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# COURTYARD REHABILITATION

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Evanston, Illinois 60201 4446  
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Project

**Lake Forest Library  
Courtyard  
Rehabilitation**

360 East Deerpath Road  
Lake Forest, IL 60045

Client

**Lake Forest Library**

360 East Deerpath Road  
Lake Forest, IL 60045

### SCOPE OF WORK

SCOPE OF WORK SHALL BE INCLUSIVE OF ALL LABOR, MATERIALS, OVERHEAD, PROFIT, TAXES, INSURANCE NOT PROVIDED BY OWNER, PROJECT MANAGEMENT, FIELD ENGINEERING, SUPERVISION, STORAGE, PROTECTION, HOISTING, PERMITS, DELIVERY, EQUIPMENT, TOOLS, LAYOUT, AND SAFE ACCESS FOR A/E AND CODE AUTHORITY INSPECTION, AS REQUIRED FOR THE FULL PERFORMANCE OF THE WORK LISTED BELOW AND INDICATED IN THE DRAWINGS AND SPECIFICATIONS.

- WHERE INDICATED, PROTECT EXISTING TREES IN PLACE. REMOVE OTHER PLANTINGS AS NECESSARY TO PERFORM THE WORK.
- REMOVE AND SALVAGE THE EXISTING IRON GATES. SANDBLAST, PRIME, AND PAINT AND PREPARE FOR REINSTALLATION.
- REMOVE AND DISCARD THE EXISTING STEEL FENCES.
- DISMANTLE THE EXISTING COURTYARD MASONRY WALLS. SALVAGE INTACT BRICKS AND STONE UNITS. PROTECT THE EXISTING CONCRETE FOUNDATIONS IN PLACE.
- CONSTRUCT NEW REINFORCED CONCRETE MASONRY COURTYARD WALL, CLAD WITH SALVAGED AND NEW BRICK AND LIMESTONE.
- REINSTALL EXISTING IRON GATES WITH NEW HARDWARE.
- REMOVE EXISTING PAIRED WOOD DOORS. FABRICATE AND INSTALL NEW CUSTOM WOOD DOOR WITH NEW HARDWARE.
- REMOVE EXISTING COURTYARD PAVING. REMOVE EXISTING CONCRETE STOOP. RE-GRADE COURTYARD TO NEW LEVEL. INSTALL NEW CONCRETE SLAB AND MORTAR-SET STONE PAVERS. GRADE AND PREPARE THE PLANTING AREAS FOR NEW LANDSCAPING.
- EXCAVATE TO FOOTING. WATERPROOF FOUNDATION WALL OF 1931 BUILDING.
- INSTALL NEW DRAIN TILE, CATCH BASINS, AND SUBSURFACE PIPING. CONNECT DRAIN TILE TO EXISTING SUMP PUMPS. PROVIDE ELECTRIC HEAT TRACE AT EXISTING WEST COURTYARD SUMP PUMP.
- INSTALL NEW AREA DRAINS CONNECTED TO NEW SUBSURFACE PIPING.
- REFURBISH AND REINSTALL TWO EXISTING WALL-MOUNTED LIGHTING FIXTURES. INSTALL NEW EXTERIOR PATHWAY LIGHTING AND NEW RECEPTACLES.
- PERFORM MAINTENANCE REPAIRS AT THE FACADES OF THE 1931 BUILDING WITHIN THE COURTYARD. REPOINT SELECTED MORTAR JOINTS ON A UNIT PRICE BASIS. PREPARE AND REPAINT EXISTING WOOD WINDOWS. REMOVE NON-ORIGINAL WOOD TRIM AT INTERIOR.

ALTERNATE 1: PROVIDE AN ADDITIONAL EXTENT OF THE PAVEMENT ASSEMBLY IN THE EAST COURTYARD. REMOVE TWO TREES, AND RELOCATE SCULPTURE AND DEDICATORY PLAQUE TO A NEW CONCRETE PAD.

ALTERNATE 2: FURNISH AND INSTALL FOUR CAST CONCRETE URNS ATOP THE NEW MASONRY WALLS

### GENERAL NOTES

- DRAWINGS AND ASSOCIATED SPECIFICATIONS APPLY ONLY TO THE COURTYARD REHABILITATION AT LAKE FOREST LIBRARY AND SHALL NOT BE USED FOR ANY OTHER PURPOSE WITHOUT SPECIFIC WRITTEN CONSENT OF WISS, JANNEY, ELSTNER ASSOCIATES, INC., AND LAKE FOREST LIBRARY. ANY UNAUTHORIZED USE OF THIS WORK PRODUCT SHALL BE AT USER'S SOLE RISK AND USER SHALL INDEMNIFY WISS, JANNEY, ELSTNER ASSOCIATES, INC., AND LAKE FOREST LIBRARY AGAINST ANY LIABILITY OR LEGAL EXPOSURE RELATED TO THE UNAUTHORIZED USE.
- THE LAKE FOREST LIBRARY IS A CONTRIBUTING HISTORIC STRUCTURE IN THE EAST LAKE FOREST HISTORIC DISTRICT. ALL WORK ON THE PROPERTY MAY BE REVIEWED BY THE CITY OF LAKE FOREST HISTORIC PRESERVATION COMMISSION. ALL WORK SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE SECRETARY OF THE INTERIORS STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES.
- MOCKUPS SHALL BE PREPARED FOR EACH REPAIR TYPE. TYPICALLY, THE FIRST INSTALLED WORK OF EACH SCOPE ITEM SHALL BE REVIEWED AS A MOCKUP.
- DRAWINGS AND NOTES ARE COMPLEMENTARY, ARE TO BE TAKEN AS A WHOLE, AND SHOULD INCLUDE SUFFICIENT INFORMATION NECESSARY FOR THE EXECUTION AND COMPLETION OF THE WORK IN A MANNER CONSISTENT WITH THE DESIGN INTENT. IN THE ABSENCE OF EXPLICIT OR REASONABLY INFERRABLE INFORMATION ON DRAWINGS OR IN NOTES, PROMPTLY SEEK CLARIFICATION FROM A/E AS A REQUEST FOR INFORMATION.
- SPECIFIED PRODUCTS ARE BELIEVED TO HAVE PROPERTIES ADEQUATE FOR THE INTENDED PURPOSE. IF CONTRACTOR HAS PREVIOUSLY FOUND SPECIFIED PRODUCTS TO BE UNACCEPTABLE FOR ANY REASON, CONTRACTOR SHALL PROMPTLY INFORM A/E AS A REQUEST FOR SUBSTITUTION.
- PROMPTLY REPORT TO A/E AS A REQUEST FOR INFORMATION KNOWN OR SUSPECTED ERRORS, INCONSISTENCIES, OR OMISSIONS WITHIN OR BETWEEN DRAWINGS AND NOTES AS WELL AS KNOWN OR SUSPECTED VARIANCE OF DRAWINGS AND NOTES FROM EXISTING CONDITIONS. FOR BIDDING PURPOSES ONLY AND UNLESS OTHERWISE DIRECTED BY A/E, THE MORE STRINGENT REQUIREMENT OR BETTER QUALITY SHALL TAKE PRECEDENCE.
- DIMENSIONS, QUANTITIES, AND GEOMETRIES PROVIDED FOR EXISTING CONSTRUCTION ARE BASED ON AVAILABLE DRAWINGS AND LIMITED FIELD DOCUMENTATION. FIELD VERIFY APPLICABLE INFORMATION PRIOR TO SUBMITTING A BID, ORDERING MATERIALS, OR OTHERWISE COMMITTING RESOURCES TO THE WORK. PROVIDED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE DRAWINGS.
- PROVIDE LABOR, MATERIALS, EQUIPMENT, SUPERVISION, AND COORDINATION DIRECTLY AND INCIDENTALLY NECESSARY TO PERFORM THE WORK IN ACCORDANCE WITH CONTRACT DOCUMENTS.
- ACTIVITIES OR DUTIES OF A/E OR TESTS, INSPECTIONS, OR APPROVALS REQUIRED OR PERFORMED BY THIRD PARTIES SHALL NOT RELIEVE CONTRACTOR OF ITS OBLIGATION TO PERFORM THE WORK IN ACCORDANCE WITH CONTRACT DOCUMENTS.
- SECURE AND PAY FOR ALL PERMITS, FEES, LICENSES, AND INSPECTIONS BY GOVERNMENT AGENCIES NECESSARY FOR PROPER AND COMPLIANT EXECUTION AND COMPLETION OF THE WORK.
- COMPLY WITH AND GIVE NOTICES REQUIRED BY LAWS, STATUTES, ORDINANCES, CODES, RULES AND REGULATIONS, AND LAWFUL ORDERS OF AUTHORITIES HAVING JURISDICTION APPLICABLE TO THE WORK.
- SUPPLY OWNER WITH SAFETY DATA SHEETS (SDS) FOR EACH CHEMICAL THAT WILL BE BROUGHT ONTO PROPERTY.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR, AND SHALL HAVE SOLE CONTROL OVER, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES, AND FOR COORDINATING ALL PORTIONS OF THE WORK. A/E AND OWNER HAVE NO SUCH RESPONSIBILITIES. SPECIFIC INSTRUCTION THAT MAY BE GIVEN IN CONTRACT DOCUMENTS CONCERNING CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES SHALL NOT RELIEVE CONTRACTOR OF ITS RESPONSIBILITY FOR CONTROL AND COORDINATION.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE PERFORMANCE OF THE WORK. A/E AND OWNER HAVE NO SUCH RESPONSIBILITIES BEYOND ITS OWN EMPLOYEES OR CONSULTANTS.
- THE WORK WILL BE PERFORMED AT AN OCCUPIED AND OPERATIONAL BUILDING. COORDINATE CONSTRUCTION ACTIVITIES AND PROCEDURES WITH OWNER TO (A) MAINTAIN UNOBSTRUCTED EXISTING MEANS OF EGRESS FROM BUILDING; (B) COMPLY WITH OWNER'S SECURITY PROCEDURES AND REQUIREMENTS; AND (C) PROVIDE NOT LESS THAN 48 HOURS ADVANCE NOTICE TO AND GAIN APPROVAL FROM OWNER PRIOR TO CONSTRUCTION ACTIVITIES THAT WILL DISRUPT NORMAL USE OF BUILDING (INCLUDING EXCEPTIONAL NOISE AND/OR VIBRATIONS, UNCONTROLLED DUST, OBTRUSIVE ODORS, OR INTERRUPTIONS OF UTILITIES) WORK NOT COORDINATED AND APPROVED IN ADVANCE THAT DISRUPTS THE NORMAL USE OF THE BUILDING MAY BE STOPPED UNTIL PROPER COORDINATION AND APPROVAL IS ACHIEVED. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COSTS INCURRED AS A CONSEQUENCE OF STOPPAGE.
- SUBMIT PROPOSED DEMOLITION AND CONSTRUCTION SCHEDULES TO OWNER PRIOR TO BEGINNING WORK. PROCEED WITH THE WORK ONLY AFTER A MUTUALLY AGREEABLE SCHEDULE HAS BEEN ESTABLISHED. REGULARLY REVISE SCHEDULE TO REFLECT PROGRESS OF THE WORK.
- MAINTAIN PREMISES AND SURROUNDING AREA FREE FROM ACCUMULATIONS OF WASTE MATERIAL AND RUBBISH RESULTING FROM THE WORK.
- COORDINATE LOCATIONS OF ON-SITE STORAGE OF MATERIALS AND EQUIPMENT WITH OWNER SO AS TO NOT UNREASONABLY ENCUMBER THE SITE. LIMITED ON-SITE STORAGE IS AVAILABLE AT THE SOUTHWEST YARD OF OWNER'S PROPERTY.
- DO NOT ALLOW CONSTRUCTION MATERIALS, EQUIPMENT, OR PROCEDURES TO OVERLOAD OR EXCEED THE STRUCTURAL CAPACITY OF EXISTING CONSTRUCTION TO REMAIN, PARTIALLY COMPLETED WORK, COMPLETED WORK, OR TEMPORARY STAGING OR CANOPIES. MAKE INSPECTIONS AND/OR PERFORM ANALYSES AND TESTS NECESSARY TO VERIFY THAT EXISTING ELEMENTS HAVE ADEQUATE CAPACITY TO SUPPORT PROPOSED CONSTRUCTION LOADS.
- DRAWINGS ILLUSTRATE THE COMPLETED WORK WITH ELEMENTS IN THEIR FINAL INTENDED POSITIONS. PROVIDE SHORING, BRACING, SUPPORT, AND SEQUENCE WORK AS REQUIRED TO MAINTAIN THE STRUCTURAL INTEGRITY OF NEW OR EXISTING CONSTRUCTION DURING THE WORK.
- TEMPORARILY RELOCATE AND RESTORE EXISTING EQUIPMENT AND APPURTENANCES (WHETHER OR NOT SHOWN ON THE DRAWINGS) THAT OBSTRUCT ACCESS TO PORTIONS OF THE WORK.
- DEVELOP, IMPLEMENT, ERECT, AND MAINTAIN SAFEGUARDS TO PREVENT DAMAGE, INJURY, OR LOSS RESULTING FROM THE WORK TO (A) WORKERS, OCCUPANTS, PASSERS-BY, AND OTHER PERSONS; (B) VEHICULAR TRAFFIC; (C) IN-PROGRESS WORK, MATERIALS, AND EQUIPMENT UNDER CARE, CUSTODY, AND CONTROL OF THE CONTRACTOR (WHETHER ON OR OFF SITE); AND (D) OTHER PROPERTY AT THE SITE OR ADJACENT THERETO NOT DESIGNATED AS PART OF THE WORK FOR REMOVAL, RELOCATION, OR REPLACEMENT. IN THE EVENT OF DAMAGE, INJURY, OR LOSS, PROMPTLY NOTIFY A/E AND PRESENT PROPOSED REMEDY.
- DEVELOP, IMPLEMENT, ERECT, AND MAINTAIN SAFEGUARDS TO PROVIDE FOR WATERTIGHT INTEGRITY OF WORK IN PROGRESS. IN THE EVENT OF DAMAGE, INJURY, OR LOSS, PROMPTLY NOTIFY A/E AND PRESENT PROPOSED REMEDY.
- IN AN EMERGENCY AFFECTING SAFETY OF PERSONS OR PROPERTY, ACT TO PREVENT OR STOP FURTHER DAMAGE, INJURY, OR LOSS.
- ALL WORK SHALL BE SUBJECT TO REVIEW BY A/E BEFORE IT IS CONCEALED BY OTHER WORK AND/OR MEANS OF ACCESS IS REMOVED. COORDINATE MANDATORY REVIEWS WITH A/E PRIOR TO START OF CONSTRUCTION. PROVIDE REASONABLE NOTIFICATION TO A/E TO ALLOW FOR SUCH REVIEW AS WORK PROCEEDS.
- PROMPTLY CORRECT WORK REJECTED BY A/E OR FAILING TO CONFORM TO REQUIREMENTS OF THE CONTRACT DOCUMENTS. ASSOCIATED COSTS (INCLUDING ADDITIONAL TESTING OR INSPECTIONS, COST OF UNCOVERING AND CORRECTION, AND COMPENSATION FOR PROFESSIONAL SERVICES AND EXPENSES MADE NECESSARY THEREBY) SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- IF A HAZARDOUS MATERIAL OR SUBSTANCE NOT ADDRESSED IN THE CONTRACT DOCUMENTS IS ENCOUNTERED, IMMEDIATELY STOP WORK IN AFFECTED AREA AND NOTIFY OWNER OF THE CONDITION.

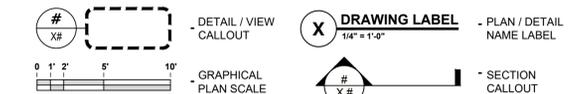
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### ABBREVIATIONS

A/E	ARCHITECT/ENGINEER
E.F.	EACH FACE
MAX.	MAXIMUM
MIN.	MINIMUM
O.C.	ON CENTER
OPP. HAND	OPPOSITE HAND
S.S.	STAINLESS STEEL
SIM.	SIMILAR
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
V.I.F.	VERIFY IN FIELD

### SYMBOL LEGEND:




Mark	Date	Description

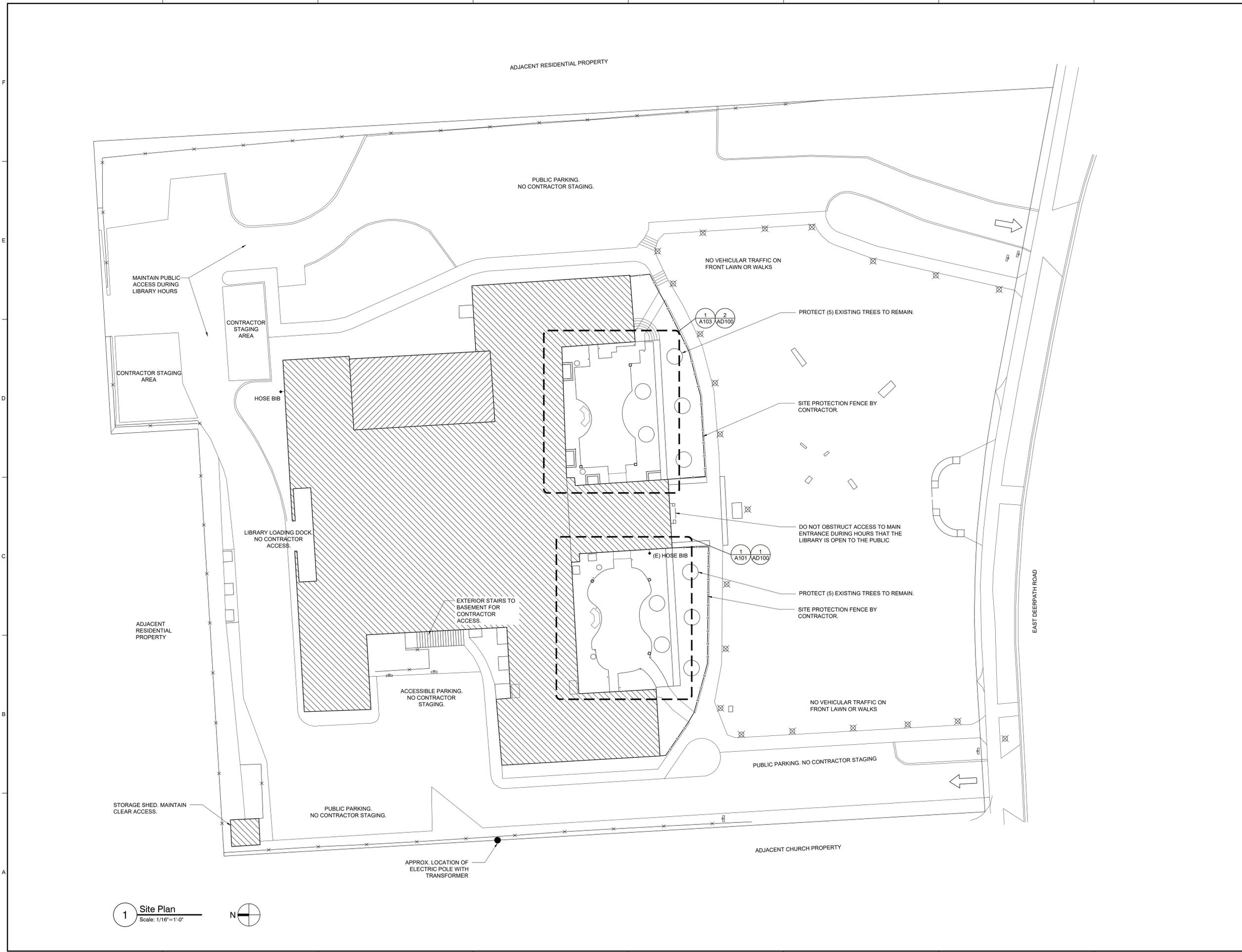
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<b>Cover Page</b>	
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**1 Site Plan**  
 Scale: 1/16" = 1'-0"

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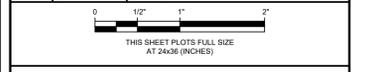
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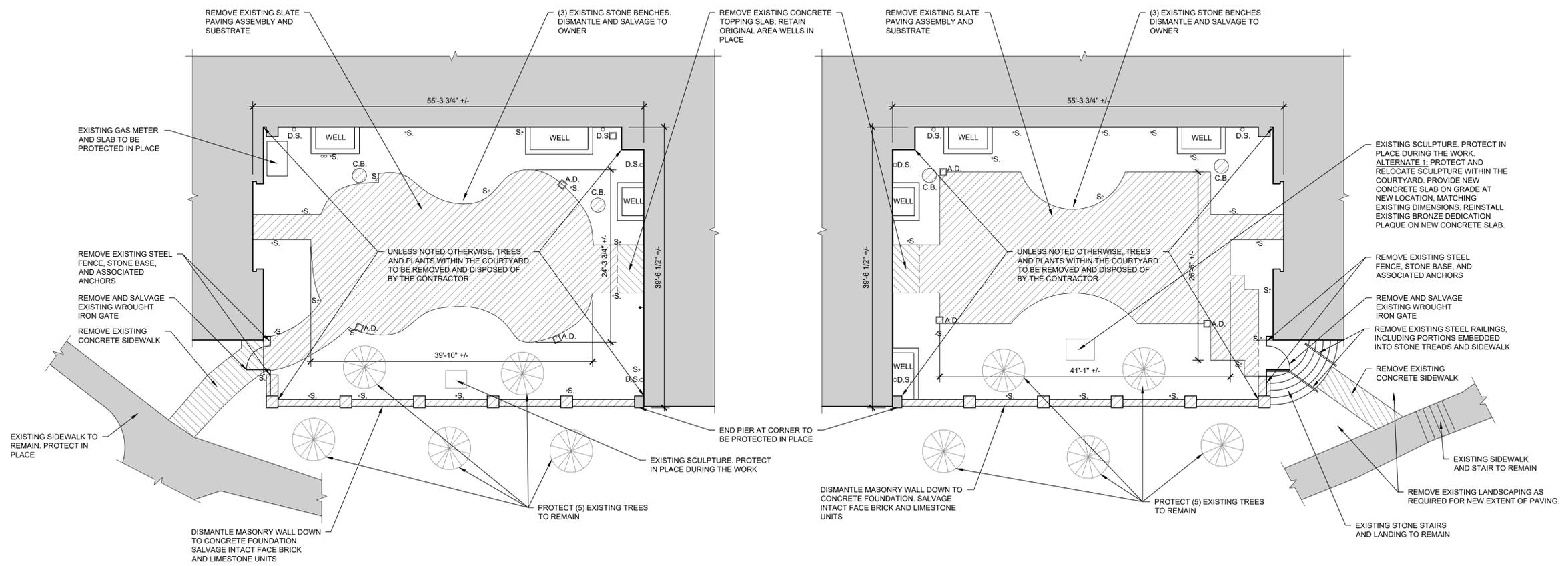


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Sheet Title  
**Site Plan**  
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**1 West Courtyard Demolition Plan**  
 Scale: 1/8"=1'-0"

**2 East Courtyard Demolition Plan**  
 Scale: 1/8"=1'-0"

DEMOLITION LEGEND	
A.D.	EXISTING AREA DRAIN TO BE DEMOLISHED. REFER TO PLUMBING SHEETS
C.B.	EXISTING CATCH BASIN TO BE DEMOLISHED. REFER TO PLUMBING SHEETS
WELL	EXISTING AREA WELL WALLS AND SLAB TO BE RETAINED IN PLACE
D.S.	EXISTING DOWNSPOUT TO REMAIN. REMOVE ASSOCIATED SUBGRADE PIPING. REFER TO PLUMBING SHEETS
S.	EXISTING SPRINKLER HEAD TO BE REMOVED. REMOVE ALL ASSOCIATED PIPING BACK TO CONTROL MANIFOLD. CAP PIPING AT MANIFOLD

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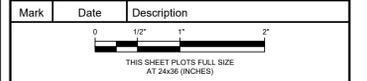
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<b>Demolition Plan</b>	
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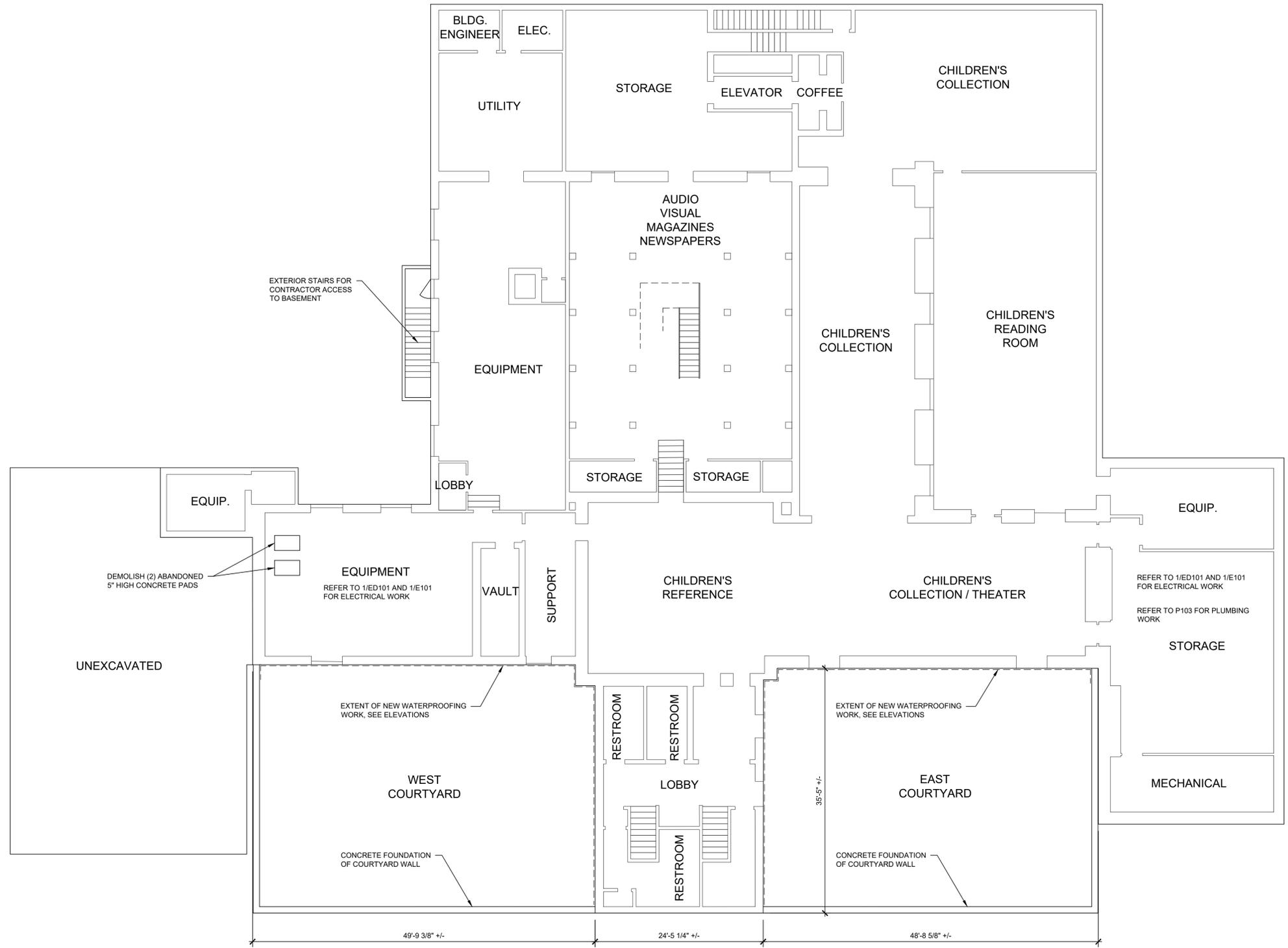
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**Lower Level Floor Plan**

Sheet Title  
**A001**  
Sheet No.

