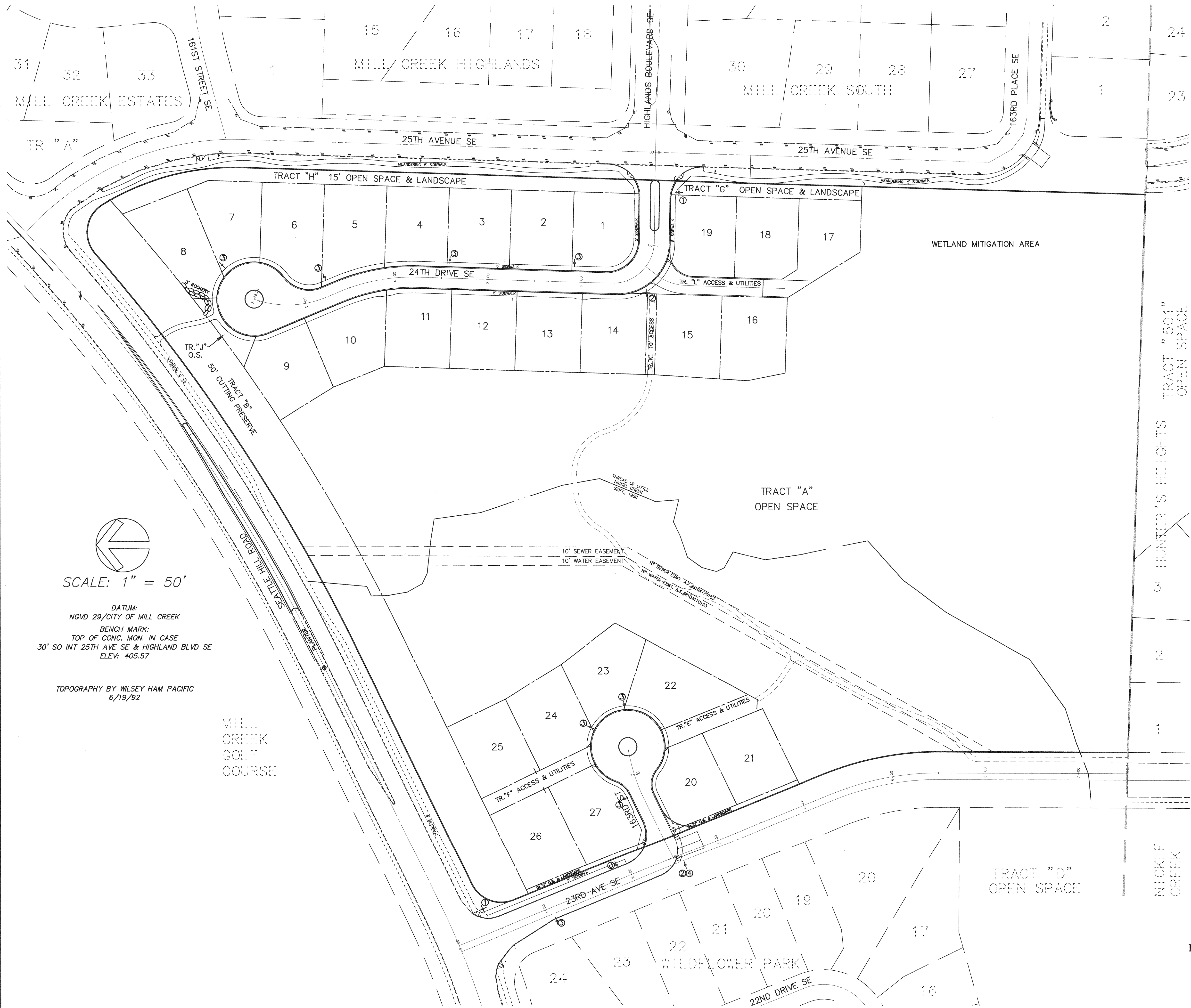


SW 1/4, SEC 5, TWP 27 N, RGE 5 E, WM



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 NORTUP WAY
BELLEVUE, WASHINGTON 98004
PHONE: 425.828.4624

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

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

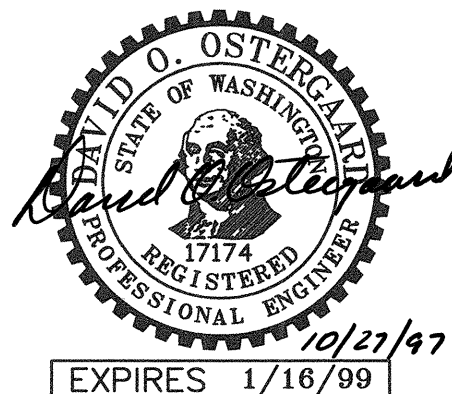
SANITARY SEWER: ALDERWOOD WATER DISTRICT
WATER: ALDERWOOD WATER DISTRICT
POWER: SNOHOMISH COUNTY PUD
TELEPHONE: GTE
GAS: WASHINGTON NATURAL GAS
FIRE DISTRICT: FIRE DISTRICT #7
SCHOOL DISTRICT: EVERETT SCHOOL DISTRICT #2

TABLE OF CONTENTS:		SHEET
COVER SHEET:	W/VICINITY MAP	1/11
ROAD & STORM:	PLAN	2/11
	PROFILE	3/11
	POND PLAN & DETAILS	4/11
	VAULT PLAN & DETAILS	5/11
	NOTES & DETAILS	6/11
	20 SCALE DETAILS	7/11
CLEARING, GRADING & TESC:	PLAN	8/11
	NOTES & DETAILS	9/11
MEANDERING SIDEWALK:	20 SCALE PLANS	10/11
MEDIAN CHANNELIZATION & PLANTER:	PLAN	11/11

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

ACCEPTED AS IN COMPLIANCE
WITH CONDITIONS OF APPROVAL
William J. Simon 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



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) 827-5854

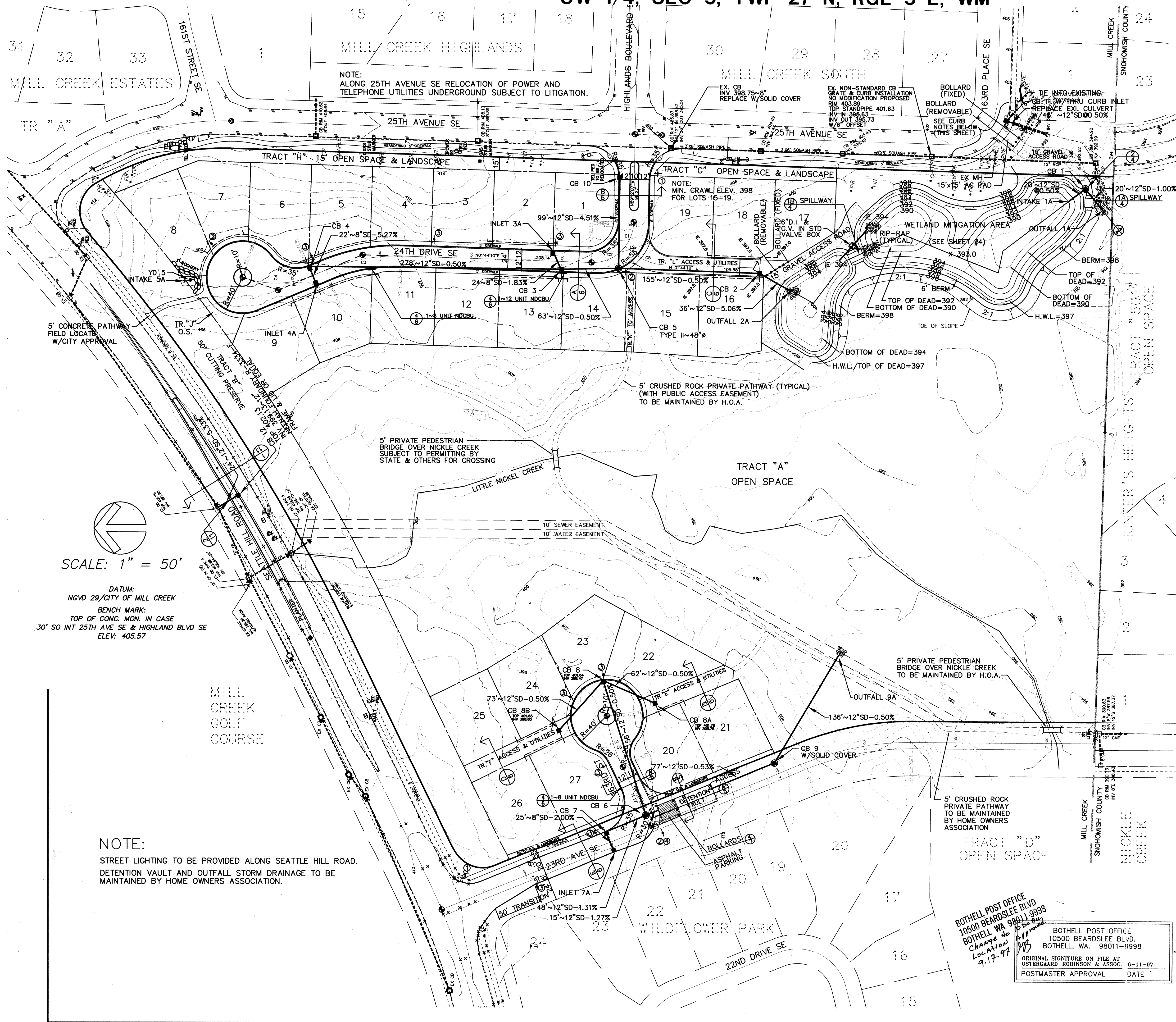
COVER SHEET
D-2
WASHINGTON
CITY OF MILL CREEK

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"

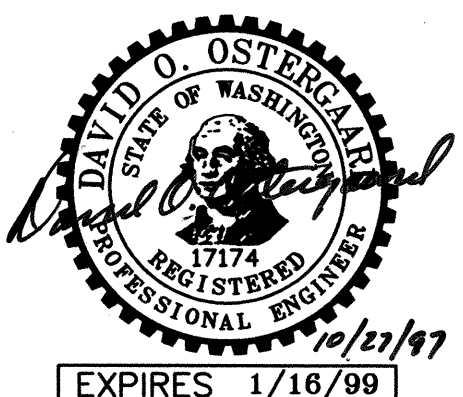
LEGEND

- 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
- +⊕ W1-6 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



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

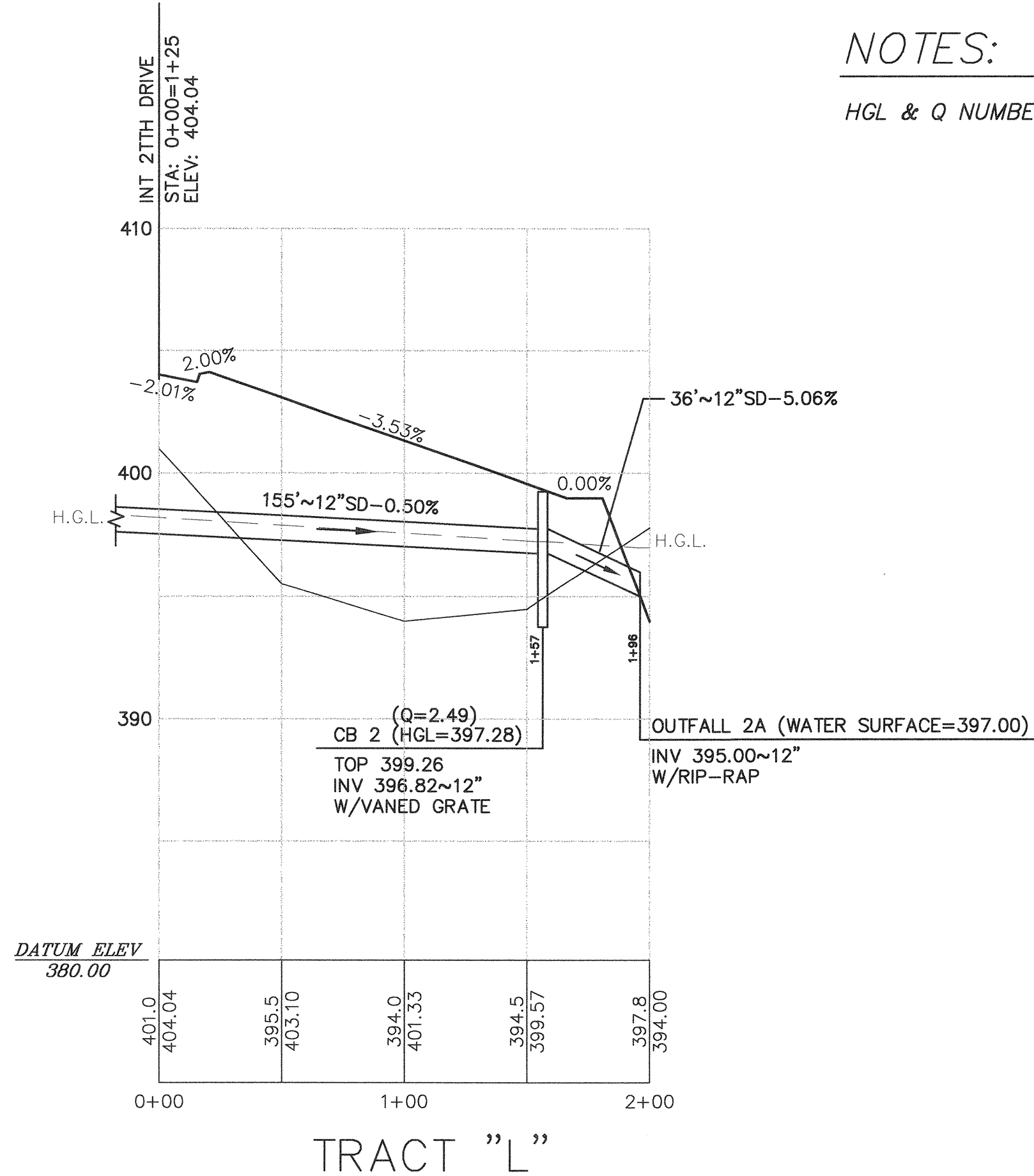
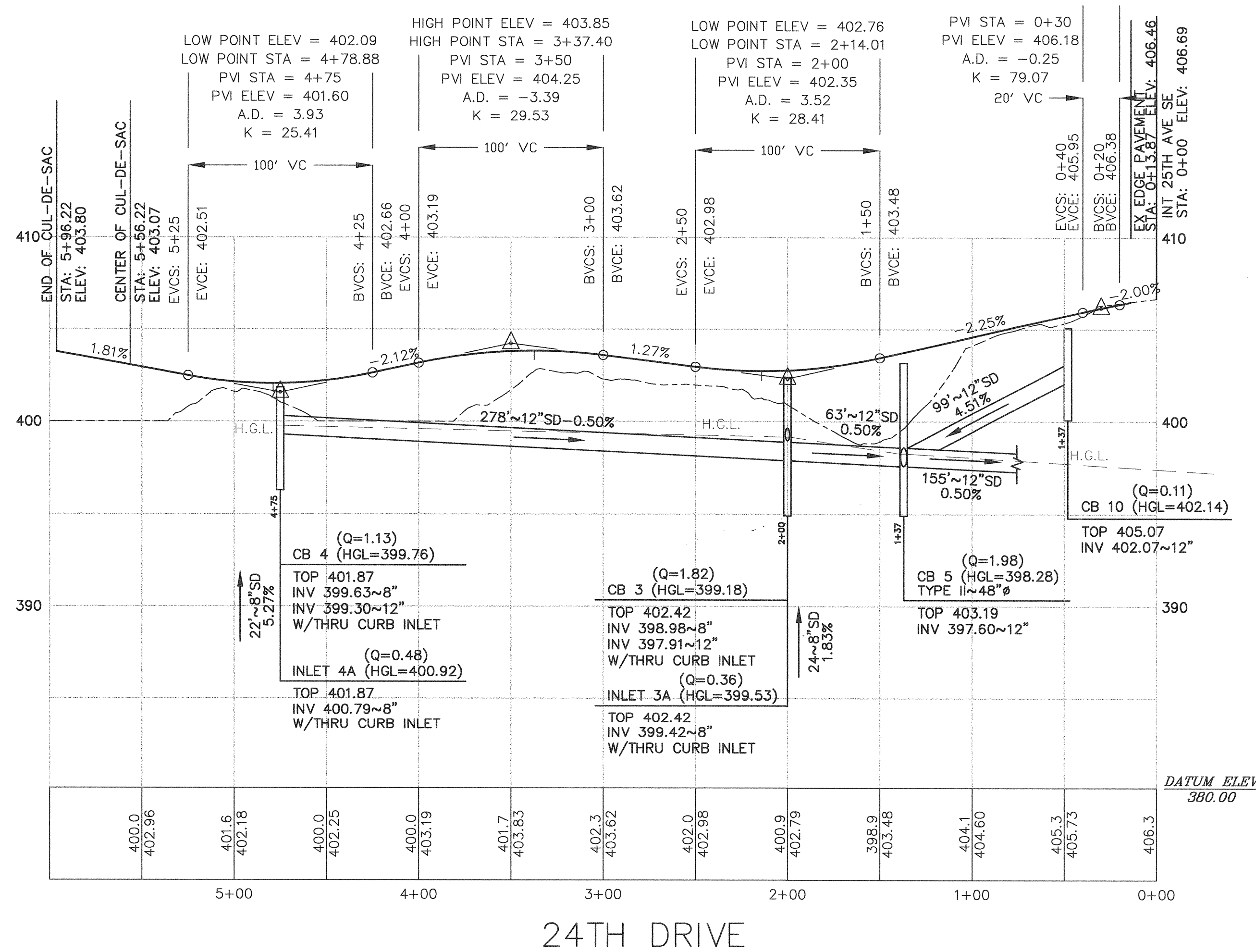
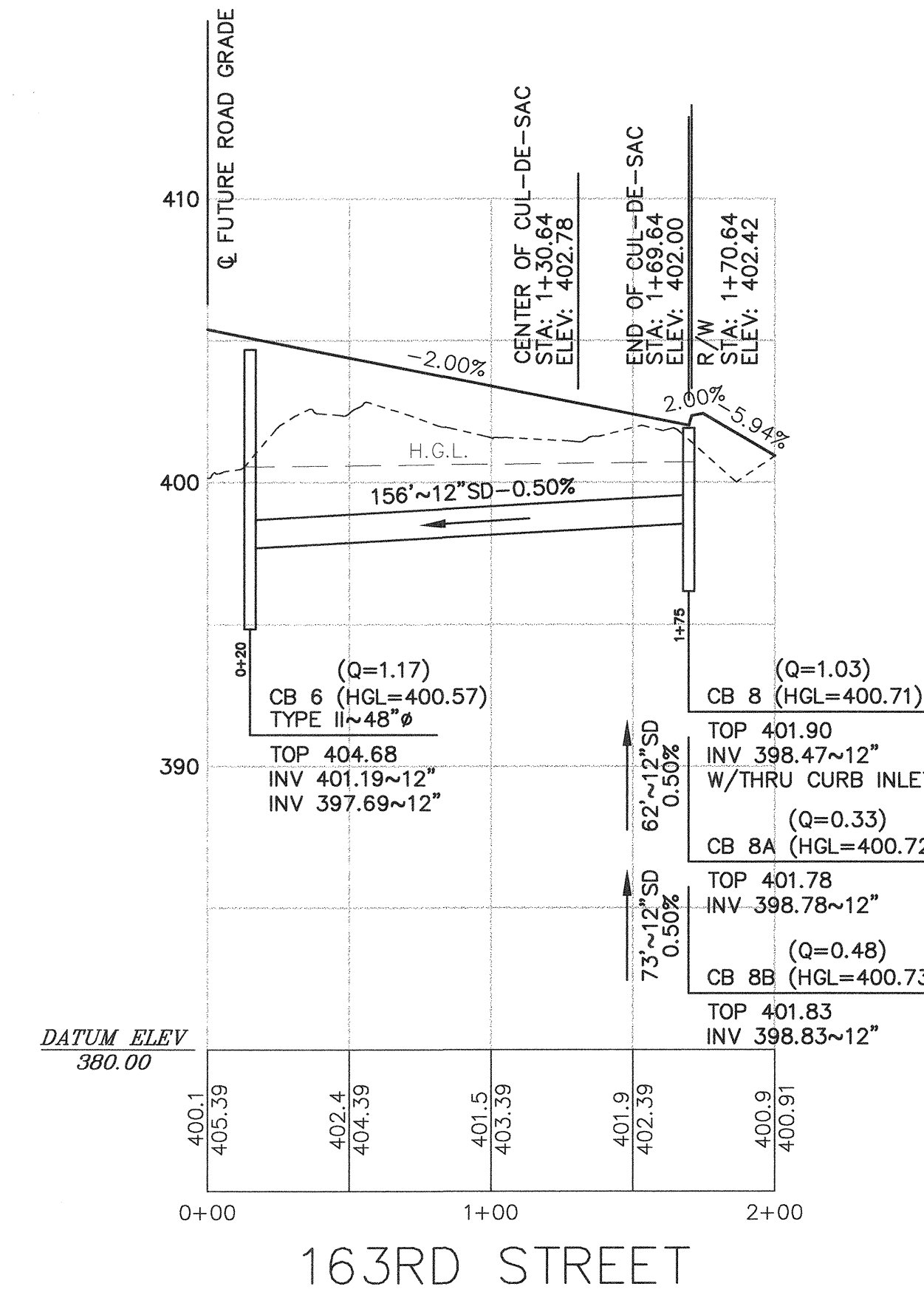
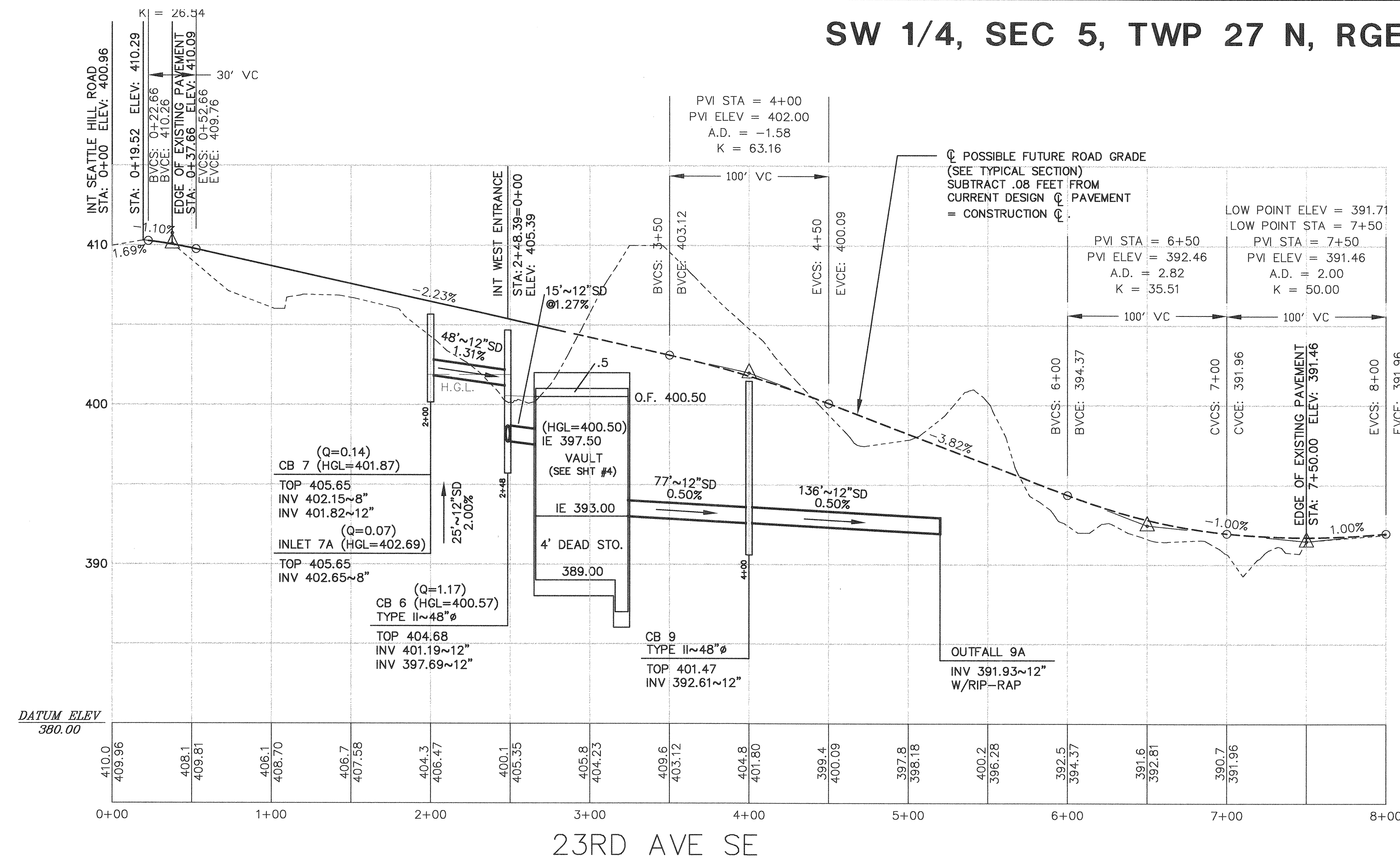
D-2 STORM
ROAD + PLAN
CITY OF MILL CREEK WASHINGTON

