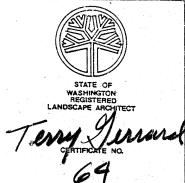


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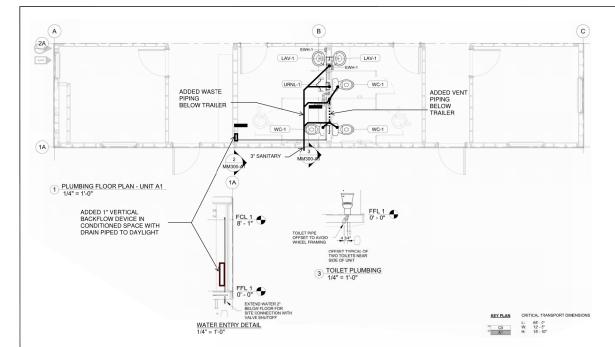


rling & Associates, Inc.



2000 112TH AVE NE BELLEVUE, WASE 98004 (206)454:3344

DATE **8-24-88 E 1.1**



GENERAL NOTE:

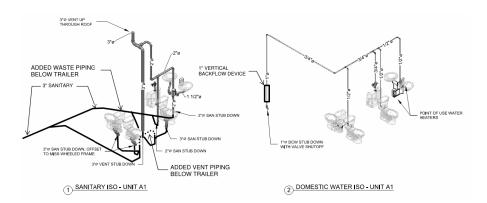
A. PLUMBING PIPING REQUIRED FOR STRUCTURE 3 SIMILAR TO STRUCTURE 1.

B. PLUMBING CONTRACTOR TO CONNECT SANITARY WASTE FROM TRAILER TO CIVIL POC. SEE DETAILS 1 & 3 OF THIS SHEET FOR REQUIRED BELOW TRAILER INTERCONNECTING PIPING.

C. PLUMBING CONTRACTOR TO CONNECT DOMESTIC WATER FROM TRAILER TO CIVIL POC. SEE DETAILS 1 & 3 OF THIS SHEET FOR REQUIRED BELOW TRAILER INTERCONNECTING PIPING.

D. PLUMBING CONTRACTOR TO PROVIDE FREEZE PROTECTION FOR OUTDOOR EXPOSED PIPING PER THE LOCAL PLUMBING CODE.





GENERAL NOTE:

A. PLUMBING PIPING REQUIREMENT FOR STRUCTURE 3 SIMILAR TO STRUCTURE 1.





Project Title:

Stampt

Date:

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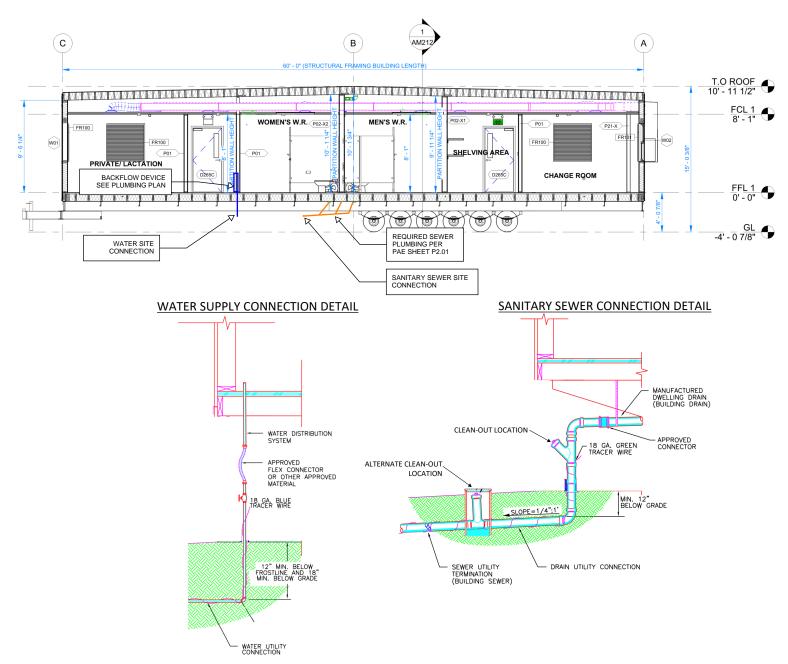
Sheet 1960
DETAILS , FLOOR
PLAN, AND SITE PLAN
- PLUMBING

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P2.01



WATER-SEWER CONNECTION DETAIL



WATER NOTES:

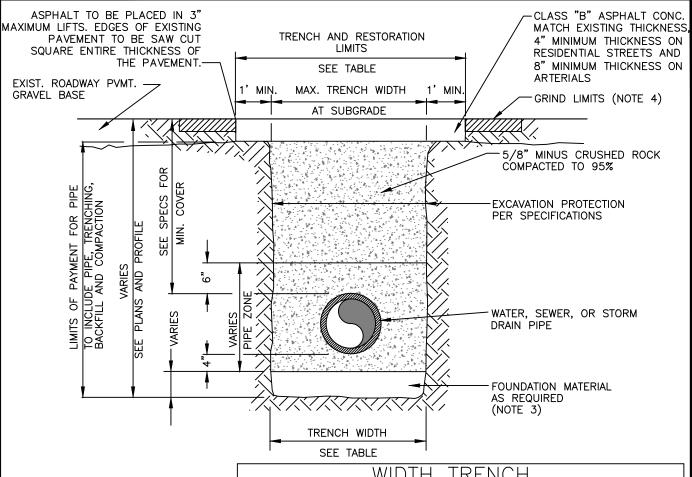
- 1. AN ACCESSIBLE FULL WAY SHUTOFF VALVE SHALL BE INSTALLED UNDER OR WITHIN 5 FEET OF THE MANUFACTURED BUILDING.
- 2. PIPING CONNECTIONS SHALL NOT BE SUBJECT TO ANY LOADS FROM THE BUILDING STRUCTURE.
- 3. BUILDING WATER SUPPLY PIPING SHALL BE PROTECTED FROM FREEZING WITH PIPE INSULATION OR WITH THE INSTALLATION OF AN ELECTRIC HEAT TAPE LISTED OR APPROVED FOR THE BUILDINGS USE.
- 4. TRACER WIRE SHALL BE BLUE, 18 GAUGE, INSTALLED IN THE TRRENCH AND ALONG THE ENTIRE LENGTH OF PIPE.
- 5. TEST THE WATER SUPPLY TO ASSURE THERE IS NO EVIDENCE OF LEAKAGE UNDER NORMAL OPERATING PRESSURE.

SEWER NOTES:

- APPROVED PIPING SHALL BE A MINIMUM 3 INCHES IN DIAMETER AND CONSISTING OF APPROVED PIPING NOT LESS THAN SCHEDULE 40. LISTED AND APPROVED SHIELDED FLEXIBLE CONNECTORS MAY BE USED TO JOIN THE DRAINPIPE TO THE SEWER INLET.
- 2. PIPING SHALL HAVE SUPPORTS OF SUFFICIENT STRENGTH TO KEEP THE PIPING ALIGNMENT AND CARRY THE WEIGHT OF THE PIPING AND ITS CONTENTS. SUPPORTS MAY HANG DOWN FROM THE BOTTOM OF THE MANUFACTURED BUILDING FLOOR OR MAY CONSIST OF BLOCKING FROM THE GROUND UP.
- 3. PIPING PENETRATIONS THROUGH CONCRETE SLABS OR FOOTINGS SHALL BE SLEEVED SO THERE IS 1/2" CLEARANCE AROUND THE PIPE. EACH PENETRATION SHALL BE CAULKED AROUND.
- 4. CLEAN-OUTS SHALL BE LOCATED SO THAT A CLEANING TOOL DOES NOT HAVE TO PASS THROUGH MORE THAN 360 DEGREES OF FITTINGS
- 5. NONMETALLIC BUILDING SEWER PIPE SHALL HAVE GREEN , 18 GAUGE, INSULATED AND ELECTRICALLY CONDUCTIVE TRACER WIRE INSTALLED ALONG THE ENTIRE LENGTH OF THE TRENCH.
- 6. TEST EACH DRAIN LINE FOR LEAKS.



REV: 29FEB2024 DRAWN BY: CHRISTOPHER MARKS



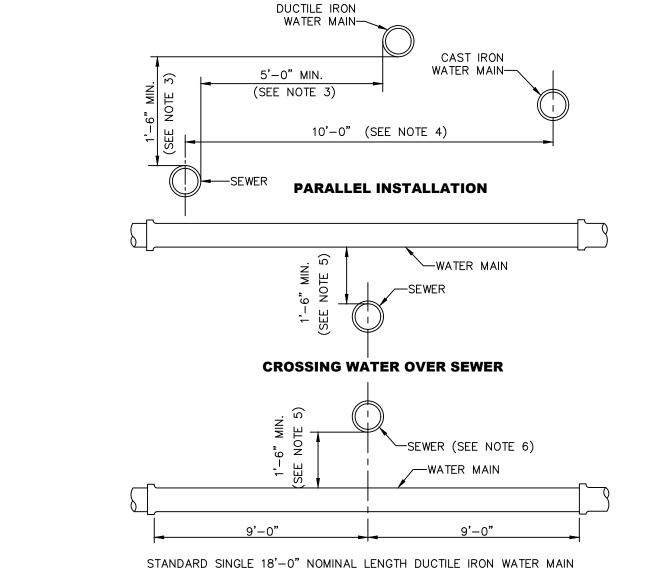
WIDTH TRENCH					
	PIPE ZONE	MAX. TRENCH	MAX. RESTORATION		
	MAX.	WIDTH AT	WIDTH AT		
PIPE SIZE	TRENCH WIDTH	SUBGRADE	SURFACE		
WATER SERVICES	2'-0"	2'-0"	4'-0"		
4" OR 6"	2'-2"	3'-0"	5'-0"		
8"	2'-4"	4'-0"	6'-0"		
10"	2'-6"	4'-0"	6'-0"		
12"	2'-8"	4'-6"	6'-6"		
16"	3'-0"	5'-0"	7'-0"		

- 1. CALL IN LOCATES TWO BUSINESS DAYS BEFORE YOU DIG. (1-800-424-5555)
- 2. IN RIGHT-OF-WAY USE 100% 5/8 MINUS CRUSHED ROCK FOR BEDDING, PIPE ZONE AND BACKFILL
- 3. FOUNDATION MATERIAL SHALL BE 1 $\rlap/4$ " MINUS CRUSHED ROCK OR OTHER AGGREGATE AS APPROVED BY CITY ENGINEER.
- 4. GRIND AND OVERLAY LIMITS SHALL EXTEND A MINIMUM OF 10' PAST THE END OF TRENCH AREAS.
- 5. SEAL ALL FINAL PATCHING AND PAVING SEAMS WITH LIQUID ASPHALT. SQUEEGEE OR MOP THE SEALER. COVER WITH DRY SAND.