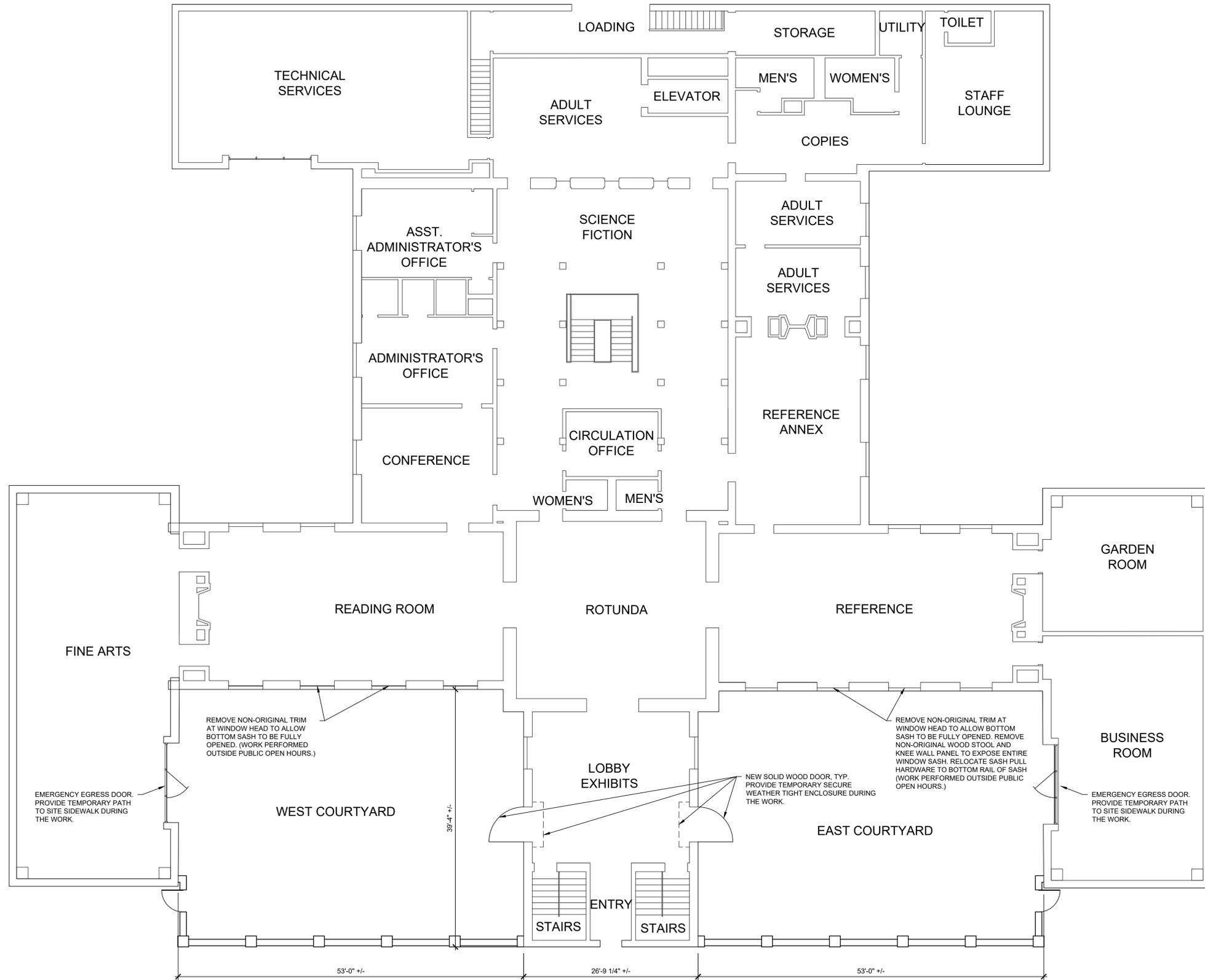


**1 Lower Level Floor Plan**  
Scale: 1/8"=1'-0"



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**1 Main Level Floor Plan**  
Scale: 1/8"=1'-0"



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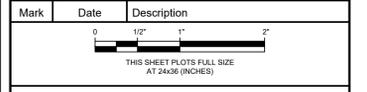
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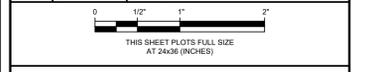
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**Main Level Floor Plan**  
Sheet Title  
Sheet No. **A002**

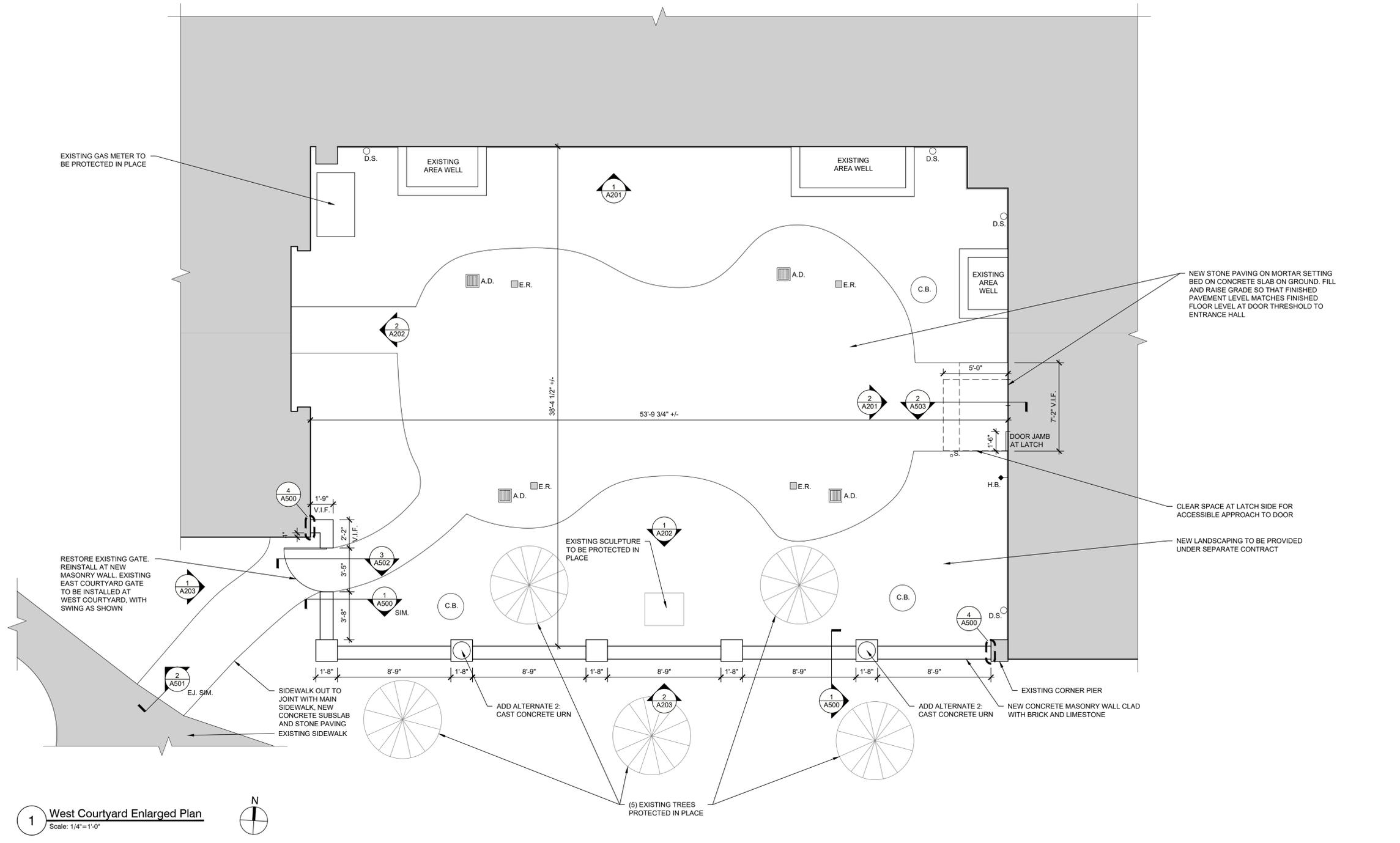
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**1 West Courtyard Enlarged Plan**  
Scale: 1/4"=1'-0"

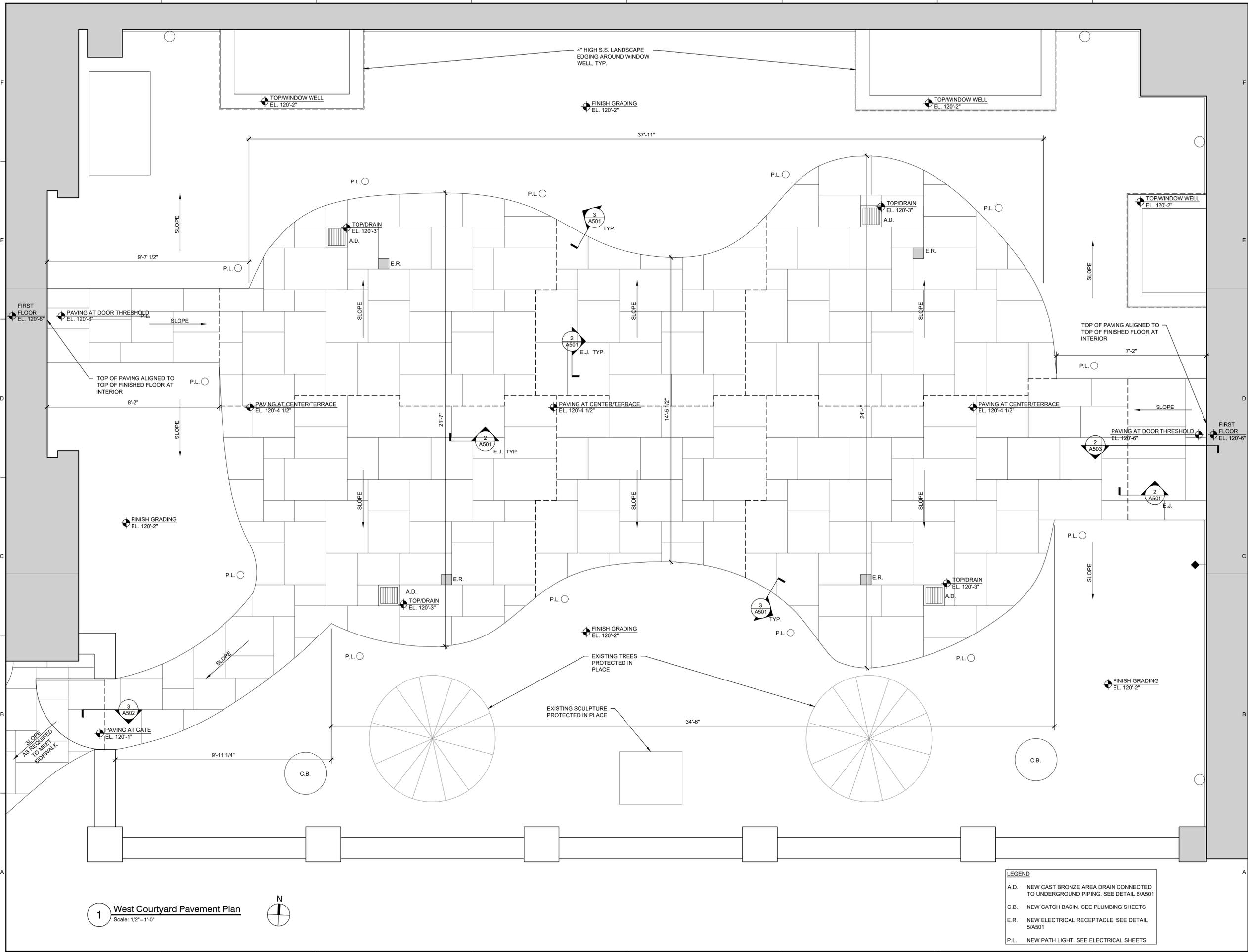


**LEGEND**

D.S.	EXISTING DOWNSPOUT CONNECTED TO NEW SUBGRADE PIPING. SEE PLUMBING SHEETS
H.B.	EXISTING HOSE BIB
A.D.	NEW CAST BRONZE AREA DRAIN CONNECTED TO UNDERGROUND PIPING. SEE DETAIL 6/A501
C.B.	NEW CATCH BASIN. SEE PLUMBING SHEETS
E.R.	NEW ELECTRICAL RECEPTACLE. SEE DETAIL 5/A501

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**1 West Courtyard Pavement Plan**  
Scale: 1/2" = 1'-0"



LEGEND	
A.D.	NEW CAST BRONZE AREA DRAIN CONNECTED TO UNDERGROUND PIPING. SEE DETAIL 6/A501
C.B.	NEW CATCH BASIN. SEE PLUMBING SHEETS
E.R.	NEW ELECTRICAL RECEPTACLE. SEE DETAIL 5/A501
P.L.	NEW PATH LIGHT. SEE ELECTRICAL SHEETS

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Consultants  
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Evanston, Illinois 60201 4446  
(847) 328-3555 grummanbutkus.com

Project  
**Lake Forest Library Courtyard Rehabilitation**  
360 East Deerpath Road  
Lake Forest, IL 60045

Client  
**Lake Forest Library**  
360 East Deerpath Road  
Lake Forest, IL 60045

Client  
**Lake Forest Library**  
360 East Deerpath Road  
Lake Forest, IL 60045

Mark	Date	Description

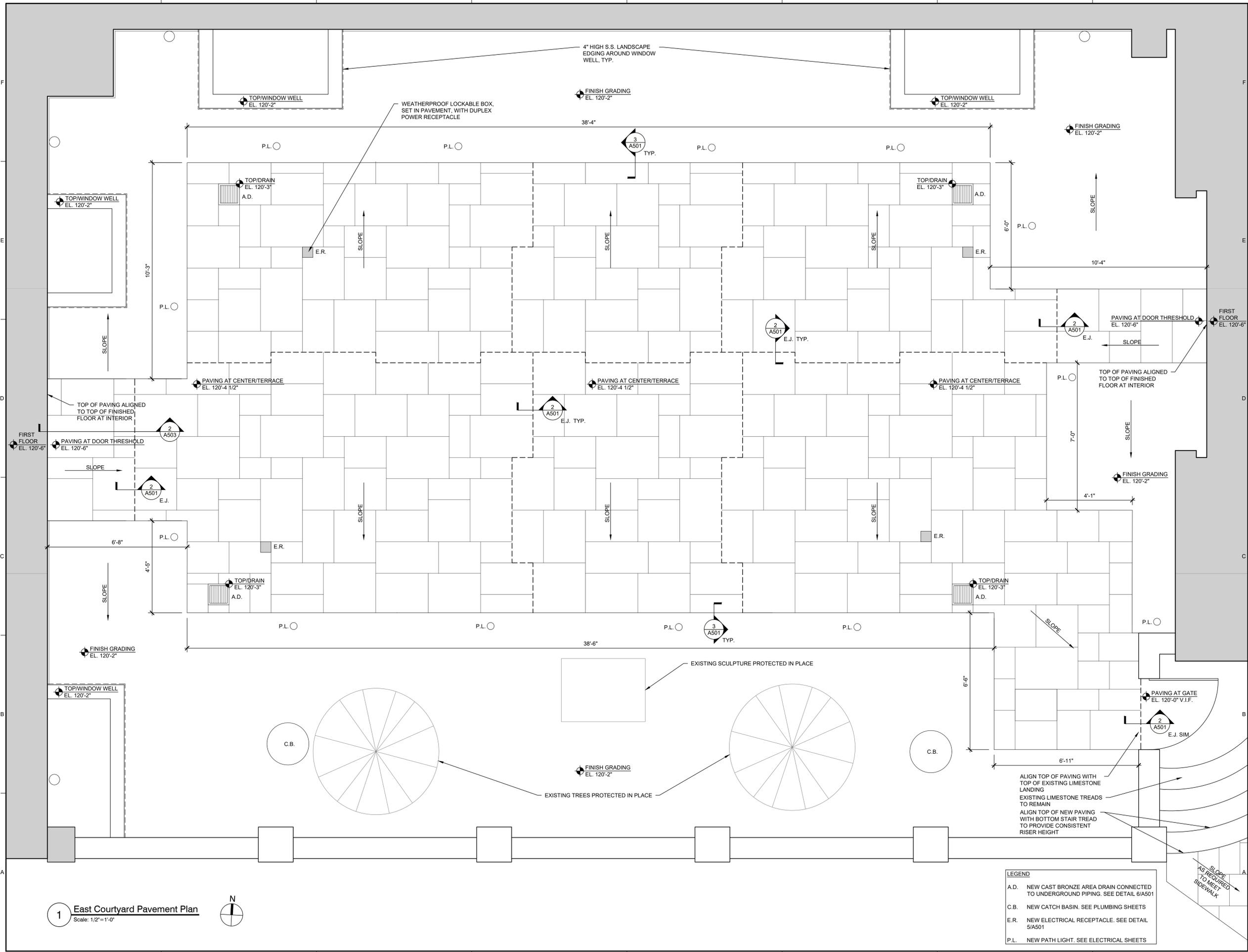
Project No.	2024.3861.0
Date	May 27, 2025
Drawn	ICH / JFC / JH
Checked	KMI / MKH
Scale	As Shown

**West Courtyard Pavement Plan**  
Sheet Title  
Sheet No. **A102**



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**1 East Courtyard Pavement Plan**  
 Scale: 1/2" = 1'-0"



LEGEND	
A.D.	NEW CAST BRONZE AREA DRAIN CONNECTED TO UNDERGROUND PIPING. SEE DETAIL 6/A501
C.B.	NEW CATCH BASIN. SEE PLUMBING SHEETS
E.R.	NEW ELECTRICAL RECEPTACLE. SEE DETAIL 5/A501
P.L.	NEW PATH LIGHT. SEE ELECTRICAL SHEETS

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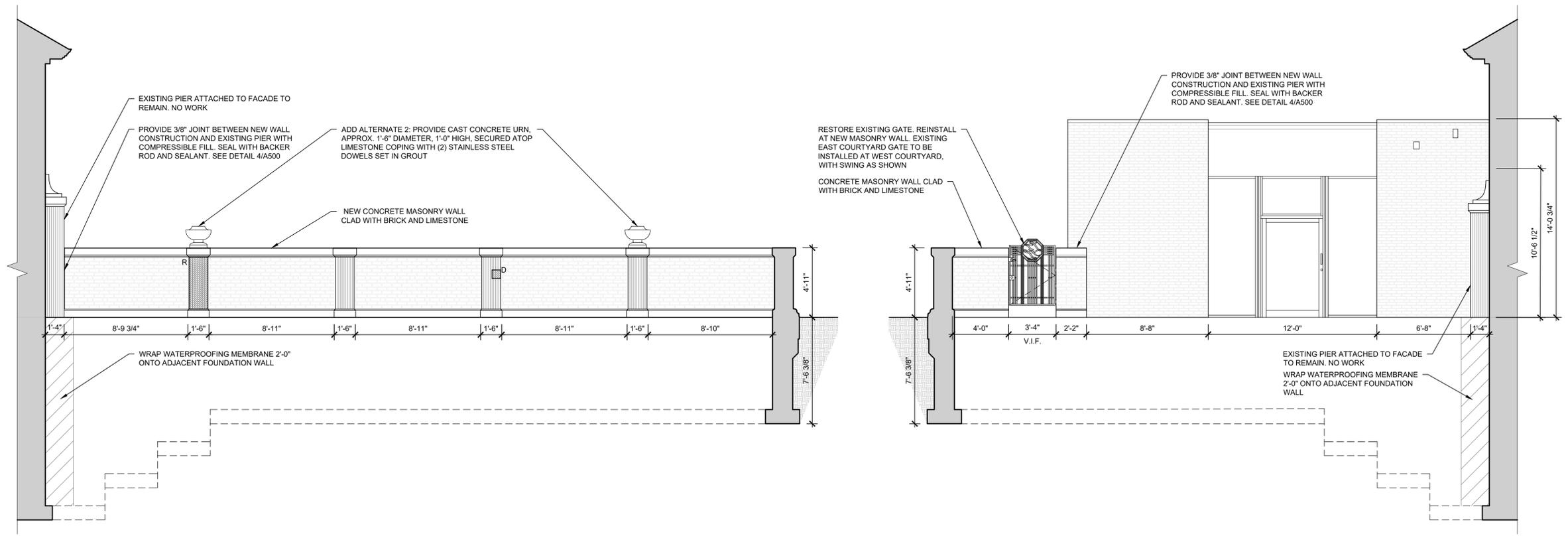
THIS SHEET PLOTS FULL SIZE AT 24x36 (INCHES)

Project No.	2024.3861.0
Date	May 27, 2025
Drawn	ICH / JFC / JH
Checked	KMI / MKH
Scale	As Shown

**Base Bid: East Courtyard Pavement Plan**  
 Sheet Title **A104**  
 Sheet No.

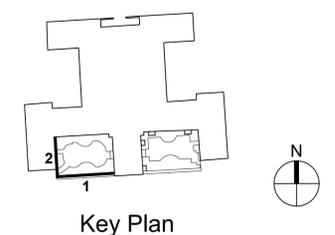






**1 West Courtyard - South Wall (Interior Face)**  
 Scale: 1/4"=1'-0"

**2 West Courtyard - West Wall (Interior Face)**  
 Scale: 1/4"=1'-0"



**LEGEND**

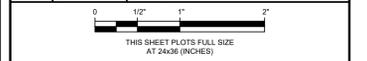
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D	DUTCHMAN REPAIR OF ORIGINAL STONE UNIT. MATCH CARVED PROFILES OF ADJACENT STONE

Mark	Date	Description

0 1/2" 1" 2"  
 THIS SHEET PLOTS FULL SIZE AT 24x36 (INCHES)

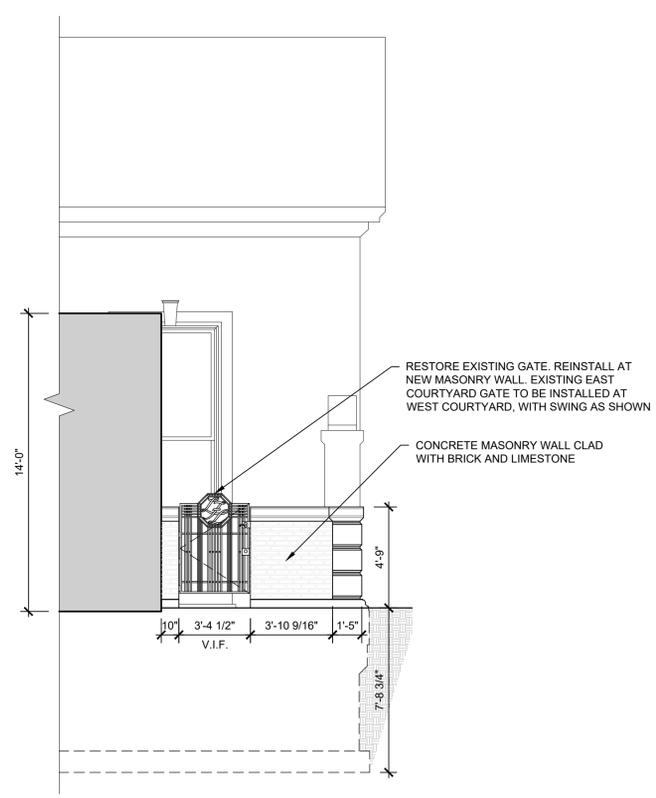
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Scale	As Shown

Mark	Date	Description

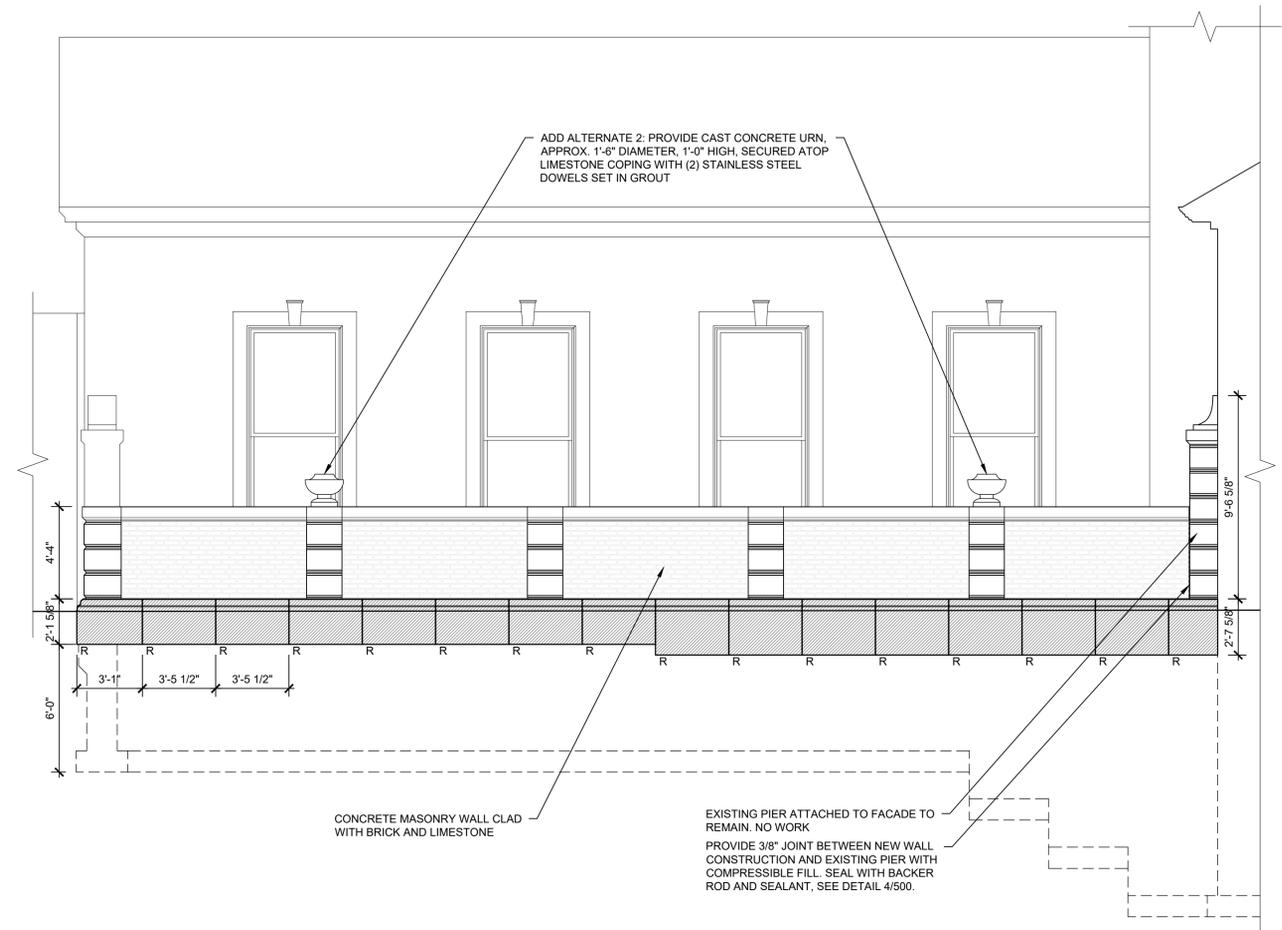


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Date	May 27, 2025
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Checked	KMI / MKH
Scale	As Shown

