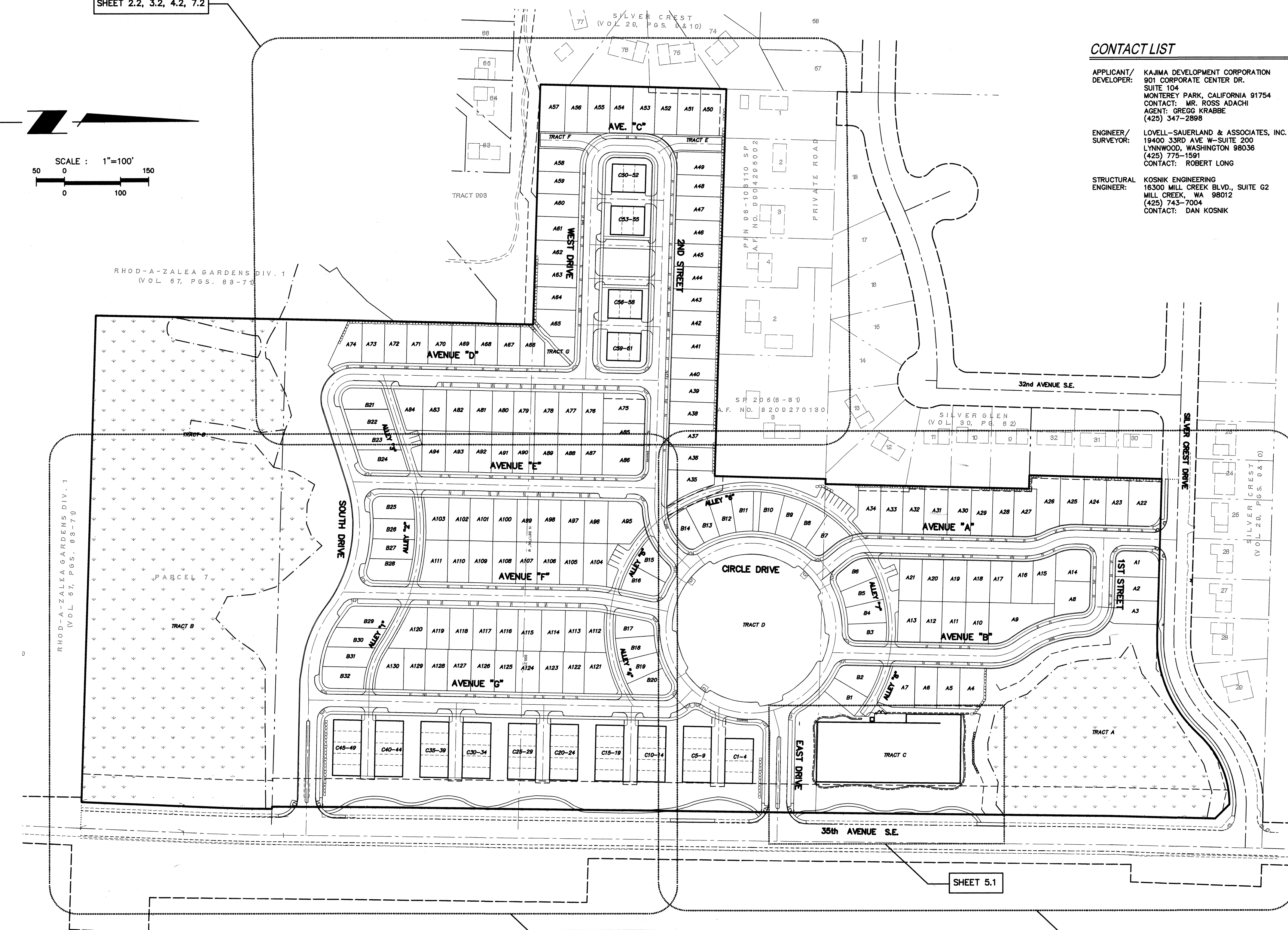
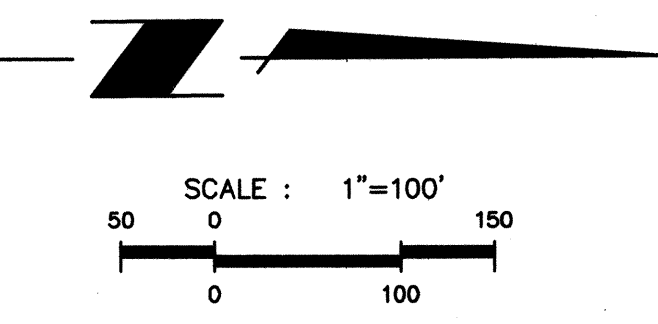


MILL CREEK EAST

IN EAST 1/2 OF SECTION 32, T. 28 N., R. 5 E., W.M.
CITY OF MILL CREEK
SNOHOMISH COUNTY, WASHINGTON

SHEET 2.2, 3.2, 4.2, 7.2



SHEET 2.1, 3.1, 4.1, 7.1

SHEET 5.1

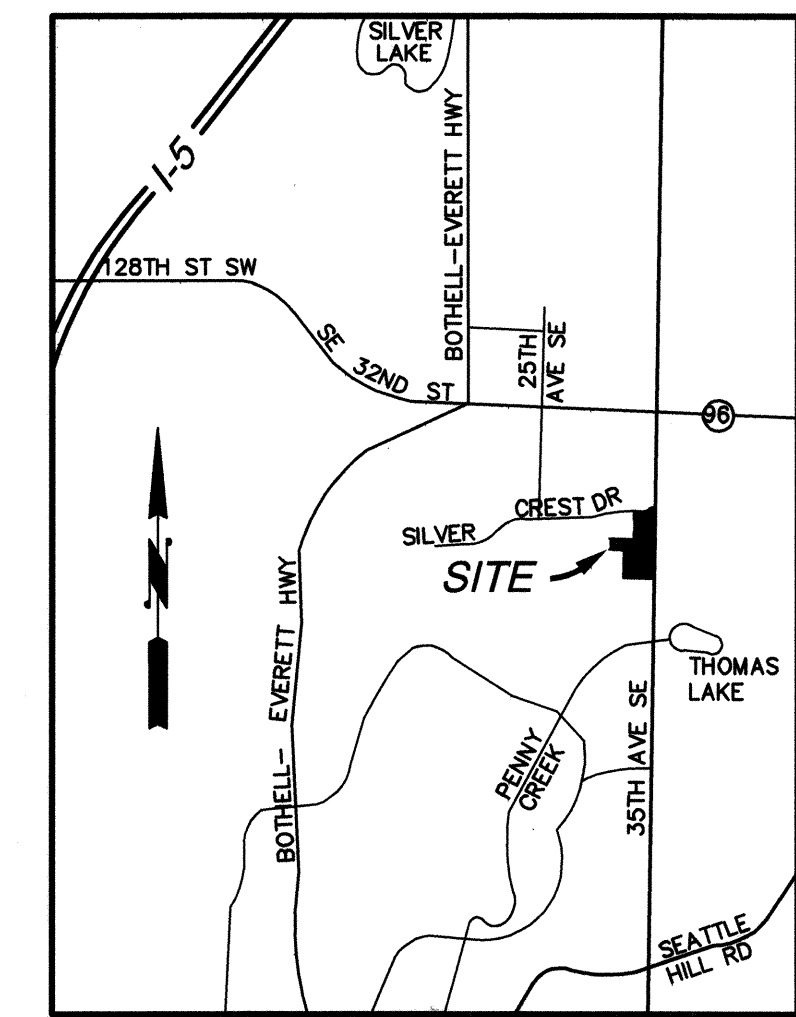
SHEET 2.3, 3.3, 4.3, 7.3

CONTACT LIST

APPLICANT/DEVELOPER: KAJMA DEVELOPMENT CORPORATION
901 CORPORATE CENTER DR.
SUITE 104
MONTEREY PARK, CALIFORNIA 91754
CONTACT: MR. ROSS ADACHI
AGENT: GREGG KRABBE
(425) 347-2898

ENGINEER/SURVEYOR: LOVELL-SAUERLAND & ASSOCIATES, INC.
19400 33RD AVE W-SUITE 200
LYNNWOOD, WASHINGTON 98036
(425) 775-1591
CONTACT: ROBERT LONG

STRUCTURAL ENGINEER: KOSNIK ENGINEERING
16300 MILL CREEK BLVD., SUITE G2
MILL CREEK, WA 98012
(425) 743-7004
CONTACT: DAN KOSNIK



VICINITY MAP

SCALE: 1" = 2000' (APPROX.)
ADJACENT LAND USES ARE RESIDENTIAL

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CITY OF MILL CREEK - CIVIL CONSTRUCTION PLANS

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- 1.1 PROPERTY INFORMATION SHEET
- AB-2.1 HORIZONTAL CONTROL PLAN
- AB-2.2 HORIZONTAL CONTROL PLAN
- AB-2.3 HORIZONTAL CONTROL PLAN
- 3.1 GRADING AND T.E.S.C./SWPPP PLAN
- 3.2 GRADING AND T.E.S.C./SWPPP PLAN
- 3.3 GRADING AND T.E.S.C./SWPPP PLAN
- 3.4 GRADING AND T.E.S.C. NOTES & DETAILS
- AB-4.1 ROAD AND STORM DRAINAGE PLAN
- AB-4.2 ROAD AND STORM DRAINAGE PLAN
- AB-4.3 ROAD AND STORM DRAINAGE PLAN
- AB-4.4 ROAD AND STORM DRAINAGE PROFILES
- AB-4.5 ROAD AND STORM DRAINAGE PROFILES
- AB-4.6 ROAD AND STORM DRAINAGE PROFILES
- AB-4.7 ROAD AND STORM DRAINAGE PROFILES
- AB-4.8 ROAD AND STORM DRAINAGE PROFILES
- AB-5.1 STORM WATER DETENTION/WATER QUALITY PLAN
- AB-5.2 STORM WATER DETENTION/WATER QUALITY DETAILS
- 6.1 ROADWAY SECTIONS AND DETAILS
- 6.2 ROAD AND STORM DRAINAGE NOTES & DETAILS
- 6.3 ROAD AND STORM DRAINAGE NOTES & DETAILS
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- S1 POND RETAINING WALL PLAN STANDARD DETAILS
- S2 WALL ELEVATION STRUCTURAL NOTES
- S3 WALL SECTIONS
- S4 WALL SECTIONS
- S5 WALL SECTIONS

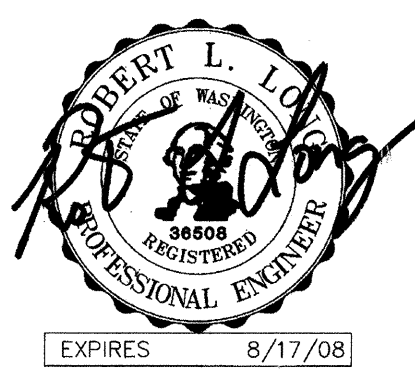
SNOHOMISH COUNTY FRONTAGE IMPROVEMENTS - CIVIL CONSTRUCTION PLANS

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- AB-3 OF 5 ROAD AND STORM DRAINAGE PLAN & PROFILE - 35TH AVENUE S.E.
- 4 OF 5 CIVIL NOTES
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SILVER LAKE WATER DISTRICT - SANITARY SEWER AND WATER PLANS

- AB-SS-1 COVER SHEET
- AB-SS-2 PROPERTY INFORMATION AND GENERAL NOTES
- AB-SS-3 SANITARY PLAN AND PROFILE (AVENUE G/MULTIFAMILY)
- AB-SS-4 SANITARY PLAN AND PROFILE (AVENUE F/ALLEY 1)
- AB-SS-5 SANITARY PLAN AND PROFILE (AVENUE E/ALLEY 2/ALLEY 3)
- AB-SS-6 SANITARY PLAN AND PROFILE (AVENUE D)
- AB-SS-7 SANITARY PLAN AND PROFILE (WEST DRIVE/AVENUE C)
- AB-SS-8 SANITARY PLAN AND PROFILE (2ND STREET/ALLEY 6)
- AB-SS-9 SANITARY PLAN AND PROFILE (CIRCLE DRIVE)
- AB-SS-10 SANITARY PLAN AND PROFILE (AVENUE A)
- AB-SS-11 SANITARY PLAN AND PROFILE (1ST STREET/AVENUE B/ALLEY 7/ALLEY 8)
- AB-W-1 WATER PLAN
- AB-W-2 WATER PLAN
- AB-W-3 WATER PLAN

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web: lsaengineering.com



MM	DD	YY	MM	DD	YY
5-18-05	MM	MM	8-28-05	MM	MM
6-28-05	MM	MM	7-07-05	MM	MM
7-07-05	MM	MM	8-18-07	MM	MM
8-18-07	MM	MM	9-25-07	MM	MM
9-25-07	MM	MM			

REVISIONS	NO.	DATE	DESCRIPTION
1.	REVISED PER CITY COMMENTS/DEVELOPER REVISIONS		
2.	REVISED PER CITY COMMENTS/DEVELOPER REVISIONS		
3.	REV. CB4C & CB4A CALLOUTS		
4.	AS-BUILT - PDE		
5.	AS-BUILT REVISIONS		
6.	AS-BUILT REVISIONS		
7.	AS-BUILT REVISIONS		

COVER SHEET FOR
MILL CREEK EAST
 CITY OF MILL CREEK
 SNOHOMISH COUNTY, WASHINGTON
 IN EAST 1/2 OF SECTION 32, T.28N., R.5E., W.M.

SCALE	1"=100'	
DRAWN	CHECKED	SHEET
MM	PL	
DATE	F.B.	
1-17-05	-	
PPN		1.0
LSA FILE NO.	4700	

AS-BUILT

NORTH POINTE

HDEV-2244

LEGAL DESCRIPTION

PARCEL 1

THE NORTH 3/4 OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 32, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.,

EXCEPT THE SOUTH 561 FEET,
EXCEPT 35th AVENUE S.E.; AND,

EXCEPT ANY PORTION THEREOF WITHIN THE PLAT OF SILVER CREST, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 29 OF PLATS, PAGES 9 AND 10, RECORDS OF SNOHOMISH COUNTY, WASHINGTON; AND,

EXCEPT THAT PORTION CONVEYED TO SNOHOMISH COUNTY FOR ROAD BY STATUTORY WARRANTY DEED RECORDED UNDER AUDITOR'S FILE NUMBER 200105240466.

PARCEL 2

THAT PORTION OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 32, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M., DESCRIBED AS FOLLOWS:
BEGINNING AT A POINT ON THE EAST LINE OF SAID SUBDIVISION WHICH IS S 0°17'24" E, 434.44 FEET FROM THE NORTHEAST QUARTER THEREOF, AND THE TRUE POINT OF BEGINNING;

THENCE S 89°57'46" W 790 FEET;
THENCE S 0°02'14" E 137.47 FEET;
THENCE N 80°05'30" E 801.87 FEET TO THE TRUE POINT OF BEGINNING;

EXCEPT PORTION THEREOF LYING WITHIN SILVER GLEN, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 30 OF PLATS, PAGE 62, RECORDS OF SNOHOMISH COUNTY, WASHINGTON; AND,

EXCEPT PORTION LYING WITHIN 35th AVENUE S.E.; AND,

EXCEPT THAT PORTION CONVEYED TO SNOHOMISH COUNTY FOR ROAD BY STATUTORY WARRANTY DEED RECORDED UNDER AUDITOR'S FILE NUMBER 200105240466.

PARCEL 3

THE NORTH 363 FEET OF THE SOUTH 561 FEET OF THE NORTH 3/4th OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 32, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;

EXCEPT THE WEST 700 FEET THEREOF; AND,

EXCEPT THAT PORTION THEREOF LYING WITHIN THE FOLLOWING DESCRIBED TRACT:
BEGINNING AT A POINT ON THE EAST LINE OF SAID SUBDIVISION, WHICH IS S 0°17'24" E, 434.44 FEET FROM THE NORTHEAST CORNER THEREOF, AND THE TRUE POINT OF BEGINNING;

THENCE S 89°57'46" W 790 FEET;
THENCE S 0°02'14" E 137.47 FEET;
THENCE N 80°05'30" E 801.87 FEET TO THE TRUE POINT OF BEGINNING.

ALSO EXCEPT ANY PORTION THEREOF LYING WITHIN THOMAS LAKE ROAD (35th AVENUE S.E.); AND,

EXCEPT THAT PORTION CONVEYED TO SNOHOMISH COUNTY FOR ROAD BY STATUTORY WARRANTY DEED RECORDED UNDER AUDITOR'S FILE NUMBER 200105240466.

PARCEL 4

THE EAST 635 FEET OF THE SOUTH 198 FEET OF THE NORTH 3/4th OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 32, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;

EXCEPT ANY PORTION THEREOF LYING WITHIN THOMAS LAKE ROAD (35th AVENUE S.E.); AND,

EXCEPT THAT PORTION CONVEYED TO SNOHOMISH COUNTY FOR ROAD BY STATUTORY WARRANTY DEED RECORDED UNDER AUDITOR'S FILE NUMBER 200105240466.

PARCEL 5

THE SOUTH HALF OF THE SOUTH HALF OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 32, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;

EXCEPT COUNTY ROADS; AND,

EXCEPT THAT PORTION CONVEYED TO SNOHOMISH COUNTY FOR ROAD BY STATUTORY WARRANTY DEED RECORDED UNDER AUDITOR'S FILE NUMBER 200105240466.

PARCEL 6

THE NORTH 439.25 FEET, AS MEASURED ALONG EAST LINE, OF THE EAST 894.84 FEET, AS MEASURED ALONG THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 32, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M., RECORDS OF SNOHOMISH COUNTY, WASHINGTON;

EXCEPT THE EAST 30 FEET THEREOF FOR COUNTY ROAD; AND,

EXCEPT THAT PORTION CONVEYED TO SNOHOMISH COUNTY FOR ROAD BY STATUTORY WARRANTY DEED RECORDED UNDER AUDITOR'S FILE NUMBER 200105240466.

PARCEL 7

THE SOUTH 340 FEET OF THE NORTH 779.95 FEET, AS MEASURED ALONG EAST LINE THEREOF, OF THE EAST 894.84 FEET, AS MEASURED ALONG THE NORTH LINE THEREOF, OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 32, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;

EXCEPT THAT PORTION CONVEYED TO SNOHOMISH COUNTY FOR ROAD BY STATUTORY WARRANTY DEED RECORDED UNDER AUDITOR'S FILE NUMBER 200105240466.

ALL SITUATE IN THE CITY OF MILL CREEK, COUNTY OF SNOHOMISH OF SNOHOMISH, STATE OF WASHINGTON.

ALL SUBJECT TO EASEMENTS, RESTRICTIONS AND RESERVATIONS OF RECORD.

BENCHMARK AND DATUM:

PROJECT BENCHMARK ESTABLISHED ON EAST QUARTER SECTION MONUMENT AS SHOWN HEREON, TOP OF BRASS DISC = 393.21 FEET NAVD 88.

VERTICAL DATUM - NAVD 88
VERTICAL DATUM IS BASED ON A G.P.S. TIE TO SNOHOMISH COUNTY CONTROL BENCHMARK #1349. BENCHMARK ELEVATION = 276.83 FEET NAVD 88.

SITE ADDRESS

14002 35TH AVENUE S.E.
MILL CREEK, WASHINGTON 98012



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Development Consultants

19400 33rd Avenue W.

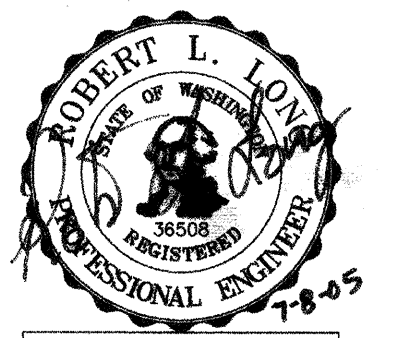
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fax: (425)672-7998

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web: lsaengineering.com



REVISIONS
1. REVISED PER CITY COMMENTS/DEVELOPER REVISIONS
2. REVISED PER CITY COMMENTS/DEVELOPER REVISIONS

MM
5-18-05
6-28-05

PROPERTY INFORMATION
FOR
MILL CREEK EAST
IN EAST 1/2 OF SECTION 32, T.28N., R.5E., W.M.
CITY OF MILL CREEK
SNOHOMISH COUNTY, WASHINGTON

ACCEPTED FOR CONSTRUCTION BY:
[Signature] 7/28/05
DIRECTOR OF PUBLIC WORKS
CITY OF MILL CREEK

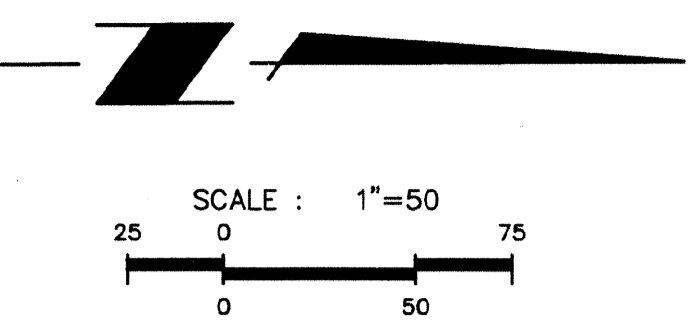
ACCEPTED AS IN COMPLIANCE OF
APPROVAL FOR PP 01-56
[Signature] 7/29/05
DIRECTOR OF COMMUNITY
DEVELOPMENT

SCALE	NONE	
DRAWN	CHECKED	SHEET
MM	RL	1.1
DATE	P.B.	
1-17-05	-	
PPN	-	
LSA FILE NO.	4700	

NORTH POINTE

HDEV-2245

SEE SHEET 2.2

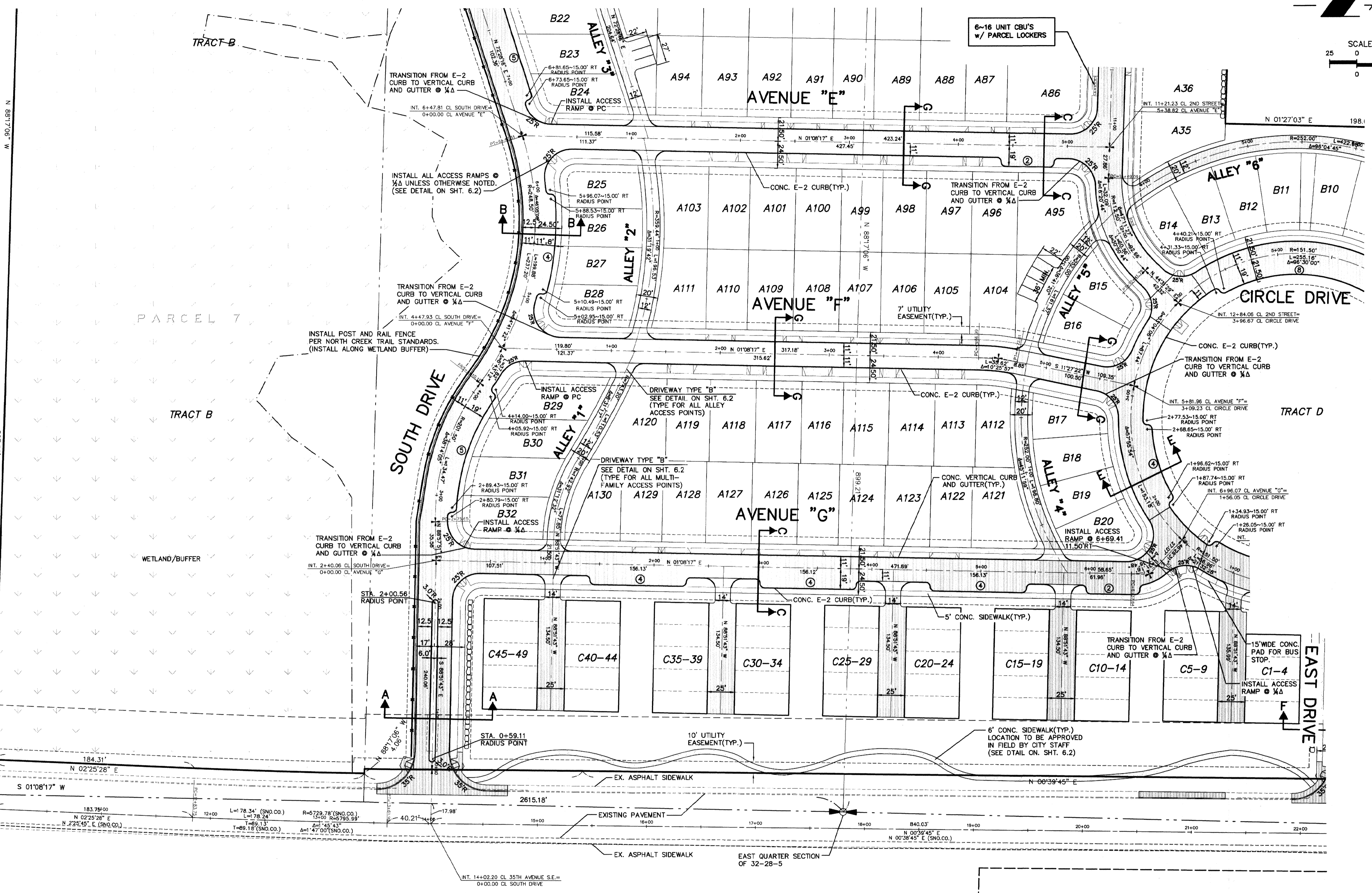


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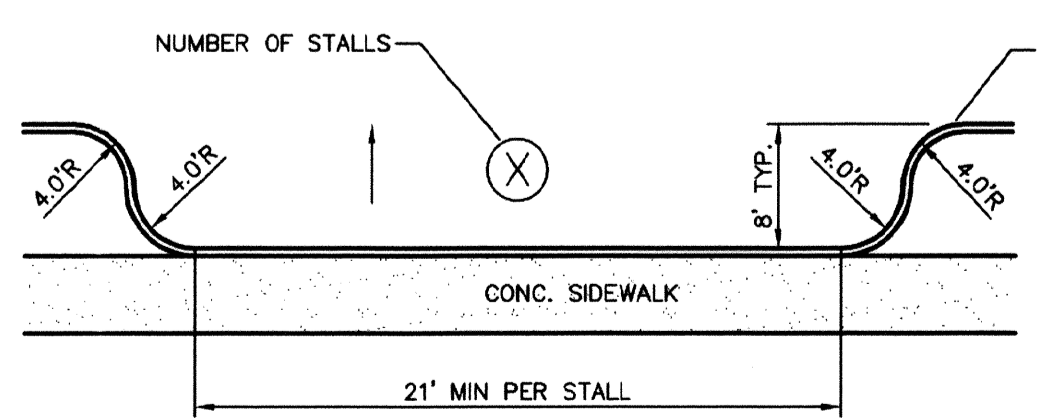


REVISIONS	DATE	BY	DESCRIPTION
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2.	6-28-05	MM	REVISED PER CITY COMMENTS
3.	01-15-07	MH	AS-BUILT - PDF
4.	05-18-07	BIA	AS-BUILT REVISIONS
5.	07-25-07	RLL	AS-BUILT W/LARS

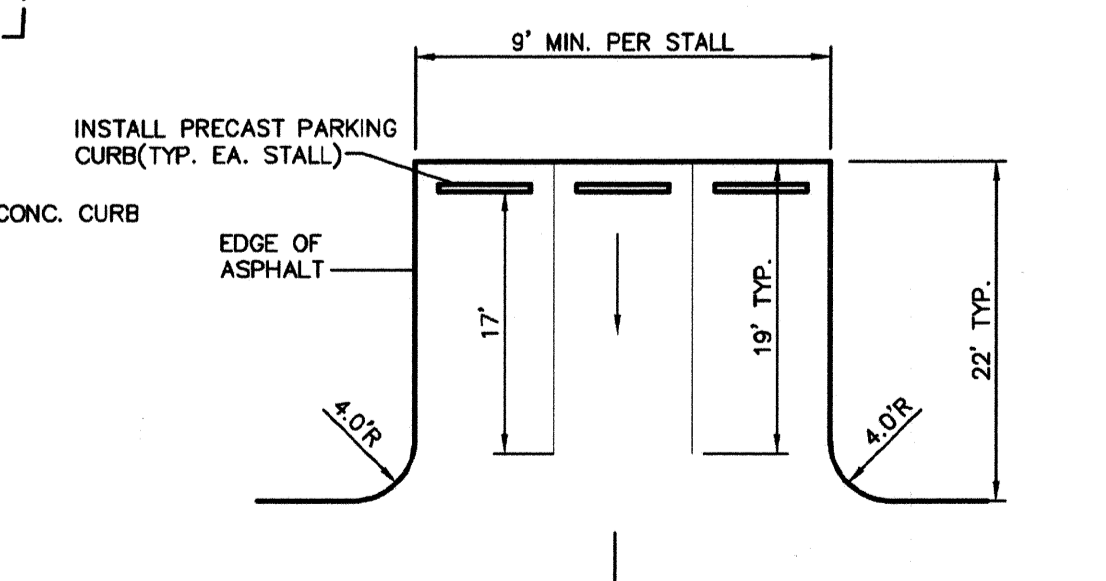
RHOD-A-ZALEA GARDENS, DIV. 1
(VOL. 57, PGS. 63-71)



SEE SHEET 2.3



TYPICAL PARALLEL PARKING DETAIL
NO SCALE



TYPICAL PERPENDICULAR PARKING DETAIL
NO SCALE

LEGEND
 + - SET SURVEY CONTROL MONUMENT
 (SEE DETAIL ON SHEET 6.2)

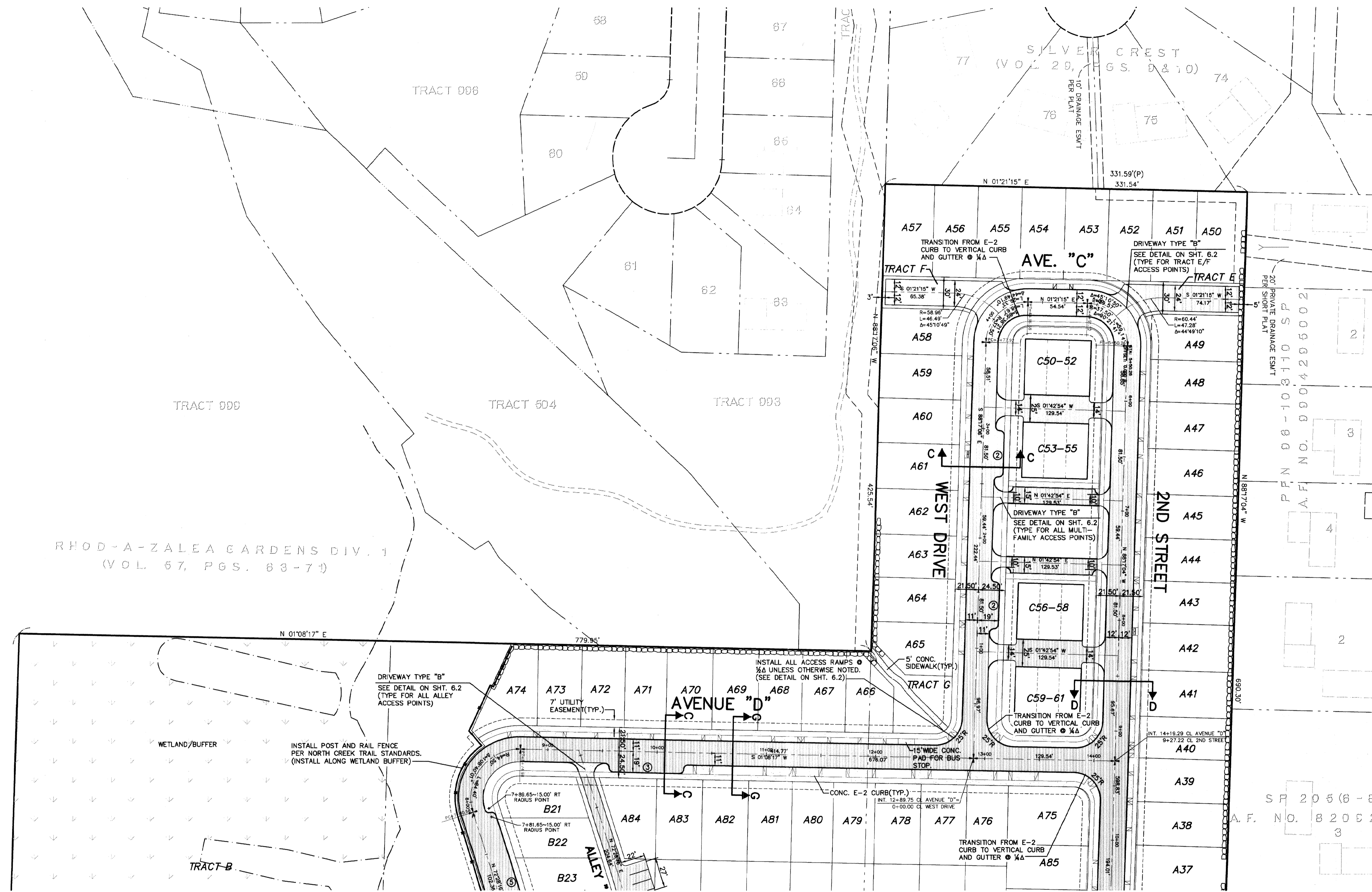
ASBUILT HORIZONTAL CONTROL PLAN
 FOR
MILL CREEK EAST
 IN EAST 1/2 OF SECTION 32, T.28N., R.5E., W.M.
 CITY OF MILL CREEK
 SNOHOMISH COUNTY, WASHINGTON

SCALE	1"=50'	
DRAWN	CHECKED	SHEET
MM	RLL	
DATE	F.B.	
1-17-05		
PPN		2.1
LSA FILE NO.	4700	

AS-BUILT

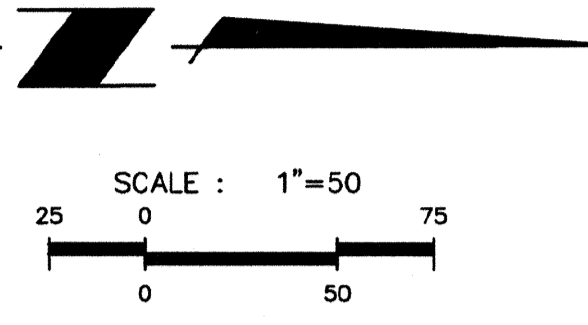
NORTH POINTE

HDS-2246



SEE SHEET 2.1

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 & Associates, Inc.
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 fax: (425)672-7998
 e-mail: info@lsaengineering.com
 web: lsaengineering.com



LEGEND
 + - SET SURVEY CONTROL MONUMENT
 (SEE DETAIL ON SHEET 6.2)



REVISIONS	DATE	BY	CHKD.	APP.
1. REVISED PER CITY COMMENTS/DEVELOPER REVISIONS	5-18-05	MM	MM	
2. REVISED PER CITY COMMENTS	6-28-05	MM	MM	
3. AS-BUILT - PDF	01-15-07	MH	MLL	
4. AS-BUILT REVISIONS	05-18-07	BIA	RL	
5. AS-BUILT MYLARS	07-25-07	MLL		

ASBUILT HORIZONTAL CONTROL PLAN
 FOR
MILL CREEK EAST
 IN EAST 1/2 OF SECTION 32, T.28N., R.5E., W.M.
 CITY OF MILL CREEK
 SNOHOMISH COUNTY, WASHINGTON

SCALE	1"=50'	
DRAWN	CHECKED	SHEET
MM	RL	
DATE	P.B.	
1-17-05		
PPN		2.2
LSA FILE NO.	4700	

AS-BUILT

NORTH POINT

HDEV-2247

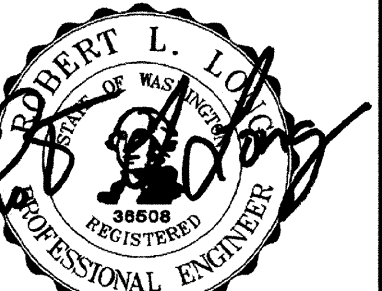
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07/27/07

MM 5-18-05
 MM 6-28-05
 MH 01-15-07
 BJA 06-18-07
 RLL 07-25-07

REVISIONS
 1. REVISED PER CITY COMMENTS/DEVELOPER REVISIONS
 2. REVISED PER CITY COMMENTS

AS-BUILT - PDF
 AS-BUILT REVISIONS
 AS-BUILT MYLARS

ASBUILT HORIZONTAL CONTROL PLAN
 FOR

MILL CREEK EAST

IN EAST 1/2 OF SECTION 32, T.28N., R.5E., W.M.
 CITY OF MILL CREEK
 SNOHOMISH COUNTY, WASHINGTON

SCALE 1"=50'

DRAWN MM CHECKED RLL SHEET

DATE 1-17-05 F.B.

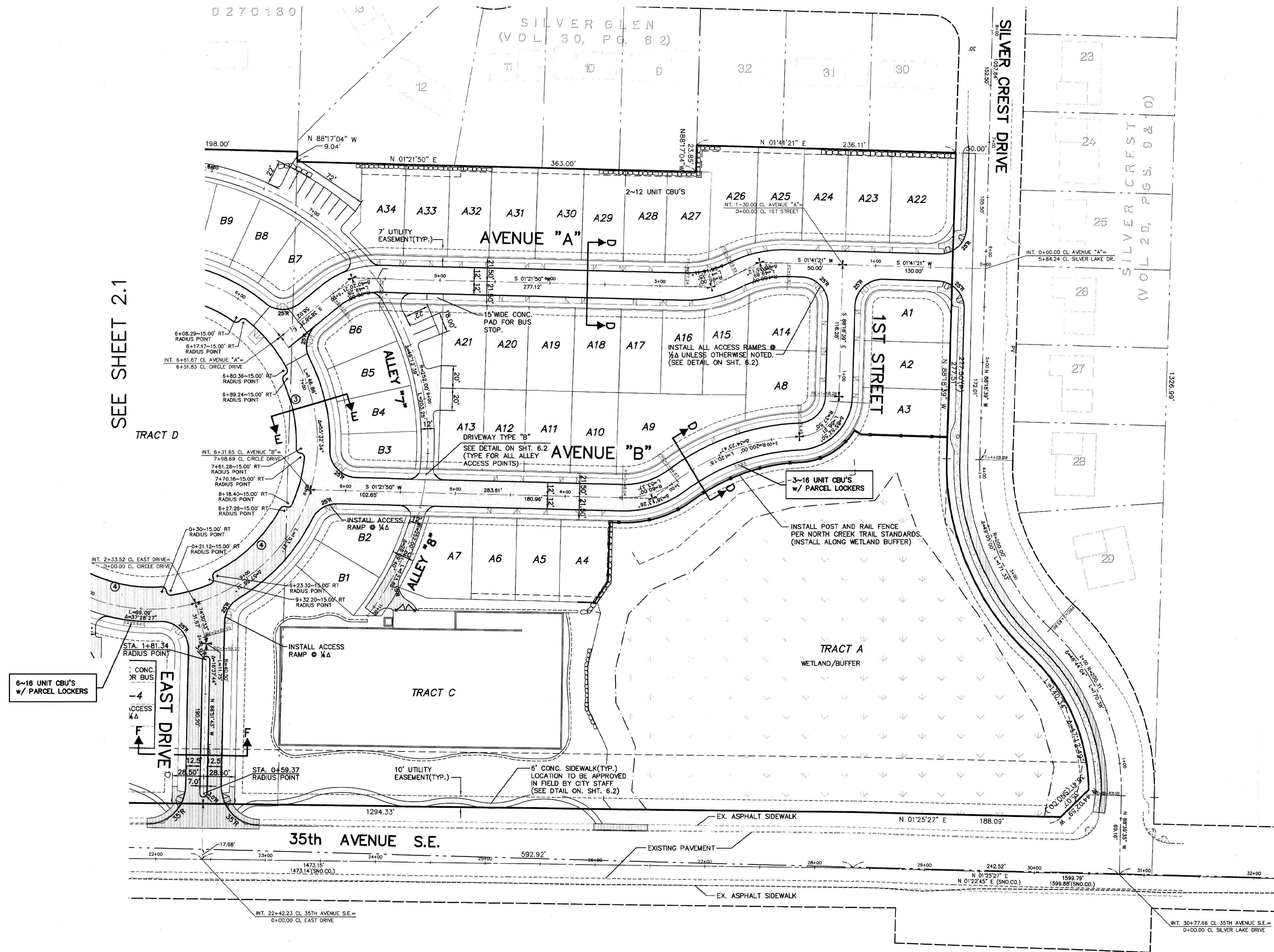
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LSA FILE NO. 4700

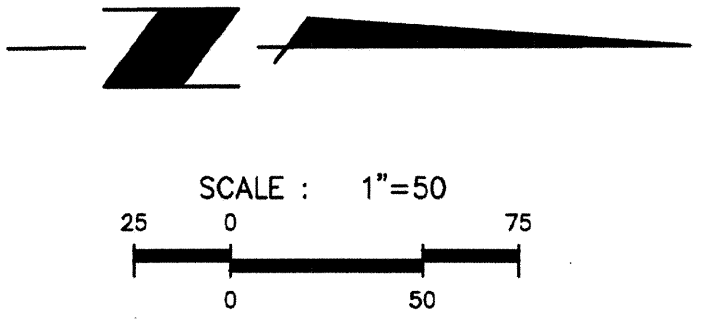
2.3

AS-BUILT

HDEV-2248



SEE SHEET 2.1



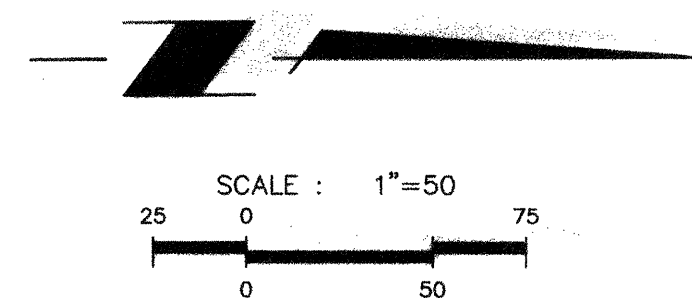
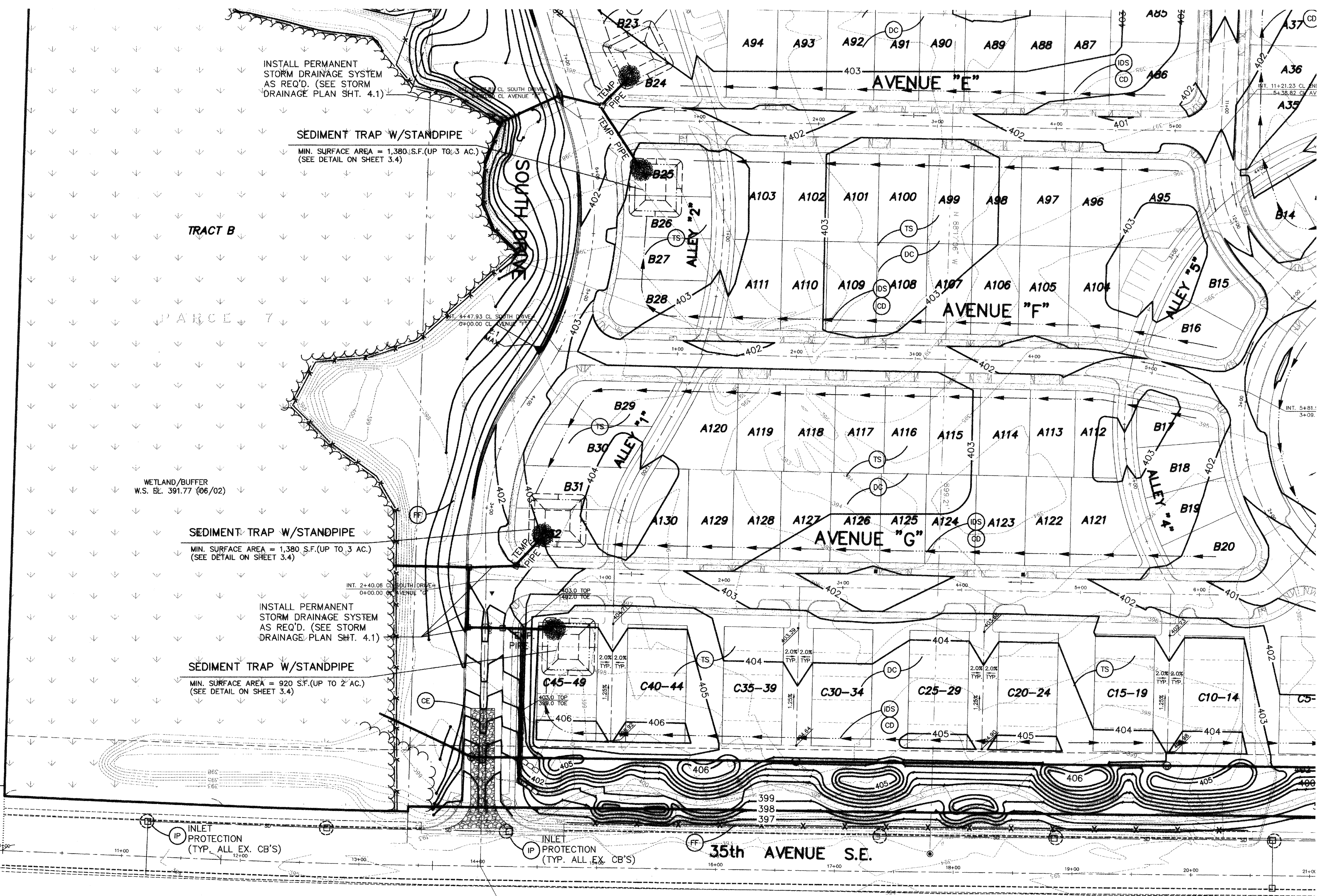
LEGEND

⊕ - SET SURVEY CONTROL MONUMENT
 (SEE DETAIL ON SHEET 6.2)

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SEE SHEET 3.2

RHOD-A-ZALEA GARDENS DIV. 1
 (VOL. 57, PGS. 63-74)



*TOPOGRAPHY NOTE:
 EXISTING CONTOURS FOR THIS PROJECT WERE TAKEN FROM PRELIMINARY ENGINEERING PLANS DONE BY PERTERSON CONSULTING ENGINEERS DATED 3-7-03. EXISTING GROUND WILL CHANGE DURING RECLAMATION OF PACIFIC TOPSOILS SITE. NEW TOPOGRAPHY MAY BE ADDED TO PLANS PRIOR TO FINAL ENGINEERING APPROVAL.

