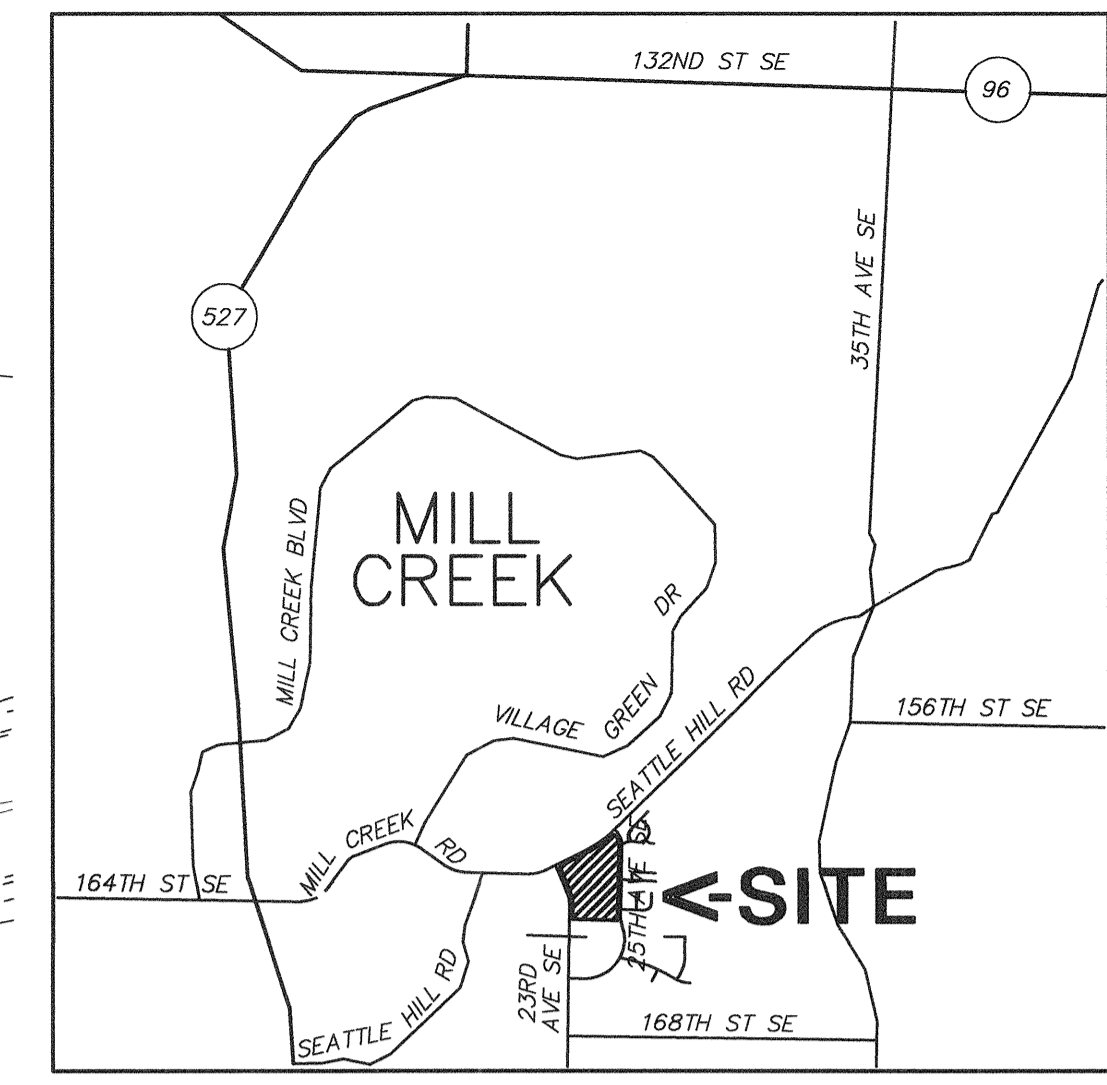
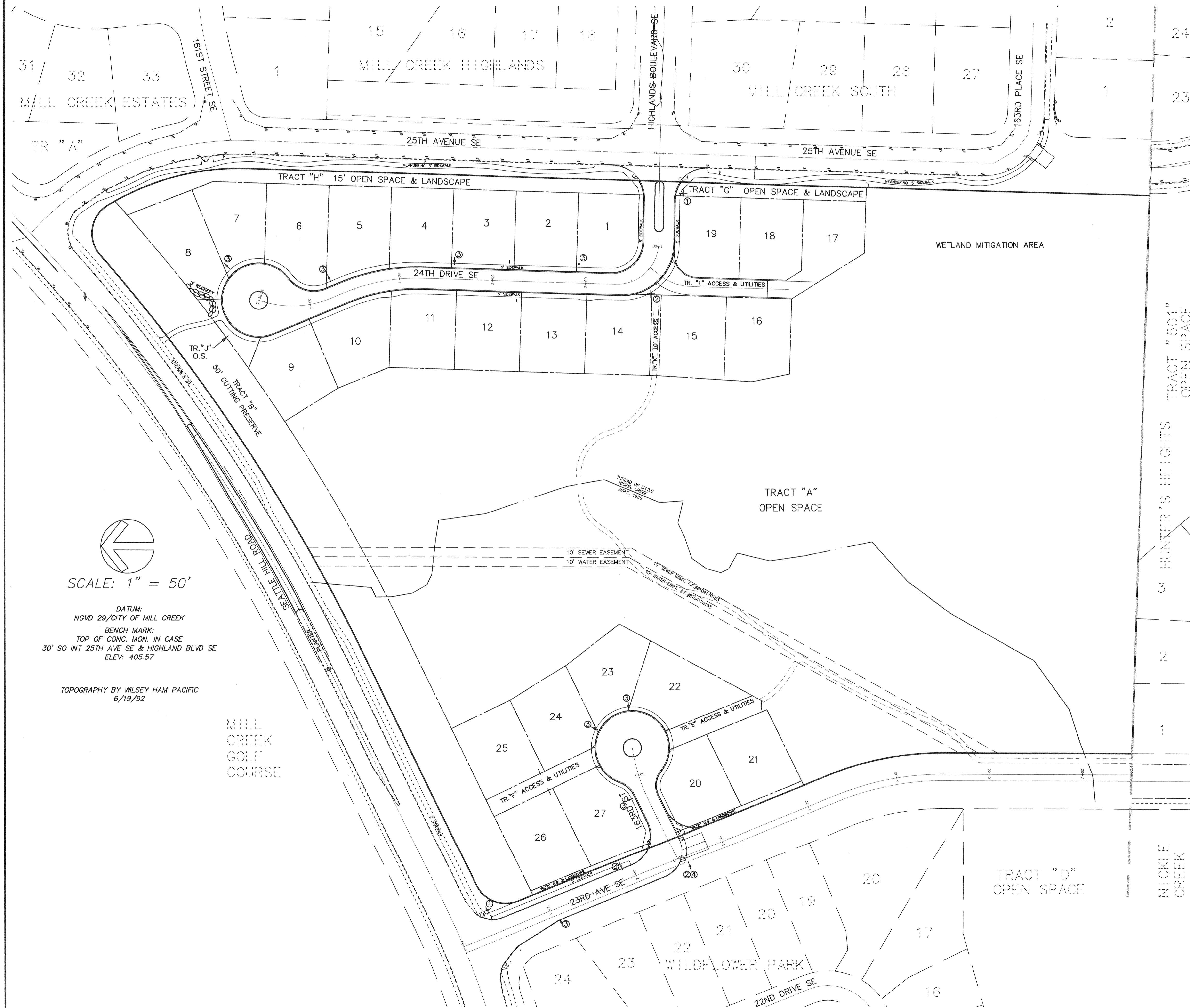


SW 1/4, SEC 5, TWP 27 N, RGE 5 E, WM



VICINITY MAP
SCALE: 1" = 2560'

LEGAL DESCRIPTION:
 PARCEL D-2 OF LARGE TRACT SEGREGATION 21 (6-81), ACCORDING TO THE SURVEY RECORDED IN VOLUME 15 OF SURVEYS, PAGE 56, UNDER AUDITOR'S FILE NO. 8112075004;
 (BEING A PORTION OF THE SOUTHWEST QUARTER OF SECTION 5, TOWNSHIP 27 NORTH, RANGE 5 EAST, W.M.)
 SITUATE IN THE COUNTY OF SNOHOMISH, STATE OF WASHINGTON.

OWNER/DEVELOPER: WILLIAM E. BUCHAN, INC.
 11555 NORTHP WAY
 BELLEVUE, WASHINGTON 98004
 PHONE: 425.828.4624

LAND SURVEYOR/ENGINEER: KENT ROBINSON
 OSTERGAARD-ROBINSON & ASSOCIATES, INC.
 3630 COLBY AVENUE
 EVERETT, WASHINGTON 98201
 PHONE: 425.259.6445

PLANNER: DON MILLER
 GWC
 8888 45TH PLACE W
 MUKILTEO, WASHINGTON 98272
 PHONE: 425.347.4627

SANITARY SEWER: ALDERWOOD WATER DISTRICT
 WATER: ALDERWOOD WATER DISTRICT
 TELEPHONE: SNOHOMISH COUNTY PUD
 GAS: WASHINGTON NATURAL GAS
 FIRE DISTRICT: FIRE DISTRICT #7
 SCHOOL DISTRICT: EVERETT SCHOOL DISTRICT #2

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CLEARING, GRADING & TESC:	VAULT PLAN & DETAILS 5/11
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MEANDERING SIDEWALK:	PLAN 8/11
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MEDIAN CHANNELIZATION & PLANTER:	20 SCALE PLANS 10/11
	PLAN 11/11

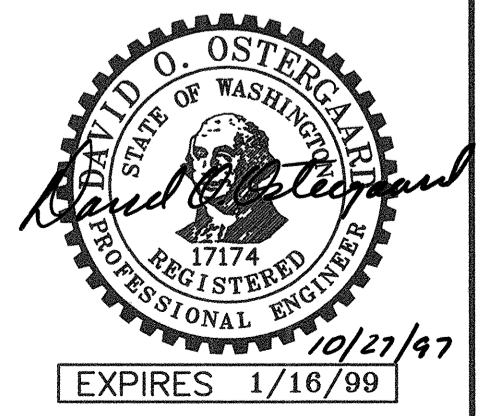
ACCEPTED FOR CONSTRUCTION
 CITY OF MILL CREEK

 CITY ENGINEER 10/29/97 DATE

ACCEPTED AS IN COMPLIANCE
 WITH CONDITIONS OF APPROVAL

 DIRECTOR OF COMMUNITY DEVELOPMENT 10-29-97 DATE

G.W.C.
 Land Development Consulting
 8888 45th Pl. W.
 Mukilteo, Wa. 98275
 347-4627 & 828-9881



DATE	REVISION	BY
8/4/97	PER CITY REVIEW COMMENTS	ME
9/11/97	PER CITY REVIEW COMMENTS(2ND REV)	ME
10/10/97	PER CITY REVIEW COMMENTS(3RD REV)	ME

OSTERGAARD • ROBINSON & ASSOC. INC. CONSULTING ENGINEERS
 3630 COLBY AVENUE
 (206) 259-6445
 EVERETT, WA 98201
 BELLEVUE: (206) 827-6864

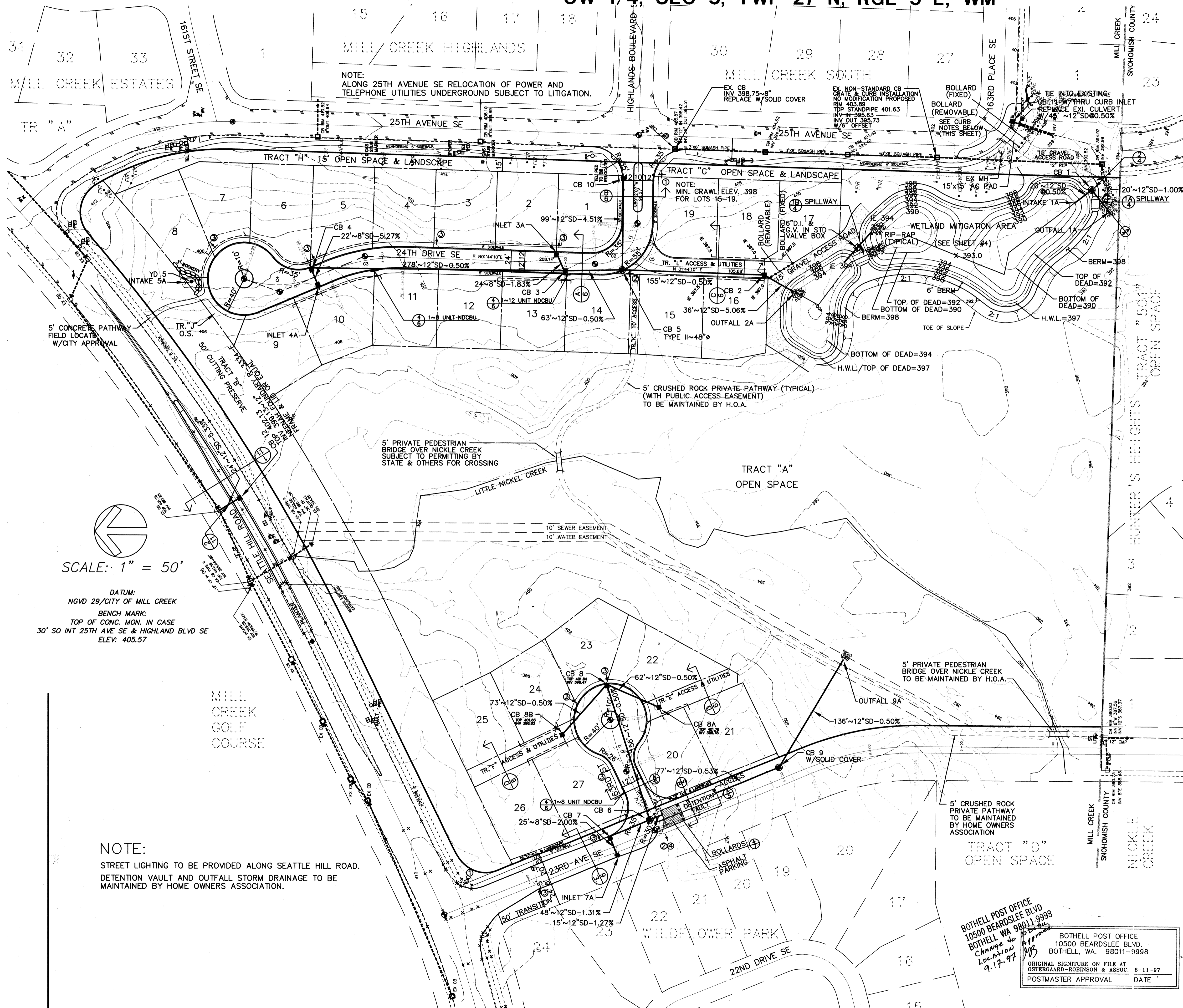
COVER SHEET
 WASHINGTON
 CITY OF MILL CREEK

Designed	KR
Drawn	ME
Checked	KR
Drawing	96173
View	COVER

Sheet 1 of 11

Job No. 96173

SW 1/4, SEC 5, TWP 27 N, RGE 5 E, WM



STORM DRAIN TABLE

STRUCTURE	TOP	INVERT	PIPE SIZE	COMMENT
CB 1	399.10	391.90	12	TYPE II~72"Ø W/SOLID LOCKING LID W/RESTRICTOR
INTAKE 1A	----	392.00	12	W/DEBRIS BARRIER
OUTFALL 1B	----	391.70	12	W/RIP-RAP
CB 2	399.26	396.82	12	W/VANED GRATE
OUTFALL 2A	----	395.00	12	W/RIP-RAP
CB 3	402.32	398.98	8	W/THRU CURB INLET
INLET 3A	402.42	399.42	8	W/THRU CURB INLET
CB 4	401.87	399.63	8	W/THRU CURB INLET
INLET 4A	401.87	400.79	8	W/THRU CURB INLET
CB 5	403.19	397.60	12	TYPE II~48"Ø
CB 6	404.68	401.19	12	TYPE II~48"Ø
VAULT 6A	403.00	397.50	12	
CB 7	405.65	402.15	8	
INLET 7A	405.65	402.65	8	
CB 8	401.54	398.47	12	W/THRU CURB INLET
CB 8A	401.78	398.78	12	W/VANED GRATE
CB 8B	401.83	398.83	12	W/VANED GRATE
CB 9	401.47	392.61	12	TYPE II~48"Ø
OUTFALL 9A	----	391.93	12	W/RIP-RAP
CB 10	405.07	402.07	12	
CB 11	399.86	396.86	12	W/THRU CURB INLET
CB 12	402.13	399.13	12	

CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
C1	45.00'	28.73'	36°34'26"
C2	45.00'	42.70'	54°21'50"
C3	200.00'	85.65'	24°32'08"
C4	106.00'	78.86'	42°37'35"
C5	55.00'	34.21'	35°38'10"
C6	198.27'	59.48'	17°11'18"

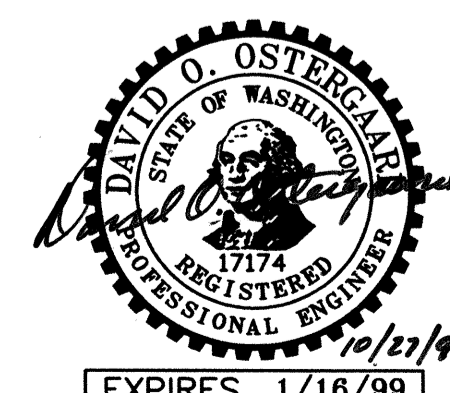
LEGEND

- PROPOSED TYPE II CATCH BASIN SIZED AS SPECIFIED
- PROPOSED TYPE I CATCH BASIN OR INLET AS SPECIFIED
- EXISTING TYPE I CATCH BASIN OR INLET AS SPECIFIED
- ⊕ MONUMENT IN CASE
- ROOF DOWNSPOUT LINE
- SD STORM DRAIN
- +⊕ STOP SIGN & STREET NAME SIGN (CITY STANDARD)
- +⊙ STREET NAME SIGN (CITY STANDARD)
- +⊖ NO PARKING SIGN
- +⊗ W-6 LEFT TURN SIGN

ACCEPTED FOR CONSTRUCTION
CITY OF MILL CREEK
Angie Stapher 10/29/97
CITY ENGINEER DATE

ACCEPTED AS IN COMPLIANCE
WITH CONDITIONS OF APPROVAL
William J. Dunn 10-29-97
DIRECTOR OF COMMUNITY DEVELOPMENT DATE

G.W.C.
Land Development Consulting
8888 45th Pl. W.
Mukilteo, Wa. 98275
347-4627 & 828-9881



SCALE: 1" = 50'

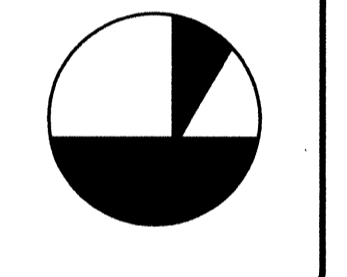
DATUM:
NGVD 29/CITY OF MILL CREEK
BENCH MARK:
TOP OF CONC. MON. IN CASE
30' SO INT 25TH AVE SE & HIGHLAND BLVD SE
ELEV. 405.57

NOTE:
STREET LIGHTING TO BE PROVIDED ALONG SEATTLE HILL ROAD.
DETENTION VAULT AND OUTFALL STORM DRAINAGE TO BE MAINTAINED BY HOME OWNERS ASSOCIATION.

BOTHELL POST OFFICE
10500 BEARDSLEE BLVD.
BOTHELL, WA. 98011-9998
Change to Location 9.17.97
ORIGINAL SIGNATURE ON FILE AT OSTERGAARD-ROBINSON & ASSOC. 6-11-97
POSTMASTER APPROVAL DATE

REVISION	DATE	BY	ME
PER CITY REVIEW COMMENTS	8/4/97	ME	ME
PER CITY REVIEW COMMENTS(2ND REV)	9/11/97	ME	ME
PER CITY REVIEW COMMENTS(3RD REV)	10/10/97	ME	ME

