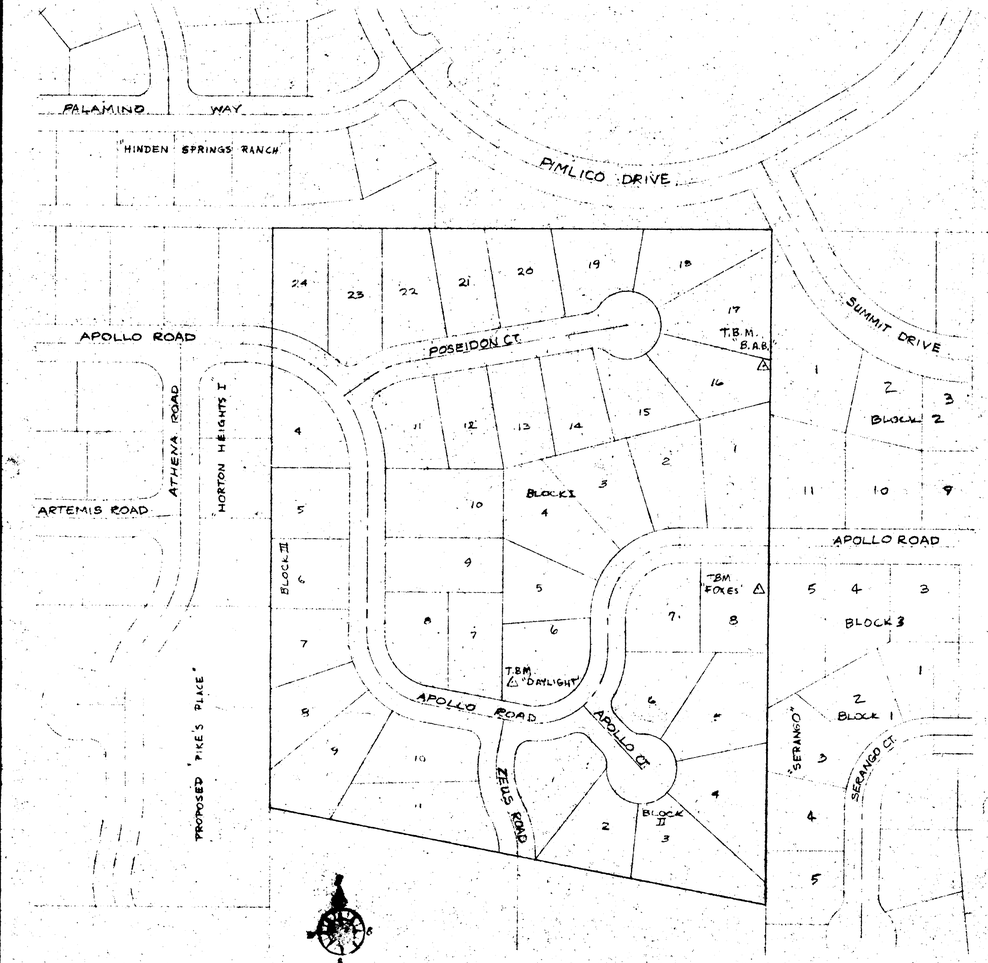
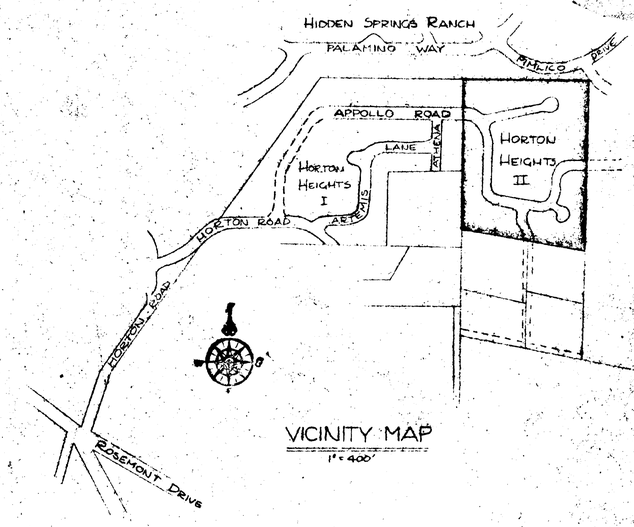


PLAN
1"=100'

STREET AND STORM DRAINAGE NOTES

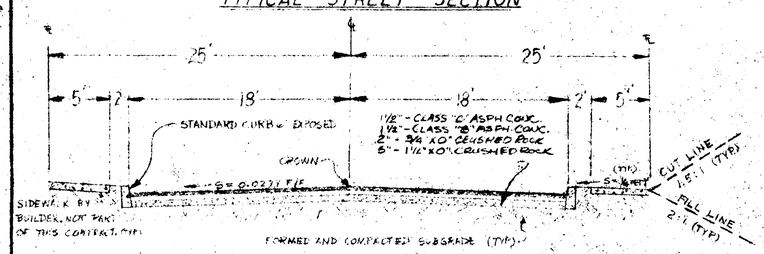
- ALL WORK AND MATERIAL TO BE IN ACCORDANCE WITH THE CITY OF WEST LINN PUBLIC WORKS DEPARTMENT O.S.H.D. AND A.P.W.A. OREGON CHAPTER SPECIFICATION.
- CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND SHALL RELOCATE ANY IN CONFLICT WITH THE PROPOSED CONSTRUCTION.
- CONTRACTOR TO OBTAIN 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(2) STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, A.P.W.A. OREGON CHAPTER.
- CONTRACTOR SHALL REMOVE AND DISPOSE OF TREES, STUMPS, BRUSH, ROOTS, 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 ASTM C 14 CLASS 3 NONREINFORCED CONCRETE PIPE OR ASTM C 76 CLASS III REINFORCED CONCRETE PIPE.
- PIPE BEDDING SHALL CONFORM WITH GRANULAR BEDDING AND BACKFILL REQUIREMENTS OF A.P.W.A. DIV. III SECTION 61-3.03 B2 AND 61-3.05.
- CORRUGATED METAL PIPE SHALL BE ASPHALT-COATED 16 GAGE GALVANIZED STEEL PIPE AND COUPLING BANDS CONFORMING TO OSHD SECTION 605.
- TRENCHES WITHIN THE RIGHTS-OF-WAY SHALL BE BACKFILLED WITH GRANULAR MATERIAL. BEDDING TO BE CLASS B.
- COMPACTION SHALL BE SUFFICIENT TO PREVENT FUTURE SETTLEMENT. CONTRACTOR TO DETERMINE TYPE OF EQUIPMENT AND METHOD TO USE TO ACHIEVE REQUIRED COMPACTION.
- TRENCH BACKFILL OUTSIDE OF PAVED AREAS MAY BE EXCAVATED TRENCH MATERIAL. BEDDING TO BE CLASS "B"
- 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. 95% COMPACTION AASHTO T180)
- 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 5.01 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.
- EXCESS EXCAVATION TO BE COMPACTED ON LOTS 7, 8, AND 9 BLOCK 3, LOTS 7, 8, AND 19 THROUGH 24 OF BLOCK 1 AND AS DIRECTED BY OWNER. VEGETATION AND TOP SOIL TO BE STRIPPED OFF FILL AREAS PRIOR TO FILLING.
- CONTRACTOR TO APPLY SEDIMENTATION CONTROL MEASURES IN EACH DRAINAGE WAY AS DIRECTED BY ENGINEER.
- THE ENGINEER HAS NOT BEEN RETAINED OR COMPENSATED TO PROVIDE DESIGN AND CONSTRUCTION REVIEW SERVICES RELATING TO THE CONTRACTOR'S SAFETY PRECAUTIONS OR TO MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED FOR THE CONTRACTOR TO PERFORM HIS WORK.



VICINITY MAP
1"=400'

INDEX

TYPICAL STREET SECTION



HORTON HEIGHTS II
CITY OF WEST LINN, OREGON

REGISTERED PROFESSIONAL ENGINEER 9607 OREGON JULY 19 1978 Gerald Clifton Kamstra

DATE	NO	REVISION
10-19-79	3	AS CONSTRUCTED
11-9-78	2	NOTE, APPROVED FOR CONST.
11-6-78	1	NOTE, SECTION, SHT. NO.

DRAWN B M G
SCALE AS SHOWN DATE 9-22-78
FILE 77-1135-931-II

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

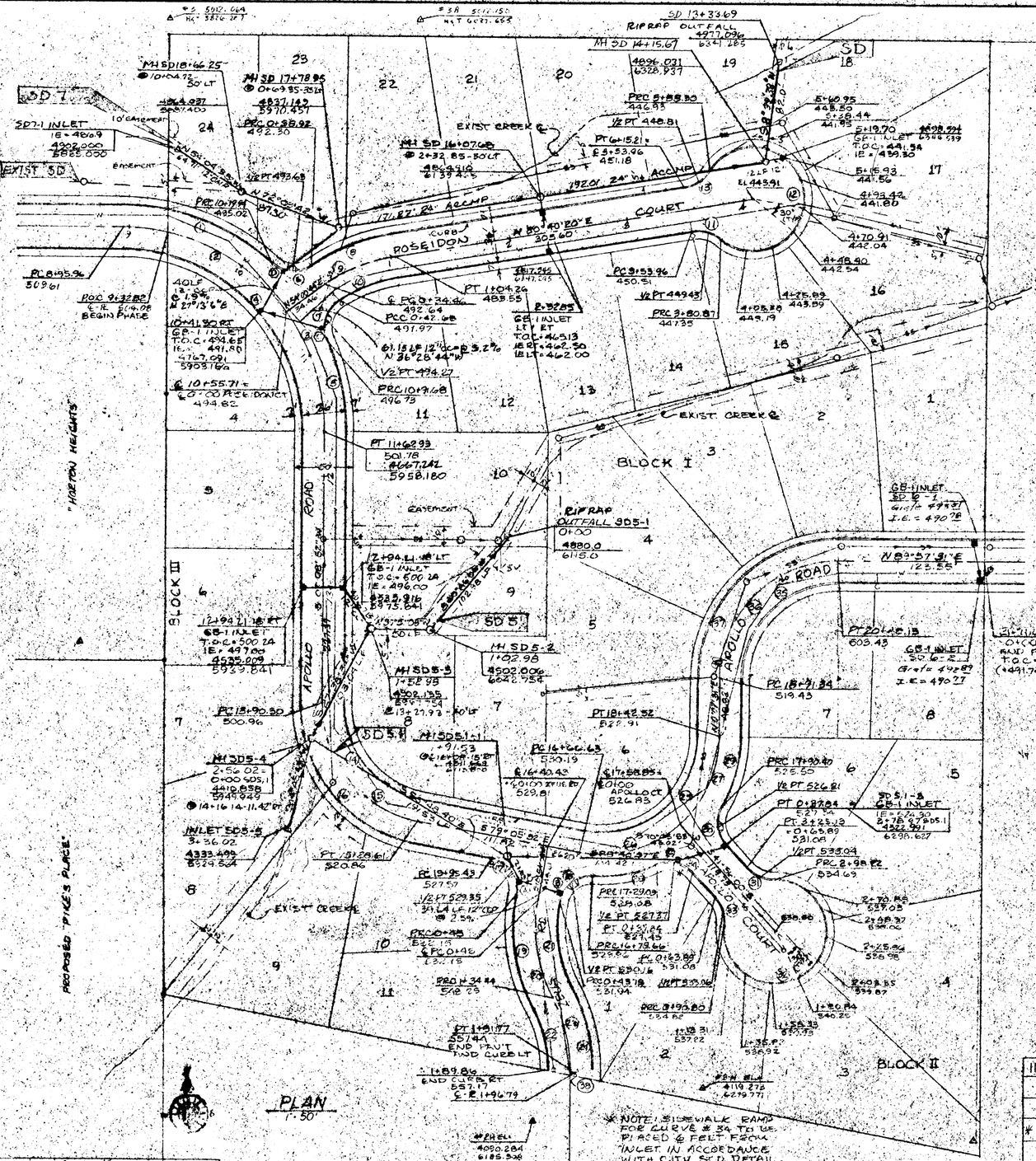
MR. NICK FOSSES
1957 CARRIAGE WAY
WEST LINN OREGON 97068 636-0220

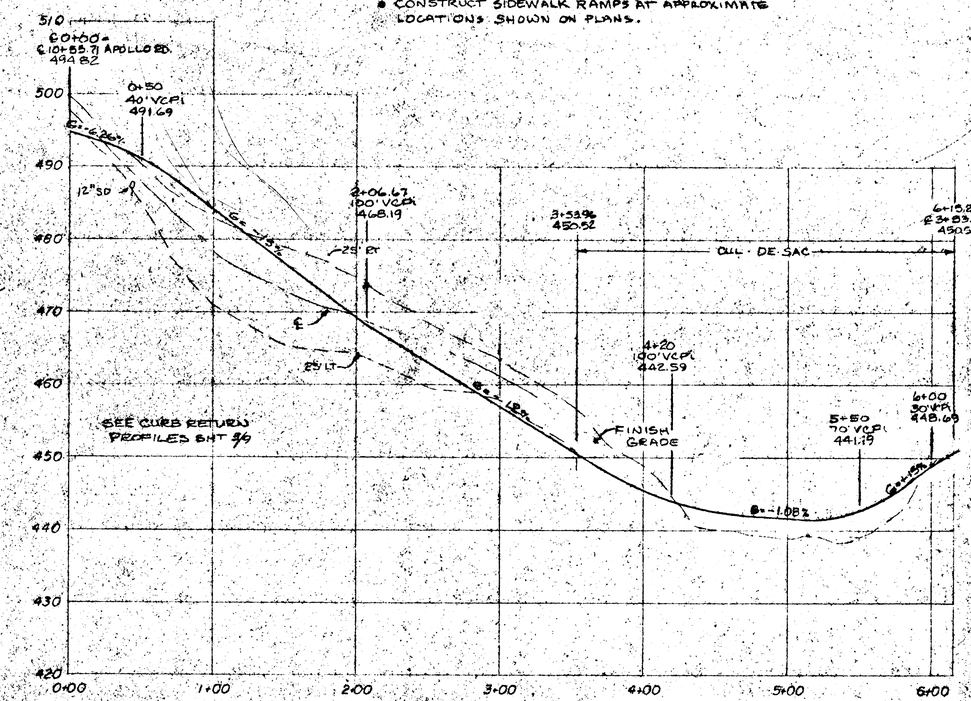
INDEX SHEET OCT 29 1979

HORTON HEIGHTS II 70

NOTES:

- SEE NOTES SHEET 1 OF 9.
- CONSTRUCT SIDEWALK RAMPS AT APPROXIMATE LOCATIONS SHOWN ON PLANS.