- CONSTRUCTION SEQUENCE SCHEDULE**
1. ATTEND PRE-CONSTRUCTION MEETING.
 2. FLAG CLEARING LIMITS IN FIELD. CALL FOR CITY INSPECTION.
 3. INSTALL FILTER BARRIER/SILT FENCE AND STORM DRAIN INLET PROTECTION. CALL FOR CITY INSPECTION.
 4. INSTALL ROCKED CONSTRUCTION ENTRANCES.
 5. CLEAR AND GRUB SITE.
 6. DIG TEMPORARY SEDIMENT TRAPS. INSTALL NECESSARY STORM SYSTEM.
 7. CONSTRUCT INTERCEPTOR DIKE/SWALES AND CHECK DAMS TO DIRECT DRAINAGE TO SEDIMENT TRAPS (RECONSTRUCT AS NECESSARY DURING GRADING OPERATIONS).
 8. GRADE SITE PER GRADING PLAN (ROUGH GRADING).
 9. CONSTRUCT ROCKERIES, DETENTION POND AND INSTALL UTILITIES (SANITARY, STORM, WATER, POWER, ETC.).
 10. INSTALL STORM DRAIN INLET PROTECTION ON ALL NEW CATCH BASINS IMMEDIATELY AFTER INSTALLATION.
 11. FINAL GRADE & PAVE, MAINTAIN MINIMAL STORM DRAIN INLET PROTECTION.
 12. HYDROSEED EXPOSED AREAS FOR PERMANENT COVER.
 13. FLUSH STORM DRAINAGE SYSTEM (I.E., CLEAN OUT AND TEST SYSTEM).
 14. REMOVE ALL TESCP FACILITIES ONLY WHEN ENTIRE SITE IS STABILIZED.

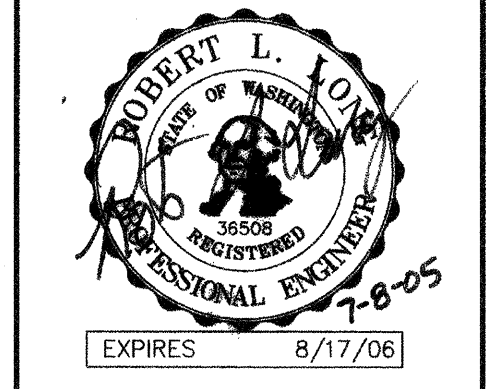
- CONSTRUCTION NOTES**
1. ALL EXISTING IMPROVEMENTS (STRUCTURES, UTILITIES, ETC.) ON SITE SHALL BE REMOVED UNLESS OTHERWISE NOTED.
 2. ALL ROCKERIES OR WALLS OVER 4 FEET HIGH WILL REQUIRE A CITY BUILDING PERMIT.

LEGEND:

SYMBOL	ITEM	CODE	D.O.E. 2001 BMP#
	INSTALL CHECK DAM/FILTER FENCE DAM AT ALL EXISTING INLET PIPES	CD	-
	FILTER FENCE (ORANGE FABRIC, TYP.)	FF	C2.33
	CLEARING LIMITS	-	-
	INTERCEPTOR DIKE & SWALE	IDS	C200
	SEDIMENT TRAP	ST	C240/241
	STORM DRAIN INLET PROTECTION	IP	C220
	CHECK DAMS (200' MIN. O.C.)	CD	C140
	TEMPORARY SEEDING	TS	C105/107
	DUST CONTROL (TO INCLUDE SPRINKLING THE SITE WITH WATER UNTIL SURFACE IS WET)	DC	E2.20
	STABILIZED CONSTRUCTION ENTRANCE	CE	E2.10

SEE SHEET 3.3

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REVISIONS

NO.	REVISION	DATE
1.	REVISED PER CITY COMMENTS/DEVELOPER REVISIONS	5-18-05
2.	REVISED PER CITY COMMENTS	6-28-05

GRADING AND T.E.S.C./S.W.P.P. PLAN
 FOR
MILL CREEK EAST
 IN EAST 1/2 OF SECTION 32, T.28N., R.5E., W.M.
 CITY OF MILL CREEK
 SNOHOMISH COUNTY, WASHINGTON

ACCEPTED FOR CONSTRUCTION BY:

 DIRECTOR OF PUBLIC WORKS
 CITY OF MILL CREEK
 DATE: 7/28/05

ACCEPTED AS IN COMPLIANCE OF
 APPROVAL FOR PP 01-56

 DIRECTOR OF COMMUNITY
 DEVELOPMENT
 DATE: 7-29-05

SCALE: 1"=50'

DRAWN	CHECKED	SHEET
MM	RL	3.1
DATE	P.B.	
1-17-05	-	
PPN		
LSA FILE NO.	4700	

NORTH POINTE

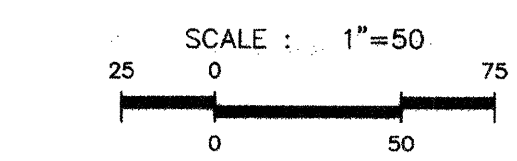
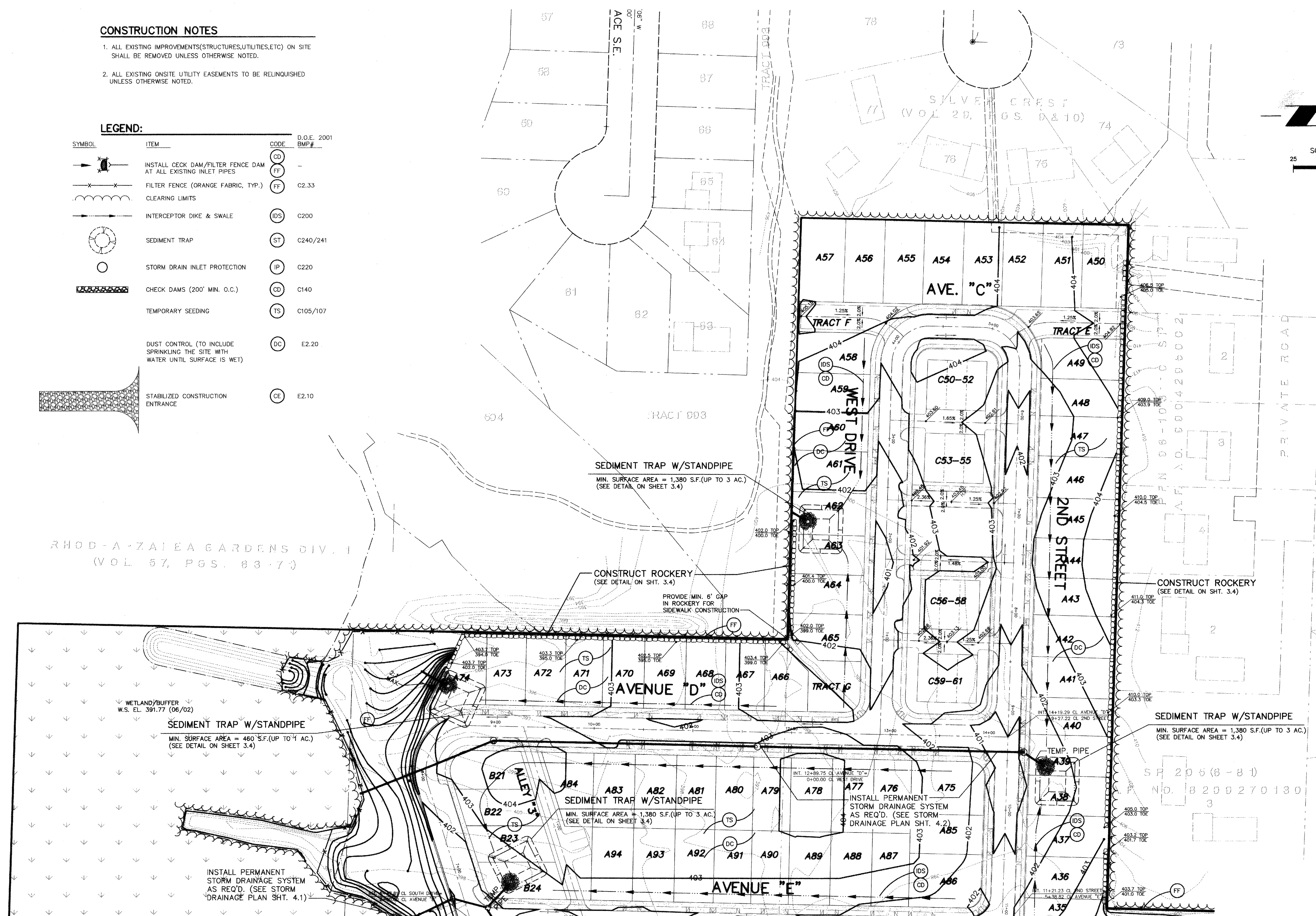
HDEV-2249

CONSTRUCTION NOTES

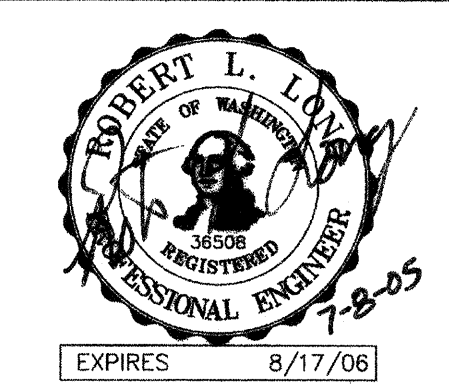
1. ALL EXISTING IMPROVEMENTS (STRUCTURES, UTILITIES, ETC.) ON SITE SHALL BE REMOVED UNLESS OTHERWISE NOTED.
2. ALL EXISTING ON-SITE UTILITY EASEMENTS TO BE RELINQUISHED UNLESS OTHERWISE NOTED.

LEGEND:

SYMBOL	ITEM	CODE	D.O.E. 2001 BMP #
	INSTALL CHECK DAM/FILTER FENCE DAM AT ALL EXISTING INLET PIPES	CD	-
	FILTER FENCE (ORANGE FABRIC, TYP.)	FF	C2.33
	CLEARING LIMITS		
	INTERCEPTOR DIKE & SWALE	IDS	C200
	SEDIMENT TRAP	ST	C240/241
	STORM DRAIN INLET PROTECTION	IP	C220
	CHECK DAMS (200' MIN. O.C.)	CD	C140
	TEMPORARY SEEDING	TS	C105/107
	DUST CONTROL (TO INCLUDE SPRINKLING THE SITE WITH WATER UNTIL SURFACE IS WET)	DC	E2.20
	STABILIZED CONSTRUCTION ENTRANCE	CE	E2.10



LSA
 Lovell-Sauerland & Associates, Inc.
 Engineers/Surveyors/Planners
 Development Consultants
 19400 33rd Avenue W.
 Suite 200
 Lynnwood, WA 98036
 phone: (425)775-1591
 fax: (425)672-7998
 e-mail: info@lsaengineering.com
 web: lsaengineering.com



REVISIONS
 1. REVISED PER CITY COMMENTS/DEVELOPER REVISIONS
 2. REVISED PER CITY COMMENTS

GRADING AND T.E.S.C./S.W.P.P. PLAN

FOR
MILL CREEK EAST

IN EAST 1/2 OF SECTION 32, T.28N., R.5E., W.M.
 CITY OF MILL CREEK
 SNOHOMISH COUNTY, WASHINGTON

SEE SHEET 3.1

ACCEPTED FOR CONSTRUCTION BY:

 DIRECTOR OF PUBLIC WORKS
 CITY OF MILL CREEK
 DATE: 7/28/05

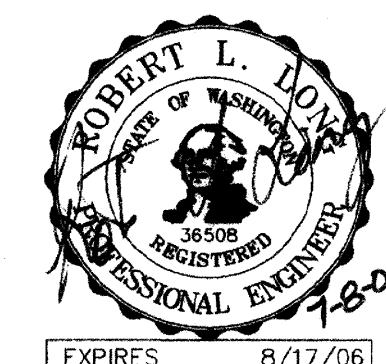
ACCEPTED AS IN COMPLIANCE OF APPROVAL FOR PP 01-56

 DIRECTOR OF COMMUNITY DEVELOPMENT
 DATE: 7-29-05

SCALE	1"=50'	
DRAWN	MM	CHECKED
DATE	1-17-05	P.B.
PPN	-	
LSA FILE NO.	4700	SHEET
		3.2

NORTH POINTE

HDEV2250



MM
5-18-05
6-28-05

REVISIONS
1. REVISED PER CITY COMMENTS/DEVELOPER
2. REVISED PER CITY COMMENTS

GRADING AND T.E.S.C./S.W.P.P.P. PLAN
FOR

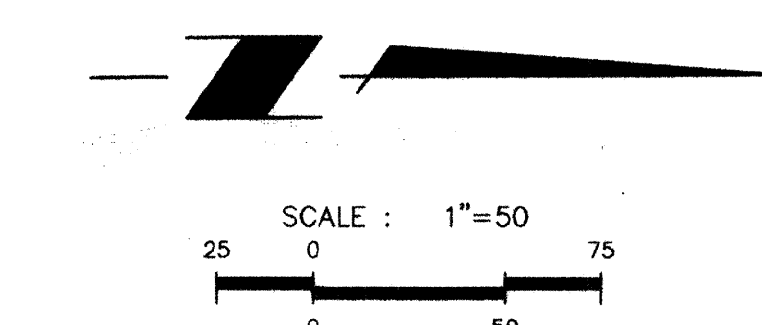
MILL CREEK EAST

IN EAST 1/2 OF SECTION 32, T.28N., R.5E., W.M.
CITY OF MILL CREEK
SNOHOMISH COUNTY, WASHINGTON

SCALE 1"=50'

DRAWN	CHECKED	SHEET
MM	RL	
DATE	F.B.	3.3
PPN		
LSA FILE NO.	4700	

HDEV-2251

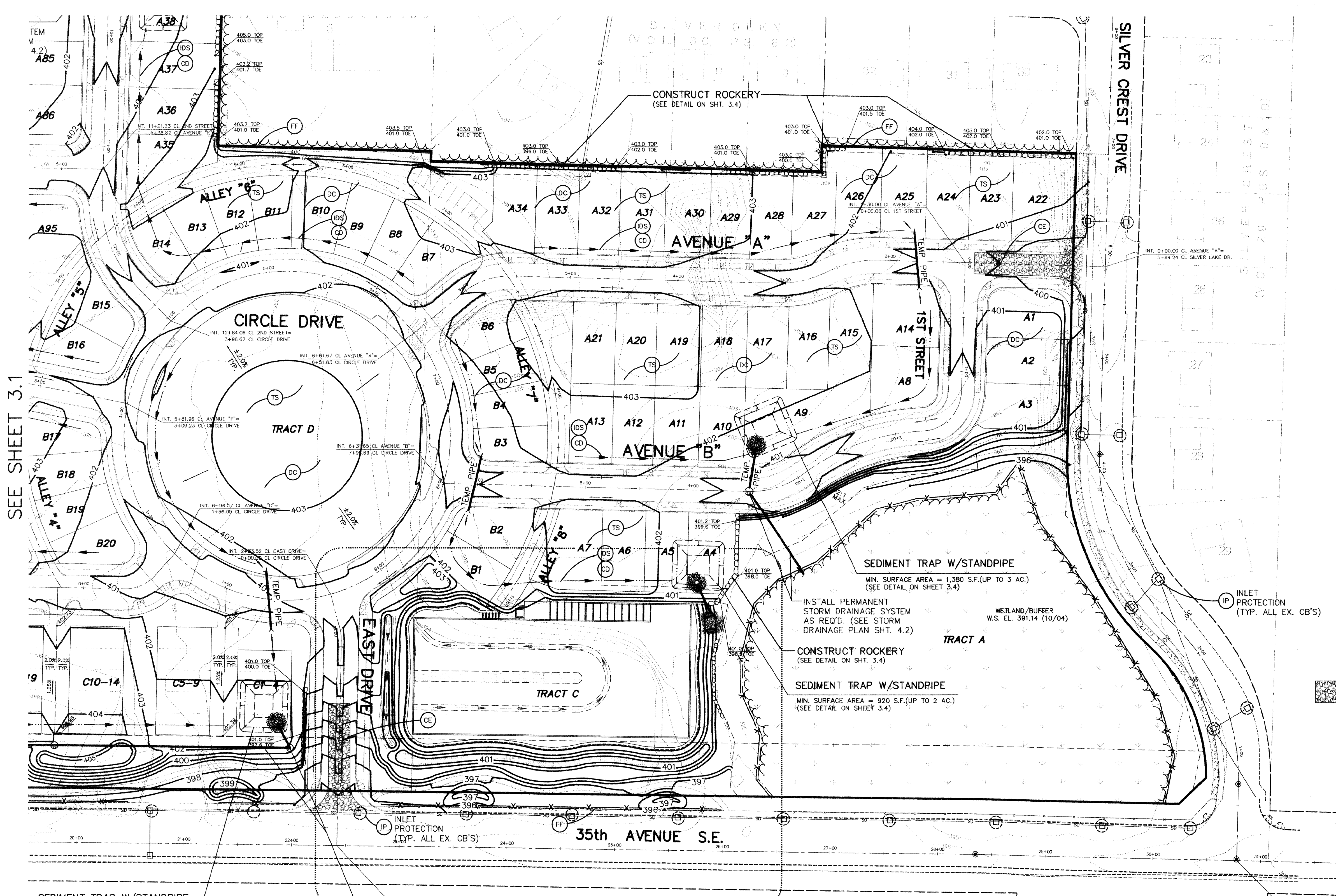


CONSTRUCTION NOTES

1. ALL EXISTING IMPROVEMENTS (STRUCTURES, UTILITIES, ETC.) ON SITE SHALL BE REMOVED UNLESS OTHERWISE NOTED.
2. ALL EXISTING ONSITE UTILITY EASEMENTS TO BE RELINQUISHED UNLESS OTHERWISE NOTED.

LEGEND:

SYMBOL	ITEM	CODE	D.O.E. 2001 BMP #
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	STORM DRAIN INLET PROTECTION	IP	C220
	CHECK DAMS (200' MIN. O.C.)	CD	C140
	TEMPORARY SEEDING	TS	C105/107
	DUST CONTROL (TO INCLUDE SPRINKLING THE SITE WITH WATER UNTIL SURFACE IS WET)	DC	E2.20
	STABILIZED CONSTRUCTION ENTRANCE	CE	E2.10



SEE SHEET 3.1

SEDIMENT TRAP W/STANDPIPE
MIN. SURFACE AREA = 1,380 S.F. (UP TO 3 AC.)
(SEE DETAIL ON SHEET 3.4)

INSTALL PERMANENT STORM DRAINAGE SYSTEM AS REQ'D. (SEE STORM DRAINAGE PLAN SHT. 4.1)

STORM WATER DETENTION/WATER QUALITY PLAN
(SEE SHEET 5.1)

SEDIMENT TRAP W/STANDPIPE
MIN. SURFACE AREA = 1,380 S.F. (UP TO 3 AC.)
(SEE DETAIL ON SHEET 3.4)

CONSTRUCT ROCKERY
(SEE DETAIL ON SHT. 3.4)

SEDIMENT TRAP W/STANDPIPE
MIN. SURFACE AREA = 920 S.F. (UP TO 2 AC.)
(SEE DETAIL ON SHEET 3.4)

WETLAND/BUFFER
W.S. EL. 391.14 (10/04)

INSTALL PERMANENT STORM DRAINAGE SYSTEM AS REQ'D. (SEE STORM DRAINAGE PLAN SHT. 4.2)

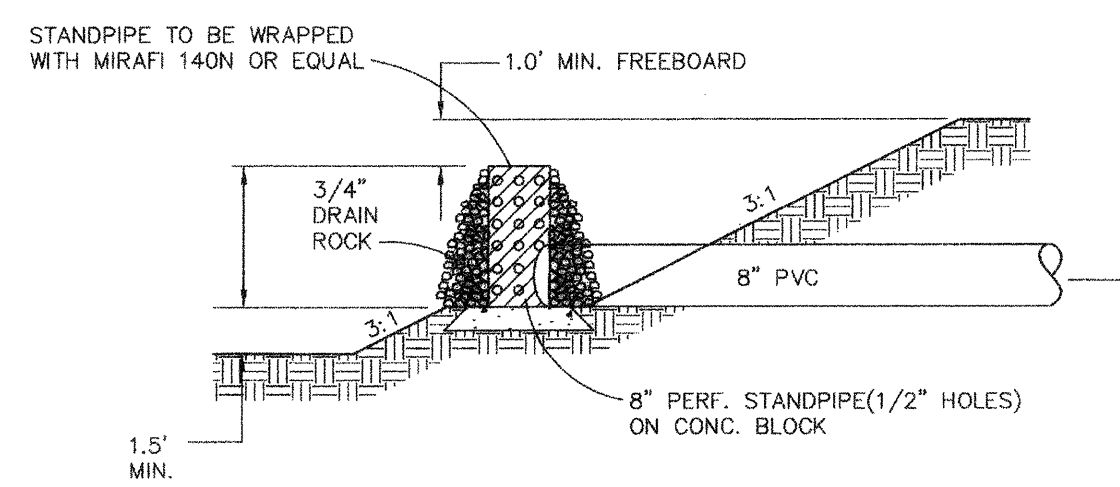
INLET PROTECTION (TYP. ALL EX. CB'S)

SITE GRADING AND T.E. & S.C.P. NOTES

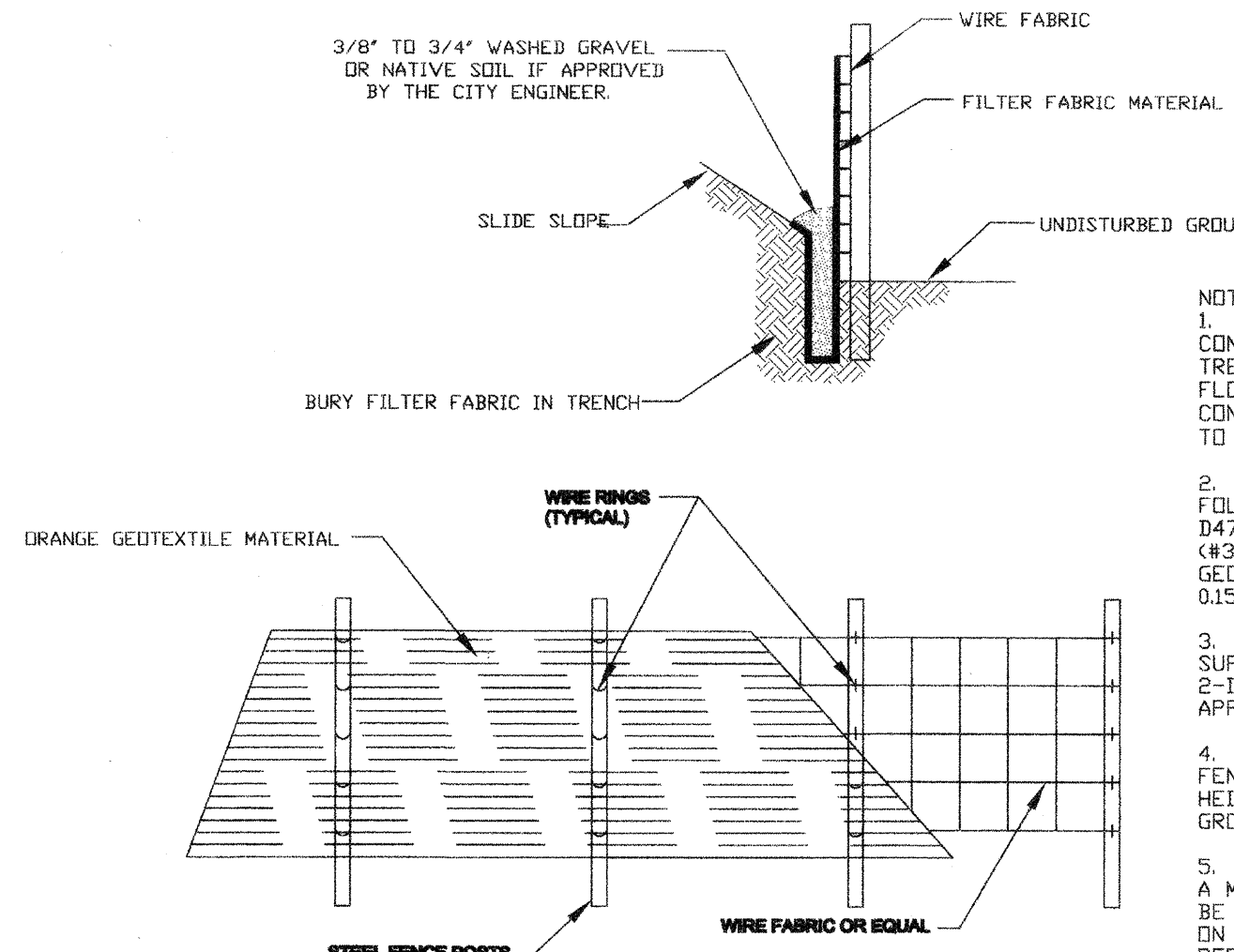
- NON COMPLIANCE WITH THE EROSION CONTROL REQUIREMENTS, WATER QUALITY REQUIREMENTS AND CLEARING LIMITS VIOLATIONS MAY RESULT IN REVOCATION OF PROJECT PERMITS, PLAN APPROVAL AND BOND FORECLOSURES.
- PRIOR TO ANY SITE CONSTRUCTION TO INCLUDE CLEARING/LOGGING OR GRADING THE SITE/LOT, CLEARING LIMITS SHALL BE LOCATED AND FIELD IDENTIFIED BY THE PROJECT SURVEYOR/ENGINEER AS REQUIRED BY THESE PLANS. THE PROJECT SURVEYOR/ENGINEER'S NAME AND TELEPHONE NUMBER ARE LOVELL-SAUERLAND & ASSOCIATES, INC., 775-1591.
- THE DEVELOPER/PROJECT ENGINEER IS RESPONSIBLE FOR WATER QUALITY AS DETERMINED BY THE MONITORING PROGRAM, ESTABLISHED BY THE PROJECT ENGINEER. THE PROJECT ENGINEER'S NAME AND PHONE NUMBER ARE LOVELL-SAUERLAND & ASSOCIATES, INC., 775-1591. IN ADDITION, THE ON-SITE CONSTRUCTION SUPERINTENDENT SHALL BE CURRENTLY CERTIFIED AS A CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (CESCL) PER BMP C160.
- THE TEMPORARY EROSION/SEDIMENTATION CONTROL FACILITIES SHALL BE CONSTRUCTED PRIOR TO ANY GRADING OR EXTENSIVE LAND CLEARING IN ACCORDANCE WITH THE APPROVED TEMPORARY EROSION/SEDIMENTATION CONTROL PLAN. THESE FACILITIES MUST BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION AND LANDSCAPING IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED.
- ALL SITE WORK MUST COMPLY WITH CHAPTER 433 OF THE UNIFORM BUILDING CODE, AND CITY OF MILL CREEK REQUIREMENTS.
- ALL EARTH WORK SHALL BE PERFORMED IN ACCORDANCE WITH CITY STANDARDS. PRECONSTRUCTION SOILS INVESTIGATION MAY BE REQUIRED TO EVALUATE SOILS STABILITY.
- SLOPE: THE SLOPE OF CUT SURFACES SHALL BE NO STEEPER THAN IS SAFE FOR THE INTENDED USE. CUT SLOPES SHALL BE NO STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL.
- FILL LOCATION: FILL SLOPES SHALL NOT BE CONSTRUCTED ON NATURAL SLOPES STEEPER THAN TWO TO ONE.
- PREPARATION OF GROUND: THE GROUND SURFACE SHALL BE PREPARED TO RECEIVE FILL BY REMOVING VEGETATION, NONCOMPLYING FILL, TOP-SOIL AND OTHER UNSUITABLE MATERIALS SCARIFYING TO PROVIDE A BOND WITH THE NEW FILL.
- FILL MATERIAL: DETRIMENTAL AMOUNTS OF ORGANIC MATERIAL SHALL NOT BE PERMITTED IN FILLS. EXCEPT AS PERMITTED BY THE BUILDING OFFICIAL, NO ROCK OR SIMILAR IRREDUCIBLE MATERIAL WITH A MAXIMUM DIMENSION GREATER THAN 12 INCHES SHALL BE BURIED OR PLACED IN FILLS.
- COMPACTION: ALL STRUCTURAL FILLS SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT OF MAXIMUM DENSITY BY MODIFIED PROCTOR TEST FOR THE TOP 5 FEET AND 90 PERCENT THEREAFTER OR ACCORDING TO SOIL ENGINEERS RECOMMENDATIONS OR AS APPROVED BY THE BUILDING OFFICIAL.
- IF CUT AND FILL SLOPES EXCEED MAXIMUM OF TWO FEET HORIZONTAL TO ONE FOOT VERTICAL, A ROCK OR CONCRETE RETAINING WALL MAY BE REQUIRED. ALL ROCK RETAINING WALLS GREATER THAN FOUR (4) FEET IN HEIGHT ARE TO FOLLOW COUNTY SPECIFICATIONS AND TO BE DESIGNED AND CERTIFIED BY A CIVIL ENGINEER EXPERIENCED IN SOILS MECHANICS.
- AREAS TO RECEIVE FILL SHALL BE PROOFROLLED. ALL LOOSE AND SOFT AREAS SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL.
- STRUCTURAL FILLS SHALL BE PLACED IN 8" TO 10" THICK HORIZONTAL LIFTS AND SPREAD UNIFORMLY.
- THE SURFACE OF ALL LIFTS SHALL BE COMPACTED. THIS MAY BE ACCOMPLISHED BY OVER-BUILDING THE SLOPES THEN CUTTING BACK TO FINAL GRADES, OR BY RUNNING THE COMPACTOR OVER THE SLOPE AS EACH LIFT IS TO BE PLACED. ALL SLOPES SHALL BE COMPACTED BY THE END OF EACH WORK DAY.
- FIELD DENSITY TESTS WILL BE TAKEN BY A QUALIFIED SOILS ENGINEERING FIRM. DENSITY TESTS SHALL BE TAKEN AT OR JUST BELOW THE SURFACE AT THE FREQUENCY AND AT LOCATIONS DETERMINED BY THE SOILS ENGINEERING FIRM. WHEN THE TESTS INDICATE THAT THE DENSITY OF ANY LAYER OF FILL OR PORTION THEREOF IS BELOW THE SPECIFIED DENSITY, THE PARTICULAR SECTION SHALL BE REWORKED UNTIL THE REQUIRED DENSITY HAS BEEN OBTAINED.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO APPLY FOR AND OBTAIN GRADING PERMITS REQUIRED FOR ANY OFFSITE UNPERMITTED DUMP SITES.

EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMP'S)

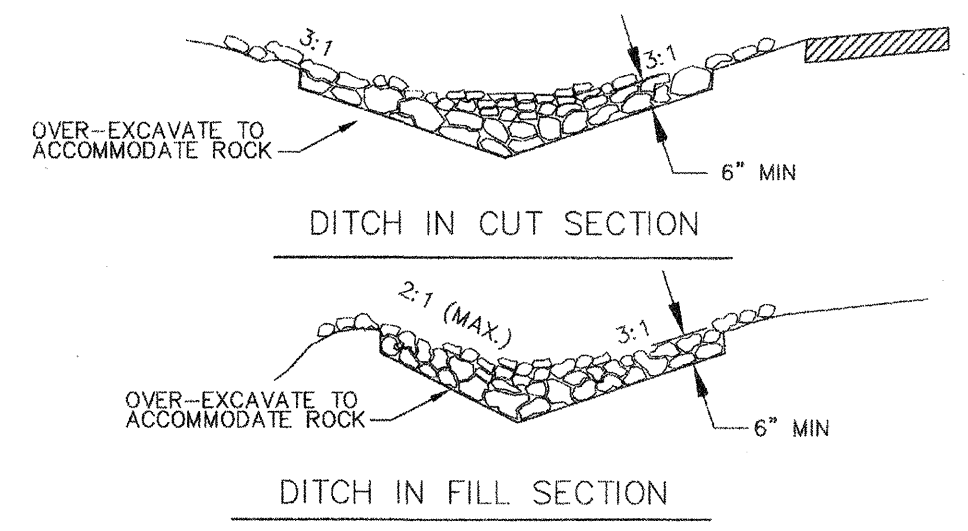
- GRADING AND CONSTRUCTION SHALL BE TIMED AND CONDUCTED IN STAGES TO MINIMIZE SOIL EXPOSURE.
- THE CONTRACTOR SHALL MINIMIZE OR PREVENT THE TRANSPORT OF SEDIMENT ONTO PAVED SURFACE DURING CONSTRUCTION. IF SEDIMENT IS TRANSPORTED ONTO A PAVED SURFACE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CLEAN IT AT THE END OF EACH DAY.
- SUFFICIENT TESC BMP MATERIALS AND SUPPLIES TO PROTECT THE ENTIRE SITE SHALL BE STOCKPILED ON-SITE PRIOR TO ANY SITE ACTIVITY.
- THE CONTRACTOR SHALL MAINTAIN AND REPAIR AS NECESSARY ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL BMP'S TO ASSURE THEIR CONTINUED PERFORMANCE.
- MAINTENANCE AND REPAIR OF TESC FACILITIES AND STRUCTURES SHALL BE CONDUCTED IMMEDIATELY UPON RECOGNITION OF A PROBLEM OR WHEN THE TESC MEASURES BECOME DAMAGED.
- ALL STREETS ARE TO BE KEPT CLEAR OF DIRT AND DEBRIS. STREETS SHALL BE SWEEP IMMEDIATELY WHEN DIRT HAS BEEN TRACKED ONTO THE PAVED SURFACES.
- SEDIMENT DEPOSITS SHALL BE REMOVED FROM ALL TEMPORARY DRAINAGE FACILITIES AND STRUCTURES UPON REACHING A DEPTH OF 6 INCHES.
- SOIL STOCKPILES SHALL BE STABILIZED WITHIN 24 HOURS. WHEN ACTIVELY WORKING WITH THE SOIL STOCKPILE, STABILIZATION SHALL OCCUR AT THE END OF EACH WORK DAY.
- SILTATION BARRIERS AND ALL OTHER TESC MEASURES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL EVENT GREATER THAN 0.1" RAINFALL, AND AT LEAST DAILY DURING PROLONGED RAINFALL EVENTS.
- INLETS OF THE PERMANENT DRAINAGE SYSTEM SHALL BE PROTECTED FROM SEDIMENT INFILX BY USE OF FILTER FABRIC, MICROPORE BAGS, OR SIMILAR FILTERING MATERIALS AND METHODS.
- DURING A STORM EVENT, NO CONSTRUCTION ACTIVITY SHALL OCCUR ON SITE EXCEPT FOR WORK ON EROSION CONTROL FACILITIES.



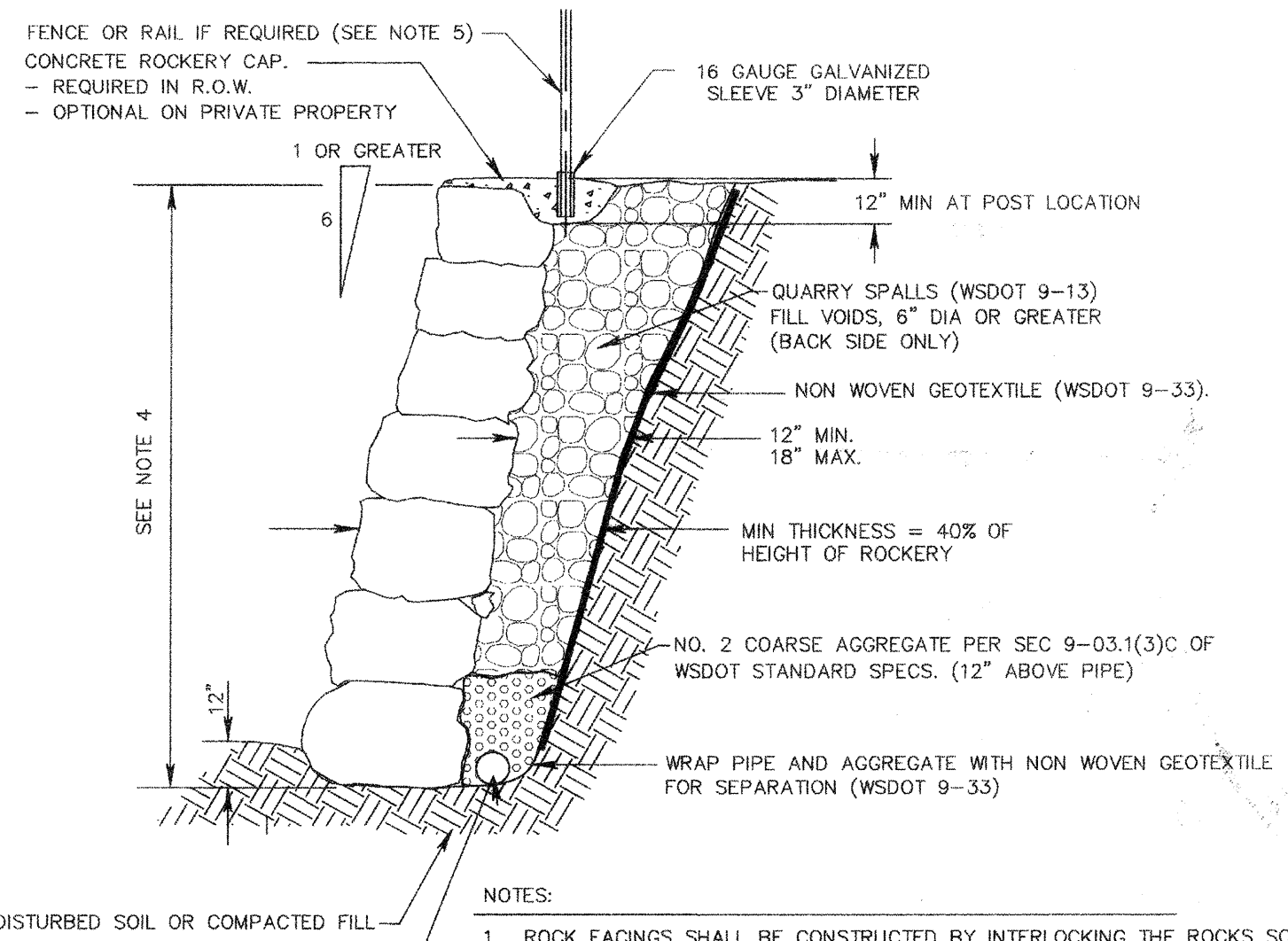
SEDIMENT POND STANDPIPE DETAIL
N.T.S.



TYPICAL SILT FENCE DETAIL (MILL CREEK STD. PLAN STM 014)
NO SCALE

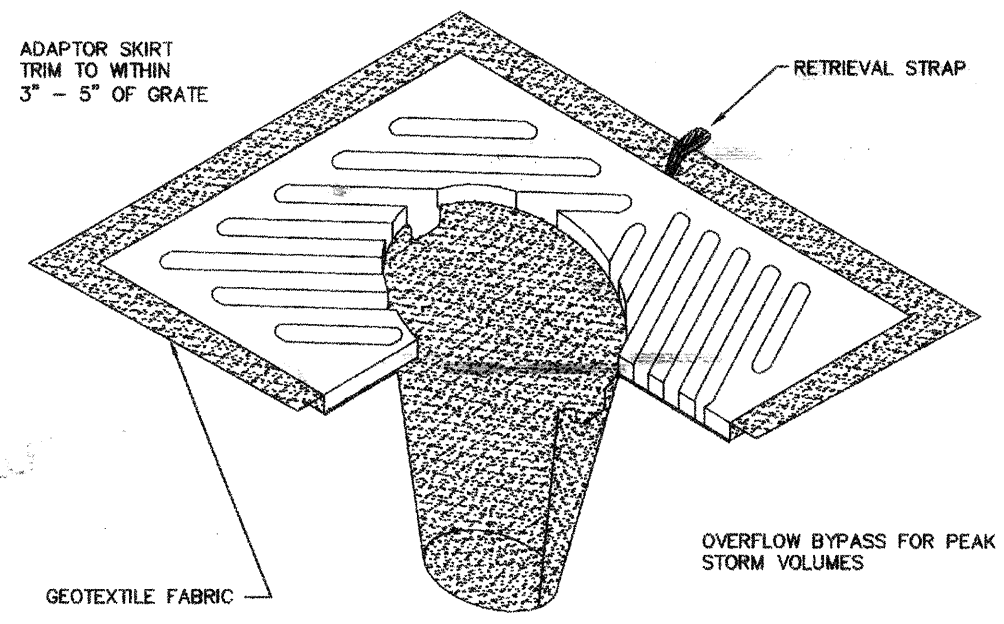


CHECK DAMS (MILL CREEK STD. PLAN STM 011)
NO SCALE



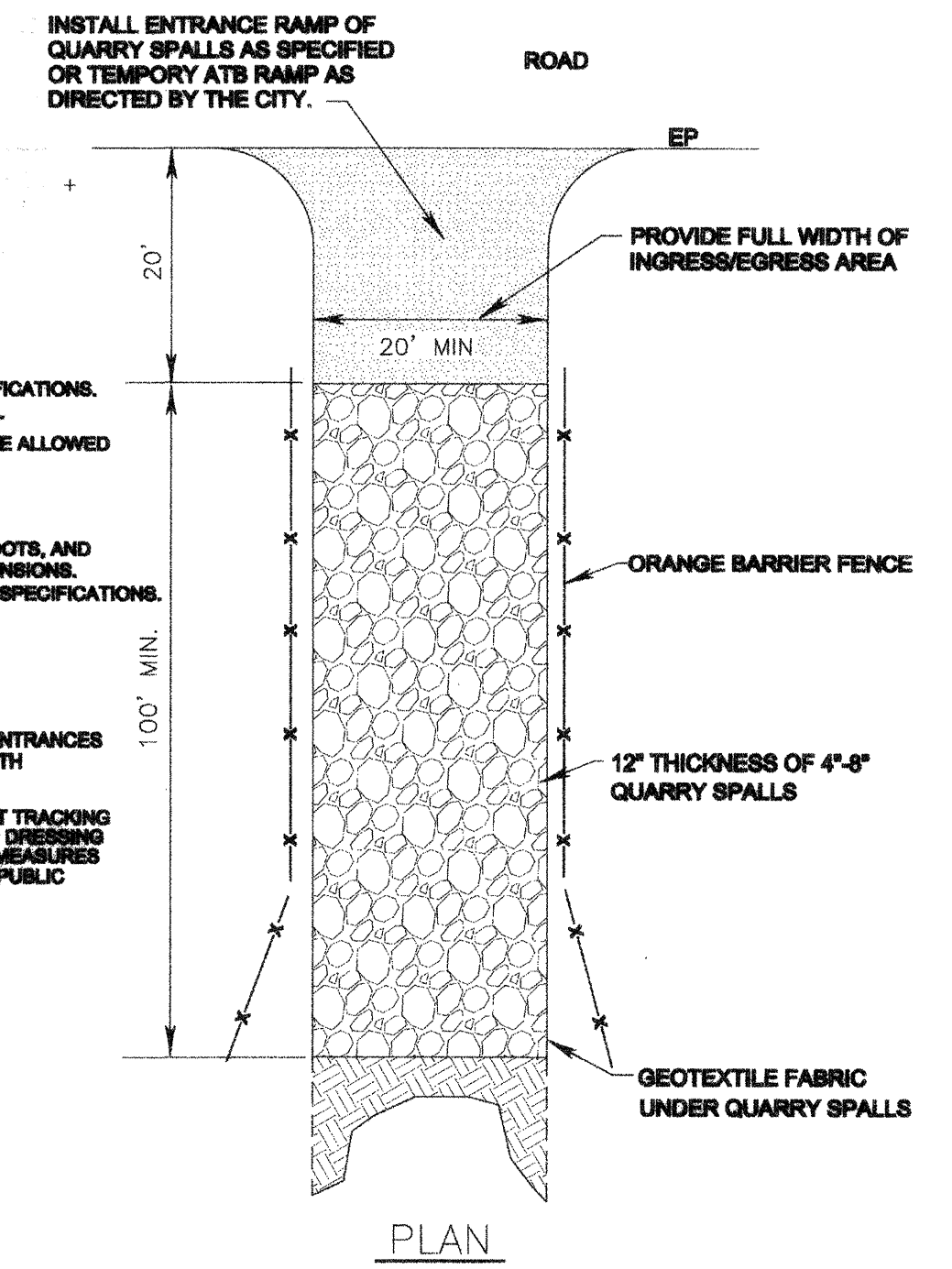
ROCKERY DETAIL (MILL CREEK STD. PLAN STR 030A)
NO SCALE

- NOTES:**
- ROCK FACINGS SHALL BE CONSTRUCTED BY INTERLOCKING THE ROCKS SO THAT EACH ROCK IS IN CONTACT WITH AT LEAST TWO OTHER ROCKS WITH EACH ROCK HAVING A MINIMUM OF THREE BEARING SURFACES PER ROCK.
 - EACH ROCK SHALL BE LAID WITH A FLAT SURFACE ON THE FACE OF THE ROCK FACING AND WITH THE LONG DIMENSION HORIZONTAL.
 - VOIDS IN THE ROCKERY FACE SHALL NOT BE GREATER THAN 50 SQUARE INCHES FOR ROCKS OVER 3 FEET HIGH AND 36 SQUARE INCHES FOR ROCKERIES UNDER 3 FEET HIGH.
 - ROCKERIES OVER FOUR (4) FEET HIGH MUST BE DESIGNED BY A CIVIL ENGINEER LICENSED IN THE STATE OF WASHINGTON. MAXIMUM ROCKERY HEIGHT IS 8 FEET.
 - ROCKERIES WHICH ARE MORE THAN 30 INCHES ABOVE GRADE OR FLOOR BELOW SHALL BE PROTECTED BY A FENCE OR PEDESTRIAN RAILING. TYPE TO BE APPROVED BY THE CITY.



- NOTES:**
- INSERT SHALL BE INSTALLED PRIOR TO CLEARING AND GRADING ACTIVITY, OR UPON PLACEMENT OF A NEW CATCH BASIN.
 - SEDIMENT SHALL BE REMOVED FROM THE UNIT WHEN IT BECOMES HALF FULL.
 - SEDIMENT REMOVAL SHALL BE ACCOMPLISHED BY REMOVING THE INSERT, EMPTYING, AND RE-INSERTING IT INTO THE CATCH BASIN.

