

| PLUMBING SYMBOLS | |
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| | NEW PIPING/EQUIPMENT |
| | EXISTING EQUIPMENT/PIPING TO BE REMOVED/RELOCATED |
| | EXISTING PIPING/EQUIPMENT |
| | UNDER SLAB PIPING |
| | TIE-IN POINT TAG |
| | STANDARD DETAIL TAG |

| HVAC SYMBOLS | |
|--------------|----------------------------------|
| | NEW HVAC EQUIPMENT |
| | NEW DUCTWORK |
| | EXISTING HVAC EQUIPMENT/DUCTWORK |
| | EXTERNALLY INSULATED DUCTWORK |
| | RETURN/EXHAUST DUCT DOWN |
| | RETURN/EXHAUST DUCT UP |
| | SUPPLY DUCT DOWN |
| | SUPPLY DUCT UP |
| | AIR FLOW DIRECTION |
| | GRILLE NO. |
| | NECK SIZE |
| | AIR FLOW RATE |

| ABBREVIATIONS LIST | |
|--------------------|------------------|
| HWR | HOT WATER RETURN |
| HWS | HOT WATER SUPPLY |
| NG | NATURAL GAS |
| PD | PROCESS DRAIN |
| DR | DRAIN |
| DG | DIGESTER GAS |

IMPERIAL PIPE SIZE CHART
(METRIC EQUIVALENT)

| IN | MM | IN | MM |
|-------|-----|----|------|
| 1/8 | 3 | 20 | 500 |
| 1/4 | 6 | 22 | 550 |
| 3/8 | 10 | 24 | 600 |
| 1/2 | 15 | 26 | 650 |
| 3/4 | 20 | 28 | 700 |
| 1 | 25 | 30 | 750 |
| 1 1/4 | 32 | 32 | 800 |
| 1 1/2 | 40 | 34 | 850 |
| 2 | 50 | 36 | 900 |
| 2 1/2 | 65 | 38 | 950 |
| 3 | 80 | 40 | 1000 |
| 4 | 100 | 42 | 1050 |
| 5 | 125 | 44 | 1100 |
| 6 | 150 | 46 | 1150 |
| 8 | 200 | 48 | 1200 |
| 10 | 250 | 50 | 1250 |
| 12 | 300 | 52 | 1300 |
| 14 | 350 | 54 | 1350 |
| 16 | 400 | | |
| 18 | 450 | | |

| PROCESS GENERAL NOTES | |
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| 1. | PIPE ROUTING SHOWN SCHEMATICALLY FOR CLARITY ON THE DRAWING. REFER TO ENLARGED PLANS, SECTIONS AND DETAILS FOR FURTHER INFORMATION. |
| 2. | REFER TO PIPING SPECIFICATION SECTIONS REGARDING MAXIMUM PIPE SPACING BETWEEN SUPPORTS, PIPING SPECIFICATIONS, VALVE SPECIFICATIONS AND ADDITIONAL DETAILS. |
| 3. | (E) DENOTES EXISTING EQUIPMENT AND PIPING. |
| 4. | INSTALL NEW EQUIPMENT AND PIPE ROUTING TO AVOID INTERFERENCE WITH OPERATION OF THE DOORWAYS, ELECTRICAL PANELS, AND EQUIPMENT. |
| 5. | DRAWINGS DO NOT SHOW ALL REQUIRED PIPE HANGERS AND SUPPORTS, PROVIDE PIPE SUPPORTS IN ACCORDANCE WITH THE SPECIFICATIONS |
| 6. | SCAN FLOORS AND WALLS TO LOCATE PIPE PENETRATIONS TO AVOID REBAR, STRUCTURAL STEEL AND FLOOR BEAMS. SEAL ALL FLOOR AND WALL PENETRATIONS COMPLETELY WITH NON-SHRINK CEMENTITIOUS GROUT. |

| DEMOLITION GENERAL NOTES | |
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| 1. | PERFORM WORK IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS. |
| 2. | EQUIPMENT LOCATIONS AND PIPE ROUTING INDICATED ON THE DRAWINGS IS APPROXIMATE ONLY. CONFIRM IN THE FIELD. REROUTE PIPING AS REQUIRED TO ELIMINATE FIELD INTERFERENCES, WITH BUILDING STRUCTURES, ELECTRICAL, ETC.. CONFIRM CHANGES WITH CONTRACT ADMINISTRATOR. CO-ORDINATE WORK WITH ALL SUBTRADES. WHERE DIMENSIONS ARE INDICATED FOR PIPING EQUIPMENT SIZES, ETC. THESE ARE FOR BIDDING PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE TO VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO ORDERING EQUIPMENT AND COMMENCING INSTALLATION WITHOUT EXTRA CHARGES TO THE PROJECT. THE CONTRACTOR IS RESPONSIBLE TO ENSURE ALL EQUIPMENT, DUCTWORK AND PIPING FITS IN THE SPACE AVAILABLE AND TO MAINTAIN THE GENERAL DESIGN INTENT FOR THE SYSTEMS. |
| 3. | ALL REMOVED EQUIPMENT SHALL BE DISPOSED OFF SITE. ANY EQUIPMENT/MATERIAL TO BE TURNED OVER TO THE CITY WILL BE IDENTIFIED BY THE CONTRACT ADMINISTRATOR AT CONSTRUCTION STARTUP. THE EQUIPMENT MATERIAL BEING TURNED OVER SHALL BE MOVED BY CONTRACTOR TO A DESIGNATED STORAGE AREA IDENTIFIED BY THE CONTRACT ADMINISTRATOR WITHIN NEWPCC FACILITY. |
| 4. | SEAL ALL OPENINGS REMAINING FROM REMOVED EQUIPMENT, DUCTWORK, AND PIPING AND MAKE GOOD. |
| 5. | IN THE EVENT THERE ARE DISCREPANCIES ON THE DRAWINGS AND/OR SPECIFICATIONS, THE CONTRACTOR SHALL REQUEST CLARIFICATION FROM THE CONTRACT ADMINISTRATOR PRIOR TO CLOSE OF TENDERS AND PRIOR TO PROCEEDING WITH CONSTRUCTION. CLARIFICATION WILL BE PROVIDED WITH THE INTENT OF ELIMINATING EXTRA COST TO THE CONTRACT. |



| NO. | REVISIONS | DATE | DESIGN | CHECK |
|-----|-------------------------|------------|--------|-------|
| 00 | ISSUED FOR CONSTRUCTION | 2026-04-02 | | |

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| KGS GROUP | |
| DESIGNED BY: N. RUSSI | CHECKED BY: P. SILVA |
| DRAWN BY: R.V. DIAZ | APPROVED BY: P. SILVA |
| SCALE: NTS | ISSUED FOR CONSTRUCTION BY: P. SILVA |
| DATE: 2026-02-27 | DATE: |
| CONSULTANT NO.: 25-0107-017_M0-01 | |

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| ENGINEER'S SEAL |
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| THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT | |
| NORTH END SEWAGE TREATMENT PLANT (NEWPCC) SLUDGE CAKE PUMP UPGRADE MECHANICAL GENERAL NOTES, LEGEND AND SYMBOLS | |
| CITY DRAWING NUMBER 1-0101-MAAA-W001 | SHEET REV. SIZE 00 A1 |