Designed KR
Drawn ME
Checked DM
Drawing View 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 • ROBINSON
& ASSOC. INC. CONSULTING ENGINEERS
3630 COLBY AVENUE
EVERETT, WA 98201
(206) 259-6445
BELLEVUE: (206) 827-5854

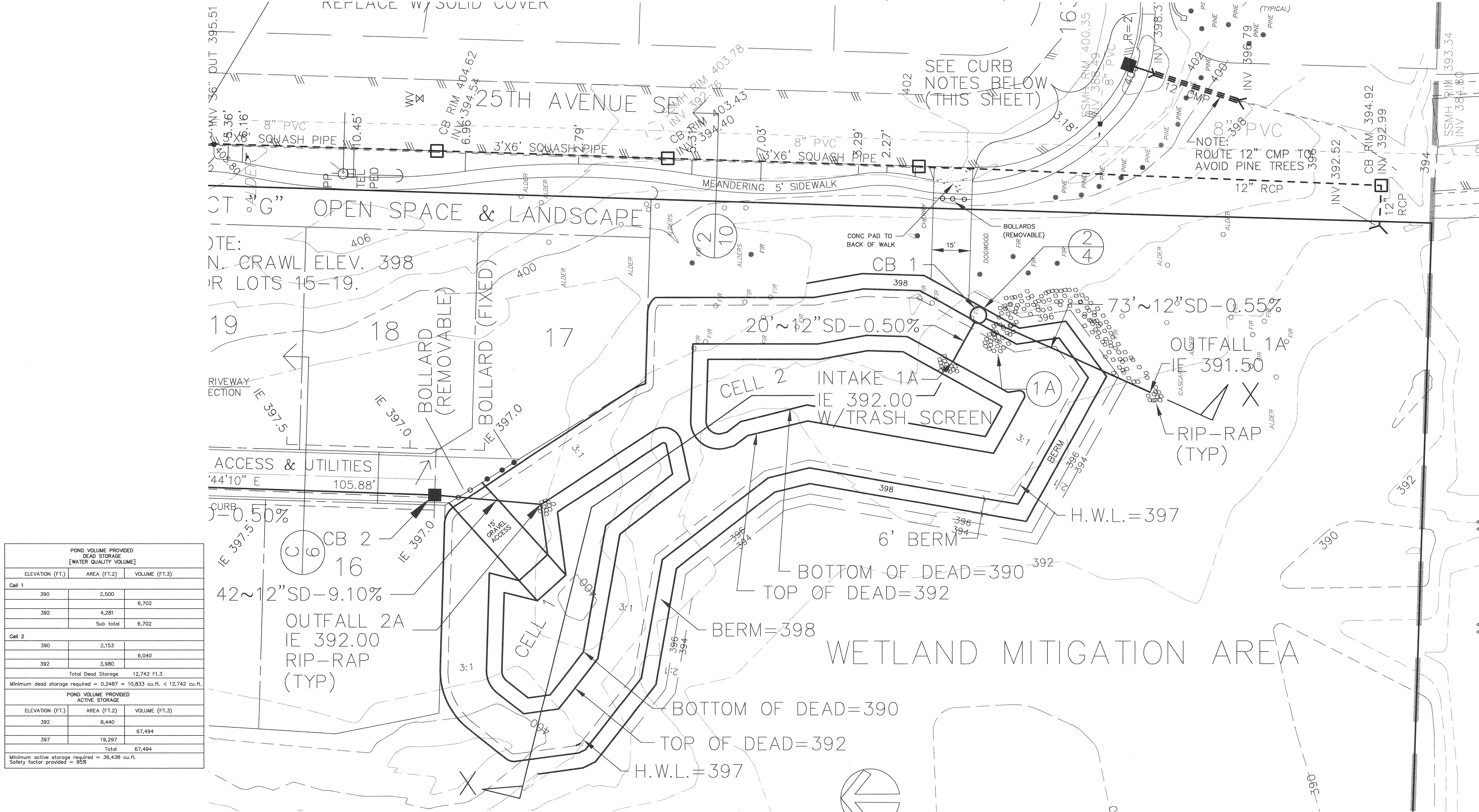
ROAD - 2 STORM
PROFILE
CITY OF MILL CREEK WASHINGTON

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

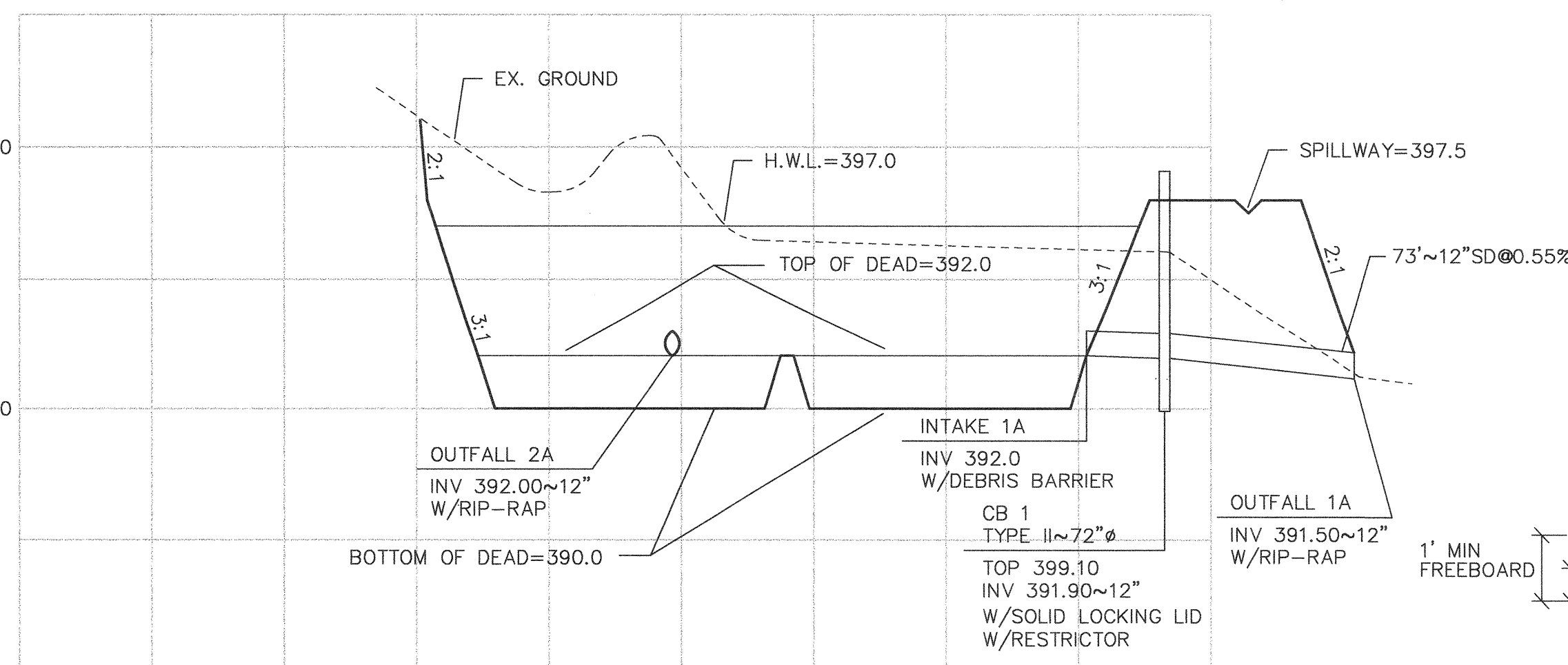
Sheet 3 of 11

Job No. 96173

SCALE:
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'



POND VOLUME PROVIDED DEAD STORAGE [WATER QUALITY VOLUME]		
ELEVATION (FT.)	AREA (FT.2)	VOLUME (FT.3)
Cell 1		
390	2,500	6,702
392	4,281	
	Sub total	6,702
Cell 2		
390	2,153	6,040
392	3,980	
	Total Dead Storage	12,742 Ft.3
Minimum dead storage required = 0.2487 = 10,833 cu.ft. < 12,742 cu.ft.		
POND VOLUME PROVIDED ACTIVE STORAGE		
ELEVATION (FT.)	AREA (FT.2)	VOLUME (FT.3)
392	8,440	67,494
397	19,297	
	Total	67,494
Minimum active storage required = 36,438 cu.ft.		
Safety factor provided = 55%		



(A) POND SECTION X-X

SCALE: HORIZONTAL 1" = 50'

VERTICAL 1" = 5'

(1A) SPILLWAY DETAIL

NO SCALE

(2) OVERFLOW FRAME/GRATE

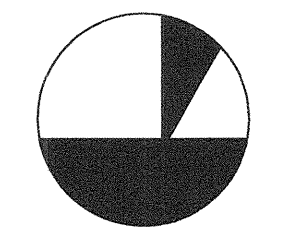
NO SCALE

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 EVERETT, WA 98201 (206) 259-6445

