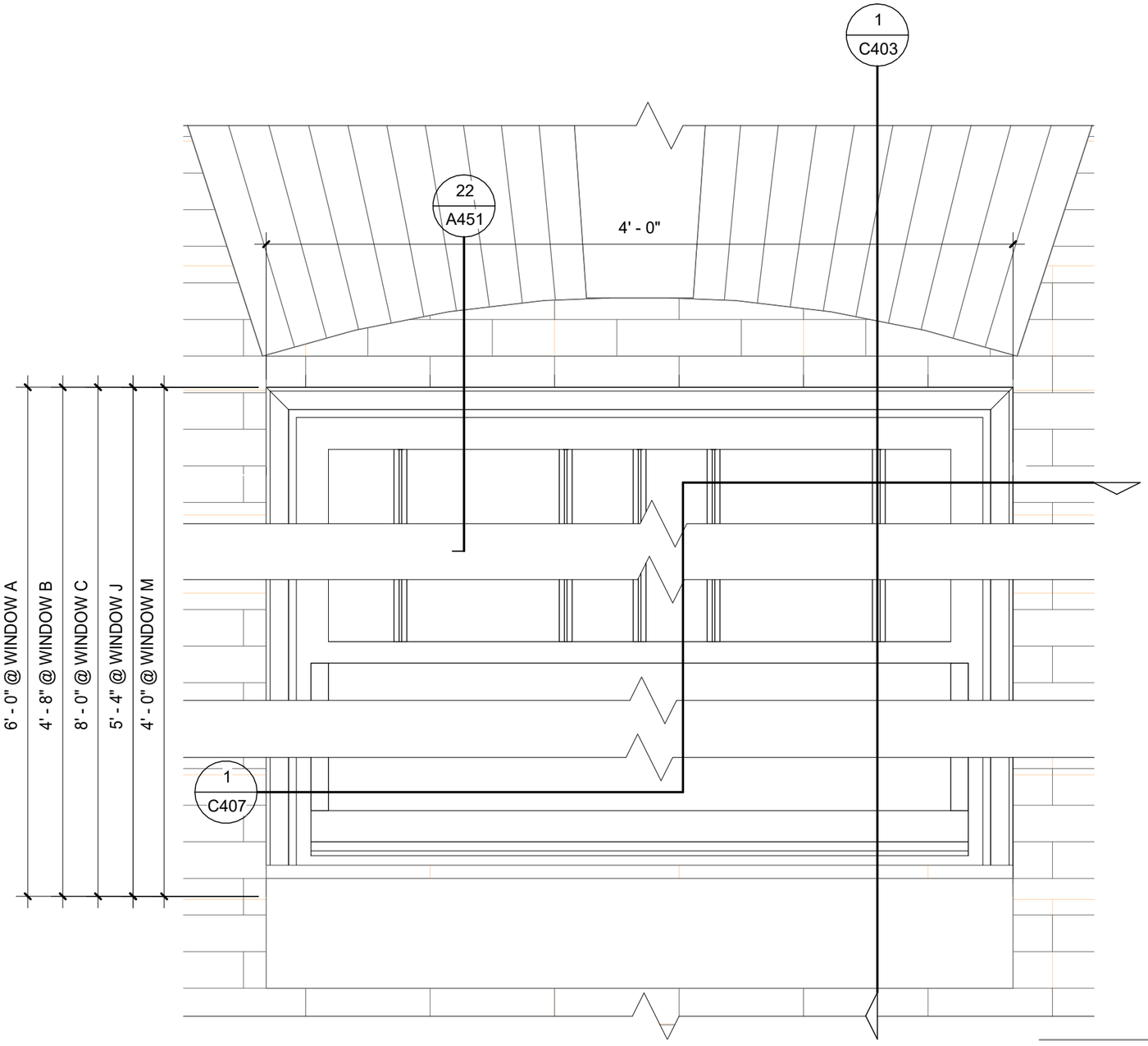
EXISTING WINDOW ELEVATION & DETAILS

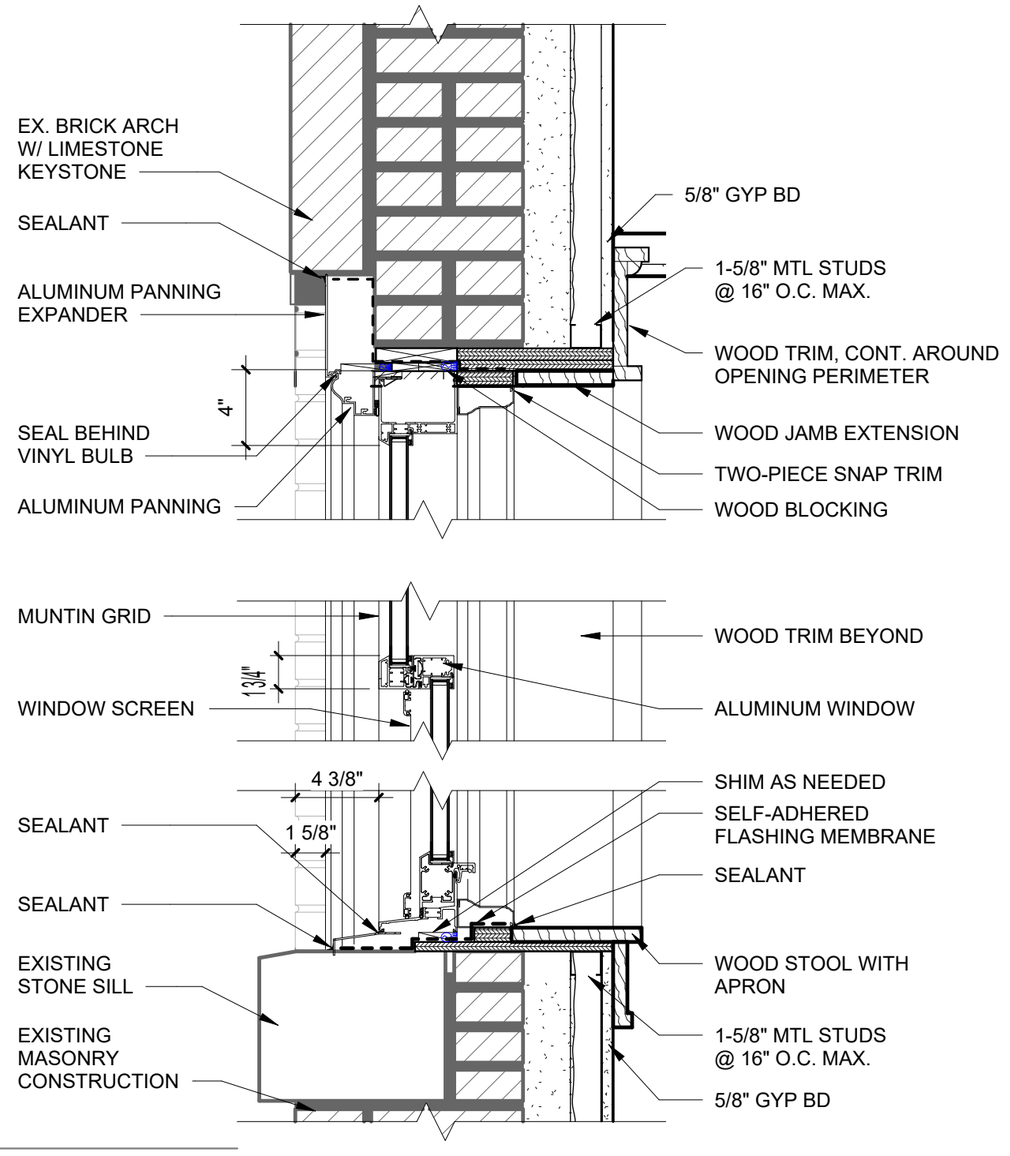
11.25.2025

2320 PIONEER ROAD, EVANSTON, IL 60201

BLDD ARCHITECTS

BLDD Project No. 234SX01.400





1 PROPOSED WINDOW HEAD AND SILL DETAILS 2
1 1/2" = 1'-0"

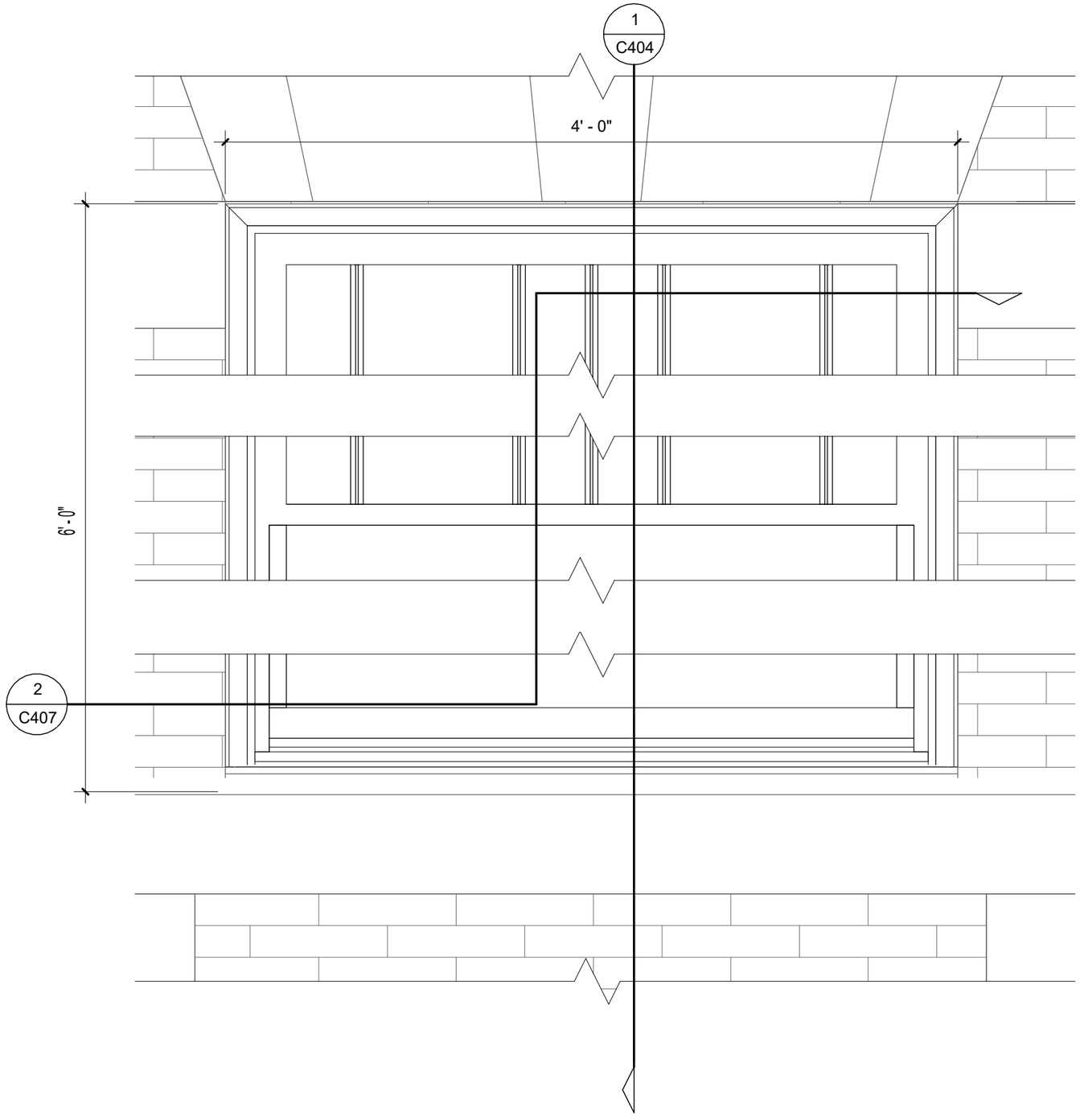
PROPOSED WINDOW ELEV. & DETAILS - TRIPLE-WYTHE WALL

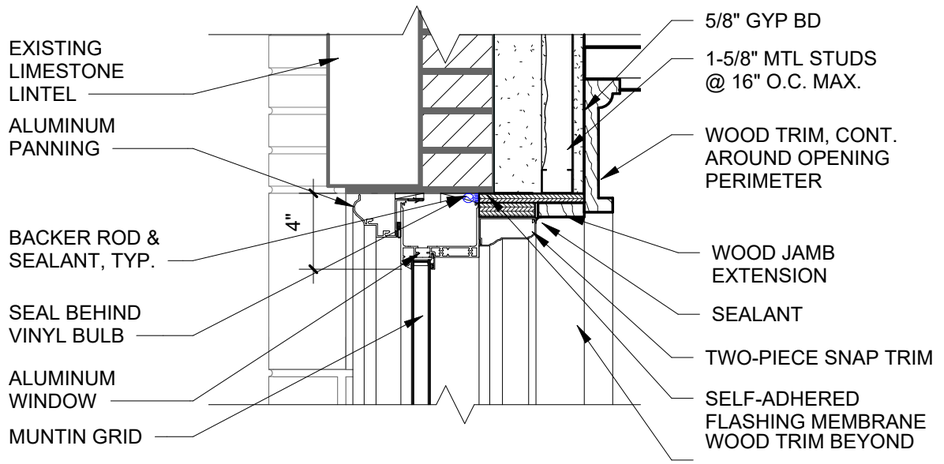
11.25.2025

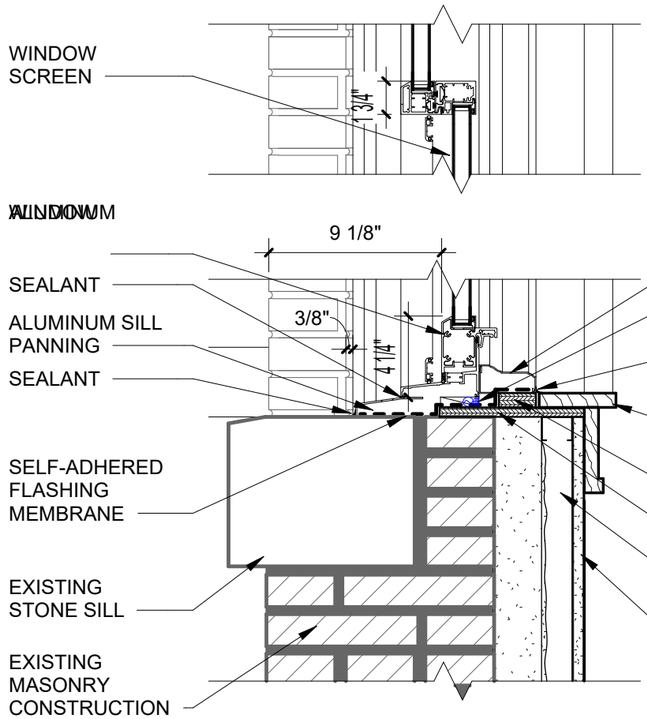
2320 PIONEER ROAD, EVANSTON, IL 60201

BLDD ARCHITECTS

BLDD Project No. 234SX01.400







1 PROPOSED WINDOW DETAIL - DOUBLE-WYTHE
1 1/2" = 1'-0"

PROPOSED WINDOW ELEV. & DETAILS - DOUBLE-WYTHE WALL

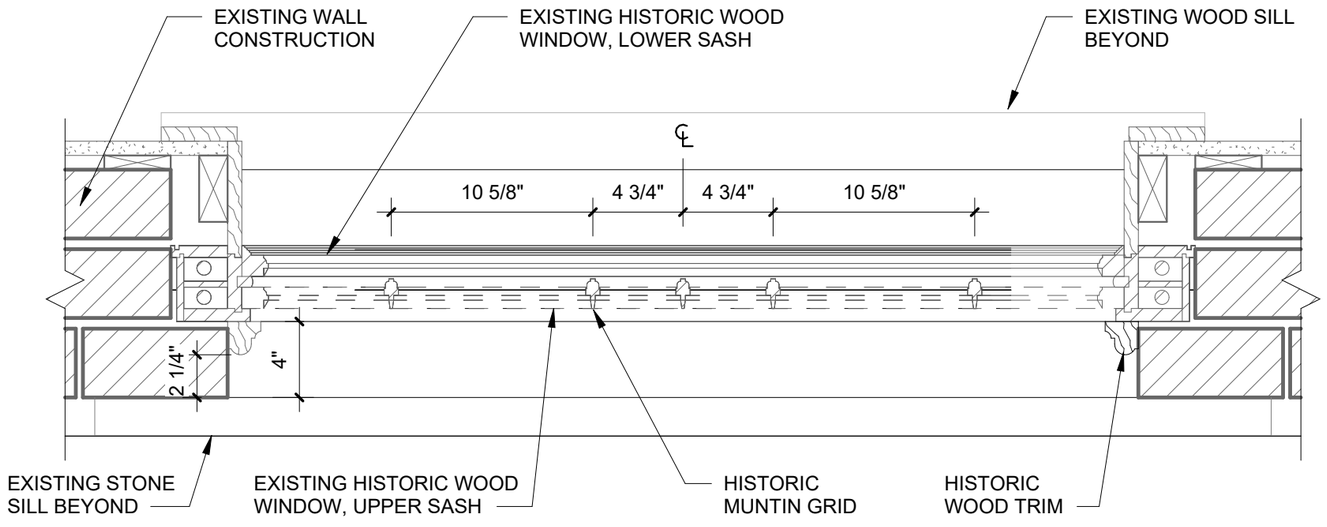
11.25.2025

2320 PIONEER ROAD, EVANSTON, IL 60201

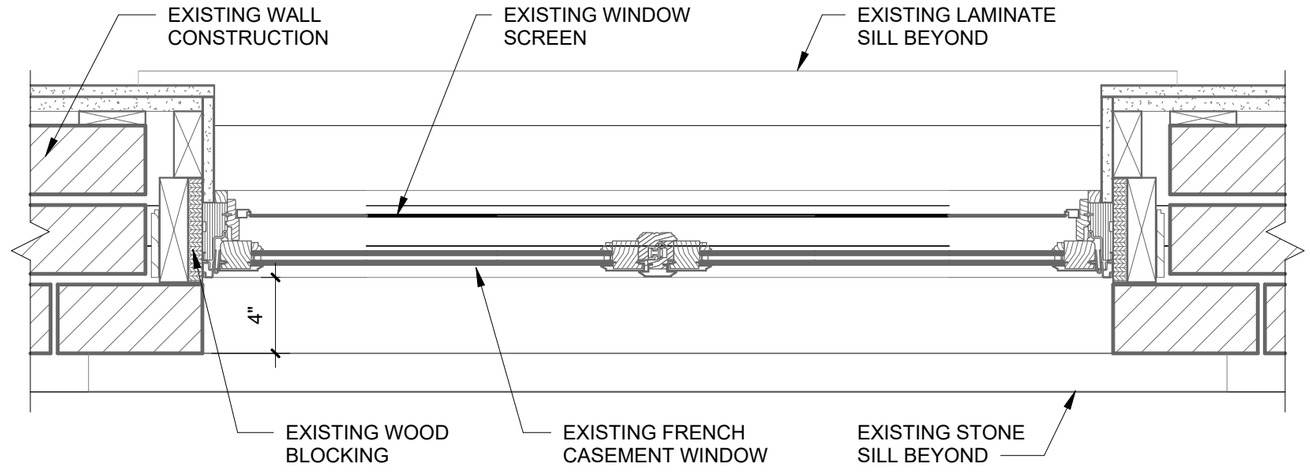
BLDD ARCHITECTS

BLDD Project No. 234SX01.400

1 HISTORIC WINDOW JAMB DETAIL
1 1/2" = 1'-0"



2 CURRENT WINDOW JAMB DETAIL
1 1/2" = 1'-0"



EXISTING WINDOW JAMB DETAILS

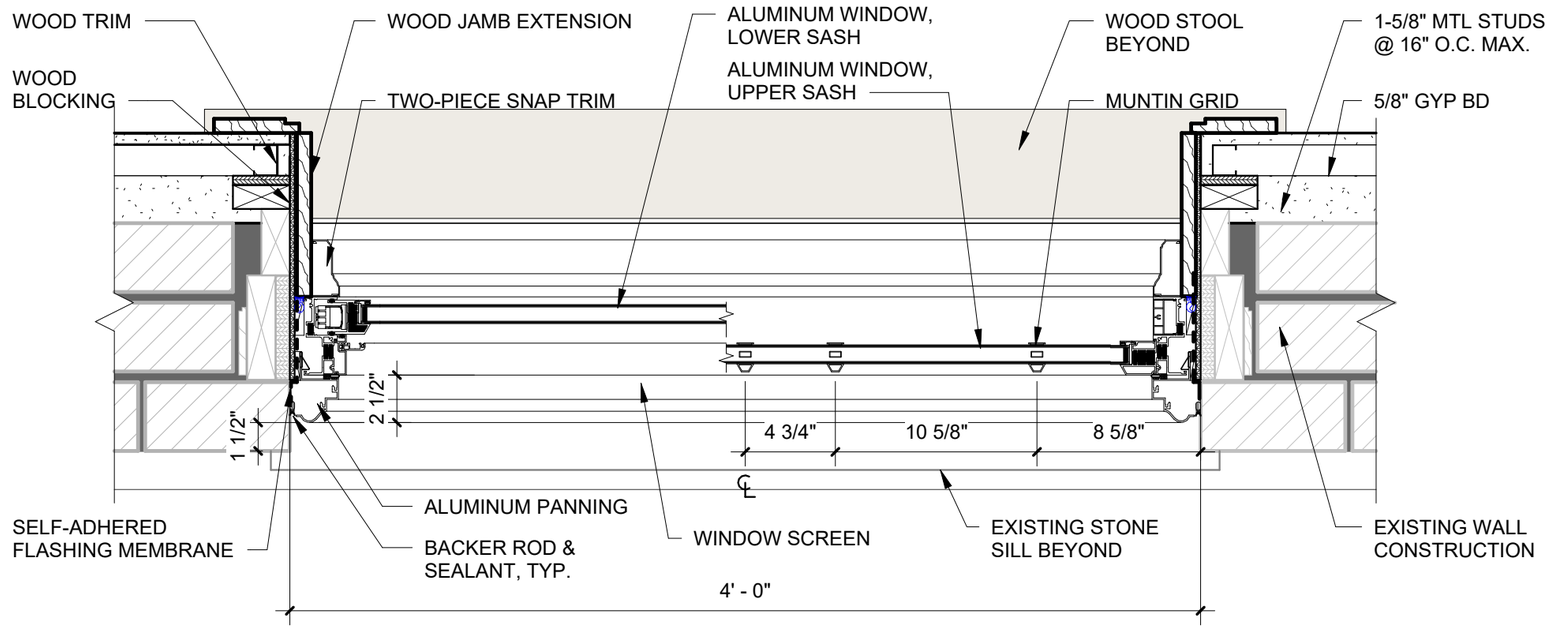
11.25.2025

2320 PIONEER ROAD, EVANSTON, IL 60201

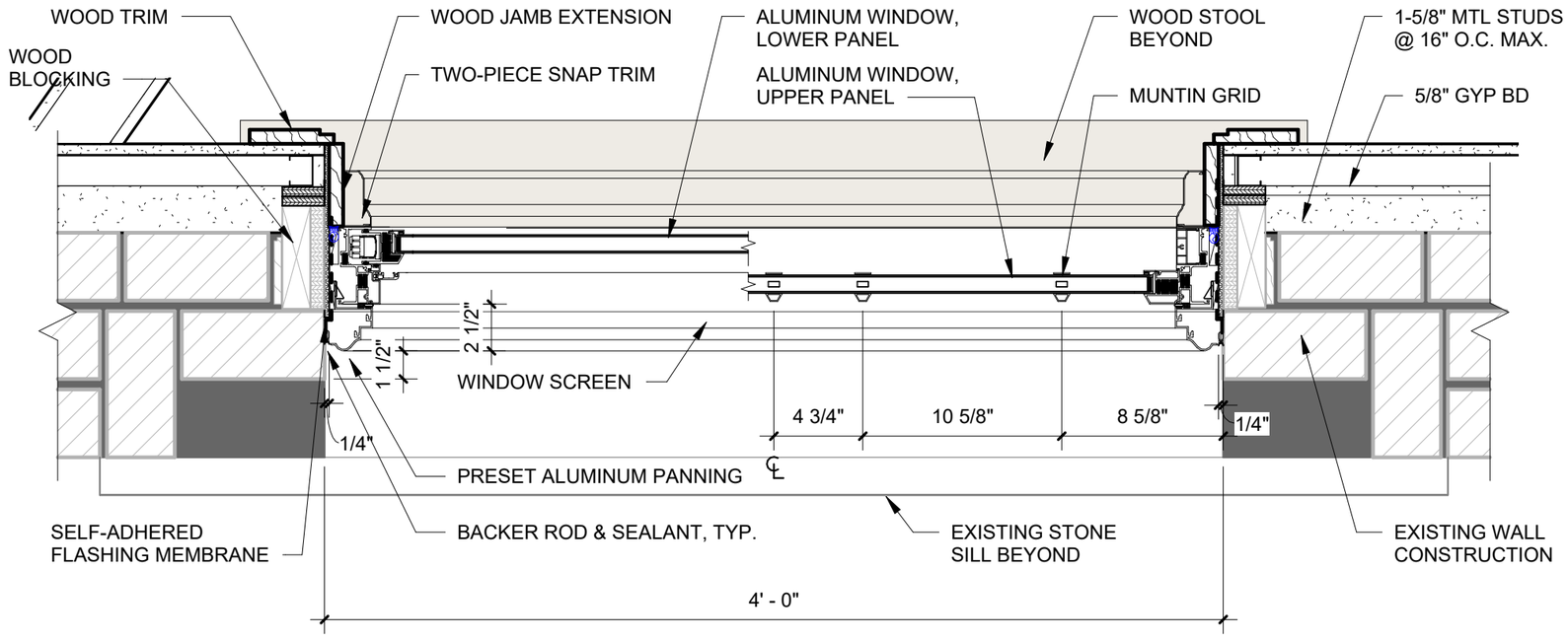
BLDD ARCHITECTS

BLDD Project No. 234SX01.400

1 PROPOSED WINDOW JAMB DETAIL - TRIPLE-WYTHE
1 1/2" = 1'-0"



2 PROPOSED WINDOW JAMB DETAIL - DOUBLE-WYTHE
1 1/2" = 1'-0"



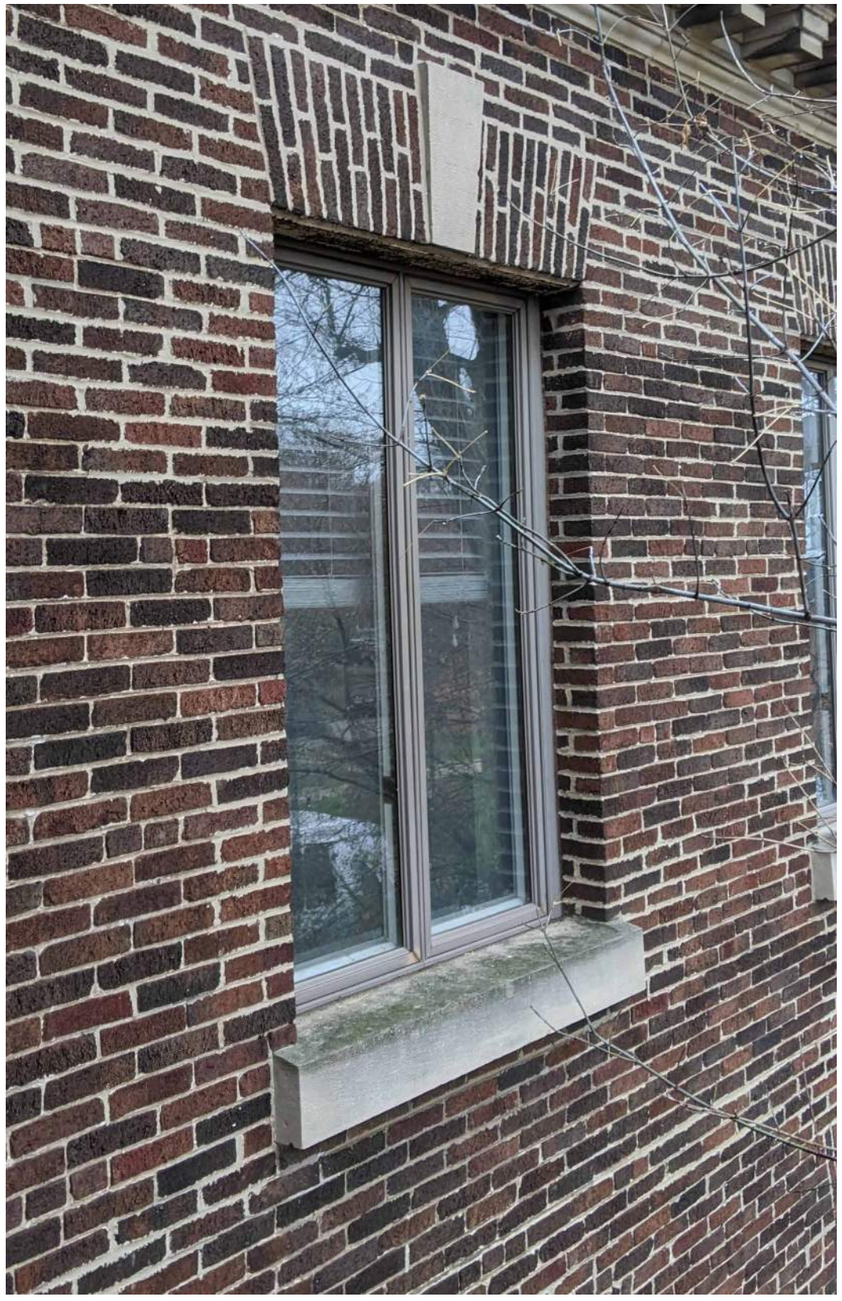
PROPOSED WINDOW JAMB DETAILS

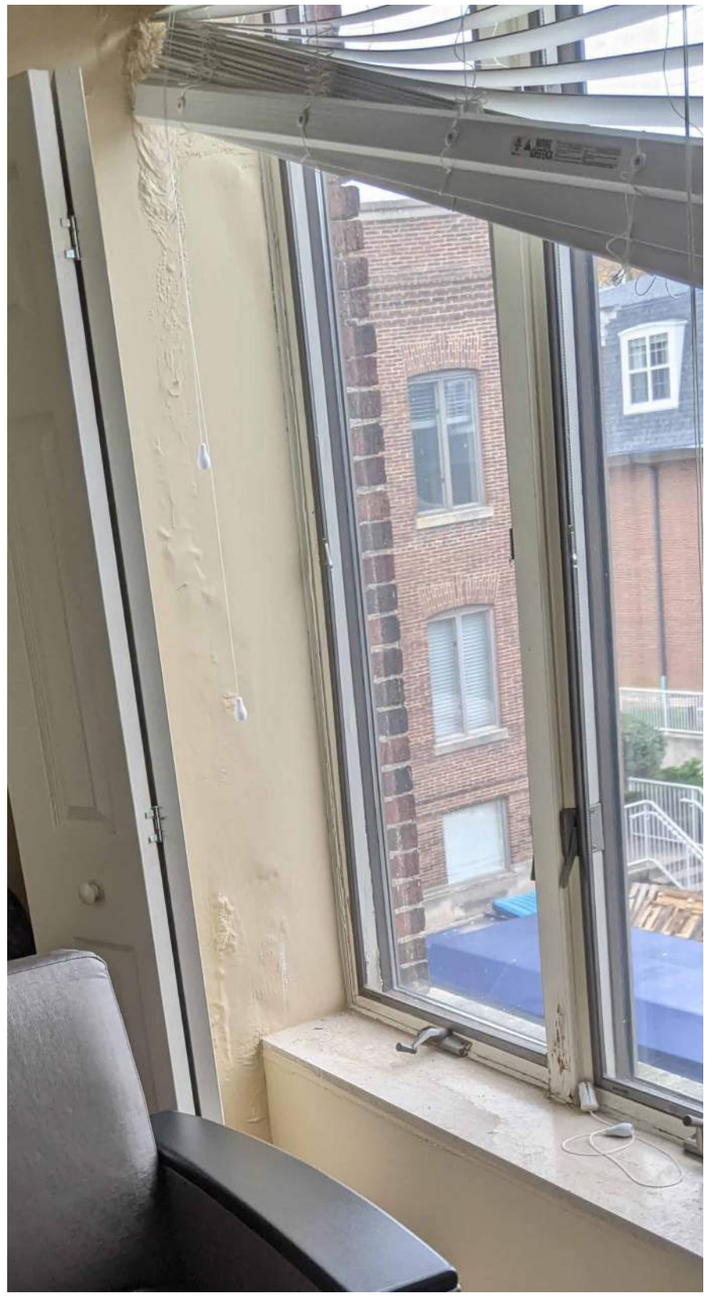
11.25.2025

2320 PIONEER ROAD, EVANSTON, IL 60201

BLDD ARCHITECTS

BLDD Project No. 234SX01.400





TYPICAL WINDOWS TO BE REPLACED BY WINDOWS A/B/C/J/L. SEE ELEVATIONS AND ELEVATION PHOTOS FOR WINDOW TYPES AND LOCATIONS.

TYPICAL EXISTING WINDOWS IMAGES

11.25.2025

2320 PIONEER ROAD, EVANSTON, IL 60201

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EXISTING HISTORIC WINDOW

11.25.2025

2320 PIONEER ROAD, EVANSTON, IL 60201

BLDD ARCHITECTS

BLDD Project No. 234SX01.400

FINAL ENGINEERING PLANS

THREE CROWN PARK - PIONEER PLACE RENOVATION

2320 PIONEER ROAD
EVANSTON, IL 60201

Call Before You Dig JULIE 1-800-892-0123

PROJECT TEAM

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BASE SYSTEMS
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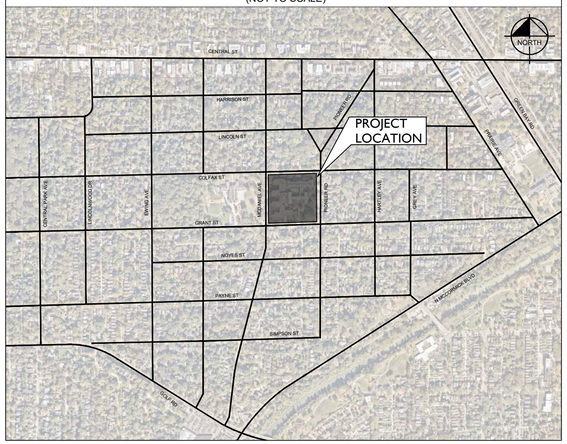
CHICAGO, IL 60631
TEL: (312) 739-3700

M.E.P.
20/10 ENGINEERING GROUP, LLC
1216 TOWER RD,
SCHAUMBURG, IL 60173
TEL: (847) 882-2010

LOCATION MAP

(NOT TO SCALE)



Sheet List Table

Sheet Number	Sheet Title
C0.0P	COVER SHEET
C0.1P	GENERAL NOTES
C0.2P	DEMO PLAN
C1.0P	SITE PLAN
C1.1P	FIRE LANE EXHIBIT
C2.0P	GRADING PLAN
C2.1P	ADA GRADING PLAN
C3.0P	UTILITY PLAN
C4.0P	EROSION CONTROL PLAN
C4.1P	EROSION CONTROL DETAILS
C5.0P	CONSTRUCTION DETAILS
C5.1P	CONSTRUCTION DETAILS
C5.2P	CONSTRUCTION DETAILS
C5.3P	CONSTRUCTION DETAILS

1

BENCHMARKS

ON-SITE BENCHMARK;
CROSS IN CONCRETE WALK
ELEVATION = 24.54 (EVANSTON CITY DATUM)

CITY OF EVANSTON BENCHMARK USED:
CITY BENCHMARK #36
ELEVATION = 26.16 (EVANSTON CITY DATUM)

LEGAL DESCRIPTION

LOTS 1 THROUGH 5, INCLUSIVE, IN LIONS SUBDIVISION OF THE NORTH 129 FEET OF THE EAST 190 FEET OF BLOCK 7 OF JOHN CULVER'S SUBDIVISION, LOTS 1 THROUGH 11, INCLUSIVE, IN BROOMELL'S SUBDIVISION OF BLOCK 7 (EXCEPT THE EAST 190 FEET AND EXCEPT THE NORTH 150 FEET THEREOF) OF JOHN CULVER'S SUBDIVISION, AND BLOCK 7 IN JOHN CULVER'S SUBDIVISION EXCEPT FOR THE LAND PREVIOUSLY DESCRIBED, ALL IN THE NORTHWEST $\frac{1}{4}$ OF THE SOUTHWEST $\frac{1}{4}$ OF SECTION 12, TOWNSHIP 41 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

ALSO KNOWN AS

ALL OF BLOCK 7 IN JOHN CULVER'S SUBDIVISION IN THE NORTHWEST $\frac{1}{4}$ OF THE SOUTHWEST $\frac{1}{4}$ OF SECTION 12, TOWNSHIP 41 NORTH NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN IN COOK COUNTY, ILLINOIS.

PROFESSIONAL ENGINEER'S CERTIFICATION

I, ERIC TRACY, A LICENSED PROFESSIONAL ENGINEER OF IL, HEREBY CERTIFY THAT THIS SUBMISSION, PERTAINING ONLY TO THE "C" SERIES CIVIL SHEETS LISTED ABOVE BUT EXCLUDING DETAILS PREPARED BY OTHERS, WAS PREPARED ON BEHALF OF BLDD ARCHITECTS BY KIMLEY-HORN AND ASSOCIATES, INC. UNDER MY PERSONAL DIRECTION. THIS TECHNICAL SUBMISSION IS INTENDED TO BE USED AS AN INTEGRAL PART OF AND IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS.

DATED THIS 10TH DAY OF MARCH, A.D., 2026.

