CASCADE SUMMIT
(PHASE 1)
RESIDENTIAL SUBDIVISION
CITY OF WEST LINN

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "CITY OF WEST LINN STREET/UTILITY DESIGN AND CONSTRUCTION STANDARDS" DATED JULY 14, 1988.
2. PRIOR TO ANY CONSTRUCTION, LOCATIONS OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR. WHEN ACTUAL CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
3. ORGANIC AND NON-DESIRABLE MATERIALS SHALL BE REMOVED FROM THE CONSTRUCTION AREA AS DIRECTED BY THE ENGINEER.
4. ALL FILL AREAS SHALL BE STRIPPED OF ORGANIC MATERIAL. FILL WILL BE PLACED IN 9-INCH LAYERS AND COMPACTED TO 95 PERCENT RELATIVE MAXIMUM DENSITY ACCORDING TO AASHTO T-99 STANDARDS. BASE ROCK IN THE STREET WILL BE COMPACTED TO THE SAME STANDARD. LANDSCAPE AREAS WILL BE COMPACTED TO 90 PERCENT. THE CONTRACTOR WILL PROVIDE DENSITY TESTING, ONE FOR EVERY 10,000 SQUARE FEET OF AREA AND FOR EVERY 2 FEET OF FILL PLACED. COMPACTION REPORTS FROM A REPUTABLE TESTING LAB WILL BE SUPPLIED TO THE ENGINEER.
5. CONTRACTOR SHALL LEAVE ALL AREAS OF THE PROJECT FREE OF DEBRIS AND UNUSED CONSTRUCTION MATERIALS.
   a. AREAS TO BE LANDSCAPED SHALL BE SMOOTHED AND LEFT TO THE GRADES INDICATED ON THE GRADING PLAN, PLUS OR MINUS 0.1 FOOT.
   b. ALL DISTURBED AREAS NOT TO BE LANDSCAPED ARE TO BE SEEDED TO PREVENT EROSION.
6. ANY CHANGES FROM THE APPROVED PLANS SHALL BE REQUESTED BY THE CONTRACTOR IN WRITING. THE DESIGN ENGINEER AND THE CITY OF WEST LINN'S PROJECT ENGINEER MUST APPROVE THE CHANGE PRIOR TO ITS IMPLEMENTATION. COMPLEXITY OF MODIFICATION WILL DETERMINE IF REVISED PLANS ARE REQUIRED.
7. STANDARD SIDEWALK RAMP CURB-DROPS SHALL BE LOCATED AT MIDPOINTS OF CURB RETURNS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
8. THE FOLLOWING CITY OF WEST LINN DETAILS SHALL BE USED AT LOCATIONS AS SPECIFIED IN THE PLANS:

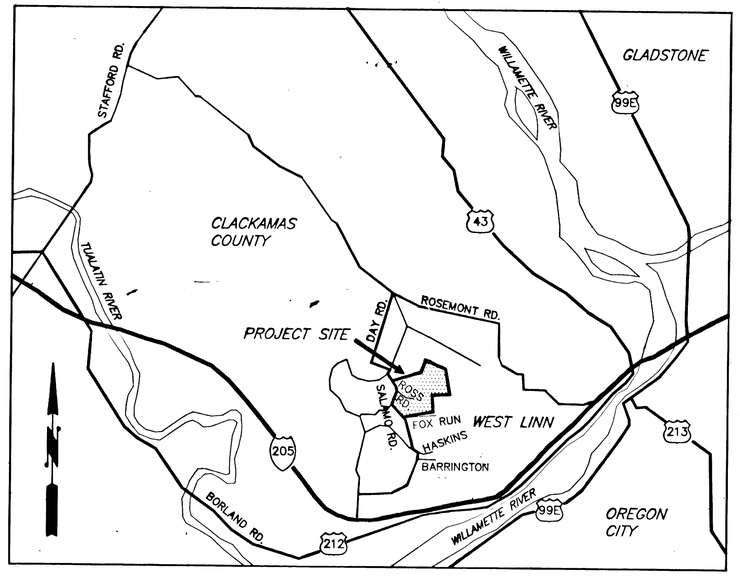
   STANDARD MANHOLE – DWG. NO. MH-209
   SHALLOW MANHOLE – DWG. NO. MH-210
   MANHOLE FRAME & COVER – DWG. NO. MH-212
   GUTTER INLET 2 1/2 A – DWG. NO. GI-214
   GUTTER INLET COVER – DWG. NO. GI-215
   CURB & GUTTER – DWG. NO. CG-265
   SIDEWALK RAMP – DWG. NO. CS-271
   STREET BARRICADE TYPE III – DWG. SB-276
   CENTERLINE SURVEY MONUMENTS – SM-278
   PIPE BEDDING & BACKFILL DETAILS – DWG. NO. PB-280
   FIRE HYDRANT – DWG. NO. FH-300
   BLOWOFF – DWG. NO. BO-301
   THRUST BLOCKING – DWG. NO. TB-302
   WATER METER – DWG. NO. WM-304

STORM/SANITARY SEWERS:

9. MANHOLE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF WEST LINN'S STANDARD PLANS. PRECAST BASES WILL NOT BE PERMITTED FOR MANHOLES.
10. TRENCH BACKFILL IN PAVED AREAS WILL BE 3/4-INCH TO 0-INCH CRUSHED ROCK COMPACTED TO 95 PERCENT RELATIVE MAXIMUM DENSITY, AASHTO T-99.
11. ALL STORM SEWER PIPE SHALL BE CONCRETE, ASTM C-14 CLASS 3, BELL AND SPIGOT WITH RUBBER O-RINGS.
12. ALL SANITARY SEWER PIPE SHALL BE PVC IN ACCORDANCE WITH ASTM SPECIFICATIONS D-3033 AND D-3034.
13. SANITARY SEWER SERVICES SHALL BE 4-INCH PVC WITH A MINIMUM SLOPE OF 2%.
14. PRIOR TO ACCEPTANCE, ALL PUBLIC SANITARY AND STORM SEWERS SHALL BE AIR TESTED IN ACCORDANCE WITH THE CITY OF WEST LINN'S REQUIREMENTS. PVC PIPE SHALL ALSO BE TESTED FOR DEFLECTION.
15. MANHOLE RIM ELEVATIONS SHOWN ARE APPROXIMATE AND FOR INFORMATION ONLY. FINAL ELEVATIONS SHALL BE SET TO MATCH CONSTRUCTED FINISH GRADE.

WATERLINES:

16. ALL WATER PIPE AND FITTINGS SHALL BE DUCTILE CAST IRON CLASS 52 AND CONFORM TO STANDARD CITY SPECIFICATIONS AND DETAILS.
17. WATERLINES SHALL BE PRESSURE TESTED FOLLOWING COMPLETION. PRESSURE TESTS AT THE LOWEST POINT IN TEST SECTION SHALL BE IN ACCORDANCE TO THE CITY OF WEST LINN'S STANDARDS. LEAKAGE MUST BE WITHIN ALLOWABLE LEAKAGE LIMITS. SERVICE LINES WILL ALSO BE TESTED TO THE METER LOCATION IF INSTALLED BY THE CONTRACTOR.
18. PRIOR TO BEING PLACED INTO SERVICE, THE WATERLINE SHALL BE FLUSHED, STERILIZED AND FLUSHED AGAIN ALL IN ACCORDANCE WITH STANDARD METHODS OF THE HEALTH DIVISION, DEPARTMENT OF HUMAN RESOURCES, STATE OF OREGON.
19. PRIOR TO ALLOWING HUMAN CONSUMPTION OF THE WATER FROM THE NEW WATERLINE, A SAMPLE SHALL BE TAKEN AND TESTED FOR BACTERIOLOGICAL QUALITY. RESULTS MUST BE WITHIN STANDARDS OF THE STATE OF OREGON.
20. CONCRETE THRUST BLOCKING SHALL BE PROVIDED AT ALL WATERLINE FITTINGS AS REQUIRED BY CITY STANDARDS. BLOCKING SHALL BE POURED AGAINST UNDISTURBED EARTH AND CLEAR OF JOINT ACCESSORIES. BEARING AREA OF THRUST BLOCK SHALL BE COMPUTED ON THE BASIS OF ALLOWABLE SOIL BEARING PRESSURE.



VICINITY MAP

BENCH MARK

BENCH MARK: CITY OF WEST LINN BENCH MARK "B" IS 93.5' EAST AND 17.0' SOUTH OF EDGE OF PAVEMENT FROM 5-WAY INTERSECTION OF ROSEMONT/SANTA ANA. 3" CAP ON PIPE WITH YELLOW WATER WORKS LID. ELEV.= 667.22.

INDEX OF SHEETS

1. TITLE SHEET
2. STREET AND STORM SEWER PLAN
3. STREET AND STORM SEWER PLAN
4. STREET AND STORM SEWER PROFILES
5. STREET AND STORM SEWER PROFILES
6. STREET AND STORM SEWER PROFILES
7. OFF STREET STORM SEWER PROFILES
8. GRADING, EROSION CONTROL & TREE PRESERVATION PLAN
9. GRADING, EROSION CONTROL & TREE PRESERVATION PLAN
10. EROSION CONTROL DETAILS & NOTES
11. SANITARY SEWER & WATER PLAN
12. SANITARY SEWER & WATER PLAN
13. SANITARY SEWER & WATER PROFILES
14. SANITARY SEWER & WATER PROFILES
15. SANITARY SEWER & WATER PROFILES
16. OFF STREET SANITARY SEWER PROFILES
17. COMPOSITE UTILITY PLAN
18. COMPOSITE UTILITY PLAN
19. DETAILS

LEGEND

PROPOSED

- FIRE HYDRANT
- REDUCER
- BLOWOFF (B.O.) ASSEMBLY
- AIR RELEASE VALVE
- CLEANOUT
- MANHOLE
- GATE VALVE
- BUTTERFLY VALVE
- WM WATER METER
- SIGN
- INLET
- —x— FENCE
- DITCH
- UTILITY EASEMENT
- SLOPE EASEMENT LINE
- CENTERLINE

These As-Built Plans were compiled from survey data, data collected from others, and periodic observation during construction. It is suggested that these plans be used in conjunction with field verification of location and elevations of improvements in question. These plans are an accurate record of public improvements to the best of my information, knowledge and belief.

Signature

4-27-93
Date

AS BUILT
BY: D. Singer DATE 4-27-93

J. SWAIN 8/21/92 Designed Date
J. SWAIN 8/21/92 Drawn Date
R. YANO 8/21/92 Checked Date

REVISIONS
REVISED SHTS 3, 4, 5, 6, 9, 12, 15, 18
CASCADE ENTRANCE MODIFICATIONS
10-6-92

REGISTERED PROFESSIONAL ENGINEER 14600 Richard D. Yano OREGON JULY 28, 1989 RICHARD D. YANO

TITLE SHEET

CASCADE SUMMIT
RESIDENTIAL SUBDIVISION
CITY OF WEST LINN

KOSS BROD GOODRICH AND ASSOCIATES, INC.
19363 WILLAMETTE DR #509
WEST LINN, OR. 97068
(503)721-1010

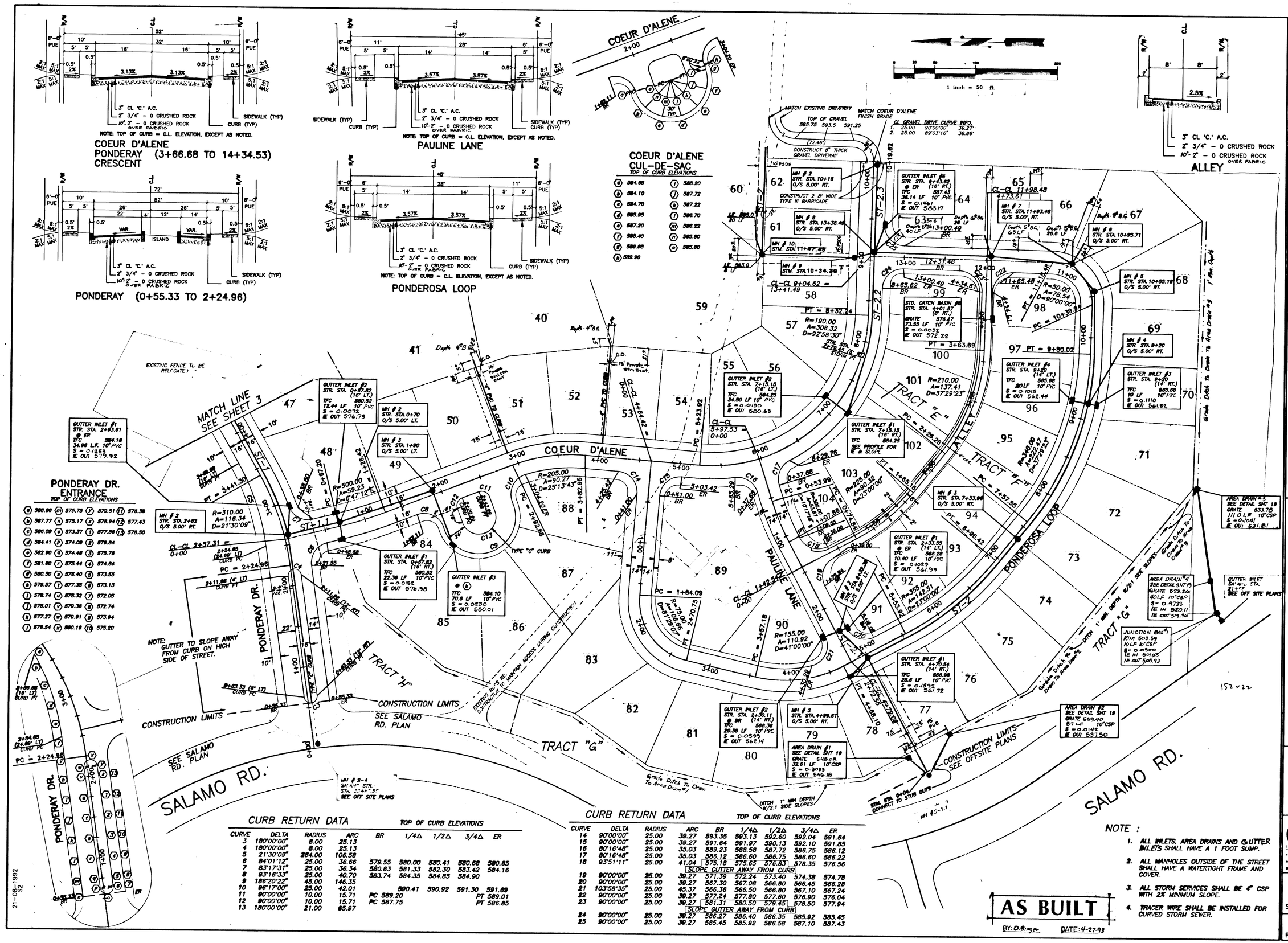
otak Incorporated
17355 S.W. Boones Ferry Rd. Lake Oswego, OR 97035 (503) 635-3618
1915 - 5th Street, Vancouver, WA 98660 (206) 695-6357
20 Central Way, # 300 Kirkland, WA 98033 (206) 822-4446

Sheet No. 1

Project No. 3888

18-08-1992
S1

CASCADE SUMMIT



CURB RETURN DATA

TOP OF CURB ELEVATIONS

CURVE	DELTA	RADIUS	ARC	BR	1/4Δ	1/2Δ	3/4Δ	ER
3	180°00'00"	8.00	25.13					
4	180°00'00"	8.00	25.13					
5	21°30'09"	284.00	106.58					
6	84°01'12"	25.00	36.66	579.55	580.00	580.41	580.68	580.65
7	83°17'31"	25.00	36.34	580.83	581.33	582.30	583.42	584.16
8	93°16'33"	25.00	40.70	583.74	584.35	584.85	584.90	
9	186°20'22"	45.00	146.35					
10	96°17'00"	25.00	42.01		590.41	590.92	591.30	591.69
11	90°00'00"	10.00	15.71	PC 589.20				PT 589.01
12	90°00'00"	10.00	15.71	PC 587.75				PT 586.85
13	180°00'00"	21.00	65.97					

CURB RETURN DATA

TOP OF CURB ELEVATIONS

CURVE	DELTA	RADIUS	ARC	BR	1/4Δ	1/2Δ	3/4Δ	ER
14	90°00'00"	25.00	39.27	593.35	593.13	592.60	592.04	591.64
15	90°00'00"	25.00	39.27	591.64	591.97	590.13	592.10	591.85
16	80°16'48"	25.00	35.03	589.23	588.58	587.72	586.75	586.12
17	80°16'48"	25.00	35.03	586.12	586.60	586.75	586.60	586.22
18	93°51'11"	25.00	41.04	575.18	575.65	576.83	578.35	576.56
				SLOPE GUTTER AWAY FROM CURB				
19	90°00'00"	25.00	39.27	571.39	572.24	573.40	574.38	574.78
20	90°00'00"	25.00	39.27	567.30	567.08	566.80	566.45	566.28
21	103°58'35"	25.00	45.37	566.36	566.50	566.80	567.10	567.24
22	90°00'00"	25.00	39.27	577.24	577.80	577.60	576.90	576.04
23	90°00'00"	25.00	39.27	581.31	580.50	579.45	578.50	577.94
				SLOPE GUTTER AWAY FROM CURB				
24	90°00'00"	25.00	39.27	586.27	586.40	586.35	585.92	585.45
25	90°00'00"	25.00	39.27	585.45	585.92	586.58	587.10	587.43

NOTE :

1. ALL INLETS, AREA DRAINS AND GUTTER INLETS SHALL HAVE A 1 FOOT SUMP.
2. ALL MANHOLES OUTSIDE OF THE STREET SHALL HAVE A WATERTIGHT FRAME AND COVER.
3. ALL STORM SERVICES SHALL BE 4" CSP WITH 2% MINIMUM SLOPE.
4. TRACER WIRE SHALL BE INSTALLED FOR CURVED STORM SEWER.