CATCH BASIN INLET PROTECTION INSERT



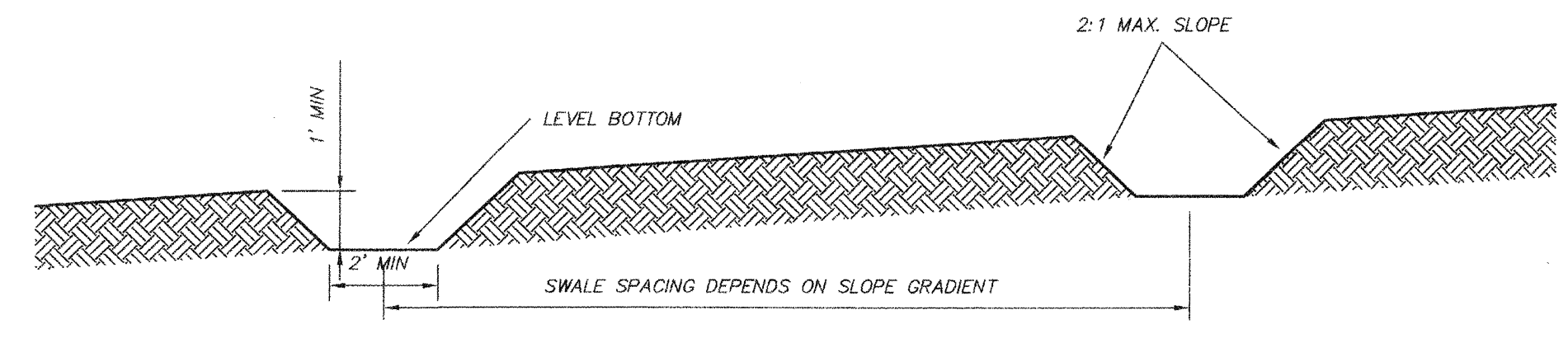
DETAIL NOTES:

- 4" TO 8" QUARRY SPALLS AS SPECIFIED IN SECTION 9-13.6 OF THE WSDOT STANDARD SPECIFICATIONS.
- THE MINIMUM LENGTH SHALL BE LENGTHENED AS NECESSARY TO ENSURE MATERIAL IS NOT TRACKED INTO THE PUBLIC RIGHT-OF-WAY. ALTERNATE CONSTRUCTION ENTRANCES WILL BE ALLOWED WITH APPROVAL OF THE CITY ENGINEER ON A CASE BY CASE BASIS, WHERE PHYSICAL SITE CONDITIONS AND SIZE DICTATE.
- INSTALL ORANGE BARRIER FENCE TO DIRECT TRAFFIC ONTO CONSTRUCTION ENTRANCE.
- INSTALLATION: THE AREA OF THE ENTRANCE SHOULD BE CLEARED OF ALL VEGETATION, ROOTS, AND OTHER OBSTRUCTIBLE MATERIAL. THE GRAVEL SHALL BE PLACED TO THE SPECIFIED DIMENSIONS. IF WASH RACKS ARE USED, THEY SHOULD BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

GENERAL NOTES:

- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 6:1 SLOPES WILL BE PERMITTED.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS USED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

GRAVEL CONSTRUCTION ENTRANCE (MILL CREEK STD. PLAN STR 061)
NO SCALE



HORIZONTAL SPACING OF INTERCEPTOR SWALES:

AVERAGE SLOPE	SPACING
< 5%	300 FEET
5-10%	200 FEET
10-40%	100 FEET

INSTALL ROCK CHECK DAMS AS REQUIRED

INTERCEPTOR SWALE
NOT TO SCALE

ACCEPTED FOR CONSTRUCTION BY:
Douglas Paulson 7/28/05
DIRECTOR OF PUBLIC WORKS
CITY OF MILL CREEK

ACCEPTED AS IN COMPLIANCE WITH APPROVAL FOR PP 01-56
Paul Dumm 7-29-05
DATE

DIRECTOR OF COMMUNITY DEVELOPMENT

SCALE: AS SHOWN

DRAWN	MM	CHECKED	RLL	SHEET
DATE	1-17-05	P.B.		
PPN				

LSA FILE NO. 4700 OF

LSA
Lovell-Sauerland & Associates, Inc.
Engineers/Surveyors/Planners
Development Consultants

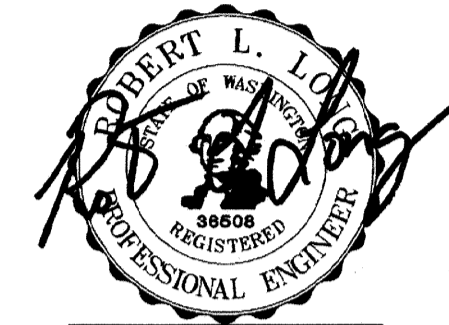
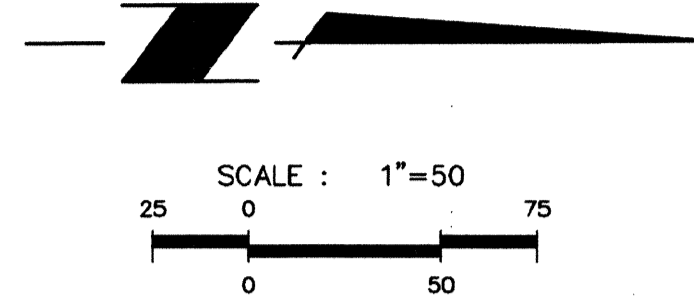
19400 33rd Avenue W.
Suite 200
Lynnwood, WA 98036
phone: (425)775-1591
fax: (425)672-7998
e-mail: info@lsaengineering.com
web: lsaengineering.com

ROBERT L. LEON
PROFESSIONAL ENGINEER
EXPIRES 8/17/06

REVISIONS
1. REVISED PER CITY COMMENTS/DEVELOPER REVISIONS
2. REVISED PER CITY COMMENTS

GRADING AND T.E.S.C. NOTES & DETAILS
FOR
MILL CREEK EAST
IN EAST 1/2 OF SECTION 32, T.28N., R.5E., W.M.
CITY OF MILL CREEK
SNOHOMISH COUNTY, WASHINGTON

HDEV-2252

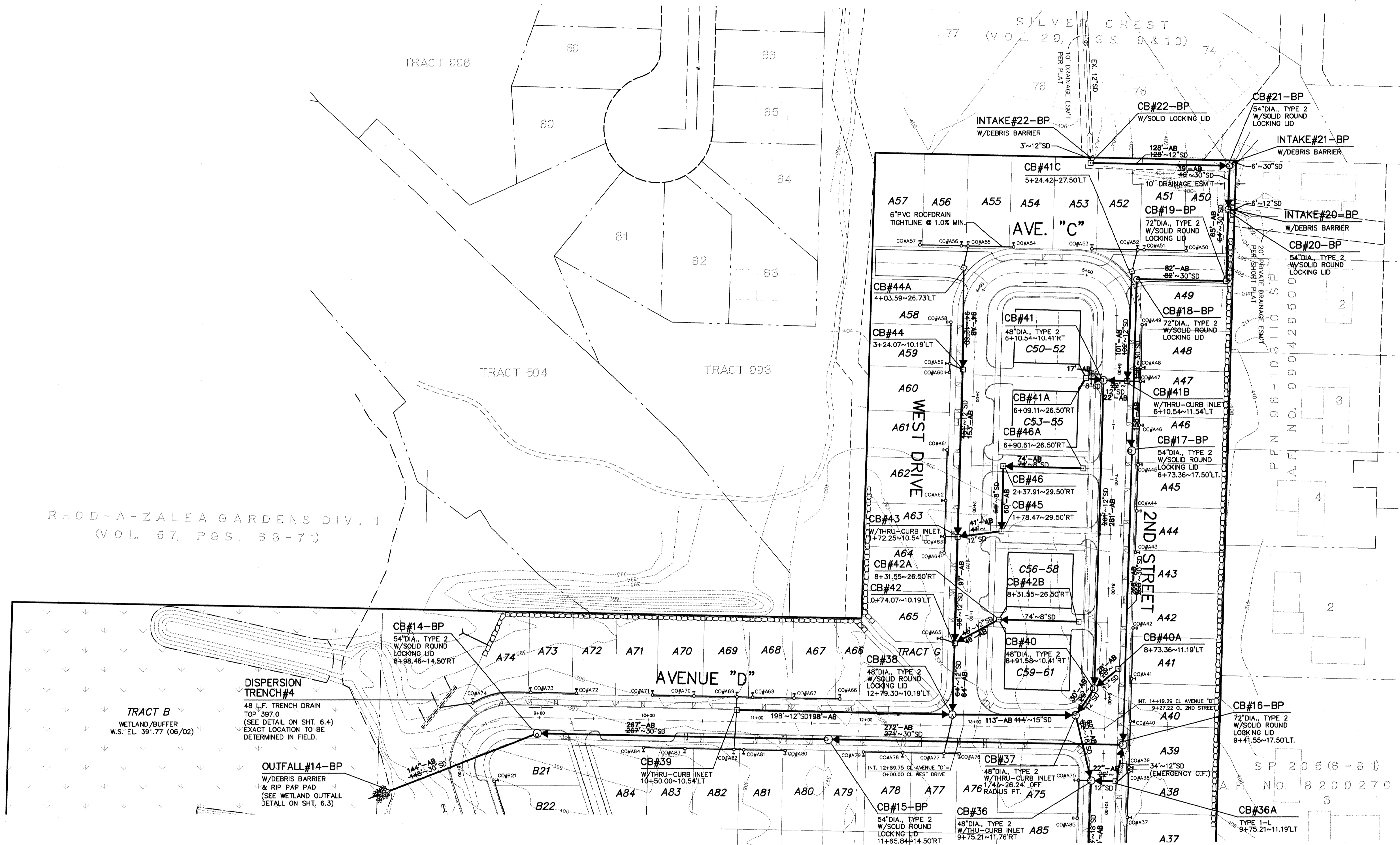


EXPIRES 8/17/08 07/21/07

MM	DD	MM	DD	MM	DD	MM	DD	MM	DD	MM	DD
5-18-05		MM		MM		MM		MM		MM	
6-28-05		MM		MM		MM		MM		MM	
8-8-05		MM		MM		MM		MM		MM	
7-07-06		MM		MM		MM		MM		MM	
01-15-07		MM		MM		MM		MM		MM	
06-18-07		MM		MM		MM		MM		MM	
07-25-07		MM		MM		MM		MM		MM	

REVISIONS

1. REVISED PER CITY COMMENTS/DEVELOPER REVISIONS
2. REVISED PER CITY COMMENTS
3. REV. CB#41C & CB#44A CALLOUTS
4. AS-BUILT - PDF
5. AS-BUILT - PDF
6. AS-BUILT REVISIONS
7. AS-BUILT MYLARS



RHOD-A-ZALEA GARDENS DIV. 1
 (VOL. 57, PGS. 53-71)

TRACT B
 WETLAND BUFFER
 W.S. EL. 391.77 (06/02)

DISPERSION
 TRENCH#4
 48' L.F. TRENCH DRAIN
 TOP 397.0
 (SEE DETAIL ON SHT. 6.4)
 EXACT LOCATION TO BE
 DETERMINED IN FIELD.

OUTFALL#14-BP
 W/DEBRIS BARRIER
 & RIP RAP PAD
 (SEE WETLAND OUTFALL
 DETAIL ON SHT. 6.3)

SEE SHEET 4.1

SPECIAL DRAINAGE NOTES

1. ALL ROOF DRAINS AND DRIVEWAY SURFACES SHALL BE CONSTRUCTED TO DRAIN TO THE STORM DRAINAGE SYSTEM UNLESS OTHERWISE NOTED.
2. ALL FOUNDATION DRAINS SHALL BE CONSTRUCTED TO DRAIN TO THE STORM DRAINAGE SYSTEM.
3. ROOF DRAIN LINE TO BE 6" PVC (OR CPEP) FOR EACH INDIVIDUAL LOT. WHENEVER 5 OR MORE LOTS ARE CONNECTED TO THE SAME ROOF DRAIN LINE, THEN INCREASE THE LINE SIZE TO 8" MIN. PVC (OR CPEP). ROOF DRAIN LINE TO BE CONSTRUCTED AT SL = 1% MIN. OR AS APPROVED BY INSPECTOR.

AS-BUILT ROAD AND STORM DRAINAGE PLAN
 FOR
MILL CREEK EAST
 IN EAST 1/2 OF SECTION 32, T.28N., R.5E., W.M.
 CITY OF MILL CREEK
 SNOHOMISH COUNTY, WASHINGTON

SCALE	1"=50'	
DRAWN	MM	CHECKED RLL
DATE	1-17-05	F.B.
PPN	-	
LSA FILE NO.	4700	
SHEET		4.2

AS-BUILT
 NORTH POINTE

HDEV-2254

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EXPIRES 8/17/08
07/27/07

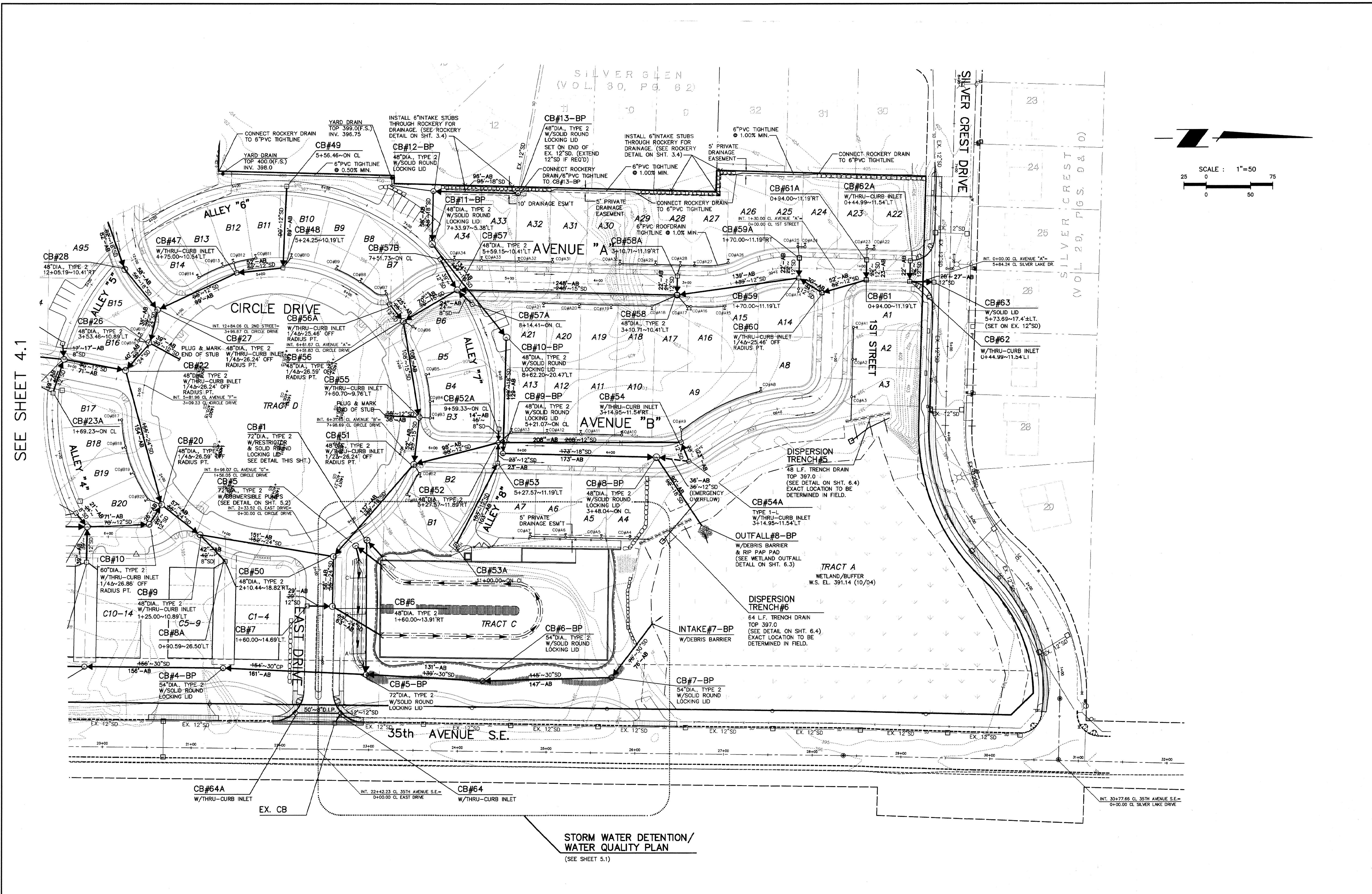
REVISIONS	DATE	BY	DESCRIPTION
1.	5-18-05	MM	REVISED PER CITY COMMENTS/DEVELOPER REVISIONS
2.	6-28-05	MM	REVISED PER CITY COMMENTS
3.	8-8-05	MM	ADDED CALCULATIONS TO PIPES
4.	7-07-06	MH	AS-BUILT - PDF
5.	01-15-07	MH	AS-BUILT - PDF
6.	06-18-07	BIA	AS-BUILT REVISIONS
7.	07-25-07	RL	AS-BUILT MYLARS

AS-BUILT ROAD AND STORM DRAINAGE PLAN
 FOR
MILL CREEK EAST
 IN EAST 1/2 OF SECTION 32, T.28N., R.5E., W.M.
 CITY OF MILL CREEK
 SNOHOMISH COUNTY, WASHINGTON

SCALE	1"=50'
DRAWN	MM
CHECKED	RL
DATE	1-17-05
PPN	-
LSA FILE NO.	4700
SHEET	4.3

AS-BUILT

NORTH POINTE



SEE SHEET 4.1

**STORM WATER DETENTION/
 WATER QUALITY PLAN**
 (SEE SHEET 5.1)

SPECIAL DRAINAGE NOTES

- ALL ROOF DRAINS AND DRIVEWAY SURFACES SHALL BE CONSTRUCTED TO DRAIN TO THE STORM DRAINAGE SYSTEM UNLESS OTHERWISE NOTED.
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REVISIONS

1. REVISED PER CITY COMMENTS/DEVELOPER REVISIONS
2. REVISED PER CITY COMMENTS
3. AS-BUILT
4. AS-BUILT
5. AS-BUILT
6. AS-BUILT
7. AS-BUILT

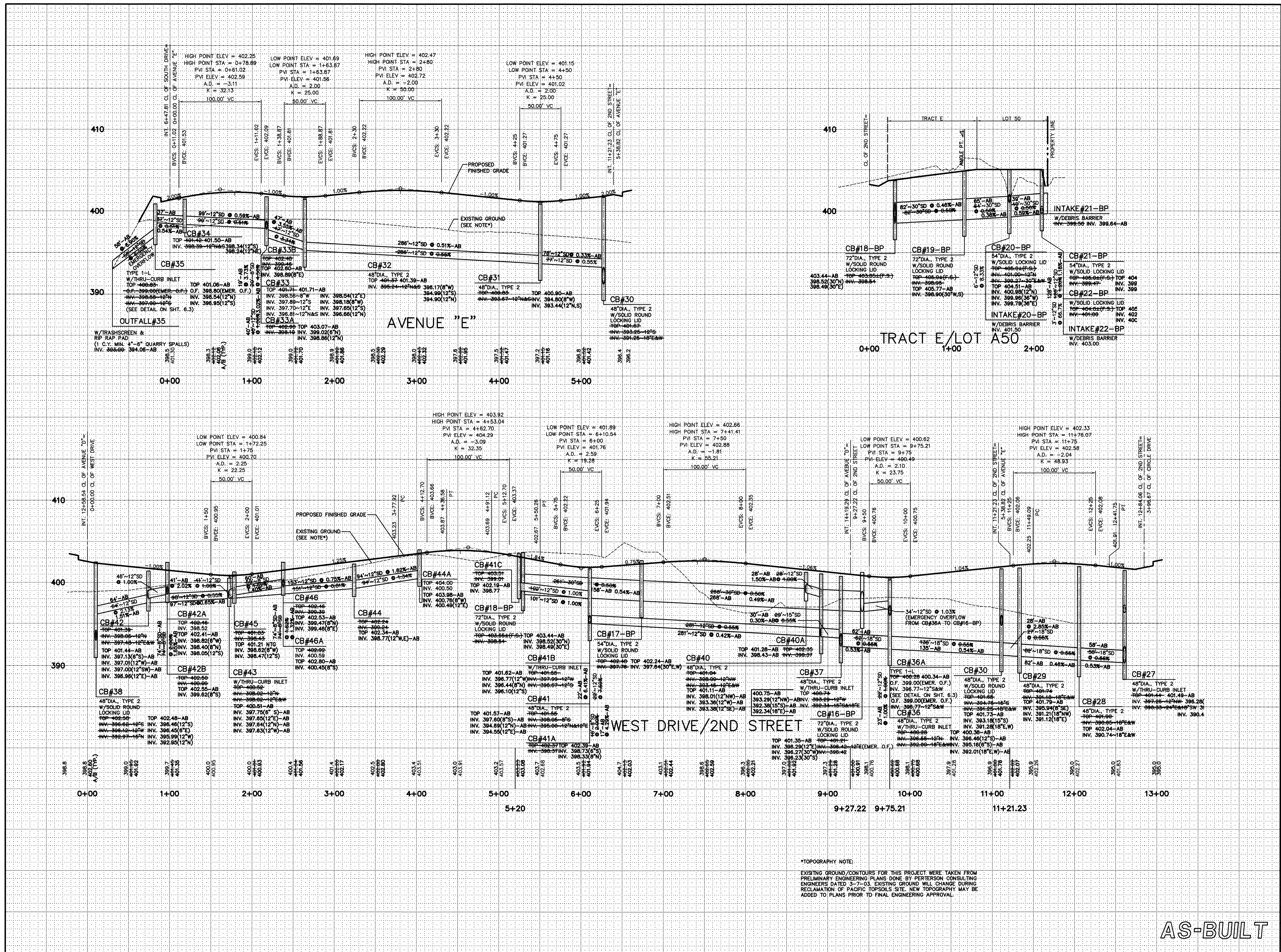
AS-BUILDROAD AND STORM DRAINAGE PROFILES FOR

MILL CREEK EAST

CITY OF MILL CREEK
SNOHOMISH COUNTY, WASHINGTON

IN EAST 1/2 OF SECTION 32, T.28N., R.5E., W.M.

SCALE	1" = 50' HOR. / 1" = 5' VERT.	
DRAWN	CHECKED	SHEET
MM	RL	
DATE	F.B.	
1-17-05		
PPN		4.5
LSA FILE NO.	4700	

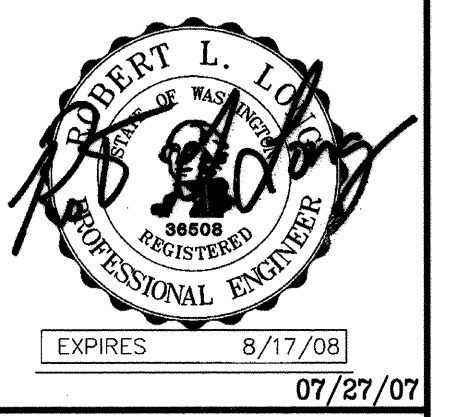


*TOPOGRAPHY NOTE:
EXISTING GROUND/CONTOURS FOR THIS PROJECT WERE TAKEN FROM PRELIMINARY ENGINEERING PLANS DONE BY PERTERSON CONSULTING ENGINEERS DATED 3-7-03. EXISTING GROUND WILL CHANGE DURING RECLAMATION OF FABRIC TOPSOILS SITE. NEW TOPOGRAPHY MAY BE ADDED TO PLANS PRIOR TO FINAL ENGINEERING APPROVAL.

AS-BUILT

NORTH POINTE

HDEV-2257



REVISIONS	DATE	BY	CHKD	REVISIONS
1. REVISED PER CITY COMMENTS/DEVELOPER REVISIONS	5-18-05	MM	MM	1
2. REVISED PER CITY COMMENTS	6-28-05	MM	MM	2
4. AS-BUILT	7-02-06	MM	MM	4
5. AS-BUILT - PDF	01-15-07	MM	MM	5
6. AS-BUILT REVISIONS	06-19-07	MM	MM	6
7. AS-BUILT MYLARS	07-25-07	MM	MM	7

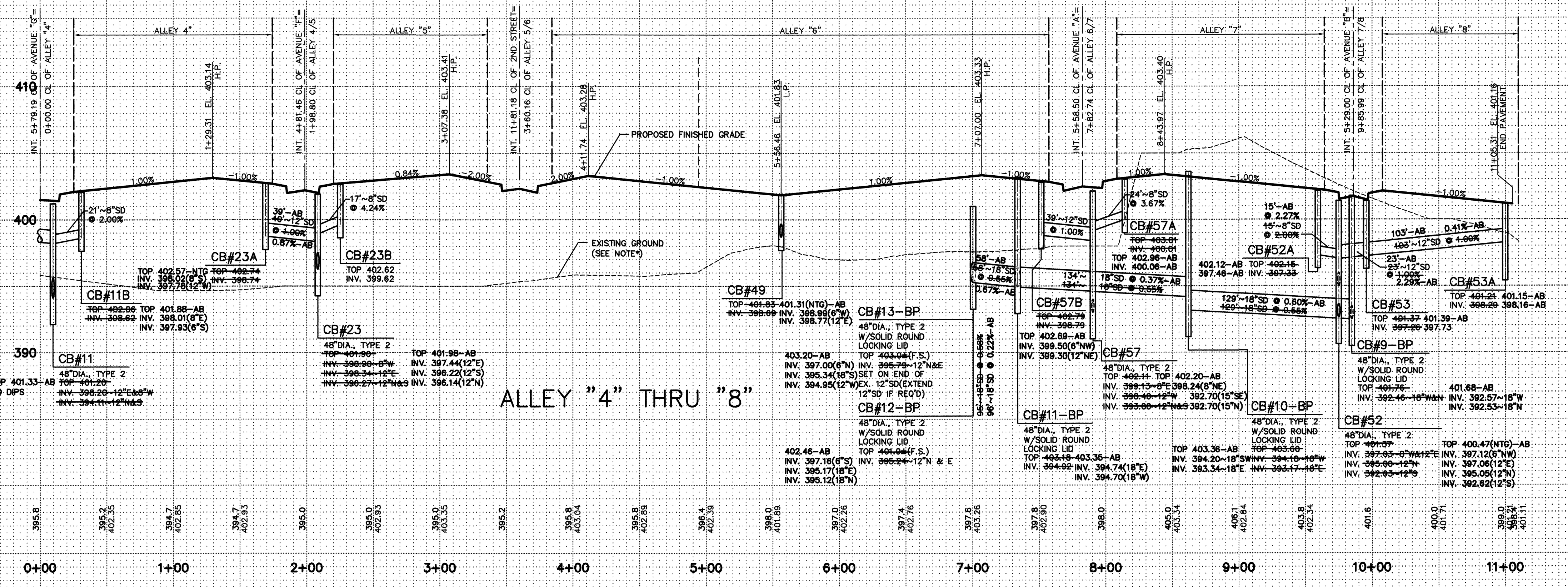
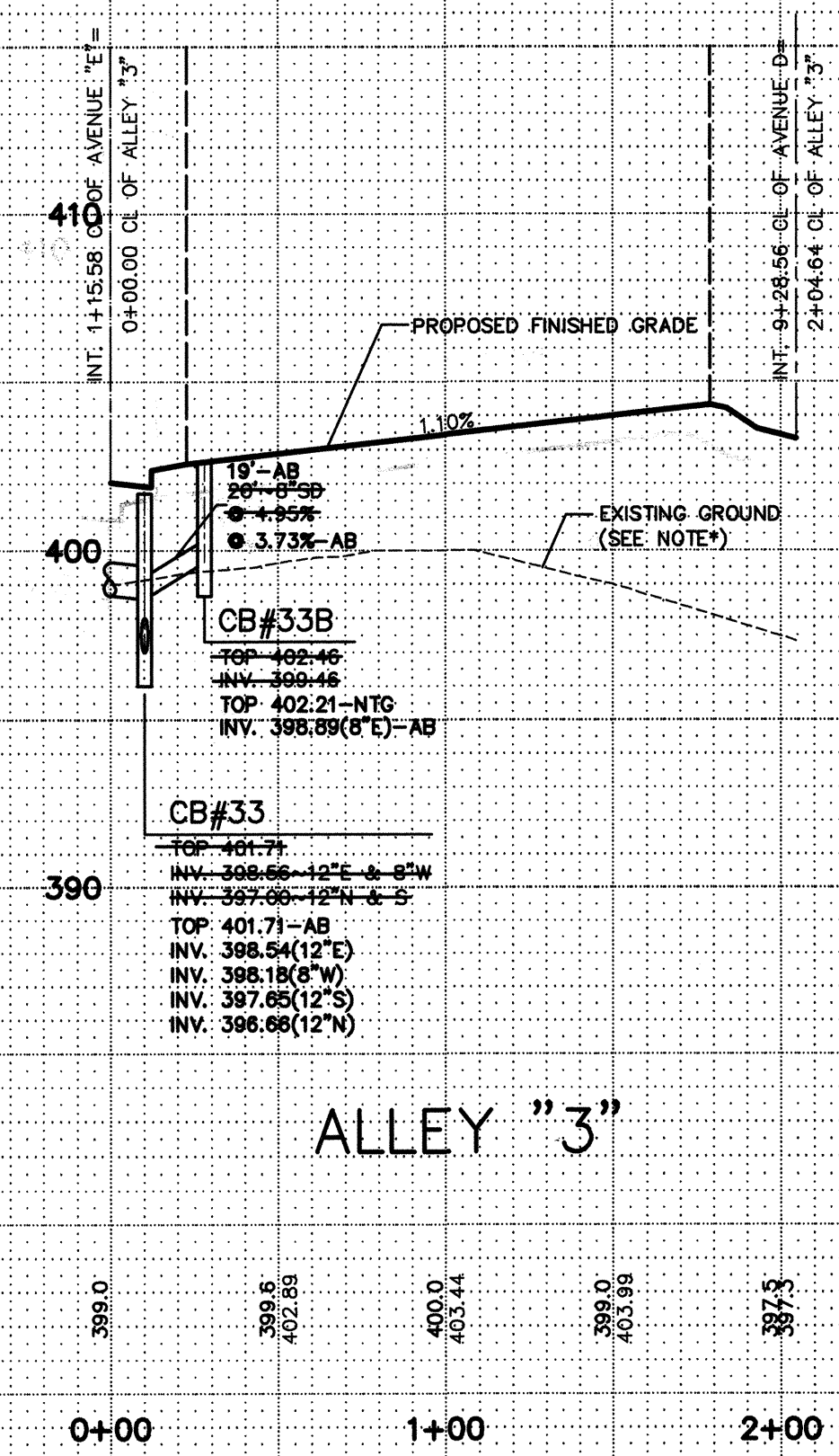
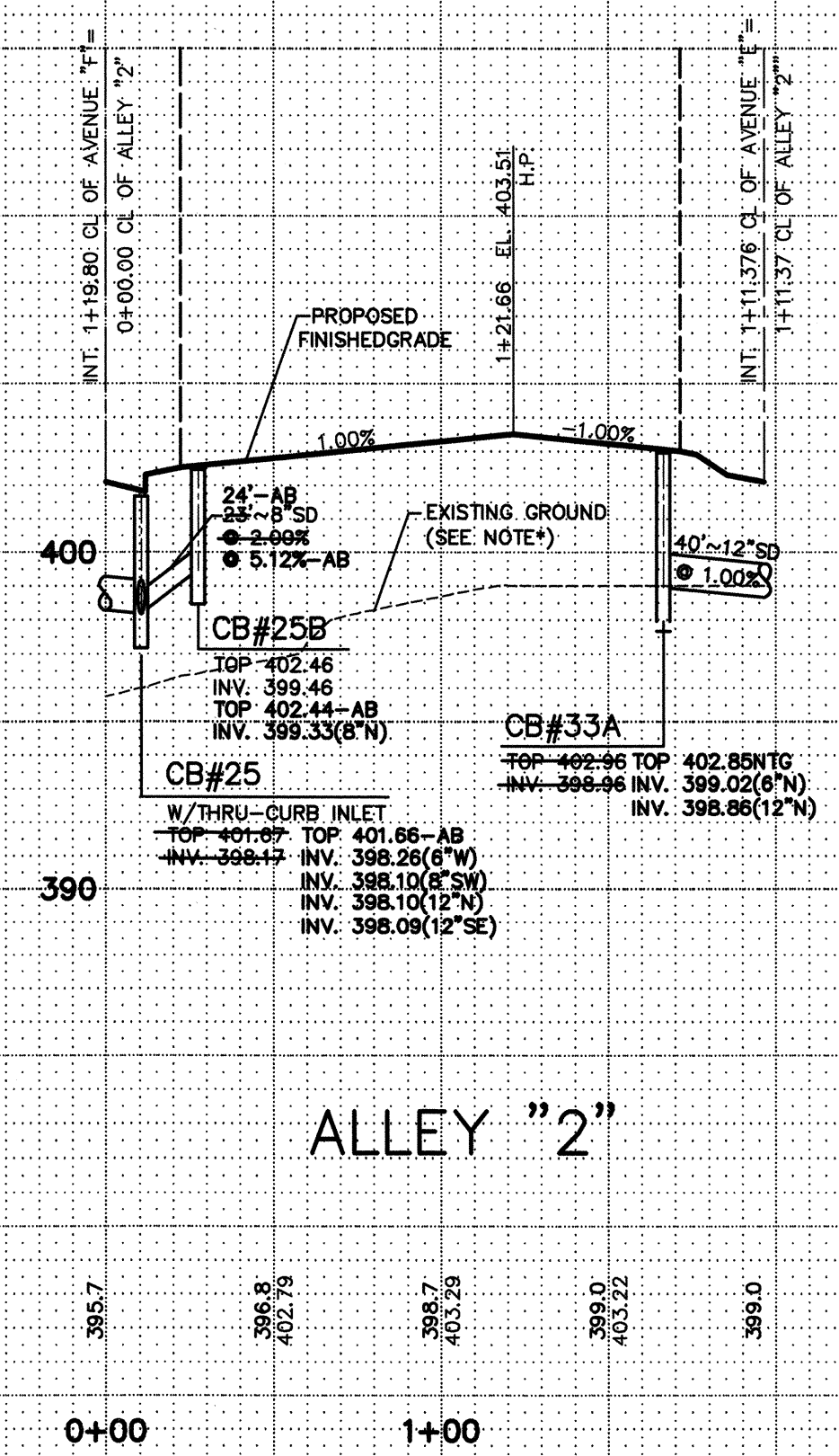
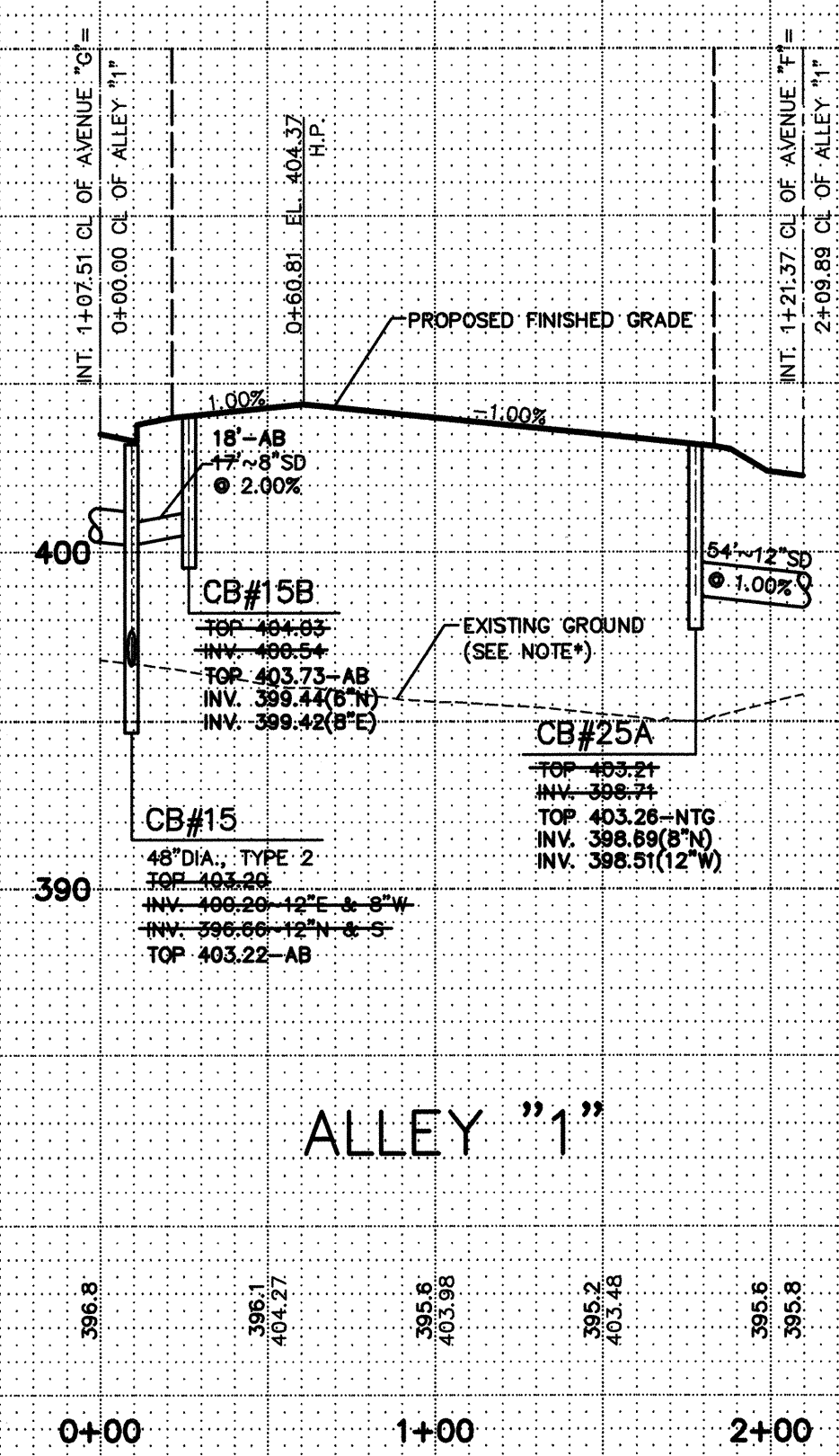
FOR
MILL CREEK EAST
CITY OF MILL CREEK
SNOHOMISH COUNTY, WASHINGTON

AS-BUILT ROAD AND STORM DRAINAGE PROFILES

SCALE: 1" = 50' HOR. / 1" = 5' VERT.

DRAWN	MM	CHECKED	RL	SHEET
DATE	1-17-05	F.B.		
PPN				4.6
LSA FILE NO.	4700			

HDEV-2258

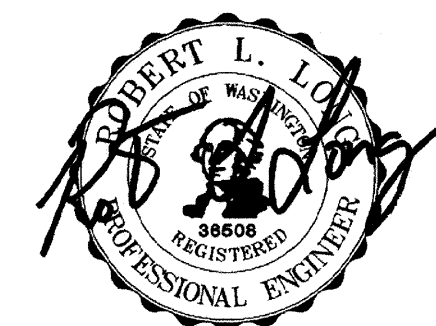


*TOPOGRAPHY NOTE:
EXISTING GROUND/CONTOURS FOR THIS PROJECT WERE TAKEN FROM PRELIMINARY ENGINEERING PLANS DONE BY PETERSON CONSULTING ENGINEERS DATED 3-7-03. EXISTING GROUND WILL CHANGE DURING RECLAMATION OF PACIFIC TOPSOILS SITE. NEW TOPOGRAPHY MAY BE ADDED TO PLANS PRIOR TO FINAL ENGINEERING APPROVAL.

AS-BUILT

NORTH POINTE

FILED: Mill Creek, WA, NEW PLAN: 4700-1-17-05, 4'-0" x 5'-0" (11/17/05) 4'-0" x 5'-0" (11/17/05)



EXPIRES 8/17/08 07/21/07

- 1. REVISED PER CITY COMMENTS/DEVELOPER REVISIONS
- 2. REVISED PER CITY COMMENTS
- 3. AS-BUILT - PDF
- 4. AS-BUILT - PDF
- 5. AS-BUILT - PDF
- 6. AS-BUILT REVISIONS
- 7. AS-BUILT MYLARS

REVISIONS

AS-BUILT ROAD AND STORM DRAINAGE PROFILES FOR

MILL CREEK EAST

CITY OF MILL CREEK
SNOHOMISH COUNTY, WASHINGTON

IN EAST 1/2 OF SECTION 32, T.28N., R.5E., W.M.

SCALE 1"=50'HOR./1"=5'VERT.

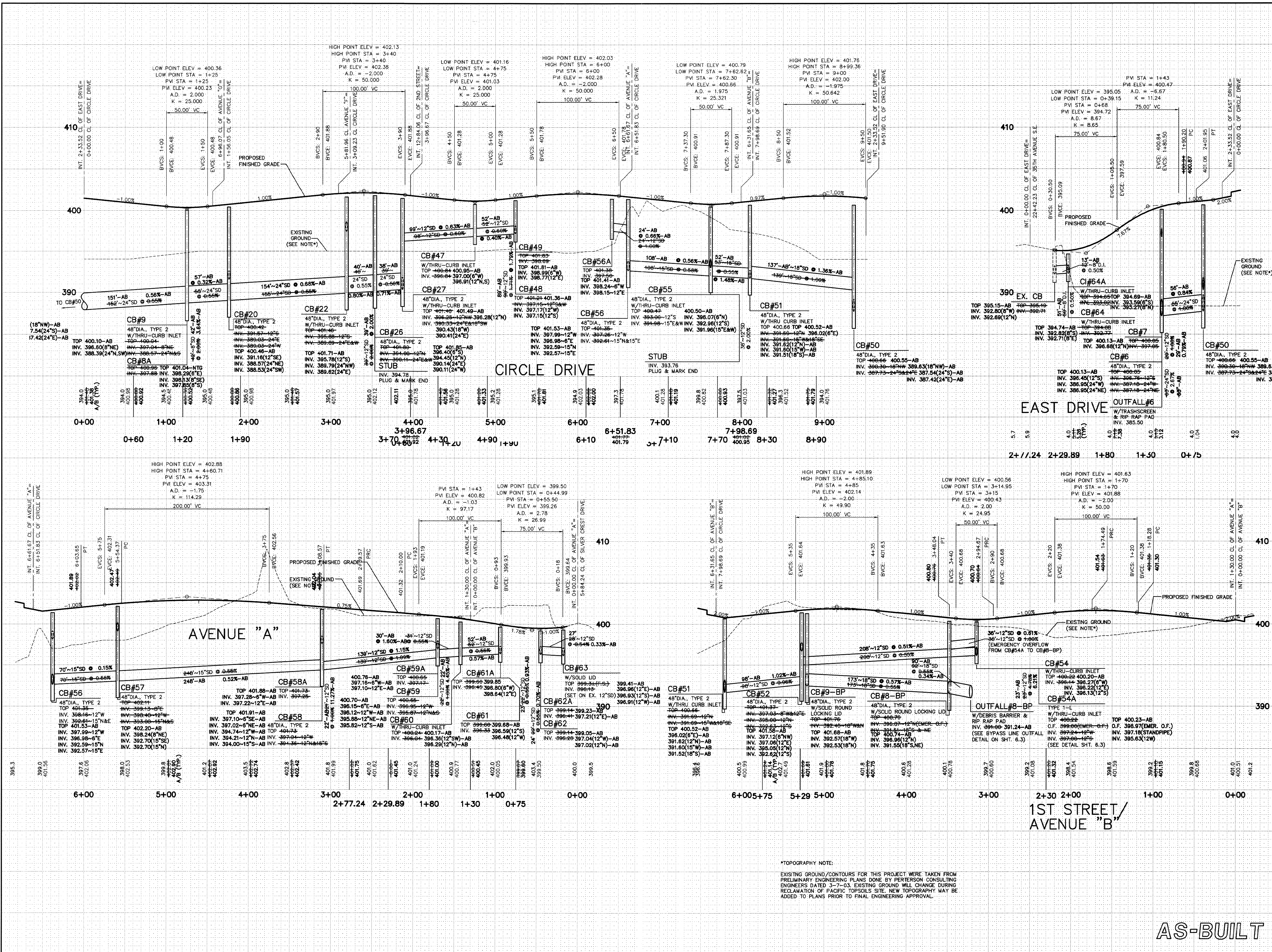
DATE 1-17-05

PPN

LSA FILE NO. 4700

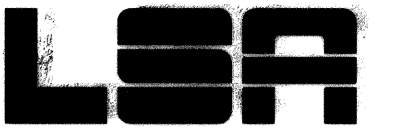
DRAWN MM CHECKED RLL SHEET 4.7

AS-BUILT NORTH POINTE



*TOPOGRAPHY NOTE:
EXISTING GROUND/CONTOURS FOR THIS PROJECT WERE TAKEN FROM PRELIMINARY ENGINEERING PLANS DONE BY PERTERSON CONSULTING ENGINEERS DATED 3-7-03. EXISTING GROUND WILL CHANGE DURING RECLAMATION OF PACIFIC TOPSOILS SITE. NEW TOPOGRAPHY MAY BE ADDED TO PLANS PRIOR TO FINAL ENGINEERING APPROVAL.

\\4700\eng\1-SA_ENG\ENR\4700SD\1-AB.dwg, 7/27/2007 4:15:16 PM, PD995



LSA
Lovell-Sauerland
& Associates, Inc.

Engineers/Surveyors/Planners
Development Consultants

19400 33rd Avenue W.
Suite 200
Lynnwood, WA 98036
phone: (425)775-1591
fax: (425)672-7998

e-mail: info@lsaengineering.com
web: lsaengineering.com



EXPIRES 8/17/08
07/27/07

5-18-05	MM
6-28-05	MM
7-07-06	MH
01-19-07	MH
07-25-07	MHA
	RL

REVISIONS
1. REVISED PER CITY COMMENTS/DEVELOPER REVISIONS
2. REVISED PER CITY COMMENTS

4. AS-BUILT
5. AS-BUILT
6. AS-BUILT REVISIONS
7. AS-BUILT REVISIONS

AS-BUILT ROAD AND STORM DRAINAGE PROFILES

FOR

MILL CREEK EAST

IN EAST 1/2 OF SECTION 32, T.28N., R.5E., W.M.