ILLINOIS PROFESSIONAL ENGINEER — ERIC J. TRACY 062-067482 — STATE OF ILLINOIS

IL LICENSED PROFESSIONAL ENGINEER 062-067482
MY LICENSE EXPIRES ON NOVEMBER 25, 2027
DESIGN FIRM REGISTRATION NUMBER: 184002012-0006

Date of Expiration: 11-30-27

Kimley»Horn

Revisions

Date	#	Description
2/25/26	ADD 01	ADDENDUM 1
3/10/26	1	ZONING COMMENT RESPONSES

date 3/10/2026
drawn by DAP
checked by EJT

BLDD ARCHITECTS
Design Firm Registration #184-000723

COVER SHEET

THREE CROWNS PARK - PIONEER PLACE AND MCDANIEL COURTS RENOVATIONS
COVENANT LIVING COMMUNITIES & SERVICES
2320 PIONEER ROAD & 2323 MCDANIEL AVE, EVANSTON, IL 60201

sheet C0.0P

project 234SX01.400/401

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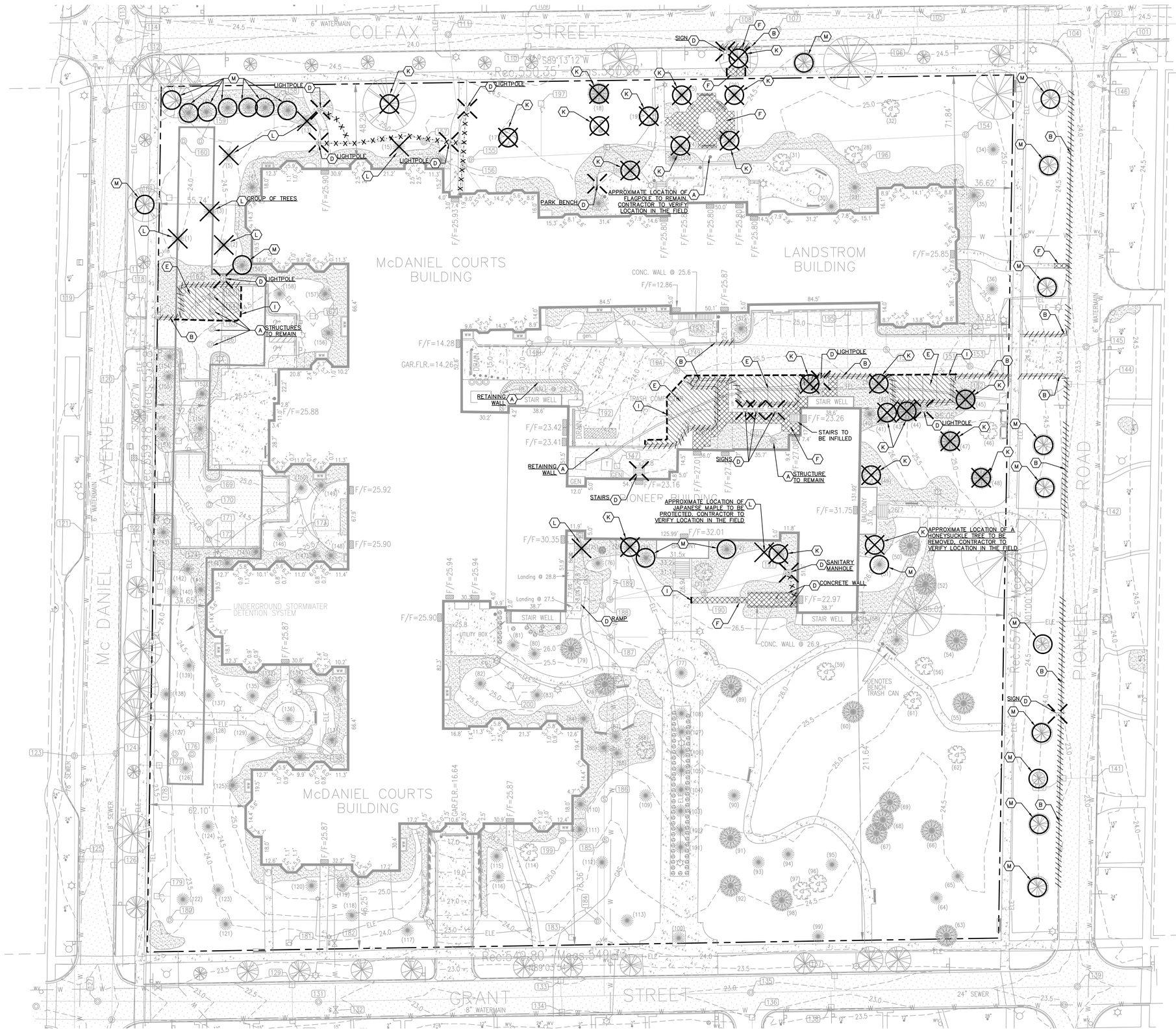

GRAPHIC SCALE IN FEET
0 15 30 60

ALTERATION LEGEND

A		ITEM TO REMAIN, PROTECT DURING CONSTRUCTION
B	////	CURB REMOVAL
C	X·X	UTILITY REMOVAL
D		ITEM TO BE REMOVED
E		FULL-DEPTH ASPHALT PAVEMENT REMOVAL
F		CONCRETE REMOVAL
G		BUILDING REMOVAL
H		ASPHALT 1.5" MILL
I		SAWCUT LINE
J		FENCE REMOVAL
K		TREE TO BE REMOVED *
L		TREE TO BE RELOCATED *
M		TREE TO BE PROTECTED *

* SHOWN FOR REFERENCE ONLY, REFER TO LANDSCAPE PLANS

WARNING: CONTRACTOR TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

Kimley»Horn

Revisions

Date	#	Description

date 11/19/2025
drawn by DAP
checked by EJT

BLDD ARCHITECTS
Design Firm Registration #184-000723

ALTERATION PLAN

THREE CROWNS PARK - PIONEER PLACE RENOVATION
COVENANT LIVING COMMUNITIES & SERVICES
2320 PIONEER ROAD, EVANSTON, IL 60201

sheet
C0.1

project 234SX01.200

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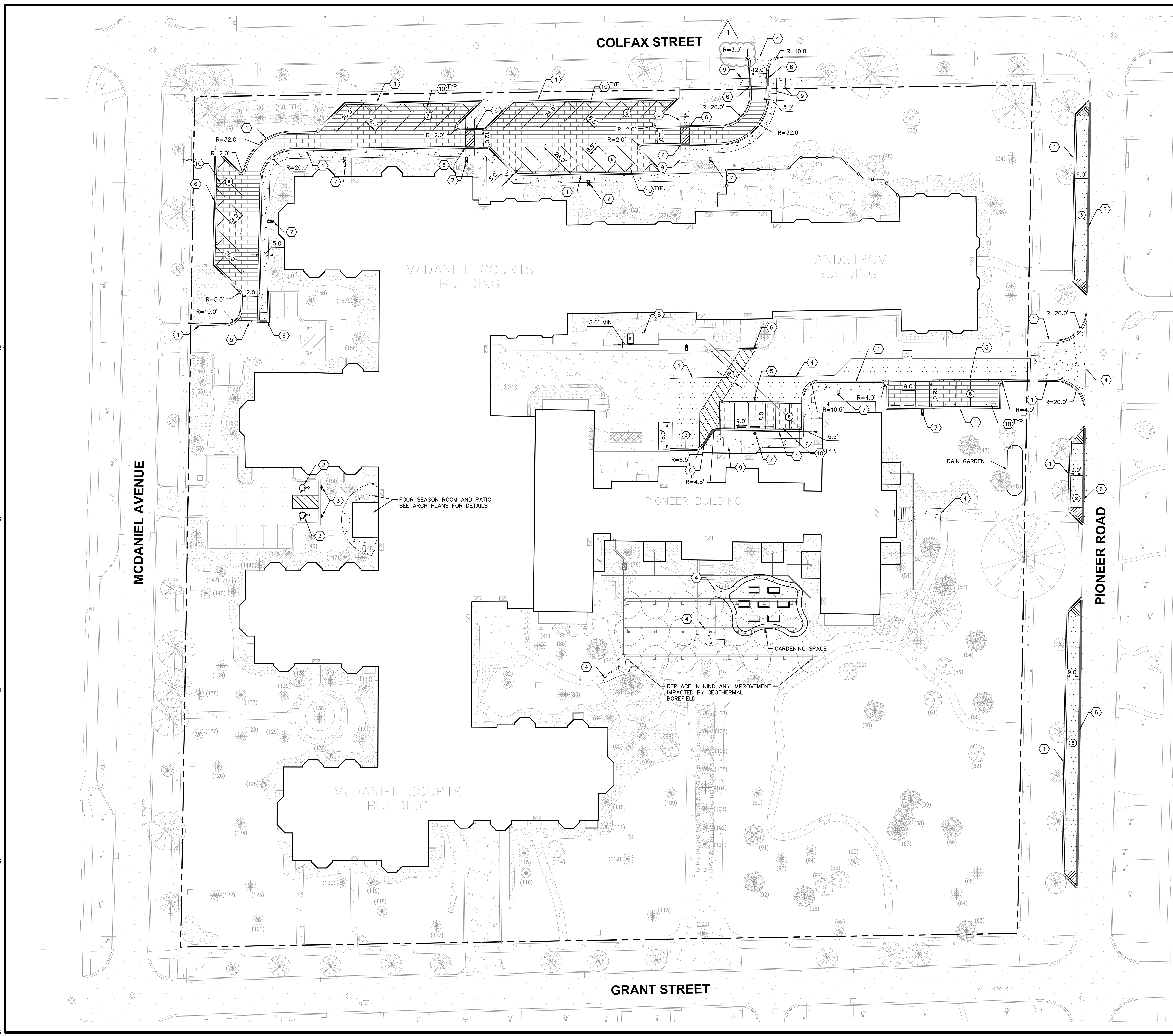

GENERAL NOTES

1. ALL DIMENSIONS REFER TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
2. BUILDING DIMENSIONS ARE TO THE OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
3. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS TO VERIFY ALL BUILDING DIMENSIONS.
4. RADII ADJACENT TO PARKING STALL AND NOT DIMENSIONED ON THIS PLAN SHALL BE 3-FEET, TYPICAL.
5. REFER TO ARCHITECTURAL PLANS FOR MONUMENT SIGN DETAILS. SEE MEP PLANS FOR SITE ELECTRICAL DRAWINGS.
6. ALL PROPOSED ON-SITE STRIPING SHALL BE PAINTED UNLESS OTHERWISE NOTED.

PAVING AND CURB LEGEND

STANDARD DUTY ASPHALT PAVEMENT
SEE CONSTRUCTION DETAILS FOR PAVEMENT SECTION

PERMEABLE PAVERS
SEE CONSTRUCTION DETAILS FOR PAVEMENT SECTION

CONCRETE SIDEWALK
SEE CONSTRUCTION DETAILS FOR SIDEWALK SECTION

STANDARD PITCH CONCRETE CURB AND GUTTER

KEY NOTES

1. B6.12 CONCRETE CURB AND GUTTER, TYP. (SEE DETAILS)
2. ACCESSIBLE PAVEMENT MARKINGS, TYP. (SEE DETAILS)
3. ACCESSIBLE PARKING SIGN, TYP. (MUTCD R7-8, SEE DETAILS)
4. CONNECT TO EXISTING PAVEMENT, SIDEWALK, CURB, TYP.
5. 1' CONCRETE RIBBON CURB
6. DEPRESSED CURB AND GUTTER
7. LIGHTPOLE
8. GENERATOR
9. ACCESSIBLE RAMP (SEE DETAILS)
10. WHEEL STOP (SEE DETAILS)

PARKING SUMMARY

EXISTING PARKING SPACES	= 36	SPACES
EXISTING ACCESSIBLE PARKING SPACES	= 2	SPACES
EXISTING PARKING SPACES REMOVED	= 15	SPACES
EXISTING ACCESSIBLE PARKING SPACES REMOVED	= 0	SPACES
PARKING SPACES PROVIDED	= 83	SPACES
ACCESSIBLE PARKING SPACES REQUIRED	= 4	SPACES
ACCESSIBLE PARKING SPACES PROVIDED	= 4	SPACES
TOTAL PARKING SPACES PROVIDED	= 87	SPACES

Kimley»Horn

Revisions

Date	#	Description
2/25/26	ADD 01	ADDENDUM 1
3/10/26	1	ZONING COMMENT RESPONSES

date 3/10/2026
drawn by DAP
checked by EJT

BLDD ARCHITECTS

Design Firm Registration #184-000723

SITE PLAN

THREE CROWNS PARK - PIONEER PLACE AND MCDANIEL COURTS RENOVATIONS
COVENANT LIVING COMMUNITIES & SERVICES
2320 PIONEER ROAD & 2323 MCDANIEL AVE,
EVANSTON, IL 60201

sheet
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project 234SX01.400/401

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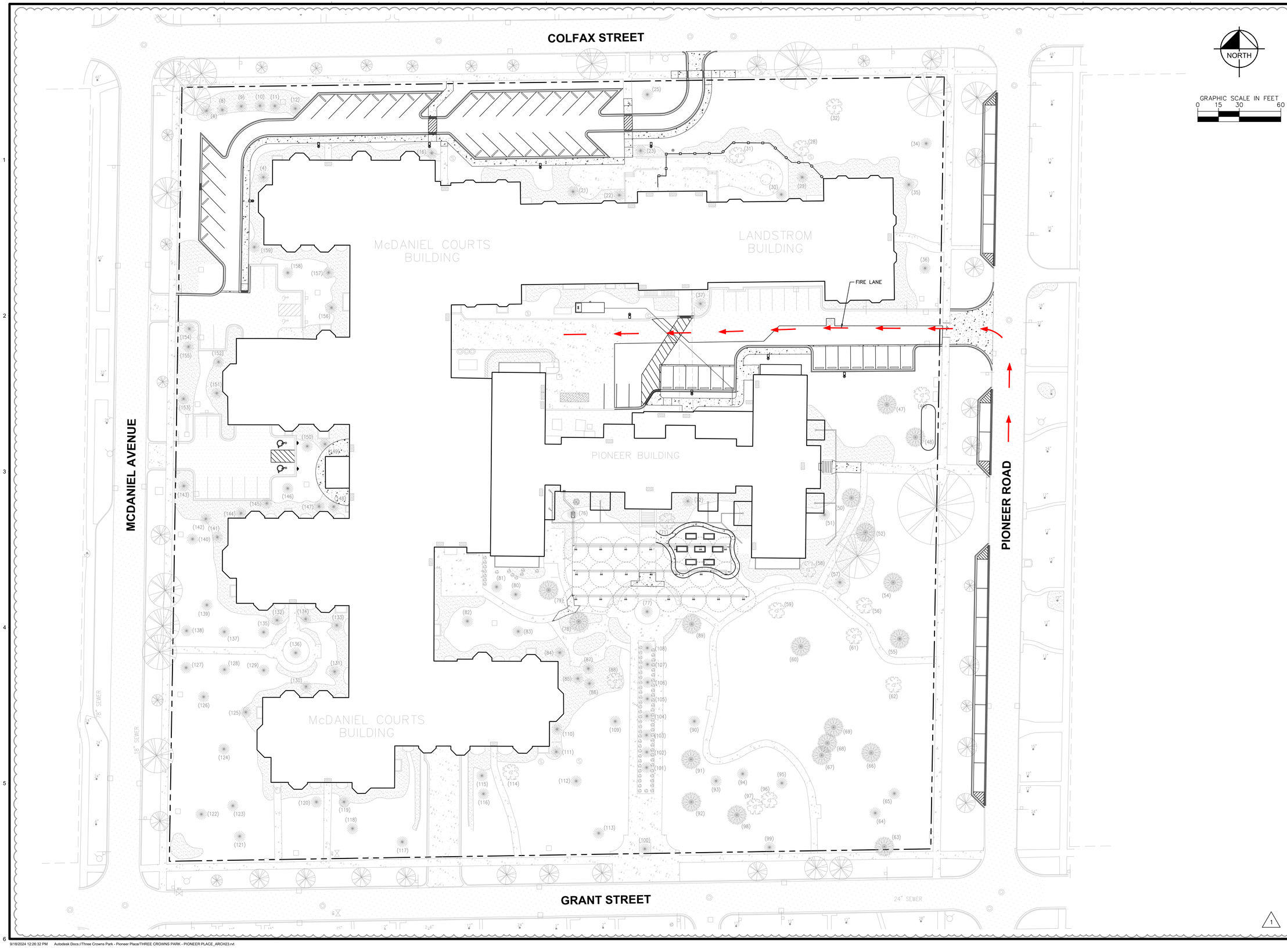

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Revisions		
Date	#	Description
2/25/26	ADD 01	ADDENDUM 1
3/10/26	1	ZONING COMMENT RESPONSES

date 3/10/2026
drawn by DAP
checked by EJT

ELKUS BLDD ARCHITECTS

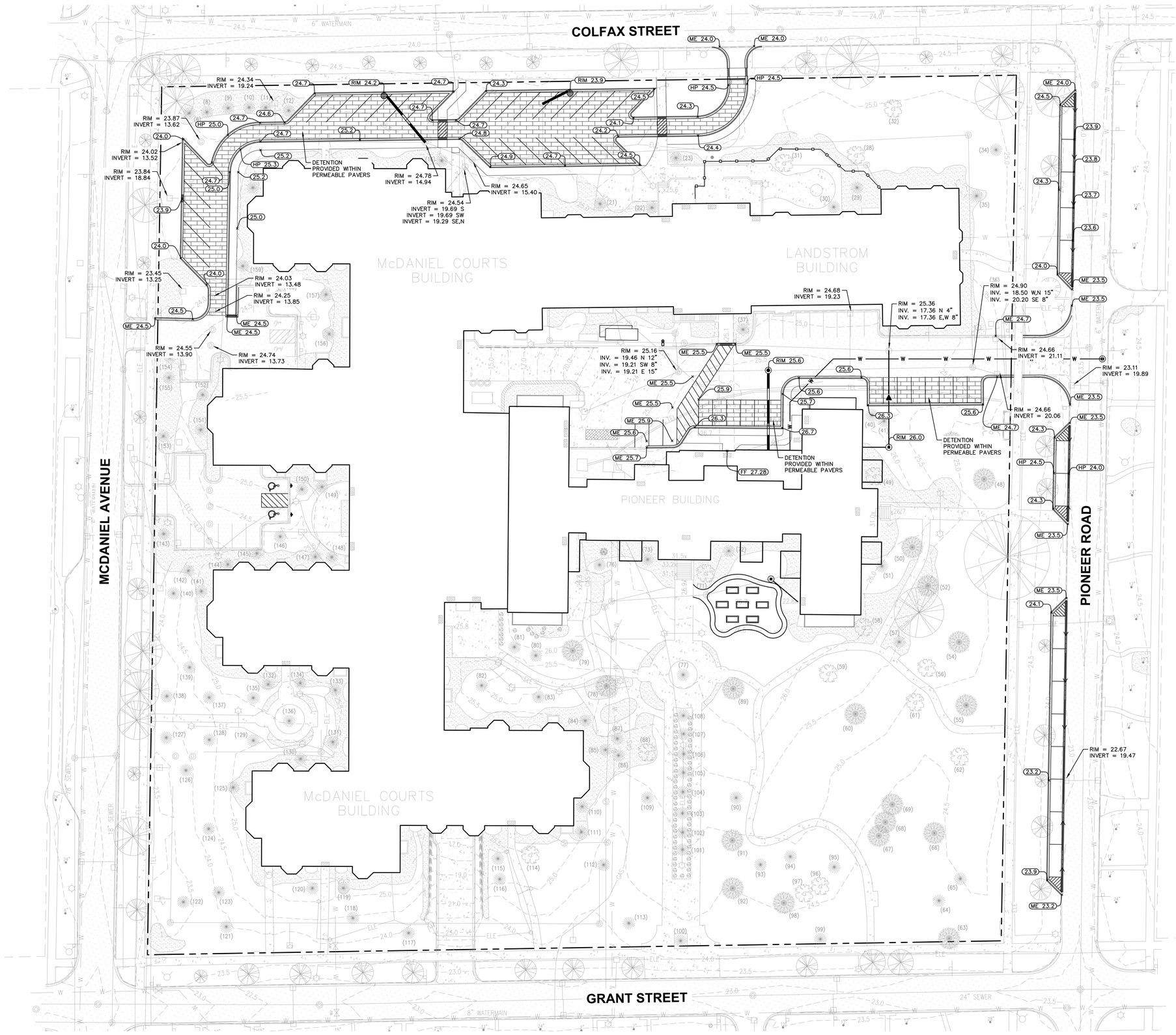
Design Firm Registration #184-000723

FIRE LANE EXHIBIT

THREE CROWNS PARK - PIONEER PLACE AND
MCDANIEL COURTS RENOVATIONS
COVENANT LIVING COMMUNITIES & SERVICES
2320 PIONEER ROAD & 2323 MCDANIEL AVE,
EVANSTON, IL 60201

sheet
C1.1P

project 234SX01.400/401



NORTH

GRAPHIC SCALE IN FEET
0 15 30 60

GRADING NOTES

1. CONTRACTOR TO VERIFY ALL EXISTING TOPOGRAPHY AND STRUCTURES ON THE SITE AND IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING WORK.
2. ALL PAVEMENT SPOT GRADE ELEVATIONS AND RIM ELEVATIONS WITHIN OR ALONG CURB AND GUTTER REFER TO FLOW LINE ELEVATIONS UNLESS OTHERWISE NOTED.
3. ALL ELEVATIONS SHOWN DEPICT FINISHED GRADE UNLESS OTHERWISE NOTED. GENERAL CONTRACTOR TO COORDINATE WITH EXCAVATION, LANDSCAPE AND PAVING SUBCONTRACTORS REGARDING TOPSOIL THICKNESS FOR LANDSCAPE AREAS AND PAVEMENT SECTION THICKNESS FOR PAVED AREAS TO PROPERLY ENSURE ADEQUATE CUT TO ESTABLISH SUBGRADE ELEVATIONS.
4. NO EARTHEN SLOPE SHALL BE GREATER THAN 3:1, UNLESS OTHERWISE NOTED.
5. MAXIMUM SLOPE IN ACCESSIBLE PARKING SPACES AND LOADING ZONES SHALL NOT EXCEED 2.0% IN ALL DIRECTIONS.
6. MAXIMUM RUNNING SLOPE SHALL NOT EXCEED 5% AND CROSS SLOPE SHALL NOT EXCEED 2% ON ALL SIDEWALKS AND ACCESSIBLE ROUTES.
7. WHEN NATURAL FLOW OF DRAINAGE IS AWAY FROM CURB, CONTRACTOR TO INSTALL REVERSE GUTTER PITCH.
8. MATCH EXISTING ELEVATIONS AT THE PROPERTY LIMITS.

GRADING LEGEND

HP = HIGH POINT
LP = LOW POINT
RIM = RIM ELEVATION
ME = MATCH ELEVATION

- XXX — PROPOSED CONTOUR
- XXX — EXISTING CONTOUR
- RIDGE — RIDGE LINE
- X.XX% — SLOPE AND FLOW DIRECTION
- 100-YEAR OVERLAND OVERFLOW ROUTE
- PROPOSED SWALE

Kimley»Horn

Revisions

Date	#	Description

date 11/19/2025
drawn by DAP
checked by EJT

BLDD ARCHITECTS
Design Firm Registration #184-000723

GRADING PLAN

THREE CROWNS PARK -
PIONEER PLACE RENOVATION
COVENANT LIVING COMMUNITIES & SERVICES
2320 PIONEER ROAD, EVANSTON, IL 60201

sheet
C2.0

project 234SX01.200

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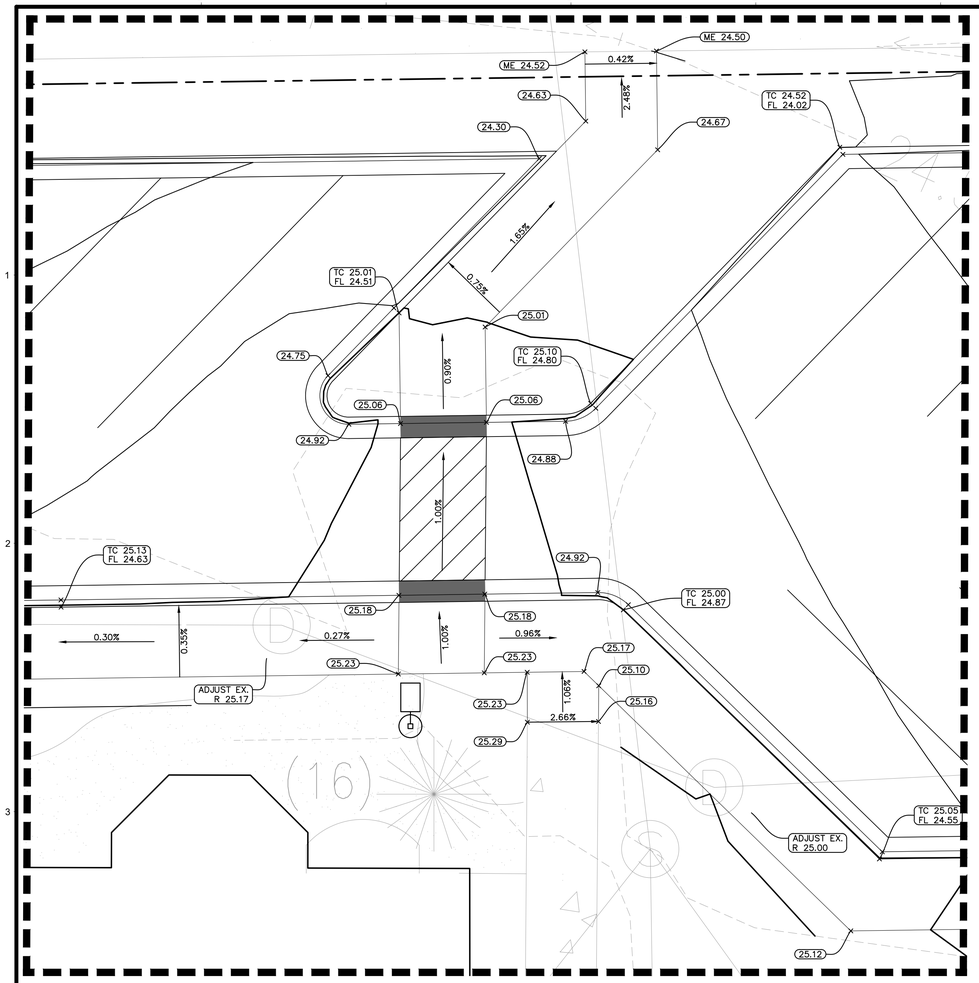
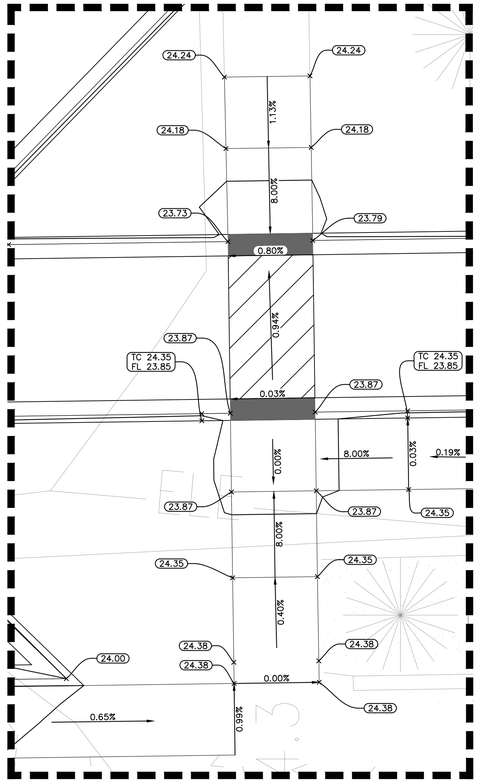


ADA BLOWUP DETAIL (1)
1" = 5'



ADA BLOWUP DETAIL (2)
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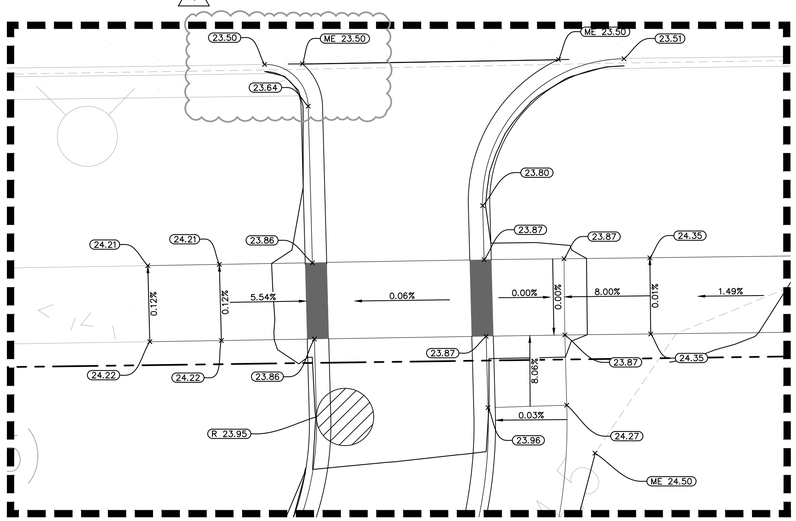
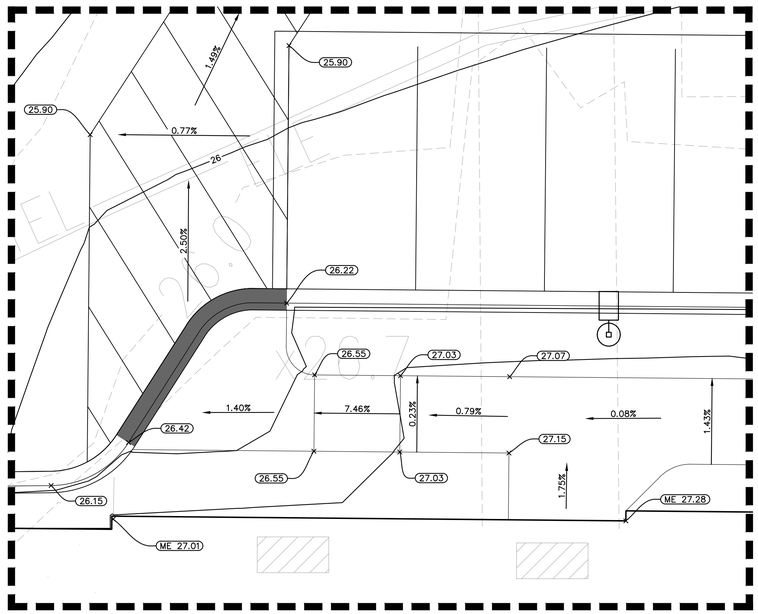


ADA BLOWUP DETAIL (3)
1" = 5'



ADA BLOWUP DETAIL (4)
1" = 5'

NORTH

GRAPHIC SCALE IN FEET
0 2.5 5 10

GRADING NOTES

1. CONTRACTOR TO VERIFY ALL EXISTING TOPOGRAPHY AND STRUCTURES ON THE SITE AND IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING WORK.
2. ALL PAVEMENT SPOT GRADE ELEVATIONS AND RIM ELEVATIONS WITHIN OR ALONG CURB AND GUTTER REFER TO FLOW LINE ELEVATIONS UNLESS OTHERWISE NOTED.
3. ALL ELEVATIONS SHOWN DEPICT FINISHED GRADE UNLESS OTHERWISE NOTED. GENERAL CONTRACTOR TO COORDINATE WITH EXCAVATION, LANDSCAPE AND PAVING SUBCONTRACTORS REGARDING TOPSOIL THICKNESS FOR LANDSCAPE AREAS AND PAVEMENT SECTION THICKNESS FOR PAVED AREAS TO PROPERLY ENSURE ADEQUATE CUT TO ESTABLISH SUBGRADE ELEVATIONS.
4. NO EARTHEN SLOPE SHALL BE GREATER THAN 3:1, UNLESS OTHERWISE NOTED.
5. MAXIMUM SLOPE IN ACCESSIBLE PARKING SPACES AND LOADING ZONES SHALL NOT EXCEED 2.0% IN ALL DIRECTIONS.
6. MAXIMUM RUNNING SLOPE SHALL NOT EXCEED 5% AND CROSS SLOPE SHALL NOT EXCEED 2% ON ALL SIDEWALKS AND ACCESSIBLE ROUTES.
7. WHEN NATURAL FLOW OF DRAINAGE IS AWAY FROM CURB, CONTRACTOR TO INSTALL REVERSE GUTTER PITCH.
8. MATCH EXISTING ELEVATIONS AT THE PROPERTY LIMITS.

GRADING LEGEND

TC = TOP OF CURB
FL = FLOW LINE
RIM = RIM ELEVATION
ME = MATCH ELEVATION

XXX	PROPOSED CONTOUR
XXX	EXISTING CONTOUR
RIDGE	RIDGE LINE
X.XX%	SLOPE AND FLOW DIRECTION
	100-YEAR OVERLAND OVERFLOW ROUTE
	PROPOSED SWALE

Kimley»Horn

Revisions		
Date	#	Description
2/25/26	ADD 01	ADDENDUM 1
3/10/26	1	ZONING COMMENT RESPONSES

date 3/10/2026
drawn by DAP
checked by EJT

BLDD ARCHITECTS
Design Firm Registration #184-000723

ADA GRADING PLAN

THREE CROWNS PARK - PIONEER PLACE AND MCDANIEL COURTS RENOVATIONS
COVENANT LIVING COMMUNITIES & SERVICES
2320 PIONEER ROAD & 2323 MCDANIEL AVE,
EVANSTON, IL 60201

sheet
C2.1P

project 234SX01.400/401

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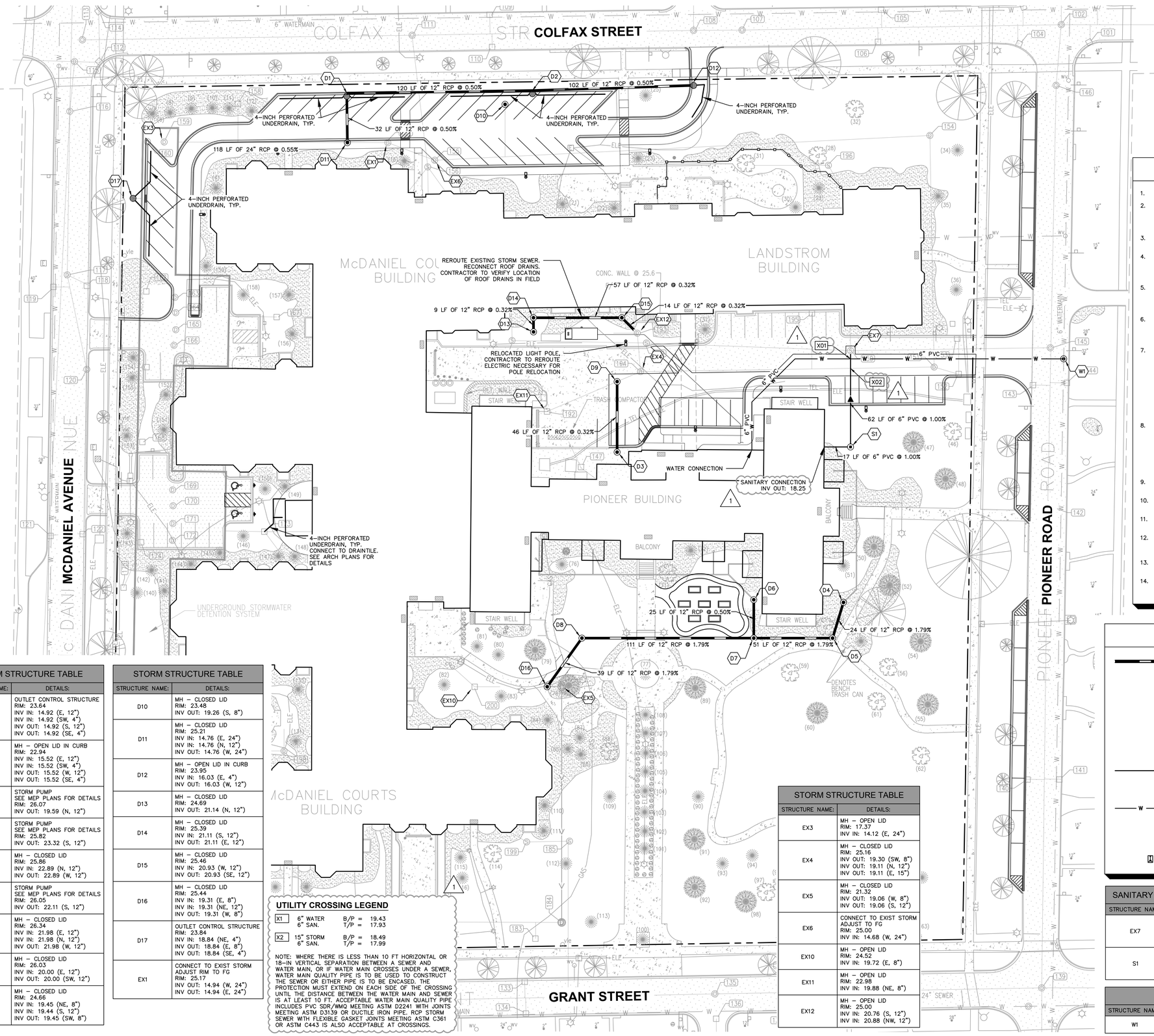

STORM STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
D1	OUTLET CONTROL STRUCTURE RIM: 23.64 INV IN: 14.92 (E, 12") INV IN: 14.92 (SW, 4") INV OUT: 14.92 (S, 12") INV OUT: 14.92 (SE, 4")
D2	MH – OPEN LID IN CURB RIM: 22.94 INV IN: 15.52 (E, 12") INV IN: 15.52 (SW, 4") INV OUT: 15.52 (W, 12") INV OUT: 15.52 (SE, 4")
D3	STORM PUMP SEE MEP PLANS FOR DETAILS RIM: 26.07 INV OUT: 19.59 (N, 12")
D4	STORM PUMP SEE MEP PLANS FOR DETAILS RIM: 25.82 INV OUT: 23.32 (S, 12")
D5	MH – CLOSED LID RIM: 25.86 INV IN: 22.89 (N, 12") INV OUT: 22.89 (W, 12")
D6	STORM PUMP SEE MEP PLANS FOR DETAILS RIM: 26.05 INV OUT: 22.11 (S, 12")
D7	MH – CLOSED LID RIM: 26.34 INV IN: 21.98 (E, 12") INV IN: 21.98 (N, 12") INV OUT: 21.98 (W, 12")
D8	MH – CLOSED LID RIM: 26.03 INV IN: 20.00 (E, 12") INV OUT: 20.00 (SW, 12")
D9	MH – CLOSED LID RIM: 24.66 INV IN: 19.45 (NE, 8") INV IN: 19.44 (S, 12") INV OUT: 19.45 (SW, 8")

STORM STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
D10	MH – CLOSED LID RIM: 23.48 INV OUT: 19.26 (S, 8")
D11	MH – CLOSED LID RIM: 25.21 INV IN: 14.76 (E, 24") INV IN: 14.76 (N, 12") INV OUT: 14.76 (W, 24")
D12	MH – OPEN LID IN CURB RIM: 23.95 INV IN: 16.03 (E, 4") INV OUT: 16.03 (W, 12")
D13	MH – CLOSED LID RIM: 24.69 INV OUT: 21.14 (N, 12")
D14	MH – CLOSED LID RIM: 25.39 INV IN: 21.11 (S, 12") INV OUT: 21.11 (E, 12")
D15	MH – CLOSED LID RIM: 25.46 INV IN: 20.93 (W, 12") INV OUT: 20.93 (SE, 12")
D16	MH – CLOSED LID RIM: 25.44 INV IN: 19.31 (E, 8") INV IN: 19.31 (NE, 12") INV OUT: 19.31 (W, 8")
D17	OUTLET CONTROL STRUCTURE RIM: 23.84 INV IN: 18.84 (NE, 4") INV OUT: 18.84 (E, 8") INV OUT: 18.84 (SE, 4")
EX1	CONNECT TO EXIST STORM ADJUST RIM TO FG RIM: 25.17 INV OUT: 14.94 (W, 24") INV OUT: 14.94 (E, 24")

UTILITY CROSSING LEGEND

X1	6" WATER 6" SAN.	B/P = 19.43 T/P = 17.93
X2	15" STORM 6" SAN.	B/P = 18.49 T/P = 17.99

NOTE: WHERE THERE IS LESS THAN 10 FT HORIZONTAL OR 18-IN VERTICAL SEPARATION BETWEEN A SEWER AND WATER MAIN, OR IF WATER MAIN CROSSES UNDER A SEWER, WATER MAIN QUALITY PIPE IS TO BE USED TO CONSTRUCT THE SEWER OR EITHER PIPE IS TO BE ENCASED. THE PROTECTION MUST EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE DISTANCE BETWEEN THE WATER MAIN AND SEWER IS AT LEAST 10 FT. ACCEPTABLE WATER MAIN QUALITY PIPE INCLUDES PVC SDR/VMQ MEETING ASTM D2241 WITH JOINTS MEETING ASTM D3139 OR DUCTILE IRON PIPE. RCP STORM SEWER WITH FLEXIBLE GASKET JOINTS MEETING ASTM C361 OR ASTM C443 IS ALSO ACCEPTABLE AT CROSSINGS.

