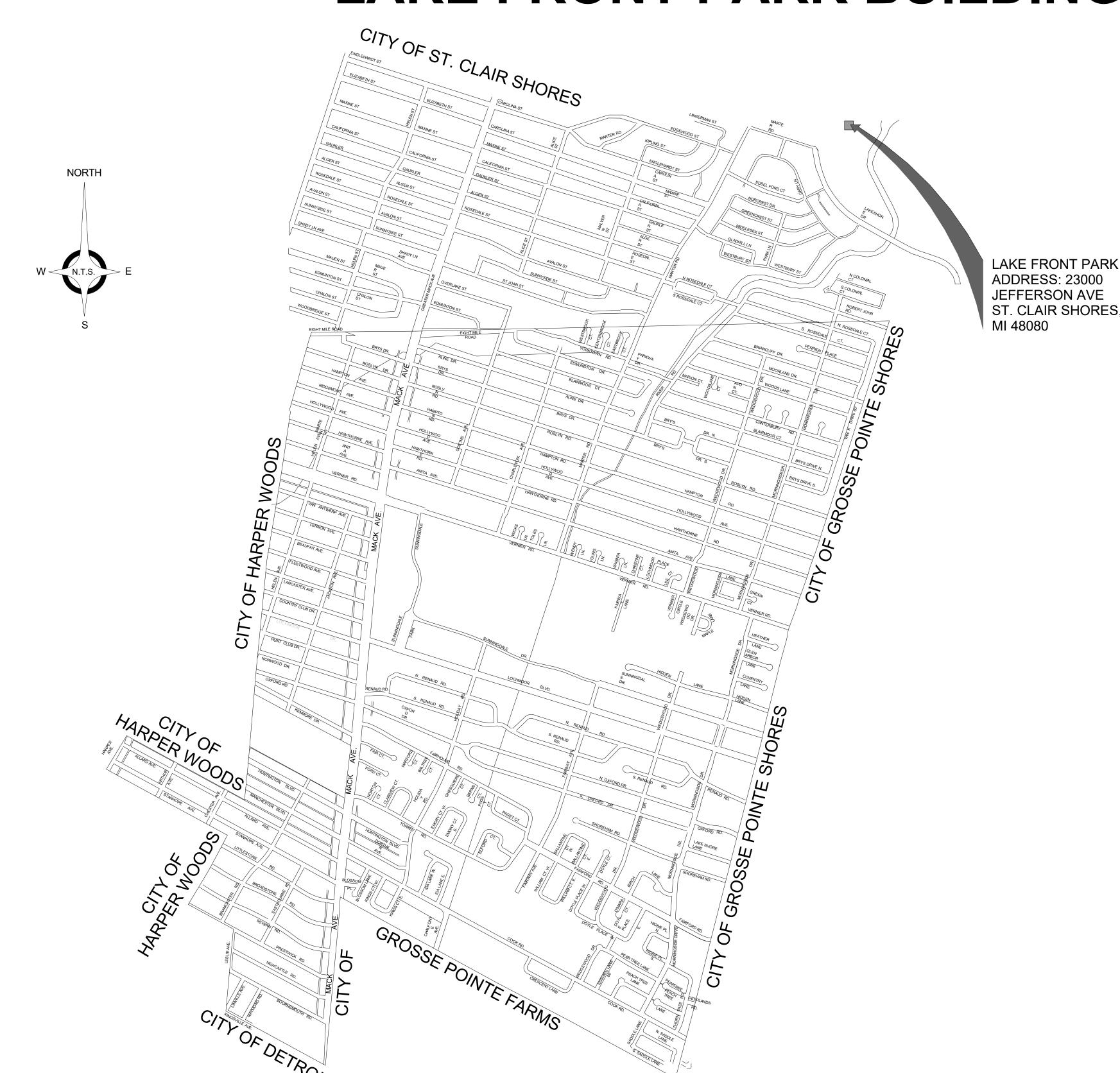


Wayne County, Michigan LAKE FRONT PARK BUILDING RENOVATION



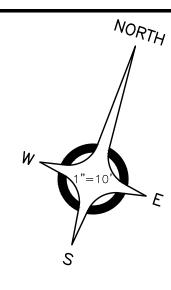
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"I HEREBY CERTIFY THESE PLANS HAVE BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH ACT 240, PUBLIC ACTS OF 1937 AS AMENDED- STATE OF MICHIGAN."

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.
- 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.
- 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.
- 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.

REMOVE ALL EXISTING UTILITY PIPING SERVICES WITHIN THE DESIGNATED WORK AREA UNLESS

- 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:

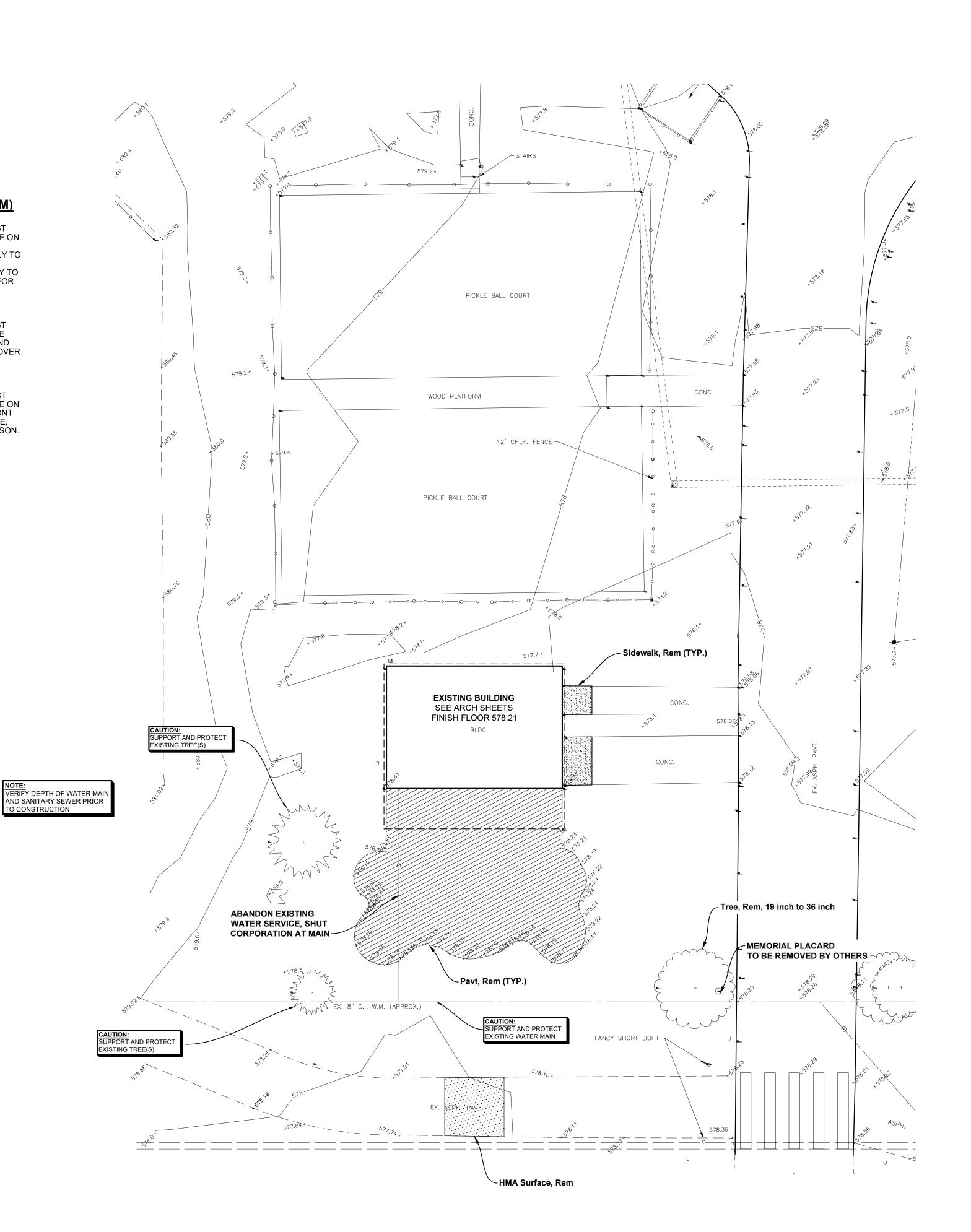
ALL CONSTRUCTION SHALL FOLLOW MDOT 2020 STANDARDS AND SPECIFICATIONS FOR CONSTRUCTION, UNLESS OTHERWISE NOTED HEREIN.

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

Pavt,

Sidev

HMA Surface, Rem

Excavation, Earth

ESTIMATED QUANTITIES

1 Ea

108 Syd

8 Syd

11 Syd

(THIS SHEET)

1. Tree, Rem, 19 inch to 36 inch

2. Pavt, Rem

3. Sidewalk, Rem

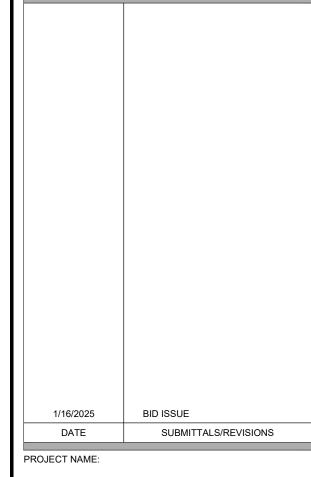
4. HMA Surface, Rem

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

RSON, ECKSTEIN & WESTRICK, LENGINEERS - SURVEYORS - ARCHITE 51301 Schoenherr Road Shelby Township, MI 48315

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Engineering Strong Communities



LAKE FRONT PARK BUILDING RENOVATION

SHEET TITLE:

REMOVAL PLAN

LIENT:

ENT:
CITY GROSSE POINTE WOODS

PRELIMINARY CONSTRUCTION RECORD

DRAWN BY: CHECKED BY: DATE:

JPB RTW DECEMBER 2024

SCALE:

1" = 10' HORIZ.

0 5 10 20



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

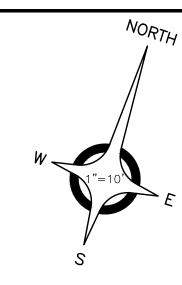
DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

THAT UTILITY).

PROJECT NO. 0160-0479

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SHEET NO.

C001



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.

BENCH MARKS

CHIS 'X' ON SOUTHEAST

DORMANT BARBEQUE

BOLT LIGHT POLE BASE ON

LAUNCH. 27'± EASTERLY TO

GRILL. 18'± SOUTHERLY TO

ELECTRIC PEDESTAL FOR

BENCH MARK NO. 1

EAST SIDE OF BOAT

ELEVATION: 580.71

ELEVATION: 583.65

ELEVATION: 581.72

BENCH MARK NO. 332

CHIS 'X' ON NORTHEAST

MILK RIVER.

BENCH MARK NO. 331 CHIS 'X' ON SOUTHEAST

BOLT LIGHT POLE BASE 40'± WEST OF WEST END PEDESTRIAN BRIDGE OVER

(NAVD88 DATUM)

- 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.
- 3. CONTRACTOR SHALL KEEP EXISTING STREETS, ROADS AND DRIVES CLEAR OF DIRT, DEBRIS AND
- 4. CONTRACTOR SHALL BE RESPONSIBLE FOR SHORING AND FOR DEWATERING TO ACCOMPLISH ALL

WORK INDICATED ON PLANS AND TO PERFORM REQUIRED COMPACTION OPERATIONS.

- 5. REVIEW CONSTRUCTION AND PROVIDE TRAFFIC SEQUENCE AND SCHEDULE AT THE PRECONSTRUCTION MEETING WITH OWNER.
- 6. 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.
- 10. THE CONTRACTOR SHALL NOTIFY THE ENGINEER SHOULD ANY DISCREPANCY REGARDING THE PROPOSED WORK OR UNFORESEEN CONDITIONS ARISE PRIOR TO PROCEEDING FURTHER WITH
- 11. THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE ENGINEER AND OWNER FOLLOWING COMPLETION OF CONSTRUCTION ACTIVITIES.
- 12. ALL PAVING AND AGGREGATE MATERIALS AND WORK COMPLETED SHALL BE IN STRICT ACCORDANCE WITH THE STATE DOT SPECIFICATIONS AND STANDARD DETAILS UNLESS OTHERWISE SPECIFIED.
- 13. 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.
- 14. 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.
- 15. THE CONTRACTOR SHALL REFERENCE ARCHITECTURAL PLANS FOR EXACT DIMENSIONS AND CONSTRUCTION DETAILS OF BUILDING, CANOPY, AND UTILITY CONNECTIONS.
- 16. 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.
- 17. FIRE LANES SHALL BE ESTABLISHED AND PROPERLY DESIGNATED IN ACCORDANCE WITH THE LOCAL MUNICIPALITY AND LOCAL FIRE DEPARTMENT REQUIREMENTS.
- 18. THE CONTRACTOR SHALL REMOVE CONFLICTING PAVEMENT MARKINGS IN A METHOD APPROVED BY THE STATE DOT.
- 19. 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.
- 20. 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.
- 21. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUTS AND SURVEYS REQUIRED TO PERFORM CONSTRUCTION. CADD FILE INFORMATION IS PROVIDED FOR REFERENCE
- 22. 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.
- 23. NO EQUIPMENT OR MATERIAL STORAGE IS PERMITTED WITHIN THE ROAD RIGHT-OF-WAY.
- 24. 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.
- 25. CONSTRUCTION SHALL BE IN ACCORDANCE WITH A.D.A. REGULATIONS AS APPLICABLE.

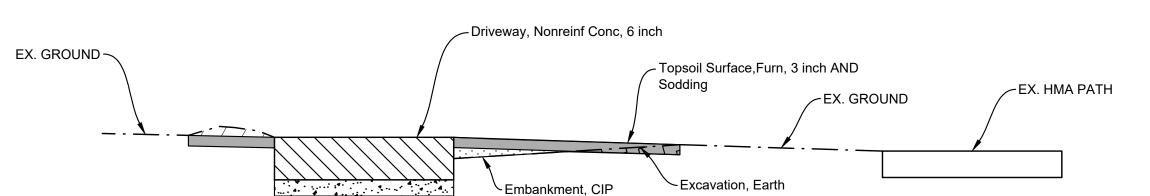
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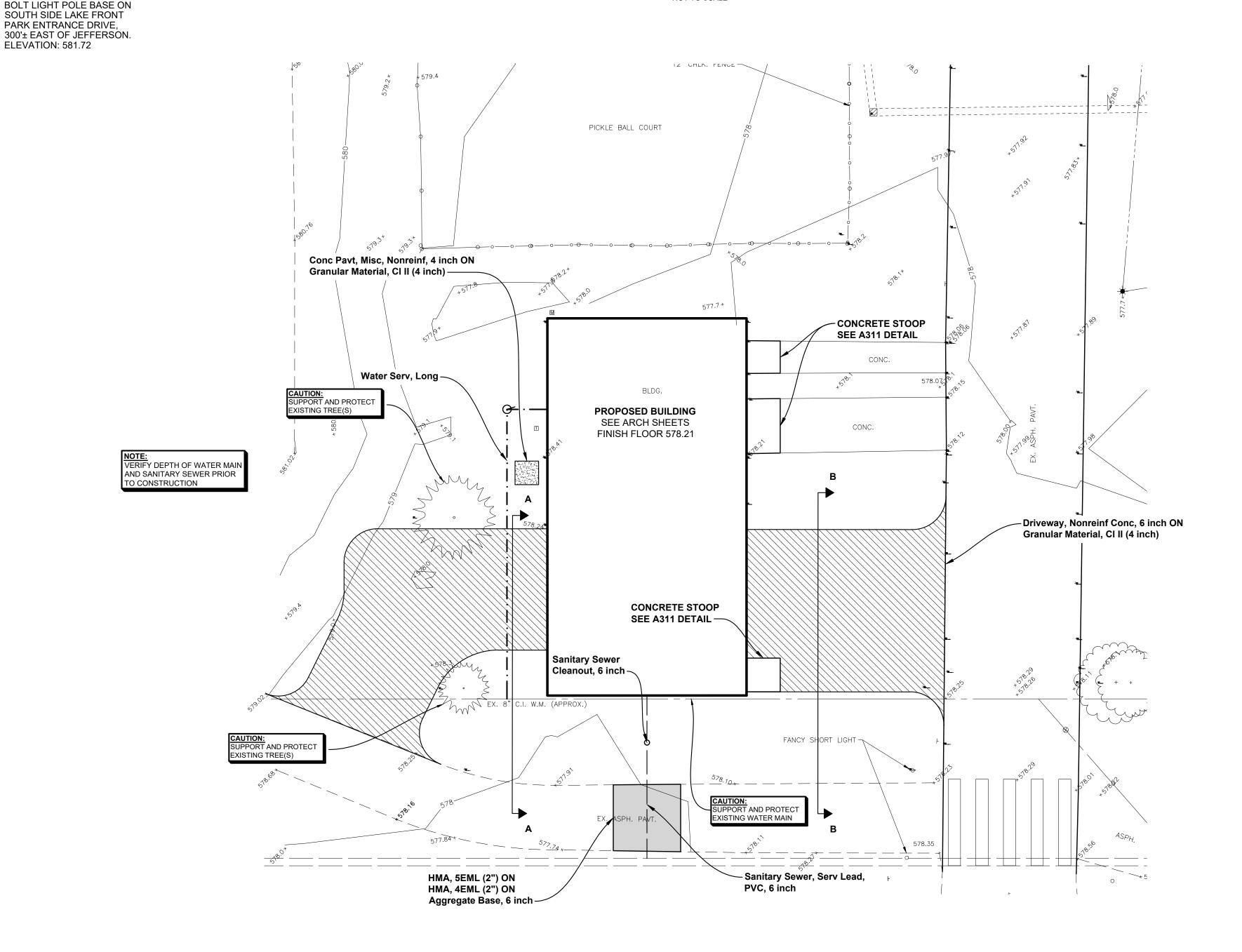
- Driveway, Nonreinf Conc, 6 inch Excavation, Earth EX. GROUND -∠EX. GROUND EX. HMA PATH ∼ Topsoil Surface,Furn, 3 inch AND

SECTION A-A NOT TO SCALE

GRADE EXISTING GROUND AREA TO DRAIN TOWARDS HMA PATH



SECTION B-B



LEGEND

HMA, 5EML (@ 220 LB. / SYD) AND HMA, 4EML (@ 220 LB. / SYD) AND Aggregate Base, 6 inch



Driveway, Nonreinf Conc, 6 inch ON Granular Material, Cl II (4 inch)

Topsoil Surface, Furn, 3 inch AND Sodding

ESTIMATED QUANTITIES

1 Cyd

2 Cyd

19 Cyd

1 Syd

2 Ton

2 Ton

2 Syd

166 Syd

150 Syd

150 Syd

1 Ea

1 Ea

25 Ft

(THIS SHEET)

1. Embankment, CIP

2. Excavation, Earth

5. HMA, 4EML

6, HMA, 5EML

11. Water Serv, Long

Sodding

3. Granular Material, Cl II

4. Aggregate Base, 6 inch

7. Conc Pavt, Misc, Nonreinf, 4 inch

12. Sanitary Sewer, Serv Lead, PVC, 6 inch

8. Driveway, Nonreinf Conc, 6 inch

13. Sanitary Sewer Cleanout, 6 inch

10. Topsoil Surface, Furn, 3 inch

Embankment, CIP

Excavation, Earth

ANDERSON, ECKSTEIN & WESTRICK, INC. **CIVIL ENGINEERS - SURVEYORS - ARCHITECTS** 51301 Schoenherr Road

Shelby Township, MI 48315

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Engineering Strong Communities

BID ISSUE 1/16/2025 SUBMITTALS/REVISIONS

PROJECT NAME: LAKE FRONT PARK **BUILDING**

RENOVATION

SHEET TITLE

CONSTRUCTION **PLAN**

CITY GROSSE POINTE WOODS

RTW DECEMBER 2024 1" = 10' HORIZ



ITILITY 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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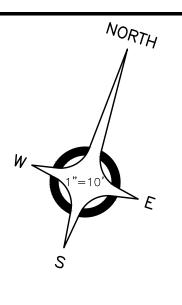
INCLUDED IN THE PROPOSED PAY ITEM CONFLICTING WITH

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

PROJECT NO. 0160-0479

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SHEET NO.



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

T/P861.00 PROPOSED GRADE ← FLOW ARROW

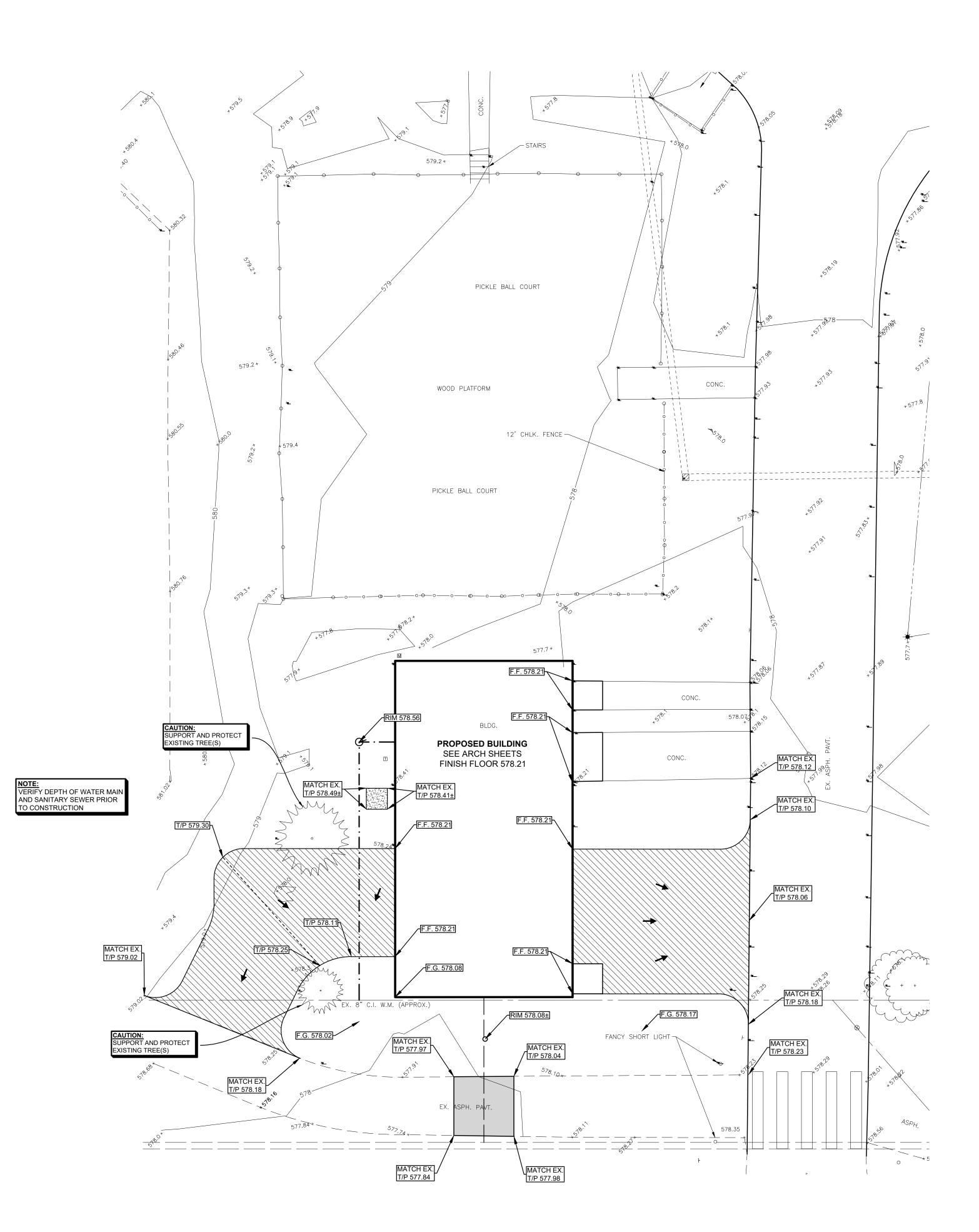
EXIST. GRADE

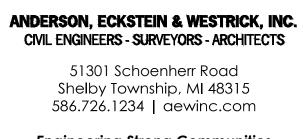
----- RIDGE LINE

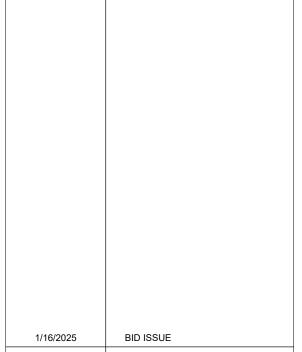
TOP OF PAVEMENT

51301 Schoenherr Road

Engineering Strong Communities







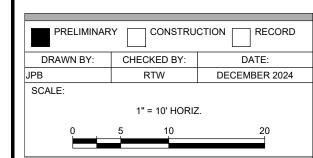
SUBMITTALS/REVISIONS DATE PROJECT NAME:

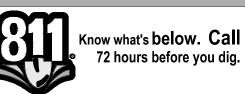
LAKE FRONT PARK **BUILDING RENOVATION**

SHEET TITLE:

GRADING PLAN

CITY GROSSE POINTE WOODS





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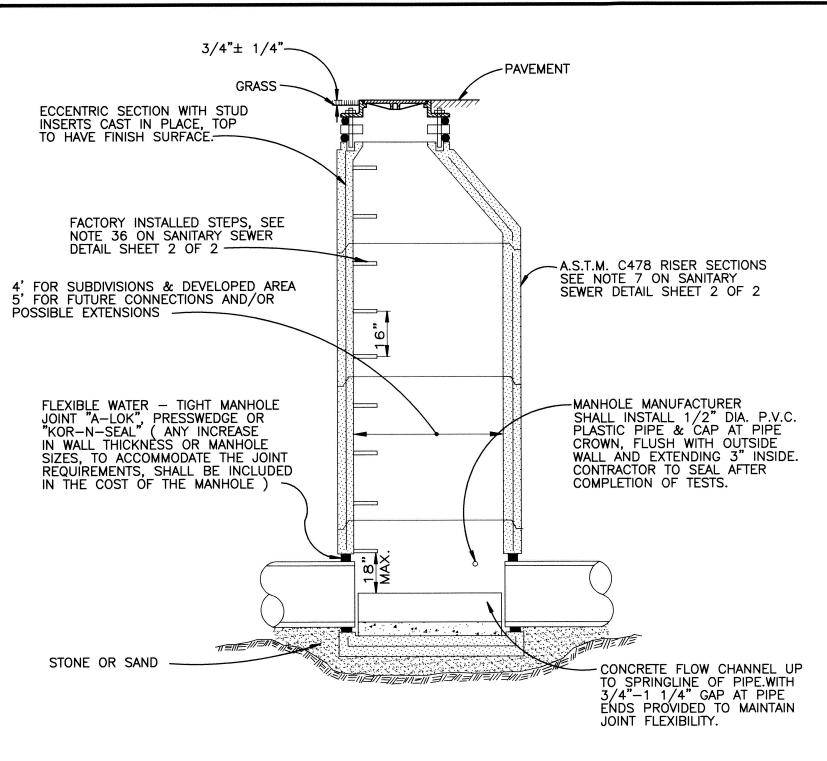
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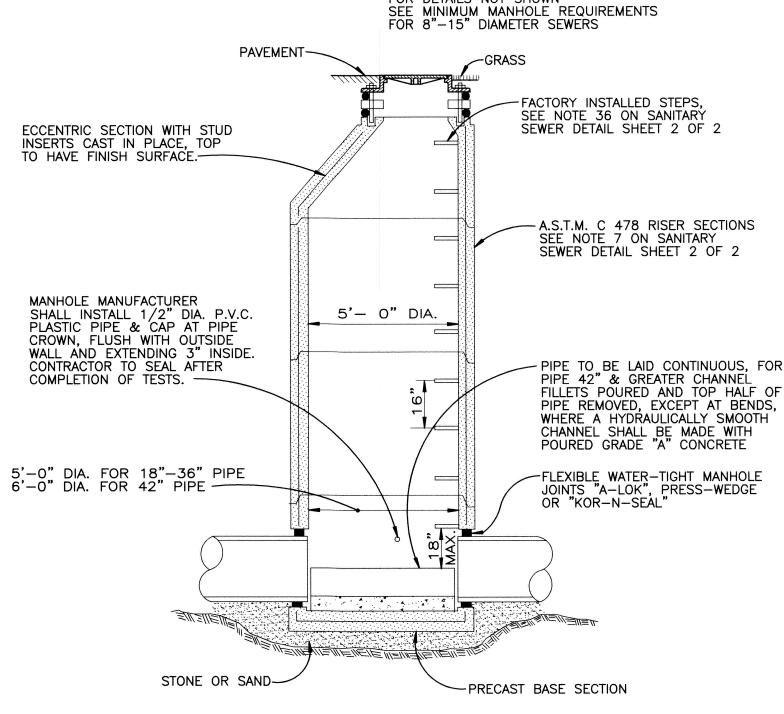
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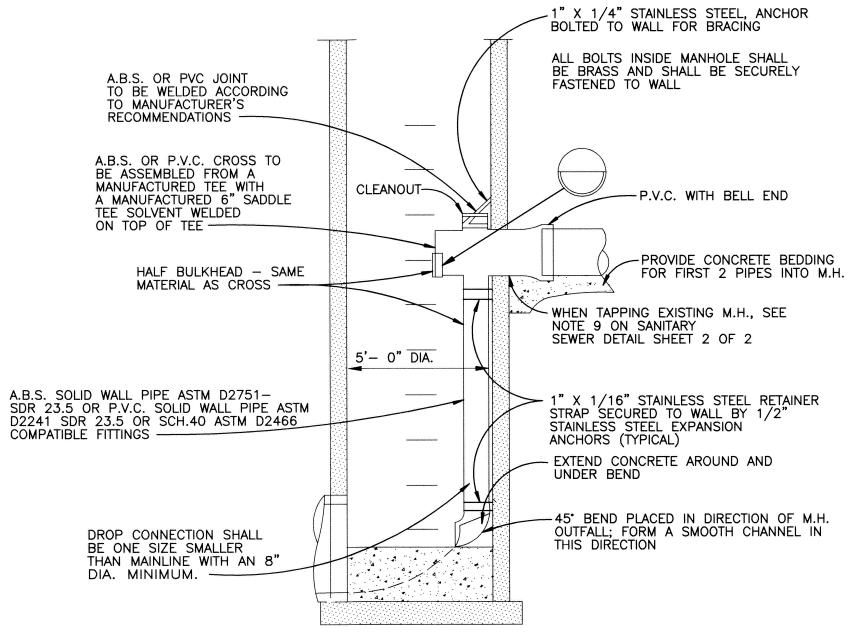
PROJECT NO. 0160-0479

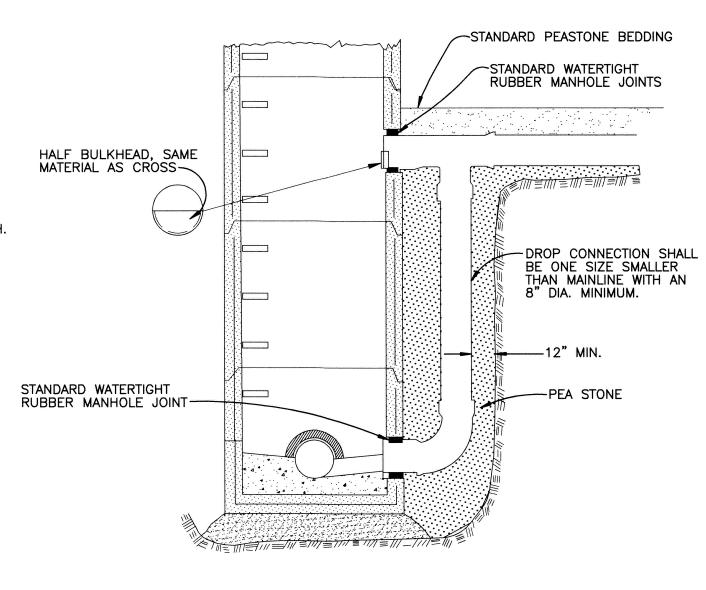
THAT UTILITY).

