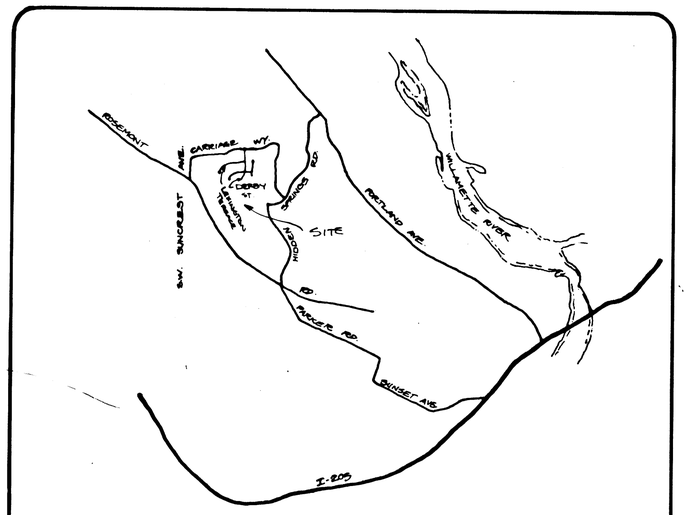
AS-BUILT 1/9/88

construction plans

HIDDEN SPRINGS SUMMIT NO. 2

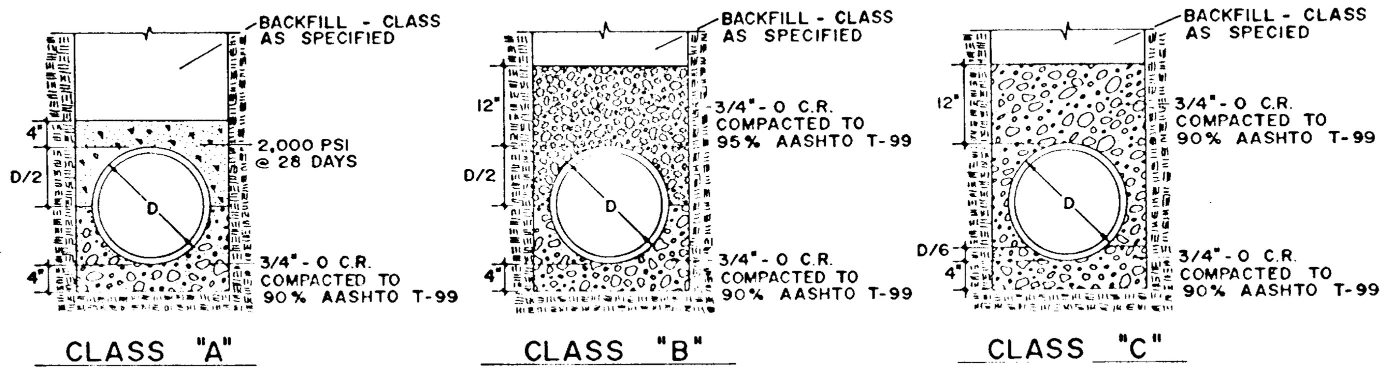


VICINITY MAP

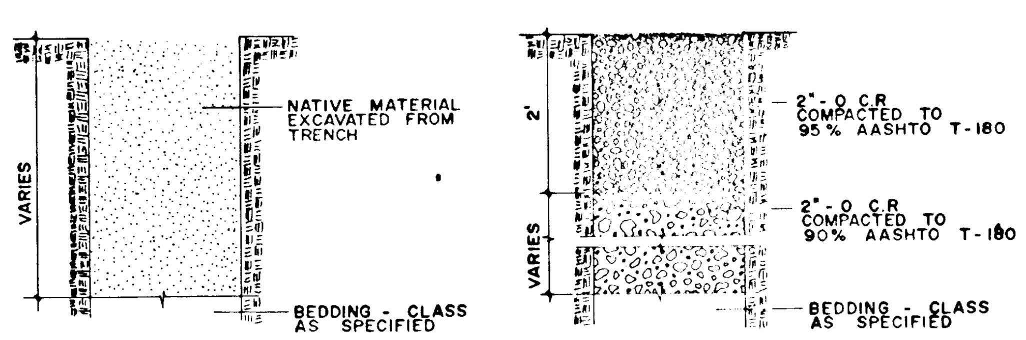
J.M. PALMER
700 S.W. TAYLOR ST. SUITE 305
PORTLAND, OREGON 97205 Ph. 274-1009
PRIEST ENGINEERING
5340 S.E. HACIENDA ST.
HILLSBORO, OREGON 97123 Ph. 649-2927

HIDDEN SPRINGS SUMMIT INC.

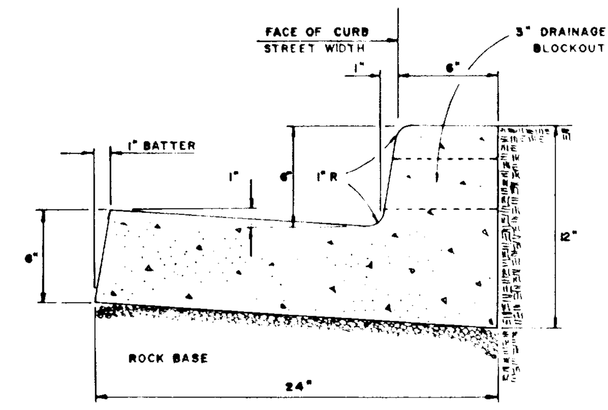
P.O. BOX 408 WEST LINN, OREGON



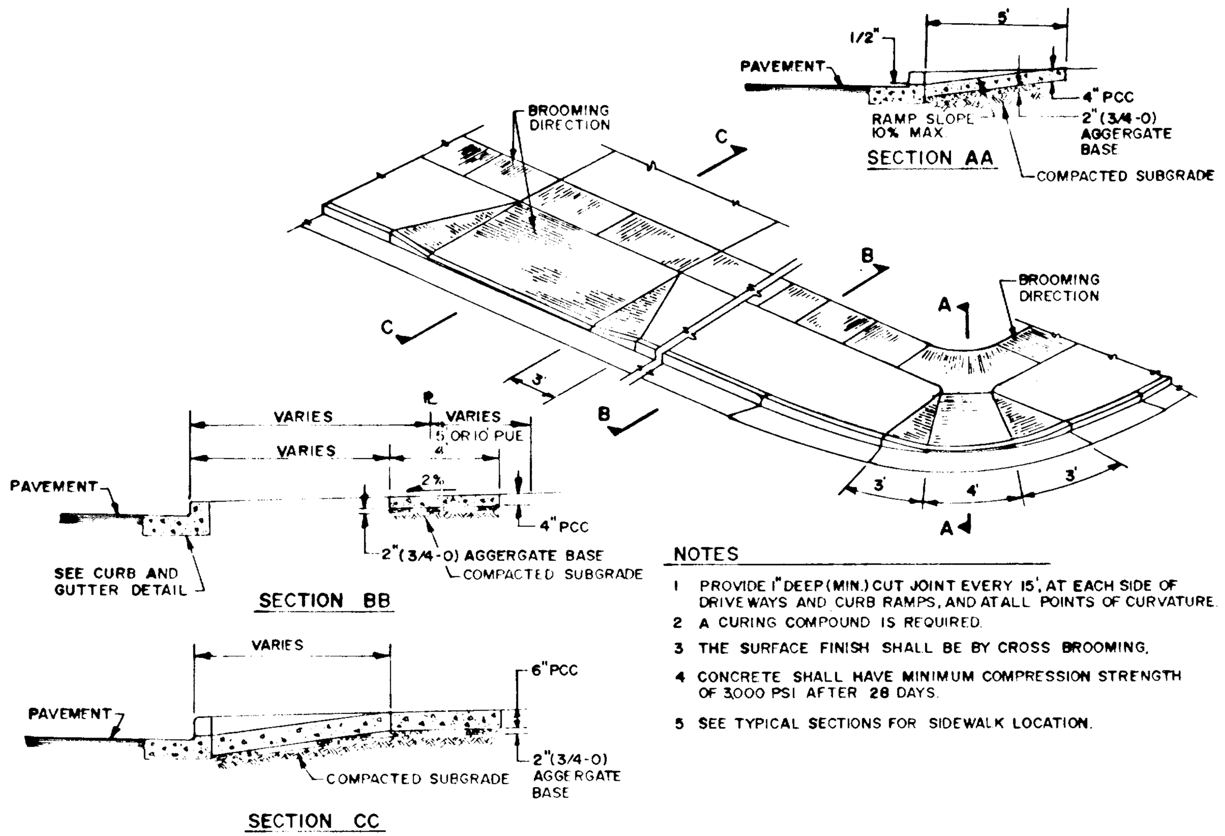
TRENCH BEDDING DETAIL
N.T.S.



TRENCH BACKFILL DETAIL
N.T.S.

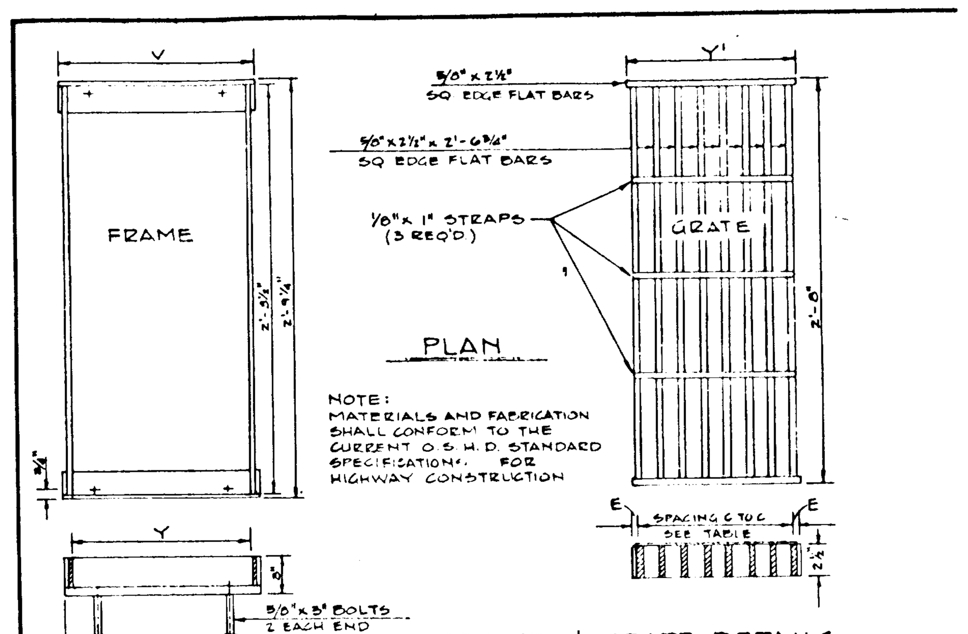


1. CONCRETE TO HAVE A BREAKING STRENGTH OF 3000 P.S.I. AFTER 28 DAYS.
2. CUT-IN JOINTS
   A. TO BE PROVIDED:
      1) AT EACH POINT OF TANGENCY OF THE CURB
      2) ON EACH SIDE OF INLETS
      3) AT EACH END OF WHEELCHAIR RAMPS
      4) AT EACH END OF DRIVEWAYS
      5) AT LOCATIONS NECESSARY TO LIMIT SPACING TO 15 FEET
   B. DEPTH OF JOINT SHALL BE AT LEAST 1.5 INCHES
3. DRAINAGE BLOCKOUT - 3" PLASTIC PIPE.



