

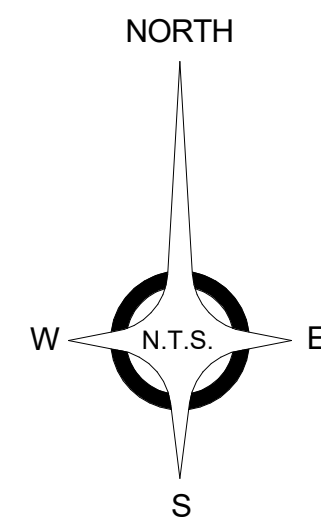
# City of Grosse Pointe Woods



ANDERSON, ECKSTEIN AND WESTRICK, INC.  
CIVIL ENGINEERS SURVEYORS ARCHITECTS

Wayne County, Michigan

## LAKE FRONT PARK BUILDING RENOVATION



LAKE FRONT PARK  
ADDRESS: 23000  
JEFFERSON AVE  
ST. CLAIR SHORES,  
MI 48080

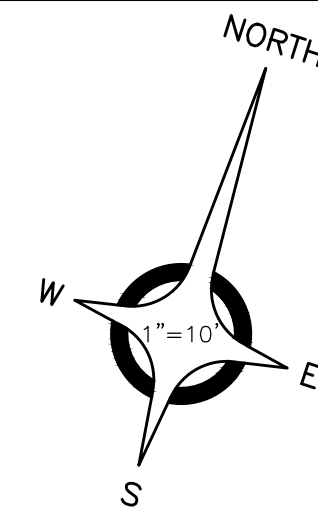
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"I HEREBY CERTIFY THESE PLANS HAVE BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH ACT 240, PUBLIC ACTS OF 1937 AS AMENDED- STATE OF MICHIGAN."

JASON R. ARLOW AIA NO. 1301054547

DATE



**NOTES:**

1. NO ATTEMPT IS MADE TO STIPULATE EVERY REQUIRED ITEM OF REMOVAL AND DEMOLITION EITHER ON DRAWINGS OR IN SPECIFICATIONS. VISIT THE SITE AND STUDY EXISTING PHYSICAL CONDITIONS, REVIEW DRAWINGS, AND REACH CONCLUSIONS ON WORK NECESSARY TO ACCOMPLISH INTENDED RESULTS DESCRIBED BY THE PROJECT DOCUMENTS.
2. ALL DEMOLITION WORK SHALL CONFORM TO GOVERNING AGENCY DESIGN STANDARDS AND SPECIFICATIONS, COMPLY WITH OSHA REGULATIONS INSOFAR AS THEY APPLY TO THE REQUIRED WORK.
3. ALL DEMOLITION WORK SHALL CONFORM TO GOVERNING AGENCY DESIGN STANDARDS AND SPECIFICATIONS, COMPLY WITH OSHA REGULATIONS INSOFAR AS THEY APPLY TO THE REQUIRED WORK.
4. SOIL EROSION AND SILTATION CONTROL MEASURES MUST BE IN PLACE PRIOR TO STARTING REMOVALS AND EARTH MOVING OPERATIONS. THESE CONTROL MEASURES SHALL CONFORM IN ALL RESPECTS TO GOVERNING AGENCY REQUIREMENTS.
5. PROVIDE A DESIGNATED AREA (TO BE APPROVED BY OWNER) FOR STORAGE OF MATERIALS, EQUIPMENT AND PARKING OF THE REQUIRED EQUIPMENT. DESIGNATE A TRAFFIC LANE FOR INGRESS AND EGRESS FROM THE WORK AREA. IF REQUIRED, PROVIDE FLAG MEN FOR A SAFE AND EFFICIENT MOVEMENT OF VEHICLES. NO CHANGES TO THE WORK AREA OR TO THE AGREED TRAFFIC PATTERN SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER CONSTRUCTION MANAGER. THE CONSTRUCTION MANAGER WILL SECURE THE APPROVAL FOR SUCH CHANGES.
6. COMPLETELY RESTORE ALL DISTURBED AREAS TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITION AND TO THE SATISFACTION OF THE OWNER AND MUNICIPALITY. ALL COSTS FOR CLEAN-UP, RESTORATION WORK AND OTHER IMMEDIATE OPERATIONS SUCH AS, BUT NOT LIMITED TO, CONSTRUCTION SIGNAGE, STREET SWEEPING, AND MAINTAINING EXISTING UTILITIES SHALL BE THE CONTRACTORS RESPONSIBILITY. PERFORM RESTORATION WORK WITHIN 5 DAYS AFTER COMPLETION OF FINAL GRADING.
7. WHERE EXISTING PAVEMENT IS TO BE PARTIALLY REMOVED, SAWCUT PAVEMENT FULL DEPTH TO PROVIDE A SMOOTH JOINT WITH PROPOSED PAVEMENT.
8. REMOVE ALL EXISTING UTILITY PIPING SERVICES WITHIN THE DESIGNATED WORK AREA UNLESS OTHERWISE INDICATED ON THE PLANS. DISCONNECT FROM PUBLIC UTILITIES IN ACCORDANCE WITH UTILITY OWNER'S REQUIREMENTS.
9. PROMPTLY REMOVE ALL DEMOLITIONS, REMOVALS, RUBBISH, AND DEBRIS FROM THE LIMITS OF THE OWNER'S PROPERTY AND DISPOSE IN A LEGAL MANNER.
10. EXCAVATIONS AND HAZARDOUS AREAS SHALL BE PROTECTED BY BARRICADES. BARRICADES LEFT IN PLACE AT NIGHT SHALL BE LIGHTED.
11. RESTORE AT CONTRACTOR'S EXPENSE ANY STRUCTURES, PIPE, UTILITY, PAVEMENT, CURBS, SIDEWALKS, LANDSCAPED AREAS, ETC. WITHIN THE SITE OR ADJOINING PROPERTIES DISTURBED DURING DEMOLITION OR CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER, AND TO THE SATISFACTION OF THE OWNER AND LOCAL MUNICIPALITY. ALL WORK WITHIN A D.O.T RIGHT-OF-WAY SHALL COMPLY WITH ALL D.O.T STANDARDS.
12. THE WORK INCLUDED SHALL BE PERFORMED AS INDICATED ON THE PLANS. STOCKPILING, STORAGE OF MATERIALS AND ACCESS TO THE SITE SHALL BE COORDINATED WITH THE OWNER.
13. PRESERVE ALL SURVEY STAKES AND PROPERTY LINE MONUMENTS. ANY STAKES OR MONUMENTS DESTROYED OR DISTURBED IN THE COURSE OF WORK SHALL BE RESTORED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
14. ALL EXCAVATION IS CONSIDERED UNCLASSIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MEANS, METHODS, AND MATERIALS OF CONSTRUCTION TO COMPLETE CONSTRUCTION AS DESIGNED. ADDITIONALLY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE OFF-SITE DISPOSAL OF ANY AND ALL EXCESS OR UNSUITABLE MATERIAL AND THE IMPORTATION OF ANY BORROW MATERIAL NECESSARY TO COMPLETE THE JOB.
15. OWNER RESERVES THE RIGHT TO SALVAGE EXISTING MATERIALS. COORDINATE DISPOSAL OF MATERIALS WITH OWNER.
16. BACKFILL TRENCHES RESULTING FROM UNDERGROUND UTILITY REMOVAL WITH CL-II SAND COMPACTED TO 95% MAX. UNIT WEIGHT.

**NOTE:**

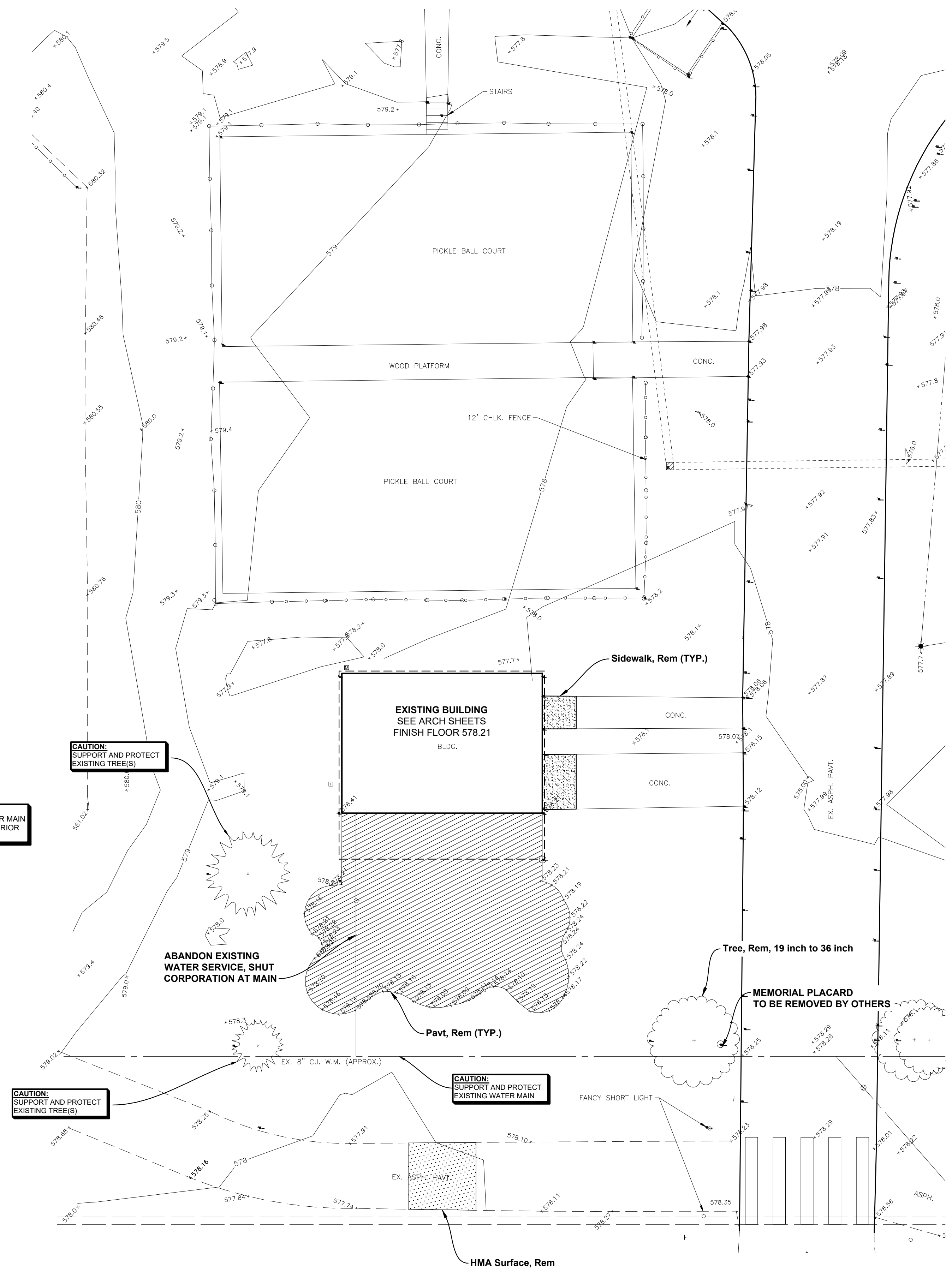
ALL CONSTRUCTION SHALL FOLLOW MDOT 2020 STANDARDS AND SPECIFICATIONS FOR CONSTRUCTION, UNLESS OTHERWISE NOTED HEREIN.

**BENCH MARKS (NAVD88 DATUM)**

BENCH MARK NO. 1  
CHIS 'X' ON SOUTHEAST BOLT LIGHT POLE BASE ON EAST SIDE OF BOAT LAUNCH, 27'± EASTERLY TO DORMANT BARBEQUE GRILL, 18'± SOUTHERLY TO ELECTRIC PEDESTAL FOR BOAT.  
ELEVATION: 580.71

BENCH MARK NO. 331  
CHIS 'X' ON SOUTHEAST BOLT LIGHT POLE BASE 40'± WEST OF WEST END PEDESTRIAN BRIDGE OVER MILK RIVER.  
ELEVATION: 583.65

BENCH MARK NO. 332  
CHIS 'X' ON NORTHEAST BOLT LIGHT POLE BASE ON SOUTH SIDE LAKE FRONT PARK ENTRANCE DRIVE, 300'± EAST OF JEFFERSON.  
ELEVATION: 581.72



**LEGEND**

- SPOT ELEVATION ("+" INDICATES ELEVATION LOCATION UNLESS OTHERWISE INDICATED)
- BOLLARDS
- UTILITY POLE
- ⊞ ELECTRIC PEDESTAL
- ★ LIGHT POLE
- ⊕ SANITARY MANHOLE
- ⊞ STORM CATCH BASIN (PAVT.)
- ⊞ STORM CATCH BASIN (FIELD)
- STORM SEWER
- - - OVERHEAD UTILITIES
- Pavg, Rem
- Sidewalk, Rem
- HMA Surface, Rem
- Excavation, Earth

**ESTIMATED QUANTITIES (THIS SHEET)**

1. Tree, Rem, 19 inch to 36 inch	1	Ea
2. Pavg, Rem	108	Syd
3. Sidewalk, Rem	8	Syd
4. HMA Surface, Rem	11	Syd



1/16/2025	BID ISSUE
DATE	SUBMITTALS/REVISIONS
PROJECT NAME:	

**LAKE FRONT PARK BUILDING RENOVATION**

**REMOVAL PLAN**

CLIENT:  
**CITY GROSSE POINTE WOODS**

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: JPB	CHECKED BY: RTW	DATE: DECEMBER 2024
SCALE: 1" = 10' HORIZ.		



UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING UTILITIES ONLY, AS DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.

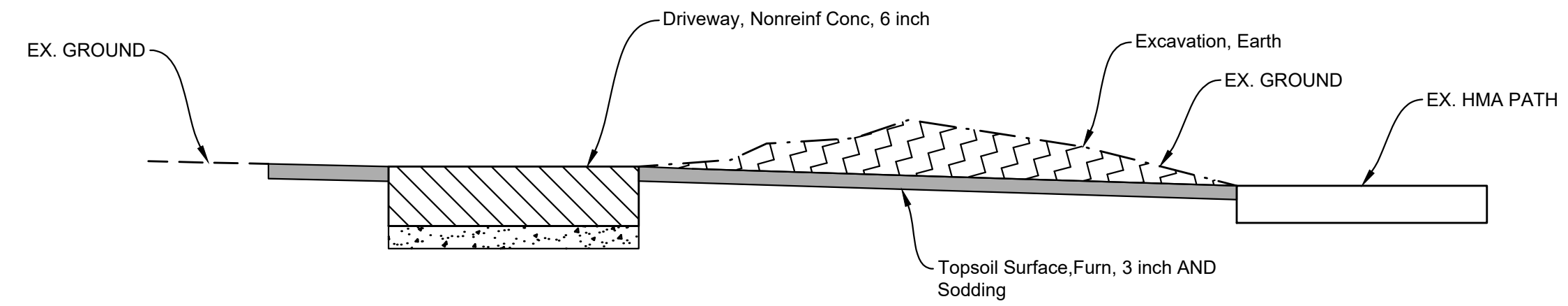
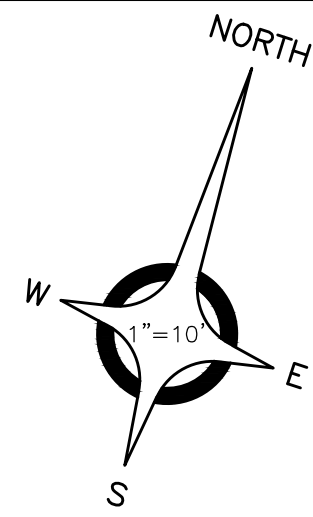
PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES (IN CONFLICT WITH THE CONSTRUCTION OF THESE PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. DURING THE CONSTRUCTION, THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL UTILITIES THAT ARE ENCOUNTERED. (ALL COSTS FOR UTILITY LOCATION VERIFICATION, SUPPORT AND PROTECTION SHALL BE INCLUDED IN THE PROPOSED PAY ITEM CONFLICTING WITH THAT UTILITY).

DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

PROJECT NO. 0160-0479

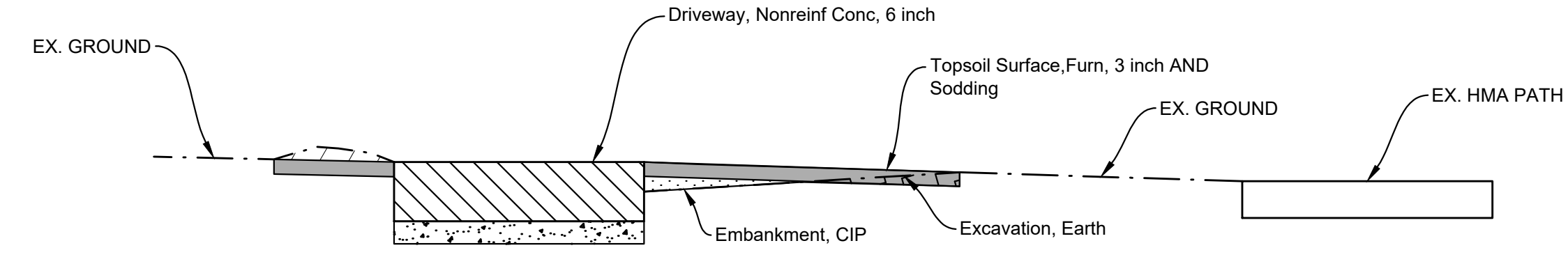
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SHEET NO. **C001**



**SECTION A-A**  
NOT TO SCALE

NOTE:  
GRADE EXISTING GROUND AREA  
TO DRAIN TOWARDS HMA PATH



**SECTION B-B**  
NOT TO SCALE

**LEGEND**

	HMA, 5EML (@ 220 LB. / SYD) AND HMA, 4EML (@ 220 LB. / SYD) AND Aggregate Base, 6 inch
	Conc Pavt, Misc, Nonreinf, 4 inch ON Granular Material, C1 II (4 inch)
	Driveway, Nonreinf Conc, 6 inch ON Granular Material, C1 II (4 inch)
	Topsoil Surface, Furn, 3 inch AND Sodding
	Embankment, CIP
	Excavation, Earth

**ANDERSON, ECKSTEIN & WESTRICK, INC.**  
CIVIL ENGINEERS - SURVEYORS - ARCHITECTS

51301 Schoenherr Road  
Shelby Township, MI 48315  
586.726.1234 | aewinc.com

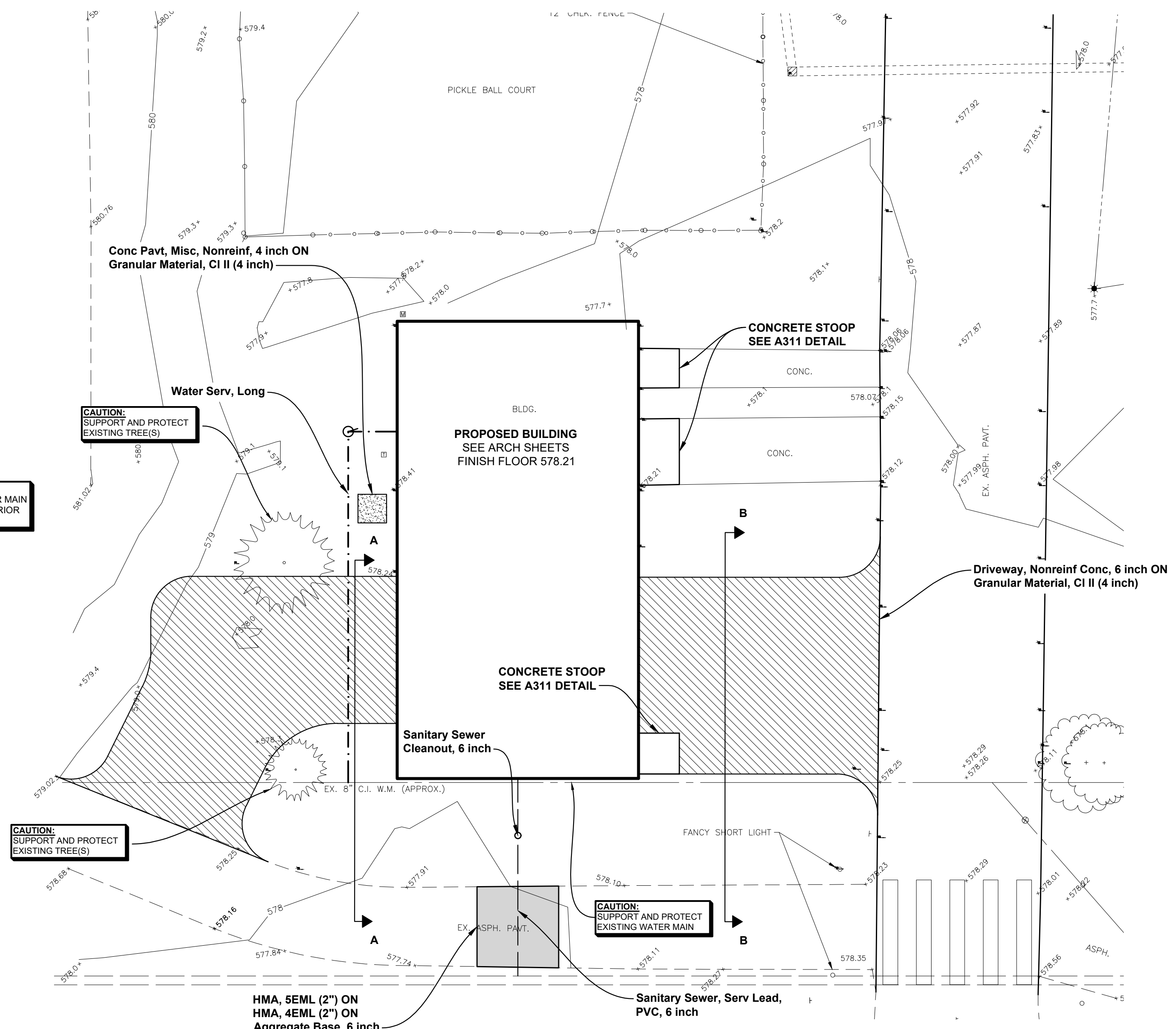
*Engineering Strong Communities*

**GENERAL CONSTRUCTION NOTES:**

- THE CONTRACTOR AT ALL TIMES SHALL FOLLOW ALL FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS DURING CONSTRUCTION OF THIS PROJECT. SPECIAL CARE SHALL BE TAKEN DURING ALL TRENCHING OPERATIONS. SHEETING AND BRACING, CRIBBING, ETC., MUST BE INSTALLED AS REQUIRED TO PROVIDE MAXIMUM SAFETY TO THE CONTRACTOR'S WORKERS IN FULL COMPLIANCE WITH OSHA REGULATIONS.
- ALL CONSTRUCTION SHALL BE CONDUCTED SUCH THAT THERE WILL BE MINIMAL INTERFERENCE WITH STREETS, DRIVES OR WALKS. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF TRAFFIC. DO NOT CLOSE OR OBSTRUCT STREETS, DRIVES OR WALKS OR USER FACILITIES WITHOUT PERMISSION FROM THE OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL KEEP EXISTING STREETS, ROADS AND DRIVES CLEAR OF DIRT, DEBRIS AND EQUIPMENT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SHORING AND FOR DEWATERING TO ACCOMPLISH ALL WORK INDICATED ON PLANS AND TO PERFORM REQUIRED COMPACTION OPERATIONS.
- REVIEW CONSTRUCTION AND PROVIDE TRAFFIC SEQUENCE AND SCHEDULE AT THE PRECONSTRUCTION MEETING WITH OWNER.
- THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE ENGINEER IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS SO THAT APPROPRIATE REVISIONS CAN BE MADE PRIOR TO CONSTRUCTION. ANY CONFLICT BETWEEN DRAWINGS AND THE SPECIFICATIONS SHALL BE CONFIRMED WITH THE ENGINEER PRIOR TO BIDDING.
- THE CONTRACTOR SHALL ABIDE BY ALL OSHA, FEDERAL, STATE AND LOCAL REGULATIONS WHEN OPERATING CRANES, BOOMS, HOISTS, ETC. IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES. IF CONTRACTOR MUST OPERATE EQUIPMENT CLOSE TO ELECTRIC LINES, CONTACT THE POWER COMPANY TO MAKE ARRANGEMENTS FOR PROPER SAFEGUARDS.
- THE OWNER AT ITS DISCRETION RESERVES THE RIGHT TO MODIFY THE DETAILS AND STANDARDS OF CONSTRUCTION FOR ALL PRIVATE FACILITIES FROM THAT INDICATED ON THE APPROVED PLAN, PROVIDED THAT THE ALTERNATE STANDARD COMPLIES WITH LOCAL CODE AND/OR UTILITY COMPANY REQUIREMENTS AND THE GENERAL DESIGN INTENT OF THE PROJECT IS NOT COMPROMISED.
- CONTRACTOR SHALL MAINTAIN ALL TRAFFIC LANES AND PEDESTRIAN WALKWAYS AT ALL TIMES UNLESS WRITTEN APPROVAL FROM THE STATE DOT, LOCAL MUNICIPALITY, COUNTY, OR OTHER GOVERNING AUTHORITY IS RECEIVED.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER SHOULD ANY DISCREPANCY REGARDING THE PROPOSED WORK OR UNFORESEEN CONDITIONS ARISE PRIOR TO PROCEEDING FURTHER WITH THE AFFECTED WORK.
- THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE ENGINEER AND OWNER FOLLOWING COMPLETION OF CONSTRUCTION ACTIVITIES.
- ALL PAVING AND AGGREGATE MATERIALS AND WORK COMPLETED SHALL BE IN STRICT ACCORDANCE WITH THE STATE DOT SPECIFICATIONS AND STANDARD DETAILS UNLESS OTHERWISE SPECIFIED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS FOR BUILDING, WALLS, CONCRETE SLABS, AND UTILITY SERVICE POINT CONNECTIONS AND NOTIFYING THE OWNER AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS AND MATERIALS TO THE OWNER AND LOCAL UTILITY COMPANIES AS REQUIRED FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 7 DAYS FOR REVIEW.
- THE CONTRACTOR SHALL REFERENCE ARCHITECTURAL PLANS FOR EXACT DIMENSIONS AND CONSTRUCTION DETAILS OF BUILDING, CANOPY, AND UTILITY CONNECTIONS.
- TRAFFIC CONTROL SIGNAGE SHALL CONFORM TO THE STATE DOT STANDARD DETAIL SHEETS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. SIGNS SHALL BE INSTALLED PLUMB.
- FIRE LANES SHALL BE ESTABLISHED AND PROPERLY DESIGNATED IN ACCORDANCE WITH THE LOCAL MUNICIPALITY AND LOCAL FIRE DEPARTMENT REQUIREMENTS.
- THE CONTRACTOR SHALL REMOVE CONFLICTING PAVEMENT MARKINGS IN A METHOD APPROVED BY THE STATE DOT.
- AGGREGATES AND BITUMINOUS PAVEMENT MATERIAL AND INSTALLATION SPECIFICATIONS SHALL BE IN ACCORDANCE WITH STATE DOT SPECS. THE CONTRACTOR SHALL SUBMIT AGGREGATE SIEVE ANALYSIS AND A JOB-MIX FORMULA FOR THE BITUMINOUS PAVEMENT TO THE CONSTRUCTION MANAGER FOR REVIEW AND APPROVAL AT LEAST 14 DAYS PRIOR TO THE PLACEMENT OF BITUMINOUS PAVEMENTS.
- ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE OWNER, ENGINEER, AND APPROPRIATE REGULATORY AGENCIES PRIOR TO INSTALLATION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUTS AND SURVEYS REQUIRED TO PERFORM CONSTRUCTION. CADD FILE INFORMATION IS PROVIDED FOR REFERENCE ONLY.
- PROVIDE ADEQUATE BARRICADES AT DRIVES, ENTRANCES, EXCAVATIONS AND OTHER OPENINGS TO KEEP OUT UNAUTHORIZED PERSONS AND FOR PUBLIC SAFETY AND TRAFFIC CONTROL. SAFETY PROVISIONS OF APPLICABLE LAWS SHALL BE OBSERVED AT ALL TIMES. BARRICADES LEFT IN PLACE AT NIGHT SHALL BE LIGHTED.
- NO EQUIPMENT OR MATERIAL STORAGE IS PERMITTED WITHIN THE ROAD RIGHT-OF-WAY.
- CONTRACTOR'S MANNER AND METHOD OF INGRESS AND EGRESS WITH RESPECT TO THE PROJECT AREA SHALL IN NO WAY PROHIBIT OR DISTURB NORMAL PEDESTRIAN OR VEHICULAR TRAFFIC IN THE VICINITY AND IS SUBJECT TO REGULATION AND WRITTEN APPROVAL OF APPROPRIATE GOVERNING AGENCIES.
- CONSTRUCTION SHALL BE IN ACCORDANCE WITH A.D.A. REGULATIONS AS APPLICABLE.

**BENCH MARKS (NAVD88 DATUM)**

- BENCH MARK NO. 1  
CHIS 'X' ON SOUTHEAST BOLT LIGHT POLE BASE ON EAST SIDE OF BOAT LAUNCH, 27± EASTERLY TO DORMANT BARBEQUE GRILL, 18± SOUTHERLY TO ELECTRIC PEDESTAL FOR BOAT.  
ELEVATION: 580.71
- BENCH MARK NO. 331  
CHIS 'X' ON SOUTHEAST BOLT LIGHT POLE BASE 40± WEST OF WEST END PEDESTRIAN BRIDGE OVER MILK RIVER.  
ELEVATION: 583.65
- BENCH MARK NO. 332  
CHIS 'X' ON NORTHEAST BOLT LIGHT POLE BASE ON SOUTH SIDE LAKE FRONT PARK ENTRANCE DRIVE, 300± EAST OF JEFFERSON.  
ELEVATION: 581.72



NOTE:  
VERIFY DEPTH OF WATER MAIN AND SANITARY SEWER PRIOR TO CONSTRUCTION

**NOTE:**  
ALL CONSTRUCTION SHALL FOLLOW MDOT 2020 STANDARDS AND SPECIFICATIONS FOR CONSTRUCTION, UNLESS OTHERWISE NOTED HEREIN.

**ESTIMATED QUANTITIES (THIS SHEET)**

1. Embankment, CIP	1	Cyd
2. Excavation, Earth	2	Cyd
3. Granular Material, C1 II	19	Cyd
4. Aggregate Base, 6 inch	1	Syd
5. HMA, 4EML	2	Ton
6. HMA, 5EML	2	Ton
7. Conc Pavt, Misc, Nonreinf, 4 inch	2	Syd
8. Driveway, Nonreinf Conc, 6 inch	166	Syd
9. Sodding	150	Syd
10. Topsoil Surface, Furn, 3 inch	150	Syd
11. Water Serv, Long	1	Ea
12. Sanitary Sewer, Serv Lead, PVC, 6 inch	25	Fl
13. Sanitary Sewer Cleanout, 6 inch	1	Ea

1/16/2025	BID ISSUE
DATE	SUBMITTALS/REVISIONS

**LAKE FRONT PARK BUILDING RENOVATION**

**CONSTRUCTION PLAN**

CLIENT:  
CITY GROSSE POINTE WOODS

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: JPB	CHECKED BY: RTW	DATE: DECEMBER 2024
SCALE: 1" = 10' HORIZ.		
0 5 10 20		

Know what's below. Call 811 72 hours before you dig.

UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING FACILITIES ONLY. AS DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.

PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES (IN CONFLICT WITH THE CONSTRUCTION OF THESE PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. DURING THE CONSTRUCTION, THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL UTILITIES THAT ARE ENCOUNTERED. (ALL COSTS FOR UTILITY LOCATION VERIFICATION, SUPPORT AND PROTECTION SHALL BE INCLUDED IN THE PROPOSED PAY ITEM CONFLICTING WITH THAT UTILITY).

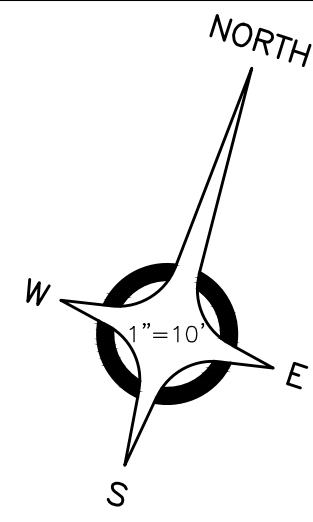
DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

PROJECT NO. 0160-0479

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SHEET NO.

**C002**



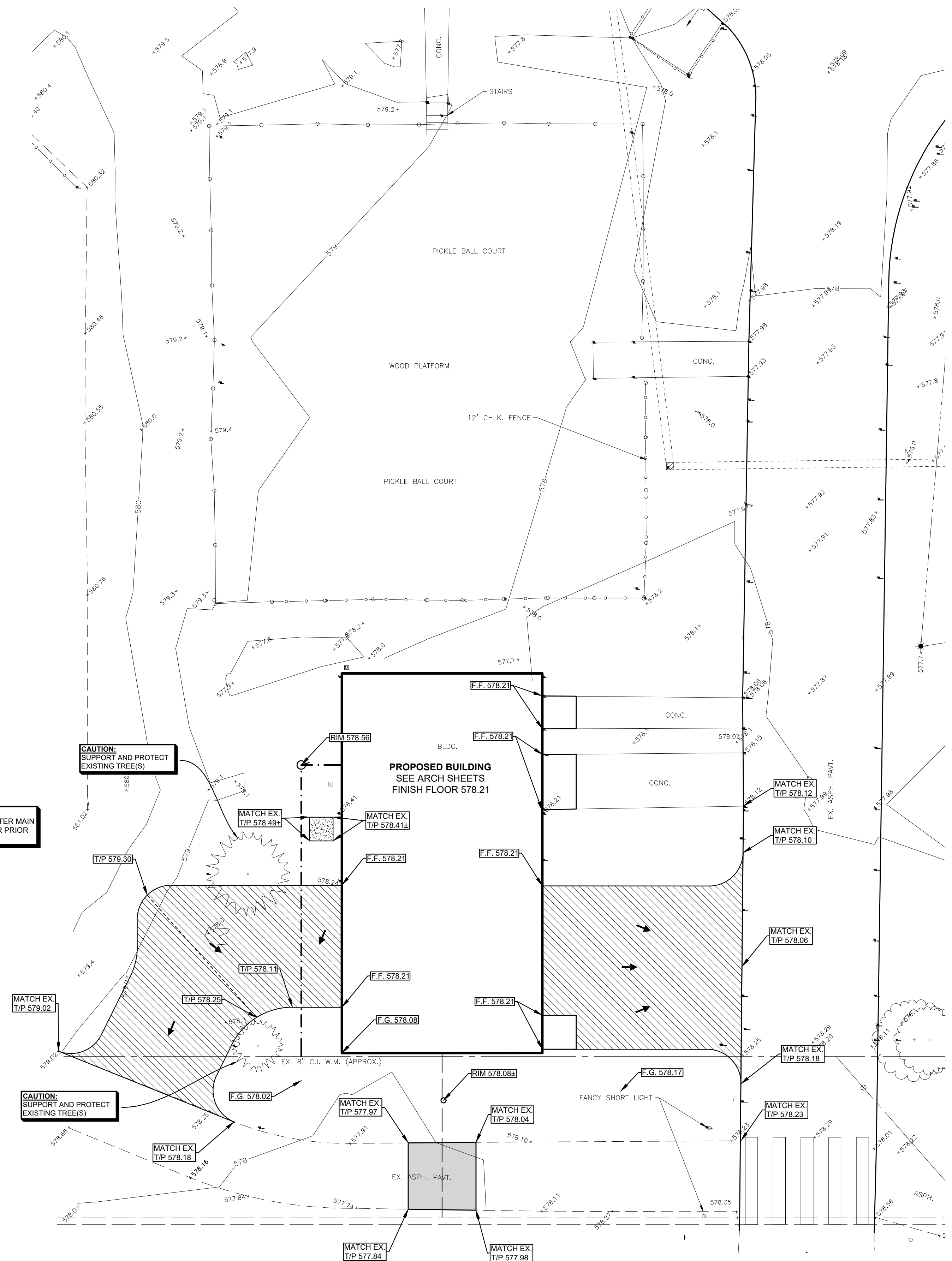
**BENCH MARKS  
(NAVD88 DATUM)**

BENCH MARK NO. 1  
CHIS 'X' ON SOUTHEAST  
BOLT LIGHT POLE BASE ON  
EAST SIDE OF BOAT  
LAUNCH, 27'± EASTERLY TO  
DORMANT BARBEQUE  
GRILL, 18'± SOUTHERLY TO  
ELECTRIC PEDESTAL FOR  
BOAT.  
ELEVATION: 580.71

BENCH MARK NO. 331  
CHIS 'X' ON SOUTHEAST  
BOLT LIGHT POLE BASE  
40'± WEST OF WEST END  
PEDESTRIAN BRIDGE OVER  
MILK RIVER.  
ELEVATION: 583.65

BENCH MARK NO. 332  
CHIS 'X' ON NORTHEAST  
BOLT LIGHT POLE BASE ON  
SOUTH SIDE LAKE FRONT  
PARK ENTRANCE DRIVE,  
300'± EAST OF JEFFERSON.  
ELEVATION: 581.72

**NOTE:**  
VERIFY DEPTH OF WATER MAIN  
AND SANITARY SEWER PRIOR  
TO CONSTRUCTION



**LEGEND**

- T/P 861.00 PROPOSED GRADE
- ← FLOW ARROW
- EXIST. GRADE
- T/P TOP OF PAVEMENT
- RIDGE LINE



**ANDERSON, ECKSTEIN & WESTRICK, INC.**  
CIVIL ENGINEERS - SURVEYORS - ARCHITECTS

51301 Schoenherr Road  
Shelby Township, MI 48315  
586.726.1234 | aewinc.com

Engineering Strong Communities

1/16/2025	BID ISSUE
DATE	SUBMITTALS/REVISIONS
PROJECT NAME:	
<b>LAKE FRONT PARK BUILDING RENOVATION</b>	
SHEET TITLE:	
<b>GRADING PLAN</b>	
CLIENT:	
CITY GROSSE POINTE WOODS	
<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION
<input type="checkbox"/> RECORD	
DRAWN BY: JPB	CHECKED BY: RTW
DATE: DECEMBER 2024	
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0 5 10 20	

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DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

PROJECT NO. 0160-0479

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SHEET NO. **C003**

**811** Know what's below. Call 72 hours before you dig.

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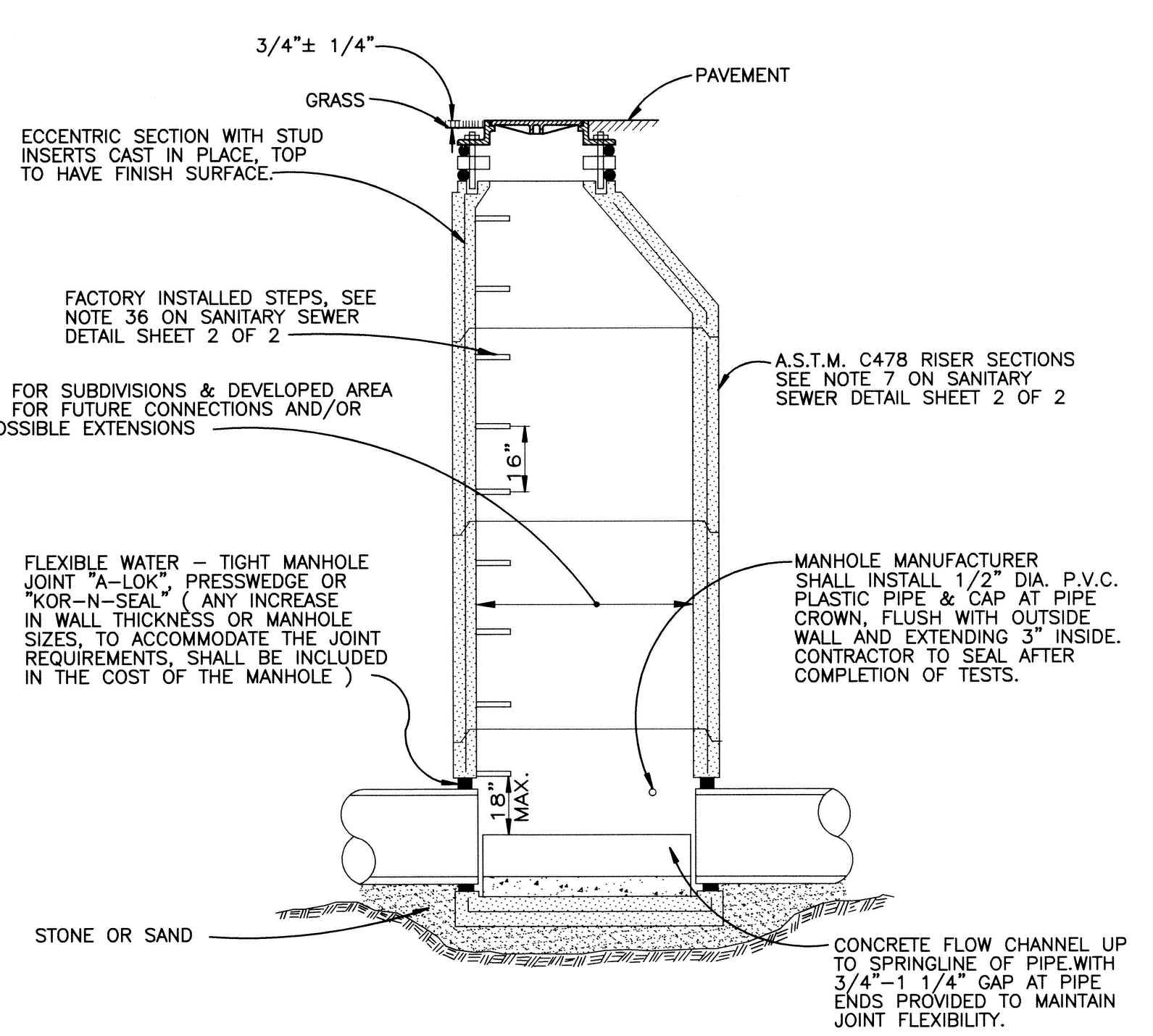
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PROJECT NO. 0160-0479

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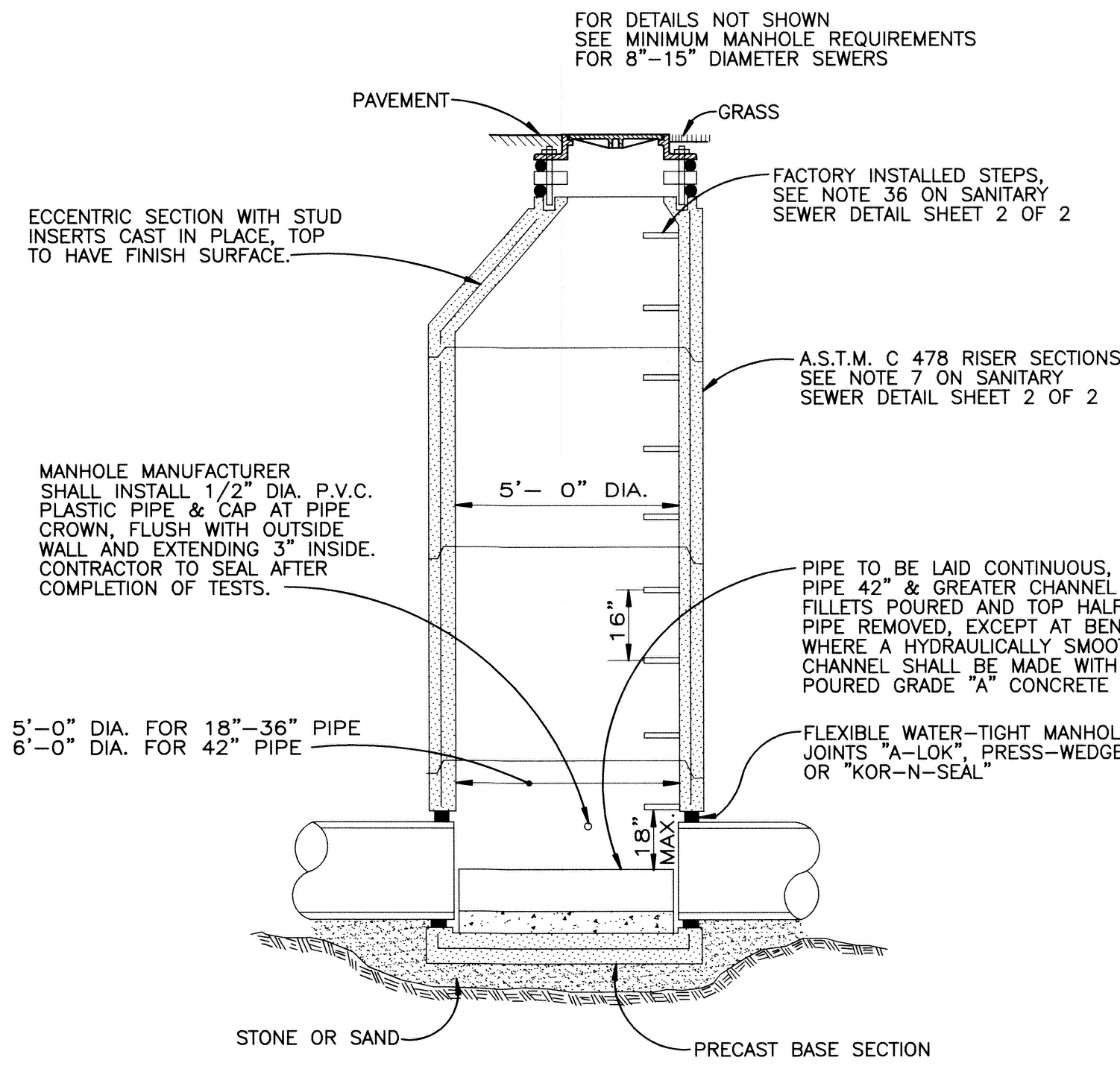
SHEET NO. **C003**

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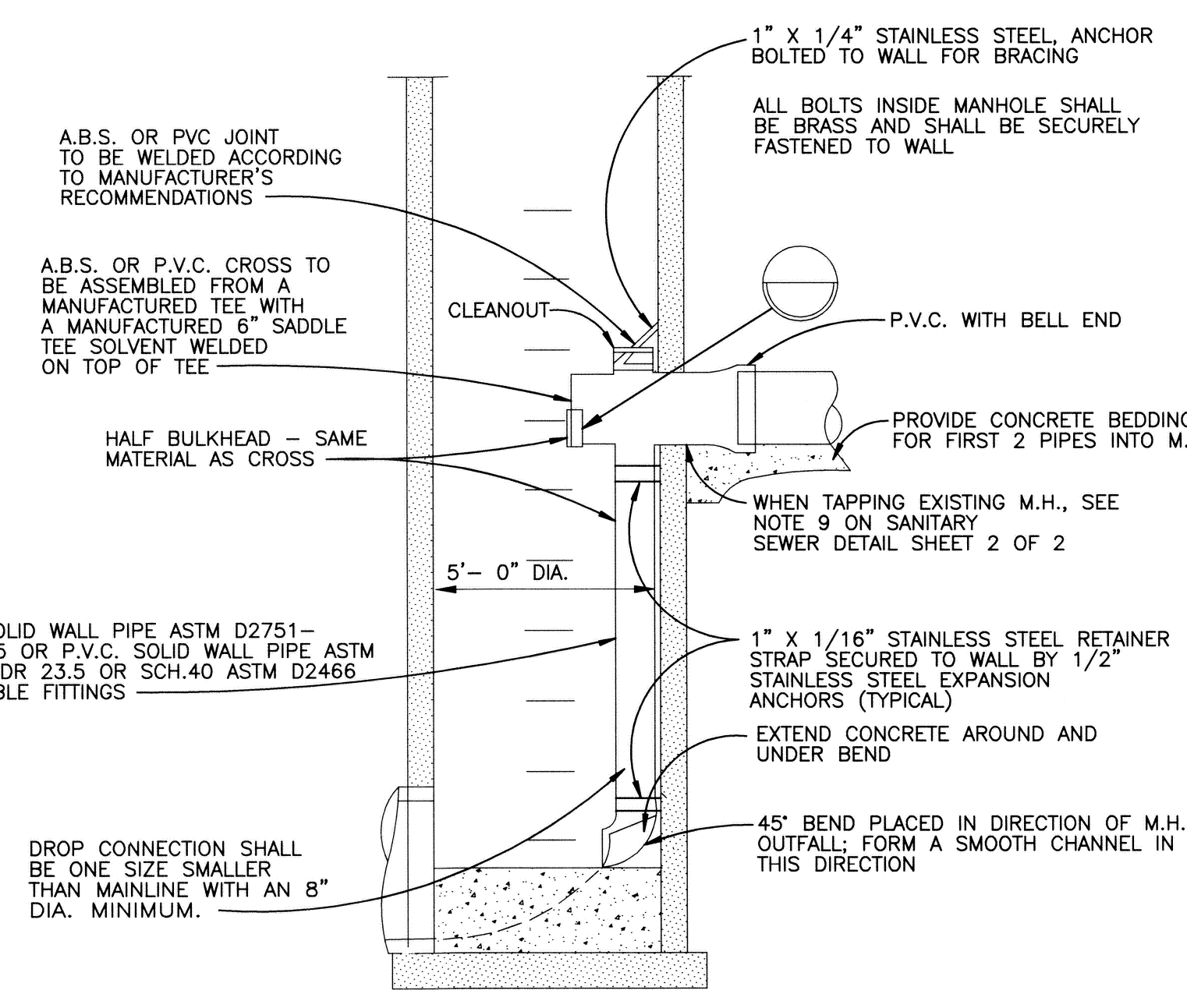
**SANITARY SEWER MANHOLE**

( 8" THRU 15" DIA. SEWERS )



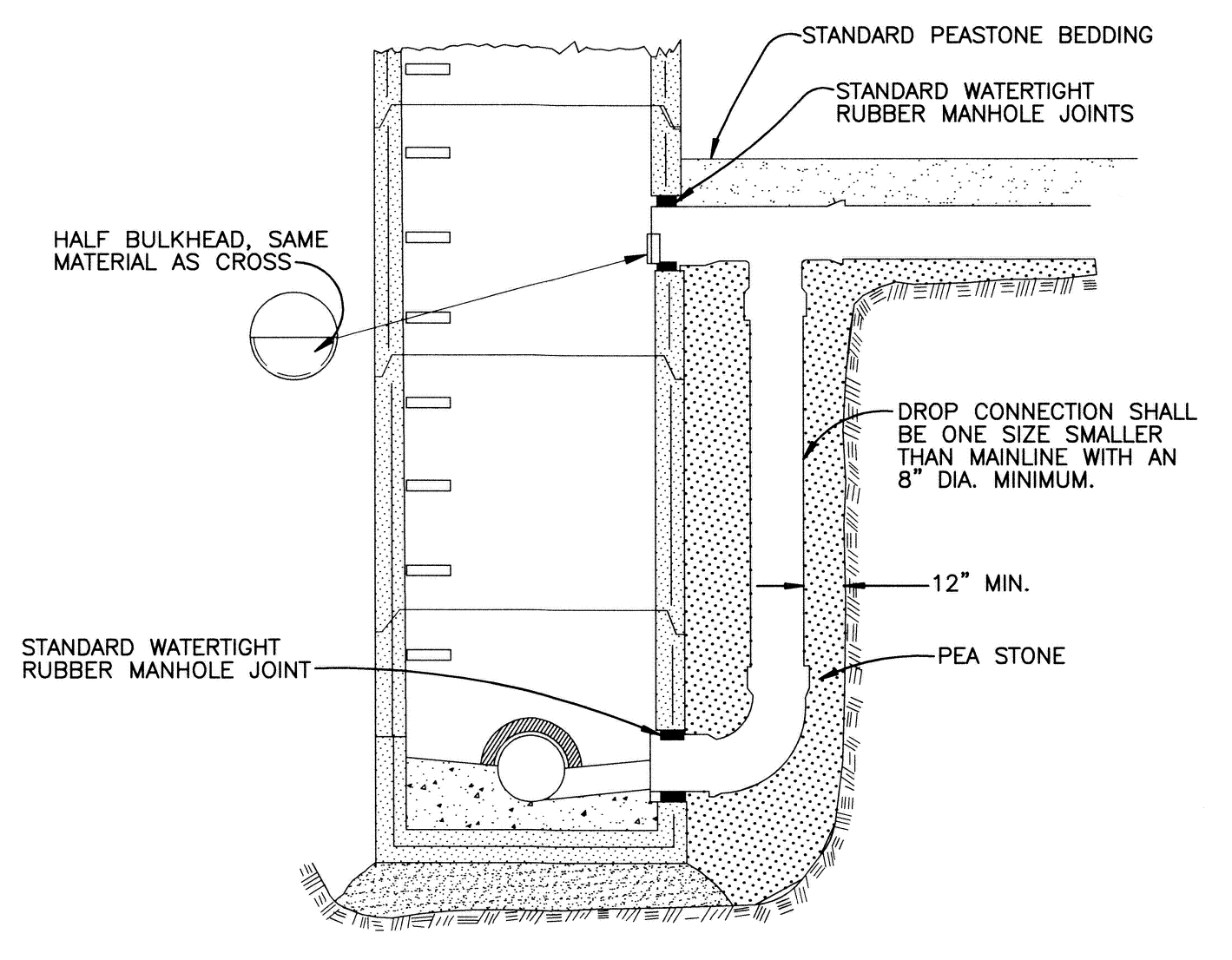
**SANITARY SEWER MANHOLE**

( 18" THRU 42" DIA. SEWERS )



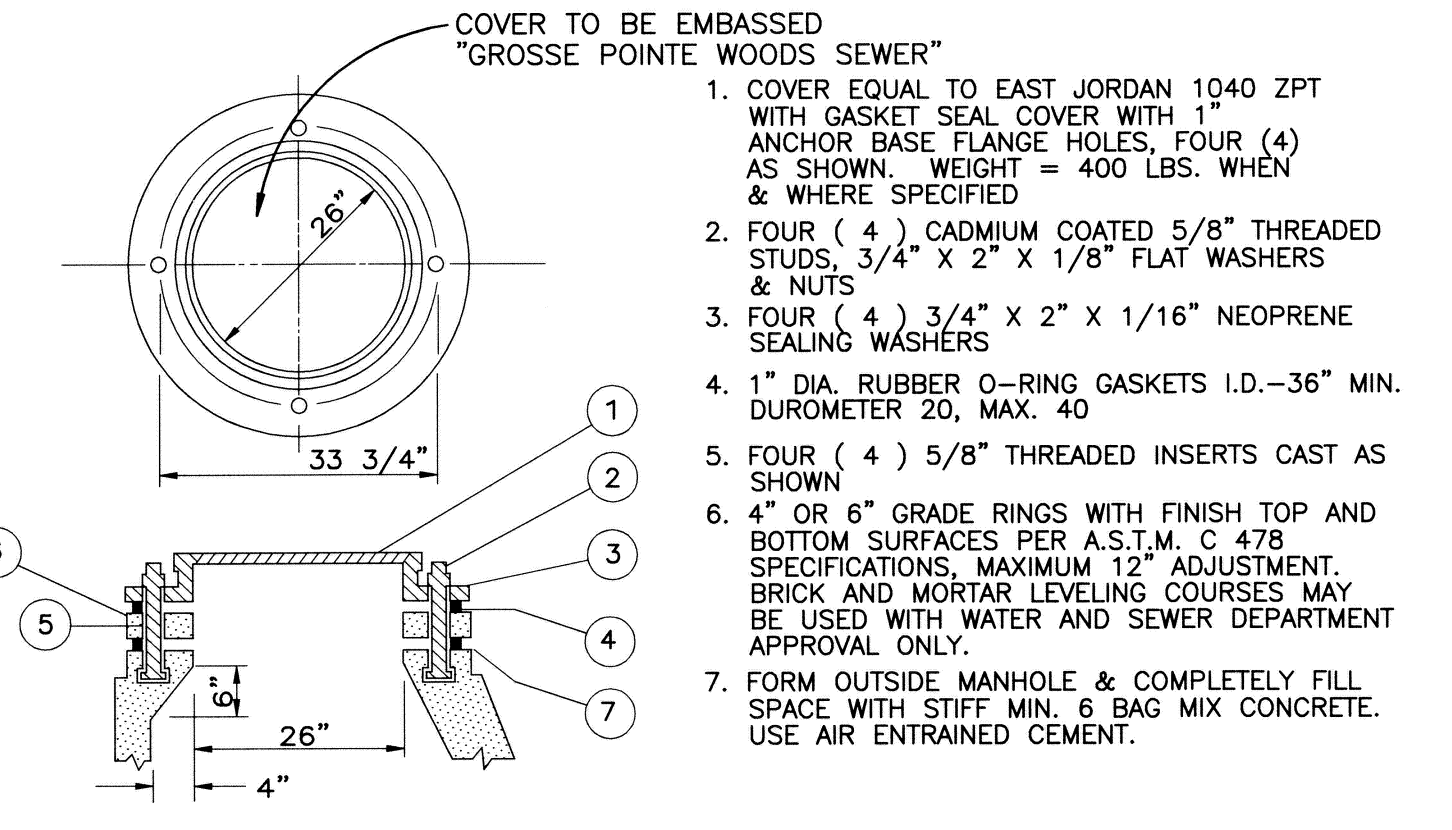
**INTERIOR DROP ASSEMBLY**

( ONLY WITH SEWER AND WATER DEPARTMENT APPROVAL )

