- 3. SINGLE LINE DIAGRAMS ARE PIPE CENTERLINES, MAXIMUM DEFLECTION ALLOWED AT EACH JOINT IS ONE (1) DEGREE UNIESS OTHERWISE SPECIFIED.
- 4. HYDRANT VALVE SHALL BE AS CLOSE TO MAIN AS POSSIBLE.
- 5. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND DEPTH OF THE EXISTING AWSS FACILITIES IN THE FIELD AND SHALL ACCORDINGLY ADJUST THE LOCATION AND DEPTH OF THE AWSS FACILITIES TO BE INSTALLED FOR THE REQUIRED CONNECTIONS.
- 6. THE MINIMUM CLEARANCE BETWEEN THE AWSS PIPE, FITTING OR APPURTENANCE AS THE CASE MAY BE, AND OTHER FACILITIES SHALL BE NOT LESS THAN 12", UNLESS OTHERWISE SPECIFIED, OR APPROVED BY THE ENGINEER.
- 7. THE CONTRACTOR SHALL SUPPLY ALL MATERIALS UNLESS OTHERWISE SPECIFIED.
- 8. ALL NEW MATERIALS TO BE FURNISHED BY THE CONTRACTOR SHALL CONFORM TO REQUIREMENTS OF THE CITY AND COUNTY OF SAN FRANCISCO AWSS SPECS AND AWSS STANDARD DRAWINGS, UNLESS OTHERWISE INDICATED. DOCUMENTS ARE AVAILABLE UPON REQUEST TO CITY REPRESENTATIVE.
- 9. THE CONTRACTOR SHALL FURNISH ALL FLANGE GASKETS, STAINLESS STEEL BOLTS, NUTS AND WASHERS; MJ GASKETS, GLANDS BOLTS AND NUTS.
- 10. THE CONTRACTOR SHALL WELD DI COLLAR STOPS TO (N) PIPE.
- 11. CONTRACTOR SHALL REMOVE (E) THRUST BLOCKS AND TIE RODS IN ORDER TO CONNECT TO (E) LINES, AS DIRECTED BY THE CITY REPRESENTATIVE.
- 12. CONTRACTOR SHALL SUPPORT SEWERS AND SEWER FORCE MAINS, AND OTHER GOVERNMENTAL UTILITY FACILITIES AS INCIDENTAL WORK.
- 13. REFER TO RELATED DRAWINGS IN THE CONTRACT PACKAGE FOR EXISTING AND NEW UTILITY AT THE LOCATION(S) OF WORK.
- 14. CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT (USA) TO REQUEST THAT MEMBER COMPANIES LOCATE AND MARK THEIR UNDERGROUND SERVICE LINES AND EQUIPMENT AT LEAST 48 HRS PRIOR TO TRENCH EXCAVATION. CONTRACTOR SHALL BE RESPONSIBLE FOR RELATED FEES FOR THEIR COORDINATION EFFORT INCLUDING BUT NOT LIMITED TO FEES REQUIRED BY MEMBER COMPANIES. CONTRACTOR SHALL PAY FOR DPW STREET OPENING PERMIT PRIOR TO EXCAVATION.

AWSS FACILITIES MONITORING NOTES (WHERE SHOWN ON THE DWGS)

1. SEE DWG MA-GO6 FOR SETTLEMENT MONITORING AND PIPE SUPPORT NOTES AND LEGEND.

SPECIAL INSTRUCTIONS

THE CONTRACTOR SHALL PERFORM PRELIMINARY EXCAVATIONS OF ALL ROUTES OF THE NEW AWSS WORK. THE EXCAVATIONS SHALL BE PERFORMED AT A MINIMUM OF EVERY 10 FEET WITH A WRITTEN REPORT SUMMARIZING ANY CONFLICTS AT EACH LOCATION. THIS REPORT SHALL BE SUBMITTED TO THE CITY REPRESENTATIVE FOR APPROVAL PRIOR TO BEGINNING TRENCH EXCAVATION. EXCAVATIONS SHALL BE A MINIMUM 18-INCHES SQUARE.

THESE PRELIMINARY EXCAVATIONS SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE CITY.

THE CONTRACTOR SHALL INSTALL DUCTILE IRON AWSS HYDRANT FINISH PLATES (PAIR PER HYDRANT) AT ALL (E) AWSS HYDRANTS IN THIS CONTRACT WHERE THE (E) SIDEWALK IS SHOWN TO BE REMOVED AND REPLACED, DUE TO ADJACENT WORK. THE DUCTILE IRON FINISH PLATES ARE THE SAME AS THE FINISHED PLATES CALLED OUT TO BE FURNISHED AND INSTALLED FOR AWSS HYDRANTS SHOWN TO BE REMOVED AND REPLACED IN THE CONTRACT WORK. REFER TO RELATED DRAWINGS FOR DETAILS OF THE DUCTILE IRON FINISH PLATES AND THE INSTALLATION AT ALL (E) AND (N) HYDRANTS.

