

**MOUNTLAKE TERRACE  
WATER GENERAL NOTES**

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION," WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, CURRENT EDITION, TOGETHER WITH THE LATEST EDITION OF THE CITY OF MOUNTLAKE TERRACE ENGINEERING STANDARDS.
2. AN APPROVED COPY OF THESE PLANS MUST BE ON SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
3. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN STREET USE AND ANY OTHER RELATED PERMITS PRIOR TO ANY CONSTRUCTION ACTIVITY IN CITY RIGHT-OF-WAY.
4. PRIOR TO ANY CONSTRUCTION ACTIVITY, THE CITY OF MOUNTLAKE TERRACE ENGINEERING DEPARTMENT (425-776-1161) MUST BE CONTACTED FOR A PRECONSTRUCTION MEETING.
5. ALL LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITIES SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN. THE CONTRACTOR SHALL CONTACT THE UTILITIES UNDERGROUND LOCATION SERVICE (1-800-424-5555) PRIOR TO CONSTRUCTION. THE OWNER OR HIS REPRESENTATIVE SHALL BE IMMEDIATELY CONTACTED IF A UTILITY CONFLICT EXISTS.
6. THE WATER MAIN DISTRIBUTION SYSTEM SHALL BE CONSTRUCTED ACCORDING TO APPROVED PLANS WHICH ARE ON FILE IN THE CITY OF MOUNTLAKE TERRACE ENGINEERING DEPARTMENT. ANY DEVIATION FROM THE APPROVED PLANS WILL REQUIRE WRITTEN APPROVAL FROM THE PROPER AGENCY.
7. CONNECTIONS TO EXISTING FACILITIES SHALL BE SEALED OFF UNTIL CONSTRUCTION IS COMPLETED. NO CONNECTIONS WILL BE ALLOWED UNTIL THE NEW WATER MAINS HAVE PASSED ALL PRESSURE AND PURITY TESTS.
8. WATER MAIN PIPE, BEDDING AND TRENCH COMPACTION:
  - A. ALL WATER MAIN PIPE TO BE CEMENT LINED, CLASS 52 DUCTILE IRON, CONFORMING TO STANDARD SPECIFICATIONS 9-30.1(1). CEMENT MORTAR LINING AND SEAL COATING SHALL CONFORM TO ANSI/AWWA C110/A21.10-82, OR LATEST REVISION.
  - B. PIPE JOINTS TO BE PUSH-ON, MECHANICAL OR FLANGE JOINTS.
  - C. ALL WATER MAIN PIPE FITTINGS TO BE CEMENT LINED, CLASS 250 CAST IRON, CONFORMING TO ANSI/AWWA C110/A21.10-82, OR LATEST REVISION.
  - D. PIPE BEDDING SHALL CONFORM TO SECTION 7-10.3(9)(A), AND PIPE BEDDING MATERIAL SHALL CONFORM TO SECTION 9-03.15, STANDARD SPECIFICATIONS.
  - E. ALL WATER MAIN CEMENT CONCRETE THRUST BLOCKS TO CONFORM TO STANDARD DETAILS SHOWN ON THE PLANS.
  - F. ALL WATER MAIN TRENCH BACKFILL SHALL BE COMPACTED TO MINIMUM 95% DRY OPTIMUM DENSITY PER A.S.T.M. D-1557-70 (MODIFIED PROCTOR) PRIOR TO TESTING WATER MAINS FOR ACCEPTANCE.
