

CASCADE PEAK ESTATES
PORTION OF THE SW 1/4 SEC. 17, T.39N, R.2E., W.M.

STANDARD PLANS

The State of Washington "Standard Plans for Road and Bridge Construction", effective March 1, 1986, hereinafter referred to as the "Standard Plans", are hereby adopted as part of these Contract Documents. The Standard Plans shall be considered the same as Plans, as set forth in Section 1-04.2 of the Standard Specifications. The Standard Plans shall be followed unless otherwise provided in these Contract Documents.

STANDARD SPECIFICATIONS

The 1988 "Standard Specifications for Road, Bridge, and Municipal Construction", as published by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association, hereinafter referred to as the "Standard Specifications", are hereby adopted for this Contract. Any references therein to the "Secretary", or to the "Engineer" shall be interpreted to mean the Project Engineers (BENNETT P.S. & E., INC.) or their designated representative.

The Standard Specifications, except as may be modified or superseded by these Contract Documents, shall govern all phases of the Work.

EXAMINATION OF PLANS, SPECIFICATIONS AND SITE OF WORK

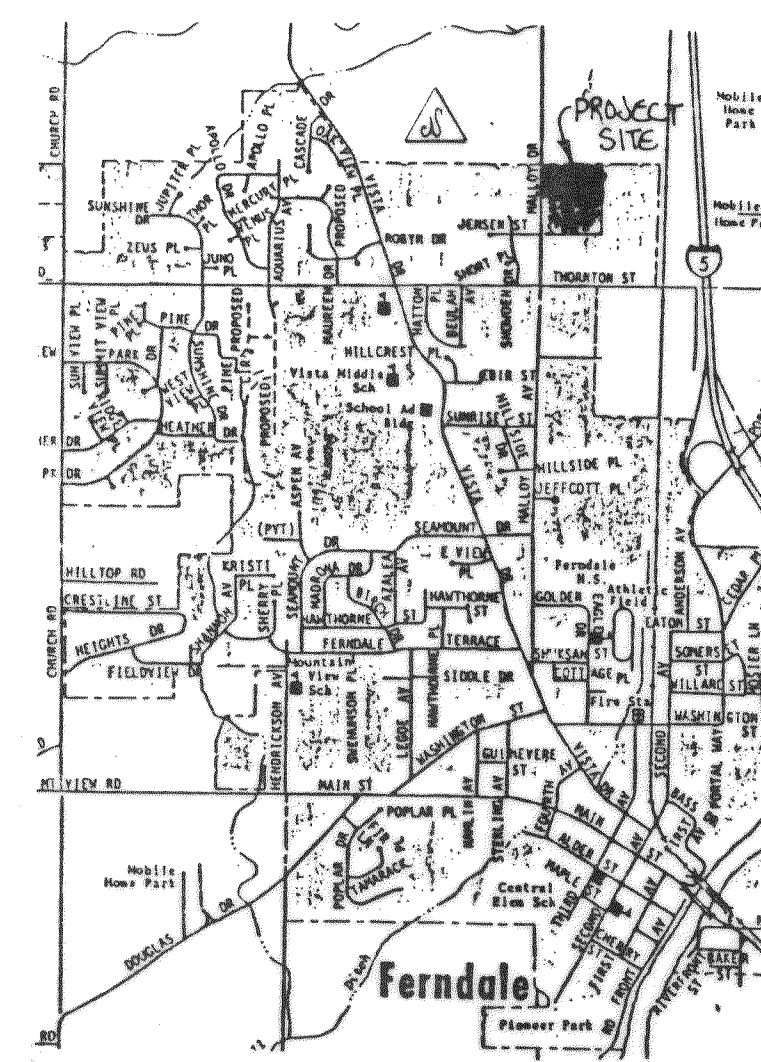
No geotechnical data is available for the project area. It remains the Contractor's sole responsibility and duty to make his own examinations and investigations as required by the Standard Specifications or any other responsibility under the Contract.

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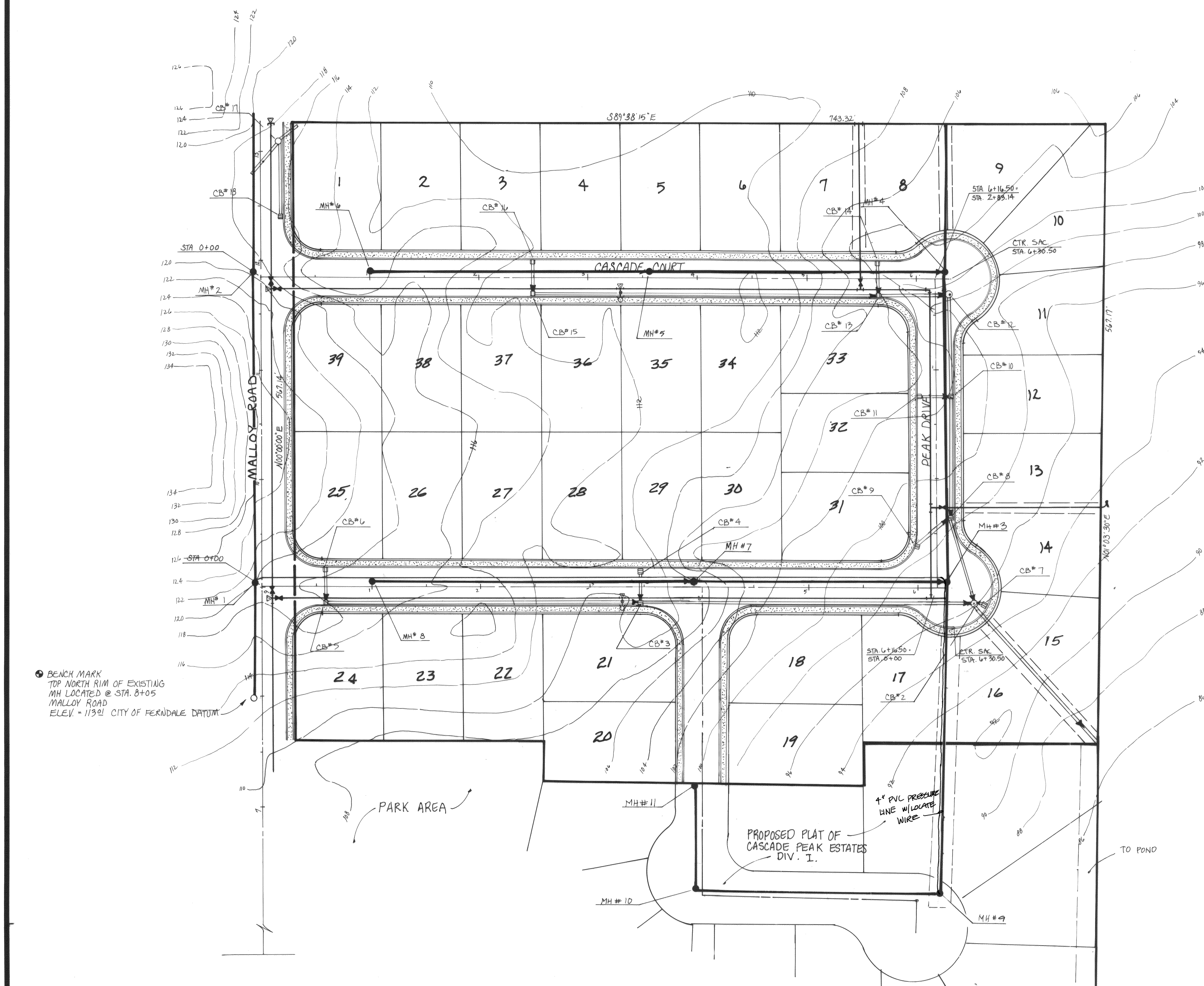
LEGAL DESCRIPTION
LOT 4

PAGE 122, VOL. 8, WHATCOM COUNTY SHORT PLATS
OXFORD SHORT PLAT
BEING A PORTION OF THE SOUTH WEST QUARTER OF
SECTION 17, TOWNSHIP 39 NORTH, RANGE 2 EAST,
W.M. CITY OF FERNDALE, WA.



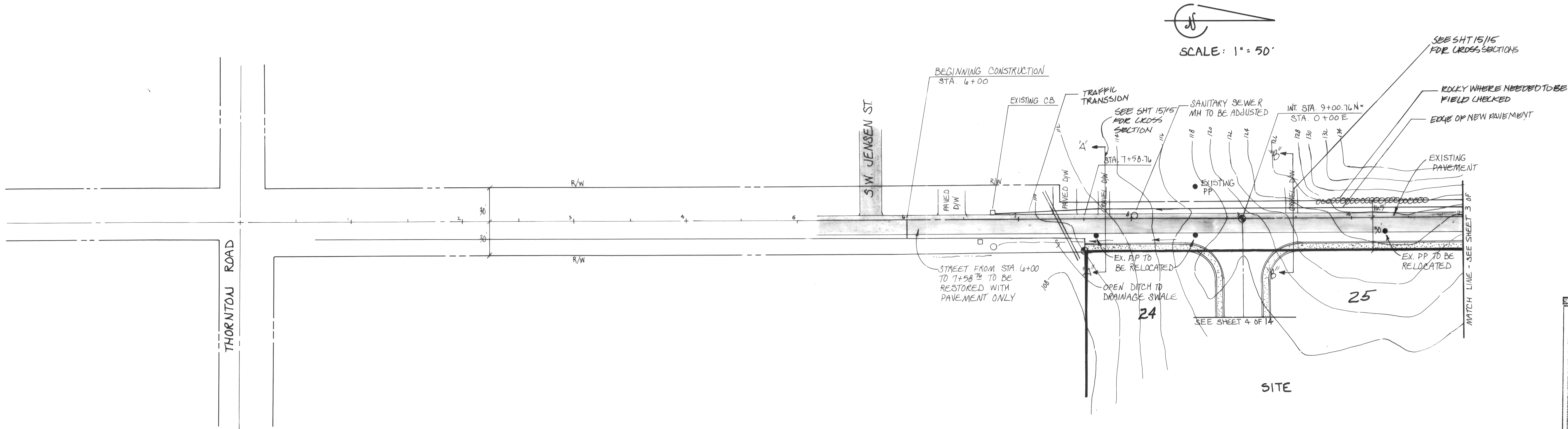
VICINITY MAP

APPROVED	
--- WATER SYSTEM	--- HYDRANT LAYOUT
--- SANITARY SEWER	--- STORM DRAIN
--- DETENTION SYSTEM	--- ROADS
--- LANDSCAPING	--- PARKING
--- PLANNING COMMISSION / CITY COUNCIL	
--- CONDITIONS	
--- BUILDING SETBACKS	
--- FIRE LINE/DOUBLE BACKFLOW PREVENTOR	
--- IRRIGATION SYSTEM/D.S.P.	
--- DOMESTIC WATER/D.S.P.	
CITY ENGINEER	DATE
PLANNING DIRECTOR	DATE
THIS APPROVAL IS SUBJECT TO THE MATERIAL AND CONSTRUCTION BEING IN COMPLIANCE WITH STATE AND LOCAL STANDARDS AND IS VOID ONE (1) YEAR FROM THIS APPROVAL DATE.	



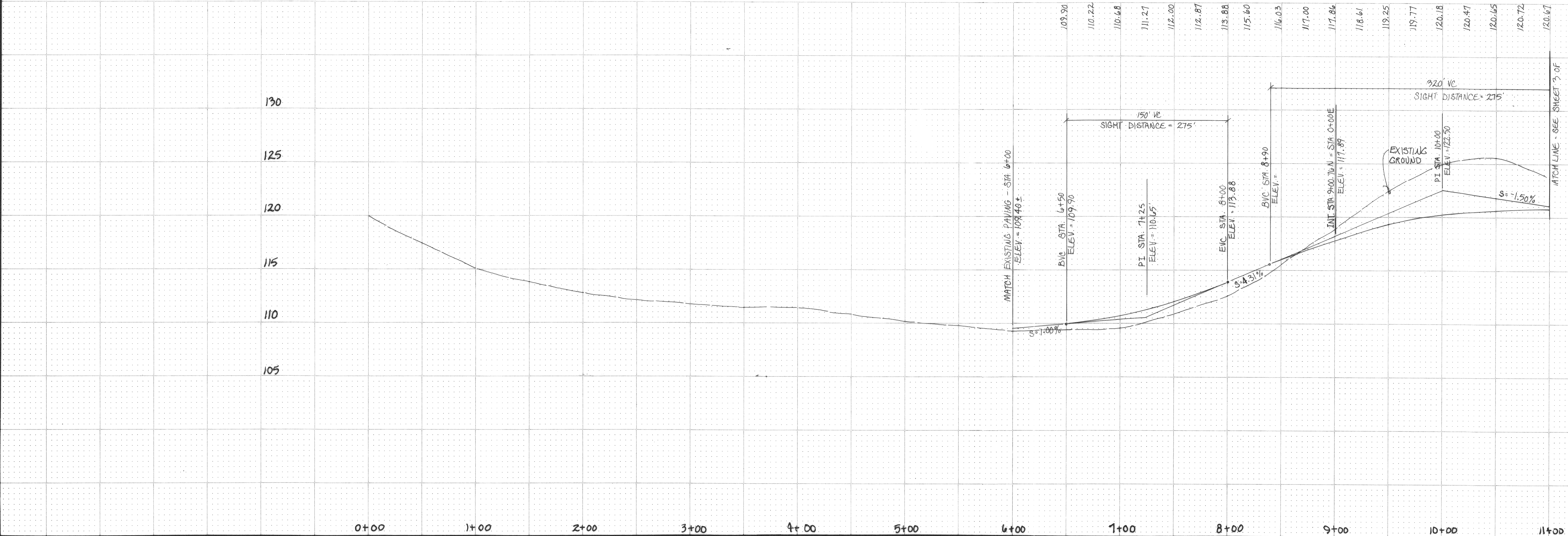
REV. NO.	DATE	DESCRIPTION	MADE BY	CHECKED	SCALE: 1" = 50'	DESIGNED: DLM		BENNETT P.S. & E., INC. SURVEYORS and ENGINEERS P.O. BOX 1031 PUYALLUP WA. 98371 PUYALLUP 845-8833 SEATTLE 838-3474		CASCADE PEAK ESTATES COVER SHEET	SHEET NO. 1 of 15
					DATE: NOV. 1989	CHECKED: CRB					JOB NO. 89-2997
					DRAWN: CRYSTAL	APPROVED:					
1	8-2-90	Lot # 3 UTILITY DESIGN	CRB	CRB							

CASCADE PEAK ESTATES
PORTION OF THE SW 1/4 SEC. 17, T.39N, R.2E, W.M.



APPROVED	
WATER SYSTEM	STORM DRAIN
SANITARY SEWER	STORM DRAIN
DETENTION SYSTEM	ROADS
LANDSCAPING	PARKING
PLANNING COMMISSION / CITY COUNCIL	CONDITIONS
BUILDING SETBACKS	
FIRE LINE/DOUBLE BACKFLOW PREVENTOR	
IRRIGATION SYSTEM/D.B.P.	
DOMESTIC WATER/D.B.P.	
CITY ENGINEER	DATE
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MALLOY ROAD

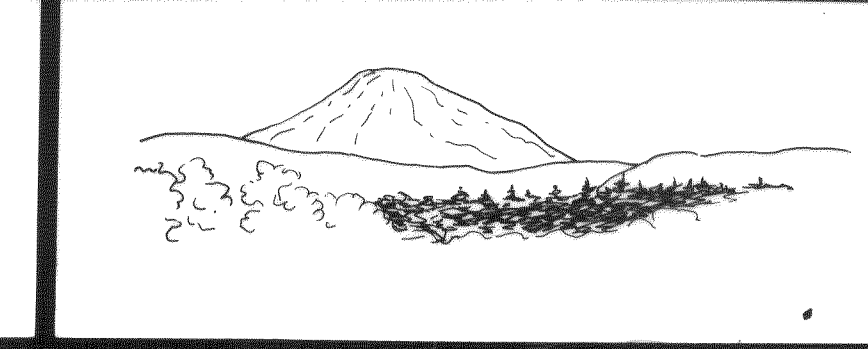


REV. NO.	DATE	DESCRIPTION	MADE BY	CHECKED
1	8-7-90	LOT #25	MA5	CRB

SCALE: H: 1" = 50'
V: 1" = 5'
DATE: AUG. 1989
DESIGNED: DLM
CHECKED: CRB
DRAWN: CRYSTAL
CHARLES R. BENNETT
APPROVED:



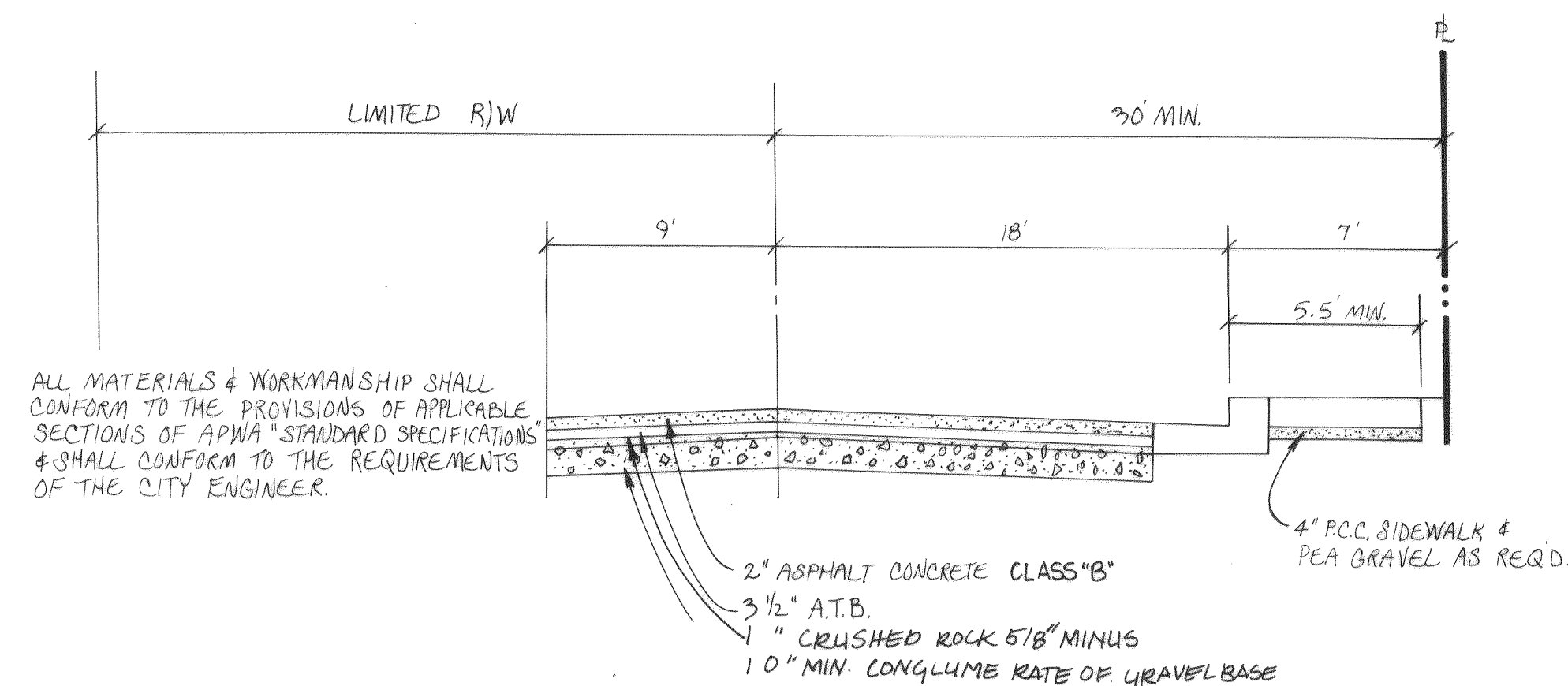
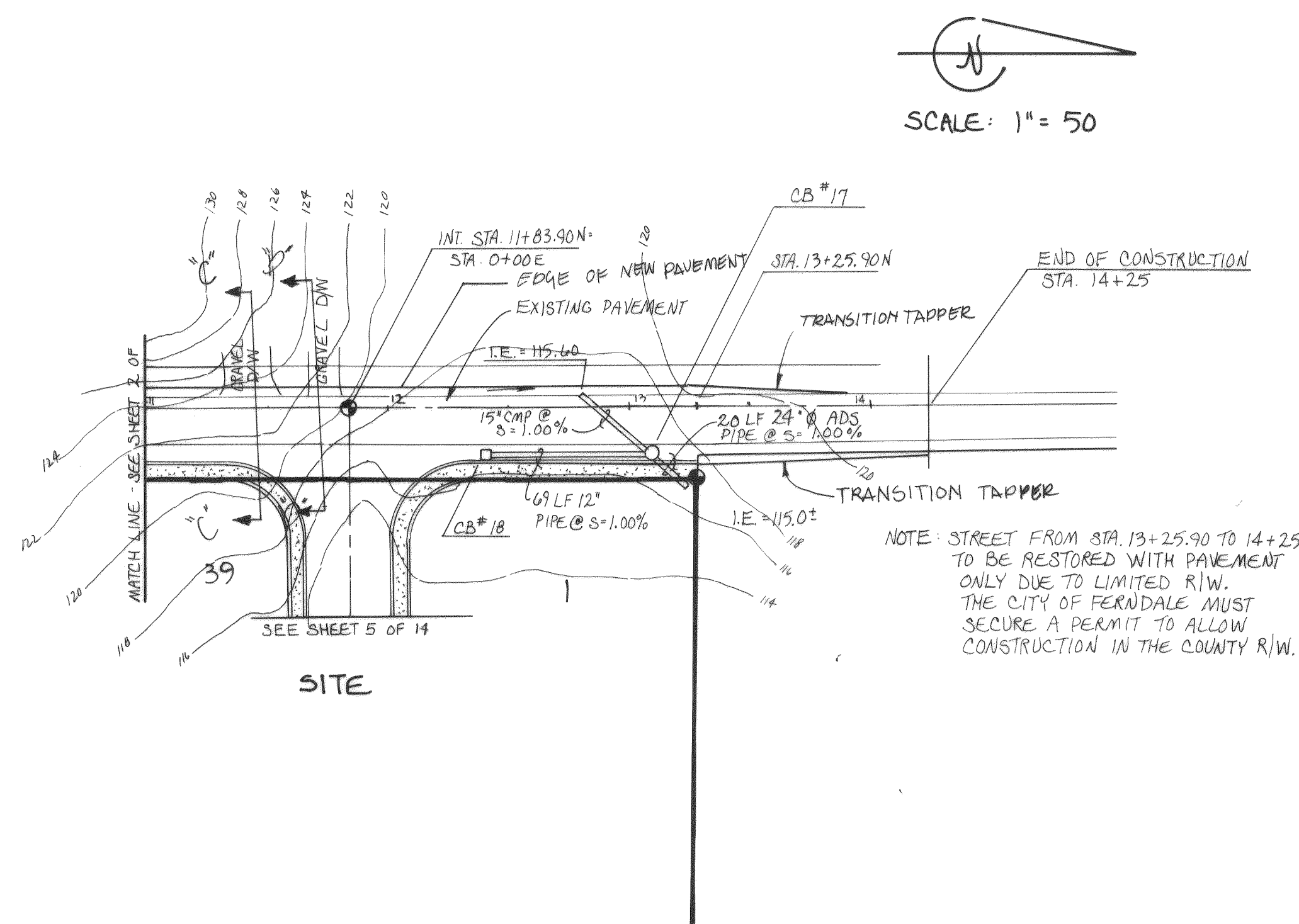
Bennett PS&E INC.
SURVEYORS and ENGINEERS
P.O. BOX 1031 PUYALLUP WA. 98371
PUYALLUP 845-8833 SEATTLE 838-3474