CITY OF MILL CREEK

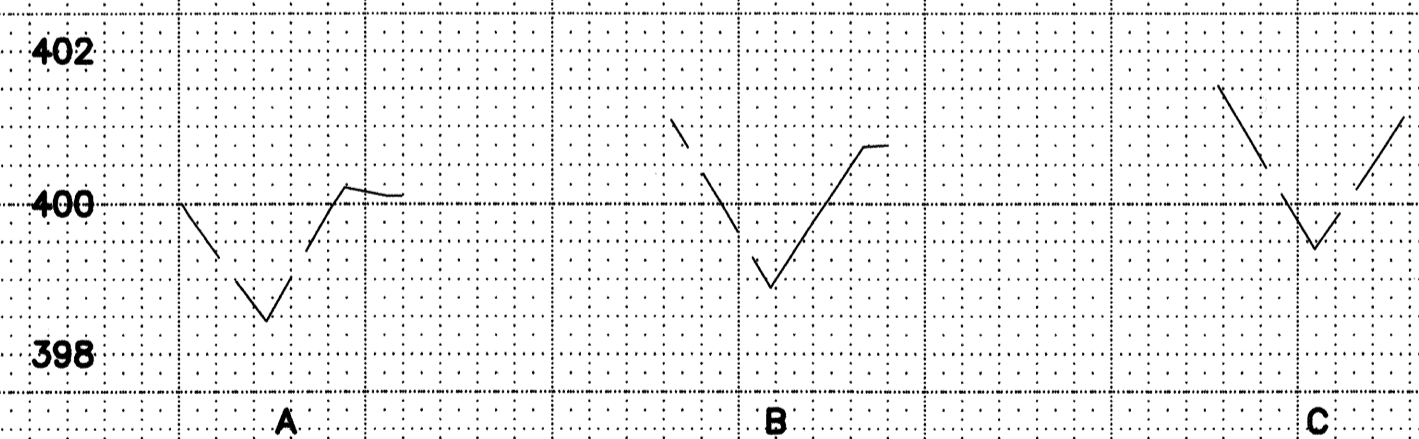
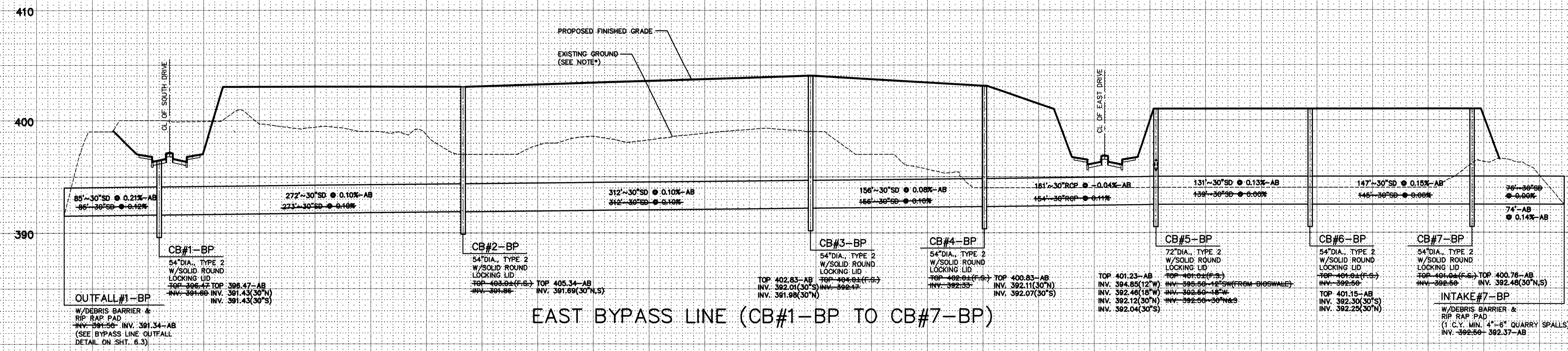
SNOHOMISH COUNTY, WASHINGTON

SCALE 1" = 50' HOR. / 1" = 5' VERT.		SHEET
DRAWN MM	CHECKED RL	
DATE 1-17-05	F.B.	4.8
PPN		
LSA FILE NO. 4700		

AS-BUILT

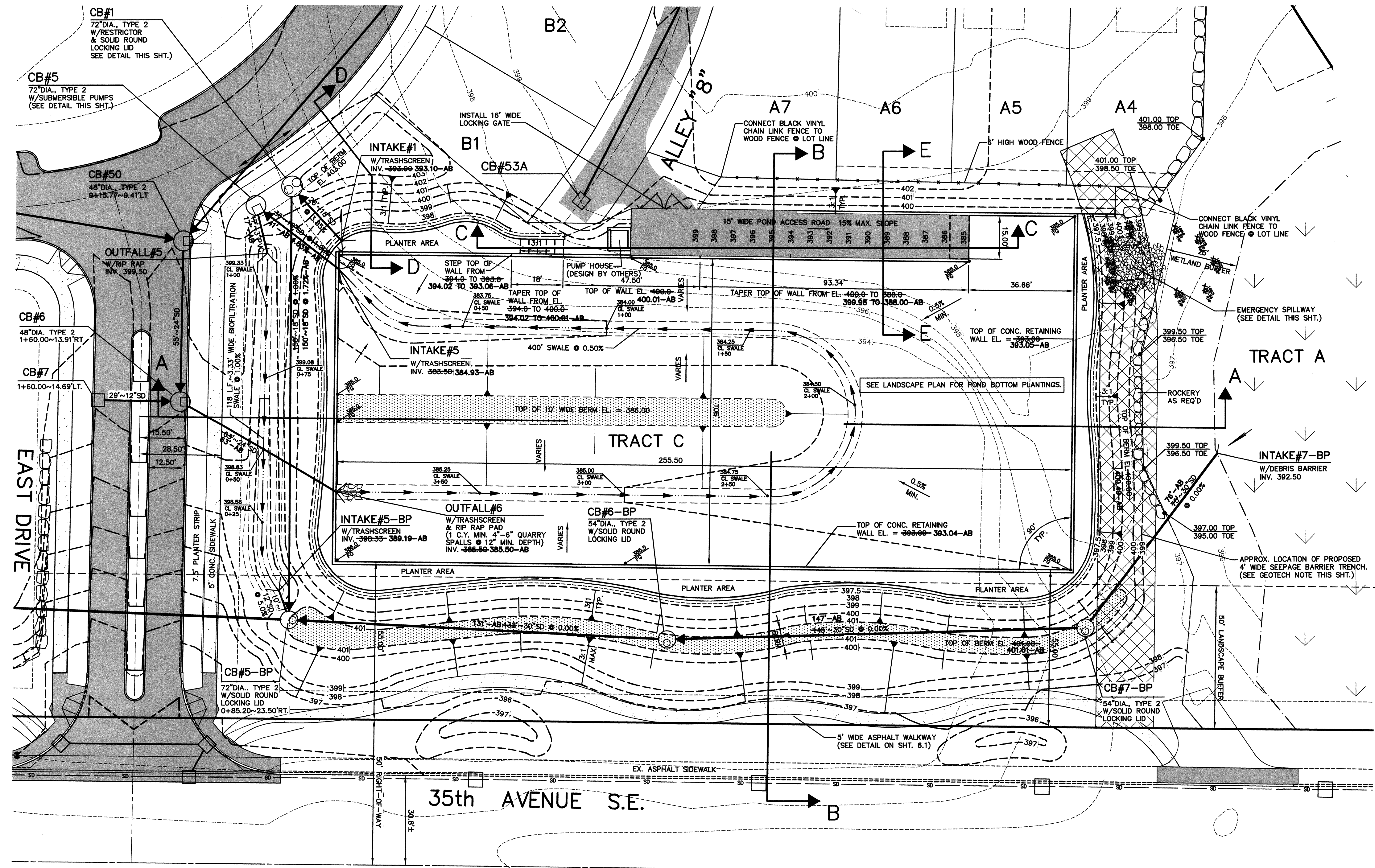
NORTH POINTE

HDEV-2260



*TOPOGRAPHY NOTE:
EXISTING GROUND/CONTOURS FOR THIS PROJECT WERE TAKEN FROM
PRELIMINARY ENGINEERING PLANS DONE BY PERTERSON CONSULTING
ENGINEERS DATED 3-7-03. EXISTING GROUND WILL CHANGE DURING
RECLAMATION OF PACIFIC TOPSOILS SITE. NEW TOPOGRAPHY MAY BE
ADDED TO PLANS PRIOR TO FINAL ENGINEERING APPROVAL.

\\fs01\mca\p124... 1/17/05 4:54:49 W. 11/05

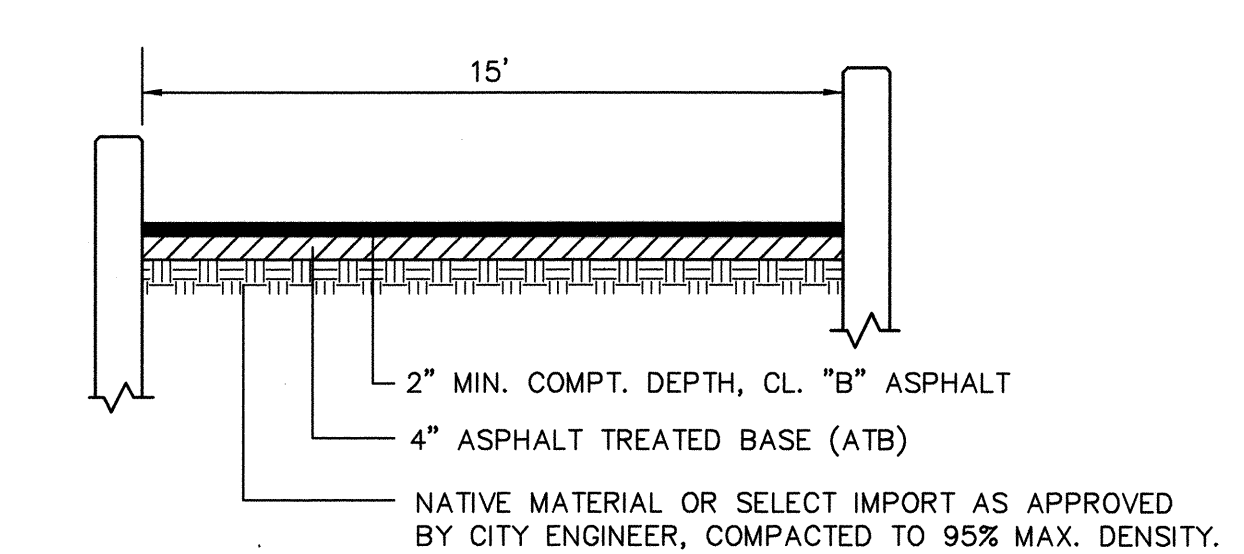


SCALE: 1"=20'

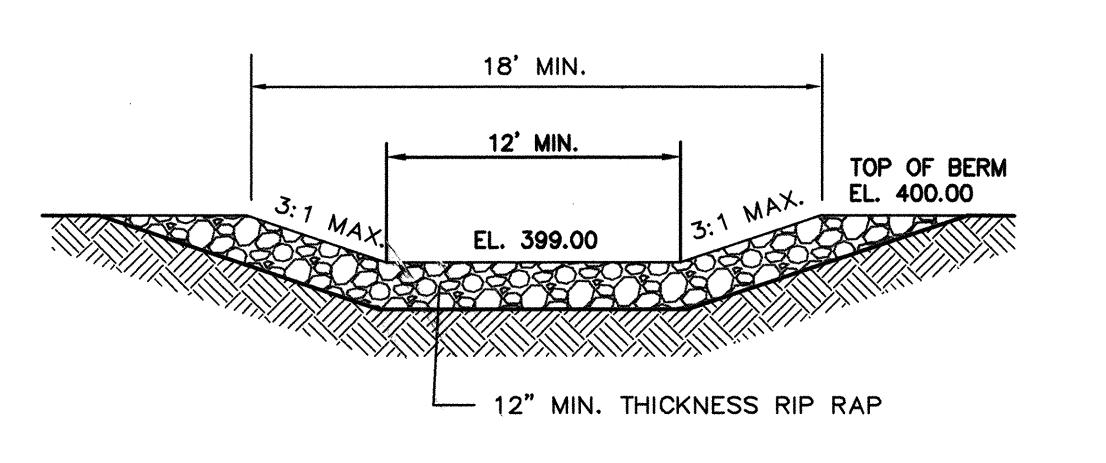
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GEOTECHNICAL NOTES:

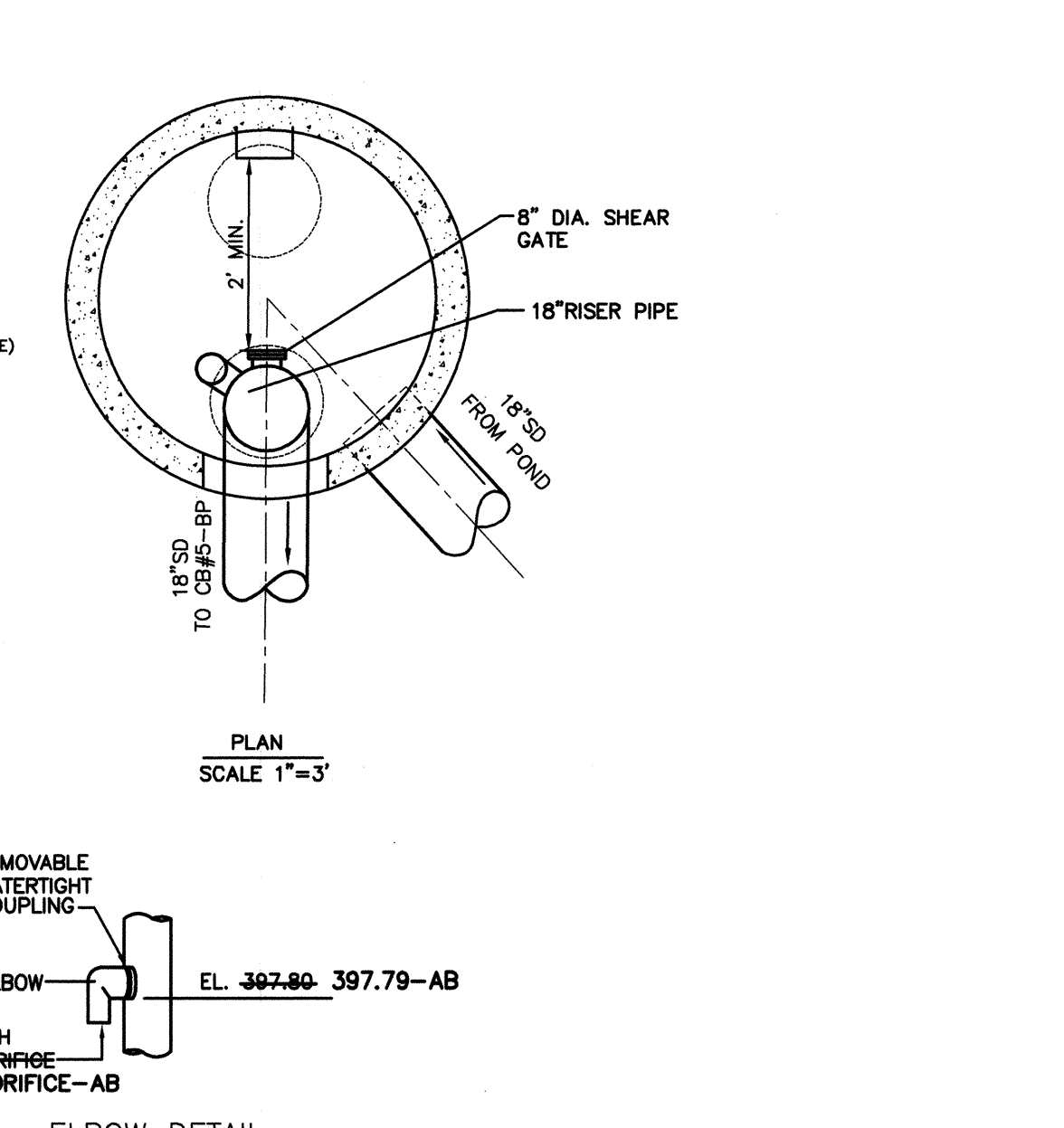
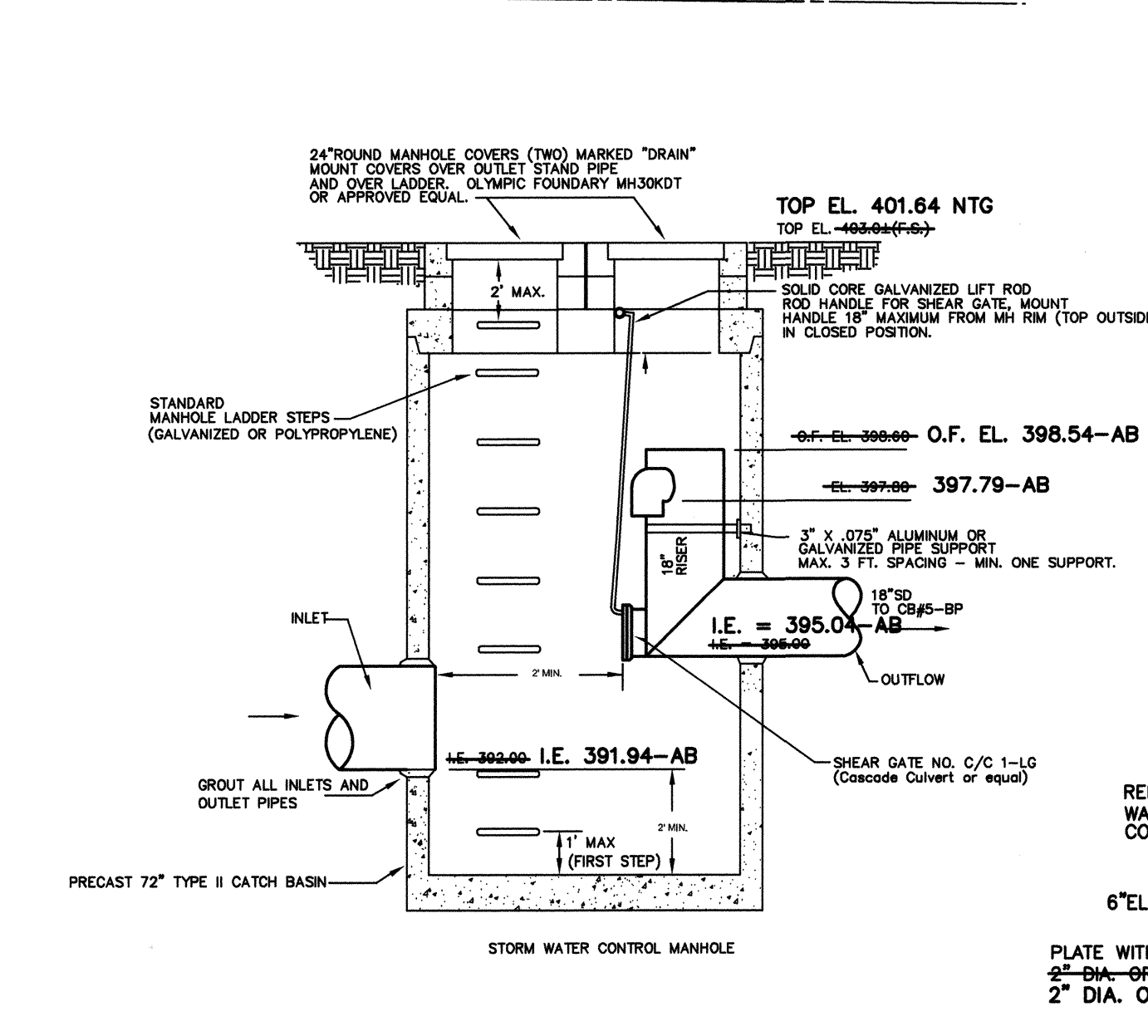
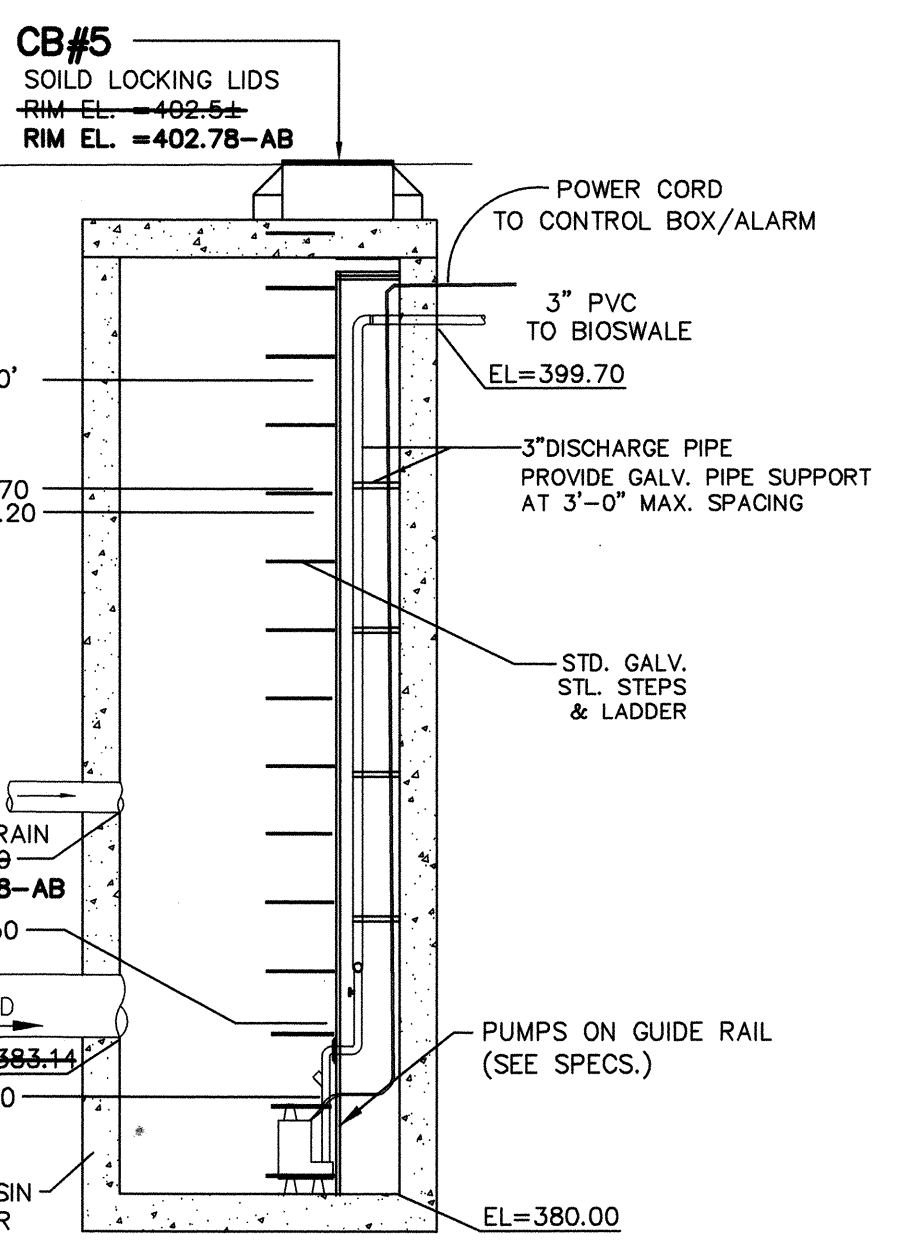
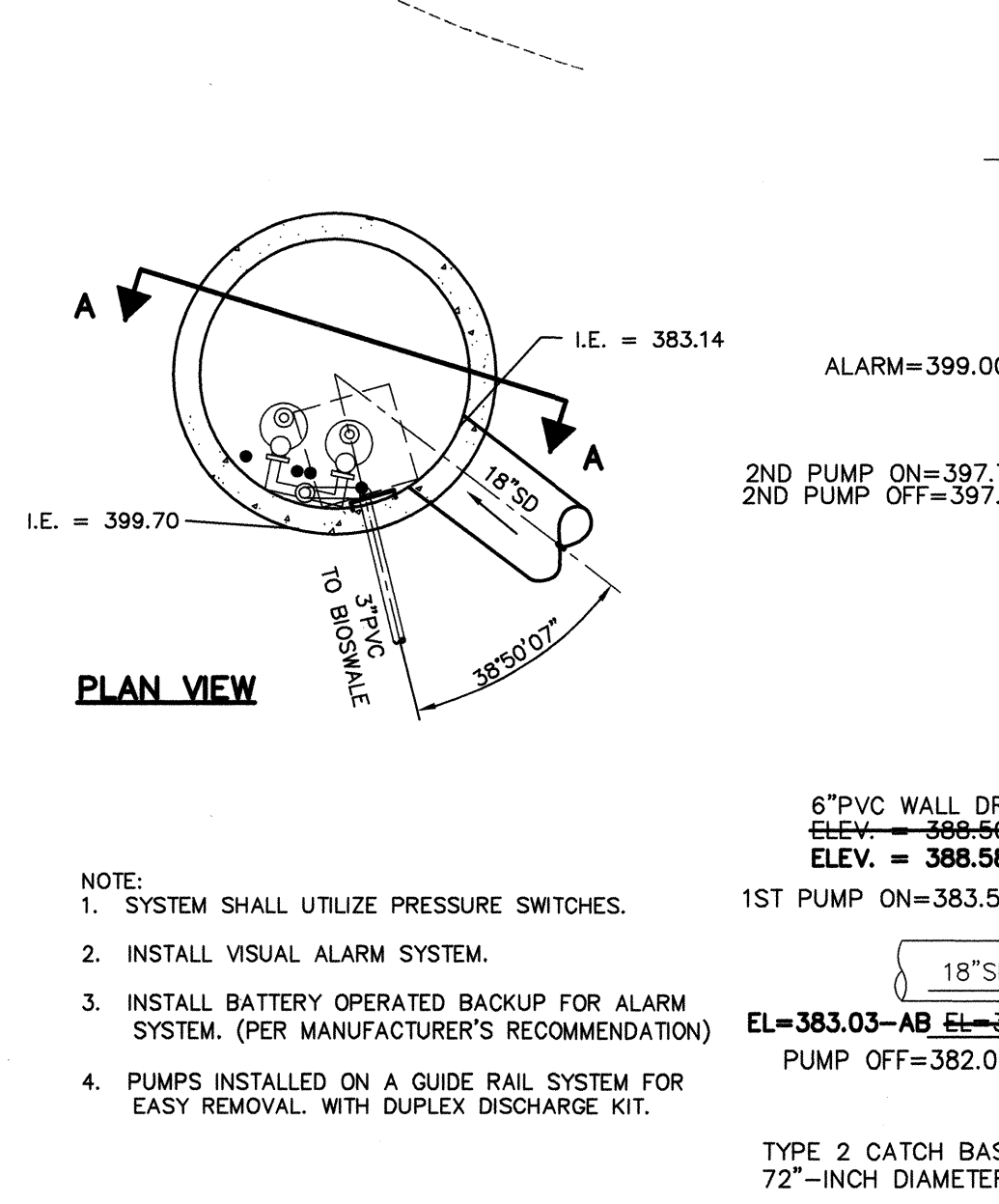
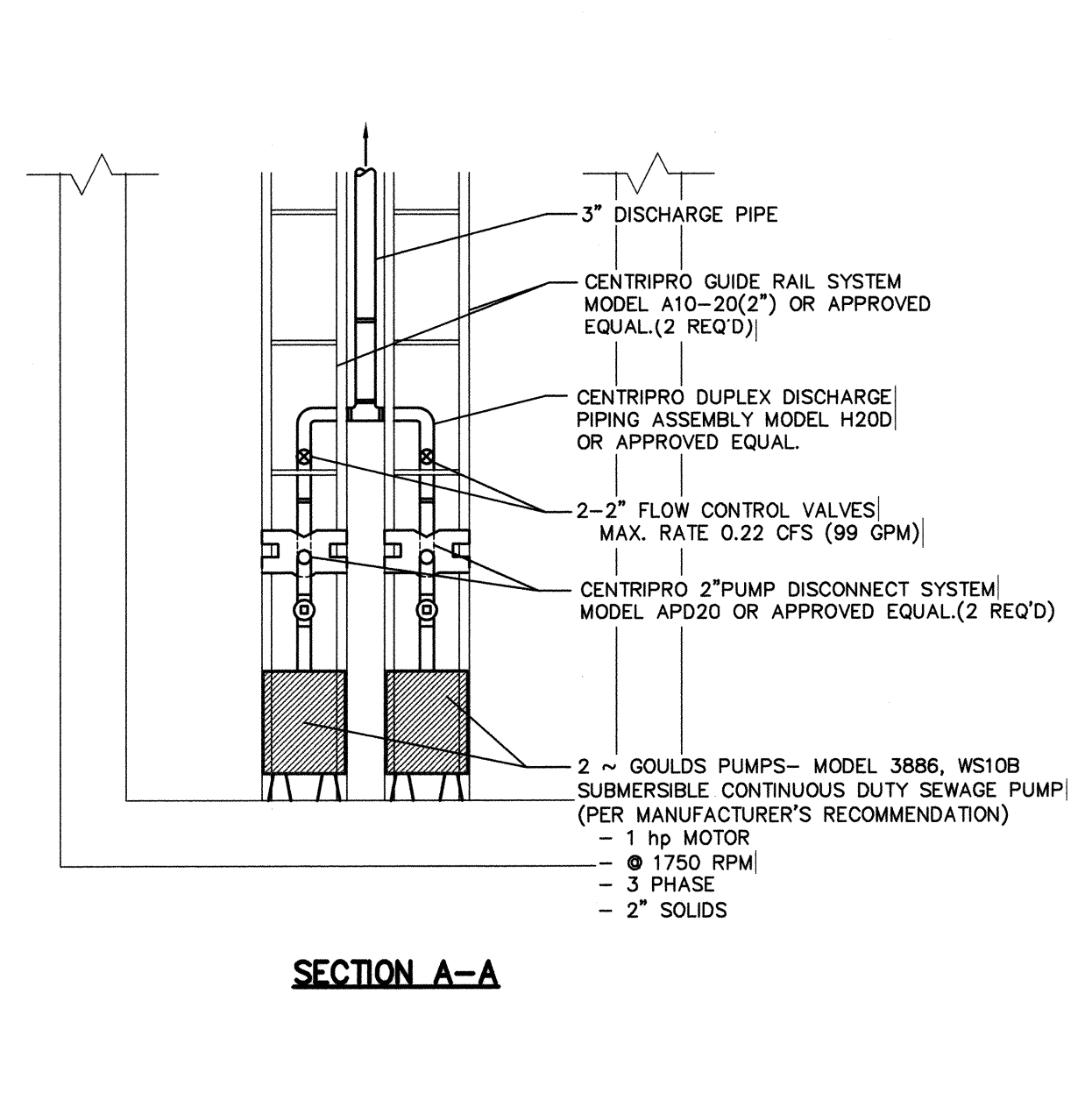
- APPROXIMATE LOCATION OF 4' WIDE SEEPAGE BARRIER TO CONSIST OF A MINIMUM 4 FOOT WIDE TRENCH EXCAVATED AT LEAST 3 FEET INTO THE GLACIAL DRIFT SOILS BELOW THE PEAT OR FILL. (SEE GEOTECHNICAL ENGINEERING REPORT BY ASSOCIATED EARTH SCIENCES, INC. PROJECT NO. KE01248T, DATED MAY 5, 2005 FOR DETAILS AND SPECIFICATIONS)
- A MINIMUM HORIZONTAL THICKNESS OF 10 FEET OF LOW PERMEABILITY FILL SHOULD BE PLACED BETWEEN OTHER STRUCTURAL FILL AND THE BACK OF THE DRAINAGE FOR POND WALLS. (SEE GEOTECHNICAL ENGINEERING REPORT BY ASSOCIATED EARTH SCIENCES, INC. PROJECT NO. KE01248T, DATED MAY 5, 2005 FOR DETAILS AND SPECIFICATIONS)



DETENTION POND PAVED ACCESS ROAD
NO SCALE



EMERGENCY SPILLWAY
NO SCALE



2YR. CONTROL PUMP STATION DETAIL (CBM#5)
N.T.S.

RESTRICTOR CATCH BASIN #1
N.T.S.

ELBOW DETAIL

L&A
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19400 33rd Avenue W.
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phone: (425)775-1591
fax: (425)672-7998
e-mail: info@lsaengineering.com
web: lsaengineering.com



REVISIONS	DATE	BY	DESCRIPTION
1.	5-19-05	MM	REVISED PER CITY COMMENTS/DEVELOPER REVISIONS
2.	6-28-05	MM	REVISED PER CITY COMMENTS
3.	8-8-05	MM	REVISED CB#1 CALLOUT/ADDED PIPE CALLOUT
4.	01-15-07	MM	AS-BUILT - PIPING
5.	08-16-07	BLA	AS-BUILT REVISIONS
6.	07-23-07	MM	AS-BUILT UTILITIES
7.	07-23-07	MM	AS-BUILT UTILITIES

ASBUILT STORM WATER DETENTION/WATER QUALITY PLAN
FOR
MILL CREEK EAST
IN EAST 1/2 OF SECTION 32, T.28N., R.5E., W.M.
CITY OF MILL CREEK
SNOHOMISH COUNTY, WASHINGTON

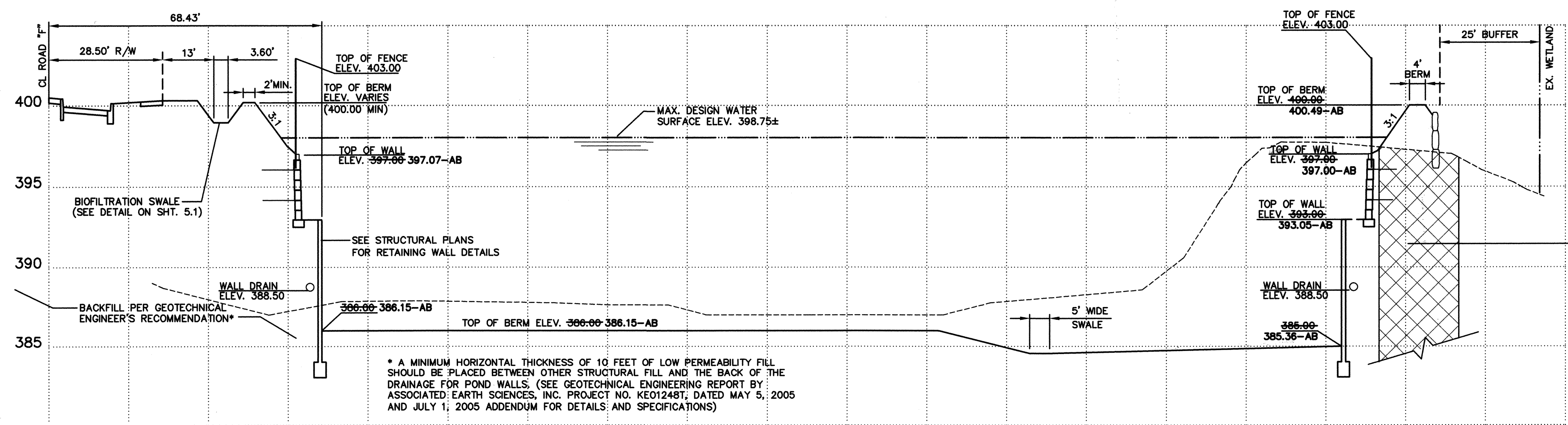
SCALE	1"=20'
DRAWN	MM
CHECKED	RL
DATE	1-17-05
PPN	
LSA FILE NO.	4700
SHEET	5.1

AS-BUILT
NORTH POINTE

HDEV-2261



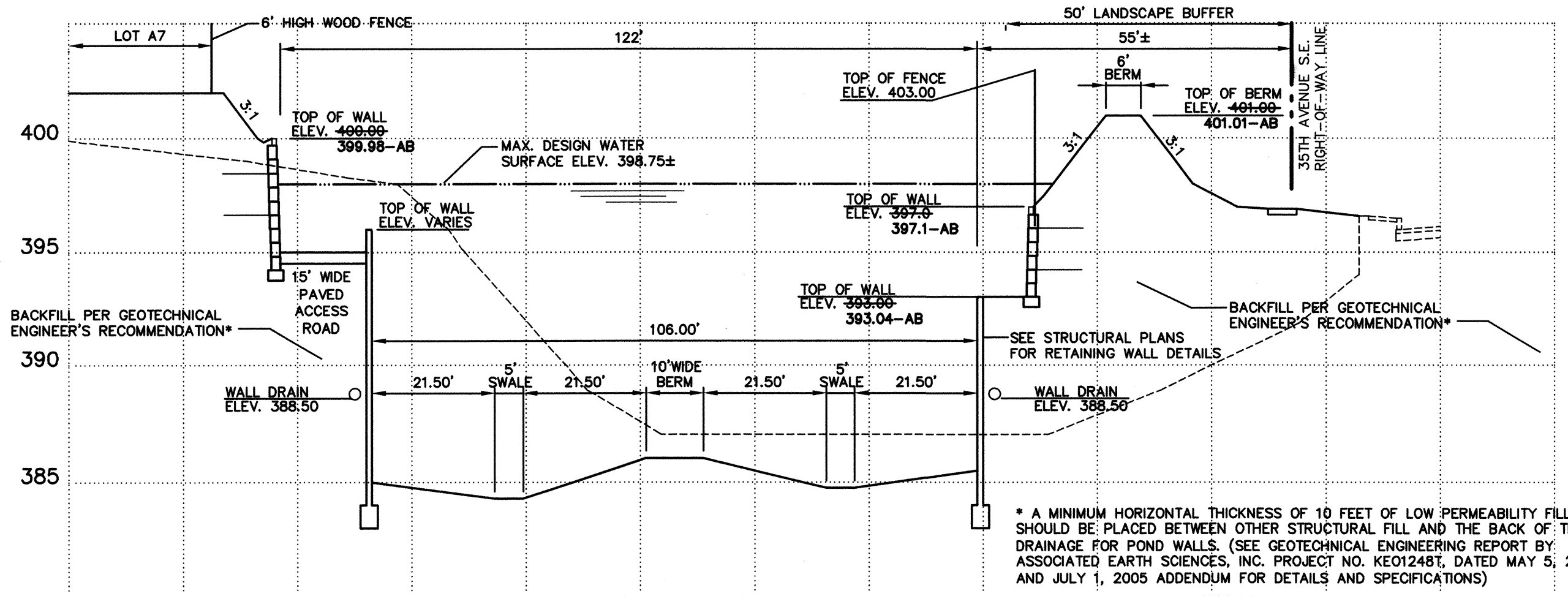
MM	MM	MM	MM
5-16-05	8-28-05	01-15-07	08-18-07
1. REVISED PER CITY COMMENTS/DEVELOPER REVISIONS	2. REVISED PER CITY COMMENTS	5. AS-BUILT - PDF	6. AS-BUILT REVISIONS
		7. AS-BUILT MYLARS	



GEOTECHNICAL NOTE:
APPROXIMATE LOCATION OF 4' WIDE SEEPAGE BARRIER TO CONSIST OF A MINIMUM 4 FOOT WIDE TRENCH EXCAVATED AT LEAST 3 FEET INTO THE GLACIAL DRIFT SOILS BELOW THE PEAT OR FILL.
(SEE GEOTECHNICAL ENGINEERING REPORT BY ASSOCIATED EARTH SCIENCES, INC. PROJECT NO. KE01248T, DATED MAY 5, 2005 FOR DETAILS AND SPECIFICATIONS)

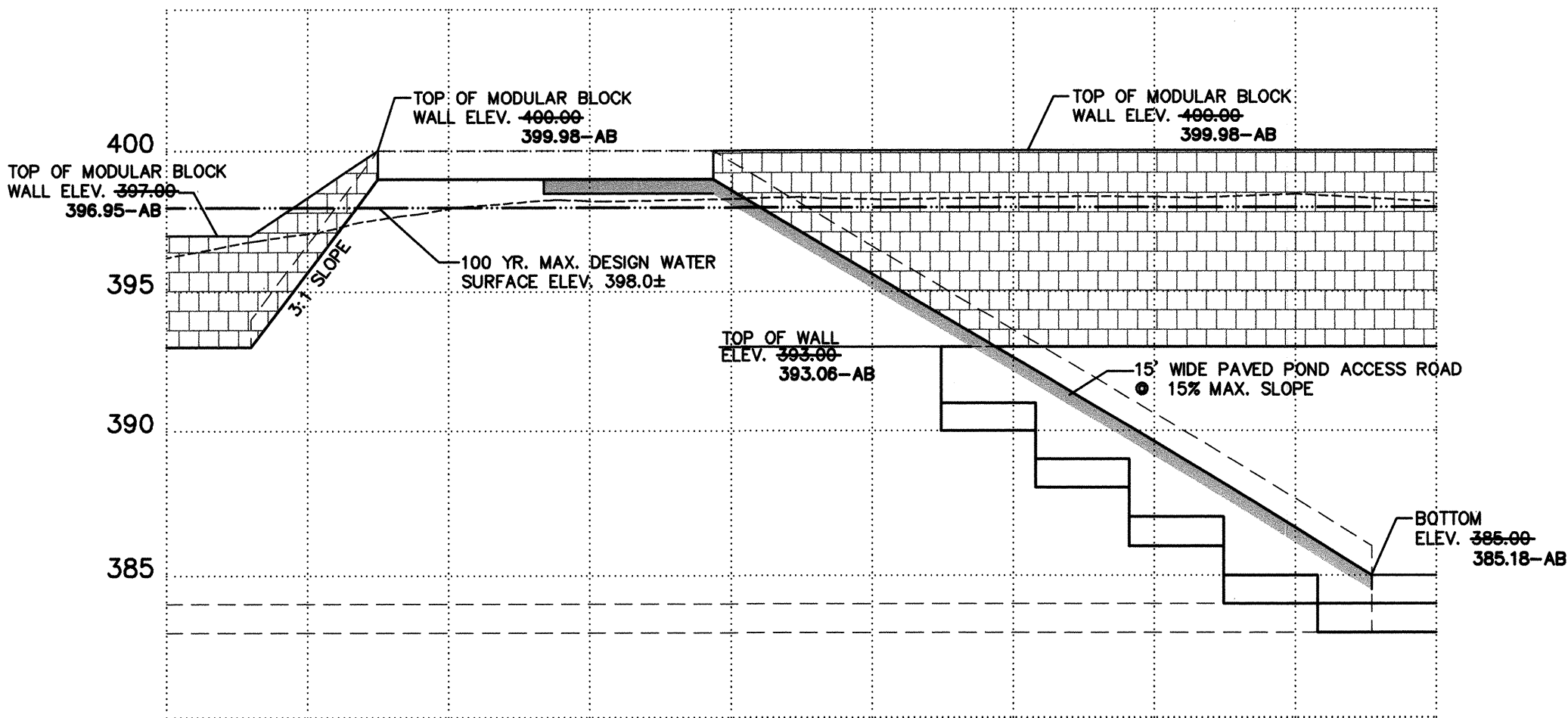
SECTION A-A

SCALE: 1"=20' HOR.
1"=5' VERT.



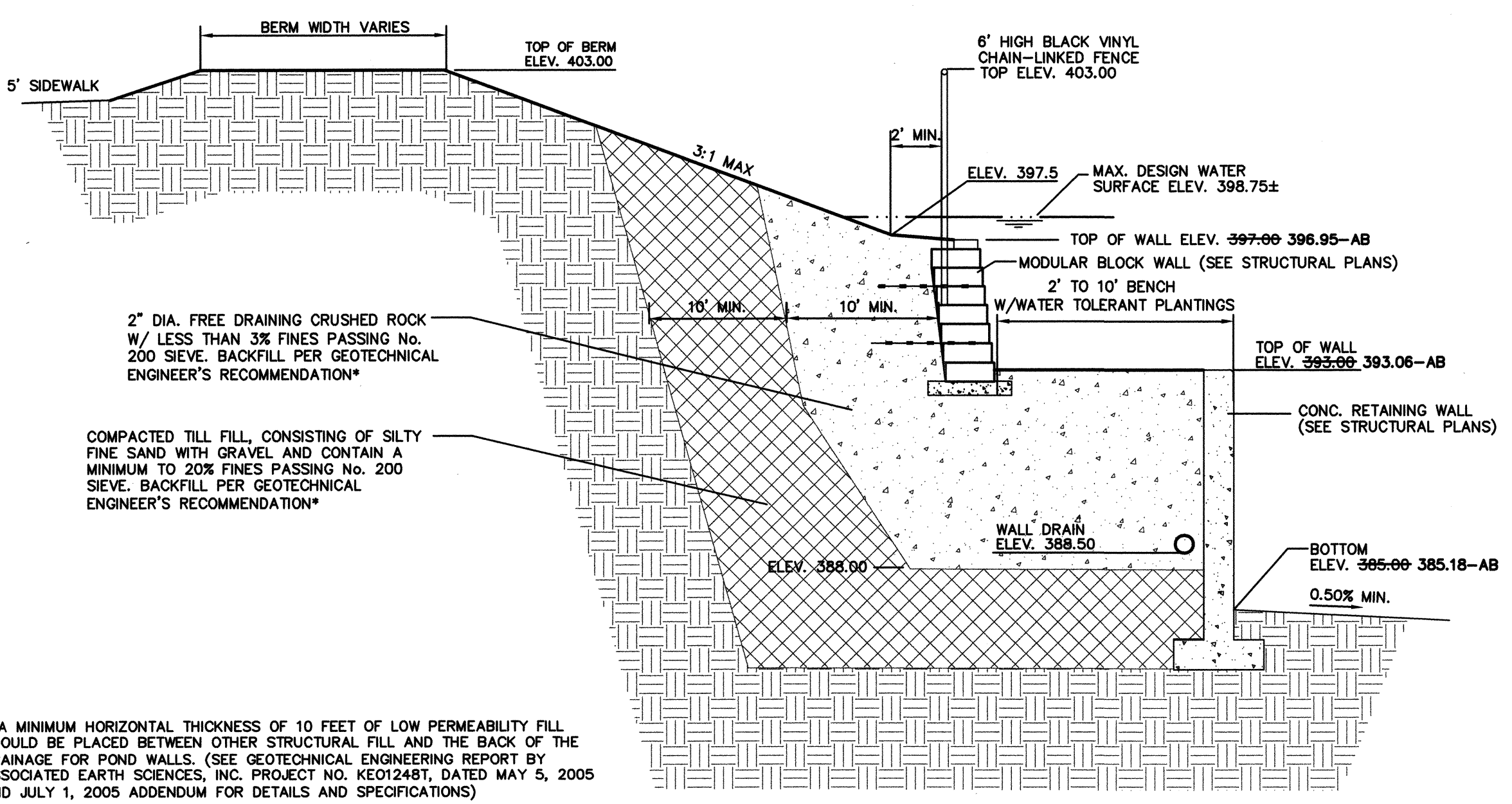
SECTION B-B

SCALE: 1"=20' HOR.
1"=5' VERT.



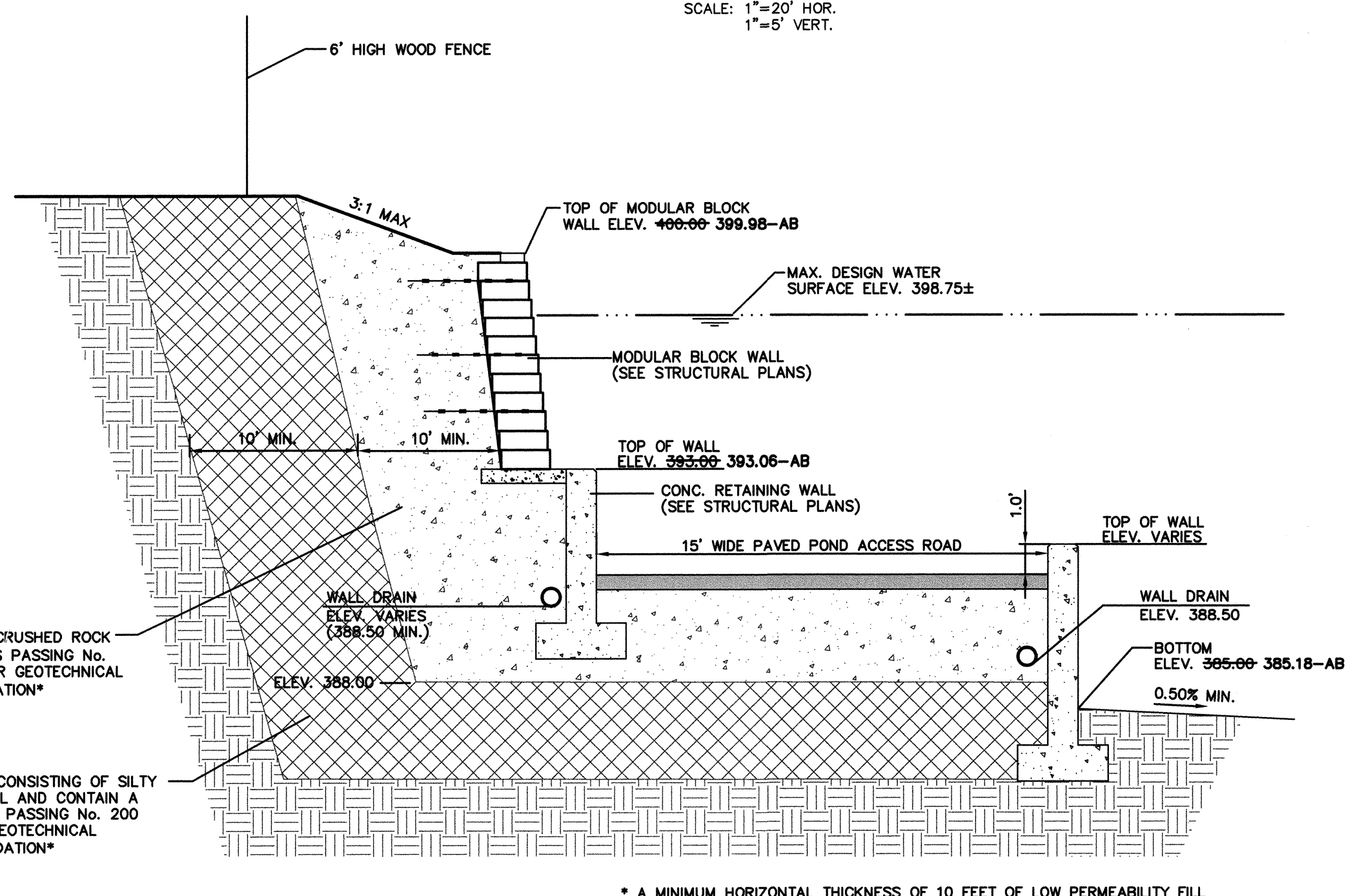
SECTION C-C

SCALE: 1"=20' HOR.
1"=5' VERT.



