

# KATHERINE VIEW ESTATES

FILE NO. SUB-97-06/ZC-97-05/VARs - 97-11,97-12,97-13,97-16

DEVELOPED BY

**OREGON DEVELOPMENT, INC**

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JUNE 1998

**SISUL ENGINEERING**

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MOST RECENT REVISION TO  
THIS SET OF PLANS:

10-20-99

**AS BUILTS**

**General Notes:**

- The Design Engineer will be responsible for inspection of the proposed improvements with oversight from the City's Public Works and Engineering staff.
- A work schedule will be required from the contractor so that the Engineer can have an inspector onsite at the appropriate times. If the work schedule is revised the contractor is to notify the Engineer of the changes. Additionally, the contractor is to give the Engineer at least 24 hours notice of any testing requiring the presence of the Engineer and/or City staff.
- The contractor is to receive the approval of the Engineer of any proposed changes to the plans or standard requirements.
- A Building Department Plumbing Permit is required for utilities beyond the first cleanout or meter on private property.
- A Public Improvement Guarantee Agreement, a pre-construction meeting with the City of West Linn, and installation of erosion control measures are required prior to beginning construction.
- Prior to site clearing, construction "snow" fencing shall be placed around trees to be preserved 10 feet beyond the dripline of the trees and shall remain in place throughout the infrastructure improvements.

West Linn 2-9-98

**Extended Dry Detention Water Quality:**

- Storm drain water quality and detention pond shall be seeded with the following seed mixture:
  - 40% Agrostis alba (Redtop)
  - 25% Alopecurus pratensis (Meadow Foxtail)
  - 20% Lolium perenne (perennial Ryegrass)
  - 15% Phleum pratense (Timothy)
- Application rates should be per the supplier's recommendations, or at the following weight per 1000 square foot basis:
  - Hydroseeding:
    - 5 lbs seed mix
    - 7 lbs 10-20-20 (N-P-K) fertilizer
    - 50 lbs wood cellulose fiber mulch
  - Broadcast Seeding:
    - 5 lbs seed mix
    - 7 lbs 10-20-20 (N-P-K) fertilizer
    - 70 lbs wood cellulose fiber mulch

West Linn 8-10-98

- Pond bottom should be mowed and cleaned of debris in the spring of each year, as soon as practical after the start of the growing season (March 1st), but no later than May 1st.
- Sediment in the pond should be removed if accumulations exceeding 2" are in evidence, or every two years.
- Sediment accumulations in the inlet/outlet structures shall be removed biannually by the City of West Linn Public Works personnel.
- A six-foot high matte black chain link fence shall be installed around the water quality and detention facility.

Katherine View Estates 97-017 09-01-98

**Structural Fill Notes:**

- Besides the structural fill that will be required for construction of street improvements a structural fill is also to be built on lots where noted on the plans to the specifications noted below.
- All miscellaneous materials and the organic layer under the fill area shall be stripped or removed. All stumps in the fill area must be removed in their entirety.
- The contractor shall retain the services of a Geotechnical Engineer and testing lab to inspect and provide testing services and to certify that the structural fill meets the compaction requirements appropriate for home construction and the requirements of the City of West Linn Grading Permit for this project. The contractor must obtain the grading permit prior to beginning work on the project.
- Fill material should be placed in horizontal lifts approximately 10 inches thick (loose) and compacted to at least 95% of the maximum dry density, as determined by ASTM D 698, except as modified by the Geotechnical Engineer. Moisture content of the structural fill shall be controlled to within 2% of the optimum moisture content at the time of compaction, unless modified by the Geotechnical Engineer.
- Inspections by City of West Linn personnel will be required after stripping of topsoil and prior to fill placement, after each lift completed under a roadway and after all fill is completed. To request an inspection, call City of West Linn at least 24 hours in advance.
- At the completion of fill activities a final report to the City of West Linn by the Geotechnical Engineer is required.

West Linn 04-05-98

**Construction Staking Notes:**

- The Developer has contracted with Gaylord Land Surveying (654-1492) to provide construction staking as outlined below. The contractor is to give the Surveyor at least a week notice of when the first construction staking will be needed. After the initial staking on the project, requests for staking should be given at least 3 working days (72 hours) in advance of when staking is desired. When called to the site for staking the Surveyor will stake each phase of the project in a manner that is most efficient for the Surveyor. Additional staking requested by the contractor or restaking required due to the contractor's carelessness will be charged to the contractor. In addition, if survey control monuments (which will be plainly identified) are destroyed by the contractor, the contractor will be charged for the re-establishment of the monuments. Staking to be provided is as follows:
- Sanitary sewer cut stakes at the following stations, 10', 25', 50', 100', and every 100' thereafter, following each manhole.
  - Storm drain cut stakes at the following stations, 10', 25', 50', 100', and every 100' thereafter, following each manhole or catch basin.
  - Rough grade stakes for street coring set on centerline at 50 foot stations. Extra stakes will be provided in cut-de-sacs and street knuckles.
  - Set temporary front corners at water service locations and stake waterline angle points and fire hydrant locations (after street coring).
  - Set curb stakes at 50 foot stations on the tangent and 25 foot stations in the curves.
  - Mark property line locations on curbs for private utilities.

Gaylord 3-9-93

**Utilities:**

- If not noted on the plans utility information and crossing locations will have to be obtained from the utilities.
- Utility contacts are as follows: PGE - Cindy Manselle, 650-1411; TCI Cable - Linda Petersen, 605-4987, U.S. West Communications - Lori Dorney 242-4596, Northwest Natural Gas - Scott Palmer 721-2447.

West Linn 8-10-98

**Water Supply**

- Water mains shall be ductile iron pipe conforming to AWWA C151 Class 52. Pipe is to have cement mortar lining and bituminous seal coat conforming to AWWA C104. Joints are to be push-on joint. Pipe fittings are to be of the same material and class as pipe and of domestic origin.
- Water mains to have a minimum cover of 36".
- Thrust blocks are to be provided at all changes in direction and branches. Thrust blocking concrete strength is to be 2000 psi. See details for thrust block sizing. Pour thrust blocks against undisturbed earth.
- Gate valves shall be a double disc type conforming to AWWA C500. Butterfly valves shall be Class 150 B short body type in conformance with AWWA C504. Valve boxes shall be Rich Model 925 or equal.
- Fire hydrants shall conform to and shall be installed in accordance with APWA Division IV, Section 404. Pumper outlet is to face the direction of access.
- Granular backfill (3/4"-0) is to be compacted to 95% maximum dry density per AASHTO T 99 test method and native material shall be compacted to 85% of in-place dry density of surrounding soil. Backfill under streets shall be in accordance with Class 'B' backfill as indicated on the detail sheet of the plans. Excavation, bedding and backfill shall be in accordance with APWA Division IV, Section 401.
- Service laterals shall be type K. Lateral sizes shall be 1". For double services two 1" water services shall be laid side by side. Corporation stops shall be Ford or approved equal. Curb stop shall be 1" Ford meter stop. Meter boxes shall be equal to Brooks #37. Meter boxes are to be installed 3/4" above finish grade.
- All waterlines will be pressure tested and purification tested before connection to the city water system. Pressure test shall be conducted at 180 psi and shall meet the requirements of APWA, Division IV, Section 402.3.04.
- Disinfection shall conform with APWA Division 4, Section 402.3.05.
- Do not connect new pipe to existing pipe prior to testing. The City of West Linn requires acceptance of new waterline prior to connection to existing water system.
- A plumbing permit from the City of West Linn Building Department is required for service lateral installations beyond the water meter.
- All materials, installation, tests, and chlorination to be in strict accordance with APWA's Standard Specifications for Public Works Construction, the supplemental standards and codes of the City of West Linn, and the Oregon State Health Division Administrative Rules, Chapter 333.

West Linn 8-10-98

**Sanitary Sewer:**

- Pipe shall be PVC sewer pipe conforming to ASTM D-3034-SDR 35. Minimum stiffness shall be 46 psi and joint type shall be elastomeric gasket conforming to ASTM D-3212.
- Manhole base shall be poured in-place concrete base with a minimum compressive strength of 2500 psi or precast. Manhole risers and tops shall be precast sections with minimum compressive strength of 4000 psi. Tops shall be eccentric cones except where insufficient headroom requires flat tops. Inverts shall be constructed so as to provide smooth flow-through characteristics. PVC pipe shall be connected to manhole by means of an elastomeric gasket, an approved waterstop, or flexible sleeve. Cement grout for connecting PVC sewer pipe to manhole will not be permitted.
- All manholes located in easement areas require tamper proof lids. All manhole rims not in pavement area to be set 12 inches above proposed grade.
- Cleanout pipe, fittings, and joints shall be the same specifications as for pipe. Castings are as shown on detail and shall conform to ASTM A48 (Grade 30). Cleanout riser shall match downstream pipe diameter.
- Granular backfill (3/4"-0) is to be compacted to 95% maximum dry density per AASHTO T-99 test method and native material shall be compacted to 85% of in-place dry density of surrounding soil.
- PVC service laterals shall be 4" pipe conforming to the same specifications as the sewer mains. Service laterals shall be installed to a point beyond the line of the sewer or utility easement as shown on the plan. The service lateral shall be plugged with a 4" rubber ring plug, and the location of the lateral's end marked with a 2" x 4" stake painted green.
- Sanitary sewer pipe and appurtenances shall be tested for leakage in accordance with APWA Division III requirements. Leakage tests will include required APWA air pressure test for sewer lines and required APWA vacuum test of manholes. All PVC pipe shall be tested for deflection. Deflection shall be tested with a mandrel equal to 95% of the pipe size being tested. In addition, sewer lines shall be video inspected by the contractor per APWA, Division III, Section 303.3.11. All tests shall be witnessed by the Engineer and the City of West Linn.
- A plumbing permit from the City of West Linn Building Department is required for sanitary sewer laterals beyond the first cleanout.
- All materials, installation, tests, and inspections to be made in strict accordance with City of West Linn's Street/Utility Construction Standards, with APWA's Standard Specifications for Public Works Construction, and with the Uniform Plumbing Code.

