

STANDARD SPECIFICATIONS

AND

CONSTRUCTION DETAILS

AUGUST 2006

NORTH COAST COUNTY WATER DISTRICT
2400 FRANCISCO BOULEVARD, POST OFFICE BOX 1039
PACIFICA, CALIFORNIA 94044

NCCWD STANDARD DETAILS

Detail	Title
NC-01	RESIDENTIAL SERVICE CONNECTION (NEW CONSTRUCTION)
NC-02	RESIDENTIAL SERVICE WITH FIRE SERVICE UPGRADE
NC-03	STANDARD SERVICE SADDLE REQUIREMENTS
NC-04	STANDARD SERVICE RECONNECTION
NC-05	DOUBLE DETECTOR CHECK BACKFLOW UNIT FOR A FIRE SERVICE CONNECTION
NC-06	¾" – 2" REDUCED PRESSURE BACKFLOW PREVENTER
NC-07	STANDARD UNDERGROUND PRV VAULT
NC-08	4X2 PRESSURE REDUCING STATION INLET PRESSURES OF 250 PSI OR LESS
NC-09	6X4X2 PRESSURE REDUCING STATION
NC-10	8X4 PRESSURE REDUCING STATION
NC-11	2" BLOWOFF ASSEMBLY
NC-12	TRANSMISSION LINE BLOWOFF ASSEMBLY
NC-13A	2" COMBINATION AIR RELEASE/VACUUM VALVE (INSTALLATIONS WITHIN IMPROVED/UNIMPROVED AREAS)
NC-13B	2" COMBINATION AIR RELEASE/VACUUM VALVE (INSTALLATIONS WITHIN IMPROVED AREAS)
NC-14	SAMPLE STATION
NC-15A	STANDARD FIRE HYDRANT WITH CHECK VALVE ASSEMBLY INSTALLATION
NC-15B	STANDARD FIRE HYDRANT INSTALLATION (EXISTING HYDRANTS ONLY)
NC-16	FIRE HYDRANT GUARD POSTS (4 POST CONFIGURATION) INSTALLATIONS IN COMMERCIAL / UNIMPROVED AREAS
NC-17	INSTALLATION OF PORTABLE WATER METERS
NC-18	WATER VALVE BOX-TRAFFIC
NC-19	GATE VALVE ASSEMBLY/TRACER WIRE DETAIL
NC-20	STANDARD THRUST BLOCK DETAILS
NC-21	STANDARD PIPE INSTALLATION
NC-22	TYPICAL SERVICE INSTALLATION TRENCH
NC-23	SEPARATION OF WATER MAINS & SANITARY SEWERS
-----	TYPICAL PRIVATE ATMOSPHERIC VACUUM BREAKER
-----	CITY OF PACIFICA STANDARD TRENCH DETAIL NOTES
-----	CITY OF PACIFICA STANDARD TRENCH DETAIL (DWG 301)
-----	CITY OF PACIFICA STANDARD TRENCH DETAIL (DWG 301A)
-----	CITY OF PACIFICA SLURRY SEAL DETAIL (A) (PLAN NO. 301 B)
-----	CITY OF PACIFICA SLURRY SEAL DETAIL (B) (PLAN NO. 301 C)
-----	CITY OF PACIFICA SLURRY SEAL DETAIL (LONGITUDINAL) (301D)
-----	CITY OF PACIFICA SLURRY SEAL DETAIL (NO CEN. LINE) (301 E)
-----	CITY OF SAN BRUNO TYPICAL TRENCH CROSS SECTION

MATERIAL AND COMPACTION REQUIREMENT FOR TRENCH BACKFILL

1. Initial backfill material shall conform to requirements of utility having jurisdiction over the installation and shall also meet the following minimum requirements: At least 90% passing 3/4 inch sieve, not more than 15% passing No. 200 sieve, sand equivalent of at least 30 and minimum relative compaction of 90%.
2. Intermediate backfill shall be any suitable native or imported granular material. Relative compaction shall be at least 90%, except upper (12 inches) which shall be 95%.
3. Class II aggregate base shall conform to the Standard Specifications of the State of California. Minimum relative compaction shall be 95%. If pavement having a structural section greater than 15 inches is cut, additional base material may be required by the Director of Public Works. Base shall be placed and compacted prior to placing of temporary paving.
4. Fills shall be placed in loose lifts not exceeding 8 inches in thickness before compaction.
5. Where suitable material is used, intermediate backfill may be compacted by means of jetting, provided that the material is compacted in layers no more than 3 feet in depth, the jet pipe is at least 1 1/2 inches in diameter and 4 feet long, the water supply has a pressure of at least 40 pounds per square inch and adequate drainage of free water can be maintained.
6. Where PEA GRAVEL or any similarly rounded aggregate is used for any part of the backfill, it must be consolidated by vibrating in lifts of not more than 3 feet.
7. When trenches are backfilled with granular materials, adequate provisions must be made to drain off water which will be collected in the trench.
8. Testing of materials and performance shall be in conformance with the methods stated in the latest edition of the State of California Department of Transportation Materials Manual, except that relative compaction shall be tested by AASHTO Method T180-57C.
9. Additional thickness and lifts of asphalt concrete may be required to match existing structural section on major roads.