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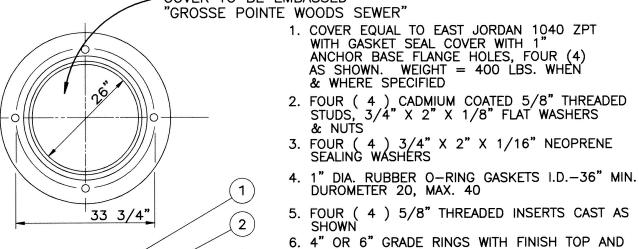






SANITARY SEWER MANHOLE

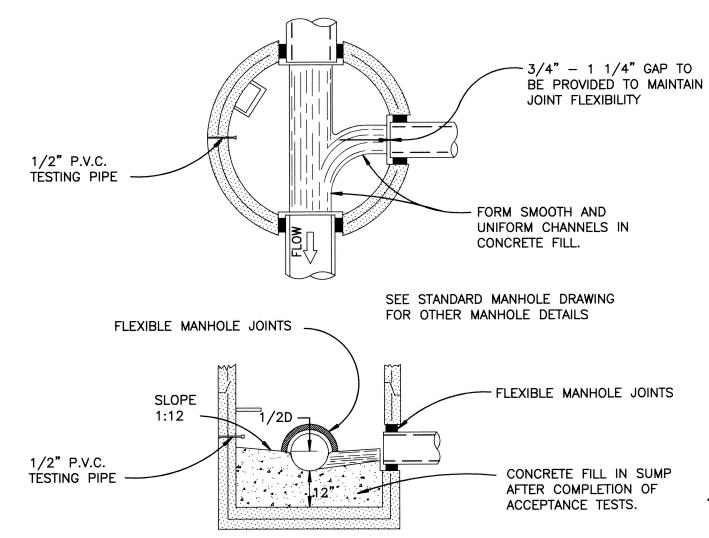
(8" THRU 15" DIA. SEWERS ·COVER TO BE EMBASSED "GROSSE POINTE WOODS SEWER"



- 2. FOUR (4) CADMIUM COATED 5/8" THREADED
- 5. FOUR (4) 5/8" THREADED INSERTS CAST AS
- 6. 4" OR 6" GRADE RINGS WITH FINISH TOP AND BOTTOM SURFACES PER A.S.T.M. C 478 SPECIFICATIONS, MAXIMUM 12" ADJUSTMENT BRICK AND MORTAR LEVELING COURSES MAY BE USED WITH WATER AND SEWER DEPARTMENT APPROVAL ONLY. 7. FORM OUTSIDE MANHOLE & COMPLETELY FILL SPACE WITH STIFF MIN. 6 BAG MIX CONCRETE.
- WATERPROOF MANHOLE FRAME & COVER

KENISIONS

BEAISIONS



SUMP MANHOLE

FORTESTING, CLEANING & DEWATERING

SANITARY SEWER MANHOLE

18" THRU 42" DIA. SEWERS

INTERIOR DROP ASSEMBLY

ONLY WITH SEWER AND WATER DEPARTMENT APPROVAL)

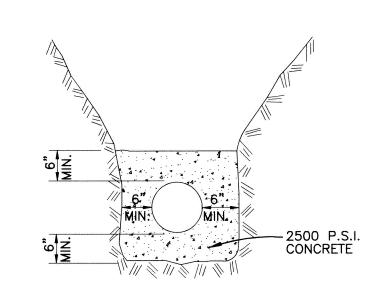
EXTERIOR DROP CONNECTION

FOR ALL DROP CONNECTIONS

MAXIMUM TRENCH WIDTH = O.D. + 12" FOR 18" - 36" I.D. O.D. + 24" FOR 42" I.D. & LARGER TYPE I FOR DEWATERED TRENCHES TYPE III FOR UN-DEWATERED TRENCHES O.D. OF C76 PIPE OF CLASS SPECIFIED TYPE I FOR ALL DEWATERED TRENCHES TYPE I OR II FOR ALL UN-DEWATERED

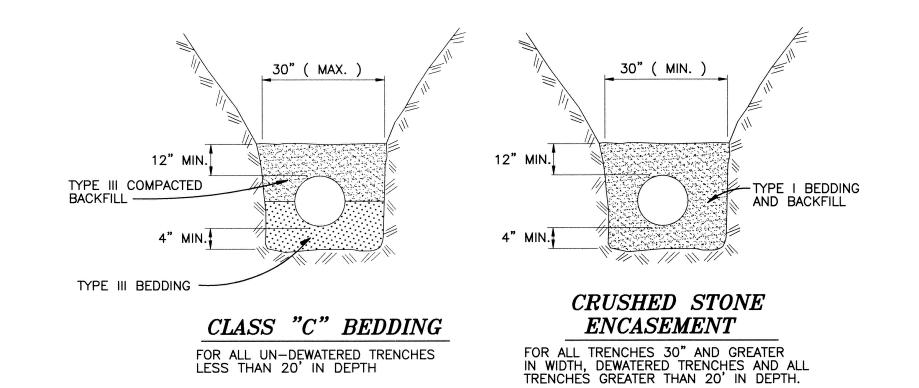
BEDDING & TRENCH DETAIL, & LARGER SEWER

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



CONCRETE ENCASEMENT DETAIL

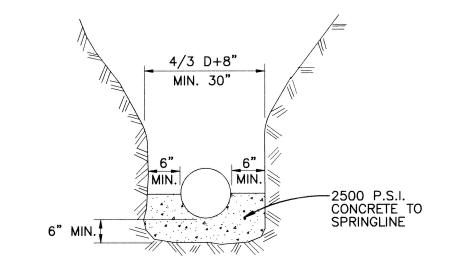
- 1. PLACE 2,500 PSI CONCRETE AGAINST UNDISTURBED EARTH FOR ENTIRE WIDTH OF TRENCH.
- 2. FOR SANITARY SEWER IN EXCESS OF 15 INCHES IN DIAMETER CLASS V REINFORCED PIPE MAY BE SUBSTITUTED FOR CONCRETE ENCASEMENT, WITH OWNER'S APPROVAL.



BEDDING & TRENCH DETAIL, 6"-15" SEWERS

GENERAL PIPE BEDDING TRENCH NOTES

- 1. 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.
- 2. CRUSHED STONE ENCASEMENT SHALL BE UTILIZED FOR ALL DEWATERED GROUND TRENCHES AND SHALL UTILIZE A TRENCH WIDTH OF 30" (MINIMUM).
- 3. 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. MDOT 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
- 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 MDOT 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.



CONCRETE CRADLE DETAIL

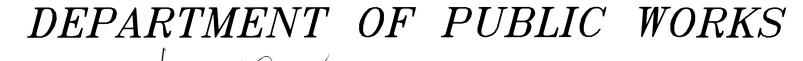
1. CONCRETE CRADLE MAY BE SPECIFIED AT OWNER'S DISCRETION WHERE THE TRENCH WIDTH IS EXCESSIVE, OR WHERE THE TRENCH IS NOT SUITABLE FOR PIPE LAYING.

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

PROJECT NO.

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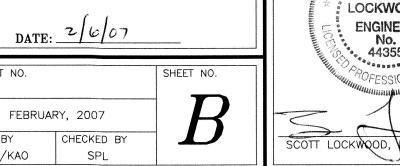
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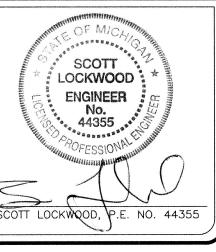


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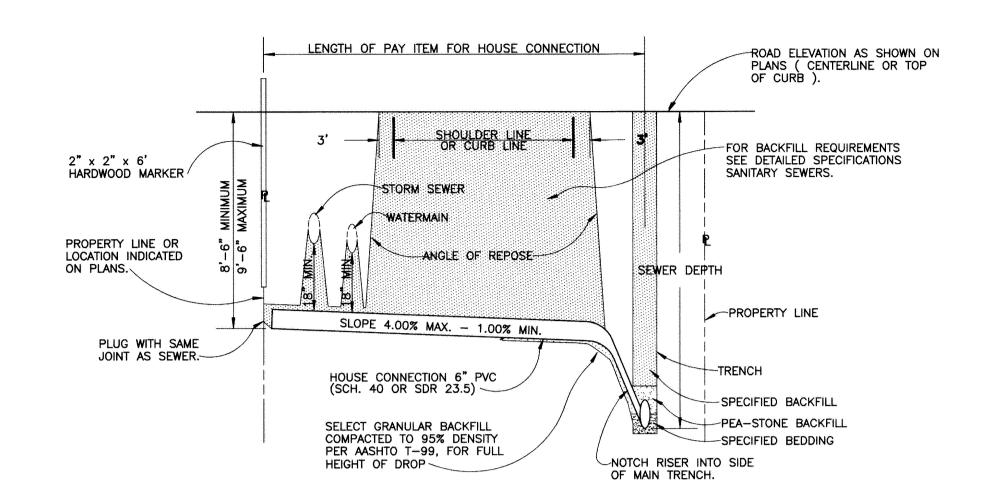
JOSEPH J. AHEE JR. : DPW DIRECTOR

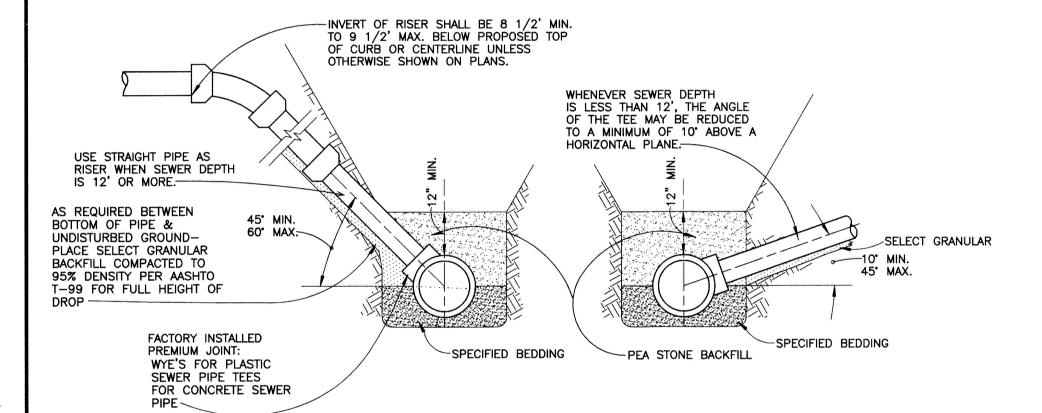
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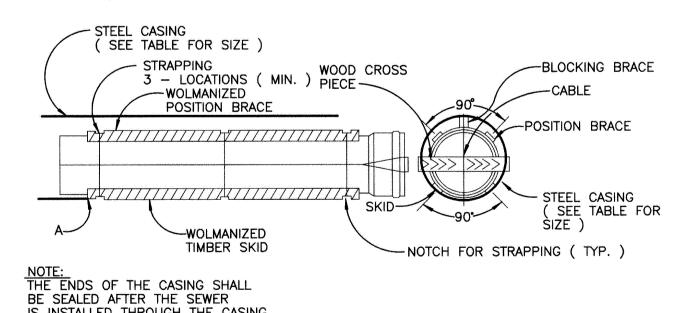


SEWER CONSTRUCTION





SANITARY SEWER HOUSE/ BUILDING CONNECTION



PIPE SIZE	RECOMMENDED MINIMUM CASTING DIAMETER	MINIMUM WALL THICKNESS
6"	12"	.375
8"	16"	.375
10"	18"	.375
12"	20"	.375
15"	24"	.406
18" & 21"	36 "	.532
24"	42"	.563
27" & 30"	48"	.625
36"	54 "	.688
42"	60"	.750
	2 TH	

IS INSTALLED THROUGH THE CASING

STEEL CASING REQUIREMENTS

- ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF GROSSE POINTE WOODS SEWER AND WATER DEPARTMENT. ALL SANITARY SEWER CONSTRUCTION SHALL HAVE COMPETENT FULL TIME INSPECTION PROVIDED BY OR CAUSED TO BE PROVIDED BY THE CITY OF GROSSE POINTE WOODS.
- AT ALL CONNECTIONS TO CITY OF GROSSE POINTE WOODS SANITARY SEWERS OR TO EXTENSIONS THERE TO, AND BEFORE START OF CONSTRUCTION, THE CONTRACTOR MUST REQUEST AND HAVE IN HIS POSSESSION AN APPROVED CONNECTIONS PERMIT ISSUED BY THE CITY OF GROSSE POINTE WOODS SEWER & WATER DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE CITY OF GROSSE POINTE WOODS SEWER AND WATER DEPARTMENT 48 HOURS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION.
- NO SEWER INSTALLATION SHALL HAVE AN INFILTRATION EXCEEDING 50 GALLONS PER INCH OF DIAMETER PER MILE OF PIPE PER 24 HOUR PERIOD. EXFILTRATION TESTING SHALL BE CONDUCTED WHERE GROUND WATER IS INSUFFICIENT. ALL INSTALLATIONS SHALL ALSO PASS LOW PRESSURE AIR TEST AS SPECIFIED IN THE CITY OF GROSSE POINTE WOODS STANDARD SPECIFICATIONS.

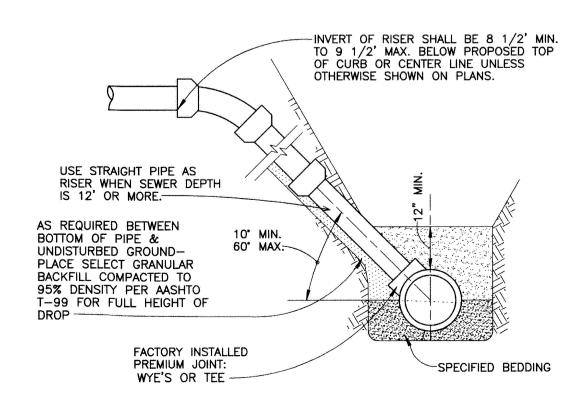
ABS COMPOSITE PIPE AND ANY APPROVED PLASTIC PIPE SHALL BE SUBJECT TO DEFLECTION TEST 30 DAYS AFTER CONSTRUCTION WITH A NINE SIDED MANDREL. THE CONTRACTOR MUST SUPPLY THE MANDREL AND PERFORM THE TEST. THE OWNER WILL WITNESS THE TEST. DEFLECTION SHALL NOT EXCEED 5%. THE OWNER OR THEIR REPRESENTATIVE RESERVES THE RIGHT TO TEST THE SEWER FOR DEFLECTION NOT TO EXCEED 7% DURING THE PERIOD OF THE MAINTENANCE BOND. ANY SEWER FOUND EXCEEDING THESE LIMITS SHALL BE REPLACED BY AND AT THE CONTRACTOR'S EXPENSE.

AS PART OF THE FINAL INSPECTION, THE CONTRACTOR SHALL PROVIDE FOR TELEVISION INSPECTION OF THE SANITARY SEWER LINES INSTALLED UNDER THIS CONTRACT. THE CONTRACTOR SHALL ARRANGE FOR, ENGAGE AND PAY ALL EXPENSES INVOLVED FOR THE SERVICES OF A COMPETENT COMPANY TO PERFORM THIS TELEVISION INSPECTION. THE INSPECTION SHALL BE CARRIED OUT UNDER THE DIRECT SUPERVISION OF THE ENGINEER WITH ALL TELEVISION INSPECTION BEING OBSERVED BY REPRESENTATIVES OF THE OWNER OR ENGINEER AND THE CONTRACTOR. ANY TELEVISION VIEWING PERFORMED THE ABSENCE OF THE ENGINEER OR A REPRESENTATIVE OF THE OWNER SHALL NOT BE CONSIDERED A PART OF THE FINAL INSPECTION. THE COLOR TELEVISION CAMERA SHALL BE ONE SPECIFICALLY DESIGNED AND CONSTRUCTED FOR SUCH INSPECTION. THE CAMERA SHALL BE OPERATIVE IN 100± HUMIDITY, HAVE A HIGH RESOLUTION LENS CAPLABLE OF SCANNING 360° CIRCUMFERENCE AND 270° ON A HORIZONTAL AXIS TO TELEVISE SEWER LINES AND LATERALS. ALL TELEVISION INSPECTION SHALL BE RECORDED ON VIDEO TAPE AND TURNED OVER TO THE OWNER FOR READY REFERENCE AT A LATER DATE. THE VIDEO RECORDING SHALL DISPLAY CONTINUOUSLY THE DATE, TIME AND ENGINEERING STATIONS AND SHALL PERIODICALLY DISPLAY THE NAME OF THE PROJECT, NAME OF THE AREA COVERED AND DIRECTION OF TRAVEL. THE TAPE MUST BE COMPATIBLE WITH RCA MODEL VKT-275 VIDEO CASSETTE PLAYER 1/2 INCH VHS FORMAT.

- INFILTRATION SHALL BE TESTED BY THE OWNER UTILIZING CALIBRATED WEIRS OR FLUMES INSERTED IN THE PIPE FLOWLINE AT A MANHOLE. TEST SECTIONS SHALL GENERALLY BE LIMITED TO A MAXIMUM LENGTH OF ONE HALF MILE. THE OWNER RESERVES THE RIGHT TO TEST SHORTER PIPE LENGTH SEGMENTS IF HE DEEMS IT NECESSARY TO ASSURE THAT NO SEGMENT EXCEEDS THE INFILTRATION LIMITS.
- HOUSE OR BUILDING LEAD PIPE, WYES AND CAPS SHALL BE SOLID WALL PLASTIC PIPE, ABS (A.S.T.M. D-2751, SDR 23.5) OR PVC (A.S.T.M. D-2241, SDR 23.5 OR A.S.T.M. D-2466, SCH. 40) WITH JOINTS AS SPECIFIED IN NOTE #15. THE JOINT BETWEEN TWO DISSIMILAR SIZES OR TYPES OF BUILDING LEAD PIPE SHALL BE MADE WITH A PROPER SIZE FERNCO DONUT, OR APPROVED EQUAL, WITH POLYVINYL JOINT SEALER. A RUBBER BOOT WITH CLAMPS IS NOT ACCEPTABLE.
- 6. ALL SEWER PIPE SHALL BE INSTALLED IN CLASS "C" BEDDING OR BETTER, IN CONFORMANCE WITH THE DETAILS PROVIDED.
- ALL NEW MANHOLES SHALL HAVE WATER AND SEWER DEPARTMENT APPROVED FLEXIBLE WATER-TIGHT SEALS WHERE PIPES PASS THROUGH WALLS. MANHOLES SHALL BE PRECAST REINFORCED CONCRETE IN ACCORDANCE WITH ASTM C478 CURRENT SPECIFICATIONS. PRECAST MANHOLE JOINTS AND GASKETS SHALL BE MODIFIED TONGUE AND GROOVE IN ACCORDANCE WITH ASTM C361 CURRENT SPECIFICATIONS. PRECAST MANHOLE CONE SECTIONS SHALL BE CITY OF GROSSE POINTE WOODS APPROVED SEWER & WATER MODIFIED ECCENTRIC CONE TYPE. ALL MANHOLES SHALL BE PROVIDED WITH GASKET SEAL FRAMES. MANHOLE STEPS SHALL NORMALLY BE PROVIDED ON A BACK WALL OF THE MANHOLE FURTHEST FROM TRAFFIC.
- AT THE CONNECTIONS TO MANHOLES, SEWERS OR EXTENSIONS THERETO, DROF CONNECTIONS WILL BE REQUIRED WHEN THE DIFFERENCE IN INVERT ELEVATIONS EXCEEDS 18 INCHES. THE DROP CONNECTIONS WILL BE EXTERIOR TYPE AS APPROVED BY THE SEWER AND WATER DEPARTMENT. THE USE OF INTERIOR TYPE DROP CONNECTIONS WILL BE BASED UPON MANHOLE SIZE, GROUND WATER AND SOIL CONDITIONS AT THE LOCATION WHERE THE TAP WILL BE PERFORMED.
- EXISTING PRE-CAST CONCRETE MANHOLES SHALL BE TAPPED WITH THE "KOR-N-SEAL" METHOD FOR SEWERS 6" THRU 15" IN DIAMETER. EXISTING BRICK AND MANHOLE TAPS FOR 18" DIAMETER SEWERS AND LARGER WILL HAVE HOLES DRILLED AT 4 INCHES CENTER TO CENTER AROUND THE PERIPHERY OF THE OPENING TO CREATE A PLANE OF WEAKNESS BEFORE BREAKING OUT THE SECTION. NON-SHRINK GROUT SHALL BE USED TO SEAL THE OPENING AND A CONCRETE COLLAR SHALL BE POURED 12 INCHES AROUND THE PIPE AND EXTEND 12 INCHES BEYOND THE
- 10. NEW MANHOLES CONSTRUCTED DIRECTLY ON CITY OF GROSSE POINTE WOODS SANITARY SEWER SHALL BE PROVIDED WITH COVERS READING "GROSSE POINTE WOODS SANITARY SEWER" IN RAISED LETTERS. NEW MANHOLES BUILT OVER ANY EXISTING SANITARY SEWERS SHALL HAVE MONOLITHIC POURED BOTTOMS.

- 11. PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL TELEPHONE MISS DIG 1-800-482-7171) FOR THE LOCATION OF UNDERGROUND GAS AND CABLE FACILITIES AND SHALL ALSO NOTIFY REPRESENTATIVES OF OTHER UTILITIES LOCATED IN THE VICINITY OF THE WORK.
 - THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. ALL COSTS FOR LOCATING, REMOVING AND REPLACING OR RELOCATING THESE UTILITIES SHALL BE INCLUDED IN THE COST OF CONSTRUCTING THE SANITARY SEWER. ALL UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED WITH LIKE MATERIAL. THE CONTRACTOR SHALL VERIFY THE DEPTH AND HORIZONTAL LOCATION OF ALL EXISTING UTILITIES BEFORE ANY WORK IS STARTED. THE EXACT LOCATION OF EXISTING UTILITIES SHALL BE DETERMINED BY
- 12. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING SANITARY SEWER, WATER OR STORM SEWER SERVICE CONNECTIONS DURING CONSTRUCTION. ANY ADJUSTMENTS OR REPAIRS TO THESE SERVICES SHALL BE MADE BY THE CONTRACTOR AND THE COST SHALL BE INCLUDED IN THE COST FOR CONSTRUCTING THE SANITARY SEWER, UNLESS OTHERWISE PROVIDED IN THE CONTRACT.
- 13. SEWER PIPE MATERIAL:
- 8" THROUGH 15" PIPE SHALL BE A.B.S. (ACRYLONITRILE-BUTADIENE-STYRENE) OR P.V.C. (POLY-VINYL-CHLORIDE) COMPOSITE SEWER PIPE CONFORMING TO THE CURRENT ASTM D2680 SPECIFICATIONS WITH TYPE SC JOINTS FOR A.B.S. AND GASKETED JOINTS FOR P.V.C. SOLID WALL PIPE SHALL BE SDR 23.5.
- 18" AND LARGER PIPE SHALL BE REINFORCED CONCRETE CIRCULAR SEWER PIPE CONFORMING TO THE CURRENT ASTM SPECIFICATION C-76 (WALL C) WITH SIZE AND CLASS AS INDICATED ON THE PLANS. ALL REINFORCED CONCRETE SEWER PIPE SHALL BE CAST WITH REINFORCING STEEL EXTENDING INTO THE SPIGOTS. ALL JOINTS AND GASKETS SHALL BE MODIFIED TONGUE AND GROOVE, CONFORMING WITH THE REQUIREMENTS OF ASTM (C 361)
- DUCTILE IRON PIPE-DOUBLE CEMENT LINED CLASS 54 PER ANSI A21.51 AND A21.4. JOINTS AND GASKETS SHALL BE PUSH-ON TYPE PER ANSI A21.11 (TYTON, BELL, TITE, FAST TITE OR APPROVED EQUAL).
- 14. IN INDUSTRIAL AREAS, PRIVATE SERVICE CONNECTIONS MADE TO THE SERVICE LEAD MUST HAVE AN ACCESSIBLE SAMPLING AND MONITORING MANHOLE. THE MANHOLE SHALL BE LOCATED ON PRIVATE PROPERTY AT A LOCATION APPROVED BY THE CITY OF GROSSE POINTE WOODS SEWER AND WATER DEPARTMENT. VITRIFIED PIPE MAY NOT BE USED.
- 15. BUILDING LEAD CONNECTIONS SHALL BE MADE WITH 6" WYES FOR A.B.S. AND P.V.C. PIPE AND 6" TEES FOR CONCRETE PIPE. WYES FOR ABS AND P.V.C. PIPE SHALL BE FACTORY FABRICATED (NOT EXTRUDED) AND SHALL BE CHECKED FOR IRREGULARITIES WHICH COULD AFFECT THE DEFLECTION TEST PRIOR TO INSTALLATION.
- 16. A CITY, WAYNE COUNTY ROAD COMMISSION, AND/OR MICHIGAN DEPARTMENT OF TRANSPORTATION PERMIT IS REQUIRED FOR ALL CONSTRUCTION WITHIN THEIR ROAD RIGHT-OF-WAYS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE ALL PERMITS AND BONDS PRIOR TO CONSTRUCTION, OR INSURE THAT ALL REQUIRED PERMITS AND BONDS HAVE BEEN OBTAINED PRIOR TO CONSTRUCTION.
- 17. THE CONTRACTOR SHALL ABIDE BY ALL THE REQUIREMENTS OF THE ROAD RIGHT-OF-WAY OWNER REGARDING CONSTRUCTION OF WATER AND SEWER MAINS, MAINTAINING TRAFFIC, BARRICADING, BORING, BACKFILL AND RESTORATION.
- 18. NO WASTE EXCAVATION MATERIAL SHALL BE DISPOSED OF BY PLACING IT IN ANY FLOODPLAIN OR WET LAND OF THE STATE UNLESS APPROPRIATE PERMITS HAVE BEEN ISSUED. THE CONTRACTOR OR PROPERTY OWNER MUST OBTAIN LOCAL FILL PERMITS FOR ANY MATERIALS DEPOSITED UPON LANDS WITHIN ANY CITY, VILLAGE OR TOWNSHIP.
- 19. THE CONTRACTOR SHALL FURNISH A DETAILED PLAN TO THE WAYNE COUNTY DEPARTMENT OF PUBLIC WORKS AND OBTAIN A SOIL EROSION CONTROL PERMIT UNDER THE ACT 347 PRIOR TO MAKING ANY EARTH CHANGES.
- 20. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL FURNISH MATERIAL CERTIFICATES TO THE OWNER VERIFYING THAT ALL THE MATERIALS USED ON THE PROJECT ARE IN ACCORDANCE WITH THE SPECIFICATIONS.
- 21. IF AN EXISTING GRAVEL ROAD IS DISTURBED BY CONSTRUCTION EQUIPMENT OR BY STOCKPILING OF MATERIALS OUTSIDE THE EXCAVATION AREA, A MINIMUM OF 8" OF 23A GRAVEL SHALL BE USED TO REPLACE THE DISTURBED
- 22. ALL CONSTRUCTION CHANGES MUST HAVE WRITTEN APPROVAL OF THE PROJECT ENGINEER.
- THE CONTRACTOR SHALL BE REQUIRED TO COMPLETE ALL WORK IN AN EXPEDITIOUS MANNER AND SHALL NOT STOP CONSTRUCTION EXCEPT FOR REASONS BEYOND HIS CONTROL SUCH AS, BUT NOT LIMITED TO STRIKES, WEATHER AND UNAVAILABILITY OF

- 24. THE CONTRACTOR SHALL PROVIDE A ONE YEAR MAINTENANCE AND GUARANTEE BOND TO THE CITY, DATED FROM THE TIME OF FINAL ACCEPTANCE BY THE CITY.
- 25. THE CONTRACTOR SHALL HAVE THE OPTION OF STARTING CONSTRUCTION AT THE FIRST MANHOLE UPSTREAM OF THE POINT OF CONNECTION TO THE EXISTING SYSTEM. A TEMPORARY TEST MANHOLE MAY BE USED NEAR THE POINT OF CONNECTION RATHER THAN A PERMANENT ONE. AND THE CONTRACTOR MAY LEAVE THE BASE OF THE TEMPORARY MANHOLE IN PLACE. LINES UP TO 400 FEET IN LENGTH (TOTAL LENGTH OF EXTENSION) MAY BE TESTED WITHOUT PLACEMENT OF THE MANHOLE BASE PROVIDED THE LINES ARE TESTED AND PUT IN SERVICE IMMEDIATELY FOLLOWING CONSTRUCTION.
- 26. THE ENTIRE PROJECT AREA OF PUBLICLY FUNDED PROJECTS, AND ALL AREAS NOT UNDER THE OWNERSHIP OF ANY PRIVATE DEVELOPER FOR PRIVATELY FUNDED PROJECTS, SHALL BE VIDEO TAPED IN COLOR PRIOR TO THE START OF CONSTRUCTION. THE TAPE SHALL BE UTILIZED BY THE CITY TO DETERMINE CONSTRUCTION RELATED DAMAGE AND TO ASSURE ADEQUATE RESTORATION. THE TAPE SHALL BE STANDARD 1/2" VHS FORMAT.
- 27. ALL PRECAST MANHOLES, SLAB BASES AND CONCRETE PIPE SHALL BE MANUFACTURED WITH TYPE II, IP OR IIA CEMENT. ALL CONCRETE FOR CHANNELIZATION SHALL BE MADE WITH TYPE II, IP OR IIA CEMENT.
- 28. ALL TERMINAL MANHOLES AND ANY INTERMEDIATE MANHOLES WHERE FUTURE DROP CONNECTIONS ARE A POTENTIAL SHALL BE 1 FOOT LARGER IN DIAMETER THAN WOULD OTHERWISE BE REQUIRED, AND SHALL BE NO SMALLER THAN 5 FEET IN DIAMETER.
- 29. DUCTILE IRON PIPE SHALL BE USED FOR THE SANITARY SEWER AT ALL WATER MAIN AND SANITARY SEWER CROSSINGS WITH LESS THAN 2 (TWO) FEET OF VERTICAL CLEARANCE AND WHERE THE WATER MAIN CROSSES BELOW THE SEWER, REGARDLESS OF VERTICAL CLEARANCE DISTANCE. THE DUCTILE IRON PIPE SHALL BE OF EQUAL SIZE (OR LARGER) AS THE PROPOSED SEWER AND SHALL EXTEND FROM MANHOLE TO MANHOLE
- TRENCH DETAIL "A" (T.D.-A) BACKFILL TO A POINT 12" ABOVE THE PIPE SHALL BE AS SPECIFIED ON THE PLANS. THE REMAINDER OF THE BACKFILL SHALL BE MADE WITH SUITABLE EXCAVATED MATERIAL (EXCLUDING BLUE CLAY) PLACED IN ONE-FOOT LAYERS WITH EACH LAYER BEING THOROUGHLY COMPACTED BY APPROVED MECHANICAL METHODS, OR OTHER EFFECTIVE MEANS HAVING THE APPROVAL OF THE ENGINEER, TO A DENSITY EQUIVALENT TO THE UNDISTURBED ADJACENT SOIL, OR 90% OF MAX. UNIT WEIGHT, WHICHEVER IS GREATER. WHEN TRENCH DETAIL "A" IS SPECIFIED, THERE WILL BE NO ADDITIONAL
- COMPENSATION FOR SAND BACKFILL. ALL AREAS OF SUCH TRENCH DETAIL "A" SHALL BE SURFACED WITH GRAVEL, STONE, PAVEMENT OR TOPSOIL IN ACCORDANCE WITH THE REQUIREMENTS OF RESTORATION (SEE NOTE 23).
- TRENCH DETAIL "B" (T.D.-B) BACKFILL TO A POINT 12" ABOVE THE PIPE SHALL BE AS SPECIFIED ON THE PLANS. THE REMAINDER OF ALL TRENCHES UNDER PUBLIC ROADWAYS AND WITHIN THAT AREA BELOW A LINE PROJECTED AT A 1 ON 1 SLOPE DOWN AND AWAY FROM A POINT 3 FEET OUTSIDE OF THE BACK OF CURB, EDGE OF PAVEMENT OR EDGE OF SHOULDER AREA, OR AS SPECIFIED ON THE PLANS, SHALL BE BACKFILLED WITH BANKRUN SAND MEETING THE REQUIREMENTS OF POROUS MATERIAL, MDOT SEC. 8.02.05, CLASS II, AND IS TO BE COMPACTED TO 95% OF MAX. UNIT WEIGHT. WHEN TRENCH DETAIL B IS IN A DITCH OR TURF AREA, IT SHALL BE SURFACED WITH 2" TO 12" OF ORGANIC CLAY MATERIAL AND WITH 3" OF TOPSOIL. ALL OTHER AREAS OF TRENCH DETAIL B SHALL BE SURFACED WITH GRAVEL, STONE OR PAVEMENT IN ACCORDANCE WITH THE REQUIREMENTS OF RESTORATION (SEE NOTE 23).
- THE END OF A SANITARY LEAD SHALL BE CONSTRUCTED TO A MINIMUM DEPTH OF 8 1/2 FEET OR 9 1/2 FEET MAXIMUM BELOW THE PROPOSED GRADE AS SHOWN ON THE BUILDING LEAD DETAIL. THE LEAD LOCATION SHALL BE MARKED AS SHOWN IN THE DETAIL.
- 33. THE VERTICAL TOLERANCE FOR SANITARY MANHOLE RIM GRADES ARE AS FOLLOWS:
 - 0.00 FEET TO +0.25 FEET A) IN RIGHT OF WAY
 - B) NOT IN RIGHT OF WAY +0.25 FEET
- MANHOLE STEPS SHALL BE FACTORY INSTALLED AT 16 INCHES CENTER TO CENTER SPACING. STEPS SHALL BE M.A. INDUSTRIES P.S.I. POLYPROPYLENE MSU #360 ALU POLY (OR APPROVED EQUAL).
- 35. THE CONTRACTOR IS REQUIRED TO CONTACT THE OFFICE OF THE WAYNE COUNTY PUBLIC WORKS COMMISSIONER AT 469-5325, 48 HRS. BEFORE CONSTRUCTION.



REQUIREMENT FOR FIELD TAP CORE-DRILLING PORT IN SEWER WALL. INSTALL PREMOLDED FLEXIBLE WATERTIGHT BOOT TO RECEIVE SERVICE CONNECTION. ALL JOINTS SHALL BE WATERTIGHT, NO PART OF CONNECTION SHALL PROTRUDE INTO MAINLINE I.D..