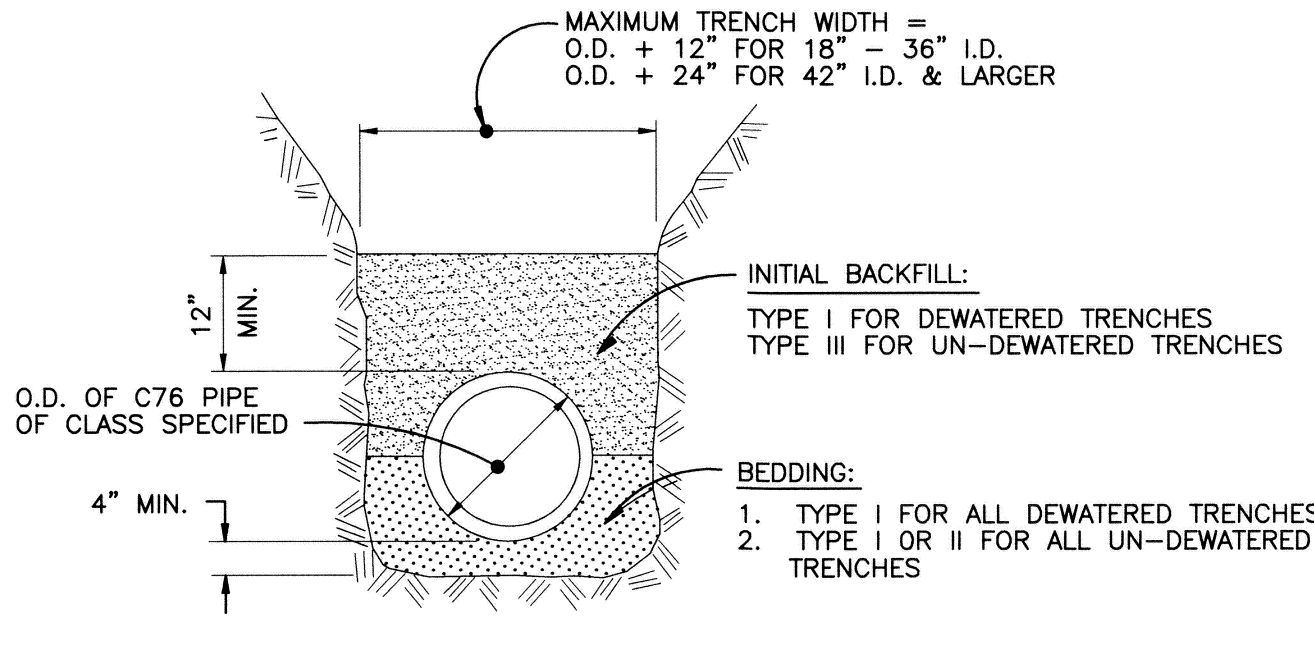


**EXTERIOR DROP CONNECTION**

FOR ALL DROP CONNECTIONS

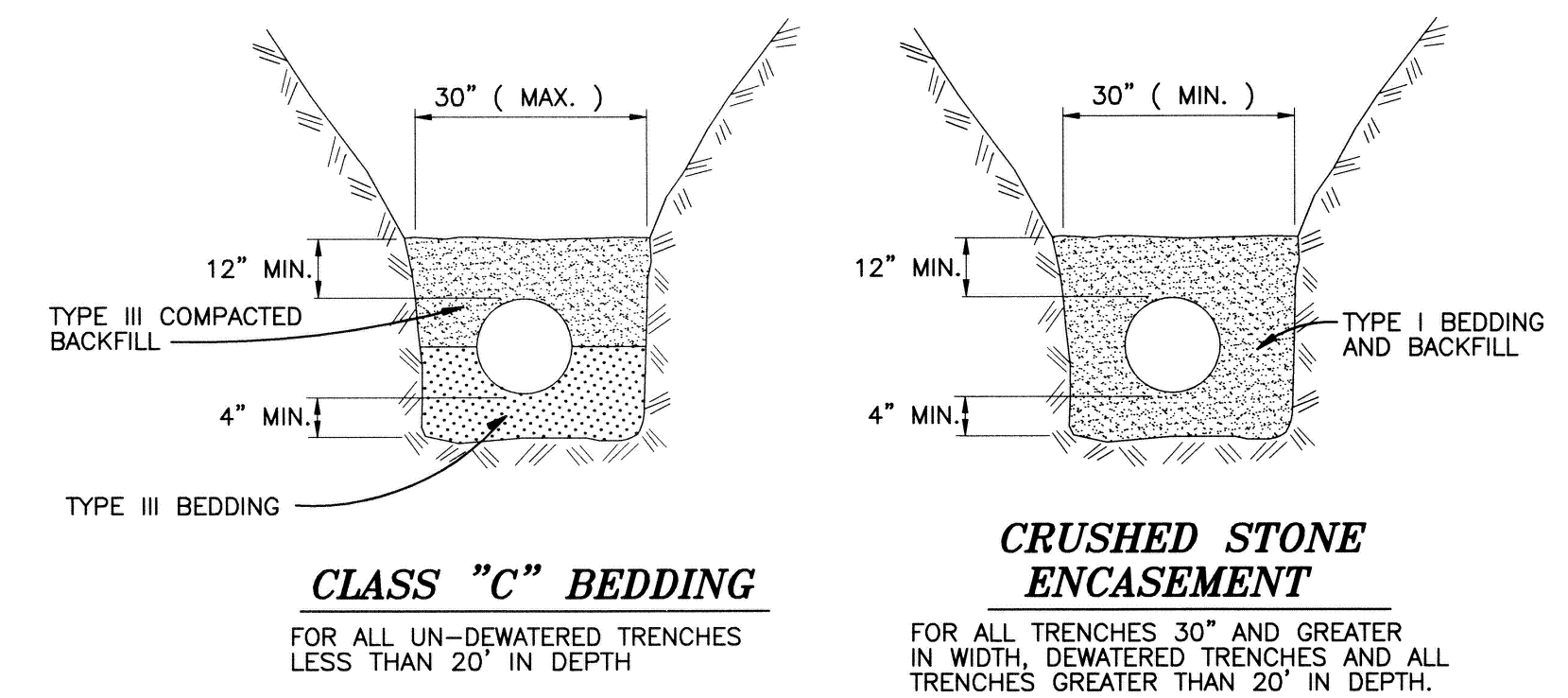


**WATERPROOF MANHOLE FRAME & COVER**



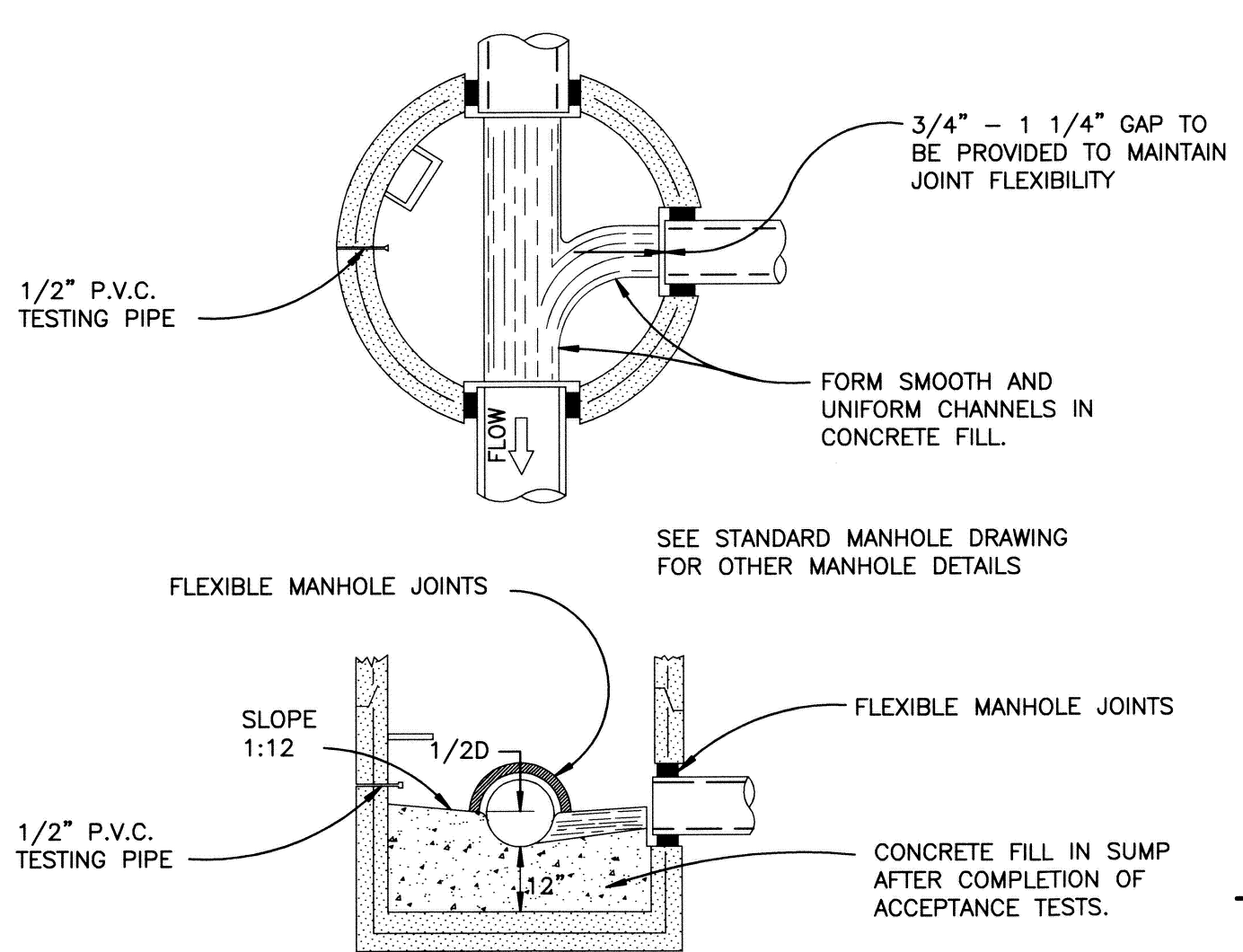
**BEDDING & TRENCH DETAIL, 18" & LARGER SEWER**

CLASS C  
NOTE: APPROVAL MAY BE GIVEN TO ALTERNATE MATERIALS AND METHODS TO ACHIEVE CLASS C BEDDING.



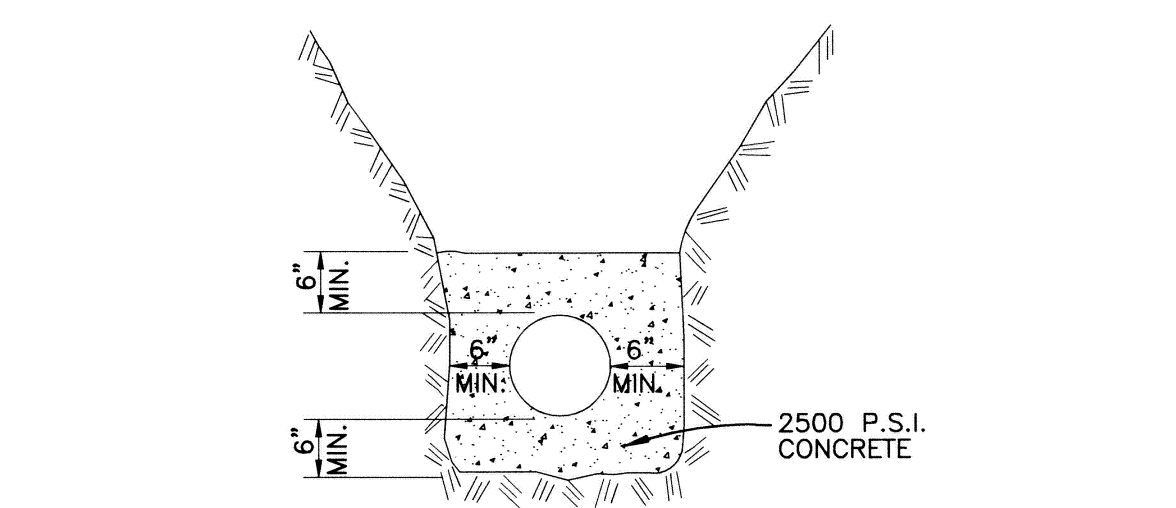
**BEDDING & TRENCH DETAIL, 6" - 15" SEWERS**

- GENERAL PIPE BEDDING TRENCH NOTES**
- THE CONTRACTOR SHALL INSTALL THE PIPE IN ACCORDANCE WITH THE CLASS BEDDING DETAIL REQUIRED FOR THE TYPE OF PIPE DEPTH (MEASURED TO THE TOP OF THE PIPE), AND TRENCH WIDTH (MEASURED ACROSS THE TRENCH AT THE TOP OF THE PIPE) CONSTRUCTED. A CONTRACTOR MAY ALWAYS USE A HIGHER QUALITY BEDDING CLASS THAN REQUIRED. ANY OTHER VARIATIONS MUST BE APPROVED IN WRITING BY THE ENGINEER.
  - CRUSHED STONE ENCASEMENT SHALL BE UTILIZED FOR ALL DEWATERED GROUND TRENCHES AND SHALL UTILIZE A TRENCH WIDTH OF 30" ( MINIMUM ).
  - BACKFILL MATERIAL SHALL BE AS FOLLOWS:  
TYPE I: SHALL CONSIST OF WELL GRADED CRUSHED STONE. THE STONE SHALL CONFORM TO ASTM D 448 #5, 56, 57, 6, 67 & 68. ASTM D 2321 CLASS I, OR ALTERNATIVE APPROVED BY THE ENGINEER. ANY MATERIAL INCORPORATED SHALL PROVIDE A MINIMUM OF 95% CRUSHED MATERIAL. MDT COURSE AGGREGATES 6A, 6AA, 9A, 17A & 25 SERIES ARE ALSO APPROVED FOR USE IF THEY ARE MANUFACTURED WITH SUFFICIENT CRUSHED MATERIAL AND NO STONE IS LARGER THAN 1".  
TYPE II: SHALL CONSIST OF WELL GRADED COURSE SANDS AND GRAVEL ( 1 INCH MAXIMUM DIAMETER ) CONTAINING A SMALL PERCENTAGE OF FINES. THE MATERIAL SHALL CONFORM TO ASTM D 2321 CLASS II AND SHALL INCLUDE PEA PEBBLE AND MDT AGGREGATES 20 SERIES, 21 SERIES, 22 SERIES, 23A, 26A, 28 SERIES & 31 SERIES. 95% MINIMUM DENSITY REQUIRED. TYPE II MAY BE SUBSTITUTED FOR TYPE III BACKFILL.  
TYPE III: SHALL CONSIST OF FINE SAND AND CLAYEY GRAVELS CONFORMING TO ASTM 2321 CLASS III AND SHALL INCLUDE PEA PEBBLE. IT SHALL NOT CONTAIN ANY STONE LARGER THAN 1 INCH IN DIAMETER AND SHALL REQUIRE 95% MINIMUM DENSITY.



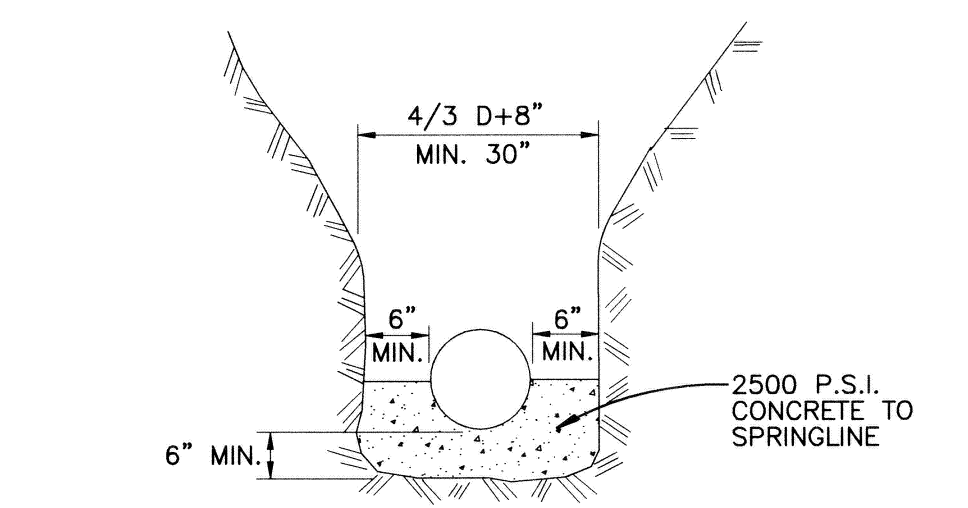
**SUMP MANHOLE**

FOR TESTING, CLEANING & DEWATERING



**CONCRETE ENCASEMENT DETAIL**

- PLACE 2,500 PSI CONCRETE AGAINST UNDISTURBED EARTH FOR ENTIRE WIDTH OF TRENCH.
- FOR SANITARY SEWER IN EXCESS OF 15 INCHES IN DIAMETER CLASS V REINFORCED PIPE MAY BE SUBSTITUTED FOR CONCRETE ENCASEMENT, WITH OWNER'S APPROVAL.



**CONCRETE CRADLE DETAIL**

- CONCRETE CRADLE MAY BE SPECIFIED AT OWNER'S DISCRETION WHERE THE TRENCH WIDTH IS EXCESSIVE, OR WHERE THE TRENCH IS NOT SUITABLE FOR PIPE LAYING.

**CITY OF GROSSE POINTE WOODS**  
**SANITARY SEWER ( 1 of 2 )**

**DEPARTMENT OF PUBLIC WORKS**

APPROVED BY: *Joseph J. Ahee, Jr.*  
JOSEPH J. AHEE, JR. : DPW DIRECTOR  
DATE: 2/6/07

PROJECT NO. SHEET NO.  
DATE: FEBRUARY, 2007  
DRAWN BY: KJP/KAO CHECKED BY: SPL

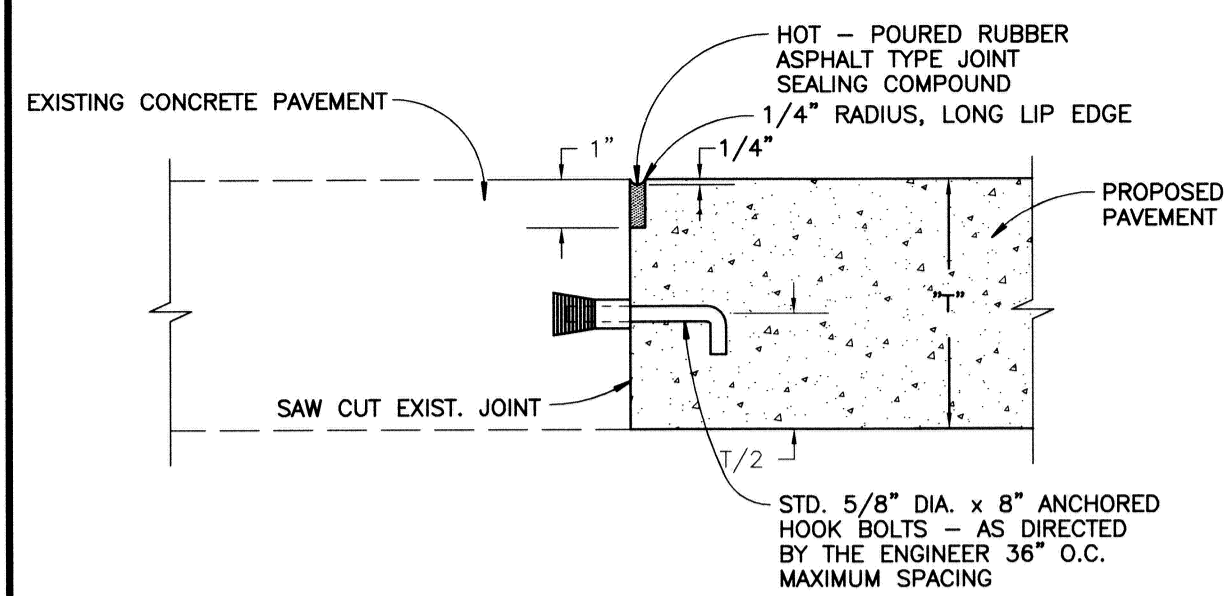
ANDERSON, ECKSTEIN AND WESTRICK, INC.  
Civil Engineers • Surveyors • Architects  
51301 Schoenherr Road, Shelby Township, Michigan 48315  
Phone 588-728-1234 Fax 586-726-8780

STATE OF MICHIGAN  
SCOTT LOCKWOOD  
REGISTERED PROFESSIONAL ENGINEER  
No. 44355

SCOTT LOCKWOOD, P.E. No. 44355

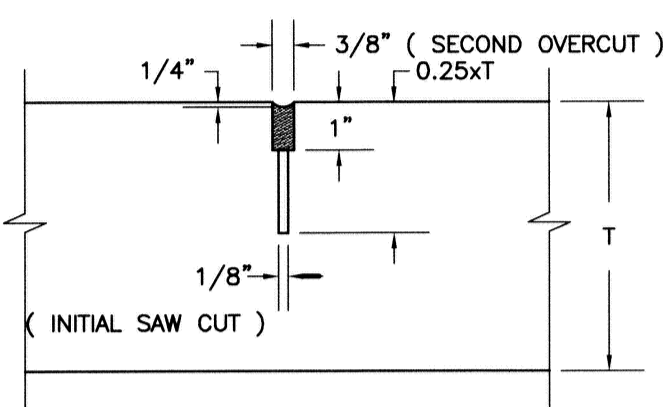
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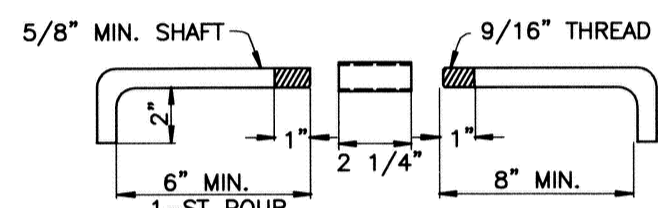


**A CONSTRUCTION JOINTS**

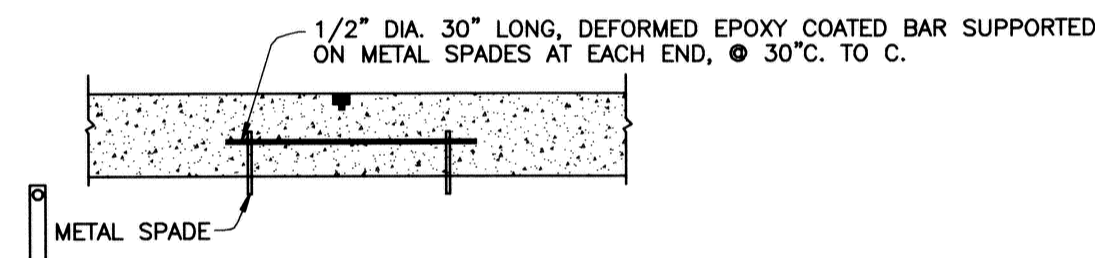
USE JOINT (A) OR (B) IF REPLACEMENT CONCRETE EXTENDS BEYOND EXPANSION ANCHOR HOOK BOLTS.



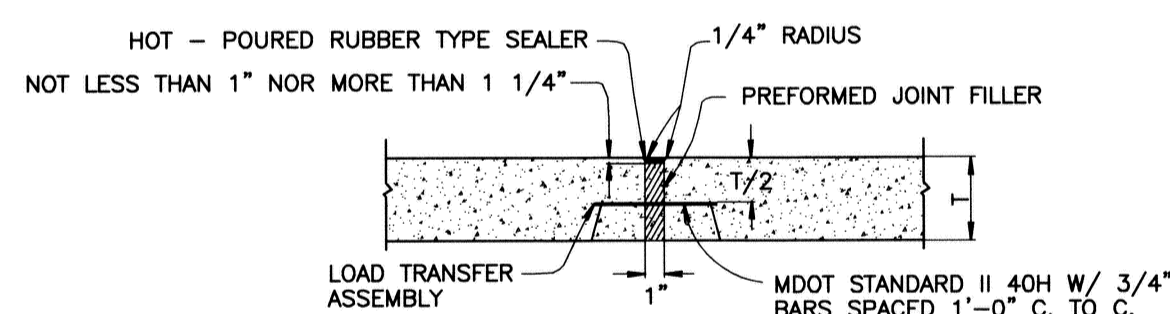
**B TRANSVERSE / LONGITUDINAL PLANE OF WEAKNESS JOINT**



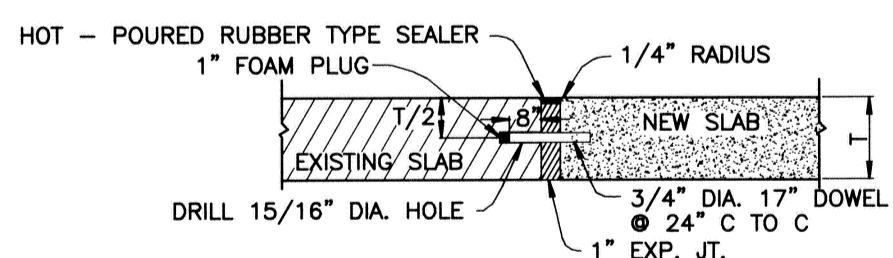
**C HOOK BOLT DETAIL**



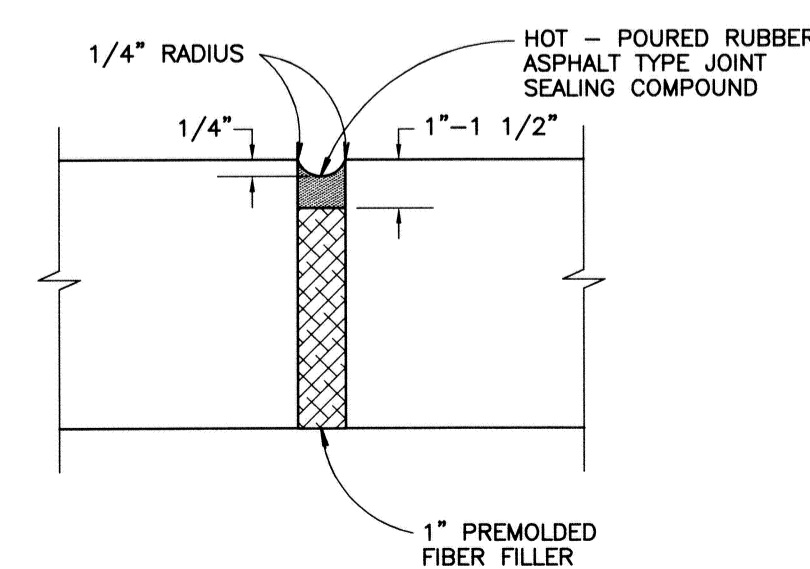
**D TIEBAR DETAIL**



**1 LOAD TRANSFER ASSEMBLY WITH PREFORMED EXPANSION JOINT FILLER**



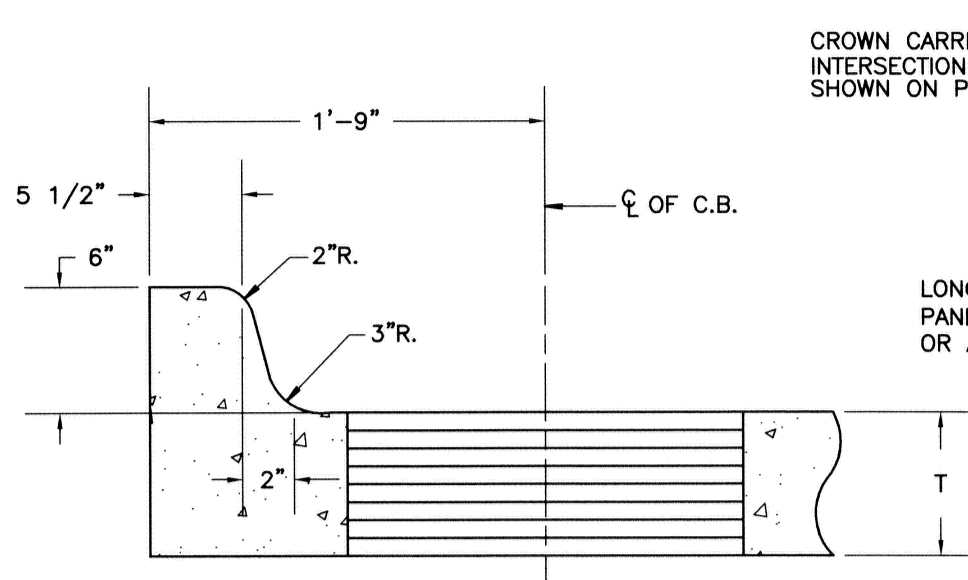
**2 EXPANSION JOINT WITH 3/4" DOWELS**



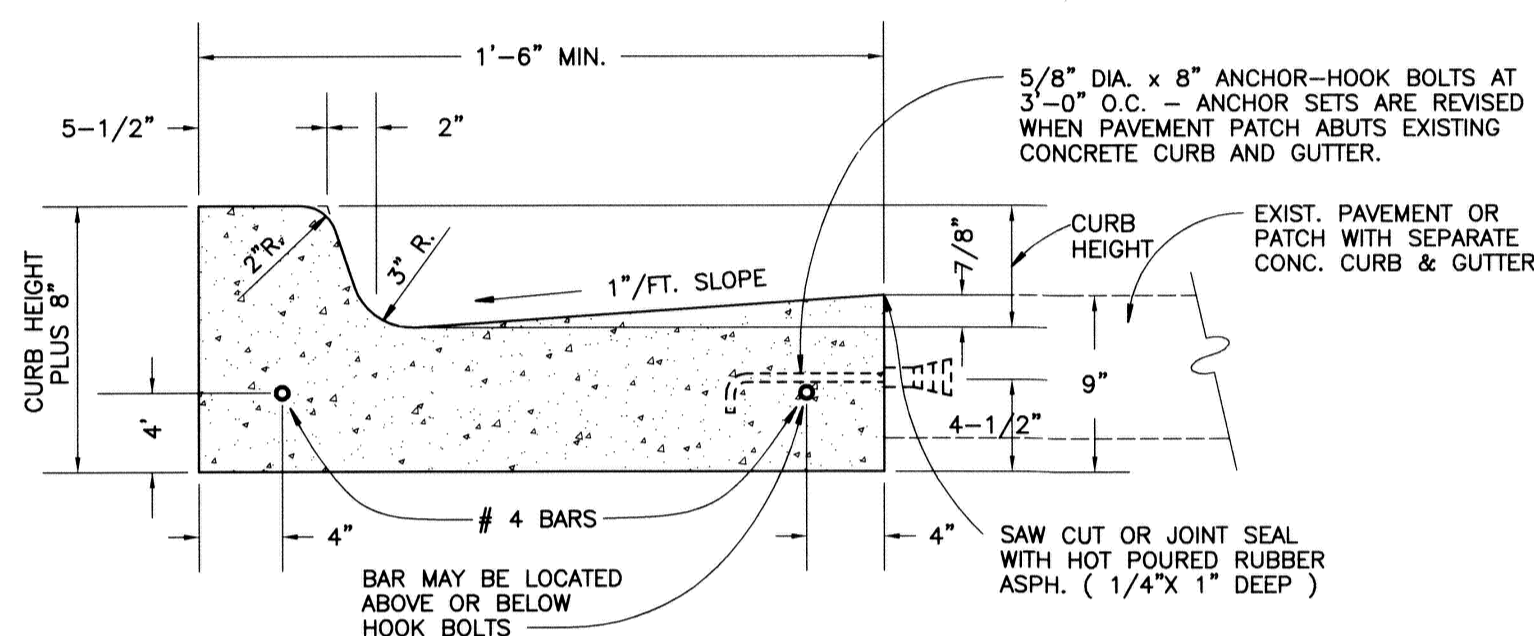
**3 EXPANSION JOINT**

**4 EXPANSION JOINT SPACING**

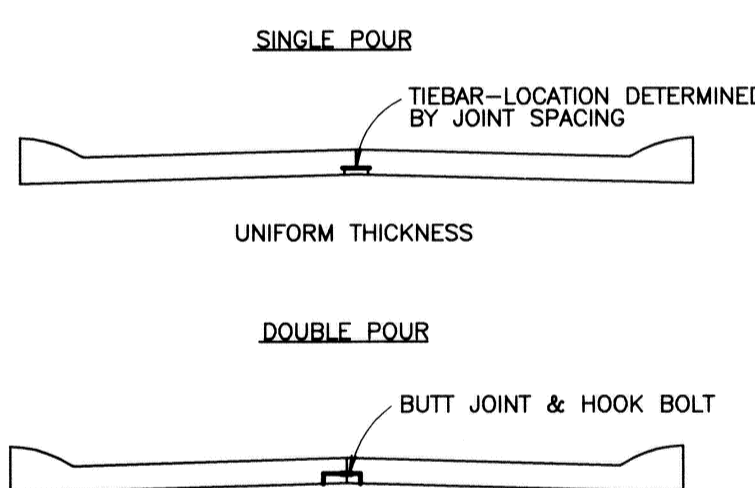
DAYTIME TEMPERATURES 50°F AND ABOVE:  
AT ALL INTERSECTIONS; MAXIMUM SPACING 700 FEET; AS SHOWN ON PLANS.  
DAYTIME TEMPERATURES BELOW 50°F:  
AT ALL INTERSECTIONS; MAXIMUM SPACING 450 FEET; AS SHOWN ON PLANS.



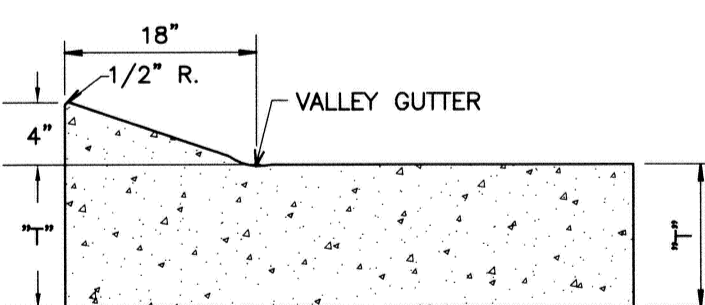
**6" CURB DETAIL INTEGRAL WITH CONCRETE PAVEMENT ( TYPICAL )**



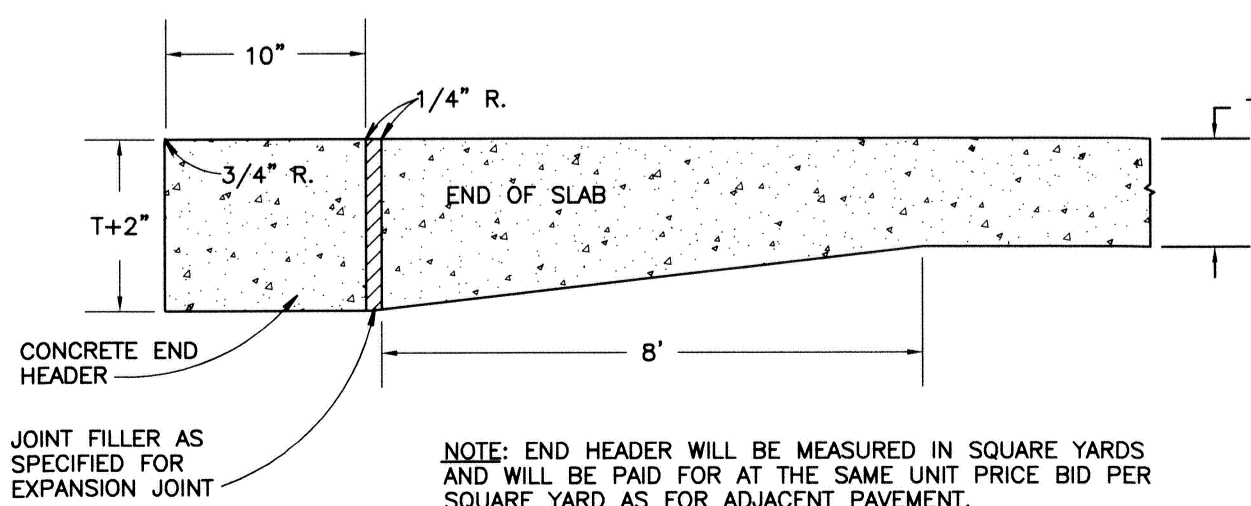
**TYPICAL CONCRETE CURB AND GUTTER DETAIL**



**PAVEMENT SECTION**



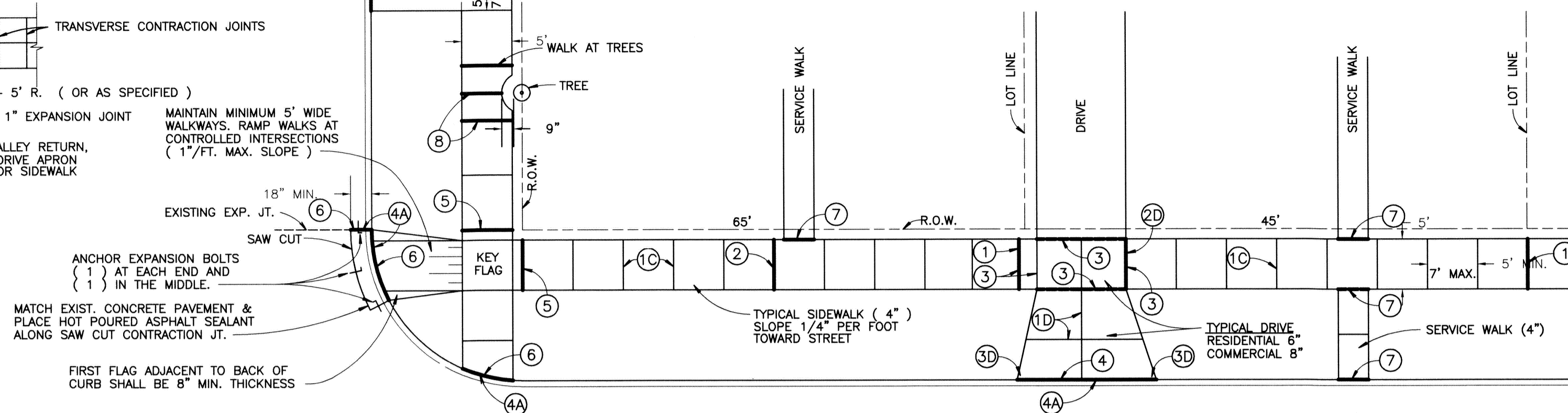
**4" MOUNTABLE CONCRETE INTEGRAL CURB ( NON-REINFORCED )**



**END HEADER**

**5 JOINTING DETAIL**

- 1. BUTT JOINT OR
- 2. PREFORMED STRIP
- 3. SAWED WEAKENED PLANE JOINT



**\* EXPANSION JOINTS**

- 1 PLACE 1/2" FIBER EXP. JOINT FILLERS AT LOT LINES WHEN LOTS ARE 50' OR LESS.
- 2 ADDITIONAL 1/2" FIBER EXP. JOINT FILLERS FOR LOTS GREATER THAN 50', NOT TO EXCEED 50' INTERVALS.
- 3 PLACE 1/2" FIBER EXP. JOINT FILLERS EACH SIDE, IF EDGE OF DRIVE IS WITHIN 2' OF LOT LINES PLACE EXPANSION PAPER AT PROPERTY LINE.
- 4 PLACE 1" FIBER EXP. JOINT FILLERS AT CURB AND BUILDING OR R.O.W. LINE.
- 4A AT CURB LINE, EXPANSION JOINTS SHALL BE SEALED WITH HOT RUBBERIZED SEALANT.
- 5 PLACE 1/2" FIBER EXP. JOINT FILLERS AT R.O.W. LINES OF CROSS - WALKS.
- 6 PLACE 1" FIBER EXP. JOINT FILLERS AT INTERSECTIONS OF CURB RADIUS AND IN LINE WITH EXISTING JOINTS.
- 7 PLACE 1/2" FIBER EXP. JOINT FILLER AT INTERSECTION OF SERVICE WALK & CURB ALSO AT SERVICE WALK & WALK.

**CONTRACTION JOINTS**

- 10 PLACE CONTRACTION JOINTS AT INTERVALS NOT LESS THAN 5' OR GREATER THAN 7'. FULL WIDTH OF WALK. JOINT DEPTH SHALL BE 1/2 THICKNESS OF CONCRETE.
- 20 PLACE CONTRACTION JOINTS AT WALK LINES FOR FULL WIDTH SIDEWALK.

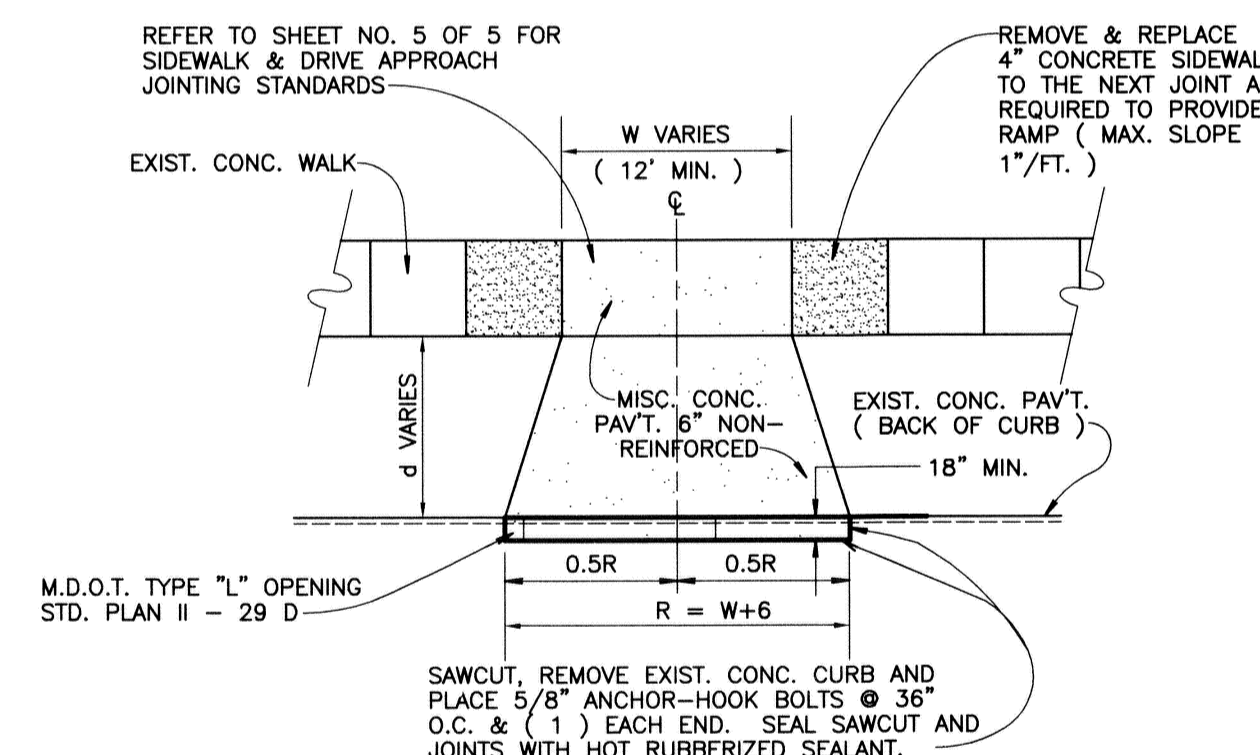
**DRIVEWAYS**

- 10 PLACE CONTRACTION JOINTS SO THAT NO SECTION OF THE CONCRETE DRIVEWAY EXCEEDS A DIMENSION OF 15'x15'.
- 20 PLACE 1" FIBER EXPANSION FILLER AT ALL SIDES OF A COMMERCIAL DRIVE.
- 30 WIDTH OF APPROACH AT STREET SHOULD BE MIN. 2' WIDER THAN WIDTH AT SIDEWALK, EACH SIDE.

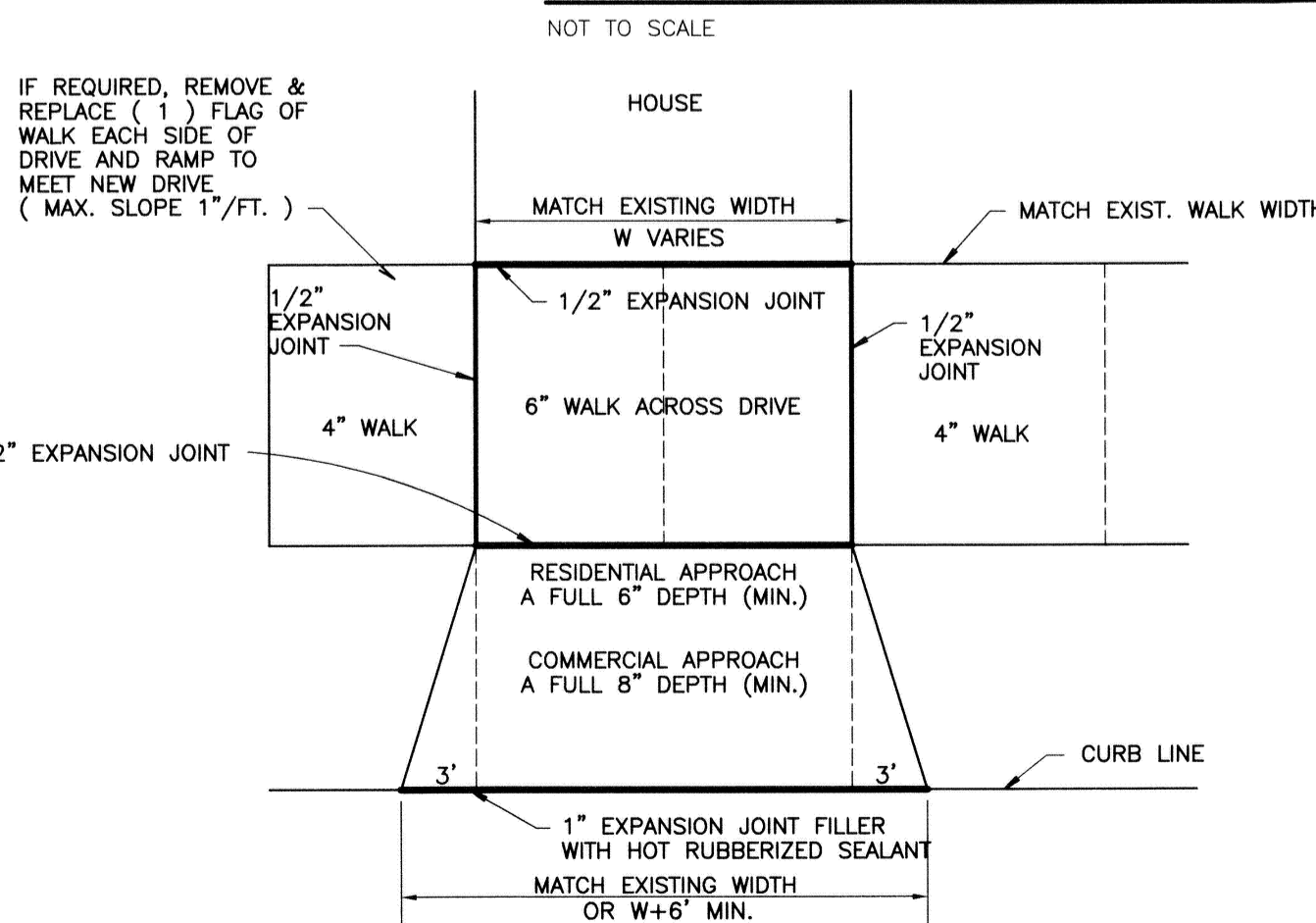
\* FIBER EXPANSION JOINT FILLERS SHALL BE FULL DEPTH

**NOTES**

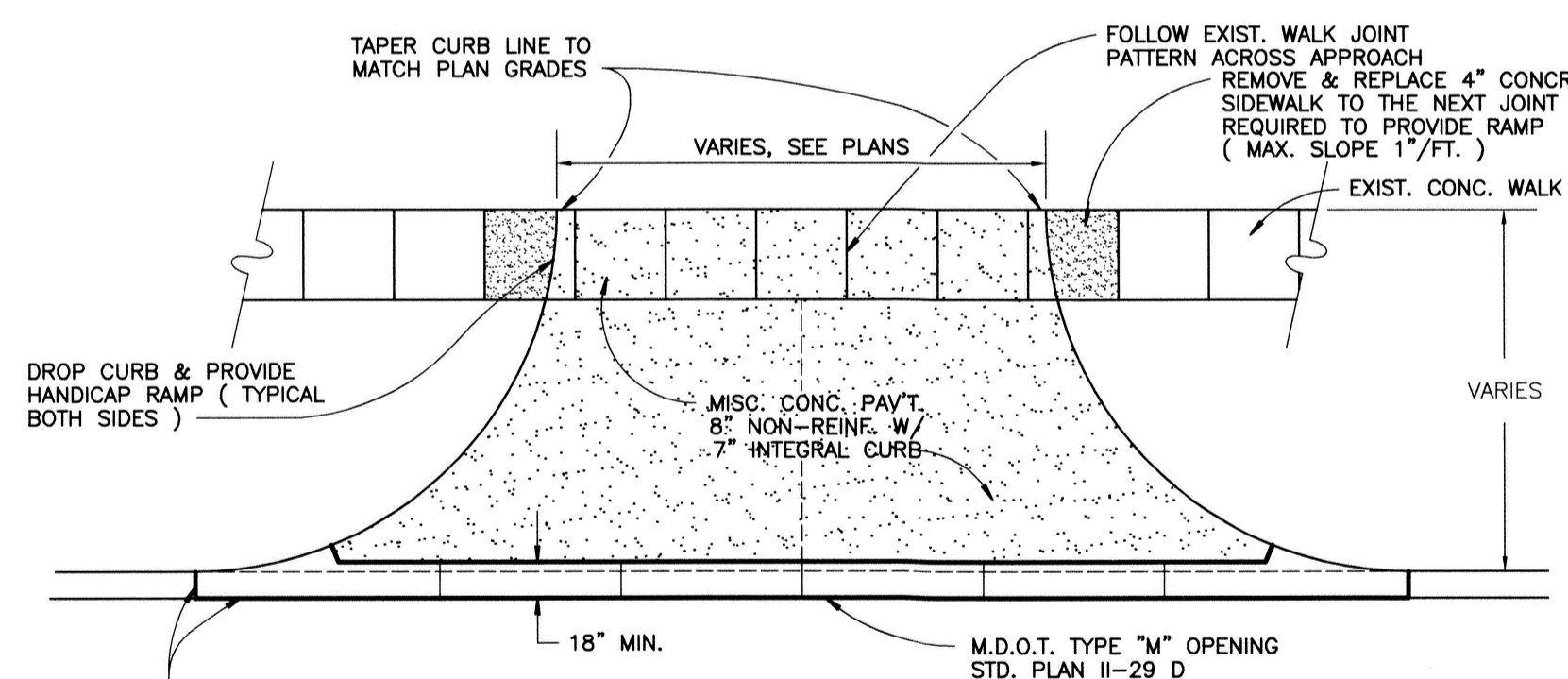
- 1. CONCRETE WORK NOT CONSTRUCTED UNDER THE CITY'S CONTRACTOR, MUST BE DONE UNDER A PERMIT, SECURED THROUGH THE CITY'S ENGINEERING DEPARTMENT.
- 2. NO CONCRETE SHALL BE PLACED UNTIL A PRE-CHECK HAS BEEN REQUESTED BY THE CONTRACTOR OR HOME-OWNER AND APPROVED BY THE CITY'S ENGINEERING DEPARTMENT AT LEAST (8) HOURS IN ADVANCE, FINAL INSPECTION IS ALSO REQUIRED AT PLACEMENT OF CONCRETE.
- 3. ALL WORK SHALL CONFORM TO THE CITY'S STANDARDS & SPECIFICATIONS AVAILABLE THROUGH THE ENGINEERING DEPARTMENT.
- 4. HANDICAP RAMP SHALL MEET PAVEMENT GUTTER ELEVATION. NO LIP PERMITTED.



