

LEGEND

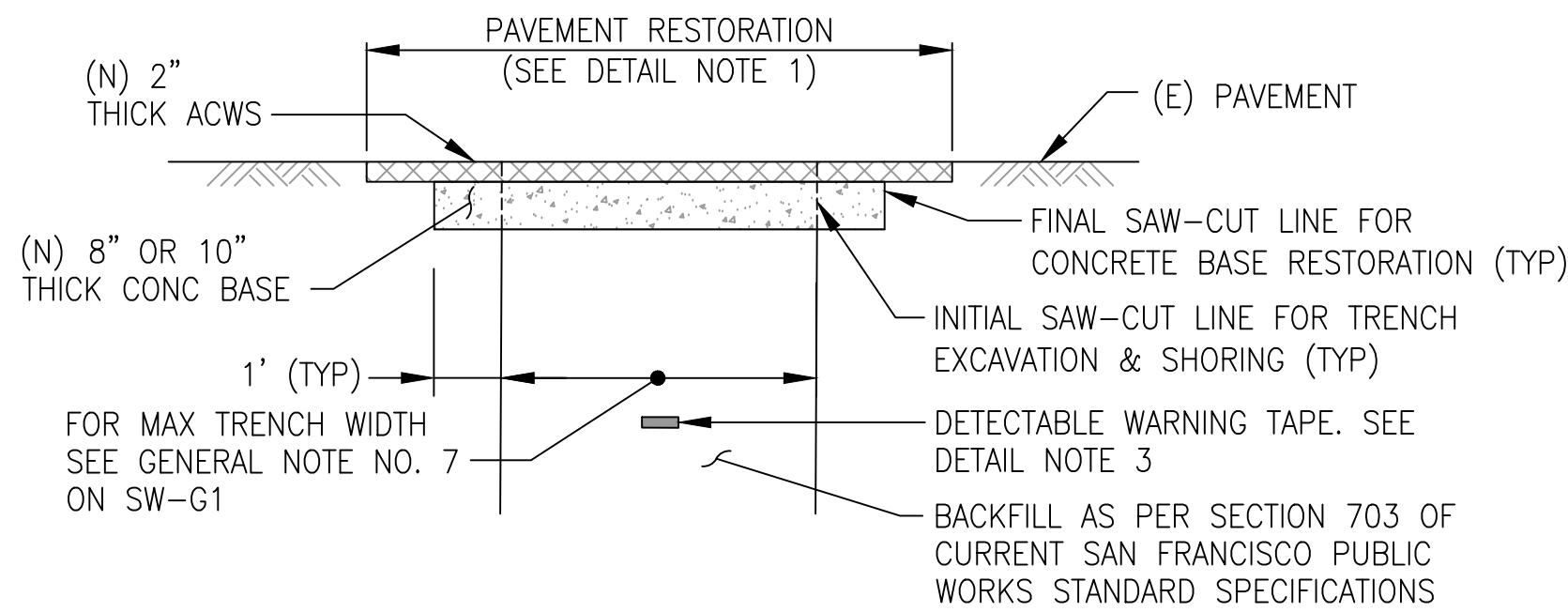
SIZE & TYPE	DESCRIPTION
	EXISTING SEWER OR CULVERT
	EXISTING MH
	EXISTING CB, SWI
	EXISTING TRACK DRAIN
	EXISTING SIDE SEWER (SS) AND AIR VENT
	NEW SEWER OR CULVERT
	NEW MH PER SFDPW STD PLAN 87,181
	NEW MH PER SFDPW STD PLAN 87,182
	NEW MH PER SFDPW STD PLANS 87,184
	NEW MH RISER PER SFDPW STD PLAN 87,185
	REPLACE (E) MH PER SFDPW STD PLAN 87,181
	MORTAR (E) MH
	ABANDON EXISTING MH
	REMOVE EXISTING MH
	EXISTING MH
	NEW MH
	MORTAR (E) MH
	REPLACE EXISTING MH
	ABANDON EXISTING MH
	REMOVE EXISTING MH
	EXISTING CLEANOUT
	EXISTING SURVEY MONUMENT
	NEW CB PER SFDPW STD PLAN 87,188
	REPLACE (E) CB PER SFDPW STD PLAN 87,188
	REMOVE (E) CB
	NEW SS PER SFDPW STD PLAN 87,196
	NEW 6" OR 8"Ø SS CONNECTION TO MAIN SEWER
	PLUG EXISTING FACILITIES
	PLUG AND FILL EXISTING FACILITIES
	APPROXIMATE LOCATION OF CUT-OFF WALL
	APPROXIMATE PAVEMENT SURFACE
	DIRECTION OF FLOW
	(E) DIRECTION OF FLOW
	SLURRY GROUT SHOWN IN SECTION OR PROFILE
	(E) AUXILIARY WATER SUPPLY SYSTEM