NOTES
1. PROVIDE 1" DEEP (MIN.) CUT JOINT EVERY 15', AT EACH SIDE OF DRIVEWAYS AND CURB RAMPS, AND AT ALL POINTS OF CURVATURE.
2. A CURING COMPOUND IS REQUIRED.
3. THE SURFACE FINISH SHALL BE BY CROSS BROOMING.
4. CONCRETE SHALL HAVE MINIMUM COMPRESSION STRENGTH OF 3000 PSI AFTER 28 DAYS.
5. SEE TYPICAL SECTIONS FOR SIDEWALK LOCATION.

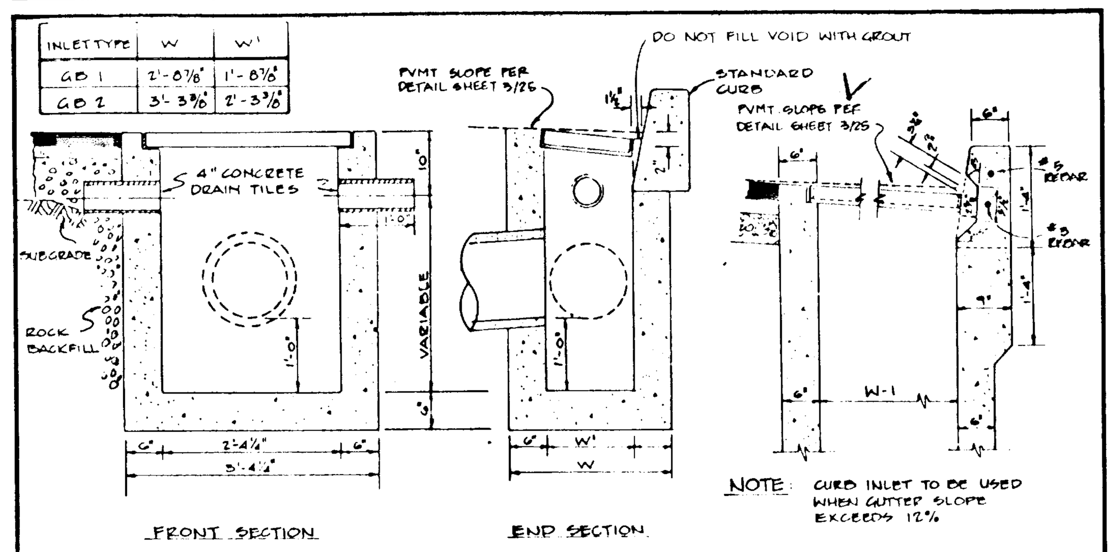
CONCRETE DRIVEWAY, SIDEWALK AND CURB RAMP DETAIL
NTS



FRAME & GRATE DETAILS

INLET TYPE	V	Y	Y'	E	SPACING ¢ TO ¢	NO. OF BARS	REMARKS
GB-1	1'-10¼"	1'-8⅞"	1'-8.1"	⅝"	1¾"	12	
GB-2	2'-12"	2'-3⅞"	2'-3"	⅝"	1¾"	8	2 GRATES

INLET TYPE	W	W'
GB 1	2'-8⅞"	1'-8⅞"
GB 2	3'-3⅜"	2'-3⅜"

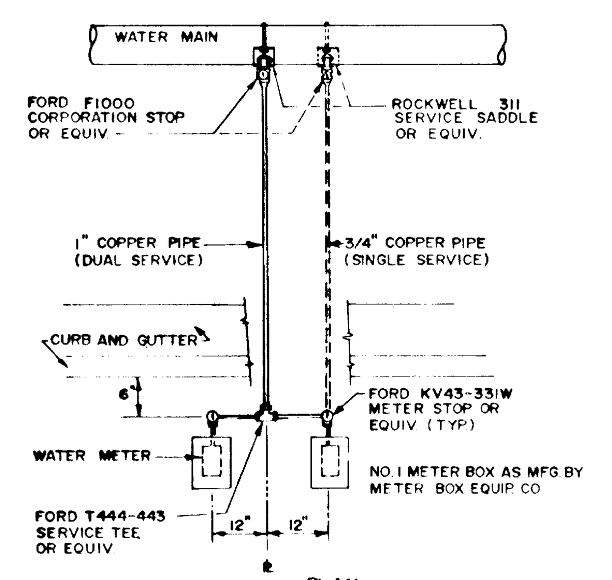


TYPES GB-1 & GB-2
NO SCALE

CURB INLET
NO SCALE

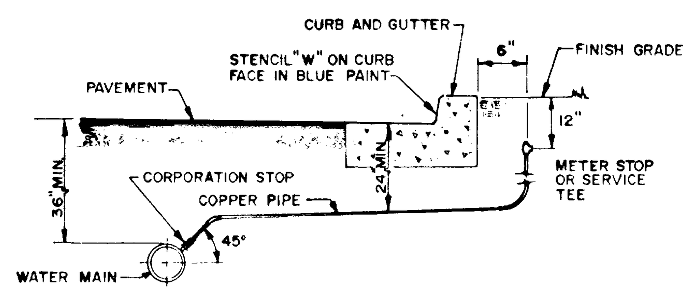
NOTES
1. PROVIDE 8" EXPOSURE CATCH BASINS WHEN USING VERT CURB. PROVIDE 6" EXPOSURE AT CATCH BASINS WHEN USING ROLLED CURB.
2. A MAXIMUM DEVIATION FROM THE PLAN DIMENSIONS OF ONE INCH, AT THE INLET FLOOR, SHALL BE ALLOWED FOR THE TAPERING OF FORMS USED IN CONSTRUCTION OF CONCRETE INLETS.

CONCRETE INLET DETAILS



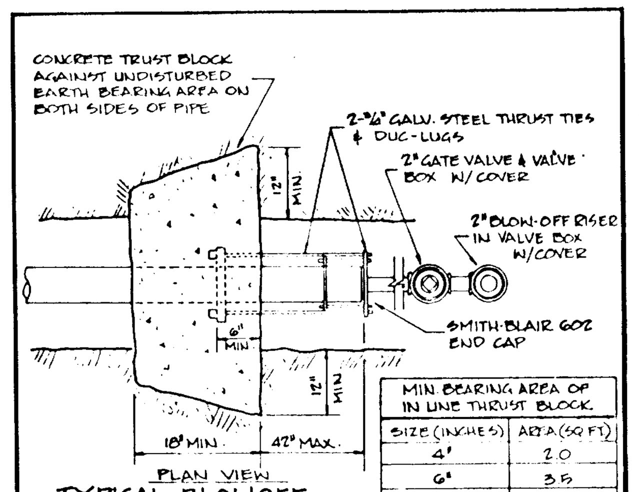
PLAN

NOTES
1. ALL FITTINGS TO CONFORM TO AMERICAN WATER WORKS ASSOCIATION STANDARD SPECIFICATION.
2. ALL COPPER COUPLINGS TO BE OF THE PACK JOINT TYPE.
3. ALL COPPER PIPE TO BE TYPE "K" SOFT.
4. ALL COPPER PIPE BENDS TO BE SMOOTH RADIUS.
5. NO TAPS TO BE CLOSER THAN 18" APART ALONG MAIN.



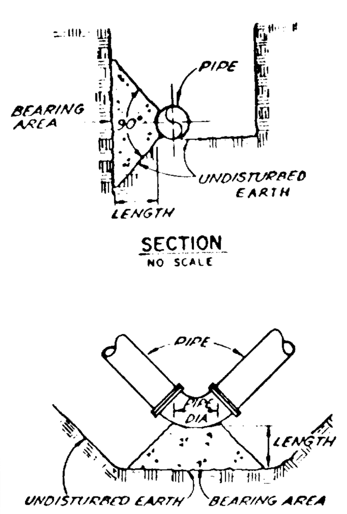
ELEVATION

WATER SERVICE DETAIL
NTS



TYPICAL BLOWOFF ASSEMBLY DETAIL
NO SCALE

MIN. BEARING AREA OF IN LINE THRUST BLOCK	
SIZE (INCHES)	AREA (SQ FT)
4"	2.0
6"	3.5
8"	6.5



SECTION
NO SCALE

PLAN
NO SCALE

SOIL BEARING STRESS ASSUMED @ 2000 lbs/SQ. FT.

