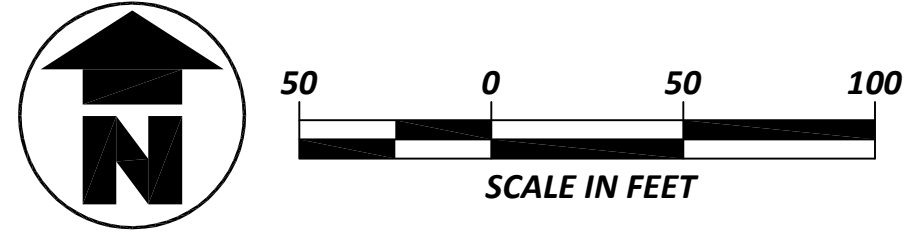


PROJECT NAME  
NE 1/4 SEC. 01, T01N, R1E  
PUBLIC SANITARY SEWER SYSTEM



SCALE: 1" = 50'  
CONTOUR INTERVALS = 2 FT

NORTH ARROW TO BE DIRECTED TOWARD TOP, RIGHT, OR LEFT OF PAGE.

PIERCE COUNTY DATUM - PROVIDE BENCHMARK NUMBER, LOCATION, AND ELEVATION (NO EXCEPTIONS). DATUM BASED ON NAVD 88.

PROVIDE SOURCE OF TOPOGRAPHY AND ON-SITE BENCHMARKS (INCLUDE NAME, ADDRESS, PHONE NUMBER OF SURVEYOR AND DATE SURVEY PERFORMED.)

PARCEL NUMBER(S) & ACREAGE: 010101-1-001, 6.593 AC.