OSTERGAARD • ROBINSON & ASSOC. INC. CONSULTING ENGINEERS
3630 COLBY AVENUE
BELLEVUE, WA 98001
(206) 259-6445



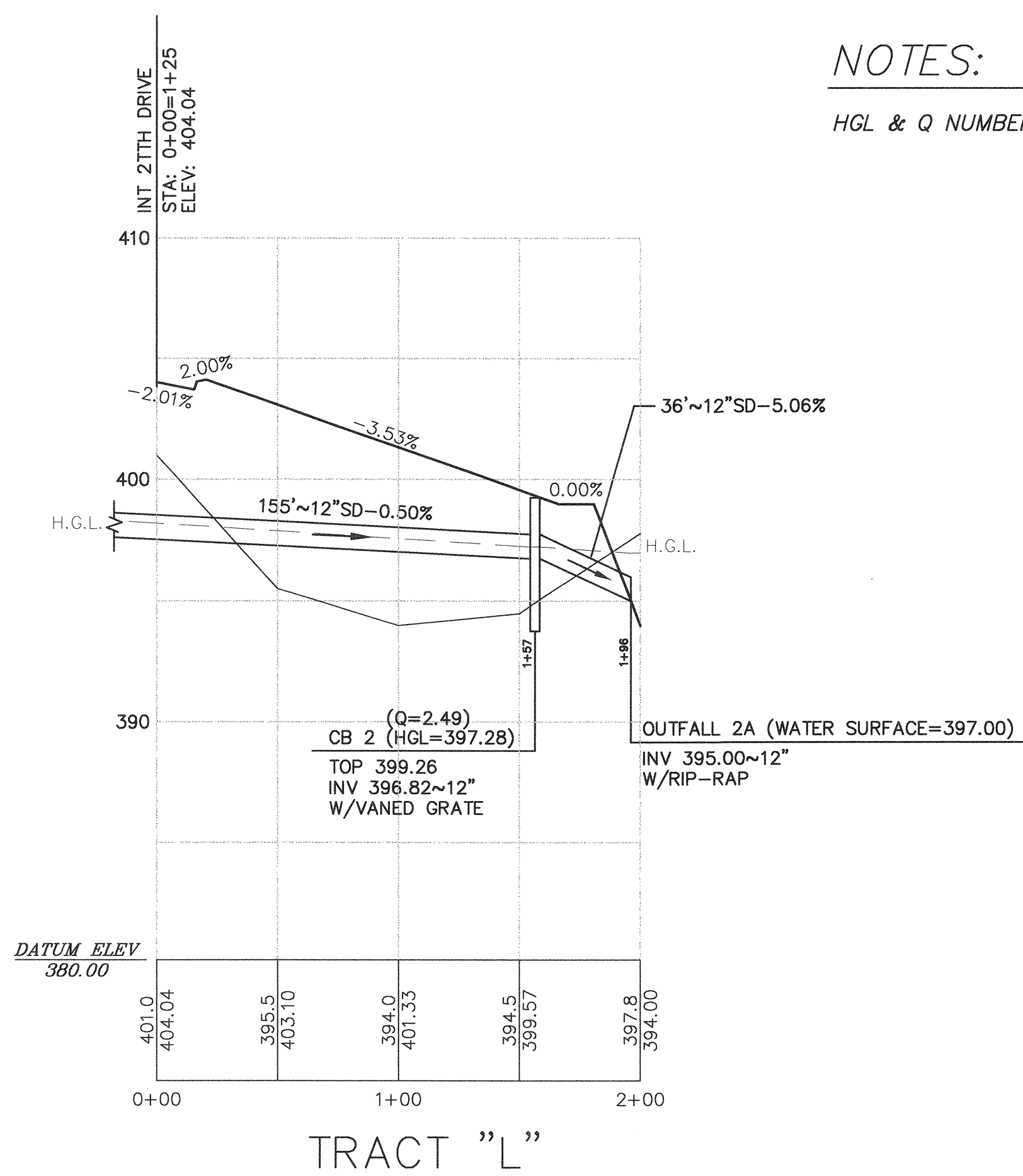
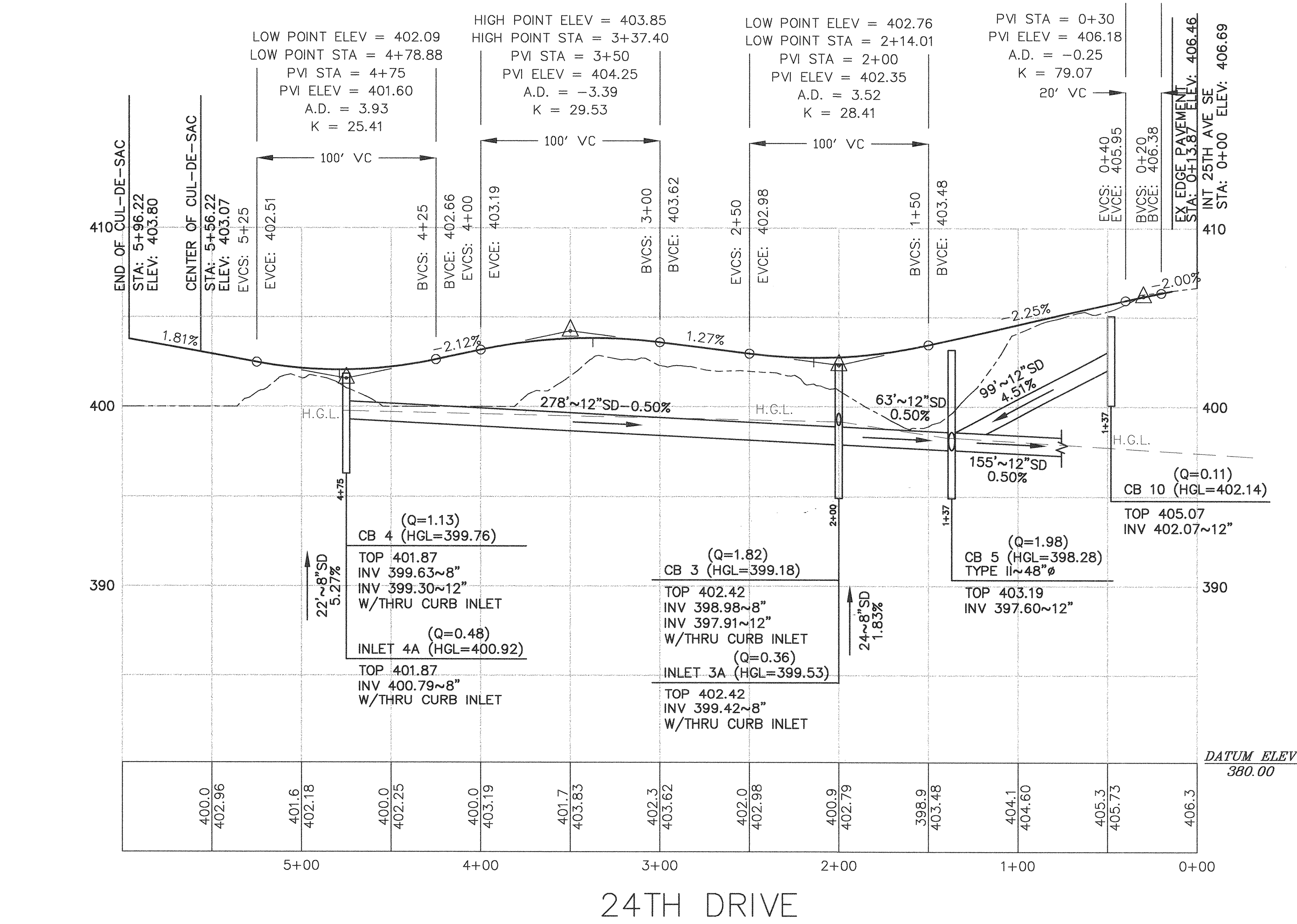
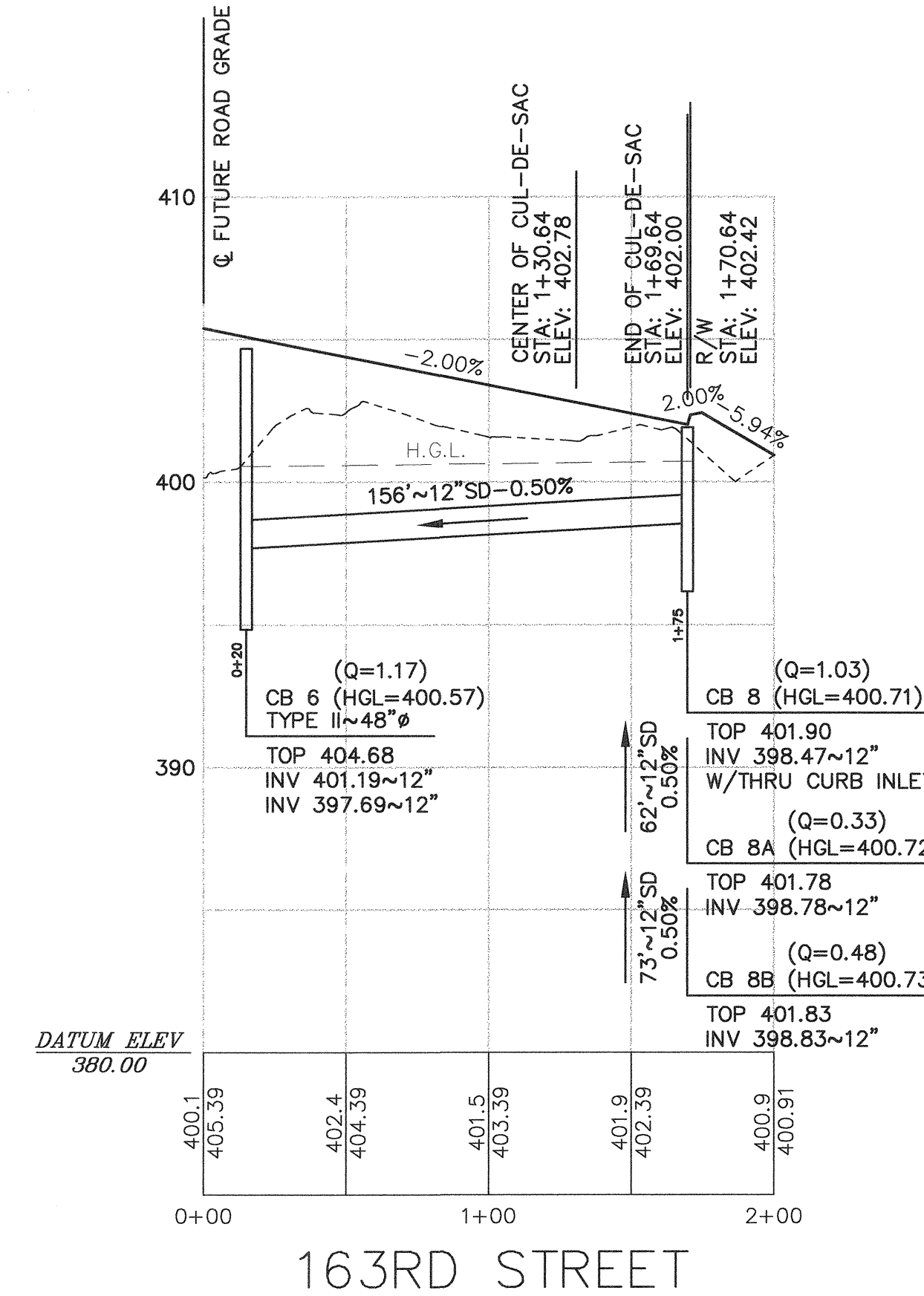
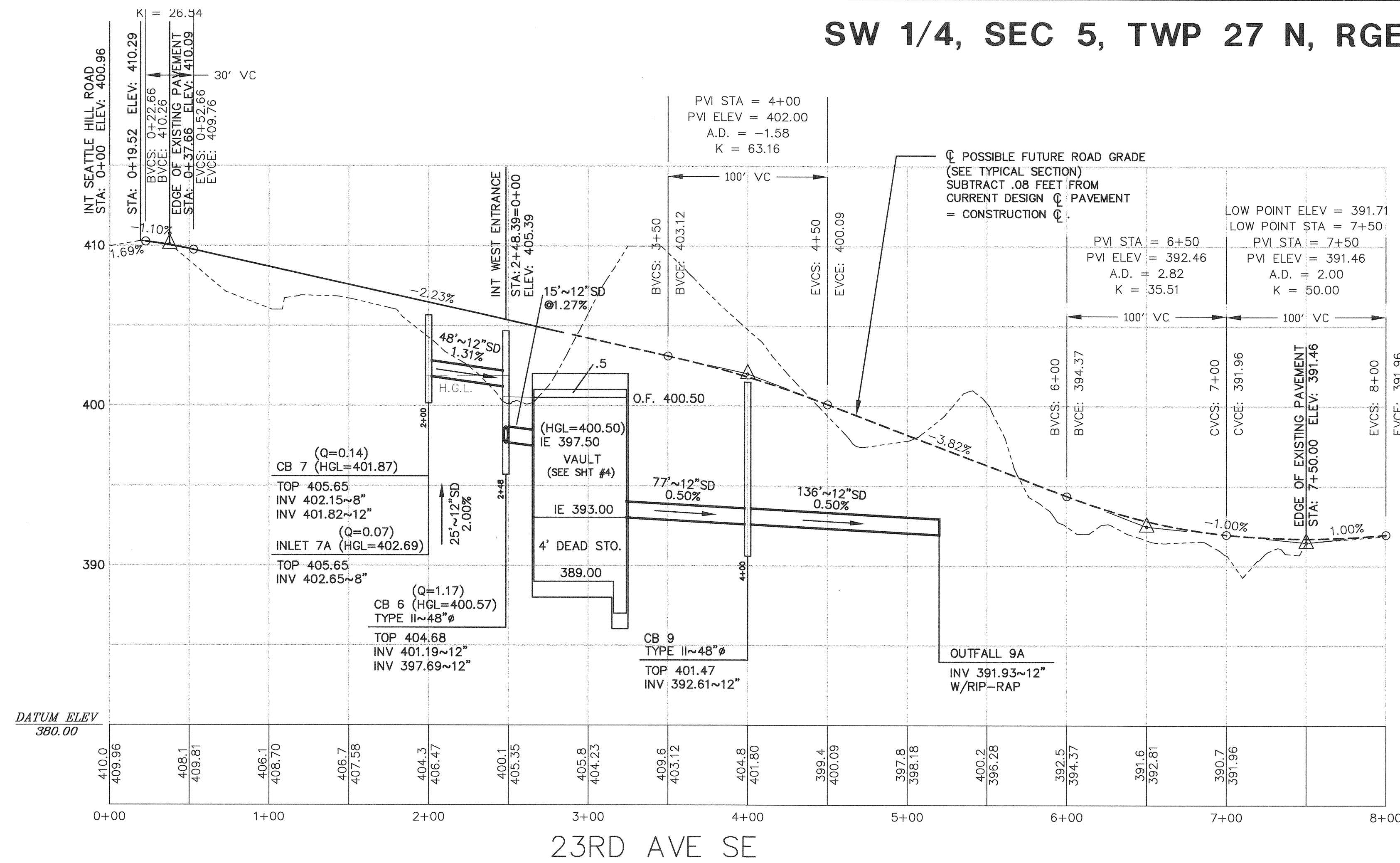
ROAD + STORM PLAN
CITY OF MILL CREEK
WASHINGTON

Designed KR
Drawn ME
Checked DM
Drawing 96173
View RS-PLAN

Sheet 2 of 11

Job No. 96173

SW 1/4, SEC 5, TWP 27 N, RGE 5 E, WM

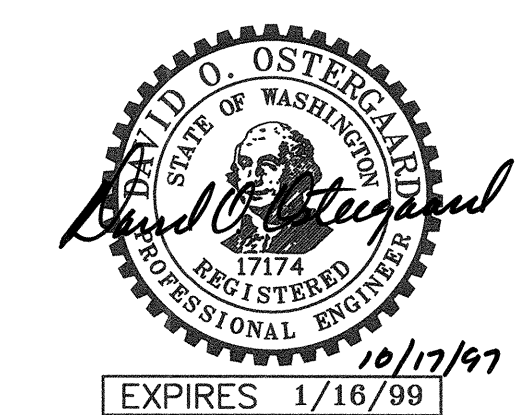


NOTES:
HGL & Q NUMBERS ARE FOR 100 YEAR - 24 HOUR STORMS.

ACCEPTED FOR CONSTRUCTION
CITY OF MILL CREEK
[Signature] 10/21/97
CITY ENGINEER DATE

ACCEPTED AS IN COMPLIANCE
WITH CONDITIONS OF APPROVAL
[Signature] 10.21.97
DIRECTOR OF COMMUNITY DEVELOPMENT DATE

G.W.C.
Land Development Consulting
8888 45th Pl. W.
Mukilteo, Wa. 98275
347-4627 & 828-9881



DATE	REVISION	BY
8/4/97	PER CITY REVIEW COMMENTS	ME
9/11/97	PER CITY REVIEW COMMENTS(2ND REV)	ME
10/10/97	PER CITY REVIEW COMMENTS(3RD REV)	ME

OSTERGAARD & ASSOC. INC. CONSULTING ENGINEERS
3630 COLBY AVENUE
(206) 259-6445
EVERETT, WA 98201
BELLEVUE: (206) 827-5854

ROBINSON
EVERETT, WA 98201
BELLEVUE: (206) 827-5854

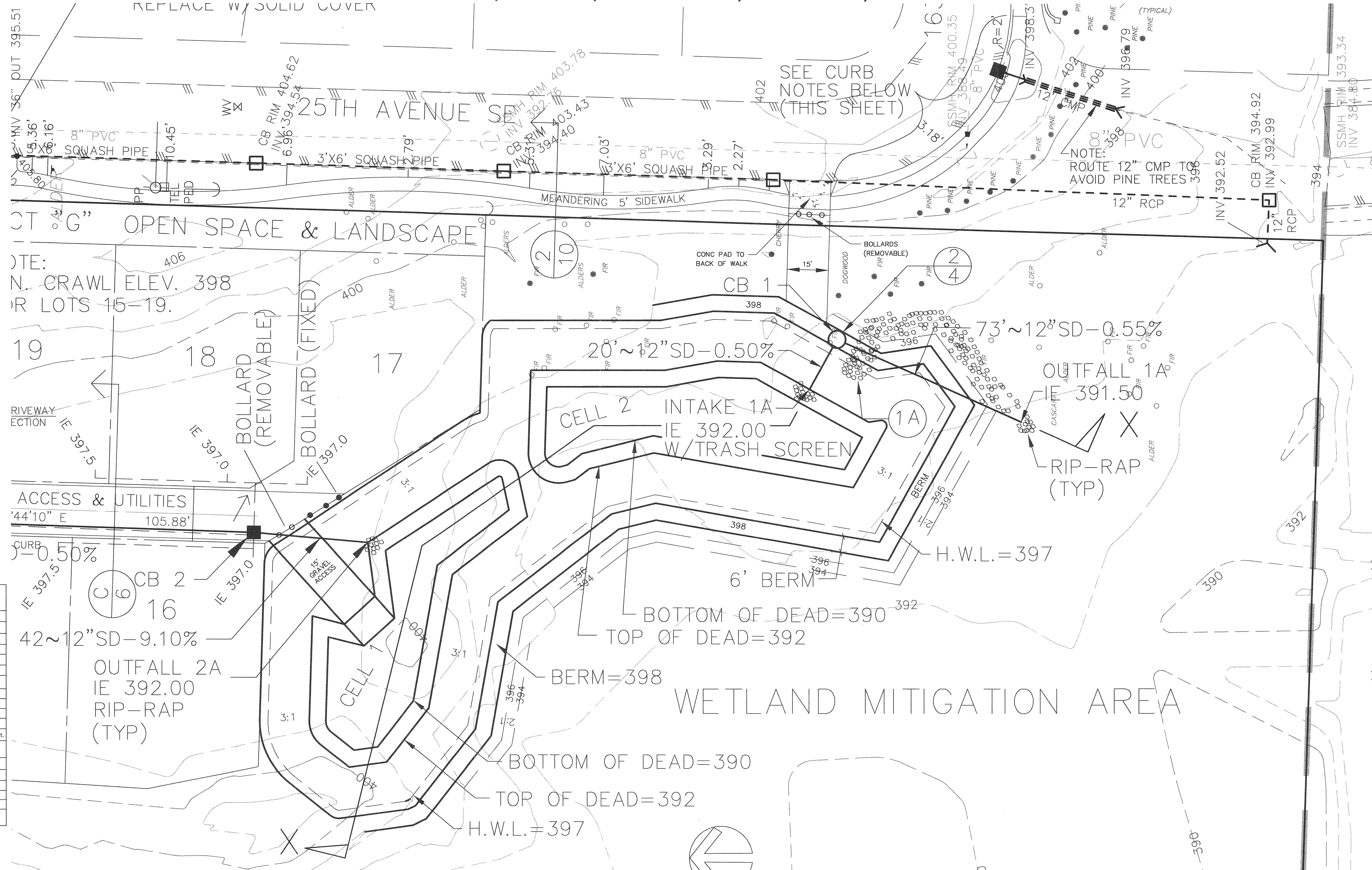
ROAD - 20 STORM
ROAD + PROFILE
CITY OF MILL CREEK

Designed	KR
Drawn	ME
Checked	KR
Drawing	96173
View	RS-PRO

Sheet 3 of 11

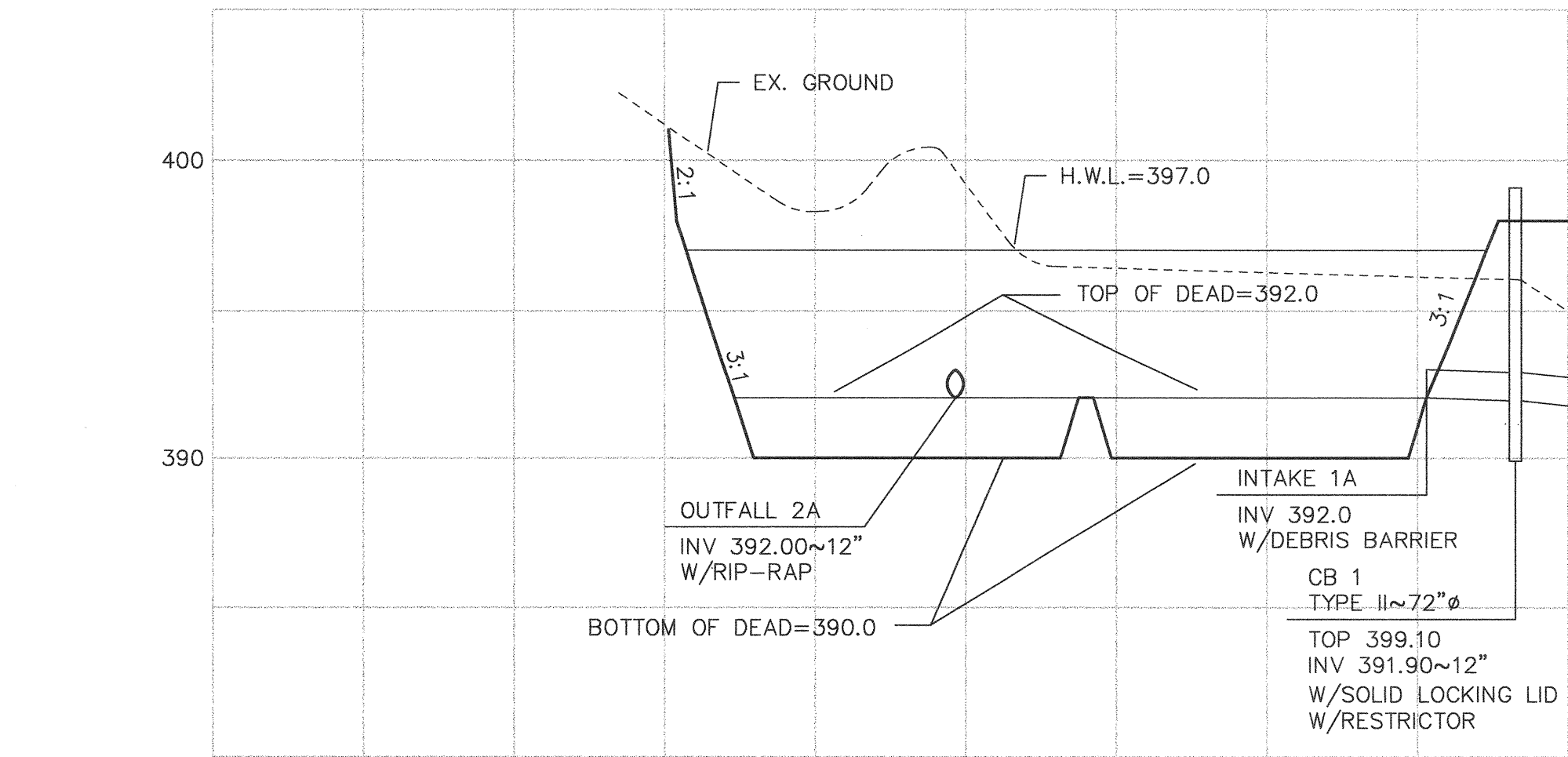
Job No. 96173

SW 1/4, SEC 5, TWP 27 N, RGE 5 E, WM

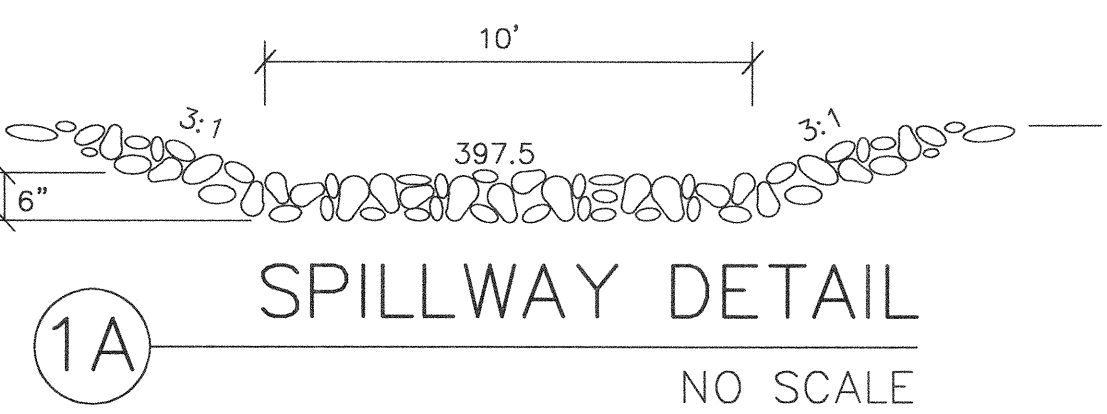


POND VOLUME PROVIDED DEAD STORAGE [WATER QUALITY VOLUME]		
ELEVATION (FT.)	AREA (FT.2)	VOLUME (FT.3)
390	2,500	6,702
392	4,281	6,702
	Sub total	6,702
Cell 2		
390	2,153	6,040
392	3,980	6,040
	Total Dead Storage	12,742 Ft.3
POND VOLUME PROVIDED ACTIVE STORAGE		
ELEVATION (FT.)	AREA (FT.2)	VOLUME (FT.3)
392	8,440	67,494
397	19,297	67,494
	Total	67,494

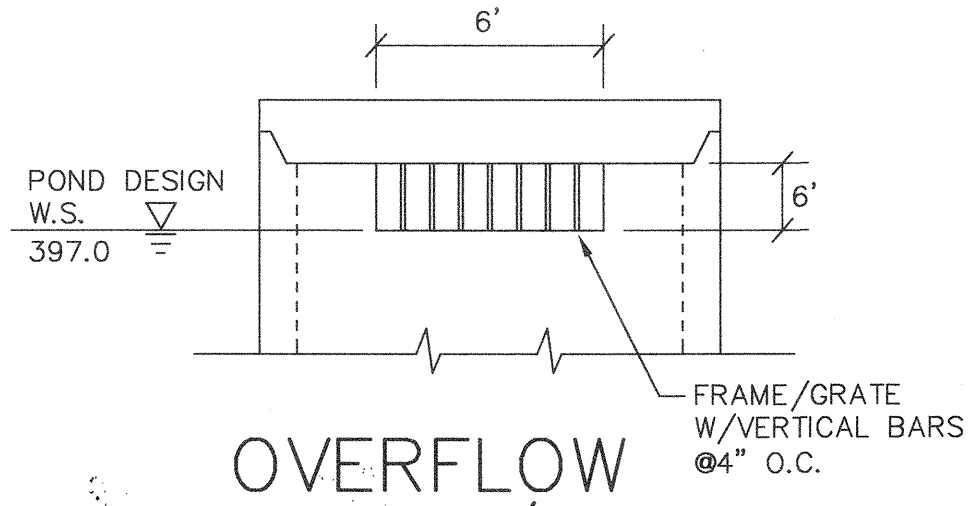
Minimum active storage required = 36,438 cu.ft.
Safety factor provided = 85%



(A) POND SECTION X-X
SCALE: HORIZONTAL 1" = 50'
VERTICAL 1" = 5'



(1A) SPILLWAY DETAIL
NO SCALE



(2) OVERFLOW FRAME/GRATE
NO SCALE

SCALE: 1" = 20'

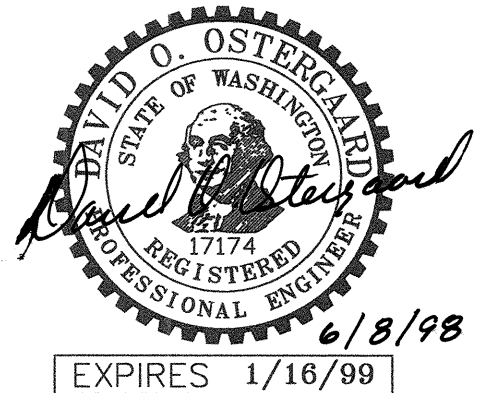
DATUM:
NGVD 29/CITY OF MILL CREEK
BENCH MARK:
TOP OF CONC. MON. IN CASE
30' SO INT 25TH AVE SE & HIGHLAND BLVD SE
ELEV: 405.57

CURB NOTES:
REMOVE EXTRUDED CURB, SAWCUT PAVEMENT AND REMOVE AS NEEDED AND REPLACE WITH STANDARD CURB, GUTTER AND SIDEWALK. REPAVE TO CREATE SMOOTH SURFACE TO THE SATISFACTION OF THE CITY ENGINEER.