AS BUILT

BY: O. Olinger DATE: 4-27-93

YANO/HANSEN 8/21/92
Designed Date
J. HANSEN 8/21/92
Drawn Date
R. YANO 8/21/92
Checked Date

REVISIONS

1. REVISED TC & INLET GRADES, STORM LINE LOCATION

REGISTERED PROFESSIONAL ENGINEER 14500 OREGON JULY 28, 1989 RICHARD D. YANO

STREET AND STORM SEWER PLAN

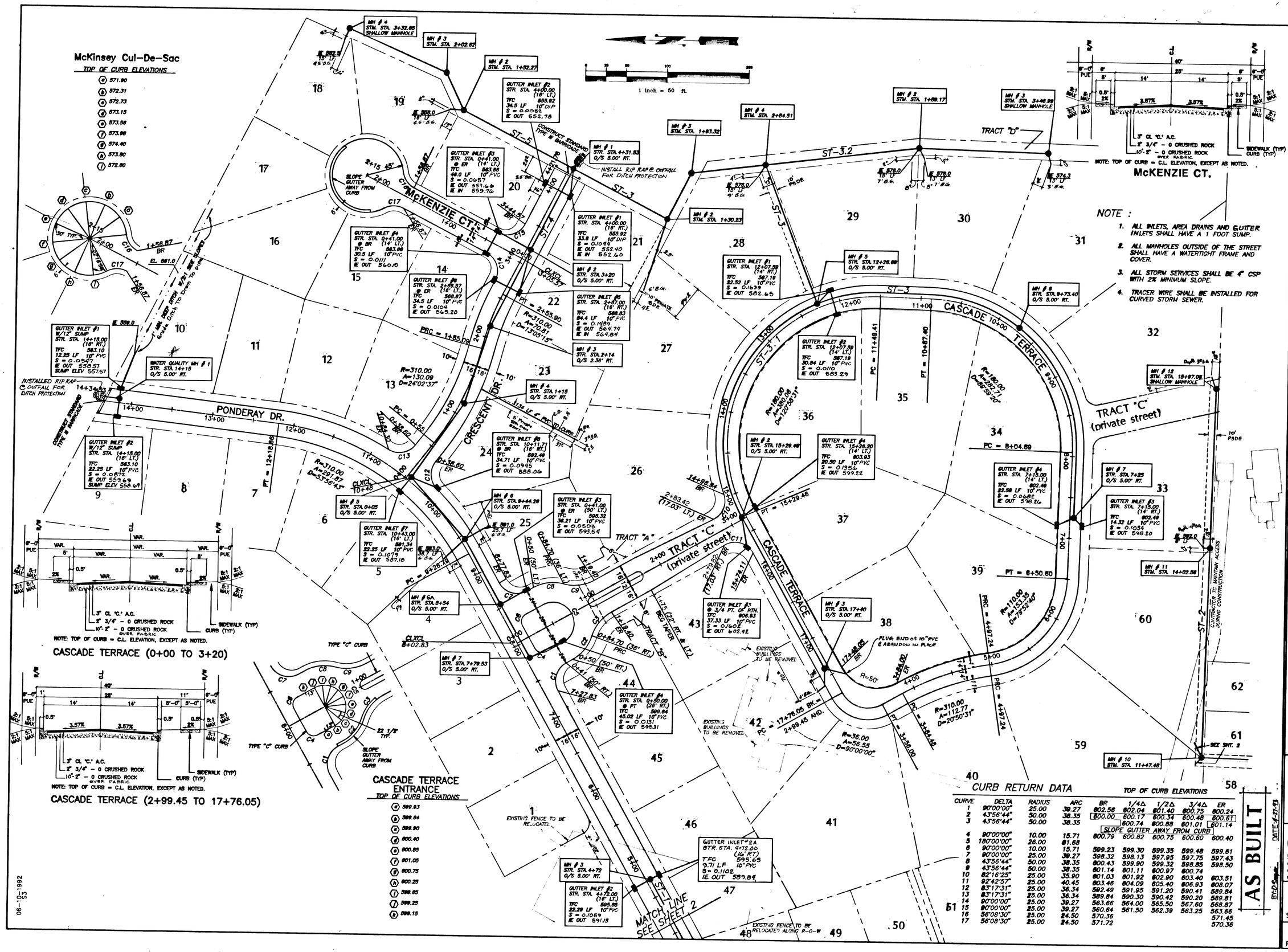
CASCADE SUMMIT RESIDENTIAL SUBDIVISION CITY OF WEST LINN

KOSS BROD GOODRICH AND ASSOCIATES, INC.
19363 WILLAMETTE DR #509
WEST LINN, OR. 97068
(503)721-1010

otak incorporated

2
Sheet No.

3888
Project No.



YANO/HANSEN	8/21/92
Designed J.HANSEN	Date 8/21/92
Drawn J.HANSEN	Date 8/21/92
Checked	Date

REVISIONS
1. TC GRADES, INLET E'S
2. REVISION PER CASCADE TERRACE ENTRANCE RELOCATION (10/5/92)

REGISTERED PROFESSIONAL ENGINEER 14500 OREGON JULY 28, 1989 RICHARD D. YANO

STREET AND STORM SEWER PLAN

CASCADE SUMMIT RESIDENTIAL SUBDIVISION CITY OF WEST LINN

KOSS BROD GOODRICH AND ASSOCIATES, INC.
19363 WILLAMETTE DR. #509
WEST LINN, OR. 97068
(503)721-1010

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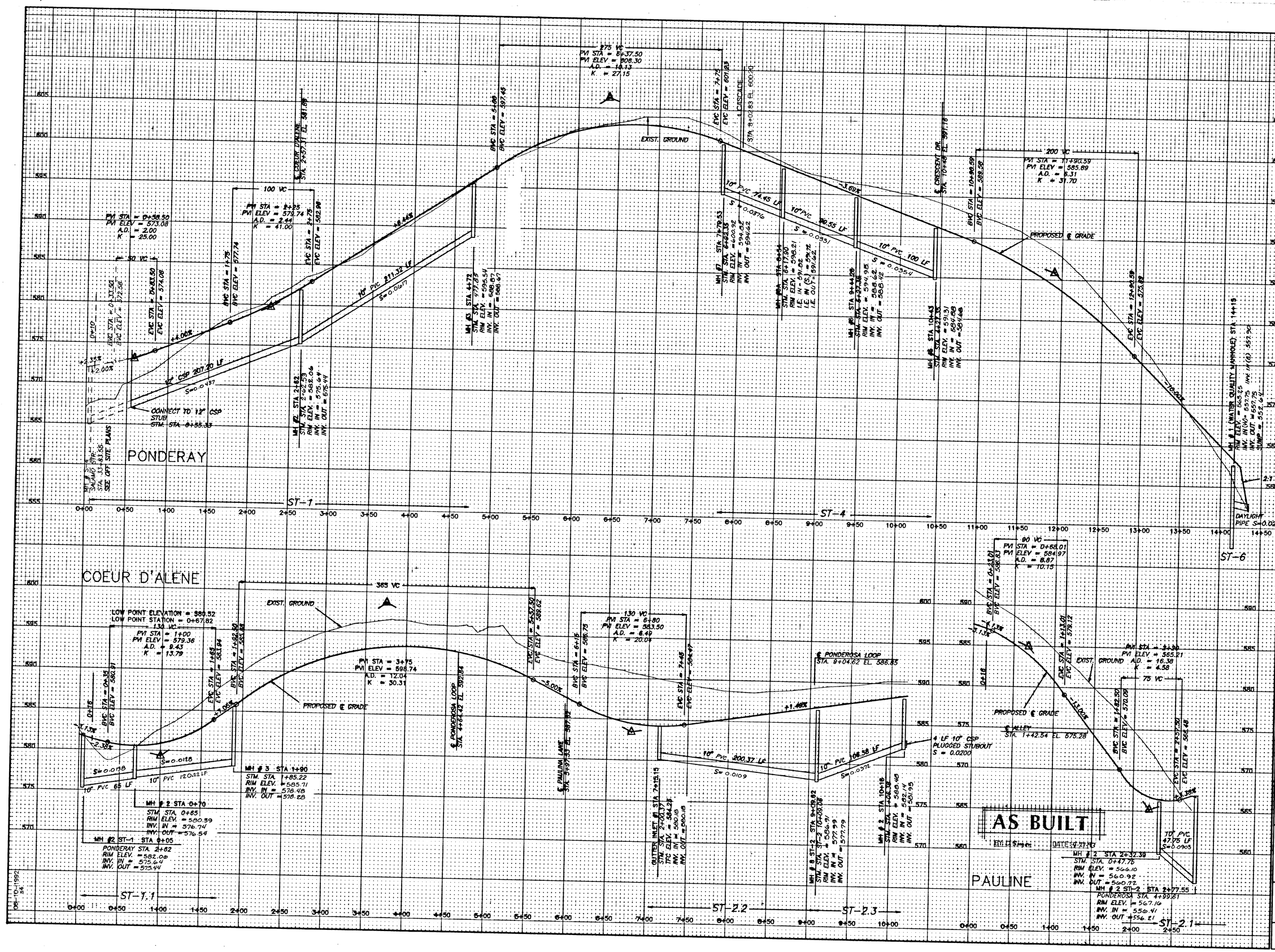
AS BUILT
BY: D.S. DATE: 4-27-93

Sheet No. 3

Project No. 3888



YANO, SWAIN 8/21/92
Designed Date
J.SWAIN 8/21/92
Drawn Date
R.YANO 8/21/92
Checked Date

REVISIONS
1. REVISED STREET PROFILES PONDERAY, COEUR D'ALENE, AND PAULINE. STORM PROFILES ST-2.1, ST-2.2, ST-2.3 AND ST-6 (8/31/92)
2. ADD M.H. #6A ST-4 (10/2/92)

REGISTERED PROFESSIONAL ENGINEER 14500 OREGON JULY 28, 1989 RICHARD D. YANO

STREET & STORM PROFILES

CASCADE SUMMIT RESIDENTIAL SUBDIVISION
CITY OF WEST LINN

KOSS BROD GOODRICH AND ASSOCIATES, INC.
19363 WILLAMETTE DR #509
WEST LINN, OR. 97068
(503)721-1010

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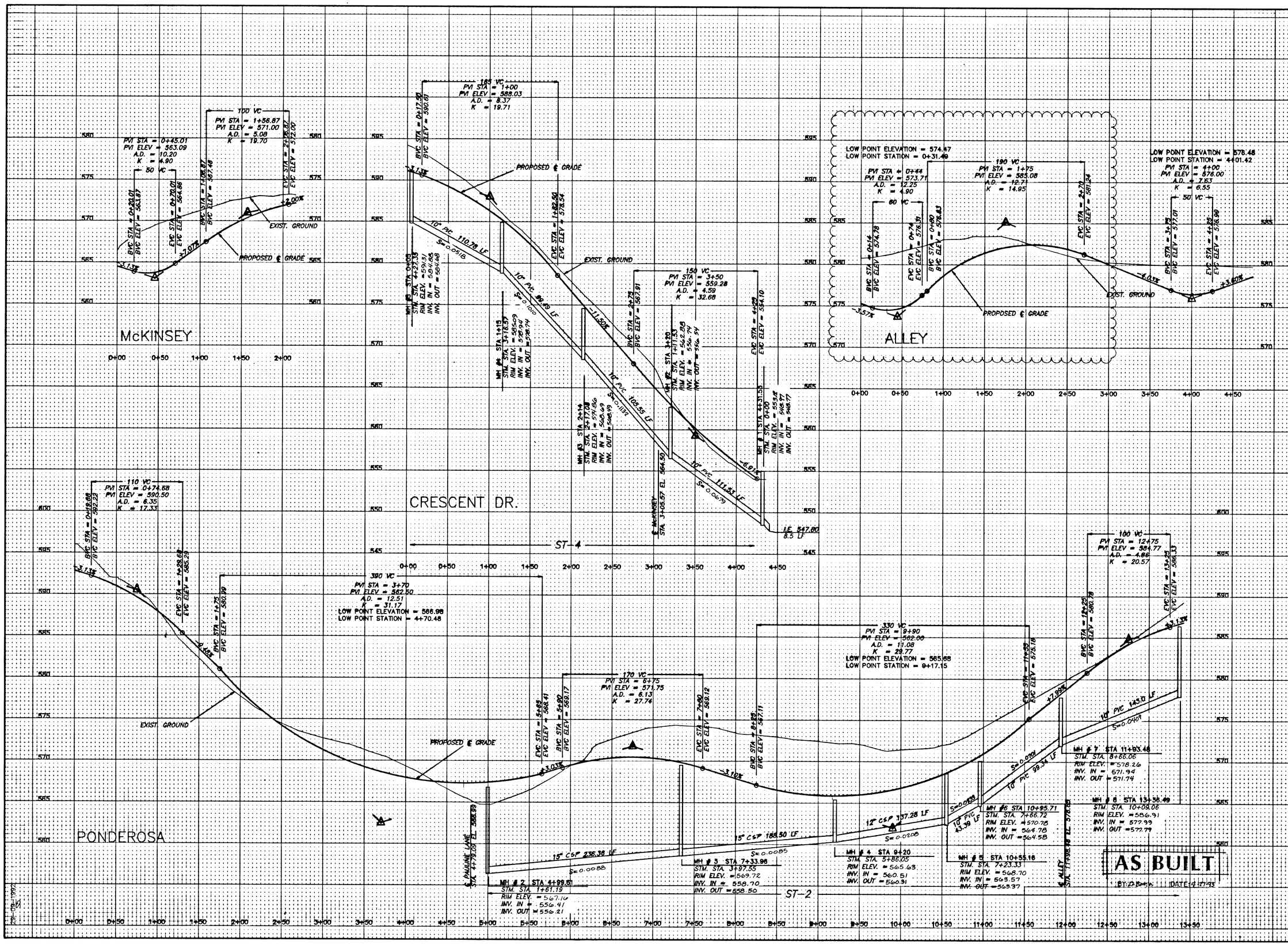
Project No.