CASCADE PEAK ESTATES
OFF-SITE ROAD & STORM
PLAN & PROFILE

SHEET NO.
2
OF
15
JOB NO. 89-2997

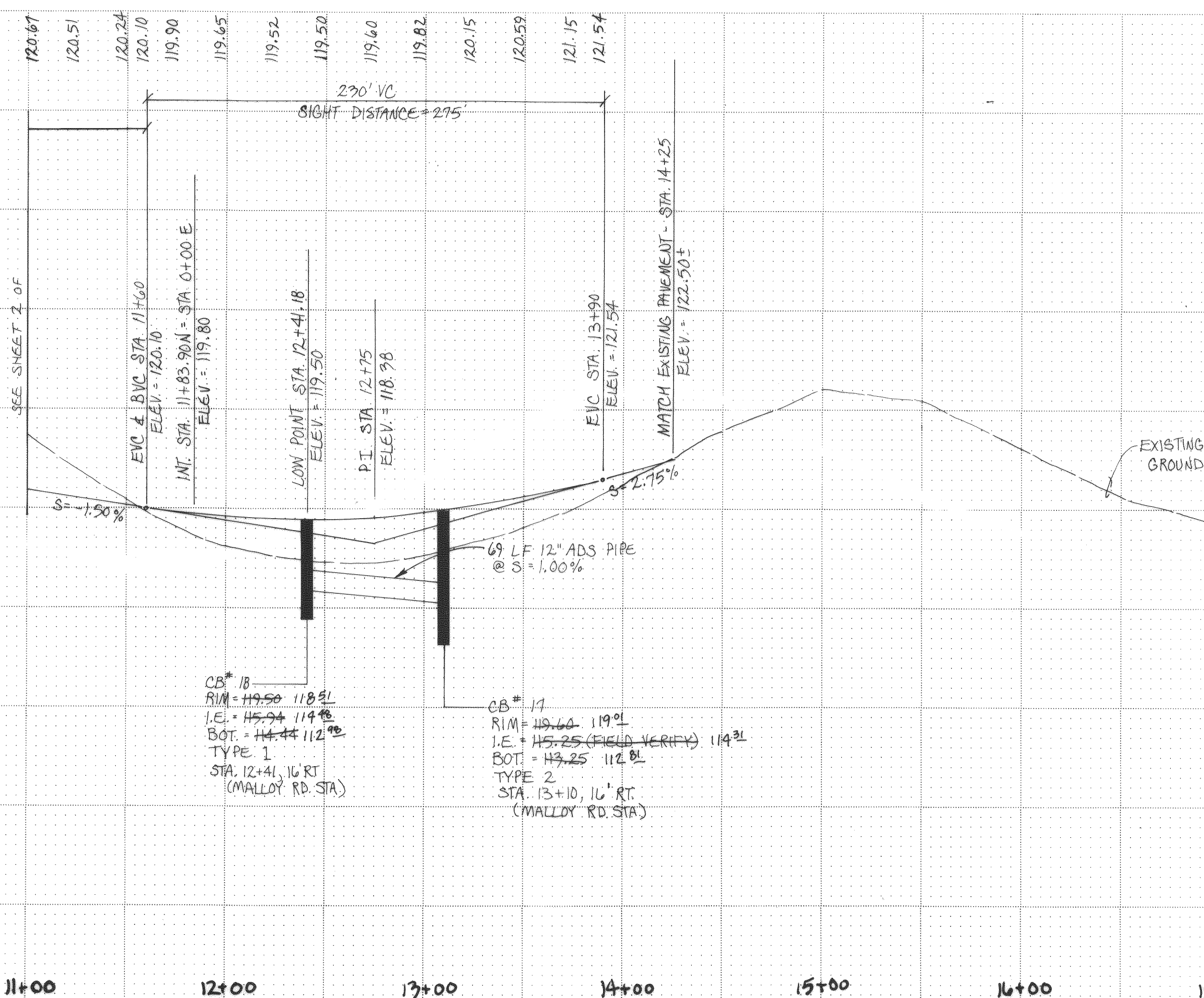
CASCADE PEAK ESTATES
PORTION OF THE SW 1/4 SEC. 17, T. 39N., R. 2E., W. 1M.



3/4 STREET SECTION - MALLOY ROAD
N.T.S.

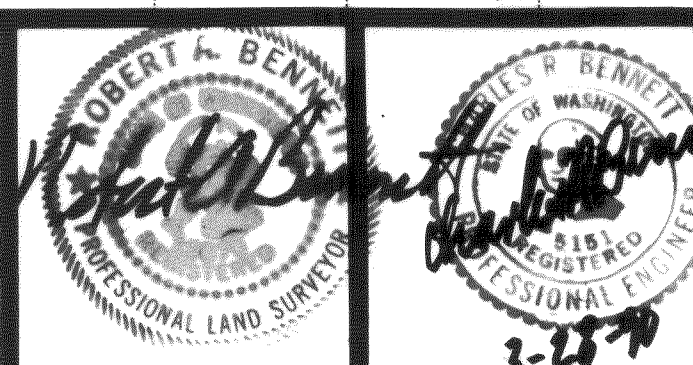
NOTE: 2" ASPHALT CONCRETE CLASS "B"
3" 3/8" MINUS CRUSHED
18" MIN CONGLUME RATE OF GRAVEL BASE BANK RUN
TO REPLACE THE NEED 3 1/2" ATB

APPROVED	
WATER SYSTEM	HYDRAULIC LAYOUT
SANITARY SEWER	STORM DRAIN
DETENTION SYSTEM	ROADS
LANDSCAPING	PARKING
PLANNING COMMISSION / CITY COUNCIL	CONDUITS
BUILDING SETBACKS	FIRE LINE/DOUBLE BACKFLOW PREVENTOR
IRRIGATION SYSTEM/D.S.P.	DOMESTIC WATER/D.S.P.
CITY ENGINEER	DATE
PLANNING DIRECTOR	DATE
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REV. NO.	DATE	DESCRIPTION	MADE BY	CHECKED
1	8-7-90	LOT #4		

SCALE: H: 1"=50' V: 1"=5'	DESIGNED: ZAB
DATE: AUG. 1989	CHECKED: CRB
DRAWN: CRYSTAL	APPROVED: CRB



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SURVEYORS and ENGINEERS
P.O. BOX 1031 PUYALLUP WA. 98371
PUYALLUP 845-8833 SEATTLE 838-3474



CASCADE PEAK ESTATES
OFF-SITE ROAD & STORM
PLAN & PROFILE
AS-BUILTS 5-31-91
SHEET NO. 3 OF 15
JOB NO. 89-2997

CASCADE PEAK ESTATES
PORTION OF THE SW 1/4 SEC. 17, T.39N., R.2E., W.M.

GENERAL NOTES:

Minimum sidewalk widths to be 5' for residential, 8' for commercial/business.

Minimum radius of curb return to be 15' on residential access streets and 20' on arterial, commercial, business and industrial streets.

Concrete shall be Class C.

3/4" deep "V" grooves to be placed 5' C/C.

3/8" x 2" minimum dummy joints to be placed 20' C/C contraction joints in curb.

3/8" x 4-1/2" expansion joints to be placed at curb re driveway section, cold joints, changes in section, or maximum 80' C/C. Joints to protrude 1/2" below sidewalk.

1/4" x 4-1/2" expansion joints to be placed between sidewalk and back-of-curb and around all junction boxes, meter boxes, etc.

All joints to be cleaned and edged with 1/4" radius.

Sidewalk to be brush-finished in traverse direction with fiber-hair brush, except at driveways where it shall be brushed longitudinally.

Concrete shall be cured in accordance with the standard specifications.

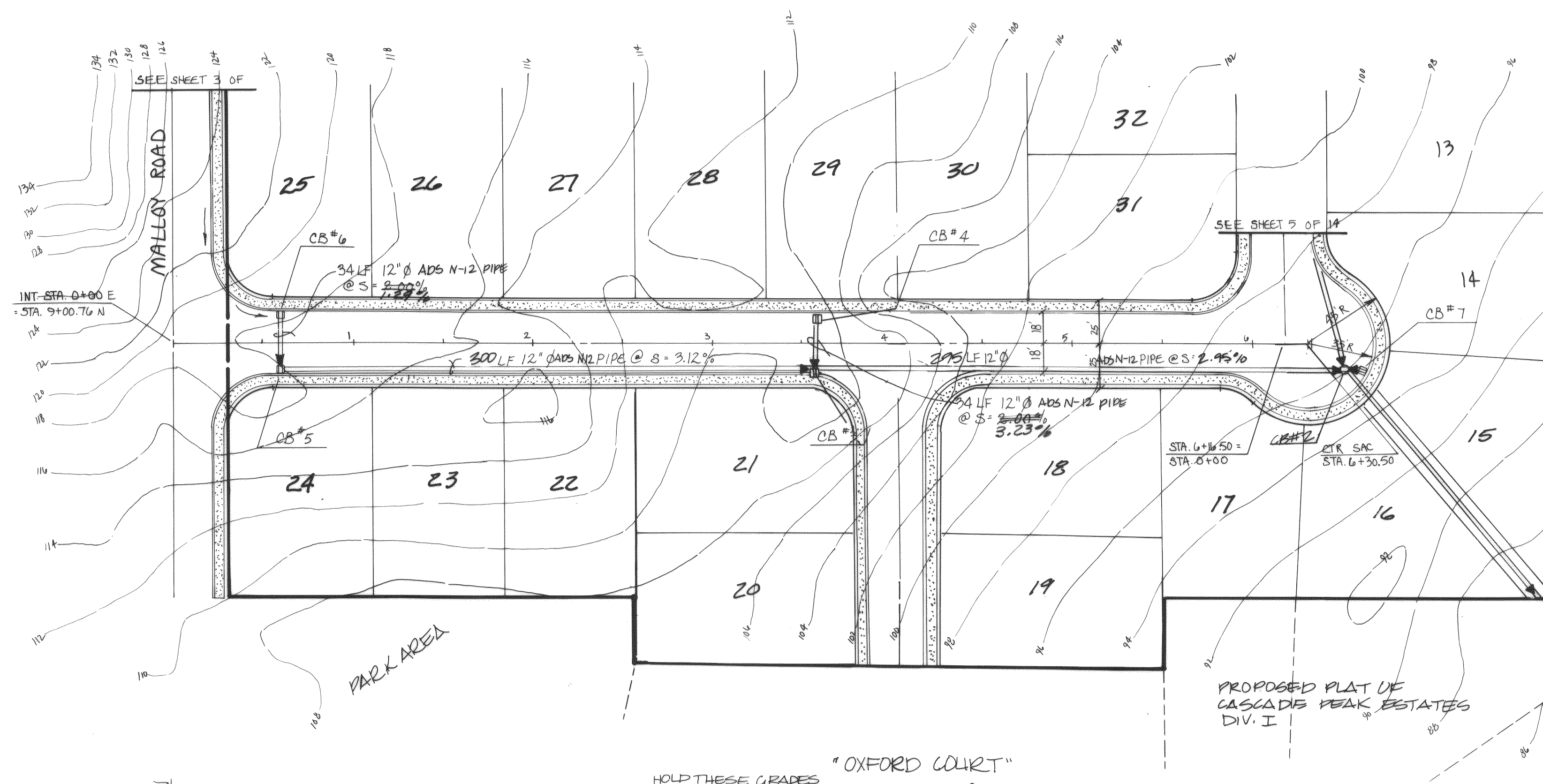
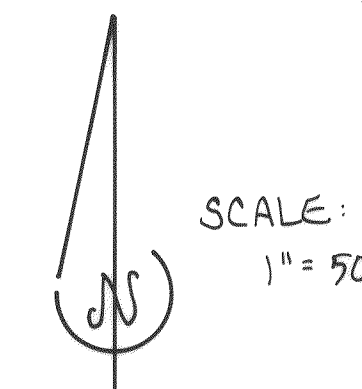
Sidewalks in cut sections shall be drained according to Standard Plan No. ST-16.

Washed rock shall be graded between 1/4" and 1-1/2".

Further requirements shall be as specified in the standard specifications.

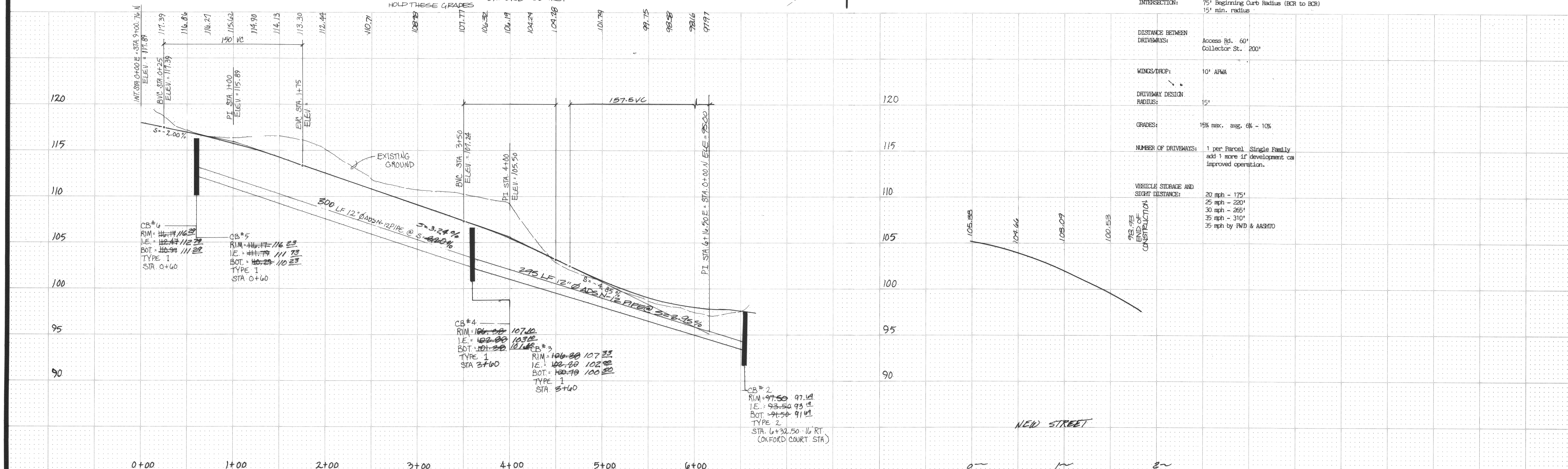
ALL WORK IN SIDEWALK SHALL BE CUT SECTION WHEN REMOVING AREA FOR WORK

APPROVED	
--- WATER SYSTEM	--- HYDRANT LAYOUT
--- SANITARY SEWER	--- STORM DRAIN
--- DETENTION SYSTEM	--- ROADS
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--- PLANNING COMMISSION / CITY COUNCIL	--- CONDITIONS
--- BUILDING SETBACKS	--- FIRE LINE/DOUBLE BACKFLOW PREVENTOR
--- IRRIGATION SYSTEM/D.B.P.	--- DOMESTIC WATER/D.B.P.
CITY ENGINEER	DATE
PLANNING DIRECTOR	DATE
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CITY OF FERDALE STANDARDS

DRIVEWAY WIDTH:	Res. 12' min. Com. 20' - 30' Ind. 20' - 40'
DISTANCE FROM INTERSECTION:	75' Beginning Curb Radius (BCR to BCR) 15' min. radius
DISTANCE BETWEEN DRIVEWAYS:	Access Rd. 60' Collector St. 200'
WINGS/DROP:	10' APWA
DRIVEWAY DESIGN RADIUS:	15'
GRADES:	15% max. avg. 6% - 10%
NUMBER OF DRIVEWAYS:	1 per Parcel Single Family add 1 more if development can improved operation.
VEHICLE STORAGE AND SIGHT DISTANCE:	20 mph - 175' 25 mph - 220' 30 mph - 265' 35 mph - 310' 35 mph by FWD & AASHTO



REV. NO.	DATE	DESCRIPTION	MADE BY	CHECKED	SCALE: N: 1" = 50' V: 1" = 5'	DESIGNED: DLM	
1	9-19-90	NEW GRADE	RAB	CRB	DATE: NOV. 1989	CHECKED: CRB	
3	9-11-90	NEW ROAD	RAB	CRB			
2	9-9-90	GRADE STA 4~ TO 6~	RAB	CRB			
1	8-8-90	REVISED STORM DRAIN	RAB	CRB			
					DRAWN: CRYSTAL	APPROVED: CRB	