**NEW RESIDENTIAL DRIVEWAY LAYOUT FOR EXISTING PAVEMENT CONDITION**



**REMOVAL AND REPLACEMENT OF EXISTING DRIVE APPROACH FOR EXISTING OR NEW PAVEMENT CONDITION**



**NEW COMMERCIAL DRIVEWAY LAYOUT FOR EXISTING PAVEMENT CONDITION**

**CITY OF GROSSE POINTE WOODS STANDARD PAVING DETAILS**

**DEPARTMENT OF PUBLIC WORKS**

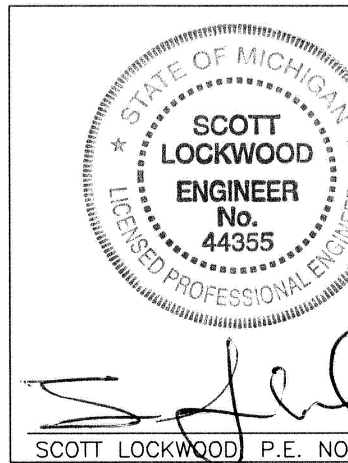
APPROVED BY: *Joseph J. Miller Jr.* JOSEPH J. MILLER JR., DPW DIRECTOR

DATE: 2/6/07

ANDERSON, ECKSTEIN AND WESTRICK, INC.  
Civil Engineers • Surveyors • Architects  
51301 Schoenherr Road, Shelby Township, Michigan 48315  
Phone 586-726-1234 Fax 586-726-8780

PROJECT NO. SHEET NO.  
DATE FEBRUARY, 2007  
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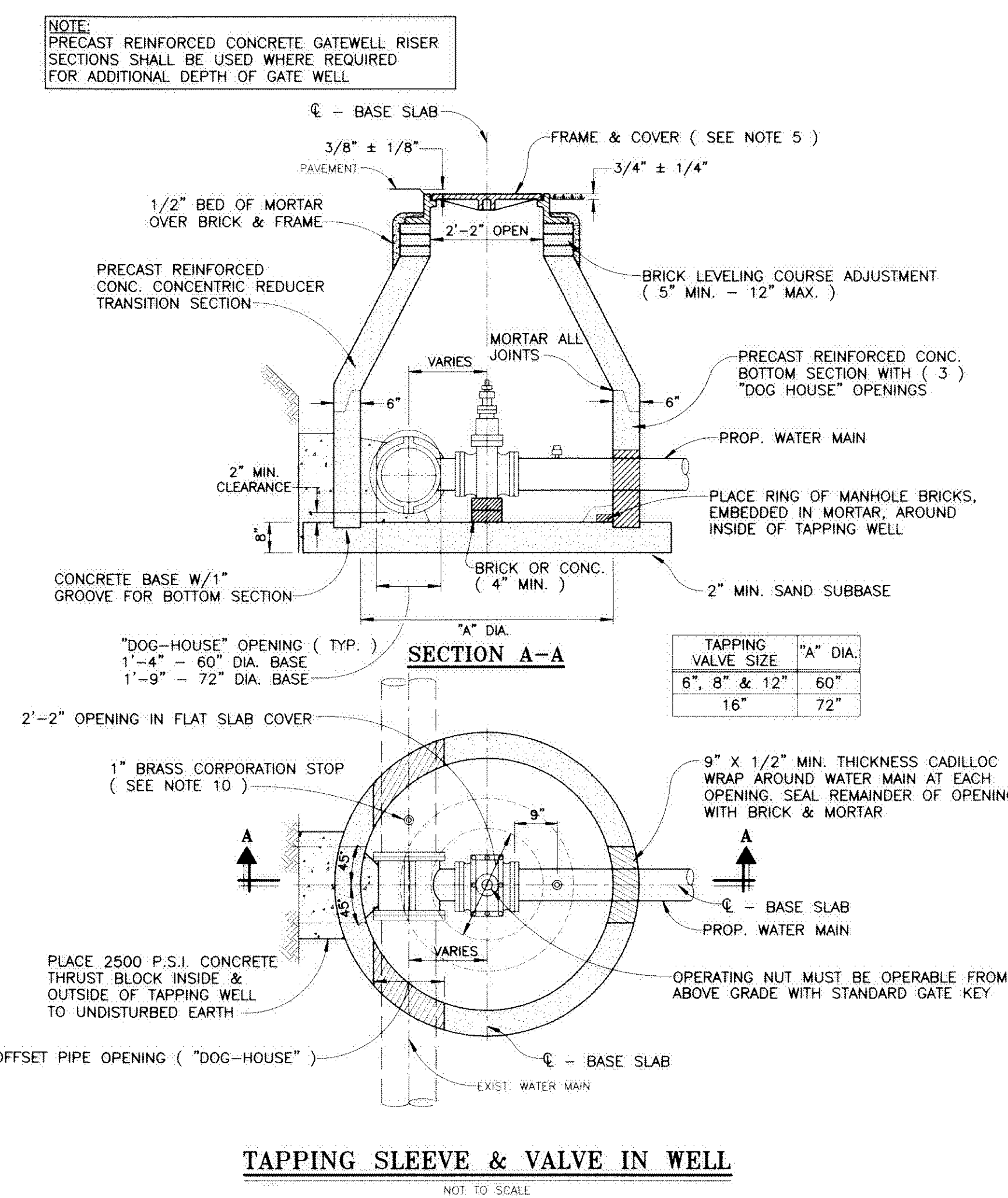
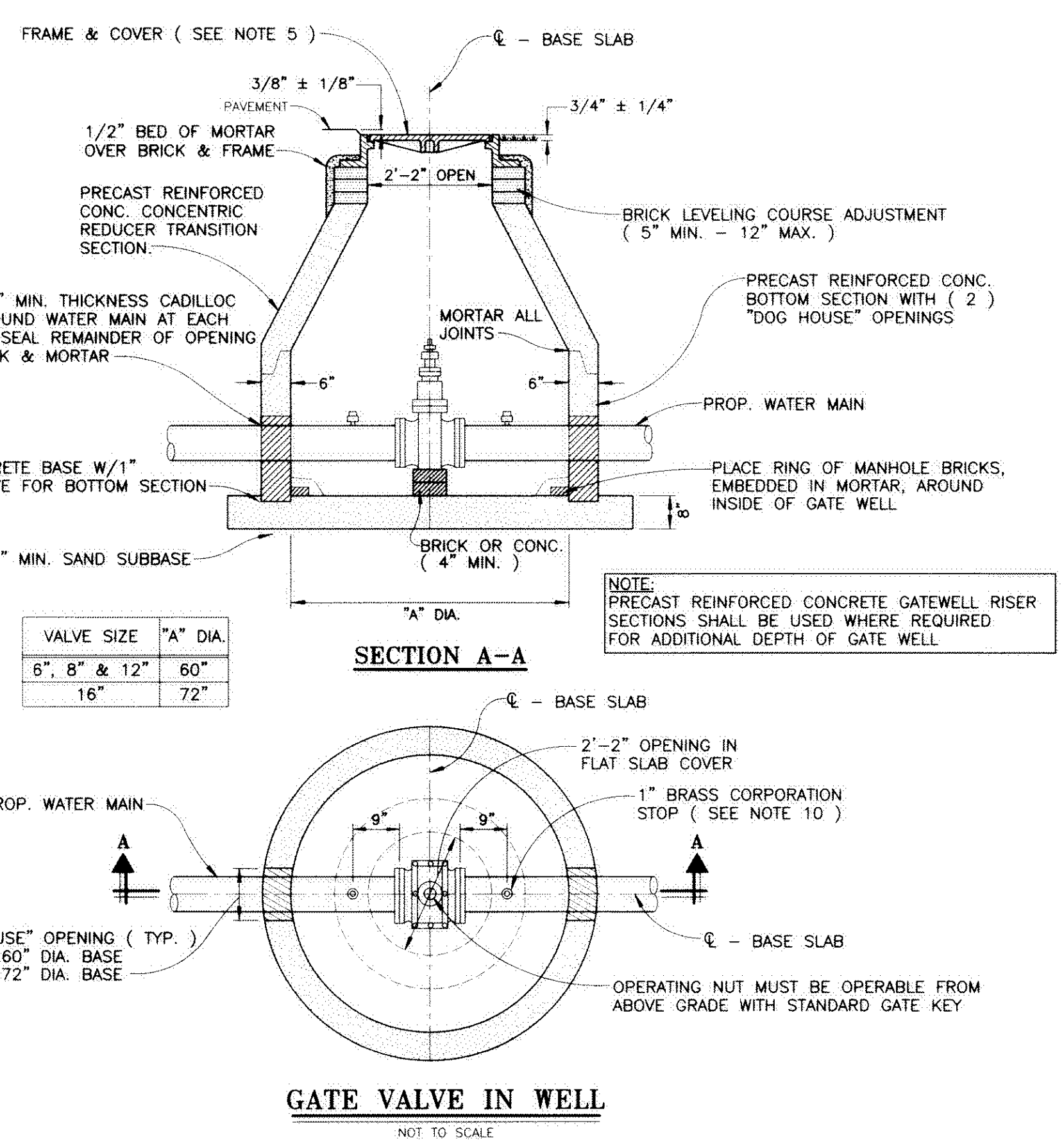
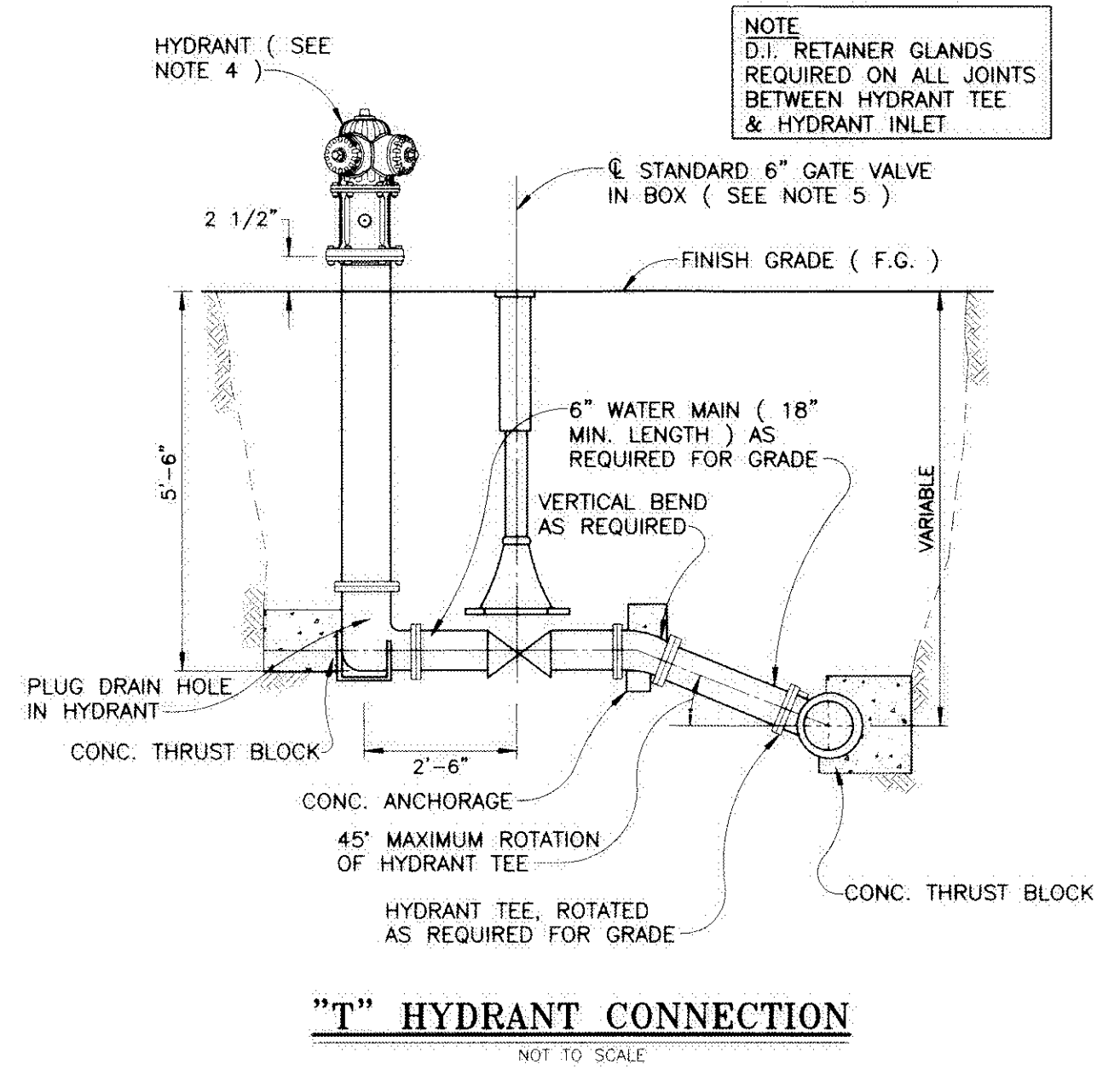
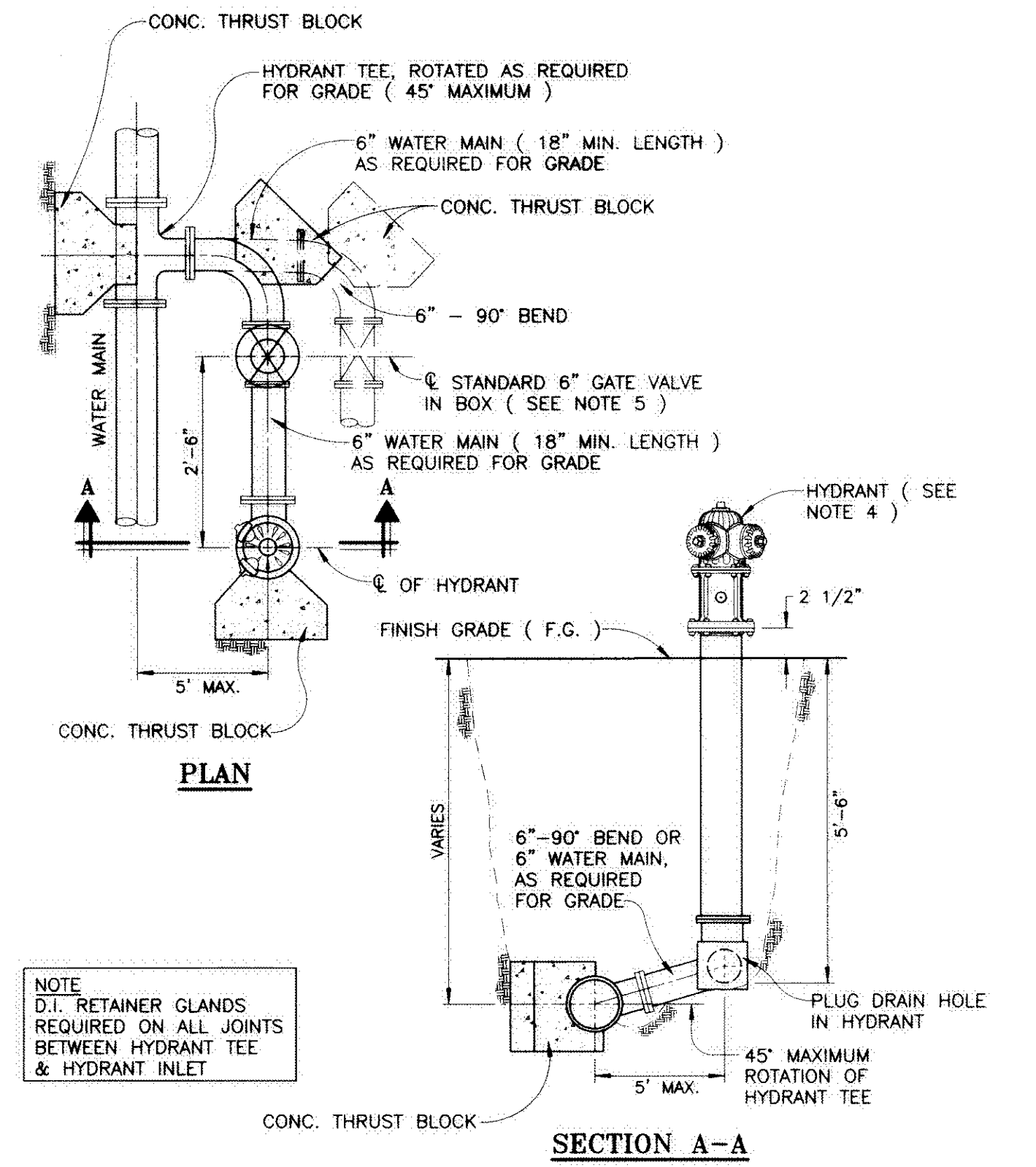
**E**



SCOTT LOCKWOOD P.E. NO. 44355

**GENERAL NOTES**

- STANDARDS AND SPECIFICATIONS**
  - ALL WATER MAIN AND WATER SYSTEM CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS AND THE DETROIT WATER AND SEWERAGE DEPARTMENT (DWS&D). DETAILED WRITTEN SPECIFICATIONS ARE AVAILABLE UPON REQUEST.
  - ANY MATERIALS OTHER THAN THOSE LISTED ON THE STANDARD DETAIL SHEETS MUST BE APPROVED IN WRITING BY THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS. CONTRACTOR MUST SUBMIT THREE (3) COPIES OF SHOP DRAWINGS AND SPECIFICATIONS FOR PROPOSED ALTERNATE MATERIAL TO THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS FOR REVIEW AS AN APPROVED EQUAL DETERMINATION OF ACCEPTANCE BY THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS SHALL BE CONSIDERED FINAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH REVIEW OF THE PROPOSED ALTERNATE MATERIAL AS AN APPROVED EQUAL.
- PRECONSTRUCTION REQUIREMENTS**
  - PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL ATTEND A PRECONSTRUCTION MEETING AT A TIME AND PLACE AS ARRANGED BY THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS. THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS SHALL NOTIFY AFFECTED UTILITY COMPANIES AND GOVERNMENTAL AGENCIES A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE PRECONSTRUCTION MEETING. THE OWNER'S ENGINEER SHALL SUBMIT APPROVED PLANS TO ALL UTILITY COMPANIES AND GOVERNMENTAL AGENCIES A MINIMUM OF TEN (10) DAYS PRIOR TO PRECONSTRUCTION MEETING. CONSTRUCTION SHALL START WITHIN TWO (2) WEEKS OF MEETING UNLESS WAIVED BY THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS.
  - THE CONTRACTOR SHALL NOTIFY MISS DIG AT (800) 482-7171, THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS AT (313) 343-2460, THE DETROIT WATER AND SEWERAGE DEPARTMENT (INSPECTION DIVISION) AT (313) 833-8649 AND ANDERSON, ECKSTEIN AND WESTRICK, INC. AT (586) 726-1234 THREE (3) WORKING DAYS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL ALSO NOTIFY REPRESENTATIVES OF ANY OTHER FACILITIES, LOCATED IN THE VICINITY OF THE WORK, WHICH ARE NOT PARTICIPANTS OF THE MISS DIG SYSTEM.
- PIPE MATERIAL**
  - DUCTILE IRON PIPE WITH EXTERIOR ASPHALTIC MATERIAL COATING SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C151/A21.51 CURRENT SPECIFICATIONS FOR DUCTILE-IRON PIPE, CENTRIFUGALLY CAST, FOR WATER. DUCTILE IRON PIPE SHALL BE SPECIAL THICKNESS CLASS 54 FOR PUSH-ON JOINT DUCTILE-IRON PIPE. DUCTILE IRON PIPE SHALL BE DOUBLE CEMENT LINED WITH ASPHALTIC MATERIAL SEAL COATING MEETING THE REQUIREMENTS OF ANSI/AWWA C104/A21.4 CURRENT SPECIFICATIONS FOR CEMENT-MORTAR LINING FOR DUCTILE-IRON PIPE AND FITTINGS FOR WATER. PUSH-ON JOINTS SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C111/A21.11 CURRENT SPECIFICATIONS FOR RUBBER-GASKET JOINTS FOR DUCTILE-IRON PRESSURE PIPE AND FITTINGS. PUSH ON JOINTS SHALL BE TYTON OR SUPER BELLITE WITH SERRATED BRASS WEDGES. 6" THROUGH 12" PIPE REQUIRES TWO (2) WEDGES PER JOINT, 16" AND LARGER REQUIRES FOUR (4) WEDGES PER JOINT.
  - HIGH-DENSITY POLYETHYLENE (HDPE) PIPE SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C906 CURRENT SPECIFICATIONS FOR POLYETHYLENE PIPE AND FITTINGS, 4 INCH THROUGH 63 INCH, FOR WATER DISTRIBUTION AND TRANSMISSION, AND NSF 61. HDPE PIPE SHALL BE DIPS, DR 11 (MINIMUM), BLUE STRIPE AND MEET THE REQUIREMENTS OF STANDARD PE CODE DESIGNATION PE 3408. HDPE PIPE SHALL BE JOINED BY AN APPROVED BUTT FUSION OR ELECTROFUSION TECHNIQUE ACCORDING TO THE MANUFACTURERS SPECIFICATIONS. THE CONTRACTOR SHALL INSTALL TWO (2) NUMBER 6 TRACER WIRES HAVING "UF" OR "USE" COVER INSULATION AT THE SAME TIME NEW WATER MAIN IS INSTALLED.
- HYDRANTS**
  - HYDRANTS SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C502 CURRENT SPECIFICATIONS FOR DRY-BARREL FIRE HYDRANTS. HYDRANTS SHALL BE EAST JORDAN IRON WORKS 5BR-250 WATERMASTER WITH PENTAGON OPERATING NUT MEASURING 1-1/8" POINT TO FLAT AND BREAKAWAY FLANGE. THE CONTRACTOR SHALL PLUG ANY HYDRANT DRAIN HOLES.
  - HYDRANTS SHALL OPEN COUNTER CLOCKWISE. HYDRANTS SHALL BE SUPPLIED WITH TWO (2) THREE AND THREE-QUARTER INCH (3-3/4") PUMPER NOZZLES HAVING DETROIT STANDARD THREAD.
  - HYDRANTS SHALL HAVE A MINIMUM BURY OF FIVE AND ONE-HALF FEET (5-1/2') FROM FINISH GRADE TO BOTTOM INLET INVERT WITH A MINIMUM GROUND CLEARANCE FROM CENTER OF PUMPER NOZZLE TO FINISH GRADE OF TWENTY-ONE INCHES (21") AND FROM CENTER OF BASE FLANGE TO FINISH GRADE OF AT LEAST TWO AND ONE-HALF INCHES (2-1/2").
  - PRIOR TO FINAL ACCEPTANCE BY THE MUNICIPALITY, ALL HYDRANTS MUST BE DEWATERED AND PAINTED. PAINT SHALL BE MARINE ENAMEL WITH TWO (2) APPLICATIONS. HYDRANTS SHALL BE YELLOW IN COLOR.
- HYDRANTS (CONTINUED)**
  - HYDRANTS SHALL BE OF THE "L" OR "T" TYPE CONNECTION AS SPECIFIED ON THE PLANS OR DIRECTED BY THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS. HYDRANT PUMPER NOZZLES SHALL FACE THE ROAD CENTERLINE IN RIGHT-OF-WAYS OR FACE THE DIRECTION OF FIRE EQUIPMENT ACCESS ON PRIVATE DEVELOPMENTS. HYDRANTS SHALL BE SET TO THE PROPOSED PLAN GRADE ELEVATION UNLESS OTHERWISE AUTHORIZED BY THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS. ALL VERTICAL EXTENSIONS REQUIRED TO OBTAIN THE DESIRED GRADE SHALL BE INCLUDED IN THE COST OF THE HYDRANT.
  - GATE VALVES**
    - ALL VALVES LESS THAN SIXTEEN INCH (16") IN DIAMETER SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C515 CURRENT SPECIFICATIONS FOR REDUCED-WALL, RESILIENT-SEATED GATE VALVES FOR WATER SUPPLY SERVICE. THE VALVE SHALL BE CAST WITH A DUCTILE IRON BODY AND BRONZE MOUNTED WITH A BRONZE NON-RISING STEM, DOUBLE "O"-RING REPLACEABLE SEALS AND MECHANICAL JOINTS. IT SHALL BE FURNISHED WITH A TWO INCH (2") SQUARE OPERATING NUT AND SHALL TURN CLOCKWISE TO OPEN. GATE VALVES SHALL BE EAST JORDAN IRON WORKS FLOWMASTER RESILIENT SEATED GATE VALVES.
    - ALL VALVES SIXTEEN INCH (16") IN DIAMETER, OR LARGER, SHALL BE BUTTERFLY VALVES THAT MEET THE REQUIREMENTS OF ANSI/AWWA C504 CURRENT SPECIFICATIONS FOR RUBBER-SEATED BUTTERFLY VALVES, CLASS 150B. THE VALVE SHALL BE CAST WITH AN IRON BODY AND A CORROSION RESISTANT STAINLESS STEEL SHAFT AND MECHANICAL JOINTS. IT SHALL BE FURNISHED WITH A MANUAL ACTUATOR WITH A TWO INCH (2") SQUARE OPERATING NUT AND SHALL TURN CLOCKWISE TO OPEN. BUTTERFLY VALVES SHALL BE MUELLER LINESEAL III (CLASS 150B) BUTTERFLY VALVES WITH MANUAL ACTUATOR.
    - TAPPING VALVES SHALL CONFORM TO THE REQUIREMENTS OF GATE VALVES AS SPECIFIED IN THESE STANDARDS. THE VALVE SHALL BE CONSTRUCTED TO ALLOW A TAPPING MACHINE TO TAP DIRECTLY THROUGH THE OPEN VALVE. THE VALVE SHALL BE SUPPLIED WITH A FLANGED JOINT FOR CONNECTION TO THE TAPPING SLEEVE AND A MECHANICAL JOINT FOR CONNECTION TO THE BRANCH WATER MAIN. THE TAPPING SLEEVES SHALL BE STAINLESS STEEL, SPLIT SLEEVES WITH A DUCTILE IRON FLANGED OUTLET.
    - GATE VALVES AND TAPPING VALVES SHALL BE HOUSED WITHIN A PRECAST CONCRETE GATEWELL. PRECAST BOTTOM SECTIONS, RISER SECTIONS AND CONCENTRIC TRANSITION SECTIONS SHALL CONFORM TO ASTM SPECIFICATION C478. HYDRANT VALVES SHALL BE HOUSED IN A CAST IRON VALVE BOX. VALVE BOX SHALL BE A THREE (3) PIECE SCREW TYPE BOX (5-1/4" SHAFT) WITH AN ENLARGED BASE.
    - GATEWELL FRAMES AND COVERS SHALL BE EAST JORDAN IRON WORKS 1040 WITH TYPE A COVER. COVER SHALL READ "GROSSE POINTE WOODS WATER SUPPLY" IN TWO INCH (2") RECESSED FLUSH LETTERS AND THE CITY LOGO SHALL BE CENTERED.
    - ALL END-OF-THE-LINE GATEWELLS SHALL HAVE A CAPPED STUB EXTENDING ONE FULL LENGTH OF PIPE BEYOND THE GATEWELL. THE VALVE, PIPE AND CAP SHALL BE INSTALLED WITH RETAINER GLANDS AND A CONCRETE THRUST BLOCK AT THE CAP.
    - STEPS SHALL BE EAST JORDAN IRON WORKS #8503 OR M.A. INDUSTRIES P.S.I. POLYPROPYLENE WITH FOOT RECESS AND INSTALLED BY THE GATEWELL MANUFACTURER AT SIXTEEN INCHES (16") CENTER TO CENTER SPACING. BOTTOM STEP SHALL BE TWENTY-FOUR INCHES (24") MAXIMUM ABOVE FLOOR. TOP STEP SHALL BE EIGHTEEN INCHES (18") MAXIMUM BELOW RIM. ALL STEPS SHALL BE SUITABLY SCORED TO PROVIDE A NON-SLIP SURFACE.
  - FITTINGS**
    - ALL FITTINGS SHALL BE DUCTILE IRON AND MEET THE REQUIREMENTS OF ANSI/AWWA C153/A21.53 CURRENT SPECIFICATIONS FOR DUCTILE-IRON COMPACT FITTINGS FOR WATER SERVICE. FITTINGS SHALL BE CEMENT LINED WITH ASPHALTIC MATERIAL SEAL COATING MEETING THE REQUIREMENTS OF ANSI/AWWA C104/A21.4 CURRENT SPECIFICATIONS FOR CEMENT-MORTAR LINING FOR DUCTILE-IRON PIPE AND FITTINGS FOR WATER OR EPOXY COATED MEETING THE REQUIREMENTS OF ANSI/AWWA C116/A21.16 FOR PROTECTIVE FUSION-BONDED EPOXY COATINGS FOR THE INTERIOR AND EXTERIOR SURFACES OF DUCTILE-IRON AND GRAY-IRON FITTINGS FOR WATER SUPPLY SERVICE. FITTINGS SHALL BE 350 PSI PRESSURE RATED WITH MECHANICAL JOINTS AND RETAINING GLANDS. SPLIT RETAINERS ARE NOT ALLOWED.
    - CONCRETE THRUST BLOCKS ARE REQUIRED AT ALL BENDS, TEES, CAPS OR PLUGS. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 2500 PSI (MINIMUM) AT 28 DAYS.
    - MECHANICAL JOINTS AND BOLTS FOR ALL FITTINGS SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C111/A21.11 CURRENT SPECIFICATIONS FOR RUBBER-GASKET JOINTS FOR DUCTILE-IRON PRESSURE PIPE AND FITTINGS. ALL BOLTS SHALL BE COR-TEN BLUE WITH T-HEADS AND HEX NUTS.
    - ALL MECHANICAL JOINTS, FITTINGS, GLANDS AND BOLTS SHALL BE COATED WITH BITUMASTIC.



**CITY OF GROSSE POINTE WOODS**  
**STANDARD WATER MAIN DETAILS ( 1 OF 2 )**

**DEPARTMENT OF PUBLIC WORKS**

APPROVED BY: *Joseph J. Mee, Jr.* DIRECTOR DATE: 12-13-05

PROJECT NO. SHEET NO. W1

DATE: DECEMBER 2005

DRAWN BY: SMH CHECKED BY: CRF

SCOTT LOCKWOOD P.E. No. 44355

**ANDERSON, ECKSTEIN AND WESTRICK, INC.**  
 Civil Engineers - Surveyors - Architects  
 51301 Schoenherr Road, Shelby Township, Michigan 48315  
 Phone: 586-726-1234 Fax: 586-726-8780

REMARKS: \_\_\_\_\_

DATE: \_\_\_\_\_

REMARKS: \_\_\_\_\_

DATE: \_\_\_\_\_

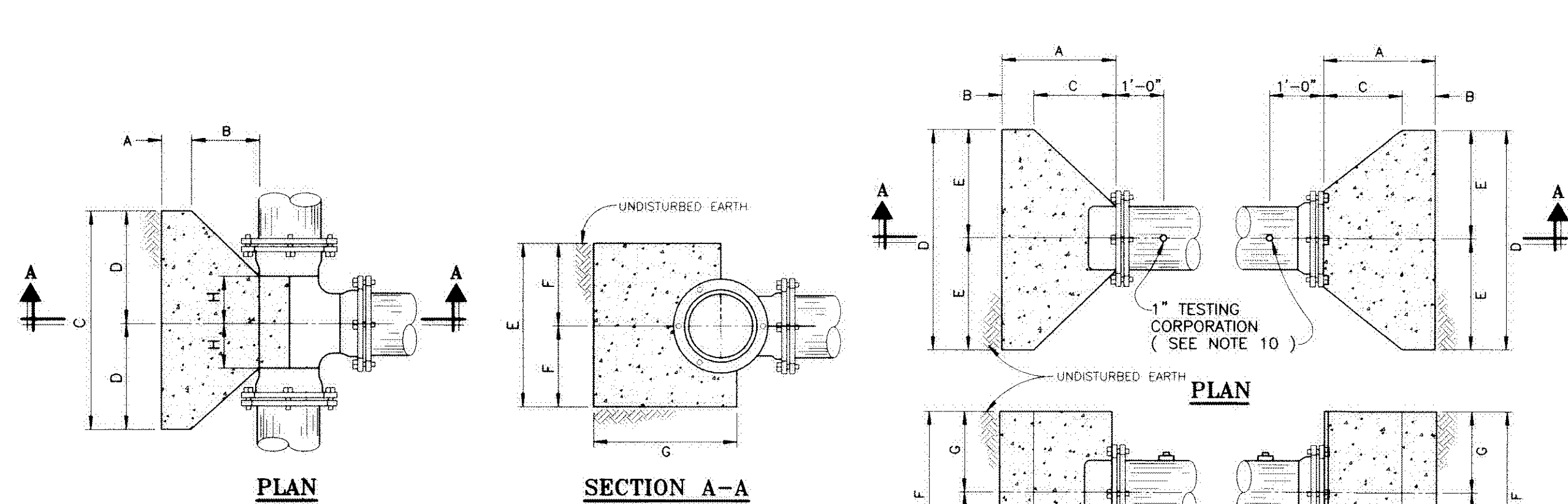
REMARKS: \_\_\_\_\_

DATE: \_\_\_\_\_



**GENERAL NOTES**

7. **CONSTRUCTION**
  - A. THE WATER MAIN SHALL BE CONSTRUCTED WITH A MINIMUM COVER OF FIVE AND ONE-HALF FEET ( 5'-½' ), MEASURED FROM THE PAVEMENT CENTERLINE ELEVATION OR THE EXISTING GROUND, WHICHEVER IS LOWER, TO THE TOP OF PIPE. GENERALLY, THE MAXIMUM DEPTH OF COVER SHALL NOT EXCEED SEVEN FEET ( 7' ) FROM FINAL FINISH GRADE.
  - B. A MINIMUM VERTICAL CLEARANCE OF ONE AND ONE-HALF FEET ( 1'-½' ) MUST BE MAINTAINED BETWEEN THE WATER MAIN AND ANY UTILITIES. ADJUSTMENTS TO THE WATER MAIN DEPTH IN ORDER TO OBTAIN THE DESIRED CLEARANCES MUST BE ACCOMPLISHED WITH VERTICAL BENDS, THRUST BLOCKS AND ANCHORAGES.
  - C. DEFLECTION OF PIPE JOINTS TO OBTAIN THE DESIRED CLEARANCES OR ALIGNMENT SHALL ONLY BE ACCOMPLISHED WITH THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS APPROVAL. THE MAXIMUM ALLOWABLE DEFLECTION ( FOR 1 FULL LENGTH OF PIPE ) IS FOURTEEN INCHES ( 14" ) FOR 4" THROUGH 12" PIPE AND EIGHT INCHES ( 8" ) FOR 16" AND 24" PIPE.
  - D. THE CONTRACTOR SHALL SUPPLY AND PLACE A PLUG OR CAP OVER THE END OF THE PIPE AT THE END OF EACH WORK DAY.
  - E. IN NEW DEVELOPMENTS, WATER MAIN SHALL NOT BE INSTALLED UNTIL ROUGH GRADING IS COMPLETED TO WITHIN TWELVE INCHES ( 12" ) OF PROPOSED FINISH GRADE.
  - F. INDIVIDUAL WATER SERVICES AND METERS SHALL BE REQUIRED FOR EACH SEPARATE UNIT WITHIN PROPOSED COMMERCIAL, INDUSTRIAL AND/OR MULTIPLE FAMILY RESIDENTIAL BUILDINGS.
8. **CONNECTION TO EXISTING SYSTEM ( CONTINUED )**
  - A. THE CONTRACTOR SHALL PROVIDE A TWO ( 2 ) YEAR MAINTENANCE AND GUARANTEE BOND TO THE CITY OF GROSSE POINTE WOODS FROM A SURETY, LICENSED IN THE STATE OF MICHIGAN, WITH A RATING OF B+ OR BETTER, DATED FROM THE TIME OF FINAL ACCEPTANCE BY THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS, FOR 100% OF THE CONSTRUCTION COSTS.
  - B. THE CONTRACTOR SHALL SUPPLY AND PLACE A PLUG OR CAP OVER THE END OF THE PIPE AT THE END OF EACH WORK DAY.
  - C. DEFLECTION OF PIPE JOINTS TO OBTAIN THE DESIRED CLEARANCES OR ALIGNMENT SHALL ONLY BE ACCOMPLISHED WITH THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS APPROVAL. THE MAXIMUM ALLOWABLE DEFLECTION ( FOR 1 FULL LENGTH OF PIPE ) IS FOURTEEN INCHES ( 14" ) FOR 4" THROUGH 12" PIPE AND EIGHT INCHES ( 8" ) FOR 16" AND 24" PIPE.
  - D. THE CONTRACTOR SHALL SUPPLY AND PLACE A PLUG OR CAP OVER THE END OF THE PIPE AT THE END OF EACH WORK DAY.
  - E. IN NEW DEVELOPMENTS, WATER MAIN SHALL NOT BE INSTALLED UNTIL ROUGH GRADING IS COMPLETED TO WITHIN TWELVE INCHES ( 12" ) OF PROPOSED FINISH GRADE.
  - F. INDIVIDUAL WATER SERVICES AND METERS SHALL BE REQUIRED FOR EACH SEPARATE UNIT WITHIN PROPOSED COMMERCIAL, INDUSTRIAL AND/OR MULTIPLE FAMILY RESIDENTIAL BUILDINGS.
9. **MAINTENANCE AND GUARANTEE BOND**
  - A. THE CONTRACTOR SHALL PROVIDE A TWO ( 2 ) YEAR MAINTENANCE AND GUARANTEE BOND TO THE CITY OF GROSSE POINTE WOODS FROM A SURETY, LICENSED IN THE STATE OF MICHIGAN, WITH A RATING OF B+ OR BETTER, DATED FROM THE TIME OF FINAL ACCEPTANCE BY THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS, FOR 100% OF THE CONSTRUCTION COSTS.
  - B. THE CONTRACTOR SHALL SUPPLY AND PLACE A PLUG OR CAP OVER THE END OF THE PIPE AT THE END OF EACH WORK DAY.
  - C. DEFLECTION OF PIPE JOINTS TO OBTAIN THE DESIRED CLEARANCES OR ALIGNMENT SHALL ONLY BE ACCOMPLISHED WITH THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS APPROVAL. THE MAXIMUM ALLOWABLE DEFLECTION ( FOR 1 FULL LENGTH OF PIPE ) IS FOURTEEN INCHES ( 14" ) FOR 4" THROUGH 12" PIPE AND EIGHT INCHES ( 8" ) FOR 16" AND 24" PIPE.
  - D. THE CONTRACTOR SHALL SUPPLY AND PLACE A PLUG OR CAP OVER THE END OF THE PIPE AT THE END OF EACH WORK DAY.
  - E. IN NEW DEVELOPMENTS, WATER MAIN SHALL NOT BE INSTALLED UNTIL ROUGH GRADING IS COMPLETED TO WITHIN TWELVE INCHES ( 12" ) OF PROPOSED FINISH GRADE.
  - F. INDIVIDUAL WATER SERVICES AND METERS SHALL BE REQUIRED FOR EACH SEPARATE UNIT WITHIN PROPOSED COMMERCIAL, INDUSTRIAL AND/OR MULTIPLE FAMILY RESIDENTIAL BUILDINGS.
10. **WATER SERVICES**
  - A. ALL WATER SERVICE TRANSFERS SHALL INCLUDE NEW COPPER TUBING, CORPORATION STOPS AND UNIONS AS REQUIRED. SEE TYPICAL WATER SERVICE TRANSFER DETAIL.
  - B. ALL WATER SERVICE REPLACEMENTS SHALL INCLUDE NEW COPPER TUBING, CORPORATION STOPS, CURB STOP VALVES, SERVICE BOXES AND UNIONS AS REQUIRED. SERVICE REPLACEMENTS SHALL BE FROM THE WATER MAIN TO A CONNECTION POINT ONE FOOT ( 1' ) BEYOND THE EXISTING CURB STOP VALVE. SEE TYPICAL WATER SERVICE REPLACEMENT DETAIL.
  - C. UNIONS FOR WATER SERVICE TRANSFERS SHALL BE MUELLER H-15400 STRAIGHT THREE PART UNION WITH COPPER FLARE NUT ( BOTH ENDS ). UNIONS FOR WATER SERVICE REPLACEMENT SHALL BE MUELLER H-15506 STRAIGHT UNION EXTRA STRONG ( XS ) WITH LEAD FLANGE COUPLING AND COPPER FLARE NUT.
  - D. WATER SERVICES SHALL BE NEW TYPE "K" SEAMLESS COPPER TUBING. CONTRACTOR SHALL MATCH EXISTING WATER SERVICE SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS.
  - E. CORPORATION STOPS SHALL BE MUELLER H-15000 GROUND KEY CORPORATION VALVE WITH ANWA TAPER ( MUELLER "CC" ) THREAD AND COPPER FLARE STRAIGHT CONNECTION OUTLET. A BRONZE DOUBLE STRAP SADDLE IS REQUIRED FOR ONE AND ONE-HALF INCH ( 1'-½" ) AND TWO INCH ( 2" ) WATER SERVICES. BRONZE DOUBLE STRAP SADDLES SHALL BE MUELLER BR 2 B SERIES WITH ANWA TAPER ( MUELLER "CC" ) THREAD.
  - F. CURB STOP VALVES SHALL BE MUELLER H-15204 MARK II ORISEAL CURB VALVE WITH COPPER FLARE NUT ( BOTH ENDS ) AND QUARTER TURN CHECK CURB BOXES SHALL BE TYLER CAST IRON ADJUSTABLE SERVICE BOXES, 6500 SERIES, SCREW TYPE 95-E.
  - G. CURB STOPS SHALL BE INSTALLED IN SIDEWALKS, DRIVES, OR PAVEMENT WITH THE WRITTEN AUTHORIZATION OF THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS. ADDITIONAL COPPER TUBING AND FITTINGS SHALL BE USED AS REQUIRED TO INSTALL CURB STOPS IN GREEN BELT AREA.
  - H. ALL ABANDONED SERVICES MUST BE CAPPED AT THE MAIN.



TEE SIZE	A	B	C	D	E	F	G	H
8" X 8"	0'-9"	0'-9"	2'-8"	1'-4"	2'-0"	1'-0"	2'-2"	0'-7"
12" X 8"	0'-9"	0'-9"	2'-8"	1'-4"	2'-0"	1'-0"	2'-6"	0'-8"
16" X 8"	0'-9"	0'-9"	2'-8"	1'-4"	2'-0"	1'-0"	2'-10"	0'-8"
12" X 12"	0'-9"	1'-3"	4'-0"	2'-0"	3'-0"	1'-6"	2'-10"	0'-10"
16" X 12"	0'-9"	1'-3"	4'-0"	2'-0"	3'-0"	1'-6"	3'-4"	0'-10"
16" X 16"	1'-0"	1'-4"	4'-8"	2'-4"	4'-8"	2'-4"	3'-6"	1'-0"

NOTE: THRUST BLOCKS FOR 6" TEES SHALL MATCH THE REQUIREMENTS FOR 8" TEES

**CONCRETE THRUST BLOCKS FOR TEES**

NOT TO SCALE

SIZE	A MIN.	B MIN.	C	D	E	F	G
8"	1'-11"	0'-9"	1'-2"	3'-0"	1'-6"	2'-0"	1'-0"
12"	2'-1"	0'-9"	1'-4"	4'-0"	2'-0"	3'-0"	1'-6"
16"	2'-8"	1'-0"	1'-8"	5'-0"	2'-6"	4'-0"	2'-0"
24"	4'-2"	1'-6"	2'-8"	6'-0"	3'-0"	4'-0"	2'-0"

**CONCRETE THRUST BLOCKS FOR HORIZONTAL BENDS**

NOT TO SCALE

SIZE	ANGLE	A (MIN.)	B (MIN.)	C	D	E	F	G	H (MIN.)	J
6"	45°	1'-6"	0'-9"	0'-9"	1'-6"	0'-9"	1'-6"	0'-9"	1'-8"	0'-10"
6"	90°	1'-6"	0'-9"	0'-9"	2'-0"	1'-0"	2'-0"	1'-0"	1'-8"	0'-10"
8"	45°	1'-9"	0'-9"	1'-0"	2'-4"	1'-2"	2'-0"	1'-0"	1'-11"	1'-4"
8"	90°	1'-9"	0'-9"	1'-0"	3'-4"	1'-8"	2'-6"	1'-3"	1'-11"	1'-2"
12"	22 1/2°	1'-9"	0'-9"	1'-0"	2'-6"	1'-3"	2'-0"	1'-0"	2'-0"	1'-4"
12"	45°	2'-1"	0'-9"	1'-4"	3'-6"	1'-9"	2'-6"	1'-3"	2'-4"	1'-4"
12"	90°	2'-1"	0'-9"	1'-4"	5'-6"	2'-9"	3'-0"	1'-6"	2'-4"	1'-8"
16"	22 1/2°	2'-8"	1'-0"	1'-8"	3'-4"	1'-8"	2'-6"	1'-3"	3'-0"	1'-2"
16"	45°	2'-8"	1'-0"	1'-8"	5'-4"	2'-8"	3'-0"	1'-6"	3'-0"	2'-6"
16"	90°	2'-8"	1'-0"	1'-8"	6'-0"	3'-0"	5'-0"	2'-6"	3'-0"	2'-8"
24"	90°	4'-7"	1'-0"	3'-7"	10'-0"	5'-0"	7'-0"	3'-6"	5'-4"	2'-4"

\* 90° BENDS TO BE INSTALLED ONLY WITH WRITTEN APPROVAL OF THE COMMUNITY

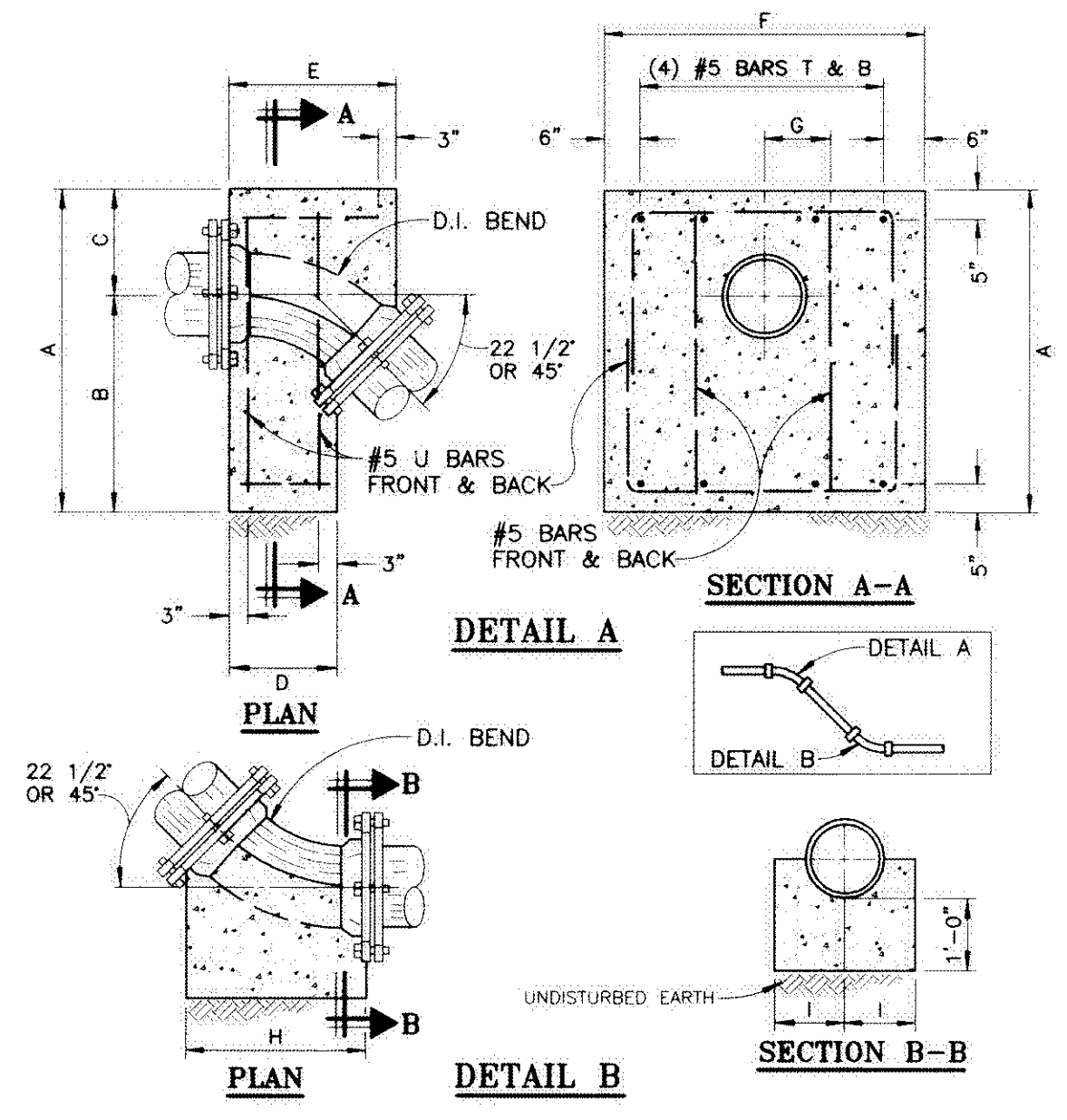
**CONCRETE THRUST BLOCKS FOR HORIZONTAL BENDS**

NOT TO SCALE

REMARKS  
DATE

REMARKS  
DATE

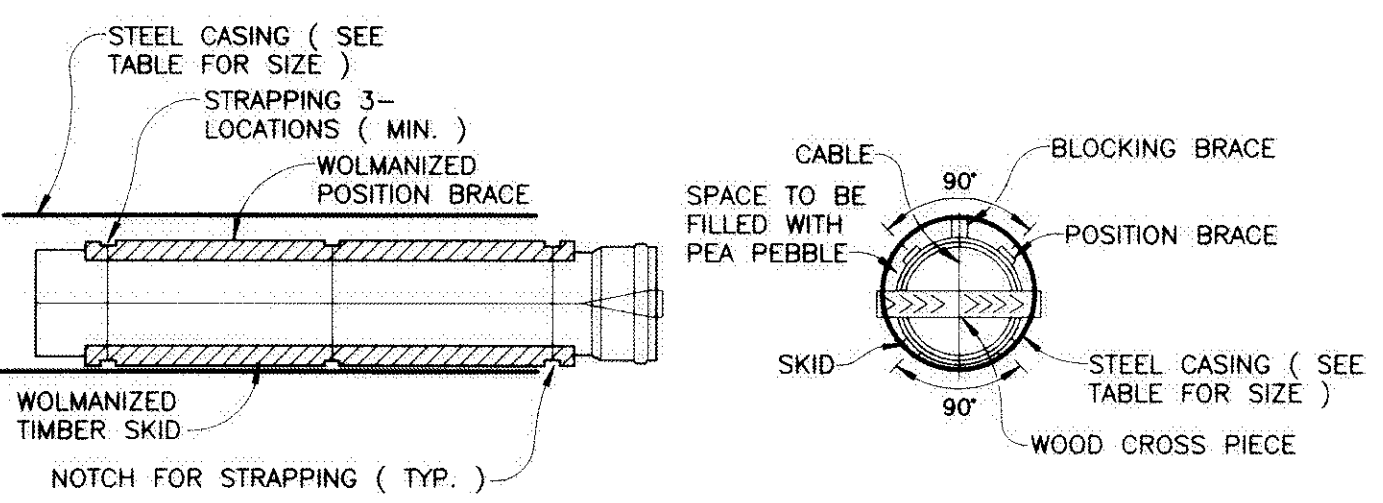
REMARKS  
DATE



SIZE	ANGLE	A	B	C	D	E	F	G	H	I
8"	22 1/2°	3'-0"	1'-8"	1'-4"	1'-4"	1'-7"	2'-8"	0'-8"	1'-9"	1'-0"
8"	45°	4'-0"	2'-6"	1'-6"	1'-6"	1'-8"	3'-2"	0'-10"	2'-0"	1'-0"
12"	22 1/2°	4'-0"	2'-6"	1'-6"	1'-7"	2'-0"	4'-0"	0'-10"	2'-6"	1'-0"
12"	45°	4'-6"	3'-0"	1'-6"	1'-6"	2'-4"	5'-0"	0'-11"	2'-6"	1'-0"
16"	22 1/2°	4'-6"	2'-10"	1'-8"	1'-7"	2'-2"	5'-0"	0'-11"	2'-4"	1'-6"

**ANCHORAGE FOR VERTICAL BENDS**

NOT TO SCALE

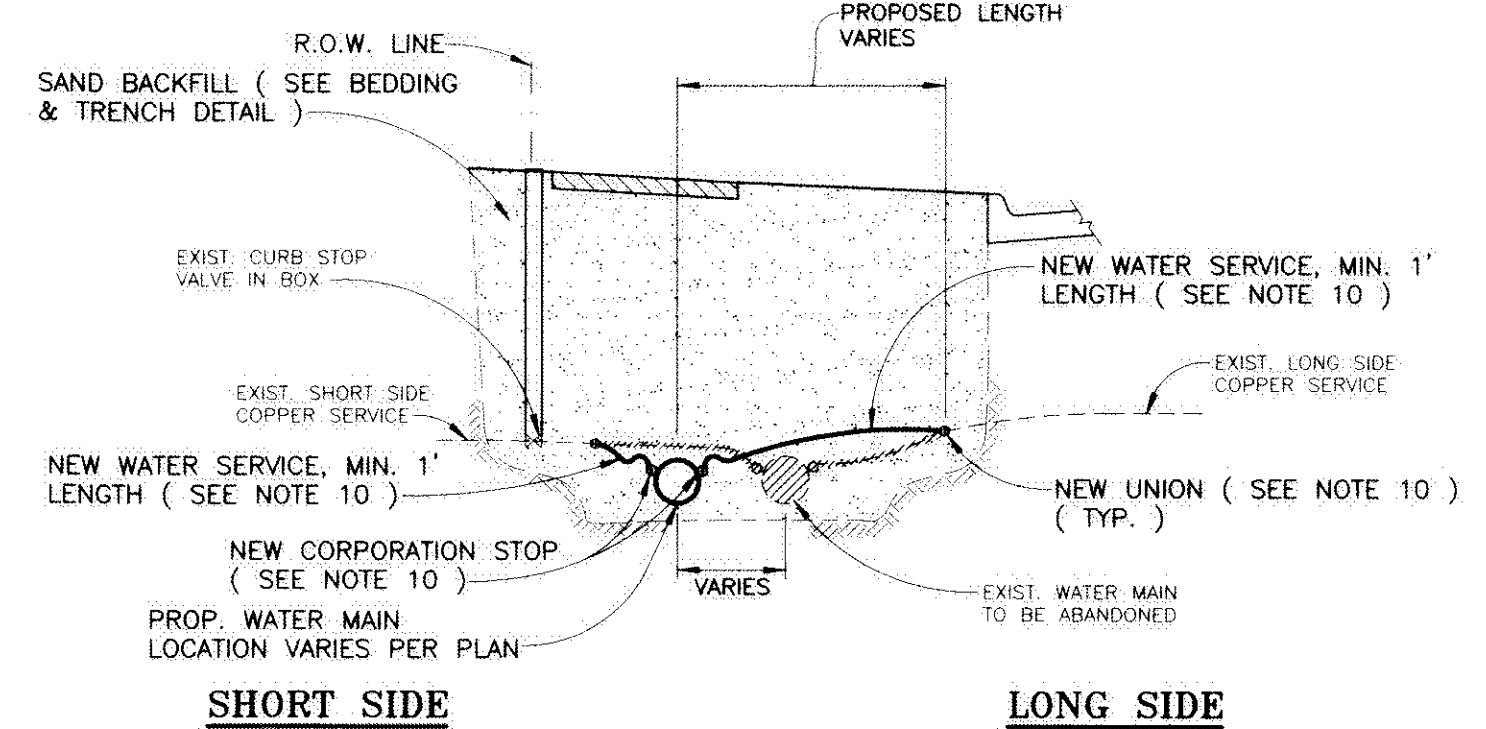


NOTE: THE ENDS OF THE CASING SHALL BE SEALED AFTER THE WATER MAIN IS INSTALLED THROUGH THE CASING

PIPE SIZE	RECOMMENDED MINIMUM CASING DIAMETER ( O.D. )	MINIMUM CASING WALL THICKNESS
4"	12.75"	0.375"
6"	14"	0.375"
8"	16"	0.375"
12"	20"	0.375"
16"	24"	0.406"
24"	36"	0.532"

**STEEL CASING REQUIREMENTS**

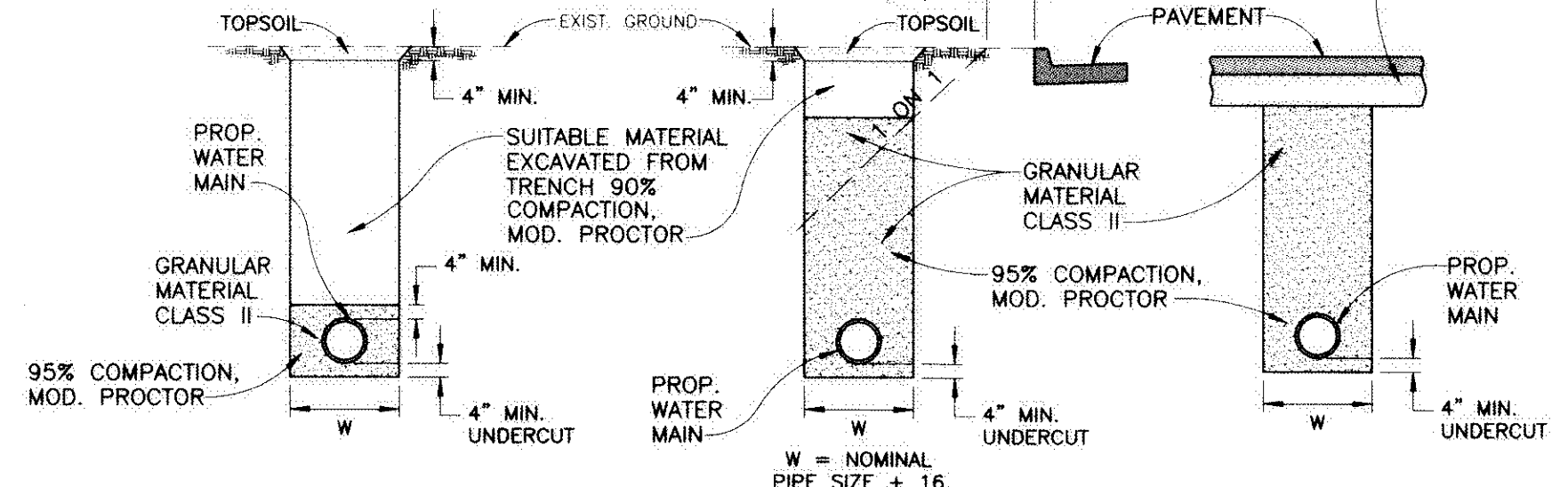
NOT TO SCALE



**TYPICAL WATER SERVICE TRANSFER**

NOT TO SCALE

NOTE: MATERIAL SPECIFICATIONS SHALL COMPLY WITH M.D.O.T. STANDARD SPECIFICATIONS FOR CONSTRUCTION, CURRENT EDITION.