STORM STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
EX3	MH – OPEN LID RIM: 17.37 INV IN: 14.12 (E, 24")
EX4	MH – CLOSED LID RIM: 25.16 INV OUT: 19.30 (SW, 8") INV OUT: 19.11 (N, 12") INV OUT: 19.11 (E, 15")
EX5	MH – CLOSED LID RIM: 21.32 INV OUT: 19.06 (W, 8") INV OUT: 19.06 (S, 12")
EX6	CONNECT TO EXIST STORM ADJUST TO FG RIM: 25.00 INV IN: 14.68 (W, 24")
EX10	MH – OPEN LID RIM: 24.52 INV IN: 19.72 (E, 8")
EX11	MH – OPEN LID RIM: 22.98 INV IN: 19.88 (NE, 8")
EX12	MH – OPEN LID RIM: 25.00 INV IN: 20.76 (S, 12") INV IN: 20.88 (NW, 12")

UTILITY NOTES

1. ALL WATER LINES ≥ 3" SHALL BE DUCTILE IRON PIPE, CLASS 52.
2. ALL SANITARY SEWER LINES SHALL BE PVC MEETING, ASTM D-3034 SDR 26 EXCEPT FOR SANITARY SEWER THAT CROSSES ABOVE WATER MAIN, THIS PIPE SHALL BE AWWA C900 (UNLESS WATER MAIN CASING IS UTILIZED). PROVIDE 42" MINIMUM COVER.
3. CONTRACTOR SHALL COORDINATE ANY DISRUPTIONS TO EXISTING UTILITY SERVICES WITH ADJACENT PROPERTY OWNERS.
4. ALL ELECTRIC AND TELEPHONE EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE DESIGNATED UTILITY COMPANIES.
5. CONSTRUCTION SHALL NOT START ON ANY PUBLIC UTILITY SYSTEM UNTIL WRITTEN APPROVAL HAS BEEN RECEIVED BY THE ENGINEER FROM THE APPROPRIATE GOVERNING AUTHORITY AND CONTRACTOR HAS BEEN NOTIFIED BY THE ENGINEER.
6. CONTRACTOR TO CALL "JULIE" (1-800-892-0123) TO COORDINATE FIELD LOCATIONS OF EXISTING UNDERGROUND UTILITIES BEFORE ORDERING MATERIALS OR COMMENCING CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
7. PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OTHER UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM THE ENGINEER AND THE OWNER/ DEVELOPER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. THE ENGINEER AND ITS CLIENTS SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION. THE MUNICIPALITY SHALL BE NOTIFIED OF ANY AND ALL CHANGES TO THE DESIGN PLANS.
8. CONTRACTOR SHALL COMPLY COMPLETELY WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING AND OTHER MEANS OF PROTECTION. THIS IS TO INCLUDE, BUT NOT LIMITED FOR ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH PERFORMANCE CRITERIA AS REQUIRED BY OSHA.
9. CONTRACTOR TO AVOID DISRUPTION OF ANY ADJACENT TENANT'S TRAFFIC OPERATIONS DURING INSTALLATION OF UTILITIES.
10. ALL DIMENSIONS ARE TO CENTERLINE OF PIPE OR CENTER OF MANHOLE UNLESS NOTED OTHERWISE.
11. SEE ARCHITECTURAL AND MEP PLANS FOR EXACT UTILITY CONNECTION LOCATIONS AT BUILDING.
12. LIGHT POLES SHOWN FOR COORDINATION PURPOSES ONLY AND DO NOT REPRESENT ACTUAL SIZE. SEE SITE LIGHTING PLANS BY OTHERS FOR MORE INFORMATION.
13. SEE DETAILS FOR LOCATING STORM STRUCTURES WITHIN THE CURB LINE.
14. STORMWATER FACILITIES MUST BE FUNCTIONAL BEFORE BUILDING CONSTRUCTION BEGINS IF REQUIRED BY AUTHORITY HAVING JURISDICTION.

UTILITY LEGEND

- PROPOSED STORM SEWER LINE
- PROPOSED OPEN LID STORM STRUCTURE (PAVEMENT USE NEENAH R-2540) (GRASS USE NEENAH R-4340-B BEEHIVE)
- PROPOSED CLOSED LID STORM STRUCTURE (PAVEMENT USE NEENAH R-1713) (GRASS USE NEENAH R-1786)
- PROPOSED COMBINATION CURB INLET (B6.12 C&G USE NEENAH R-3281-A)
- PROPOSED FLARED END SECTION
- PROPOSED SANITARY SEWER LINE
- PROPOSED SANITARY MANHOLE
- PROPOSED STORM/SANITARY CLEANOUT
- PROPOSED WATER LINE
- PROPOSED VALVE VAULT
- PROPOSED VALVE BOX
- PROPOSED FIRE HYDRANT
- PROPOSED LIGHT POLE

SANITARY STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
EX7	EXISTING MANHOLE RIM: 25.36 INV IN: 17.36 (S, 6") INV OUT: 17.36 (E, 8")
S1	MH RIM: 26.00 INV IN: 18.08 (W, 6") INV OUT: 17.98 (N, 6")

WATER STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
W1	PRESSURE CONNECT TO EXIST WATER IN VALVE VAULT FG ELEV: 23.50

Kimley»Horn

Revisions		
Date	#	Description
2/25/26	ADD 01	ADDENDUM 1
3/10/26	1	ZONING COMMENT RESPONSES

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BLDD ARCHITECTS
Design Firm Registration #184-000723

UTILITY PLAN

THREE CROWNS PARK - PIONEER PLACE AND MCDANIEL COURTS RENOVATIONS
COVENANT LIVING COMMUNITIES & SERVICES
2320 PIONEER ROAD & 2323 MCDANIEL AVE,
EVANSTON, IL 60201

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project 234SX01.400/401

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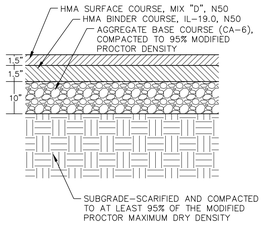
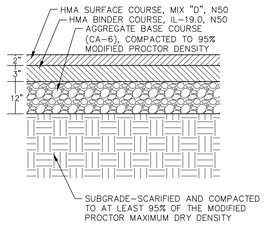


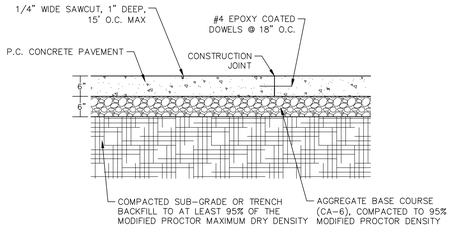
STANDARD DUTY ASPHALT PAVEMENT SECTION

N.T.S. 10/19/20



HEAVY DUTY ASPHALT PAVEMENT SECTION

N.T.S.



HEAVY DUTY CONCRETE PAVEMENT SECTION

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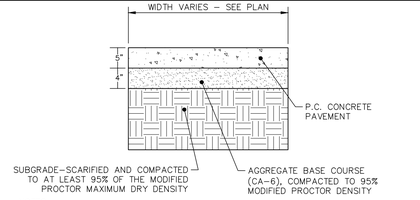
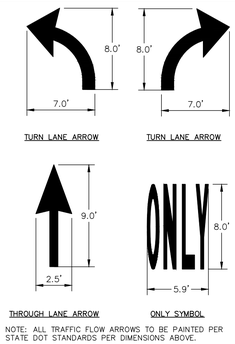


NOTES:

1. PROVIDE 1/2" EXPANSION JOINTS AT 20', MAXIMUM, SPACING AND FILLED WITH PREMOLDED BITUMINOUS EXPANSION JOINT FILLER MATERIAL OR REDWOOD. EXPANSION JOINTS SHALL HAVE #4 DOWELS, LUBRICATED, 18" LONG, AT 12" CENTERS, 6" FROM EDGE.
2. PROVIDE 3/8" GROOVED CONTROL JOINTS AT 5' CENTERS.
3. WELDED WIRE FABRIC (6X6–6X6) SHALL BE INSTALLED THROUGH DRIVEWAYS AT 2" ABOVE SLAB BOTTOM.
4. PROVIDE 1/2" BITUMINOUS EXPANSION JOINT FILLER MATERIAL WHERE WALK ABUTS EXISTING IMPROVEMENTS AND AT ALL CHANGES IN GRADE
5. USE 2–#4 REINFORCING BARS, 10' LONG OVER ALL UTILITY TRENCHES FOR NEW SIDEWALK AND CONNECTIONS TO EXISTING SIDEWALK.
6. AT DRIVE APPROACHES, SIDEWALK PCC AND BASE THICKNESS SHALL MATCH THAT OF THE DRIVE.

CONCRETE SIDEWALK

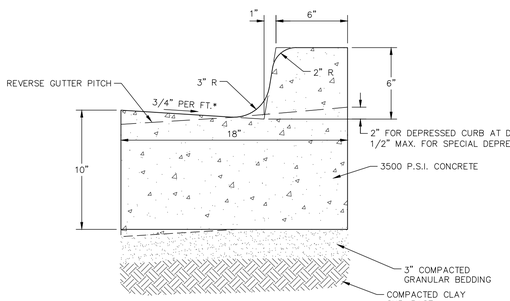
N.T.S.



NOTE: ALL TRAFFIC FLOW ARROWS TO BE PAINTED PER STATE DOT STANDARDS PER DIMENSIONS ABOVE.

TRAFFIC FLOW ARROW

N.T.S.

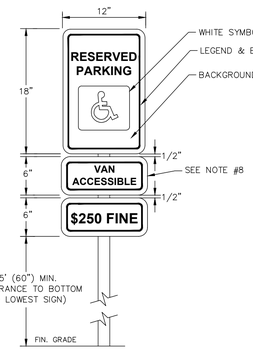


NOTES: USE TWO – #5 REBARS FOR 10 L.F. ON EITHER SIDE OF ALL UTILITY TRENCHES. INSTALL EXPANSION JOINTS EVERY 50 FT. AND SAW–CUT CONSTRUCTION JOINTS EVERY 25 FT.

* MAXIMUM GUTTER SLOPE AT ADA RAMPS TO BE 5.0%

B6.12 CURB & GUTTER

N.T.S.



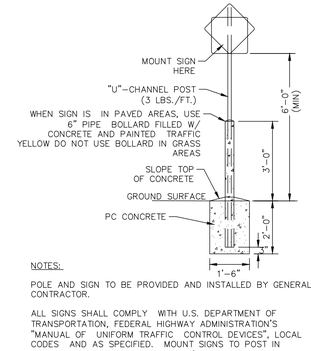
SIGNAGE

NOTES:

1. ALL LETTERS ARE 1" SERIES "C" PER MUTCD.
2. SIGN SHALL HAVE A REFLECTIVE (ENGINEERING GRADE) WHITE BACKGROUND WITH GREEN REFLECTIVE LEGEND AND BORDER.
3. FINE NOTIFICATION SIGN SHALL HAVE A REFLECTIVE (ENGINEERING GRADE) WHITE BACKGROUND WITH GREEN LEGEND AND BORDER.
4. CONTRACTOR SHALL VERIFY FINE AMOUNT.
5. ONE (1) SIGN REQUIRED FOR EACH PARKING SPACE.
6. INSTALLED HEIGHT OF SIGN SHALL BE IN ACCORDANCE WITH SECTION 24–23 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND LOCAL ADA CODE.
7. ALL ACCESSIBLE FEATURES TO BE IN STRICT ACCORDANCE WITH ADA STANDARDS AND LOCAL LAWS.
8. AT LEAST ONE (1) FOR EVERY SIX (6) ACCESSIBLE SPACES MUST BE VAN ACCESSIBLE, WITH A MINIMUM OF ONE (1) VAN ACCESSIBLE SPACE PER SITE.

ACCESSIBLE PARKING SIGNAGE

N.T.S.



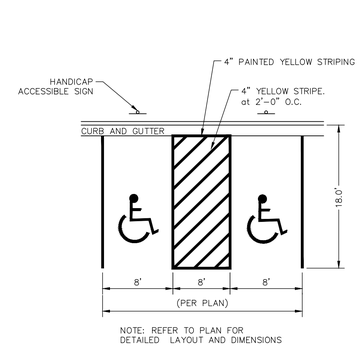
NOTES:

POLE AND SIGN TO BE PROVIDED AND INSTALLED BY GENERAL CONTRACTOR.

ALL SIGNS SHALL COMPLY WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", LOCAL CODES AND AS SPECIFIED. MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

STANDARD SIGN BASE

N.T.S.



NOTE: REFER TO PLAN FOR DETAILED LAYOUT AND DIMENSIONS

TYPICAL HANDICAP STRIPING

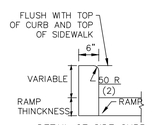
N.T.S.

GENERAL NOTES:

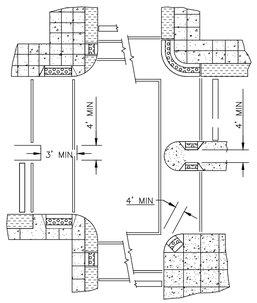
1. THE MAXIMUM SLOPE OF THE SIDE FLARE FOR TYPE B RAMPS SHALL BE 1:10; HOWEVER, IF THE WIDTH OF THE LANDING AREA BETWEEN THE TOP OF THE RAMP AND AN OBSTRUCTION IS LESS THAN (4'–0") THEN THE MAXIMUM SLOPE SHALL BE 1:12.
2. ALL SLOPE RATIOS ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMNT (V:H).
3. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.
4. RAMP DETAILS TO BE COORDINATED PER VILLAGE REQUIREMENTS.
5. DETECTABLE WARNINGS SHALL CONSIST OF TRUNCATED DOMES WHICH CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT–ON–DARK OR DARK–ON–LIGHT.
6. CONTRACTOR TO SELECT ADA DETECTABLE WARNING PERMEABLE PAVERS OR CONCRETE WITH ADA DETECTABLE WARNING DOMES FOR RAMPS.

LEGEND

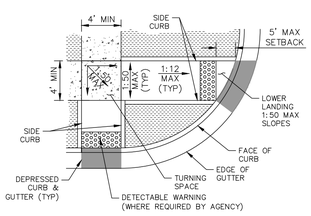
- SIDEWALK
- RAMP
- DETECTABLE WARNINGS
- NON WALKING AREA
- FACE OF BUILDING



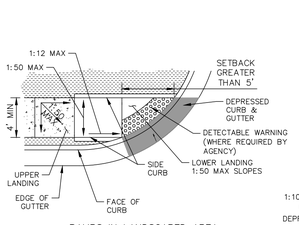
DETAIL OF SIDE CURB
(SIDE CURB MAY BE CONSTRUCTED MONOLITHICALLY WITH RAMP)



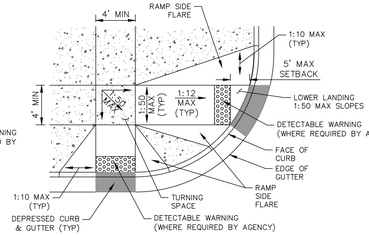
RECOMMENDED LOCATION OF RAMPS



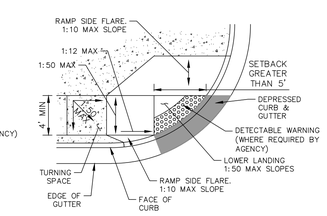
RAMPS IN LANDSCAPED AREA (SETBACK < 5')



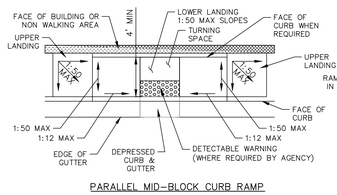
RAMPS IN LANDSCAPED AREA (SETBACK > 5')



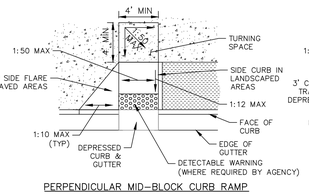
RAMPS IN PAVED AREA (SETBACK < 5')



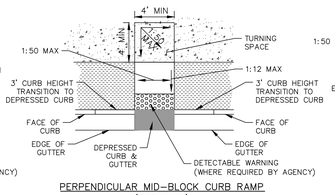
RAMPS IN PAVED AREA (SETBACK > 5')



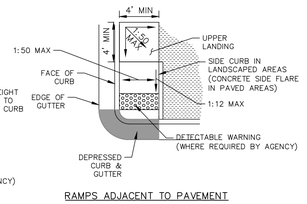
PARALLEL MID–BLOCK CURB RAMP



PERPENDICULAR MID–BLOCK CURB RAMP



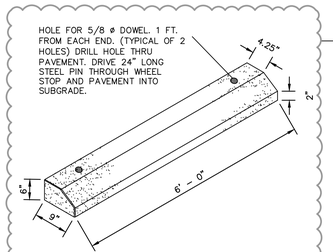
PERPENDICULAR MID–BLOCK CURB RAMP (OPTION 2)



RAMPS ADJACENT TO PAVEMENT

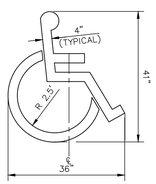
SIDEWALK AND SIDEWALK RAMPS

N.T.S.



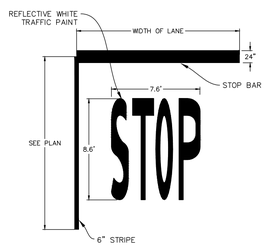
WHEEL STOP DETAIL

N.T.S.



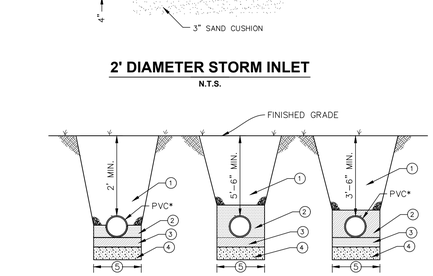
ACCESSIBLE PARKING SYMBOL

N.T.S.



STOP BAR

N.T.S.



2' DIAMETER STORM INLET

N.T.S.

1. MECHANICALLY COMPACTED CA–6 CRUSHED STONE IN 6 INCH LIFTS UNDER OR WITHIN 2 FEET OF ANY PAVEMENT, CURB, GUTTER, OR SIDEWALK. MACHINE COMPACTION OF EXCAVATED MATERIAL IN OTHER LOCATIONS WHERE SUITABLE.
2. WATERMAIN & FORCEMAIN: CA–11 CRUSHED STONE TAMPED INTO PLACE TO SPRING LINE OF DUCTILE IRON PIPE
   STORM SEWER & SANITARY SEWER: CA–11 CRUSHED STONE TAMPED INTO PLACE TO SPRING LINE OF PIPE *ADDITIONAL 12" OF CA–11 CRUSHED STONE ABOVE TOP OF PVC PIPE.
3. 4" BED MECHANICALLY COMPACTED CA–11 CRUSHED STONE
4. UNSUITABLE MATERIAL TO BE REMOVED AND REPLACED WITH GRANULAR MATERIAL AS DIRECTED BY GEOTECHNICAL ENGINEER.
5. TRENCH WIDTH: OUTSIDE DIAMETER + 18 IN.

PIPE BEDDING DETAIL

N.T.S.

Kimley»Horn

Revisions

Date	#	Description
2/25/26	ADD 01	ADDENDUM 1
3/10/26	1	ZONING COMMENT RESPONSES

date 3/10/2026
drawn by DAP
checked by EJT

BLDD ARCHITECTS

Design Firm Registration #184-000723

CONSTRUCTION DETAILS

THREE CROWNS PARK - PIONEER PLACE AND MCDANIEL COURTS RENOVATIONS
COVENANT LIVING COMMUNITIES & SERVICES
2320 PIONEER ROAD & 2323 MCDANIEL AVE,
EVANSTON, IL 60201

sheet C5.0P

project 234SX01.400/401

ISSUED FOR BID
NOT FOR CONSTRUCTION

9/18/2024 12:26:32 PM Autodesk Docs://Three Crowns Park - Pioneer Place/THREE CROWNS PARK - PIONEER PLACE_ARCH23.rvt

PERMEABLE CONCRETE PAVER MATERIALS

PART 1 GENERAL

1.01 SUMMARY

A. SECTION INCLUDES THE FOLLOWING:
1. PERMEABLE CONCRETE PAVERS
2. PERMEABLE JOINT OPENING AGGREGATE
3. PERMEABLE JOINT AGGREGATE TYPE 1
4. PERMEABLE JOINT AGGREGATE TYPE 2
5. PERMEABLE SETTING BED AGGREGATE (OPEN-GRADED)
6. PERMEABLE BASE AGGREGATE (OPEN-GRADED)
7. PERMEABLE SUBBASE AGGREGATE (OPEN-GRADED)

1.02 REFERENCES

NOTE:

DESIGN STREET, INDUSTRIAL, PORT AND AIRPORT PAVEMENT THICKNESSES IN CONSULTATION WITH A QUALIFIED CIVIL ENGINEER, IN ACCORDANCE WITH ESTABLISHED FLEXIBLE PAVEMENT DESIGN PROCEDURES, LOCKPAVE® SOFTWARE, AND IN ACCORDANCE WITH INTERLOCKING CONCRETE PAVEMENT INSTITUTE TECHNICAL BULLETINS. SAMPLE CONSTRUCTION DETAIL DRAWINGS ARE AVAILABLE FROM UNILOCK®. THIS SPECIFICATION MAY REQUIRE MODIFICATIONS.

A. ASTM INTERNATIONAL LATEST EDITION:

1. C 29 BULK DENSITY AND VOIDS IN AGGREGATE MATERIALS.
2. C 33, STANDARD SPECIFICATION FOR CONCRETE AGGREGATES.
3. C 67, STANDARD TEST METHODS FOR SAMPLING AND TESTING BRICK AND STRUCTURAL CLAY TILE, SECTION 8, FREEZING AND THAWING.
4. C 136, STANDARD TEST METHOD FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES.
5. C 140, STANDARD TEST METHODS FOR SAMPLING AND TESTING CONCRETE MASONRY UNITS AND RELATED UNITS.
6. C 144 STANDARD SPECIFICATIONS FOR AGGREGATE FOR MASONRY MORTAR.
7. D 448, STANDARD CLASSIFICATION FOR SIZES OF AGGREGATE FOR ROAD AND BRIDGE CONSTRUCTION.
8. C 936, STANDARD SPECIFICATION FOR SOLID CONCRETE INTERLOCKING PAVING UNITS.
9. C 979, STANDARD SPECIFICATION FOR PIGMENTS FOR INTEGRALLY COLORED CONCRETE.
10. D 698 TEST METHODS FOR MOISTURE DENSITY RELATIONS OF SOIL AND SOIL AGGREGATE MIXTURES USING A 5.5 LB (24.4 N) RAMMER AND 12 IN. (305 MM) DROP.
11. D 1557 TEST METHODS FOR MOISTURE DENSITY RELATIONS OF SOIL AND SOIL AGGREGATE MIXTURES USING A 10_LB (44.5 N) RAMMER AND 18 IN. (457 MM) DROP.
12. C1645 STANDARD TEST METHOD FOR FREEZE-THAW AND DE-ICING SALT DURABILITY OF SOLID CONCRETE INTERLOCKING PAVING UNITS
13. D 1883, TEST METHOD FOR CALIFORNIA BEARING RATIO OF LABORATORY-COMPACTED SOILS.
14. D 2940 GRADED AGGREGATE MATERIAL FOR BASES OR SUBBASES FOR HIGHWAYS OR AIRPORTS.
15. D 4254, STANDARD TEST METHODS FOR MINIMUM INDEX DENSITY AND UNIT WEIGHT OF SOILS AND CALCULATION OF RELATIVE DENSITY.
16. D 5261, STANDARD TEST METHOD FOR MEASURING MASS PER UNIT AREA OF GEOTEXTILES
17. D 4632, STANDARD TEST METHOD FOR GRAB BREAKING LOAD AND ELONGATION OF GEOTEXTILES
18. D 4533, STANDARD TEST METHOD FOR INDEX TRAPEZOIDAL TEARING STRENGTH OF GEOTEXTILES
19. D 4833, STANDARD TEST METHOD FOR INDEX PUNCTURE RESISTANCE OF GEOTEXTILES, GEOMEMBRANES AND RELATED PRODUCTS
20. D 4491, STANDARD TEST METHOD FOR WATER PERMEABILITY OF GEOTEXTILES BY PERMITTIVITY
21. D 4751, STANDARD TEST METHOD FOR DETERMINING APPARENT OPENING SIZE OF A GEOTEXTILE
22. D 4354, STANDARD PRACTICE FOR SAMPLING OF GEOSYNTHETICS FOR TESTING
23. D 4759, STANDARD PRACTICE FOR DETERMINING THE SPECIFICATIONS CONFORMANCE OF GEOSYNTHETICS

NOTE:

IN ORDER TO DETERMINE THE LATEST VERSION OF THE LISTED SPECIFICATIONS AND STANDARDS, PLEASE CONSULT THE ASTM WEB PAGE (WWW.ASTM.COM)

B. ILLINOIS DEPARTMENT OF TRANSPORTATION:

1. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, JANUARY 2010, INCLUDING ALL ADDENDA.

C. U.S. GREEN BUILDING COUNCIL LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN (LEED)

1. BUILDING DESIGN + CONSTRUCTION, LATEST EDITION

D. AMERICAN SOCIETY OF CIVIL ENGINEERS STANDARD

1. ASCE/T&DI/ICPI 68-18 PERMEABLE INTERLOCKING CONCRETE PAVEMENT

1.03 SUBMITTALS

A. PERMEABLE CONCRETE PAVERS:

1. SAMPLES FOR VERIFICATION: THREE REPRESENTATIVE FULL-SIZE SAMPLES OF EACH PAVER TYPE, THICKNESS, COLOR AND FINISH THAT INDICATE THE RANGE OF COLOR VARIATION AND TEXTURE EXPECTED UPON PROJECT COMPLETION.
2. ACCEPTED SAMPLES BECOME THE STANDARD OF ACCEPTANCE FOR THE PRODUCT PRODUCED.
3. TEST RESULTS FROM AN INDEPENDENT TESTING LABORATORY FOR COMPLIANCE OF CONCRETE PAVERS WITH ASTM C 936.
4. MANUFACTURER'S CATALOG PRODUCT DATA, INSTALLATION INSTRUCTIONS, AND MATERIAL SAFETY DATA SHEETS FOR THE SAFE HANDLING OF THE SPECIFIED MATERIALS AND PRODUCTS.

B. PERMEABLE JOINT OPENING AGGREGATE:

1. PROVIDE THREE REPRESENTATIVE ONE POUND SAMPLES IN CONTAINERS OF AGGREGATE MATERIALS THAT INDICATE THE RANGE OF COLOR VARIATION AND TEXTURE EXPECTED UPON PROJECT COMPLETION.
2. ACCEPTED SAMPLES BECOME THE STANDARD OF ACCEPTANCE FOR THE PRODUCT PRODUCED.
3. TEST RESULTS FROM AN INDEPENDENT TESTING LABORATORY FOR SIEVE ANALYSIS, INCLUDING WASHED GRADATIONS PER ASTM C 136.
4. TEST RESULTS FOR VOID SPACE PERCENTAGE PER ASTM C 29.

C. PERMEABLE SETTING BED, BASE AND SUBBASE AGGREGATE:

1. TEST RESULTS FROM AN INDEPENDENT TESTING LABORATORY FOR COMPLIANCE WITH ASTM D 448 NO. 8, NO. 57 AND NO. 2.
2. TEST RESULTS FROM AN INDEPENDENT TESTING LABORATORY FOR SIEVE ANALYSIS, INCLUDING WASHED GRADATIONS PER ASTM C 136.
3. TEST RESULTS FOR VOID SPACE PERCENTAGE PER ASTM C 29.

D. PAVING INSTALLATION SUBCONTRACTOR:

1. JOB REFERENCES FROM A MINIMUM OF THREE PROJECTS SIMILAR IN SIZE AND COMPLEXITY. PROVIDE OWNER/CLIENT/GENERAL SUBCONTRACTOR NAMES, POSTAL ADDRESS, PHONE, FAX, AND EMAIL ADDRESS.

E. LEED

1. LEED MATERIALS AND RESOURCES CREDIT 4, RECYCLED MATERIALS: SUBMIT LETTER FROM MANUFACTURER CERTIFYING THE PRODUCTS HAVING RECYCLED CONTENT, DOCUMENTATION INDICATING PERCENTAGES BY WEIGHT OF POST-CONSUMER AND PRE-CONSUMER RECYCLED CONTENT.
   1.1. INCLUDE STATEMENT INDICATING COSTS FOR EACH PRODUCT HAVING RECYCLED CONTENT.
2. LEED MATERIALS AND RESOURCES CREDIT 5, REGIONAL MATERIALS: SUBMIT LETTER FROM MANUFACTURER CERTIFYING PRODUCTS HAVING BEEN EXTRACTED, HARVESTED, OR RECOVERED, AS WELL AS MANUFACTURED WITHIN 500 MILES OF THE PROJECT SITE.
   2.1. INCLUDE A STATEMENT INDICATING THE PERCENTAGE BY WEIGHT WHICH IS EXTRACTED, HARVESTED, OR RECOVERED WITHIN 500 MILES OF THE PROJECT SITE.
3. LEED SUSTAINABLE SITES CREDIT 7.1, NON-ROOF: SUBMIT LETTER FROM MANUFACTURER CERTIFYING THE SOLAR REFLECTANCE INDEX (SRI) OF THE PAVER IS 29 OR GREATER.

1.04 QUALITY ASSURANCE

A. UTILIZE A MANUFACTURER HAVING AT LEAST TEN YEARS OF EXPERIENCE MANUFACTURING INTERLOCKING CONCRETE PAVERS ON PROJECTS OF SIMILAR NATURE OR PROJECT SIZE.

B. SOURCE LIMITATIONS:

4. OBTAIN PERMEABLE CONCRETE PAVERS FROM ONE SOURCE LOCATION WITH THE RESOURCES TO PROVIDE PRODUCTS OF CONSISTENT QUALITY IN APPEARANCE AND PHYSICAL PROPERTIES.
5. OBTAIN PERMEABLE JOINT OPENING AGGREGATE FROM ONE SOURCE WITH THE RESOURCES TO PROVIDE MATERIALS AND PRODUCTS OF CONSISTENT QUALITY IN APPEARANCE AND PHYSICAL PROPERTIES.

C. PAVING SUBCONTRACTOR QUALIFICATIONS:

1. UTILIZE AN INSTALLER HAVING SUCCESSFULLY COMPLETED CONCRETE PAVER INSTALLATION SIMILAR IN DESIGN, MATERIAL, AND EXTENT INDICATED ON THIS PROJECT.

D. MOCKUPS:

1. INSTALL A 5 FT X 5 FT PAVER AREA.
2. USE THIS AREA TO DETERMINE JOINT SIZES, LINES, LAYING PATTERN(S) AND LEVELNESS. THIS AREA WILL SERVE AS THE STANDARD BY WHICH THE WORKMANSHIP WILL BE JUDGED.
3. SUBJECT TO ACCEPTANCE BY OWNER, MOCK-UP MAY BE RETAINED AS PART OF FINISHED WORK.
4. IF MOCK-UP IS NOT RETAINED, HAUL OFFSITE AND DISPOSE LEGALLY.

1.05 DELIVERY, STORAGE & HANDLING

A. IN ACCORDANCE WITH CONDITIONS OF THE CONTRACT AND DIVISION 1 PRODUCT REQUIREMENT SECTION.

B. DELIVER PERMEABLE CONCRETE PAVERS IN MANUFACTURER'S ORIGINAL, UNOPENED AND UNDAMAGED CONTAINER PACKAGING WITH IDENTIFICATION LABELS INTACT.
1. COORDINATE DELIVERY AND PAVING SCHEDULE TO MINIMIZE INTERFERENCE WITH NORMAL USE OF STREETS AND SIDEWALKS ADJACENT TO PAVER INSTALLATION.
2. DELIVER CONCRETE PAVERS TO THE SITE IN STEEL BANDED, PLASTIC BANDED OR PLASTIC RAPPED PACKAGING CAPABLE OF TRANSFER BY FORKLIFT OR CLAMP LIFT.
3. UNLOAD PAVERS AT JOB SITE IN SUCH A MANNER THAT NO DAMAGE OCCURS TO THE PRODUCT OR ADJACENT SURFACES.

C. STORE AND PROTECT MATERIALS FREE FROM MUD, DIRT AND OTHER FOREIGN MATERIALS.

1.06 PROJECT/SITE CONDITIONS

A. ENVIRONMENTAL REQUIREMENTS:

1. INSTALL PERMEABLE PAVERS ONLY ON UNFROZEN PERMEABLE SETTING BED AGGREGATE MATERIALS.
2. INSTALL PERMEABLE SETTING BED ONLY ON UNFROZEN PERMEABLE BASE AND SUBBASE AGGREGATES.
3. INSTALL PERMEABLE BASE OR SUBBASE AGGREGATES ONLY OVER UNFROZEN SUBGRADE.

1.07 PERMEABLE CONCRETE PAVER OVERAGE AND ATTIC STOCK

A. PROVIDE A MINIMUM OF 5% ADDITIONAL MATERIAL FOR OVERAGE TO BE USED DURING CONSTRUCTION.

B. FURNISH 100 SQUARE FEET OF EACH PRODUCT AND SIZE USED TO OWNER FOR MAINTENANCE AND REPAIR. FURNISH PERMEABLE CONCRETE PAVERS FROM THE SAME PRODUCTION RUN AS INSTALLED MATERIALS.

C. MANUFACTURE TO SUPPLY MAINTENANCE AND REINSTATEMENT MANUALS FOR PERMEABLE CONCRETE PAVER UNITS.

1.08 LEED REQUIREMENTS

A. ADD ANY SPECIFIC REQUIREMENTS NECESSARY FOR ACHIEVING DESIRED CREDITS.

PART 2 PRODUCTS

2.01 PERMEABLE CONCRETE PAVERS

A. BASIS-OF-DESIGN PRODUCT: THE PERMEABLE CONCRETE PAVER SHAPES ARE BASED ON:
1. UNILOCK: (SELECT PRODUCT OR PRODUCTS BEING USED)
   1.1. ECO-OPTILOC
   1.2. ECO-PRIORA
   1.3. ECOLOC
   1.4. ECO-STONE
   1.5. TOWN HALL
2. AS MANUFACTURED BY:
   UNILOCK CHICAGO
   301 E. SULLIVAN RD.
   AURORA, IL 60505
   CONTACT: BRAD SWANSON – (630) 742-4168 OR YOUR LOCAL TERRITORY MANAGER
3. THE SPECIFIED PRODUCTS ESTABLISH MINIMUM REQUIREMENTS THAT SUBSTITUTIONS MUST MEET TO BE CONSIDERED ACCEPTABLE.
   3.1. TO OBTAIN ACCEPTANCE OF UNSPECIFIED PRODUCTS, SUBMIT WRITTEN REQUESTS AT LEAST 7 DAYS BEFORE THE BID DATE.

