CASCADE SUMMIT
OFFSITE IMPROVEMENTS
(SANITARY SEWER)
CITY OF WEST LINN

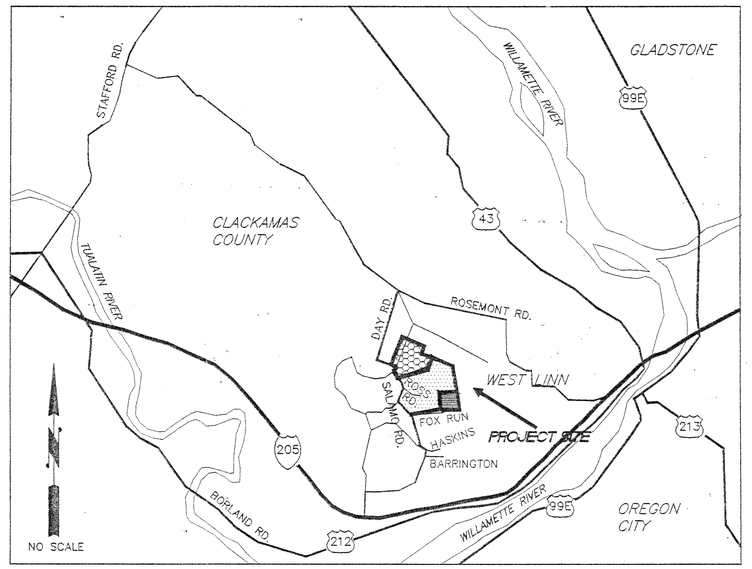
GENERAL NOTES

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. THE FOLLOWING CITY OF WEST LINN DETAILS SHALL BE USED AT LOCATIONS AS SPECIFIED IN THE PLANS:

   STANDARD MANHOLE - DWG. NO. MH-209
   MANHOLE FRAME & COVER - DWG. NO. MH-212

STORM/SANITARY SEWERS:

8. MANHOLE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF WEST LINN'S STANDARD PLANS. PRECAST BASES WILL NOT BE PERMITTED FOR MANHOLES.
9. 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.
10. ALL SANITARY SEWER AND STORM PIPE SHALL BE PVC IN ACCORDANCE WITH ASTM SPECIFICATIONS D-3033 AND D-3034.
11. SANITARY SEWER SERVICES SHALL BE 4-INCH PVC WITH A MINIMUM SLOPE OF 2%.
12. 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.
13. MANHOLE RIM ELEVATIONS SHOWN ARE APPROXIMATE AND FOR INFORMATION ONLY. FINAL ELEVATIONS SHALL BE SET TO MATCH CONSTRUCTED FINISH GRADE.



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.

UTILITY ONE-CALL	246-6699
PORTLAND GENERAL ELECTRIC	232-2344
IN CASE OF EMERGENCY CONTACT CITY OF WEST LINN	656-3535

THE CONTRACTOR, IN LOCATING AND PROTECTING UNDERGROUND UTILITIES, MUST COMPLY WITH THE REGULATIONS OF O.R.S. 757.541 TO 757.571.

INDEX OF SHEETS

1. TITLE SHEET
2. SANITARY PLAN AND PROFILE
3. SANITARY PLAN AND PROFILE
4. EROSION CONTROL DETAILS & NOTES
5. DETAILS

AS BUILT
BY: D. Sinser DATE: 4-21-94

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
Date

11/15/93

LEGEND

PROPOSED

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

M.F. KEKHIA 10/93 Designed Date
M.F. KEKHIA 10/93 Drawn Date
RODGER COUPE 10/93 Checked Date