ABBREVIATIONS

	PLUS OR MINUS
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ACWS	ASPHALT CONCRETE WEARING SURFACE
APPROX	APPROXIMATE
AVE	AVENUE
AWSS	AUXILIARY WATER SUPPLY SYSTEM
BLVD	BOULEVARD
BRK	BRICK
C	CENTER
CB	CATCHBASIN
CF	CUBIC FEET
CH	CHANGE
CIP	CAST IRON PIPE
CIPL	CURED IN-PLACE PIPE LINER
CLSM	CONTROLLED LOW STRENGTH MATERIAL
CONC	CONCRETE
C-C	CENTER TO CENTER
CY	CUBIC YARD
DEA	DEACTIVATED
DET	DETAIL
DIA OR Ø	DIAMETER
DIP	DUCTILE IRON PIPE
DWG	DRAWING
(E)	EXISTING
EL	ELEVATION
ELE, ELEC	ELECTRIC
ENC	ENCASEMENT
ENGR	ENGINEER
EQ	EQUAL
FT	FEET
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HORIZ	HORIZONTAL
HWY	HIGHWAY
ID	INSIDE DIAMETER
INV	INVERT
ISP	IRON STONE PIPE
LF	LINEAR FEET
MAX	MAXIMUM
MH	MANHOLE
MH "x"	MANHOLE DESIGNATION
MIN	MINIMUM
(N)	NEW
NIC	NOT IN CONTRACT
NO.	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
ℙ	PROPERTY LINE
OVHD	OVERHEAD
PEP	POLYETHYLENE PIPE
RC	REINFORCED CONCRETE
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
SF	SQUARE FEET
S.F.	SAN FRANCISCO
SFPDW	SAN FRANCISCO DEPARTMENT OF PUBLIC WORKS
SL	SLOPE
SPECS	SPECIFICATIONS
SS	SIDE SEWER (LATERAL)
ST	STREET
STD	STANDARD
SWI	STORM WATER INLET
(TYP)	TYPICAL
THRU	THROUGH
VERT	VERTICAL
VCP	VITRIFIED CLAY PIPE
W/	WITH
W/O	WITHOUT