PARCEL ADDRESS: 18500 89TH ST E

NUMBER OF PROPOSED UNITS/LOTS: 20

PROPOSED LAND USES: 19 NEW SFR AND 1 EXISTING SFR TO REMAIN

PROJECT IS NOT IN 100 YEAR FLOOD PLAIN

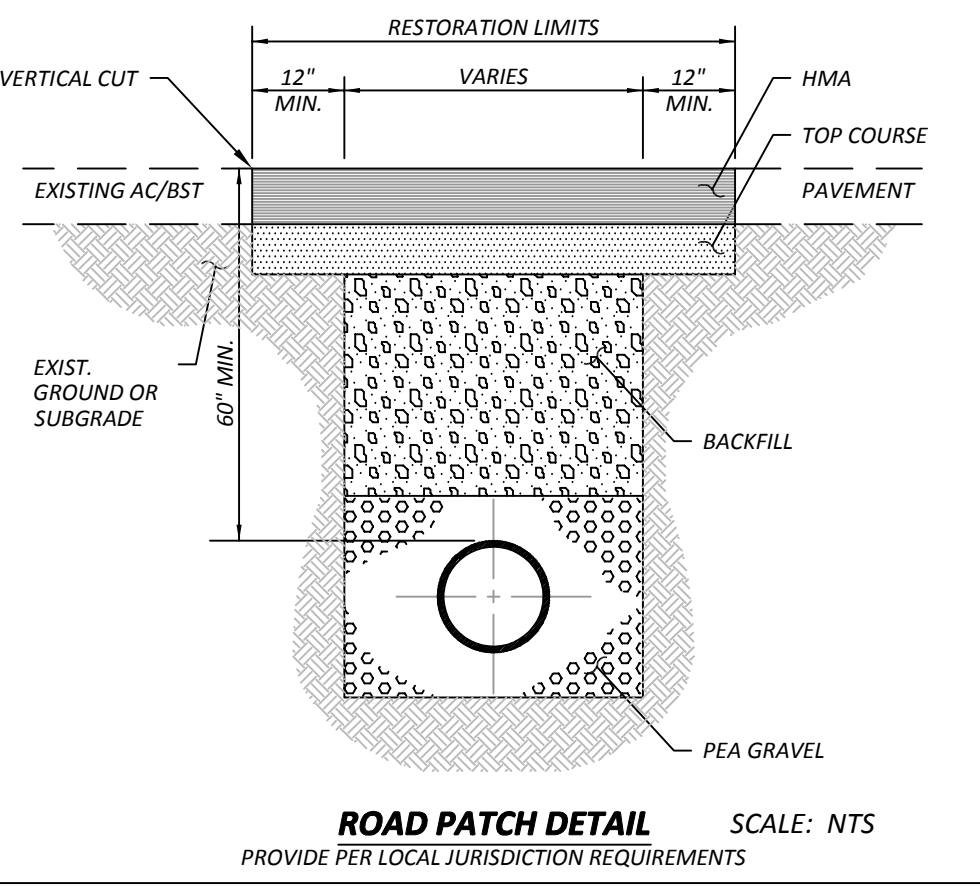
LEGEND

Table with columns for EXISTING and PROPOSED. Rows include: SANITARY SEWER PIPE LINE, CONTOUR LINE @ 10' INTERVALS, CONTOUR LINES @ 2' INTERVALS, RIGHT-OF-WAY, PROPERTY LINE, EDGE OF PAVEMENT, PERMANENT EASEMENT LINE, BURIED TELEPHONE LINE, BURIED ELECTRICAL LINE, GAS LINE, WATER MAIN, STORM PIPELINE, FIRE HYDRANT, WATER METER, WATER VALVE, STORM CATCH BASIN, TRENCH DAM, SANITARY SEWER MANHOLE, DIRECTION OF FLOW, CONCRETE ENCASUREMENT, ROAD RESTORATION.

DISCLAIMER: THIS DRAWING IS INTENDED TO BE USED IN CONJUNCTION WITH THE SEWER LINE EXTENSION PERMIT DESIGN CHECKLIST AS A GUIDE TO ASSIST THE ENGINEER FOR THE SUBMITTAL OF SEWER LINE EXTENSION DESIGN PLANS. THIS IS MERELY A GUIDE.

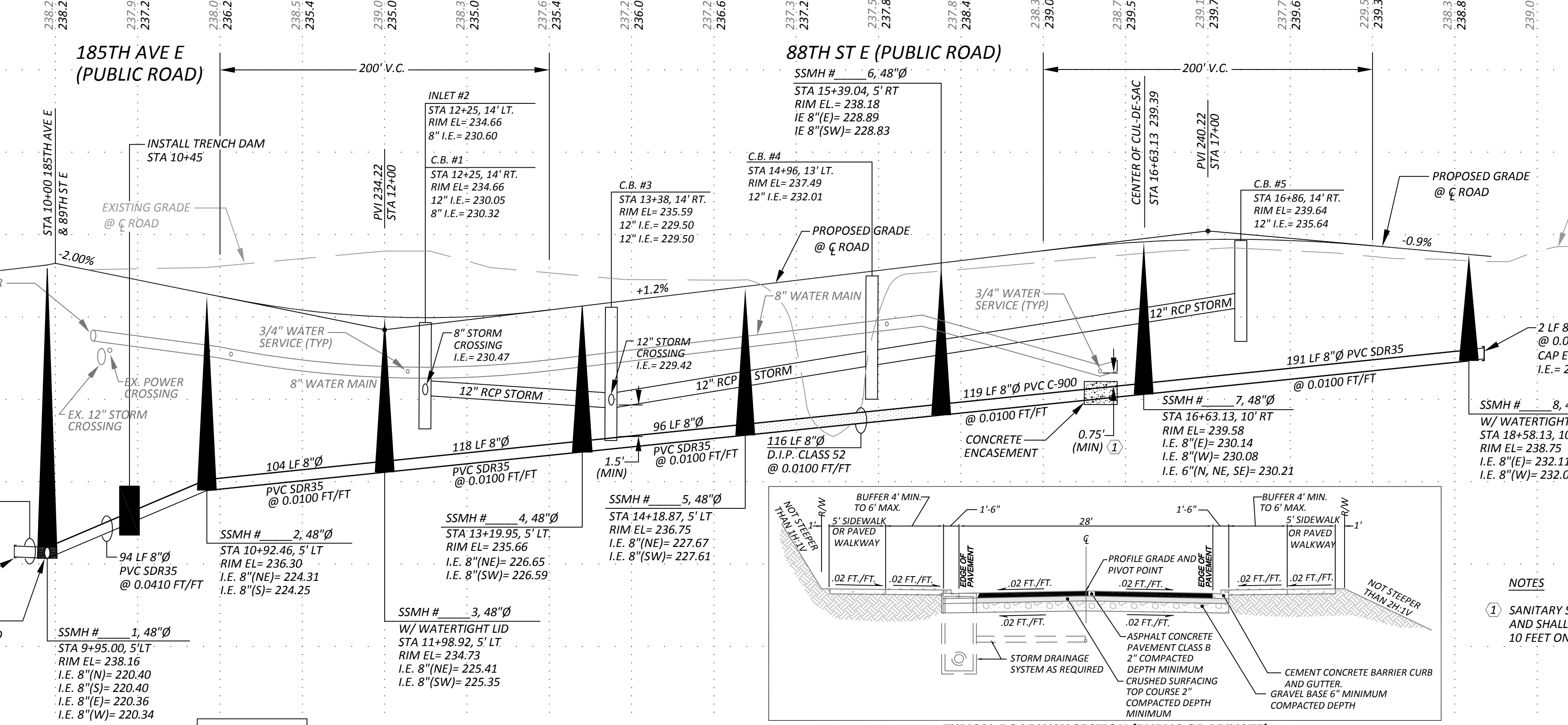
SEWER CONSTRUCTION NOTES:

- 1. ALL MATERIALS, WORKMANSHIP, AND TESTING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE PIERCE COUNTY SANITARY SEWER DEVELOPMENT SPECIFICATIONS, THE PIERCE COUNTY SANITARY SEWER STANDARD DETAILS MANUAL AND THE PIERCE COUNTY SEWER CODE.
- 2. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER AND THE PIERCE COUNTY DEVELOPMENT ENGINEERING INSPECTOR IN THE EVENT OF DISCOVERY OF POOR SOILS, STANDING GROUND WATER OR DISCREPANCIES FROM THE PLANS IN GRADES, LOCATIONS AND CONSTRUCTION OF UTILITIES, STRUCTURES, AND OTHER EXISTING CONDITIONS.
- 3. THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF THE POINT OF CONNECTION PRIOR TO CONSTRUCTION.
- 4. TESTING BY AIR OR WATER EXFILTRATION IS REQUIRED ON ALL MAINHOLES, INCLUDING DRY LINES, AND VACUUM TESTING IS REQUIRED ON ALL MANHOLES. PIERCE COUNTY REQUIRES A MINIMUM 24-HOUR ADVANCED NOTICE FOR SITE INSPECTION.
- 5. THE CONTRACTOR SHALL BE REGISTERED WITH PIERCE COUNTY PLANNING AND PUBLIC WORKS DEVELOPMENT ENGINEERING SECTION AND HAVE A VALID \$5,000.00 STREET OBSTRUCTION BOND.
- 6. PIERCE COUNTY REQUIRES THAT THE OWNER OR THE OWNER'S REPRESENTATIVE, THE ENGINEER AND THE CONTRACTOR ATTEND A PRE-CONSTRUCTION CONFERENCE WITH THE PIERCE COUNTY DEVELOPMENT ENGINEERING INSPECTOR FOR ALL WORK ON THESE PLANS. THE CONFERENCE SHOULD BE SCHEDULED BY CALLING (253) 798-4050 A MINIMUM OF TWO WEEKS PRIOR TO COMMENCEMENT OF WORK.
- 7. IT SHALL BE THE RESPONSIBILITY OF THE OWNER/DEVELOPER/CONTRACTOR TO OBTAIN NECESSARY PERMITS, CONSTRUCTION EASEMENTS AND RELEASES.
- 8. ANY REVISIONS TO THESE PLANS, ONCE APPROVED BY PIERCE COUNTY MUST BE REVIEWED AND REAPPROVED BY PIERCE COUNTY PLANNING AND PUBLIC WORKS DEVELOPMENT ENGINEERING SECTION PRIOR TO IMPLEMENTATION IN THE FIELD.
- 9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE A SET OF THESE APPROVED PLANS ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- 10. SIDE SEWER STUBS SHALL BE INSTALLED AT LEAST 10 FEET FROM PROPERTY LINES, UNLESS OTHERWISE APPROVED BY PIERCE COUNTY PLANNING AND PUBLIC WORKS DEVELOPMENT ENGINEERING SECTION.
- 11. ALL MANHOLES LOCATED IN LOW POINTS OF VERTICAL CURVES SHALL HAVE WATER TIGHT LIDS.
- 12. ALL NEW MANHOLES WILL BE PRE-CHANNELLED WITH PIERCE COUNTY APPROVED MANHOLE INVERT LINERS AND HAVE LOCKING LIDS, UNLESS OTHERWISE NOTED.
- 13. SANITARY SEWER LINES AND UTILITY CROSSING OTHER THAN WATER LINES:
  - A. THE STANDARD MINIMUM VERTICAL SEPARATION FOR WATER LINES IS 1.5 FEET ABOVE THE SANITARY SEWER LINE. SEPARATION SHALL BE MEASURED FROM THE OUTER WALLS OF THE PIPES.
  - B. CONTACT DEVELOPMENT ENGINEERING FOR UNUSUAL CIRCUMSTANCES FOR DEVELOPMENT ENGINEERING TO DETERMINE IF A REDUCED MINIMUM VERTICAL SEPARATION WILL BE ALLOWED FOR LESS THAN 1.5 FEET BUT NOT LESS THAN 0.75 FEET. ADDITIONAL PROVISIONS WILL BE REQUIRED.
- 14. SANITARY SEWER LINES AND UTILITY CROSSING OTHER THAN WATER LINES:
  - A. THE STANDARD MINIMUM VERTICAL SEPARATION FOR UTILITIES OTHER THAN WATER LINES IS 1.5 FEET FROM THE SANITARY SEWER. SEPARATION SHALL BE MEASURED FROM THE OUTER WALLS OF THE PIPES.
  - B. IF CONCRETE ENCASUREMENT OF THE SANITARY SEWER IS PROVIDED, THEN A REDUCED MINIMUM VERTICAL SEPARATION OF 0.75 FEET WILL BE ALLOWED. THE CONCRETE ENCASUREMENT SHALL EXTEND 10 FEET ON EACH SIDE OF THE CROSSING.
  - C. CLASS 52 DUCTILE IRON PIPE MAY BE USED FOR THE SANITARY SEWER IN LIEU OF CONCRETE ENCASUREMENT PROVIDED THAT THERE IS NO TRANSITIONING TO OTHER PIPE MATERIALS BETWEEN MANHOLES.
- 15. TEES SHALL BE USED FOR ALL SIDE SEWER CONNECTIONS TO SEWER MAINLINES.
- 16. THE INTERIOR OF ALL DUCTILE IRON PIPE SHALL BE LINED PER PIERCE COUNTY SANITARY SEWER DEVELOPMENT SPECIFICATIONS.
- 17. THE INTERIOR WALLS OF ALL CONCRETE MANHOLES FOR INTERCEPTOR SEWERS (15" NOMINAL INSIDE DIAMETER AND LARGER) SHALL BE COATED PER PIERCE COUNTY SANITARY SEWER DEVELOPMENT SPECIFICATIONS.
- 18. THE EXTERIOR OF ALL MANHOLES SHALL BE COATED PER PIERCE COUNTY SANITARY SEWER DEVELOPMENT SPECIFICATIONS.
- 19. THE MINIMUM LENGTH OF CONCRETE ENCASUREMENT SHALL BE 20 LINEAR FEET.
- 20. CONCRETE MANHOLES THAT ARE TAPPED FOR A FORCE MAIN CONNECTION SHALL HAVE THEIR INTERIORS RECEIVE PROTECTIVE COATINGS PER PIERCE COUNTY SANITARY SEWER DEVELOPMENT SPECIFICATIONS.
- 21. ALL TRENCH RESTORATION REQUIREMENTS, OTHER THAN PIPE BEDDING, SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON ACCOMMODATING UTILITIES IN PIERCE COUNTY RIGHT-OF-WAY. PEA GRAVEL, AS SPECIFIED IN THE PIERCE COUNTY SANITARY SEWER DEVELOPMENT SPECIFICATIONS, SHALL BE USED FOR ALL SANITARY SEWER PIPE BEDDING MATERIAL.
- 22. ALL PAVEMENT RESTORATION REQUIREMENTS IN THE PUBLIC RIGHT-OF-WAY SHALL BE DETERMINED BY THE PERMITTING JURISDICTION (I.E. - PIERCE COUNTY TRANSPORTATION SERVICES, CITY OF UNIVERSITY PLACE, CITY OF LAKEWOOD, TOWN OF MILTON, CITY OF TACOMA, CITY OF DUPONT, OR THE STATE OF WASHINGTON, ETC.) UPON APPLICATION AND ISSUANCE OF RIGHT-OF-WAY PERMIT OR EQUAL THEREOF. IN ADDITION, AT THE PERMITTING JURISDICTION'S DISCRETION, ALTERNATIVE CONSTRUCTION METHODS OTHER THAN STANDARD OPEN TRENCH CONSTRUCTION MAY BE REQUIRED FOR SANITARY SEWER CONSTRUCTION SHOWN ON THESE APPROVED CONSTRUCTION PLANS.