B. PRODUCT REQUIREMENTS:

1. PERMEABLE PAVER TYPE 1: UNILOCK ECO-OPTILOC
   1.1. COLOR: PER OWNER/ARCHITECT
   1.2. FINISH: PER OWNER/ARCHITECT
   1.2.1. STANDARD – THIS IS NOT A FACE MIX FINISH.
   1.2.2. SMOOTH (PREMIER) – THIS IS A FACE MIX FINISH.
   1.2.3. BRUSHED (IL CAMPO) – THIS IS A FACE MIX FINISH.
   1.2.4. EXPOSED GRANITE (SERIES 3000) – THIS IS A FACE MIX FINISH.
   1.2.5. GRANITE APPEARANCE (UMBRIANO) – THIS IS A FACE MIX FINISH.
   1.2.6. TILE APPEARANCE (BELPASSO) – THIS IS A FACE MIX FINISH.
   1.2.7. TX ACTIVE PHOTOCATALYTIC CEMENT – THIS IS A FACE MIX FINISH.
   1.3. EDGE: CHAMFER – 3 MM BEVEL
   1.4. SIZE: MANUFACTURE THE SIZES INDICATED WITH A MAXIMUM TOLERANCE OF PLUS OR MINUS 1/16 IN ALL DIRECTIONS.
   1.4.1. L-SHAPE

NOTE:

IMPERIAL DIMENSIONS ARE NOMINAL EQUIVALENTS TO THE METRIC DIMENSIONS.

2. PERMEABLE PAVER TYPE 2: UNILOCK ECO-PRIORA
   2.1. COLOR: PER OWNER/ARCHITECT
   2.2. FINISH: PER OWNER/ARCHITECT
   2.2.1. STANDARD – THIS IS NOT A FACE MIX FINISH.
   2.2.2. SMOOTH (PREMIER) – THIS IS A FACE MIX FINISH.
   2.2.3. BRUSHED (IL CAMPO) – THIS IS A FACE MIX FINISH.
   2.2.4. EXPOSED GRANITE (SERIES 3000) – THIS IS A FACE MIX FINISH.
   2.2.5. GRANITE APPEARANCE (UMBRIANO) – THIS IS A FACE MIX FINISH.
   2.2.6. TILE APPEARANCE (BELPASSO) – THIS IS A FACE MIX FINISH.
   2.2.7. TX ACTIVE PHOTOCATALYTIC CEMENT – THIS IS A FACE MIX FINISH EITHER PREMIER OR BRUSHED.
   2.3. EDGE: CHAMFER – 3 MM ROLLED
   2.4. SIZE: MANUFACTURE THE SIZES INDICATED WITH A MAXIMUM TOLERANCE OF PLUS OR MINUS 1/16 IN ALL DIRECTIONS.
   2.4.1. 120 MM (5 IN) X 120 MM (5 IN) X 80 MM (3-1/8 IN) THICK
   2.4.2. 120 MM (5 IN) X 240 MM (10 IN) X 80 MM (3-1/8 IN) THICK
   2.4.3. 240 MM (10 IN) X 240 MM (10 IN) X 80 MM (3-1/8 IN) THICK

NOTE:

IMPERIAL DIMENSIONS ARE NOMINAL EQUIVALENTS TO THE METRIC DIMENSIONS.

3. PERMEABLE PAVER TYPE 3: TOWN HALL
   3.1. COLOR: PER OWNER/ARCHITECT
   3.2. FINISH: STREETPAVER APPEARANCE
   3.3. SIZE: MANUFACTURE THE SIZES INDICATED WITH A MAXIMUM TOLERANCE OF PLUS OR MINUS 1/16 IN ALL DIRECTIONS.
   3.3.1. 10 CM (4 IN) X 25 CM (9-3/4 IN) X 7 CM (2-3/4 IN) THICK

C. PROVIDE PAVERS MEETING THE MINIMUM MATERIAL AND PHYSICAL PROPERTIES SET FORTH IN ASTM C 936, STANDARD SPECIFICATION FOR INTERLOCKING CONCRETE PAVING UNITS. EFFLORESCENCE IS NOT A CAUSE FOR REJECTION.

1. AVERAGE COMPRESSIVE STRENGTH 8000 PSI (55MPA) WITH NO INDIVIDUAL UNIT UNDER 7,200 PSI (50 MPA).
2. AVERAGE ABSORPTION OF 5% WITH NO UNIT GREATER THAN 7% WHEN TESTED ACCORDING TO ASTM C 140.
3. RESISTANCE TO 50 FREEZE-THAW CYCLES, WHEN TESTED ACCORDING TO ASTM C1645, WITH NO BREAKAGE GREATER THAN 1.0% LOSS IN DRY WEIGHT OF ANY INDIVIDUAL UNIT. CONDUCT THIS TEST METHOD NOT MORE THAN 12 MONTHS PRIOR TO DELIVERY OF UNITS.

NOTE:

EFFLORESCENCE IS A WHITISH POWDER-LIKE DEPOSIT THAT SOMETIMES APPEARS ON CONCRETE PRODUCTS. CALCIUM HYDROXIDE AND OTHER WATER-SOLUBLE MATERIALS FORM OR ARE PRESENT DURING THE HYDRATION OF PORTLAND CEMENT. PORE WATER BECOMES SATURATED WITH THESE MATERIALS, AND DIFFUSES TO THE SURFACE OF THE CONCRETE. WHEN THIS WATER EVAPORATES, THE SOLUBLE MATERIALS REMAIN AS A WHITISH DEPOSIT ON THE CONCRETE SURFACE. THE CALCIUM HYDROXIDE IS CONVERTED TO CALCIUM CARBONATE DURING A REACTION WITH CARBON DIOXIDE FROM THE ATMOSPHERE. THE CALCIUM CARBONATE IS DIFFICULT TO REMOVE WITH WATER. HOWEVER, THE EFFLORESCENCE WILL WEAR OFF WITH TIME, AND IT IS ADVISABLE TO WAIT A FEW MONTHS BEFORE ATTEMPTING TO REMOVE ANY EFFLORESCENCE. COMMERCIALLY AVAILABLE CLEANERS CAN BE USED, PROVIDED DIRECTIONS ARE CAREFULLY FOLLOWED. SOME CLEANERS CONTAIN ACIDS THAT MAY ALTER THE COLOR OF THE PAVERS.

D. ACCEPT ONLY PIGMENTS IN CONCRETE PAVERS CONFORMING TO ASTM C 979.

NOTE:

ACI REPORT NO. 212.3R PROVIDES GUIDANCE ON THE USE OF PIGMENTS.

E. MAXIMUM ALLOWABLE BREAKAGE OF PRODUCT IS 5%.

F. TX ACTIVE IS A PORTLAND CEMENT (WHITE) TYPE I, II, AND III COMPLYING WITH ASTM C 150 WITH THE ADDITION OF PROPRIETARY PARTICLES OF TITANIUM DIOXIDE (TIO2) SPECIFICALLY ENGINEERED FOR USE IN THE MANUFACTURE OF CONCRETE AND CONCRETE PRODUCTS.

1. TX ACTIVE – SELF-CLEANING AND POLLUTION REDUCTION
   1.1. CONCRETE WILL RESIST MOST ORGANIC AND INORGANIC POLLUTANTS THAT GATHER ON THE SURFACE CAUSING DISCOLORATION.
   1.2. CONCRETE WILL REMOVE SIGNIFICANT AMOUNTS OF ENVIRONMENTAL POLLUTANTS DEEMED HARMFUL TO HUMAN HEALTH.
2. AS MANUFACTURED BY ESSROC ITALCEMENTI GROUP.
   2.1. UNILOCK CHICAGO IS AN AUTHORIZED PRODUCER OF TX ACTIVE PRODUCTS.

NOTE:

CONTACT YOUR LOCAL UNILOCK COMMERCIAL PRODUCT REPRESENTATIVE PRIOR TO SPECIFYING TX ACTIVE CEMENT.

2.02 PERMEABLE JOINT OPENING AGGREGATE

A. PROVIDE PERMEABLE JOINT OPENING AGGREGATE MATERIALS CONFORMING TO ASTM C 33 AND GRADATION REQUIREMENTS OF ASTM D 448 NO. 8 AS SHOWN IN TABLE 1 OR IDOT CA-16. UNILOCK RECOMMENDS USING GRANITE CHIPS LISTED IN TABLE 2 BELOW FOR VEHICULAR AREAS WITH HEAVY TRAFFIC LOADS SUCH AS ROADWAYS OR DRIVE-THROUGH AREAS.

TABLE 1 – ECO-OPTILOC
PERMEABLE JOINT OPENING AGGREGATE
GRADATION REQUIREMENTS
(CRUSHED LIMESTONE)

ASTM NO. 8	
SIEVE SIZE	PERCENT PASSING
1/2 IN (12.5 MM)	100
3/8 IN (9.5 MM)	85 TO 100
NO. 4 (4.75 MM)	10 TO 30
NO. 8 (2.36 MM)	0 TO 10
NO. 16 (1.18 MM)	0 TO 5

B. PROVIDE PERMEABLE JOINT OPENING AGGREGATE MATERIALS CONFORMING TO ASTM C 33 AND GRADATION REQUIREMENTS AS PRESENTED IN TABLE 2.
1. SUPPLIER:
   a. KAFKA GRANITE LLC, 101 S. WEBER AVE, STRATFORD, WI 54484 – TOLL FREE: 800-852-7415
   b. ALLIANCE AQUA-ROC
   c. SEK PERM CHIP
2. COLOR: PER OWNER/ARCHITECT

TABLE 2 – ECO-PRIORA & TOWN HALL
PERMEABLE JOINT OPENING AGGREGATE
GRADATION REQUIREMENTS
(GRANITE CHIPS)

1/8 TO 3/16 INCH GRANITE CHIPS	
SIEVE SIZE	PERCENT PASSING
1/4 IN (6 MM)	97 TO 100
NO. 4 (4.75 MM)	70 TO 83
NO. 8 (2.36 MM)	37 TO 50
NO. 16 (1.18 MM)	0 TO 12
PAN	

2.03 PERMEABLE SETTING BED AGGREGATE (IDOT CA-16)

A. PROVIDE PERMEABLE SETTING BED AGGREGATE MATERIALS CONFORMING TO ASTM C 33 AND GRADATION REQUIREMENTS OF ASTM D 448 NO. 8 AS PRESENTED IN TABLE 3 OR IDOT CA-16.

TABLE 3
PERMEABLE SETTING BED AGGREGATE
GRADATION REQUIREMENTS

ASTM NO. 8	
SIEVE SIZE	PERCENT PASSING
1/2 IN (12.5 MM)	100
3/8 IN (9.5 MM)	85 TO 100
NO. 4 (4.75 MM)	10 TO 30
NO. 8 (2.36 MM)	0 TO 10
NO. 16 (1.18 MM)	0 TO 5

2.04 PERMEABLE BASE AGGREGATE (IDOT CA-7)

A. PROVIDE PERMEABLE BASE AGGREGATE MATERIALS CONFORMING TO ASTM C 33 AND GRADATION REQUIREMENTS OF ASTM D 448 NO. 57 AS PRESENTED IN TABLE 4 OR IDOT CA-7.

TABLE 4
PERMEABLE BASE AGGREGATE
GRADATION REQUIREMENTS

ASTM NO. 57	
SIEVE SIZE	PERCENT PASSING
1-1/2 IN (37.5 MM)	100
1 IN (9.5 MM)	95 TO 100
1/2 IN (12.5 MM)	25 TO 60
NO. 4 (4.75 MM)	0 TO 10
NO. 8 (2.36 MM)	0 TO 5

2.05 PERMEABLE SUBBASE AGGREGATE (IDOT CA-1)

A. PROVIDE PERMEABLE SUBBASE AGGREGATE MATERIALS CONFORMING TO ASTM C 33 AND GRADATION REQUIREMENTS OF ASTM D 448 NO. 2 AS PRESENTED IN TABLE 5 OR IDOT CA-1.

TABLE 5
PERMEABLE SUBBASE AGGREGATE
GRADATION REQUIREMENTS

ASTM NO. 2	
SIEVE SIZE	PERCENT PASSING
3 IN (75 MM)	100
2-1/2 IN (63 MM)	90 TO 100
2 IN (50 MM)	35 TO 70
1-1/2 IN (37.5 MM)	0 TO 15
3/4 IN (19 MM)	0 TO 5

NOTE:

FOR ALL AGGREGATES, PROVIDE WASHED, CLEAN, HAVE ZERO PLASTICITY, FREE FROM DELETERIOUS OR FOREIGN MATTER, CRUSHED, ANGULAR ROCK AND CONTAIN NO NO. 200 SIEVE SIZE AGGREGATE MATERIALS USED IN THE CONSTRUCTION OF PERMEABLE PAVEMENT. AGGREGATE MATERIALS SERVE AS THE STRUCTURAL LOAD BEARING PLATFORM OF THE PAVEMENT AS WELL AS A TEMPORARY RECEPTOR FOR THE INFILTRATED WATER THAT IS COLLECTED THROUGH THE OPENINGS IN THE PAVEMENT'S SURFACE.

2.06 GEOTEXTILE (IF REQUIRED)

A. PROVIDE GEOTEXTILE MATERIAL CONFORMING TO THE FOLLOWING PERFORMANCE CHARACTERISTICS, MEASURED PER THE TEST METHODS REFERENCED:
1. 4 OZ., NONWOVEN NEEDLE PUNCHED GEOTEXTILE COMPOSED OF 100% POLYPROPYLENE STAPLE FIBERS THAT ARE INERT TO BIOLOGICAL DEGRADATION AND RESISTS NATURALLY ENCOUNTERED CHEMICALS, ALKALIS, AND ACIDS.
2. GRAB TENSILE STRENGTH: ASTM D 4632
3. GRAB TENSILE ELONGATION: ASTM D 4632
4. TRAPEZOIDAL TEAR: ASTM D4533
5. PUNCTURE: ASTM D4833
6. APPARENT OPENING SIZE: ASTM D 4751
7. PERMITTIVITY: ASTM D 4491
8. FLOW RATE: ASTM D 4491

B. AS SUPPLIED BY UNILOCK CHICAGO, 301 E. SULLIVAN RD., AURORA, IL 60505
CONTACT: BRAD SWANSON – (630) 742-4168 OR YOUR LOCAL TERRITORY MANAGER
1. CARTHAGE MILLS – FX-40HS
2. U.S. FABRICS – US 115NW
3. MIRAFI – 140N

2.07 EDGE RESTRAINTS

A. CONCRETE EDGE RESTRAINT AS INDICATED.

B. PLASTIC AND METAL EDGE RESTRAINTS:
1. PERMALOC, WWW.PERMALOC.COM
   1.1. MATERIAL TYPE: ALUMINUM MODEL NO.: 3 INCH GEOEDGE CAPTURE PLATE AND GEOGRID
2. SEK SUREBOND
   2.1. MODEL NO.: 8 FEET PERMEDGE WITH ATTACHED GEOGRID

NOTE:

THE PROVISION OF SUITABLE EDGE RESTRAINTS IS CRITICAL TO THE SATISFACTORY PERFORMANCE OF INTERLOCKING CONCRETE BLOCK PAVEMENT. ABUT PAVERS TIGHTLY AGAINST THE RESTRAINTS TO PREVENT ROTATION UNDER LOAD AND ANY CONSEQUENT SPREADING OF JOINTS. INSTALL SUFFICIENTLY STABLE EDGE RESTRAINTS THAT ARE, IN ADDITION TO PROVIDING SUITABLE EDGE SUPPORT FOR THE PAVER UNITS, ABLE TO WITHSTAND THE IMPACT OF TEMPERATURE CHANGES, VEHICULAR TRAFFIC AND/OR SNOW REMOVAL EQUIPMENT.

CURBS, GUTTERS OR CURBED GUTTER, CONSTRUCTED TO THE DIMENSIONS OF MUNICIPAL STANDARDS (NOTING THAT THESE STANDARDS GENERALLY REFER TO CAST-IN-PLACE CONCRETE SECTIONS), ARE CONSIDERED TO BE ACCEPTABLE EDGE RESTRAINTS FOR HEAVY DUTY INSTALLATIONS. WHERE EXTREMELY HEAVY INDUSTRIAL EQUIPMENT IS INVOLVED SUCH AS CONTAINER HANDLING EQUIPMENT, REVIEW THE FLEXURAL STRENGTH OF THE EDGE RESTRAINT CAREFULLY PARTICULARLY IF A SECTION THAT IS FLUSH WITH THE SURFACE IS USED AND MAY BE SUBJECTED TO HIGH POINT LOADING.

PART 3 EXECUTION

3.01 EXAMINATION

A. EXAMINE AREAS INDICATED TO RECEIVE PAVING FOR COMPLIANCE WITH REQUIREMENTS FOR INSTALLATION TOLERANCES AND OTHER CONDITIONS AFFECTING PERFORMANCE FOR THE FOLLOWING ITEMS BEFORE PLACING THE PERMEABLE CONCRETE PAVERS.

1. VERIFY THAT SUBGRADE PREPARATION, COMPACTED DENSITY AND ELEVATIONS CONFORM TO SPECIFIED REQUIREMENTS.
2. VERIFY THAT GEOTEXTILES, IF APPLICABLE, HAVE BEEN PLACED ACCORDING TO DRAWINGS AND SPECIFICATIONS.
3. VERIFY THAT PERMEABLE BASE AND SUBBASE AGGREGATE MATERIALS, THICKNESS, COMPACTED DENSITY, SURFACE TOLERANCES AND ELEVATIONS CONFORM TO SPECIFIED REQUIREMENTS. REFERENCE ASCE 16-48 STANDARD FOR THICKNESS CALCULATION TABLES.
4. PROVIDE WRITTEN DENSITY TEST RESULTS FOR SOIL SUBGRADE, PERMEABLE BASE AND SUBBASE AGGREGATE MATERIALS TO THE OWNER, GENERAL SUBCONTRACTOR AND PAVER INSTALLATION SUBCONTRACTOR.
5. VERIFY LOCATION, TYPE, AND ELEVATIONS OF EDGE RESTRAINTS, CONCRETE COLLARS AROUND UTILITY STRUCTURES, AND DRAINAGE INLETS.

B. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

1. BEGINNING OF BEDDING SAND AND PAVER INSTALLATION SIGNIFIES ACCEPTANCE OF BASE AND EDGE RESTRAINTS.

3.02 PREPARATION

A. VERIFY THAT THE SUBGRADE SOIL IS FREE FROM STANDING WATER.

B. STOCKPILE PERMEABLE SETTING BED, JOINT, BASE AND SUBBASE AGGREGATE MATERIALS SUCH THAT THEY ARE FREE FROM STANDING WATER, UNIFORMLY GRADED, FREE OF ANY ORGANIC MATERIAL OR SEDIMENT, DEBRIS, AND READY FOR PLACEMENT.

C. REMOVE ANY EXCESS THICKNESS OF SOIL APPLIED OVER THE EXCAVATED SOIL SUBGRADE TO TRAP SEDIMENT FROM ADJACENT CONSTRUCTION ACTIVITIES BEFORE PLACING THE GEOTEXTILE AND PERMEABLE SUBBASE AGGREGATE MATERIALS.

D. KEEP AREA WHERE PAVEMENT IS TO BE CONSTRUCTED FREE FROM SEDIMENT DURING ENTIRE JOB. REMOVE AND REPLACE ALL GEOTEXTILE, PERMEABLE JOINT, SETTING BED, BASE AND SUBBASE AGGREGATE MATERIALS CONTAMINATED WITH SEDIMENT WITH CLEAN MATERIALS.

E. COMPLETE ALL SUBDRAINAGE OF UNDERGROUND SERVICES WITHIN THE PAVEMENT AREA IN CONJUNCTION WITH SUBGRADE PREPARATION AND BEFORE THE COMMENCEMENT OF PERMEABLE SUBBASE AGGREGATE CONSTRUCTION.

F. PREVENT DAMAGE TO UNDERDRAIN PIPES, OVERFLOW PIPES, OBSERVATION WELLS, OR INLETS AND OTHER DRAINAGE APPURTENANCES DURING INSTALLATION. REPORT ALL DAMAGE IMMEDIATELY.

G. COMPACT SOIL SUBGRADE UNIFORMLY TO AT LEAST 90 PERCENT OF STANDARD PROCTOR DENSITY PER ASTM D 698 FOR PEDESTRIAN AREAS. COMPACT SOIL SUBGRADE UNIFORMLY TO AT LEAST 95 PERCENT MODIFIED PROCTOR PER ASTM D 1557 FOR VEHICULAR AREAS.

H. PROOF-ROLL PREPARED SUBGRADE ACCORDING TO REQUIREMENTS IN DIVISION 31 SECTION "EARTH MOVING" TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING. EXCAVATE SOFT SPOTS, UNSATISFACTORY SOILS, AND AREAS OF EXCESSIVE PUMPING OR RUTTING AND REPLACE WITH COMPACTED BACKFILL OR FILL AS DIRECTED.

NOTE:

BASE COMPACTION AND PROOF-ROLLING OF THE SUBGRADE SOIL ON THE RECOMMENDATIONS OF THE DESIGN ENGINEER. REQUEST THE ARCHITECT/ENGINEER TO INSPECT SUBGRADE PREPARATIONS, ELEVATIONS AND CONDUCT DENSITY TESTS FOR CONFORMANCE TO SPECIFICATIONS.

NOTE:

MECHANICAL TAMPERS (JUMPING JACKS) ARE RECOMMENDED FOR COMPACTION OF SOIL SUBGRADE AND AGGREGATE BASE AROUND LAMP STANDARDS, UTILITY STRUCTURES, BUILDING EDGES, CURBS, TREE WELLS AND OTHER PROTRUSIONS. COMPACT AREAS, NOT ACCESSIBLE TO ROLLER COMPACTION EQUIPMENT, TO THE SPECIFIED DENSITY WITH MECHANICAL TAMPERS. CAUTION – PROCEED WITH CARE AROUND THE PERIMETERS OF EXCAVATIONS, BUILDINGS, CURBS, ETC. THESE AREAS ARE ESPECIALLY PRONE TO CONSOLIDATION AND SETTLEMENT. DO NOT PLACE WEDGES OF BACKFILL IN THESE AREAS. IF POSSIBLE PARTICULARLY IN THESE AREAS, PROCEED WITH BACKFILLING AND COMPACTING IN SHALLOW LIFTS, PARALLEL TO THE FINISHED SURFACE.

3.03 INSTALLATION

A. EDGE RESTRAINTS

1. PROVIDE EDGE RESTRAINTS AS INDICATED.
   1.1. INSTALL JOB-BUILT CONCRETE EDGE RESTRAINTS TO COMPLY WITH REQUIREMENTS IN DIVISION 3 SECTION "CAST-IN-PLACE CONCRETE."
   1.2. PROVIDE CONCRETE EDGE RESTRAINT ALONG THE PERIMETER OF ALL PAVING AS SPECIFIED. INSTALL THE FACE OF THE CONCRETE EDGE RESTRAINT, WHERE IT ABUTS PAVERS VERTICAL DOWN TO THE SUBBASE.
   1.3. CONSTRUCT CONCRETE EDGE RESTRAINT TO DIMENSIONS AND LEVEL SPECIFIED AND SUPPORT ON A COMPACTED SUBBASE NOT LESS THAN 6 IN (150 MM) THICK.
2. PROVIDE PLASTIC OR METAL EDGE RESTRAINTS AS INDICATED. (IF REQUIRED).
   2.1. PROVIDE PLASTIC OR METAL EDGE RESTRAINTS ALONG THE PERIMETER OF ALL PAVING AS INDICATED AND SUPPORTED ON A MINIMUM OF 6 INCHES (150 MM) OF BASE AGGREGATE.
   2.2. PROVIDE 10" SPIRAL GALVANIZED OR STAINLESS STEEL SPIKE TO FASTEN PLASTIC EDGE RESTRAINT AT 24 INCHES ON CENTER FOR STRAIGHT SECTIONS AND 12 INCHES ON CENTER FOR CURVED SECTIONS.

B. GEOTEXTILES (IF REQUIRED).

1. PROVIDE SEPARATION GEOTEXTILE ON BOTTOM AND SIDES OF PREPARED SOIL SUBGRADE. SECURE IN PLACE TO PREVENT WRINKLING OR FOLDING FROM EQUIPMENT TIRES AND TRACKS.
2. OVERLAP ENDS AND EDGES A MINIMUM OF 18 IN. (450 MM) IN THE DIRECTION OF DRAINAGE.

C. PERMEABLE BASE AND SUBBASE AGGREGATE

1. PROVIDE THE PERMEABLE SUBBASE AGGREGATE IN UNIFORM LIFTS NOT EXCEEDING 6 IN., (150 MM) LOOSE THICKNESS AND COMPACT TO AT LEAST 95 PERCENT AS PER ASTM D 4254 TO DEPTHS AS INDICATED.
2. COMPACT THE PERMEABLE SUBBASE AGGREGATE MATERIAL WITH AT LEAST TWO PASSES IN THE VIBRATORY MODE THEN AT LEAST TWO IN THE STATIC MODE WITH A MINIMUM 10 TON VIBRATORY ROLLER UNTIL THERE IS NO VISIBLE MOVEMENT. DO NOT CRUSH AGGREGATE WITH THE ROLLER.
3. TOLERANCE: DO NOT EXCEED THE SPECIFIED SURFACE GRADE OF THE COMPACTED PERMEABLE SUBBASE AGGREGATE MATERIAL MORE THAN ±3/4 IN. (20 MM) OVER A 10 FT. (3 M) LONG STRAIGHTEDGE LAID IN ANY DIRECTION.
4. PROVIDE THE PERMEABLE BASE AGGREGATE MATERIAL IN UNIFORM LIFTS NOT EXCEEDING 6 IN. (150 MM) OVER THE COMPACTED PERMEABLE SUBBASE AGGREGATE MATERIAL AND COMPACT TO AT LEAST 95 PERCENT AS PER ASTM D 4254 TO DEPTHS AS INDICATED.
5. COMPACT THE PERMEABLE BASE AGGREGATE MATERIAL WITH AT LEAST TWO PASSES IN THE VIBRATORY MODE THEN AT LEAST TWO IN THE STATIC MODE WITH A MINIMUM 10 TON VIBRATORY ROLLER UNTIL THERE IS NO VISIBLE MOVEMENT. DO NOT CRUSH AGGREGATE WITH THE COMPACTION DEVICE.
6. TOLERANCE: DO NOT EXCEED THE SPECIFIED SURFACE GRADE OF THE COMPACTED PERMEABLE BASE AGGREGATE MATERIAL MORE THAN ±1/2 IN. (13 MM) OVER A 10 FT. (3 M) LONG STRAIGHTEDGE LAID IN ANY DIRECTION.
7. GRADE AND COMPACT THE UPPER SURFACE OF THE PERMEABLE BASE AGGREGATE MATERIAL SUFFICIENTLY TO PREVENT INFILTRATION OF THE PERMEABLE SETTING BED AGGREGATE MATERIAL BOTH DURING CONSTRUCTION AND THROUGHOUT ITS SERVICE LIFE.

NOTE:

IN-PLACE DENSITY OF THE PERMEABLE BASE AND SUBBASE AGGREGATE MATERIALS MAY BE CHECKED PER ASTM D 4254. ESTABLISH A COMPACTED DENSITY OF 95% OF THE LABORATORY INDEX DENSITY FOR THE SUBBASE AND BASE STONE.

D. PERMEABLE SETTING BED AGGREGATE

1. PROVIDE AND SPREAD PERMEABLE SETTING BED AGGREGATE EVENLY OVER THE PERMEABLE BASE AGGREGATE COURSE AND SCREED TO A NOMINAL THICKNESS OF 2 IN.
   1.1. DO NOT DISTURB SCREEDED PERMEABLE SETTING BED AGGREGATE.
   1.2. DO NOT SUBSTANTIALLY EXCEED SCREED AREA WHICH CANNOT BE COVERED BY PAVERS IN ONE DAY.
   1.3. DO NOT USE PERMEABLE SETTING BED AGGREGATE MATERIAL TO FILL DEPRESSIONS IN THE BASE SURFACE.
2. KEEP MOISTURE CONTENT CONSTANT AND DENSITY LOOSE AND CONSTANT UNTIL CONCRETE PAVERS ARE SET AND COMPACTED.
3. INSPECT THE PERMEABLE SETTING BED AGGREGATE COURSE PRIOR TO COMMENCING THE PLACEMENT OF THE PERMEABLE CONCRETE PAVERS.
4. INSPECT THE SETTING BED AGGREGATE COURSE PRIOR TO COMMENCING THE PLACEMENT OF THE PERMEABLE CONCRETE PAVERS. ACCEPTANCE OF THE SETTING BED AGGREGATE OCCURS WITH THE INITIATION OF PERMEABLE CONCRETE PAVER PLACEMENT.

E. PERMEABLE CONCRETE PAVERS

1. REPLACE UNIT PAVERS WITH CHIPS, CRACKS, VOIDS, DISCOLORATIONS, AND OTHER DEFECTS THAT MIGHT BE VISIBLE IN FINISHED WORK.
2. MIX CONCRETE PAVERS FROM A MINIMUM OF THREE (3) BUNDLES SIMULTANEOUSLY DRAWING THE PAVER VERTICALLY RATHER THAN HORIZONTALLY, AS THEY ARE PLACED, TO PRODUCE UNIFORM BLEND OF COLORS AND TEXTURES. (COLOR VARIATION OCCURS WITH ALL CONCRETE PRODUCTS. THIS PHENOMENON IS INFLUENCED BY A VARIETY OF FACTORS, E.G. MOISTURE CONTENT, CURING CONDITIONS, DIFFERENT AGGREGATES AND, MOST COMMONLY, FROM DIFFERENT PRODUCTION RUNS. BY INSTALLING FROM A MINIMUM OF THREE (3) BUNDLES SIMULTANEOUSLY, VARIATION IN COLOR IS DISPERSED AND BLENDED THROUGHOUT THE PROJECT).
3. EXERCISE CARE IN HANDLING FACE MIX PAVERS TO PREVENT SURFACES FROM CONTACTING BACKS OR EDGES OF OTHER UNITS.
4. PROVIDE PERMEABLE CONCRETE PAVERS USING JOINT PATTERN AS INDICATED. ADJUST JOINT PATTERN AT PAVEMENT EDGES SUCH THAT CUTTING OF EDGE PAVERS IS MINIMIZED. CUT ALL PAVERS EXPOSED TO VEHICULAR TIRES NO SMALLER THAN ONE-THIRD OF A WHOLE PAVER.
5. USE STRING LINES OR CHALK LINES ON PERMEABLE SETTING BED AGGREGATE TO HOLD ALL PATTERN LINES TRUE.
6. SET SURFACE ELEVATION OF PAVERS 1/8 IN. (3 MM) ABOVE ADJACENT DRAINAGE INLETS, CONCRETE COLLARS OR CHANNELS.
7. PLACE UNITS HAND TIGHT AGAINST SPACER BARS. ADJUST HORIZONTAL PLACEMENT OF LAID PAVERS TO ALIGN STRAIGHT.
   7.1. WHEN INSTALLATION IS PERFORMED WITH MECHANICAL EQUIPMENT, USE ONLY UNIT PAVERS WITH SPACER BARS ON SIDES OF EACH UNIT.
8. PROVIDE SPACE BETWEEN PAVER UNITS OF 1/8 IN. WIDE TO ACHIEVE STRAIGHT BOND LINES.
9. PREVENT JOINT (BOND) LINES FROM SHIFTING MORE THAN ±1/2 IN. (±15 MM) OVER 50 FT. (15 M) FROM STRING LINES.
10. FILL GAPS BETWEEN UNITS OR AT EDGES OF THE PAVED AREA THAT EXCEED 3/8 INCH (10 MM) WITH PIECES CUT TO FIT FROM FULL-SIZE UNIT PAVERS.
11. CUT UNIT PAVERS WITH MOTOR-DRIVEN MASONRY SAW EQUIPMENT TO PROVIDE CLEAN, SHARP, UNCHIPPED EDGES. CUT UNITS TO PROVIDE PATTERN INDICATED AND TO FIT ADJOINING WORK NEATLY. USE FULL UNITS WITHOUT CUTTING WHERE POSSIBLE. HAMMER CUTTING IS NOT ACCEPTABLE.
12. PREVENT ALL TRAFFIC ON INSTALLED PAVERS UNTIL PERMEABLE JOINT AGGREGATE HAS BEEN VIBRATED INTO JOINTS. KEEP SKID STEER AND FORKLIFT EQUIPMENT OFF NEWLY LAID PAVERS THAT HAVE NOT RECEIVED INITIAL COMPACTION AND PERMEABLE JOINT AGGREGATE MATERIAL. .
13. VIBRATE PAVERS INTO LEVELING COURSE WITH A LOW-AMPLITUDE PLATE VIBRATOR CAPABLE OF A TO 5000-LBF (22-KN) COMPACTION FORCE AT 80 TO 90 HZ. PERFORM AT LEAST THREE PASSES ACROSS PAVING WITH VIBRATOR. VIBRATE UNDER THE FOLLOWING CONDITIONS:
    13.1. AFTER EDGE PAVERS ARE INSTALLED AND THERE IS A COMPLETED SURFACE.
    13.2. COMPACT INSTALLED CONCRETE PAVERS TO WITHIN 6 FEET (1,800 MM) OF THE LAYING FACE BEFORE ENDING EACH DAY'S WORK. COVER PAVERS THAT HAVE NOT BEEN COMPACTED AND LEVELING COURSE ON WHICH PAVERS HAVE NOT BEEN PLACED, WITH NONSTAINING PLASTIC SHEETS TO PREVENT PERMEABLE SETTING BED AGGREGATE FROM BECOMING DISTURBED.
14. PROTECT FACE MIX CONCRETE PAVER SURFACE FROM SCUFFING DURING COMPACTION BY UTILIZING A URETHANE PAD.
15. REMOVE ANY CRACKED OR STRUCTURALLY DAMAGED PAVERS AND REPLACE WITH NEW UNITS PRIOR TO INSTALLING PERMEABLE JOINT OPENING AGGREGATE MATERIAL.
16. PROVIDE, SPREAD AND SWEEP PERMEABLE JOINT OPENING AGGREGATE INTO JOINTS IMMEDIATELY AFTER VIBRATING PAVERS INTO PERMEABLE SETTING BED COURSE UNTIL FULL. VIBRATE PAVERS AND ADD PERMEABLE JOINT AGGREGATE MATERIAL UNTIL JOINTS ARE COMPLETELY FILLED, THEN REMOVE EXCESS MATERIAL. THIS WILL REQUIRE AT LEAST 4 PASSES WITH A PLATE COMPACTOR.
17. REMOVE EXCESS PERMEABLE JOINT AGGREGATE BROOM CLEAN FROM SURFACE WHEN INSTALLATION IS COMPLETE.

3.04 FIELD QUALITY CONTROL

A. VERIFY FINAL ELEVATIONS FOR CONFORMANCE TO THE DRAWINGS AFTER SWEEPING THE SURFACE CLEAN.

1. PREVENT FINAL CONCRETE PAVER FINISHED GRADE ELEVATIONS FROM DEVIATING MORE THAN ±3/8 IN. (±10 MM) UNDER A 10 FT (3 M) STRAIGHTEDGE OR INDICATED SLOPE, FOR FINISHED SURFACE OF PAVING.

B. LIPPAGE: NO GREATER THAN 1/32 IN. (0.8 MM) DIFFERENCE IN HEIGHT BETWEEN PERMEABLE CONCRETE PAVERS AND ADJACENT PAVED SURFACES.

3.05 REPAIRING, CLEANING AND SEALING

A. REMOVE AND REPLACE UNIT PAVERS THAT ARE LOOSE, CHIPPED, BROKEN, STAINED, OR OTHERWISE DAMAGED OR THAT DO NOT MATCH ADJOINING UNITS. PROVIDE NEW UNITS TO MATCH ADJOINING UNITS AND INSTALL IN SAME MANNER AS ORIGINAL UNITS, WITH SAME JOINT TREATMENT AND WITH NO EVIDENCE OF REPLACEMENT.

B. CLEANING: REMOVE EXCESS DIRT, DEBRIS, STAINS, GRIT, ETC. FROM EXPOSED PAVER SURFACES; WASH AND SCRUB CLEAN.

1. CLEAN PERMEABLE CONCRETE PAVERS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN RECOMMENDATIONS.

C. SEAL AS INDICATED. (IF REQUIRED)

1. APPLY SEALER FOR PERMEABLE CONCRETE PAVERS IN ACCORDANCE WITH THE SEALER AND PAVER MANUFACTURER'S WRITTEN RECOMMENDATIONS.

3.06 PROTECTION

A. PROTECT COMPLETED WORK FROM DAMAGE DUE TO SUBSEQUENT CONSTRUCTION ACTIVITY ON THE SITE.

3.07 PERMEABLE JOINT AGGREGATE MATERIAL REFILLING

A. REMOVE ALL DEBRIS FROM JOINT AND PROVIDE ADDITIONAL PERMEABLE JOINT AGGREGATE MATERIAL AFTER 120 DAYS AND BEFORE 150 DAYS AFTER DATE OF SUBSTANTIAL COMPLETION/PROVISIONAL ACCEPTANCE.

1. FILL PERMEABLE JOINT AGGREGATE MATERIAL FULL TO THE LIP OF THE PAVER.

NOTE:

THIS PREVENTATIVE MAINTENANCE REQUIREMENT IS VERY IMPORTANT TO INCLUDE IN YOUR SPECIFICATION TO HELP INCREASE THE LONG TERM FUNCTION OF THE SYSTEM. THIS IS A GOOD ITEM TO MENTION DURING THE PREBID MEETING.

1.08 LIFE CYCLE ACTIVITIES

A. PAVER CLEANING: CLEAN PERMEABLE CONCRETE PAVERS AS NEEDED TO REMOVE STAINING, DIRT, DEBRIS, ETC.

1. CLEAN PER MANUFACTURERS RECOMMENDATIONS.

B. MAINTENANCE: PERMEABLE JOINT AGGREGATE MATERIAL.

1. ANNUALLY INSPECT PERMEABLE JOINT AGGREGATE MATERIAL FOR AREAS CLOGGED WITH DEBRIS.
2. VACUUM OR SWEEP AS NECESSARY TO RESTORE SURFACE INFILTRATION.
3. REMOVE DEBRIS BY VACUUMING OR SWEEPING PERMEABLE JOINT AGGREGATE
   3.1. REPLENISH REMOVED PERMEABLE JOINT AGGREGATE MATERIAL WITH CLEAN AGGREGATE MATERIAL FLUSH TO PAVER LIP.
   3.2. SWEEP EXCESS MATERIAL FROM PAVER SURFACE.