ACCEPTED FOR CONSTRUCTION
CITY OF MILL CREEK
[Signature] 6/18/98
CITY ENGINEER DATE

ACCEPTED AS IN COMPLIANCE
WITH CONDITIONS OF APPROVAL
[Signature] 6.12.98
DIRECTOR OF COMMUNITY DEVELOPMENT DATE

G.W.C.
Land Development Consulting
8888 45th Pl. W.
Mukilteo, Wa. 98275
347-4627 & 828-9881



DATE	REVISION	BY
8/4/97	PER CITY REVIEW COMMENTS	ME
9/11/97	PER CITY REVIEW COMMENTS(2ND REV)	ME
10/10/97	PER CITY REVIEW COMMENTS(3RD REV)	ME
05/13/98	REVISED POND	SCB
06/08/98	REVISED POND	SCB

OSTERGAARD • ROBINSON & ASSOC. INC. CONSULTING ENGINEERS
3630 COLBY AVENUE
(206) 259-6445
EVERETT, WA 98201
BELLEVUE: (206) 827-6854

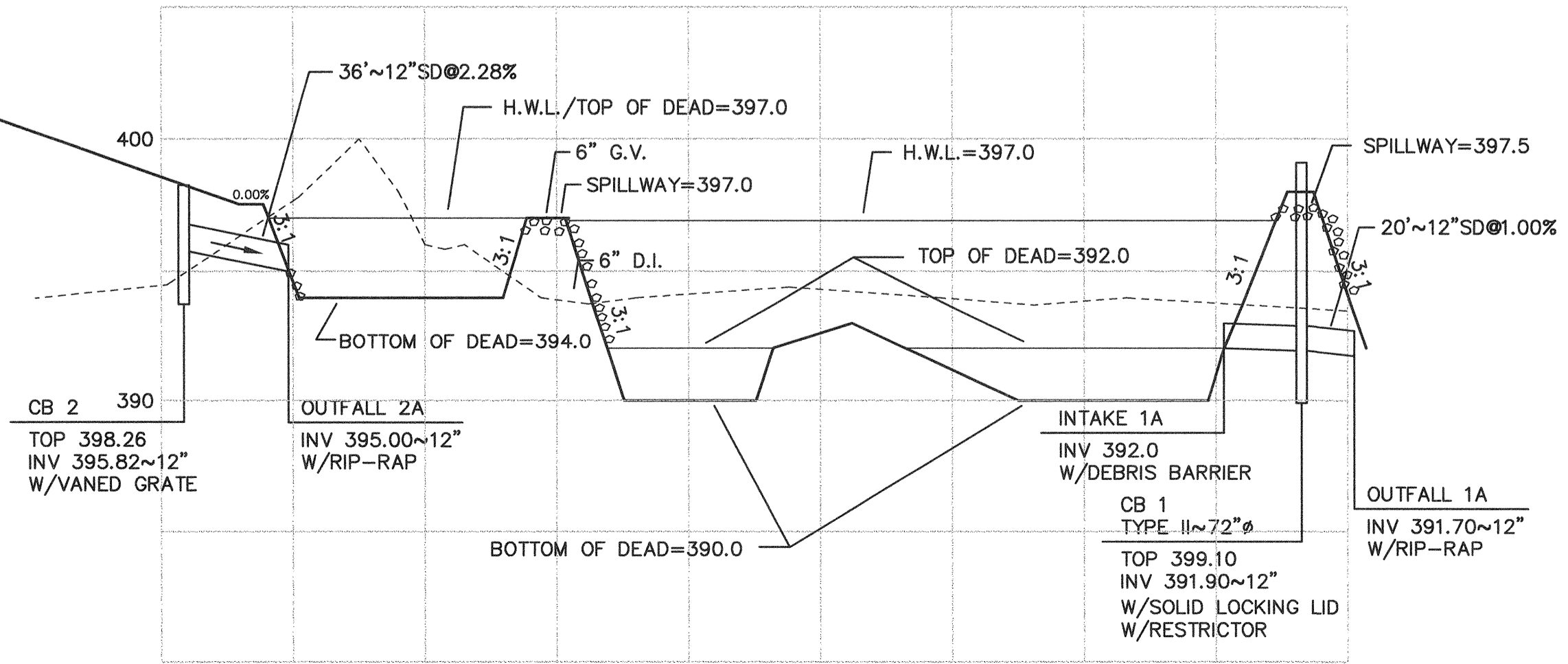
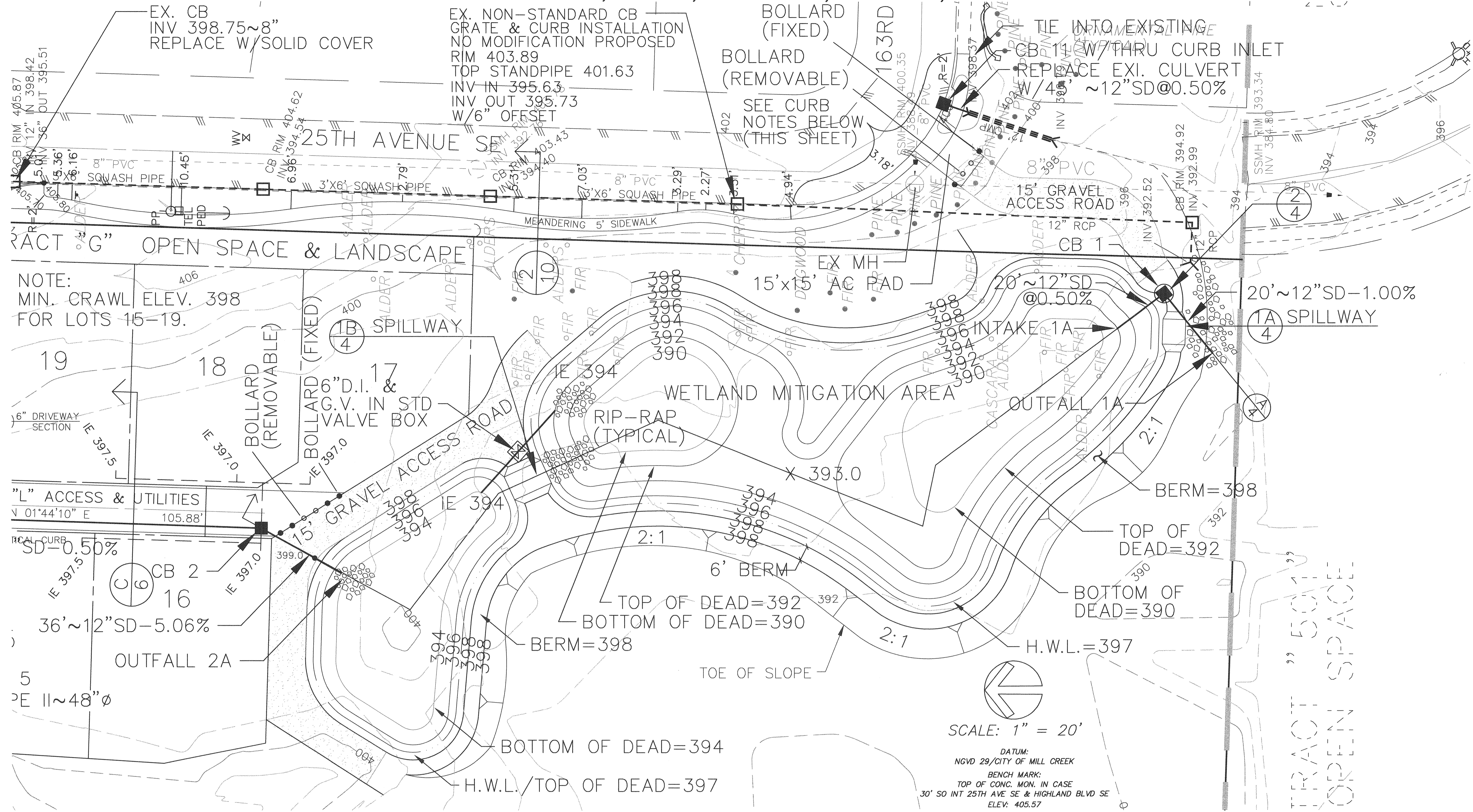
ROAD + STORM POND PLAN
WASHINGTON
CITY OF MILL CREEK

Designed KR
Drawn ME
Checked DM
Drawing 96173
View RS-POND

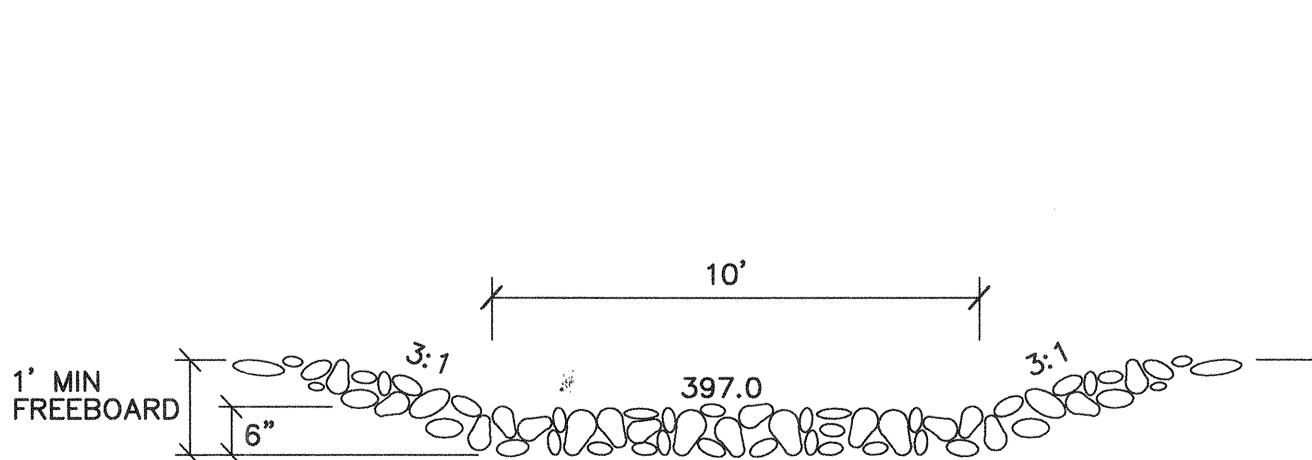
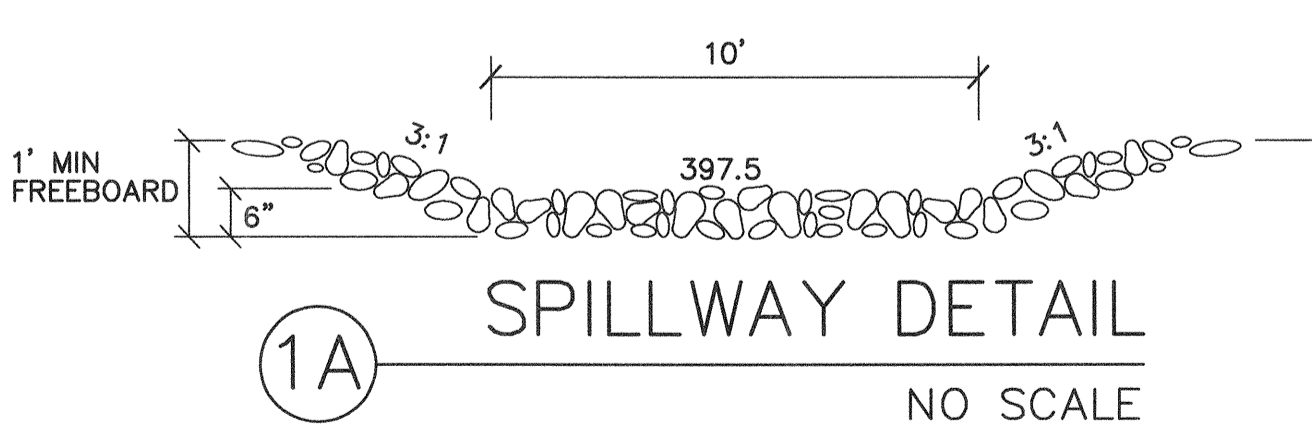
Sheet 4A of 11

Job No. 96173

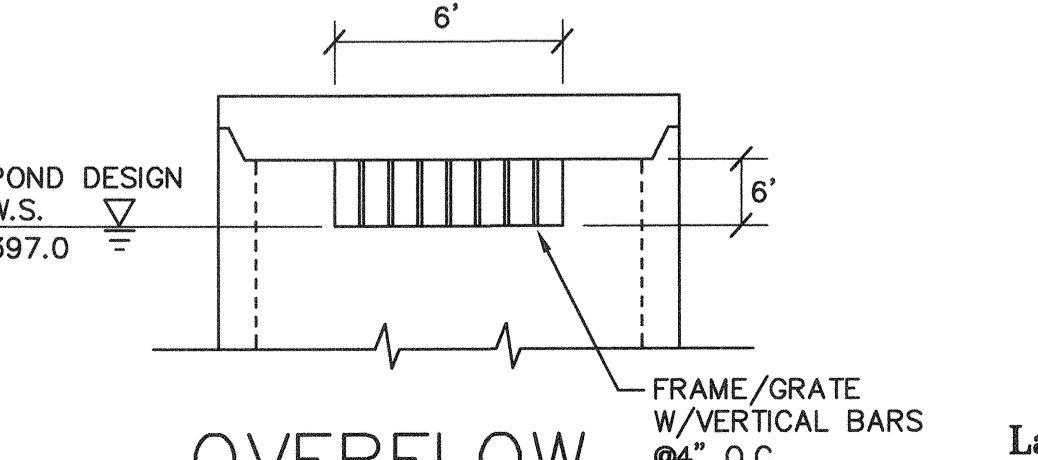
SW 1/4, SEC 5, TWP 27 N, RGE 5 E, WM



(A) POND SECTION
SCALE: HORIZONTAL 1" = 50'
VERTICAL 1" = 5'



CURB NOTES:
REMOVE EXTRUDED CURB, SAWCUT PAVEMENT AND REMOVE AS NEEDED AND REPLACE WITH STANDARD CURB, GUTTER AND SIDEWALK. REPAVE TO CREATE SMOOTH SURFACE TO THE SATISFACTION OF THE CITY ENGINEER.



ACCEPTED FOR CONSTRUCTION
CITY OF MILL CREEK
[Signature]
CITY ENGINEER
10/29/97
DATE

ACCEPTED AS IN COMPLIANCE
WITH CONDITIONS OF APPROVAL
[Signature]
DIRECTOR OF
COMMUNITY DEVELOPMENT
10-29-97
DATE

G.W.C.
Land Development Consulting
8888 45th Pl. W.
Mukilteo, Wa. 98275
347-4627 & 828-9881



DATE	REVISION	BY
8/4/97	PER CITY REVIEW COMMENTS	ME
9/11/97	PER CITY REVIEW COMMENTS(2ND REV)	ME
10/10/97	PER CITY REVIEW COMMENTS(3RD REV)	ME

OSTERGAARD & ASSOC. INC. CONSULTING ENGINEERS
3630 COLBY AVENUE
BELLEVUE, (206) 259-6445

ROBINSON & ASSOC. INC. CONSULTING ENGINEERS
EVERETT, WA 98201
BELLEVUE, (206) 827-5864

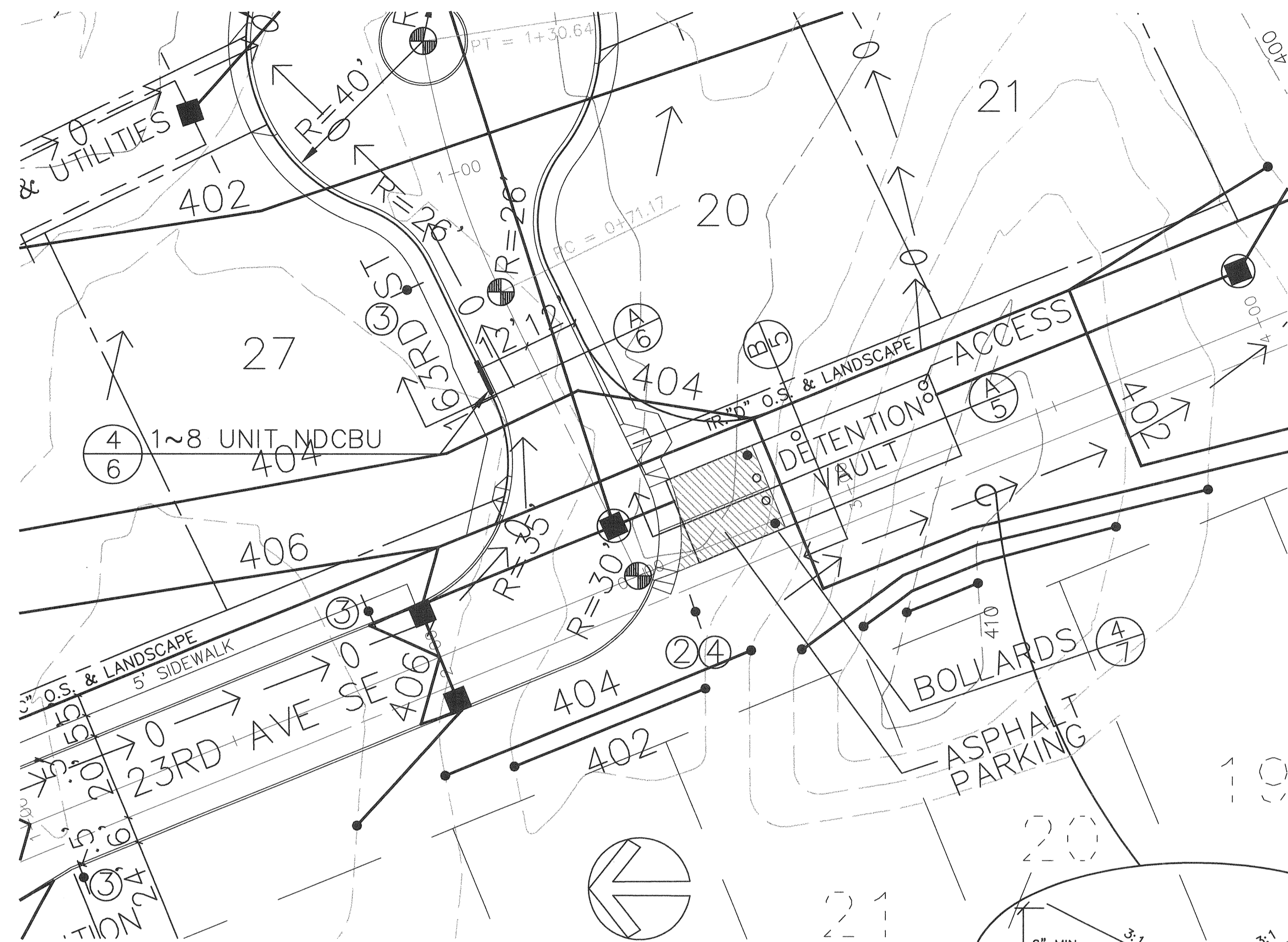
ROAD - 2 STORM POND PLAN
WASHINGTON
CITY OF MILL CREEK

Designed KR
Drawn ME
Checked DM
Drawing 96173
View RS-POND

Sheet 4 of 11

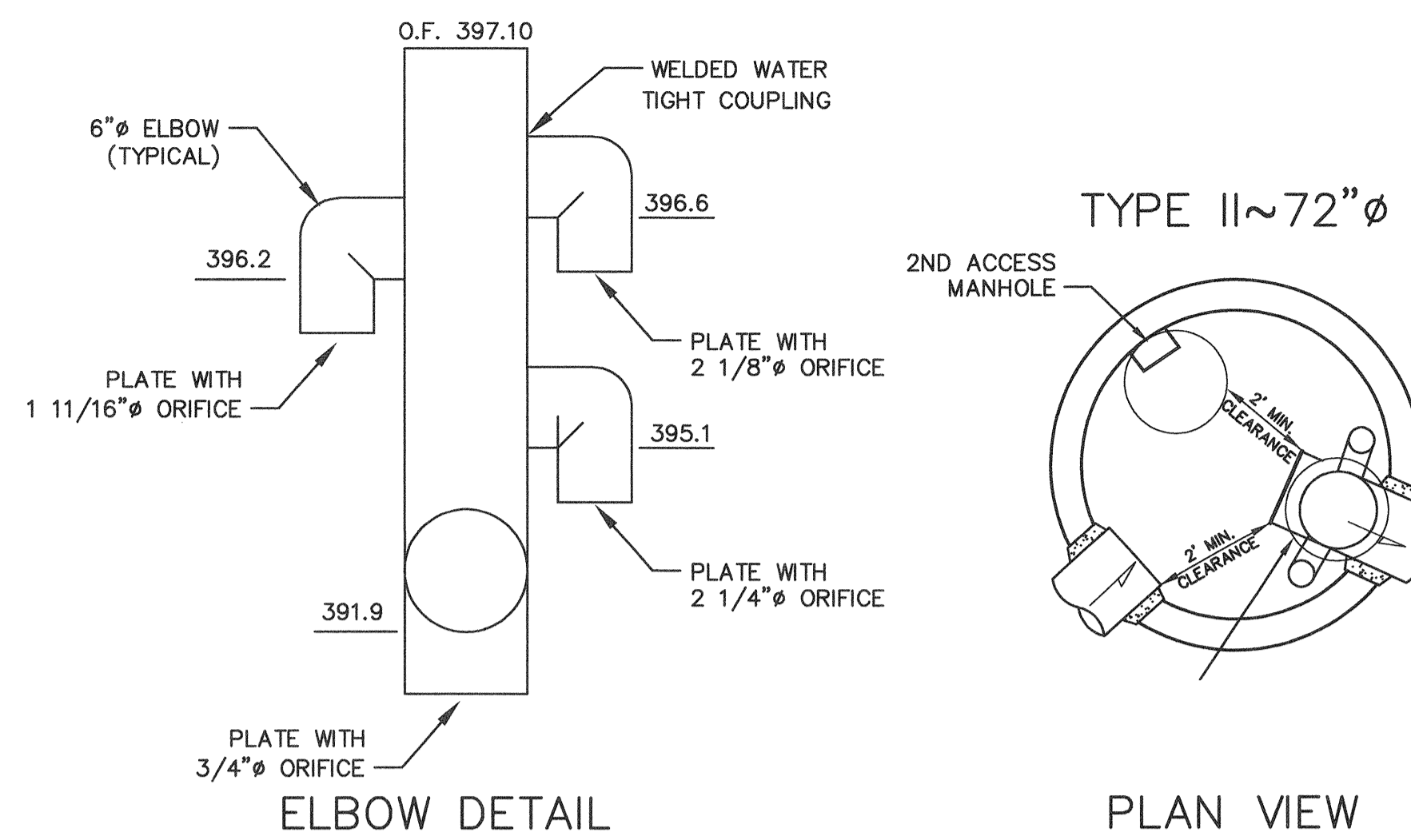
Job No. 96173

SW 1/4, SEC 5, TWP 27 N, RGE 5 E, WM



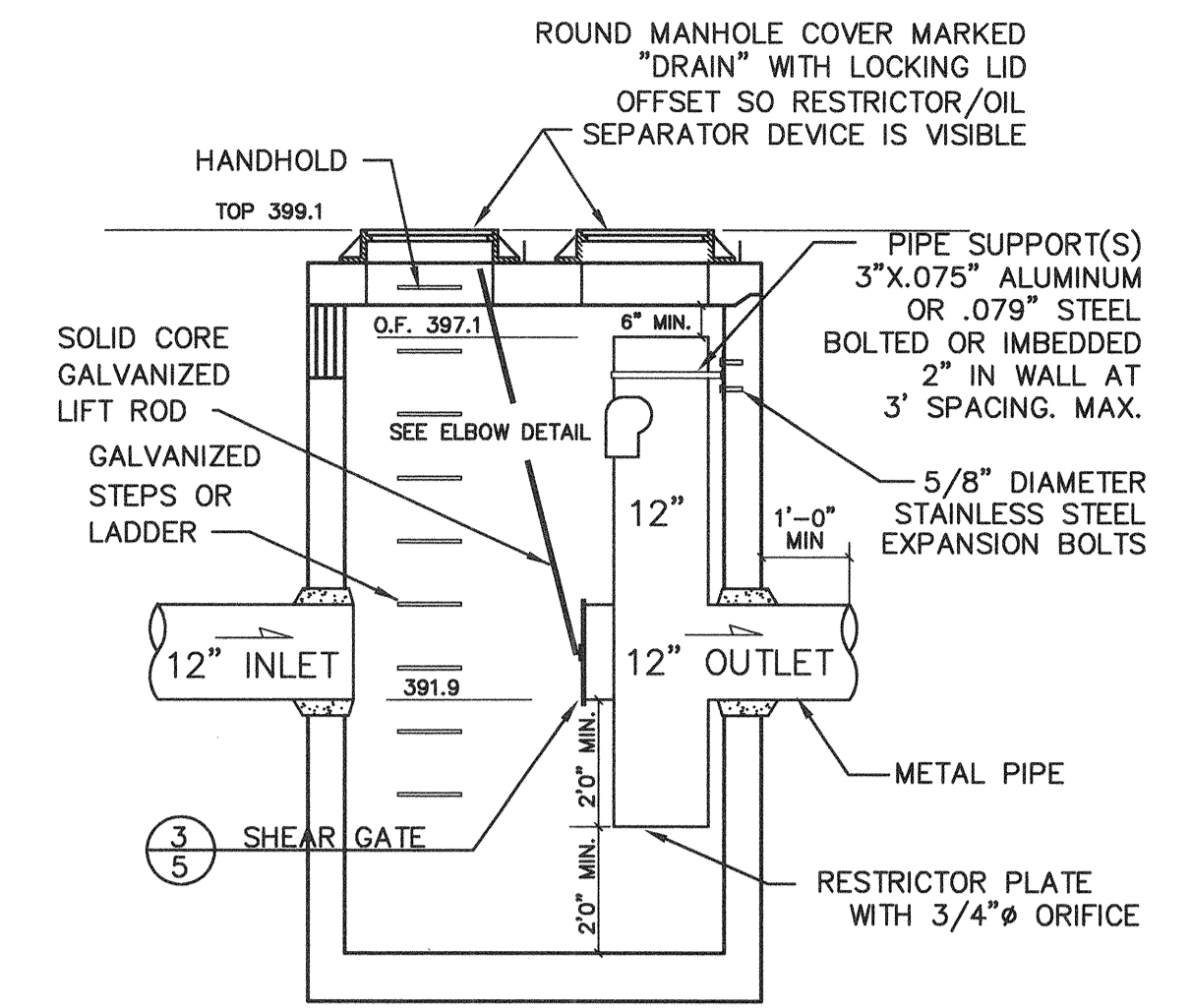
SCALE: 1" = 20'

