

# TIMBERS AT TOWNCENTER - PHASE II

LOCATED IN A PORTION OF THE SOUTHEAST  $\frac{1}{4}$  OF SECTION 3 T2N, R1E.

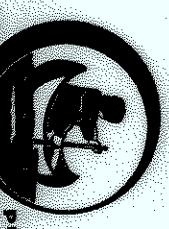
## CLARK COUNTY, WASHINGTON

SGA ENGINEERING & DESIGN  
CIVIL ENGINEERING ~ LAND PLANNING  
DEVELOPMENT SERVICES  
LANDSCAPE ARCHITECTURE

2005 BROADWAY  
VANCOUVER, WA 98663

PHONE (360) 993-0912

CLARK COUNTY	DEPARTMENT OF PUBLIC WORKS
PLANNING AND ZONING	PSR 2005-0005 PST 2011-0009
ENGINEERING	ENG 2012-0008
INSPECTION	
MELTADS BIOLOGIST CASE	
HABITAT BIOLOGIST CASE	

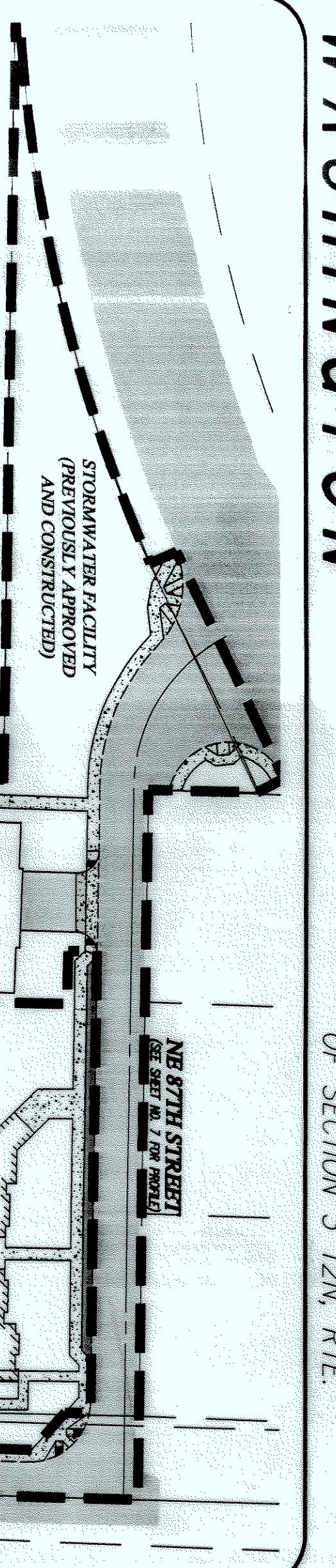


PROUD PARTNERS IN PROTECTING NATURE

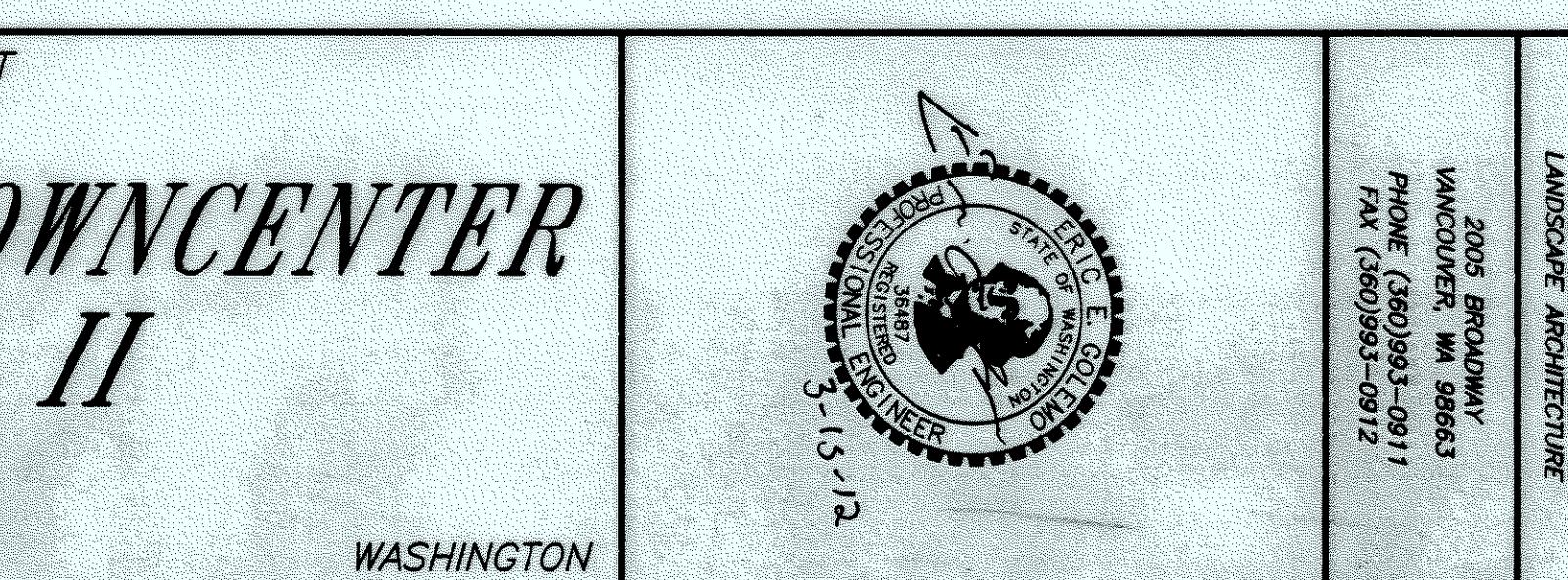
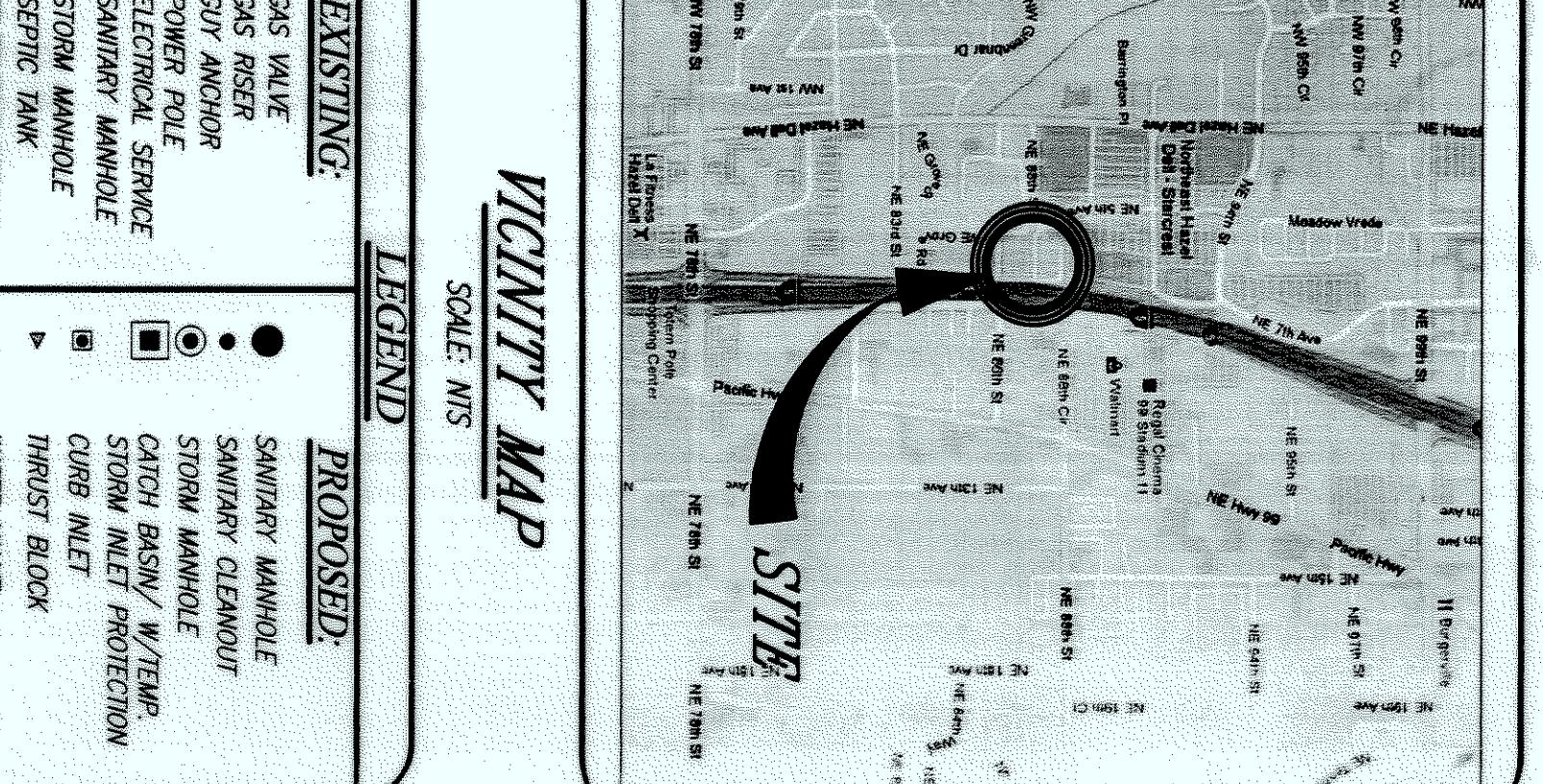
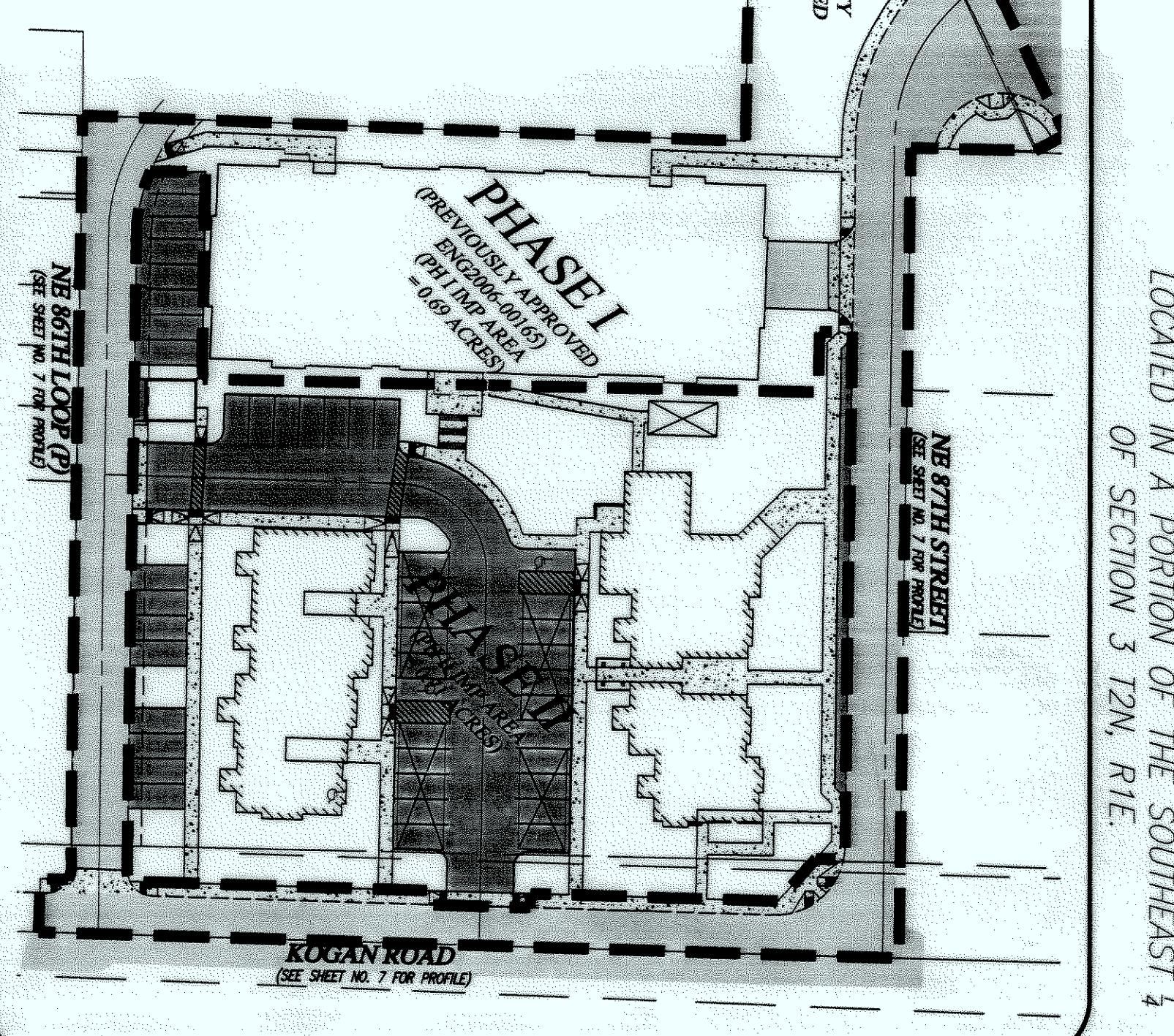
CWRC COUNCIL  
Recommended For Approval