FIELD TAP DETAIL

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



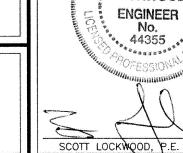
APPROVED BY JOSEPH J. AMEE JR.: DPW/DIRECTOR

DATE: 2/6/07

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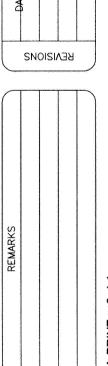
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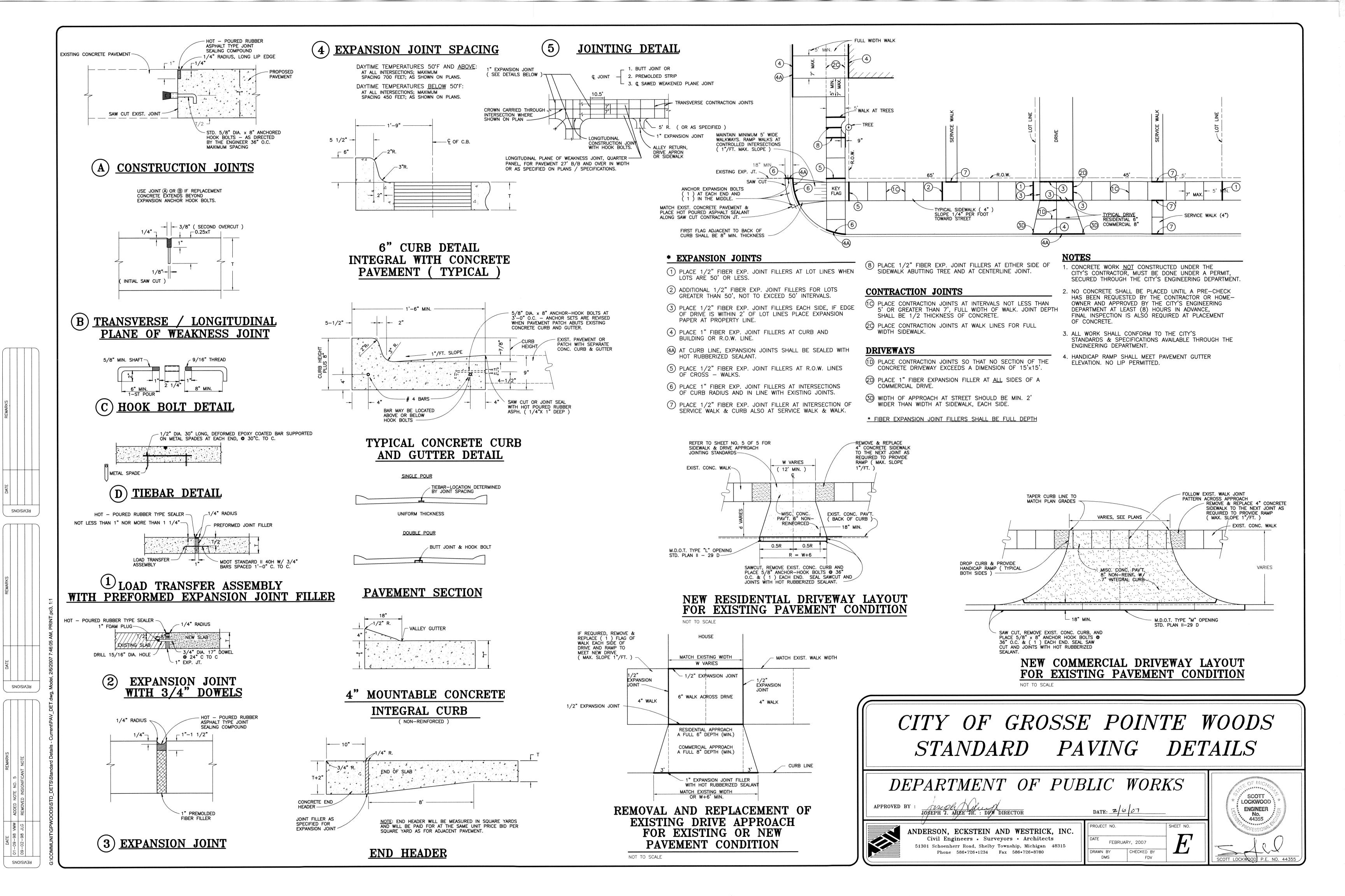


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LOCKWOOD ENGINEER

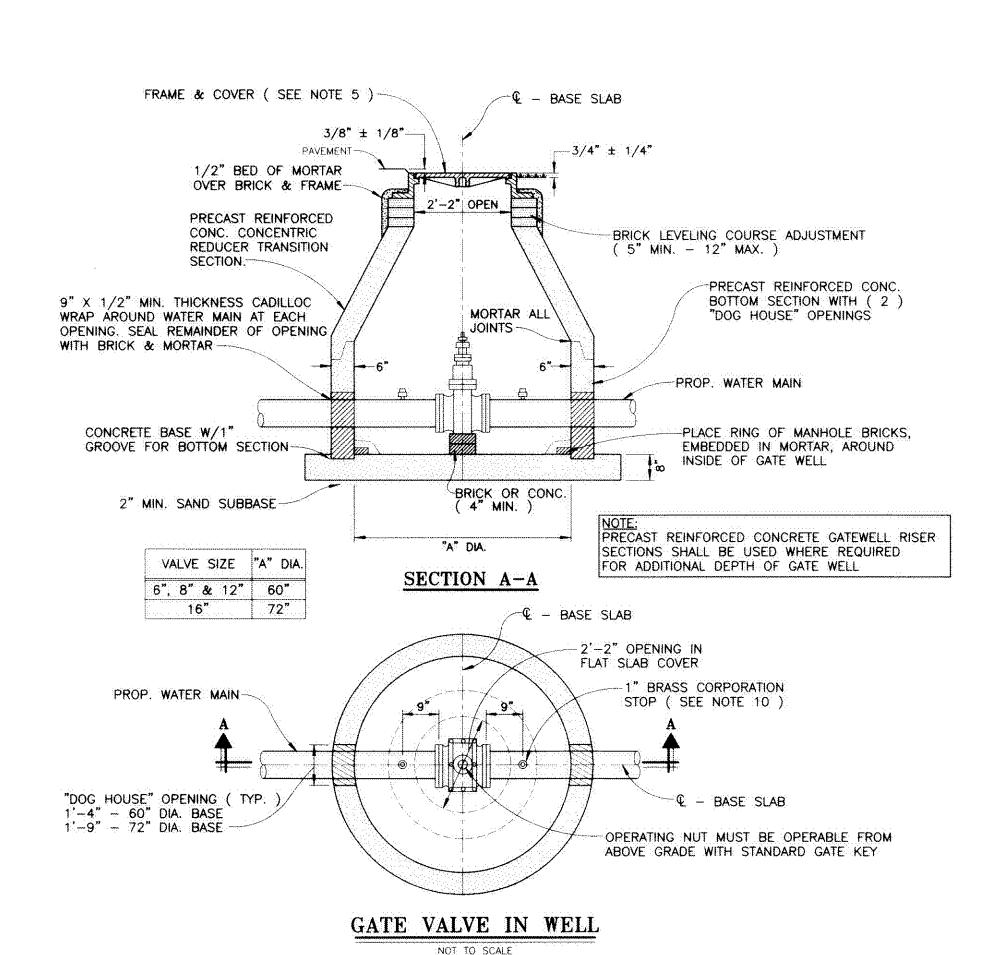


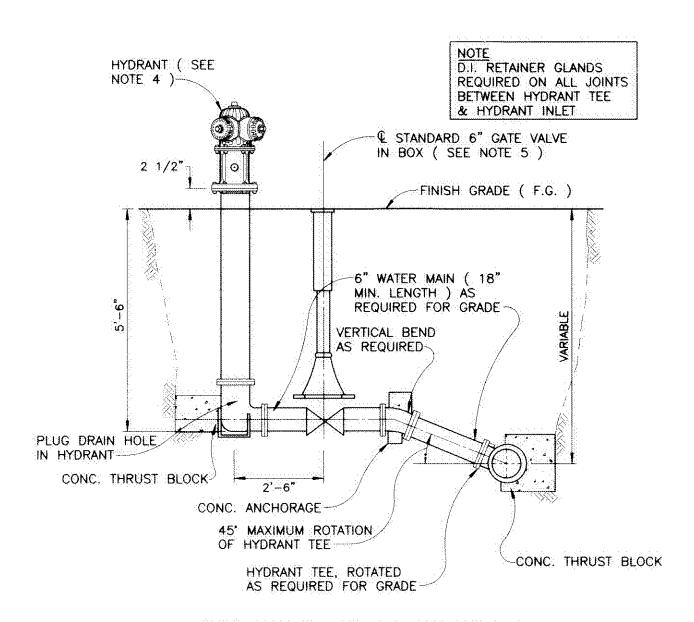
BENIZION2



"L" HYDRANT CONNECTION

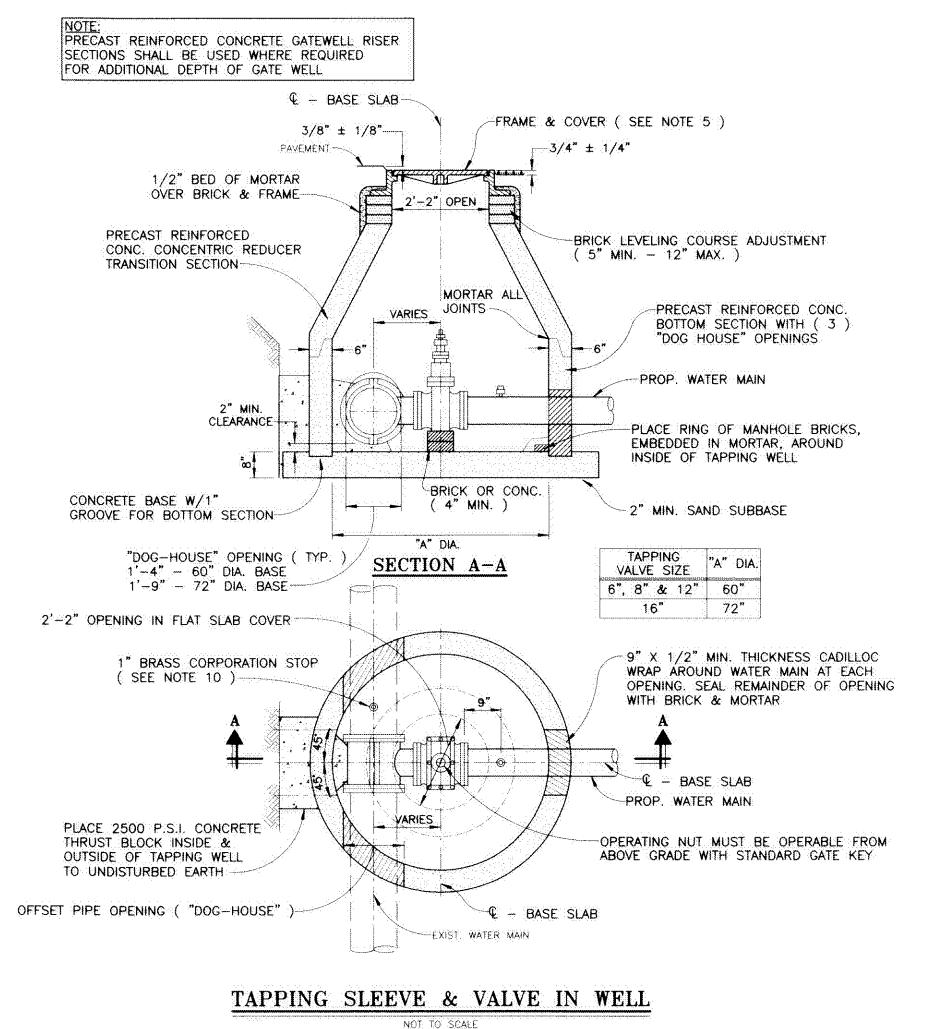
NOT TO SCALE





"T" HYDRANT CONNECTION

NOT TO SCALE



GENERAL NOTES

1. STANDARDS AND SPECIFICATIONS

- A. 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 (DWSD). DETAILED WRITTEN SPECIFICATIONS ARE AVAILABLE UPON REQUEST.
- B. 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.

2. PRECONSTRUCTION REQUIREMENTS

- A. 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.
- B. 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.

3. PIPE MATERIAL

- A. 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 BELLTITE WITH SERRATED BRASS WEDGES. 6" THROUGH 12" PIPE REQUIRES TWO (2) WEDGES PER JOINT, 16" AND LARGER REQUIRES FOUR (4) WEDGES PER JOINT.
- B. 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.
- NOTE: HDPE WATER MAIN SHALL ONLY BE USED WITH WRITTEN AUTHORIZATION OF THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS. IN NO CASE SHALL THE INSIDE DIAMETER OF THE EQUIVALENT HDPE PIPE BE LESS THAN THE INSIDE DIAMETER OF THE STANDARD DUCTILE IRON PIPE.

4. <u>HYDRANTS</u>

- A. 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.
- B. 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.
- C. HYDRANTS SHALL HAVE A MINIMUM BURY OF FIVE AND ONE—HALF FEET (5-½') 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 (2-½").
- D. 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.

4. HYDRANTS (CONTINUED)

E. 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 PUBLIC 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

5. GATE VALVES

- A. 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.
- B. 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.
- C. 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.
- D. 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.
- E. 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.
- F. 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.
- G. 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.

6. FITTINGS

- A. 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.
- B. 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.
- C. 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.
- D. ALL MECHANICAL JOINTS, FITTINGS, GLANDS AND BOLTS SHALL BE COATED WITH BITUMASTIC.

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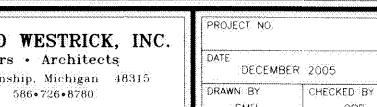
CITY OF GROSSE POINTE WOODS STANDARD WATER MAIN DETAILS (1 OF 2

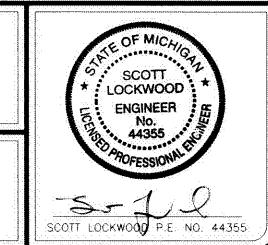
DEPARTMENT OF PUBLIC WORKS

APPROVED BY : JOSEPH J. AMI

JOSEPH J. AHEE, JR., D.P. DIRECTOR

DATE : 12-13-05





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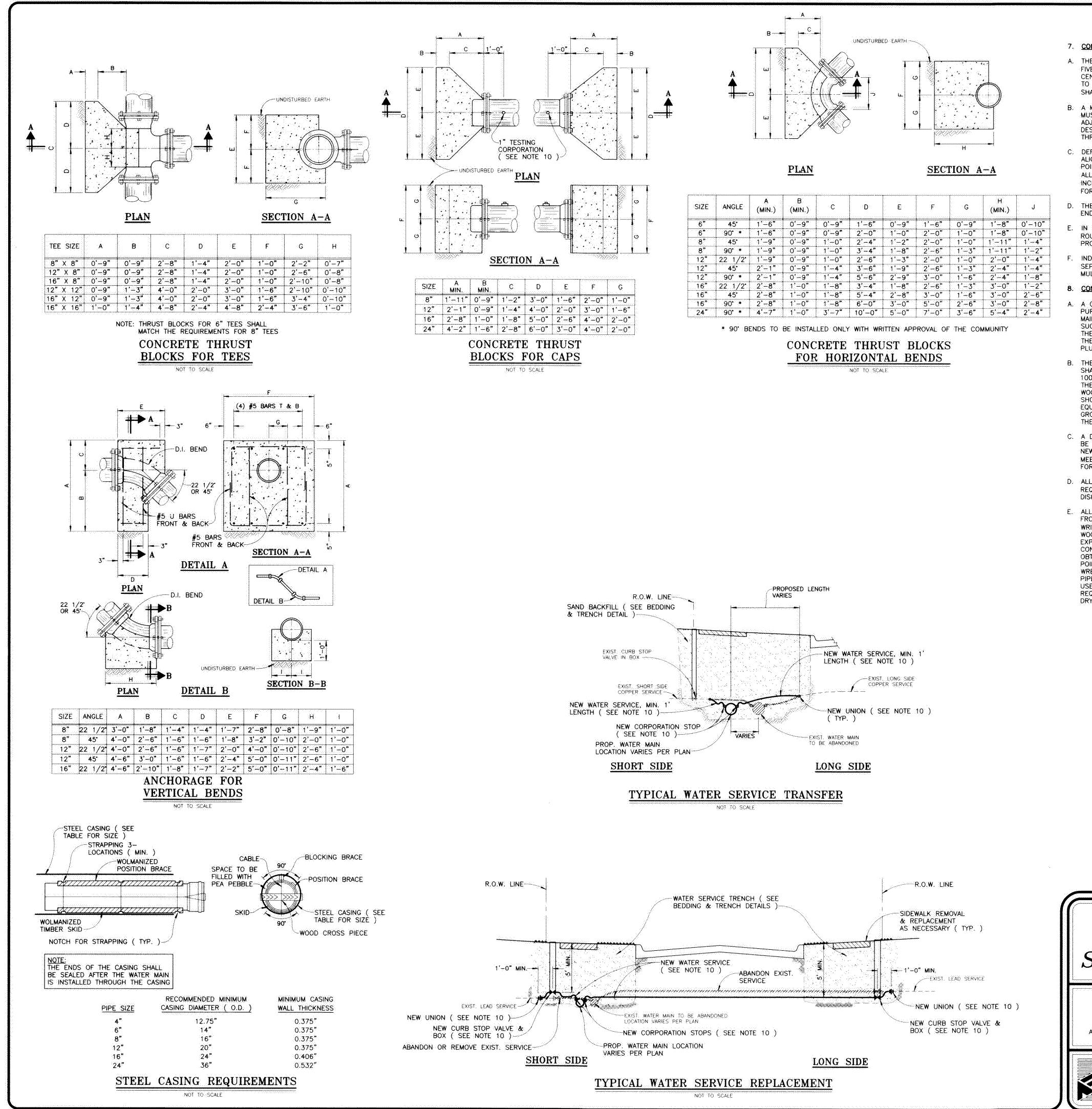
ANDERSON, ECKSTEIN AND WESTRICK, INC.
Civil Engineers • Surveyors • Architects

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GENERAL NOTES

7. CONSTRUCTION

- A: THE WATER MAIN SHALL BE CONSTRUCTED WITH A MINIMUM COVER OF FIVE AND ONE-HALF FEET (5-1/2'), 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 (1-16') 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.
- IN NEW DEVELOPMENTS, WATER MAIN SHALL NOT BE INSTALLED UNTIL ROUGH GRADING IS COMPLETED TO WITHIN TWELVE INCHES (12") OF
- INDIVIDUAL WATER SERVICES AND METERS SHALL BE REQUIRED FOR EACH SEPARATE UNIT WITHIN PROPOSED COMMERCIAL, INDUSTRIAL AND/OR MULTIPLE FAMILY RESIDENTIAL BUILDINGS.

CONNECTION TO EXISTING SYSTEM

- A. A ONE INCH (1") CORPORATION SHALL BE INSTALLED, FOR TESTING PURPOSES, IN ALL STUBS AND POINTS OF CONNECTION TO EXISTING MAINS. SEE NOTE 10 FOR CORPORATION STOP SPECIFICATION. UPON SUCCESSFUL COMPLETION OF THE TESTS AND WITH THE APPROVAL OF THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS. THE CONTRACTOR SHALL REMOVE THE TESTING CORPORATION AND INSTALL
- B. THE MAXIMUM PERMISSIBLE LEAKAGE, DURING HYDROSTATIC TESTING, SHALL NOT EXCEED 0.18 GALLONS PER INCH DIAMETER OF MAIN PER 1000 FEET OF PIPE IN 2 HOURS AT A TEST PRESSURE OF 150 PSI, THE MAXIMUM TEST LENGTH IS 3000 FEET. THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS RESERVES THE RIGHT TO TEST SHORTER LENGTHS. THE CONTRACTOR IS TO SUPPLY ALL TESTING EQUIPMENT AND PERFORM THE TEST. THE DWSD AND THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS WILL WITNESS
- C. A DOUBLE CHECK VALVE ASSEMBLY, FOR BACKFLOW PREVENTION, SHALL BE UTILIZED ON ALL TEMPORARY LINES USED TO FILL AND FLUSH THE NEWLY INSTALLED MAIN: THE DOUBLE CHECK VALVE ASSEMBLY SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C510 CURRENT SPECIFICATIONS FOR DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY.
- D. ALL WATER MAINS SHALL BE DISINFECTED ACCORDING TO THE REQUIREMENTS OF ANSI/AWWA C651 CURRENT SPECIFICATIONS FOR DISINFECTING WATER MAINS.
- E. ALL WATER USED FOR FLUSHING NEW WATER MAINS MAY BE OBTAINED FROM THE LOCAL WATER SUPPLY. THE CONTRACTOR SHALL SECURE WRITTEN PERMISSION AND/OR PERMIT FROM THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS FOR WATER USED AND BEAR ALL EXPENSES OF SUCH PERMIT AND FOR THE WATER USED. WHERE CONNECTIONS ARE MADE TO HYDRANTS, THE CONTRACTOR SHALL ALSO OBTAIN PERMISSION FOR SUCH CONNECTIONS FROM THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS. STANDARD HYDRANT WRENCHES SHALL BE USED FOR OPENING AND CLOSING THE HYDRANT. PIPE WRENCHES SHALL NOT BE USED TO OPEN OR CLOSE HYDRANTS. USE OF ANY HYDRANT AFTER OCTOBER 15 SHALL INCLUDE THE REQUIREMENT THAT EACH HYDRANT SO USED BE COMPLETELY PUMPED DRY AFTER EACH USE.

8. CONNECTION TO EXISTING SYSTEM (CONTINUED)

- F. CONNECTIONS TO THE EXISTING WATER SYSTEM SHALL NOT BE MADE UNTIL THE NEW MAIN HAS BEEN SUCCESSFULLY PRESSURE TESTED AND HAS PASSED BACTERIOLOGICAL TESTING IN ACCORDANCE WITH CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS AND DWSD STANDARDS AND A COPY OF BOTH RESULTS ARE SUBMITTED TO THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS. FINAL CONNECTIONS SHALL BE COORDINATED WITH THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS.
- G. BEFORE ACCEPTANCE A FINAL REVIEW MUST BE MADE BY THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS. FOR PRIVATE DEVELOPMENTS, A SET OF AS-BUILT SEPIA MYLARS, AN AUTOCAD DIGITAL FILE AND THREE (3) SETS OF BLUE LINE PRINTS SHALL BE SUBMITTED TO THE CITY OF GROSSE POINTE WOODS ENGINEER.

9. MAINTENANCE AND GUARANTEE BOND

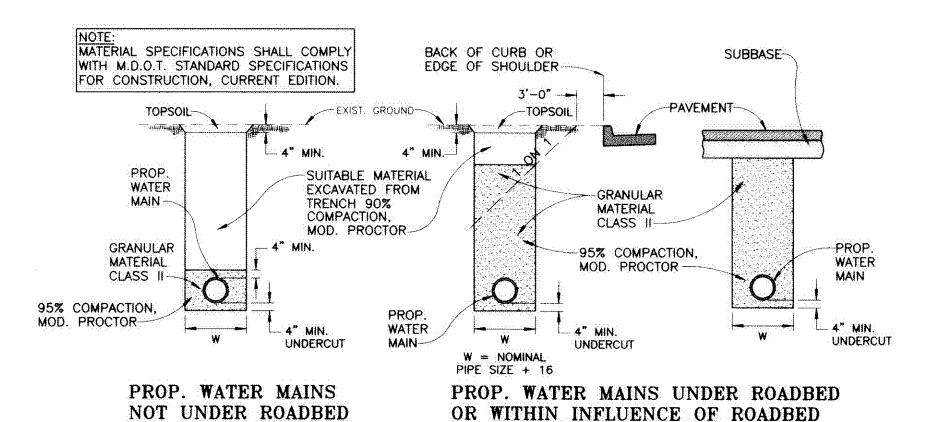
A. THE CONTRACTOR SHALL PROVIDE A TWO (2) YEAR MAINTENANCE AND GUARANTEE BOND TO THE CITY OF GROSSE POINTE WOODS FROM A SURETY. LICENSED IN THE STATE OF MICHIGAN, WITH A RATING OF B+ OR BETTER, DATED FROM THE TIME OF FINAL ACCEPTANCE BY THE CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS, FOR 100% OF THE CONSTRUCTION COSTS.

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 AWWA TAPER (MUELLER "CC") THREAD AND COPPER FLARE STRAIGHT CONNECTION OUTLET. A BRONZE DOUBLE STRAP SADDLE IS REQUIRED FOR ONE AND ONE-HALF INCH (1-1/2") AND TWO INCH (2") WATER SERVICES. BRONZE DOUBLE STRAP SADDLES SHALL BE MUELLER BR 2 B SERIES WITH AWWA TAPER (MUELLER "CC")
- 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 STORS SHALL ONLY 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.



BEDDING & TRENCH DETAILS

NOT TO SCALE

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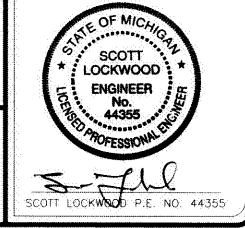






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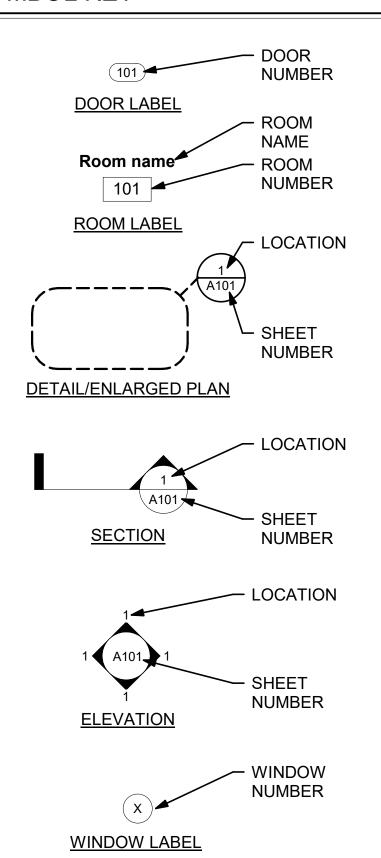
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ABBREVIATIONS

NOTE: NOT	ALL ADDDEVIATIONS LISED		
	ALL ABBREVIATIONS USED. EVIATIONS INCLUDE BUT NOT LIMITED TO THIS LIS	Г	
A.F.F	ABOVE FINISH FLOOR	 LHR	LEFT HAND REVERSE
ACCOM	ACCOMMODATE	MFR	MANUFACTURER
ACCORD	ACCORDANCE	MAX	MAXIMUM
A.C.P.	ACOUSTICAL PANEL	MECH.	MECHANICAL
ACOUS	ACCESS DOOR	MC	MECHANICAL CONTRACT (OR)
AD ALT	ACCESS DOOR ALTERNATE	M.P.E. MET	MECHANICAL, PLUMBING, ELECTRICAL METAL
ALUM.	ALUM.	MIN	MINIMUM
ARCH	ARCHITECT	MISC.	MISCELLANEOUS
@	AT	N/A	NOT APPLICABLE
BRG	BEARING	NIC	NOT IN CONTRACT
B PL	BEARING PLATE	NTS	NOT TO SCALE
BIT BLK	BITUMINOUS BLOCK	NRC NO OR #	NOISE REDUCTION COEFFICIENT NUMBER
BRD	BOARD	OC	ON CENTER
BOTT	BOTTOM	OPP.	OPPOSITE
BRKT	BRACKET	OD	OUTSIDE DIAMETER
BLDG	BUILDINGS	OH	OVERHEAD
CAB	CABINET	PLAS.	PLASTIC
CLG. CL	CEILING CENTER LINE	PL PLYWD	PLATE PLYWOOD
CIRC	CIRCULATION	PO	POLYETHYLENE
CLO	CLOSET	PSI	POUNDS PER SQ. INCH
COL	COLUMN	PSF	POUNDS PER SQ. FOOT
COMP	COMPUTER	PVC	POLYVINYL CHLORIDE
CONC.	CONCRETE	RWC	RAIN WATER CONDUCTOR
CMU CONF.	CONCRETE MASONRY UNIT CONFERENCE	RECPT REC	RECEPTION RECESSED
CONF.	CONSTRUCTION	REF.	REFLECTED
CONT	CONTINUOUS	REINF	REINFORCING
COORD	COORDINATE	RE-BAR	REINFORCING BARS
CR	COAT RACK	REP	REPRESENTATIVE
CRS	COURSES	REQ	REQUIRED
DEMO DIA	DEMOLISH, DEMOLITION DIAMETER	RF RFM	ROOF FAN RECESSED FLOOR MAT
DIM	DIMENSION	RH	RIGHT HAND
DIV	DIVISION	RHR	RIGHT HAND REVERSE
DR	DOOR	ROW	RIGHT OF WAY
DN	DOWN	RD	ROOF DRAIN
DS	DOWN SPOUT WITH SPLASH BLOCK	RM	ROOM
ELEC. EWC	ELECTRICAL ELECTRICAL WATER COOLER	RO SCHED.	ROUGH OPENING SCHEDULE
EC	ELECTRICAL WATER COOLER ELECTRICAL CONTRACTOR	SIM.	SIMILAR
ELEV.	ELEVATION, ELEVATOR	SPEC	SPECIFICATION
ENG	ENGINEER	SPKLR	SPRINKLER
EQ	EQUAL	SS	STAINLESS STEEL
EX	EXISTING	STD	STANDARD
EXP EJ	EXPANSION, EXPOSED EXPANSION JOINT	STL STL JST	STEEL STEEL JOIST
EXT	EXTERIOR	STL STD	STEEL STUD
EF.	EXHAUST FAN	STOR	STORAGE
FWC	FABRIC WALL COVERING	STRUCT.	STRUCTURE
F.V.	FIELD VERIFY	STR STL	STRUCTURAL STEEL
F.R.P.	FIBERGLASS REINFORCED PANEL	SUSP.	SUSPENDED
FIN FF	FINISH FINISHED FLOOR	SYS TEL	SYSTEM TELEPHONE
FE	FIRE EXTINGUISHER	TEMP.	TEMPERED
FEC	FIRE EXTINGUISHER CABINET	T	TEMPERED GLAZED
FLR	FLOOR	T & G	TONGUE AND GROOVE
FD	FLOOR DRAIN	TOC	TOP OF CURB
FTG	FOOTING	TOF	TOP OF STEEL
GA GALV	GAGE, GAUGE GALVANIZED	TOS TOW	TOP OF STEEL TOP OF WALL
GC	GENERAL CONTRACTOR	TOM	TOP OF MASONRY
GWB	GYPSUM DRYWALL (WALLBOARD)	TYP.	TYPICAL
GWB-X	GWB TYPE-X (FIRE RESISTIVE	UNO	UNLESS NOTED OTHERWISE
	CLASSIFICATION)	UR	URINAL
HC	HANDICAP	VB	VAPOR BARRIER
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING	VIF VERT	VERIFY IN FIELD VERTICAL
HT. / HGT.	HEIGHT	VEIXI	VINYL COMPOSITE TILE
H.M.	HOLLOW METAL STEEL	VWB	VINYL WALL BASE
HOR	HORIZONTAL	VWC	VINYL WALL COVERING
ID	INSIDE DIAMETER	WAIT	WAITING
INS	INCHES	WC	WATER CLOSET
JT	JOINT	WT	WEIGHT
JST	JOIST	WWF W/	WELDED WIRE FABRIC WITH
KSF LAM.	KIPS PER SQUARE FOOT LAMINATE	W/O	WITH WITH OUT
LIN FT	LINEAR FOOT	WD.	WOOD
LLV	LONG LEG VERTICAL	•	FOOT, FEET
LAV	LAVATORY	"	INCH, INCHES
LH	LEFT HAND	#	POUNDS

SYMBOL KEY



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.
- FOUNDATIONS SHALL BEAR ON COMPACTED SOIL FREE OF VEGETATION AND ORGANIC MATERIALS WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 2000 PSF. THE CONTRACTOR SHALL RETAIN THE SERVICES OF A GEOTECHNICAL ENGINEER, REGISTERED IN THE STATE OF MICHIGAN, TO VERIFY PERMISSIBLE BEARING CAPACITY VALUES. SUBMIT A REPORT OF THE SOIL CONDITIONS AND CAPACITIES ENCOUNTERED TO THE ENGINEER FOR RECORD.

THERMAL AND MOISTURE PROTECTION

- REFER TO "MATERIAL AND INSTALLATION NOTES" ON DRAWINGS.
- ROOFING SHALL BE ARCH. GRADE DIMENSIONAL, 300 LB. SEAL-DOWN SHINGLES EQUAL TO OWENS/CORNING FIBERGLASS. APPLY OVER SYNTHETIC UNDERLAYMENT. FLASH ALL LOCATIONS SHOWN ON DRAWINGS WITH BITUTHENE "ICE DAM" MEMBRANE.
- BASE DAMPPROOFING SHALL BE 20 MIL FLEXIBLE PLASTIC.
- LINTEL FLASHING SHALL BE 2 OUNCE COPPER BONDED TO 3 OUNCE WATER- PROOFED KRAFT PAPER OR EQUAL BY AN APPROVED MANUFACTURER.
- CAULK DOOR AND WINDOW FRAMES AT MASONRY WALLS. CAULK COMPOUND SHALL BE AN ELASTIC, WATERPROOF ADHESIVE FROM AN APPROVED MANUFACTURER. COLOR SELECTION
- INSULATION: BOTTOM OF ROOF TRUSSES: R-38 PERIMETER FOUNDATION INSULATION: 2" EXPANDED POLYSTYRENE OR APPROVED EQUAL INSTALLED BY FOUNDATION CONTRACTOR. PROVIDE INSULATION BAFFLES BETWEEN TRUSSES TO INSURE AIR PASSAGE ABOVE ROOF INSULATION. STUD WALL INSULATION: R-20
- TYVEK AIR INFILTRATION BARRIER BEHIND ALL VENEERS.
- PREFINISHED ALUM. PERFORATED SOFFIT SYSTEM, OVERHANG DRIP EDGE AND ATTIC VENTS (144 SQ. IN. VENTILATION EACH). BY APPROVED MANU- FACTURER. COLOR SELECTION
- SIDEWALL SHEATHING EQUAL TO 1/2" THICK CDX SOUTHERN PINE PLYWOOD.