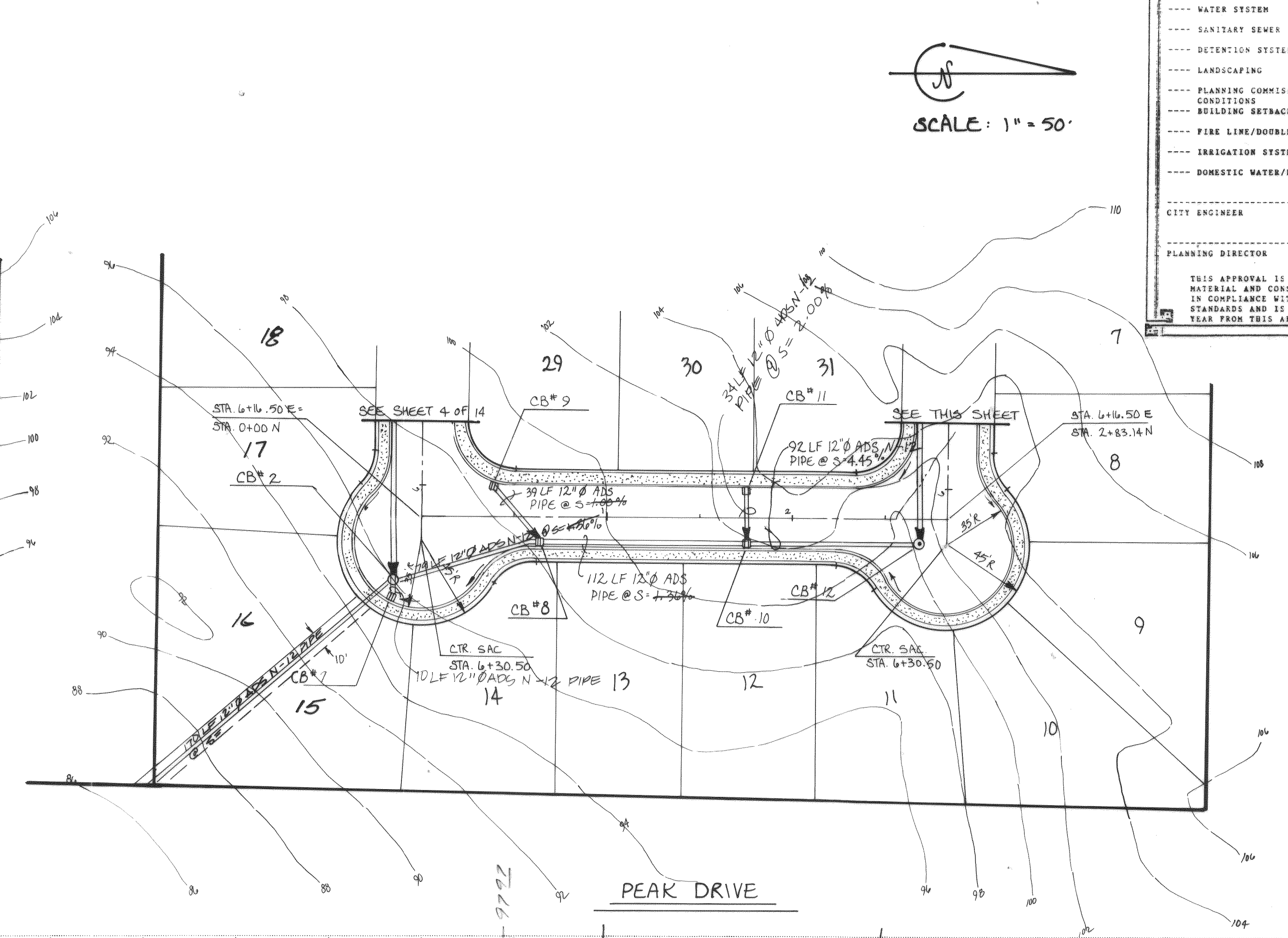
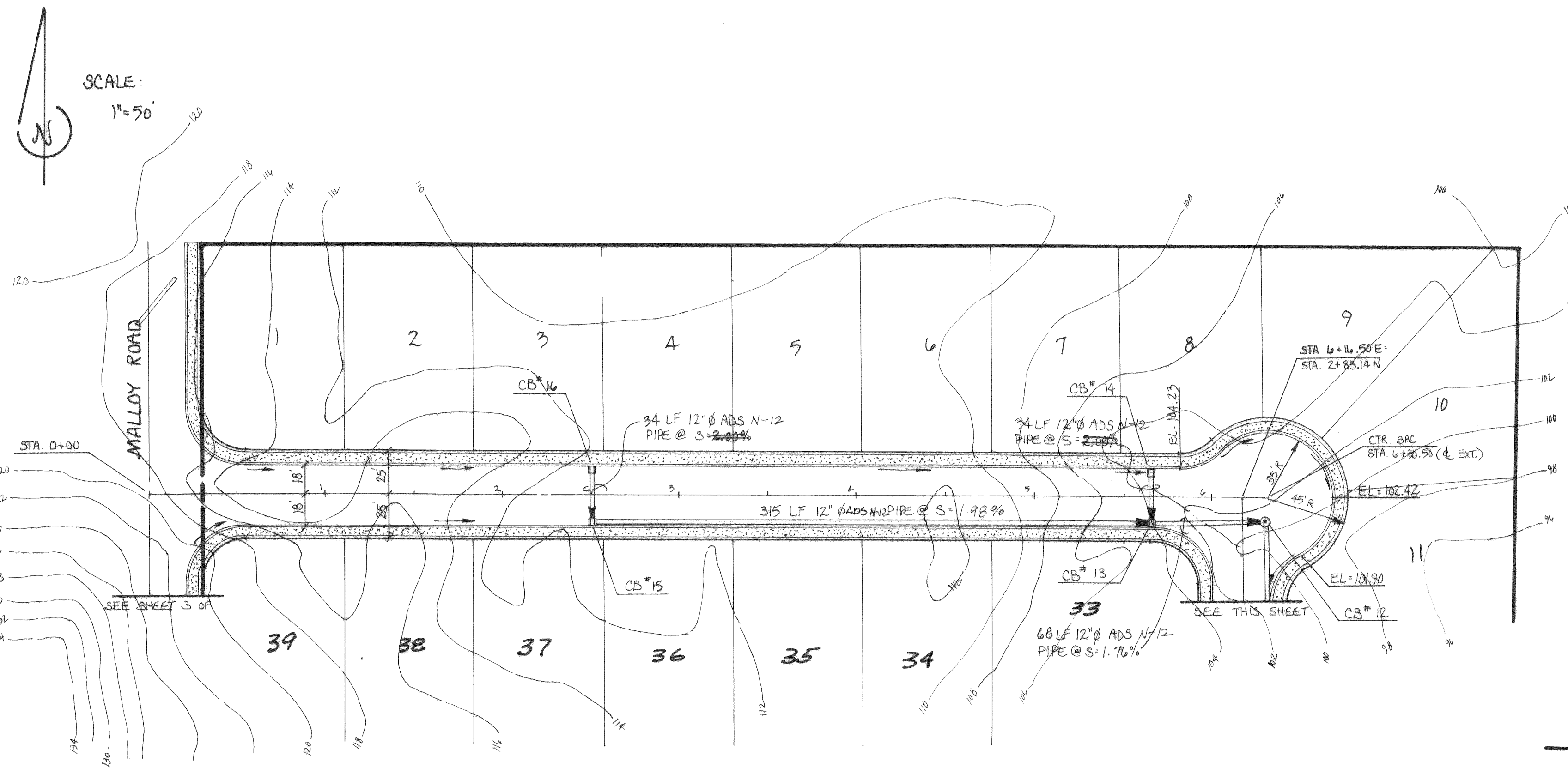
Bennett PS&E INC.
SURVEYORS and ENGINEERS
P.O. BOX 1031 PUYALLUP WA. 98371
PUYALLUP 845-8833 SEATTLE 838-3474

CASCADE PEAK ESTATES
ROAD & STORM PLAN & PROFILE
AS-BUILTS 5-31-91

SHEET NO. 4 of 15

JOB NO. 89-2997

CASCADE PEAK ESTATES
PORTION OF THE SW 1/4 SEC. 17, T.39N, R.2E., W.M.



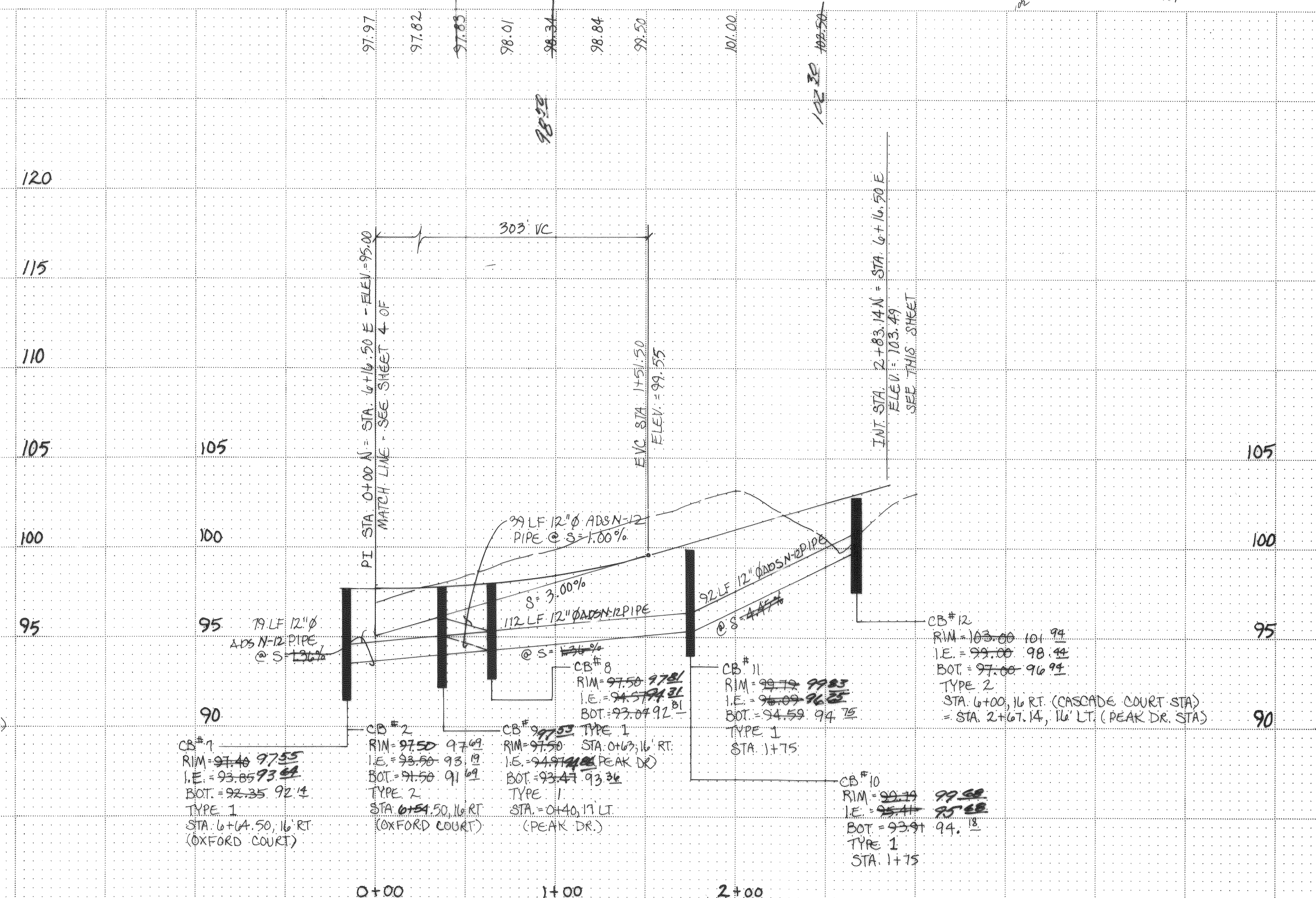
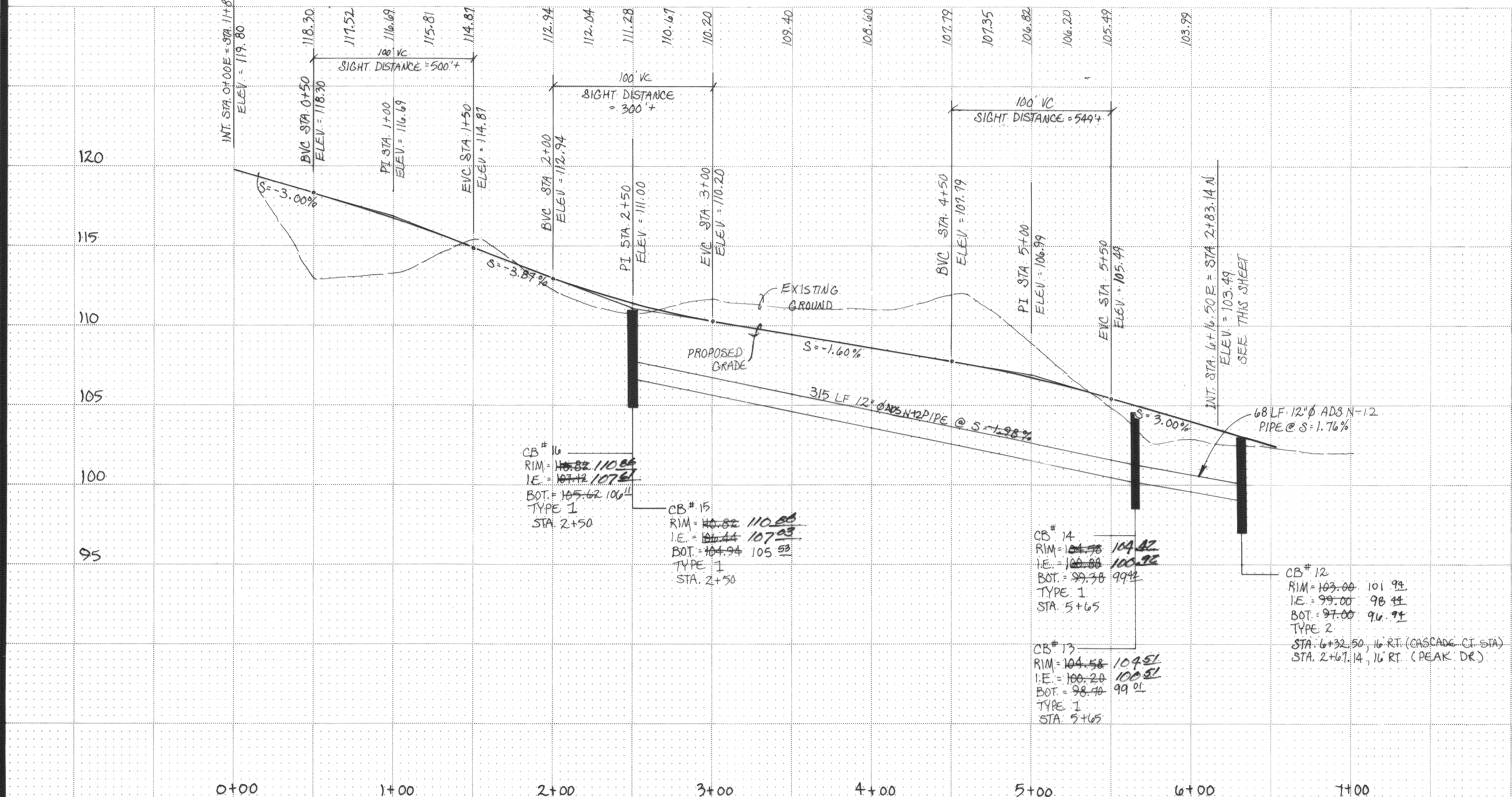
APPROVED

--- WATER SYSTEM --- HYDRANT LAYOUT
--- SANITARY SEWER --- STORM DRAIN
--- DETENTION SYSTEM --- ROADS
--- LANDSCAPING --- PARKING
--- PLANNING COMMISSION / CITY COUNCIL CONDITIONS
--- BUILDING SETBACKS
--- FIRE LINE/DOUBLE BACKFLOW PREVENTOR
--- IRRIGATION SYSTEM/D.B.P.
--- DOMESTIC WATER/D.B.P.

CITY ENGINEER _____ DATE _____
PLANNING DIRECTOR _____ DATE _____

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CASCADE COURT



REV. NO.	DATE	DESCRIPTION	MADE BY	CHECKED
1	8-2-90	LOT # 5 & 6 STORM	RAF	CRB

SCALE: H: 1" = 50'
V: 1" = 5'

DATE: NOV. 1989

DRAWN: CRYSTAL

DESIGNED: DLM

CHECKED: CRB

CHARLES R. BENNETT

APPROVED:

Bennett PS&E INC.

SURVEYORS and ENGINEERS

P.O. BOX 1031 PUYALLUP WA. 98371

PUYALLUP 845-8833 SEATTLE 838-3474

CASCADE PEAK ESTATES

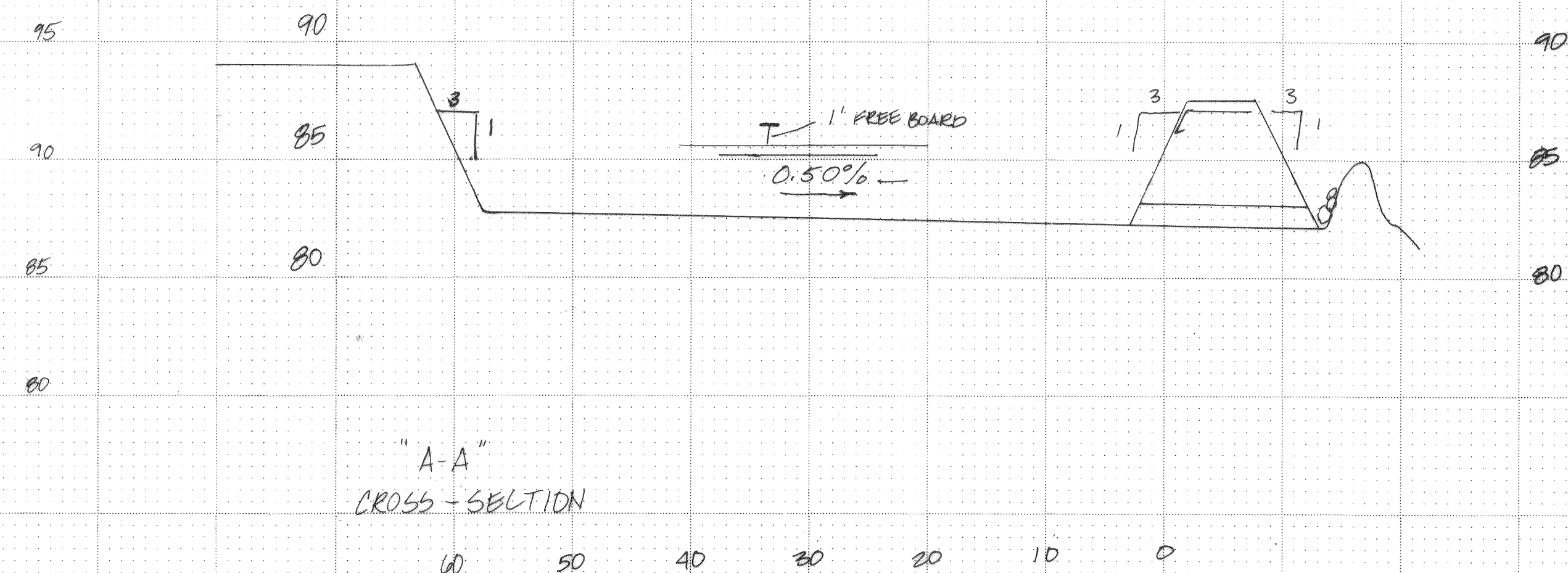
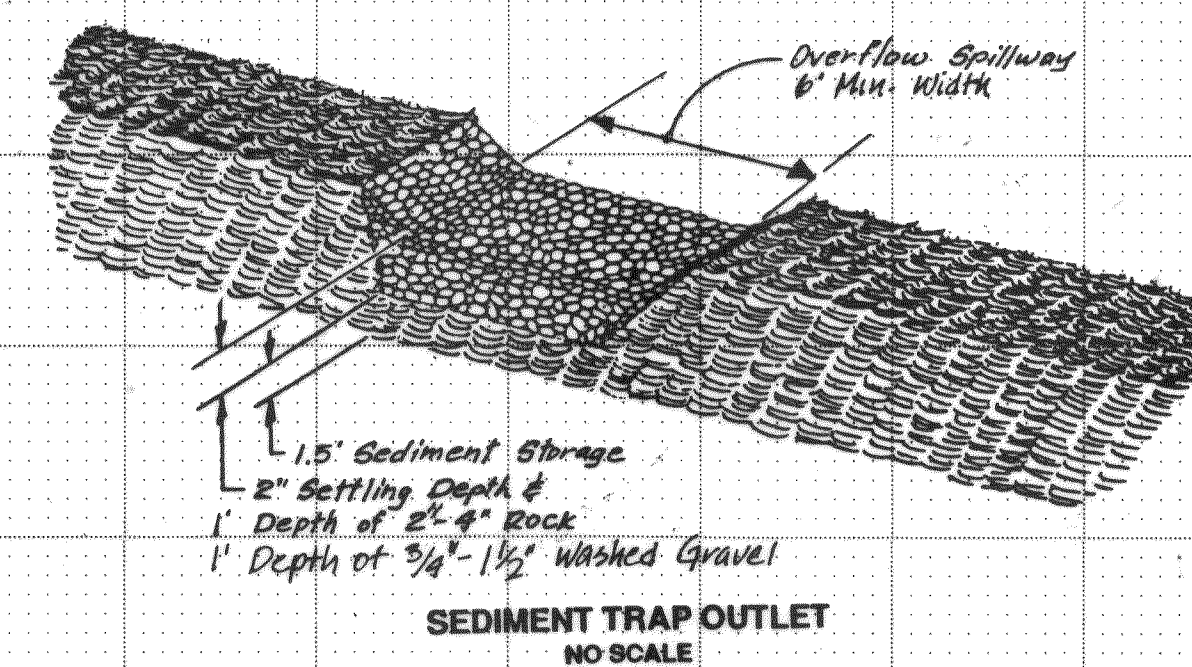
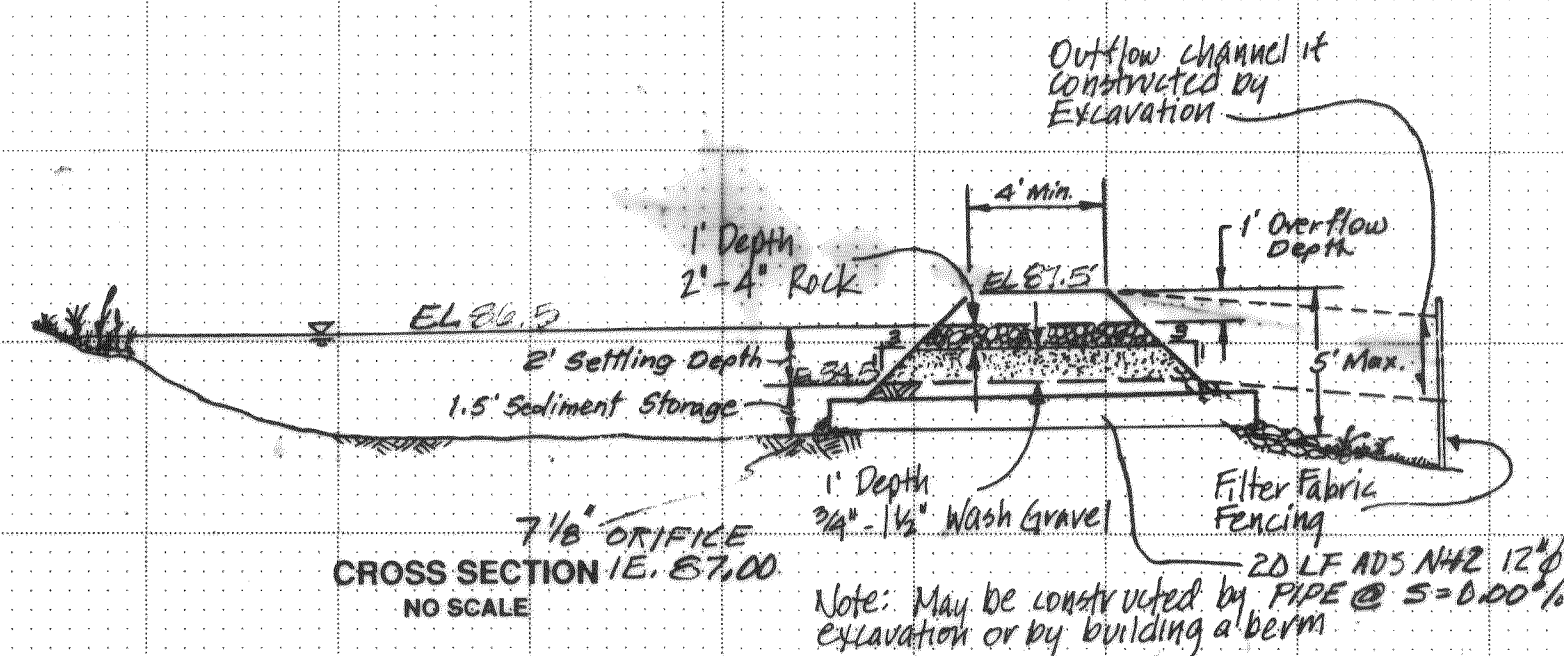
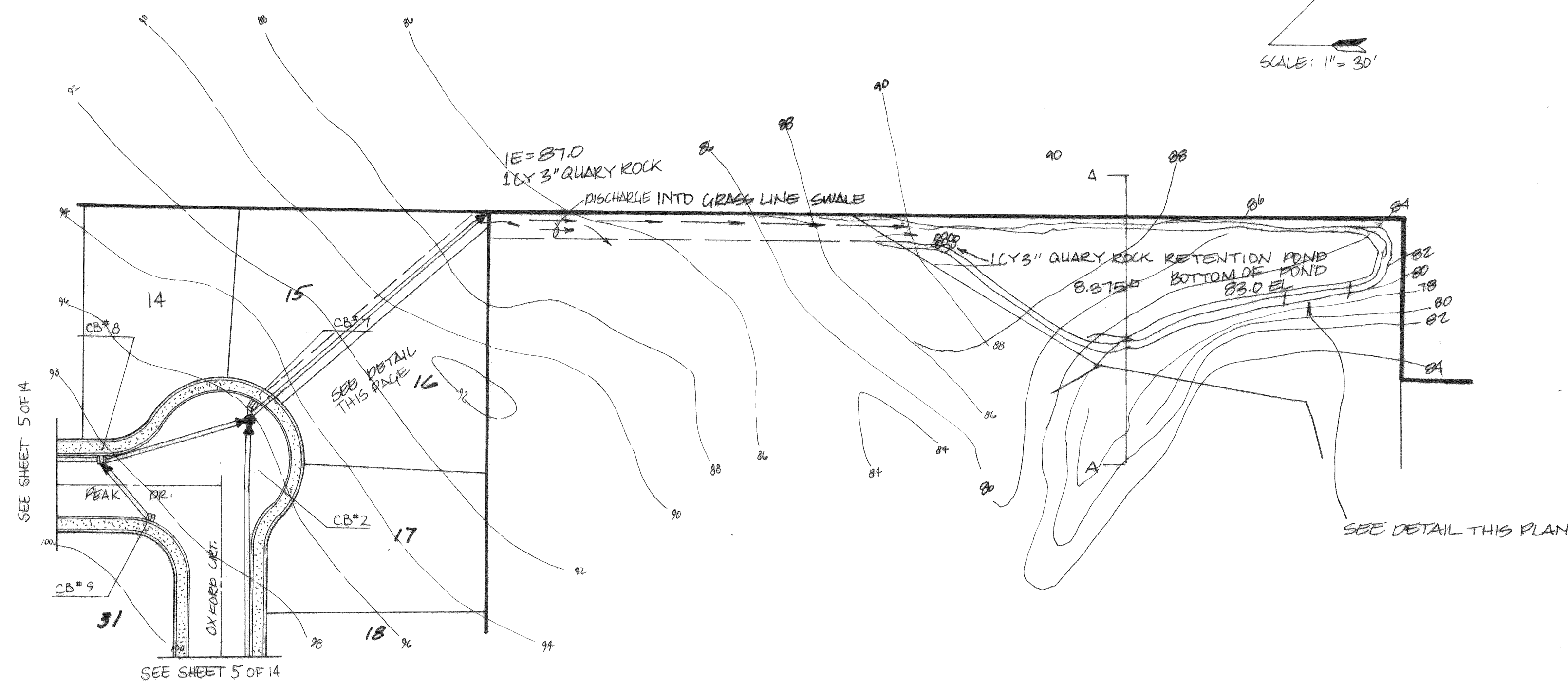
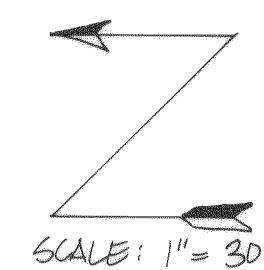
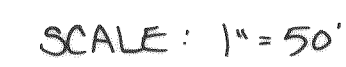
ROAD & STORM PLAN & PROFILE