DATUM:
NGVD 29/CITY OF MILL CREEK
BENCH MARK:
30' SO INT 25TH AVE SE & HIGHLAND BLVD SE
TOP OF CONC. MON. IN CASE
ELEV: 405.57



ELBOW DETAIL

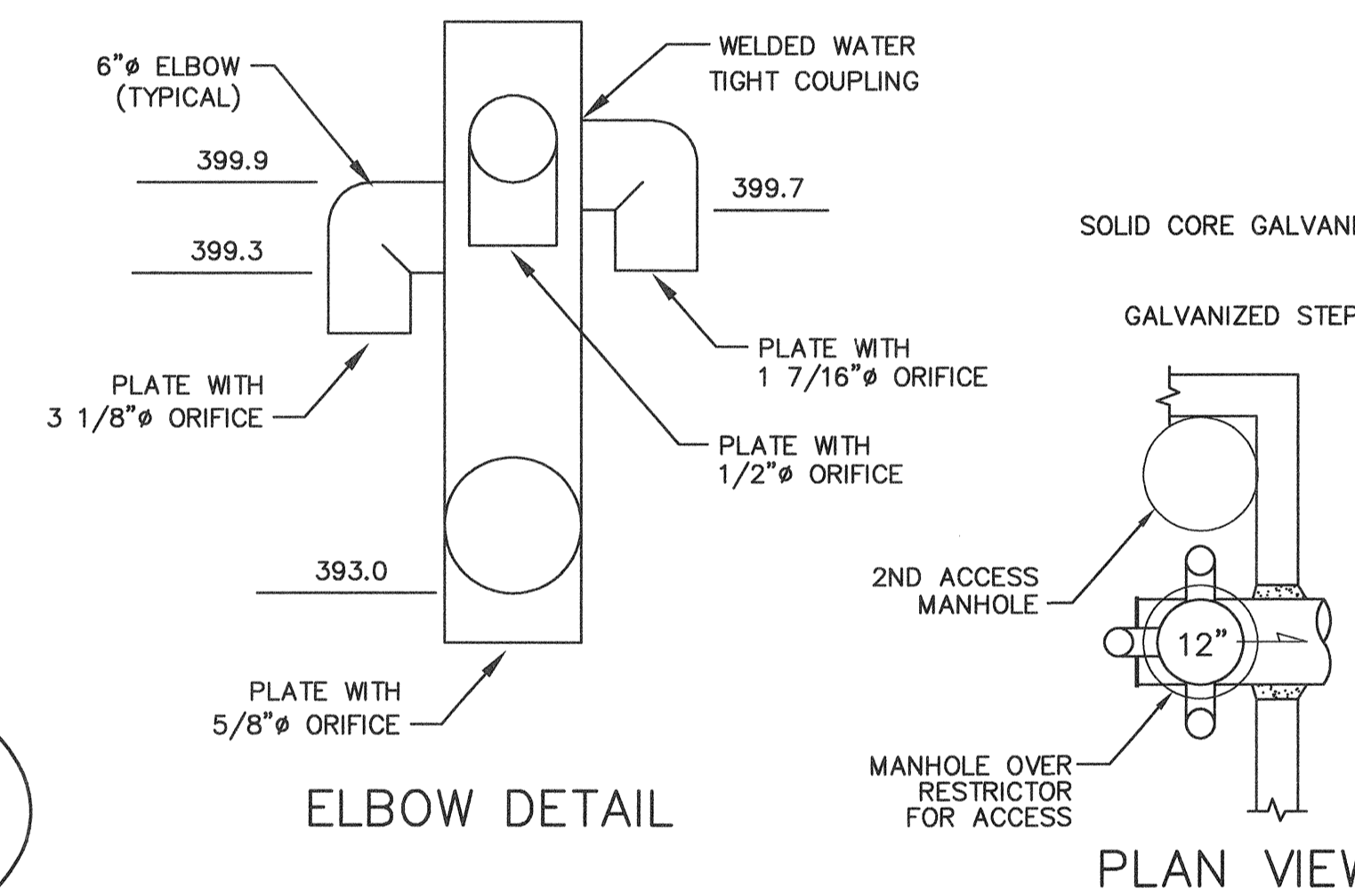
PLAN VIEW



SECTION

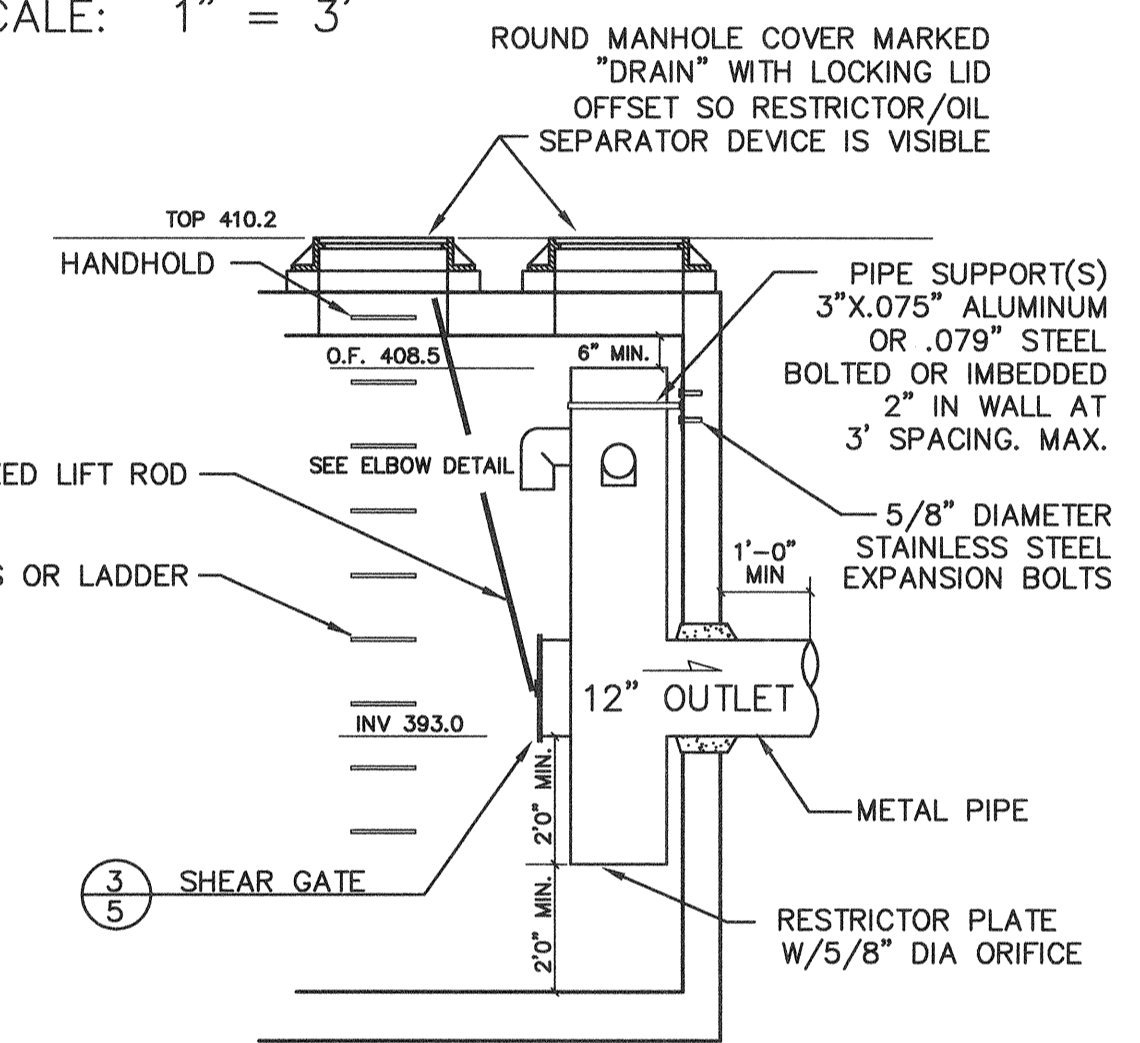
1 CB 1 - RESTRICTOR DETAILS

SCALE: 1" = 3'



ELBOW DETAIL

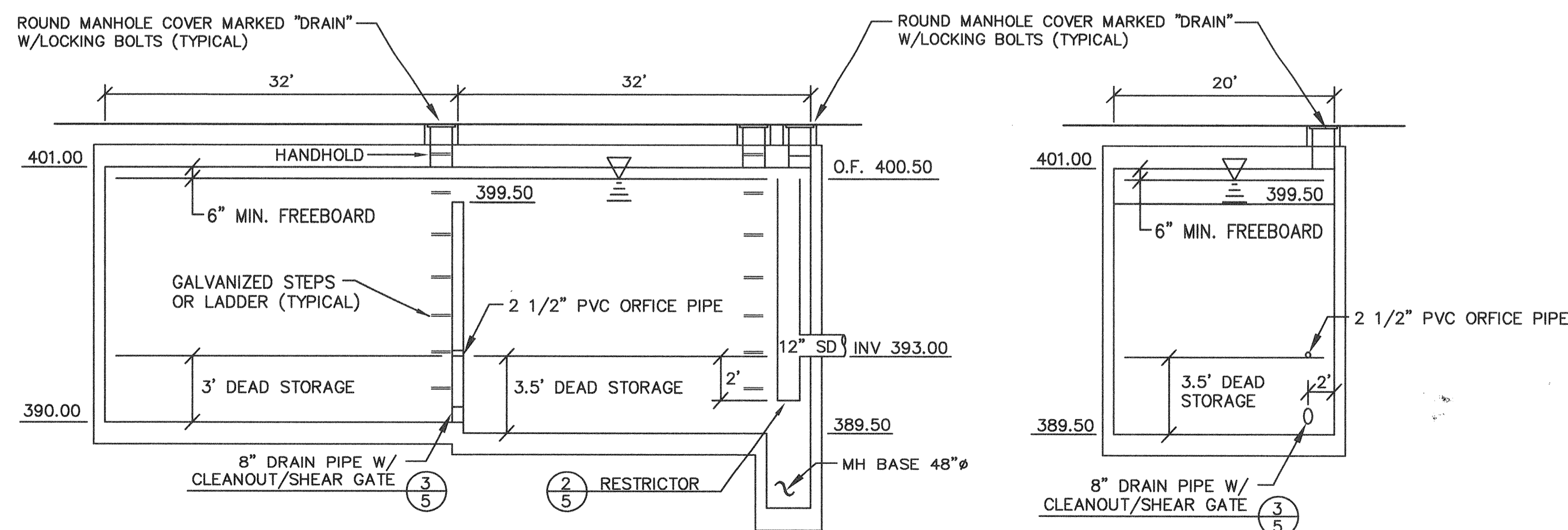
PLAN VIEW



SECTION

2 VAULT - RESTRICTOR DETAILS

SCALE: 1" = 3'



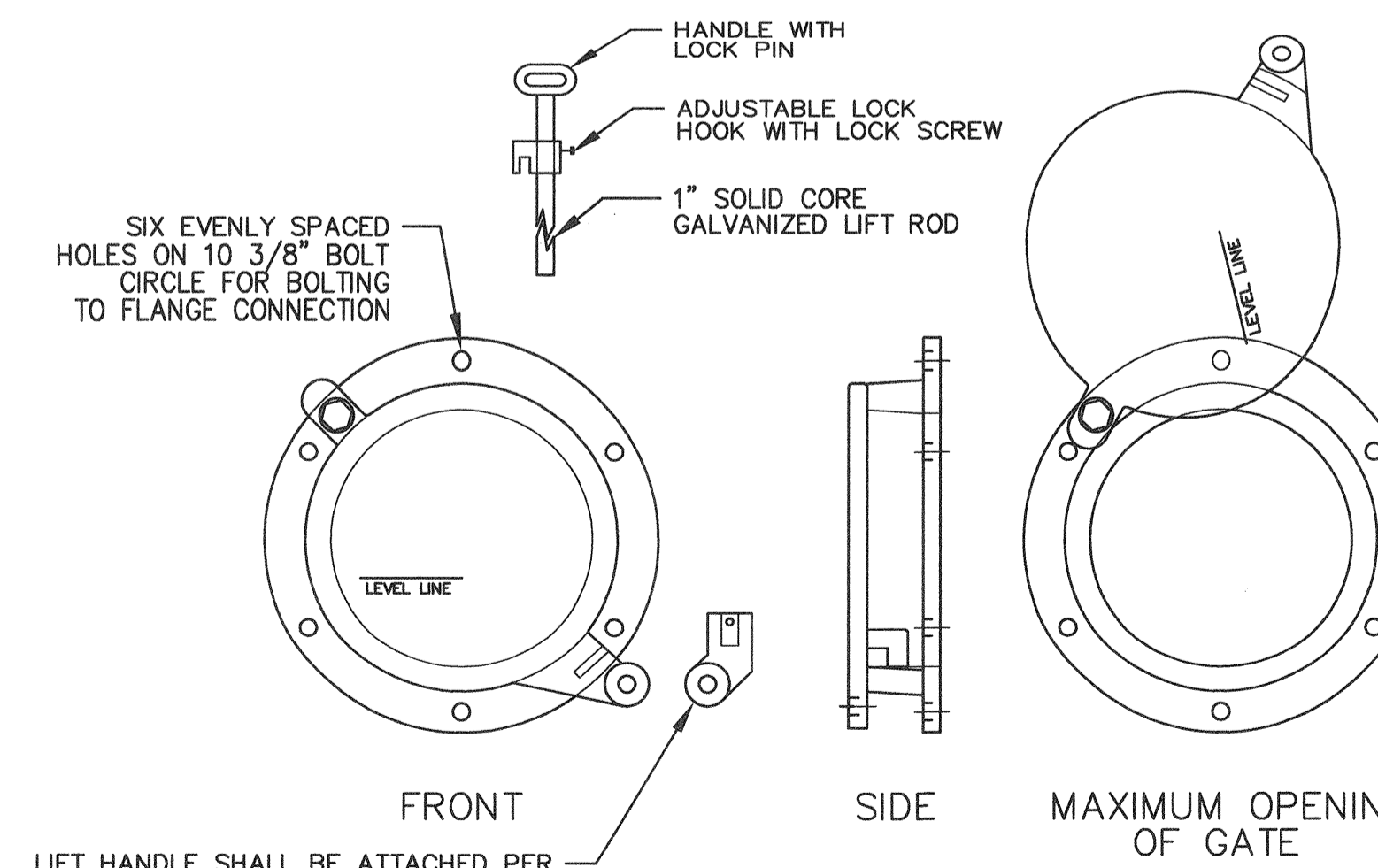
A VAULT SECTION

SCALE: HORIZONTAL 1" = 10'
VERTICAL 1" = 2'

B VAULT SECTION

SCALE: HORIZONTAL 1" = 10'
VERTICAL 1" = 2'

NOTE:
NEED BUILDING PERMIT FOR VAULT.



FRONT

SIDE

MAXIMUM OPENING OF GATE

LIFT HANDLE SHALL BE ATTACHED PER MANUFACTURER'S RECOMMENDATIONS.

ALTERNATES ARE ACCEPTABLE PROVIDED MATERIAL SPECIFICATIONS ARE MET AND FLANGE BOLT PATTERN MATCHES

WSDOT/APWA PLAN B-3

3 CLEANOUT/SHEAR GATE

(CASCADE CULVERT OR EQUAL)

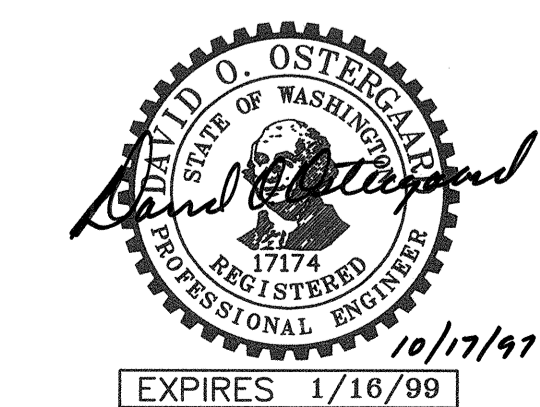
NO SCALE

ACCEPTED FOR CONSTRUCTION
CITY OF MILL CREEK
Craig St. John 10/21/97
CITY ENGINEER DATE

ACCEPTED AS IN COMPLIANCE
WITH CONDITIONS OF APPROVAL
William S. Simon 10-21-97
DIRECTOR OF COMMUNITY DEVELOPMENT DATE

G.W.C.
Land Development Consulting

8888 45th Pl. W.
Mukilteo, Wa. 98275
347-4627 & 828-9881



BY	ME	ME	ME
REVISION			
PER CITY REVIEW COMMENTS			
PER CITY REVIEW COMMENTS(2ND REV)			
PER CITY REVIEW COMMENTS(3RD REV)			
DATE	8/4/97	9/11/97	10/10/97

OSTERGAARD & ASSOC. INC. CONSULTING ENGINEERS
3630 COLBY AVENUE
EVERETT, WA 98201
BELLEVUE: (206) 827-5854

D-2 ROAD + STORM VAULT PLAN + DETAILS
WASHINGTON
CITY OF MILL CREEK

Designed KR
Drawn ME
Checked KR
Drawing 96173
View RS-VAULT

Sheet 5 of 11

Job No. 96173

SEC 5, TWP 27N, RGE 5E, W.M.

GENERAL PLAN NOTES

- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY OF MILL CREEK STANDARDS AND SPECIFICATIONS AND WASHINGTON STATE DEPARTMENT OF TRANSPORTATION CURRENT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION.
- ALL WORK WITHIN THE SITE SHALL BE SUBJECT TO THE INSPECTION BY THE CITY ENGINEER OR HIS DESIGNATED REPRESENTATIVE.
- A COPY OF THESE APPROVED PLANS MUST BE ON THE SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- 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 AND CITY AS REQUIRED BY THESE PLANS. THE PROJECT SURVEYOR/ENGINEER IS OSTERGAARD-ROBINSON AT (425) 259-6445.
- THE TEMPORARY EROSION/SEDIMENTATION CONTROL FACILITY 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.
- TRENCH BACK FILL OF NEW UTILITIES AND STORM DRAINAGE FACILITIES SHALL BE COMPACTED TO 95% MAXIMUM DENSITY (MODIFIED PROCTOR) UNDER ROADWAYS AND 90% MAXIMUM DENSITY (MODIFIED PROCTOR) OFF ROADWAYS, AS SPECIFIED IN SECTION 2-03.3(14)C COMPACTING EARTH EMBANKMENTS METHOD B.
- DISTURBED SOIL SHALL BE GRASS SEEDING IF NOT WORKED WITHIN 30 DAYS.