PIPE SIZE	FITTING TYPE	BEARING AREA S.F.	VOLUME OF BLOCKING C.Y.	LENGTH OF BLOCKING FT.
6"	TEES	4.5	2.5	1.07'
"	90° ELL	6	3.3	1.07'
"	45° ELL	3.5	2	1.07'
"	22½° ELL	2	1.2	1.07'
"	11¼° ELL	1	0.7	1.07'
8"	TEES	7.5	3.9	1.0'
"	90° ELL	11	5.7	1.0'
"	45° ELL	6	3.2	1.0'
"	22½° ELL	3	1.7	1.0'
"	11¼° ELL	1.5	0.9	1.0'
"	HYDRANTS	7.5	3.9	1.0'
12"	TEES	17	8	.90'
"	90° ELL	24	11.1	.90'
"	45° ELL	13	6.2	.90'
"	22½° ELL	7	3.5	.90'
"	11¼° ELL	4	2.2	.90'
"	BLOWOFF	17	8	.90'
"	HYDRANTS	17	8	.90'

DIMENSION TABLE

THRUST BLOCK DETAIL

GENERAL NOTES:

1. All work shall conform to these plans, the specifications, and the requirements of the City of West Linn. The standard specification for all work on this project is the "1980 Standard Specification for Public Works Construction", Oregon Chapter of the APWA as amended by the Special Provisions.
2. All earthwork shall comply with APWA Division II, Section 24, including amendments.
3. Contractor shall remove and dispose of all cleared and grubbed material, including but not limited to, trees, stumps, limbs, roots, brush, and debris. All cleared and grubbed material shall be disposed of off the site in accordance with all state, federal, and local regulations. No on-site disposal of cleared and grubbed material is allowed.
4. All existing utilities shown are from record and the Contractor shall expose these for verification prior to connection or construction.
5. Pipe and fittings used on this project shall conform to the following sections of the Standard Specifications:

STORM SEWER:	Within paved areas - 305.2.04 (18" diameter and smaller) Class 2. 305.2.05 (21" diameter and larger) Class III.
	Outside paved areas - 305.2.01 (Hot Dip Bituminous coated) or 315.2.02. (Both with helical corrugations.)
SANITARY SEWER:	303.2.02 (with rubber gaskets) Class 2, or 303.2.10 (see Section 303.3.09C for special requirements.)
WATERLINES:	402.2.02 (Class 52) with push-on joints.
UNDERDRAINS:	305.2.21

6. Wheelchair ramps are to be constructed at all intersections.
7. Two (2) 3" diameter curb rain drain outlets are to be provided per lot, within 5' of the property line, unless storm sewer service is provided.

STREET NOTES:

1. Subgrade and aggregate base (prior to paving) Shall be proof rolled, in the presence of the Engineer and the City of West Linn, using a 10-yard dump truck loaded with 3/4" - 0 crushed rock.
2. All under ground utilities, including water services and utility crossings shall be constructed prior to final proof rolling.

STORM SEWER NOTES:

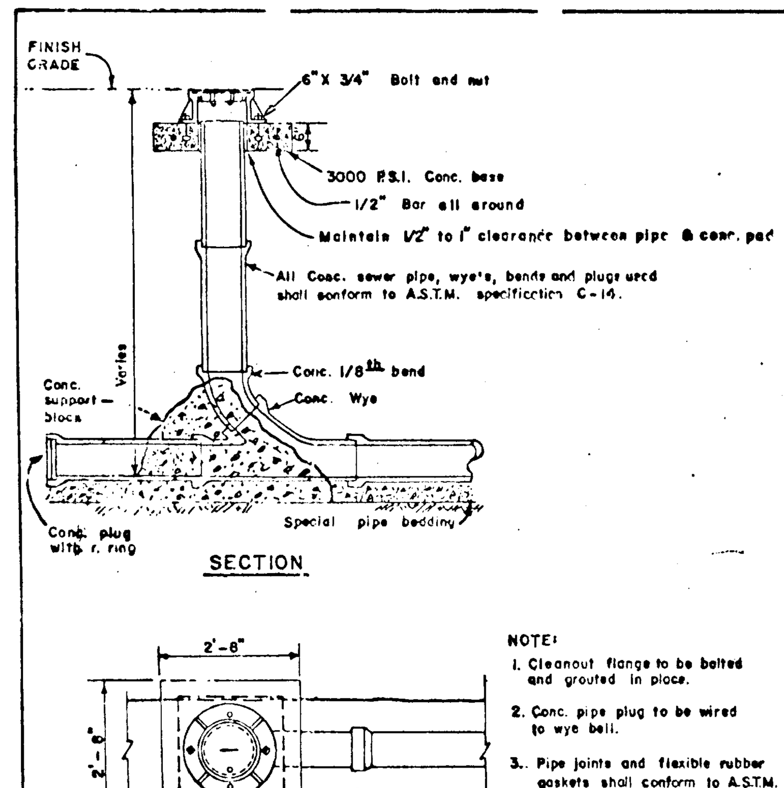
1. Pipe bedding shall conform to the material requirements of APWA Division III, Section 301.2.02 for 3/4"-0 crushed rock.
2. Backfill for trenches within the right-of-way shall conform to the material requirements of APWA Division III, Section 301.2.04B for 1-1/2"-0 crushed rock. (Class "B" Backfill)
3. Trenches outside the right-of-way may be backfilled with material excavated from the trench in accordance with APWA Division III, Section 301.2.04A. (Class "A" Backfill)

SANITARY SEWER NOTES:

1. Pipe bedding shall conform to the material requirements of APWA Division III, Section 301.2.02 for 3/4"-0 crushed rock.
2. Backfill for trenches within the right-of-way shall conform to the material requirements of APWA Division III, Section 301.2.04B for 1-1/2"-0 crushed rock. (Class "B" Backfill)
3. Trenches outside the right-of-way may be backfilled with material excavated from the trench in accordance with APWA Division III, Section 301.2.04A. (Class "A" Backfill)
4. All manholes shall be 48" (minimun) inside diameter of pre-cast, reinforced construction with cast-in-place or pre-cast bases, and shall conform to City requirements.
5. Building service connections to downhill lots shall have a minimum slope of 2%. Building service connections to uphill lots shall be 8' deep at the property line.
6. All sewer lines are to be air tested per APWA Division III, Section 303.3.16. Tests are to be observed by the Engineer and the City.

WATERLINE NOTES:

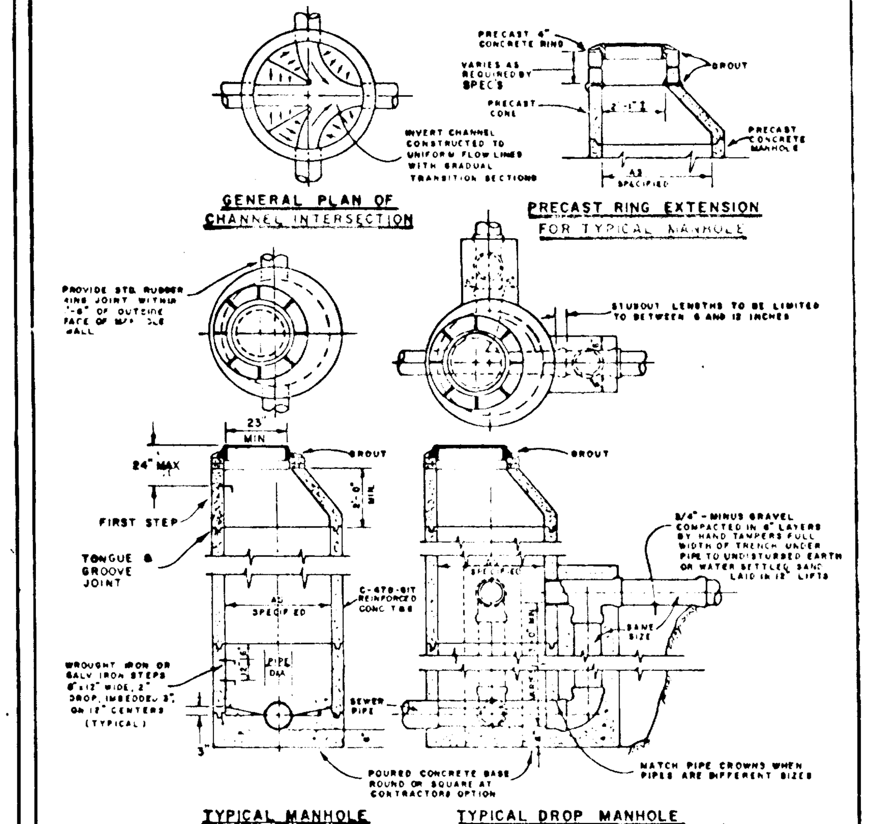
1. All work and materials shall comply with the requirements of the City of West Linn; the Oregon State Health Division Administrative Rules, Chapter 333; the AWWA; and the Standard Specifications.
2. Waterlines shall have a minimum cover of 36".
3. Conflicts may occur at catch basin laterals during waterline construcion. The Contractor shall expose catch basin laterals in advance of waterline construction to avoid conflicts.
4. Fire hydrants are to be of the dry-barrel, Waterous type, complying with AWWA C502.
5. Gate valve are to be N.R.S. type with 2" operating nut, counter-clockwise opening, conforming to AWWA C500.
6. Pipeline to be tested in accordance with APWA Division IV, Section 402.3.04. Testing to be observed by the Engineer and the City.
7. Pipeline to be disinfected in accordance with APWA, Division IV, Section 402.3.05.

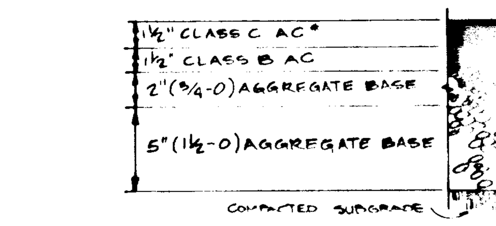


STANDARD CLEANOUT

NOTE:
1. Cleanout flange to be bolted and grouted in place.
2. Conc. pipe plug to be wired to wye bell.
3. Pipe joints and flexible rubber gaskets shall conform to A.S.T.M. specifications C 443-60T.
4. Cast iron frame and cover shall be Valley Iron & Steel Co. No's 202 for 6" & 203 for 8" or equal.

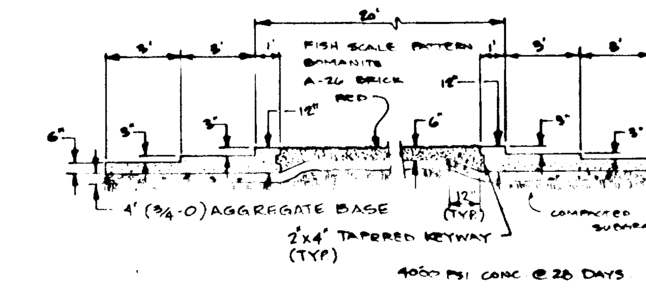
STANDARD MANHOLE DETAILS





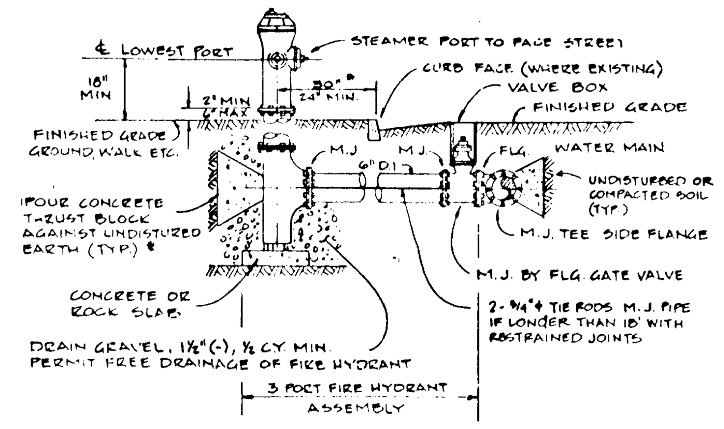
PAVEMENT SECTION
NTS

* FINAL 1½" LIFT OF A.C. TO BE PLACED WITHIN 1 YEAR FROM COMPLETION.



