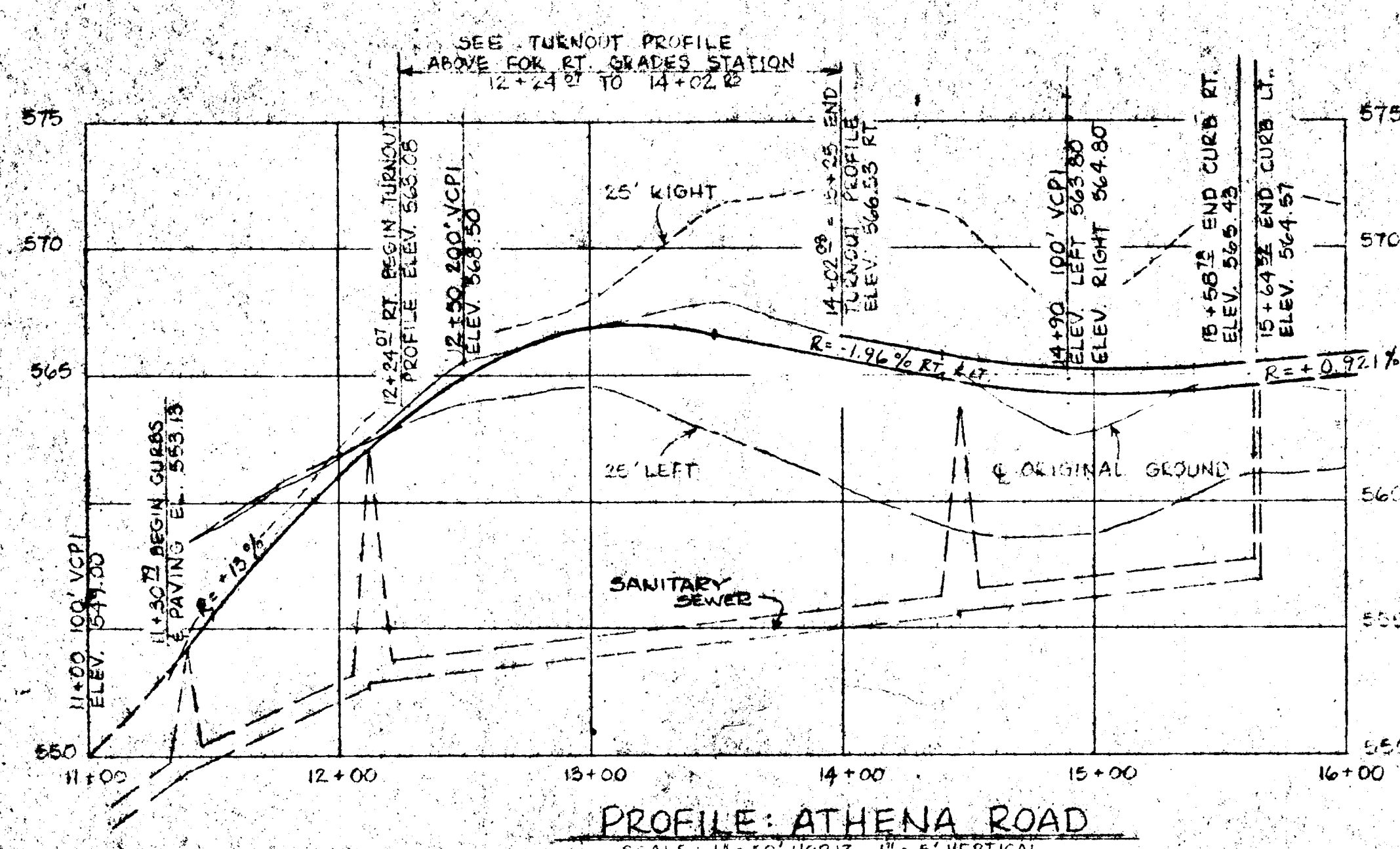
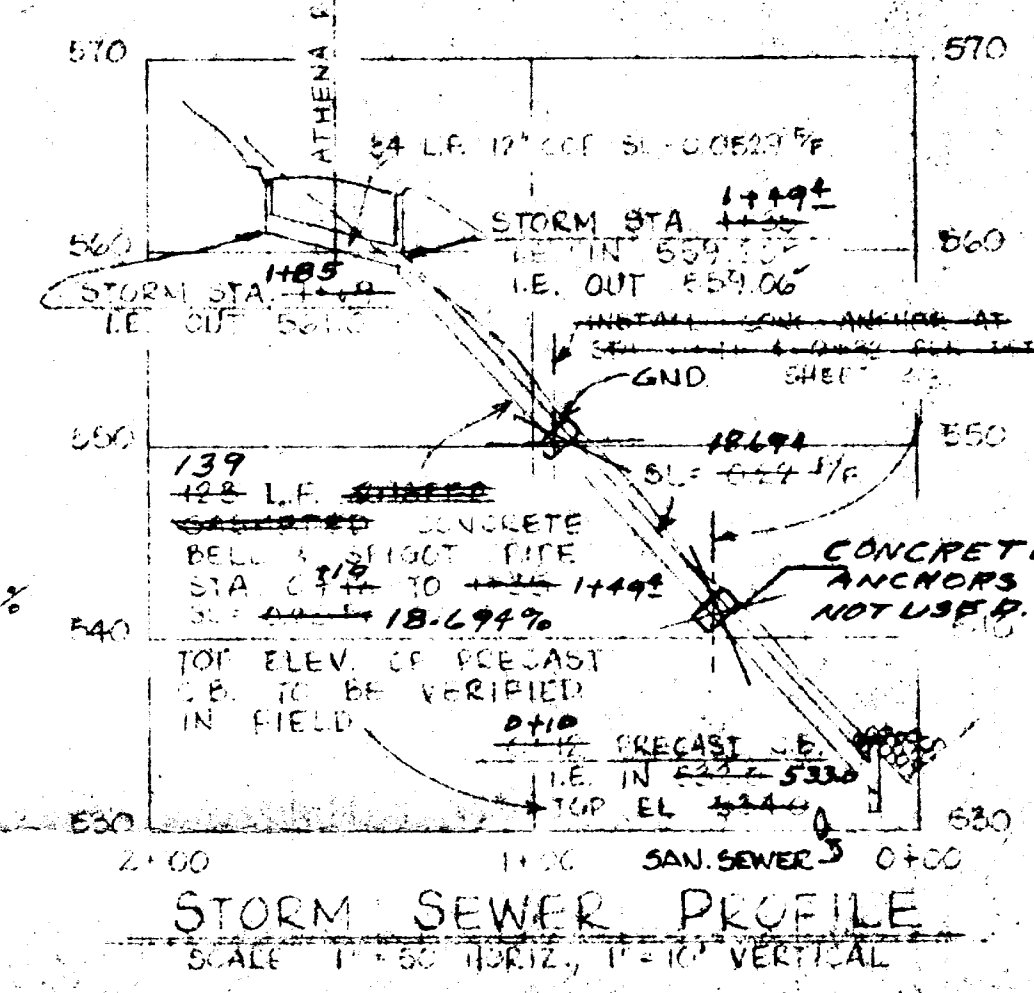
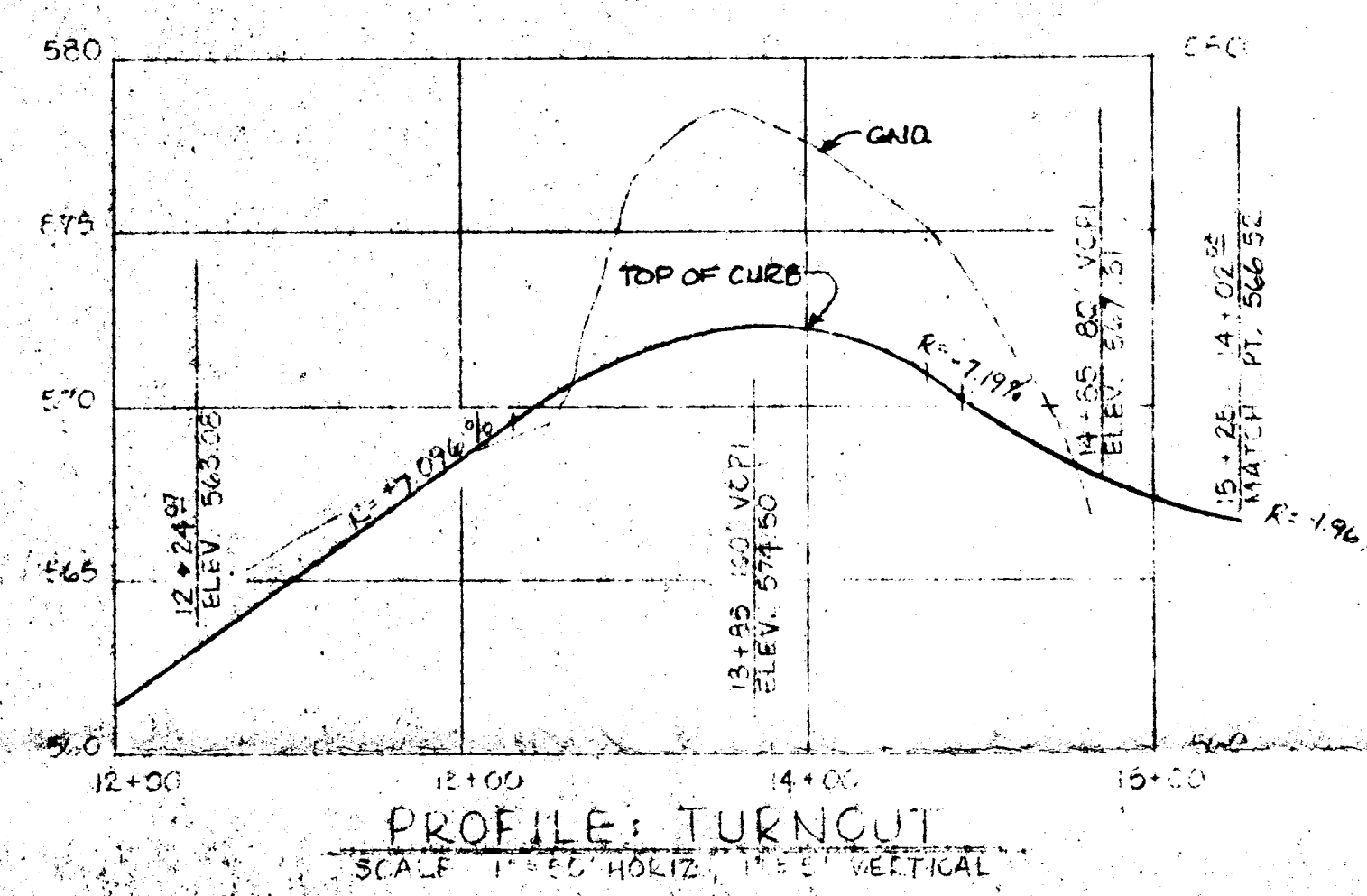
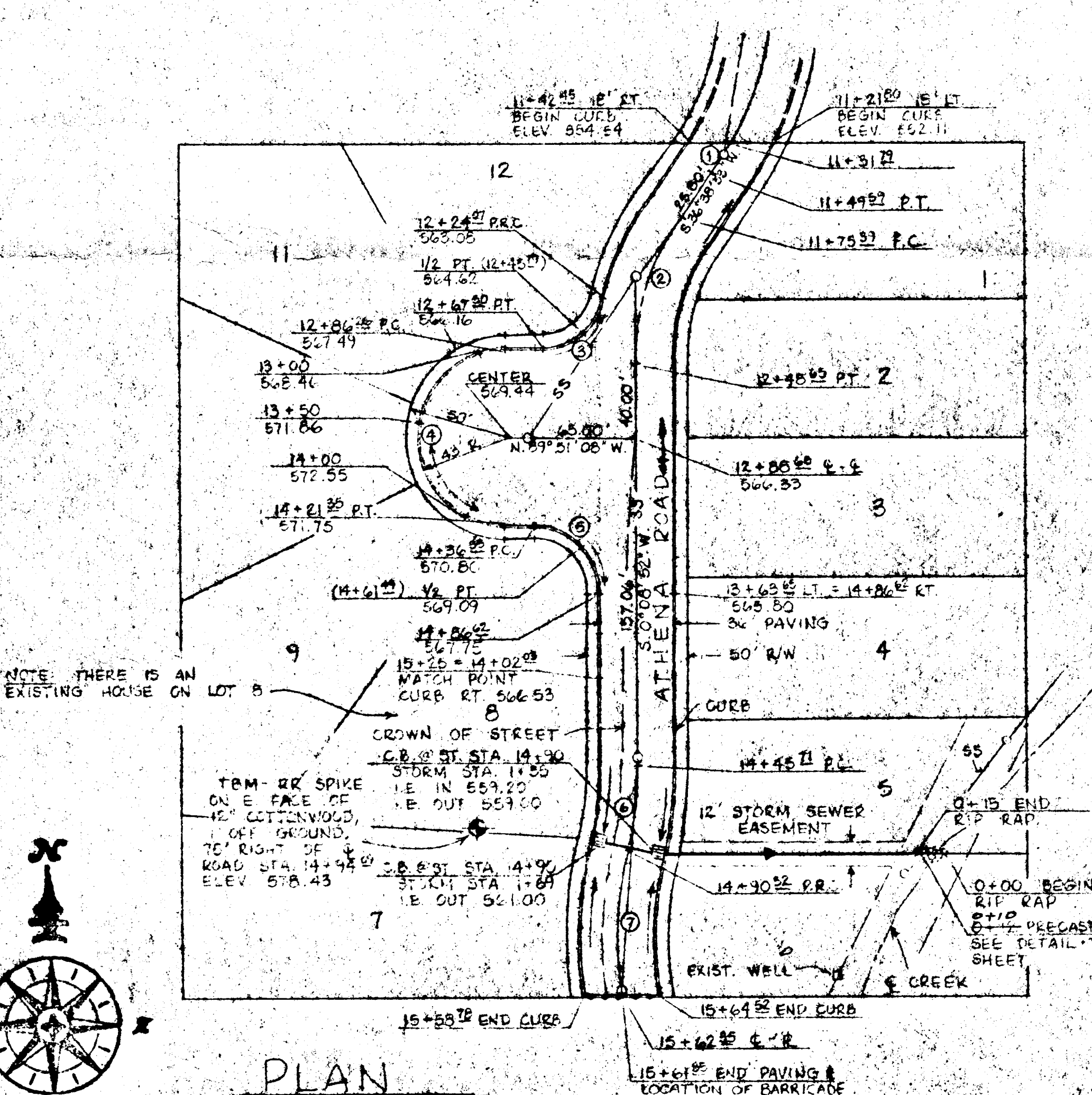
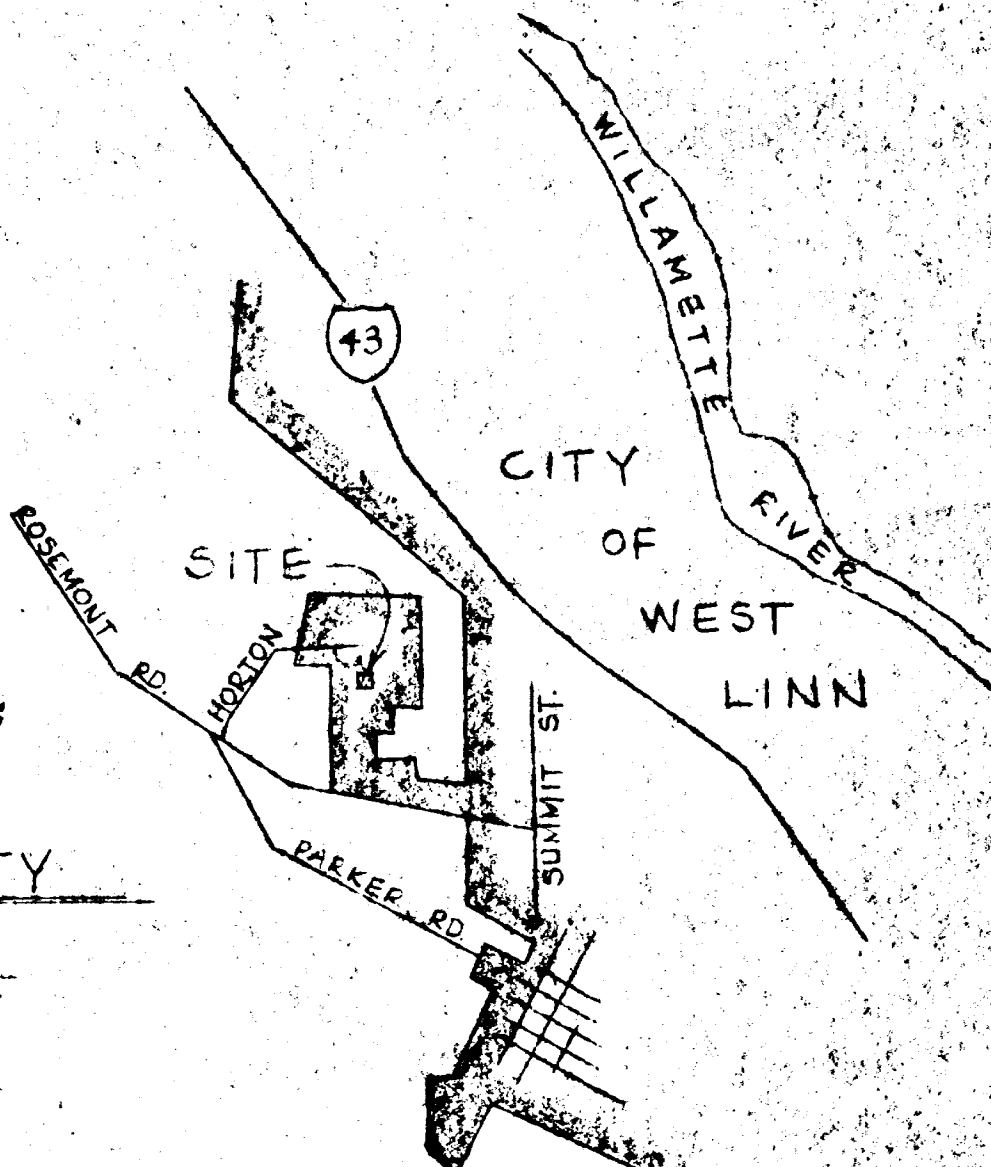
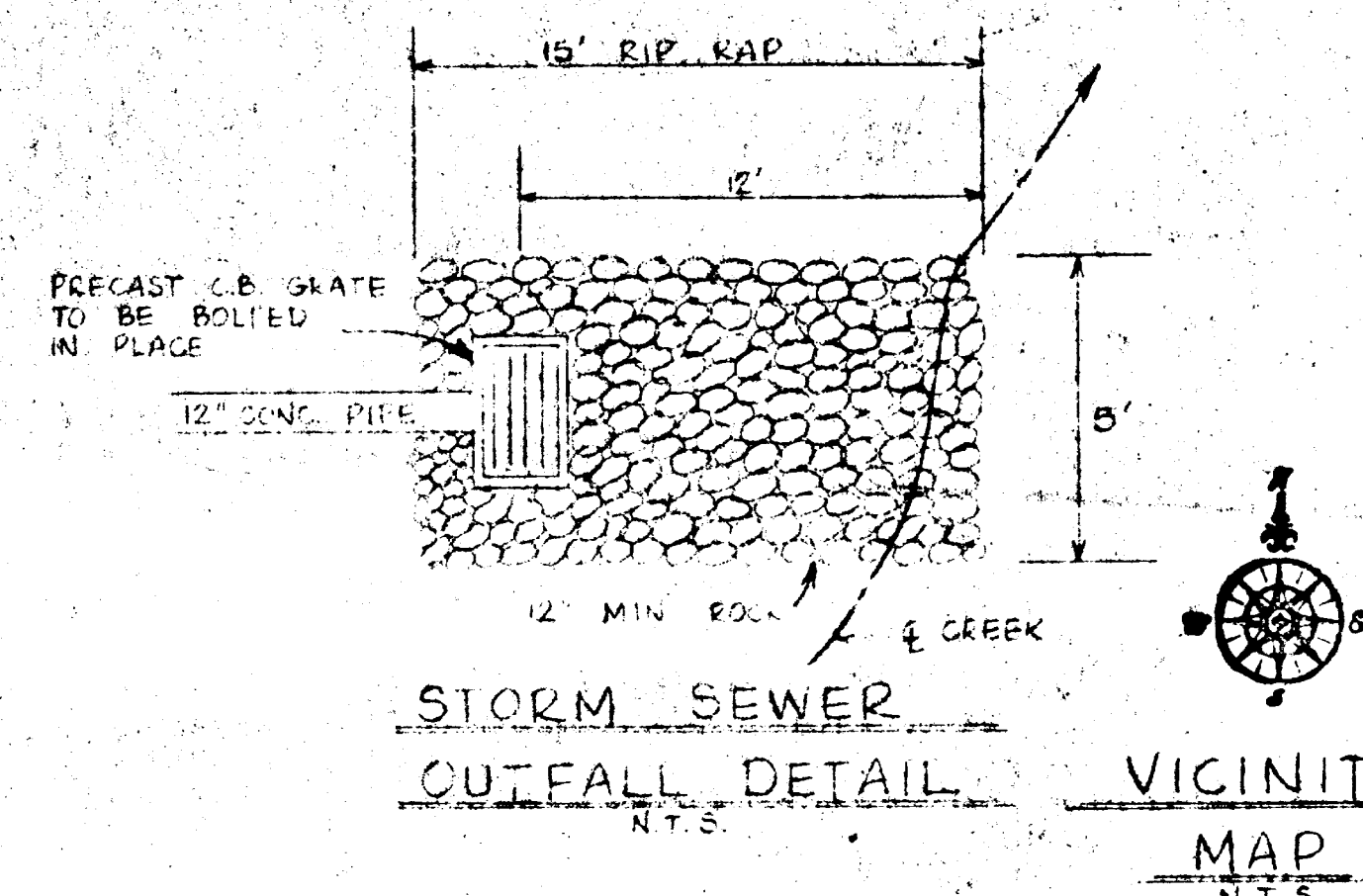


NO	RAD.	DELTA	LENGTH	CHORD
1	150	6° 47' 57"	17.80	17.79
2	115	36° 30' 01"	72.86	72.05
3	32	77° 45' 12"	43.43	40.7
4	43	180° 00' 00"	135.09	86.00
5	25	30° 00' 00"	50.27	45.26
6	175	14° 26' 24"	44.61	44.49
7	175	23° 34' 57"	72.05	71.52



ROAD CONSTRUCTION NOTES

ALL WORK AND MATERIALS TO BE IN ACCORDANCE WITH THE CITY OF WEST LINN PUBLIC WORKS DEPARTMENT O.S.H.D. AND A.P.W.A. OREGON CHAPTER SPECIFICATION. CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND SHALL RELOCATE ANY IN CONFLICT WITH THE PROPOSED CONSTRUCTION. CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS AND LICENSES BEFORE STARTING CONSTRUCTION. EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY AND MUST BE VERIFIED BY THE CONTRACTOR. ADDITIONAL UNDERGROUND UTILITIES MAY EXIST. STREET CONSTRUCTION SHALL BE IN ACCORDANCE WITH DIVISION TWO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, A.P.W.A. OREGON CHAPTER. CONTRACTOR SHALL REMOVE AND DISPOSE OF TREES, STUMPS, BRUSH, ROOTS, FENCE AND OTHER MATERIAL IN THE ROADWAY AND WHERE INDICATED ON THE PLAN. MATERIAL SHALL BE DISPOSED OF IN SUCH A MANNER AS TO MEET LOCAL REGULATIONS. CONCRETE CULVERT PIPE SHALL BE IN ACCORDANCE WITH DIVISION TWO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, A.P.W.A. OREGON CHAPTER. PIPE BEDDING SHALL CONFORM WITH GRANULAR BEDDING AND BACKFILL REQUIREMENTS OF A.P.W.A. DIVISION III SECTION 61-5.02 B2 AND 61-5.05. TRENCHES WITHIN THE RIGHTS-OF-WAY SHALL BE BACKFILLED WITH GRANULAR MATERIAL. BEDDING TO BE CLASS 6. TRENCH BACKFILL AND COMPACTION DRIVEWAYS AND STREETS. BACKFILL ABOVE PIPE ZONE SHALL BE 1/2\"/>