REVISIONS

REGISTERED PROFESSIONAL ENGINEER 10044 OREGON FEB. 23, 1979 RODGER COUPE, JR.
EXP. DEC. 31,1993

TITLE SHEET

CASCADE SUMMIT
OFFSITE IMPROVEMENTS
SANITARY SEWER
CITY OF WEST LINN

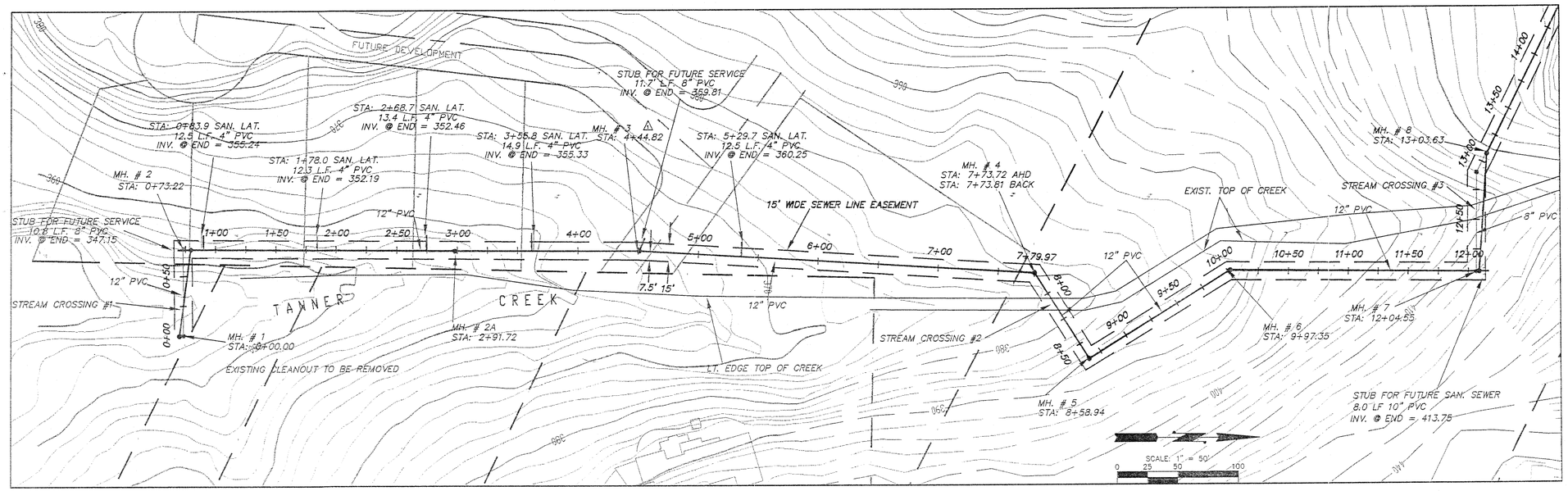
KOSS BROD GOODRICH AND ASSOCIATES, INC.
19363 WILLAMETTE DR #509
WEST LINN, OR. 97068
(503)721-1010

otak incorporated
engineers planners landscape architects surveyors
17355 S.W. Boones Ferry Rd. Lake Oswego, OR 97035 (503)635-3618
101E. 5th Street, Vancouver, WA 98660 (206)695-0357
25 Central Way, # 305 Kirkland, WA 98033 (206)822-4446