ROAD PATCH DETAIL SCALE: NTS

Table with columns for stationing (10+00 to 19+00) and corresponding elevations for existing and proposed ground.



TYPICAL ROADWAY SECTION (PUBLIC OR PRIVATE) SCALE: NTS

- NOTES
- 1. SANITARY SEWER SHALL BE PVC C-900 PIPE AND SHALL BE CONCRETE ENCASED AT LEAST 10 FEET ON BOTH SIDES OF THE CROSSING.

APPROVED SWLE #  
WASTEWATER UTILITY MANAGER DATE  
"PLAN APPROVAL EXPIRES THREE (3) YEARS FROM THE DATE OF APPROVAL"  
VICINITY MAP  
LEGEND  
SEWER CONSTRUCTION NOTES  
ENGINEER OR FIRM NAME: ADDRESS, PHONE NUMBER, AND CONTACT  
ENGINEER STAMP SIGNATURE AND DATE  
PROJECT NAME: PUBLIC SANITARY SEWER LINE EXTENSION  
CONTACT: PHONE NUMBER:  
PARCEL OWNER: ADDRESS LINE 1:  
ADDRESS LINE 2:  
APPLICANT NAME: ADDRESS LINE 1:  
ADDRESS LINE 2:  
NO. REVISION DATE APPD.