NOTE:

a. CONTRACTOR WILL SHORE ALL TRENCHES IN CONFORMANCE WITH STATE SAFETY STANDARDS.

b. PATCH EDGES SHALL BE PARALLEL AND/OR PERPENDICULAR TO PAVEMENT EDGE (CURB LINE).
 PATCHES WITHIN 18 INCHES OF PAVEMENT EDGE SHALL BE EXTENDED TO THE PAVEMENT EDGE.

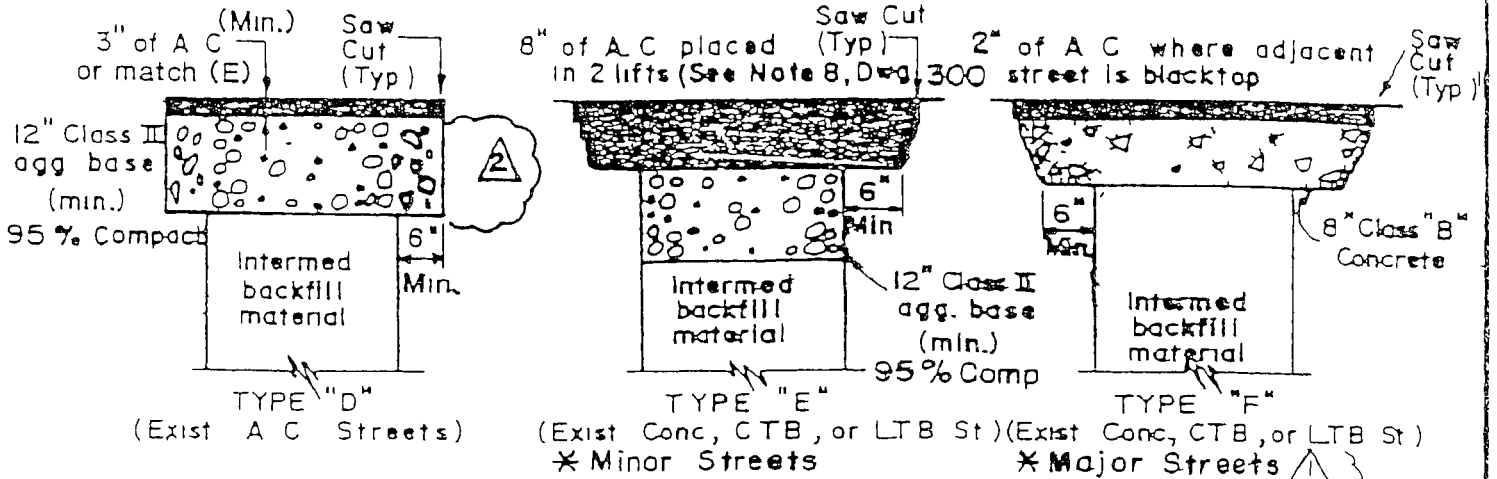
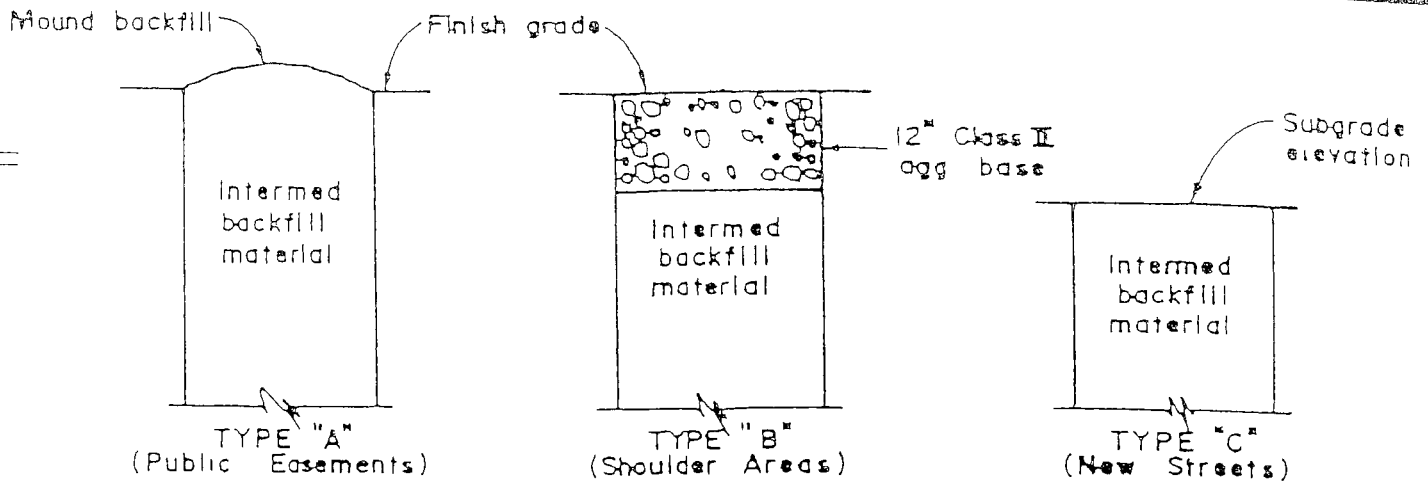
**CITY OF
 PACIFICA**