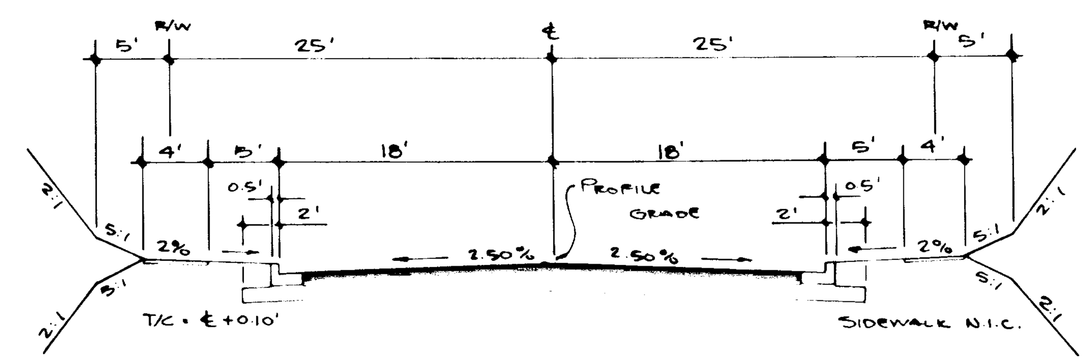
SPECIAL CROSS WALK DETAIL
NTS

* WHERE SIDEWALK IS ADJACENT TO CURB, LOCATE FIRE HYDRANT 1.5' BEHIND EDGE OF SIDEWALK.



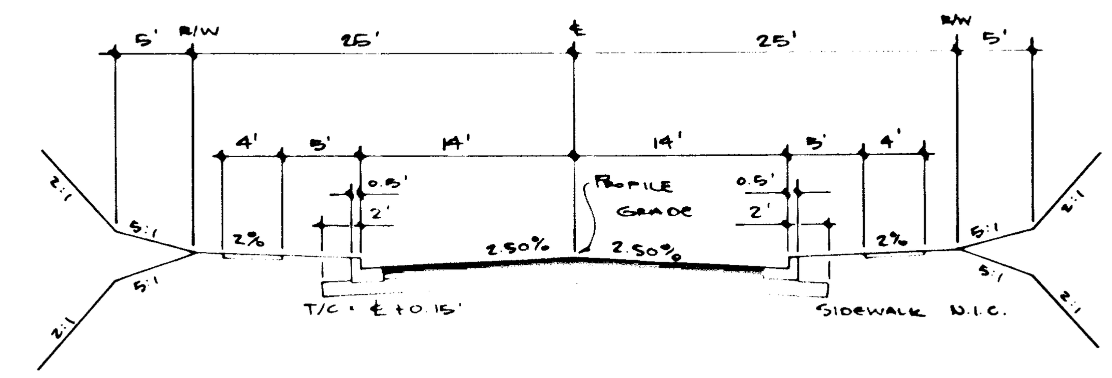
STANDARD FIRE HYDRANT

* NOTE: THRUST BLOCKS NOT REQUIRED IF TIE RODS ARE USED. USE MJ. PIPE IF F.H. LINE IS LONGER THAN 18'.



TYPICAL STREET SECTION

DERBY STREET - BAY MEADOWS STREET - BELLEVUE WAY - HUNTER WAY



TYPICAL STREET SECTION

DERBY COURT

AS-BUILT 1/9/88

DATE	REVISION	BY
8.5.87	REVISED TYP. SECTIONS FOR CITY OF WEST LINN	RJP

DESIGN BY
DRAWN BY 6/87 RJP
CHECKED BY 6/87 RJP

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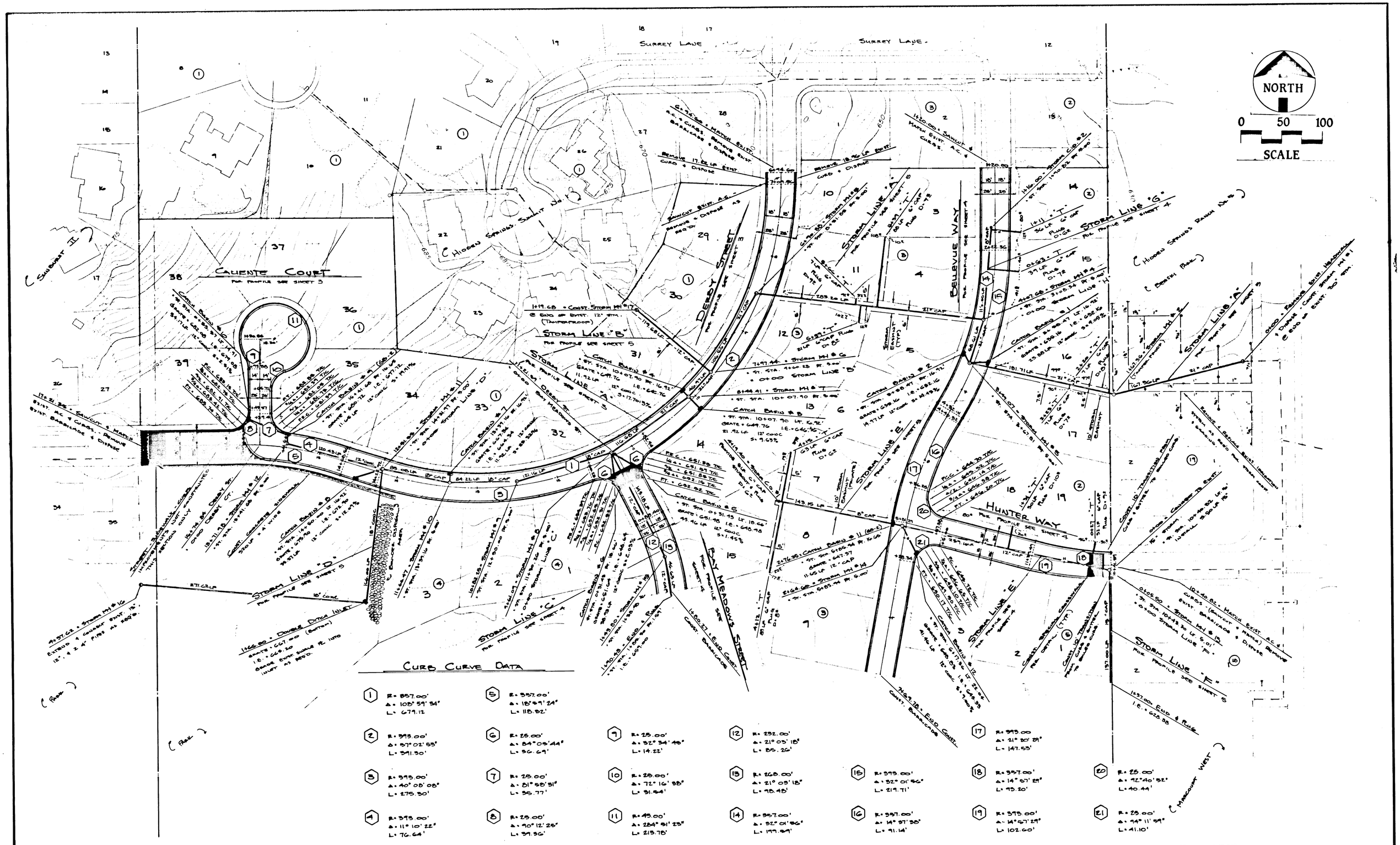
PRIEST ENGINEERING
5340 S.E. HACIENDA ST.
HILLSBORO, OREGON 97123 Ph. 649-2927

REGISTERED PROFESSIONAL ENGINEER 12,198 ROY J. PRIEST

HIDDEN SPRINGS SUMMIT INC.
P.O. BOX 408 WEST LINN, OREGON

HIDDEN SPRINGS SUMMIT NO. 2
NOTES AND DETAILS

SHEET NO. 1
PROJECT NO.



DATE	REVISION	BY
8-4-87	REVISED 8TH LINE "D", ADDED SIDEWALK, TRANSFORMER COVERS	
	TO MAP 2 & 17 FOR CITY OF WEST LINN	RJP
1-8-88	AS BUILT	RJP

DESIGN	BY	RJP
	6/87	
DRAWN	BY	RJP
	6/87	
CHECKED	BY	RJP
	6/87	

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REGISTERED PROFESSIONAL ENGINEER 12198 JAN. 13, 1988 ROY J. PRIEST

HIDDEN SPRINGS SUMMIT INC.