POND WALL SECTION D-D

SCALE: 1"=4'-0"



POND WALL SECTION E-E

SCALE: 1"=4'-0"

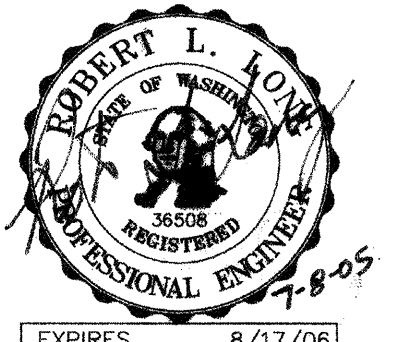
DETENTION POND/WATER QUALITY DETAILS
 FOR
MILL CREEK EAST
 IN EAST 1/2 OF SECTION 32, T.28N., R.5E., W.M.
 CITY OF MILL CREEK
 SNOHOMISH COUNTY, WASHINGTON

SCALE		AS SHOWN
DRAWN	CHECKED	SHEET
MM	RL	
DATE	F.B.	
1-17-05		5.2
PPN		
LSA FILE NO.	4700	OF

AS-BUILT

NORTH POINTE

HDEV-2262



REVISIONS
5-18-05 MM
6-28-05 MM

1. REVISED PER CITY COMMENTS/DEVELOPER REVISIONS
2. REVISED PER CITY COMMENTS

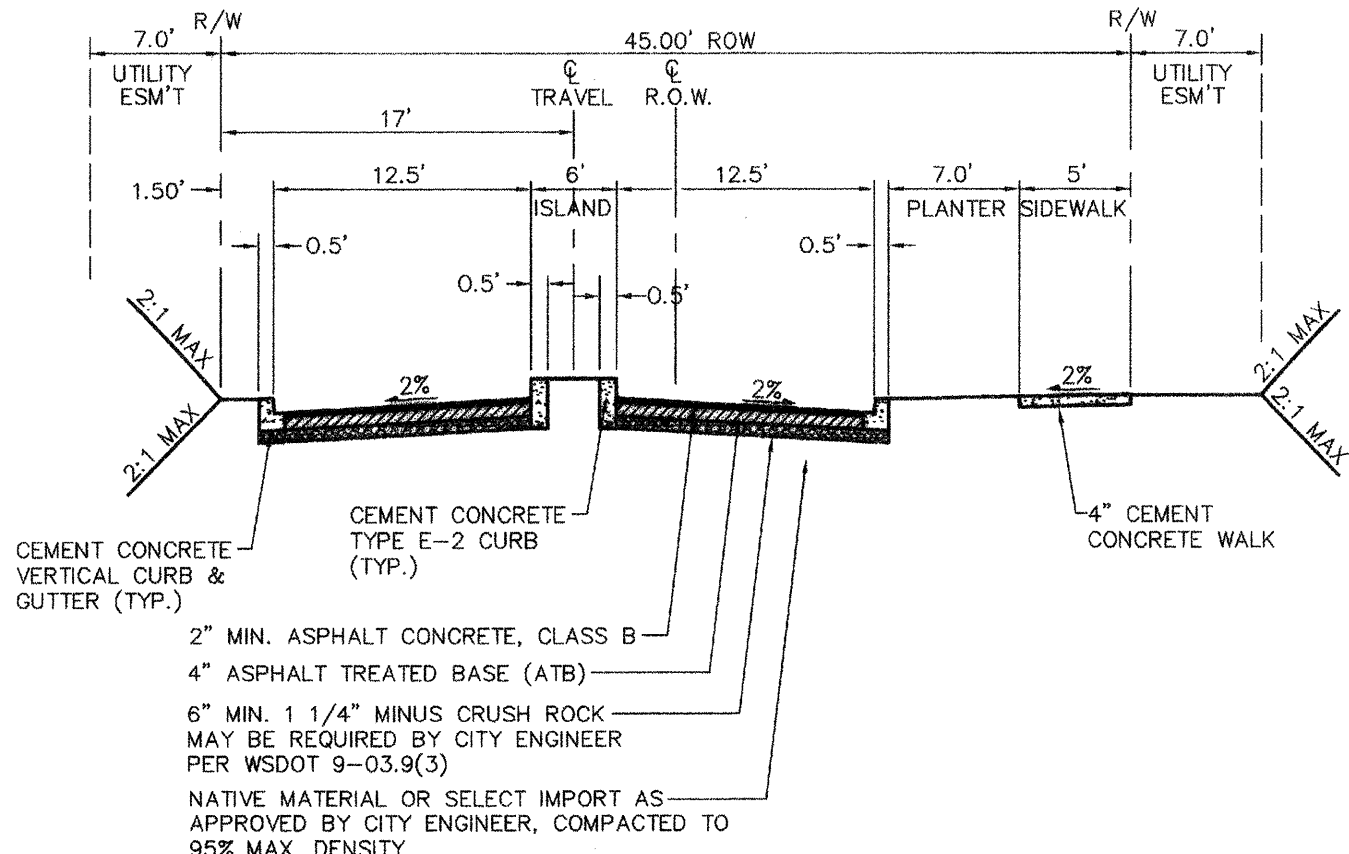
ROADWAY SECTIONS AND DETAILS

FOR

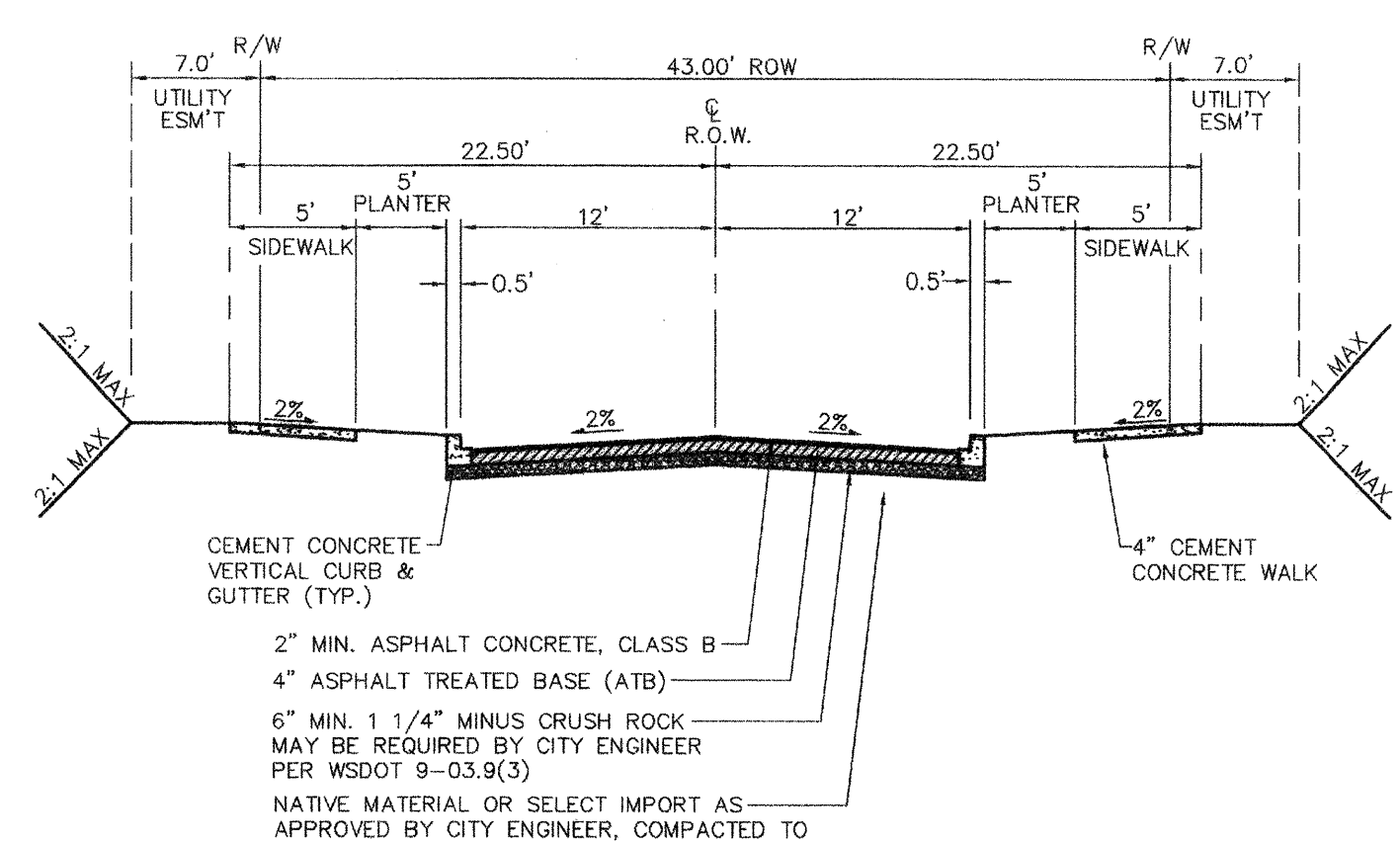
MILL CREEK EAST

IN EAST 1/2 OF SECTION 32, T.28N., R.5E., W.M.
CITY OF MILL CREEK
SNOHOMISH COUNTY, WASHINGTON

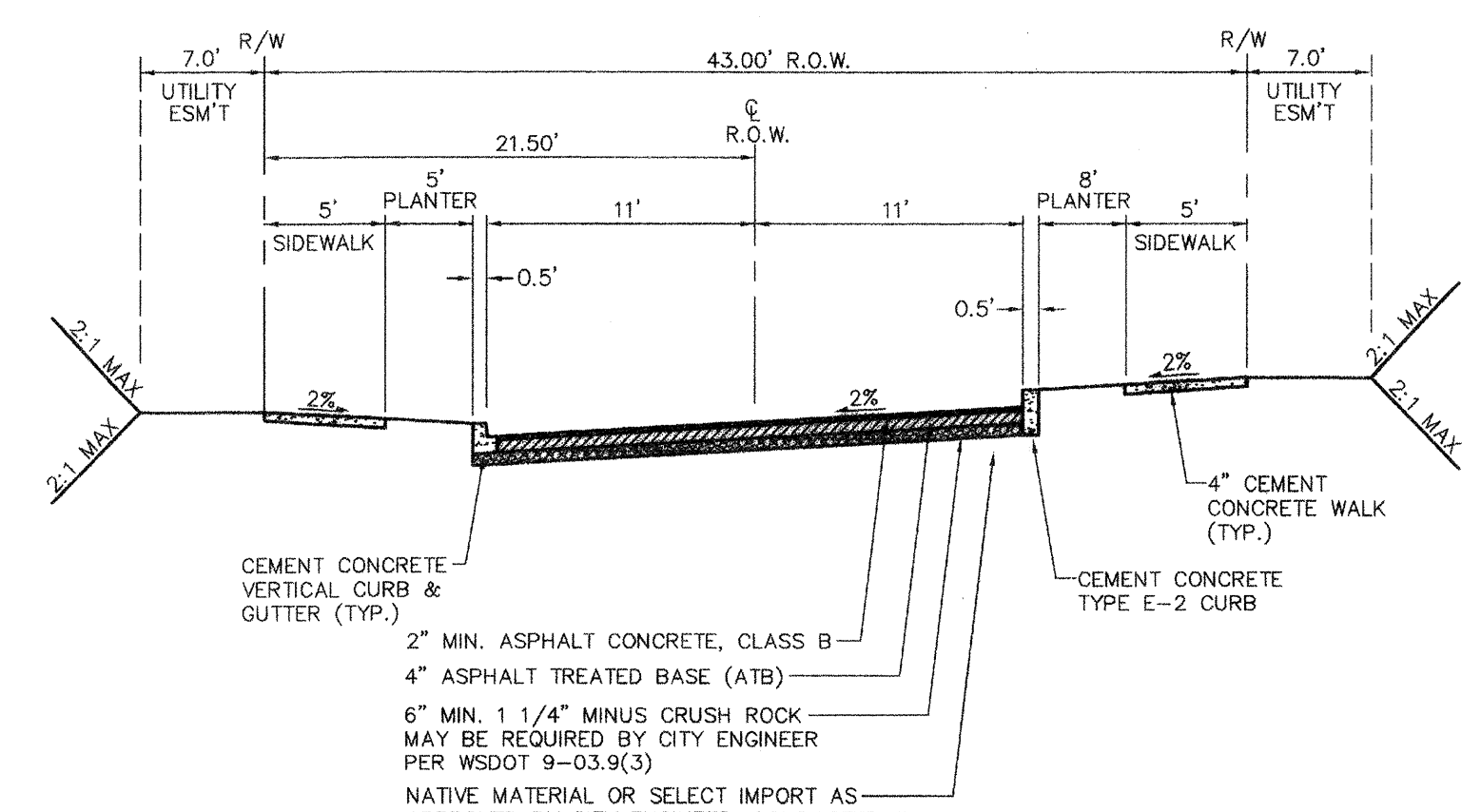
HDEV-2263



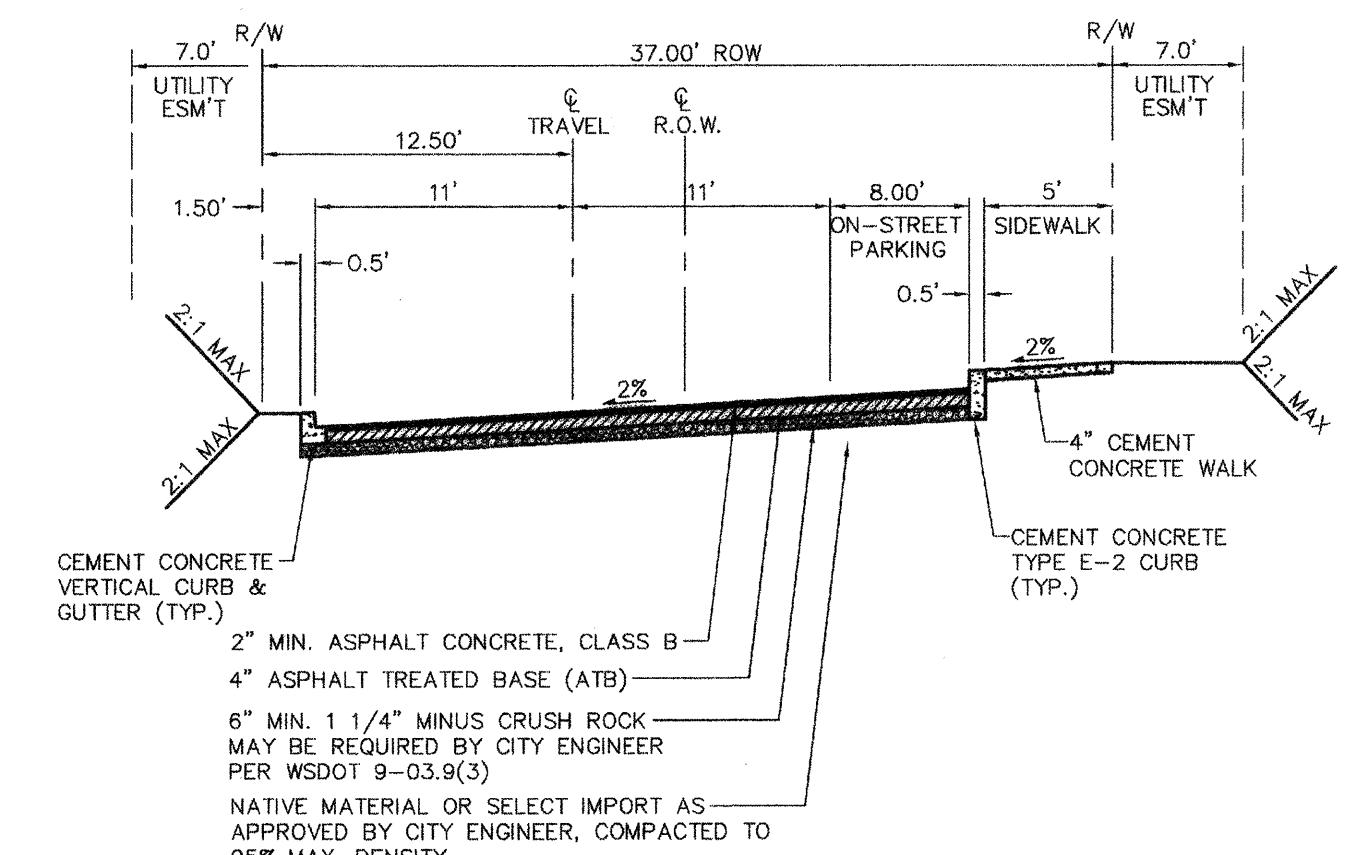
ROAD SECTION A-A
NOT TO SCALE



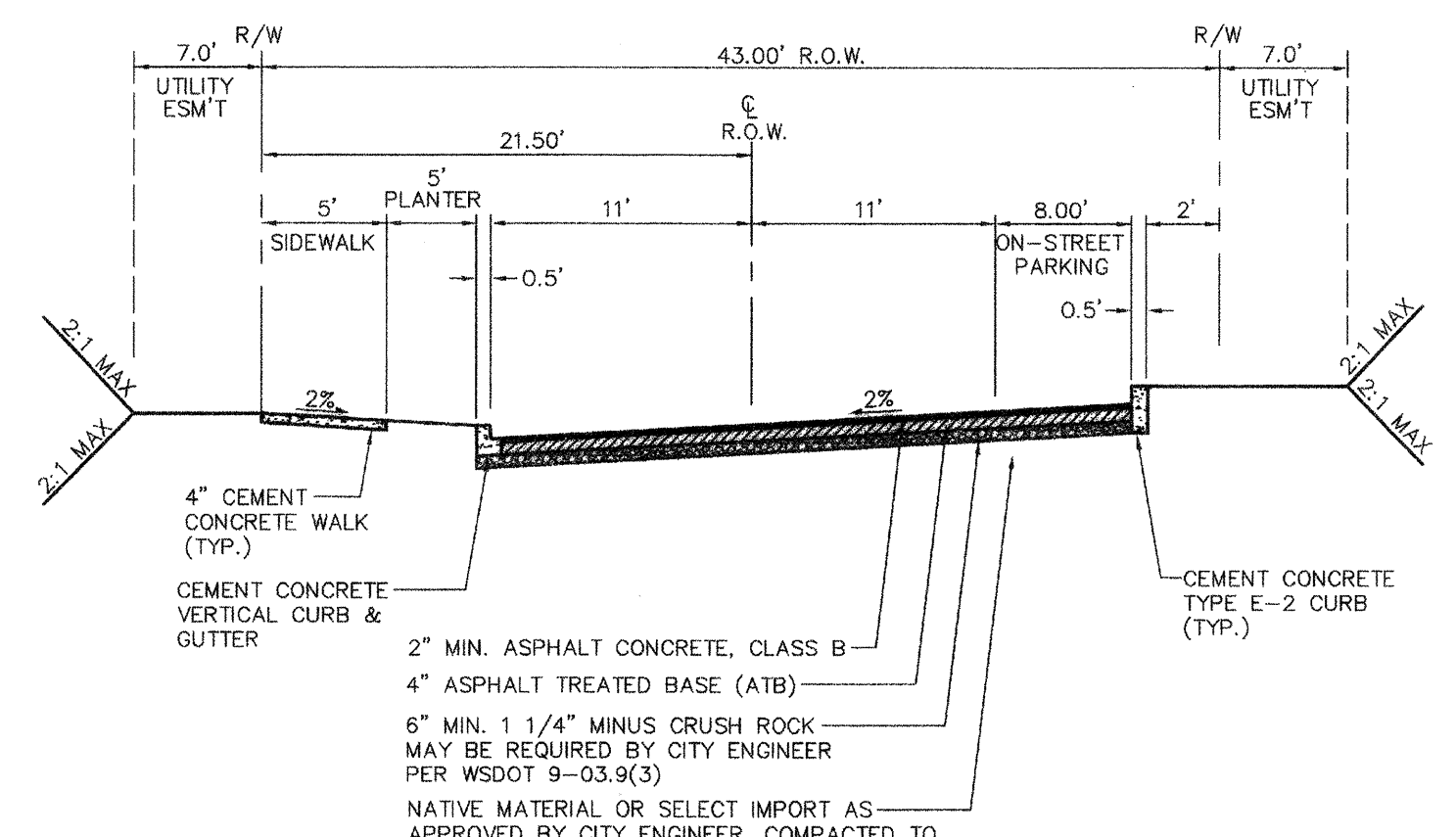
ROAD SECTION D-D
NOT TO SCALE



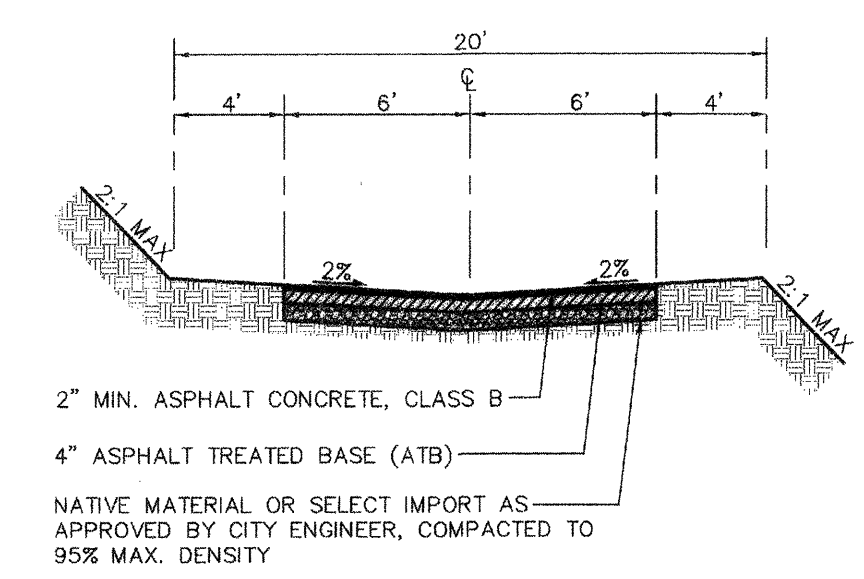
ROAD SECTION G-G
NOT TO SCALE



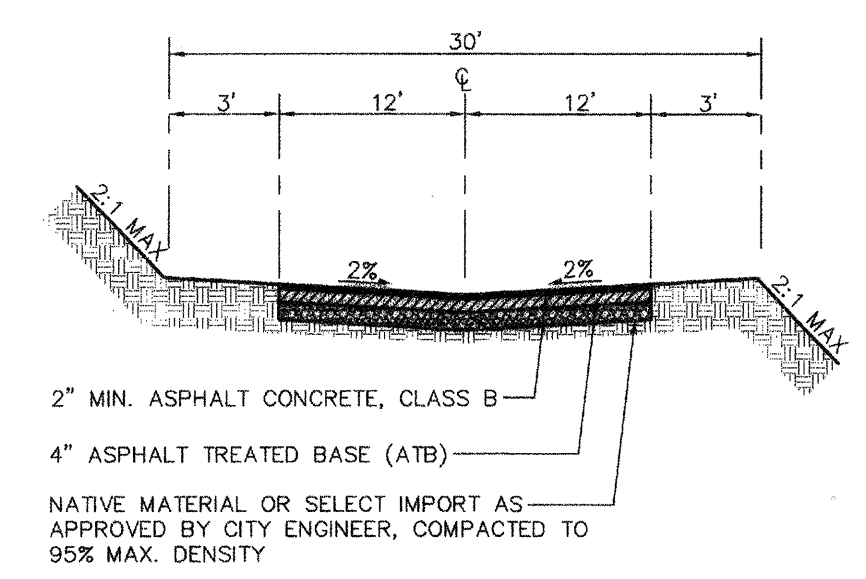
ROAD SECTION B-B
NOT TO SCALE



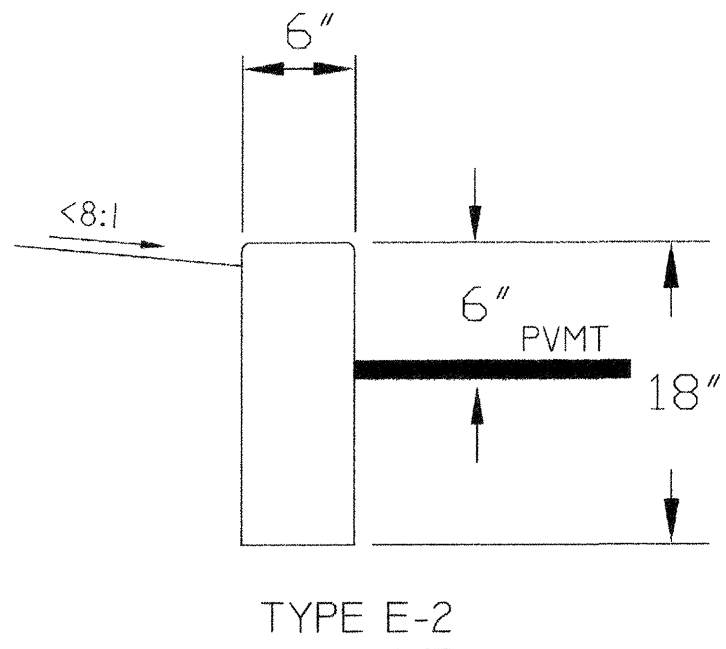
ROAD SECTION E-E
NOT TO SCALE



TYPICAL ALLEY CROSS-SECTION
NOT TO SCALE



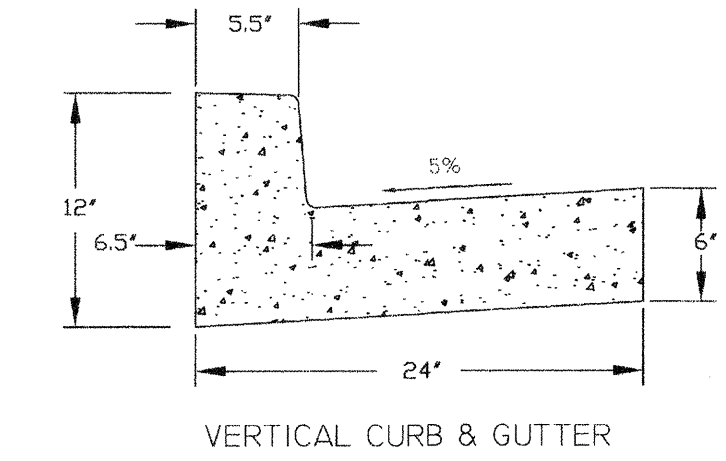
TRACT E/F CROSS-SECTION
NOT TO SCALE



CEMENT CONCRETE E-CURB TYPES

(MILL CREEK STD. PLAN STR. 02B)

- NOTES:
- DUMMY JOINTS SHALL BE PLACED AT 10 FEET ON CENTER.
 - CONCRETE MIX ON "E" CURBING SHALL BE CLASS 3000 (3000 PSI) W/ AIR ENTRAINMENT.
 - THROUGH JOINTS SHALL BE USED ON ALL "E" CURBING OR AS DIRECTED BY THE CITY ENGINEER.

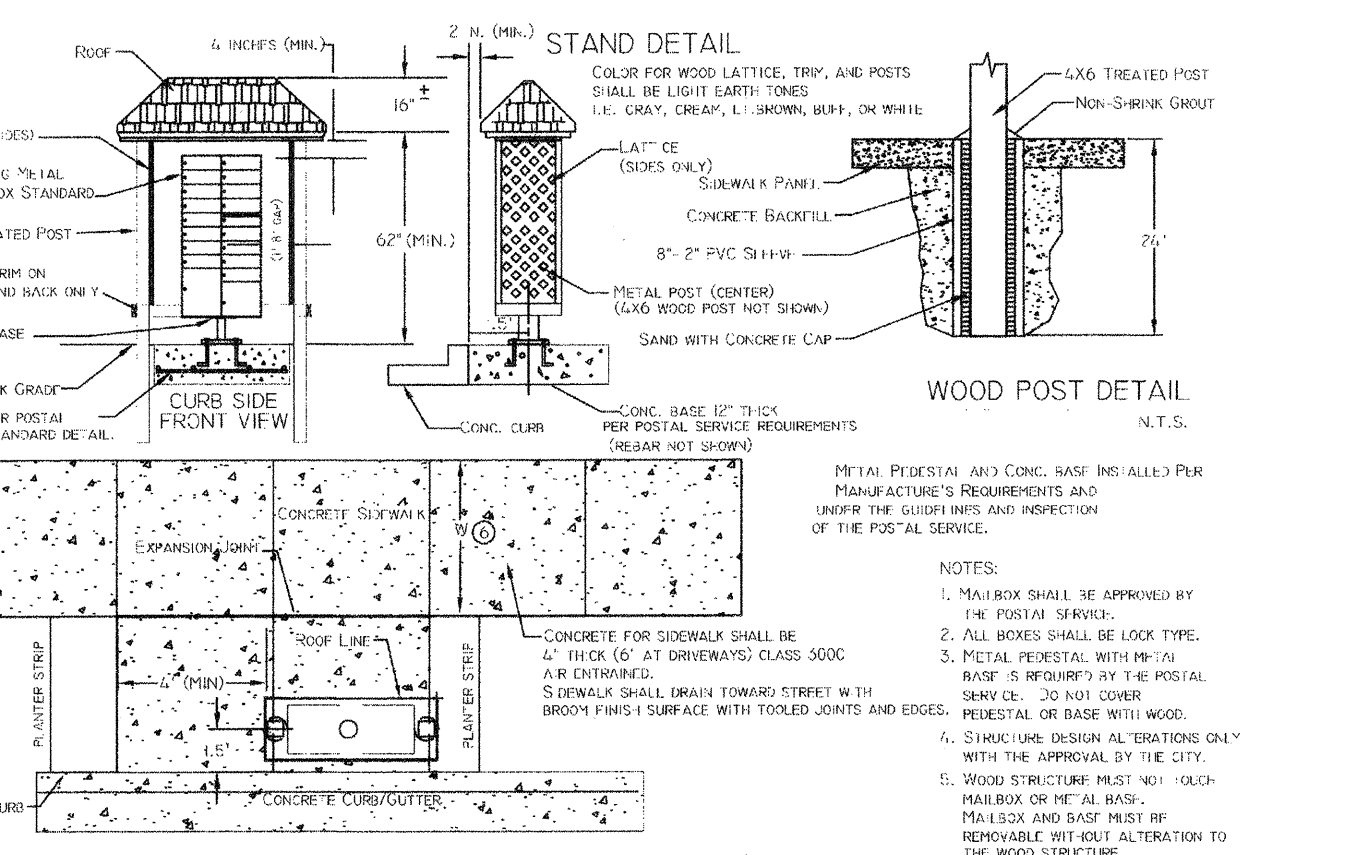


VERTICAL CURB & GUTTER

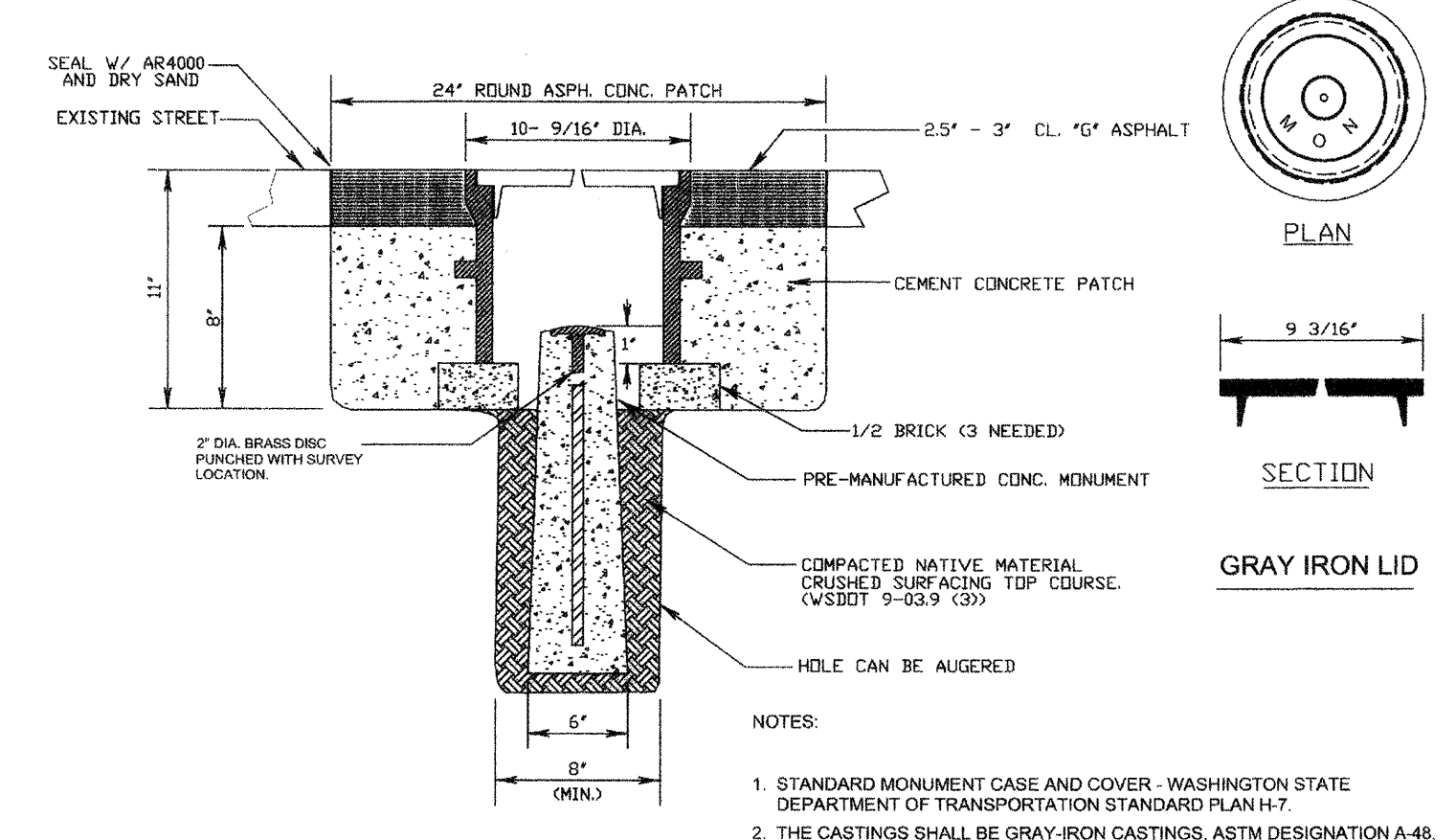
- NOTES:
- CONCRETE SHALL BE CLASS 3000 (AIR ENTRAINMENT).
 - IN-SITU NATIVE MATERIAL MAY BE USED FOR A BASE IF APPROVED BY THE CITY ENGINEER. ALTERNATIVE BASE SHALL BE CRUSHED SURFACING TOP COURSE PER WSDOT SEC. 9-03.9(3) WITH A MINIMUM DEPTH OF 6" INCH.
 - STEEL FORMS SHALL BE USED ON ALL STRAIGHT SECTIONS. WOOD BENCH BOARD SHALL BE USED ON RADIUS.
 - FULL DEPTH EXPANSION JOINTS SHALL BE PLACED AT 10 FEET CENTER TO CENTER AT THE TOP OF EACH DRIVEWAY, AT TOP OF ACCESS RAMPS, AND ON BOTH SIDES OF A STORM BASIN.
 - FINISH SHALL BE BROOKED WITH TOOLED EDGES.

VERTICAL CURB AND GUTTER (MILL CREEK STD. PLAN STR. 02)

NO SCALE



MAILBOX STAND IN PLANTER STRIP
NO SCALE (MILL CREEK STD. PLAN STR. 80A)

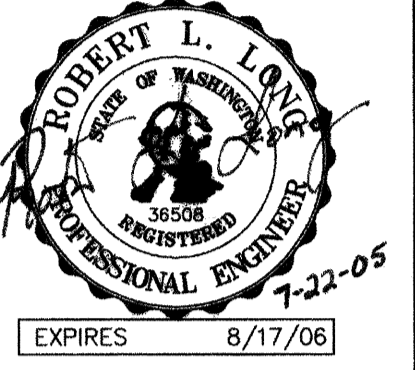


SURVEY CONTROL MONUMENT
NO SCALE (MILL CREEK STD. PLAN STR. 041)

ACCEPTED FOR CONSTRUCTION BY:
David Jacobson 7/28/05
DIRECTOR OF PUBLIC WORKS
CITY OF MILL CREEK

ACCEPTED AS IN COMPLIANCE OF APPROVAL FOR PP 01-56
Bob Munn 7/28/05
DIRECTOR OF COMMUNITY DEVELOPMENT

SCALE	AS SHOWN	
DRAWN	CHECKED	SHEET
MM	RL	
DATE	F.B.	6.1
1-17-05		
PPN		
LSA FILE NO.	4700	OF



REVISIONS
1. REVISED PER CITY COMMENTS/DEVELOPER REVISIONS
2. REVISED PER CITY COMMENTS
3. REVISED PER CITY. PLANTER BETWEEN COMMON LOT D/W

ROAD AND STORM DRAINAGE NOTES & DETAILS
FOR
MILL CREEK EAST
IN EAST 1/2 OF SECTION 32, T.28N., R.5E., W.M.
CITY OF MILL CREEK
SNOHOMISH COUNTY, WASHINGTON

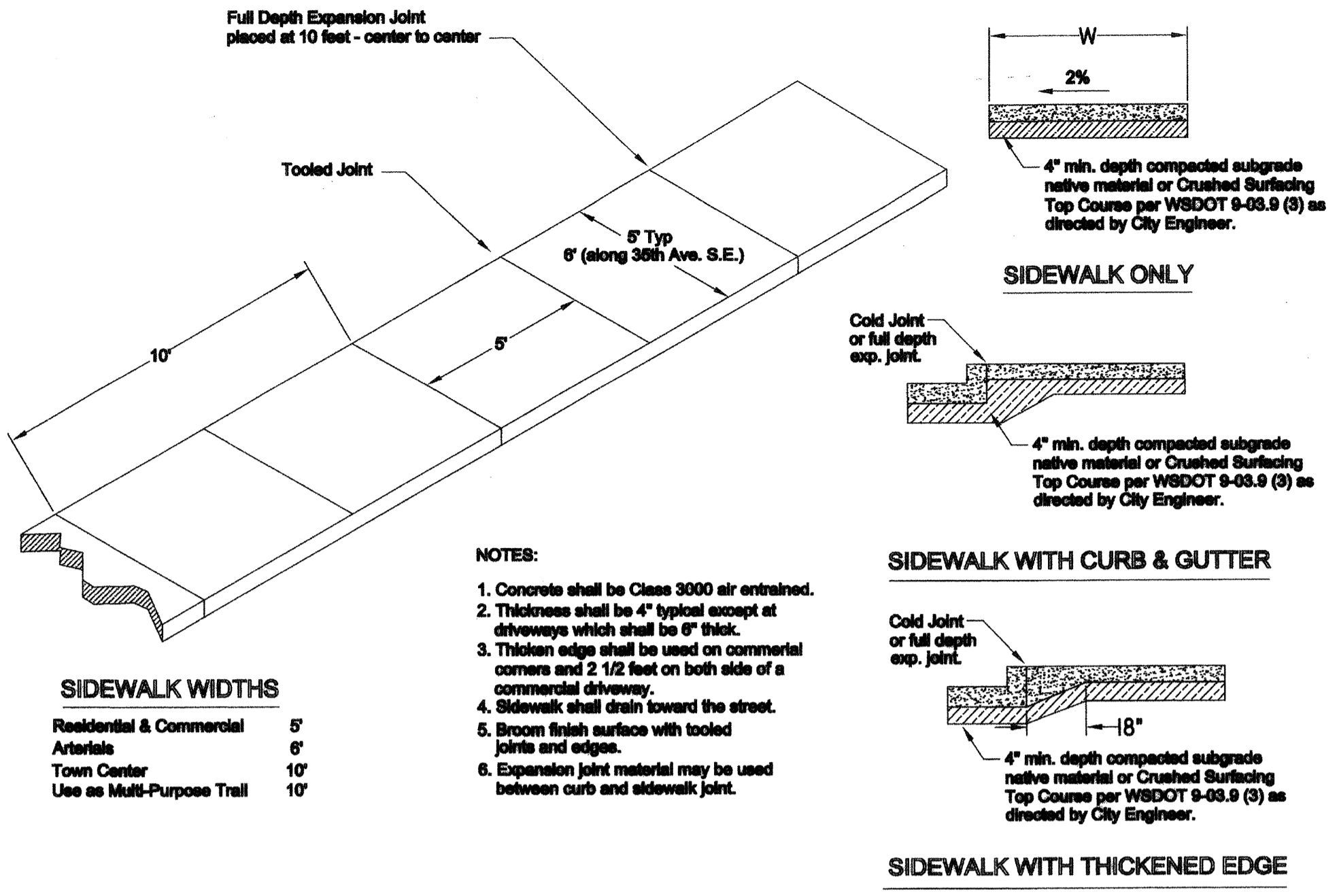
SCALE AS SHOWN
DRAWN MM CHECKED RLL
DATE 1-17-05 F.B.
PPN
LSA FILE NO. 4700

HDEV-2264

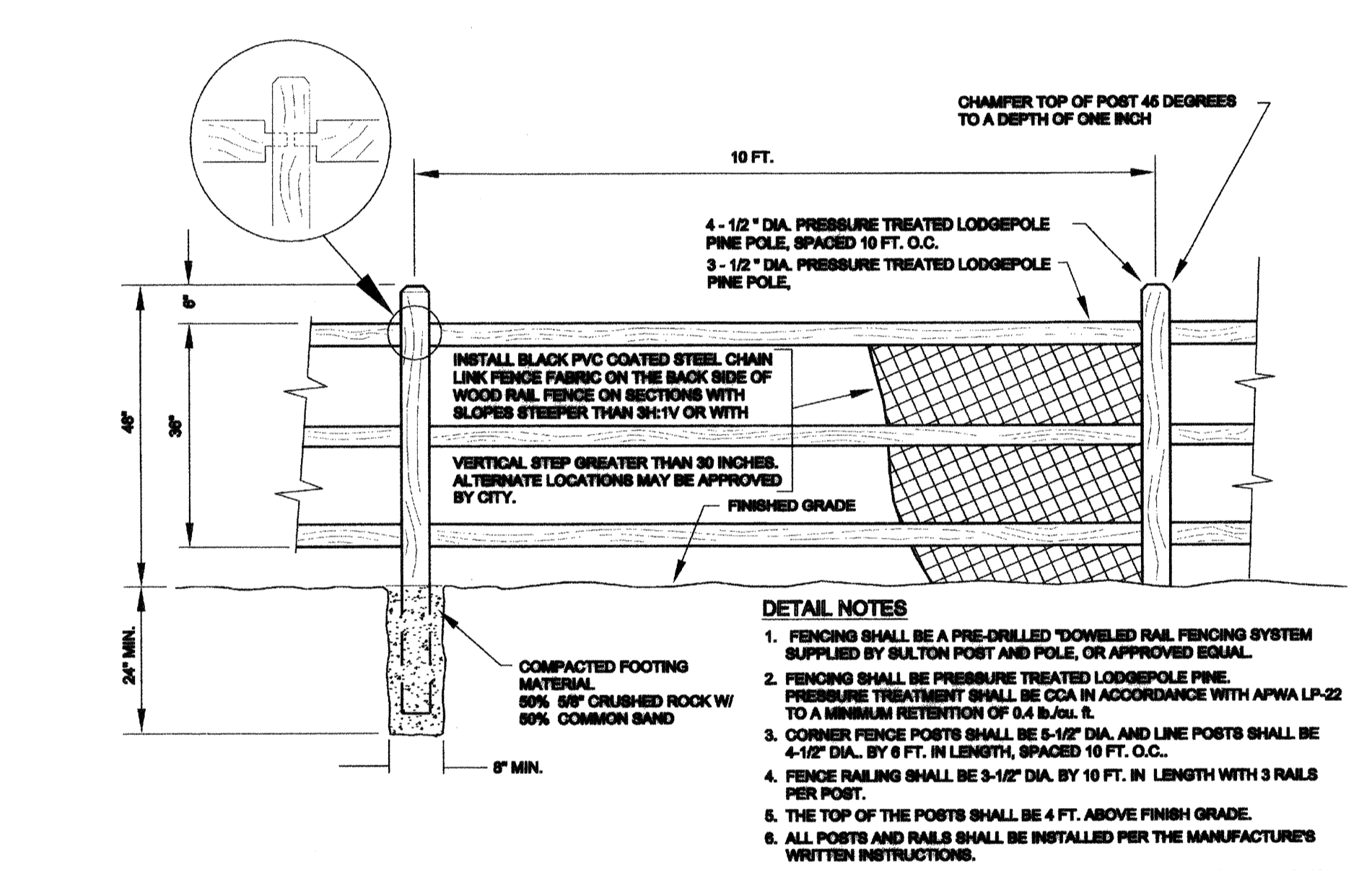
DRIVEWAY SCHEDULE

LOT NO.	DRIVEWAY STATION	CENTERLINE STREET	D/W WIDTH
A1	0+54.00	1ST STREET	21'
A2/A3	1+09.50	1ST STREET	12'
A4	3+76.60	AVENUE "B"	21'
A5	4+29.60		
A6	4+56.60		
A8	0+91.79	1ST STREET	
A9	2+38.28	AVENUE "B"	
A10/A11	3+95.97		12'
A12	4+51.47		21'
A14	0+64.79	1ST STREET	
A15	2+32.19	AVENUE "A"	
A16	2+86.62		
A17	3+10.10		
A18/A19	3+76.61		12'
A20	4+32.11		21'
A22	0+74.50		
A23	1+14.50		
A24	1+41.50		
A25/A26	2+10.00		12'
A27	2+61.67		21'
A28	3+20.41		
A29	3+47.41		
A30/A31	4+13.91		12'
A32	4+69.41		21'
A33	5+20.41		
A34	5+45.91		
A36/A37	10+45.89	2ND STREET	12'
A38	9+77.39		21'
A39	9+50.39		
A40	8+99.39		
A41/A42	8+43.89		12'
A43	7+77.39		21'
A44	7+50.39		
A45	6+97.39		
A46/A47	6+41.89		12'
A48	5+86.39		21'
A59	3+51.57	WEST DRIVE	
A60	2+98.57		
A61/A62	2+43.07		12'
A63	1+87.57		21'
A64	1+34.57		
A65	1+07.57		