GENERAL DEMOLITION NOTES

- REMOVE ALL ABANDONED MISC. HARDWARE, ACCESSORIES, SUPPORTS, BRACKETS, ANCHORS ETC. IN AREAS OF DEMOLITION (TYPICAL).
- REMOVE ALL ABANDONED WIRING, CABLES, RACEWAYS, SWITCHES AND OUTLETS AS REQUIRED.
- CUT AND CAP ALL ABANDONED PLUMBING BEHIND WALL.
- REMOVE ALL MISC. ATTACHMENTS THAT INTERFERE WITH NEW CONSTRUCTION OR AS SHOWN ON PLANS.
- OWNER HAS FIRST SALVAGE RIGHTS ON ALL ITEMS AND EQUIPMENT, VERIFY SALVAGE OF ITEMS AND EQUIPMENT WITH OWNER.
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE DEMOLITION AND/OR CONSTRUCTION. CONTRACTOR SHALL COORDINATE DEMOLITION AND CONSTRUCTION TO COMPLETE WORK AS DEFINED ON PLAN, ELEVATIONS AND DETAILS.
- COORDINATE ALL DIMENSIONS WITH PROPOSED CONSTRUCTION.
- CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES DURING DEMOLITION & CONSTRUCTION. (WATER, SEWER, ELECTRICAL, GAS) VERIFY ALL EXISTING LOCATIONS.
- CONTRACTOR SHALL PROTECT ALL BUILDING AND SITE ELEMENTS DURING CONSTRUCTION, RESTORE
- ELEMENTS LABELED AS EXISTING ARE TO REMAIN UNLESS NOTED OTHERWISE.
- DASHED LINES INDICATE ITEMS TO BE REMOVED AS NOTED.
- REMOVE ALL EXISTING ELECTRICAL LIGHTING FIXTURES AS INDICATED ON PLAN OR THAT INTERFERE WITH CONSTRUCTION.
- REMOVE ALL EXISTING OUTLETS, SWITCHES AND COVER PLATES AS SHOWN ON PLANS OR THAT INTERFERE WITH CONSTRUCTION.
- REMOVE ALL MECHANICAL GRILLES, LOUVERS AND DIFFUSERS AS SHOWN ON PLAN OR THAT INTERFERE WITH CONSTRUCTION.
- COORDINATE AND VERIFY ALL DEMOLITION DIMENSIONS WITH ARCHITECTURAL DIMENSIONS.
- COORDINATE ALL DEMOLITION WITH MECHANICAL AND ELECTRICAL.
- CONTRACTOR SHALL REMOVE ALL ITEMS (ATTACHED OR OTHERWISE) WHICH REQUIRE REMOVAL OR ARE AFFECTED BY THE PROPOSED NEW CONSTRUCTION. THE CONTRACTOR SHALL FAMILIARIZE WITH THE EXISTING CONDITIONS AND SHALL COMPLETE ALL REQUIRED DEMOLITION (REGARDLESS WEATHER EACH INDIVIDUAL ITEM HAS BEEN IDENTIFIED ON THE DEMOLITION PLAN).
- THE CONTRACTOR SHALL LEVEL / ADJUST SUBFLOOR AND OR CONCRETE FLOOR SLAB AS REQUIRED FOR FLOOR FINISH.

GENERAL NOTES

- 1. THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND INSPECTIONS. FEES WILL BE WAIVED BY THE
- ALL CONTRACTORS SHALL COORDINATE THE LOCATION OF DUCTS, PIPING, BOXES. CHASES. CONDUITS, ETC. WITH THE MECHANICAL, ELECTRICAL AND ALL OTHER TRADES.
- PITCH ALL GRADES AND EXTERIOR SLABS AWAY FROM BUILDING TOWARDS DRAINAGE.
- SEAL/MORTAR ALL OPENINGS AROUND PIPES, CONDUITS, ETC... WHICH PASS THROUGH FLOORS AND WALLS.
- CAULK ALL JOINTS BETWEEN DOOR FRAMES, WINDOW FRAMES, MASONRY WALLS AND ALL DISSIMILAR MATERIALS.
- PROVIDE ALL NECESSARY BLOCKING AS REQUIRED TO SUPPORT LIGHTING, SIGNS, BRACKETS, ACCESSORIES, ETC...
- ALL DIMENSIONS ARE FROM FACE OF STUD TO FACE OF STUD OR FACE OF BLOCK TO FACE OF BLOCK.
- ALL ITEMS NOTED "BY OWNER" OR "N.I.C." ARE NOT IN CONTRACT.
- CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS EXISTING AND PROPOSED ON THE JOB. REPORT ALL DEVIATIONS FROM DRAWINGS PRIOR TO START OF CONSTRUCTION.
- ALL CONTRACTORS SHALL CONSTRUCT THIS PROJECT IN ACCORDANCE WITH ALL STATE, FEDERAL
- ALL CONTRACTORS SHALL REPAIR ANY DAMAGES OR DISTURBANCES TO THE EXISTING BUILDING AND SITE. PATCH / REPAIR AND PAINT ANY WALLS DISTURBED FROM DEMOLITION.
- 12. ALL WOOD AND MISC. BLOCKING IN CONTACT WITH CONCRETE OR MASONRY SHALL BE TREATED.
- 13. ALL INTERIOR CONTROL JOINTS SHALL BE CONSTRUCTED AT 20'-0" O.C. MAXIMUM UNLESS NOTED
- OTHERWISE.
- ALL MATERIALS USED ARE REQUIRED TO BE OF GOOD QUALITY AND MEET OR EXCEED ALL APPLICABLE INDUSTRY STANDARDS.
- ALL WORK IS TO BE DONE WITH THE APPROPRIATE TOOLS AND MATERIALS. THE ARCHITECT HAS THE RIGHT TO REJECT ANY WORK NOT DONE APPROPRIATELY.
- REMOVE ALL TRASH AND DEBRIS FROM THE SITE. WASH ALL SURFACES DUST AND SWEEP TO REMOVE ALL DIRT. REMOVE ALL TEMPORARY LABELS.
- REPLACE ALL CONCRETE FLOOR WHICH WAS REMOVED AND OR DAMAGED FOR / DURING CONSTRUCTION, PREPARATION FOR FLOOR FINISH.
- ALL CONTRACTORS AND SUBCONTRACTORS SHALL PROVIDE ALL WORK SHOWN IN ANY PART OF THE DOCUMENTS, I.E. HAND DRYER SHOWN ON ARCHITECTURAL DRAWINGS MUST BE WIRED BY THE ELECTRICIAN WHETHER IT IS OR IS NOT SHOWN ON THE ELECTRICAL DRAWINGS.
- THE GENERAL CONTRACTOR SHALL PROVIDE A MIN. 2 YEAR (U.N.O.) WARRANTY ON ALL MATERIAL, EQUIPMENT AND WORK PERFORMED.
- 20. PATCH ALL EXISTING TO REMAIN CEILING AND WALLS WHERE EXISTING LIGHTING FIXTURES AND OTHER DEVICES OR LOUVERS ARE REMOVED.

TRAVEL PATH =

TRAVEL PATH =

 \rightarrow EXIT 3

- → EXIT 2

USE GROUP B:

USE GROUP S-1: 1,075 SF

2015 MICHIGAN BUILDING CODE

ALL ITEMS REFERENCE 2015 MICHIGAN BUILDING CODE UNLESS NOTED OTHERWISE

'S-1' STORAGE

TYPE OF CONSTRUCTION (SECTION 601)

BUILDING AREA (503) ALLOWABLE AREA (TABLE 506.2)

BUSINESS 9,000 S.F. 'S-1' STORAGE 9,000 S.F.

PROPOSED AREA 'B' BUSINESS

'S-1' STORAGE 1,075 S.F. 1,705 S.F. TOTAL

MIXED OCCUPANCIES (SECTION 508)

SEPARATED USES REQUIRED SEPARATION (TABLE 508.3.3) 'B' AND 'S-1' = 0HR FIRE BARRIER

40', 1 STORY

630 S.F.

ALLOWABLE HEIGHT (TABLE 504.3 AND 504.4) 'B' BUSINESS 40', 2 STORY

OCCUPANT LOAD (TABLE 1004.1.2)

STORAGE

'S-1' STORAGE

BUSINESS 100 GROSS 630 S.F./100 = 7 200 GROSS 1060 S.F./200 = 6 (ALLOWABLE) STORAGE

TOTAL ALLOWABLE BUILDING LOAD =

TOTAL ACTUAL BUILDING LOAD = REQUIRED PLUMBING FIXTURES (MICHIGAN PLUBMING CODE TABLE 403.1) **BUSINESS AND**

1 MENS REQUIRED 1 WOMENS REQUIRED LAV 1 PER 40 = 1 MENS REQUIRED 1 WOMENS REQUIRED DF 1 PER 100 = 1 REQUIRED

1 REQUIRED BUILDING OCCUPANCY = 5 REQ'D FIXTURES = 1 WC AND 1 LAV PROVIDED, LESS THAN 15 OCCUPANTS (SEC 403.2)

0 DF PROVIDED, OWNER TO SUPPLY WATER BOTTLE STATION 1 SS PROVIDED

2 REQUIRED, 3 PROVIDED

NUMBER OF EXITS (TABLE 1006.3.1)

FIRE RESISTANCE RATING REQUIRE'MTS FOR BUILDING ELEMENTS (TABLE 601).

STRUCTURAL FRAME - 0 **BEARING WALLS** EXTERIOR INTERIOR NONBEARING WALLS (EXTERIOR/INTERIOR) - 0

DEAD-END CORRIDORS (SECTION 1020.4) NONE, MAXIMUM LENGTH (20'-0'

FLOOR CONSTRUCTION - 0

ROOF CONSTRUCTION - 0

EXIT WIDTH (TABLE 1020.2) MINIMUM 44", 60" MIN. PROVIDED

EXIST TRAVEL DISTANCE (TABLE 1017.2) MAXIMUM 200' (WITHOUT SPRINKLER SYSTEM), 68'-2" PROVIDED

FIRE SUPPRESSION (903 BUSINESS

NOT REQUIRED 'S-1' STORAGE NOT REQUIRED, 1,075 SQ FT.

FIRE ALARM (907)

BUSINESS NOT REQUIRED, 5 OCCUPANTS 'S-1' STORAGE NOT REQUIRED

CIVIL ENGINEERS - SURVEYORS - ARCHITECTS 51301 Schoenherr Road Shelby Township, MI 48315 586.726.1234 | aewinc.com **Engineering Strong Communities**

> BID ISSUE SUBMITTALS/REVISIONS DATE

LAKE FRONT PARK **BUILDING RENOVATION**

GENERAL PROJECT INFORMATION

CITY OF GROSSE POINTE WOODS

CHECKED BY: AS NOTED



UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING 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

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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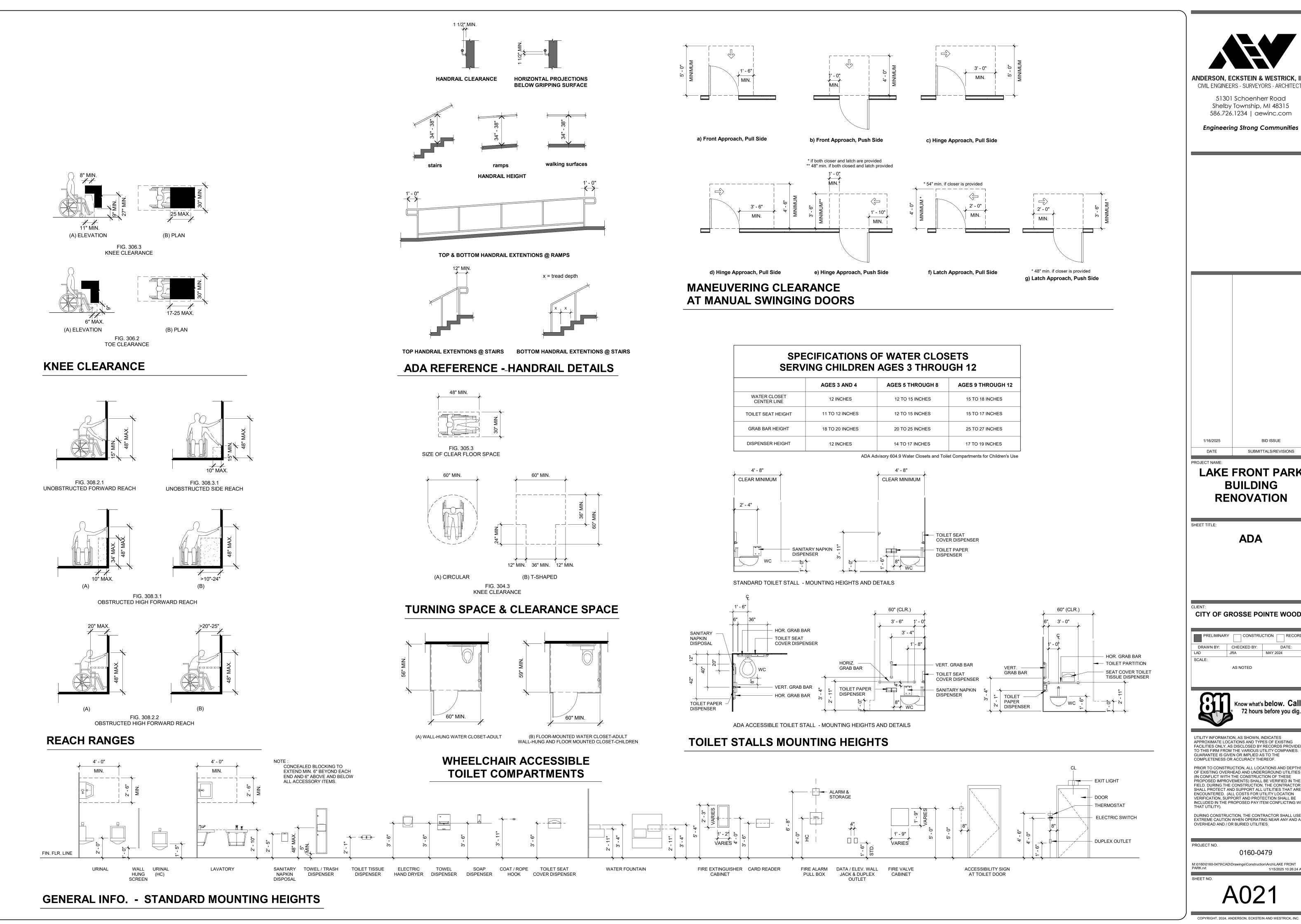
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TRAVEL PATH =

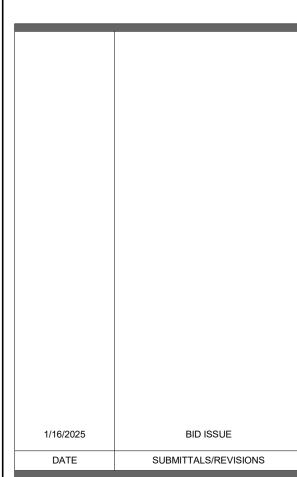
68'-2"



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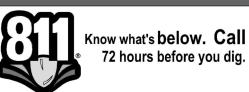


LAKE FRONT PARK **BUILDING RENOVATION**

ADA

CITY OF GROSSE POINTE WOODS

PRELIMINAR	Y CONSTRU	CTION RECORD
DRAWN BY:	CHECKED BY:	DATE:
LAD	JRA	MAY 2024
SCALE:		
	AS NOTED	



UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE

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FIELD. DURING THE CONSTRUCTION, THE CONTRACTOR
SHALL PROTECT AND SUPPORT ALL UTILITIES THAT ARE
ENCOUNTERED. (ALL COSTS FOR UTILITY OCCATION)

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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GENERAL TRADES SPECIFICATIONS

DIVISION 1 - GENERAL REQUIREMENTS :

- 1. ALL WORK SHALL COMPLY WITH STATE AND LOCAL BUILDING CODES AS THEY APPLY.
- 2. THE ENTIRE BUILDING SHALL BE ACCESSIBLE TO THE PHYSICALLY HANDICAPPED AND MEET ALL REQUIREMENTS OF A.D.A. & MICHIGAN BARRIER FREE DESIGN CODE.
- 3. ALL PROVISIONS OF "DIVISION 0" BIDDING REQUIREMENTS, CONTRACTS, FORMS AND CONDITIONS OF CONTRACT AND "DIVISION 1" - GENERAL REQUIREMENTS, FORM A PART OF EACH DIVISION GIVEN ON THIS DRAWING SHEET.
- 4. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS, FEES AND INSPECTIONS.
- 5. CONTRACTOR IS REQUIRED TO CARRY WORKERS, LIABILITY, AND BUILDERS RISK INSURANCE POLICIES.
- 6. CONTRACTORS AND SUBCONTRACTORS SHALL PROVIDE ALL WORK SHOWN IN ANY PART OF THE DOCUMENTS, I.E. HAND DRYER SHOWN ON ARCHITECTURAL DRAWINGS MUST BE WIRED BY THE ELECTRICIAN WHETHER IT IS OR IS NOT SHOWN ON THE ELECTRICAL DRAWINGS.
- 7. CONTRACTOR SHALL PROVIDE A MIN. 2 YEAR WARRANTY ON ALL MATERIAL, EQUIPMENT AND WORK PERFORMED.

DIVISION 2 - SITE WORK :

- 1. REFER TO SITE / CIVIL DRAWINGS AND BOOK SPECIFICATIONS FOR SITE DEVELOPMENT WORK.
- 2. FOUNDATIONS SHALL BE PLACED ON COMPACT, UNDISTURBED SUITABLE SOIL. QUESTIONABLE SOIL SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. DEPTHS SHOWN ON THE DRAWINGS ARE MINIMUM FOR FROST PROTECTION AND SHALL BE INCREASED IF NECESSARY FOR ADEQUATE SOIL BEARING CAPACITY.
- 3. EXCAVATE TO TOP OF FOOTINGS AS SHOWN ON FOUNDATION PLAN DRAWING.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING EXISTING UNDERGROUND UTILITIES IN THE AREA OF CONSTRUCTION.
- 5. THE CONTRACTOR SHALL COORDINATE HIS WORK ACTIVITIES WITH THE OWNER TO MINIMIZE DISRUPTION TO THE
- 6. BACKFILL UNDER BUILDING WITH SELECTED SAND, COMPACTED IN 6" LAYERS TO DENSITY OF 95% AASHO T-180. COMPACTION TESTS REQUIRED BY AN APPROVED LABORATORY - INCLUDE COST FOR (5) TESTS IN BID PRICE. PLACE FOOTINGS ON UNDISTURBED SOIL.
- 7. ACTUAL FINISH FLOOR ELEVATION 578.21' = 100'-0". BOTTOM OF FOOTING ELEVATIONS AND BOTTOM OF BASE PLATE ELEVATIONS ARE BASED ON THIS FINISH FLOOR DATUM.
- 8. 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

DIVISION 3 - CONCRETE:

1. SEE SPECIFICATIONS ON STRUCTURAL DRAWINGS

OWNER'S OPERATION OF THE FACILITY.

DIVISION 4 - MASONRY :

1. SEE SPECIFICATIONS ON STRUCTURAL DRAWINGS

DIVISION 5 - METALS

NOT USED.

DIVISION 6 - CARPENTRY :

SEE SPECIFICATIONS ON STRUCTURAL SHEETS.

<u>DIVISION 7 - THERMAL AND MOISTURE PROTECTION</u>

- 1. REFER TO "MATERIAL AND INSTALLATION NOTES" ON DRAWINGS.
- 2. SHINGLE ROOFING SHALL BE ARCHITECTURAL GRADE DIMENSIONAL 300 LB SEAL DOWN SHINGLE OVER SYNTHETIC UNDERLAYMENT. PROVIDE BITHUTHENE "ICE DAM" AT ALL EVES AND VALLEYS. APPROVED MANUFACTURERS AS FOLLOWS (OR APPROVED EQUAL):
 - B. OWENS CORNING
- 3. BASE DAMPROOFING SHALL BE 20 MIL FLEXIBLE PLASTIC.
- 4. CAULK DOOR AND WINDOW FRAMES AT MASONRY WALLS. CAULK COMPOUND SHALL BE AN ELASTIC, WATERPROOF ADHESIVE FROM AN APPROVED MANUFACTURER. COLOR SELECTION BY ARCHITECT.
- - A. ROOF INSULATION MIN. (R = 38) 3. PERIMETER FOUNDATION INSÚLATION: 2" EXPANDED POLYSTYRENE OR APPROVED EQUAL
 - INSTALLED BY FOUNDATION CONTRACTOR.
 - C. STUD WALL INSULATION (MIN.) R = 20 D. ISO BOARD CONTINUOUS ABOVE METAL DECK (MIN.) R = 25
- 6. TYVEK (BY DUPONT) AIR INFILTRATION BARRIER OVER ALL EXTERIOR SHEATHING.

DIVISION 8 - OPENINGS :

- EXTERIOR HOLLOW METAL DOORS: 14 GAUGE (MIN.) STEEL WITH ZINC COATING AND FACTORY BACKED ON PRIMER. URETHANE CORE INSULATION BONDED TO STEEL PANELS. MANUFACTURER SHALL BE MEMBER OF STEEL DOOR INSTITUTE, STEEL CRAFT OR EQUAL.
- HOLLOW METAL DOOR FRAMES: 18 GA. (MIN.) STEEL WITH ZINC COATING AND FACTORY BAKED ON PRIMER. CONFORM TO REQUIREMENTS OF ANSI À250.8. FABRICATE TO SUIT MASONRY WALL CAUSING (4 IN. HEAD MEMBER) AT MASONRY WALLS, AND WITH HOLES FOR SILENCERS. APPROVED MANUFACTURERS: STEELCRAFT, CURRIES OR APPROVED EQUAL (MUST BE MEMBER OF STEEL DOOR INSTITUTE). COORDINATE DOORS WITH FINISH HARDWARE. SEE SHEET (DOOR SCHEDULE) AND SECTION 08710 - FINISH HARDWARE.
- 3. COORDINATE DOORS WITH FINISHED HARDWARE.
- 4. ALL LOCKS SHALL BE MASTER KEYED AND KEYED ALIKE, AS DIRECTED BY OWNER AND ARCHITECT. COORDINATE WITH EXISTING KEY SYSTEM.
- FINISH HARDWARE. COORDINATE WITH DOORS AND FRAMES. KEYING WITH OWNERS APPROVAL. PROVIDE ALL HARDWARE APPROVED MANUFACTURERS AS FOLLOWS (OR APPROVED EQUAL): CONSULT OWNER / OWNER'S REP. FOR HARDWARE KEYING REQUIREMENTS AND FINISHES.
- 6. EXTERIOR ALUM. WINDOW SYSTEMS, ALUM. FRAME W/ THERMAL BREAK: APPROVED MANUFACTURE AS FOLLOWS (OR APPROVED EQUAL):
- 7. EXTERIOR GLAZING, 1" INSULATED LOW E, TINTED (TEMPERED WHERE REQ'D BY CODE) WITH PPG SOLARBAN 70XL
- INTERIOR HOLLOW DOORS LEVEL 1, STANDARD DUTY, NOMINAL 20 GA. / 0.032 IN. FACE SHEETS. FULL FLUSH DESIGN. PROVIDE FACTORY BAKED - ON PRIMER. CONFORM TO REQUIREMENTS OF ANSI A250.8. COORDINATE DOORS WITH FINISH HARDWARE. SEE SHEETS A601 (DOOR SCHEDULE) AND SECTION 08710 -FINISH HARDWARE. APPROVE MANUFACTURERS : STEELCRAFT, CURRIES OR APPROVED EQUAL (MUST BE MEMBER OF STEEL DOOR INSTITUTE).
- 9. EXTERIOR INSULATED STEEL SECTIONAL OVERHEAD DOOR BASIS OF DESIGN BY 'OVERHEAD DOOR' MODEL 418: 16 GA. EXTERIOR STEEL WITH WHITE BAKED-ON POLYESTER OR APPROVED EQUAL.

10. DOOR FINISH HARDWARE - REFER TO HARDWARE SCHEDULE FOR SPECIFICATIONS

- A. CONTRACTOR SHALL VERIFY ALL EXISTING FIELD CONDITIONS AND NOTIFY ARCHITECT IMMEDIATELY IF THAT WHICH EXISTS DIFFERS FROM THAT WHICH IS SHOWN ON DRAWINGS.
- B. ALL WORK TO COMPLY WITH CURRENT FEDERAL, STATE AND LOCAL CODES, LAWS AND ORDINANCES. THE REQUIREMENTS OF ICC/ANSI A117 1 AND THE AMERICANS WITH DISABILITIES ACT (ADA) ARE TO BE FULLY SATISFIED. ALL WORK SHALL MEET THE MOST STRINGENT REQUIREMENTS OF BOTH INCLUDING, BUT NOT LIMITED TO CLEARANCES, LIMITATIONS, ACCESSORIES, ETC.
- THESE DRAWINGS ARE PREPARED IN ACCORDANCE WITH THE LIMITED SERVICES FOR WHICH THE ARCHITECT WAS CONTRACTED. THE ARCHITECT MAKES NO REPRESENTATION THAT THE
- INTERPRETATION OF THESE DOCUMENTS WILL RESULT IN COMPLETE COMPLIANCE WITH THE ADA.
- ALL DOORS REQUIRED TO BE LABELED SHALL BE SET IN LABELED FRAMES AND IDENTIFIED WITH UL LABEL AND BE PROVIDED WITH APPROVED SELF-CLOSING DEVICES AND POSITIVE LATCHING HARDWARE.
- E. ALL DESIGNATED EXIT DOORS SHALL BE EQUIPPED WITH THE REQUIRED EGRESS HARDWARE.
- F. FURNISH HARDWARE AS SCHEDULED WITHOUT SUBSTITUTION, NO ALTERNATES WILL BE APPROVED.
- G. FURNISH A KEYED CYLINDER AND TWO CUT KEYS FOR EACH LOCKING E SPECIFIED; KEYED TO THE OWNERS' MASTER KEY SYSTEM, INCLUDE KEY CONFERENCE AND KEY SYSTEM SCHEDULE.
- H. FURNISH AND PROVIDE ALL NECESSARY REINFORCEMENTS, BRACKETS, FASTENERS, SPACERS AND FILLERS TO PROVIDE A COMPLETE FUNCTIONING OPENING.
- PROVIDE COMPLETE SHOP DRAWINGS, SUBMITTALS AND CUT SHEETS COMPLYING WITH DHI PRESCRIBED METHODS AND VERTICAL FORMAT DOUBLE SPACED HARDWARE SCHEDULE.

J. HARDWARE SETS:

HARDWARE SET 1 – ENTRY LOCK [LOCK / UNLOCK] + CLOSER STOP 3 EA. BUTT HINGE BB51 4 ½" X 4 ½" NRP EA. ENTRY LOCK MR 154 BJEW -SF7 PDQ2 32D PDQ EA. CLOSER 7101 BC SCS STOP (PUSH SIDE MOUNT) 689 PDQ EA. KICKPLATE 90 10 X 2" LDW BAE 32D DON JO

EA. THRESHOLD S205A AL REESE EA. SWEEP 354C -MOUNT PULL SIDE AL REESE 1 SET WEATHERSTRIP 855C (MOUNT PRIOR TO CLOSER SHOE) AL REESE 1 EA. RAIN DRIP R201 AL REESE

HARDWARE SET 2 – PUSH / PULL SET [ALWAYS UNLOCKED] + CLOSER

3	EA. BUTT HINGE BB81 4 1/2" X 4 1/2" NRP	26D PBB
1	EA. PULL PLATE 7137 (MOUNT PRIOR TO PUSH PLATE)	32D PDQ
1	EA. PUSH PLATE 71 (MOUNT OVER PULL FASTENERS)	32D PDQ
1	EA. CLOSER 7101 BC RA REGULAR ARM (PULL SIDE MOUNT)	689 PDQ
1	EA. KICKPLATE 90 10 X 2" LDW B4E	32D DON JO
1	EA. WALL STOP 1407	26D DON JO

HARDWARE SET 3 - FLUSHBOLTS X ENTRY LOCK [LOCK / UNLOCK] + ACTIVE LEAF CLOSER

6	EA. BUTT HINGE BB51 4 1/2" X 4 1/2" NRP	32D PBB
2	EA. FLUSHBOLT 1555	26D DON JO
1	EA. DUST PROOF STRIKE 1572	26D DON JO
1	EA. ENTRY LOCK MR 154 BJEW -SF7 PDQ2	32D PDQ
1	EA. CLOSER 7101 BC SCS (PUSH SIDE MOUNT ACT LEAF)	689 PDQ
1	EA. OVERHEAD STOP 3324 (MOUNT INACTIVE LEAF)	32D DON JO
2	EA. KICKPLATE 90 10 X 2" LDW B4E	32D DON JO
2	EA. SWEEP 354A -MOUNT PULL SIDE	AL REESE
1	EA. THRESHOLD S205A	AL REESE
1	SET WEATHERSTRIP 855C	
	(MOUNT PRIOR TO CLOSER SHOE)	AL REESE
1	SET FLEX ASTRAGAL 103C X 103C	AL REESE
1	EA. RAIN DRIP R201C	AL REESE

HARDWARE SET 4 - FLUSHBOLTS X ENTRY LOCK [LOCK / UNLOCK] + ACTIVE LEAF HO CLOSER

11/11	DWARE SET 4 - 1 LOSI BOLTO X ENTRY LOCK [LOCK / ONLOCK]	. 70	
6	EA. BUTT HINGE BB51 4 ½" X 4 ½" NRP	32D	PBB
2	EA. FLUSHBOLT 1555	26D	DON JO
1	EA. DUST PROOF STRIKE 1572	26D	DON JO
1	EA. ENTRY LOCK GT 116 BSN -SF7 PDQ2	26D	PDQ
1	EA. HO CLOSER 7101 BC SCSHO		
	(PUSH SIDE MOUNT ACT LEAF)	689	PDQ
2	EA. WALL STOP 1407	26D	DON JO
2	EA. KICKPLATE 90 10 X 2" LDW B4E	32D	DON JO
2	EA. SWEEP 967C -MOUNT PULL SIDE	AL	REESE
1	EA. THRESHOLD S425A	AL	REESE
1	SET WEATHERSTRIP 815A	AL	REESE
1	SET FLEX ASTRAGAL 103C X 103C	AL	REESE

HARDWARE SET 5 - ENTRY LOCK [LOCK / UNLOCK]

3 EA. BUTT HINGE BB81 4 ½" X 4 ½" NRP 1 EA. ENTRY LOCK GT 116 BSN -SF7 PDQ2

1 EA. WALL STOP 1407	26D DON JO
HARDWARE SET 6 – PRIVACY SET [LOCK / UNLOCK]	
3 EA. BUTT HINGE BB81 4 ½" X 4 ½" NRP	26D PBB
1 EA. PRIVACY SET GT 176 BSN	26D PDQ
1 EA. WALL STOP 1407	26D DON JO

26D PBB 26D PDQ

26D PDQ 26D DON JO

HARDWARE SET 7 - OFFICE LOCK [LOCK / UNLOCK]

3	EA. BUTT HINGE BB81 4 1/2" X 4 1/2" NRP	26D PBB
1	EA. OFFICE LOCK GT 182 BSN -SF7 PDQ2	26D PDQ
1	EA. WALL STOP 1407	26D DON J

DIVISION 9 - FINISHES

- SEALANTS : COLOR: MATCH ADJACENT MATERIAL
- 2. GYPSUM BOARD SHALL BE 5/8" THICK MANUFACTURED BY UNITED STATES GYPSUM COMPANY OR EQUAL. USE WATER RESISTANT GREEN BOARD IN TOILET ROOMS AND CEMENT BOARD IN SHOWERS AS SCHEDULED ON DRAWINGS. USE 5/8" TYPE "X" FIRECODE BOARD WHERE NOTED. A. METAL TRIM - L - TRIM MOLDING BY FRY REGLET OR APPROVED EQUAL.
- B. ELASTOMETRIC EXPANSION JOINT COVER 75 FWG-DRYWALL BY BALCO, INC. OR APPROVED EQUAL.
- 3. PAINT FINISHES SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. APPROVED MANUFACTURER'S
 - SHERWIN WILLIAMS RFN.IAMIN MOORE GLIDDEN
 - PITTSBURGH PAINTS PRATT & LAMBERT

APPROVED MANUFACTURE AS FOLLOWS (OR APPROVED EQUAL): ARMSTRONG, ULTIMA TEGULAR W/ PRELUDE XL 15/16" EXPOSED T GRID

5. PRE-FINISHED VINYL CEDAR SHINGLE/SHAKE SIDING: BASIS OF DESIGN BY 'CERTAINTEED' SAWMILL OR APPROVED EQUAL: MIN. 5/16" NOMINAL THICKNESS, PRE-PRIMED, PRE-FINISHED. PROVIDE ALL REQUIRED MANUFACTURER ACCESSORIES. ARCHITECT TO SELECT FROM FULL RANGE OF COLORS

- A. ACE MUDJACKING/FLOOR SHIELD OF MICHIGAN. CONTACT (248) 887-2231.
- RUBBER VINYL BASE: BASIS OF DESIGN BY 'TARKETT' OR EQUAL. ARCHITECT TO SELECT FROM FULL RANGE OF COLORS.

DIVISION 10 - SPECIALTIES :

- TOILET ROOM ACCESSORIES
 - A. SOAP DISPENSER SURFACE MOUNTED COMMERCIAL SOAP DISPENSER, SATIN-FINISH STAINLESS STEEL, 40 OZ. CAPACITY, WITH SOAP REFILL WINDOW. APPROVED MANUFACTURER: - BOBRICK B-4112 OR APPROVED EQUAL.
 - B. TOILET PAPER HOLDER- COMMERCIAL TOILET PAPER DISPENSER, SURFACE-MOUNTED, STAINLESS STEEL WITH SATIN FINISH. APPROVED MANUFACTURER: BOBRICK B-2888 OR APPROVED EQUAL.
 - C. PAPER TOWEL DISPENSER/ WASTE RECEPTACLE SATIN FINISH STAINLESS STEEL, RECESSED. APPROVED MANUFACTURER:

- BOBRICK B-3940 OR APPROVED EQUAL.