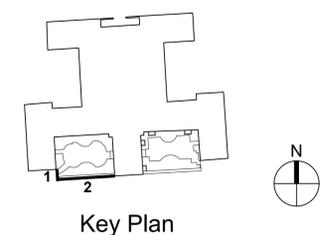
**West Courtyard  
Elevations**



**1 West Courtyard - West Elevation**  
Scale: 1/4"=1'-0"



**2 West Courtyard - South Elevation**  
Scale: 1/4"=1'-0"

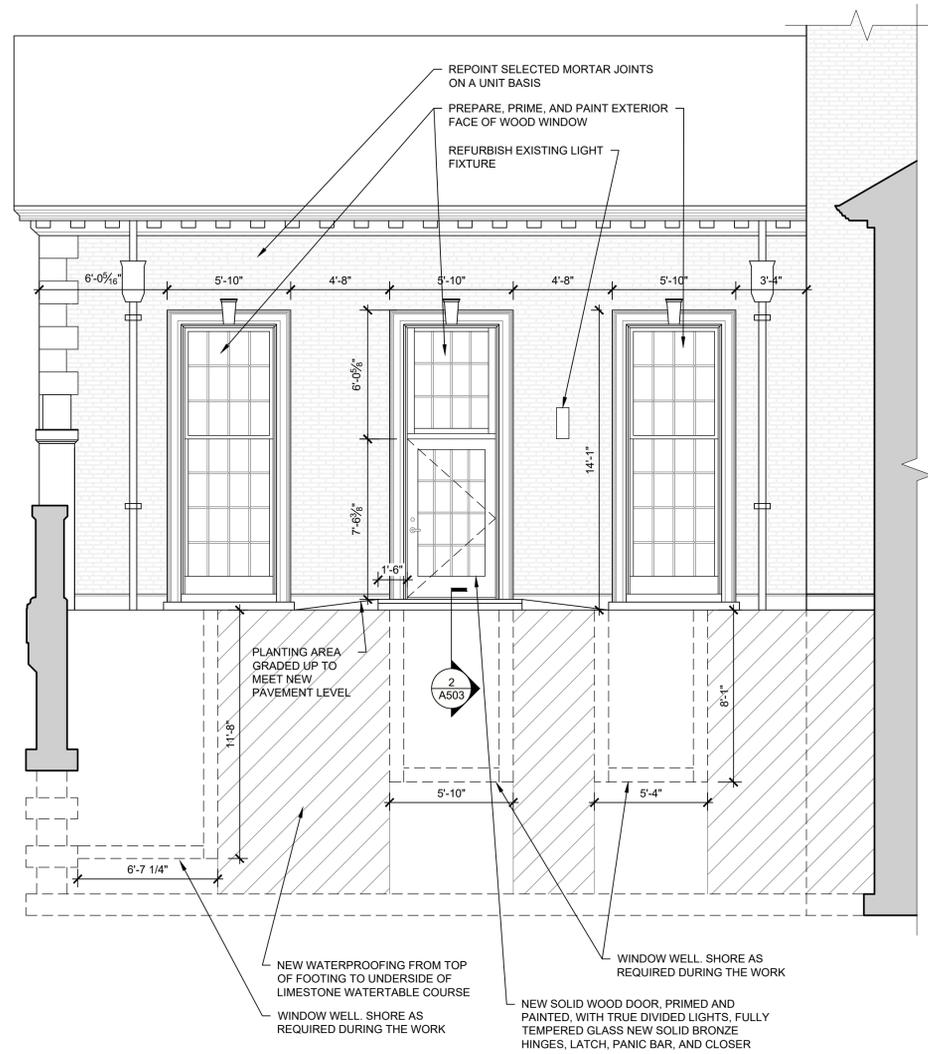


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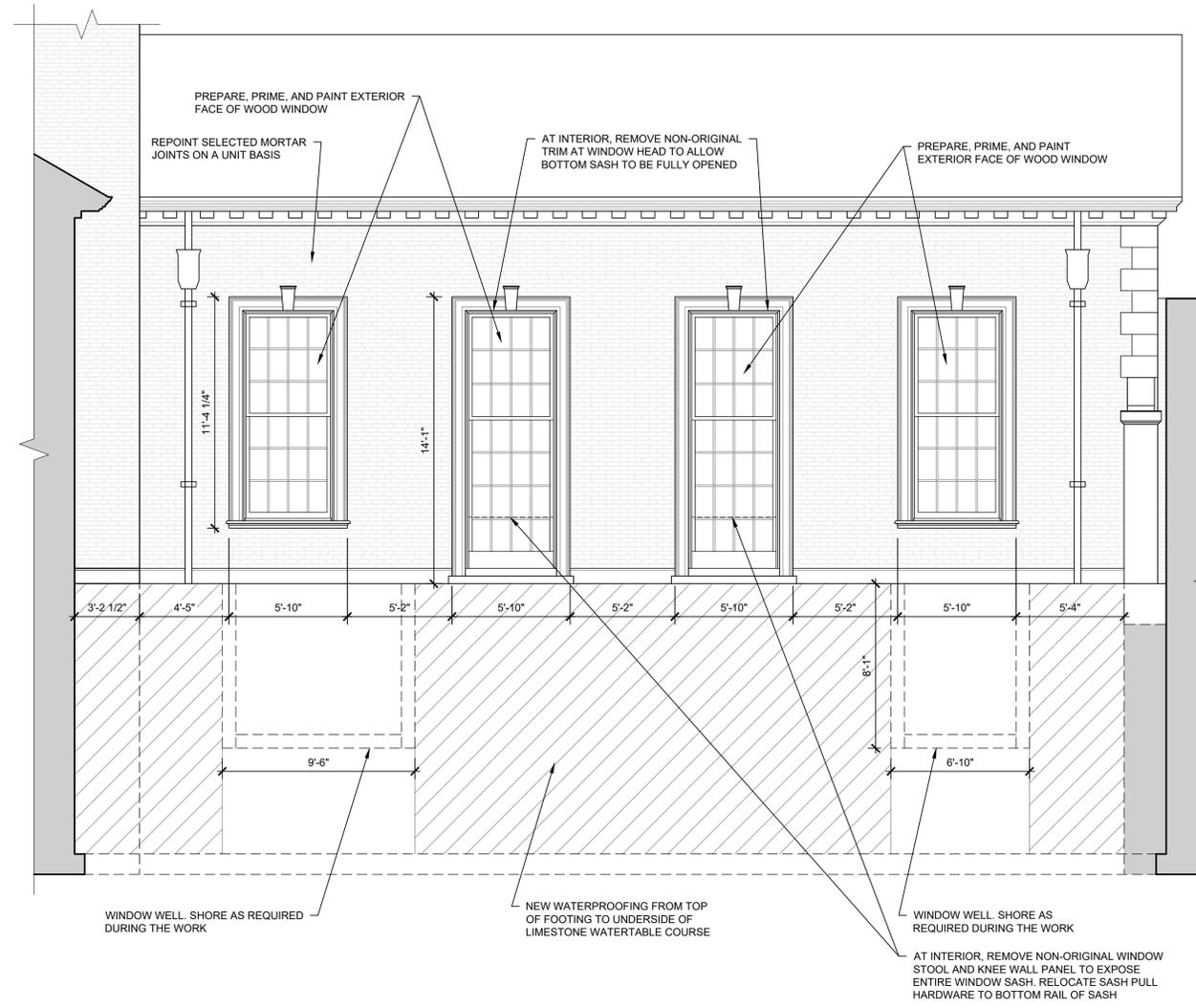
R	REPLACE STONE UNIT WITH NEW LIMESTONE UNIT MATCHING ORIGINAL CARVED PROFILES
D	DUTCHMAN REPAIR OF ORIGINAL STONE UNIT. MATCH CARVED PROFILES OF ADJACENT STONE

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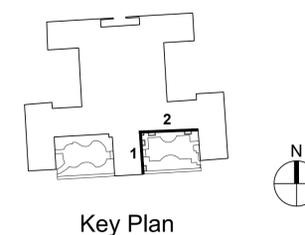
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**1 East Courtyard - West Elevation**  
Scale: 1/4"=1'-0"



**2 East Courtyard - South Elevation of Library**  
Scale: 1/4"=1'-0"



Key Plan

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AT 24x36 (INCHES)

Project No. 2024.3861.0

Date May 27, 2025

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**East Courtyard  
Elevations**

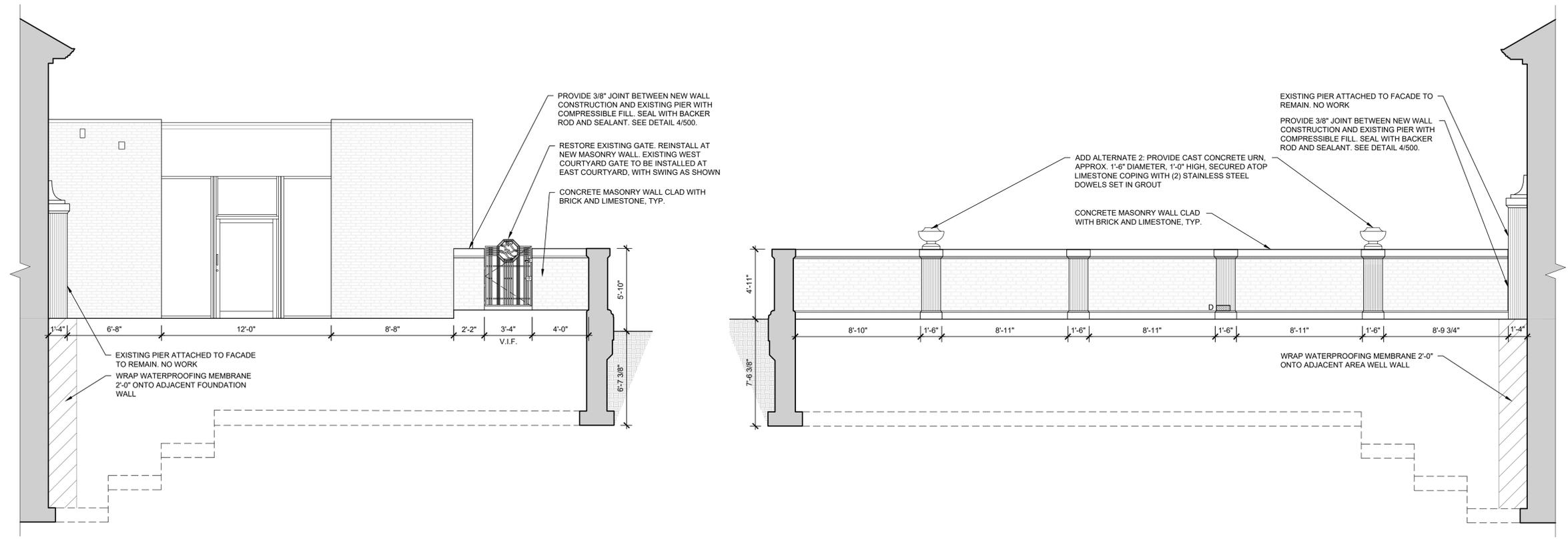
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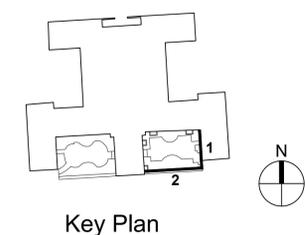
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**1 East Courtyard - East Wall (Interior Face)**  
Scale: 1/4"=1'-0"

**2 East Courtyard - South Wall (Interior Face)**  
Scale: 1/4"=1'-0"

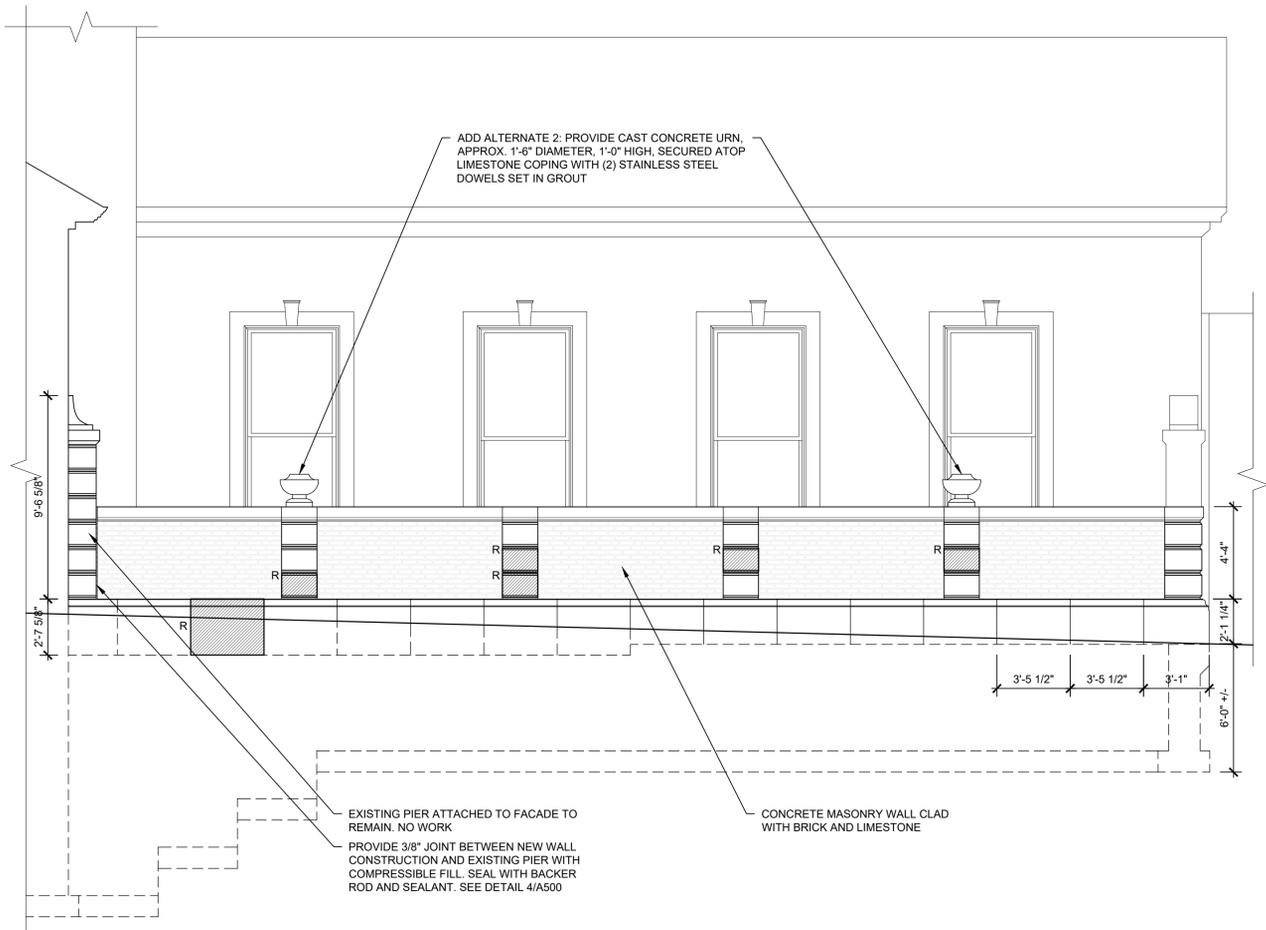


LEGEND	
R	REPLACE STONE UNIT WITH NEW LIMESTONE UNIT MATCHING ORIGINAL CARVED PROFILES
D	DUTCHMAN REPAIR OF ORIGINAL STONE UNIT. MATCH CARVED PROFILES OF ADJACENT STONE

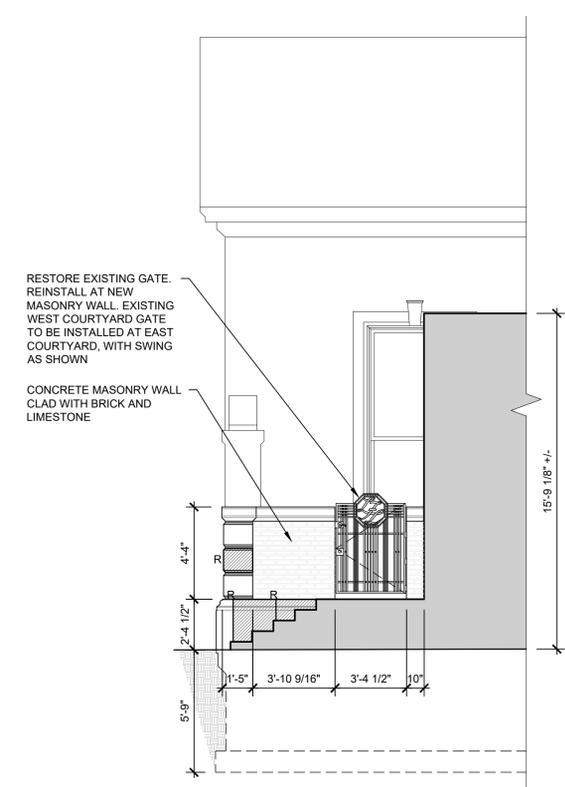
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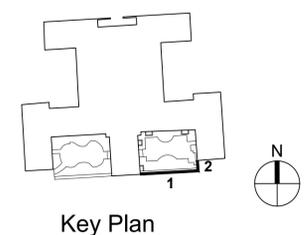
Project No.	2024.3861.0
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Checked	KMI / MKH
Scale	As Shown



**1 East Courtyard - South Elevation**  
Scale: 1/4"=1'-0"



**2 East Courtyard - East Elevation**  
Scale: 1/4"=1'-0"



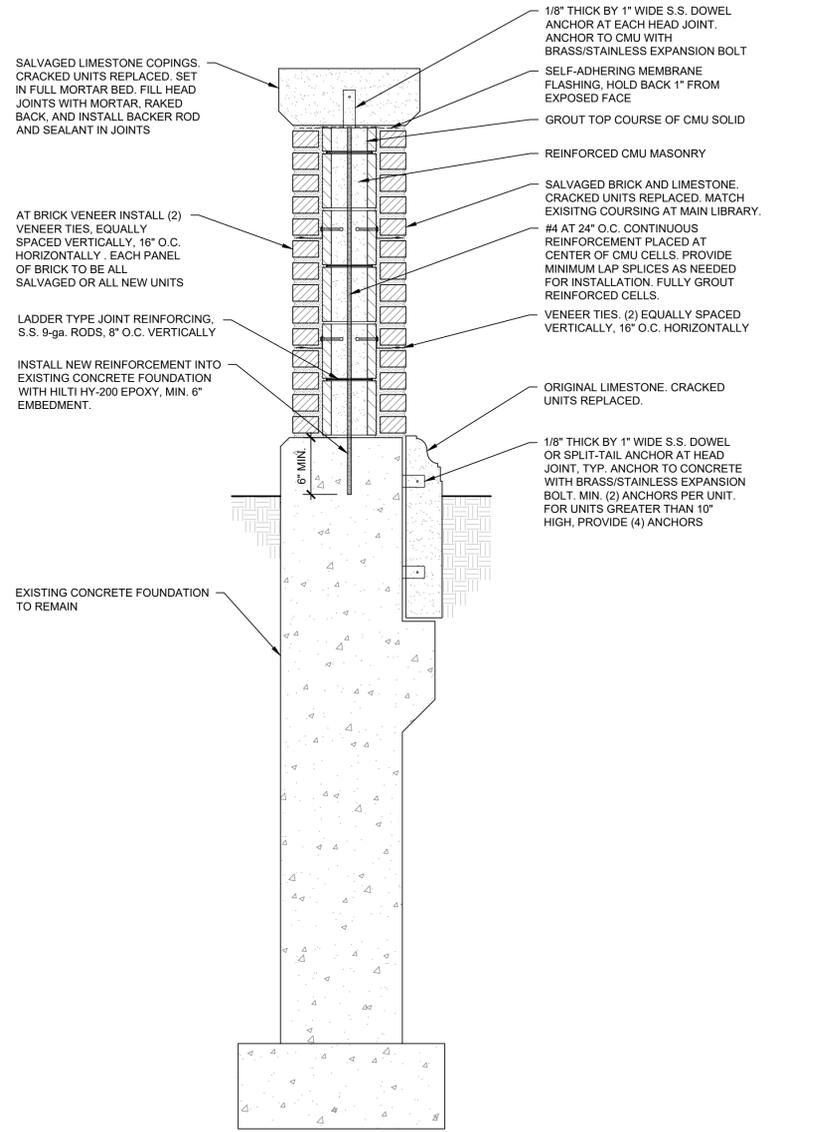
Key Plan

**LEGEND**

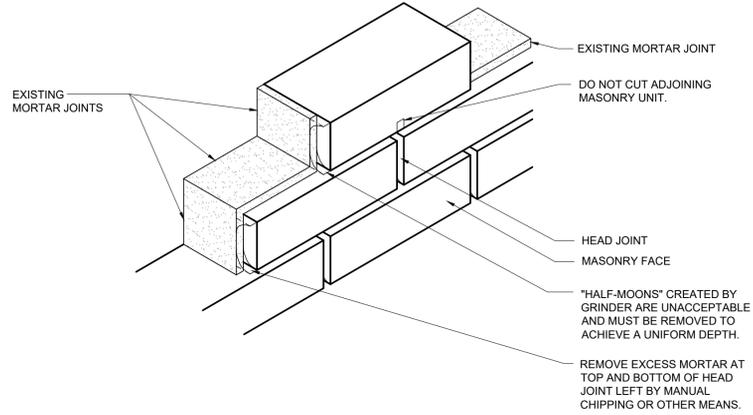
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Mark	Date	Description

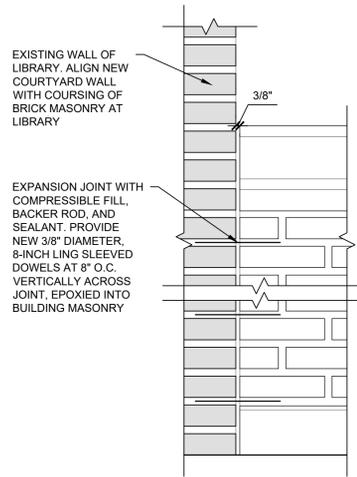
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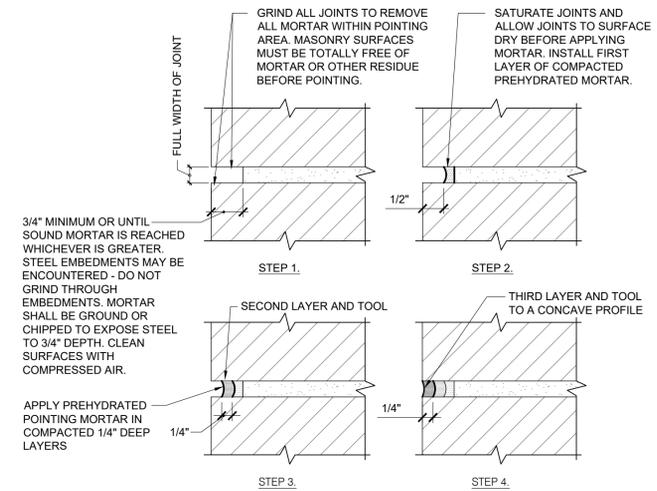
**1** Courtyard Wall Section  
Scale: 1" = 1'-0"



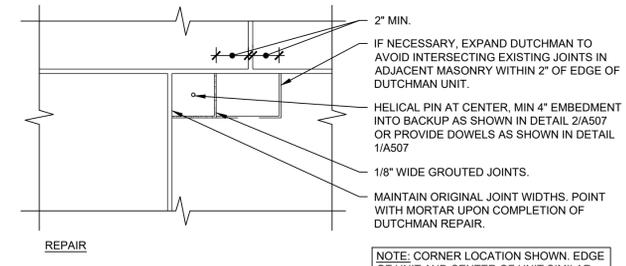
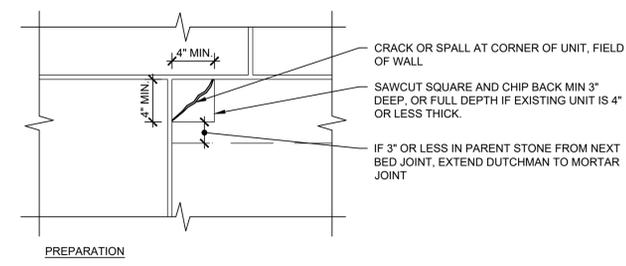
**2** Masonry Joint Preparation  
Scale: Not to Scale



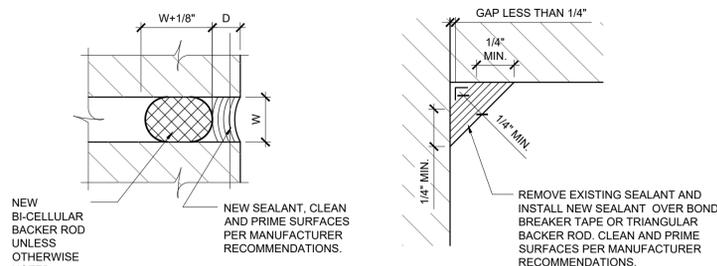
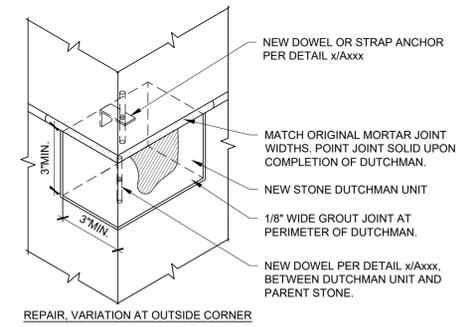
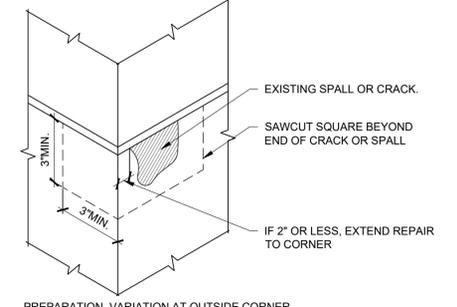
**4** Courtyard Wall at Existing Facade  
Scale: 1-1/2" = 1'-0"



**3** Joint Pointing Detail  
Scale: Not to Scale



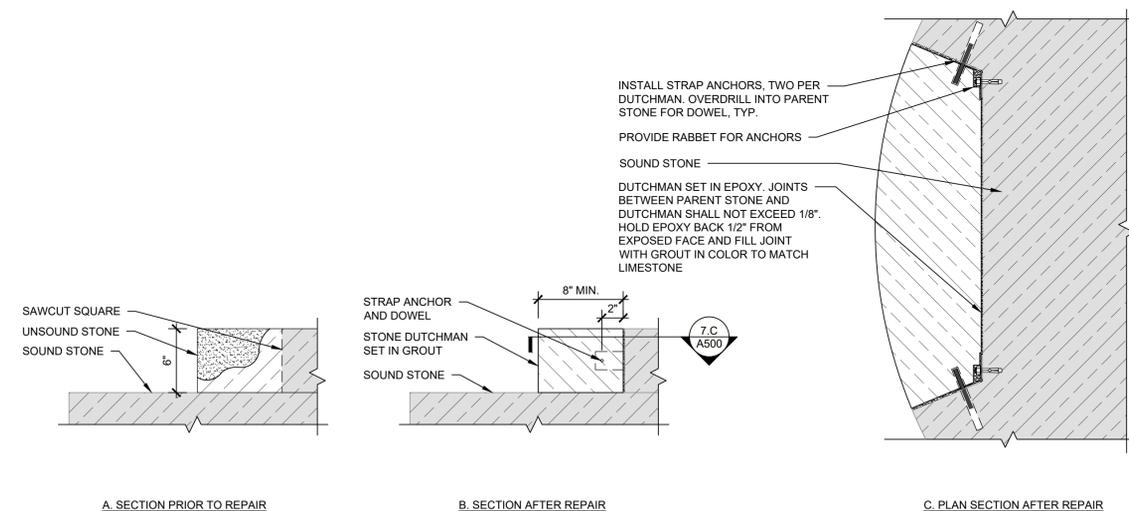
**5** Ashlar Dutchman  
Scale: Not to Scale



**6** Typical Sealant Profiles for Porous Substrates  
Scale: Not to Scale

SEALANT CHART* (BASED ON ASTM C1193)	
D	W
SEE FILLET DETAIL	< 1/4 IN.
1/4 IN.	1/4 TO 1/2 IN.
W/2	1/2 TO 1 IN.
1/2 IN.	GREATER THAN 1 IN.