CITY OF MERCER ISLAND STANDARD DETAILS WATER

TRENCH SECTION					
3-29-2021	NO SCALE	W-3			
		APPROVED			



STANDARD SINGLE 18'-0" NOMINAL LENGTH DUCTILE IRON WATER MAIN SECTION CENTERED AT THE POINT OF CROSSING.

NOTES

CROSSING WATER UNDER SEWER

- 1. ANY EXCEPTIONS TO THE STANDARD PLAN MAY BE APPROVED BY THE CITY ENGINEER.
- "SEWER" INCLUDES SANITARY SEWER, COMBINED SEWER AND SIDE SEWER.
- WHERE MINIMUM CLEARANCES CANNOT BE MET, SEWER SHALL BE CONSTRUCTED OF MATERIALS AND WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS INCLUDING WATER MAIN PRESSURE TESTING REQUIREMENTS.
- 4. NO VERTICAL CLEARANCE REQUIRED.
- 5. IF VERTICAL SEPARATION CANNOT BE MET, WATER MAIN SHALL BE A STANDARD SINGLE 18'-0' NOMINAL LENGTH DUCTILE IRON WATER MAIN SECTION CENTERED AT THE POINT OF CROSSING.
- SEWER SHALL HAVE ADEQUATE FOUNDATION SUPPORT TO PREVENT SETTLEMENT ON THE WATER MAIN AN TO PREVENT DEFLECTION OF WATER MAIN JOINTS.
- 7. CROSSINGS AT AN ANGLE BETWEEN 90° AND 45° MAY OCCUR BETWEEN 9'-0" AND 6'-0" OF WATER MAIN JOINT FOR CROSSINGS LESS THAN 45°, SEE NOTE 1.



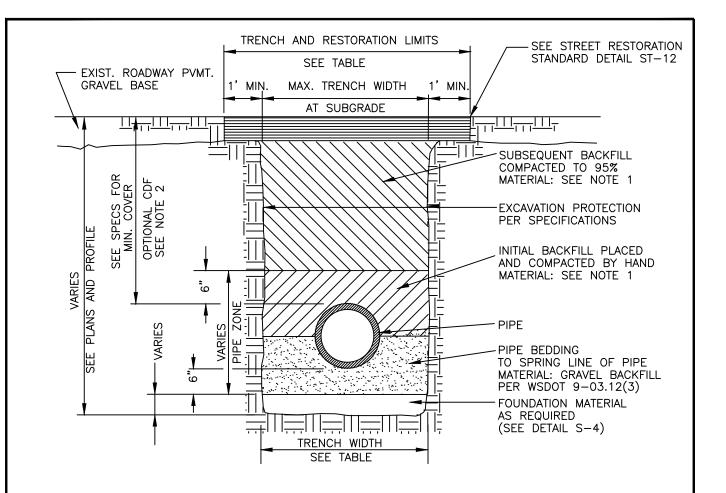
CITY OF MERCER ISLAND STANDARD DETAILS

SEWER

WATER & SEWER CLEARANCES AND MATERIAL REQUIREMENTS

6-5-2009 NO SCALE **S-2**

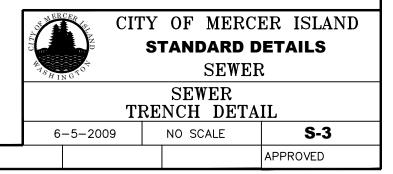
REV DATE APPROVED



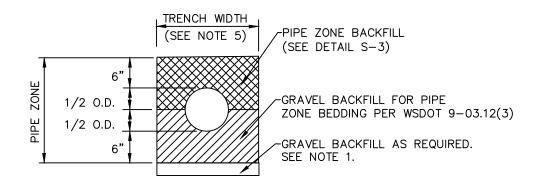
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- ALL TRENCH BACKFILL IN PUBLIC RIGHT-OF-WAY OR ROADWAY AREAS SHALL BE CRUSHED SURFACING PER WSDOT 9-09.9(3) OR BANK RUN GRAVEL PER WSDOT 9-03.19, COMPACTED IN 6" LIFTS.
- 2. CDF FOR BACKFILL MAY BE REQUIRED BY CITY ENGINEER WHEN PROPER COMPACTION AROUND EXISTING UTILITIES MAY NOT BE POSSIBLE. CDF SHALL BE PER WSDOT 2-09.3(1)E.
- 3. SEE S-4 FOR PIPE BEDDING DETAILS.