TEMPORARY SHORING OF TRENCH EXCAVATION(S) ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. SHORING DESIGN(S) SHALL BE PREPARED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA AND SHALL BE SUBMITTED TO THE CITY REPRESENTATIVE FOR REVIEW AND APPROVAL. SHORING DESIGN(S) SHALL INCLUDE SURCHARGE LOADS DUE TO ADJACENT TRAFFIC LOADS, INCLUDING, BUT NOT LIMITED TO, MUNI LIGHT RAIL VEHICLES AND VEHICULAR TRAFFIC (HS20). THIS REQUIREMENT SHALL SUPERSEDE ANY OTHER LANGUAGE IN THE SPECIFICATIONS AND/OR DRAWINGS. THE EARTH WORK FOR REMOVAL AND INSTALLATION OF AWSS FACILITIES SHALL INCLUDE ALL TRENCHING, SHORING, BACKFILLING, COMPACTION AND PAVEMENT/CONCRETE ROADWAY RESTORATION, ALL TO CONFORM TO THE APPLICABLE REQUIREMENTS OF AGENCIES HAVING JURISDICTION OVER THE CONSTRUCTION LOCATION.

THE CONTRACTOR SHALL COMPLY WITH ALL SFMTA REQUIREMENTS, INCLUDING TRAINING AND CERTIFICATION OF EMPLOYEES, WHEN WORK IS IN THE VICINITY OF MUNI'S LIGHT RAIL VEHICLE TRACKWAYS.

CONSTRUCTION SEQUENCING

REFER TO DWG MA-GO2, INDIVIDUAL DRAWINGS, AND THE SPECIFICATIONS FOR CONSTRUCTION SEQUENCING REQUIREMENTS.

THE AWSS REMOVAL AND NEW WORK AS SHOWN ON THE DWGS SHALL BE COMPLETED PRIOR TO THE (N) PAVING WORK AND CONSTRUCTION OF PUBLIC/PRIVATE UTILITIES AS SHOWN ON RELATED DWGS IN THE CONTRACT PACKAGE UNLESS OTHERWISE NOTED ON OTHER DWGS AND THE SPECIFICATIONS OF THIS CONTRACT PACKAGE.

REMOVAL AND NEW WORK AT EACH INTERSECTION AND AS SHOWN ON EACH PLAN DWGS SHALL BE PERFORMED IN A CONTINUOUS SEQUENCE DUE TO SFFD OPERATIONAL REQUIREMENTS FOR FIREFIGHTING WATER IN THE VICINITY OF THE CONSTRUCTION AREA. COORDINATE WITH SFWD FOR MAIN LINE AND/OR HYDRANT SHUT DOWN PRIOR TO BEGINNING ANY WORK. REFER TO THE SPECIFICATIONS FOR ADDITIONAL DETAILS.

REFER TO NEW WORK PLAN DWGS FOR SPECIFIC CONSTRUCTION SEQUENCING RELATED TO EACH LOCATION WHEN APPLICABLE.

AWSS LEGEND

(THIS IS A STANDARD AWSS LEGEND - NOT ALL SYMBOLS MAY APPLY TO THIS PROJECT)

CENTERLINE OF AWSS TO BE REMOVED (REMOVAL WORK) AND/OR INSTALLED (NEW WORK)

EXISTING PIPE (TO REMAIN IN PLACE)

EXISTING PIPE TO BE ABANDONED IN PLACE

GATE VALVE IN VALVE VAULT/DIRECT BURIED - PLAN

HHHHHH

GATE VALVE IN VALVE VAULT - ELEVATION

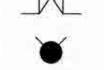
DIRECT BURIED GATE VALVE WITH EQUIPMENT PAD AND VALVE BOX (ES)- ELEVATION

PRECAST VALVE BOX, FRAME, COVER, DUST PAN - ELEVATION



DI FLANGED GATE VALVE

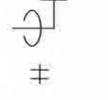
CI GATE VALVE



HIGH PRESSURE HYDRANT ASSEMBLY - PLAN

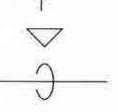


HIGH PRESSURE HYDRANT ASSEMBLY — ELEVATION

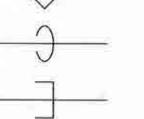


AIR VALVE ASSEMBLY - ELEVATION

HYDRANT RISER - ELEVATION



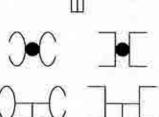
CONCRETE THRUST BLOCK



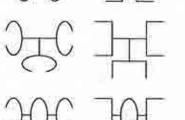
DI BELL AND SPIGOT PUSH-ON RESTRAINT JOINT (PIPE) OR MECHANICAL JOINT (FITTINGS)



CI BELL AND SPIGOT OR FITTING LEAD JOINT

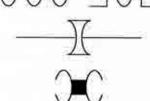


DI AND CI ELBOW - PLAN AND ELEVATION (INTO SHEET)