GENERAL NOTES

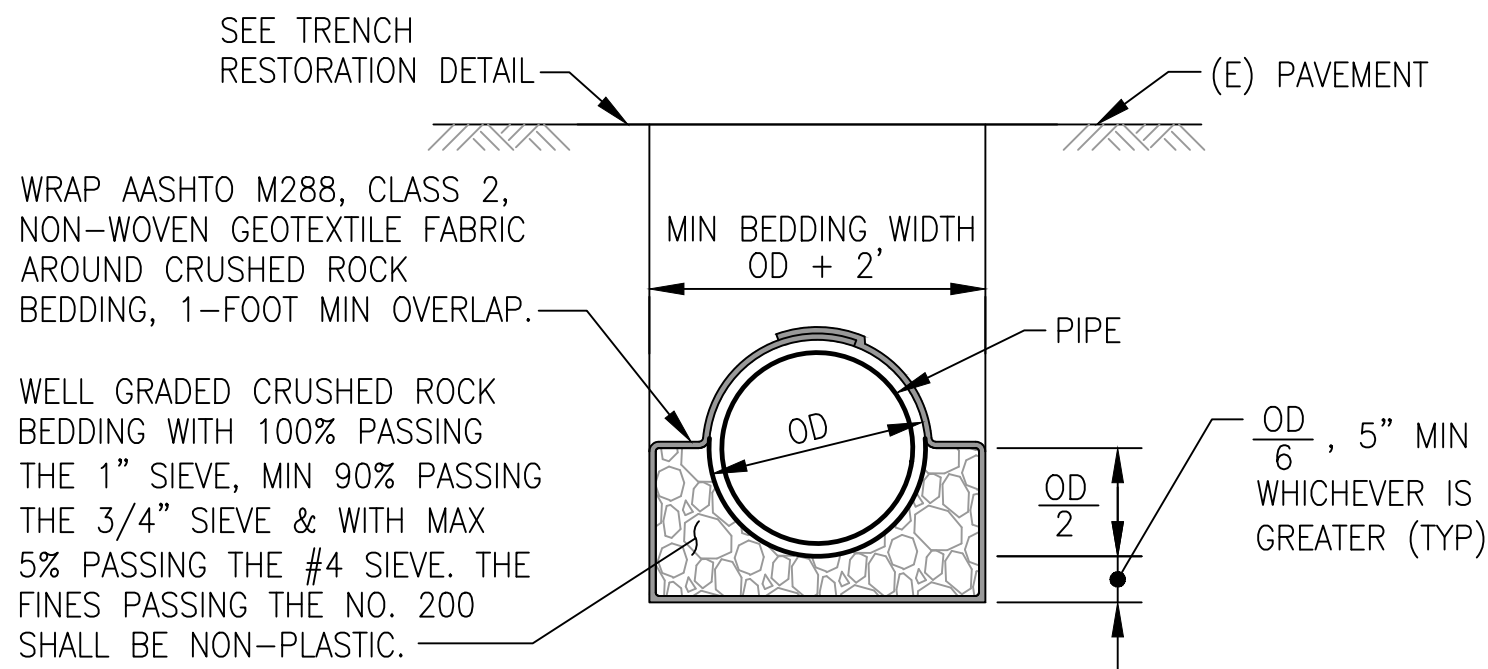
1. NUMBER AND LOCATIONS OF SIDE SEWER (LATERAL) CONNECTIONS ARE APPROXIMATE. CONTRACTOR SHALL VERIFY SIDE SEWER (LATERAL) CONNECTIONS IN THE FIELD.
 2. ALL GROUND SURFACE ELEVATIONS AND INVERT ELEVATIONS TO BE CONFORMED ARE APPROXIMATE.
 3. ELEVATIONS ARE IN REFERENCE TO S.F. CITY DATUM. S.F. CITY DATUM IS APPROXIMATELY 11.35 FEET HIGHER THAN NAVD88 DATUM.
 4. IN ACCORDANCE WITH THE PROVISIONS OF THE CALIFORNIA PUBLIC CONTRACT CODE SECTION 3300, A BID SUBMITTED TO A PUBLIC AGENCY BY A CONTRACTOR WHO IS NOT LICENSED IN ACCORDANCE WITH CHAPTER 9 OF THE BUSINESS AND PROFESSIONS CODE SHALL BE CONSIDERED NON-RESPONSIVE AND SHALL BE REJECTED BY THE PUBLIC AGENCY.
 5. AT THE TIME THIS CONTRACT IS BID, THE CONTRACTOR SHALL POSSESS A STATE OF CALIFORNIA CLASS "A" GENERAL ENGINEERING CONTRACTOR'S LICENSE.
 6. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN EXCAVATION PERMIT FROM SDFPW-PERMIT CENTER LOCATED AT 49 SOUTH VAN NESS AVENUE, SUITE 200, SAN FRANCISCO, CA 94103.
 7. MAXIMUM TRENCH WIDTH SHALL BE THE LARGER OUTSIDE DIMENSION OF THE NEW OR EXISTING SEWER/STRUCTURE PLUS 1.5 FEET ON EACH SIDE. AT LOCATIONS WITH CONGESTED UTILITIES, TRENCH WIDTH MAY BE WIDER TO ACCOMMODATE PROTECTION OF UTILITIES AND TO PROVIDE ADEQUATE WORK SPACE.
 8. ALL NEW VCP MAIN SEWERS SHALL BE CONSTRUCTED ON CRUSHED ROCK BEDDING PER DETAIL SHOWN BELOW UNLESS OTHERWISE NOTED.
 9. PIPE LENGTH SHOWN IN PROFILE INDICATES HORIZONTAL DISTANCE EXCLUDING INSIDE DIMENSION OF EACH SEWER MANHOLE/STRUCTURE.
 10. THE CONTRACTOR SHALL CLEAN ALL CATCHBASINS SHOWN ON SW-DRAWINGS AFTER SEWER WORK HAS BEEN COMPLETED AND THROUGHOUT PROJECT DURATION AS NEEDED AND AS DIRECTED BY THE CITY REPRESENTATIVE. THE CONTRACTOR SHALL REPLACE CAST IRON WATER TRAP AS DIRECTED BY THE CITY REPRESENTATIVE.
 11. CONTRACTOR SHALL PROTECT ALL SURVEY MONUMENTS AND BENCHMARKS LOCATED WITHIN THE CONTRACT LIMIT. CITY MONUMENTS LOCATED WITHIN 20 FEET OF CONSTRUCTION MUST BE REFERENCED PRIOR TO ANY DEMOLITION, AND A CORNER RECORD MUST BE FILED WITH THE COUNTY SURVEYOR'S OFFICE BY CONTACTING BUREAU OF STREET-USE AND MAPPING AT (628) 271-2000. THE MONUMENTS MUST BE REVISITED AFTER CONSTRUCTION HAS BEEN COMPLETED TO VERIFY THAT NO MOVEMENT HAS OCCURRED. IF MONUMENTS ARE NOT REFERENCED PRIOR TO CONSTRUCTION, THE CITY WILL CHARGE \$10,000 A PIECE TO THE CONTRACTOR FOR REESTABLISHING THE MONUMENT.
 12. SPRAY MORTAR SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 6000 PSI AT 7 DAYS. FOR SURFACE PREPARATIONS AND ADDITIONAL REQUIREMENTS, REFER TO SPECIFICATION SECTION 33 01 30.63.