STORM DRAINAGE NOTES

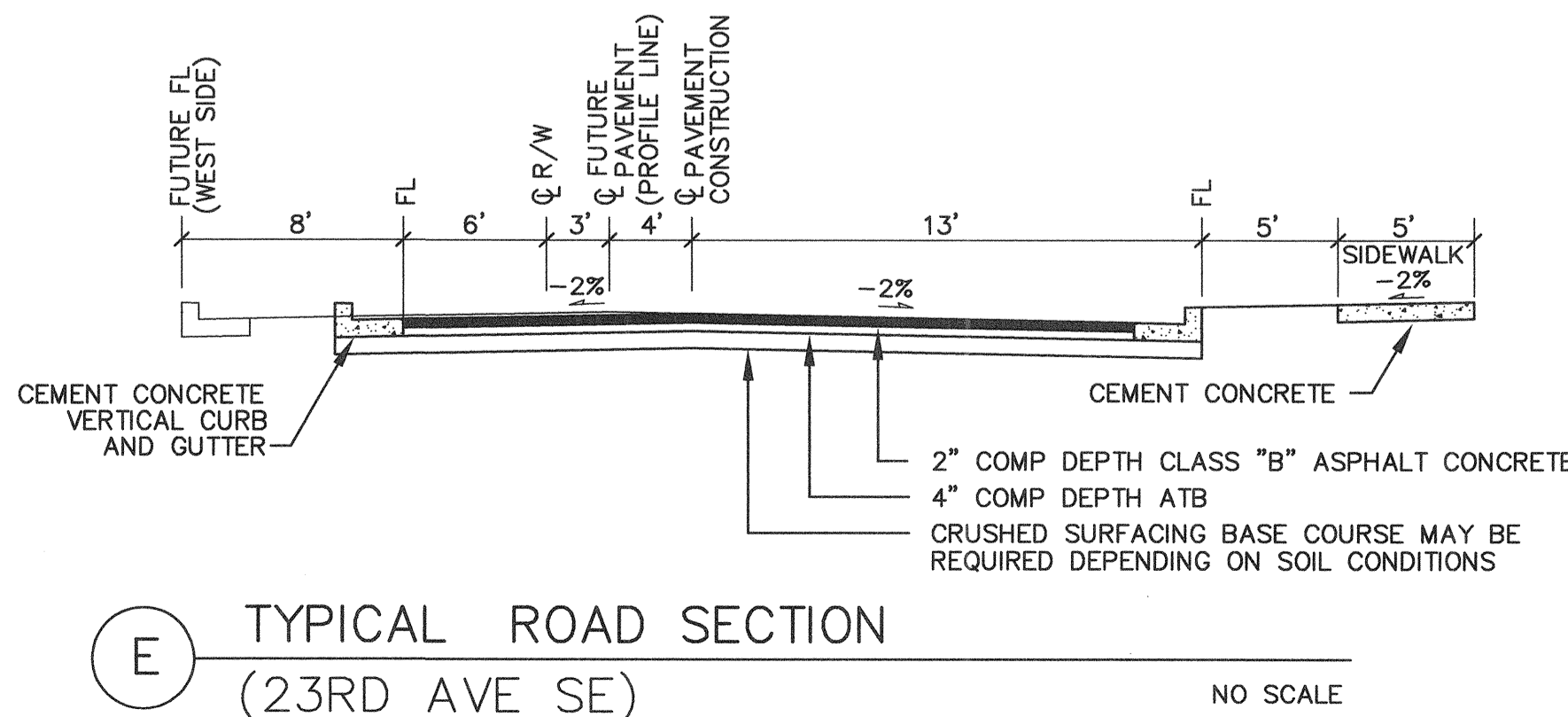
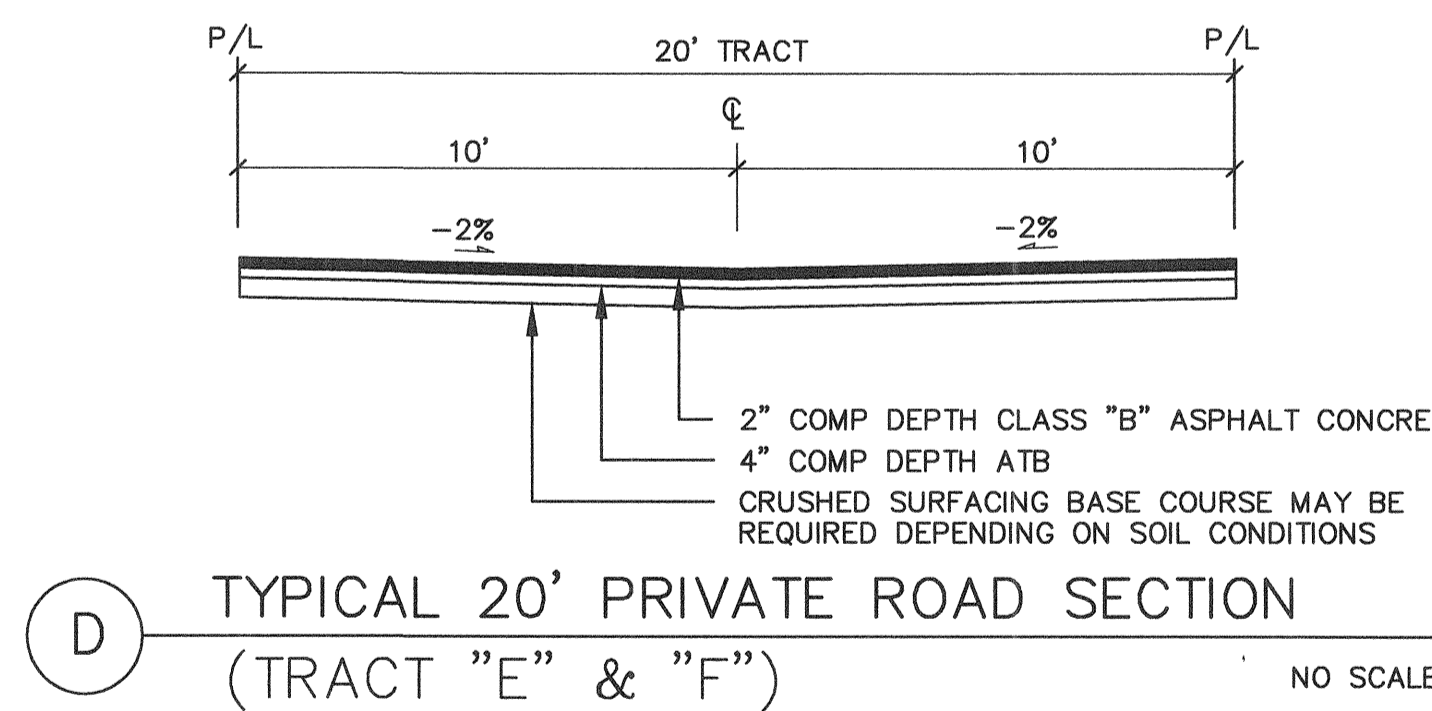
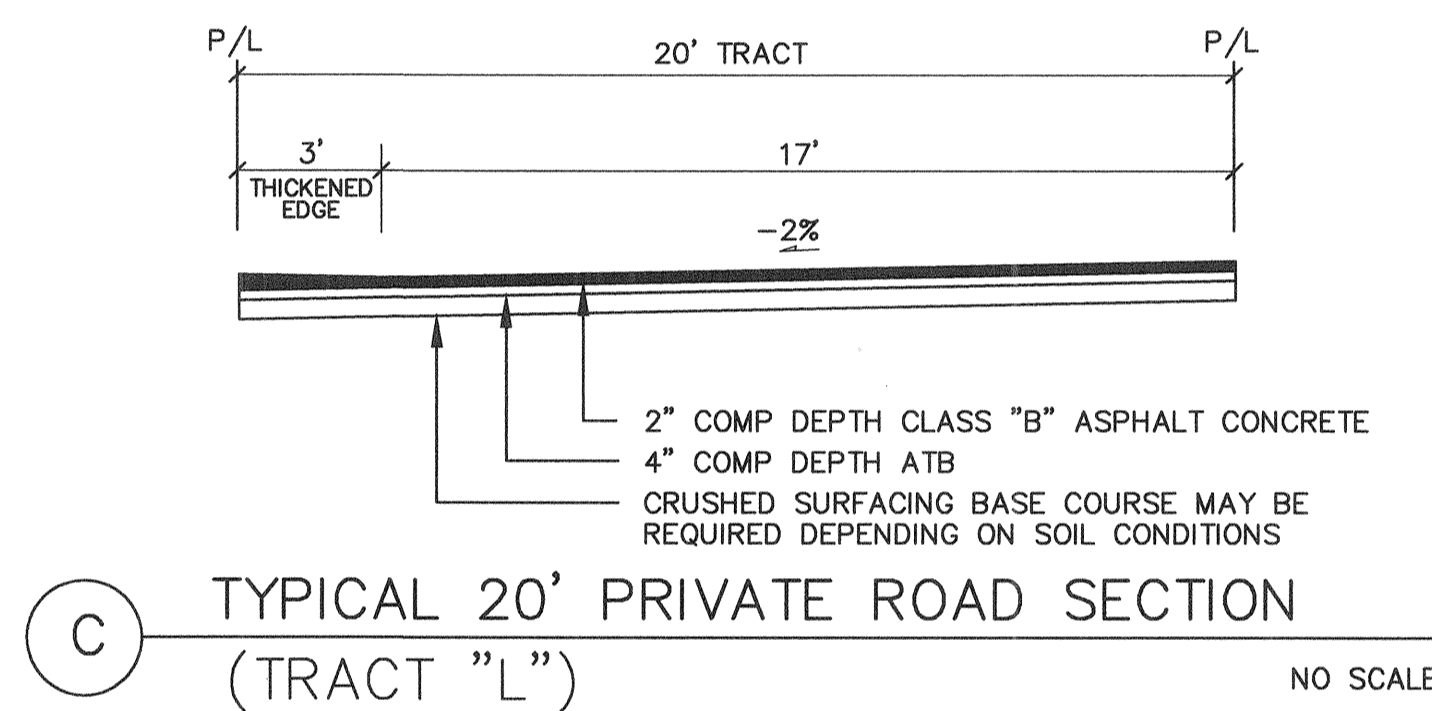
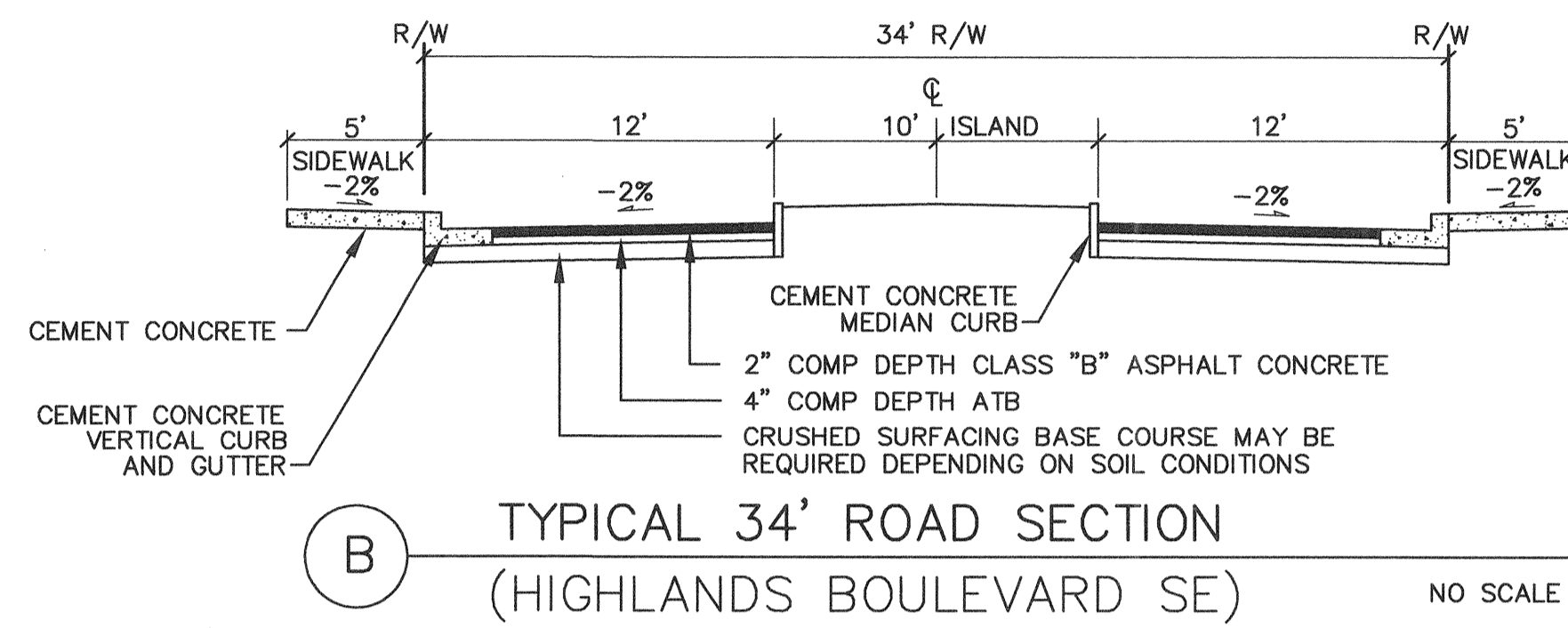
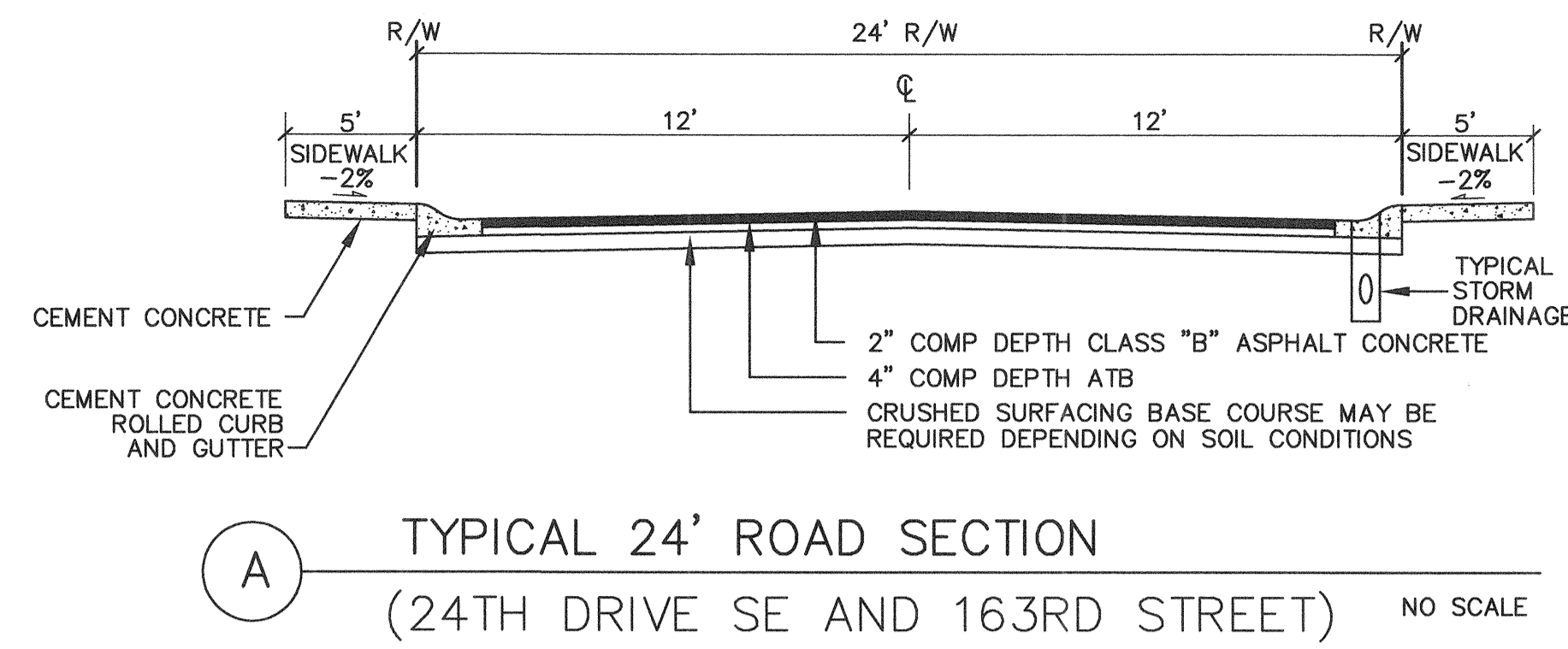
- ALL PIPE SHALL BE PLACED ON STABLE EARTH, OR IF IN THE OPINION OF THE CITY INSPECTOR, THE EXISTING FOUNDATION IS UNSATISFACTORY, THEN IT SHALL BE EXCAVATED BELOW GRADE AND BACK FILLED WITH A GRAVEL MATERIAL TO SUPPORT THE PIPE.
- THE BACKFILL SHALL BE PLACED EQUALLY ON BOTH SIDES OF THE PIPE OR PIPE-ARCH IN LAYERS WITH A LOOSE AVERAGE DEPTH OF 6", MAXIMUM DEPTH 8", THOROUGHLY TAMPING EACH LAYER. THESE COMPACTED LAYERS MUST EXTEND FOR ONE DIAMETER ON EACH SIDE OF THE PIPE OR TO THE SIDE OF THE TRENCH. MATERIALS TO COMPLETE THE FILL OVER PIPE SHALL BE THE SAME AS DESCRIBED. (REFER TO SPECIFICATION 2-03.3(14)C, METHOD b & c.
- ALL CATCH BASINS TO BE TYPE 1 UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL MANHOLE, INLET, AND CATCH BASIN FRAMES AND GRATES JUST PRIOR TO POURING OF CURBS AND PAVING.
- ALL CATCH BASINS WITH A DEPTH OVER 5.0 FEET TO THE FLOW LINE SHALL BE A TYPE II CB (MANHOLE).
- ALL TYPE II CATCH BASIN MANHOLES AND ALL INLET AND CATCH BASINS OUTSIDE OF PUBLIC R/W SHALL HAVE LOCKING LIDS.
- STANDARD LADDER STEPS SHALL BE PROVIDED IN ALL CATCH BASINS/MANHOLES EXCEEDING 5 FEET IN DEPTH.
- CATCH BASIN STANDARD FRAME AND GRATES SHALL BE DUCTILE IRON (H2O RATING) 18"x24" VANED GRATE. "THROUGH CURB INLET" ON THE PLAN SHALL BE 18"x24" DUCTILE IRON DIAGONAL SLOT GRATE WITH 9" HIGH DIAMOND PLATE HOOD (H2O RATING).
- PRIOR TO SIDEWALK CONSTRUCTION, CONSTRUCT THE LOT DRAINAGE AND STUB OUTS AND OR BEHIND SIDEWALK DRAINS AS REQUIRED. STUB OUTS SHALL BE MARKED WITH A 2" X 4" AND LABELED "STORM."
- STORM WATER RETENTION/DETENTION FACILITIES STORM DRAINAGE PIPE AND CATCH BASINS SHALL BE FLUSHED AND CLEANED PRIOR TO ACCEPTANCE.
- PIPE SPECIFICATIONS: PIPE MATERIAL, JOINTS AND PROTECTIVE TREATMENT SHALL BE IN ACCORDANCE WITH WSDOT/APWA STANDARD SPECIFICATIONS SECTION 9.05 AND AASHTO AND ASTM DESIGNATIONS AS NOTED BELOW.

MATERIALS ALLOWED FOR STORM DRAIN LINES:
 - PLAIN CONCRETE PIPE
 - REINFORCED CONCRETE PIPE
 - ALUMINUM SPIRAL RIB PIPE

ALLOWABLE JOINTS:
 - CONCRETE PIPE SHALL BE RUBBER GASKETED
 - SPIRAL RIB PIPE SHALL BE "HAT BANDED" WITH NEOPRENE GASKETS

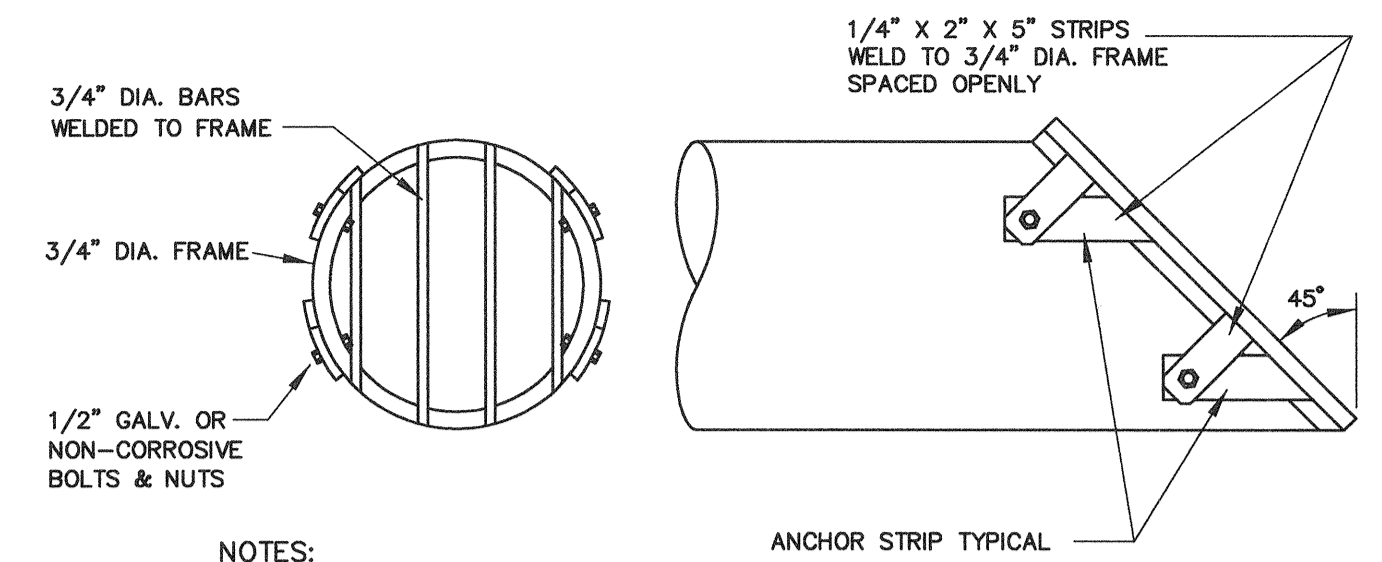
CONSTRUCTION SEQUENCE

- ATTEND PRE-CONSTRUCTION MEETING WITH CITY (INCLUDING EXCAVATION CONTRACTOR).
- INSTALL SILT FENCES AND BARRIER FENCES WHERE SPECIFIED AND FIELD VERIFY WITH CITY.
- INSTALL GRAVEL CONSTRUCTION ENTRANCE.
- FLAG CLEARING LIMITS. CALL CITY FOR INSPECTION AND APPROVAL.
- CLEAR FOR AND INSTALL SEDIMENT TRAPS, INTERCEPTOR DITCHES AND CHECK DAMS.
- CLEAR AND GRADE ON-SITE AREAS AS INDICATED.
- CONSTRUCT PERMANENT STORM DRAINAGE SYSTEM AND UTILITIES AND PROVIDE C.B. PROTECTION.
- FINAL GRADE/PAVEMENT.
- HYDROSEED AND MULCH ALL EXPOSED AREAS.
- FLUSH STORM DRAINAGE SYSTEM.
- MAINTAIN TEMPORARY FACILITIES THROUGH THE COURSE ON CONSTRUCTION UNTIL SITE IS STABILIZED AND POTENTIAL FOR EROSION HAS PASSED.



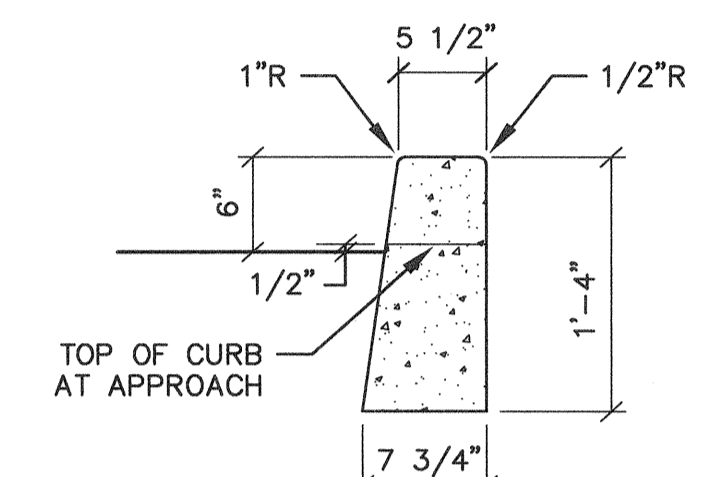
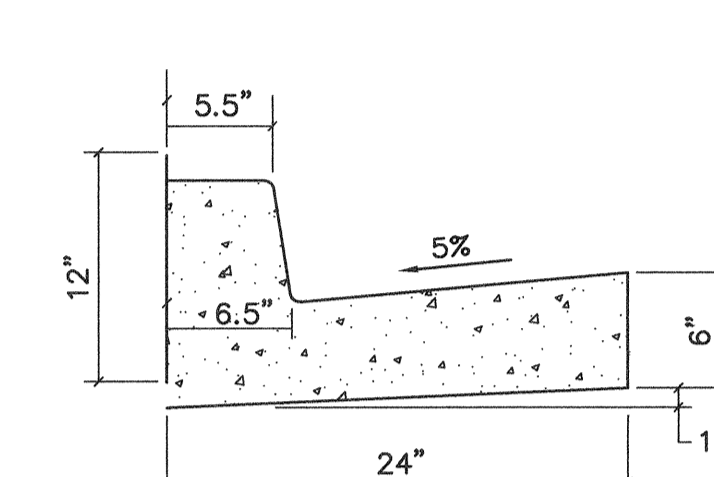
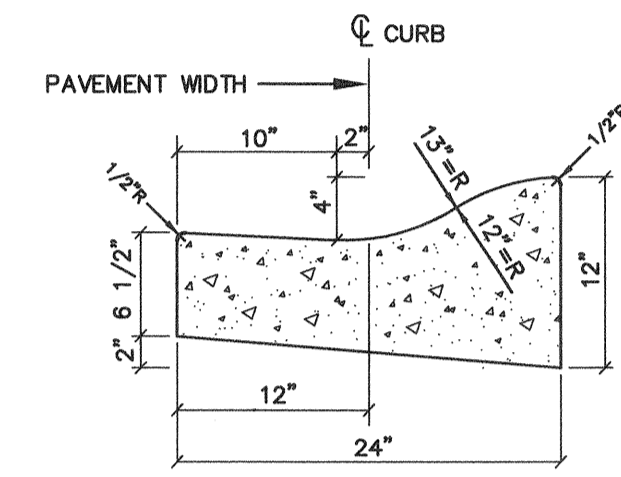
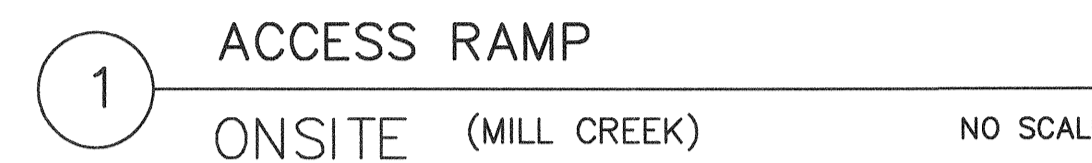
NOTES:

- TEXTURE PATTERN SHALL NOT EXCEED 1/2 INCH SPACING AT 1/16" DEPTH.
- ADVANCE WARNING SHALL BE INSTALLED AS DIRECTED BY THE CITY ENGINEER.
- ALL SURFACES TO BE BROOMED FINISHED WITH TOOLED JOINTS AND EDGES.
- CURB SHALL BE POURED SEPARATELY FROM RAMP POUR. MONOLITHIC POUR (CURB & RAMP) IS NOT ALLOWED.
- RAMP AT CURB SHALL BE 1/2" ABOVE GUTTER FLOW LINE.



NOTES:

- ALL STEEL PARTS SHALL BE GALVANIZED AND ASPHALT COATED WITH TREATMENT 1 OR BETTER.
- FRONT GATE FRAME SHALL BE REMOVABLE.
- SPACING BETWEEN GRATE BARS SHALL NOT EXCEED 3 INCHES C/C.
- ALL FIELD WELDS SHALL BE FIELD GALVANIZED.



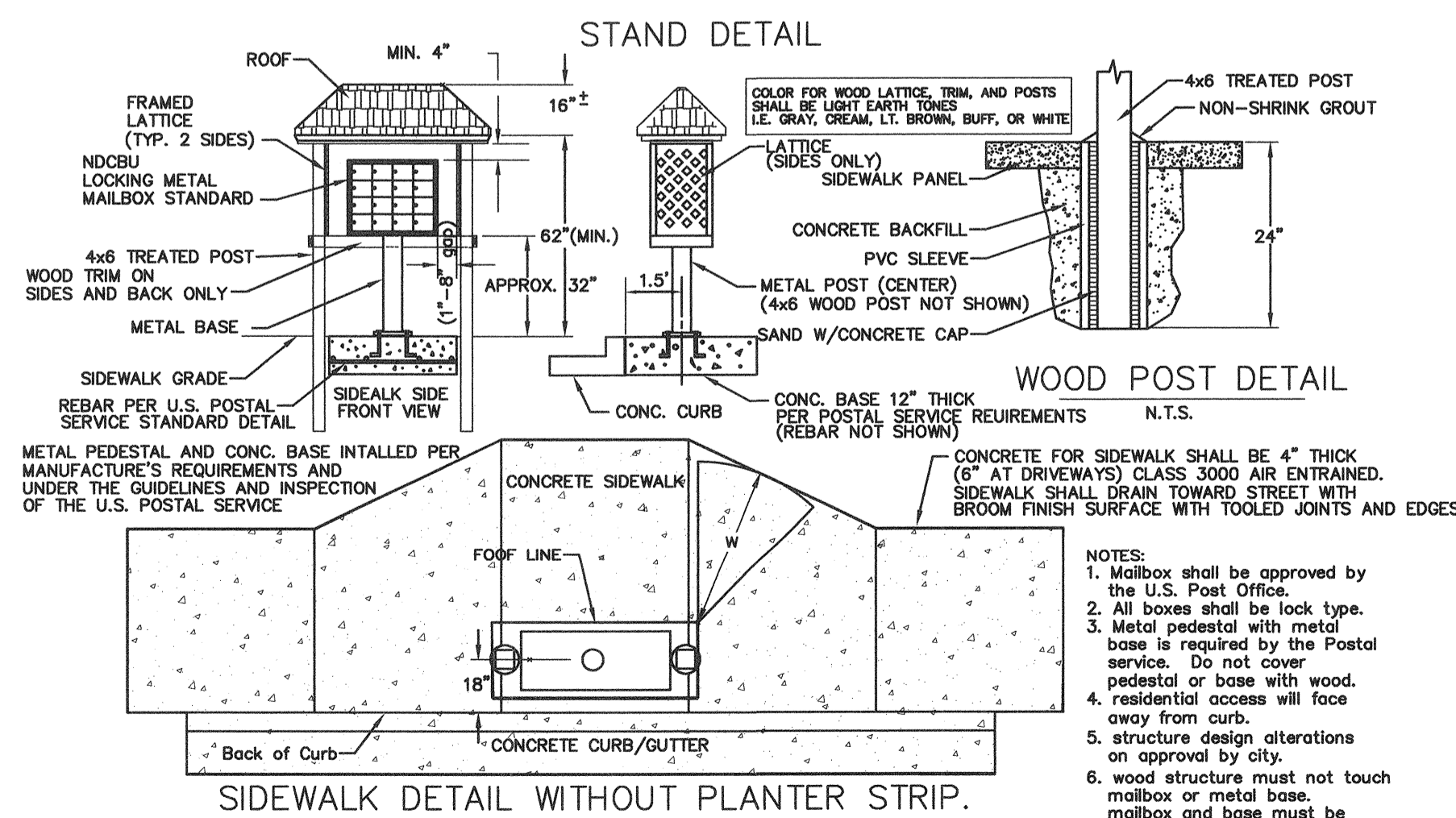
CEMENT CONCRETE ROLLED CURB AND GUTTER

CEMENT CONCRETE VERTICAL CURB AND GUTTER

CEMENT CONCRETE MEDIAN CURB

NOTES:

- CONSTRUCTION OF CURB DETAILS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AS PUBLISHED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND THE AMERICAN PUBLIC WORKS ASSOCIATION. (WSDOT/APWA SPECIFICATIONS) UNLESS OTHERWISE MODIFIED BELOW.
- ALL CONCRETE SHALL BE AIR ENTRAINED CONCRETE CLASS 3000.
- FORMS SHALL BE TRUE TO LINE AND GRADE AND SECURELY STAKED. STEEL FORMS ONLY SHALL BE USED ON TANGENT SECTIONS. WOOD FORMS MAY BE USED ON CURVED SECTIONS.
- FULL DEPTH EXPANSION JOINTS CONSISTING OF 3/8 INCH MINIMUM PREMOLDED JOINT MATERIAL SHALL BE PLACED ADJACENT TO CATCH BASINS, INLETS AND AT POINTS OF TANGENCY ON STREETS AND DRIVEWAY RETURNS. MAXIMUM SPACING SHALL BE 20 FEET.
- CONTRACTION JOINTS (DUMMY JOINTS) CONSISTING OF 3/8" MIN. X 2" OF PREMOLDED JOINT MATERIAL SHALL BE CONSTRUCTED AT INTERVALS OF 10 FEET.
- ALL JOINTS SHALL BE CLEAN AND EGGED.
- FINISH SHALL BE LIGHT BROOM FINISH.
- FINISHED CURBS AND GUTTERS SHALL BE SPRAYED WITH A CLEAR CURING COMPOUND.