- D. SANITARY NAPKIN DISPOSAL- COMMERCIAL RESTROOM SANITARY NAPKIN DISPOSAL, SURFACE-MOUNTED, STAINLESS STEEL. APPROVED MANUFACTURER: BOBRICK B-270 OR APPROVED EQUAL.
- E. MIRRORS SHALL HAVE ONE-PIECE, TYPE 304 STAINLESS STEEL FRAME WITH INTEGRAL STIFFENERS AND BEVELED FRONT TO HOLD FRAME TIGHT AGAINST MIRROR, GALVANIZED STEEL BACK TO HAVE INTEGRAL HANGING BRACKETS FOR MOUNTING ON CONCEALED WALL HANGERS. GLASS TO BE TEMPERED. APPROVED MANUFACTURER: BOBRICK B-290 OR APPROVED EQUAL.
- G. GRAB BARS STAINLESS STEEL TYPE 304, WALL THICKNESS NOT LESS THAN 0.05 INCH, CONCEALED MOUNTING, 1-1/2" CLEARANCE BETWEEN WALL SURFACE AND INSIDE FACE OF BAR, SATIN-FINISH WITH PEENED GRIPPING SURFACE, OUTSIDE DIAMETER OF 1 1/2". APPROVED MANUFACTURER:
 - HORIZONTAL- BOBRICK B-6806.99 X 36" OR APPROVED EQUAL. HORIZONTAL- BOBRICK B-6806.99 X 42" OR APPROVED EQUAL. - VERTICAL- BOBRICK B-6806.99 X 18" OR APPROVED EQUAL
- 2. FIRE EXTINGUISHERS AND CABINETS LOCATED AS SHOWN ON PLANS. PROVIDE SEMI-RECESSED CABINETS WITH EXTINGUISHERS. APPROVED MANUFACTURERS: A. EXTINGUISHER - DRY CHEMICAL TYPE, COSMIC 'E' 10 LB, OR APPROVED EQUAL. B. ALUM. CABINETS - 'CLEAR VUE' MODEL 1000 OR APPROVED EQUAL.
- 3. EXTERIOR GRADE LOCKABLE HATCH

BASIS OF DESIGN 'ELMDOR ACCESS DOORS' OR APPROVED EQUAL



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CIVIL ENGINEERS - SURVEYORS - ARCHITECTS

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BID ISSUE SUBMITTALS/REVISIONS DATE

LAKE FRONT PARK **BUILDING RENOVATION**

SPECIFICATIONS

CITY OF GROSSE POINTE WOODS

CHECKED BY: SCALE: AS NOTED



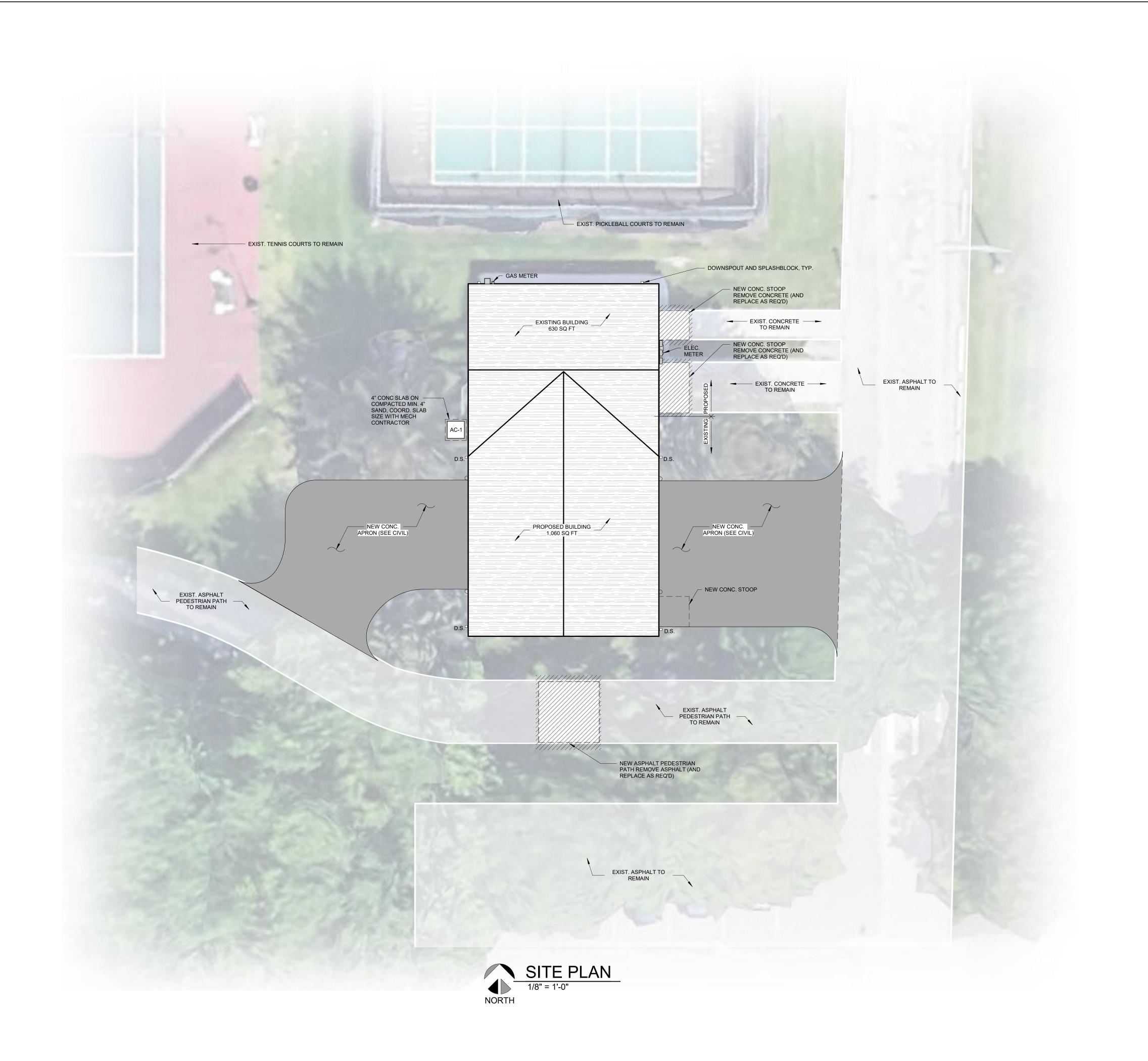
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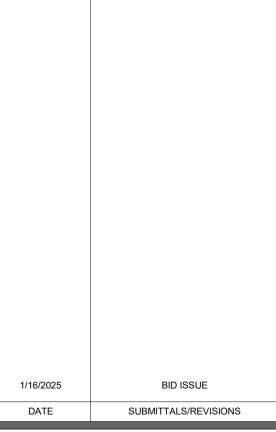
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LAKE FRONT PARK **BUILDING RENOVATION**

ARCHITECTURAL SITE PLAN

CITY OF GROSSE POINTE WOODS

DRAWN BY:	CHECKED BY:	DATE:
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SCALE:		
	AS NOTED	



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

EXIST. WOOD TRUSS TO - EXIST. RIDGE LINE



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 PLAN KEYNOTES :

- REMOVE PORTION OF WALL, COORD. W/ PROPOSED
- REMOVE EXISTING CONC. SLAB, COORD. W/ PROPOSED
- REMOVE DOOR AND FRAME, PREP FOR NEW
- REMOVE BRICK VENEER, PREP FOR NEW CONSTRUCTION
- REMOVE EXISTING WINDOWS, COORD. W/ PROPOSED AND PREP FOR
- SAW CUT PORTION OF EXIST. CONC. SLAB FOR NEW PLUMBING, REPLACE AS REQ'D
- REMOVE SOFFIT ABOVE
- REMOVE EXISTING SHINGLES AND SHEATHING, PREP FOR NEW
- REMOVE EXISTING FASCIA, SOFFIT, AND TRIM
- REMOVE PORTION OF EXISTING GYP. BOARD CEILING
- REMOVE EXISTING ACOUSTICAL CEILING TILE
- REMOVE ALL EXISTING LIGHT FIXTURES
- REMOVE EXISTING GLASS BLOCK WINDOWS, COORD. W/ PROPOSED

DEMOLITION PLAN LEGEND :

EXISTING WALL TO REMAIN

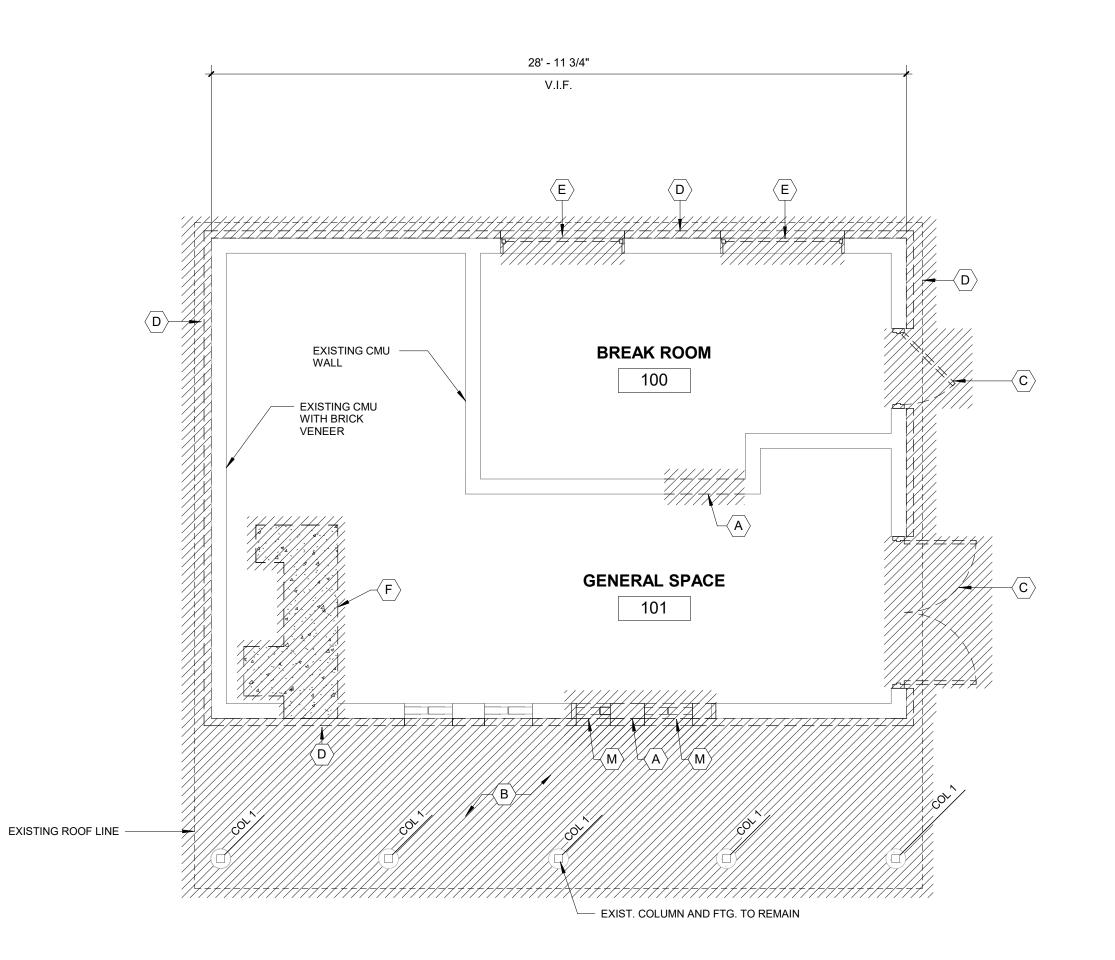
EXISTING WALL TO BE REMOVED (SEE DEMO PLAN & EXTERIOR ELEVATIONS)



EXISTING CONCRETE AND SHINGLES TO BE REMOVED



EXISTING CEILING, LIGHTS, AND DIFFUSERS TO BE

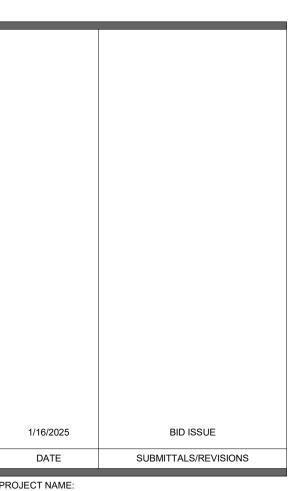






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LAKE FRONT PARK **BUILDING RENOVATION**

DEMOLITION FLOOR, CEILING, **AND ROOF PLAN**

CITY OF GROSSE POINTE WOODS

PRELIMINAR	Y CONSTRU	CTION RECORD
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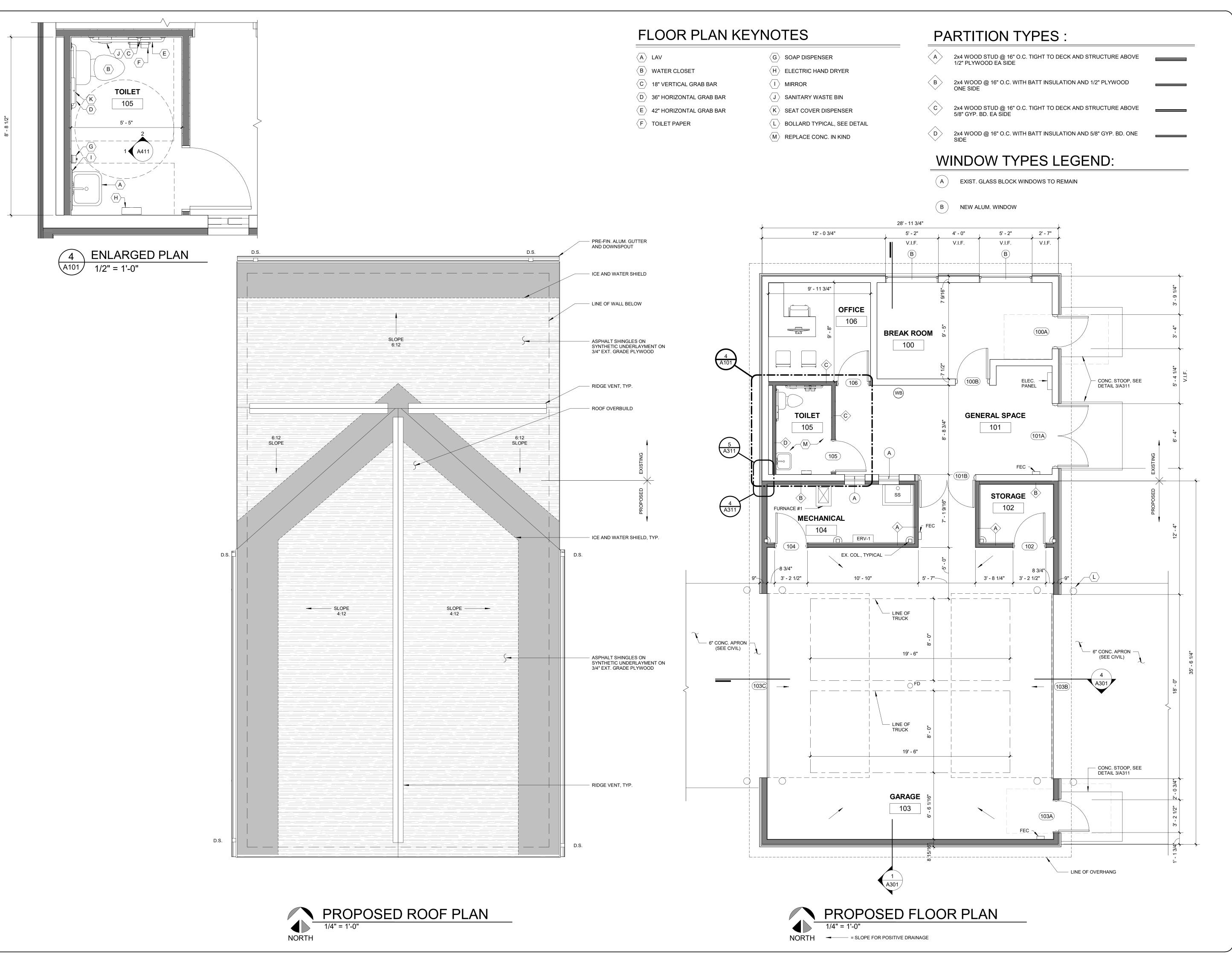


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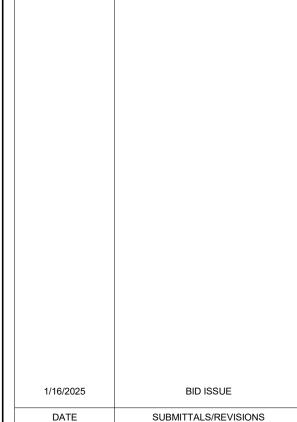




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LAKE FRONT PARK
BUILDING
RENOVATION

EET TITLE:

PROPOSED FLOOR AND ROOF PLAN

CITY OF GROSSE POINTE WOODS

PRELIMINARY CONSTRUCTION RECORD

DRAWN BY: CHECKED BY: DATE:

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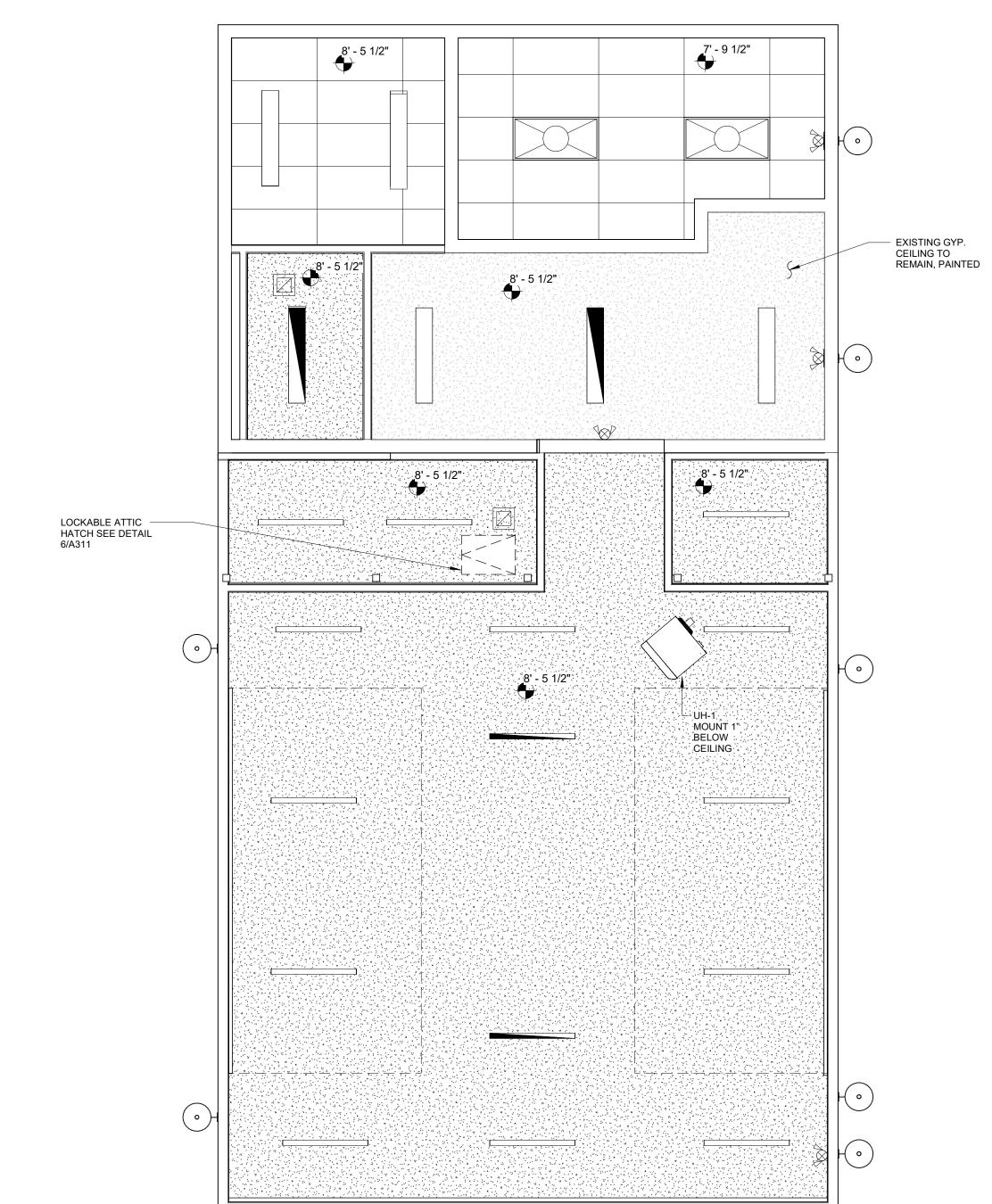
THAT UTILITY).

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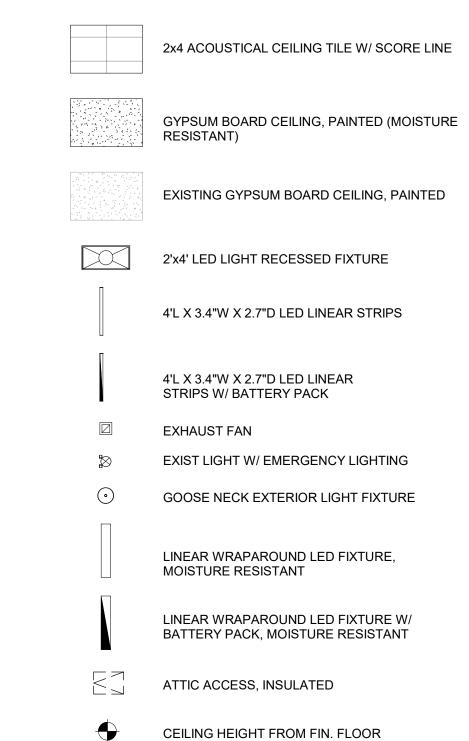
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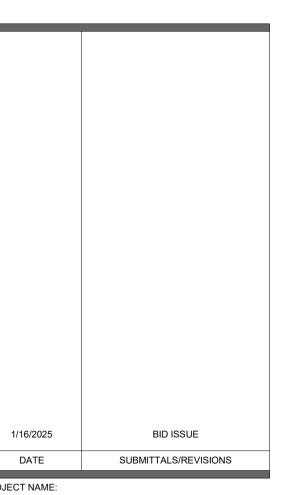


NOTE: SEE ELECTRICAL AND MECHANICAL FOR FINAL LAYOUT



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LAKE FRONT PARK
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PROPOSED REFLECTED CEILING PLAN

CLIENT:
CITY OF GROSSE POINTE WOODS

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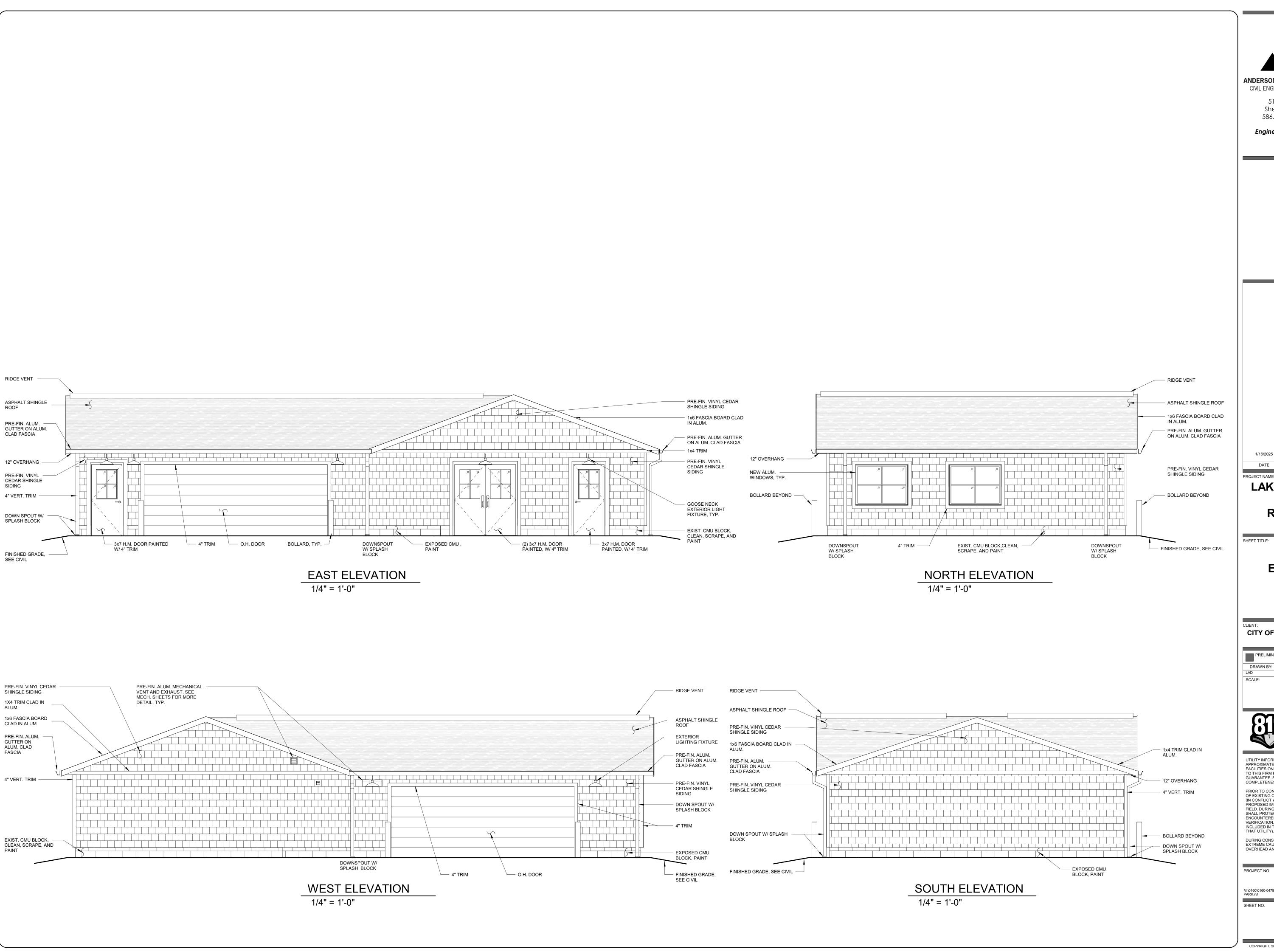
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REFLECTED CEILING PLAN

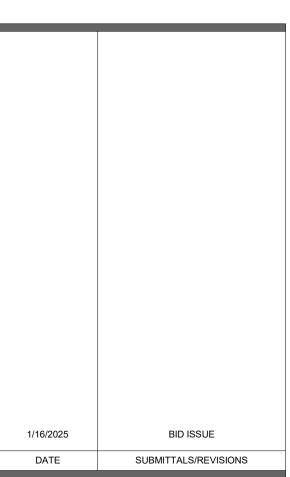
1/4" = 1'-0"





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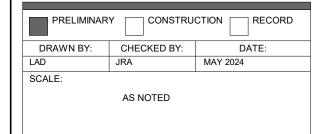
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LAKE FRONT PARK BUILDING **RENOVATION**

> **EXTERIOR ELEVATIONS**

CITY OF GROSSE POINTE WOODS



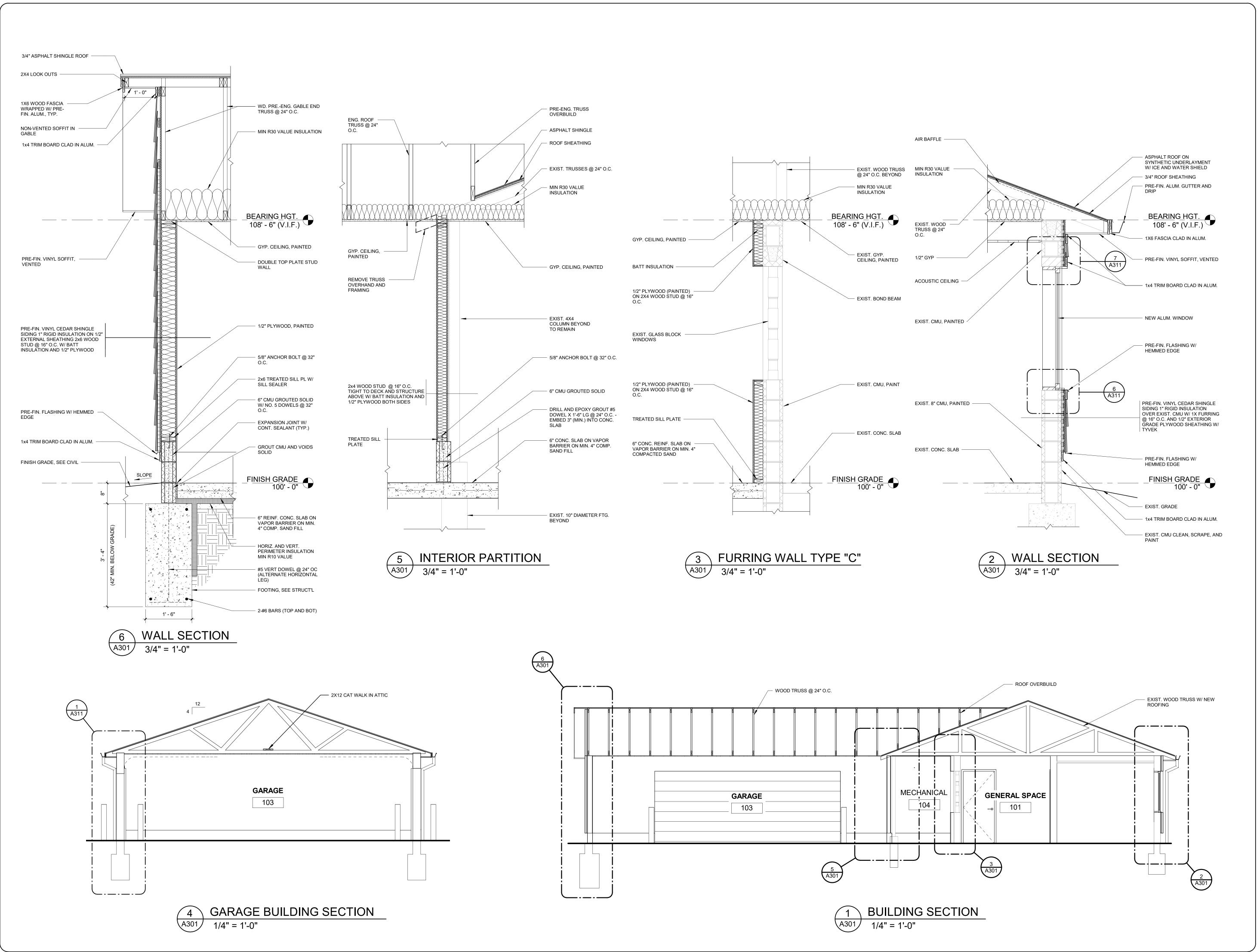


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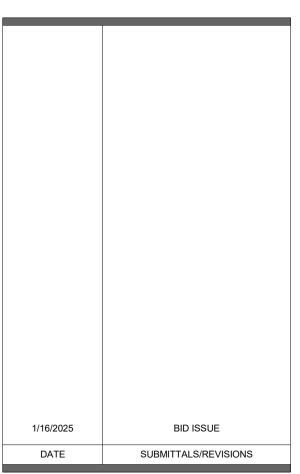
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LAKE FRONT PARK
BUILDING
RENOVATION

ET TITLE:

BUILDING AND WALL SECTIONS

CITY OF GROSSE POINTE WOODS

PRELIMINARY CONSTRUCTION RECORD									
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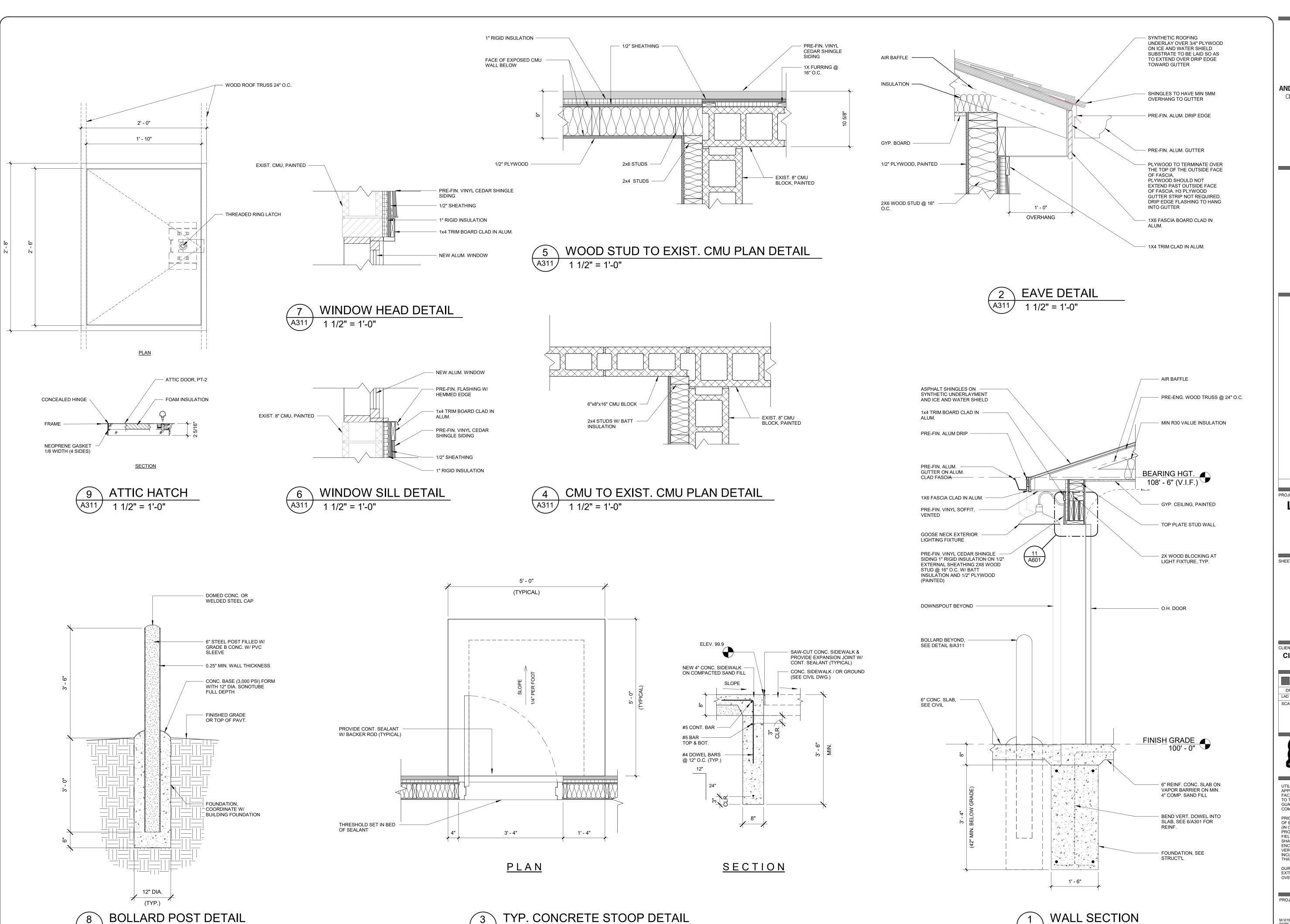
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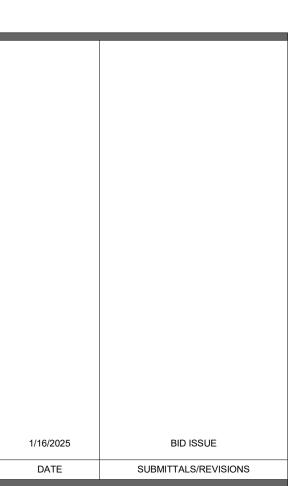
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LAKE FRONT PARK
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WALL SECTIONS AND DETAILS

CITY OF GROSSE POINTE WOODS

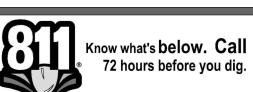
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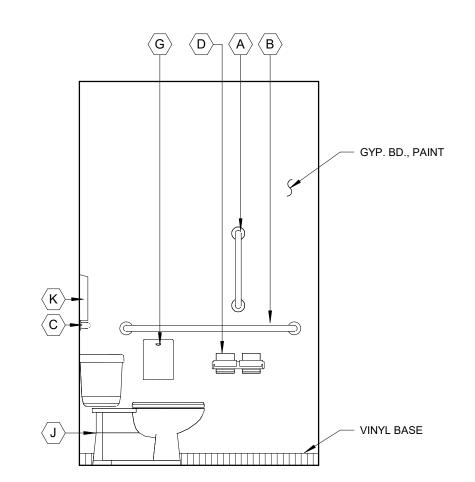
TOILET ACCESSORIES LEGEND :

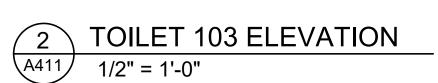
- A 18" VERTICAL GRAB BAR
- G SANITARY WASTE BIN
- B 42" HORIZONTAL GRAB BAR

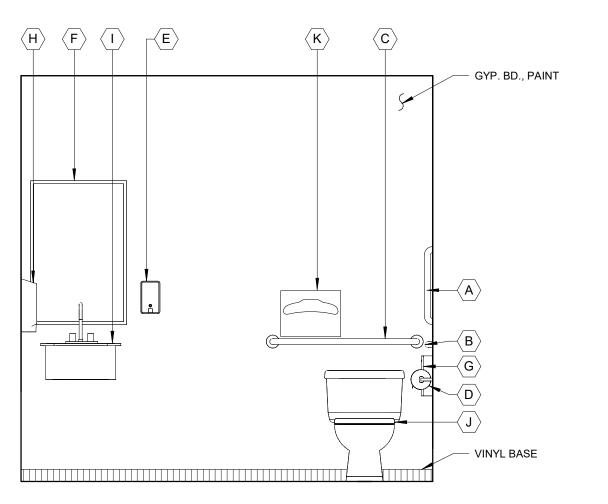
C 36" HORIZONTAL GRAB BAR

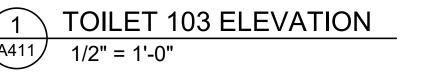
- H ELECTRIC HAND DRYER

 LAV
- D TOILET PAPER
- J WATER CLOSET
- E SOAP DISPENSER
- K SEAT COVER DISPENSER
- $\langle F \rangle$ MIRROR





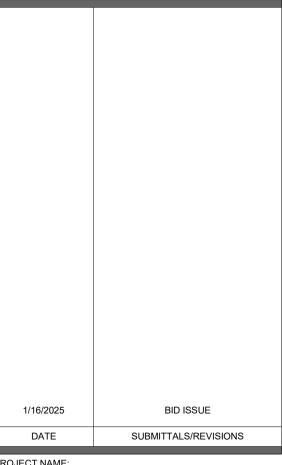






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LAKE FRONT PARK
BUILDING
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EET TITLE:

INTERIOR ELEVATIONS

CITY OF GROSSE POINTE WOODS

PRELIMINARY CONSTRUCTION RECORD									
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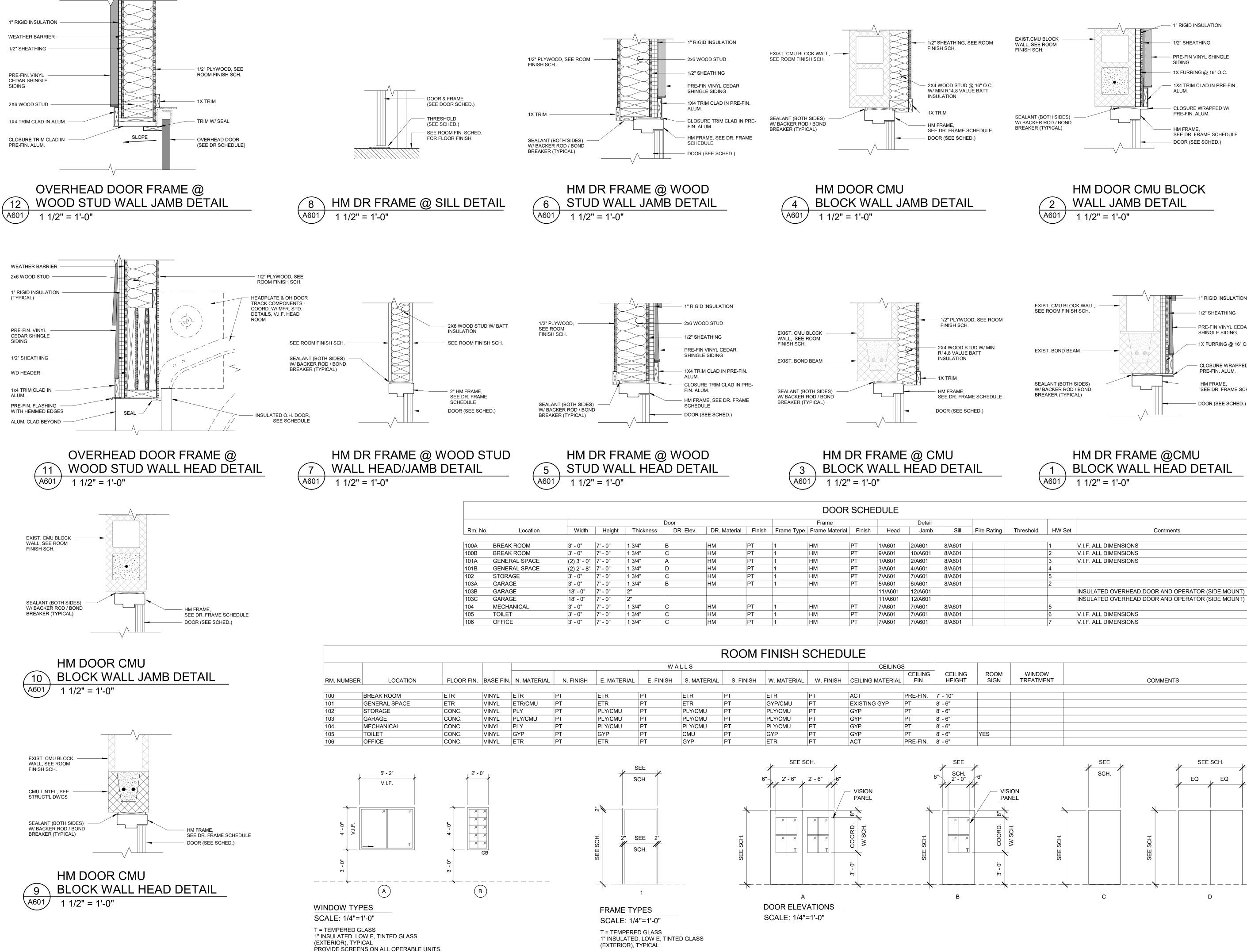
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- 1" RIGID INSULATION

PRE-FIN VINYL CEDAR

1X FURRING @ 16" O.C.

CLOSURE WRAPPED W/

SEE DR. FRAME SCHEDULE

1/2" SHEATHING

SHINGLE SIDING

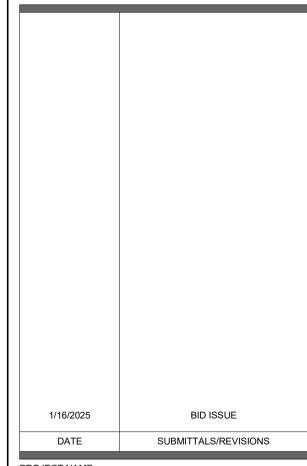
PRE-FIN. ALUM.

DOOR (SEE SCHED.)

SEE SCH.

EQ

EQ



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

DOOR SCHEDULE, **ELEVATIONS, & DETAILS**

CITY OF GROSSE POINTE WOODS

CHECKED BY: AS NOTED



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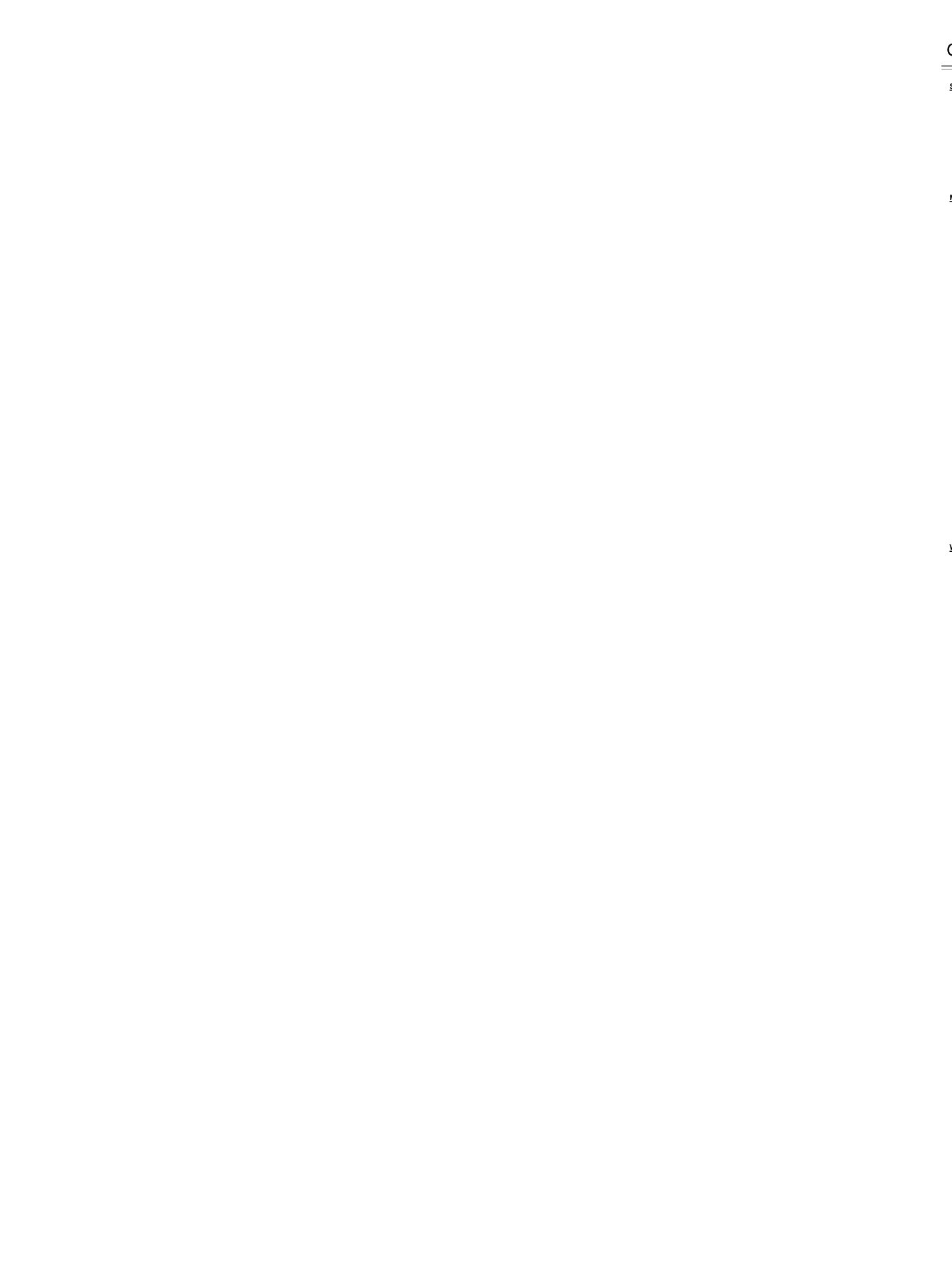
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GENERAL TRADES SPECIFICATIONS

SITE CONDITIONS

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING EXISTING UNDERGROUND UTILITIES IN THE AREA OF CONSTRUCTION.
- 2. THE CONTRACTOR SHALL COORDINATE HIS WORK ACTIVITIES WITH THE OWNER TO MINIMIZE DISRUPTION TO THE OWNER'S OPERATION OF THE FACILITY.
- 3. 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

MASONRY NOTES

- MASONRY CONSTRUCTION SHALL COMPLY WITH ACI 530-13 BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES, ACI 530.1-13 – SPECIFICATION FOR MASONRY STRUCTURES, AND NCMA SPECIFICATIONS.
- 2. LOAD BEARING CONCRETE MASONRY SHALL CONFORM TO ASTM C90, MEDIUM WEIGHT WITH NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNITS = 1900 PSI (MIN).
- 3. 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 (f'm) = 1500 PSI (MIN).
- 4. MASONRY GROUT SHALL CONFORM TO ASTM C 476 WITH PEA GRAVEL AGGREGATE AND A MINIMUM STRENGTH OF 2000 PSI.
- 5. UNLESS OTHERWISE NOTED, PROVIDE HORIZONTAL WIRE TYPE REINFORCING WITH 9 GAUGE SIDE AND CROSS
- 6. REINFORCING BARS, DOWELS AND TIES SHALL CONFORM TO ASTM A615, GRADE 60.

MEMBERS IN EVERY SECOND COURSE (16" O.C.), IN ALL MASONRY WALLS.

- 7 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
- 8. ALL MASONRY BELOW GRADE SHALL BE GROUTED SOLID.
- 9. UNLESS OTHERWISE NOTED, REINFORCE BOND BEAMS WITH 2-#5 BARS. REFER TO ARCHITECTURAL DRAWING
- 10. USE "ACME SHIELD" INTEGRAL WATER REPELLENT FOR ALL CONCRETE MASONRY AND MORTAR.
- 11. C.M.U. PROVIDE BULLLNOSE CORNERS AT ALL INTERIOR EXPOSED CORNERS.
- 12. 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
- 13. REQUIRED SHOP DRAWING SUBMITTALS- SUBMIT PRODUCT CUT SHEETS FOR THE FOLLOWING ITEMS BEING PROVIDED: CMU, REINFORCEMENT, AND MORTAR.

WOOD CONSTRUCTION NOTES

- 1. WOOD CONSTRUCTION SHALL COMPLY WITH AITC TIMBER CONSTRUCTION MANUAL (5TH EDITION), AND AF&PA NDS-2005 - NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION.
- 2. 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.
- 3. 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.
- 4. WOOD TRUSSES SHALL MEET THE FOLLOWING REQUIREMENTS:
- A. TRUSSES SHALL BE DESIGNED AND FABRICATED IN CONFORMANCE WITH THE REQUIREMENTS SET FORTH IN THE LATEST APPROVED EDITION OF ANSI/TPI 1-1995 - NATIONAL DESIGN STANDARD FOR METAL
- PLATE CONNECTED WOOD TRUSS CONSTRUCTION B. 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. C. 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. D. TRUSS DESIGN SHALL ACCOUNT FOR ALL POTENTIAL LOAD COMBINATIONS AND DISTRIBUTIONS AS REQUIRED BY THE GOVERNING CODES.
- 5. REFER TO ARCHITECTURAL DRAWING FOR PLAN DIMENSIONS OF WALLS, SECTIONS, BUILDING ELEVATIONS AND
- BUILDING CROSS SECTIONS.
- 6. NAIL ALL MULTIPLE PLY BEAMS AND HEADERS TOGETHER WITH (2) ROWS OF 16D NAILS AT 12" O.C. FROM EACH
- 7. PROVIDE GALVANIZED STEEL PANEL CLIPS AT EDGE CONDITIONS FOR ROOF SHEATHING.
- 8. 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.
- 9. 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.
- 10. CONNECT BOTTOM CHORD OF ROOF TRUSSES TO WALL TOP PLATES AND GLULAM BEAMS WITH SIMPSON H1 TIE CONNECTOR UNLESS NOTED OTHERWISE. USE TBE CONNECTOR FOR MULTIPLE PLY TRUSSES.
- 11. 2X SILL NAILERS SHALL BE CONNECTED TO MASONRY WALLS WITH SIMPSON MAB23 MUDSILL ANCHORS AT A MAXIMUM SPACING OF 32 INCHES ON CENTER.
- 12. ROOF TRUSS VERTICAL X-BRACING SHALL BE 16 GAGE SIMPSON TYPE WB OR APPROVED SUBTITUTE.
- INCHES IN DEPTH. 14. 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.

13. PROVIDE SIMPSON "TB" BRIDGING FOR TRUSSES AT EAVE LOCATIONS WHERE THE BEARING HEIGHT EXCEEDS 8

15. SAWN LUMBER SHALL BE SPRUCE-PINE-FIR NO. 2 OR BETTER. OTHER WOOD SPECIES THAT PERMIT HIGHER ALLOWABLE STRESSES CAN BE USED.

16. 2X10 RIM BOARDS SHALL BE CONNECTED TO BEAM NAILERS WITH SIMPSON A23 ANGLES AT 24" ON CENTER

- 17. ALL LUMBER THAT COMES IN CONTACT WITH CMU OR CONCRETE SHALL BE PRESERVATIVE TREATED "WOLMANIZED" OR EQUAL.
- 18. BOLTS USED IN KNEE BRACING AND COLUMN SUPPORT POST CONNECTIONS SHALL CONFORM TO ANSI/ASME STANDARD B18.2.1."SQUARE AND HEX BOLTS AND SCREWS". PROVIDE WASHERS AND NUTS IN CONFORMANCE W/
- 19. NAILS USED IN CROSS BRACING CONNECTIONS SHALL BE LOW CARBON STEEL AND CONFORM TO ASTM F1667.
- 20. ALL FRAMING SHALL BE PLUMB AND TRUE TO LINE AND LEVEL.
- 21. 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

- 1. 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.
- 2. 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
- 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.
- 4 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.
- 5. 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.
- 6. CONCRETE AGGREGATES SHALL COMPLY WITH ASTM C33 AND SHALL BE FREE OF CLAY, LOAM, LUMPS OR OTHER DELETERIOUS SUBSTANCES.
- 7. REINFORCING SHALL BE DEFORMED BARS CONFORMING TO ASTM A615 OR ASTM A616 (GRADE 60) AND SHALL HAVE A MINIMUM YIFI D STRENGTH OF 60 KSI
- 8. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185, BE FURNISHED IN FLAT SHEETS, AND HAVE MINIMUM SIDE AND
- 9. 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
- 10. REINFORCING SHALL HAVE EITHER TENSION EMBEDMENT OR TENSION CLASS "B" LAP SPLICE UNLESS OTHERWISE
- 11. 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
- 12. PROVIDE SMOOTH FORMED FINISH ON EXPOSED CONCRETE WALLS AND FOUNDATIONS.
- 13. PROVIDE 3/4" X 3/4" BEVELED EDGES AT CORNERS OF EXPOSED CONCRETE MEMBERS, UNLESS NOTED OTHERWISE.
- 14. 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 ½ INCHES INTO THE FIRST POUR OF CONCRETE.
- 15. 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.
- ITEMS SUCH AS OPENINGS, SLEEVES, EQUIPMENT PADS, PIPING, CONDUIT, DRAINS, DEPRESSED FLOORS, DOOR HOLDDOWNS IN GRADE WALLS, EMBEDDED ITEMS, ETC.
- 17. DRILL-IN ANCHOR BOLTS SHALL BE HVA ADHESIVE ANCHORING SYSTEM AS MANUFACTURED BY HILTI. ANCHOR BOLTS

16. BEFORE PLACING CONCRETE, REFER TO OTHER TRADE DRAWINGS AND COORDINATE THE LOCATION AND SIZE OF

- 18. NON-SHRINK GROUT SHALL BE SURE GRIP HIGH PERFORMANCE GROUT, OR APPROVED EQUAL, AS MANUFACTURED BY DAYTON SUPERIOR CORPORATION 19. CONCRETE CONSTRUCTION SHALL INCLUDE PROVISIONS FOR COLD WEATHER CONCRETING. IN COMPLIANCE WITH ACI
- 306R-10 GUIDE TO COLD WEATHER CONCRETING, AND PROVISIONS FOR HOT WEATHER CONCRETING, IN COMPLIANCE WITH ACI 305R-10 – GUIDE TO HOT WEATHER CONCRETING.
- 20. CONCRETE FORMS SHALL REMAIN IN PLACE A MIN. OF 48 HOURS OR UNTIL THE CONCRETE HAS ATTAINED 75 PERCENT OF ITS DESIGN STRENGTH.
- 21. CONCRETE SHALL ATTAIN ITS 28 DAY DESIGN STRENGTH BEFORE COMMENCING WITH BACK FILLING OPERATIONS.
- 22. 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.
- 23. 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
- 24. SIDES OF FOUNDATIONS SHALL BE FORMED.
- 25. 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.
- 26. 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
- 27. 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:
 - A SLUMP ASTM C143 AIR CONTENT - ASTM C173

CYLINDER HELD IN RESERVE)

COMPRESSIVE STRENGTH - ASTM C39 (WITH 1 CYLINDER AT 7 DAYS, 2 CYLINDERS AT 28 DAYS AND 1

SPECIAL INSPECTION NOTES

- 1. SPECIAL STRUCTURAL INSPECTIONS SHALL COMPLY WITH CHAPTER 17 OF THE MICHIGAN BUILDING CODE.
- 2. SPECIAL STRUCTURAL INSPECTION IS REQUIRED IN ADDITION TO ANY INSPECTIONS REQUIRED BY THE LOCAL BUILDING DEPARTMENT OR GOVERNING OFFICIAL.
- 3. SPECIAL STRUCTURAL INSPECTIONS SHALL BE PERFORMED ON, BUT ARE NOT LIMITED TO, THE FOLLOWING ITEMS:
- 4. CONCRETE: PER SECTION 1705.3 A. 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.
- 5. 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.
- 6 EXPANSION EPOXY AND ADHESIVE ANCHORS: A. DURING THE PLACEMENT OF ALL ANCHORS.
- B. 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.
- 8. WOOD LIGHT-FRAME CONSTRUCTION: PER SECTION 1705.11.1 A. FOR FIELD GLUING OPERATIONS OF ELEMENTS OF THE MAIN WINDFORCE-RESISTING SYSTEM
 - B. 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 HOLD-DOWNS.
- 9. DUTIES AND RESPONSIBILITIES OF THE SPECIAL STRUCTURAL INSPECTOR:
 - A. THE SPECIAL STRUCTURAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE TO THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.
 - B. 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 EACH 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.
- D. 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.

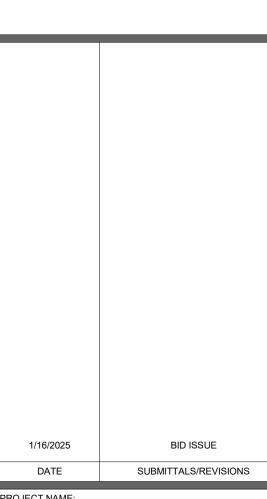


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Engineering Strong Communities



LAKE FRONT PARK

RENOVATION

GENERAL NOTES & DESIGN CRITERIA

CITY OF GROSSE POINTE WOODS

CONSTRUCTION RECORD CHECKED BY: 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

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

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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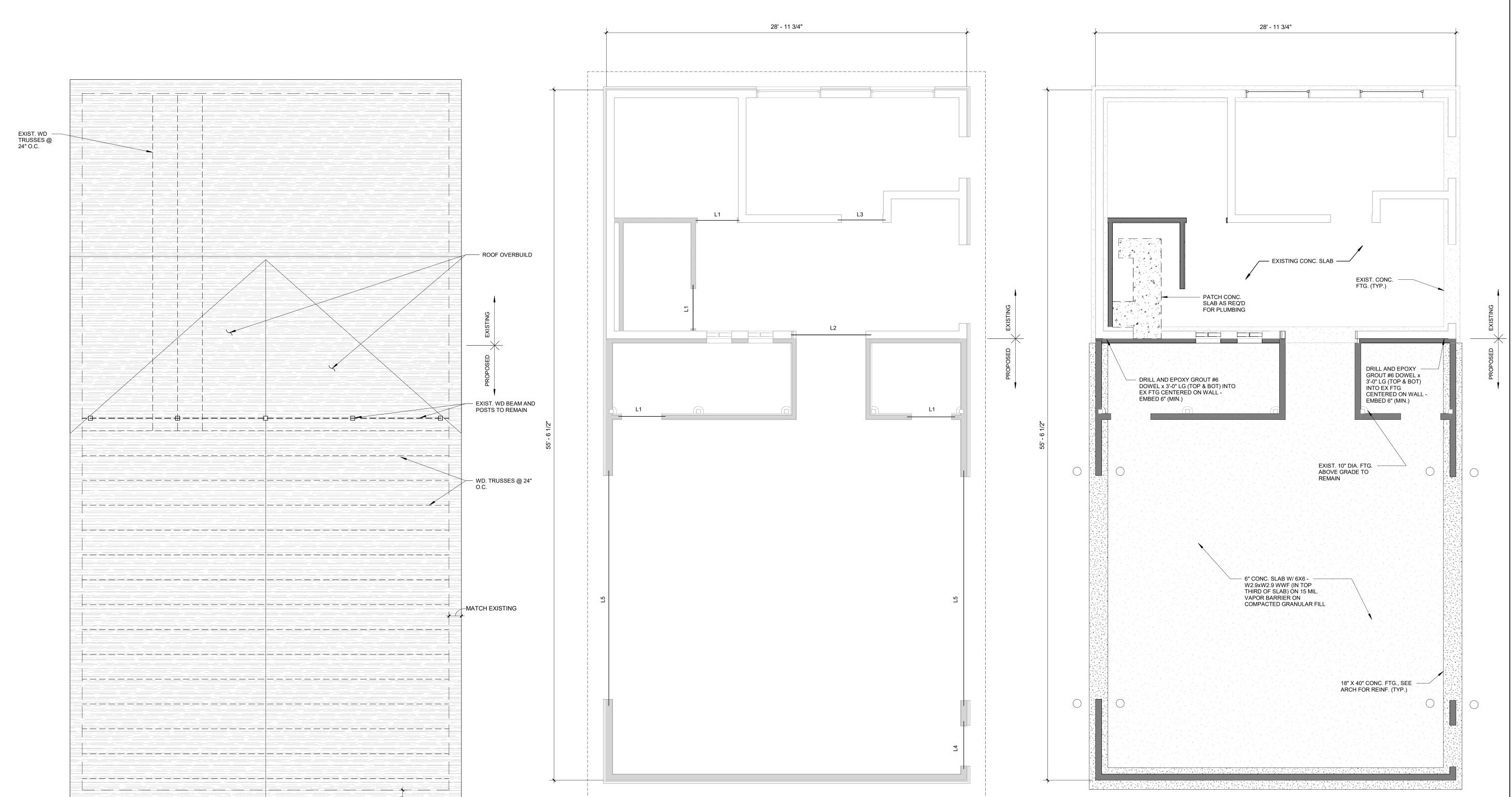
LINTEL SCHEDULE

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



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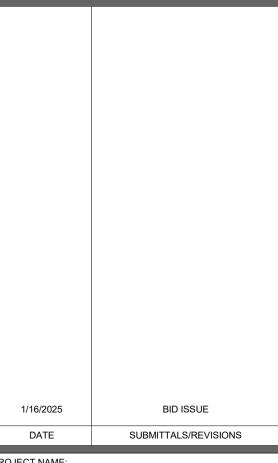


LINTEL FLOOR PLAN

1/4" = 1'-0"

ROOF FRAMING PLAN

1/4" = 1'-0"



LAKE FRONT PARK **BUILDING RENOVATION**

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

CITY OF GROSSE POINTE WOODS

DRAWN BY: CHECKED BY: DAT'

KE7 MAY 2024 AS NOTED



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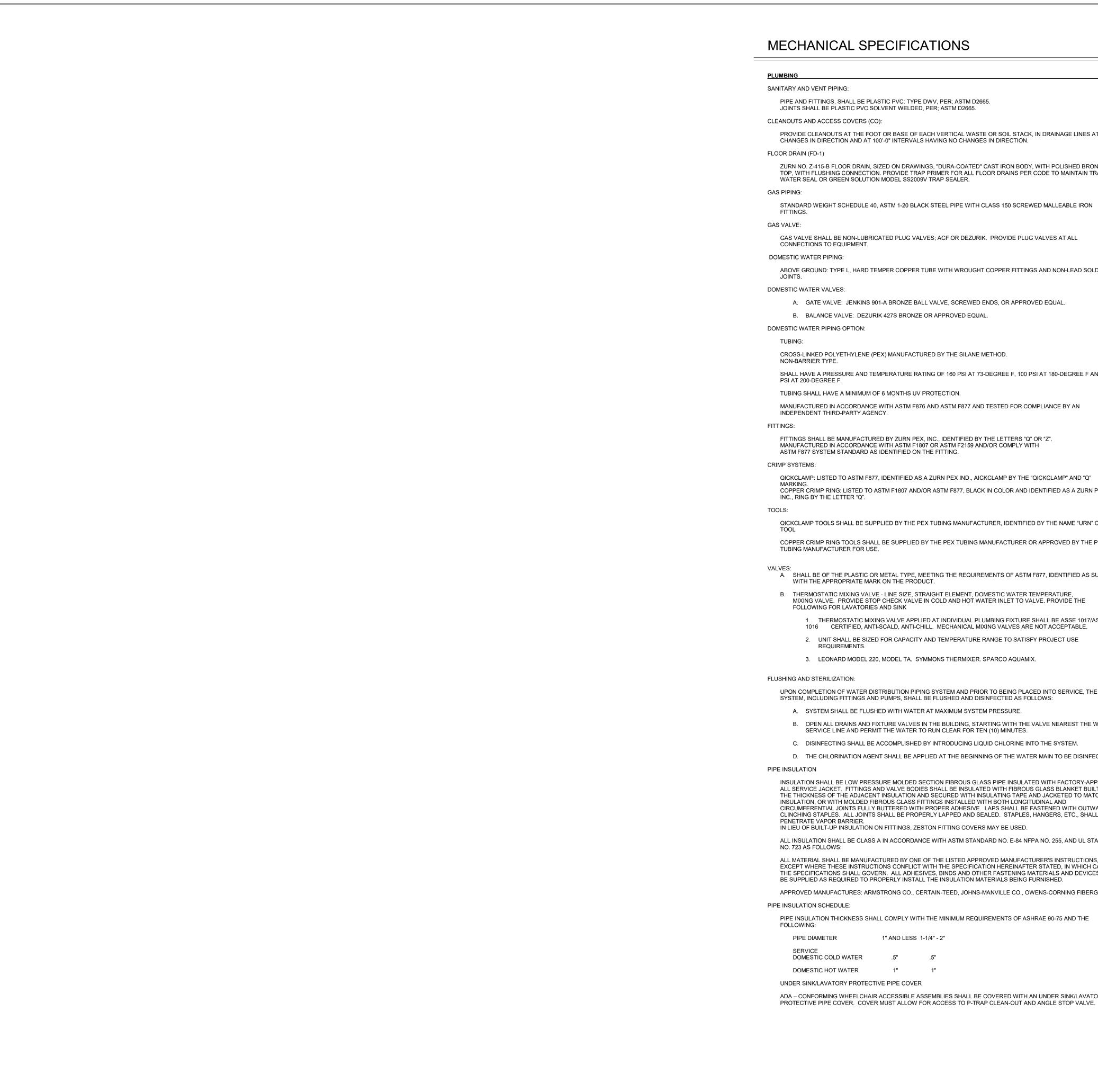
DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

PROJECT NO.