West Linn 8-10-98

**Vertical Control:**

Vertical control is based upon City of West Linn benchmark elevation. Brass disk set at the southeast corner of 16th Street and Willamette Falls Drive. Elevation is 216.17 feet.

Katherine View Estates 97-017 06-02-98

**Streets:**

- New street sections are to be cleared of all surface vegetation and other miscellaneous structures or materials. Grub improvement areas to remove all buried vegetative matter and debris to a depth of 8" below subgrade. Properly dispose of all waste material.
- Street subgrade shall conform to APWA Division II, Section 206. Areas to receive fill are to be inspected by City of West Linn personnel prior to placement of the fill. The Contractor shall have fill areas tested for compaction by a certified testing lab in accordance with APWA Division II, Section 206.3.05. Such testing will be at the contractor's expense.
- Aggregate base rock shall conform to the requirements of APWA Division II, Section 207. Base course shall be 1 1/2"-0 crushed rock and leveling course shall be 3/4"-0. City of West Linn requires a proof roll with a loaded 10 yard dump truck of the subgrade prior placement of the rock and again after placement of the base rock and prior to paving. All underground utilities including laterals, services and power or gas conduits will be in place before subgrade proof roll will take place.
- Asphalt concrete shall conform to the requirements of APWA Division II, Section 211. 1 1/2" base lift shall be Class 'B' A.C. and 1 1/2" final lift shall be Class 'C' A.C. as per APWA Division II, Section 211.2.01. The top lift of asphalt concrete shall not be placed prior to receiving permission from the City of West Linn Engineering Department.
- Construct curb and gutter using Class 'A' 3300 psi concrete with maximum 1/2" aggregate size. Contraction joints at 15' maximum on centers. Three inch weepholes are to be installed on all lots uphill or even with the street. Generally weepholes shall be located at the center and lowest edge of curb for each lot. Curb depressions for handicap ramps shall be centered between curb returns at intersections unless otherwise noted on the plans. Contractor shall stamp location of sewer and water crossings with an (S) or a (W).
- All materials, installation, tests, and inspections to be in strict accordance with APWA's Standard Specifications for Public Works Construction and the supplemental standards and specifications of the City of West Linn Street/Utility Design and Construction Standards.
- A street construction encroachment permit or similar permit may be required from the City of West Linn. Construction permit fees or other similar fees or bonding required of the contractor will be the contractor's responsibility to obtain.

West Linn 12-22-97

**Storm Drains:**

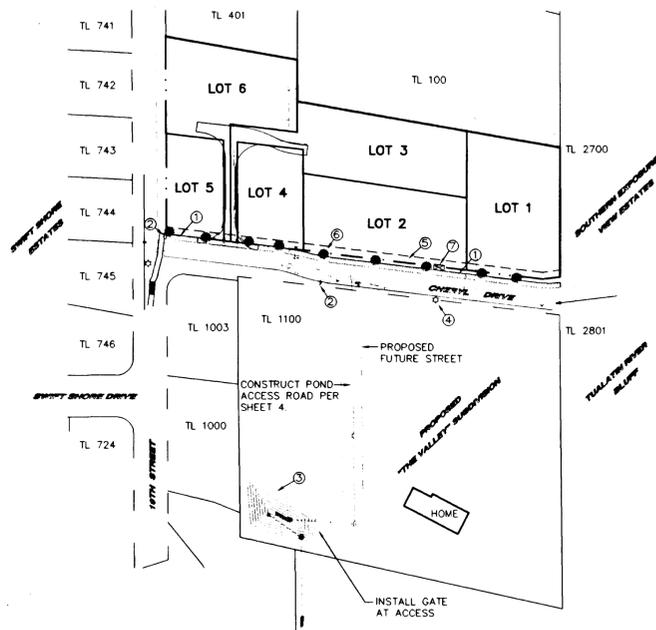
- Ten inch and larger storm drain pipe shall be Class 3, non-reinforced, concrete pipe conforming to ASTM C14, PVC pipe conforming to ASTM D-3034 or seamless PVC pipe conforming to ASTM F794. (PW Rib). Where required, reinforced concrete pipe shall conform to ASTM C-76, Class IV. Rubber joints are required for all concrete pipe. Eight inch and smaller storm drain pipe shall conform to ASTM D-3034 PVC pipe.
- Gutter inlets shall be poured in-place concrete with a minimum compressive strength of 3000 psi. Frame shall be fabricated of structural steel, ASTM A-7, A-36, A-273.
- Manhole base may be poured in-place concrete or precast. Manhole risers and tops shall be precast sections with a minimum compressive strength of 4000 psi. Tops shall be eccentric cones except where insufficient headroom requires flat tops. Some or all of the storm drain manholes required will be oversized manholes. Interior dimensions noted on the plans are minimums. Check with manhole manufacturer for actual size needed for type of pipe to be used.
- All manholes located in easement areas require tamper proof lids. All manhole rims not in pavement area to be set 12 inches above proposed grade.
- Cleanout pipe, fittings, and joints shall be the same specifications as for pipe. Castings are shown on detail and shall conform to ASTM A48 (Grade 30). Cleanout riser shall match downstream pipe diameter.
- Granular backfill (3/4"-0) is to be compacted to 95% maximum dry density per AASHTO T-99 test method and native material shall be compacted to 85% of in-place dry density of surrounding soil.
- PVC service laterals shall be 4" pipe conforming to the same specifications as the sewer mains. Service laterals shall be installed to a point beyond the line or utility easement as shown on the plan. The service lateral shall be plugged with a 4" rubber ring plug, and the location of the laterals end marked with a 2"x4" stake painted white.
- Riprap where noted on the plans is to be Class 50 in accordance with Oregon State Highway Division specification 714.
- Storm drains shall be tested for deflection with a mandrel equal to 95% of the pipe size being tested. In addition, storm lines shall be video inspected by the contractor per APWA, Division III, Section 303.3.11. All tests shall be witnessed by the Engineer.
- A plumbing permit from the City of West Linn Building Department is required for storm drains beyond the first cleanout.
- All materials, installation, tests, and inspections to be in strict accordance with APWA's Standard Specifications for Public Works Construction and the supplemental standards and specifications of the City of West Linn Street/Utility Design and Construction Standards.

West Linn 8-10-98

**General Grading and Erosion Control**

- Clean waste material excavated from road cut or trenching areas not used in street fill areas may be spread evenly across lot areas in depths of less than one foot, except where noted otherwise on the plans.
- During construction, straw bales, cutoff trenches or some other method of runoff control shall be used to prevent erosion and/or siltation from crossing outside the work area boundaries.
- Large organic material, miscellaneous pipe or construction material must be removed from the site and disposed of properly.
- No filling or cutting shall be done outside of approved grading areas.
- All erosion control facilities shall meet the requirements of the Clackamas County Department of Utilities, Erosion Prevention and Sediment Control Plans Technical Guidance Handbook, revised August, 1994 and the Oregon Administrative Rules.

West Linn 12-22-97



- SIDEWALKS TO BE CONSTRUCTED DURING HOME BUILDING PHASE.
- TRAFFIC CONTROL AND STREET NAME SIGNS TO BE INSTALLED BY THE CITY WITH SIGN & INSTALLATION COSTS PAID BY THE DEVELOPER.
- A SIX-FOOT HIGH MATTE BLACK CHAINLINK FENCE SHALL BE INSTALLED AROUND THE WATER QUALITY FACILITY LOCATED ON TAX LOT 1100. A TEN-FOOT GATE SHALL BE PROVIDED FOR ACCESS WHERE IDENTIFIED ON THE PLANS. GATE SHALL BE LOCKABLE.
- STREET LIGHT LOCATIONS SHOWN ARE APPROXIMATE. FINAL LOCATIONS ARE TO BE DESIGNED BY OTHERS. INSTALLATION OF LIGHTS IS THE RESPONSIBILITY OF THE DEVELOPER.
- UNDERGROUND UTILITIES TO BE LOCATED IN PUBLIC UTILITY EASEMENT. UTILITIES SHALL INCLUDE P.G.E., TCI CABLE TELEVISION, U.S. WEST TELEPHONE & NORTHWEST NATURAL GAS.
- APPROXIMATE LOCATION OF STREET TREES SHOWN. FINAL STREET TREE LOCATIONS TO BE DETERMINED BY THE CITY OF WEST LINN PARKS DEPARTMENT.
- APPROXIMATE LOCATION OF MAILBOX SHOWN. FINAL LOCATION TO BE DETERMINED BY THE U.S. POSTAL SERVICE.