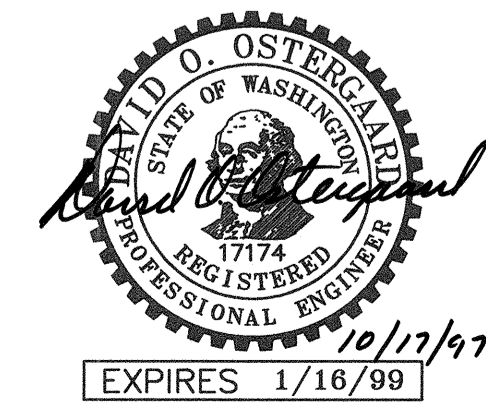


TYPICAL LOCKING MAILBOX STAND (NDCBU)

ACCEPTED FOR CONSTRUCTION
 CITY OF MILL CREEK
 [Signature]
 CITY ENGINEER 10/21/97

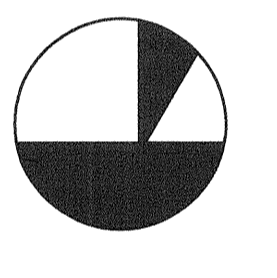
ACCEPTED AS IN COMPLIANCE
 WITH CONDITIONS OF APPROVAL
 [Signature]
 DIRECTOR OF COMMUNITY DEVELOPMENT 10/21/97

G.W.C.
 Land Development Consulting
 8888 45th Pl. W.
 Mukilteo, Wa. 98275
 347-4627 & 828-9881



BY	ME	ME	ME
REVISION	PER CITY REVIEW COMMENTS	PER CITY REVIEW COMMENTS	PER CITY REVIEW COMMENTS
DATE	8/4/97	9/11/97	10/10/97

OSTERGAARD & ASSOC. INC. CONSULTING ENGINEERS
 3630 COLBY AVE.
 (206) 259-6445
ROBINSON
 EVERETT, WA 98201
 BELLEVUE: (206) 827-5854



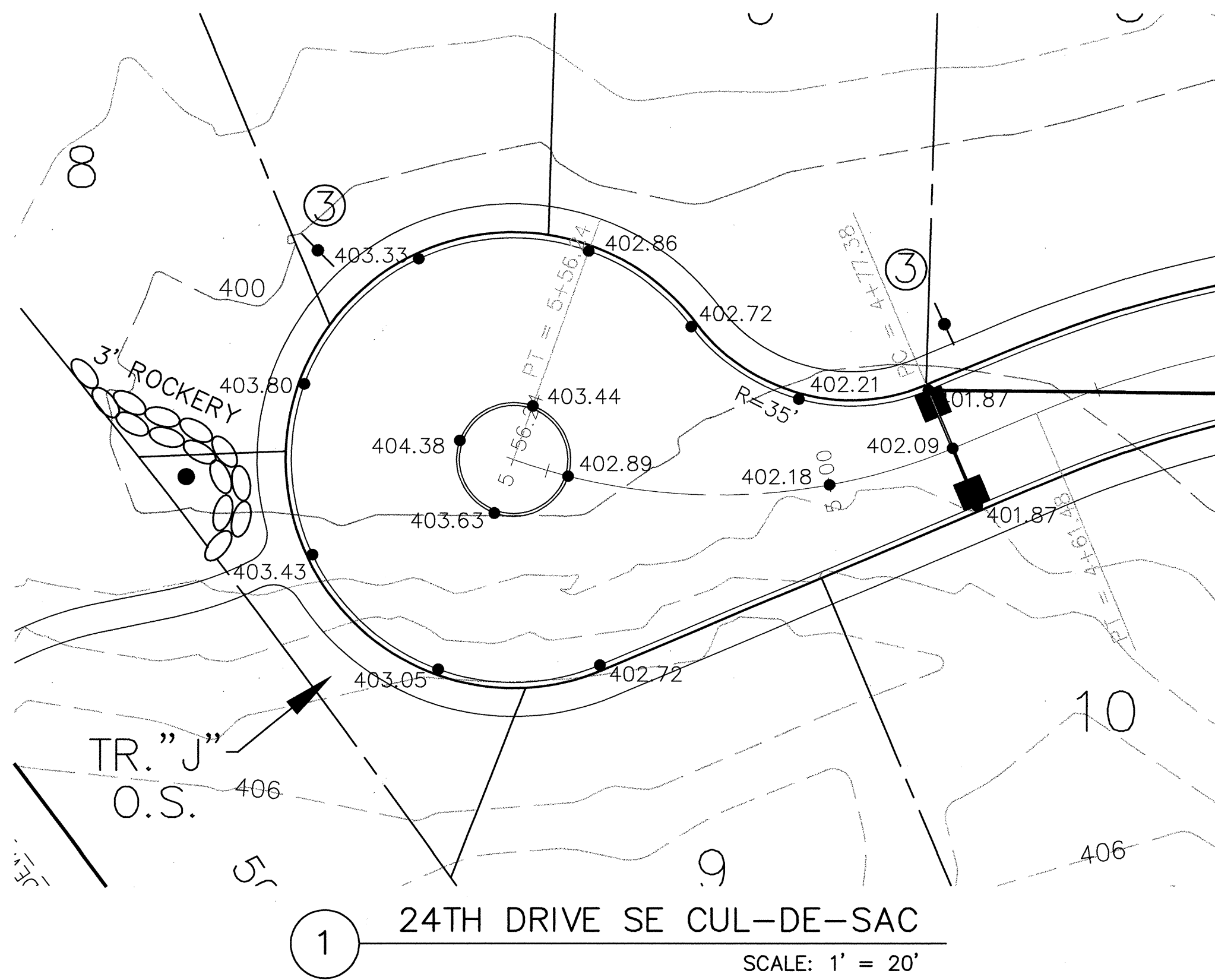
D-2 ROAD + STORM DRAINAGE ROAD DETAILS + NOTES
 WASHINGTON
 CITY OF MILL CREEK

Designed	KR
Drawn	ME
Checked	KR
Drawing	96173
View	RS-DTLS

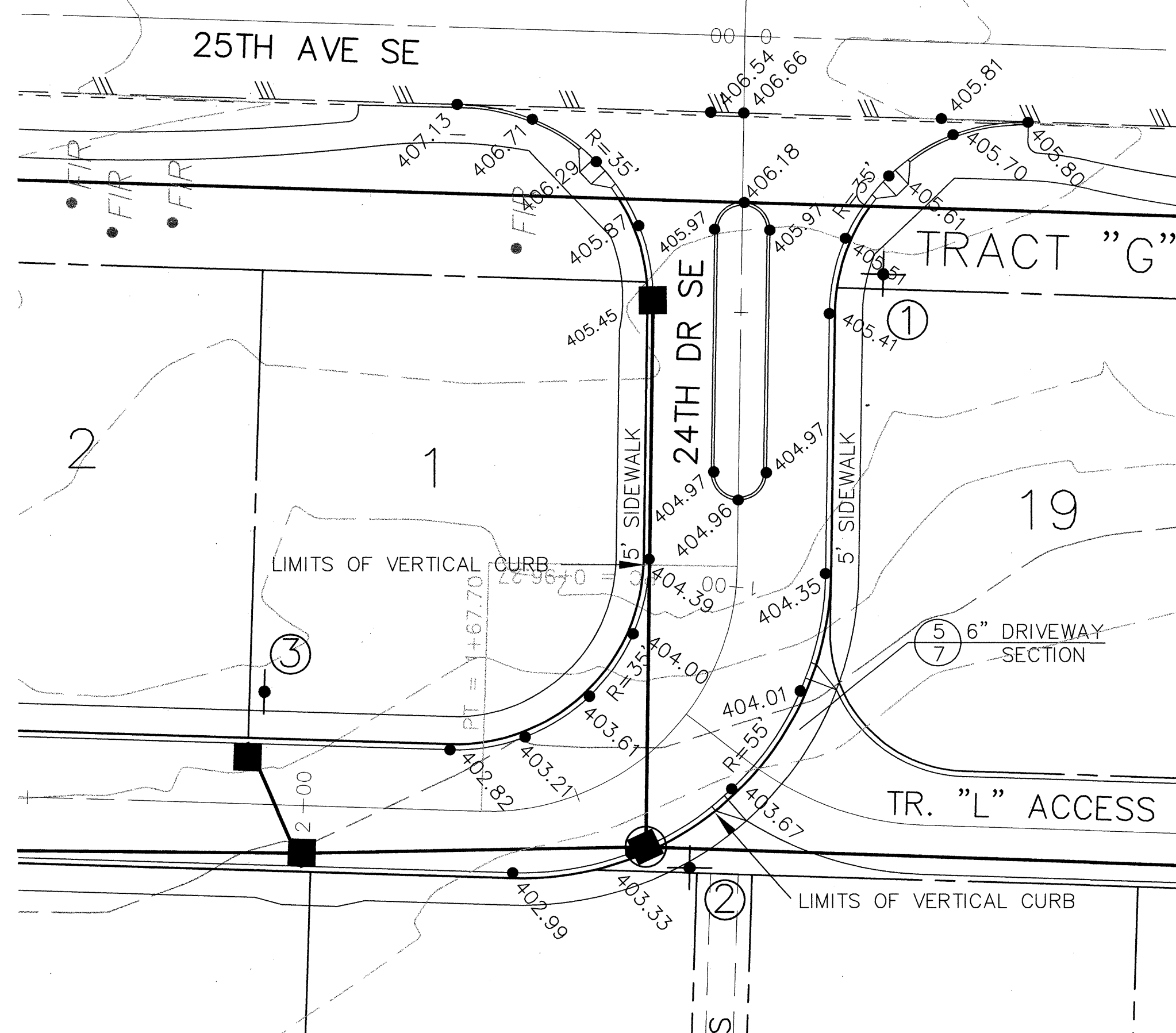
Sheet 6 of 11

Job No. 96173

SEC 5, TWP 27N, RGE 5E, W.M.

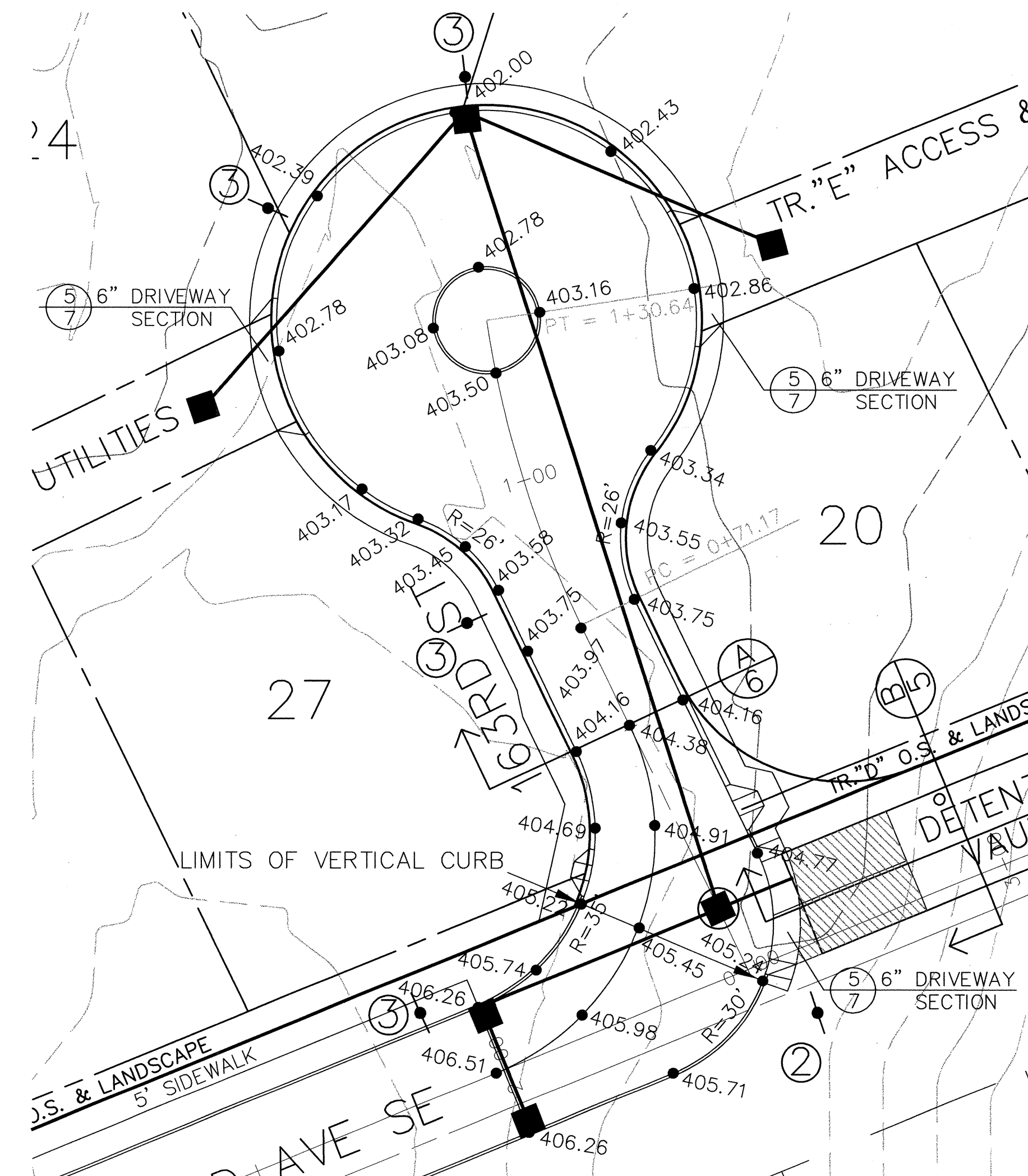


1 24TH DRIVE SE CUL-DE-SAC
SCALE: 1' = 20'

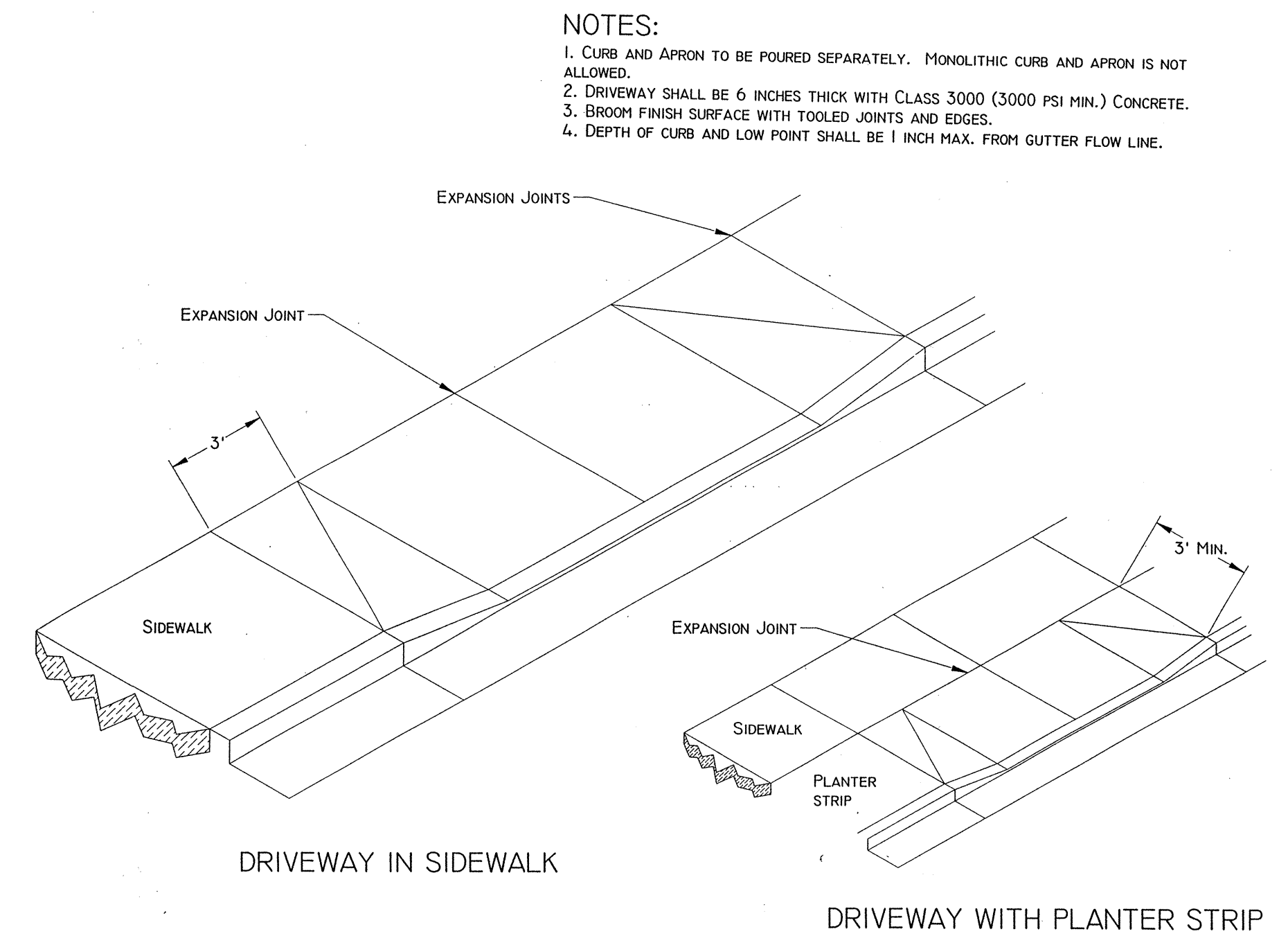


2 24TH DRIVE SE ENTRANCE DETAIL
SCALE: 1' = 20'

LEGEND:
● = FL OR CL ELEVATION

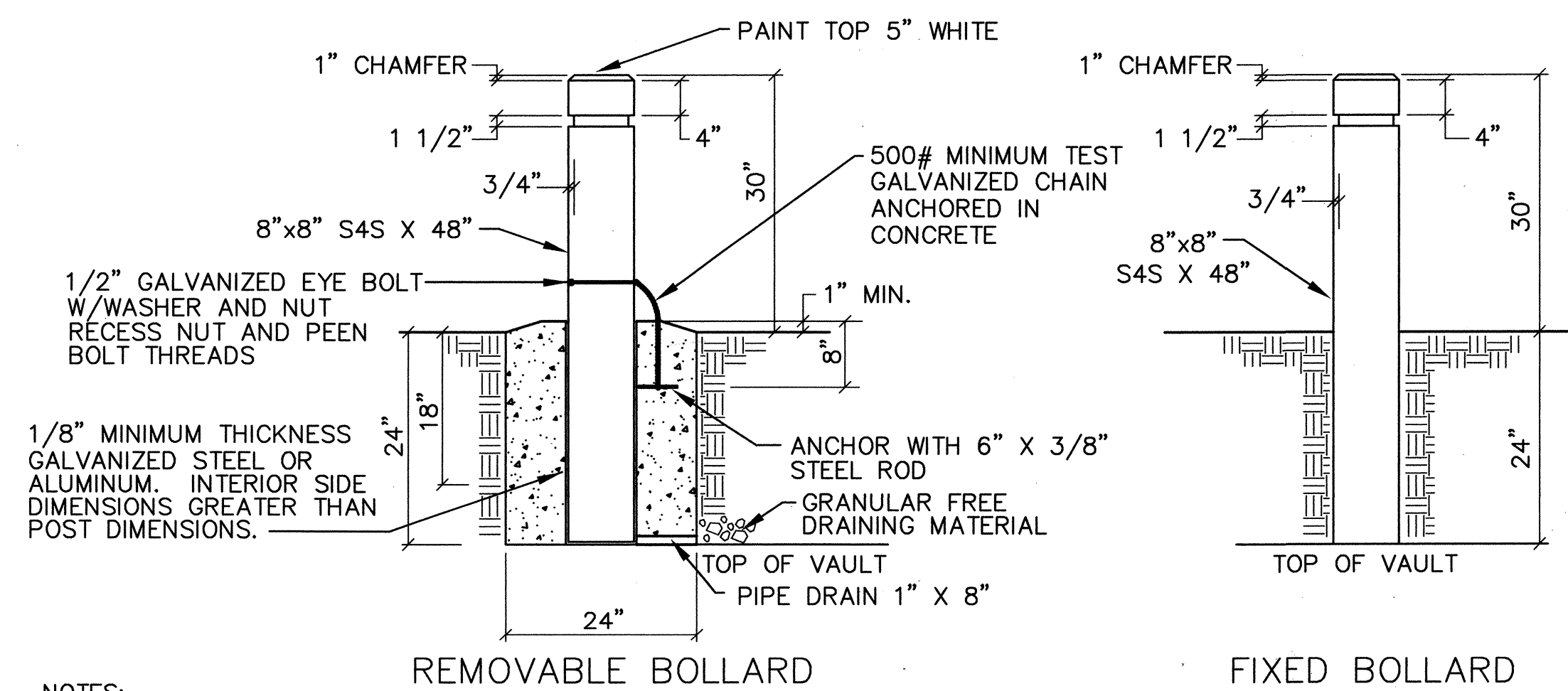


3 23RD AVE SE ENTRANCE AND CUL-DE-SAC DETAIL
SCALE: 1' = 20'



5 6" THICK VERTICAL CURB DRIVEWAY
NO SCALE

- NOTES:
1. CURB AND APRON TO BE POURED SEPARATELY. MONOLITHIC CURB AND APRON IS NOT ALLOWED.
 2. DRIVEWAY SHALL BE 6 INCHES THICK WITH CLASS 3000 (3000 PSI MIN.) CONCRETE.
 3. BROOM FINISH SURFACE WITH TOOLED JOINTS AND EDGES.
 4. DEPTH OF CURB AND LOW POINT SHALL BE 1 INCH MAX. FROM GUTTER FLOW LINE.



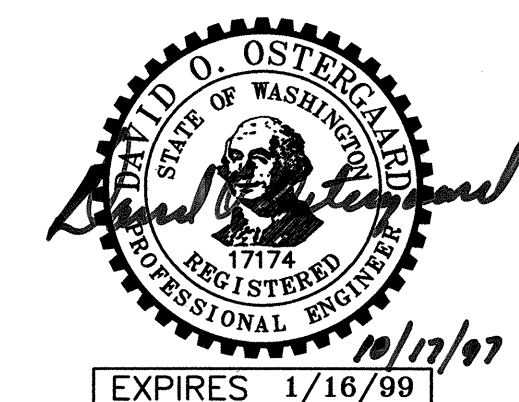
- NOTES:
1. ALL WOOD SHALL BE PRESSURE TREATED.
 2. STEEL TUBE SHALL CONFORM TO ASTM A53 OR ASTM A53 GRADE A.
 3. NUTS, BOLTS & WASHERS SHALL CONFORM TO ASTM A307.
 4. ALL STEEL PARTS SHALL BE GALVANIZED.
 5. CONCRETE SHALL BE CLASS COMMERCIAL.
 6. FOR ACCEPTABLE ALTERNATE BOLLARD DESIGN, SEE WSDOT/APWA H-13.