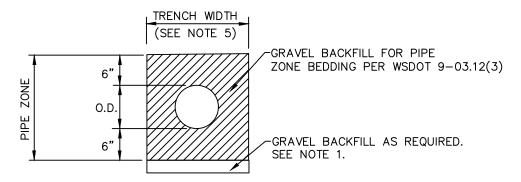
TRENCH WIDTH					
	PIPE ZONE	MAX. TRENCH	MAX. RESTORATION		
	MAX.	WIDTH AT	WIDTH AT		
PIPE SIZE	TRENCH WIDTH	SUBGRADE	SURFACE		
SIDE SEWER	2'-0"	2'-0"	6'-0"		
4" OR 6"	2'-2"	3'-0"	8'-0"		
8"	2'-4"	4'-0"	8'-0"		
10"	2'-6"	4'-0"	8'-0"		
12"	2'-8"	4'-6"	8'-6"		



BEDDING FOR RIGID PIPE MATERIAL



BEDDING FOR FLEXIBLE PIPE MATERIAL

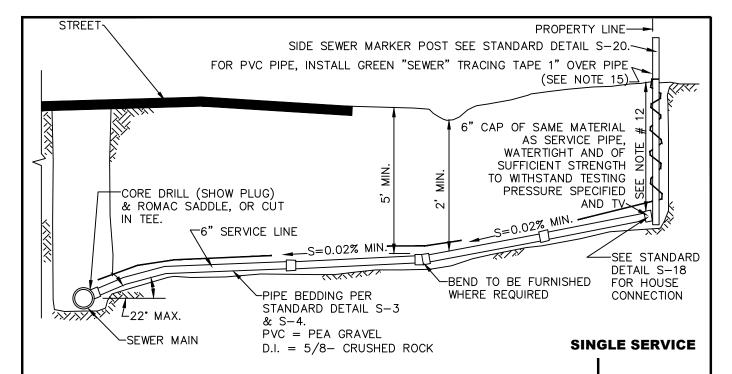


NOTES

REV DATE

- EXCAVATE UNSTABLE MATERIAL DOWN TO FIRM SOIL. REPLACE WITH GRAVEL BACKFILL PER WSDOT 9-03.12(3) AS DIRECTED BY THE CITY ENGINEER.
- 2. PROVIDE UNIFORM SUPPORT UNDER BARREL.
- 3. HAND TAMP UNDER HAUNCHES.
- 4. COMPACT BEDDING AND BACKFILL MATERIAL TO 95% MAX. DENSITY EXCEPT DIRECTLY OVER PIPE. HAND TAMP ONLY UNTIL MINIMUM 6" ABOVE TOP OF PIPE.
- 5. 30" MAXIMUM TRENCH WIDTH FOR PIPE UP TO AND INCLUDING 12", FOR PIPE LARGER THAN 12", USE O.D. PLUS 16".

	OF MERCER		CITY	OF	MERCE	ER	ISLAND
	C T	Z G	STANDARD DETAILS				
	ASH II	N G TO	SEWER				
	PIPE BEDDING						
	6-5-2009		9	NO S	NO SCALE		S-4
APPROVED			ROVED				



REV DATE

- 1. ELBOWS SHALL NOT BE GREATER THAN 45 DEGREES.
- CLEAN OUT IS REQUIRED FOR EACH PIPE LENGTH GREATER THAN 100' AND FOR EACH 90° ACCUMULATED ELBOW/100'.
- RIGHT-OF-WAY RESTORATION SHALL MATCH OR EXCEED THE ORIGINAL CONDITION AND BE IN ACCORDANCE WITH CITY STANDARDS.
- 4. ALL TRENCH BACKFILL IN PUBLIC RIGHT-OF-WAY OR ROADWAY AREAS SHALL BE CRUSHED SURFACING PER WSDOT 9-09.9(3) OR BANK RUN GRAVEL PER WSDOT 9-03.19, COMPACTED IN 6" LIFTS OR MAY BE CDF WHEN DIRECTED BY THE CITY ENGINEER (SEE DETAIL S-3).
- 5. LAY PIPE IN STRAIGHT LINE BETWEEN BENDS. MAKE ALL CHANGES IN GRADE OR LINE WITH 1/8 BEND OR WYE. 90° CHANGE WITH 1/8 BEND AND WYE.
- 6. 6" SEWER PIPE MINIMUM SIZE IN RIGHT-OF-WAY, AND ELSEWHERE AS DIRECTED BY ENGINEER. 2% MIN. GRADE (UNLESS DIRECTED BY ENGINEER), 50% MAXIMUM.
- ALL A.C. MAINS TO BE TAPPED IN ACCORDANCE WITH WAC 296-62-00775 STATE/FEDERAL GUIDELINES AND CERTIFICATION.
- CONSTRUCTION IN RIGHT-OF-WAY MUST BE DONE BY A REGISTERED AND LICENSED CONTRACTOR.
- 9. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT CITY SEWER ORDINANCES.
 10. WHERE CITY ENGINEER ALLOWS SIDE SEWER CONNECTIONS TO MANHOLE, INVERT OF SIDE
- SEWER SHALL BE EQUAL TO OR ABOVE MAIN SEWER CROWN, BUT NOT TO EXCEED 18"
 ABOVE INVERT OF MAIN SEWER.
- 11. UNLESS OTHERWISE INDICATED ON PLAN, SIDE SEWER SHALL BE MIN. OF 6' DEEP AT PROPERTY LINE, OR 5' LOWER THAN THE LOWEST ELEVATION, WHICH EVER IS LOWER.
- 12. ALL PIPE MATERIALS NOT TO STANDARDS WILL BE ABANDONED AND REPLACED WITH DUCTILE IRON OR PVC PIPE OF THE SAME SIZE.
- 13. IF A BUILDING SEWER IS TO SERVE MORE THAN ONE PROPERTY, BY JOINT AGREEMENT OF THE OWNERS, AN APPROVED EASEMENT INSURING THAT ALL PROPERTIES INVOLVED SHALL HAVE PERPETUAL USE OF THE SIDE SEWER, HAVING PROVISIONS FOR OPERATION, MAINTENANCE, RECONSTRUCTION AND FOR ACCESS FOR REPAIR PURPOSES, SHALL BE SIGNED BY THE OWNERS. THIS EASEMENT SHALL BE RECORDED WITH THE COUNTY AUDITOR. A SIX INCH (MINIMUM) DIAMETER PIPE SHALL BE USED FOR THE COMMON LINE AND A SIX INCH CLEANOUT EXTENDING TO WITHIN 12 INCHES OF THE GROUND SURFACE SHALL BE PROVIDED AT THE WYE WHERE THE UPPER GRADE CONNECTIONS ARE MADE. BACKWATER VALVES SHALL BE INSTALLED ON SERVICE LINES UPSTREAM OF THE CONNECTION TO THE SHARED SIDE SEWER.
- 14. THE CITY ENGINEER MAY REQUIRE BACKWATER VALVES ON SIDE SEWERS WHEN DEEMED NECESSARY. THE EFFECTIVE OPERATION AND MAINTENANCE OF ANY BACKWATER VALVE SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE SIDE SEWER.
- 15. UTILITY PIPE TRACER TAPE SHALL BE DETECTABLE BELOW GROUND SURFACE, COLOR CODED, WITH UTILITY NAME PRINTED ON TAPE. CONDUCTIVE WARNING TAPE REQUIRED OVER ALL WATER PIPE. TAPE SHALL BE MANUFACTURER'S STANDARD PERMANENT, BRIGHT—COLORED, CONTINUOUS PRINTED PLASTIC TAPE, ALUMINUM BACKED, INTENDED FOR DIRECT—BURIAL SERVICE. TAPE SHALL BE NOT LESS THAN 6" WIDE X 4 MILS THICK.