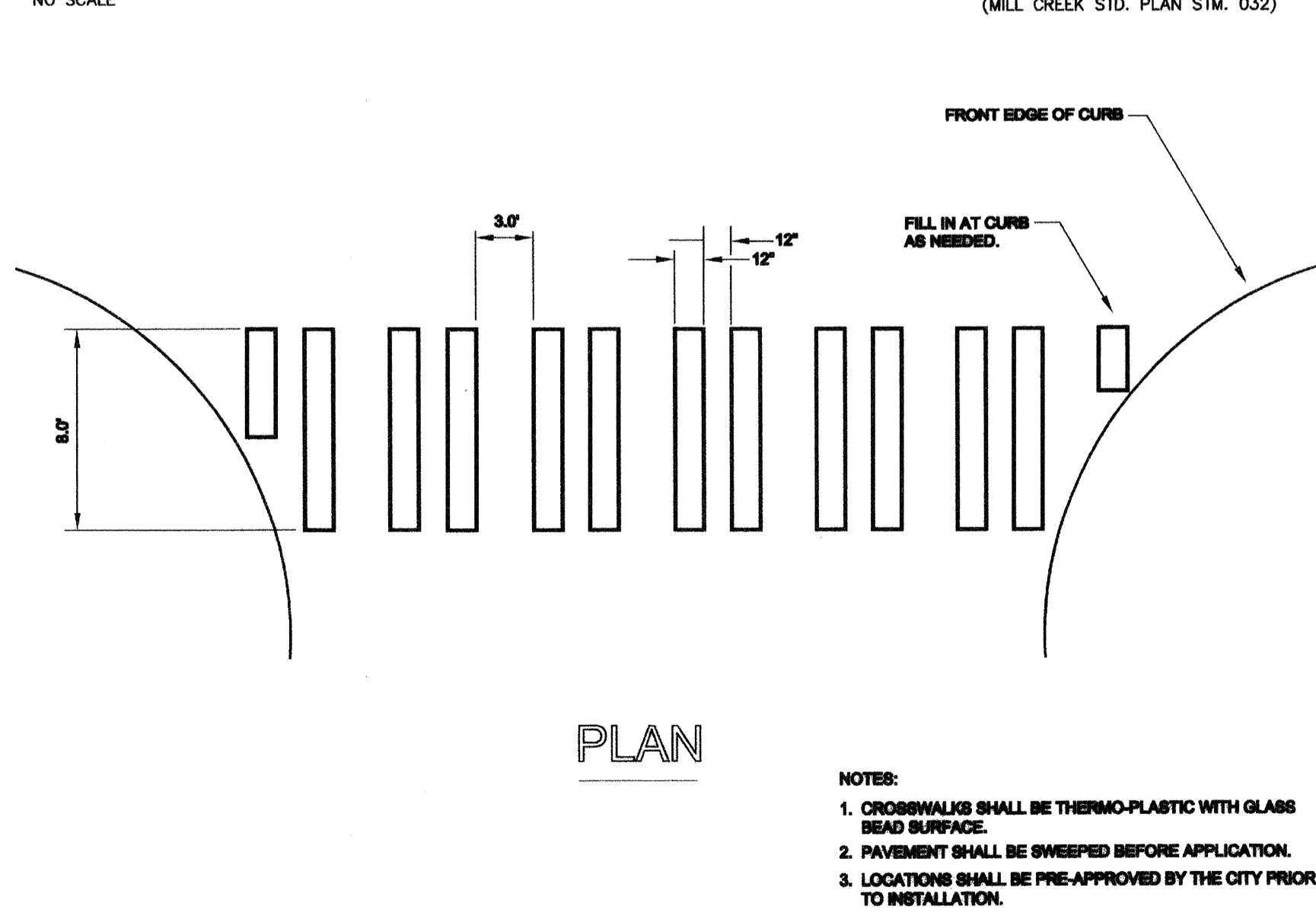
LOT NO.	DRIVEWAY CENTERLINE STATION OR RADIAL BEARING	D/W WIDTH
A66	11+96.61 AVENUE "D"	20'
A67	11+45.11	21'
A68	11+18.11	21'
A69/A70	10+49.61	12'
A71	9+83.11	21'
A72	9+56.11	
A73	9+03.11	
A74	8+76.11	
A75	13+35.89	
A76	12+97.89	21'
A77/A78	12+42.39	12'
A79	11+86.89	21'
A80	11+37.89	
A81	11+10.89	
A82/A83	10+42.39	12'
A86	4+57.37 AVENUE "E"	21'
A87	4+19.37	21'
A88/A89	3+63.87	12'
A90	3+08.37	21'
A91	2+59.37	
A92	2+32.37	
A93/A94	1+63.87	12'
A96/A97	4+13.67	12'
A98	3+45.17	21'
A99	3+18.17	21'
A100/A101	2+51.67	12'
A102	1+85.17	21'
A104/A105	4+13.67 AVENUE "F"	12'
A106	3+45.17	21'
A107	3+18.17	21'
A108/A109	2+51.67	12'
A110	1+85.17	21'
A113	3+96.65	21'
A114/A115	3+40.91	12'
A116	2+74.65	21'
A117/A118	2+19.15	12'
A119	1+50.65	21'
A122	3+94.65 AVENUE "G"	21'
A123/A124	3+39.15	12'
A125	2+72.65	21'
A126/A127	2+17.15	12'
A128	1+48.65	21'
A129	1+21.65	21'



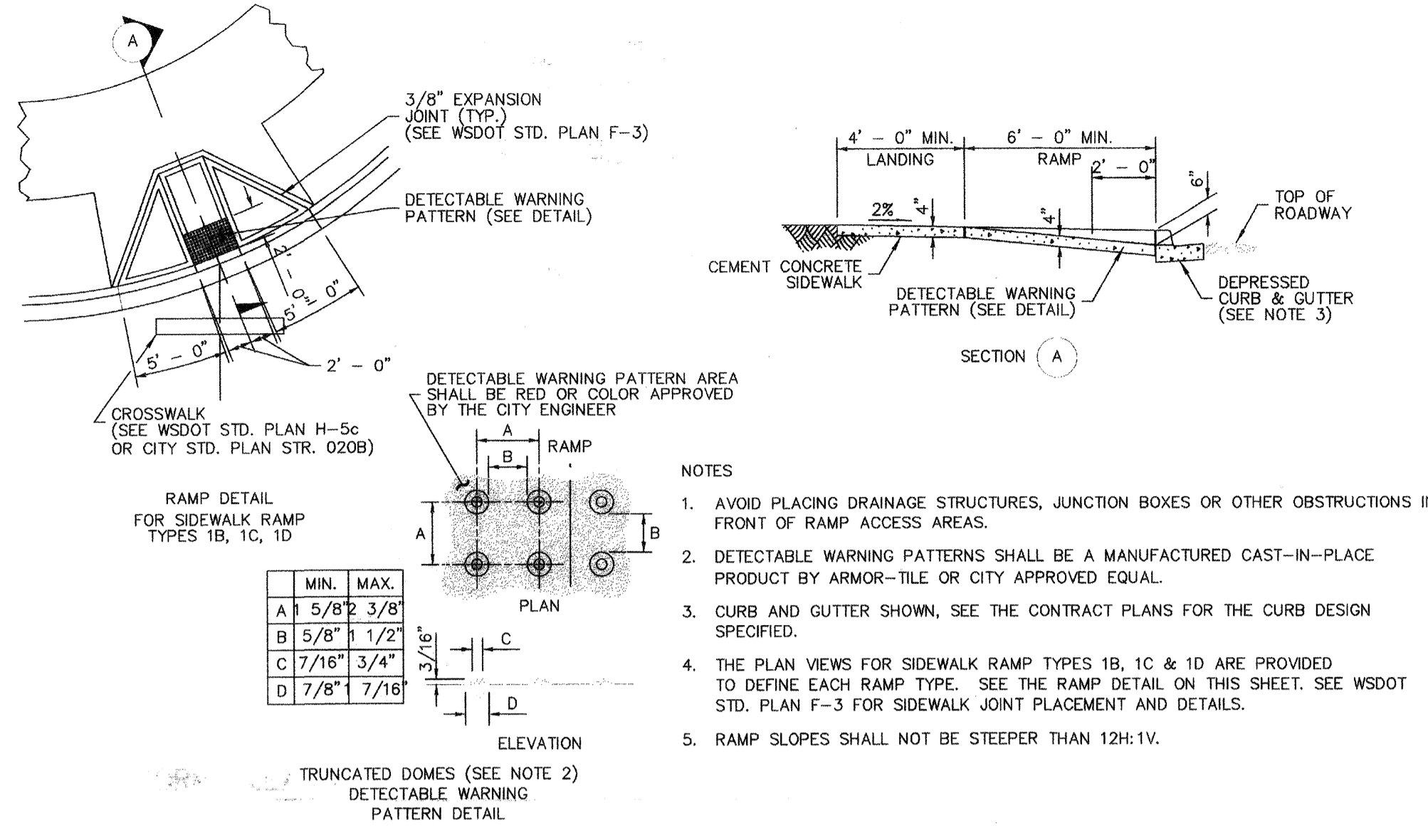
CONCRETE SIDEWALK (MILL CREEK STD. PLAN STR. 03A)



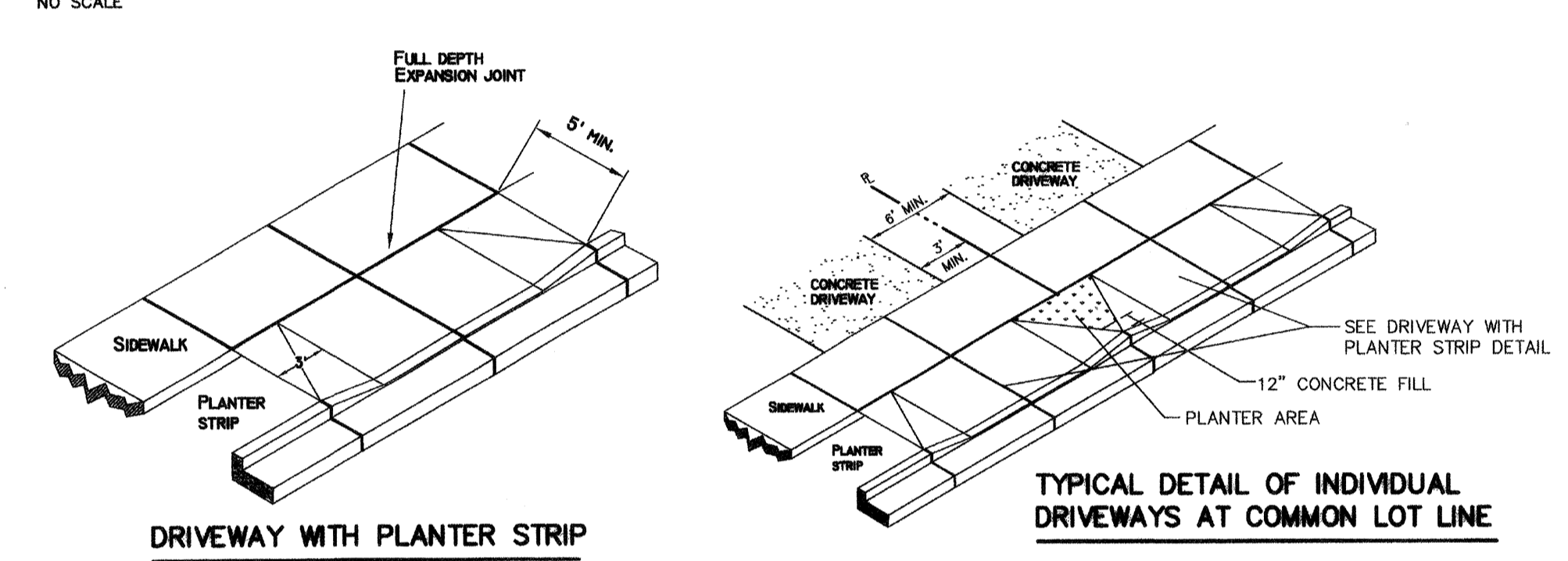
POST AND RAIL FENCE (MILL CREEK STD. PLAN STM. 032)



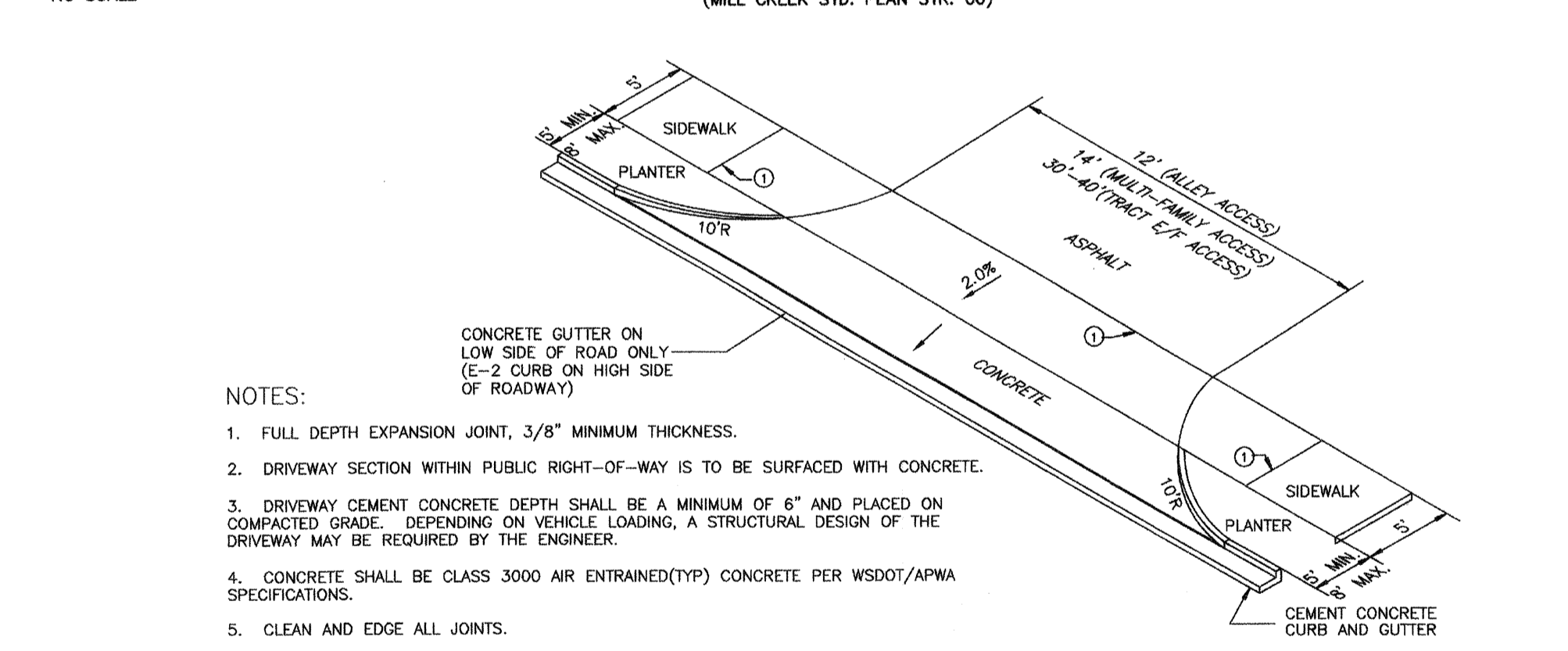
CROSSWALK DETAIL (MILL CREEK STD. PLAN STR. 020B)



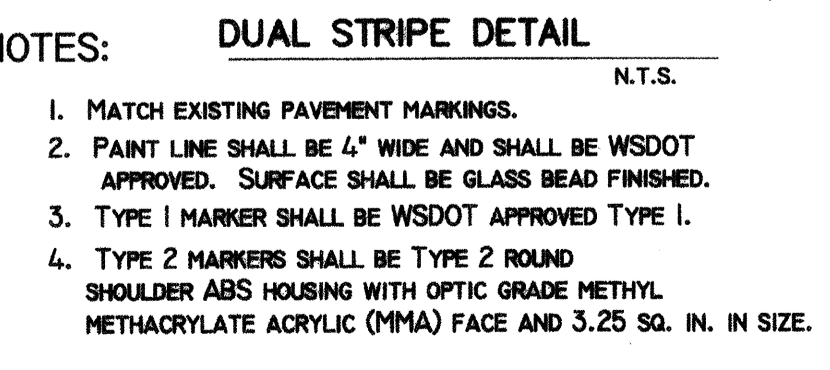
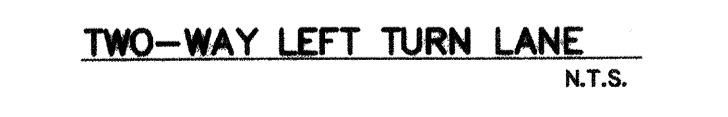
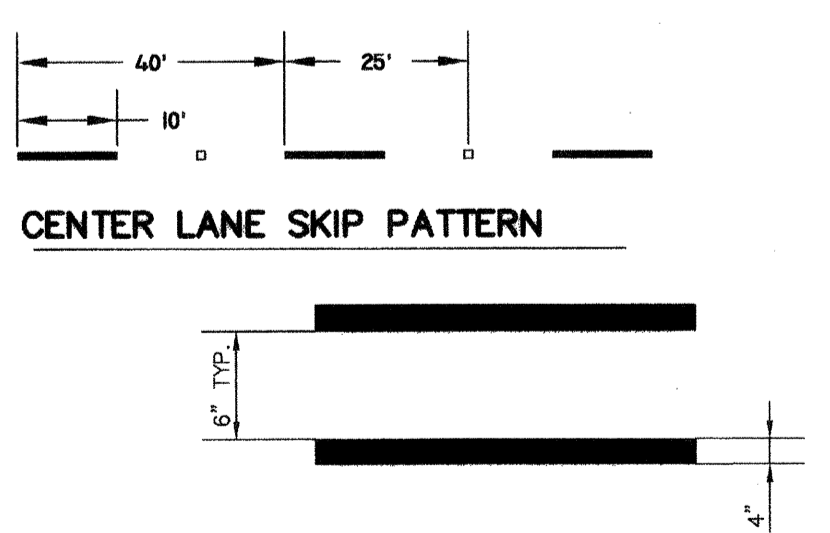
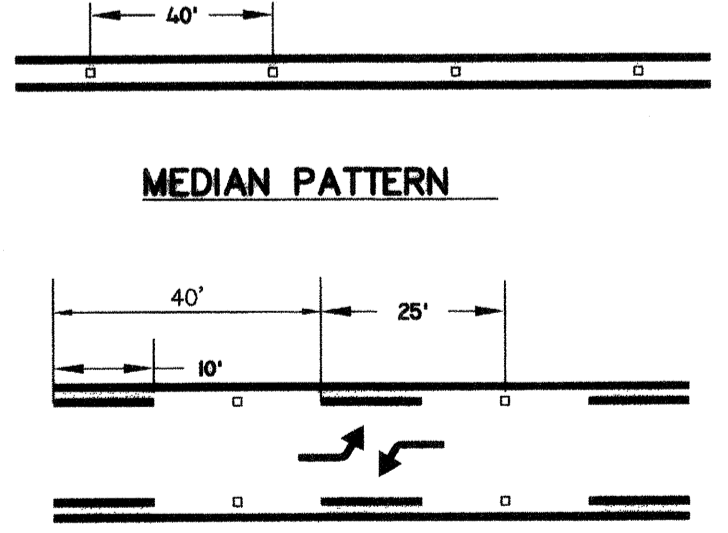
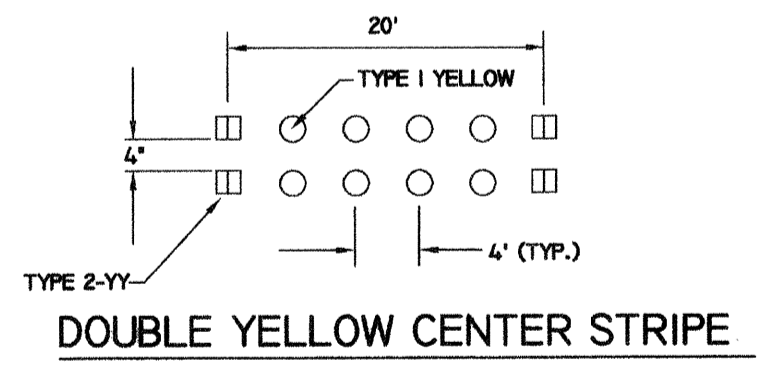
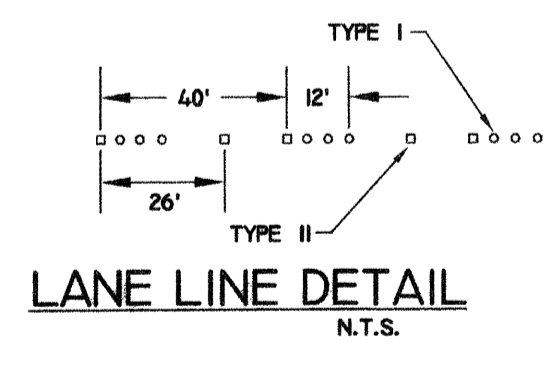
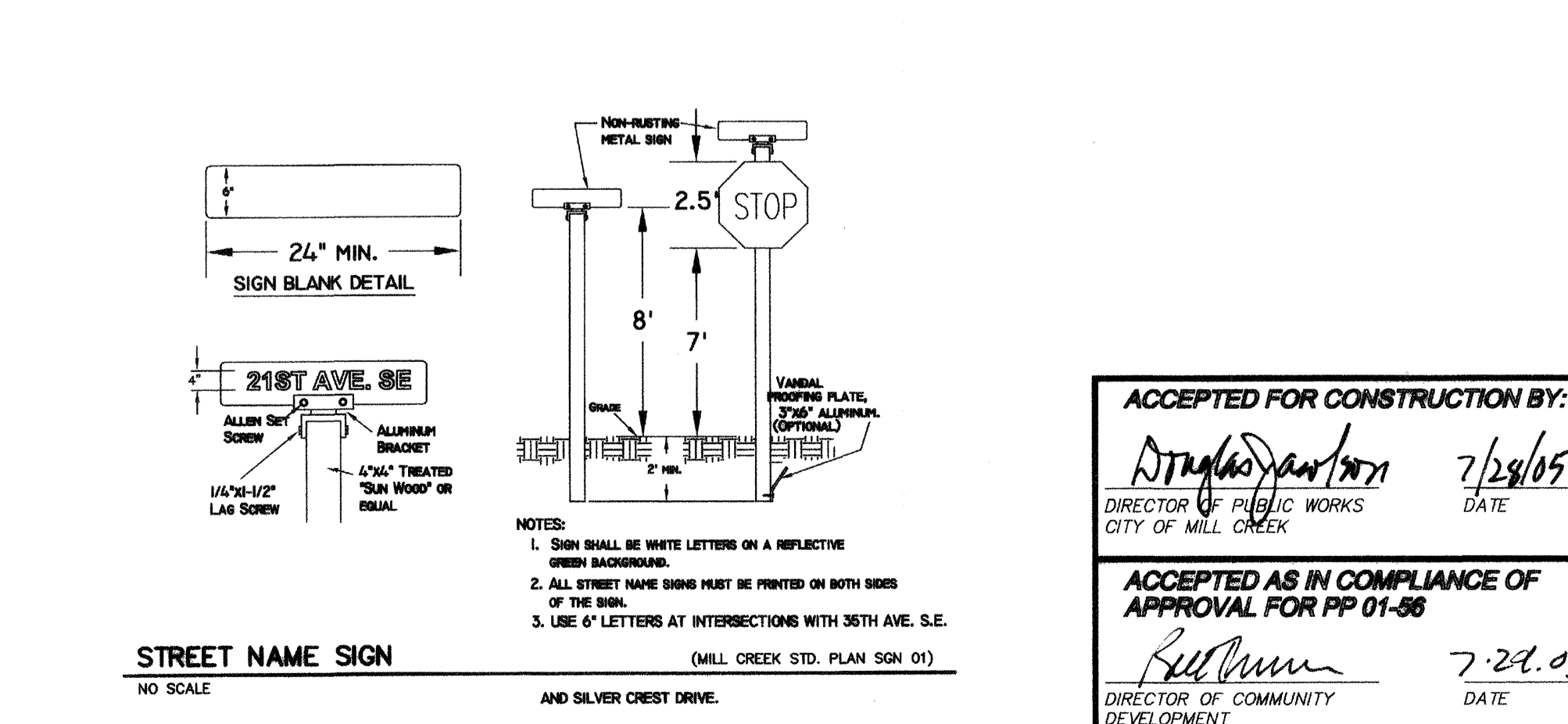
ACCESS RAMP - CORNER PLACEMENT (WSDOT STD. PLAN F-3A)



VERTICAL CURB DRIVEWAY TYPE "A" (SINGLE FAMILY ACCESS) (MILL CREEK STD. PLAN STR. 06)



VERTICAL CURB DRIVEWAY TYPE "B" (ALLEY/TRACTS/MULTI-FAMILY ACCESS POINTS) (MILL CREEK STD. PLAN STR. 01)



LANE MARKING DETAILS (MILL CREEK STD. PLAN STR. 021)

ACCEPTED FOR CONSTRUCTION BY:
[Signature] 7/29/05
DIRECTOR OF PUBLIC WORKS
CITY OF MILL CREEK

ACCEPTED AS IN COMPLIANCE OF APPROVAL FOR PP 01-06
[Signature] 7-29-05
DIRECTOR OF COMMUNITY DEVELOPMENT

CLEANOUT SCHEDULE

CO#	TOP ±	AS-BUILT	INV.	AS-BUILT	TYPE	COMMENTS
A1	401.3	401.87	397.30	397.55		MCSE=399.50
A2	401.6	403.14	398.90	397.05		
A3	401.9	402.67	396.50	398.53		
A4	401.4	402.53	396.40	396.45		
A5	401.8	402.80	396.80	397.56		
A6	402.2	402.73	397.20	397.98		
A7	402.3	401.63	397.60	397.55		
A8	401.8	404.03	397.30	398.77		
A9	401.0	404.20	396.30	399.10		
A10	401.6	402.93	397.60	398.36		
A11	402.0	403.72	397.20	398.74		
A12	402.3	402.14	396.80	398.53		
A13	402.3	402.28	396.60	398.20		
A14	401.3	401.18	396.30	396.03		MCSE=400.00
A15	402.1	403.79	397.10	398.67		
A16	402.4	402.95	396.60	397.78		
A17	402.4	402.63	396.20	397.53		
A18	402.7	403.03	397.00	397.47		
A19	403.0	403.58	397.50	399.34		
A20	403.2	403.94	397.90	400.10		
A21	403.3	403.79	398.30	400.44		
A22	400.3	401.99	396.65	397.36		
A23	400.4	401.51	396.57	397.12		
A24	401.3	401.70	397.30	396.92		
A25	401.4	401.30	397.40	396.90		
A26	402.0	403.04	398.20	399.15		
A27	402.3	403.15	397.80	398.65		
A28	402.5	403.04	397.40	397.54		
A29	402.7	403.33	397.70	398.95		
A30	403.0	404.41	398.10	400.75		
A31	403.3	403.72	398.60	400.84		
A32	403.2	403.65	398.20	400.49		
A33	403.0	403.84	397.80	400.41		
A34	402.8	403.06	397.50	399.58		
A35	402.1	403.93	398.26	399.08		MCSE=400.50
A36	401.7	403.41	397.88	398.65		
A37	401.2	402.61	397.42	397.86		
A38	401.1	403.01	397.00	397.34		
A39	401.1	402.21	397.10	397.45		
A40	401.5	403.01	397.52	398.16		
A41	401.9	403.93	397.90	399.09		
A42	402.4	404.46	398.36	399.53		
A43	403.0	404.46	398.40	398.58		MCSE=401.00
A44	403.1	404.57	398.02	399.74		
A45	402.8	404.03	397.60	399.17		
A46	402.6	403.31	397.20	398.48		
A47	402.3	403.11	396.80	397.53		
A48	402.3	403.09	396.93	398.21		
A49	402.9	404.21	397.33	399.16		
A50	404.2	405.49	399.68	400.59		
A51	403.5	404.49	399.28	399.70		
A52	403.5	404.40	399.22	399.50		
A53	404.0	405.65	399.64	400.49		
A54	404.3	406.10	401.13	401.19		MCSE=401.20
A55	404.0	405.60	400.71	400.76		MCSE=401.00
A56	404.0	405.67	400.77	400.86		MCSE=401.00
A57	404.5	407.06	401.15	402.16		MCSE=401.20
A58	403.5	405.19	399.76	400.22		MCSE=401.00
A59	403.0	404.36	399.37	399.36		
A60	402.9	403.56	399.45	398.59		
A61	402.0	404.38	398.93	399.41		
A62	401.4	403.28	398.47	398.37		
A63	401.2	402.80	398.14	397.911		
A64	401.3	402.81	398.30	397.86		
A65	402.0	403.45	398.00	397.38		
A66	403.3	405.17	398.01	400.29		

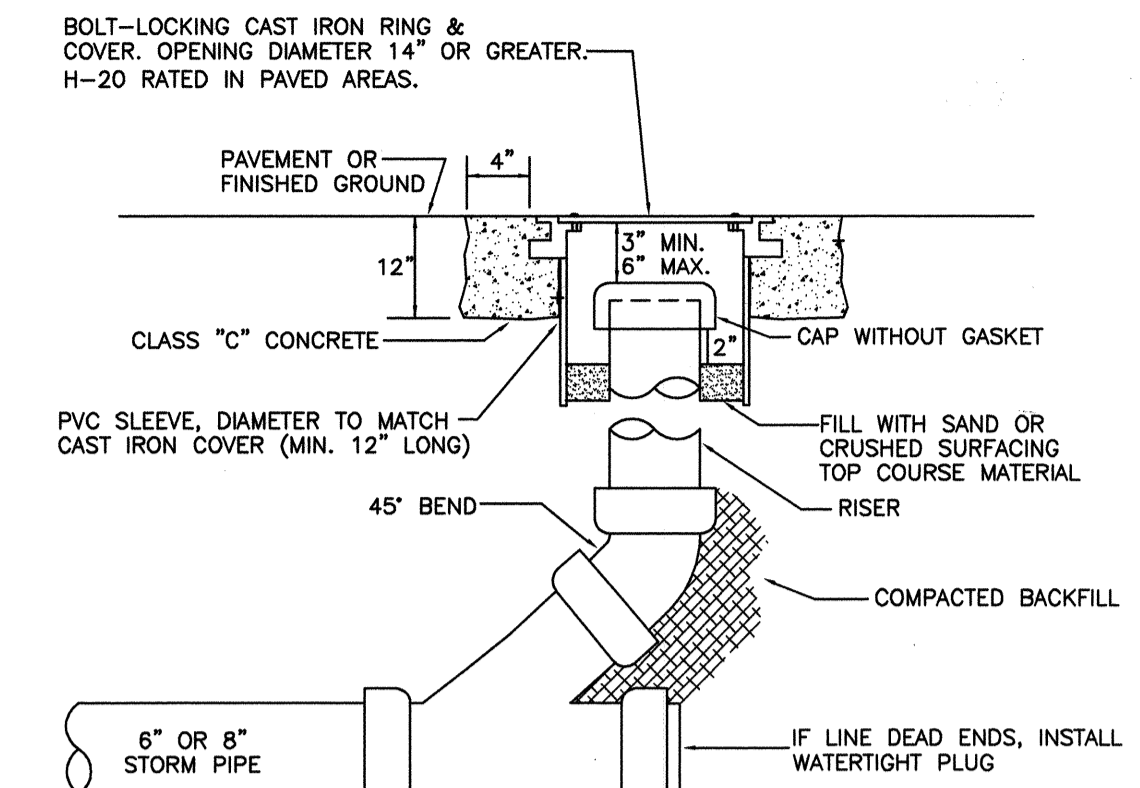
CLEANOUT SCHEDULE

CO#	TOP ±	AS-BUILT	INV.	AS-BUILT	TYPE	COMMENTS
A67	402.8	404.93	397.59	399.90		MCSE=401.00
A68	402.5	403.93	397.21	398.93		
A69	402.5	404.12	397.06	399.54	8" PVC	
A70	402.7	404.62	397.46	399.66		
A71	403.1	405.12	397.84	400.23		
A72	403.7	405.44	398.70	400.56		MCSE=399.50
A73	403.7	405.29	398.20	400.28		
A74	403.4	403.37	397.60	399.69		
A75	401.0	401.65	395.85	395.99		MCSE=400.50
A76	403.6	405.29	398.84	400.15		MCSE=401.00
A77	403.7	406.28	398.70	400.29		
A78	404.1	405.77	399.08	400.55		
A79	404.1	405.79	399.44	400.64		
A80	403.5	404.15	398.40	400.00		
A81	403.1	404.01	398.00	399.80		
A82	403.0	404.93	397.30	398.78	8" PVC	
A83	403.4	404.17	398.40	399.67		
A84	403.8	404.60	398.80	400.47		
A85	401.3	402.41	396.20	399.18		MCSE=400.50
A86	401.6	402.90	396.10	395.10	8" PVC	MCSE=400.60
A87	401.6	402.96	396.30	396.17	8" PVC	
A88	401.9	403.30	396.68	397.11		
A89	402.3	404.22	397.14	398.53		
A90	402.7	404.77	397.50	399.14		
A91	402.9	404.54	397.90	398.91		
A92	402.4	404.31	397.40	398.61		MCSE=401.00
A93	402.1	404.89	396.90	397.65		
A94	402.1	404.17	397.10	397.07		
A95	402.6	404.49	396.30	396.71	8" PVC	MCSE=400.00
A96	402.2	403.63	396.90	398.00		
A97	402.4	403.90	397.40	398.39		
A98	402.9	404.08	397.80	398.42		
A99	403.3	404.05	398.20	398.44		
A100	403.4	404.66	399.54	399.51		MCSE=401.25
A101	403.1	404.52	399.08	399.53		
A102	402.7	404.52	398.68	399.53		
A103	402.9	404.84	398.25	399.16		
A104	402.2	403.78	397.30	397.65		MCSE=400.00
A105	402.0	404.05	396.90	397.33		
A106	402.1	404.29	397.10	397.25		
A107	402.5	404.15	397.50	398.56		
A108	402.9	400.70	397.90	398.09		
A109	403.0	404.01	399.20	398.36		MCSE=400.50
A110	402.7	403.63	398.80	398.44		
A111	402.5	403.91	398.30	398.04		
A112	403.0	404.43	398.10	398.14	8" PVC	MCSE=400.00
A113	402.7	404.22	398.43	398.45		
A114	402.7	403.54	398.81	398.39		
A115	403.1	403.18	399.27	398.13		
A116	403.4	404.31	399.65	398.64		
A117	403.6	404.39	400.05	398.78		MCSE=400.50
A118	403.4	404.48	399.57	399.39		
A119	403.0	405.52	399.17	399.38		
A120	403.1	404.68	398.89	398.72		
A121	402.3	403.79	398.30	398.81		MCSE=400.00
A122	402.9	403.26	398.15	398.14		MCSE=400.50
A123	402.8	402.65	397.80	395.71		
A124	402.7	403.87	397.98	397.93		
A125	402.1	402.18	397.20	396.05		MCSE=400.75
A126	402.1	403.29	397.00	396.24		MCSE=400.75
A127	402.6	403.69	397.50	397.55		MCSE=401.00
A128	402.8	403.76	397.80	398.51		
A129	403.2	403.77	398.20	398.51		
A130	404.0	404.54	399.00	399.10		

CLEANOUT SCHEDULE

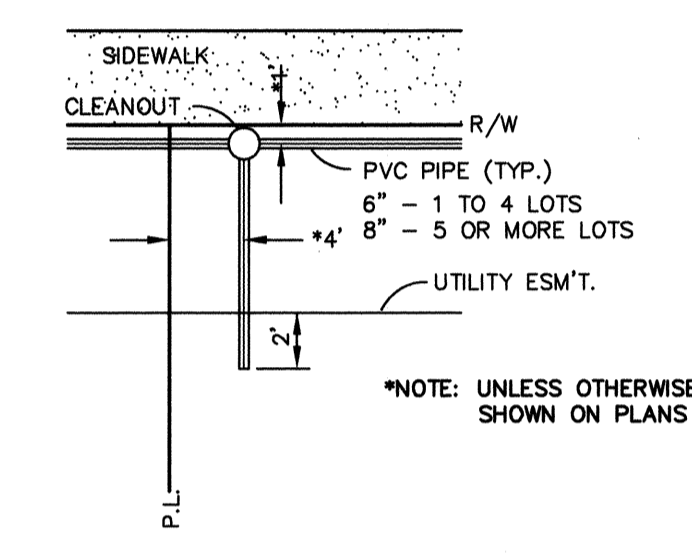
CO#	TOP ±	AS-BUILT	INV.	AS-BUILT	TYPE	COMMENTS
B1	401.8	402.91	396.80	398.02		MCSE=399.50
B2	401.3	401.56	397.20	396.37		
B3	401.2	401.27	396.20	396.52		
B4	401.3	402.03	396.40	397.58		
B5	401.5	402.73	396.80	398.45		
B6	402.1	401.75	397.10	397.73		
B7	402.3	403.08	397.80	398.00		
B8	402.4	403.64	398.00	398.54		
B9	402.4	403.76	398.40	398.69		
B10	402.0	403.73	397.30	398.63		MCSE=400.00
B11	401.7	403.70	397.30	398.35		
B12	401.6	403.24	397.00	397.16		
B13	401.6	403.34	397.20	397.82		
B14	401.8	404.20	397.50	397.13		
B15	402.5	403.86	397.40	397.22		
B16	402.5	404.25	397.50	397.12		
B17	402.1	402.63	397.10	398.93		MCSE=399.50
B18	401.8	402.21	396.70	398.60		
B19	401.8	401.24	396.60	394.94		
B20	401.5	401.33	397.00	397.25		
B21	402.7	404.10	398.10	400.50		
B22	402.8	402.87	397.60	399.16		
B23	402.6	403.62	397.80	400.03		
B24	402.3	403.56	398.20	400.00		
B25	402.9	403.74	398.80	400.22		
B26	403.2	X.X	398.40	X.X		
B27	403.3	405.11	398.30	399.94		
B28	403.6	404.67	398.70	400.66		
B29	403.4	404.35	398.50	401.54		
B30	403.1	404.24	398.10	401.42		
B31	403.0	404.17	398.00	400.35		
B32	402.7	403.77	398.40	400.44		

- NOTES:
- ROOF DRAIN TIGHTLINES SHALL BE 6" PVC @ 1.00% MIN. (1 TO 4 LOTS) OR 8" PVC @ 1.00% MIN. (5 OR MORE LOTS)
 - MCSE = MINIMUM CRAWLSPACE ELEVATION

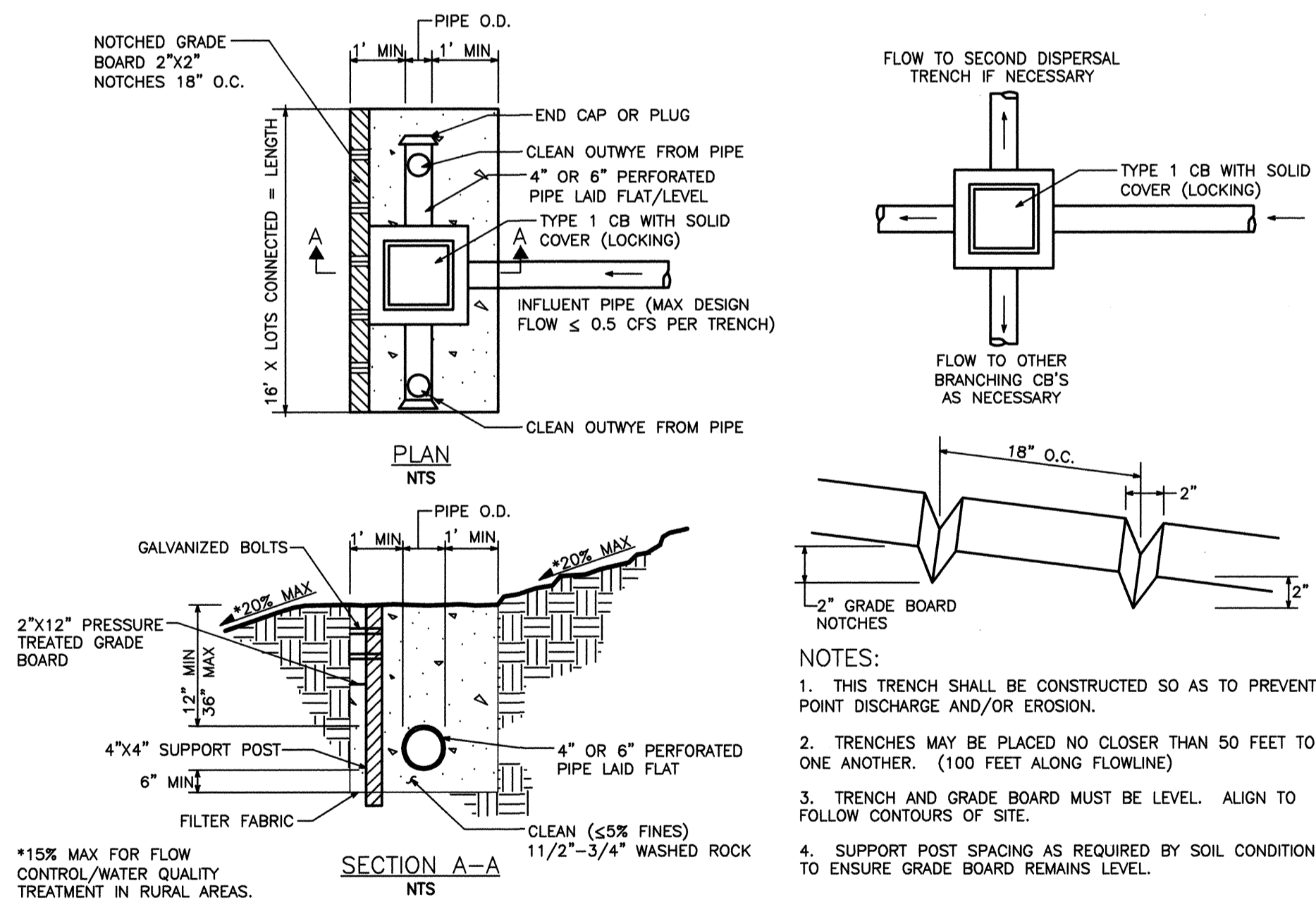


- NOTES:
- CAST IRON COVER SHALL READ "DRAIN".
 - LOCKING BOLTS FOR COVER SHALL BE 5/8" - 11 NC STAINLESS STEEL TYPE 304 SOCKET (ALLEN) HEAD BOLTS, 2 INCHES LONG.
 - 14" BOLT-LOCKING COVER SHALL BE EQUAL TO INLAND FOUNDRY NO. 209.