NOTE:  
\*VERIFY FINAL W AND D DIMENSIONS ARE IN ACCORDANCE WITH SEALANT MANUFACTURER'S RECOMMENDATIONS FOR PRODUCTS BEING USED



**7** East Stair Dutchman  
Scale: 1-1/2" = 1'-0"

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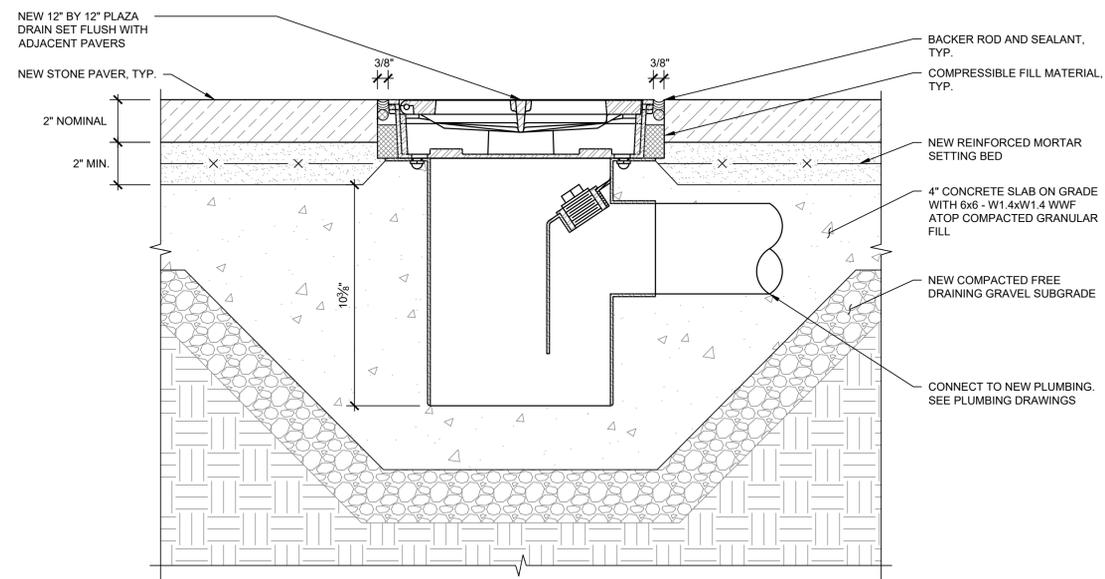
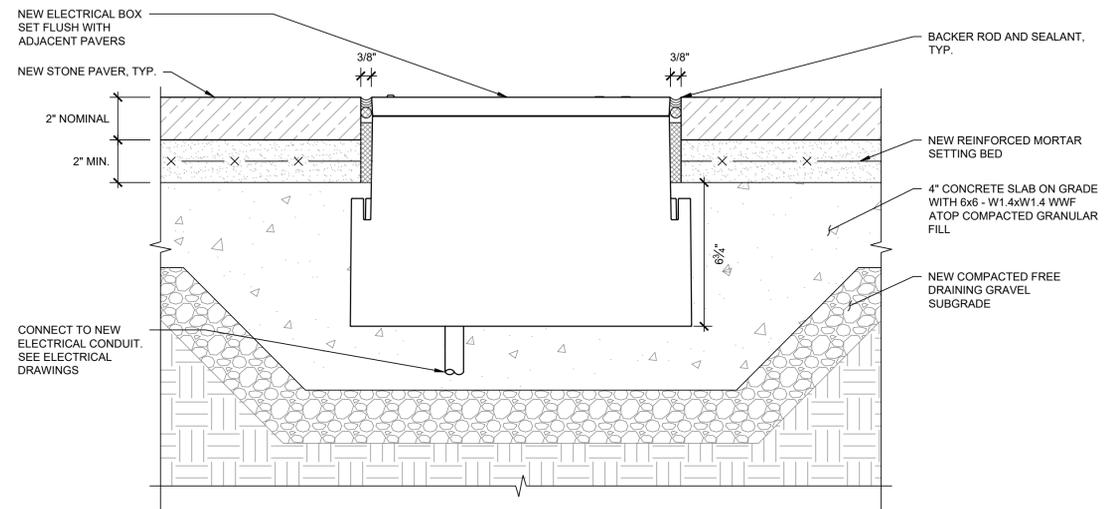
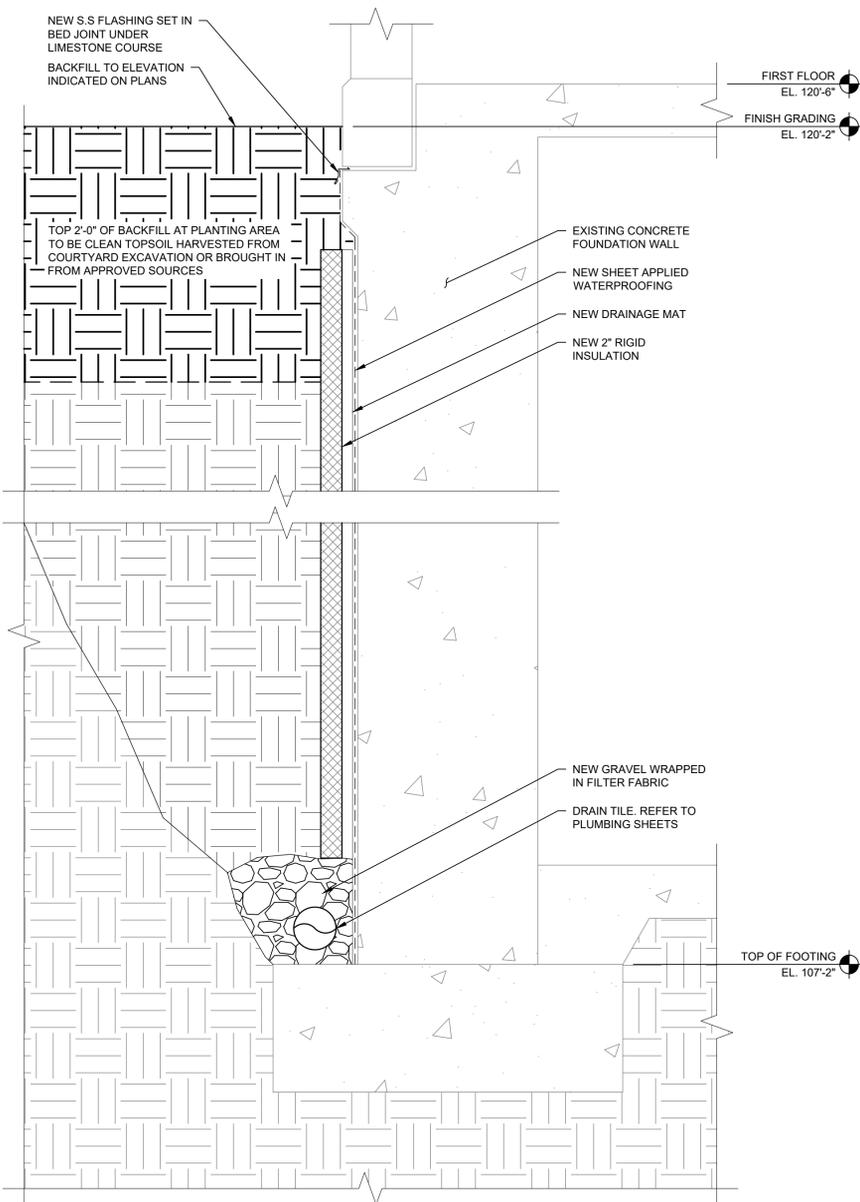
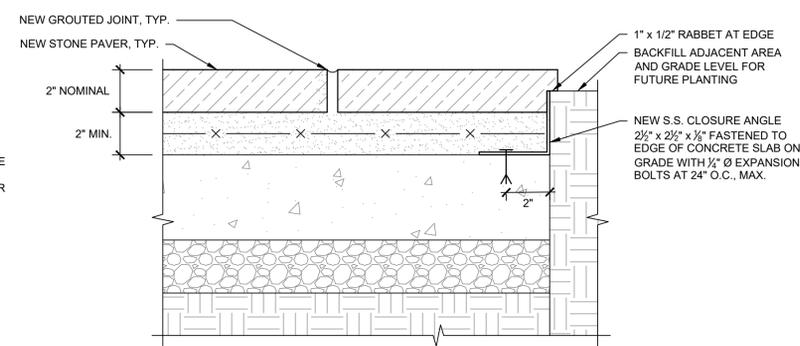
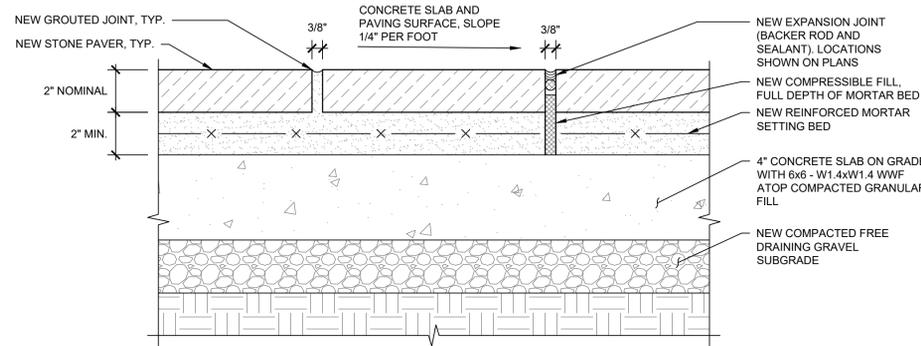
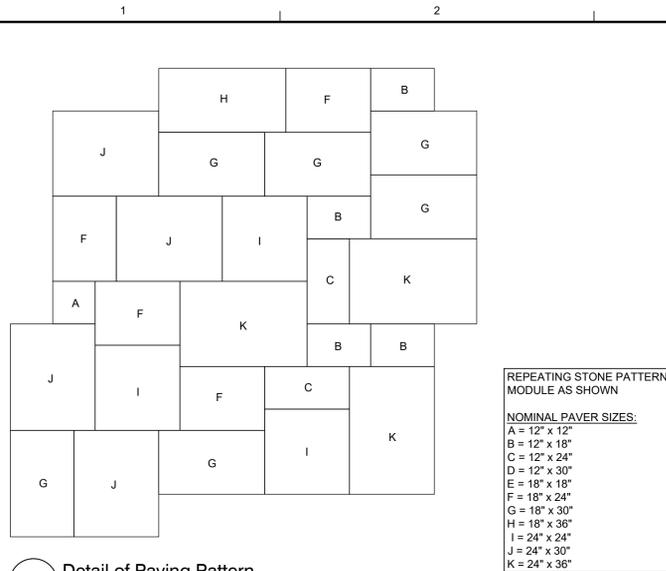
Mark	Date	Description

0 1/2" 1" 2"  
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Sheet Title  
**Masonry Details**

Sheet No. **A500**



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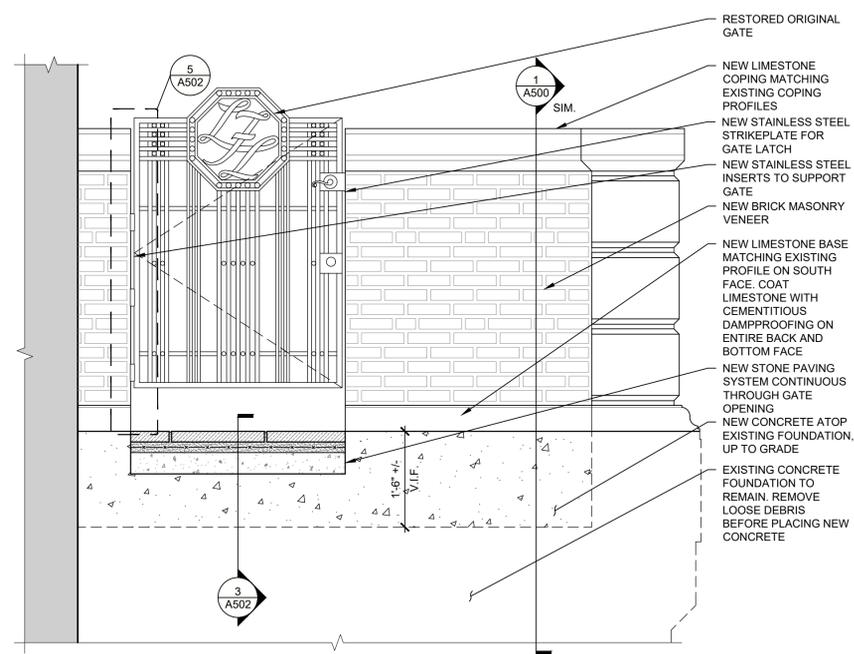
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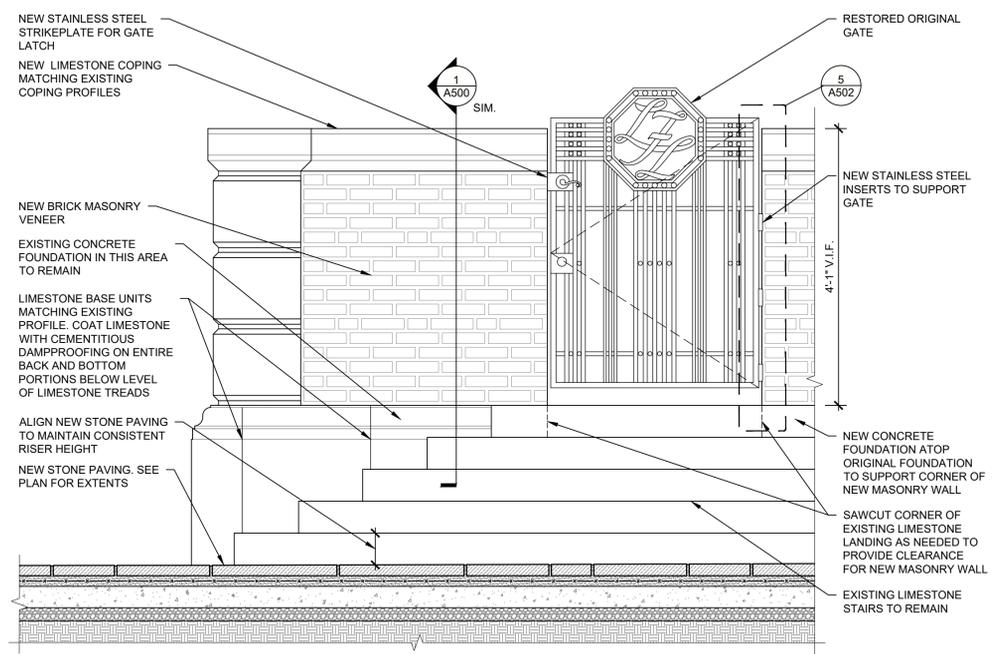
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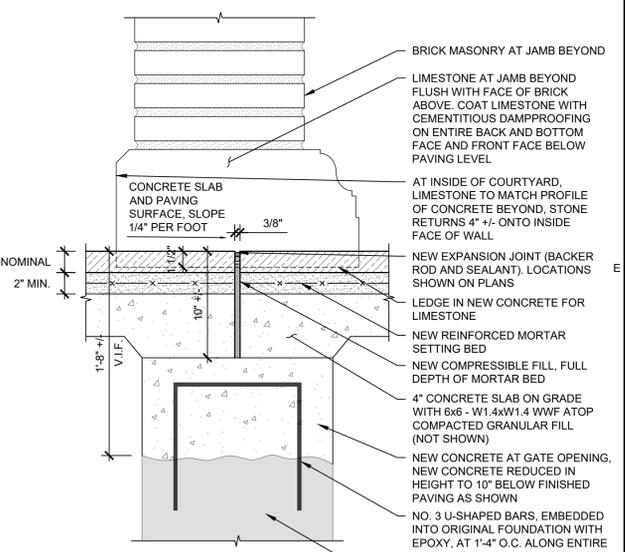
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**Gate and End Wall Details**  
Sheet No. **A502**



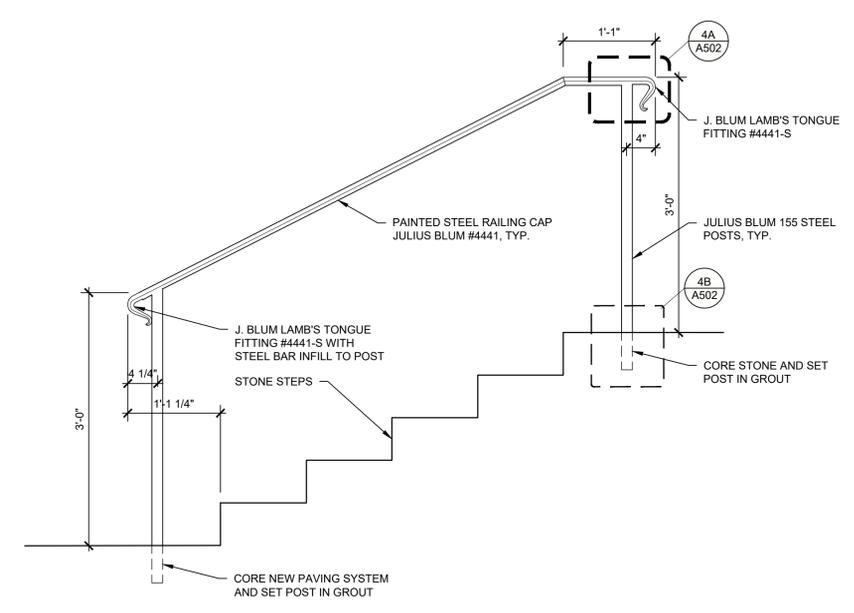
**1 Detail of West End Wall**  
Scale: 3/4"=1'-0"



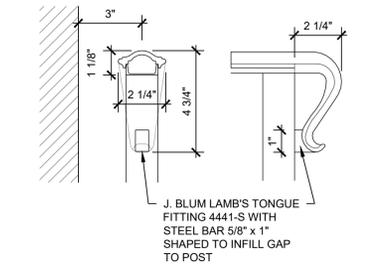
**2 Detail of East End Wall**  
Scale: 3/4"=1'-0"



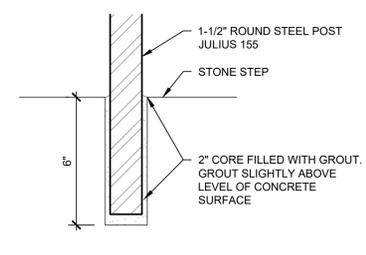
**3 Section at West Courtyard Gate**  
Scale: 1-1/2"=1'-0"



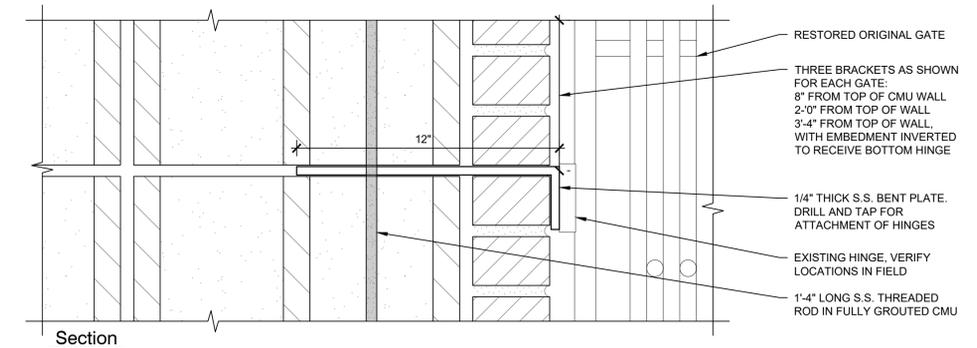
**4 East Stair Handrail**  
Scale: 1"=1'-0"



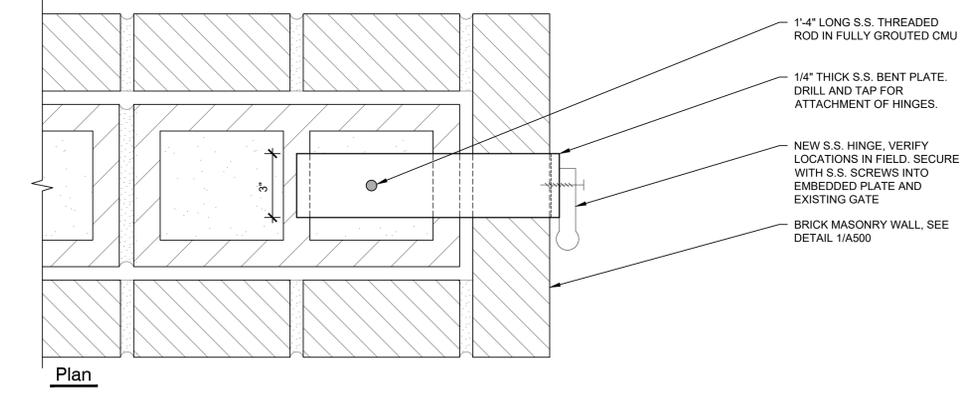
**4A Straight Lamb's Tongue Handrail**  
Scale: 6"=1'-0"



**4B Post Setting Detail**  
Scale: 6"=1'-0"

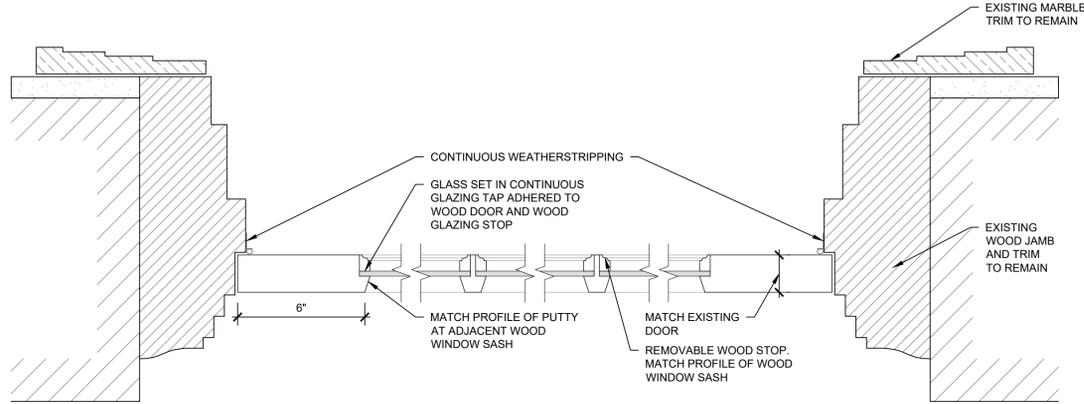


**Section**

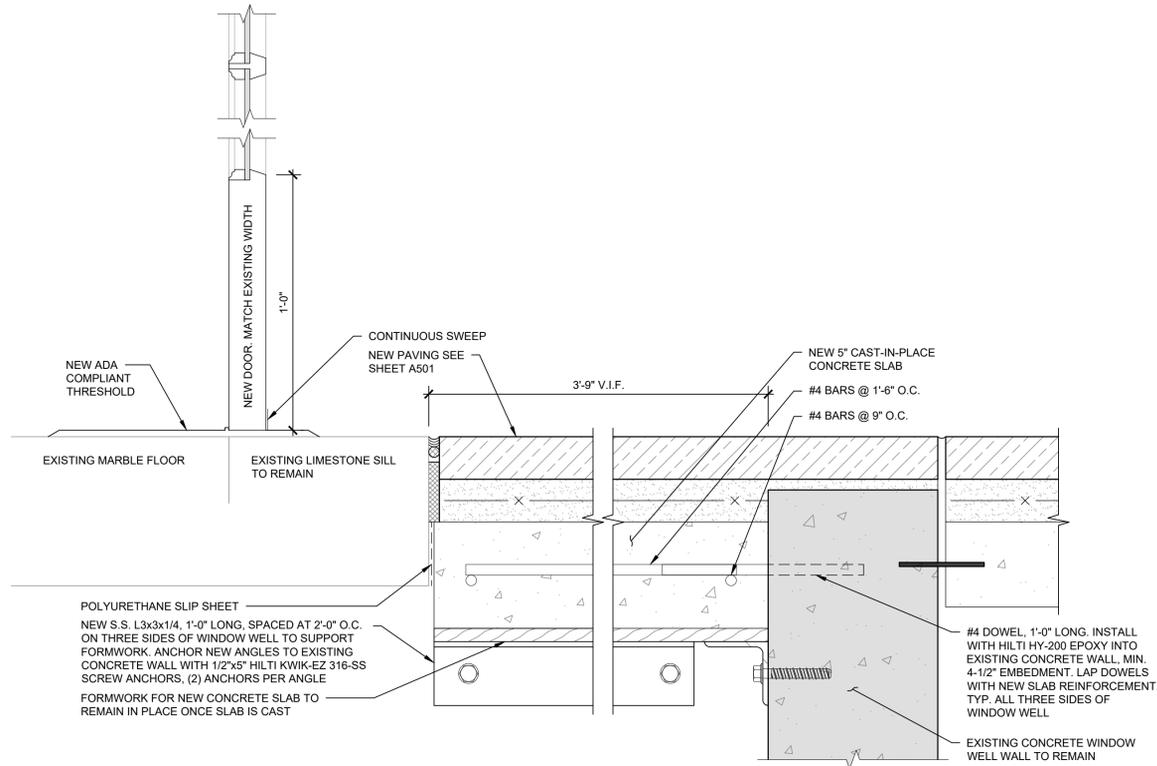


**Plan**

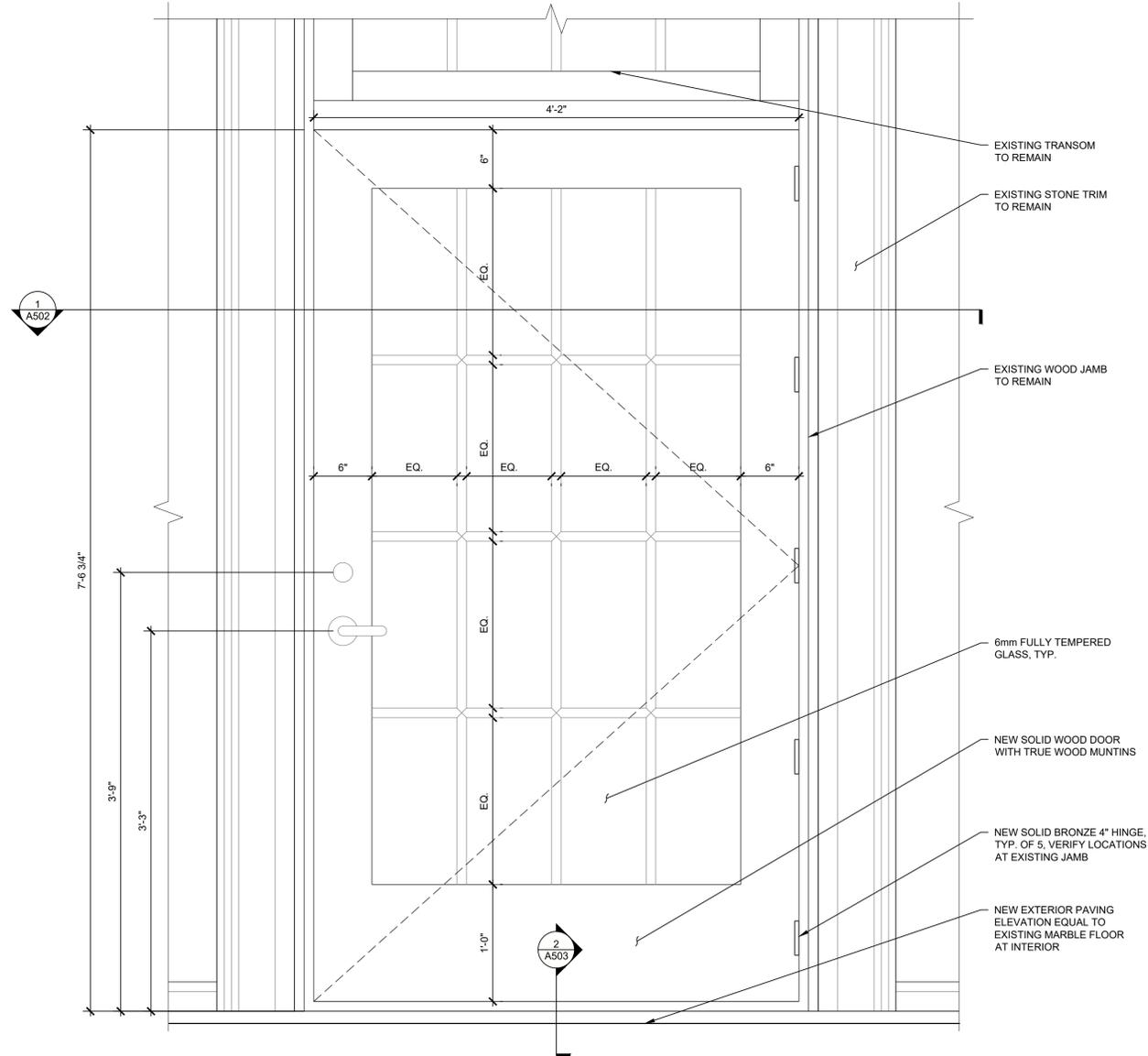
**5 Gate Restoration Anchorage (Plan and Section)**  
Scale: 3"=1'-0"