**Erosion Control:**

**Summary:**

- The intent of the requirement is to prevent siltation from reaching storm drain systems and drainage ways.
- The minimum measures need to be made on all projects.
  - A gravel pad, at least 50 feet long, is required where vehicles will leave the construction site.
  - A sediment barrier is to be constructed of straw bales or a sediment fence where noted in the details or where sediment will cross outside the work area.
  - Where excavated material is placed on hard surfaces (such as streets) material must be broomed or scraped clean as soon as possible.
  - Riprap exits from all culverts and storm drain pipes draining into the ditches or swales. Riprap is to be Class 50 riprap or larger or as noted elsewhere in the plans.
  - Reseed or cover disturbed areas as soon as is possible and practical but no later than the completion of construction on the other phases of work. Erosion control measures such as hay bales and silt fences must remain in place until seeded areas show growth substantial to prevent erosion.

**General:**

- Approval of this erosion control (ESC) plan does not constitute an approval of permanent road or drainage design (e.g. size and location of roads, pipes, restrictors, channels, retention 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 of landscaping is established.
- The ESC facilities on this plan must be constructed in conjunction with all clearing and grading activities, and in such a manner as to ensure 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 24 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 ensure that all paved areas are kept clean for the duration of the project.

**Seeding/Mulching:**

**Summary:**

- All areas disturbed during construction to be graded to drain and compacted to a minimum of 90% of AASHTO T-99 immediately after installation of utilities or grading.
- Recommended Seed Mixture: 80% ELKA Dwarf Perennial Ryegrass and 20% Creeping Red Fescue, by weight. Application Rate shall be 100 pounds minimum per acre.
- Fertilizer shall be 12-16-8 with 50% of the nitrogen derived from UREA FORMALDEHYDE, and applied at a rate of 400 pounds per acre.
- Seed and mulch at a rate of 2000 lbs/Ac with heavy bonding agent or netting and anchors. Mulch shall be a wood cellulose fiber or other material suitable for hydromulching.
- Temporary or Permanent Hydroseeding or acceptable seeding and mulching must be provided whenever perennial cover cannot be established on sites which will be exposed for 60 days or more.

**Sediment Fence:**

- 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. Then fence posts shall be spaced a maximum of six feet apart and driven securely into the ground a minimum of 18 inches.
- A trench shall be excavated, roughly 6 inches wide by 6 inches deep, upslope and adjacent to the wood post to allow the filter fabric to be buried. Bury the bottom of the fabric 6" vertically below finished grade. All areas of filter fabric trench shall be compacted.
- The filter fabric shall be installed with stitched loops over fence posts. The fence post shall be constructed of 2" x 2" fir, pine, or steel. The fence post must be a minimum of 48" long. The filter fabric shall not be stapled or attached to existing trees.
- 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.

Erosion Control 6-29-95

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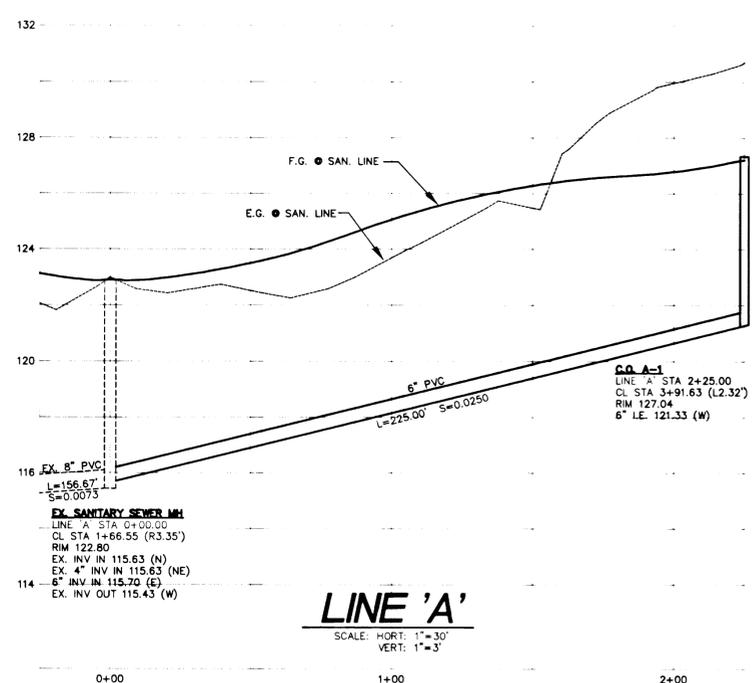
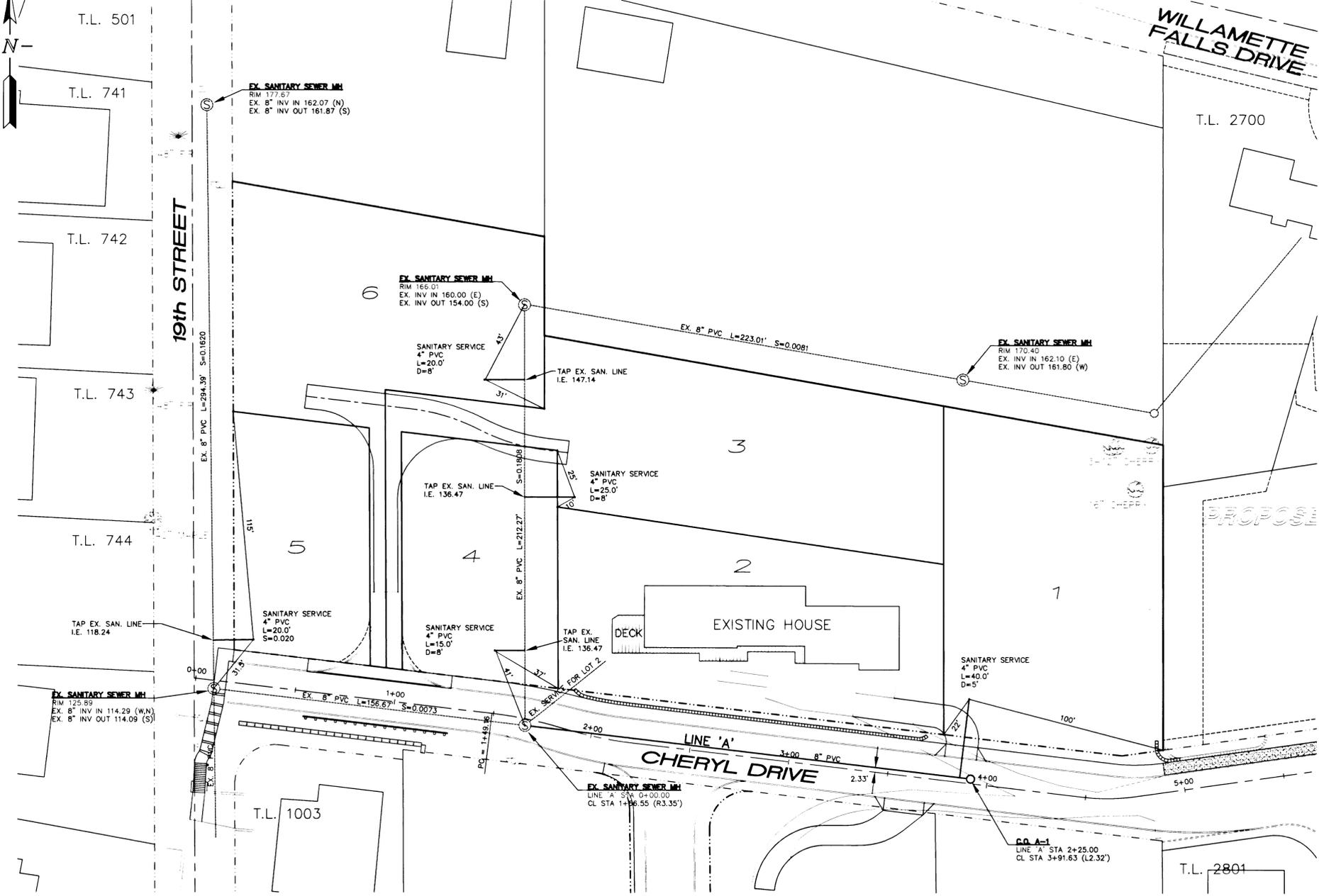
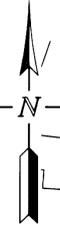
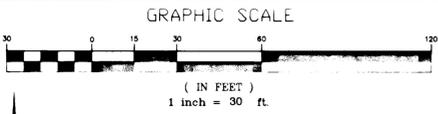
**KATHERINE VIEW ESTATES**  
 FILE NO. SUB-97-06/2C-97-05/WARS-97-11-97-12-97-13-97-16  
**OREGON DEVELOPMENT CORPORATION**

**Notes**

**SISUL ENGINEERING**  
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DATE	JUNE, 1998
SCALE	NA
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OF	8 SHEETS



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**KATHERINE VIEW ESTATES**  
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Sanitary Sewer Plan and Profile

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 376 PORTLAND AVENUE  
 GLADSTONE, OREGON 97027  
 (503) 687-0188



