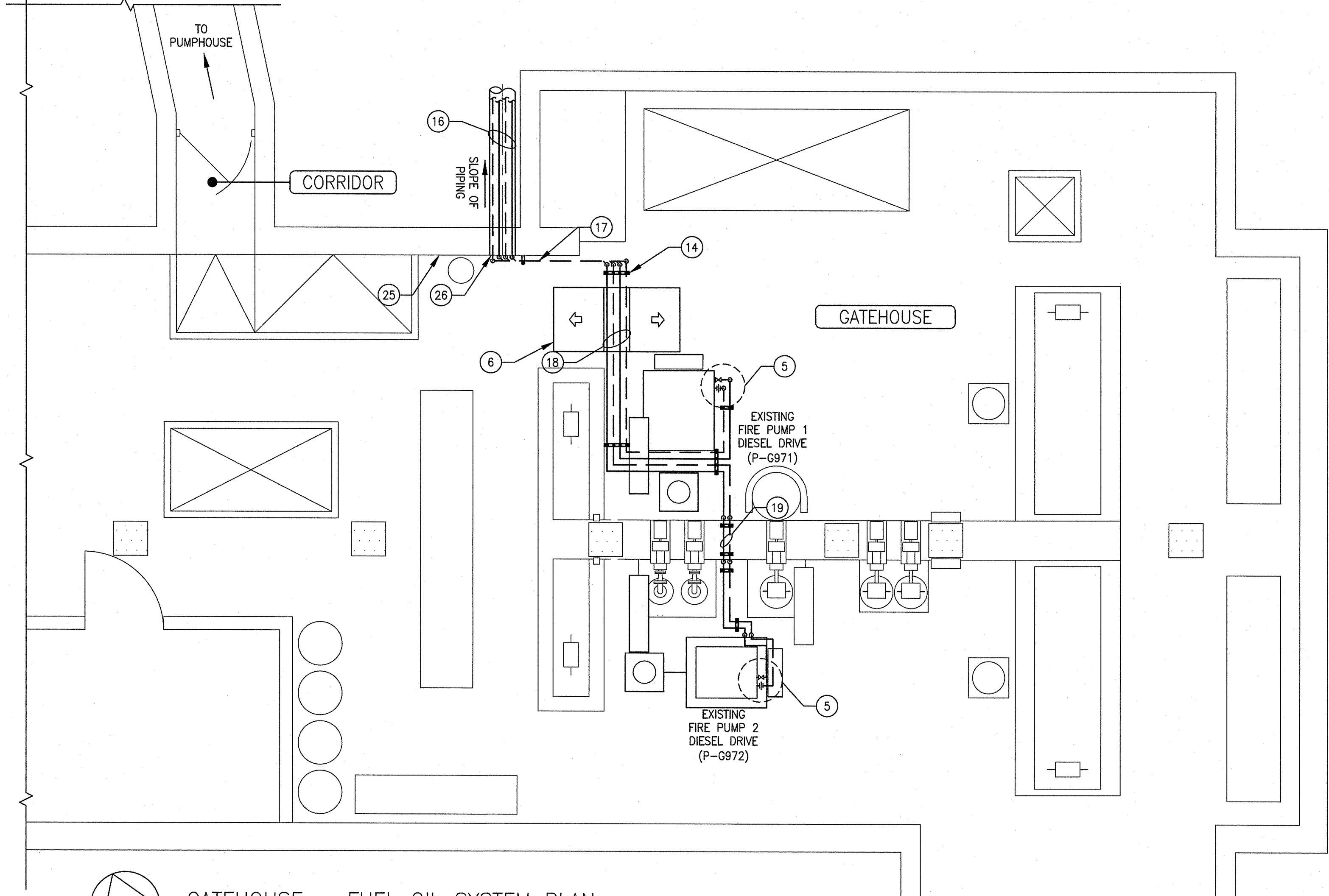


**PUMPHOUSE - FUEL OIL SYSTEM PLAN**  
 SCALE: 1:50  
 PUMPHOUSE FLOOR EL.: 326.136  
 0 1250 2500 mm



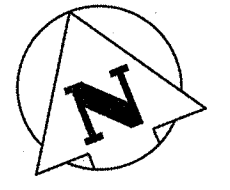
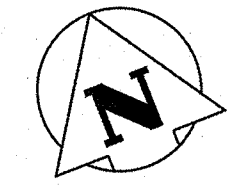
**GATEHOUSE - FUEL OIL SYSTEM PLAN**  
 SCALE: 1:50  
 GATEHOUSE FLOOR EL.: 325.200  
 0 1250 2500 mm