 13. PRIOR TO ABANDONING EXISTING SEWER FACILITIES, CONTRACTOR SHALL VERIFY THAT THERE ARE NO ACTIVE CONNECTIONS TO THESE FACILITIES. CONTRACTOR SHALL NOTIFY CITY REPRESENTATIVE IMMEDIATELY OF ANY DISCREPANCIES.
 14. RIM ELEVATIONS OF PROPOSED SEWER MANHOLES AND CATCHBASIN GRATINGS SHALL CONFORM TO FINISHED ROADWAY ELEVATIONS.
 15. SIDE SEWER (LATERAL) SHALL BE CONNECTED TO THE MAIN AT OR ABOVE THE SPRING LINE UNLESS OTHERWISE DIRECTED BY THE CITY REPRESENTATIVE.
 16. SIDE SEWERS (LATERAL) TO BE REPLACED SHALL BE CONSTRUCTED ALONG THE SHORTEST DISTANCE FROM THE CURB TO MAIN SEWER WHERE POSSIBLE.
 17. REFER TO CR-DRAWINGS FOR EXACT LOCATION AND ELEVATION OF (N) CATCH BASIN.
 18. NOT ALL UTILITIES THAT REQUIRE REMOVAL ARE SHOWN ON SW-DWGS. CONTRACTOR SHALL REVIEW UTILITY COMPOSITE DWGS CAREFULLY TO DETERMINE UTILITIES AND LIMITS THAT REQUIRE REMOVAL INSIDE (N) SEWER TRENCH.
 19. SFMTA OVERHEAD ELECTRIC WIRES CARRY A MINIMUM OF 600 VOLTS DC AND HAVE A 17-FOOT ± VERTICAL CLEARANCE FROM THE ROADWAY. THE CONTRACTORS ATTENTION IS DIRECTED TO ARTICLE 37 OF GENERAL ORDER 95 OF THE PUBLIC UTILITIES COMMISSION STATE OF CALIFORNIA. CAL OSHA REGULATIONS REQUIRE THAT ANY EQUIPMENT THAT MOVES VERTICALLY MUST MAINTAIN A 10 FEET RADIAL CLEARANCE, AND ANY OTHER EQUIPMENT MUST MAINTAIN A 6 FEET CLEARANCE FROM MUNI OVERHEAD ELECTRIC WIRES. THE CONTRACTOR SHALL OBSERVE THESE REGULATIONS DURING THE ENTIRE DURATION OF THE CONSTRUCTION WORK.
 20. ALL DIMENSIONS OF EXISTING UTILITIES SHOWN ON SW-SHEETS ARE APPROXIMATE. THERE IS NO GUARANTEE OF THE ACCURACY OF THE INFORMATION INCLUDED.
 21. PLUG ALL SIDE SEWERS (LATERAL) PER SDFPW STD PLAN 87,198. PLUG AND FILL SEWER FACILITIES PER SDFPW STD SPECIFICATION SECTION 302.
 22. CONTRACTOR SHALL VERIFY EXACT SIZE AND LENGTH OF EXISTING SEWER TO BE LINED PRIOR TO MANUFACTURING THE LINER.
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| REFERENCE INFORMATION
& FILE NO. OF SURVEYS | |
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DETAIL NOTES:

1. LIMITS OF FINAL ACWS SHALL BE AS DELINEATED PER PR-DRAWINGS.
2. PER EXCAVATION REGULATIONS, RESTORATION OF CONCRETE BASE MAY BE WIDER THAN SHOWN IN TRENCH RESTORATION DETAIL.
3. DETECTABLE WARNING TAPE SHALL BE 6" WIDE, 5 MIL THICKNESS GREEN METALLIC WARNING TAPE WITH WORDS "CAUTION: BURIED SEWER," AND CENTERED OVER AND PLACED 12" ABOVE THE TOP OF PIPE.
4. SEE R-DRAWINGS FOR FINAL CONCRETE BASE THICKNESS.

TRENCH RESTORATION DETAIL FOR ASPHALT STREET



BEDDING DETAIL FOR RIGID PIPE

[illegible]