9. MAINTAIN A MINIMUM COVER OF 36" OVER FINISHED GRADE ON ALL WATER MAIN PIPE. WHERE UTILITY CONFLICTS OCCUR, OTHER THAN SANITARY SEWER, WATER MAINS ARE TO BE LOWERED TO CLEAR. SEE "CRITERIA FOR SEWAGE DESIGN," WASHINGTON STATE DEPARTMENT OF ECOLOGY FOR SEWER CONFLICTS.
10. ALL WATER MAINS SHALL BE PRESSURE TESTED AND DISINFECTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE WASHINGTON STATE HEALTH DEPARTMENT AND CITY OF MOUNTLAKE TERRACE STANDARD PLAN NO. 209. ALL INSPECTION AND PRESSURE TESTING SHALL BE DONE IN THE PRESENCE OF, AND UNDER THE SUPERVISION OF, THE CITY ENGINEER AND/OR HIS REPRESENTATIVE.
11. CONTRACTOR TO PROVIDE PLUGS AND/OR TEMPORARY BLOW-OFF ASSEMBLIES FOR TESTING AND PURITY ACCEPTANCE PRIOR TO FINAL TIE IN.
12. ALL GATE VALVES TO BE RESILIENT SEATED AND SHALL BE MANUFACTURED TO MEET OR EXCEED THE REQUIREMENTS OF A.W.W.A. STANDARD C-509, OR LATEST REVISION.
13. FIRE HYDRANTS:
  - A. ALL FIRE HYDRANTS SHALL CONFORM TO THE CITY OF MOUNTLAKE TERRACE STANDARD PLAN NO. 201.
  - B. ALL FIRE HYDRANT PORTS SHALL FACE PERPENDICULAR TO CURB AND TOWARD DRIVEWAY AS SHOWN ON THE PLANS.
14. WATER MAIN SERVICES:
  - A. ALL WATER MAIN SERVICE LINES TO BE TYPE "K" COPPER. SERVICE CONNECTIONS SHALL BE IN ACCORDANCE WITH CITY OF MOUNTLAKE TERRACE STANDARD PLAN NO. 202 OR NO. 203 (DOUBLE STRAPS AND CORPORATION STOPS).
  - B. WATER METERS 2" AND SMALLER TO BE SUPPLIED AND INSTALLED BY THE CITY OF MOUNTLAKE TERRACE.
15. THE WATER MAIN SHALL BE SET A MINIMUM OF 5 FEET TOWARD THE ROADWAY CENTERLINE FROM THE CURB. BUILDINGS SHALL NOT BE PERMITTED WITHIN 10 FEET, OR CARPORTS WITHIN 5 FEET, OF THE SPRING LINE OF ANY WATER MAIN WHERE APPLICABLE, UNLESS OTHERWISE SHOWN ON THE PLANS.
16. ALL WATER MAINS NOT IN PUBLIC RIGHT-OF-WAY REQUIRE 10 FOOT WIDE EASEMENTS TO THE CITY OF MOUNTLAKE TERRACE.
17. ALL VALVES, EXISTING AND NEW, SHALL BE OPERATED ONLY BY THE CITY OF MOUNTLAKE TERRACE. NO EXCEPTIONS!
18. A STATE APPROVED BACKFLOW PREVENTION DEVICE MUST BE INSTALLED ON ALL IRRIGATION SYSTEMS, FIRE SYSTEMS, INDUSTRIAL WATER SYSTEMS, AND ANY OTHER WATER CONNECTION THAT MAY HAVE A POSSIBILITY OF A CROSS CONTAMINATION CONNECTION AS DETERMINED BY A CERTIFIED CROSS CONNECTION TECHNICIAN.
19. CONSTRUCTION OF DOWATERING SYSTEMS SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 7-11.3(1).
20. AN AS-BUILT WATER PLAN SHALL BE SUBMITTED FOR ALL DEVELOPMENTS, SHORT PLATS AND SUBDIVISIONS.
21. ALL TAPPING SLEEVES SHALL BE CAST IRON MJ OR AS DESIGNATED BY THE CITY ENGINEER.