BOTTOM OF THE FACILITY: ELEV. ______
SEASONALLY HIGH GROUNDWATER: ELEV. ______
SEPARATION: FEET ______

VOLUME TYPE	SURFACE AREA	DEPTH	POROSITY	STORAGE VOLUME	VOLUME PROVIDED
V_A : COARSE AGGREGATE (ABOVE INVERT)	0.35	18"	0.36	0.50 X 0.36 X V_A	0.09 AC-FT
V_B : COARSE AGGREGATE (BELOW INVERT)	0.35	12"	0.36	0.36 X V_B	0.13 AC-FT
				TOTAL	0.22 AC-FT

NOTES:
1. THE PERIMETER OF THE VOLUME CONTROL FACILITY SHALL MAINTAIN THE MINIMUM HORIZONTAL SEPARATION DISTANCE OF: 10-FEET FROM FOUNDATIONS, UNLESS WATERPROOFED; 20-FEET FROM ROADWAY GRAVEL SHOULDER; AND 100-FEET FROM POTABLE WATER WELLS, SEPTIC TANKS/FIELDS, OR OTHER UNDERGROUND TANKS.
2. SANITARY OR COMBINED SEWERS SHALL NOT BE LOCATED WITHIN THE VOLUME CONTROL FACILITY. SANITARY OR COMBINED SEWERS SHALL NOT BE LOCATED BELOW THE FOOTPRINT OF THE VOLUME CONTROL FACILITY. WHEN LOCAL CONDITIONS PREVENT THE SEWER FROM BEING LOCATED OUTSIDE THE FOOTPRINT OF THE FACILITY THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN QUALITY STANDARDS, OR IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.
3. AVOID INSTALLATION ON SLOPES GREATER THAN 3.00%. AVOID COMPACTING NATIVE SOILS. SCARIFY ANY COMPACTED SOIL.
4. GEOTEXTILE FABRIC SHALL MEET REQUIREMENTS OF IUM MATERIAL SPECIFICATION 592. FOR WOVEN: APPARENT OPENING SIZE OF 0.50 MM (TABLE 1, CLASS I). FOR NON WOVEN: APPARENT OPENING SIZE OF 0.30 MM (TABLE 2, CLASS II).
5. STONE STORAGE OPTIONS ARE IDOT CA-1, CA-3, CA-7, DISTRICT VULCAN MIX, OR APPROVED ALTERNATE. NO RECYCLED MATERIALS.
6. MINIMUM DISTANCE OF 2 FEET (3.5 FEET IN COMBINED SEWER AREAS) BETWEEN BOTTOM OF BMP AND SEASONALLY HIGH GROUNDWATER LEVEL.
7. UNDERDRAINS ARE REQUIRED IN TYPICAL CLAYEY SOILS WHERE INFILTRATION RATES ARE LESS THAN 0.5 INCH/HOUR. MAXIMUM OF 1 UNDERDRAIN PER 30 FEET. PROVIDE A SOIL REPORT DOCUMENTING NATIVE INFILTRATION RATE TO FOREGO UNDERDRAINS.
8. MINIMUM UNDERDRAIN BEDDING OF TWO INCHES, MAXIMUM OF 12 INCHES.
9. ONE OBSERVATION WELL REQUIRED PER 6,000 SQUARE FEET OF SURFACE AREA.
10. FOLLOW THE REQUIRED PRETREATMENT MEASURES LISTED ON THE VOLUME CONTROL PRETREATMENT MEASURES DETAIL.
11. MAINTENANCE REQUIREMENTS INCLUDE ANNUAL VACUUMING AND LOW-PRESSURE POWER WASHING OF PAVEMENT SURFACE. ADJACENT VEGETATED AREAS SHALL BE WELL-MAINTAINED. BARE SPOTS AND ERODED AREAS SHALL BE REPLANTED AND STABILIZED IMMEDIATELY. DO NOT SEALCOAT OR APPLY DE-ICING SAND/GRAVEL/SALT. APPROPRIATE SIGNAGE REQUIRED FOR FACILITY, REFER TO THE TYPICAL SIGNAGE FOR PERMEABLE PAVEMENT DETAIL.

NOT TO SCALE

TECHNICAL GUIDANCE MANUAL
PERMEABLE PAVERS DETAIL
8/24/18
STD. DWG. NO.9
PAGE NO. 10 – FC

Kimley»Horn

Revisions

Date	#	Description

date 2/13/2026
drawn by DAP
checked by EJT

BLDD ARCHITECTS

Design Firm Registration #184-000723

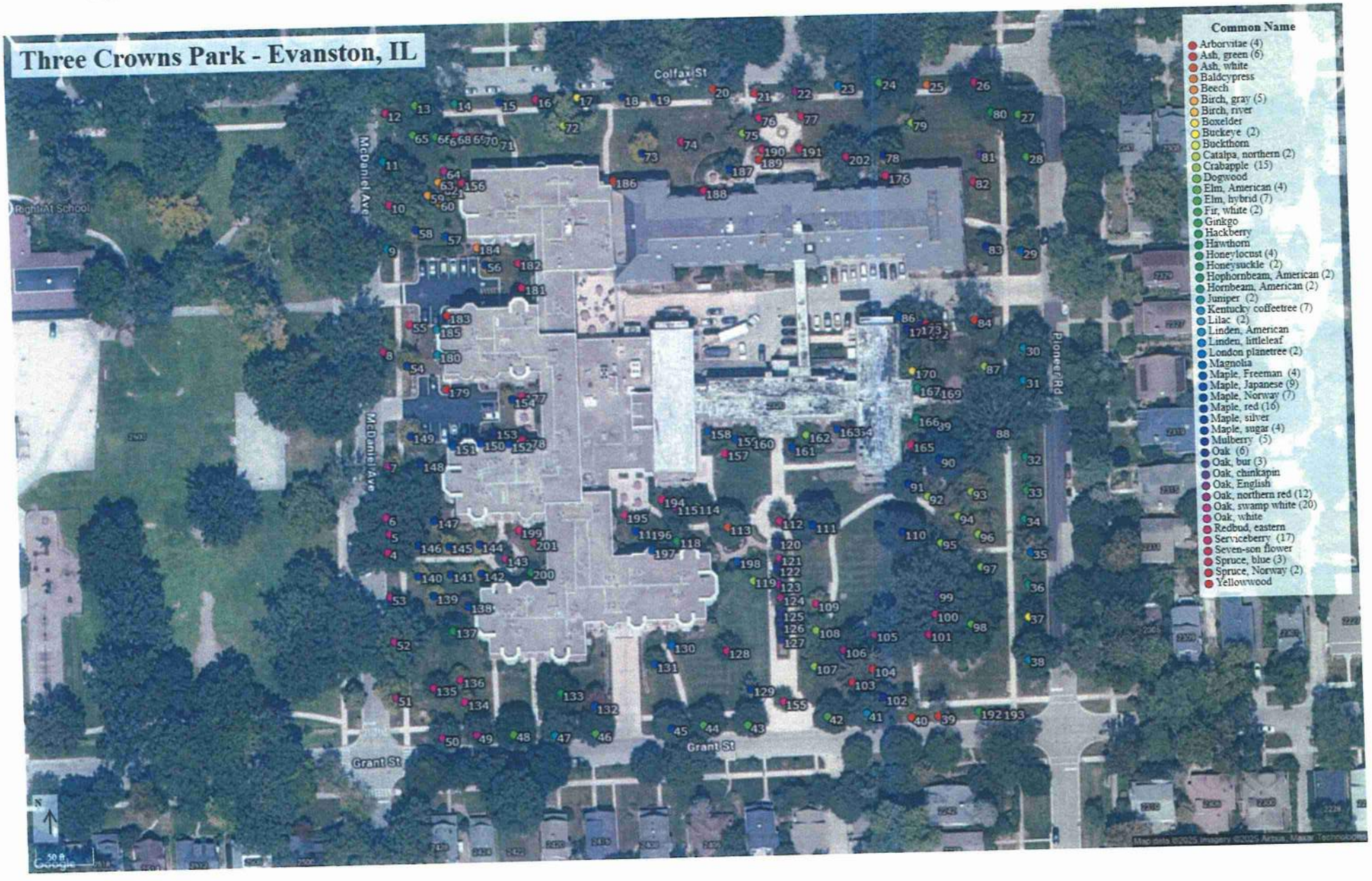
CONSTRUCTION DETAILS

THREE CROWNS PARK - PIONEER PLACE AND
MCDANIEL COURTS RENOVATIONS
COVENANT LIVING COMMUNITIES & SERVICES
2320 PIONEER ROAD & 2323 MCDANIEL AVE,
EVANSTON, IL 60201

sheet
C5.3P

project 234SX01.400/401

ISSUED FOR BID
NOT FOR CONSTRUCTION


Three Crowns Park - Evanston, IL
Common Name
Arborvitae (4)
Ash, green (6)
Ash, white
Baldcypress
Beech
Birch, gray (5)
Birch, river
Boxelder
Buckeye (2)
Buckthorn
Catalpa, northern (2)
Crabapple (15)
Dogwood
Elm, American (4)
Elm, hybrid (7)
Fir, white (2)
Ginkgo
Hackberry
Hawthorn
Honeylocust (4)
Honeysuckle (2)
Hophornbeam, American (2)
Hornbeam, American (2)
Juniper (2)
Kentucky coffeetree (7)
Lilac (2)
Linden, American
Linden, littleleaf
London planetree (2)
Magnolia
Maple, Freeman (4)
Maple, Japanese (9)
Maple, Norway (7)
Maple, red (16)
Maple, silver
Maple, sugar (4)
Mulberry (5)
Oak (6)
Oak, bur (3)
Oak, chinkapin
Oak, English
Oak, northern red (12)
Oak, swamp white (20)
Oak, white
Redbud, eastern
Serviceberry (17)
Seven-son flower
Spruce, blue (3)
Spruce, Norway (2)
Yellowwood
Colfax St
McDaniel Ave
McDaniel Ave
Pioneer Rd
Grant St
Grant St
N
50 ft
Google
Map data ©2025 Imagery ©2025 Airbus, Maxar Technologies

YELLOWSTONE LANDSCAPE
TREE CARE SERVICES

Tree Inventory Update - October 2025 - Three Crowns Park - Evanston, IL

ISA Certified Aborist IL-9703A

pid	Tree Id	Address	Common Name	Latin Name	Tree Work	DBH	Estimated Age	Comments
36955	4	2323 McDaniel Ave	Oak, swamp white	Quercus bicolor		27	122	
36956	5		Oak, swamp white	Quercus bicolor		27	122	
36957	6	2323 McDaniel Ave	Oak, swamp white	Quercus bicolor		42	210	
36958	7	2323 McDaniel Ave	Oak, northern red	Quercus rubra		10	30	
36959	8	2323 McDaniel Ave	Oak, swamp white	Quercus bicolor		5	15	
36960	9	2323 McDaniel Ave	Kentucky coffeetree	Gymnocladus dioicus		7	14	
36961	10	2323 McDaniel Ave	Oak, swamp white	Quercus bicolor		31	155	
36962	11	2323 McDaniel Ave	Kentucky coffeetree	Gymnocladus dioicus		6	12	
36963	12	2427 Colfax Street	Oak, swamp white	Quercus bicolor		29	131	
36964	13	2427 Colfax Street	Elm, American	Ulmus americana		30	90	
36965	14	2416 Colfax Street	Hornbeam, American	Carpinus caroliniana		7	35	
36966	15	2416 Colfax Street	Maple, sugar	Acer saccharum		4	12	
36967	16	2416 Colfax Street	Oak, swamp white	Quercus bicolor		7	21	
36968	17	2416 Colfax Street	Buckeye	Aesculus spp.		3	9	
36969	18	2416 Colfax Street	Maple, sugar	Acer saccharum		8	24	
36970	19	2416 Colfax Street	Maple, sugar	Acer saccharum		7	21	
36971	20	2400 Colfax Street	Ash, green	Fraxinus pennsylvanica		26	78	
36972	21	2400 Colfax Street	Yellowwood	Cladrastis lutea		3	9	Priority
36973	22	2340 Colfax Street	Oak, English	Quercus robur		22	99	
36974	23	2340 Colfax Street	Linden, American	Tilia americana		18	45	
36975	24	2332 Colfax Street	Elm, American	Ulmus americana		38	114	
36976	25	2326 Colfax Street	Baldcypress	Taxodium distichum		2	6	
36977	26	2326 Colfax Street	Oak, white	Quercus alba		19	95	
36978	27	2326 Colfax Street	Elm, hybrid	Ulmus spp.		13	26	
36979	28	2326 Colfax Street	Elm, hybrid	Ulmus spp.		16	32	
36980	29	2326 Colfax Street	London planetree	Platanus x acerifolia		12	30	
36981	30	2323 Pioneer Road	Kentucky coffeetree	Gymnocladus dioicus		17	43	

36982	31	2323 Pioneer Road	Kentucky coffeetree	Gymnocladus dioicus	13	26
36984	32	2315 Pioneer Road	Hophornbeam, Americar	Ostrya virginiana	4	20
36986	33	2311 Pioneer Road	Ginkgo	Ginkgo biloba	7	25
36989	34	2311 Pioneer Road	Hornbeam, American	Carpinus caroliniana	5	25
36991	35	2311 Pioneer Road	London planetree	Platanus x acerifolia	13	33
36992	36	2305 Pioneer Road	Hophornbeam, Americar	Ostrya virginiana	4	20
36995	37	2305 Pioneer Road	Buckeye	Aesculus spp.	10	30
36997	38	2305 Pioneer Road	Kentucky coffeetree	Gymnocladus dioicus	17	43
36998	39	2242 Pioneer Road	Ash, green	Fraxinus pennsylvanica	20	60
37000	40	2242 Pioneer Road	Ash, green	Fraxinus pennsylvanica	19	57
37001	41	2402 Grant Street	Kentucky coffeetree	Gymnocladus dioicus	15	30
37005	42	2402 Grant Street	Elm, hybrid	Ulmus spp.	14	28
37007	43	2402 Grant Street	Elm, hybrid	Ulmus spp.	14	28
37009	44	2402 Grant Street	Elm, hybrid	Ulmus spp.	14	28
37012	45	2408 Grant Street	Maple, Norway	Acer platanoides	16	48
37018	46	2422 Grant Street	Elm, hybrid	Ulmus spp.	15	30
37021	47	2422 Grant Street	Kentucky coffeetree	Gymnocladus dioicus	11	22
37023	48	2422 Grant Street	Elm, hybrid	Ulmus spp.	16	32
37027	49	2422 Grant Street	Oak, northern red	Quercus rubra	12	36
37029	50	2422 Grant Street	Oak, northern red	Quercus rubra	10	30
37033	51	2428 Grant Street	Oak, northern red	Quercus rubra	16	48
37036	52	2323 McDaniel Avei	Oak, swamp white	Quercus bicolor	31	155
37038	53	2323 McDaniel Avei	Oak, swamp white	Quercus bicolor	4	12
37055	54	2323 McDaniel Avei	Maple, red	Acer rubrum	8	24
37057	55	2323 McDaniel Avei	Seven-son flower	Heptacodium miconioides	3	9
37059	56	2323 McDaniel Avei	Maple, red	Acer rubrum	5	15
37061	57	2323 McDaniel Avei	Maple, Freeman	Acer x freemanii	4	12
37063	58	2323 McDaniel Avei	Maple, red	Acer rubrum	4	12
37066	59	2323 McDaniel Avei	Birch, gray	Betula populifolia	2	6
37068	60	2416 Colfax Street	Birch, gray	Betula populifolia	2	6
37070	61	2416 Colfax Street	Birch, gray	Betula populifolia	2	6
37071	62	2416 Colfax Street	Birch, gray	Betula populifolia	2	6
37072	63	2416 Colfax Street	Birch, gray	Betula populifolia	2	6
37074	64	2416 Colfax Street	Oak, northern red	Quercus rubra	4	12
37076	65	2416 Colfax Street	Elm, American	Ulmus americana	21	63

37078	66	2416 Colfax Street	Fir, white	Abies concolor	8	32	
37079	67	2416 Colfax Street	Fir, white	Abies concolor	8	32	
37080	68	2416 Colfax Street	Spruce, blue	Picea pungens	6	18	
37081	69	2416 Colfax Street	Spruce, blue	Picea pungens	10	30	
37082	70	2416 Colfax Street	Spruce, blue	Picea pungens	6	18	
37083	71	2416 Colfax Street	Catalpa, northern	Catalpa speciosa	8	16	
37084	72	2416 Colfax Street	Catalpa, northern	Catalpa speciosa	42	126	
37086	73	2416 Colfax Street	Maple, red	Acer rubrum	14	42	Cavity
37087	74	2400 Colfax Street	Oak, swamp white	Quercus bicolor	4	12	
37088	75	2400 Colfax Street	Crabapple	Malus spp.	20	60	
37089	76	2400 Colfax Street	Serviceberry	Amelanchier spp.	4	12	
37090	77	2340 Colfax Street	Serviceberry	Amelanchier spp.	8	32	
37091	78	2332 Colfax Street	Maple, red	Acer rubrum	16	48	
37092	79	2326 Colfax Street	Crabapple	Malus spp.	9.9	25	
37093	80	2326 Colfax Street	Honeylocust	Gleditsia triacanthos	26	78	
37094	81	2326 Colfax Street	Oak, bur	Quercus macrocarpa	3	9	Memorial tree
37095	82	2326 Colfax Street	Serviceberry	Amelanchier spp.	5	15	
37096	83	2326 Colfax Street	Maple, sugar	Acer saccharum	8	24	
37097	84	2326 Colfax Street	Ash, green	Fraxinus pennsylvanica	33	116	
37098	85	2320 Pioneer Road	Ash, green	Fraxinus pennsylvanica	31	109	
37099	86	2320 Pioneer Road	Maple, Freeman	Acer x freemanii	7	21	
37100	87	2320 Pioneer Road	Crabapple	Malus spp.	12.9	33	
37101	88	2320 Pioneer Road	Oak, bur	Quercus macrocarpa	51	255	
37102	89	2320 Pioneer Road	Crabapple	Malus spp.	12.2	31	
37103	90	2320 Pioneer Road	Maple, Norway	Acer platanoides	28	112	
37104	91	2320 Pioneer Road	Maple, Norway	Acer platanoides	14	42	
37105	92	2320 Pioneer Road	Crabapple	Malus spp.	10	25	
37106	93	2320 Pioneer Road	Crabapple	Malus spp.	13.8	35	
37107	94	2320 Pioneer Road	Crabapple	Malus spp.	17	51	
37108	95	2320 Pioneer Road	Crabapple	Malus spp.	10	25	
37109	96	2311 Pioneer Road	Crabapple	Malus spp.	14.8	37	
37110	97	2311 Pioneer Road	Crabapple	Malus spp.	14.8	37	
37111	98	2305 Pioneer Road	Elm, American	Ulmus americana	41	123	
37112	99	2320 Pioneer Road	Oak, bur	Quercus macrocarpa	41	205	
37113	100	2305 Pioneer Road	Oak, swamp white	Quercus bicolor	26	117	

37114	101	2242 Pioneer Road	Oak, swamp white	Quercus bicolor	30	150
37115	102	2402 Grant Street	Mulberry	Morus spp.	14	28
37116	103	2402 Grant Street	Spruce, Norway	Picea abies	25	113
37117	104	2402 Grant Street	Spruce, Norway	Picea abies	18	81
37118	105	2402 Grant Street	Oak, northern red	Quercus rubra	13	39
37119	106	2402 Grant Street	Oak, northern red	Quercus rubra	10	30
37120	107	2402 Grant Street	Crabapple	Malus spp.	20	60
37121	108	2402 Grant Street	Crabapple	Malus spp.	20	60
37122	109	2402 Grant Street	Oak, swamp white	Quercus bicolor	8	24
37123	110	2320 Pioneer Road	Maple, Norway	Acer platanoides	22	88
37124	111	2320 Pioneer Road	Maple, Norway	Acer platanoides	23	92
37125	112	2320 Pioneer Road	Oak, swamp white	Quercus bicolor	9	27
37126	113	2320 Pioneer Road	Ash, white	Fraxinus americana	23	92
37127	114	2320 Pioneer Road	Dogwood	Cornus spp.	15	60
37128	115	2320 Pioneer Road	Oak, northern red	Quercus rubra	14	42
37130	117	2320 Pioneer Road	Maple, Norway	Acer platanoides	5	15
37131	118	2320 Pioneer Road	Honeylocust	Gleditsia triacanthos	9	18
37132	119	2320 Pioneer Road	Crabapple	Malus spp.	16	40
37133	120	2320 Pioneer Road	Oak	Quercus spp.	7	21
37134	121	2320 Pioneer Road	Oak, northern red	Quercus rubra	6	18
37135	122	2320 Pioneer Road	Oak	Quercus spp.	8	24
37136	123	2402 Grant Street	Oak, northern red	Quercus rubra	7	21
37137	124	2402 Grant Street	Oak, northern red	Quercus rubra	7	21
37138	125	2402 Grant Street	Oak	Quercus spp.	7	21
37139	126	2402 Grant Street	Oak	Quercus spp.	7	21
37140	127	2402 Grant Street	Oak	Quercus spp.	7	21
37141	128	2402 Grant Street	Oak, swamp white	Quercus bicolor	10	30
37142	129	2402 Grant Street	Maple, silver	Acer saccharinum	7	14 Memorial tree
37144	130	2402 Grant Street	Linden, littleleaf	Tilia cordata	14	35
37145	131	2408 Grant Street	Maple, Freeman	Acer x freemanii	8	24
37150	132	2422 Grant Street	Maple, Freeman	Acer x freemanii	8	24
37153	133	2422 Grant Street	Honeylocust	Gleditsia triacanthos	14	28
37159	134	2422 Grant Street	Oak, swamp white	Quercus bicolor	9	27
37160	135	2422 Grant Street	Oak, swamp white	Quercus bicolor	9	27
37161	136	2422 Grant Street	Oak, swamp white	Quercus bicolor	7	21

37164	137	2323 McDaniel Avei	Honeylocust	Gleditsia triacanthos	9	18		
37166	138	2323 McDaniel Avei	Maple, Japanese	Acer palmatum	6	24		
37169	139	2323 McDaniel Avei	Maple, red	Acer rubrum	5	15		
37171	140	2323 McDaniel Avei	Maple, red	Acer rubrum	5	15		
37172	141	2323 McDaniel Avei	Maple, red	Acer rubrum	5	15		
37175	142	2323 McDaniel Avei	Maple, red	Acer rubrum	5	15		
37176	143	2323 McDaniel Avei	Oak, northern red	Quercus rubra	6	18		
37178	144	2323 McDaniel Avei	Maple, red	Acer rubrum	6	18		
37180	145	2323 McDaniel Avei	Maple, red	Acer rubrum	6	18		
37181	146	2323 McDaniel Avei	Maple, red	Acer rubrum	3	9		
37182	147	2323 McDaniel Avei	Maple, red	Acer rubrum	4	12		
37184	148	2323 McDaniel Avei	Maple, red	Acer rubrum	4	12		
37188	149	2323 McDaniel Avei	Maple, red	Acer rubrum	8	24		
37190	150	2323 McDaniel Avei	Maple, Japanese	Acer palmatum	4	16		
37192	151	2323 McDaniel Avei	Maple, Japanese	Acer palmatum	4	16		
37193	152	2323 McDaniel Avei	Maple, Japanese	Acer palmatum	4	16		
37195	153	2323 McDaniel Avei	Oak	Quercus spp.	4	12		
37197	154	2323 McDaniel Avei	Maple, red	Acer rubrum	4	12		
37286	155	2402 Grant Street	Oak, swamp white	Quercus bicolor	8	24		
37289	156	2416 Colfax Street	Serviceberry	Amelanchier spp.	8	32		
38841	157	2320 Pioneer Road	Serviceberry	Amelanchier spp.	3	9		
38842	158	2320 Pioneer Road	Maple, Japanese	Acer palmatum	4	16		
38843	159	2320 Pioneer Road	Maple, Japanese	Acer palmatum	6	24		
38844	160	2320 Pioneer Road	Crabapple	Malus spp.	12.8	33		
38845	161	2320 Pioneer Road	Maple, Japanese	Acer palmatum	4	16		
38846	162	2320 Pioneer Road	Crabapple	Malus spp.	11.6	29		
38847	163	2320 Pioneer Road	Maple, Japanese	Acer palmatum	4	16		
38848	164	2320 Pioneer Road	Ash, green	Fraxinus pennsylvanica	4	10		
38850	165	2320 Pioneer Road	Serviceberry	Amelanchier spp.	4	12		
38851	166	2320 Pioneer Road	Honeysuckle	Lonicera spp.	4	8		
38852	167	2320 Pioneer Road	Honeysuckle	Lonicera spp.	N/A			
38853	168	2320 Pioneer Road	Lilac	Syringa spp.	N/A			
38854	169	2320 Pioneer Road	Lilac	Syringa spp.	N/A			
38855	170	2320 Pioneer Road	Boxelder	Acer negundo	13	13		
38856	171	2320 Pioneer Road	Mulberry	Morus spp.	15	30	Cavity, Co-dominant L	

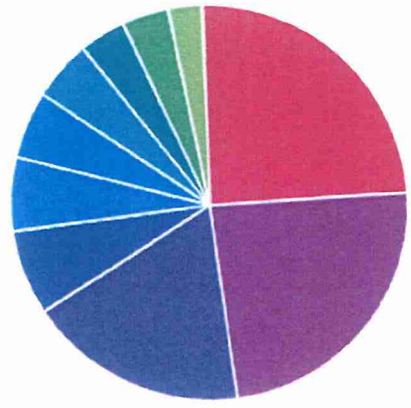
38857	172	2320 Pioneer Road	Buckthorn	Rhamnus spp.	7.55	16	
38858	173	2320 Pioneer Road	Mulberry	Morus spp.	20	40	Cavity, Co-dominant L
38859	174	2320 Pioneer Road	Mulberry	Morus spp.	6	12	
38860	175	2320 Pioneer Road	Mulberry	Morus spp.	12	24	
38861	176	2332 Colfax Street	Serviceberry	Amelanchier spp.	N/A		
50399	177	2323 McDaniel Ave	Serviceberry	Amelanchier spp.	N/A		
50400	178	2323 McDaniel Ave	Serviceberry	Amelanchier spp.	N/A		
50401	179	2323 McDaniel Ave	Arborvitae	Thuja spp.	N/A		
50402	180	2323 McDaniel Ave	Juniper	Juniperus spp.	N/A		
50403	181	2416 Colfax Street	Serviceberry	Amelanchier spp.	N/A		
50404	182	2416 Colfax Street	Serviceberry	Amelanchier spp.	N/A		
50405	183	2323 McDaniel Ave	Arborvitae	Thuja spp.	N/A		
50406	184	2416 Colfax Street	Beech	Fagus spp.	2		
50407	185	2323 McDaniel Ave	Juniper	Juniperus spp.	N/A		
50408	186	2416 Colfax Street	Arborvitae	Thuja spp.	N/A		
50409	187	2400 Colfax Street	Maple, Norway	Acer platanoides	12		Cavity, Deadwood
50410	188	2400 Colfax Street	Serviceberry	Amelanchier spp.	N/A		
50411	189	2400 Colfax Street	Arborvitae	Thuja spp.	N/A		
50412	190	2400 Colfax Street	Serviceberry	Amelanchier spp.	N/A		
50414	191	2340 Colfax Street	Serviceberry	Amelanchier spp.	N/A		
50415	192	2242 Pioneer Road	Hackberry	Celtis occidentalis	2		
50416	193	2242 Pioneer Road	Oak, chinkapin	Quercus muehlenbergii	N/A		
50418	194	2320 Pioneer Road	Serviceberry	Amelanchier spp.	N/A		
50419	195	2320 Pioneer Road	Serviceberry	Amelanchier spp.	N/A		
50420	196	2320 Pioneer Road	Birch, river	Betula nigra	2		
50421	197	2323 McDaniel Ave	Maple, Japanese	Acer palmatum	N/A		
50422	198	2400 Grant Street	Magnolia	Magnolia spp.	N/A		
50423	199	2323 McDaniel Ave	Redbud, eastern	Cercis canadensis	N/A		
50424	200	2323 McDaniel Ave	Hawthorn	Crataegus spp.	N/A		
50425	201	2323 McDaniel Ave	Serviceberry	Amelanchier spp.	N/A		
50427	202	2340 Colfax Street	Oak, swamp white	Quercus bicolor	15		

YELLOWSTONE LANDSCAPE
TREE CARE SERVICES

Yellowstone Landscape – Tree Inventory Data – Three Crowns Park – Evanston IL

Most Common Family - Top 10

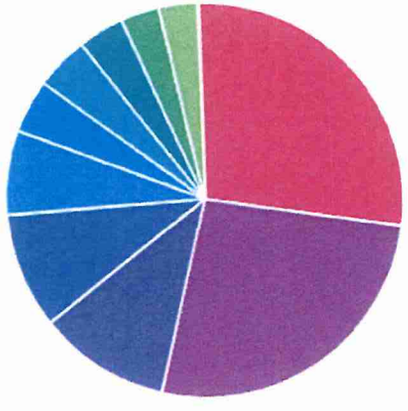
PIE BAR TABULAR



Fagaceae	24.5%
Sapindaceae	23.9%
Rosaceae	17.9%
Fabaceae	7.1%
Ulmaceae	6.0%
Betulaceae	5.4%
Oleaceae	4.9%
Cupressa...	3.8%
Pinaceae	3.8%
Moraceae	2.7%

Most Common Genus - Top 10

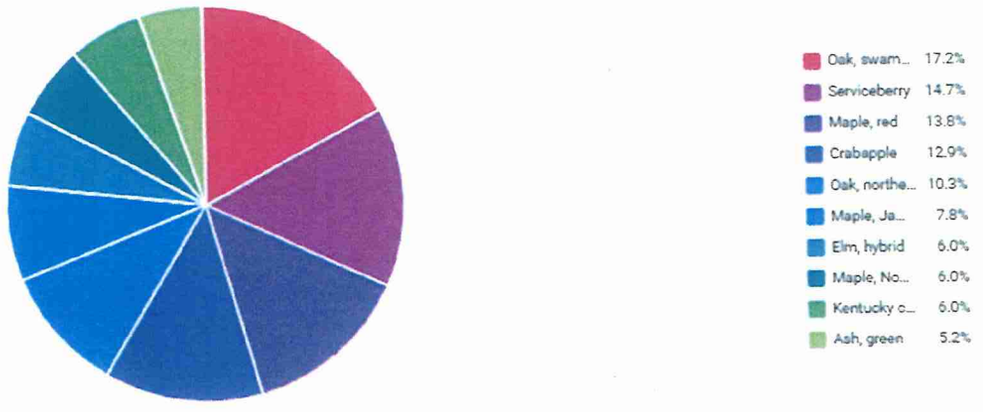
PIE BAR TABULAR



Quercus	27.7%
Acer	26.4%
Amelanchier	10.7%
Malus	9.4%
Ulmus	6.9%
Gymnocla...	4.4%
Fraxinus	4.4%
Betula	3.8%
Picea	3.1%
Morus	3.1%

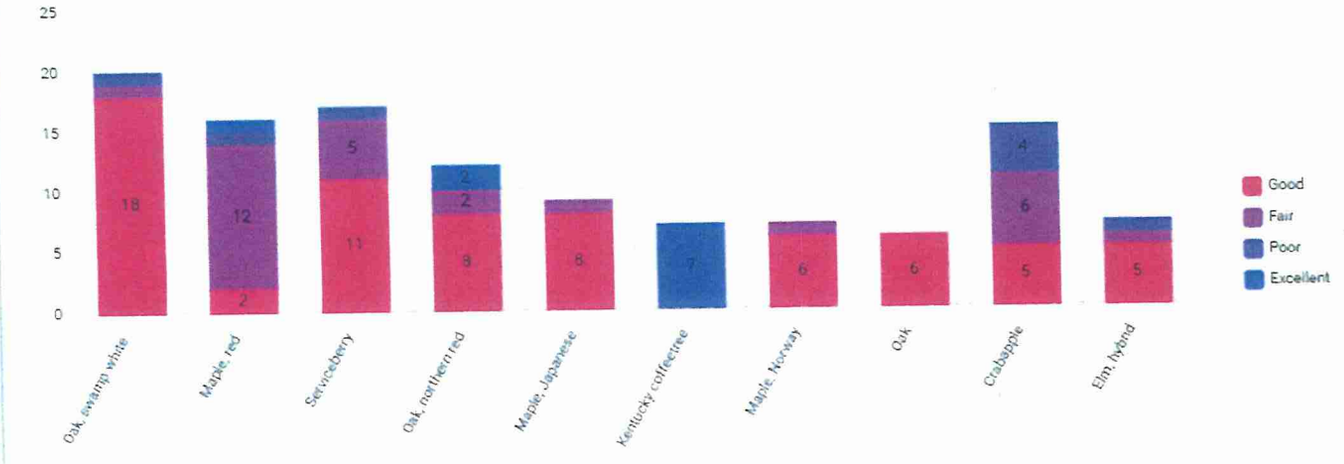
Most Common Species - Top 10

PIE BAR TABULAR



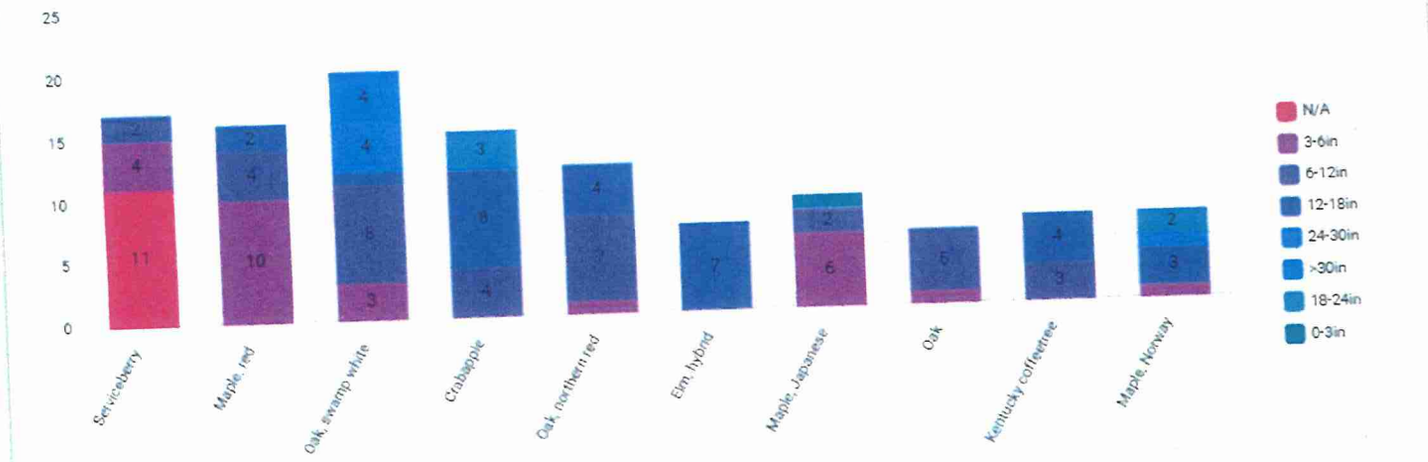
Most Common Species by Condition - Top 10

STACKED TABULAR



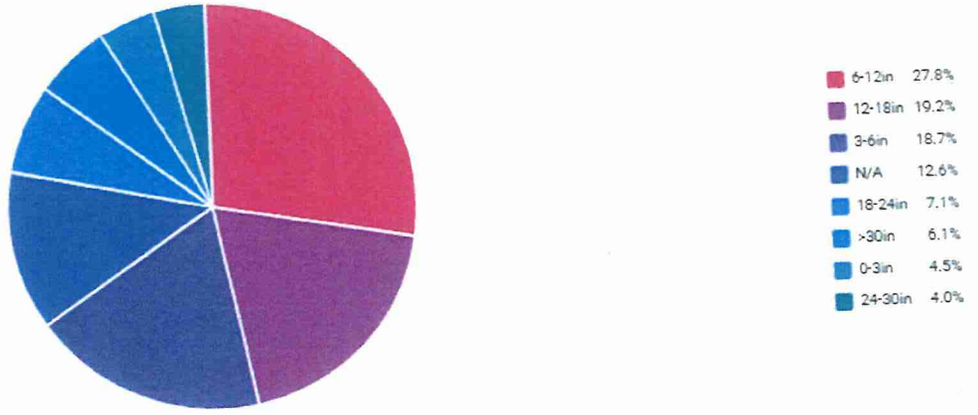
Most Common Species by DBH Range - Top 10

STACKED TABULAR



Trees by DBH

PIE BAR TABULAR



TreePlotter INVENTORY

Tree Management Insights

Client Site Filter: (Client Site=Three Crowns Park)

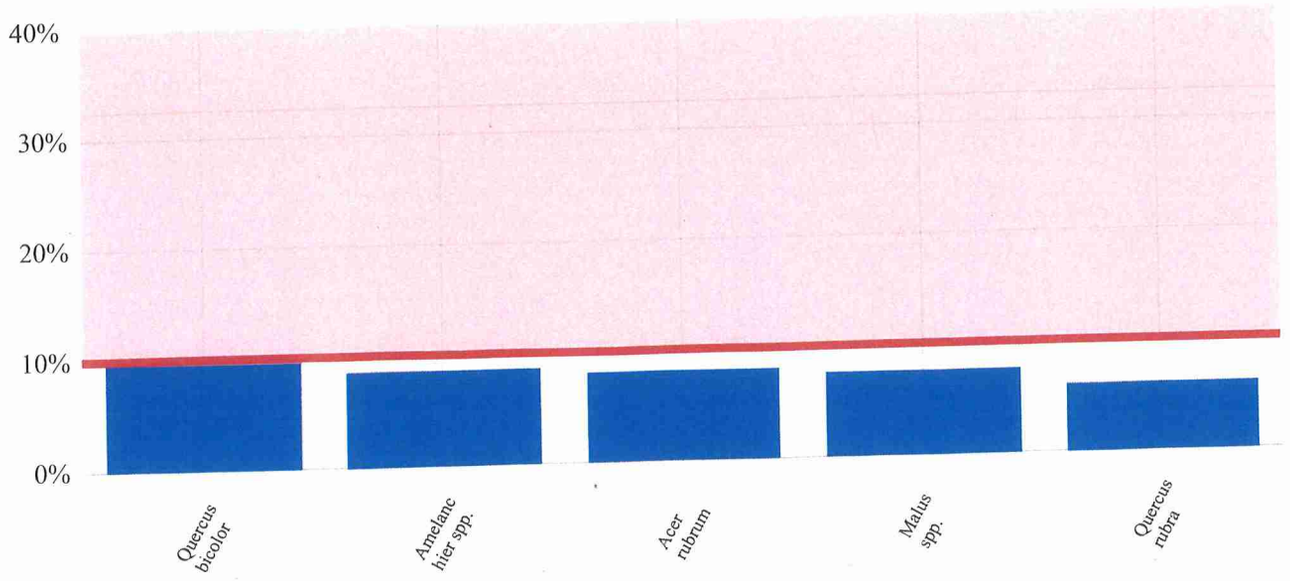
Quick Stats

50	12.06	15	51
Species Richness (unique species)	Average DBH (in)	Tallest Tree (ft)	Largest DBH (in)

Tree Diversity

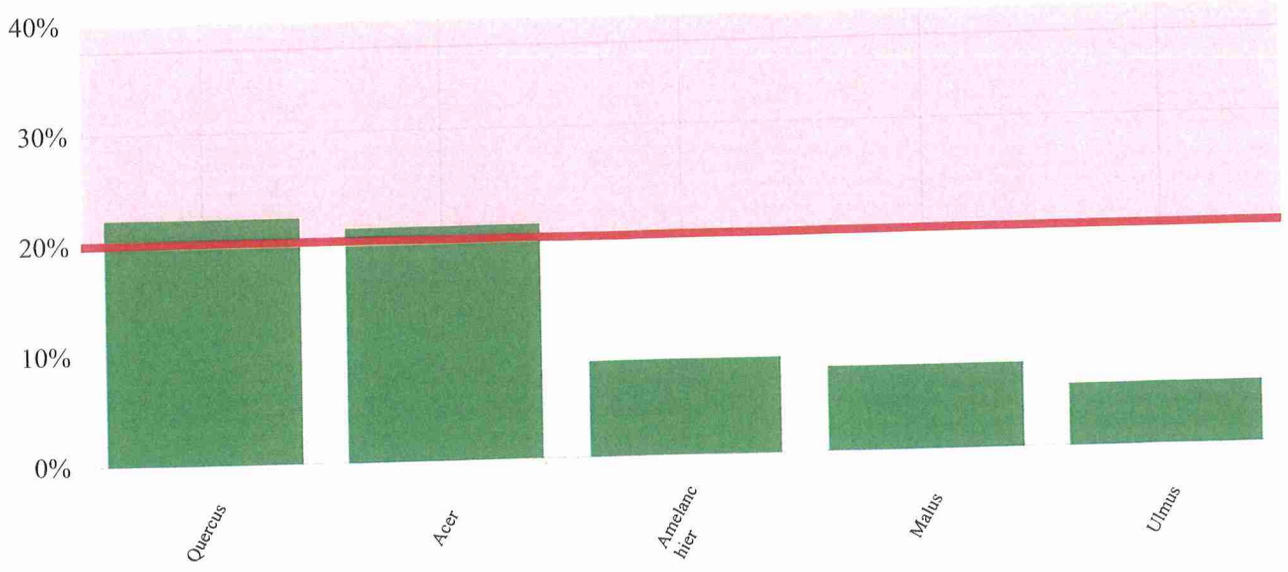
The Tree Diversity charts show the top five most common tree species, genera, and families within the inventory or subset of your inventory based on data or map filters. The red horizontal lines demonstrate the 10-20-30 rule, which suggests an urban tree population should include no more than 10% of any one species, 20% of any one genus, or 30% of any family. Tree managers, researchers, and practitioners use these parameters first recommended by Santamour in 1990 as an industry standard to measure a tree population's resiliency to harmful tree pests and diseases and other factors. Consider establishing these thresholds on a community-wide scale and/or at smaller-scales such as by neighborhood, street corridor, block, or project.