ROBINSON BELLEVUE: (206) 827-5854



ROAD + STORM POND PLAN

WASHINGTON

CITY OF MILL CREEK

Designed: KR

Drawn: ME

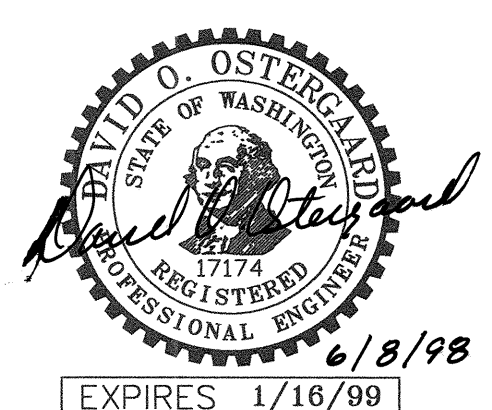
Checked: DM

Drawing: 96173

View: RS-POND

Sheet 4A of 11

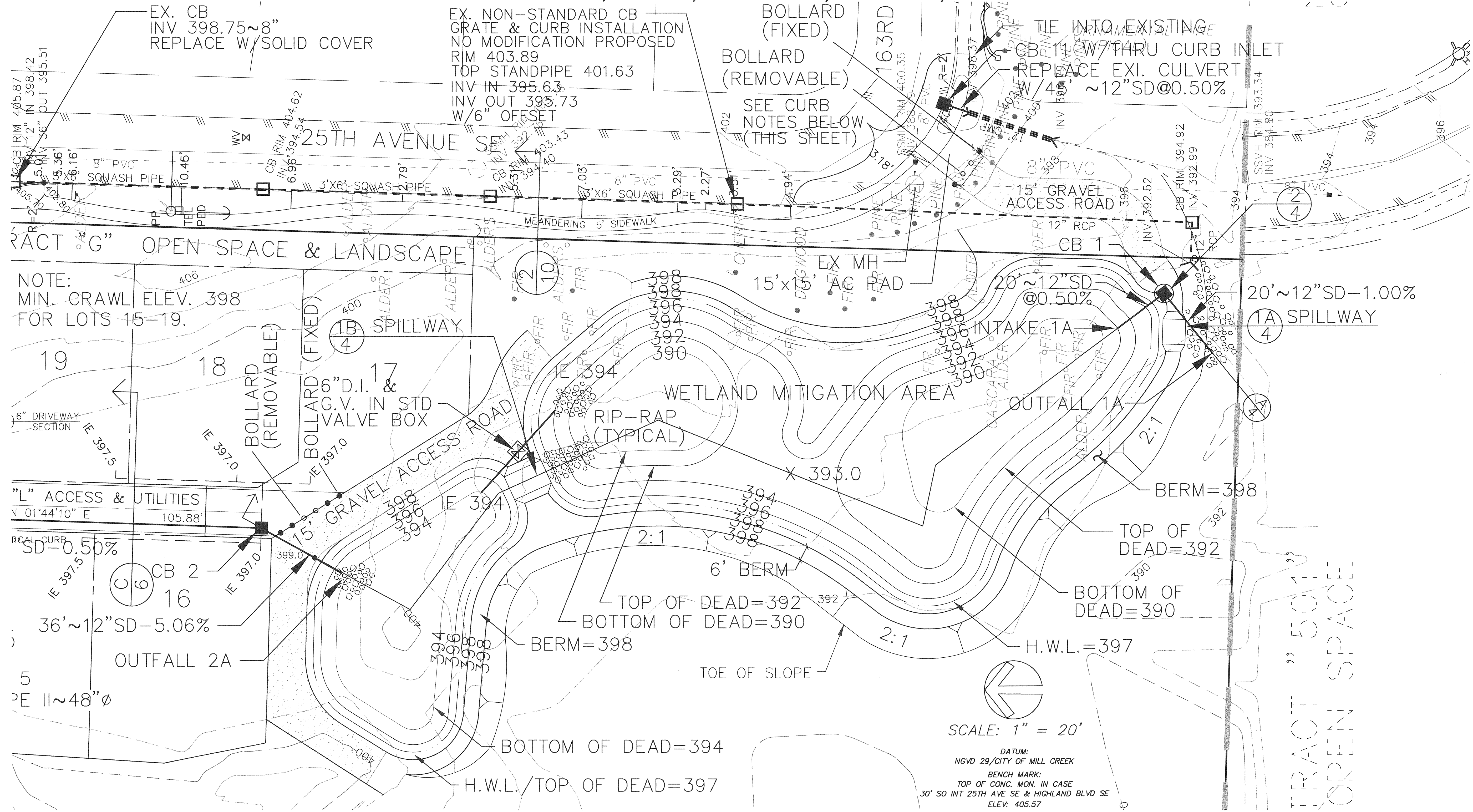
Job No. 96173



G.W.C. Land Development Consulting

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

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



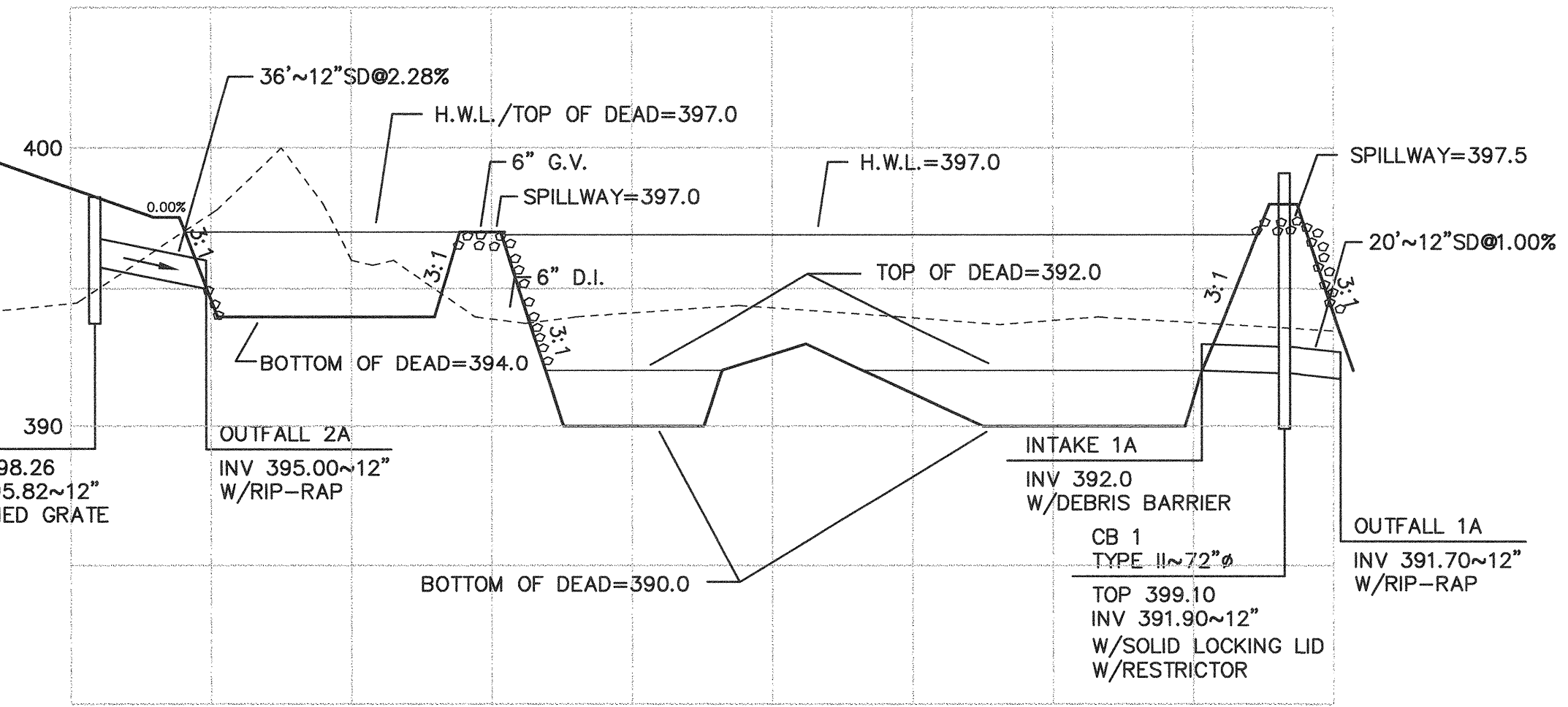
NOTE:
MIN. CRAWL ELEV. 398
FOR LOTS 15-19.

"L" ACCESS & UTILITIES
N 01°44'10" E
105.88'

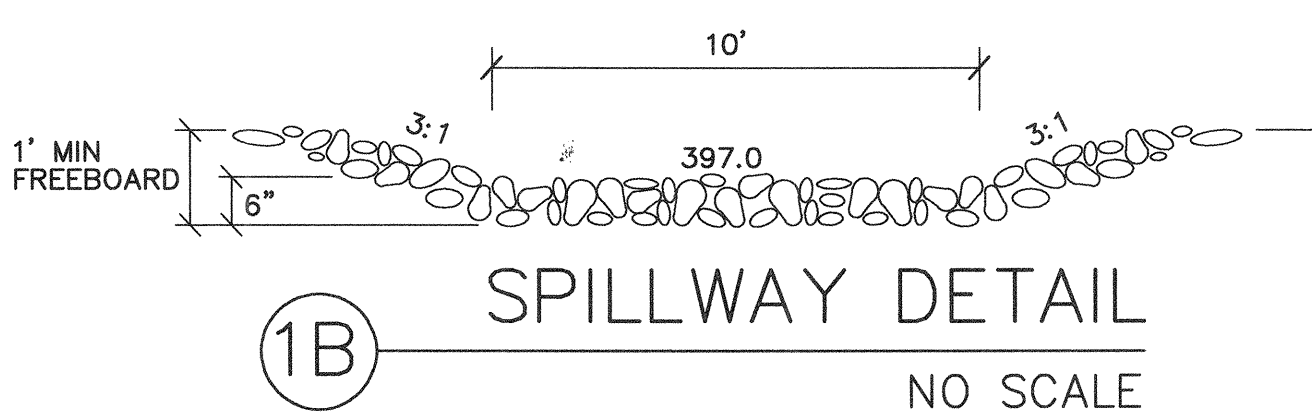
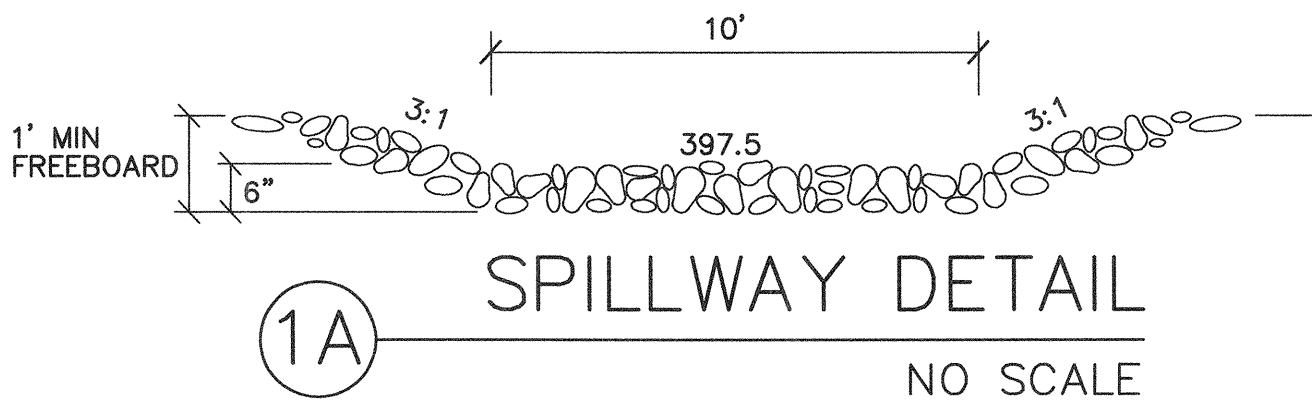
SD-0.50%

36'~12"SD-5.06%

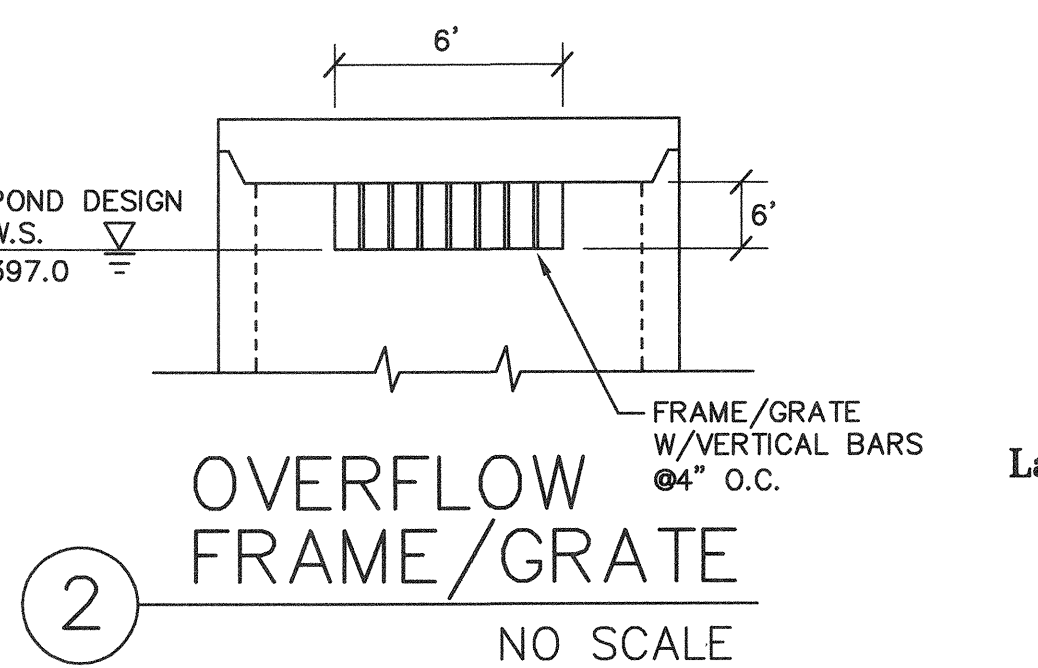
5'~11~48"φ



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.



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
David O. Ostergaard 10/29/97
CITY ENGINEER DATE

ACCEPTED AS IN COMPLIANCE
WITH CONDITIONS OF APPROVAL
William A. Simon 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



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
EVERETT, WA 98201
(206) 259-6445
BELLEVUE: (206) 827-5854

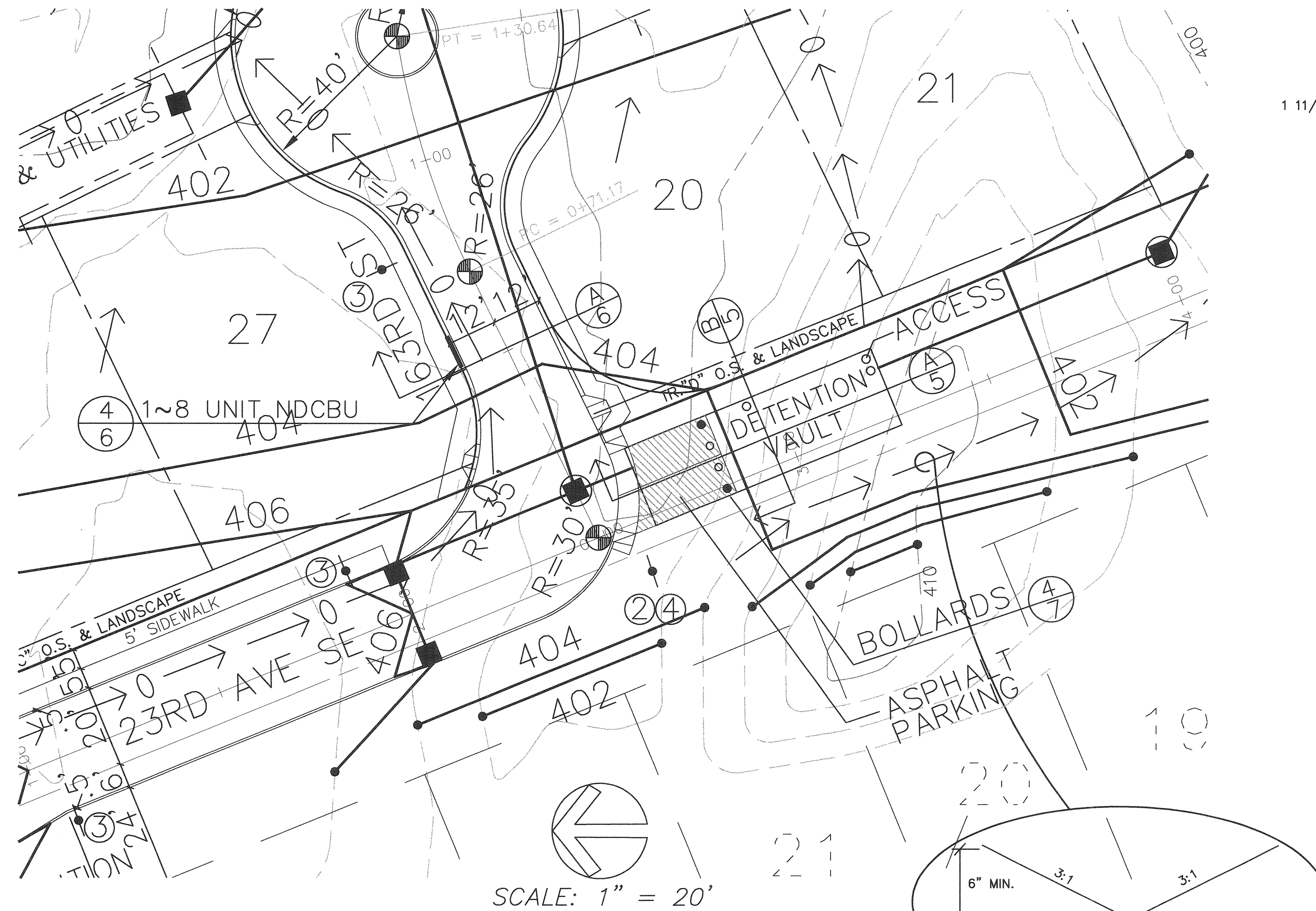
ROAD + STORM POND PLAN
CITY OF MILL CREEK

Designed KR
Drawn ME
Checked DM
Drawing 98173
View RS-POND

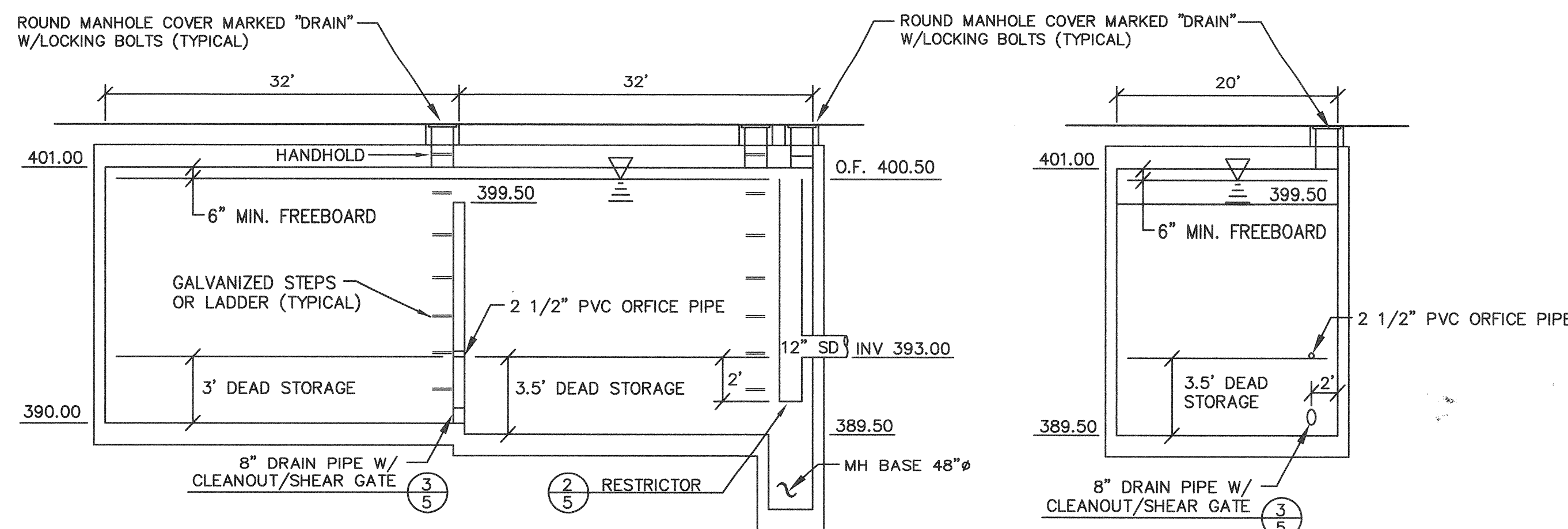
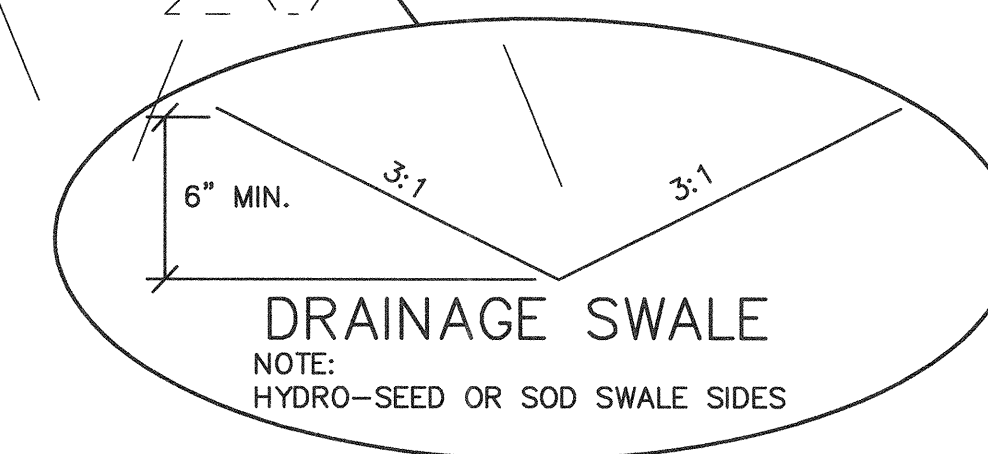
Sheet 4 of 11

