

PLAN APPROVAL INFORMATION			
RELATED INFORMATION	REQUIRED	NOT REQUIRED	COUNTY I.D. NUMBER COMMENTS/SHEET NO.
1. CONCURRENT PROCESSING			
2. MODIFIED PROCESSING			
3. AFFORDABLE DWELLING UNITS			
4. R.P.A. DELINEATION			
5. FLOOD PLAIN STUDY			
6. DRAINAGE STUDY			
7. CHESAPEAKE BAY ACT EXCEPTION			
8. WATER QUALITY IMPACT ASSESSMENT			
9. SOILS REPORT APPROVAL			
10. ONSITE EASEMENTS			
11. OFFSITE EASEMENTS			
12. NOTARIZED LETTERS OF PERMISSION			
13. ARCHITECTURAL REVIEW BOARD APPROVAL			
14. RETURN PLAN TO B.O.S. PRIOR TO APPR.			
15. RETURN PLAN TO P.C. PRIOR TO APPR.			
16. ADJACENT PROPERTY OWNER NOTIFICATIONS			
17. OFFSITE UTILITY WORK NOTICES			
18. MAJOR UNDERGROUND UTILITY NOTICES			
19. REZONING APPROVAL			
20. B.O.S. CLERK LETTER/RESOLUTION			
21. REZONING PROFFERS/CONDITIONS			
22. REZONING DEVELOPMENT PLAN			
23. SPECIAL EXCEPTION FOR USE			
24. SPECIAL PERMIT FOR USE			
25. B.Z.A. VARIANCE APPROVAL			
26. B.Z.A. CLERK LETTER/RESOLUTION			
WAIVER 1:			
WAIVER 2:			
WAIVER 3:			
MODIFICATION 1: CUL-DE-SAC RADI			#028182 (FORMERLY #025893) APPROVED 2/10/04. SEE APPROVAL LETTER, SHEET # 30
MODIFICATION 2:			
MODIFICATION 3:			

PLAN REVIEW FEE COMPUTATION			
PLAN TYPE	PUBLIC IMPROVEMENT PLANS (PI)	SUBDIVISION PLANS (SD)	SITE PLANS (SP)
BASE FEE	BASE FEE = \$1,725	IF LESS THAN 10 LOTS \$4,300 IF 10 LOTS OR MORE, ADD \$1,500	BASE FEE = \$4,800 PLUS \$890 PER DISTURBED ACRE (OR \$2,200 PER DISTURBED HECTARE) (ROUND UP DISTURBED AREA TO NEAREST NUMBER) (OR ha X \$2,200)
SUBTOTAL	\$1,725	\$5,800	\$24,000
FEES IN ADDITION TO BASE FEE - APPLIES TO ALL PLAN TYPES			
REZONING \$1,000			
SPECIAL EXCEPTION OR PERMIT \$700			
VARIANCE \$500			
MAX. FEE RELATED TO ZONING \$1,700			
PROBLEM SOIL AREA \$5/0			
NATURAL DRAINAGE WAY \$350			
FLOOD PLAIN AREA \$350			
SWM FACILITY (EA) \$430			
BMP FACILITY (EA) \$1,150			
FEE RELATED TO DRAINAGE & SOILS			
IMPROVEMENTS ON PI PLANS (OR QNTY. (M) X \$190/M) FEE			
SANITARY SEWER			
STORM SEWER			
TRUNKS			
ROAD IMPROVEMENTS			
CHANNEL IMPROVEMENTS			
WATERLINE			
TOTAL REVIEW FEE PAYABLE UPON SUBMISSION	ADD 1, 2, 3 & 4 ABOVE	ADD 1, 2 & 3 ABOVE \$10,180	ADD 1, 2 & 3 ABOVE
INSERT FEE \$80 PER PAGE			
DUE PRIOR TO APPROVAL			
RESUBMISSION FEE			
DUE ON SUBMISSION			

APPROVAL NOTES/CONDITIONS:		AGREEMENTS, PERMITS, ETC.	
DATE 7/14/04	CONSTRUCTION PERMIT RECEIVED	DATE 7/14/04	SANITARY SEWER AGREEMENT
DATE 7/13/04	CONSERVATION ESCROW AGREEMENT RECEIVED	DATE 7/14/04	AGREEMENT AND BOND APPROVED
DATE 7/14/04	AGREEMENT EXPIRES	DATE 7/14/04	BALANCE OF FEE PAID
NAME	RESPONSIBLE LAND DISTURBER (R.L.D.)	#	R.L.D. CERTIFICATE NUMBER

**NOTES AND CONDITIONS**

1. THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE DEVELOPER OR HIS AGENT OF ANY LEGAL RESPONSIBILITIES WHICH MAY BE REQUIRED BY THE CODE OF FAIRFAX OR ANY ORDINANCE ENACTED BY THE COUNTY OF FAIRFAX.

2. THE DESIGN, CONSTRUCTION, FIELD PRACTICES, AND METHODS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE FAIRFAX COUNTY CODE AND IN THE PUBLIC UTILITIES MANUAL AS AMENDED. FAILURE TO COMPLY WITH THE FAIRFAX COUNTY CODE, THE PUBLIC UTILITIES MANUAL, THE APPROVED PLANS, THE PROVISIONS OF THE CONSTRUCTION AND ESCROW AGREEMENT PERMIT SHALL BE DEEMED A VIOLATION.

3. WATER DISTRIBUTION NOTE: ALL FIRE PROTECTION SYSTEMS WHICH ARE INSTALLED IN COMPLIANCE WITH THESE PLANS AND COUNTY OF FAIRFAX ORDINANCES SHALL BE MAINTAINED IN AN OPERATIVE CONDITION AT ALL TIMES. WHEN NECESSARY TO TEMPORARILY REDUCE OR DISCONTINUE THE PROTECTION IN ORDER TO MAKE TESTS, REPAIRS, ALTERATIONS OR ADDITIONS, NOTIFY THE FAIRFAX COUNTY PUBLIC SAFETY COMMUNICATIONS CENTER AT 703-691-2131.

4. A PERMIT MUST BE OBTAINED FROM THE OFFICE OF THE RESIDENT ENGINEER, VIRGINIA DEPARTMENT OF TRANSPORTATION, NORTHERN VIRGINIA DISTRICT, BEFORE ANY CONSTRUCTION IS STARTED ON ANY EXISTING STATE ROUTE. CONTACT THE VIRGINIA DEPARTMENT OF TRANSPORTATION THREE WORKING DAYS BEFORE EXCAVATION IN ANY STATE RIGHT OF WAY AT 703-363-2598.

5. CONTRACTORS SHALL NOTIFY THE "MISS UTILITY" NOTIFICATION CENTER AT 1-800-552-7001 FOR ANY PROPOSED EXCAVATION, DEMOLITION, OR BLASTING AT LEAST TWO WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION, DEMOLITION, OR BLASTING IN ACCORDANCE WITH THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT. IN ADDITION, NAMES AND TELEPHONE NUMBERS SHALL ALSO BE USED TO SERVE IN AN EMERGENCY CONDITION AS REQUIRED BY SECTION 63-2-2 OF THE FAIRFAX COUNTY CODE.

6. FOR SITES PROPOSING LAND DISTURBING ACTIVITIES OF ONE (1) ACRE OR MORE, THE CONSTRUCTION ACTIVITY OPERATOR MUST REGISTER WITH THE DEPARTMENT OF ENVIRONMENTAL QUALITY OF THE COMMONWEALTH OF VIRGINIA. THIS IS A REQUIREMENT OF THE VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM (VPDES) GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES.

7. THE COUNTY INSPECTOR SHALL BE NOTIFIED WHEN ANY IMPROVEMENTS PERTINENT TO HIS INSPECTION DUTIES ARE BEING INSTALLED. SPECIFIC REQUIREMENTS ARE:  
 A. THE COUNTY SITE INSPECTOR IS TO BE NOTIFIED AT LEAST 3 DAYS PRIOR TO START OF CONSTRUCTION.  
 B. A MINIMUM OF 24 HOURS NOTICE IS REQUIRED WHEN REQUESTING RESIDENTIAL OR NON-RESIDENTIAL USE PERMITS.  
 C. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED WHEN REQUESTING TESTS PERTAINING TO SANITARY SEWER ACCEPTANCE.

**ZONING REQUIREMENTS**

1) ZONING R-1  
 2) AVERAGE LOT AREA NO REQUIREMENT (sq.ft. or sq.m)  
 3) MIN. LOT AREA 38,000 SQ. FT. (sq.ft. or sq.m)  
 4) MIN. LOT WIDTH INTERIOR - 150 FT. CORNER - 175 FT. (ft. or m)  
 5) MAX. BUILDING HEIGHT 35 FT. (ft. or m)  
 6) NUMBER OF FLOORS N.A. (Commercial/Industrial ONLY)  
 7) MIN. YARD REQUIREMENTS:  
 FRONT 40' (ft. or m) | SIDE 20' (ft. or m) REAR 25' (ft. or m)  
 8) MAXIMUM FAR N.A.  
 9) MAXIMUM DENSITY 1 D.U./ACRE (D.U./Ac. or D.U./ha)  
 10) OPEN SPACE REQUIRED N.A. % (sq.ft. or sq.m)  
 11) ANGLE OF BULK PLANE: FRONT N.A., SIDE N.A., REAR N.A. (DETAIL(S) ON SHEET...)  
 12) OVERLAY DISTRICT(S) WSPD00

**SUBDIVISION PLAN (SD) TABULATIONS**

1) SITE AREA	37.28 AC.	(Ac. or ha)	1,622,840 SQ. FT.	(sq.ft. or sq.m)
2) NUMBER OF LOTS	31			
3) AREA OF LOTS	1,123,390 SQ. FT.			(sq.ft. or sq.m)
4) AREA OF PARCEL/OUTLOT 'A'	112,110 SQ. FT.			(sq.ft. or sq.m)
5) AREA OF PARCEL/OUTLOT 'B'	19,581 SQ. FT.			(sq.ft. or sq.m)
6) AREA OF PARCEL/OUTLOT 'C'	47,711 SQ. FT.			(sq.ft. or sq.m)
7) AREA OF PARCEL/OUTLOT 'D'	178,432 SQ. FT.			(sq.ft. or sq.m)
8) AREA OF PARCEL/OUTLOT 'E'	2,319 SQ. FT.			(sq.ft. or sq.m)
9) TOTAL AREA OF OPEN SPACE	358,153 SQ. FT.			(sq.ft. or sq.m)
10) AREA OF STREET DEDICATION	141,297 SQ. FT.			(sq.ft. or sq.m)
11) DENSITY	0.83 D.U./AC.			(D.U./Ac. or D.U./ha)

**SITE PLAN (SP) TABULATIONS**

1) SITE AREA		(Ac. or ha)		(sq.ft. or sq.m)
2) AREA OF STREET DEDICATION				(sq.ft. or sq.m)
3) USE				
4) NUMBER OF LOTS				
5) AREA OF LOTS				(sq.ft. or sq.m)
6) DENSITY				(D.U./Ac. or D.U./ha)
7) EXISTING BUILDING GROSS FLOOR AREA				(sq.ft. or sq.m)
8) PROPOSED BUILDING GROSS FLOOR AREA				(sq.ft. or sq.m)
9) EXISTING BUILDING NET FLOOR AREA				(sq.ft. or sq.m)
10) PROPOSED BUILDING NET FLOOR AREA				(sq.ft. or sq.m)
11) TOTAL FLOOR AREA RATIO (FAR) FOR ENTIRE SITE				(ft. or m)
12) PROPOSED BUILDING HEIGHT				(Commercial/Industrial)
13) PROPOSED NUMBER OF FLOORS				
14) TOTAL HANDICAPPED PARKING REQUIRED				
15) TOTAL HANDICAPPED VAN SPACES PROVIDED				
16) TOTAL HANDICAPPED VAN SPACES REQUIRED				
17) TOTAL PARKING SPACES PROVIDED				
18) TOTAL PARKING SPACES REQUIRED				
19) LOADING SPACES PROVIDED				
20) LOADING SPACES REQUIRED				
21) OPEN SPACE PROVIDED				(sq.ft. or sq.m)

**FIRE MARSHAL NOTES**

AVAILABLE FIRE FLOW 2700 GPM  
 SOURCE OF FIRE FLOW INFO: FCWA  
 TYPE OF CONSTRUCTION - BOCA SB  
 USE GROUP CLASSIFICATION - BOCA R-4  
 BUILDING HEIGHT 35' MAX. (ft. or m)  
 BUILDING TO BE FULLY SPRINKLERED YES  NO   
 IF YES, CHECK APPROPRIATE STANDARD: NFPA 13  ; NFPA 130  ; NFPA 13R   
 SEE PFM CHAPTER 9, PART 2 FOR FULL INFORMATION REQUIRED. FIRE FLOW REQUIREMENTS TO BE DETERMINED BY THE FIRE PREVENTION DIVISION.  
 [SEE PUBLIC WATER AGENCY NOTES ON SHEET 2.]

**SOLID WASTE STATEMENT**

REFUSE COLLECTION AGENCY: PRIVATE  
 TYPE & SIZE OF CONTAINERS OR EQUIPMENT: INDIVIDUAL HOUSEHOLD CONTAINER  
 FREQUENCY OF COLLECTION: MIN. ONCE WEEKLY

**RECYCLING SYSTEM STATEMENT**

PFM SECTION 10-407.1A  
 PFM SECTION 10-407.1B  
 PFM SECTION 10-407.1C  
 NO STATEMENT REQUIRED PER PFM 10-0403

**SANITARY SEWER STATEMENT**

WASTEWATER TREATMENT PLANT: UPPER OCCOQUAN  
 THIS SITE IS SUBJECT TO SANITARY SEWER REIMBURSEMENT CHARGES.  
 THIS SITE IS SERVED BY ONSITE SEWAGE TREATMENT SYSTEM(S).

**STORMWATER STATEMENT**

WATERSHED(S): CUB RUN  
 THIS SITE IS LOCATED WITHIN THE W.S.P.O.D. (OCCOQUAN WATERSHED).  
 NUMBER OF STORMWATER DETENTION FACILITIES: 2 WET PONDS  
 NUMBER OF BMP FACILITIES: 2  
 NUMBER OF PRIVATE STORMWATER MANAGEMENT FACILITIES: 2  
 HIGH DENSITY POLYETHYLENE (HDPE) USED ON THIS PROJECT YES  NO   
 DISTURBED AREA (DA) WITHIN WATERSHED(S):  
 WATERSHED 1: CUB RUN DA = 23.5 (Ac. or ha)  
 WATERSHED 2: DA = 0 (Ac. or ha)  
 WATERSHED 3: DA = 0 (Ac. or ha)  
 TOTAL DISTURBED AREA = 23.5 (Ac. or ha)

PROFESSIONAL SEAL AND SIGNATURE

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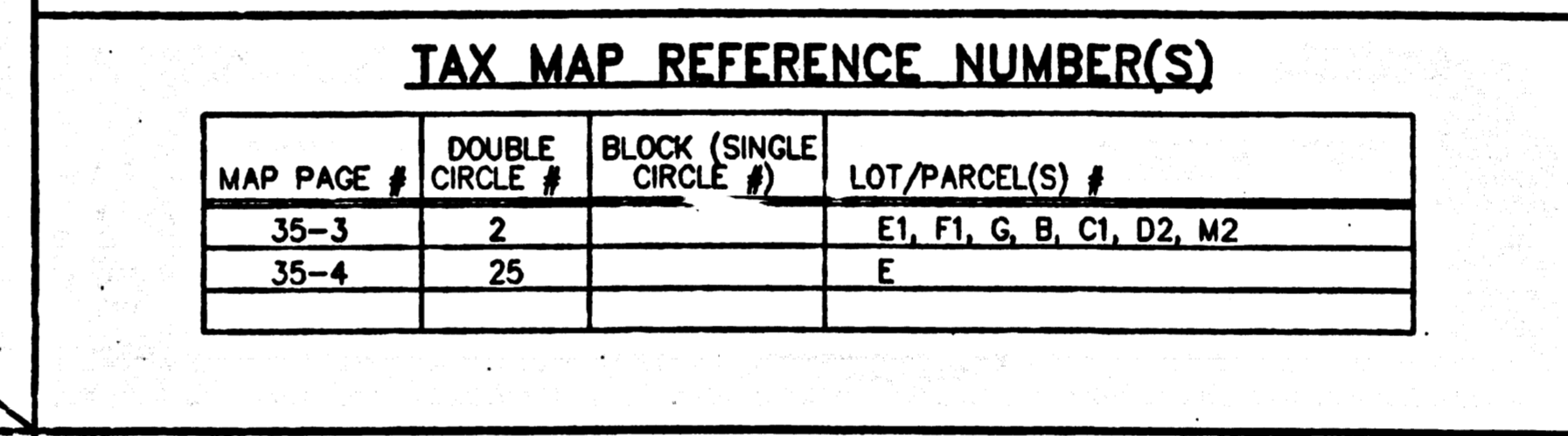
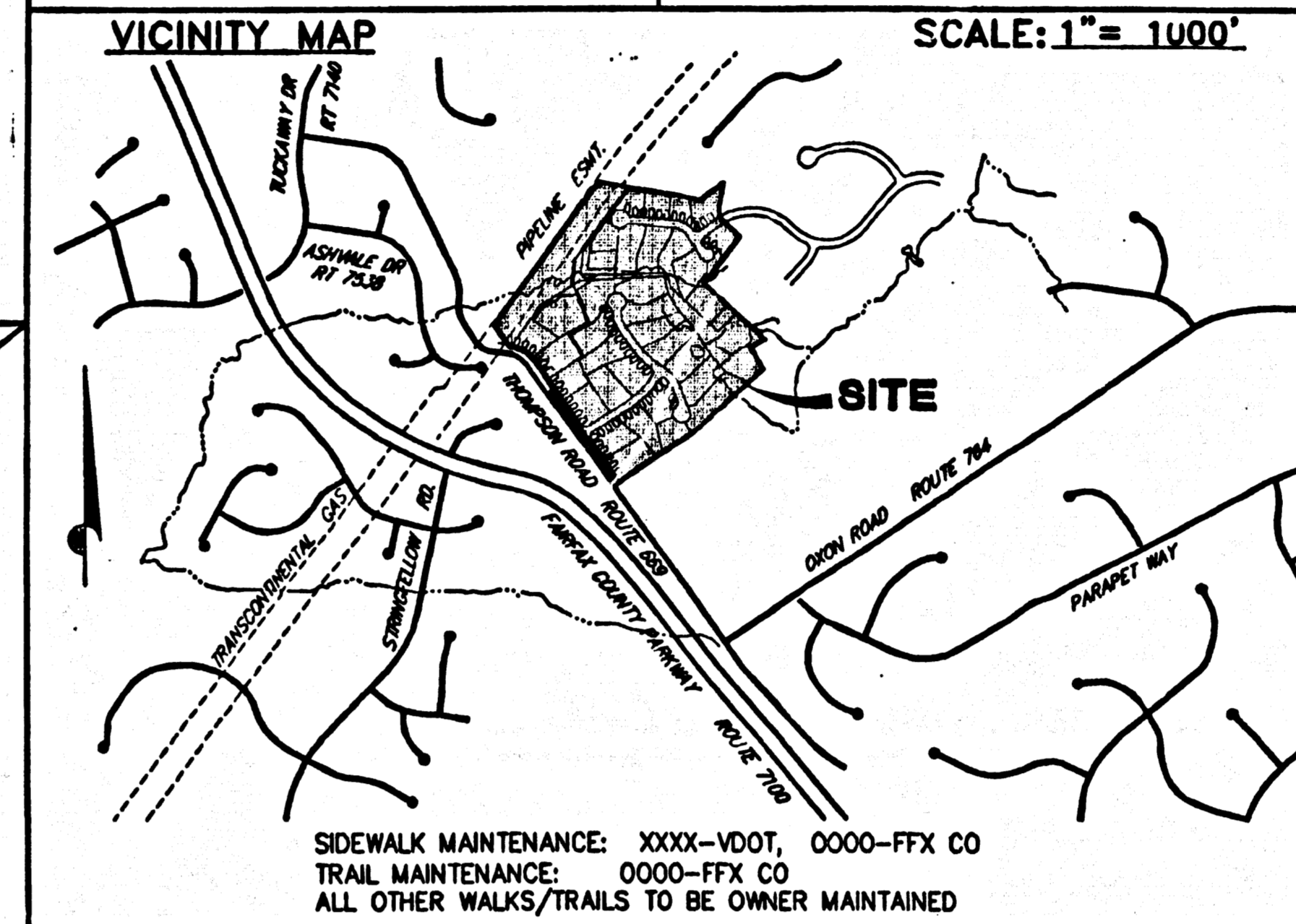
PROFESSIONAL SEAL AND SIGNATURE

DATE: 11-19-03 DATE: 11-19-03 DATE: 11-19-03

**DESIGNATED PLANS EXAMINER (DPE) CERTIFICATE**

1ST SUBMISSION REVIEWED & RECOMMENDED FOR SUBMISSION: Michael R. Tucker  
 D.P.E. SIGNATURE & PRINTED NAME: Michael R. Tucker  
 DATE: 11-19-03 REG. NO.: #22

2ND SUBMISSION REVIEWED & RECOMMENDED FOR APPROVAL: Michael R. Tucker  
 D.P.E. SIGNATURE & PRINTED NAME: Michael R. Tucker  
 DATE: 11-19-03 REG. NO.: #22



**ENGINEER'S/SURVEYOR'S CERTIFICATE:**

THIS PROPERTY IS IN THE NAME OF SEE SHEET 2 AS RECORDED IN DEED BOOK      PAGE      OF THE LAND RECORDS OF FAIRFAX COUNTY, VA.

OWNER TRUSTEE       A CORPORATION  
 TRUSTEE       A PARTNERSHIP  
 AN INDIVIDUAL

NAME: SEE SHEET 2 PHONE:       
 ADDRESS: SEE SHEET 2

DEVELOPER CONTRACT OWNER       A CORPORATION  
 LESSEE       A PARTNERSHIP  
 AN INDIVIDUAL

NAME: WINCHESTER HOMES PHONE: 301-803-4800  
 ADDRESS: 6905 ROCKLEDGE DRIVE, SUITE 80 BETHESDA, MD. 20817

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES.

Signature:       
 Owner/Developer: CONRAD P. CALDWELL TITLE: VIC. PRESIDENT, WINCHESTER HOMES, INC.

DATE: 3/02/04 RECOMMEND APPROVAL (SIGNATURE & PRINTED NAME): Felix Bermejo / ASM  
4/09/04 Michael Forester / ASM  
3/18/04 Bo Balk / ASM  
4/19/04 Bijan Sistani / ASM  
4/21/04 Gayman Khan / ASM  
4/19/04 Phyllis Wilson / ASM  
3/02/04 Gary Backley / ASM

**APPROVED** DATE: 7-31-04 BY: Chita Adams  
 DIRECTOR, DEPT. OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES

THIS PLAN SHALL EXPIRE WITHOUT NOTICE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE COUNTY CODE. REVISIONS DO NOT EXTEND THE APPROVAL PERIOD. THE APPROVAL PERIOD IS INDEPENDENT OF THE AGREEMENT EXPIRATION DATE.  
 THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER

**CERTIFICATE OF NO CHANGE**  
 (FOR SUBMISSION OTHER THAN THE FIRST)  
 I HEREBY CERTIFY THAT NO CHANGES HAVE BEEN MADE THAT WOULD AFFECT THE PRIOR APPROVAL BY THE:

FIRE MARSHAL DATED: 3/2/04  
 WATER AUTHORITY DATED: 4/9/04  
 HEALTH DEPARTMENT DATED: N/A  
 VDOT DATED: 3/15/04  
 DPWES-WPMD (SAN. SEW.) DATED: 3/18/04  
 DPWES-STREETLIGHTS DATED: 3/2/04

**SHEET INDEX**

- COVER SHEET
- GENERAL NOTES AND LEGEND
- DEMOLITION PLAN
- SUBDIVISION PLAN
- BELLE COTE LANE PLAN AND PROFILE
- MERY WOODS LANE PLAN AND PROFILE
- ROSE GROVE DRIVE PLAN AND PROFILE
- PERCHERON LANE PLAN AND PROFILE
- OVERALL SANITARY SEWER PLAN
- SANITARY SEWER PLAN AND PROFILE
- STORM SEWER PROFILES
- STORM SEWER PROFILES AND COMPUTATIONS
- OAK HILL RESERVE SECTION 2, EROSION & SEDIMENT CONTROL PHASE 2 (FOR INFO. ONLY)
- OAK HILL RESERVE SECTION 2, STORM SEWER COMPUTATIONS AND NARRATIVES (FOR INFO. ONLY)
- WATERMAIN PROFILES
- OAK HILL RESERVE, SECTION 2, STORM SEWER COMPUTATIONS AND NARRATIVES (FOR INFO. ONLY)
- BMP/STORMWATER MANAGEMENT COMPUTATIONS
- STORMWATER MANAGEMENT COMPUTATIONS
- DOWNSTREAM IMPOUNDMENT ANALYSIS
- EROSION AND SEDIMENT CONTROL PLAN, PHASE I
- EROSION AND SEDIMENT CONTROL PLAN, PHASE II
- EROSION AND SEDIMENT CONTROL COMPUTATIONS
- EROSION AND SEDIMENT CONTROL DETAILS
- CORRESPONDENCE
- GEOTECHNICAL REQUIREMENTS

DESIGN ENGINEER / SURVEYOR

**BC Consultants**  
 Planner - Engineer - Surveyor - Landscaper - Archeologist  
 12600 Fair Lakes Circle, Suite 100, Fairfax, VA 22033  
 (703)449-8100 (703)449-8108 (Fax)  
 EMAIL: [bccon@bccon.com](mailto:bccon@bccon.com)

PROJ. MANAGER: ANTHONY OWENS EMAIL: antowens@bccon.com

COUNTY NUMBER: 9820-SD-02-2

THOMPSON ROAD PROPERTY

SUBDIVISION PLAN

SHEET 1 OF 31

DESIGN REVIEW

REVISIONS: 7/7/04

OCTOBER, 2003  
 BC FILE: 97060-37

**PLAN APPROVAL INFORMATION**

RELATED INFORMATION	REQUIRED	NOT REQUIRED	COUNTY I.D. NUMBER	COMMENTS/SHEET NO.
1. CONCURRENT PROCESSING	✓			
2. MODIFIED PROCESSING	✓			
3. AFFORDABLE DWELLING UNITS	✓			
4. R.F.A. DELINEATION	✓		9820-RPA-01-1	APPROVED 11/20/2003
5. FLOOD PLAIN STUDY	✓		9820-FP-02-1	APPROVED 9/3/2003
6. DRAINAGE STUDY	✓			
7. CHESAPEAKE BAY ACT EXCEPTION	✓			
8. WATER QUALITY IMPACT ASSESSMENT	✓			
9. SOILS REPORT APPROVAL	✓		9820-SR-02-1	APPROVED (SEE APPROVAL LETTER SHEET 30)
10. ONSITE EASEMENTS	✓			APPROVED 2/4/2004
11. OFFSITE EASEMENTS	✓			OFFSITE SIGHT DISTANCE EASEMENT SHEET 5
12. NOTARIZED LETTERS OF PERMISSION	✓			
13. ARCHITECTURAL REVIEW BOARD APPROVAL	✓			
14. RETURN PLAN TO B.O.S. PRIOR TO APPR.	✓			
15. RETURN PLAN TO P.C. PRIOR TO APPR.	✓			
16. ADJACENT PROPERTY OWNER NOTIFICATIONS	✓		9820-PL-02-1	APPROVED WITH PRELIMINARY PLAN
17. OFFSITE UTILITY WORK NOTICES	✓			
18. MAJOR UNDERGROUND UTILITY NOTICES	✓		9820-PL-02-1	ADJACENT UTILITY NOTIFIED, SEE SHEET 30
19. REZONING APPROVAL	✓			
20. B.O.S. CLERK LETTER/RESOLUTION	✓			
21. REZONING PROFFERS/CONDITIONS	✓			
22. REZONING DEVELOPMENT PLAN	✓			
23. SPECIAL EXCEPTION FOR USE	✓			
24. SPECIAL PERMIT FOR USE	✓			
25. B.Z.A. VARIANCE APPROVAL	✓			
26. B.Z.A. CLERK LETTER/RESOLUTION	✓			
27. WAIVER 1:				
28. WAIVER 2:				
29. WAIVER 3:				
30. MODIFICATION 1: CUL-DE-SAC RADI	✓		#026182 (FORMERLY #025893)	APPROVED 2/10/04. SEE APPROVAL LETTER, SHEET # 30
31. MODIFICATION 2:				
32. MODIFICATION 3:				

**PLAN REVIEW FEE COMPUTATION**

PLAN TYPE	PUBLIC IMPROVEMENT PLANS (PIP)	SUBDIVISION PLANS (SD)	SITE PLANS (SP)
BASE FEE	\$1,725	\$1,725	\$4,800
REZONING \$1,000			
SPECIAL EXCEPTION OR PERMIT \$700			
VARIANCE \$520			
MAX. FEE RELATED TO ZONING \$1,700			
PROBLEM SOIL AREA \$520			
NATURAL DRAINAGE WAY \$350			
FLOOD PLAIN AREA \$350			
SWIM FACILITY (EA) \$430			
BMP FACILITY (EA) \$1,150			
FEE RELATED TO DRAINAGE & SOILS			
IMPROVEMENTS ON PI PLANS			
SANITARY SEWER			
STORM SEWER			
TRAILS			
SIDEWALKS			
ROAD IMPROVEMENTS			
CHANNEL IMPROVEMENTS			
WATERLINE			
TOTAL REVIEW FEE PAYABLE UPON SUBMISSION	\$10,180	\$10,180	\$10,180

**APPROVAL NOTES/CONDITIONS:**

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- WATER DISTRIBUTION NOTE:** ALL FIRE PROTECTION SYSTEMS WHICH ARE INSTALLED IN COMPLIANCE WITH THESE PLANS AND COUNTY OF FAIRFAX ORDINANCES SHALL BE MAINTAINED IN AN OPERATIVE CONDITION AT ALL TIMES. WHEN NECESSARY TO TEMPORARILY REDUCE OR DISCONTINUE THE PROTECTION IN ORDER TO MAKE TESTS, REPAIRS, ALTERATIONS OR ADDITIONS, NOTIFY THE FAIRFAX COUNTY PUBLIC SAFETY COMMUNICATIONS CENTER AT 703-691-2131.
- A PERMIT MUST BE OBTAINED FROM THE OFFICE OF THE RESIDENT ENGINEER, VIRGINIA DEPARTMENT OF TRANSPORTATION, NORTHERN VIRGINIA DISTRICT, BEFORE ANY CONSTRUCTION IS STARTED ON ANY EXISTING STATE ROUTE. CONTACT THE VIRGINIA DEPARTMENT OF TRANSPORTATION THREE WORKING DAYS BEFORE EXCAVATION IN ANY STATE RIGHT OF WAY AT 703-383-2888.
- CONTRACTORS SHALL NOTIFY THE "MISS UTILITY" NOTIFICATION CENTER AT 1-800-552-7001 FOR ANY PROPOSED EXCAVATION, DEMOLITION, OR BLASTING AT LEAST TWO WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION, DEMOLITION, OR BLASTING IN ACCORDANCE WITH THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT. IN ADDITION, NAMES AND TELEPHONE NUMBERS SHALL ALSO BE USED TO SERVE IN AN EMERGENCY CONDITION AS REQUIRED BY SECTION 63-2-2 OF THE FAIRFAX COUNTY CODE.
- FOR SITES PROPOSING LAND DISTURBING ACTIVITIES OF ONE (1) ACRE OR MORE, THE CONSTRUCTION ACTIVITY OPERATOR MUST REGISTER WITH THE DEPARTMENT OF ENVIRONMENTAL QUALITY OF THE COMMONWEALTH OF VIRGINIA. THIS IS A REQUIREMENT OF THE VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM (VPDES) GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES.
- THE COUNTY INSPECTOR SHALL BE NOTIFIED WHEN ANY IMPROVEMENTS PERTAINING TO HIS INSPECTION OFFICE ARE BEING INSTALLED. SPECIFIC REQUIREMENTS ARE:
  - A COUNTY SITE INSPECTOR IS TO BE NOTIFIED AT LEAST 3 DAYS PRIOR TO START OF CONSTRUCTION.
  - A MINIMUM OF 24 HOURS NOTICE IS REQUIRED WHEN REQUESTING RESIDENTIAL OR NON-RESIDENTIAL USE PERMITS.
  - A MINIMUM OF 48 HOURS NOTICE IS REQUIRED WHEN REQUESTING TESTS PERTAINING TO SANITARY SEWER ACCEPTANCE.

**ZONING REQUIREMENTS**

- ZONING R-1
- AVERAGE LOT AREA NO REQUIREMENT (sq. ft. or sq. m)
- MIN. LOT AREA 36,000 SQ. FT. (sq. ft. or sq. m)
- MIN. LOT WIDTH INTERIOR - 150 FT. CORNER - 175 FT. (ft. or m)
- MAX. BUILDING HEIGHT 35 FT. (ft. or m)
- NUMBER OF FLOORS N.A. (Commercial/Industrial ONLY)
- MIN. YARD REQUIREMENTS:  
FRONT 40' (ft. or m) SIDE 20' (ft. or m) REAR 25' (ft. or m)
- MAXIMUM FAR N.A.
- MAXIMUM DENSITY 1 D.U./ACRE (D.U./Ac. or D.U./ha)
- OPEN SPACE REQUIRED N.A. % (sq. ft. or sq. m)
- ANGLE OF BULK PLANE: FRONT N.A. SIDE N.A. REAR N.A. (DETAIL(S) ON SHEET # )
- OVERLAY DISTRICT(S) WSP000

**SUBDIVISION PLAN (SD) TABULATIONS**

- SITE AREA 37.28 AC (Ac. or ha) 1,822,840 SQ. FT. (sq. ft. or sq. m)
- NUMBER OF LOTS 31
- AREA OF LOTS 1,123,390 SQ. FT. (sq. ft. or sq. m)
- AVERAGE LOT AREA 36,238 SQ. FT. (sq. ft. or sq. m)
- AREA OF PARCEL/OUTLOT 'A' 112,110 SQ. FT. (sq. ft. or sq. m)
- AREA OF PARCEL/OUTLOT 'B' 19,841 SQ. FT. (sq. ft. or sq. m)
- AREA OF PARCEL/OUTLOT 'C' 47,711 SQ. FT. (sq. ft. or sq. m)
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- AREA OF PARCEL/OUTLOT 'E' 2,319 SQ. FT. (sq. ft. or sq. m)
- TOTAL AREA OF OPEN SPACE 358,153 SQ. FT. (sq. ft. or sq. m)
- AREA OF STREET DEDICATION 141,297 SQ. FT. (sq. ft. or sq. m)
- DENSITY 0.83 D.U./AC. (D.U./Ac. or D.U./ha)

**SITE PLAN (SP) TABULATIONS**

- SITE AREA (Ac. or ha)
- AREA OF STREET DEDICATION (sq. ft. or sq. m)
- USE
- NUMBER OF LOTS
- AREA OF LOTS (Ac. or D.U./ha)
- DENSITY (D.U./Ac. or D.U./ha)
- EXISTING BUILDING GROSS FLOOR AREA (sq. ft. or sq. m)
- PROPOSED BUILDING GROSS FLOOR AREA (sq. ft. or sq. m)
- EXISTING BUILDING NET FLOOR AREA (sq. ft. or sq. m)
- PROPOSED BUILDING NET FLOOR AREA (sq. ft. or sq. m)
- TOTAL FLOOR AREA RATIO (FAR) FOR ENTIRE SITE (ft. or m)
- PROPOSED BUILDING HEIGHT (Commercial/Industrial)
- PROPOSED NUMBER OF FLOORS
- TOTAL HANDICAPPED PARKING REQUIRED
- TOTAL HANDICAPPED PARKING PROVIDED
- TOTAL HANDICAPPED VAN SPACES REQUIRED
- TOTAL HANDICAPPED VAN SPACES PROVIDED
- TOTAL PARKING SPACES REQUIRED
- TOTAL PARKING SPACES PROVIDED
- LOADING SPACES REQUIRED
- LOADING SPACES PROVIDED
- OPEN SPACE PROVIDED % (sq. ft. or sq. m)

**FIRE MARSHAL NOTES**

AVAILABLE FIRE FLOW 2700 GPM  
SOURCE OF FIRE FLOW INFO. FCWA  
TYPE OF CONSTRUCTION - BOCA SB  
USE GROUP CLASSIFICATION - BOCA R-4  
BUILDING HEIGHT 35' MAX. (ft. or m)

BUILDING TO BE FULLY SPRINKLERED YES  NO

IF YES, CHECK APPROPRIATE STANDARD: NFPA 13  NFPA 13D  NFPA 13R

SEE PFM CHAPTER 9, PART 2 FOR FULL INFORMATION REQUIRED. FIRE FLOW REQUIREMENTS TO BE DETERMINED BY THE FIRE PREVENTION DIVISION.

[SEE PUBLIC WATER AGENCY NOTES ON SHEET 2.]