4 BOLLARDS
NO SCALE

ACCEPTED FOR CONSTRUCTION
CITY OF MILL CREEK
Chris Taylor 10/12/97
CITY ENGINEER DATE

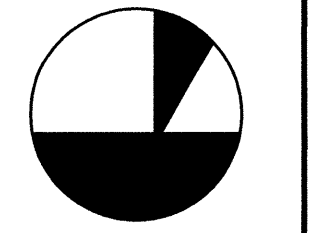
ACCEPTED AS IN COMPLIANCE
WITH CONDITIONS OF APPROVAL
William Linn 10/21/97
DIRECTOR OF
COMMUNITY DEVELOPMENT DATE

G.W.C.
Land Development Consulting
8888 45th Pl. W.
Mukilteo, Wa. 98275
347-4627 & 828-9881



DATE	REVISION	BY
8/14/97	PER CITY REVIEW COMMENTS (AND REV)	ME
8/14/97	PER CITY REVIEW COMMENTS (AND REV)	ME
10/10/97	PER CITY REVIEW COMMENTS (AND REV)	ME

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& ASSOC. INC. CONSULTING ENGINEERS
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(206) 259-6445
EVERETT, WA 98201
BELLEVUE: (206) 827-5854



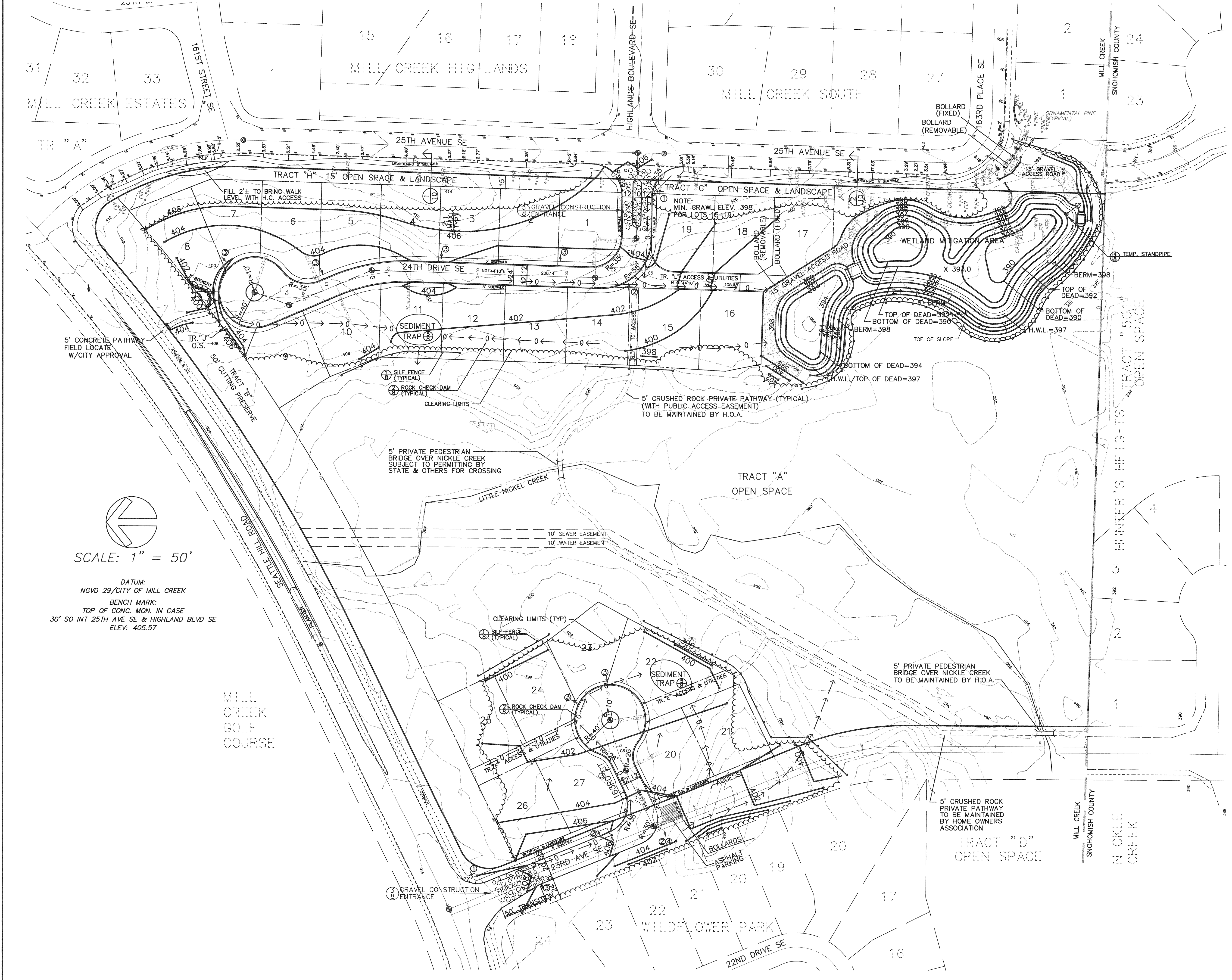
R - 2
ROAD + STORM DRAINAGE
DETAILS
WASHINGTON
CITY OF MILL CREEK

Designed KR
Drawn ME
Checked KR
Drawing 96173
View RS-DTLS2

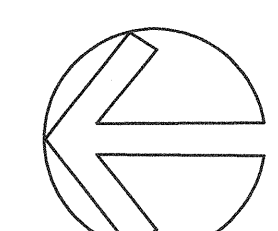
Sheet 7 of 11

Job No. 96173

SW 1/4, SEC 5, TWP 27 N, RGE 5 E, WM



NOTE:
PROVIDE ORANGE SAFETY FENCING PER CITY/OWNER FIELD LOCATION OF CLEARING LIMITS.



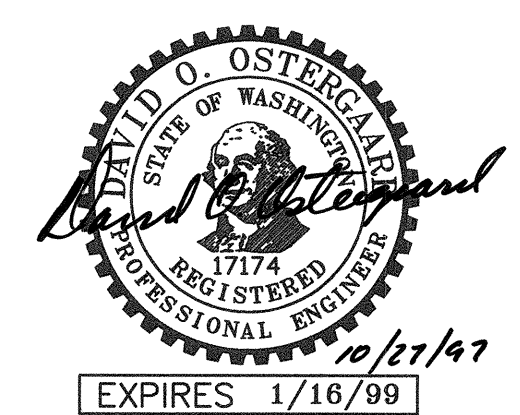
SCALE: 1" = 50'

DATUM:
NGVD 29/CITY OF MILL CREEK
BENCH MARK:
TOP OF CONC. MON. IN CASE
30' SO INT 25TH AVE SE & HIGHLAND BLVD SE
ELEV. 405.57

ACCEPTED FOR CONSTRUCTION
CITY OF MILL CREEK
Craig Stoffer 10/29/97
CITY ENGINEER DATE

ACCEPTED AS IN COMPLIANCE
WITH CONDITIONS OF APPROVAL
William J. Jurek 02/29/97
DIRECTOR OF COMMUNITY DEVELOPMENT DATE

G.W.C.
Land Development Consulting
8888 45th Pl. W.
Mukilteo, Wa. 98275
347-4627 & 828-9881



DATE	8/4/97 9/11/97 10/10/97
REVISION	PER CITY REVIEW COMMENTS(2ND REV) PER CITY REVIEW COMMENTS(3RD REV)
BY	ME ME ME

OSTERGAARD • ROBINSON & ASSOC. INC. CONSULTING ENGINEERS
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(206) 259-6445
EVERETT, WA 98201
BELLEVUE: (206) 827-5854

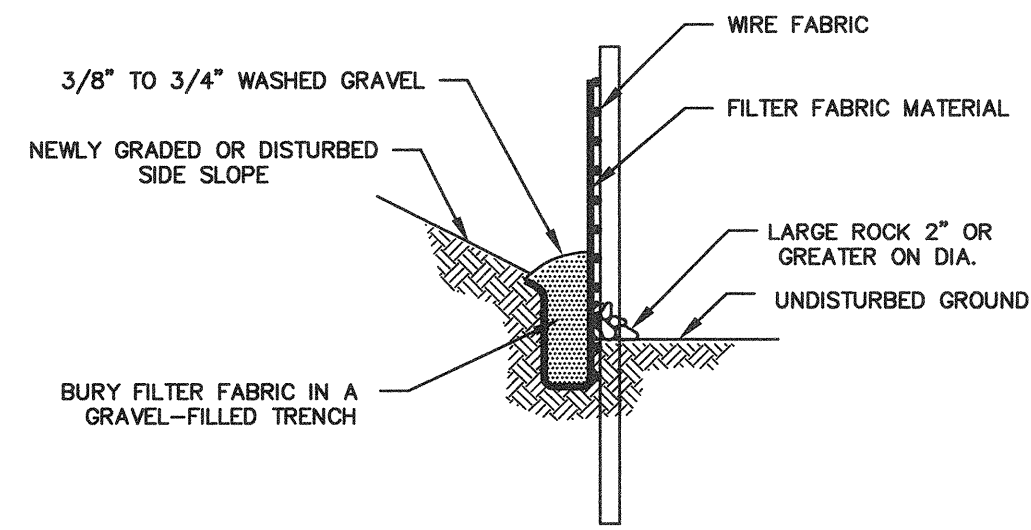
D-2 CLEARING, GRADING & TESCP
CITY OF MILL CREEK WASHINGTON

Designed KR
Drawn ME
Checked DM
Drawing 96173
View GR-PLAN

Sheet 8 of 11

Job No. 96173

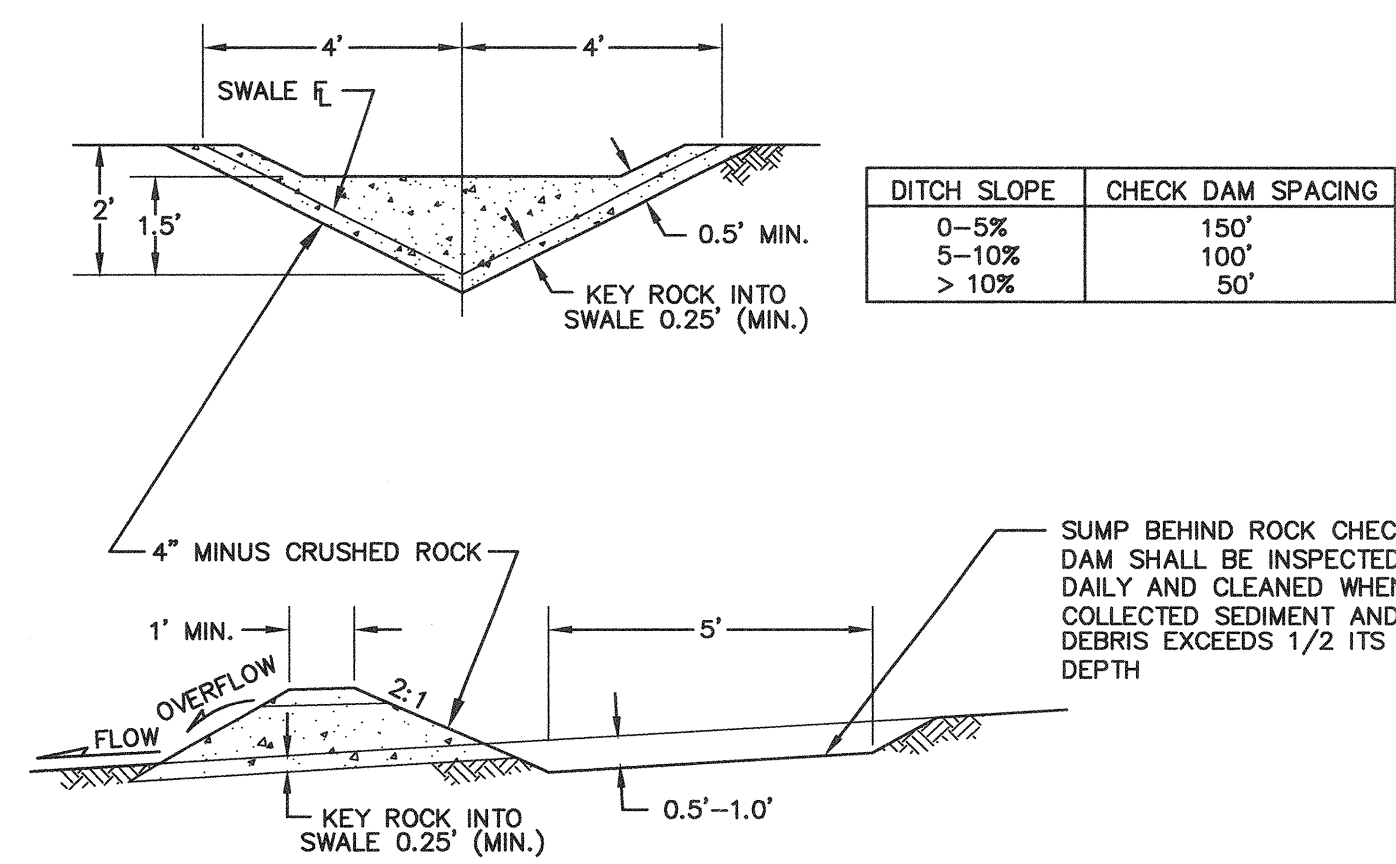
SEC 5, TWP 27N, RGE 5E, W.M.



1 SILT FENCE DETAIL
NO SCALE

MAINTENANCE OF SILTATION BARRIERS

- SILTATION BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, END RUNS AND UNDERCUTTING BENEATH BALES. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE STRAW BALE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

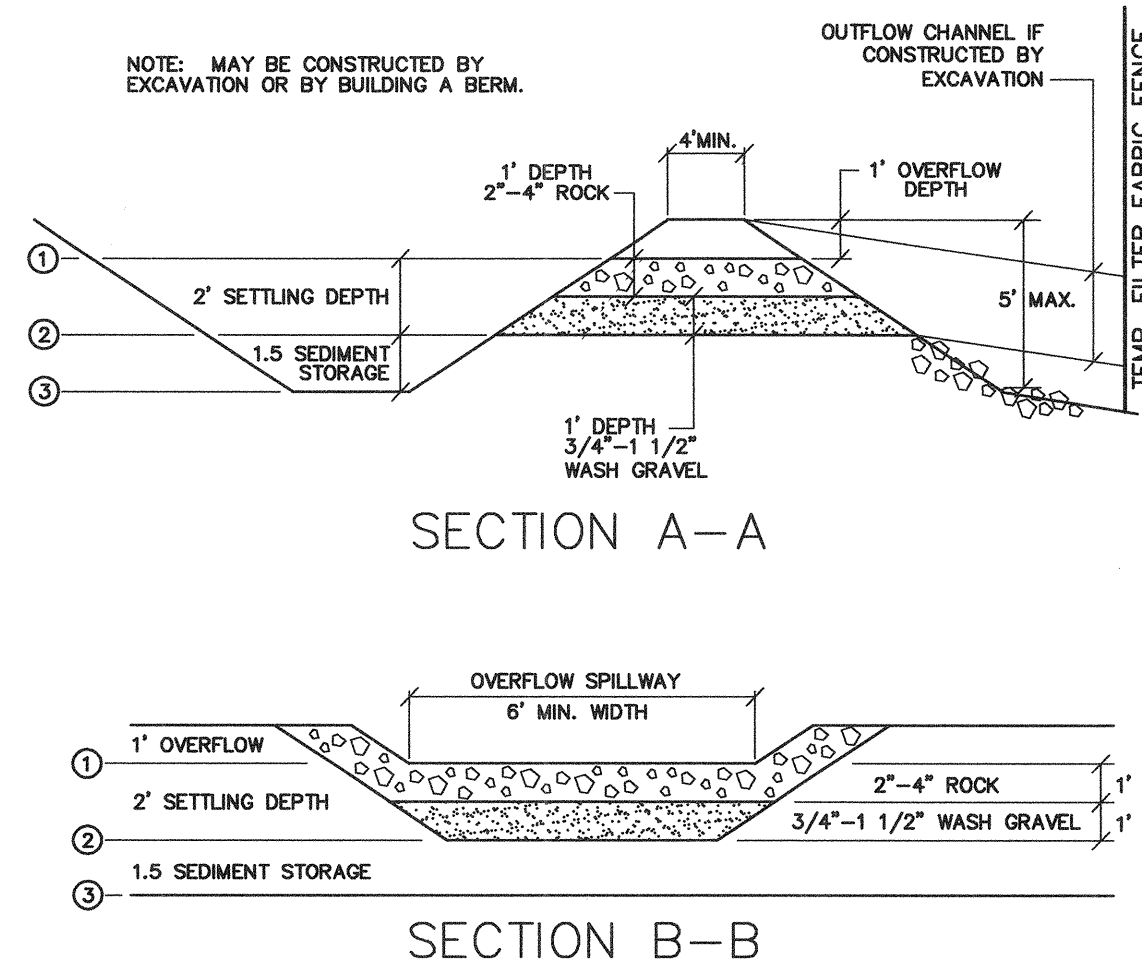
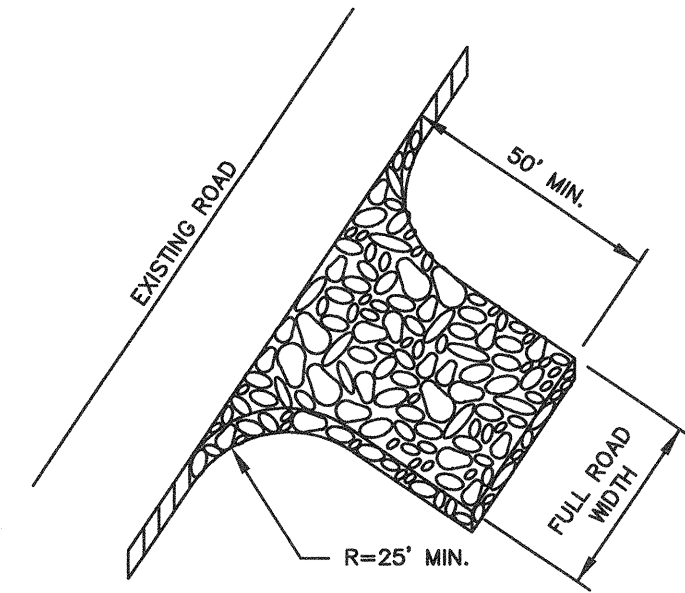


2 ROCK CHECK DAM DETAILS
NO SCALE

3 GRAVEL CONSTRUCTION ENTRANCE
NO SCALE

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

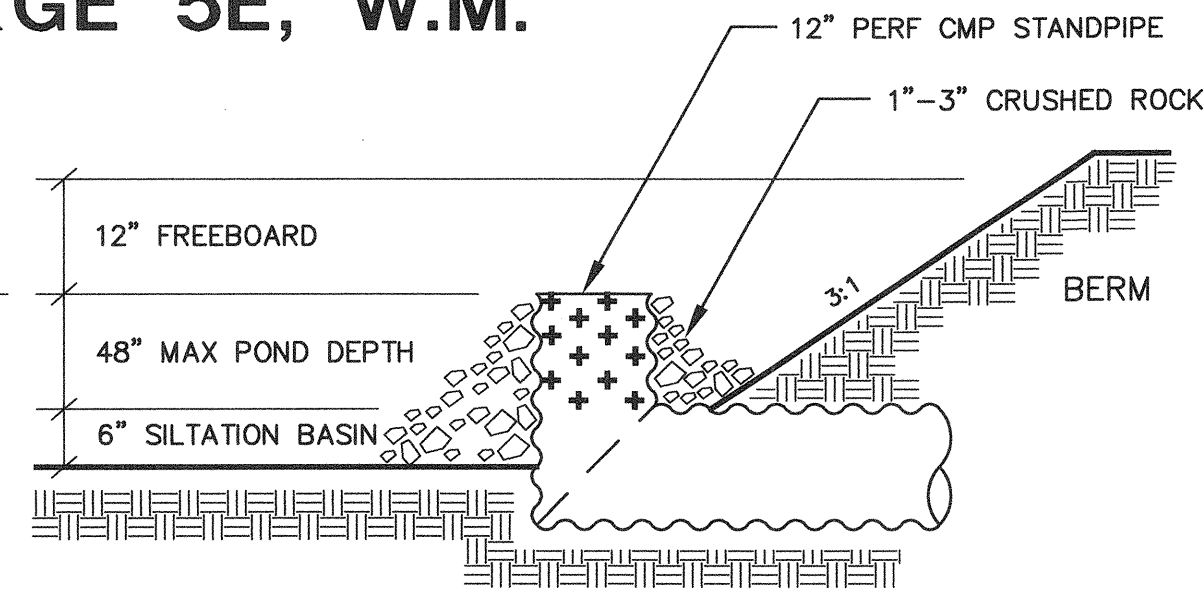
- INSTALLATION: THE AREA OF THE ENTRANCE SHOULD BE CLEARED OF ALL VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL. THE GRAVEL SHALL BE PLACED TO THE SPECIFIED DIMENSIONS. ANY DRAINAGE FACILITIES REQUIRED BECAUSE OF WASHING SHOULD BE CONSTRUCTED ACCORDING TO SPECIFICATIONS IN THE PLAN. IF WASH RACKS ARE USED, THEY SHOULD BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- AGGREGATE: 4" TO 6" CRUSHED BALLAST ROCK
- ENTRANCE DIMENSIONS: THE AGGREGATE LAYER MUST BE AT LEAST 6 INCHES THICK. IT MUST EXTEND THE FULL WIDTH OF THE VEHICULAR INGRESS AND EGRESS AREA. THE LENGTH OF THE ENTRANCE MUST BE AT LEAST 50 FEET.
- WASHING: IF CONDITIONS ON THE SITE ARE SUCH THAT MOST OF THE MUD IS NOT REMOVED FROM VEHICLE TIRES BY CONTACT WITH THE GRAVEL, THEN THE TIRES MUST BE WASHED BEFORE VEHICLES ENTER A PUBLIC ROAD. WASH WATER MUST BE CARRIED AWAY FROM THE ENTRANCE TO A SETTLING AREA TO REMOVE SEDIMENT. A WASH RACK MAY ALSO BE USED TO MAKE WASHING MORE CONVENIENT AND EFFECTIVE.
- MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD TO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2-INCH STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEAN OUT ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAY OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.