CITY OF MERCER ISLAND STANDARD DETAILS

6" PIPE

GHT-OF-WAY

6" PIPE

5

DOUBLE SERVICE

FLOW

MAINLINE

-6" PLUG

5

-PROPERTY-

6"

6" PLUG

PLUG

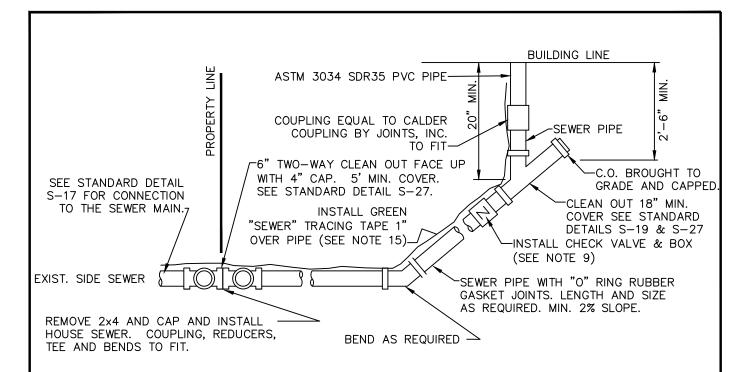
LINE

SEWER

SIDE SEWER CONNECTION AND STUB

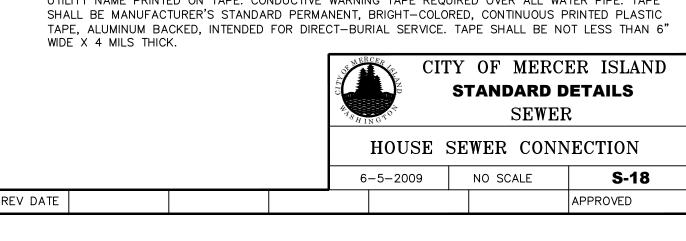
6-5-2009 NO SCALE **S-17**

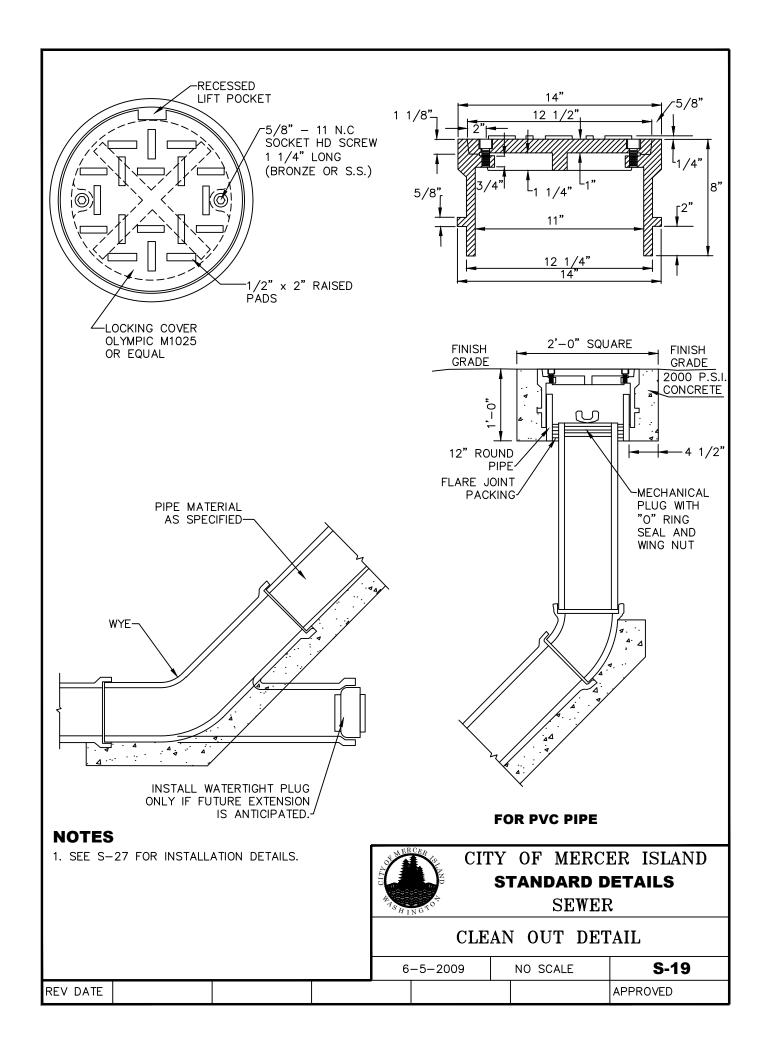
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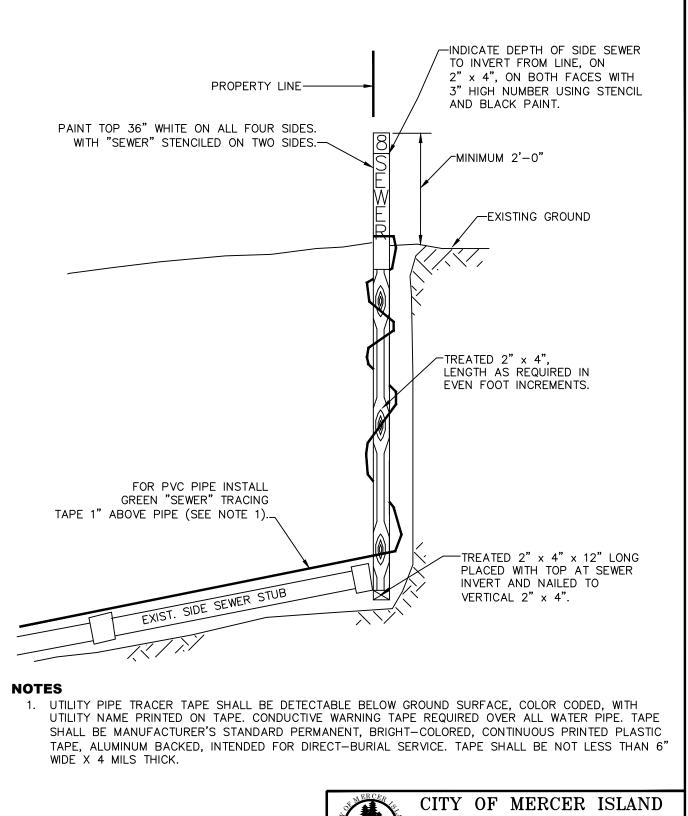


BUILDING CONNECTION

- 1. ELBOWS SHALL NOT BE GREATER THAN 45 DEGREES.
- 2. CLEAN OUT IS REQUIRED FOR EACH PIPE LENGTH GREATER THAN 100' AND FOR EACH 90° ACCUMULATED ELBOW/100°.
- 3. ALL HOUSE PLUMBING OUTLETS MUST BE CONNECTED TO THE SEWER. NO DOWN SPOUTS OR STORM DRAINAGE MAY BE CONNECTED TO THE SEWER SYSTEM.
- 18" MINIMUM COVERAGE OVER PIPE.
- 5. LAY PIPE IN STRAIGHT LINE BETWEEN BENDS. MAKE ALL CHANGES IN GRADE OR LINE WITH & BEND OR WYE. 90° CHANGE WITH 1/8 BEND AND WYE.
- 6. 4" SEWER PIPE MINIMUM SIZE ON PROPERTY. 2% MINIMUM GRADE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT SEWER ORDINANCES.