**DRAWING NOTES**

- 1 NEW 38" DFS AND 75" DFR LINES RUNNING FROM NEW OUTDOOR FUEL VAULT. TRANSITION TO STEEL PIPING IN PUMPHOUSE.
- 2 RUN 25" DFS AND 1-75" DFR LINES AT HIGH LEVEL ON PIPE HANGER ASSEMBLY. SEE DETAIL 1/M0006. DAY TANK DFS/DFR PIPE CENTERLINE TO BE MAXIMUM OF 3600mm ABOVE BOTTOM OF LOWEST DAY TANK.
- 3 NEW 12" DFS AND DFR LINES FOR GENERATOR TO BE INSTALLED ON TOP OF FLOOR, IN DRIP PANS. SEE DETAIL 3/M0006.
- 4 NEW 12" DFS AND DFR FOR LOW LEVEL PUMP P2 TO BE INSTALLED ON TOP OF FLOOR, IN DRIP PANS. SEE DETAIL 3/M0006.
- 5 CONNECT TO EXISTING FILTERS WITH FLEXIBLE CONNECTORS.
- 6 NEW PIPE PROTECTION AND RAMP PLATES. TYPICAL OF 3. SEE DWG M0009.
- 7 NEW 1000L (NOMINAL) AUXILIARY TANK SERVING GENERATOR AND LOW LEVEL PUMP P2.
- 8 MAINTAIN MINIMUM 100mm CLEARANCE BETWEEN TANK AND WALL.
- 9 NEW 465L (NOMINAL) AUXILIARY TANK SERVING FIRE PUMP 1 IN GATEHOUSE.
- 10 NEW 465L (NOMINAL) AUXILIARY TANK SERVING FIRE PUMP 2 IN GATEHOUSE.
- 11 NEW 25" DFS AND 50" DFR LINES SERVING TK-P530. DAY TANK SUPPLY PIPE CENTERLINE TO BE MAXIMUM OF 3600mm ABOVE BOTTOM OF LOWEST DAY TANK.
- 12 NEW 25" DFS AND 50" DFR LINES SERVING TK-G500 AND TK-G505.
- 13 RUN NEW DFS AND DFR LINES ALONG WALL AT LOW LEVEL TO GENERATOR AND LOW LEVEL PUMP P2.
- 14 UNISTRUT SUPPORT FOR WALL-MOUNTED PIPING. REFER TO DETAIL 2/M0006.
- 15 NEW 12" DFS AND DFR LINES SERVING FIRE PUMPS 1 AND 2 IN GATEHOUSE. RUN PIPING THROUGH EXISTING INFILL IN CONTINUOUS 100# (NPS 4) SCHEDULE 80 PVC CARRIER PIPE BETWEEN PUMPHOUSE AND GATEHOUSE WALLS. PROVIDE CASING FIRE-STOPPING AT GATEHOUSE WALLS. PROVIDE PIPE FIRE-STOPPING AT GATEHOUSE ONLY. SLOPE PIPE AND CONTAINMENT PIPE BACK TO PUMPHOUSE. SEE GATEHOUSE PLAN FOR CONTINUATION.
- 16 NEW 12" DFS AND DFR LINES FROM AUXILIARY TANKS TK-G500 AND TK-G505. CONTINUED FROM PUMPHOUSE PLAN.
- 17 RUN 12" DFS AND DFR LINES ALONG WALL AT LOW LEVEL IN GATEHOUSE.
- 18 RUN NEW 12" DFS AND DFR ON TOP OF FLOOR, IN DRIP PANS. SEE DETAIL 3/M0006.
- 19 RUN NEW 12" DFS AND DFR LINES OVER CURBING TO FIRE PUMP NO. 2.
- 20 CONTAINMENT SUMP. SEE DETAIL 6/M0006.
- 21 CONTAINMENT PIPE SUMP AND ALL DAY TANK INTERSTITIAL SPACES TO BE CONTINUOUSLY MONITORED BY AUTOMATED MONITORING EQUIPMENT.
- 22 TANK FUEL OUTLET SUPPLY TO FIRE PUMP ENGINES SHALL BE AT OR ABOVE THE LEVEL OF THE CONNECTION TO THE ENGINE AND AT A LEVEL THAT MAINTAINS 5% OF TANK VOLUME BELOW CONNECTION.
- 23 PLC - PUMP CONTROL AND INTERSTITIAL SPACE MONITORING OF 3-DAY TANKS AND CONTAINMENT PIPE SUMP WITH VISUAL/AUDIBLE LOCAL ALARM.
- 24 EXISTING WALL CONSTRUCTION AS REPORTED BY THE CITY: #3 ON 375mm CENTERS ON OUTSIDE VERTICAL (50mm CLEAR), #3 ON 375mm CENTERS INSIDES AND OUTSIDE HORIZONTAL, #6 ON 114mm CENTERS ON INSIDE VERTICAL (25mm CLEAR), 300mm THICK.
- 25 EXISTING WALL CONSTRUCTION AS REPORTED BY THE CITY: 25mm ON 200mm CENTERS RUNNING VERTICALLY. INFORMATION ON HORIZONTAL REBAR UNAVAILABLE. 425mm THICK CONCRETE.
- 26 INVERT ELEVATIONS OF CARRIER PIPE AT GATEHOUSE WALL: 326.655

