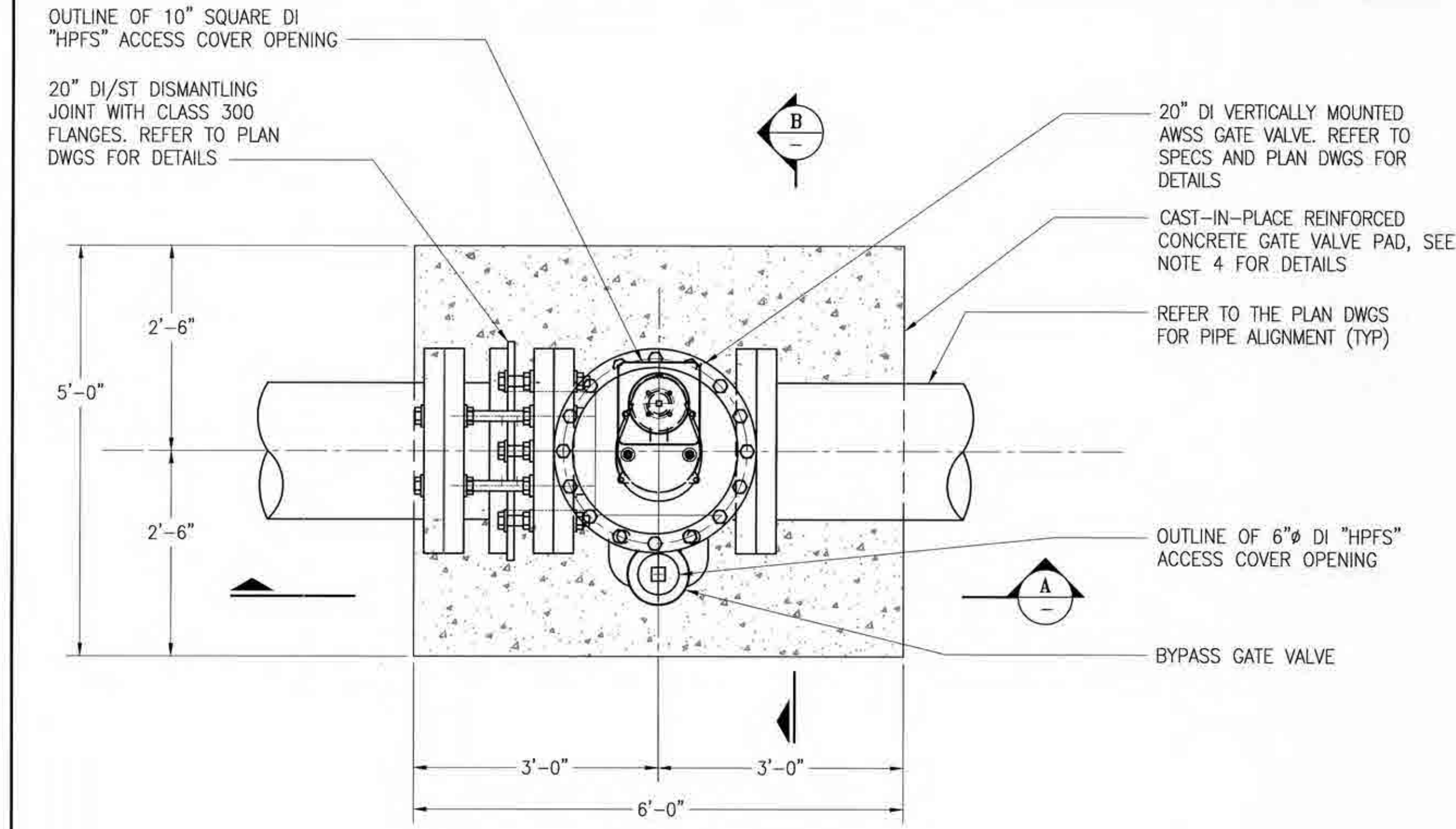


FILE NAME\\v2652_19th_avenue_combined_city_project\\2_Design\\working_drawings\\EME\\current_aws\\v2652_1_AWSS_MA-D05.dwg