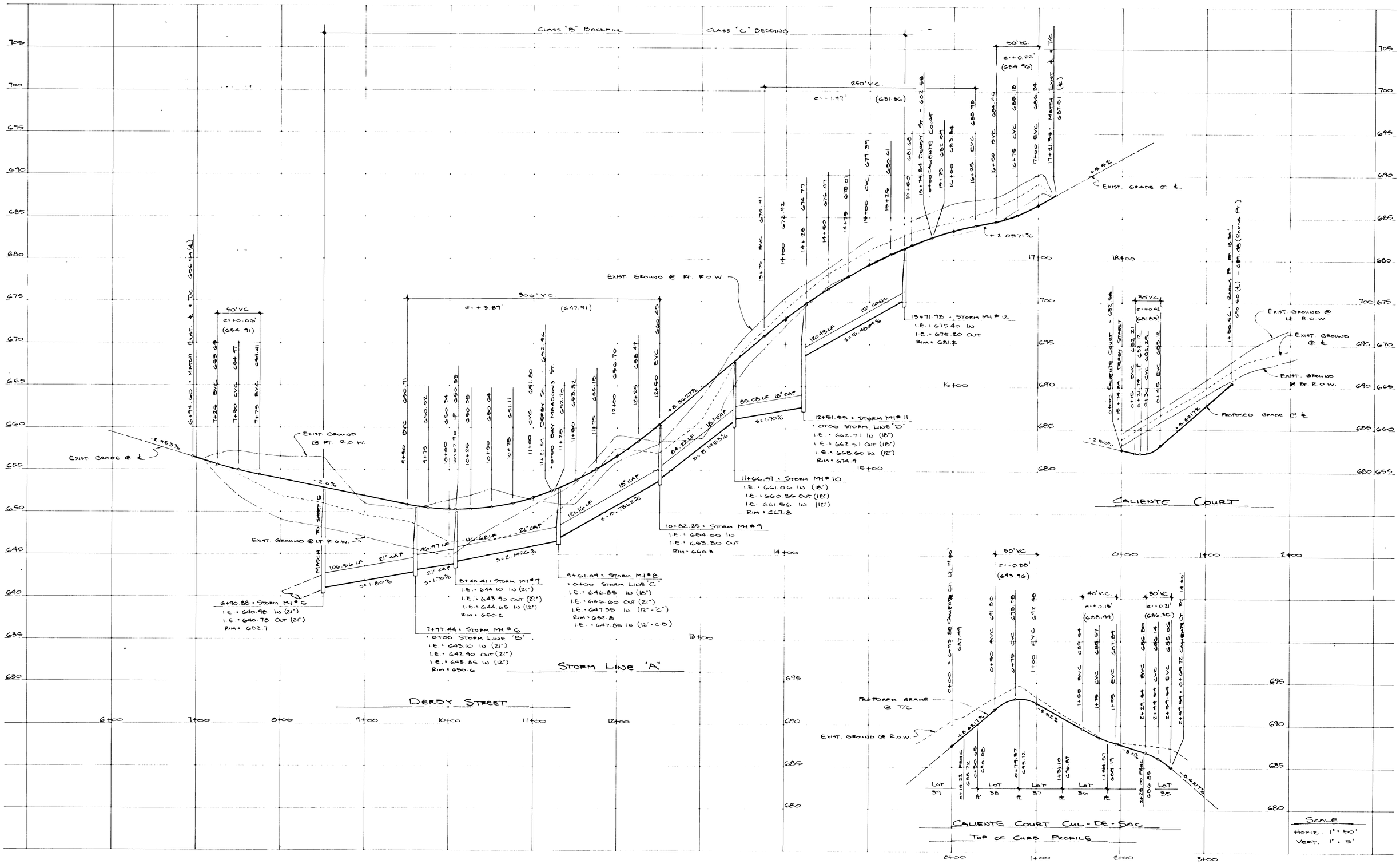
P.O. BOX 408 WEST LINN, OREGON

HIDDEN SPRINGS SUMMIT NO. 2

STREET AND STORM SEWER PLAN

SHEET NO. 2

PROJECT NO.



DATE	REVISION	BY
8 4 87	REVISED LOT #5 - DERBY COURT CUL-DE-SAC	RJP
1 9 88	AS-BUILT	RJP

DESIGN	BY	
6/87	RJP	
DRAWN	BY	
6/87	RJP	
CHECKED	BY	
6/87	RJP	

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REGISTERED PROFESSIONAL ENGINEER 12,198 JULY 15, 1981 ROY J. PRIEST

HIDDEN SPRINGS SUMMIT INC.

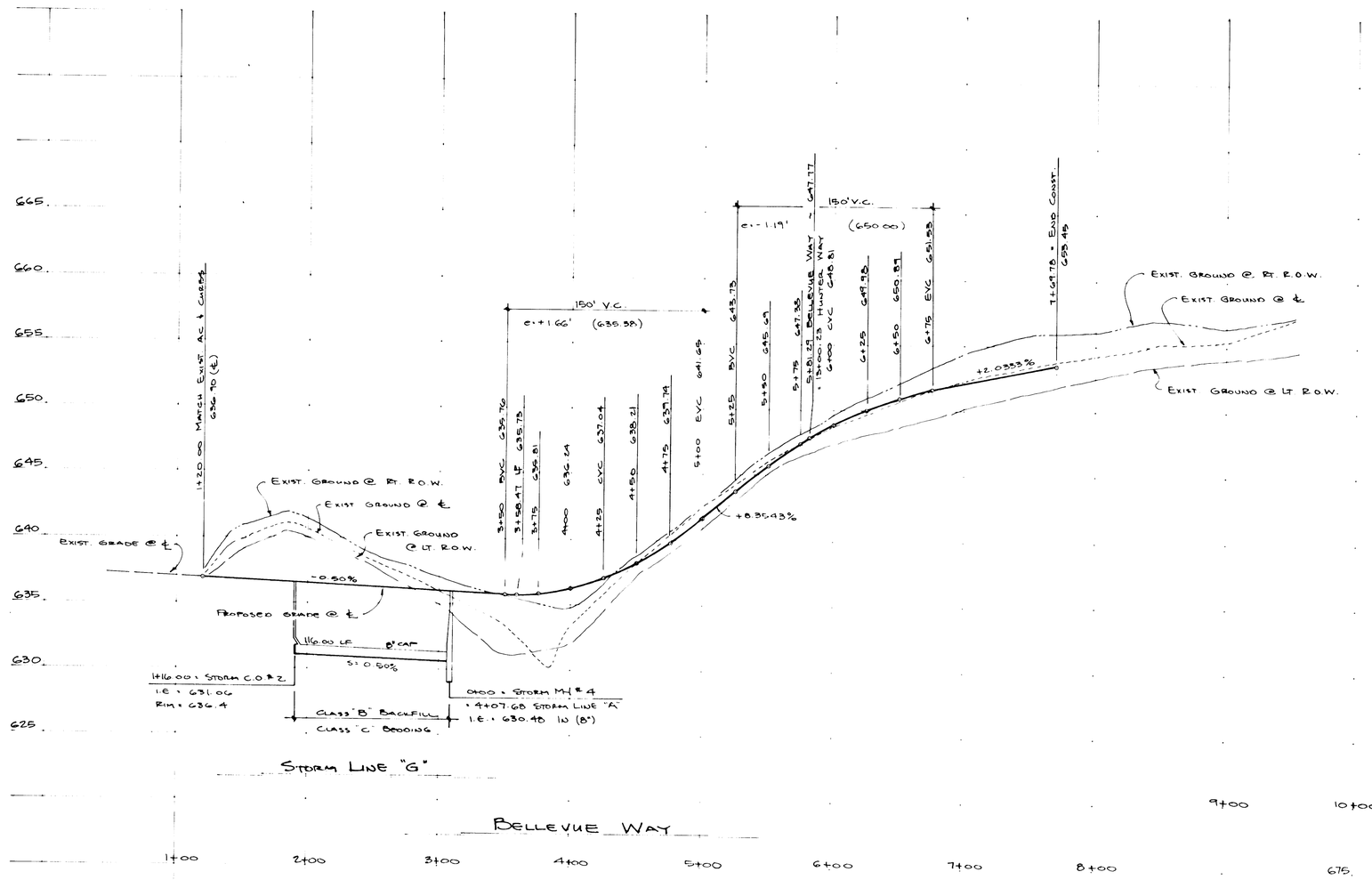
P.O. BOX 408 WEST LINN, OREGON

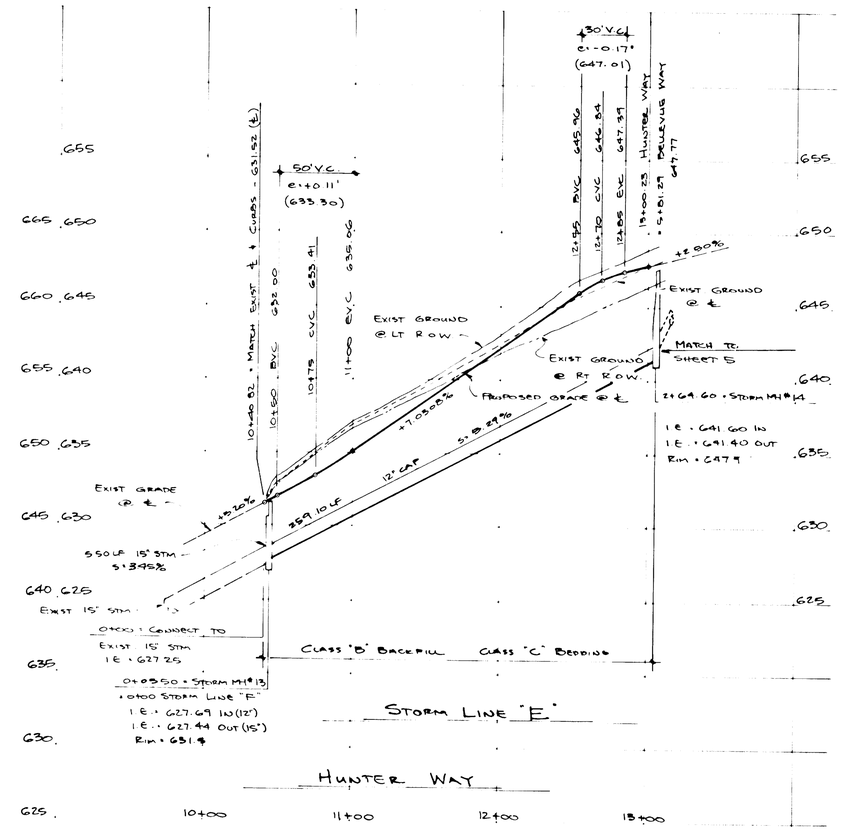
HIDDEN SPRINGS SUMMIT NO. 2

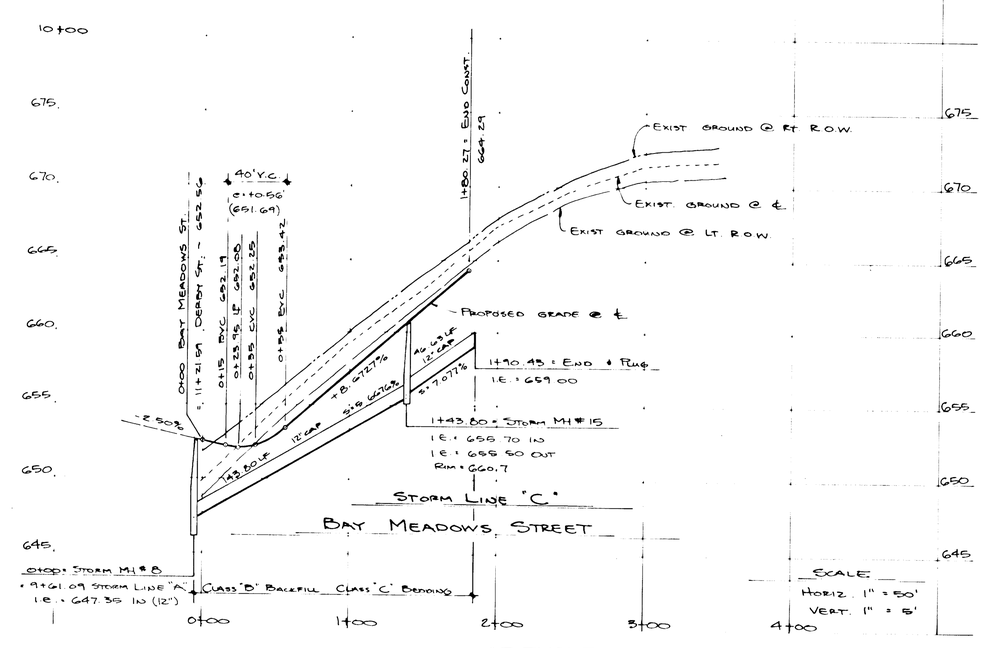
STREET AND STORM SEWER PROFILES

SHEET NO. 3

PROJECT NO.