4551
Project No.

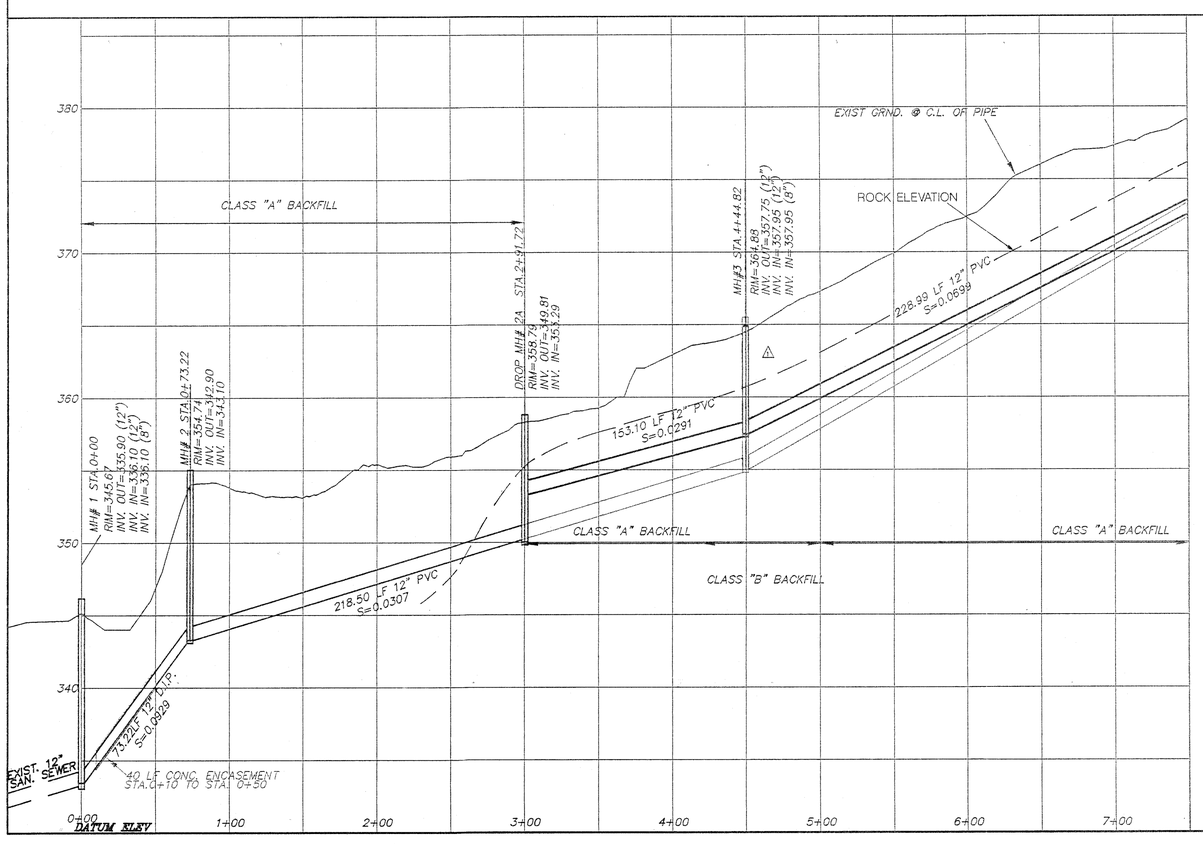
4551 CVR.DWG

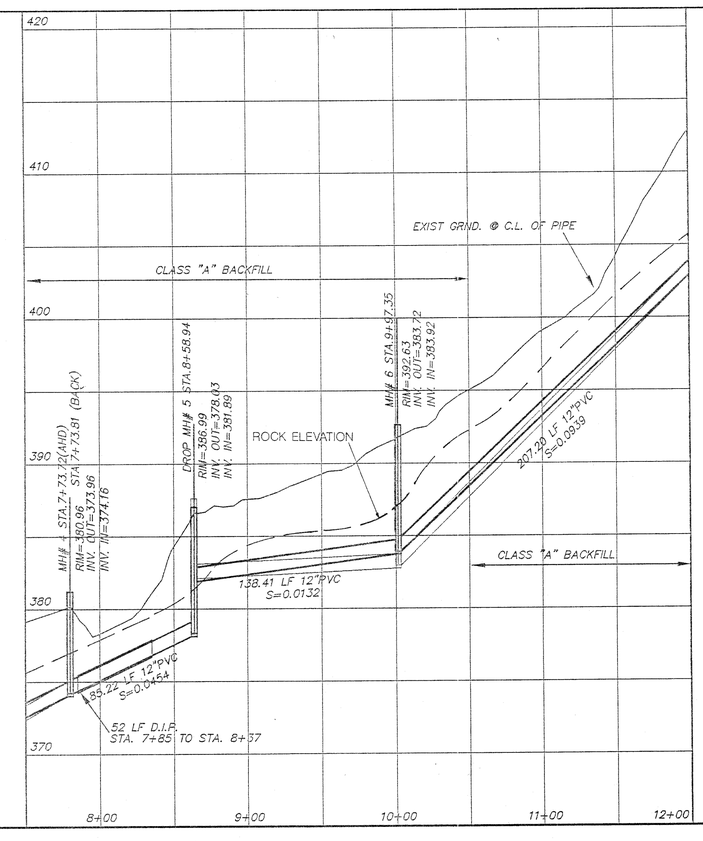
Cascade Summit Offsite Improvements Sanitary Sewer