AS-BUILT 5-31-91

SHEET NO. 5 of 15

JOB NO. 89-2997

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APPROVED

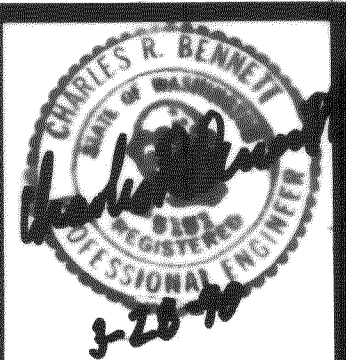
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_____ SANITARY SEWER	_____ STORM DRAIN
_____ DETENTION SYSTEM	_____ ROADS
_____ LANDSCAPING	_____ PARKING
_____ PLANNING COMMISSION / CITY COUNCIL	
_____ CONDITIONS	
_____ BUILDING SPECIFICS	
_____ FIRE LINE/POSSIBLE BACKFLOW PREVENTION	
_____ IRRIGATION SYSTEM/S.F.P.	
_____ DOMESTIC WATER/D.S.F.	
_____ CITY ENGINEER	_____ DATE
_____ PLANNING DIRECTOR	
_____ DATE	

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REV. NO.	DATE	DESCRIPTION	MADE BY	CHECKED
1	8-9-80	PAID \$ 528.00 \$ 407.45	RMS	CRS

DRAWN: CRYSTAL

APPROVED: CRB



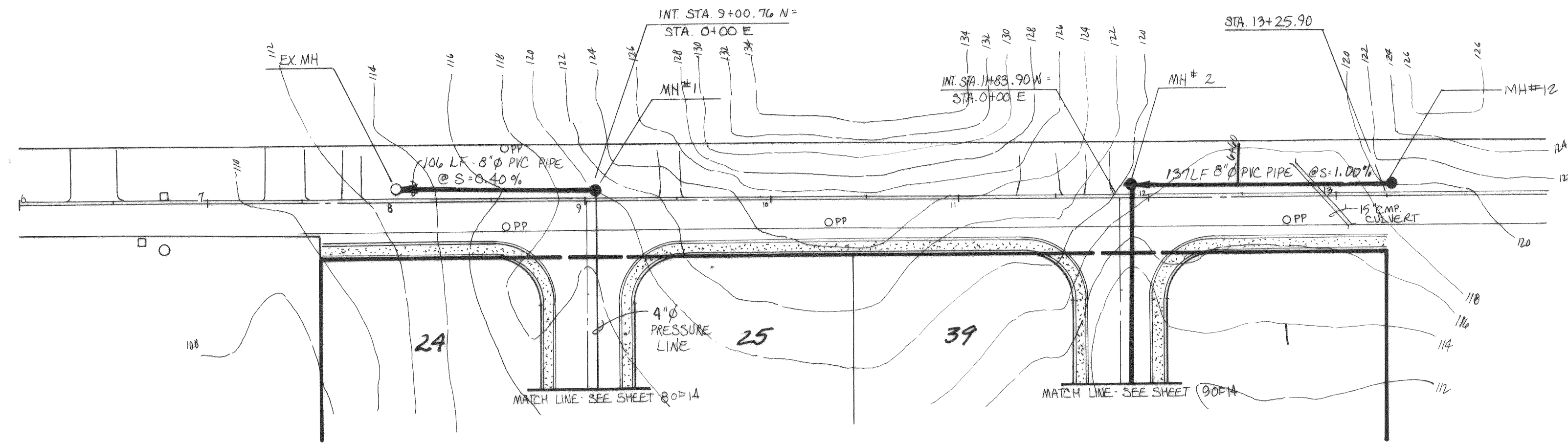
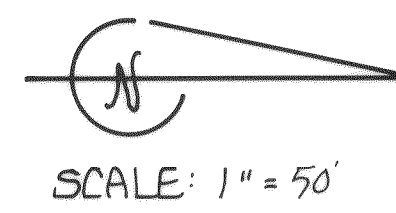
P.O. BOX 1031 PUYALLUP WA. 98371
PUYALLUP 845-8833 SEATTLE 838-3474



OF
15

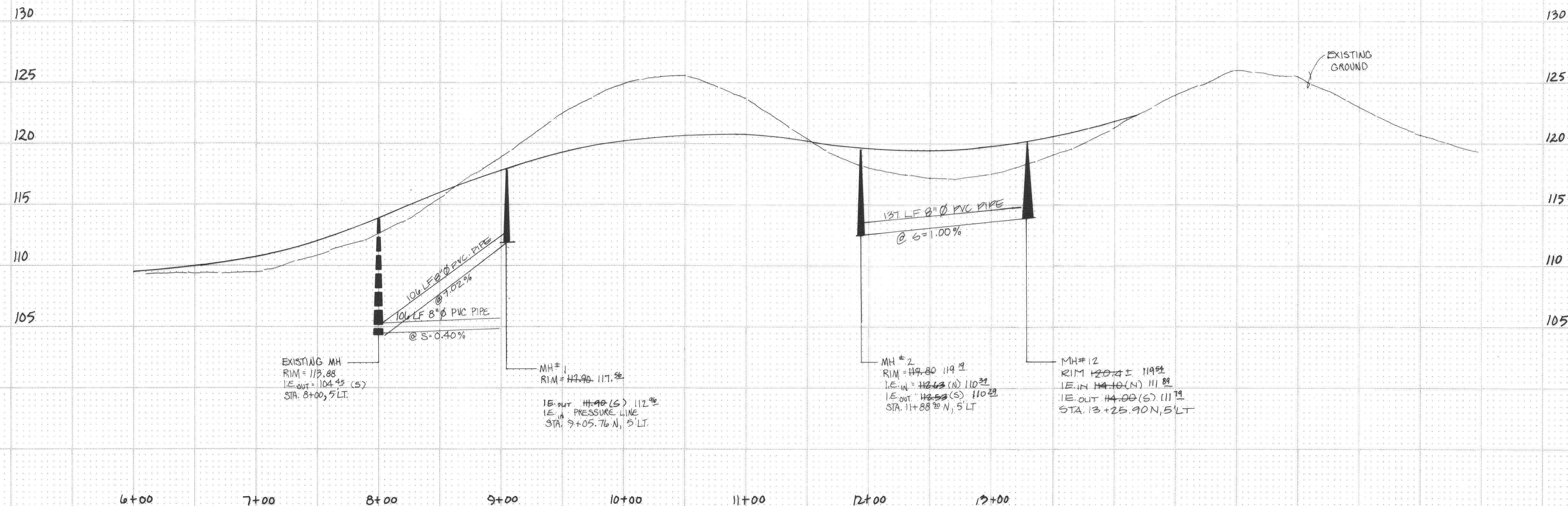
OB NO. 89-2997

CASCADE PEAK ESTATES
PORTION OF THE SW 1/4 SEC. 17, T.39N, R.2E., W.M.



MALLOY ROAD

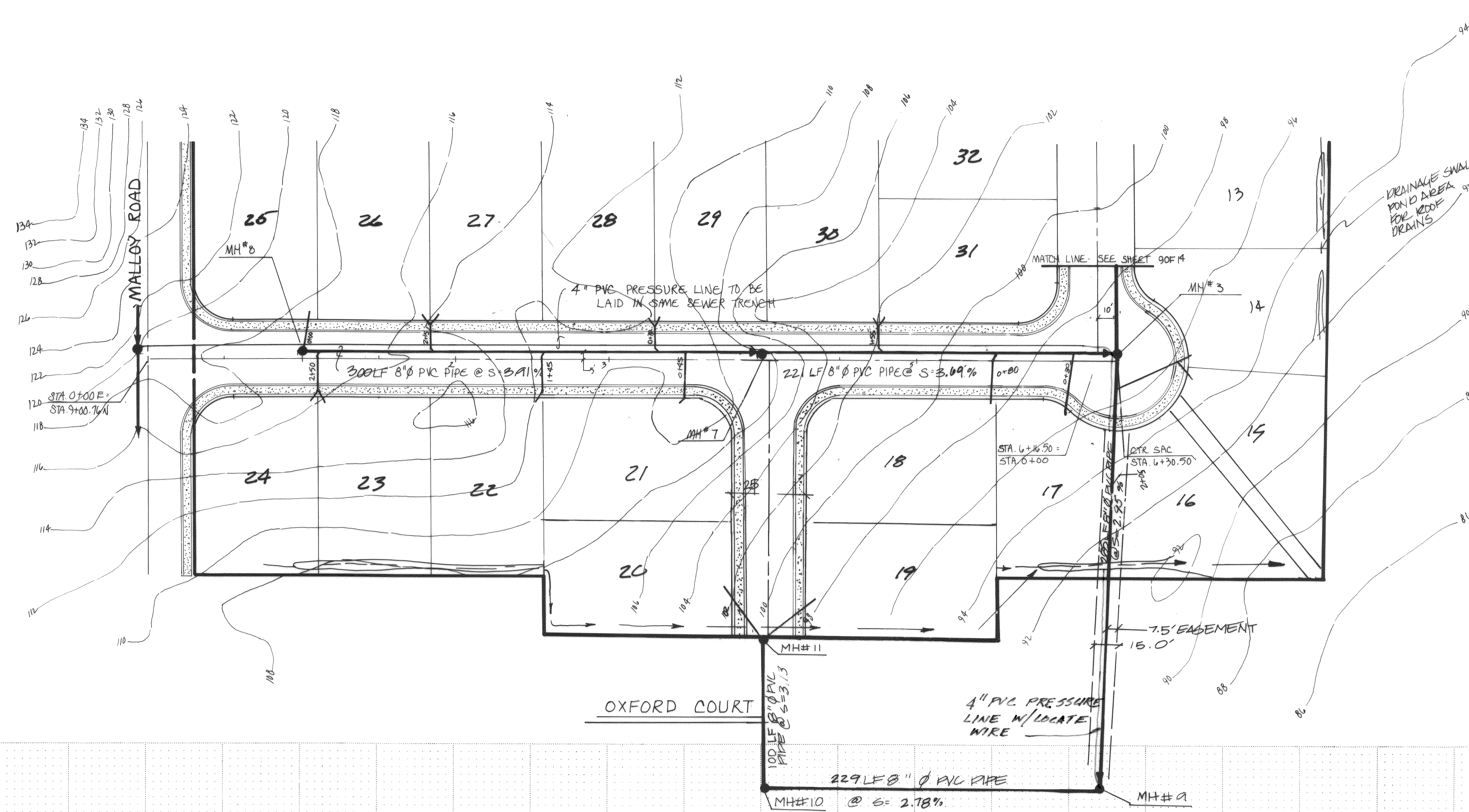
APPROVED	
--- WATER SYSTEM	--- HYDRAULIC LAYOUT
--- SANITARY SEWER	--- STORM DRAIN
--- DETENTION SYSTEM	--- ROADS
--- LANDSCAPING	--- PARKING
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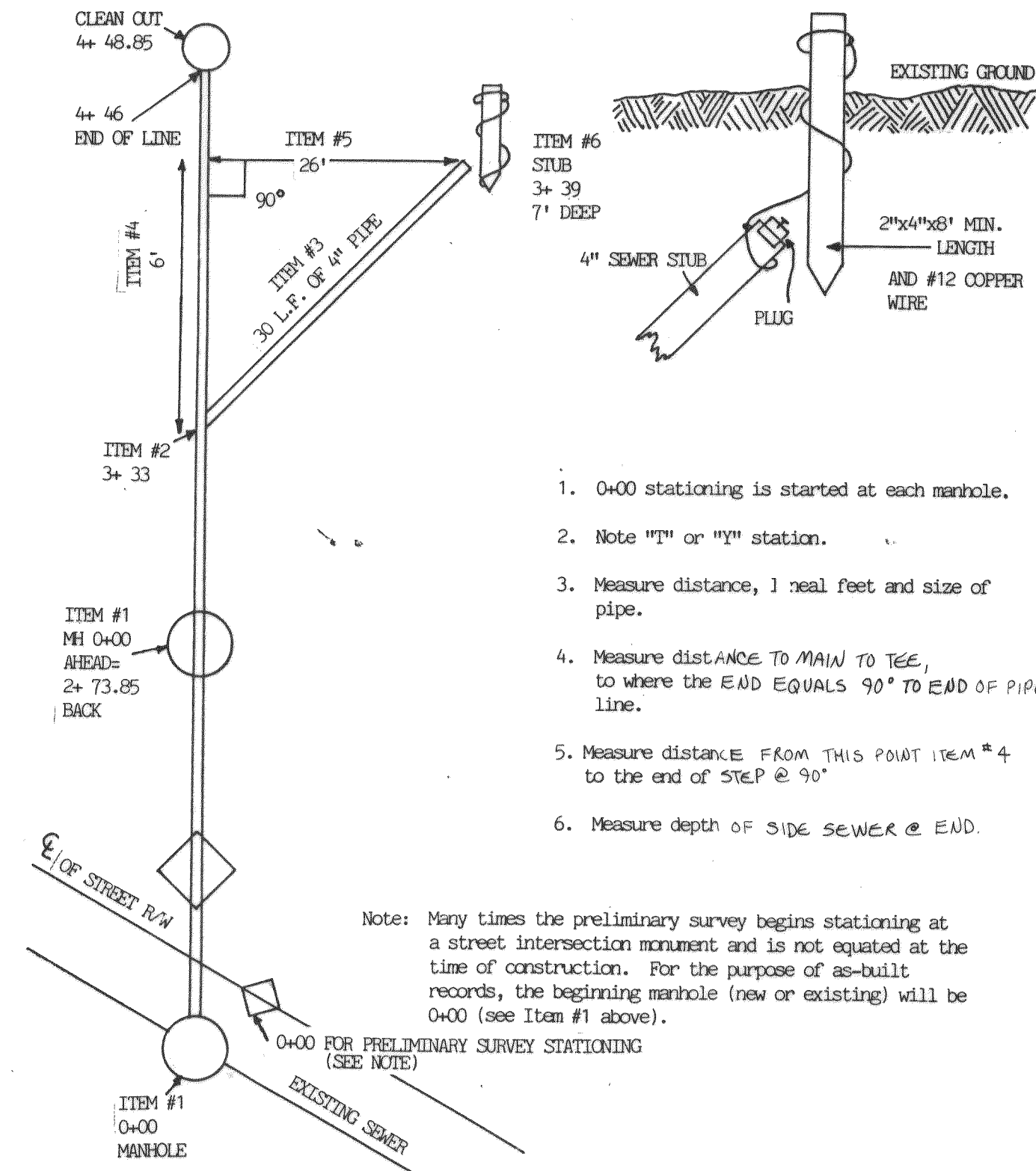
REV. NO.	DATE	DESCRIPTION	MADE BY	CHECKED	SCALE: H: 1"=50', V: 1"=5'	DESIGNED: DLM		Bennett PS&E INC. SURVEYORS and ENGINEERS P.O. BOX 1031 PUYALLUP WA. 98371 PUYALLUP 845-8833 SEATTLE 838-3474		CASCADE PEAK ESTATES OFF-SITE SANITARY SEWER PLAN & PROFILE AS-BUILTS 5-31-91	SHEET NO. 7 of 15
2	10-15-90	CHANGE OF SANITARY SEWER	RAB	CRB	DATE: MAR. 1990	CHECKED: CRB					JOB NO. 89-2997
1	6-4-90	LOT #5	RAB	CRB	DRAWN: CRYSTAL	APPROVED:					

00080 007 2-10-0642

CASCADE PEAK ESTATES
PORTION OF THE SW 1/4 SEC. 17, T.39N., R.2E., W.M.