**SOLID WASTE STATEMENT**

REFUSE COLLECTION AGENCY PRIVATE

TYPE & SIZE OF CONTAINERS OR EQUIPMENT  
INDIVIDUAL HOUSEHOLD CONTAINER

FREQUENCY OF COLLECTION MIN. ONCE WEEKLY

**RECYCLING SYSTEM STATEMENT**

PFM SECTION 10-407.1A  
 PFM SECTION 10-407.1B  
 PFM SECTION 10-407.1C  
 NO STATEMENT REQUIRED PER PFM 10-0403

**SANITARY SEWER STATEMENT**

WASTEWATER TREATMENT PLANT UPPER OCCOQUAN

THIS SITE IS SUBJECT TO SANITARY SEWER REIMBURSEMENT CHARGES.

THIS SITE IS SERVED BY ONSITE SEWAGE TREATMENT SYSTEM(S).

**STORMWATER STATEMENT**

WATERSHED(S) CUB RUN

THIS SITE IS LOCATED WITHIN THE W.S.P.O.D. (OCCOQUAN WATERSHED).

NUMBER OF STORMWATER DETENTION FACILITIES 2 WET POND(S)

NUMBER OF BMP FACILITIES 2

NUMBER OF PRIVATE STORMWATER MANAGEMENT FACILITIES 2

HIGH DENSITY POLYETHYLENE (HDPE) USED ON THIS PROJECT YES  NO

**DISTURBED AREA (DA) WITHIN WATERSHED(S):**

WATERSHED 1 CUB RUN	DA= 23.5	(Ac. or ha)
WATERSHED 2	DA=	(Ac. or ha)
WATERSHED 3	DA=	(Ac. or ha)
TOTAL DISTURBED AREA=	23.5	(Ac. or ha)

**DESIGNATED PLANS EXAMINER (DPE) CERTIFICATE**

1ST SUBMISSION REVIEWED & RECOMMENDED FOR SUBMISSION  
D.P.E. SIGNATURE & PRINTED NAME: Michael R. Tucker  
DATE: 11-19-03 REG. NO.: #22

2ND SUBMISSION REVIEWED & RECOMMENDED FOR APPROVAL  
D.P.E. SIGNATURE & PRINTED NAME: Michael R. Tucker  
DATE: 2-25-04 REG. NO.: #22

**VICINITY MAP** SCALE: 1" = 1000'

**TAX MAP REFERENCE NUMBER(S)**

MAP PAGE #	DOUBLE CIRCLE #	BLOCK (SINGLE CIRCLE #)	LOT/PARCEL(S) #
35-3	2		E1, F1, G, B, C1, D2, M2
35-4	25		E

**SOILS MAP DATA** SCALE: 1" = 500'

SOIL ID NUMBER	SOIL SERIES	FOUNDATION SUPPORT	SUBSURFACE DRAINAGE	SLOPE STABILITY	ERODIBILITY	PROBLEM CLASS
12	ROWLAND	POOR	POOR	GOOD	SLIGHT	A-YES
14	MANASSAS	FAIR	MARGINAL	GOOD	MODERATE	B-NO
62	BREC-MOCK	GOOD	FAIR	GOOD	MODERATE	C-NO
67	PENN FSL	GOOD	FAIR	GOOD	SEVERE	C-NO
73	PENN (SL)	GOOD	FAIR	GOOD	SEVERE	C-NO
75	PENN (L)	GOOD	GOOD	GOOD	SEVERE	C-NO
76	CALVERTON (L)	POOR-B.W.C	MARG-W.C.R	MODERATE	MODERATE	A-YES
80	CROTTON (L)	POOR-B.W.C	POOR-W.C.R	GOOD	SLIGHT	A-YES
41	ROCKYLAND IRELAND	MARGINAL	MARGINAL	MODERATE	MODERATE	A-YES

SOILS WITH IDENTIFICATION NUMBERS 50, 66, 88, 141, 142, AND 152 MAY OVERLIE PARENT BEDROCK FORMATIONS WHICH HAVE BEEN FOUND TO CONTAIN NATURALLY OCCURRING ASBESTOS MINERALS. SPECIAL MINING CONSTRUCTION MEASURES AND PRECAUTIONS ARE REQUIRED IN COMPLIANCE WITH HEALTH DEPARTMENT DIRECTIVES WITHIN THESE SOILS OR WITHIN FILL ORIGINATING FROM THESE SOILS.

**ENGINEER'S/SURVEYOR'S CERTIFICATE:**

THIS PROPERTY IS IN THE NAME OF SEE SHEET 2 AS RECORDED IN \_\_\_\_\_

DEED BOOK \_\_\_\_\_ PAGE \_\_\_\_\_ OF THE LAND RECORDS OF FAIRFAX COUNTY, VA.:

OWNER TRUSTEE **OWNER INFORMATION**  A CORPORATION  A PARTNERSHIP  AN INDIVIDUAL

NAME SEE SHEET 2 PHONE \_\_\_\_\_

ADDRESS SEE SHEET 2

DEVELOPER CONTRACT OWNER **DEVELOPER INFORMATION**  A CORPORATION  A PARTNERSHIP  AN INDIVIDUAL

LESSOR WINCHESTER HOMES

NAME WINCHESTER HOMES PHONE 301-803-4800

ADDRESS 6905 ROCKLEDGE DRIVE, SUITE 80 BETHESDA, MD. 20817

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES.

Signature: *[Signature]* TITLE: *[Title]*

DATE: 4/9/04

**RECOMMEND APPROVAL (SIGNATURE & PRINTED NAME)**

*[Signature]* TITLE: *[Title]*

STREET LIGHT SECTION PLANNING & DESIGN DIVISION-DPWES  
PUBLIC WATER AGENCY  
SANITARY SEWER REVIEW, EFRD, OSDS - DPWES  
GEOTECHNICAL REVIEW, EFRD, OSDS - DPWES  
STORMWATER REVIEW, EFRD, OSDS - DPWES  
URBAN FORESTRY DIVISION, OSDS - DPWES  
FAIRFAX COUNTY FIRE MARSHAL  
FAIRFAX COUNTY HEALTH DEPARTMENT  
VIRGINIA DEPARTMENT OF TRANSPORTATION  
PLAN REVIEWER, ENVIRONMENTAL & FACILITIES REVIEW DIVISION, OSDS - DPWES  
DIRECTOR, ENVIRONMENTAL & FACILITIES REVIEW DIVISION, OSDS - DPWES

APPROVED DATE: \_\_\_\_\_ BY: \_\_\_\_\_ DIRECTOR, DEPT. OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES

THIS PLAN SHALL EXPIRE WITHOUT NOTICE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE COUNTY CODE. REVISIONS DO NOT EXTEND THE APPROVAL PERIOD. THE APPROVAL PERIOD IS INDEPENDENT OF THE AGREEMENT EXPIRATION DATE.

**THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER**

**CERTIFICATE OF NO CHANGE**  
(FOR SUBMISSION OTHER THAN THE FIRST)  
I HEREBY CERTIFY THAT NO CHANGES HAVE BEEN MADE THAT WOULD AFFECT THE PRIOR APPROVAL BY THE

FIRE MARSHAL DATED: \_\_\_\_\_  
WATER AUTHORITY DATED: \_\_\_\_\_  
HEALTH DEPARTMENT DATED: \_\_\_\_\_  
VDOT DATED: \_\_\_\_\_  
DPWES-WPMD (SAN. SEW.) DATED: \_\_\_\_\_  
DPWES-STREETLIGHTS DATED: \_\_\_\_\_

**SHEET INDEX**

- COVER SHEET
- GENERAL NOTES AND LEGEND
- DEMOLITION PLAN
- SUBDIVISION PLAN
- BELLE COTE LANE PLAN AND PROFILE
- MEYER WOODS LANE PLAN AND PROFILE
- ROSE GROVE DRIVE PLAN AND PROFILE
- PERCHERON LANE PLAN AND PROFILE
- OVERALL SANITARY SEWER PLAN
- SANITARY SEWER PLAN AND PROFILE
- STORM SEWER PROFILES
- STORM SEWER PROFILES AND COMPUTATIONS
- 15A-15B. OAK HILL RESERVE SECTION 2 EROSION & SEDIMENT CONTROL PHASE 2 (FOR INFO. ONLY)
- 16C. OAK HILL RESERVE SECTION 2 STORM SEWER COMPUTATIONS AND NARRATIVES (FOR INFO. ONLY)
- WATERMAIN PROFILES
- 16A. EIGHT DISTANCE PROFILES & CG-12 DETAILS
- 16B. EIGHT DISTANCE PROFILE AND DITCH COMPUTATIONS
- BMP/STORMWATER MANAGEMENT COMPUTATIONS
17. DOWNSTREAM IMPROVEMENT ANALYSIS
- 18-22. STORMWATER MANAGEMENT COMPUTATIONS
23. EROSION AND SEDIMENT CONTROL PLAN, PHASE I
24. EROSION AND SEDIMENT CONTROL PLAN, PHASE II
- 25-26. EROSION AND SEDIMENT CONTROL COMPUTATIONS
27. EROSION AND SEDIMENT CONTROL COMPUTATIONS
- 28-29. EROSION AND SEDIMENT CONTROL DETAILS
30. CORRESPONDENCE
31. GEOTECHNICAL REQUIREMENTS

DESIGN ENGINEER / SURVEYOR

**BC Consultants**

1800 Air Lake Circle, Suite 100, Fairfax, VA 22033  
(703)448-8100 (703)448-8108 (Fax)

PROJ. MANAGER: ANTHONY OWENS EMAIL: aowens@bc.com

SUBDIVISION PLAN

**THOMPSON ROAD PROPERTY**

8920-SD-02-

SHEET 1 OF 31

REVISED: 7/7/03

PLAN APPROVAL INFORMATION			
RELATED INFORMATION	REQUIRED	NOT REQUIRED	COMMENTS/SHEET NO.
1. CONCURRENT PROCESSING	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. MODIFIED PROCESSING	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. AFFORDABLE DWELLING UNITS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. R.P.A. Delineation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. FLOOD PLAIN STUDY	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9820-RPA-01-1 APPROVED 11/20/2003
6. DRAINAGE STUDY	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9820-FP-02-1 APPROVED 9/3/2003
7. CHESAPEAKE BAY ACT EXCEPTION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. WATER QUALITY IMPACT ASSESSMENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	APPROVED (SEE APPROVAL LETTER SHEET 30)
9. SOILS REPORT APPROVAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9820-SR-02-1 APPROVED 2/4/2004
10. OFFSITE EASEMENTS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	OFFSITE SIGHT DISTANCE EASMENT, SHEET 5
11. OFFSITE EASEMENTS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. NOTARIZED LETTERS OF PERMISSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13. ARCHITECTURAL REVIEW BOARD APPROVAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
14. RETURN PLAN TO B.O.S. PRIOR TO APPR.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
15. RETURN PLAN TO P.C. PRIOR TO APPR.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
16. ADJACENT PROPERTY OWNER NOTIFICATIONS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9820-PL-02-1 APPROVED WITH PRELIMINARY PLAN
17. OFFSITE UTILITY WORK NOTICES	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
18. MAJOR UNDERGROUND UTILITY NOTICES	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9820-PL-02-1 ADJACENT UTILITY NOTIFIED, SEE SHEET 30
19. REZONING APPROVAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
20. B.O.S. CLERK LETTER/RESOLUTION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
21. REZONING PROFFERS/CONDITIONS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
22. REZONING DEVELOPMENT PLAN	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
23. SPECIAL EXCEPTION FOR USE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
24. SPECIAL PERMIT FOR USE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
25. B.Z.A. VARIANCE APPROVAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
26. B.Z.A. CLERK LETTER/RESOLUTION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WAIVER 1:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WAIVER 2:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
WAIVER 3:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
MODIFICATION 1: CUL-DE-SAC ROAD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	#026182 (FORMERLY #025893) APPROVED 2/10/04, SEE APPROVAL LETTER, SHEET # 30
MODIFICATION 2:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
MODIFICATION 3:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

PLAN REVIEW FEE COMPUTATION			
PLAN TYPE	PUBLIC IMPROVEMENT PLANS (PI)	SUBDIVISION PLANS (SD)	SITE PLANS (SP)
BASE FEE	BASE FEE= \$1,725	IF LESS THAN 10 LOTS \$4,300	BASE FEE= \$4,800
		IF 10 LOTS OR MORE, ADD \$1,500	PLUS \$880 PER DISTURBED ACRE (OR \$2,200 PER DISTURBED HECTARE) (ROUND UP DISTURBED AREA TO WHOLE NUMBER) (OR _____ AC. X \$880)
SUBTOTAL	\$1,725	\$5,800	\$4,800
FEES IN ADDITION TO BASE FEE - APPLIES TO ALL PLAN TYPES			
REZONING	\$1,000		
SPECIAL EXCEPTION OR PERMIT	\$700		
VARIANCE	\$520		
MAX. FEE RELATED TO ZONING	\$1,700		
PROBLEM SOLVING AREA	\$520		
NATURAL DRAINAGE WAY	\$350		
FLOOD PLAIN AREA	\$350		
SWM FACILITY (EA)	\$430		
BMP FACILITY (EA)	\$1,150		
FEE RELATED TO DRAINAGE & SOILS		\$4,380	
IMPROVEMENTS ON PI PLANS (OR QNTY. (F.) X \$0.58/F (OR QNTY. (A.) X \$1.80/F)			
SANITARY SEWER			
STORM SEWER			
TRAILS			
SIDEWALKS			
ROAD IMPROVEMENTS			
CHANNEL IMPROVEMENTS			
WATERLINE			
TOTAL REVIEW FEE PAYABLE UPON SUBMISSION	ADD 1, 2, 3 & 4 ABOVE	ADD 1, 2 & 3 ABOVE \$10,180	ADD 1, 2 & 3 ABOVE \$
INSERT FEE \$50 PER PAGE DUE PRIOR TO APPROVAL	A	B	C
RESUBMISSION FEE DUE ON SUBMISSION	50% OF 1ST ORG. FEE	\$2,500 PER SUBMISSION 2ND 4TH	\$2,300 PER SUBMISSION 3RD 4TH

APPROVAL NOTES/CONDITIONS:		AGREEMENTS, PERMITS, ETC	
DATE _____	CONSTRUCTION PERMIT RECEIVED	DATE _____	SANITARY SEWER AGREEMENT
DATE _____	CONSERVATION ESCROW AGREEMENT RECEIVED	DATE _____	AGREEMENT AND BOND APPROVED
DATE _____	AGREEMENT EXPIRES	DATE _____	BALANCE OF FEE PAID
NAME _____	RESPONSIBLE LAND DISTURBER (R.L.D.)	# _____	R.L.D. CERTIFICATE NUMBER

- NOTES AND CONDITIONS**
- THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE DEVELOPER OR HIS AGENT OF ANY LEGAL RESPONSIBILITIES WHICH MAY BE REQUIRED BY THE CODE OF VIRGINIA OR ANY ORDINANCE ENACTED BY THE COUNTY OF FAIRFAX.
  - THE DESIGN, CONSTRUCTION, FIELD PRACTICES, AND METHODS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE FAIRFAX COUNTY CODE AND IN THE PUBLIC FACILITIES MANUAL AS AMENDED. FAILURE TO COMPLY WITH THE FAIRFAX COUNTY CODE, THE PUBLIC FACILITIES MANUAL, THE APPROVED PLANS, THE PROVISIONS OF THE CONSTRUCTION AND ESCROW AGREEMENT PERMIT SHALL BE DEEMED A VIOLATION.
  - WATER DISTRIBUTION NOTE: ALL FIRE PROTECTION SYSTEMS WHICH ARE INSTALLED IN COMPLIANCE WITH THESE PLANS AND COUNTY OF FAIRFAX ORDINANCES SHALL BE MAINTAINED IN AN OPERATIVE CONDITION AT ALL TIMES. WHEN NECESSARY TO TEMPORARILY REDUCE OR DISCONTINUE THE PROTECTION IN ORDER TO MAKE TESTS, REPAIRS, ALTERATIONS OR ADDITIONS, NOTIFY THE FAIRFAX COUNTY PUBLIC SAFETY COMMUNICATIONS CENTER AT 703-691-2131.
  - A PERMIT MUST BE OBTAINED FROM THE OFFICE OF THE RESIDENT ENGINEER, VIRGINIA DEPARTMENT OF TRANSPORTATION, NORTHERN VIRGINIA DISTRICT, BEFORE ANY CONSTRUCTION IS STARTED ON ANY EXISTING STATE ROUTE. CONTACT THE VIRGINIA DEPARTMENT OF TRANSPORTATION THREE WORKING DAYS BEFORE EXCAVATION IN ANY STATE RIGHT OF WAY AT 703-383-2888.
  - CONTRACTORS SHALL NOTIFY THE "MISS UTILITY" NOTIFICATION CENTER AT 1-800-552-7001 FOR ANY PROPOSED EXCAVATION, DEMOLITION, OR BLASTING AT LEAST TWO WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION, DEMOLITION, OR BLASTING IN ACCORDANCE WITH THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT. IN ADDITION, NAMES AND TELEPHONE NUMBERS SHALL ALSO BE USED TO SERVE IN AN EMERGENCY CONDITION AS REQUIRED BY SECTION 63-2-2 OF THE FAIRFAX COUNTY CODE.
  - FOR SITES PROPOSING LAND DISTURBING ACTIVITIES OF ONE (1) ACRE OR MORE, THE CONSTRUCTION ACTIVITY OPERATOR MUST REGISTER WITH THE DEPARTMENT OF ENVIRONMENTAL QUALITY OF THE COMMONWEALTH OF VIRGINIA. THIS IS A REQUIREMENT OF THE VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM (VPDES) GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES.
  - THE COUNTY INSPECTOR SHALL BE NOTIFIED WHEN ANY IMPROVEMENTS PERTAINING TO HIS INSPECTION DUTIES ARE BEING INSTALLED. SPECIFIC REQUIREMENTS ARE:
    - THE COUNTY SITE INSPECTOR IS TO BE NOTIFIED AT LEAST 3 DAYS PRIOR TO START OF CONSTRUCTION.
    - A MINIMUM OF 24 HOURS NOTICE IS REQUIRED WHEN REQUESTING RESIDENTIAL OR NON-RESIDENTIAL USE PERMITS.
    - A MINIMUM OF 48 HOURS NOTICE IS REQUIRED WHEN REQUESTING TESTS PERTAINING TO SANITARY SEWER ACCEPTANCE.

ZONING REQUIREMENTS	
1) ZONING R-1	(sq.ft. or sq.m)
2) AVERAGE LOT AREA NO. REQUIREMENT	(sq.ft. or sq.m)
3) MIN. LOT AREA 36,000 SQ. FT.	(sq.ft. or sq.m)
4) MIN. LOT WIDTH INTERIOR - 150 FT., CORNER - 175 FT.	(ft. or m)
5) MAX. BUILDING HEIGHT 35 FT.	(ft. or m)
6) NUMBER OF FLOORS N/A	(Commercial/Industrial ONLY)
7) MIN. YARD REQUIREMENTS:	
8) FRONT 32' (ft. or m) SIDE 20' (ft. or m) REAR 25' (ft. or m)	
9) MAXIMUM FAR N/A	(D.U./Ac. or D.U./ha)
10) OPEN SPACE REQUIRED N/A %	(sq.ft. or sq.m)
11) ANGLE OF BULK PLANE: FRONT N/A, SIDE N/A, REAR N/A	(DETAIL(S) ON SHEET _____)
12) OVERLAY DISTRICT(S) WSE600	

SUBDIVISION PLAN (SD) TABULATIONS	
1) SITE AREA 37.28 AC. (Ac. or ha) 1,522,840 SQ. FT.	(sq.ft. or sq.m)
2) NUMBER OF LOTS 31	
3) AREA OF LOTS 1,123,390 SQ. FT.	(sq.ft. or sq.m)
4) AVERAGE LOT AREA 36,238 SQ. FT.	(sq.ft. or sq.m)
5) AREA OF PARCEL/OUTLOT 'A' 112,110 SQ. FT.	(sq.ft. or sq.m)
6) AREA OF PARCEL/OUTLOT 'B' 19,581 SQ. FT.	(sq.ft. or sq.m)
7) AREA OF PARCEL/OUTLOT 'C' 47,711 SQ. FT.	(sq.ft. or sq.m)
8) AREA OF PARCEL/OUTLOT 'D' 176,432 SQ. FT.	(sq.ft. or sq.m)
9) AREA OF PARCEL/OUTLOT 'E' 2,319 SQ. FT.	(sq.ft. or sq.m)
10) TOTAL AREA OF OPEN SPACE 358,153 SQ. FT.	(sq.ft. or sq.m)
11) AREA OF STREET DEDICATION 141,297 SQ. FT.	(sq.ft. or sq.m)
12) DENSITY 0.83 D.U./AC. (D.U./Ac. or D.U./ha)	

SITE PLAN (SP) TABULATIONS	
1) SITE AREA (Ac. or ha)	(sq.ft. or sq.m)
2) AREA OF STREET DEDICATION	(sq.ft. or sq.m)
3) USE	
4) NUMBER OF LOTS	(sq.ft. or sq.m)
5) AREA OF LOTS	(D.U./Ac. or D.U./ha)
6) DENSITY	(sq.ft. or sq.m)
7) EXISTING BUILDING GROSS FLOOR AREA	(sq.ft. or sq.m)
8) PROPOSED BUILDING GROSS FLOOR AREA	(sq.ft. or sq.m)
9) EXISTING BUILDING NET FLOOR AREA	(sq.ft. or sq.m)
10) PROPOSED BUILDING NET FLOOR AREA	(sq.ft. or sq.m)
11) TOTAL FLOOR AREA RATIO (FAR) FOR ENTIRE SITE	
12) PROPOSED BUILDING HEIGHT (ft. or m)	
13) PROPOSED NUMBER OF FLOORS	(Commercial/Industrial)
14) TOTAL HANDICAPPED PARKING REQUIRED	
15) TOTAL HANDICAPPED VAN SPACES PROVIDED	
16) TOTAL HANDICAPPED VAN SPACES REQUIRED	
17) TOTAL HANDICAPPED VAN SPACES PROVIDED	
18) TOTAL PARKING SPACES REQUIRED	
19) TOTAL PARKING SPACES PROVIDED	
20) LOADING SPACES REQUIRED	
21) LOADING SPACES PROVIDED	
22) OPEN SPACE PROVIDED %	(sq.ft. or sq.m)

FIRE MARSHAL NOTES	
AVAILABLE FIRE FLOW 2700 GPM	
SOURCE OF FIRE FLOW INFO. FCWA	
TYPE OF CONSTRUCTION - BOCA 5B	
USE GROUP CLASSIFICATION - BOCA R-4	
BUILDING HEIGHT 35' MAX.	(ft. or m)
BUILDING TO BE FULLY SPRINKLERED YES <input type="checkbox"/> NO <input type="checkbox"/>	
IF YES, CHECK APPROPRIATE STANDARD: NFPA 13 <input type="checkbox"/> ; NFPA 130 <input type="checkbox"/> ; NFPA 13R <input type="checkbox"/>	
SEE PFM CHAPTER 9, PART 2 FOR FULL INFORMATION REQUIRED. FIRE FLOW REQUIREMENTS TO BE DETERMINED BY THE FIRE PREVENTION DIVISION.	
[SEE PUBLIC WATER AGENCY NOTES ON SHEET 2.]	

SOLID WASTE STATEMENT		RECYCLING SYSTEM STATEMENT	
REFUSE COLLECTION AGENCY PRIVATE		<input type="checkbox"/> PFM SECTION 10-407.1A	
TYPE & SIZE OF CONTAINERS OR EQUIPMENT INDIVIDUAL HOUSEHOLD CONTAINER		<input type="checkbox"/> PFM SECTION 10-407.1B	
FREQUENCY OF COLLECTION MIN. ONCE WEEKLY		<input type="checkbox"/> PFM SECTION 10-407.1C	
		<input checked="" type="checkbox"/> NO STATEMENT REQUIRED PER PFM 10-0403	

SANITARY SEWER STATEMENT	
WASTEWATER TREATMENT PLANT UPPER OCCOQUAN	
<input type="checkbox"/> THIS SITE IS SUBJECT TO SANITARY SEWER REIMBURSEMENT CHARGES.	
<input type="checkbox"/> THIS SITE IS SERVED BY ONSITE SEWAGE TREATMENT SYSTEM(S).	

STORMWATER STATEMENT	
WATERSHED(S) CUB RUN	
<input checked="" type="checkbox"/> THIS SITE IS LOCATED WITHIN THE W.S.P.O.D. (OCCOQUAN WATERSHED).	
NUMBER OF STORMWATER DETENTION FACILITIES 2 WET PONDS	
NUMBER OF BMP FACILITIES 2	
NUMBER OF PRIVATE STORMWATER MANAGEMENT FACILITIES 2	
HIGH DENSITY POLYETHYLENE (HDPE) USED ON THIS PROJECT YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	
DISTURBED AREA (DA) WITHIN WATERSHED(S):	
WATERSHED 1 CUB RUN DA= 23.5 (Ac. or ha)	
WATERSHED 2 DA= (Ac. or ha)	
WATERSHED 3 DA= (Ac. or ha)	
TOTAL DISTURBED AREA= 23.5 (Ac. or ha)	

PROFESSIONAL SEAL AND SIGNATURE

PROFESSIONAL SEAL AND SIGNATURE

PROFESSIONAL SEAL AND SIGNATURE

DATE \_\_\_\_\_ DATE \_\_\_\_\_ DATE \_\_\_\_\_

DESIGNATED PLANS EXAMINER (DPE) CERTIFICATE

1ST SUBMISSION REVIEWED & RECOMMENDED FOR APPROVAL  
MICHAEL R. TUCKER  
D.P.E. SIGNATURE & PRINTED NAME

2ND SUBMISSION REVIEWED & RECOMMENDED FOR APPROVAL  
MICHAEL R. TUCKER  
D.P.E. SIGNATURE & PRINTED NAME

DATE: 11-19-03 REG. NO.: #22 DATE: 2-25-04 REG. NO.: #22

VICINITY MAP SCALE: 1" = 1000'

TAX MAP REFERENCE NUMBER(S)

MAP PAGE #	DOUBLE CIRCLE #	BLOCK (SINGLE CIRCLE #)	LOT/PARCEL(S) #
35-3	2		E1, F1, G, B, C1, D2, M2
35-4	25		E

SOILS MAP DATA SCALE: 1" = 500'

SOIL ID NUMBER	SOIL SERIES	FOUNDATION SUPPORT	SUBSURFACE DRAINAGE	SLOPE STABILITY	ERODIBILITY	PROBLEM CLASS
12	ROWLAND	POOR	POOR	GOOD	SLIGHT	A-YES
14	MANASSAS	FAIR	MARGINAL	GOOD	MODERATE	B-NO
62	BRECKNOCK	GOOD	FAIR	GOOD	MODERATE	C-NO
67	PENN FSL	GOOD	FAIR	GOOD	SEVERE	C-NO
73	PENN (SL)	GOOD	FAIR	GOOD	SEVERE	C-NO
79	PENN (L)	GOOD	GOOD	GOOD	SEVERE	C-NO
78	CALVERTON (L)	POOR-B,W,C	MARG-W,C,R	MODERATE	MODERATE	A-YES
80	CROTON (L)	POOR-B,W,C	POOR-W,C,R	GOOD	SLIGHT	A-YES
41	ROCKYLAND REDCLL	MARGINAL	MARGINAL	MODERATE	MODERATE	A-YES

SOILS WITH IDENTIFICATION NUMBERS 50, 66, 69, 141, 142, AND 152 MAY OVERLIE PARENT BEDROCK FORMATIONS WHICH HAVE BEEN FOUND TO CONTAIN NATURALLY OCCURRING ASBESTOS MINERALS. SPECIAL MINIMUM CONSTRUCTION MEASURES AND PRECAUTIONS ARE REQUIRED IN COMPLIANCE WITH HEALTH DEPARTMENT DIRECTIVES WITH THESE SOILS OR WITHIN FILL ORIGINATING FROM THESE SOILS.

**ENGINEER'S/SURVEYOR'S CERTIFICATE:**

THIS PROPERTY IS IN THE NAME OF SEE SHEET 2 AS RECORDED IN DEED BOOK \_\_\_\_\_ PAGE \_\_\_\_\_ OF THE LAND RECORDS OF FAIRFAX COUNTY, VA.

**OWNER INFORMATION**

OWNER TRUSTEE SEE SHEET 2  
NAME SEE SHEET 2  
PHONE SEE SHEET 2  
ADDRESS SEE SHEET 2

**DEVELOPER INFORMATION**

DEVELOPER CONTRACT OWNER LESSEE WINCHESTER HOMES  
NAME WINCHESTER HOMES  
PHONE 301-803-4800  
ADDRESS 6905 ROCKLEDGE DRIVE, SUITE 80 BETHESDA, MD. 20817

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES.

Signature \_\_\_\_\_  
Owner/Developer \_\_\_\_\_

DATE \_\_\_\_\_ RECOMMEND APPROVAL (SIGNATURE & PRINT NAME)

STREETLIGHT SECTION, PLANNING & DESIGN DIVISION-DPWES  
PUBLIC WATER AGENCY  
SANITARY SEWER REVIEW, EFRO, OSDS - DPWES  
GEOTECHNICAL REVIEW, EFRO, OSDS - DPWES  
STORMWATER REVIEW, EFRO, OSDS - DPWES  
URBAN FORESTRY DIVISION, OSDS - DPWES  
FAIRFAX COUNTY FIRE MARSHAL  
FAIRFAX COUNTY HEALTH DEPARTMENT  
VIRGINIA DEPARTMENT OF TRANSPORTATION  
PLAN REVIEWER, ENVIRONMENTAL & FACILITIES REVIEW DIVISION, OSDS - DPWES  
DIRECTOR, ENVIRONMENTAL & FACILITIES REVIEW DIVISION, OSDS - DPWES

**APPROVED**

DATE \_\_\_\_\_ BY \_\_\_\_\_ DIRECTOR, DEPT. OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES

THIS PLAN SHALL EXPIRE WITHOUT NOTICE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE COUNTY CODE. REVISIONS DO NOT EXTEND THE APPROVAL PERIOD. THE APPROVAL PERIOD IS INDEPENDENT OF THE AGREEMENT EXPIRATION DATE.

**THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER**

**CERTIFICATE OF NO CHANGE**  
(FOR SUBMISSION OTHER THAN THE FIRST)  
I HEREBY CERTIFY THAT NO CHANGES HAVE BEEN MADE THAT WOULD AFFECT THE PRIOR APPROVAL BY THE

FIRE MARSHAL DATED \_\_\_\_\_  
WATER AUTHORITY DATED \_\_\_\_\_  
HEALTH DEPARTMENT DATED \_\_\_\_\_  
VDOT DATED \_\_\_\_\_  
DPWES-WPMD (SAN. SEW.) DATED \_\_\_\_\_  
DPWES-STREETLIGHTS DATED \_\_\_\_\_

**SHEET INDEX**

- COVER SHEET
- GENERAL NOTES AND LEGEND
- DEMOLITION PLAN
- 4-5. SUBDIVISION PLAN
- BELLE COTE LANE PLAN AND PROFILE
- MEYER WOODS LANE PLAN AND PROFILE
- ROSE GROVE DRIVE PLAN AND PROFILE
- PERCHERON LANE PLAN AND PROFILE
- OVERALL SANITARY SEWER PLAN
10. SANITARY SEWER PLAN AND PROFILE
- 11-13. STORM SEWER PROFILES
14. STORM SEWER PROFILES AND COMPUTATIONS
- 15A-15B. OAK HILL RESERVE SECTION 2, EROSION & SEDIMENT CONTROL PHASE 2 (FOR INFO. ONLY)
- 16C. OAK HILL RESERVE SECTION 3, STORM SEWER COMPUTATIONS AND NARRATIVES (FOR INFO. ONLY)
16. WATERMAIN PROFILES
- 16A. SIGHT DISTANCE PROFILES & CG-12 DETAILS
- 16B. SIGHT DISTANCE PROFILE AND DITCH COMPUTATIONS
17. BMP/STORMWATER MANAGEMENT COMPUTATIONS
- 18-22. STORMWATER MANAGEMENT COMPUTATIONS
23. DOWNSTREAM IMPOUNDMENT ANALYSIS
24. EROSION AND SEDIMENT CONTROL PLAN, PHASE I
- 25-28. EROSION AND SEDIMENT CONTROL PLAN, PHASE II
- 26-29. EROSION AND SEDIMENT CONTROL COMPUTATIONS
30. CORRESPONDENCE
31. GEOTECHNICAL REQUIREMENTS

DESIGN ENGINEER / SURVEYOR

BC Consultants

10800 Falls Lake Church, Suite 100, Fairfax, VA 22033  
(703)461-8100 (703)461-1100 (Fax)  
EMAIL: daniel@bcconsult.com

SUBDIVISION PLAN

THOMPSON ROAD PROPERTY

COUNTY NUMBER

9820-SD-02-

SHEET 1 OF 31

REVISED: 7/7/03

PLAN APPROVAL INFORMATION table with columns: RELATED INFORMATION, REQUIRED, NOT REQUIRED, COUNTY I.D. NUMBER, COMMENTS/SHEET NO.

ZONING REQUIREMENTS table with 12 numbered items detailing zoning rules.

PROFESSIONAL SEAL AND SIGNATURE blocks for Engineer, Designated Plans Examiner, and Surveyor.

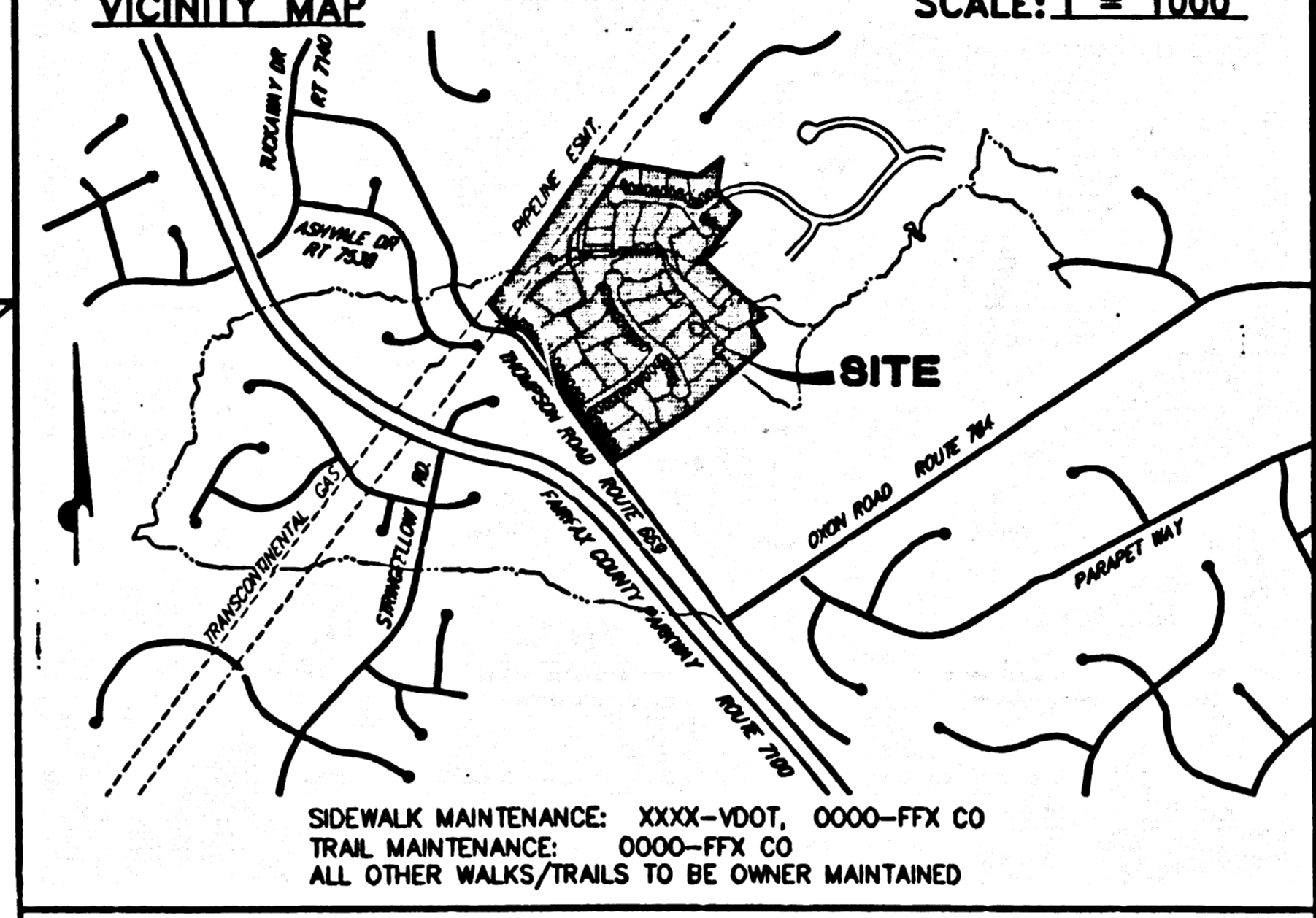
ENGINEER'S/SURVEYOR'S CERTIFICATE form with fields for owner, developer, and project details.

BC Consultants logo and contact information.

PLAN REVIEW FEE COMPUTATION table with columns for Plan Type, Public Improvement Plans, Subdivision Plans, and Site Plans.

SUBDIVISION PLAN (SD) TABULATIONS table with 10 numbered items detailing site area, lots, and open space.

DESIGNATED PLANS EXAMINER (DPE) CERTIFICATE form with signature and date fields.



SITE PLAN (SP) TABULATIONS table with 21 numbered items detailing site area, building footprints, and parking spaces.