RECEIVED
OCT 19 1979
West Linn
Development Services

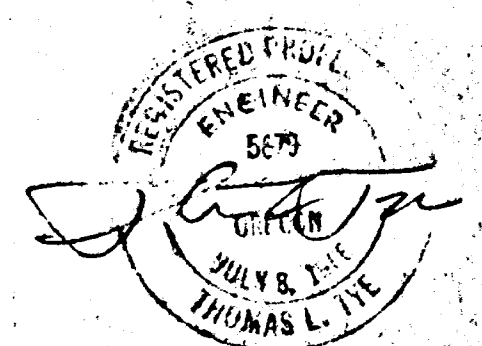
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12-15-79	4	REVISED GRADES	COMP
12-16-79	5	ADDED BARRICADE DETAIL REQ.	COMP
12-15-79	6	APPROVED FOR CONSTRUCTION	COMP
11-21-79	7	REVISED PER CITY REQUEST	COMP
DATE	NO.	REVISION	

COMPASS CORPORATION
ENGINEERING SURVEYING PLANNING
5584 S.E. LAKE ROAD MILWAUKIE, OREGON 97222

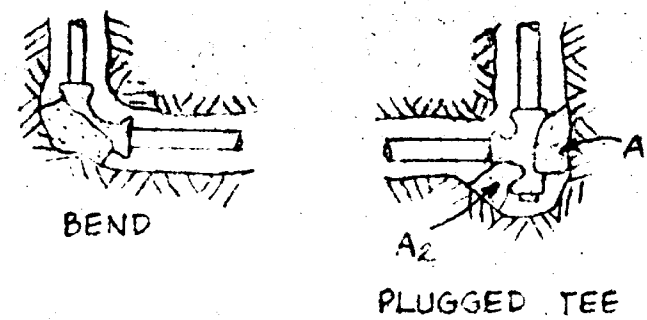
VICTOR A PIKE
21100 S. HORTON ROAD
WEST LINN, OREGON 97068

ROAD AND STORM IMPROVEMENTS
PLAN AND PROFILES

"PIKE'S PLACE" OCT 17 1979



RECEIVED
OCT 19 1979
West Linn
Development Services

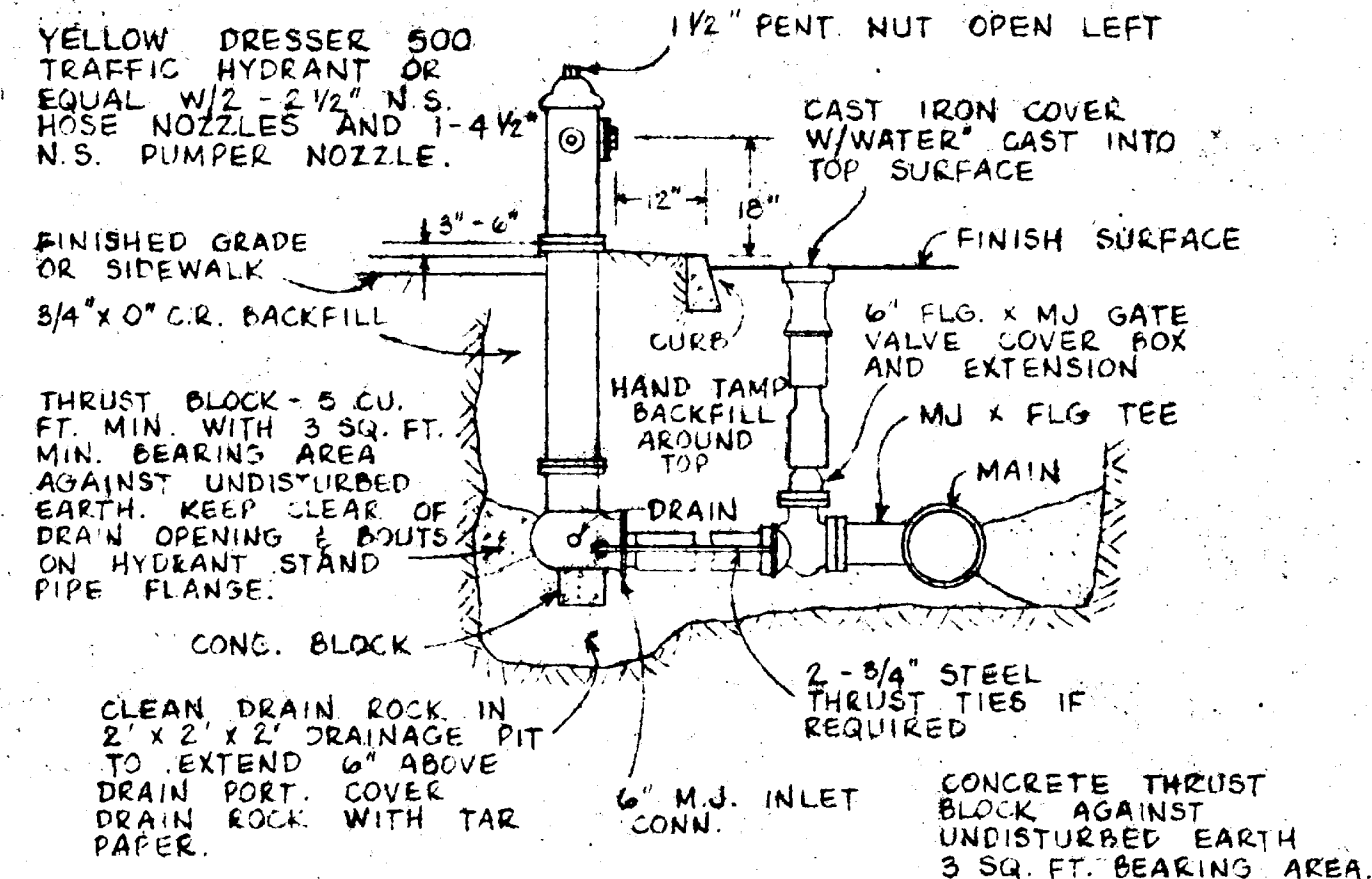


1. CONCRETE THRUST BLOCKING TO BE POURED AGAINST EARTH.
2. KEEP CONCRETE CLEAR OF JOINT AND ACCESSORIES.
3. IF NOT SHOWN ON PLANS, REQUIRED BEARING AREAS AT FITTING SHALL BE AS INDICATED BELOW, ADJUSTED IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE SOIL BEARING STRESS(ES) DETERMINED BY INSPECTOR.

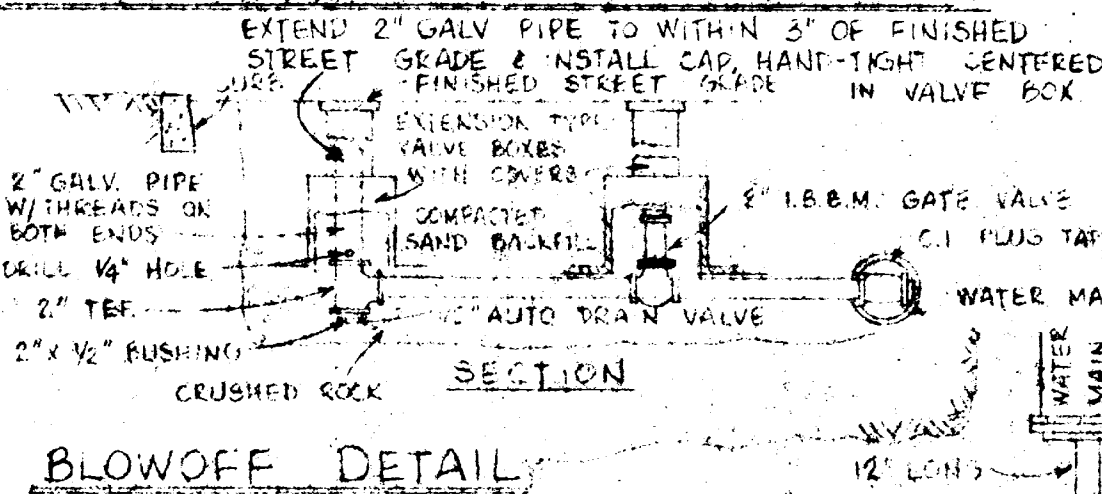
FITTING SIZE	TEE, WYE PLUS, CAP	90° BEND ON RADIUS	TEE PLUGGED ON RADIUS	45° BEND	22½° BEND	11¼° BEND
4"	1.0	1.4	1.9	1.4	1.0	-
6"	2.1	3.0	4.3	3.0	1.6	-

4. ABOVE BEARING AREAS BASED ON TEST PRESSURE OF 150 P.S.I. AND AN ALLOWABLE SOIL BEARING STRESS OF 2,000 POUNDS PER SQUARE FOOT TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES USE THE FOLLOWING EQUATION: BEARING AREA = (TEST PRESSURE/150) X (2,000/SOIL BEARING STRESS) X (TABLE VALUE).

THRUST BLOCK DETAILS & NOTES



FIRE HYDRANT DETAIL



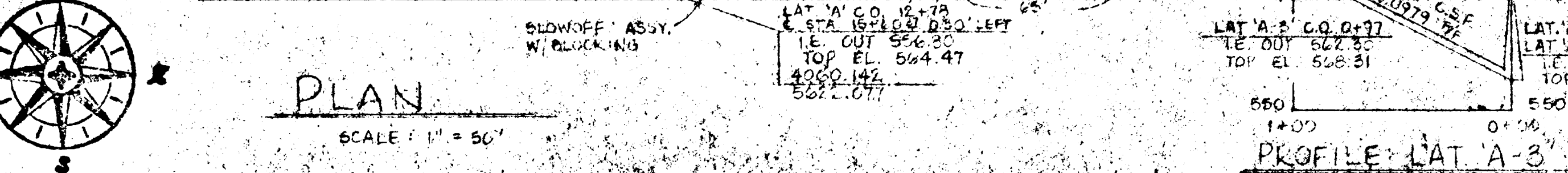
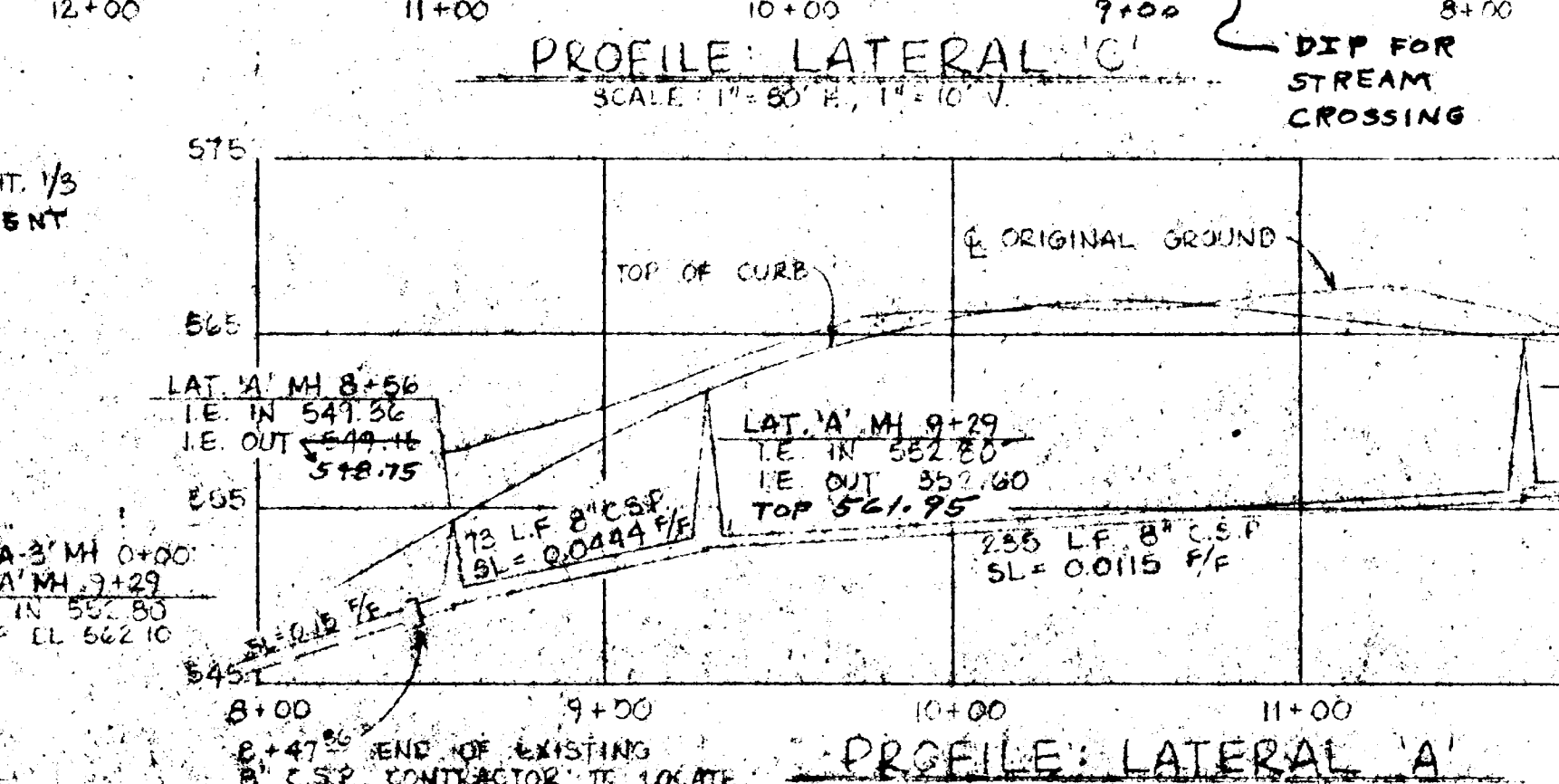
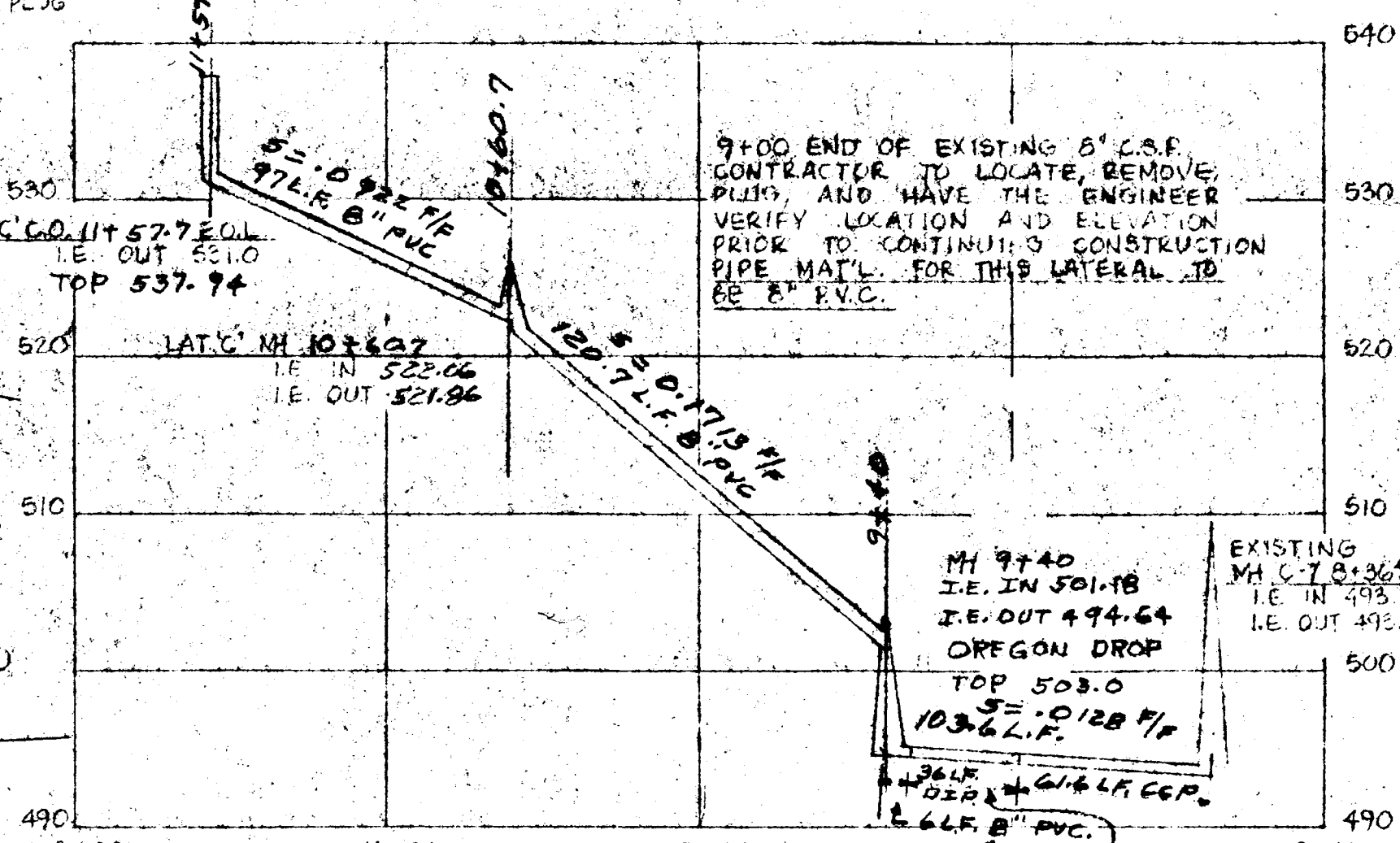
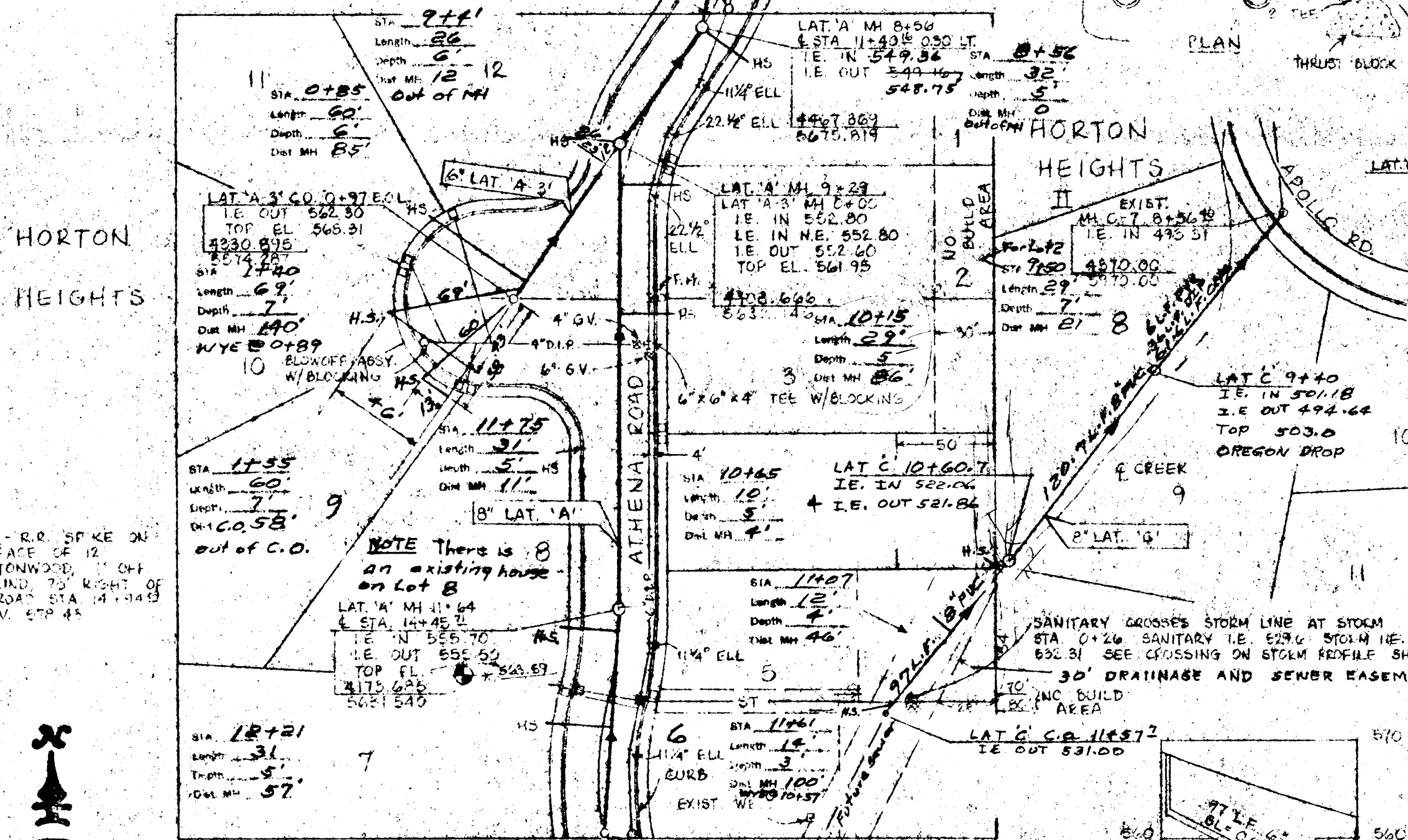
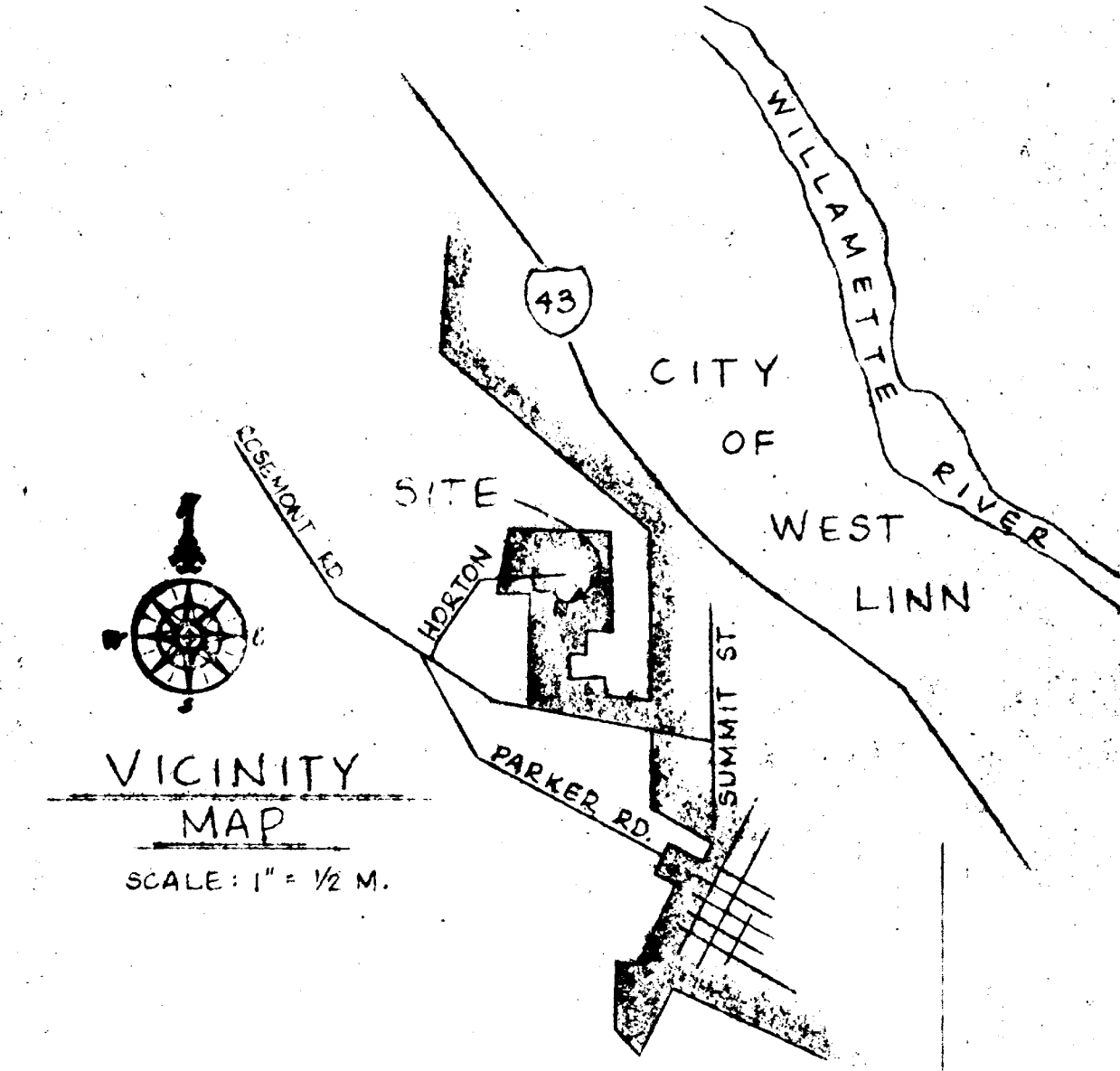
BLOWOFF DETAIL