SCALE: 1" = 50'

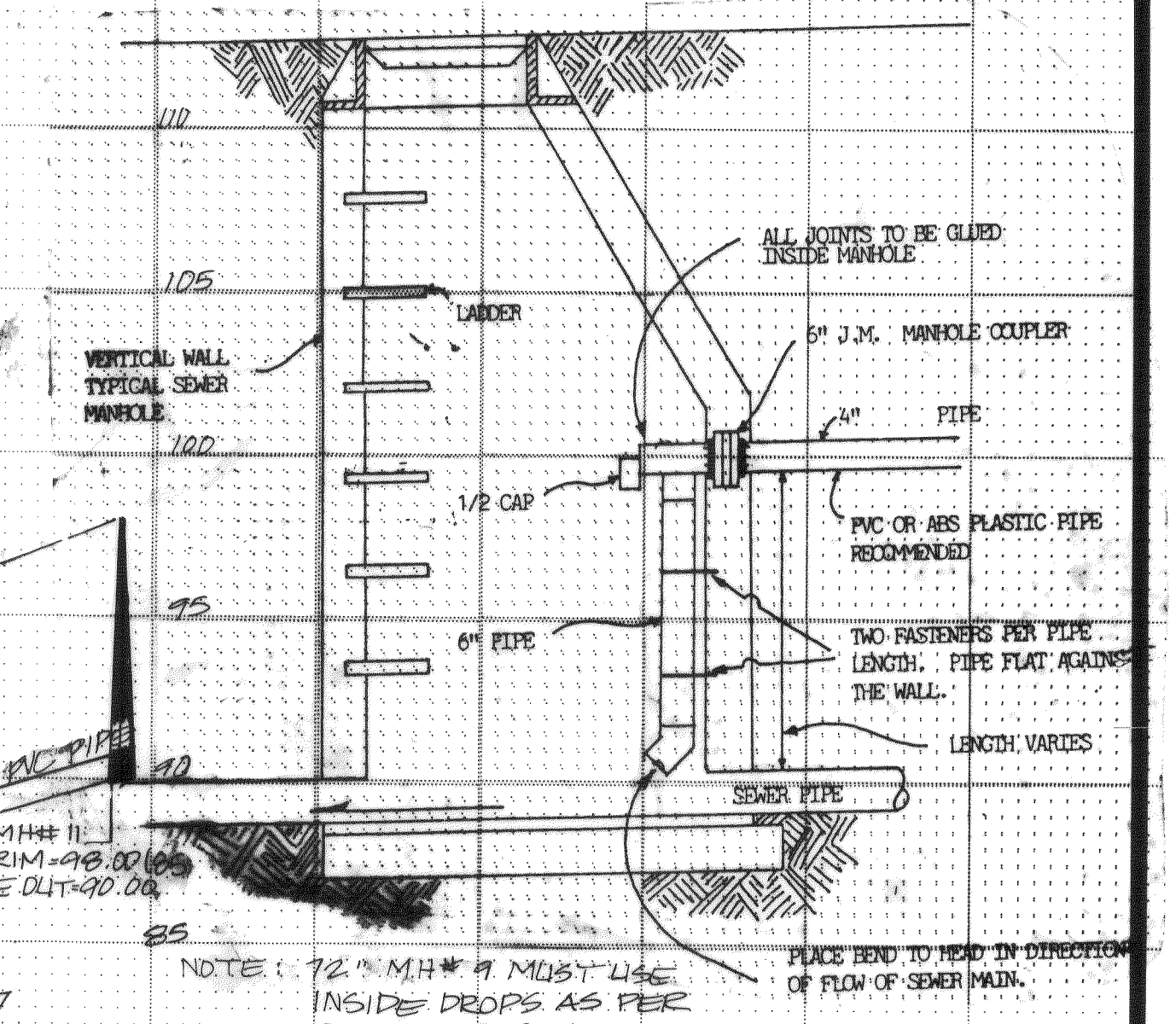
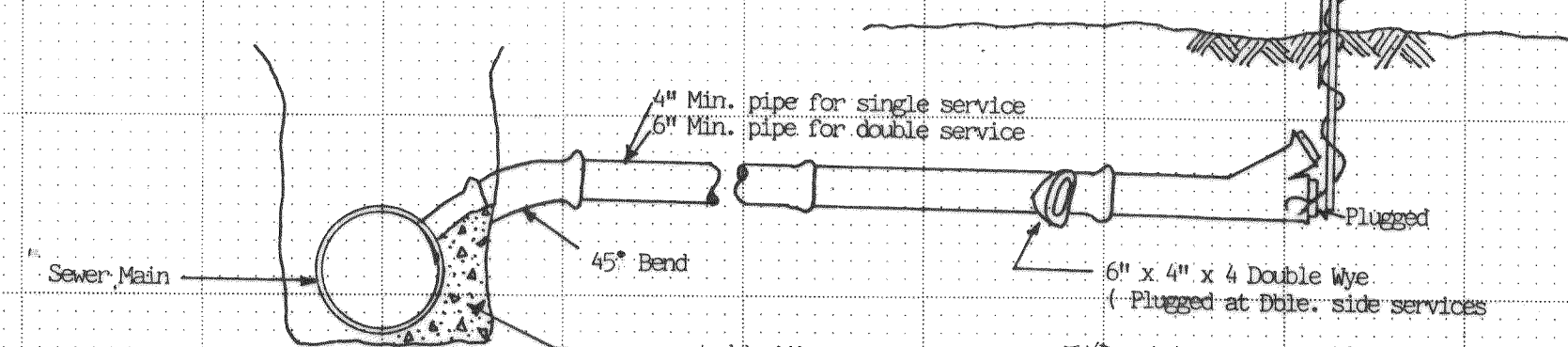
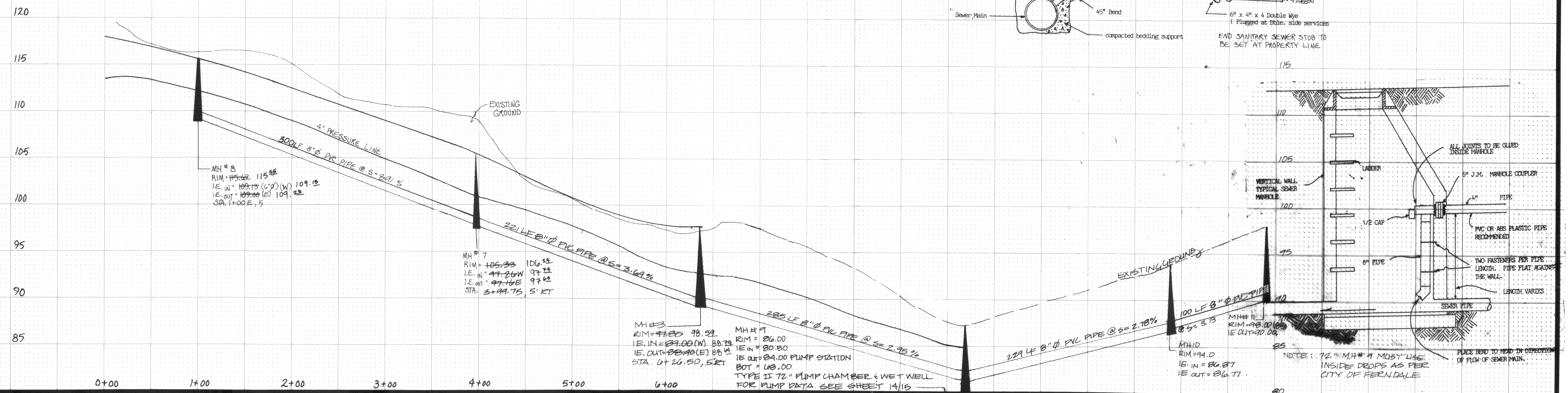


1. 0+00 stationing is started at each manhole.
2. Note "M" or "H" station.
3. Measure distance, 1 real feet and size of pipe.
4. Measure distance TO MAIN TO SEE, to where the END EQUALS 90° TO END OF PIPE END AT THE PROPERTY LINE.
5. Measure distance FROM THIS POINT ITEM #4 to the end of STEP @ 90°.
6. Measure depth of SIDE SEWER @ END.

Note: Many times the preliminary survey begins stationing at a street intersection monument and is not equated at the time of construction. For the purpose of as-built records, the beginning manhole (new or existing) will be 0+00 (see item #1 above).

APPROVED	
WATER SYSTEM	BYDRAIN LAYOUT
SANITARY SEWER	STORM DRAIN
DETENTION SYSTEM	ROADS
LANDSCAPING	PARKING
PLANNING COMMISSION / CITY COUNCIL	CONDITIONS
BUILDING SETBACKS	FIRE LINE/DOUBLE BACKFLOW PREVENTOR
IRRIGATION SYSTEM/D.B.P.	DOMESTIC WATER/D.B.P.
CITY ENGINEER	DATE
PLANNING DIRECTOR	DATE

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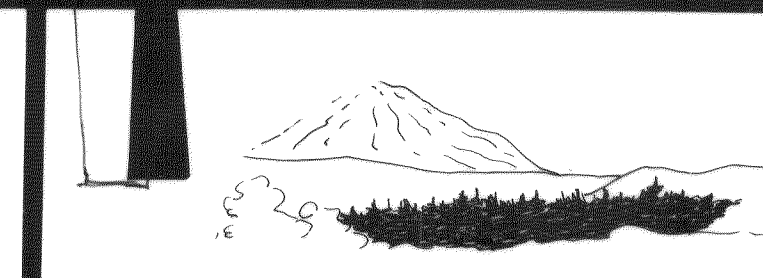


REV. NO.	DATE	DESCRIPTION	MADE BY	CHECKED
4	8-15-91	PRESSURE LINE LOCATION	RAB	RAB
3	8-17-90	MH #10 ELEV.	RAB	CRB
2	8-14-90	CHANGE IN SEWER	RAB	CRB
1	8-7-90	MH # 7, MH#9, MH#10, MH#11, ELEV #	RAB	CRB

SCALE: 1" = 50'	DESIGNED: DLM
DATE: Nov. 1989	CHECKED: CRB
DRAWN: CRYSTAL	APPROVED: CRB



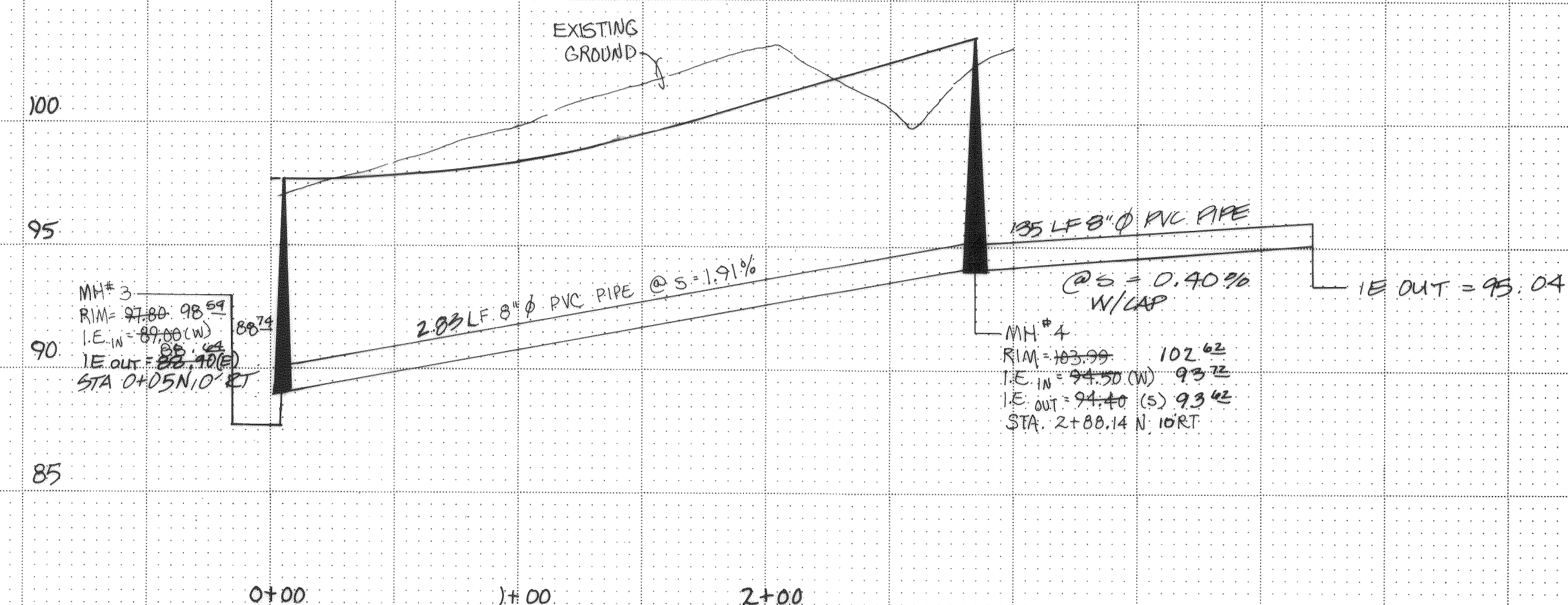
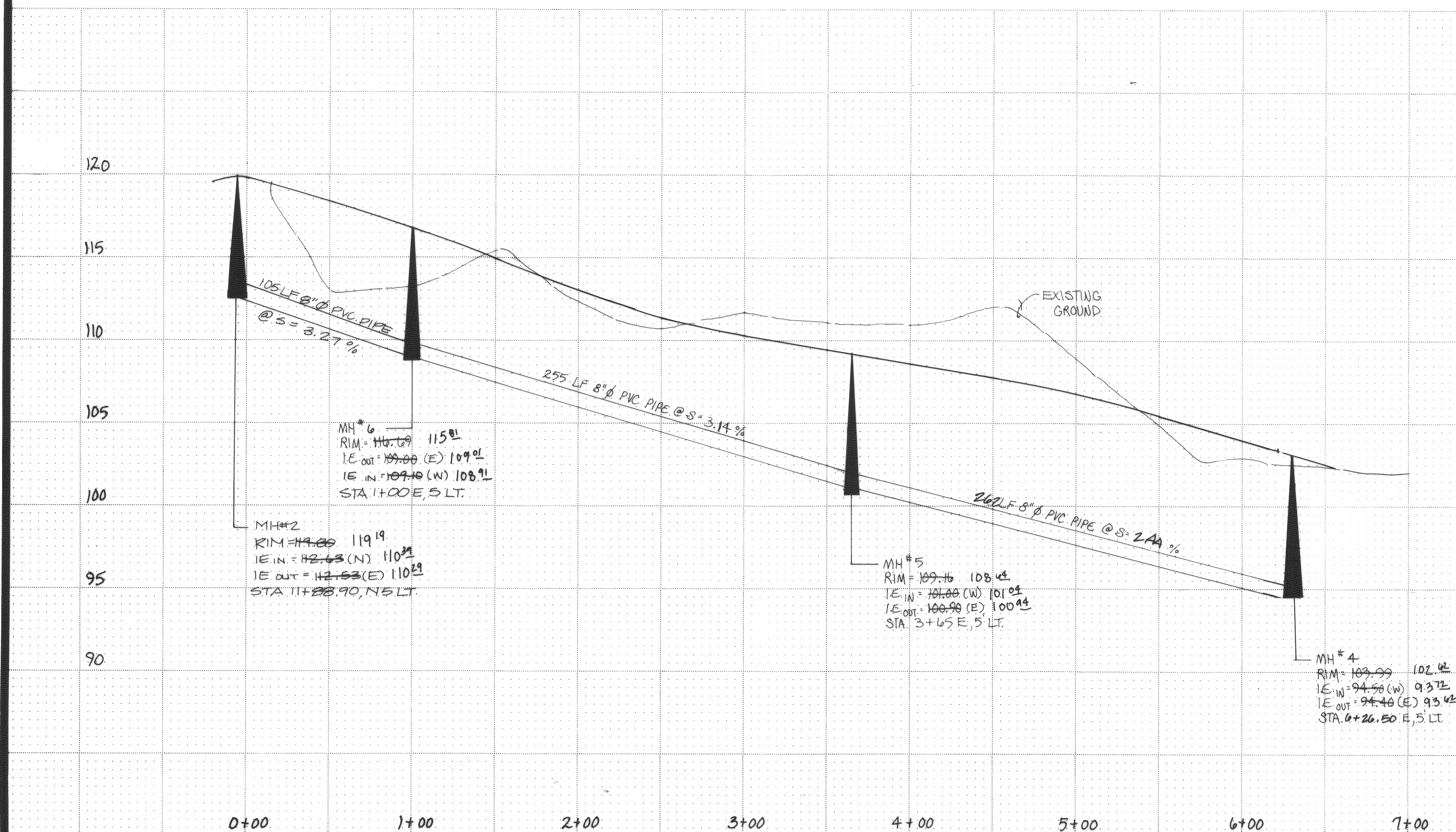
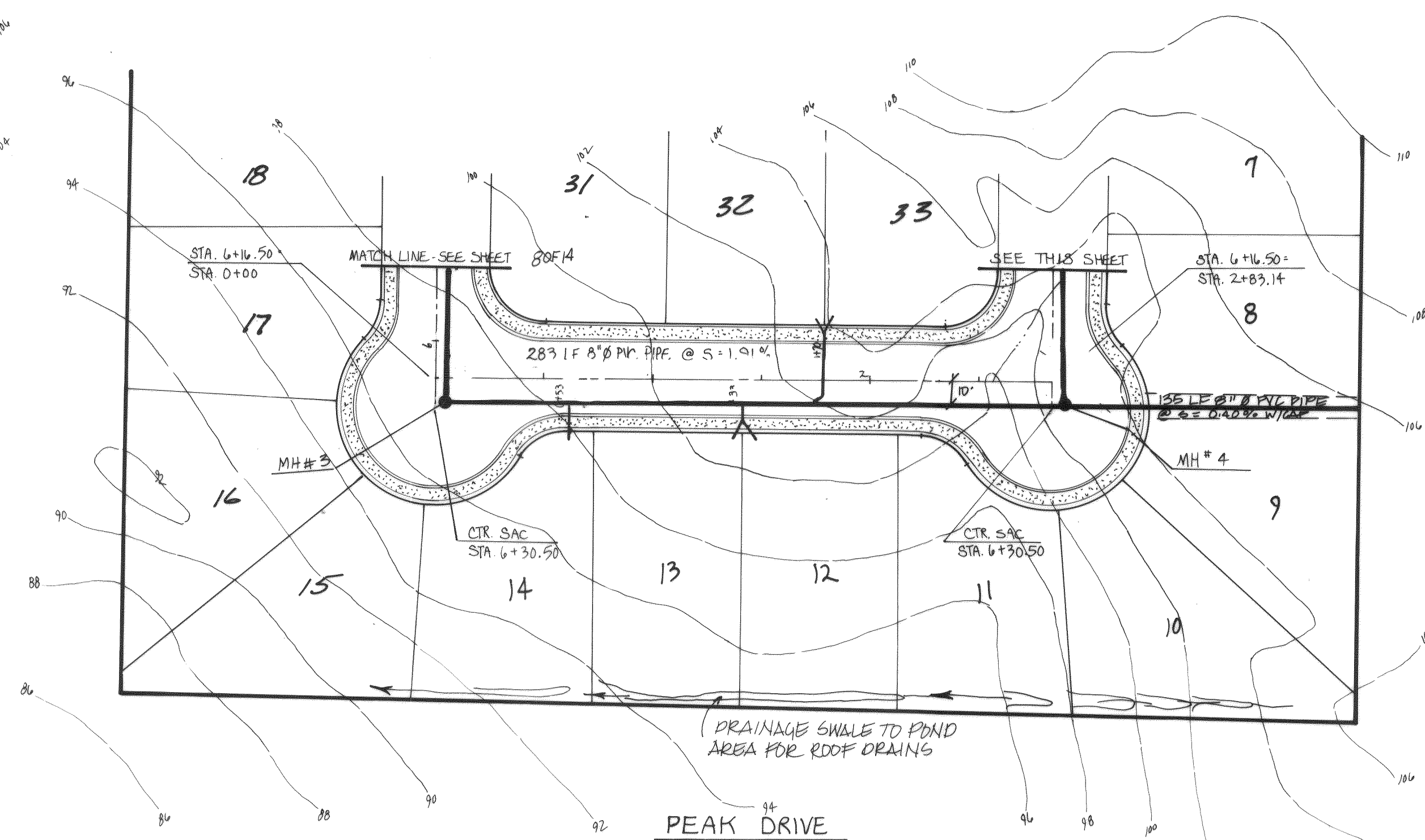
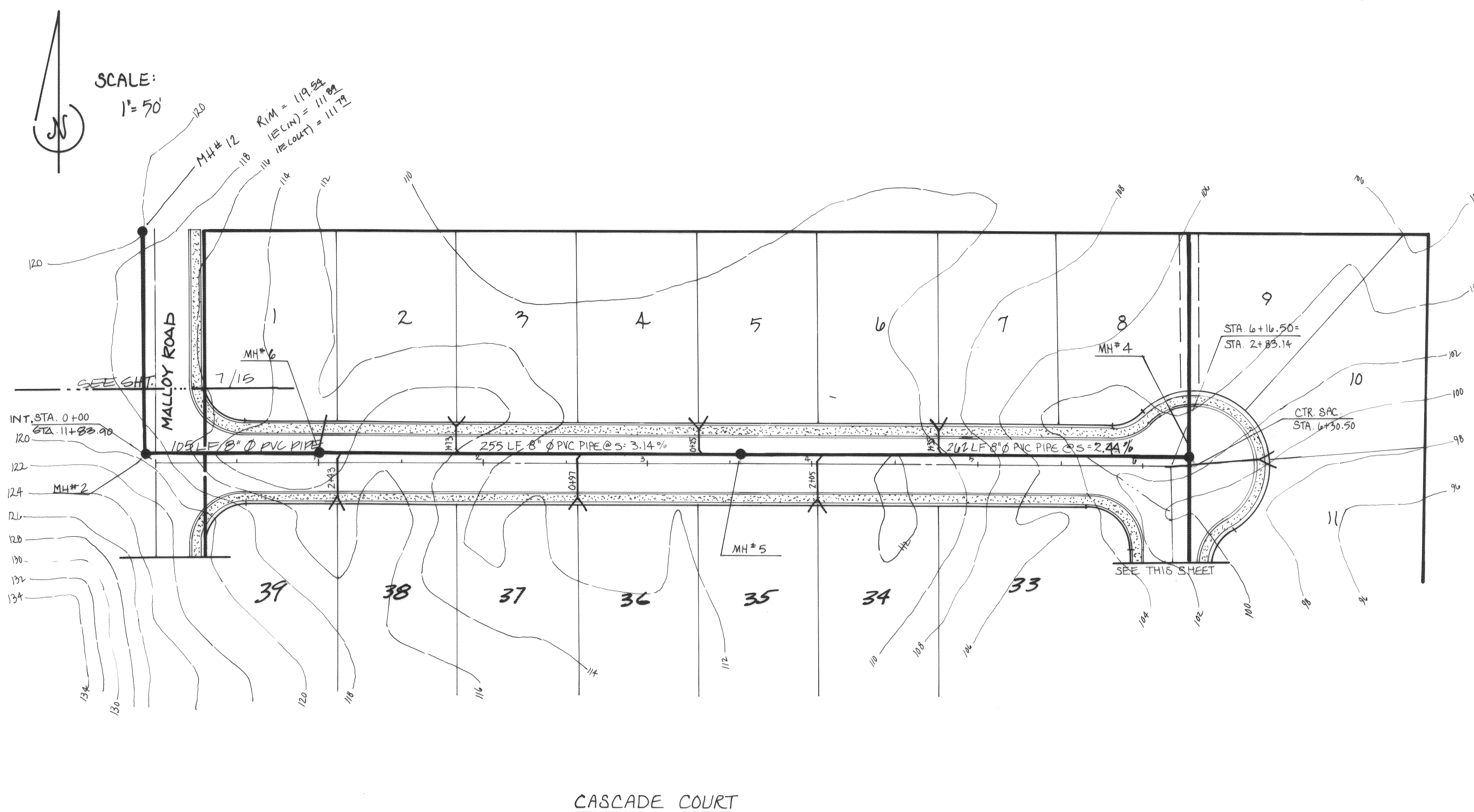
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CASCADE PEAK ESTATES
SANITARY SEWER PLAN & PROFILE
AS-BUILTS 5-31-91