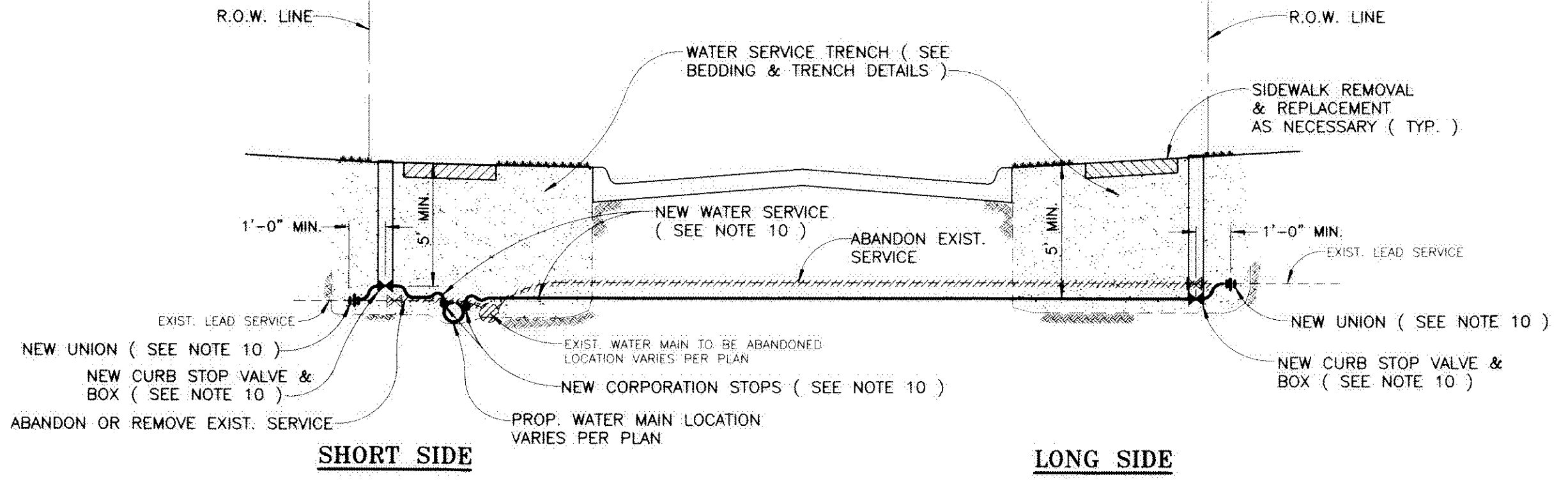


**PROP. WATER MAINS NOT UNDER ROADBED**

**PROP. WATER MAINS UNDER ROADBED OR WITHIN INFLUENCE OF ROADBED**

**BEDDING & TRENCH DETAILS**

NOT TO SCALE



**TYPICAL WATER SERVICE REPLACEMENT**

NOT TO SCALE

**CITY OF GROSSE POINTE WOODS**  
**STANDARD WATER MAIN DETAILS ( 2 OF 2 )**

**DEPARTMENT OF PUBLIC WORKS**

APPROVED BY: *Joseph J. Ahee, Jr.* DATE: 12-13-05  
JOSEPH J. AHEE, JR., D.P.W. DIRECTOR

PROJECT NO. SHEET NO.  
DATE: DECEMBER 2005  
DRAWN BY: SMH CHECKED BY: CRF

ANDERSON, ECKSTEIN AND WESTRICK, INC.  
Civil Engineers • Surveyors • Architects  
51301 Schoenherr Road, Shelby Township, Michigan 48315  
Phone: 586-726-1234 Fax: 586-726-8780

STATE OF MICHIGAN  
SCOTT LOCKWOOD  
ENGINEER  
No. 44355  
LICENSED PROFESSIONAL ENGINEER

W2  
SCOTT LOCKWOOD P.E. NO. 44355

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ANDERSON, ECKSTEIN & WESTRICK, INC.  
CIVIL ENGINEERS - SURVEYORS - ARCHITECTS

51301 Schoenherr Road  
Shelby Township, MI 48315  
586.726.1234 | ceWINC.com

Engineering Strong Communities

PROJECT NAME:				
<b>LAKE FRONT PARK BUILDING RENOVATION</b>				
SHEET TITLE:				
<b>ADA</b>				
CLIENT:	<b>CITY OF GROSSE POINTE WOODS</b>			
<table border="1"> <tr> <td><input type="checkbox"/> PRELIMINARY</td> <td><input type="checkbox"/> CONSTRUCTION</td> <td><input type="checkbox"/> RECORD</td> </tr> </table>	<input type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD	
<input type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD		
DRAWN BY:	CHECKED BY: DATE:			
LAD	JRA MAY 2024			
SCALE:	AS NOTED			

**LAKE FRONT PARK BUILDING RENOVATION**

**ADA**

CITY OF GROSSE POINTE WOODS

<input type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY:	CHECKED BY:	DATE:
LAD	JRA	MAY 2024
SCALE:	AS NOTED	

**811** Know what's below. Call 72 hours before you dig.

UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING FACILITIES ONLY, AS DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.

PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES IN CONFLICT WITH THE CONSTRUCTION OF THESE PROPOSED IMPROVEMENTS SHALL BE VERIFIED IN THE FIELD. DURING THE CONSTRUCTION, THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL UTILITIES THAT ARE ENCOUNTERED. (ALL COSTS FOR UTILITY LOCATION, VERIFICATION, SUPPORT AND PROTECTION SHALL BE INCLUDED IN THE PROPOSED PAY ITEM CONFLICTING WITH THAT UTILITY).

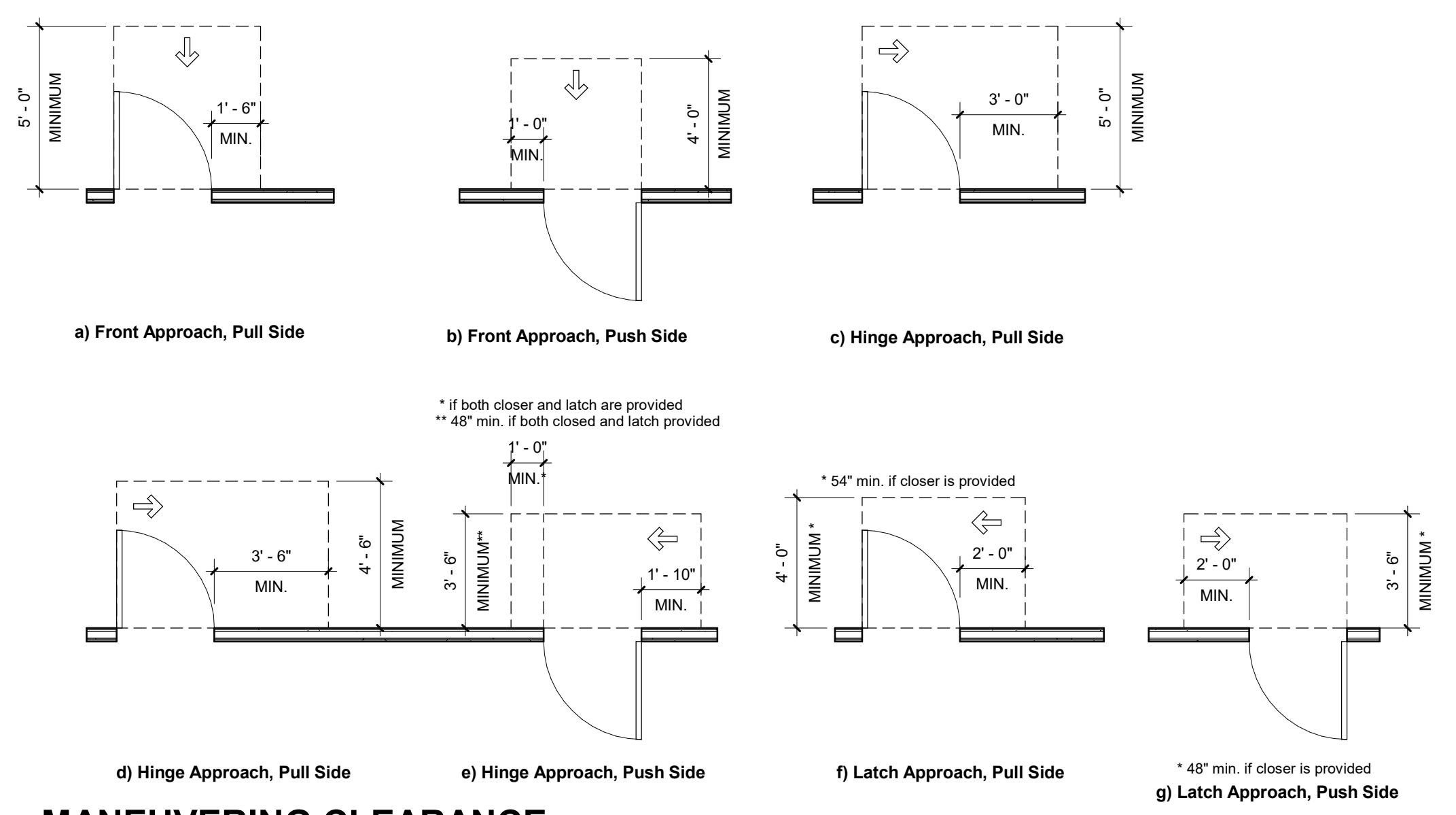
DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

PROJECT NO. 0160-0479

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SHEET NO.

**A021**

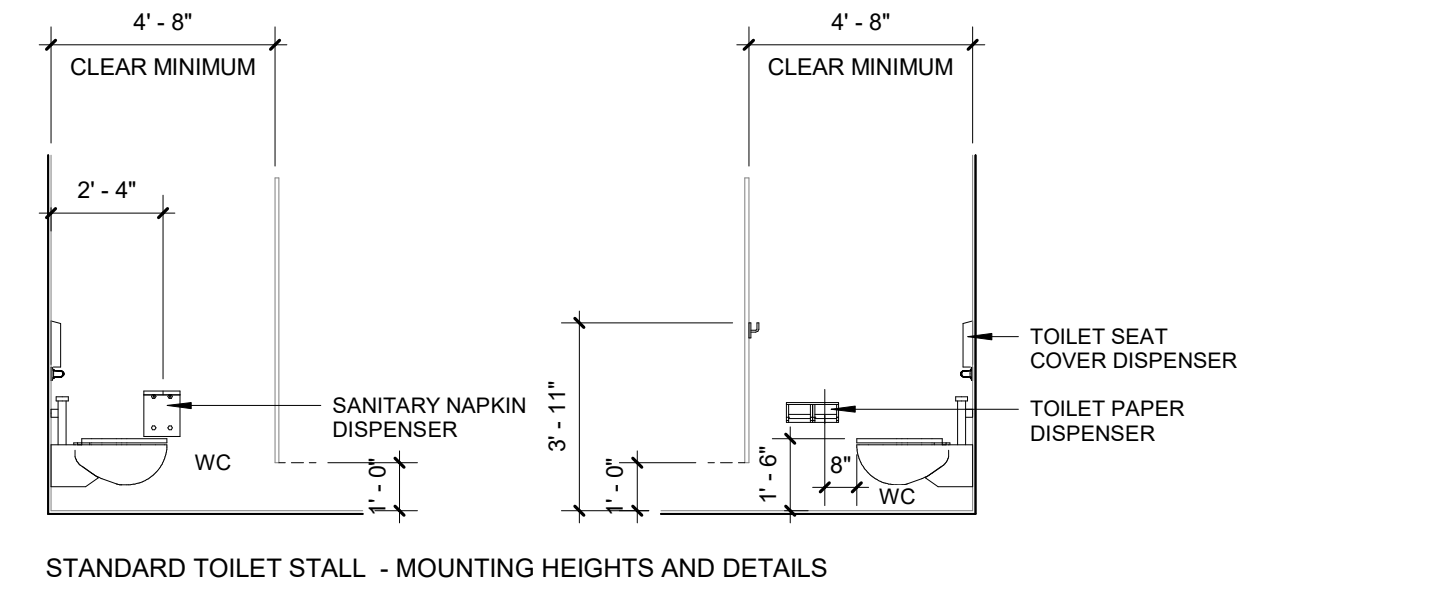


**MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS**

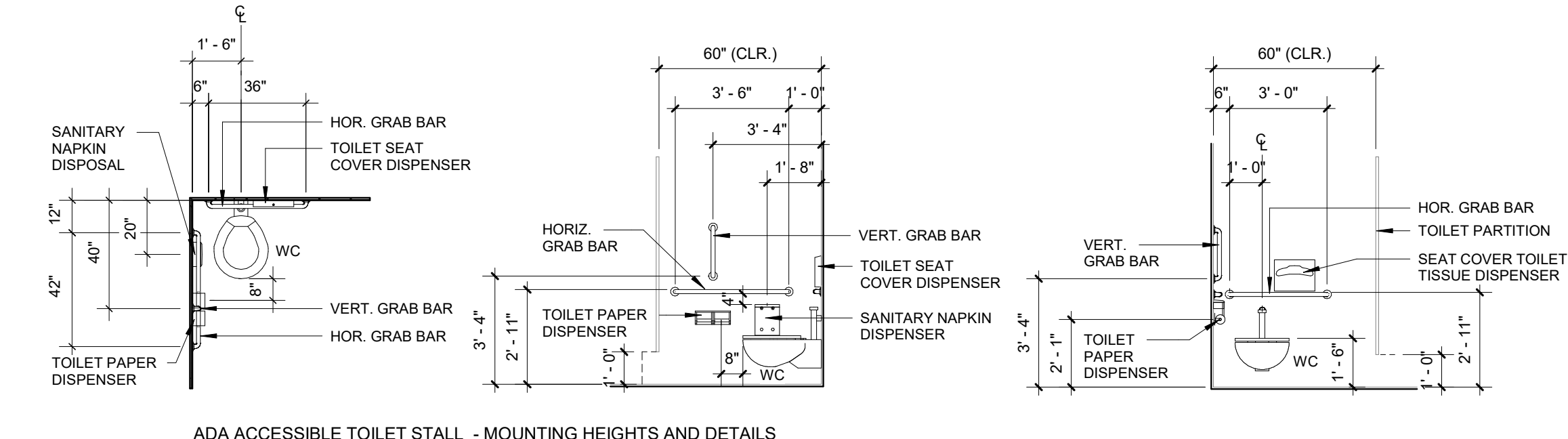
**SPECIFICATIONS OF WATER CLOSETS SERVING CHILDREN AGES 3 THROUGH 12**

	AGES 3 AND 4	AGES 5 THROUGH 8	AGES 9 THROUGH 12
WATER CLOSET CENTER LINE	12 INCHES	12 TO 15 INCHES	15 TO 18 INCHES
TOILET SEAT HEIGHT	11 TO 12 INCHES	12 TO 15 INCHES	15 TO 17 INCHES
GRAB BAR HEIGHT	18 TO 20 INCHES	20 TO 25 INCHES	25 TO 27 INCHES
DISPENSER HEIGHT	12 INCHES	14 TO 17 INCHES	17 TO 19 INCHES

ADA Advisory 604.9 Water Closets and Toilet Compartments for Children's Use

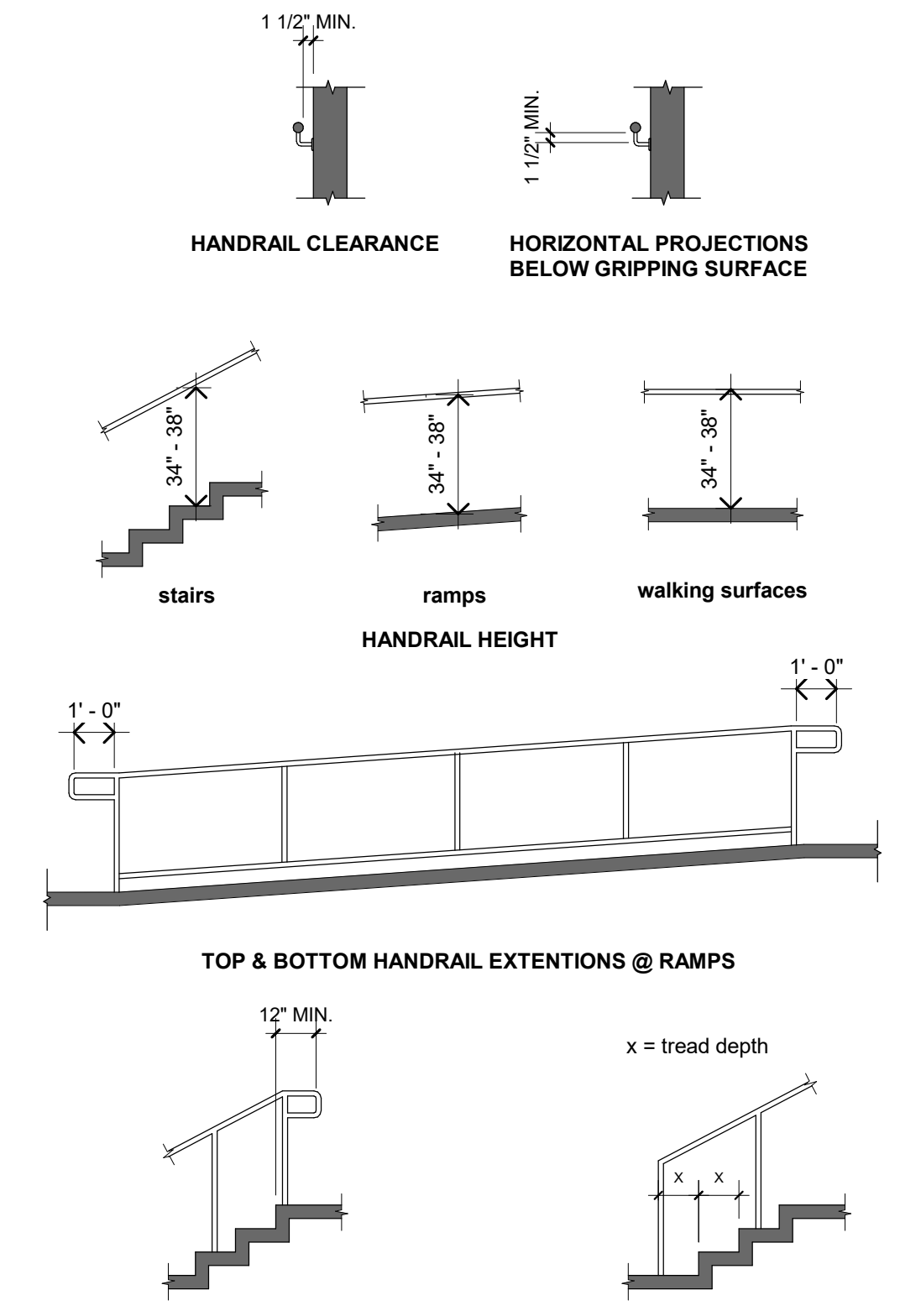


STANDARD TOILET STALL - MOUNTING HEIGHTS AND DETAILS



ADA ACCESSIBLE TOILET STALL - MOUNTING HEIGHTS AND DETAILS

**TOILET STALLS MOUNTING HEIGHTS**



**ADA REFERENCE - HANDRAIL DETAILS**

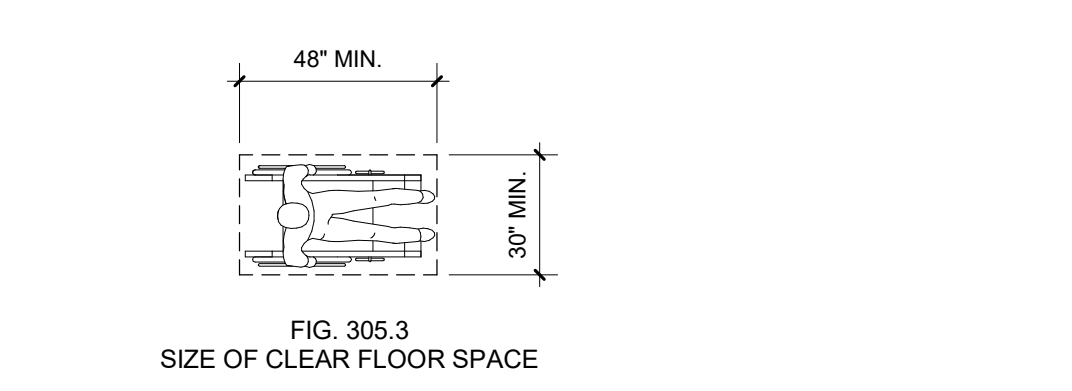


FIG. 305.3 SIZE OF CLEAR FLOOR SPACE

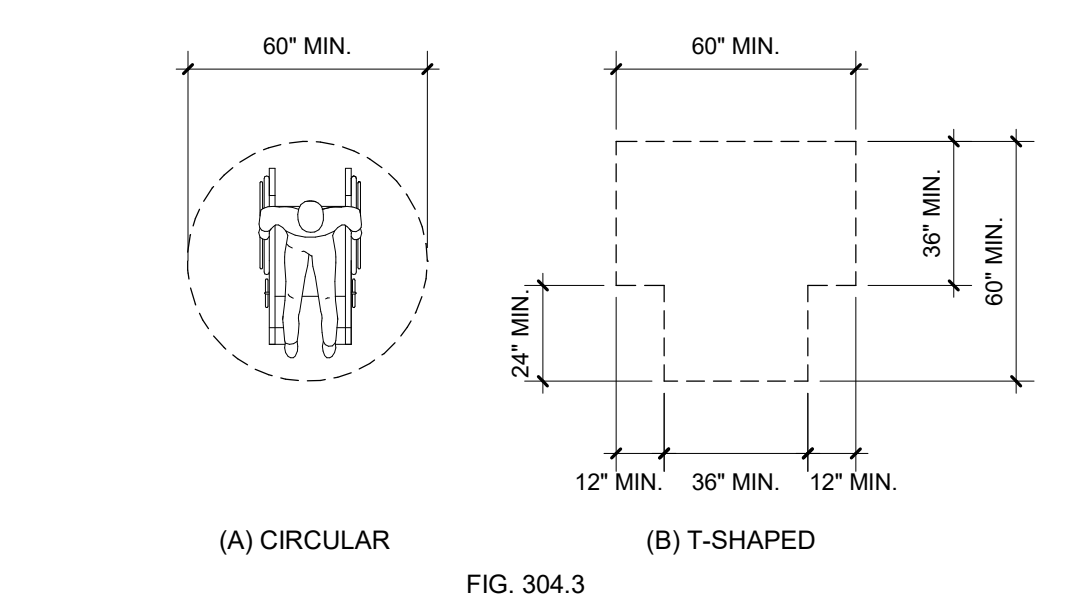
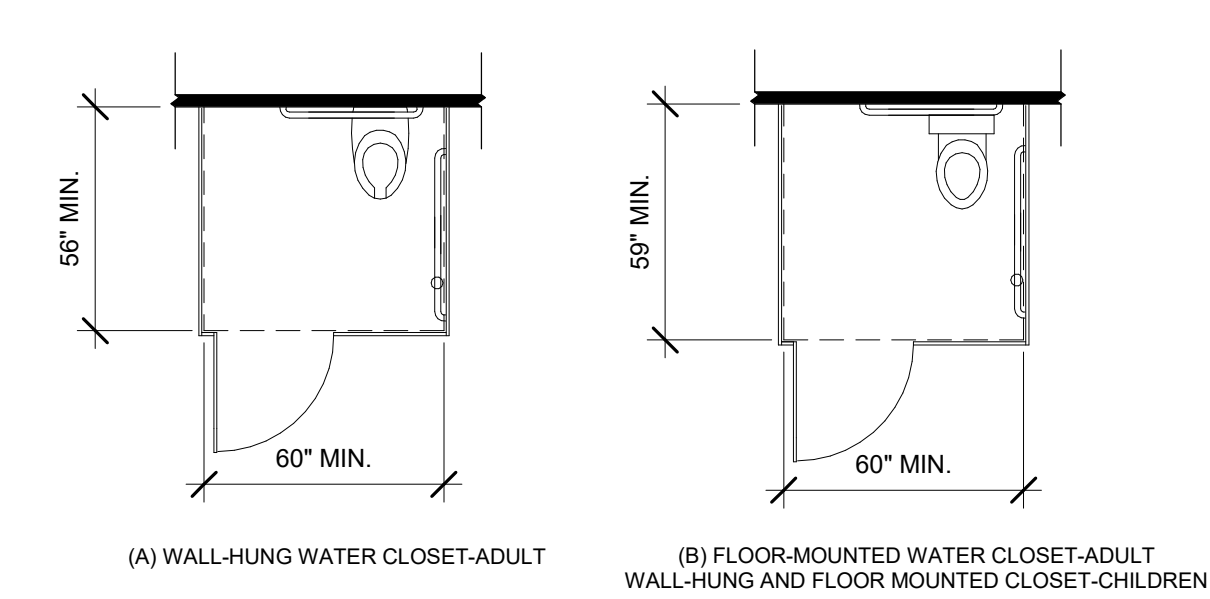


FIG. 304.3 KNEE CLEARANCE

**TURNING SPACE & CLEARANCE SPACE**



(A) WALL-HUNG WATER CLOSET-ADULT (B) FLOOR-MOUNTED WATER CLOSET-ADULT WALL-HUNG AND FLOOR MOUNTED CLOSET-CHILDREN

**WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS**

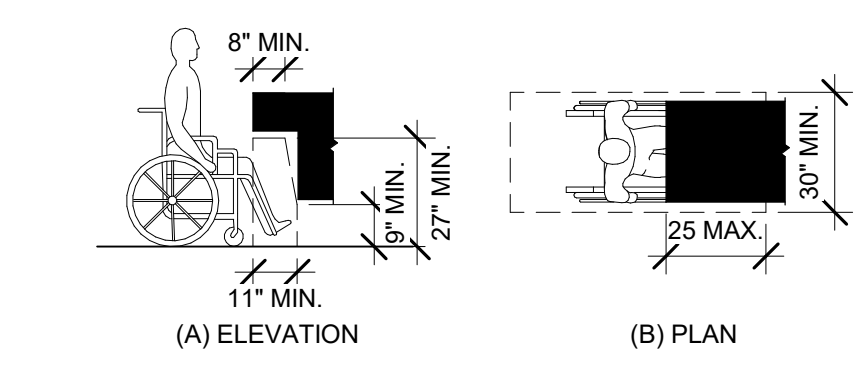


FIG. 306.3 KNEE CLEARANCE

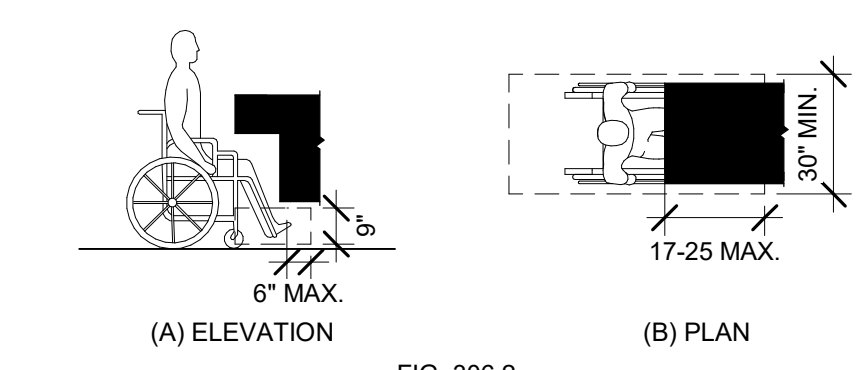


FIG. 306.2 TOE CLEARANCE

**KNEE CLEARANCE**

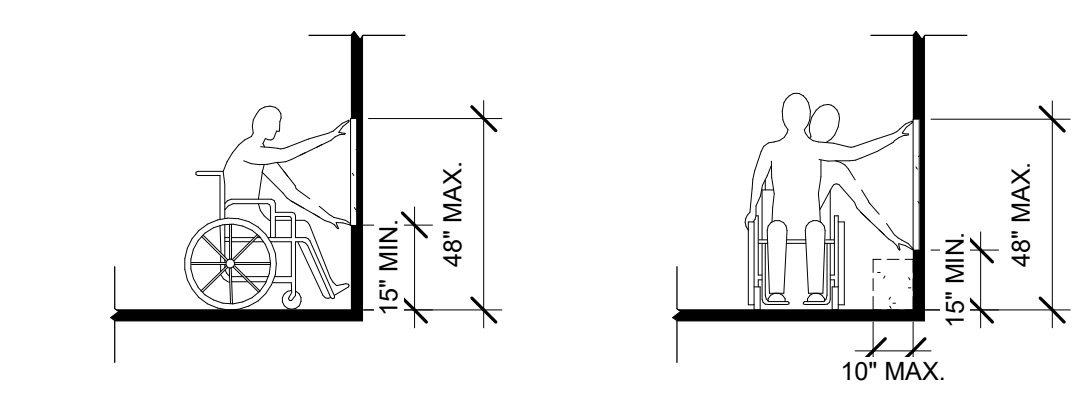


FIG. 308.2.1 UNOBSTRUCTED FORWARD REACH

FIG. 308.3.1 UNOBSTRUCTED SIDE REACH

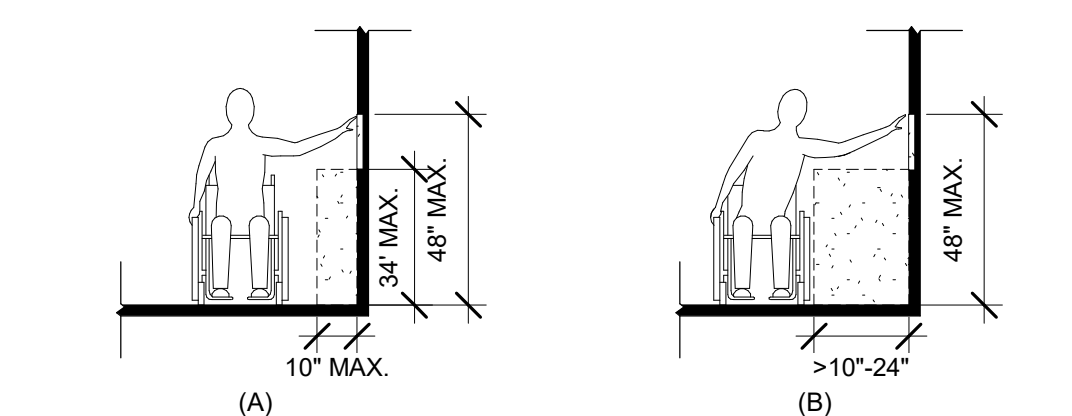


FIG. 308.3.1 OBSTRUCTED HIGH FORWARD REACH

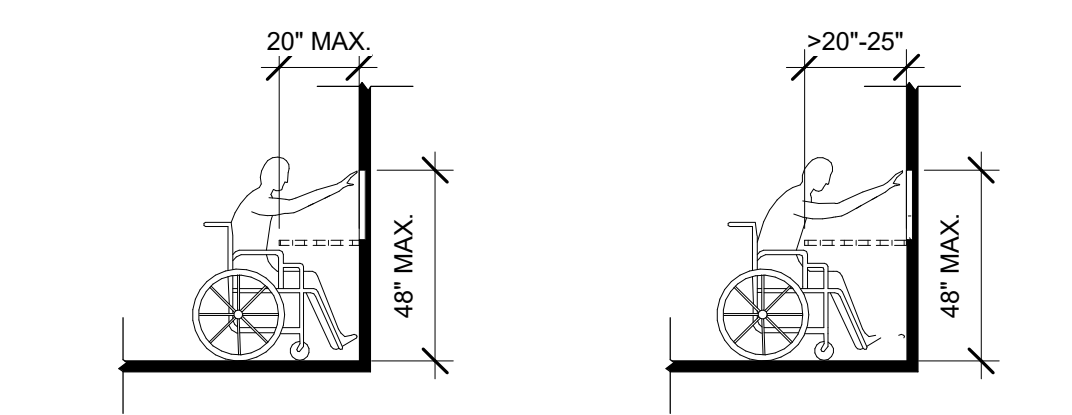
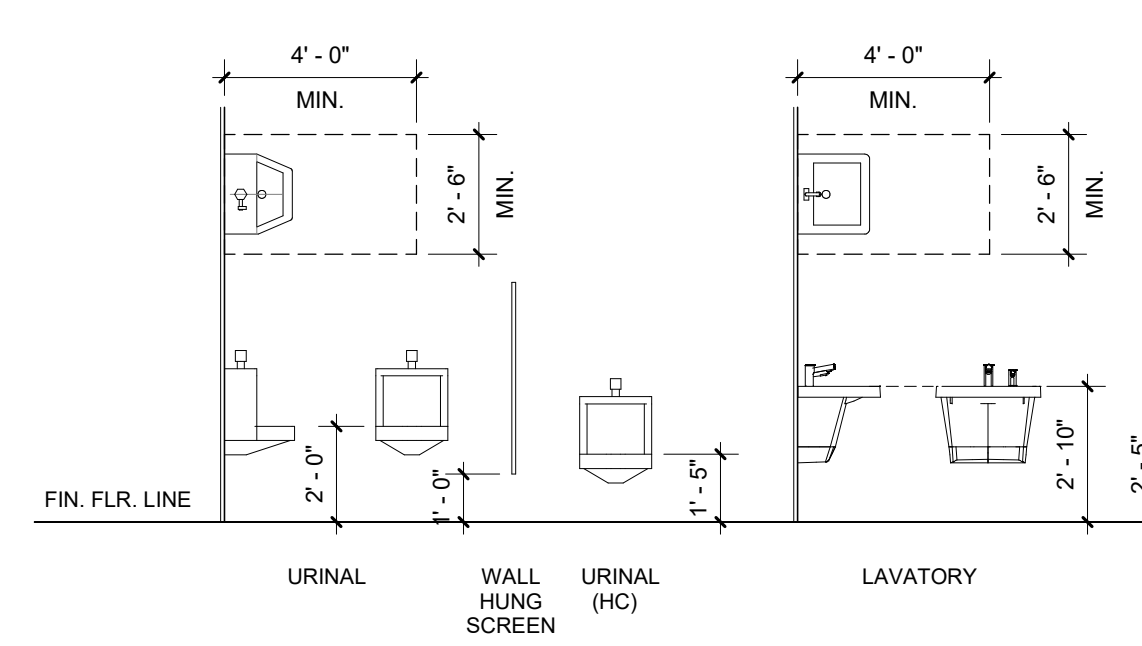


FIG. 308.2.2 OBSTRUCTED HIGH FORWARD REACH

**REACH RANGES**



**GENERAL INFO. - STANDARD MOUNTING HEIGHTS**

NOTE: CONCEALED BLOCKING TO EXTEND MIN. 6" BEYOND EACH END AND 6" ABOVE AND BELOW ALL ACCESSORY ITEMS.

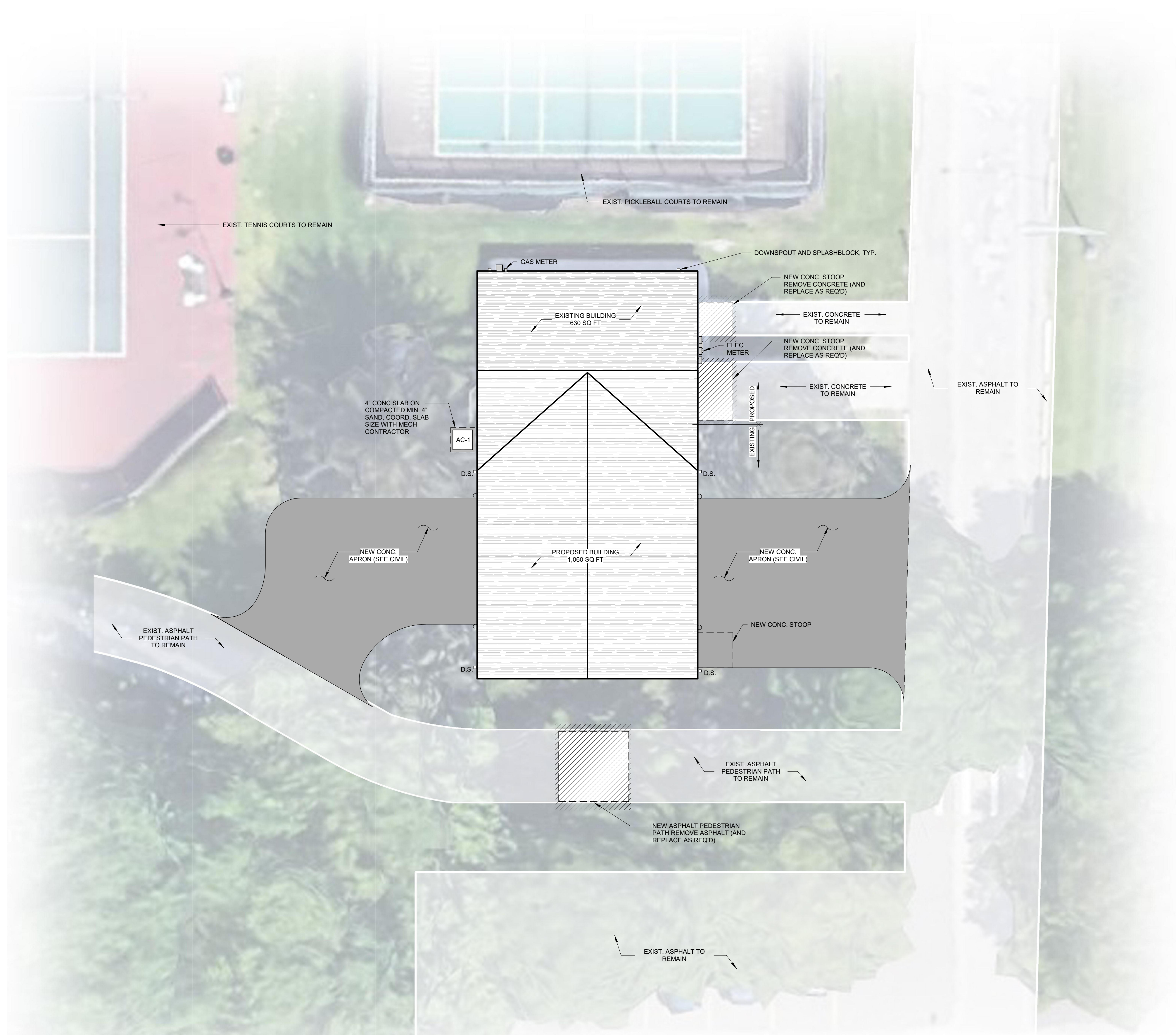




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**SITE PLAN**  
1/8" = 1'-0"  
NORTH

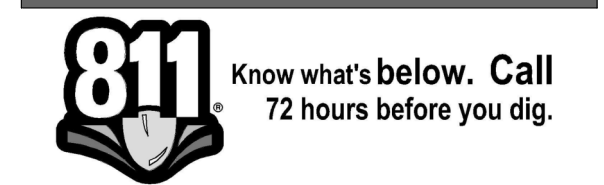
1/16/2025	BID ISSUE
DATE	SUBMITTALS/REVISIONS
PROJECT NAME:	
<b>LAKE FRONT PARK BUILDING RENOVATION</b>	
SHEET TITLE:	
<b>ARCHITECTURAL SITE PLAN</b>	
CLIENT:	
<b>CITY OF GROSSE POINTE WOODS</b>	
<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION
<input type="checkbox"/> RECORD	
DRAWN BY: LAD	CHECKED BY: JRA
DATE: MAY 2024	
SCALE: AS NOTED	

**LAKE FRONT PARK BUILDING RENOVATION**

**ARCHITECTURAL SITE PLAN**

CLIENT: **CITY OF GROSSE POINTE WOODS**

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: LAD	CHECKED BY: JRA	DATE: MAY 2024
SCALE: AS NOTED		



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PROJECT NO. 0160-0479

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SHEET NO.

**A100**



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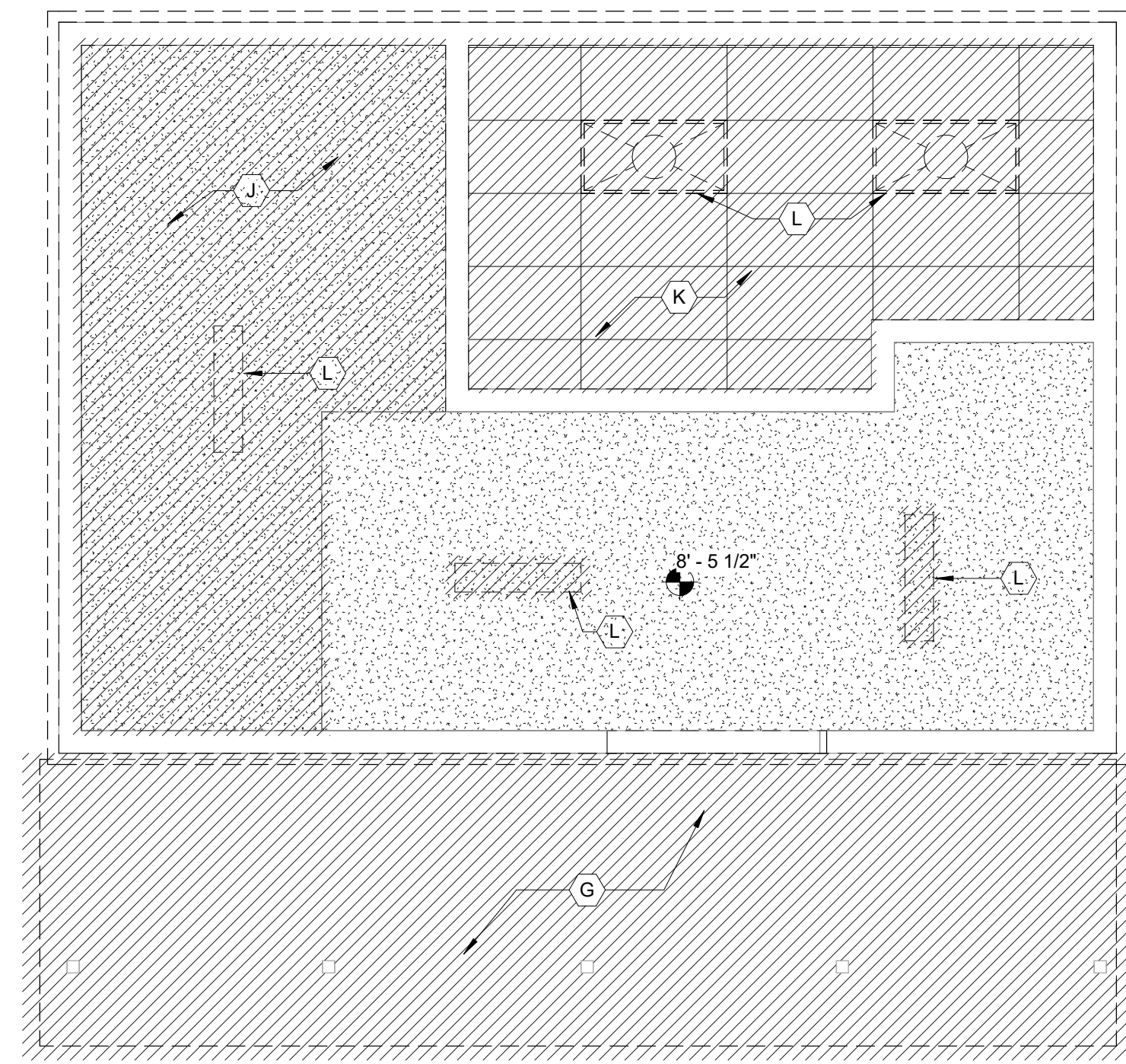
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Shelby Township, MI 48315  
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### EXISTING CEILING LEGEND :

- EXIST. 2x4 ACOUSTICAL CEILING TILE W/ SCORE LINE
- EXIST. GYPSUM BOARD CEILING, PAINT
- 2'x4' LED LIGHT RECESSED FIXTURE
- 1'x4' STRIP LIGHT FIXTURE

NOTE: SEE ELECTRICAL AND MECHANICAL FOR DEMOLITION PLANS



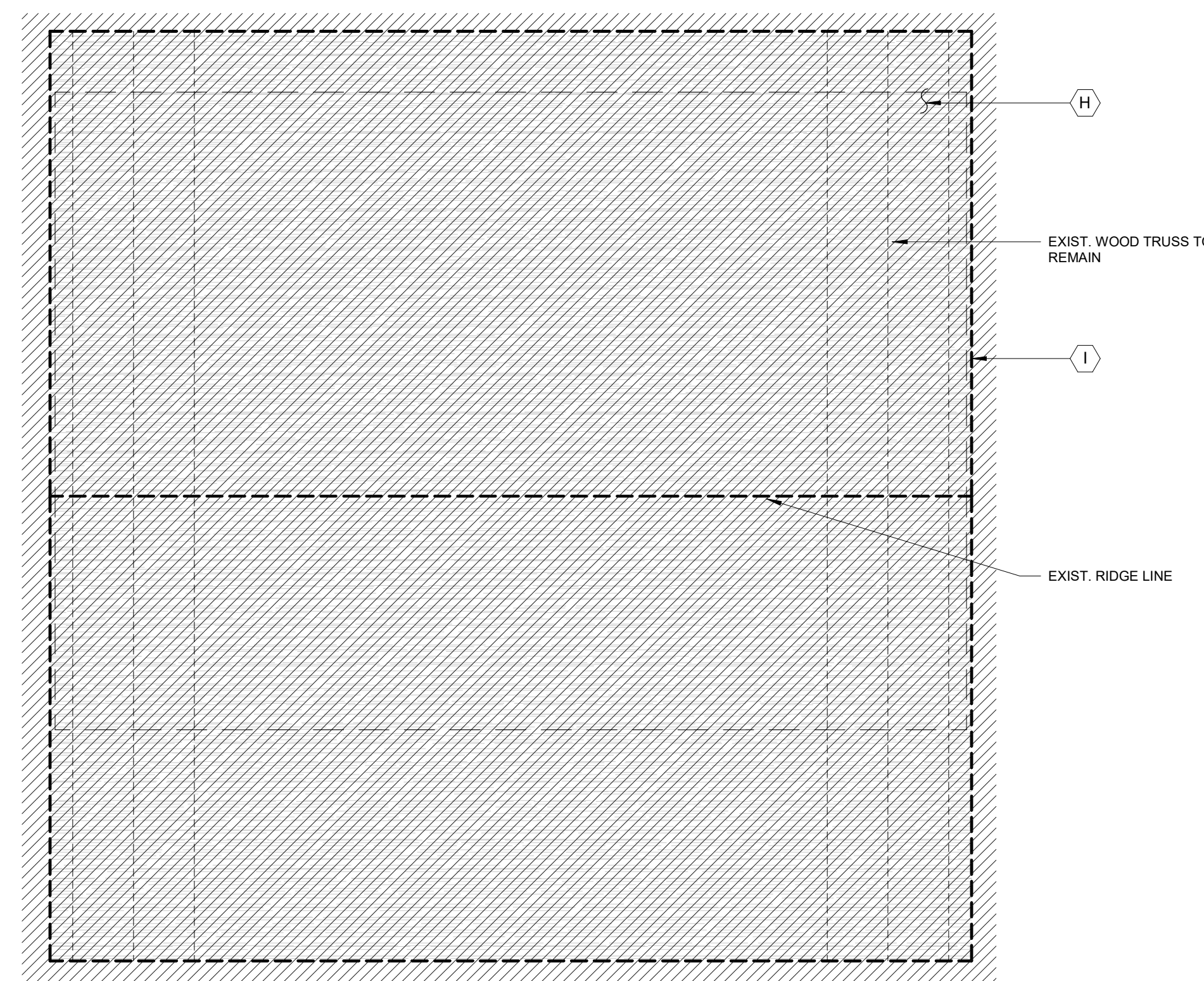
**DEMOLITION REFLECTED CEILING PLAN**  
1/4" = 1'-0"  
NORTH

### DEMOLITION PLAN KEYNOTES :

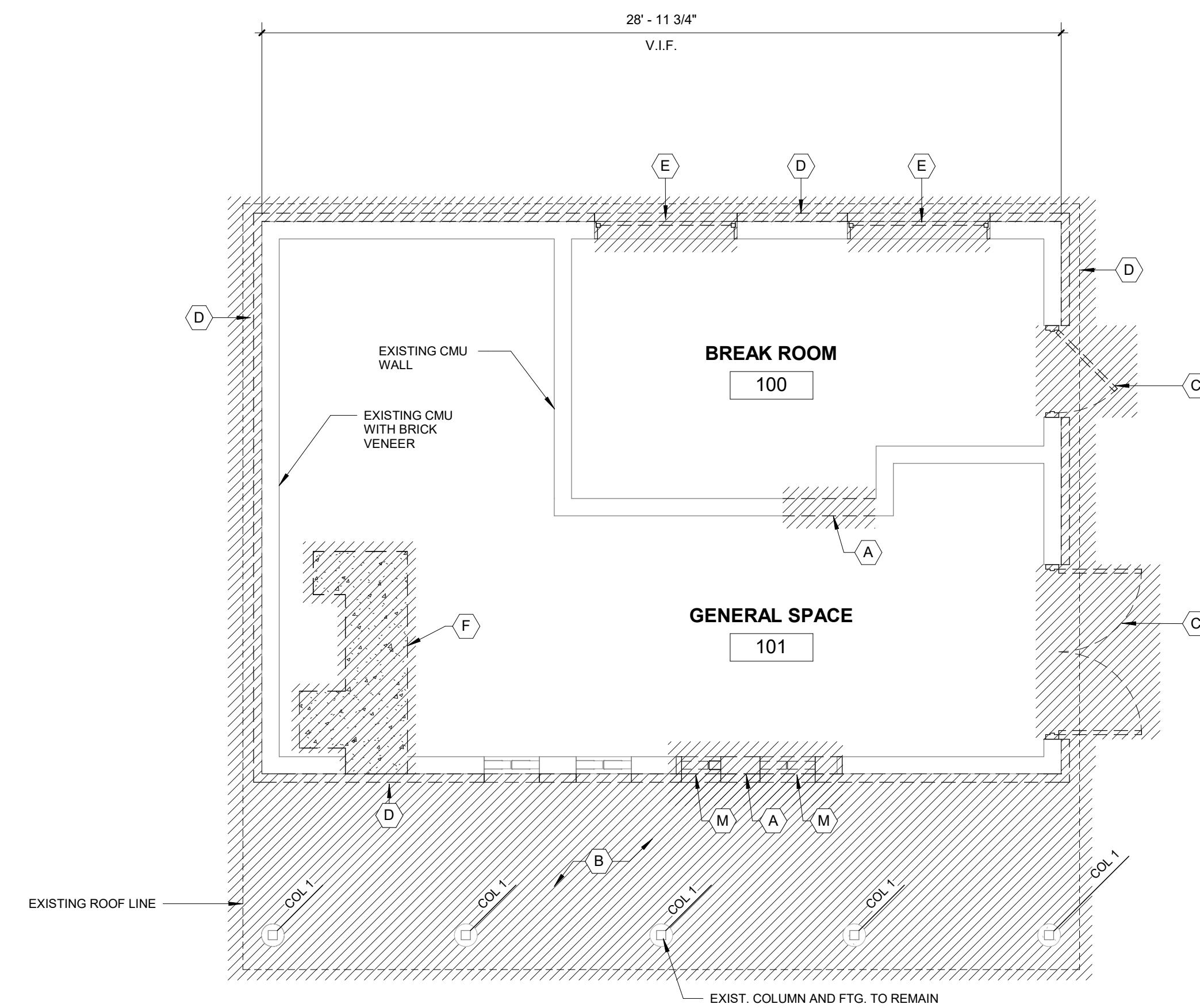
- (A) REMOVE PORTION OF WALL, COORD. W/ PROPOSED
- (B) REMOVE EXISTING CONC. SLAB, COORD. W/ PROPOSED
- (C) REMOVE DOOR AND FRAME, PREP FOR NEW
- (D) REMOVE BRICK VENEER, PREP FOR NEW CONSTRUCTION
- (E) REMOVE EXISTING WINDOWS, COORD. W/ PROPOSED AND PREP FOR NEW
- (F) SAW CUT PORTION OF EXIST. CONC. SLAB FOR NEW PLUMBING, REPLACE AS REQ'D
- (G) REMOVE SOFFIT ABOVE
- (H) REMOVE EXISTING SHINGLES AND SHEATHING, PREP FOR NEW
- (I) REMOVE EXISTING FASCIA, SOFFIT, AND TRIM
- (J) REMOVE PORTION OF EXISTING GYP. BOARD CEILING
- (K) REMOVE EXISTING ACOUSTICAL CEILING TILE
- (L) REMOVE ALL EXISTING LIGHT FIXTURES
- (M) REMOVE EXISTING GLASS BLOCK WINDOWS, COORD. W/ PROPOSED

### DEMOLITION PLAN LEGEND :

- EXISTING WALL TO REMAIN
- EXISTING WALL TO BE REMOVED (SEE DEMO PLAN & EXTERIOR ELEVATIONS)
- EXISTING CONCRETE AND SHINGLES TO BE REMOVED
- EXISTING CEILING, LIGHTS, AND DIFFUSERS TO BE REMOVED

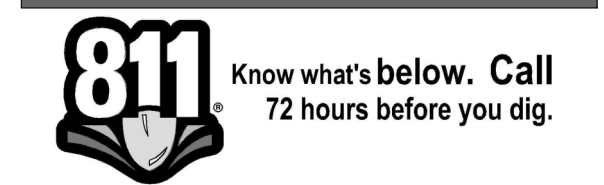


**DEMOLITION ROOF PLAN**  
1/4" = 1'-0"  
NORTH



**DEMOLITION FLOOR PLAN**  
1/4" = 1'-0"  
NORTH

1/16/2025	BID ISSUE
DATE	SUBMITTALS/REVISIONS
PROJECT NAME:	
<b>LAKE FRONT PARK BUILDING RENOVATION</b>	
SHEET TITLE:	
<b>DEMOLITION FLOOR, CEILING, AND ROOF PLAN</b>	
CLIENT:	
<b>CITY OF GROSSE POINTE WOODS</b>	
<input type="checkbox"/> PRELIMINARY <input type="checkbox"/> CONSTRUCTION <input type="checkbox"/> RECORD	
DRAWN BY:	CHECKED BY:
LAD	JRA
SCALE:	DATE: MAY 2024
AS NOTED	



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PROJECT NO. 0160-0479

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SHEET NO.