DATE	JUNE
SCALE	NOTED
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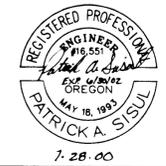
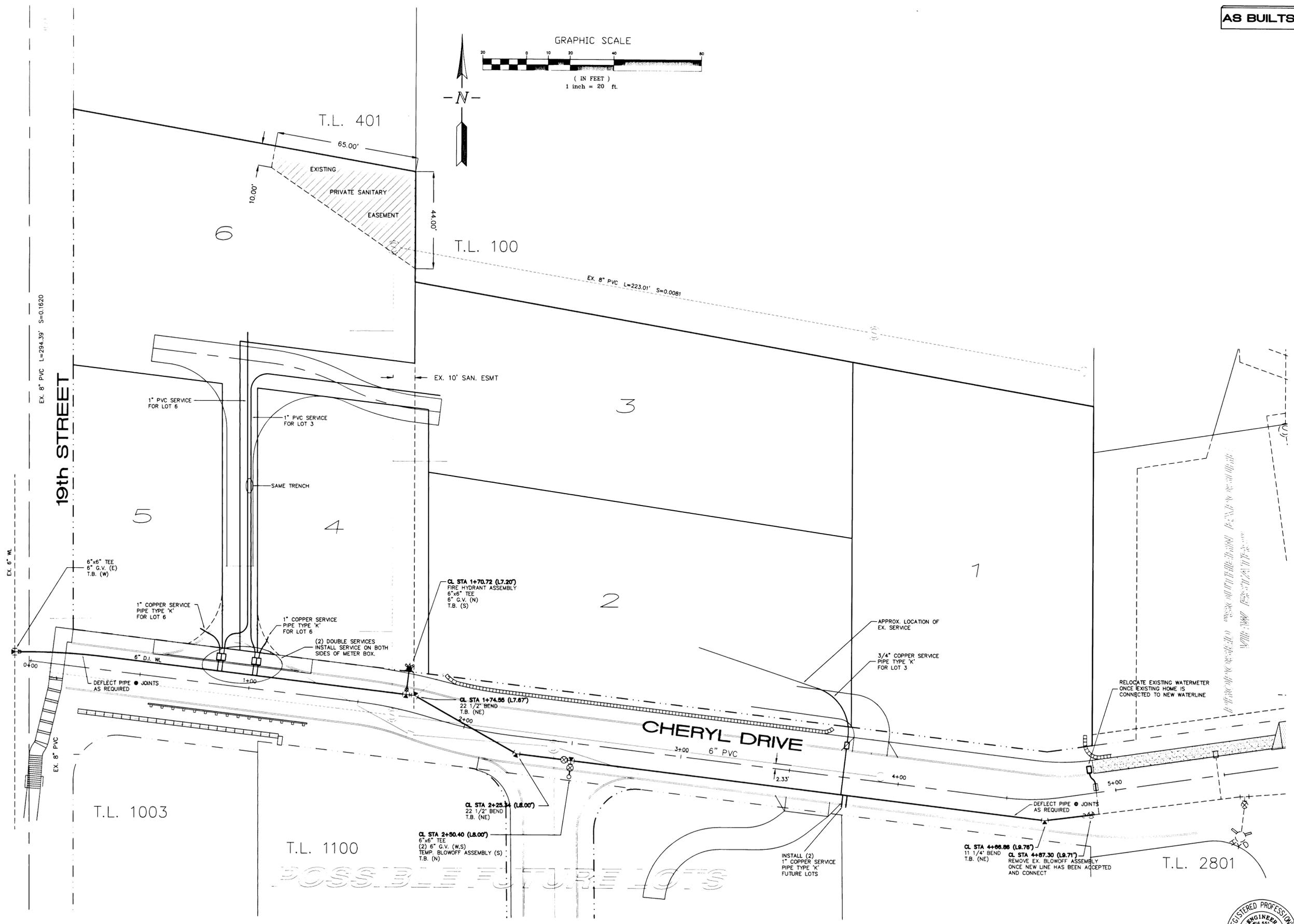
**AS BUILTS**

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Waterline Plan

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 (503) 657-0186

DATE	JUNE 1998
SCALE	NOTED
DRAWN	JH
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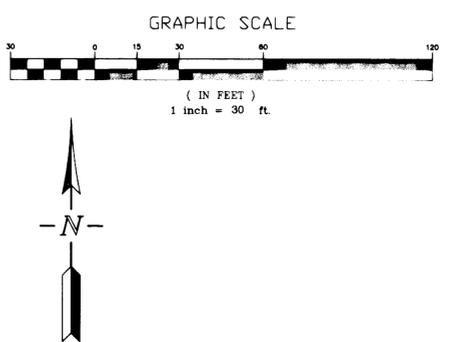
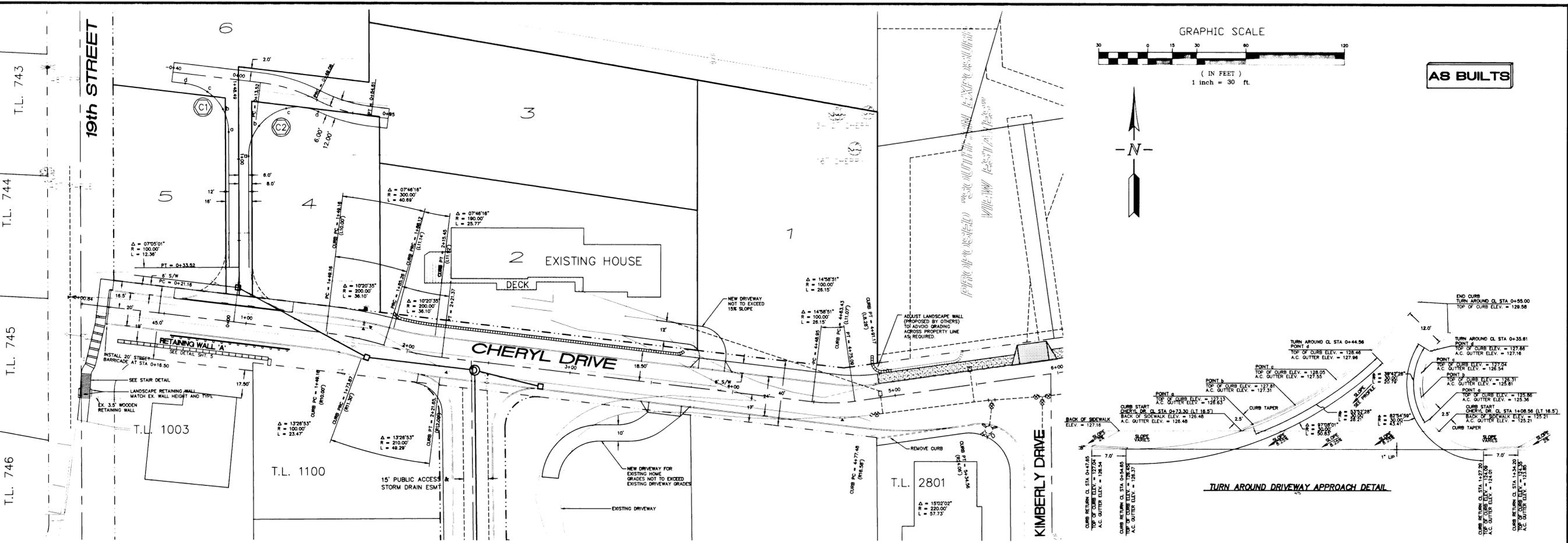
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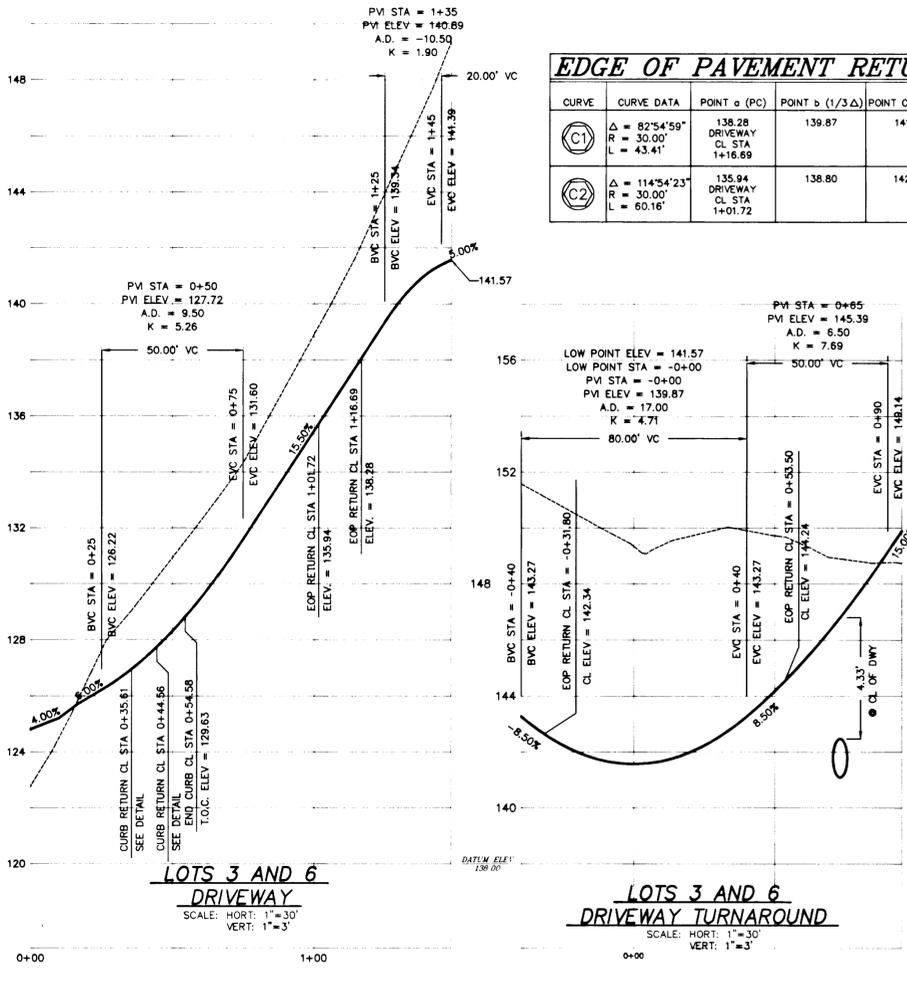
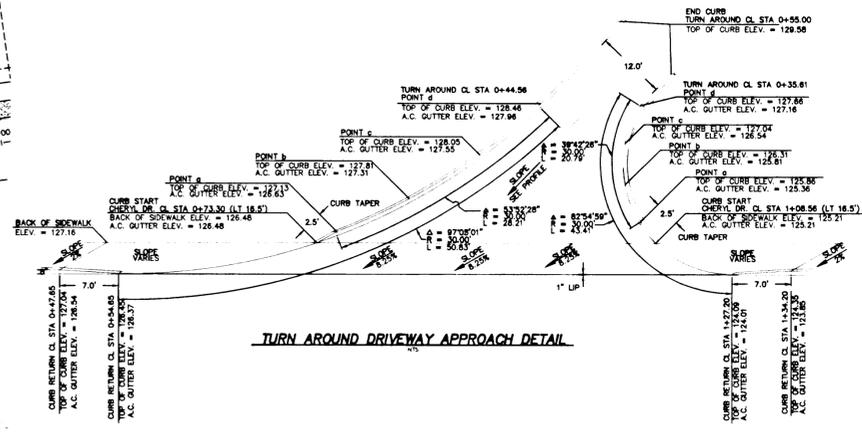
Street Plan and Profiles