FOUNDATION PLAN

1/4" = 1'-0"

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MECHANICAL SPECIFICATIONS

PIPE AND FITTINGS, SHALL BE PLASTIC PVC: TYPE DWV, PER; ASTM D2665. JOINTS SHALL BE PLASTIC PVC SOLVENT WELDED, PER; ASTM D2665.

CLEANOUTS AND ACCESS COVERS (CO):

PROVIDE CLEANOUTS AT THE FOOT OR BASE OF EACH VERTICAL WASTE OR SOIL STACK, IN DRAINAGE LINES AT ALL CHANGES IN DIRECTION AND AT 100'-0" INTERVALS HAVING NO CHANGES IN DIRECTION.

FLOOR DRAIN (FD-1)

ZURN NO. Z-415-B FLOOR DRAIN, SIZED ON DRAWINGS, "DURA-COATED" CAST IRON BODY, WITH POLISHED BRONZE TOP, WITH FLUSHING CONNECTION. PROVIDE TRAP PRIMER FOR ALL FLOOR DRAINS PER CODE TO MAINTAIN TRAP WATER SEAL OR GREEN SOLUTION MODEL SS2009V TRAP SEALER.

STANDARD WEIGHT SCHEDULE 40, ASTM 1-20 BLACK STEEL PIPE WITH CLASS 150 SCREWED MALLEABLE IRON FITTINGS.

GAS VALVE SHALL BE NON-LUBRICATED PLUG VALVES; ACF OR DEZURIK. PROVIDE PLUG VALVES AT ALL CONNECTIONS TO EQUIPMENT

DOMESTIC WATER PIPING:

ABOVE GROUND: TYPE L, HARD TEMPER COPPER TUBE WITH WROUGHT COPPER FITTINGS AND NON-LEAD SOLDER

DOMESTIC WATER VALVES:

A. GATE VALVE: JENKINS 901-A BRONZE BALL VALVE, SCREWED ENDS, OR APPROVED EQUAL.

B. BALANCE VALVE: DEZURIK 427S BRONZE OR APPROVED EQUAL.

DOMESTIC WATER PIPING OPTION:

CROSS-LINKED POLYETHYLENE (PEX) MANUFACTURED BY THE SILANE METHOD. NON-BARRIER TYPE.

SHALL HAVE A PRESSURE AND TEMPERATURE RATING OF 160 PSI AT 73-DEGREE F, 100 PSI AT 180-DEGREE F AND 80 PSI AT 200-DEGREE F.

TUBING SHALL HAVE A MINIMUM OF 6 MONTHS UV PROTECTION.

MANUFACTURED IN ACCORDANCE WITH ASTM F876 AND ASTM F877 AND TESTED FOR COMPLIANCE BY AN INDEPENDENT THIRD-PARTY AGENCY.

FITTINGS SHALL BE MANUFACTURED BY ZURN PEX, INC., IDENTIFIED BY THE LETTERS "Q" OR "Z". MANUFACTURED IN ACCORDANCE WITH ASTM F1807 OR ASTM F2159 AND/OR COMPLY WITH ASTM F877 SYSTEM STANDARD AS IDENTIFIED ON THE FITTING

QICKCLAMP: LISTED TO ASTM F877, IDENTIFIED AS A ZURN PEX IND., AICKCLAMP BY THE "QICKCLAMP" AND "Q"

COPPER CRIMP RING: LISTED TO ASTM F1807 AND/OR ASTM F877, BLACK IN COLOR AND IDENTIFIED AS A ZURN PEX INC., RING BY THE LETTER "Q".

QICKCLAMP TOOLS SHALL BE SUPPLIED BY THE PEX TUBING MANUFACTURER, IDENTIFIED BY THE NAME "URN" ON THE

COPPER CRIMP RING TOOLS SHALL BE SUPPLIED BY THE PEX TUBING MANUFACTURER OR APPROVED BY THE PEX TUBING MANUFACTURER FOR USE.

A. SHALL BE OF THE PLASTIC OR METAL TYPE, MEETING THE REQUIREMENTS OF ASTM F877, IDENTIFIED AS SUCH WITH THE APPROPRIATE MARK ON THE PRODUCT

B. THERMOSTATIC MIXING VALVE - LINE SIZE, STRAIGHT ELEMENT, DOMESTIC WATER TEMPERATURE, MIXING VALVE. PROVIDE STOP CHECK VALVE IN COLD AND HOT WATER INLET TO VALVE. PROVIDE THE FOLLOWING FOR LAVATORIES AND SINK

1. THERMOSTATIC MIXING VALVE APPLIED AT INDIVIDUAL PLUMBING FIXTURE SHALL BE ASSE 1017/ASSE 1016 CERTIFIED, ANTI-SCALD, ANTI-CHILL. MECHANICAL MIXING VALVES ARE NOT ACCEPTABLE.

2. UNIT SHALL BE SIZED FOR CAPACITY AND TEMPERATURE RANGE TO SATISFY PROJECT USE

3. LEONARD MODEL 220, MODEL TA. SYMMONS THERMIXER. SPARCO AQUAMIX.

FLUSHING AND STERILIZATION:

UPON COMPLETION OF WATER DISTRIBUTION PIPING SYSTEM AND PRIOR TO BEING PLACED INTO SERVICE, THE SYSTEM. INCLUDING FITTINGS AND PUMPS. SHALL BE FLUSHED AND DISINFECTED AS FOLLOWS:

A. SYSTEM SHALL BE FLUSHED WITH WATER AT MAXIMUM SYSTEM PRESSURE.

B. OPEN ALL DRAINS AND FIXTURE VALVES IN THE BUILDING, STARTING WITH THE VALVE NEAREST THE WATER SERVICE LINE AND PERMIT THE WATER TO RUN CLEAR FOR TEN (10) MINUTES.

C. DISINFECTING SHALL BE ACCOMPLISHED BY INTRODUCING LIQUID CHLORINE INTO THE SYSTEM.

D. THE CHLORINATION AGENT SHALL BE APPLIED AT THE BEGINNING OF THE WATER MAIN TO BE DISINFECTED.

INSULATION SHALL BE LOW PRESSURE MOLDED SECTION FIBROUS GLASS PIPE INSULATED WITH FACTORY-APPLIED ALL SERVICE JACKET. FITTINGS AND VALVE BODIES SHALL BE INSULATED WITH FIBROUS GLASS BLANKET BUILT-UP TO THE THICKNESS OF THE ADJACENT INSULATION AND SECURED WITH INSULATING TAPE AND JACKETED TO MATCH INSULATION. OR WITH MOLDED FIBROUS GLASS FITTINGS INSTALLED WITH BOTH LONGITUDINAL AND CIRCUMFERENTIAL JOINTS FULLY BUTTERED WITH PROPER ADHESIVE. LAPS SHALL BE FASTENED WITH OUTWARD CLINCHING STAPLES. ALL JOINTS SHALL BE PROPERLY LAPPED AND SEALED. STAPLES, HANGERS, ETC., SHALL NOT PENETRATE VAPOR BARRIER

IN LIEU OF BUILT-UP INSULATION ON FITTINGS, ZESTON FITTING COVERS MAY BE USED.

ALL INSULATION SHALL BE CLASS A IN ACCORDANCE WITH ASTM STANDARD NO. E-84 NFPA NO. 255, AND UL STANDARD NO. 723 AS FOLLOWS:

ALL MATERIAL SHALL BE MANUFACTURED BY ONE OF THE LISTED APPROVED MANUFACTURER'S INSTRUCTIONS, EXCEPT WHERE THESE INSTRUCTIONS CONFLICT WITH THE SPECIFICATION HEREINAFTER STATED, IN WHICH CASE THE SPECIFICATIONS SHALL GOVERN. ALL ADHESIVES, BINDS AND OTHER FASTENING MATERIALS AND DEVICES SHALL BE SUPPLIED AS REQUIRED TO PROPERLY INSTALL THE INSULATION MATERIALS BEING FURNISHED.

APPROVED MANUFACTURES: ARMSTRONG CO., CERTAIN-TEED, JOHNS-MANVILLE CO., OWENS-CORNING FIBERGLAS.

PIPE INSULATION SCHEDULE:

PIPE INSULATION THICKNESS SHALL COMPLY WITH THE MINIMUM REQUIREMENTS OF ASHRAE 90-75 AND THE FOLLOWING:

PIPE DIAMETER 1" AND LESS 1-1/4" - 2"

DOMESTIC COLD WATER DOMESTIC HOT WATER

UNDER SINK/LAVATORY PROTECTIVE PIPE COVER ADA - CONFORMING WHEELCHAIR ACCESSIBLE ASSEMBLIES SHALL BE COVERED WITH AN UNDER SINK/LAVATORY

GENERAL

PROVIDE AND CONNECT ALL FIXTURES SHOWN ON THE DRAWINGS OR HEREIN CALLED FOR. ALL FIXTURES SHALL BE EQUAL IN ALL RESPECTS TO THE FIGURE/MODEL NUMBERS HEREINAFTER LISTED. FIGURE/MODEL NUMBERS ARE USED FOR ESTABLISHING A STANDARD. ALL FIXTURE TRIM SHALL BE BY ONE MANUFACTURER ONLY. NO MIXING OF TRIM OR FIXTURES WILL BE PERMITTED UNLESS OTHERWISE SPECIFIED.

FIXTURE CONNECTION SHALL BE CHROME-PLATED FLEXIBLE BRASS PIPE. PLUMBING FIXTURE TYPES AND MOUNTING WILL COMPLY WITH BARRIER FREE DESIGN REGULATIONS WHERE

PROVIDE ALL TRAPS, VALVES, STOPS, SHUT-OFF VALVES, TAILPIECES, FITTINGS, AND PIPING.

WATER CLOSETS- FLUSH TANK (WC)

ZURN Z5555 TWO-PIECE, FLOOR MOUNT ELONGATED, TOP SPUD 1.28 GPM CLOSET AND Z5955SS-EL WHITE, OPEN FRONT TOILET SEAT, LESS COVER, WITH STAINLESS STEEL CHECK HINGE. PROVIDE 1/2" X 3/8" CHROME PLATED BRASS LOOSE KEY ANGLE STOPS, ESCUTCHEON PLATE AND SUPPLY.

LAVATORIES - WALL HUNG (LAV)

Z8700D-PC P-TRAP, Z8806-XL-LRLK-PC LOOSE KEY STOP LAVATORY SUPPLY KIT.

ZURN Z5344 VITREOUS CHINA 20" X 17" WHITE LAVATORY WITH Z7440-XL, 0.5 GPM, FAUCET, Z8743-PC GRID DRAIN;

MOP SINK 24" X 24" ZURN Z1996.09.215. A.04.07 WHITE MOP SERVICE BASIN WITH Z843M1-RC FAUCET. DOME STRAINER. HOSE WITH BRACKET, MOP HANGER, STAINLESS STEEL WALL GUARDS AND STAINLESS-STEEL RIM GUARDS. WALL GUARDS TO BE INSTALLED ON ALL ADJACENT WALLS.

DOMESTIC WATER HEATER DWH-1

LOCHINVAR MODEL PRN040 40ES GAS FIRED WATER HEATER, POWER DIRECT VENT, 40 MBH, 45GPH, RECOVERY AT 90-DEGREE F RISE, 38 GAL. STORAGE, SEALED COMBUSTION, 3" VENT, FLOW SWITCH, CONDENSATE NEUTRALIZATION KIT. PVC DIRECT VENT, 120 VOLTS 1 PHASE, AND 2.4 AMP BREAKER. PROVIDE BLADDER EXPANSION TANK WITH 10.0 GAL. ACCEPTANCES VOLUME. INSTALL WATER HEATER PER MFG. INSTALLATION MANUAL.

HVAC EQUIPMENT FURNACE-1

LENNOX MODEL EL296UE045XE36, UPFLOW, 540 CFM @ .6 E.S.P., 75 CFM OUTSIDE AIR, 2 STAGE HEATING. HTG; 44/43 MBH INPUT, 29/28 MBH OUTPUT. COOLING, AC-1, 1 1/2 TONS, LENNOX MODEL XC-21, 1 STAGE COOLING, AIR COOLED

FURNACES SHALL HAVE LENNOX HEALTHY CLIMATE MODEL HCC10 AIR FILTER. FURNACES SHALL HAVE CONCENTRIC WALL VENTS.

NOTE: FURNACE BLOWER MOTOR SHALL RUN CONTINUOUSLY. THE BLOWER MOTOR SHALL BE IN THE AUTO POSITION ONLY WHEN THE HOME IS VACANT FOR A LONG PERIOD OF TIME.

GRILLE & REGISTER SCHEDULE

(SR) WALL SUP. REG., HART & COOLEY NO. 661.

(RG) WALL RET. GRILLE, HART & COOLEY NO. 650.

SHEET METAL

INSTALL DUCTWORK IN ADHERENCE TO CEILING HEIGHT SCHEDULES ON ARCHITECTURAL DRAWINGS. COORDINATE AND ESTABLISH NECESSARY SPACE REQUIREMENTS WITH OTHER TRADES SO AS TO MAINTAIN REQUIRED HEADROOM. ALL SHEET METAL SHALL BE BEST GRADE, PRIME SHEETS. OPEN HEARTH GALVANIZED STEEL, UNLESS OTHERWISE NOTED. DUCTS 19" AND OVER SHALL BE CROSS

BROKEN OR BEADED. DUCT CONSTRUCTION: ALL DUCTWORK SHALL BE CONSTRUCTED AND SUPPORTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST SMACNA'S ISSUE OF "LOW PRESSURE DUCT CONSTRUCTION

ALL DUCT HANGERS, SUPPORTS AND SPACING FOR LOW VELOCITY AND ROUND AND RECTANGULAR DUCTWORK SHALL CONFORM TO THE LATEST SMACNA STANDARDS, UNLESS OTHERWISE INDICATED. ALL TRANSVERSE JOINTS SHALL BE SEALED OFF WITH FOSTER #32-14 DUCT SEALANT.

DUCT INSULATION

NU-SEAL CLOSE CELL R-7/ INCH OR OPEN CELL SPRAY POLYURETHANE FOAM INSULATION SYSTEM ALL DUCTWORK IN NON-HEATED ATTIC SPACES SHALL BE INSULATED WITH SPRAY POLYURETHANE FOAM INSULATION TO ACHIEVE AN R-49 INSULATION VALUE. PROVIDE ACCESS TO ALL VOLUME DAMPERS AND MOTORIZED DAMPERS. INSULATE ALL DUCTWORK IN NON-CONDITION AREAS.

PROVIDE DUCT WRAP OF TYPE, THICKNESS AND LOCATION AS SPECIFIED HEREINAFTER. ALL INSULATION SHALL HAVE A FLAME SPREAD CLASSIFICATION OF LESS THAN 25 AND SMOKE DEVELOPED LESS THAN 50 IN ACCORDANCE WITH UL, ASTM AND NFPA. OWENS-CORNING FIBERGLASS FACED DUCTWRAP COMMERCIAL GRADE TYPE 100, 2" THICK, 1 LB./CU GLASS FIBER REINFORCING MESH SCRIM AND FLAMEPROOF KRAFT PAPER. INSULATE DUCTWORK AS NOTED ON

EXHAUST FAN EF- 1

PANASONIC MODEL NO. FV-08VQ2, CEILING MOUNTED, 70 CFM @ .25" S.P., 16.4 WATTS, 120 V, 1 PHASE. LIGHT SWITCH TO ACTIVATE EXHAUST FAN.

EXHAUST FAN EF- 2

PANASONIC MODEL NO. FV-08VQ2, CEILING MOUNTED, 70 CFM @ .25" S.P., 16.4 WATTS, 120 V, 1 PHASE. EXHAUST FAN

ENERGY RECOVERY VENTILATOR ERV-1 RENEW AIRE EV PREMIUM S, 70 CFM @ .3" S.P., TOTAL EFF SUMMER/WINTER 68%/54%, 115 VOLTS, 1 PHASE, 7 FLA WITH

SPEED CONTROL. UNIT HOUSING SHALL BE INSULATED WITH ½"INSULATION. OUTDOOR AIR AND EXHAUST AIR

DISCHARGES SHALL HAVE INTEGRAL BACKDRAFT DAMPERS. OUTDOOR AIR SHALL BE FILTERED WITH A 1-INCH, 30% EFF. DISPOSABLE FILTER. VENTILATOR SHALL RUN CONTINUOUSLY. **UNIT HEATER UH-1**

REZNOR UDXC30, GAS-FIRED SEALED COMBUSTION, POWER VENTED UNIT, 450 CFM @ 30 MBH INPUT, 24.6 MBH OUTPUT, 2 STAGE HEATING, ALUMINIZED STEEL HEAT EXCHANGER, ALUMINIZED STEEL BURNER AND DRIP PAN, SPARK IGNITED, REMOTE THERMOSTAT, 1.9 AMP, 115 VOLTS. INSTALL PER MFG. INSTALLATION MANUAL.

KEYED NOTES

INSULATE OUTSIDE AIR RELIEF AIR AND EXHAUST AIR DUCTWORK WITH 2" FIBERGLASS

2. INSULATE SUPPLY AIR DUCT WITH 2" FIBERGLASS DUCT WRAP.

PROVIDE BALANCING DAMPER AT EACH BRANCH DUCT TAKE-OFF FROM MAIN AND OTHER LOCATIONS AS REQUIRED TO PROPERLY BALANCE SYSTEMS.

ROUND FLEXIBLE DUCTWORK IS NOT APPROVED. SYSTEM AIR BALANCING:

TESTING:

THE HEATING, VENTILATING AND AIR CONDITIONING SHALL BE TESTED AND BALANCED TO DEMONSTRATE THAT SPECIFIED CAPACITIES OF THE VARIOUS PARTS OF ALL SYSTEMS AS INDICATED IN THE CONTRACT DOCUMENTS CAN BE MET AND ALL CONTROLS ARE FUNCTIONING PROPERLY.



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CIVIL ENGINEERS - SURVEYORS - ARCHITECTS

Engineering Strong Communities

1/16/2025 BID ISSUE SUBMITTALS/REVISIONS DATE

LAKE FRONT PARK

BUILDING RENOVATION

MECHANICAL

CITY OF GROSSE POINTE WOODS

CHECKED BY: 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.

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

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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HVAC LEGEND:

EXHAUST FAN HOSE BIB

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

KEYED NOTES

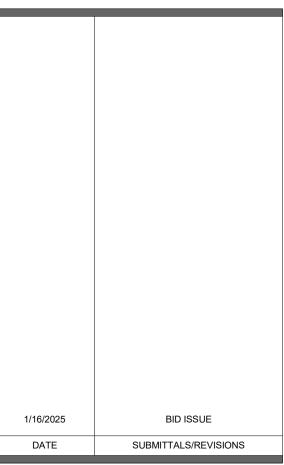
INSULATE OUTSIDE AIR RELIEF AIR AND EXHAUST AIR DUCTWORK WITH 2" FIBERGLASS DUCT WRAP.

INSULATE SUPPLY AIR DUCT WITH 2" FIBERGLASS DUCT WRAP



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LAKE FRONT PARK **BUILDING RENOVATION**

FIRST FLOOR **MECHANICAL PLAN**

CITY OF GROSSE POINTE WOODS

DRAWN BY:	CHECKED BY:	DATE:							
LAD	JRA	MAY 2024							
SCALE:									
AS NOTED									

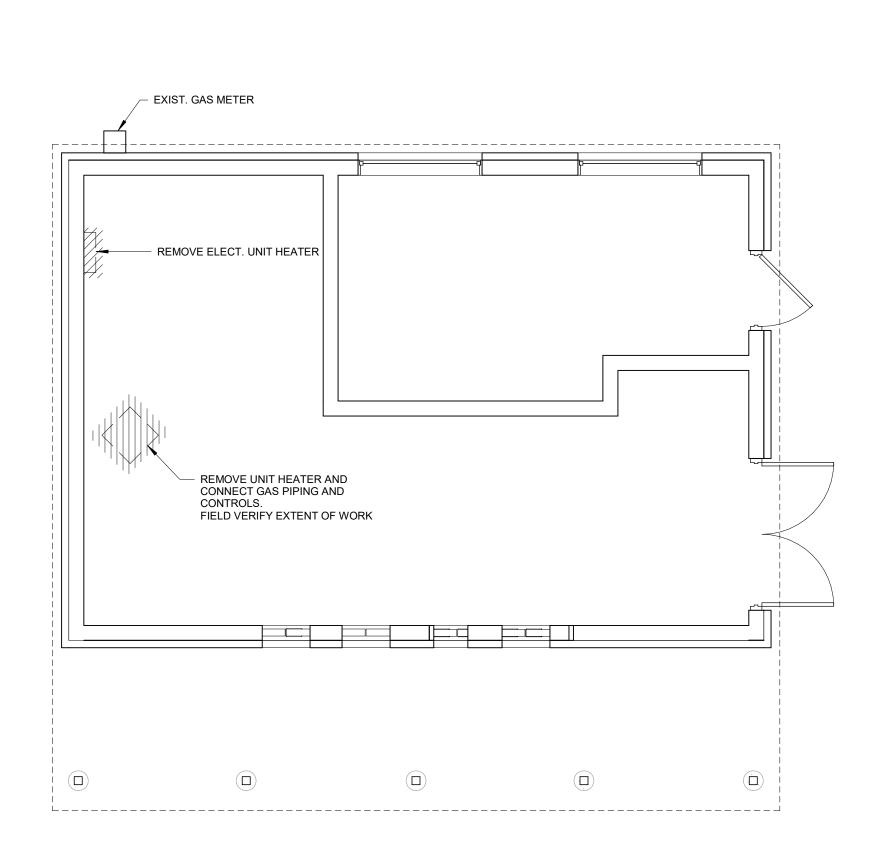


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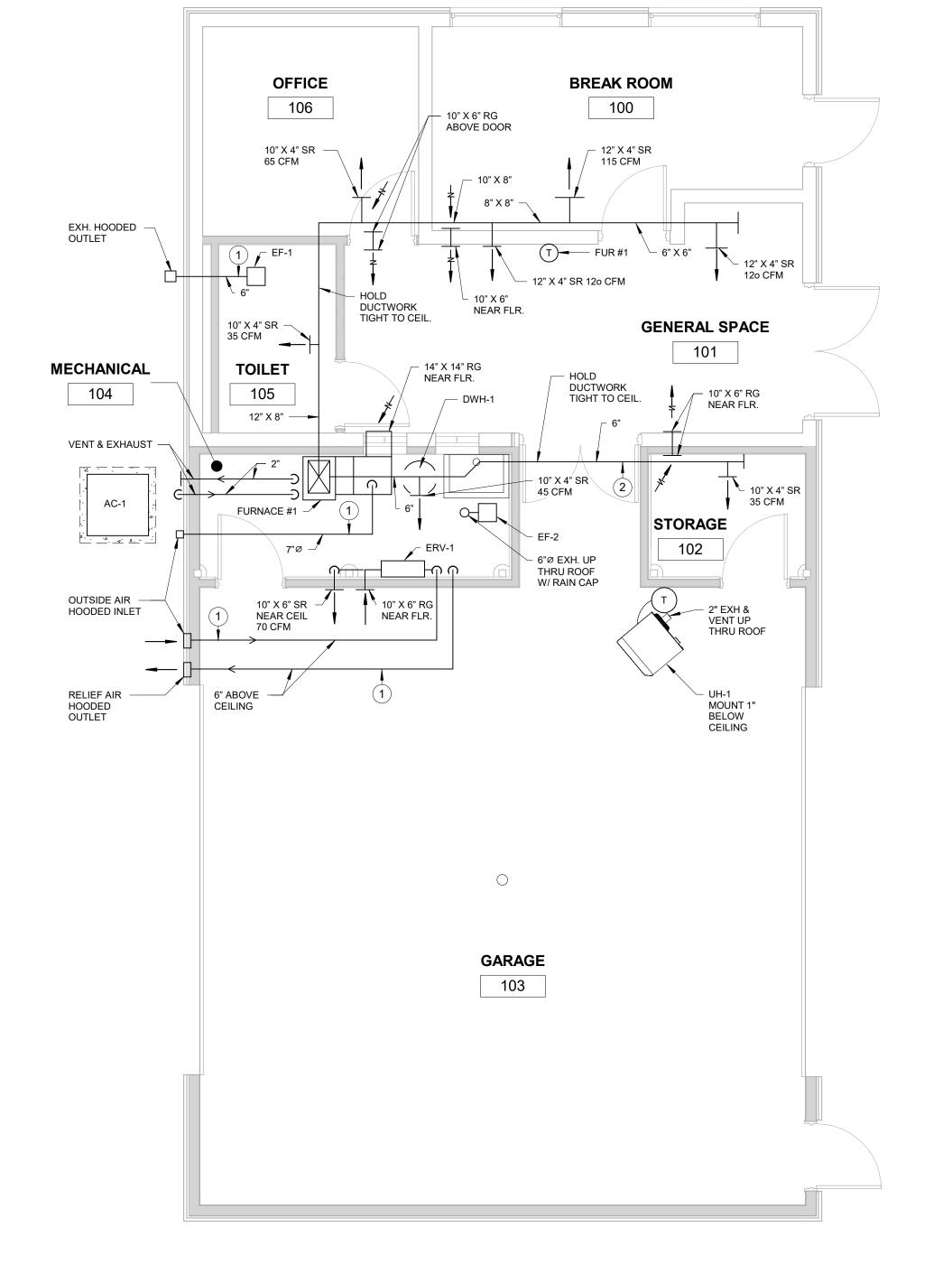
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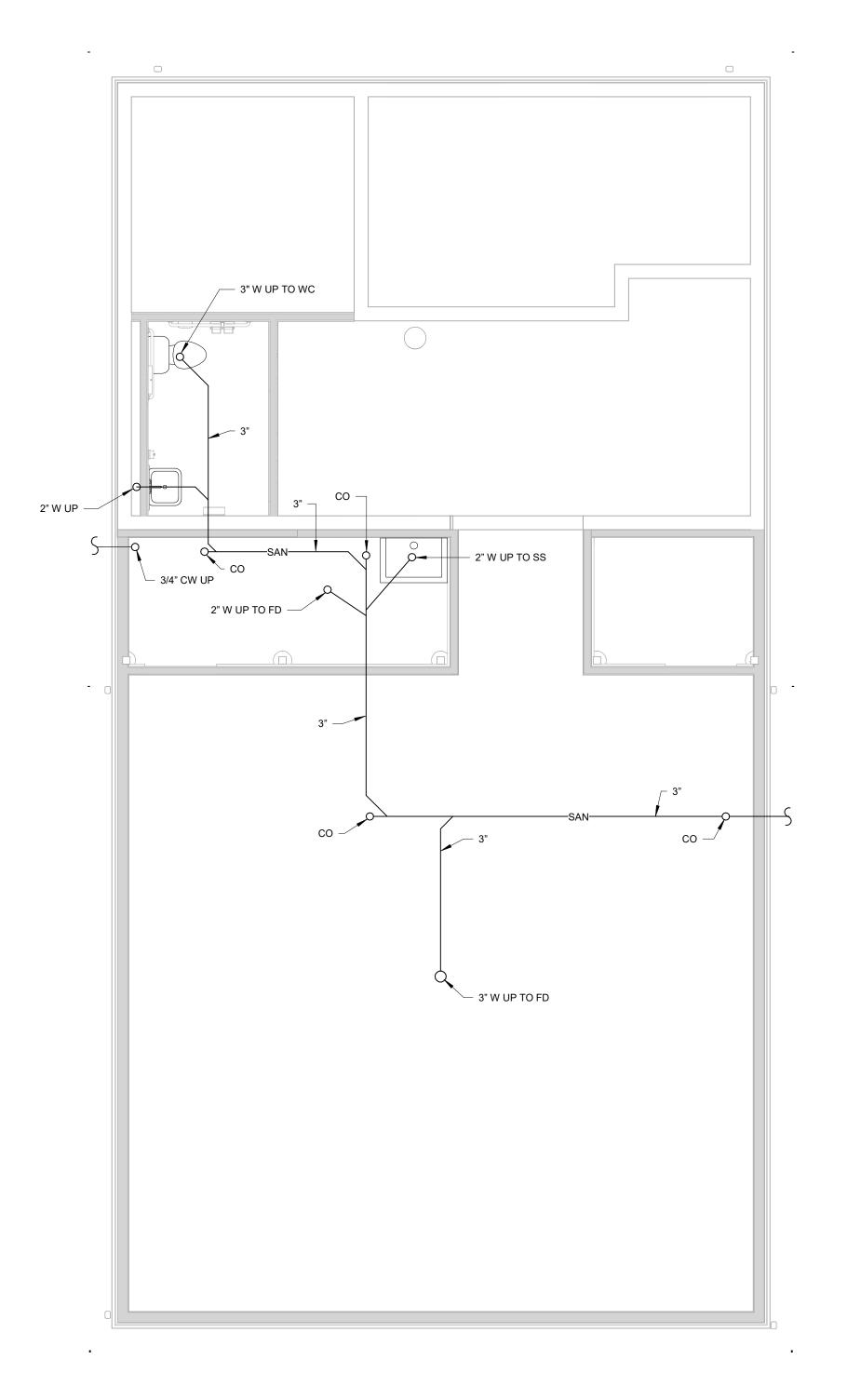
PROJECT NO. 0160-0479

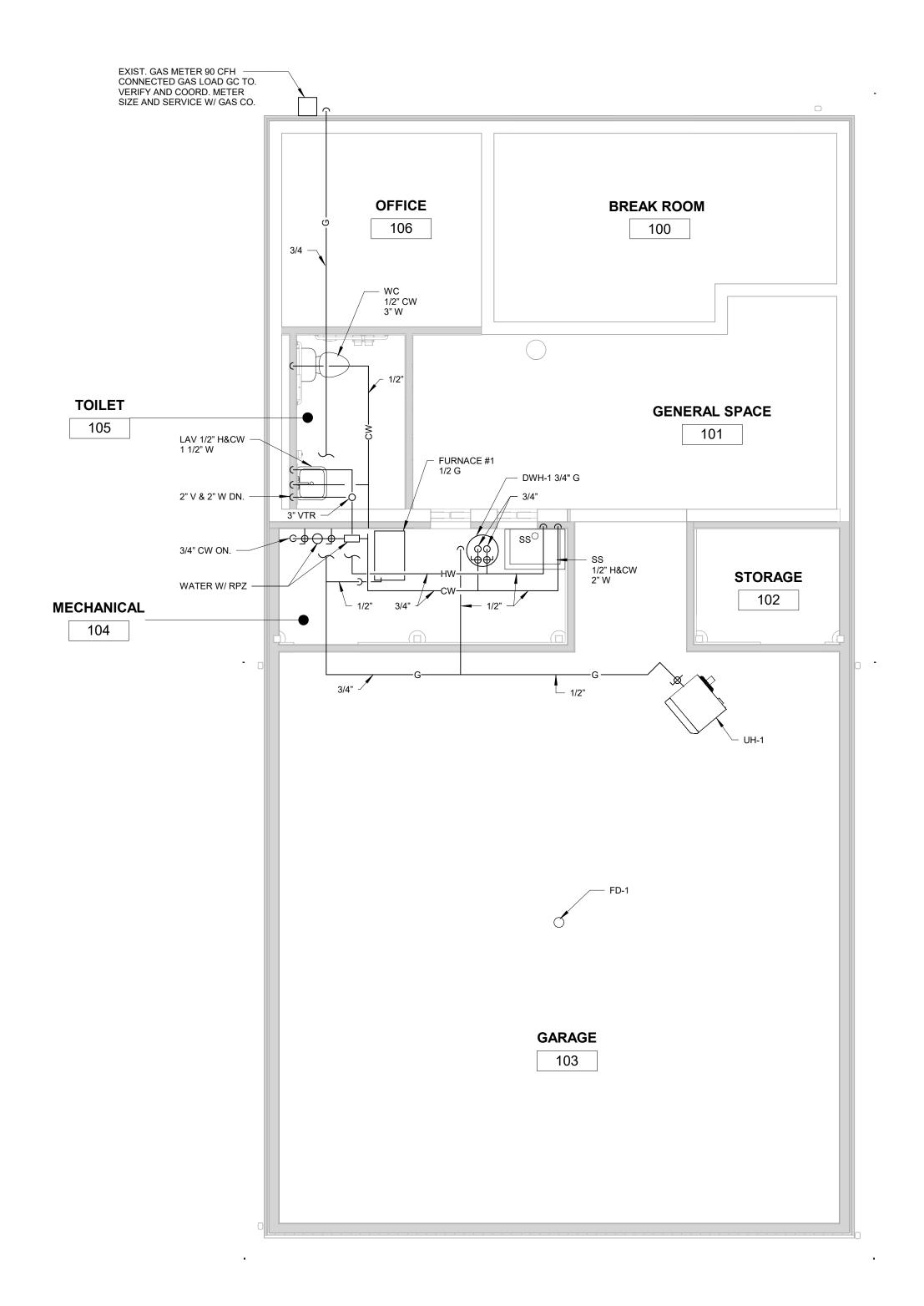














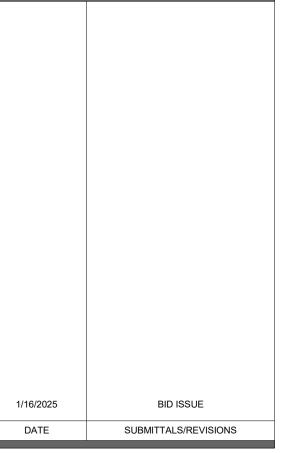




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LAKE FRONT PARK
BUILDING
RENOVATION

SHEET TITL

UNDERGROUND AND FIRST FLOOR PLUMBING PLAN

CITY OF GROSSE POINTE WOODS

PRELIMINARY CONSTRUCTION RECORD

DRAWN BY: CHECKED BY: DATE:

LAD JRA MAY 2024

SCALE:

AS NOTED



UTILITY INFORMATION, AS SHOWN, INDICATES
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PROJECT NO. 0160-0479

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		LUMINAIRE SCHEE	DULE		
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
	В	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.			
Ho	D	10" ROUND— METAL SHADE, OUTDOOR BARN LIGHT SCONCE— GOOSE NECK ARM —WALL MOUNTED, BLACK FINISH, WITH LED BULB 120V OPERATION.	1. LORA 1 , CAT#ELO523BL 2. ENGINEER APPROVED EQUAL	LED 4000°K	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 CADIUM 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
\sim	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

LUMINAIRE SCHEDULE GENERAL NOTES

- 1. REFER TO ELECTRICAL SPECIFICATIONS FOR MORE INFORMATION.
- 2. ALL LIGHT FIXTURES SHALL BE UL LABELED.
- 3. FIRST MANUFACTURER LISTED IS BASIS OF DESIGN. OTHER MANUFACTURERS LISTED ARE APPROVED MANUFACTURERS.
- 4. ELECTRICAL TRADES SHALL PROVIDE COMPLETE SUBMITTALS (SHOP DRAWINGS) ON ALL LIGHT FIXTURES, LAMPS, CONTROLS AND ACCESSORIES, ETC. REFER TO SPECIFICATION FOR SUBMITTAL FORMAT
- 5. ALL LUMINAIRES AND CONTROLS SHALL COMPLY WITH THE MICHIGAN UNIFORM ENERGY CODE AND ASHRAE 90.1.