**AD101**



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### FLOOR PLAN KEYNOTES

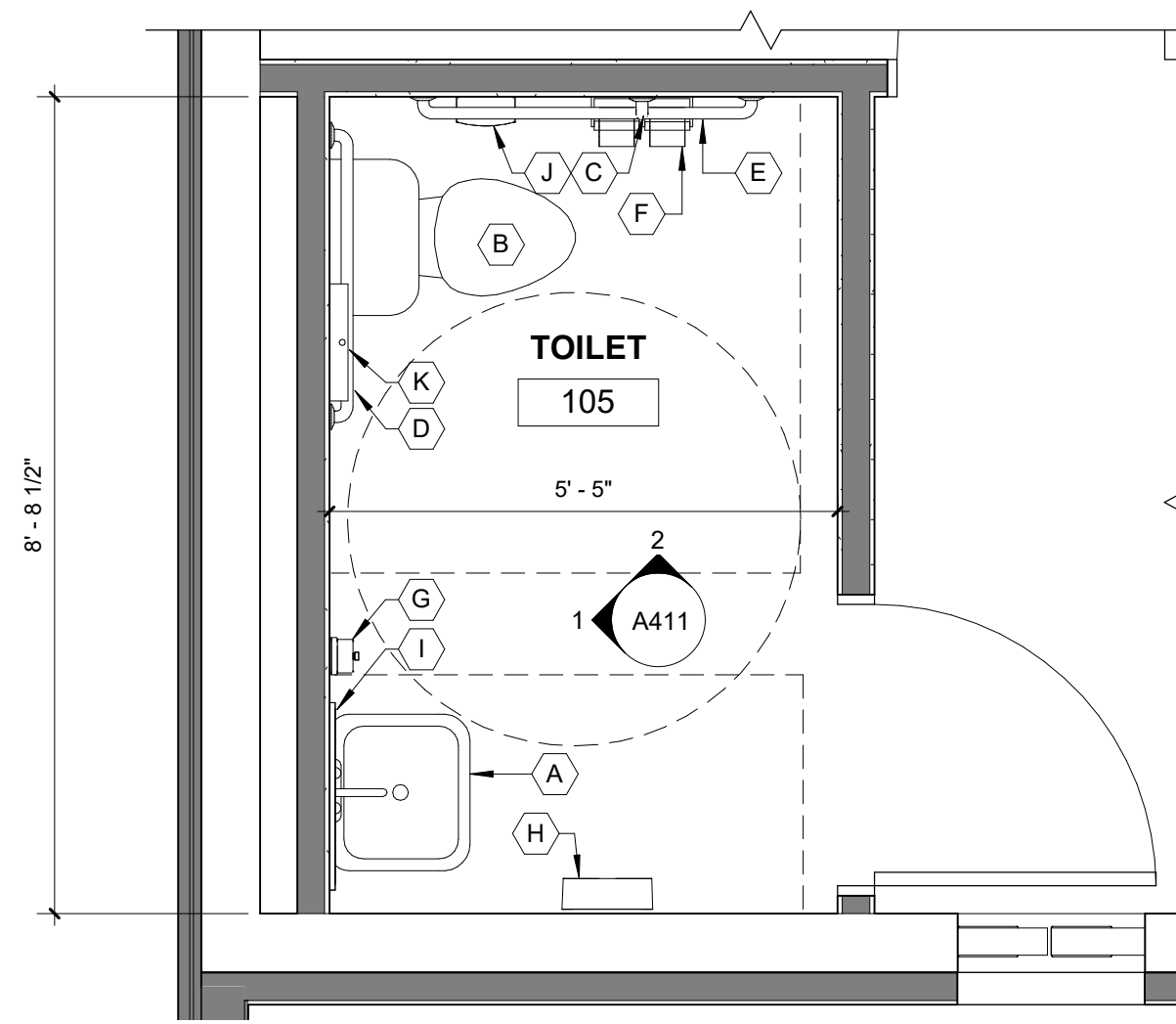
- (A) LAV
- (B) WATER CLOSET
- (C) 18" VERTICAL GRAB BAR
- (D) 36" HORIZONTAL GRAB BAR
- (E) 42" HORIZONTAL GRAB BAR
- (F) TOILET PAPER
- (G) SOAP DISPENSER
- (H) ELECTRIC HAND DRYER
- (I) MIRROR
- (J) SANITARY WASTE BIN
- (K) SEAT COVER DISPENSER
- (L) BOLLARD TYPICAL, SEE DETAIL
- (M) REPLACE CONC. IN KIND

### PARTITION TYPES :

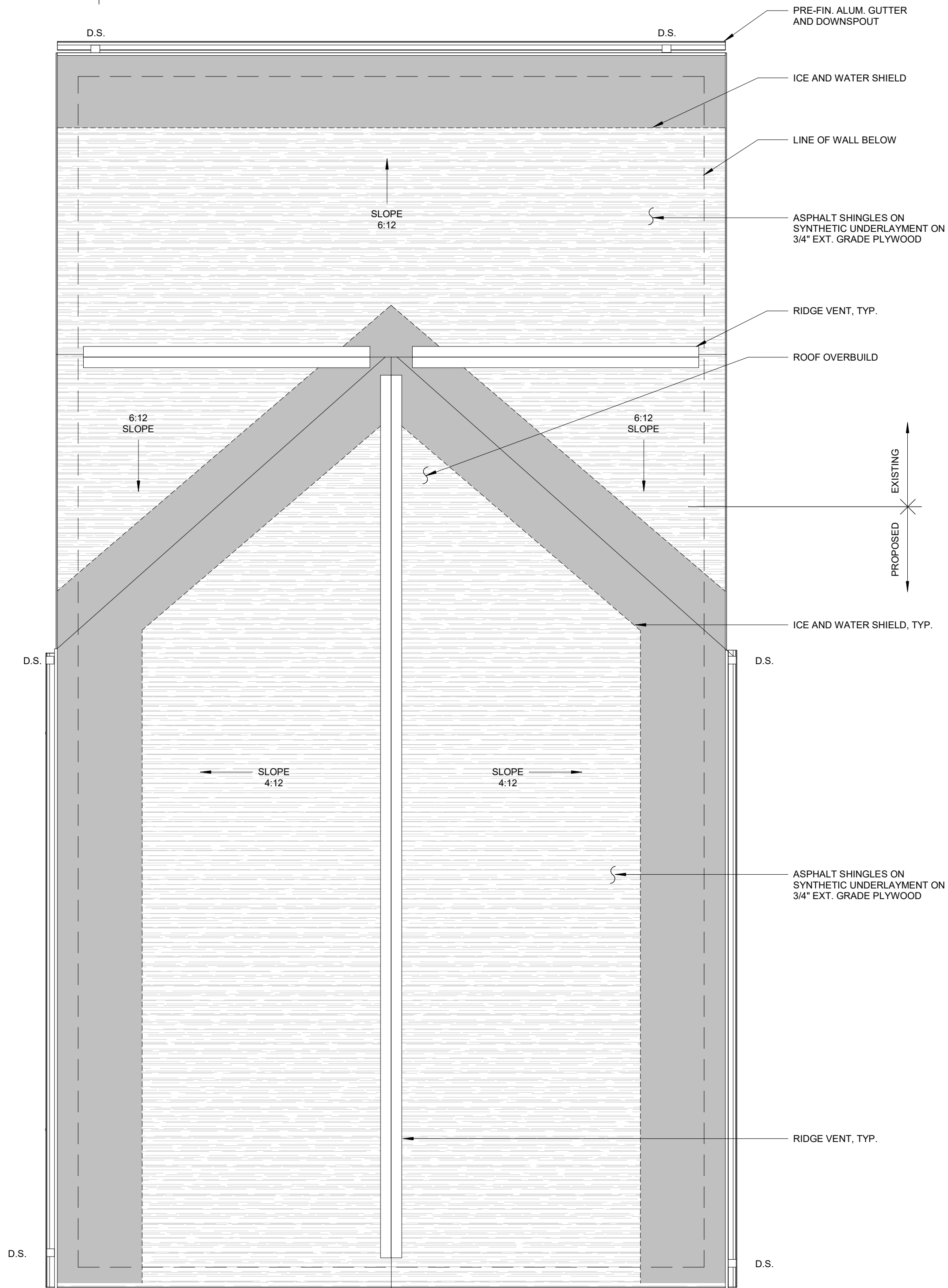
- (A) 2x4 WOOD STUD @ 16" O.C. TIGHT TO DECK AND STRUCTURE ABOVE 1/2" PLYWOOD EA SIDE
- (B) 2x4 WOOD @ 16" O.C. WITH BATT INSULATION AND 1/2" PLYWOOD ONE SIDE
- (C) 2x4 WOOD STUD @ 16" O.C. TIGHT TO DECK AND STRUCTURE ABOVE 5/8" GYP. BD. EA SIDE
- (D) 2x4 WOOD @ 16" O.C. WITH BATT INSULATION AND 5/8" GYP. BD. ONE SIDE

### WINDOW TYPES LEGEND:

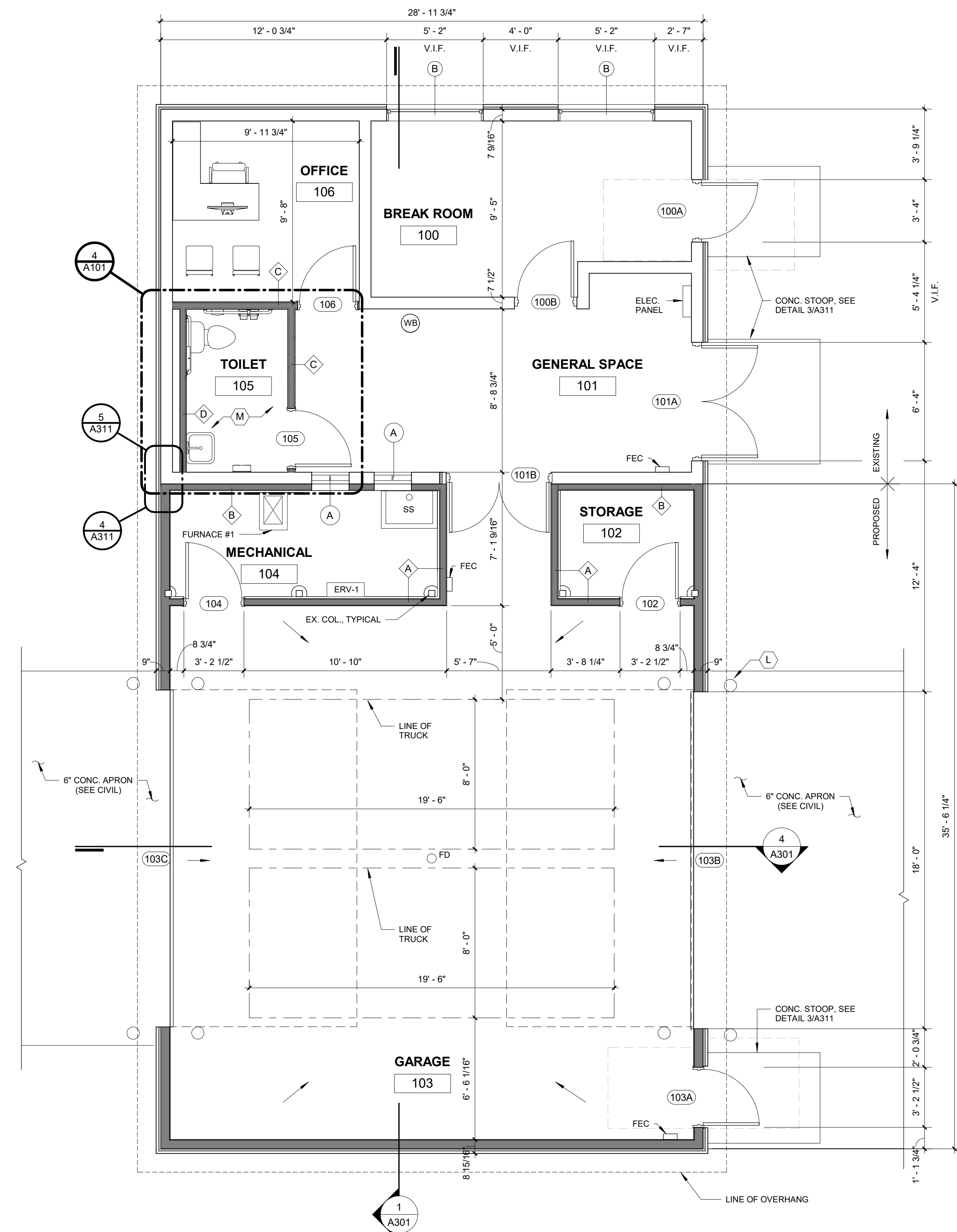
- (A) EXIST. GLASS BLOCK WINDOWS TO REMAIN
- (B) NEW ALUM. WINDOW



4 ENLARGED PLAN  
A101 1/2" = 1'-0"



PROPOSED ROOF PLAN  
1/4" = 1'-0"  
NORTH



PROPOSED FLOOR PLAN  
1/4" = 1'-0"  
NORTH  
= SLOPE FOR POSITIVE DRAINAGE

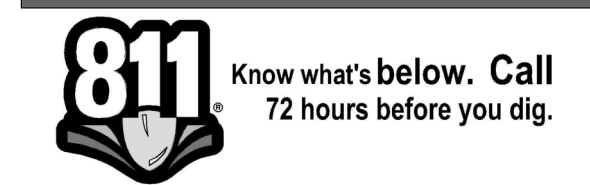
1/16/2025	BID ISSUE
DATE	SUBMITTALS/REVISIONS
PROJECT NAME:	
<b>LAKE FRONT PARK BUILDING RENOVATION</b>	
SHEET TITLE:	
<b>PROPOSED FLOOR AND ROOF PLAN</b>	
CLIENT:	
<b>CITY OF GROSSE POINTE WOODS</b>	
<input type="checkbox"/> PRELIMINARY <input type="checkbox"/> CONSTRUCTION <input type="checkbox"/> RECORD	
DRAWN BY:	CHECKED BY:
LAD	JRA
SCALE:	DATE:
AS NOTED	MAY 2024

## LAKE FRONT PARK BUILDING RENOVATION

## PROPOSED FLOOR AND ROOF PLAN

CLIENT: CITY OF GROSSE POINTE WOODS

<input type="checkbox"/> PRELIMINARY <input type="checkbox"/> CONSTRUCTION <input type="checkbox"/> RECORD		
DRAWN BY:	CHECKED BY:	DATE:
LAD	JRA	MAY 2024
SCALE:	AS NOTED	



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PROJECT NO. 0160-0479

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SHEET NO.

# A101




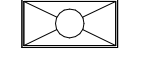











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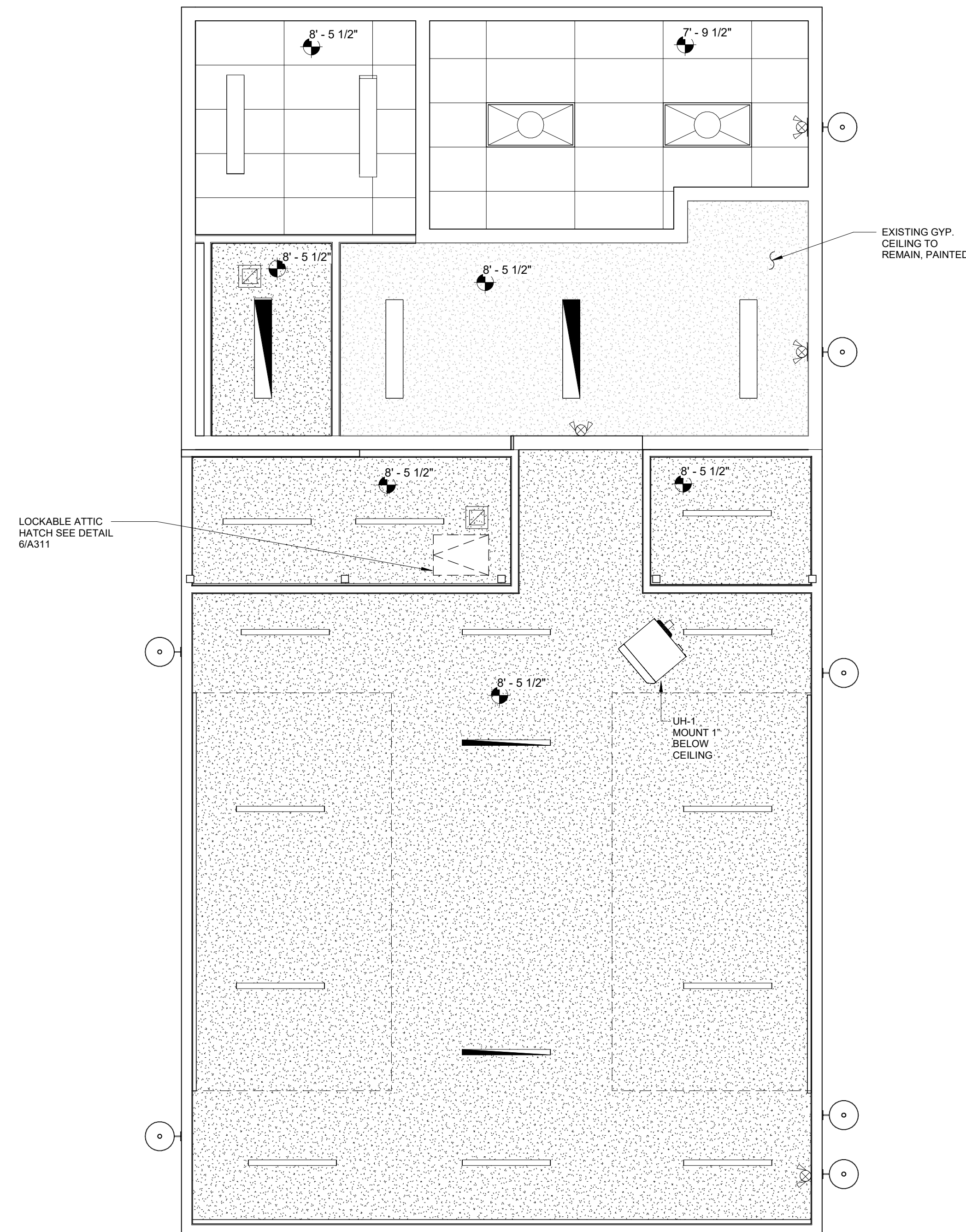
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### CEILING LEGEND :

-  2x4 ACOUSTICAL CEILING TILE W/ SCORE LINE
-  GYPSUM BOARD CEILING, PAINTED (MOISTURE RESISTANT)
-  EXISTING GYPSUM BOARD CEILING, PAINTED
-  2x4' LED LIGHT RECESSED FIXTURE
-  4'L X 3.4"W X 2.7"D LED LINEAR STRIPS
-  4'L X 3.4"W X 2.7"D LED LINEAR STRIPS W/ BATTERY PACK
-  EXHAUST FAN
-  EXIST LIGHT W/ EMERGENCY LIGHTING
-  GOOSE NECK EXTERIOR LIGHT FIXTURE
-  LINEAR WRAPAROUND LED FIXTURE, MOISTURE RESISTANT
-  LINEAR WRAPAROUND LED FIXTURE W/ BATTERY PACK, MOISTURE RESISTANT
-  ATTIC ACCESS, INSULATED
-  CEILING HEIGHT FROM FIN. FLOOR

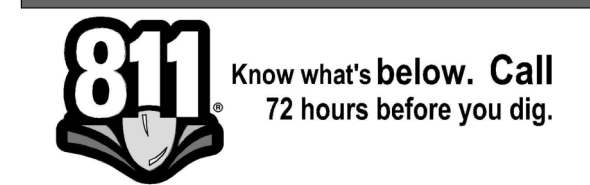
NOTE: SEE ELECTRICAL AND MECHANICAL FOR FINAL LAYOUT



### REFLECTED CEILING PLAN

1/4" = 1'-0"

1/16/2025	BID ISSUE
DATE	SUBMITTALS/REVISIONS
PROJECT NAME:	
<b>LAKE FRONT PARK BUILDING RENOVATION</b>	
SHEET TITLE:	
<b>PROPOSED REFLECTED CEILING PLAN</b>	
CLIENT:	
<b>CITY OF GROSSE POINTE WOODS</b>	
<input checked="" type="checkbox"/> PRELIMINARY <input type="checkbox"/> CONSTRUCTION <input type="checkbox"/> RECORD	
DRAWN BY:	CHECKED BY:
LAD	JRA
DATE:	MAY 2024
SCALE:	
AS NOTED	



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PROJECT NO. 0160-0479

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SHEET NO.

# A111

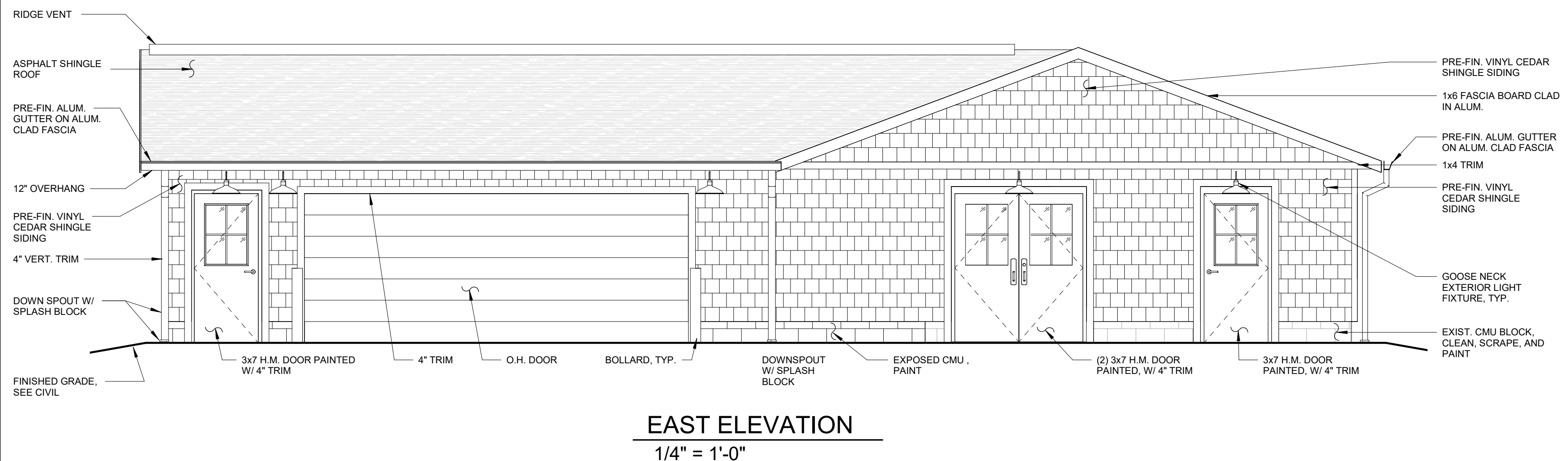




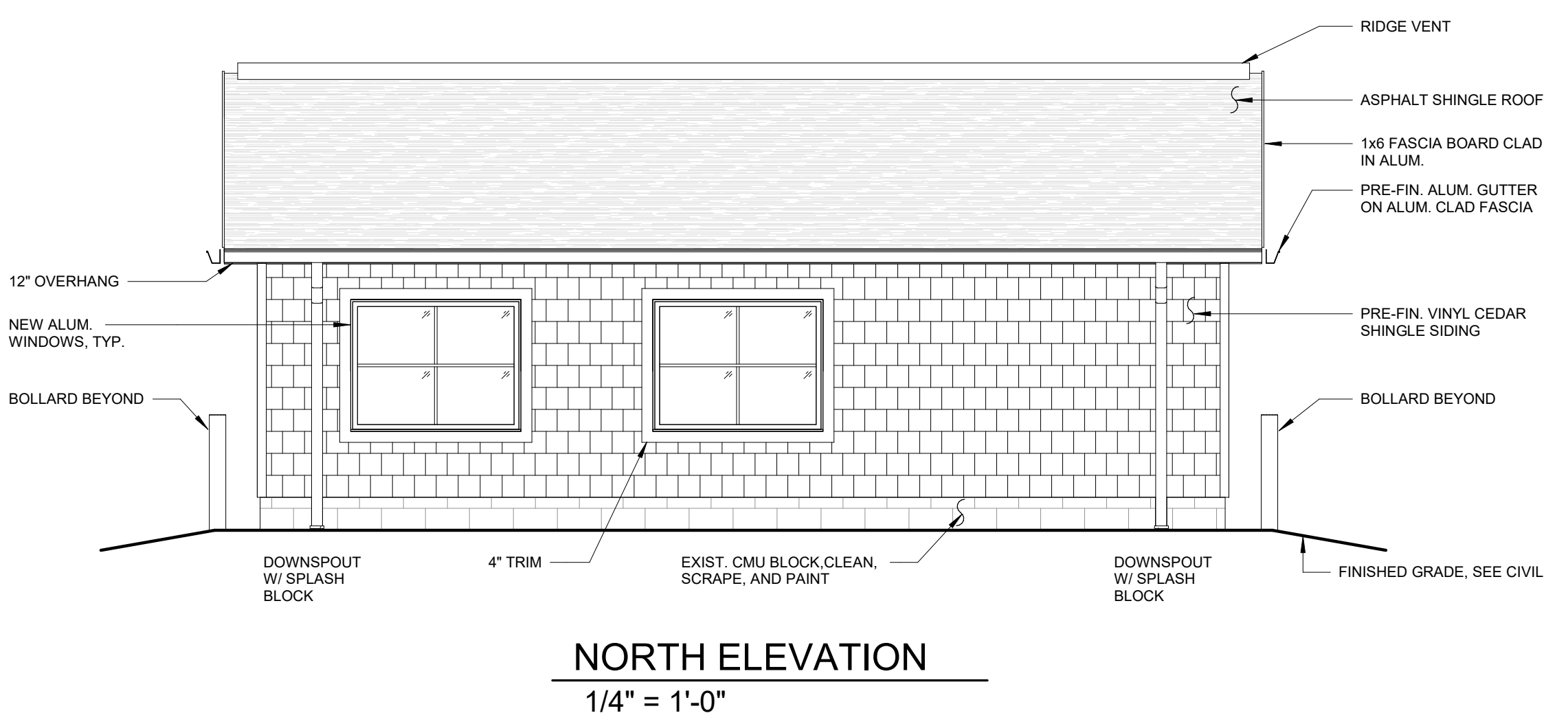
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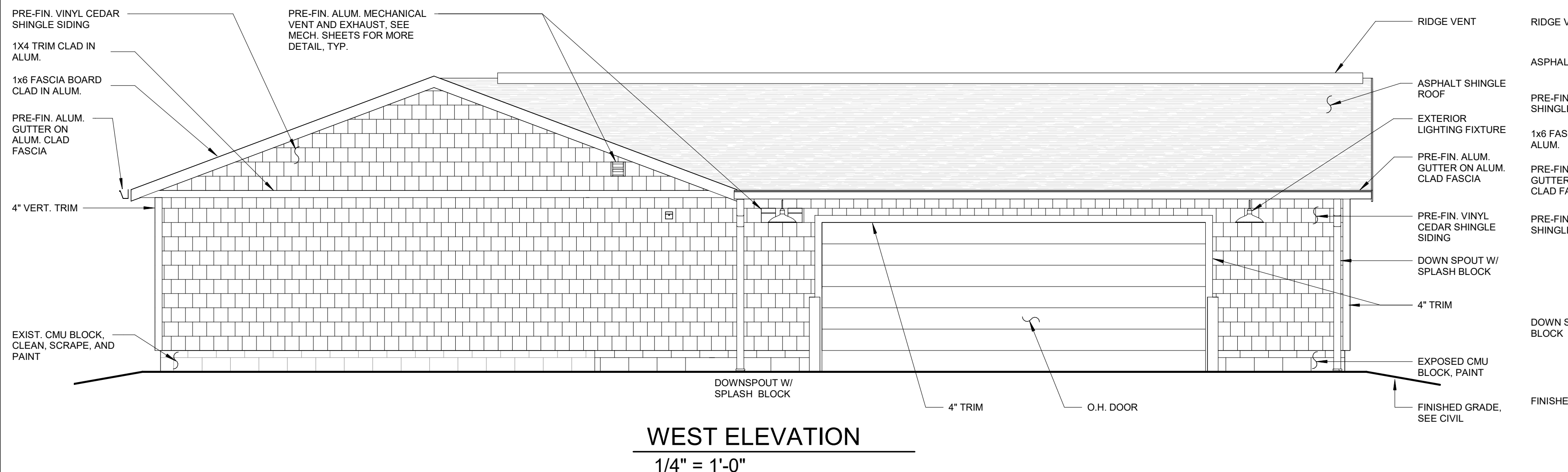
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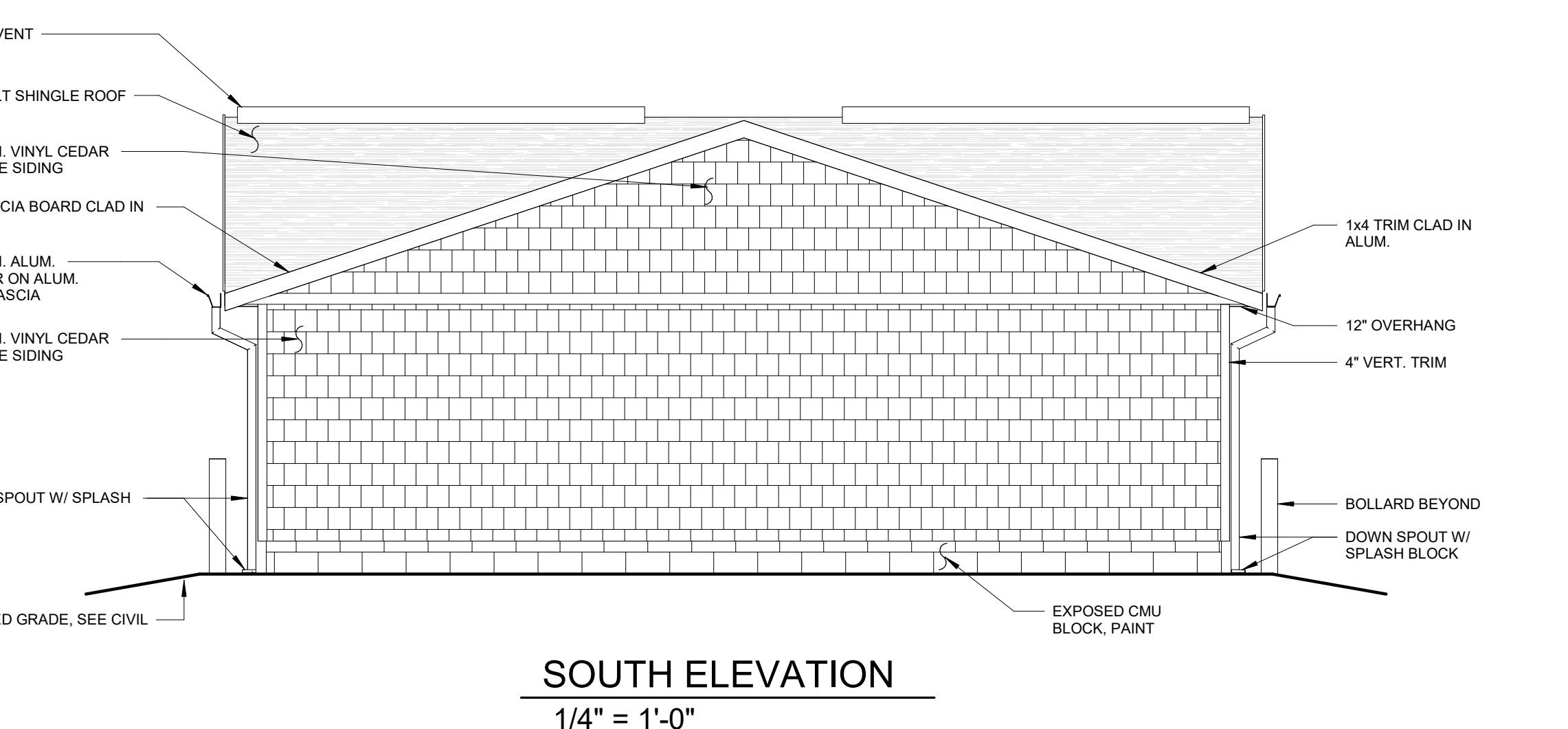
**EAST ELEVATION**  
1/4" = 1'-0"



**NORTH ELEVATION**  
1/4" = 1'-0"



**WEST ELEVATION**  
1/4" = 1'-0"

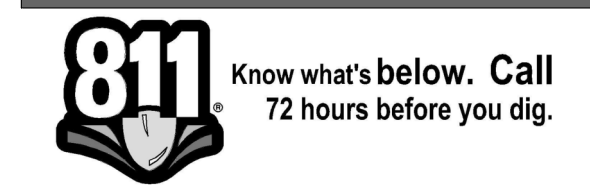


**SOUTH ELEVATION**  
1/4" = 1'-0"

1/16/2025	BID ISSUE
DATE	SUBMITTALS/REVISIONS
PROJECT NAME:	
<b>LAKE FRONT PARK BUILDING RENOVATION</b>	
SHEET TITLE:	
<b>EXTERIOR ELEVATIONS</b>	

CLIENT:  
**CITY OF GROSSE POINTE WOODS**

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY:	CHECKED BY:	DATE:
LAD	JRA	MAY 2024
SCALE: AS NOTED		



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SHEET NO.

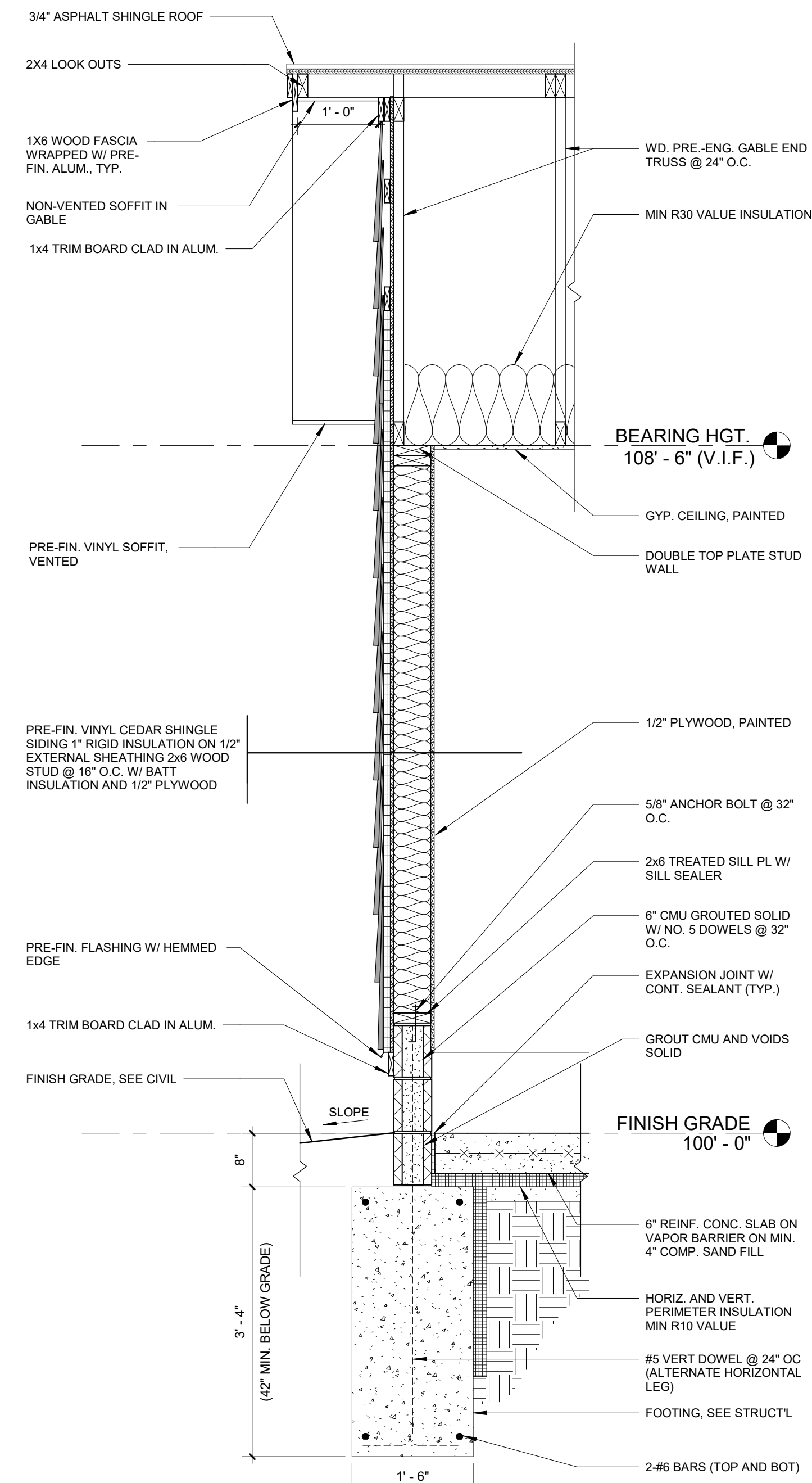
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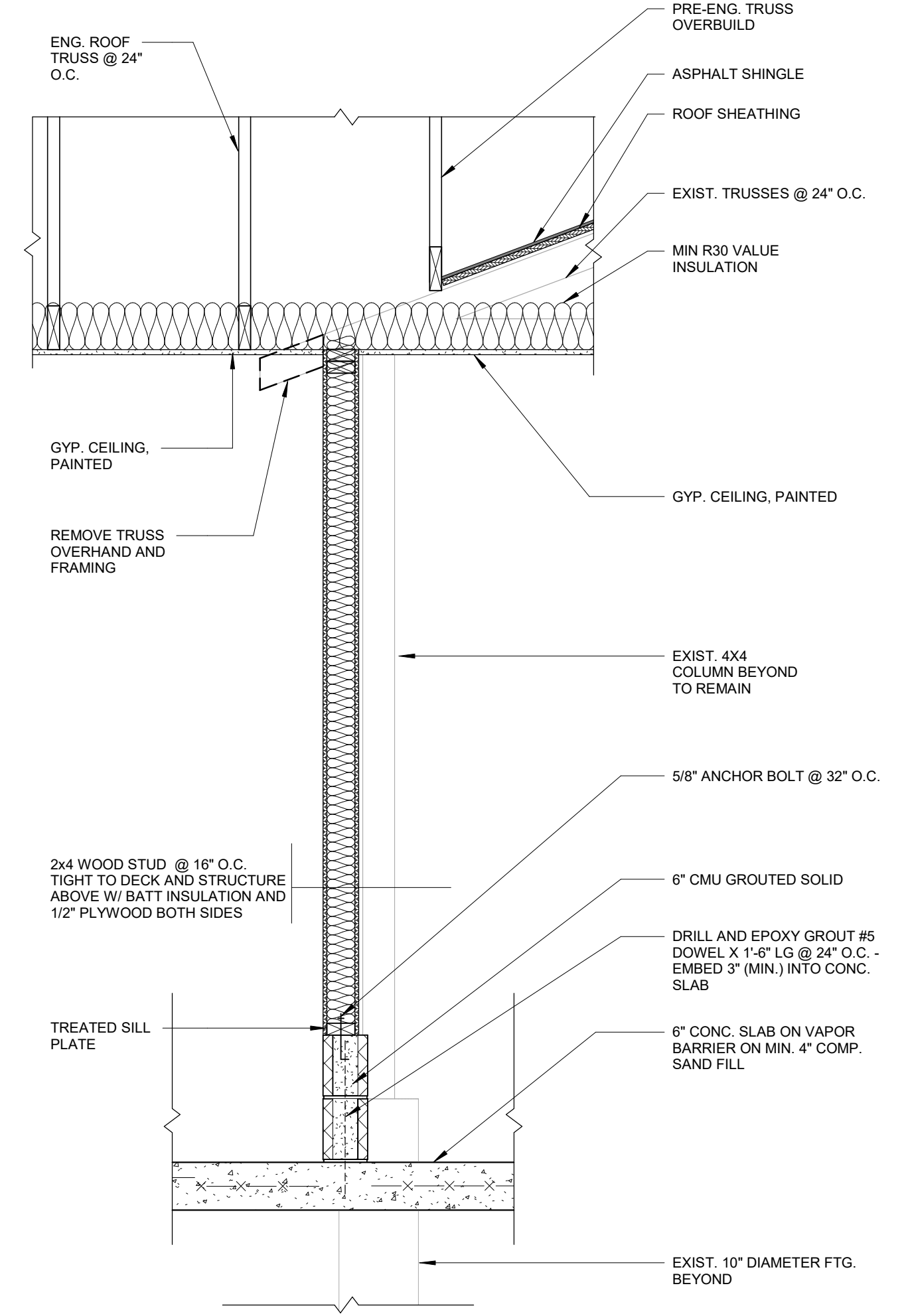
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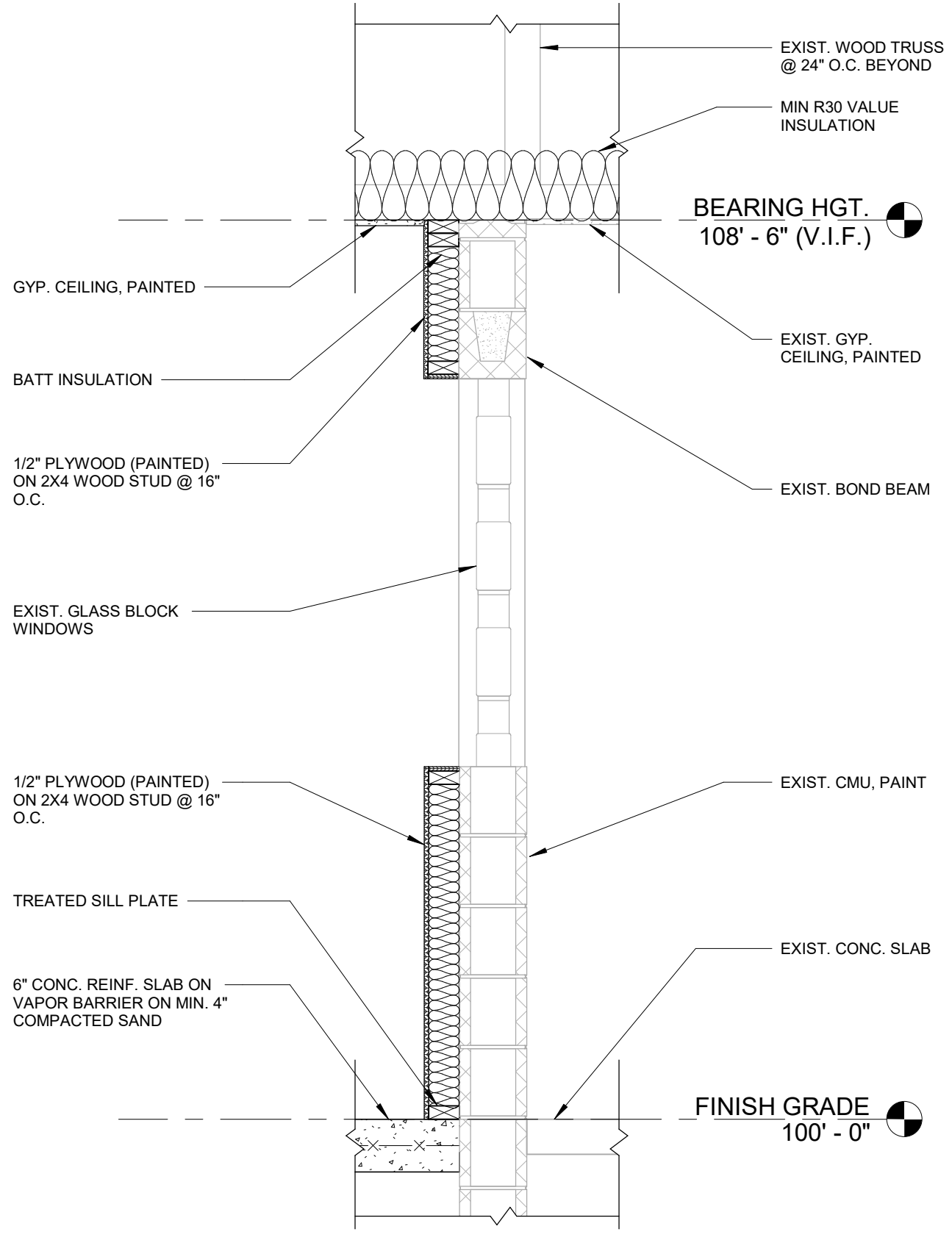
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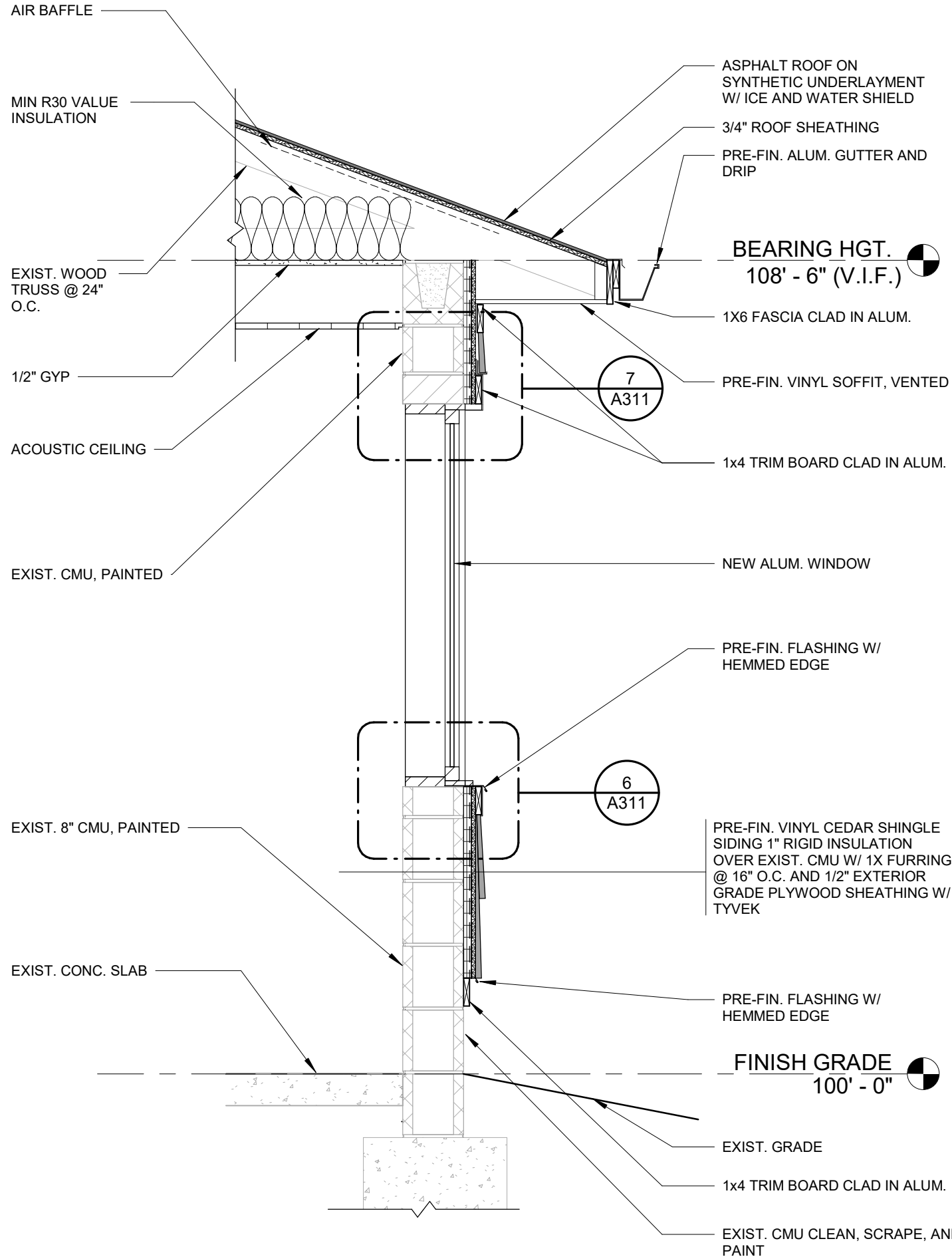
6 WALL SECTION  
A301 3/4" = 1'-0"



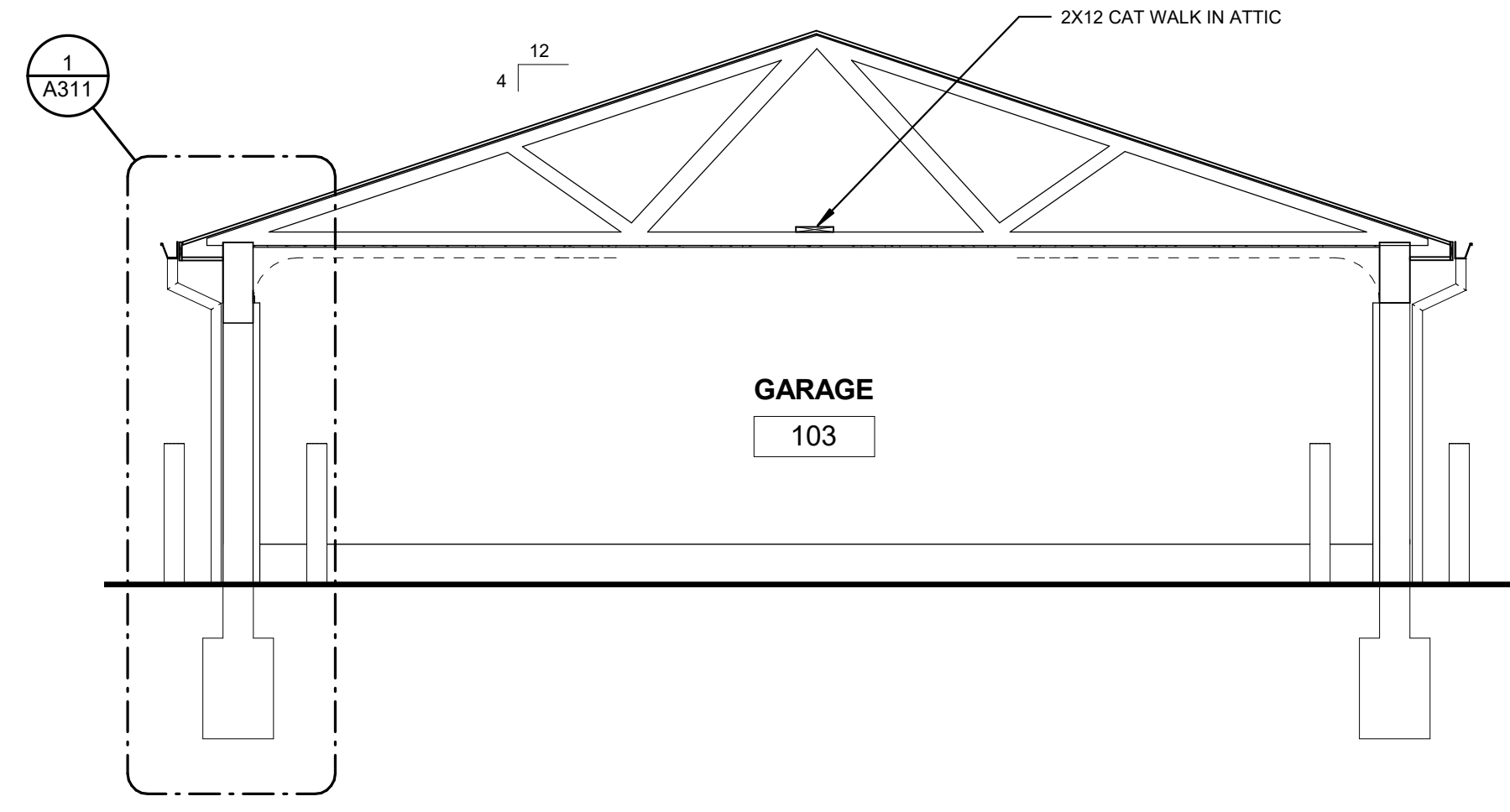
5 INTERIOR PARTITION  
A301 3/4" = 1'-0"



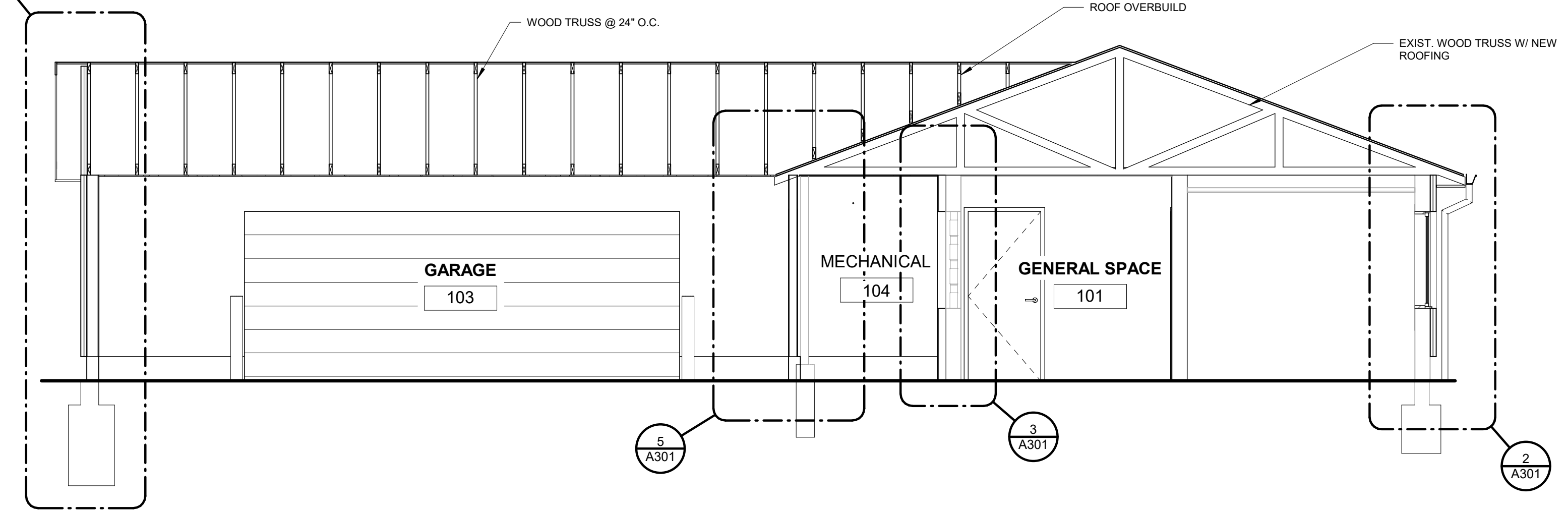
3 FURRING WALL TYPE "C"  
A301 3/4" = 1'-0"



2 WALL SECTION  
A301 3/4" = 1'-0"



4 GARAGE BUILDING SECTION  
A301 1/4" = 1'-0"



1 BUILDING SECTION  
A301 1/4" = 1'-0"

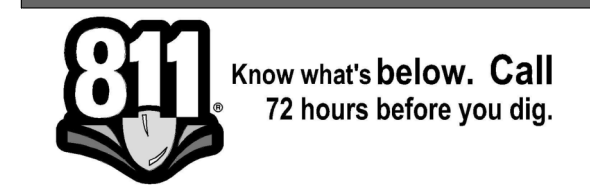
1/16/2025	BID ISSUE
DATE	SUBMITTALS/REVISIONS

PROJECT NAME:  
**LAKE FRONT PARK BUILDING RENOVATION**

**BUILDING AND WALL SECTIONS**

CLIENT:  
**CITY OF GROSSE POINTE WOODS**

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: LAD	CHECKED BY: JRA	DATE: MAY 2024
SCALE: AS NOTED		



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PROJECT NO. 0160-0479

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SHEET NO.