SEWER CONSTRUCTION NOTES

CONSTRUCTION SHALL CONFORM WITH THE CITY OF WEST LINN AND A.P.W.A. SPECIFICATIONS FOR CONSTRUCTION OF SANITARY SEWERS. CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS AND LICENSES BEFORE STARTING CONSTRUCTION. CONCRETE SANITARY SEWER PIPE SHALL BE ASTM C 14, CLASS 2 NON-REINFORCED CONCRETE PIPE WITH RUBBER GASKETS. CONTRACTOR TO LOCATE ALL UTILITIES BEFORE STARTING CONSTRUCTION AND SHALL RELOCATE ANY IN CONFLICT WITH THE PROPOSED CONSTRUCTION. EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY AND MUST BE VERIFIED BY CONTRACTOR. ADDITIONAL UNDERGROUND UTILITIES MAY EXIST. ENGINEER RESERVES THE RIGHT TO ADJUST GRADES OR ALIGNMENT TO ACCOMMODATE UTILITIES OR EXISTING SEWER LINES AS REQUIRED. BUILDING SERVICE CONNECTIONS TO BE 4 INCH SEWER PIPE AND SHALL EXTEND TO DISTANCE SHOWN ON PLANS AND END AT ELEVATION SHOWN. SERVICE CONNECTION TO SLOPE 2% MINIMUM UP TO FUTURE HOUSE LOCATION FROM SEWER LATERAL OR MAIN. WYES AND 180° BENDS REQUIRED FOR SERVICE CONNECTION. STATIONING AND DISTANCE SHOWN ON PLANS AND PROFILES ARE HORIZONTAL AND NOT SLOPE DISTANCE. PIPE BEDDING SHALL BE CLASS B AS INDICATED ON CONSTRUCTION DETAILS SHEET. TRENCHES WITHIN THE RIGHTS-OF-WAY SHALL BE BACKFILLED WITH GRANULAR MATERIAL. TRENCH BACKFILL AND COMPACTION: DRIVEWAYS AND STREETS - BACKFILL ABOVE PIPE ZONE SHALL BE 1½" MINUS. MATERIALS SHALL BE PLACED IN 8 INCH LIFTS AND COMPACTED TO 95% RELATIVE DENSITY. CONTRACTOR TO DETERMINE TYPE OF EQUIPMENT AND METHOD TO USE TO ACHIEVE REQUIRED COMPACTION. SUBSEQUENT SETTLEMENT OF THE FINISHED SURFACE WITHIN THE WARRANTY PERIOD SHALL BE CONSIDERED TO BE A RESULT OF IMPROPER COMPACTION AND SHALL BE PROMPTLY REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER. TRENCH BACKFILL AND COMPACTION OUTSIDE OF RIGHTS-OF-WAY - BACKFILL ABOVE PIPE ZONE SHALL BE NATIVE MATERIAL FREE OF ORGANIC MATTER OR ROCKS GREATER THAN 3 INCHES IN SIZE. CONTRACTOR SHALL MOUND SOIL OVER TRENCH TO COMPENSATE FOR NORMAL SETTLEMENT. CONTRACTOR SHALL PREPARE A PRINT OF THE ENGINEER SHOWING AS BUILT DATA: STATION OF WYE ALONG SEWER, LENGTH OF CONNECTION AND DEPTH OF SERVICE CONNECTION AT PROPERTY LINE OR END OF SERVICE CONNECTION AT PROPERTY LINE OR END OF SERVICE. AND ANY CHANGES MADE DURING CONSTRUCTION. INSPECTOR WILL BE ON PROJECT AS DEEMED NECESSARY BY ENGINEER. IF INSPECTOR IS NOT PRESENT, CONTRACTOR SHALL CALL FOR INSPECTION PRIOR TO BACKFILLING TRENCH AND TO WITNESS PIPELINES TESTING. ALL R/W BACKFILL TO BE SELECT GRANULAR MAT'L.

WATER CONSTRUCTION NOTES

CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND SHALL CONSTRUCT THE WATER MAIN TO AVOID CONFLICT WITH EXISTING UTILITIES. CONTRACTOR TO OBTAIN ALL PERMITS AND LICENSES BEFORE STARTING CONSTRUCTION. ALL WORK AND MATERIALS TO CONFORM WITH THE CITY OF WEST LINN THE LATEST EDITION OF OREGON STATE HEALTH DIVISION ADMINISTRATIVE RULES, CHAPTER 333, A.W.W.A. AND A.P.W.A. STANDARDS. ALL PIPE TO BE MINIMUM COVER OF 36 INCHES BELOW FUTURE STREET GRADES. CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT PIPE INTERIORS, FITTINGS AND VALVES AGAINST CONTAMINATION. FIRE HYDRANTS TO BE DRY-BARREL AND COMPLY WITH A.W.W.A. C502. SERVICES TO HAVE COMPRESSION TYPE FITTINGS. INDIVIDUAL PRESSURE REDUCING VALVES ARE REQUIRED FOR EACH HOUSE SERVICE WHERE STATIC PRESSURE IS 80 P.S.I. OR GREATER. HOUSE SERVICES TO BE COPPER TYPE 'K' SEAMLESS SOFT ANNEALED. SINGLE SERVICES TO BE ¾ INCH. DOUBLE SERVICES TO BE ONE INCH. COPPER TUBE BENDS TO BE SMOOTH RADIUS. METER BOXES TO BE NO. 1 METER BOX AS MANUFACTURED BY METER BOX EQUIPMENT COMPANY TIGARD, OREGON. SERVICE TAPS TO BE AT LEAST 18 INCHES APART. SADDLES REQUIRED. CONTRACTOR TO INSTALL PIPE LINE AND HOUSE SERVICES TO, AND INCLUDING CURB STOPS AND METER BOXES. HOUSE BUILDER TO INSTALL P.V.'S AND METERS. GATE VALVES TO BE A.W.W.A. C500. VALVES TO HAVE 2 INCH OPERATING NUT WITH COUNTER CLOCKWISE OPENING AND NONRISING STEM. DUCTILE IRON PIPE TO BE TYTON JOINT CEMENT MORTAR LINED CLASS B AND SHALL CONFORM TO ASTM C 110, C 150 AND C 151. DUCTILE IRON WATER MAINS AND APPURTENANCES TO BE INSTALLED IN ACCORDANCE WITH A.W.W.A. STANDARD C 600. FITTINGS AND PIPE SECTIONS THAT WILL NOT BE DISINFECTED BY CHLORINE LINE FOR 24 HOURS SHALL HAVE THE INTERIORS SWABBED WITH A 5 PERCENT HYPOCHLORITE SOLUTION BEFORE THEY ARE INSTALLED. PIPE BEDDING SHALL BE CLASS B AS SHOWN ON CONSTRUCTION DETAILS DRAWING. CONCRETE THRUST BLOCKS TO BE CONSTRUCTED AT ALL TEES, BENDS, FIRE HYDRANTS, BLOWOFFS AND WHERE INDICATED ON PLANS. THE MINIMUM BEARING SURFACE AGAINST UNDISTURBED SOIL TO BE AS SHOWN ON PLANS. CONCRETE SHALL BE ALLOWED TO CURE BEFORE PIPELINE PRESSURE TESTING. PIPELINE TO BE TESTED AT 150 P.S.I. AND HELD AT THAT PRESSURE FOR TWO HOURS. PIPELINE TO BE THOROUGHLY DISINFECTED AND FLUSHED IN ACCORDANCE WITH A.W.W.A. STANDARD C 601. TRENCH BACKFILL AND COMPACTION: DRIVEWAYS AND STREETS - BACKFILL ABOVE PIPE ZONE SHALL BE 1½" MINUS. MATERIALS SHALL BE PLACED IN 8 INCH LIFTS AND COMPACTED TO 95% RELATIVE DENSITY. OTHER AREAS - BACKFILL ABOVE PIPE ZONE SHALL BE NATIVE MATERIAL FREE OF ORGANIC MATTER OR ROCKS GREATER THAN 3 INCHES IN SIZE. CONTRACTOR SHALL MOUND SOIL OVER TRENCH TO COMPENSATE FOR NORMAL SETTLEMENT. ALL RIGHT OF WAY BACKFILL TO BE SELECT GRANULAR MATERIAL. ALL SERVICE FITTINGS TO BE COMPRESSION TYPE.



10-12-79

1

AS-BUILT WATER & SEWER

1-20-79

2

REV. LAT. C. REQ. BY OWNER

12-8-79

2

APPROVED FOR CONSTRUCTION

11-21-78

1

REVISED PER CITY REQUEST

DATE

NO.

REVISION

DRAWN

MMM.

DESIGN

R.G.W.

SCALE

AS SHOWN

DATE

NOV. 1978

FILE

78-1508-994

COMPASS CORPORATION

ENGINEERING SURVEYING PLANNING

8564 S.E. LAKE ROAD MILWAUKIE, OREGON 97222

VICTOR A. PIKE

21100 S. HORTON ROAD

WEST LINN, OREGON 97068

SANITARY SEWER & WATER IMPROVEMENTS, PLAN & PROFILES

2

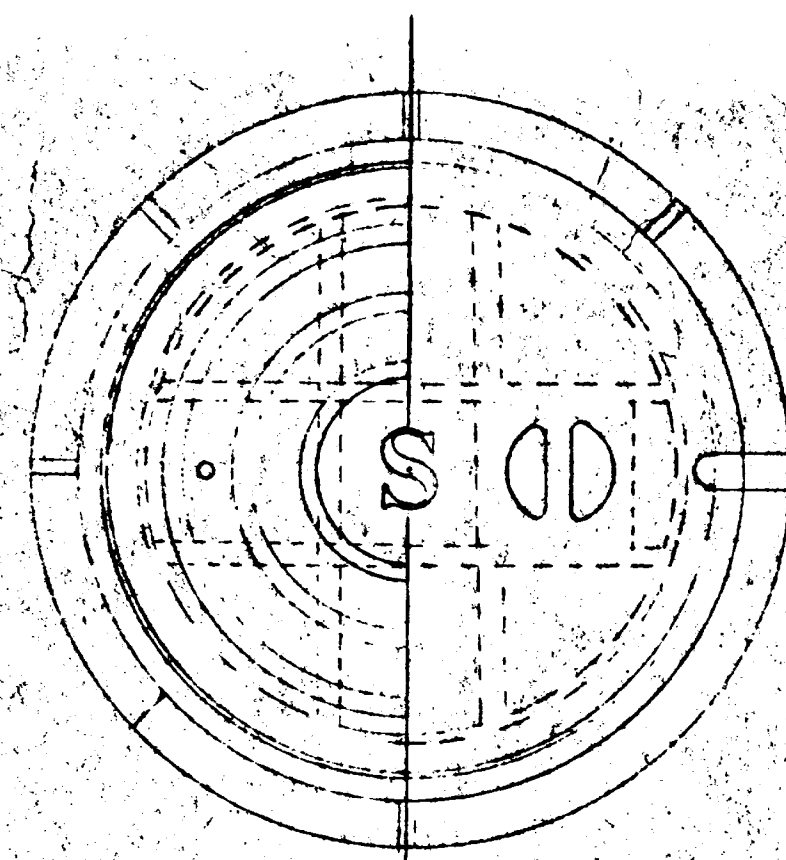
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OCT 17 1979

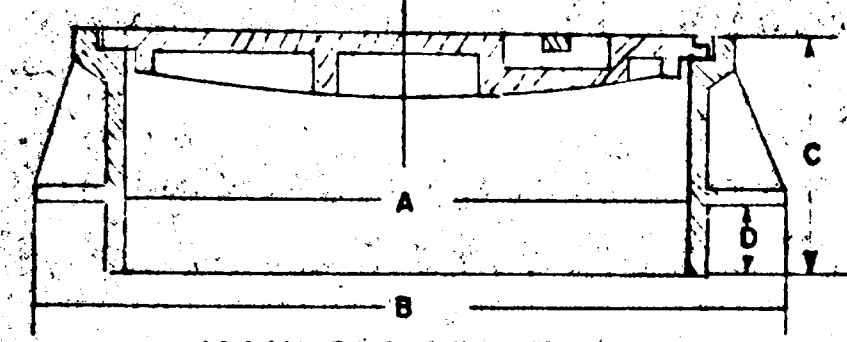
REGISTERED PROFESSIONAL ENGINEER

517

THOMAS L. FINE

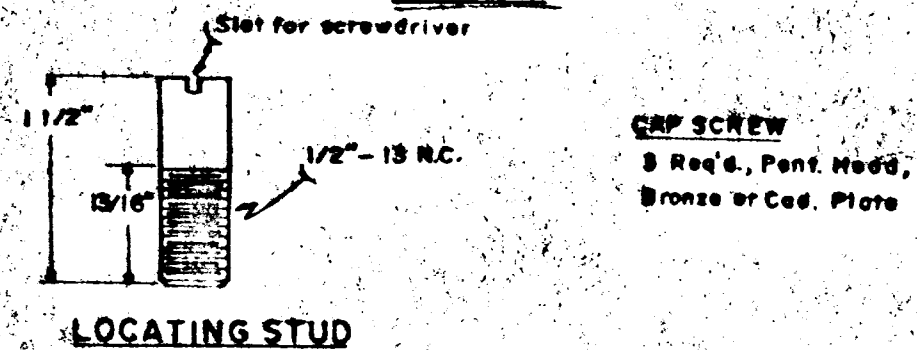


STANDARD

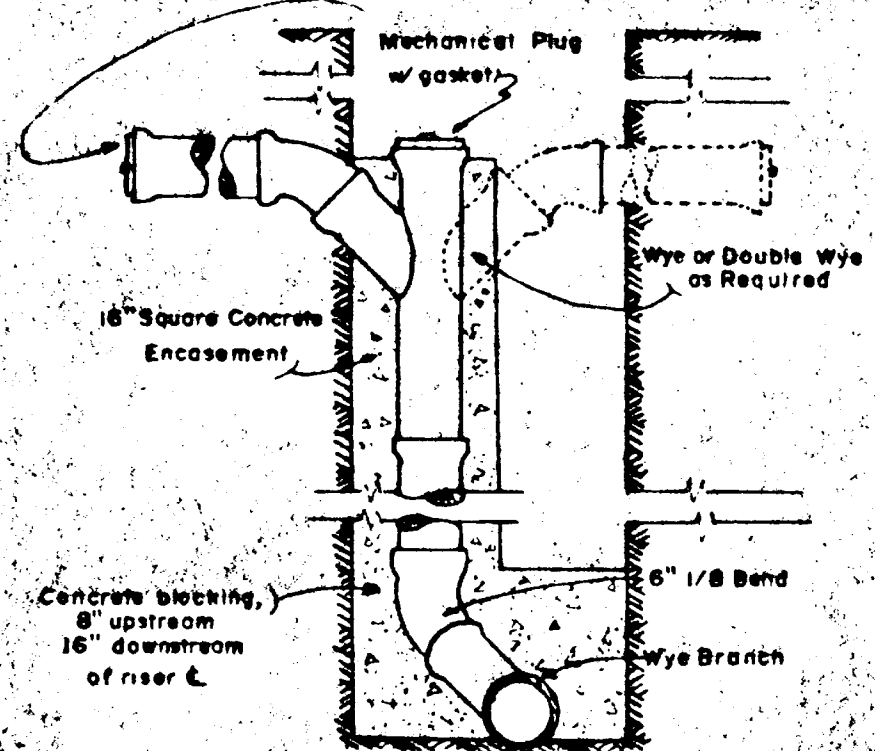


WATERTIGHT

MANHOLE FRAME & COVER



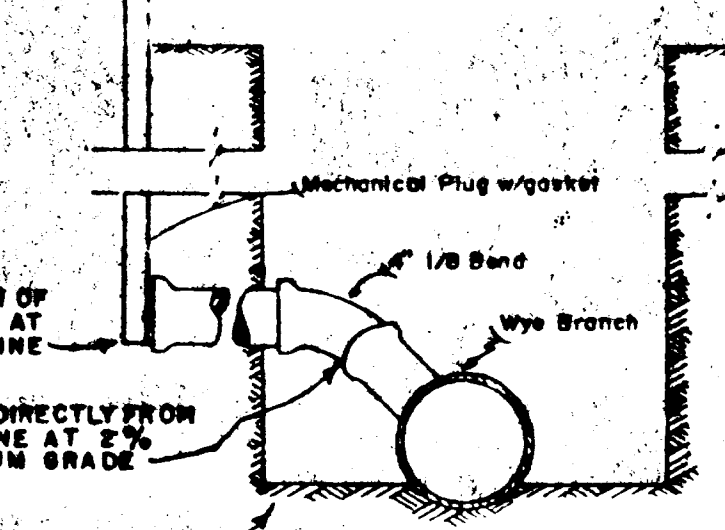
LOCATING STUD



STANDING CONNECTION

SCALE: 1/2"=1'-0"

BEDDING AS REQUIRED

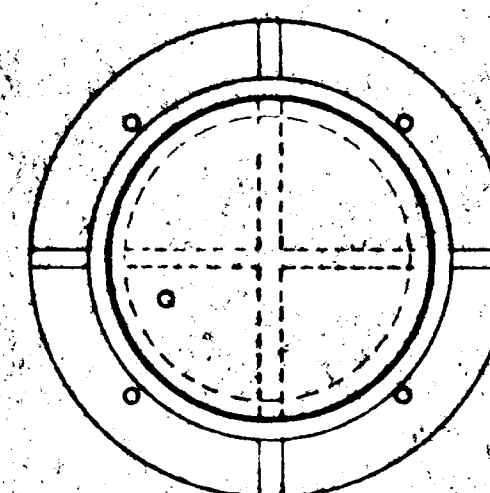


SERVICE CONNECTION

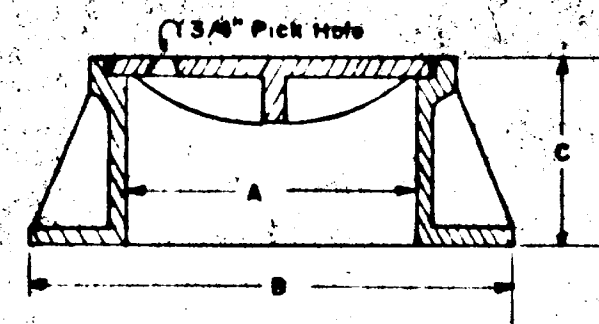
SCALE: 1"=1'-0"

BEDDING AS REQUIRED

GRAY IRON CASTINGS SHALL CONFORM TO A.S.T.M. A-48

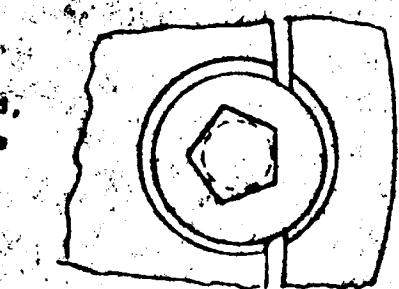


PLAN



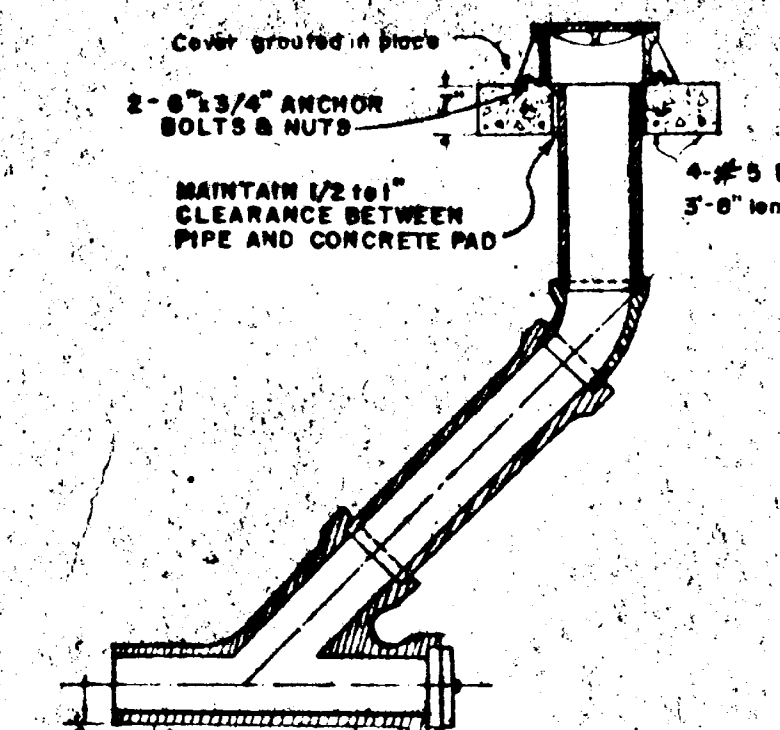
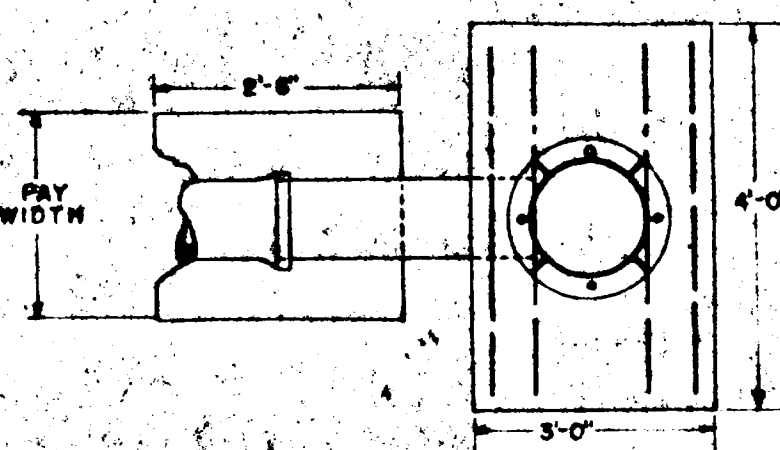
CLEANOUT FRAME AND COVER

TYPE	FRAME AND COVER				WEIGHT IN Lbs.
	A	B	C	D	
MANHOLE	23	31	10	3	240 140
CLEANOUT-8" CSP	12	20	7 3/4	--	
CLEANOUT-6" CSP	9	11 1/2	6 3/4	--	