PROFILE: POSEIDON COURT

1" = 50' HORIZ 1" = 10' VERT

CURVE DATA

CURVE	RADIUS	DELTA	LENGTH	RADIUS POINT	
1 CURB	168'	30°34'10"	100.31'		
2 ℄	170'	41°25'10"	122.89'		
3 ℄	170'	36°08'08"	107.22'	4667.681	5788.181
4 CURB	152'	75°45'28"	200.96'		
5 CURB	188'	24°00'39"	78.78'		
6 CURB	27'	76°14'16"	35.93'	4827.571	5931.917
7 CURB	27'	81°00'47"	38.18'	4754.659	5984.801
8 CURB	168'	24°57'22"	73.18'		
9 ℄	150'	26°39'36"	69.80'	4666.450	6041.758
10 CURB	132'	23°31'20"	54.19'		
11 CURB	32'	48°11'23"	26.91'	4805.600	6271.941
12 CURB	43'	276°22'46"	207.43'	4964.000	6319.000
13 CURB	32'	48°11'23"	26.91'	4904.278	6255.733
14 CURB	82'	79°14'44"	113.41'		
15 ℄	100'	79°14'44"	138.31'	4439.610	6057.593
16 CURB	118'	79°14'44"	163.21'		
17 CURB	27'	90°	42.41'	4284.588	6095.762
18 CURB	27'	82°33'02"	38.90'	4268.768	6184.390

CURVE	RADIUS	DELTA	LENGTH	RADIUS POINT	
19 CURB	143'	39°20'25"	98.19'		
20 ℄	125'	39°20'25"	85.83'	4248.894	6262.032
21 CURB	107'	39°20'25"	73.47'		
22 CURB	107'	25°24'16"	47.44		
23 ℄	125'	26°16'47"	57.33	4129.842	6042.200
24 CURB	143'	26°16'47"	65.59		
25 CURB	82'	100°46'37"	144.23'		
26 ℄	100'	52°50'06"	92.22'		
27 ℄	100'	47°56'29"	83.67'	4413.505	6193.123
28 CURB	118'	27°18'20"	56.24'		
29 CURB	118'	29°51'42"	61.50'		
30 CURB	27'	71°55'11"	33.89'	4341.034	6318.713
31 CURB	32'	48°11'23"	26.91'	4325.000	6339.839
32 CURB	43'	276°22'46"	207.43'	4250.000	6340.000
33 CURB	32'	48°11'23"	26.91'	4258.113	6265.446
34 CURB	27'	71°55'11"	33.89'	4280.890	6251.759
35 CURB	82'	89°50'00"	128.57		
36 ℄	100'	89°50'00"	156.79	4461.887	6393.229
37 CURB	118'	89°50'00"	185.01		
* ℄	125'	2°18'04	5.02	4129.842	6042.200

SELECT INLETS

INLET	ROAD STA	SD 5.1 STA	I.E.	T.O.C.	REF PT.
(A)	IN CURB RETURN (17)	-	IN - 527.10 OUT - 527.00	530.43	4299.626 6122.398
(B)	IN CURB RETURN (18)	-	528.00	530.80	4281.789 6160.732
* (C)	IN CURB RETURN (3.1)	3+35.95	524.70	527.20	4308.398 6258.161
(D)	IN CURB RETURN (6)	-	IN - 491.04 OUT - 490.84	494.29	4903.551 5919.586
(E)	IN CURB RETURN (7)	-	493.00	495.73	4751.435 5957.984

* NOTE: SIDEWALK RAMP FOR CURVE # 3A TO BE PLACED 6 FEET FROM INLET IN ACCORDANCE WITH CITY STD. DETAIL.

HORTON HEIGHTS II

CITY OF WEST LINN, OREGON

REGISTERED PROFESSIONAL ENGINEER — OREGON — JULY 19, 1979 — Gerald Carter Kempenich

DATE	NO	REVISION
9-5-79	7	AS-BUILT
6-12-79	6	INLETS ON APOLLO CT
12-13-78	5	APOLLO CT. GRADE
11-9-78	4	AS PROVED FOR CONST
11-8-78	3	SD5; SD 5.1
11-8-78	2	GRADE POSEIDON COURT, SD5.1
9-26-78	1	EASEMENTS, ELEV

DRAWN BMS

SCALE AS NOTED DATE 9-22-78

FILE T7-1135-931-II

COMPASS CORPORATION

ENGINEERING SURVEYING PLANNING 653-9093

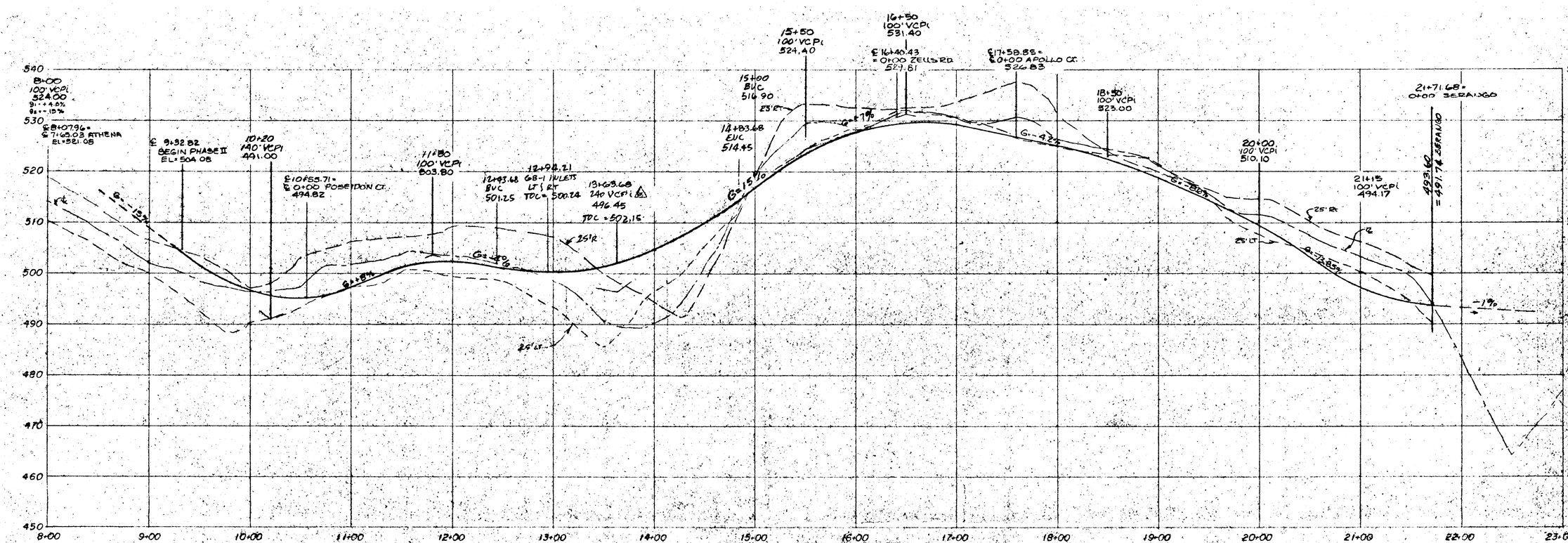
8564 S.E. LAKE ROAD MILWAUKIE, OREGON 97222

MR. NICK FOSSES
1957 CARRIAGE WAY
WEST LINN OREGON 97068 636-0220

ROADWAY IMPROVEMENT PLAN AND PROFILE

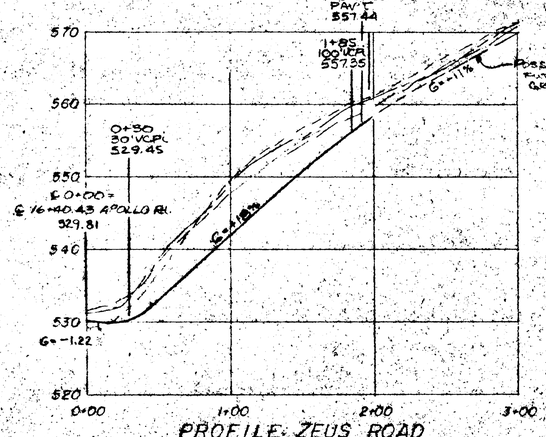
OCT 29 1979

2 / 9



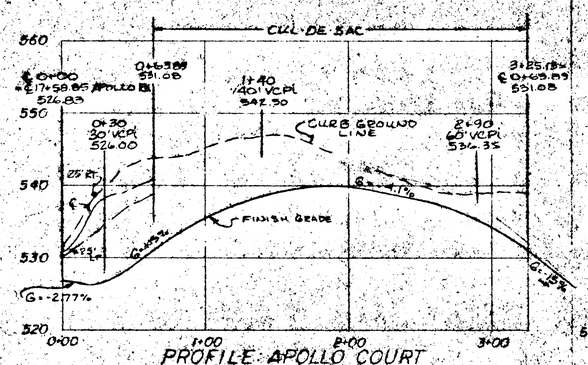
PROFILE · APOLLO ROAD

1" = 50' HORIZ 1" = 10' VERT



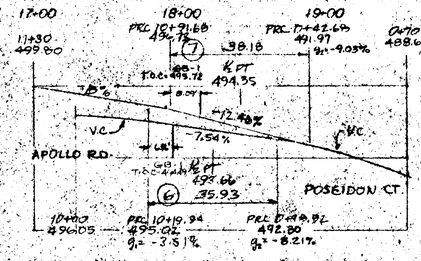
PROFILE · ZEUS ROAD

1" = 50' HORIZ 1" = 10' VERT

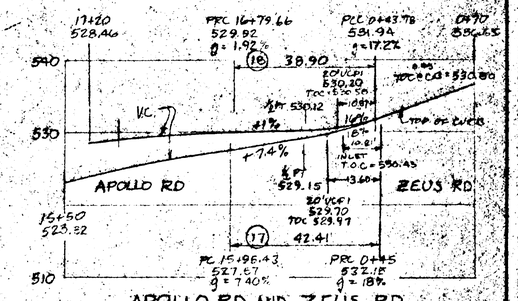


PROFILE · APOLLO COURT

1" = 50' HORIZ 1" = 10' VERT



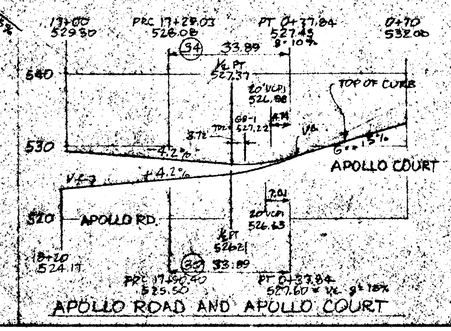
APOLLO RD. AND POSEIDON CT.



APOLLO RD. AND ZEUS RD.

CURB RETURN PROFILES

1" = 20' HORIZ 1" = 10' VERT



APOLLO ROAD AND APOLLO COURT

HORTON HEIGHTS II
CITY OF WEST LINN OREGON

DATE	NO.	REVISION
10-17-79	7	AS CONSTRUCTED
6-12-79	6	APOLLO RD. VC LENGTH INCREASED
12-18-78	5	APOLLO CT. GRADES
11-9-78	4	APPROVED FOR CONST.
11-8-78	3	GRADES
10-17-78	2	GRADES
9-26-78	1	GRADES

DRAWN
SCALE AS SHOWN DATE 9-22-78
FILE 77-1135-931-II

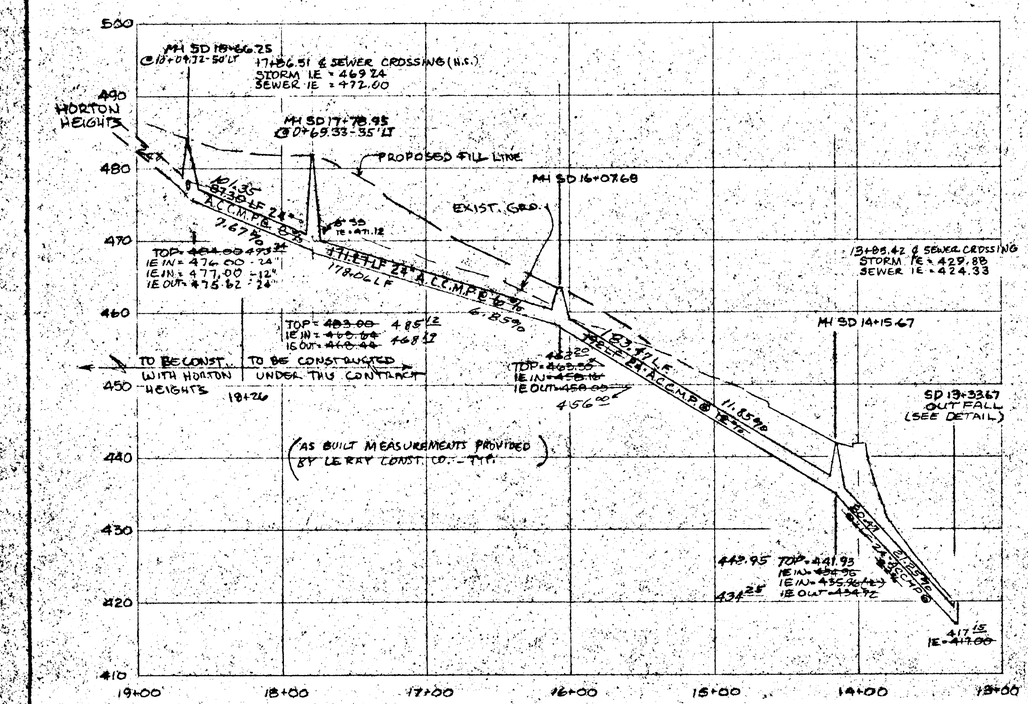
COMPASS CORPORATION
ENGINEERING · SURVEYING · PLANNING
6564 S.E. LAKE ROAD MILWAUKIE, OREGON 97222