McKINSEY
CRESCENT DR.
ALLEY
PONDEROSA
ST-4
ST-2
PROPOSED ℄ GRADE
EXIST. GROUND
50 VC
PVI STA = 0+45.01
PVI ELEV = 563.09
A.D. = 10.20
K = 4.90
100 VC
PVI STA = 1+56.87
PVI ELEV = 571.00
A.D. = 5.08
K = 19.70
185 VC
PVI STA = 1+00
PVI ELEV = 588.03
A.D. = 8.37
K = 19.71
150 VC
PVI STA = 3+50
PVI ELEV = 559.28
A.D. = 4.59
K = 32.68
110 VC
PVI STA = 0+74.88
PVI ELEV = 590.50
A.D. = 6.35
K = 17.33
390 VC
PVI STA = 3+70
PVI ELEV = 562.50
A.D. = 12.51
K = 31.17
LOW POINT ELEVATION = 566.98
LOW POINT STATION = 4+70.48
170 VC
PVI STA = 6+75
PVI ELEV = 571.75
A.D. = 6.13
K = 27.74
330 VC
PVI STA = 9+90
PVI ELEV = 582.00
A.D. = 11.08
K = 29.77
LOW POINT ELEVATION = 565.68
LOW POINT STATION = 9+17.15
100 VC
PVI STA = 12+75
PVI ELEV = 584.77
A.D. = 4.86
K = 20.57
LOW POINT ELEVATION = 574.47
LOW POINT STATION = 0+31.49
190 VC
PVI STA = 1+75
PVI ELEV = 585.08
A.D. = 12.71
K = 14.95
80 VC
PVI STA = 0+44
PVI ELEV = 573.71
A.D. = 12.25
K = 4.90
LOW POINT ELEVATION = 578.48
LOW POINT STATION = 4+01.42
PVI STA = 4+00
PVI ELEV = 576.00
A.D. = 7.63
K = 6.55
50 VC
10" PVC 110.78 LF
10" PVC 90.99 LF
10" PVC 105.55 LF
10" PVC 111.53 LF
10" PVC 145.0 LF
10" PVC 99.34 LF
10" PVC 43.39 LF
15" CSP 236.38 LF
15" CSP 188.50 LF
12" CSP 137.28 LF
MH #1 STA 4+31.55
STM. STA. 0+00
RIM ELEV. = 553.24
INV. IN = 546.97
INV. OUT = 546.77
MH #2 STA 4+99.51
STM. STA. 1+61.19
RIM ELEV. = 567.16
INV. IN = 556.41
INV. OUT = 556.21
MH #3 STA 2+16
STM. STA. 2+17.08
RIM ELEV. = 574.86
INV. IN = 560.49
INV. OUT = 560.19
MH #4 STA 9+20
STM. STA. 5+86.05
RIM ELEV. = 565.63
INV. IN = 560.51
INV. OUT = 560.31
MH #5 STA 10+55.16
STM. STA. 7+23.33
RIM ELEV. = 568.70
INV. IN = 563.57
INV. OUT = 563.37
MH #6 STA 10+95.71
STM. STA. 7+66.72
RIM ELEV. = 570.78
INV. IN = 564.78
INV. OUT = 564.58
MH #7 STA 11+93.46
STM. STA. 8+66.06
RIM ELEV. = 578.26
INV. IN = 571.94
INV. OUT = 571.74
MH #8 STA 13+38.49
STM. STA. 10+08.06
RIM ELEV. = 586.91
INV. IN = 577.99
INV. OUT = 577.79
MH #3 STA 7+33.96
STM. STA. 3+97.55
RIM ELEV. = 569.72
INV. IN = 558.70
INV. OUT = 558.50
℄ McKINSEY STA 3+05.57 EL. 564.50
℄ PAULINE LANE STA 4+79.05 EL. 566.99
℄ ALLEY STA 11+96.40 EL. 576.00
1.E. 547.00 8.5 LF
AS BUILT
BY: D.P.S.
DATE: 4-27-93
YANO, SWAIN 8/21/92 Designed Date
J. SWAIN 8/21/92 Drawn Date
R. YANO 8/21/92 Checked Date
REVISIONS
1. REVISED STREET PROFILES McKINSEY, CRESCENT, PONDEROSA, AND ALLEY STORM PROFILES ST-2, AND ST-4 (9/3/92)
2. REVISED ALLEY PROFILE
REGISTERED PROFESSIONAL ENGINEER 14500 OREGON JULY 28, 1989 RICHARD D. YANO
STREET & STORM PROFILES
CASCADE SUMMIT RESIDENTIAL SUBDIVISION
CITY OF WEST LINN
KOSS BROD GOODRICH AND ASSOCIATES, INC.
19363 WILLAMETTE DR #509
WEST LINN, OR. 97068
(503)721-1010
otak Incorporated
5
Sheet No.
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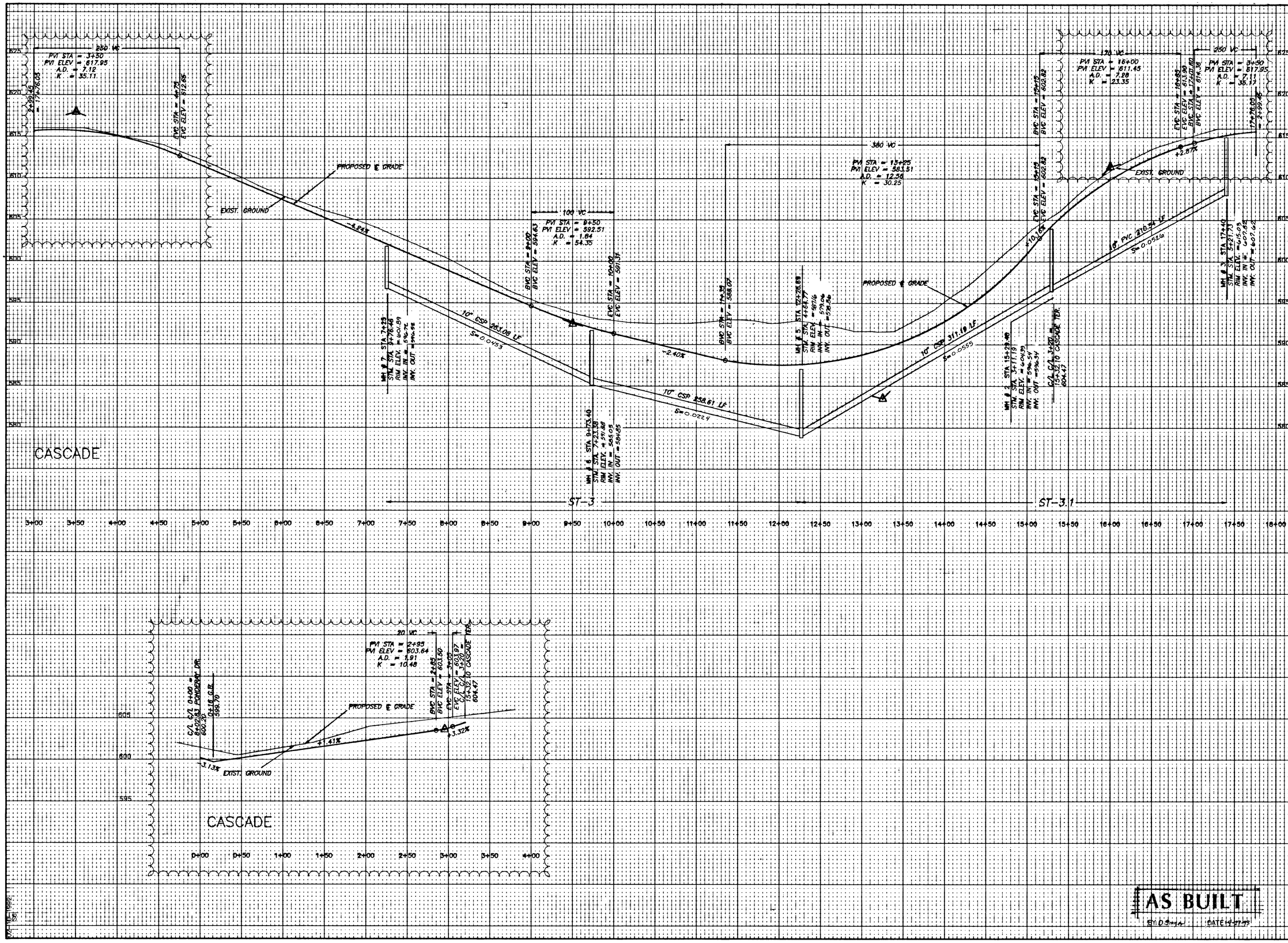
Project No.



AS BUILT

BY: D.Swain DATE: 4-27-93

YANO, SWAIN	8/21/92
Designed	Date
J.SWAIN	8/21/92
Drawn	Date
R.YANO	8/21/92
Checked	Date

REVISIONS

1. STREET PROFILE, M.H.#5 & ALL M.H. RIMS
2. STREET PROFILE ST-3.1 M.H.#3 RIM(10/2/92)

REGISTERED PROFESSIONAL ENGINEER 14500 OREGON JULY 28, 1989 RICHARD D. YANO

STREET & STORM PROFILES

CASCADE SUMMIT RESIDENTIAL SUBDIVISION

CITY OF WEST LINN

KOSS BROD GOODRICH AND ASSOCIATES, INC.
19363 WILLAMETTE DR #509
WEST LINN, OR. 97068
(503)721-1010

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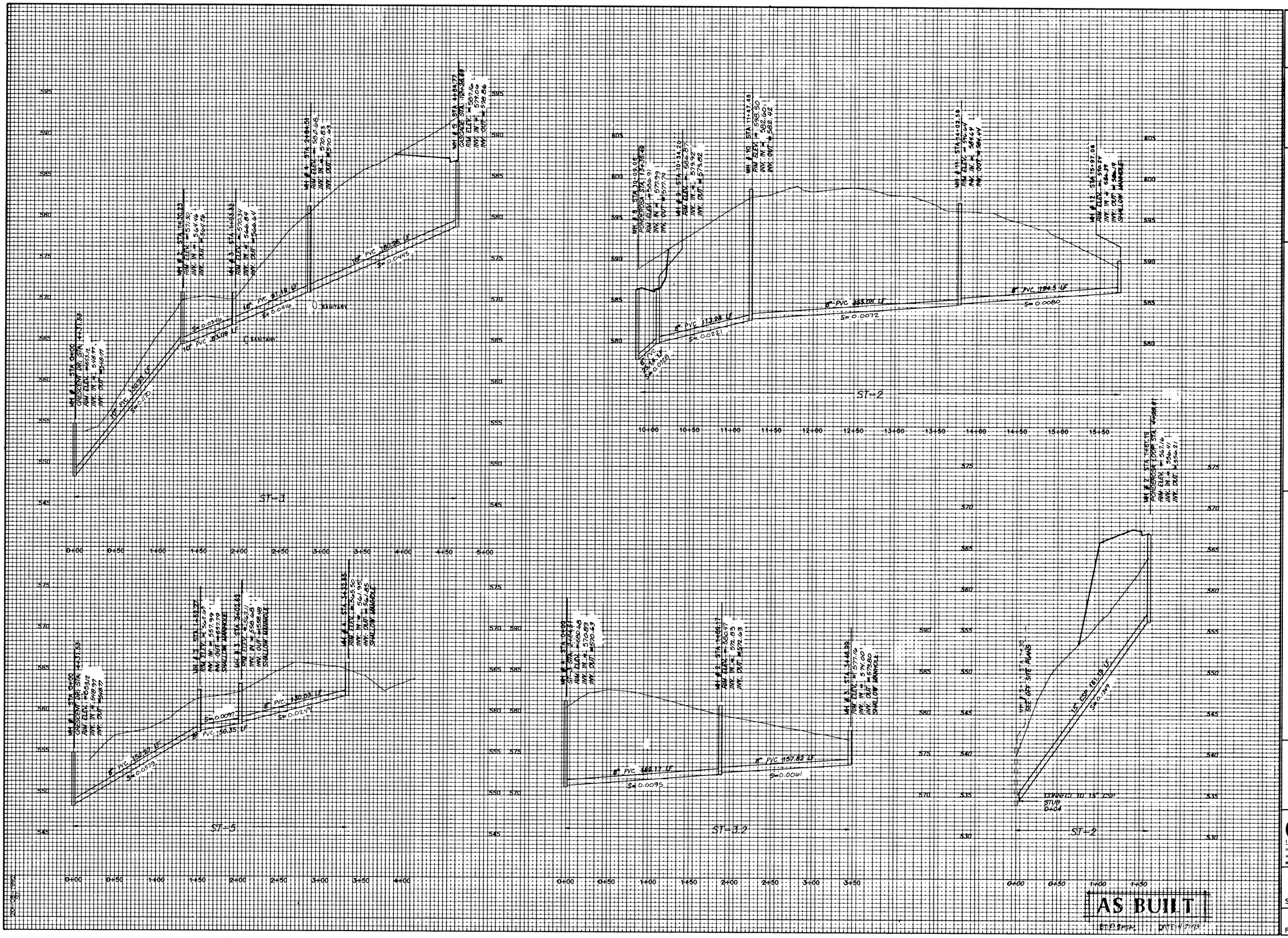
Project No. 3888



YANO, SWAIN	8/21/92
Designed	Date
J.SWAIN	8/21/92
Drawn	Date
R.YANO	8/21/92
Checked	Date

REVISIONS
1. ST-3, ST-2 9-3-92

REGISTERED PROFESSIONAL ENGINEER 14300 OREGON JULY 28, 1992 RICHARD D. YANO

OFF STREET STORM PROFILES

CASCADE SUMMIT RESIDENTIAL SUBDIVISION
CITY OF WEST LINN

KOSS BROD GOODRICH AND ASSOCIATES, INC.
19363 WILLAMETTE DR #509
WEST LINN, OR. 97068
(503)721-1010

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17355 S.W. Boones Ferry Rd. Lake Oswego, OR 97035 (503) 635-3618
101 E. 8th Street, Vancouver, WA 98660 (206) 695-6097
33 Central Way, # 205 Kirkland, WA 98033 (206) 822-4446

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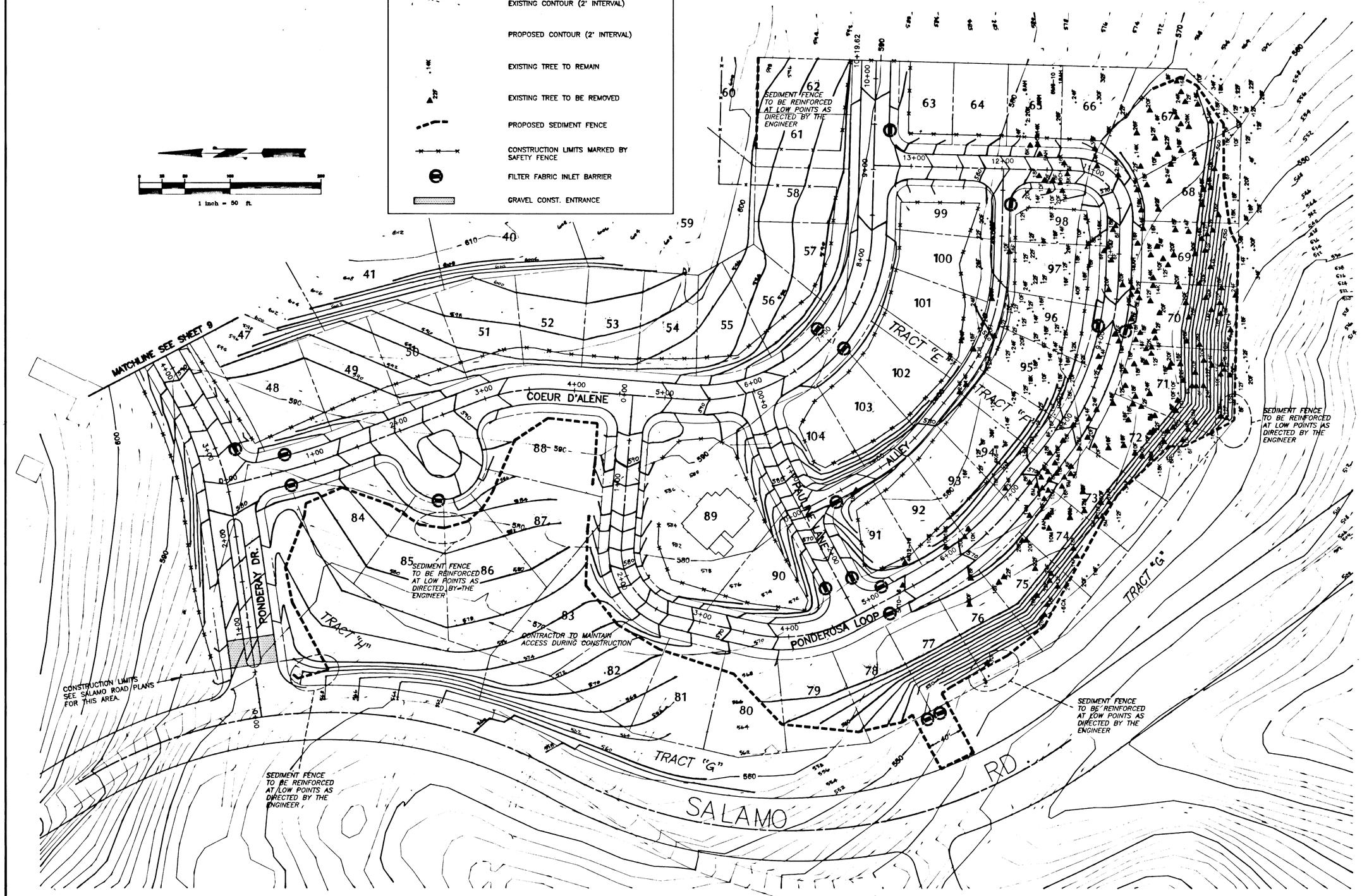
Sheet No.