STORM CLEANOUT (MILL CREEK STD. PLAN STM 03)
NO SCALE



STORM DRAIN CLEANOUT/YARD DRAIN PLACEMENT
NO SCALE

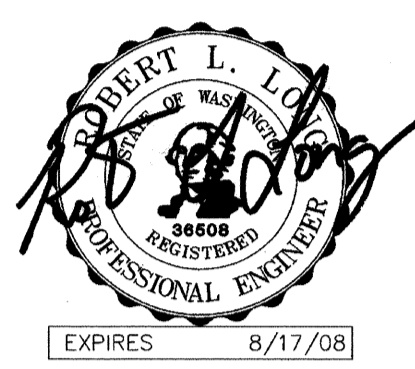


DISPERSION TRENCH WITH NOTCHED GRADE BOARD
N.T.S. 2001 DEPT. OF ECOLOGY FIGURE 5.2, VOL. V (BMP T5.10)



Lovell-Sauerland & Associates, Inc.
Engineers/Surveyors/Planners
Development Consultants

19400 33rd Avenue W.
Suite 200
Lynnwood, WA 98036
phone: (425)775-1591
fax: (425)672-7998
e-mail: info@lsaengineering.com
web: lsaengineering.com



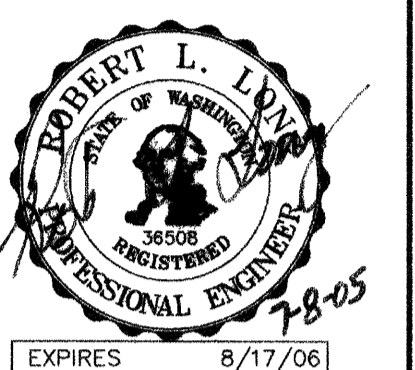


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Lynnwood, WA 98036
phone: (425)775-1591
fax: (425)672-7998

e-mail: info@lsaengineering.com
web: lsaengineering.com



REVISIONS
1. REVISED PER CITY COMMENTS/DEVELOPER REVISIONS
2. REVISED PER CITY COMMENTS

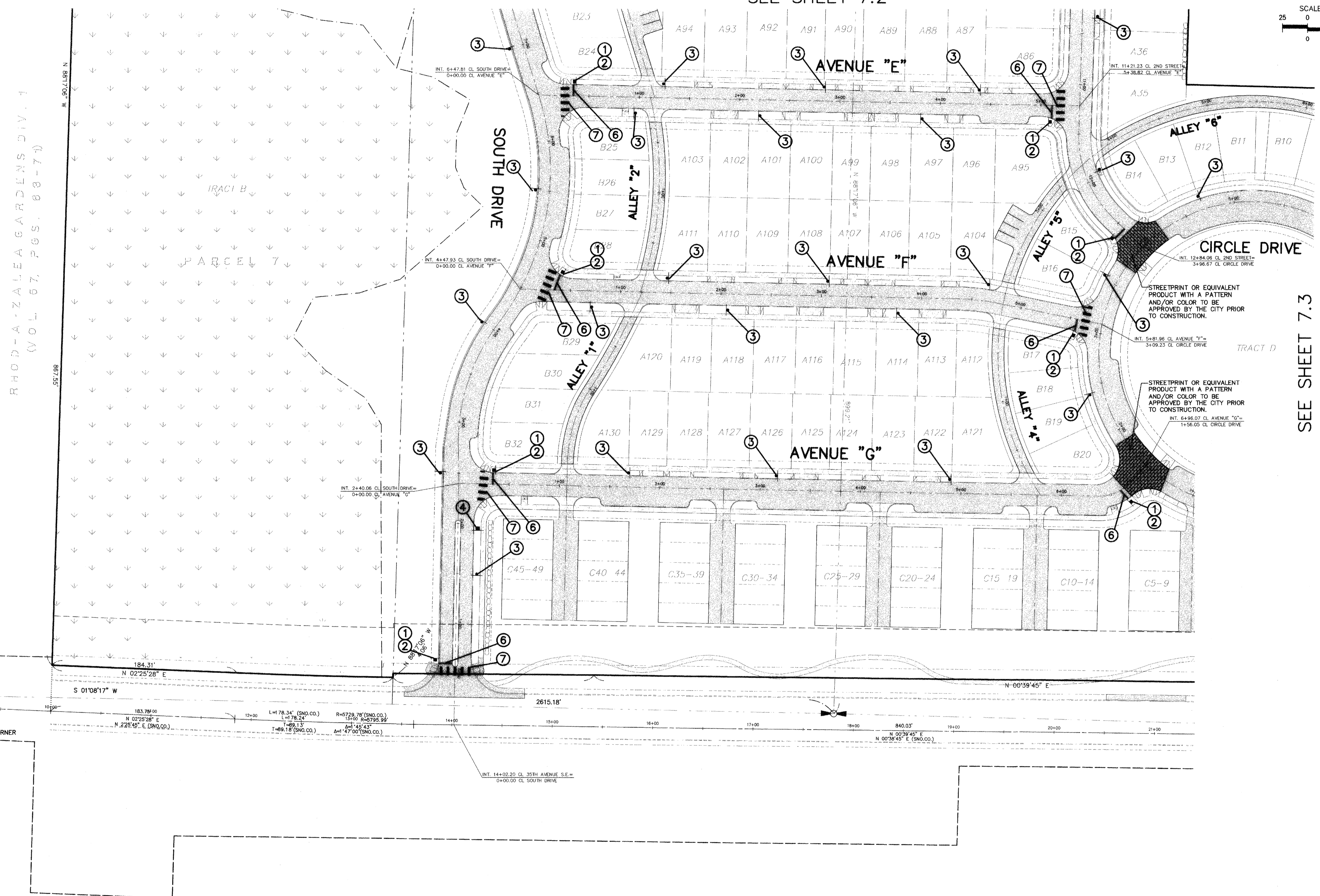
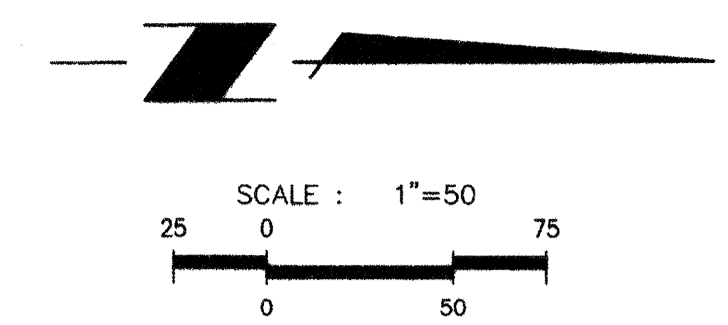
5-18-05 MM
6-28-05 MM

CHANNELIZATION AND SIGNING PLAN
FOR
MILL CREEK EAST
IN EAST 1/2 OF SECTION 32, T.28N., R.5E., W.M.
CITY OF MILL CREEK
SNOHOMISH COUNTY, WASHINGTON

SCALE 1"=50'
DRAWN MM CHECKED RLL SHEET
DATE 1-17-05 P.B. -
PPN - 7.1
LSA FILE NO. 4700

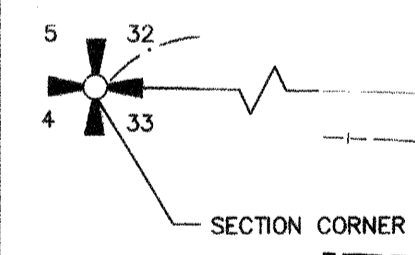
HDEV-2267

SEE SHEET 7.2



SEE SHEET 7.3

RHOD-A-ZALEA GARDENS DIV. 1
(VOL. 57, PGS. 68-71)



CHANNELIZATION AND SIGNING SCHEDULE

	MUTCD	SIGN TYPE	COMMENTS
①	R1-1	STOP	PER CITY DETAIL SGN. 01
②	SNS	STREET NAME	PER CITY DETAIL SGN. 01
③	R7-1	NO PARKING	12" x 18" SIGN
④	R2-1	"SPEED LIMIT 25"	24" x 30" SIGN
⑤	N/A	DOUBLE YELLOW CENTERLINE RPM'S	PER CITY DETAIL STR. 021
⑥	N/A	WHITE THERMOPLASTIC STOP BAR	12" WIDE
⑦	N/A	WHITE THERMOPLASTIC CROSSWALK	PER CITY DETAIL STR 020B

ACCEPTED FOR CONSTRUCTION BY:

 DIRECTOR OF PUBLIC WORKS
 CITY OF MILL CREEK
 DATE 7/26/05

ACCEPTED AS IN COMPLIANCE OF
 APPROVAL FOR PP 01-56

 DIRECTOR OF COMMUNITY
 DEVELOPMENT
 DATE 7-29-05



Lovell-Sauerland & Associates, Inc.
 Engineers/Surveyors/Planners
 Development Consultants

19400 33rd Avenue W.
 Suite 200
 Lynnwood, WA 98036
 phone: (425)775-1591
 fax: (425)672-7998
 e-mail: info@lsaengineering.com
 web: lsaengineering.com

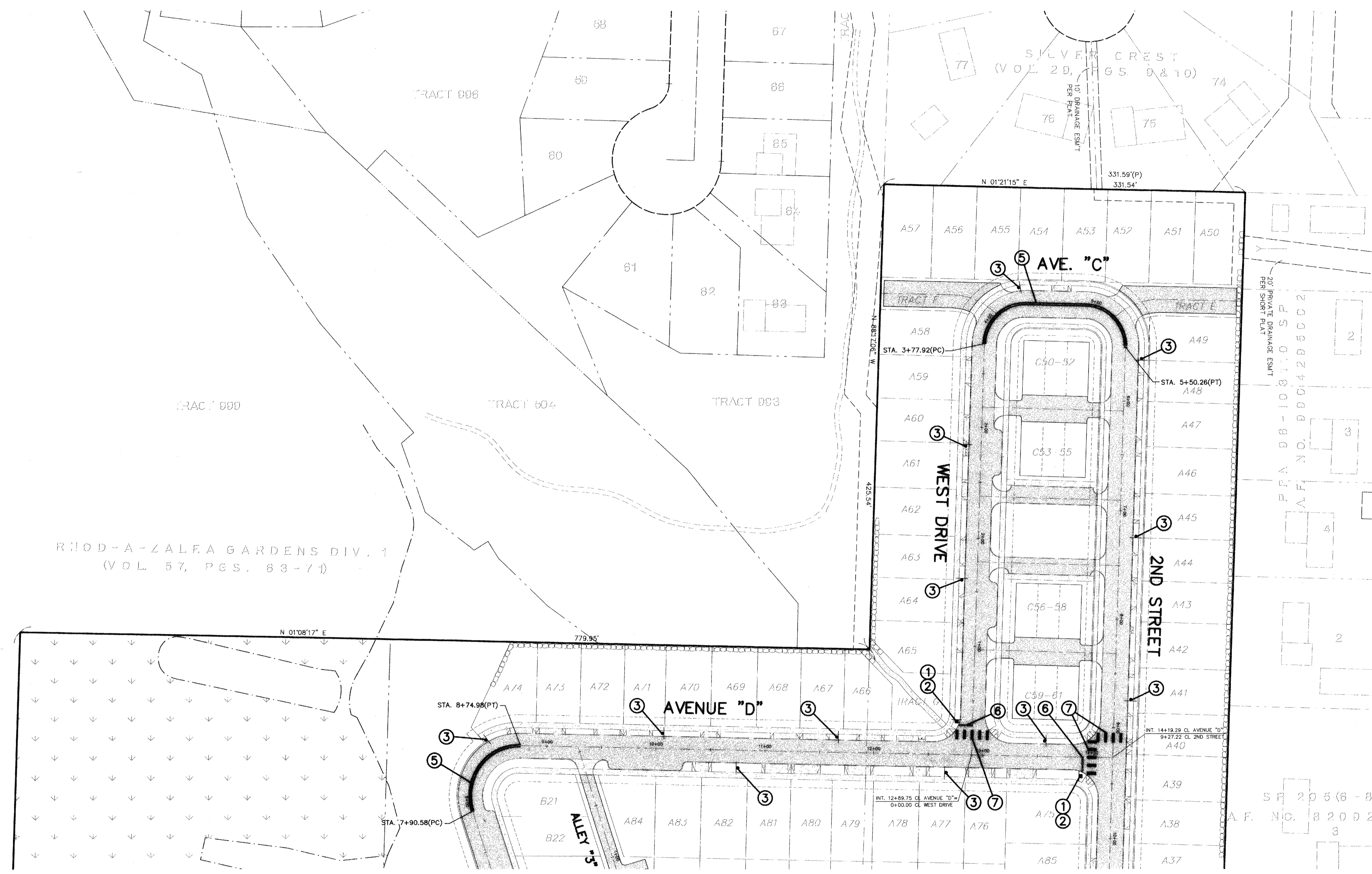


REVISIONS
 1. REVISED PER CITY COMMENTS/DEVELOPER REVISIONS
 2. REVISED PER CITY COMMENTS

CHANNELIZATION AND SIGNING PLAN
 FOR
MILL CREEK EAST
 IN EAST 1/2 OF SECTION 32, T.28N., R.5E., W.M.
 CITY OF MILL CREEK
 SNOHOMISH COUNTY, WASHINGTON

SCALE: 1"=50'

DRAWN: MM
 CHECKED: RLL
 DATE: 1-17-05
 P.F.B.:
 SHEET: 7.2
 LSA FILE NO. 4700



SCALE: 1"=50'

LEGEND
 + SET SURVEY CONTROL MONUMENT (SEE DETAIL ON SHEET 6.2)

SEE SHEET 7.1

CHANNELIZATION AND SIGNING SCHEDULE

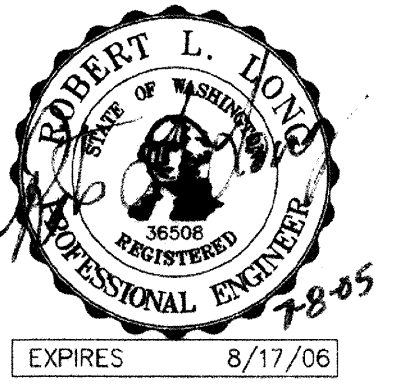
MUTCD	SIGN TYPE	COMMENTS
① R1-1	STOP	PER CITY DETAIL SGN. 01
② SNS	STREET NAME	PER CITY DETAIL SGN. 01
③ R7-1	NO PARKING	-
④ R2-1	"SPEED LIMIT 25"	-
⑤ N/A	DOUBLE YELLOW CENTERLINE RPM'S	PER CITY DETAIL STR. 021
⑥ N/A	WHITE THERMOPLASTIC STOP BAR	-
⑦ N/A	WHITE THERMOPLASTIC CROSSWALK	PER CITY DETAIL STR 020B

ACCEPTED FOR CONSTRUCTION BY:
[Signature] 7/28/05
 DIRECTOR OF PUBLIC WORKS
 CITY OF MILL CREEK

ACCEPTED AS IN COMPLIANCE OF
 APPROVAL FOR PP 01-56
[Signature] 7/28/05
 DIRECTOR OF COMMUNITY
 DEVELOPMENT

NORTH POINTE

HDEV-2268



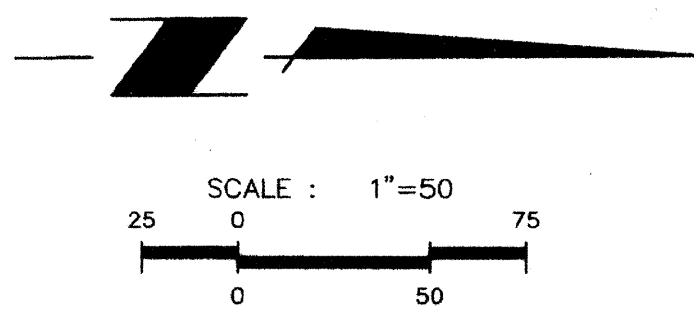
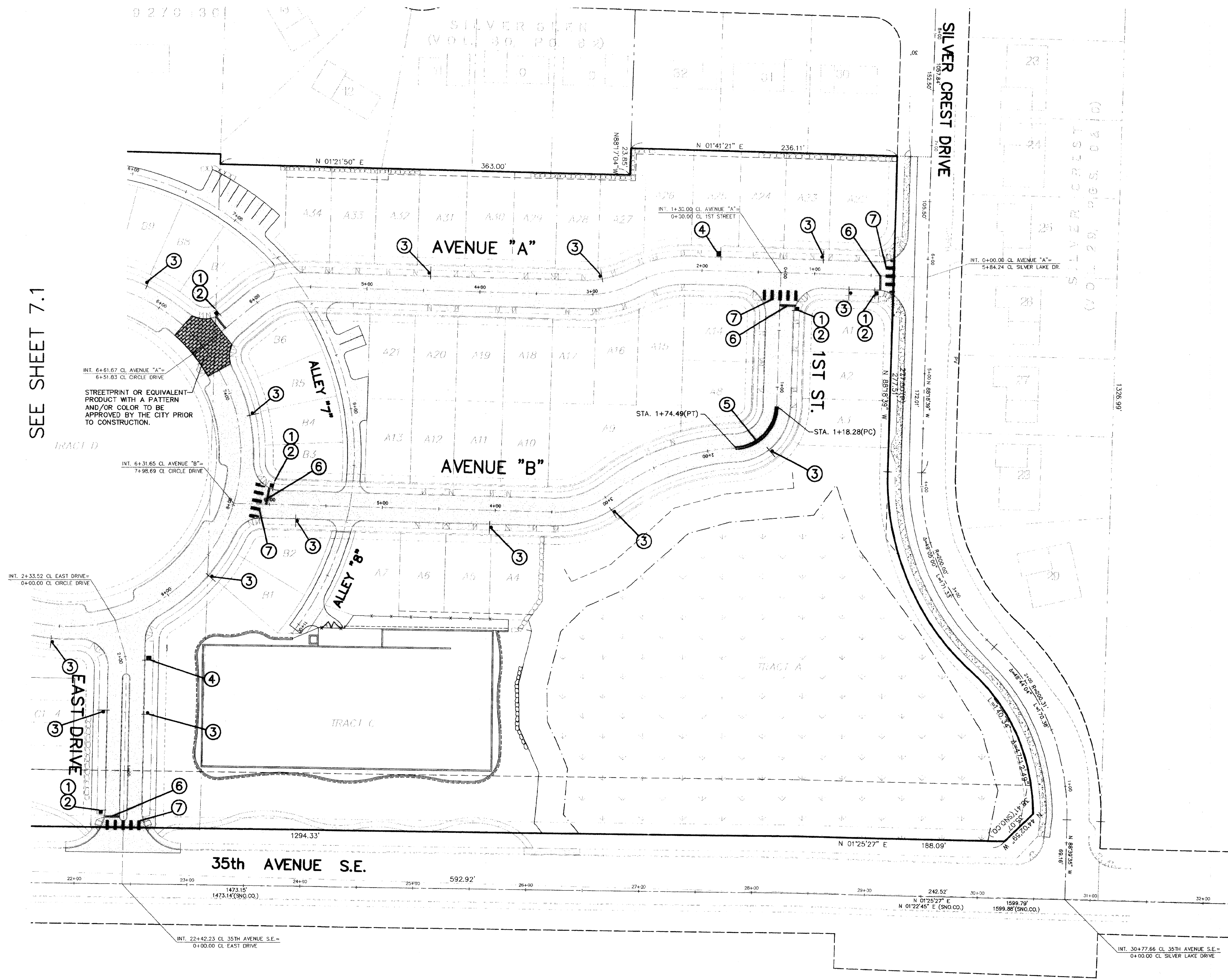
MM
5-18-05
6-28-05

REVISIONS
1. REVISED PER CITY COMMENTS/DEVELOPER REVISIONS
2. REVISED PER CITY COMMENTS

CHANNELIZATION AND SIGNING PLAN
FOR
MILL CREEK EAST
IN EAST 1/2 OF SECTION 32, T.28N., R.5E., W.M.
CITY OF MILL CREEK
SNOHOMISH COUNTY, WASHINGTON

SCALE
1"=50'

DRAWN MM	CHECKED RL	SHEET
DATE 1-17-05	P.B.	7.3
PPN		
LSA FILE NO. 4700		



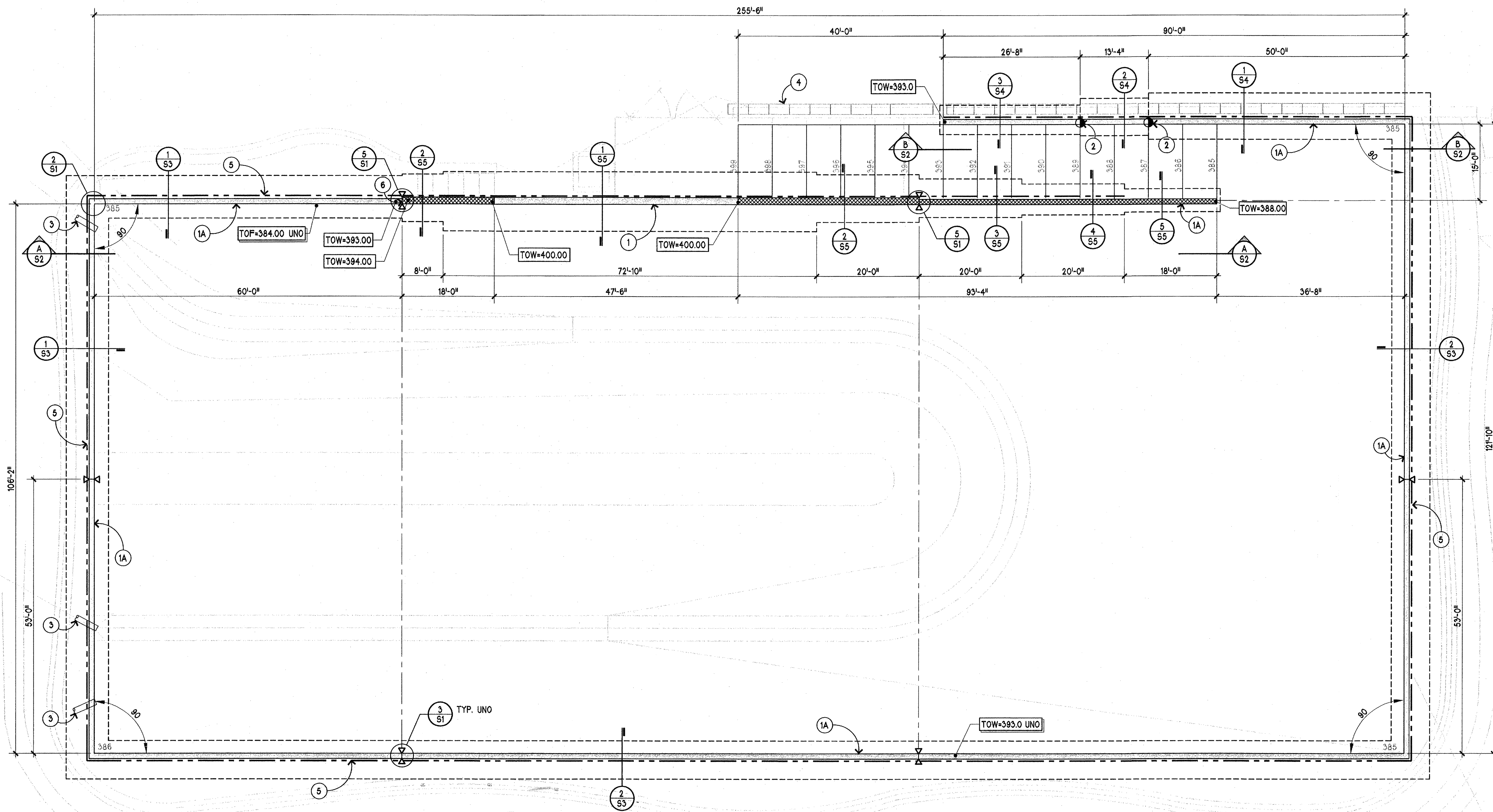
LEGEND
+ - SET SURVEY CONTROL MONUMENT
(SEE DETAIL ON SHEET 6.2)

CHANNELIZATION AND SIGNING SCHEDULE

	MUTCD	SIGN TYPE	COMMENTS
①	R1-1	STOP	PER CITY DETAIL SGN. 01
②	SNS	STREET NAME	PER CITY DETAIL SGN. 01
③	R7-1	NO PARKING	-
④	R2-1	"SPEED LIMIT 25"	-
⑤	N/A	DOUBLE YELLOW CENTERLINE RPM'S	PER CITY DETAIL STR. 021
⑥	N/A	WHITE THERMOPLASTIC STOP BAR	-
⑦	N/A	WHITE THERMOPLASTIC CROSSWALK	PER CITY DETAIL STR 020B

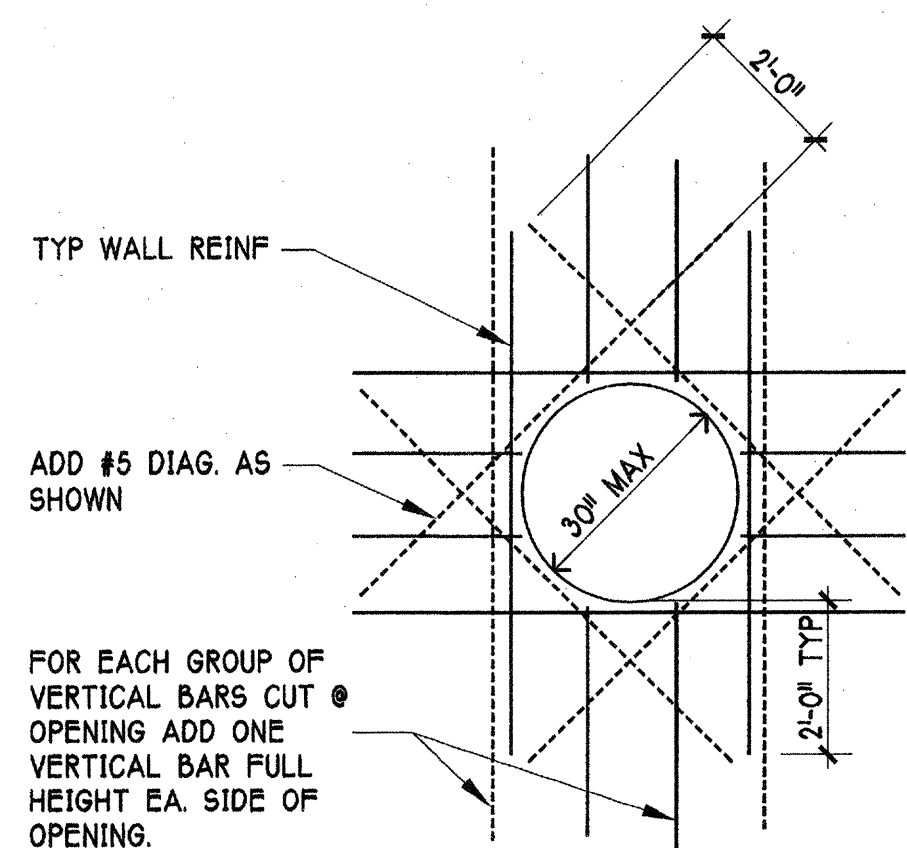
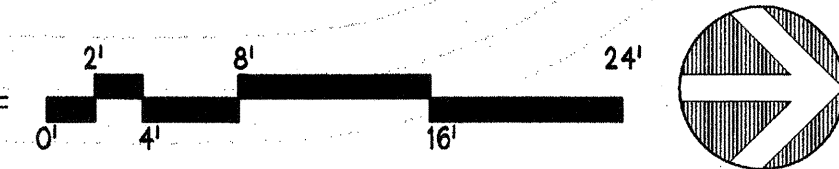
ACCEPTED FOR CONSTRUCTION BY:
[Signature] 7/28/05
DIRECTOR OF PUBLIC WORKS
CITY OF MILL CREEK

ACCEPTED AS IN COMPLIANCE OF
APPROVAL FOR PP 01-56
[Signature] 7/29/05
DIRECTOR OF COMMUNITY
DEVELOPMENT

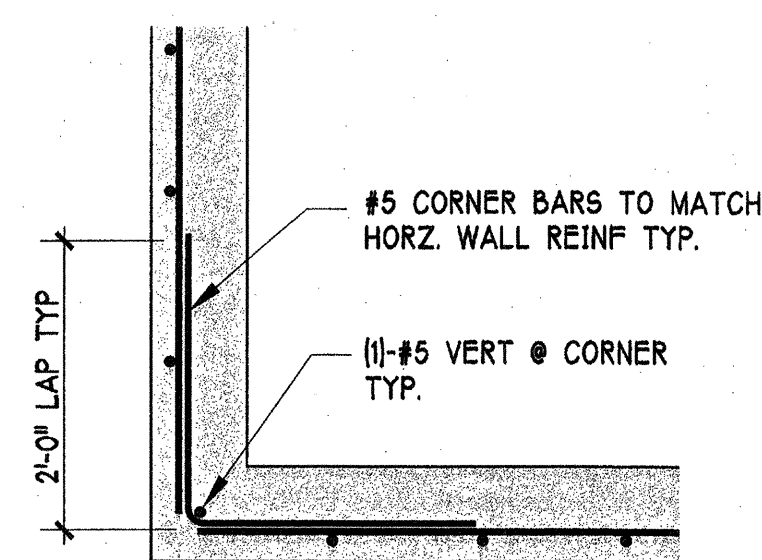


POND RETAINING WALL SITE PLAN

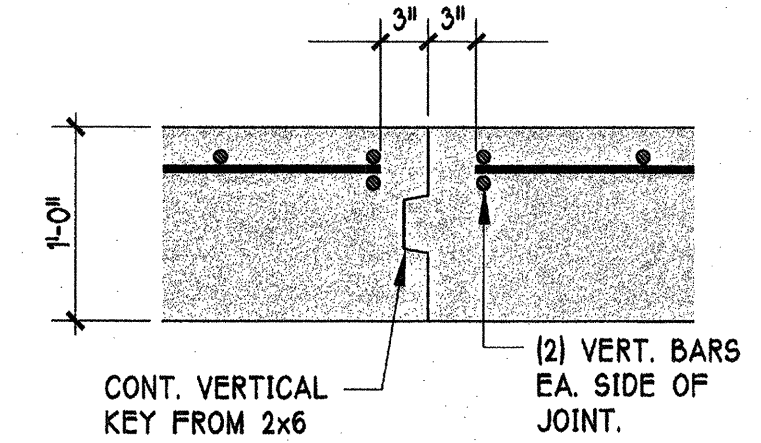
SCALE 3/32" = 1'-0"



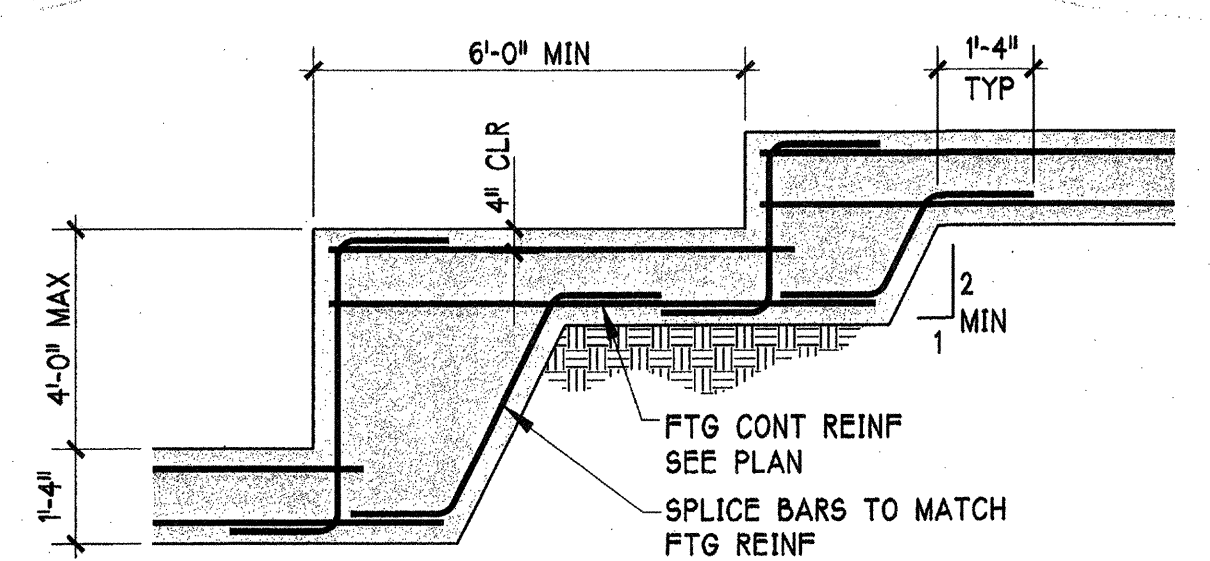
1 TYP PIPE PENETRATION DETAIL
SCALE N/A



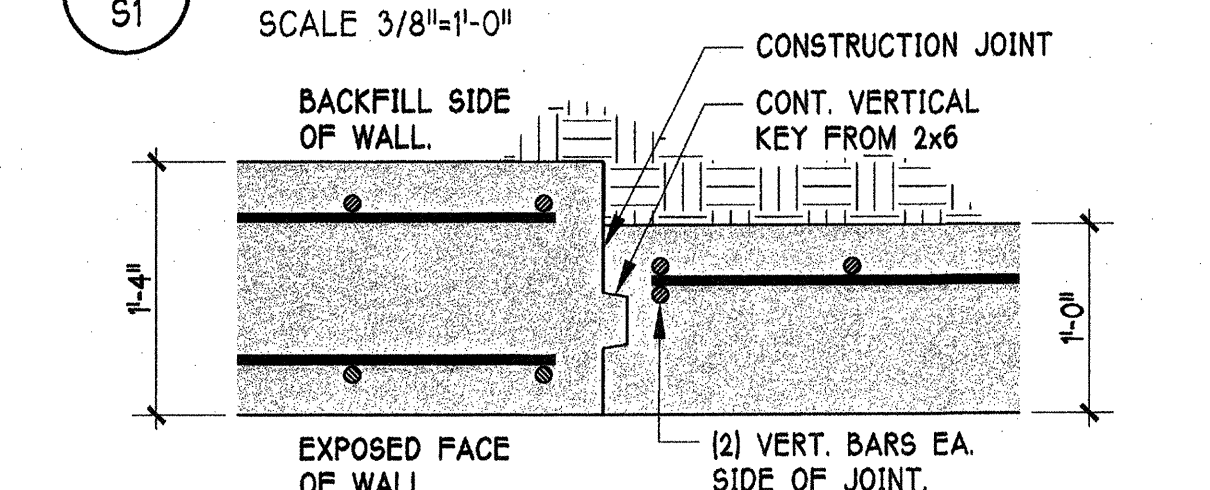
2 TYP WALL CORNER REINF.
SCALE 3/4"=1'-0"



3 TYP RETAINING WALL CONSTRUCTION JOINT DETAIL
SCALE 1"=1'-0"



4 TYPICAL STEPPED FTG DETAIL
SCALE 3/8"=1'-0"



5 WALL THICKNESS TRANSITION DETAIL
SCALE 1"=1'-0"

PLAN KEYNOTES

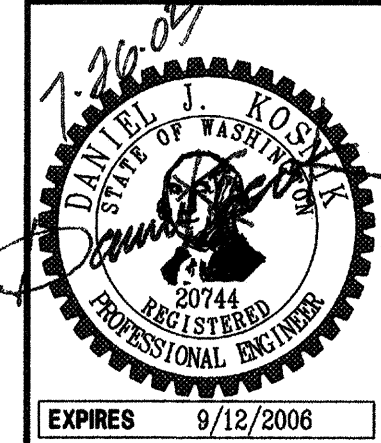
1. 16" THICK C.I.P CONG. RETAINING WALL SEE WALL SECTIONS FOR DIMENSIONS & REINFORCING. SEE 2/S1 FOR WALL REINF @ CORNER SEE WALL ELEVATION A/S2 FOR EXTENT OF 16" THICK WALL. SEE 5/S1 FOR WALL TRANSITION DETAIL.
- 1A. 12" THICK C.I.P CONG. RETAINING WALL AT THE PERIMETER OF THE DETENTION POND. SEE WALL SECTIONS FOR DIMENSIONS & REINFORCING. SEE 2/S1 FOR WALL REINF @ CORNER SEE 1/S1 FOR WALL REINF @ PIPE PENETRATIONS.
2. STEPPED FOOTING. SEE 4/S1
3. PIPE INLET & OUTLET SEE CIVIL DWGS FOR ALL INVERTS & LOCATIONS. SEE 1/S1 FOR WALL REINF @ PIPE PENETRATIONS.
4. MODULAR BLOCK RETAINING WALL TO BE DESIGNED BY OTHERS. SEE CIVIL DWGS FOR EXTENT LOCATION & HEIGHT. HEIGHT SHALL NOT EXCEED THAT SHOWN IN THE WALL SECTIONS ON SHEETS 3 & 4.
5. FOOTING DRAIN. SEE CIVIL DWGS FOR LOCATION OF DISCHARGE.
6. STEP IN TOP OF WALL. SEE WALL ELEVATION A/S2

LEGEND

- CIP CONCRETE WALL
- CONCRETE SPREAD FOOTING
- TOW = TOP OF WALL
- INLET / OUTLET PIPE, SEE CIVIL DWGS
- EXTENT OF WALL WITH VARYING TOP OF WALL ELEVATION.
- FOOTING DRAIN
- FOOTING STEP LOCATION SEE 4/S1
- CONSTRUCTION JOINT. SEE 3 & 5/S1

REVISIONS:	DATE:	ISSUED FOR CONST. PERMIT APPLICATION
	07-26-05	

Site Structures
A Division of Koenig Engineering PC
1800 MILL CREEK BLVD., SUITE 62
MILL CREEK, WASHINGTON 98012
PH: (425)-743-7004 FAX: (425)-743-1848

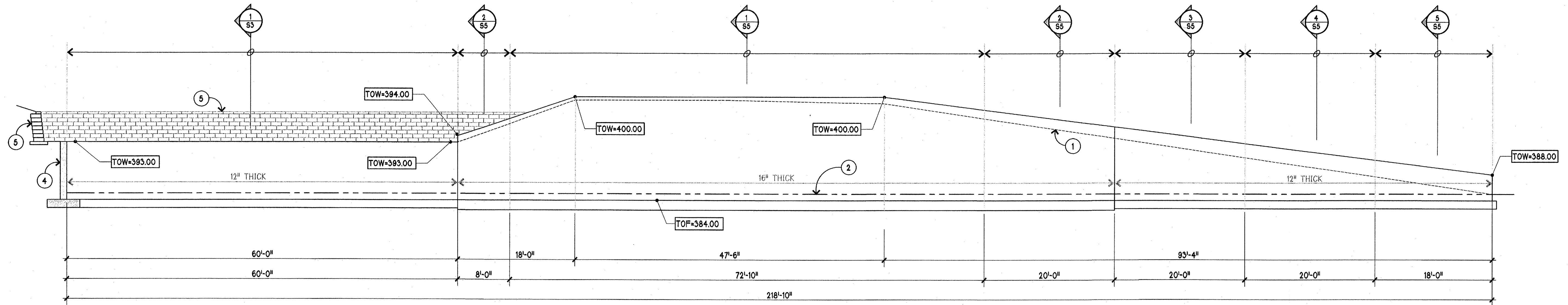


MILL CREEK EAST
STORM WATER DETENTION POND
CITY OF MILL CREEK, WASHINGTON

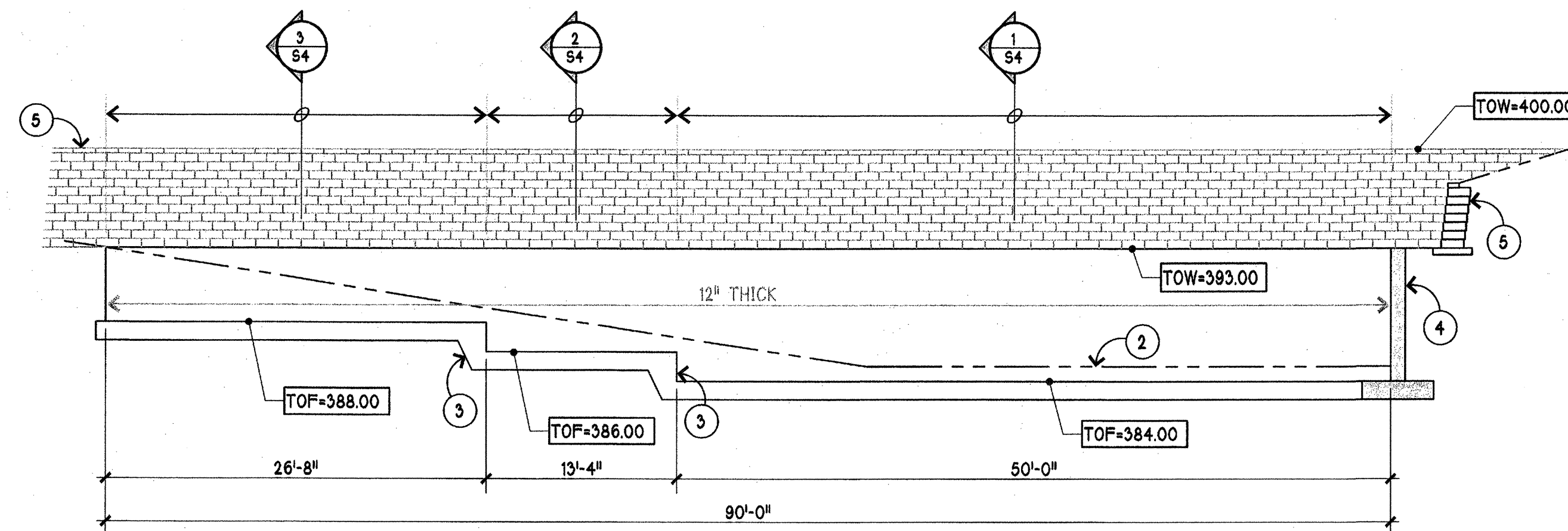
POND RETAINING WALL PLAN
STANDARD DETAILS

SHEET:
S1 OF 5
S-05-007

HDEV-2270



A
S2
WALL ELEVATION
SCALE 1/8"=1'-0"



B
S2
WALL ELEVATION
SCALE 1/8"=1'-0"

- WALL ELEVATION KEYNOTES**
1. FINISHED GRADE ELEVATION @ FAR FACE OF WALL.
 2. FINISHED GRADE ELEVATION @ NEAR FACE OF WALL.
 3. STEP IN FOOTING TYPICAL SEE 4/S1 FOR REINFORCING.
 4. MODULAR BLOCK WALL TO BE DESIGNED BY OTHERS.
 5. MODULAR BLOCK WALL TO BE DESIGNED BY OTHERS.

- GENERAL KEYNOTES**
- A. VERIFY ALL DIMENSIONS & ELEVATION w/ THE CIVIL DRAWINGS & SITE CONDITIONS. NOTIFY ENGINEER OF ALL DISCREPANCIES.
 - B. FOR DETAIL OF TRANSITION FROM 12" WALL TO 16" WALL SEE 5/S1.

REINFORCING BAR

MATERIAL REQUIREMENT:
REINFORCING BARS:
 USE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60, EXCEPT AS NOTED ON THE DRAWINGS.
FABRICATION AND PLACING REQUIREMENTS:
BENDING:
 BARS SHALL BE BENT COLD. BARS PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT UNLESS NOTED OR SHOWN OTHERWISE OR AUTHORIZED BY THE ENGINEER.
PLACING:
 REINFORCEMENT SHALL BE SUPPORTED AND TIED TO PREVENT DISPLACEMENT BY CONSTRUCTION LOADS OR BY PLACING OF CONCRETE. MAXIMUM SPACING OF SUPPORTS SHALL BE 3'-6".
CONCRETE COVER:
 MINIMUM CONCRETE COVER FOR REINF. SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE:
 CONCRETE CAST AGAINST EARTH _____ 3"
 CONCRETE CAST AGAINST FORMS AND EXPOSED TO EARTH _____ 2"
WELDING:
 DO NOT WELD REINFORCING BARS.
WET SETTINGS:
 REINFORCEMENT ANCHOR BOLTS, OR ANY EMBEDDED ITEM WITHIN THE CONCRETE, MAY NOT BE SET INTO THE CONCRETE AFTER IT HAS BEEN POURED WITHIN THE FORMS.
LAP SPLICES:
 PROVIDE LAP LENGTHS AS SHOWN ON THESE DRAWINGS.

CONCRETE

CONCRETE REQUIREMENTS:

LOCATION	STRENGTH	MAX W/C RATIO
WALLS & FTGS	3500PSI @ 28 DAYS	0.53

AIR CONTENT:
 CONCRETE EXPOSED TO WEATHER SHALL CONTAIN 5% +/- 1% ENTRAINED AIR.
MIX DESIGN:
 SHALL BE BASED ON FIELD EXPERIENCE OR TRIAL MIXTURES IN CONFORMANCE WITH THE SPECIFICATIONS.
MATERIAL REQUIREMENTS:
 CEMENT: ASTM C150. ADMIXTURES: ACI 301.
 AGGREGATES: ASTM C33. WATER: ASTM C94.
PLACING REQUIREMENTS:
 PLACING:
 PLACE CONCRETE AS NEARLY AS PRACTICABLE TO ITS FINAL POSITION TO AVOID SEGREGATION. THE FREE UNCONFINED FALL OF THE CONCRETE SHALL NOT EXCEED 5 FEET.
DEBRIS:
 REMOVE ALL DEBRIS FROM FORMS PRIOR TO PLACING CONCRETE.
CONSOLIDATION:
 CONSOLIDATE CONCRETE BY SUITABLE MEANS. THOROUGHLY WORK CONCRETE AROUND EMBEDDED ITEMS AND INTO CORNERS OF FORMS.
CURING REQUIREMENTS:
 CURING:
 CONCRETE SHALL BE MAINTAINED IN A MOIST CONDITION FOR A SUITABLE PERIOD OF TIME AFTER PLACEMENT.
WEATHER CONDITIONS:
 ADEQUATE PRECAUTIONS SHALL BE TAKEN DURING HOT AND COLD WEATHER IN ACCORDANCE WITH THE SPECIFICATIONS.

SPECIAL INSPECTION

GENERAL:
 SPECIAL INSPECTION BY A QUALIFIED INSPECTOR IS REQUIRED IN ACCORDANCE WITH THE 2003 IBC AS ADOPTED BY THE CITY OF MILL CREEK, WASHINGTON ON THE FOLLOWING ITEMS.
 a. CONCRETE STRENGTH AND PLACEMENT
 b. REINFORCING BAR PLACEMENT
CERTIFICATION & SUPERVISION:
 THE SPECIAL INSPECTOR SHALL BE SUPERVISED BY A REGISTERED PROFESSIONAL ENGINEER EMPLOYED BY THE FIRM PROVIDING THE INSPECTION SERVICES.
PERFORMANCE OF THE WORK:
 THE SPECIAL INSPECTOR SHALL PERFORM THE FOLLOWING TASKS AS A MINIMUM AND SHALL PERFORM ALL ADDITIONAL TASKS REQUIRED BY THE 2003 IBC AND THE BUILDING OFFICIAL:
 a. OBSERVE THE WORK FOR CONFORMANCE WITH THE APPROVED CONSTRUCTION DRAWINGS AND SPECIFICATIONS.
 b. FURNISH REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER AND ARCHITECT OF RECORD, AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF NOT CORRECTED, TO THE PROPER DESIGN AUTHORITY AND TO THE BUILDING OFFICIAL.
 c. SUBMIT A FINAL REPORT, SIGNED BY THE REGISTERED ENGINEER SUPERVISING THE INSPECTOR, STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS COMPLETED IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND APPLICABLE WORKMANSHIP PROVISIONS OF THE 2003 IBC.

GENERAL CONSTRUCTION NOTES

CODE:
 BUILDING DESIGN AND CONSTRUCTION SHALL CONFORM TO THE PROVISIONS OF THE 2003 IBC AS ADOPTED BY THE CITY OF MILL CREEK, WASHINGTON.
GENERAL DETAILS:
 TYPICAL OR GENERAL NOTES AND DETAILS ON THESE SHEETS SHALL APPLY TO ALL CONSTRUCTION UNLESS SPECIFICALLY NOTED OR SHOWN OTHERWISE. CONSTRUCTION DETAILS NOT FULLY SHOWN OR NOTED SHALL BE SIMILAR TO DETAILS SHOWN FOR SIMILAR CONDITIONS.
DISCREPANCIES:
 THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A WRITTEN REQUEST FOR CLARIFICATION UPON FINDING ANY DISCREPANCY OR OMISSION IN THE DRAWINGS OR SPECIFICATIONS.
SHORING:
 IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO DESIGN AND PROVIDE ADEQUATE SHORING, RESHORING AND BRACING OF THE WORK AS REQUIRED TO PROTECT LIFE AND PROPERTY DURING THE CONSTRUCTION OF THIS BUILDING.
EXCAVATION:
 THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES, INCLUDING LAGGING, SHORING AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS AND UTILITIES.