**1 Door Jamb Detail**  
 Scale: 3"=1'-0"



**2 Door Sill Detail**  
 Scale: 3"=1'-0"



**3 Door Elevation**  
 Scale: 1-1/2"=1'-0"

EXTERIOR VIEW AT WEST COURTYARD SHOWN  
 EAST COURTYARD OPP. HAND  
 VERIFY EXISTING DIMENSIONS IN FIELD

DOOR HARDWARE	QTY.	MAUNFACTURER	MODEL	MATERIAL / FINISH	OPTIONS / NOTES
THRESHOLD	1	ZERO	65	BRONZE, OIL-RUBBED AGED	EMBED IN SEALANT AGAINST EXTERIOR SILL AND INTERIOR FLOOR FINISH
KICKPLATE	1			POLISHED BRASS	ON INTERIOR FACE
HINGE	5	IVES	5BB1HW	DULL BRASS	5 KNUCKLE, NONREMOVABLE PIN, 5"x4-1/2"
PANIC HARDWARE	1	VON DUPRIN	MORTISE LOCK EXIT DEVICE 5575	DULL BRASS	PUSH BAR
PULL	1	VON DUPRIN	ASTI LEVER	POLISHED BRASS	
LOCKSET	1	CORBIN RUSSWIN		POLISHED BRASS	KEYED CYLINDER ON BOTH FACES. BOTH DOORS WITH SAME KEY
LOCK STRIKEPLATE	1	CORBIN RUSSWIN		POLISHED BRASS	
CLOSER	1	CLN	4040XP SERIES	SATIN BRASS	
SWEEP	4.2 LIN. FT.	ZERO	MODEL 339 OR EQUAL	BRONZE, OIL-RUBBED AGED	
WEATHERSTRIPPING	20 LIN. FT.	ZERO	MODEL 326 OR EQUAL	BRONZE, OIL-RUBBED AGED	CONTINUOUS, MITER CORNER WHERE JAMB MEETS END

Mark	Date	Description

THIS SHEET PLOTS FULL SIZE AT 24x36 (INCHES)  
 Project No. 2024.3861.0  
 Date May 27, 2025  
 Drawn ICH / JFC / JH  
 Checked KMI / MKH  
 Scale As Shown

**Door Details**

Sheet Title  
**A503**

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F  
E  
D  
C  
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A

1 2 3 4 5 6 7 8

GENERAL	
DESIGNATION	DESCRIPTION
1	DETAIL OR ENLARGED PLAN (SAME DRAWING)
	(HEAVY LINES) - NEW PIPING/DUCTWORK/EQUIPMENT
	(THIN LINES) - EXISTING PIPING/DUCTWORK/EQUIPMENT TO REMAIN
	(HEAVY DASHED LINES) - EXISTING UNDERGROUND PIPING TO BE DEMOLISHED
	(HEAVY DASHED LINES) - EXISTING PIPING/ EQUIPMENT TO BE DEMOLISHED
	POINT OF CONNECTION BETWEEN NEW/DEMO WORK AND EXISTING

PLUMBING PIPING LEGEND	
DESIGNATION	DESCRIPTION
	DOMESTIC COLD WATER
	UNDERGROUND STORM SEWER
	SUB-SOIL DRAINAGE

PLUMBING RISER TAGS	
DESIGNATION	DESCRIPTION
	PLUMBING

PLUMBING PIPEWORK FITTINGS	
DESIGNATION	DESCRIPTION
	CAP
	CONNECTION, BOTTOM
	CONNECTION, TOP
	ELBOW TURNED UP
	ELBOW TURNED DOWN
	ELBOW UP, BOTTOM CONNECTION, ELBOW DOWN
	REDUCER, CONCENTRIC
	REDUCER, ECCENTRIC STRAIGHT INVERT
	UNION, SCREWED
	P TRAP
	PIPE ANCHOR
	PIPE SLEEVE
	LINK SEAL
	VALVE ON RISE (DROP)

PLUMBING EQUIPMENT TAGS	
DESIGNATION	DESCRIPTION
SP	SUMP PUMP
SB	SETTLING BASIN

PLUMBING SYMBOLS	
DESIGNATION	DESCRIPTION
	PUMP
	GATE VALVE
	GLOBE VALVE
	BALL VALVE
	BUTTERFLY VALVE
	PRESSURE REDUCING VALVE
	PRESSURE RELIEF OR SAFETY VALVE
	SWING GATE CHECK VALVE
	Y-TYPE STRAINER (W/BLOWOFF VALVE)
	ELECTRIC HEAT TRACE
	UNIVERSAL PORT FOR PRESSURE GAUGE OR THERMOMETER WELL
	FLOOR DRAIN
	AREA DRAIN
	YARD CLEANOUT
	SUSPENDED CLEANOUT
	WATER METER
	HOSE BIBB
	NON-FREEZE SILL COCK
	BACKFLOW PREVENTER

PLUMBING ABBREVIATIONS	
DESIGNATION	DESCRIPTION
ABV	ABOVE
ACT	ACOUSTIC CEILING TILE
AD	AREA DRAIN
ADB	ACID DILUTION BASIN
AFF	ABOVE FINISHED FLOOR
AW	ACID WASTE
BOP	BOTTOM OF PIPE
BT	BATHTUB
CB	CATCH BASIN
CI	CAST IRON
CO	CLEANOUT
CSS	CLINICAL SERVICE SINK
CU	COPPER
CW	COLD WATER
DF	DRINKING FOUNTAIN
DI	DUCTILE IRON
DS	DOWNSPOUT
DU	DURIRON PIPE
DW	DISHWASHER
DWG	DRAWING
EEW	EMERGENCY EYEWASH
ESH	EMERGENCY SHOWER
EVB	ELEVATED VACUUM BREAKER
EWC	ELECTRIC WATER COOLER
EPH	ELECTRIC WATER HEATER
(E) OR EXIST	EXISTING
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FLR	FLOOR
FS	FLOOR SINK
FUT	FUTURE
GALV	GALVANIZED
GPM	GALLONS PER MINUTE
GRD	GRADE
GS	GREASE SEPARATOR
GWB	GYPSUM WALL BOARD
GWH	GAS WATER HEATER
HB	HOSE BIBB
HD	HUB DRAIN
HOR	HORIZONTAL
HP	HORSEPOWER
HT	HEIGHT
HW	HOT WATER
HWR	HOT WATER RETURN
IE	INVERT ELEVATION
IN	INCH
KS	KITCHEN SINK
KW	KITCHEN WASTE
L	LAVATORY
LW	LABORATORY WASTE
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MR	MOP RECEPTOR

PLUMBING ABBREVIATIONS	
DESIGNATION	DESCRIPTION
MS	MOP SINK
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OSD	OPEN SITE DRAIN
PD	PUMP DISCHARGE
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PT	PLASTER TRAP
QTY	QUANTITY
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
REF	REFERENCE
REQD	REQUIRED
REV	REVISION
RM	ROOM
RO	RODOUT BASIN
SAN	SANITARY
SCHED	SCHEDULE
SE	SEWAGE EJECTOR
SEC	SECTION
SH	SHOWER
SHT	SHEET
SK	SINK
SP	SUMP PUMP
SPEC	SPECIFICATION
SS	SERVICE SINK
SSS	SURGEONS SCRUB SINK
ST	STORM
ST.STL	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STM	STEAM
SUSP	SUSPENDED
TB	TRIPLE BASIN
TEMP	TEMPERATURE
TYP	TYPICAL
UC	UNDER COUNTER
UG	UNDERGROUND
UL	UNDERWRITER'S LABORATORY
UR	URINAL
V	VENT
VB	VACUUM BREAKER
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
VTR	VENT THRU ROOF
W	WASTE
WC	WATER CLOSET
WCO	WALL CLEANOUT
WG	WATER GAGE
WH	WATER HEATER
WS	WATER SOFTENER
YCO	YARD CLEANOUT



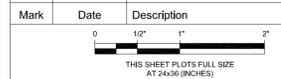
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**Lake Forest Library  
Courtyard  
Rehabilitation**  
360 East Deerpath Road  
Lake Forest, IL 60045

Client  
**Lake Forest Library**  
360 East Deerpath Road  
Lake Forest, IL 60045



Project No. 2024.3861.0  
Date May 27, 2025  
Drawn NKD  
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**LAKE FOREST LIBRARY  
PLUMBING SYMBOLS AND  
ABBREVIATIONS**

Sheet Title  
**P000**  
Sheet No.

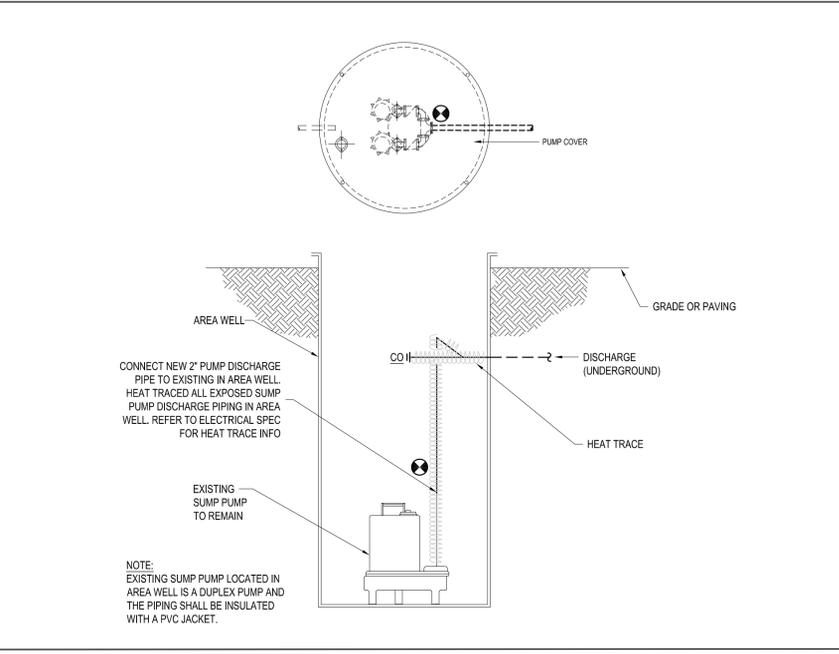
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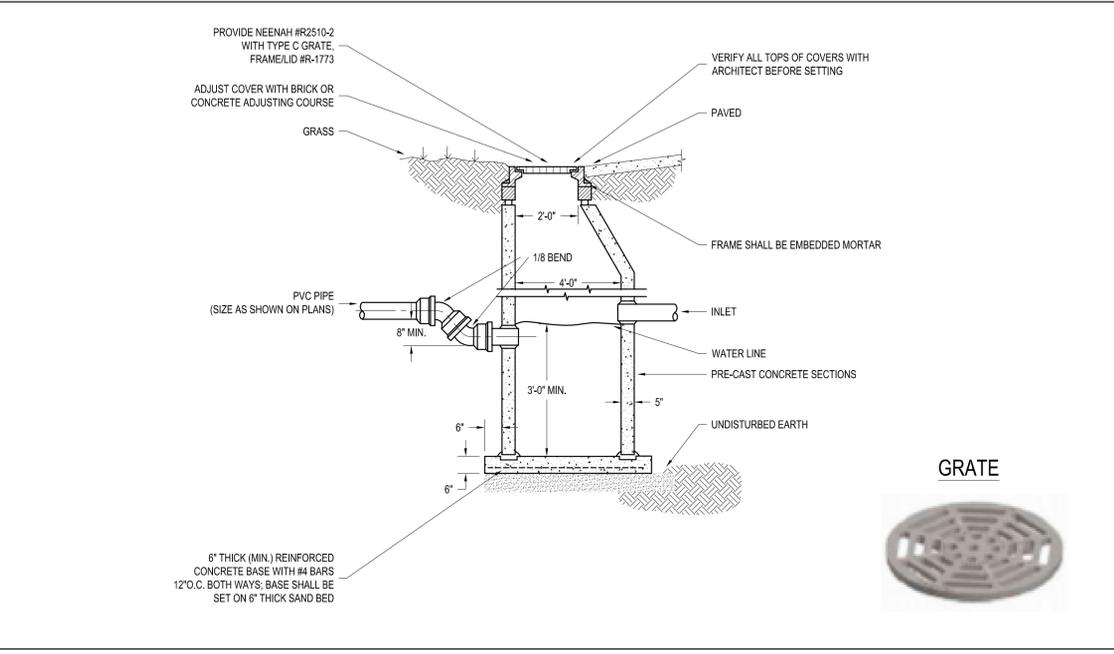
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### PLUMBING FIXTURE SCHEDULE

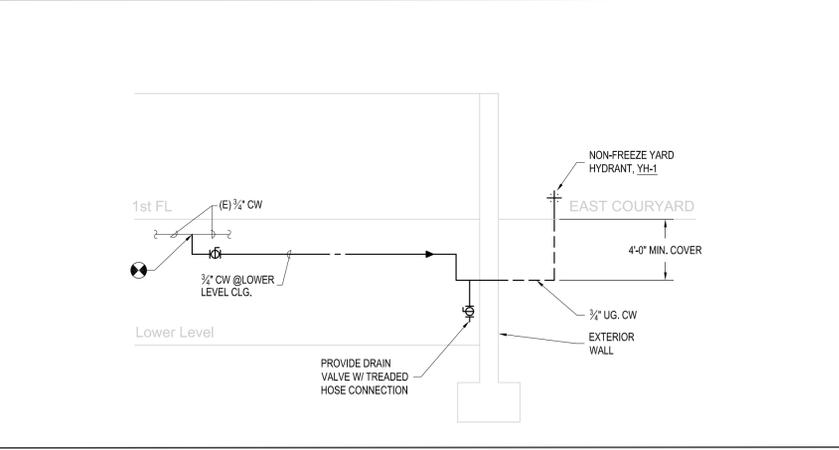
TAG	FIXTURE	RISER AND AIR CHAMBER FOR FIXTURE		FIXTURE NIPPLE (VALVE INLET)		CODE REQUIREMENTS		SPECIFICATIONS	REMARKS
		HW"	CW"	HW"	CW"	SAN"	VENT"		
AD-1	AREA DRAIN (AREA WELLS)	--	--	--	--	4"	--	MODEL FD-320 MANUFACTURED BY WATTS	ANSI A112.21.2. EPOXY COATED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, BODY COLLAR WITH WEEPHOLES, 8" DIAMETER ADJUSTABLE TOP, VANDAL PROOF, DUCTILE IRON GRATE.
AD-2	AREA DRAIN (GRANITE PAVEMENT)	--	--	--	--	4"	--	MODEL Z610 MANUFACTURED BY ZURN	ANSI A112.21.2. DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, SEEPAGE PAN, COMBINATION MEMBRANE FLASHING CLAMP AND FRAME FOR HEAVY-DUTY CAST IRON LOOSE SLOTTED GRATE, POLISHED BRONZE 12" TOP FLOOR DRAIN.
YH-1	YARD HYDRANT, EXTERIOR	--	3/4"	--	3/4"	--	--	MODEL HY-800 MANUFACTURED BY WATTS	NON-FREEZE YARD HYDRANT WITH EPOXY COATED CAST IRON HEAD WITH LIFT HANDLE AND LOCK OPTION, GALVANIZED CASING, BRONZE INTERNAL WORKING PARTS AND VALVE HOUSING, AND 1/2" NPT DRAIN PORT.



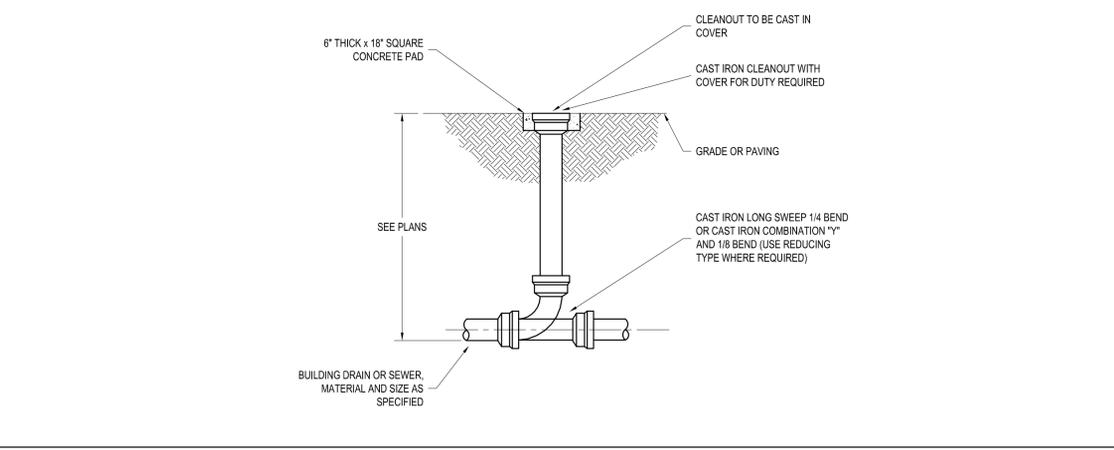
**4 WEST COURTYARD AREA WELL EXISTING SUMP PUMP DISCHARGE PIPING**  
NO SCALE



**3 CATCH BASIN DETAIL**  
NO SCALE



**1 YARD HYDRANT DETAIL**  
NO SCALE



**2 YARD CLEANOUT DETAIL**  
NO SCALE



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**Lake Forest Library  
Courtyard  
Rehabilitation**  
360 East Deerpath Road  
Lake Forest, IL 60045

Client  
**Lake Forest Library**  
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Lake Forest, IL 60045

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Project No. 2024.3861.0  
Date May 27, 2025  
Drawn NKD  
Checked JFF  
Scale None

**PLUMBING SCHEDULE  
AND DETAILS**  
Sheet Title  
**P001**  
Sheet No.

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1 PLUMBING UNDERGROUND PIPING PLAN - SITE PLAN  
 0 4 8 16 32  
 1/16"=1'-0"

- GENERAL NOTES**
1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UNDERGROUND STORM PIPING AND SUB-SOL DRAINAGE (SSD) PIPING IN BOTH WEST AND EAST COURTYARDS TO COMPLETELY UNDERSTAND THE EXTENT OF DEMOLITION AND NEW WORK REQUIRED FOR THIS PROJECT.
  2. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. THE EXACT EXTENT OF DEMOLITION SHALL BE AS REQUIRED BY THE NEW WORK. CONTRACTOR SHALL PERFORM ALL DEMOLITION WORK REQUIRED TO COMPLETE THE INTENDED SCOPE OF WORK WHETHER SHOWN ON THE DRAWINGS OR NOT.
  3. ANY INTERRUPTION OF EXISTING SERVICES AND/OR EQUIPMENT SHALL BE PERFORMED AT A TIME APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE SO AS NOT TO INTERFERE WITH THE PRESENT BUILDING OPERATION.
  4. ALL PLUMBING FIXTURES, PIPING AND EQUIPMENT TO BE REMOVED SHALL BE REMOVED COMPLETE WITH ALL RELATED ITEMS INCLUDING HANGERS, SUPPORTS, CONTROLS, ETC. CAP ALL OPEN ENDED PIPES.
  5. CLOSE ALL UNUSED PIPE PENETRATIONS IN WALLS AND FLOORS TO MATCH EXISTING. PROVIDE FIRE-STOPPING AS REQUIRED TO MAINTAIN FIRE RATED INTEGRITY OF PARTITION. THE CONTRACTOR SHALL REMOVE ALL DEBRIS RESULTING FROM DEMOLITION AND INSTALLATION OF NEW WORK. WORK AREAS SHALL BE KEPT CLEAN AT ALL TIMES TO THE SATISFACTION OF OWNER.

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**Project**

**Lake Forest Library  
 Courtyard  
 Rehabilitation**

360 East Deerpath Road  
 Lake Forest, IL 60045

**Client**

**Lake Forest Library**

360 East Deerpath Road  
 Lake Forest, IL 60045

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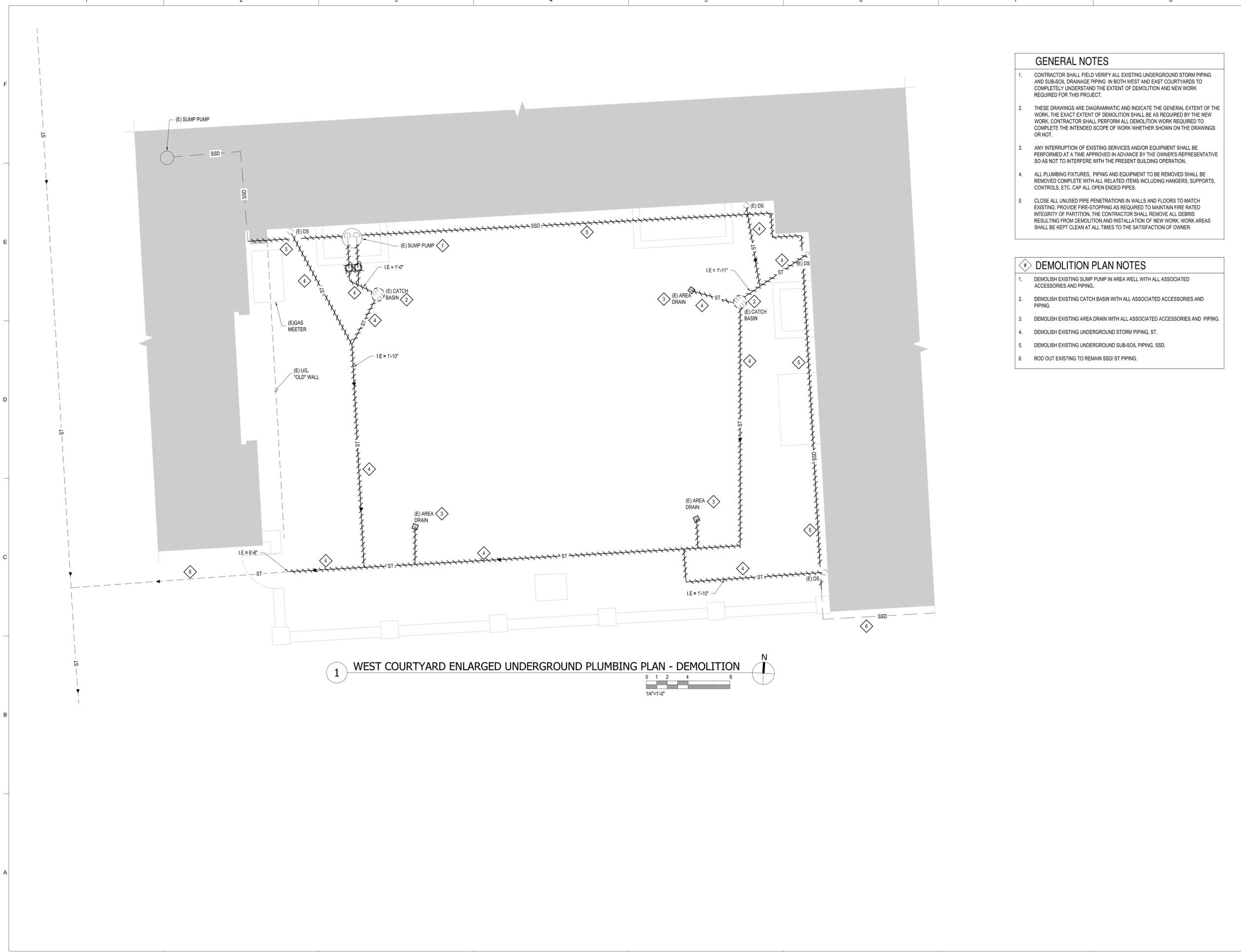
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**LAKE FOREST LIBRARY  
 UNDERGROUND PLUMBING  
 SITE PLAN**

Sheet Title

**P100**

Sheet No.



**1 WEST COURTYARD ENLARGED UNDERGROUND PLUMBING PLAN - DEMOLITION**

- GENERAL NOTES**
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UNDERGROUND STORM PIPING AND SUB-SOIL DRAINAGE PIPING IN BOTH WEST AND EAST COURTYARDS TO COMPLETELY UNDERSTAND THE EXTENT OF DEMOLITION AND NEW WORK REQUIRED FOR THIS PROJECT.
  - THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. THE EXACT EXTENT OF DEMOLITION SHALL BE AS REQUIRED BY THE NEW WORK. CONTRACTOR SHALL PERFORM ALL DEMOLITION WORK REQUIRED TO COMPLETE THE INTENDED SCOPE OF WORK WHETHER SHOWN ON THE DRAWINGS OR NOT.
  - ANY INTERRUPTION OF EXISTING SERVICES AND/OR EQUIPMENT SHALL BE PERFORMED AT A TIME APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE SO AS NOT TO INTERFERE WITH THE PRESENT BUILDING OPERATION.
  - ALL PLUMBING FIXTURES, PIPING AND EQUIPMENT TO BE REMOVED SHALL BE REMOVED COMPLETE WITH ALL RELATED ITEMS INCLUDING HANGERS, SUPPORTS, CONTROLS, ETC. CAP ALL OPEN ENDED PIPES.
  - CLOSE ALL UNUSED PIPE PENETRATIONS IN WALLS AND FLOORS TO MATCH EXISTING. PROVIDE FIRE-STOPPING AS REQUIRED TO MAINTAIN FIRE RATED INTEGRITY OF PARTITION. THE CONTRACTOR SHALL REMOVE ALL DEBRIS RESULTING FROM DEMOLITION AND INSTALLATION OF NEW WORK. WORK AREAS SHALL BE KEPT CLEAN AT ALL TIMES TO THE SATISFACTION OF OWNER.

- DEMOLITION PLAN NOTES**
- DEMOLISH EXISTING SUMP PUMP IN AREA WELL WITH ALL ASSOCIATED ACCESSORIES AND PIPING.
  - DEMOLISH EXISTING CATCH BASIN WITH ALL ASSOCIATED ACCESSORIES AND PIPING.
  - DEMOLISH EXISTING AREA DRAIN WITH ALL ASSOCIATED ACCESSORIES AND PIPING.
  - DEMOLISH EXISTING UNDERGROUND STORM PIPING, ST.
  - DEMOLISH EXISTING UNDERGROUND SUB-SOIL PIPING, SSD.
  - ROD OUT EXISTING TO REMAIN SSD/ ST PIPING.

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WEST COURTYARD PARTIAL  
UNDERGROUND PLUMBING PLAN -  
DEMOLITION  
Sheet Title  
**PD101**  
Sheet No.