✗ You have exceeded the 10% species threshold



Top 5 Species

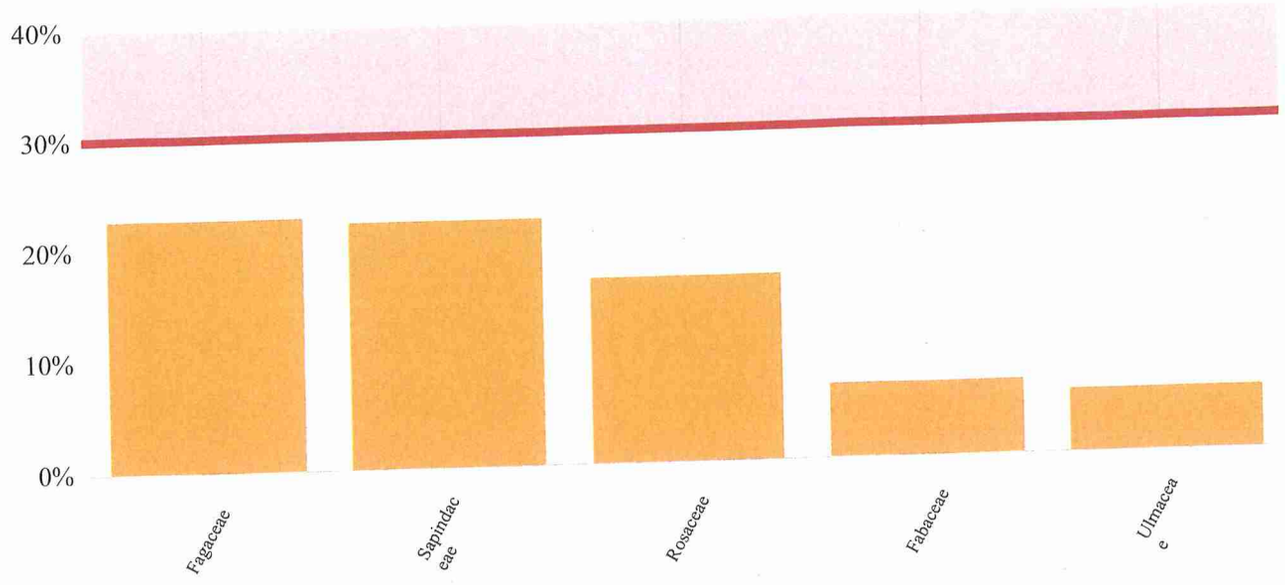
✗ You have exceeded the 20% genus threshold



Top 5 Genera

Yellowstone Landscape

✓ *You have met the 30% family rule*

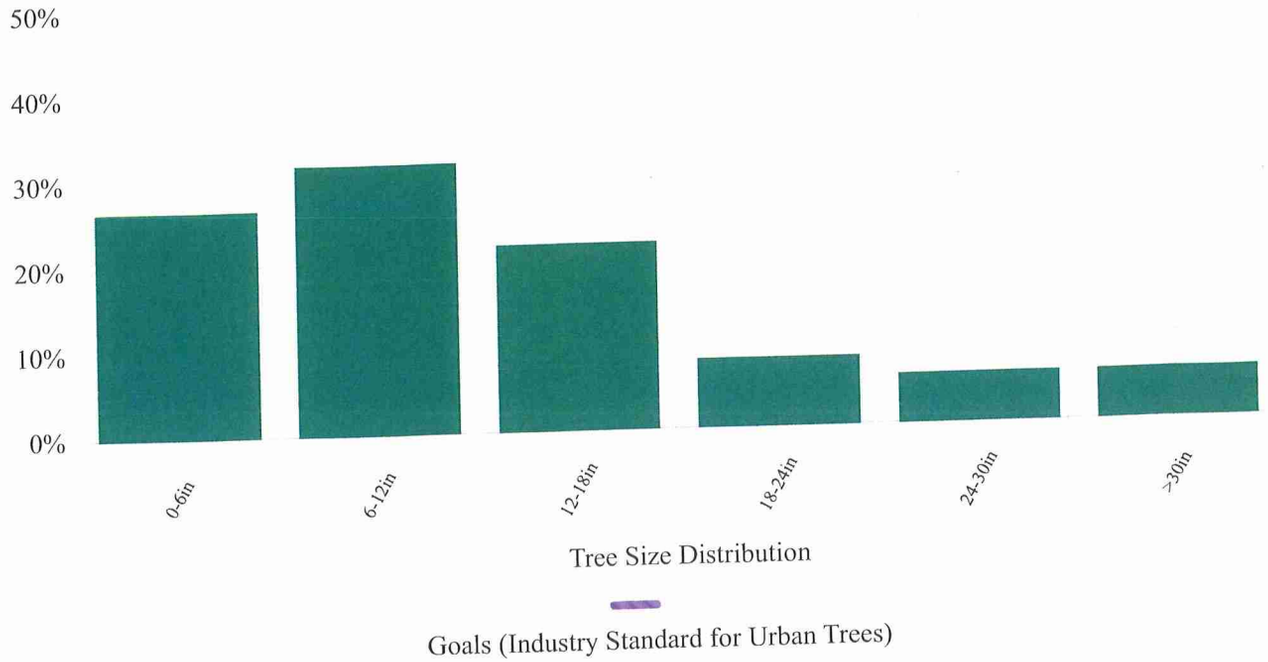


Top 5 Families

Santamour, F.S., 1990. Trees for urban planting: diversity, uniformity and common sense. Paper Presented at the Proceedings of the 7th Conference of the Metropolitan Tree Improvement Alliance.

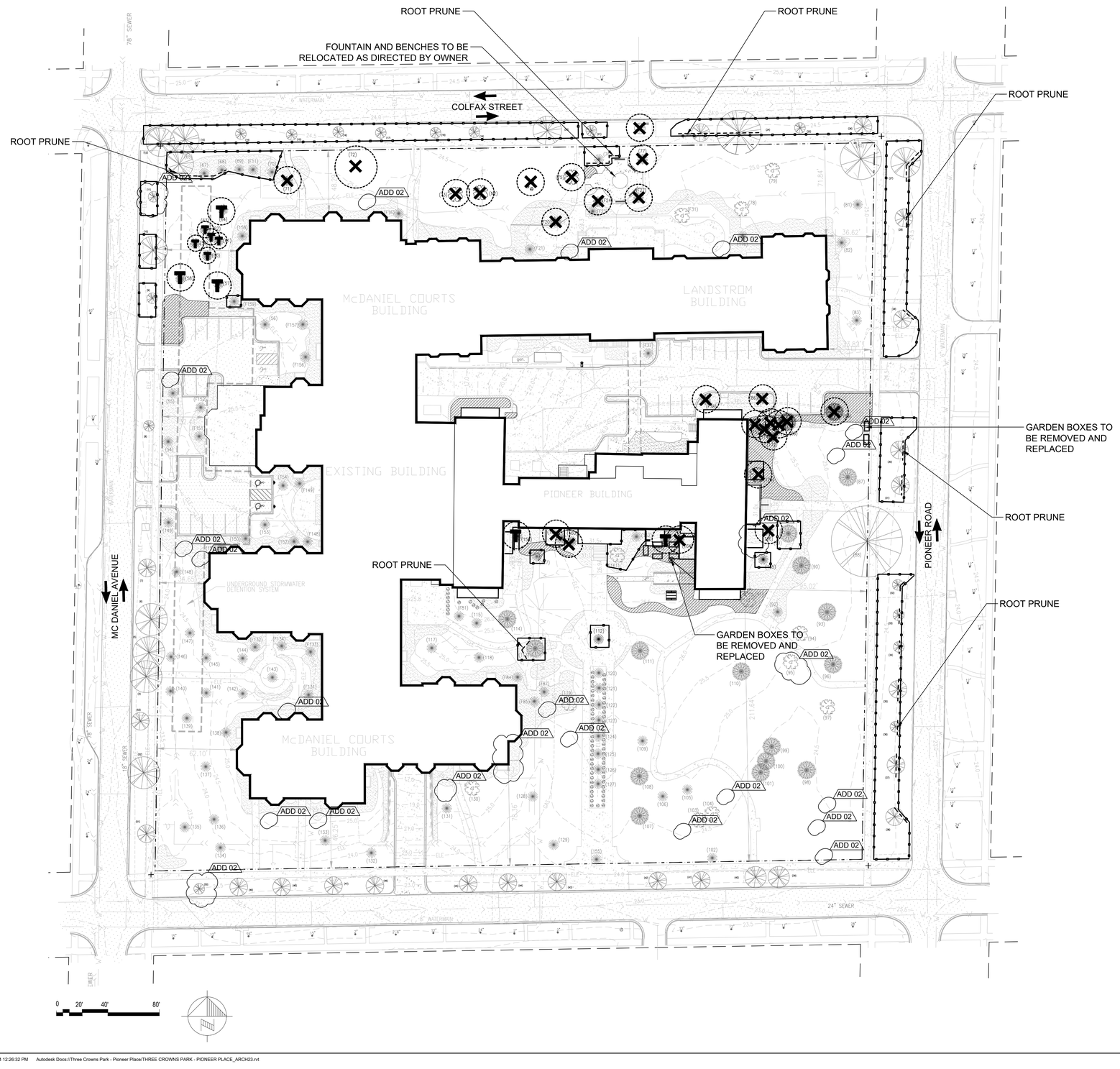
Tree Size Distribution

This chart displays the most recently recorded diameter (diameter at breast height or DBH, measured 4.5-feet above natural grade) values along with DBH goals (as defined by Richards et al. in 1983 and 1993). This information is often used to identify a tree population's structure, distribution of tree canopy cover and associated benefits, current maintenance needs, projecting potential surges in maintenance and removal needs, among other considerations in sustainably managing trees in communities. A distribution of tree size classes as indicated by the "Goal" uniformly distributes tree benefits and maintenance needs. Smaller, younger trees compared to large diameter trees aim to compensate for the loss of tree canopy cover and associated benefits that occur when large trees reach their full potential, mature, and begin to decline, requiring eventual removal (in most cases).



Richards, N. A. 1983. "Diversity and Stability in a Street Tree Population." Urban Ecology 7(2):159 -171.

Richards, N.A. 1993. Reasonable guidelines for street tree diversity. Journal of Arboriculture 19:344 -349.



LEGEND

- EXISTING TREE TO REMAIN AND PROTECT
- EXISTING SHRUBS TO REMAIN AND PROTECT
- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO BE TRANSPLANTED
- TREE / ROOT / SOIL PROTECTION FENCING
- ROOT PRUNE
- CLEAR AND GRUB

LANDSCAPE PROTECTION AND REMOVAL NOTES:

1. INSPECT SITE PRIOR TO BID TO CONFIRM PROPOSED PROTECTION CONDITIONS.
2. ALL EXISTING LANDSCAPE AREAS TO BE EXCAVATED FOR NEW WORK SHALL BE STRIPPED OF ALL TOPSOIL. TOPSOIL SHALL BE STOCKPILED IN APPROVED AREAS AS DESIGNATED BY THE OWNER. ANY MATERIAL UNSUITABLE FOR TOPSOIL AS INDICATED IN SPECIFICATION SHALL BE EXCAVATED AND DISPOSED OF IN A LEGAL MANNER. IF UNSUITABLE MATERIAL EXTENDS INTO SUBGRADE, REMOVAL AND FILLING OF EXCAVATED MATERIAL SHALL BE APPROVED OF BY OWNER, AND REPLACED WITH SUITABLE MATERIAL TO MEET SURROUNDING EXISTING AND PROPOSED SUBGRADE ELEVATIONS.
3. TREE SPECIES AND CALIPER SIZES TO BE FIELD VERIFIED BY GENERAL CONTRACTOR'S CERTIFIED ARBORIST.
4. PROTECT TREE ROOTS OF EXISTING TREES TO REMAIN ADJACENT TO PAVEMENT REMOVAL PER PROJECT REQUIREMENTS. REMOVE ALL PAVEMENT MATERIALS AND STONE TO SUBGRADE.
5. GENERAL CONTRACTOR'S CERTIFIED ARBORIST TO ROOT PRUNE EXISTING TREES PER PROJECT REQUIREMENTS PRIOR TO START OF CONSTRUCTION.
6. GENERAL CONTRACTOR TO STUMP GRIND ALL TREES TO BE REMOVED OUTSIDE OF BUILDING FOOTPRINT PER SPECIFICATIONS.
7. UTILITIES INDICATED FOR REFERENCE ONLY. ASSIST OWNER WITH CONFLICT RESOLUTION TO ADDRESS LANDSCAPE PROTECTION REQUIREMENTS.
8. PROVIDE PACKAGING AND SAFE LOCAL TRANSPORT FOR EXISTING SITE MATERIALS TO BE REMOVED AND SALVAGED PER OWNER DIRECTION.
9. SEE SPECIFICATION FOR LANDSCAPE PROTECTION AND REMOVAL REQUIREMENTS.
10. ALL EXISTING VEGETATION OUTSIDE PROJECT LIMIT TO BE PROTECTED OR RESTORED. COORDINATE CONSTRUCTION WORK STAGING, GRADING, AND DRAINAGE TO PROTECT EXISTING VEGETATION OUTSIDE PROJECT LIMIT. REVIEW ALL KNOWN IMPACTS OUTSIDE PROJECT LIMIT WITH OWNER AND PROVIDE A RESTORATION PLAN FOR REVIEW AND APPROVAL. ADD 02
11. CONTRACTOR'S ARBORIST TO REVIEW ALL TREES AT NEW CURB CUTS ALONG PIONEER ROAD AND FIELD VERIFY PROTECTION AND REMOVAL REQUIREMENTS WITH CITY OF EVANSTON FORESTRY DEPARTMENT.
12. CONTRACTOR IS REQUIRED TO WORK EXTENSIVELY WITH CITY OF EVANSTON DEPARTMENT OF FORESTRY THROUGHOUT THE CONSTRUCTION PERIOD.
13. CONTRACTOR TO SCHEDULE AND HOLD A PRE-CONSTRUCTION MEETING TO REVIEW TREE PROTECTION REQUIREMENTS, SCHEDULES, AND FORESTRY INSPECTIONS.
14. FOR PROPOSED WORK WITHIN ROW: CONTRACTOR TO INSTALL AND MAINTAIN ADEQUATE TREE PRESERVATION FENCING AROUND ALL TREES, PER DIRECTION FROM CITY OF EVANSTON FORESTRY DEPARTMENT.
15. FOR PROPOSED WORK WITHIN ROW: CONTRACTOR WILL PERFORM PLANT HEALTH CARE, ROOT PRUNING, AND CANOPY PRUNING, PER DIRECTION FROM CITY OF EVANSTON FORESTRY DEPARTMENT.

Tgda

Revisions

Date	#	Description
3/10/26	1	ZONING COMMENT RESPONSES
3/16/26	ADD 02	ADDENDUM 02

date 11/24/2025
drawn by Author
checked by Checker

Design Firm Registration #184-000723

Landscape Protection Plan

THREE CROWNS PARK - PIONEER PLACE RENOVATION

COVENANT LIVING COMMUNITIES & SERVICES
2320 PIONEER ROAD, EVANSTON, IL 60201

sheet L001P

project 234SX01.200

NOT FOR CONSTRUCTION

TREE PROTECTION AND REMOVAL SCHEDULE

Arborist # Confirmed	SPECIES	COMMON	CALIPER "	PROTECT OR REMOVE	PRUNE
58	Acer rubrum	Red maple	4"	Relocate	
57	Acer freemanii	Freeman maple	4"	Relocate	
59	Betula populifolia	Birch	2"	Relocate	
60	Betula populifolia	Birch	2"	Relocate	
61	Betula populifolia	Birch	2"	Relocate	
62	Betula populifolia	Birch	2"	Relocate	
63	Betula populifolia	Birch	2"	Relocate	
156	Amelanchier	Serviceberry	8"	Protect	
64	Quercus rubra	Northern red oak	4"	Relocate	
65	Ulmus americana	American elm	21"	Protect / Root Prune	x
67	Abies concolor	White fir	8" ADD 02	Protect	
68	Abies concolor	White fir	8"	Protect	
69	Picea pungens	Blue spruce	6" ADD 02	Protect	
F11	Picea pungens	Blue spruce	10"	Protect	
70	Picea pungens	Blue spruce	6"	Protect	
71	Catalpa speciosa	Northern catalpa	8"	Remove	
72	Catalpa speciosa	Northern catalpa	42" ADD 02	Remove	
F16	Thuja occidentalis	Arborvitea	3"	Protect	
73	Acer rubrum	Red maple	14" ADD 02	Remove	
N2	Quercus bicolor	Swamp white oak	4"	Remove	
75	Malus sp	Crabapple	20" ADD 02	Remove	
F20	Acer platinoides	Norway maple	12" 1	Remove	
F21	Amelanchier	Serviceberry	6" ADD 02	Protect	
F23	Thuja occidentalis	Arborvitea	3" 1	Protect	
F24	Amelanchier	Serviceberry	4"	Remove	
76	Amelanchier	Serviceberry	4"	Protect	
77	Amelanchier	Serviceberry	8" 1	Remove	
F27	Amelanchier	Serviceberry	8"	Remove	
78	Acer rubrum	Red maple	16"	Protect	
176	Amelanchier	Serviceberry	8" ADD 02	Protect	
F31	Quercus bicolor	Swamp white oak	15"	Protect	
79	Malus species	Crabapple	10"	Protect	
80	Gleditsia triacanthos	Honeylocust	26"	Protect / Root Prune	x
81	Quercus macrocarpa	Bur oak	3"	Protect	
82	Amelanchier	Serviceberry	5"	Protect	
83	Acer saccharum	Sugar maple	8" ADD 02	Protect	
F37	Amelancier arborea	Downy serviceberry	6" ADD 02	Protect	
F38	Acer saccharum	Sugar maple	8"	Remove	
86	Acer x fremanii	Freeman maple	7"	Remove ADD 02	
175	Morus species	Mulberry	12"	Remove	
174	Morus species	Mulberry	6"	Remove	
173	Morus species ADD 02	Mulberry	20"	Remove	
172	Rhamnus cathartica	Buckthorn	8"	Remove (recommended)	
171	Morus species	Mulberry	15"	Remove	
170	Acer negundo	Boxelder	13"	Remove	
85	Fraxinus pensylvanica	Green ash	31"	Remove	
84	Fraxinus pensylvanica	Green ash	33"	Remove	
87	Malus species	Crabapple	13"	Protect	
89	Malus species	Crabapple	12"	Protect	
165	Amelanchier	Serviceberry	4"	Protect	
166	Lonicera spp.	Honeysuckle	4"	Remove	
90	Acer platinoides	Norway maple	28"	Protect	
88	Quercus macrocarpa	Bur oak	51"	Protect	
93	Malus	Crabapple	14"	Protect	
96	Malus	Crabapple	15"	Protect	
94	Malus	Crabapple	17"	Protect	
92	Malus	Crabapple	10"	Protect	
91	Acer platinoides	Norway maple	14"	Protect	
110	Acer platinoides	Norway maple	22" ADD 02	Protect	
95	Malus	Crabapple	10"	Protect	
97	Malus	Crabapple	15"	Protect	
98	Ulmuns americana	American elm	41"	Protect	
101	Quercus bicolor	Swamp white oak	30"	Protect	
100	Quercus bicolor	Swamp white oak	26"	Protect	
99	Quercus macrocarpa	Bur oak	41"	Protect	
164	Fraxinus pensylvanica	Green ash	4"	Remove	
161	Acer palmatum	Japanese maple	4"	Protect	
162	Malus	Crabapple	12"	Protect	

Arborist # Confirmed	SPECIES	COMMON	CALIPER "	PROTECT OR REMOVE	PRUNE
163	Acer palmatum	Japanese maple	4"	Relocate	
160	Malus	Crabapple	13"	Remove	
159	Acer palmatum	Japanese maple	6"	Remove	
158	Acer palmatum	Japanese maple	4"	Relocate	
157	Amelanchier	Serviceberry	3"	Protect	
112	Quercus bicolor	Swamp white oak	9"	Protect	
113	Fraxinus American	White ash	23" ADD 02	Protect	
114	Cornus	Dogwood	15"	Protect	
115	Quercus rubra	Northern red oak	14" ADD 02	Protect	
F81	Amelanchier	Serviceberry	8"	Protect	
117	Acer platinoides	Norway maple	5"	Protect	
118	Gleditisia triacanthos	Honeylocust	9" ADD 02	Protect	
F84	Acer palmatum	Japanese maple	2"	Protect	
F85	Fraxinus pensylvanica	Green ash	31" ADD 02	Protect	
F87	Magnolia grandiflora	Magnolia	6"	Protect	
119	Malus	Crabapple	16"	Protect	
111	Acer platinoides	Norway maple	23"	Protect	
109	Quercus bicolor	Swamp white oak	8"	Protect	
108	Malus	Crabapple	20"	Protect	
107	Malus	Crabapple	20"	Protect	
106	Quercus rubra	Northern red oak	10"	Protect	
105	Quercus rubra	Northern red oak	13"	Protect	
104	Picea abies	Norway spruce	18"	Protect	
103	Picea abies	Norway spruce	25"	Protect	
102	Morus species	Mulberry	14"	Protect	
155	Quercus bicolor	Swamp white oak	8"	Protect	
127	Querucs	Oak	7"	Protect	
126	Querucs	Oak	7"	Protect	
125	Querucs	Oak	7"	Protect	
124	Quercus rubra	Northern red oak	7"	Protect	
123	Quercus rubra	Northern red oak	7"	Protect	
122	Querucs	Oak	8"	Protect	
121	Quercus rubra	Northern red oak	6"	Protect	
120	Querucs	Oak	7"	Protect	
128	Quercus bicolor	Swamp white oak	10"	Protect	
129	Acer saccharinum	Silver maple	7"	Protect	
130	Tilia cordata	Little-leaf linden	14"	Protect	
131	Acer x fremanii	Freeman maple	8"	Protect	
132	Acer x fremanii	Freeman maple	8"	Protect	
133	Gleditisia triacanthos	Honeylocust	14"	Protect	
134	Quercus bicolor	Swamp white oak	9"	Protect	
135	Quercus bicolor	Swamp white oak	9"	Protect	
136	Quercus bicolor	Swamp white oak	7"	Protect	
137	Gleditsia triacanthos	Honeylocust	9"	Protect	
138	Acer palmatum	Japanese maple	6"	Protect	
139	Acer rubrum	Red maple	5"	Protect	
140	Acer rubrum	Red maple	5"	Protect	
141	Acer rubrum	Red maple	5"	Protect	
142	Acer rubrum	Red maple	5" ADD 02	Protect	
F131	Crataegus monogyna	Hawthorn	8"	Protect	
F132	Cercis canadensis	Eastern Redbud	6"	Protect	
F133	Amelanchier	Serviceberry	8"	Protect	
F134	Cercis canadensis	Eastern Redbud	6"	Protect	
144	Acer rubrum	Red maple	6"	Protect	
143	Quercus rubra	Northern red oak	6"	Protect	
145	Acer rubrum	Red maple	6"	Protect	
146	Acer rubrum	Red maple	3"	Protect	
147	Acer rubrum	Red maple	4"	Protect	
148	Acer rubrum	Red maple	4"	Protect	
149	Acer rubrum	Red maple	8"	Protect	
151	Acer palmatum	Japanese maple	4"	Protect	
150	Acer palmatum	Japanese maple	4"	Protect	
153	Querucs	Oak	4"	Protect	
152	Acer palmatum	Japanese maple	4" ADD 02	Protect	
F148	Amelanchier	Serviceberry	8"	Protect	
F149	Amelanchier	Serviceberry	8"	Protect	
154	Acer rubrum	Red maple	4" ADD 02	Protect	
F151	Juniperus	Juniper	6"	Protect	

Arborist # Confirmed	SPECIES	COMMON	CALIPER "	PROTECT OR REMOVE	PRUNE
F152	Juniperus	Juniper	6" ADD 02	Protect	
54	Acer rubrum	Red maple	8"	Protect	
33	Heptacodium miconioides	Seven son flower	3" ADD 02	Protect	
F156	Amelanchier	Serviceberry	8"	Protect	
F157	Amelanchier	Serviceberry	8"	Protect	
F159	Fagus	Beech	2"	Protect	
56	Acer rubrum	Red maple	5"	Protect	
12	Quercus bicolor	Swamp white oak	29"	Protect	
13	Ulmus americana	American elm	30"	Protect	
14	Carpimus caroliniana	American hornbeam	7"	Protect	
15	Acer saccharum	Sugar maple	4"	Protect	
16	Quercus bicolor	Swamp white oak	7"	Protect	
17	Aesculus	Buckeye	3"	Protect	
18	Acer saccharum	Sugar maple	8"	Protect	
19	Acer saccharum	Sugar maple	7"	Protect	
20	Fraxinus pensylvanica	Green ash	26"	Protect	
21	Cladrastis kentukea	Yellowwood	3"	Protect	
22	Quercus alba	English oak	22"	Remove	
23	Tilia americana	American basswood	18"	Protect / Root Prune	x
24	Ulmus americana	American elm	38"	Protect / Root Prune	x
25	Taxodium distichum	Bald cypress	2"	Protect	
26	Quercus alba	White oak	19"	Protect	
27	Ulmus species	Hybrid elm	13"	Protect	
28	Ulmus species	Hybrid elm	16"	Protect	
29	Plantanus	London planetree	12"	Protect	
30	Gymnocladus dioicus	Kentucky coffeetree	17"	Protect	
31	Gymnocladus dioicus	Kentucky coffeetree	13"	Protect	
32	Ostrya virginiana	Eastern hophornbeam	4"	Protect	
33	Ginkgo biloba	Ginkgo	7"	Protect	
34	Carpimus caroliniana	American hornbeam	5"	Protect	
35	Plantanus	London planetree	13"	Protect	
36	Ostrya virginiana	Eastern hophornbeam	4"	Protect	
37	Aesculus	Buckeye	10"	Protect	
38	Gymnocladus dioicus	Kentucky coffeetree	17"	Protect	
39	Fraxinus pensylvanica	Green ash	20"	Protect	
40	Fraxinus pensylvanica	Green ash	19"	Protect	
41	Gymnocladus dioicus	Kentucky coffeetree	15"	Protect	
42	Ulmus species	Hybrid elm	14"	Protect	
43	Ulmus species	Hybrid elm	14"	Protect	
44	Ulmus species	Hybrid elm	14"	Protect	
45	Acer platinoides	Norway maple	16"	Protect	
46	Ulmus species	Hybrid elm	15"	Protect	
47	Gymnocladus dioicus	Kentucky coffeetree	11"	Protect ADD 02	
48	Ulmus species	Hybrid elm	16"	Protect	
49	Quercus rubra	Northern red oak	12"	Protect	
50	Quercus rubra	Northern red oak	10"	Protect	
51	Quercus rubra	Northern red oak	16"	Protect	
52	Quercus bicolor	Swamp white oak	31"	Protect / Root Prune	x
53	Quercus bicolor	Swamp white oak	4"	Protect	
4	Quercus bicolor	Swamp white oak	27"	Protect	
5	Quercus bicolor	Swamp white oak	27"	Protect	
6	Quercus bicolor	Swamp white oak	42"	Protect	
7	Quercus rubra	Northern red oak	10"	Protect	
8	Quercus bicolor	Swamp white oak	5"	Protect	
9	Gymnocladus dioicus	Kentucky coffeetree	7"	Protect	
10	Quercus bicolor	Swamp white oak	31"	Protect / Root Prune	x
11	Gymnocladus dioicus	Kentucky coffeetree	6"	Protect	

F## Located in alta survey, not located in arborist survey
N## Not located in alta or arborist survey

REMOVALS: 24 TREES: 4"-31" CALIPER INCHES
TRANSPLANTS: 10 TREES ADD 02

ADD 02

N1	F109
F15	F110
F22	F111
F30	F115
F46	F119
F47	F120
F63	F130
F64	F141
F65	F142
F86	F154
F95	216
F98	177

THESE TREE NUMBERS DO NOT EXIST

Tgda

Revisions

Date	#	Description
3/10/26	1	ZONING COMMENT RESPONSES
3/16/26	ADD 02	ADDENDUM 02

date 11/24/2025
drawn by Author
checked by Checker

Design Firm Registration #184-000723

Landscape Protection Schedule

THREE CROWNS PARK - PIONEER PLACE RENOVATION
COVENANT LIVING COMMUNITIES & SERVICES
2320 PIONEER ROAD, EVANSTON, IL 60201

sheet
L002P

project 234SX01.200

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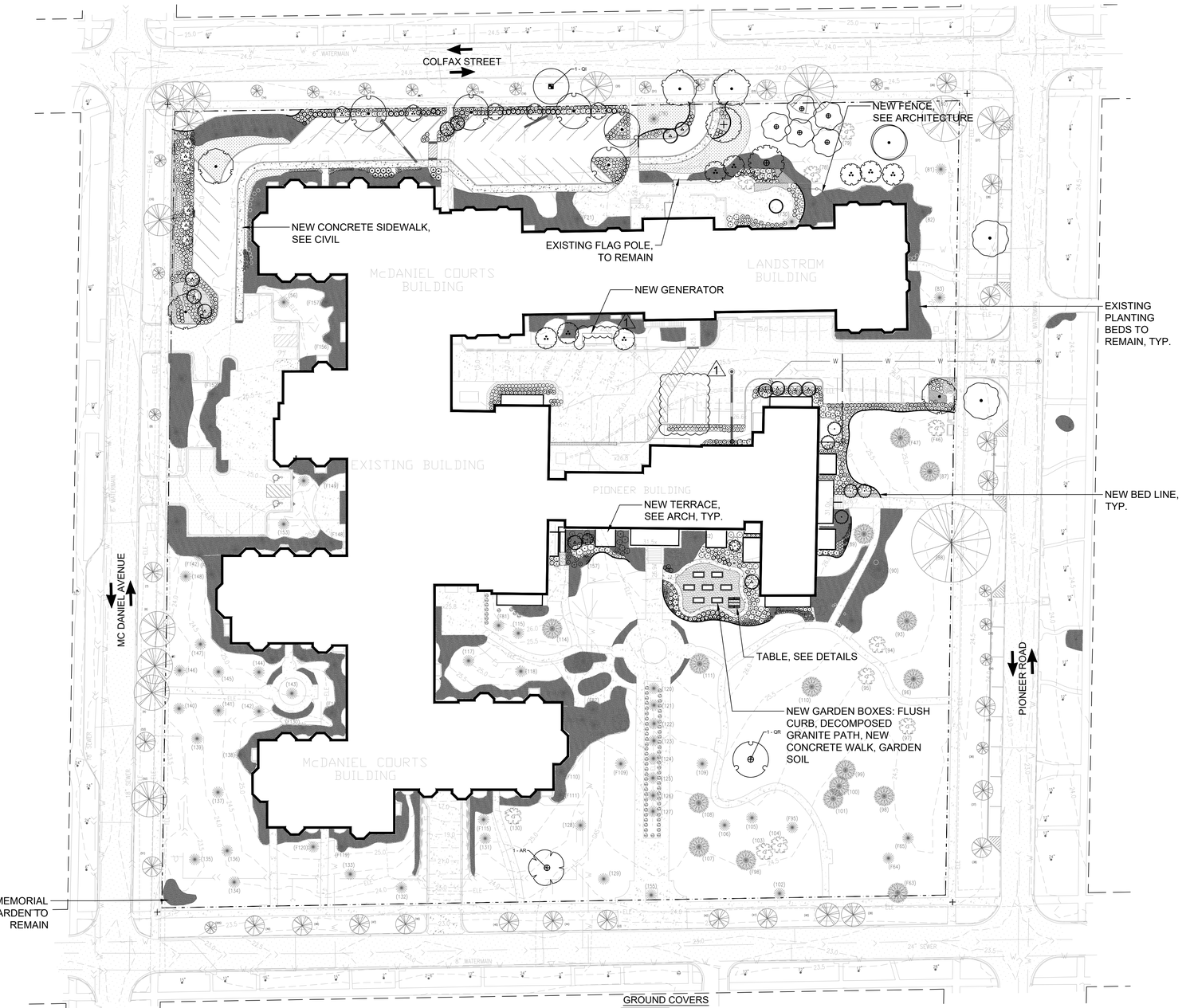
PLANTING NOTES:

1. REFER TO PLAN AND SCHEDULES FOR PLANTING LAYOUTS, LOCATIONS AND SPACING. FOLLOWING OWNER APPROVAL OF FINAL GRADES, CONTRACTOR TO STAKE ALL TREE, SHRUB AND PERENNIAL PLANTING LOCATIONS AND BED OUTLINES IN FIELD FOR OWNER REVIEW AND APPROVAL PRIOR TO INSTALLATION. CONTRACTOR TO SCALE PLANTING OFFSETS FROM NEAREST ARCHITECTURAL FEATURE.
2. NOTIFY OWNER TWO WEEKS IN ADVANCE OF PERENNIAL PLANTING INSTALLATION TO COORDINATE SCHEDULE FOR FIELD LAYOUT OF PERENNIALS PRIOR TO PLANTING.
3. CONTRACTOR TO CONSULT WITH LANDSCAPE FOREMAN REGARDING SEASON FOR BED PREP, PLANTING, TREE, SHRUB, PERENNIAL AVAILABILITY, AND SITE AVAILABILITY. INCLUDE PLANTING PERIODS AND DURATION FOR SEPARATE LANDSCAPE INSTALLATION PHASES AND INDICATE ON GENERAL PROJECT SCHEDULE.