LIGHTING SYMBOL LIST SYMBOL DESCRIPTION LIGHT FIXTURE - CEILING/GRID MOUNT LIGHT FIXTURE — INTERIOR WALL MOUNT LINEAR LIGHT FIXTURE - DOWNLIGHT WITH WALLWASH DIST. \triangle LIGHT FIXTURE - INTERIOR WALL SCONCE 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

DRAWN TO SCALE UNLESS NOTED OTHERWISE.

I. LIGHTING SYMBOLS AS INDICATED ON PLANS ARE NOT

DESCRIPTION SYMBOL SWITCH SINGLE POLE

OCCUPANCY SENSOR SWITCH VACANCY SENSOR SWITCH LOW VOLTAGE DIMMER SWITCH VACANCY DIMMER SENSOR SWITCH CEILING MOUNTED OCCUPANCY SENSOR

CEILING MOUNTED VACANCY SENSOR

SWITCH THREE-WAY SINGLE POLE KEY SWITCH

POWER SYMBOLLIST

SYMBOL 4 VO/ **/**

LIGHTING CONTROLS LEGEND

TRANSFORMER (REFER TO SCHEDULES FOR INFO) VARIABLE SPEED DRIVE

POWER RECEPTACLE - SPECIALTY TYPE

POWER RECEPTACLE — DUPLEX 6" ABOVE COUNTER

POWER RECEPTACLE - USB/DUPLEX COMBO. DEVICE

POWER RECEPTACLE - RECESSED FLOOR TYPE

POWER AND DATA RECEPTACLES - RECESSED FLOOR TYPE

POWER RECEPTACLE - QUADRUPLEX TYPE

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

AUXILIARY SYST. SYMBOL LIST

DESCRIPTION

CAMERA HTV MONITOR LOCATION- DETAIL DETAIL SHEET E-500 CR CARD READER COMMUNICATIONS DEVICE - 6" ABOVE COUNTER

COMMUNICATIONS DEVICE - FLOOR

COMMUNICATIONS DEVICE - WALL MAGNETIC DOOR HOLDER PUSH BUTTON

SYMBOL

SPEAKER WALL CLOCK - SINGLE FACE

WALL CLOCK AND SPEAKER UNIT

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.

FI FCTRICAL ABBREVIATIONS

FULL LOAD AMPS

HAND-OFF-AUTO

ISOLATED GROUND

KILOVOLT AMPERE

KILOWATT HOUR

LIGHTING PANEL

MAIN LUG ONLY

MAXIMUM

MINIMUM

NEUTRAL

PHASE

POWER FACTOR

NON-FUSIBLE

NORMALLY CLOSED

NORMALLY OPEN

NOT IN CONTRACT

MAIN CIRCUIT BREAKER

MAIN DISTRIBUTION PANEL

NATIONAL ELECTRICAL CODE

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION

OWNER FURNISHED / CONTRACTOR INSTALLED

OWNER FURNISHED / OWNER INSTALLED

RELOCATED EXISTING ELECTRICAL EQUIPMENT

POLYVINYL CHOLRIDE (PLASTIC)

REMOVE AND REINSTALL

RIGID METALLIC CONDUIT

TELEPHONE BACKBOARD

UNIVERSAL SERIAL BUS

UNDERWRITERS LABORATORIES

UNINTERRUPTIBLE POWER SUPPLY

RECEPTACLE PANEL

SPECIFICATIONS

UNDER COUNTER

TYPICAL

VOLT

WATT

VOLT AMPERE

WIRE GUARD

WEATHERPROOF

TRANSFORMER

HORSEPOWER

KILOVOLT

KILOWATT

GROUND FAULT CIRCUIT INTERRUPTER

FUSE

G/GRD

ΚV

KVA

KWH

MLO

NIC

RMC

SPEC/SPECS

TYP.

USB

XFMR

VER STIVIBUL LIST		FIRICAL ADDREVIATIONS	
DESCRIPTION	ABBREV.	DESCRIPTION	
NDUIT DOWN	AFF	ABOVE FINISHED FLOOR	SHEET
NDUIT UP	Α	AMPERE	E100
NTACTOR	AF	AMPERE FUSE/AMPERE FRAME	E101
CONNECT SWITCH - NON FUSED	AWG	AMERICAN WIRE GAUGE	
CONNECT SWITCH - FUSED	AT	AMPERE TRIP	E102
CONNECT SWITCH - COMB. MOTOR STARTER	ATS	AUTOMATIC TRANSFER SWITCH	ED10
CTRICAL PANEL - 208/240 VOLTS	AIC	AVAILABLE INTERRUPTING CURRENT (AMPS)	
CTRICAL PANEL - 480 VOLTS	С	CONDUIT OR CEILING MOUNTED	
DUNDING ROD	СВ	CIRCUIT BREAKER	
DUND	CU	COPPER	
DUNDING BAR	СТ	CURRENT TRANSFORMER	
NCTION BOX	DIA	DIAMETER	
NCTION BOX WITH HARDWIRED CONNECTION	DISC	DISCONNECT	
ΓER	EMT	ELECTRICAL METALLIC TUBING	
TOR - SINGLE PHASE	EWC	ELECTRIC WATER COOLER	
TOR - THREE PHASE	EPO	EMERGENCY POWER OFF	
TOR RATED SWITCH	(E)	EXISTING ELECTRICAL EQUIPMENT OR WORK	
WER RECEPTACLE - SIMPLEX TYPE	FA	FIRE ALARM	
WER RECEPTACLE - DUPLEX TYPE	FACP	FIRE ALARM CONTROL PANEL	
	NDUIT DOWN NDUIT UP NTACTOR CONNECT SWITCH — NON FUSED CONNECT SWITCH — FUSED CONNECT SWITCH — COMB. MOTOR STARTER CCTRICAL PANEL — 208/240 VOLTS CCTRICAL PANEL — 480 VOLTS CUNDING ROD DUND DUNDING BAR NCTION BOX NCTION BOX WITH HARDWIRED CONNECTION TER TOR — SINGLE PHASE TOR — THREE PHASE TOR RATED SWITCH WER RECEPTACLE — SIMPLEX TYPE	DESCRIPTION ABBREV. NDUIT DOWN AFF NDUIT UP A NTACTOR CONNECT SWITCH - NON FUSED CONNECT SWITCH - FUSED CONNECT SWITCH - COMB. MOTOR STARTER CONNECT SWITCH - COMB. MOTOR STARTER ATS COTRICAL PANEL - 208/240 VOLTS COUNDING ROD CU CUNDING ROD CU CUNDING BAR CT ACTION BOX DIA ACTION BOX WITH HARDWIRED CONNECTION DISC TER TOR - SINGLE PHASE TOR - THREE PHASE TOR - THREE PHASE TOR RATED SWITCH WER RECEPTACLE - SIMPLEX TYPE FA	DESCRIPTION ABBREV. AFF ABOVE FINISHED FLOOR NDUIT DOWN AFF AMPERE NTACTOR AFF AMPERE FUSE/AMPERE FRAME AFF AMPERE FUSE/AMPERE FRAME CONNECT SWITCH - NON FUSED ATF AMPERE FUSE/AMPERE FRAME CONNECT SWITCH - FUSED ATF AMPERE TRIP CONNECT SWITCH - COMB. MOTOR STARTER ATS AUTOMATIC TRANSFER SWITCH CONNECT SWITCH - 208/240 VOLTS AUTOMATIC TRANSFER SWITCH CONDUIT OR CEILING MOUNTED CONDUIT OR CEILING MOUNTED CONDUIT OR CEILING MOUNTED CUCCOPPER CUCCONNECT TERE EMT ELECTRICAL METALLIC TUBING TOR - SINGLE PHASE EWC ELECTRIC WATER COOLER TOR - THREE PHASE EPO EMERGENCY POWER OFF TOR RATED SWITCH (E) EXISTING ELECTRICAL EQUIPMENT OR WORK WER RECEPTACLE - SIMPLEX TYPE FA FIRE ALARM

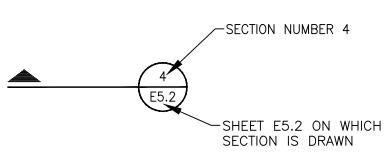
	DRAWING INDEX
SHEET #	DESCRIPTION
E100	ELECTRICAL GENERAL INFORMATION
E101	POWER AND LIGHTING PLAN
E102	ONE-LINE DIAGRAM AND SCHEDULE
ED101	ELECTRICAL DEMOLITION PLAN

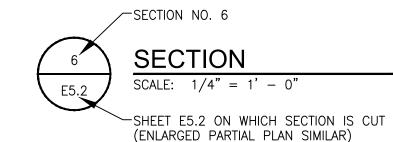
DRAWING NOTATION

SYMBOL DESCRIPTION LIGHTING FIXTURE TAG CONSTRUCTION KEY NOTE NUMBER 1 DEMOLITION KEY NOTE NUMBER 1 (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

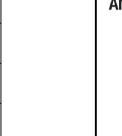
SHIFTH COMPONENT TO BE REMOVED





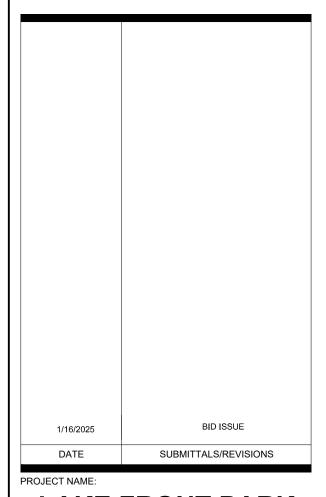
APPLICABLE CODES AND REGULATIONS YEAR CODE

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





Engineering Strong Communities



LAKE FRONT PARK **BUILDING RENOVATION**

ELECTRICAL GENERAL INFORMATION

CITY OF GROSSE POINTE WOODS

PRELIMINARY CONSTRUCTION RECORD DRAWN BY: CHECKED BY: DATE: DECEMBER 2024 SCALE: AS NOTED



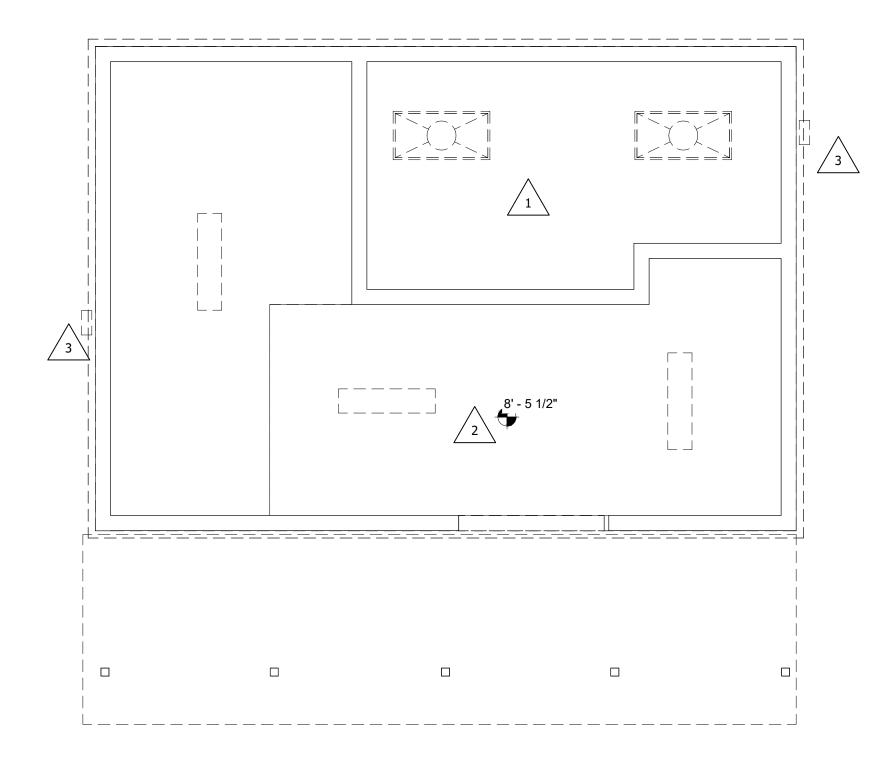
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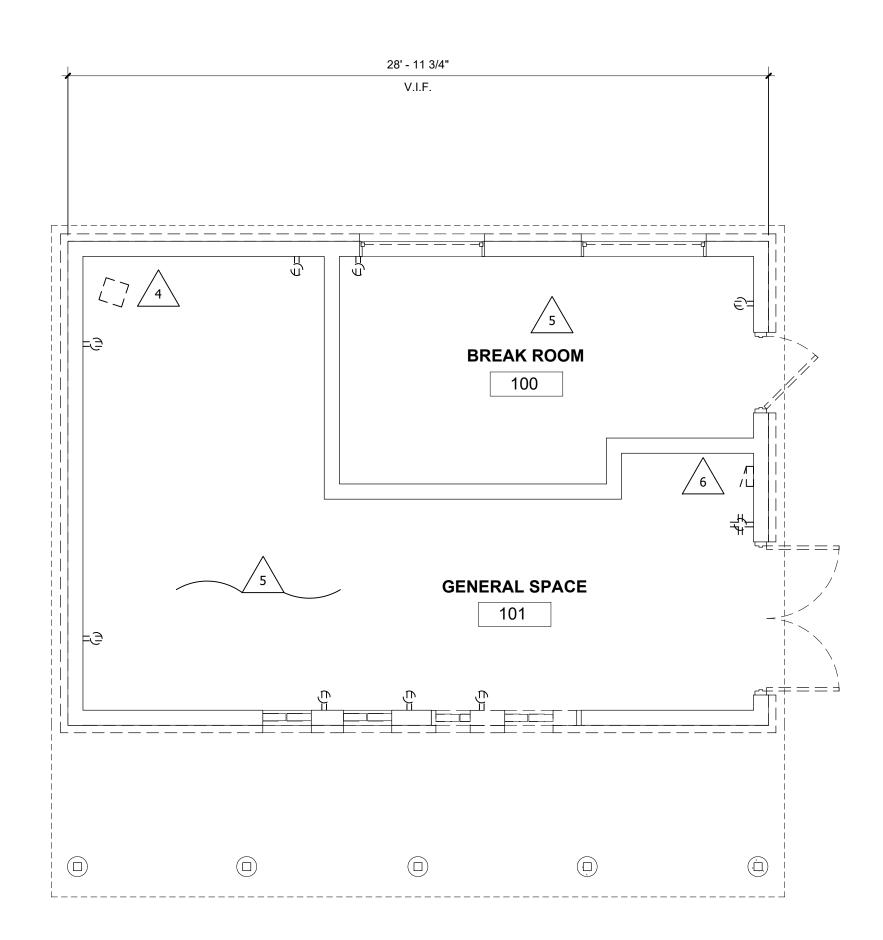
DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

PROJECT NO. 0160-0479

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GENERAL DEMOLITION NOTES

- 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.
- 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.
- PRIOR TO COMMENCEMENT OF WORK, CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING SITE CONDITIONS, SYSTEMS, AND UTLITIES. NOTIFY DESIGN PROFESSIONAL OF ANY INTERFERENCES OR DISCREPENCIES.
- 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.
- 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.
- VERIFY DEPTH, SIZE, LOCATIONS, AND CONDITIONS OF EXISTING UTILITIES IN THE FIELD. INCLUDING POINTS OF CONNECTION PRIOR TO STARTING ANY WORK.
- 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.
- 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.

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DEMOLITION KEYED NOTES

- EXISTING 2'X4' RECESSED FLURESCENT 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.
- 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.
- 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.
- EXISTING HEATER TO BE REMOVED COMPLETE, REMOVE CONDUIT AND WIRING BACK TO SOURCE PANEL.
- EXISTING RECEPTACLES TO BE REMOVED COMPLETE, REMOVE CONDUIT AND WIRING BACK TO SOURCE PANEL.
- EXISTING PANELBOARD 100A 120/240V 1¢ TO BE REMOVED AND REPLACED IN PLACE. REFER TO ONE-LINE DIAGRAM AND PANEL SCHEDULE FOR ADDITIONAL INFORMATION.



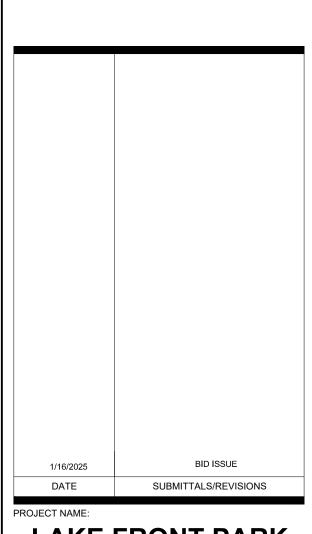
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Engineering Strong Communities



LAKE FRONT PARK
BUILDING
RENOVATION

HEET TITLE:

ELECTRICAL PLAN DEMOLITION

CITY OF GROSSE POINTE WOODS

DRAWN BY:	CHECKED BY:	DATE:
FA	JRA	DECEMBER 2024
SCALE:		
	AS NOTED	
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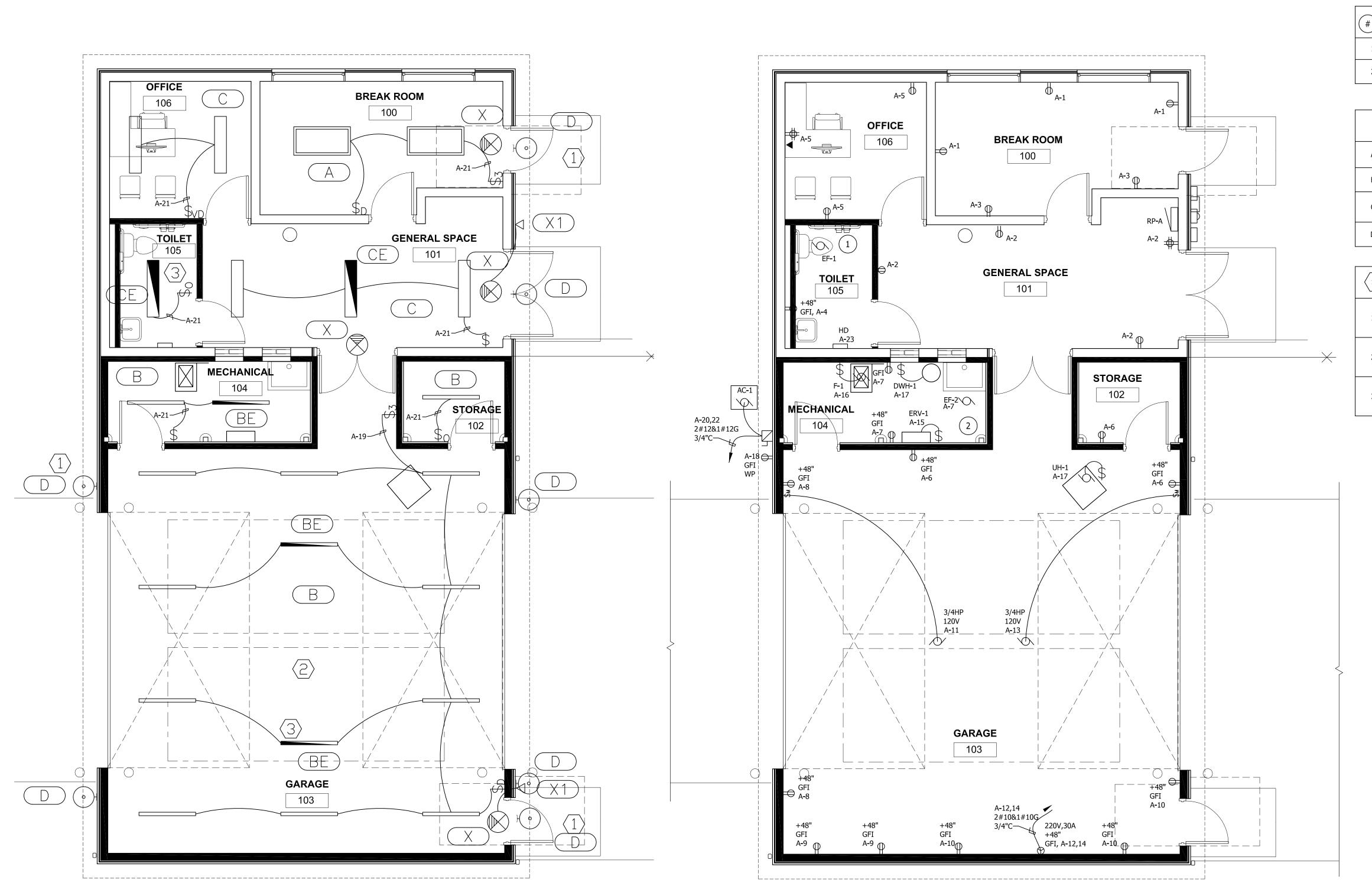
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DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

PROJECT NO. 0160-0479

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PROPOSED LIGHTING PLAN

NORTH

ELECTRICAL GENERAL NOTES

- THESE DRAWINGS ARE DIAGRAMMAITC 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
- 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. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVAL FROM D GOVERNING AUTHORITIES AND FILE NECESSARY FORMS, PAY ALL INSPECTION
- ELECTRICAL CONTRACTOR SHALL COMPLY WITH THE LATEST NATIONAL E | ELECTRICAL CODE, LIFE SAFETY CODE AND APPLICABLE STATE AND LOCAL CODES AND ORDINANCES.
- ELECTRICAL EQUIPMENT AND WIRING SHALL BE NEW AND SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED.
- WIRING SHALL BE IN CONDUIT. CONDUIT SHALL BE 3/4" C ONDUIT MINIMUM. CONDUITS IN FINISHED AREAS SHALL BE CONCEALED
- 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

- CONNECT EXHAUST FAN EF-1 TO LIGHTING CIRCUIT AND LIGHTING SWITCH IN
 - 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

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

NEW WORK KEYED NOTES

- 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.
- FIXTURES TO BE PENDANT MOUNTED ABOVE DOOR OPENINIG , AND CONTROLLED THROUGH 3 WAY SWITCHES, AND CEILING MOUNTED VACANCY SENSOR AND DIMMER WALL SWITCHES AS SHOWN. VERIFY EXACT MOUNTING HEIGHT IN THE FIELD.
- ALL HALF HASHED FIXTURES TO HAVE INTERNAL BACKUP EMERGENCY BATTERY. FIXTURE TO BE WIRED SUCH THAT BATTERY COMES ON UPON LOSS OF POWER AND TRANFERS TO GENERATOR POWER OUNCE GENERATOR IS ON. RETURN TO NORMAL POWER OUNCE POWER IS RESTORED.



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BID ISSUE 1/16/2025 SUBMITTALS/REVISIONS

LAKE FRONT PARK

BUILDING RENOVATION

ELECTRICAL PLANS

CITY OF GROSSE POINTE WOODS

	PRELIMINAR	Y CONSTRU	CTION RECORD		
Т	DRAWN BY:	CHECKED BY:	DATE:		
Т	FA	DECEMBER 2024			
Т	SCALE:				
		AS NOTED			

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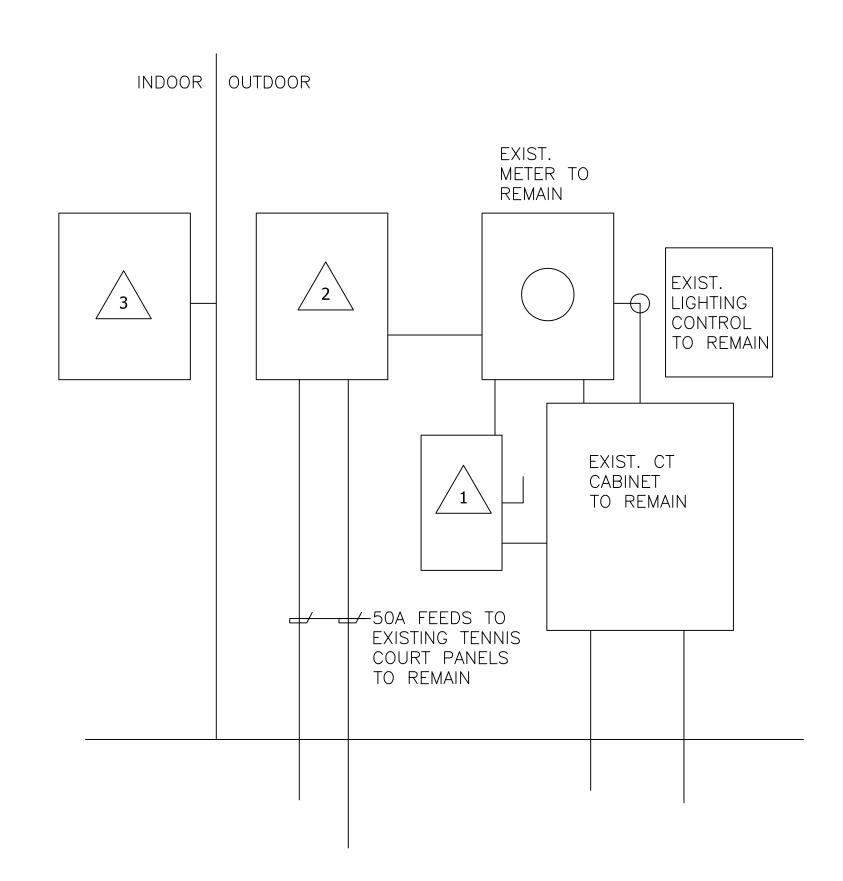
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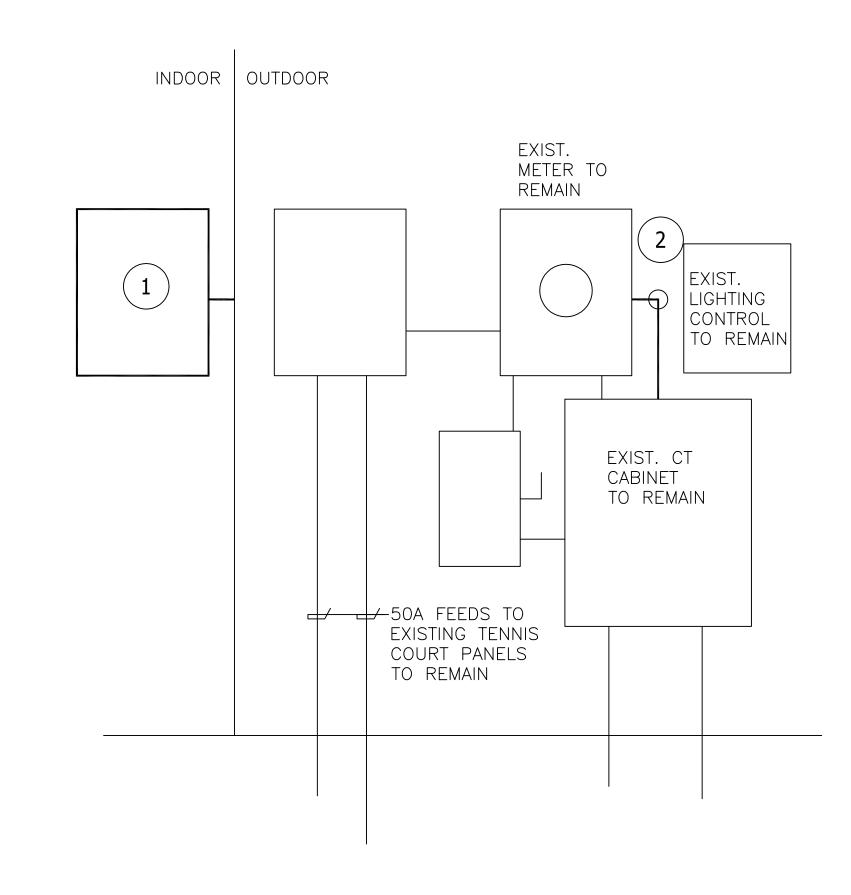
E101

PROPOSED POWER PLAN

NORTH



PARTIAL ONE-LINE DIAGRAM-DEMOLITION NO SCALE



PARTIAL ONE-LINE DIAGRAM-NEW WORK NO SCALE

PANEL NA	AME: RP-A					M	AIN:	100A				L-	L VOLTAGE	: 240	
LOCATION: GENERAL SPACE 101				BUSSING: 100A								L-I	N VOLTAGE	: 120	
sou	RAM		GRO	UND	BUS:	STAND	ARD				PHASE	: 1			
FEEDER	SIZE: REFER TO OI	NF-LINE DIAG	RAM		м	OUNT	ING:	SURFA	CF				WIRE	:3	
							RAL:				M	IN SC INTERR			
LOAD DESCRIPTION	LIGHTING LOAD	RECEPTACLE LOAD	CONTINUOUS LOAD	NON- CONTINUOUS LOAD	OCPD				OCPD	NON- CONTINUOUS LOAD	CONTINUOUS		LIGHTING LOAD	LOAD DESCRIPTION	
REAK ROOM 100		540			20	1		2	20			900		GENERAL SPACE 101	
REAK ROOM 100		360			20	3		4	20			180		TOILET 105	
PFFICE 103		720			20	5		6	20			900		GARAGE 103 GEN. RECEPT	
ECHNAICAL RM 104 RECEPT		360			20	7		8	20			720		GARAGE 103 GEN. RECEPT	
ARAGE 103 GEN. RECEPT		720			20	9		10	20			720		GARAGE 103 GEN. RECEPT	
GARAGE 103 DOOR OPENER		1600			25	11		12	- 30			1000		240V GEN. RECEPT GARAGE 103	
ARAGE 103 DOOR OPENER		1600			25	13		14] 30			1000		240V GEN. RECEPT GARAGE 103	
RV-1 MECH RM 104				840	15	15		16	20	1000				FURNACE F-1 MECH RM 104	
WH-1,UH-1 MECH RM 103,104				400	15	17		18	20			180		OUTDOOR RECEPT	
GHTING RM 103	750				15	19		20	20	1000				AC-1 COND.	
GHTING RM 101-106	500				15	21		22	20	1000				AC-1 COND.	
and dryer				1200	20	23		24	20					SPARE	
PARE					20	25		26	20					SPARE	
PARE					20	27		28	20					SPARE	
PARE					20	29		30	20					SPARE	
	TED LOAD		1		DEMAI	ND			DEMANI	D LOAD		-			
OAD TYPE	L1		L2	TOTAL	1		FACTO			L1		L2	TOTAL	1	
GHTING LOAD (VA)	500		750	1250			1.00			500		750	1250	1	
ECEPTACLE LOAD (VA)	7280		4220	11500		1.00	(FIRST	10KVA)		6330		3670	10000	RECEPTACLE DEMAND FACTOR PER	
,		Amou	nt over 10kVA	1500			0 (> 10			475		275	750	ARTICLE 220.44 OF THE NEC	
ONTINUOUS LOAD (VA)	0		0	0			1.00			0		0 0		1	
ON-CONTINUOUS (VA)	1400		4040	5440			0.60			840		2424	3264	1	
OTAL LOAD (KVA)	9.18		9.01	19.69	125% C	F LIGH	IT/CO	NT AND	RECEPT	+		7.12	15.26	1	
OTAL AMPACITY (A)	76.5		75.1	82.0	1				R LOAD			59.3	63.6	1	
AINIMUM FEEDER SIZE (A)	90.7		84.3	93.8	< P	•				82.1		68.5	75.3	1	



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FEEDING TENNIS COURTS PANELS TO REMAIN.

SEE NEW PANEL SCHEDULE, THIS SHEET.

NEW PANELBOARD TO REPLACE EXISTING IN PLACE. 100A 240V 1Ø 3W 30CIR. SEE NEW PANEL SCHEDULE THIS SHEET.

DEMOLITION KEYED NOTES

EXISTING OUTDOOR PANELBOARD TO REMAIN. INCLUDES (2) 50A 2P BREAKERS

EXISTING SURFACE MOUNTED INDOOR NEMA 1 PANELBOARD TO BE REMOVED

AND REPLACED WITH NEW PANELBOARD IN PLACE. REPLACE EXISTING FEEDER.

EXISTING 100A 240V 1¢ 2P DISCONNECT SWITCH TO REMAIN

PROVIDE NEW FEEDER WIRING IN EXISTING CONDUIT. RUN 3#3&1#6G.

BID ISSUE SUBMITTALS/REVISIONS

LAKE FRONT PARK BUILDING RENOVATION

ONE-LINE DIAGRAM AND SCHEDULE

CITY OF GROSSE POINTE WOODS

PRELIMINARY CONSTRUCTION RECORD CHECKED BY: AS NOTED

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