Job No. 96173

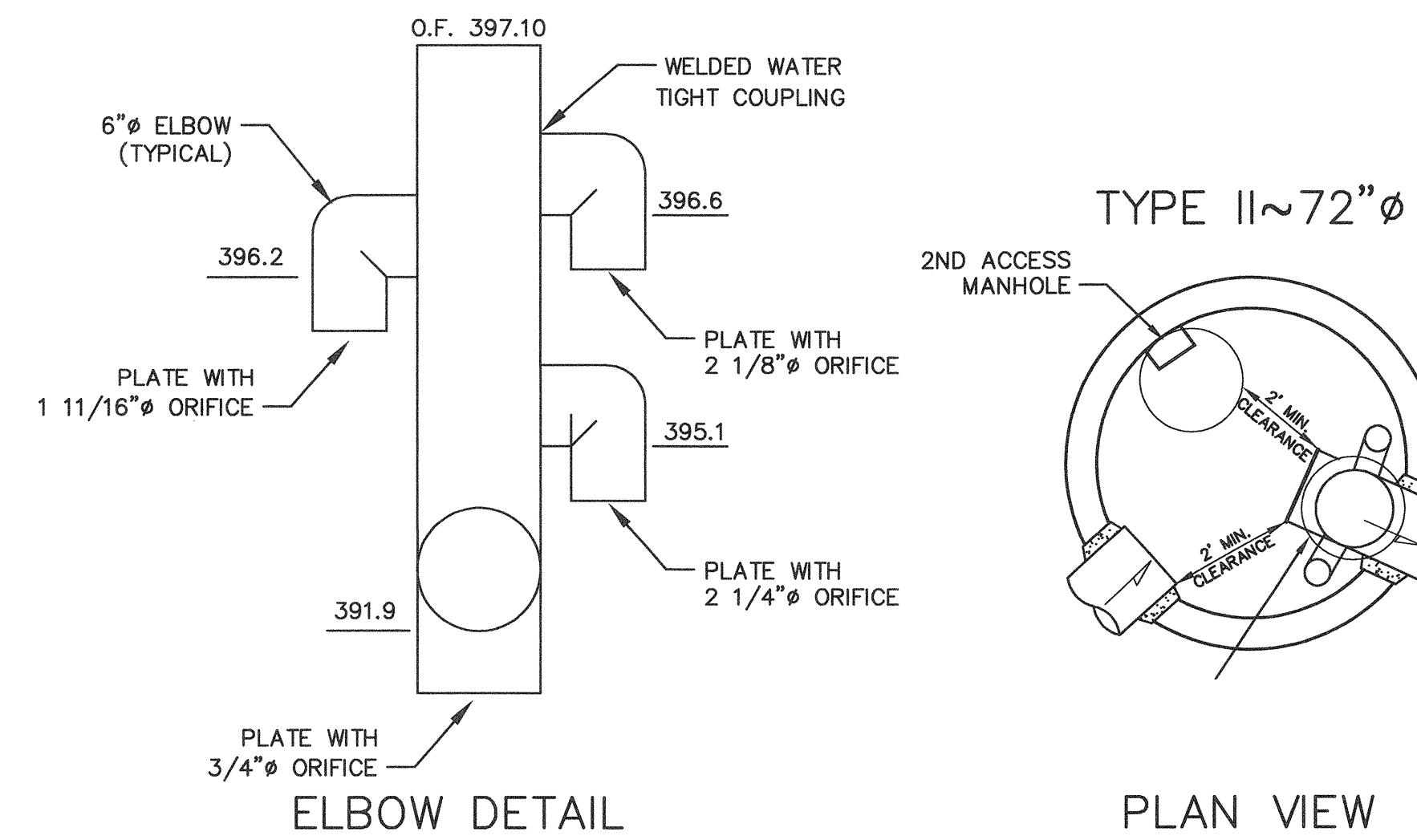
SW 1/4, SEC 5, TWP 27 N, RGE 5 E, WM



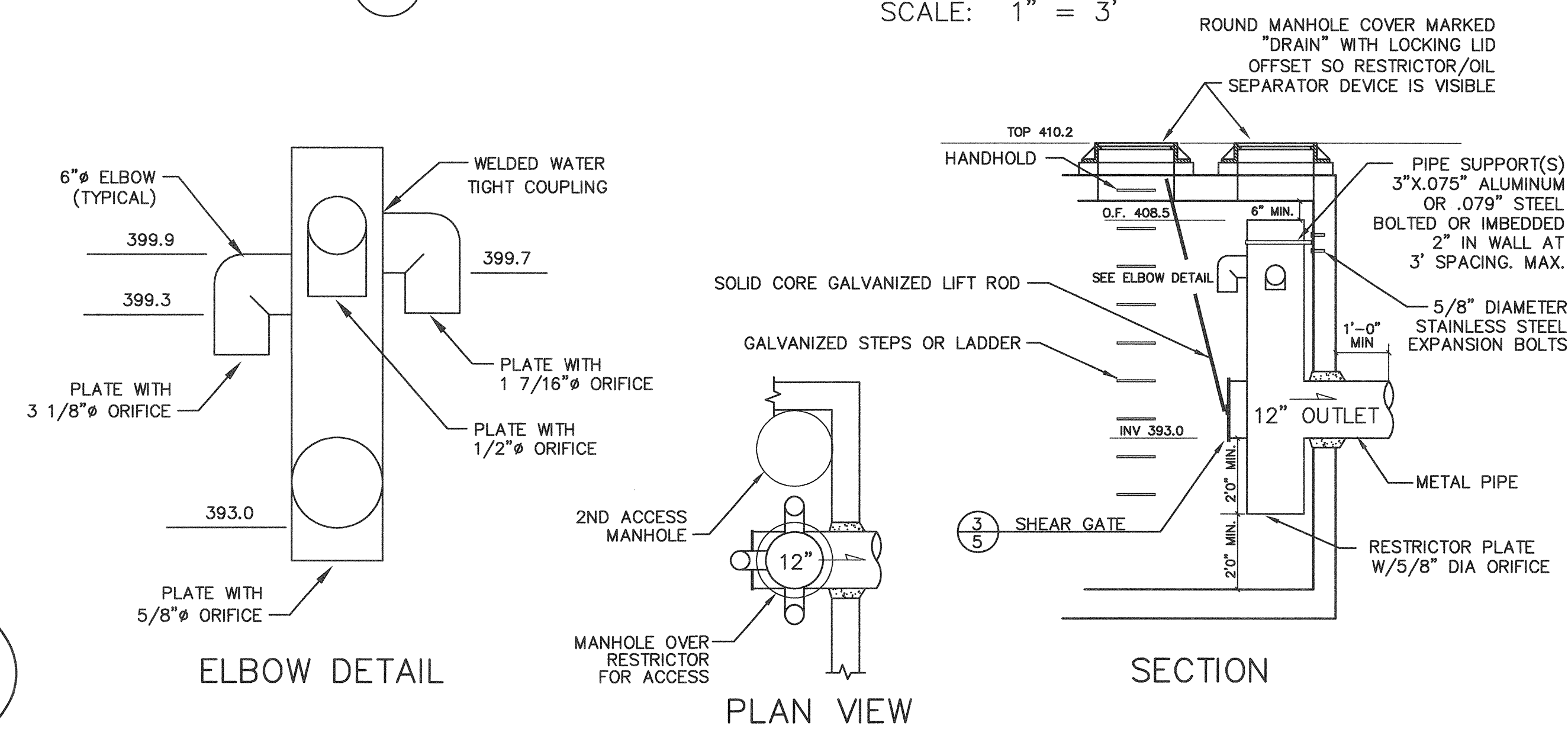
DATUM:
NGVD 29/CITY OF MILL CREEK
BENCH MARK:
30' SO INT 25TH AVE SE & HIGHLAND BLVD SE
TOP OF CONC. MON. IN CASE
ELEV: 405.57



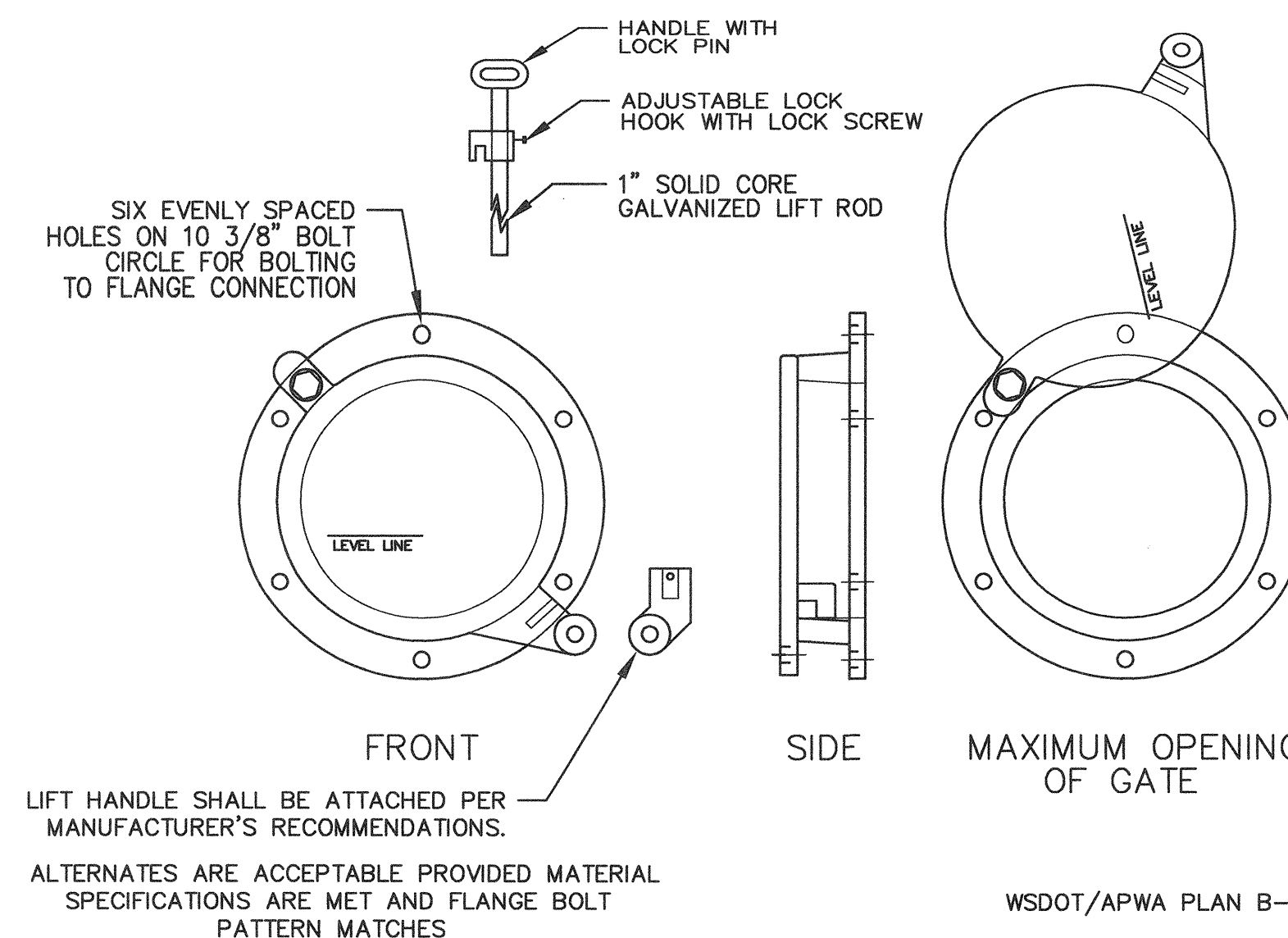
NOTE:
NEED BUILDING PERMIT FOR VAULT.



1 CB 1 - RESTRICTOR DETAILS
SCALE: 1" = 3'



2 VAULT - RESTRICTOR DETAILS
SCALE: 1" = 3'



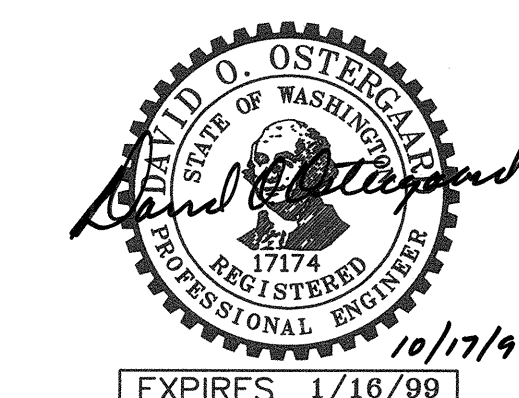
3 CLEANOUT/SHEAR GATE
(CASCADE CULVERT OR EQUAL)
NO SCALE

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

ACCEPTED AS IN COMPLIANCE
WITH CONDITIONS OF APPROVAL
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 (2ND REV)	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) 827-5854

ROAD - 2
VAULT PLAN + DETAILS
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:

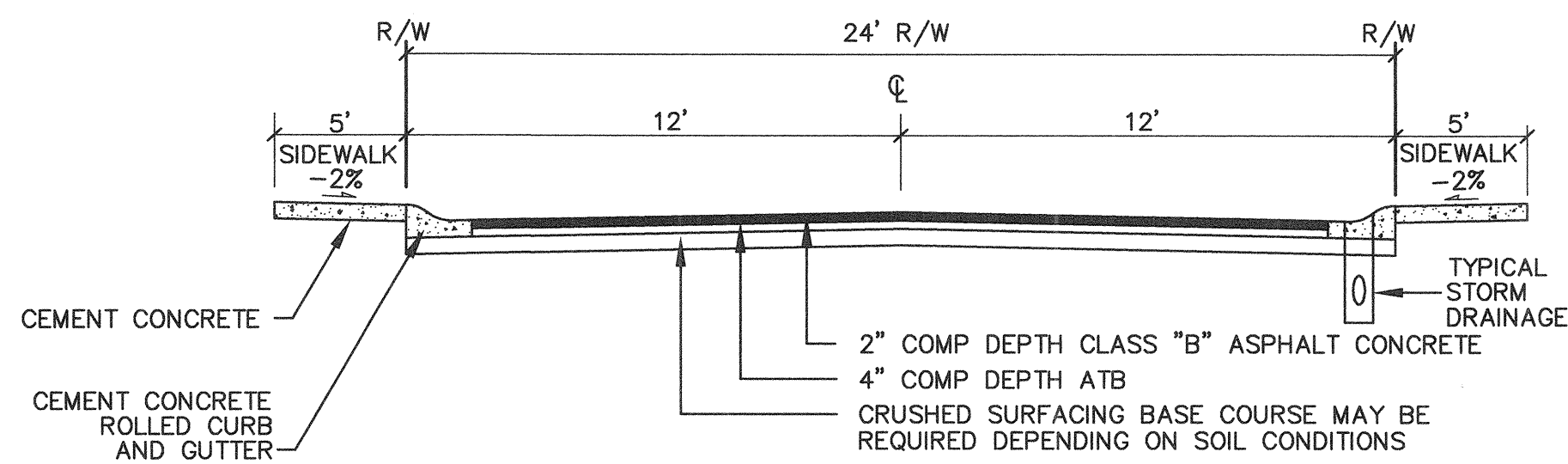
- PLAIN CONCRETE PIPE
- REINFORCED CONCRETE PIPE
- ALUMINUM SPIRAL RIB PIPE

ALLOWABLE JOINTS:

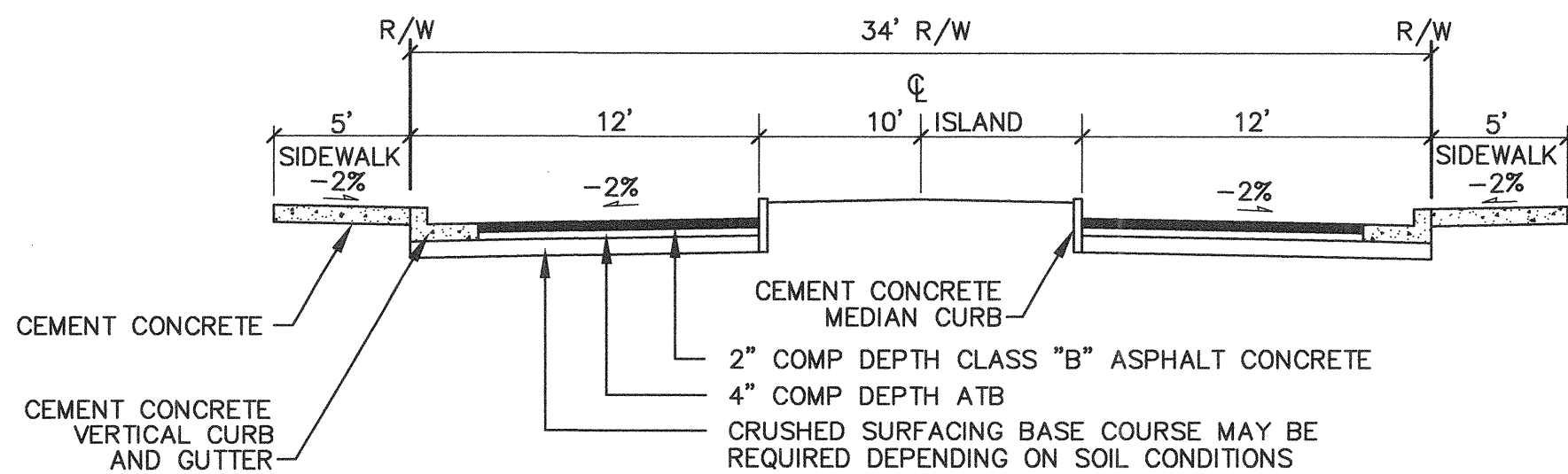
- CONCRETE PIPE SHALL BE RUBBER GASKETED
- SPIRAL RIB PIPE SHALL BE "HAT BANDED" WITH NEOPRENE GASKETS

