Notes:
1. Contractor shall conduct investigations as contractor deems necessary to satisfy himself as to the conditions existing on the project site and as required to perform all work required as part of the project.
2. Contractor shall be familiar with the conditions existing within the project area and the type of equipment needed to perform the work. The condition, quality, and quantity of subsurface materials to be encountered during the work is reasonably ascertainable, and shall require no inspection of the site. Contractor shall make any investigations as necessary deems necessary to investigate the existing conditions in the project areas.
PHOTO 1
24" WATER MAIN ROUTE
(LOOKING SOUTHWEST - ALONG ACCESS ROAD FROM 36" BYPASS MAIN)

PHOTO 2
24" WATER MAIN ROUTE
(LOOKING SOUTHWEST - NEAR CHLORAMINATION BUILDING)

PHOTO 3
24" WATER MAIN ROUTE
(LOOKING SOUTHWEST - BEHIND CHLORAMINATION BUILDING)

PHOTO 4
24" WATER MAIN ROUTE
(LOOKING SOUTHWEST - BEHIND CHLORAMINATION BUILDING)

PHOTO 5
24" WATER MAIN ROUTE
(LOOKING SOUTHWEST - TOWARDS DARTMOUTH PUMPING STATION)
REMOVAL OF EXISTING VALVE AND MANHOLE

NEW BUTTERFLY VALVE (24" to 42" BUTTERFLY VALVES)

NOTES:
1. All existing valves shall be removed in accordance with the specified design.
2. All new piping and work areas shall be fabricated.
3. All existing valve frames shall be replaced with new valve frames for pipes 24" and 42".
4. All new piping shall be connected to existing piping using appropriate fittings to suit specific conditions.
5. Contractor shall ensure that any additional supports, rigging devices, and ties used during installation shall be removed upon completion of installation.

SECTION 1

SECTION 2
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**Gaps or Flats**

Concrete Thrust Blocks
NOTE:
1. DRAWINGS ARE BASED ON AVAILABLE RECORDS, DRAWINGS AND INFORMATION FROM THE OWNER. IT IS NOT WARRANTED THAT THE DRAWINGS SHOW ALL EXISTING CONDITIONS THAT MAY BE ENCOUNTERED BY THE CONTRACTOR. CONTRACTOR SHALL CONDUCT INVESTIGATIONS AS CONTRACTOR DEEMS NECESSARY TO SATISFY HIMSELF AS TO THE CONDITIONS EXISTING ON THE PROJECT SITE AND AS REQUIRED TO PERFORM ALL WORK REQUIRED AS PART OF THIS PROJECT. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE CONDITIONS EXISTING WITHIN THE PROJECT AREAS; THE TYPE OF EQUIPMENT NEEDED TO PERFORM THE WORK; AND THE CHARACTER, QUALITY, AND QUANTITY OF MATERIALS TO BE ENCOUNTERED INSOFAR AS THIS INFORMATION IS REASONABLY ASCERTAINABLE. CONTRACTOR SHALL RESTORE ALL EXISTING AREAS AND FACILITIES TO THE CONDITION THAT EXISTED BEFORE CONSTRUCTION. ANY FACILITY THAT IS MODIFIED BASED ON CONTRACTOR'S MEANS AND METHODS TO CONSTRUCT THE NEW WORK SHALL BE REPAIRED IN-KIND TO A CONDITION EQUAL TO OR BETTER THAN WHAT EXISTED PRIOR TO CONSTRUCTION.
2. SEE BID SHEET FOR INLET STRUCTURE FLOOR DEMOLITION AND REPAIR BID ITEM.
3. ALL EXISTING FLOOR STAND VALVE OPERATORS TO BE REMOVED AND REPLACED. SEE SHEET M-4 AND SPECIFICATION SECTION 15102 FOR DETAILS.
4. AS REQUIRED, CONTRACTOR TO REMOVE EXISTING BRICK AND CONCRETE AROUND EXISTING DRAIN VALVES IN ORDER TO CUT OUT THE EXISTING DRAIN VALVES, ADD SPOOL PIECES AS REQUIRED, INSTALL NEW MECHANICAL JOINT GATE VALVE, AND REPLACE THE CONCRETE AND BRICK TO MATCH THE EXISTING.
5. ALL GATE VALVE STEMS AND OPERATOR TO BE BROUGHT UP TO FLOOR LEVEL AS SHOWN IN DETAIL D, SHEET M-4.
6. TEMPORARY BULK HEAD
   6.1. DESIGN OF TEMPORARY STRUCTURES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THIS INCLUDES THE BULKHEAD(S) NEEDED FOR SUCCESSFUL SEQUENCING OF THE BUTTERFLY VALVE INSTALLATION WORK.
   6.2. TEMPORARY BULKHEADS ARE TO BE DESIGNED BY THE CONTRACTOR MEETING THE FOLLOWING DESIGN CRITERIA.
      6.2.1. BULKHEADS TO CONFORM TO THE REQUIREMENTS OF SPECIFICATION SECTION 05500.
      6.2.2. CONTRACTOR'S CALCULATIONS ARE TO DEMONSTRATE THAT THE PLANNED BOLT LOADS FOR THE INSTALLATION ARE WITHIN THE ALLOWABLE BOLT LOADS PROVIDED HEREIN AND/OR IN SPECIFICATION SECTION 05500.
      6.2.3. DESIGN SUBMITTAL FOR THE BULKHEAD TO INCLUDE: SEALED STRUCTURAL CALCULATIONS FOR THE BULKHEAD, GASKET AND BOLT PERFORMANCE, SEALED CONSTRUCTION DRAWINGS FOR THE BULKHEAD, MANUFACTURING TOLERANCES FOR THE BULKHEAD AND THE SEATING SURFACE, INSTALLATION METHODS, BOLT TIGHTENING SEQUENCE AND PLAN.
      6.2.4. PROVIDE LIFTING HOOKS/LUGS NEEDED TO HANDLE THE BULKHEADS DURING INSTALLATION AND REMOVAL OF THESE BULKHEADS, AND THEIR DESIGN...
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2. SEE SHEET S-5 FOR OUTLET STRUCTURE DEMOLITION FLOOR PLAN AND SECTIONS. SEE SHEET S-6 FOR OUTLET STRUCTURE NEW FLOOR PLANS AND DETAILS.