Signature *[Signature]* Date *8/29/12*  
Clark County Environmental Services (REAP Division)

Signature *[Signature]* Date *8/29/12*  
Clark County Transportation



NOTE:  
SOME IMPROVEMENTS SHOWN IN THIS  
PLAN SET ARE DUPLICATE TO  
IMPROVEMENTS FOR TIMBERS AT  
TOWNCENTER PHASE (ENG2006-00165),  
WHICH IS CURRENTLY UNDER  
REFERENCE ONLY.  
IMPROVEMENTS ARE SHOWN FOR  
REFERENCE ONLY.



\*LEGEND SCALE: 1"=50'

### SHEET INDEX

#### DESCRIPTION

SHEET

COVER SHEET

EXISTING CONDITIONS PLAN

GRADING AND EROSION CONTROL PLAN

SPOT GRADE PLAN

STREET AND STORMWATER PLAN

SANITARY AND WATER PLAN

PROFILE SHEET

SIGNING AND STRIPPING PLAN

CLARK COUNTY DETAIL SHEET - GRADING AND EROSION CONTROL

CLARK COUNTY DETAIL SHEET - ROADWAY CONSTRUCTION 1

CLARK COUNTY DETAIL SHEET - ROADWAY CONSTRUCTION 2

CLARK COUNTY DETAIL SHEET - SANITARY CONSTRUCTION

CLARK P.U.D. DETAIL SHEET - WATER CONSTRUCTION

POST DECISION REVIEW SITE PLAN

COVER SHEET  
CLARK COUNTY  
WASHINGTON

REVISIONS

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**WET WEATHER CONDITIONS & STEEP TERRAIN:**

- 1.) SIGNIFICANT VARIATION AND DEGREE OF EROSION CONTROL EFFORT WILL BE DICTATED BY WEATHER CONDITIONS. THE DEVELOPER AND CONTRACTOR SHOULD BE PREPARED TO PROVIDE EARTH EROSION CONTROL PROTECTIONS AND EFFORT DURING WINTER AND THE WEAVER CONDITIONS BECOME UNSTABLE. WHEN EXCESSIVE MOISTURE WEATHER CONDITIONS, THE GRAINED AND UNCONSOLIDATED SOILS ON SLOPING SITES MAY BECOME UNSTABLE.
- 2.) IN AREAS OF STEEP TERRAIN, ADDITIONAL EROSION CONTROL MEASURES MAY ALSO BE NEEDED. MEASURES WHICH COULD BE USED INCLUDE, BUT ARE NOT LIMITED TO, LONG PERIODS OF TIME AND SHOULD BE PROTECTED WITH AN APPROVED EROSION CONTROL BMP.
- 3.) CLEANING AND GRAVING PRACTICES SHOULD BE COMPLETED IN SEVERAL PHASES TO AVOID LARGE AREAS OF UNPROTECTED EXPOSED SOIL. EROSION CONTROL SHALL BE IMPLEMENTED ON EACH PHASE BEFORE CONTINUING GRAVING.

**ADDITIONAL GRADING AND DRAINAGE NOTES:**

- 1.) THERE SHOULD BE NO CUTTING OR FILLING WITHIN 2 FEET OF THE PROPERTY LINE AS PER CHAPTER J OF THE IBC.
- 2.) THIS PROJECT WILL NOT INCREASE OR CONCENTRATE STORMWATER RUNOFF INTO ADJACENT PARCELS AS PER CCC 40. CROSS LOT DRAINS WILL NOT BE ALLOWED.
- 3.) PRODUCE 95% COMPACTION UNDER ROADWAY AND 90% COMPACTION IN LOT AREAS.
- 4.) AT THE TIME OF LOT GRAVING, LOTS SHALL BE GRADED IN A MANNER WITH A POSITIVE GRADIENT TO THE STREET OR REAR YARD SYSTEM.

**DIRT QUANTITIES (CY)**

**STRUCTURAL/ANIMASTRUCTURE**

**NET CUT**

**FILL**

**NET CUT**





1. All sanitary sewer construction will conform to the current adopted Construction Specifications of the District.

2. All work in Clark County right-of-way will conform to the requirements of the Clark County Utility Permit, City of Vancouver, City of Battle Ground, applicable Right-of-Way permits, NSDOI Franchise, & District Requirements, whichever are more stringent.

3. Contractor shall contact the NW Utility Identification Center at 1-800-424-5655, at least two (2) working days before bid or not more than (10) ten working days before the start of construction of the work and shall comply with State requirement for utility bidding.

4. All survey instrumentation shall be protected from damage unless otherwise permitted by Department of Natural Resources.

5. A preconstruction conference shall be held prior to the start of construction of the project.

6. Gravity sanitary sewer pipe material for lines six (6) inches inside diameter and larger shall be:

a. Schedule 40 ABS or Schedule 40 solvent weld PVC at depths of cover from three (3) feet to less than five (5) feet in non-vehicular traveled areas, or

b. PVC Pipe at depths of cover of five (5) feet or depths of cover of nearly 200' feet, or

c. AWWA C900 or C905 Class 50 ductile iron pipe at depths of cover greater than 20'.

7. Gravity sanitary sewer pipe material for lines four (4) inches inside diameter and smaller shall be:

a. AWWA C900 or C905 PVC pipe at depths of cover from three (3) feet to less than five (5) feet in vehicle traveled areas, or

b. Schedule 40 ABS or Schedule 40 solvent weld PVC at depths of cover from three (3) feet to less than five (5) feet in non-vehicular traveled areas, or

c. Schedule 40 ABS or Schedule 40 solvent weld PVC at depths of cover of five (5) feet or more.

8. Connections for side sewers (manholes) shall be:

a. District mainline Taps for Existing Lines: Note: A "Request for Tap" form must be completed by the contractor and a two (2) working day notice be given to the District to allow the tap to be conducted.

b. The ends of side sewers (manholes) shall be:

a. Back-filled only after District inspection and approval and the Design Engineer or surveyor has obtained record drawing information.

b. Marked with a 2x6x10' engraved with NWC External Seal height (0) inch (nominal width), or approved equal.

c. Manholes shall not have edges of manhole casting and cover within three (3) feet of the curb gutter. Where determined by the District, manholes shall be installed in manholes.

d. All testing shall be in accordance with the District's Construction Specifications.

e. At the preconstruction conference the contractor must state if they intend to use an approved private television inspection subcontractor or the District.

f. The Design Engineer or surveyor will submit preexisting record drawings prior to testing.

14. All existing utility tanks shall be decommissioned in accordance with Clark County Health and District requirements.

15. Record Drawing Sheet to submit to the District prior to final acceptance.

16. All lateral lines shall be marked with their true Tallying who shall be installed on main lines where shown on the plans.

17. Owner engineer shall verify drain invert elevations prior to backfilling.

18. The Design Engineer or surveyor will submit preexisting record drawings prior to testing.

19. Record Drawing Sheet to submit to the District prior to final acceptance.

20. All lateral lines shall be marked with their true Tallying who shall be installed on main lines where shown on the plans.

21. Owners engineer shall verify drain invert elevations prior to backfilling.

22. The marker will extend at least three (3) feet above the finished ground surface. Two (2) feet will be taken off the top of the marker.

The marker will be ten (10') feet long, the contractor shall mark the actual length of the 2x6x10' engraved eight from the end of the barrel.

23. All manholes shall be externally sealed with NWC External Seal height (0) inch (nominal width), or approved equal.

24. Manholes shall not have edges of manhole casting and cover within three (3) feet of the curb gutter. Where determined by the District, manholes shall be installed in manholes.

25. All testing shall be in accordance with the District's Construction Specifications.

26. The installed water main shall be pressure tested at a minimum of 150 psi or 1.5 times the working pressure, whichever is greater. The test will be performed by the Clark Public Utilities Inspector.

27. The installed water main shall be hydrostatically disinfected and flushed in accordance with the Clark Public Utilities Inspector's standards and requirements. Only Clark Public Utilities employees are permitted to flush and flush the water main. The contractor shall provide assistance to the District in areas where the de-chlorination equipment is not available.

28. Prior to accepting the system or allowing the main to be put in service a water sample shall be taken by the Clark Public Utilities Inspector and a test performed by an accredited lab to insure no hazard exists.

29. Any pipe fittings or valves that cannot be disinfected with the main line by chlorine for 24 hours shall be removed.

30. Concrete thrust blocks shall be constructed at all tee, bends, block-offs, dead ends and where indicated on the plans.

31. All new fittings shall be restrained using mechanical restraint follower glands.

32. Water Main Installation Requirements

33. 1. 6" WATER PIPE LEADING TO FIRE HYDRANTS SHALL BE DIP AND SHALL BE ONE CONTINUOUS PIECE OF PIPE. IF THE RUN IS LONGER THAN ONE PIECE OF PIPE, THEN ALL PIPE JOINTS SHALL BE MECHANICALLY RESTRAINED WITH FIELD-LOK® GASKETS OR OTHER CPU APPROVED RESTRAINTS.

34. HORIZONTAL INSTALLATION

35. 1. UNLESS OTHERWISE STATED ON THE PLAN, NO UNRESTRAINED PIPE JOINTS WILL BE ALLOWED WITHIN 10' OF ANY FITTING, VALVE OR RESTRAINT.