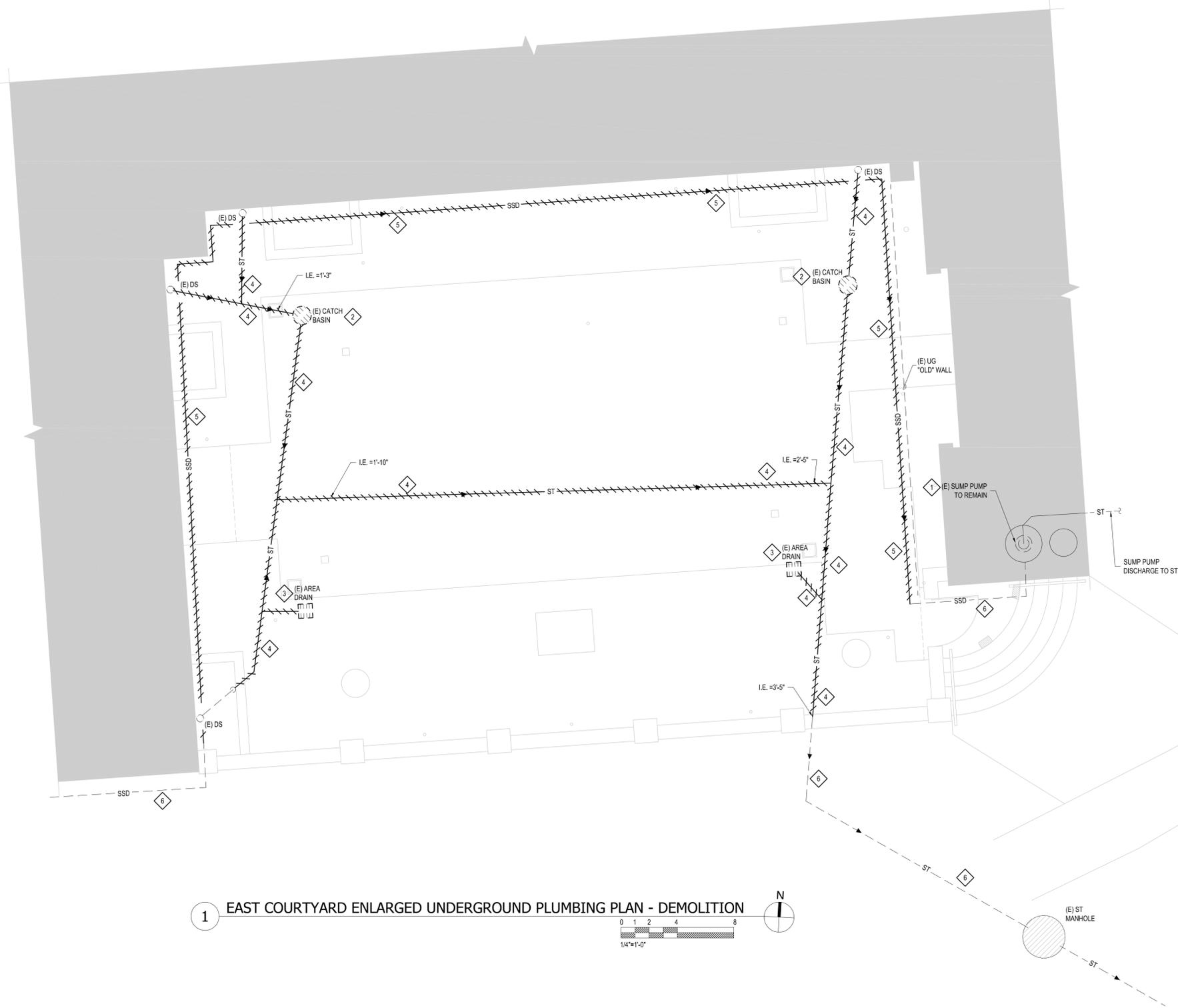
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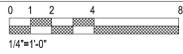
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1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8



**1 EAST COURTYARD ENLARGED UNDERGROUND PLUMBING PLAN - DEMOLITION**



**GENERAL NOTES**

- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UNDERGROUND STORM PIPING AND SUB-SOIL DRAINAGE PIPING (SSD) IN BOTH WEST AND EAST COURTYARDS TO COMPLETELY UNDERSTAND THE EXTENT OF DEMOLITION AND NEW WORK REQUIRED FOR THIS PROJECT.
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- ALL PLUMBING FIXTURES, PIPING AND EQUIPMENT TO BE REMOVED SHALL BE REMOVED COMPLETE WITH ALL RELATED ITEMS INCLUDING HANGERS, SUPPORTS, CONTROLS, ETC. CAP ALL OPEN ENDED PIPES.
- CLOSE ALL UNUSED PIPE PENETRATIONS IN WALLS AND FLOORS TO MATCH EXISTING, PROVIDE FIRE-STOPPING AS REQUIRED TO MAINTAIN FIRE RATED INTEGRITY OF PARTITION. THE CONTRACTOR SHALL REMOVE ALL DEBRIS RESULTING FROM DEMOLITION AND INSTALLATION OF NEW WORK. WORK AREAS SHALL BE KEPT CLEAN AT ALL TIMES TO THE SATISFACTION OF OWNER.

**DEMOLITION PLAN NOTES**

- EXISTING SUMP PUMP TO REMAIN IN PLACE.
- DEMOLISH EXISTING CATCH BASIN WITH ALL ASSOCIATED ACCESSORIES AND PIPING.
- DEMOLISH EXISTING AREA DRAIN WITH ALL ASSOCIATED ACCESSORIES AND PIPING.
- DEMOLISH EXISTING UNDERGROUND STORM PIPING, ST.
- DEMOLISH EXISTING UNDERGROUND SUB-SOIL PIPING, SSD.
- ROD OUT EXISTING TO REMAIN SSD/ST PIPING.

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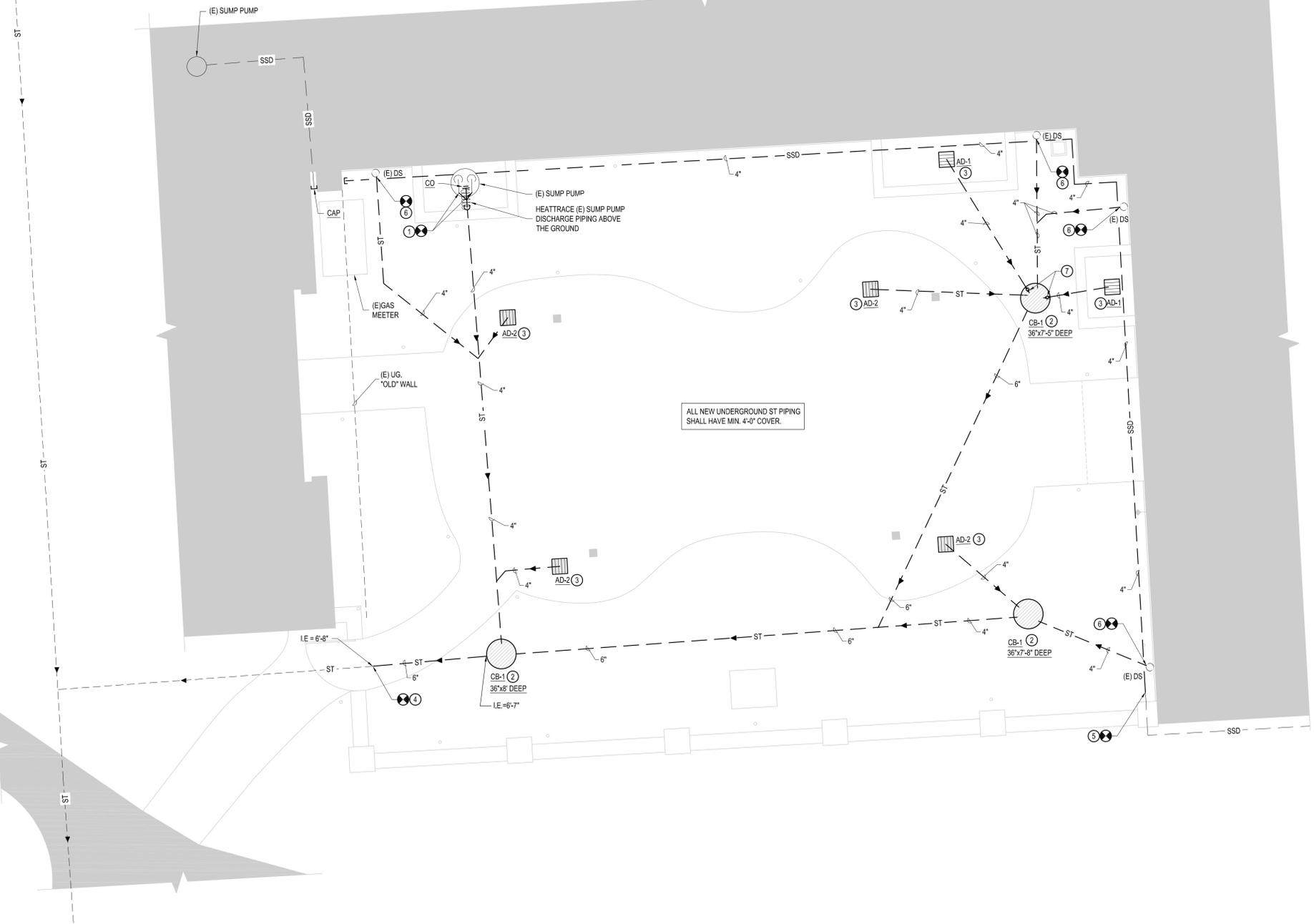
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**EAST COURTYARD PARTIAL  
UNDERGROUND PLUMBING PLAN -  
DEMOLITION**

Sheet Title  
**PD102**  
Sheet No.



1 WEST COURTYARD ENLARGED UNDERGROUND PLUMBING PLAN - NEW WORK



**GENERAL NOTES**

- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UNDERGROUND STORM PIPING AND SUB-SOIL DRAINAGE (SSD) PIPING IN BOTH WEST AND EAST COURTYARDS TO COMPLETELY UNDERSTAND THE EXTENT OF DEMOLITION AND NEW WORK REQUIRED FOR THIS PROJECT.
- THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. THE EXACT EXTENT OF DEMOLITION SHALL BE AS REQUIRED BY THE NEW WORK. CONTRACTOR SHALL PERFORM ALL DEMOLITION WORK REQUIRED TO COMPLETE THE INTENDED SCOPE OF WORK WHETHER SHOWN ON THE DRAWINGS OR NOT.
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- ALL PLUMBING FIXTURES, PIPING AND EQUIPMENT TO BE REMOVED SHALL BE REMOVED COMPLETE WITH ALL RELATED ITEMS INCLUDING HANGERS, SUPPORTS, CONTROLS, ETC. CAP ALL OPEN ENDED PIPES.
- CLOSE ALL UNUSED PIPE PENETRATIONS IN WALLS AND FLOORS TO MATCH EXISTING. PROVIDE FIRE-STOPPING AS REQUIRED TO MAINTAIN FIRE RATED INTEGRITY OF PARTITION. THE CONTRACTOR SHALL REMOVE ALL DEBRIS RESULTING FROM DEMOLITION AND INSTALLATION OF NEW WORK. WORK AREAS SHALL BE KEPT CLEAN AT ALL TIMES TO THE SATISFACTION OF OWNER.

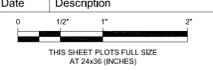
**CONSTRUCTION PLAN NOTES**

- EXISTING SUMP PUMP TO REMAIN IN PLACE. PROVIDE HEAT TRACE ON ABOVE GROUND SUMP PUMP DISCHARGE PIPING BEFORE DROPPING THEM TO UNDERGROUND. REFER TO DETAIL #4 DRAWING P001 FOR MORE INFORMATION.
- PROVIDE NEW CATCH BASIN, CB-1. REFER TO PLUMBING SPECIFICATION.
- PROVIDE NEW AREA DRAIN, AD-1 & AD-2. REFER TO PLUMBING SPECIFICATION.
- CONNECT NEW 6" UNDERGROUND STORM PIPE, (ST) TO EXISTING UNDERGROUND STORM PIPING OF ADEQUATE SIZE. CONTRACTOR TO FIELD VERIFY EXISTING UNDERGROUND STORM ROUTING, SIZE AND ELEVATION. ASSUMED I.E. = 6'-8".
- CONNECT NEW 4" UNDERGROUND SUB-SOIL DRAINAGE PIPING, (SSD) TO EXISTING UNDERGROUND SUB-SOIL DRAINAGE PIPING AS REQUIRED. CONTRACTOR TO FIELD VERIFY EXISTING UNDERGROUND SSD ROUTING, SIZE AND ELEVATION.
- CONNECT NEW 4" UNDERGROUND STORM PIPE TO EXISTING STORM DOWNSPOUT PIPE AS REQUIRED.
- PROVIDE BACKWATER VALVE OATEY #43904, INSIDE EACH CATCH BASIN ON STORM PIPING COMING FROM AREA WELL AREA DRAINS ONLY.

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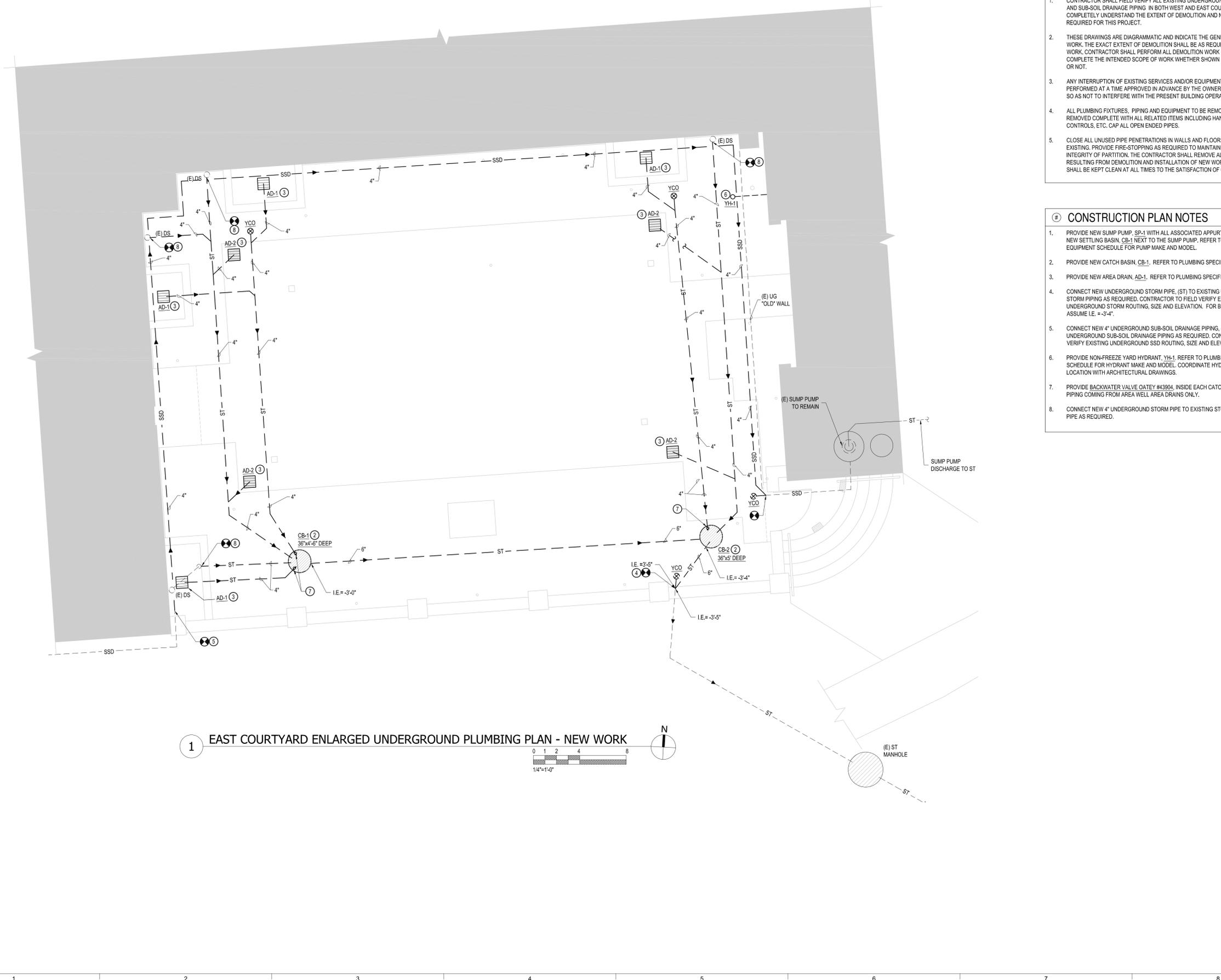
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Date	May 27, 2025
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WEST COURTYARD PARTIAL  
UNDERGROUND PLUMBING PLAN -  
NEW WORK  
Sheet Title  
**P101**  
Sheet No.

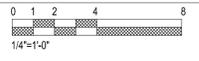
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1 EAST COURTYARD ENLARGED UNDERGROUND PLUMBING PLAN - NEW WORK



**GENERAL NOTES**

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UNDERGROUND STORM PIPING AND SUB-SOIL DRAINAGE PIPING IN BOTH WEST AND EAST COURTYARDS TO COMPLETELY UNDERSTAND THE EXTENT OF DEMOLITION AND NEW WORK REQUIRED FOR THIS PROJECT.
2. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. THE EXACT EXTENT OF DEMOLITION SHALL BE AS REQUIRED BY THE NEW WORK. CONTRACTOR SHALL PERFORM ALL DEMOLITION WORK REQUIRED TO COMPLETE THE INTENDED SCOPE OF WORK WHETHER SHOWN ON THE DRAWINGS OR NOT.
3. ANY INTERRUPTION OF EXISTING SERVICES AND/OR EQUIPMENT SHALL BE PERFORMED AT A TIME APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE SO AS NOT TO INTERFERE WITH THE PRESENT BUILDING OPERATION.
4. ALL PLUMBING FIXTURES, PIPING AND EQUIPMENT TO BE REMOVED SHALL BE REMOVED COMPLETE WITH ALL RELATED ITEMS INCLUDING HANGERS, SUPPORTS, CONTROLS, ETC. CAP ALL OPEN ENDED PIPES.
5. CLOSE ALL UNUSED PIPE PENETRATIONS IN WALLS AND FLOORS TO MATCH EXISTING. PROVIDE FIRE-STOPPING AS REQUIRED TO MAINTAIN FIRE RATED INTEGRITY OF PARTITION. THE CONTRACTOR SHALL REMOVE ALL DEBRIS RESULTING FROM DEMOLITION AND INSTALLATION OF NEW WORK. WORK AREAS SHALL BE KEPT CLEAN AT ALL TIMES TO THE SATISFACTION OF OWNER.

**CONSTRUCTION PLAN NOTES**

1. PROVIDE NEW SUMP PUMP, SP-1 WITH ALL ASSOCIATED APPURTENANCES. PROVIDE NEW SETTLING BASIN, CB-1 NEXT TO THE SUMP PUMP. REFER TO PLUMBING EQUIPMENT SCHEDULE FOR PUMP MAKE AND MODEL.
2. PROVIDE NEW CATCH BASIN, CB-1. REFER TO PLUMBING SPECIFICATION.
3. PROVIDE NEW AREA DRAIN, AD-1. REFER TO PLUMBING SPECIFICATION.
4. CONNECT NEW UNDERGROUND STORM PIPE, (ST) TO EXISTING UNDERGROUND STORM PIPING AS REQUIRED. CONTRACTOR TO FIELD VERIFY EXISTING UNDERGROUND STORM ROUTING, SIZE AND ELEVATION. FOR BIDDING PURPOSES ASSUME I.E. = -3'-4".
5. CONNECT NEW 4" UNDERGROUND SUB-SOIL DRAINAGE PIPING, (SSD) TO EXISTING UNDERGROUND SUB-SOIL DRAINAGE PIPING AS REQUIRED. CONTRACTOR TO FIELD VERIFY EXISTING UNDERGROUND SSD ROUTING, SIZE AND ELEVATION.
6. PROVIDE NON-FREEZE YARD HYDRANT, YH-1. REFER TO PLUMBING FIXTURE SCHEDULE FOR HYDRANT MAKE AND MODEL. COORDINATE HYDRANT FINAL LOCATION WITH ARCHITECTURAL DRAWINGS.
7. PROVIDE BACKWATER VALVE QATEY #43904, INSIDE EACH CATCH BASIN ON STORM PIPING COMING FROM AREA WELL AREA DRAINS ONLY.
8. CONNECT NEW 4" UNDERGROUND STORM PIPE TO EXISTING STORM DOWNSPOUT PIPE AS REQUIRED.



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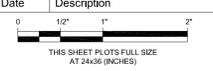
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Project  
**Lake Forest Library  
Courtyard  
Rehabilitation**  
360 East Deerpath Road  
Lake Forest, IL 60045

Client  
**Lake Forest Library**  
360 East Deerpath Road  
Lake Forest, IL 60045

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**EAST COURTYARD PARTIAL  
UNDERGROUND PLUMBING PLAN -  
NEW WORK**  
Sheet Title  
**P102**  
Sheet No.

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- ### GENERAL NOTES
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UNDERGROUND STORM PIPING AND SUB-SOIL DRAINAGE PIPING IN BOTH WEST AND EAST COURTYARDS TO COMPLETELY UNDERSTAND THE EXTENT OF DEMOLITION AND NEW WORK REQUIRED FOR THIS PROJECT.
  - THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. THE EXACT EXTENT OF DEMOLITION SHALL BE AS REQUIRED BY THE NEW WORK. CONTRACTOR SHALL PERFORM ALL DEMOLITION WORK REQUIRED TO COMPLETE THE INTENDED SCOPE OF WORK WHETHER SHOWN ON THE DRAWINGS OR NOT.
  - ANY INTERRUPTION OF EXISTING SERVICES AND/OR EQUIPMENT SHALL BE PERFORMED AT A TIME APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE SO AS NOT TO INTERFERE WITH THE PRESENT BUILDING OPERATION.
  - ALL PLUMBING FIXTURES, PIPING AND EQUIPMENT TO BE REMOVED SHALL BE REMOVED COMPLETE WITH ALL RELATED ITEMS INCLUDING HANGERS, SUPPORTS, CONTROLS, ETC. CAP ALL OPEN ENDED PIPES.
  - CLOSE ALL UNUSED PIPE PENETRATIONS IN WALLS AND FLOORS TO MATCH EXISTING. PROVIDE FIRE-STOPPING AS REQUIRED TO MAINTAIN FIRE RATED INTEGRITY OF PARTITION. THE CONTRACTOR SHALL REMOVE ALL DEBRIS RESULTING FROM DEMOLITION AND INSTALLATION OF NEW WORK. WORK AREAS SHALL BE KEPT CLEAN AT ALL TIMES TO THE SATISFACTION OF OWNER.

- ### CONSTRUCTION PLAN NOTES
- CONNECT NEW 3/4" COLD WATER PIPE TO EXISTING 3/4" COLD WATER PIPING IN NORTH EAST BASEMENT. CONTRACTOR TO FIELD VERIFY EXISTING COLD WATER LOCATION AND SIZE.
  - CORE BASEMENT FOUNDATION WALL FOR 3/4" COLD WATER AND PROVIDE LINK SEAL AT WALL PENETRATION.
  - CORE "OLD" COURTYARD WALL FOR 3/4" COLD WATER. CAULK PENETRATION.
  - PROVIDE NON-FREEZE YARD HYDRANT, YH-1. REFER TO PLUMBING FIXTURE SCHEDULE FOR HYDRANT MAKE AND MODEL. COORDINATE HYDRANT FINAL LOCATION WITH ARCHITECTURAL DRAWINGS.
  - REMOVE EXISTING ABANDONED COLD WATER PIPE AS SHOWN.

**1 EAST COURTYARD & LOWER LEVEL PLUMBING PLAN**

0 2 4 8 16  
1/8"=1'-0"

N

**WJE** ENGINEERS  
ARCHITECTS  
MATERIALS SCIENTISTS

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Mark	Date	Description

0 1/2" 1" 2"  
THIS SHEET PLOTS FULL SIZE  
AT 24x36 (INCHES)

Project No.	2024.3861.0
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**EAST COURTYARD & LOWER LEVEL  
PLUMBING PLAN - NEW WORK**

Sheet Title  
**P103**  
Sheet No.

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### POWER SYMBOLS

DESIGNATION	DESCRIPTION
	FLUSH MOUNTED FLOOR BOX WITH SINGLE RECEPTACLE
	FLUSH MOUNTED FLOOR BOX WITH DUPLEX RECEPTACLE
	FLUSH MOUNTED FLOOR BOX WITH DOUBLE DUPLEX RECEPTACLE
	FLUSH MOUNTED FLOOR BOX WITH SPECIAL RECEPTACLE (SEE PLANS FOR NEMA CONFIGURATION)
	CEILING MOUNTED JUNCTION BOX
	WALL MOUNTED JUNCTION BOX
	FLOOR MOUNTED JUNCTION BOX
	DISCONNECT SWITCH (NON-FUSED)
	COMBINATION MOTOR STARTER AND DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	BREAKER DISCONNECT
	MAGNETIC MOTOR STARTER
	EQUIPMENT TAG SEE EQUIPMENT SCHEDULE
	HANDHOLE
	CONDUIT (EXPOSED)
	CONDUIT (CONCEALED)
	CONDUIT DOWN
	CONDUIT UP
	FLEXIBLE CONDUIT
	POWER DISTRIBUTION PANELBOARD
	BRANCH CIRCUIT PANELBOARD
	TRANSFORMER T=KVA
	MOTOR M=HP
	VARIABLE FREQUENCY DRIVE

### LIGHTING SYMBOLS

DESIGNATION	DESCRIPTION
	GROUND MOUNTED PATH LIGHT FIXTURE X=FIXTURE TYPE (SEE LIGHTING FIXTURE SCHEDULE)
	WALL MOUNTED LIGHT FIXTURE X=FIXTURE TYPE (SEE LIGHTING FIXTURE SCHEDULE)
	PHOTOCELL
	TIMER CONTROL

### DEMOLITION SYMBOLS

SYMBOL	DESCRIPTION
ER	EXISTING ELECTRICAL EQUIPMENT OR OUTLET TO REMAIN
RL	EXISTING ELECTRICAL EQUIPMENT OR OUTLET TO BE REMOVED RELOCATED AND JUNCTION BOX REMOVED OR CAPPED AS REQUIRED.
NL	EXISTING ELECTRICAL EQUIPMENT OR OUTLET RELOCATED (NEW LOCATION)
RE	EXISTING ELECTRICAL EQUIPMENT OR OUTLET TO BE REMOVED
EC	EXISTING ELECTRICAL EQUIPMENT OR OUTLET TO BE REMOVED AND JUNCTION BOX CAPPED AS REQUIRED
NR	NEW ELECTRICAL EQUIPMENT INSTALLED OVER EXISTING OUTLET
EA	EXISTING ELECTRICAL EQUIPMENT OR OUTLET TO BE ABANDONED
EM	EXISTING ELECTRICAL EQUIPMENT OR OUTLET TO BE MODIFIED

### ELECTRICAL ABBREVIATIONS

AC	ALTERNATING CURRENT	MCB	MAIN CIRCUIT BREAKER
AF	AMPERE FRAME, AMPERE FUSE	MCC	MOTOR CONTROL CENTER
AFF	ABOVE FINISHED FLOOR	MLO	MAIN LUGS ONLY
AM	AMP METER	MIN	MINIMUM
AMP	AMPERE	N/A	NOT APPLICABLE
AT	AMPERE TRIP	NATS	NON-AUTOMATIC TRANSFER SWITCH
ATS	AUTOMATIC TRANSFER SWITCH	NC	NORMALLY CLOSED
AWG	AMERICAN WIRING GAUGE	NEC	NATIONAL ELECTRIC CODE
BP	BRANCH CIRCUIT PANEL	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
BKR	BREAKER	NETA	NATIONAL ELECTRICAL TESTING ASSOCIATION
C	CONDUIT	NF	NON-FUSED
CATV	CABLE ACCESSED TELEVISION	NO	NORMALLY OPEN
CB	CIRCUIT BREAKER	OC	OVER CURRENT
CKT	CIRCUIT	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
CT	CURRENT TRANSFORMER	P	POLE
CU	COPPER	PB	PULL BOX
DC	DIRECT CURRENT	PDU	POWER DISTRIBUTION UNIT
DISC	DISCONNECT	PE	PROFESSIONAL ENGINEER
DN	DOWN	PF	POWER FACTOR
DWG	DRAWING	PH	PHASE
EM	EMERGENCY	PM	POWER MONITORING DEVICE
EMI	ELECTROMAGNETIC INTERFERENCE	PNL	PANELBOARD
EMT	ELECTRIC METALLIC TUBING	PP	POWER PANEL
EPO	EMERGENCY POWER OFF	PT	POTENTIAL TRANSFORMER
E	EXISTING	PVC	POLYVINYL CHLORIDE
F	FUSE	RFI	RADIO FREQUENCY INTERFERENCE
FA	FIRE ALARM	RGS	RIGID GALVANIZED STEEL CONDUIT
FAAP	FIRE ALARM ANNUNCIATOR PANEL	RMC	RIGID METAL CONDUIT
FACP	FIRE ALARM CONTROL PANEL	RMS	ROOT MEAN SQUARE
FLA	FULL LOAD AMPERES	RP	RECEPTACLE PANEL
FLR	FLOOR	SCA	SHORT CIRCUIT AMPERES
FMC	FLEXIBLE METAL CONDUIT	SW	SWITCH
GF	GENERATOR	SWBD	SWITCHBOARD
GI	GROUND FAULT	T	TELEPHONE
G	GROUND	THD	TOTAL HARMONIC DISTORTION
HID	HIGH INTENSITY DISCHARGE	TIA	TELECOMMUNICATIONS INDUSTRY ASSOCIATION
HOA	HAND OFF AUTO	TV	TELEVISION
HP	HORSEPOWER	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
HPS	HIGH PRESSURE SODIUM	UH	UNIT HEATER
HZ	HERTZ (CYCLE)	UL	UNDERWRITERS LABORATORIES
IC	INTERRUPTING CAPACITY	UNO	UNLESS NOTED OTHERWISE
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS	UPS	UNINTERRUPTIBLE POWER SUPPLY
IG	ISOLATED GROUND	V	VOLTAGE
IMC	INTERMEDIATE METAL CONDUIT	VA	VOLT-AMPERE
JB	JUNCTION BOX	VFD	VARIABLE FREQUENCY DRIVE
KV	KILOVOLT	VM	VOLT METER
KVA	KILOVOLT-AMPERE	W	WATT
KW	KILOWATT	WP	WEATHERPROOF
LPS	LOW PRESSURE SODIUM LIGHTING PANEL	WM	WATT METER
LP	LIGHTING PANEL	XFMR	TRANSFORMER
LRA	LOCKED ROTOR AMPERES		
LRP	LIGHTING RELAY PANEL		
LTG	LIGHTING		



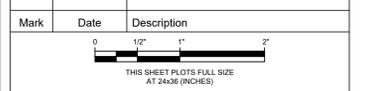
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 Scale

**SYMBOLS AND ABBREVIATIONS**  
 Sheet Title  
**E001**  
 Sheet No.



PHOTO 1: LEGRAND XB814 SERIES OUTDOOR FLOOR BOX WITH QUAD CONFIGURATION WHILE OPEN. GFCI QUAD REQUIRED FOR OUTDOOR COURTYARD USE.