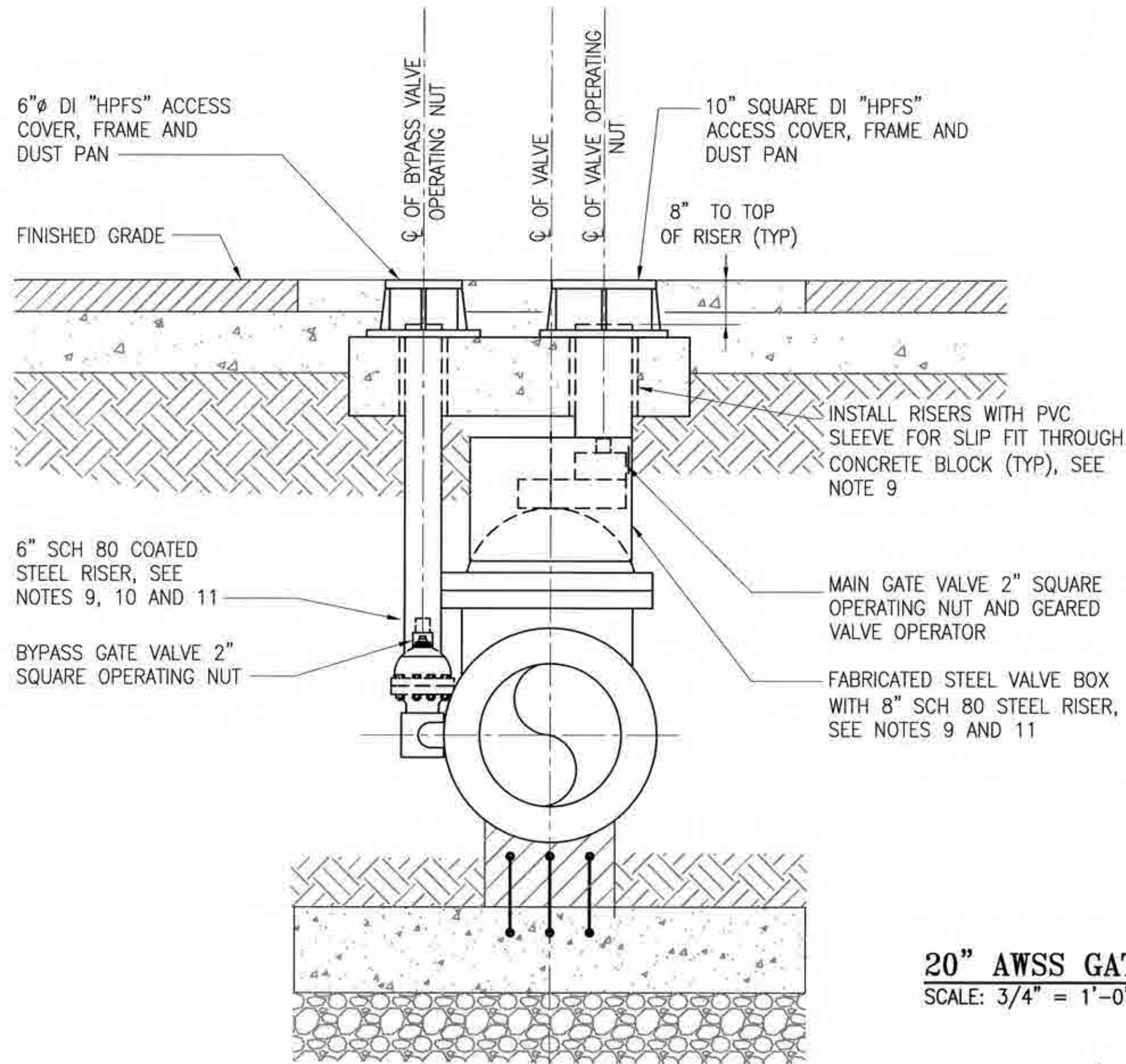
SAVE Monday, December 10, 2018 14:53:35 PM

PLOT: EXTENTS
SCALE: 1:1
BORDER:
22.34
COLOR: No.
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YELLOW 0.20MM
GREEN 0.25MM
CYAN 0.40MM
BLUE 0.50MM
MAGENTA 0.20MM
WHITE 0.35MM
GRAY 0.15MM
9 0.15MM
10 1.00MM
100 0.50MM
210 0.50MM



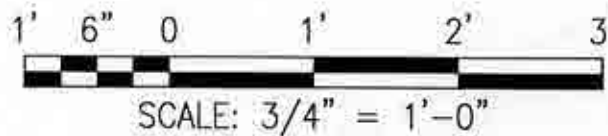
PLAN

(CONCRETE VALVE PAD/VERTICAL GATE VALVE/PIPING SHOWN EXPOSED FOR CLARITY. OUTLINE OF 10" SQUARE AND 6" DIAMETER ACCESS COVER OPENINGS, AND PIPE RISERS, ARE SHOWN FOR LOCATION PLACEMENT)