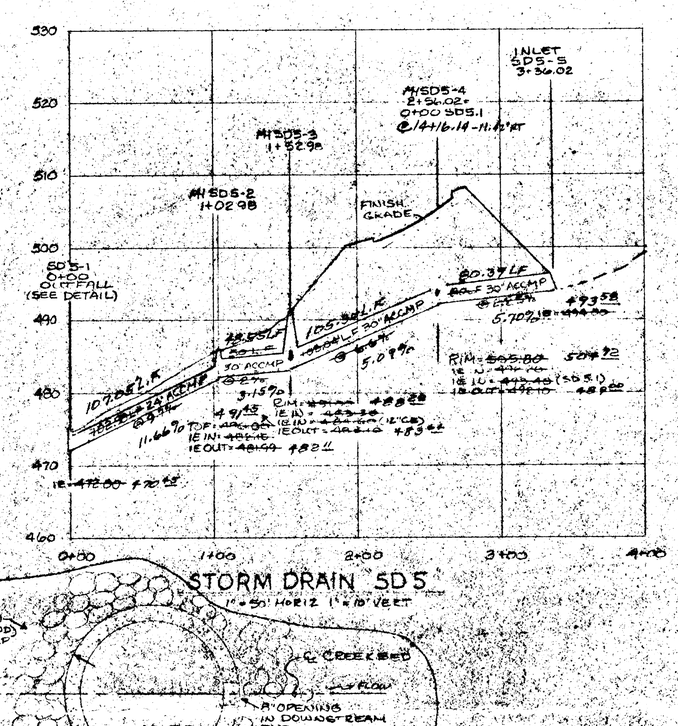
MR. NICK FOSSES
1957 CARRIAGE WAY
WEST LINN, OREGON 97068
636-0220

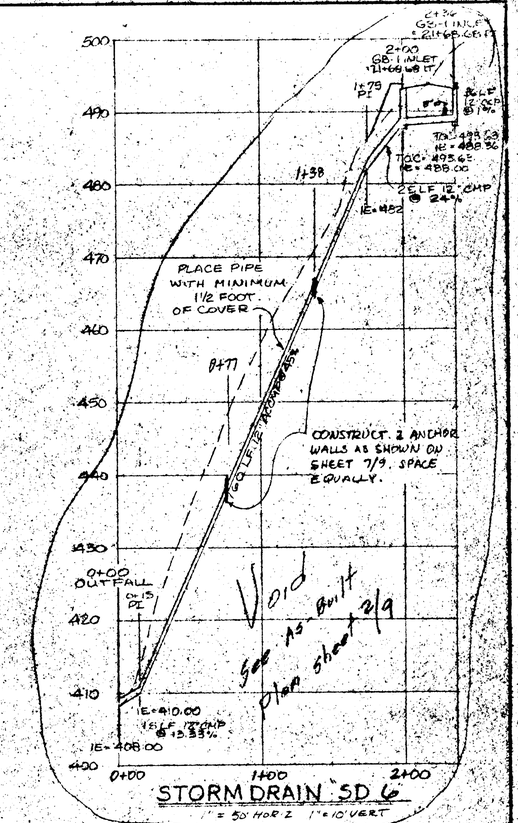
STREET PROFILES

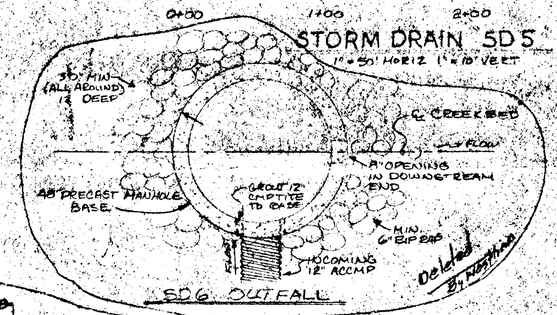
OCT 29 1979

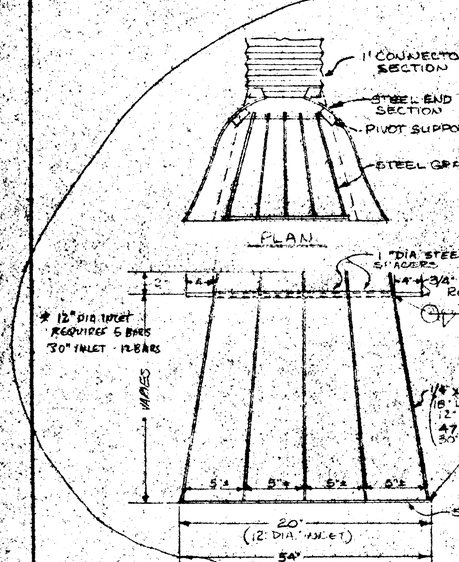
3 / 9

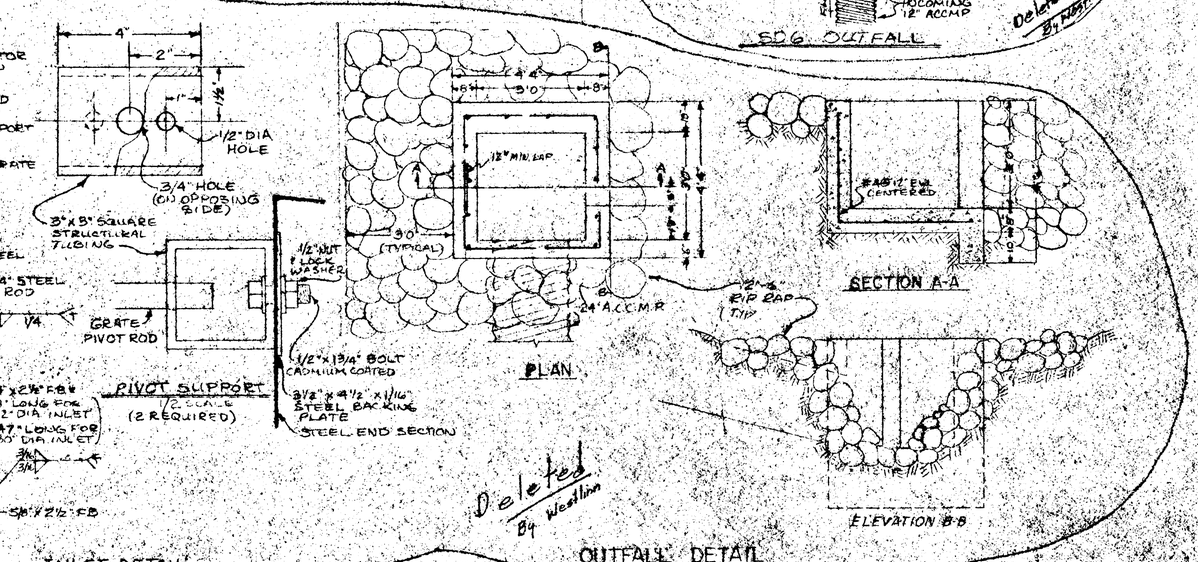


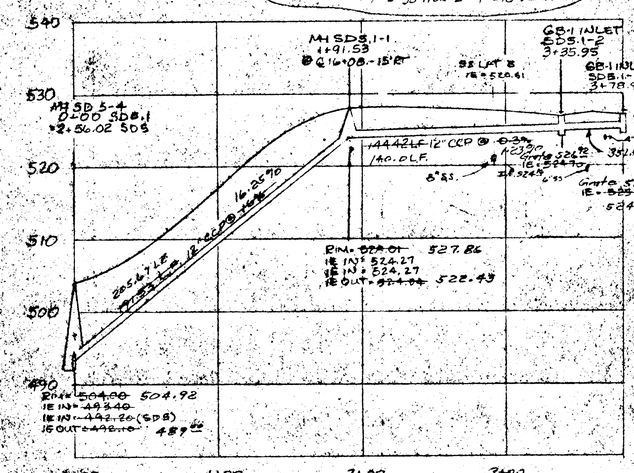












DATE	NO.	REVISION
8-31-79	7	As-Built Sheet Index
6-12-79	6	SD 5-Apollo Rd Grade
12-18-78	5	SD 5.1
11-9-78	4	APPROVED FOR CONST
11-8-78	3	SD 5, SD5.1
11-7-78	2	SD6 OUTFALL, SD 5.1
10-19-78	1	SD 5, SD5, SD5.1, MOVE WALLS

DRAWN B.MS
SCALE AS SHOWN DATE 9-22-78
JOB 77-1135-931-II

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

NICK FOSSES
1957 CARRIAGE WAY
WEST LINN, OREGON 97068
PH. 636-0220

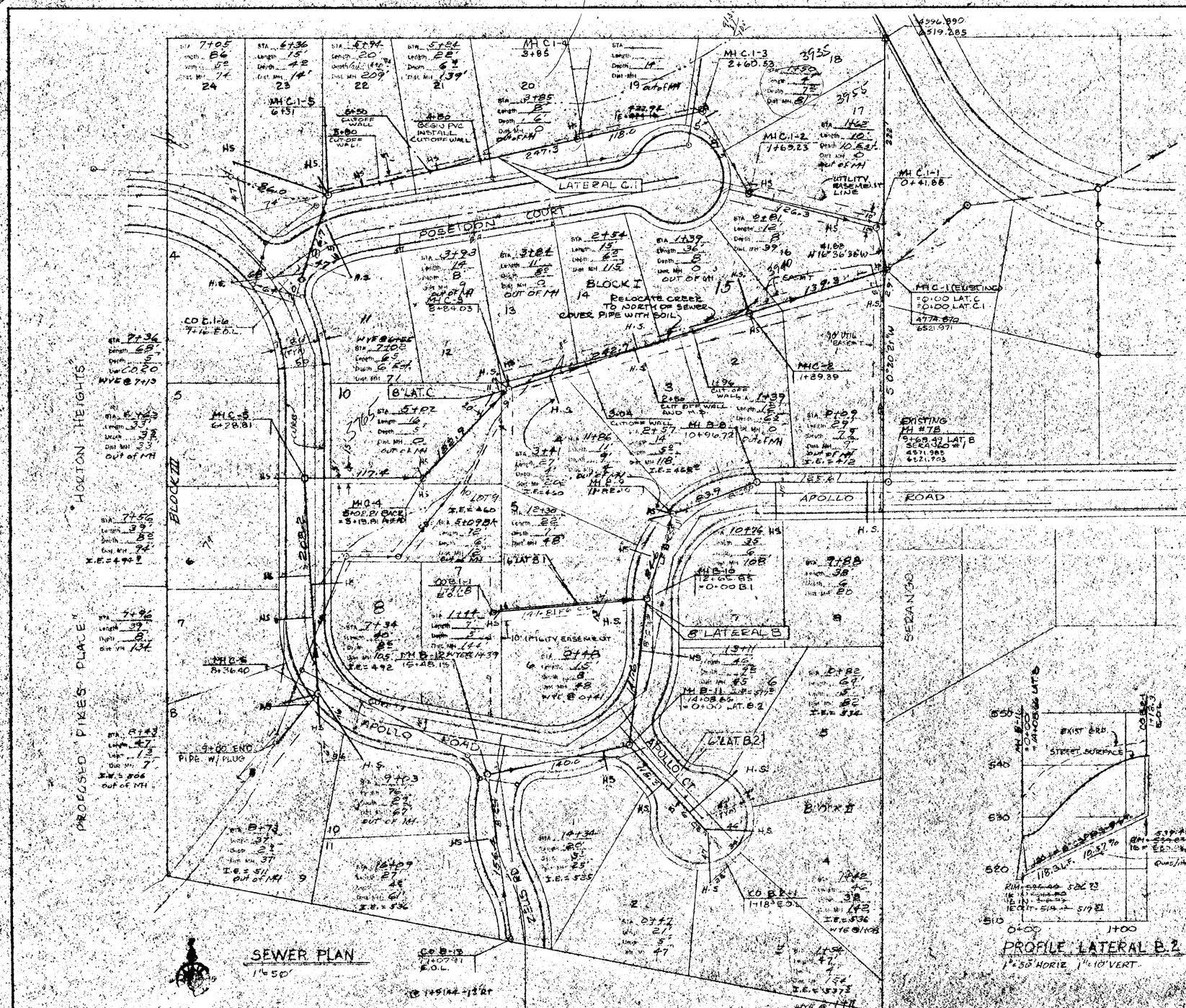
STORM DRAIN PROFILES AND DETAILS
OCT 29 1979

4 / 9

HORTON HEIGHTS II
CITY OF WEST LINN; OREGON

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 13, 1977
Gerald Calvin Kitzmiller

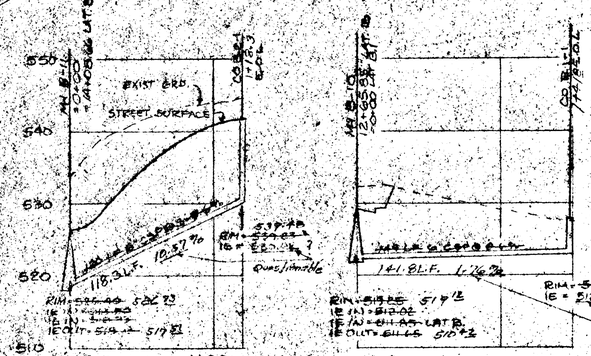
Wilsonville Print & Blueprint Company



SANITARY SEWER CONSTRUCTION NOTES:

- CONSTRUCTION SHALL CONFORM WITH THE CITY 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 ACCOMODATE 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 PLAN AND PROFILE 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.
- COMPACTION SHALL BE SUFFICIENT TO PREVENT FUTURE SETTLEMENT. 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.
- TRENCHES OUTSIDE OF RIGHTS-OF-WAY MAY BE BACKFILLED WITH EXCAVATED TRENCH MATERIALS. CONTRACTOR SHALL MOUND SOIL OVER TRENCH TO COMPENSATE FOR NORMAL SETTLEMENT.
- CONTRACTOR SHALL PREPARE A PRINT OF THE ENGINEER SHOWING AS-CONSTRUCTED DATA: STATION OF WYE ALONG SEWER, LENGTH OF CONNECTION AND DEPTH 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.
- ~~MANHOLE C-4 OR C-5 MAY POSSIBLY BE ELIMINATED DEPENDING ON FIELD CONDITIONS FOUND DURING CONSTRUCTION.~~
- PVC SEWER PIPE SHALL BE ASTM 3034 SDR 35, SERVICE SADDLES TO BE GASKETED WITH TWO STAINLESS STEEL STRAPS AND RING-TYPE BELL OUTLET. WYE FITTING MAY BE SUBSTITUTED FOR SADDLE.
- FOR CUT-OFF WALL DETAILS USE CONCRETE ANCHOR WALL DETAIL ON SHEET 7/9

AS-BUILT MEASUREMENTS PROVIDED BY LEROY CONSTRUCTION, INC.