AS-BUILT 1/9/88

DATE	REVISION	BY
1-9-88	As-Built	RJP

DESIGN	6/87	BY PSP
DRAWN	6/87	BY PSP
CHECKED	6/87	BY PSP

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Registered Professional Engineer 12,158 July 15, 1988 Roy J. Priest

HIDDEN SPRINGS SUMMIT INC.

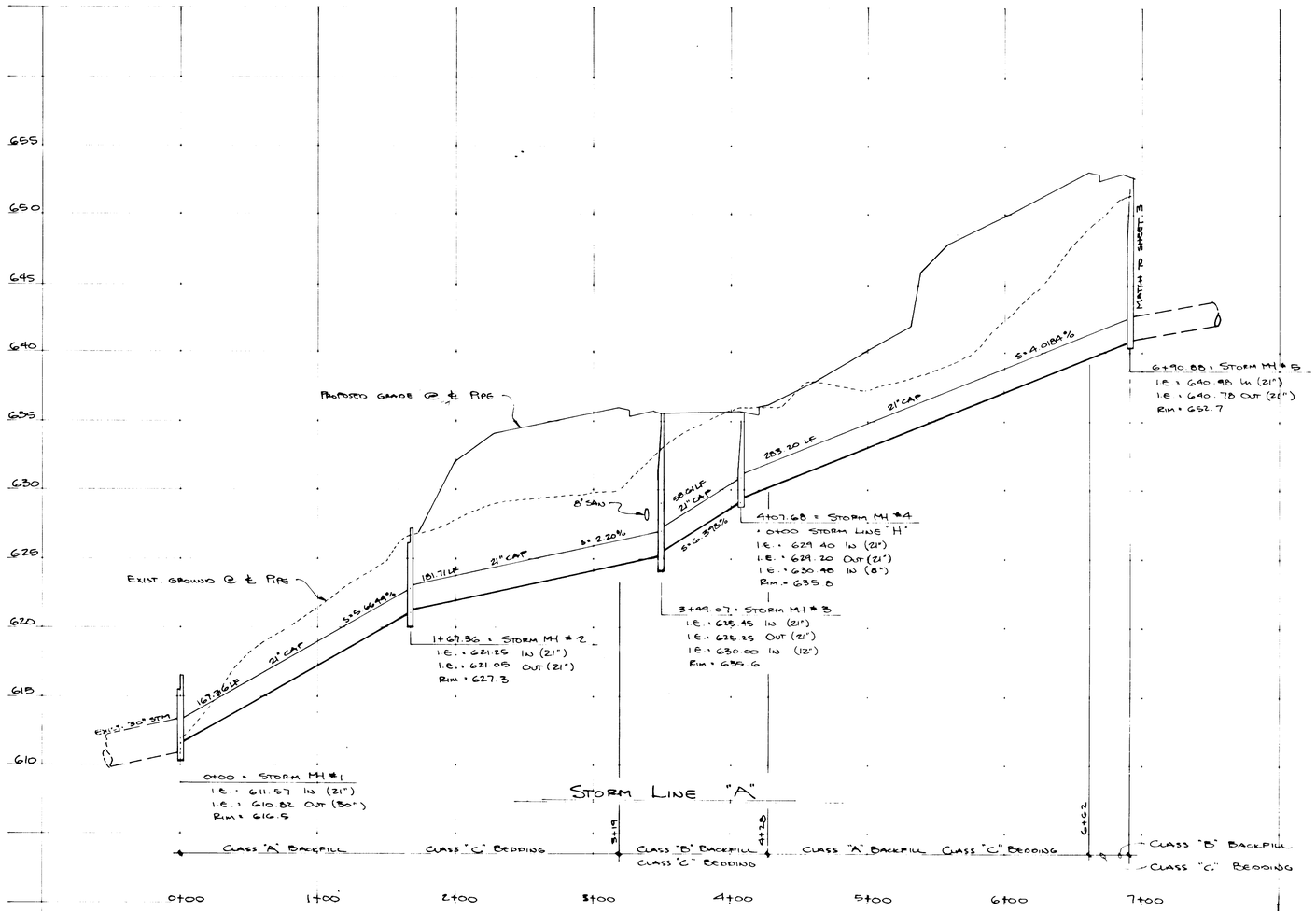
P.O. BOX 408 WEST LINN, OREGON

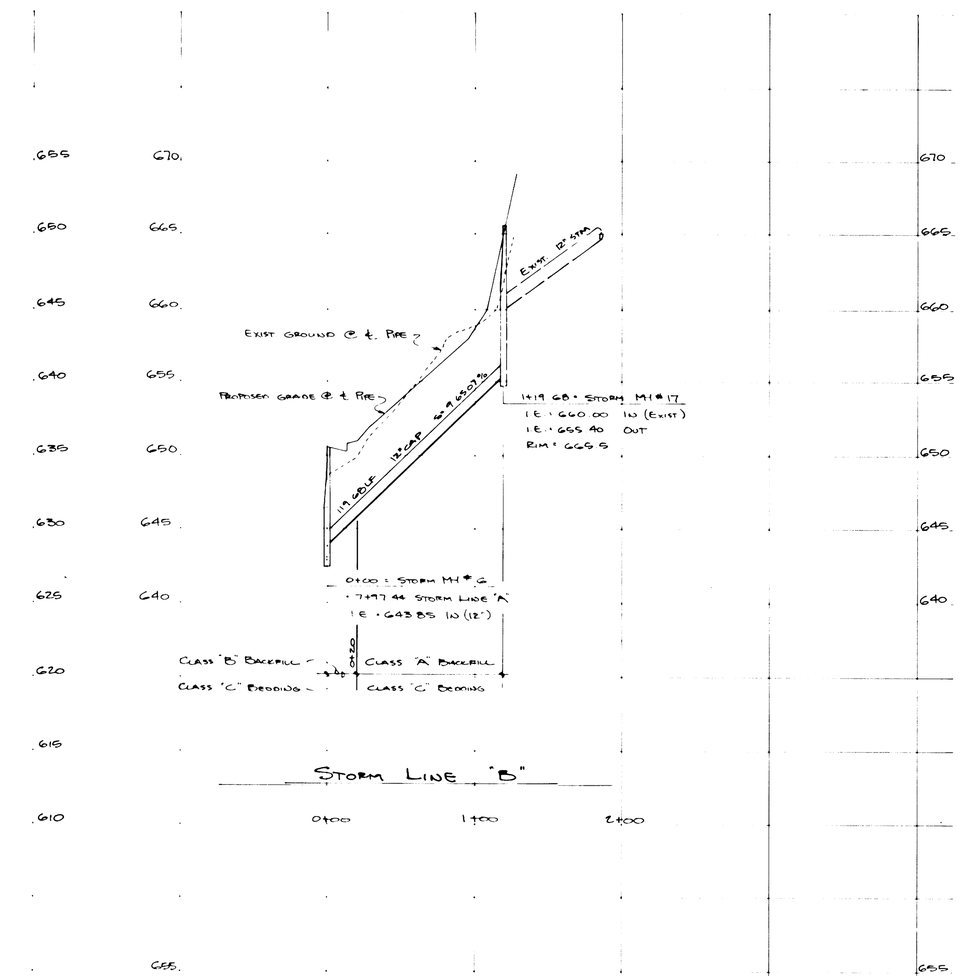
HIDDEN SPRINGS SUMMIT NO. 2

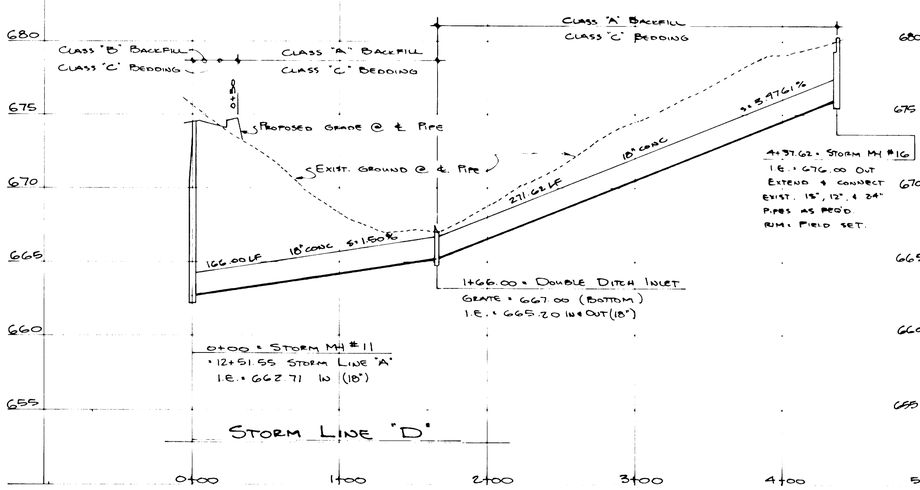
STREET AND STORM SEWER PROFILES

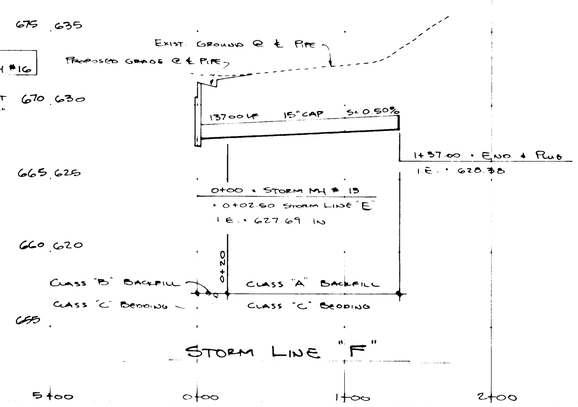
Sheet No. 4

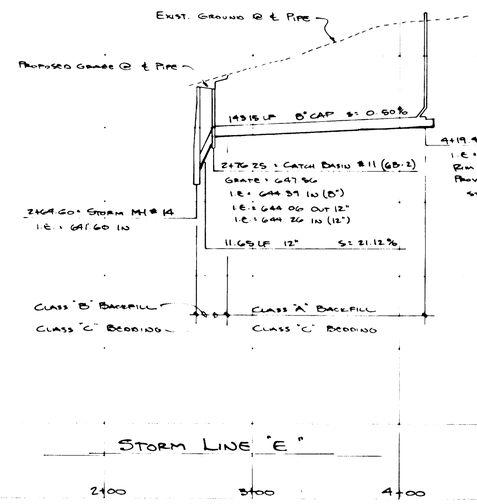
Project No.