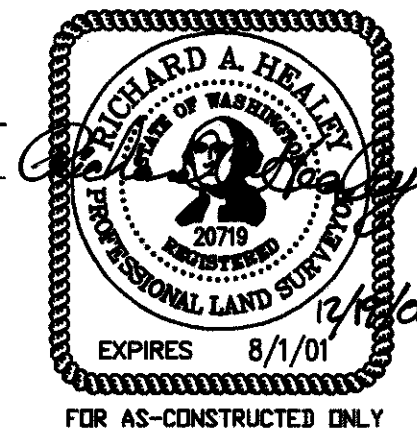
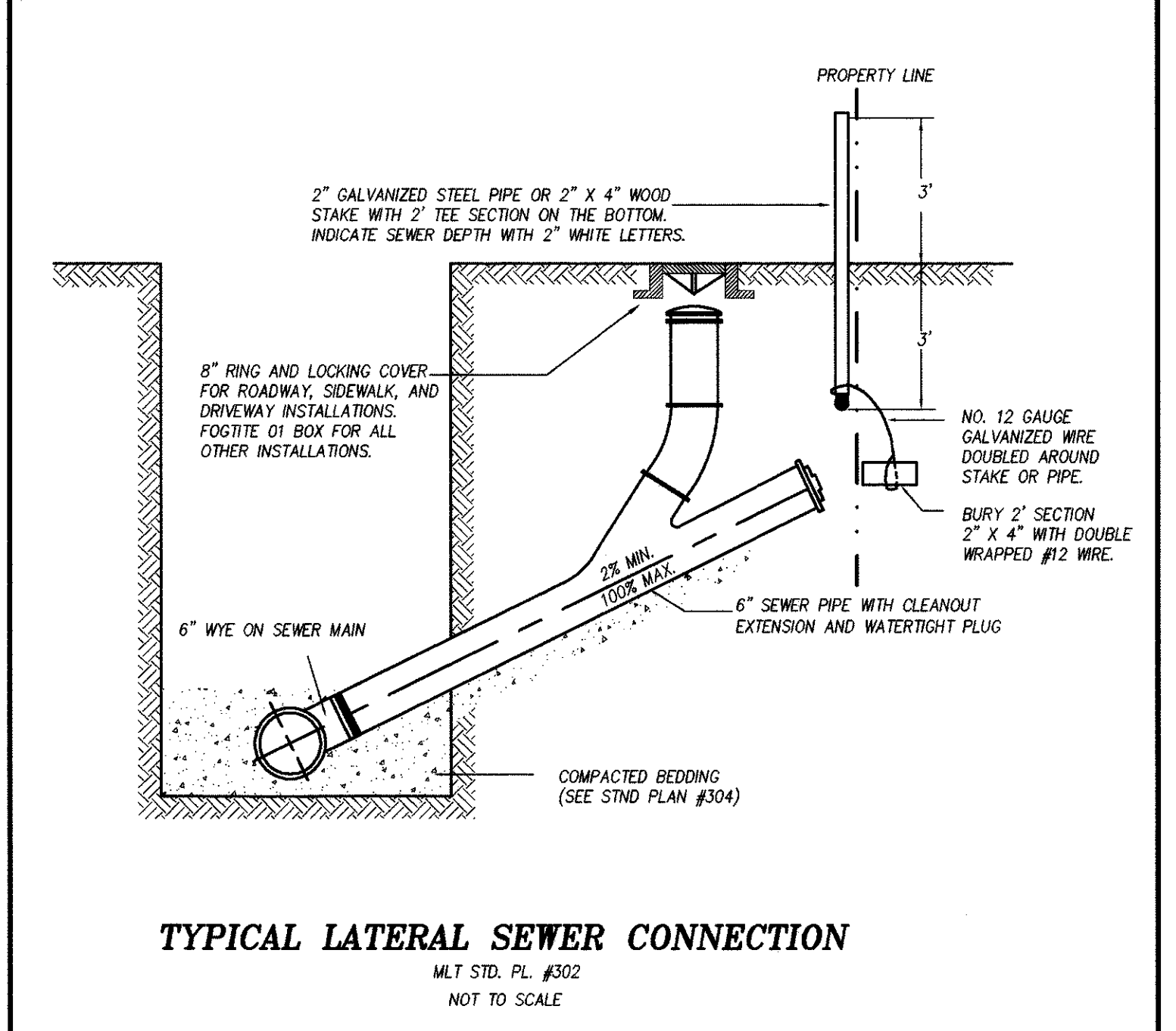
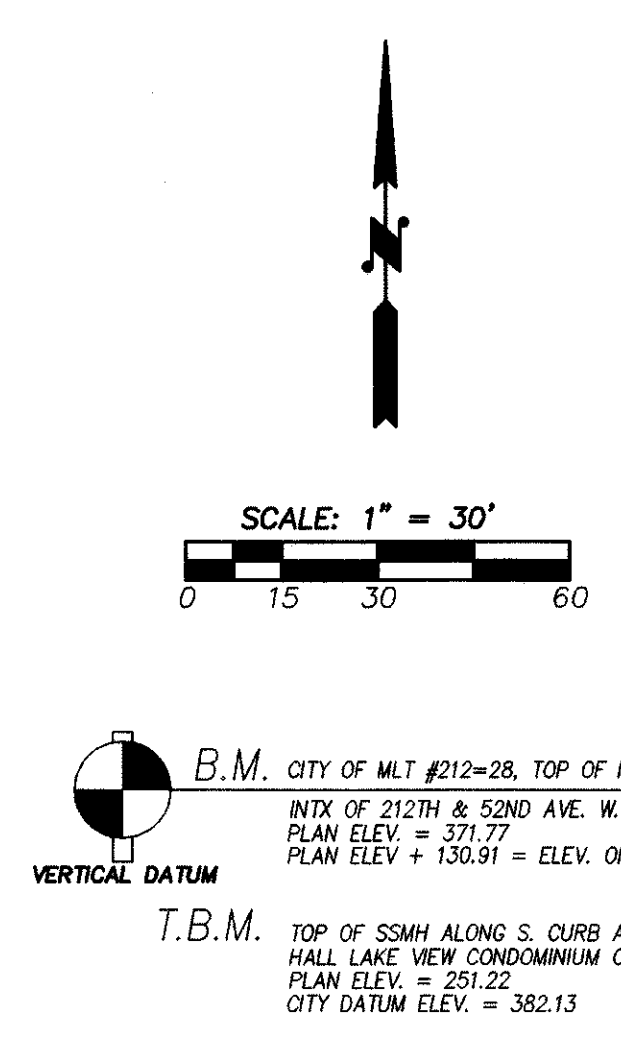