PROFILE LATERAL B.2
1"=50' HORIZ 1"=10' VERT.

PROFILE LATERAL B.1
1"=50' HORIZ 1"=10' VERT.

HORTON HEIGHTS II
CITY OF WEST LINN, OREGON

REGISTERED PROFESSIONAL ENGINEER — OREGON — JULY 19, 1978

DATE	NO.	REVISION
9-5-79	7	AS-BUILT
4-3-79	6	LAT. C DIR AND ANCHORS
12-6-78	5	CO B-2 LOW
11-9-78	4	APPROVED FOR CONST.
11-8-78	3	PVC SDR35, ALTERNATE, CUT-OFFS
10-17-78	2	E.O.L. 3 & 4 LAT. C
9-26-78	1	(EASEMENT) MH C-4 (WITHDRAWN)

DRAWN B.A.S.
SCALE AS NOTED DATE 9-22-78
FILE 77-1135-931-II

COMPASS CORPORATION
ENGINEERING - SURVEYING - PLANNING
6564 S.E. LAKE ROAD MILWAUKIE, OREGON 97222 653-9595

MR. NICK FOSSES
1957 CARRIAGE WAY
WEST LINN, OREGON 97068 636-0220

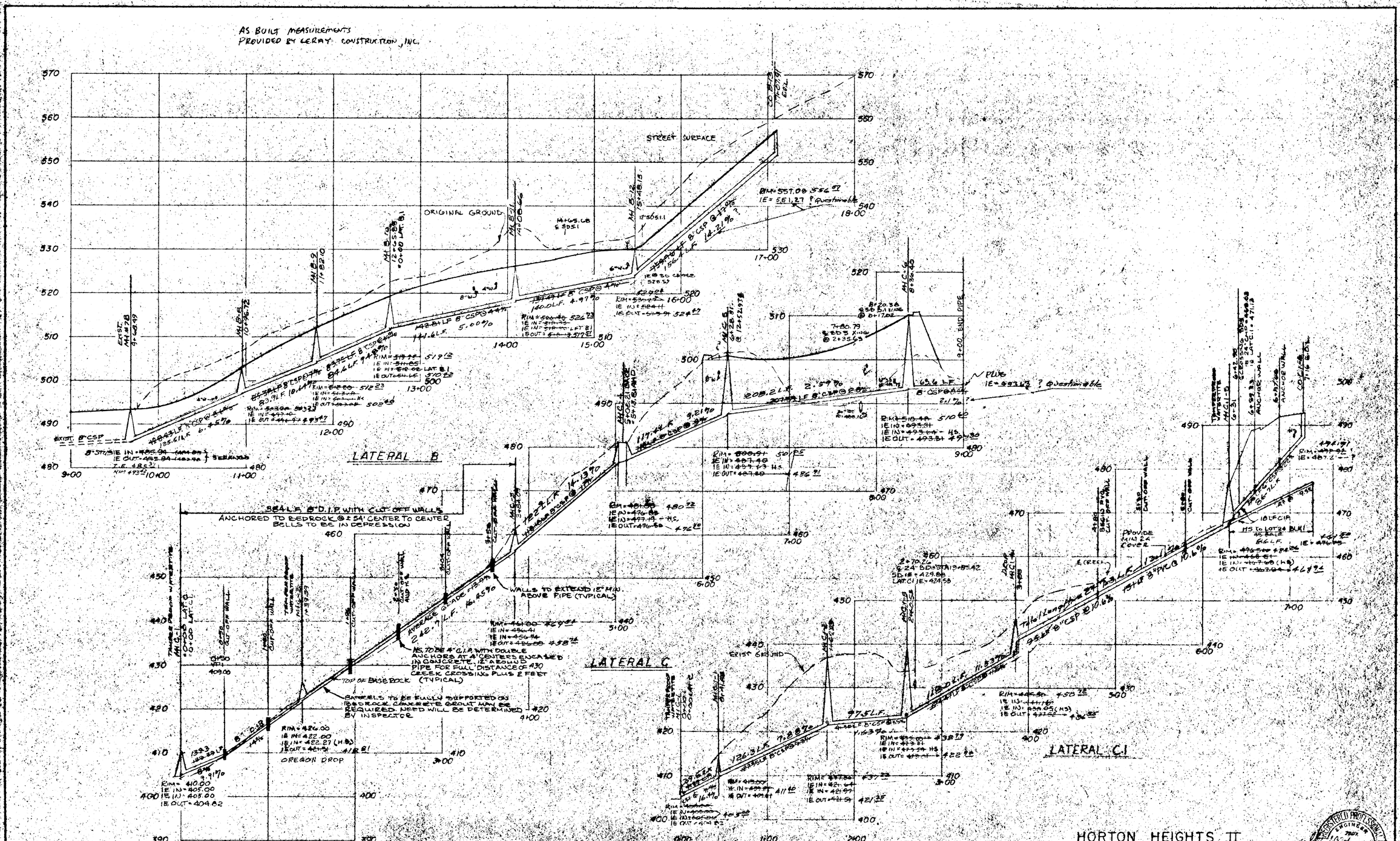
SANITARY SEWER PLAN AND PROFILE

OCT 29 1979

5 / 9

Wilsonville Print & Blueprint Company

AS BUILT MEASUREMENTS
PROVIDED BY LERAY CONSTRUCTION, INC.



HORTON HEIGHTS II
CITY OF WEST LINN, OREGON

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 13, 1979
Gary Dale Kimsing

DATE	NO.	REVISION
8-31-79	8	As-Built Lengths & Grades GDK
6-12-79	7	Apollo Rd Grade, Pl Elev C5/C6
4-3-79	6	LAT C, D.I.P., Anchors
11-21-78	5	LAT C Drop - Revised 11-30-78
11-9-78	4	Approved for Const.
11-8-78	3	D.I.P., Cut Off Wall
10-17-78	2	E.O.L. 9+00 Lateral C
9-25-78	1	Drain.

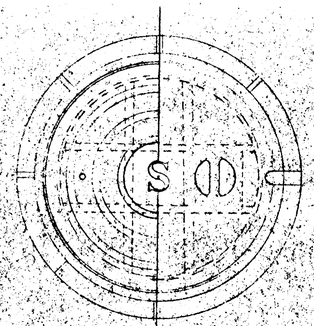
DRAWN: B. MC / GLK
1" = 50' HORIZ
SCALE 1" = 12' VERT
DATE 9-22-78
FILE 77-1135-931-II

COMPASS CORPORATION
ENGINEERING - SURVEYING - PLANNING
6564 S.E. LAKE ROAD PH. 653-9093 MILWAUKIE, OREGON 97222

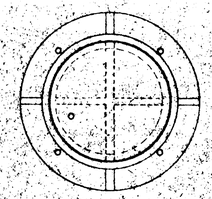
NICK FOSSES
1957 CARRIAGE WAY
WEST LINN, OREGON 97068
PH. 636-0220

SANITARY SEWER PROFILES OCT 29 1979

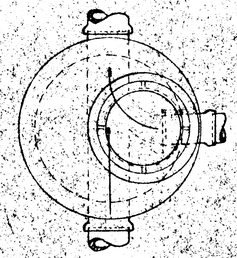
6 / 9



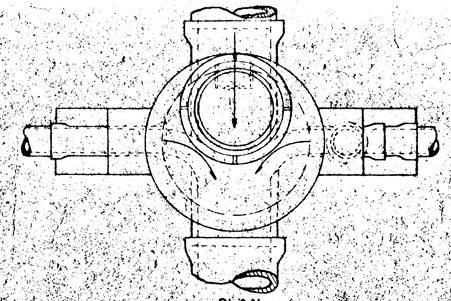
GRAY IRON CASTINGS SHALL CONFORM TO A.S.T.M. A-48



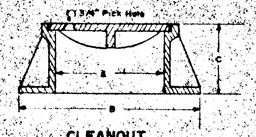
PLAN



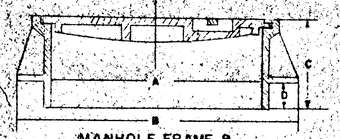
PLAN of TOP



PLAN

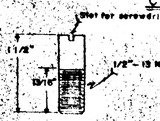


CLEANOUT
FRAME AND COVER



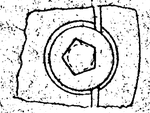
MANHOLE FRAME & COVER

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	--		

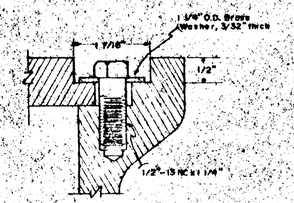


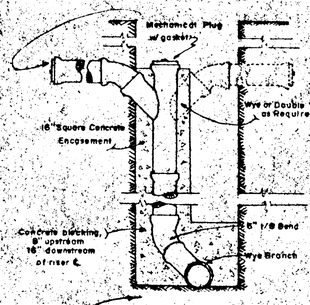
LOCATING STUD

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

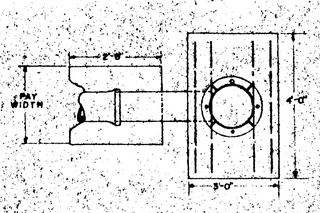


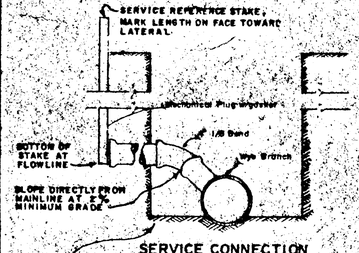
TAMPERPROOFING for MANHOLE COVERS
NOT TO SCALE



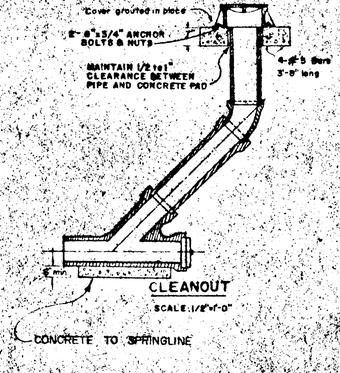


STANDING CONNECTION
SCALE: 1/2"=1'-0"
BEDDING AS REQUIRED

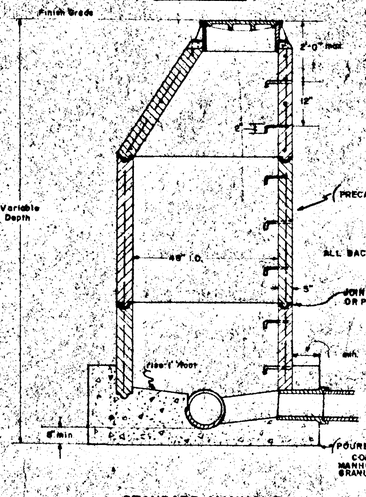




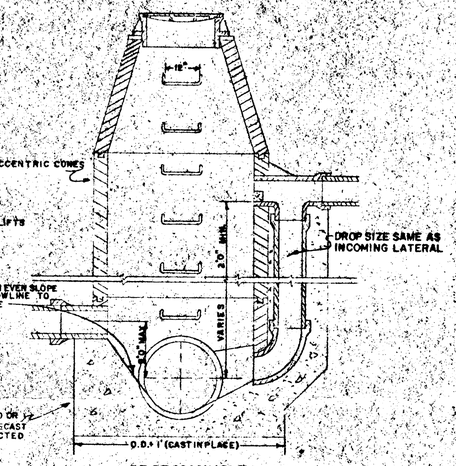
SERVICE CONNECTION
SCALE: 1"=1'-0"
BEDDING AS REQUIRED



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

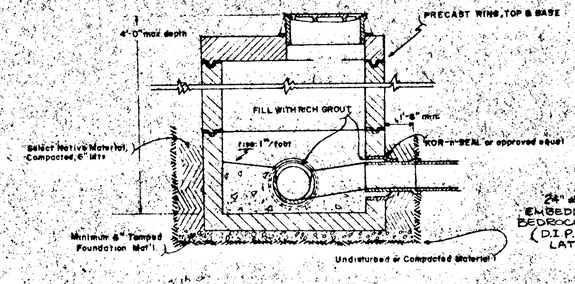


STANDARD MANHOLE
SCALE 1/2"=1'-0"

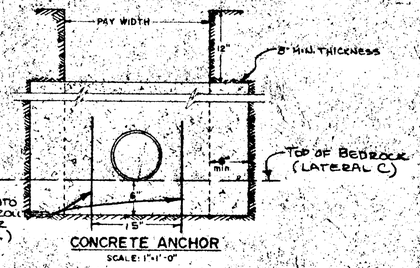


DROP MANHOLE
SCALE: 1/2"=1'-0"

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



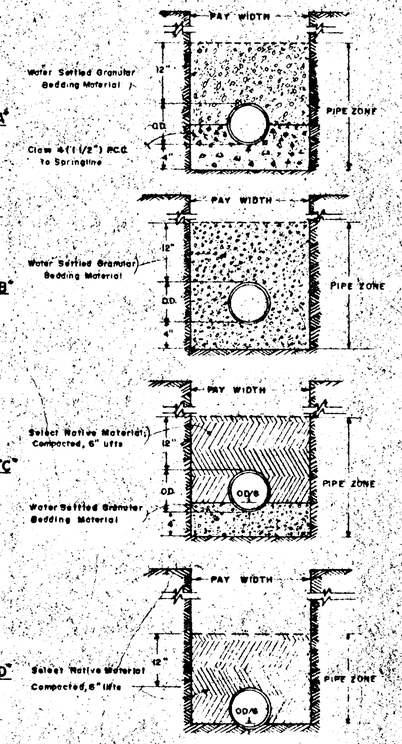
SHALLOW MANHOLE
SCALE: 1/2"=1'-0"