- ALL CONSTRUCTION REQUIRES A PLAN SHOWING PROPERTY AND DIMENSIONS AND COMPLETION OF SIDE SEWER APPLICATION AND MAINTENANCE AGREEMENT, AS NEEDED.
- 9. BACK WATER VALVE (CHECK VALVE) IS REQUIRED:
 - A. IF CONNECTED TO A SHARED SIDE SEWER.
 - B. IF CONNECTION AT HOUSE IS LOWER THAN BOTH UPSTREAM AND DOWNSTREAM MANHOLE.
 - C. SEE S-23 & S-24 FOR LAKE LINE REQUIREMENTS.
- 10. AS-BUILT DRAWING SHOWING LOCATION OF SIDE SEWER & ALL BENDS, C.O. ETC., IN RELATION TO THE HOUSE IS REQUIRED AFTER INSPECTION & INSTALLATION. SEE STANDARD DETAIL S-38 FOR A TYPICAL "AS BUILT"
- 11. THE MINIMUM PIPE SIZE FOR SIDE SEWERS SHALL BE:
 - 6" WITHIN THE PUBLIC RIGHT-OF-WAY.
 - 4" SINGLE FAMILY RESIDENCES.
 - 6" 2 TO 6 SINGLE FAMILY RESIDENCES.
 - 6" BUILDINGS OTHER THAN SINGLE FAMILY RESIDENCES.
- 12. UTILITY PIPE TRACER TAPE SHALL BE DETECTABLE BELOW GROUND SURFACE, COLOR CODED, WITH UTILITY NAME PRINTED ON TAPE. CONDUCTIVE WARNING TAPE REQUIRED OVER ALL WATER PIPE. TAPE SHALL BE MANUFACTURER'S STANDARD PERMANENT, BRIGHT-COLORED, CONTINUOUS PRINTED PLASTIC