SHEET NO. 8 OF 15
JOB NO. 89-2997

CASCADE PEAK ESTATES
PORTION OF THE SW 1/4 SEC. 17, T.39N, R.2E., W.M.



APPROVED	
WATER SYSTEM	STORM DRAIN
SANITARY SEWER	STORM DRAIN
DETECTION SYSTEM	ROADS
LANDSCAPING	PARKING
PLANNING COMMISSIONER / CITY CODE	CONDITIONS
BUILDING DEPARTMENT	PIKE LINE/BOUNDS BACKFLOW PREVENTOR
IRRIGATION SYSTEM/D.S.P.	DOMESTIC WATER/D.S.P.
CITY ENGINEER	DATE
PLANNING DIRECTOR	DATE

THIS APPROVAL IS SUBJECT TO THE MATERIAL AND CONSTRUCTION BEING IN COMPLIANCE WITH STATE AND LOCAL STANDARDS AND IS VOID ONE (1) YEAR FROM THIS APPROVAL DATE.

REV. NO.	DATE	DESCRIPTION	MADE BY	CHECKED
3	9-30-90	CHANGE OF SANITARY SEWER	RAB	CRB
2	8-14-90	CHANGE OF SANITARY SEWER	RAB	CRB
1	8-9-90	LOT #5	RAB	CRB

SCALE: H: 1" = 50'
V: 1" = 5'

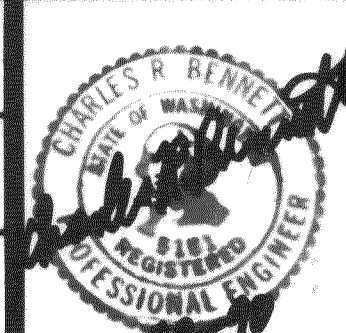
DATE: FEB. 1990

DRAWN: CRYSTAL

DESIGNED: DLM

CHECKED: CRB

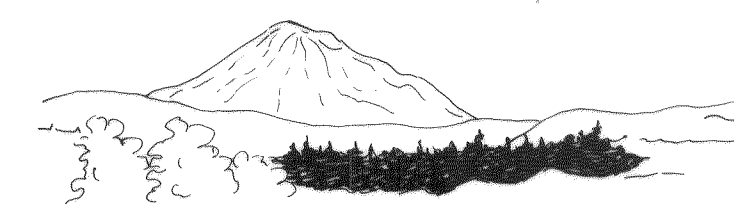
APPROVED: CRB



Bennett PS&E INC.
SURVEYORS and ENGINEERS

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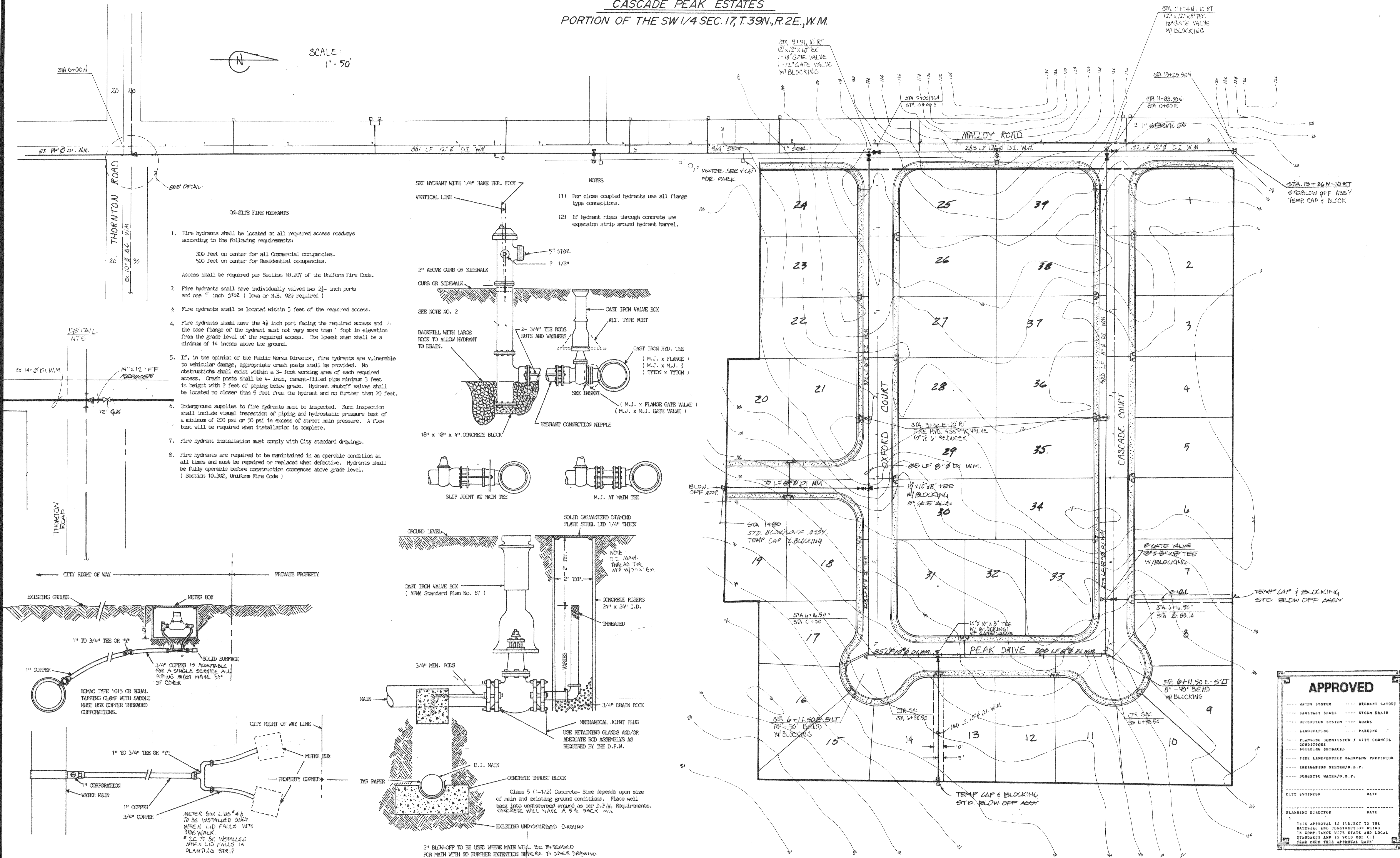


CASCADE PEAK ESTATES
SANITARY SEWER PLAN & PROFILE
AS-BUILTS 5-31-91

SHEET NO. 9 OF 15

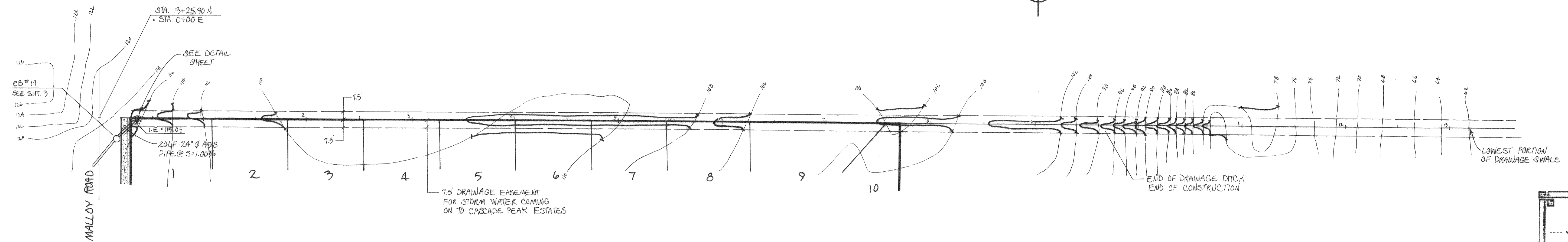
JOB NO. 89-2997

CASCADE PEAK ESTATES
PORTION OF THE SW 1/4 SEC. 17, T. 39N., R. 2E., W. 6M.

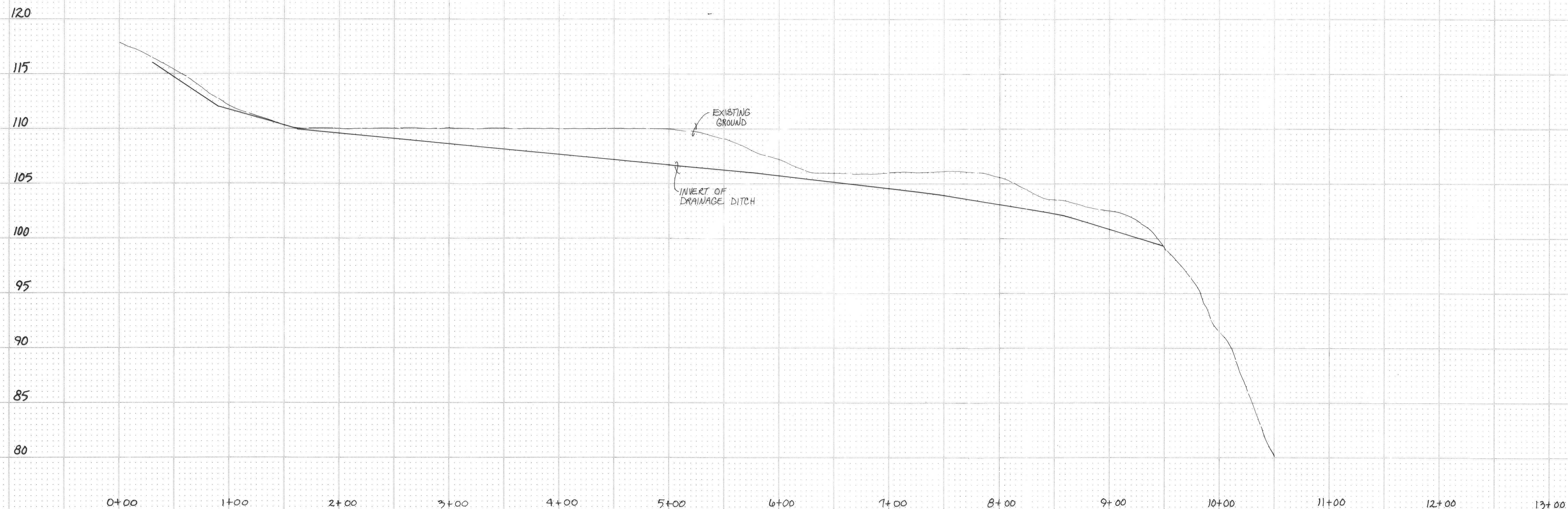


CASCADE PEAK ESTATES
 PORTION OF THE SW 1/4 SEC. 17, T.39N, R.2E, W.1M.

SCALE:
 1" = 50'



APPROVED	
----- WATER SYSTEM	----- HYDRANT LAYOUT
----- SANITARY SEWER	----- STORM DRAIN
----- DETENTION SYSTEM	----- ROADS
----- LANDSCAPING	----- PARKING
----- PLANNING COMMISSION / CITY COUNCIL CONDITIONS	
----- BUILDING SETBACKS	
----- FIRE LINE/DOUBLE BACKFLOW PREVENTOR	
----- IRRIGATION SYSTEM/D.S.P.	
----- DOMESTIC WATER/D.S.P.	
CITY ENGINEER	DATE
PLANNING DIRECTOR	DATE
THIS APPROVAL IS SUBJECT TO THE MATERIAL AND CONSTRUCTION BEING IN COMPLIANCE WITH STATE AND LOCAL STANDARDS AND IS VOID ONE (1) YEAR FROM THIS APPROVAL DATE	



REV. NO.	DATE	DESCRIPTION	MADE BY	CHECKED

SCALE: 1" = 50'

DATE: FEB. 1990

DRAWN: CRISTAL

DESIGNED: DLM

CHECKED: CRB

APPROVED: CRB

Bennett PS&E INC.

SURVEYORS and ENGINEERS

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CASCADE PEAK ESTATES

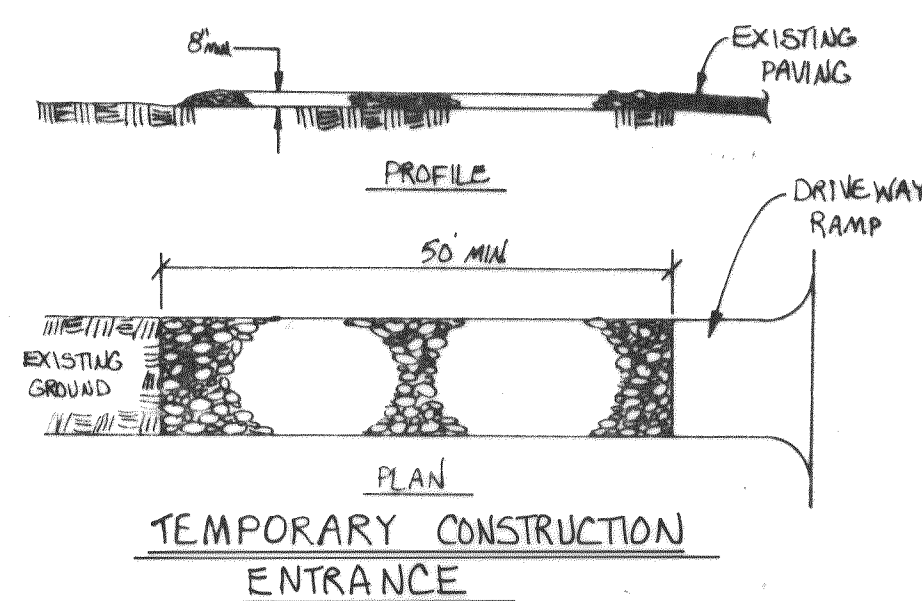
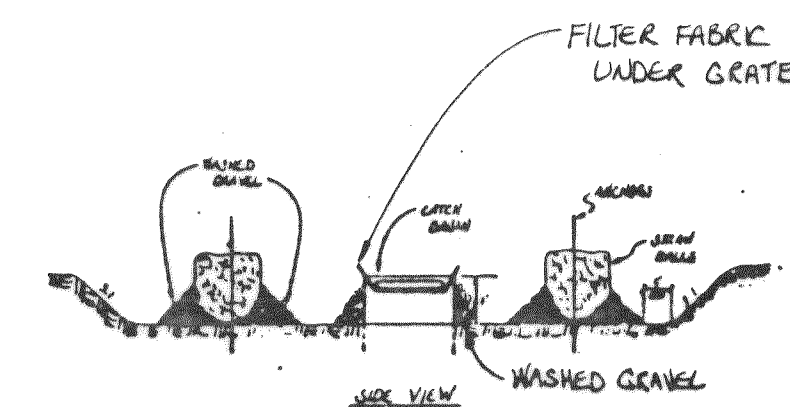
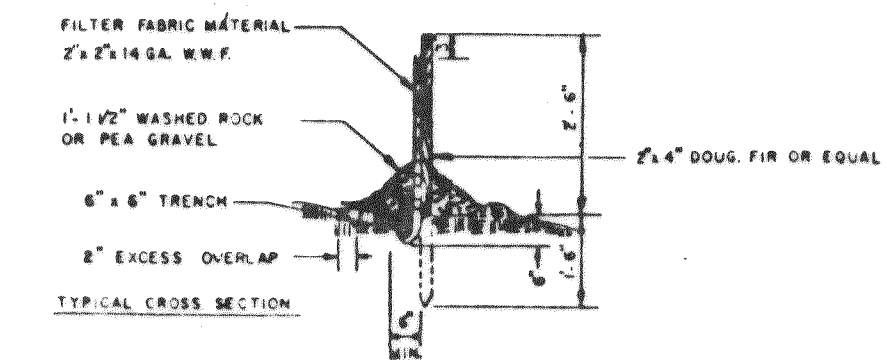
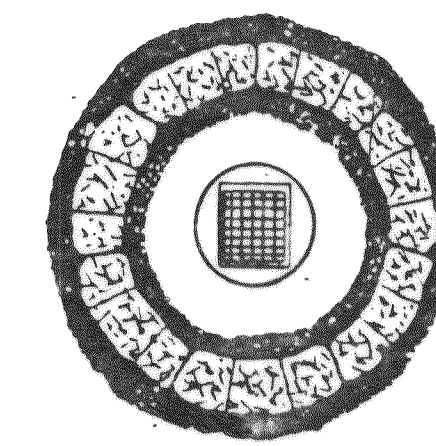
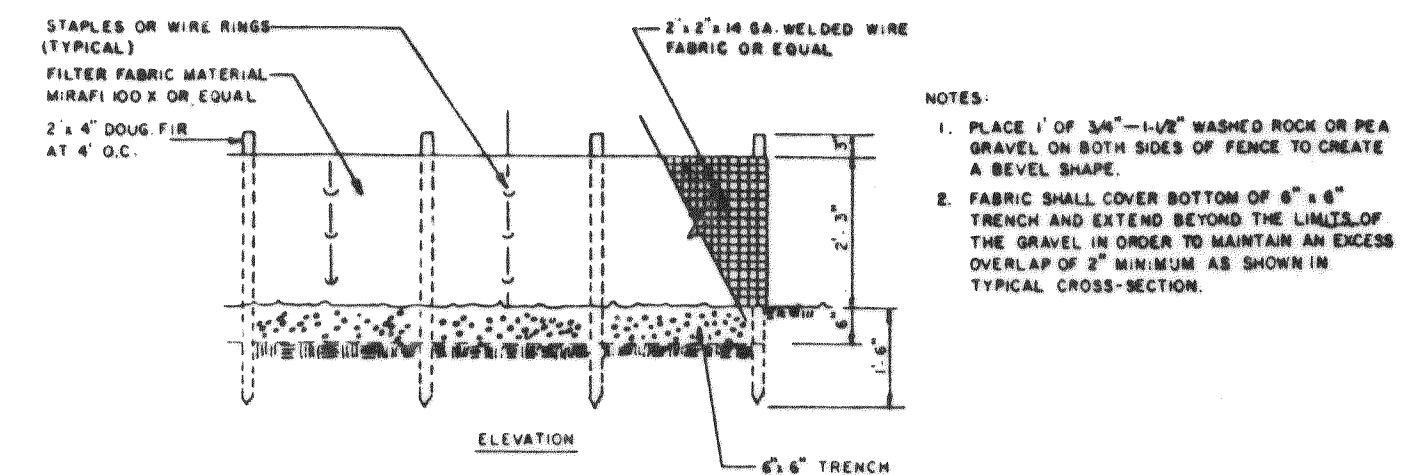
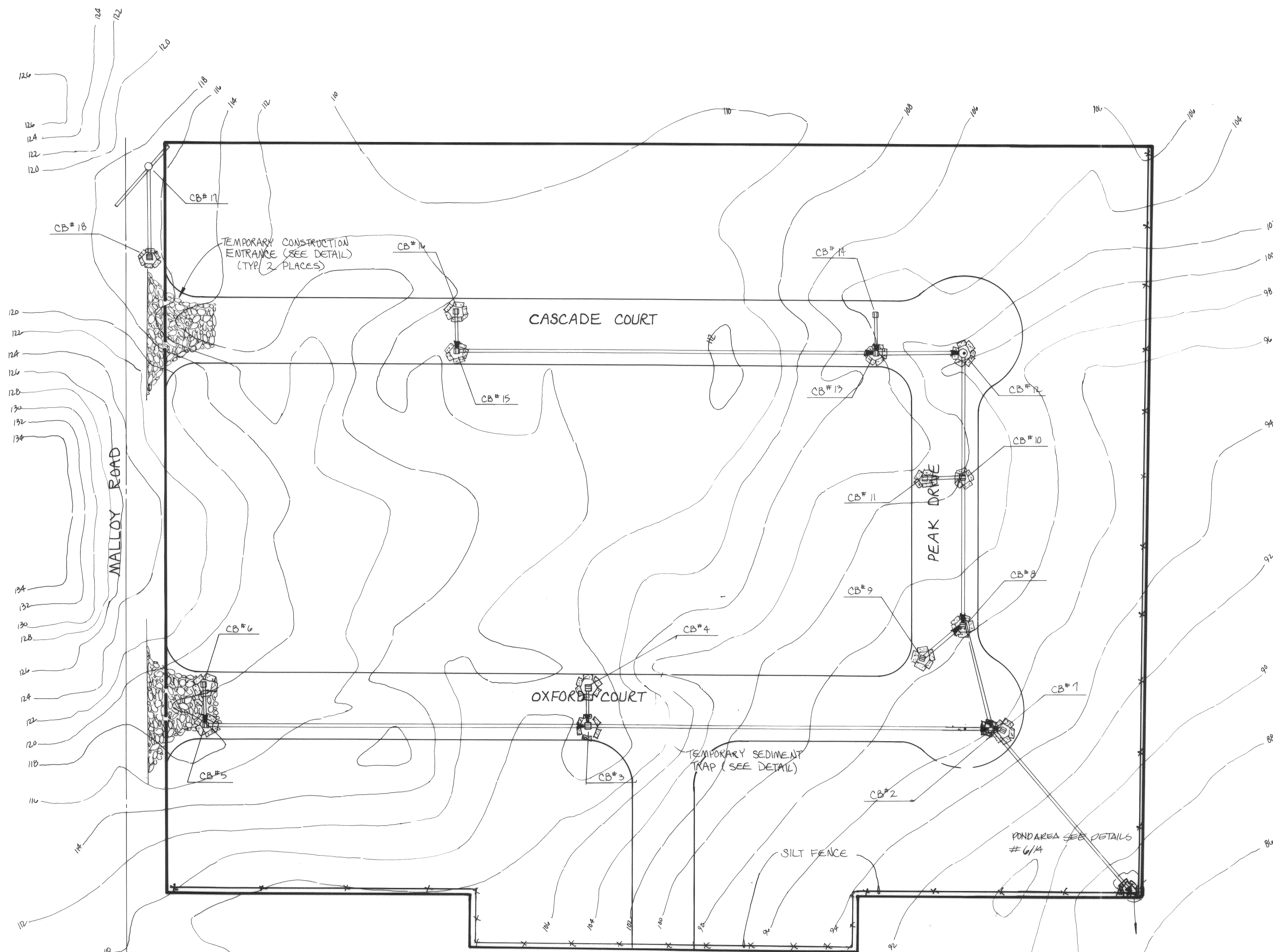
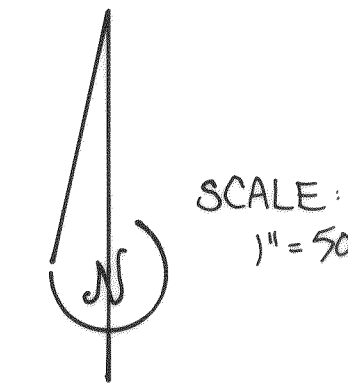
OFF-SITE SWALE NORTH LINE