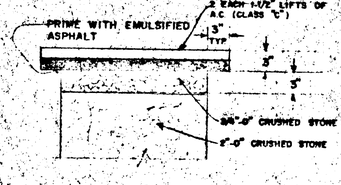
CONCRETE ANCHOR
SCALE: 1"=1'-0"

* 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

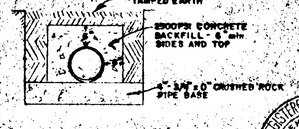
* SEE ALSO PROFILE GUIDELINE



BEDDING REQUIREMENTS
NOT TO SCALE



A.C. PAVEMENT RESTORATION



CREEK CROSSING CONCRETE BACKFILL DETAIL

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 13, 1978
Donald Clifton Rammerman

HORTON HEIGHTS II
CITY OF WEST LINN, OREGON

DATE	NO.	REVISION
10-17-79	4	AS CONSTRUCTED
4-3-79	3	ANCHOR FOR D.I.P.
11-9-78	2	APPROVED FOR CONST.
11-8-78	1	ANCHOR WALL THICKNESS

DRAWN: AS SHOWN DATE: 9-27-78
FILE: 77-1135-931-II

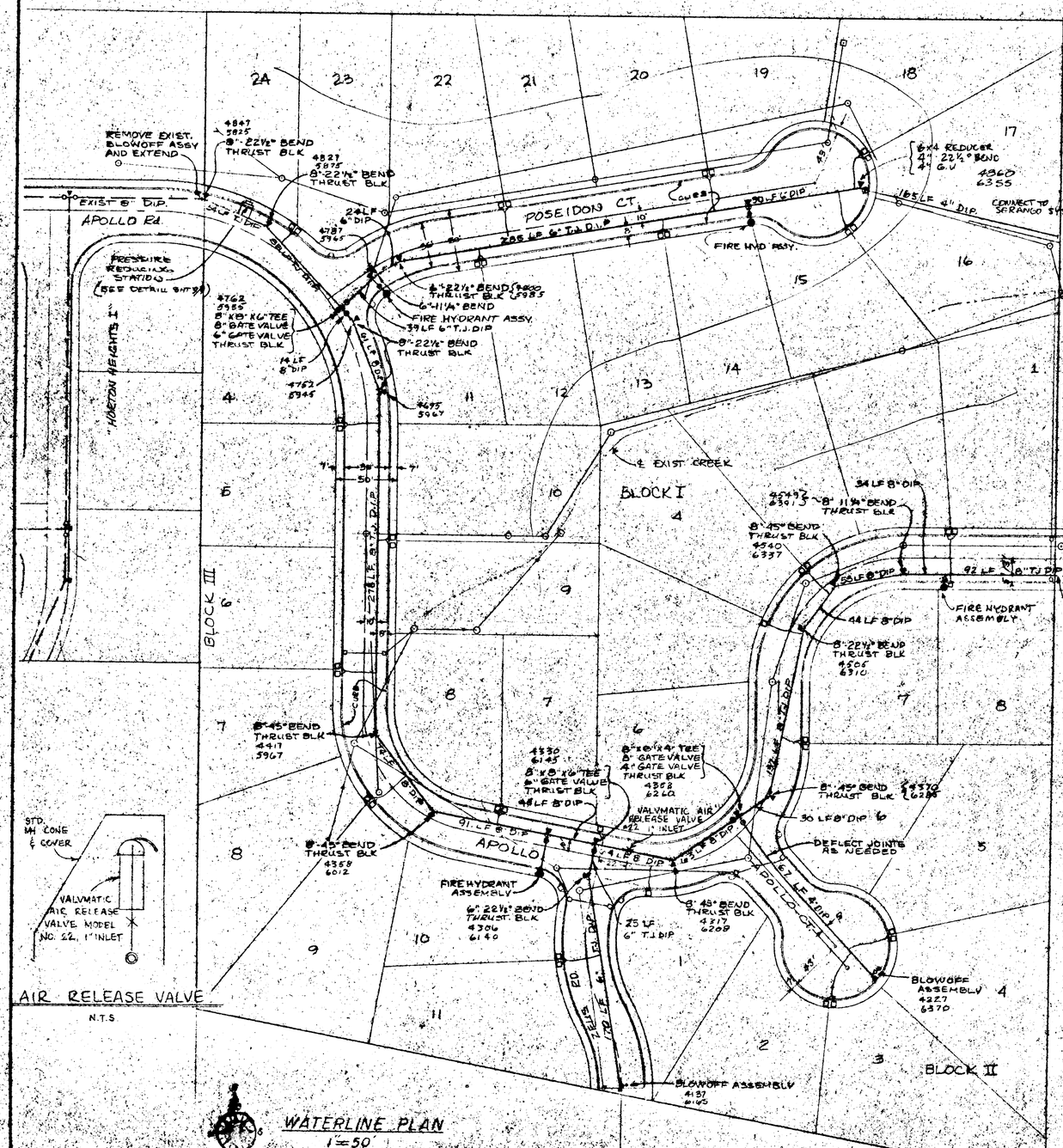
COMPASS CORPORATION
ENGINEERING · SURVEYING · PLANNING
6564 S.E. LAKE ROAD MILWAUKIE, OREGON 97222
653-9093 222-4652

NICK FOSSES
1957 CARRIAGE WAY PH. 636-0220
WEST LINN, OREGON 97068

CONSTRUCTION DETAILS

OCT 29 1979

7/9



WATERLINE PLAN
1"=50'

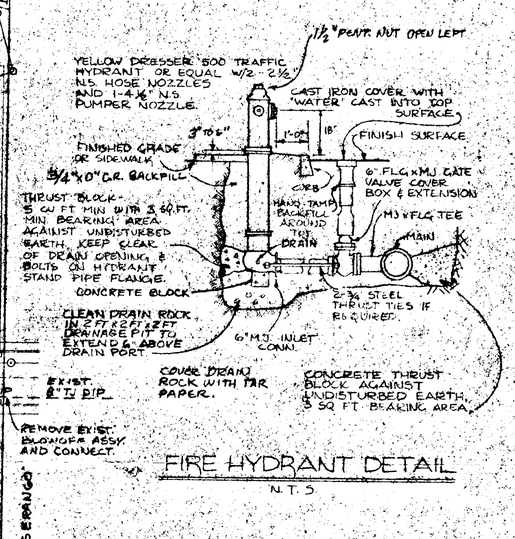
AIR RELEASE VALVE
N.T.S.

THRUST BLOCK NOTES

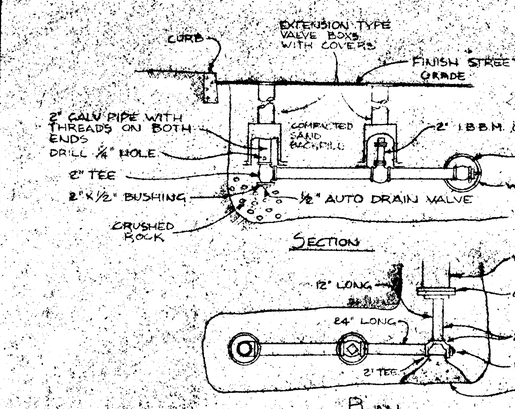
1. Concrete thrust blocking to be poured against undisturbed earth.
2. Keep concrete clear of joint and accessories.
3. If not shown on plans, required bearing areas at fitting shall be as indicated below, adjusted if necessary, to conform to the test pressure(s) and allowable soil bearing stress(es) determined by inspector.

FITTING SIZE	TEE, WYE PLUG OR CAP	90° BEND PLUGGED CROSS	TEE PLUGGED RUN ON	TEE PLUGGED RUN AL	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	-
8	3.8	5.3	7.6	5.4	2.9	1.5	1.0

4. Above bearing areas based on test pressure of 150 p.s.i. and an allowable soil bearing stress of 2,000 points 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).



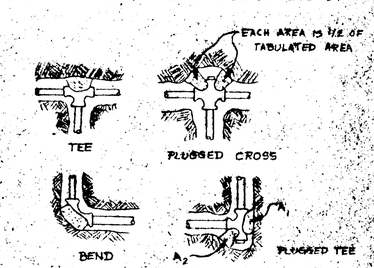
FIRE HYDRANT DETAIL
N.T.S.



BLOW OFF DETAIL
N.T.S.

WATER LINE CONSTRUCTION NOTES:

- CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND SHALL CONSTRUCT THE WATERMAIN 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 3/4 INCH.
- DOUBLE SERVICES TO BE 1 INCH.
- COPPER TUBE BENDS TO BE SMOOTH RADIUS.
- METER BOXES TO BE NO. 1 METER BOX AS MANUFACTURED BY METER BOX MANUFACTURE COMPANY, TIGARD, OREGON.
- SERVICE TAPS TO BE AT LEAST 18 INCHES APART. SADDLES REQUIRED.
- CONTRACTOR TO INSTALL PIPELINE AND HOUSE SERVICES TO, AND INCLUDING, CURB STOPS AND METER 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 54 AND SHALL CONFORM TO ASTM C 110, C150 AND C151.
- DUCTILE CAST 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 6 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 2 HOURS. PIPE LINE 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 12-INCH MINUS. MATERIALS SHALL BE PLACED IN 8-INCH LIFTS AND COMPACTED TO 95 PERCENT RELATIVE DENSITY. OTHER AREAS—BACKFILL ABOVE PIPE ZONE SHALL BE NATIVE MATERIAL FREE OF ORGANIC MATTER OR ROCKS GREATER THAN 3 INCHES IN SIZE. COMPACTION SHALL BE SUCH AS REQUIRED TO ELIMINATE FUTURE SETTLEMENT.
- INDIVIDUAL PRESSURE REDUCING VALVES WILL BE REQUIRED FOR LOTS 1-5, AND 9-24 BLOCK I. SEE SHEET 9/9. VALVES TO BE SUPPLIED BY HOME BUILDER.



THRUST BLOCKING DETAILS

DATE	NO.	REVISION
9-5-79	7	AS-BUILT
1-5-79	6	APPROV. FOR CONST.
11-15-78	5	SHT. NO., PRV STA.
10-10-78	3	PVC TO DIP, DEPTH OF PIPELINE
10-6-78	2	PRV, STA.
9-25-78	1	PRV STATION, WATERLINE