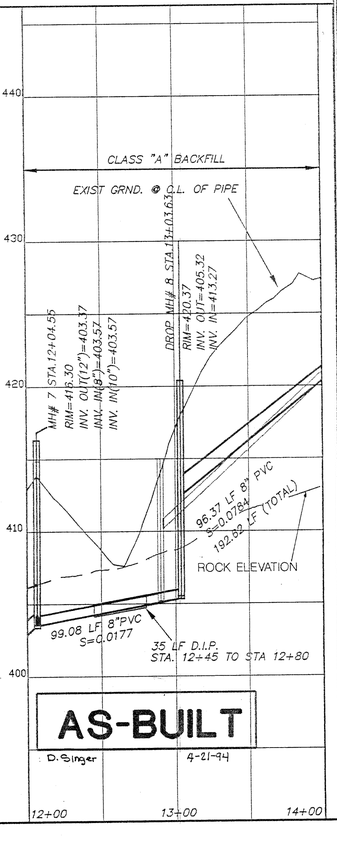


NOTE: TREES WITH CALIPER LARGER THAN 12" NEED CITY APPROVAL BEFORE REMOVAL

SILT FENCE







AS-BUILT

D. Singer 4-21-94

M. FARES KEKHIA 10/93
Designed Date
T. PRITCHETT 10/93
Drawn Date
RODGER COUPE 10/93
Checked Date

REVISIONS

1 11/5/93 REVISED MH #3
2 1/94 AS-BUILTS

REGISTERED PROFESSIONAL ENGINEER 10044 OREGON FEB 23 1973 RODGER COUPE, JR.

EXP. DEC. 31,1995

SANITARY PLAN AND PROFILE

CASCADE SUMMIT OFFSITE IMPROVEMENTS SANITARY SEWER 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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engineers planners landscape architects surveyors
17355 S.W. Boones Ferry Rd. Lake Oswego, OR 97035 (503) 635-3618
101 E. 8th Street, Vancouver, WA 98660 (206) 695-1207
25 Central Way, # 305 Kirkland, WA 98033 (206) 822-4446

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2 OF 5
Sheet No.

4551
Project No.

4551-53

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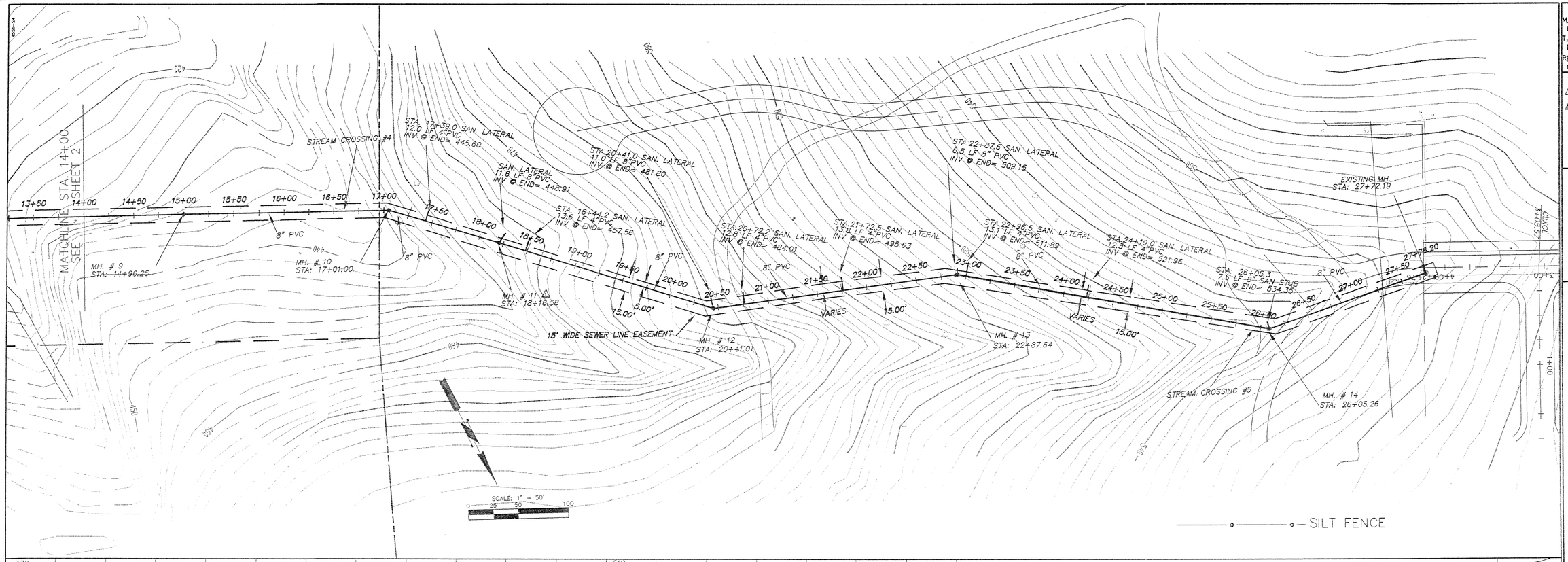