DI AND CI TEE - ELEVATION

DI AND CI TEE - PLAN



DI SLEEVE

DI FLANGED

DI PIPE LINE ACCESS POINT ASSEMBLY

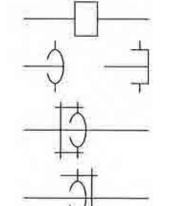
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GATE BOOK PAGES, PLANS, SURVEY NOTES, ETC. USED GATE BOOK PAGES

REFERENCES

No. M 30683 Exp. 06/30/20 CHANTCH AND THE OF CALIFORNIA

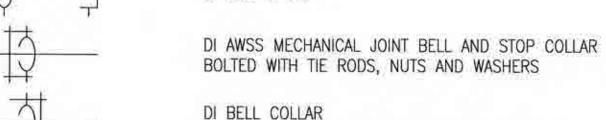
AWSS LEGEND (continued)



MANIFOLD

CI SLEEVE WITH LEAD JOINTS

DI AND CI CAP



BOLTED WITH TIE RODS, NUTS AND WASHERS

FIREBOAT WHARF MANIFOLD AWSS SETTLEMENT REFERENCE POINT AND NUMBER

AWSS MONITORING POINT AND NUMBER

SFWD LOW PRESSURE FIRE HYDRANT

ABBREVIATIONS

A/R	AS REQUIRED
ASSY	ASSEMBLY
AWSS	AUXILIARY WATER SUPPLY SYSTEM
BFC	BORROW FROM CITY
BOP	BOTTOM OF PIPE
BS	BELL AND SPIGOT PIPE
BSL	BELL AND SPIGOT LUGGED PIPE
CCSF	CITY AND COUNTY OF SAN FRANCISCO
CDD	CITY DISTRIBUTION DIVISION
CI	CAST IRON
Ę.	CENTER LINE
CTEL	CONNECT TO EXISTING LINE
CTS	CUT TO SUIT
DB	DOUBLE BELL PIPE
DBL	DOUBLE BELL LUGGED
DI	DUCTILE IRON
DIP	DUCTILE IRON PIPE
DS	DOUBLE SPIGOT PIPE
DSL	DOUBLE SPIGOT LUGGED PIPE
DWG	DRAWING(S)
(E)	EXISTING
FC	FURNISHED BY CITY
FLG	FLANGE
F/I	FURNISH AND INSTALL
FS	FROM SALVAGE
GH	GH CLASS "GH" (CAST IRON PIPE)
GHB	CLASS "GH" BELL (CAST IRON PIPE)
HP HYD	HIGH PRESSURE HYDRANT
HPW	HIGH PRESSURE WATER
LP	LOW PRESSURE
MJ	MECHANICAL JOINT (DUCTILE IRON PIPE)
MJB	MECHANICAL JOINT BELL (DUCTILE IRON PIPE)
(N)	NEW — FURNISH AND INSTALL INSTALL UNDER THIS CONTRACT
虍	PROPERTY LINE
RC R/C	REMOVE AND DISPOSE OF AS CONTRACTOR'S PROPERTY
R&S	REMOVE AND SALVAGE AS CITY PROPERTY
REF	REFERENCE
RIP	REMAIN IN PLACE
RTC	CLEAN AND RETURN TO CITY
SFPW	SAN FRANCISCO PUBLIC WORKS
A FEE	

CITY AND COUNTY OF SAN FRANCISCO SAN FRANCISCO PUBLIC WORKS

STAINLESS STEEL

STEEL

TYPICAL

SAN FRANCISCO FIRE DEPARTMENT

SAN FRANCISCO WATER DEPARTMENT

SETTLEMENT REFERENCE POINT

SAN FRANCISCO PUBLIC UTILITIES COMMISSION

SFFD

SFPUC

SFWD

ST/STL

TYP

STN STL, SS

SRP

CITY AND COUNTY OF SAN FRANCISCO PUBLIC UTILITIES COMMISSION WATER ENTERPRISE

CITY DISTRIBUTION DIVISION 19TH AVENUE (STATE ROUTE 1) BUREAU OF DESIGN AND ENGINEERING COMBINED CITY PROJECT

(2/17/18 DRAWN MM/WC ELENS 01/2019 AUXILIARY WATER SUPPLY SYSTEM WORK 01/2019

THORES. 12/19/18 DESIGNED MBS MECHANICAL LEGEND, ABBREVIATIONS AND FOR THE CHECKED GENERAL NOTES 01/2019 AS NOTED Kotun In Milley 01/2019 NO. DATE DESCRIPTION MA-G05 111,543 REVISIONS 245 OF 356

CONTRACT No. PLAN APPROVAL DATE PROJECT ID DISTRICT COUNTY POST MILES TOTAL PROJECT ROUTE 0400000325 04-0G3501 R0.94/4.05 FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

0.50MM

PLOT: EXTENTS

22,34

RED 0.70MM YELLOW 0.20MM

SCALE: 1:1 BORDER:

COLOR: No.