B SECTION

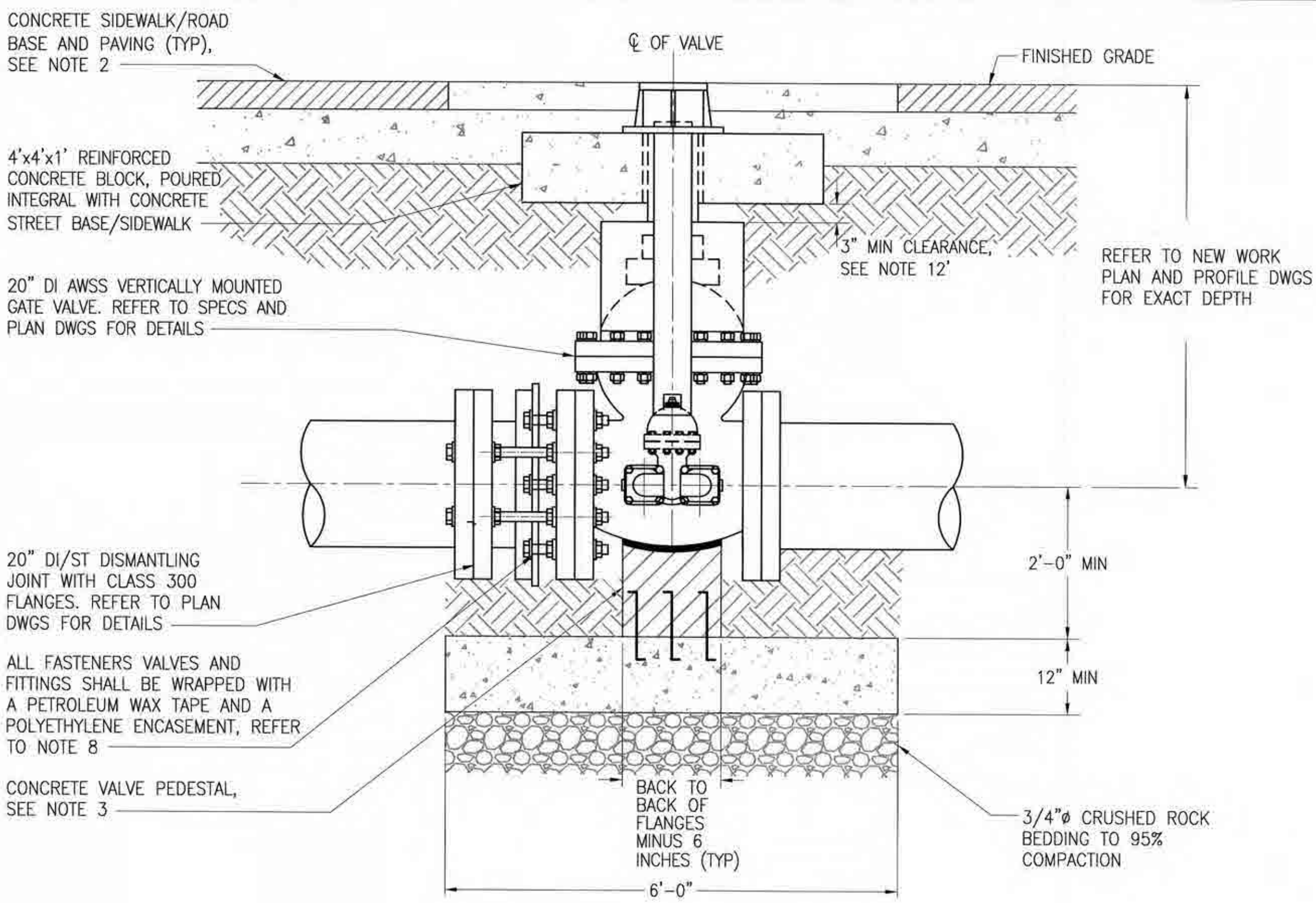
20" AWSS GATE VALVE AND CONCRETE VALVE PAD ARRANGEMENT
SCALE: 3/4" = 1'-0"



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PERMISSION OF THE SFPUC.