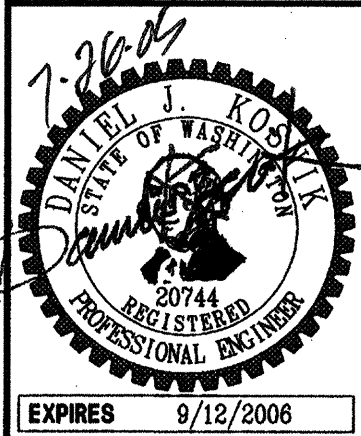
DESIGN CRITERIA

VERTICAL LOAD DESIGN:
 DESCRIPTION: LIVE LOAD: DEAD LOAD:
 SURCHARGE: 150 PSF NA
SEISMIC LOAD DESIGN:
 DUE TO THE LOW PROBABILITY OF LIQUEFACTION OF BACKFILL SOILS TYPICAL TO THIS AREA, AND THE LACK OF RECORD OF RETAINING WALL FAILURE DURING A SEISMIC EVENT, WE HAVE DETERMINED THAT ADDITIONAL LATERAL LOADING PRODUCED BY A SEISMIC EVENT IS RELATIVELY SMALL OR INSIGNIFICANT. WE HAVE ALSO DETERMINED THAT FACTORS OF SAFETY USED IN THIS DESIGN PROVIDE ADEQUATE STRENGTH TO SUPPORT ADDITIONAL LATERAL LOADING THAT MAY OCCUR DURING A SEISMIC EVENT.
WIND LOAD DESIGN:
 WIND LOADING ON BELOW GRADE WALLS IS NOT APPLICABLE
FOUNDATION DESIGN:
 FOUNDATION DESIGN IS BASED ON THE FOLLOWING ASSUMED VALUES TYPICAL OF THE SOIL TYPES DESCRIBED IN THE GEOTECHNICAL REPORT BY ASSOCIATED EARTH SCIENCES, INC. DATED MAY 5, 2005 & RECORD OF CONVERSATION DATED JULY 7, 2005:
 ALLOWABLE BEARING PRESSURE: 2,000 PSF
 LATERAL EARTH PRESSURES:
 RETAINING WALLS: 35 PCF EFW (DRAINED)
 PASSIVE RESISTANCE: 400 PCF EFW (ULTIMATE)
 COEFFICIENT OF BASE FRICTION: 0.50 (ULTIMATE)
 SATURATED SOIL DENSITY: 125 PCF

REVISIONS:

DATE	ISSUED FOR CONST. PERMIT APPLICATION
07-26-05	

Site Structures
 A Division of Koonik Engineering PC
 1600 MILL CREEK BLVD., SUITE G2
 MILL CREEK, WASHINGTON 98012
 PE (425) 743-7004 FAX (425) 743-1898



MILL CREEK EAST
STORM WATER DETENTION POND
CITY OF MILL CREEK, WASHINGTON

WALL ELEVATION
STRUCTURAL NOTES

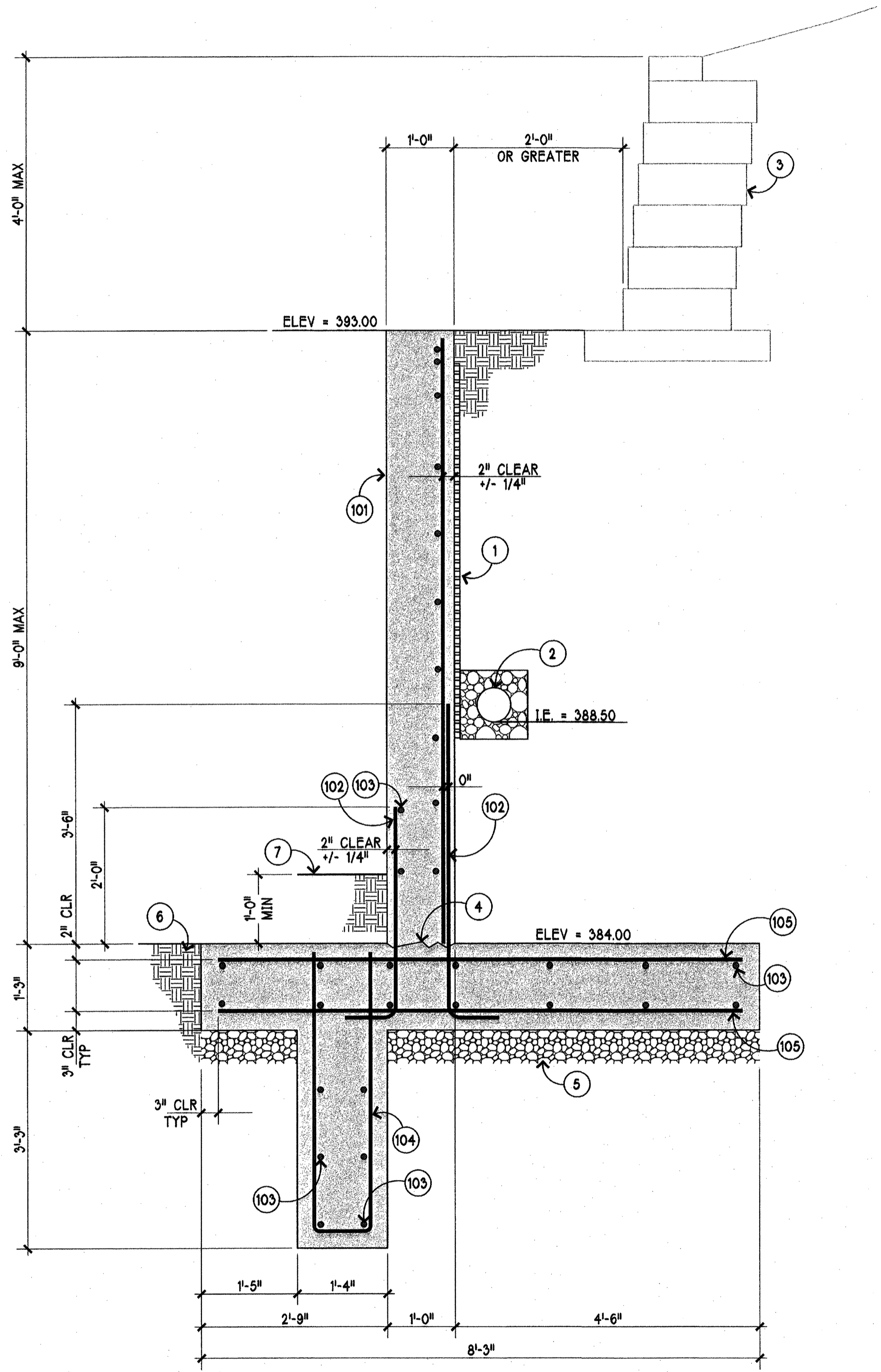
LIDEN-2271

SECTION KEYNOTES ⁽³⁾

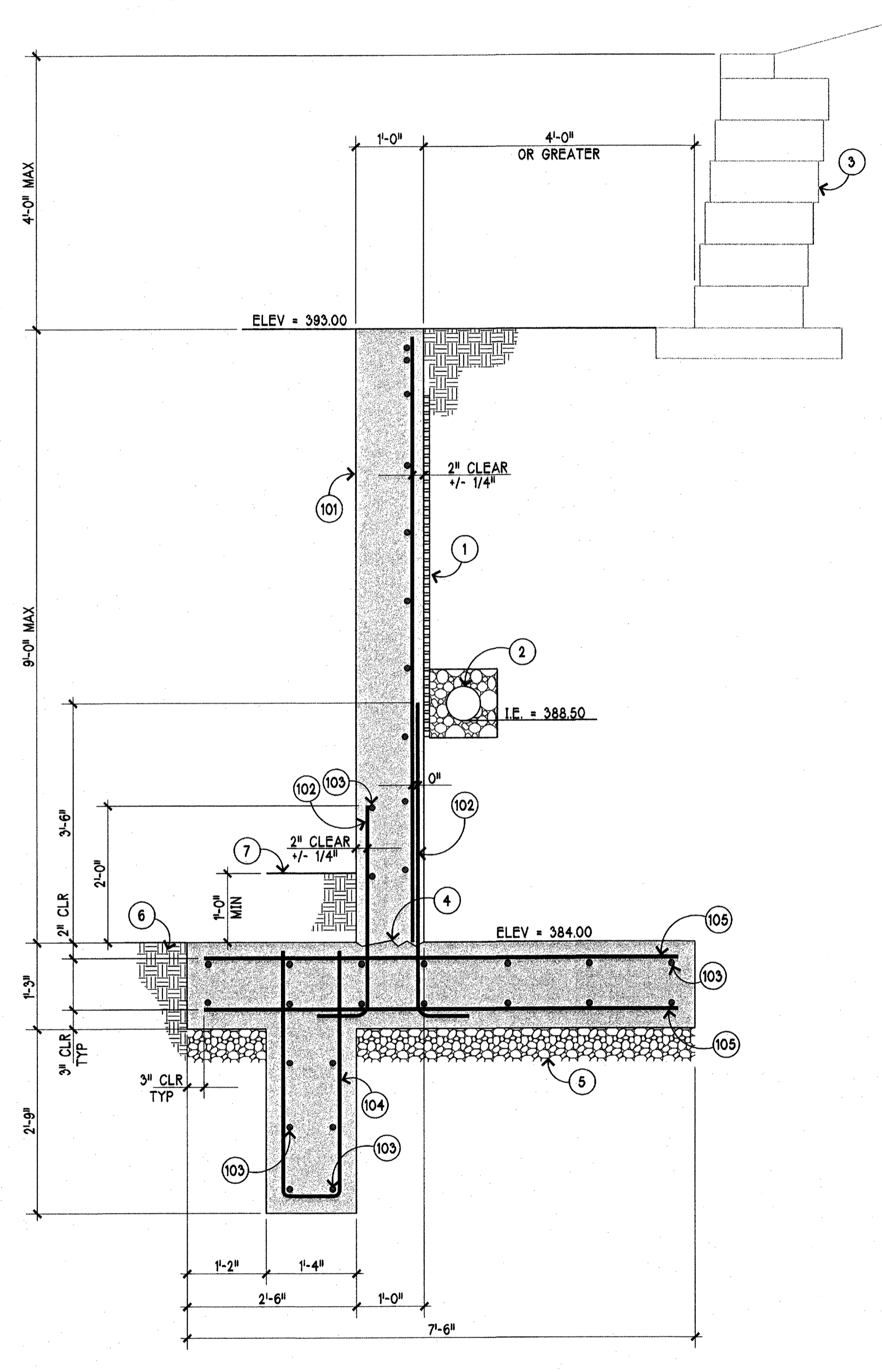
1. APPLY PREFABRICATED DRAINAGE PANEL OR FREE DRAINING GRAVEL BACKFILL AS SPECIFIED IN THE GEOTECHNICAL REPORT.
2. 6" PERFORATED PVC FOOTING DRAIN WRAPPED IN 12"x12" MINIMUM DRAIN ROCK BEDDING & FILTER FABRIC. ROUTE DRAIN TO DISCHARGE POINT AS SHOWN ON THE CIVIL DWGS.
3. MODULAR BLOCK WALL TO BE DESIGNED BY OTHERS.
4. LEAVE SURFACE BETWEEN FOOTING & WALL ROUGH.
5. INSTALL QUARRY SPAULS @ BASE OF FOOTINGS.
6. FOOTING TO BE CAST NEAT AGAINST DENSE GLACIAL DRIFT
7. FINISHED GRADE INSIDE OF POND

REINFORCING KEYNOTES ⁽¹⁰⁾

101. 12" THICK CONCRETE RETAINING WALL REINF w/ #5 @ 12"/c HORZ. & VERT. PLACED AS SHOWN IN THE WALL SECTIONS. PROVIDE 12-#5 CONTINUOUS HORZ BARS @ THE TOP OF THE WALL. SEE 5/51 FOR REINF @ WALL TRANSITION. SEE 2/51 FOR HORZ REINF @ WALL CORNERS
102. #6 WALL TO FOOTING DOWELS @ 12"/c.
103. #5 LONG AS SHOWN LAP 30" AT ALL SPLICE LOCATIONS.
104. #5 @ 12"/c AS SHOWN.
105. #6 @ 12"/c AS SHOWN.



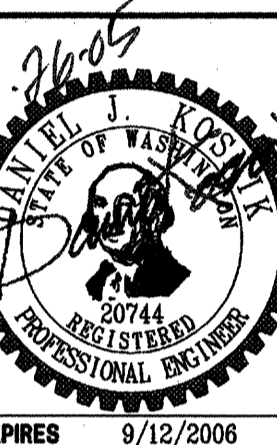
1
S3
RETAINING WALL SECTION
SCALE 3/4"=1'-0"



2
S3
RETAINING WALL SECTION
SCALE 3/4"=1'-0"

DATE	REVISIONS	ISSUED FOR CONST. PERMIT APPLICATION
07-26-05		

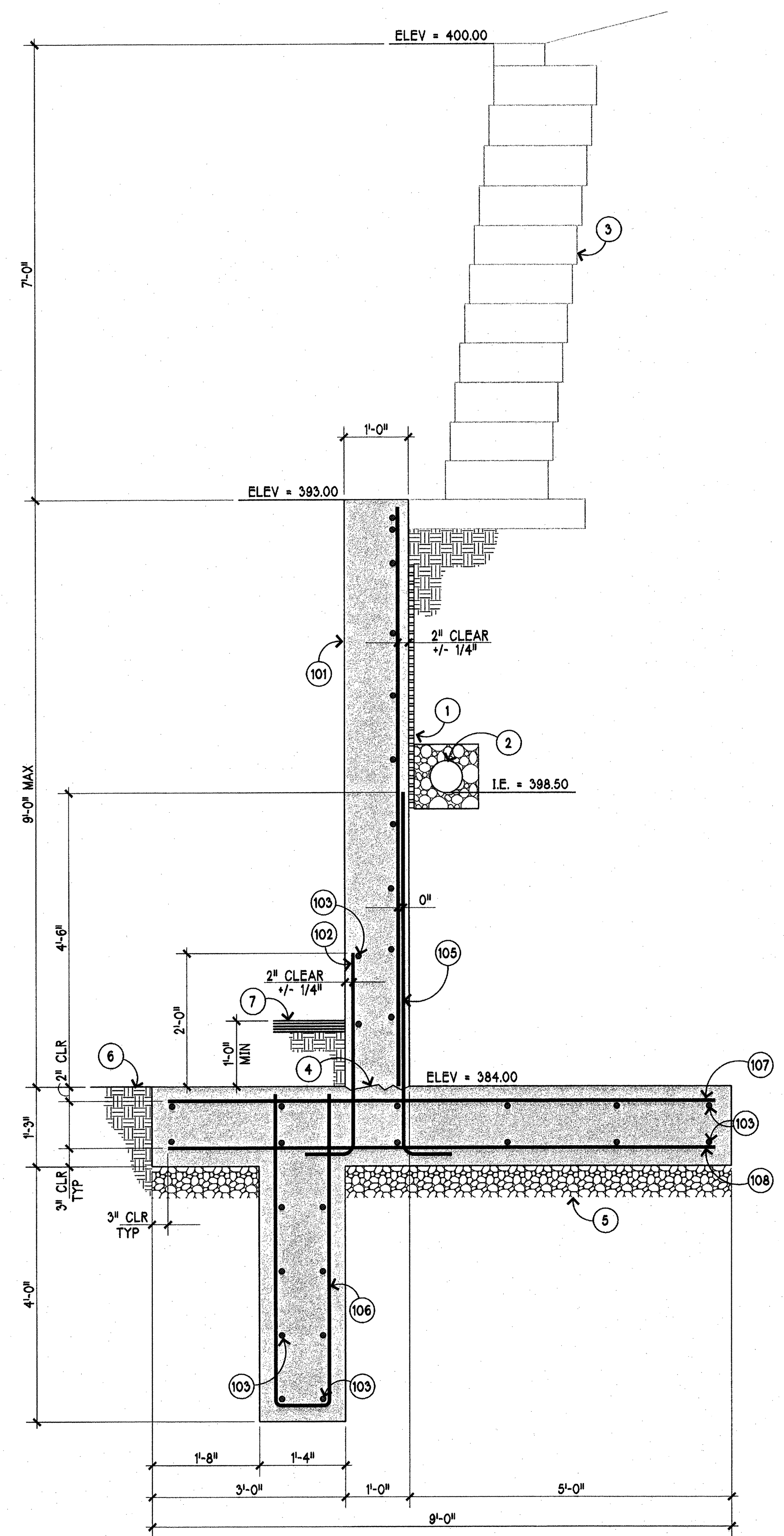
Site Structures
A Division of Kosanik Engineering PC
1600 MILL CREEK BLD., SUITE 02
MILL CREEK, WASHINGTON 98012
PE (650) 748-7004 FAX (650) 748-1868



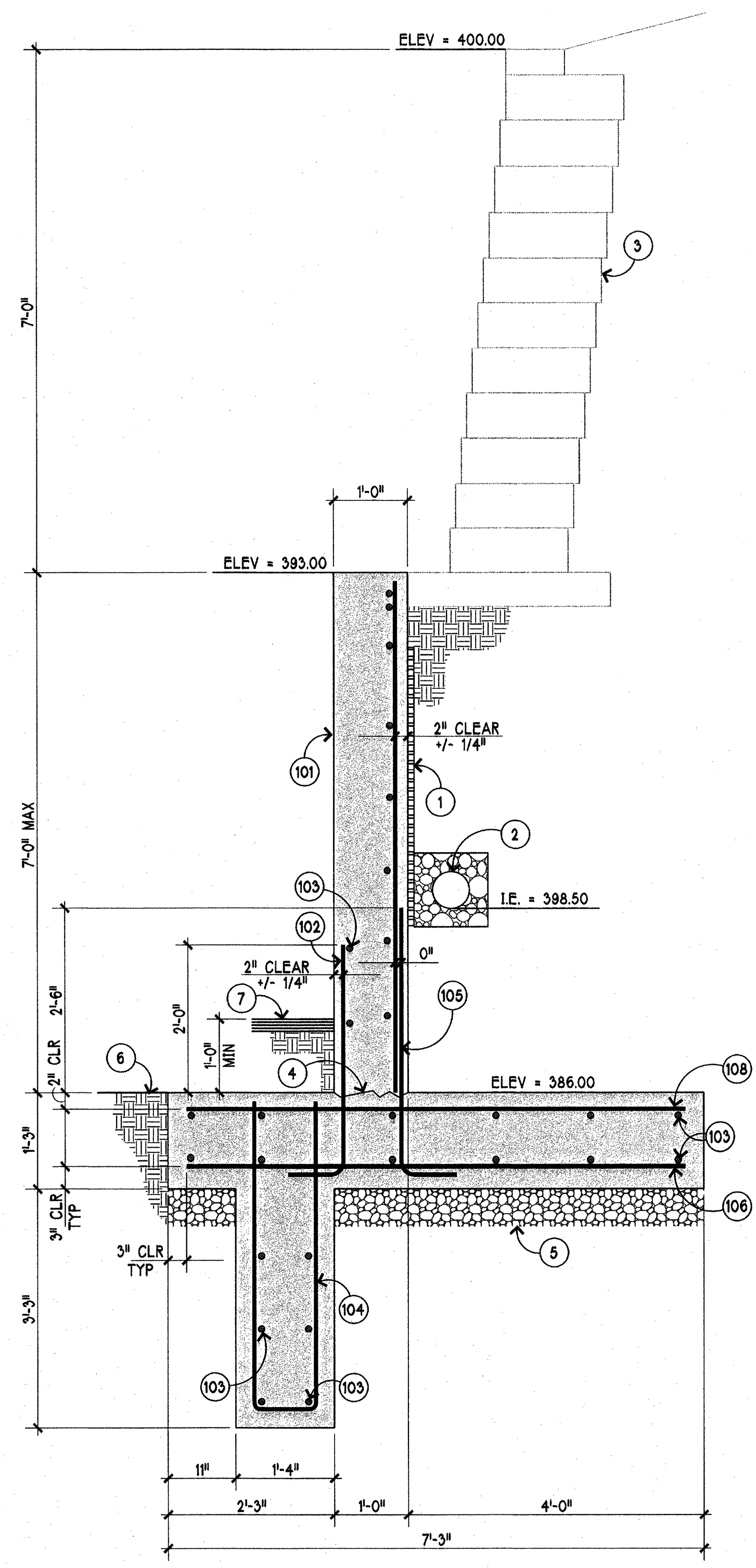
**MILL CREEK EAST
STORM WATER DETENTION POND
CITY OF MILL CREEK, WASHINGTON**

WALL SECTIONS

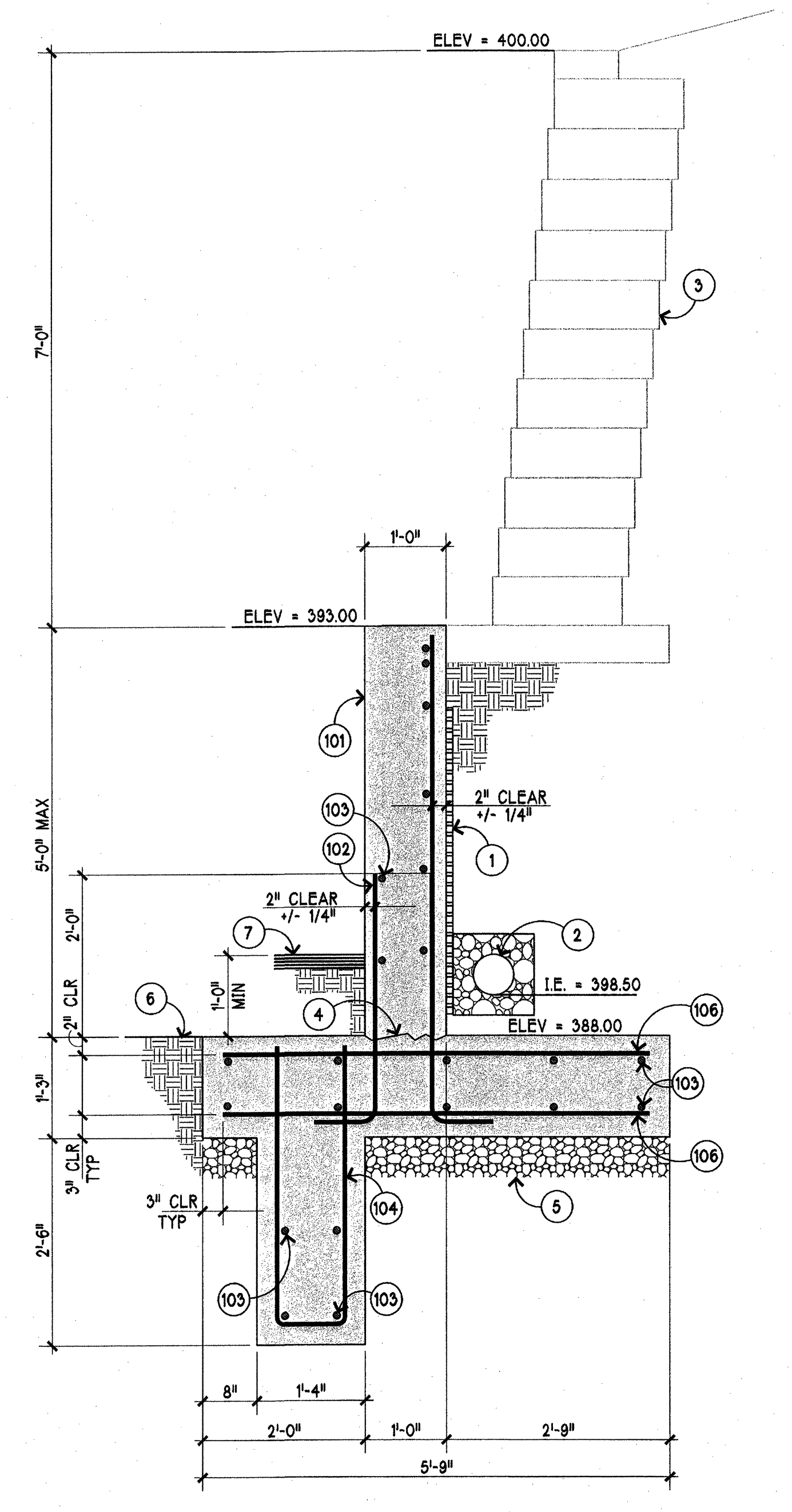
SHEET:
S3 OF 5
S-05-007



1
S4
RETAINING WALL SECTION
SCALE 3/4"=1'-0"



2
S4
RETAINING WALL SECTION
SCALE 3/4"=1'-0"



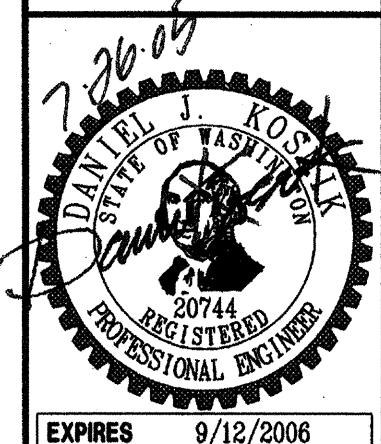
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S4
RETAINING WALL SECTION
SCALE 3/4"=1'-0"

- SECTION KEYNOTES**
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 3. MODULAR BLOCK WALL TO BE DESIGNED BY OTHERS.
 4. LEAVE SURFACE BETWEEN FOOTING & WALL ROUGH.
 5. INSTALL QUARRY SPAULS @ BASE OF FOOTINGS.
 6. FOOTING TO BE CAST NEAT AGAINST DENSE GLACIAL DRIFT
 7. PAVED ACCESS ROAD. ELEVATION VARIES SEE CIVIL DWGS.

- REINFORCING KEYNOTES**
101. 12" THICK CONCRETE RETAINING WALL REINF W/ #5 @ 12" o/c HORIZ. & #6@12" o/c VERT. PLACED AS SHOWN IN THE WALL SECTIONS. PROVIDE (2)-#5 CONTINUOUS HORIZ BARS @ THE TOP OF THE WALL. SEE 2/S1 FOR HORIZ REINF @ WALL CORNERS
 102. #6 WALL TO FOOTING DOWELS @ 12" o/c.
 103. #5 LONG AS SHOWN LAP 30" AT ALL SPLICE LOCATIONS.
 104. #5 @ 12" o/c AS SHOWN.
 105. #6 WALL TO FOOTING DOWELS @ 6" o/c.
 106. #6@12" o/c AS SHOWN.
 107. #8@12" o/c AS SHOWN.
 108. #7@12" o/c AS SHOWN.

REVISIONS:	ISSUED FOR CONST. PERMIT APPLICATION
DATE:	07-28-05

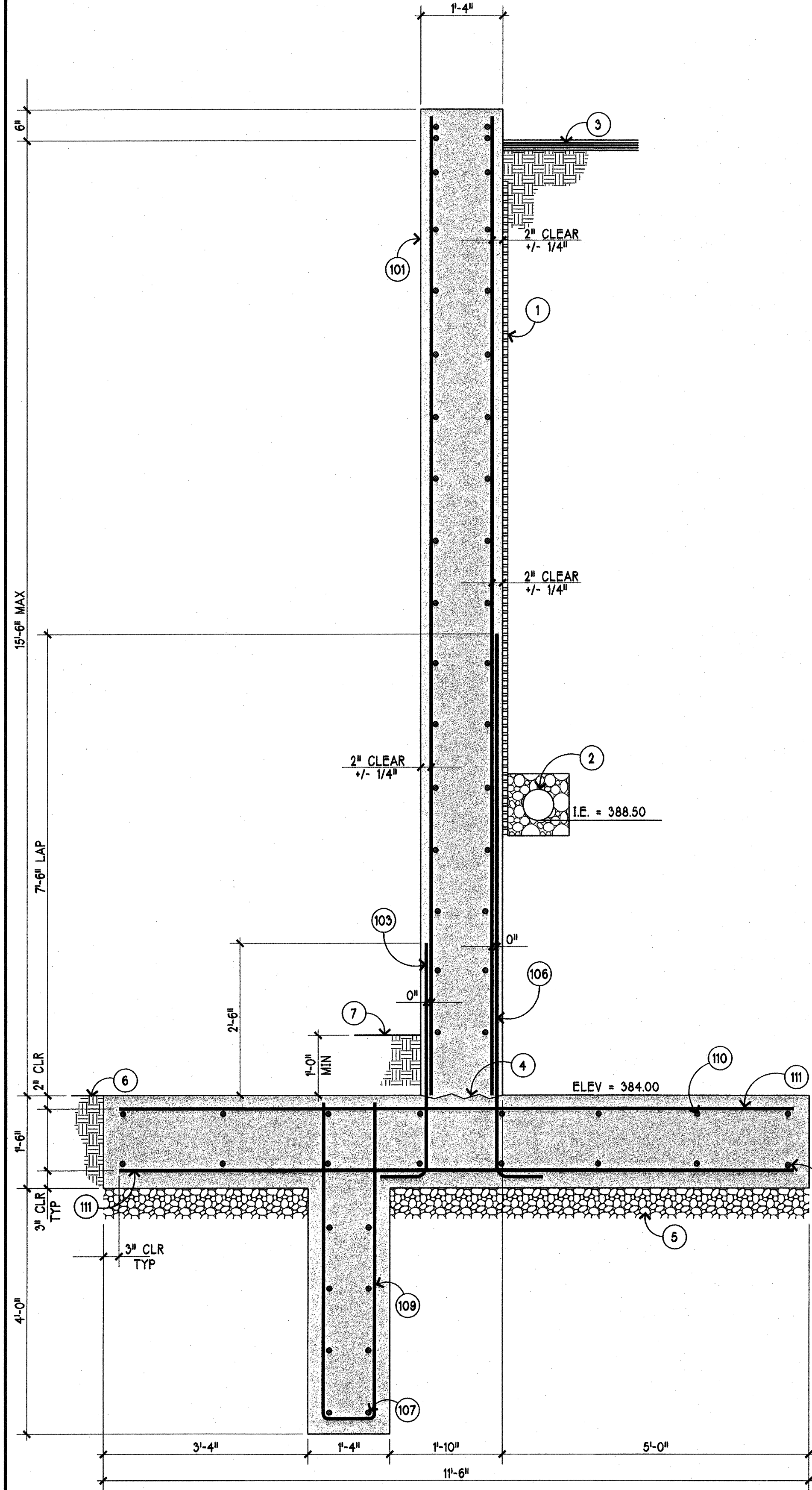
Site Structures
A Division of Koenig Engineering PC
1600 MILL CREEK BLVD., SUITE 02
MILL CREEK, WASHINGTON 98012
PH: (425) 748-7004 POC: (425) 748-1846



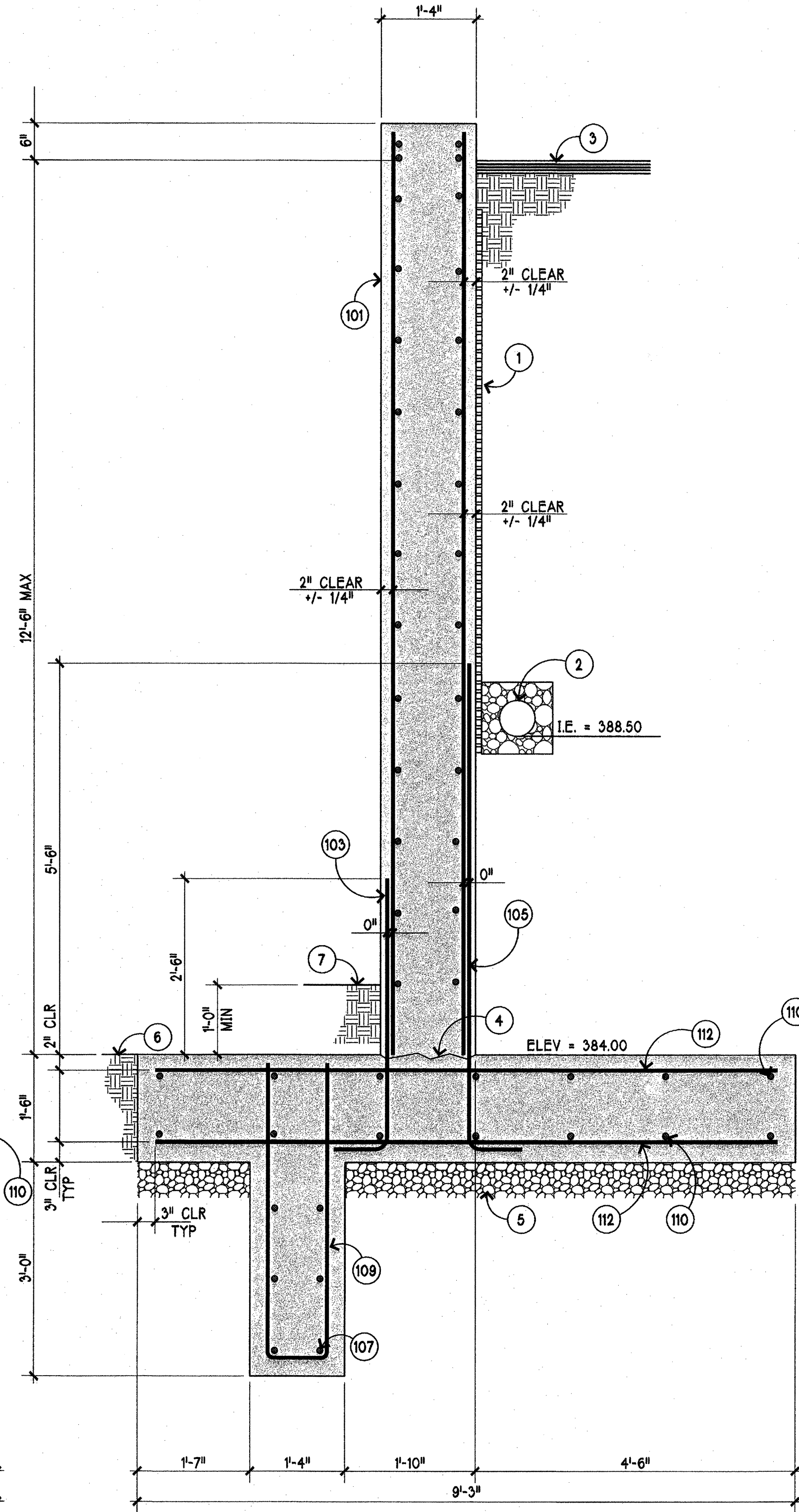
**MILL CREEK EAST
STORM WATER DETENTION POND
CITY OF MILL CREEK, WASHINGTON**

WALL SECTIONS

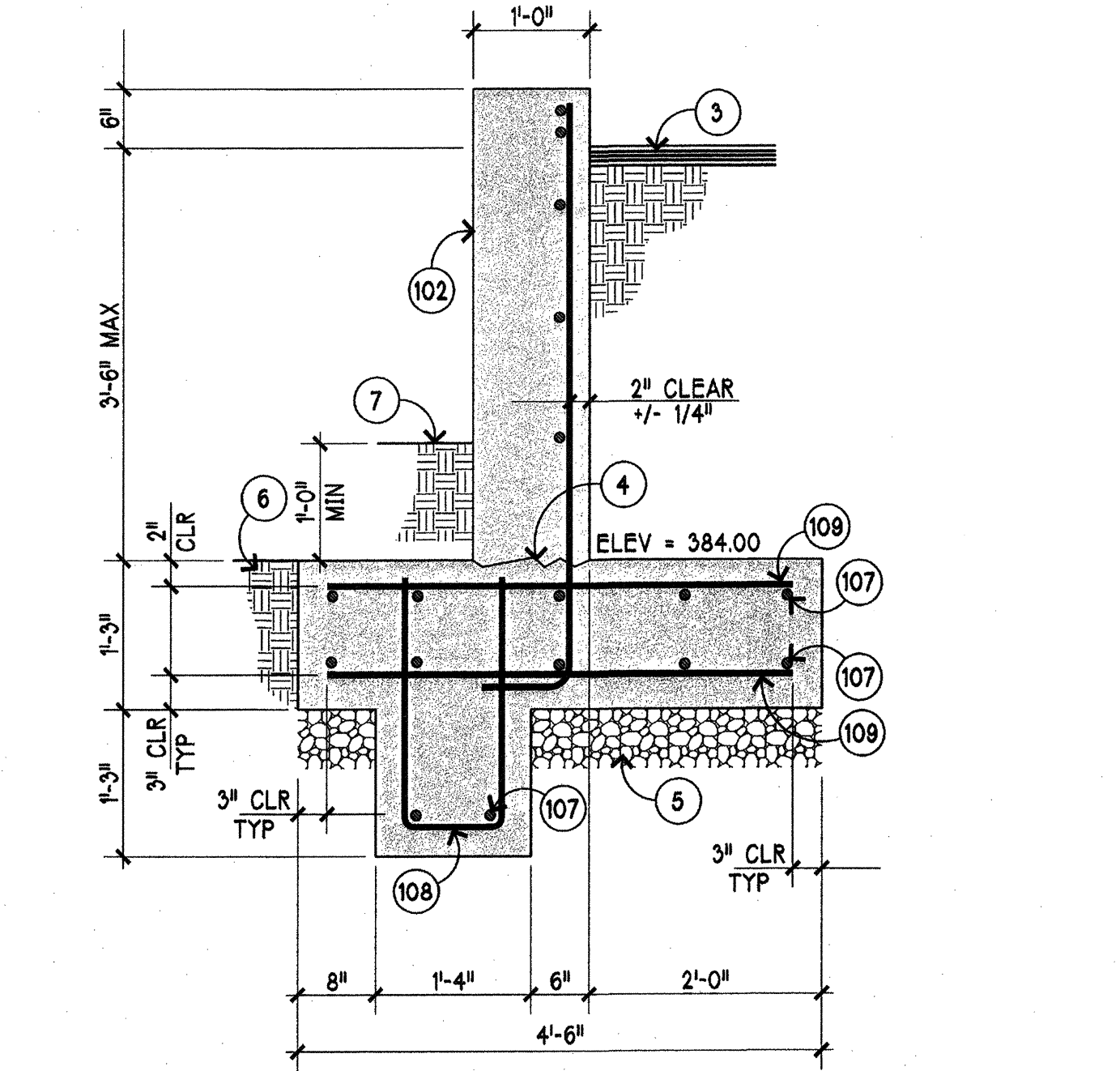
SHEET:
S4 OF 5
S-05-007



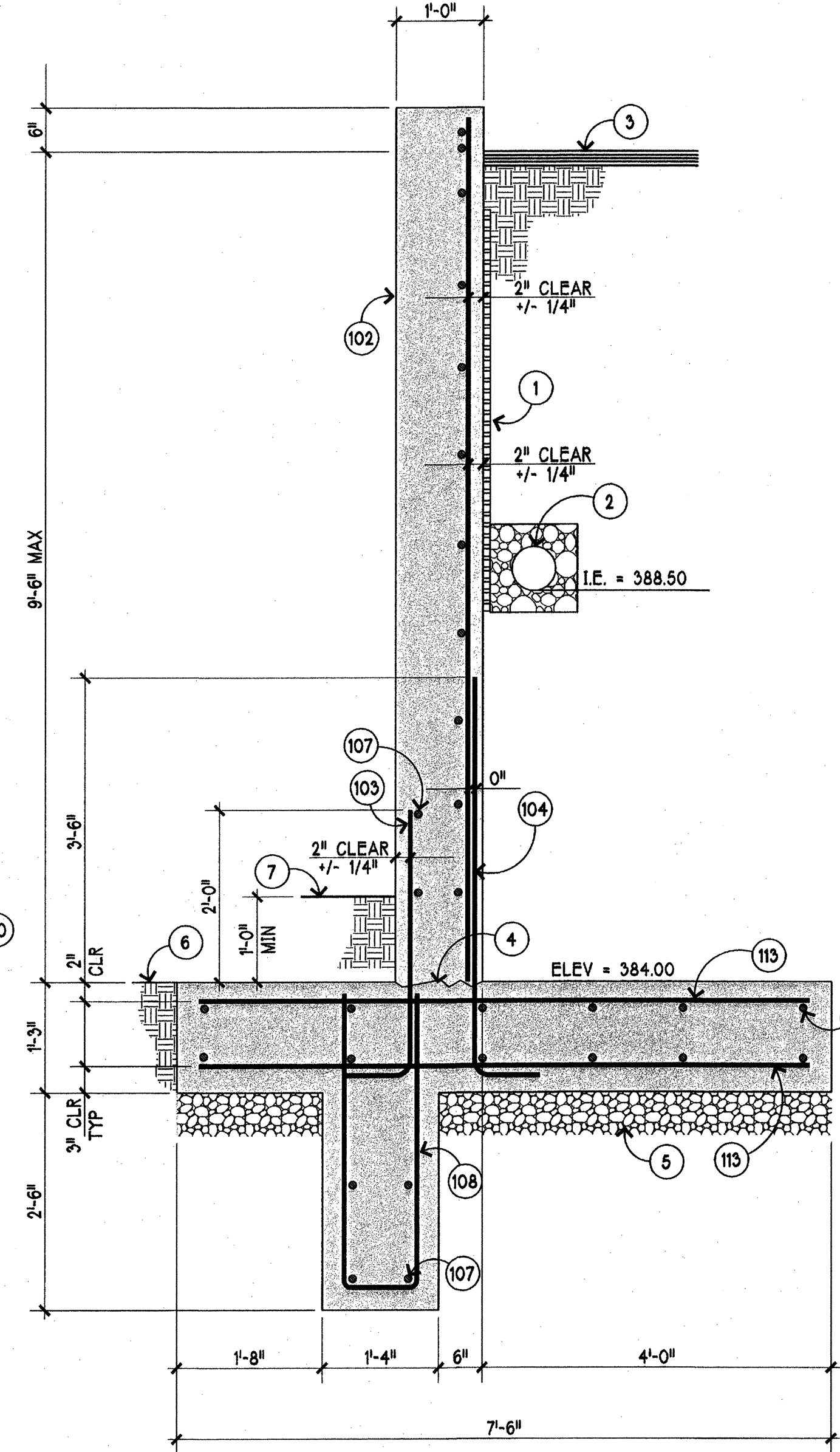
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S5 RETAINING WALL SECTION
SCALE 3/4"=1'-0"



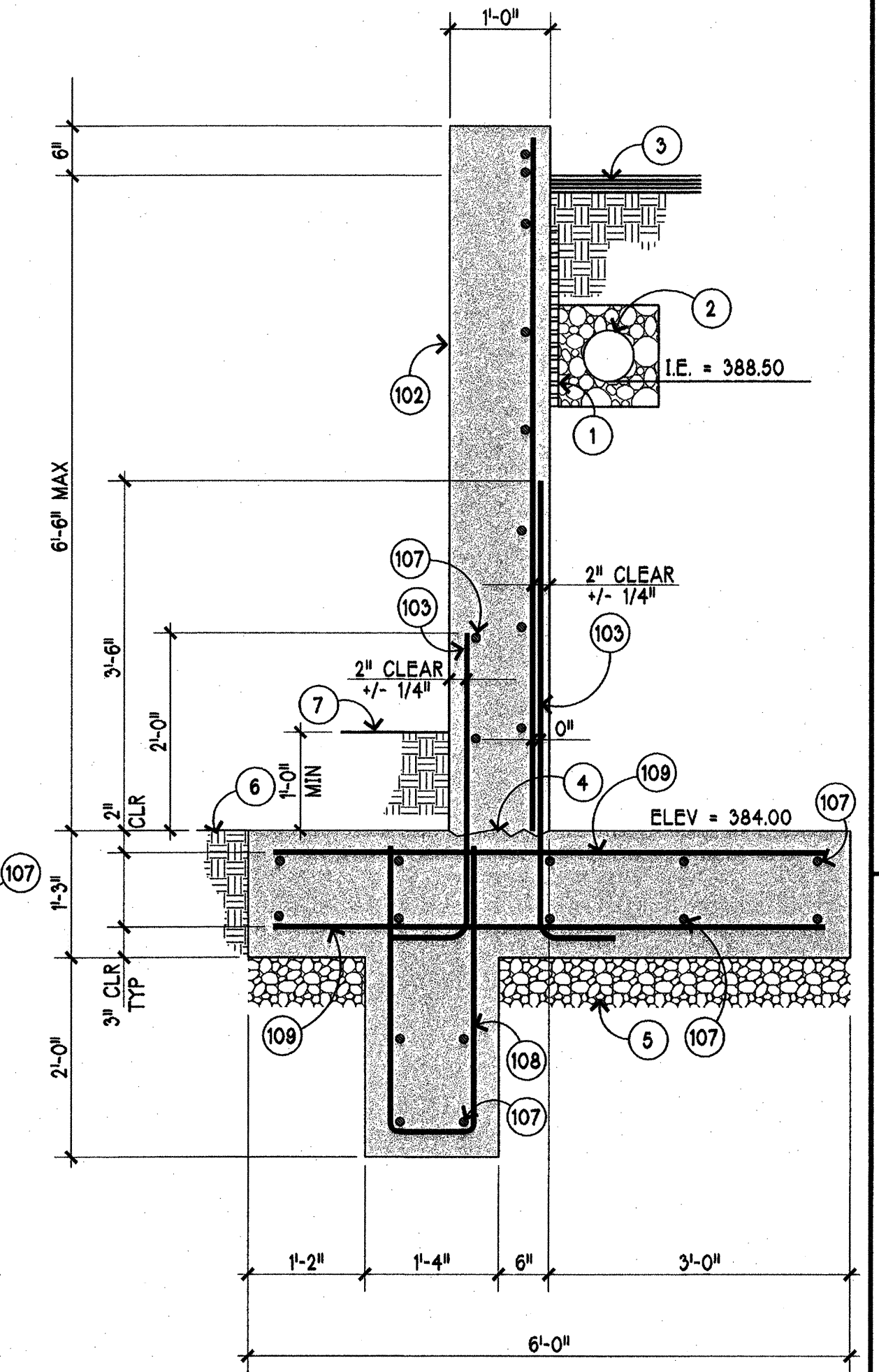
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SCALE 3/4"=1'-0"



5
S5 RETAINING WALL SECTION
SCALE 3/4"=1'-0"



3
S5 RETAINING WALL SECTION
SCALE 3/4"=1'-0"



4
S5 RETAINING WALL SECTION
SCALE 3/4"=1'-0"

SECTION KEYNOTES

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2. 6" PERFORATED PVC FOOTING DRAIN WRAPPED IN 12"x12" MINIMUM DRAIN ROCK BEDDING & FILTER FABRIC. ROUTE DRAIN TO DISCHARGE POINT AS SHOWN ON THE CIVIL DWGS.
3. PAVED ACCESS ROAD ELEVATION VARIES SEE CIVIL DWGS.
4. LEAVE SURFACE BETWEEN FOOTING & WALL ROUGH.
5. INSTALL QUARRY SPAULS @ BASE OF FOOTINGS.
6. FOOTING TO BE CAST NEAT AGAINST DEASE GLACIAL DRIFT
7. FINISHED GRADE INSIDE OF POND

REINFORCING KEYNOTES

101. 16" THICK CAST IN PLACE CONCRETE RETAINING WALL REINFORCE w/ #7@16" o/c VERT ON THE BACKFILL FACE OF THE WALL & #5@16" o/c VERT ON THE EXPOSED FACE OF THE WALL & #5@12" o/c HORZ EA FACE. PROVIDE (2)-#5 CONT HORZ EA FACE @ THE TOP OF THE WALL. LAP ALL HORZ BARS 30" @ ALL SPLICE LOCATIONS.
102. 12" THICK CONCRETE RETAINING WALL REINF w/ #5@12" o/c HORZ & #6@16" o/c VERT. PLACED AS SHOWN IN THE WALL SECTIONS. PROVIDE (2)-#5 CONTINUOUS HORZ BARS @ THE TOP OF THE WALL. SEE 2/S1 FOR HORZ REINF @ WALL CORNERS
103. #6 WALL TO FOOTING DOWELS @ 16" o/c.
104. #7 WALL TO FOOTING DOWELS @ 16" o/c.
105. #8 WALL TO FOOTING DOWELS @ 16" o/c.
106. #8 WALL TO FOOTING DOWELS @ 8" o/c.
107. #5 LONG AS SHOWN LAP 30" @ ALL SPLICE LOCATIONS.
108. #5@16" o/c AS SHOWN.
109. #6@16" o/c AS SHOWN.
110. #6 LONG AS SHOWN LAP 36" @ ALL SPLICE LOCATIONS.
111. #9@16" o/c AS SHOWN.
112. #8@16" o/c AS SHOWN.
113. #7@16" o/c AS SHOWN.

REVISIONS:	DATE:	ISSUED FOR CONST. PERMIT APPLICATION
	07-26-05	

Site Structures
A Division of Koenig Engineering PC
1600 MILL CREEK BLVD., SUITE 202
MILL CREEK, WASHINGTON 98012
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Professional Engineer
Koenig Engineering PC
20744
REGISTERED
PROFESSIONAL ENGINEER
EXPIRES 9/12/2006

**MILL CREEK EAST
STORM WATER DETENTION POND
CITY OF MILL CREEK, WASHINGTON**

WALL SECTIONS

SHEET:
S5 OF 5
S-05-007