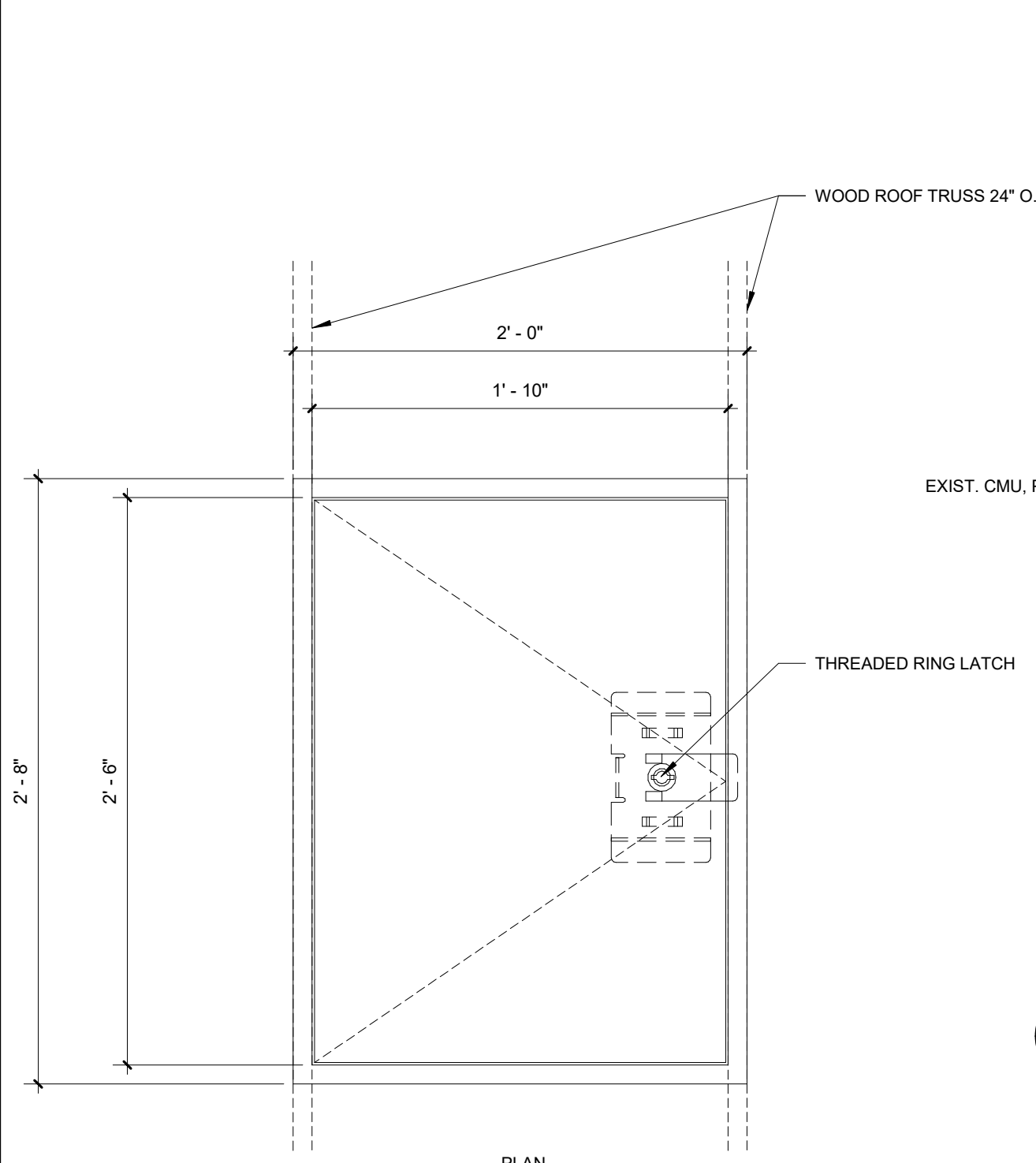
**A301**



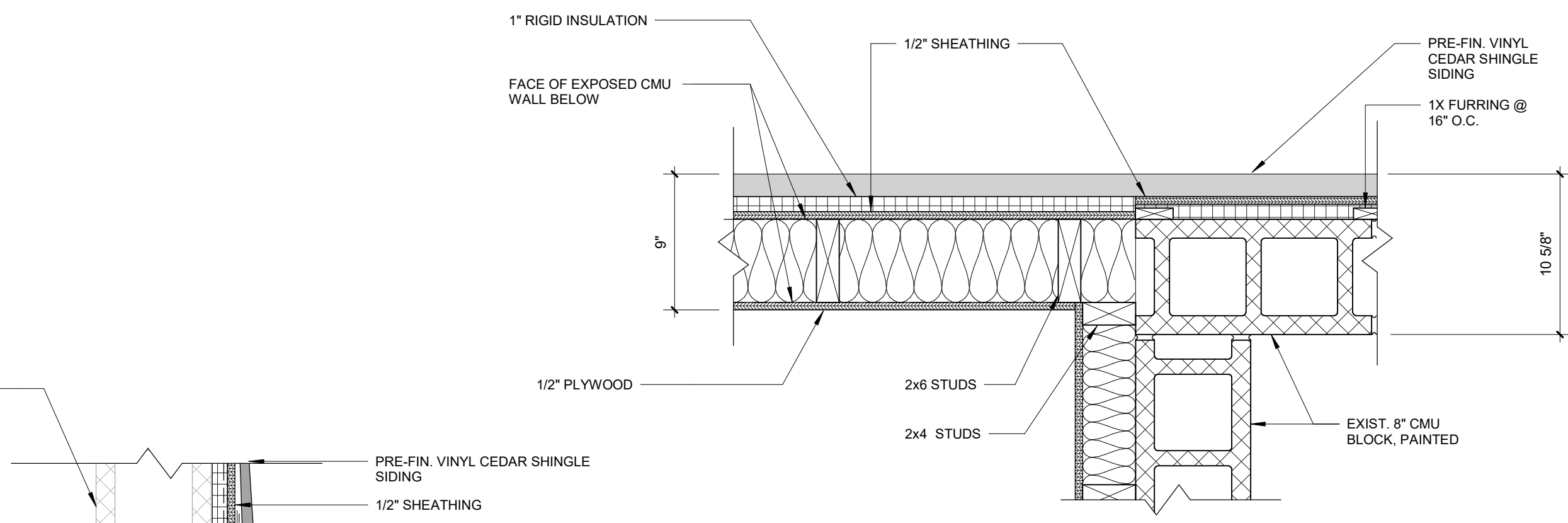
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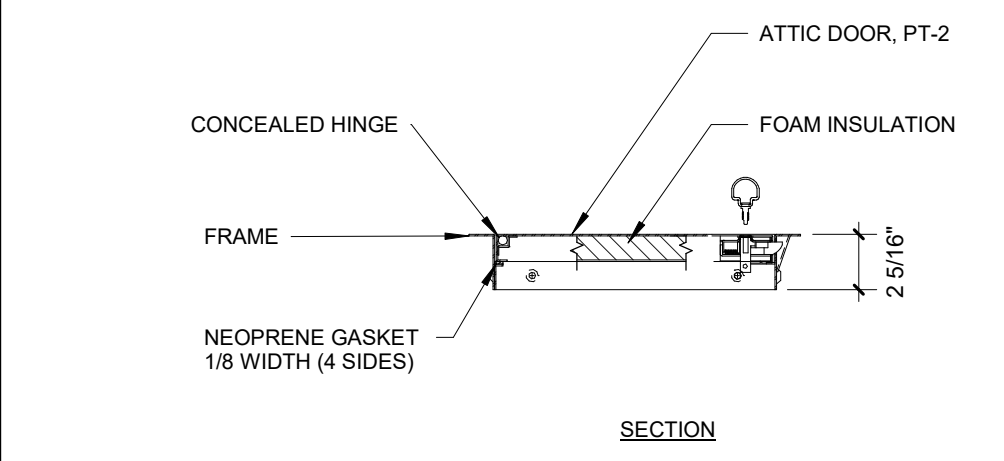
**7 WINDOW HEAD DETAIL**  
 A311 1 1/2" = 1'-0"



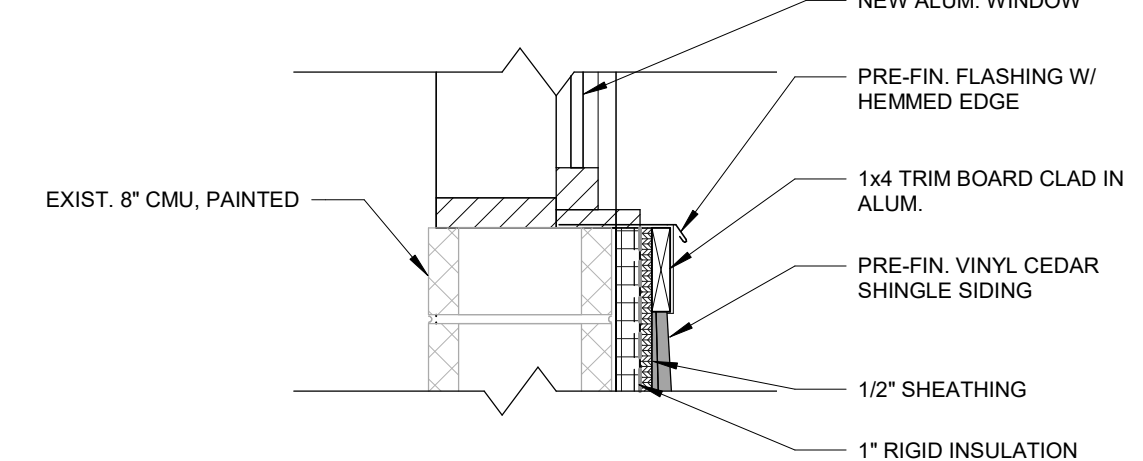
**5 WOOD STUD TO EXIST. CMU PLAN DETAIL**  
 A311 1 1/2" = 1'-0"



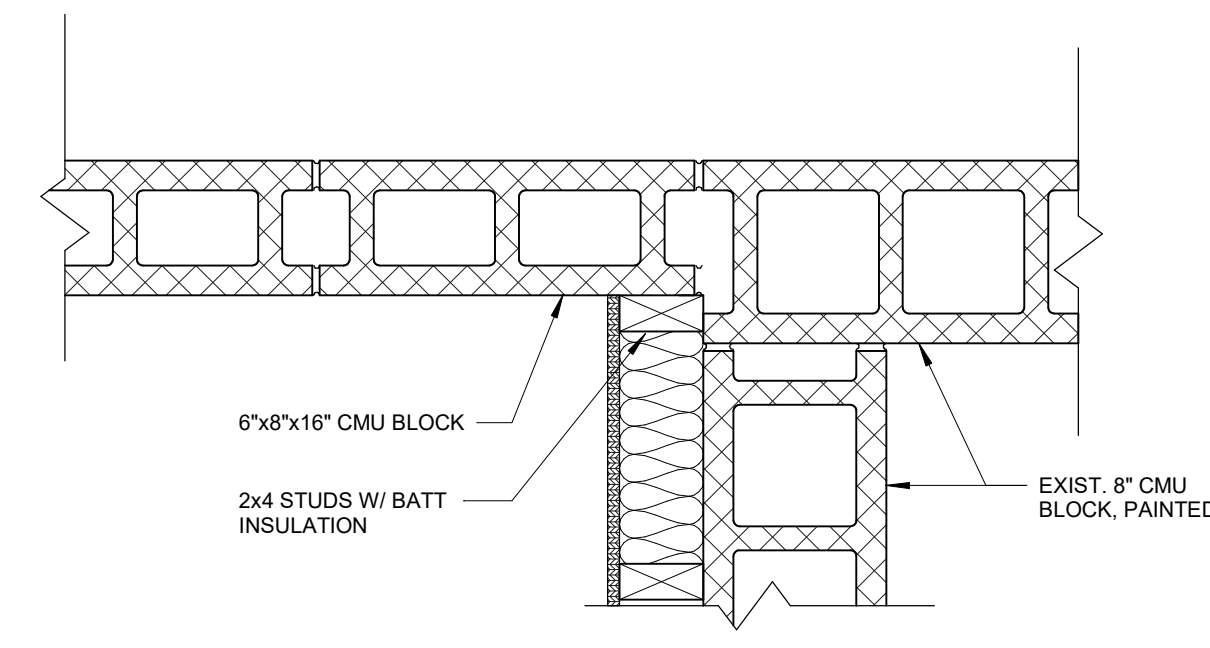
**2 EAVE DETAIL**  
 A311 1 1/2" = 1'-0"



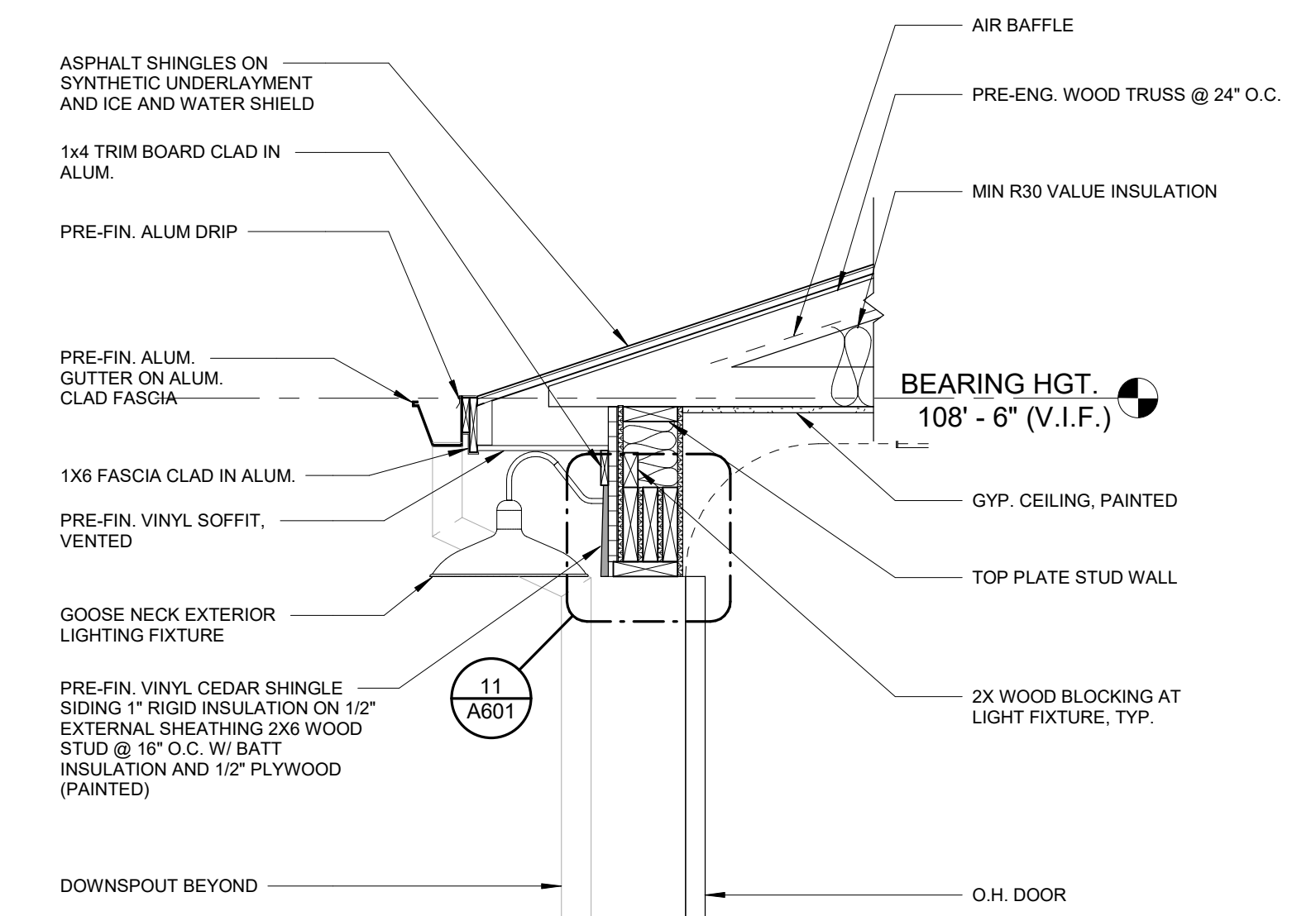
**9 ATTIC HATCH**  
 A311 1 1/2" = 1'-0"



**6 WINDOW SILL DETAIL**  
 A311 1 1/2" = 1'-0"



**4 CMU TO EXIST. CMU PLAN DETAIL**  
 A311 1 1/2" = 1'-0"



**1 WALL SECTION**  
 A311 3/4" = 1'-0"

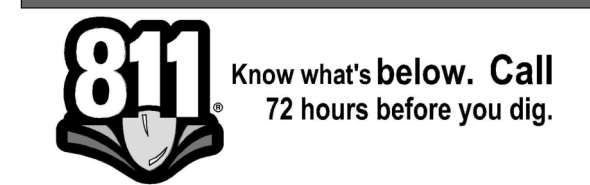
1/16/2025 BID ISSUE  
 DATE SUBMITTALS/REVISIONS

PROJECT NAME:  
**LAKE FRONT PARK BUILDING RENOVATION**

SHEET TITLE:  
**WALL SECTIONS AND DETAILS**

CLIENT:  
**CITY OF GROSSE POINTE WOODS**

<input type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: JRA	CHECKED BY: JRA	DATE: MAY 2024
SCALE: AS NOTED		



UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING FACILITIES ONLY, AS DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.

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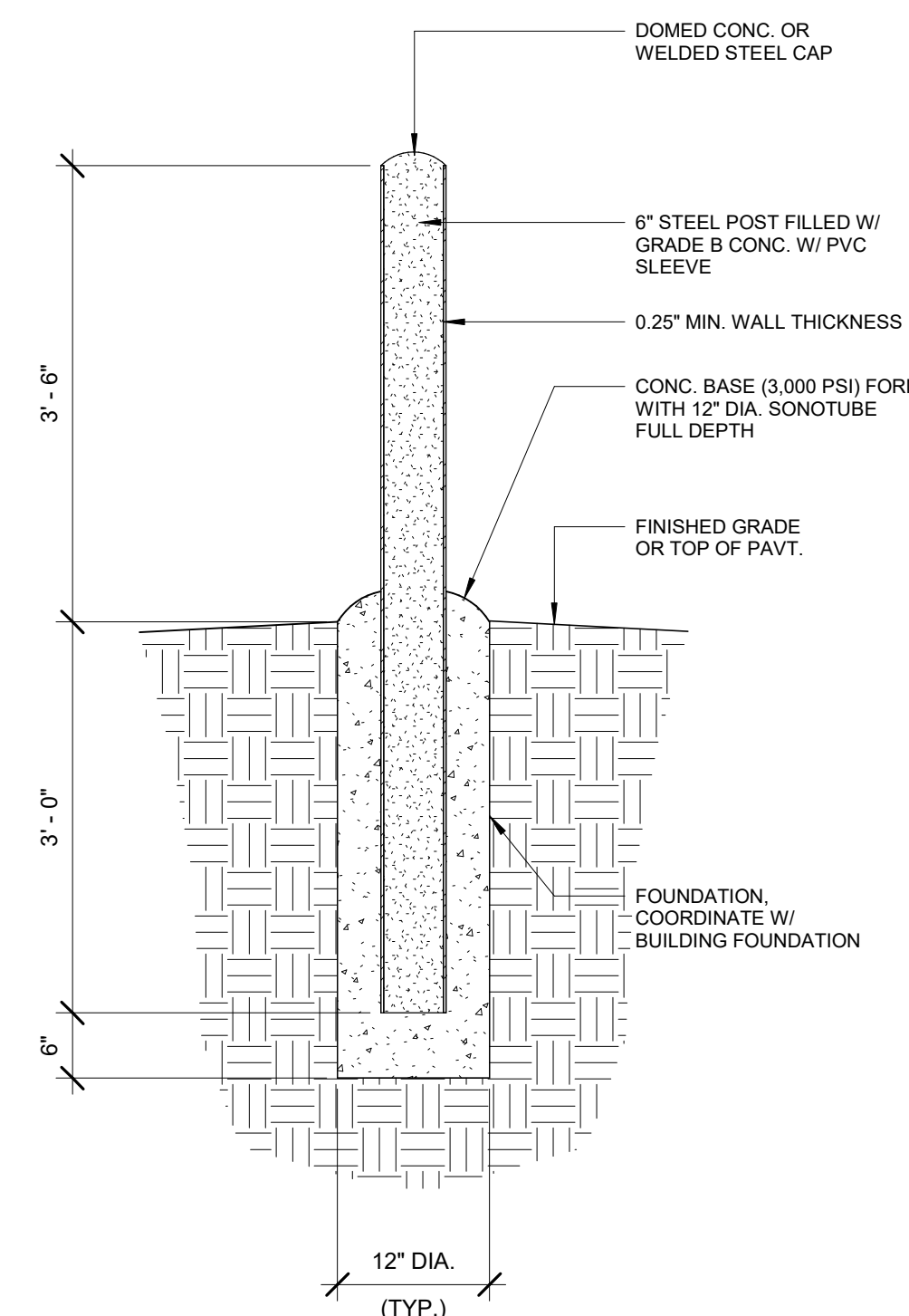
DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

PROJECT NO. 0160-0479

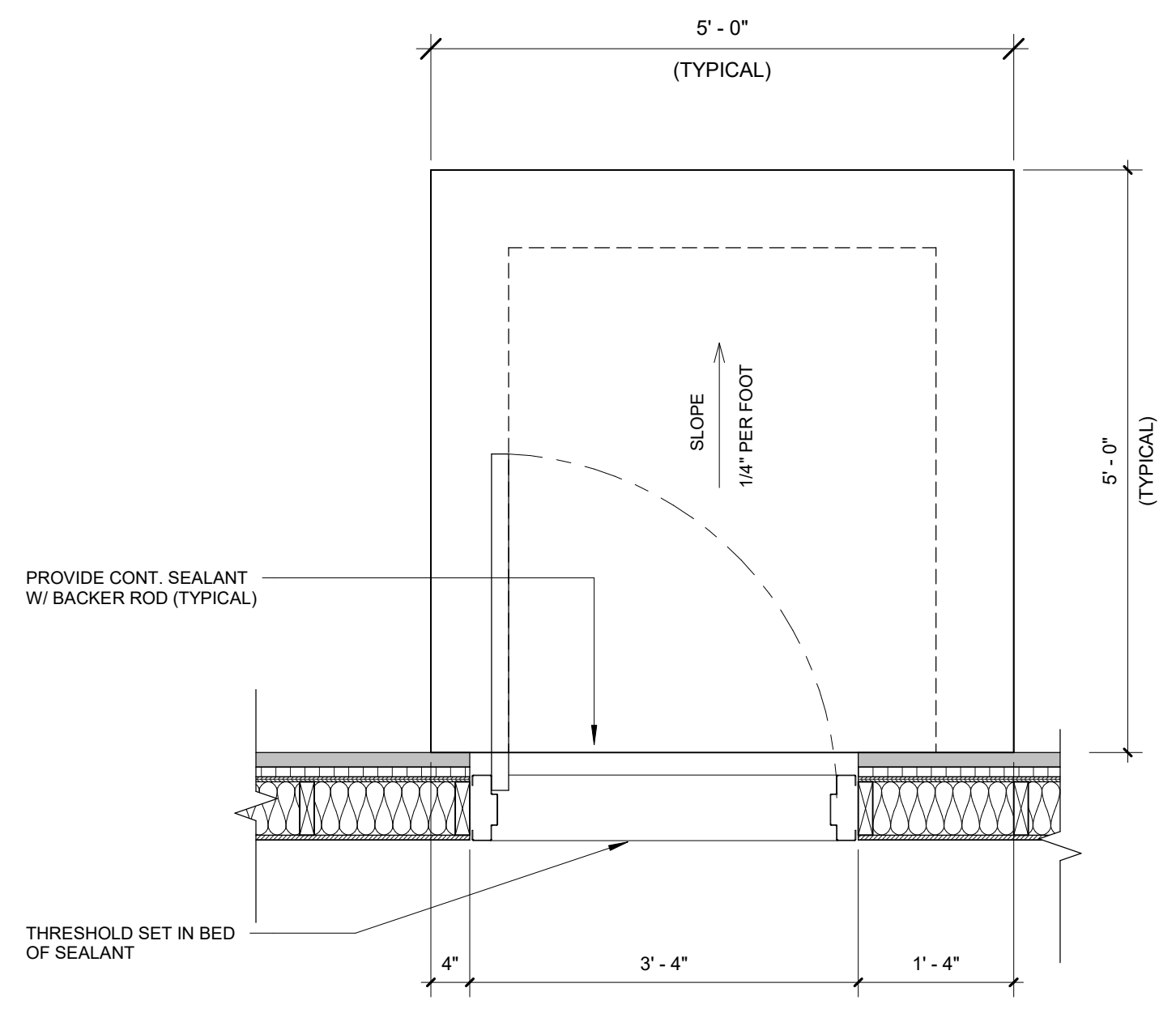
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SHEET NO.

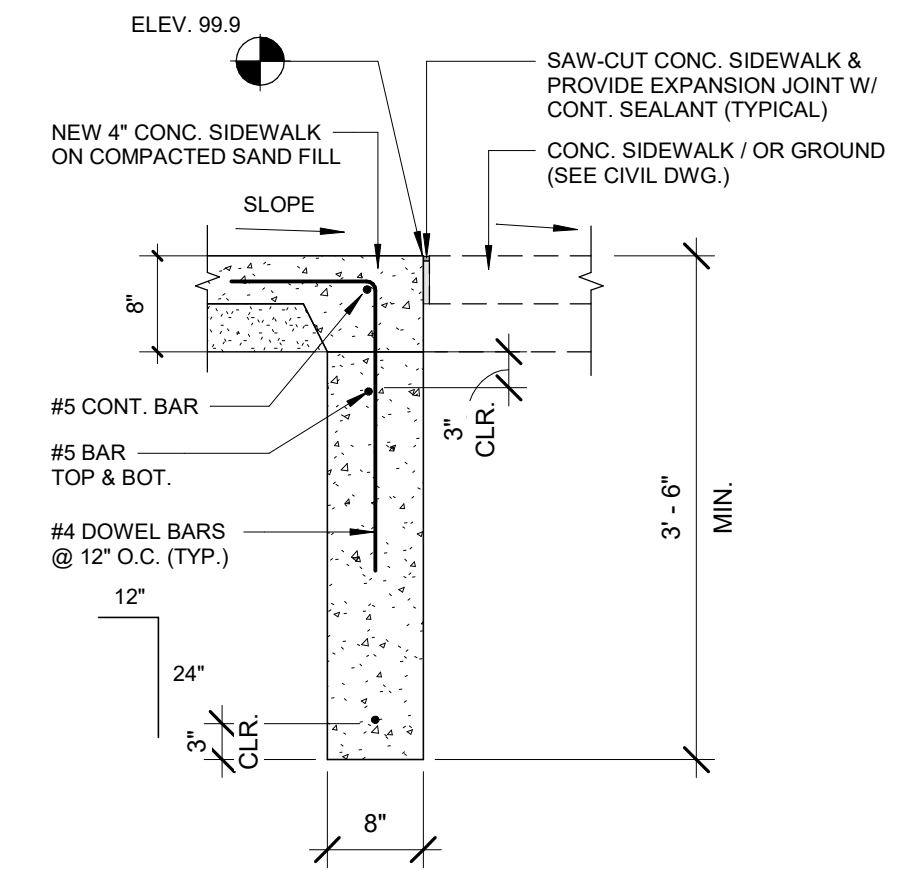
**A311**



**8 BOLLARD POST DETAIL**  
 A311 3/4" = 1'-0"



**3 TYP. CONCRETE STOOP DETAIL**  
 A311 3/4" = 1'-0"



**SECTION**



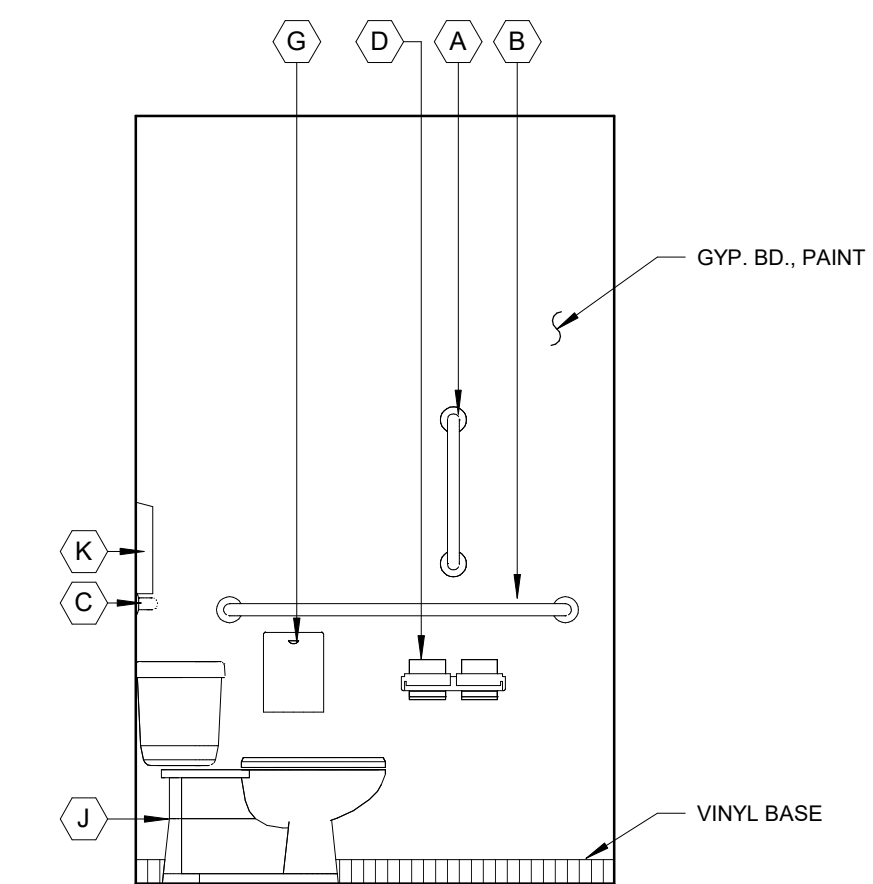
ANDERSON, ECKSTEIN & WESTRICK, INC.  
CIVIL ENGINEERS - SURVEYORS - ARCHITECTS

51301 Schoenherr Road  
Shelby Township, MI 48315  
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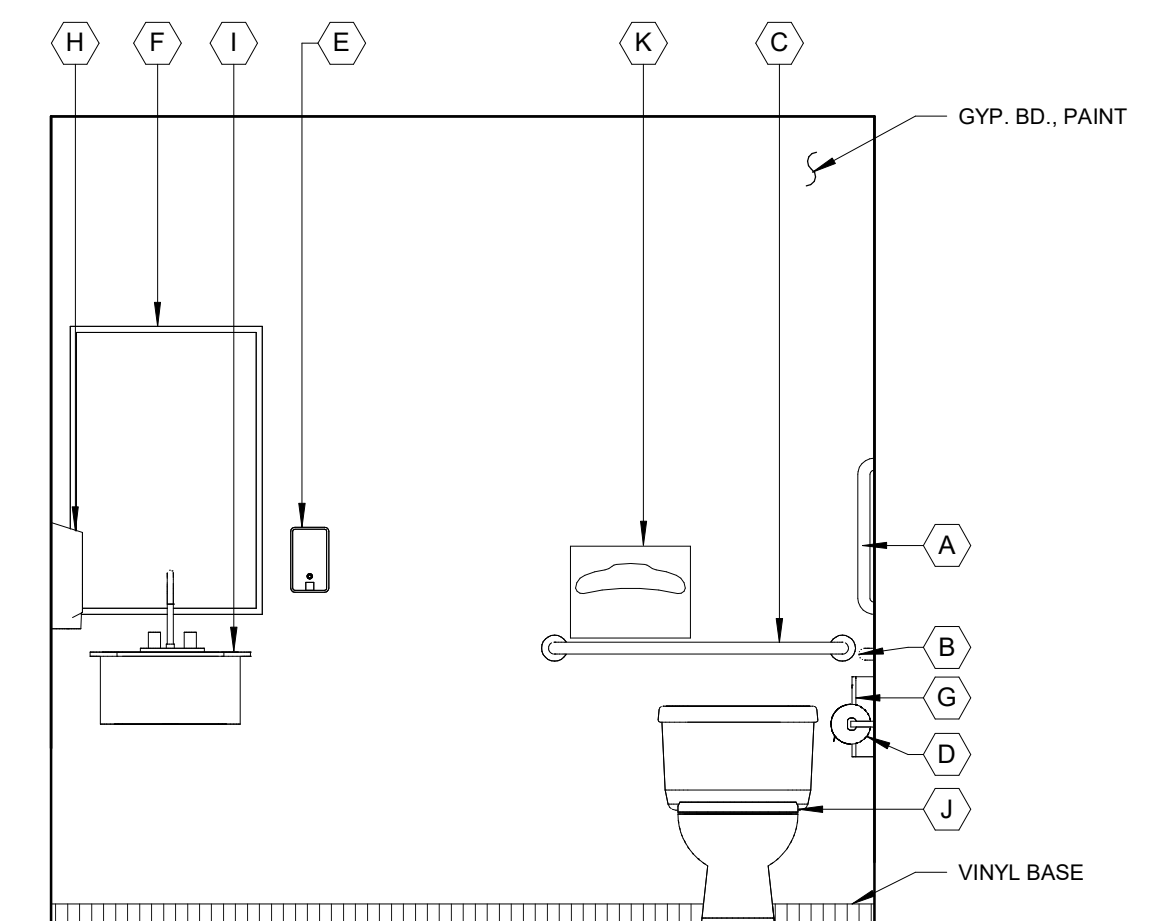
Engineering Strong Communities

### TOILET ACCESSORIES LEGEND :

- (A) 18" VERTICAL GRAB BAR      (G) SANITARY WASTE BIN
- (B) 42" HORIZONTAL GRAB BAR      (H) ELECTRIC HAND DRYER
- (C) 36" HORIZONTAL GRAB BAR      (I) LAV
- (D) TOILET PAPER      (J) WATER CLOSET
- (E) SOAP DISPENSER      (K) SEAT COVER DISPENSER
- (F) MIRROR



**2** TOILET 103 ELEVATION  
A411 1/2" = 1'-0"



**1** TOILET 103 ELEVATION  
A411 1/2" = 1'-0"

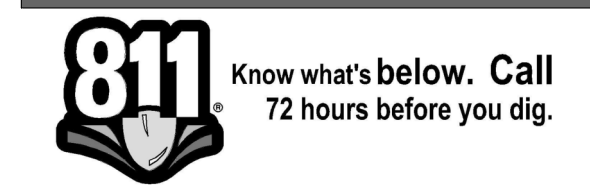
1/16/2025	BID ISSUE
DATE	SUBMITTALS/REVISIONS

PROJECT NAME:  
**LAKE FRONT PARK  
BUILDING  
RENOVATION**

SHEET TITLE:  
**INTERIOR  
ELEVATIONS**

CLIENT:  
**CITY OF GROSSE POINTE WOODS**

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: LAD	CHECKED BY: JRA	DATE: MAY 2024
SCALE: AS NOTED		



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PROJECT NO. 0160-0479

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SHEET NO.

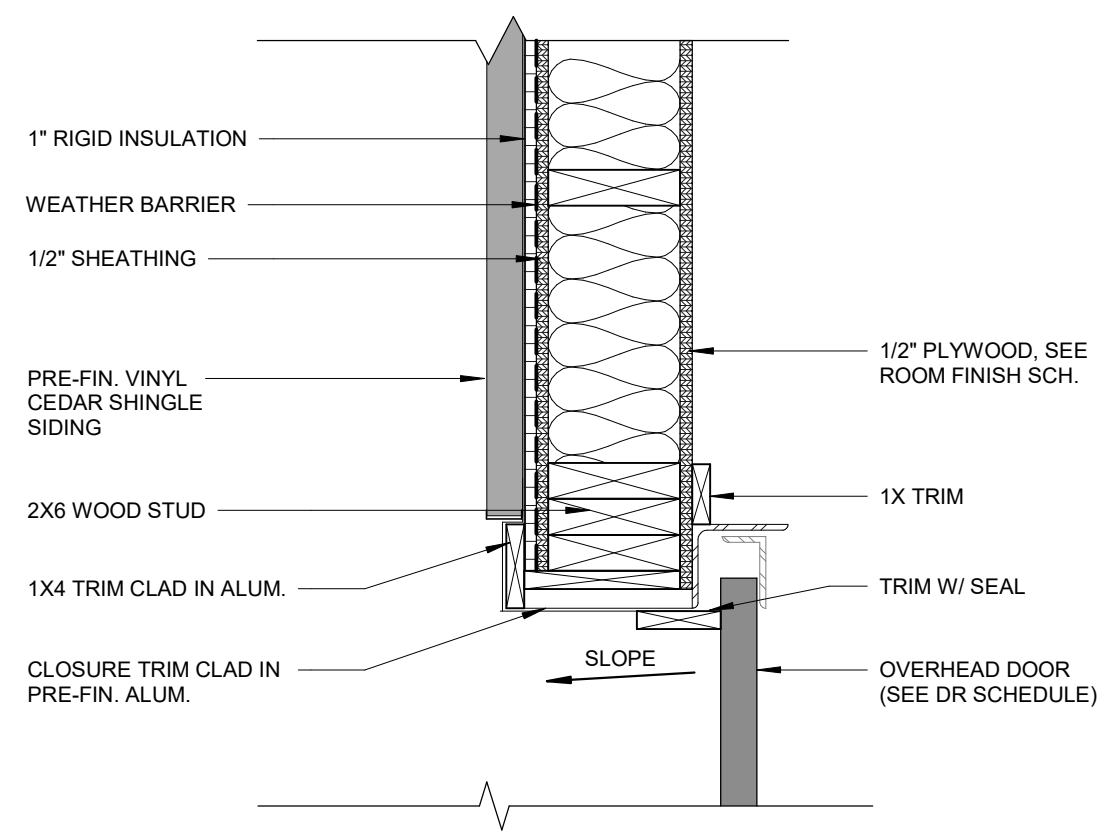
# A411



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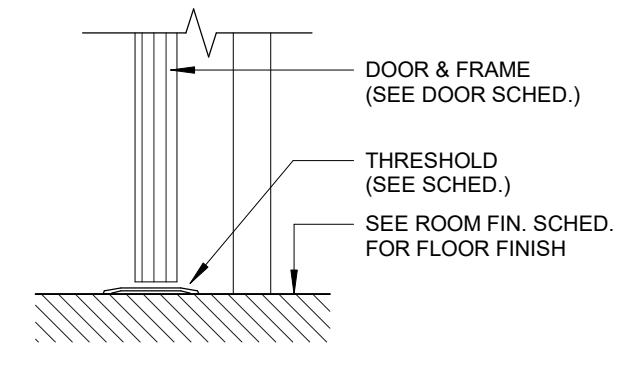
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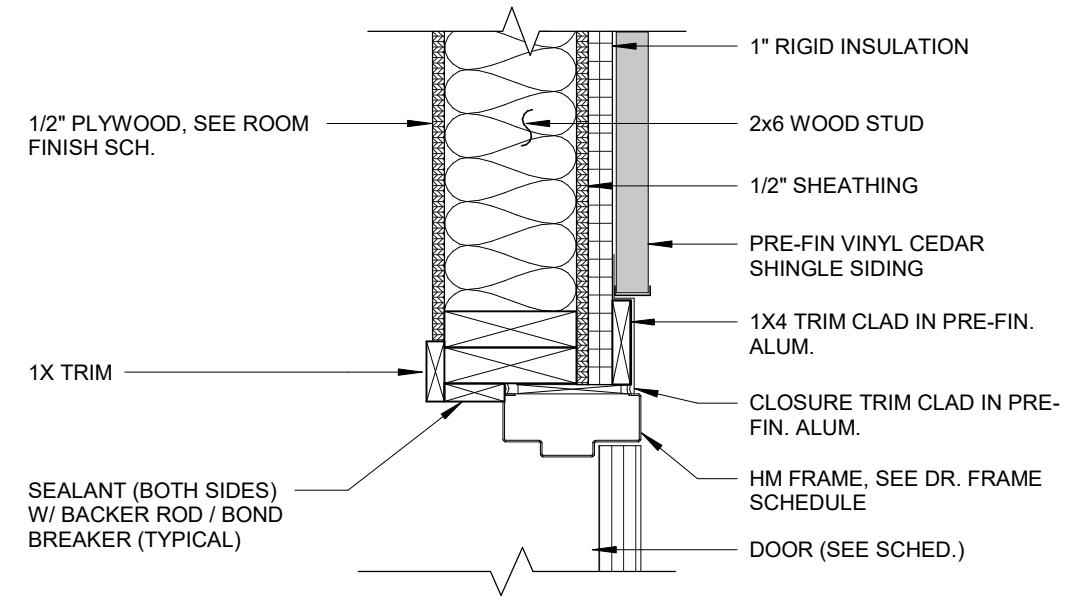
**12** OVERHEAD DOOR FRAME @  
WOOD STUD WALL JAMB DETAIL

A601 1 1/2" = 1'-0"



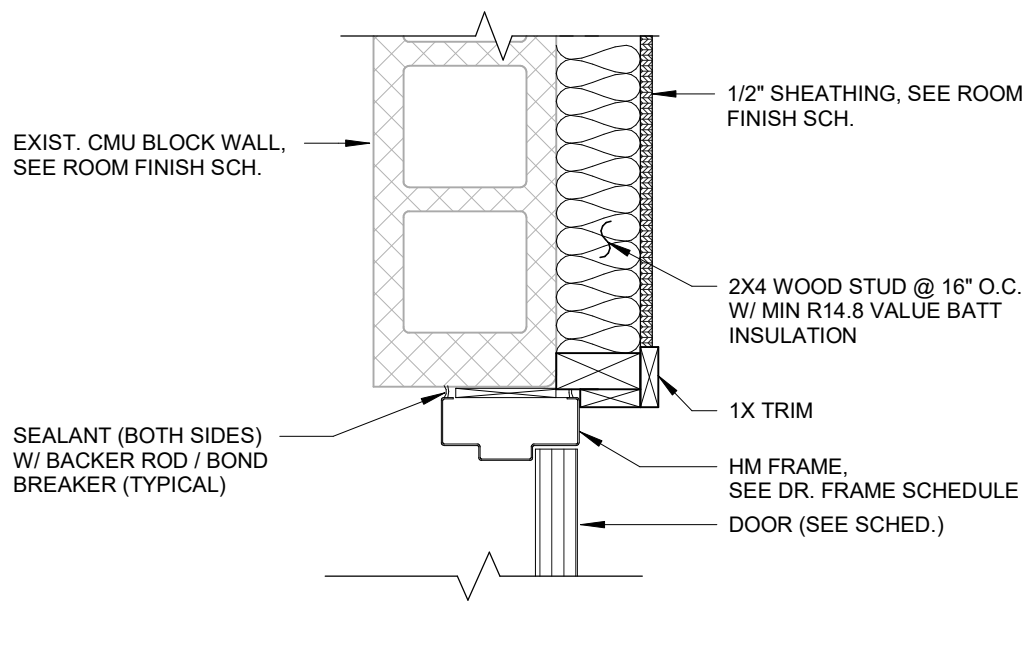
**8** HM DR FRAME @ SILL DETAIL

A601 1 1/2" = 1'-0"



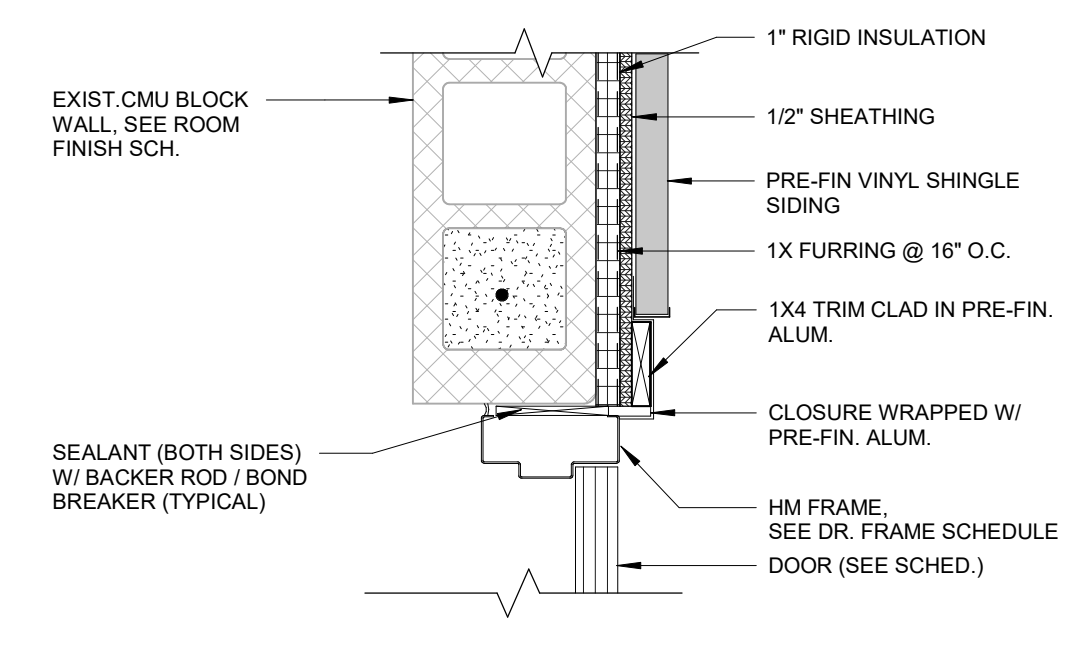
**6** HM DR FRAME @ WOOD  
STUD WALL JAMB DETAIL

A601 1 1/2" = 1'-0"



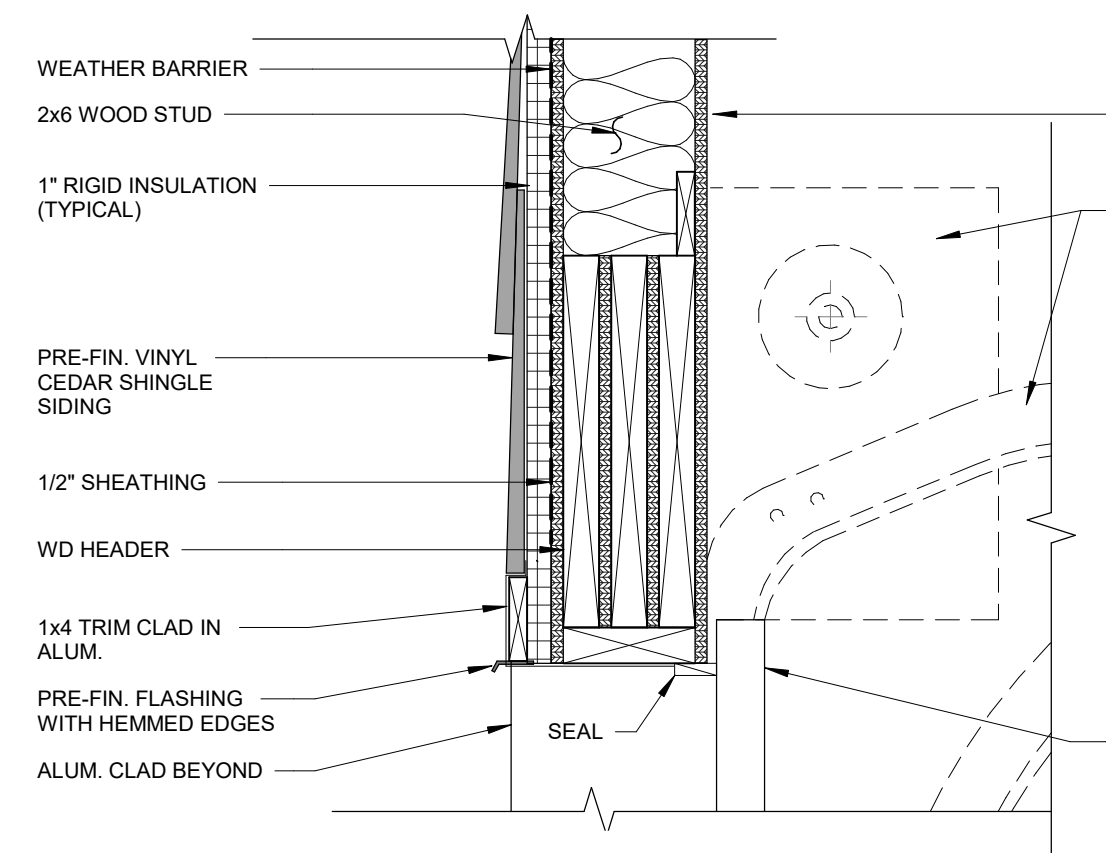
**4** HM DOOR CMU  
BLOCK WALL JAMB DETAIL

A601 1 1/2" = 1'-0"



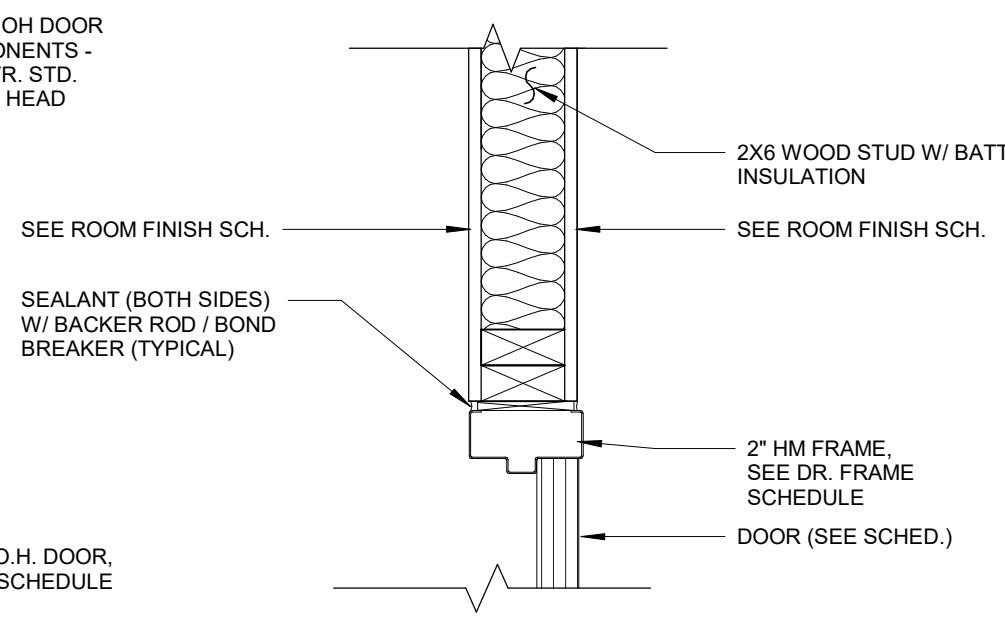
**2** HM DOOR CMU BLOCK  
WALL JAMB DETAIL

A601 1 1/2" = 1'-0"



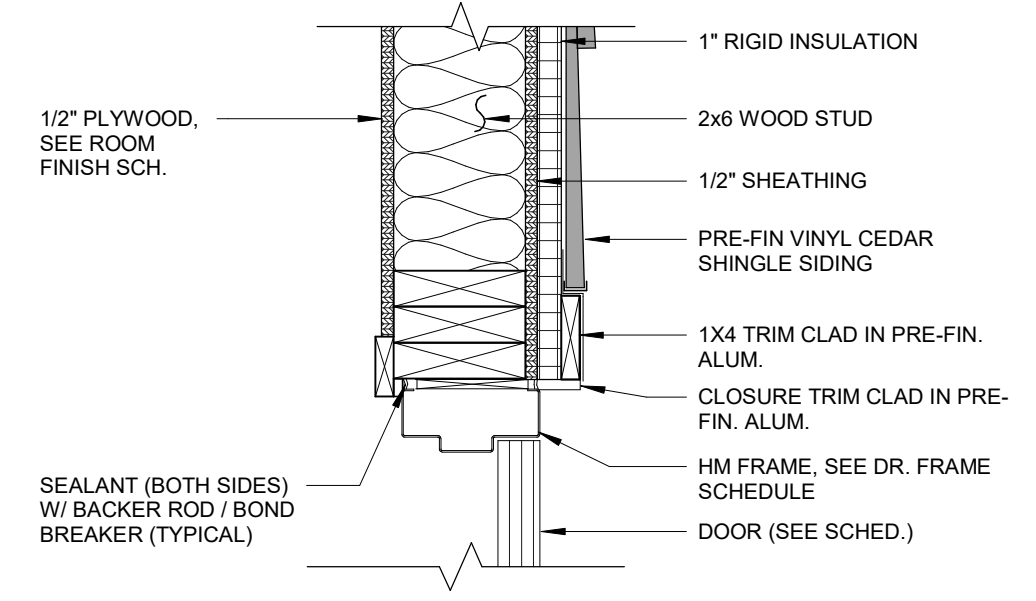
**11** OVERHEAD DOOR FRAME @  
WOOD STUD WALL HEAD DETAIL

A601 1 1/2" = 1'-0"



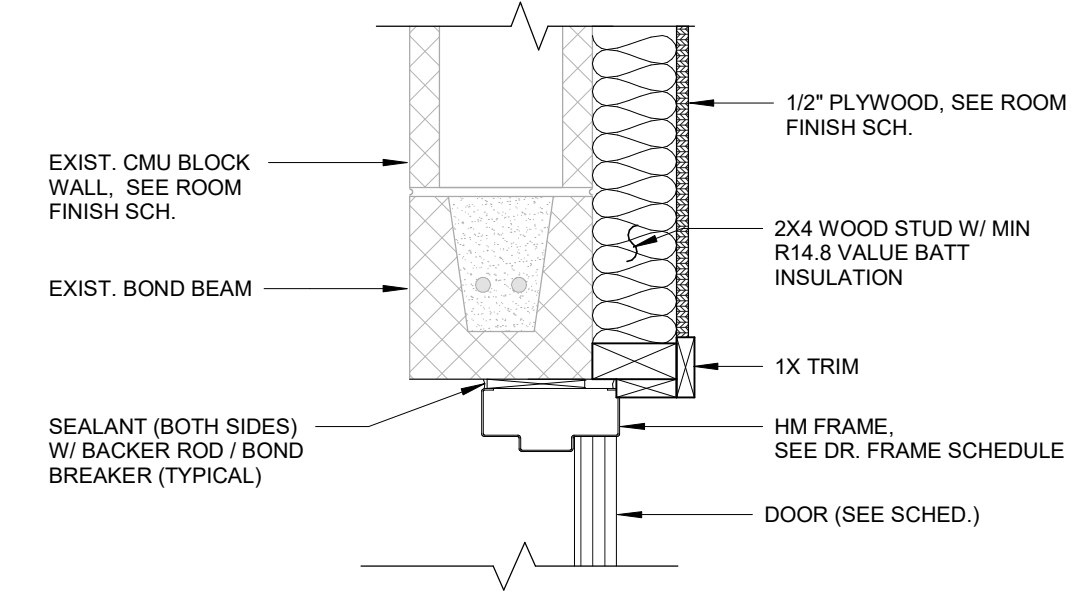
**7** HM DR FRAME @ WOOD STUD  
WALL HEAD/JAMB DETAIL

A601 1 1/2" = 1'-0"



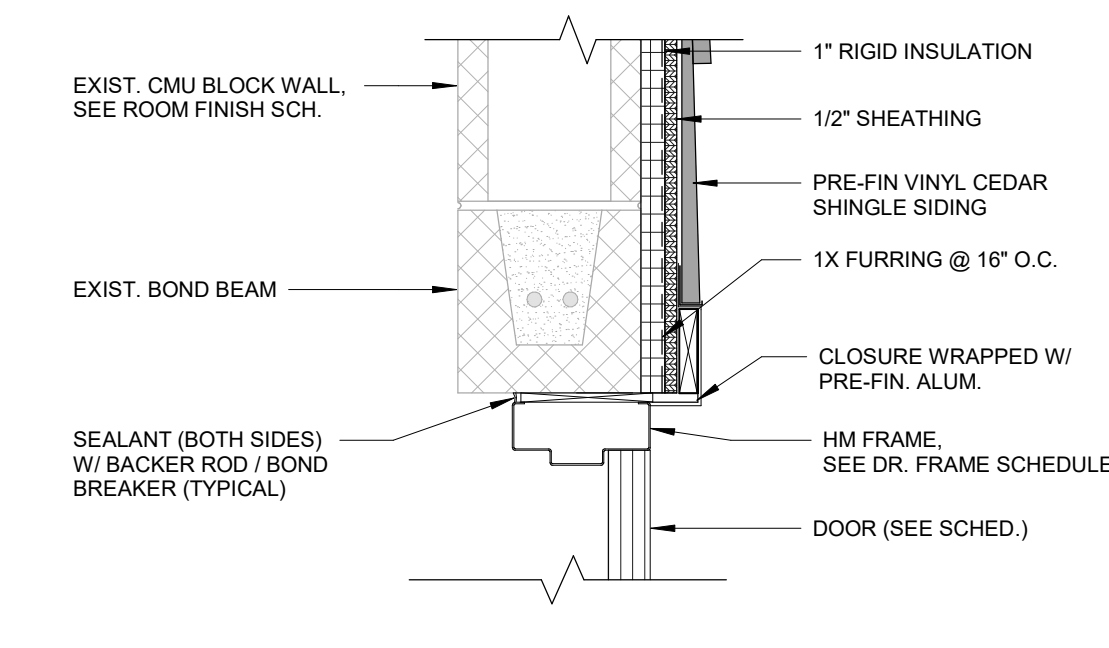
**5** HM DR FRAME @ WOOD  
STUD WALL HEAD DETAIL

A601 1 1/2" = 1'-0"



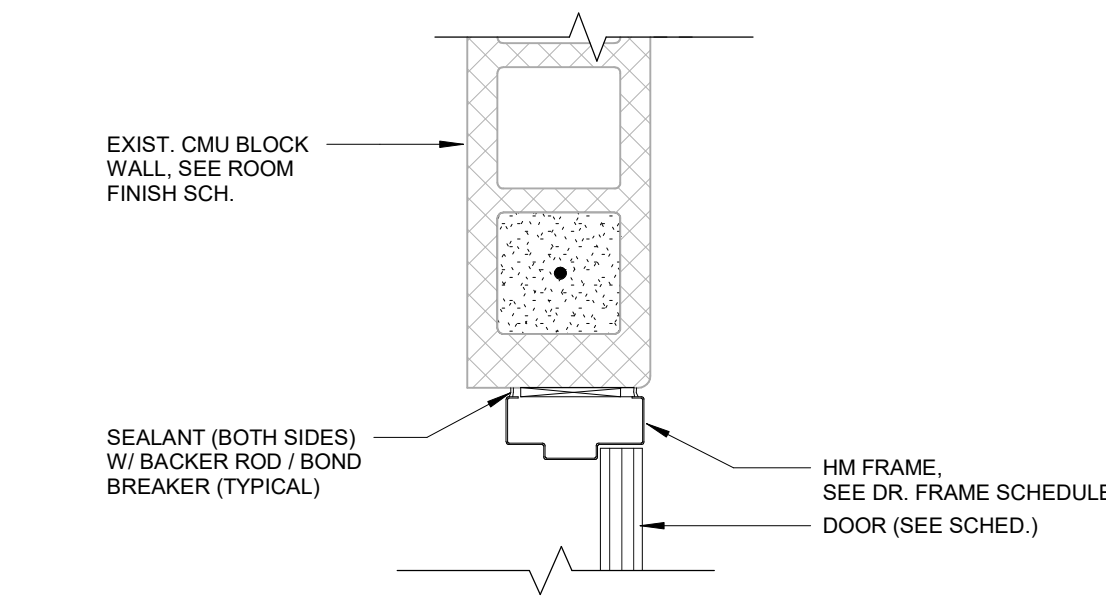
**3** HM DR FRAME @ CMU  
BLOCK WALL HEAD DETAIL

A601 1 1/2" = 1'-0"