EXISTING PLANTING TO REMAIN:

0 20' 40' 80'

OVERALL PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	CONTA	QTY
	AP	ACER PALMATUM JAPANESE MAPLE	TRANSPLANT		2
	AR	ACER RUBRUM RED MAPLE	TRANSPLANT		1
	AX	ACER X FREEMANII FREEMAN MAPLE	TRANSPLANT		1
	AG	AMELANCHIER X GRANDIFLORA `AUTUMN BRILLIANCE` AUTUMN BRILLIANCE APPLE SERVICEBERRY	10` HT.	B&B	9
	BC	BETULA CORDIFOLIA HEART-LEAF BIRCH	TRANSPLANT		5
	CA	CARPINUS CAROLINIANA AMERICAN HORNBEAM MULTI-TRUNK	12` HT.	B&B	3
	CE	CERCIS CANADENSIS EASTERN REDBUD MULTI-TRUNK	8` HT.	B&B	5
	CK2	CLADRASTIS KENTUKEA AMERICAN YELLOWWOOD	2.5" CAL.	B&B	2
	CI	CRATAEGUS CRUS-GALLI INERMIS THORNLESS COCKSPUR HAWTHORN	2.5" CAL.	B&B	5
	GK	GYMNOCLADUS DIOICUS KENTUCKY COFFEETREE	2.5" CAL.	B&B	2
	HV	HAMAMELIS VIRGINIANA COMMON WITCH HAZEL	8` HT.	B&B	4
	HD	HAMAMELIS X INTERMEDIA `DIANE` DIANE WITCH HAZEL	8` HT.	B&B	5
	JF	JUNIPERUS CHINENSIS `FAIRVIEW` FAIRVIEW JUNIPER	6` HT	B&B	16
	LE	LIRIODENDRON TULIPIFERA 'JFS-OZ' EMERALD CITY® TULIP POPLAR	3" CAL.	B&B	5
	QB	QUERCUS BICOLOR SWAMP WHITE OAK	3" CAL.	B&B	1
	QB2	QUERCUS BICOLOR SWAMP WHITE OAK	TRANSPLANT		2
	QI	QUERCUS IMBRICARIA SHINGLE OAK	2.5" CAL.	B&B	1
	QR	QUERCUS RUBRA NORTHERN RED OAK	TRANSPLANT		1
	TD	TAXODIUM DISTICHUM BALD CYPRESS	2" CAL.	B&B	1
	UH	ULMUS X 'PATRIOT' PATRIOT ELM	2.5" CAL.	B&B	3
SHRUBS					
	AM	ARONIA MELANOCARPA 'MORTON' IROQUOIS BEAUTY™ BLACK CHOKEBERRY	5 GAL.	POT	203
	AD	ARUNCUS DIOICUS GOATSBEARD	3 GAL.	POT	8
	BG	BUXUS X 'GLENCOE' CHICAGOLAND GREEN® BOXWOOD	2` HT.	POT	54
	BG4	BUXUS X 'GREEN MOUNTAIN' GREEN MOUNTAIN BOXWOOD	4` HT.	B&B	50
	CS3	CLETHRA ALNIFOLIA 'SIXTEEN CANDLES' SIXTEEN CANDLES SUMMERSWEET	5 GAL.	POT	39
	FG	FOTHERGILLA GARDENII DWARF FOTHERGILLA	3 GAL.	POT	36
	HA	HYDRANGEA ARBORESCENS 'ANNABELLE' ANNABELLE HYDRANGEA	5 GAL.	POT	12
	HL	HYDRANGEA PANICULATA `LIMELIGHT` LIMELIGHT PANICLE HYDRANGEA	5 GAL.	POT	95
	IS	ILEX GLABRA 'SHAMROCK' SHAMROCK INKBERRY HOLLY	5 GAL.	POT	251
	JP	JUNIPERUS CHINENSIS 'KALLAYS COMPACT' KALLAY COMPACT PFITZER JUNIPER	5 GAL.	POT	8
	JH	JUNIPERUS HORIZONTALIS `HUGHES` HUGHES CREEPING JUNIPER	5 GAL.	POT	119
	RG	RHUS AROMATICA 'GRO-LOW' GRO-LOW FRAGRANT SUMAC	3 GAL.	POT	43
	RF	ROSA RUGOSA 'FRU DAGMAR HASTRUP' FRU DAGMAR HASTRUP ROSE	5 GAL.	POT	85
	RR	ROSA X `RADWHITE` WHITE KNOCK OUT® ROSE	5 GAL.	POT	11
	SP	SYRINGA X PERSICA PERSIAN LILAC	5 GAL.	POT	5
	TD2	TAXUS X MEDIA 'DENSIFORMIS' DENSE ANGLO-JAPANESE YEW	5 GAL.	POT	17
	VC	VIBURNUM CARLESII KOREANSPICE VIBURNUM	5 GAL.	POT	11
	VR	VIBURNUM DENTATUM 'RALPH SENIOR' AUTUMN JAZZ ARROWWOOD VIBURNUM	5 GAL.	POT	31
	VB	VIBURNUM PRUNIFOLIUM BLACKHAW VIBURNUM	6` HT	B&B	6
PERENNIALS					
	EC	ECHINACEA X 'CHEYENNE SPIRIT' CHEYENNE SPIRIT CONEFLOWER	1 GAL.	POT	28
	HM	HOSTA X 'AUGUST MOON' AUGUST MOON HOSTA	1 GAL.	POT	37
	HA2	HOSTA X 'BLUE ANGEL' BLUE ANGEL HOSTA	1 GAL.	POT	39
	TC	TIARELLA CORDIFOLIA FOAMFLOWER	1 GAL.	POT	16
SEDGES & GRASSES					
	CS	CAREX SWANII SWAN'S SEDGE	1 GAL.	POT	17
	ST	SPOROBOLUS HETEROLEPIS 'TARA' TARA PRAIRIE DROPSEED	1 GAL.	POT	108

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	CONTA	QTY
SHRUB AREAS					
	AH	AMSONIA HUBRICHTII ARKANSAS BLUESTAR	1 GAL.		77
	CK	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER' KARL FOERSTER FEATHER REED GRASS	1 GAL.		76
	PVS	PANICUM VIRGATUM `SHENANDOAH` SHENANDOAH SWITCH GRASS	1 GAL.		194
	PN	PANICUM VIRGATUM 'NORTHWIND' NORTHWIND SWITCH GRASS	1 GAL.		43
		VINE PLANTING			92 SF

GROUND COVERS

		TURF			2,981 SF
		PERENNIALS			635 SF
	AG2	ALLIUM X 'GLOBEMASTER' GLOBEMASTER ORNAMENTAL ONION	BULB	20% @ 12" o.c.	132
	EP	ECHINACEA X 'CBG CONE 2' PIXIE MEADOWBRITE® PURPLE CONEFLOWER	1 GAL.	40% @ 18" o.c.	117
	SH	SPOROBOLUS HETEROLEPIS PRAIRIE DROPSEED	1 GAL.	60% @ 18" o.c.	176

Tgda

Revisions

Date	#	Description
3/10/26	1	ZONING COMMENT RESPONSES

date 11/24/2025
drawn by Author
checked by Checker

Design Firm Registration #184-000723

Landscape Site Plan

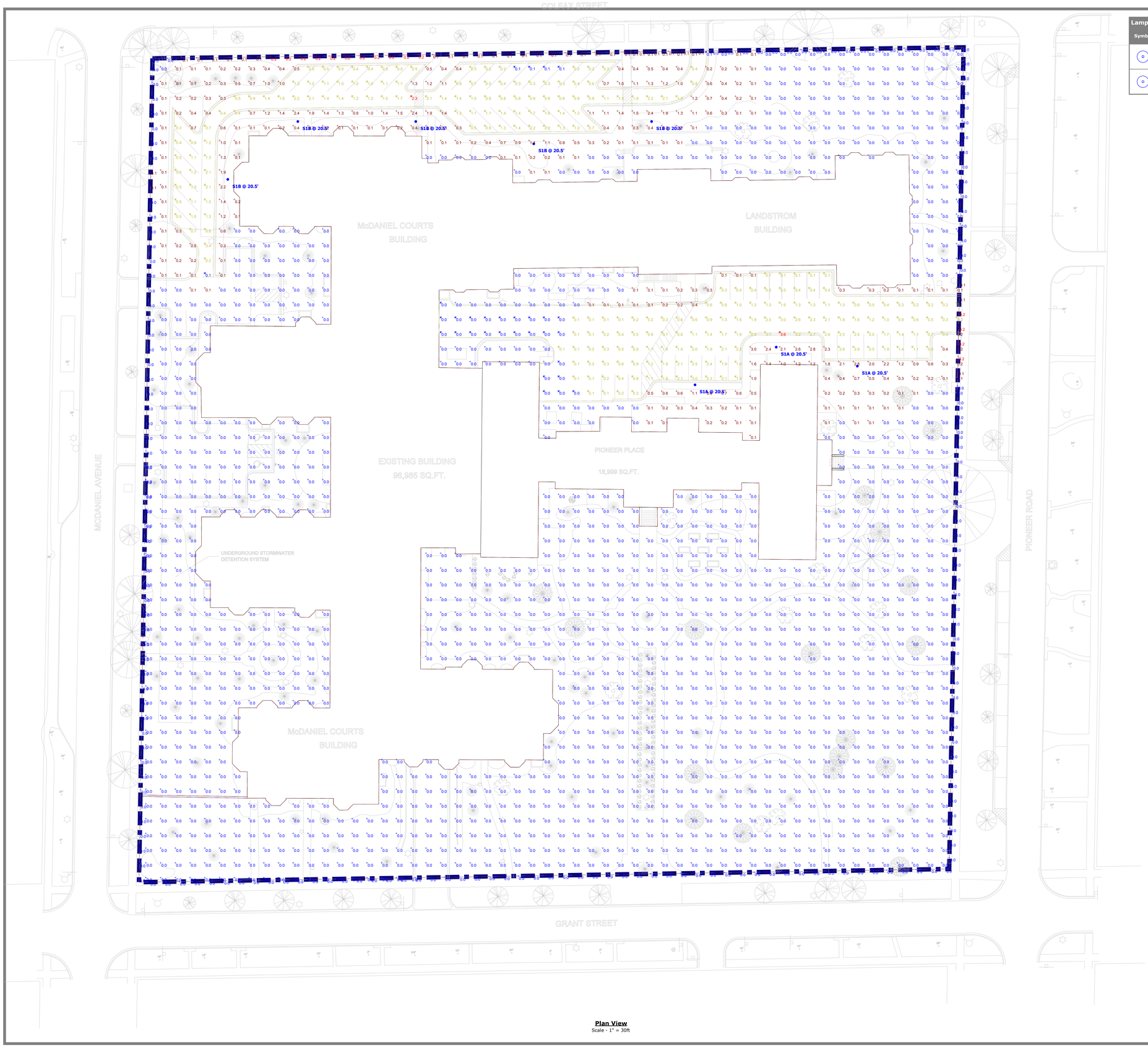
THREE CROWNS PARK - PIONEER PLACE RENOVATION

COVENANT LIVING COMMUNITIES & SERVICES
2320 PIONEER ROAD, EVANSTON, IL 60201

sheet L101P

project 234SX01.200

NOT FOR CONSTRUCTION



Plan View
Scale - 1" = 30ft

Lamp									
Symbol	Label	QTY	Manufacturer	Catalog Number	Lamp	Number Lamps	Lumens per Lamp	LLF	Wattage
○	S1A	3	ARCHITECTURAL AREA LIGHTING	PRM22-72L-335-3K7-3-CL	C-70-CRI WITH CLEAR LENS DATA SHOWN IS ABSOLUTE. Street, Walkway, Wet Location	1	7619	0.95	75.7
○	S1B	5	ARCHITECTURAL AREA LIGHTING	PRM22-72L-335-3K7-3-CL-HS	C-70-CRI WITH CLEAR LENS DATA SHOWN IS ABSOLUTE. Street, Walkway, Wet Location	1	4392	0.95	75.7

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
East Lot	+	0.9 fc	3.6 fc	0.0 fc	N/A	N/A
Northwest Lot	+	0.9 fc	2.3 fc	0.1 fc	23.0:1	9.0:1
Property Line	+	0.0 fc	0.2 fc	0.0 fc	N/A	N/A
Site	+	0.2 fc	3.6 fc	0.0 fc	N/A	N/A

2KR ENGINEERING GROUP, LLC

Three Crowns Park
2320 Pioneer Road
Evanston, IL 60201

Designer
20/10
Date
11/21/2025
Scale
As Shown
Drawing No.

Summary

architectural arealighting

PRM22

DECORATIVE

DATE: | LOCATION:

TYPE: | PROJECT:

CATALOG #:

ORDERING GUIDE

Example: PRM22-72L-500-3K7-4W-BL-TRA2M-CL-HS-AD5-UNV

CATALOG #

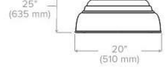
HOUSING

PRM22

Housing		LED Quantity		Lumen Output		CCT/CRI		Distribution		Finish	
PRM22	Promenade	72L	72 LED	310	450mA, MicroCore Equivalent	AMB	Amber-595nm Peak [1]	1	Type I	BLS	Black Gloss Smooth
				335	335mA, 8,500 lumens	3K7	3000K, 70 CRI	2	Type II	BLT	Black Matte Textured
				465	700mA, MicroCore Equivalent	4K7	4000K, 70 CRI	3	Type III	DBS	Dark Bronze Gloss Smooth
				500	500mA, 12,000 lumens	5K7	5000K, 70 CRI	4W	Type IV Wide	DBT	Dark Bronze Matte Textured
				700	700mA, 16,000 Lumens			5Q	Type V Square	GTT	Graphite Matte Textured
								5W	Type V Wide	LGS	Light Grey Gloss Smooth
										LGT	Light Grey Matte Textured
										PSS	Platinum Silver Gloss Smooth
										VGT	Verde Green Matte Textured
										WHS	White Gloss Smooth
										WHT	White Matte Textured
										Color Option	
										CC [2]	Custom Color

Mounting				Optional Lens		Options		Voltage	
Pole Mount Arms				CL	Clear Lens	HS	House Side Shield	UNV	120-277V
TRA2M	TRA2L	TRA4	TRA5D	SG	Clear Sag Lens	SF	Single Fuse (120,277)		
TRA6D	TRA7	TRA7-2	TRA8			DF	Double Fuse (208,240)		
TRA8-2	TRA9	TRA9-2							
SLA3	SLA4	SLA4-2	SLA7						
SLA7-2	SLA7(5)	SLA7(5)-2	SLA8D						
SLA9	SLA9-2	SLA10	SLA10-2						
SLA16	SLA16-2	SLA17	SLA17-2						
SLA17 (5)	SLA17 (5)-2	SLA18	SLA18-2						
SLA22D									
Wall Mount									
WMA2M	WMA2L	WMA35D	WMA36D						
WMA37	WMA38	WMA39	WMA4						
WMA6	WMA8	WMA9D	WMA10						
WMA11	WMA12	WMA16	WMA17						
WMA18	WMA22D								
WMA2M	WMA2L	WMA35D	WMA36D						
WMA37	WMA38	WMA39	WMA4						
WMA6	WMA8	WMA9D	WMA10						
WMA11	WMA12	WMA16	WMA17						
WMA18	WMA22D								

DIMENSIONS



Notes:
1. Turtle Friendly
2. Consult factory for custom color, marine and corrosive finish options

architectural arealighting

PRM22

DECORATIVE

DATE: | LOCATION:

TYPE: | PROJECT:

CATALOG #:

FEATURES

- Reliable, uniform, glare free illumination
- Types 1, 2, 3, 4W, 5Q, and 5W distributions
- 3000K, 4000K, 5000K CCT
- 0-10V dimming ready
- Integral surge suppression
- Upgrade Kits

BUY AMERICAN SOLUTIONS — See Certification Specifications

PROMENADE

Promenade PRM22

SPECIFICATIONS

CONSTRUCTION

- All housing components aluminum 360 alloy, sealed with continuous silicone rubber gaskets
- Standard configurations do not require a flat lens; optional lenses is tempered glass
- All internal and external hardware is stainless steel
- Finish: fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powdercoat
- Optical bezel finish is match the luminaire housing

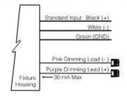
LED/OPTICS

- Optical cartridge system consisting of a die cast heat sink, LED engine, TIR optics, gasket and bezel plate.
- Cartridge is easily disassembled to replace components. Optics are held in place without the use of adhesives.
- Molded silicone gasket ensures a weather-proof seal around each individual LED.
- Features revolutionary individual LED optical control based on high performance TIR optical designs.
- House Side Shield is available on Standard and Clear Lens options except any Type 5 distribution. House Side Shield is not available for any distribution using a Diffused Lens.

INSTALLATION

- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

ELECTRICAL

- Luminaires have integral surge protection, UL recognized and have a surge current rating of 10,000 Amps using the industry standard 8/20uSec wave and surge rating of 372J
- Drivers are UL recognized with an inrush current maximum of <20.0 Amps maximum at 230VAC
- 100%-1% dimming range. Fixture will be wired for low voltage 0-10V dimming control
- 

- Driver and surge suppressor are mounted to a prewired tray with quick disconnects that may be removed from the gear compartment

CERTIFICATIONS

- ETL listed under UL 1598 and CSA C22.2 No. 250.0-08 for wet locations
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 6/06/2020

WARRANTY

- 5 year warranty

KEY DATA	
LUMEN RANGE	8,200-16,000
WATTAGE RANGE	70-160
EFFICACY RANGE (LPW)	109.7-140.4
INPUT CURRENT RANGE (mA)	310-700 mA
WEIGHT	45 lbs/20.4 kg
EPA	1.9

20/10 ENGINEERING GROUP LLC

Three Crowns Park
2320 Pioneer Road
Evanston, IL 60201

Designer
20/10
Date
11/21/2025
Scale
As Shown
Drawing No.

Summary

Market Feasibility Statement

Adaptive Reuse of Pioneer Place at Three Crowns Park
City of Evanston, Illinois

TO: City of Evanston – Department of Community Development

FROM: Applicant

RE: Market Feasibility Statement – Pioneer Place Adaptive Reuse

DATE: January 23, 2026

Executive Summary

This Market Feasibility Statement supports the Applicant's proposal to renovate and adaptively reuse Pioneer Place, a designated Evanston Landmark and the oldest structure within the Three Crowns Park Continuing Care Retirement Community (CCRC). The proposed project converts 44 formerly vacant assisted living units into 23 independent living units within an established senior living campus.

Based on national, state, regional, and local demographic trends, senior housing market conditions, and direct expressions of interest from prospective residents, the proposed independent living units are market-feasible. The project is modest in scale, responds to documented demand for independent living options, and supports City planning goals related to landmark preservation, adaptive reuse, and aging in place.

1. Purpose and Background

This memorandum is submitted in support of the Applicant's proposal to renovate and adaptively reuse Pioneer Place at Three Crowns Park in Evanston, Illinois. Pioneer Place has been vacant since 2019 and is proposed to be rehabilitated and reconfigured to meet current independent living market demand. The purpose of this statement is to demonstrate that the proposed project is supported by market conditions and demand.

2. Project Description

Three Crowns Park is an established CCRC consisting of McDaniel Courts, Landstrom Manor, and Pioneer Place. The campus currently includes 122 independent living units, 119 assisted living and memory care units, and 67 skilled nursing beds. The Applicant proposes to convert 44 former assisted living units in Pioneer Place into 23 independent living units, reflecting contemporary unit size, accessibility, and amenity expectations.

3. Market Area Definition

The market area for independent living units within a CCRC is driven primarily by proximity to family, healthcare providers, and established social networks. Accordingly, two market areas are defined for this analysis.

3.1 Primary Market Area

The Primary Market Area consists of Evanston and immediately adjacent North Shore communities, including Wilmette, Skokie, Winnetka, and Glenview. These municipalities exhibit above-average concentrations of residents aged 65 and older, strong household wealth characteristics, and long-standing residential tenure, all of which support demand for independent living units.

3.2 Secondary Market Area

The Secondary Market Area includes the broader North Side of Chicago and North Suburban Cook County. This area represents households seeking to remain near family and medical services while accessing high-quality independent living within an established CCRC setting.

4. National Senior Housing Trends

National demographic trends reflect sustained growth in the population aged 65 and older, driven by the aging Baby Boomer cohort. By 2030, all Baby Boomers will be at least 65 years old, significantly expanding the pool of households seeking senior housing. Independent living demand is expected to continue increasing as older adults seek maintenance-free housing with access to services and social engagement.

5. State and Regional Demand Conditions

The State of Illinois is projected to experience substantial growth in its population aged 65 and over, with estimates indicating an increase of approximately 40 percent by 2035. Cook County and North Shore communities already exhibit higher-than-average concentrations of older adults, reinforcing demand for additional independent living opportunities within established communities.

6. Local Market Conditions

Evanston and surrounding municipalities have a higher share of residents aged 65 and older compared to state and national averages. Combined with strong access to transit, healthcare, and cultural amenities, these characteristics support demand for independent living options located within the community.

7. Competitive Supply Context

Senior housing supply growth in the Chicago metropolitan area has remained constrained in recent years, while occupancy levels have increased. Limited new independent living development, coupled with rising demand, supports the feasibility of modest, well-located additions to the independent living inventory.

8. Evidence of Project-Specific Demand

The Applicant has received numerous expressions of interest from prospective residents interested in residing in the proposed independent living units at Pioneer Place. This direct evidence of demand further supports the market feasibility of the proposed project.

9. Planning and Policy Considerations

The proposed adaptive reuse of Pioneer Place advances City planning objectives, including preservation of historic landmarks, reinvestment in existing structures, efficient use of developed land, and support for aging-in-place within the community.

10. Conclusion

Based on demographic trends, senior housing market conditions, and project-specific demand, the proposed renovation and conversion of Pioneer Place to 23 independent living units is market-feasible. The project is appropriately scaled and consistent with the City of Evanston's planning and preservation goals.

Appendix A: Market Data Sources and Citations

The following publicly available sources were relied upon in preparing this Market Feasibility Statement:

- U.S. Census Bureau – National and local population age cohort data.
- Illinois Department on Aging – Statewide aging population projections.
- National Investment Center for Seniors Housing & Care (NIC) – Senior housing occupancy and supply trends.
- Cook County and municipal demographic profiles for Evanston and surrounding North Shore communities.
- Senior Housing News.
- NIC Map.
- Housing Gap Analysis-City of Evanston, Final Report
- Applicant-provided expressions of interest.

These sources collectively support the conclusions regarding demand for additional independent living units within the Evanston and North Shore market area.

Kimley»Horn

MEMORANDUM

To: Emiel Guede
BLDD Architects

From: Peter Lemmon, P.E., PTOE
Anna Guzik, EIT

Date: November 19, 2025

Subject: Parking and Traffic Access/Circulation Evaluation
Three Crowns Park
Evanston, Illinois

INTRODUCTION

Kimley-Horn and Associates, Inc. (Kimley-Horn) was retained by BLDD Architects to prepare a parking and transportation analysis associated with a proposed expansion at the Three Crowns Park senior residential community in Evanston, Illinois. The subject property is bound by Colfax Street on the north, Pioneer Road on the east, Grant Street on the south, and McDaniel Avenue on the west. **Exhibit 1** illustrates the current property and surrounding area.

Currently, Three Crowns Park is home to 120 residents and maintains 147 off-street parking spaces. Proposed plans for the community include an expansion of 26 independent living units for 40 potential new residents and a net increase of 28 off-street parking spaces, largely located in a planned surface lot extending from the existing front lot accessible via McDaniel Street. The proposed plan results in 159 units (independent living, assisted living, and memory care), 48 skilled nursing beds, 160 residents, and a total of 175 off-street parking spaces.

Vehicular access to the existing community is currently available via McDaniel Avenue (main building entry and limited surface parking), Pioneer Road (underground parking, surface parking, and service access), and Grant Street (underground parking). The existing access locations remain in the proposed plan, as well as a new outbound-only exit drive on Colfax Street aligned with an existing alley.

This memorandum documents the analysis methodology, outlines parking data collected, summarizes an evaluation of parking and transportation elements of the proposed plan, and highlights key findings.

EXISTING CONDITIONS

Kimley-Horn visited the subject site and surrounding area to collect relevant information pertaining to site context, surrounding land uses, parking, the adjacent street system, lane configurations and traffic control at nearby intersections, and other key transportation characteristics, This section of the report details information on the existing conditions.

Area Land Uses

Three Crowns Park is a multi-unit senior residential community located in a largely single-family residential neighborhood. Single-family homes are located to the north, east, and south of the site. Immediately west of the site is Lincolnwood Elementary School. Residences are also west of the site along Colfax and Grant Streets across from the school. Perkins Woods, part of the Forest Preserves of Cook County, is situated immediately west of the school.

Existing Roadway Characteristics

Consistent with the land uses comprising the surrounding neighborhood, the adjacent street network is made of primarily residential streets. The streets situated adjacent to the site and serving the surrounding neighborhood are detailed below with lane configurations and intersection traffic controls graphically depicted on **Exhibit 2**.

Colfax Street is a one-way eastbound street along the northern site boundary providing a single travel lane and on-street parking along both sides of the street. West of McDaniel Avenue, Colfax Street maintains two-way traffic flow. The intersections of Colfax Street at McDaniel Avenue and Pioneer Road both include all-way stop control. Colfax Street has a 25 mph posted limit (20 mph during school days) and is under City of Evanston jurisdiction.

Pioneer Road is a two-way north-south street along the east site boundary. One lane is provided in each direction plus on-street parking along both sides of the street. The intersections of Pioneer Road with Colfax Street and Grant Street are both under all-way stop sign control. Pioneer Road has a 25 mph posted speed limit and is under City of Evanston jurisdiction.

Grant Street is a two-way east-west street along the south side of the site. Adjacent to the site, Grant Street maintains one travel lane in each direction with on-street parking along the south side of the street. Grant Street has a 25 mph posted speed limit (20 mph during school days) and is under City of Evanston jurisdiction.

McDaniel Avenue, while a residential street, often functions as a collector street with more through traffic than other adjacent streets, serving as a common north-south route through the neighborhood between signalized intersections at Central Street to the north and Golf Road to the south. McDaniel Avenue has a 25 mph posted speed limit (20 mph during school days) and is under City of Evanston jurisdiction.

Existing Parking System

Three Crowns Park currently provides 147 off-street parking spaces, including 5 dedicated ADA-accessible spaces across various surface lots and an underground garage. Approximately 94 on-street spaces are available along the blocks Colfax Street, Pioneer Road, Grant Street, and McDaniel Avenue adjacent to the site.

Of the 147 off-street spaces provided, 103 spaces are located within the underground garage and 44 spaces are maintained at-grade within multiple surface parking areas. For the purposes of this study, the parking was divided into four subareas to organize data collection and evaluate parking characteristics based on location, type, user and designations, as shown on Exhibit 2.

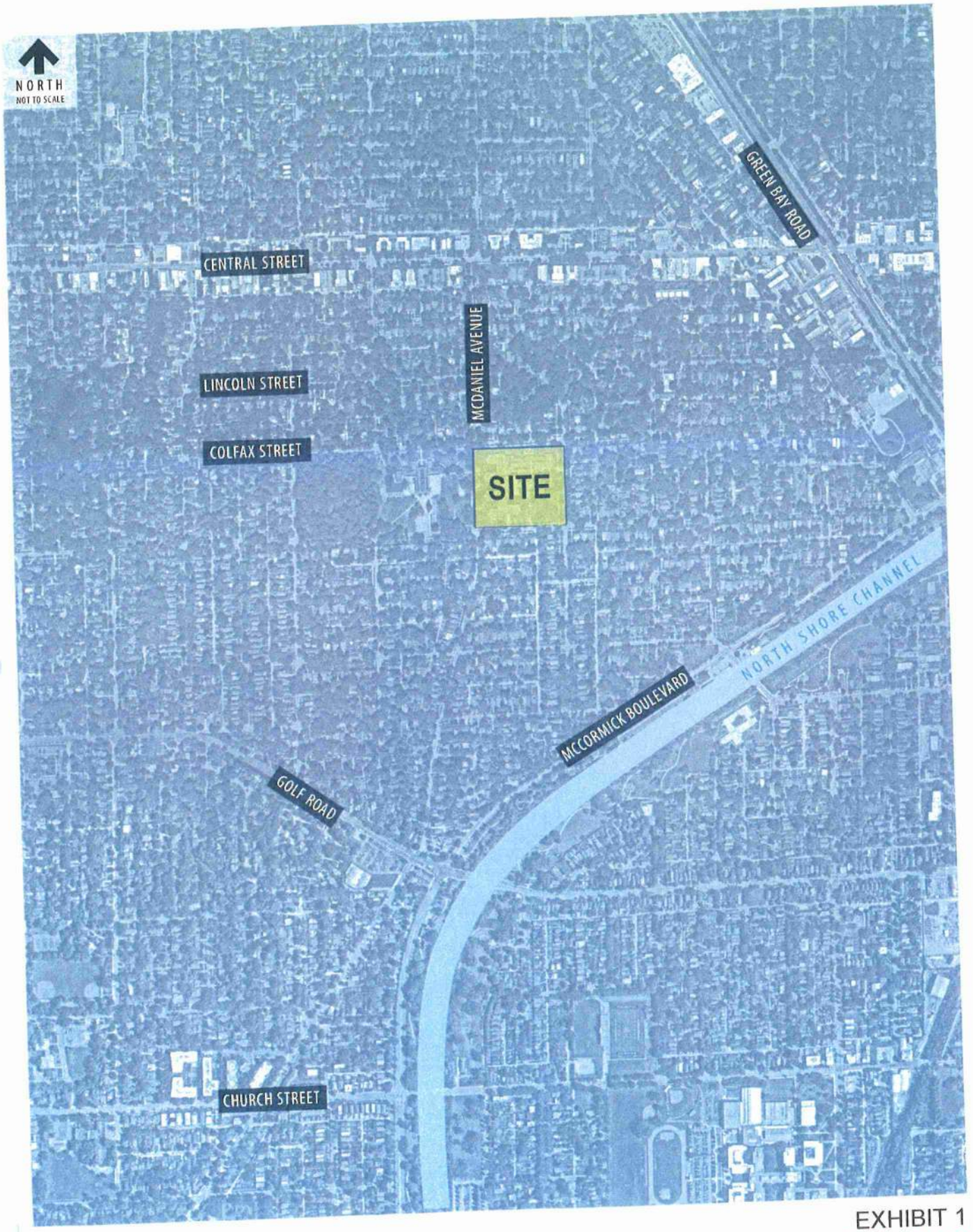
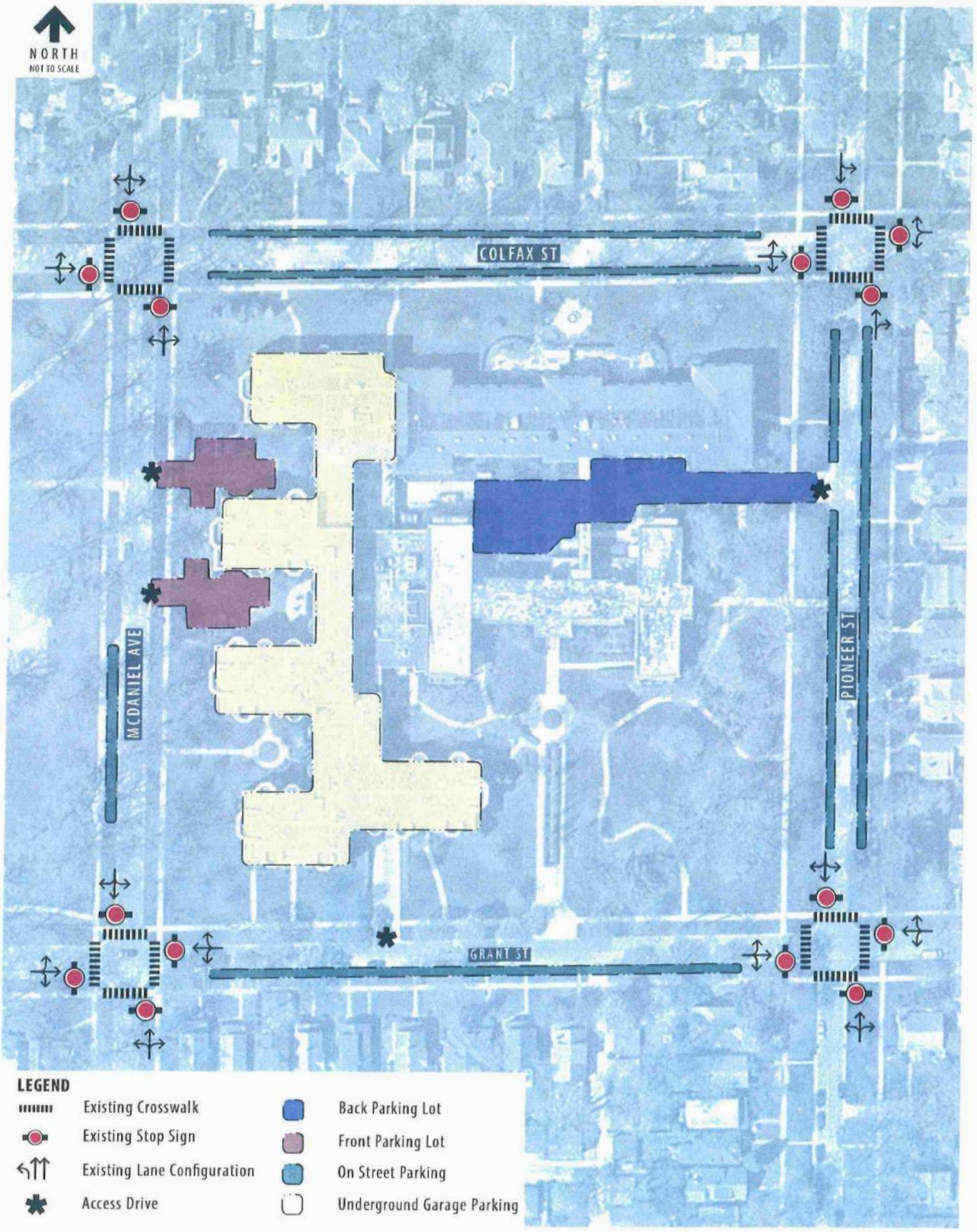


EXHIBIT 1

SITE LOCATION MAP

Kimley»Horn



Kimley»Horn

EXHIBIT 2

ROAD CHARACTERISTICS & PARKING LOCATIONS

PARKING DATA COLLECTION

Kimley-Horn conducted parking counts on two days – Wednesday, October 12, 2025 and Sunday, October 15, 2025. These two dates represent a typical weekday and weekend day. Based on discussions with Three Crowns Park representatives, Sundays are typically the busiest days of the week with the highest number of visitors. The parking capacity was inventoried and counts of occupied spaces were collected hourly over eight hours each day, starting at 10:00 AM with the last count starting at 5:00 PM. This period was chosen as it coincides with typical periods of peak resident, visitor, and employee activity on the property.

A summary of the observed hourly parking utilization by parking subarea is presented in **Table 1**. This summary includes the parking utilization for each hourly period along with the percentage occupancy and number of available spaces for both the overall site and the identified subareas.

Peak Hour Data Review

As presented in Table 1, the peak parking activity (highlighted in green) was observed at 1:00 PM during the Sunday observations with 63 percent of the overall off-street spaces occupied and 55 open spaces. During the weekday observations, the peak parking activity was slightly later at 3:00 PM, and the percentage of spaces occupied was higher with 82 percent of the overall off-street spaces occupied and 27 open spaces.

Generally, parking facilities reach their effective capacity when parking occupancy reaches 85-95 percent of the total available spaces ("effective capacity"). Effective capacity is the perception that the parking supply is practically full and few open spaces remain. This characteristic is subjective and generally depends on the use(s) served by the parking, how often spaces turn over, and familiarity that parkers have with the lot or garage. Typically, it is desirable to maintain an effective capacity buffer to limit the need to circulate throughout the lot hunting for the last few available spaces, account for inefficient parkers that may encroach into an adjacent space, or to consider temporary loss of spaces due to situations such as snow storage, maintenance, etc.

Parking lots with frequent, familiar users that exhibit low turnover (such as employees and residents) are generally considered at effective capacity at the upper end of this range. Parking lots with less frequent/familiar users, those demonstrating higher turnover, or those with whom a greater level of customer service is intended generally reach effective capacity at the lower end of the range.

Three Crowns Park exhibits low parking turnover with employees, residents, and repeat visitors. As such, 90-95 percent utilization represents a reasonable target effective capacity.

As shown on the following page in Table 1, the overall utilization of the on-site parking is 63 and 82 percent during the Sunday and Wednesday peak hours, respectively. However, at times, the front surface lot generally used for visitor parking nears the typical range of effective capacity while the low turnover garage parking reserved for residents and employees peaks at 74 percent.

Kimley»Horn

Table 1. Parking Utilization Counts – Three Crowns Park (Evanston, Illinois)

Location	Capacity	Sunday (10/12) Occupied Spaces								Wednesday (10/15) Occupied Spaces							
		10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM
FRONT LOT																	
Regular	*18*	13	17	17	15	15	18	12	10	18	15	17	18	17	17	13	13
ADA	*2*	1	1	1	1	1	2	2	2	1	1	1	1	1	2	1	1
Future Resident	*1*	-	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-
Subtotal FRONT LOT	21	14	19	19	17	17	20	14	12	19	16	18	19	18	19	14	14
Available Spaces		7	2	2	4	4	1	7	9	2	5	3	2	3	2	7	7
Utilization		67%	90%	90%	81%	81%	95%	67%	57%	90%	76%	86%	90%	86%	90%	67%	67%
BACK LOT																	
Regular	*9*	8	9	8	8	6	6	5	4	12	12	12	11	11	12	12	10
Employee	*7*	3	3	3	4	5	4	3	3	7	7	7	7	7	7	5	5
Employee (EV)	*2*	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1
Reserved Space	*1*	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1
Visitor	*4*	2	2	2	2	2	4	4	4	4	4	4	4	4	4	4	3
Back Dock	-	-	-	-	-	-	-	-	-	4	4	4	3	3	4	2	2
Subtotal BACK LOT	23	13	14	13	14	13	14	12	11	23	23	23	22	23	25	23	20
Available Spaces		13	12	13	12	13	12	14	15	3	3	3	4	3	1	3	6
Utilization		50%	54%	50%	54%	50%	54%	46%	42%	88%	88%	88%	85%	88%	96%	88%	77%
GARAGE																	
Resident	*100*	50	47	50	59	57	53	54	56	67	73	75	76	74	75	74	67
ADA	*3*	1	1	1	2	2	1	1	1	1	1	1	0	1	1	2	2
Subtotal BACK LOT	103	51	48	51	61	59	54	55	57	68	74	76	76	75	76	76	69
Available Spaces		52	55	52	42	44	49	48	46	35	29	27	27	28	27	27	34
Utilization		50%	47%	50%	59%	57%	52%	53%	55%	66%	72%	74%	74%	73%	74%	74%	67%
Subtotal OFF STREET	147	78	81	83	92	89	88	81	80	110	113	117	117	116	120	113	103
Available Spaces	0	69	66	64	55	58	59	66	67	37	34	30	30	31	27	34	44
Utilization	0	53%	55%	56%	63%	61%	60%	55%	54%	75%	77%	80%	80%	79%	82%	77%	70%
ON-STREET[1]																	
McDaniel Ave-West	6	3	3	5	6	6	2	1	1	6	6	5	5	4	6	4	4
Colfax St - North	18	8	7	7	6	7	9	10	7	7	7	6	5	5	6	10	6
Colfax St - South	18	1	1	2	2	-	1	1	1	11	12	11	7	7	6	5	2
Pioneer Rd - East	17	6	7	8	9	9	9	10	7	9	7	11	9	9	8	10	6
Pioneer Rd - West	17	-	-	-	-	-	-	-	-	0	1	1	1	1	1	0	0
Grant St - South	18	5	7	8	7	7	6	5	5	6	5	7	5	7	7	8	6
Subtotal ON STREET	94	23	25	30	30	29	27	27	21	39	38	41	32	33	34	37	24
Available Spaces		71	69	64	64	65	67	67	73	55	56	53	62	61	60	57	70
Utilization		24%	27%	32%	32%	31%	29%	29%	22%	41%	40%	44%	34%	35%	36%	39%	26%

[1]Capacities of on-street spaces were calculated assuming 22 ft per space & 1 space buffer from driveways & intersections

PARKING EVALUATION

Proposed Plan and Future Parking Supply

The proposed expansion plan for Three Crowns Park consists of 26 additional independent living units, yielding 40 new residents and 3 additional employees (5 additional staff assigned to the daytime shift). To support the expansion plan, a reconfigured parking plan is proposed with a net increase of 28 off-street parking, largely located on the northern portion of the property. With the proposed plan, the overall site would provide a total of 175 off-street parking spaces, including 103 garage spaces and 72 total off-street parking spaces across various surface parking lots.