36. VERTICAL INSTALLATION

37. 1. Vertical pipe shall be used in any locations requiring vertical bends. All vertical bends may require MEGA LUG RESTRAINTS OR OTHER CPU APPROVED RESTRAINTS. IN ADDITION, NO UNRESTRAINED PIPE JOINTS WILL BE ALLOWED WITHIN 10' OF ANY FITTING, VALVE OR RESTRAINT.

38. 2. RESTRAINTS THAT ARE PRE-DETERMINED DISTANCE FROM THE BENDS AS THE RESTRAINED LENGTH IS NOT SPECIFIED, THE CONTRACTOR SHALL NOT INSTALL THE VERTICAL BENDS UNTIL CPU APPROVES THE REQUIRED RESTRAINED LENGTH.

39. 3. CONTRACTOR SHALL NOT INSTALL THE VERTICAL BENDS UNTIL CPU APPROVES THE REQUIRED RESTRAINED LENGTH.

40. 4. CONTRACTOR SHALL NOT USE FIELD-LOK® GASKETS OR OTHER CPU APPROVED RESTRAINTS.

41. 5. HIGH DENSITY POLYETHYLENE PIPE (HDPE) PIPE (RECEIVED CPU APPROVAL) SHALL MEET THE FOLLOWING REQUIREMENTS:

42. 6. HDPE PIPE SHALL BE SDR 9, MR 200 OR AS SPECIFIED ON THE PLANS. MEET THE FOLLOWING REQUIREMENTS:

43. 7. HDPE PIPE MEETING THE REQUIREMENTS OF AWWA C905, USE PUSH-ON JOINTS EXCEPT WHERE OTHER JOINT TYPES ARE NOTED ON THE DRAWINGS. ALL HDPE PIPE SHALL BE GAUGED, UNLESS SPECIFICALLY NOTED ON THE CONTRACT DRAWINGS. 3-12" PIPE SHALL BE PRESSURE TESTED AT 100% OF THE PLATEAU TEST PRESSURE, UNLESS OTHERWISE STATED. HDPE PIPE MUST NOT BE USED FOR LINES SMALLER THAN 12" IN DIAMETER.

44. 8. POLYVINYL CHLORIDE (PVC) PIPE PRESSURE TESTS SHALL BE UNRESTRAINED, UNLESS A PRE-DETERMINED DISTANCE FROM THE BENDS AS THE RESTRAINED LENGTH IS NOT SPECIFIED, THE CONTRACTOR SHALL NOT RESTRAIN THE PVC PIPE.

45. 9. HDPE PIPE SHALL BE SUITABLE FOR PORTABLE WATER SERVICE. PVC PIPE SHALL MEET THE FOLLOWING REQUIREMENTS:

46. 1. PIPE: A. LARGE DIAMETER PIPE (14"-30"), PIPE SHALL MEET THE REQUIREMENTS OF AWWA C905, USE PUSH-ON JOINTS EXCEPT WHERE OTHER JOINT TYPES ARE NOTED ON THE DRAWINGS. ALL HDPE PIPE SHALL BE GAUGED, UNLESS SPECIFICALLY NOTED ON THE CONTRACT DRAWINGS. 3-12" PIPE SHALL BE PRESSURE TESTED AT 100% OF THE PLATEAU TEST PRESSURE, UNLESS OTHERWISE STATED. HDPE PIPE MUST NOT BE USED FOR LINES SMALLER THAN 12" IN DIAMETER.

47. B. SMALL DIAMETER PIPE (4"-12"), PIPE SHALL MEET THE REQUIREMENTS OF AWWA C900, PROVIDED THAT THE PVC PIPE MEET THE REQUIREMENTS OF AWWA C905, USE PUSH-ON JOINTS EXCEPT WHERE OTHER JOINT TYPES ARE NOTED ON THE CONTRACT DRAWINGS. HDPE PIPE MUST NOT BE USED FOR LINES SMALLER THAN 12" IN DIAMETER.

48. C. HIGH DENSITY POLYETHYLENE PIPE (HDPE) PIPE (RECEIVED CPU APPROVAL) SHALL MEET THE FOLLOWING REQUIREMENTS:

49. D. THE FOLLOWING REQUIREMENTS ARE NOT APPLICABLE TO HDPE PIPE:

50. E. AHDPE PIPE SHALL BE SDR 9, MR 200 OR AS SPECIFIED ON THE PLANS. MEET THE FOLLOWING REQUIREMENTS:

51. F. HDPE PIPE MEETING THE REQUIREMENTS OF AWWA C905, USE PUSH-ON JOINTS EXCEPT WHERE OTHER JOINT TYPES ARE NOTED ON THE DRAWINGS. ALL HDPE PIPE SHALL BE GAUGED, UNLESS SPECIFICALLY NOTED ON THE CONTRACT DRAWINGS. 3-12" PIPE SHALL BE PRESSURE TESTED AT 100% OF THE PLATEAU TEST PRESSURE, UNLESS OTHERWISE STATED. HDPE PIPE MUST NOT BE USED FOR LINES SMALLER THAN 12" IN DIAMETER.

52. G. HDPE PIPE MEETING THE REQUIREMENTS OF AWWA C905, USE PUSH-ON JOINTS EXCEPT WHERE OTHER JOINT TYPES ARE NOTED ON THE DRAWINGS. ALL HDPE PIPE SHALL BE GAUGED, UNLESS SPECIFICALLY NOTED ON THE CONTRACT DRAWINGS. 3-12" PIPE SHALL BE PRESSURE TESTED AT 100% OF THE PLATEAU TEST PRESSURE, UNLESS OTHERWISE STATED. HDPE PIPE MUST NOT BE USED FOR LINES SMALLER THAN 12" IN DIAMETER.

53. H. HDPE PIPE MEETING THE REQUIREMENTS OF AWWA C905, USE PUSH-ON JOINTS EXCEPT WHERE OTHER JOINT TYPES ARE NOTED ON THE DRAWINGS. ALL HDPE PIPE SHALL BE GAUGED, UNLESS SPECIFICALLY NOTED ON THE CONTRACT DRAWINGS. 3-12" PIPE SHALL BE PRESSURE TESTED AT 100% OF THE PLATEAU TEST PRESSURE, UNLESS OTHERWISE STATED. HDPE PIPE MUST NOT BE USED FOR LINES SMALLER THAN 12" IN DIAMETER.

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58. M. HDPE PIPE MEETING THE REQUIREMENTS OF AWWA C905, USE PUSH-ON JOINTS EXCEPT WHERE OTHER JOINT TYPES ARE NOTED ON THE DRAWINGS. ALL HDPE PIPE SHALL BE GAUGED, UNLESS SPECIFICALLY NOTED ON THE CONTRACT DRAWINGS. 3-12" PIPE SHALL BE PRESSURE TESTED AT 100% OF THE PLATEAU TEST PRESSURE, UNLESS OTHERWISE STATED. HDPE PIPE MUST NOT BE USED FOR LINES SMALLER THAN 12" IN DIAMETER.

59. N. HDPE PIPE MEETING THE REQUIREMENTS OF AWWA C905, USE PUSH-ON JOINTS EXCEPT WHERE OTHER JOINT TYPES ARE NOTED ON THE DRAWINGS. ALL HDPE PIPE SHALL BE GAUGED, UNLESS SPECIFICALLY NOTED ON THE CONTRACT DRAWINGS. 3-12" PIPE SHALL BE PRESSURE TESTED AT 100% OF THE PLATEAU TEST PRESSURE, UNLESS OTHERWISE STATED. HDPE PIPE MUST NOT BE USED FOR LINES SMALLER THAN 12" IN DIAMETER.

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61. P. HDPE PIPE MEETING THE REQUIREMENTS OF AWWA C905, USE PUSH-ON JOINTS EXCEPT WHERE OTHER JOINT TYPES ARE NOTED ON THE DRAWINGS. ALL HDPE PIPE SHALL BE GAUGED, UNLESS SPECIFICALLY NOTED ON THE CONTRACT DRAWINGS. 3-12" PIPE SHALL BE PRESSURE TESTED AT 100% OF THE PLATEAU TEST PRESSURE, UNLESS OTHERWISE STATED. HDPE PIPE MUST NOT BE USED FOR LINES SMALLER THAN 12" IN DIAMETER.

62. Q. HDPE PIPE MEETING THE REQUIREMENTS OF AWWA C905, USE PUSH-ON JOINTS EXCEPT WHERE OTHER JOINT TYPES ARE NOTED ON THE DRAWINGS. ALL HDPE PIPE SHALL BE GAUGED, UNLESS SPECIFICALLY NOTED ON THE CONTRACT DRAWINGS. 3-12" PIPE SHALL BE PRESSURE TESTED AT 100% OF THE PLATEAU TEST PRESSURE, UNLESS OTHERWISE STATED. HDPE PIPE MUST NOT BE USED FOR LINES SMALLER THAN 12" IN DIAMETER.

63. R. HDPE PIPE MEETING THE REQUIREMENTS OF AWWA C905, USE PUSH-ON JOINTS EXCEPT WHERE OTHER JOINT TYPES ARE NOTED ON THE DRAWINGS. ALL HDPE PIPE SHALL BE GAUGED, UNLESS SPECIFICALLY NOTED ON THE CONTRACT DRAWINGS. 3-12" PIPE SHALL BE PRESSURE TESTED AT 100% OF THE PLATEAU TEST PRESSURE, UNLESS OTHERWISE STATED. HDPE PIPE MUST NOT BE USED FOR LINES SMALLER THAN 12" IN DIAMETER.

64. S. HDPE PIPE MEETING THE REQUIREMENTS OF AWWA C905, USE PUSH-ON JOINTS EXCEPT WHERE OTHER JOINT TYPES ARE NOTED ON THE DRAWINGS. ALL HDPE PIPE SHALL BE GAUGED, UNLESS SPECIFICALLY NOTED ON THE CONTRACT DRAWINGS. 3-12" PIPE SHALL BE PRESSURE TESTED AT 100% OF THE PLATEAU TEST PRESSURE, UNLESS OTHERWISE STATED. HDPE PIPE MUST NOT BE USED FOR LINES SMALLER THAN 12" IN DIAMETER.

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67. V. HDPE PIPE MEETING THE REQUIREMENTS OF AWWA C905, USE PUSH-ON JOINTS EXCEPT WHERE OTHER JOINT TYPES ARE NOTED ON THE DRAWINGS. ALL HDPE PIPE SHALL BE GAUGED, UNLESS SPECIFICALLY NOTED ON THE CONTRACT DRAWINGS. 3-12" PIPE SHALL BE PRESSURE TESTED AT 100% OF THE PLATEAU TEST PRESSURE, UNLESS OTHERWISE STATED. HDPE PIPE MUST NOT BE USED FOR LINES SMALLER THAN 12" IN DIAMETER.

68. W. HDPE PIPE MEETING THE REQUIREMENTS OF AWWA C905, USE PUSH-ON JOINTS EXCEPT WHERE OTHER JOINT TYPES ARE NOTED ON THE DRAWINGS. ALL HDPE PIPE SHALL BE GAUGED, UNLESS SPECIFICALLY NOTED ON THE CONTRACT DRAWINGS. 3-12" PIPE SHALL BE PRESSURE TESTED AT 100% OF THE PLATEAU TEST PRESSURE, UNLESS OTHERWISE STATED. HDPE PIPE MUST NOT BE USED FOR LINES SMALLER THAN 12" IN DIAMETER.