SCALE
HORIZ 1" = 50'
VERT 1" = 5'

AS BUILT 1/9/88

DATE	REVISION	BY
6 4 87	REVISED STORM LINE "D" PER CITY OF WEST LINN	RJP
1 9 88	AS BUILT	RJP

DESIGN	BY	
6/87	RJP	
DRAWN	BY	
6/87	RJP	
CHECKED	BY	
6/87	RJP	

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HILLSBORO, OREGON 97123 Ph. 649-2927

REGISTERED PROFESSIONAL ENGINEER 12197 OREGON JULY 13, 1983 ROY J. PRIEST

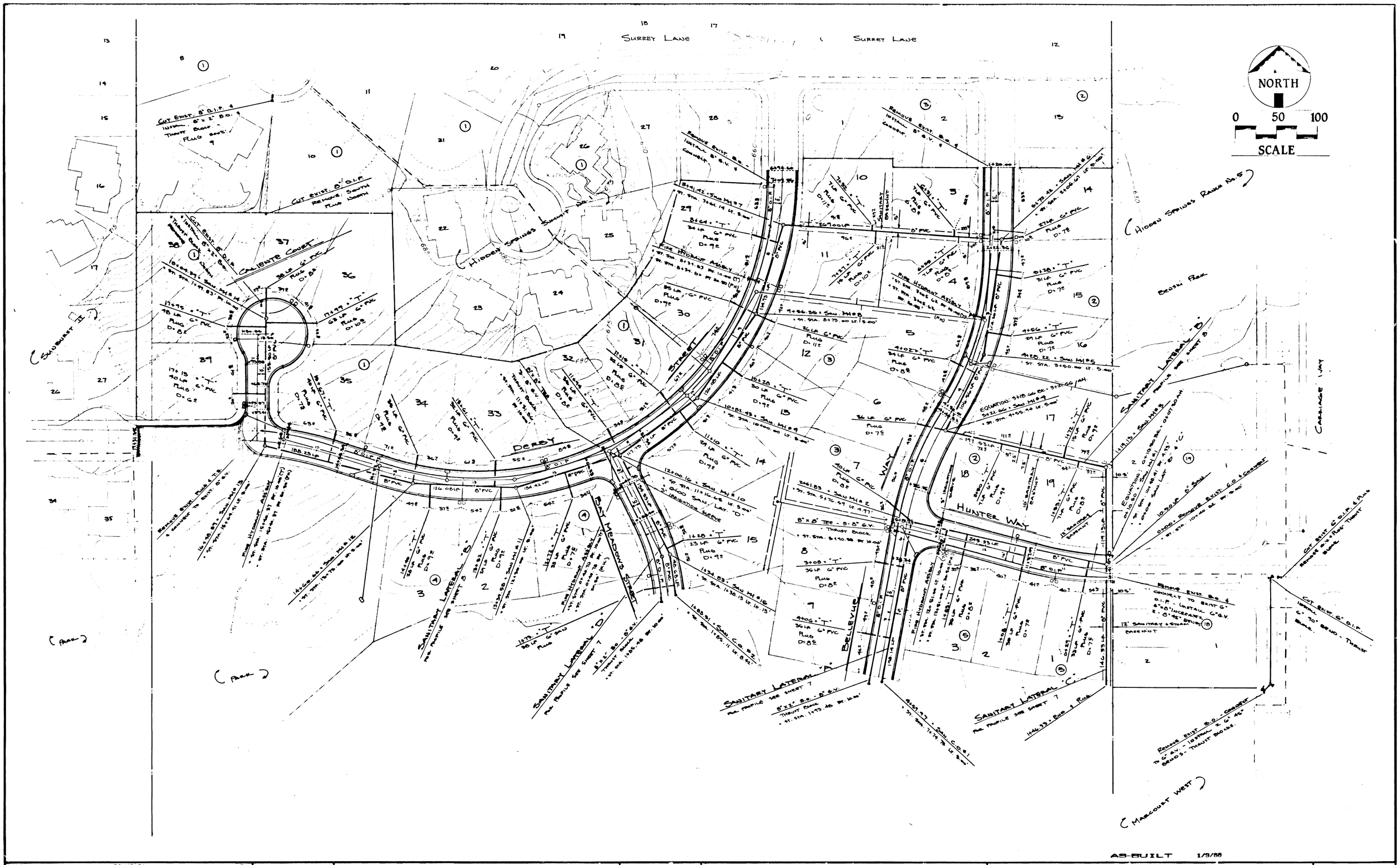
HIDDEN SPRINGS SUMMIT INC.
P.O. BOX 408 WEST LINN, OREGON

HIDDEN SPRINGS SUMMIT NO. 2

STORM SEWER PROFILES

SHEET NO. 5

PROJECT NO.



DATE	REVISION	BY
6-4-87	Revised per City of West Linn	RJP
1-3-88	As-Built	RJP

DESIGN	BY	RJP
6/87		
DRAWN	BY	RJP
6/87		
CHECKED	BY	RJP
6/87		

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REGISTERED PROFESSIONAL ENGINEER 12192 OREGON JULY 15 1980 ROY J. PRIEST

HIDDEN SPRINGS SUMMIT INC.

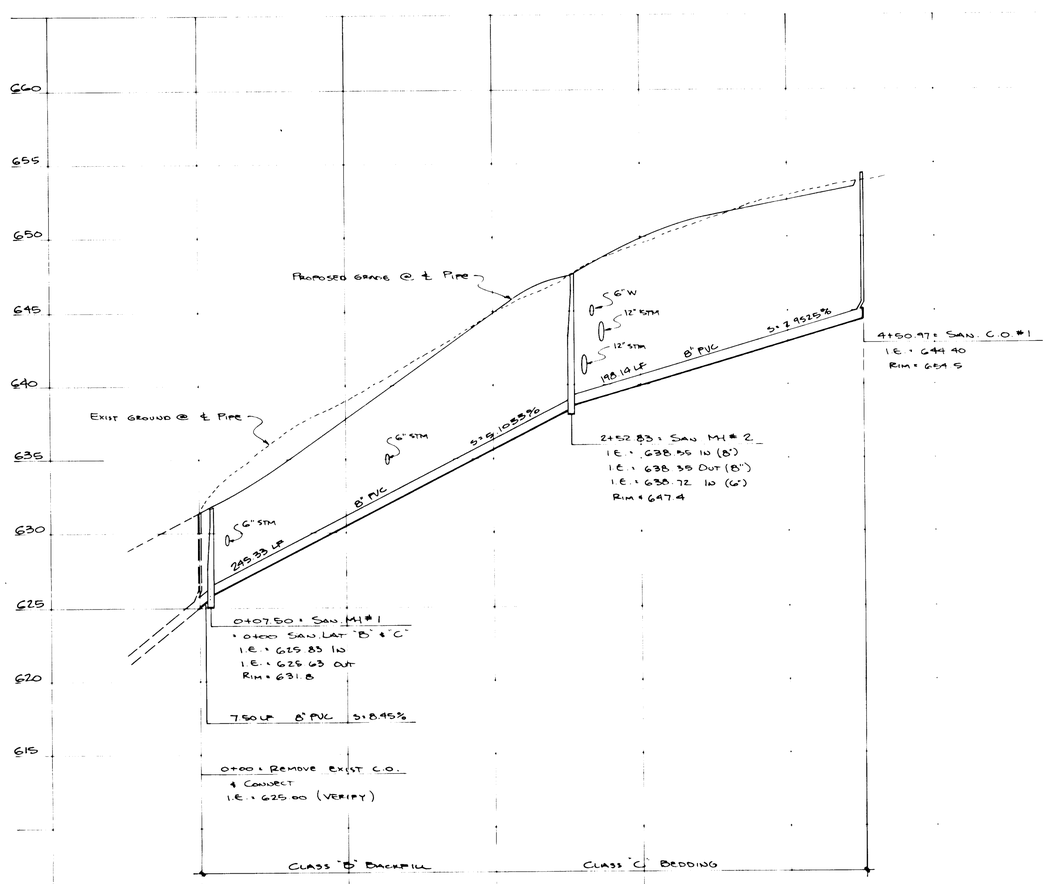
P.O. BOX 408 WEST LINN, OREGON

HIDDEN SPRINGS SUMMIT NO. 2

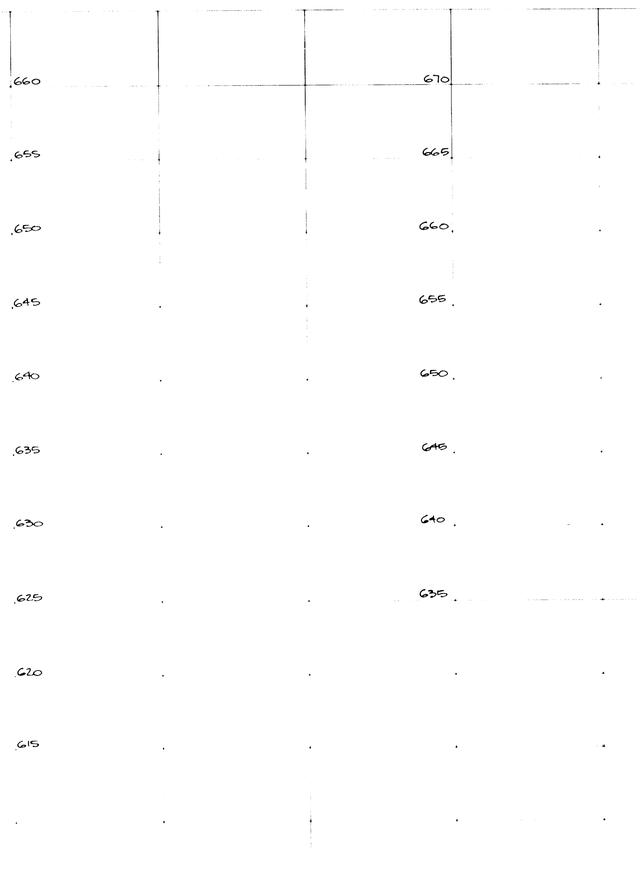
SANITARY SEWER AND WATER PLAN

SHEET NO. 6

PROJECT NO.