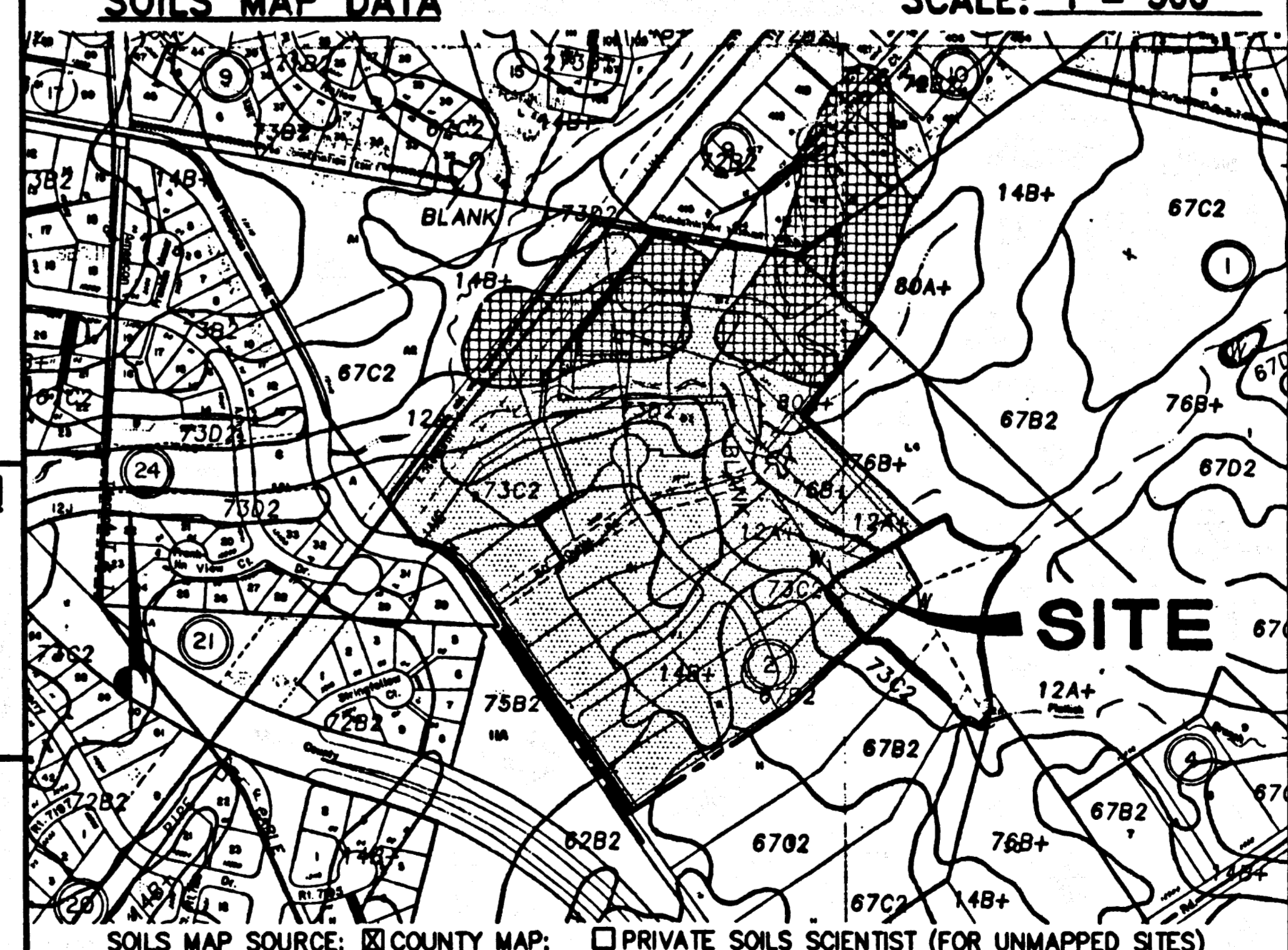
TAX MAP REFERENCE NUMBER(S) table mapping map page numbers to block and lot numbers.

APPROVED form with signature and date, and a list of agencies for review and approval.

THOMPSON ROAD PROPERTY and SUBDIVISION PLAN 9820-SD-02-1 text.

APPROVAL NOTES/CONDITIONS and AGREEMENTS, PERMITS, ETC. form with fields for dates and signatures.

FIRE MARSHAL NOTES form with fields for fire flow, construction type, and building details.



SOLID WASTE STATEMENT and RECYCLING SYSTEM STATEMENT forms.

CERTIFICATE OF NO CHANGE form and SHEET INDEX table listing document components.

NOTES AND CONDITIONS section with 7 numbered paragraphs detailing approval requirements.

SANITARY SEWER STATEMENT form with fields for treatment plant and collection frequency.

SOILS MAP DATA table with columns for Soil ID, Name, Support, Drainage, Slope, Stability, Erodability, and Problem Class.

STORMWATER STATEMENT form with fields for watershed, detention facilities, and wet ponds.

SUBDIVISION PLAN  
THOMPSON ROAD PROPERTY  
COUNTY NUMBER 9820-SD-02-  
SHEET 1 OF 31

DESIGN ENGINEER / SURVEYOR  
BC Consultants  
12500 Park Lakes Circle, Suite 100, Fairfax, VA 22035  
(703)448-8100 (703)448-8108 (fax)  
DANIEL...@bcva.com

PLAN APPROVAL INFORMATION table with columns: RELATED INFORMATION, REQUIRED, NOT REQUIRED, COUNTY I.D. NUMBER, COMMENTS/SHEET NO.

ZONING REQUIREMENTS table with 12 items including zoning type (R-1), average lot area, min. lot area, min. lot width, max. building height, etc.

SUBDIVISION PLAN (SD) TABULATIONS table with 10 items including site area, number of lots, area of lots, etc.

SITE PLAN (SP) TABULATIONS table with 20 items including site area, area of street dedication, use, number of lots, etc.

FIRE MARSHAL NOTES section with fields for available fire flow, source of fire flow info, type of construction, etc.

SOLID WASTE STATEMENT and RECYCLING SYSTEM STATEMENT sections with checkboxes for various requirements.

SANITARY SEWER STATEMENT section with fields for wastewater treatment plant and onsite sewage treatment system.

STORMWATER STATEMENT section with fields for watershed, detention facilities, and management facilities.

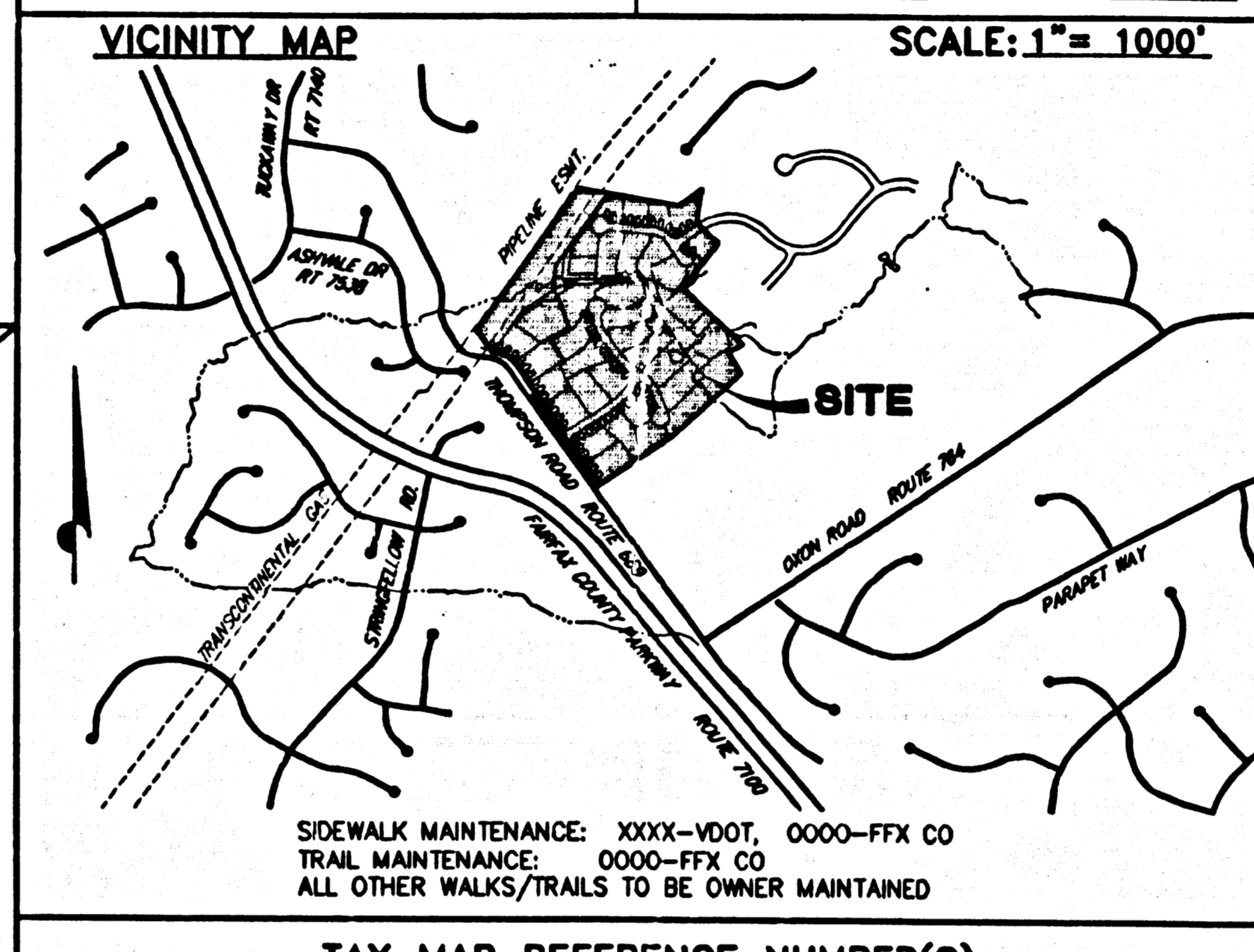
PLAN REVIEW FEE COMPUTATION table with columns for PLAN TYPE, PUBLIC IMPROVEMENT PLANS (PIP), SUBDIVISION PLANS (SD), and SITE PLANS (SP).

APPROVAL NOTES/CONDITIONS section with fields for AGREEMENTS, PERMITS, ETC and NOTES AND CONDITIONS.

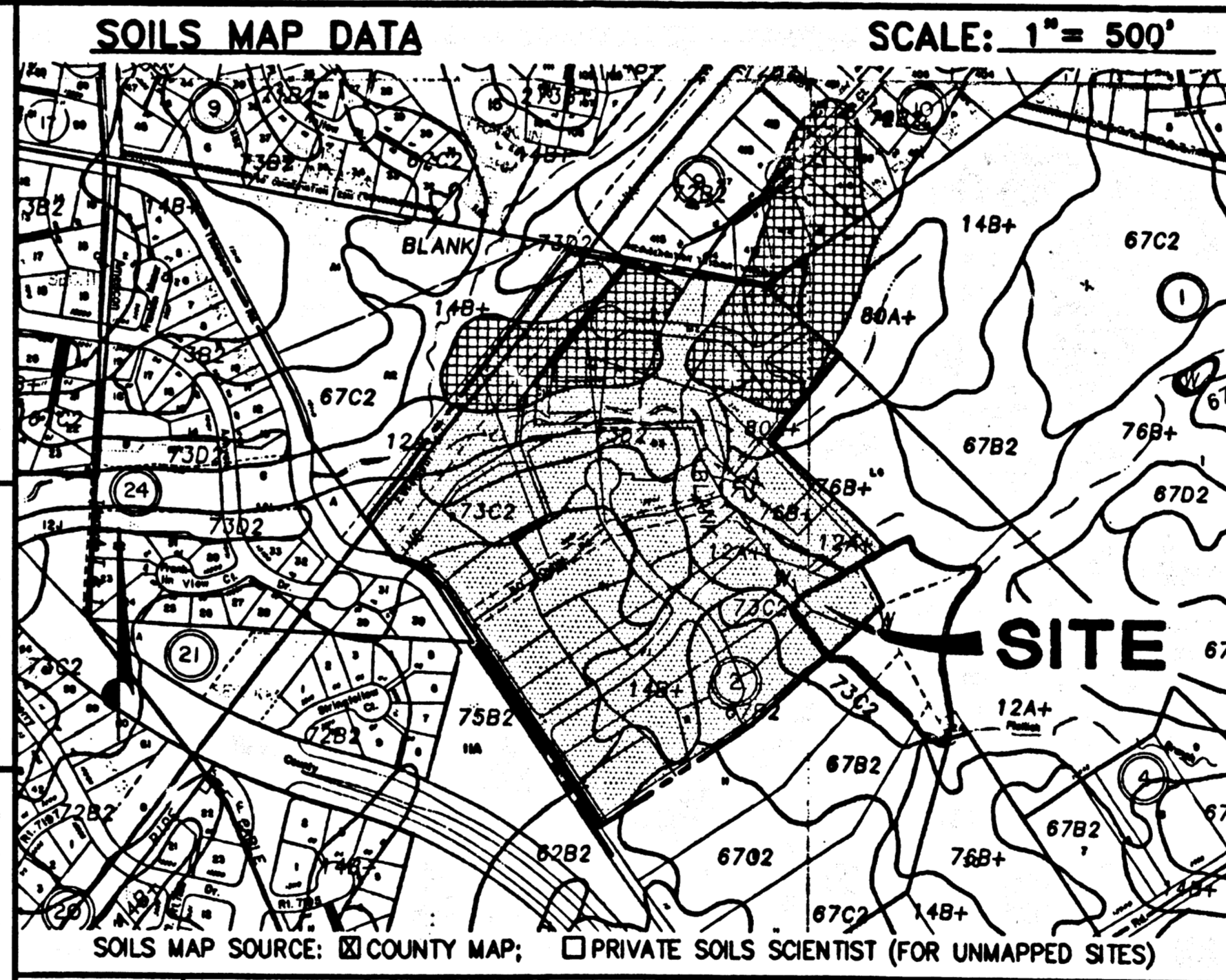
NOTES AND CONDITIONS section with numbered text regarding approval requirements, zoning, and construction standards.

PROFESSIONAL SEAL AND SIGNATURE section with three seals for Michael R. Tucker, dated 2-25-04.

DESIGNATED PLANS EXAMINER (DPE) CERTIFICATE section with two examiners: Michael R. Tucker and Michael R. Tucker, dated 11-19-03 and 2-25-04.



TAX MAP REFERENCE NUMBER(S) table with columns for MAP PAGE, DOUBLE CIRCLE, BLOCK (SINGLE CIRCLE), and LOT/PARCEL(S).



Soils data table with columns: SOIL ID NUMBERS, SOIL SERIES NAME, FOUNDATION SUPPORT, SUBSURFACE DRAINAGE, SLOPE STABILITY, ERODABILITY, and PROBLEM CLASS.

ENGINEER'S/SURVEYOR'S CERTIFICATE section with fields for DEED BOOK, PAGE, and AS RECORDED IN.

OWNER INFORMATION section with fields for OWNER TRUSTEE, NAME, and ADDRESS.

DEVELOPER INFORMATION section with fields for DEVELOPER CONTRACT OWNER, NAME, ADDRESS, and PHONE.

RECOMMEND APPROVAL (SIGNATURE & PRINTED NAME) section with a signature and name.

APPROVED section with fields for DATE, BY, and various departmental approvals.

CERTIFICATE OF NO CHANGE section with fields for FIRE MARSHAL DATED, WATER AUTHORITY DATED, etc.

SHEET INDEX table listing various sheets and their contents, such as COVER SHEET, DEMOLITION PLAN, etc.

**PLAN APPROVAL INFORMATION**

RELATED INFORMATION	REQUIRED	NOT REQUIRED	COUNTY I.D. NUMBER	COMMENTS/SHEET NO.
1. CONCURRENT PROCESSING				
2. MODIFIED PROCESSING				
3. AFFORDABLE DWELLING UNITS				
4. R.F.A. DELINEATION			9820-RFA-01-1	APPROVED 11/20/2003
5. FLOOD PLAN STUDY			9820-FP-02-1	APPROVED 9/3/2003
6. DRAINAGE STUDY				
7. CHESAPEAKE BAY ACT EXCEPTION				
8. WATER QUALITY IMPACT ASSESSMENT				APPROVED (SEE APPROVAL LETTER SHEET 30)
9. SOILS REPORT APPROVAL			9820-SR-02-1	APPROVED 2/1/2004
10. ONSITE EASEMENTS				OFFSITE SIGHT DISTANCE EASEMENT SHEET 5
11. OFFSITE EASEMENTS				
12. NOTARIZED LETTERS OF PERMISSION				
13. ARCHITECTURAL REVIEW BOARD APPROVAL				
14. RETURN PLAN TO B.G.S. PRIOR TO APPR.				
15. RETURN PLAN TO P.C. PRIOR TO APPR.				
16. ADJACENT PROPERTY OWNER NOTIFICATIONS			9820-PL-02-1	APPROVED WITH PRELIMINARY PLAN
17. OFFSITE UTILITY WORK NOTICES				
18. MAJOR UNDERGROUND UTILITY NOTICES			9820-PL-02-1	ADJACENT UTILITY NOTIFIED, SEE SHEET 30
19. REZONING APPROVAL				
20. B.G.S. CLERK LETTER/RESOLUTION				
21. REZONING PROFFERS/CONDITIONS				
22. REZONING DEVELOPMENT PLAN				
23. SPECIAL EXCEPTION FOR USE				
24. SPECIAL PERMIT FOR USE				
25. B.Z.A. VARIANCE APPROVAL				
26. B.Z.A. CLERK LETTER/RESOLUTION				
WAIVER 1:				
WAIVER 2:				
WAIVER 3:				
MODIFICATION 1: CUL-DE-SAC RADII			0026182 (FORMERLY #025893)	APPROVED 7/10/04, SEE APPROVAL LETTER, SHEET # 30
MODIFICATION 2:				
MODIFICATION 3:				

**PLAN REVIEW FEE COMPUTATION**

PLAN TYPE	PUBLIC IMPROVEMENT PLANS (PI)	SUBDIVISION PLANS (SD)	SITE PLANS (SP)
BASE FEE	\$1,725	\$1,725 (IF LESS THAN 10 LOTS) / \$4,300 (IF 10 LOTS OR MORE, ADD \$1,500)	\$4,800
SUBTOTAL	1	1	1

FEES IN ADDITION TO BASE FEE - APPLIES TO ALL PLAN TYPES

REZONING	SPECIAL EXCEPTION OR PERMIT	VARIANCE	MAX. FEE RELATED TO ZONING
\$1,000	\$700	\$520	\$1,700

IMPROVEMENTS ON PI PLANS

SYSTEM	UNIT PRICE	QUANTITY	TOTAL
SANITARY SEWER			
TRAILS			
SIDEWALKS			
ROAD IMPROVEMENTS			
CHANNEL IMPROVEMENTS			
WATERLINE			

**APPROVAL NOTES/CONDITIONS:**

- THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE DEVELOPER OR HIS AGENT OF ANY LEGAL RESPONSIBILITIES WHICH MAY BE REQUIRED BY THE CODE OF VIRGINIA OR ANY ORDINANCE ENACTED BY THE COUNTY OF FAIRFAX.
- THE DESIGN, CONSTRUCTION, FIELD PRACTICES, AND METHODS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE FAIRFAX COUNTY CODE AND IN THE PUBLIC UTILITIES MANUAL AS AMENDED. FAILURE TO COMPLY WITH THE FAIRFAX COUNTY CODE, THE PUBLIC UTILITIES MANUAL, THE APPROVED PLANS, THE PROVISIONS OF THE CONSTRUCTION AND ESCROW AGREEMENT PERMIT SHALL BE DEEMED A VIOLATION.
- WATER DISTRIBUTION NOTE: ALL FIRE PROTECTION SYSTEMS WHICH ARE INSTALLED IN COMPLIANCE WITH THESE PLANS AND COUNTY OF FAIRFAX ORDINANCES SHALL BE MAINTAINED IN AN OPERATIVE CONDITION AT ALL TIMES. WHEN NECESSARY TO TEMPORARILY REDUCE OR DISCONTINUE THE PROTECTION IN ORDER TO MAKE TESTS, REPAIRS, ALTERATIONS OR ADDITIONS, NOTIFY THE FAIRFAX COUNTY PUBLIC SAFETY COMMUNICATIONS CENTER AT 703-691-2131.
- A PERMIT MUST BE OBTAINED FROM THE OFFICE OF THE RESIDENT ENGINEER, VIRGINIA DEPARTMENT OF TRANSPORTATION, NORTHERN VIRGINIA DISTRICT, BEFORE ANY CONSTRUCTION IS STARTED ON ANY EXISTING STATE ROUTE. CONTACT THE VIRGINIA DEPARTMENT OF TRANSPORTATION THREE WORKING DAYS BEFORE EXCAVATION IN ANY STATE RIGHT OF WAY AT 703-383-2886.
- CONTRACTORS SHALL NOTIFY THE "MISS UTILITY" NOTIFICATION CENTER AT 1-800-352-7001 FOR ANY PROPOSED EXCAVATION, DEMOLITION, OR BLASTING AT LEAST TWO WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION, DEMOLITION, OR BLASTING IN ACCORDANCE WITH THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT. IN ADDITION, NAMES AND TELEPHONE NUMBERS SHALL ALSO BE USED TO SERVE IN AN EMERGENCY CONDITION AS REQUIRED BY SECTION 63-2-2 OF THE FAIRFAX COUNTY CODE.
- FOR SITES PROPOSING LAND DISTURBING ACTIVITIES OF ONE (1) ACRE OR MORE, THE CONSTRUCTION ACTIVITY OPERATOR MUST REGISTER WITH THE DEPARTMENT OF ENVIRONMENTAL QUALITY OF THE COMMONWEALTH OF VIRGINIA. THIS IS A REQUIREMENT OF THE VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM (VPDES) GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES.
- THE COUNTY INSPECTOR SHALL BE NOTIFIED WHEN ANY IMPROVEMENTS PERTINENT TO HIS INSPECTION DUTIES ARE BEING INSTALLED. SPECIFIC REQUIREMENTS ARE:
  - A. THE COUNTY SITE INSPECTOR IS TO BE NOTIFIED AT LEAST 3 DAYS PRIOR TO START OF CONSTRUCTION.
  - B. A MINIMUM OF 24 HOURS NOTICE IS REQUIRED WHEN REQUESTING RESIDENTIAL OR NON-RESIDENTIAL USE PERMITS.
  - C. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED WHEN REQUESTING TESTS PERTAINING TO SANITARY SEWER ACCEPTANCE.

**ZONING REQUIREMENTS**

- ZONING: R-1
- AVERAGE LOT AREA: NO REQUIREMENT (sq.ft. or sq.m.)
- MIN. LOT AREA: 36,000 SQ. FT. (sq.ft. or sq.m.)
- MIN. LOT WIDTH INTERIOR: 150 FT., CORNER - 175 FT. (ft. or m)
- MAX. BUILDING HEIGHT: 35 FT. (ft. or m)
- NUMBER OF FLOORS: N.A. (Commercial/Industrial ONLY)
- MIN. YARD REQUIREMENTS: FRONT 40' (ft. or m) SIDE 20' (ft. or m) REAR 25' (ft. or m)
- MAXIMUM FAR: N.A.
- MAXIMUM DENSITY: 1 D.U./ACRE (D.U./Ac. or D.U./ha)
- OPEN SPACE REQUIRED: N.A. % (sq.ft. or sq.m.)
- ANGLE OF BULK PLANE: FRONT N.A., SIDE N.A., REAR N.A. (DETAIL(S) ON SHEET \_\_\_)
- OVERLAY DISTRICT(S): WSPCOO

**SUBDIVISION PLAN (SD) TABULATIONS**

- SITE AREA: 37.28 AC. (Ac. or ha) 1,622,840 SQ. FT. (sq.ft. or sq.m.)
- NUMBER OF LOTS: 31
- AREA OF LOTS: 1,123,390 SQ. FT. (sq.ft. or sq.m.)
- AVERAGE LOT AREA: 36,238 SQ. FT. (sq.ft. or sq.m.)
- AREA OF PARCEL/OUTLOT 'A': 112,110 SQ. FT. (sq.ft. or sq.m.)
- AREA OF PARCEL/OUTLOT 'B': 19,581 SQ. FT. (sq.ft. or sq.m.)
- AREA OF PARCEL/OUTLOT 'C': 47,711 SQ. FT. (sq.ft. or sq.m.)
- AREA OF PARCEL/OUTLOT 'D': 178,432 SQ. FT. (sq.ft. or sq.m.)
- AREA OF PARCEL/OUTLOT 'E': 2,319 SQ. FT. (sq.ft. or sq.m.)
- AREA OF PARCEL/OUTLOT 'F': 358,153 SQ. FT. (sq.ft. or sq.m.)
- TOTAL AREA OF OPEN SPACE: 141,297 SQ. FT. (sq.ft. or sq.m.)
- AREA OF STREET DEDICATION: N.A. (sq.ft. or sq.m.)
- DENSITY: 0.83 D.U./AC. (D.U./Ac. or D.U./ha) (NO DENSITY REDUCTION TAKEN FOR MAJOR UTILITY ESMT SINCE ESMT WAS RECORDED IN 1968 PRIOR TO THE EFFECTIVE DATE OF THE ZONING ORDINANCE.)

**SITE PLAN (SP) TABULATIONS**

- SITE AREA: (Ac. or ha) (sq.ft. or sq.m.)
- AREA OF STREET DEDICATION: (sq.ft. or sq.m.)
- USE: (sq.ft. or sq.m.)
- NUMBER OF LOTS: (sq.ft. or sq.m.)
- AREA OF LOTS: (D.U./Ac. or D.U./ha)
- DENSITY: (D.U./Ac. or D.U./ha)
- EXISTING BUILDING GROSS FLOOR AREA: (sq.ft. or sq.m.)
- PROPOSED BUILDING GROSS FLOOR AREA: (sq.ft. or sq.m.)
- EXISTING BUILDING NET FLOOR AREA: (sq.ft. or sq.m.)
- PROPOSED BUILDING NET FLOOR AREA: (sq.ft. or sq.m.)
- TOTAL FLOOR AREA RATIO (FAR) FOR ENTIRE SITE: (ft. or m)
- PROPOSED BUILDING HEIGHT: (Commercial/Industrial)
- PROPOSED NUMBER OF FLOORS: (ft. or m)
- TOTAL HANDICAPPED PARKING REQUIRED: (ft. or m)
- TOTAL HANDICAPPED PARKING PROVIDED: (ft. or m)
- TOTAL HANDICAPPED VAN SPACES REQUIRED: (ft. or m)
- TOTAL HANDICAPPED VAN SPACES PROVIDED: (ft. or m)
- TOTAL PARKING SPACES REQUIRED: (ft. or m)
- TOTAL PARKING SPACES PROVIDED: (ft. or m)
- LOADING SPACES REQUIRED: (ft. or m)
- LOADING SPACES PROVIDED: (ft. or m)
- LANDING SPACES REQUIRED: (ft. or m)
- LANDING SPACES PROVIDED: (ft. or m)
- OPEN SPACE PROVIDED: (sq.ft. or sq.m.)

**FIRE MARSHAL NOTES**

AVAILABLE FIRE FLOW: 2700 GPM  
SOURCE OF FIRE FLOW INFO: FCWA  
TYPE OF CONSTRUCTION - BOCA: 5B  
USE GROUP CLASSIFICATION - BOCA: R-4  
BUILDING HEIGHT: 35' MAX. (ft. or m)  
BUILDING TO BE FULLY SPRINKLERED: YES  NO   
IF YES, CHECK APPROPRIATE STANDARD: NFPA 13  NFPA 130  NFPA 13R   
SEE PFM CHAPTER 9, PART 2 FOR FULL INFORMATION REQUIRED. FIRE FLOW REQUIREMENTS TO BE DETERMINED BY THE FIRE PREVENTION DIVISION.  
[SEE PUBLIC WATER AGENCY NOTES ON SHEET 2.]

**SOLID WASTE STATEMENT**

REFUSE COLLECTION AGENCY: PRIVATE  
TYPE & SIZE OF CONTAINERS OR EQUIPMENT: INDIVIDUAL HOUSEHOLD CONTAINER  
FREQUENCY OF COLLECTION: MIN. ONCE WEEKLY

**RECYCLING SYSTEM STATEMENT**

PFM SECTION 10-407.1A  
 PFM SECTION 10-407.1B  
 PFM SECTION 10-407.1C  
 NO STATEMENT REQUIRED PER PFM 10-0403

**SANITARY SEWER STATEMENT**

WASTEWATER TREATMENT PLANT: UPPER OCCOQUAN  
 THIS SITE IS SUBJECT TO SANITARY SEWER REIMBURSEMENT CHARGES.  
 THIS SITE IS SERVED BY ONSITE SEWAGE TREATMENT SYSTEM(S).

**STORMWATER STATEMENT**

WATERSHED(S): CUB RUN  
 THIS SITE IS LOCATED WITHIN THE W.S.P.O.D. (OCCOQUAN WATERSHED).  
NUMBER OF STORMWATER DETENTION FACILITIES: 2 WET PONDS  
NUMBER OF BMP FACILITIES: 2  
NUMBER OF PRIVATE STORMWATER MANAGEMENT FACILITIES: 2  
HIGH DENSITY POLYETHYLENE (HDPE) USED ON THIS PROJECT: YES  NO

**DISTURBED AREA (DA) WITHIN WATERSHED(S)**

WATERSHED 1: CUB RUN	DA = 23.5	(Ac. or ha)
WATERSHED 2:	DA =	(Ac. or ha)
WATERSHED 3:	DA =	(Ac. or ha)
TOTAL DISTURBED AREA =	23.5	(Ac. or ha)

**PROFESSIONAL SEAL AND SIGNATURE**

DATE: 11-19-03 REG. NO.: #22

**DESIGNATED PLANS EXAMINER (DPE) CERTIFICATE**

1ST SUBMISSION REVIEWED & RECOMMENDED FOR SUBMISSION: Michael R. Tucker #21287

2ND SUBMISSION REVIEWED & RECOMMENDED FOR APPROVAL: Michael R. Tucker #21287

D.P.E. SIGNATURE & PRINTED NAME: MICHAEL R. TUCKER

DATE: 2-25-04 REG. NO.: #22

**VICINITY MAP** SCALE: 1" = 1000'

**TAX MAP REFERENCE NUMBER(S)**

MAP PAGE #	DOUBLE CIRCLE #	BLOCK (SINGLE CIRCLE #)	LOT/PARCEL(S) #
35-3	2		E1, F1, G, B, C1, D2, M2
35-4	25		E

**SOILS MAP DATA** SCALE: 1" = 500'

SOILS MAP SOURCE:  COUNTY MAP;  PRIVATE SOILS SCIENTIST (FOR UNMAPPED SITES)

SOIL ID NUMBERS	SOIL SERIES NAME	FOUNDATION SUPPORT	SUBSURFACE DRAINAGE	SLOPE STABILITY	ERODABILITY	PROBLEM CLASS
12	ROWLAND	POOR	POOR	GOOD	SLIGHT	A-YES
14	MANASSAS	FAIR	MARGINAL	GOOD	MODERATE	B-NO
62	BRECKNOCK	GOOD	FAIR	GOOD	MODERATE	C-NO
67	PENN FSL	GOOD	FAIR	GOOD	SEVERE	C-NO
73	PENN (SL)	GOOD	FAIR	GOOD	SEVERE	C-NO
75	PENN (L)	GOOD	GOOD	GOOD	SEVERE	C-NO
76	CALVERTON (L)	POOR-B,W,C	MARG-W,C,R	MODERATE	MODERATE	A-YES
80	CROTON (L)	POOR-B,W,C	POOR-W,C,R	GOOD	SLIGHT	A-YES
41	ROCKYLAND REDELL	MARGINAL	MARGINAL	MODERATE	MODERATE	A-YES

SOILS WITH IDENTIFICATION NUMBERS 56, 66, 89, 141, 142, AND 152 MAY OVERLIE PARENT BEDROCK FORMATIONS WHICH HAVE BEEN FOUND TO CONTAIN NATURALLY OCCURRING ASBESTOS MINERALS. SPECIAL MINIMUM CONSTRUCTION MEASURES AND PRECAUTIONS ARE REQUIRED IN COMPLIANCE WITH HEALTH DEPARTMENT DIRECTIVES WITHIN THESE SOILS OR WITHIN FILL ORIGINATING FROM THESE SOILS.

**ENGINEER'S/SURVEYOR'S CERTIFICATE:**

THIS PROPERTY IS IN THE NAME OF SEE SHEET 2

DEED BOOK \_\_\_\_\_ PAGE \_\_\_\_\_ OF THE LAND RECORDS OF FAIRFAX COUNTY, VA.

**OWNER INFORMATION**

OWNER: TRUSTEE SEE SHEET 2

NAME: SEE SHEET 2

ADDRESS: SEE SHEET 2

PHONE: \_\_\_\_\_

**DEVELOPER INFORMATION**

DEVELOPER: WINCHESTER HOMES

NAME: WINCHESTER HOMES

PHONE: 301-803-4800

ADDRESS: 6905 ROCKLEDGE DRIVE, SUITE 80 BETHESDA, MD. 20817

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES.

DATE: 02. MAR. 04

RECOMMEND APPROVAL (SIGNATURE & PRINTED NAME): [Signature]

STREETLIGHT SECTION, PLANNING & DESIGN DIVISION-DPWES

**APPROVED**

DATE: \_\_\_\_\_ BY: \_\_\_\_\_ DIRECTOR, DEPT. OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES

THIS PLAN SHALL EXPIRE WITHOUT NOTICE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE COUNTY CODE. REVISIONS DO NOT EXTEND THE APPROVAL PERIOD. THE APPROVAL PERIOD IS INDEPENDENT OF THE AGREEMENT EXPIRATION DATE.

THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER

**CERTIFICATE OF NO CHANGE**

(FOR SUBMISSION OTHER THAN THE FIRST)

I HEREBY CERTIFY THAT NO CHANGES HAVE BEEN MADE THAT WOULD AFFECT THE PRIOR APPROVAL BY THE:

FIRE MARSHAL DATED: \_\_\_\_\_

WATER AUTHORITY DATED: \_\_\_\_\_

HEALTH DEPARTMENT DATED: \_\_\_\_\_

VDOT DATED: \_\_\_\_\_

DPWES-WFMD (SAN. SEW.) DATED: \_\_\_\_\_

DPWES-STREETLIGHTS DATED: \_\_\_\_\_

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- EROSION AND SEDIMENT CONTROL PLAN, PHASE II
- EROSION AND SEDIMENT CONTROL COMPUTATIONS
- EROSION AND SEDIMENT CONTROL DETAILS
- CORRESPONDENCE
- GEOTECHNICAL REQUIREMENTS

**DESIGN ENGINEER / SURVEYOR**

**BC Consultants**

12800 Fair Lakes Circle, Suite 100, Fairfax, VA 22033  
(703)419-8100 (703)419-8108 (fax)  
EMAIL: jconner@bcconsultants.com

**THOMPSON ROAD PROPERTY**

**9820-SD-02-**

**SHEET 1 OF 31**

REVISED: 7/7/03

**GENERAL NOTES**

- ALL CONSTRUCTION SHALL CONFORM TO FAIRFAX COUNTY AND VIRGINIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
- WHEN DURING THE COURSE OF CONSTRUCTION, ANY OBJECT OF AN UNUSUAL NATURE IS ENCOUNTERED, THE CONTRACTOR SHALL CEASE WORK IN THAT AREA AND IMMEDIATELY NOTIFY THE PROPER AUTHORITY, FAIRFAX COUNTY AND/OR THE ARCHITECT/ENGINEER.
- THE EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK AND FOR ANY DAMAGES WHICH OCCUR BY HIS FAILURE TO LOCATE OR PRESERVE THESE UNDERGROUND UTILITIES. IF DURING CONSTRUCTION OPERATION THE CONTRACTOR SHOULD ENCOUNTER UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS, HE SHALL IMMEDIATELY NOTIFY THE ENGINEER AND TAKE NECESSARY AND PROPER STEPS TO PROTECT THE FACILITY AND ASSURE THE CONTINUANCE OF SERVICE.
- ALL STEPS WITH THREE OR MORE RISERS SHALL HAVE HAND RAILS.
- STANDARD GUARD RAIL AND HAND RAILS SHALL BE INSTALLED AT HAZARDOUS LOCATIONS, AS DESIGNATED DURING FINAL FIELD INSPECTION BY VDOT ON ALL ROADS MAINTAINED BY OR TO BE MAINTAINED BY VDOT AND BY FAIRFAX COUNTY FOR ALL OTHER ROADS.
- ALL UTILITIES WHICH WILL BE PLACED UNDER EXISTING STREETS SHALL BE BORED AND JACKED.
- ALL STREET CUT AND PATCH WORK IN PUBLIC RIGHTS-OF-WAY REQUIRED FOR UTILITIES INSTALLATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH COUNTY AND VDOT STANDARDS AND SPECIFICATIONS.
- THE DEVELOPER WILL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING STREET AND UTILITIES WHICH OCCURS AS A RESULT OF CONSTRUCTION PROJECT WITHIN OR CONTIGUOUS TO THE EXISTING RIGHT-OF-WAY.
- ALL UTILITIES AND POLES SHALL BE RELOCATED AT THE DEVELOPER'S EXPENSE. UTILITY POLES SHALL BE RELOCATED PRIOR TO CONSTRUCTION.
- COMPACTION OF BACKFILL IN UTILITY TRENCHES SHALL BE IN ACCORDANCE WITH FAIRFAX COUNTY & VDOT STANDARDS AND SPECIFICATION.
- SOLID WASTE DISPOSAL SHALL BE STORED IN INDIVIDUAL HOUSEHOLD CONTAINERS AND COLLECTED BY A PRIVATE REFUSE COLLECTION COMPANY. ALL REFUSE SHALL BE DISPOSED OF AT FAIRFAX COUNTY APPROVED DISPOSAL SITES. FREQUENCY OF PICK UP SHALL BE AT LEAST ONCE A WEEK.
- THE PERMITTEE SHALL PROVIDE ADEQUATE MEANS OF CLEANING TRUCKS AND/OR OTHER EQUIPMENT OF MUD PRIOR TO ENTERING THE VDOT RIGHT-OF-WAY, AND IT IS THE PERMITTEES RESPONSIBILITY TO CLEAN STREETS OF MUD AND/OR ALLAY DUST AND TO TAKE WHATEVER MEASURES NECESSARY TO ENSURE THAT THE STREETS ARE KEPT IN A CLEAN AND DUST FREE CONDITION AT ALL TIMES.
- ENGINEERED FILL AND BACKFILL AROUND STRUCTURES SHALL BE PLACED WITH APPROVED SELECT MATERIALS AND UNIFORM COMPACTION THROUGHOUT MUST BE PROVIDED IN 6" TO 8" LAYERS. EACH LAYER OF ENGINEERED FILL SHALL BE COMPACTED AT OPTIMUM MOISTURE, PLUS OR MINUS 2%, TO A DENSITY OF NOT LESS THAN 95% IN ACCORDANCE WITH AASHTO T-99 OR ASTM D-698. "MARINE CLAYS" SHALL NOT BE PERMITTED AS BACKFILL AROUND STRUCTURES OR BEHIND RETAINING WALLS. (PFM 4-401.2)
- SOIL CBR TESTS OF SUBGRADE MUST BE SUBMITTED FOR ACTUAL DETERMINATION OF SUBBASE THICKNESS PRIOR TO CONSTRUCTION.
- ALL BASE, SUBBASE, AND SUBGRADE MATERIALS SHALL BE COMPACTED TO 95% OF THEORETICAL MAXIMUM DENSITY AS DETERMINED BY VIM-1, WITHIN + OR - 20% OF OPTIMUM MOISTURE FOR THE FULL WIDTH OF ANY DEDICATED RIGHT-OF-WAY AND ALL THE TOWNHOUSE, COMMERCIAL, AND INDUSTRIAL PARKING LOTS; PRIVATE STREETS; PARKING BAYS; CURB AND GUTTER; AND SIDEWALKS ADJACENT TO STREETS AND PARKING LOTS (NOT INTENDED TO INCLUDE LEADWALKS) (PER VDOT SPECS).
- A SMOOTH GRADE SHALL BE MAINTAINED FROM CENTERLINE OF EXISTING ROAD TO PROPOSED CURB AND GUTTER/EDGE OF PAVEMENT TO PRECLUDE THE FORMING OF FALSE GUTTERS AND OR THE PONDING OF ANY WATER ON THE ROADWAY.
- PROPOSED SIDEWALKS MUST BE CONSTRUCTED WITH UD-3 UNDERDRAINS WHEN LONGITUDINAL GRADES ARE 3% OR GREATER UNLESS SOIL TESTS CONFIRM THAT THEY ARE NOT NEEDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION (APPLIES TO SIDEWALK RIGHT-OF-WAY OR MAINTAINED BY A HOMEOWNERS ASSOCIATION.)
- A SEPARATE BUILDING PERMIT WILL BE REQUIRED FOR ALL RETAINING WALLS 2'-0" OR HIGHER.
- IF THE COST OF THE WORK EXCEEDS \$1,500.00, THE CONTRACTOR IS REQUIRED TO BE LICENSED IN ACCORDANCE WITH CHAPTER II OF TITLE 54.1 (54.1-1112) OF THE CODE OF VIRGINIA.
- AN AIR QUALITY PERMIT SHALL BE OBTAINED, IF REQUIRED, PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION.
- NO EVIDENCE OF ANY GRAVE, OBJECT, OR STRUCTURE MARKING A PLACE OF BURIAL WAS IDENTIFIED ON THIS SITE.
- MATERIALS SUITABLE FOR FILLS SHALL INCLUDE CLEAN SOIL OR BANKRUN SAND AND GRAVEL (GW, GM, AND SM), CL, ML, GC, AND SC MATERIALS MAY BE USED IF THE MAXIMUM DRY DENSITY IS GREATER THAN OR EQUAL TO 105, THE LIQUID LIMIT IS LESS THAN OR EQUAL TO 40 PERCENT, AND THE PLASTICITY INDEX IS LESS THAN OR EQUAL TO 20. THE FILL MATERIALS SHALL BE FREE FROM ORGANICS, TOPSOIL, AND ROCK FRAGMENTS LARGER THAN 3 INCHES IN DIAMETER.

**GENERAL LAND CONSERVATION NOTES**

- ALL LAND CONSERVATION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE FAIRFAX COUNTY CODE CHAPTER 104 SECTION 104-1-B, THE FAIRFAX CO. PUBLIC FACILITIES MANUAL, AND THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
- NO UNWORKED DISTURBED AREA IS TO REMAIN DENuded FOR MORE THAN 7 CALENDAR DAYS UNLESS OTHERWISE AUTHORIZED BY THE DIRECTOR OR HIS AGENT.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING. FIRST AREAS TO BE CLEARED ARE TO BE THOSE REQUIRED FOR THE PERIMETER CONTROLS.
- ALL STORM AND SANITARY SEWER LINES NOT IN STREETS SHALL BE MULCHED AND SEEDED WITHIN FIVE DAYS AFTER BACKFILL. NO MORE THAN 500 FEET SHALL BE OPEN AT ANY ONE TIME.
- ELECTRIC POWER, TELEPHONE AND GAS SUPPLY TRENCHES SHALL BE COMPACTED, SEEDED AND MULCHED WITHIN FIVE DAYS AFTER BACKFILL.
- ALL TEMPORARY EARTH BERMS, DIVERSIONS AND SEDIMENT BASIN EMBANKMENTS SHALL BE MACHINE COMPACTED, MULCHED AND SEEDED FOR TEMPORARY VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. THE SAME APPLIES TO ALL SOIL STOCKPILES.
- DURING CONSTRUCTION, ALL STORM SEWER INLETS SHALL BE PROTECTED BY SEDIMENT TRAPS, MAINTAINED AND MODIFIED DURING CONSTRUCTION PROGRESS AS REQUIRED.
- ALL FILLS ARE TO BE LEFT WITH A TEMPORARY FILL DIVERSION AT THE TOP OF THE SLOPE AT THE END OF EACH DAYS OPERATION.
- ALL CUT AND FILL SLOPES ARE TO BE SEEDED AND MULCHED IMMEDIATELY AFTER COMPLETION OF GRADING.
- ANY DISTURBED AREA NOT COVERED BY NOTE #2 ABOVE AND NOT PAVED, SODDED OR BUILT UPON BY NOVEMBER 1 IS TO BE SEEDED WITHIN 14 DAYS WITH OATS, ABRUZZI RYE OR EQUIVALENT AND MULCHED WITH STRAW OR HAY MULCH AT THE RATE OF 2 TONS PER ACRE.
- AT THE COMPLETION OF ANY CONSTRUCTION PROJECT AND PRIOR TO BOND RELEASE, ALL TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENuded AREAS SHALL HAVE AN ADEQUATE STAND OF VEGETATION.
- NO AREA SHALL BE LEFT DENuded FOR A PERIOD LONGER THAN 14 DAYS EXCEPT FOR THAT PORTION OF THE SITE IN WHICH WORK WILL BE CONTINUOUS BEYOND 14 DAYS. IN THE EVENT SUCH MAXIMUM PERIOD IS EXCEEDED AND ANY SUCH AREAS REMAIN EXPOSED WITHOUT COVER, THE COUNTY WILL (IN THE EVENT THE DEVELOPER BUILDER DOES NOT) INSTALL THE NECESSARY TEMPORARY OR PERMANENT VEGETATIVE STABILIZATION MEASURES TO ACHIEVE ADEQUATE EROSION AND SEDIMENT CONTROL.
- THE COST OF ANY SUCH TEMPORARY MEASURES TAKEN BY THE COUNTY SHALL BE BORNE BY THE DEVELOPER AND SHALL BE A CHARGE AGAINST THE CONSERVATION DEPOSIT.

**LINEAR PROJECTS LAND CONSERVATION NOTES**

- NO DISTURBED AREA IS TO BE DENuded FOR MORE THAN 7 DAYS.
- TEMPORARY DIVERSIONS, SEEDED AND MULCHED OR SILT FENCE AND OTHER CONTROL MEASURES AS NECESSARY ARE TO BE PLACED AS INDICATED ON THE DRAWINGS PRIOR TO OR AS THE FIRST STEP IN EXCAVATION.
- WHERE CONSISTENT WITH JOB SAFETY REQUIREMENTS, ALL EXCAVATED MATERIAL IS TO BE PLACED ON THE UPHILL SIDE OF TRENCHES. NO MATERIAL IS TO BE PLACED IN STREAMBEDS. ANY STOCKPILED MATERIAL WHICH WILL REMAIN IN PLACE LONGER THAN 10 DAYS IS TO BE SEEDED FOR TEMPORARY VEGETATION AND MULCHED WITH STRAW MULCH. WHERE SPOIL IS PLACED ON DOWNHILL SIDE OF TRENCH IT IS TO BE BACK-SLOPED TO DRAIN TOWARD TRENCH. WHEN NECESSARY TO DETAHER THE TRENCH, THE PUMP DISCHARGE HOSE MUST OUTLET IN A STABILIZED AREA OR A SEDIMENT BASIN.
- WHERE STREAM CROSSINGS ARE REQUIRED FOR EQUIPMENT, TEMPORARY CULVERTS WILL BE PROVIDED.
- NO MORE THAN 500 FEET OF TRENCH IS TO BE OPEN AT ANY ONE TIME.
- ALL DISTURBED AREAS ARE TO BE SEEDED AND MULCHED WITHIN 5 DAYS AFTER BACKFILL OF THE APPLICABLE TRENCH SECTION. SPEED IS THE ESSENTIAL LAND CONSERVATION ELEMENT FOR LINEAR PROJECTS.

**CHEESAPEAKE BAY ORDINANCE NOTE**

THIS SITE DOES CONTAIN A RESOURCE PROTECTION AREA (RPA) AND THE LIMITS SHOWN ARE PER CO. PLAN 9820-RPA-01, CURRENTLY UNDER REVIEW. THE BEST MANAGEMENT PRACTICES (BMP) WILL BE PROVIDED BY TWO ONSITE WET RETENTION PONDS AND CONSERVATION AREA/OPEN SPACE. SEE COMPUTATIONS ON SHEETS 17-21. THIS PLAN COMPLIES FULLY WITH THE AMENDMENT OF CHAPTER 118 (CHEESAPEAKE BAY PRESERVATION ORDINANCE) OF THE CODE OF THE COUNTY OF FAIRFAX.

**STORMWATER MANAGEMENT NOTE**

STORMWATER MANAGEMENT WILL BE PROVIDED BY TWO ONSITE WET RETENTION FACILITIES. SEE COMPUTATIONS ON SHEETS 17-21.

**GENERAL LEGEND****TOPOGRAPHY**

- EX. 2' CONTOUR
- EX. 10' CONTOUR
- PROP. 2' CONTOUR
- PROP. 10' CONTOUR
- WATERCOURSE BENCHMARK
- EX. SPOT ELEVATION
- PROP. SPOT ELEVATION
- FLOW DIRECTION
- EX. TREE LINE
- EX. LIMITS OF GRADING
- LIMITS OF CLEARING
- CRITICAL SLOPE
- SITE BOUNDARY
- LOT BOUNDARY
- FENCE LINE
- PARKING INDICATOR
- CENTERLINE STATIONING
- EX. EDGE OF PAVEMENT
- PROP. EDGE OF PAVEMENT
- EX. CURB AND GUTTER
- PROP. CURB AND GUTTER (CG-6)
- PROP. CURB & GUTTER (CG-6R)
- (CG-6) TO (CG-6R) TRANSITION
- PROP. SIDEWALK
- HANDICAP RAMP (STD. VDOT CG-12)
- HANDICAP PARKING SPACE
- STOP SIGN

**UTILITIES**

- EX. STORM SEWER
- PROP. STORM SEWER
- EX. INLET
- PROP. GRATE INLET
- PROP. DRAIN INLET
- PROP. YARD INLET
- EX. STM. SEW. STRUCTURE NO.
- PROP. STM. SEW. STRUCTURE NO.
- PROP. END SECTION
- PROP. END WALL
- EX. SANITARY SEWER
- PROP. SANITARY SEWER
- EX. SAN. SEW. MANHOLE
- PROP. SAN. SEW. MANHOLE
- PROP. SANITARY CLEAN OUT
- EX. SAN. SEW. STRUCTURE
- PROP. SAN. SEW. STRUCTURE
- EX. WATERLINE
- PROP. WATERLINE
- PROP. WATER VALVE
- PROP. REDUCER
- EX. FIRE HYDRANT
- PROP. FIRE HYDRANT
- PROP. WATER METER
- EX. UTILITY POLE
- PROP. UTILITY POLE
- TEST PIT
- PROP. STREET LIGHT
- EX. STREET LIGHT

**WATER AUTHORITY NOTES**

- ALL WATERMAIN CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND PLANS OF F.C.W.A., AND WITH THE REQUIREMENTS OF THE FAIRFAX COUNTY PUBLIC FACILITY MANUAL.
- NO WATERMAIN VALVES ARE TO BE CLOSED PRIOR TO NOTIFICATION OF FCWA. PHONE NUMBER (703)289-6388 OR 6389.
- THE DEVELOPER SHALL REQUEST INSPECTION BY THE PUBLIC WATER SUPPLY AGENCY THREE (3) DAYS PRIOR TO COMMENCING CONSTRUCTION OF ANY WATERMAIN.
- THE MAXIMUM WORKING PRESSURE SHALL BE 85 P.S.I.
- ANY RELOCATION OF EXISTING WATERMANS DUE TO THE DEVELOPMENT OF THIS PROPERTY SHALL BE PAID FOR BY DEVELOPER AND ACCOMPLISHED BY HIS CONTRACTOR.
- THE PROPERTY DESCRIBED ON THIS PLAN IS LOCATED IN AN AREA WHERE THE WATER PRESSURE WILL EXCEED 80 PSI. IN ACCORDANCE WITH F.C.W.A. & DPW RULES AND REGULATIONS AND THE FAIRFAX COUNTY PLUMBING CODE, A PRESSURE REGULATION VALVE MUST BE INSTALLED BY THE PROPERTY OWNER IN THE BUILDING PLUMBING SYSTEM IN ORDER TO ELIMINATE WATER HAMMER AND UNNECESSARY WASTE OF WATER.

**PROVISIONS FOR THERMAL EXPANSION PROTECTION MAY BE REQUIRED.****CORROSION PROTECTION REQUIREMENTS:**

ALL NEW D.I.P. WATER MAIN SHALL BE WRAPPED WITH 4 MIL. CROSS LAMINATED POLYETHYLENE WRAP (SINGLE WRAPPED). THERE SHALL BE A 8 INCH ENVELOPE OF 21A SELECT FILL FOR ALL POLYETHYLENE WRAPPED WATER MAIN. SEE DETAILS ON SHEET 29 OF 31. FCWA STANDARD DETAILS DATED MAY 2002. THESE DETAILS MAY BE FOUND ON THE FCWA WEBSITE AT <http://www.fcwa.org/engineering/developers.htm>

**TREE COVER CALCULATIONS**

SITE AREA = 37.26 AC. OR 1,622,840 SQ. FT.  
TREE COVER AREA REQUIRED (20%) = 324,568 SQ. FT.

EX. TREE COVER AREA = (222,700 SQ.FT./1.50) = 334,050 SQ. FT.  
(SUB-CULMIV)  
TREE COVER PROVIDED BY PLANTING = 0 SQ. FT.  
TREE COVER PROVIDED = 334,050 SQ. FT.

**OAK HILL RESERVE - Density Calculation**

Tax Map Parcel 35-4-(25)-E (denoted on the Oak Hill Reserve, Section 2 Record Plat as Parcel "B") is owned by Winchester Homes, the same Developer as this Thompson Road Property subdivision. The Developer is transferring the above referenced parcel to the Thompson Road Property subdivision adding it to the new subdivision Total Site Area. The Density calculations below demonstrate that the Oak Hill Reserve overall density is satisfied when Parcel B is conveyed to the Thompson Road Property subdivision. (Oak Hill Reserve overall area = 66,951 acres with 65 lots.)

**OAK HILL RESERVE, SECTION 1**  
Lot Area (30 lots) = 1,091,255 sq. ft. or 25.052 acres  
R/W Dedication = 187,152 sq. ft. or 4.298 acres  
Parcel "A", "B" & "C" = 250,273 sq. ft. or 5.698 acres  
Residue (Sec. 1) = 1,002,109 sq. ft. or 23.056 acres  
TOTAL = 2,400,789 sq. ft. or 55.051 acres

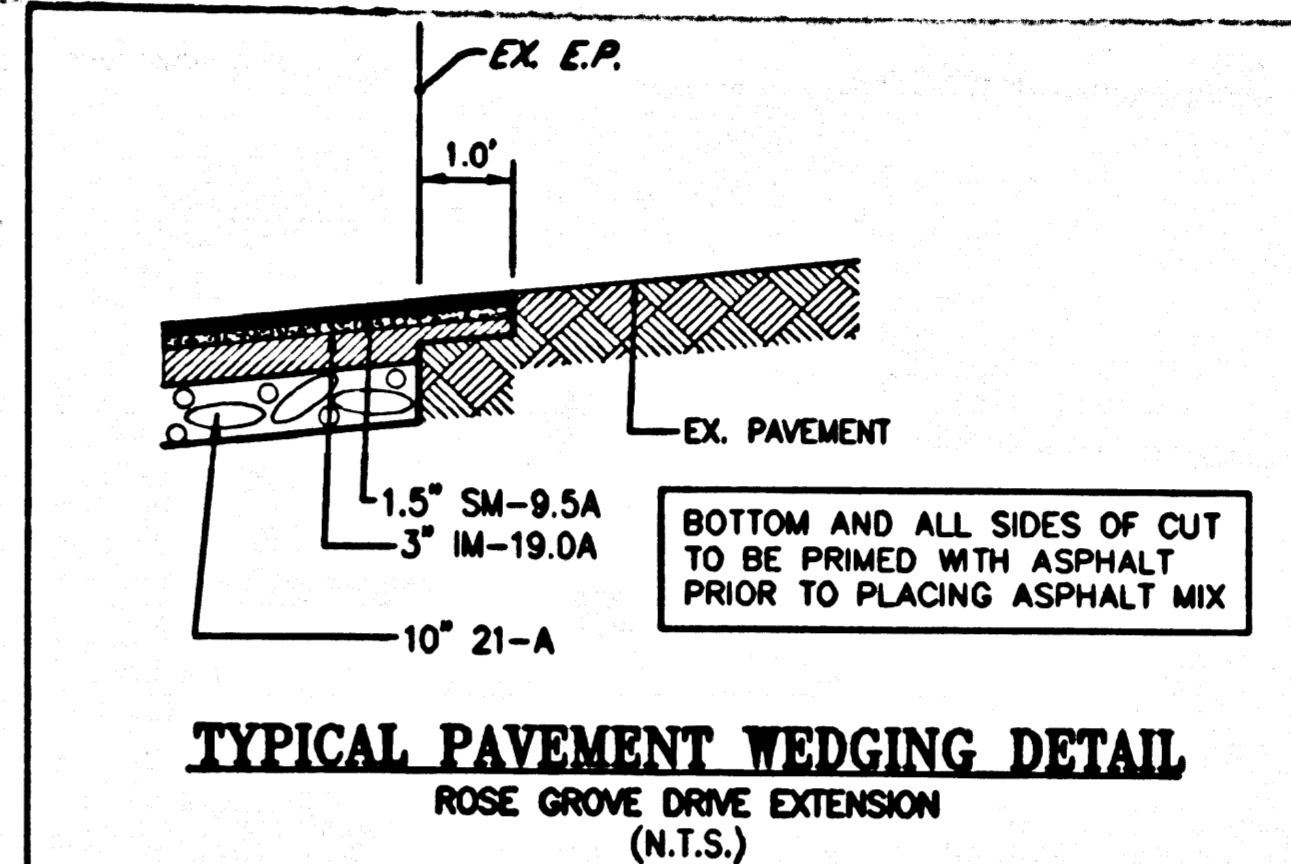
**OAK HILL RESERVE, SECTION 2**  
Lot Area (23 lots) = 845,068 sq. ft. or 19.401 acres  
R/W Dedication = 113,271 sq. ft. or 2.600 acres  
Parcel "A" = 32,750 sq. ft. or 0.752 acres  
Parcel "B" = 11,000 sq. ft. or 0.253 acres  
TOTAL = 1,002,109 sq. ft. or 23.056 acres

**DENSITY CALCULATION FOR OAK HILL RESERVE OVERALL WITH SEC. 2, PARCEL "B"**  
Density = 53 lots = 0.831 D.U./acre  
56,951 acres

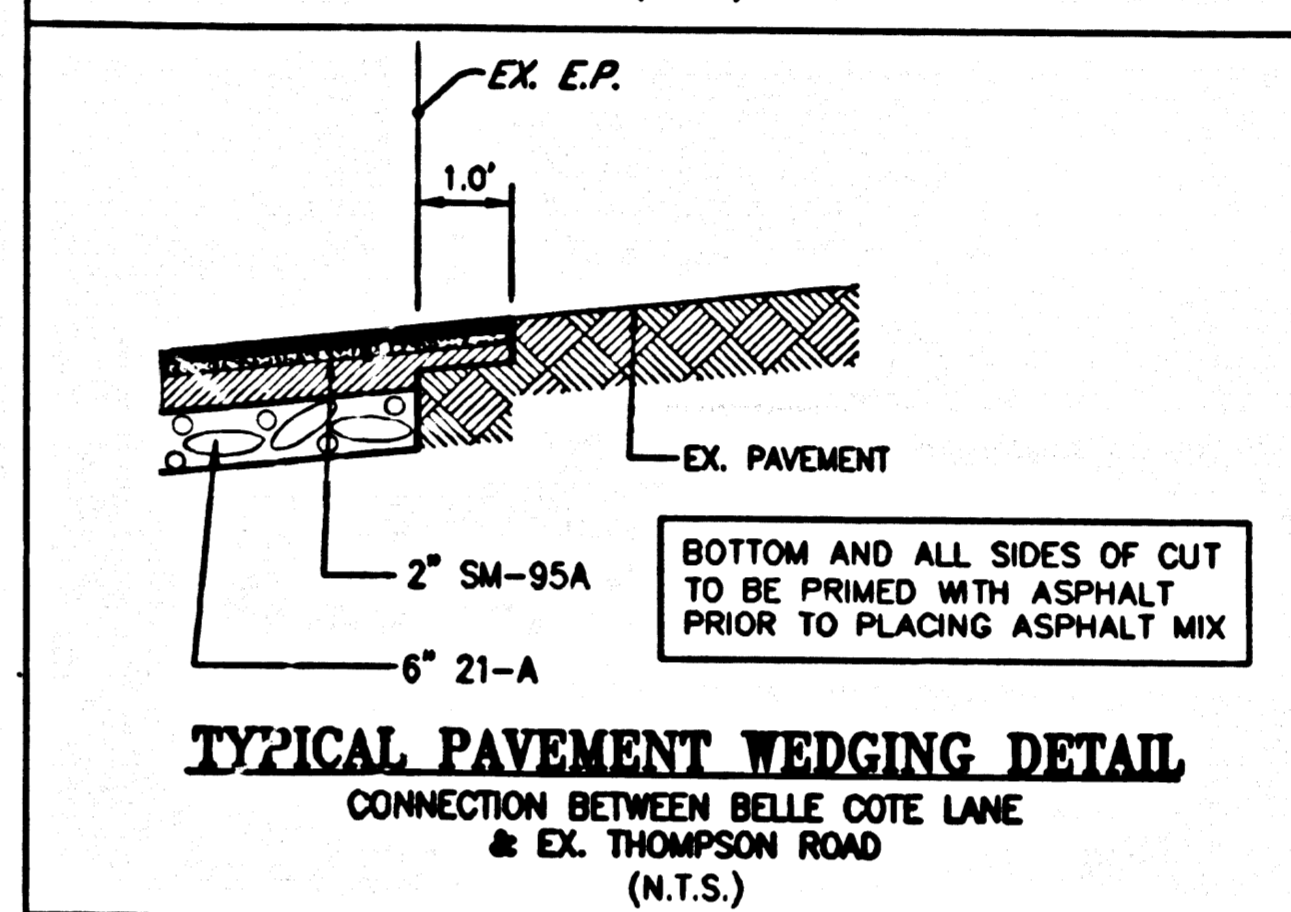
**DENSITY CALCULATION FOR OAK HILL RESERVE OVERALL WITHOUT SEC. 2, PARCEL "B"**  
Total Site - Parcel "B" = 66,951 - 0.253 = 66,698 acres  
Density = 53 lots = 0.834 D.U./acre  
66,698 acres

**OWNER TABULATIONS**

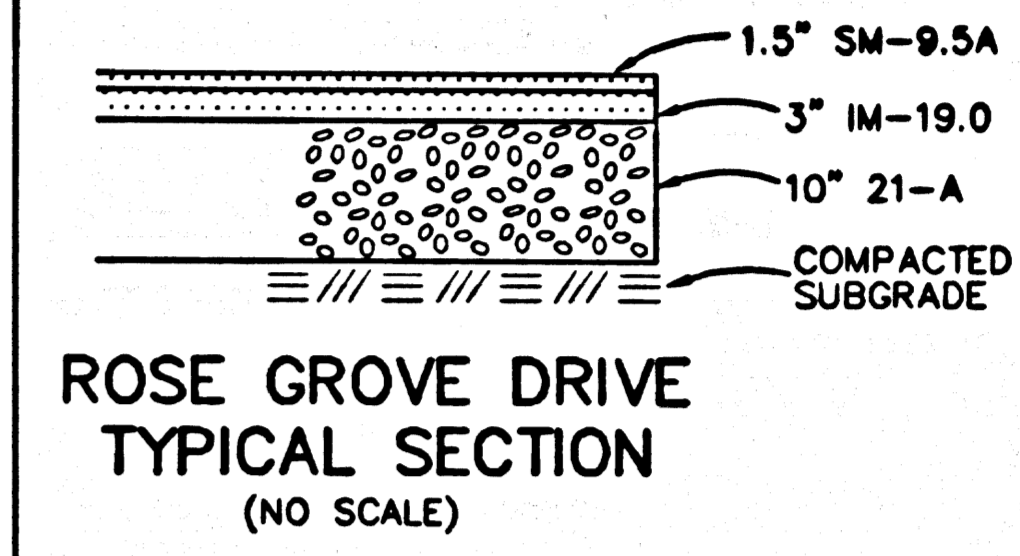
TAX MAP NUMBER	OWNER	DEED BOOK / PAGE	ADDRESS	PHONE NUMBER
35-3-(25)-B	WINCHESTER HOMES	16054/1091	6905 ROCKLEDGE DRIVE BETHESDA, MD 20817	301-803-4800
35-3-(25)-C1	WINCHESTER HOMES	16054/1107	6905 ROCKLEDGE DRIVE BETHESDA, MD 20817	301-803-4800
35-3-(25)-D2	SCOTT K. MEYER PATRICIA A. MEYER	7549/1874	13042 THOMPSON ROAD FAIRFAX, VA 22033	703-620-3481
35-3-(25)-E1	WINCHESTER HOMES	14874/0036	6905 ROCKLEDGE DRIVE BETHESDA, MD 20817	301-803-4800
35-3-(25)-F1	WINCHESTER HOMES	14882/2067	6905 ROCKLEDGE DRIVE BETHESDA, MD 20817	301-803-4800
35-3-(25)-G	WINCHESTER HOMES	14874/0031	6905 ROCKLEDGE DRIVE BETHESDA, MD 20817	301-803-4800
35-3-(25)-M2	WINCHESTER HOMES	16253/1220	6905 ROCKLEDGE DRIVE BETHESDA, MD 20817	301-803-4800
35-4-(25)-E	WINCHESTER HOMES	16253/1220	6905 ROCKLEDGE DRIVE BETHESDA, MD 20817	301-803-4800



**TYPICAL PAVEMENT WEDGING DETAIL**  
ROSE GROVE DRIVE EXTENSION  
(N.T.S.)

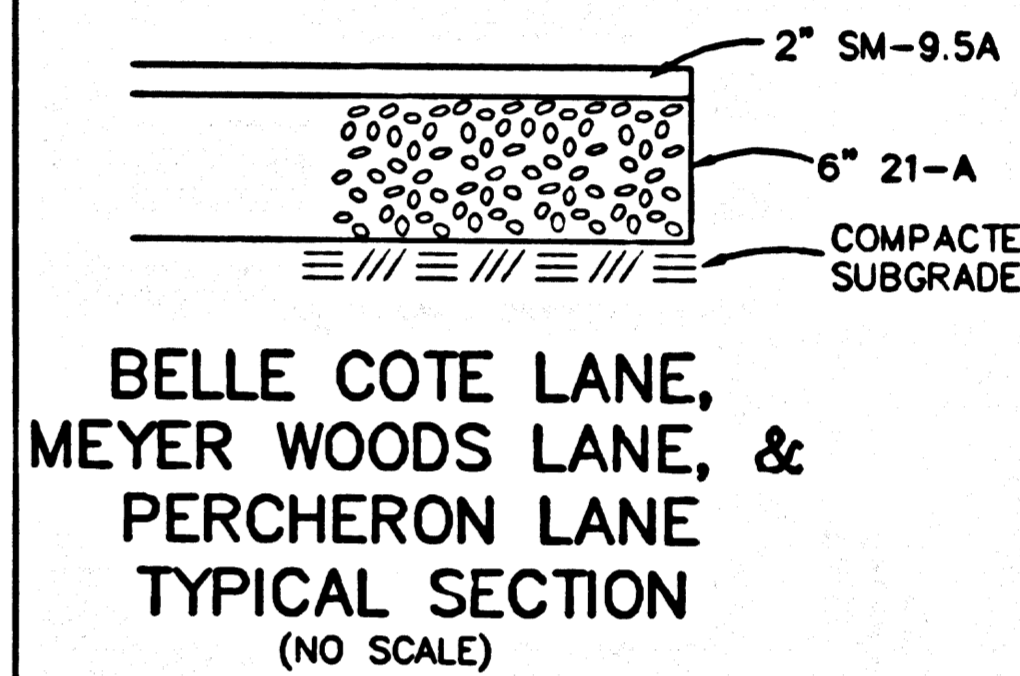


**TYPICAL PAVEMENT WEDGING DETAIL**  
CONNECTION BETWEEN BELLE COTE LANE  
& EX. THOMPSON ROAD  
(N.T.S.)



**ROSE GROVE DRIVE**  
**TYPICAL SECTION**  
(NO SCALE)

NOTES:  
1. PAVEMENT SECTION BASED ON PAVEMENT DESIGN OF THE EXISTING ROSE GROVE DRIVE OAK HILL RESERVE SECTION 2 (CO. #349-SDV-02-B)



**BELLE COTE LANE,  
MEYER WOODS LANE,  
&  
PERCHERON LANE**  
**TYPICAL SECTION**  
(NO SCALE)

NOTES:  
1. PAVEMENT SECTION BASED ON ASSUMED CBR OF 10. (SEE NOTE 14.)

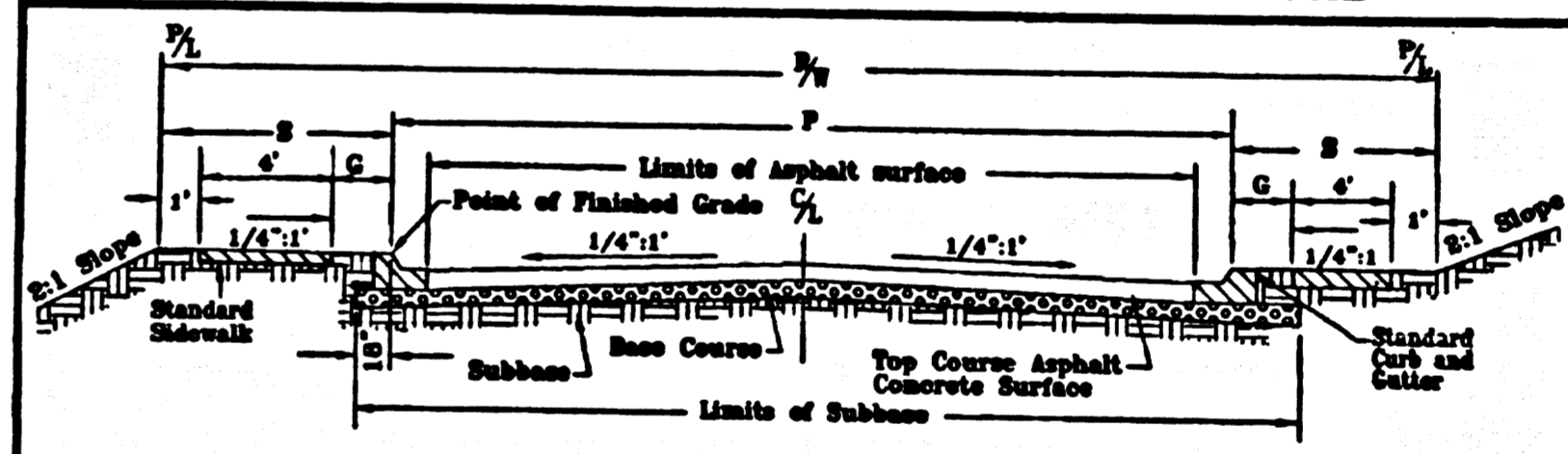
**MISCELLANEOUS NOTES**

- 1000 = NUMBER OF VEHICLES PER DAY.
- ⊙ = STANDARD STOP SIGN. SEE TCS-1 AND TCS-2 (PFM).
- DRIVEWAYS SHALL CONFORM TO APPLICABLE ENTRANCE STANDARDS.
- ALL EXISTING SEPTIC TANKS AND DRAINFIELDS ARE TO BE ABANDONED IN ACCORDANCE WITH FAIRFAX COUNTY HEALTH DEPARTMENT REQUIREMENTS.
- ALL EXISTING WELLS ARE TO BE ABANDONED IN ACCORDANCE WITH FAIRFAX COUNTY HEALTH DEPARTMENT REQUIREMENTS (SEPARATE PERMIT REQUIRED).
- EROSION AND SEDIMENT CONTROL MEASURES TO BE PROVIDED PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION.

**SOIL LOT TAB**

LOT NUMBER	SOIL ID NUMBER
1	62, 67
2	14, 62, 75
3	14, 62
4	14, 67
5	14, 67
6	67, 73
7	67, 73
8	12, 14, 67, 73
9	12, 14, 73
10	12, 73
11	12, 73
12	12, 73
13	73, 75
14	73, 75
15	73, 75
16	14, 73, 75
17	14, 75
18	75
19	12, 73, 75
20	73, 75
21	12, 73, 75
22	41, 76, 80
23	14, 41
24	12, 41
25	12, 14, 41, 72, 73
26	12, 14, 41, 72, 73
27	12, 14, 41, 72, 73
28	12, 41
29	12, 41
30	12, 41, 80
31	41, 76, 80

SEE SOILS MAP DATA ON COVER SHEET FOR SOILS NAME AND PROBLEM CLASS INFO.

**FAIRFAX COUNTY PUBLIC FACILITIES MANUAL**

CATEGORY, VPI	MAX. GRADE	MIN. RADIUS	MIN. (4)	R. VALUE	TYPICAL SECTION	STANDARD	FAIRFAX COUNTY	SURFACE	%
L 0 TO 300	10	100	20	80	1	2	1-1/2	1	44
L 300 TO 600	10	100	20	80	2	3	2-1/2	2	44
L 600 TO 1200	10	100	20	80	3	4	3-1/2	3	44
L 1200 TO 2000	10	100	20	80	4	5	4-1/2	4	44
L 2000 TO 4000	10	200	40	80	5	6	5-1/2	5	44
L 4000 TO 8000	9	200	40	80	6	7	6-1/2	6	54

**GENERAL NOTES AND FOOTNOTES**

- This typical section may be used in subdivisions in which the average lot size is less than 10,000 sq ft.
- Category VI streets shall be constructed in accordance with VDOT Road and Bridge Standards.
- Intersection sight triangles shall be a minimum for the following street Category I-III, 200', Category IV-IV 210' and Category VI, 400'.
- Stopping sight distance is based upon 0.5' height of eye and 4.5' height of object.
- Surface, base and subbase design are predicated upon a subgrade CBR value which equals or exceeds a value of 10.
- Grades of relatively short lengths (up to 300'), Category I and II, may be increased by 50% of the value shown upon approval by the Director and VDOT.
- Stone base or rubble material shall extend under the curb and gutter a min. distance of 18" from the face of curb. The stone thickness under the curb and gutter shall be the percent depth in excess of the 18" depth of the gutter face but no less than 6".
- Manholes to be provided in accordance with Section 9-0100 of spec.
- Provide underdrains and combination underdrains in accordance with VDOT Road and Bridge Specifications for all typical sections.