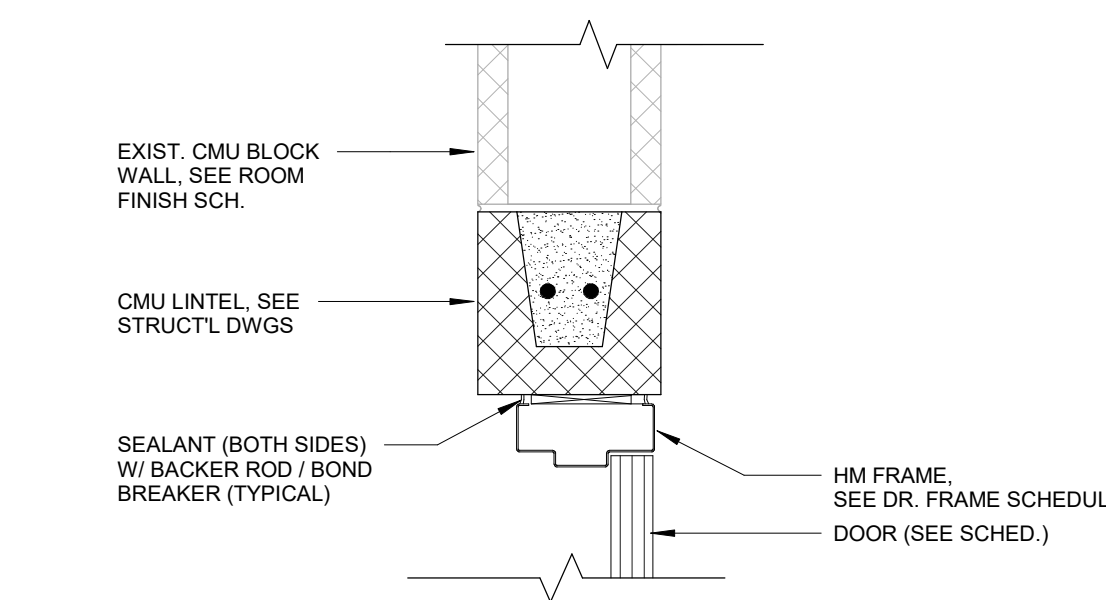
**1** HM DR FRAME @ CMU  
BLOCK WALL HEAD DETAIL

A601 1 1/2" = 1'-0"



**10** HM DOOR CMU  
BLOCK WALL JAMB DETAIL

A601 1 1/2" = 1'-0"

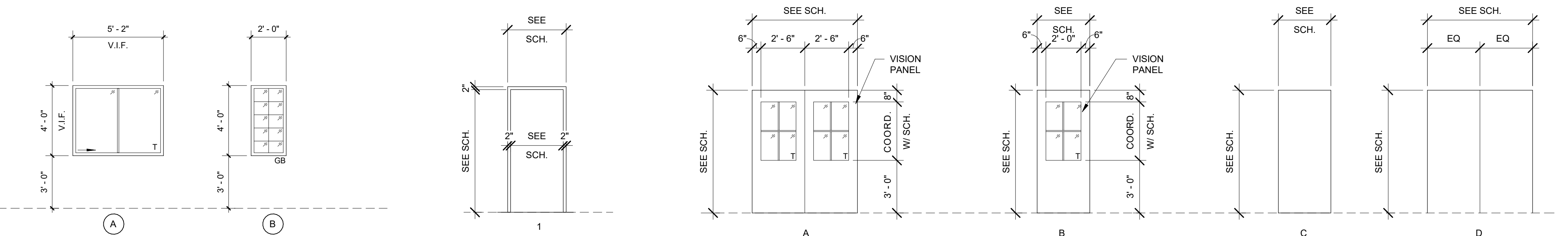


**9** HM DOOR CMU  
BLOCK WALL HEAD DETAIL

A601 1 1/2" = 1'-0"

DOOR SCHEDULE																
Rm. No.	Location	Door			Frame			Detail			Fire Rating	Threshold	HW Set	Comments		
		Width	Height	Thickness	DR. Elev.	DR. Material	Finish	Frame Type	Frame Material	Finish					Head	Jamb
100A	BREAK ROOM	3' - 0"	7' - 0"	1 3/4"	B	HM	PT	1	HM	PT	1/A601	2/A601	8/A601	1	V.I.F. ALL DIMENSIONS	
100B	BREAK ROOM	3' - 0"	7' - 0"	1 3/4"	C	HM	PT	1	HM	PT	9/A601	10/A601	8/A601	2	V.I.F. ALL DIMENSIONS	
101A	GENERAL SPACE	(2) 3' - 0"	7' - 0"	1 3/4"	A	HM	PT	1	HM	PT	1/A601	2/A601	8/A601	3	V.I.F. ALL DIMENSIONS	
101B	GENERAL SPACE	(2) 2' - 8"	7' - 0"	1 3/4"	D	HM	PT	1	HM	PT	3/A601	4/A601	8/A601	4		
102	STORAGE	3' - 0"	7' - 0"	1 3/4"	C	HM	PT	1	HM	PT	7/A601	7/A601	8/A601	5		
103A	GARAGE	3' - 0"	7' - 0"	1 3/4"	B	HM	PT	1	HM	PT	5/A601	6/A601	8/A601	2		
103B	GARAGE	18' - 0"	7' - 0"	2"							11/A601	12/A601			INSULATED OVERHEAD DOOR AND OPERATOR (SIDE MOUNT)	
103C	GARAGE	18' - 0"	7' - 0"	2"							11/A601	12/A601			INSULATED OVERHEAD DOOR AND OPERATOR (SIDE MOUNT)	
104	MECHANICAL	3' - 0"	7' - 0"	1 3/4"	C	HM	PT	1	HM	PT	7/A601	7/A601	8/A601	5		
105	TOILET	3' - 0"	7' - 0"	1 3/4"	C	HM	PT	1	HM	PT	7/A601	7/A601	8/A601	6	V.I.F. ALL DIMENSIONS	
106	OFFICE	3' - 0"	7' - 0"	1 3/4"	C	HM	PT	1	HM	PT	7/A601	7/A601	8/A601	7	V.I.F. ALL DIMENSIONS	

ROOM FINISH SCHEDULE																
RM. NUMBER	LOCATION	FLOOR FIN.	BASE FIN.	W A L L S						CEILINGS			ROOM SIGN	WINDOW TREATMENT	COMMENTS	
				N. MATERIAL	N. FINISH	E. MATERIAL	E. FINISH	S. MATERIAL	S. FINISH	W. MATERIAL	W. FINISH	CEILING MATERIAL				CEILING FIN.
100	BREAK ROOM	ETR	VINYL	ETR	PT	ETR	PT	ETR	PT	ETR	PT	ACT	PRE-FIN.	7' - 10"		
101	GENERAL SPACE	ETR	VINYL	ETR/CMU	PT	ETR	PT	ETR	PT	GYP/CMU	PT	EXISTING GYP	PT	8' - 6"		
102	STORAGE	CONC.	VINYL	PLY	PT	PLY/CMU	PT	PLY/CMU	PT	PLY/CMU	PT	GYP	PT	8' - 6"		
103	GARAGE	CONC.	VINYL	PLY/CMU	PT	PLY/CMU	PT	PLY/CMU	PT	PLY/CMU	PT	GYP	PT	8' - 6"		
104	MECHANICAL	CONC.	VINYL	PLY	PT	PLY/CMU	PT	PLY/CMU	PT	PLY/CMU	PT	GYP	PT	8' - 6"		
105	TOILET	CONC.	VINYL	GYP	PT	GYP	PT	CMU	PT	GYP	PT	GYP	PT	8' - 6"	YES	
106	OFFICE	CONC.	VINYL	ETR	PT	ETR	PT	GYP	PT	ETR	PT	ACT	PRE-FIN.	8' - 6"		



**WINDOW TYPES**  
SCALE: 1/4"=1'-0"  
T = TEMPERED GLASS  
1" INSULATED, LOW E, TINTED GLASS (EXTERIOR), TYPICAL  
PROVIDE SCREENS ON ALL OPERABLE UNITS

**FRAME TYPES**  
SCALE: 1/4"=1'-0"  
T = TEMPERED GLASS  
1" INSULATED, LOW E, TINTED GLASS (EXTERIOR), TYPICAL

**DOOR ELEVATIONS**  
SCALE: 1/4"=1'-0"

1/16/2025 BID ISSUE  
DATE SUBMITTALS/REVISIONS

PROJECT NAME:  
**LAKE FRONT PARK  
BUILDING  
RENOVATION**

SHEET TITLE:  
**DOOR SCHEDULE,  
ELEVATIONS, &  
DETAILS**

CLIENT:  
**CITY OF GROSSE POINTE WOODS**

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: JAD	CHECKED BY: JRA	DATE: MAY 2024
SCALE: AS NOTED		

**811** Know what's below. Call 72 hours before you dig.

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PROJECT NO. 0160-0479

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**A601**

# GENERAL TRADES SPECIFICATIONS

## SITE CONDITIONS

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING EXISTING UNDERGROUND UTILITIES IN THE AREA OF CONSTRUCTION.
- THE CONTRACTOR SHALL COORDINATE HIS WORK ACTIVITIES WITH THE OWNER TO MINIMIZE DISRUPTION TO THE OWNER'S OPERATION OF THE FACILITY.
- THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS, BEFORE COMMENCING WITH SHOP DRAWING PREPARATION. REPORT EXISTING CONDITIONS WHICH DO NOT CONFORM WITH THE DETAILS PROVIDED BY THE ARCHITECT.

## MASONRY NOTES

- MASONRY CONSTRUCTION SHALL COMPLY WITH ACI 530-13 - BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES, ACI 530-13 - SPECIFICATION FOR MASONRY STRUCTURES, AND NCMA SPECIFICATIONS.
- LOAD BEARING CONCRETE MASONRY SHALL CONFORM TO ASTM C90, MEDIUM WEIGHT WITH NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNITS = 1900 PSI (MIN).
- MORTAR SHALL BE TYPE N OR S AND CONFORM TO ASTM C270 AND NCMA TEK NOTES 9-1 OR 9-2. NET AREA COMPRESSIVE STRENGTH OF MASONRY (fm) = 1500 PSI (MIN).
- MASONRY GROUT SHALL CONFORM TO ASTM C 476 WITH PEA GRAVEL AGGREGATE AND A MINIMUM STRENGTH OF 2000 PSI.
- UNLESS OTHERWISE NOTED, PROVIDE HORIZONTAL WIRE TYPE REINFORCING WITH 9 GAUGE SIDE AND CROSS MEMBERS IN EVERY SECOND COURSE (16" O.C.), IN ALL MASONRY WALLS.
- REINFORCING BARS, DOWELS AND TIES SHALL CONFORM TO ASTM A615, GRADE 60.
- INSTALL 8" DEEP CONCRETE MASONRY LINTELS OVER OPENINGS 4'-0" WIDE OR LESS, OR AS INDICATED ON DRAWINGS. GROUT MASONRY LINTELS SOLID AND REINFORCE W/ 2-#5 BARS (BOTTOM). MAINTAIN MINIMUM 8 INCH BEARING ON EACH SIDE OF OPENING. SOLID GROUT WALL FOR BEARING LENGTH AND REINFORCE W/ 2-#5 VERTICAL BARS FULL HEIGHT.
- ALL MASONRY BELOW GRADE SHALL BE GROUTED SOLID.
- UNLESS OTHERWISE NOTED, REINFORCE BOND BEAMS WITH 2-#5 BARS. REFER TO ARCHITECTURAL DRAWING FOR WALL SECTIONS.
- USE 'ACME SHIELD' INTEGRAL WATER REPELLENT FOR ALL CONCRETE MASONRY AND MORTAR.
- C.M.U. - PROVIDE BULLNOSE CORNERS AT ALL INTERIOR EXPOSED CORNERS.
- INSTALL CONTROL JOINTS AT THE FOLLOWING MAX. SPACING, UNLESS OTHERWISE INDICATED ON DRAWINGS: EXT. WALLS - 20 FT. O.C. AND WITHIN 24" ON ONE SIDE OF EA. INTERIOR AND EXTERIOR CORNER. DO NOT CONTINUE HORIZ. JOINT REINFORCING THROUGH CONTROL JOINTS.
- REQUIRED SHOP DRAWING SUBMITTALS: SUBMIT PRODUCT CUT - SHEETS FOR THE FOLLOWING ITEMS BEING PROVIDED: CMU, REINFORCEMENT, AND MORTAR.

## WOOD CONSTRUCTION NOTES

- WOOD CONSTRUCTION SHALL COMPLY WITH AITC - TIMBER CONSTRUCTION MANUAL (5TH EDITION), AND AF&PA NDS-2005 - NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION.
- WOOD TRUSSES SHALL BE Laterally BRaced WITH VERTICAL X-BRACING AS SHOWN ON THE PLANS. X-BRACING SHALL BE APPLIED AT APPROXIMATELY 45 DEGREES AND CROSS AT LEAST THREE TRUSSES. PROVIDE CONTINUOUS 2X4 TOP AND BOTTOM CHORD STRUTS AT BRACING LINES.
- TRUSS BRIDGING SHALL BE REQUIRED TO PREVENT ROTATIONAL AND MINOR AXIS BENDING EXCEPT WHERE SHEATHING IS DIRECTLY ATTACHED TO THE FRAMING. THE INSTALLING CONTRACTOR IS RESPONSIBLE FOR PROVIDING ANY BRACING, BRIDGING, ETC. THAT MAY BE REQUIRED FOR STABILITY OF THE FRAMING UNTIL ALL PERMANENT FRAMING AND FINISHES ARE IN PLACE.
- WOOD TRUSSES SHALL MEET THE FOLLOWING REQUIREMENTS:
  - TRUSSES SHALL BE DESIGNED AND FABRICATED IN CONFORMANCE WITH THE REQUIREMENTS SET FORTH IN THE LATEST APPROVED EDITION OF ANSITPI 1-1995 - NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION.
  - TRUSS MANUFACTURER SHALL SUBMIT 3 SETS OF ERECTION PLANS AND DETAIL DRAWINGS OF EACH UNIQUE TRUSS TYPE FOR SER REVIEW. DRAWINGS SHALL BE SEALED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF MICHIGAN.
  - ROOF TRUSSES SHALL BE CONFIGURED AS SHOWN ON THE STRUCTURAL AND ARCHITECTURAL DRAWINGS AND SHALL COMPLY WITH THE DESIGN CRITERIA AS DEFINED ON THIS SHEET. ROOF TRUSSES SHALL BE SPACED AT 16 INCHES ON CENTER. MAXIMUM.
  - TRUSS DESIGN SHALL ACCOUNT FOR ALL POTENTIAL LOAD COMBINATIONS AND DISTRIBUTIONS AS REQUIRED BY THE GOVERNING CODES.
- REFER TO ARCHITECTURAL DRAWING FOR PLAN DIMENSIONS OF WALLS, SECTIONS, BUILDING ELEVATIONS AND BUILDING CROSS SECTIONS.
- NAIL ALL MULTIPLE PLY BEAMS AND HEADERS TOGETHER WITH (2) ROWS OF 16D NAILS AT 12" O.C. FROM EACH SIDE.
- PROVIDE GALVANIZED STEEL PANEL CLIPS AT EDGE CONDITIONS FOR ROOF SHEATHING.
- NAIL 3/4" ROOF AND FLOOR SHEATHING WITH 10D NAILS. PROVIDE NAILS AT 6" O.C. AT ALL PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.
- USE SIMPSON STRONG-TIE CONNECTORS OR APPROVED SUBSTITUTE FOR CONNECTIONS OF TRUSS TO TRUSS, TRUSS TO BEAM AND BEAM TO BEAM. CONNECTORS SHALL BE RATED TO EQUAL OR EXCEED LOAD REACTIONS SHOWN ON SHOP DRAWINGS. SUBMIT CATALOG INFORMATION FOR SER REVIEW.
- CONNECT BOTTOM CHORD OF ROOF TRUSSES TO WALL TOP PLATES AND GLULAM BEAMS WITH SIMPSON H1 TIE CONNECTOR UNLESS NOTED OTHERWISE. USE TIE CONNECTOR FOR MULTIPLE PLY TRUSSES.
- 2X SILL NAILERS SHALL BE CONNECTED TO MASONRY WALLS WITH SIMPSON MAB23 MUDSILL ANCHORS AT A MAXIMUM SPACING OF 32 INCHES ON CENTER.
- ROOF TRUSS VERTICAL X-BRACING SHALL BE 16 GAGE SIMPSON TYPE WB OR APPROVED SUBSTITUTE.
- PROVIDE SIMPSON "TB" BRIDGING FOR TRUSSES AT EAVE LOCATIONS WHERE THE BEARING HEIGHT EXCEEDS 8 INCHES IN DEPTH.
- PREFABRICATE "LADDER" ROOF OVERHANGS AT GABLE ENDS USING 2X6 FRAMING AT 24" O.C. CANTILEVER OVER END WALL AND SECURE TO ROOF TRUSS AND ROOF SHEATHING.
- SAWN LUMBER SHALL BE SPRUCE-PINE-FIR NO. 2 OR BETTER. OTHER WOOD SPECIES THAT PERMIT HIGHER ALLOWABLE STRESSES CAN BE USED.
- 2X10 RIM BOARDS SHALL BE CONNECTED TO BEAM NAILERS WITH SIMPSON A23 ANGLES AT 24" ON CENTER MAXIMUM SPACING.
- ALL LUMBER THAT COMES IN CONTACT WITH CMU OR CONCRETE SHALL BE PRESERVATIVE TREATED "WOLMANIZED" OR EQUAL.
- BOLTS USED IN KNEE BRACING AND COLUMN SUPPORT POST CONNECTIONS SHALL CONFORM TO ANSIA/SME STANDARD B18.2.1 "SQUARE AND HEX BOLTS AND SCREWS". PROVIDE WASHERS AND NUTS IN CONFORMANCE W/ NDS REQUIREMENTS.
- NAILS USED IN CROSS BRACING CONNECTIONS SHALL BE LOW CARBON STEEL AND CONFORM TO ASTM F1667.
- ALL FRAMING SHALL BE PLUMB AND TRUE TO LINE AND LEVEL.
- INTERIOR DOOR HEADERS SHALL BE (2) PLY 2X6 FOR 2X4 STUD WALLS AND (3) PLY 2X6 FOR 2X6 STUD WALLS

## REINFORCED CONCRETE AND FOUNDATION NOTES

- CONCRETE CONSTRUCTION SHALL COMPLY WITH ACI 301-16 - SPECIFICATIONS FOR STRUCTURAL CONCRETE, ACI 318-14 - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY, AND ACI 302.1R-15 - GUIDE TO CONCRETE FLOOR AND SLAB CONSTRUCTION.
- REINFORCING STEEL SHALL BE DETAILED, FABRICATED AND PLACED IN COMPLIANCE WITH ACI 315-99 - DETAILS AND DETAILING OF CONCRETE REINFORCEMENT, AND THE CRSI - MANUAL OF STANDARD PRACTICE (28TH EDITION). SUBMIT REINFORCING STEEL SHOP DRAWINGS FOR THE ENGINEER'S REVIEW. SUBMITTAL SHALL INCLUDE TWO (2) BLACKLINES (MINIMUM).
- CONCRETE USED IN SLAB ON GROUND SHALL BE NORMAL WEIGHT CONCRETE AND DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS. CEMENT SHALL COMPLY WITH ASTM C150, TYPE I. MINIMUM CEMENT CONTENT SHALL BE 611 POUNDS PER CUBIC YARD.
- CONCRETE USED IN BUILDING FOUNDATIONS, AND ALL OTHER CONCRETE UNLESS NOTED OTHERWISE, SHALL BE NORMAL WEIGHT CONCRETE AND DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. CEMENT SHALL COMPLY WITH ASTM C150, TYPE I. MINIMUM CEMENT CONTENT SHALL BE 517 POUNDS PER CUBIC YARD.
- SUBMIT CONCRETE MIX DESIGNS FOR EACH CONCRETE MIX FOR THE ENGINEER'S REVIEW. SUBMITTAL SHALL INCLUDE, AT A MINIMUM, MIX PROPORTIONS, CEMENT TYPE AND SOURCE, AGGREGATE GRADATIONS AND SOURCE, AGGREGATE ASR COMPATIBILITY TEST RESULTS, ADMIXTURE CATALOG INFORMATION, CYLINDER STRENGTH TEST RESULTS ON SPECIMENS FOR IDENTICAL MIX DESIGN, OR OTHER PROOF OF STRENGTH PER ACI 301.
- CONCRETE AGGREGATES SHALL COMPLY WITH ASTM C33 AND SHALL BE FREE OF CLAY, LOAM, LUMPS OR OTHER DELETERIOUS SUBSTANCES.
- REINFORCING SHALL BE DEFORMED BARS CONFORMING TO ASTM A615 OR ASTM A616 (GRADE 60) AND SHALL HAVE A MINIMUM YIELD STRENGTH OF 60 KSI.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185, BE FURNISHED IN FLAT SHEETS, AND HAVE MINIMUM SIDE AND END LAP OF 8 INCHES.
- EXTERIOR CONCRETE, PERIMETER FOUNDATIONS AND INTERIOR CONCRETE SUBJECTED TO FREEZE/THAW CYCLES SHALL BE AIR ENTRAINED WITH 6% AVERAGE AIR CONTENT WITH A 1% TOLERANCE. AIR ENTRAINMENT SHALL COMPLY WITH ASTM C260.
- REINFORCING SHALL HAVE EITHER TENSION EMBEDMENT OR TENSION CLASS "B" LAP SPLICE UNLESS OTHERWISE NOTED.
- PROVIDE HORIZONTAL BENT BARS AT CORNERS AND INTERSECTIONS OF CONCRETE WALLS, TRENCH FOOTINGS AND STRIP FOOTINGS USING THE SAME SIZE AND SPACING AS FOR THE HORIZONTAL REINFORCING DETAILED UNLESS OTHERWISE NOTED.
- PROVIDE SMOOTH FORMED FINISH ON EXPOSED CONCRETE WALLS AND FOUNDATIONS.
- PROVIDE 3/4" X 3/4" BEVELED EDGES AT CORNERS OF EXPOSED CONCRETE MEMBERS, UNLESS NOTED OTHERWISE.
- CONSTRUCTION JOINTS SHALL HAVE A FORMED KEY CENTERED ON MEMBER. WHERE THE SIZE OF KEY IS NOT SHOWN ON THE DRAWINGS, THE KEY SHALL BE ONE FOURTH OF THE CROSS SECTION MEMBER AND MINIMUM 1 1/2 INCHES INTO THE FIRST FOUR OF CONCRETE.
- DO NOT PROCEED WITH DETAILING, FABRICATION, OR CONSTRUCTION OF ANY WORK CONNECTED WITH OR DEPENDENT ON EQUIPMENT FURNISHED BY OWNER OR OTHER CONTRACTORS UNTIL DIMENSIONS AND DETAILS ARE VERIFIED WITH CERTIFIED OR APPROVED EQUIPMENT DRAWINGS.
- BEFORE PLACING CONCRETE, REFER TO OTHER TRADE DRAWINGS AND COORDINATE THE LOCATION AND SIZE OF ITEMS SUCH AS OPENINGS, SLEEVES, EQUIPMENT PADS, PIPING, CONDUIT, DRAINS, DEPRESSED FLOORS, DOOR HOLDDOWNS IN GRADE WALLS, EMBEDDED ITEMS, ETC.
- DRILL-IN ANCHOR BOLTS SHALL BE HVA ADHESIVE ANCHORING SYSTEM AS MANUFACTURED BY HILTI. ANCHOR BOLTS SHALL BE 304 STAINLESS STEEL.
- NON-SHRINK GROUT SHALL BE SURE GRIP HIGH PERFORMANCE GROUT, OR APPROVED EQUAL, AS MANUFACTURED BY DAYTON SUPERIOR CORPORATION.
- CONCRETE CONSTRUCTION SHALL INCLUDE PROVISIONS FOR COLD WEATHER CONCRETING, IN COMPLIANCE WITH ACI 308R-10 - GUIDE TO COLD WEATHER CONCRETING, AND PROVISIONS FOR HOT WEATHER CONCRETING, IN COMPLIANCE WITH ACI 305R-10 - GUIDE TO HOT WEATHER CONCRETING.
- CONCRETE FORMS SHALL REMAIN IN PLACE A MIN. OF 48 HOURS OR UNTIL THE CONCRETE HAS ATTAINED 75 PERCENT OF ITS DESIGN STRENGTH.
- CONCRETE SHALL ATTAIN ITS 28 DAY DESIGN STRENGTH BEFORE COMMENCING WITH BACK FILLING OPERATIONS.
- CONTROL OR CONSTRUCTION JOINTS, REQUIRED BY THE CONTRACTOR, IN ADDITION TO THE JOINTS SHOWN ON THE DRAWINGS, SHALL BE SUBJECT TO THE REVIEW OF THE ENGINEER. THE CONTRACTOR SHALL SUBMIT A PLAN OF THE PROPOSED JOINTING BEFORE PROCEEDING WITH THE AFFECTED WORK.
- PLACE TWO ADDITIONAL #5 BARS AROUND ALL OPENINGS LARGER THAN ONE FOOT SQUARE OR DIAMETER. EXTEND BARS A MINIMUM 24 INCHES BEYOND OPENINGS, UNLESS OTHERWISE NOTED.
- SIDES OF FOUNDATIONS SHALL BE FORMED.
- STRUCTURE BACKFILL SHALL CONSIST OF CLEAN, WELL GRADED GRANULAR SOILS, FREE OF ORGANIC MATERIAL, SILT AND CLAY. PLACE BACKFILL IN LAYERS, NOT MORE THAN 6 INCHES IN DEPTH, AND COMPACTED TO NOT LESS THAN 95 PERCENT OF THE MAXIMUM UNIT WEIGHT, AS DETERMINED BY THE MODIFIED PROCTOR METHOD (ASTM D1557) AND VERIFIED BY A GEOTECHNICAL ENGINEER REGISTERED IN THE STATE OF MICHIGAN. PLACE BACKFILL ALTERNATING EACH FACE OF WALLS TO BALANCE PRESSURE TO WALLS.
- FOUNDATIONS SHALL BEAR ON UNDISTURBED VIRGIN SOIL, FREE OF VEGETATION AND ORGANIC MATERIALS, WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 2500 PSF, VERIFIED BY A GEOTECHNICAL ENGINEER REGISTERED IN THE STATE OF MICHIGAN.
- SAMPLES FOR STRENGTH TESTS OF EACH CLASS OF CONCRETE PLACED EACH DAY SHALL BE TAKEN BY A QUALIFIED TESTING AGENCY NOT LESS THAN ONCE PER DAY, NOR LESS THAN ONCE FOR EACH 100 CUBIC YARDS OF CONCRETE. SAMPLE CONCRETE IN ACCORDANCE WITH ASTM C172. PERFORM THE FOLLOWING TESTS IN ACCORDANCE WITH THE INDICATED STANDARD:
  - SLUMP - ASTM C143
  - AIR CONTENT - ASTM C173
  - COMPRESSIVE STRENGTH - ASTM C39 (WITH 1 CYLINDER AT 7 DAYS, 2 CYLINDERS AT 28 DAYS AND 1 CYLINDER HELD IN RESERVE)

## SPECIAL INSPECTION NOTES

- SPECIAL STRUCTURAL INSPECTIONS SHALL COMPLY WITH CHAPTER 17 OF THE MICHIGAN BUILDING CODE.
- SPECIAL STRUCTURAL INSPECTION IS REQUIRED IN ADDITION TO ANY INSPECTIONS REQUIRED BY THE LOCAL BUILDING DEPARTMENT OR GOVERNING OFFICIAL.
- SPECIAL STRUCTURAL INSPECTIONS SHALL BE PERFORMED ON, BUT ARE NOT LIMITED TO, THE FOLLOWING ITEMS:
  - CONCRETE: PER SECTION 1705.3
    - DURING THE TAKING OF TEST SPECIMENS.
    - DURING THE PLACEMENT OF REINFORCED CONCRETE.
    - POSITION OF ALL REINFORCING STEEL, ANCHOR BOLTS, AND EMBED PLATES PRIOR TO AND DURING THE PLACEMENT OF THE CONCRETE.
    - ERECTION OF PRECAST CONCRETE MEMBERS.
  - STRUCTURAL MASONRY: PER SECTION 1705.4
    - SPECIAL INSPECTION SHALL BE PERFORMED ON ALL STRUCTURAL MASONRY IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 530.1.
    - DURING THE PREPARATION OF PRISMS.
    - DURING THE PLACEMENT OF MASONRY UNITS.
    - DURING THE PLACEMENT OF REINFORCING STEEL AND STEEL EMBEDS.
    - IMMEDIATELY PRIOR TO THE CLOSING OF ALL CLEANOUTS.
    - ALL CELLS TO BE GROUTED SHALL BE INSPECTED PRIOR TO GROUT PLACEMENT TO INSURE THE GROUT CELLS ARE FREE OF EXCESS MORTAR AND CONSTRUCTION DEBRIS.
  - EXPANSION, EPOXY AND ADHESIVE ANCHORS:
    - DURING THE PLACEMENT OF ALL ANCHORS.
    - ALL ANCHORS TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND APPLICABLE ICBO REPORTS.
  - SOILS: PER SECTION 1705.6
    - VERIFICATION OF ADEQUATE DESIGN BEARING CAPACITY.
    - DURING THE PLACEMENT OF COMPACTED FILL MATERIALS.
    - TESTING OF COMPACTED FILL MATERIALS.
  - WOOD LIGHT-FRAME CONSTRUCTION: PER SECTION 1705.11.1
    - FOR FIELD GLUING OPERATIONS OF ELEMENTS OF THE MAIN WINDFORCE-RESISTING SYSTEM
    - FOR NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF ELEMENTS OF THE MAIN WINDFORCE-RESISTING SYSTEM, INCLUDING TRUSSES, SHEAR WALLS, BRACES, DIAPHRAGMS, COLLECTORS (DRAG STRUTS) AND HOLDDOWNS.
  - DUTIES AND RESPONSIBILITIES OF THE SPECIAL STRUCTURAL INSPECTOR:
    - THE SPECIAL STRUCTURAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE TO THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.
    - THE SPECIAL STRUCTURAL INSPECTOR SHALL REPORT TO THE CONTRACTOR UPON ARRIVING ON SITE TO DETERMINE WHETHER ANY DESIGN TEAM COMMUNICATIONS TO THE CONTRACTOR AFFECT THE WORK TO BE REVIEWED. THE SPECIAL STRUCTURAL INSPECTOR SHALL LEAVE A COPY OF HIS REPORTS WITH THE CONTRACTOR UPON LEAVING SITE.
    - THE SPECIAL STRUCTURAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OR ARCHITECT OF RECORD, AND OTHER DESIGNATED PERSONS WITHIN 24 HOURS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. THEN, IF UNCORRECTED, TO THE PROPER DESIGN AUTHORITY AND TO THE BUILDING OFFICIAL.
    - THE SPECIAL STRUCTURAL INSPECTOR IS NOT AUTHORIZED TO APPROVE ANY CHANGES TO THE CONTRACT DOCUMENTS. ANY VARIATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR AND ENGINEER OR ARCHITECT OF RECORDS.
    - THE CONTRACTOR SHALL PROVIDE SAFE ACCESS TO ALL ITEMS REQUIRING SPECIAL STRUCTURAL INSPECTION. THIS SHALL INCLUDE, BUT IS NOT LIMITED TO, LADDERS, SCAFFOLDING, AND MAN LIFTS.
    - THE SPECIAL STRUCTURAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.



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1/16/2025	BID ISSUE
DATE	SUBMITTALS/REVISIONS

PROJECT NAME:

## LAKE FRONT PARK BUILDING RENOVATION

SHEET TITLE:

## GENERAL NOTES & DESIGN CRITERIA

CLIENT:

CITY OF GROSSE POINTE WOODS

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: LAD	CHECKED BY: KEZ	DATE: MAY 2024
SCALE: AS NOTED		



Know what's below. Call 72 hours before you dig.

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PROJECT NO.

0160-0479

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SHEET NO.

S011



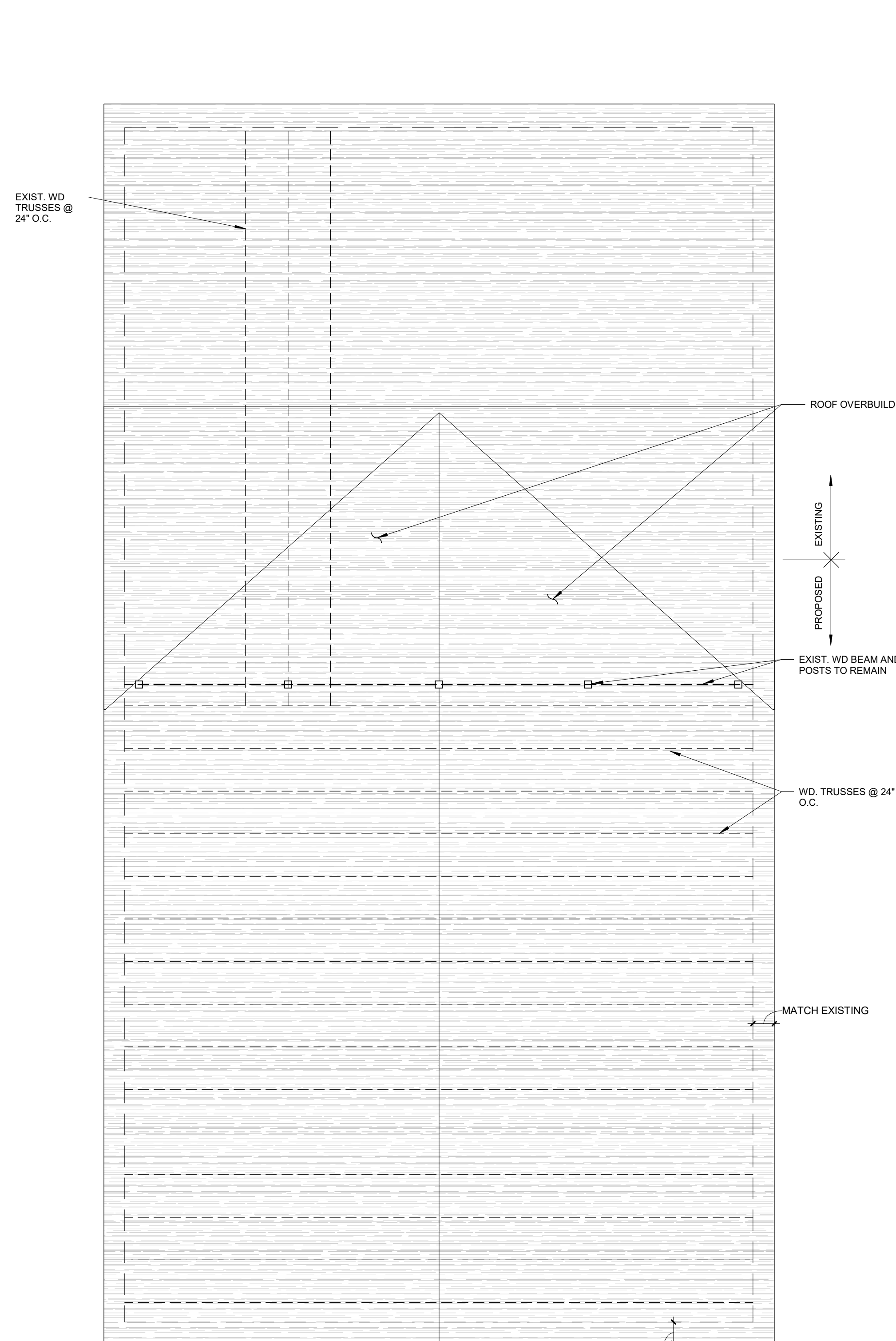
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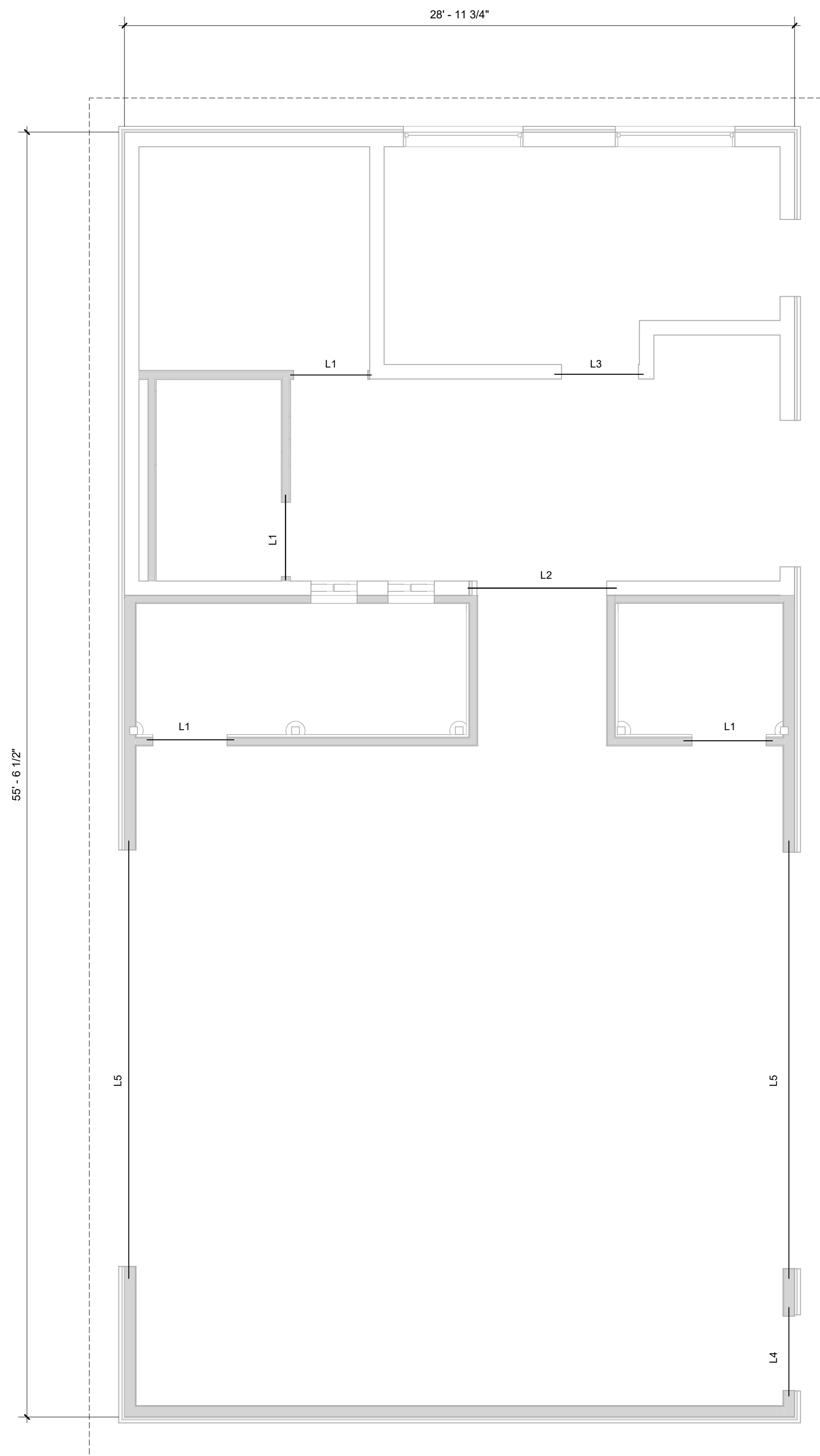
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### LINTEL SCHEDULE

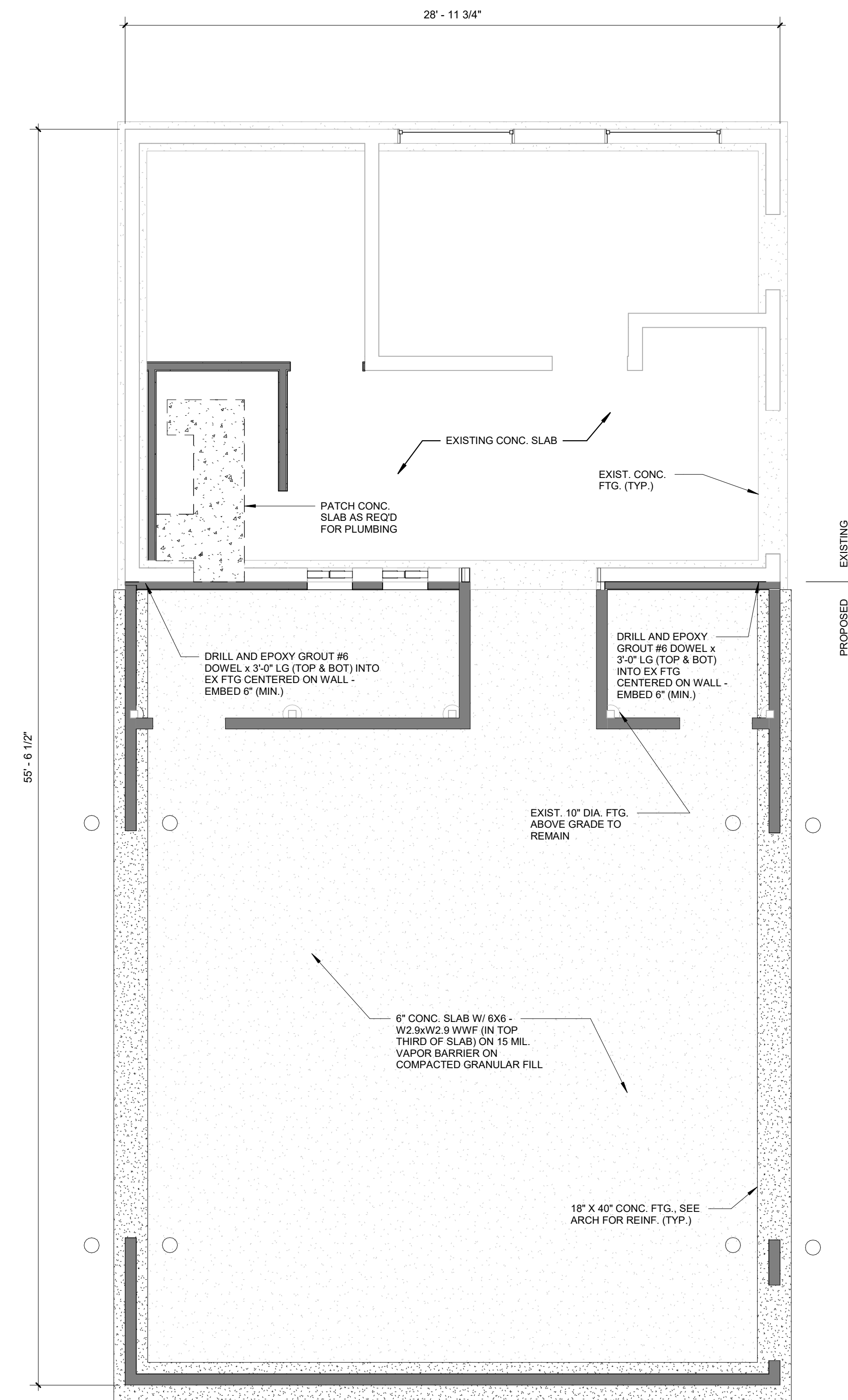
MARK	LINTELS	BEARING	REMARKS
L1	(2) 2x4	3" (MIN.)	
L2	16" CMU LINTEL W/ 2 - #5 BOTT BARS	8" (MIN.)	
L3	8" CMU LINTEL W/ 2 - #5 BOTT BARS	8" (MIN.)	
L4	(3) 2x6	3" (MIN.)	
L5	(3) 1.75x16 LVL	4 1/2 MIN.	2.0E, 2500Fb



**ROOF FRAMING PLAN**  
1/4" = 1'-0"  
NORTH



**LINTEL FLOOR PLAN**  
1/4" = 1'-0"  
NORTH



**FOUNDATION PLAN**  
1/4" = 1'-0"  
NORTH

1/16/2025	BID ISSUE
DATE	SUBMITTALS/REVISIONS
PROJECT NAME:	
<b>LAKE FRONT PARK BUILDING RENOVATION</b>	
SHEET TITLE:	
<b>FOUNDATION, LINTEL, AND ROOF FRAMING PLAN</b>	
CLIENT:	
<b>CITY OF GROSSE POINTE WOODS</b>	
<input type="checkbox"/> PRELIMINARY <input type="checkbox"/> CONSTRUCTION <input type="checkbox"/> RECORD	
DRAWN BY:	CHECKED BY:
LAD	KEZ
SCALE:	AS NOTED

1/16/2025

BID ISSUE

DATE

SUBMITTALS/REVISIONS

PROJECT NAME:

**LAKE FRONT PARK BUILDING RENOVATION**

SHEET TITLE:

**FOUNDATION, LINTEL, AND ROOF FRAMING PLAN**

CLIENT:

**CITY OF GROSSE POINTE WOODS**

PRELIMINARY     CONSTRUCTION     RECORD

DRAWN BY:

LAD

CHECKED BY:

KEZ

DATE:

MAY 2024

SCALE:

AS NOTED

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PROJECT NO. 0160-0479

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SHEET NO.

**S100**







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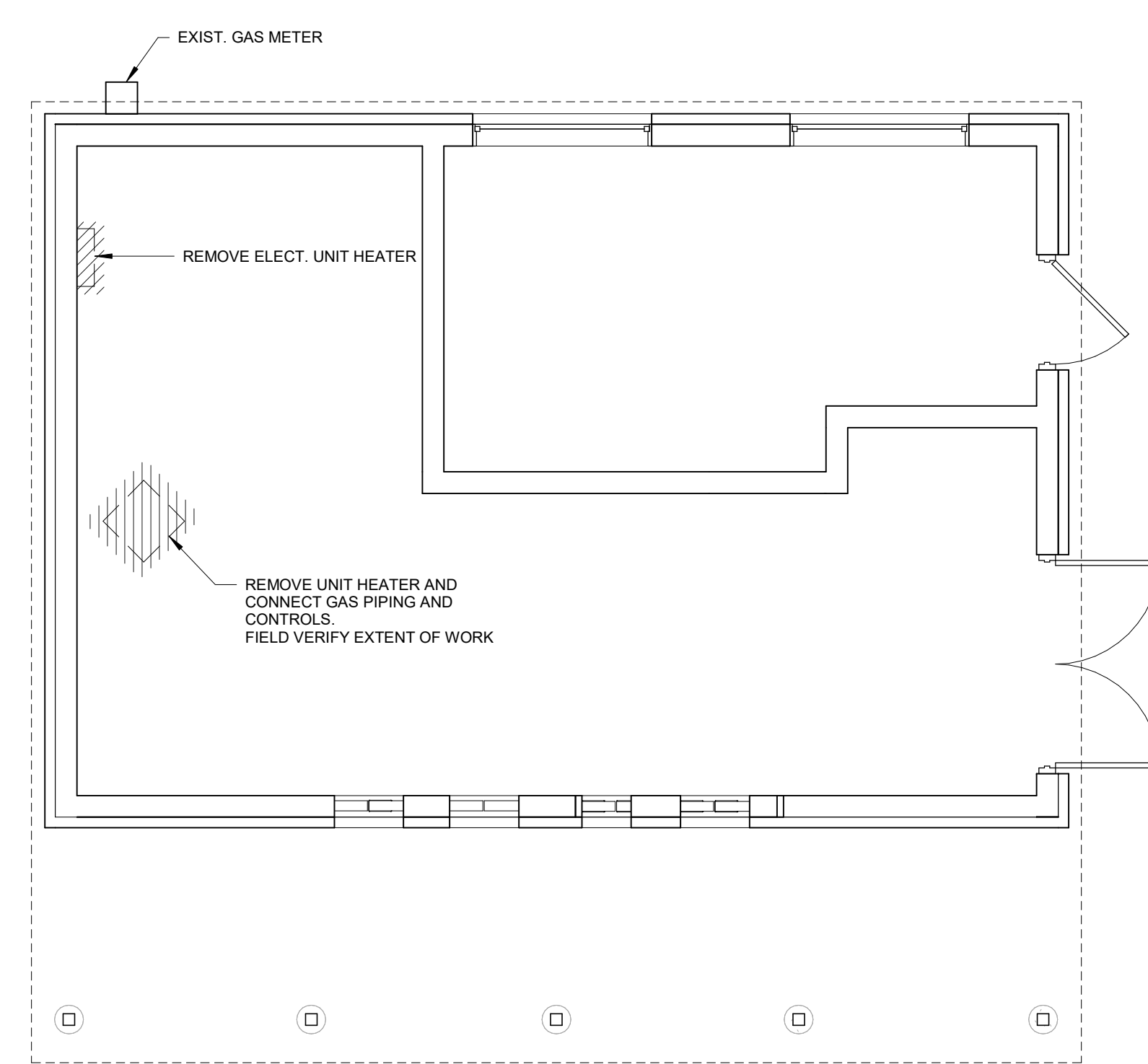
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### HVAC LEGEND:

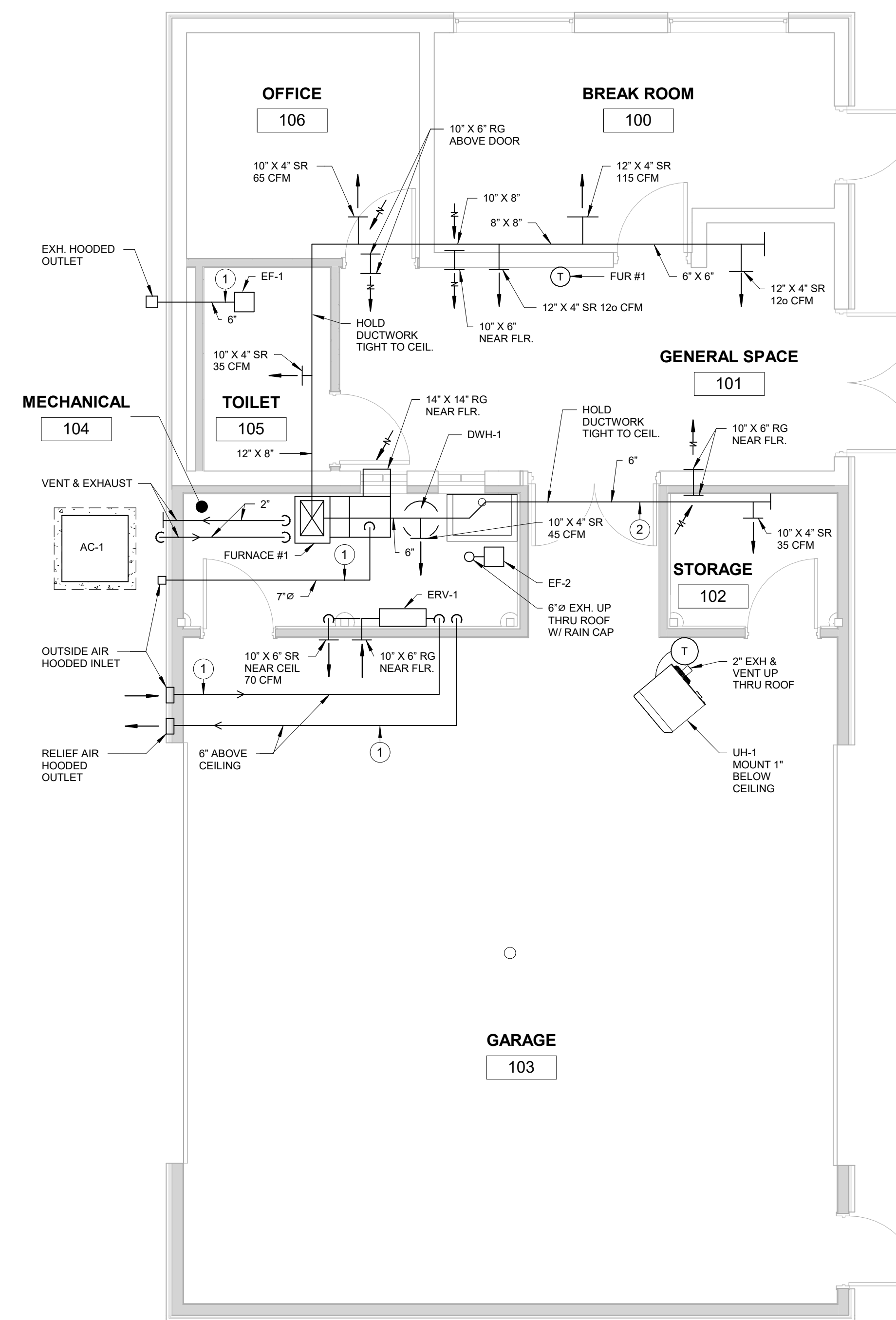
EF	EXHAUST FAN
HB	HOSE BIB
FD	FLOOR DRAIN
ERV	ENERGY RECOVERY VENTILATOR
RG	RETURN GRILLE
SR	SUPPLY AIR REGISTER
E.A.L.	EXHAUST AIR LOUVER
O.A.L.	OUTSIDE AIR LOUVER
EXH	EXHAUST
FUR	FUR-DOWN
UH	UNIT HEATER

### KEYED NOTES

- ① INSULATE OUTSIDE AIR RELIEF AIR AND EXHAUST AIR DUCTWORK WITH 2" FIBERGLASS DUCT WRAP.
- ② INSULATE SUPPLY AIR DUCT WITH 2" FIBERGLASS DUCT WRAP.