3888
Project No.

LEGEND

- EXISTING CONTOUR (2' INTERVAL)
- PROPOSED CONTOUR (2' INTERVAL)
- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- PROPOSED SEDIMENT FENCE
- CONSTRUCTION LIMITS MARKED BY SAFETY FENCE
- FILTER FABRIC INLET BARRIER
- GRAVEL CONST. ENTRANCE

1 inch = 50 ft.



NOTE: FOR EROSION CONTROL DETAILS, SEE SHEET 10

AS BUILT
BY: D. Simon DATE: 4-27-95

R. YANO	7/10/92
Designed	Date
S. DIXON	7/10/92
Drawn	Date
R. YANO	7/10/92
Checked	Date

REVISIONS

1. REVISED GRADES ON PONDEROSA, PAULINE AND COEUR D'ALENE (8/31/92)

REGISTERED PROFESSIONAL ENGINEER 14500 OREGON JULY 28, 1989 RICHARD D. YANO

GRADING, EROSION CONTROL AND TREE PRESERVATION PLAN

CASCADE SUMMIT RESIDENTIAL SUBDIVISION
CITY OF WEST LINN

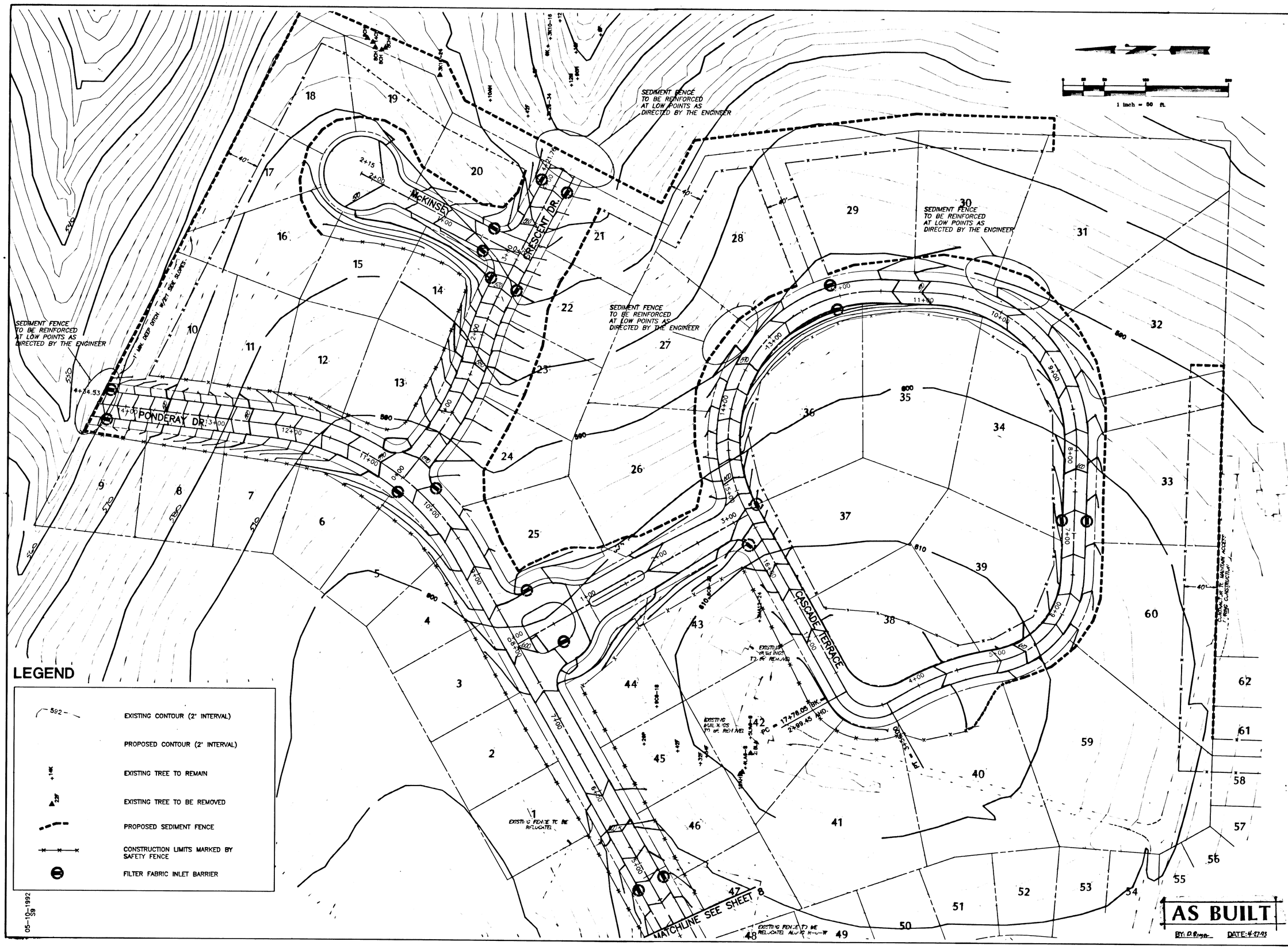
KOSS BROD GOODRICH AND ASSOCIATES, INC.
19363 WILLAMETTE DR #509
WEST LINN, OR. 97068
(503)721-1010

otak Incorporated

Sheet No. 8

Project No. 3888

28-08-1992



R.YANO	Designed	8/18/92 Date
S.DIXON	Drawn	8/18/92 Date
R.YANO	Checked	8/18/92 Date

REVISIONS
1. REVISED GRADES ON (8/31/92)
2. MOVED INTERSECTION CASCADE & PONDERAY (10/2/92)

REGISTERED PROFESSIONAL ENGINEER 14500 OREGON JULY 28, 1989 RICHARD D. YANO

GRADING, EROSION CONTROL AND TREE PRESERVATION PLAN

CASCADE SUMMIT RESIDENTIAL SUBDIVISION CITY OF WEST LINN

KOSS BROD GOODRICH AND ASSOCIATES, INC.
19363 WILLAMETTE DR #509
WEST LINN, OR. 97068
(503)721-1010

otak incorporated
17200 S.W. Bonnet Farm Rd./Lake Oswego, OR 97035 (503)635-3478
1014 E. 8th Street, Vancouver, WA 98660 (206)696-9207
20 Sunset Way, # 300 Kirkland, WA 98033 (206)822-4446

Sheet No. 9

Project No. 3888

EROSION CONTROL GENERAL NOTES

APPROVAL OF THIS EROSION/SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, DETENTION FACILITIES, UTILITIES, ETC.).

THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.

THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.

THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS.

THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT LEAVE THE SITE.

THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.

THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 48 HOURS FOLLOWING A STORM EVENT.

AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.

STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.

EROSION CONTROL AND POLLUTION CONTROL MEASURE

EROSION CONTROL MEASURES FOR DISTURBED AREAS:

ALL DISTURBED SLOPES GREATER THAN 3:1 HAVE BEEN GRADED AND COMPACTED PRIOR TO OCTOBER 1ST SHALL BE HYDROSEEDED USING THE FOLLOWING SPECIFICATIONS:

SEEDING SHALL NOT BE DONE DURING WINDY WEATHER OR WHEN THE GROUND IS FROZEN, EXCESSIVELY WET OR OTHERWISE UNTILLABLE.

SEED MAY BE DOWN BY THE FOLLOWING METHOD:

HYDROSEEDED WHICH UTILIZED WATER AS THE CARRYING AGENT, AND MAINTAINS CONTINUOUS AGITATION THROUGH PADDLE BLADES. IT SHALL HAVE AN OPERATING CAPACITY SUFFICIENT TO AGITATE, SUSPEND AND MIX INTO A HOMOGENEOUS SLURRY OF THE SPECIFIED AMOUNT OF SEED AND WATER OR OTHER MATERIAL. DISTRIBUTION AND DISCHARGE LINES SHALL BE LARGE ENOUGH TO PREVENT STOPPAGE AND SHALL BE EQUIPPED WITH A SET OF HYDRAULIC DISCHARGE SPRAY NOZZLES WHICH WILL PROVIDE A UNIFORM DISTRIBUTION OF THE SLURRY.

GRASS SHALL BE SEEDED AT THE RATE OF NOT LESS THAN ONE HUNDRED THIRTY (130) POUNDS PER ACRE. SEED MIX SHALL INCLUDE:

STATE HIGHWAY ROADSIDE SEEDING MIX.

FERTILIZER SHALL BE APPLIED AT THE RATE OF 300 POUNDS PER ACRE.

NITROGEN	–	22%
PHOSPHORIC ACID	–	16%
SOLUBLE POTASH	–	8%

WOOD CELLULOSE FIBER SHALL BE APPLIED AT THE RATE OF ONE AND ONE (1-1/2) TONS PER ACRE.

THE EXACT TIME FOR SEEDING WILL BE DETERMINED BY ACTUAL WEATHER CONDITIONS. THE NORMAL SATISFACTORY PERIOD FOR SEEDING SHALL BE CONSIDERED BETWEEN MARCH 1 TO JUNE 1 AND SEPTEMBER 1 TO OCTOBER 1 UNLESS OTHERWISE AUTHORIZED BY THE OWNER EXCEPT THAT CONTRACTOR MAY PERFORM SEEDING OPERATIONS FROM JUNE 1 TO SEPTEMBER 1 PROVIDED THAT HE WATERS THE NEW GRASS TO THE SATISFACTION OF THE OWNER.

WHEN DELAYS IN OPERATIONS CARRY THE WORK BEYOND THE MOST FAVORABLE PLANTING SEASON, OR WHEN WEATHER CONDITIONS ARE SUCH THAT SATISFACTORY RESULTS ARE NOT LIKELY TO BE OBTAINED FOR ANY STAGE OF THE SEEDING OPERATIONS, THE CONTRACTOR WILL STOP THE WORK AND IT SHALL BE RESUMED ONLY WHEN THE DESIRED RESULTS ARE LIKELY TO BE OBTAINED. IF OPERATIONS EXTEND PAST OCTOBER 1 ALTERNATE HAY PLACEMENT AND SPRING SEEDING SHALL BE SUBSTITUTED.

THE CONTRACTOR SHALL PROTECT ALL SEEDED AREAS FROM EROSION UNTIL FINAL INSPECTION AND ACCEPTANCE HAS BEEN MADE. AREAS DAMAGED BY EROSION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.

ALL DISTURBED AREAS WITH SLOPES LESS THAN 3:1 THAT HAVE BEEN GRADED AND COMPACTED SHALL BE SEEDED PRIOR TO OCTOBER 1, WITH THE SAME SEED AND FERTILIZER MIX AS USED IN HYDROSEEDING AND SPREAD EVENLY OVER THE SITE.

ALL DISTURBED AREAS NOT GRADED AND COMPACTED PRIOR TO OCTOBER 1, SHALL BE SEEDED WITH 200 LBS PER ACRE OF HIGHWAY MIX AND SPREAD WITH A HAY MULCH LAYER 1/4" TO 1/2" THICK.

EROSION CONTROL PROTECTION SHALL BE CONSIDERED COMPLETE AND SUCCESSFUL WHEN A GRASS MAT HAS BEEN ESTABLISHED.

ADDITIONAL TEMPORARY EROSION CONTROL (DURING CONSTRUCTION)

HAY BALES WILL BE PLACED AT THE TOP OF ALL MAJOR FILL SLOPES WHEN NECESSARY, TO PREVENT SILT FORM WASHING INTO EXISTING DRAINAGE WAYS. (SILTATION BARRIER).

TEMPORARY DITCHES WILL BE CONSTRUCTED AS NECESSARY TO ASSURE DRAINAGE IS CHANNELED TO THE FACILITIES BEING PROVIDED.

IF CONSTRUCTION TAKES PLACE DURING RAINY SEASON, HAY BALES AND "MIRAFI" 140 S FABRIC WILL BE REQUIRED AT ALL STORM DRAINAGE INLETS UNTIL ROCKING OF STRETCH IS COMPLETED AND DISTURBED SLOPES STABILIZED BY HYDROSEEDING.

SEDIMENT FENCES

THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND BOTH ENDS SECURELY FASTENED TO THE POST.

THE FILTER FABRIC FENCE SHALL BE INSTALLED TO FOLLOW THE CONTOURS WHERE FEASIBLE. THE FENCE POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 30 INCHES.

A TRENCH SHALL BE EXCAVATED, ROUGHLY 8 INCHES WIDE BY 12 INCHES DEEP, UPSLOPE AND ADJACENT TO THE WOOD POST TO ALLOW THE FILTER FABRIC TO BE BURIED.

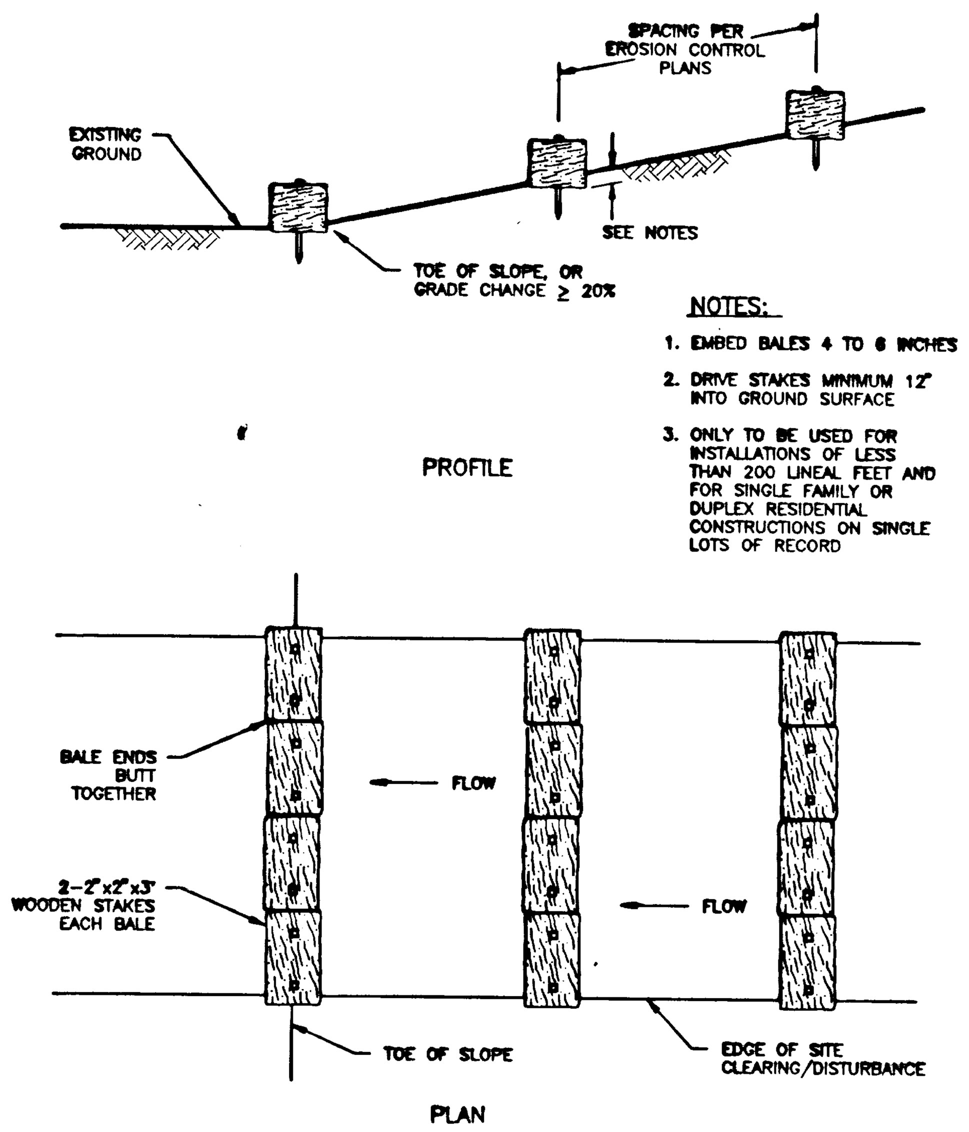
WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRE OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 4 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.

THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 20 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 30 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.

WHEN EXTRA-STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STALED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF THE ABOVE STANDARD NOTE FOR STANDARD STRENGTH FILTER FABRIC APPLYING.

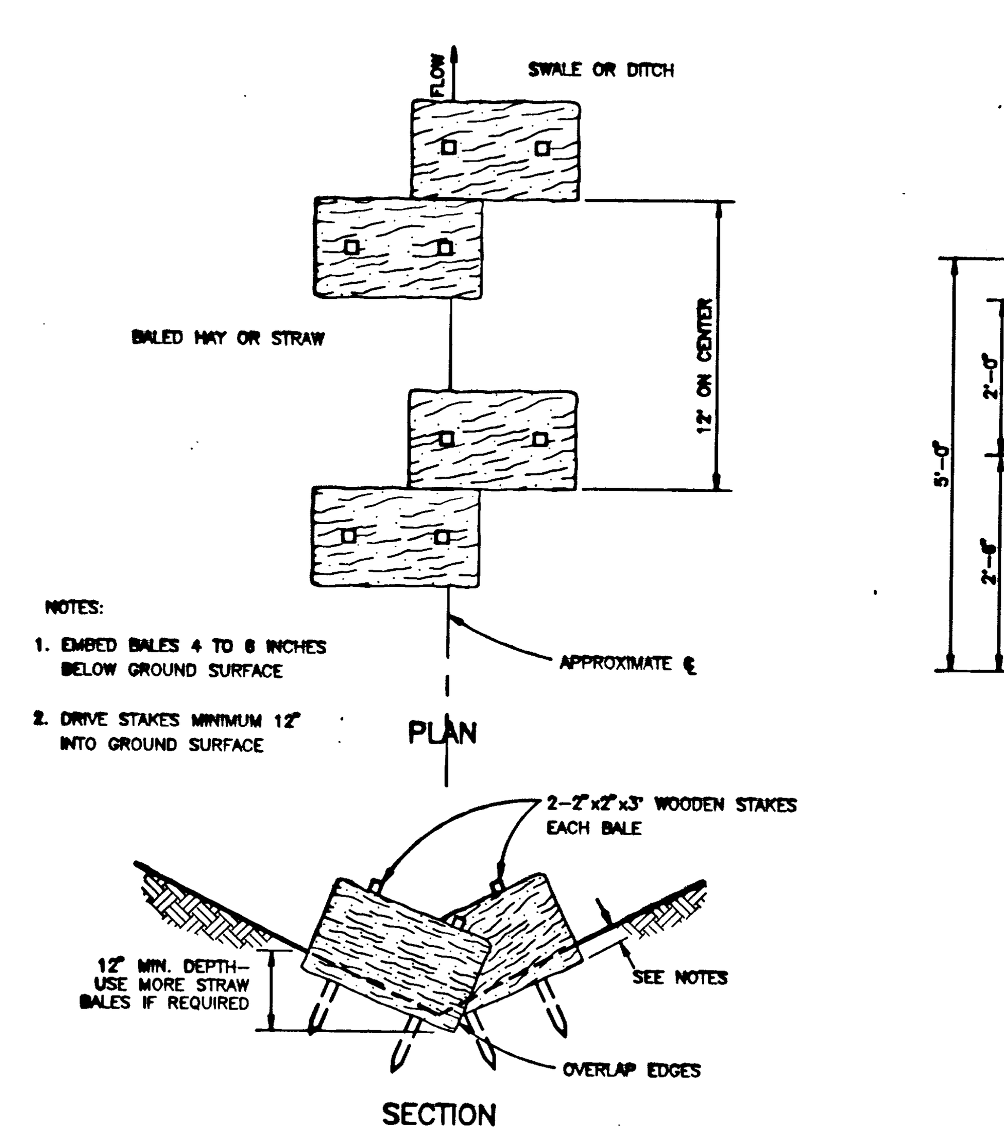
SEDIMENT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

SEDIMENT FENCES SHALL BE INSPECTED BY APPLICANT/CONTRACTOR IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.



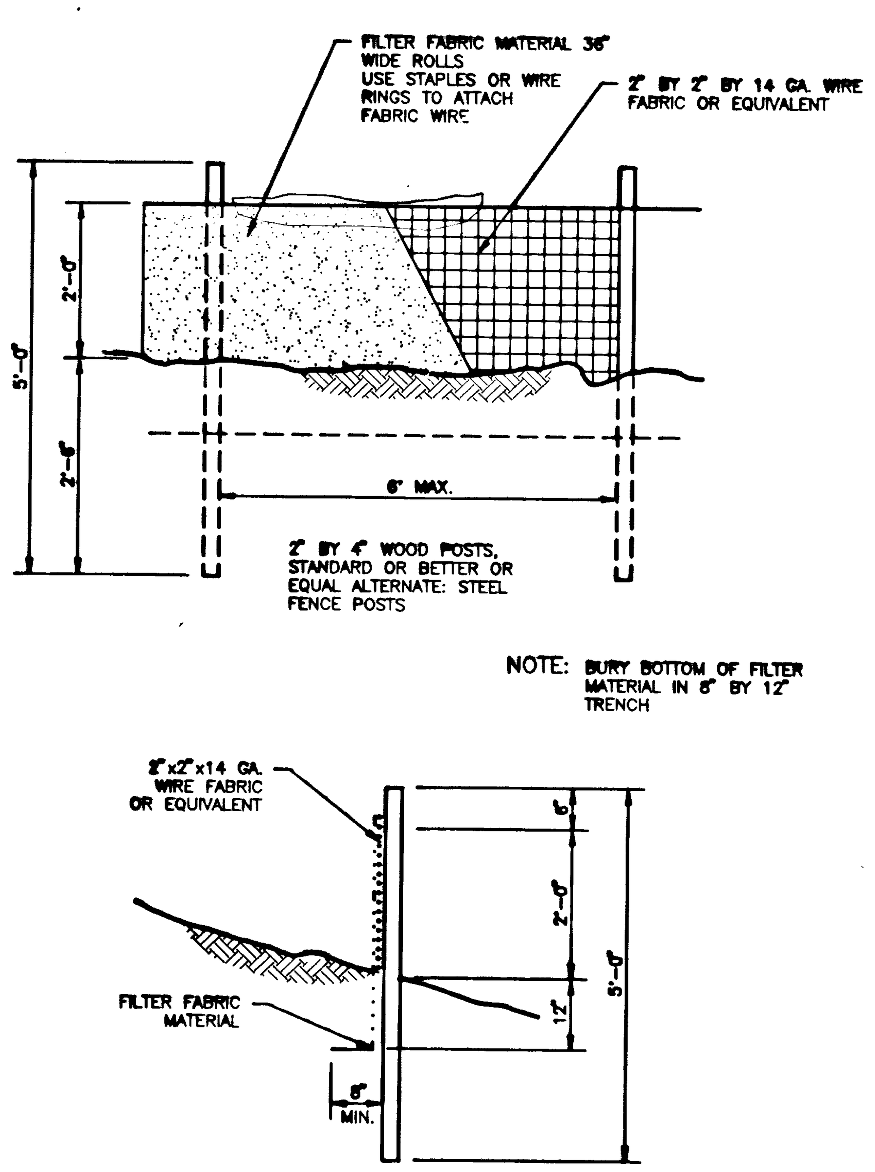
Straw Bale Sediment Barriers Along Slopes

STRAW BALE SEDIMENT BARRIER

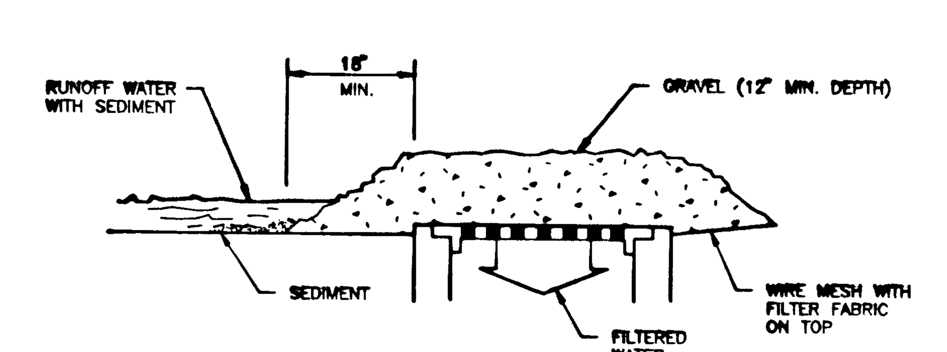


STRAW BALE SEDIMENT BARRIER IN DITCHES OR SWALES

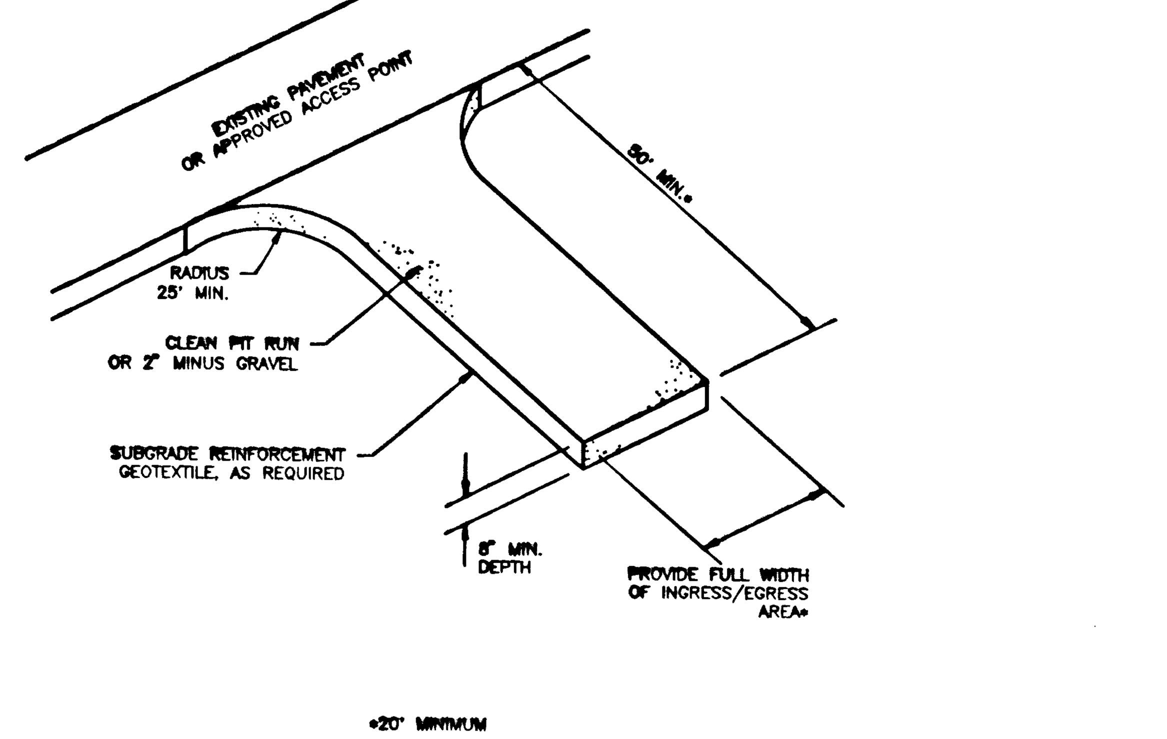
STRAW BALE SEDIMENT BARRIER



SEDIMENT FENCE



GRAVEL & WIRE MESH INLET BARRIER



GRAVEL CONSTRUCTION ENTRANCE
(TO BE CONSTRUCTED AT TEMPORARY ACCESSES)

AS BUILT
BY: D. Singer DATE: 4-27-93

18-08-1992
S10

J.SWAIN — Designed	8/18/92 — Date
J.SWAIN — Drawn	8/18/92 — Date
R.YANO — Checked	8/18/92 — Date

REVISIONS

REGISTERED PROFESSIONAL ENGINEER 14500
Richard D. Yano
OREGON
JULY 26, 1988
RICHARD D. YANO

EROSION CONTROL
DETAILS & NOTES

CASCADE SUMMIT
OFFSITE IMPROVEMENTS
CITY OF WEST LINN

KOSS
BROD
GOODRICH
AND
ASSOCIATES, INC.
19363 WILLAMETTE DR #509
WEST LINN, OR. 97068
(503)721-1010

otak
Incorporated
engineers planners landscape architects surveyors

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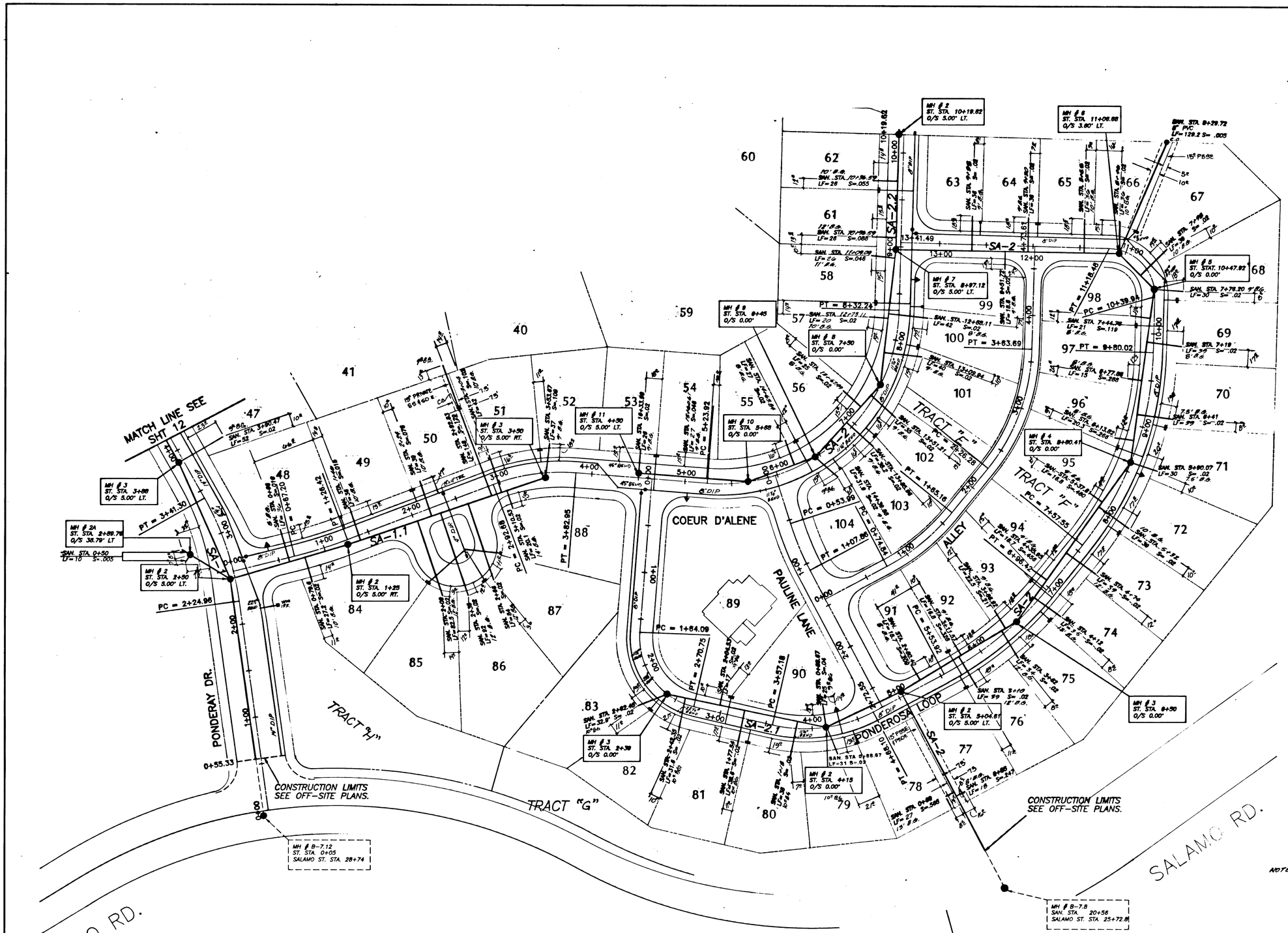
Project No. 3888



NOTE: B.G. = BELOW GROUND

NOTES:

1. ALL MANHOLES OUTSIDE OF STREET SHALL HAVE A WATERTIGHT FRAME AND COVER.
2. WATER METER SIZES SHALL BE 1" SINGLE SERVICES.
3. TRACER WIRE SHALL BE PLACED ALONG SEWER FORCE MAIN.
4. ALL SANITARY LATERALS TO BE EXTENDED 5' PASSED RIGHT-OF-WAY.