**SISUL ENGINEERING**  
 376 PORTLAND AVENUE  
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DATE	JUNE 1998
SCALE	NOTED
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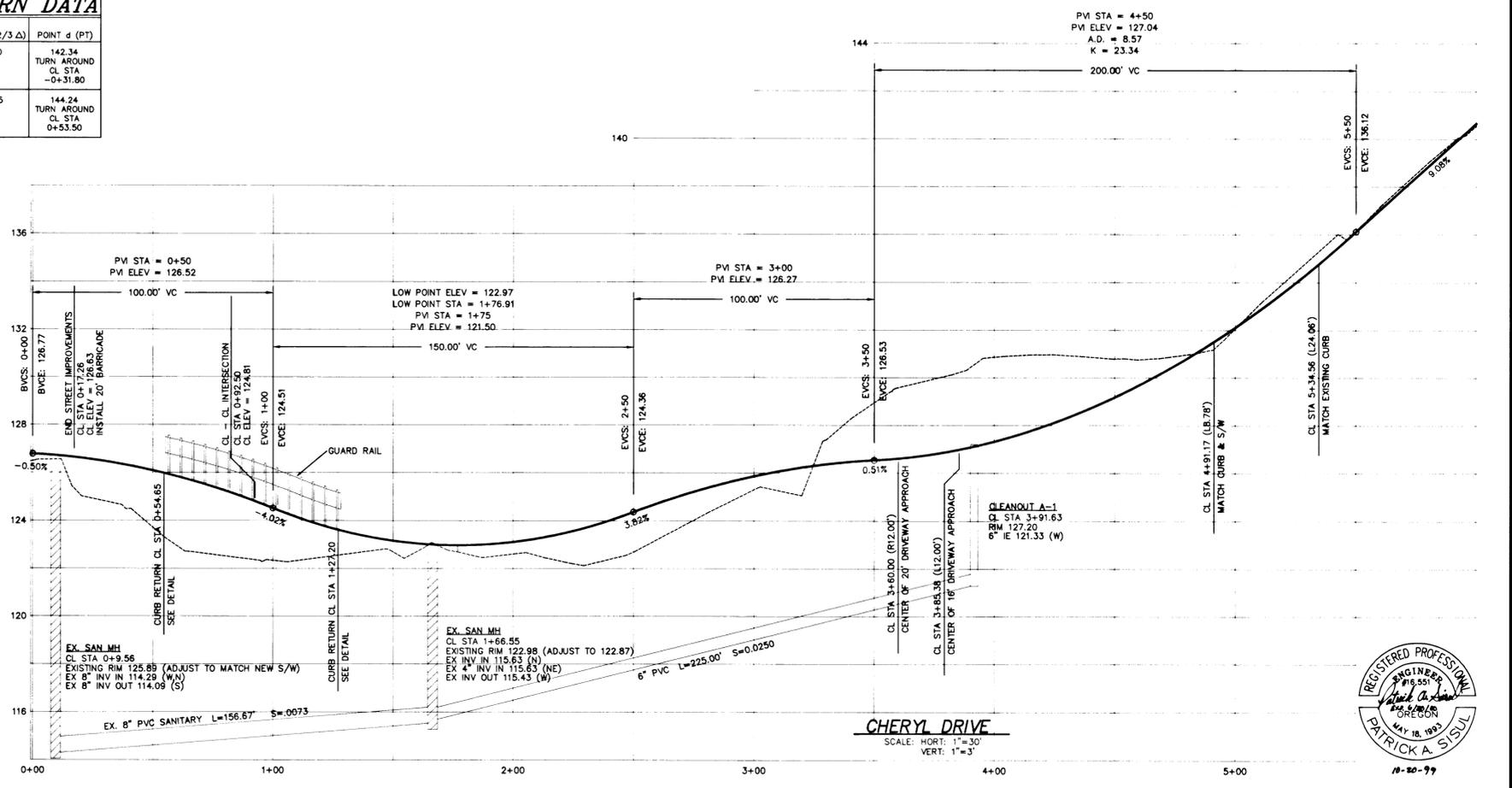


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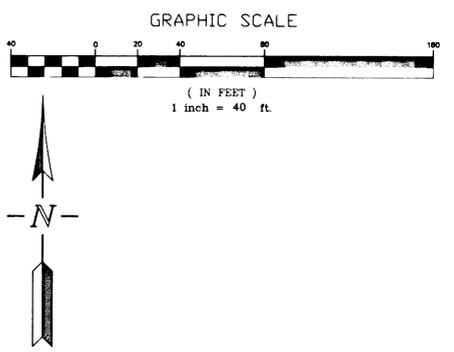
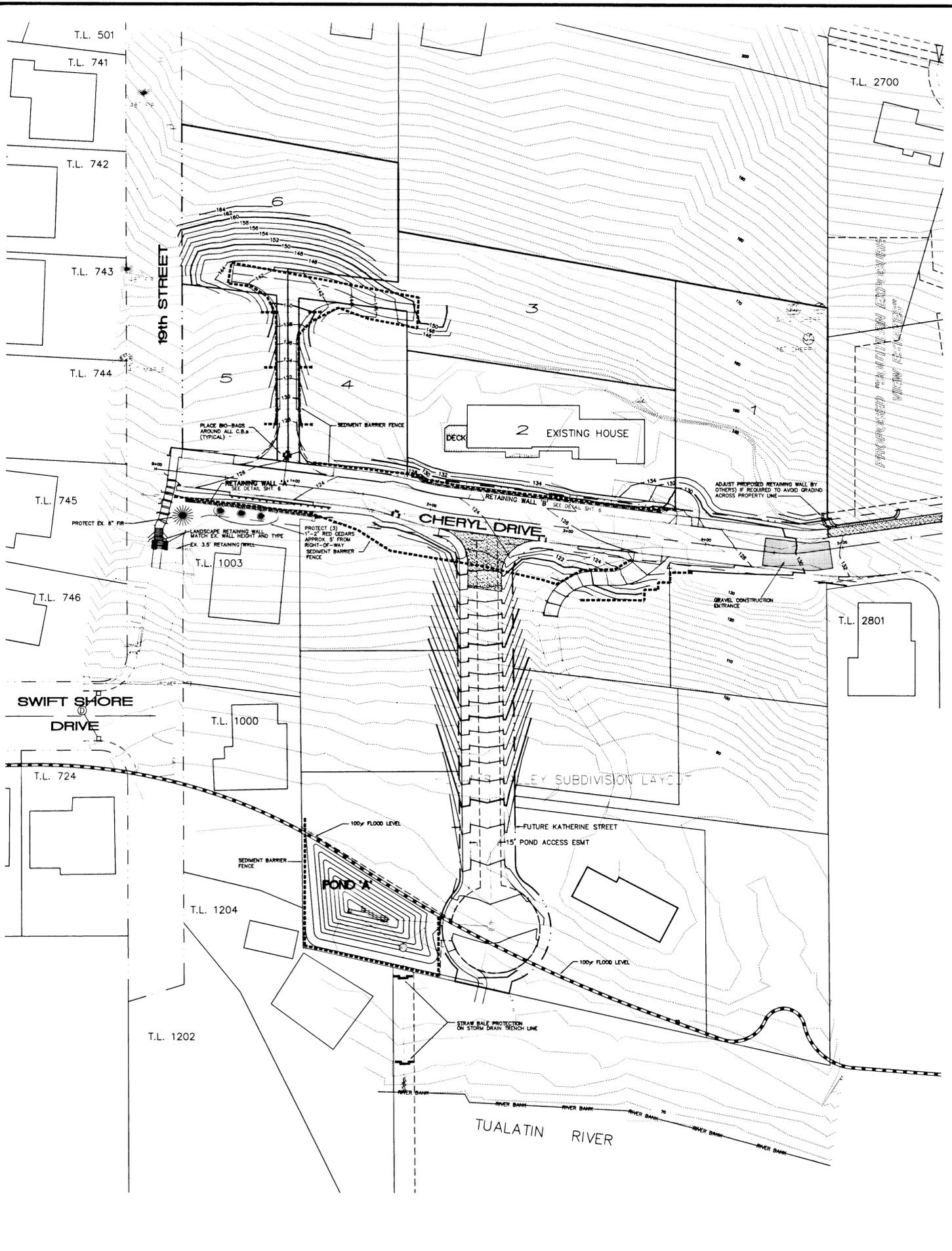