**FIRST FLOOR HVAC DEMOLITION PLAN**  
1/4" = 1'-0"  
NORTH



**FIRST FLOOR HVAC PLAN**  
1/4" = 1'-0"  
NORTH

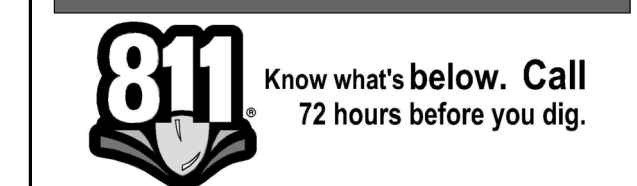
1/16/2025 BID ISSUE  
DATE SUBMITTALS/REVISIONS

PROJECT NAME:  
**LAKE FRONT PARK BUILDING RENOVATION**

SHEET TITLE:  
**FIRST FLOOR MECHANICAL PLAN**

CLIENT:  
**CITY OF GROSSE POINTE WOODS**

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: LAD	CHECKED BY: JRA	DATE: MAY 2024
SCALE: AS NOTED		



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PROJECT NO. 0160-0479

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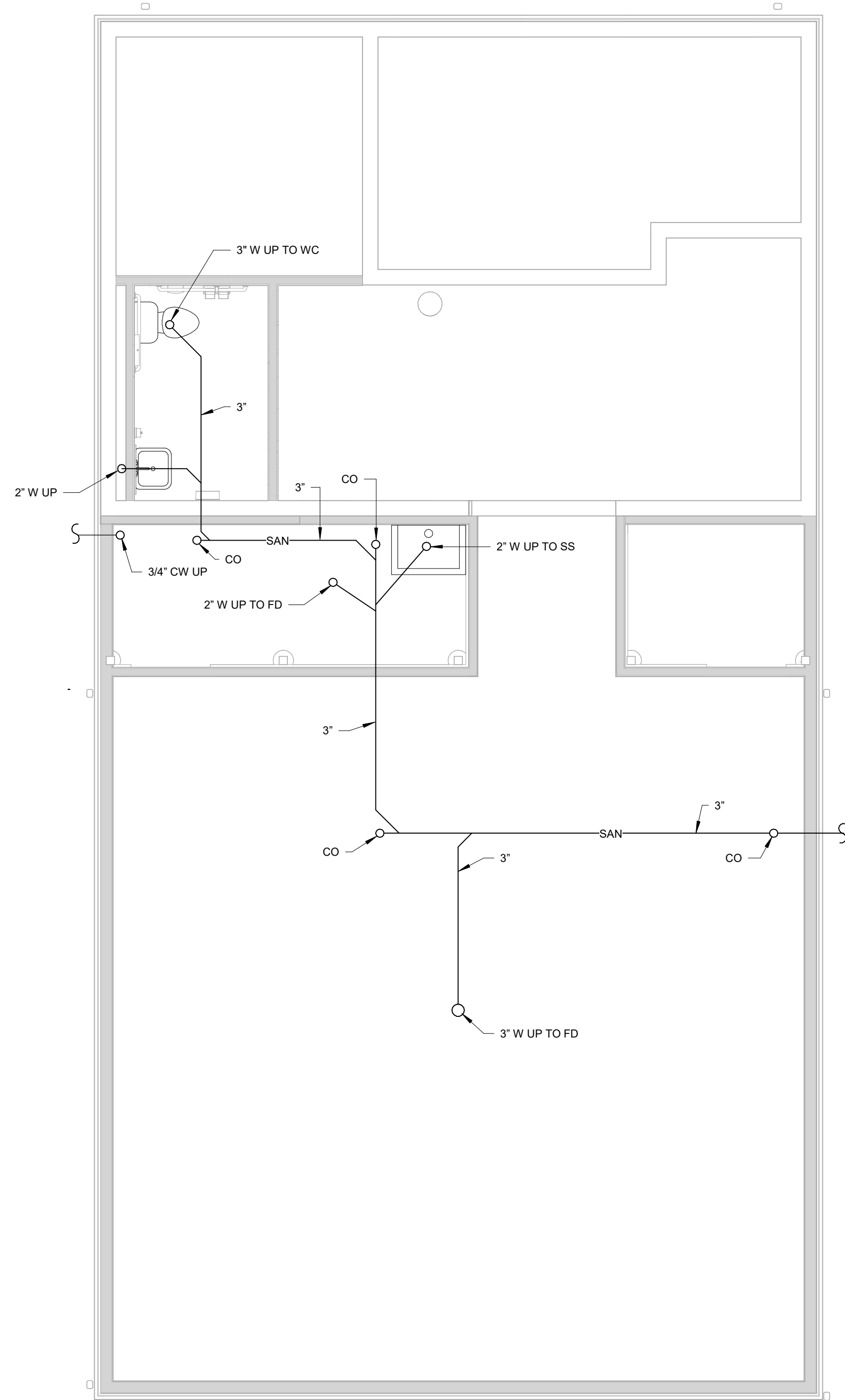
SHEET NO. **M101**



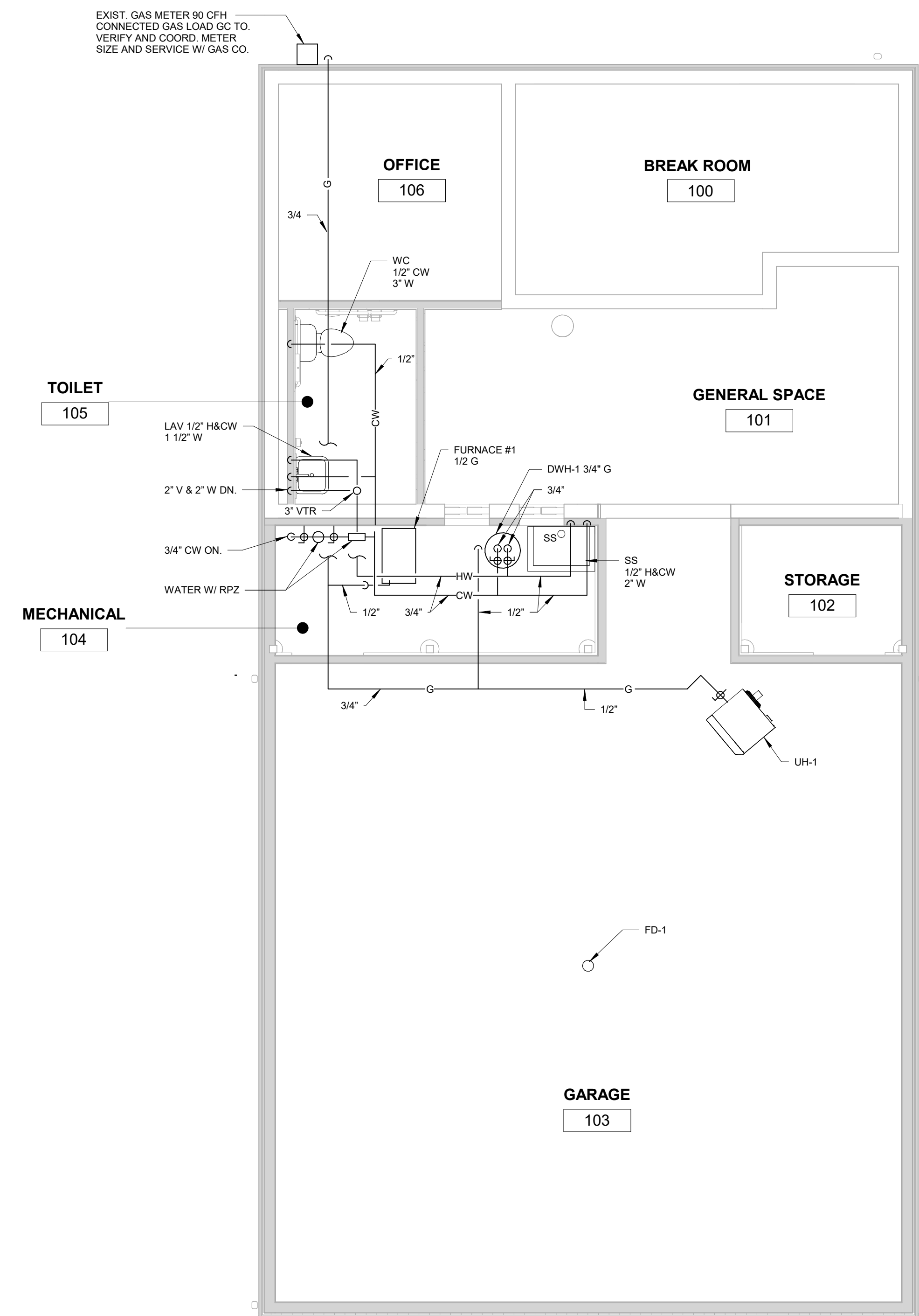
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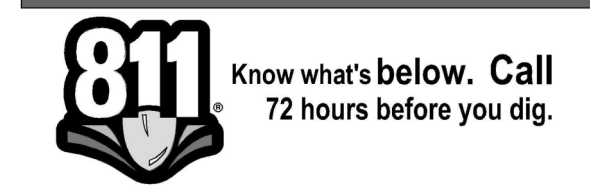


**UNDERGROUND PLUMBING PLAN**  
1/4" = 1'-0"  
NORTH



**FIRST FLOOR PLUMBING PLAN**  
1/4" = 1'-0"  
NORTH

1/16/2025	BID ISSUE
DATE	SUBMITTALS/REVISIONS
PROJECT NAME:	
<b>LAKE FRONT PARK BUILDING RENOVATION</b>	
SHEET TITLE:	
<b>UNDERGROUND AND FIRST FLOOR PLUMBING PLAN</b>	
CLIENT:	
<b>CITY OF GROSSE POINTE WOODS</b>	
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DRAWN BY:	CHECKED BY:
LAD	JRA
DATE:	MAY 2024
SCALE:	
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SHEET NO. **P101**

LUMINAIRE SCHEDULE					
FIXTURE SYMBOL	FIXTURE TAG	DESCRIPTION	MANUFACTURER(S)	LAMP SOURCE	WATTS
	(A)	2'x4' LOW PROFILE TROFFER RECESSED LED LUMINAIRE. A FULLY LUMINOUS APPEARANCE GLARE FREE. SUITABLE FOR RECESSED IN DRYWALL CEILING, REGRESSED ALUMINUM FRAME WITH SATIN WHITE LENS, 4000 LUMENS, ELECTRONIC DRIVER, 3500K, 120V OPERATION.	1. LITHONIA 2GTL SERIES CAT# 2GTL F 4 40L RW SWL LP835 EL7L DGA24 2. COOPER LIGHTING 3. COLUMBIA LIGHTING	LP350 80CRI 4000 LUMENS	38.0
	(B)	4' L X 3.4" W X 2.7" D LED LINEAR STRIP FIXTURE. ROLLED STEEL HOUSING, END CAPS, WHITE FINISH, FLAT DIFFUSED LENS, LED ELECTRONIC DRIVER 0-10V DIMMING DOWN TO 10%. 4000 LUMENS, 3500K, 80 CRI. CABLE HUNG, MVOLT OPERATION.	1. LITHONIA CLX L48 4000L SEF FDL MVOLT GZ10 40K 80CRI HC36 2. COOPER LIGHTING 3. COLUMBIA LIGHTING	LED 3500K 4000LM 80CRI	27.6W
	(C)	LOW PROFILE LINEAR WRAPAROUND LED FIXTURE. WITH DECORATIVE ENDCAPS AND FROSTED POLYCARBONATE DIFFUSER. WHITE FINISH, LED ELECTRONIC DRIVER 0-10V DIMMING DOWN TO 10%. SELECTABLE 4-6K LUMENS, 80 CRI. 120V OPERATION.	1. LITHONIA FML4W LED WRAP, CAT # FML4W AL06 SEF 840 MVOLT 2. COOPER LIGHTING 3. COLUMBIA LIGHTING	LED 4000K 4-6000LM 80CRI	50.0W
	(#E)	SAME AS TYPE # EXCEPT THIS FIXTURE TO BE PROVIDED WITH INTERNAL EMERGENCY BATTERY PACK. WIRE SUCH THAT IT OPERATES NORMALLY WITH SWITCH AND ACT AS EMERGENCY FIXTURE UPON LOSS OF NORMAL POWER.			
	(D)	10" ROUND- METAL SHADE, OUTDOOR BARN LIGHT SCOFF- GOOSE NECK ARM -WALL MOUNTED, BLACK FINISH, WITH LED BULB 120V OPERATION.	1. LORA 1 , CAT#ELOS23BL 2. ENGINEER APPROVED EQUAL	LED 4000K	26.0
	(X)	EXIT LIGHT EMERGENCY LIGHT SHALL BE UNIVERSAL MOUNT, DIECAST ALUMINUM, HIGH OUTPUT LED DIFFUSE LIGHT PANEL, RED LETTERS WITH MAINTENANCE FREE NICKEL CADMIUM BATTERY CAPABLE OF PROVIDING 90 MINUTE FULL LIGHT OPERATION.	1. LITEALARMS GRANDE SERIES CAT# 1 XDPC N W RW 2. LITHONIA CAT # LE S 1 W	120-277V	2.3
	(X1)	EMERGENCY LIGHT REMOTE HEAD TO BE CONNECTED TO EXIT SIGN WITH HIGH OUTPUT BATTERY..	1. LITEALARMS CAT # SAF2 LD1 B 6	120-277V	2.3

### LIGHTING SYMBOL LIST

SYMBOL	DESCRIPTION
	LIGHT FIXTURE - CEILING/GRID MOUNT
	LIGHT FIXTURE - INTERIOR WALL MOUNT LINEAR
	LIGHT FIXTURE - DOWNLIGHT WITH WALLWASH DIST.
	LIGHT FIXTURE - INTERIOR WALL SCOFF
	LIGHT FIXTURE - INTERIOR SURFACE MOUNT
	LIGHT FIXTURE - INTERIOR WALL MOUNTED
	LIGHT FIXTURE - INTERIOR PENDANT MOUNT
	LIGHT FIXTURE - INTERIOR PENDANT MOUNT CYLINDER
	TRACK AND TRACK MOUNTED LIGHT FIXTURES
	EXIT LIGHT - CEILING MOUNTED - ARROWS AS INDICATED ON PLAN (SHADED AREA INDICATES FACE(S) OF FIXTURE)
	EXIT LIGHT - WALL MOUNTED - ARROWS AS INDICATED ON PLAN (SHADED AREA INDICATES FACE(S) OF FIXTURE)
	EMERGENCY LIGHT FIXTURE - EMERGENCY BATTERY UNIT
	EMERGENCY LIGHT FIXTURE - BATTERY UNIT/EXIT SIGN
	LIGHT FIXTURE - EXTERIOR POLE MOUNT TYPE
	LIGHT FIXTURE - EXTERIOR WALL MOUNT TYPE
	LIGHT FIXTURE - EXTERIOR POST TOP TYPE
	LIGHT FIXTURE - EXTERIOR BOLLARD TYPE

NOTES:  
1. LIGHTING SYMBOLS AS INDICATED ON PLANS ARE NOT DRAWN TO SCALE UNLESS NOTED OTHERWISE.

### LIGHTING CONTROLS LEGEND

SYMBOL	DESCRIPTION
\$	SWITCH SINGLE POLE
\$o	OCCUPANCY SENSOR SWITCH
\$v	VACANCY SENSOR SWITCH
\$o	LOW VOLTAGE DIMMER SWITCH
\$vo	VACANCY DIMMER SENSOR SWITCH
CS	CEILING MOUNTED OCCUPANCY SENSOR
VS	CEILING MOUNTED VACANCY SENSOR
\$s	SWITCH THREE-WAY
\$k	SINGLE POLE KEY SWITCH

### POWER SYMBOL LIST

SYMBOL	DESCRIPTION
•	CONDUIT DOWN
o	CONDUIT UP
	CONTACTOR
	DISCONNECT SWITCH - NON FUSED
	DISCONNECT SWITCH - FUSED
	DISCONNECT SWITCH - COMB. MOTOR STARTER
	ELECTRICAL PANEL - 208/240 VOLTS
	ELECTRICAL PANEL - 480 VOLTS
	GROUNDING ROD
	GROUND
	GROUNDING BAR
	JUNCTION BOX
	JUNCTION BOX WITH HARDWIRED CONNECTION
	METER
	MOTOR - SINGLE PHASE
	MOTOR - THREE PHASE
	MOTOR RATED SWITCH
	POWER RECEPTACLE - SIMPLEX TYPE
	POWER RECEPTACLE - DUPLEX TYPE
	POWER RECEPTACLE - DUPLEX 6" ABOVE COUNTER
	POWER RECEPTACLE - USB/DUPLEX COMBO. DEVICE
	POWER RECEPTACLE - QUADRUPLIX TYPE
	POWER RECEPTACLE - RECESSED FLOOR TYPE
	POWER AND DATA RECEPTACLES - RECESSED FLOOR TYPE
	POWER RECEPTACLE - SPECIALTY TYPE
	TRANSFORMER (REFER TO SCHEDULES FOR INFO)
	VARIABLE SPEED DRIVE

NOTES:  
1. ALL DEVICE RATINGS/SIZES SHALL BE COORDINATED WITH PLANS AND SCHEDULES.

### AUXILIARY SYST. SYMBOL LIST

SYMBOL	DESCRIPTION
	CAMERA
	MONITOR LOCATION- DETAIL SHEET E-500
	CARD READER
	COMMUNICATIONS DEVICE - 6" ABOVE COUNTER
	COMMUNICATIONS DEVICE - FLOOR
	COMMUNICATIONS DEVICE - WALL
	MAGNETIC DOOR HOLDER
	PUSH BUTTON
	SPEAKER
	WALL CLOCK - SINGLE FACE
	WALL CLOCK AND SPEAKER UNIT

NOTES:  
1. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR BOX AND CONDUIT FOR ALL DEVICES INDICATED.  
2. LOW VOLTAGE CONTRACTOR SHALL PROVIDE EXACT SPECIFICATIONS AND LOCATIONS OF ALL DEVICES.

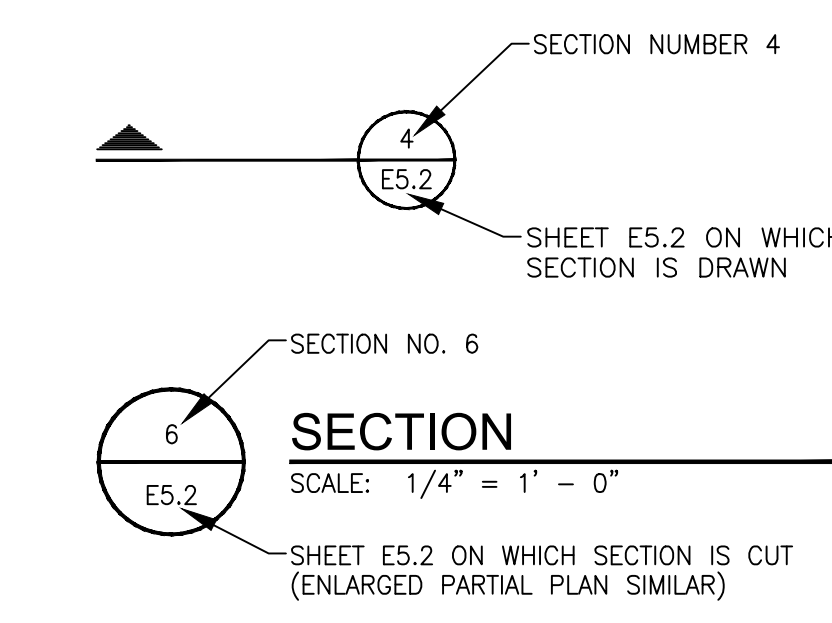
### ELECTRICAL ABBREVIATIONS

ABBREV.	DESCRIPTION
AF	ABOVE FINISHED FLOOR
A	AMPERE
AF	AMPERE FUSE/AMPERE FRAME
AWG	AMERICAN WIRE GAUGE
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AIC	AVAILABLE INTERRUPTING CURRENT (AMPS)
C	CONDUIT OR CEILING MOUNTED
CB	CIRCUIT BREAKER
CU	COPPER
CT	CURRENT TRANSFORMER
DIA	DIAMETER
DISC	DISCONNECT
EMT	ELECTRICAL METALLIC TUBING
EW	ELECTRIC WATER COOLER
EPO	EMERGENCY POWER OFF
(E)	EXISTING ELECTRICAL EQUIPMENT OR WORK
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPS
F	FUSE
G/GRD	GROUND
GFCI/GFI	GROUND FAULT CIRCUIT INTERRUPTER
HOA	HAND-OFF-AUTO
HP	HORSEPOWER
IG	ISOLATED GROUND
KV	KILOVOLT
KVA	KILOVOLT AMPERE
KW	KILOWATT
KWH	KILOWATT HOUR
LP	LIGHTING PANEL
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANEL
MLO	MAIN LUG ONLY
MAX	MAXIMUM
MIN	MINIMUM
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
N/NEU	NEUTRAL
NF	NON-FUSIBLE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NIC	NOT IN CONTRACT
OF/CI	OWNER FURNISHED / CONTRACTOR INSTALLED
OF/OI	OWNER FURNISHED / OWNER INSTALLED
PH. OR Ø	PHASE
P	POLE
PF	POWER FACTOR
PVC	POLYVINYL CHLORIDE (PLASTIC)
(R)	RELOCATED EXISTING ELECTRICAL EQUIPMENT
(RR)	REMOVE AND REINSTALL
RMC	RIGID METALLIC CONDUIT
RP	RECEPTACLE PANEL
SPEC/SPECS	SPECIFICATIONS
TBB	TELEPHONE BACKBOARD
TYP.	TYPICAL
UC	UNDER COUNTER
UL	UNDERWRITERS LABORATORIES
UPS	UNINTERRUPTIBLE POWER SUPPLY
USB	UNIVERSAL SERIAL BUS
V	VOLT
VA	VOLT AMPERE
W	WATT
WG	WIRE GUARD
WP	WEATHERPROOF
XFMR	TRANSFORMER

DRAWING INDEX	
SHEET #	DESCRIPTION
E100	ELECTRICAL GENERAL INFORMATION
E101	POWER AND LIGHTING PLAN
E102	ONE-LINE DIAGRAM AND SCHEDULE
ED101	ELECTRICAL DEMOLITION PLAN

### DRAWING NOTATION

SYMBOL	DESCRIPTION
	LIGHTING FIXTURE TAG
	CONSTRUCTION KEY NOTE NUMBER 1
	DEMOLITION KEY NOTE NUMBER 1
	FEEDER SIZE TAG (REFER TO FEEDER SCHEDULE ON THIS SHEET)
	EQUIPMENT DESIGNATION, (I.E. EXHAUST FAN NUMBER 1)
	EXISTING DEVICES OR EQUIPMENT
	NEW OR MODIFIED DEVICES OR EQUIPMENT
	NEW OR MODIFIED UNDERGROUND WIRING
	EXISTING SYSTEM COMPONENT TO BE REMOVED



### APPLICABLE CODES AND REGULATIONS

YEAR	CODE
2015	MICHIGAN BUILDING CODE
2015	MICHIGAN ENERGY CODE
2023	MICHIGAN ELECTRICAL CODE RULES, PART 8
2023	NATIONAL ELECTRICAL CODE (NFPA 70)
2013	NFPA 20
2013	NFPA 72
2012	NFPA 101
2013	NFPA 110
2009	ICC A117.1 ACCESSIBLE AND USABLE BUILDINGS & FACILITIES



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DATE	BID ISSUE
1/16/2025	
DATE	SUBMITTALS/REVISIONS

### LAKE FRONT PARK BUILDING RENOVATION

### ELECTRICAL GENERAL INFORMATION

CLIENT:  
CITY OF GROSSE POINTE WOODS

PRELIMINARY	CONSTRUCTION	RECORD
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DRAWN BY: FA	CHECKED BY: JRA	DATE: DECEMBER 2024
SCALE: AS NOTED		

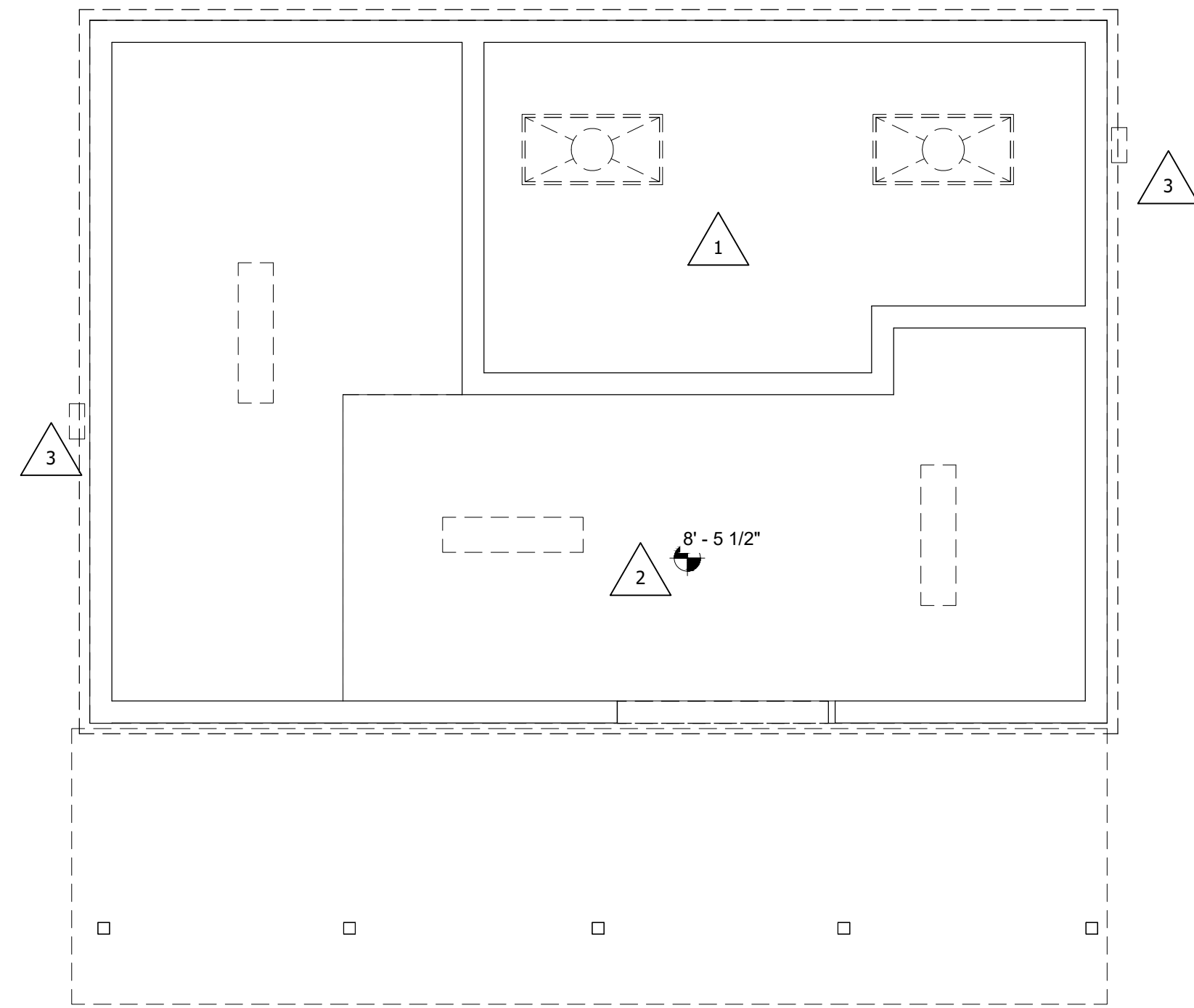


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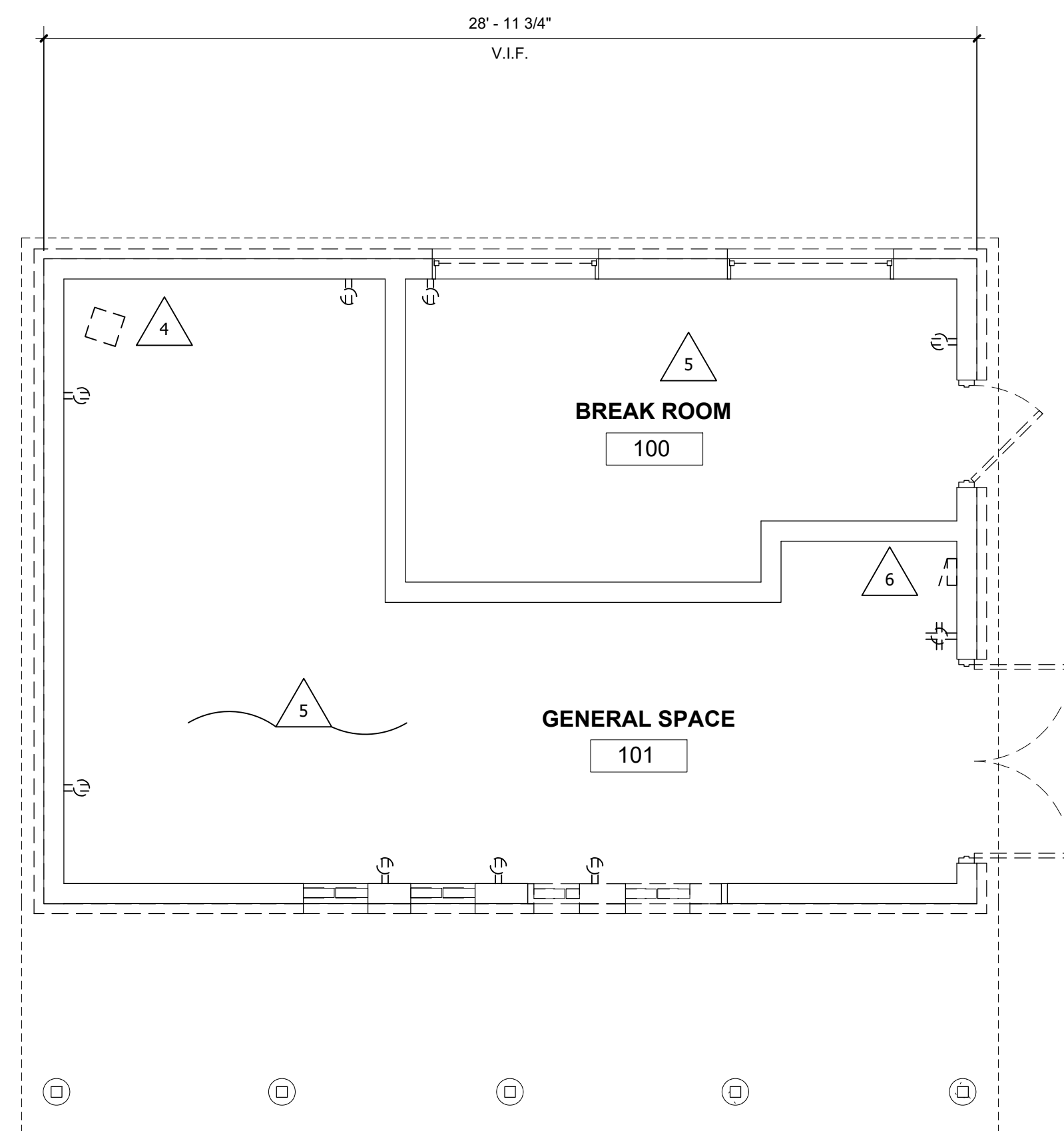
PROJECT NO.  
0160-0479

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SHEET NO.  
E100



**DEMOLITION LIGHTING PLAN**  
1/4" = 1'-0"  
NORTH



**DEMOLITION POWER PLAN**  
1/4" = 1'-0"  
NORTH

GENERAL DEMOLITION NOTES	
A	THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF WORK TO BE PERFORMED. THE EXACT EXTENT OF DEMOLITION SHALL BE DETERMINED BY THE NEW WORK.
B	ANY INTERRUPTIONS 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'S OPERATION.
C	PRIOR TO COMMENCEMENT OF WORK, CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING SITE CONDITIONS, SYSTEMS, AND UTILITIES. NOTIFY DESIGN PROFESSIONAL OF ANY INTERFERENCES OR DISCREPANCIES.
D	ALL ITEMS INDICATED WITH CROSS-HATCHING SHALL BE REMOVED COMPLETE WITH ALL RELATED ITEMS INCLUDING HANGARS, SUPPORTS, INSULATION, CONTROLS, ETC. CAP ALL OPEN ENDED PIPES AND DUCTS.
E	THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED. ALL ITEMS REMOVED SHALL BE LEGALLY DISPOSED OF. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXISTING RELOCATED AND OWNER PROVIDED EQUIPMENT.
F	VERIFY DEPTH, SIZE, LOCATIONS, AND CONDITIONS OF EXISTING UTILITIES IN THE FIELD. INCLUDING POINTS OF CONNECTION PRIOR TO STARTING ANY WORK.
G	ALL ITEMS ON DEMOLITION PLAN SHALL BE CONSIDERED EXISTING UNLESS OTHERWISE NOTED. ALL WORK INDICATED ON PLANS HAS BEEN LOCATED PER EXISTING DRAWINGS AND/OR FIELD OBSERVATION AND REQUIRES FIELD VERIFICATION.
H	ALL EXISTING WORK TO REMAIN SHALL BE PROTECTED FROM DAMAGE. WHERE DUCT WORK PIPE INSULATION HAS BEEN DAMAGED DURING DEMOLITION, THE CONTRACTOR SHALL REPAIR INSULATION AS REQUIRED TO MATCH EXISTING.

DEMOLITION KEYED NOTES	
1	EXISTING 2'x4' RECESSED FLUORESCENT LIGHT FIXTURES AND SWITCHING TO BE REMOVED. REMOVE CONDUIT AND WIRING BACK TO JUNCTION BOX, EXISTING CIRCUIT TO REMAIN AND BE RE-USED FOR NEW LIGHTING.
2	EXISTING 1'x4' SURFACE FLUORESCENT STRIP LIGHT FIXTURES AND SWITCHING TO BE REMOVED. REMOVE CONDUIT AND WIRING BACK TO JUNCTION BOX, EXISTING CIRCUIT TO REMAIN AND BE RE-USED FOR NEW LIGHTING.
3	EXISTING SURFACE MOUNTED BUILDING LIGHT TO BE REMOVED AND REPLACED WITH NEW TYPE D FIXTURES AS SHOWN ON SHEET E101. REFER TO NEW LIGHTING PLAN. EXTEND EXISTING CIRCUIT TO ALL NEW BUILDING LIGHTS.
4	EXISTING HEATER TO BE REMOVED COMPLETE, REMOVE CONDUIT AND WIRING BACK TO SOURCE PANEL.
5	EXISTING RECEPTACLES TO BE REMOVED COMPLETE, REMOVE CONDUIT AND WIRING BACK TO SOURCE PANEL.
6	EXISTING PANELBOARD 100A 120/240V 1Ø TO BE REMOVED AND REPLACED IN PLACE. REFER TO ONE-LINE DIAGRAM AND PANEL SCHEDULE FOR ADDITIONAL INFORMATION.

1/16/2025	BID ISSUE
DATE	SUBMITTALS/REVISIONS

PROJECT NAME:  
**LAKE FRONT PARK BUILDING RENOVATION**

SHEET TITLE:  
**ELECTRICAL PLAN DEMOLITION**

CLIENT:  
**CITY OF GROSSE POINTE WOODS**

PRELIMINARY  
  CONSTRUCTION  
  RECORD

DRAWN BY: FA    CHECKED BY: JRA    DATE: DECEMBER 2024

SCALE: AS NOTED



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### ELECTRICAL GENERAL NOTES

A	THESE DRAWINGS ARE DIAGRAMMATIC AND REPRESENT THE GENERAL EXTENT OF THE WORK TO BE PERFORMED. PROVIDE AND EXECUTE ALL HVAC SYSTEMS PER ENGINEER'S SPECIFICATION, AND LOCAL APPLICABLE CODES INCLUDING AMENDMENTS, BULLETINS, ETC. AS WELL AS THE STANDARDS OF INSTALLATION AND EQUIPMENT ESTABLISHED FOR THE BUILDINGS, AND REQUIREMENTS OF THE OWNER.
B	EXCEPT FOR CHANGES AS MAY BE SPECIFICALLY APPROVED BY THE ENGINEER OF RECORD, IN ACCORDANCE WITH ALTERNATES OF OPTIONS AS STATED HEREINAFTER, ALL WORK MUST BE IN FULL ACCORDANCE WITH THE INTENT OF THE PLANS AND SPECIFICATIONS. SYSTEMS ARE TO BE COMPLETE, EFFICIENT, AND SATISFACTORY OPERATION WHEN PROJECT IS DELIVERED TO THE OWNER.
D	CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVAL FROM GOVERNING AUTHORITIES AND FILE NECESSARY FORMS, PAY ALL INSPECTION FEES.
E	ELECTRICAL CONTRACTOR SHALL COMPLY WITH THE LATEST NATIONAL ELECTRICAL CODE, LIFE SAFETY CODE AND APPLICABLE STATE AND LOCAL CODES AND ORDINANCES.
F	ELECTRICAL EQUIPMENT AND WIRING SHALL BE NEW AND SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED.
G	WIRING SHALL BE IN CONDUIT. CONDUIT SHALL BE 3/4" C ONDUIT MINIMUM. CONDUITS IN FINISHED AREAS SHALL BE CONCEALED.
H	NEW WIRES SHALL BE TYPE THHN. MINIMUM SIZE SHALL BE #12 AWG, UNLESS OTHERWISE NOTED. FINAL CONNECTIONS TO EQUIPMENT, FURNISHED AND INSTALLED BY OTHERS, SHALL BE PROVIDED BY THIS CONTRACTOR.

### NEW WORK KEYED NOTES

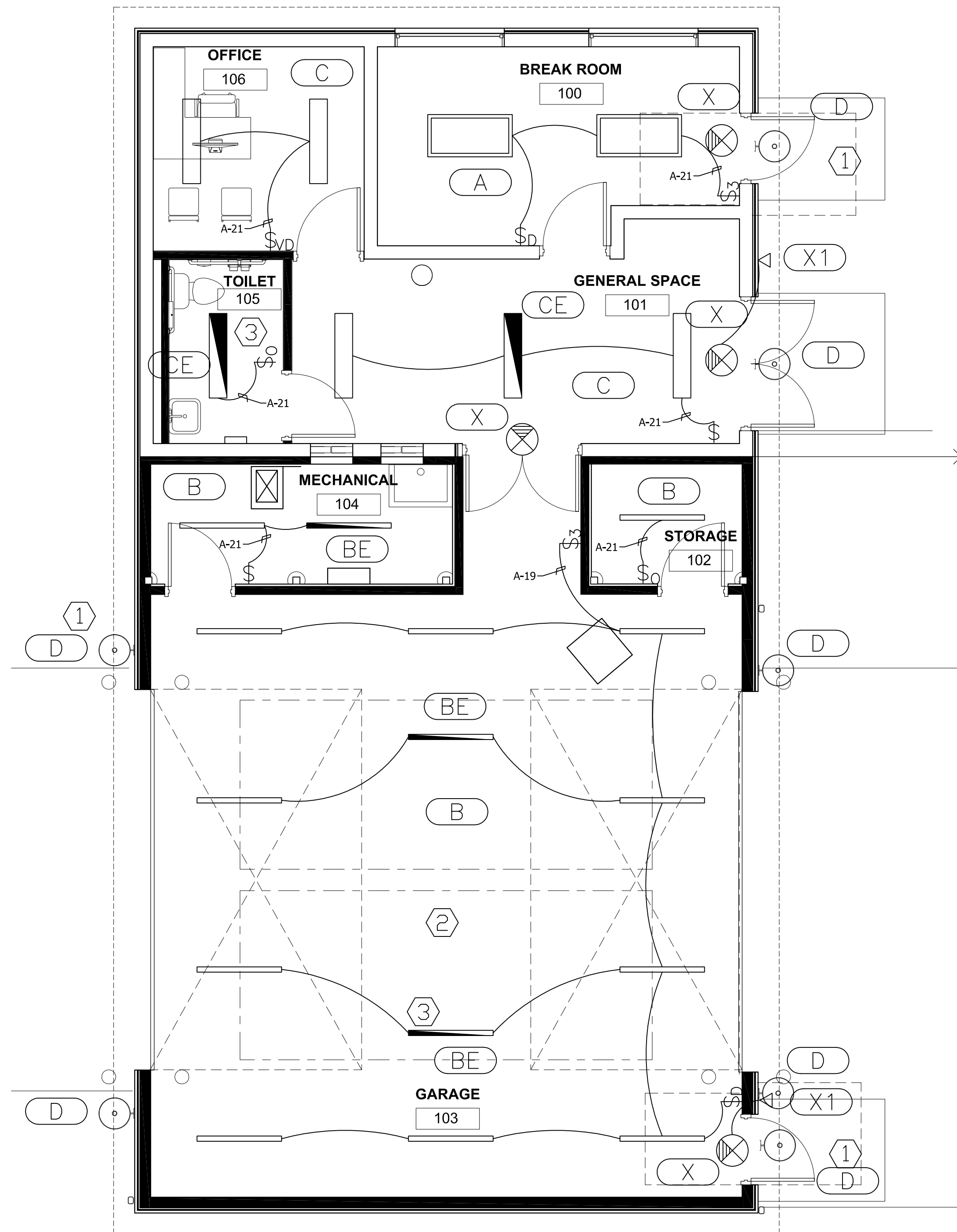
#	
1	CONNECT EXHAUST FAN EF-1 TO LIGHTING CIRCUIT AND LIGHTING SWITCH IN THIS ROOM.
2	CONNECT EXHAUST FAN EF-2 TO RUN CONTINUOUSLY, CONNECT TO RECEPTACLE CIRCUIT A-7. PROVIDE AN OVERRIDE SWITCH, LOCATED ON WALL NEAR FAN.

### LIGHTING GENERAL NOTES

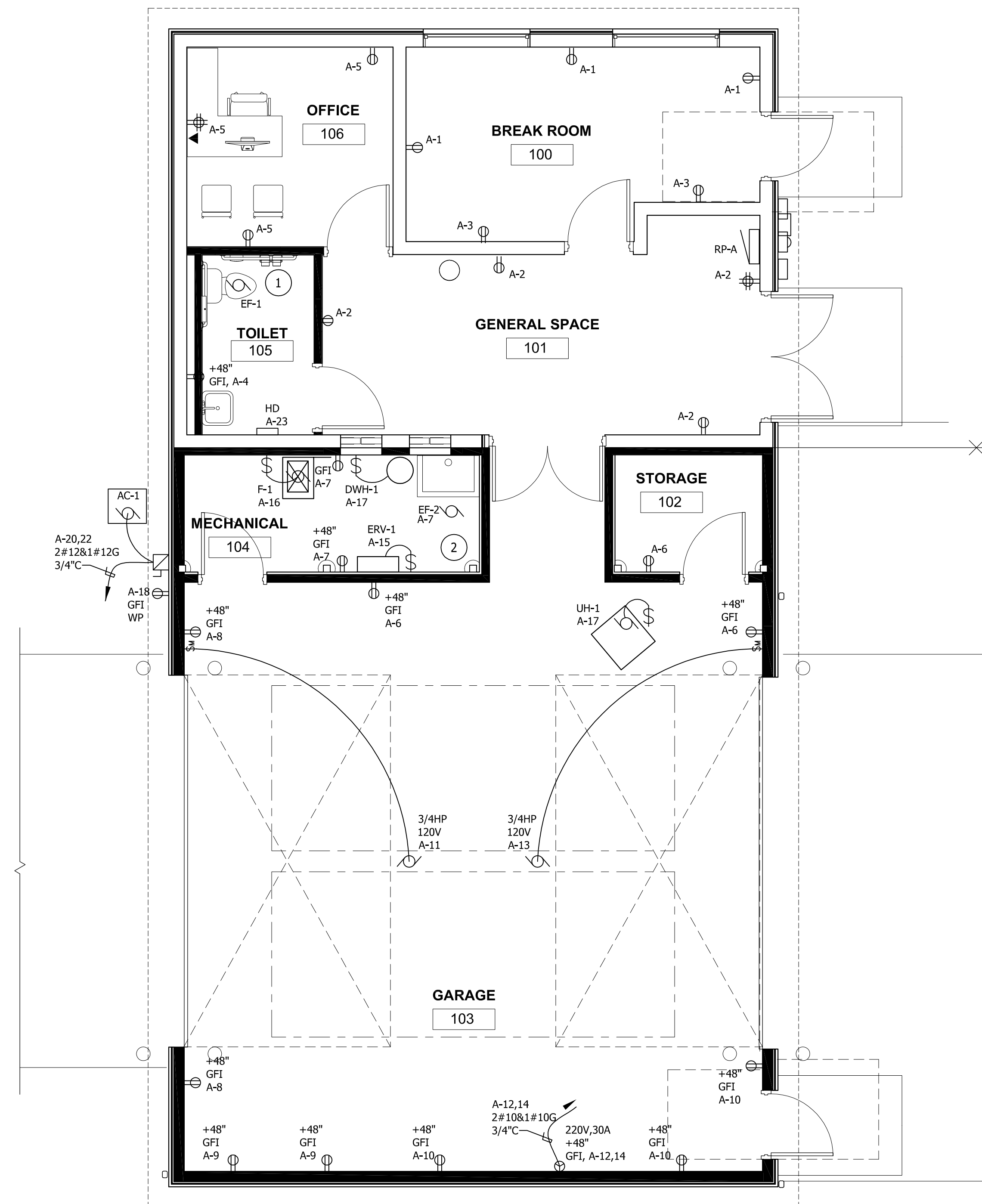
A	REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL LIGHTING FIXTURES UNLESS OTHERWISE NOTED.
B	SEE LIGHT FIXTURE SCHEDULE SHEET E100. ALL ELECTRICAL DEVICES ON THIS SHEET SHALL BE NEW UNLESS OTHERWISE NOTED.
C	ELECTRICAL CONTRACTOR SHALL COMPLY WITH THE LATEST NATIONAL ELECTRICAL CODE, LIFE SAFETY CODE AND APPLICABLE STATE AND LOCAL CODES AND ORDINANCES.
D	ELECTRICAL EQUIPMENT AND WIRING SHALL BE NEW AND SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED.

### NEW WORK KEYED NOTES

#	
1	ALL BUILDING MOUNTED LIGHT FIXTURES TO BE CONNECTED TOGETHER TO CIRCUIT SHOWN, CONTROL THROUGH BUILDING MOUNTED PHOTOCELL DIRECTED NORTH AND TIME CLOCK LOCATED IN UTILITY ROOM. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHT.
2	FIXTURES TO BE PENDANT MOUNTED ABOVE DOOR OPENING, AND CONTROLLED THROUGH 3 WAY SWITCHES, AND CEILING MOUNTED VACANCY SENSOR AND DIMMER WALL SWITCHES AS SHOWN. VERIFY EXACT MOUNTING HEIGHT IN THE FIELD.
3	ALL HALF HASHED FIXTURES TO HAVE INTERNAL BACKUP EMERGENCY BATTERY. FIXTURE TO BE WIRED SUCH THAT BATTERY COMES ON UPON LOSS OF POWER AND TRANSFERS TO GENERATOR POWER ONCE GENERATOR IS ON. RETURN TO NORMAL POWER ONCE POWER IS RESTORED.



**PROPOSED LIGHTING PLAN**  
1/4" = 1'-0"  
NORTH



**PROPOSED POWER PLAN**  
1/4" = 1'-0"  
NORTH

1/16/2025 DATE  
BID ISSUE SUBMITTALS/REVISIONS

PROJECT NAME:

**LAKE FRONT PARK BUILDING RENOVATION**

SHEET TITLE:

### ELECTRICAL PLANS

CLIENT:  
**CITY OF GROSSE POINTE WOODS**

PRELIMINARY CONSTRUCTION RECORD

DRAWN BY: FA CHECKED BY: JRA DATE: DECEMBER 2024

SCALE: AS NOTED

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PROJECT NO. 0160-0479

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SHEET NO.

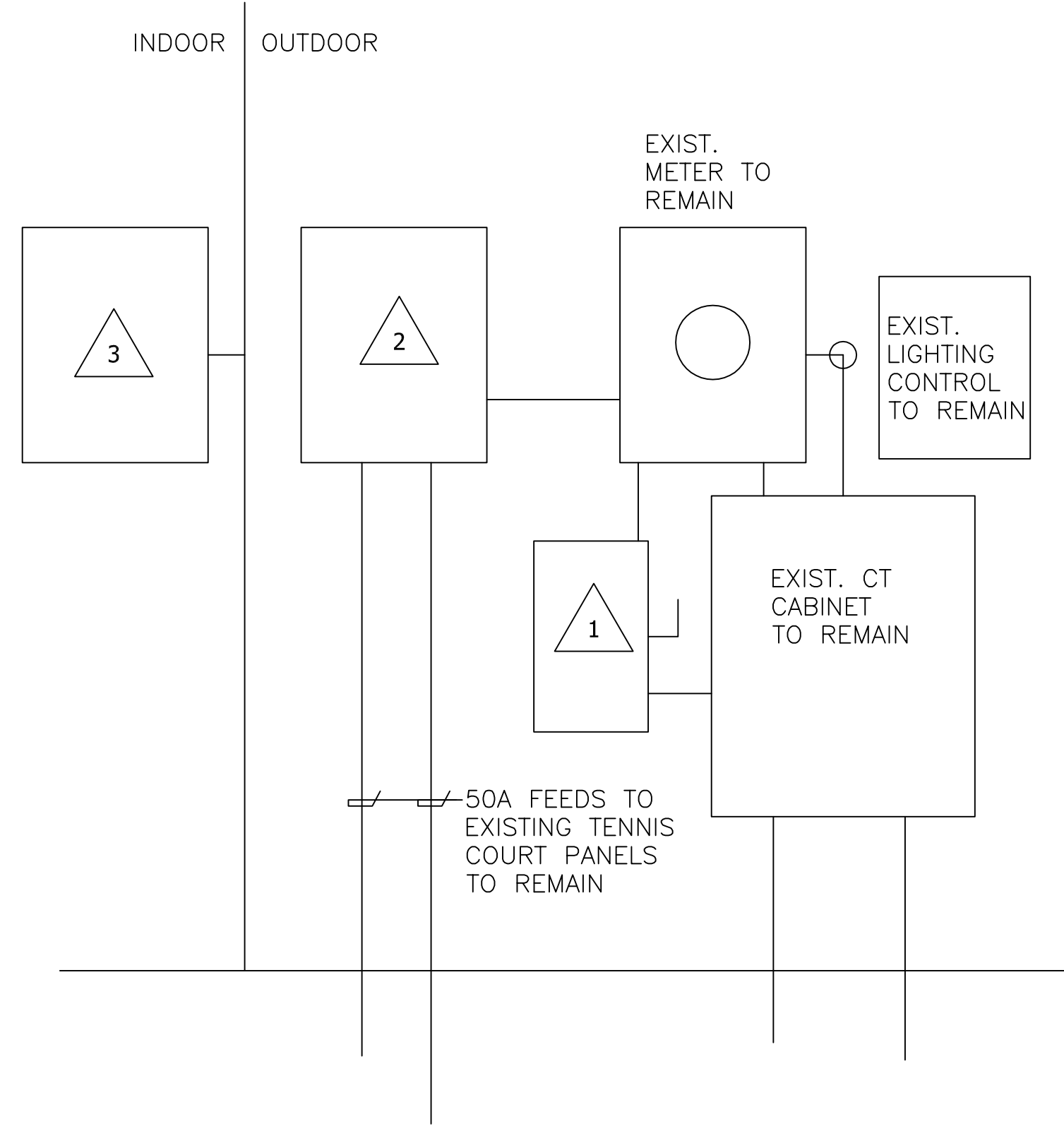
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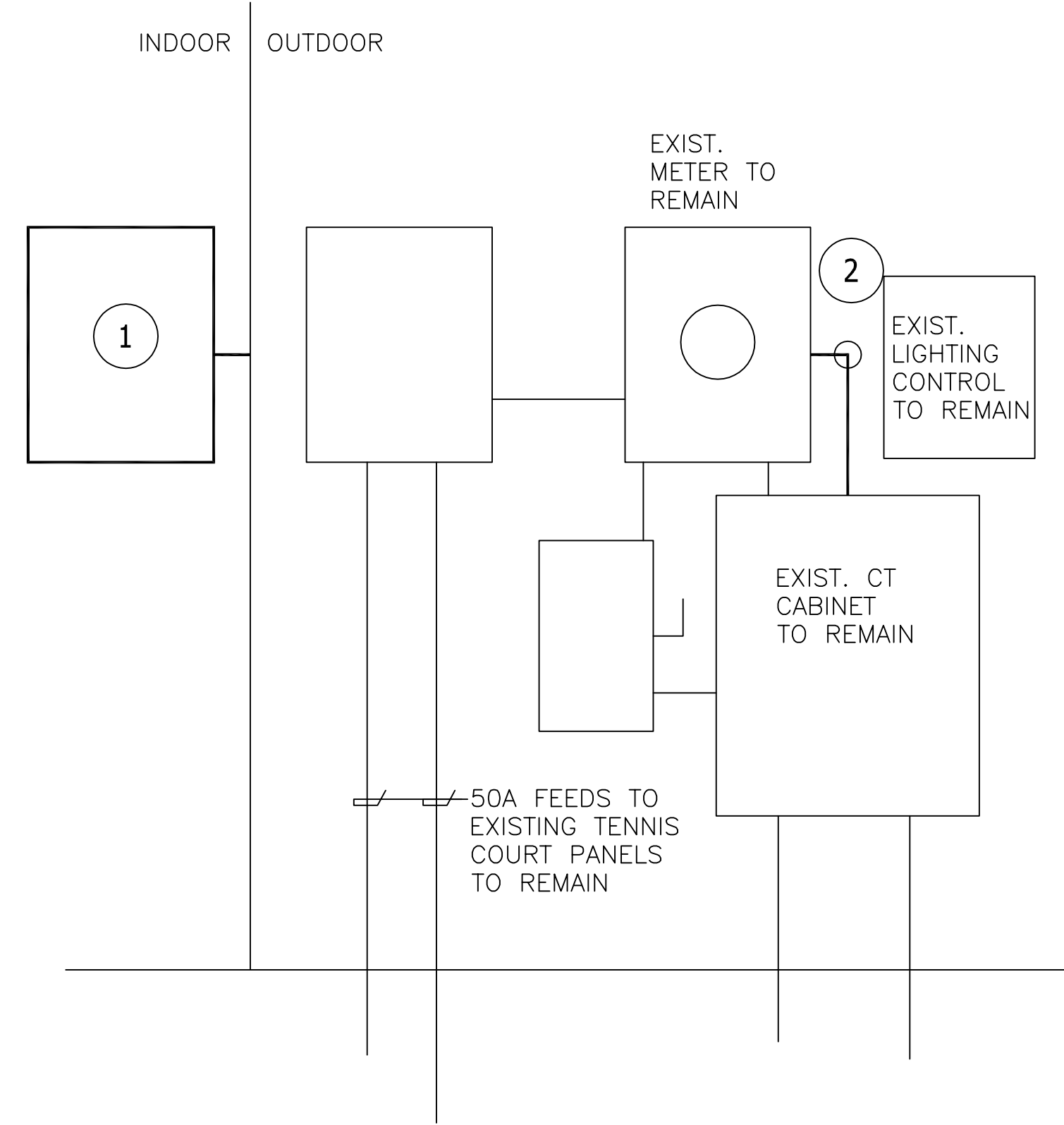


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**PARTIAL ONE-LINE DIAGRAM-DEMOLITION**  
NO SCALE



**PARTIAL ONE-LINE DIAGRAM-NEW WORK**  
NO SCALE

DEMOLITION KEYED NOTES	
1	EXISTING 100A 240V 1Ø 2P DISCONNECT SWITCH TO REMAIN
2	EXISTING OUTDOOR PANELBOARD TO REMAIN. INCLUDES (2) 50A 2P BREAKERS FEEDING TENNIS COURTS PANELS TO REMAIN.
3	EXISTING SURFACE MOUNTED INDOOR NEMA 1 PANELBOARD TO BE REMOVED AND REPLACED WITH NEW PANELBOARD IN PLACE. REPLACE EXISTING FEEDER. SEE NEW PANEL SCHEDULE, THIS SHEET.

NEW WORK KEYED NOTES	
1	NEW PANELBOARD TO REPLACE EXISTING IN PLACE. 100A 240V 1Ø 3W 30CIR. SEE NEW PANEL SCHEDULE THIS SHEET.
2	PROVIDE NEW FEEDER WIRING IN EXISTING CONDUIT. RUN 3#3&1#6G.

PANEL NAME: RP-A		MAIN: 100A		L-L VOLTAGE: 240											
LOCATION: GENERAL SPACE 101		BUSSING: 100A		L-N VOLTAGE: 120											
SOURCE: REFER TO ONE-LINE DIAGRAM		GROUND BUS: STANDARD		PHASE: 1											
FEEDER SIZE: REFER TO ONE-LINE DIAGRAM		MOUNTING: SURFACE		WIRE: 3											
		NEUTRAL: 100%		MIN SC INTERRUPT RATING: 10KA											
LOAD DESCRIPTION	LIGHTING LOAD	RECEPTACLE LOAD	CONTINUOUS LOAD	NON-CONTINUOUS LOAD	OC	CKT	L1	L2	CKT	OC	NON-CONTINUOUS LOAD	CONTINUOUS LOAD	RECEPTACLE LOAD	LIGHTING LOAD	LOAD DESCRIPTION
BREAK ROOM 100		540				20	1		2	20			900		GENERAL SPACE 101
BREAK ROOM 100		360				20	3		4	20			180		TOILET 105
OFFICE 103		720				20	5		6	20			900		GARAGE 103 GEN. RECEPT
MECHANICAL RM 104 RECEPT		360				20	7		8	20			720		GARAGE 103 GEN. RECEPT
GARAGE 103 GEN. RECEPT		720				20	9		10	20			720		GARAGE 103 GEN. RECEPT
GARAGE 103 DOOR OPENER		1600				25	11		12				1000		240V GEN. RECEPT GARAGE 103
GARAGE 103 DOOR OPENER		1600				25	13		14	30			1000		240V GEN. RECEPT GARAGE 103
EV-1 MECH RM 104				840		15	15		16	20	1000				FURNACE F-1 MECH RM 104
DWH-1, UH-1 MECH RM 103, 104				400		15	17		18	20			180		OUTDOOR RECEPT
LIGHTING RM 103	750					15	19		20	20	1000				AC-1 COND.
LIGHTING RM 101-106	500					15	21		22	20	1000				
HAND DRYER				1200		20	23		24	20					SPARE
SPARE						20	25		26	20					SPARE
SPARE						20	27		28	20					SPARE
SPARE						20	29		30	20					SPARE
CONNECTED LOAD		DEMAND FACTOR			DEMAND LOAD			RECEPTACLE DEMAND FACTOR PER ARTICLE 220.44 OF THE NEC							
LOAD TYPE	L1	L2	TOTAL	L1	L2	TOTAL	L1	L2	TOTAL	L1	L2	TOTAL			
LIGHTING LOAD (VA)	500	750	1250	1.00	500	1250									
RECEPTACLE LOAD (VA)	7280	4220	11500	1.00 (FIRST 10KVA)	6330	3670	10000	0.50 (> 10KVA)	475	750					
NON-CONTINUOUS (VA)	0	0	0	1.00	0	0									
CONTINUOUS (VA)	1400	4040	5440	0.60	840	2424	3264								
TOTAL LOAD (KVA)	9.18	9.01	19.69	125% OF LIGHT/CONT AND RECEPT (<10KVA) LOAD PLUS OTHER LOAD	8.15	7.12	15.26								
TOTAL AMPLACITY (A)	76.5	75.1	82.0	PER NEC ARTICLE 215.2	67.9	59.3	63.6								
MINIMUM FEEDER SIZE (A)	90.7	84.3	93.8		82.1	68.5	75.3								

1/16/2025	BID ISSUE
DATE	SUBMITTALS/REVISIONS
PROJECT NAME:	
<b>LAKE FRONT PARK BUILDING RENOVATION</b>	
SHEET TITLE:	
<b>ONE-LINE DIAGRAM AND SCHEDULE</b>	
CLIENT:	
<b>CITY OF GROSSE POINTE WOODS</b>	
<input type="checkbox"/> PRELIMINARY <input type="checkbox"/> CONSTRUCTION <input type="checkbox"/> RECORD DRAWN BY: FA    CHECKED BY: JRA    DATE: DECEMBER 2024 SCALE: AS NOTED	
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PROJECT NO.	0160-0479
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SHEET NO.	<b>E102</b>
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