DEPARTMENT OF PUBLIC WORKS
 ENGINEERING DIVISION

STANDARD

**TRENCH DETAIL
 NOTES**

▲	600	JdG	MAR
▲	788	JdG	1992
	382	VDO	DWG. NO
REV	DATE	BY	300

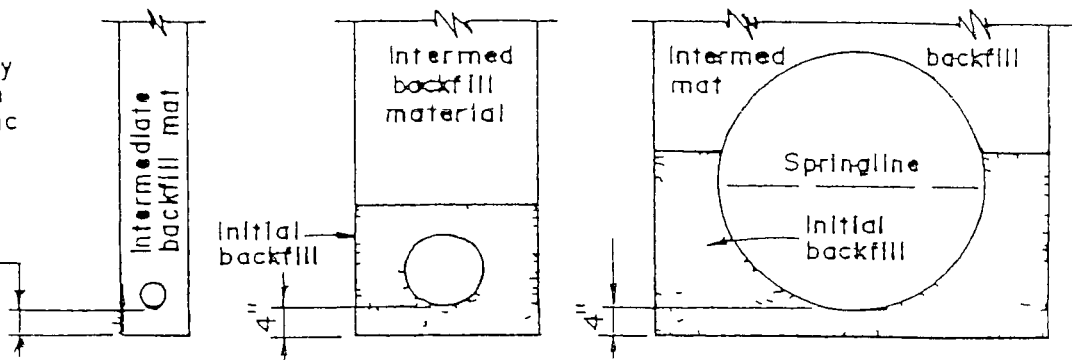


SURFACE RESTORATION

NOTE

Initial backfill may be deleted if pipe is encased in conc

4" Min Initial bedding required



CONDUIT SIZE (I D)	3" or less	4" to 18"	Over 18"
MIN TRENCH WIDTH	8"	O D + 12"	O D + 24"
MAX TRENCH WIDTH AT TOP OF PIPE	As directed by utility	O D + 18"	O D + 36"
DEPTH OF INITIAL BACKFILL	As directed by utility	6" over top of pipe	30" over bottom of trench or springline of pipe whichever is greater

NOTE

- * Major and Minor Streets as determined by City Engineer
- 1 For material and compaction requirements see Dwg No 300
- 2 Utilities Companies may require additional initial backfill
- 3 Trench edges shall be saw-cut, Trench width plus 6" min. on either side

CITY OF
PACIFICA

C. D. & S.

ENGINEERING DIV.

STANDARD

TRENCH DETAILS

			SEPT 1986
△	8-11-94	VDO	DWG NO.
△	4-7-88	AMA	301
REV.	DATE	BY	

SLURRY SEAL OVER PATCH
(SEE STANDARDS 301B 301E)

EXISTING ROAD SURFACE

6" MIN

TRENCH WIDTH

6" MIN

SAW-CUT NEATLY

6 INCHES
MIN

6 INCHES
MIN

3 INCH OR MATCH EXIST
A C PAVEMENT TO BE
PLACED IN 2 INCH LIFTS

SIX INCH A C PLUG

FINAL BACKFILL

CONSOLIDATE FINAL
BACKFILL TO 95% COMPACTION

CONSOLIDATE UPPER
12 INCHES OF INTERMEDIATE
BACKFILL TO 95% COMPACTION

90% COMPACTION
8-in MAX LIFTS

INTERMEDIATE BACKFILL

CLASS II A B OR BETTER
FURTHERMORE GEOFABRICS MAY BE REQUIRED
TO PREVENT NATIVE FINES FROM MIGRATING INTO
THE NEW MATERIAL

10 GAUGE INSULATED COPPER TRACER WIRE

90% COMPACTION LIMIT TO 6-in LIFTS
BUT PROVIDE 6 inches OF COVER OVER
TOP OF PIPE BEFORE USING MECHANICAL
EQUIPMENT TO COMPACT ABOVE IT