PLAN APPROVAL DATE	CONTRACT No.	PROJECT ID	DISTRICT	COUNTY	ROUTE	POST MILES TOTAL PROJECT
	04-0G3501	0400000325	04	SF	1	R0.94/4.05

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES



A SECTION

NOTES:

- REFER TO PLAN AND PROFILE DWGS FOR PIPE ALIGNMENT.
- THE CONTRACTOR SHALL RESTORE THE ASPHALT PAVING/CONCRETE ROAD BASE/SIDEWALK PER CITY REQUIREMENTS. REFER TO THE GENERAL NOTES ON MA-G02 FOR DETAILS.
- THE CAST-IN-PLACE CONCRETE VALVE PEDESTAL SHALL BE POURED AFTER THE VALVE PAD AND GATE VALVE HAVE BEEN POURED/INSTALLED. CONCRETE PEDESTAL SHALL BE DOWELED TO VALVE PAD WITH A MINIMUM OF SIX (6) #4 REBARS. NEOPRENE PAD SHALL BE 1/2" THICK SHORE "A" DUROMETER HARDNESS 70 MINIMUM, MANUFACTURER/MODEL: AMERICAN BILTRITE/AB-270 OR AN APPROVED EQUAL.
- THE CAST-IN-PLACE REINFORCED CONCRETE VALVE PAD SHALL MEET OR EXCEED THE OVERALL DIMENSIONS AS SHOWN ON THIS DWG AND BE POURED FROM A CONCRETE MIX OF 3000 PSI. THE FINAL CONCRETE PAD SIZE AND REBAR LAYOUT SHALL BE AS DETERMINED BY THE CONTRACTOR'S STRUCTURAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF CALIFORNIA. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE CITY REPRESENTATIVE FOR APPROVAL IN WRITING PRIOR TO BEGINNING WORK. THE SUBMITTAL SHALL DOCUMENT ANY CHANGES REQUIRED TO CONSTRUCT THE VALVE PAD AS REQUIRED TO ACCOMMODATE ADJACENT NEW AND EXISTING UTILITIES, DEPTH OF (E) AWSS PIPE, CHANGES DUE TO SITE CONDITIONS, AND ANY DIMENSIONAL CHANGES FROM THE MA-DWGS. THE CONTRACTOR SHALL PROVIDE ONE (1) WEEK WRITTEN NOTICE TO THE CITY REPRESENTATIVE FOR THE STRUCTURAL ENGINEER TO VISIT THE SITE TO APPROVE THE FORM WORK AND REBAR LAYOUT. EACH VALVE PAD TO BE INSTALLED SHALL BE INSPECTED AND APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO POURING THE CONCRETE.
- NOT ALL FLANGE FASTENERS ARE SHOWN FOR CLARITY. ALL FASTENERS SHALL BE MANUFACTURED FROM TYPE 316 STAINLESS STEEL.
- THE 10" SQUARE AND 6" DIAMETER ACCESS FRAMES SHALL BE CENTERED ON THE MAIN AND BYPASS GATE VALVE 2" SQUARE OPERATING NUTS.
- HORIZONTALLY MOUNTED GATE VALVES WITH BEVEL GEAR OPERATORS (WHEN CALLED OUT ON THE PLAN DWGS) SHALL BE SUPPORTED WITH AN ADDITIONAL VALVE PEDESTAL AS RECOMMENDED BY THE VALVE MANUFACTURER. THE VALVE PAD WIDTH SHALL BE 7'-0" WIDE PARALLEL WITH THE GATE VALVE OPERATING STEM IN LIEU OF THE 5'-0" SHOWN ON THIS DWG. SUBMIT SHOP DRAWINGS OF THE VALVE PAD AND VALVE SUPPORTS PER NOTE 4.
- THE GATE VALVE/DISMANTLING JOINT FLANGES/FASTENERS/TIE RODS SHALL BE WRAPPED WITH AN APPROVED PETROLEUM WAX TAPE PER AWWA STANDARD C217-16 AND C209-13, AND OVER-WRAPPED WITH A POLYETHYLENE ENCASEMENT IN ACCORDANCE WITH AWWA STANDARD C105/A21.10-12. ALL FOLDS, CREASES, SPLICES, AND ENDS SHALL BE TIGHTLY TAPED TO PREVENT INGRESS OF GROUNDWATER.
- THE RISERS SHALL BE SLEEVED WITH A SCH 40 PVC PIPE SLIT ALONG ITS LENGTH FOR A FREE SLIDING FIT THROUGH THE CONCRETE BLOCK.
- THE 6" RISER SHALL BE CUSTOM CUT AT THE LOWER END TO MATCH THE BYPASS VALVE BONNET PROFILE FOR MAXIMUM BEARING ONTO THE BONNET.
- THE FABRICATED STEEL VALVE BOX/RISER SHALL BE DESIGNED BY THE CONTRACTOR'S STRUCTURAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF CALIFORNIA. THE UNIT SHALL BE RATED FOR DIRECT BURIAL UNDER H-20 LOADED ROADWAYS. THE CONTRACTOR'S STRUCTURAL ENGINEER SHALL PROVIDE ALL REQUIRED CALCULATIONS INCLUDING BUT NOT EXCLUSIVE OF; BEARING CAPACITY, MAXIMUM SETTLEMENT AND TRAFFIC LOADS. THE UNIT SHALL BE FABRICATED WITH A MINIMUM OF 1/2" STEEL PLATE WELDED TOGETHER AS ONE FABRICATION, AND BE DESIGNED TO SIT ON THE GATE VALVE BONNET OR FLANGE, ENCLOSING THE BONNET AND GEARED VALVE OPERATOR. THE BOTTOM OF THE VALVE BOX SHALL BE BEVELED TO MATCH THE BONNET PROFILE WHEN PLACEMENT ON THE FLANGE IS NOT POSSIBLE. THE RISER SHALL BE CENTERED OVER THE 2" OPERATING NUT. THE UNIT, INCLUDING RISER, SHALL BE COATED ON ALL SURFACES (INTERIOR/EXTERIOR) WITH AN APPROVED TWO PART INDUSTRIAL GRADE EPOXY. THE ENCLOSURE SHALL INCORPORATE FOUR (4) 1" NC THREADED HOLES ON WELDED BOSSES FOR LIFTING PURPOSES. PLUG THREADED HOLES WITH BRASS BOLTS. THE CONTRACTOR SHALL SUBMIT DWGS TO THE CITY REPRESENTATIVE FOR APPROVAL IN WRITING PRIOR TO FABRICATION. THE CITY RESERVES THE RIGHT TO MAKE CHANGES TO THE SUBMITTED VALVE BOX/RISER DWGS WITHOUT ADDITIONAL COST.
- 3" MINIMUM CLEARANCE, BUT MAXIMIZE WHERE POSSIBLE.
- GATE VALVES SHALL BE INSTALLED WITH THE MAIN VALVE STEM INSTALLED AWAY FROM THE BYPASS GATE VALVE. THE CONTRACTOR SHALL NOTIFY THE CITY REPRESENTATIVE WHEN GATE VALVES OBTAINED FROM THE SFPD DO NOT MATCH THIS ORIENTATION. THE SFPD WILL ROTATE THE VALVE OPERATOR TO MATCH DWG AT NO COST TO THE CONTRACTOR.