**EDGE OF PAVEMENT RETURN DATA**

CURVE	CURVE DATA	POINT a (PC)	POINT b (1/3 Δ)	POINT c (2/3 Δ)	POINT d (PT)
(C1)	Δ = 82°54'59" R = 30.00' L = 43.41'	138.28 DRIVEWAY CL STA 1+16.69	139.87	141.10	142.34 TURN AROUND CL STA +0+31.80
(C2)	Δ = 114°54'23" R = 30.00' L = 60.16'	135.94 DRIVEWAY CL STA 1+01.72	138.80	142.05	144.24 TURN AROUND CL STA 0+53.50







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 OREGON DEVELOPMENT CORPORATION

**Grading and Erosion Control Plan**

**SISUL ENGINEERING**  
 975 PORTLAND AVENUE  
 CLATSOP COUNTY OREGON 97027  
 (503) 867-0188



DATE	JUNE 1998
SCALE	NOTED
DRAWN	JH
JOB	97-017
SHEET	<b>5</b>
OF 8 SHEETS	

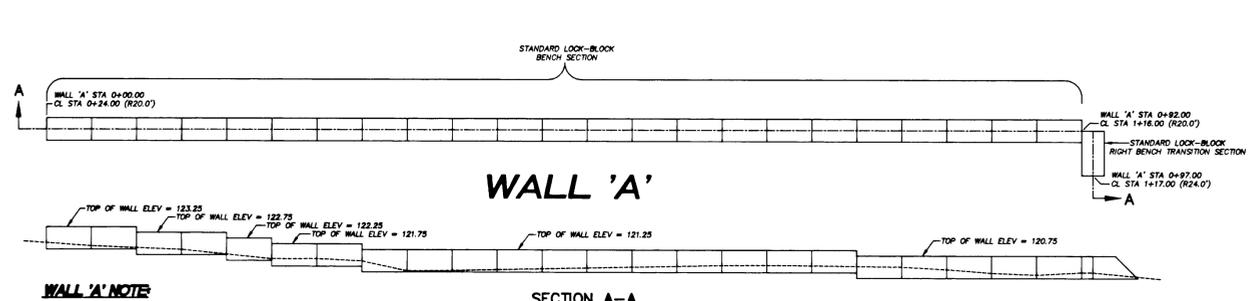
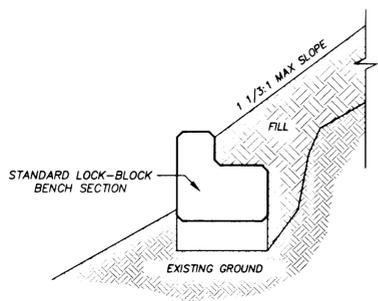
REVISIONS	BY
AUGUST 1998	DW
AS-BUILT	LD
10/15/99	

**KATHERINE VIEW ESTATES**  
 FILE NO. SUB-97-06/ZC-97-05/VARS-97-11.97-12.97-13.97-16  
**OREGON DEVELOPMENT CORPORATION**

**SISUL ENGINEERING**  
 Details and Cross Sections

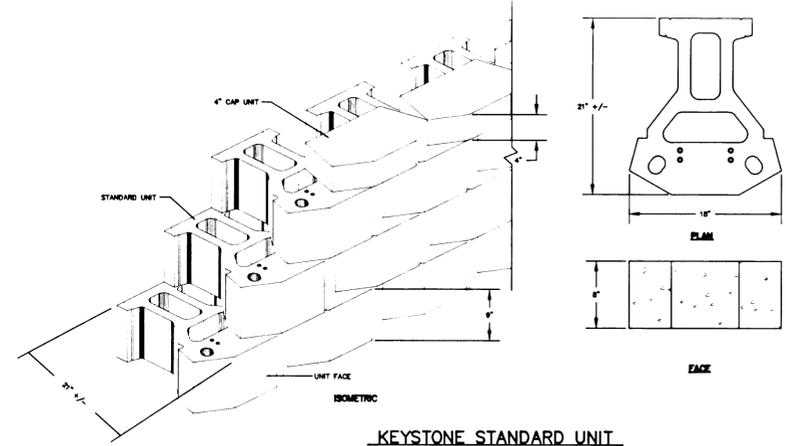
**SISUL ENGINEERING**  
 375 PORTLAND AVENUE  
 GLADSTONE, OREGON 97027  
 (503) 657-0188

DATE	JUNE 1998
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DRAWN	JH
JOB	97-017
SHEET	6
OF 8	SHEETS

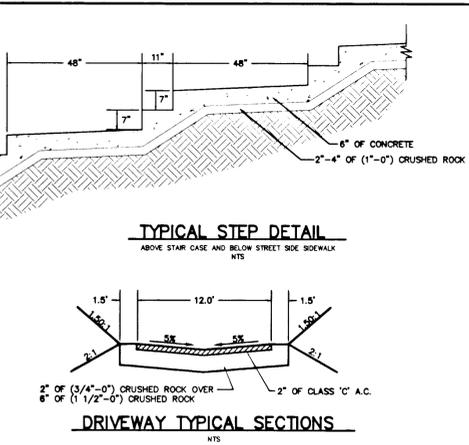
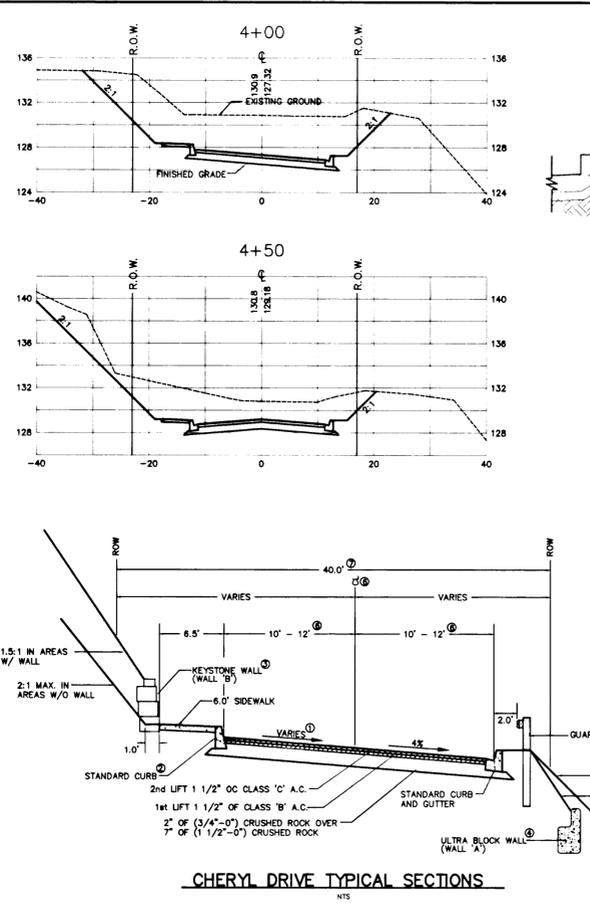
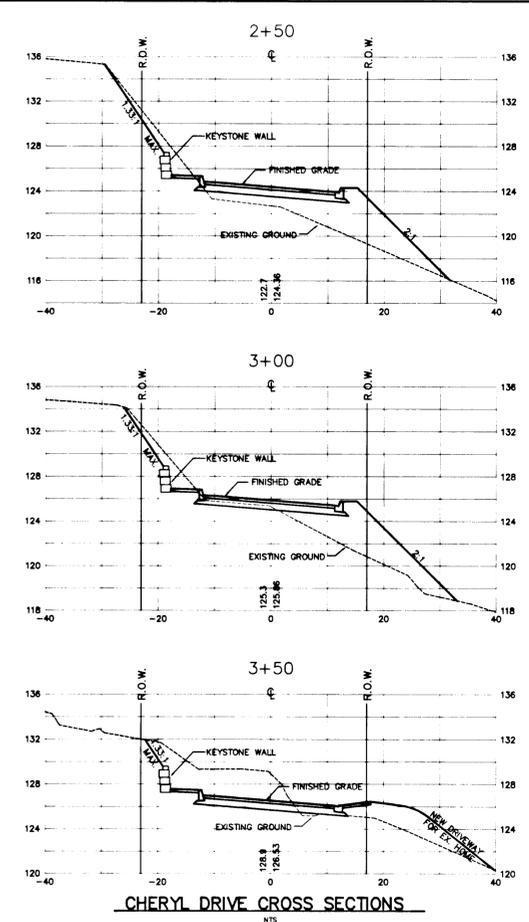
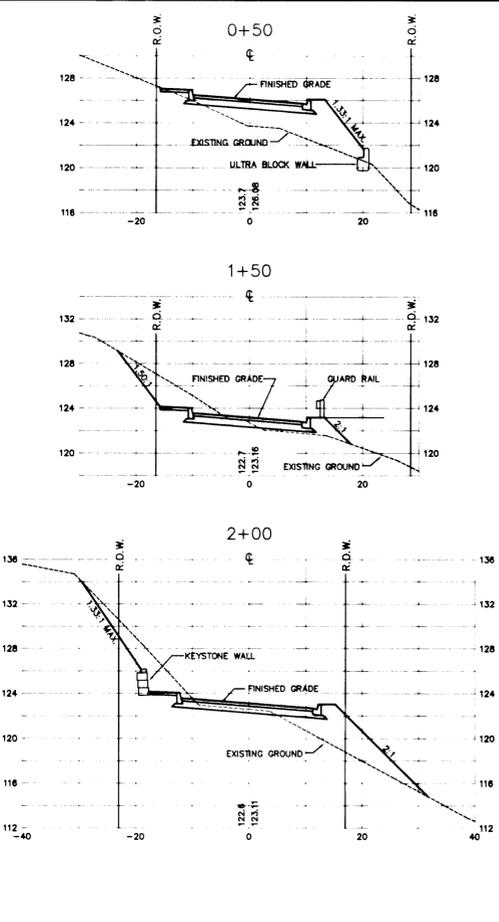
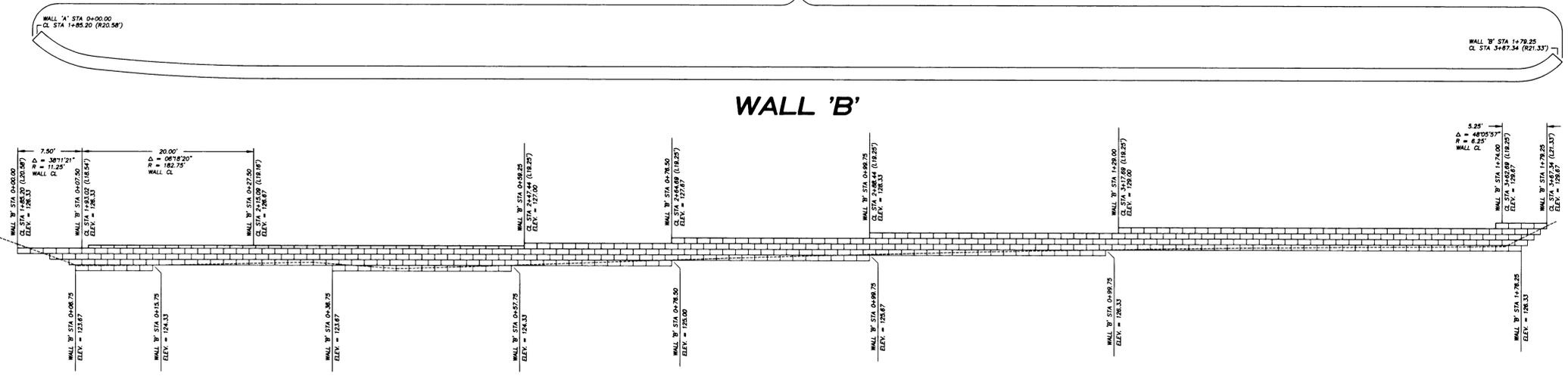
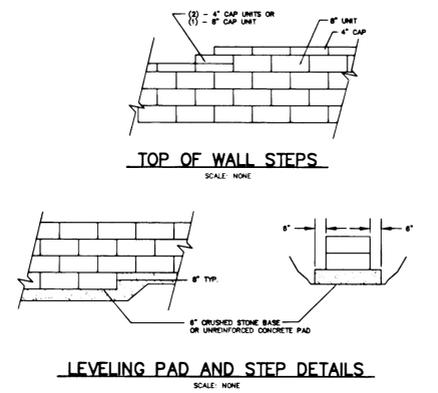