90% COMPACTION 6-in MAX LIFTS
DO NOT ALLOW COMPACTION EQUIPMENT
TO MAKE CONTACT WITH THE PIPE

90% COMPACTION
6-in MAX LIFTS

90% COMPACTION
6-in MAX LIFTS

INITIAL BACKFILL

USE A CLASS II CLEAN WELL-GRADED SAND
6-in MIN ABOVE TOP OF PIPE

USE A CLASS II CLEAN WELL-GRADED SAND
WORK IN AROUND PIPE BY HAND & TAMP
DILIGENTLY BEFORE PLACING INITIAL BACKFILL

BEDDING

USE A CLASS II CLEAN WELL-GRADED SAND
4-in MIN 6-in MIN IN ROCK CUTS
COMPACT PRIOR TO PLACING HAUNCHING
MATERIAL LEVEL FINAL GRADE BY HAND

FOUNDATION
(MAY NOT NEED)

WHERE TRENCH BOTTOM TENDS TO BE UNSTABLE
OR "QUICK" OVEREXCAVATE TO A MINIMUM OF
9" BELOW THE BEDDING & REPLACE WITH
3/4" DRAIN ROCK--CLASS IB PERMEABLE
WHERE SUCH INSTABILITY IS INDUCED
BY GROUNDWATER MOVEMENT SEPARATE THE NEW
FOUNDATION MATERIAL FROM THE NATIVE TRENCH
USING GEOFABRICS THAT PREVENT NATIVE
FINES FROM MIGRATING INTO THE NEW MATERIAL

NOTES

CALL WASTE WATER (650-7384669) 24 HOURS PRIOR TO TRENCHING
SEWER TAP PIPE INSTALLATION BACKFILLING AND OTHER SEWER WORK

CALL ENGINEERING (650-7383767) 24 HOURS PRIOR TO PAVEMENT RESTORATION
(PLACING CLASS II BASE ROCK AND ASPHALT)

ALL TRENCHES AND/OR POTHOLES SHALL BE RESTORED BY 4 00 P.M. OF THE SAME DAY
SEWER TAP TRENCH SHALL BE 3 x 5 MAX OR AS DIRECTED BY THE WASTE WATER DEPT