10-07-1992
STI

AS BUILT
BY: D.Singer DATE: 4-27-93

D.ROSS	7/10/92
Designed	Date
R.HEIDEN	7/10/92
Drawn	Date
D.ROSS	7/10/92
Checked	Date

REVISIONS

1. ADDED MH#2A, SA-1 AND STUB FROM MH#6, SA-2; EXTENDED ALL LATERALS 5' INTO PROP. 9/3/92

REGISTERED PROFESSIONAL ENGINEER 15111 OREGON JULY 29, 1980 DALE C. ROSS
9/3/92

SANITARY & WATER
WEST SIDE

CASCADE SUMMIT RESIDENTIAL SUBDIVISION
CITY OF WEST LINN

KOSS BROD GOODRICH AND ASSOCIATES, INC.
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otak Incorporated

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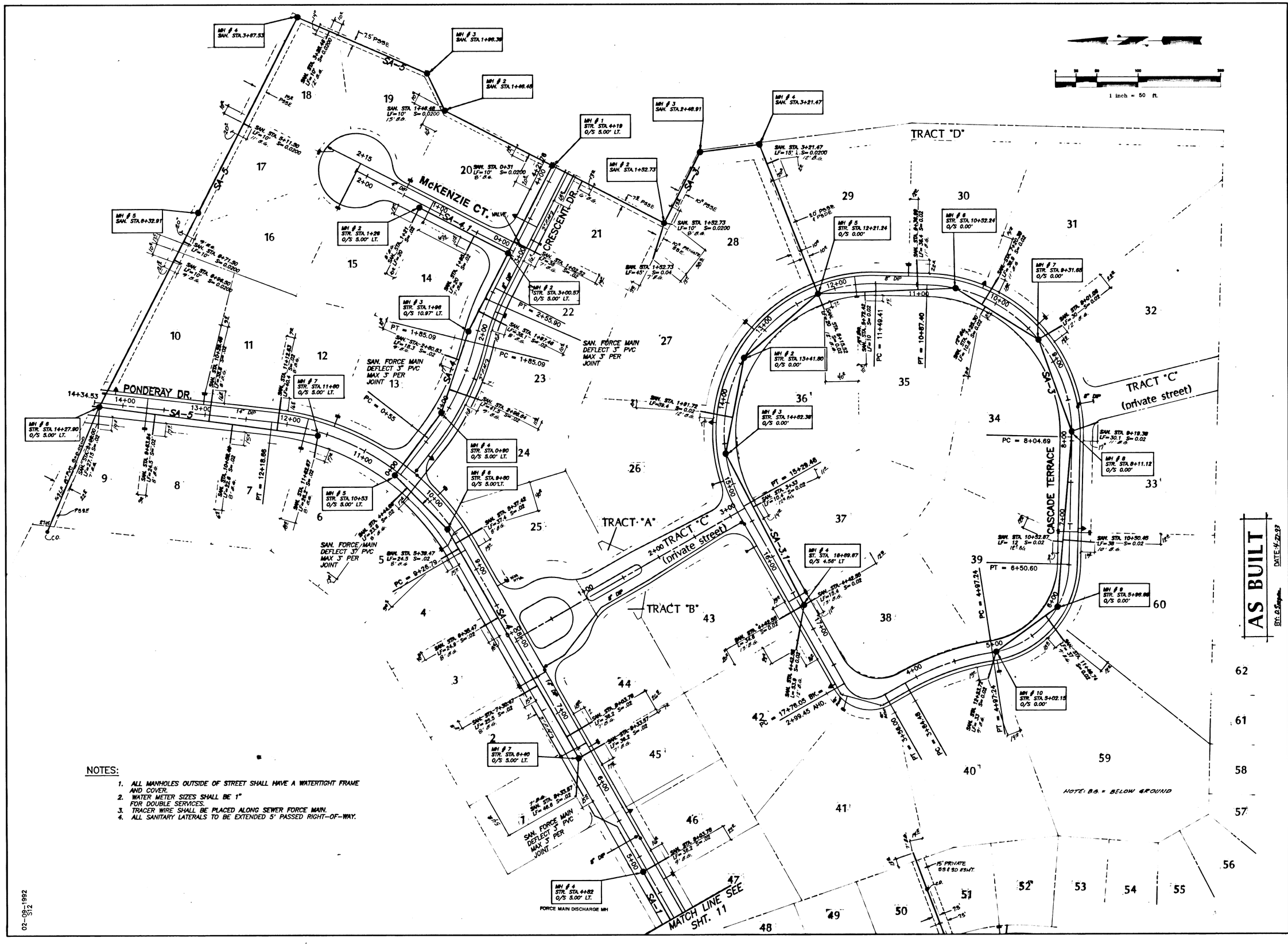
Project No. 3888



NOTES:

1. ALL MANHOLES OUTSIDE OF STREET SHALL HAVE A WATERTIGHT FRAME AND COVER.
2. WATER METER SIZES SHALL BE 1" FOR DOUBLE SERVICES.
3. TRACER WIRE SHALL BE PLACED ALONG SEWER FORCE MAIN.
4. ALL SANITARY LATERALS TO BE EXTENDED 5' PASSED RIGHT-OF-WAY.

02-09-1992
S12

D.ROSS 7/10/92
Designed Date
R.HEIDEN 7/10/92
Drawn Date
D.ROSS 7/10/92
Checked Date

REVISIONS

1. REVISED M.H. LOCATIONS 4,5,&6 SA-5 (8/31/92)
2. ALL LATERAL LENGTHS (9/2/92)
3. REVISED PER CASCADE TERRACE ENTRANCE RELOCATION (10/5/92)

REGISTERED PROFESSIONAL ENGINEER 15111 OREGON JULY 25, 1990 DALE C. ROSS
10/07/92

SANITARY & WATER
EAST SIDE

CASCADE SUMMIT
RESIDENTIAL SUBDIVISION
CITY OF WEST LINN

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101 E. 8th Street, Vancouver, WA 98660 (206) 695-9507
25 Central Way, # 300 Kirkland, WA 98033 (206) 822-4446

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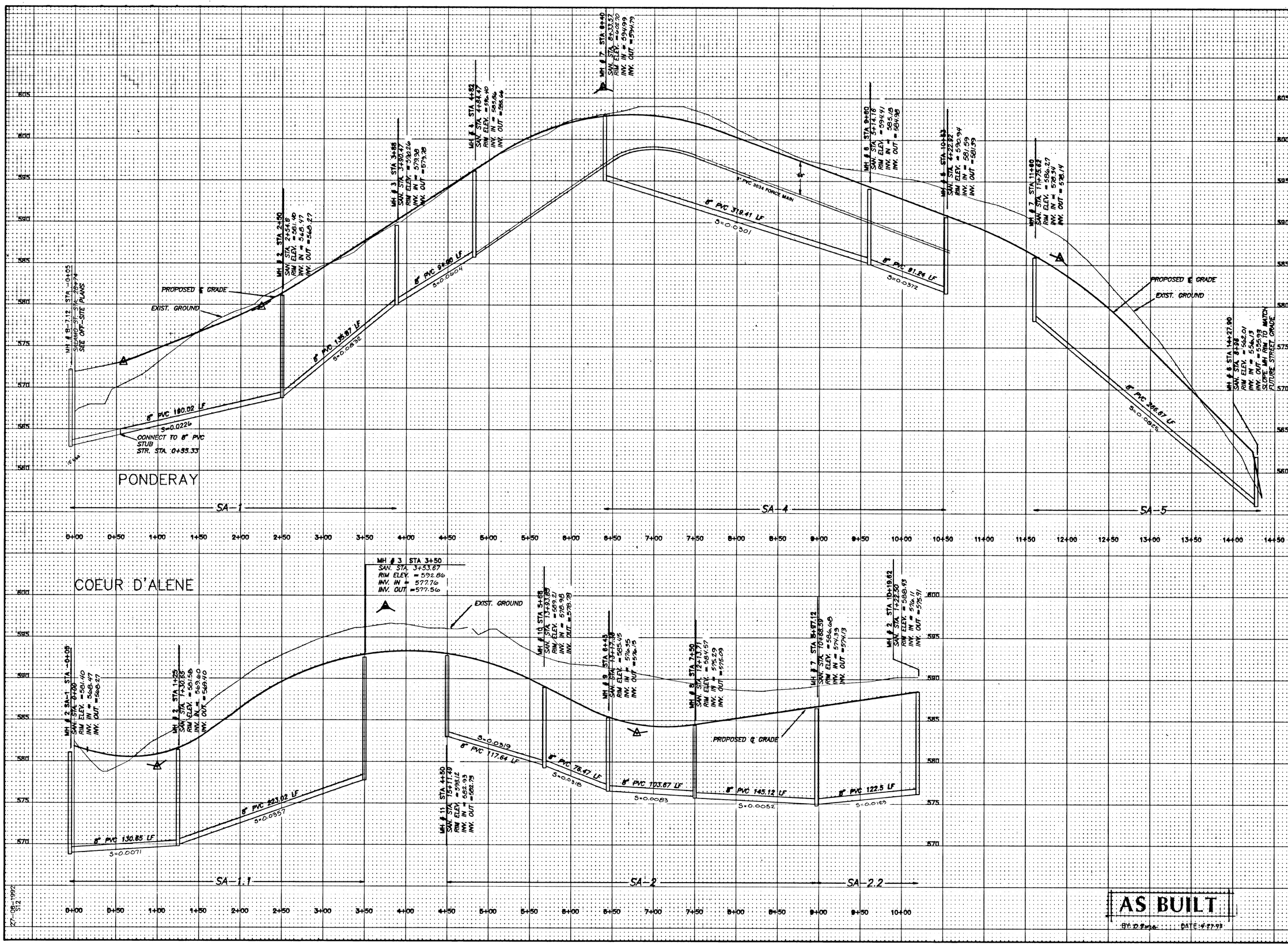

ROSS.SWAIN	7/10/92
Designed	Date
J.SWAIN	7/10/92
Drawn	Date
D.ROSS	7/10/92
Checked	Date

REVISIONS

1. REVISED SA-4, AND SA-5 (8/31/92)
2. SA-1, SA-2, AND SA-2.2 (9/2/92)

REGISTERED PROFESSIONAL ENGINEER 15111 OREGON JULY 25, 1990 DALE C. ROSS

9/4/92

SANITARY PROFILES

CASCADE SUMMIT RESIDENTIAL SUBDIVISION

CITY OF WEST LINN

KOSS BROD GOODRICH AND ASSOCIATES, INC.
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25 Central Way, # 300 Kirkland, WA 98033 (206)822-4446

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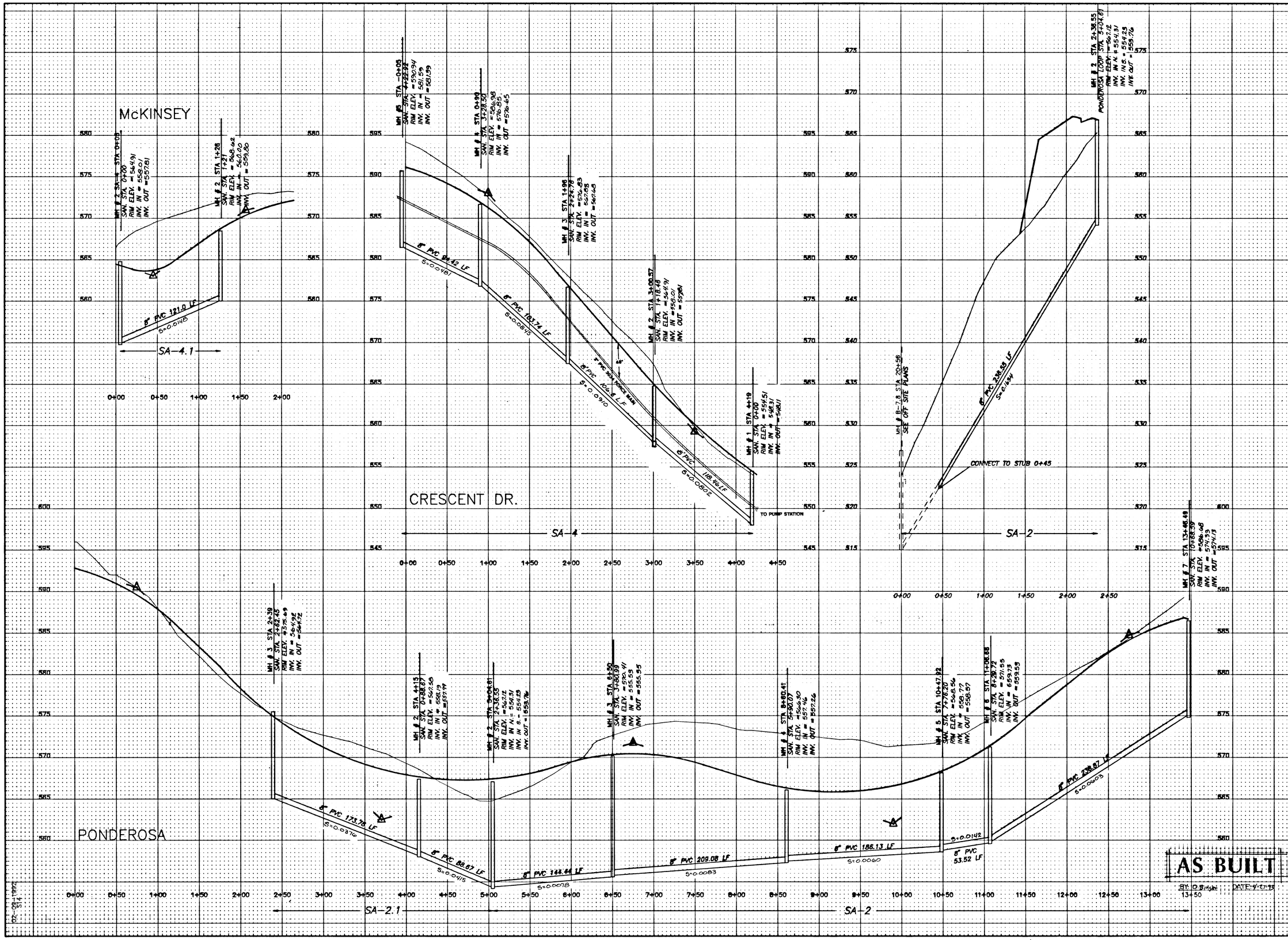