TAMPERPROOFING for MANHOLE COVERS

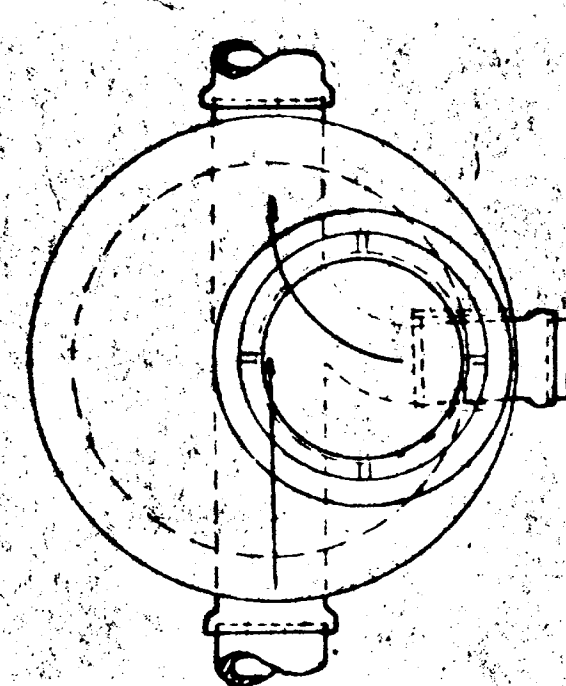
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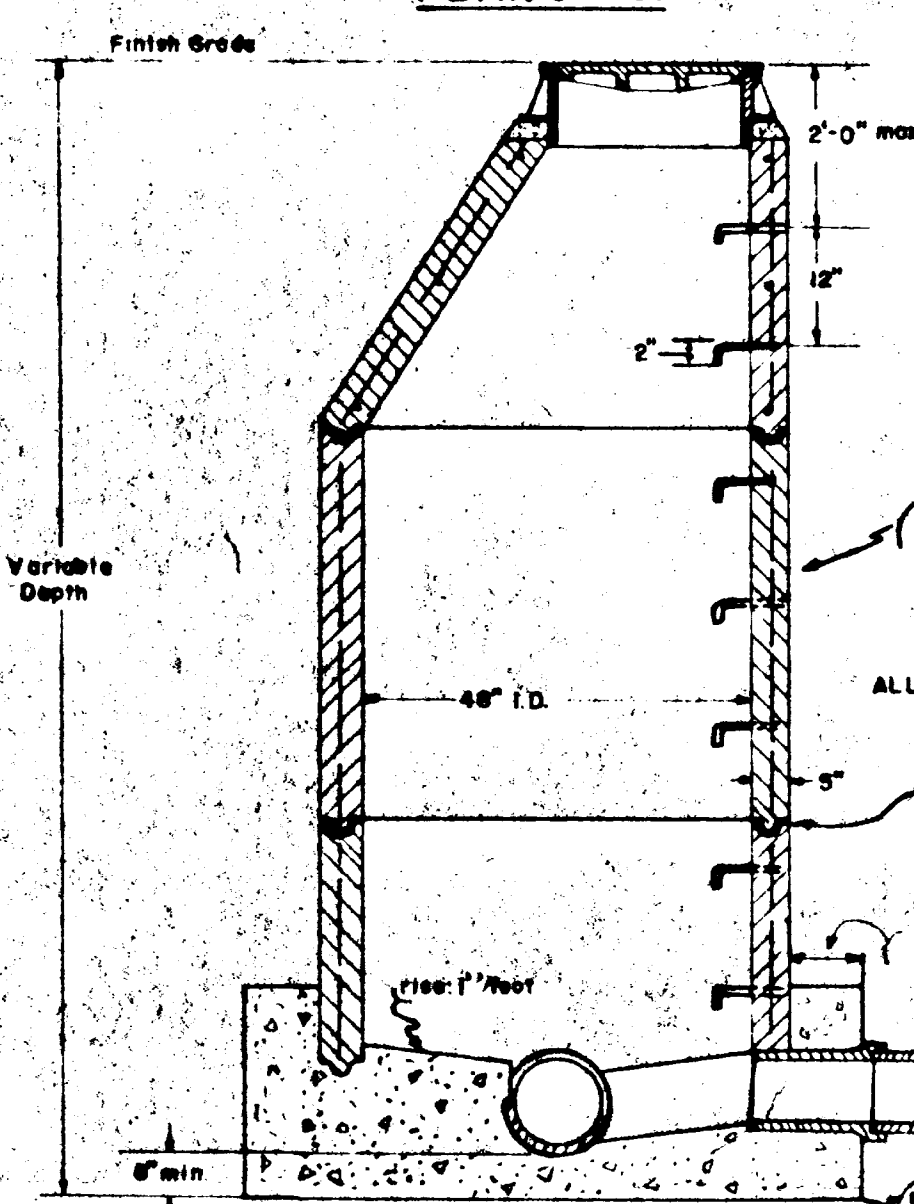
CLEANOUT

SCALE: 1/2"=1'-0"

CONCRETE TO SPRINGLINE



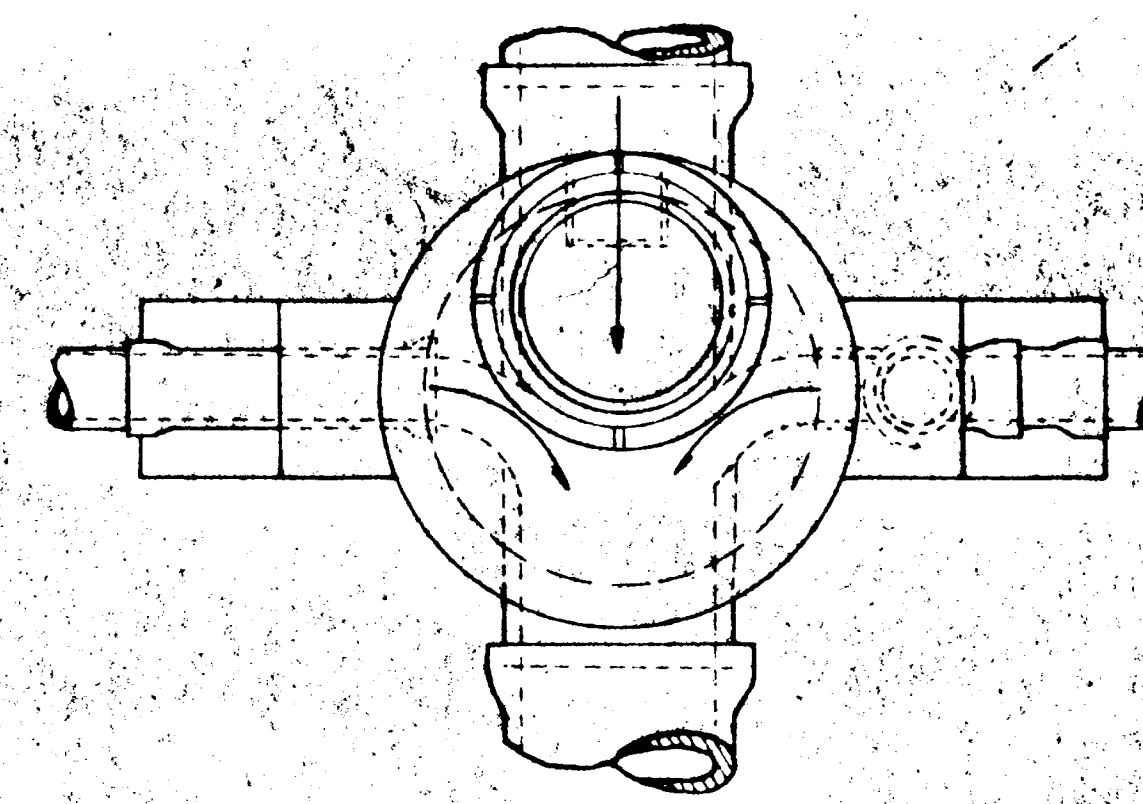
PLAN of TOP



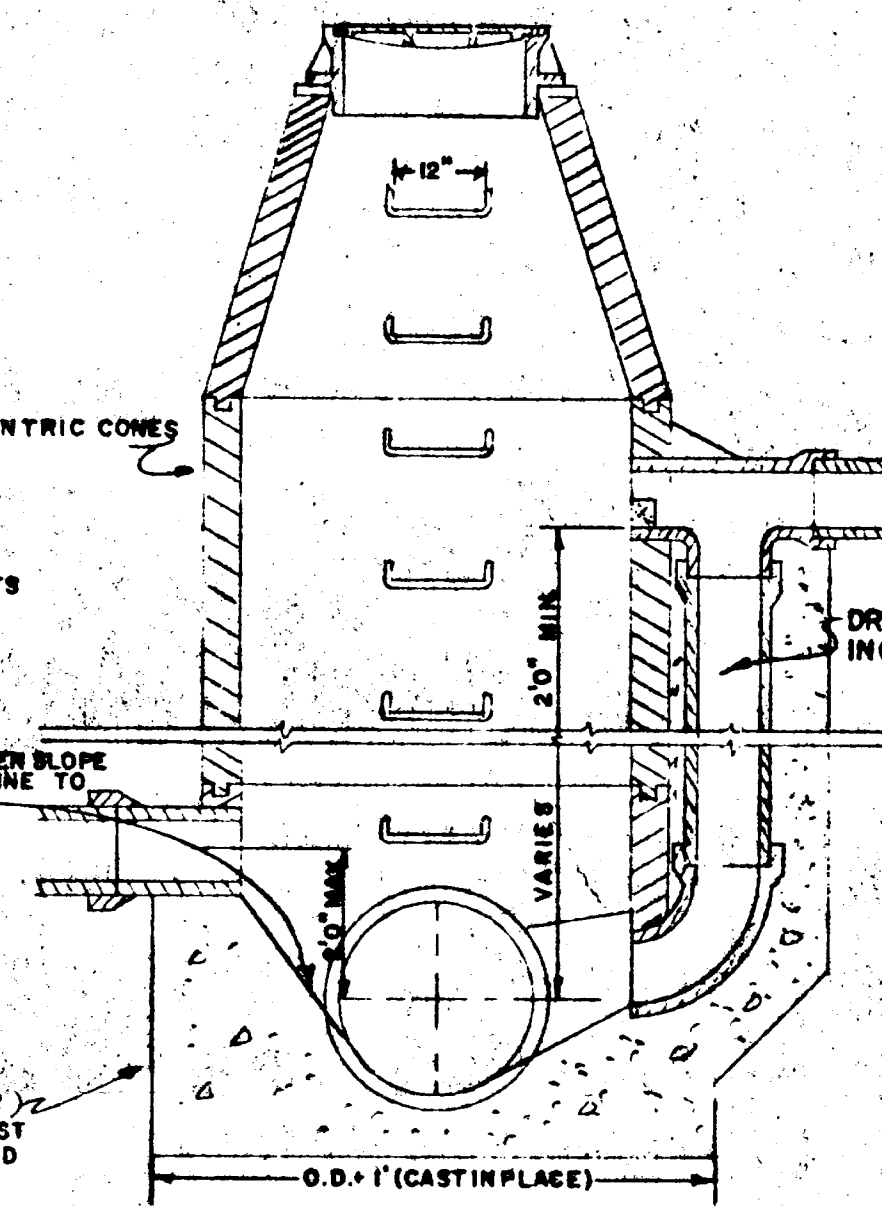
STANDARD MANHOLE

SCALE: 1/2"=1'-0"

PRECAST MATERIAL SHALL CONFORM TO A.S.T.M. C-478

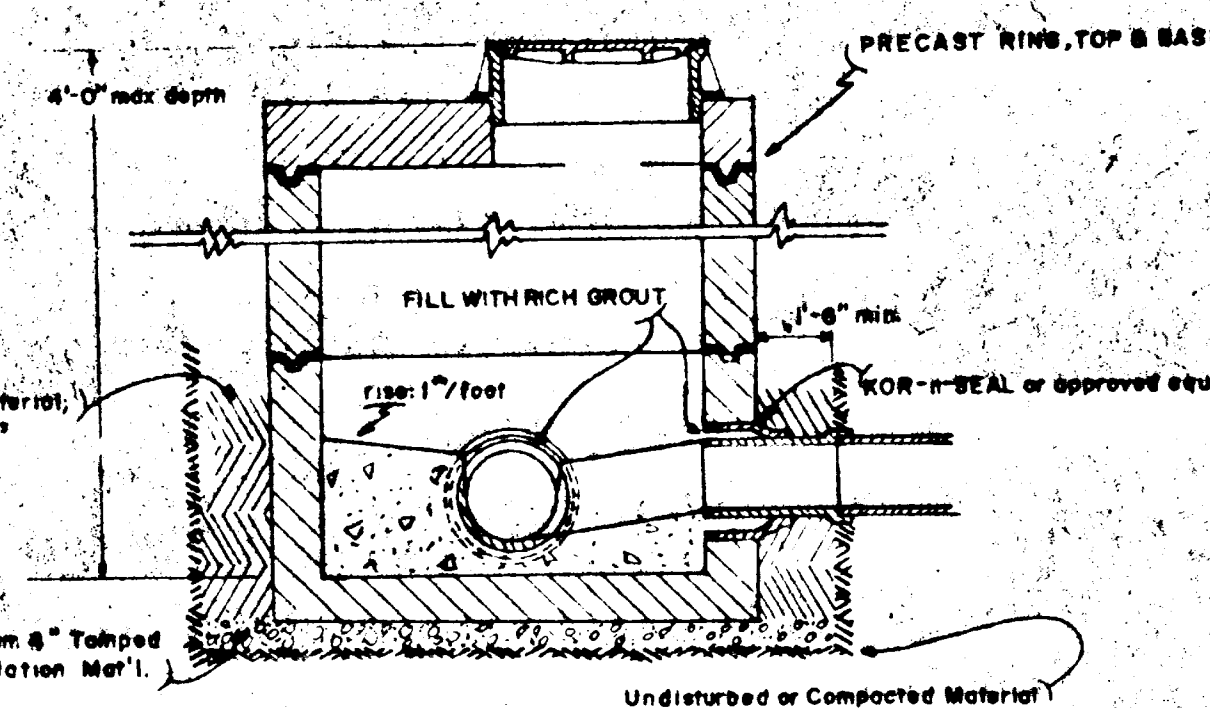


PLAN



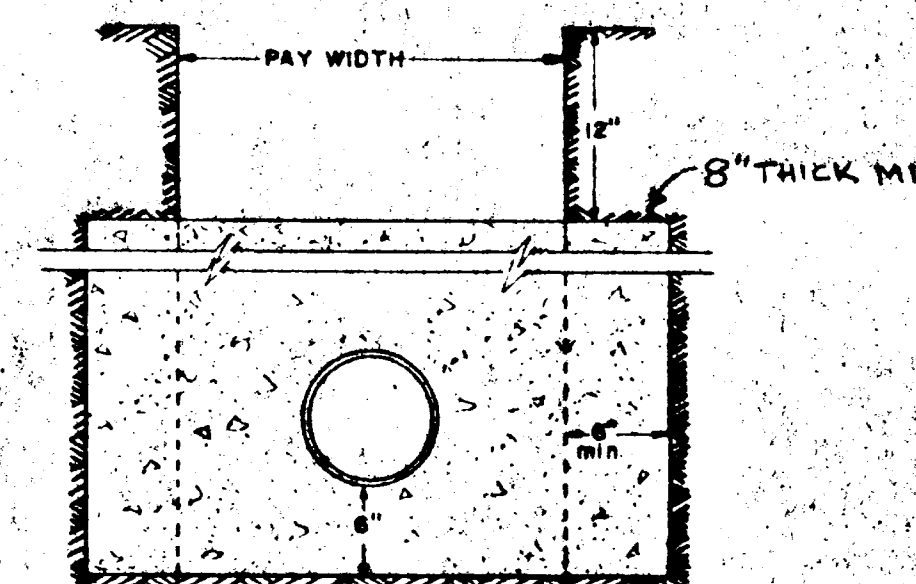
DROP MANHOLE

SCALE: 1/2"=1'-0"



SHALLOW MANHOLE

SCALE: 1/2"=1'-0"

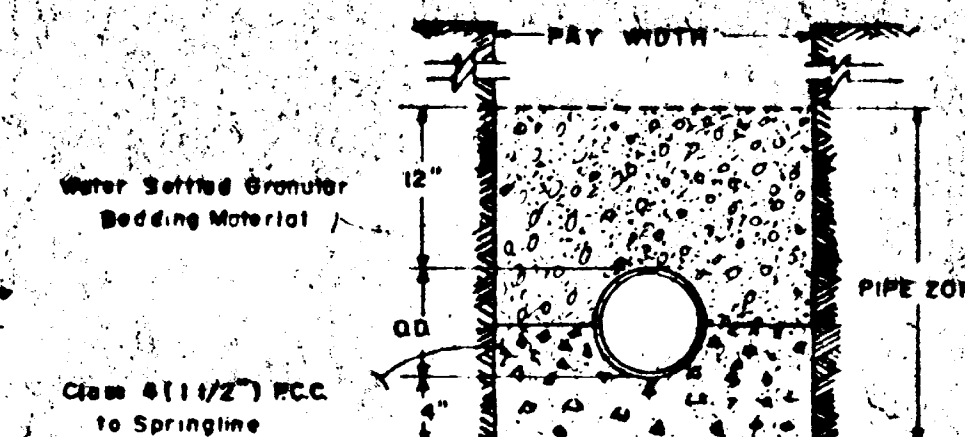


CONCRETE ANCHOR

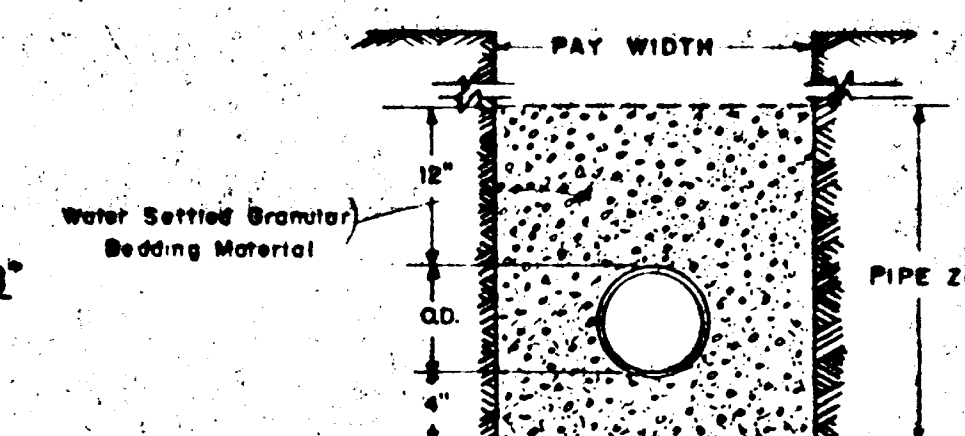
SCALE: 1"=1'-0"

CONCRETE ANCHOR SPACING	
SLOPE PERCENT	MINIMUM CENTER TO CENTER
20 to 34	35 feet
35 to 50	25 feet
OVER 50	15 feet or CONCRETE ENCASE

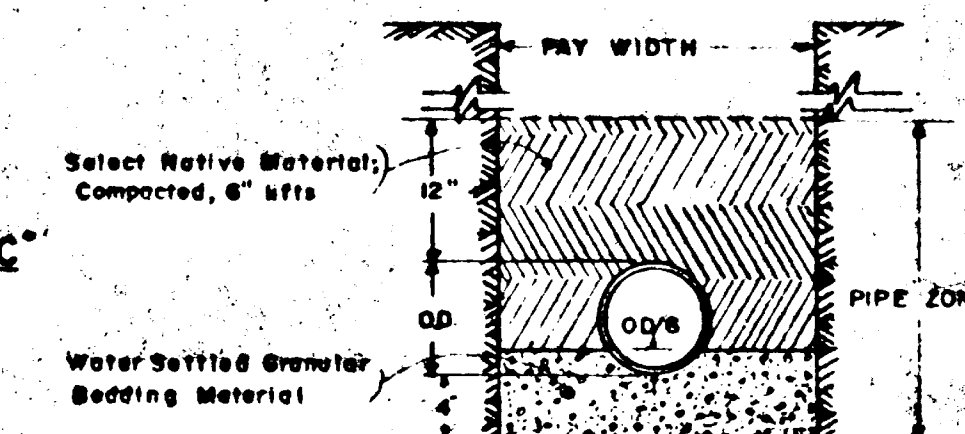
CLASS "A"



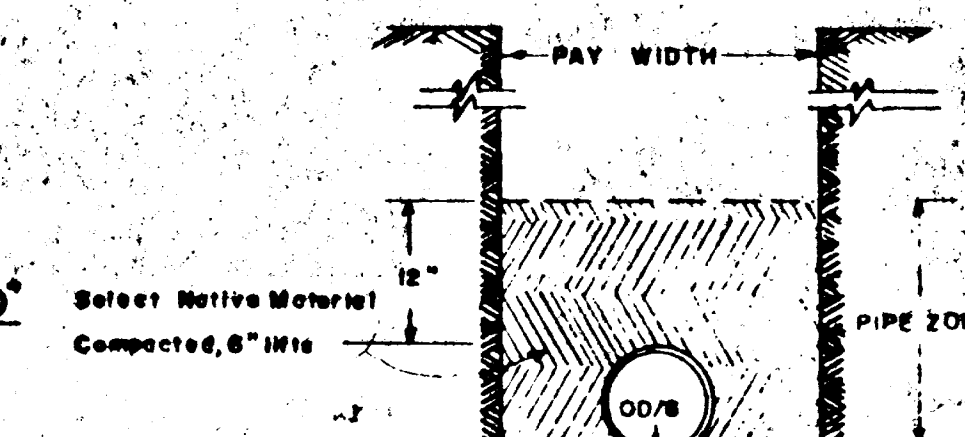
CLASS "B"



CLASS "C"

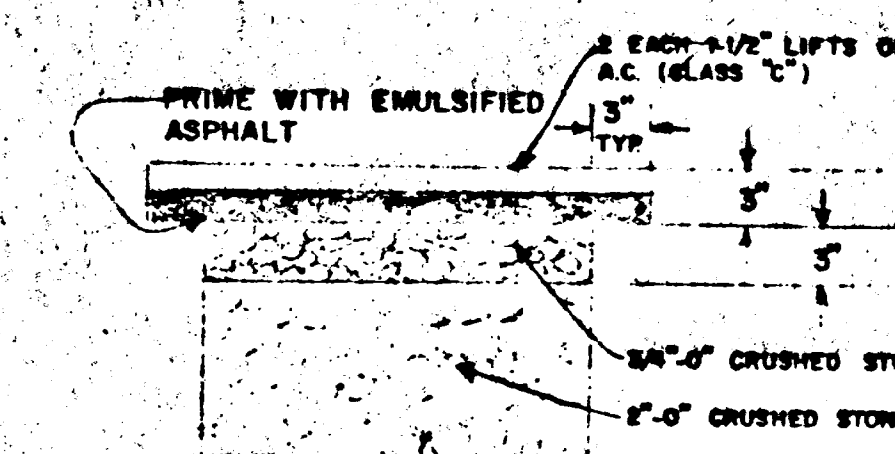


CLASS "D"