SHEET NO. 11 of 15

JOB NO. 89-2997

CASCADE PEAK ESTATES
PORTION OF THE SW 1/4 SEC. 17, T.39N, R.2E, W.M.

- NOTES:
1. ON-SITE EROSION CONTROL MEASURES SHALL BE THE RESPONSIBILITY OF THE DEVELOPER.
 2. IN CASE EROSION OR SEDIMENTATION OCCURS TO ADJACENT PROPERTY OWNERS ALL CONSTRUCTION WORK WITHIN THE AREA, THAT MAY FURTHER AGGRAVATE THE SITUATION, MUST CEASE AND THE OWNER/CONTRACTOR WILL IMMEDIATELY COMMENCE RESTORATION METHODS. RESTORATION ACTIVITY WILL CONTINUE UNTIL SUCH TIME AS THE AFFECTED PROPERTY OWNER IS SATISFIED.
 3. ALL EROSION AND SEDIMENTATION CONTROL DEVICES SHOWN ON THIS DRAWING SHALL BE INSTALLED PRIOR TO OR AS THE FIRST STAGE OF SITE PREPARATION.
 4. SHOULD THE TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES AS SHOWN ON THIS DRAWING NOT PROVE ADEQUATE TO CONTROL EROSION AND SEDIMENTATION THE APPLICANT/CONTRACTOR SHALL INSTALL ADDITIONAL FACILITIES AS NECESSARY TO PROTECT ADJACENT PROPERTIES, SENSITIVE AREAS, NATURAL WATER COURSES AND/OR STORM DRAINAGE SYSTEMS.
 5. IN ANY AREA WHICH HAS BEEN STRIPPED OF VEGETATION AND WHERE NO FURTHER WORK IS ANTICIPATED FOR A PERIOD OF 30 DAYS OR MORE ALL DISTURBED AREAS MUST BE IMMEDIATELY STABILIZED WITH MULCHING, GRASS PLANTING OR OTHER APPROVED EROSION CONTROL TREATMENT APPLICABLE TO THE TIME OF YEAR IN QUESTION. GRASS SEEDING ALONE WILL BE ACCEPTABLE ONLY DURING THE MONTHS OF APRIL THROUGH SEPTEMBER INCLUSIVE. SEEDING MAY PROCEED, HOWEVER, WHENEVER IT IS IN THE INTEREST OF THE APPLICANT/CONTRACTOR, BUT MUST BE AUGMENTED WITH MULCHING, NETTING, OR OTHER TREATMENT.



APPROVED	
WATER SYSTEM	HYDRAULIC LAYOUT
SANITARY SEWER	STORM DRAIN
DETENTION SYSTEM	ROADS
LANDSCAPING	PARKING
PLANNING COMMISSION / CITY COUNCIL CONDITIONS	BUILDING SETBACKS
FIRE LINE/DOUBLE BACKFLOW PREVENTOR	
IRRIGATION SYSTEM/D.B.P.	
DOMESTIC WATER/D.B.P.	
CITY ENGINEER	DATE
PLANNING DIRECTOR	DATE
THIS APPROVAL IS SUBJECT TO THE MATERIAL AND CONSTRUCTION BEING IN COMPLIANCE WITH STATE AND LOCAL STANDARDS AND IS VOID ONE (1) YEAR FROM THIS APPROVAL DATE	

REV. NO.	DATE	DESCRIPTION	MADE BY	CHECKED
1	8-9-90	STORM DESIGN	RAB	CRB

SCALE: 1" = 50'

DATE: MARCH 1990

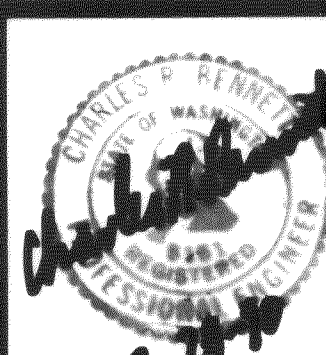
DRAWN: CRYSTAL

DESIGNED: DLM

CHECKED: CRB

CHARLES R. BENNETT

APPROVED:



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SURVEYORS and ENGINEERS

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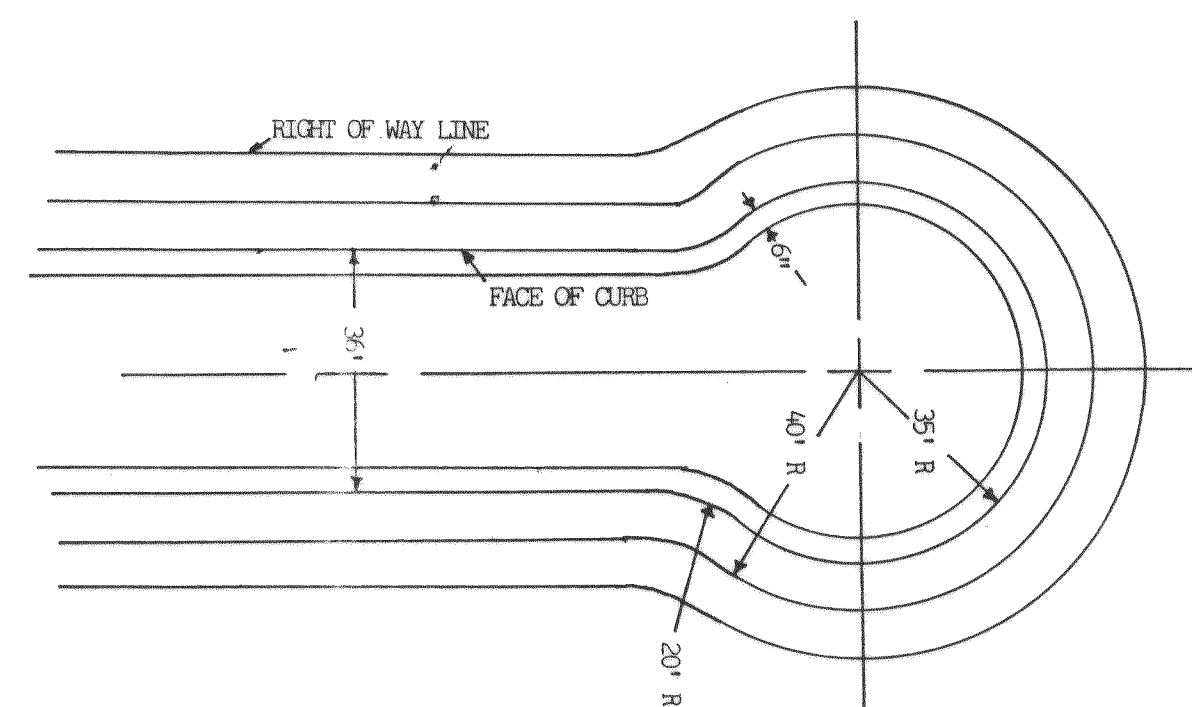


CASCADE PEAK ESTATES
TEMP EROSION & SEDIMENTATION
CONTROL PLAN

SHEET NO. 12 OF 15

JOB NO. 89-2997

00028.013 2.10.20 KR

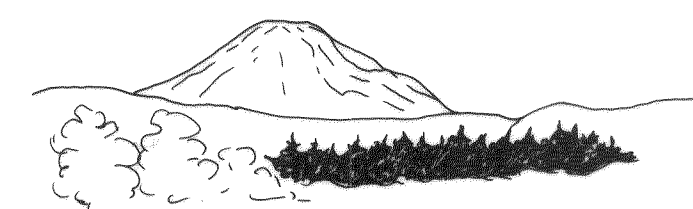


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SURVEYORS and ENGINEERS

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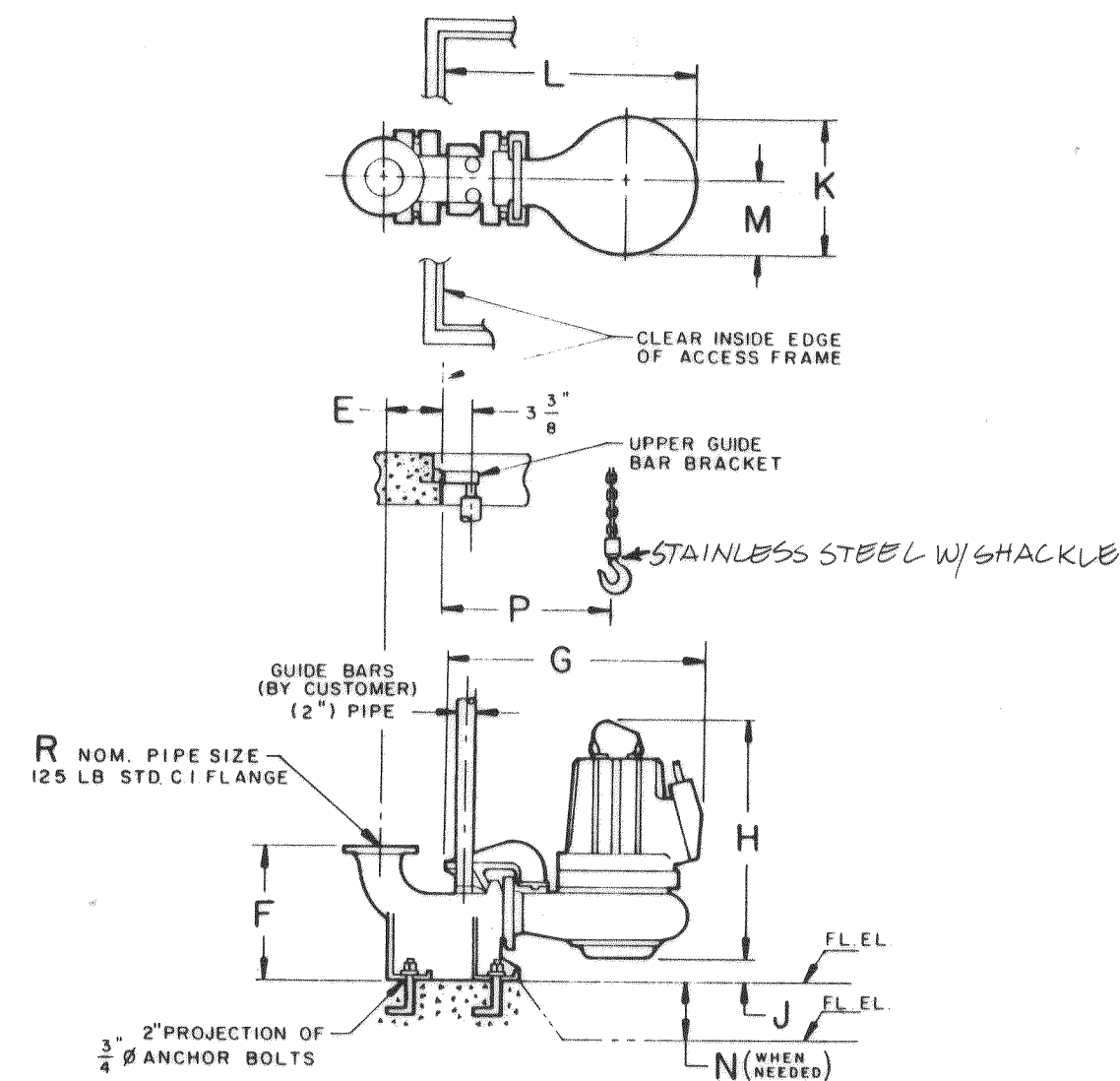


SHEET NO. 13 OF 15

JOB NO. 89-2997

CASCADE PEAK ESTATES PORTION OF THE SW 1/4 SEC. 17, T. 39N., R. 2E., W. 1M.

NOTES:
1. SEE STATION DRAWING FOR COMPLETE
INSTALLATION DIMENSIONS



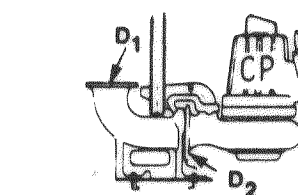
DIMENSIONAL CHART												WEIGHT (LBS)	
(DIMENSIONS IN INCHES)													
NOM. SIZE	E	F	G	H	J	K	L	M	N	P	R		
4 STD	6 1/2	15 3/4	26	23 1/2	3 1/2	14	26 1/2	7 1/4		17	4		
6 HV	7 1/2	17 3/4	26	24 1/2	5 1/4	14 1/2	27	8 1/4		17 1/2	6		
8 HV	8 1/2	17 3/4	26	24 1/2	5 1/2	14 1/2	27	8 1/4		17 1/2	8		

	PUMP	DISCH. CONF.
4 STD	215	80
6 HV	230	120
8 HV	230	140

MOTOR DATA									
Output Power HP (KW)	Ø	Vnom	Full Load Amps	Starting Amps Surge/LR	Locked Rotor KVA	NEC Code Letter	Input Power KW	Poles/RPM	
3.2 (2.4)	1	230	14.0	53/37	14.5	E	3.2	4/1750	
3.4 (2.5)	3	200 230 460 575	11.0 10.0 5.0 4.0	85/58 70/50 35/25 31/20	19.9	G	3.2	4/1750	
4.0 (3.0)	1	230	18.3	53/37	14.5	C	4.1	4/1730	
5.0 (3.7)	3	200 230 460 575	15.0 13.0 6.7 5.4	85/58 70/50 35/25 31/20	19.9	C	4.8	4/1700	

Pump Motor HP	EFFICIENCY			POWER FACTOR		
	100% Load	75% Load	50% Load	100% Load	75% Load	50% Load
3.2	0.74	0.70	0.66	0.94	0.80	0.70
3.4	0.82	0.81	0.77	0.84	0.80	0.71
4.0	0.73	0.74	0.70	0.98	0.94	0.80
5.0	0.82	0.83	0.81	0.88	0.86	0.79

CABLE DATA				
HP x Volts	Max. Length ft.	Gauge	Nominal Dia.	Conductors (in one cable)
3.2 x 230	240			
3.4 x 200	200	1Ø -- #10/3/2/1/GC	21.0mm (0.83")	(3) #12 AWG (PWR) (2) #14 AWG (CTRL) (1) #10 AWG (GND) (1) #14 AWG (G.C.)
3.4 x 230	250	3Ø -- #12/3/2/1/GC		
3.4 x 460	1000			
3.4 x 575	1505			
4.0 x 230	195	#10/3-2-1-GC	21.3mm (0.84")	(3) #10 AWG (PWR) (2) #12 AWG (CTRL) (1) #10 AWG (GND) (1) #12 AWG (G.C.)
5.0 x 200	150			
5.0 x 230	195			
5.0 x 460	760	#12/3-2-1-GC	21.0mm (0.83")	(3) #12 AWG (PWR) (2) #14 AWG (CTRL) (1) #10 AWG (GND) (1) #14 AWG (G.C.)
5.0 x 575	1175			



**ALSO AVAILABLE WITH 4" VOLUME AND 4" x 4" DISCHARGE CONNECTION. SEE CURVES

STREET LIGHTING

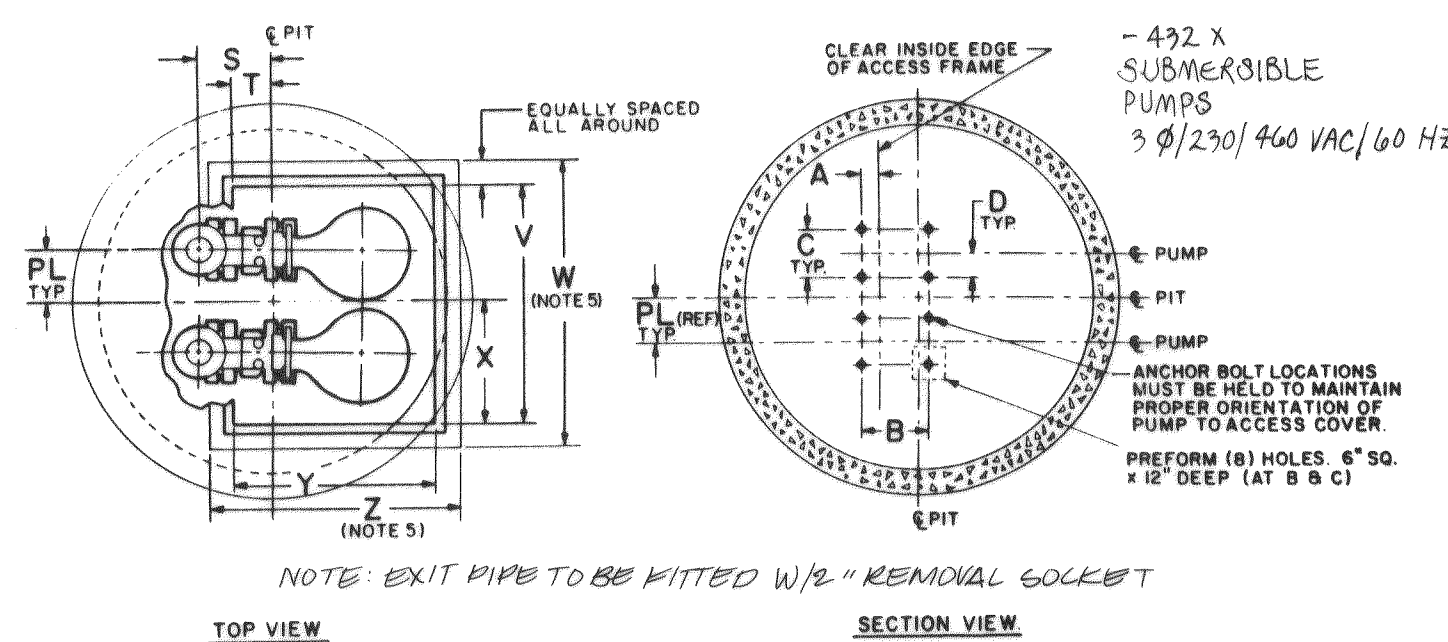
Street lighting shall be installed as follows:

- Standard concrete octagon or round with a variety of colors and texture. Minimum bracket height of 25 feet, luminaire shall be High Pressure Sodium with flat glass lens. Wattage shall be determined by City of Ferndale.
- Street lighting installations shall be located in reference to the dimensions of full grown trees and in accordance with the determinations and standards of the Director of Public Works.