**WALL 'A' NOTE**

1. THE EMBANKMENT CAN BE CONSTRUCTED OF SELECT REJECT ROCK MATERIAL (2'-0" CRUSHED ROCK WITH 15 TO 30 PERCENT FINES) COMPACTED TO AT LEAST 92 PERCENT OF THE MODIFIED PROCTOR TO VERY NEAR THE SLOPE FACE. THE SLOPE FACE MAY NEED TO BE OVERBUILT SLIGHTLY AND TRIMMED BACK TO ACHIEVE THIS. FOR THIS TYPE OF EMBANKMENT TO 10 FEET IN HEIGHT, THE MAXIMUM ALLOWABLE SLOPE GRADIENT IS 1.25H:1V.
2. THE EMBANKMENT MAY BE CONSTRUCTED OF ON-SITE SOIL COMPACTED TO THE SAME SPECIFICATION AND MANNER AS ABOVE (>92%), TO A MAXIMUM HEIGHT AND SLOPE ANGLE OF 8 FEET AND 1.5H:1V, RESPECTIVELY. THE TOE MAY BE SUPPORTED WITH A SHORT ROW OF BOULDERS OR LARGE CONCRETE BLOCKS.



**KEYSTONE STANDARD UNIT**  
 SCALE: NONE



1. TRANSITION BETWEEN A STD. STREET CROWN TO A 4.0% SUPER BETWEEN CL STATIONS 3+80.00 TO 4+90.00
2. TRANSITION FROM CURB AND GUTTER TO STANDARD CURB AT STA 4+50.00
3. INSTALL KEYSTONE WALL FROM CL STA 1+85.20 TO CL STA 3+87.34 PER DETAIL
4. INSTALL ULTRABLOCK WALL FROM CL STA 0+24.00 TO CL STA 1+17.00 PER DETAIL
5. INSTALL GUARD RAIL FROM CL STA 0+55.00 TO CL STA 1+28.00 PER DETAILS
6. SEE SHEET 3 FOR CURB AND STREET CL ALIGNMENT INFO.
7. R.O.W. IS 40' WIDE EXCEPT FOR FRONTAGE ALONG T.L. 1003 WHERE IT IS 45' WIDE

**AS BUILT**



8-20-99

AS-BUILT

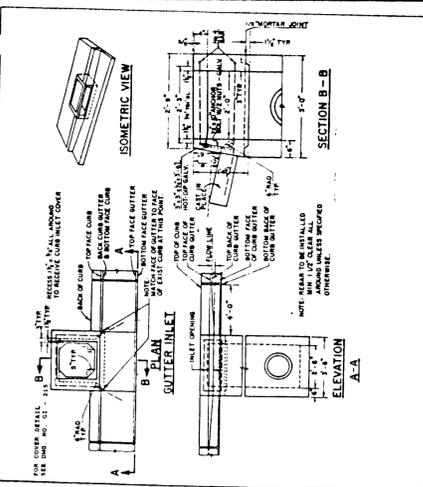
REVISIONS	BY

**KATHERINE VIEW ESTATES**  
 OREGON DEVELOPMENT CORPORATION  
 FILE NO. 508-97-06/ZC-97-05/VARS-97-11-97-12,97-13,97-16

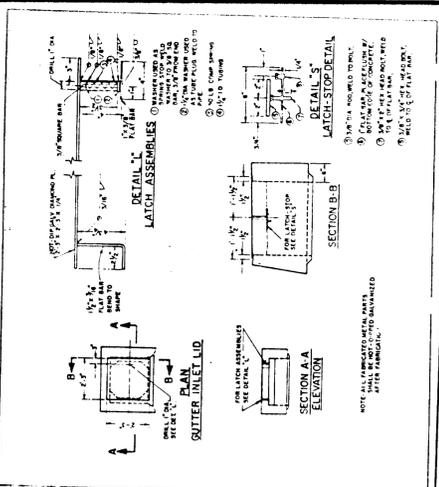
Details

**SISUL ENGINEERING**  
 376 PORTLAND AVENUE #7027  
 CLATSOP, OREGON  
 (503) 867-0188

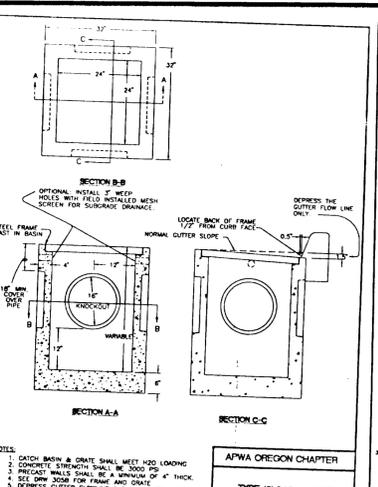
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 SCALE: NA  
 DRAWN: PS  
 JOB: 97-017  
 SHEET: 7  
 OF 8 SHEETS



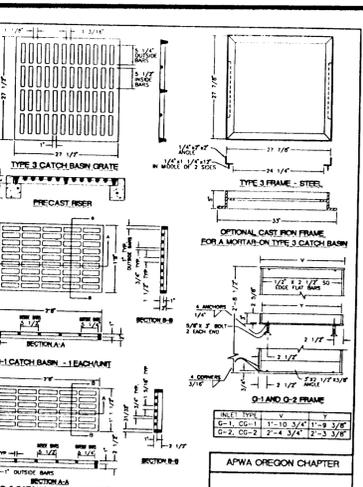
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 CHECKED BY: [Signature]  
 DATE: 5/21/98