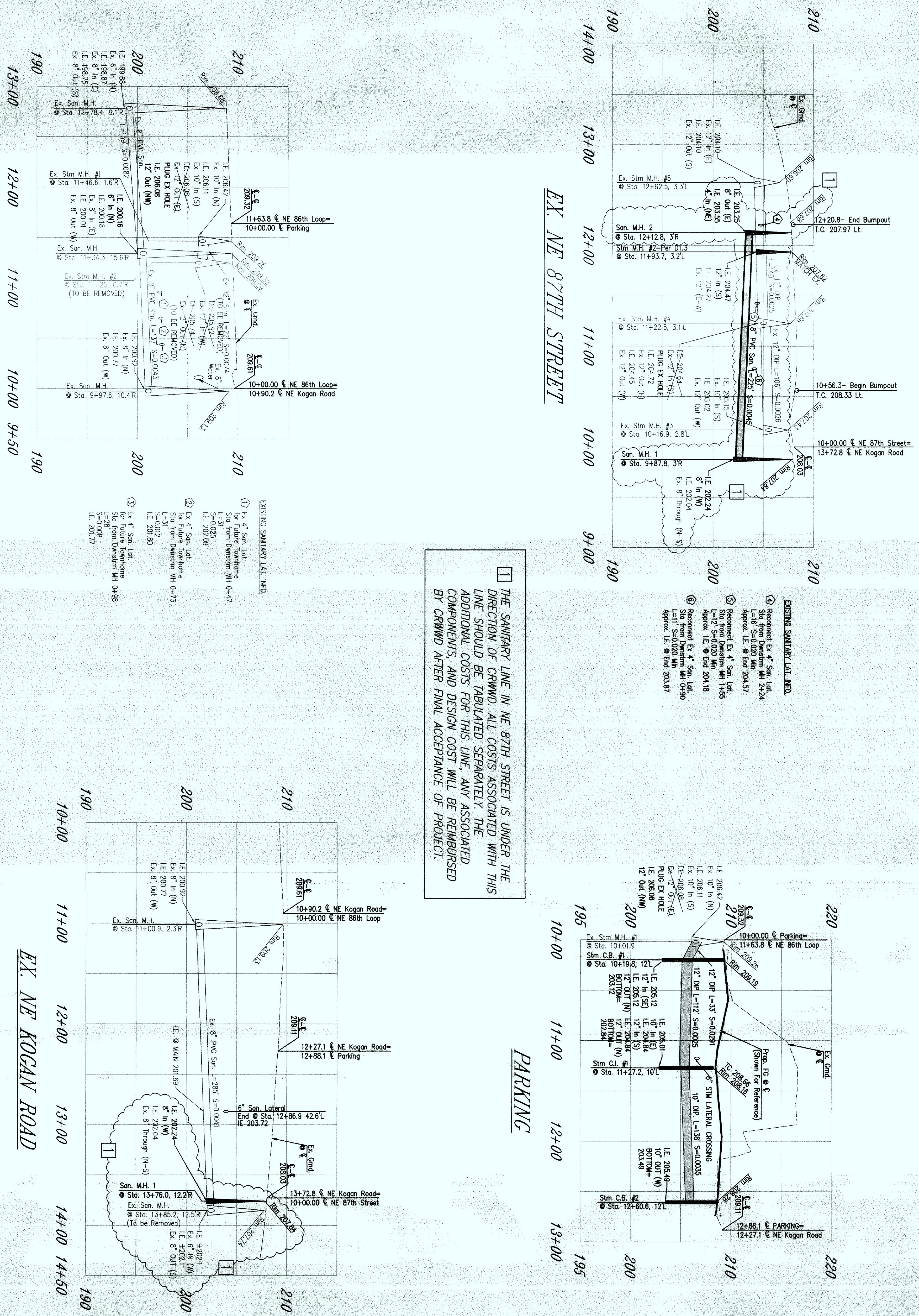
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70. Y. HDPE PIPE MEETING THE REQUIREMENTS OF AWWA C905, USE PUSH-ON JOINTS EXCEPT WHERE OTHER JOINT TYPES ARE NOTED ON THE DRAWINGS. ALL HDPE PIPE SHALL BE GAUGED, UNLESS SPECIFICALLY NOTED ON THE CONTRACT DRAWINGS. 3-12" PIPE SHALL BE PRESSURE TESTED AT 100% OF THE PLATEAU TEST PRESSURE, UNLESS OTHERWISE STATED. HDPE PIPE MUST NOT BE USED FOR LINES SMALLER THAN 12" IN DIAMETER.

71. Z. HDPE PIPE MEETING THE REQUIREMENTS OF AWWA C905, USE PUSH-ON JOINTS EXCEPT WHERE OTHER JOINT TYPES ARE NOTED ON THE DRAWINGS. ALL HDPE PIPE SHALL BE GAUGED, UNLESS SPECIFICALLY NOTED ON THE CONTRACT DRAWINGS. 3-12" PIPE SHALL BE PRESSURE TESTED AT 100% OF THE PLATEAU TEST PRESSURE, UNLESS OTHERWISE STATED. HDPE PIPE MUST NOT BE USED FOR LINES SMALLER THAN 12" IN DIAMETER.

72. AA. HDPE PIPE MEETING THE REQUIREMENTS OF AWWA C905, USE PUSH-ON JOINTS EXCEPT WHERE OTHER JOINT TYPES ARE NOTED ON THE DRAWINGS. ALL HDPE PIPE SHALL BE GAUGED, UNLESS SPECIFICALLY NOTED ON THE CONTRACT DRAWINGS. 3-12" PIPE SHALL BE PRESSURE TESTED AT 100% OF THE PLATEAU TEST PRESSURE, UNLESS OTHERWISE STATED. HDPE PIPE MUST NOT BE USED FOR LINES SMALLER THAN 12" IN DIAMETER.

73. BB. HDPE PIPE MEETING THE REQUIREMENTS OF AWWA C905, USE PUSH-ON JOINTS EXCEPT WHERE OTHER JOINT TYPES ARE NOTED ON THE DRAWINGS. ALL HDPE PIPE SHALL BE GAUGED, UNLESS SPECIFICALLY NOTED ON



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*PROFILE SHEET*

*TIMBERS AT TOWNCENTER  
PLACE, IL*

Figure 1. A photograph of a sample of  $\text{Fe}_{0.5}\text{Mn}_{0.5}$  taken at a magnification of  $100 \times$ . The sample has a granular structure.



*& DESIGN*

CML ENGINEERING ~ LAND PLANNING  
DEVELOPMENT SERVICES  
LANDSCAPE ARCHITECTURE

2005 BROADWAY  
VANCOUVER, WA 98663  
PHONE (360)993-0911  
FAX (360)993-0912

- LEGEND**
- △ \* STOP SIGN (R1-1)  
(INSTALLED BY CONTRACTOR OFF COUNTY R/W)
  - +△ \* STREET NAME SIGN  
(INSTALLED BY COUNTY FORCES ON COUNTY R/W)
  - △ \* 25 MPH SPEED LIMIT SIGN  
(INSTALLED BY CONTRACTOR OFF COUNTY R/W)
  - △ \* "NO PARKING ANYTIME" SIGN  
(ARROW IN BOTH DIRECTIONS)  
(INSTALLED BY COUNTY FORCES ON COUNTY R/W)
  - \* STREET LIGHT
- \* ITEMS FROM PREVIOUSLY APPROVED TIMBER AT TOWNCENTER PHASE I PLAN SET (ENG 2006-00165) SHOWN FOR REFERENCE.

- △ STOP SIGN (R1-1)  
(INSTALLED BY CONTRACTOR OFF COUNTY R/W)
- +△ STREET NAME SIGN  
(INSTALLED BY COUNTY FORCES ON COUNTY R/W)
- △ "NO PARKING ANYTIME" SIGN  
(ARROW IN WEST DIRECTION)  
(INSTALLED BY COUNTY FORCES ON COUNTY R/W)
- △ "NO PARKING ANYTIME" SIGN  
(ARROW IN BOTH DIRECTIONS)  
(INSTALLED BY COUNTY FORCES ON COUNTY R/W)
- △ "NO PARKING ANYTIME" SIGN  
(ARROW IN BOTH DIRECTIONS)  
(INSTALLED BY CONTRACTOR OFF COUNTY R/W)

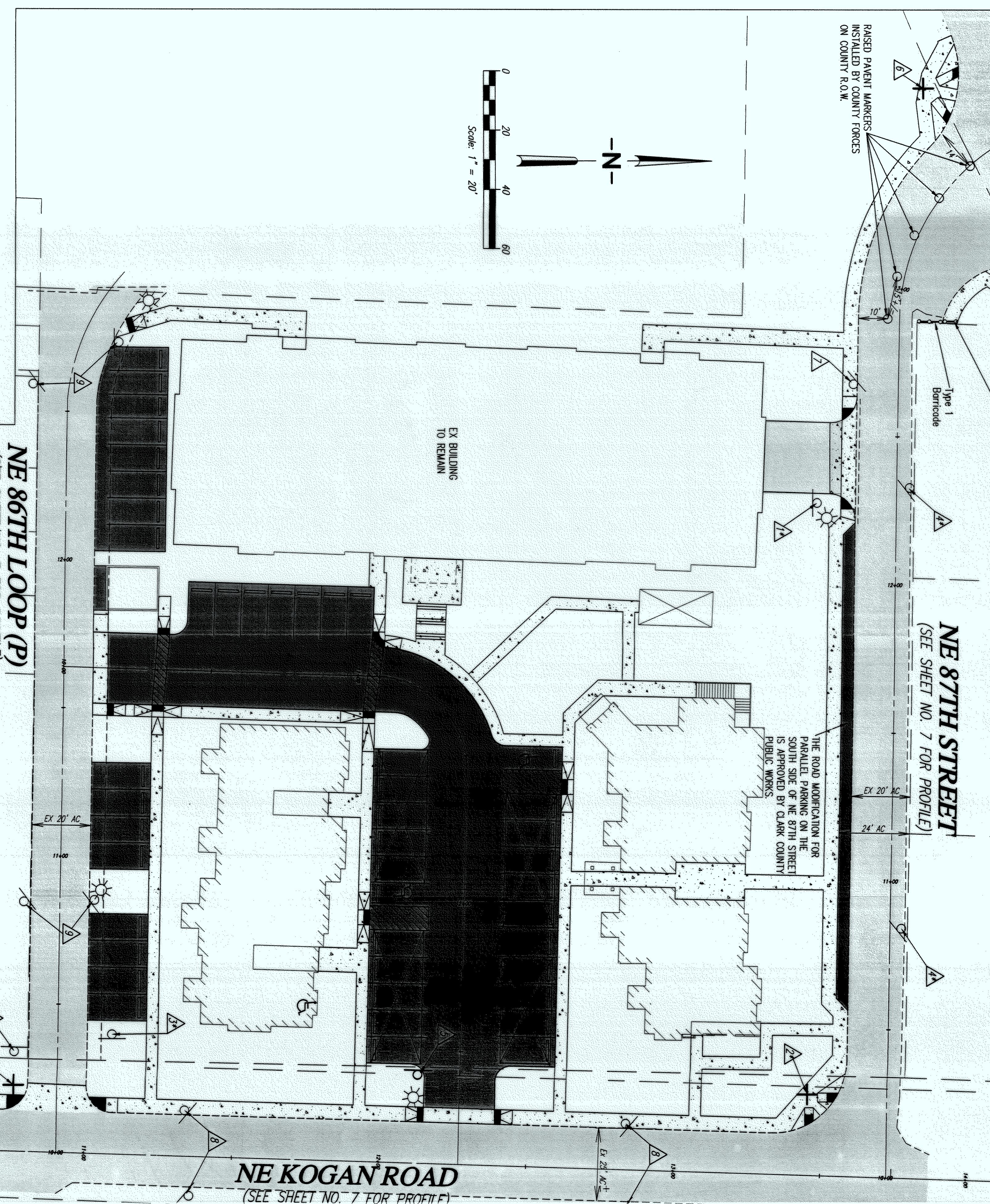
## STANDARD SIGNING &amp; STRIPING NOTES:

1. THE SIGNING AND STRIPPING NOTES SHALL CONFORM TO WSDOT "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION" SECTION 8-22.360. THE COUNTY'S ACCEPTED PRACTICE OF REMOVAL OR REPLACEMENT OF EXISTING PAINTED PAVEMENT MARKING IS BY SHOT BLASTING. ALL OTHER MARKINGS ARE REMOVED BY GRINDING. THE CONTRACTOR SHALL HAVE A WRITTEN APPROVAL BY THE ENGINEER FOR ANY OTHER METHOD OF REMOVAL.
2. THE CONTRACTOR SHALL MAINTAIN EXISTING PERMANENT SIGNING IN ACCORDANCE WITH WSDOT "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION" SECTION 1-07.22(1).
3. FOR PRIVATE DEVELOPMENT PROJECTS ITEM 3 AND 4 OF WSDOT STANDARD SPECIFICATIONS 1-07.22(1) SHALL BE MODIFIED TO REPLACE THE TERM CONTRACTING AGENCY WITH THE TERM CONTRACTOR.
4. THE CONTRACTOR SHALL PROMISE TEMPORARY PAVEMENT MARKINGS IN ACCORDANCE WITH WSDOT "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION" SECTION 8.23.
5. INSULATION OF ALL NEW AND FINAL RELOCATOR OF EXISTING TRAFFIC CONTROL DEVICES, INCLUDING PAVEMENT BARRICADES WHERE APPLICABLE, WILL BE PROVIDED BY CLARK COUNTY. PUBLIC WORKS. THE ACTUAL COST OF ALL WORK PERFORMED AND MATERIALS INSTALLED WILL BE REIMBURSED BY THE APPLICANT. THE CONTRACTOR SHALL MAINTAIN TEMPORARY SIGNS, STRIPING AND PAVEMENT MARKINGS UNTIL THE COUNTY PERFORMS SAID WORK.
6. ANY LOOPS DAMAGED OR DESTROYED DURING WORK PERFORMED IN COUNTY RIGHT-OF-WAY SHALL BE REPLACED IN ACCORDANCE WITH CCC 12.20A. SPLICES WILL NOT BE ALLOWED.

DATE ISSUED:	PAGE 3 OF 3	NO.	REVISIONS	DATE:	BY:
CLARK COUNTY	STANDARD TRENCH RESTORATION, SIGNING, STRIPPING AND STRIPING NOTES	SUPERVISOR	APPROVED	UGM	DETAL
WASHINGTON	5/24/12	08/21/12	08/21/12	08/21/12	08/21/12

<b>SIGNING &amp; STRIPING PLAN APPROVAL</b>	
All Construction to Conform to Clark County Standards	Checked:
RECOMMENDED FOR APPROVAL	Reviewed:
Date: 08/21/12	

### NE 86TH LOOP (P) (SEE SHEET NO. 7 FOR PROFILE)



## SIGNING AND STRIPING PLAN

### TIMBERS AT TOWNCENTER PHASE II

CLARK COUNTY

WASHINGTON



**SCA ENGINEERING & DESIGN**  
CIVIL ENGINEERING ~ LAND PLANNING  
DEVELOPMENT SERVICES  
LANDSCAPE ARCHITECTURE  
2005 BROADWAY  
VANCOUVER, WA 98663  
PHONE (360)993-0912  
FAX (360)993-0912

SGA ENGINEERING  
& DESIGN

CIVIL ENGINEERING ~ LAND PLANNING  
DEVELOPMENT SERVICES  
LANDSCAPE ARCHITECTURE

2005 BROADWAY

VANCOUVER, WA 98663

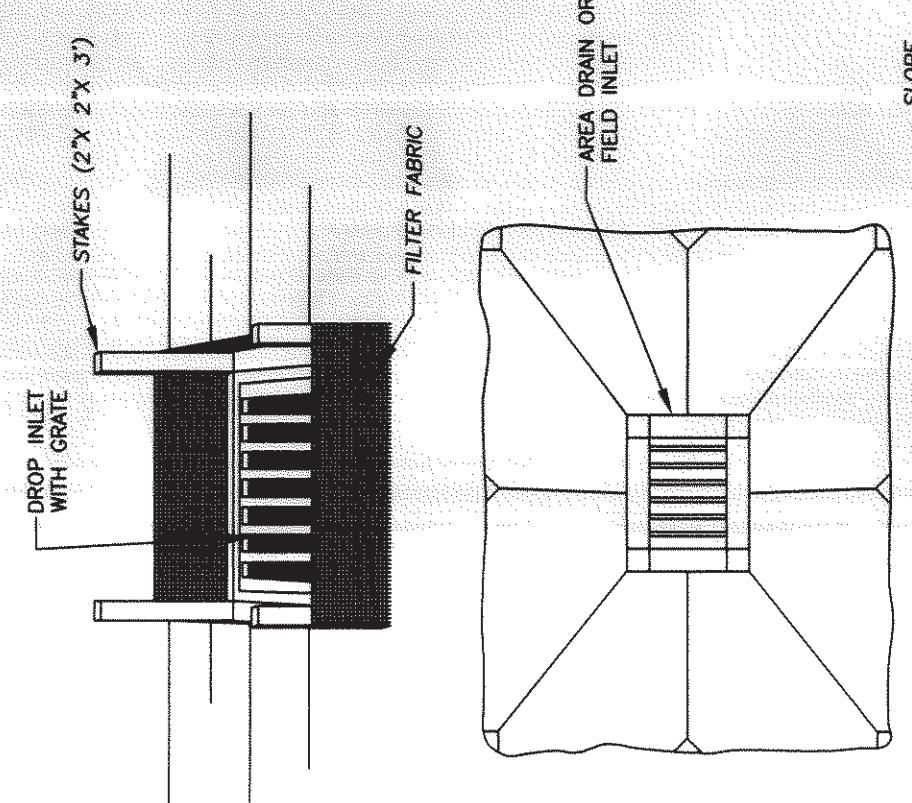
PHONE (360)993-0911

FAX (360)993-0912

WASHINGTON

## TMBERS AT TOWNCENTER

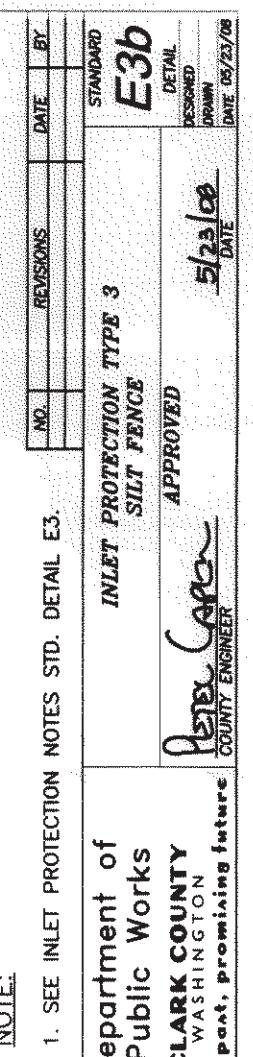
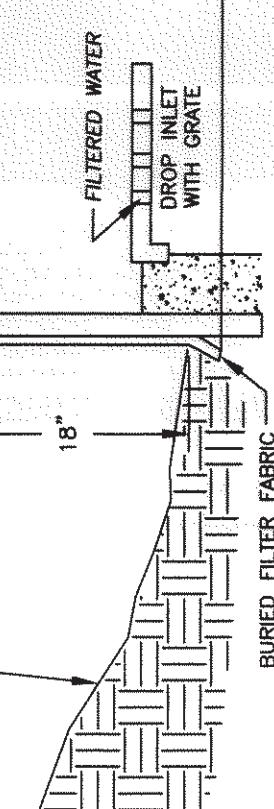
CLARK COUNTY DETAIL SHEET - GRADING AND EROSION CONTROL