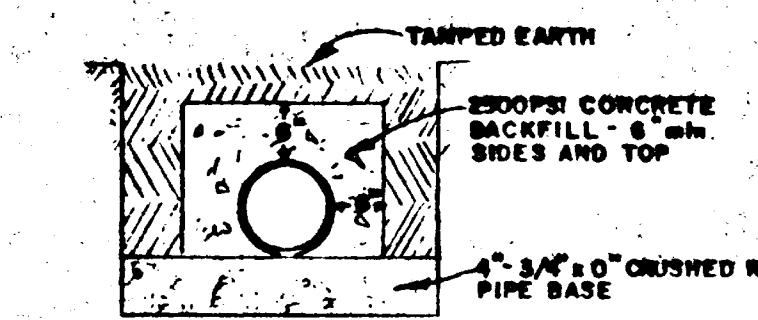


BEDDING REQUIREMENTS

NOT TO SCALE



A.C. PAVEMENT RESTORATION



CREEK CROSSING CONCRETE BACKFILL DETAIL

OCT 17 1979

DATE	NO.	REVISION

DRAWN

SCALE AS SHOWN

DATE NOV. 1978

FILE 78-1808-994



COMPASS CORPORATION

ENGINEERING SURVEYING PLANNING

8664 S.E. LAKE ROAD MILWAUKIE, OREGON 97222

633-9093

222-4652

VICTOR A. PIKE
21100 S. HORTON ROAD
WEST LINN, OREGON 97068

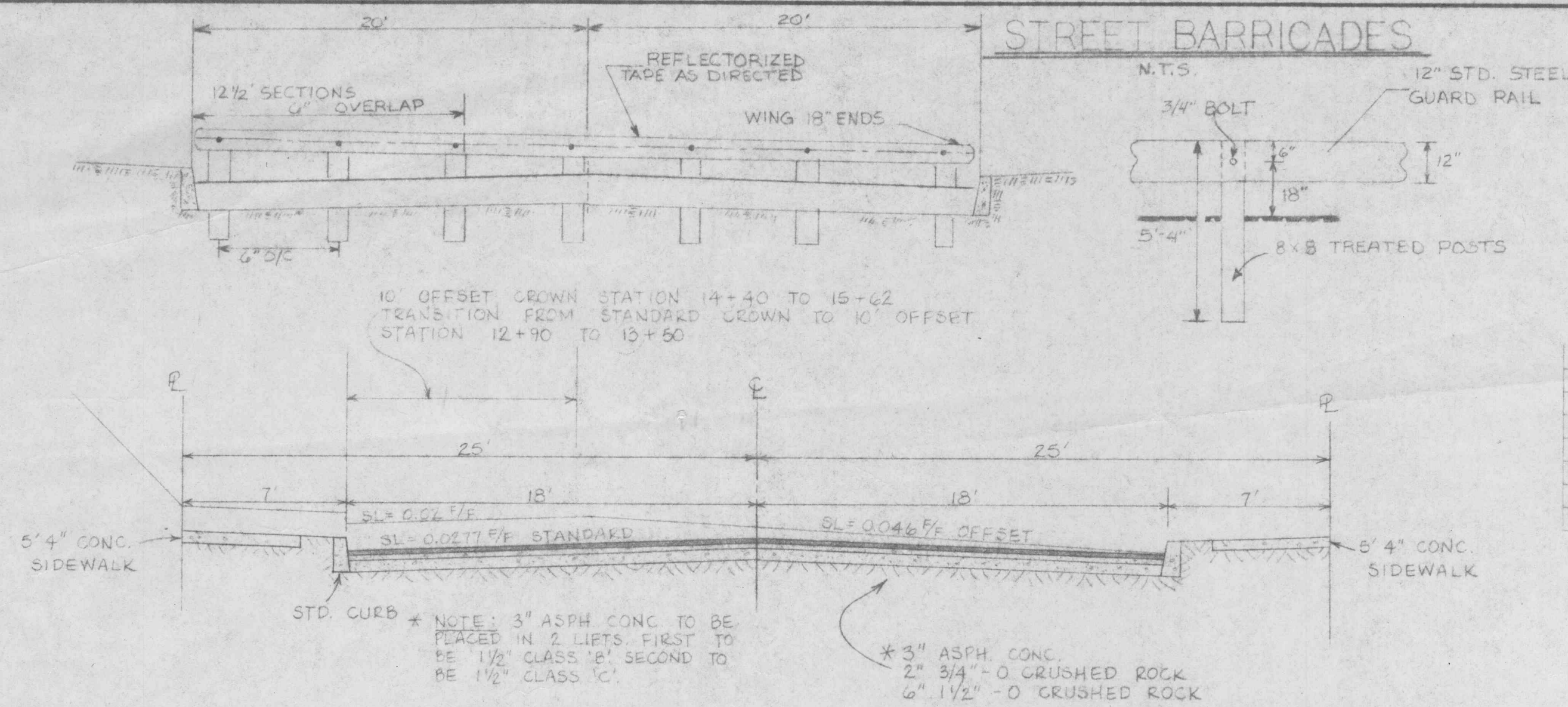
CONSTRUCTION DETAILS

3

3

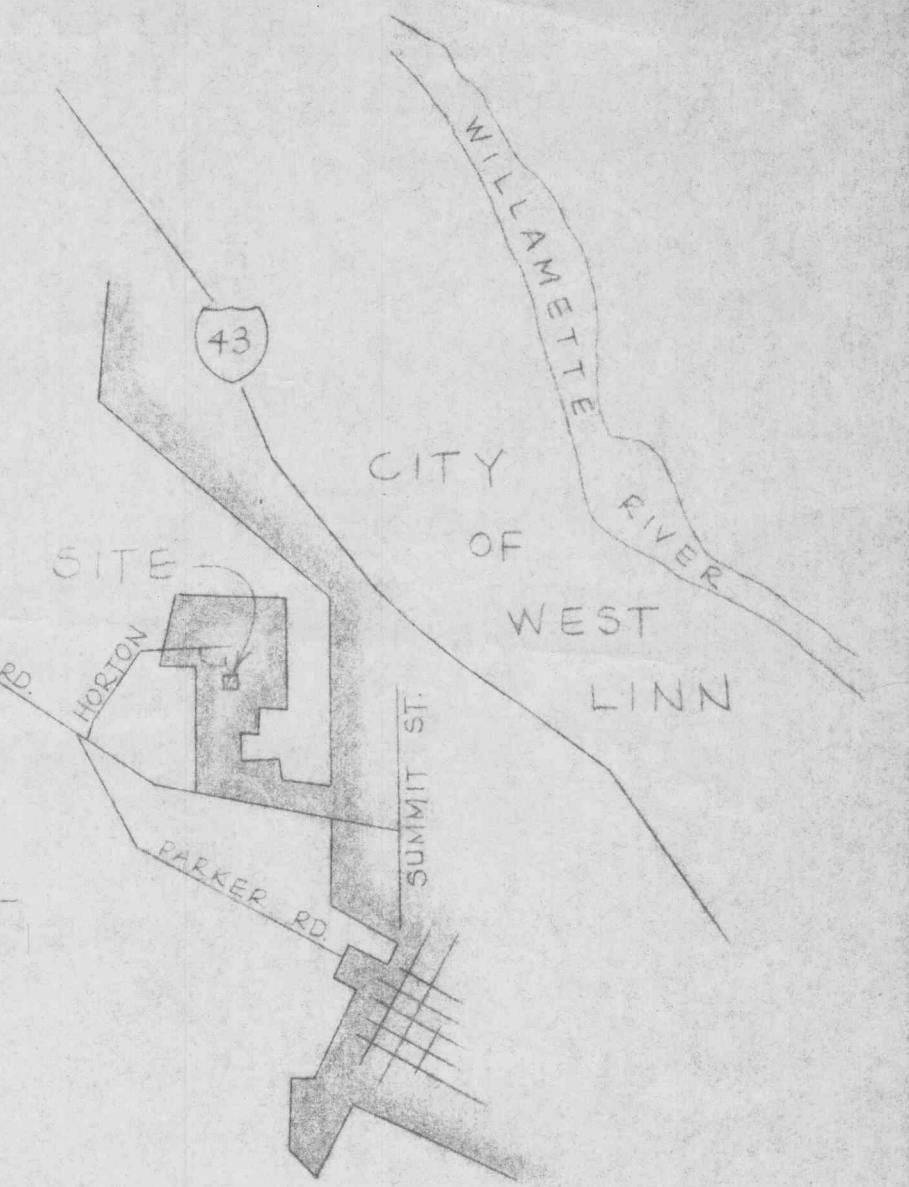
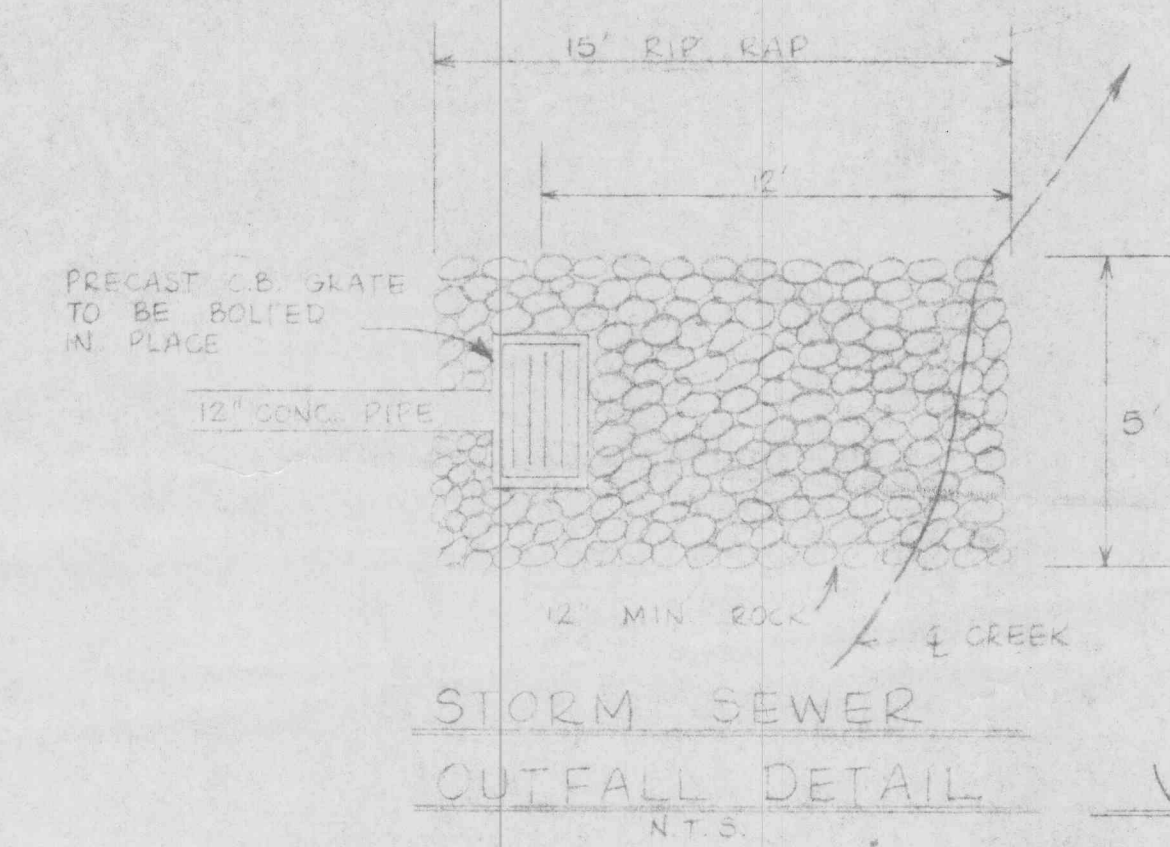
Second Scan

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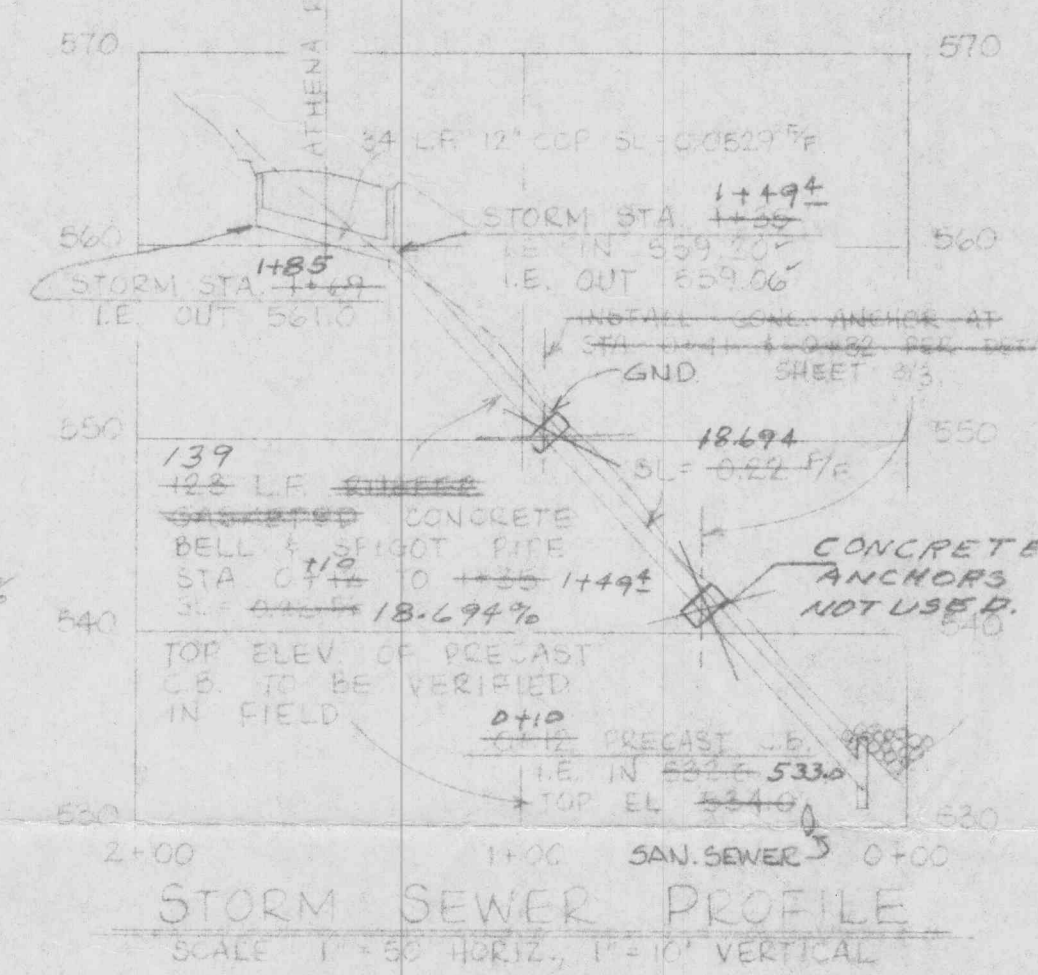
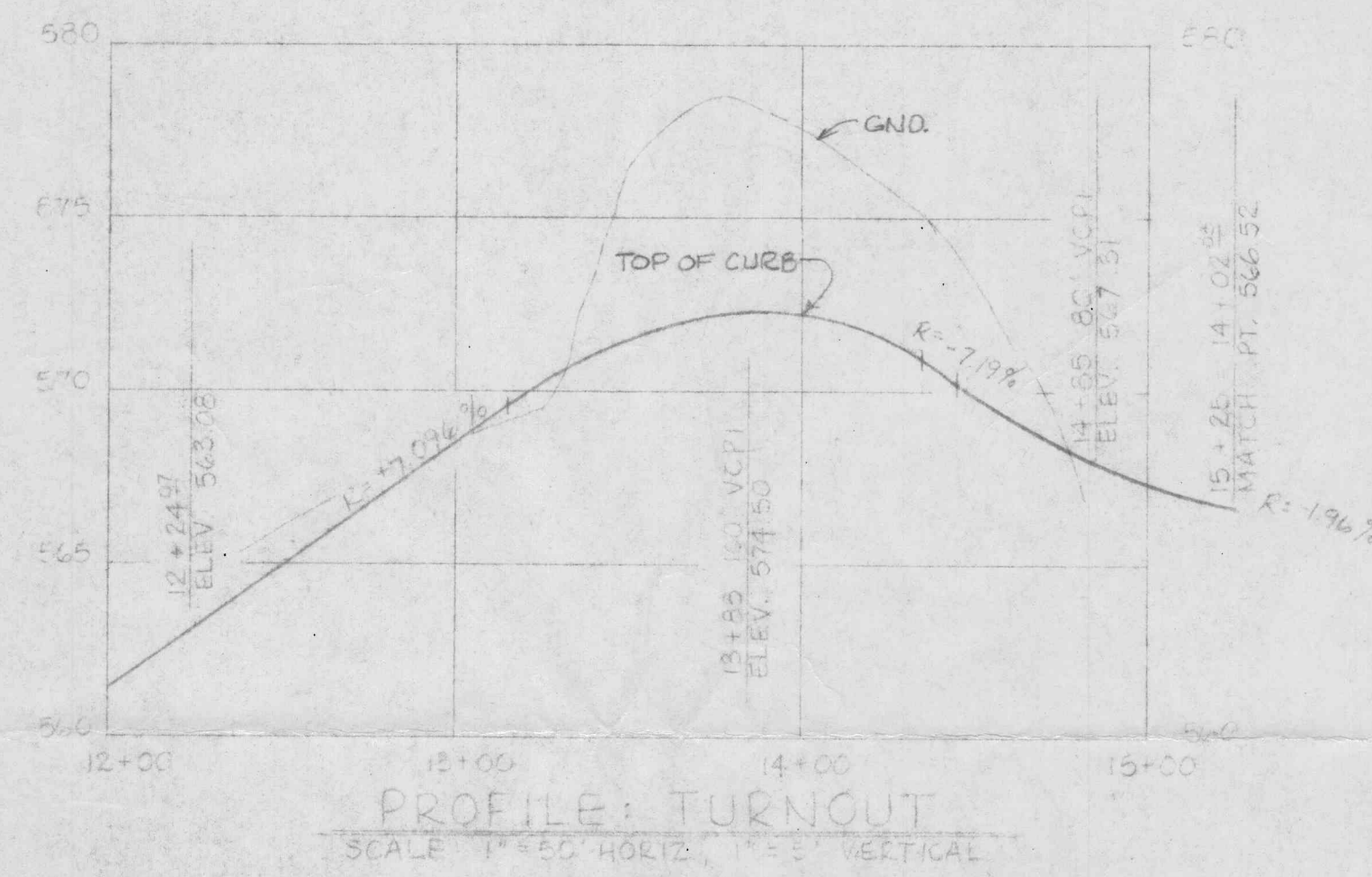


CURVE DATA

NO	RAD.	DELTA	LENGTH	CHORD
1	150	6° 47' 57"	17.80	17.79
2	115	36° 30' 01"	73.26	72.05
3	32	77° 45' 12"	43.43	40.17
4	43	180° 00' 00"	135.09	86.00
5	32	70° 00' 00"	50.27	45.14
6	175	14° 56' 24"	44.51	44.49
7	175	23° 34' 57"	72.05	71.52

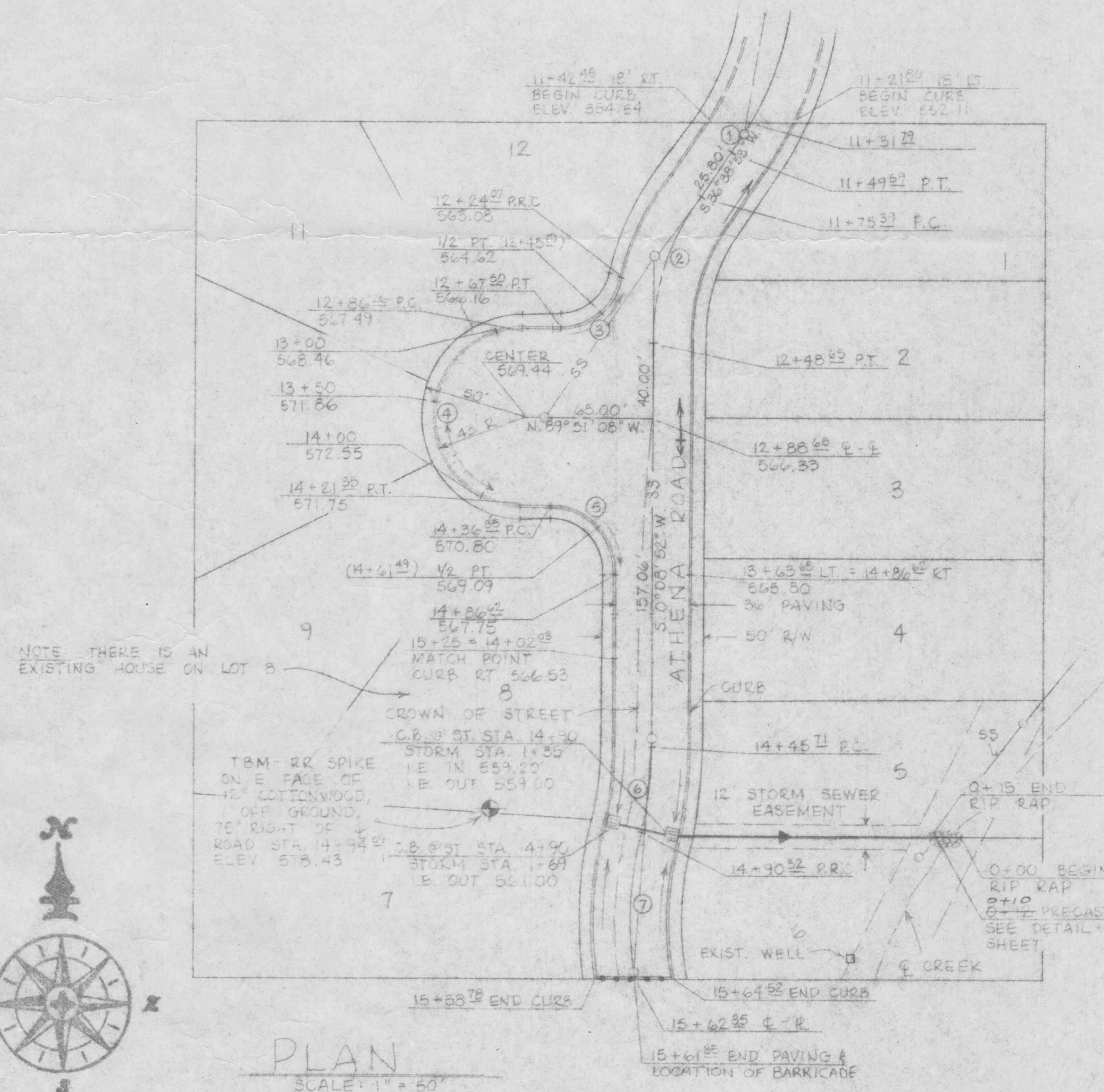


STANDARD ROAD SECTION
N.T.S.