Ref. Sec. 7-0100,  
7-0200, 11-0400,  
7-0500, 2A(2), 7-0600, 7B,  
7-0600, 1A, 7-0600-0A,  
7-0600-0B.

STANDARD TYPICAL SECTION FOR UNDIVIDED STREETS WITH CURB & GUTTER	PLATE NO.	STD. NO.
	2-7	TS-2

DESIGNED BY: ATO  
CHECKED BY: CAD  
DATE: OCTOBER, 2003  
SCALE: HOR. N/A  
VERT.  
SHEET 2 OF 31  
CO. NO. 9820-SD-02  
CAD NAME: 70606N.DWG  
LAYOUT: N/A  
FILE NO. 97060-37











**BC Consultants**  
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(703)449-8100 (703)449-8108 (Fax)  
www.bccoon.com



**THOMPSON ROAD PROPERTY**  
GENERAL NOTES & LEGEND  
SULLY DISTRICT  
FAIRFAX COUNTY, VIRGINIA

DESIGNED BY: ATO  
CHECKED BY: CAD  
DATE: OCTOBER, 2003  
SCALE: HOR. N/A  
VERT.  
SHEET 2 OF 31  
CO. NO. 9820-SD-02  
CAD NAME: 70606N.DWG  
LAYOUT: N/A  
FILE NO. 97060-37

**LEGEND**

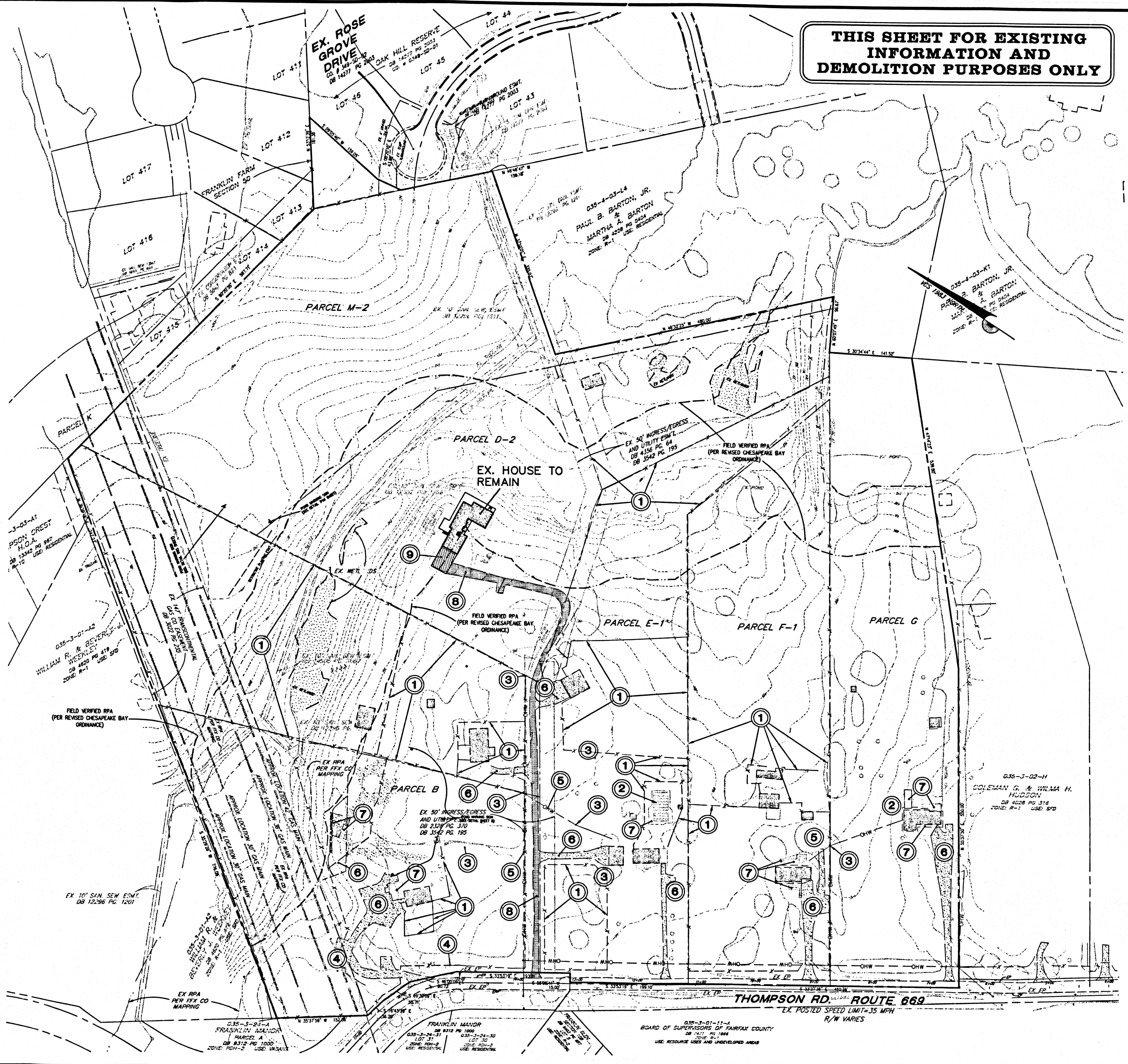
-  EXISTING BUILDINGS AND OTHER STRUCTURES TO BE DEMOLISHED AND REMOVED.
-  1 EXISTING FENCES TO BE DEMOLISHED AND REMOVED.
-  2 EXISTING POOL TO BE DEMOLISHED AND REMOVED.
-  3 EXISTING ONSITE POWER POLES TO BE REMOVED.
-  4 EXISTING POWER POLES ALONG EXISTING THOMPSON ROAD TO BE RELOCATED.
-  5 EXISTING OVERHEAD WIRES TO BE REMOVED, OR RELOCATED WHERE NECESSARY.
-  6 EXISTING DRIVEWAYS TO BE DEMOLISHED, AND MATERIAL REMOVED, AS NECESSARY.
-  7 EXISTING CONCRETE DECKING, SLABS, AND WALKWAYS TO BE DEMOLISHED, AND MATERIAL REMOVED WHERE NECESSARY.
-  8 EXISTING DRIVEWAY TO REMAIN OPEN UNTIL SUCH TIME AS AN ALTERNATE ACCESS IS ESTABLISHED.
-  9 EXISTING DRIVEWAY TO REMAIN

ALL EXISTING WELLS AND SEPTIC FIELDS TO BE ABANDONED UNLESS OTHERWISE NOTED.

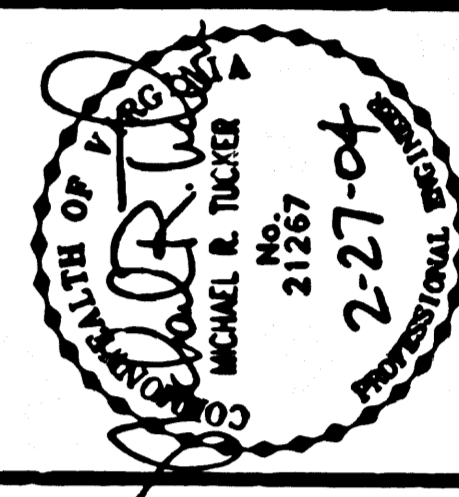
**NOTES**

1. THE DEVELOPER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND NOTIFYING THE PROPER AGENCIES. ALL DEMOLITION WORK SHALL BE DONE IN CONFORMANCE WITH FAIRFAX COUNTY STANDARDS.
2. SINCE THE HOUSE ON PARCEL D-2 IS TO REMAIN, ALL PUBLIC UTILITIES THAT CURRENTLY SERVE THE RESIDENCE MUST CONTINUE TO SERVE THE RESIDENCE UNTIL SUCH TIME AS THESE UTILITIES HAVE BEEN INSTALLED PURSUANT TO THE SUBDIVISION PLAN.
3. SEE MISC. NOTES #4 AND #5 ON SHEET 2.

**THIS SHEET FOR EXISTING INFORMATION AND DEMOLITION PURPOSES ONLY**



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 (703)449-8100 (703)449-8108 (Fax)  
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**DEMOLITION PLAN**  
**THOMPSON ROAD PROPERTY**  
 SULLY DISTRICT  
 FAIRFAX COUNTY, VIRGINIA

BC REVISIONS 2/17/04 REWSE PER LEI SUBM. COMMENTS	DESIGNED BY: ATO DRAFTED BY: CAD CHECKED BY: MRT DATE: OCTOBER, 2003 SCALE: HOR. 1" = 80' VERT. SHEET 3 OF 31 CO. NO. 9820-SD-02 CAD NAME: 7060DEMO.DWG LAYOUT: DEMO FILE NO. 97060-37
--	--

V:\PROJECTS\2003\9820-SD-02\9820-SD-02.DWG 2/17/04 2:45:33 PM



**NOTES:**

- FLOODPLAIN LIMITS HAVE BEEN ESTABLISHED PER FLOODPLAIN STUDY, CO. # 822-PP-02. APPROVED BASIS. FLOODPLAIN AND STORM DRAINAGE EASEMENT HAVE BEEN PROVIDED.
- LOCATIONS OF EXISTING INFORMATION IN OAK HILL RESERVE, CO. #348-SD-01 (APPROVED 11/20/01) ARE APPROXIMATE, PER PLAN PROVIDED BY DALTON & KENDALL, DATED JUNE, 2001.
- THE RPA LIMITS SHOWN FOR THIS SITE ARE PER DELINEATION PLAN CO. #9820-RPA-01.
- PARCELS A, B, C, D, AND OUTLOT E SHALL BE HOMEOWNERS ASSOCIATION (HOA) OWNED AND MAINTAINED.
- WET PONDS TO BE OWNED AND MAINTAINED BY THE HOMEOWNERS' ASSOCIATION.
- PARCEL A IS A CONSERVATION AREA USED FOR BMP CREDIT, AND IS SUBJECT TO THE FOLLOWING NOTE:  
"WATER QUALITY MANAGEMENT APEA. BMP CREDIT ALLOWED FOR OPEN SPACE. NO USE OR DISTURBANCE OF THIS AREA IS PERMITTED WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE DIRECTOR OF DPW & ES."
- FOR FLOODPLAIN EASEMENTS:  
\* NO USE SHALL BE MADE OF NOR SHALL ANY IMPROVEMENTS BE MADE IN THE FLOODPLAIN EASEMENT WITHOUT SPECIFIC AUTHORIZATION FROM FAIRFAX COUNTY.
- ANY ENCROACHMENTS INTO THE RPA NOT SHOWN ON THIS PLAN SHALL BE A VIOLATION OF CHAPTER 118 OF THE CODE OF FAIRFAX COUNTY. ALL VIOLATIONS ARE SUBJECT TO PROVISIONS THEREIN.

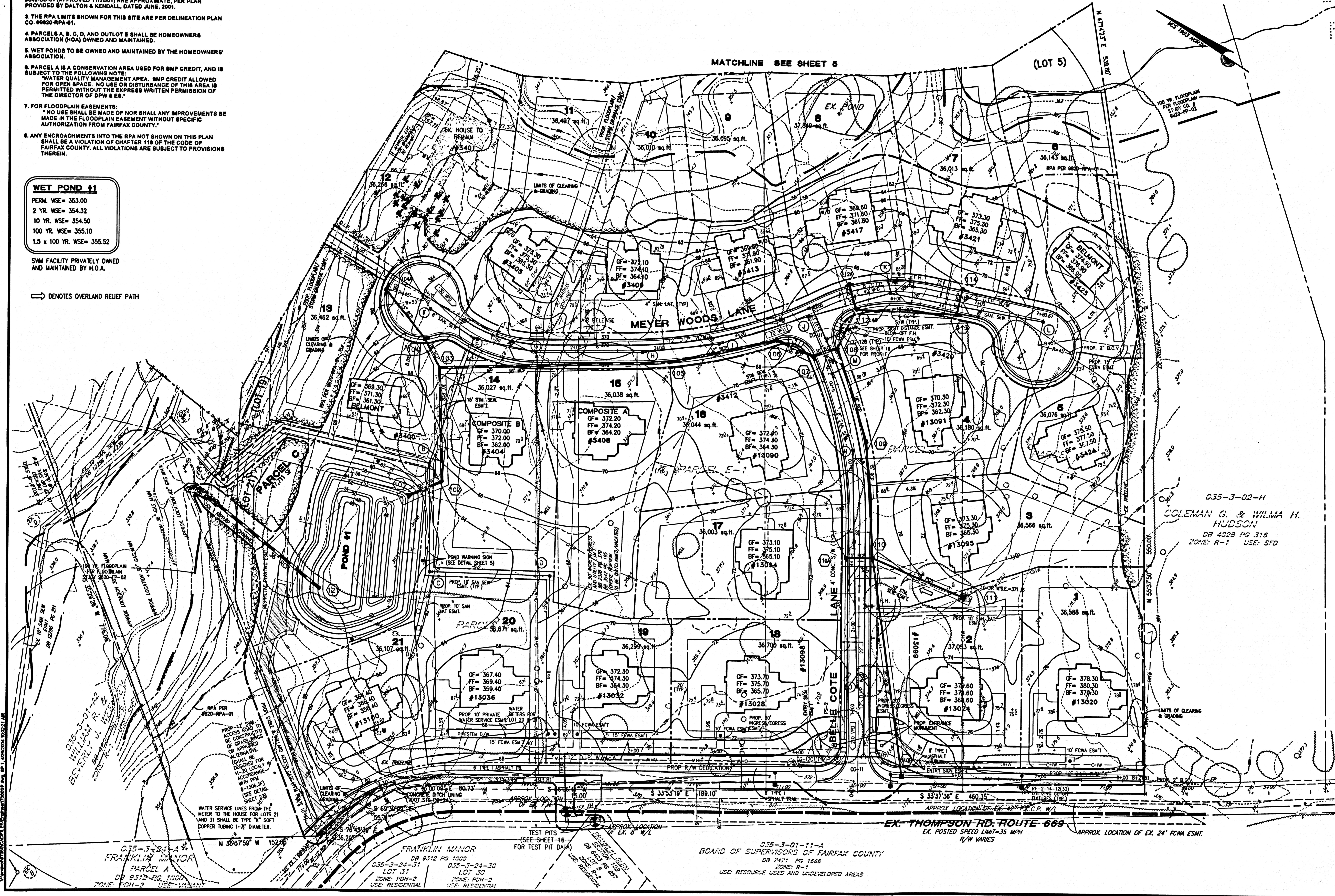
THE SANITARY LATERALS ON LOTS 4, 8, 12, 18, 21, 22, 23, 28, AND 31 ARE SET TO MINIMUM 1.04% SLOPE.

**WET POND #1**

- PERM. WSE= 353.00
- 2 YR. WSE= 354.32
- 10 YR. WSE= 354.50
- 100 YR. WSE= 355.10
- 1.5 x 100 YR. WSE= 355.52

SWM FACILITY PRIVATELY OWNED AND MAINTAINED BY H.O.A.

→ DENOTES OVERLAND RELIEF PATH



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www.bccoon.com



SUBDIVISION PLAN  
**THOMPSON ROAD PROPERTY**  
SOIL DISTRICT  
FAIRFAX COUNTY, VIRGINIA

BC REVISIONS	DESIGNED BY: ATO
2/13/04: REVISE PER THE SUBM. COMMENTS	DRAFTED BY: CAD
7/17/04: REVISE PER THE SUBM. COMMENTS	CHECKED BY: MRT
7/17/04: REVISE PER THE SUBM. COMMENTS	DATE: OCTOBER, 2003
	SCALE: HOR. 1" = 80' VERT.
	SHEET 4 OF 31
	CO. NO. 9820-SD-02
	CAD NAME: 7060SP.DWG
	LAYOUT: SP 1
	FILE NO. 97060-37

035-3-02-4-A  
 FRANKLIN MANOR  
 PARCEL A  
 DB 9312-PG.1000  
 ZONE: PDM-2 USE: RESIDENTIAL

035-3-02-4-A  
 FRANKLIN MANOR  
 PARCEL A  
 DB 9312-PG.1000  
 ZONE: PDM-2 USE: RESIDENTIAL

035-3-24-31  
 FRANKLIN MANOR  
 LOT 31  
 DB 9312-PG.1000  
 ZONE: PDM-2 USE: RESIDENTIAL

035-3-01-11-A  
 BOARD OF SUPERVISORS OF FAIRFAX COUNTY  
 DB 7471-PG.1888  
 ZONE: R-1  
 USE: RESOURCE USED AND UNDEVELOPED AREAS

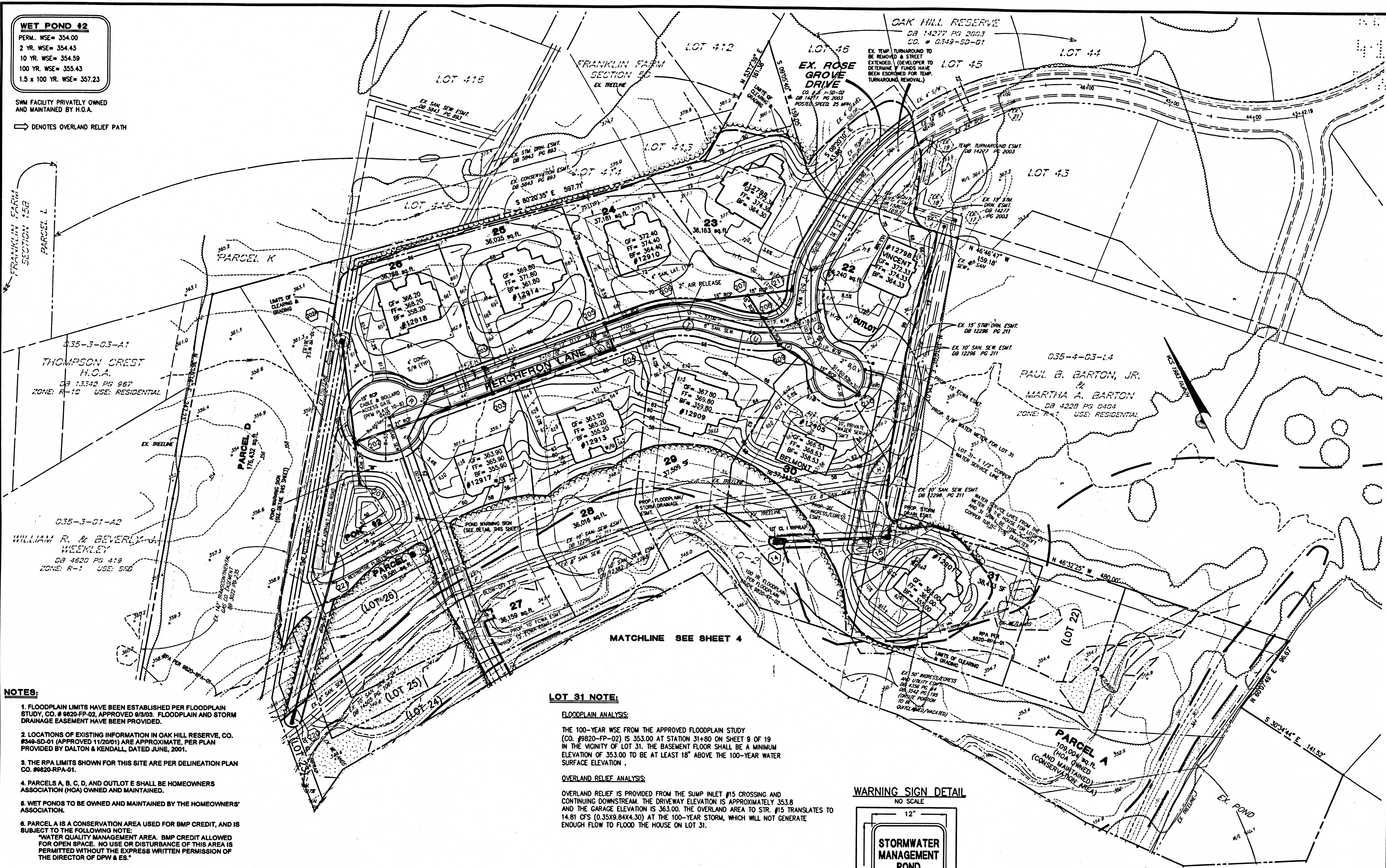
EX-THOMPSON RD. ROUTE 609  
 EX. POSTED SPEED LIMIT=35 MPH  
 R/W VARIES

035-3-02-H  
 COLEMAN G. & WILMA H. HUDSON  
 DB 4028-PG.318  
 ZONE: R-1 USE: SFD

SHEET 4 OF 31

**WET POND #2**  
 PERM. WSE= 354.00  
 2 YR. WSE= 354.43  
 10 YR. WSE= 354.59  
 100 YR. WSE= 355.43  
 1.5 x 100 YR. WSE= 357.23

SWM FACILITY PRIVATELY OWNED  
 AND MAINTAINED BY H.O.A.  
 → DENOTES OVERLAND RELIEF PATH



**NOTES:**

- FLOODPLAIN LIMITS HAVE BEEN ESTABLISHED PER FLOODPLAIN STUDY, CO. # 8820-FP-02, APPROVED 9/3/03. FLOODPLAIN AND STORM DRAINAGE EASEMENT HAVE BEEN PROVIDED.
- LOCATIONS OF EXISTING INFORMATION IN OAK HILL RESERVE, CO. #848-SD-01 (APPROVED 11/20/01) ARE APPROXIMATE, PER PLAN PROVIDED BY DALTON & KENDALL, DATED JUNE, 2001.
- THE RPA LIMITS SHOWN FOR THIS SITE ARE PER DELINEATION PLAN CO. #8820-RPA-01.
- PARCELS A, B, C, D, AND OUTLOT E SHALL BE HOMEOWNERS ASSOCIATION (HOA) OWNED AND MAINTAINED.
- WET PONDS TO BE OWNED AND MAINTAINED BY THE HOMEOWNERS' ASSOCIATION.
- PARCEL A IS A CONSERVATION AREA USED FOR BMP CREDIT, AND IS SUBJECT TO THE FOLLOWING NOTE:  
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- FOR FLOODPLAIN EASEMENTS:  
 "NO USE SHALL BE MADE OF NOR SHALL ANY IMPROVEMENTS BE MADE IN THE FLOODPLAIN EASEMENT WITHOUT SPECIFIC AUTHORIZATION FROM FAIRFAX COUNTY."
- ANY ENCROACHMENTS INTO THE RPA NOT SHOWN ON THIS PLAN SHALL BE A VIOLATION OF CHAPTER 118 OF THE CODE OF FAIRFAX COUNTY. ALL VIOLATIONS ARE SUBJECT TO PROVISIONS THEREIN.

**THE SANITARY LATERALS ON LOTS 4, 8, 12, 18, 21, 22, 23, 28, AND 31 ARE SET TO MINIMUM 1.04% SLOPE.**

**LOT 31 NOTE:**

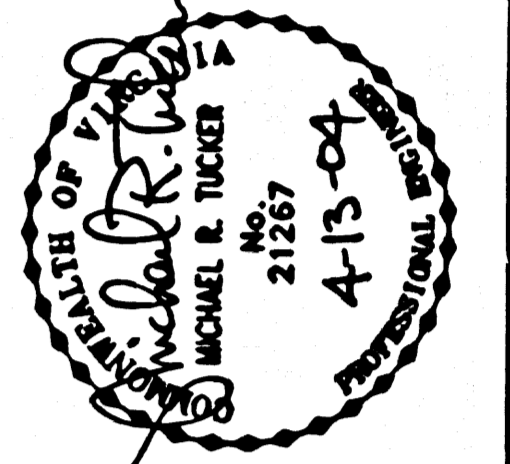
**FLOODPLAIN ANALYSIS:**  
 THE 100-YEAR WSE FROM THE APPROVED FLOODPLAIN STUDY (CO. #8820-FP-02) IS 353.00 AT STATION 31+80 ON SHEET 9 OF 19 IN THE VICINITY OF LOT 31. THE BASEMENT FLOOR SHALL BE A MINIMUM ELEVATION OF 353.00 TO BE AT LEAST 18" ABOVE THE 100-YEAR WATER SURFACE ELEVATION.

**OVERLAND RELIEF ANALYSIS:**  
 OVERLAND RELIEF IS PROVIDED FROM THE SUMP INLET #15 CROSSING AND CONTINUING DOWNSTREAM. THE DRIVEWAY ELEVATION IS APPROXIMATELY 353.8 AND THE GARAGE ELEVATION IS 363.00. THE OVERLAND AREA TO STR. #15 TRANSLATES TO 14.81 CFS (0.35X9.84X4.30) AT THE 100-YEAR STORM, WHICH WILL NOT GENERATE ENOUGH FLOW TO FLOOD THE HOUSE ON LOT 31.

**WARNING SIGN DETAIL**  
 NO SCALE

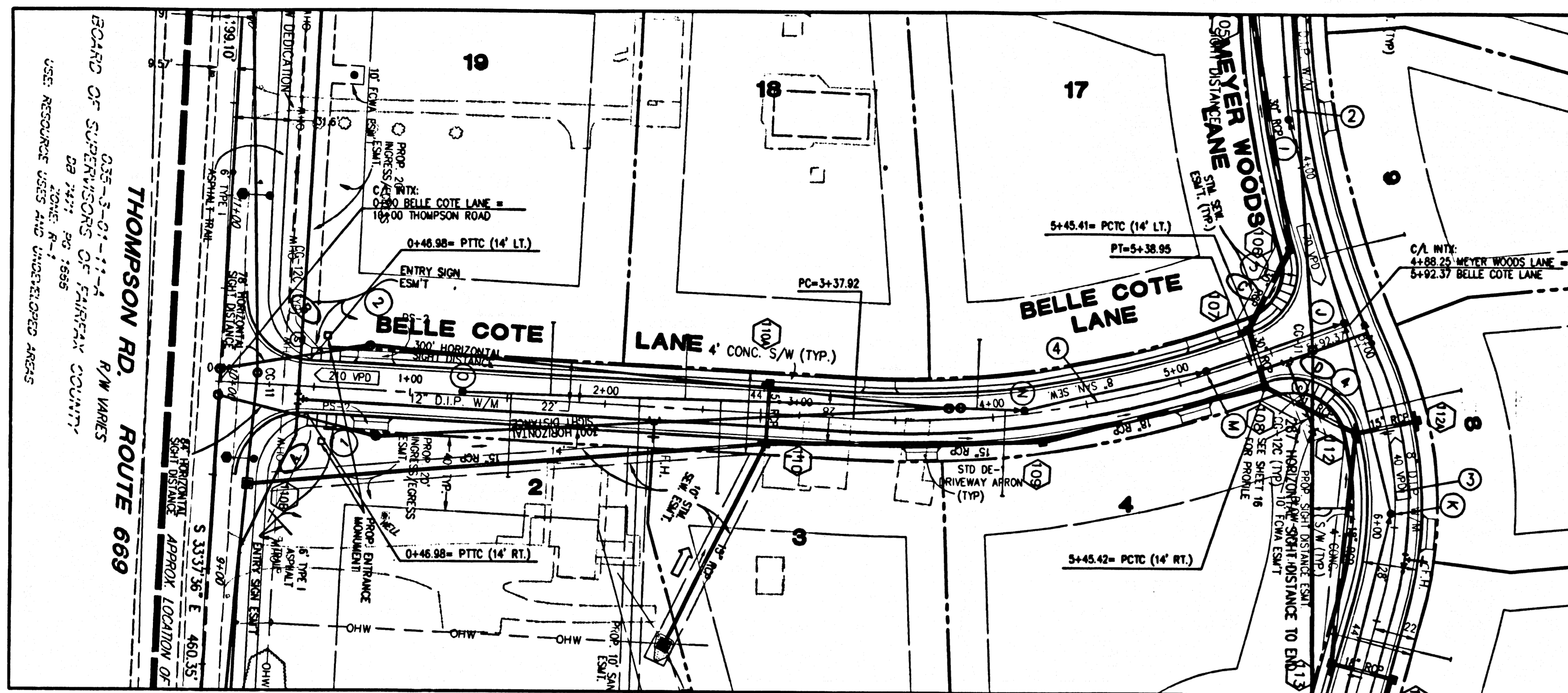


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**SUBDIVISION PLAN**  
**THOMPSON ROAD PROPERTY**  
 SULLY DISTRICT  
 FAIRFAX COUNTY, VIRGINIA

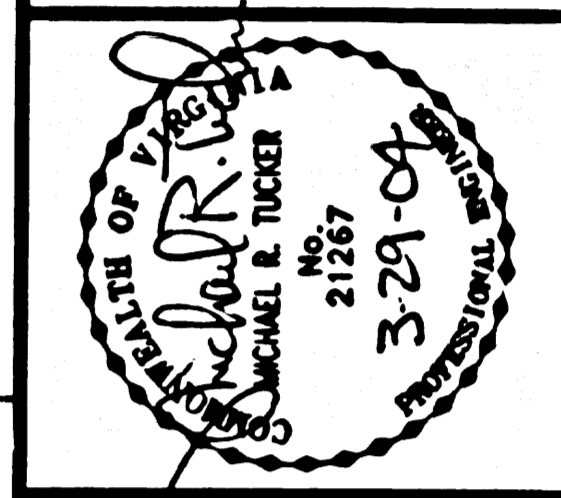
BC REVISIONS	DATE	REVISION
DESIGNED BY: ATO		
DRAFTED BY: CAD		
CHECKED BY: MRT		
DATE: OCTOBER, 2003		
SCALE: HOR. 1" = 50'		
VERT. 1" = 50'		
SHEET 5 OF 31		
CO. NO. 9820-SD-02		
CAD NAME: 7065SP.DWG		
LAYOUT: SP 2		
FILE NO. 97060-37		



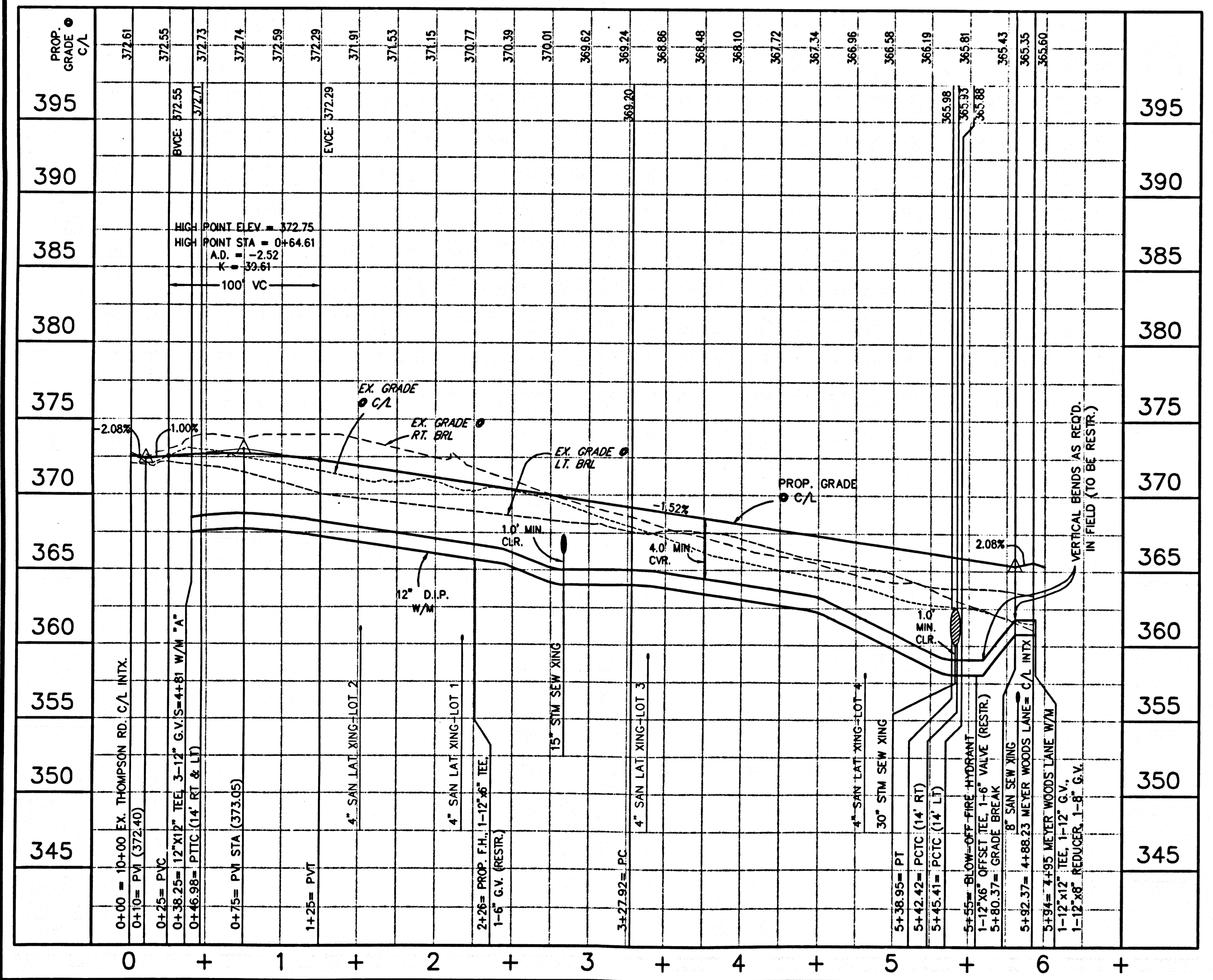
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
1	500.00'	211.03'	107.11'	209.46'	N 44°17'53" E	241°10'55"
2	150.00'	153.19'	84.03'	146.62'	N 53°22'22" W	38°30'54"
3	540.00'	243.57'	123.89'	241.81'	S 47°02'13" E	23°50'17"
4	200.00'	133.62'	69.41'	131.14'	N 40°49'11" W	38°16'41"
5	224.50'	151.22'	78.61'	148.38'	N 76°09'19" E	38°35'38"

- VDOT NOTES**
- THE DEVELOPER IS RESPONSIBLE FOR ALL TRAFFIC CONTROL. THE DEVELOPER SHALL SUBMIT A SIGNING, STRIPING, AND/OR SIGNALIZATION PLAN TO THE VDOT LAND DEVELOPMENT SECTION A MINIMUM OF 30 DAYS PRIOR TO PERMIT APPLICATION. THE DEVELOPER SHALL NOT COMMENCE CONSTRUCTION OF ANY PAVEMENT COURSE WITHOUT AN APPROVED STRIPING PLAN.
  - SUBBASE DEPTH IS BASED ON AN ASSUMED CBR VALUE OF 10. SOIL TEST OF THE SUBGRADE MUST BE SUBMITTED FOR ACTUAL DETERMINATION OF REQUIRED SUBBASE THICKNESS PRIOR TO SUBBASE PLACEMENT.
  - ADDITIONAL DITCH LININGS OR SILTATION AND EROSION CONTROL MEASURES SHALL BE PROVIDED, AT THE DEVELOPER'S EXPENSE, AS DETERMINED NECESSARY BY VDOT AND/OR THE COUNTY DURING FIELD REVIEW. ALL COSTS SHALL BE ASSUMED BY THE DEVELOPER.
  - OVERLAY OF EXISTING PAVEMENT SHALL BE MINIMUM OF 1.25"; ANY COSTS ASSOCIATED WITH PAVEMENT OVERLAY, OR THE MILLING OF EXISTING PAVEMENT TO OBTAIN REQUIRED DEPTH, SHALL BE ASSUMED BY THE DEVELOPER.
  - ALL R/W DEDICATED TO PUBLIC USE SHALL BE CLEAR AND UNENCUMBERED.