SLURRY SEAL SHALL BE APPLIED WITHIN TWO WEEKS AFTER ALL TRENCHES AND POTHOLES ARE RESTORED

CERTIFICATE OF COMPLIANCE SHALL BE SUBMITTED FOR THE SLURRY SEAL MIX

CITY OF PACIFICA
PUBLIC WORKS / ENGINEERING DIVISION



DESIGNED BY VDO/ROD OCT 2001
CHKD BY SH OCT 2001
APPROVED BY SH OCT 2001

REV	DATE	DESCRIPTION	BY

STANDARD
TRENCH
DETAIL

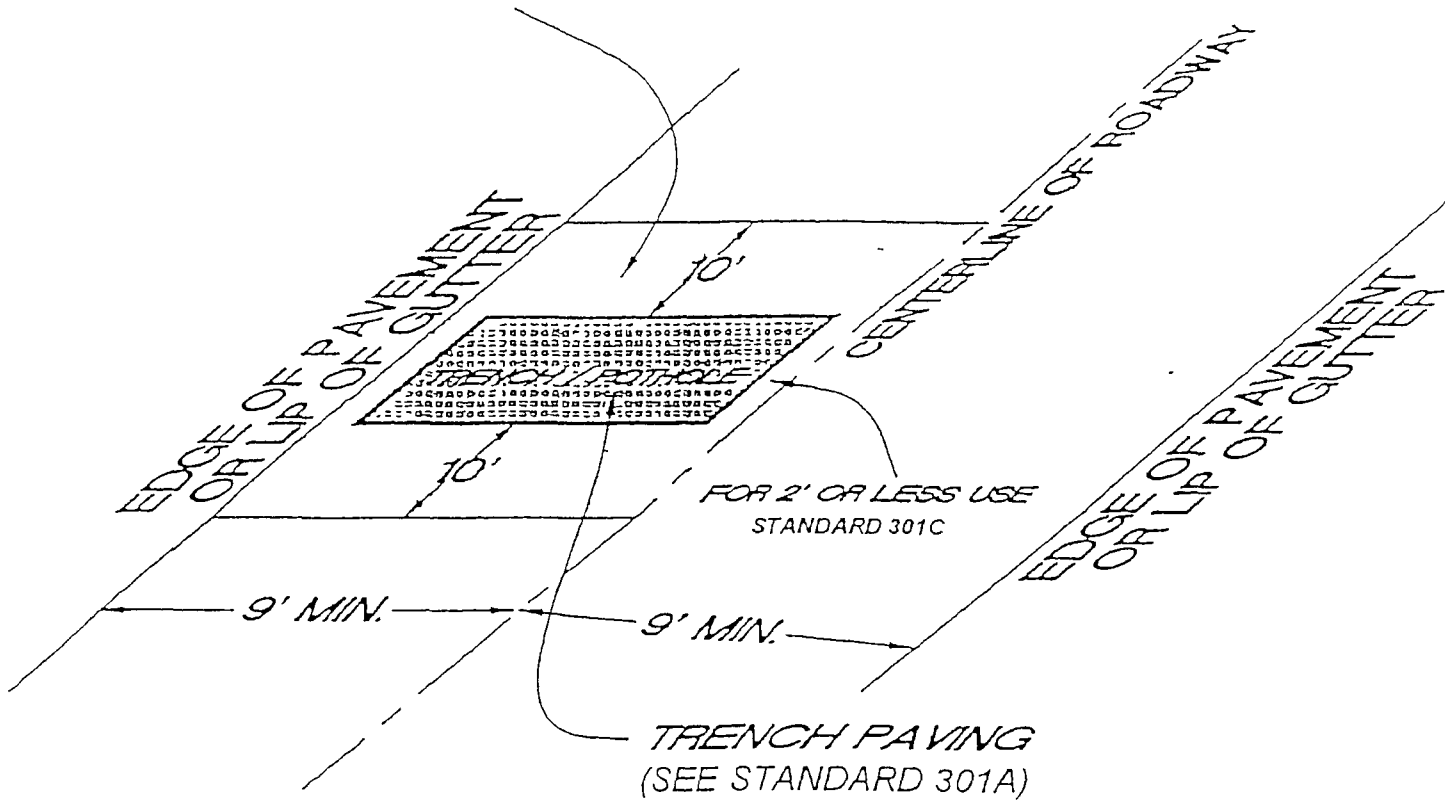
NEWLY PAVED
STREETS

SCALE NOT TO SCALE

PLANNING

SLURRY SEAL *

(SEE STATE STANDARD SPECIFICATIONS SECTION 37-2)



NOTE: * IF THERE ARE 2 OR MORE TRENCHES WITHIN 300 FEET OF THE STREET THE SLURRY SEAL SHALL APPLY CONTINUOUSLY TO COVER ALL TRENCHES