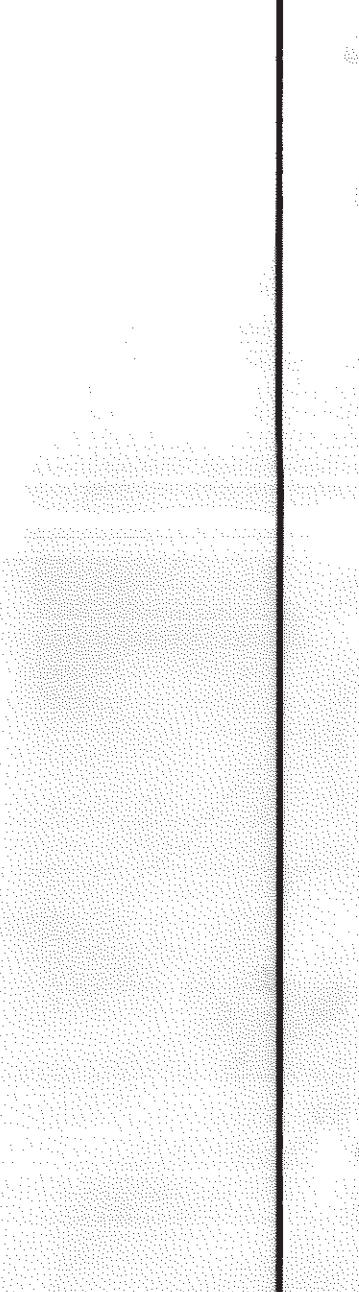
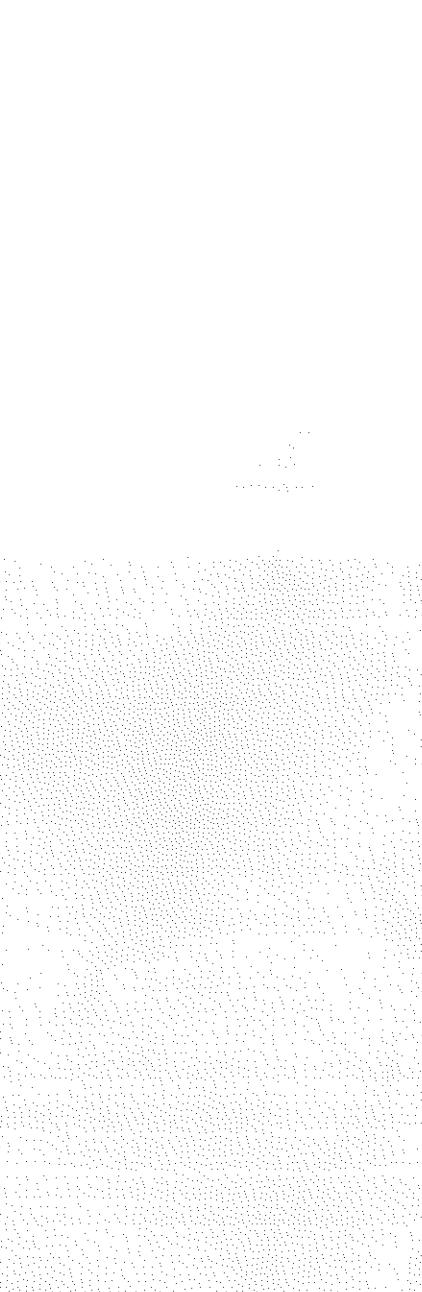
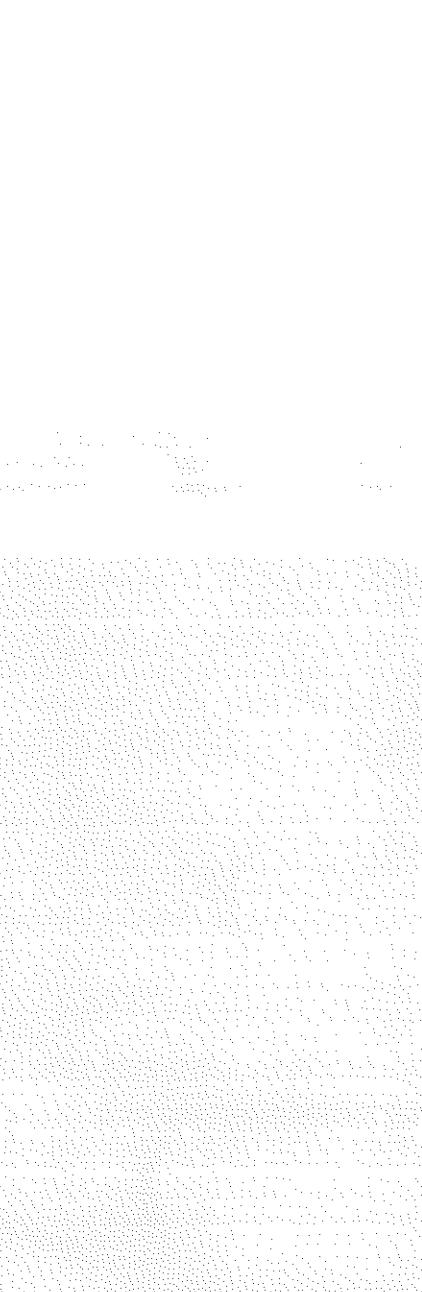
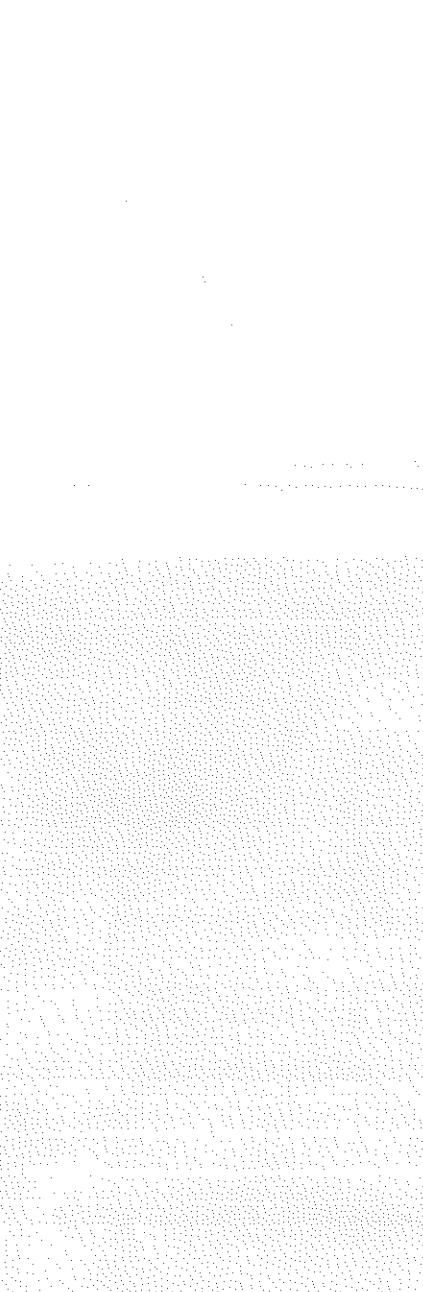
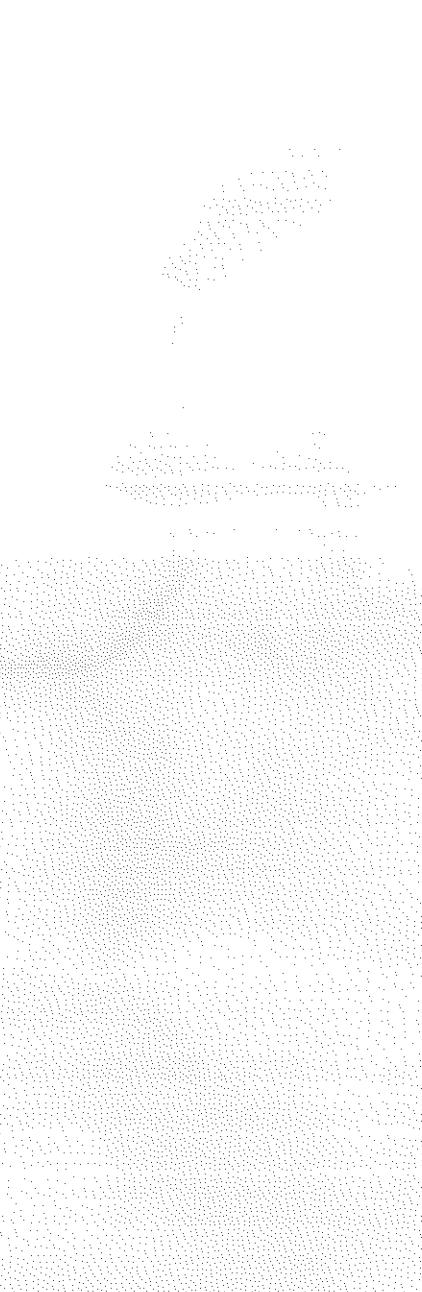
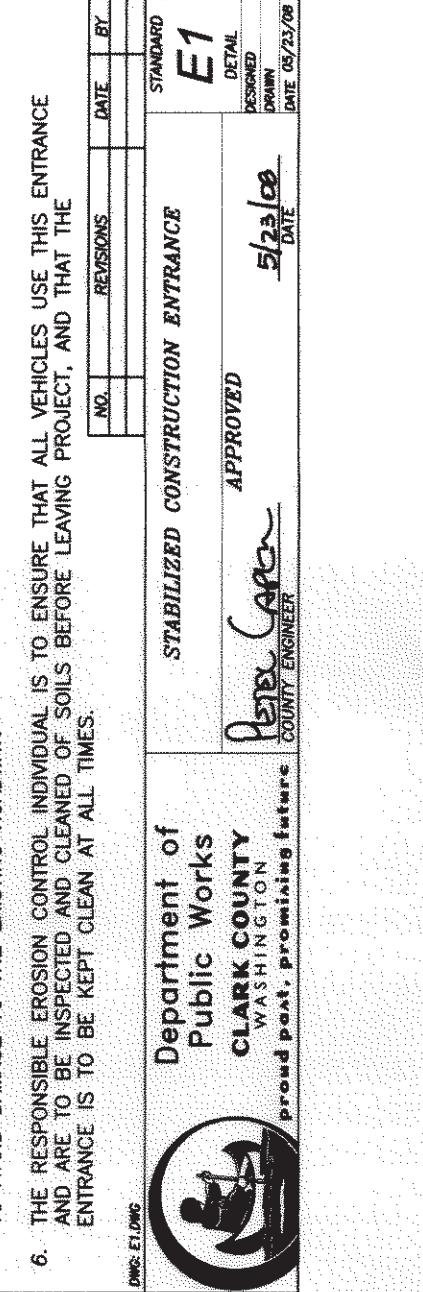
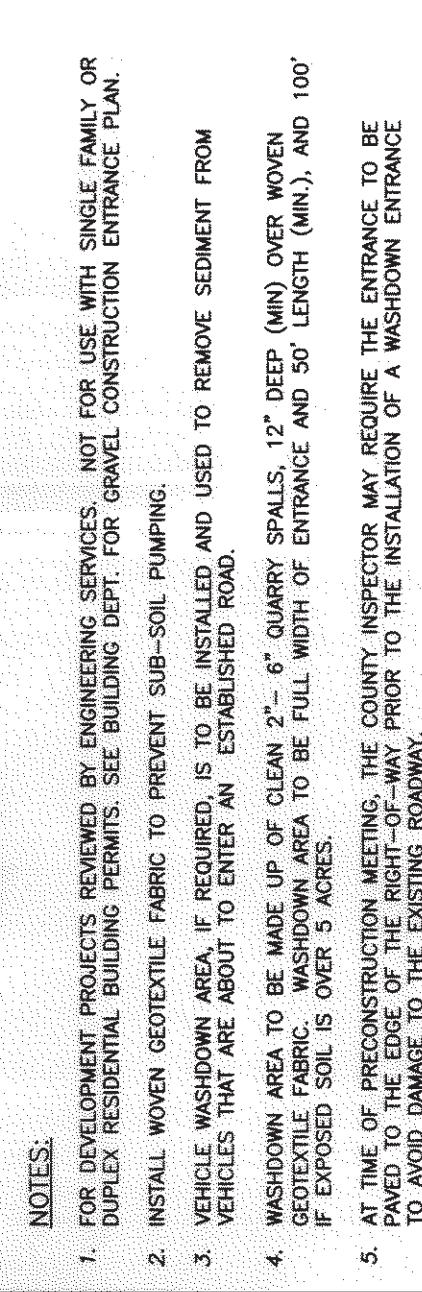
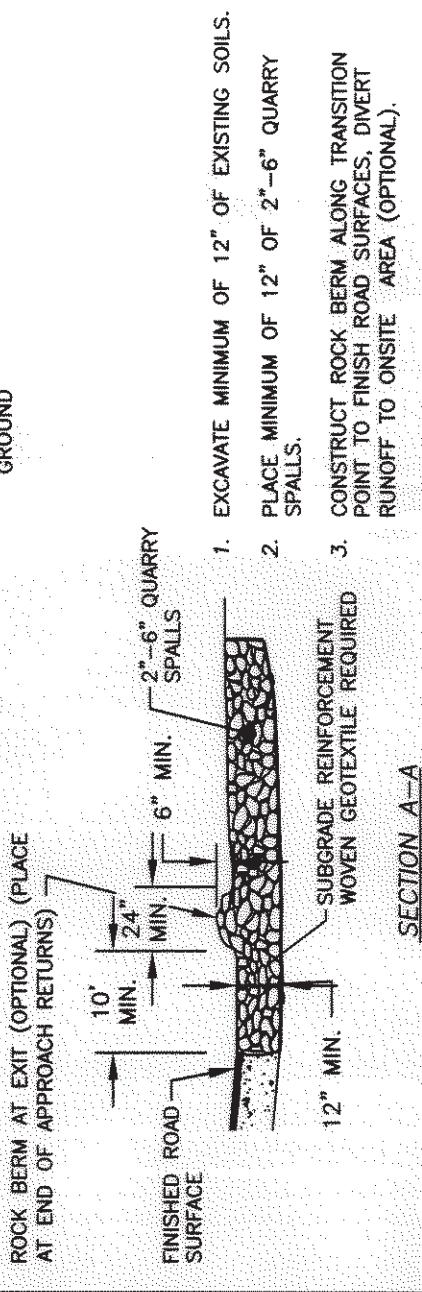
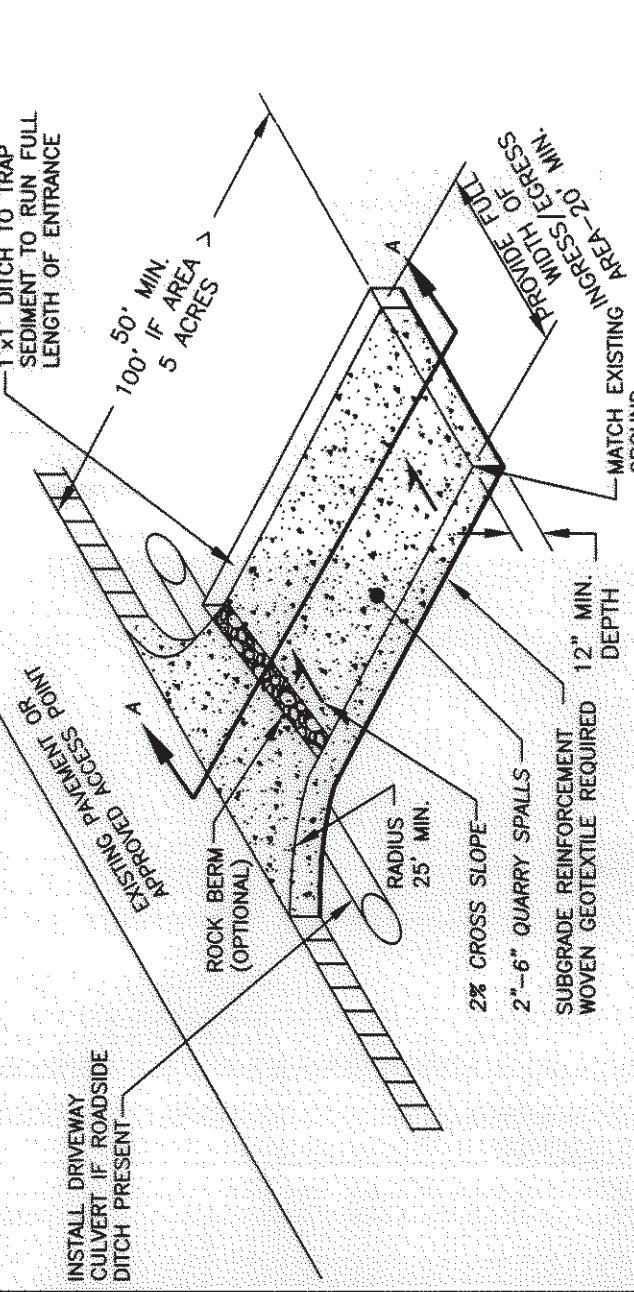
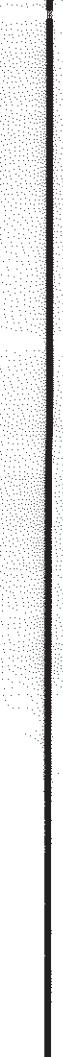
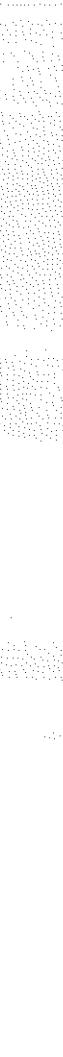
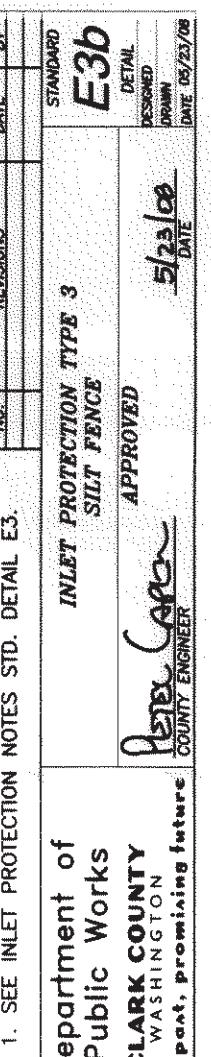
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PLAN VIEW