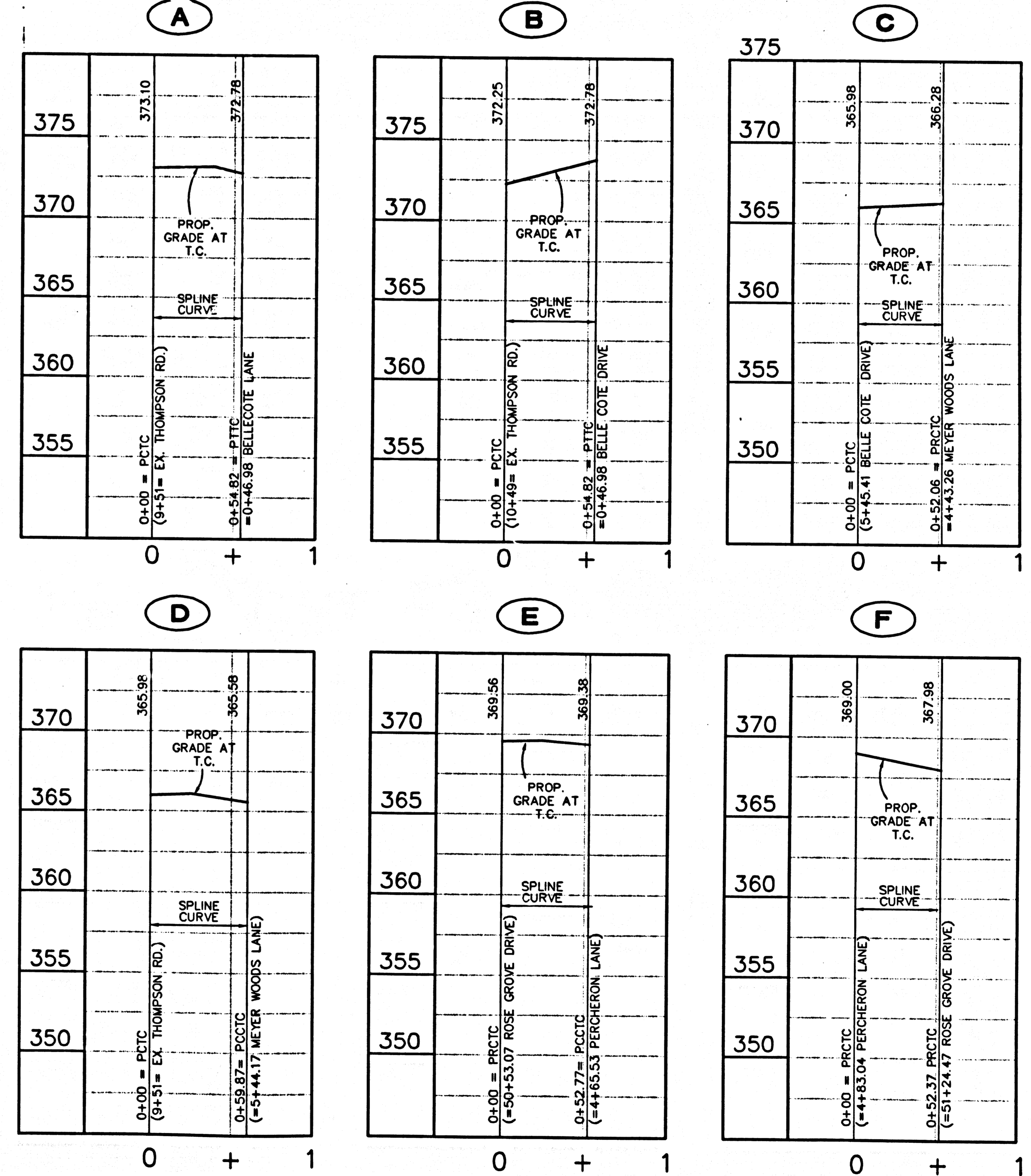
**BC Consultants**  
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 (703)449-8100 (703)449-8100 (Fax)  
 www.bccol.com



**BELLE COTE LANE**  
 CATEGORY 1, 44' R/W  
 DESIGN SPEED = 25 MPH  
 (PER VDOT SUBDIVISION STREET GEOMETRIC DESIGN)  
 STREET TYPICAL SECTION AND WEDGING DETAILS ON SHEET 2.

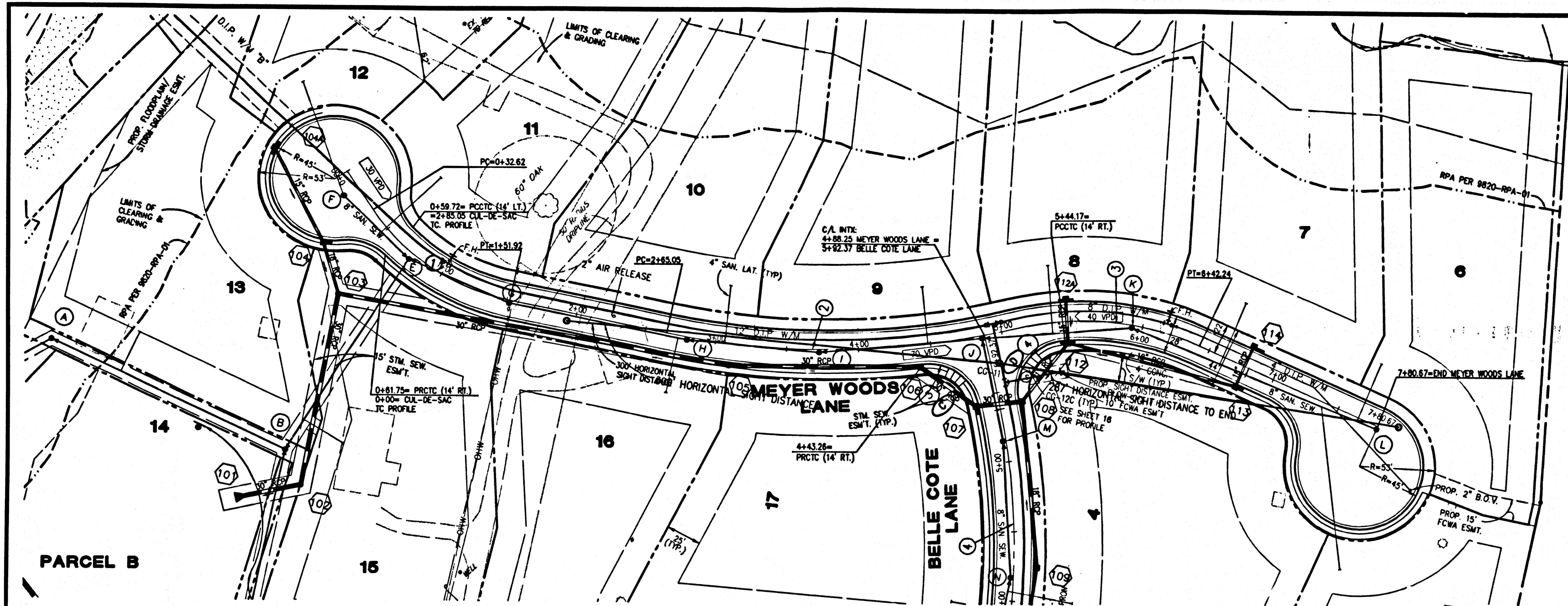


**TOP OF CURB FILLET PROFILES**



BELLE COTE LANE PLAN AND PROFILE  
**THOMPSON ROAD PROPERTY**  
 SULLY DISTRICT  
 FAIRFAX COUNTY, VIRGINIA

BC REVISIONS	
DESIGNED BY: ATO	
DRAFTED BY: CAD	
CHECKED BY: MRT	
DATE: OCTOBER, 2003	
SCALE: HOR. 1"=50'	
VERT. 1"=5'	
SHEET 6 OF 31	
CO. NO. 9820-SD-02	
CAD NAME: 7060RPP.DWG	
LAYOUT: RPP 1	
FILE NO. 97060-37	

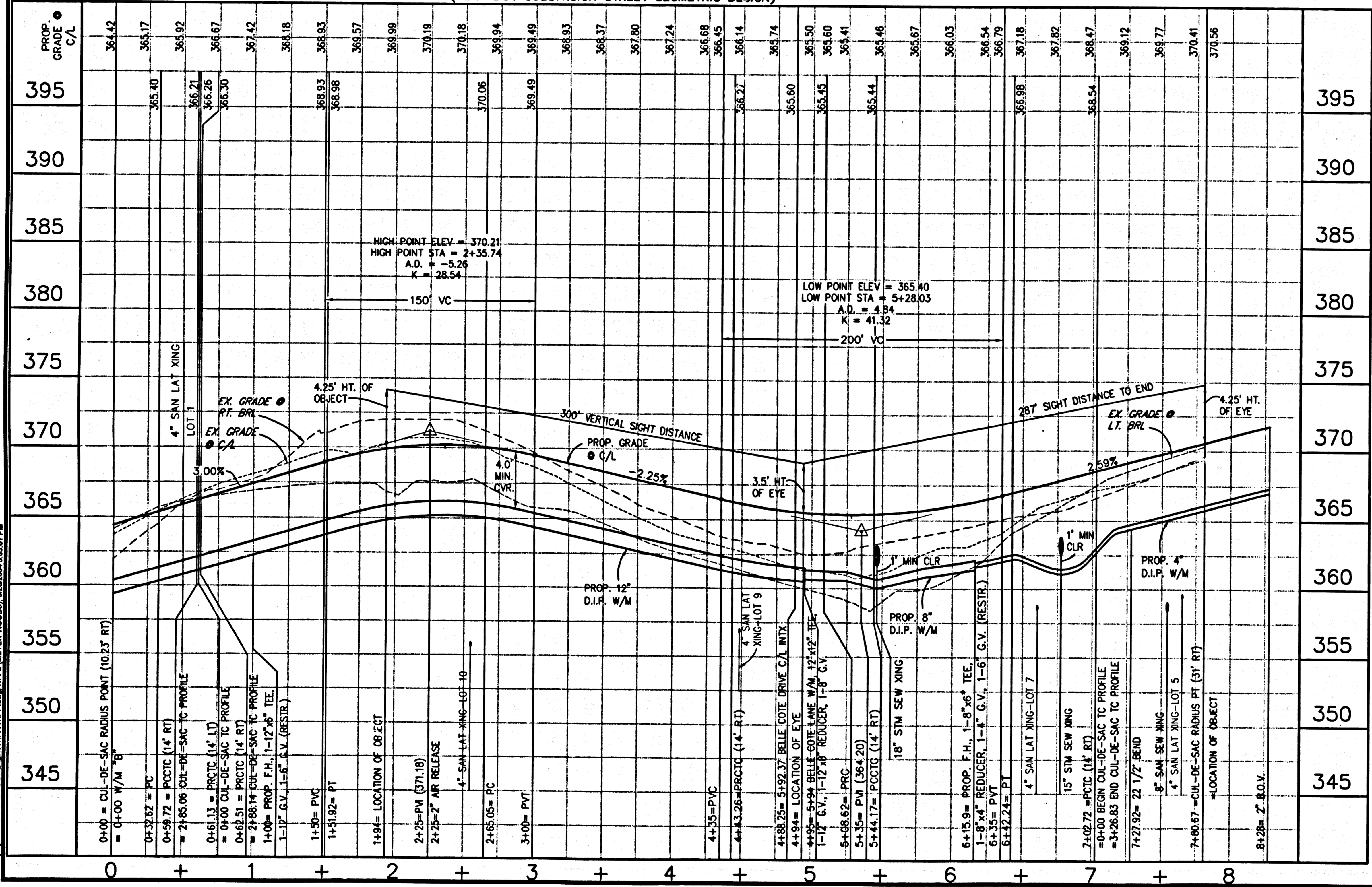


STREET CENTERLINE CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
1	500.00'	211.03'	107.11'	209.46'	N 44°17'53\" E	241°05'55"
2	150.00'	153.19'	84.63'	146.62'	N 63°22'22\" W	58°30'54"
3	540.00'	243.57'	123.89'	241.51'	S 42°02'13\" E	23°50'37"
4	200.00'	133.62'	69.41'	131.14'	N 49°49'11\" W	38°16'41"
5	224.50'	151.24'	78.61'	148.38'	N 76°09'19\" E	38°35'38"

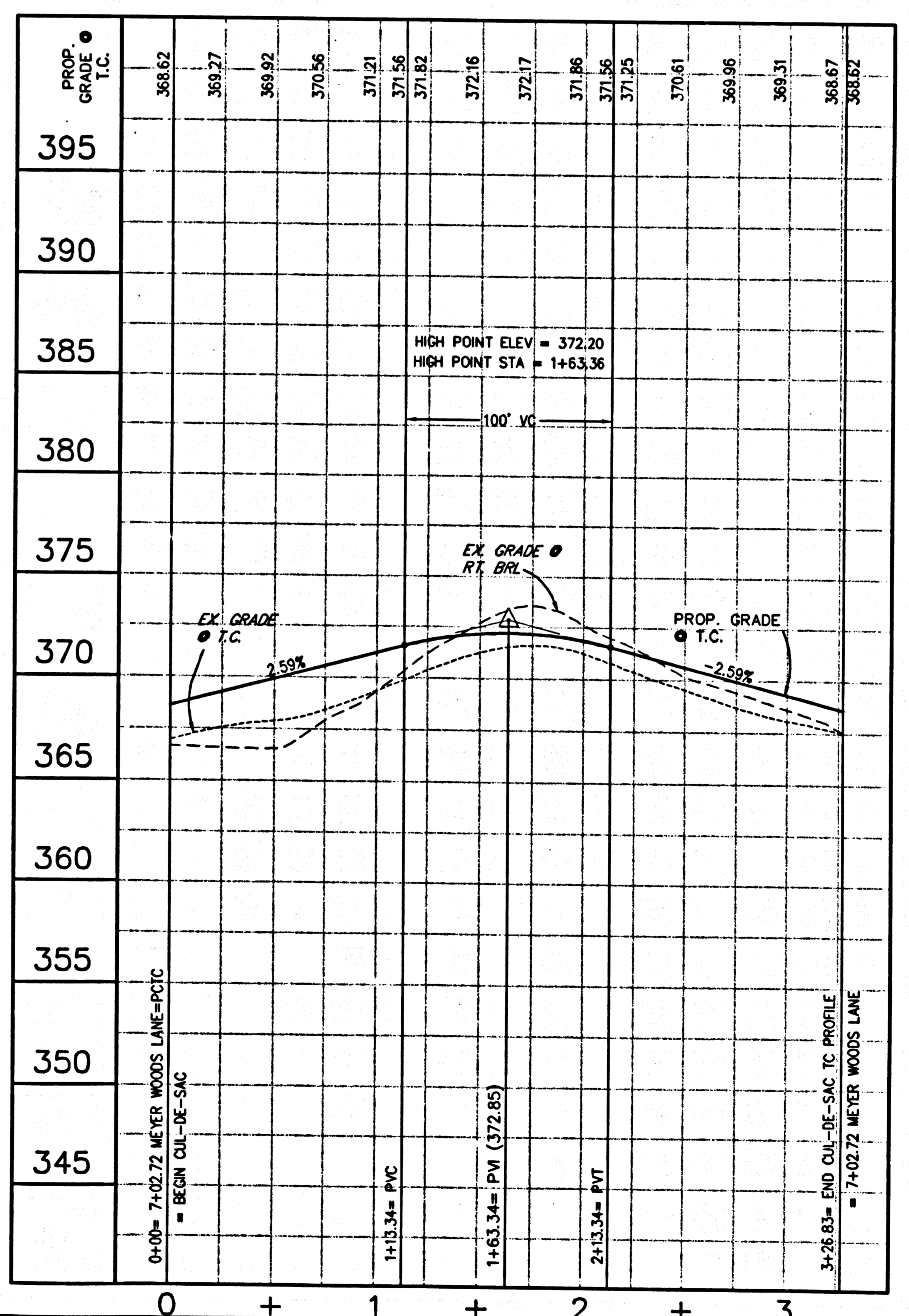
- VDOT NOTES**
1. THE DEVELOPER IS RESPONSIBLE FOR ALL TRAFFIC CONTROL. THE DEVELOPER SHALL SUBMIT A SIGNING, STRIPING, AND/OR SIGNALIZATION PLAN TO THE VDOT LAND DEVELOPMENT SECTION A MINIMUM OF 30 DAYS PRIOR TO PERMIT APPLICATION. THE DEVELOPER SHALL NOT COMMENCE CONSTRUCTION OF ANY PAVEMENT COURSE WITHOUT AN APPROVED STRIPING PLAN.
  2. SUBBASE DEPTH IS BASED ON AN ASSUMED CBR VALUE OF 10. SOIL TEST OF THE SUBGRADE MUST BE SUBMITTED FOR ACTUAL DETERMINATION OF REQUIRED SUBBASE THICKNESS PRIOR TO SUBBASE PLACEMENT.
  3. ADDITIONAL DITCH LININGS OR SILTATION AND EROSION CONTROL MEASURES SHALL BE PROVIDED, AT THE DEVELOPER'S EXPENSE, AS DETERMINED NECESSARY BY VDOT AND/OR THE COUNTY DURING FIELD REVIEW. ALL COSTS SHALL BE ASSUMED BY THE DEVELOPER.
  4. OVERLAY OF EXISTING PAVEMENT SHALL BE MINIMUM OF 1.25\" ANY COSTS ASSOCIATED WITH PAVEMENT OVERLAY, OR THE MILLING OF EXISTING PAVEMENT TO OBTAIN REQUIRED DEPTH, SHALL BE ASSUMED BY THE DEVELOPER.
  5. ALL R/W DEDICATED TO PUBLIC USE SHALL BE CLEAR AND UNENCUMBERED.

STREET TYPICAL SECTION ON SHEET 2.  
SEE SHEET 8 FOR NORTH CUL-DE-SAC T.C. PROFILE

**MEYER WOODS LANE**  
CATEGORY I, 44' R/W  
DESIGN SPEED = 25 MPH  
(PER VDOT SUBDIVISION STREET GEOMETRIC DESIGN)



**MEYER WOODS LANE - SOUTH CUL-DE-SAC**  
T.C. RADIUS = 45'

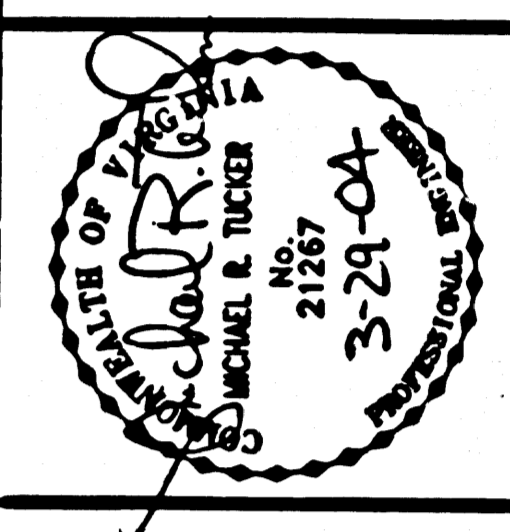


MEYER WOODS LANE PLAN AND PROFILE  
**THOMPSON ROAD PROPERTY**  
SULLY DISTRICT  
FAIRFAX COUNTY, VIRGINIA

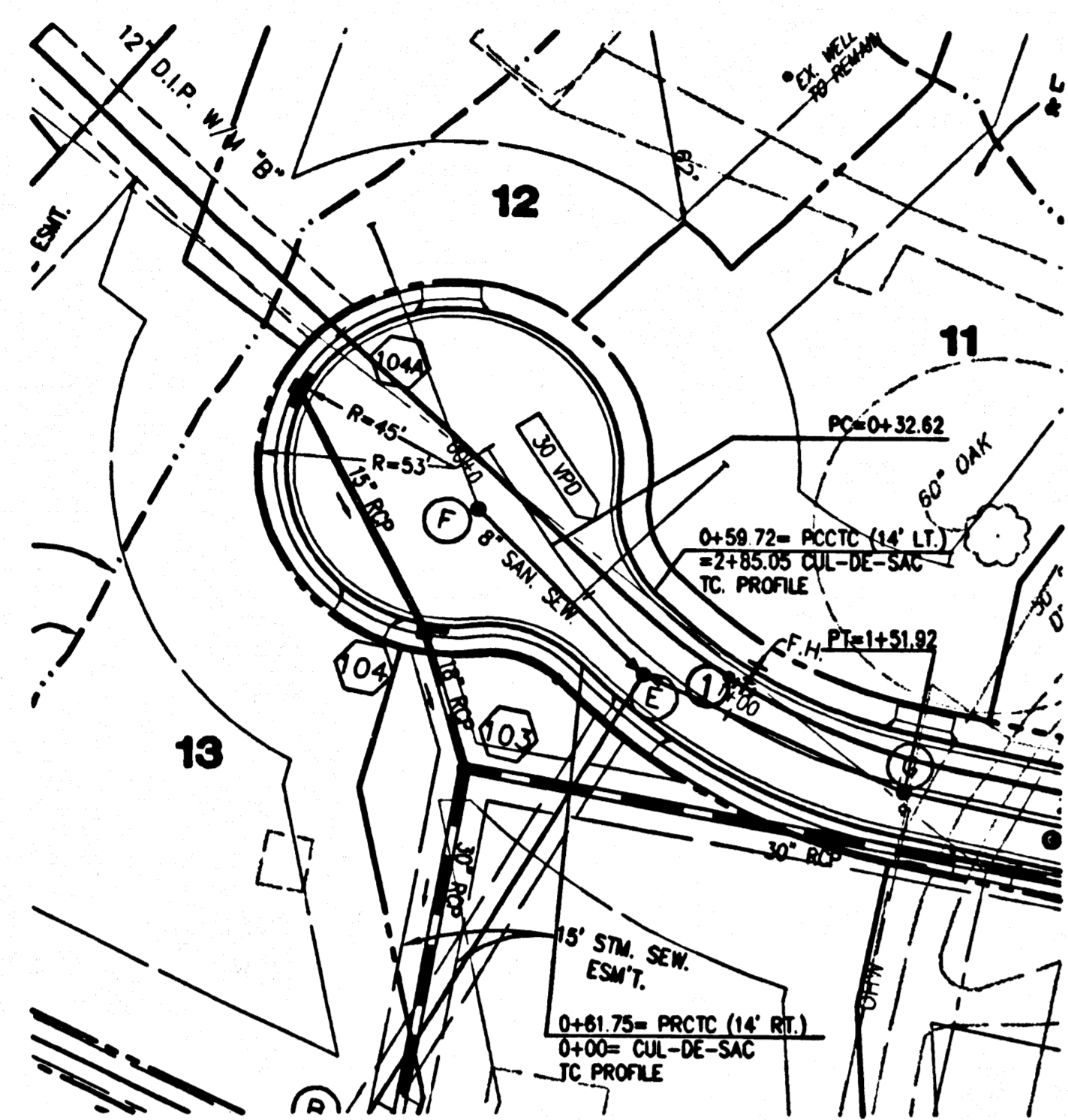
BC REVISIONS  
DESIGNED BY: ATO  
DRAFTED BY: CAD  
CHECKED BY: MRT  
DATE: OCTOBER, 2003  
SCALE: HOR. 1" = 80'  
VERT. 1" = 4'  
SHEET 7 OF 31  
CO. NO. 9820-S0-02  
CAD NAME: 706ORPP.DWG  
LAYOUT: RPP 2  
FILE NO. 97060-37

OWNER:  
WINCHESTER HOMES  
5902 ROCKLEDGE DRIVE  
BETHESDA, MD 20817

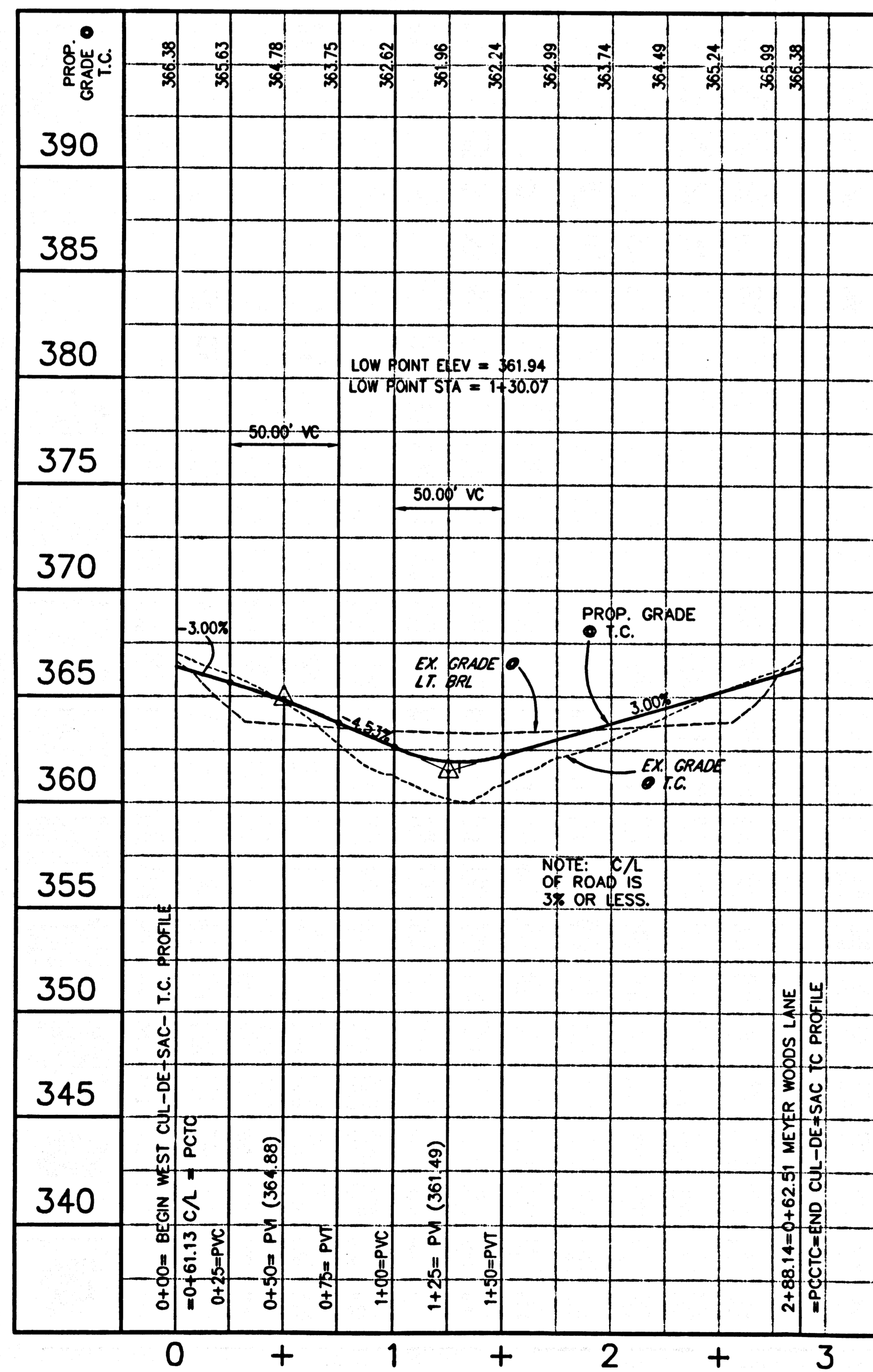
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STREET CENTERLINE CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
1	500.00'	211.03'	107.11'	208.46'	N 44°17'53" E	24°10'55"
2	150.00'	153.19'	84.03'	146.67'	N 63°22'22" W	58°30'54"
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4	200.00'	133.82'	69.41'	131.14'	N 40°48'11" W	38°16'41"
5	224.50'	151.22'	78.61'	148.38'	N 78°02'19" E	38°53'38"



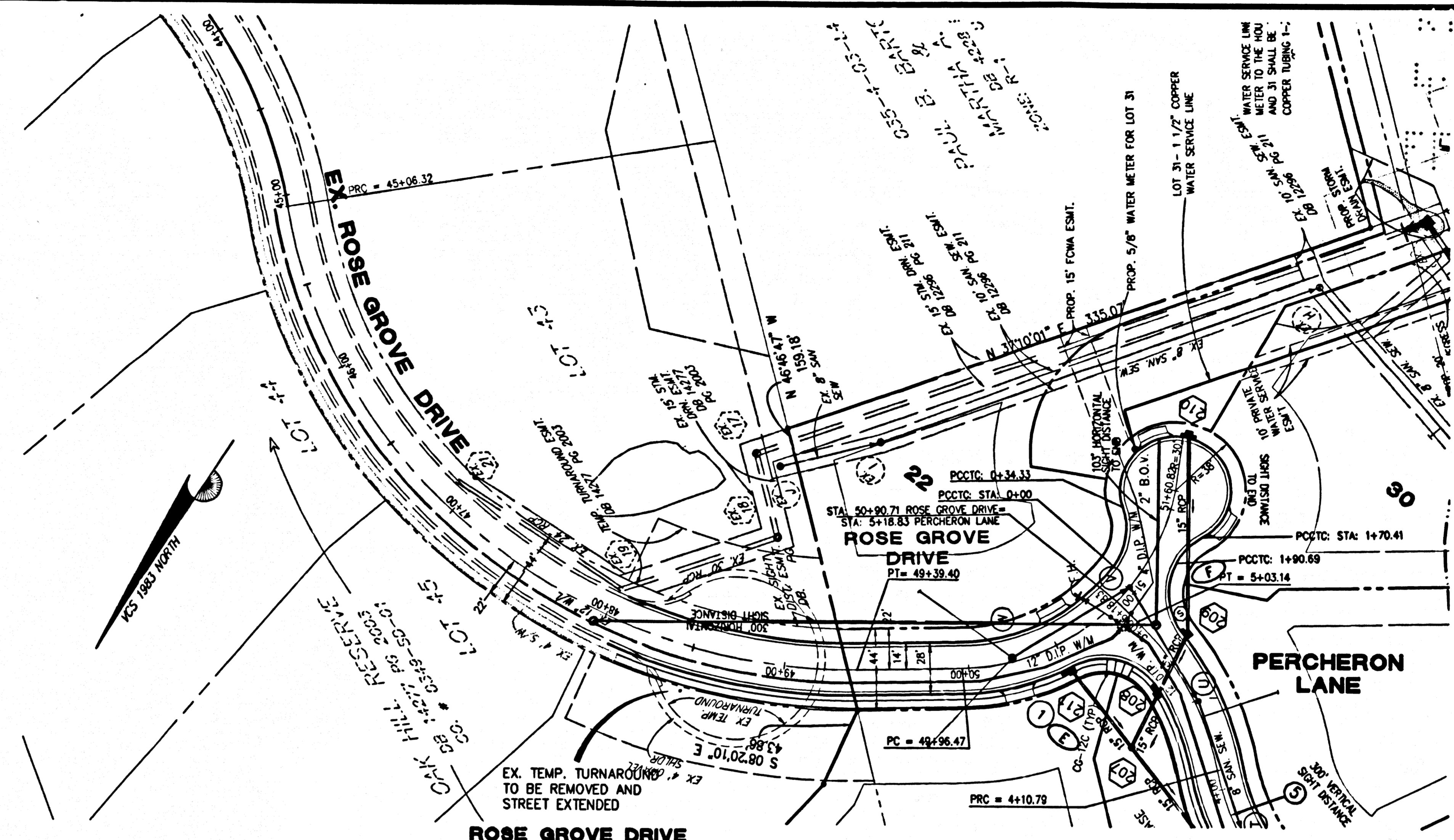
MEYER WOODS LANE - NORTH CUL-DE-SAC  
T.C. RADIUS= 45'



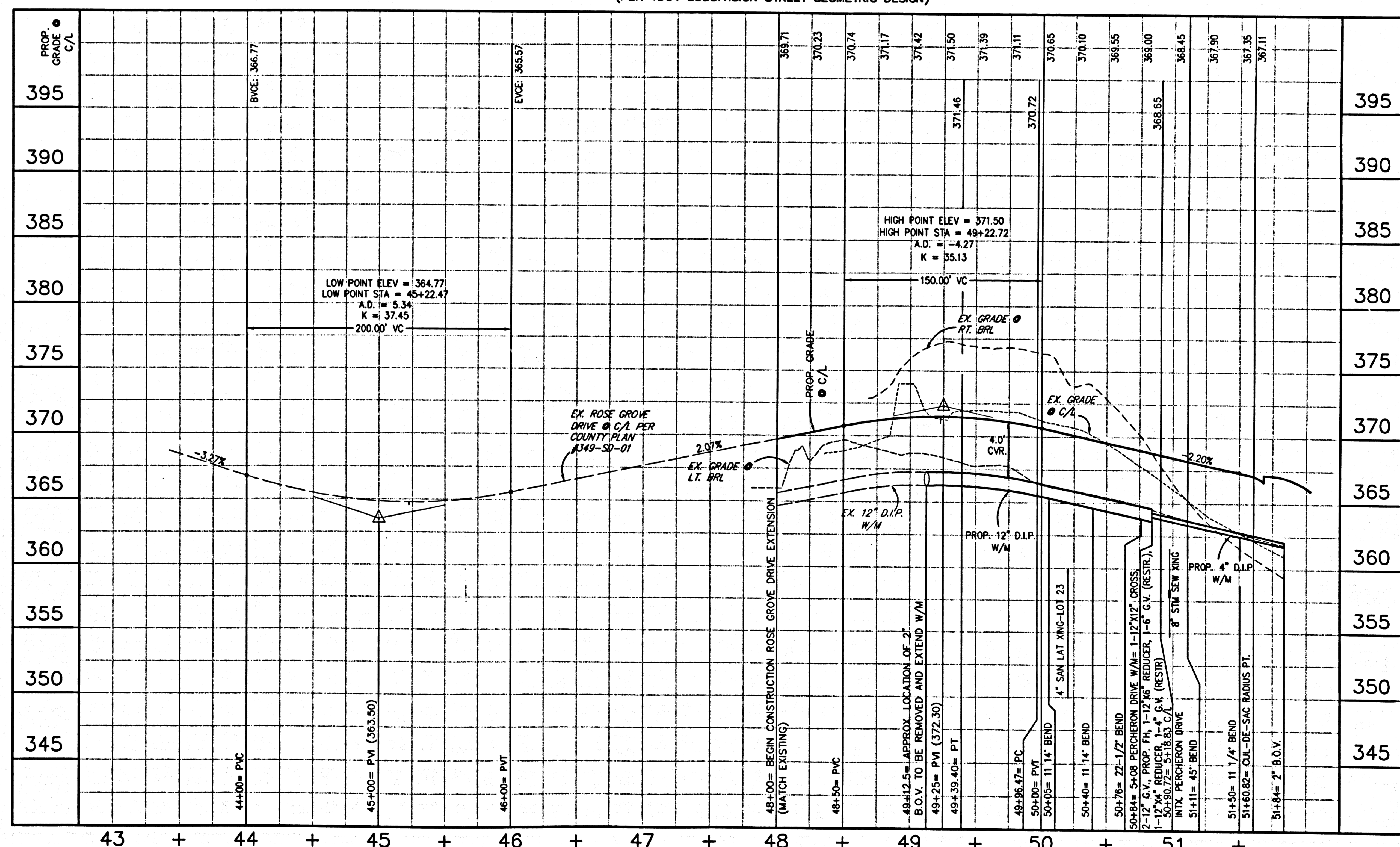
**VDOT NOTES**

1. THE DEVELOPER IS RESPONSIBLE FOR ALL TRAFFIC CONTROL. THE DEVELOPER SHALL SUBMIT A SIGNING, STRIPING, AND/OR SIGNALIZATION PLAN TO THE VDOT LAND DEVELOPMENT SECTION A MINIMUM OF 30 DAYS PRIOR TO PERMIT APPLICATION. THE DEVELOPER SHALL NOT COMMENCE CONSTRUCTION OF ANY PAVEMENT COURSE WITHOUT AN APPROVED STRIPING PLAN.
2. SUBBASE DEPTH IS BASED ON AN ASSUMED CBR VALUE OF 10. SOIL TEST OF THE SUBGRADE MUST BE SUBMITTED FOR ACTUAL DETERMINATION OF REQUIRED SUBBASE THICKNESS PRIOR TO SUBBASE PLACEMENT.
3. ADDITIONAL DITCH LININGS OR SILTATION AND EROSION CONTROL MEASURES SHALL BE PROVIDED, AT THE DEVELOPER'S EXPENSE, AS DETERMINED NECESSARY BY VDOT AND/OR THE COUNTY DURING FIELD REVIEW. ALL COSTS SHALL BE ASSUMED BY THE DEVELOPER.
4. OVERLAY OF EXISTING PAVEMENT SHALL BE MINIMUM OF 1.25"; ANY COSTS ASSOCIATED WITH PAVEMENT OVERLAY, OR THE MILLING OF EXISTING PAVEMENT TO OBTAIN REQUIRED DEPTH, SHALL BE ASSUMED BY THE DEVELOPER.
5. ALL R/W DEDICATED TO PUBLIC USE SHALL BE CLEAR AND UNENCUMBERED.