PHOTO 2: LEGRAND XB814 OUTDOOR FLOOR BOX WHILE IN USE (LOCKABLE)



FIXTURE F1: HEIGHT - 17-27"

**GENERAL NOTES FOR DEMOLITION**

1. EXAMINATION
  - A. THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE AREAS UNDER WHICH THE WORK IS TO BE PERFORMED AND NOTIFY THE OWNER IN WRITING OF ANY CONDITIONS DETRIMENTAL TO THE PROPER AND TIMELY COMPLETION OF THE WORK. CONTRACTOR SHALL NOT PROCEED WITH WORK UNTIL SATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
  - B. VERIFY FIELD MEASUREMENTS AND CIRCUITING ARRANGEMENTS FOR DEVICES SHOWN ON DRAWINGS.
  - C. DEMOLITION DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION AND EXISTING RECORD DRAWINGS. REPORT DISCREPANCIES TO OWNER BEFORE DISTURBING EXISTING INSTALLATION.
  - D. COMMENCEMENT OF DEMOLITION MEANS ACCEPTANCE OF EXISTING CONDITIONS.
2. PREPARATION
  - A. DISCONNECT ELECTRICAL SYSTEMS IN WALLS, FLOORS, AND CEILINGS SCHEDULED FOR REMOVAL.
  - B. COORDINATE UTILITY SERVICE SHUT-DOWN WITH THE UTILITY COMPANY.
  - C. NOTIFY THE OWNER AT LEAST 48 HOURS BEFORE PARTIALLY OR COMPLETELY DISABLING ANY ELECTRICAL SYSTEM.
  - D. PROVIDE TEMPORARY WIRING AND CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION. EXPERIENCED PERSONNEL SHALL BE USED WHEN WORKING ON ENERGIZED EQUIPMENT OR CIRCUITS.
  - E. EXISTING ELECTRICAL SERVICE: MAINTAIN EXISTING ELECTRICAL SYSTEM IN SERVICE UNTIL NEW SERVICE IS COMPLETE AND READY FOR SERVICE. DISABLE ELECTRICAL SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. MINIMIZE OUTAGE DURATION. MAKE TEMPORARY CONNECTIONS TO MAINTAIN ELECTRICAL SERVICE IN AREAS ADJACENT TO WORK AREA.
  - F. MAINTAIN EXISTING FIRE ALARM SYSTEM IN SERVICE UNTIL NEW SYSTEM IS ACCEPTED. DISABLE SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. WHERE FIRE ALARM DEVICES MUST BE REMOVED TO ACCOMMODATE THE REMOVAL OF WALLS, NOTIFY THE OWNER AND ENGINEER IN WRITING WITH LOCATIONS OF DEVICES.
3. DEMOLITION AND EXTENSION OF EXISTING ELECTRICAL WORK.
  - A. REMOVE, RELOCATE, AND EXTEND EXISTING ELECTRICAL WORK AS INDICATED ON THE DRAWINGS AND AS NOTED HEREIN.
  - B. DISCONNECT AND REMOVE ELECTRICAL DEVICES AND EQUIPMENT THAT IS NO LONGER IN USE.
  - C. DISCONNECT AND REMOVE ABANDONED LUMINAIRES, REMOVE BRACKETS, STEMS, HANGERS, AND ALL OTHER ACCESSORIES.
  - D. REPAIR ADJACENT CONSTRUCTION AND FINISHES DAMAGED DURING DEMOLITION AND EXTENSION OF WORK.
4. CLEANING, REPAIR, AND REPLACEMENT
  - A. GENERAL: CLEAN AND REPAIR EXISTING MATERIALS AND EQUIPMENT THAT WILL REMAIN OR ARE TO BE REUSED.
  - B. PANELBOARDS: CLEAN EXPOSED SURFACES AND TIGHTEN ALL ELECTRICAL CONNECTIONS. REPLACE DAMAGED CIRCUIT BREAKERS AND PROVIDE CLOSURE PLATES FOR VACANT POSITIONS. PROVIDE TYPED SCHEDULES SHOWING REVISED CIRCUITING INFORMATION.
  - C. LUMINAIRES: REMOVE EXISTING LUMINAIRES FOR CLEANING. USE MILD DETERGENT TO CLEAN EXTERIOR AND INTERIOR SURFACES. RINSE CLEAN WITH CLEAN WATER AND WIPE DRY. REPLACE EXISTING LAMPS AND BALLASTS WITH NEW.
5. DISPOSAL
  - A. OWNER SHALL HAVE RIGHT TO RETAIN ANY EQUIPMENT OR MATERIALS THAT HAVE BEEN DEMOLISHED PRIOR TO DISPOSAL OR REMOVAL FROM SITE.
  - B. ANY EQUIPMENT OR MATERIALS NOT WANTED BY THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED FROM SITE.
  - C. CONTRACTOR SHALL COMPLY WITH ENVIRONMENTAL LAWS AND REGULATIONS FOR DISPOSAL OF DEMOLISHED MATERIALS AND EQUIPMENT.

**ELECTRICAL GENERAL NOTES**

1. CODES
 

THE WORK SHALL COMPLY WITH ALL APPLICABLE LOCAL, MUNICIPAL, AND NATIONAL CODES. WHERE THE CONSTRUCTION DOCUMENTS INDICATE MORE RESTRICTIVE REQUIREMENTS THE CONSTRUCTION DOCUMENTS SHALL GOVERN. HOWEVER, THE CONSTRUCTION DOCUMENTS SHALL NOT BE INTERPRETED AS AUTHORITY TO VIOLATE ANY CODE OR REGULATION.
2. DRAWINGS AND SPECIFICATIONS
 

THE CONTRACTOR SHALL BE RESPONSIBLE FOR READING AND COMPLYING WITH BOTH THE DRAWINGS AND SPECIFICATIONS. IN THE EVENT OF A CONFLICT OR INCONSISTENCY BETWEEN THE DRAWINGS, NOTES, SPECIFICATIONS, OR CODES, THE REFERENCE WHICH PROVIDES THE MORE COMPLETE OR HIGHER STANDARD SHALL PREVAIL.
3. INTERPRETATION OF THE DOCUMENTS
 

CAREFULLY COMPARE THE DRAWINGS AND SPECIFICATIONS, CHECKING MEASUREMENTS AND CONDITIONS UNDER WHICH THIS INSTALLATION IS TO BE MADE. FOR CLARIFICATION BETWEEN VARIOUS DRAWINGS, BETWEEN DRAWINGS OR SPECIFICATION, OR BETWEEN SECTIONS OF THE SPECIFICATION, THE MATTER SHALL BE REFERRED TO THE ENGINEER BEFORE ANY WORK IS EXECUTED. THE CONTRACTOR SHALL STATE IN THEIR PROPOSAL ANY EXCEPTIONS NECESSARY TO MAKE THIS A COMPLETE, READY TO USE INSTALLATION. IF NOT STATED IN THE PROPOSAL, IT WILL NOT BE CONSIDERED EXTRA.
4. ELECTRICAL DRAWINGS
 

THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL DOORS, WALLS, FURNITURE, EQUIPMENT, ETC. THE LOCATION OF RACEWAY SYSTEM COMPONENTS IS SCHEMATIC. THE EXACT LOCATION OF RACEWAY SYSTEM COMPONENTS SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD. THE CONTRACTOR SHALL CONFIRM THE DIMENSIONS OF THE ACTUAL EQUIPMENT TO BE SUPPLIED FOR THIS PROJECT, AND VERIFY CLEARANCES AND ROUGH-INS PRIOR TO STARTING WORK.
5. SITE EXAMINATION
 

BEFORE SUBMITTING A BID, THE CONTRACTOR SHALL VISIT THE SITE, EXAMINE THE PREMISES, AND MAKE A THOROUGH SURVEY OF THE EXISTING CONDITIONS. THE SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE. NO CONSIDERATION OR ALLOWANCE WILL BE GRANTED FOR FAILURE TO VISIT THE SITE OR FOR LATER CLAIMS FOR LABOR, EQUIPMENT, MATERIALS REQUIRED, OR FOR DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN HAD SUCH AN SITE EXAMINATION BEEN MADE.
6. COORDINATION WITH OTHER TRADES
 

THE ELECTRICAL CONTRACTOR SHALL OBTAIN A COMPLETE SET OF ARCHITECTURAL AND ENGINEERING DOCUMENTS AND COORDINATE WITH PLUMBING, ARCHITECTURAL, AND OTHER TRADES FOR EXACT DIMENSIONS, CLEARANCES, ROUGH-IN LOCATIONS, AND OTHER ADDITIONAL SCOPES OF WORK THAT MAY NOT BE SHOWN ON THE ELECTRICAL PLANS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL 120 VOLT (AND HIGHER) AC POWER TO OTHER TRADES EQUIPMENT AND HARDWARE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, CONTROLS, FIRE AND SECURITY SYSTEMS, MOTORIZED DOORS, DAMPERS, LIFTS, AND OTHER SYSTEMS, UNLESS SPECIFICALLY NOTED OTHERWISE ON THE ELECTRICAL PLANS. THE ELECTRICAL CONTRACTOR SHALL FURNISH ALL SAFETY DISCONNECT SWITCHES TO MECHANICAL EQUIPMENT.
7. PERMITS, APPLICATIONS AND RELEASES
 

THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS INSPECTIONS, APPLICATIONS, RELEASES AND FEES REQUIRED BY LOCAL, STATE AND FEDERAL AGENCIES FOR THE EXECUTION OF THIS WORK. SCHEDULING OF ALL REQUIRED INSPECTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
8. FIRE STOPPING
 

ALL PENETRATIONS IN WALL, FLOOR OR CEILINGS SHALL BE SUITABLY CLOSED UP AND SEALED WITH AN INTUMESCENT FIRE STOPPING COMPOUND LISTED IN THE MOST RECENT FACTORY MUTUAL RESEARCH CORPORATION (FMRC) APPROVAL GUIDE. FIRE STOPPING PRODUCTS SHALL BE MANUFACTURED BY 3M COMPANY OR APPROVED EQUAL.
9. PAINTING
 

ALL NEWLY INSTALLED EXPOSED PIPING IN FINISHED AREA SHALL BE PAINTED TO MATCH THE EXISTING ADJACENT WALL OR CEILING SURFACE.
10. ELECTRICAL SERVICE DISRUPTIONS
 

ALL WORK WHICH EXPOSES ACTIVE BUS REQUIRES A WRITTEN NOTIFICATION TO THE OWNER WHICH WILL OUTLINE THE METHOD OF PROCEDURE FOR THE WORK. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 5 DAYS NOTICE TO THE OWNER BEFORE WORKING ON ANY ENERGIZED ELECTRICAL SYSTEM. ALL POWER DISRUPTION SHALL OCCUR AT TIMES AND OF DURATIONS ACCEPTABLE TO THE OWNER.
11. EQUIPMENT
 

ALL MATERIALS AND EQUIPMENT USED IN THIS INSTALLATION SHALL BE NEW, AND HAVE THE APPROPRIATE UL LISTING AND LABEL.
12. MISCELLANEOUS SUPPORTING MEMBERS
 

ALL ANGLES CHANNELS, AND OTHER MISCELLANEOUS STEEL, BOLTS, RODS, ETC. REQUIRED TO SUPPORT LIGHT FIXTURE, CONDUIT, RACEWAY, LADDER TRAY, OR OTHER ELECTRICAL EQUIPMENT OR DEVICES SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
13. PANELBOARDS
 

ALL PANELBOARDS SHALL BE PROVIDED WITH TYPEWRITTEN DIRECTORIES. SEE PANEL SCHEDULES ON THE DRAWINGS AND SPECIFICATIONS FOR COMPLETE IDENTIFICATION AND LABELING REQUIREMENTS.

  - A. EXISTING PANEL BOARDS TO BE REUSED SHALL BE PROVIDED WITH UPDATED TYPE WRITTEN DIRECTORIES AFTER NEW WORK IS COMPLETED. CONTRACTOR SHALL PROVIDE NEW CIRCUIT BREAKERS TO MATCH EXISTING PANEL BOARDS AS INDICATED ON DRAWINGS.
  - B. NEW BRANCH CIRCUIT AND LIGHTING PANEL BOARDS SHALL BE OF THE DEAD-FRONT, SAFETY TYPE, WITH BOLTED-TYPE UL LISTED MOLDED CASE CIRCUIT BREAKERS. CIRCUIT BREAKERS SHALL BE LISTED AS SWITCH RATED (SWD) FOR LIGHTING CIRCUITS. VOLTAGE RATINGS, NUMBER OF POLES, FRAME SIZES, TRIP RATINGS, MAIN BREAKER, NEUTRAL BUS, AND EQUIPMENT GROUND BARS ARE AS SHOWN ON THE DRAWINGS. PANEL BOARDS ARE TO BE FULLY RATED FOR THE SHORT CIRCUIT RATING SHOWN ON THE DRAWINGS BUT NOT LESS THAN 22,000 AMPS. BUS BARS SHALL BE RECTANGULAR, SOLID COPPER, MAXIMUM OF 1000 AMPS PER SQUARE INCH, SECURELY MOUNTED AND BRACED. ALL CONNECTIONS TO BUS BARS SHALL BE SECURELY BOLTED. CABINETS BOXES SHALL BE CONSTRUCTED OF CODE GRADE GALVANIZED STEEL, SIZED TO PROVIDE MINIMUM 4-INCH WIDE WIRING GUTTERS ON SIDES, TOPS AND BOTTOM.
14. SAFETY
 

THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO ENSURE THE SAFETY OF THE OWNERS EMPLOYEES, BUILDING EMPLOYEES AND GUESTS, AS WELL AS THEIR OWN FORCES, BY ADEQUATELY PROTECTING ANY EXPOSED LIVE CONDUCTORS, OR DEVICES THROUGHOUT THE COURSE OF THIS WORK.

COMPLY WITH NFPA 241 FOR SAFEGUARDING DURING CONSTRUCTION AND ALTERATION OPERATIONS. IN ADDITION, ANY OPENINGS IN FIRE RATED SEPARATIONS BETWEEN OCCUPIED AND UNOCCUPIED (OR OPERATIONAL AND NON-OPERATIONAL) AREAS SHALL BE SEALED AT THE END OF EACH WORK DAY WITH AN APPROPRIATE FIRE RATED ENCLOSURE OR SEALANT. DO NOT COMPROMISE EXISTING SECURITY OR FIRE ALARM SYSTEMS SERVING THE OCCUPIED OR OPERATIONAL AREAS.
15. EQUIPMENT CONNECTIONS
 

PROVIDE FINAL ELECTRICAL CONNECTIONS TO ALL EQUIPMENT FURNISHED UNDER OTHER TRADES AND FOR ALL OWNER FURNISHED EQUIPMENT. PROVIDE A FLEXIBLE LIQUID TIGHT CONNECTION TO ALL VIBRATION PRODUCING EQUIPMENT.
16. INTERFERENCE WITH OCCUPANCY
 

THE PRESENT BUILDING IS OCCUPIED AND WILL CONTINUE TO BE DURING THE PROGRESS OF THIS WORK. IT IS IMPERATIVE, THEREFORE, THAT THE WORK COVERED BY THESE DOCUMENTS BE EXECUTED WITH A MINIMUM OF INCONVENIENCE TO THE BUILDING PERSONNEL, AND OTHER TENANTS.
17. TEMPORARY REQUIREMENTS
 

PROVIDE TEMPORARY LIGHTING AND POWER COMPONENTS AS REQUIRED IN AREAS UNDERGOING WORK DURING CONSTRUCTION.

FURNISH AND INSTALL ONE OSHA APPROVED PIGTAIL SOCKET WITH 150-WATT LAMP FOR EVERY 500 SQUARE FEET OF FLOOR SPACE AND A MINIMUM 1 PER ROOM. THE TEMPORARY LIGHTING SHALL BE LEFT IN PLACE UNTIL PERMANENT LIGHTING IS COMPLETELY OPERATIONAL.

FURNISH AND INSTALL POWER OUTLETS TO A TOTAL ONE FOR EVERY 2000 SQUARE FEET OR PART THEREOF OF FLOOR AREA AND THESE SHALL BE 15 AMP, SINGLE PHASE RECEPTACLES FOR EITHER 110 OR 220 VOLTS AS DIRECTED BY THE GENERAL CONTRACTOR. COORDINATE FOR ADDITIONAL TEMPORARY POWER REQUIREMENTS WITH OTHER TRADES AND PROVIDE AN ADEQUATE INSTALLATION.
18. CABLING
 

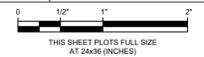
BRANCH CIRCUITS TO RECEPTACLES, LIGHTING AND MISC. SMALL LOADS (15 OR 20 AMP CIRCUITS), UNLESS SPECIFICALLY NOTED OTHERWISE, SHALL BE 2#12, 1#12G, - 3/4" C. SEE NOTE BELOW FOR ADDITIONAL REQUIREMENTS. MINIMUM SIZE WIRE SHALL BE #12 AWG AND MINIMUM SIZE CONDUIT SHALL BE 3/4" TRADE SIZE.
19. CABLING SIZES
 

BRANCH CIRCUIT CABLE SIZING SHALL BE BASED ON THE VALUES INDICATED BELOW:

  - A. 120/208V CABLING FROM PANEL TO THE ELECTRICAL LOAD SHALL BE ADJUSTED AS FOLLOWS UNLESS SPECIFICALLY NOTED OTHERWISE:
    - 0' - 65' #12 AWG MINIMUM
    - 65' - 103' #10 AWG MINIMUM
    - 103' - 161' #8 AWG MINIMUM
    - 161' - 250' #6 AWG MINIMUM
  - B. 277/480V CABLING FROM PANEL TO THE ELECTRICAL LOAD SHALL BE ADJUSTED AS FOLLOWS UNLESS SPECIFICALLY NOTED OTHERWISE:
    - 0' - 140' #12 AWG MINIMUM
    - 140' - 225' #10 AWG MINIMUM
    - 225' - 350' #8 AWG MINIMUM
20. SPECIAL LUG REQUIREMENTS
 

ANY CABLE WHICH TERMINATES DIRECTLY ON TO A BUS BAR SHALL BE 2 BOLT LONG BARREL TYPE WITH INSPECTION HOLES PRODUCED WITH NON FLASHING TYPE DYES AS MANUFACTURED BY THOMAS AND BETTS OR APPROVED EQUAL. MINIMUM 10 TONS OF COMPRESSION, HEX CRIMP. THE USE OF HEAT SHRINK TUBING IS EXPLICITLY FORBIDDEN. THERE SHALL BE NO 'SHINERS' AT THE LUGS.

Mark	Date	Description



Project No.	2024.3861.0
Date	May 27, 2025
Drawn	JWE
Checked	SSC
Scale	

**GENERAL NOTES, DEMOLITION  
NOTES, EQUIPMENT SCHEDULE  
& PRODUCT IMAGES**

Sheet Title

**E002**

Sheet No.

Plotted: 5/16/2025 2:24 PM by Nadiyah Mahmud File Name: P:\24-Projects\P24-1146-000\04-Design\05-GBA-Dwg\electrical\E004.dwg



# COMcheck Software Version COMcheckWeb Exterior Lighting Compliance Certificate

### Project Information

Energy Code: 2021 IECC  
Project Title: P24-1146 Lake Forest Library  
Project Type: New Construction  
Exterior Lighting Zone: 2 (Residential mixed use area (LZ2))

Construction Site: Owner/Agent: Designer/Contractor:

### Allowed Exterior Lighting Power

Area/Surface Category	B Quantity	C Allowed Watts /	D Tradable Wattage	E Allowed Watts (B X C)
WEST COURTYARD (Special feature area)	2031 ft2	0.1	Yes	203
EAST COURTYARD (Special feature area)	2007 ft2	0.1	Yes	201
Total Tradable Watts (a) =				404
Total Allowed Watts =				404
Total Allowed Supplemental Watts (b) =				400

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.  
(b) A supplemental allowance equal to 400 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

### Proposed Exterior Lighting Power

Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Watt.	E (C X D)
WEST COURTYARD (Special feature area, 2031 ft2): Tradable Wattage				
F1 - PATH LIGHT: F1: PATH LIGHT: Other:	1	13	4	46
REFURBISHED LIGHT: REFURBISHED LIGHT: Other:	1	1	50	50
EAST COURTYARD (Special feature area, 2007 ft2): Tradable Wattage				
F1 - PATH LIGHT: F1: PATH LIGHT: Other:	1	13	4	46
REFURBISHED LIGHT: REFURBISHED LIGHT: Other:	1	1	50	50
Total Tradable Proposed Watts =				191

Exterior Lighting PASSES: Design 76% better than code

### Exterior Lighting Compliance Statement

Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2021 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title: Jordan Martin - Associate Signature: *Jordan Martin* Date: 05/19/2025

Project Title: P24-1146 Lake Forest Library Report date: 05/12/25  
Data filename: Page 1 of 4



# COMcheck Software Version COMcheckWeb Inspection Checklist

Energy Code: 2021 IECC

Requirements: 100.0% were addressed directly in the COMcheck software  
Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req. ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR8] <sup>1</sup>	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C406 [PR9] <sup>1</sup>	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

### Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: P24-1146 Lake Forest Library Report date: 05/12/25  
Data filename: Page 2 of 4

Section # & Req. ID	Final Inspection	Complies?	Comments/Assumptions
C405.3.1 [F13] <sup>1</sup>	Exterior lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Exterior Lighting fixture schedule for values.
C408.1.1 [F15] <sup>1</sup>	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

### Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: P24-1146 Lake Forest Library Report date: 05/12/25  
Data filename: Page 4 of 4

Section # & Req. ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.7 [EL28] <sup>1</sup>	Automatic lighting controls for exterior lighting installed. Controls will be daylight controlled, set based on business operation time-of-day, or reduce connected lighting > 30%.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	<b>Exception:</b> Emergency lighting normally auto controlled to off during building operation, safety requirements, or decorative gas lighting.
C405.7 [EL26] <sup>1</sup>	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	<b>Exception:</b> Requirement does not apply.
C405.8 [EL27] <sup>1</sup>	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	<b>Exception:</b> Requirement does not apply.
C405.9.1, C405.9.2 [EL28] <sup>1</sup>	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	<b>Exception:</b> Requirement does not apply.
C405.10 [EL29] <sup>1</sup>	Total voltage drop across the combination of feeders and branch circuits <= 5%.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.1.1 [EL30] <sup>1</sup>	At least 90% of dwelling unit permanently installed lighting shall have lamp efficacy >= 65 lm/W or luminaires with efficacy >= 45 lm/W or comply with C405.2.4 or C405.3.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	<b>Exception:</b> Requirement does not apply.
C405.11, C405.11.1 [EL31] <sup>1</sup>	50% of 15/20 amp receptacles installed in enclosed offices, conference rooms, copy rooms, break rooms, classrooms and workstations and > 25% of branch circuit feeders for modular furniture will have automatic receptacle control in accordance with C405.11.1.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	<b>Exception:</b> Requirement does not apply.

### Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: P24-1146 Lake Forest Library Report date: 05/12/25  
Data filename: Page 3 of 4



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Project  
Lake Forest Library  
Courtyard  
Rehabilitation

360 East Deerpath Road  
Lake Forest, IL 60045

Client  
Lake Forest Library

360 East Deerpath Road  
Lake Forest, IL 60045

Mark Date Description  
0 1/2" 1" 2"  
THIS SHEET PLOTS FULL SIZE  
AT 24x36 (INCHES)

Project No. 2024.3861.0

Date May 27, 2025

Drawn JWE

Checked SSC

Scale

ELECTRICAL COMCHECK

Sheet Title

Sheet No. E004

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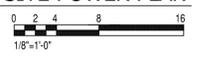
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- GENERAL NOTES**
- A. SEE DRAWING E001 FOR SYMBOLS, ABBREVIATIONS AND NOTES.
  - B. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE SCOPE, EXTEND, AND CHARACTER OF THE WORK TO BE PERFORMED. COORDINATE WITH ALL TRADES INVOLVED IN THE PROJECT PRIOR TO BEGINNING WORK.
  - C. VERIFY EXACT LOCATION OF NEW EQUIPMENT AND FIXTURES WITH ARCHITECT AND OWNER'S REPRESENTATIVE PRIOR TO THE START OF WORK.
  - D. INTERIOR CONDUITS SHALL BE EMT, EXTERIOR BELOW-GRADE CONDUIT SHALL BE PVC AS NOTED, EXTERIOR ABOVE GROUND CONDUITS SHALL BE GALVANIZED RIGID METAL (GRC)

- CONSTRUCTION PLAN NOTES**
- 1. APPROXIMATE LOCATION OF THE BASEMENT MAIN ELECTRICAL ROOM, NEW ELECTRICAL PANEL AND MOST CIRCUITRY FOR THE WEST COURTYARD WILL BE INSTALLED FROM THIS SPACE.
  - 2. APPROXIMATE BASEMENT LOCATION OF EXISTING PANEL PP-1 WHICH PROVIDES NEW CIRCUITRY REQUIRED FOR THE EAST COURTYARD.
  - 3. AREA OF WORK FOR THE WEST COURTYARD, MAIN LEVEL.
  - 4. AREA OF WORK FOR THE EAST COURTYARD, MAIN LEVEL.

**1 OVERALL ELECTRICAL SITE POWER PLAN**



**WJE** ENGINEERS  
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MATERIALS SCIENTISTS

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Project

**Lake Forest Library  
Courtyard  
Rehabilitation**

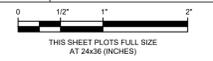
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Lake Forest, IL 60045

Client

**Lake Forest Library**

360 East Deerpath Road  
Lake Forest, IL 60045

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Project No. 2024.3861.0

Date May 27, 2025

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**OVERALL ELECTRICAL SITE  
POWER PLAN**

Sheet Title

**E100**

Sheet No.