CONSTRUCTION SEQUENCE

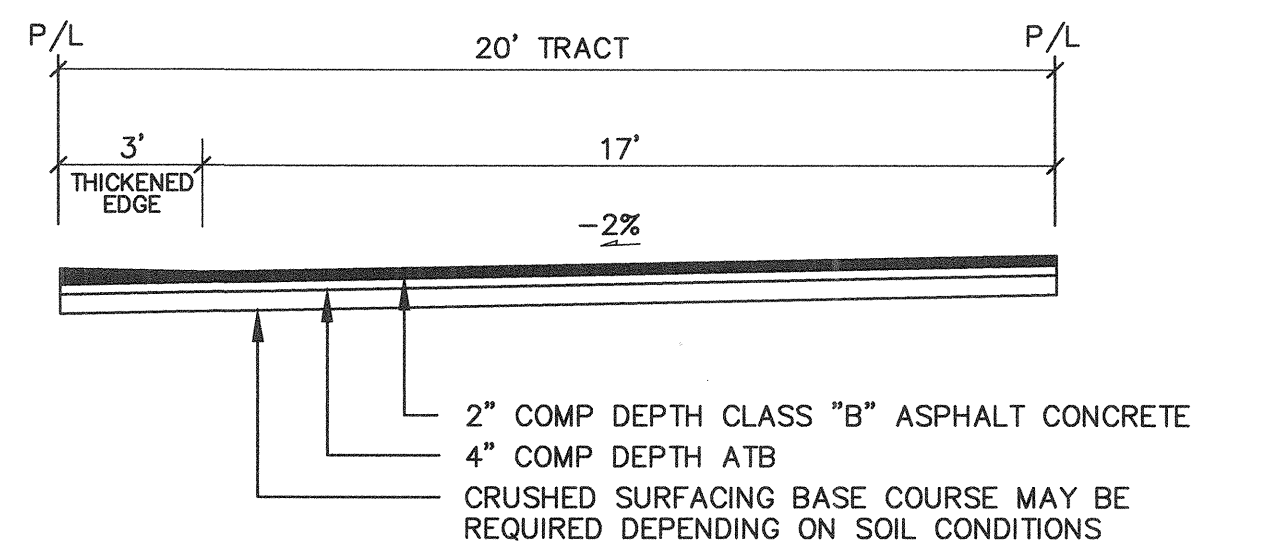
- ATTEND PRE-CONSTRUCTION MEETING WITH CITY (INCLUDING EXCAVATION CONTRACTOR).
- INSTALL SILT FENCES AND BARRIER FENCES WHERE SPECIFIED AND FIELD VERIFY WITH CITY.
- INSTALL GRAVEL CONSTRUCTION ENTRANCE.
- FLAG CLEARING LIMITS. CALL CITY FOR INSPECTION AND APPROVAL.
- CLEAR FOR AND INSTALL SEDIMENT TRAPS, 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.



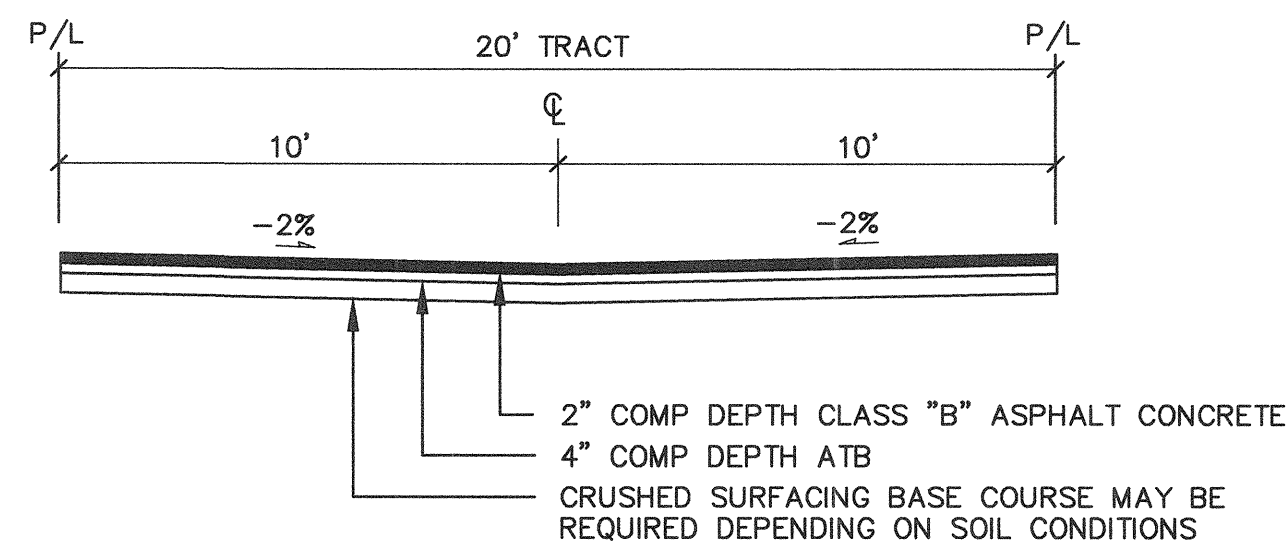
A TYPICAL 24' ROAD SECTION
(24TH DRIVE SE AND 163RD STREET) NO SCALE



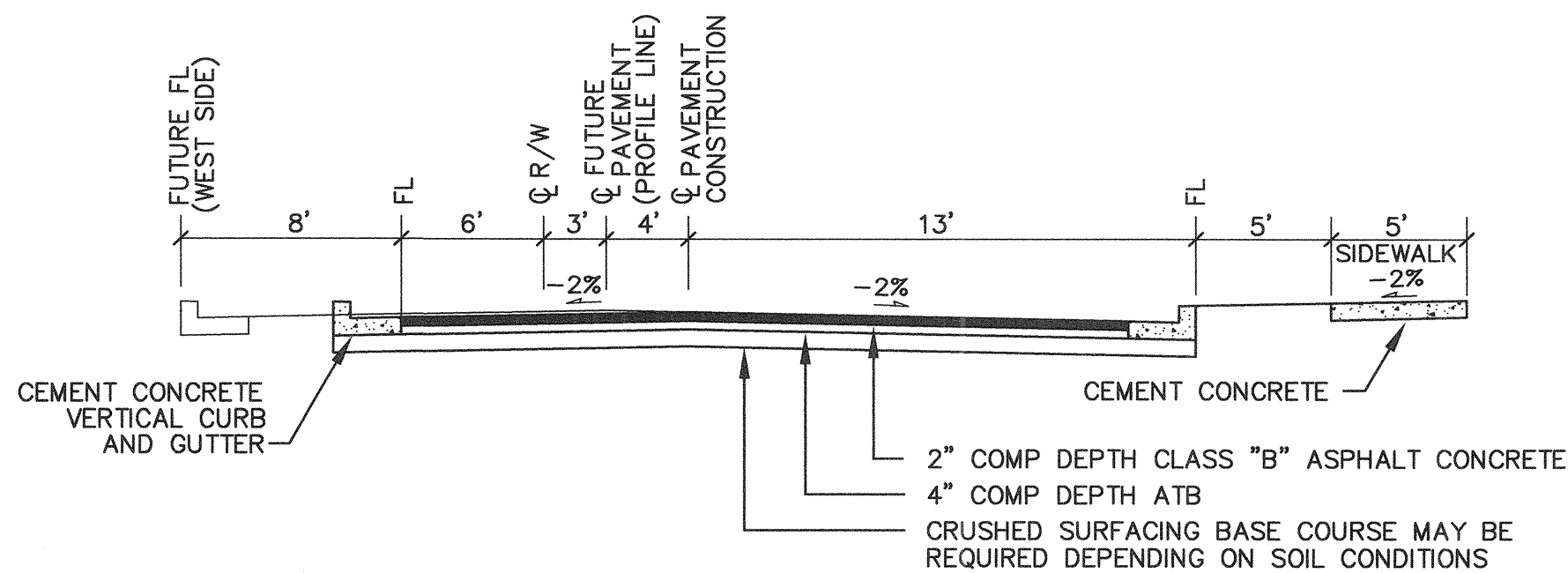
B TYPICAL 34' ROAD SECTION
(HIGHLANDS BOULEVARD SE) NO SCALE



C TYPICAL 20' PRIVATE ROAD SECTION
(TRACT 'L') NO SCALE



D TYPICAL 20' PRIVATE ROAD SECTION
(TRACT 'E' & 'F') NO SCALE

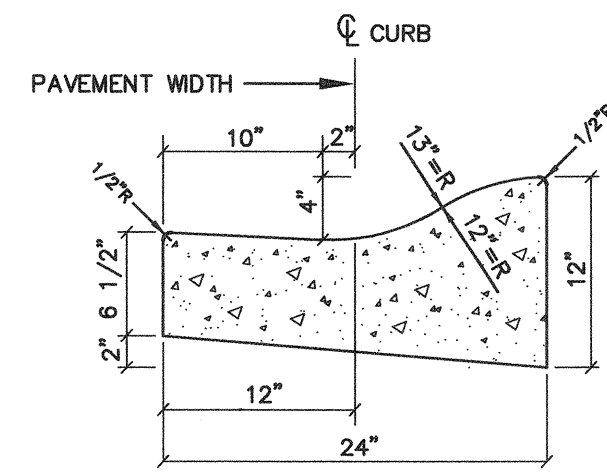


E TYPICAL ROAD SECTION
(23RD AVE SE) NO SCALE

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.

1 ACCESS RAMP
ONSITE (MILL CREEK) NO SCALE

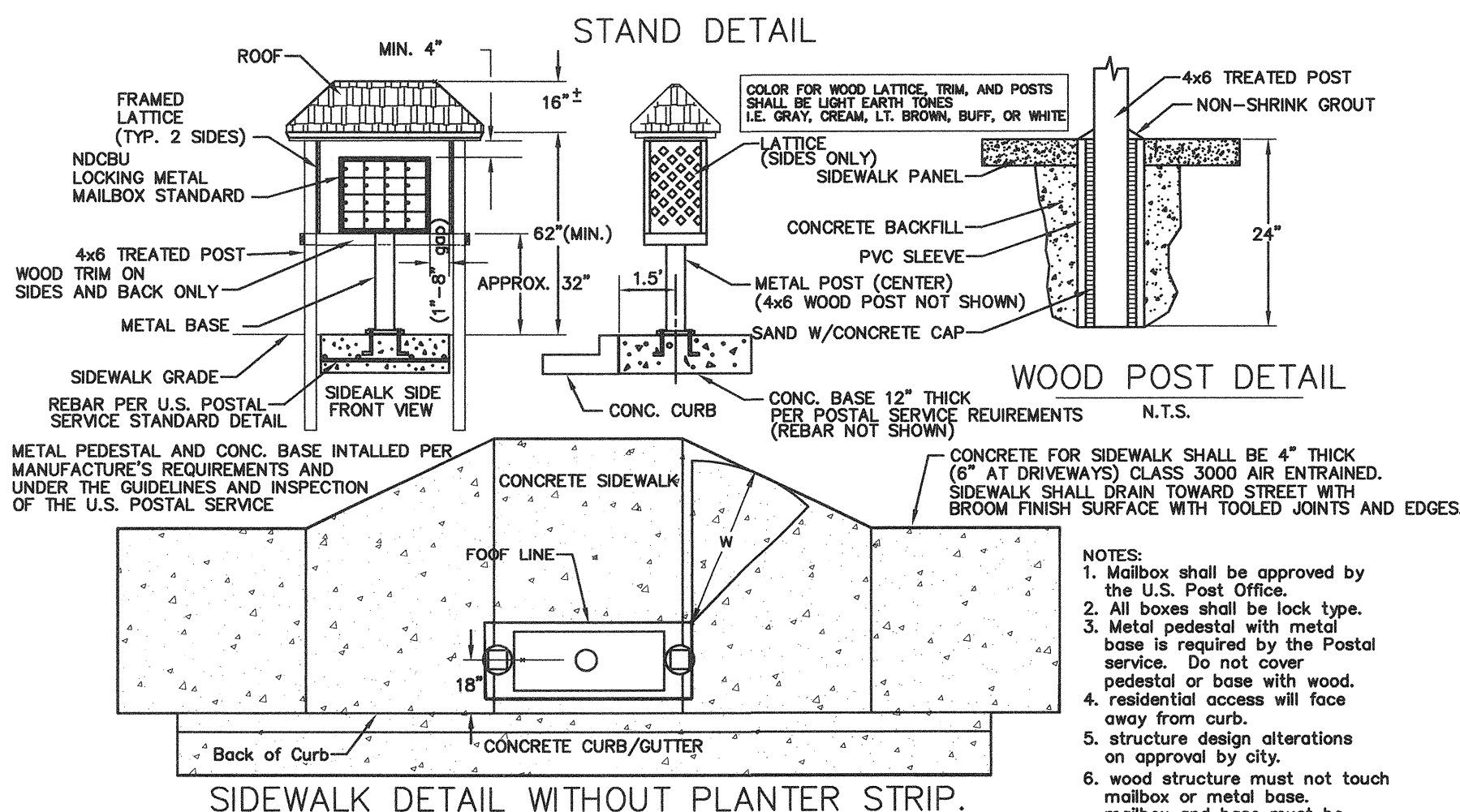


CEMENT CONCRETE
ROLLED CURB AND GUTTER

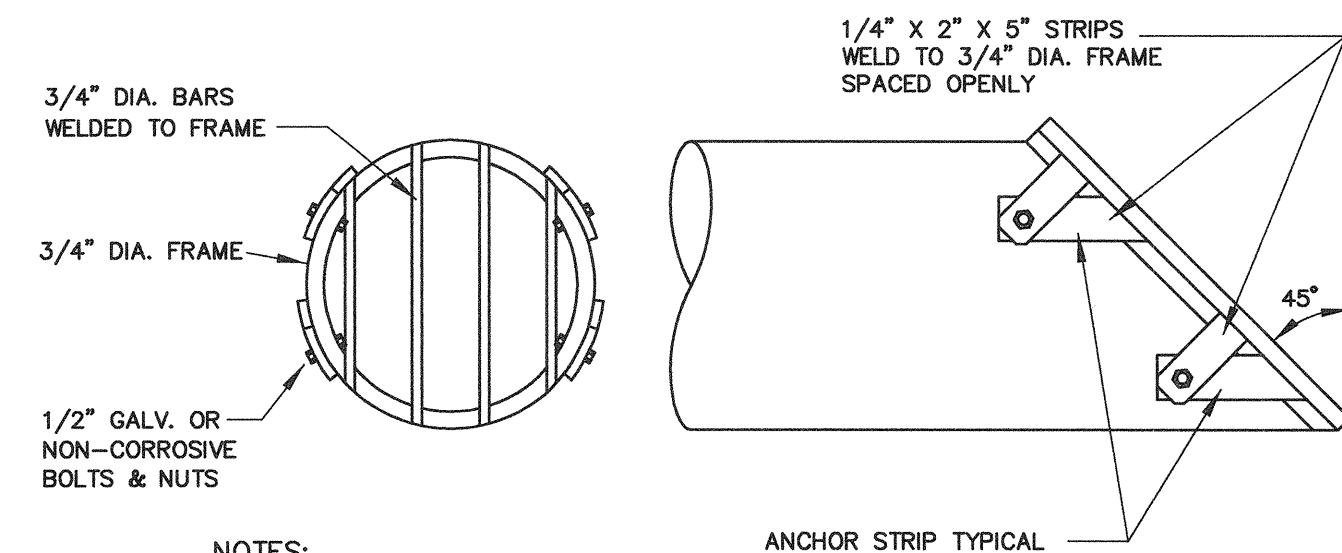
NOTES:

- 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 EDGED.
- FINISH SHALL BE LIGHT BROOM FINISH.
- FINISHED CURBS AND GUTTERS SHALL BE SPRAYED WITH A CLEAR CURING COMPOUND.

3 CURB DETAILS
NO SCALE



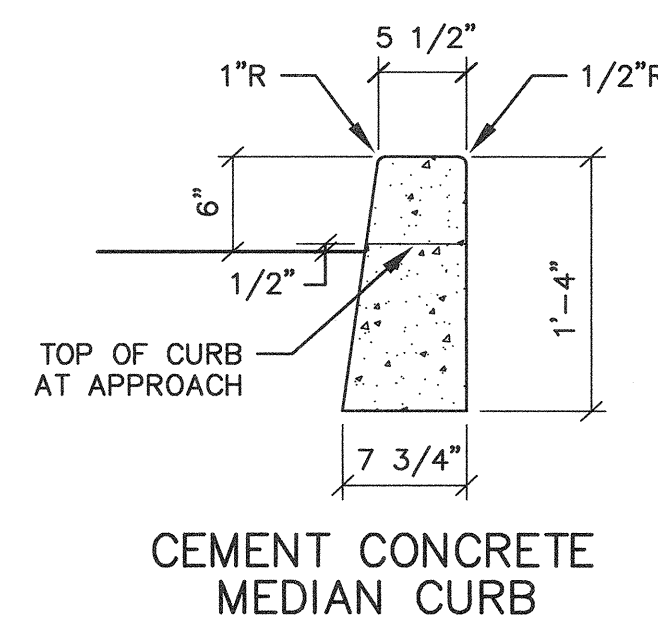
4 TYPICAL LOCKING MAILBOX STAND
(NDCBU) NO SCALE



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.