**GENERAL NOTES**

1. CONTRACTOR SHALL COORDINATE ALL SHUTDOWNS WITH THE CITY. SHUTDOWNS SHALL BE COORDINATED IN ADVANCE DURING PROGRESS MEETINGS. A MINIMUM OF 3 WORKING DAYS ARE REQUIRED. THE CITY MAY RESCHEDULE SHUTDOWN TO ACCOMMODATE OPERATIONAL REQUIREMENTS. THIS WOULD INCLUDE BUT NOT BE LIMITED TO FUEL SYSTEMS, WATER SYSTEMS, ELECTRICAL SYSTEMS AND CONTROL SYSTEMS.
2. FIRE STOP ALL PENETRATIONS THROUGH WALLS. FOR DFS/DFR LINES SERVING FIRE PUMPS IN GATEHOUSE, PROVIDE PIPE FIRE-STOPPING AT GATEHOUSE WALL ONLY. (SECONDARY PIPE CASING TO BE FIRE STOPPED INTERNALLY AT THE UPSTREAM END.)

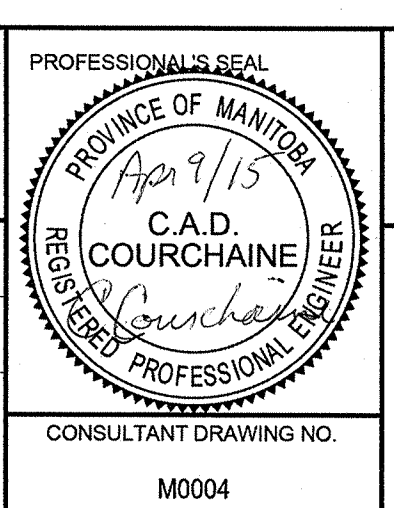


**LOCATION APPROVED**  
 UNDERGROUND STRUCTURES

SUPR. U/G STRUCTURES COMMITTEE DATE  
 NOTE:  
 LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE. BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

NO.	REVISIONS	DATE	BY
0	ISSUED FOR TENDER, BID OPP. 231-2015	15/04/13	DRL

<b>AECOM</b>	
DESIGNED BY	CC
CHECKED BY	GD
DRAWN BY	DRL
APPROVED BY	
HOR. SCALE	1:50
VERT. SCALE	
RELEASED FOR CONSTRUCTION	
DATE	



BID OPPORTUNITY NO. 231-2015

**THE CITY OF WINNIPEG**  
**WATER AND WASTE DEPARTMENT**

**SHOAL LAKE**  
**INTAKE FUEL STORAGE AND**  
**DELIVERY SYSTEM REHABILITATION**

**MECHANICAL**  
 PUMPHOUSE AND GATEHOUSE  
 DIESEL FUEL SYSTEM PLANS

SHEET 12 OF 23  
 CITY DRAWING NUMBER  
 1-0600A-M0004-001 0

AECOM REVIEW DRFT CHK	
AECOM FILE NAME: M0004.dwg Saved By: landersd	
1-0600A-M0001-001-00	MECHANICAL - LEGENDS, ABBREVIATIONS, DESIGN NOTES AND SCHEDULES
DRAWING NUMBER	REFERENCE DRAWINGS