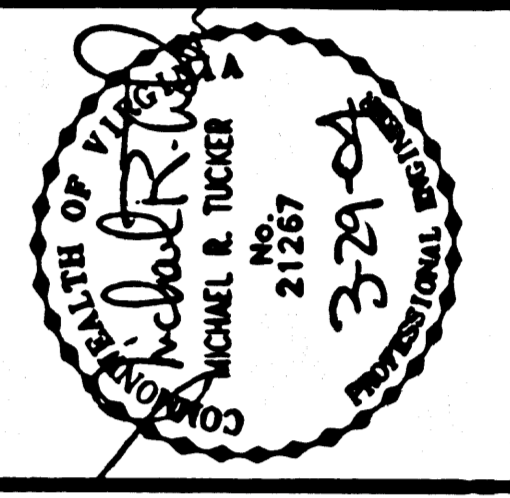
STREET TYPICAL SECTION AND WEDGING DETAILS ON SHEET 2.  
CURB FILLET PROFILES ON SHEET 6.  
CUL-DE-SAC PROFILE ON SHEET 9



ROSE GROVE DRIVE  
CATEGORY I, 44' R/W  
DESIGN SPEED= 25 MPH  
(PER VDOT SUBDIVISION STREET GEOMETRIC DESIGN)

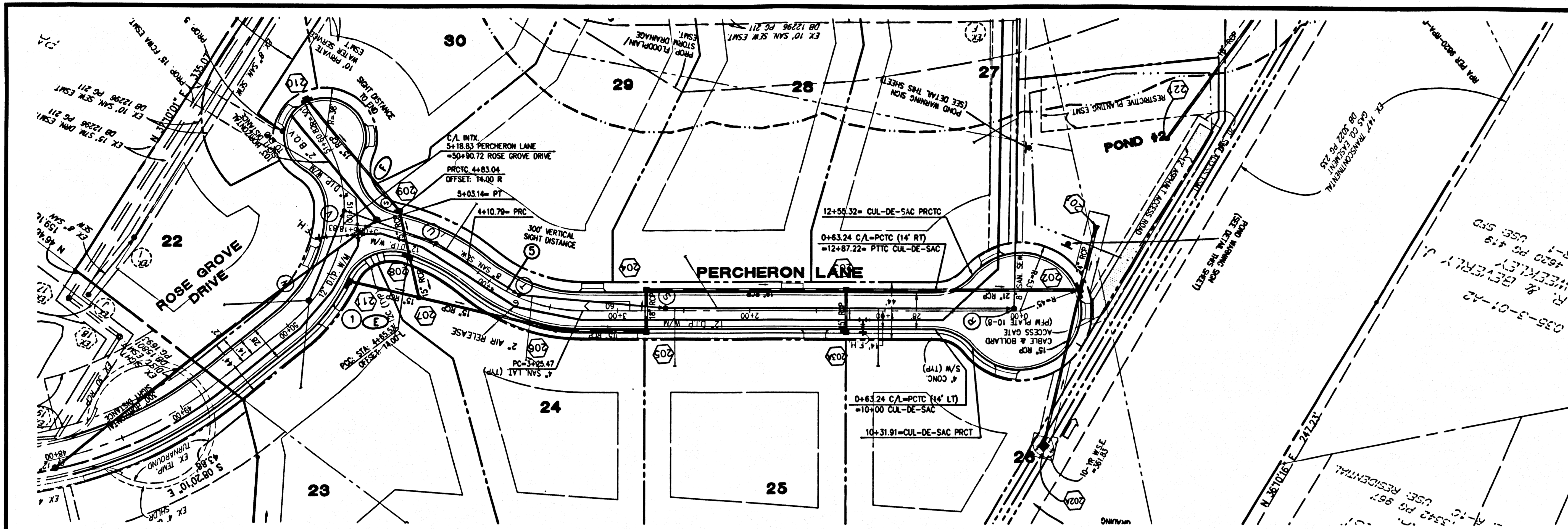


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(703)448-9100 (703)448-9108 (fax)  
www.bccon.com



ROSE GROVE DRIVE PLAN AND PROFILE  
**THOMPSON ROAD PROPERTY**  
SULLY DISTRICT  
FAIRFAX COUNTY, VIRGINIA

DESIGNED BY: ATO  
DRAFTED BY: CAD  
CHECKED BY: MRT  
DATE: OCTOBER, 2003  
SCALE: HOR. 1" = 80'  
VERT. 1" = 8'  
SHEET 8 OF 31  
CO. NO. 9820-SD-02  
CAD NAME: 7060RPP.DWG  
LAYOUT: RPP 3  
FILE NO. 97060-37



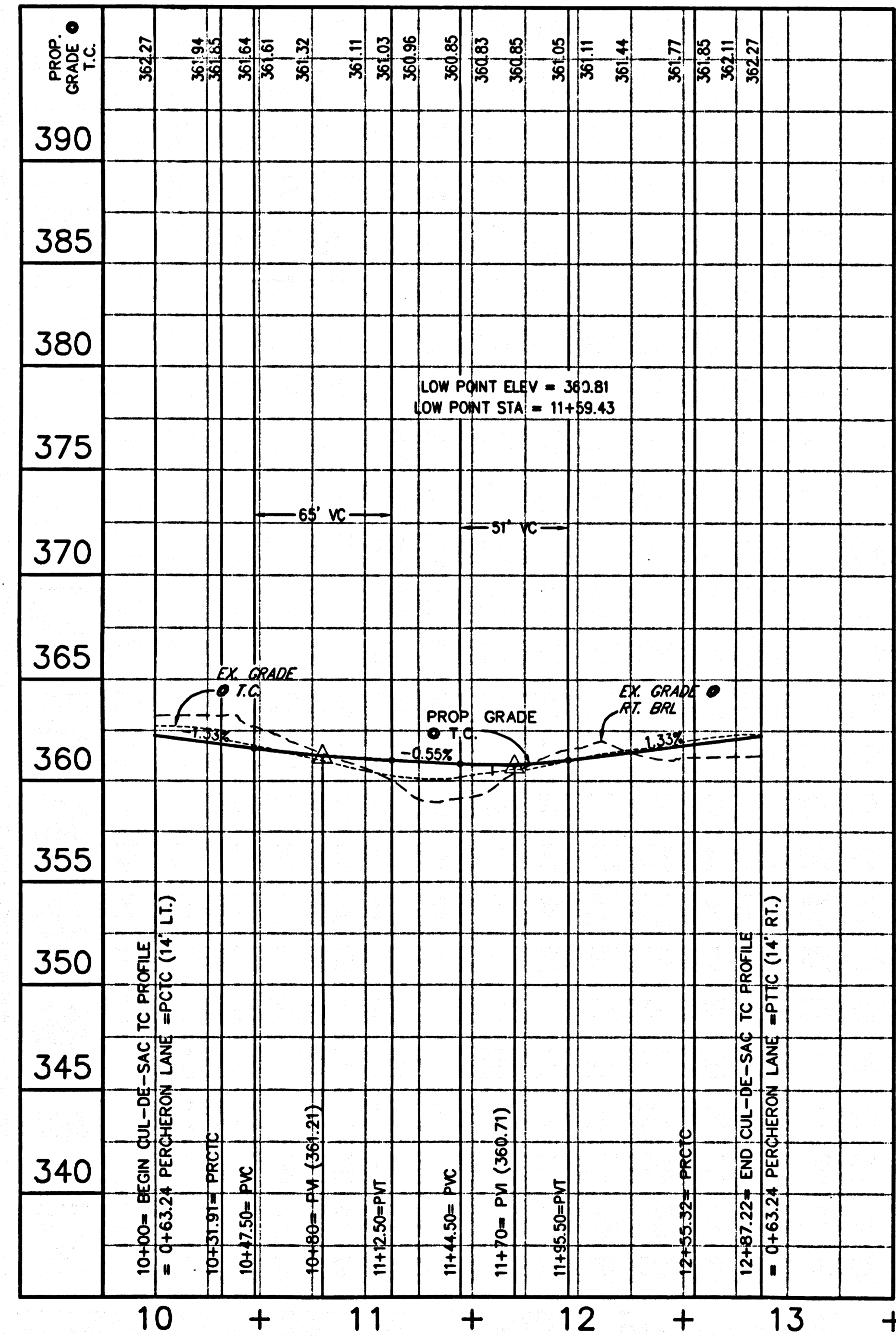
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5. ALL R/W DEDICATED TO PUBLIC USE SHALL BE CLEAR AND UNENNUMBERED.

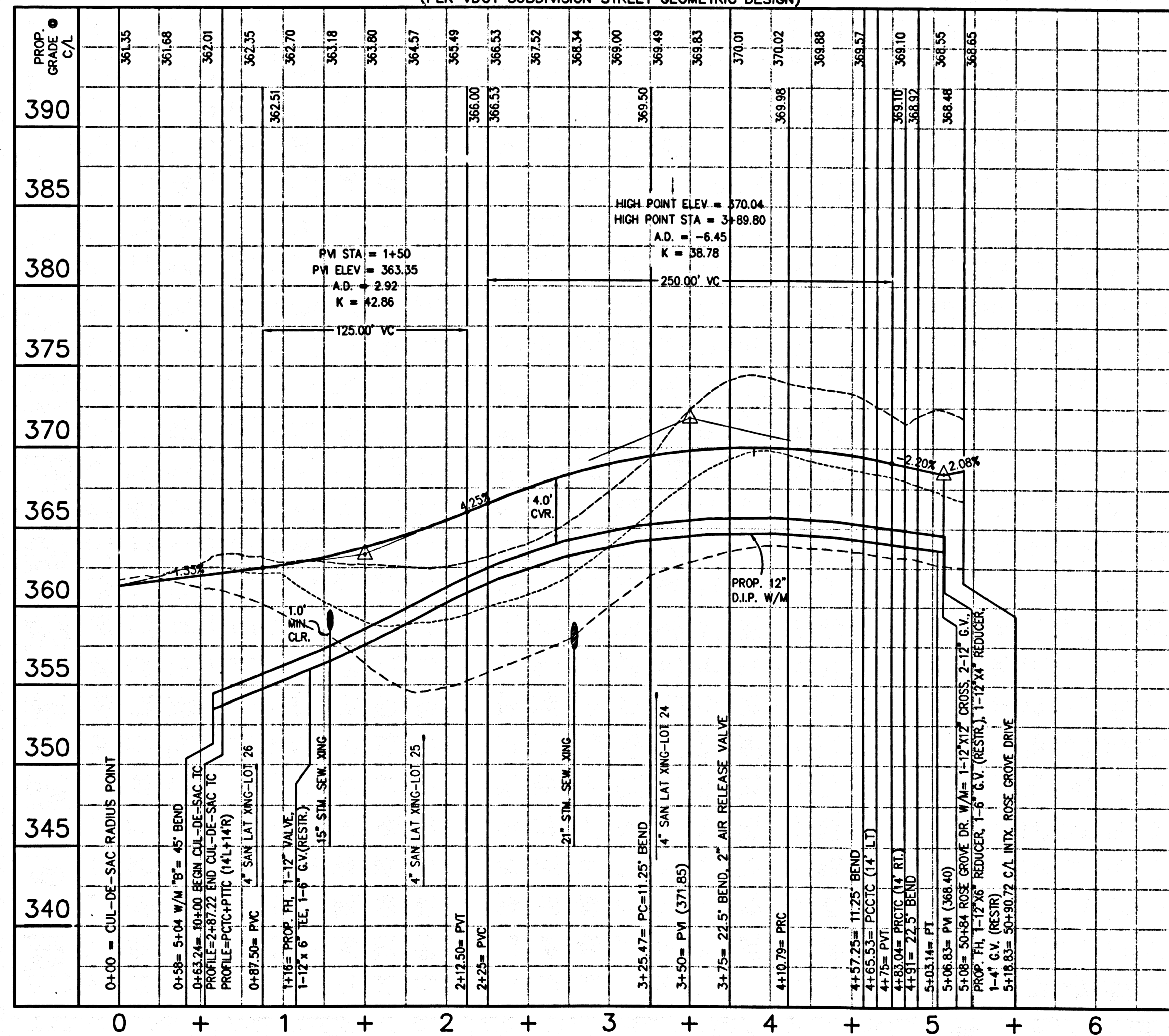
STREET CENTERLINE CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
1	500.00'	211.03'	107.11'	209.46'	N 44°17'53" E	24°10'55"
2	150.00'	153.19'	84.03'	146.62'	N 63°22'22" W	58°30'54"
3	540.00'	243.57'	123.89'	241.51'	S 47°02'13" E	25°50'37"
4	200.00'	133.62'	69.41'	131.14'	N 40°42'11" W	38°16'41"
5	224.50'	151.22'	78.61'	148.38'	N 78°08'18" E	38°35'38"

STREET TYPICAL SECTION AND WEDGING DETAILS ON SHEET 2.  
CURB FILLET PROFILES ON SHEET 6.

**PERCHERON LANE - CUL-DE-SAC**  
T.C. RADIUS= 45'

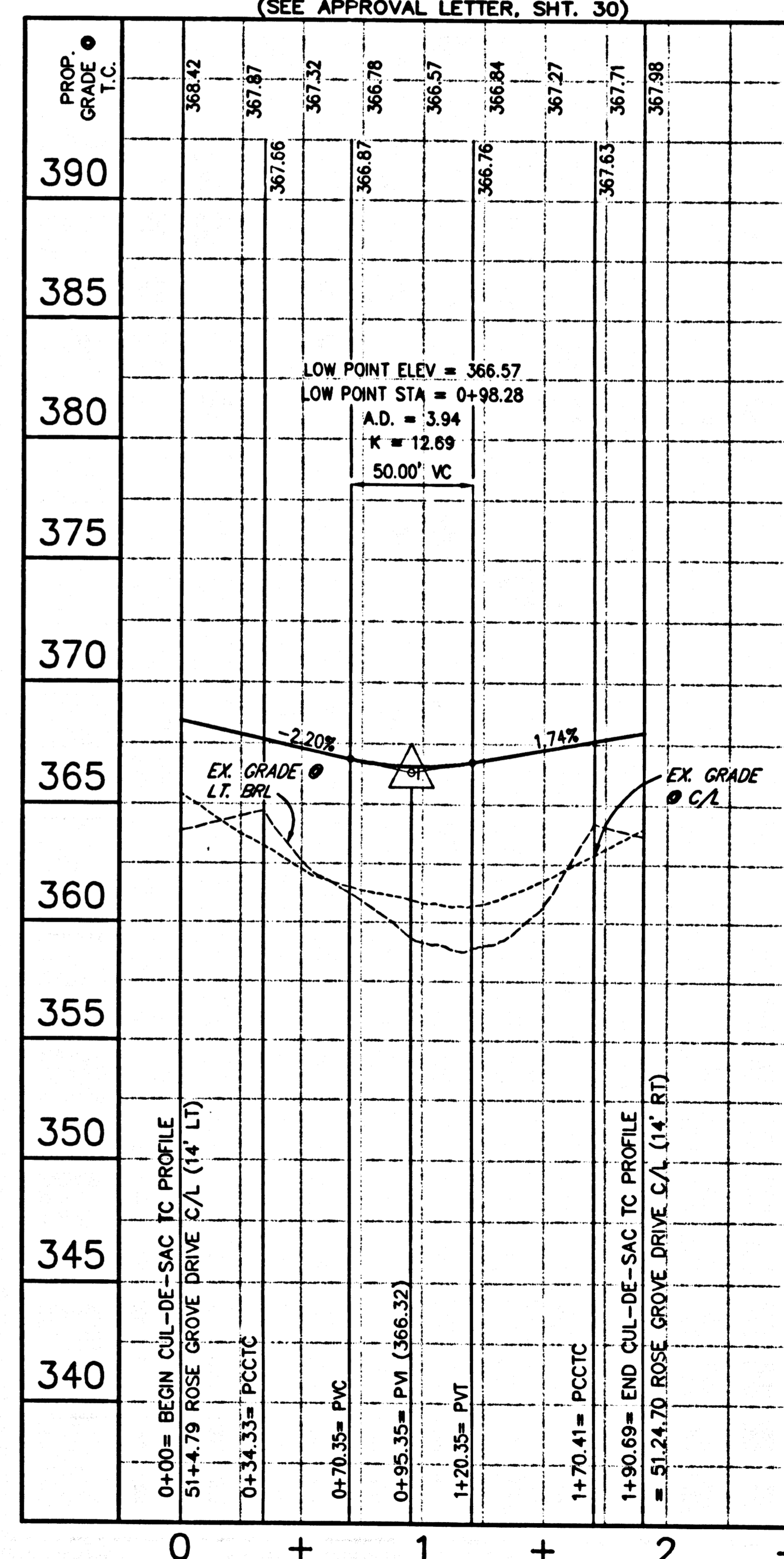


**PERCHERON LANE**  
CATEGORY I, 44' R/W  
DESIGN SPEED= 25 MPH  
(PER VDOT SUBDIVISION STREET GEOMETRIC DESIGN)



**ROSE GROVE DRIVE CUL-DE-SAC**  
T.C. RADIUS= 30'

PFM MODIFICATION APPROVED FOR REDUCED CUL-DE-SAC RADI  
(SEE APPROVAL LETTER, SHT. 30)



PERCHERON LANE PLAN AND PROFILE  
**THOMPSON ROAD PROPERTY**  
SULLY DISTRICT  
FAIRFAX COUNTY, VIRGINIA

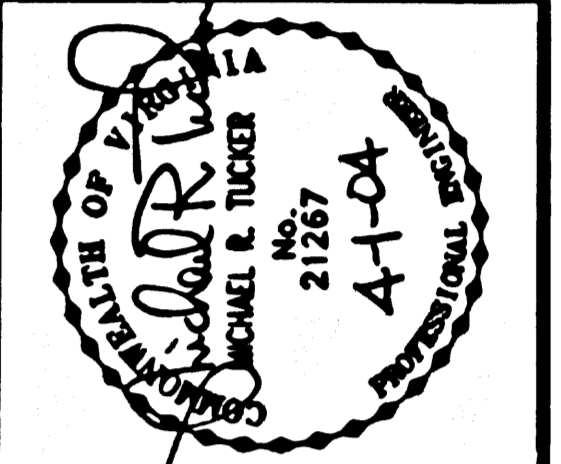
BC REVISIONS  
7/13/04 REVISION PER I.T. SIGN COMMENTS  
4/1/04 REVISION PER PCHL COMMENTS

DESIGNED BY: ATO  
DRAFTED BY: CAD  
CHECKED BY: MRT  
DATE: OCTOBER, 2003  
SCALE: HOR. 1" = 50'  
VERT. 1" = 5'

SHEET 9 OF 31

CO. NO. 9820-SD-02  
CAD NAME: 7060RPP.DWG  
LAYOUT: RPP 4  
FILE NO. 97060-37

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**THIS SHEET FOR OVERALL SANITARY SEWER LAYOUT ONLY**

**SANITARY LATERAL SCHEDULE** Call by A10 Date: OCTOBER, 2003 File: 706050TEK.DWG

**THOMPSON ROAD PROPERTY**

Lot #	MH-MH	Lateral	Lateral Length	Lateral Slope (%)	Lateral Size (in)	Inv. Main @ Lateral	Inv. Lat @ End	Riser Height	Lat. Invert w/ Riser	Finisher Grade (+/-)
4(*)	N-O	0+10	48	1.04	4	367.42	358.57	0.0	358.57	369.0
16	N-O	0+25	37	2.08	4	367.57	359.01	1.0	360.01	370.0
3	N-O	1+57	50	2.08	4	358.88	360.60	0.0	360.60	370.0
17	N-O	1+78	35	2.08	4	360.07	360.48	0.0	360.48	370.5
1	N-O	1+99	22	2.08	4	359.31	364.57	0.0	364.57	375.0
18(*)	N-O	2+44	38	1.04	4	358.78	360.83	1.0	361.83	375.0
2	N-O	2+84	45	2.08	4	358.98	361.56	1.0	362.56	375.0
7	K-L	0+87	48	2.08	4	367.55	359.22	1.0	360.22	370.0
5	K-L	1+45	112	2.08	4	358.33	361.33	3.0	364.33	374.0
8	K-L	1+72	44	2.08	4	358.60	360.18	1.0	361.18	371.5
8(*)	J-K	0+49	50	1.04	4	358.94	357.88	0.0	357.88	366.0
9	I-J	0+75	41	2.08	4	355.94	357.46	1.0	358.46	368.0
15	G-H	1+21	40	2.08	4	354.88	356.36	4.0	360.36	370.5
10	H-I	0+27	42	2.08	4	355.13	356.67	4.0	360.67	370.5
11	E-F	0+27	57	2.08	4	351.27	353.12	4.0	357.12	367.0
12 (*)	E-F	0+84	86	1.04	4	351.85	353.41	0.0	353.41	362.5
14	B-E	0+25	32	2.08	4	348.83	350.60	8.0	358.60	366.5
21 (*)	C-D	0+00	143	1.04	4	351.38	353.51	0.0	353.51	360.0
20	C-D	0+20	28	2.08	4	352.27	353.46	1.0	354.46	364.0
19	C-D	1+46	50	1.04	4	355.00	359.19	0.0	359.19	367.0
13	A-B	0+54	32	2.08	4	348.12	347.45	0.0	347.45	357.0
22 (*)	V-W	0+78	62	1.04	4	358.50	360.81	0.0	360.81	366.0
23 (*)	V-W	0+78	87	1.04	4	358.50	360.85	0.0	360.85	368.5
29	T-U	0+85	37	2.08	4	354.43	355.67	0.0	355.67	366.0
24	S-T	1+00	48	2.08	4	353.83	355.52	4.0	359.52	370.0
28	R-S	1+00	44	2.08	4	348.24	350.82	2.0	352.82	363.0
25	R-S	2+56	44	2.08	4	351.98	353.57	3.0	356.57	367.0
28 (*)	R-S	2+20	40	1.04	4	351.33	352.41	3.0	355.41	365.0
27	EX F-R	0+78	37	2.08	4	340.28	342.05	7.0	348.05	358.5
30	EX G-EX H	1+25	7	2.08	4	343.25	344.08	1.0	345.08	355.0
31 (*)	EX G-EX H	1+82	82	1.04	4	348.27	347.89	0.0	347.89	354.5

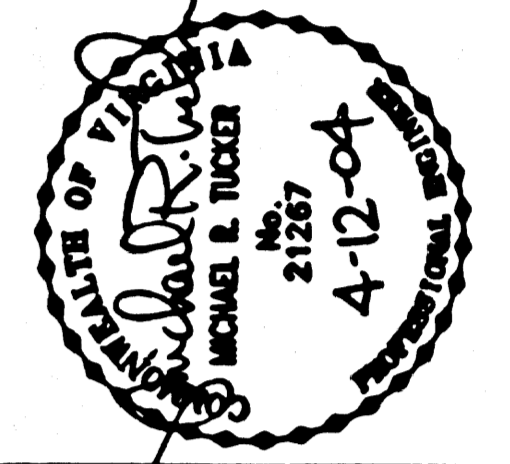
(\*) - DENOTES LATERAL SLOPE SET TO MINIMUM ALLOWABLE  
 RISER IS USED TO BRING END OF LATERAL TO WITHIN 10' OF FINISHED GRADE  
 LATERAL STATION IS MEASURED FROM THE LOWER SAN. MH.

**SANITARY SEWER SCHEDULE**

FROM MH	TO MH	BEARING	DISTANCE (ft)	SIZE (in)	SLOPE (%)
EX E	EX E-1	N 18°28'46" E	99	8	4.50
EX E-1	A	N 75°14'47" W	98	8	8.85
A	B	S 20°24'28" E	161	8	1.88
B	C	S 55°39'04" W	132	8	2.02
C	D	S 32°12'41" E	146	8	4.55
B	E	S 75°20'05" W	163	8	1.32
E	F	S 00°11'57" E	84	8	1.56
E	G	N 21°23'37" W	77	8	4.27
G	H	S 34°12'27" E	125	8	0.51
H	I	S 40°38'04" E	93	8	0.51
I	J	S 51°34'44" E	113	8	0.51
J	K	S 50°14'00" E	105	8	0.51
K	L	S 23°32'01" E	167	8	1.00
J	M	S 32°38'34" W	75	8	0.51
M	N	S 40°34'30" W	98	8	0.51
N	O	S 54°49'47" W	289	8	1.00
EX E	EX F	N 74°06'54" E	294	8	1.85
EX F	R	N 06°28'10" E	226	8	4.81
R	S	N 84°32'52" W	298	8	1.74
S	T	S 79°18'42" E	110	8	1.73
T	U	N 51°42'23" W	74	8	0.51
U	V	N 64°22'26" E	72	8	5.40
V	W	N 28°38'30" E	75	8	1.24
EX G	EX H	S 73°00'22" E	227	8	4.51

- SANITARY NOTES:**
1. NO PUMPING ALLOWED— MUST GRAVITY FLOW FROM LOWEST FLOOR TO BE SERVED TO SANITARY SEWER MAIN.
  2. NO OTHER UTILITIES, TREES, CABLE BOXES AND ETC. ARE ALLOWED IN SANITARY SEWER EASEMENT PFM 2-0401.4
  3. MINIMUM 6" HORIZONTAL CLEARANCE (OUTSIDE-OUTSIDE) BETWEEN SANITARY SEWER LINE OR MH) AND STORM SEWER.
  4. ALL SANITARY SEWER MAINS SHALL BE PVC AS SPECIFIED PER PFM SECTION 10-0103.
  5. ALL LATERALS TO 4" DIAMETER PER PFM STANDARD DPW-10.
  6. RISERS ARE TO RAISE LATERALS TO WITHIN APPROX. 6 FEET OF FINISHED GRADE.
  7. RISERS ARE NOT ALLOWED IN THE SANITARY SEWER EASEMENT.
  8. A 18" MINIMUM CLEARANCE IS REQUIRED BETWEEN SANITARY LATERAL AND WATERMAIN CROSSINGS, OTHERWISE USE DUCTILE IRON PIPE FOR THE SANITARY SEWER LATERAL.

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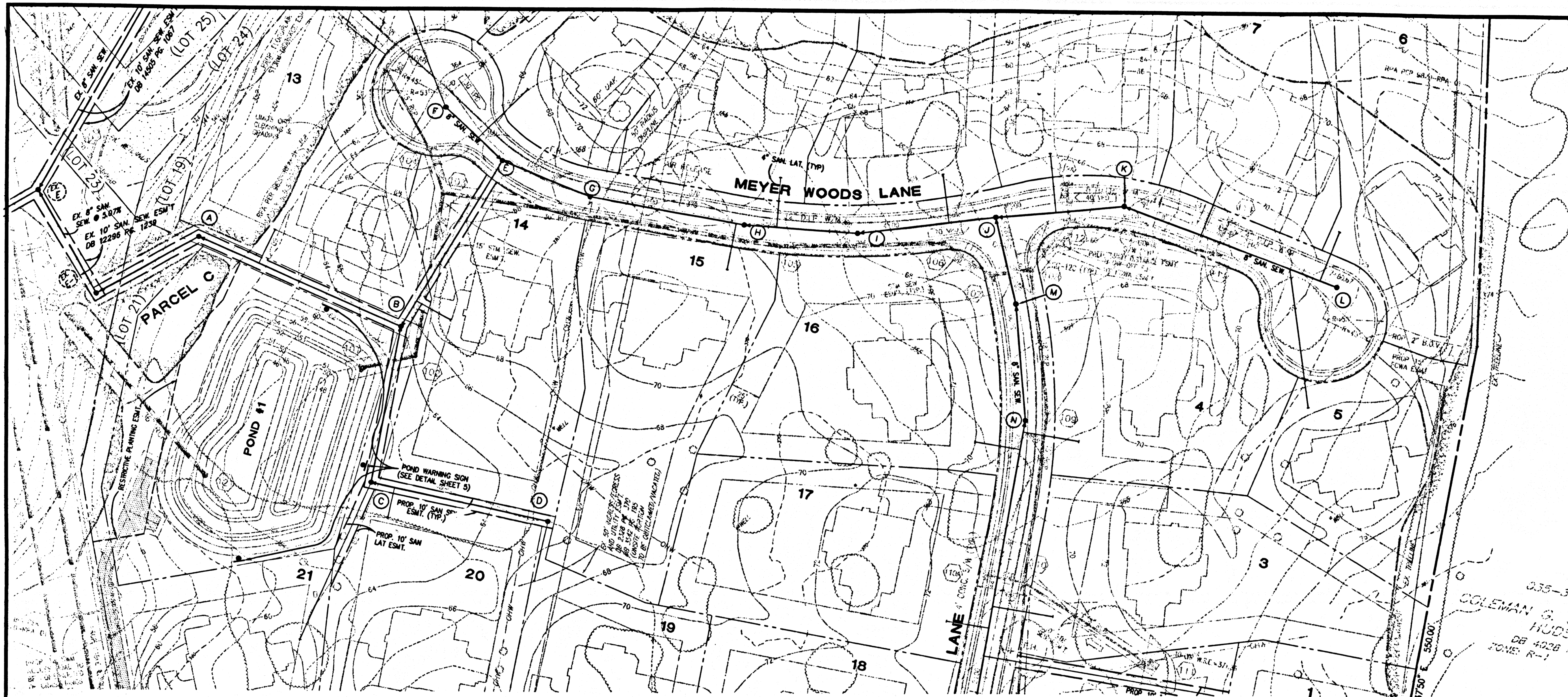


**SANITARY SEWER OVERALL PLAN**

**THOMPSON ROAD PROPERTY**

FAIRFAX COUNTY, VIRGINIA

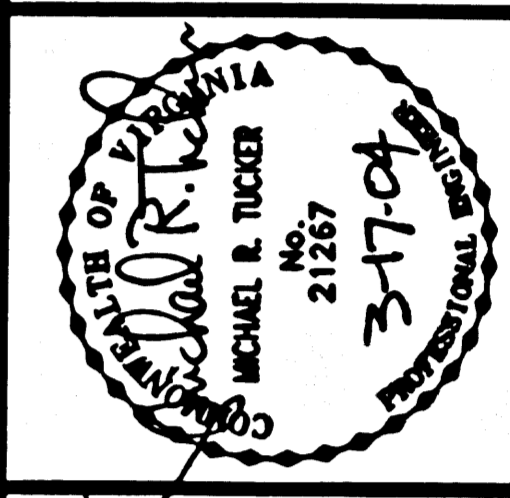
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DRAFTED BY: CAD
CHECKED BY: MRT
DATE: OCTOBER, 2003
SCALE: HOR. 1" = 100'
VERT.
SHEET 10 OF 31
CO. NO. 9820-SD-02
CAD NAME: 706050ANO.DWG
LAYOUT: SANO
FILE NO. 97060-37



NOTE:  
SEE SHEET 10 FOR SANITARY SEWER COMPS. & SANITARY LATERAL SCHEDULE.

- SANITARY NOTES:**
1. NO PUMPING ALLOWED— MUST GRAVITY FLOW FROM LOWEST FLOOR TO BE SERVED TO SANITARY SEWER MAIN.
  2. NO OTHER UTILITIES, TREES, CABLE BOXES AND ETC. ARE ALLOWED IN SANITARY SEWER EASEMENT PFM 2-0401.4
  3. MINIMUM 6' HORIZONTAL CLEARANCE (OUTSIDE-OUTSIDE) BETWEEN SANITARY SEWER (LINE OR MH) AND STORM SEWER.
  4. ALL SANITARY SEWER MAINS SHALL BE PVC AS SPECIFIED PER PFM SECTION 10-0103.8, UNLESS NOTED.
  5. ALL LATERALS TO 4" DIAMETER PER PFM STANDARD DPW-10.
  6. RISERS ARE TO RAISE LATERALS TO WITHIN APPROX. 6 FEET OF FINISHED GRADE.
  7. RISERS ARE NOT ALLOWED IN THE SANITARY SEWER EASEMENT.
  8. A 18" MINIMUM CLEARANCE IS REQUIRED BETWEEN SANITARY LATERAL AND WATERMAIN CROSSINGS, OTHERWISE USE DUCTILE IRON PIPE FOR THE SANITARY SEWER LATERAL.

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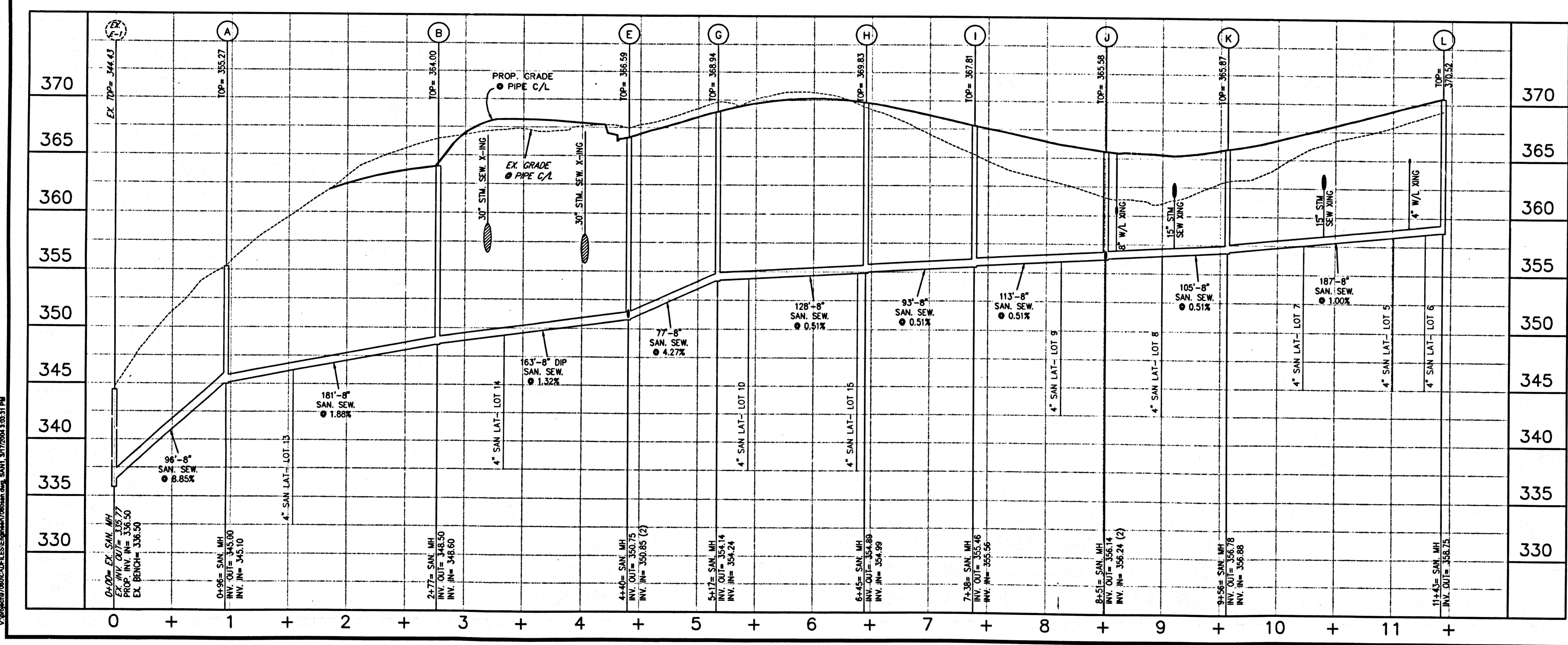