2 TYPICAL DEBRIS BARRIER
NO SCALE



CEMENT CONCRETE
MEDIAN CURB

NOTES:

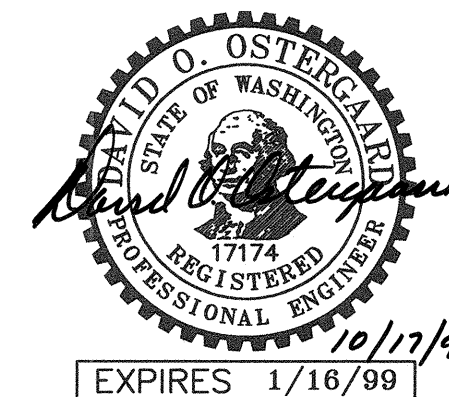
- CONSTRUCTION OF CURB DETAILS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AS PUBLISHED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND THE AMERICAN PUBLIC WORKS ASSOCIATION, (WSDOT/APWA SPECIFICATIONS) UNLESS OTHERWISE MODIFIED 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 EDGED.
- FINISH SHALL BE LIGHT BROOM FINISH.
- FINISHED CURBS AND GUTTERS SHALL BE SPRAYED WITH A CLEAR CURING COMPOUND.

3 CURB DETAILS
NO SCALE

ACCEPTED FOR CONSTRUCTION
CITY OF MILL CREEK
City Engineer 10/21/97
DATE

ACCEPTED AS IN COMPLIANCE
WITH CONDITIONS OF APPROVAL
Director of Community Development 10/21/97
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 AVE.
(206) 259-6445
EVERETT, WA 98201
BELLEVUE: (206) 827-5854

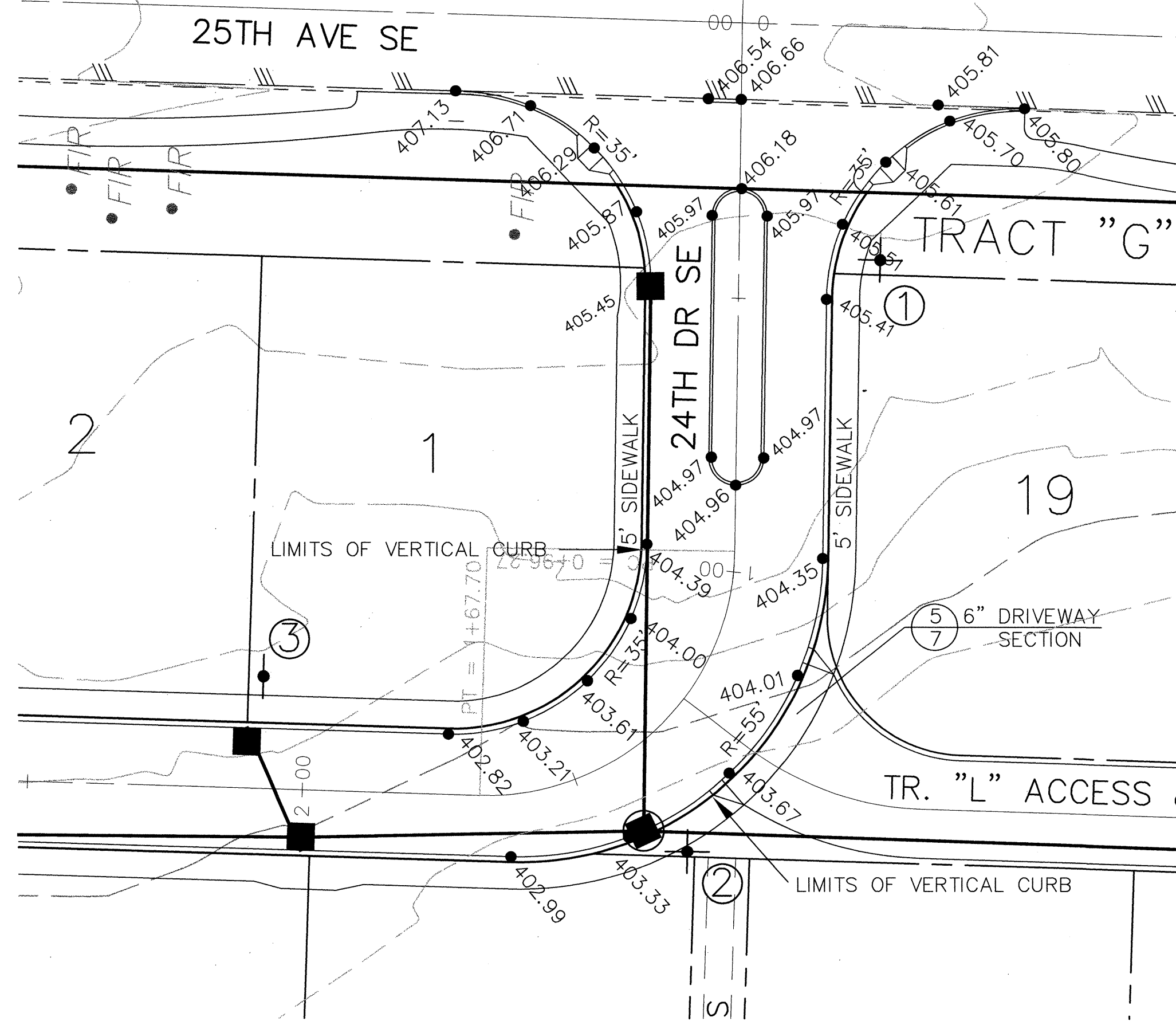
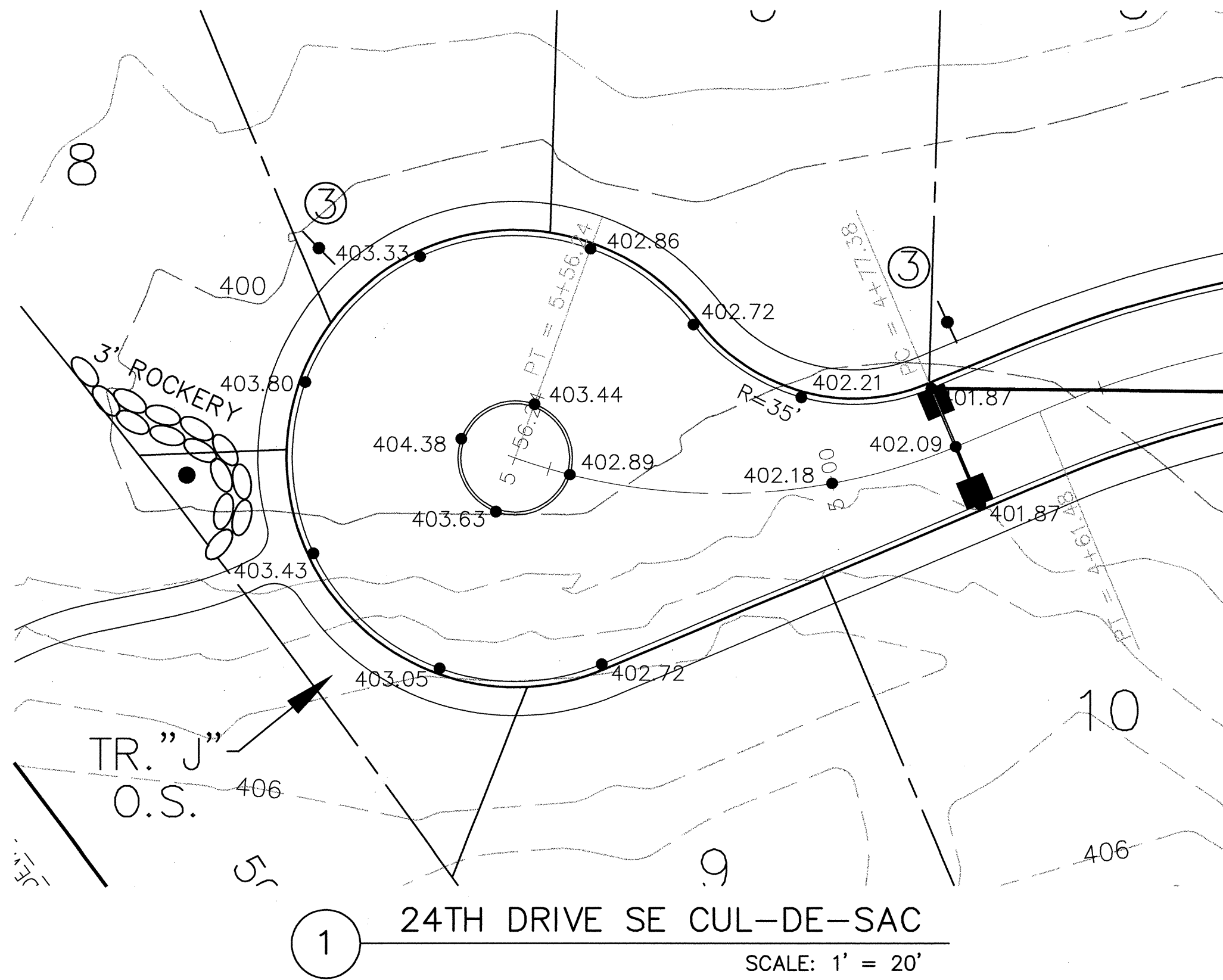
ROAD + STORM DRAINAGE
DETAILS + NOTES
WASHINGTON
CITY OF MILL CREEK

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

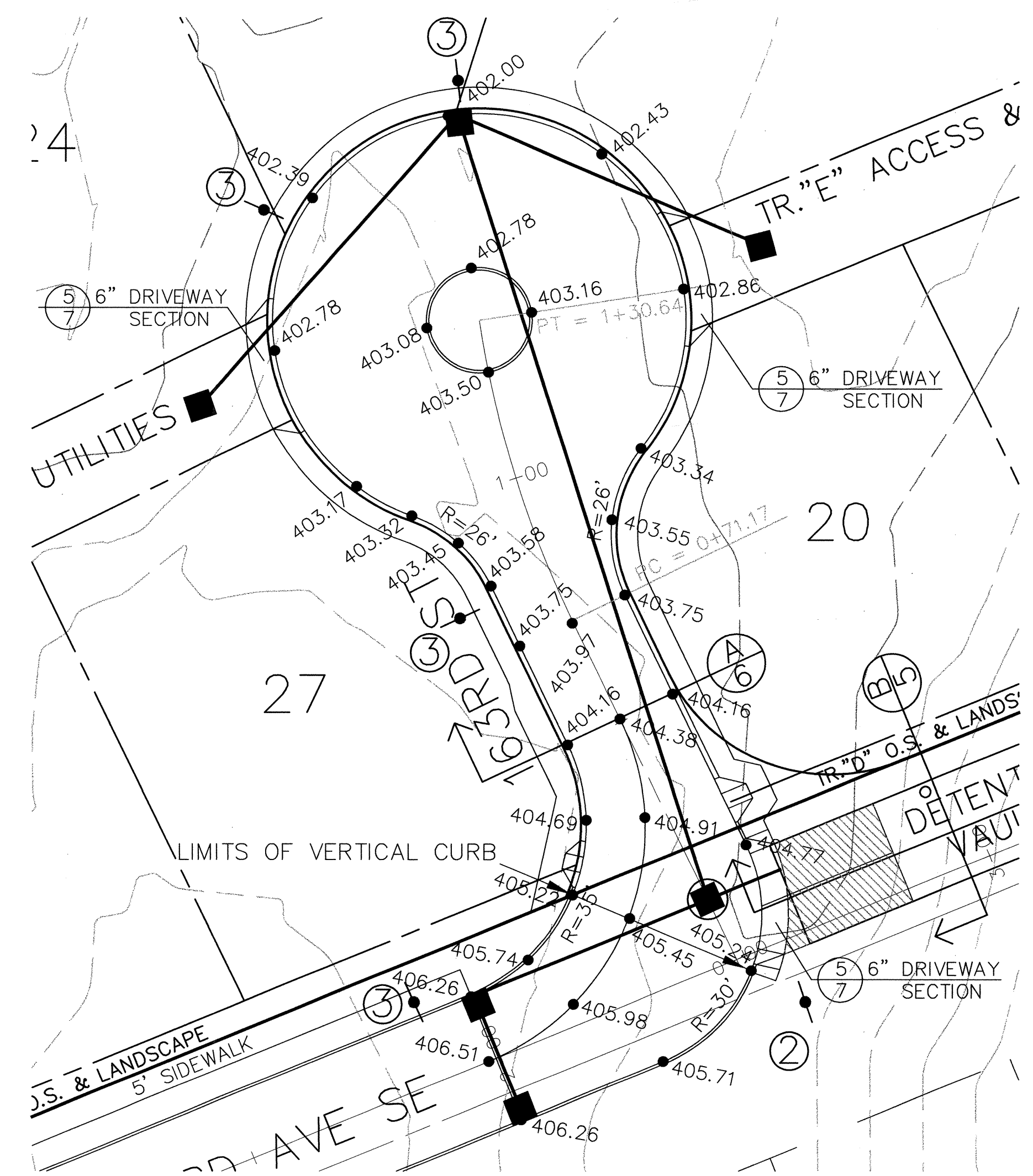
Sheet	6	of	11
-------	---	----	----

Job No.	96173
---------	-------

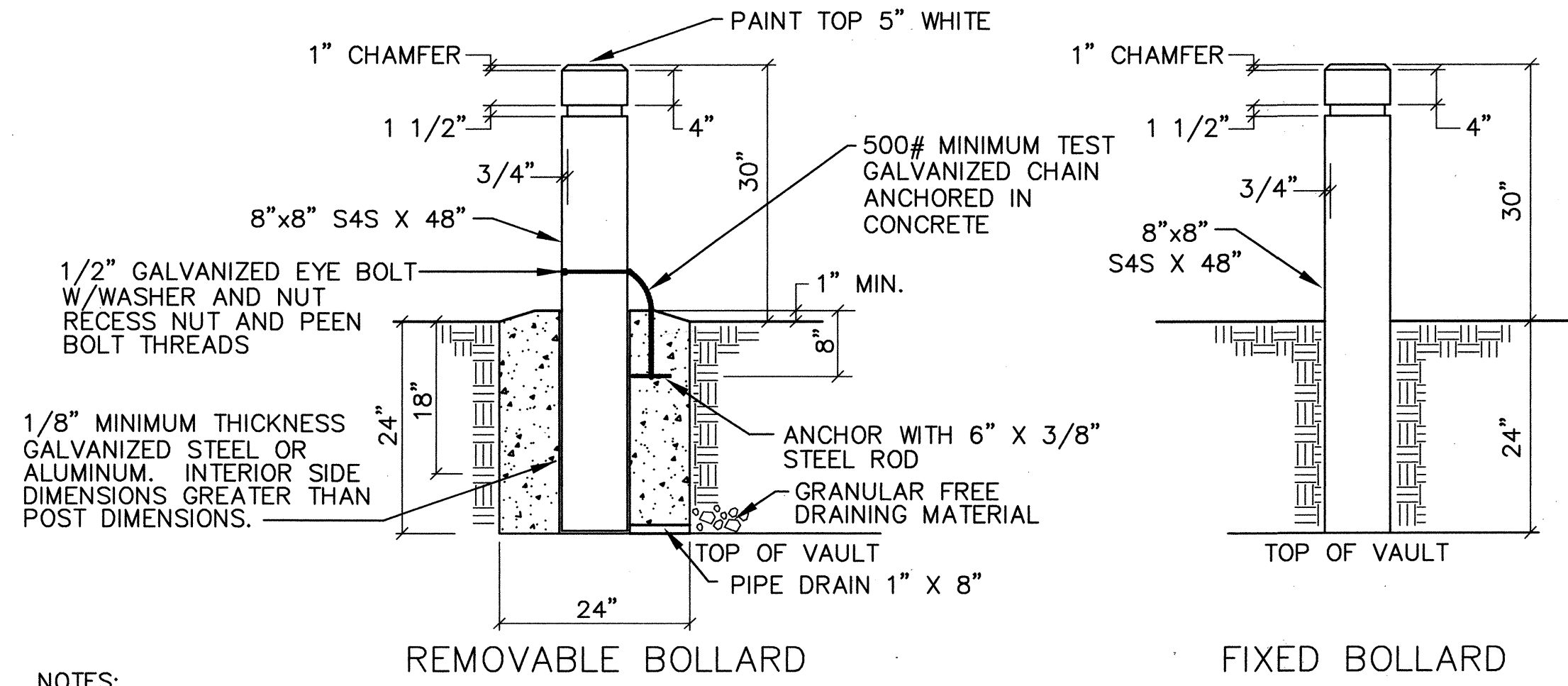
SEC 5, TWP 27N, RGE 5E, W.M.