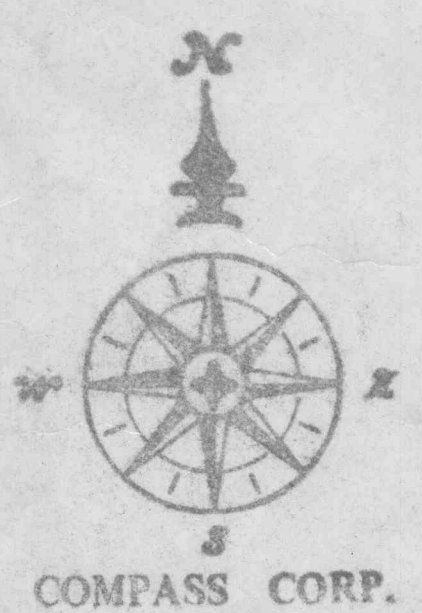
ROAD CONSTRUCTION NOTES

ALL WORK AND MATERIALS TO BE IN ACCORDANCE WITH THE CITY OF WEST LINN PUBLIC WORKS DEPARTMENT O.S.H.D. AND A.P.W.A. OREGON CHAPTER SPECIFICATION. CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND SHALL RELOCATE ANY IN CONFLICT WITH THE PROPOSED CONSTRUCTION. CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS AND LICENSES BEFORE STARTING CONSTRUCTION. EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY AND MUST BE VERIFIED BY THE CONTRACTOR. ADDITIONAL UNDERGROUND UTILITIES MAY EXIST STREET CONSTRUCTION SHALL BE IN ACCORDANCE WITH DIVISION TWO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION A.P.W.A. OREGON CHAPTER. CONTRACTOR SHALL REMOVE AND DISPOSE OF TREES, STUMPS, BRUSH, ROOTS, FENCE AND OTHER MATERIAL IN THE ROADWAY AND WHERE INDICATED ON THE PLAN. MATERIAL SHALL BE DISPOSED OF IN SUCH A MANNER AS TO MEET LOCAL REGULATIONS. CONCRETE CULVERT PIPE SHALL ASTM C 14 CLASS 8 NONREINFORCED CONCRETE PIPE BEDDING SHALL CONFORM WITH GRANULAR BEDDING AND BACKFILL REQUIREMENTS OF A.P.W.A. DIVISION III SECTION 61.2.02 82 AND 61.2.05. TRENCHES WITHIN THE RIGHTS OF WAY SHALL BE BACKFILLED WITH GRANULAR MATERIAL BEDDING TO BE CLASS 6. TRENCH BACKFILL AND COMPACTION DRIVEWAYS AND STREETS BACKFILL ABOVE PIPE ZONE SHALL BE 1 1/2" MINUS. MATERIALS SHALL BE PLACED IN 8 INCH LIFTS AND COMPACTED TO 75% RELATIVE DENSITY. OTHER AREAS BACKFILL ABOVE PIPE ZONE SHALL BE NATIVE MATERIAL FREE OF ORGANIC MATTER OR ROCKS GREATER THAN 8 INCHES IN SIZE. COMPACTION SHALL BE SUCH AS REQUIRED TO ELIMINATE FUTURE SETTLEMENT. BEDDING TO BE CLASS 6. MATERIAL IN SOFT SPOTS WITHIN THE ROADWAY SHALL BE REMOVED TO THE DEPTH REQUIRED TO PROVIDE A FIRM FOUNDATION AND SHALL BE REPLACED WITH PIT RUN CRUSHED ROCK. THE ENTIRE SUBGRADE SHALL BE THOROUGHLY COMPACTED AT THE LOWEST MOISTURE CONTENT AT WHICH A HANDFUL OF THE SOIL CAN BE MOLDED BY A FIRM CLOSING OF THE HAND. (75% COMPACTION AASHTO T100) AN INSPECTOR WILL BE ON THE PROJECT AS DEEMED NECESSARY BY ENGINEER. IF INSPECTOR IS NOT PRESENT, CONTRACTOR SHALL CALL FOR INSPECTION OF TRENCHES PRIOR TO BACKFILLING AND PRIOR TO POURING MANHOLE BASES. ALSO, CONTRACTOR SHALL NOTIFY THE ENGINEER WHEN SUBGRADING IS COMPLETED AND 24 HOURS PRIOR TO PLACEMENT OF ROCK BASE MATERIAL AND 24 HOURS PRIOR TO FINAL PAVING FOR INSPECTION OF THE WORK. SEE SECTION 501 A.P.W.A. SPECIFICATIONS. ASPHALT CONCRETE PAVEMENT MIX TO BE DESIGNED FROM A JOB MIX FORMULA APPROVED BY THE O.S.H.D. FOR MATERIAL USED. CONTRACTOR TO PROVIDE ENGINEER WITH CERTIFICATE OF COMPLIANCE FROM ASPHALT PAVEMENT PLANT UNLESS OTHERWISE INDICATED.



PLAN
SCALE: 1" = 50'

PROFILE: ATHENA ROAD
SCALE: 1" = 50' HORIZ., 1" = 5' VERTICAL



RECEIVED
OCT 19 1979

DATE	NO.	REVISION
10-12-79	5	As-Built
7-25-79	4	REVISED GRADES
12-6-78	3	ADDED BARRICADE DETAIL REQ.
12-5-78	2	APPROVED FOR CONST.
11-21-78	1	REVISED PER CITY REQUEST

COMPASS CORPORATION
ENGINEERING SURVEYING PLANNING
6564 S.E. LAKE ROAD MILWAUKIE, OREGON 97222

VICTOR A. PIKE
21100 S. HORTON ROAD
WEST LINN, OREGON 97068

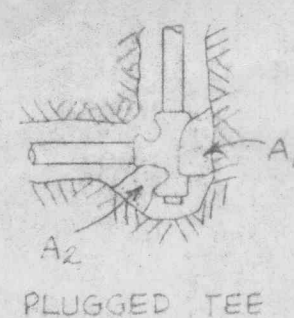
ROAD AND STORM IMPROVEMENTS
PLAN AND PROFILES

RECEIVED
OCT 19 1979

"PIKE'S PLACE"

OCT 17 1979



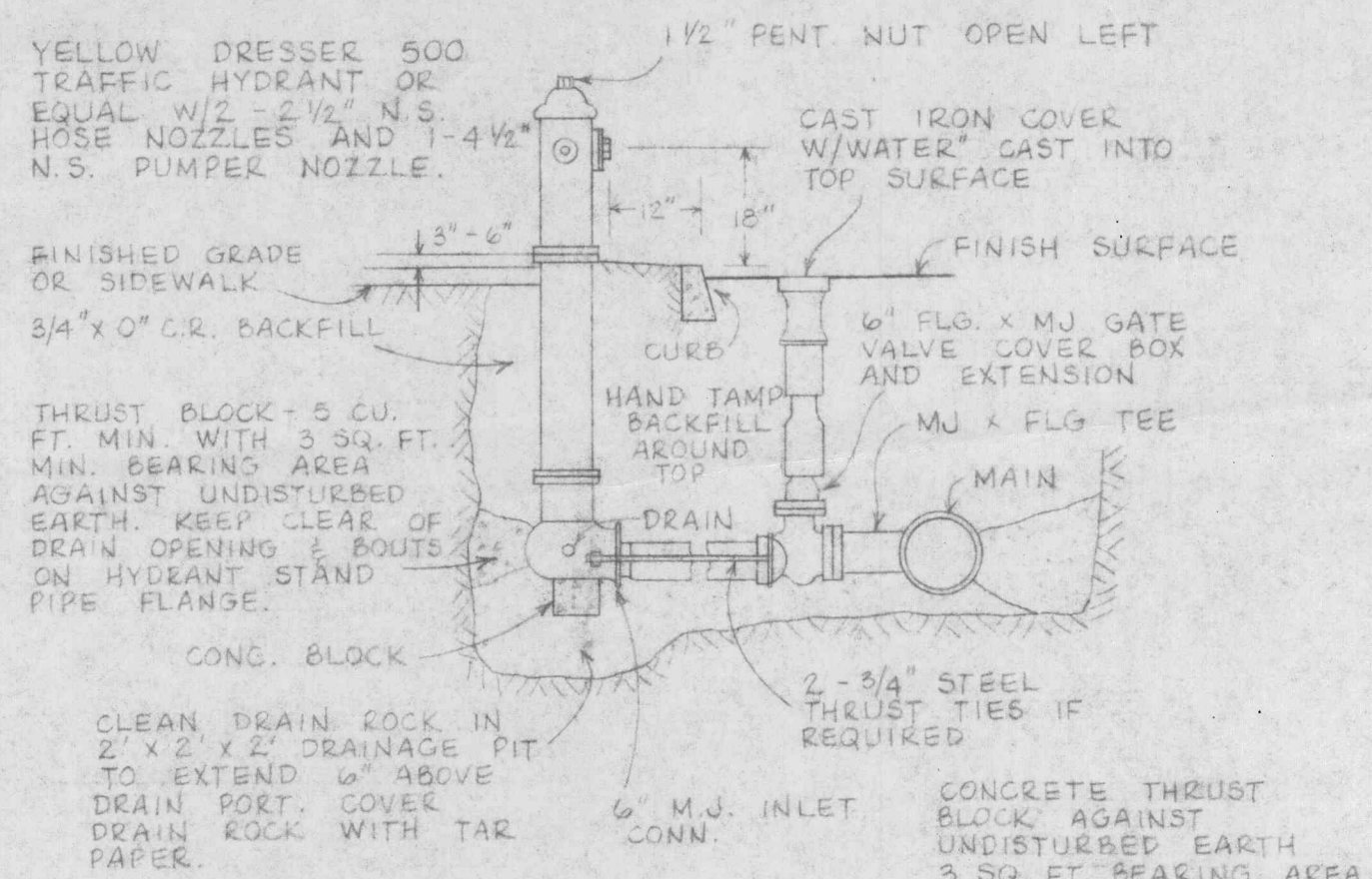


1. CONCRETE THRUST BLOCKING TO BE POURED AGAINST EARTH.
2. KEEP CONCRETE CLEAR OF JOINT AND ACCESSORIES.
3. IF NOT SHOWN ON PLANS, REQUIRED BEARING AREAS AT FITTING SHALL BE AS INDICATED BELOW, ADJUSTED IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE SOIL BEARING STRESS(ES) DETERMINED BY INSPECTOR.

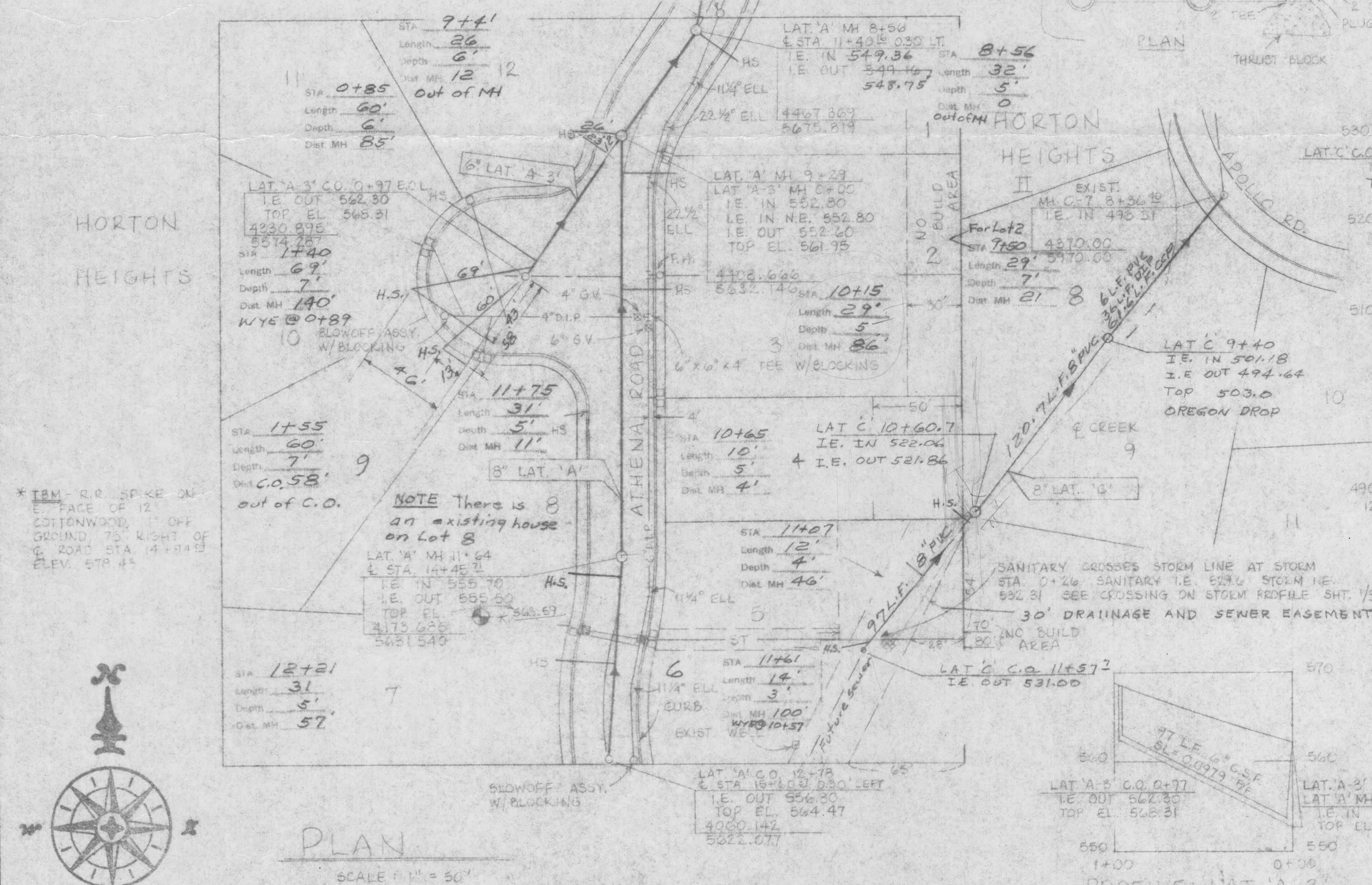
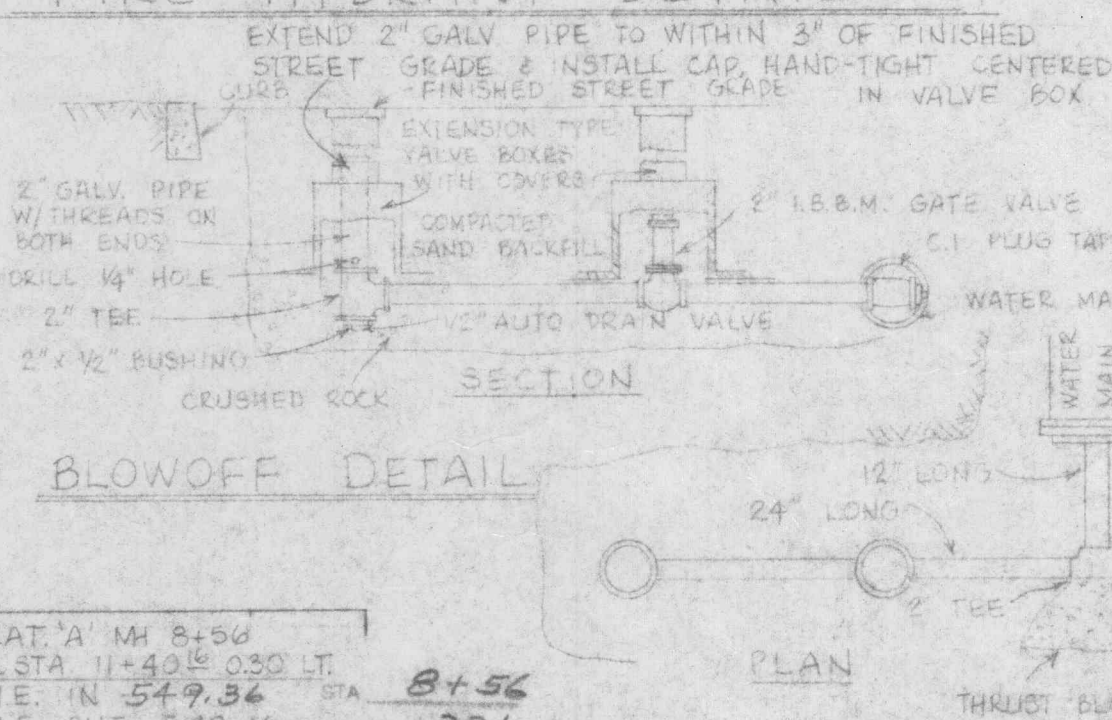
FITTING SIZE	TEE, WYE PLUG, CAP	90° BEND PLUGGED CROSS	TEE PLUGGED ON RUN A ₁ A ₂	45° BEND	22½° BEND	11¼° BEND
4"	1.0	1.4	1.9 1.4	1.0	-	-
6"	2.1	3.0	4.3 3.0	1.6	1.0	-

4. ABOVE BEARING AREAS BASED ON TEST PRESSURE OF 150 P.S.I. AND AN ALLOWABLE SOIL BEARING STRESS OF 2,000 POUNDS PER SQUARE FOOT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION: BEARING AREA = (TEST PRESSURE/150) X (2000/SOIL BEARING STRESS) X (TABLE VALUE).

THRUST BLOCK DETAILS & NOTES



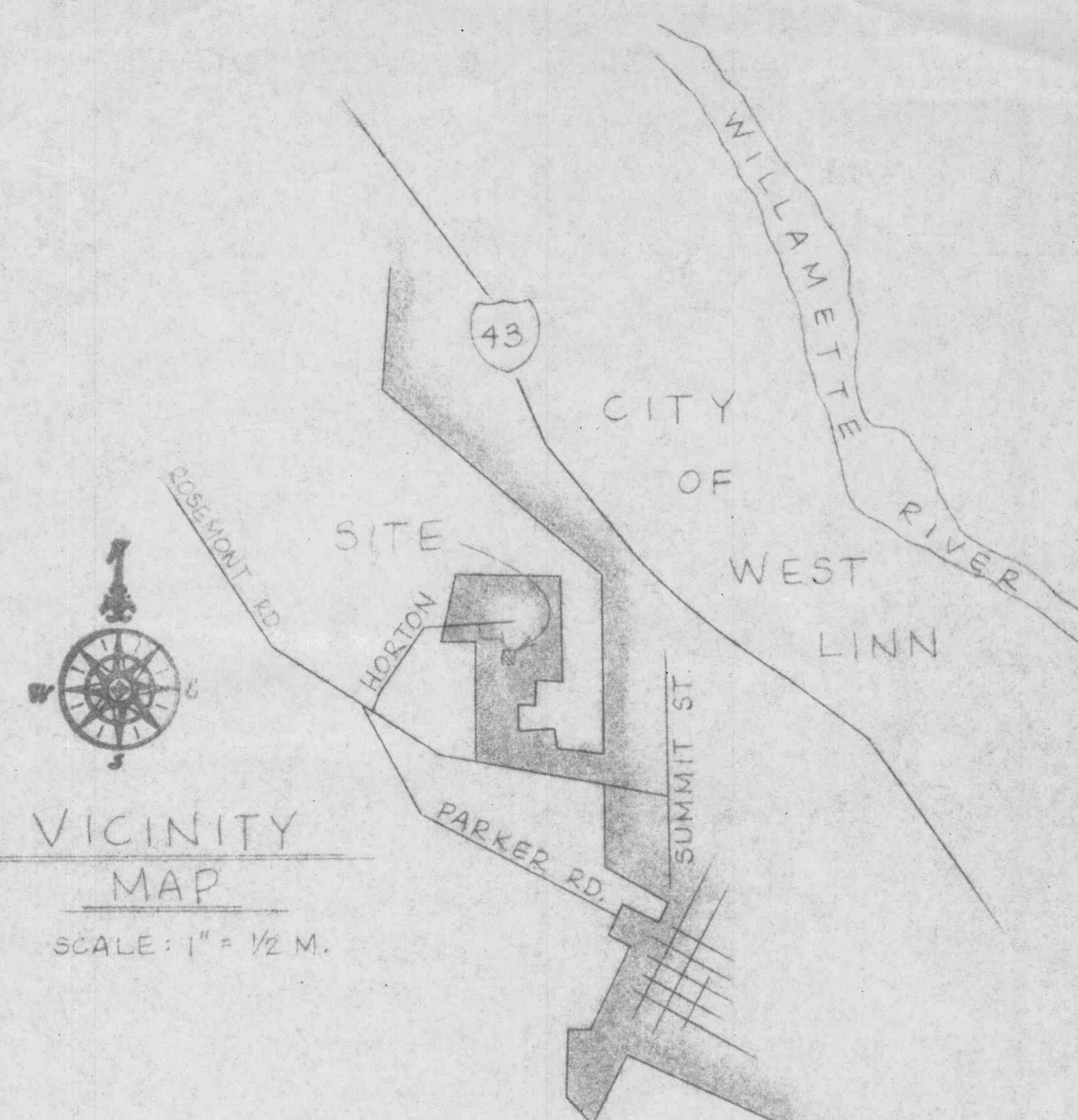
FIRE HYDRANT DETAIL



COMPASS CORP.

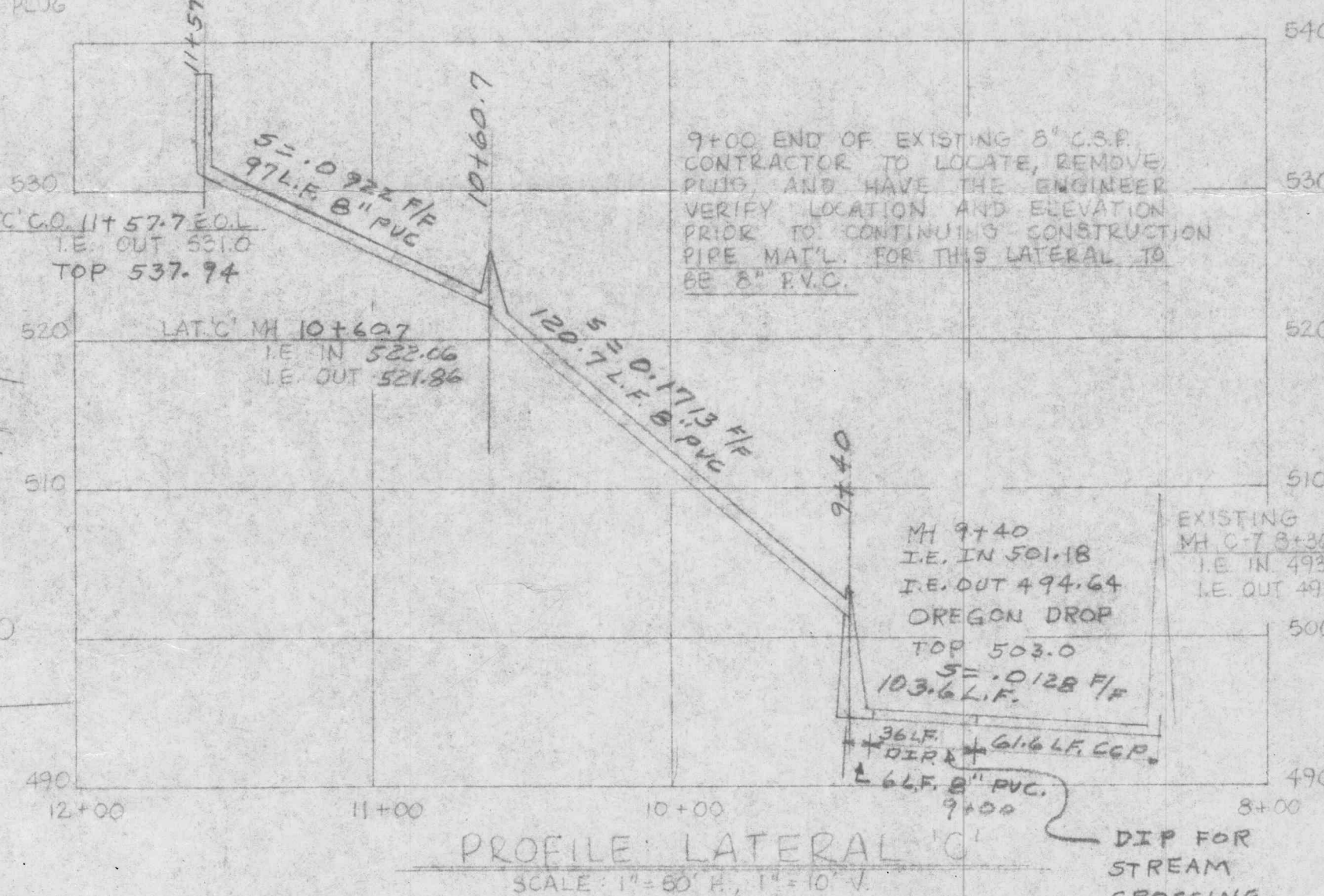
SEWER CONSTRUCTION NOTES

CONSTRUCTION SHALL CONFORM WITH THE CITY OF WEST LINN
AND P.W.A. SPECIFICATIONS FOR CONSTRUCTION OF SANITARY
SEWERS. CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS AND
LICENSES BEFORE STARTING CONSTRUCTION. CONCRETE SANITARY
SEWER PIPE SHALL BE ASTM C-14, CLASS 2 NON-REINFORCED
CONCRETE PIPE WITH RUBBER GASKETS. CONTRACTOR TO LOCATE
ALL UTILITIES BEFORE STARTING CONSTRUCTION AND SHALL
RELOCATE ANY IN CONFLICT WITH THE PROPOSED CONSTRUCTION,
EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY
AND MUST BE VERIFIED BY CONTRACTOR. ADDITIONAL UNDER-
GROUND UTILITIES MAY EXIST. ENGINEER RESERVES THE
RIGHT TO ADJUST GRADES OR ALIGNMENT TO ACCOMMODATE
UTILITIES OR EXISTING SEWER LINES AS REQUIRED. BUILDING
SERVICE CONNECTIONS TO BE 4 INCH SEWER PIPE AND SHALL
EXTEND TO DISTANCE SHOWN ON PLANS AND END AT ELEVATION
SHOWN. SERVICE CONNECTION TO SLOPE 2% MINIMUM UP TO
FUTURE HOUSE LOCATION FROM SEWER LATERAL OR MAIN. WYES
AND 1/8TH BENDS REQUIRED FOR SERVICE CONNECTION.
STATIONING AND DISTANCE SHOWN ON PLANS AND PROFILES
ARE HORIZONTAL AND NOT SLOPE DISTANCE. PIPE BEDDING
SHALL BE CLASS B AS INDICATED ON CONSTRUCTION DETAILS
SHEET. TRENCHES WITHIN THE RIGHTS-OF-WAY SHALL BE
BACKFILLED WITH GRANULAR MATERIAL. TRENCH BACKFILL AND
COMPACTION: DRIVEWAYS AND STREETS - BACKFILL ABOVE PIPE ZONE
SHALL BE 1/2" MINUS. MATERIALS SHALL BE PLACED IN 8 INCH
LIFTS AND COMPACTED TO 98% RELATIVE DENSITY. CONTRACTOR
TO DETERMINE TYPE OF EQUIPMENT AND METHOD TO USE TO
ACHIEVE REQUIRED COMPACTION. SUBSEQUENT SETTLEMENT OF THE
FINISHED SURFACE WITHIN THE WARRANTY PERIOD SHALL BE
CONSIDERED TO BE A RESULT OF IMPROPER COMPACTION AND SHALL
BE PROMPTLY REPAIRED BY THE CONTRACTOR AT NO EXPENSE
TO THE OWNER. TRENCH BACKFILL AND COMPACTION OUTSIDE OF
RIGHTS-OF-WAY - BACKFILL ABOVE PIPE ZONE SHALL BE NATIVE
MATERIAL FREE OF ORGANIC MATTER OR ROCKS GREATER THAN
3 INCHES IN SIZE. CONTRACTOR SHALL MOUND SOIL OVER TRENCH
TO COMPENSATE FOR NORMAL SETTLEMENT. CONTRACTOR SHALL
PREPARE A PRINT OF THE ENGINEER SHOWN AS BUILT DATA
STATION OF WYE ALONG SEWER LINE OF CONNECTION AND
DEVELOP SERVICE CONNECTION AT PROPERTY LINE OR END OF
SERVICE CONNECTION AT PROPERTY LINE OR END OF SERVICE
AND ANY CHANGES MADE DURING CONSTRUCTION. INSPECTOR WILL
BE ON PROJECT AS DEEMED NECESSARY BY ENGINEER. IF
INSPECTOR IS NOT PRESENT, CONTRACTOR SHALL CALL FOR
INSPECTION PRIOR TO BACKFILLING TRENCH AND TO WITNESS
PIPELINE TESTING. ALL R/W BACKFILL TO BE SELECT GRANULAR MAT.