TEMPORARY SEDIMENT TRAP - MINIMUM DIMENSIONS			
T.S.T.#	1	2	3
ALL PONDS	23 X 27	11 X 15	2 X 6

SEE HYDRAULIC CALCULATIONS FOR T.S.T. CALCULATIONS

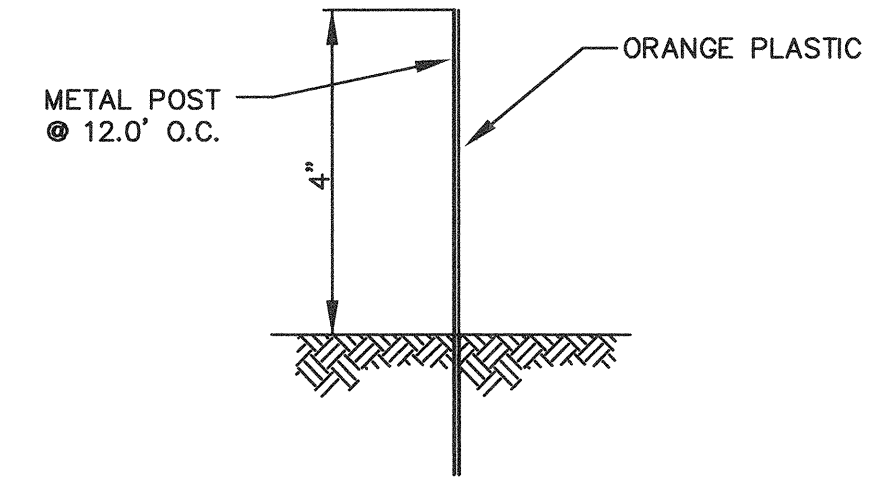
5 SEDIMENT TRAP DETAIL
NO SCALE



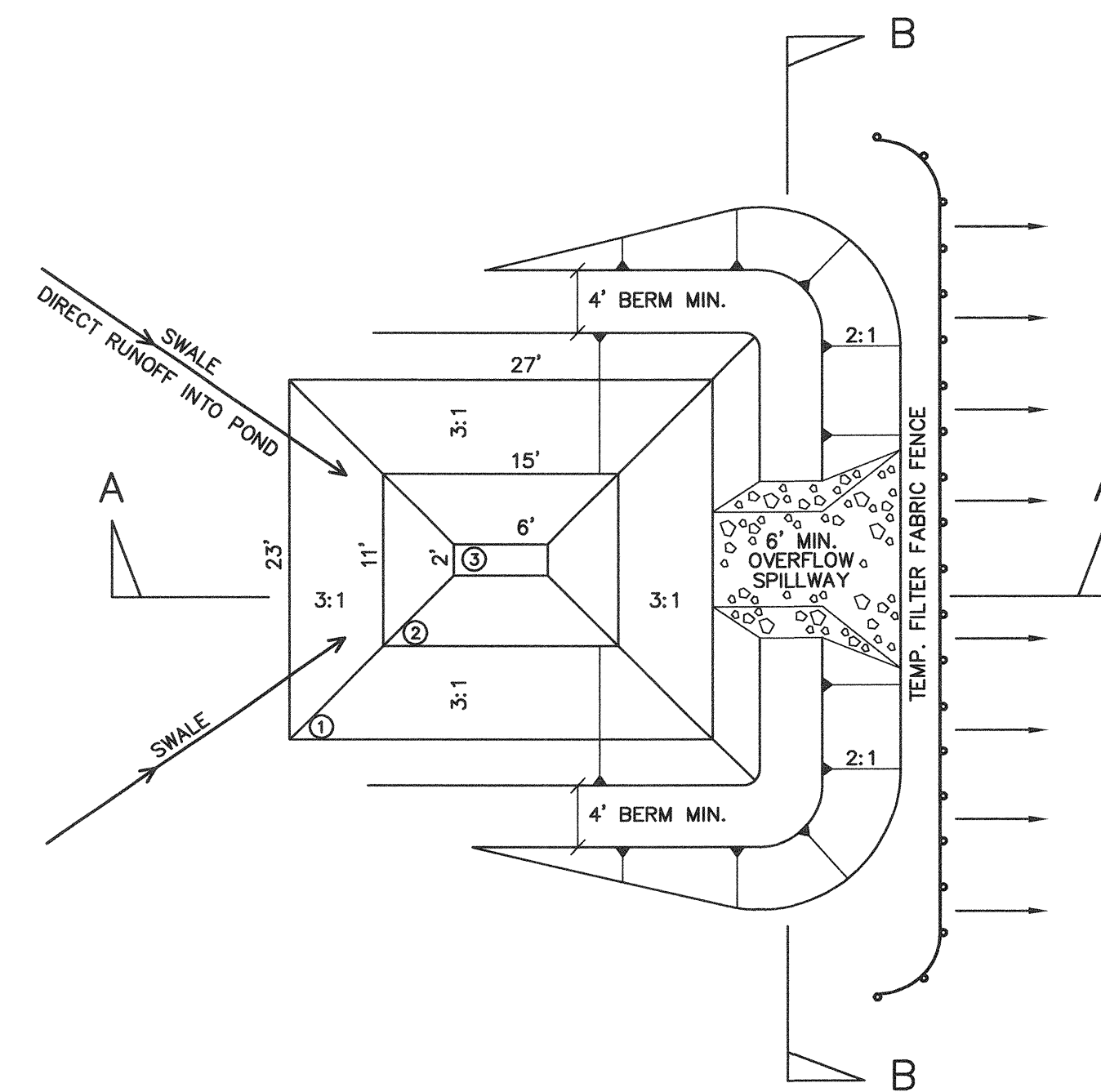
4 TEMP. STANDPIPE DETAIL
NO SCALE

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

- 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 IS OSTERGAARD-ROBINSON AT (206) 259-6445.
- 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 EARTH WORK SHALL BE PERFORMED IN ACCORDANCE WITH CITY STANDARDS. PRECONSTRUCTION SOILS INVESTIGATION MAY BE REQUIRED TO EVALUATE SOILS STABILITY.
- IF CUT AND FILL SLOPES EXCEED A 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 SHALL BE DESIGNED AND CERTIFIED BY A CIVIL ENGINEER EXPERIENCED IN SOILS MECHANICS. A BUILDING PERMIT IS REQUIRED.
- STOCKPILES ARE TO BE LOCATED IN SAFE AREAS AND ADEQUATELY PROTECTED BY TEMPORARY SEEDING AND MULCHING. HYDROSEED PREFERRED.
- ALL STRUCTURAL FILLS SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY BY MODIFIED PROCTOR TEST.
- ALL DISTURBED AREAS SUCH AS RETENTION FACILITIES, ROADWAY BACK-SLOPES, ETC. SHALL BE SEEDED WITH A PERENNIAL GROUND COVER GRASS TO MINIMIZE EROSION. GRASS SEEDING WILL BE DONE USING AN APPROVED HYDROSEEDER OR AS OTHERWISE APPROVED BY THE CITY OF MILL CREEK.
- IMMEDIATELY FOLLOWING FINISH GRADING, PERMANENT VEGETATION (CONSISTING OF RAPID, PERSISTENT AND LEGUME) WILL BE APPLIED. (MINIMUM 80# PER ACRE). THIS IS TO INCLUDE THE FOLLOWING:
20% ANNUAL, PERENNIAL OR HYBRID RYE GRASS
40% CREEPING RED FESCUE
40% WHITE CLOVER
HYDROSEED REQUIRED.
- FERTILIZER: SHALL BE APPLIED AT 400# PER ACRE OF 10-20-20 (10 POUNDS PER 1100 SQUARE FEET) OR EQUIVALENT.



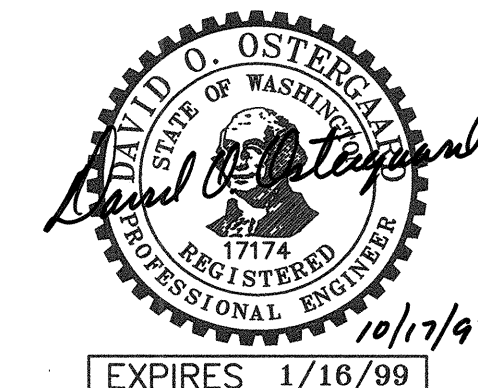
6 ORANGE BARRIER FENCE
TENSAR SAFETY FENCE OR EQUAL NO SCALE



ACCEPTED FOR CONSTRUCTION
CITY OF MILL CREEK
[Signature] 10/1/97
CITY ENGINEER DATE

ACCEPTED AS IN COMPLIANCE
WITH CONDITIONS OF APPROVAL
[Signature] 10-21-97
DIRECTOR OF DATE
COMMUNITY DEVELOPMENT

G.W.C.
Land Development Consulting
8888 45th Pl. W.
Mukilteo, Wa. 98275
347-4627 & 828-9881



DATE	REVISION
8/4/97	PER CITY REVIEW COMMENTS(2ND REV)
9/11/97	PER CITY REVIEW COMMENTS(3RD REV)
10/10/97	

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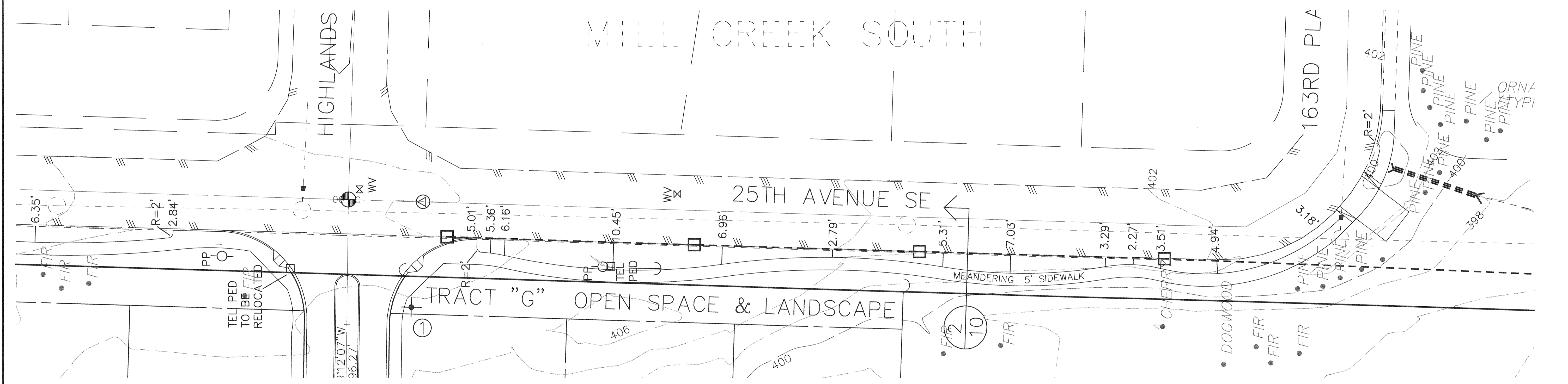
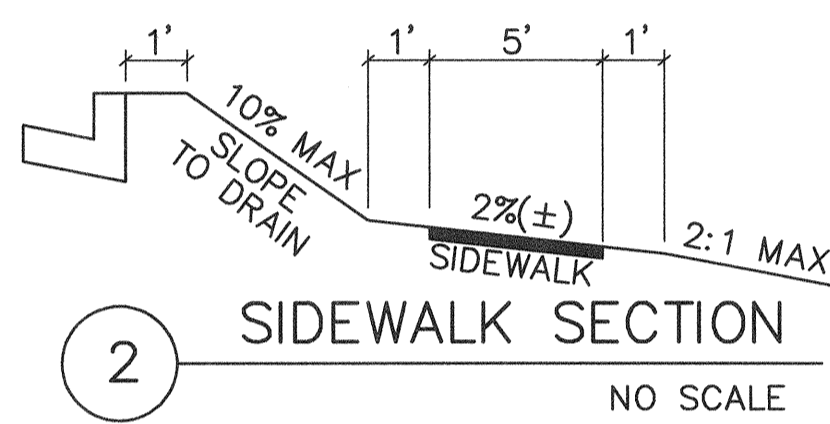
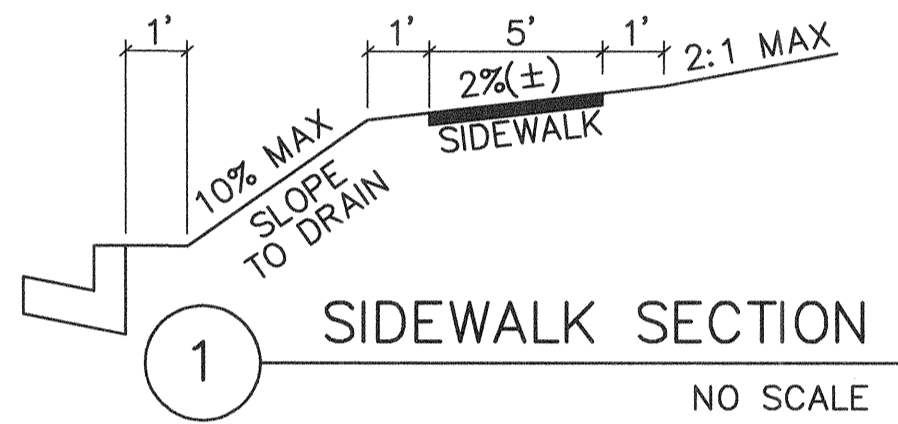
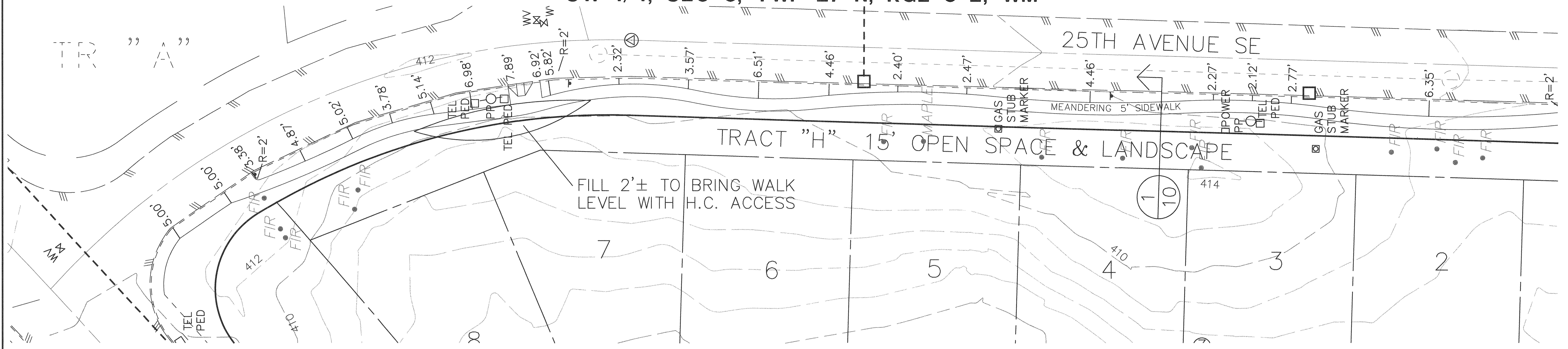
D-2 T.E.S.C. GRADING + NOTES DETAILS
WASHINGTON
CITY OF MILL CREEK

Designed	KR
Drawn	ME
Checked	KR
Drawing	96173
View	RS-DTL

Sheet 9 of 11

Job No. 96173

SW 1/4, SEC 5, TWP 27 N, RGE 5 E, WM



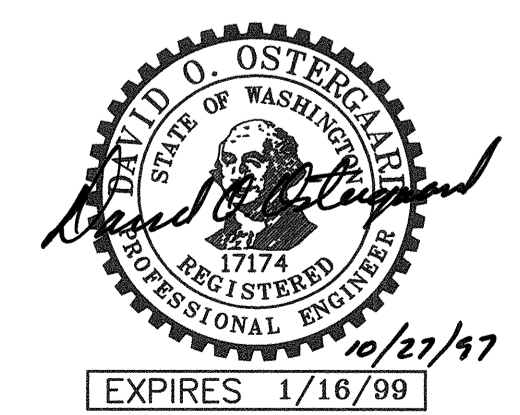
NOTES:
DIMENSIONS ARE FROM PC'S, PT'S AND MID POINTS OF FRONT EDGE OF 5 FOOT SIDEWALK PERENDICULAR TO BACK OF CURB. WITH THE EXCEPTION OF THE FILL BEHIND THE WALKWAY AT THE INTERSECTION OF 161ST STREET SE NO ADDITIONAL CUTS OR FILLS ARE ANTICIPATED FOR THIS WALKWAY.
CONTRACTOR TO VERIFY IN THE FIELD THAT THE SIDEWALK DOES NOT EXCEED A 12:1 SLOPE.
ALONG 25TH AVENUE SE RELOCATION OF POWER AND TELEPHONE UTILITIES UNDERGROUND SUBJECT TO LITIGATION.

SCALE: 1" = 20'
DATUM: NGVD 29/CITY OF MILL CREEK
BENCH MARK: TOP OF CONC. MON. IN CASE 30' SO INT 25TH AVE SE & HIGHLAND BLVD SE ELEV: 405.57

ACCEPTED FOR CONSTRUCTION
CITY OF MILL CREEK
12/29/97
CITY ENGINEER DATE

ACCEPTED AS IN COMPLIANCE WITH CONDITIONS OF APPROVAL
12-29-97
DIRECTOR OF COMMUNITY DEVELOPMENT DATE

G.W.C.
Land Development Consulting
8888 45th Pl. W.
Mukilteo, Wa. 98275
347-4627 & 828-9881



DATE	REVISION	BY
8/4/97	PER CITY REVIEW COMMENTS	ME
9/11/97	PER CITY REVIEW COMMENTS(2ND REV)	ME
10/10/97	PER CITY REVIEW COMMENTS(3RD REV)	ME

OSTERGAARD • ROBINSON & ASSOC. INC. CONSULTING ENGINEERS
3630 COLBY AVENUE EVERETT, WA 98201
(206) 259-6445 BELLEVUE: (206) 827-6854

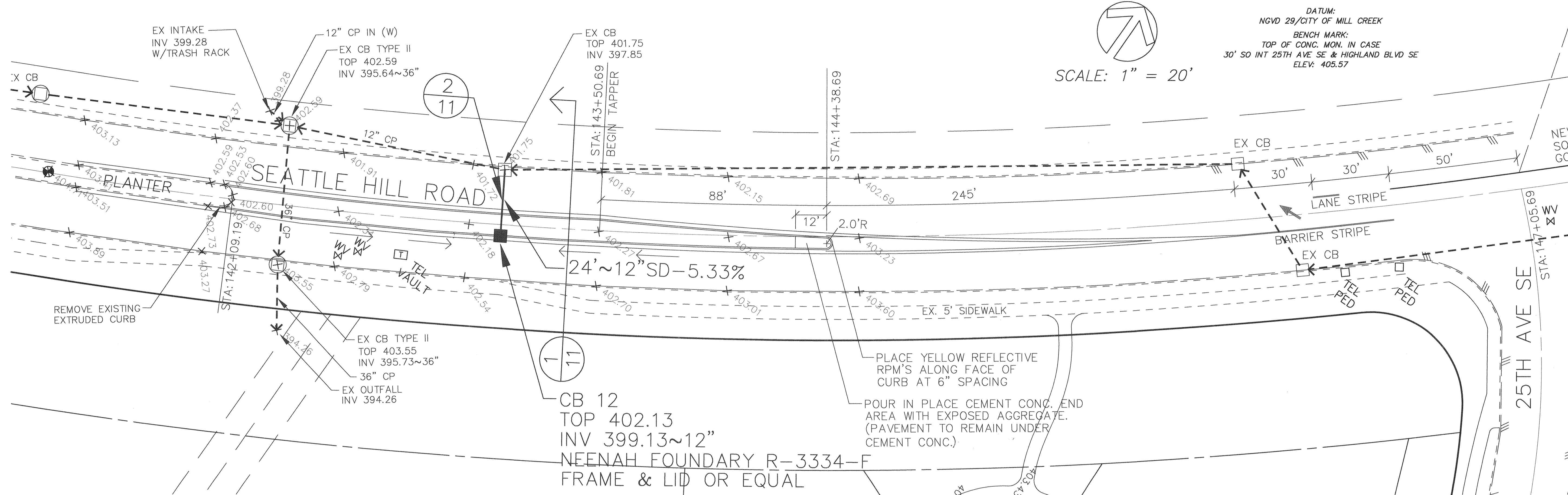
D - 2 MEANDERING SIDEWALK 20 SCALE DETAILS
CITY OF MILL CREEK WASHINGTON

Designed KR
Drawn ME
Checked DM
Drawing 96173
View CR-PLAN

Sheet 10 of 11

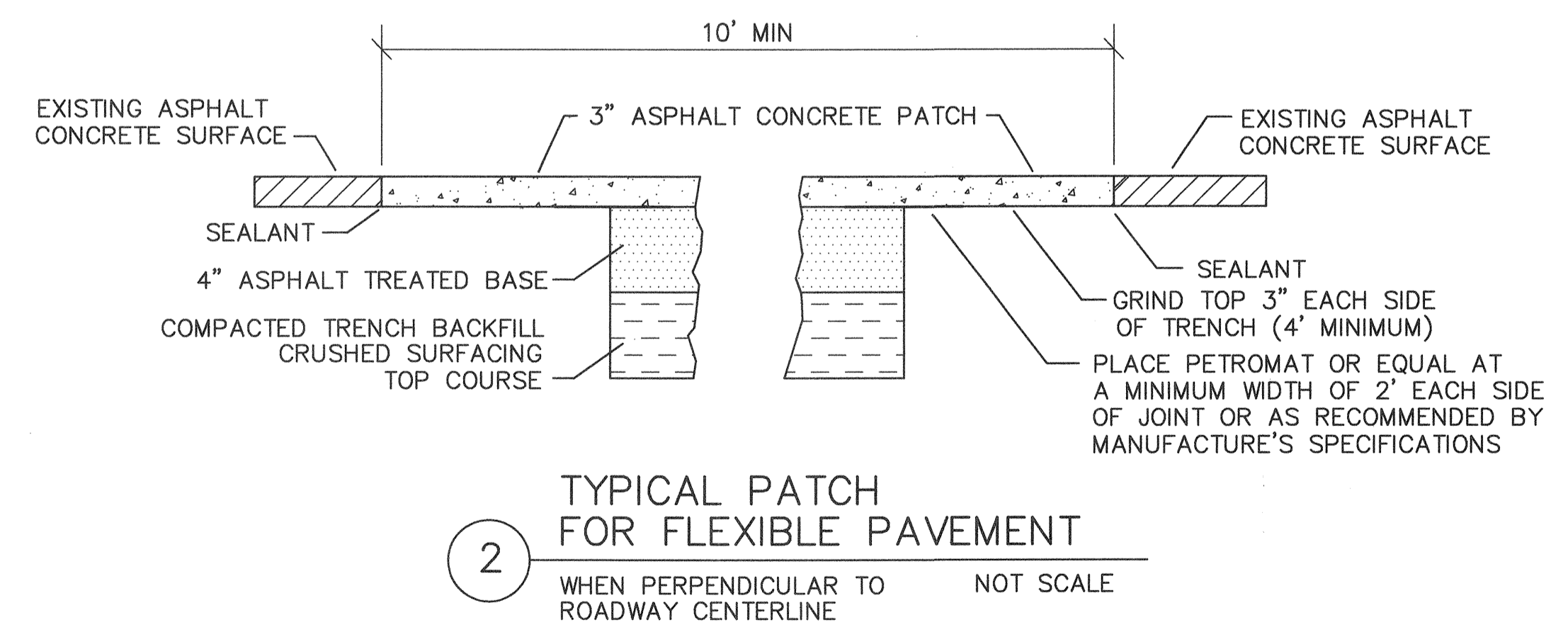
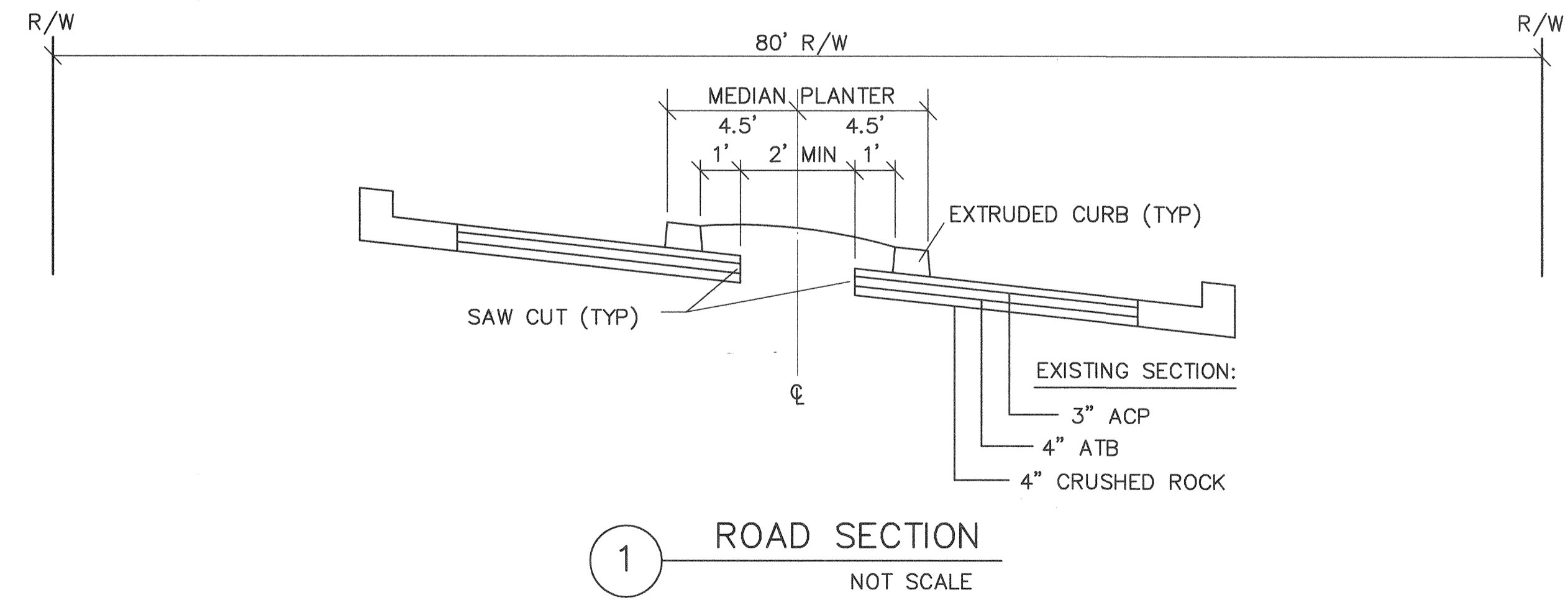
Job No. 96173

SW 1/4, SEC 5, TWP 27 N, RGE 5 E, WM



DATUM:
NGVD 29/CITY OF MILL CREEK
BENCH MARK:
TOP OF CONC. MON. IN CASE
30' SO INT 25TH AVE SE & HIGHLAND BLVD SE
ELEV: 405.57

SCALE: 1" = 20'



NOTES:
PLANTER AND IRRIGATION PLANS TO BE PROVIDED PRIOR TO CONSTRUCTION.
STATIONING IS BASED UPON SEATTLE HILL ROAD PLANS PREPARED BY PERTEET ENGINEERING. (DATED 10/9/91)

STRIPING LEGEND:
BARRIER STRIPE DOUBLE 4" YELLOW SOLID LINE W/4" SEPERATION.
GORE STRIPE SINGLE 8" WHITE SOLID LINE.
LANE STRIPE SINGLE 4" YELLOW SOLID LINE OR 1 TYPE 2W RPM THEN 3 TYPE 1W RPM'S ALL @ 4' O.C.
PLANTER STRIPE SINGLE 4" YELLOW SOLID LINE 18" OFFSET FROM PLANTER FLOW LINE.

ACCEPTED FOR CONSTRUCTION
CITY OF MILL CREEK
Chris Stapher 10/19/97
CITY ENGINEER DATE

ACCEPTED AS IN COMPLIANCE
WITH CONDITIONS OF APPROVAL
William J. ... 10-21-97
DIRECTOR OF COMMUNITY DEVELOPMENT DATE

G.W.C.
Land Development Consulting
8888 45th Pl. W.
Mukilteo, Wa. 98275
347-4627 & 828-9881



DATE	9/11/97	BY	ME
	10/10/97		ME
	10/17/97		ME
REVISION	PER CITY REVIEW COMMENTS(2ND REV)		
	PER CITY REVIEW COMMENTS(3RD REV)		
	PER CITY REVIEW COMMENTS(4TH REV)		

OSTERGAARD & ASSOC. INC. CONSULTING ENGINEERS
3630 COLBY AVENUE
EVERETT, WA 98201
(206) 259-6445 BELLEVUE: (206) 827-5854

D-2
MEDIAN CHANNELIZATION
AND PLANTER PLAN
SEATTLE HILL ROAD
CITY OF MILL CREEK WASHINGTON

Designed KR
Drawn ME
Checked KR
Drawing 96173
View PLANTER

Sheet 11 of 11

Job No. 96173