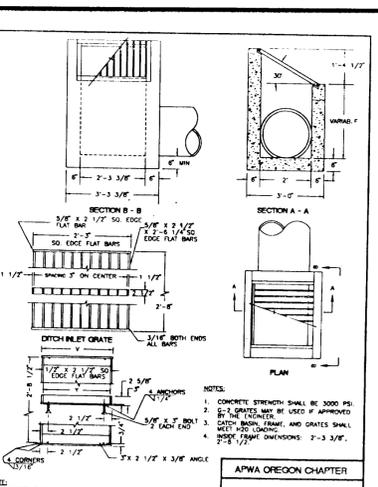
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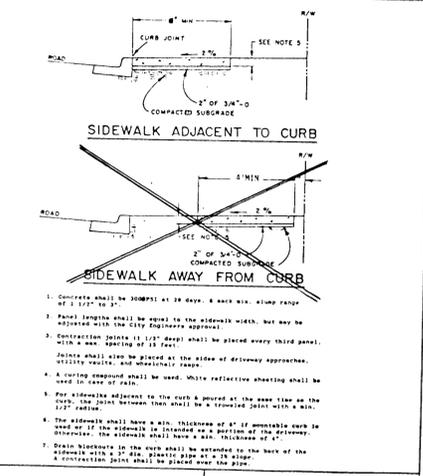
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 TYPE 3 CATCH BASIN  
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 AUG 1996



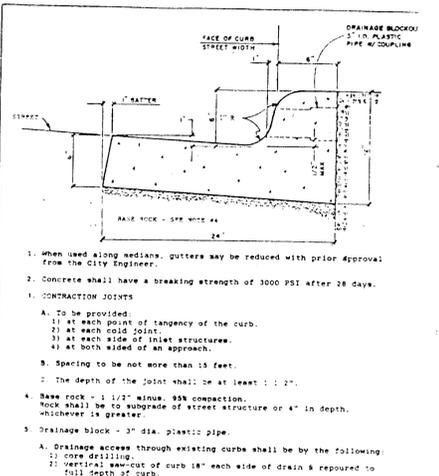
CITY OF WEST LINN  
 FRAMES AND GRATINGS  
 DWG. NO. 305B  
 AUG 1996



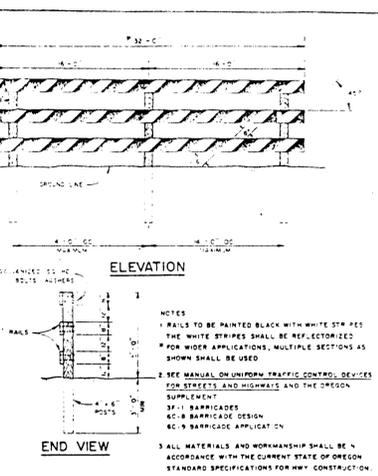
CITY OF WEST LINN  
 DITCH INLET  
 DWG. NO. 306A  
 AUG 1996



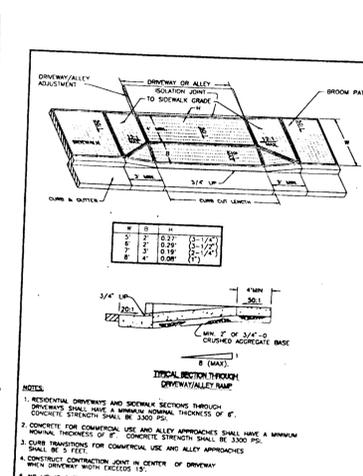
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 CHECKED BY: [Signature]  
 DATE: 5/21/98



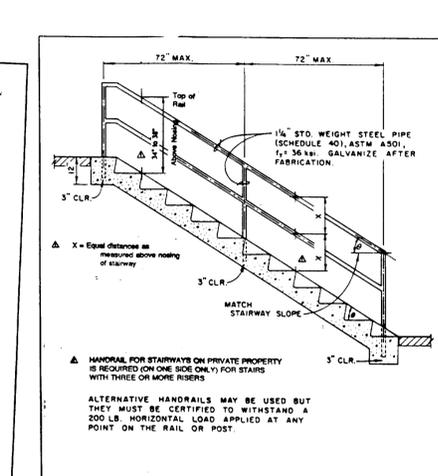
CITY OF WEST LINN  
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 DATE: 5/21/98



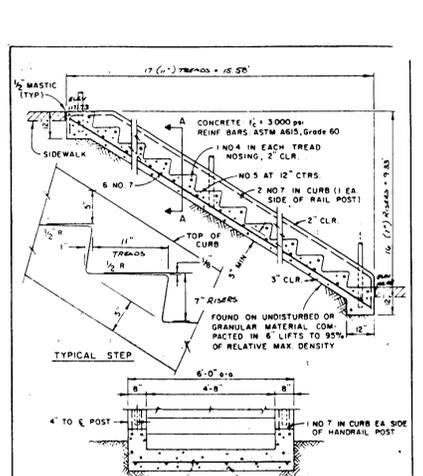
CITY OF WEST LINN  
 STREET BARRICADE - TYPE III  
 DWG. NO. SB - 276  
 DRAWN BY: [Signature]  
 CHECKED BY: [Signature]  
 DATE: 5/21/98



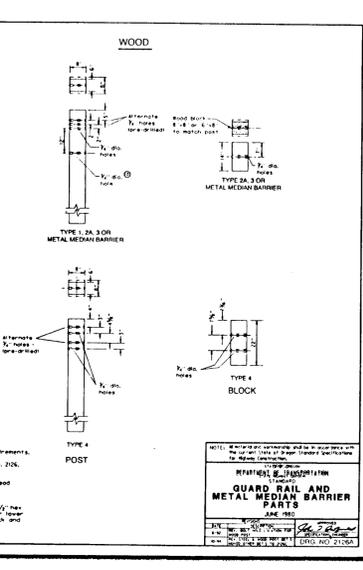
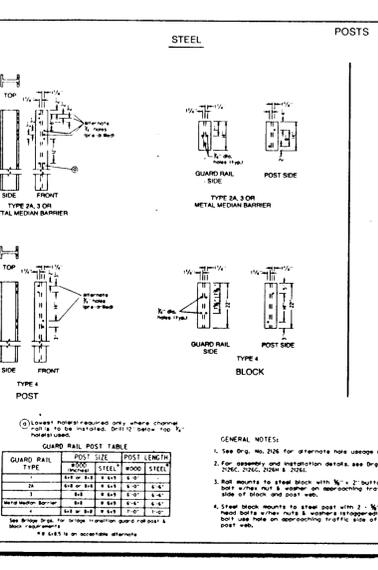
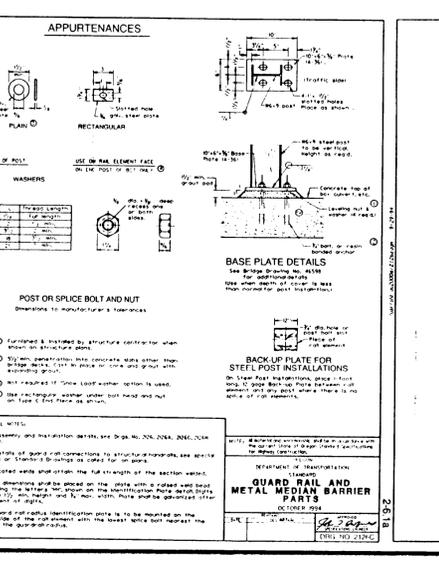
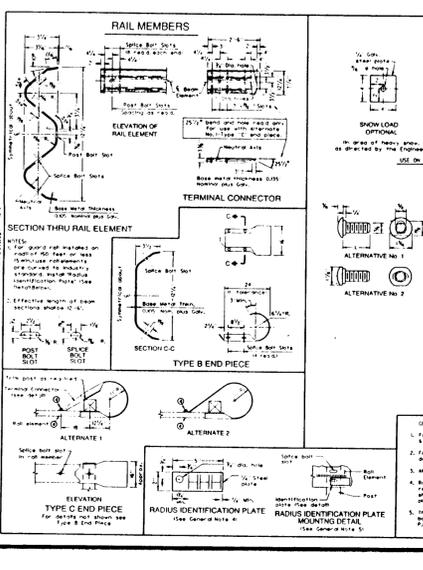
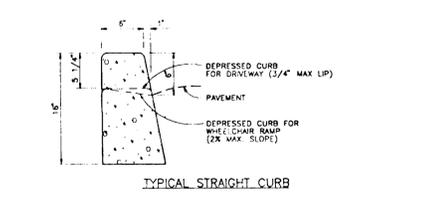
CITY OF WEST LINN  
 DRIVEWAY AND ALLEY APPROACHES WITH DEPRESSED CURBLINE SIDEWALK  
 DWG. NO. 208  
 AUG 1996

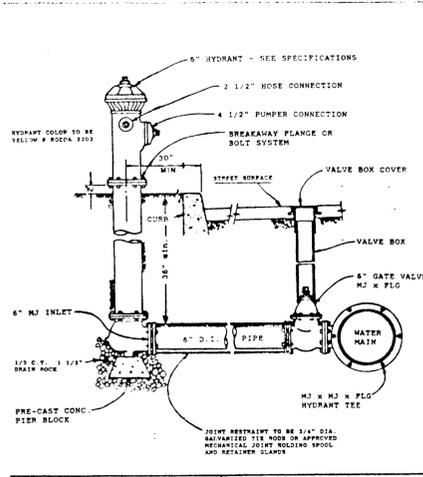


CITY OF WEST LINN  
 STAIR HANDRAIL  
 DWG. NO. 209  
 AUG 1996



CITY OF WEST LINN  
 STAIRWAY - Reinforced (Spans over 13'-0")  
 DWG. NO. 306B  
 AUG 1996





CITY OF WEST LINN FIRE HYDRANT  
 DRAWN BY: [Signature] DATE: 5-27-81  
 CHECKED BY: [Signature] DATE: 5-27-81 DWG. NO. FH - 300  
 APPROVED BY: [Signature] DATE: 5-27-81