3. ALL EXISTING FLOOR STAND VALVE OPERATORS TO BE REMOVED AND REPLACED. SEE SPECIFICATION SECTION 15102.

4. AS REQUIRED, CONTRACTOR TO REMOVE EXISTING BRICK AND CONCRETE AROUND EXISTING DRAIN VALVES IN ORDER TO CUT OUT THE EXISTING DRAIN VALVES, ADD SPOOL PIECES AS REQUIRED, INSTALL NEW MECHANICAL JOINT GATE VALVE, AND REPLACE THE CONCRETE AND BRICK TO MATCH THE EXISTING.

5. ALL GATE VALVE STEMS AND OPERATOR TO BE BROUGHT UP TO FLOOR LEVEL AS SHOWN IN DETAIL D, SHEET M-4.

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6.2. TEMPORARY BULKHEADS ARE TO BE DESIGNED BY THE CONTRACTOR MEETING THE FOLLOWING DESIGN CRITERIA.

6.2.1. BULKHEADS TO CONFORM TO THE REQUIREMENTS OF SPECIFICATION SECTION 05500.

6.2.2. CONTRACTOR'S CALCULATIONS ARE TO DEMONSTRATE THAT THE PLANNED BOLT LOADS FOR THE INSTALLATION ARE WITHIN THE ALLOWABLE BOLT LOADS PROVIDED HEREIN AND/OR IN SPECIFICATION SECTION 05500.

6.2.3. DESIGN SUBMITTAL FOR THE BULKHEAD TO INCLUDE: SEALED STRUCTURAL CALCULATIONS FOR THE BULKHEAD, GASKET AND BOLT PERFORMANCE, SEALED CONSTRUCTION DRAWINGS FOR THE BULKHEAD, MANUFACTURING TOLERANCES FOR THE BULKHEAD AND THE SEATING SURFACE, INSTALLATION METHODS, BOLT TIGHTENING SEQUENCE AND PLAN.

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7. CONTRACTOR IS RESPONSIBLE FOR HAVING A REGISTERED PROFESSIONAL ENGINEER SUBMIT A DESIGN FOR ENGINEERS REVIEW AND APPROVAL FOR THE REPLACEMENT OF THE FLOOR STAND AND FLOOR STAND BRACKET BASED ON THE SPECIFIC PROPOSED EQUIPMENT TO BE PROVIDED BY THE CONTRACTOR.