DRAWN CRR
SCALE AS SHOWN DATE 9-22-78
FILE 77-1135-931-II

COMPASS CORPORATION
ENGINEERING · SURVEYING · PLANNING
6564 S.E. LAKE ROAD MILWAUKIE, OREGON 97222 653-9093

NICK FOSSES
1957 CARRIAGE WAY
WEST LINN, OREGON 97068
654-7736

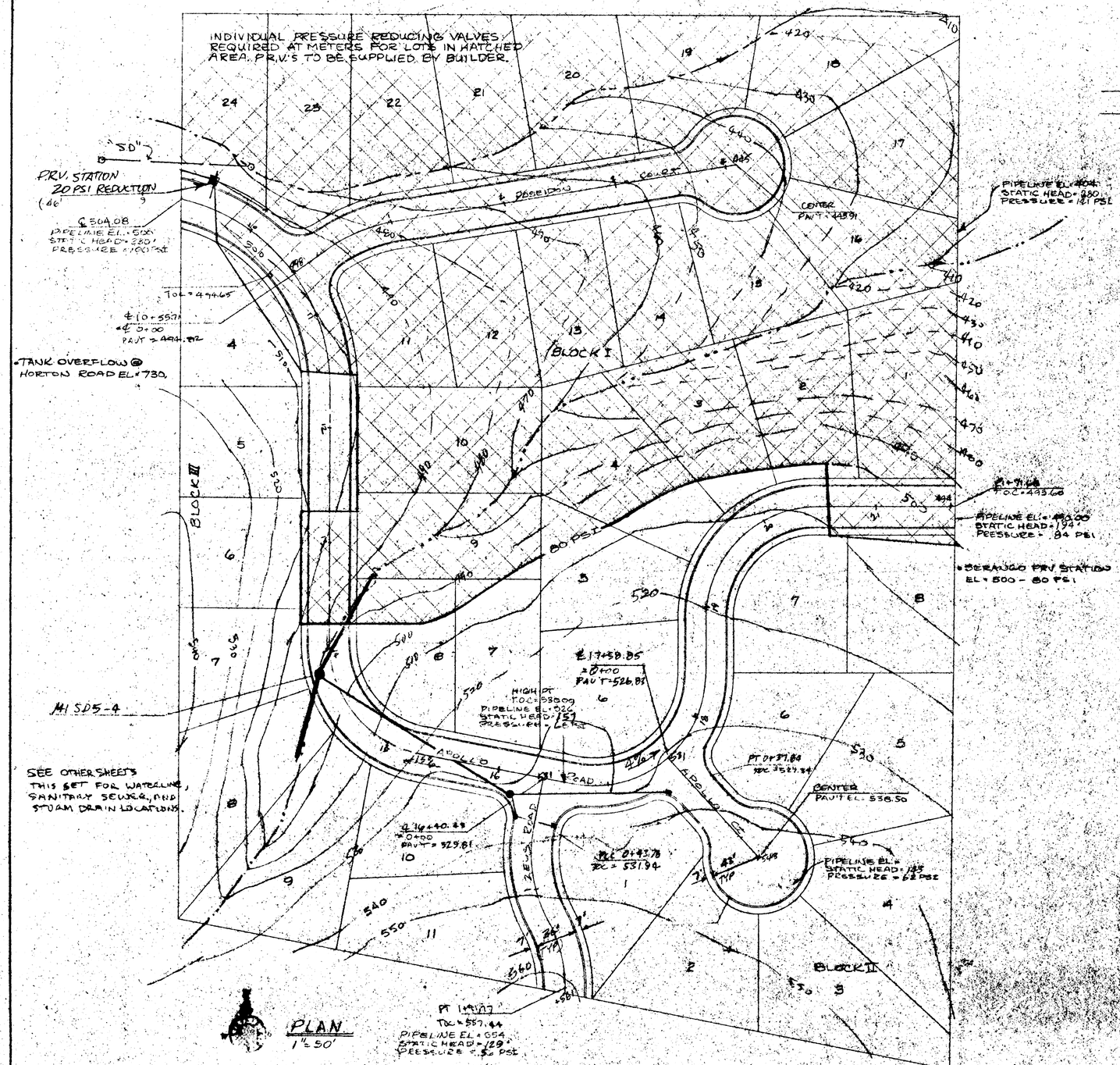
WATERLINE AND SERVICE PLAN

OCT 29 1979

8/9

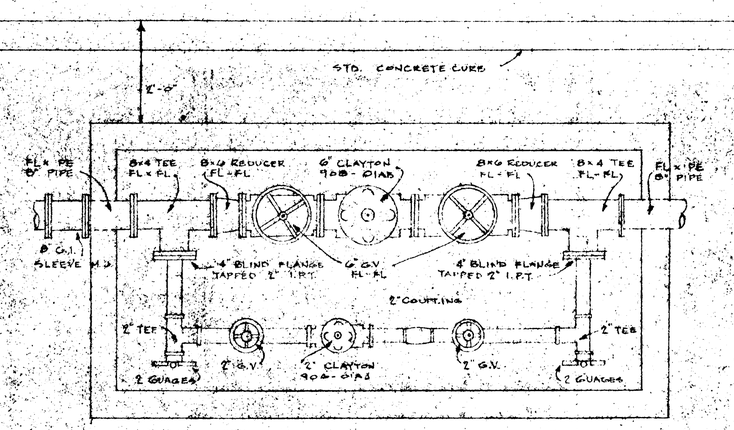
REGISTERED PROFESSIONAL ENGINEER
JOHN C. KEMMER
OREGON
JULY 19, 1978

HORTON HEIGHTS II
CITY OF WEST LINN, OREGON



NOTES

- ~~CONTRACTOR MAY SUBSTITUTE VAULT STYLE 678-WA-44-392F BY UTILITY VAULT CO. OF WILSONVILLE, OREGON~~
- ~~2 HINGED AND SPRING LOCKED STEEL PLATE COVERS HINGED AT BOTH ENDS OF VAULT TO BE EQUIVALENT TO COVERS PROVIDED BY UTILITY VAULT CO. OF WILSONVILLE, ORE.~~
- TOP OF VAULT TO BE ADJUSTED TO FUTURE SIDEWALK ELEVATION.

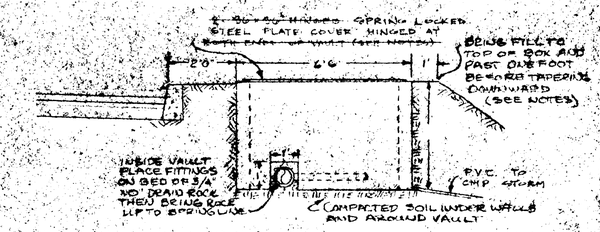


PRESSURE REDUCING ASSEMBLY

N.T.S.

NOTES:

- ALL 2" FITTINGS I.P.T.
- GUAGES TO BE ORIENTED TO BE READ FROM STONING
- INSIDE DIMENSION OF VAULT - 8'-6" x 6'-0" x 6'-0"



VAULT END ELEVATION

HORTON HEIGHTS II
CITY OF WEST LINN, OREGON

REGISTERED PROFESSIONAL ENGINEER
JULY 25, 1979
Earl Gary Kennedy

DATE	NO.	REVISION
10-26-79	5	PRESSURE RED. STA. AS BUILT
10-19-79	4	AS CONSTRUCTED
1-5-79	3	APPROV. FOR CONST.
11-13-78	2	TITLE, DETAILS, SUT. DA. PRESS
10-27-78	1	WATER LINE PRESSURE DIST

DRAWN GCK
SCALE AS SHOWN | DATE 9-27-78
FILE 77-1135-931-II

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

MR. NICK FOSSES
1957 CARRIAGE WAY
WEST LINN, OREGON 97068 636-0220

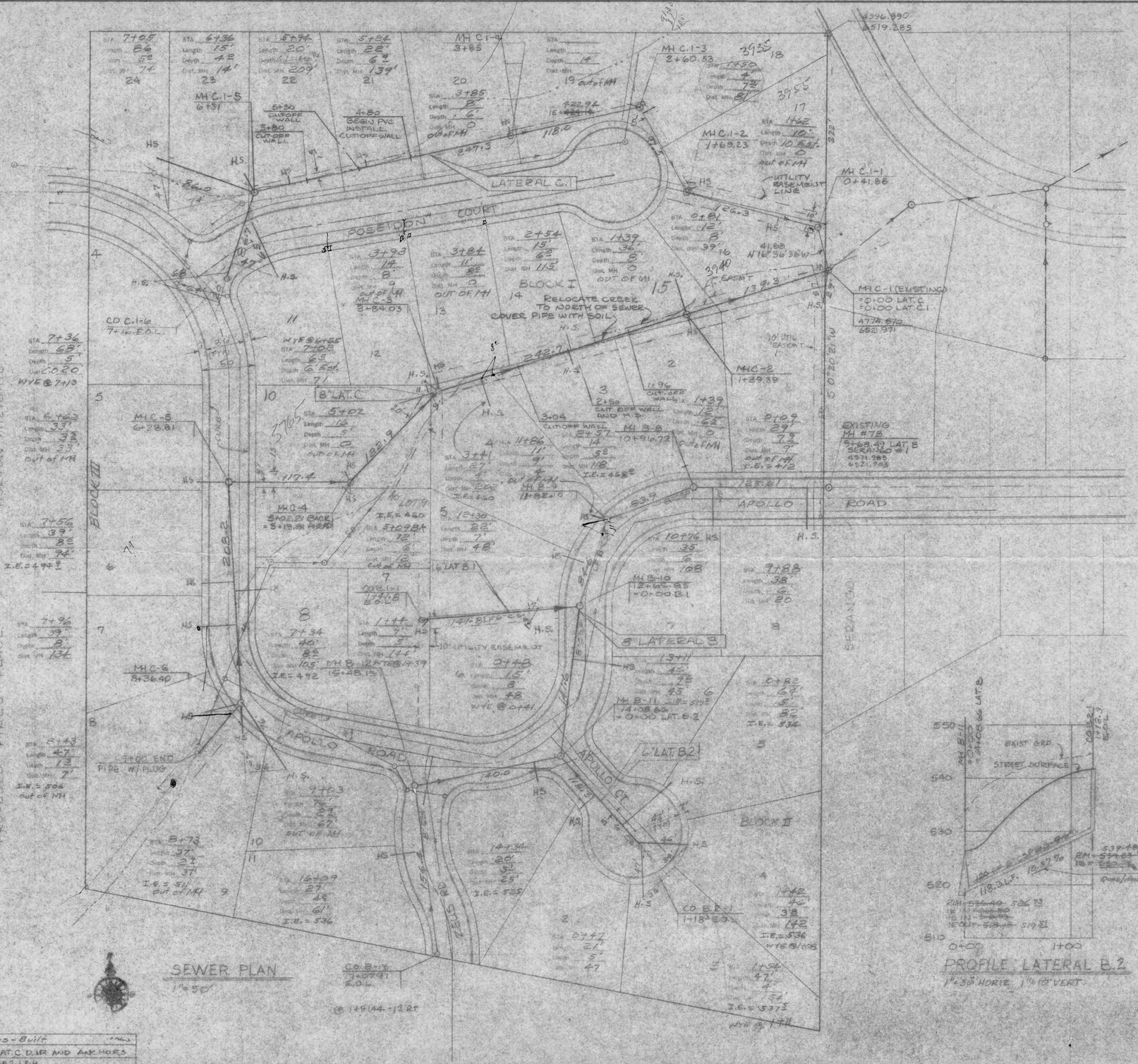
WATERLINE DETAILS AND PRECONSTRUCTION SITE CONTOURS

OCT 29 1979

9/9

Second Scan

This As-Built was scanned twice due to illegibility issues of the original scan.

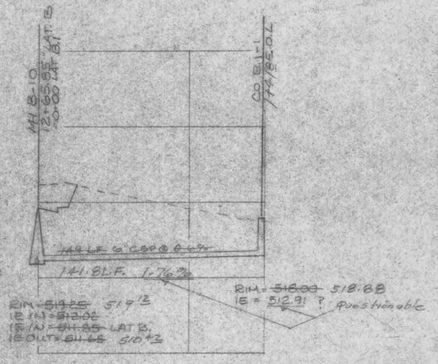


SANITARY SEWER CONSTRUCTION NOTES:

- CONSTRUCTION SHALL CONFORM WITH THE CITY 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 ACCOMODATE 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 PLAN AND PROFILE 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.
- COMPACTION SHALL BE SUFFICIENT TO PREVENT FUTURE SETTLEMENT. 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.
- TRENCHES OUTSIDE OF RIGHTS-OF-WAY MAY BE BACKFILLED WITH EXCAVATED TRENCH MATERIALS. CONTRACTOR SHALL MOUND SOIL OVER TRENCH TO COMPENSATE FOR NORMAL SETTLEMENT.
- CONTRACTOR SHALL PREPARE A PRINT OF THE ENGINEER SHOWING AS-CONSTRUCTED DATA: STATION OF WYE ALONG SEWER, LENGTH OF CONNECTION AND DEPTH 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.
- ~~MANHOLE C-4 OR C-5 MAY POSSIBLY BE ELIMINATED DEPENDING ON FIELD CONDITIONS FOUND DURING CONSTRUCTION.~~
- PVC SEWER PIPE SHALL BE ASTM 3034 SDR 35, SERVICE SADDLES TO BE GASKETED WITH TWO STAINLESS STEEL STRAPS AND RING-TITE BELL OUTLET. WYE FITTING MAY BE SUBSTITUTED FOR SADDLE.
- FOR CUT-OFF WALL DETAILS USE CONCRETE ANCHOR WALL DETAIL ON SHEET 7/9

AS-BUILT MEASUREMENTS PROVIDED BY LERAY CONSTRUCTION, INC.

PROFILE LATERAL B.2
1"=50' HORIZ. 1"=10' VERT.



PROFILE LATERAL B.1
1"=50' HORIZ. 1"=10' VERT.

HORTON HEIGHTS II
CITY OF WEST LINN, OREGON

REGISTERED PROFESSIONAL ENGINEER — OREGON — JULY 19, 1978

DATE	NO.	REVISION
9-8-79	7	AS-BUILT
4-3-79	6	LAT. C DIR AND ANCHORS
12-13-78	5	COB 2.1 RIM
11-9-78	4	APPROVED FOR CONST.
11-8-78	3	PVC SDR35, ALTERNATE, CUT-OFFS
10-17-78	2	E.O.L. 7:00 LAT. C
9-29-78	1	EASEMENTS, ANCHORS, WYE-LINE

DRAWN B.M.S.
SCALE AS NOTED DATE 9-22-78
FILE 77-1135-931-II

COMPASS CORPORATION
ENGINEERING · SURVEYING · PLANNING
6564 S.E. LAKE ROAD MILWAUKIE, OREGON 97222 653-9095

MR. NICK FOSSES
1957 CARRIAGE WAY
WEST LINN, OREGON 97068
636-0220

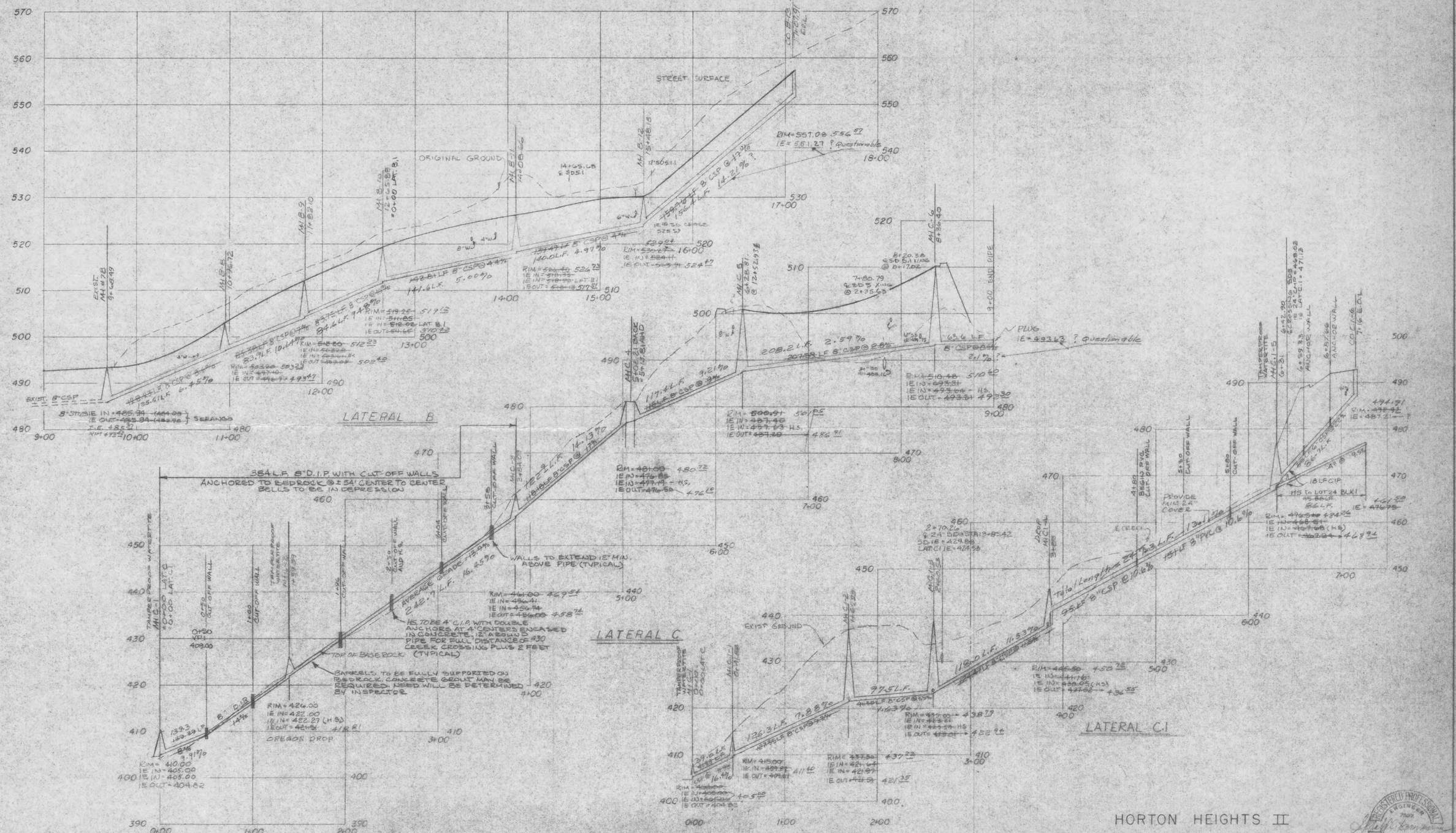
SANITARY SEWER PLAN AND PROFILE

OCT 29 1979

5 / 9

Wilsonville Print & Blueprint Company

AS BUILT MEASUREMENTS
PROVIDED BY LERAY CONSTRUCTION, INC.