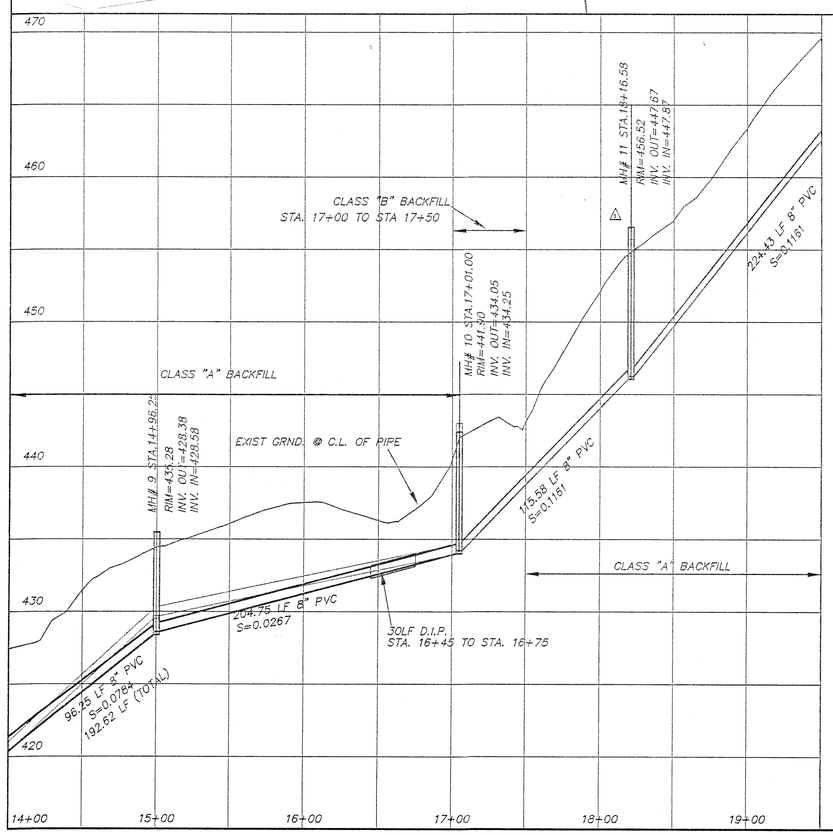

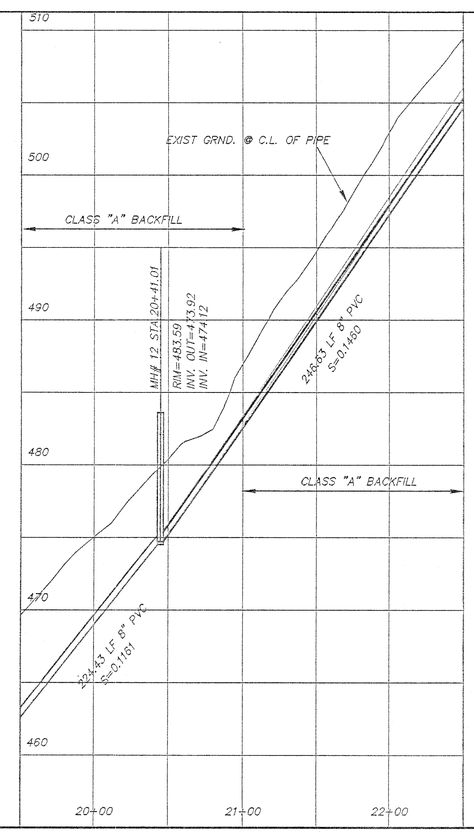

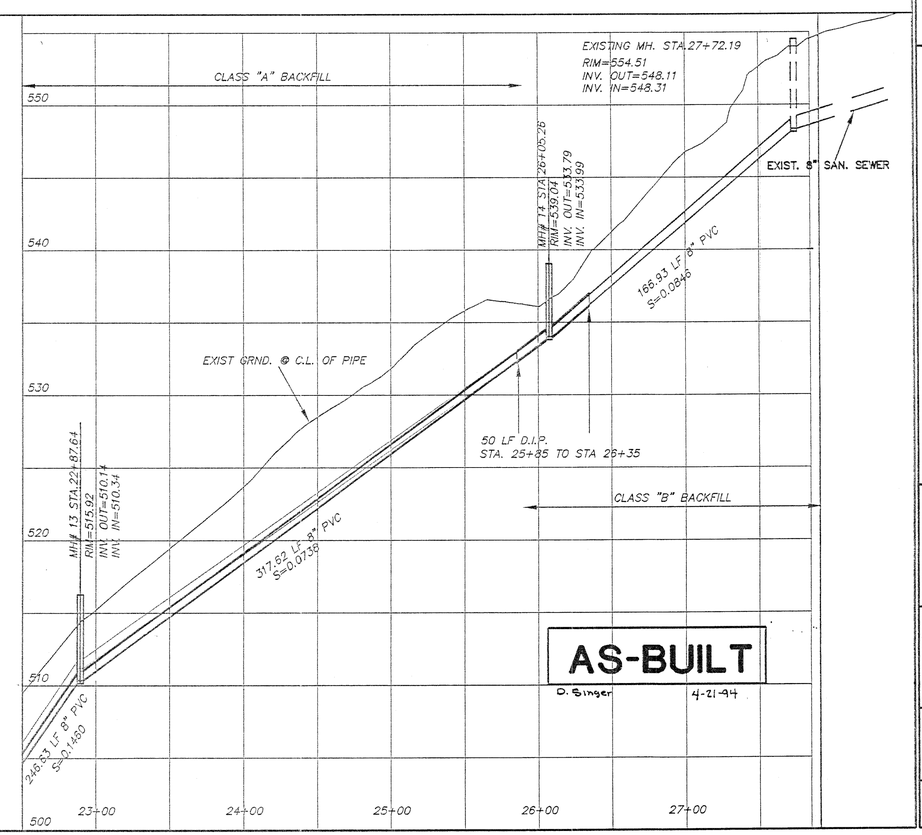

M. FARES KEKHIA	10/93
Designed	Date
T. PRITCHETT	10/93
Drawn	Date
RODGER COUPE	10/93
Checked	Date

REVISIONS

1. 11/5/93 REVISED MH #11
2. 1/94 AS-BUILTS

REGISTERED PROFESSIONAL ENGINEER 10044 OREGON FEB. 22, 1978 RODGER COUPE, JR.

EXP. DEC. 31,1995

SANITARY PLAN AND PROFILE

CASCADE SUMMIT
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CITY OF WEST LINN

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3 OF 5 A
Sheet No.

4551
Project No.

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4455ESE.DWG