ROSS.SWAIN	Designed	7/10/92 Date
J.SWAIN	Drawn	7/10/92 Date
D.ROSS	Checked	7/10/92 Date

REVISIONS

1. REVISED SA-4,SA-4.1 STREET PROFILES McKINSEY AND CRESCENT (8/31/92)
2. STREET PROFILES PONDEROSA, AND SA-2, SA-2.1 (9/2/92)

REGISTERED PROFESSIONAL ENGINEER 15111 OREGON JULY 23, 1980 DALE C. ROSS

9/1/92

SANITARY PROFILES

CASCADE SUMMIT RESIDENTIAL SUBDIVISION CITY OF WEST LINN

KOSS BROD GOODRICH AND ASSOCIATES, INC.
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20 Central Way, # 300 Kirkland, WA 98033 (206) 822-4446

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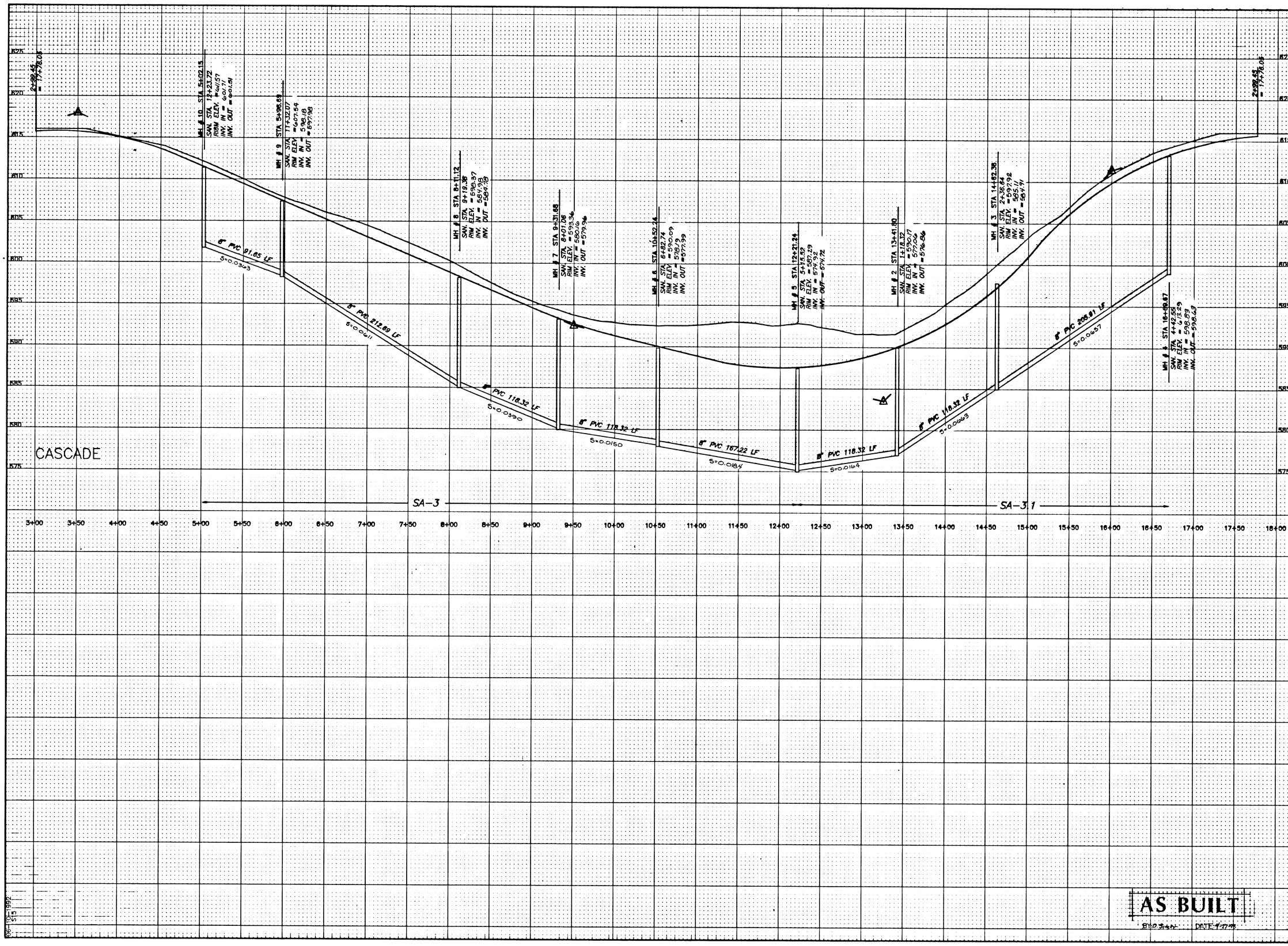

AS BUILT

BY: D.S. DATE: 4-27-93

ROSS, SWAIN	7/10/92
Designed	Date
J. SWAIN	7/10/92
Drawn	Date
D. ROSS	7/10/92
Checked	Date

REVISIONS

1. REVISED M.H. RIMS (8/31/92)
2. STREET PROFILE MH #4 RIM SA-3.1 (10/2/92)

REGISTERED PROFESSIONAL ENGINEER 15111 OREGON JULY 25, 1980 DALE C. ROSS

10/07/92

CASCADE TERRACE
SANITARY PROFILE

CASCADE SUMMIT RESIDENTIAL SUBDIVISION
CITY OF WEST LINN

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101 E. 8th Street, Vancouver, WA 98660 (206) 695-6057
25 Central Way, # 300 Kirkland, WA 98033 (206) 822-4446

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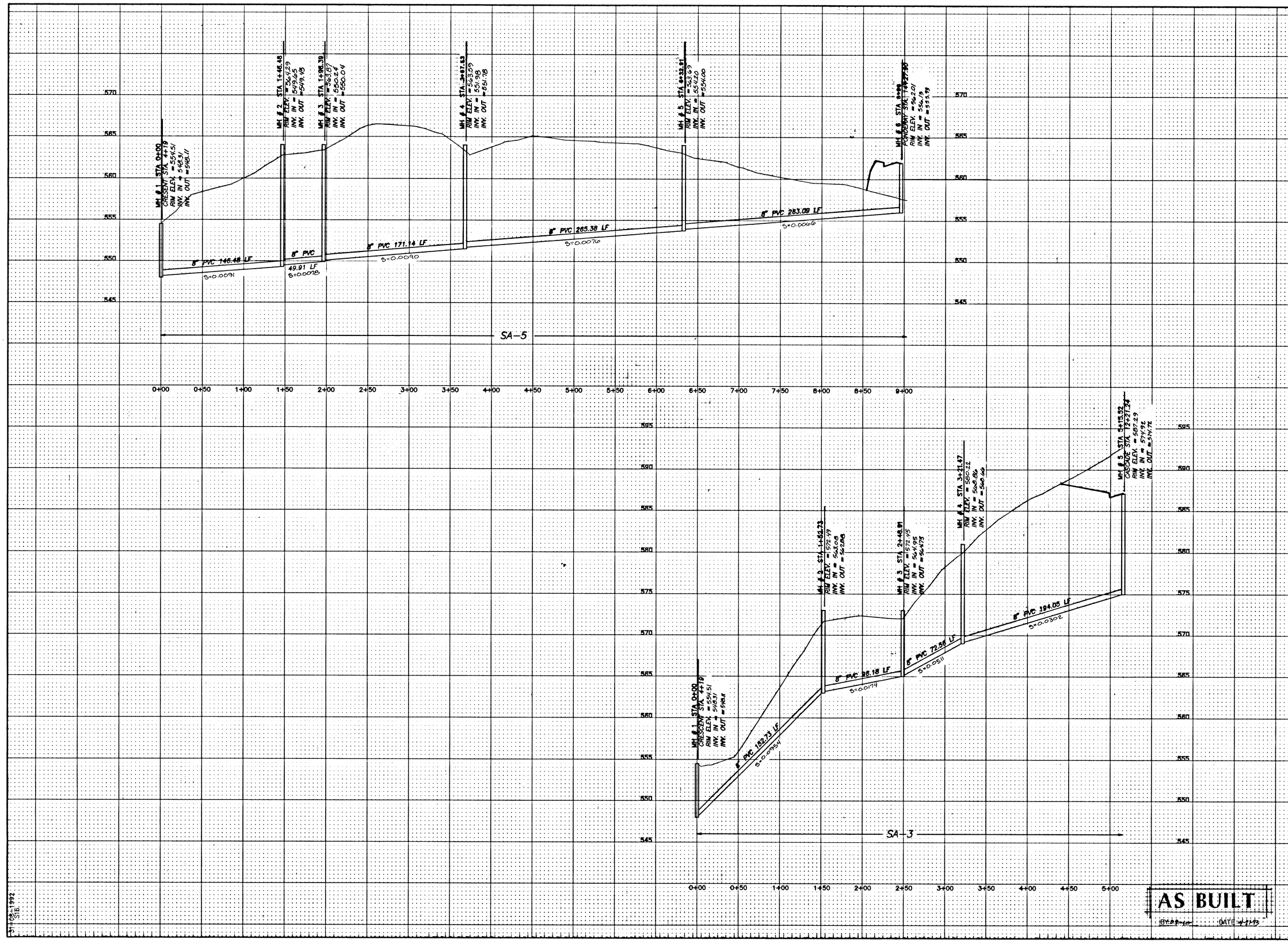
Project No. 3888



ROSS.SWAIN Designed	7/10/92 Date
J.SWAIN Drawn	7/10/92 Date
D.ROSS Checked	7/10/92 Date

REVISIONS
1. REVISED M.H. LOCATION
4,5,& 6 SA-5
5 RIM SA-3 (8/31/92)

REGISTERED PROFESSIONAL ENGINEER 15111 OREGON JULY 29, 1980 DALE C. ROSS
8/31/92

OFF STREET SANITARY PROFILES

CASCADE SUMMIT RESIDENTIAL SUBDIVISION
CITY OF WEST LINN

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101 E. 8th Street, Vancouver, WA 98660 (206) 993-8337
25 Central Way, # 305 Kirkland, WA 98033 (206) 822-4446

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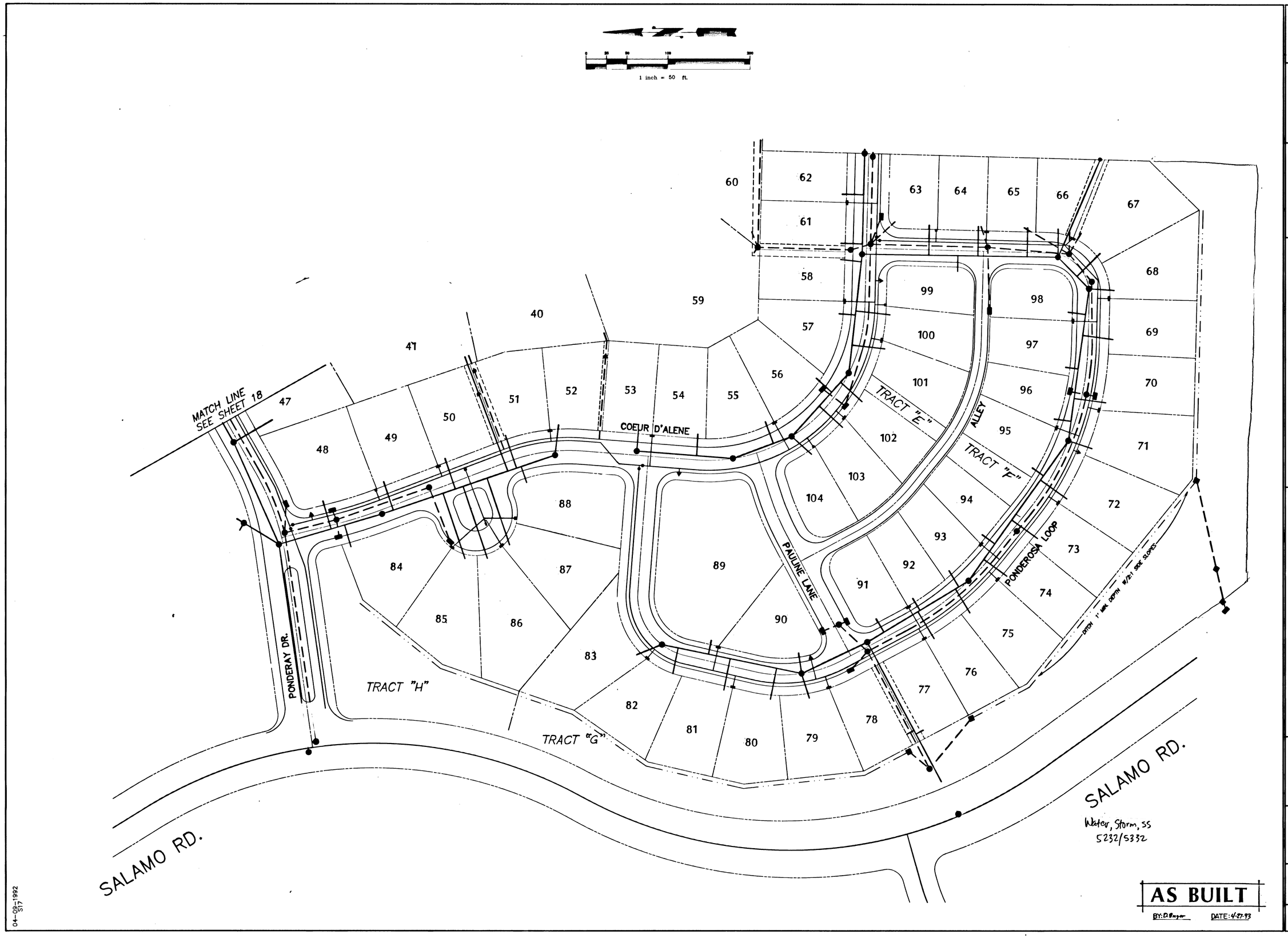
3888
Project No.

31-08-1992
STG.