8-31-79	8	As-Built Lengths & Grades DMW
6-12-79	7	Approved Rd Grade, MH Elev. C-5 & C-6
4-5-79	6	Lat. C, D.I.P., Anchors
11-21-78	5	Lat. C Drop - Approved 6-29-78
11-9-78	4	Approved for Const.
11-8-78	3	Pvc, Cut off walls
10-17-78	2	B.O.L 9+00 Lateral C
9-25-78	1	Grade
DATE	NO.	REVISION

DRAWN B.MS / GCK
1" = 50' HORIZ
SCALE 1" = 10' VERT
DATE 9-22-78
FILE 77-1135-931-II

COMPASS CORPORATION
ENGINEERING SURVEYING PLANNING
6564 S.E. LAKE ROAD PH. 654-9203 MILWAUKIE, OREGON 97222

NICK FOSSES
1957 CARRIAGE WAY
WEST LINN, OREGON 97068
PH. 636-0220

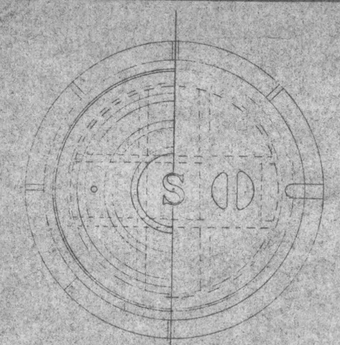
SANITARY SEWER PROFILES

OCT 29 1979

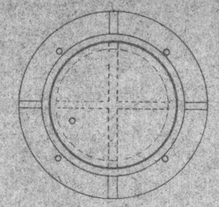
6 / 9

HORTON HEIGHTS II
CITY OF WEST LINN, OREGON

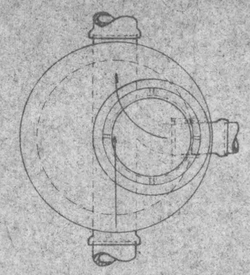
REGISTERED PROFESSIONAL ENGINEER
OREGON



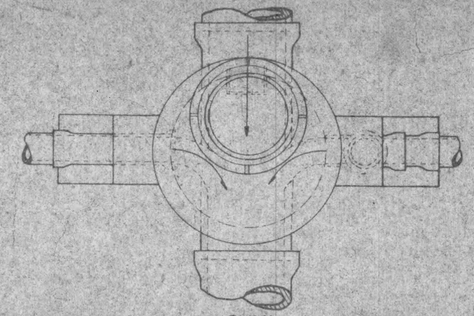
GRAY IRON CASTINGS SHALL CONFORM TO A.S.T.M. A-48



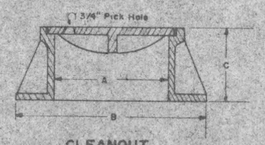
PLAN



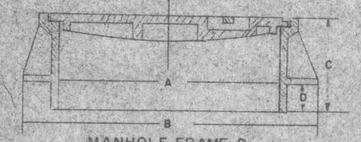
PLAN of TOP



PLAN

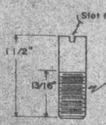


CLEANOUT FRAME AND COVER



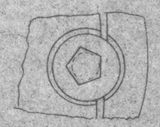
MANHOLE FRAME & COVER

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	--		



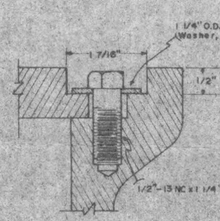
LOCATING STUD

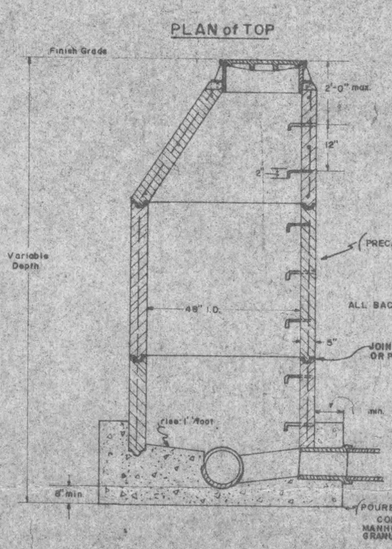
CAP SCREW
3 Req'd., Pent. Head, Bronze or Cad. Plate



TAMPERPROOFING for MANHOLE COVERS

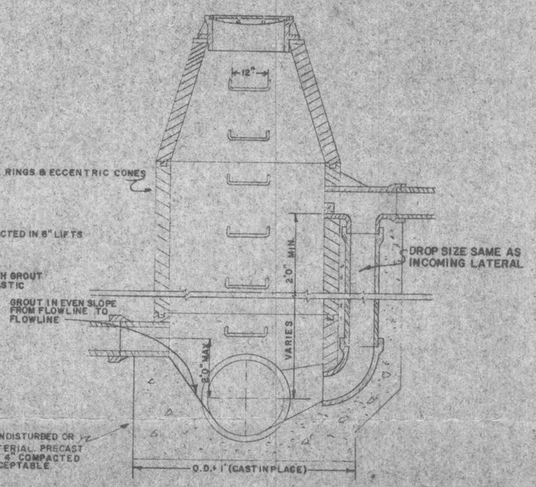
NOT TO SCALE





STANDARD MANHOLE

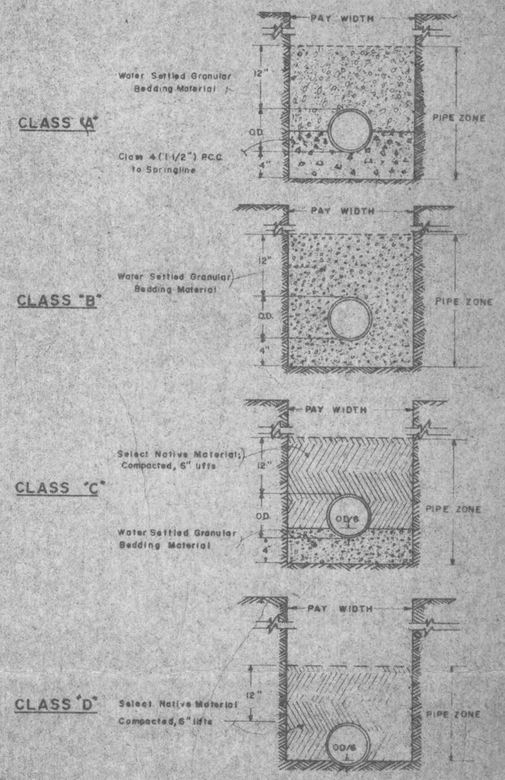
SCALE: 1/2" = 1'-0"



DROP MANHOLE

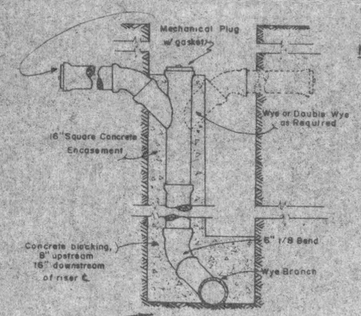
SCALE: 1/2" = 1'-0"

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



BEDDING REQUIREMENTS

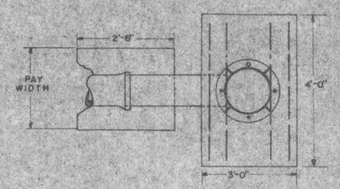
NOT TO SCALE

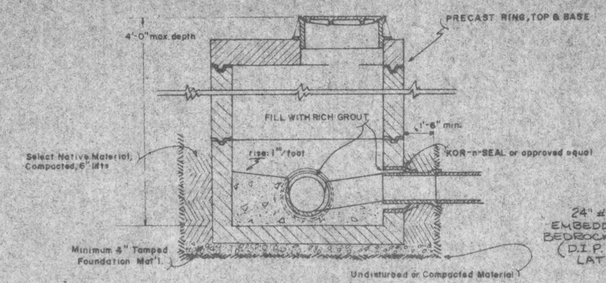


STANDING CONNECTION

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

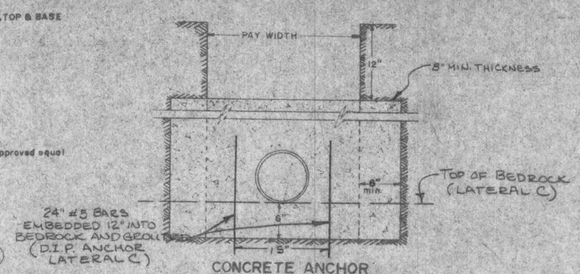
BEDDING AS REQUIRED





SHALLOW MANHOLE

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

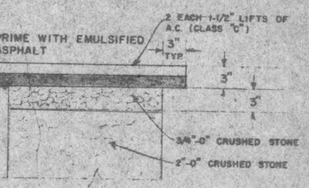


CONCRETE ANCHOR

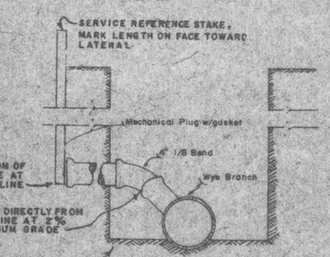
SCALE: 1" = 1'-0"

* 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

* SEE ALSO PROFILE GUIDELINE



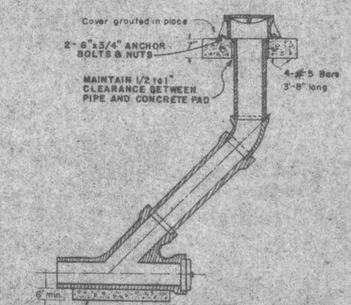
A.C. PAVEMENT RESTORATION



SERVICE CONNECTION

SCALE: 1" = 1'-0"

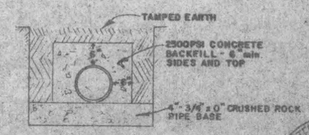
BEDDING AS REQUIRED



CLEANOUT

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

CONCRETE TO SPRINGLINE



CREEK CROSSING CONCRETE BACKFILL DETAIL

HORTON HEIGHTS II
CITY OF WEST LINN, OREGON

REGISTERED PROFESSIONAL ENGINEER — OREGON — JULY 13, 1978

DATE	NO.	REVISION
10-17-79	4.	AS CONSTRUCTED
4-3-79	3	ANCHOR FOR D.I.P.
11-9-78	2.	APPROVED FOR CONST.
11-8-78	1.	ANCHOR WALL THICKNESS

DRAWN
SCALE: AS SHOWN
DATE: 9-27-78
FILE: 77-1135-931-II

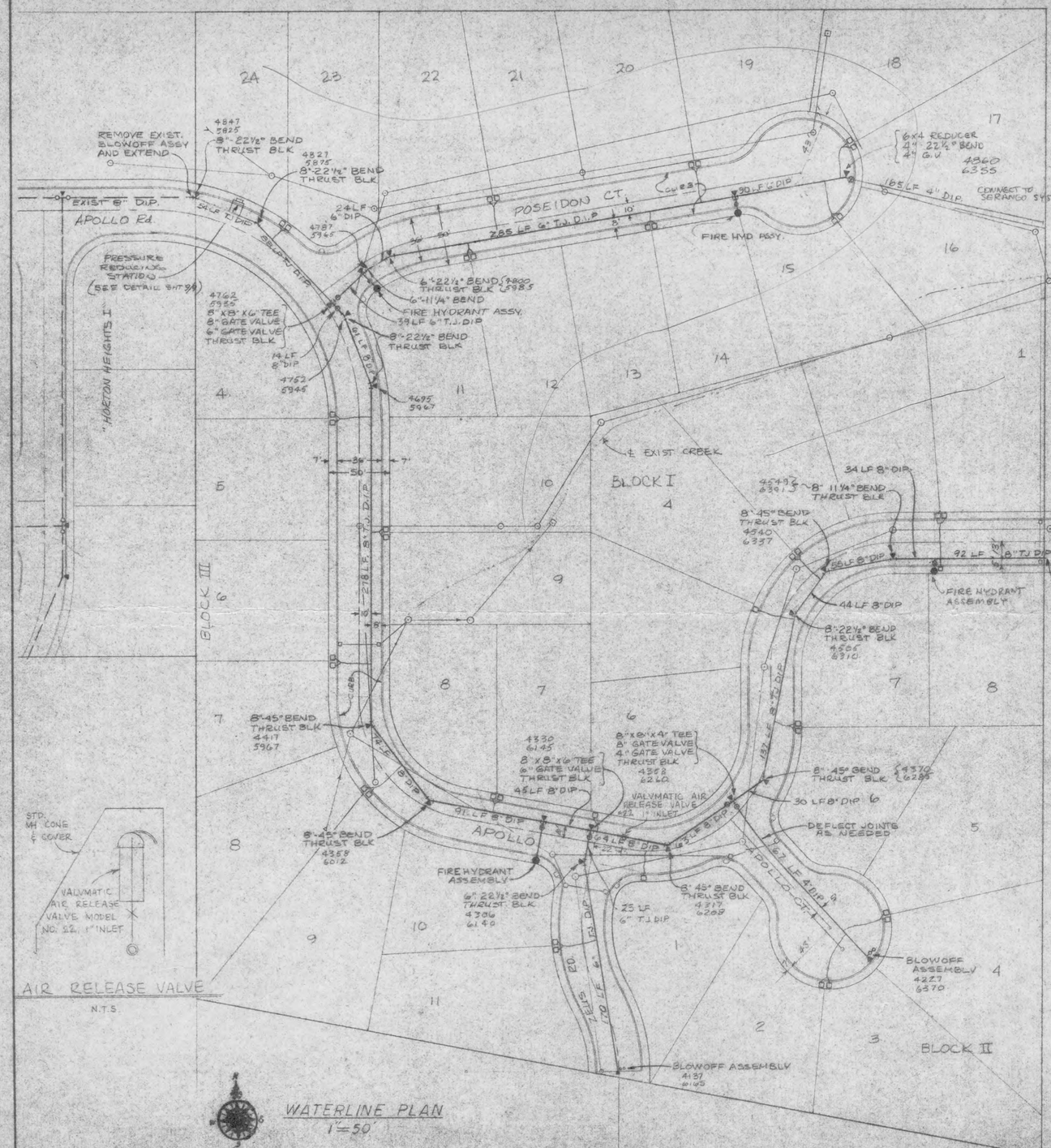
COMPASS CORPORATION
ENGINEERING · SURVEYING · PLANNING
6564 S.E. LAKE ROAD MILWAUKIE, OREGON 97222
653-9093 222-4652

NICK FOSSES
1957 CARRIAGE WAY PH. 636-0220
WEST LINN, OREGON 97068

CONSTRUCTION DETAILS

OCT 29 1979

7/9



AIR RELEASE VALVE

N.T.S.