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PROFILE



## STANDARD NOTES FOR EROSION CONTROL PLAN (CONTINUED)

15. STABILIZED AREAS SHALL BE PROVIDED FOR EMPLOYEE PARKING AND STORAGE OF CONSTRUCTION MATERIALS. ERODIBLE STOCKPILES OF EARTHEN MATERIALS, SUCH AS TOPSOIL, SILT AND CLAYE SOILS, AND LANDSCAPE MATERIALS, SHALL BE COVERED WHEN NOT BEING INCORPORATED IN THE WORK. EROSION CONTROL BMP'S LEAD SHALL BE USED AS NECESSARY TO PREVENT SEDIMENT RUNOFF FROM LEAVING OR SEDIMENT BEING REMOVED FROM THESE AREA'S FROM VEHICLE ACTIVITY.

16. ALL POLLUTANTS OTHER THAN SEDIMENT THAT OCCUR DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORM WATER.

17. THE CONTRACTOR SHALL KEEP AN INSPECTION LOG OF THE CONDITION OF THE EROSION CONTROL FACILITIES. EROSION CONTROL FACILITIES SHALL BE KEPT AT THE PROJECT SITE, ALONG WITH EACH RAINFALL. THE INSPECTION LOG SHALL BE KEPT AT THE PROJECT SITE AT A DESIGNATED LOCATION AND SHALL BE AVAILABLE FOR REVIEW BY THE COUNTY. AN INDIVIDUAL THAT HAS SUCCESSFULLY COMPLETED THE COUNTY'S EROSION CONTROL CERTIFICATION COURSE SHALL PERFORM INSPECTIONS AND MAINTAIN THE LOG.

18. ALL TEMPORARY BMP'S SHALL BE ERECTED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED. ALL TEMPORARY BMP'S SHALL BE PERMANENTLY STABILIZED ON SITE. AREAS DISTURBED DURING CONSTRUCTION SHALL BE RE-EVACUATED AND RESTABILIZED.

19. CONSTRUCTION SHALL NOT BE CONSIDERED COMPLETE AND ACCEPTABLE UNTIL ALL DISTURBED SURFACES HAVE BEEN PROTECTED FROM EROSION WITH PERMANENT LANDSCAPING, COVERING WITH IMPERVIOUS SURFACES, OR RECOVERED ORIGINAL UNDISTURBED CONDITION OR PERMANENTLY STABILIZED.

20. VEGETATED STABILIZATION AND LANDSCAPING SHALL BE FERTILIZED, WATERED AND MAINTAINED TO INSURE THAT GROWTH OF VEGETATION IS ESTABLISHED AND SUSTAINED.

21. DURING DRIVEN RAIN, HEAVY CONSTRUCTION EQUIPMENT SHALL NOT OPERATE IN SOILS THAT ARE SOILS, SURFACE WATER, AND GROUND WATER. TARPS, Drip PANS, OR OTHER APPROPRIATE MEASURES SHALL BE USED AS NECESSARY.

22. ENTRY INTO THE CONSTRUCTION SITE SHALL BE RESTRICTED TO A SINGLE APPROVED ENTRANCE AS SHOWN ON THE PLAN.

23. MAINTENANCE AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES WHICH INVOLVE POTENTIAL CONTAMINANTS (OIL/SOLVENTS/HYDRAULIC FLUID, ETC.) MUST BE CONDUCTED IN A MANNER WHICH PREVENTS CONTAMINANT SPILLS. SURFACE WATER AND GROUND WATER, TARP, Drip PANS, OR OTHER APPROPRIATE MEASURES SHALL BE USED AS NECESSARY.

24. STRIPPING, TOPSOIL, AND UNSUITABLE MATERIAL STOCKPILES SHALL BE HYDROSEEDED WITH PREGREEN WHEAT, X WHEAT, GRASS HYBRID, BY HOBBS AND HORRINS (OR APPROVED EQUAL). MAINTENANCE OF STOCKPILE AREAS AND REAPPLICATION OF HYDROSEED COVERING SHALL BE REQUIRED IF BARE SOIL IS PRESENT, DURING WINTER AND WET WEATHER CONDITIONS. STOCKPILES SHALL BE COVERED WITH PLASTIC SHEETING PER DETAIL E-16.

25. SIGNIFICANT VARIATION AND DEGREE OF EROSION CONTROL EFFORT WILL BE DICTATED BY WEATHER CONDITIONS. THE DEVELOPER AND CONTRACTOR SHOULD BE PREPARED TO PROVIDE EXTRA EROSION CONTROL PROVISIONS, AND EFFORT DURING WINTER AND WET WEATHER CONDITIONS. FINE GRANDED AND UNCONSOLIDATED SOILS ON SLOPING SITES MAY BECOME UNSTABLE WHEN SUBJECT TO EXCESSIVE MOISTURE.

26. ALL PERMANENT CONSTRUCTION BMP'S SHALL BE ISOLATED AND PROTECTED FROM SEDIMENT LOAD RUNOFF ENTERING TO AVOID RISK OF REDUCING THE ABILITY OF THE SYSTEM TO MITRATE ISOLATION AND PROTECTION SHALL NOT BE REMOVED UNTIL THE DRAINAGE AREA TRIBUTARY TO THE SYSTEM IS COMPLETELY STABILIZED.

27. ALL CONVEYANCE CHANNELS, BOTH TEMPORARY AND PERMANENT, SHALL BE STABILIZED TO PREVENT EROSION OF THE CHANNEL. STABILIZATION SYSTEMS SHALL BE LOCATED OUTLET CHANNELS AS NECESSARY, ADJACENT PROPERTIES, OR PUBLIC RIGHTS-OF-WAY. ADDITIONAL BMP'S SHALL BE IMPLEMENTED IMMEDIATELY TO PREVENT FURTHER ENCROACHMENT OF SEDIMENT.

28. BIO-FILTER BAGS OR STRAW MATS MAY BE USED SHORT TERM, W/ INITY WORK AND W/ PHASING OF DEVELOPMENT.

29. STRAW MATS MUST BE STABILIZED BY ATTACHING WIRE CLIPS TO THE CATCH BASIN PER MANUFACTURER SPECIFICATIONS.

30. INLET PROTECTION MUST BE REGULARLY INSPECTED BY THE EROSION CONTROL INDIVIDUAL TO INSURE PROPER PLACEMENT AND FUNCTION AND MAINTENANCE.