**SLURRY SEAL
LATERAL TRENCH OR POTHOLE (A)**

NO SCALE

CITY OF PACIFICA
PUBLIC WORKS / ENGINEERING DIVISION



DESIGNED BY VDD/RDD OCT 2001
CHK D BY SH OCT 2001
APPROVED BY SV OCT 2001
SIGNATURE *[Signature]*

REV	DATE	DESCRIPTION	BY

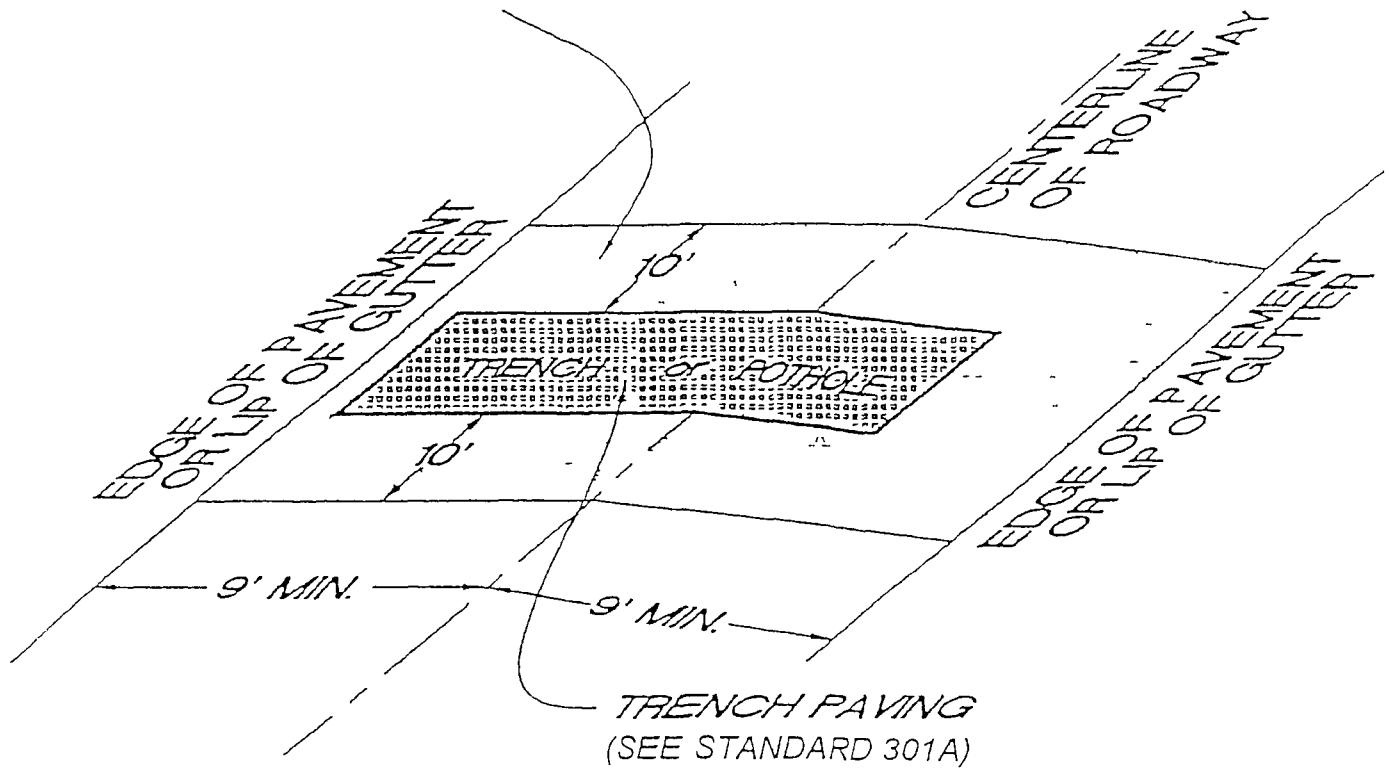
**SLURRY
SEAL
DETAIL**

NEWLY PAVED
STREETS

SCALE NOT TO SCALE
PLAN NO 301R

SLURRY SEAL *

(SEE STATE STANDARD SPECIFICATIONS SECTION 37-2)



NOTE: * IF THERE ARE 2 OR MORE TRENCHES WITHIN 300 FEET OF THE STREET, THE SLURRY SEAL SHALL APPLY CONTINUOUSLY TO COVER ALL TRENCHES

**SLURRY SEAL
LATERAL TRENCH OR POTHOLE (B)**

NO SCALE

CITY OF PACIFICA
PUBLIC WORKS / ENGINEERING DIVISION



DESIGNED BY VDO/ROD OCT 2001
CHKD BY SH OCT 2001
APPROVED BY [Signature] OCT 2001
SIGNATURE

REV	DATE	DESCRIPTION	BY

**SLURRY
SEAL
DETAIL**

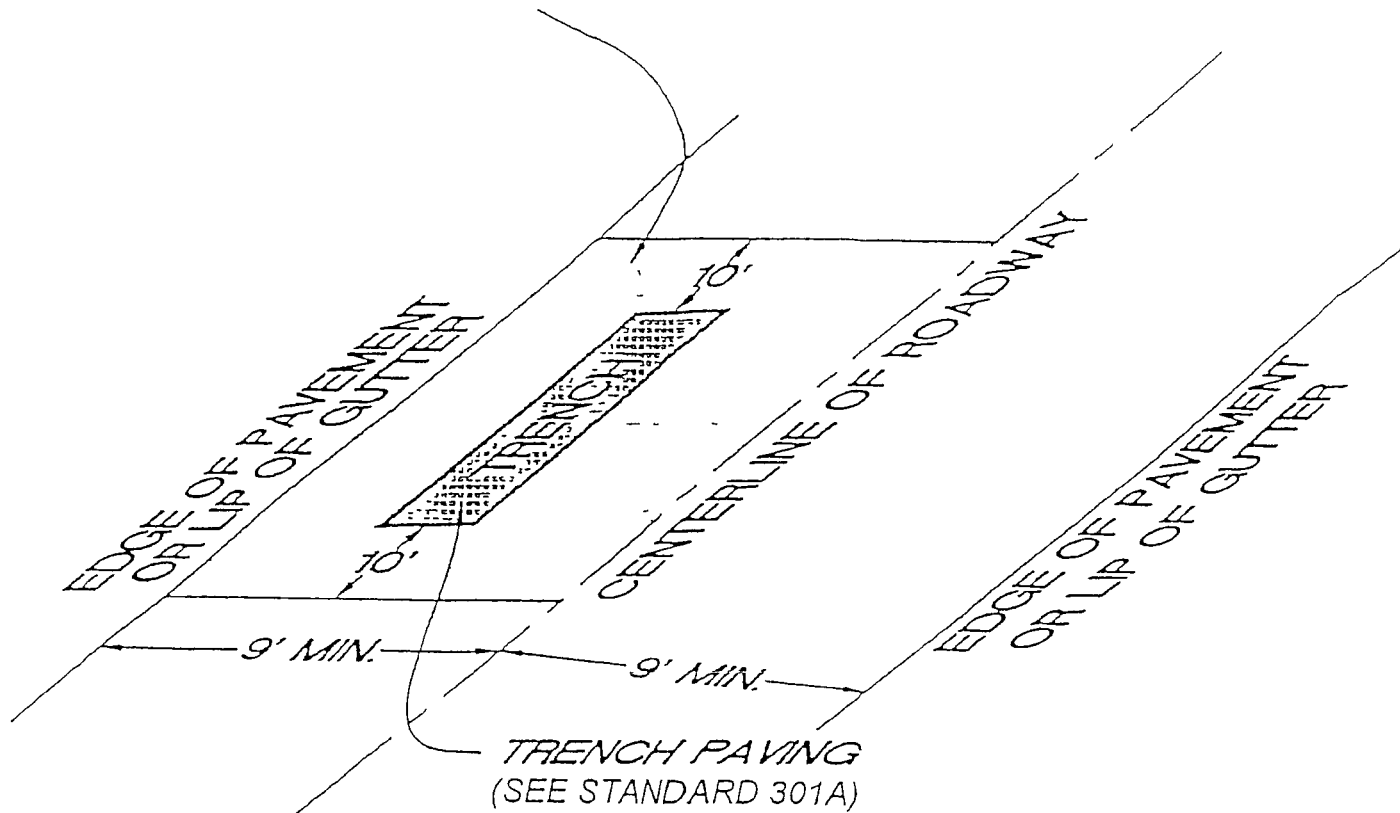
NEWLY PAVED
STREETS

SCALE NOT TO SCALE

PLAN NO

SLURRY SEAL *

(SEE STATE STANDARD SPECIFICATIONS SECTION 37-2)