REFERENCES
GATE BOOK PAGES, PLANS,
SURVEY NOTES, ETC. USED

GATE BOOK PAGES
NO.



CITY AND COUNTY OF SAN FRANCISCO SAN FRANCISCO PUBLIC WORKS BUREAU OF DESIGN AND ENGINEERING			
SECTION MANAGER 12/1/18	DRAWN MM/WC	01/2019	
DEPUTY BUREAU MANAGER 12/1/18	DESIGNED MBS	01/2019	
BUREAU MANAGER 12/1/18	CHECKED EL	01/2019	
NO.	DATE	DESCRIPTION	BY
REVISIONS			

CITY AND COUNTY OF SAN FRANCISCO PUBLIC UTILITIES COMMISSION WATER ENTERPRISE CITY DISTRIBUTION DIVISION 19TH AVENUE (STATE ROUTE 1) COMBINED CITY PROJECT			
AUXILIARY WATER SUPPLY SYSTEM WORK GATE VALVE AND VALVE PAD ARRANGEMENT PLAN AND SECTIONS			
APPROVED ENGINEERING MANAGER 12/1/18	APPROVED MANAGER, CITY DISTRIBUTION DIVISION 12/1/18	SCALE 3/4"=1'-0"	DATE 01/2019
SHEET 282 OF 356	PLAN NO. MA-D05	FILE NO. 111,580	REVISION NO. 0

FILE: 4