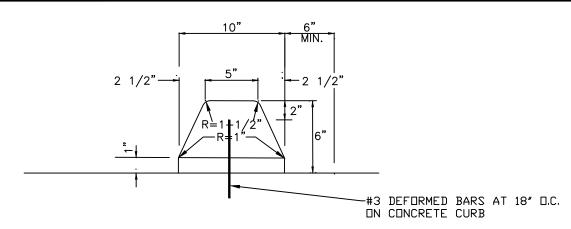




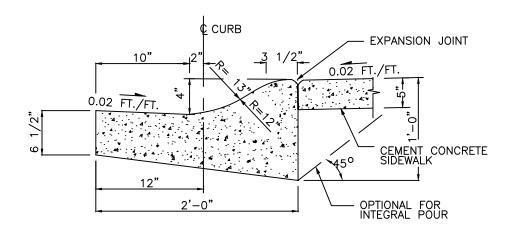


CITY OF MERCER ISLAND STANDARD DETAILS SEWER SIDE SEWER MARKER POST 6-5-2009 NO SCALE S-20 APPROVED

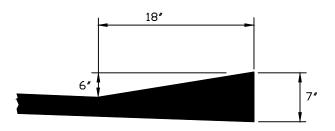
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EXTRUDED ASPHALT OR CEMENT CONCRETE CURB



CEMENT CONCRETE ROLLED CURB



ASPHALT THICKENED EDGE

NOTES:

- 1. SEE DETAIL ST-14 FOR JOINT REQUIREMENTS.
- 2. ROLL GUTTER TO MATCH POSITIVE SUPERELEVATION.
- 3. SEE DRAWING NO. T-15A FOR CONFIGURATION OF FILL & WALKWAY BEHIND CURB IF REQUIRED.
- 4. FOR INTEGRAL POUR CONSTRUCTION, 1/4" EDGED GROOVE MAY REPLACE EXPANSION JOINT AT INTERFACE BETWEEN THE CURB AND AND ADJACENT SIDEWALK.