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 1/2" TO 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 FROM 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.

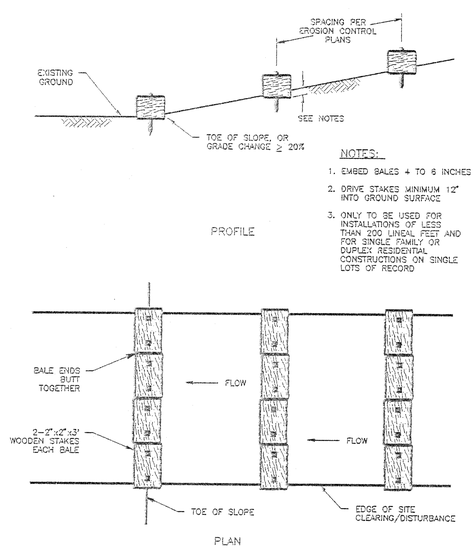
WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRE OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 4 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES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

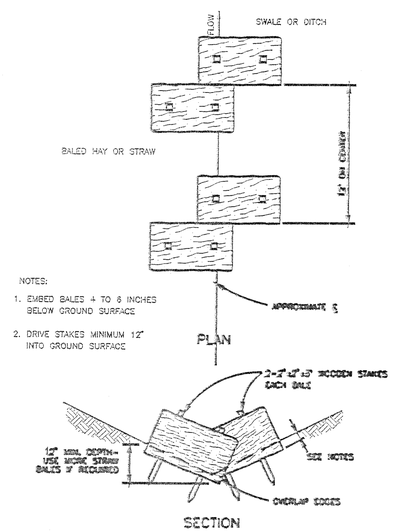
SEDIMENT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

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.