WATER CONSTRUCTION NOTES

CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND SHALL CONSTRUCT THE WATER MAIN TO AVOID CONFLICT WITH EXISTING UTILITIES. CONTRACTOR TO OBTAIN ALL PERMITS AND LICENSES BEFORE STARTING CONSTRUCTION. ALL WORK AND MATERIALS TO CONFORM WITH THE CITY OF WEST LINN, THE LATEST EDITION OF OREGON STATE HEALTH DIVISION ADMINISTRATIVE RULES, CHAPTER 335, A.W.W.A. AND A.R.W.A. STANDARDS. ALL PIPE TO BE MINIMUM COVER OF 36 INCHES BELOW FUTURE STREET GRADES. CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT PIPE INTERIORS, FITTINGS AND VALVES AGAINST CONTAMINATION. FIRE HYDRANTS TO BE ON BACKFILL AND CONFORM TO A.W.W.A. C 602. SERVICES TO HAVE COMPRESSION TYPE FITTINGS. INDIVIDUAL PRESSURE REDUCING VALVES ARE REQUIRED FOR EACH HOUSE SERVICE WHERE STATIC PRESSURE IS 80 P.S.I. OR GREATER. HOUSE SERVICES TO BE COPPER TYPE "K" SEAMLESS SOFT ANNEALED. SINGLE SERVICES TO BE 3/4 INCH. DOUBLE SERVICES TO BE ONE INCH. COPPER TUBE BENDS TO BE SMOOTH RADIUS. MEETER BOXES TO BE NO. 1 MEETER BOX AS MANUFACTURED BY MEETER BOX EQUIPMENT COMPANY TIGARD OREGON. SERVICE TIPS TO BE AT LEAST 12 INCHES ABOVE GROUND. SADDLES REQUIRED. CONTRACTOR TO INSTALL PIPE- LIFT AND HOUSE SERVICES TO AND INCLUDING CURB STOPS AND MEETER BOXES. HOUSE BUILDER TO INSTALL PRV'S AND METERS. GATE VALVES TO BE A.W.W.A. C 500. VALVES TO HAVE 2 INCH OPERATING NUT WITH COUNTER CLOCKWISE OPENING AND NONRISING STEM. DUCTILE IRON PIPE TO BE TYTON JOINT CEMENT MORTAR LINED CLASS 51 AND SHALL CONFORM TO ASTM C 110, C 150 AND C 151. DUCTILE CAST IRON WATER MAINS AND SHORTWATER MANAGES TO BE INSTALLED IN ACCORDANCE WITH A W.W.A. STANDARD C 600. FITTING AND PIPE SECTIONS THAT WILL NOT BE DISINFECTED BY CHLORINE LINE FOR 24 HOURS SHALL HAVE THE INTERIORS SWAPPED WITH A 5 PERCENT HYPOCHLORITE SOLUTION BEFORE THEY ARE INSTALLED. PIPE BEDDING SHALL BE CLASS B AS SHOWN ON CONSTRUCTION DETAILS DRAWING. CONCRETE THRUST BLOCKS TO BE CONSTRUCTED AT ALL TEES, BENDS, FIRE HYDRANTS, BLOWOFFS AND WHERE INDICATED ON PLANS. THE MINIMUM BEARING SURFACE AGAINST UNDISTURBED SOIL TO BE SHOWN ON PLANS. CONCRETE SHALL BE ALLOWED TO CURE BEFORE PIPELINE PRESSURE TESTING. PIPELINE TO BE TESTED AT 150 P.S.I. AND HELD AT THAT PRESSURE FOR TWO HOURS. PIPELINE TO BE THOROUGHLY DISINFECTED AND FLUSHED IN ACCORDANCE WITH A.W.W.A. STANDARD C 601. TRENCH BACKFILL AND COMPACTION: DRIVEWAYS AND STREETS - BACKFILL ABOVE PIPE ZONE SHALL BE 1/2 MINUS. MATERIALS SHALL BE PLACED IN 4 INCH LIFTS AND COMPACTED TO 95 % RELATIVE DENSITY. OTHER AREAS - BACKFILL ABOVE PIPE ZONE SHALL BE NATIVE MATERIAL FREE OF ORGANIC MATTER OR ROCKS GREATER THAN 3 INCHES IN SIZE. CONTRACTOR SHALL MOUND SOIL OVER TRENCH TO COMPENSATE FOR NORMAL SETTLEMENT. ALL RIGHT OF WAY BACKFILL TO BE SELECT GRANULAR MATERIAL WITH ALL SERVICE FITTINGS TO BE COMPRESSION TYPE.



"PIKE'S PLACE"

OCT 17 1979

10-12-79	4	A5-BUILT w/lot & San San ^{con}
7-30-79	3	REV. LAT C', REQ. BY OWNER
12-3-78	2	APPROVED FOR CONST
11-21-78	1	REVISED PER CITY REQUEST
DATE	NO.	REVISION

DRAWN	M.M.M.	DESIGN	R.G.W.
SCALE	A5 SHOWN	DATE	NOV., 1978
FILE	78-1308-994		

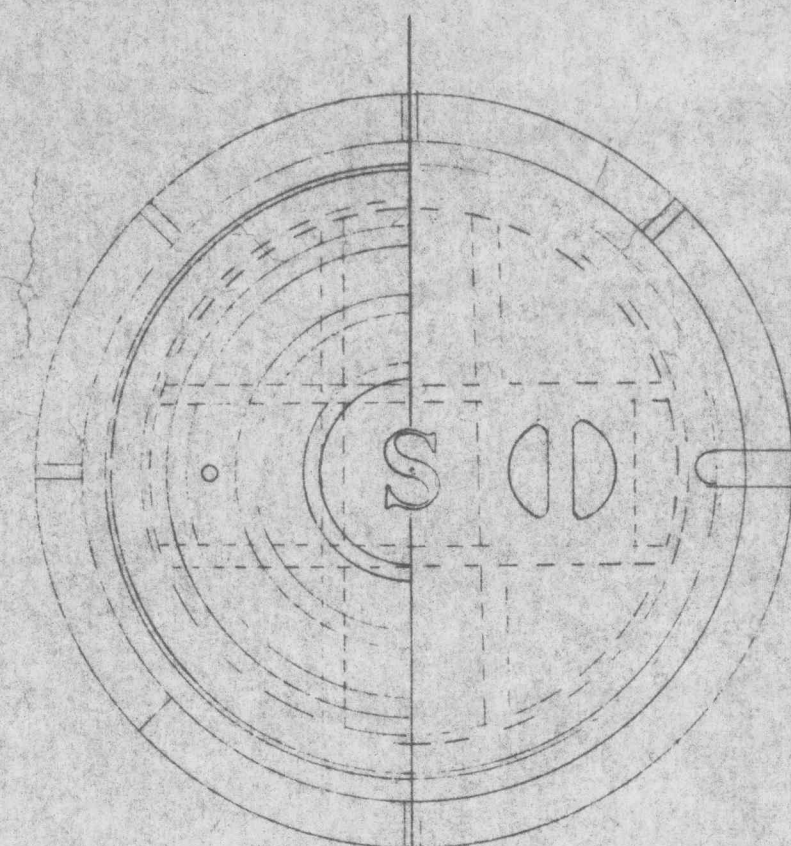


COMPASS CORPORATION
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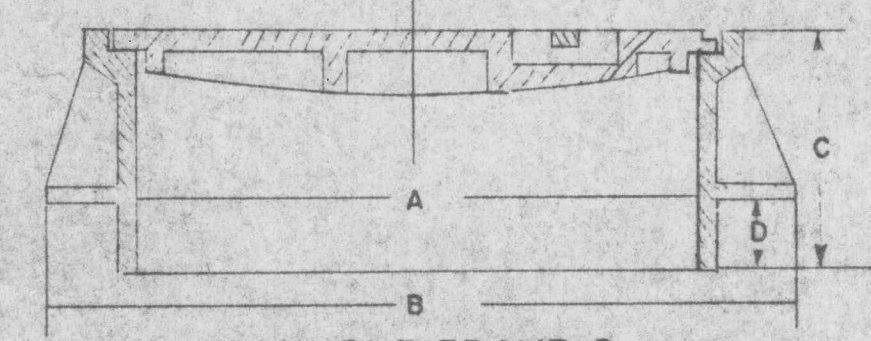
SANITARY SEWER & WATER
IMPROVEMENTS, PLAN & PROFILES

1

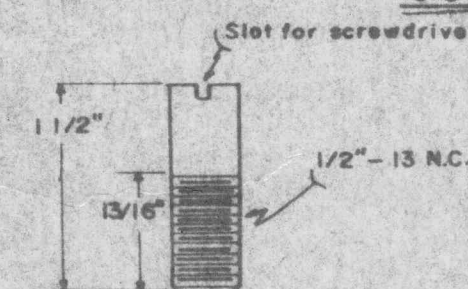


STANDARD

WATERTIGHT

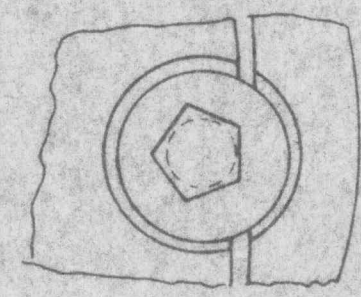


MANHOLE FRAME & COVER

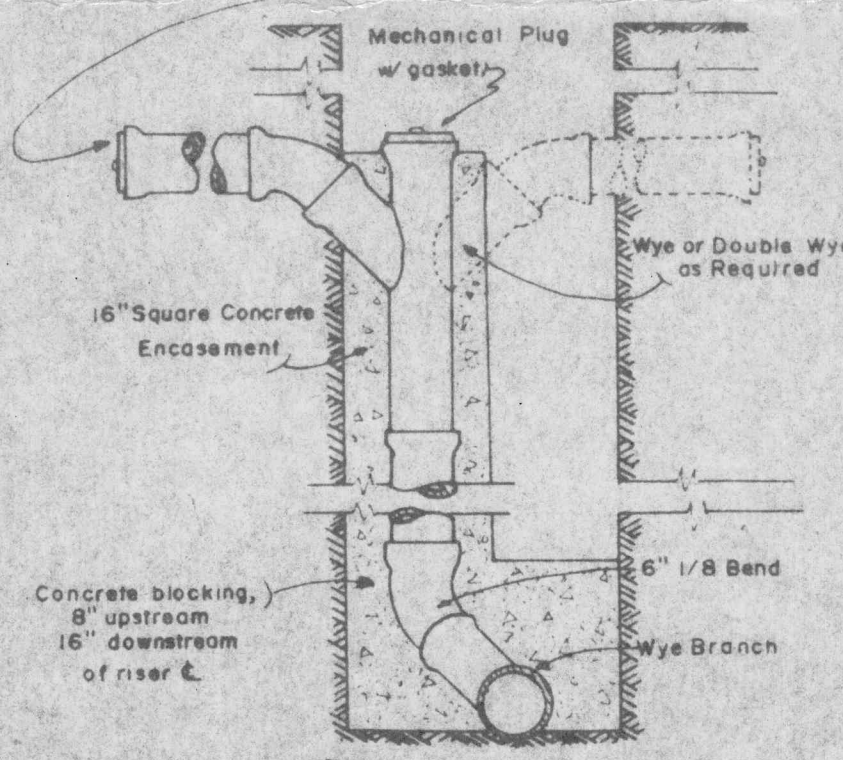
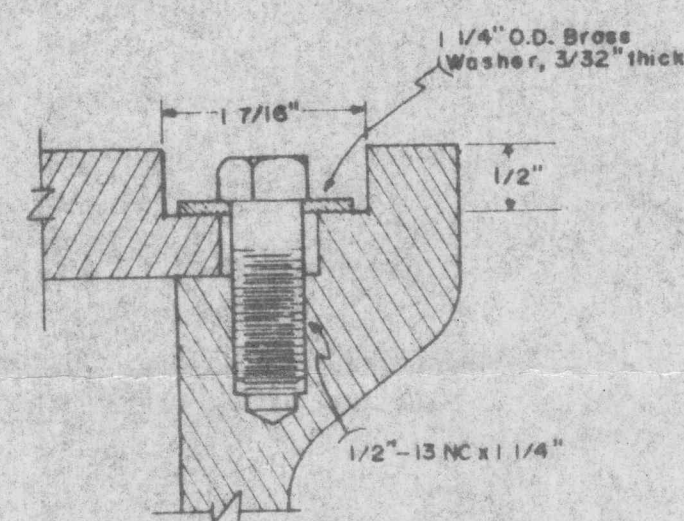


LOCATING STUD

CAP SCREW
3 Req'd., Pent. Head,
Bronze or Cad. Plate



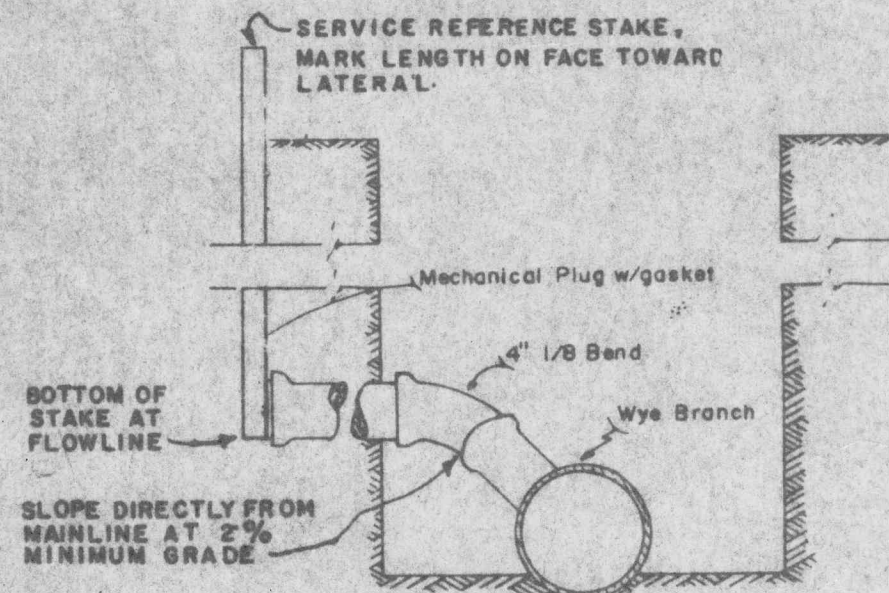
TAMPERPROOFING
for
MANHOLE COVERS
NOT TO SCALE



STANDING CONNECTION

SCALE: 1/2"=1'-0"

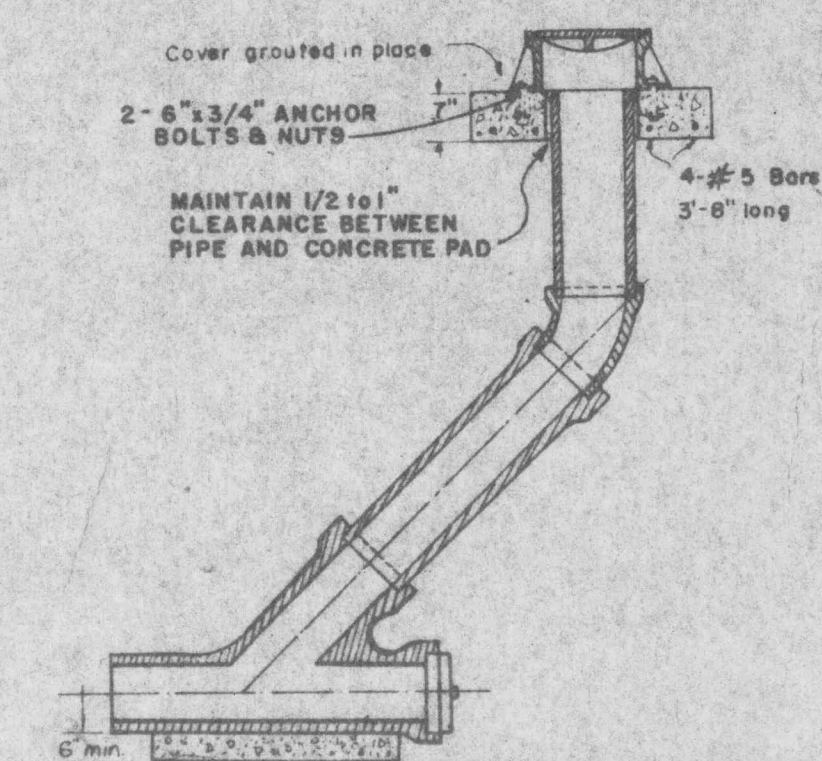
BEDDING AS REQUIRED



SERVICE CONNECTION

SCALE: 1"=1'-0"

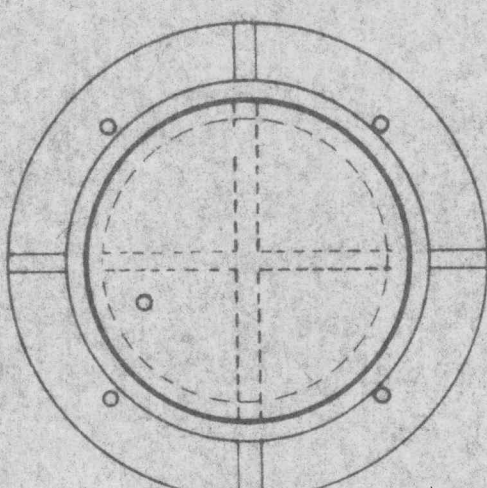
BEDDING AS REQUIRED



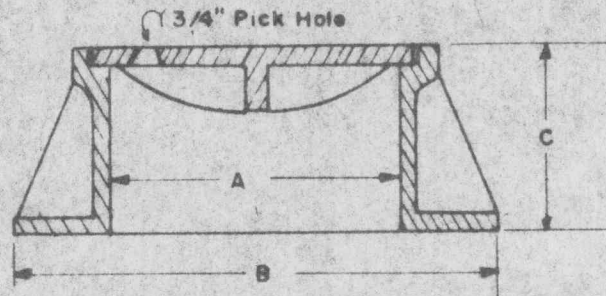
CLEANOUT

SCALE: 1/2"=1'-0"