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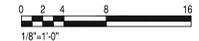


\*UNO. NEW PANEL P4 SERVES THE WEST COURTYARD AND BASEMENT MAIN ELECTRICAL ROOM

- GENERAL NOTES**
- SEE DRAWING E001 FOR SYMBOLS, ABBREVIATIONS AND NOTES.
  - THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE SCOPE, EXTEND, AND CHARACTER OF THE WORK TO BE PERFORMED. COORDINATE WITH ALL TRADES INVOLVED IN THE PROJECT PRIOR TO BEGINNING WORK.
  - VERIFY EXACT LOCATION OF NEW EQUIPMENT AND FIXTURES WITH ARCHITECT AND OWNER'S REPRESENTATIVE PRIOR TO THE START OF WORK.
  - INTERIOR CONDUITS SHALL BE EMT, EXTERIOR BELOW-GRADE CONDUIT SHALL BE PVC AS NOTED, EXTERIOR ABOVE GROUND CONDUITS SHALL BE GALVANIZED RIGID METAL (GRC)

- CONSTRUCTION PLAN NOTES**
- PROVIDE NEW 100A-2P FUSES IN SWITCHBOARD MDP-2 FOR NEW PANEL P4. USE THE SPARE 100A SCKET ON MDP-2 LOCATED TO THE RIGHT OF JUDYS OFFICE COMPUTER CLOSET.
  - FIELD ROUTE NEW CONDUIT AND CIRCUITRY TO NEW PANEL P4 FROM THE EXISTING OPENING ON RIGHT SIDE OF MDP-2 ADJACENT TO CIRCUIT BREAKER, AND ROUTE ALONG WALL OVER TO NEW PANEL P4 LOCATION USING 3/8", 1/8" GND, IN 1-1/4" FOR INSTALLATION.
  - POWER FOR EAST COURTYARD RECEPTACLES AND NEW PATH LIGHT FIXTURES ARE TO UTILIZE SPARE CIRCUIT BREAKERS IN EXISTING PANEL PP1.
  - FIELD ROUTE NEW CIRCUITRY OVERHEAD AND ALONG THE WALLS OF THE ELECTRICAL ROOM OVER TO THE EXTERIOR WALL ADJACENT THE WEST COURTYARD. MOUNT ONE LARGE ENOUGH JUNCTION BOX ALONG WALL TO HOUSE THE EMERGENCY BALLASTS FOR THE PATH LIGHT FIXTURES, DAYLIGHT SENSOR CONNECTION, ASTRONOMICAL TIME CLOCK, AND A 120V TO 12V TRANSFORMER FOR LOW VOLTAGE WIRING. MOUNT ANOTHER 4' x 4' JUNCTION BOX FOR COURTYARD RECEPTACLES. CORE DRILL THROUGH THE EXTERNAL WALL AND INTO THE WEST COURTYARD. COURTYARD ELECTRICAL INSTALLATION TO BE COORDINATED WITH EXCAVATION WORK AND IS TO BE INSTALLED PRIOR TO FINAL BACKFILLING OF THE COURTYARD. CONDUIT TO BE BURIED AT LEAST 24" BELOW FINISHED GRADE.
  - FIELD ROUTE NEW CIRCUITRY OVERHEAD AND ALONG THE WALLS OF THE EQUIPMENT ROOM, STORAGE ROOM, AND MECHANICAL ROOM OVER TO THE EXTERIOR WALL ADJACENT THE EAST COURTYARD. MOUNT LARGE ENOUGH JUNCTION BOX ALONG WALL TO HOUSE THE EMERGENCY BALLASTS FOR THE PATH LIGHT FIXTURES, DAYLIGHT SENSOR CONNECTION, ASTRONOMICAL TIME CLOCK AND A 120V TO 12V TRANSFORMER FOR LOW VOLTAGE WIRING. MOUNT ANOTHER 4' x 4' JUNCTION BOX FOR COURTYARD RECEPTACLES. CORE DRILL THROUGH THE EXTERNAL WALL AND INTO THE EAST COURTYARD. COURTYARD ELECTRICAL INSTALLATION TO BE COORDINATED WITH EXCAVATION WORK AND IS TO BE INSTALLED PRIOR TO FINAL BACKFILLING OF THE COURTYARD. CONDUIT TO BE BURIED AT LEAST 24" BELOW FINISHED GRADE.
  - PROVIDE LOCKABLE 20A, 120V, 1-PHASE TOGGLE DISCONNECT AND ELECTRICAL CONNECTION TO HEAT TRACE CONTROLLER. PROVIDE COMPLETE HEAT TRACE SYSTEM INCLUDING INDOOR CONTROLLER WITH ADJUSTABLE SET POINTS, OUTDOOR AMBIENT AIR TEMPERATURE SENSOR, SELF-REGULATING HEAT TRACE CABLING AND ALL ACCESSORIES AND COMPONENTS FOR A COMPLETE AND COMPATIBLE INSTALLATION. CONTROLLER SHALL BE RAYCHEM ECW-GF OR EQUAL. SEE SHEET E102 FOR ADDITIONAL SCOPE.

**1 ELECTRICAL POWER PLANS - BASEMENT - NEW WORK**



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Project

**Lake Forest Library  
Courtyard  
Rehabilitation**

360 East Deerpath Road  
Lake Forest, IL 60045

Client

**Lake Forest Library**

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Project No. 2024.3861.0

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Drawn JWE

Checked SSC

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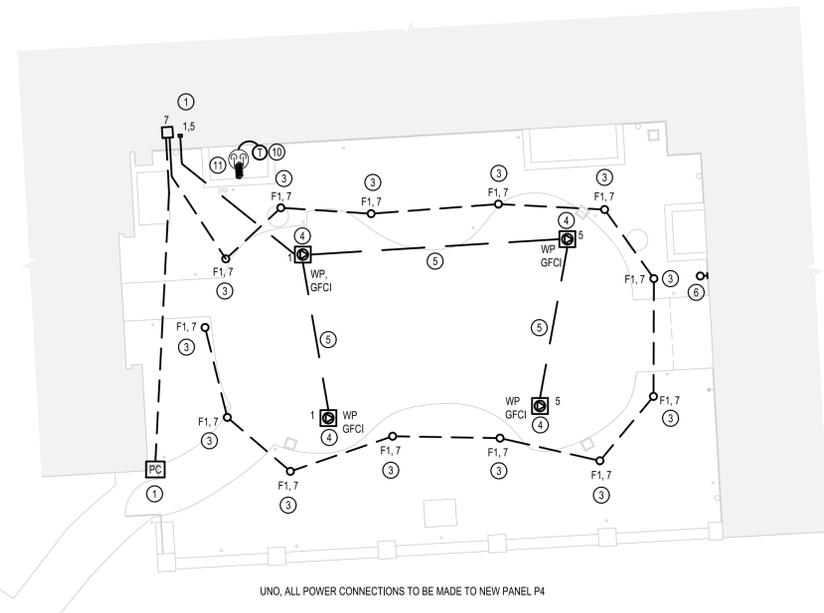
**ELECTRICAL POWER PLANS - NEW WORK**

Sheet Title

**E101**

Sheet No.

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**1 WEST COURTYARD - ELECTRICAL POWER & LIGHTING PLANS - NEW WORK**



**2 EAST COURTYARD - ELECTRICAL POWER & LIGHTING - NEW WORK**



**GENERAL NOTES**

- SEE DRAWING E001 FOR SYMBOLS, ABBREVIATIONS AND NOTES.
- THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE SCOPE, EXTENT, AND CHARACTER OF THE WORK TO BE PERFORMED. COORDINATE WITH ALL TRADES INVOLVED IN THE PROJECT PRIOR TO BEGINNING WORK.
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- INTERIOR CONDUITS SHALL BE EMT. EXTERIOR BELOW-GRADE CONDUIT SHALL BE PVC AS NOTED. EXTERIOR ABOVE GROUND CONDUITS SHALL BE GALVANIZED RIGID METAL (GRC)

**CONSTRUCTION PLAN NOTES**

- FROM ELECTRICAL ROOM MOUNTED JUNCTION BOX. CORE DRILL THROUGH EXTERIOR WALL INTO THE WEST COURTYARD. ROUTE 3/4\" SCH 40 PVC CONDUIT WITH 2#14, 1#14, 2# BENEATH FINISHED GRADE AND STUB CONDUIT BENEATH NEAREST PATH LIGHT FIXTURE. ROUTE 3/4\" SCH 40 PVC CONDUIT 24\" BENEATH FINISHED GRADE AND STUB CONDUIT INTO NEW COURTYARD WALL AND RUN CONDUIT UP THROUGH THE WALL TO PHOTOCELL LOCATION AT TOP OF WALL.
- FROM STORAGE/MECHANICAL ROOM MOUNTED JUNCTION BOX. CORE DRILL THROUGH EXTERIOR WALL INTO THE EAST COURTYARD. ROUTE 3/4\" SCH 40 PVC CONDUIT WITH 2#14, 1#14, 2# BENEATH FINISHED GRADE AND STUB CONDUIT BENEATH NEAREST PATH LIGHT FIXTURE. ROUTE 3/4\" SCH 40 PVC CONDUIT 24\" BENEATH FINISHED GRADE AND STUB CONDUIT INTO NEW COURTYARD WALL AND RUN CONDUIT UP THROUGH THE WALL TO PHOTOCELL LOCATION AT TOP OF WALL.
- ROUTE 3/4\" SCH 40 PVC CONDUIT BETWEEN AND STUB CONDUIT BENEATH PATH LIGHT FIXTURES. LIGHT FIXTURES ARE TO BE DAISY CHAINED VIA UNDERGROUND CONDUIT.
- PROVIDE AND INSTALL THE LEGRAND XB814 OUTDOOR LOCKABLE GROUND BOX WITHIN PAVEMENT. COORDINATE FINAL INSTALLATION WITH ARCHITECTURAL DRAWINGS.
- ROUTE 3/4\" SCH 40 PVC CONDUIT BETWEEN AND STUB CONDUIT BENEATH THE OUTDOOR GROUND BOX OF THE LEGRAND XB814 SERIES RECEPTACLES.
- UPON RETURN OF REFURBISHED LIGHT FIXTURES, INSTALL NEW 2#12, 1#12GND IN EXISTING CONDUIT SERVING THE EXTERIOR LIGHTS. ONCE INSTALLED, REFURBISHED LIGHT FIXTURE TO BE RECONNECTED.
- PROVIDE BRANCH BREAKER WITH INTEGRAL GROUND FAULT TRIP FEATURE.
- NEW CIRCUIT FROM PANEL P4, INSTALL 2#12, 1#12GND IN 3/4\" EMT CONDUIT INSIDE BUILDING ENVELOPE AND SCH 40 PVC OUTSIDE BUILDING ENVELOPE, BURIED BENEATH THE BUILDINGS COURTYARD.
- UTILIZE EXISTING CIRCUIT BREAKER AND INSTALL 2#12, 1#12GND IN 3/4\" EMT CONDUIT INSIDE BUILDING ENVELOPE AND SCH 40 PVC OUTSIDE BUILDING ENVELOPE, BURIED BENEATH THE BUILDINGS COURTYARD.
- PROVIDE OUTDOOR AMBIENT AIR TEMPERATURE SENSOR FOR HEAT TRACE SYSTEM. CORE THROUGH EXTERIOR WALL AND PROVIDE RIGID STEEL CONDUIT SLEEVE FOR PASSAGE OF CABLE TO CONTROLLER. MAKE WALL PENETRATION WATER TIGHT AFTER INSTALLATION. COORDINATE EXACT PLACEMENT WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN.
- PROVIDE HEAT TRACE CABLE ALONG EXPOSED EXTERIOR SUMP PUMP PIPING. COORDINATE FINAL LENGTHS, INSULATION TYPE AND ROUTING WITH PLUMBING CONTRACTOR. CORE THROUGH EXTERIOR WALL AND PROVIDE RIGID STEEL CONDUIT SLEEVE FOR PASSAGE OF HEAT TRACE CABLE TO CONTROLLER. MAKE WALL PENETRATION WATER TIGHT AFTER INSTALLATION. CABLE SHALL BE RAYCHEM SXLE1-CT OR EQUAL.

**WJE ENGINEERS ARCHITECTS MATERIALS SCIENTISTS**

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Project

**Lake Forest Library Courtyard Rehabilitation**

360 East Deerpath Road  
Lake Forest, IL 60045

Client

**Lake Forest Library**

360 East Deerpath Road  
Lake Forest, IL 60045

PANEL: P4																
NEW OR EXISTING: NEW				VOLTAGE/PHASE: 120/240V, 1Ø, 3W				NEUTRAL BUS: 100%								
LOCATION: BASEMENT MAIN ELECTRICAL ROOM				BUS AMPS: 100A				GROUND BUS: YES-BOLTED								
MOUNTING: SURFACE				MAIN BREAKER: 100A-2P				ISO. GRND. BUS: NONE								
ENCLOSURE: NEMA 1				FED FROM: MDP-2				FULLY RATED AIC: 22,000								
LOAD DESCRIPTION	LOAD TYPE	NOTE	VOLT-AMPS			CKT	BKR/ POLE	A B	BKR/ POLE	CKT	VOLT-AMPS			NOTE	LOAD TYPE	LOAD DESCRIPTION
W. COURTYARD GROUND REC	R	1	720	0	0	1	20/1	*-	20/1	2	0	0	1		SPARE	
SPARE		1	0	0	0	3	20/1	*-	20/1	4	0	0	1		SPARE	
W. COURTYARD GROUND REC	R	1	720	0	0	5	20/1	*-	20/1	6	0	0	1		SPARE	
W. COURTYARD PATH LIGHTS	L	1	50	0	0	7	20/1	*-	20/1	8	0	0	1		SPARE	
W. COURTYARD SUMP HEAT TRACE	H	1, 4	200	0	0	9	20/1	*-	20/1	10	0	0	1		SPARE	
SPARE		1	0	0	0	11	20/1	*-	20/1	12	0	0	1		SPARE	
SPACE			0	0	0	13		*-		14	0	0			SPACE	
SPACE			0	0	0	15		*-		16	0	0			SPACE	
SPACE			0	0	0	17		*-		18	0	0			SPACE	
SPACE			0	0	0	19		*-		20	0	0			SPACE	
SPACE			0	0	0	21		*-		22	0	0			SPACE	
SPACE			0	0	0	23		*-		24	0	0			SPACE	
<b>BREAKER NOTES</b>			<b>CONNECTED PHASE LOADS</b>				<b>LOAD TYPES CONNECTED</b>				<b>DEMAND</b>					
1) Thermal Magnetic			TOTAL OA = 1,640 VA				LIGHTING (L) = 50				50					
2) Shunt trip			TOTAL OB = 50 VA				RECEPTACLES (R) = 1440				1440					
3) Lock-out device							MOTORS (M) = 0				0					
4) GFCI							ELECTRIC HEATING (H) = 200				160					
5) AFCI							EQUIPMENT (E) = 0				0					
6) HACR							PANELS (P) = 0				0					
			TOTAL VA = 1690				TOTAL VA = 1690				1490					
			TOTAL AMPS = 7.0				TOTAL AMPS = 7.0				6.9					

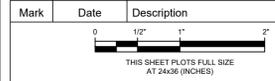
PANEL: PANEL PP1																
NEW OR EXISTING: EXISTING				VOLTAGE/PHASE: 120/240V, 3Ø, 4W DELTA				NEUTRAL BUS: 100%								
LOCATION: CHILDREN'S CENTER HVAC ROOM				BUS AMPS: 225A				GROUND BUS: YES-BOLTED								
MOUNTING: SURFACE				MAIN BREAKER: MLO				ISO. GRND. BUS: NONE								
ENCLOSURE: NEMA 1				FED FROM:				FULLY RATED AIC: 22,000								
LOAD DESCRIPTION	LOAD TYPE	NOTE	VOLT-AMPS			CKT	BKR/ POLE	A B C	BKR/ POLE	CKT	VOLT-AMPS			NOTE	LOAD TYPE	LOAD DESCRIPTION
SPARE		7	0	0	0	1	15/1	*-*		2	0	0	7			
B PHASE HIGH LEG (BLANK)		7	0	0	0	3		*-*	15/3	4	0	0	7		AC-1	
SPARE		7	0	0	0	5	15/1	*-*		6	0	0	7			
RECEPTACLE MECH ROOM		7	0	0	0	7	20/1	*-*		8	0	0	7			
B PHASE HIGH LEG (BLANK)		7	0	0	0	9	20/1	*-*	40/3	10	0	0	7		ACCU-1	
F/A 24 VOLT TRANSFORMER		7	0	0	0	11	15/1	*-*		12	0	0	7			
CONDENSATE PUMP		7	0	0	0	13	20/1	*-*	20/1	14	0	0	7		SPARE	
INJECTOR PUMP		7	0	0	0	15	20/1	*-*	20/1	16	0	0	7		SPARE	
SECURITY KEY SWITCH		7	0	0	0	17	20/1	*-*	20/1	18	0	0	7		CONTROLLERS	
GUTTER MELT		7	0	0	0	19	20/1	*-*	100/2	20	0	0	7			
SPACE			0	0	0	21	20/1	*-*		22	0	0	7		LP-1	
E. COURTYARD GROUND REC	R	1	720	0	0	23	20/1	*-*	20/1	24	0	0			SPACE	
E. COURTYARD GROUND REC	R	1	720	0	0	25	20/1	*-*	20/1	26	0	0			SPACE	
SPACE			0	0	0	27	20/1	*-*	20/1	28	0	0			SPACE	
E. COURTYARD PATH LIGHTS	L	1	50	0	0	29	20/1	*-*	20/1	30	0	0			SPACE	
<b>BREAKER NOTES</b>			<b>CONNECTED PHASE LOADS</b>				<b>LOAD TYPES CONNECTED</b>				<b>DEMAND</b>					
1) THERMAL MAGNETIC			TOTAL OA = 720 VA				LIGHTING (L) = 50				50					
2) SHUNT TRIP			TOTAL OB = 0 VA				RECEPTACLES (R) = 1440				1440					
3) LOCK-OUT DEVICE			TOTAL OC = 770 VA				MOTORS (M) = 0				0					
4) GFCI							ELECTRIC HEATING (H) = 0				0					
5) AFCI							EQUIPMENT (E) = 0				0					
6) HACR							PANELS (P) = 0				0					
7) EXISTING BREAKER			TOTAL VA = 1490				TOTAL VA = 1490				1490					
			TOTAL AMPS = 4.1				TOTAL AMPS = 4.1				4.1					

\*DELTA HIGH LEG, TOP 12 BREAKERS, A+C BELOW THAT

CONTROL SCHEDULE - SEQUENCE OF EVENTS								
ROOM TYPE	ROOM #	SWITCH TYPE				EMERGENCY LIGHTING	CONTROL - BUSINESS HOURS	NOTES
		SWITCHING	DIMMING	OCCUPANCY/ VACANCY	DAYLIGHTING			
EXTERIOR LIGHTS	WEST COURTYARD EAST COURTYARD	LIGHTING CONTROL PANEL	0-10V					1. LIGHTING FIXTURES SHALL BE PROGRAMMED TO TURN OFF 1 HOUR BEFORE BUSINESS OPENING AND 1 HOUR AFTER BUSINESS CLOSING. 2. ASTRONOMICAL TIME CLOCK / PHOTOCELL SHALL TURN OFF LIGHTS WITH ADEQUATE DAYLIGHT.

LIGHTING FIXTURES													
TAG	DESCRIPTION	MANUFACTURER	CATALOG NUMBERS	LED INFORMATION(1)			TOTAL FIXTURE WATTAGE	DRIVER INFORMATION(1)			HOUSING DETAILS		REMARKS
				LUMENS	CRI	CORRELATED COLOR TEMP		V/Ø	DIMMING (YES/NO)	CONTROL TYPE	CEILING OR WALL MOUNTED	SURFACE/ RECESSED/ PENDANT	
F1	PATH LIGHT	ALLIANCE OUTDOOR LIGHTING	PL250-LED	320	*	2700	3.5	12V	NO	DS	GROUND	*	1

NOTES:  
(1) REFER TO MANUFACTURERS INSTRUCTIONS FOR PATH LIGHT INSTALLATION ONE FINAL SELECTION IS MADE.



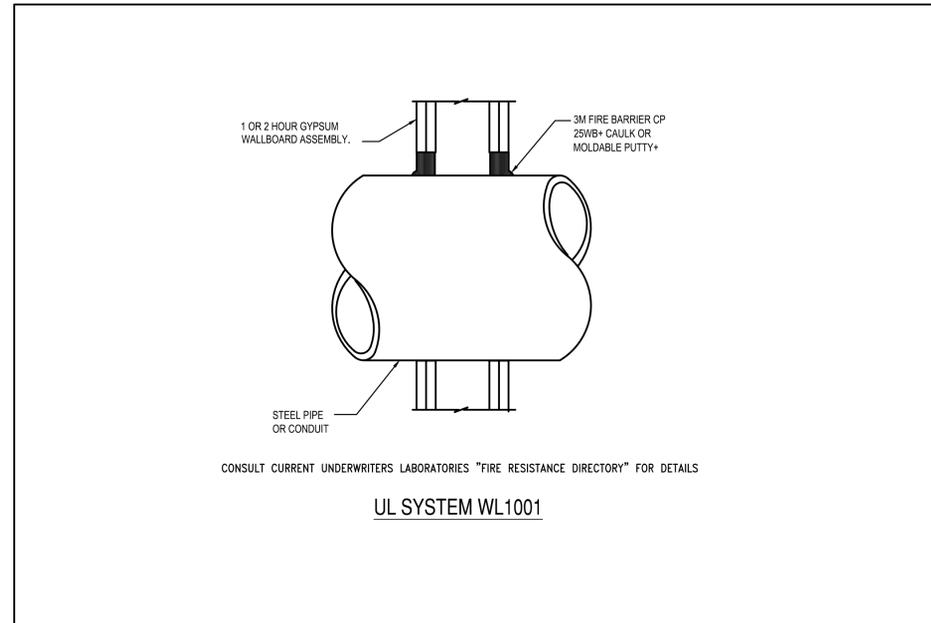
Project No. 2024.3861.0  
Date May 27, 2025  
Drawn JWE  
Checked SSC  
Scale

**ELECTRICAL POWER & LIGHTING PLANS - NEW WORK**  
**PANEL AND LIGHTING SCHEDULES**

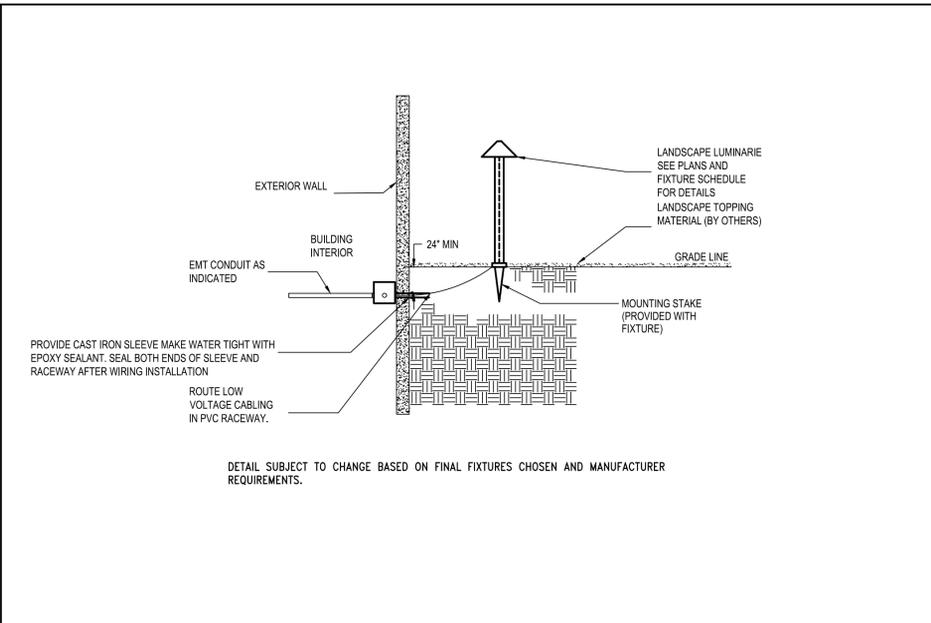
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**E102**  
Sheet No.

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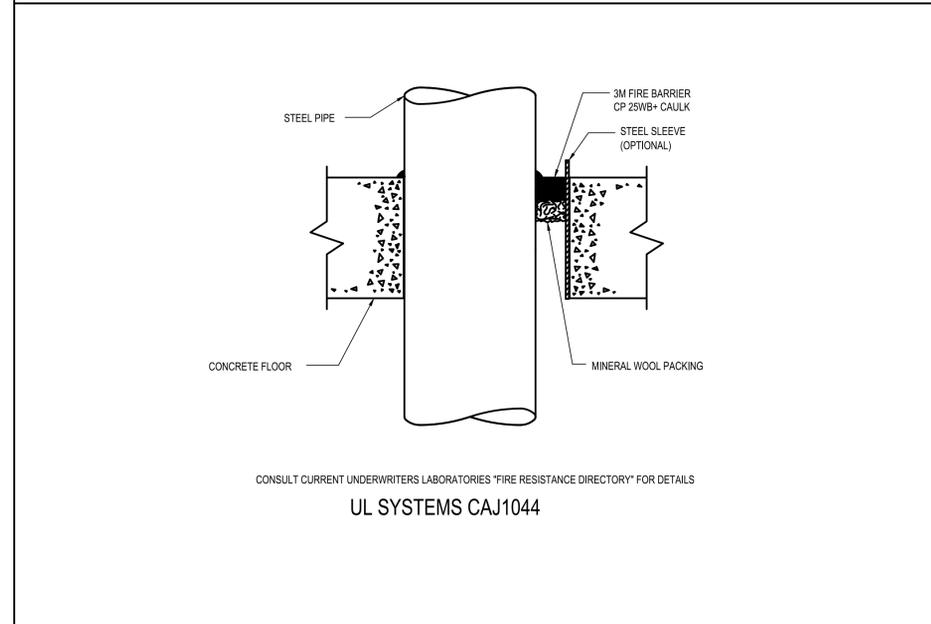
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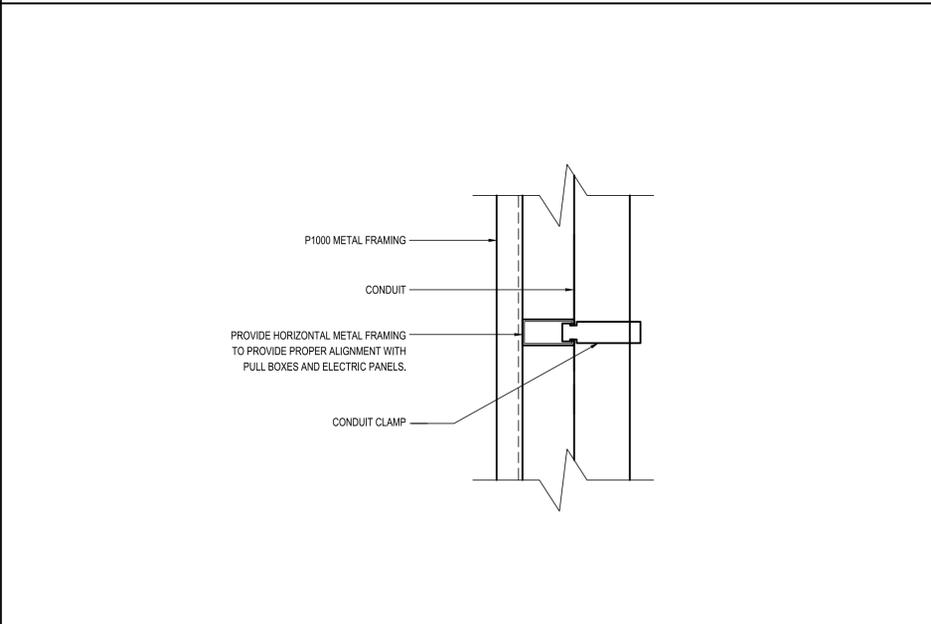
**1** **DETAIL OF CONDUIT FIRESTOP THROUGH RATED GYP WALL**  
NO SCALE



**2** **GROUND MOUNTED FIXTURE INSTALLATION**  
NO SCALE



**3** **DETAIL OF CONDUIT FIRESTOP THROUGH CONCRETE WALL/FLOOR**  
NO SCALE

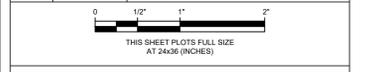


**4** **CONDUIT - VERTICAL SUPPORT**  
NO SCALE

Project  
**Lake Forest Library  
Courtyard  
Rehabilitation**  
360 East Deerpath Road  
Lake Forest, IL 60045

Client  
**Lake Forest Library**  
360 East Deerpath Road  
Lake Forest, IL 60045

Mark	Date	Description



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**ELECTRICAL DETAILS**  
Sheet Title  
**E600**  
Sheet No.

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