TABLE 1

Roadway Classification	Lamp Type	Initial Lumens	Average Footcandles	Pavement Width	Pole # Spacing
Residential	100 W HPS	5,800	0.17	36	250
Collector	250 W HPS	30,000	1.0	36 44	240 196
Arterial	250 W HPS	30,000	1.4	36 44 56	171 140 110
CEO	250 W HPS	30,000	2.0	44 56	98 77

* Pole Spacing - (Lumens) (Maintenance Factor) (Coefficient of Utilization) (Lamp Depreciation) divided by (Width of Street) (Average Maintained Footcandles)



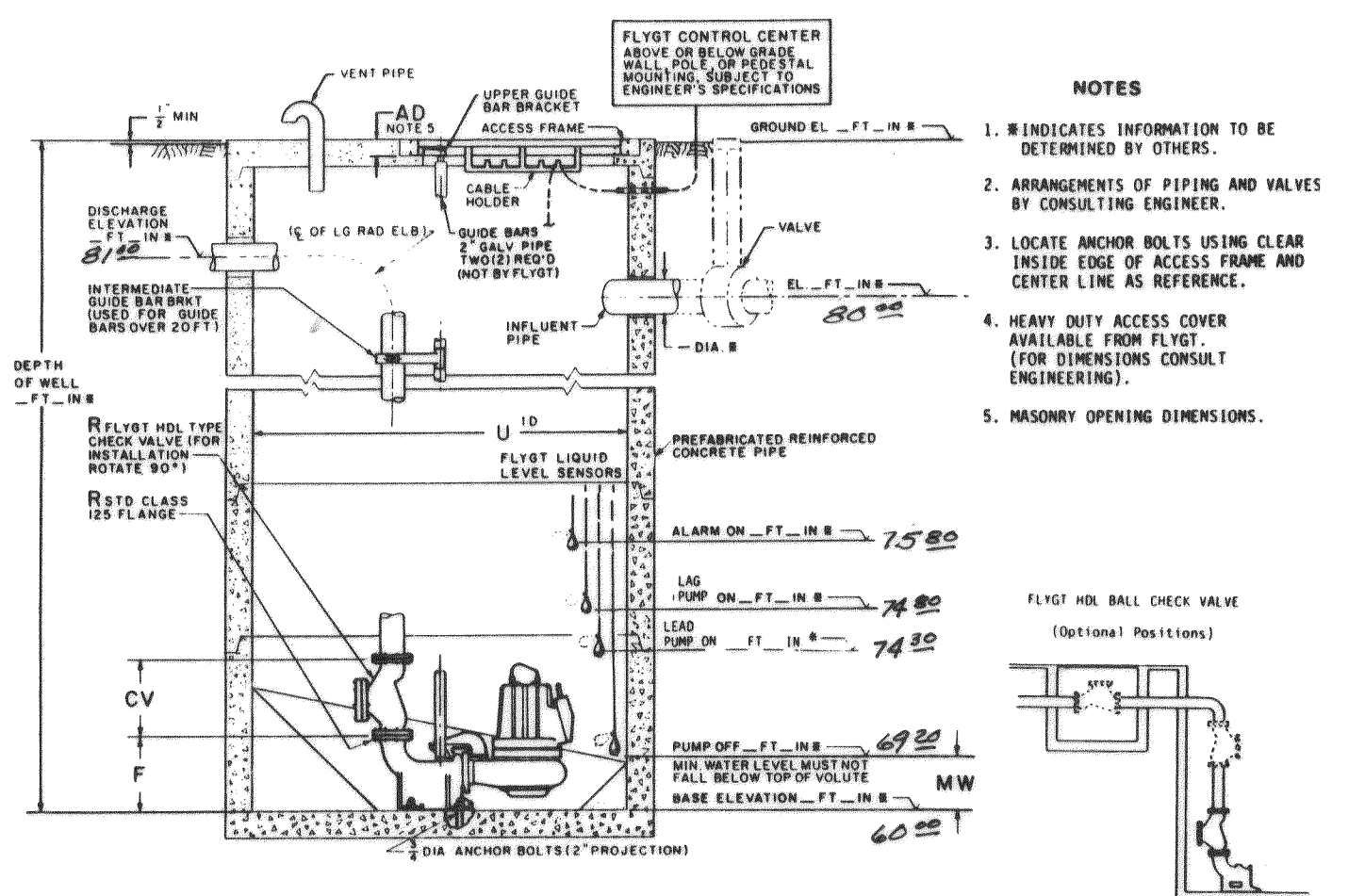
DUPLEX

DIMENSIONS (INCHES)																			
STATION										FLYGT ML COVER (AL)									
NOM. SIZE	A	B	C	D	F	N	R	S	T	U	V	W	X	Y	Z	AD	PL	XA	XB
4"	2 1/2	10	7 1/2	3 1/2	10 1/2	4	11	4 1/2	17 1/2	12	20	66	42	49	22	31	30	3 1/2	10 1/2
6"	4 1/2	11	9 1/2	4 1/2	17 1/2	6	10 1/2	2 1/2	24	15	20	72	42	49	22	31	30	3 1/2	10 1/2
8"	5 1/2	11	9 1/2	4 1/2	17 1/2	8	9 1/2	3 1/2	31 1/2	16	20	72	42	49	22	31	30	3 1/2	10 1/2

OPTIONAL COVER (AL, ST)													FLYGT ML COVER (AL, ST)	
NOM. SIZE	MODEL	DIAM.	U	V	W	X	Y	Z	AD	PL	XA	XB		
4"	C	I	66	48	60	24	30	42	4 1/2	10				
6"	C	I	72	48	60	25	30	42	4 1/2	10 1/2				
8"	C	I	72	48	60	25	30	42	4 1/2	10 1/2				

SIMPLEX

DIMENSIONS (INCHES)																			
STATION										FLYGT ML COVER (AL)							OPTIONAL COVER (AL, ST)		
NOM. SIZE	A	B	C	D	F	N	R	S	T	U	V	W	X	Y	Z	AD	PL	XA	XB
4"	2 1/2	10	7 1/2	3 1/2	10 1/2	4	11	4 1/2	17 1/2	12	20	66	42	49	22	31	30	3 1/2	10 1/2
6"	4 1/2	11	9 1/2	4 1/2	17 1/2	6	10 1/2	2 1/2	24	15	20	72	42	49	22	31	30	3 1/2	10 1/2
8"	5 1/2	11	9 1/2	4 1/2	17 1/2	8	9 1/2	3 1/2	31 1/2	16	20	72	42	49	22	31	30	3 1/2	10 1/2



NOTES

- INDICATES INFORMATION TO BE DETERMINED BY OTHERS.
- ARRANGEMENTS OF PIPING AND VALVES BY CONSULTING ENGINEER.
- LOCATE ANCHOR BOLTS USING CLEAR INSIDE EDGE OF ACCESS FRAME AND CENTER LINE AS REFERENCE.
- HEAVY DUTY ACCESS COVER AVAILABLE FROM FLYGT. (FOR DIMENSIONS CONSULT ENGINEERING).
- MASONRY OPENING DIMENSIONS.

FLYGT MOL BALL CHECK VALVE (Optional Positions)

THIS IS A TYPICAL LIFT STATION LAYOUT FOR FLYGT PUMPS
FINAL DESIGN IS AT THE DISCRETION OF THE CONSULTING ENGINEER.

NOTE: POWER & CONTROL DESIGN TO BE PROVIDED BY CONTRACTOR TO CITY ENGINEER FOR APPROVAL.

APPROVED	
WATER SYSTEM	STORM DRAIN
SANITARY SEWER	ROADS
DETENTION SYSTEM	PARKING
LANDSCAPING	PLANNING COMMISSION / CITY COUNCIL
CONDITIONS	BUILDING SETBACKS
FIRE LINE/DOUBLE BACKFLOW PREVENTOR	IRIGATION SYSTEM/D.B.P.
DOMESTIC WATER/D.B.P.	
CITY ENGINEER	DATE
PLANNING DIRECTOR	DATE
THIS APPROVAL IS SUBJECT TO THE MATERIAL AND CONSTRUCTION BEING IN COMPLIANCE WITH STATE AND LOCAL STANDARDS AND IS VOID ONE (1) YEAR FROM THIS APPROVAL DATE.	

REV. NO.	DATE	DESCRIPTION	MADE BY	CHECKED
1	8-20-89	Pump Elevation	RAB	CRB

SCALE: AS NOTED

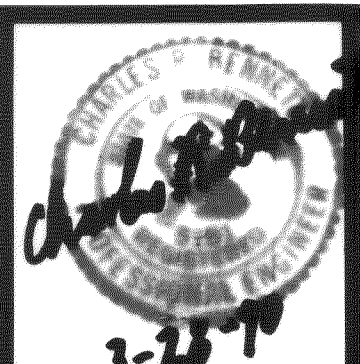
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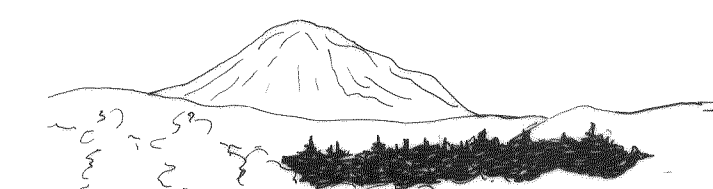
DESIGNED: DLM

CHECKED: CRB

APPROVED: CRB



BENNETT P.S. & E., INC
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P.O. BOX 1031 PUYALLUP WA. 98371
PUYALLUP 845-8833 SEATTLE 838-3474



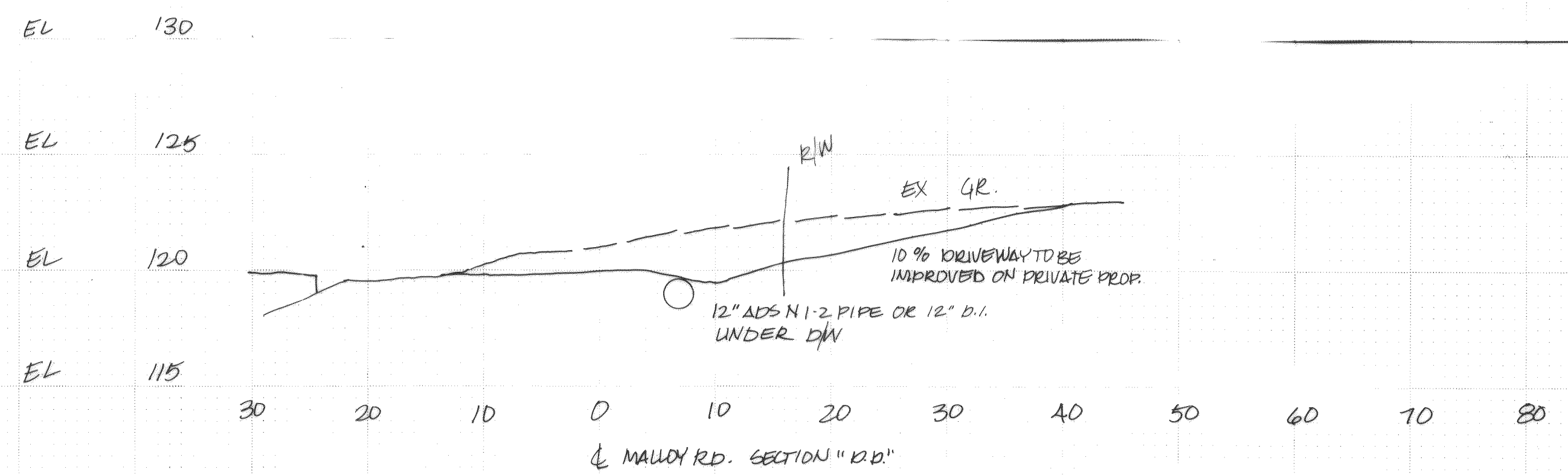
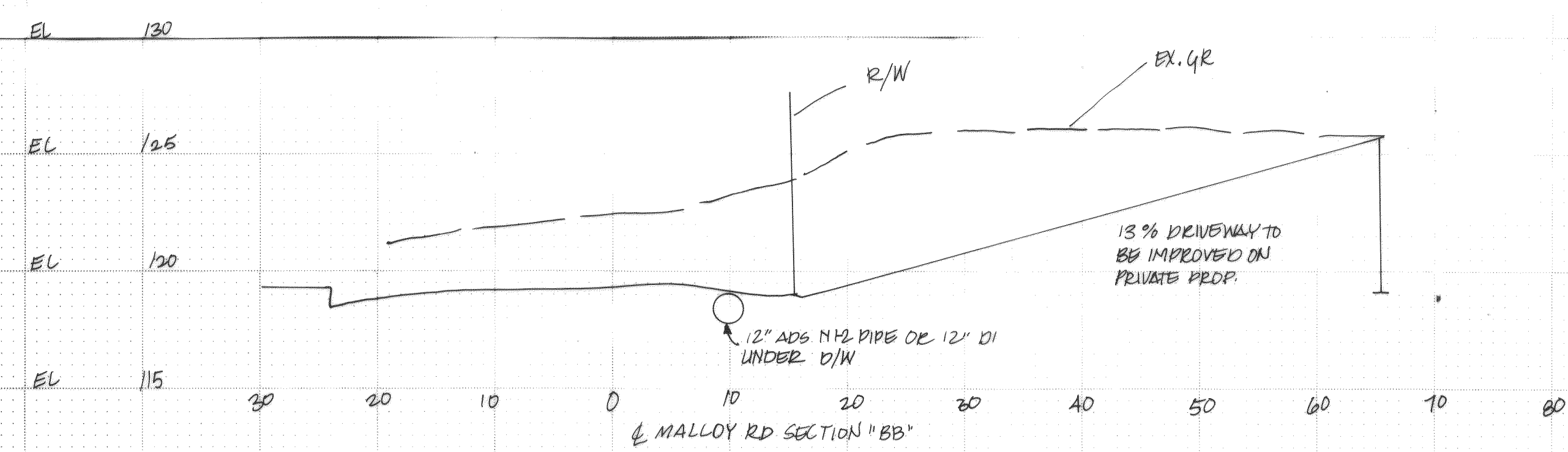
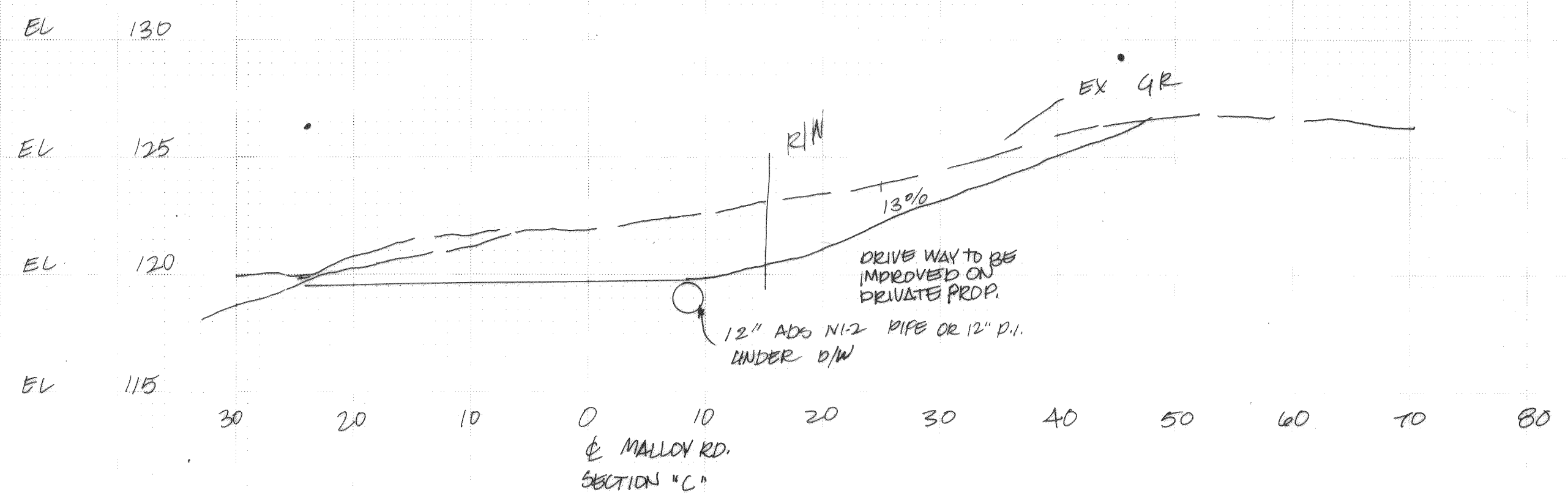
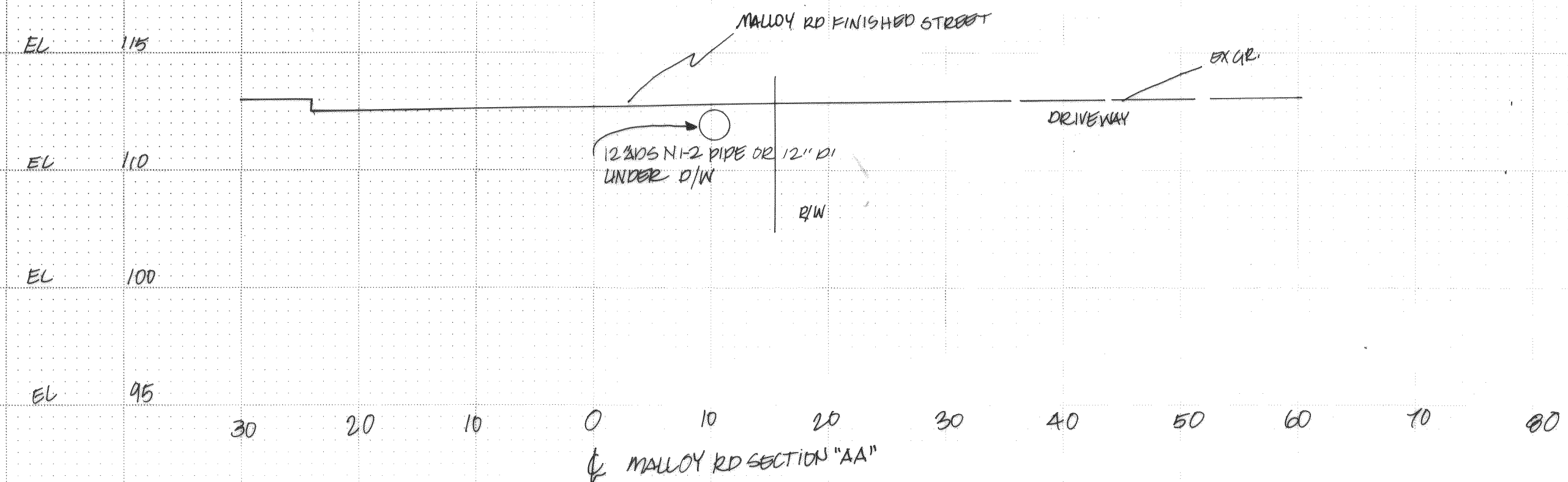
CASCADE PEAK ESTATES
DETAIL SHEET

SHEET NO.

14 OF 15

JOB NO. 89-2997

0002B IS 210.06 KR



APPROVED	
WATER SYSTEM	HYDRANT LAYOUT
SANITARY SEWER	STORM DRAIN
DETENTION SYSTEM	ROADS
LANDSCAPING	PARKING
PLANNING COMMISSION / CITY COUNCIL	CONDITIONS
BUILDING SETBACKS	
FIRE LINE/DOUBLE BACKFLOW PREVENTOR	
IRRIGATION SYSTEM/D.S.P.	
DOMESTIC WATER/D.S.P.	
CITY ENGINEER	DATE
PLANNING DIRECTOR	DATE
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