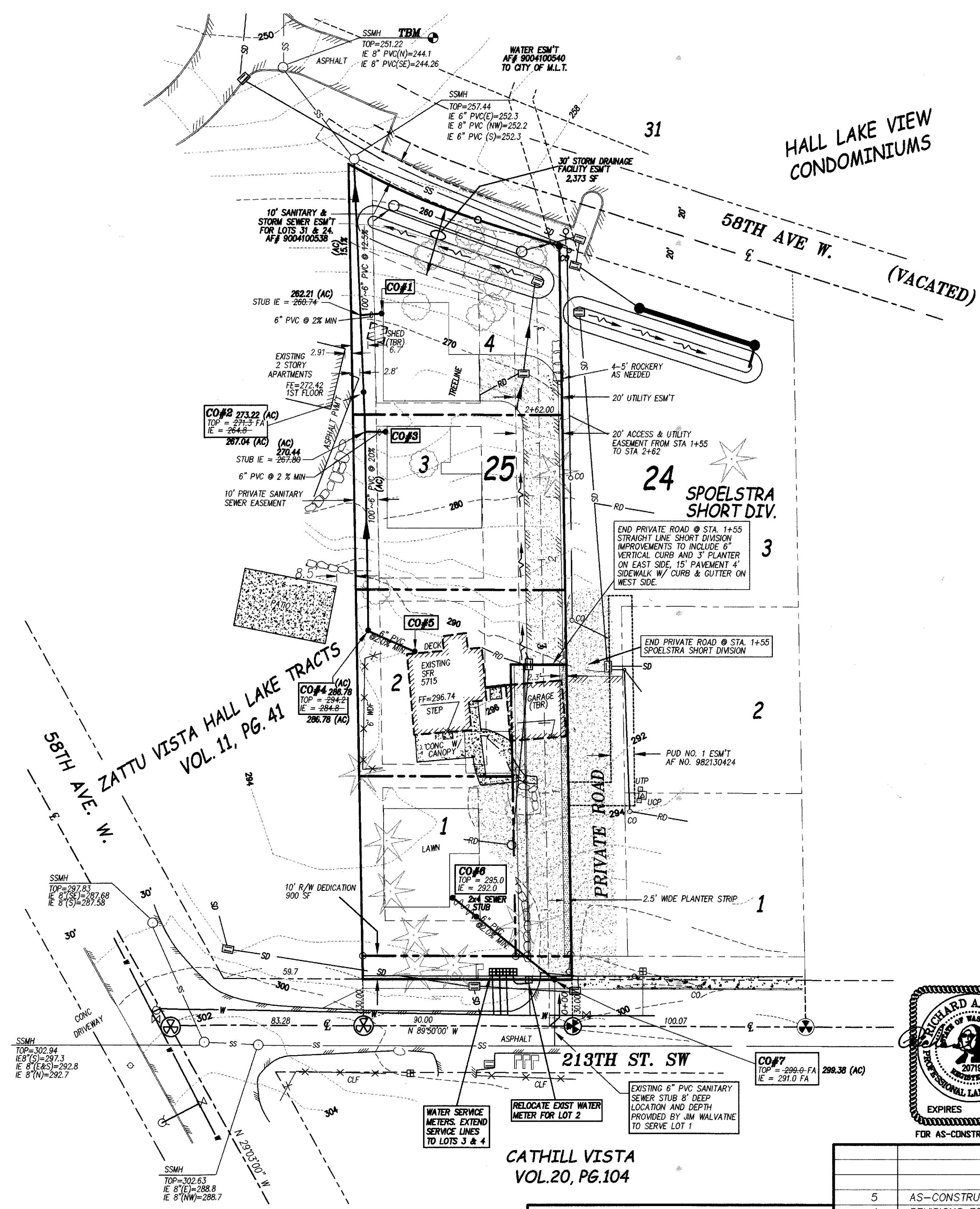
**MOUNTLAKE TERRACE  
SANITARY SEWER GENERAL NOTES**