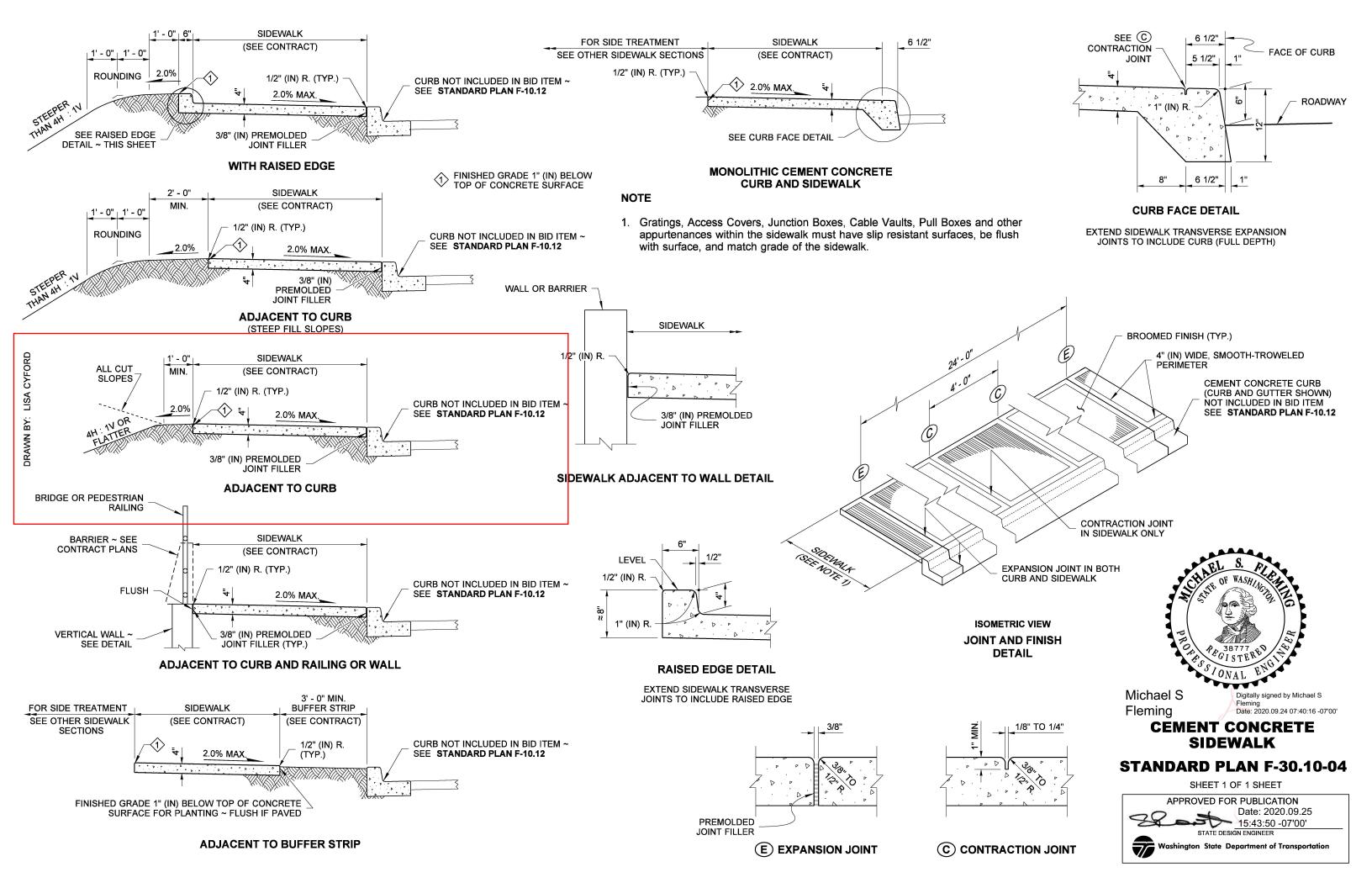


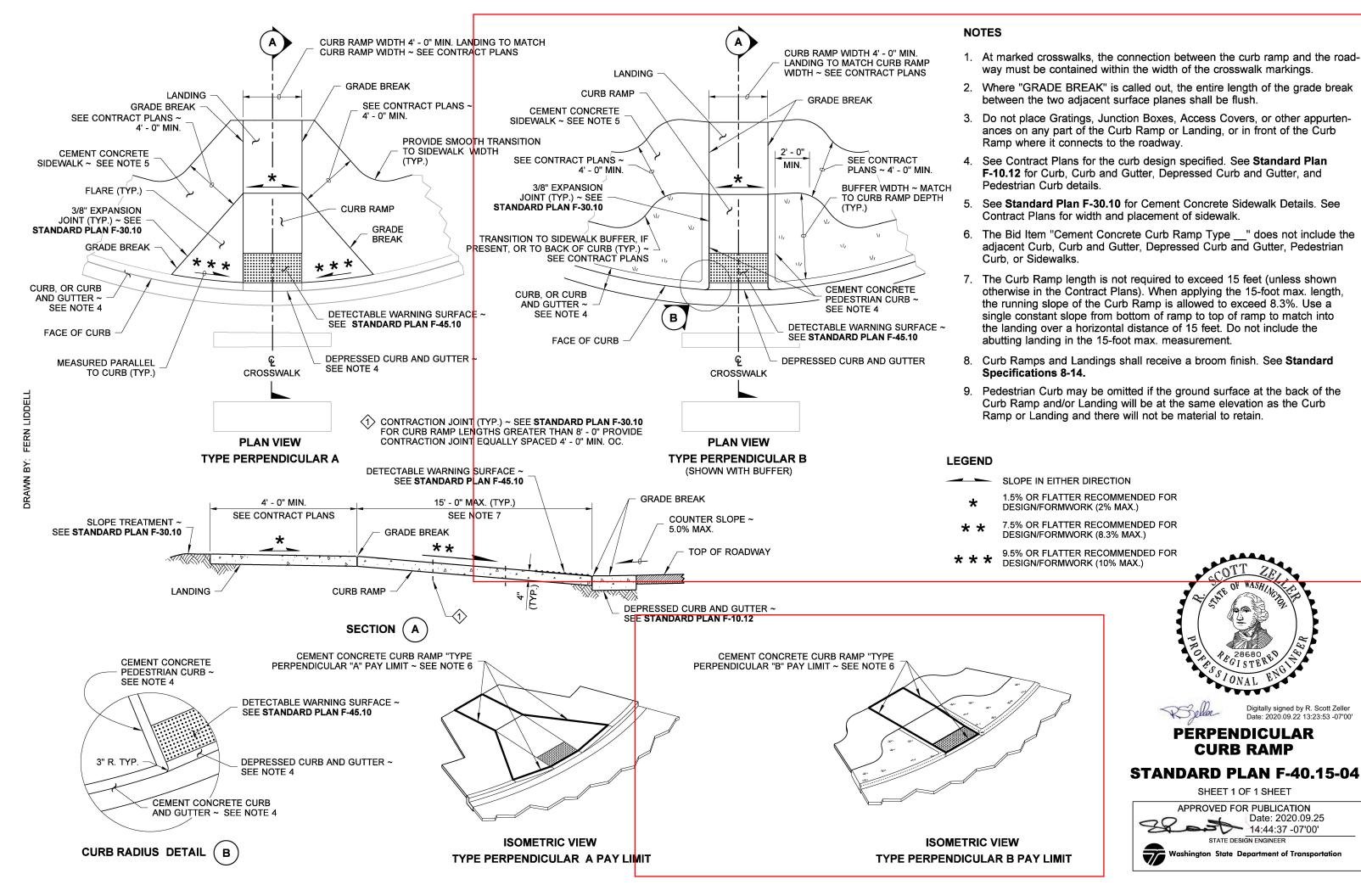
CITY OF MERCER ISLAND STANDARD DETAILS

STREETS

CURB DETAILS

11/23/99 NO SCALE **ST-16**





PROPOSED SIDEWALK EXHIBIT