Sanitary Lateral "A"



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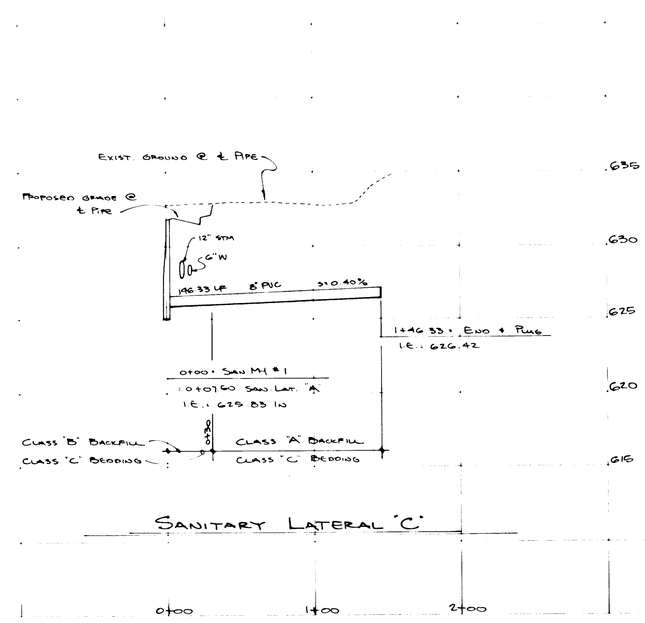

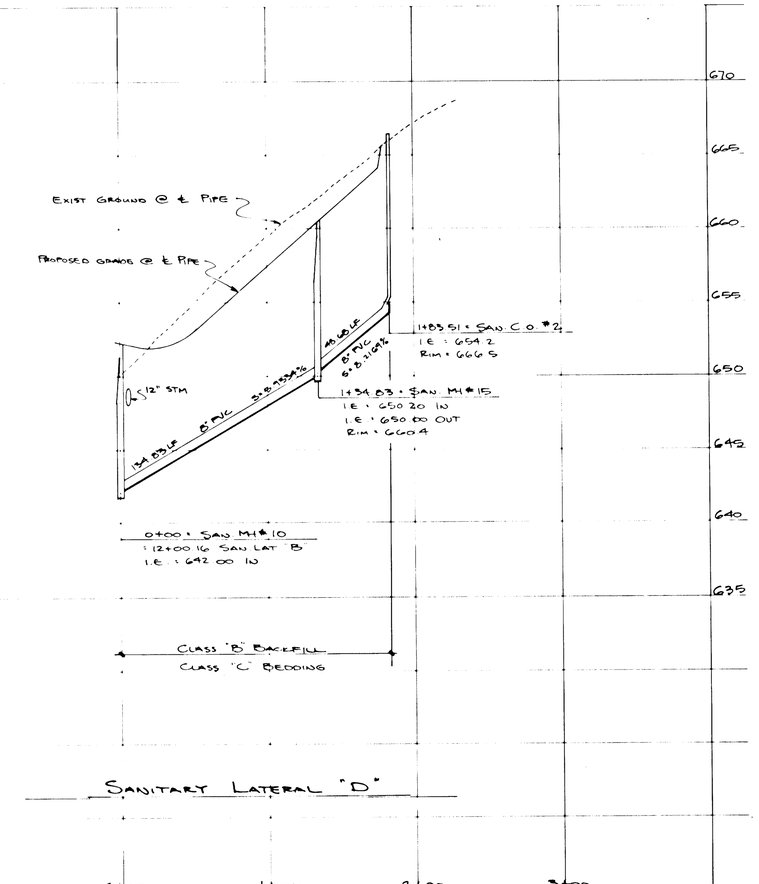

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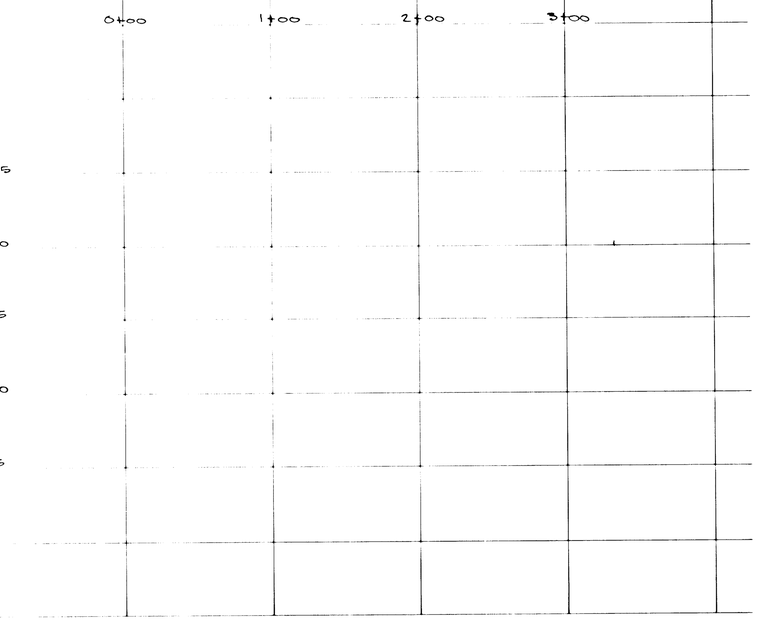

AS-BUILT 1/9/88

DATE	REVISION	BY
1.9.88	AS-BUILT	RJP

DESIGN	BY	
6/87	RJP	
DRAWN	BY	
6/87	RJP	
CHECKED	BY	
6/87	RJP	

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REGISTERED PROFESSIONAL ENGINEER 12,192 JULY 15, 1986 ROY J. PRIEST

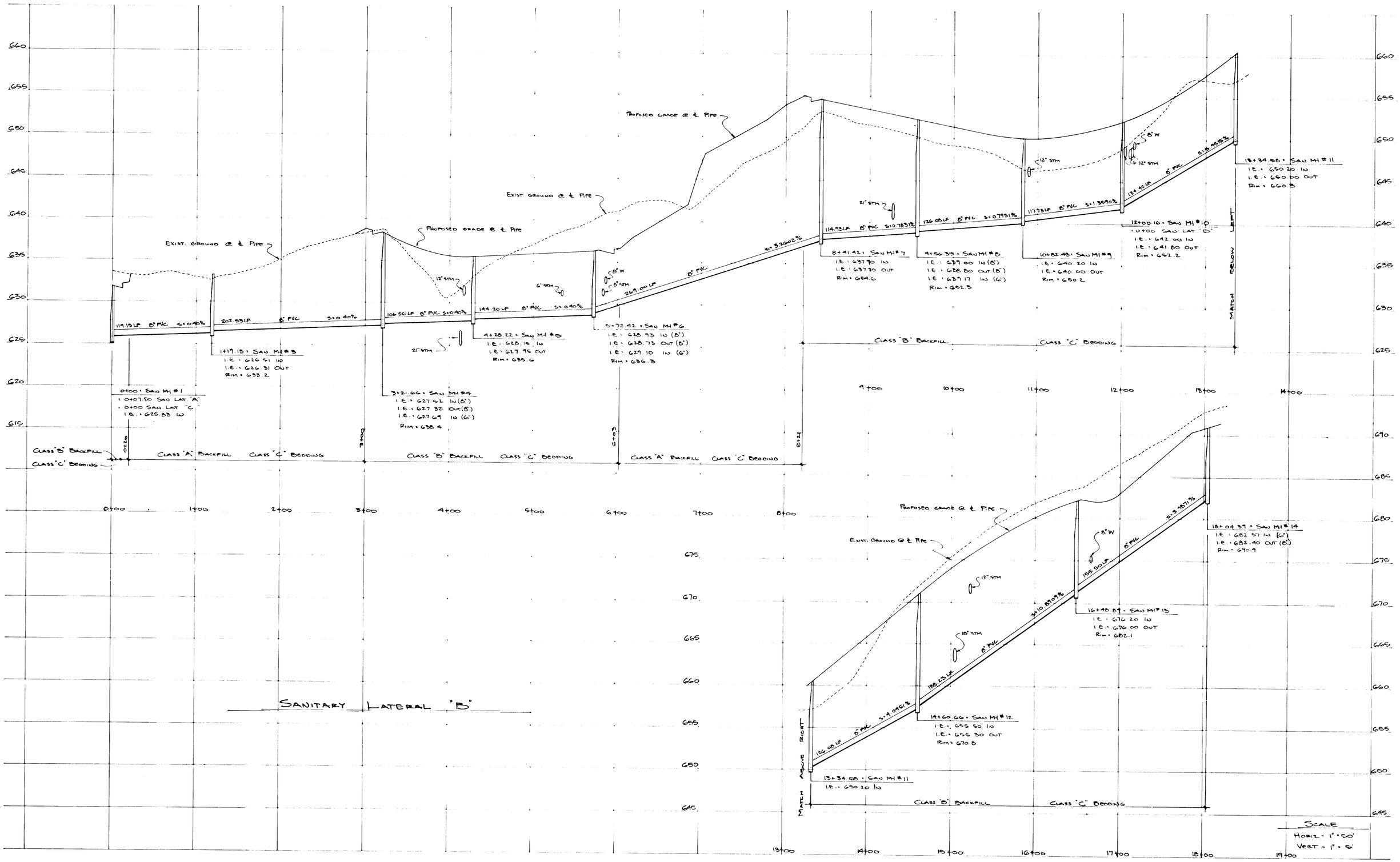
HIDDEN SPRINGS SUMMIT INC.
P.O. BOX 408 WEST LINN, OREGON

HIDDEN SPRINGS SUMMIT NO. 2

SANITARY SEWER PROFILES

SHEET NO. 7

PROJECT NO.



AS-BUILT 1/9/88

DATE	REVISION	BY
1 88	As-Built	RJP

DESIGN 6/87	BY RJP	
DRAWN 6/87	BY RJP	
CHECKED 6/87	BY RJP	

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HIDDEN SPRINGS SUMMIT INC.
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HIDDEN SPRINGS SUMMIT NO. 2
SANITARY SEWER PROFILES

SHEET NO. 8
PROJECT NO.