LEGEND:
● = FL OR CL ELEVATION

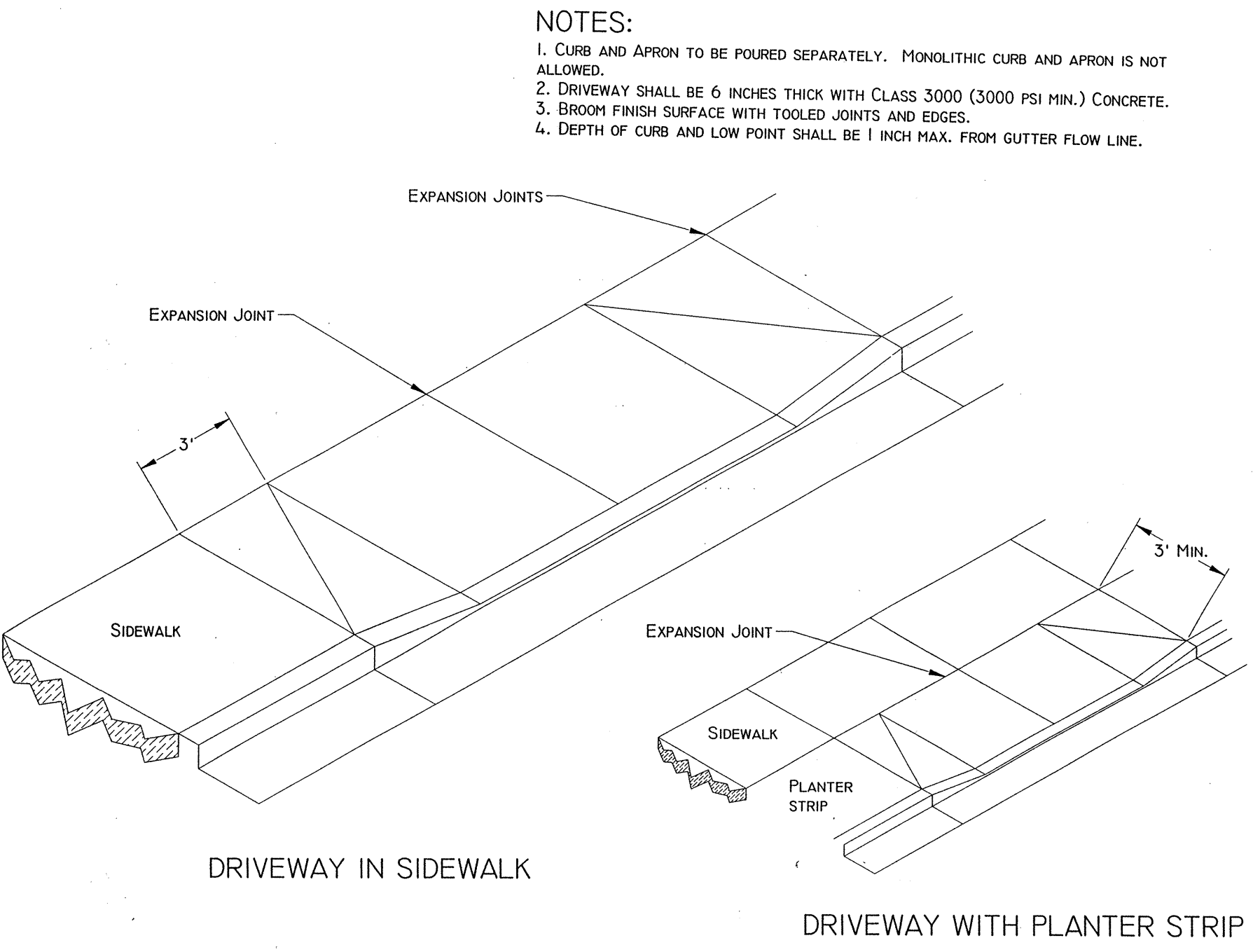


3 23RD AVE SE ENTRANCE AND CUL-DE-SAC DETAIL
SCALE: 1" = 20'



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

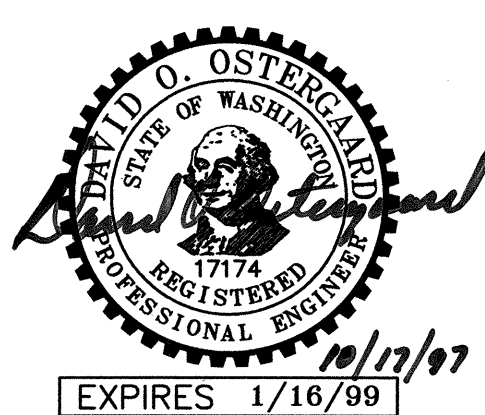


NOTES:
1. CURB AND APRON TO BE POURED SEPARATELY. MONOLITHIC CURB AND APRON IS NOT ALLOWED.
2. DRIVEWAY SHALL BE 6 INCHES THICK WITH CLASS 3000 (3000 PSI MIN.) CONCRETE.
3. BROOM FINISH SURFACE WITH TOOLED JOINTS AND EDGES.
4. DEPTH OF CURB AND LOW POINT SHALL BE 1 INCH MAX. FROM GUTTER FLOW LINE.

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

ACCEPTED AS IN COMPLIANCE
WITH CONDITIONS OF APPROVAL
William L. 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
8/4/97	PER CITY REVIEW COMMENTS (2ND REV)	ME
8/14/97	PER CITY REVIEW COMMENTS (3RD REV)	ME
10/10/97	PER CITY REVIEW COMMENTS (3RD REV)	ME

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

ROAD + STORM DRAINAGE
CITY OF MILL CREEK

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

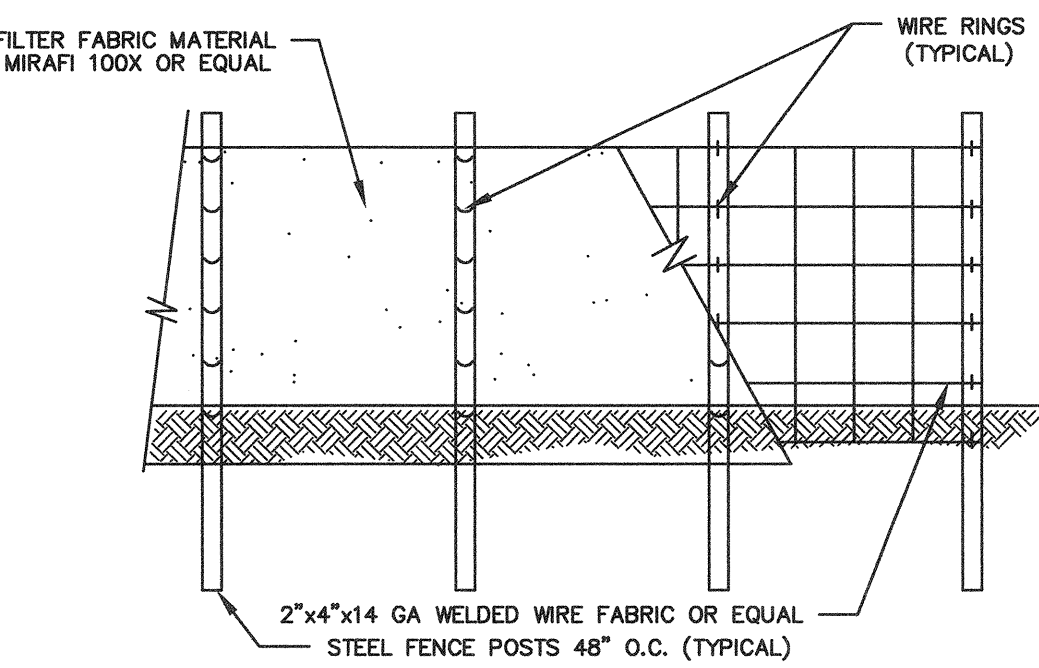
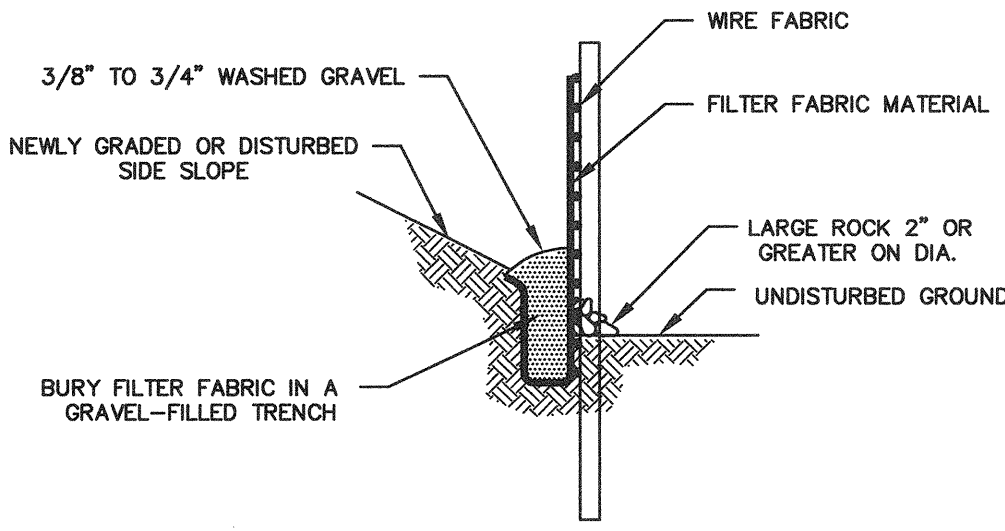
Sheet 7 of 11

Job No. 96173

[illegible]

Job No. 96173

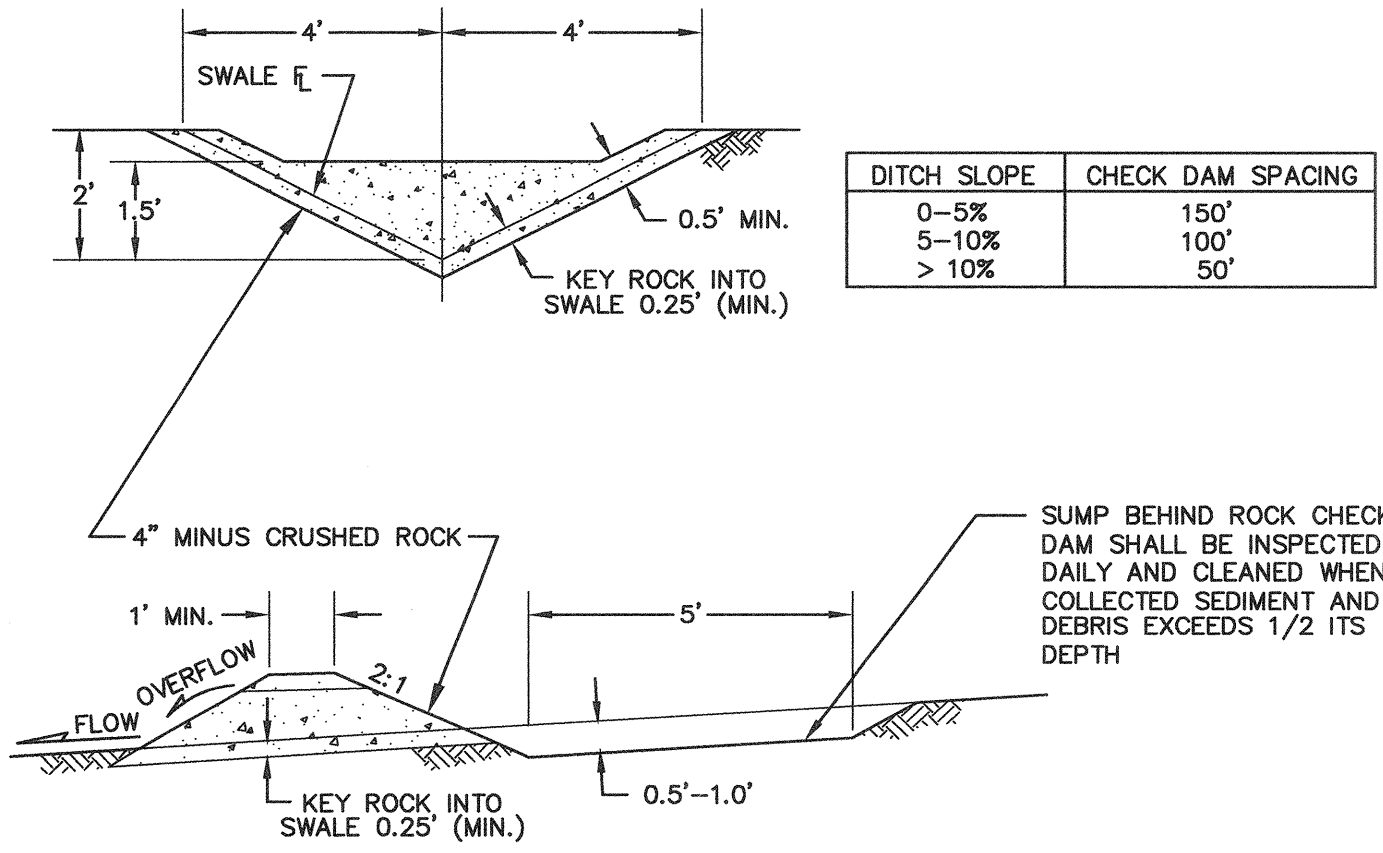
SEC 5, TWP 27N, RGE 5E, W.M.



1 SILT FENCE DETAIL
NO SCALE

MAINTENANCE OF SILTATION BARRIERS

1. 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 SEEDING.

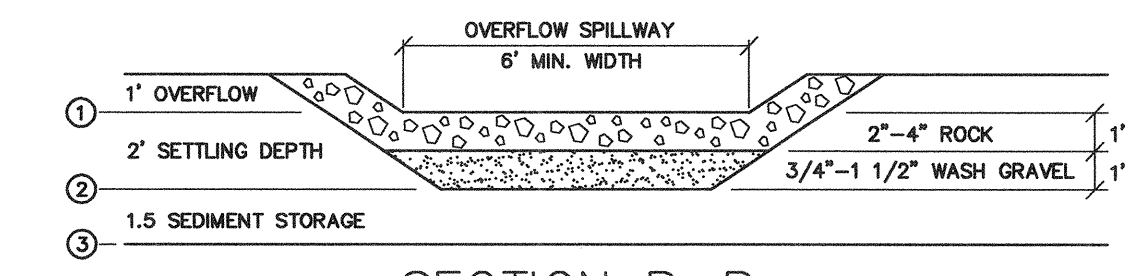
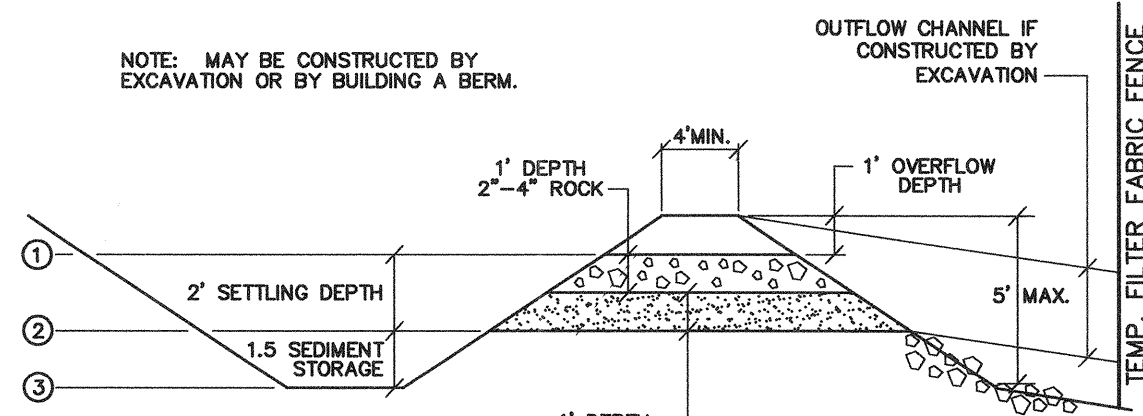


2 ROCK CHECK DAM DETAILS
NO SCALE

3 GRAVEL CONSTRUCTION ENTRANCE
NO SCALE

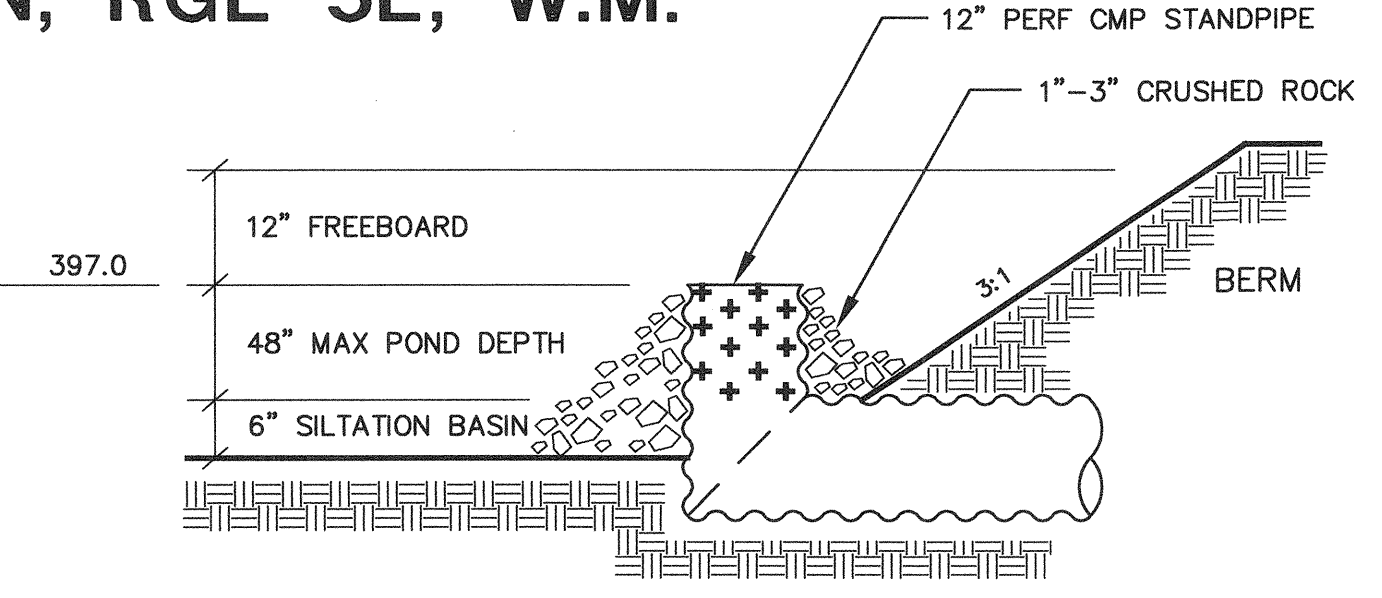
TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

1. 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.
2. AGGREGATE: 4" TO 6" CRUSHED BALLAST ROCK
3. 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.
4. 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.
5. 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			

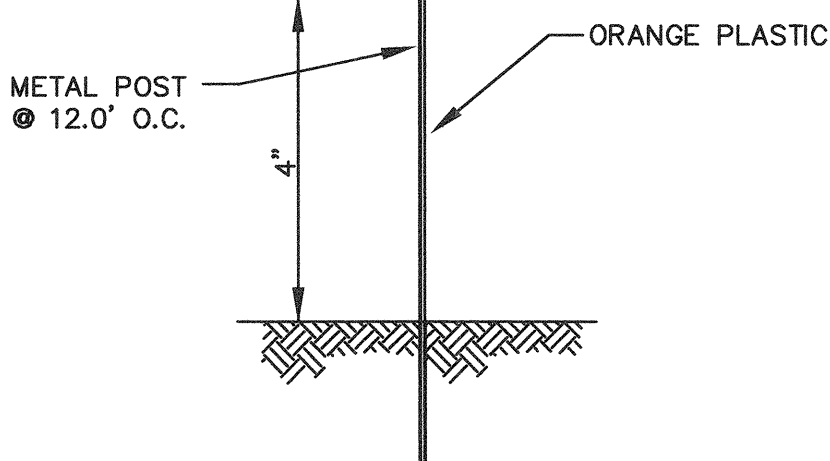
5 SEDIMENT TRAP DETAIL
NO SCALE



4 TEMP. STANDPIPE DETAIL
NO SCALE

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

1. 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.
2. 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.
3. ALL EARTH WORK SHALL BE PERFORMED IN ACCORDANCE WITH CITY STANDARDS. PRECONSTRUCTION SOILS INVESTIGATION MAY BE REQUIRED TO EVALUATE SOILS STABILITY.
4. 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.
5. STOCKPILES ARE TO BE LOCATED IN SAFE AREAS AND ADEQUATELY PROTECTED BY TEMPORARY SEEDING AND MULCHING. HYDROSEED PREFERRED.
6. ALL STRUCTURAL FILLS SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY BY MODIFIED PROCTOR TEST.
7. 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.
8. 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.
9. 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
David O. Ostergaard
CITY ENGINEER
10/21/97
DATE