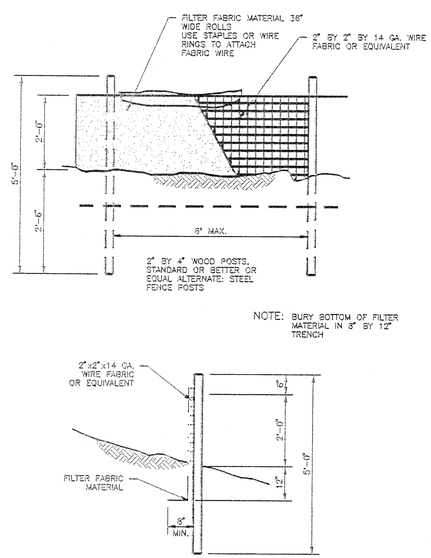
Straw Bale Sediment Barriers Along Slopes

STRAW BALE SEDIMENT BARRIER

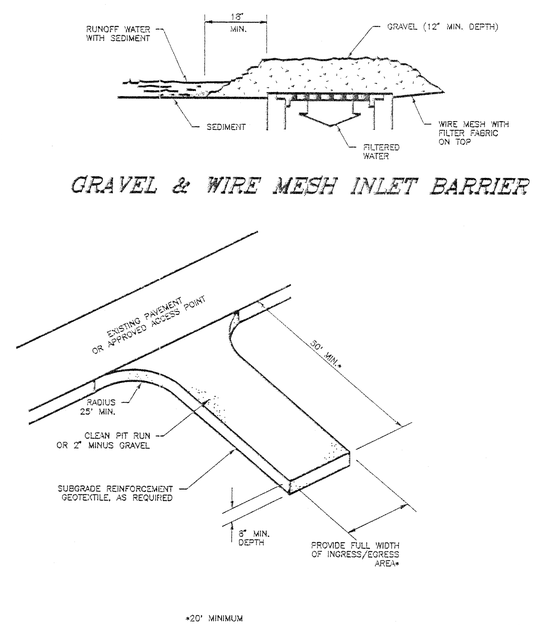


STRAW BALE SEDIMENT BARRIER IN DITCHES OR SWALES

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: 4-21-94

M.F. KEKHIA	10/93
Designed	Date
M.F. KEKHIA	10/93
Drawn	Date
RODGER COUPE	10/93
Checked	Date

REVISIONS

REGISTERED PROFESSIONAL ENGINEER 10044 OREGON APR 23, 1993 RODGER COUPE, JR

EXP. DEC. 31,1993

EROSION-CONTROL DETAILS & NOTES

CASCADE SUMMIT
OFFSITE IMPROVEMENTS
SANITARY SEWER
CITY OF WEST LINN

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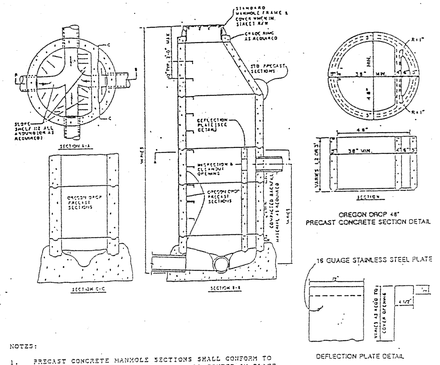
4 OF 5
Sheet No.