The new north parking lot is planned to extend from the existing front surface lot. This proposed surface lot would allow one-way traffic flow, entering from the west on McDaniel Street via the existing inbound-only access and exiting to the north on Colfax Street via a new driveway aligned with an existing alley. The proposed parking plan also includes a reconfigured parking area in the back parking lot accessible via the existing full-access drive on Pioneer Road.

The proposed parking plan also includes improvements to the adjacent on-street parking along the west side of Pioneer Road. The plan shifts the on-street parking further west into the existing parkway, limiting the obstruction to travel lanes and leading to more usable parking and improved traffic conditions along Pioneer Road.

A summary comparing the existing and proposed parking allocation is outlined in **Table 2**.

Table 2. Existing and Proposed Parking Allocation Plan

Location	Existing Capacity	Difference in spaces	Proposed Capacity
FRONT LOT			
Regular	19	-7	12
ADA	2	+2	4
Subtotal FRONT LOT	21	-5	16
BACK LOT			
Regular	21	+3	26
Electric Charging	2		
Subtotal BACK LOT	23	+3	26
NORTH LOT			
Regular	-	+30	30
ADA	-	-	-
Subtotal BACK LOT	-	+30	30
GARAGE			
Regular	100	-	100
ADA	3	-	3
Subtotal BACK LOT	103	-	103
Subtotal OFF STREET	147	+28	175

Table 2. Existing and Proposed Parking Allocation Plan (continued)

Location	Existing Capacity	Difference in spaces	Proposed Capacity
ON-STREET[1]			
McDaniel Ave-West	6	-	6
Colfax St - North	18	-	18
Colfax St - South	18	-	18
Pioneer Rd - East	17	-	17
Pioneer Rd – West[2]	17	-2	15
Grant St - South	18	-	18
Subtotal ON-STREET	94	-2	92

[1]Capacities of on-street spaces were estimated assuming 22 ft per space & 1 space buffer from driveways & intersections
[2]On-street parking proposed to be shifted west into the existing parkway

Parking Demand Projections

To develop projected parking needs associated with the proposed Three Crowns Park expansion, Kimley-Horn coordinated with Three Crowns Park staff to define the existing and planned expansion in terms of additional units, residents, and employees which are defined in **Table 3**.

Table 3. Existing and Proposed Populations

Population	Existing	Proposed Expansion	Proposed Total
Number of Units			
Independent Living Units	91	*+26*	117
Assisted Living Units	25	-	25
Assisted Living Units with Memory Care	17	-	17
Skilled Nursing Beds	48	-	48
Number of Residents			
Total	120	*+40*	160
Number of Employees			
Total	171	*+3*	174
Largest Shift	50	*+5*	55

Based on conversations with Three Crowns Park staff, it is Kimley-Horn's understanding that approximately 80 residents are assigned a parking space in the underground garage, and the additional 23 garage spaces are assigned to employees. During the larger employee shifts, employees without an assigned garage space will park in the back parking lot or use the on-street parking available surrounding the Three Crowns Park. Employees are instructed not to park in the front surface lot.

Using the existing observed parking demand (Table 1) and existing populations (Table 3), Kimley-Horn calculated parking demand rates and parking growth projections using two approaches – one based on the sum of projections calculated by population category and another based on the site's overall peak hour parking demand.

It should be noted that the underground garage (resident parking) spaces are assumed to only be available only to the independent living units. Thus, the assisted living units and skill nursing beds were not accounted for in the parking generation rate for the resident parking; however, these units are still factored in the visitor parking generation rates.

Table 4 summarizes the calculated population and overall peak hour parking generation rates and growth projections.

Table 4. Three Crowns Expansion Parking Generation Rates and Growth Projections[1]

Population Category	Growth Unit	Proposed Growth	Sunday Peak Hour		Wednesday Peak Hour	
			Demand Rate[2]	Parking Growth	Demand Rate	Parking Growth
Projected Parking Demand by User Group (Sum of Parking Demand per Individual Category Growth Unit)						
Resident	Resident	40	0.41	16	0.51	20
	Unit	26	0.54	14	0.67	17
Visitor	Resident	40	0.16	6	0.19	8
	Unit	26	0.10	3	0.13	3
Staff	Employee (Largest Shift)	3	0.48	2	0.72	4
	Employee	5	0.14	0	0.21	1
Total	Resident			24		32
	Unit			19		24
Projected Parking Demand Overall (Total Parking Demand per Growth Unit)						
Total	Resident	40	0.77	31	1.00	40
	Unit	26	1.01	26	1.32	34

[1] Analysis uses the conservative estimate based on overall parking projection for the entire site (highlighted in green)

[2] Demand rate calculated by dividing the parking counts associated with each population group, based on location and assigned parking locations as identified by Three Crowns Park staff, by the current population or unit count associated with that group

As presented in Table 4, the parking projections using both approaches are greatest when using the number of residents as the variable (as highlighted in green). The highest resulting parking growth projections for weekdays and Sundays (as highlighted in pink) are based on the overall parking demand rate, resulting in 31 additional spaces on Sundays and 40 additional spaces on weekdays during the peak hour. The parking evaluation assumes the high-end of the parking projections range.

Table 5 outlines the proposed plan's ability to accommodate the projected growth in parking demand during the Sunday and weekday peak hours considering the number of currently unoccupied parking spaces and the net increase in parking capacity as part of the project.

Based on the combination of currently unoccupied capacity, the 28 net additional off-street spaces included in the proposed plan, and the projected growth in parking utilization, the proposed total of 175 off-street parking spaces are expected to accommodate the increased parking demand projections during the weekday and Sunday peak hours. Across the overall site, the project peak

utilization is expected to reach 70 percent on weekdays and 91 percent on Sundays, but within a reasonable effective capacity buffer for this land use.

Table 5. Parking Demand Growth vs. Available Capacity

Parking Characteristic	Sunday Peak Hour	Wednesday Peak Hour
Existing Capacity	147	
Existing Peak Utilization (See Table 1)	92	120
Unoccupied Capacity (Existing Capacity – Utilization)	55	27
Proposed Net Capacity Increase	+28	
Available Capacity to Serve Projected Parking Demand (Unoccupied + Net Capacity Increase)	83	55
Projected Parking Utilization Growth (See Table 4)	31	40
Projected Excess Capacity (Available Capacity – Projected Utilization Growth)	55	15
Projected Percent Utilization ((Existing Utilization + Utilization Growth) / Total Capacity)	70%	91%

TRAFFIC EVALUATION

This section of the report summarizes the evaluation of anticipated traffic-related characteristics associated with the proposed plan and a qualitative review of the expected traffic impacts considering the projected traffic volumes in the context of observed conditions in the surrounding area and at adjacent intersections.

Trip Generation

In order to calculate trips generated by the proposed expansion, data was referenced from the Institute of Transportation Engineers (ITE) Trip Generation Manual, 12th Edition. Trip generation rates for the ITE Land Use Code (LUC) corresponding to the proposed use are shown in **Table 6**. A copy of the ITE data is provided in the Appendix.

Table 6. ITE Trip Generation Data

ITE Land Use	Unit	Weekday			Sunday
		Daily	AM Peak Hour	PM Peak Hour	Midday Peak Hour
Continuing Care Retirement Community (LUC 255)	Units	S = 2.28X + 198.69 50% in/50% out	S = 0.13X + 21.60 65% in/35% out	S = 0.13X + 55.26 29% in/61% out	S = exp(0.80LnX - 0.07) 52% in/48% out

X = Units

Given the proposed expansion of 26 units and the trip generation rates from Table 6, site-generated traffic projects were calculated and are summarized in **Table 7**. For the purposes of this analysis, site-generated trips are rounded to the nearest multiple of five.

Table 7. Site-Generated Traffic Projections

Land Use	Size	Weekday[1]						Sunday[1]		
		Daily	AM Peak Hour			PM Peak Hour			Midday Peak Hour	
			In	Out	Total	In	Out	Total	In	Out	Total
Continuing Care Retirement Community (LUC 255)	26 Units	260	15	10	25	20	40	60	10	5	15

[1] In/Out volumes are rounded to the nearest multiple of five.

Traffic Evaluation

The addition of traffic related to the proposed expansion is estimated to increase trips on the adjacent street network by approximately 25 and 60 total vehicle trips during the morning and evening peak hours, respectively. The Sunday midday peak hour is expected to experience 15 additional total trips resulting from the additional units.

Currently, the adjacent intersections operate well under all-way stop control and maintain plenty of capacity. The busiest periods align with school morning drop-off and afternoon pick-up periods at Lincolnwood Elementary School. Based on the residential nature of the adjacent roadways, as well

as the negligible congestion and delays noted during site observations, the projected growth in site-generated traffic is not anticipated to significantly impact traffic conditions on the adjacent street network or intersections. The all-way stop control at the surrounding intersections is expected to accommodate the additional traffic with minimal impact.

SUMMARY

The proposed expansion at Three Crowns Park is comprised of 26 additional independent living units, yielding 40 additional residents. Up to three additional employees are expected with five additional employees allocated to the main daytime shift. To support the proposed expansion, an increase of 28 off-street parking spaces is proposed resulting in a net total of 175 off-street spaces across various surface lots and an underground garage. The additional parking spaces would be largely located in a new surface lot extending from existing front surface lot. This proposed lot would include one-way traffic flow entering from the existing access drive on McDaniel Avenue and exiting to a new driveway aligned with an existing alley on Colfax Street.

Based on applying the current rate of peak parking demand per resident at Three Crowns Park to the planned growth, parking demand is projected to increase by 31 and 40 spaces during the Sunday and weekday peak hours, respectively. However, the combination of currently unoccupied parking capacity and the net addition of 28 off-street parking spaces is expected to accommodate the projected increase in peak parking demand associated with the proposed plan.

In addition to the planned improvements to off-street parking, the proposed parking plan also includes changes to the on-street parking along the west side of Pioneer Road. Specifically, the plan would shift the on-street parking spaces further west into the existing parkway area, thus limiting the obstruction to travel lanes and resulting in more usable parking and improved traffic conditions.

From a traffic perspective, the intersections in the surrounding area currently function well and are expected to continue doing so with the addition of traffic associated with the proposed plan. Most residents, even if they have a vehicle parked on site, do not drive regularly. For residents at senior living communities like Three Crowns Park, they typically drive in the middle of the day between morning and evening rush periods when traffic volumes tend to be lower and to avoid driving when it is dark outside. The additional associated with the proposed plan is not expected to have noticeable impact on traffic conditions at adjacent intersections.

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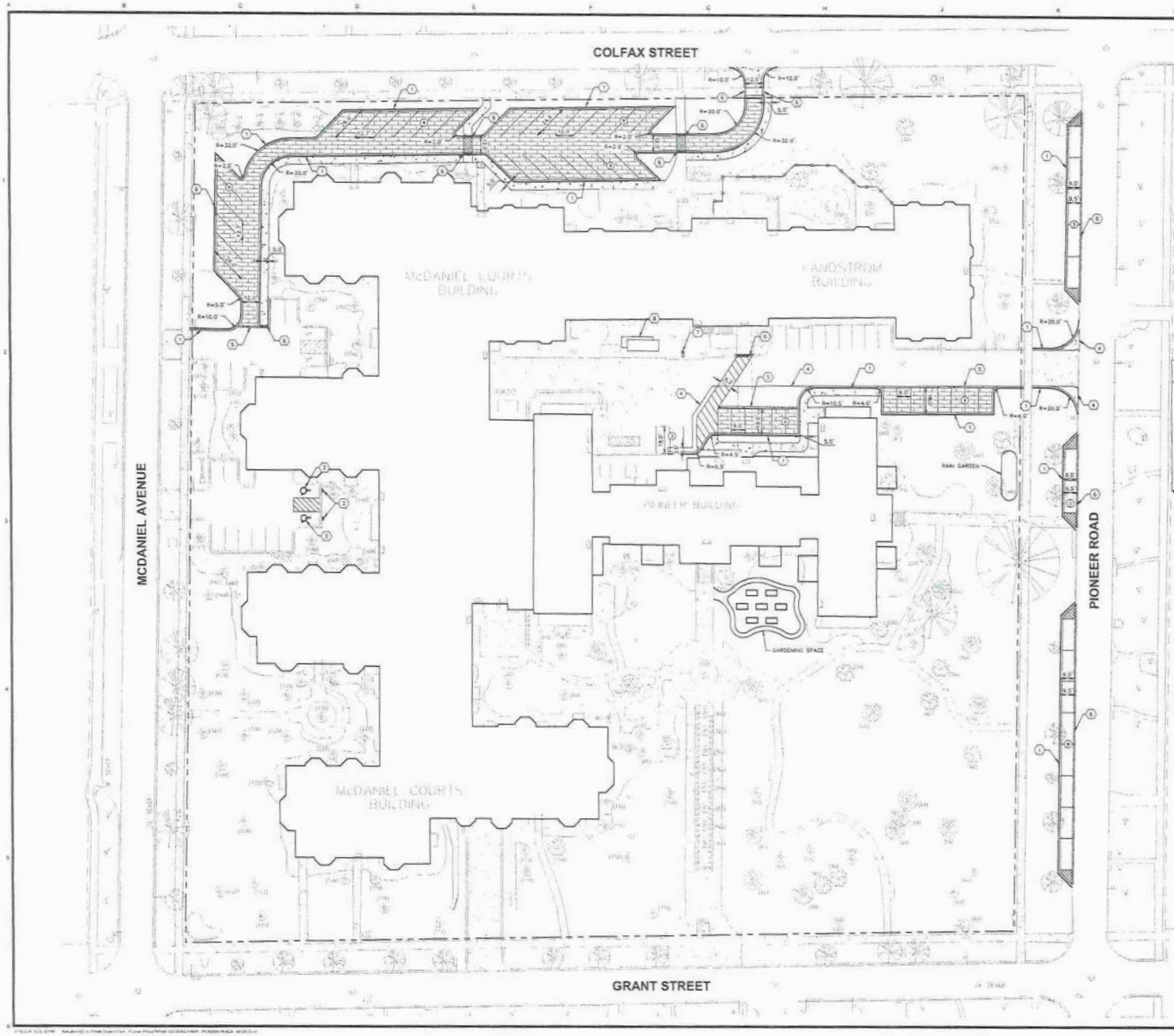
APPENDIX

Site Plan

ITE Data

SITE PLAN



GENERAL NOTES

1. ALL DIMENSIONS REFER TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
2. BUILDING DIMENSIONS ARE TO THE OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
3. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS TO VERIFY ALL BUILDING DIMENSIONS.
4. RADII ADJACENT TO PARKING STALL AND NOT DIMENSIONED ON THIS PLAN SHALL BE 5-FEET, TYPICAL.
5. REFER TO ARCHITECTURAL PLANS FOR MONUMENT SIGN DETAILS. SEE MEP PLANS FOR SITE ELECTRICAL DRAWINGS.
6. ALL PROPOSED ON-SITE STRIPING SHALL BE PAINTED UNLESS OTHERWISE NOTED.

PAVING AND CURB LEGEND

- STANDARD DUTY ASPHALT PAVEMENT — SEE CONSTRUCTION DETAILS FOR PAVEMENT SECTION
- PERMEABLE PAVERS — SEE CONSTRUCTION DETAILS FOR PAVEMENT SECTION
- CONCRETE SIDEWALK — SEE CONSTRUCTION DETAILS FOR SIDEWALK SECTION
- STANDARD PITCH CONCRETE CURB AND GUTTER

KEY NOTES

1. B6.12 CONCRETE CURB AND GUTTER, TYP. (SEE DETAILS)
2. ACCESSIBLE PAVEMENT MARKINGS, TYP. (SEE DETAILS)
3. ACCESSIBLE PARKING SIGN, TYP. (MUTCD R7-8, SEE DETAILS)
4. CONNECT TO EXISTING PAVEMENT, SIDEWALK, CURB, TYP.
5. 1' CONCRETE RIBBON CURB
6. DEPRESSED CURB AND GUTTER
7. RELOCATED LIGHTPOLE
8. GENERATOR

PARKING SUMMARY

EXISTING PARKING SPACES	=	36 SPACES
EXISTING ACCESSIBLE PARKING SPACES	=	2 SPACES
EXISTING PARKING SPACES REMOVED	=	15 SPACES
EXISTING ACCESSIBLE PARKING SPACES REMOVED	=	0 SPACES
PARKING SPACES PROVIDED	=	83 SPACES
ACCESSIBLE PARKING SPACES REQUIRED	=	4 SPACES
ACCESSIBLE PARKING SPACES PROVIDED	=	4 SPACES
TOTAL PARKING SPACES PROVIDED	=	87 SPACES

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Revisions

Date	#	Description

date 11/19/2025
drawn by DAP
checked by EJT

BLDD ARCHITECTS

Design Firm Registration #184.000723

SITE PLAN

THREE CROWNS PARK - PIONEER PLACE RENOVATION
COVENANT LIVING COMMUNITIES & SERVICES
2320 PIONEER ROAD, EVANSTON, IL 60201

sheet C1.0

project 234SX01.200

100% DESIGN DEVELOPMENT
NOT FOR CONSTRUCTION

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ITE DATA

Land Use: 255
Continuing Care Retirement Community

Description

A continuing care retirement community (CCRC) is a land use that provides multiple elements of senior adult living. A CCRC enables a resident to transition in place from independent living to increased care as the medical needs of the resident change. Housing options may include various combinations of senior adult housing (both single-family and multifamily), congregate care, assisted living, and nursing home. The community may also contain special services such as medical, dining, recreational, communal transportation, and some limited, supporting retail facilities. A CCRC is usually a self-contained village. Senior adult housing—single-family (Land Use 251), senior adult housing—multifamily (Land Use 252), congregate care facility (Land Use 253), assisted living (Land Use 254), and nursing home (Land Use 620) are related uses.

Additional Data

Caution should be used when applying these data. CCRC developments consist of various housing components (dwelling units, rooms, and beds) that often exist in varying proportions. Therefore, the use of a single housing component may not fully represent the trip generation characteristics of these communities. The comprehensive independent variable—units—is the descriptor used in the data plots. This variable represents an aggregate of dwelling units for the single-family and congregate components of the CCRC and the beds in the assisted living component. To illustrate the varying proportions of housing options that exist in the database, the following table describes the residential units for nine of the CCRCs in the database.

Living Accommodations at CCRCs		
Dwelling Units	**Beds**	**Total CCRC Units**
215 (82%)	46 (18%)	261
220 (59%)	151 (41%)	371
620 (86%)	100 (14%)	720
312 (65%)	166 (35%)	478
210 (85%)	37 (15%)	247
323 (73%)	120 (27%)	443
233 (66%)	121 (34%)	354
209 (86%)	33 (14%)	242
234 (71%)	94 (29%)	328

A complete study of CCRCs requires future analysis of their various components. Therefore, it is important to collect as much information as possible. At the very least, the total number of

dwelling units, rooms, and beds should be obtained; if possible, the number of corresponding occupied units should be recorded as well.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Connecticut, Illinois, Maryland, Massachusetts, Ontario (CAN), Pennsylvania, and Virginia.

Source Numbers

244, 253, 388, 501, 576, 713, 715, 1009

Continuing Care Retirement Community (255)

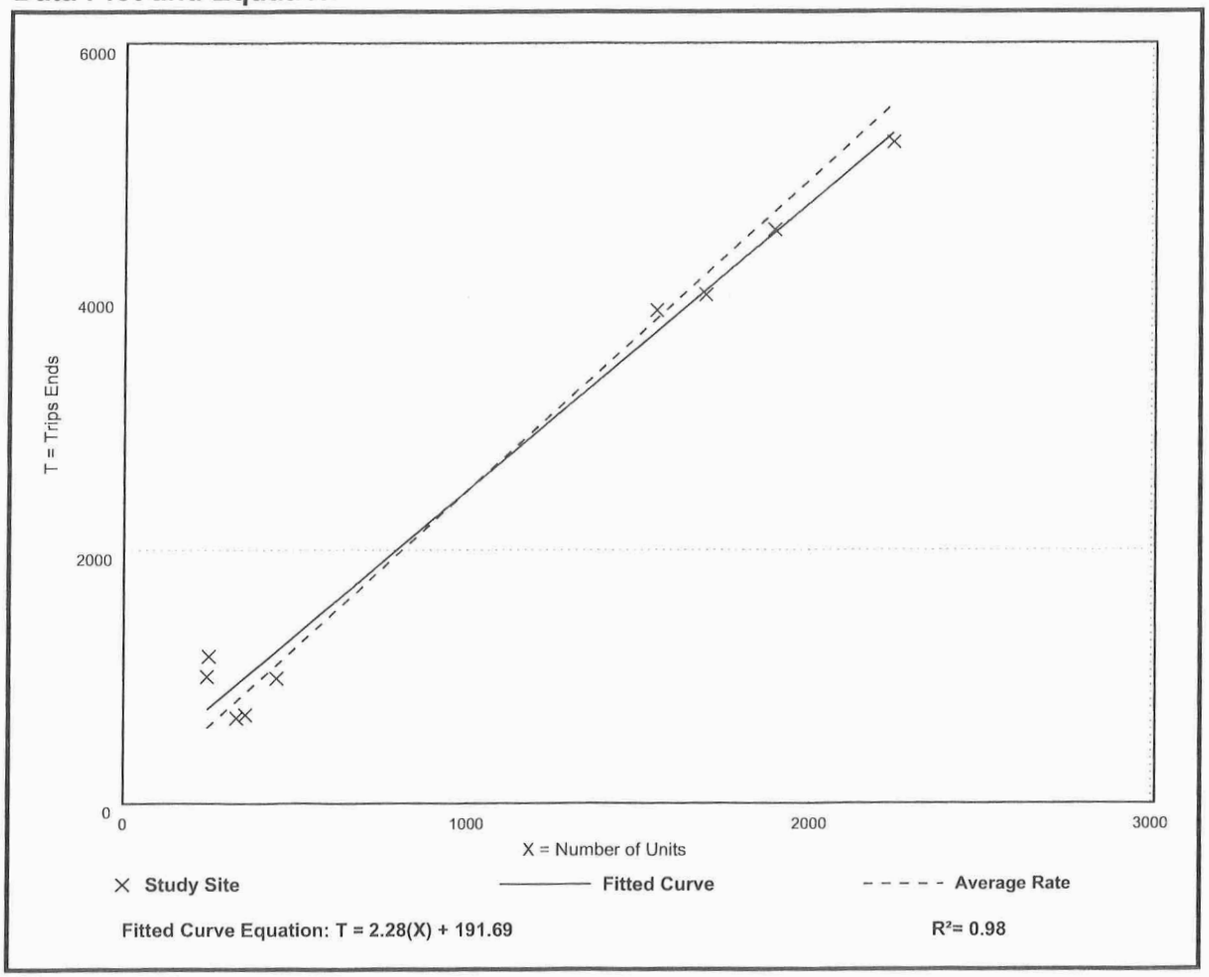
Vehicle Trip Ends vs: Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 9
Avg. Num. of Units: 998
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Unit

Average Rate	Range of Rates	Standard Deviation
2.47	1.98 - 4.71	0.52

Data Plot and Equation



Fitted Curve Equation: T = 2.28(X) + 191.69

R^2= 0.98

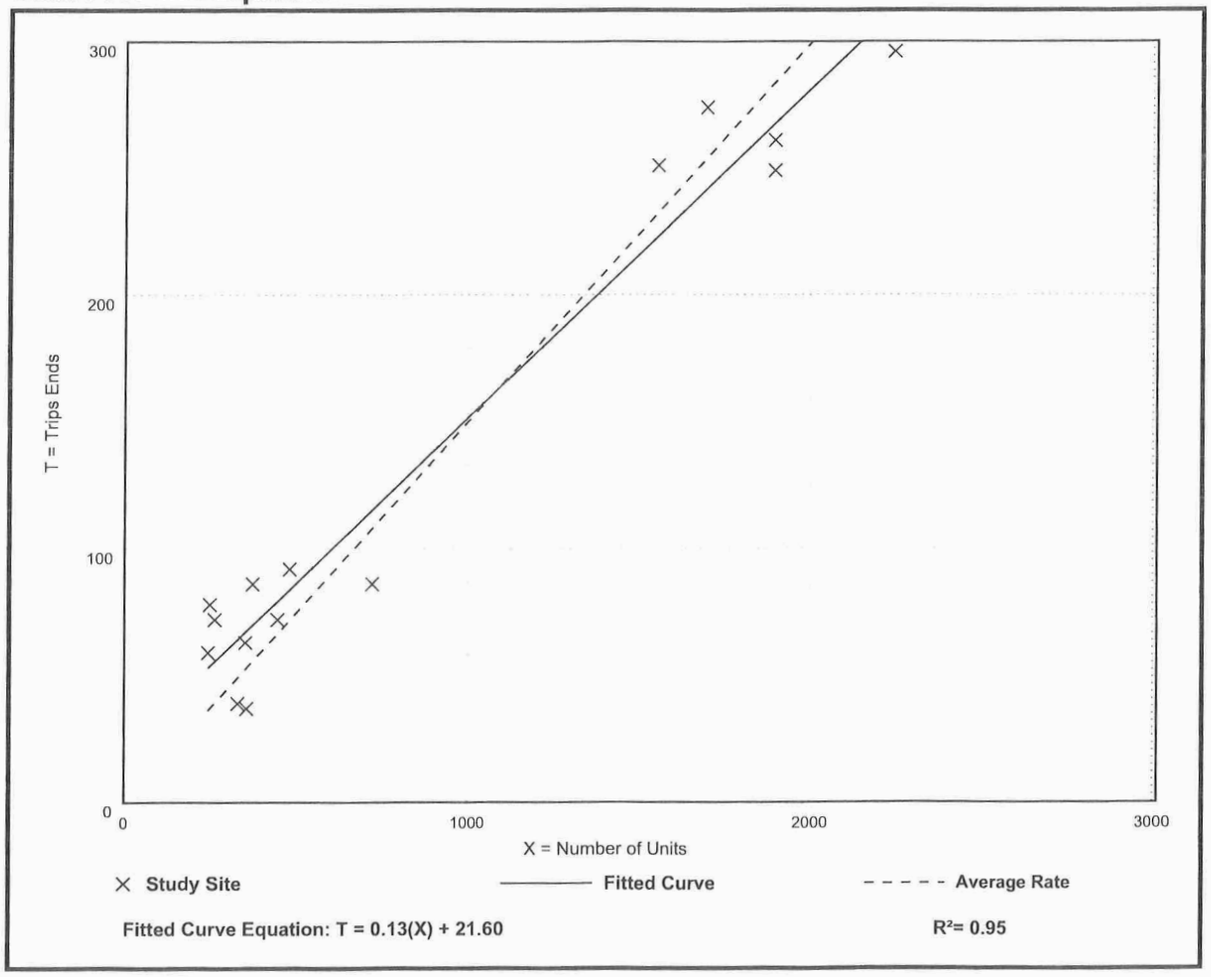
Continuing Care Retirement Community (255)

Vehicle Trip Ends vs: Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 15
Avg. Num. of Units: 871
Directional Distribution: 65% entering, 35% exiting

Vehicle Trip Generation per Unit

Average Rate	Range of Rates	Standard Deviation
0.15	0.10 - 0.32	0.04

Data Plot and Equation



Fitted Curve Equation: T = 0.13(X) + 21.60

R^2= 0.95

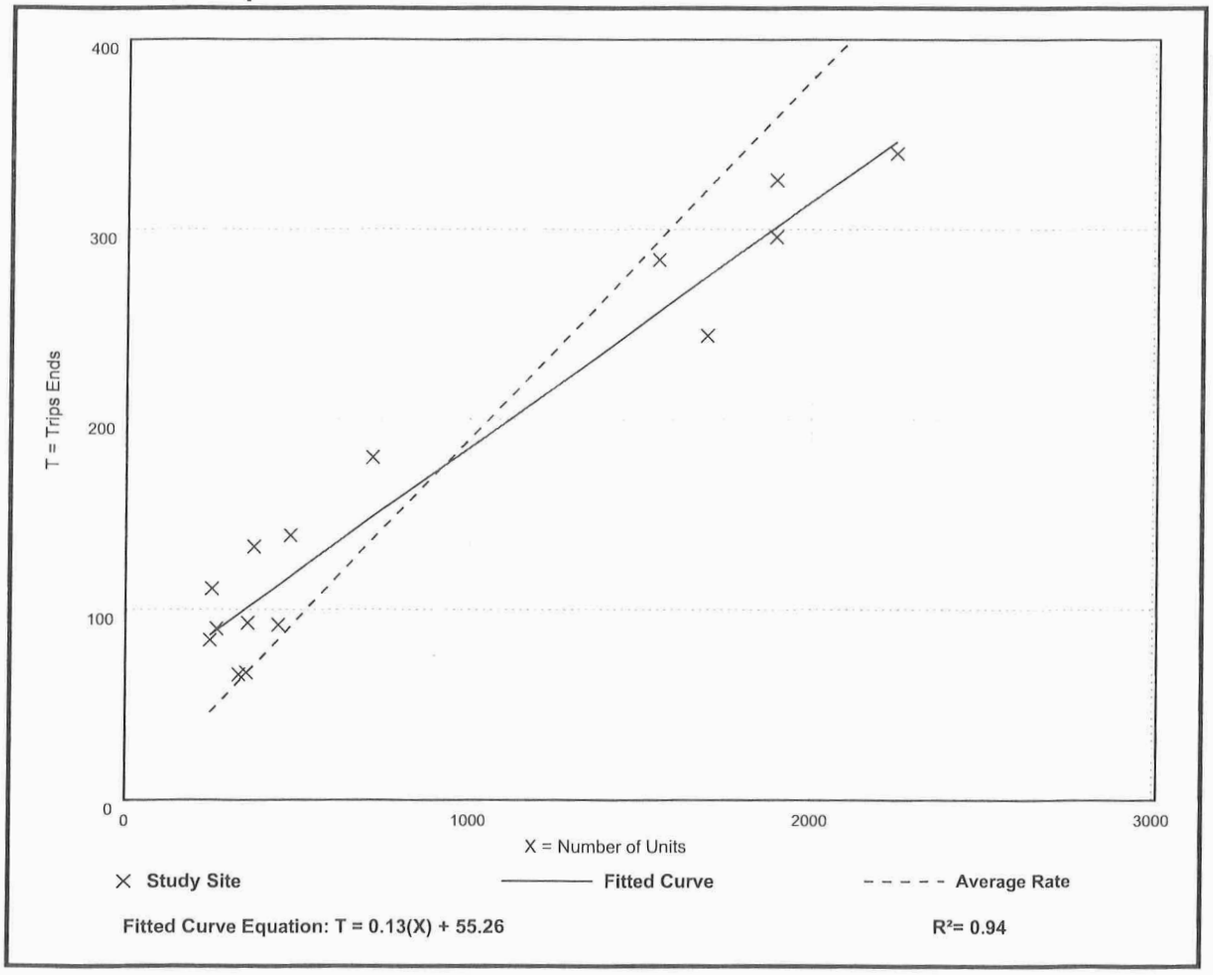
Continuing Care Retirement Community (255)

Vehicle Trip Ends vs: Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 15
Avg. Num. of Units: 871
Directional Distribution: 39% entering, 61% exiting

Vehicle Trip Generation per Unit

Average Rate	Range of Rates	Standard Deviation
0.19	0.14 - 0.45	0.07

Data Plot and Equation



Continuing Care Retirement Community (255)

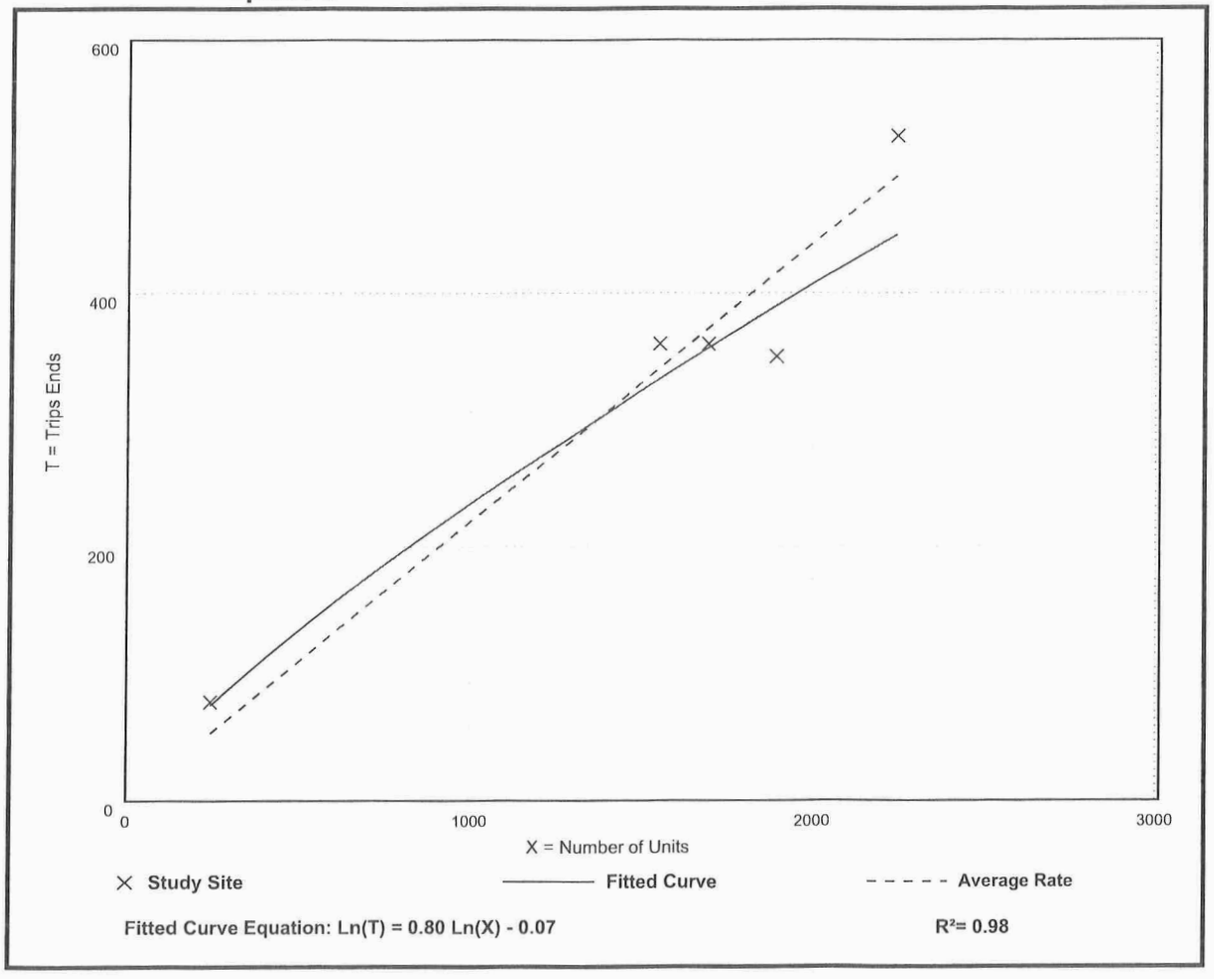
Vehicle Trip Ends vs: Units
On a: Sunday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 5
Avg. Num. of Units: 1523
Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per Unit

Average Rate	Range of Rates	Standard Deviation
0.22	0.18 - 0.32	0.03

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.80 Ln(X) - 0.07

R^2= 0.98

SCHEDULE OF DEVELOPMENT
(ESTIMATE)

DATE	EVENT
November-December 2025	Requests for Expressions of Interest from prospective residents of Three Crowns Park
January 2026	Applications for: (2) Certificate of Appropriateness; (2) Amendment to Planned Development Ordinance #33-O-05; (3) Amendment to Special Use Ordinance #67-O-81, #115-O-82 and #112-O-83 and (4) Site Development Allowances to vary the requirements of (i) Section 6-8-5-7(A), to allow parking within a front yard (fronting McDaniel Ave, Colfax St, Pioneer Rd, and Grant St) where parking within a front yard is prohibited; (ii) Section 6-16-2-1(C)1, to allow parking in a front yard abutting a street (McDaniel Ave, Colfax St, Pioneer Rd, and Grant St) where parking in a front yard abutting a street is prohibited and (iii) Section 6-4-6-3(B), to allow open off-street parking in a front yard setback where open off-street parking is required to be located within 30-feet of a rear lot line (hereinafter collectively the "Land Use Applications").
February-April 2026	Public hearings on Land Use Applications.
May-July 2026	Permit issuance and commence construction.
August 2026-September 2027	Construction