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION," WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, CURRENT EDITION, TOGETHER WITH THE LATEST EDITION OF THE CITY OF MOUNTLAKE TERRACE ENGINEERING STANDARDS.
2. AN APPROVED COPY OF THESE PLANS MUST BE ON SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
3. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN STREET USE AND ANY OTHER RELATED PERMITS PRIOR TO ANY CONSTRUCTION ACTIVITY IN CITY RIGHT-OF-WAY.
4. PRIOR TO ANY CONSTRUCTION ACTIVITY, THE CITY OF MOUNTLAKE TERRACE ENGINEERING DEPARTMENT (425-776-1161) MUST BE CONTACTED FOR A PRECONSTRUCTION MEETING.
5. ALL LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITIES SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN. THE CONTRACTOR SHALL CONTACT THE UTILITIES UNDERGROUND LOCATION SERVICE (1-800-424-5555) PRIOR TO CONSTRUCTION. THE OWNER OR HIS REPRESENTATIVE SHALL BE IMMEDIATELY CONTACTED IF A UTILITY CONFLICT EXISTS.
6. THE SANITARY SEWER SYSTEM SHALL BE CONSTRUCTED ACCORDING TO THE APPROVED PLANS WHICH ARE ON FILE IN THE CITY OF MOUNTLAKE TERRACE ENGINEERING DEPARTMENT. ANY DEVIATION FROM THE APPROVED PLANS WILL REQUIRE WRITTEN APPROVAL FROM THE PROPER AGENCY.
7. ALL NEW SANITARY SEWER LINES SHALL BE SEALED OFF AT THE EXISTING TRUNK CONNECTION POINT UNTIL ALL UPSTREAM CONSTRUCTION IS COMPLETED, CLEANED, TESTED, LAMPED, AND ACCEPTED BY THE CITY OF MOUNTLAKE TERRACE. ALL CONSTRUCTION DEBRIS AND WATER SHALL BE REMOVED FROM PIPE PRIOR TO OPENING SEAL. AT THE END OF THE PROJECT AND PRIOR TO ACCEPTANCE, ALL SANITARY SEWER LINES SHALL BE INSPECTED BY TV VIEWING, RECORDED ON VHS VIDEO TAPE, AND SUBMITTED TO THE CITY AS A PERMANENT RECORD.
8. MANHOLE AND LIDS:
  - A. ALL MANHOLES SHALL BE MOUNTLAKE TERRACE STANDARD PLAN NO. 305 (TYP.) TYPE, WITH ECCENTRIC CONE.
  - B. OUTSIDE DROP CONNECTIONS SHALL BE CONSTRUCTED IN CONFORMANCE TO MOUNTLAKE TERRACE STANDARD PLAN NO. 308.
  - C. ALL MANHOLES SHALL HAVE A MINIMUM DROP OF 0.10 FEET BETWEEN INVERTS.
  - D. ALL MANHOLES NOT IN PAVED AREAS SHALL HAVE LOCKING LIDS.
  - E. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADJUST ALL MANHOLE TOPS TO MATCH FINAL ASPHALT ELEVATIONS AND GROUND ELEVATIONS IN LANDSCAPED AREAS.
  - F. ALL MANHOLES IN UNPAVED AREAS SHALL HAVE CONCRETE COLLARS PER M.L.T. STD. PLAN #306.
9. SEWER PIPE, BEDDING, AND TRENCH COMPACTION:
  - A. ALL SEWER PIPE SHALL BE ONE OF THE FOLLOWING:
    1. P.V.C., CONFORMING WITH A.S.T.M. D-3034, SDR 35.
    2. DUCTILE IRON, CLASS 50, CONFORMING TO A.W.W.A. C151.
    3. PIPE MAY BE ANY OF THE ABOVE PROVIDED:
      - a) ADJOINING PIPE LENGTHS MUST BE OF THE SAME MATERIALS AND BE PROVIDED WITH RUBBER GASKET JOINTS.
      - b) WHERE A PIPE MATERIAL IS SPECIFICALLY SHOWN ON THE PLAN, THAT MATERIAL MUST BE USED.
  - B. PIPE BEDDING SHALL CONFORM TO SECTION 7-17.3(1)(b), STANDARD SPECIFICATIONS. BEDDING MATERIAL SHALL CONFORM TO SECTION 9-03.15.
  - C. TRENCH BACKFILL SHALL BE COMPACTED TO MINIMUM 95% DRY OPTIMUM DENSITY PER A.S.T.M. D-1557-70 (MODIFIED PROCTOR) PRIOR TO TESTING SEWER LINES FOR ACCEPTANCE.
10. SIDE SEWER LATERALS:
  - A. SIDE SEWERS SHALL BE 6" MINIMUM DIAMETER WITH 1.0% MINIMUM SLOPE.
  - B. SIDE SEWERS SHALL BE TESTED FOR LEAKAGE AT THE SAME TIME THE MAIN LINE SEWER IS TESTED. IF NOT TESTED TOGETHER, PROVIDE TEST TEES AT SEWER CONNECTIONS.
  - C. BUILDINGS WITH GREATER THAN 10 UNITS SHALL BE SERVICED BY ONE OF THE FOLLOWING METHODS:
    1. SINGLE 8" DIAMETER SERVICE WITH CLEANOUT CONNECTED TO TRUNK INTO MANHOLES ONLY.
    2. ALTERNATE CONNECTION METHODS IN COMPLIANCE WITH "CRITERIA FOR SEWAGE DESIGN," WASHINGTON STATE DEPARTMENT OF ECOLOGY.
  - D. ALL LATERAL CONNECTIONS TO SEWER MAINS SHALL BE MADE WITH A WYE OR SWEEPING TEE. WHERE NO TEE, WYE, OR RISER IS AVAILABLE, USE AN APPROVED SADDLE FOR SEWER CONNECTION.
  - E. CLEANOUTS MUST BE PROVIDED AT THE RIGHT-OF-WAY LINE FOR LATERALS EXTENDING FROM CITY OWNED MAINS. ALL CLEANOUTS MUST BE BROUGHT TO THE SURFACE IN ACCORDANCE WITH STANDARD PLAN #303.
11. CONSTRUCTION OF DOWATERING SYSTEMS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS SECTION 7-17.3(1)(A).
12. WHENEVER SEWERS MUST CROSS UNDER WATER MAIN THE SEWER SHALL BE LAID AS SPECIFIED IN "CRITERIA FOR SEWAGE DESIGN," WASHINGTON STATE DEPARTMENT OF ECOLOGY.
13. BUILDINGS SHALL NOT BE PERMITTED WITHIN 10 FEET, OR CARPORTS WITHIN 5 FEET, OF THE SPRING LINE OF ANY SANITARY SEWER MAIN. SIDE SEWERS 6" DIAMETER OR LESS MAY BE LOCATED WITHIN 30' OF A STRUCTURE PROVIDED THAT THE SOIL SUPPORT FROM IS NOT DISTURBED FOR THE ADJACENT FOUNDATION.
14. PRIOR TO OCCUPANCY, THE DEVELOPER SHALL GRANT NECESSARY SANITARY SEWER EASEMENTS TO THE CITY OF MOUNTLAKE TERRACE. THE WIDTH SHALL EQUAL THE NOMINAL DEPTH TO THE INVERT, BUT SHALL NOT BE LESS THAN 10'.
15. AN AS BUILT SANITARY SEWER DRAWING SHALL BE SUBMITTED FOR ALL DEVELOPMENTS, SHORT PLATS AND SUBDIVISIONS.
16. ALL SEWERS SHALL BE DESIGNED AND CONSTRUCTED TO GIVE MEAN VELOCITIES, WHEN FLOWING FULL, OF NOT LESS THAN 2 FEET PER SECOND.
17. SAND COLLARS OR OTHER CITY APPROVED COUPLINGS ARE REQUIRED ON ALL PVC PIPE CONNECTIONS TO CONCRETE MANHOLES.