WATERLINE PLAN

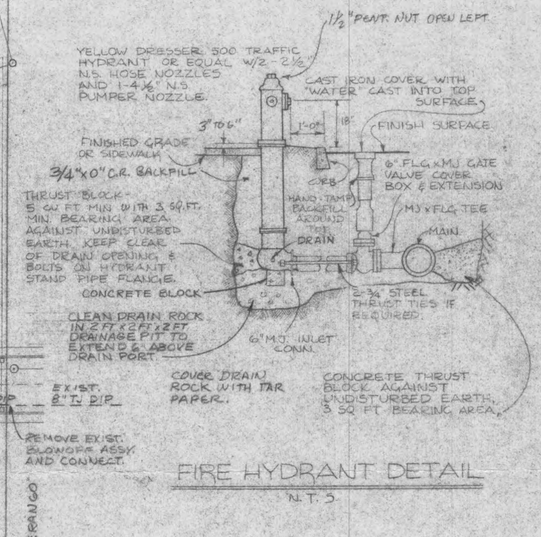
1"=50'

THRUST BLOCK NOTES:

1. Concrete thrust blocking to be poured against undisturbed 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.

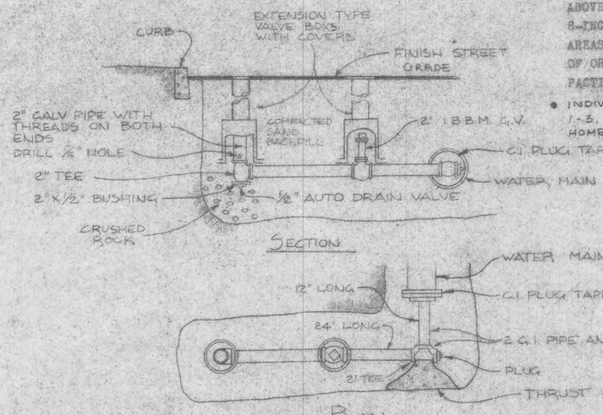
FITTING SIZE	TEE, WYE PLUG OR CAP	90° BEND PLUGGED CROSS	TEE PLUGGED ON RUN A1	TEE PLUGGED ON RUN A2	45° BEND	22½° BEND	11¼° BEND
4	1.0	1.4	1.9	1.4	1.0	-	-
6	2.1	3.0	4.3	3.0	1.6	1.0	-
8	3.8	5.3	7.6	5.4	2.9	1.5	1.0

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).



FIRE HYDRANT DETAIL

N.T.S.



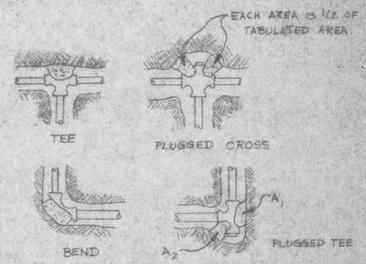
BLOW OFF DETAIL

N.T.S.

WATER LINE CONSTRUCTION NOTES:

- CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND SHALL CONSTRUCT THE WATERMAIN 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 3/4 INCH.
- DOUBLE SERVICES TO BE 1 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 PIPELINE AND HOUSE SERVICES TO, AND INCLUDING, CURB STOPS AND METER BOXES. HOUSE BUILDER TO INSTALL P.R.V.'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 54 AND SHALL CONFORM TO ASTM C 110, C150 AND C151.
- DUCTILE CAST 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 8 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 2 HOURS. PIPE LINE 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 18-INCH MINUS. MATERIALS SHALL BE PLACED IN 8-INCH LIFTS AND COMPACTED TO 95 PERCENT RELATIVE DENSITY. OTHER AREAS--BACKFILL ABOVE PIPE ZONE SHALL BE NATIVE MATERIAL FREE OF ORGANIC MATTER OR ROCKS GREATER THAN 3 INCHES IN SIZE. COMPACTION SHALL BE SUCH AS REQUIRED TO ELIMINATE FUTURE SETTLEMENT.
- INDIVIDUAL PRESSURE REDUCING VALVES WILL BE REQUIRED FOR LOTS 1-3, AND 9-24 BLOCK I. SEE SHEET 9/9. VALVES TO BE SUPPLIED BY HOME BUILDER.



THRUST BLOCKING DETAILS

HORTON HEIGHTS II

CITY OF WEST LINN, OREGON

REGISTERED PROFESSIONAL ENGINEER — OREGON — JULY 13, 1978 — Gerald Quillen Rammelmeyer

DATE	NO.	REVISION	
9-5-79	7	As-Built.	CRW
1-5-79	6	APPROV. FOR CONST.	
11-13-78	5	SHT. NO., PRV STA.	
10-17-78	4	ADDED AIR RELEASE VALVE	
10-10-78	3	PVC TO DIP, DEPTH OF PIPELINE	
10-6-78	2	PRV STAT. ELEV.	
9-25-78	1	P.R.V. STATION, WATERLINE	

DRAWN CRR
SCALE AS SHOWN DATE 9-22-78
FILE 77-1135-931-II

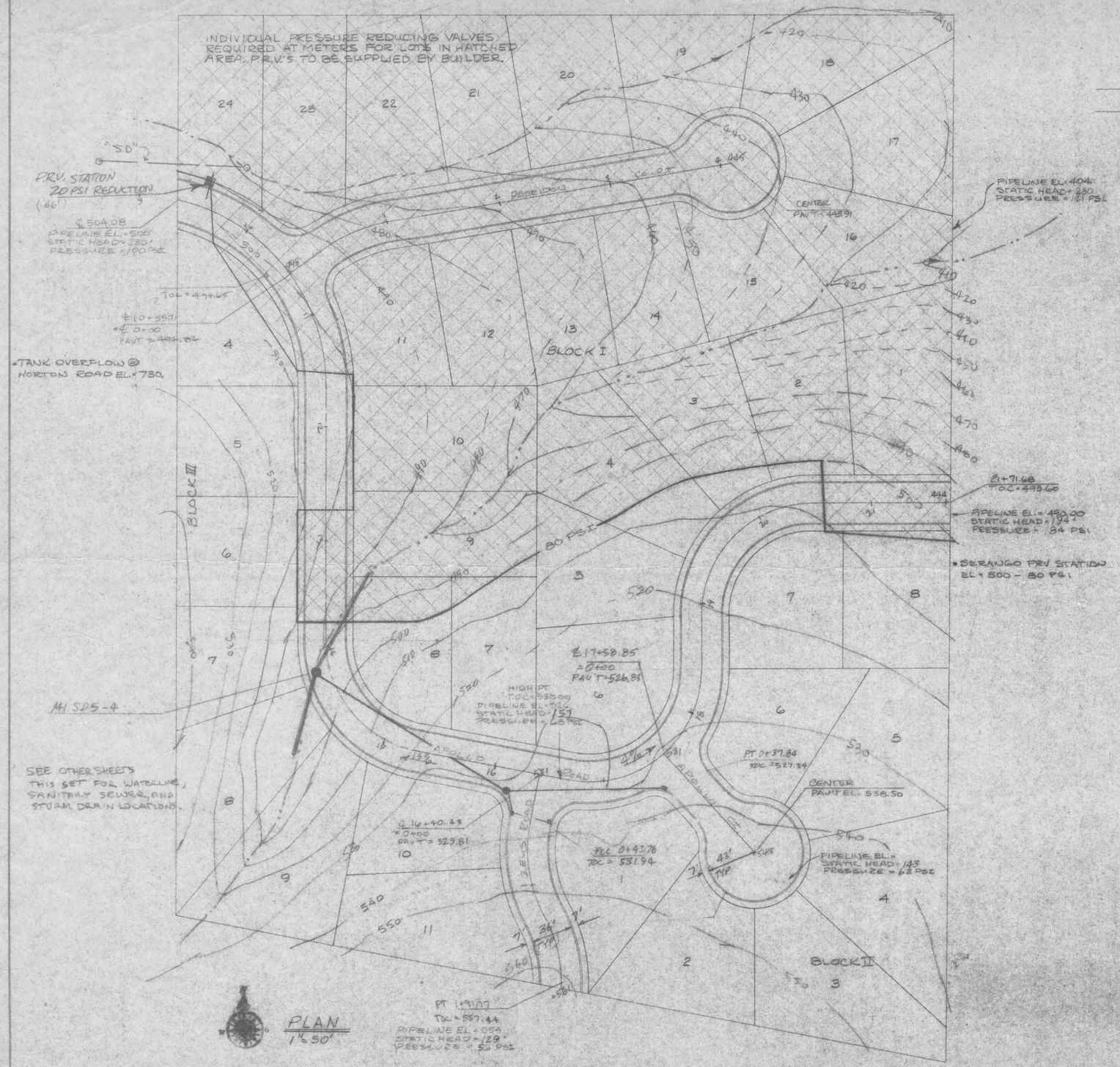
COMPASS CORPORATION
ENGINEERING · SURVEYING · PLANNING
6564 S.E. LAKE ROAD MILWAUKIE, OREGON 97222 653-9093

NICK FOSSES
1957 CARRIAGE WAY
WEST LINN, OREGON 97068 654-7736

WATERLINE AND SERVICE PLAN

OCT 29 1979

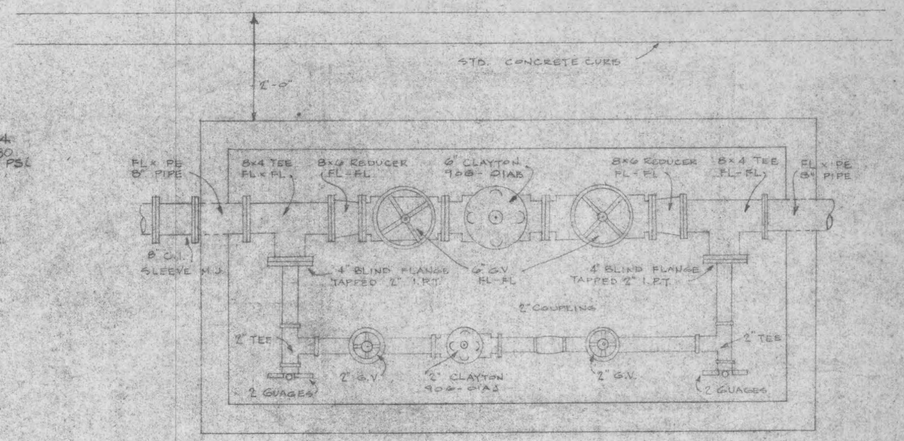
8/9



PLAN
1" = 50'

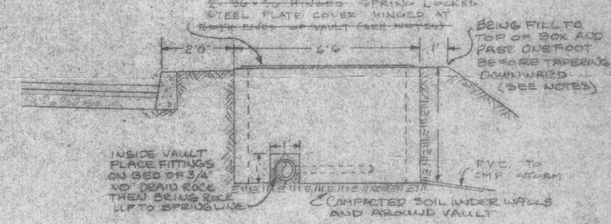
NOTES

- ~~CONTRACTOR MAY SUBSTITUTE VAULT STYLE 67S-WA-44-332P BY UTILITY VAULT CO. OF WILSONVILLE, OREGON~~
- ~~2 HINGED AND SPRING LOCKED STEEL PLATE COVERS HINGED AT BOTH ENDS OF VAULT TO BE EQUIVALENT TO COVERS PROVIDED BY UTILITY VAULT CO. OF WILSONVILLE, ORE.~~
- TOP OF VAULT TO BE ADJUSTED TO FUTURE SIDEWALK ELEVATION.



PRESSURE REDUCING ASSEMBLY
N.T.S.

NOTES:
- ALL 2" FITTINGS I.P.T.
- GUAGES TO BE ORIENTED TO BE READ FROM OPENING
- INSIDE DIMENSION OF VAULT = 8'-6" × 6'-0" × 6'-0"



VAULT END ELEVATION

HORTON HEIGHTS II
CITY OF WEST LINN, OREGON

10-26-79	6	PRESSURE RED. STD. IN VAULT
10-19-79	4	AS CONSTRUCTED
1-5-79	3	APPROV. FOR CONST.
11-13-78	2	TITLE, DETAILS, SHT. NO. ADDED

DRAWN GCK
SCALE AS SHOWN
DATE 9-27-78

COMPASS CORPORATION
ENGINEERING · SURVEYING · PLANNING

MR. NICK FOSSES
1957 CARRIAGE WAY

WATERLINE DETAILS AND PRECONSTRUCTION SITE CONTOURS

9