4551
Project No.



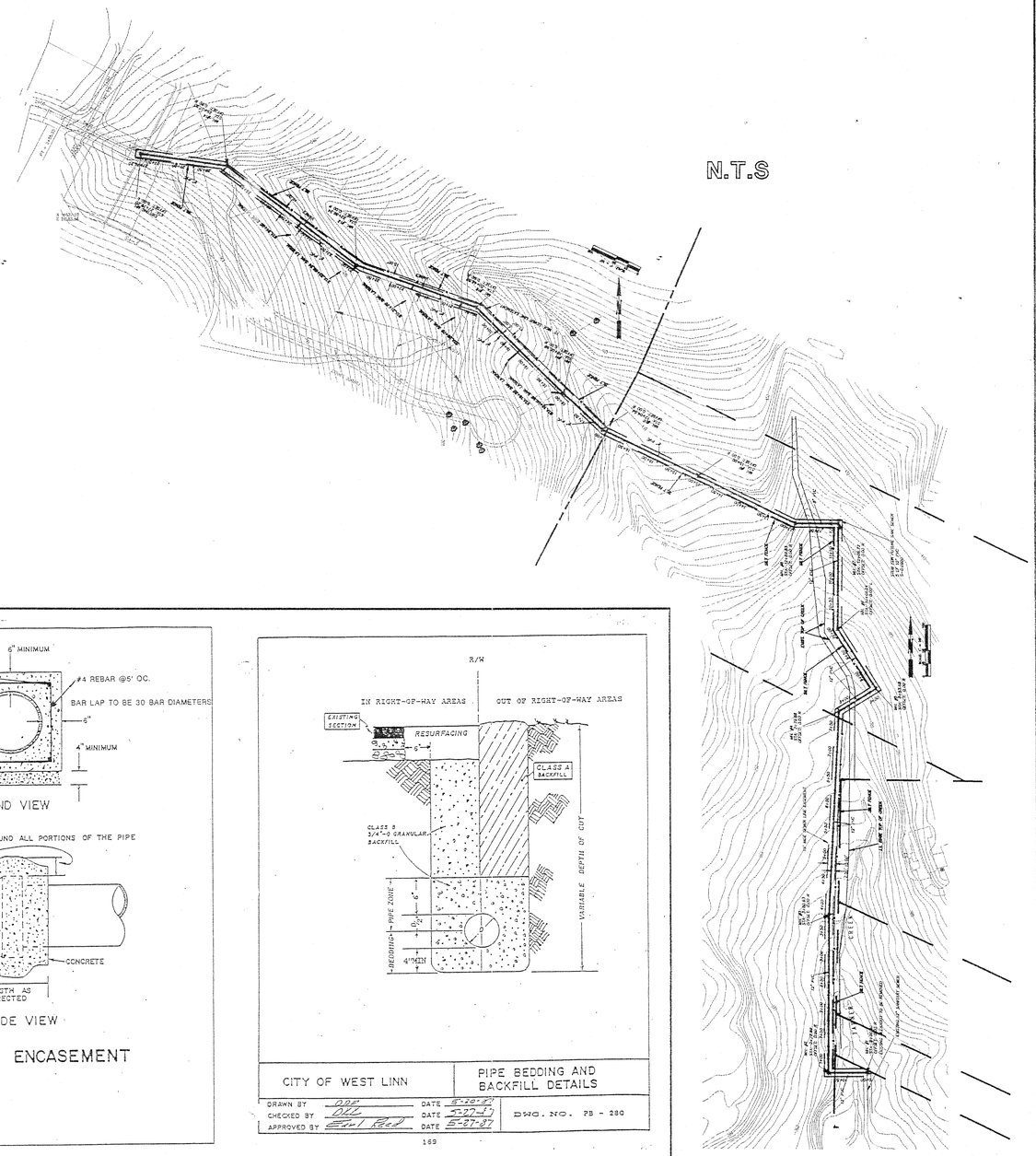
NOTES:

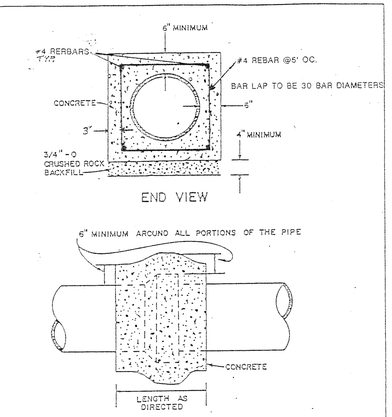
1. PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO A.S.T.M. SPECIFICATIONS C-478. ALL POURED IN PLACE CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 3000 P.S.I. AND A 2" TO 4" SLUMP.
2. MANHOLE DIAMETER, JOINT SEALANT, JOINT CONFIGURATION, BASE CONSTRUCTION, STEPS AND OTHER MANHOLE CONSTRUCTION DETAILS SHALL COMPLY WITH THE CONTROLLING AGENCY STANDARDS.
3. IT IS RECOMMENDED THAT THE FIRST OREGON DROP SECTION SIT IN A 12" SECTION FOR EASE IN SHAPING THE CHANNEL IN THE DROP PORTION.

N.T.S.

CITY OF WEST LINN	OREGON DROP MANHOLE

N.T.S





CONCRETE ENCASEMENT

CITY OF WEST LINN	PIPE BEDDING AND BACKFILL DETAILS
DRAWN BY ODP DATE 5-20-93	
CHECKED BY DLL DATE 5-27-93	
APPROVED BY Earl Reed DATE 5-27-93	DWG. NO. PB - 280

169

AS BUILT

BY: D. Singer DATE: 4-21-94

M.F. KEKHIA 10/93
Designed Date
M.F.K 10/93
Drawn Date
R. COUPE, JR 10/93
Checked Date

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
10/21/93
OREGON
FEB. 23, 1979
ROGER COUPE, JR.
EXP. DEC. 31,1993

DETAILS

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