CONCRETE TO SPRINGLINE

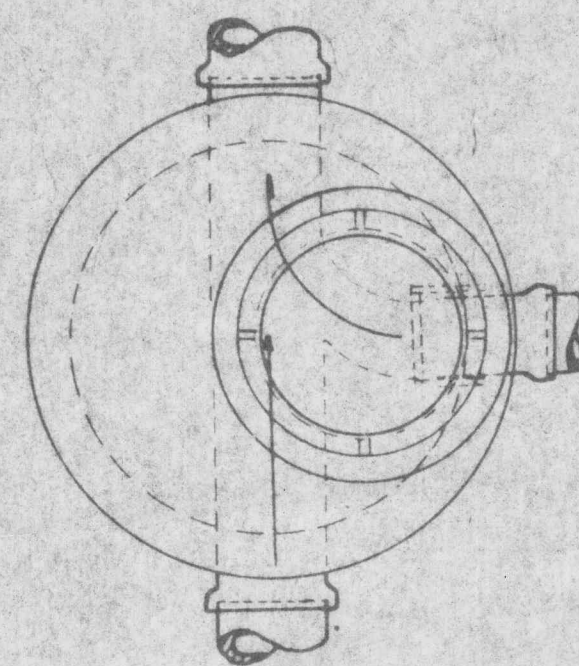


PLAN

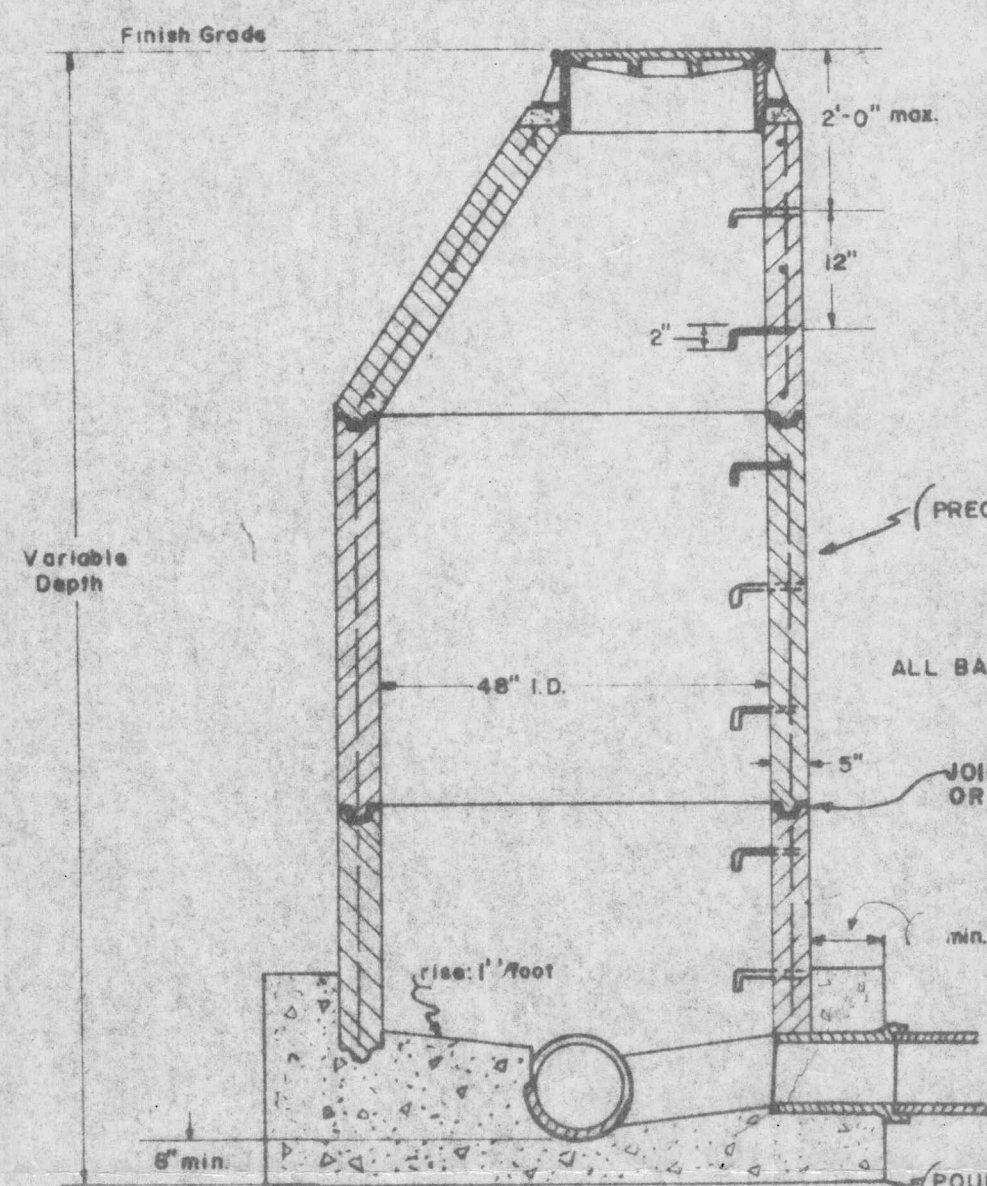


CLEANOUT
FRAME AND COVER

TYPE	DIMENSION IN INCHES				WEIGHT IN Lbs.	
	A	B	C	D	FRAME	COVER
MANHOLE	23	31	10	3	240	140
CLEANOUT-8" CSP	12	20	7 3/4	--		
CLEANOUT-6" CSP	9	11 1/2	6 3/4	--		

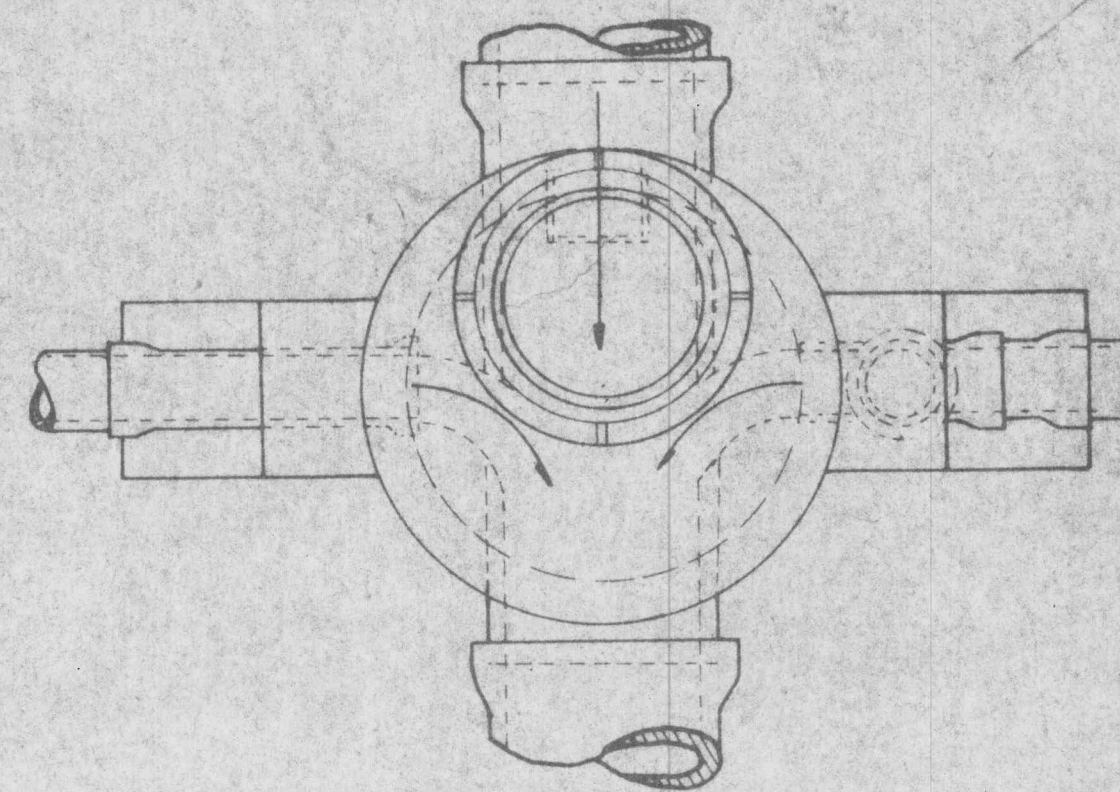


PLAN of TOP

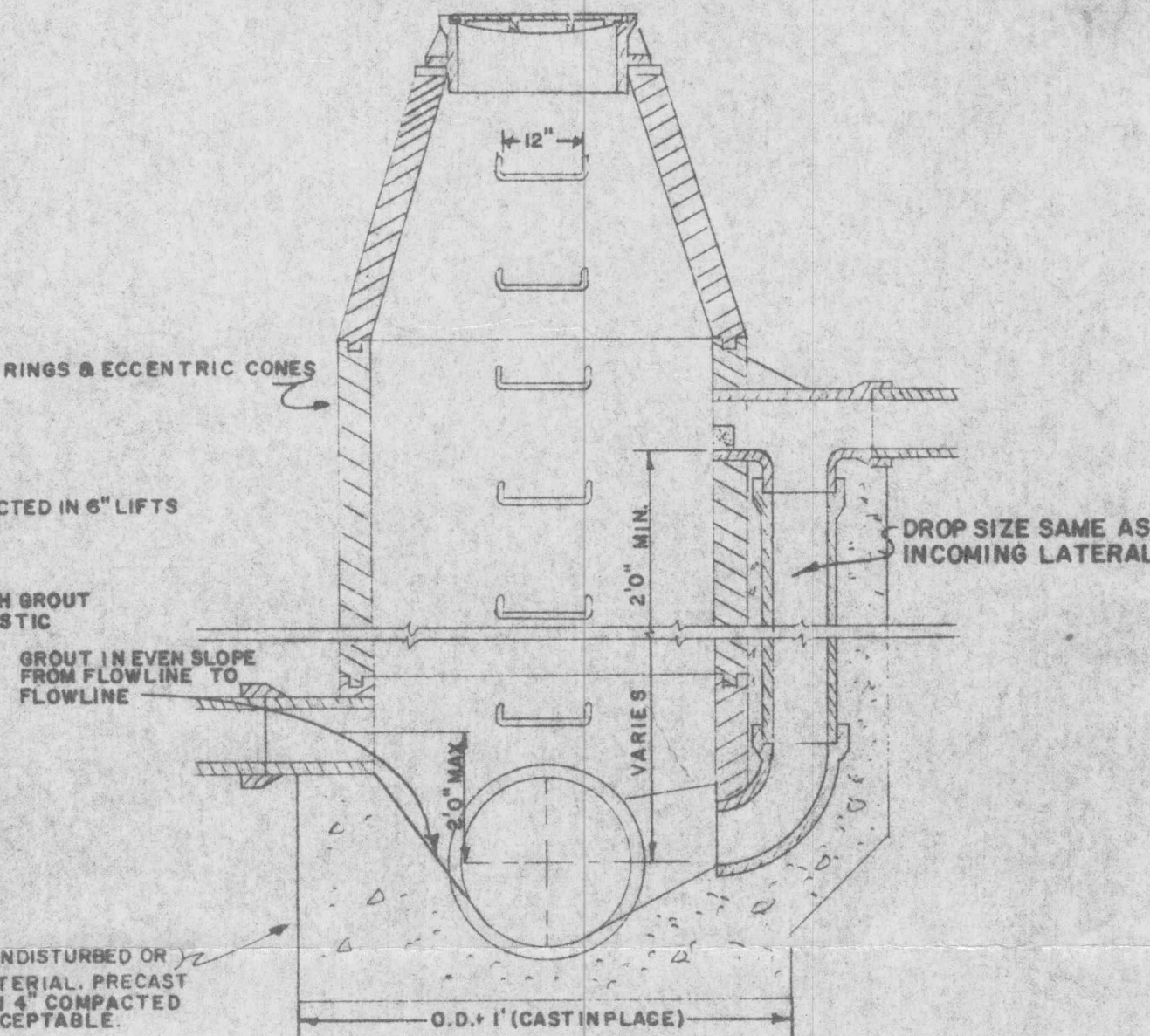


STANDARD MANHOLE

SCALE: 1/2"=1'-0"



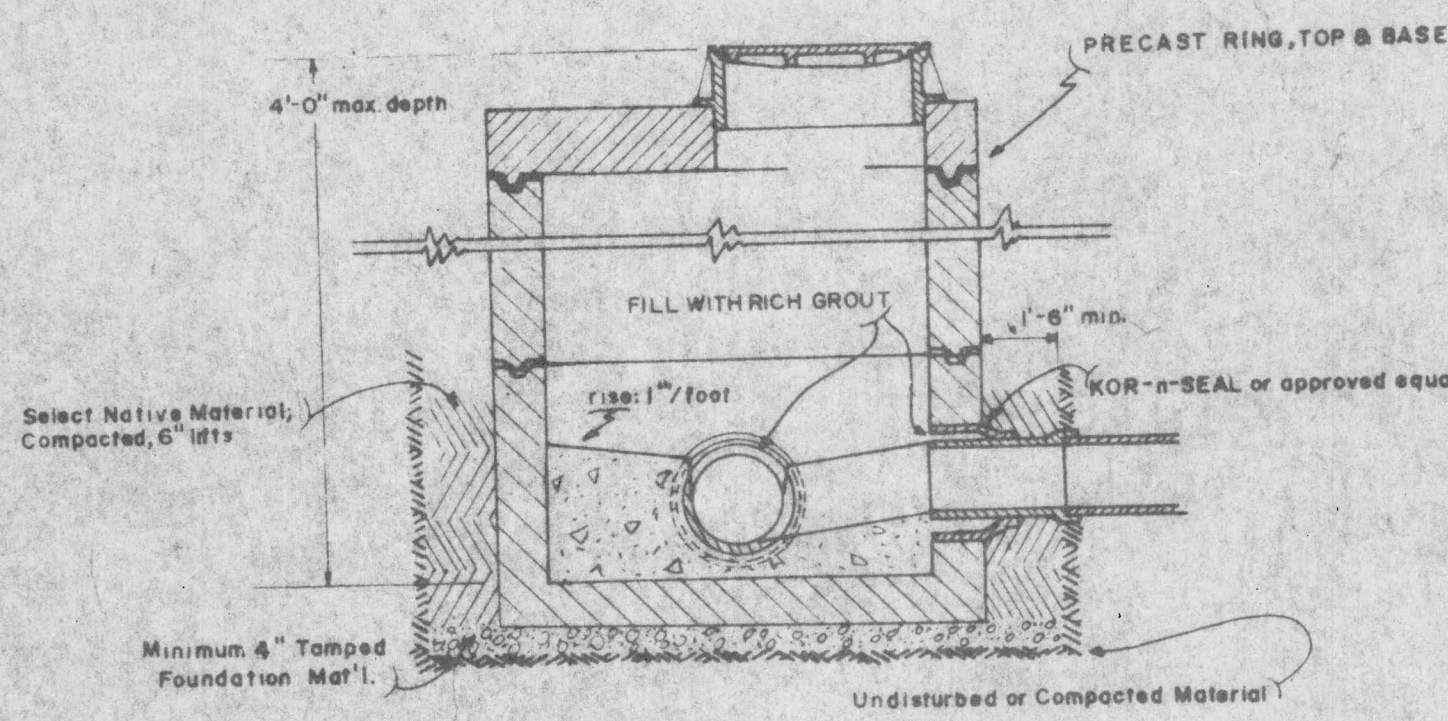
PLAN



DROP MANHOLE

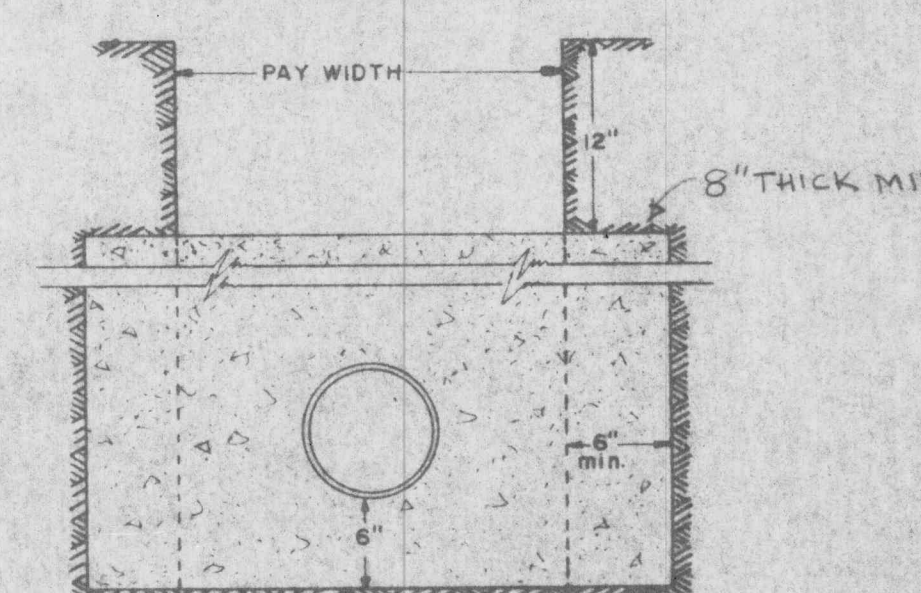
SCALE: 1/2"=1'-0"

PRECAST MATERIAL SHALL CONFORM TO A.S.T.M. C-478



SHALLOW MANHOLE

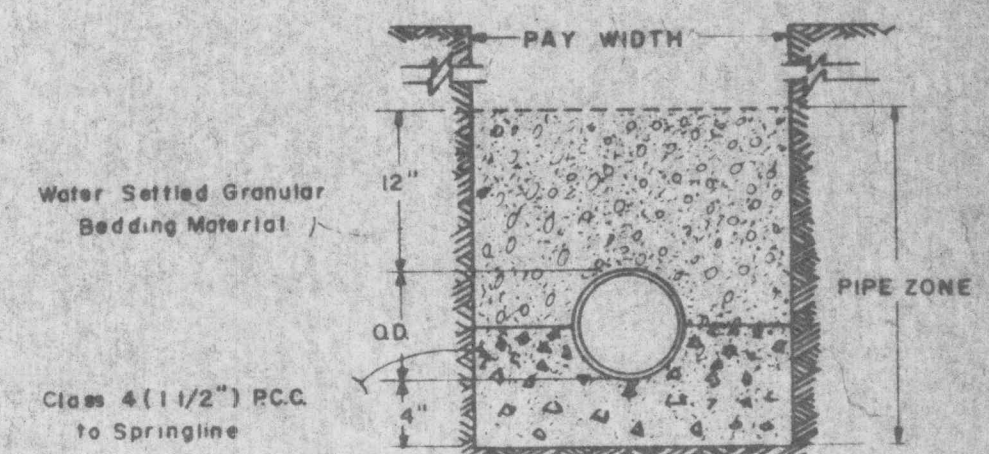
SCALE: 1/2"=1'-0"



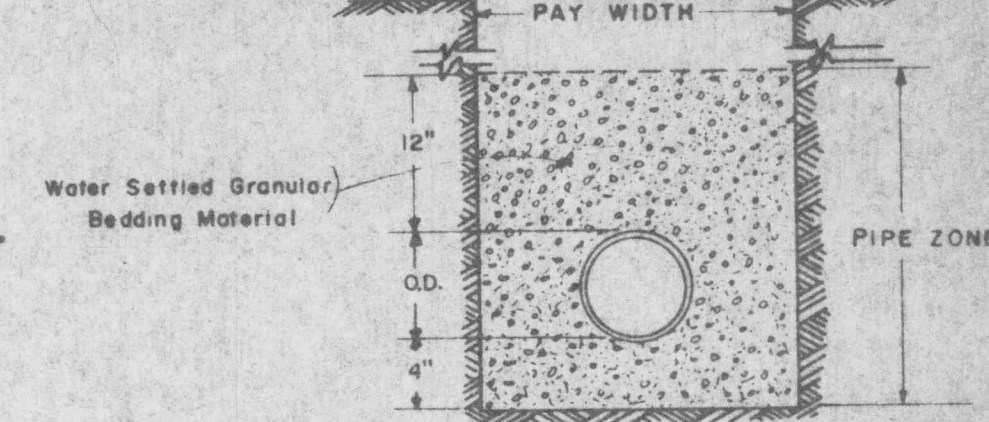
CONCRETE ANCHOR

SCALE: 1"=1'-0"

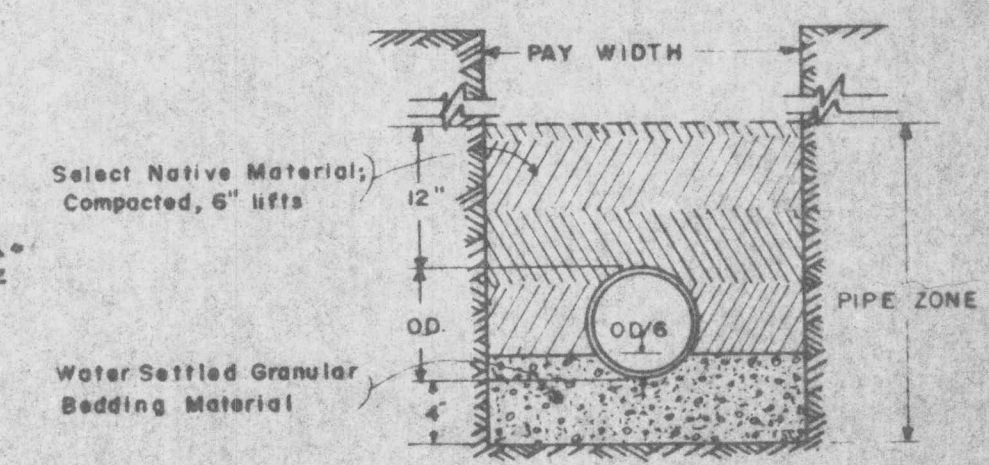
CONCRETE ANCHOR SPACING	
SLOPE PERCENT	MINIMUM CENTER TO CENTER
20 to 34	35 feet
35 to 50	25 feet
OVER 50	15 feet or CONCRETE ENCASE



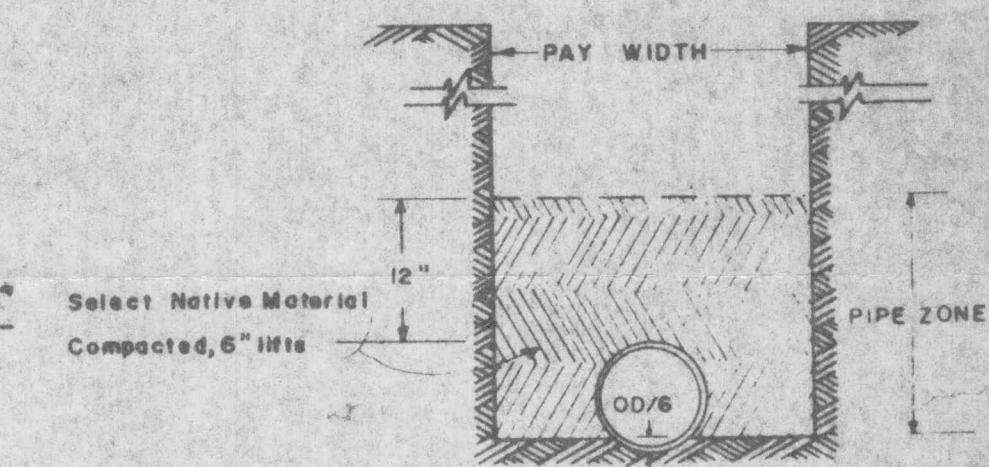
CLASS "A"



CLASS "B"



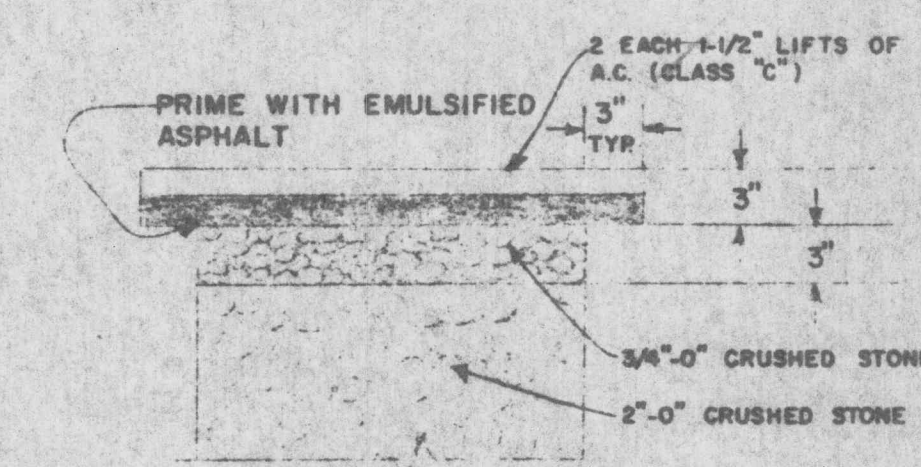
CLASS "C"



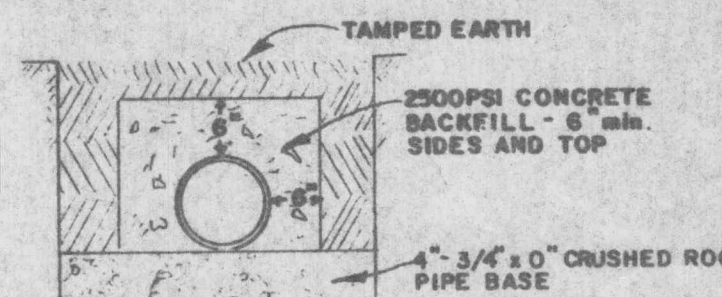
CLASS "D"

BEDDING REQUIREMENTS

NOT TO SCALE



A.C. PAVEMENT RESTORATION



CREEK CROSSING CONCRETE
BACKFILL DETAIL

"PIKE'S PLACE"

OCT 17 1979

DATE	NO.	REVISION

DRAWN	SCALE AS SHOWN	DATE NOV. 1978
FILE 78-1308-794		

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CONSTRUCTION DETAILS