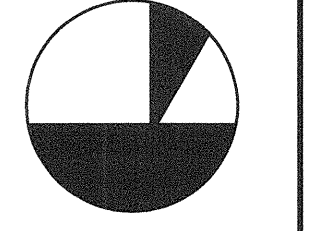
ACCEPTED AS IN COMPLIANCE
WITH CONDITIONS OF APPROVAL
William A. Linn
DIRECTOR OF
COMMUNITY DEVELOPMENT
10-21-97
DATE

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

DAVID O. OSTERGAARD
STATE OF WASHINGTON
REGISTERED
PROFESSIONAL ENGINEER
17174
10/17/97
EXPIRES 1/16/99

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

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

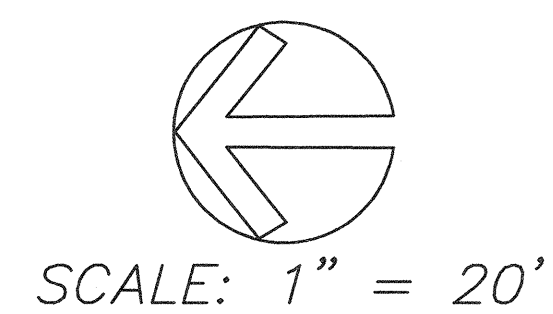
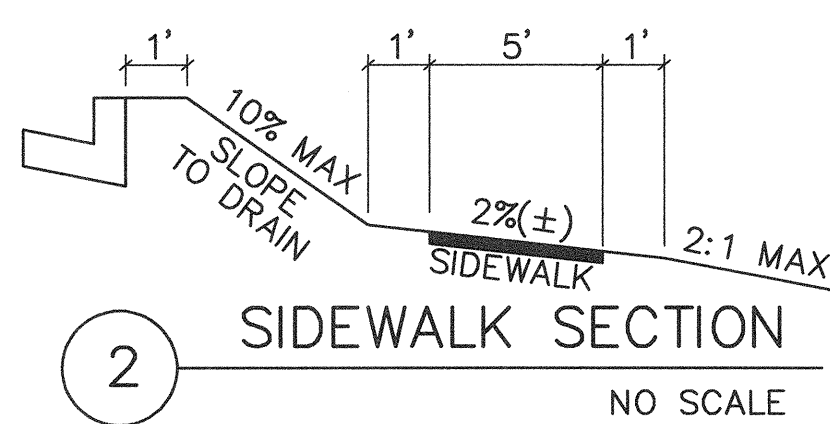
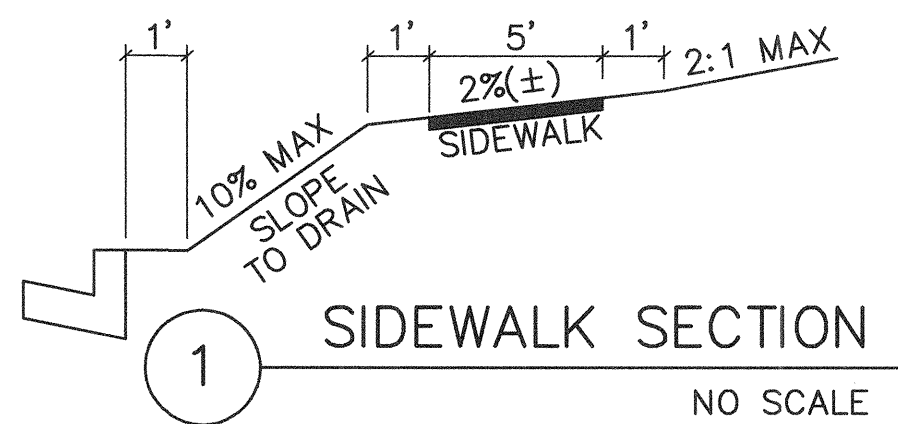
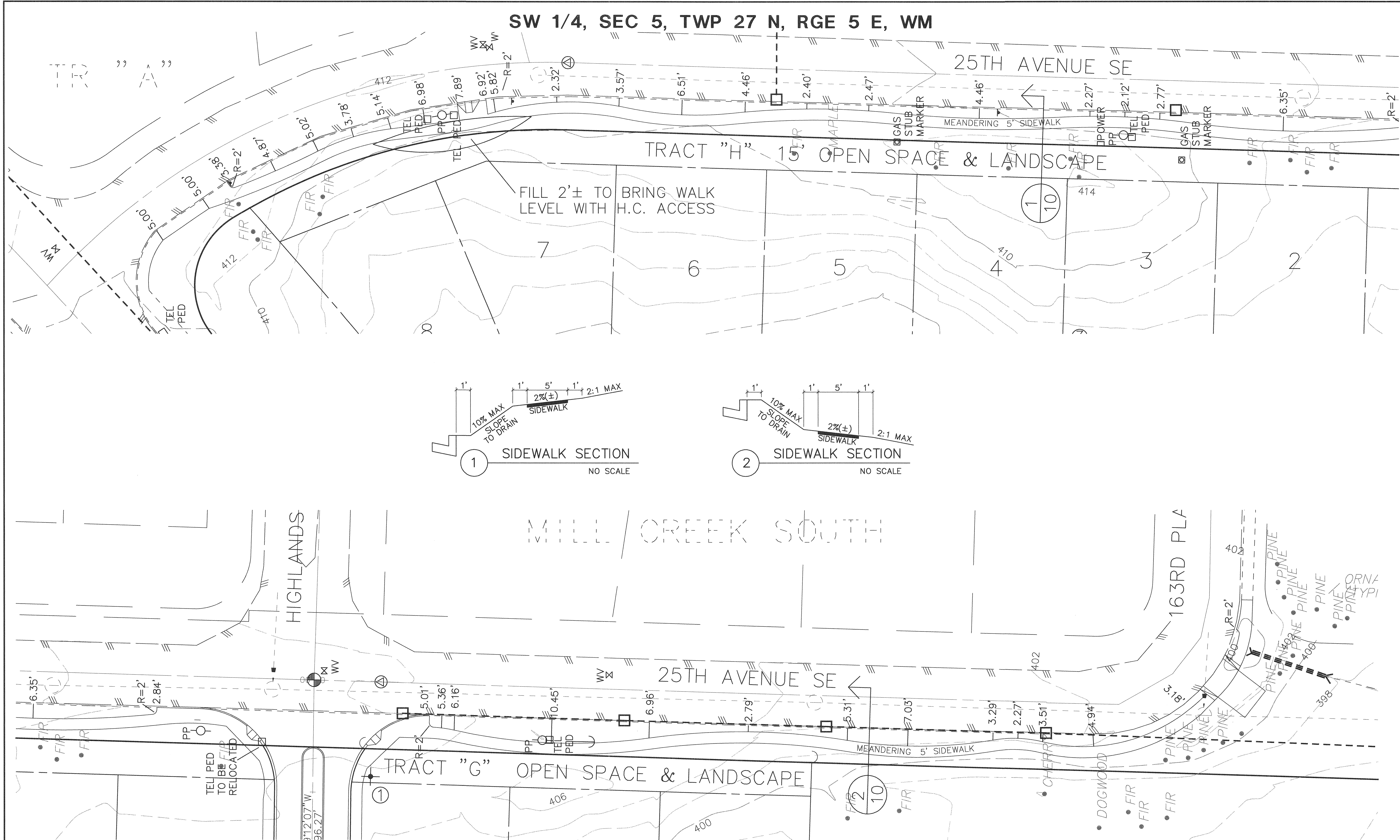


GRADING + T.E.S.C. DETAILS
WASHINGTON
CITY OF MILL CREEK

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

Sheet 9 of 11

Job No. 96173



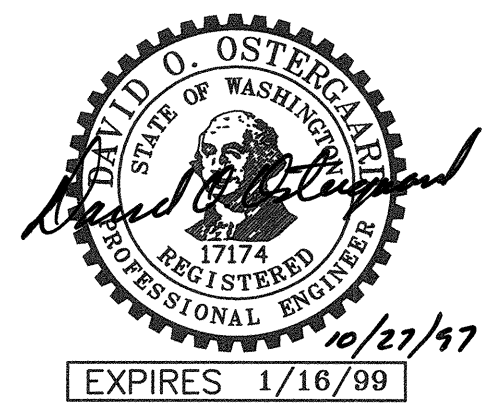
DATUM:
NGVD 29/CITY OF MILL CREEK
BENCH MARK:
TOP OF CONC. MON. IN CASE
30' SO INT 25TH AVE SE & HIGHLAND BLVD SE
ELEV: 405.57

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.

ACCEPTED FOR CONSTRUCTION
CITY OF MILL CREEK
David O. Ostergaard
CITY ENGINEER
DATE 10/29/97

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

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) 827-6854

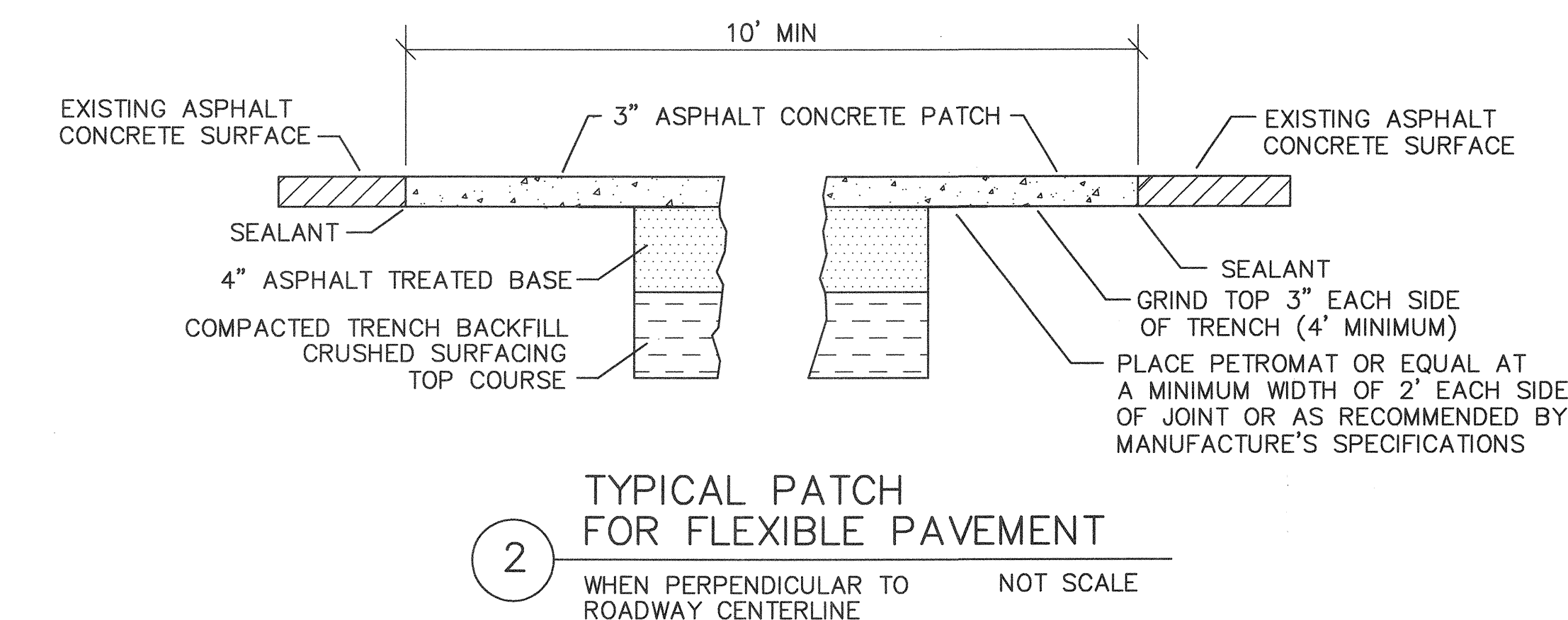
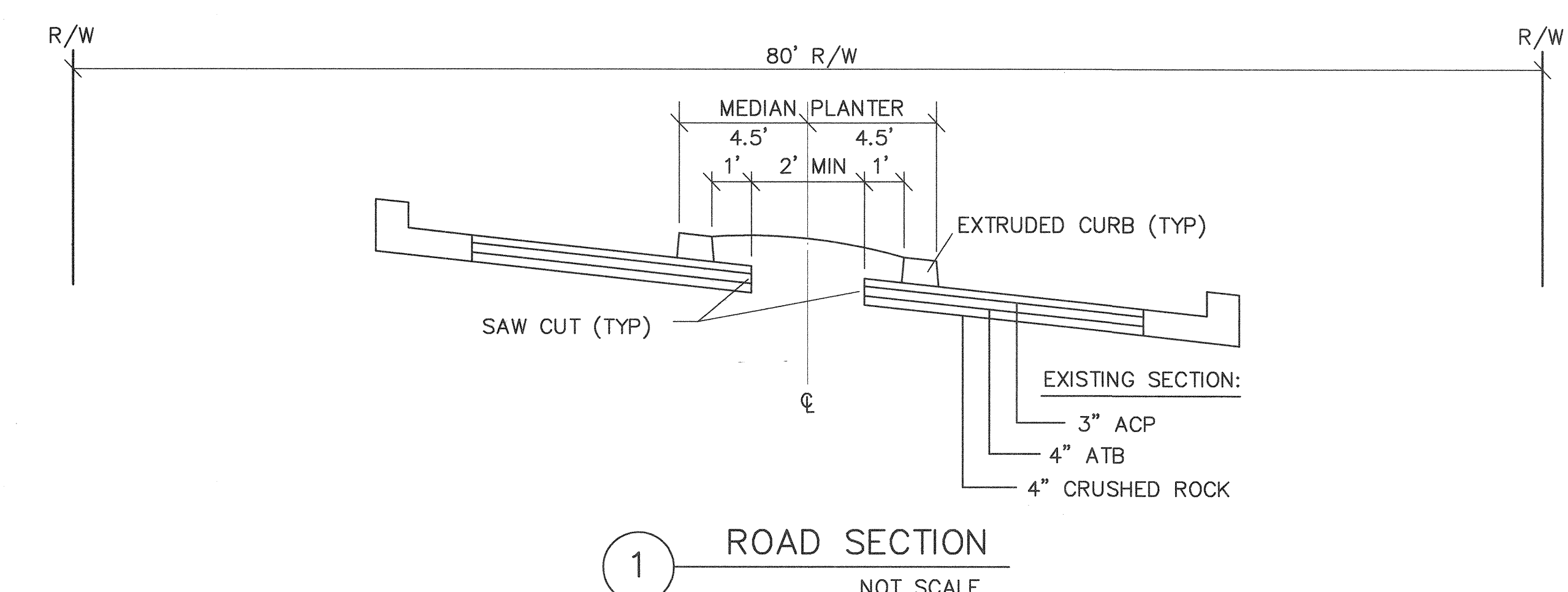
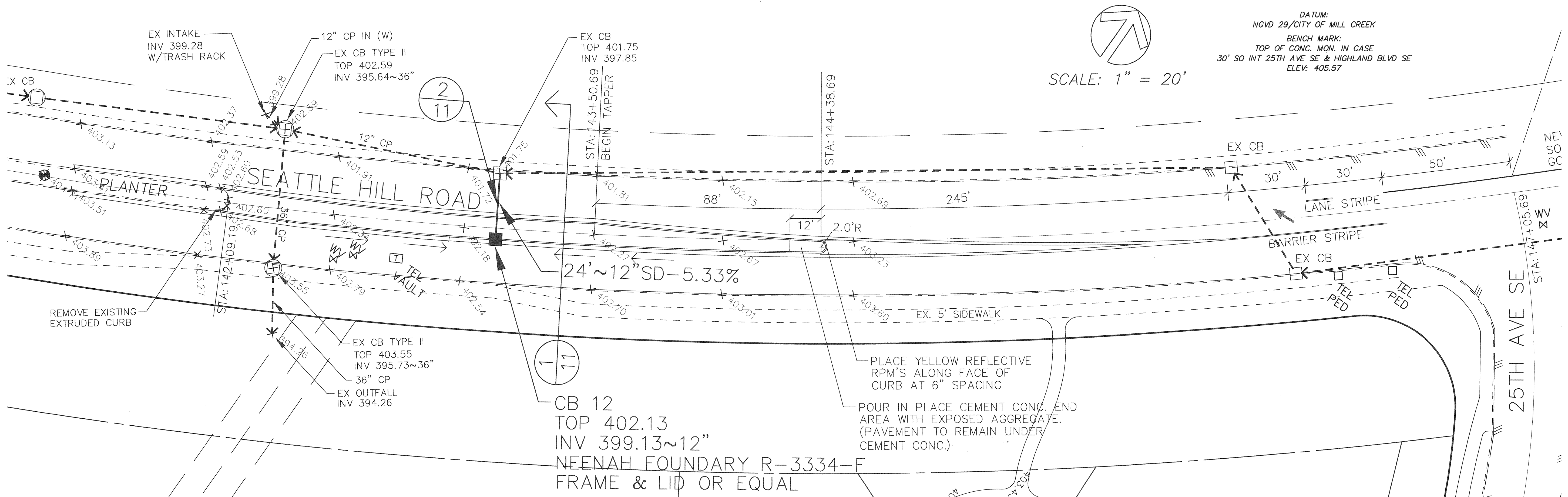
D - 2
MEANDERING SIDEWALK
20 SCALE DETAILS
CITY OF MILL CREEK
WASHINGTON

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



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 Hapner 10/16/97
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

DESIGNED BY: KR
DRAWN BY: ME
CHECKED BY: KR
DRAWING NO: 96173
VIEW: PLANTER

Sheet 11 of 11
Job No. 96173
EXPIRES 1/16/99

BY: ME ME ME

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

DATE: 9/11/97 10/10/97 10/17/97

OSTERGAARD & ASSOC. INC. CONSULTING ENGINEERS
3630 COLBY AVENUE
(206) 259-6445
BELLEVUE, WA 98001
TEL: (206) 827-5854

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

D-2

MEDIAN CHANNELIZATION AND PLANTER PLAN
SEATTLE HILL ROAD
CITY OF MILL CREEK

WASHINGTON

DESIGNED BY: KR
DRAWN BY: ME
CHECKED BY: KR
DRAWING NO: 96173
VIEW: PLANTER

Sheet 11 of 11
Job No. 96173