YANO/HANSEN	8/21/92
Designed	Date
J. HANSEN	8/21/92
Drawn	Date
R. YANO	8/21/92
Checked	Date

REVISIONS

1. REVISED SANITARY, AND STORM (9/2/92)

REGISTERED PROFESSIONAL ENGINEER 15111 OREGON JULY 25, 1990 DALE C. ROSS

9/7/92

COMPOSITE UTILITY PLAN

CASCADE SUMMIT RESIDENTIAL SUBDIVISION
CITY OF WEST LINN

KOSS BROD GOODRICH AND ASSOCIATES, INC.
19363 WILLAMETTE DR #509
WEST LINN, OR. 97068
(503)721-1010

otak incorporated

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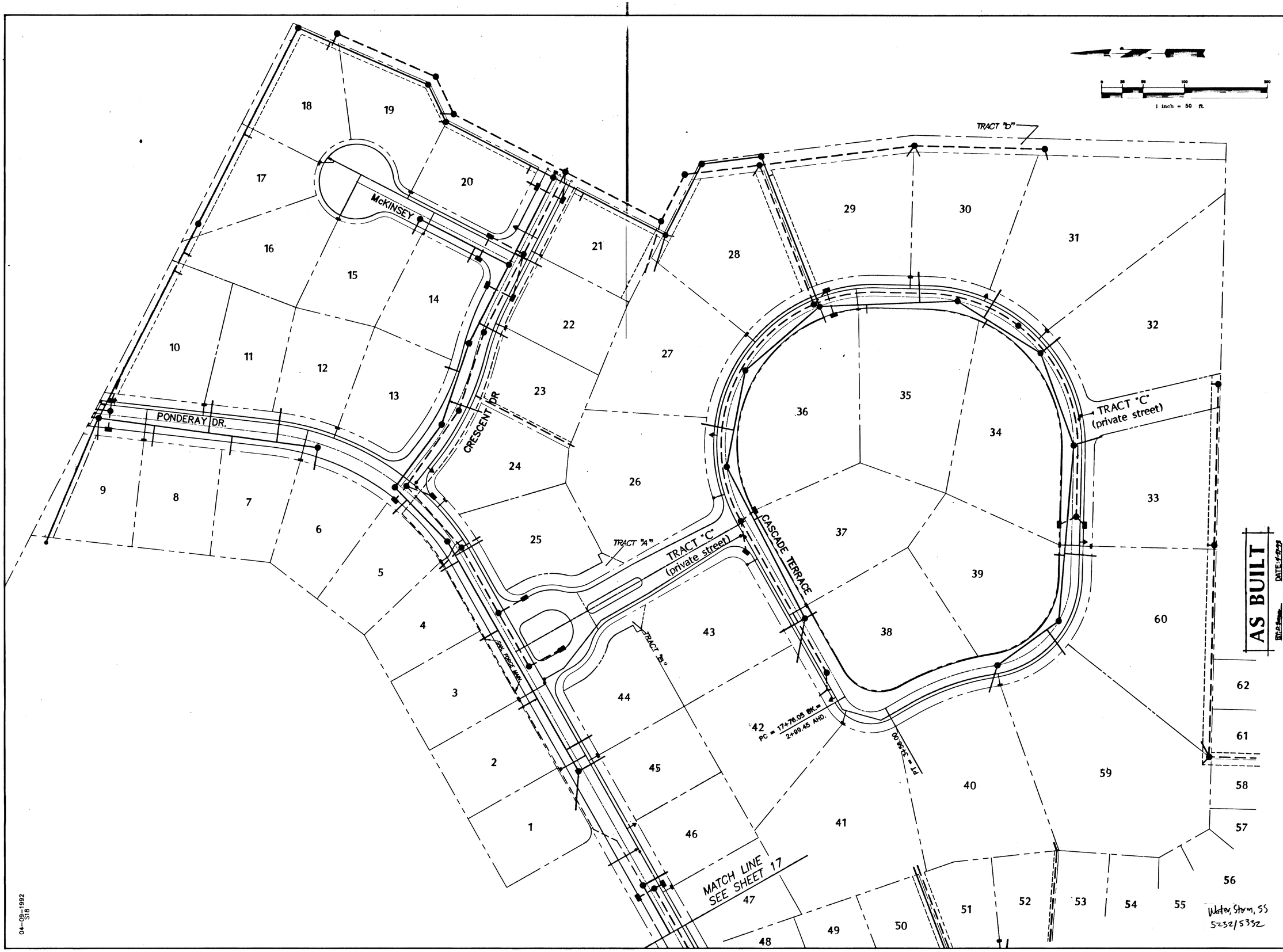
3888

Project No.

04-09-1992
S17



YANO/HANSEN	8/21/92
Designed	Date
J.HANSEN	8/21/92
Drawn	Date
J.HANSEN	8/21/92
Checked	Date

REVISIONS

1. REVISED SANITARY, AND STORM (9/2/92)

REGISTERED PROFESSIONAL ENGINEER 15111 OREGON JULY 25, 1990 DALE C. ROSS

10/07/92

COMPOSITE UTILITY PLAN

CASCADE SUMMIT RESIDENTIAL SUBDIVISION
CITY OF WEST LINN

KOSS BROD GOODRICH AND ASSOCIATES, INC.
19363 WILLAMETTE DR #509
WEST LINN, OR. 97068
(503)721-1010

otak Incorporated

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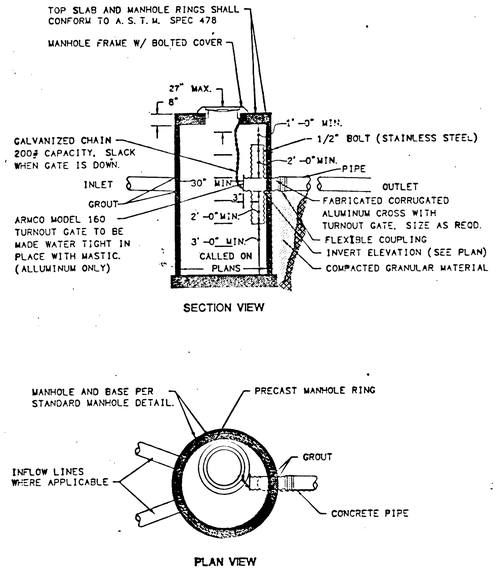
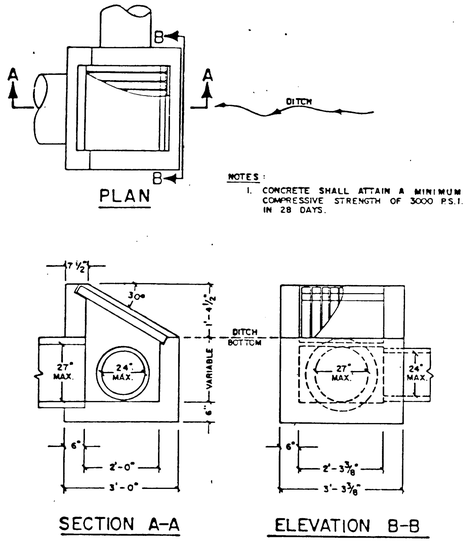
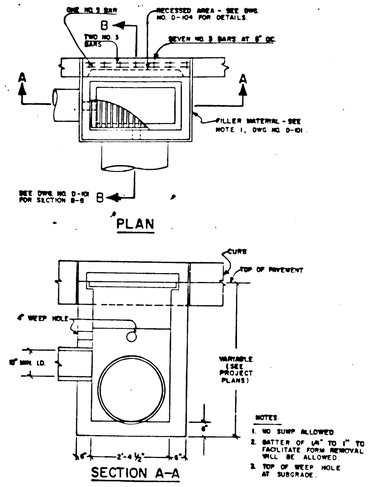
3888
Project No.



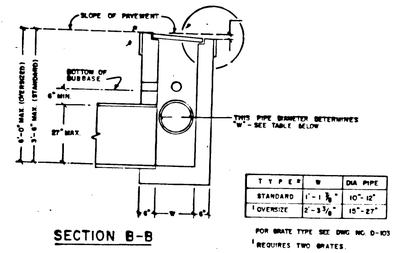
WATER QUALITY CONTROL MANHOLE



AREA DRAIN (RAISED)



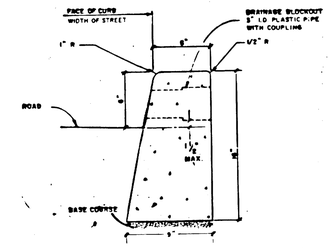
NOTES:
1. 3/4" PREFORMED JOINT FILLER MATERIAL TO BE USED AS SPECIFIED BY ENGINEER ONLY IN CONC PAVEMENT OR GUTTER, AND TO EXTEND THROUGH THICKNESS OF CONCRETE.
2. CONST. CATCH BASIN PER DETAIL, BUT WITH DIMENSION "W" TO ACCOMMODATE LARGEST PIPE DIA SPECIFIED.
3. CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI IN 28 DAYS
4. IF APPROVED BY ENGINEER, WALLS MAY BE POURED AGAINST UNDISTURBED EARTH, EXCEPT FOR THE TOP 8", WHICH SHALL BE FORMED.
5. BACKFILL SHALL BE COMPACTED TO 95% DENSITY THROUGHOUT.
6. OVERSIZE CATCH BASINS - STEPS ARE REQUIRED FOR DEPTH GREATER THAN 4 FEET. INSTALL 2 FT. FROM TOP TO WITHIN 1 FT. OF BOTTOM.



TYPE	W	DIA PIPE
STANDARD	1'-1 3/8"	10"-12"
[1] OVERSIZE	2'-3 3/8"	15"-27"

FOR GRATE TYPE SEE DWG NO. D-103

[1] REQUIRES TWO GRATES.

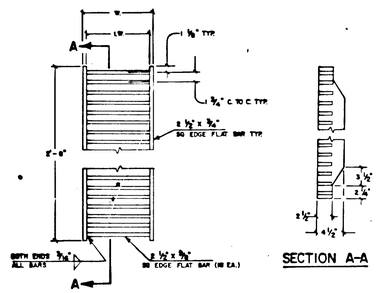


1. FOR DESIGN SPEEDS GREATER THAN 40 MPH THE EMERGENCY MOUNTABLE CURB CS-300 SHALL BE USED
2. CONCRETE TO HAVE A BREAKING STRENGTH OF 3000 PSI AFTER 28 DAYS

EXPANSION JOINTS
A. TO BE PROVIDED
1) AT EACH POINT OF TANGENCY OF THE CURB
2) AT EACH COLD JOINT
3) AT EACH SIDE OF INLET STRUCTURES.
4) AT EACH END OF DRIVEWAYS
5) AT LOCATIONS NECESSARY TO LIMIT SPACING TO 45 FEET
B. MATERIAL TO BE PRE-MOLDED, ASPHALT IMPREGNATED, NON-EXTRUDING, WITH A THICKNESS OF 1/2 INCH

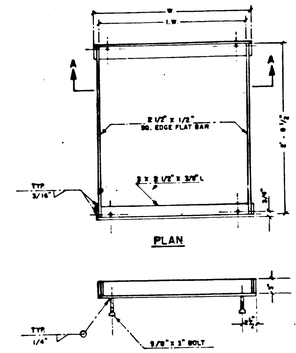
3. CONTRACTION JOINTS
A. SPACING TO BE NOT MORE THAN 8 FEET
B. THE DEPTH OF THE JOINT SHALL BE AT LEAST 1 1/2 INCHES.
4. BASE ROCK - 2"-0 OR 3/4"-0, 95% COMPACTION. BASE ROCK SHALL BE TO SUBGRADE OF STREET STRUCTURE OR 4" IN DEPTH, WHICHEVER IS GREATER
5. DRAINAGE BLOCKOUT - 3" DIA. PLASTIC PIPE
A. I.D. PLASTIC PIPE WITH COUPLING.
B. DRAINAGE ACCESS THROUGH EXISTING CURBS SHALL BE CORE DRILLED OR CURB SAW CUT VERTICALLY 18" EACH SIDE OF DRAIN & REPOURED TO FULL DEPTH OF CURB.

TYPE "C" CURB



TYPE	W	I.W
STANDARD	1'-1 3/8"	1'-0"
[1] OVERSIZE	1'-1 3/8"	1'-0"

[1] REQUIRES 2 GRATES.



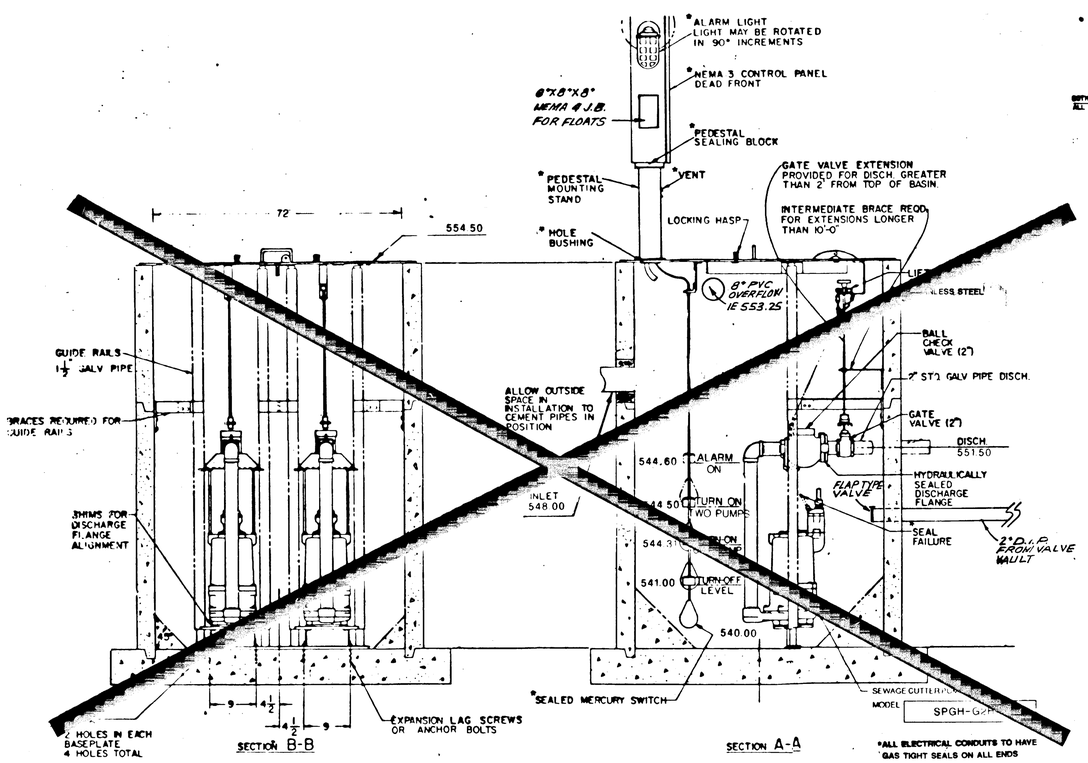
TYPE	DIA. PIPE	W	I.W
STANDARD	10"-12"	1'-3 1/4"	1'-1 7/8"
[1] OVERSIZE	15"-27"	2'-4 3/4"	2'-3 3/8"

[1] REQUIRES TWO GRATES

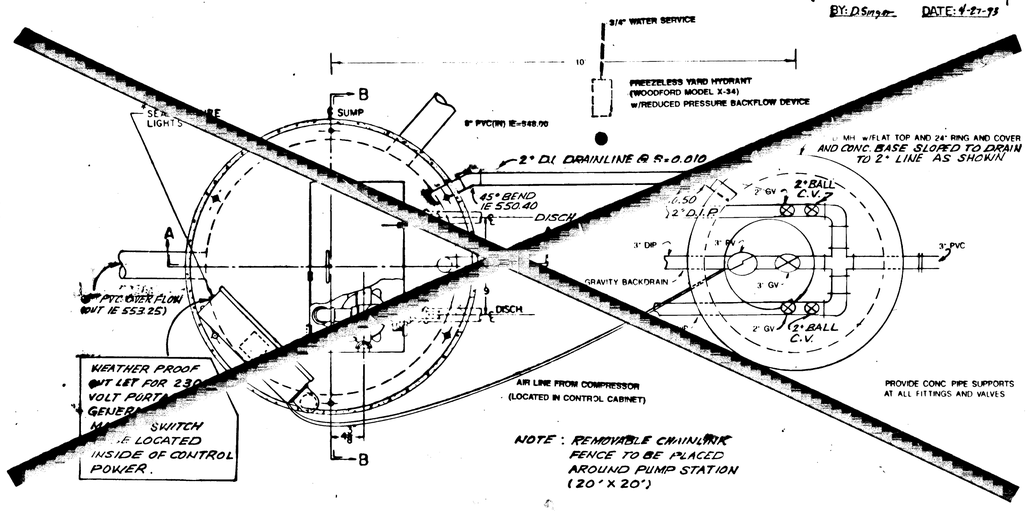
STANDARD CATCH BASIN

Pump Station and Force Main
Design Criteria

Force Main Length	886 L.F.
Force Main Diameter	3" PVC 8034
Overflow Point	At Wetwell to Ex. Ditch
Storage Volume to Overflow	2800 Gal. (4 Hr. @ 11.7 gpm ADF)
Sulfide Control	Continuously ascending force main with backdrain to wetwell
Discharge Manhole	MH-4, SA-1 Pondera Drive Sta. 4+82
Alarm Type	Light with auto dialer to the City of West Linn through dedicated line
Alarm Response Time	240 Minutes (maximum)
Power Supply	Electrical through PGE: 230V, 3 O
Pump Type (each)	Hydromatic submersible grinder model G2H X 500, 5 H.P. 86 gpm @ 90 FT TDH 230 V, 60 Hz, 3 O, 3450 rpm
Standby Power	Outlet with manual switch for 230 volt portable generator
Pump Station	Hydromatic duplex in concrete sump



Installation Drawing
DUPLEX IN CONCRETE SUMP



AS BUILT
BY: D Singer DATE: 4-27-93

R. YANO 7/10/92 Designed Date
S. DIXON 7/10/92 Drawn Date
R. YANO 7/10/92 Checked Date

REVISIONS

REGISTERED PROFESSIONAL ENGINEER 14500 OREGON JULY 28, 1989 RICHARD D. YANO

DETAILS

CASCADE SUMMIT
RESIDENTIAL SUBDIVISION
CITY OF WEST LINN

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Sheet No.

3888
Project No.