NOTE * IF THERE ARE 2 OR MORE TRENCHES WITHIN 300 FEET OF THE STREET, THE SLURRY SEAL SHALL APPLY CONTINUOUSLY TO COVER ALL TRENCHES

**SLURRY SEAL
LONGITUDINAL TRENCH**

NO SCALE

CITY OF PACIFICA
PUBLIC WORKS / ENGINEERING DIVISION



DESIGNED BY VOO/RDD
CHK D BY SH
APPROVED BY SH
SIGNATURE *[Signature]*

OCT 2001
OCT 2001
OCT 2001

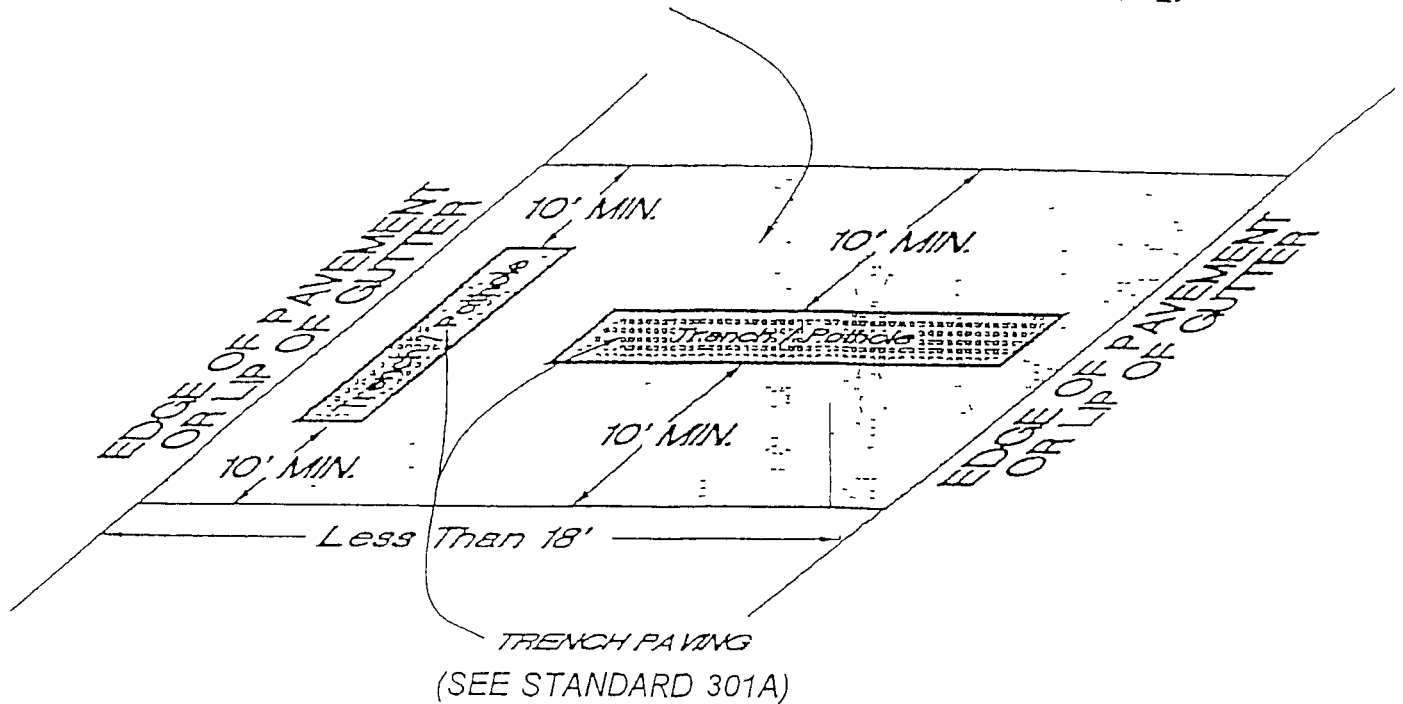
REV	DATE	DESCRIPTION	BY

**SLURRY
SEAL
DETAIL**

NEWLY PAVED
STREETS

SCALE NOT TO SCALE
PLAN NO

SLURRY SEAL *
 (SEE STATE STANDARD SPECIFICATIONS SECTION 37-2)



NOTE: * IF THERE ARE 2 OR MORE TRENCHES WITHIN 300 FEET OF THE STREET, THE SLURRY SEAL SHALL APPLY CONTINUOUSLY TO COVER ALL TRENCHES.