**NOTE:**  
1. 3/4" WATER SERVICE METERS FOR LOTS 1,3 & 4  
MLT STD. PLAN #202.  
2. EXTEND 1" LINES TO LOTS 1, 3 & 4

**NOTE:**  
REFER TO SECTION 2-WATER AND SECTION 3-SEWER IN THE MOUNTLAKE TERRACE ENGINEERING STANDARDS FOR STANDARD PLANS AND ADDITIONAL INFORMATION.

NW1/4, NW1/4, SEC.28, T.27N, R.4E, W.M.



**NOTE:**  
1. CONTRACTOR TO TAP MAIN, PROVIDE LINES & MATERIALS ETC. PER MLT. STD. PLAN #202.  
2. PAVEMENT TO BE REPLACED AS PER MLT. STD. PLAN #107 FOR ALL WATER SERVICE TAPS.

**THESE DRAWINGS REFLECT FIELD MEASUREMENTS MADE AFTER COMPLETION OF CONSTRUCTION**

BY: \_\_\_\_\_ ENGINEER OF RECORD - SIGNATURE  
\_\_\_\_\_  
TYPE OR PRINT NAME  
DATE: \_\_\_\_\_

REV. NO.	DESCRIPTION	INITIALS	DATE
5	AS-CONSTRUCTED	JKE	08/18/00
4	REVISIONS PER CITY 1ST REVIEW	BRK	01/13/00
3	MODIFICATIONS TO DRIVE WAY ON LOT 4	BRK	6/24/99
2	MODIFICATIONS TO PLAT ROAD AS PER CITY	MNB	5/17/99
1	MODIFICATIONS TO SEWER AS PER CITY	BRK	3/12/99



**Western Engineers, Inc.**  
(425) 356-2700  
LAND USE CONSULTANTS  
CIVIL ENGINEERS • LAND SURVEYORS  
\*\*\* 13000 HWY 99 SOUTH \* EVERETT \* WA \* 98204 \*\*\*

THESE PLANS ARE AS-BUILT AND THE INFORMATION SHOWN ACCURATELY REFLECTS EXISTING FIELD CONDITIONS AS OF THIS DATE: 08-18-00

**APPLICANT:**  
JIM A. WALVATNE  
STRAIGHT LINE CONSTRUCTION  
6261 NE 184TH ST.  
SEATTLE, WA 98155  
(425) 486-0379

**OWNER:**  
JIM A. WALVATNE  
6261 NE 184TH ST.  
SEATTLE, WA 98155

**PRIMARY CONTACT:**  
BRIAN KALAB  
WESTERN SURVEYORS, INC.  
(425) 356-2700

**SITE ADDRESS:**  
5715 213TH ST. SW  
MOUNTLAKE TERRACE, WA

**SP# 99-01**

**SEWER & WATER PLAN**  
FOR:  
**STRAIGHT LINE CONSTRUCTION AS-CONSTRUCTED**  
NW 1/4, NW 1/4, SEC.28, T.27N., R.4E., W.M.

DWN. BY	DATE	REV. BY	DATE	PROJECT MANAGER	SCALE	
MNB	11/16/98	19	MNB	11/16/00	D.L. BRESKE	1" = 30'
DRAWING FILENAME	F.B. NO.	CHK. BY	JOB NO.	SHT. NO.		
98068SW-AC.DWG	336	INIT	98-068-A	4 of 4		

257-00-5