31. SEE INLET PROTECTION NOTES STD. DETAIL E-3.

32. SEE INLET PROTECTION NOTES STD. DETAIL E-3.

33. SEE INLET PROTECTION NOTES STD. DETAIL E-3.

34. SEE INLET PROTECTION NOTES STD. DETAIL E-3.

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# TIMEBARS AT TOWNCENTER PHASE II

CLARK COUNTY DETAIL SHEET - DRAINAGE CONSTRUCTION

**D1.3**

**MATERIALS:** PRECAST CONCRETE, STEEL, REINFORCING BARS, WIRE FABRIC, POLYETHYLENE PIPE.

**NOTES:**

- MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASHTO M-199 UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIFICATIONS.
- HANDHOLDS SHALL HAVE 3" MIN. CLEARANCE. STEPS IN ADJUSTMENT SECTION SHALL HAVE 3" MIN. CLEARANCE. SEE STD. DETAIL D1.5. MANHOLE DEPTH = 25' MAX. HEGHT = 25'. HANHOLDS 2" ADJUSTMENT SECTION.
- ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000. NON-REINFORCED CONCRETE IN CHANNEL AND SHELF IN FIELD SHALL BE CLASS 3000. ALL PRECAST CONCRETE SHALL BE CLASS 4000.
- PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE WALL THICKNESS OF 2". KNOCKOUTS SHALL BE FURNISHED WITH CUTOUTS OR UNLESS OTHERWISE PROVIDED BY THE ENGINEER.
- KNOCKOUT OR CUTOUT HOLE SIZE SHALL EQUAL PIPE OUTTER DIAM. PLUS MANHOLE WALL THICKNESS. SEE MANHOLE DIMENSION TABLE BELOW.
- MANHOLE RINGS AND COVERS SHALL BE IN ACCORDANCE WITH WSDOT STANDARD RINGS SPECIFICATIONS SEC. 7-05 AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATIONS RR-F-621D. MANHOLE SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
- ALL BASE REINFORCING STEEL SHALL HAVE A MIN. YIELD STRENGTH OF 60,000 PSI AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1" MIN. CLEARANCE.
- FOR HEIGHTS OF 12' OR LESS, MIN. SOIL BEARING VALUE SHALL EQUAL 3,300 POUNDS PER SQUARE FOOT. FOR HEIGHTS OVER 12', MIN. SOIL BEARING VALUE EQUAL 3,800 POUNDS PER SQUARE FOOT.
- FOR DETAILS SHOWING GRADE RING, LADDER, STEPS, HANDHOLDS, AND TOP SLABS, SEE STD. DETAIL D1.5. "MANHOLE DETAILS".
- INSIDE DROP MAXIMUM TO BE 4", VERTICAL DISTANCE I.E. TO 1E. KNOCKOUTS TO BE USED WHEN STUB OUT PIPE IS 3", OR LESS.
- MINIMUM 0.20" FALL BETWEEN INLET AND OUTLET. ANY REDUCTION IN THIS DESIGN REQUIREMENT MUST BE APPROVED BY REVIEWING AUTHORITY.
- SEE THE WSDOT STANDARD SPECIFICATIONS SEC. 7-05.3 FOR JOINT REQUIREMENTS.

MANHOLE DIMENSION TABLE							
DIAMETER	THICKNESS	MINIMUM	WALL BASE	KNOCKOUTS	GENERAL SIZE	SEPARATE BASE	
48"	4"	6"	36"	0.15	0.25	0.29	0.35
54"	4.5"	6.5"	42"	0.19	0.25	0.24	0.35
60"	5"	7"	48"	0.23	0.25	0.22	0.35
66"	5.5"	8"	54"	0.27	0.25	0.21	0.35
72"	6"	8.5"	60"	0.31	0.25	0.19	0.35
78"	6.5"	9"	66"	0.35	0.25	0.17	0.35
84"	7"	9.5"	72"	0.39	0.25	0.15	0.35
90"	7.5"	10"	78"	0.43	0.25	0.13	0.35
96"	8"	10.5"	84"	0.47	0.25	0.11	0.35

**D4.0**

**MATERIALS:** PRECAST CONCRETE, STEEL, REINFORCING BARS, WIRE FABRIC, POLYETHYLENE PIPE.

**NOTES:**

- CURB INLET TO BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 (AASHTO M 199) & C890 UNLESS SHOWN ON PLANS OR NOTED IN THE PLANS OR SPECIFICATIONS.
- ON PLANS OR NOTED IN STANDARD SPECIFICATIONS.
- REINFORCING FOR INLET UNIT, 3 EA. #4 HORIZONTAL BARS.
- REINFORCING FOR TOP UNIT, 2 EA. #3 HORIZONTAL BARS.
- ALL REBAR TO MEET ASTM A615 GRADE 60.
- AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC SHALL COMPLY TO ASTM A97. WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
- REINFORCED CAST-IN-PLACE CONCRETE SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS MAY BE ON ALL 4 SIDES WITH MAX. DIAM. OF 20".
- PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A MIN. AREA OF 0.12 SQUARE INCHES PER FOOT. MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A97. WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
- THICKNESS OF 2" MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
- KNOCKOUTS OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTTER DIAM. PLUS INLET WALL THICKNESS.
- THE MAX. DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5'-0".
- ANY PROTRUDING ENDS OF PIPES SHALL BE TRIMMED FLUSH WITH THE INSIDE WALLS AND GROUTED TO THE SATISFACTION OF ENGINEER.
- CATCH BASIN FRAME AND GRATE SHALL BE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-621D. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
- PIPE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.
- INSTALL REMOVABLE OUTLET PIPE TRAP OR EQUAL, SEE STD. DETAIL D2.1.
- CONTRACTOR SHALL HAVE THE OPTION OF FURNISHING PRECAST OR CAST-IN-PLACE INLET STRUCTURES, UNLESS SPECIFIED.

STORM DRAIN GENERAL NOTES -CONTINUED-																																															
<p>13. PER CCC 40-380.040(C)(1)(h) &amp; 14-04-252, ALL LOTS WITHIN THE URBAN GROWTH AREA MUST BE DESIGNED TO PROVIDE POSITIVE DRAINAGE FROM BOTTOM OF FOOTINGS TO AN APPROVED STORMWATER SYSTEM. POSITIVE DRAINAGE MAY BE ACCOMPLISHED BY THE USE OF SWALES, DRYWELLS, FRENCH DRAINS, LATERAL TO THE STREET, LATERSALS BEHIND THE CURB OR WITHIN A PUBLIC UTILITY EASEMENT, AN APPROVED BACKYARD OR SIDE YARD SYSTEM, OR SOME OTHER METHOD ACCEPTABLE TO THE BUILDING OFFICIAL AND/OR DIRECTOR. STUB-OUTS (LATERALS) SHALL CONFORM TO THE FOLLOWING:</p> <p>a) EACH OUTLET SHALL BE SUITABLY LOCATED AT THE LOWEST ELEVATION ON THE LOT, SO AS TO SERVICE ALL FUTURE ROOF DOWN SPOUTS AND FOOTING DRAINS, DRIVEWAYS, YARD DRAINS, AND ANY OTHER SUBSURFACE DRAINS NECESSARY TO RENDER THE LOTS SUITABLE FOR THEIR INTENDED USE. EACH OUTLET SHALL HAVE FREE-FLOWING, POSITIVE DRAINAGE TO AN APPROVED STORMWATER CONVEYANCE SYSTEM OR TO AN APPROVED OUTFALL LOCATION.</p> <p>b) THE STUB-OUT I.E. ON EACH LOT SHALL BE LOCATED WITH A FIVE-FOOT-HIGH 2" x 4" STAKE MARKED "DRAIN", WITH PIPE AND STAKE ADEQUATELY WRAPPED WITH COPPER LOCATOR WIRE.</p> <p>c) STUB-OUT TO BE 6" MINIMUM DIAMETER, CORRUGATED POLYETHYLENE STORM SEWER PIPE (N-12), AT 2% MINIMUM SLOPE. PIPE SHALL CONTAIN WIRE OR OTHER ACCEPTABLE DETECTION.</p> <p>d) DRAINAGE EASEMENTS ARE REQUIRED FOR DRAINAGE SYSTEMS DESIGNED TO CONVEY FLOWS THROUGH INDIVIDUAL LOTS.</p> <p>e) THE APPLICANT/CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE PROPER LOCATION OF ALL STUB-OUT CONVEYANCE LINES WITH RESPECT TO UTILITIES (E.G. POWER, GAS, TELEPHONE, TELEVISION, ETC.), AND FOR AS-BUILT PLANS.</p> <p>f) ALL INDIVIDUAL STUB-OUTS SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE LOT OWNER, TO ITS CONNECTION WITH THE MAIN.</p> <p>14. PRIVATE SYSTEMS MUST MEET PLUMBING CODE, HAVE AN OPERATIONS AND MAINTENANCE MANUAL, MAINTENANCE COVENANT OVER THE REQUIRED EASEMENT, AND COVENANT TO CLARK COUNTY FOR INSPECTION AND REVIEW.</p>																																															
<p><b>NO. REVISIONS DATE BY</b></p> <table border="1"> <tr> <td>SHEET 2 OF 2</td> <td colspan="3">STORM DRAIN GENERAL NOTES (CONTINUED)</td> <td colspan="3">STANDARD</td> </tr> <tr> <td colspan="2"><b>D1.0</b></td> <td colspan="2">APPROVED</td> <td colspan="3">SUBURBAN TYPE</td> </tr> <tr> <td colspan="2">DET. DESIGN DRN. DATE 05/23/08</td> <td colspan="3"></td> <td colspan="2">SUBURBAN TYPE</td> </tr> </table> <p><b>NO. REVISIONS DATE BY</b></p> <table border="1"> <tr> <td colspan="3">MANHOLE RING AND COVER</td> <td colspan="3">STANDARD</td> </tr> <tr> <td colspan="2"><b>D1.6</b></td> <td colspan="2">APPROVED</td> <td colspan="3">SUBURBAN TYPE</td> </tr> <tr> <td colspan="2">DET. DESIGN DRN. DATE 05/23/08</td> <td colspan="3"></td> <td colspan="2">SUBURBAN TYPE</td> </tr> </table>							SHEET 2 OF 2	STORM DRAIN GENERAL NOTES (CONTINUED)			STANDARD			<b>D1.0</b>		APPROVED		SUBURBAN TYPE			DET. DESIGN DRN. DATE 05/23/08					SUBURBAN TYPE		MANHOLE RING AND COVER			STANDARD			<b>D1.6</b>		APPROVED		SUBURBAN TYPE			DET. DESIGN DRN. DATE 05/23/08					SUBURBAN TYPE	
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<p><b>NOTES:</b></p> <ol style="list-style-type: none"> <li>1. USE SUBURBAN TYPE ONLY IN NON-TRAFFIC AREAS, AND ONLY WITH APPROVAL BY COUNTY.</li> <li>2. COVER MATERIAL TO BE DUCTILE IRON ASTM A536 GRADE 80-55-06.</li> <li>3. RING MATERIAL TO BE GRAY CAST IRON ASTM A-48 CLASS 30.</li> <li>4. SEE WSDOT STANDARD SPECIFICATIONS SEC. 7-05.</li> <li>5. RING AND COVER TO BE MACHINED TO A TRUE BEARING ALL AROUND.</li> <li>6. NOTCH LID FOR LIFTING HOOK.</li> </ol>																																															