**SLURRY SEAL
 STREET WITHOUT CENTERLINE OR
 LESS THAN 18 FEET IN WIDTH**

NO SCALE

CITY OF PACIFICA
 PUBLIC WORKS / ENGINEERING DIVISION

DESIGNED BY: VDO/RDD OCT 2001
 CHK'D BY: SH OCT 2001
 APPROVED BY: [Signature] OCT 2001
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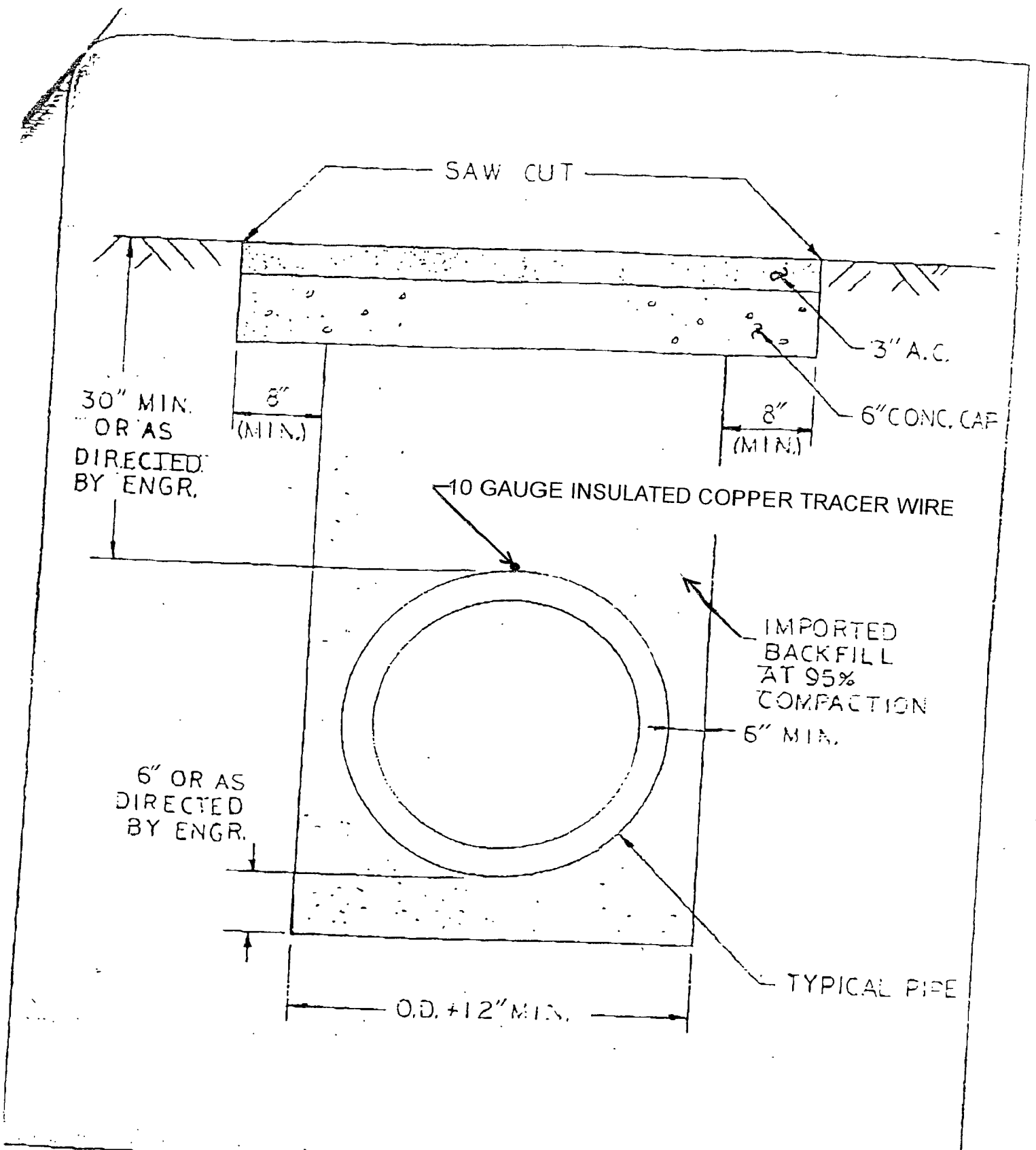


REV	DATE	DESCRIPTION	BY

**SLURRY
 SEAL
 DETAIL**

**NEWLY PAVED
 STREETS**

SCALE: NOT TO SCALE
 PLAN NO:



SAN BRUNO				CALIFORNIA	
TYPICAL TRENCH CROSS SECTION					
SCALE: NONE	DRWN. BY G.I.	CHECKED J.H.I.	DATE; APR. '80	APPROVED <i>J. H. I.</i> CITY ENGINEER	SHEET NO. 31