SANITARY SEWER PLAN AND PROFILES  
**THOMPSON ROAD PROPERTY**  
SULLY DISTRICT  
FAIRFAX COUNTY, VIRGINIA

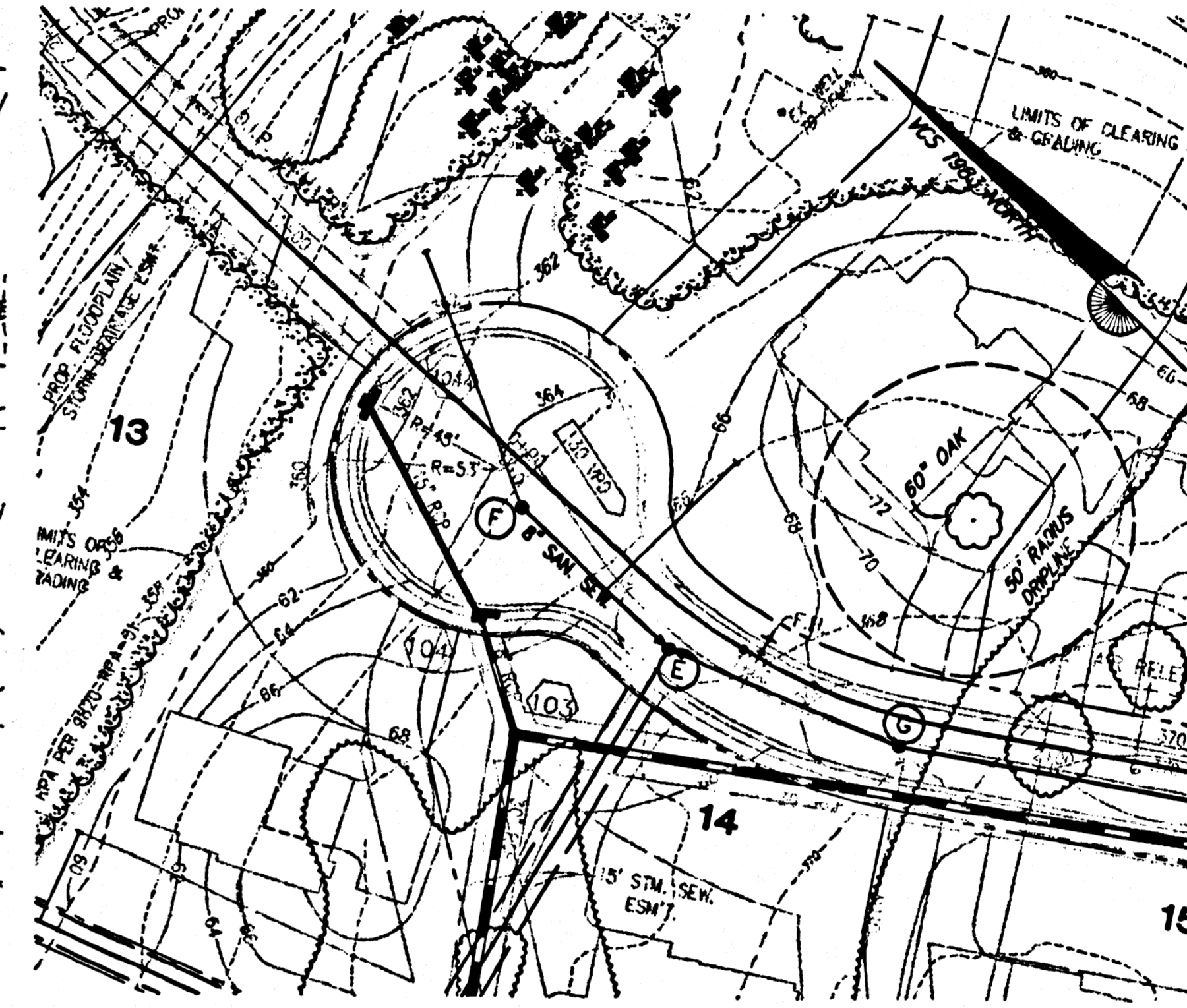
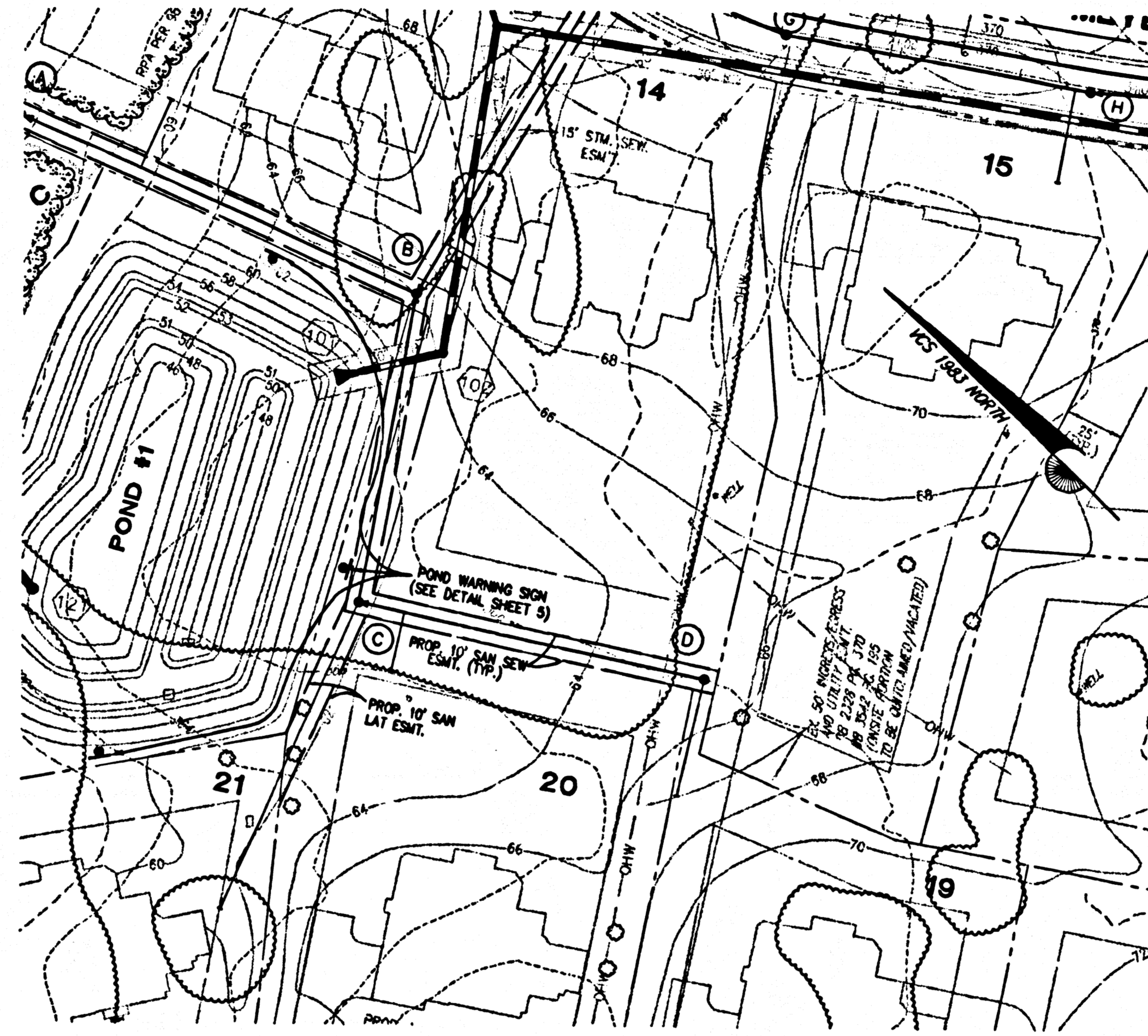
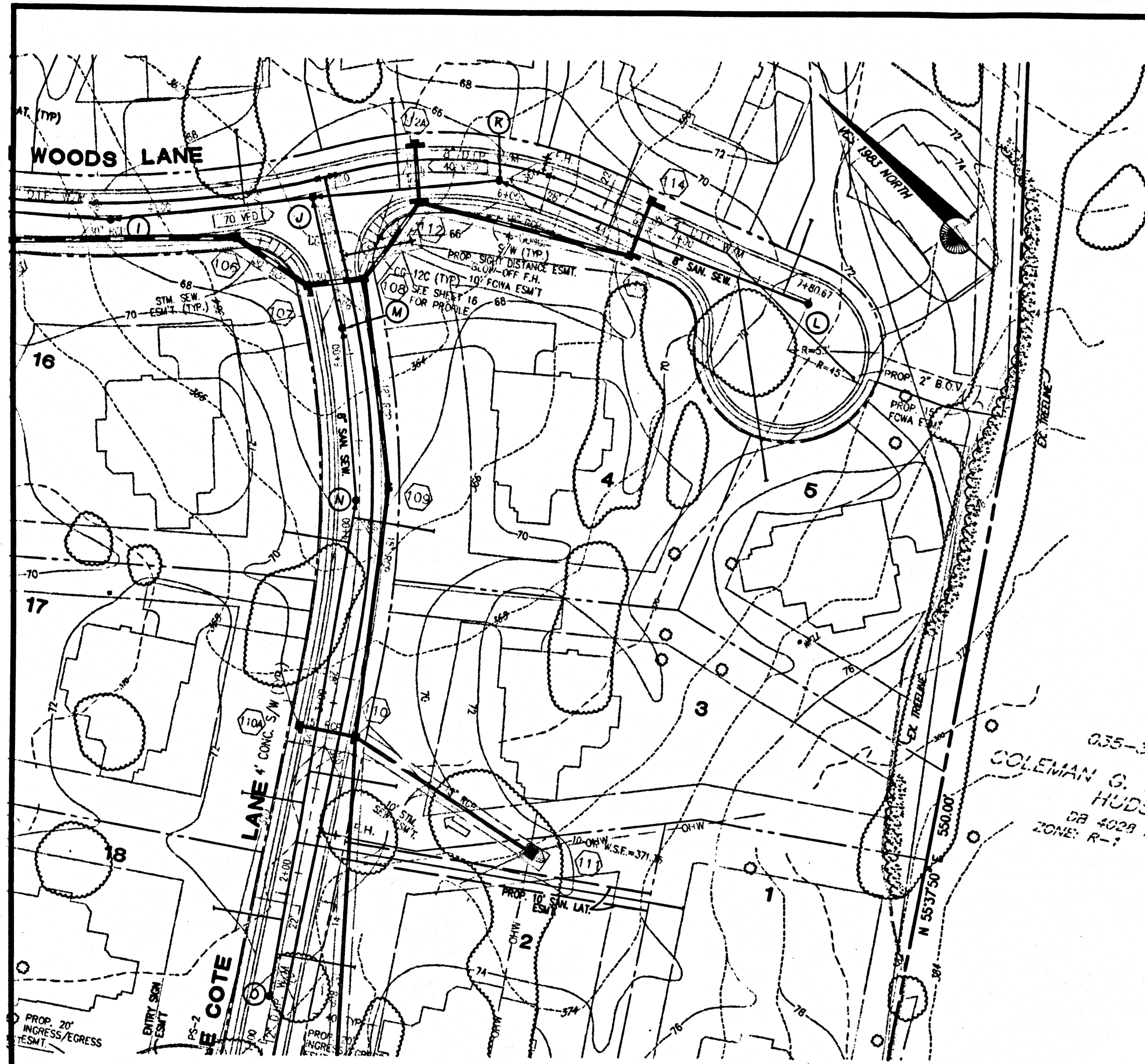
BC REVISIONS	DATE	REVISION

DESIGNED BY: ATO  
DRAFTED BY: CAD  
CHECKED BY: MRT  
DATE: OCTOBER, 2003  
SCALE: HOR. 1" = 60'  
VERT. 1" = 8'

SHEET 11 OF 31  
CO. NO. 9820-S0-02  
CAD NAME: 7060SAN1.DWG  
LAYOUT: SANI  
FILE NO. 97060-37





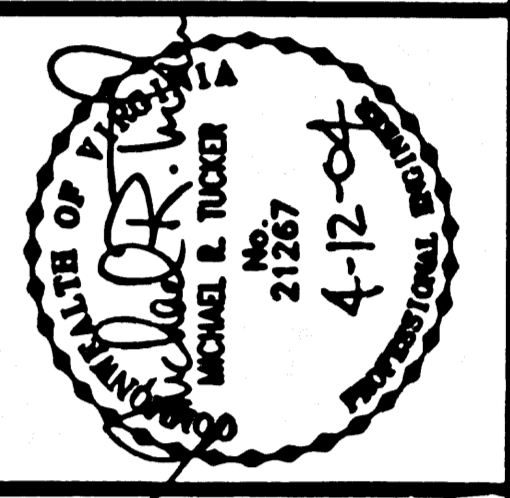


NOTE:  
SEE SHEET 10 FOR SANITARY SEWER COMPS. & SANITARY LATERAL SCHEDULE.

**SANITARY NOTES:**

1. NO PUMPING ALLOWED-- MUST GRAVITY FLOW FROM LOWEST FLOOR TO BE SERVED TO SANITARY SEWER MAIN.
2. NO OTHER UTILITIES, TREES, CABLE BOXES AND ETC. ARE ALLOWED IN SANITARY SEWER EASEMENT PFM 2-0401.4
3. MINIMUM 8" HORIZONTAL CLEARANCE (OUTSIDE-OUTSIDE) BETWEEN SANITARY SEWER (LINE OR MH) AND STORM SEWER.
4. ALL SANITARY SEWER MAINS SHALL BE PVC AS SPECIFIED PER PFM SECTION 10-0103.8 UNLESS OTHERWISE NOTED.
5. ALL LATERALS TO 4" DIAMETER PER PFM STANDARD DPW-10.
6. RISERS ARE TO RAISE LATERALS TO WITHIN APPROX. 6 FEET OF FINISHED GRADE.
7. RISERS ARE NOT ALLOWED IN THE SANITARY SEWER EASEMENT.
8. A 18" MINIMUM CLEARANCE IS REQUIRED BETWEEN SANITARY LATERAL AND WATERMAIN CROSSINGS, OTHERWISE USE DUCTILE IRON PIPE FOR THE SANITARY SEWER LATERAL.

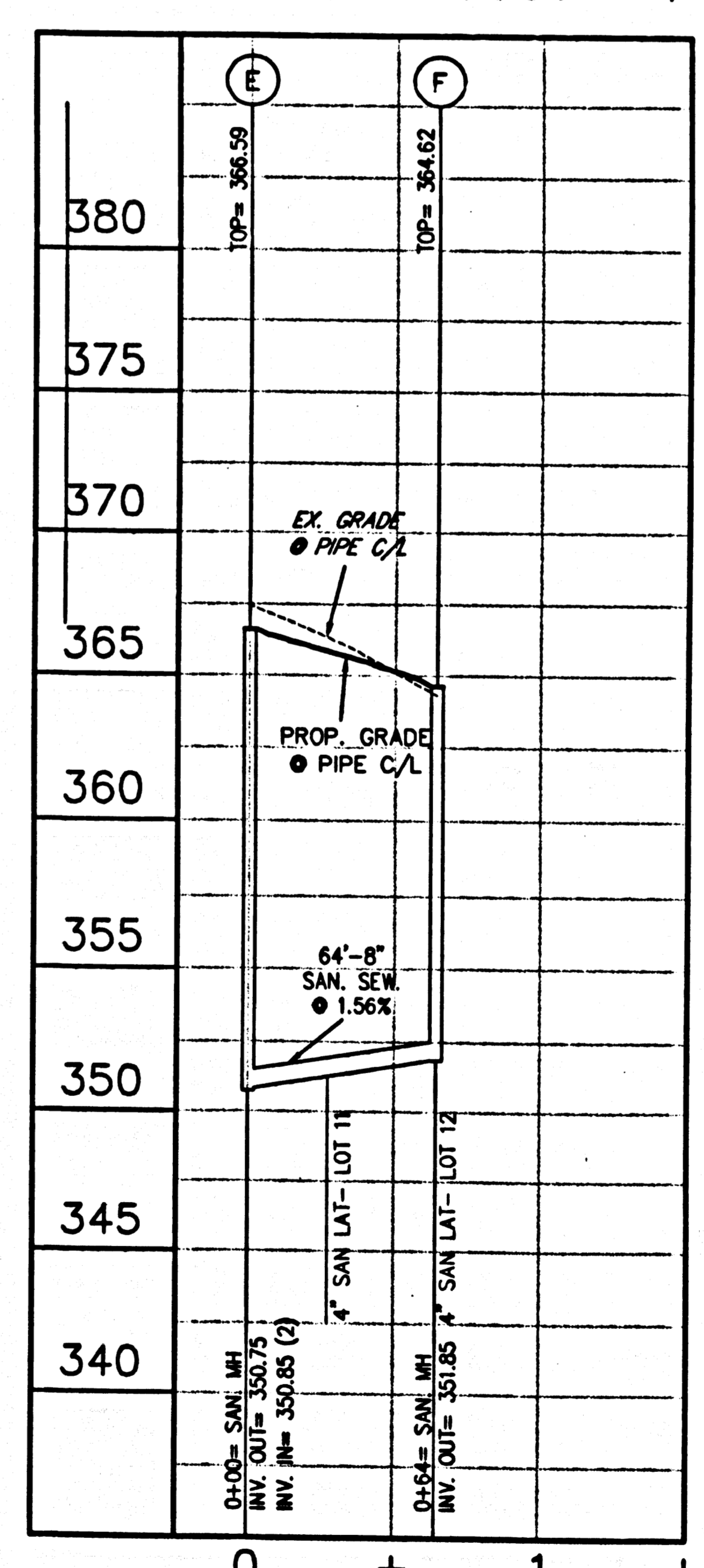
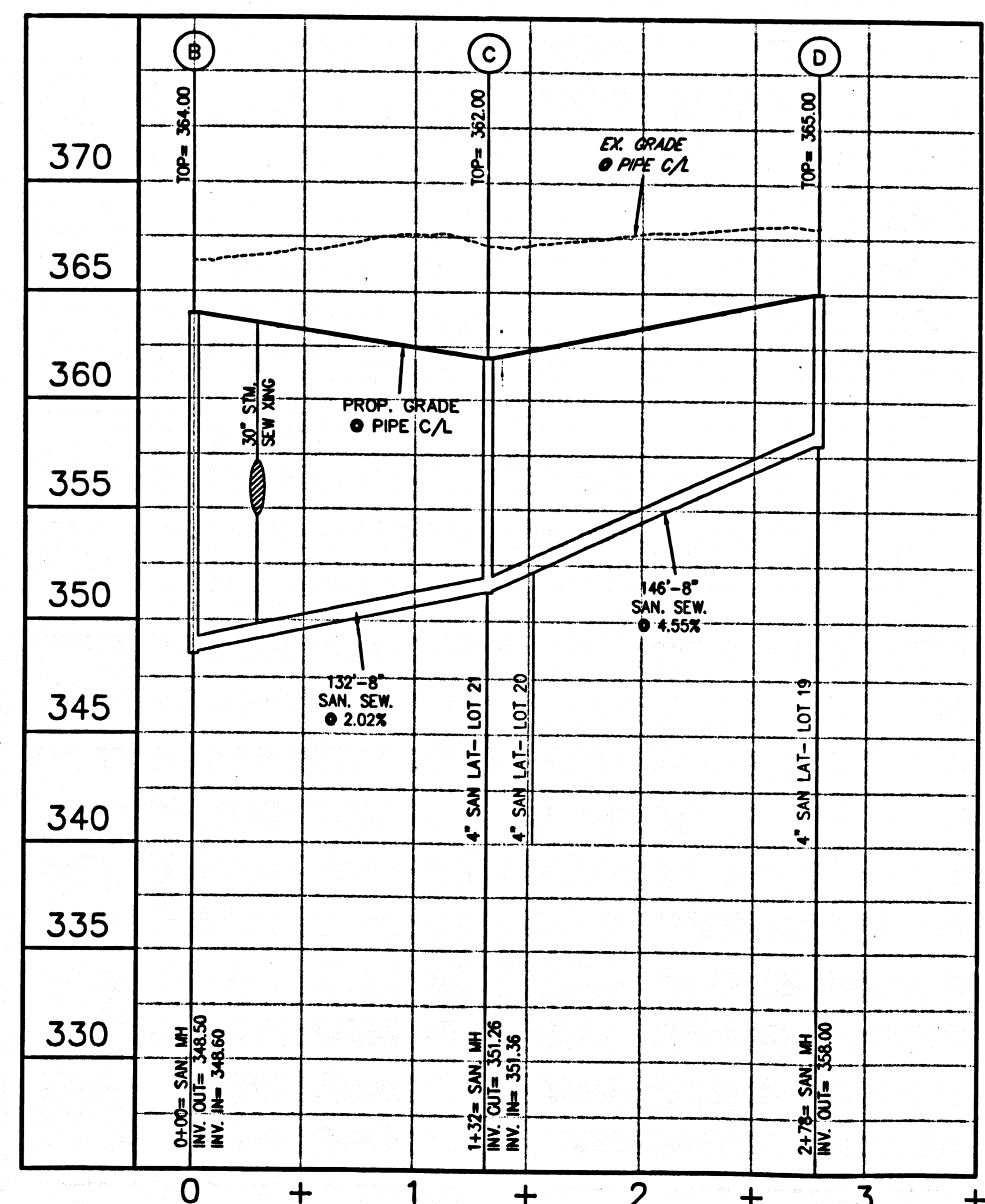
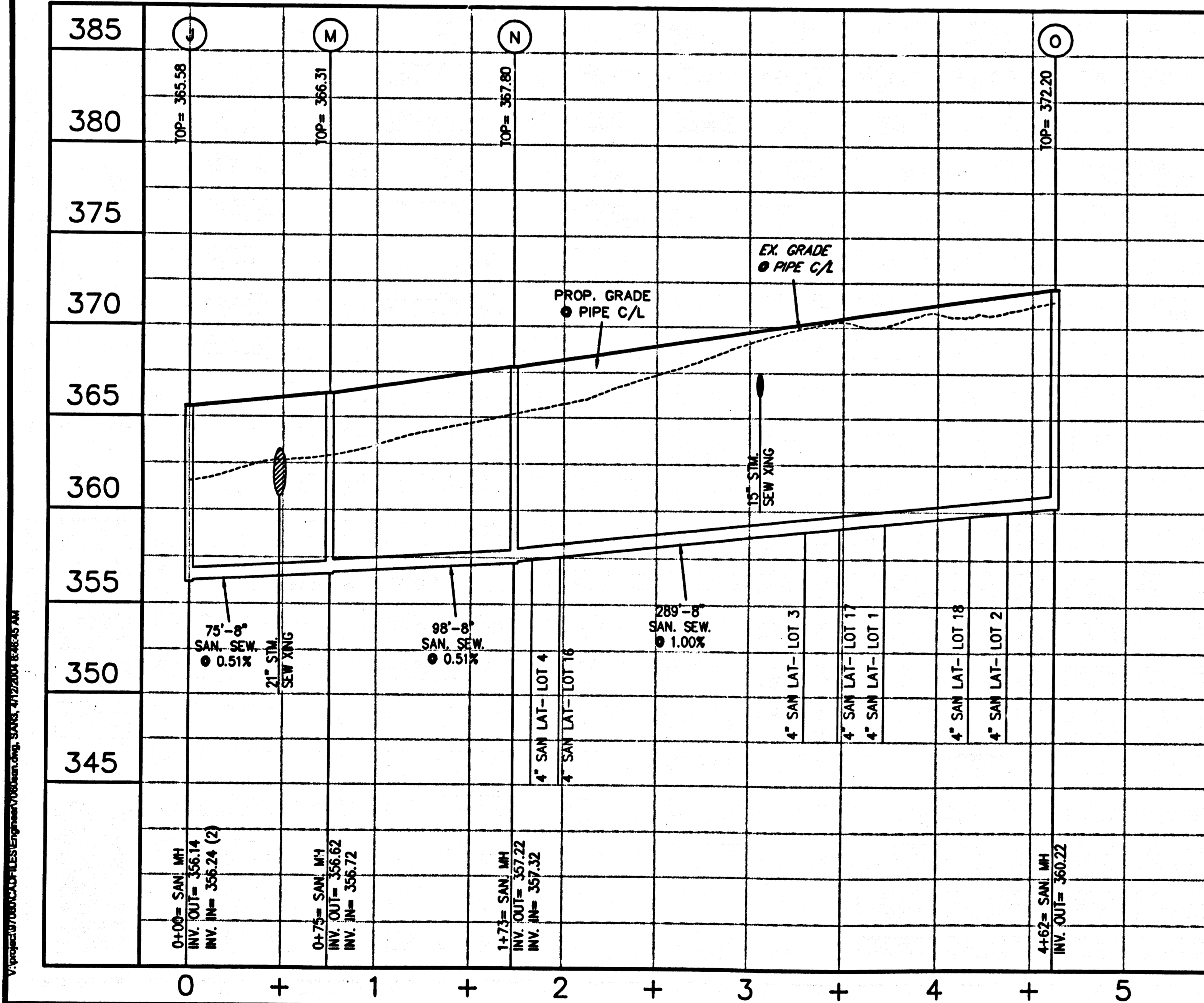
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SANITARY SEWER PLAN AND PROFILES

**THOMPSON ROAD PROPERTY**

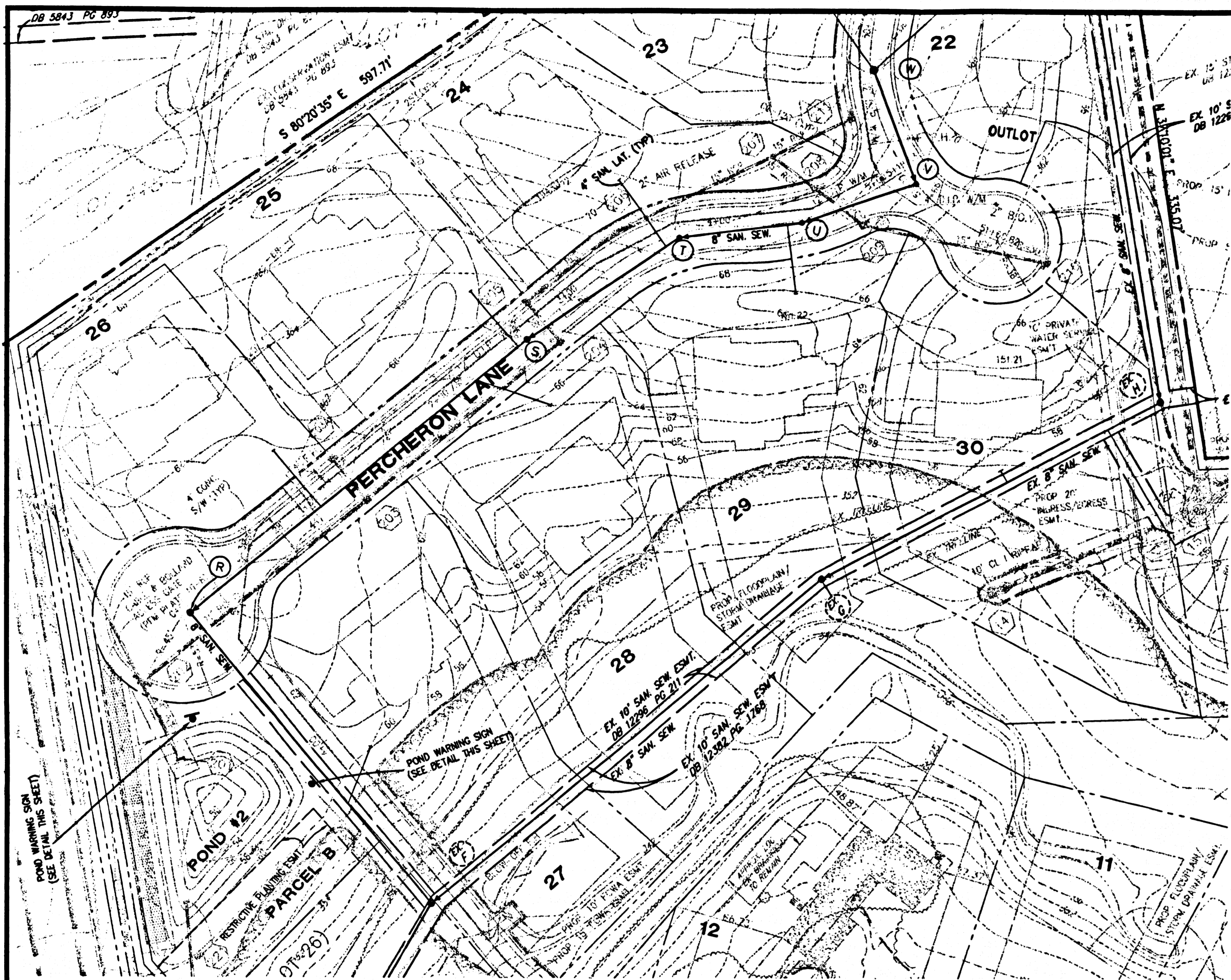
SULLY DISTRICT  
FAIRFAX COUNTY, VIRGINIA



BC REVISIONS	DATE: OCTOBER, 2003
2/13/04 REVISE PER IRI SUBM. COMMENTS	SCALE: HOR. 1" = 40'
	VERT. 1" = 5'
	SHEET 12 OF 31
	CO. NO. 9820-SD-02
	CAD NAME: 7060SAN3.DWG
	LAYOUT: SAN3
	FILE NO. 97060-37

OWNER:  
WESTER HOMES  
6905 ROCKLEDGE DRIVE  
SUITE 800  
BETHESDA, MD 20817

DATE: 7/06/04 7:00AM

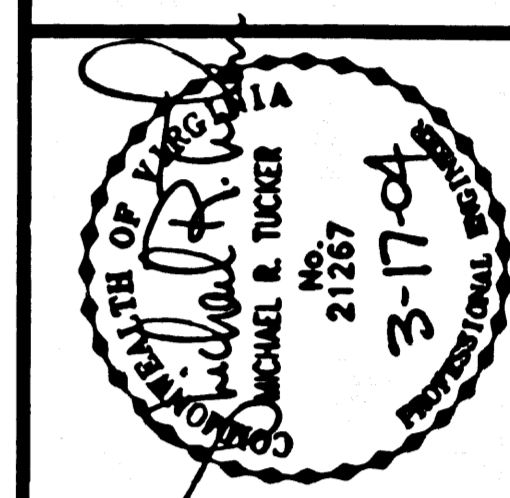


NOTE:  
SEE SHEET 10 FOR SANITARY SEWER COMPS. & SANITARY LATERAL SCHEDULE.

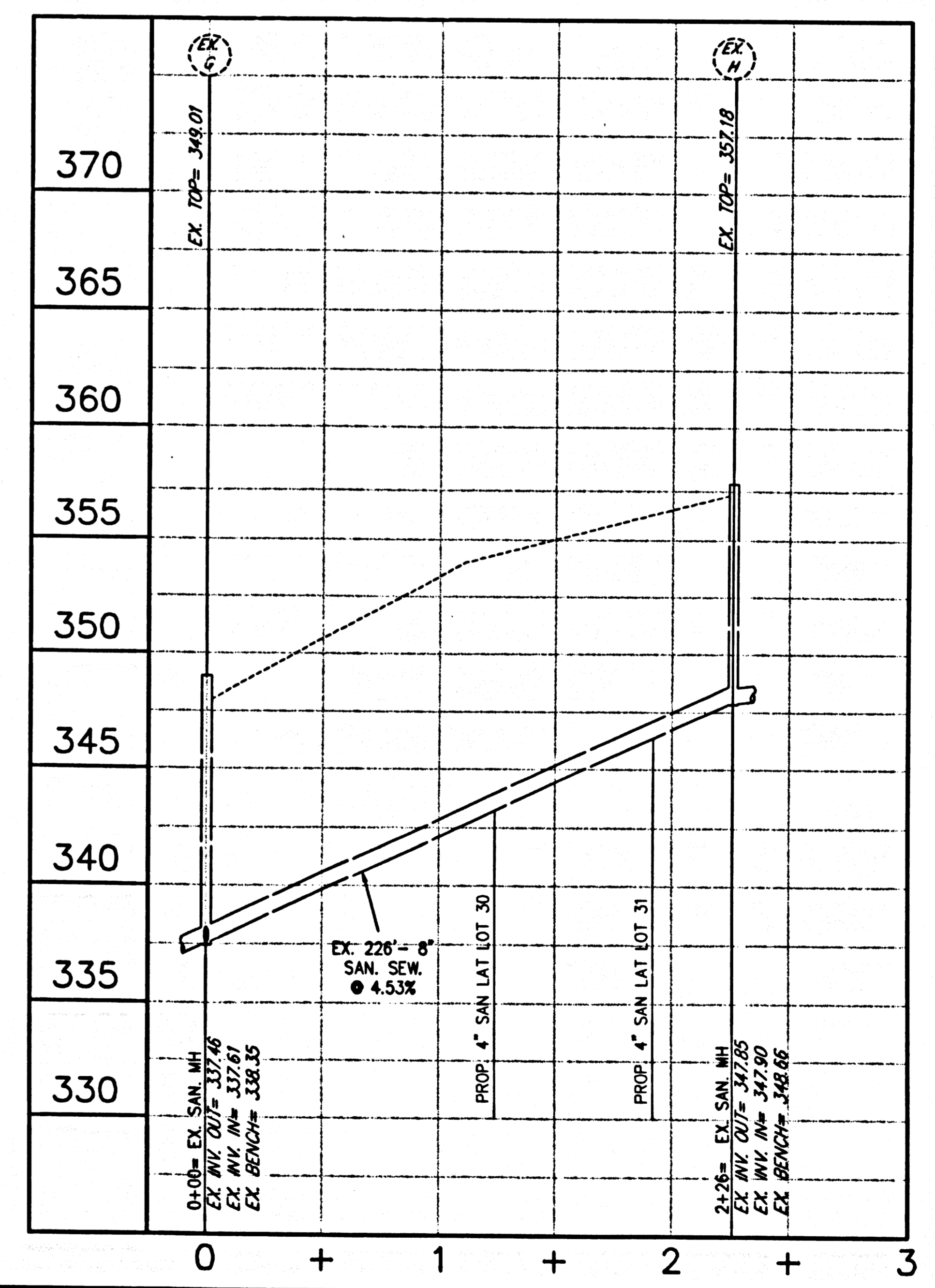
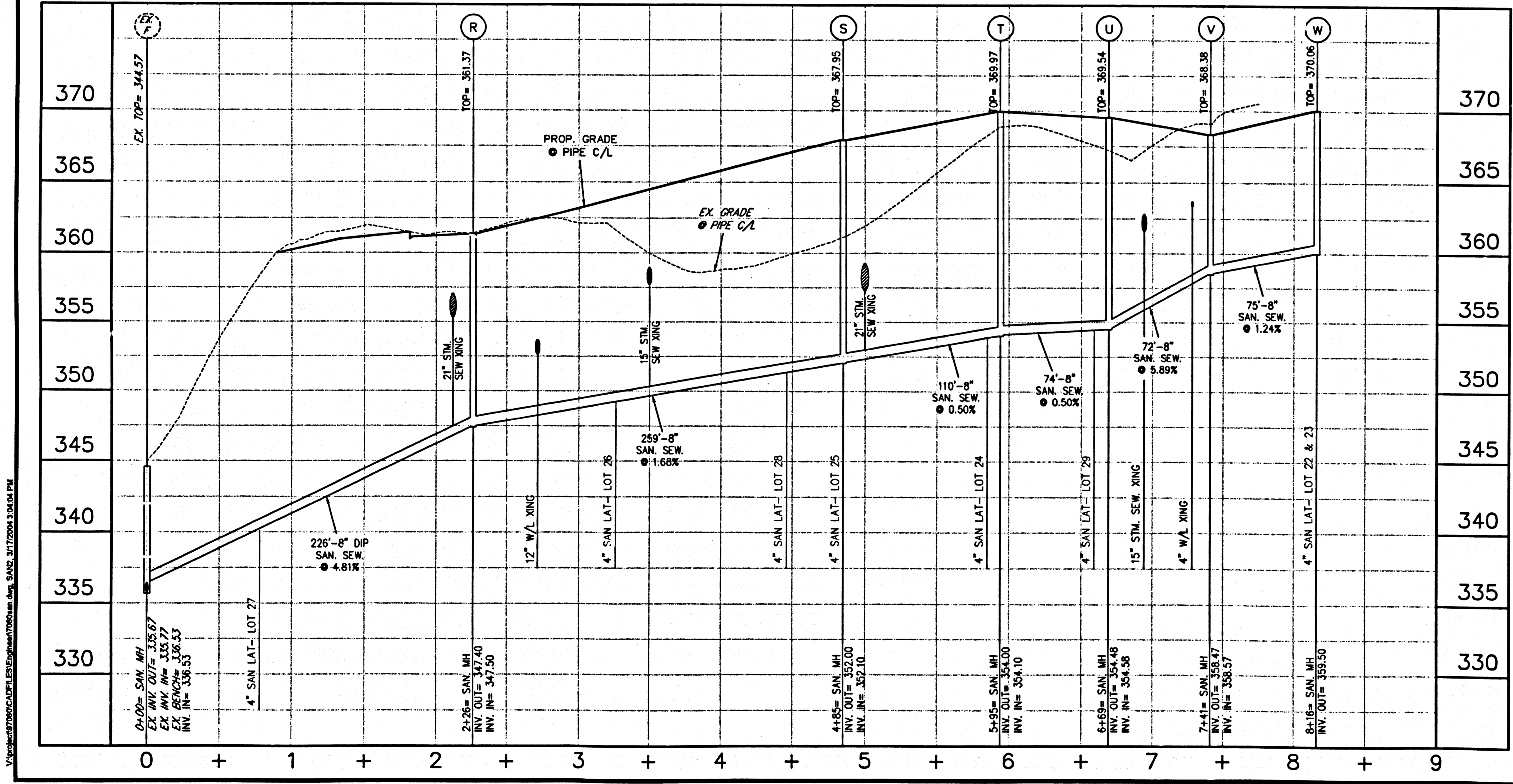
**SANITARY NOTES:**

1. NO PUMPING ALLOWED-- MUST GRAVITY FLOW FROM LOWEST FLOOR TO BE SERVED TO SANITARY SEWER MAIN.
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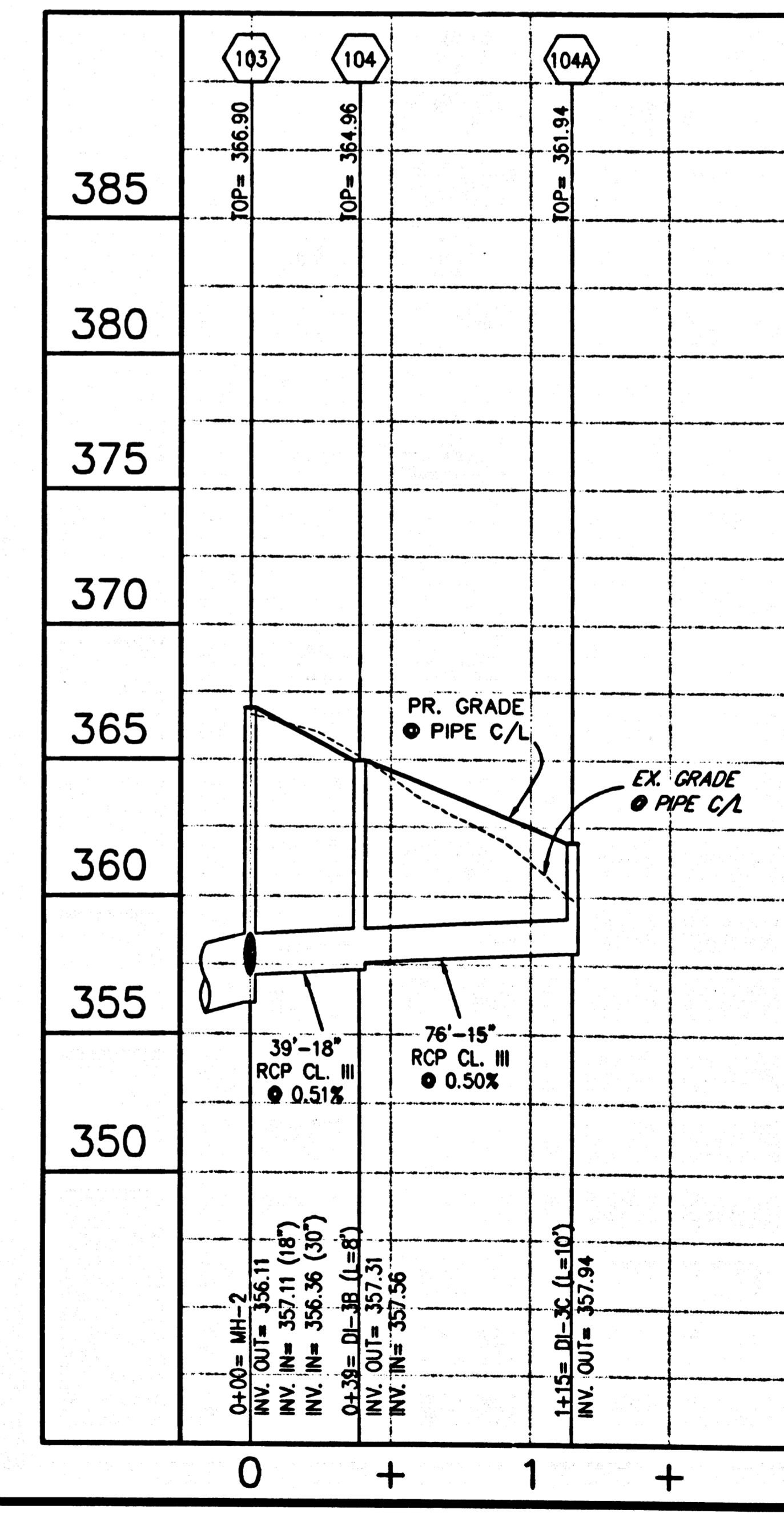
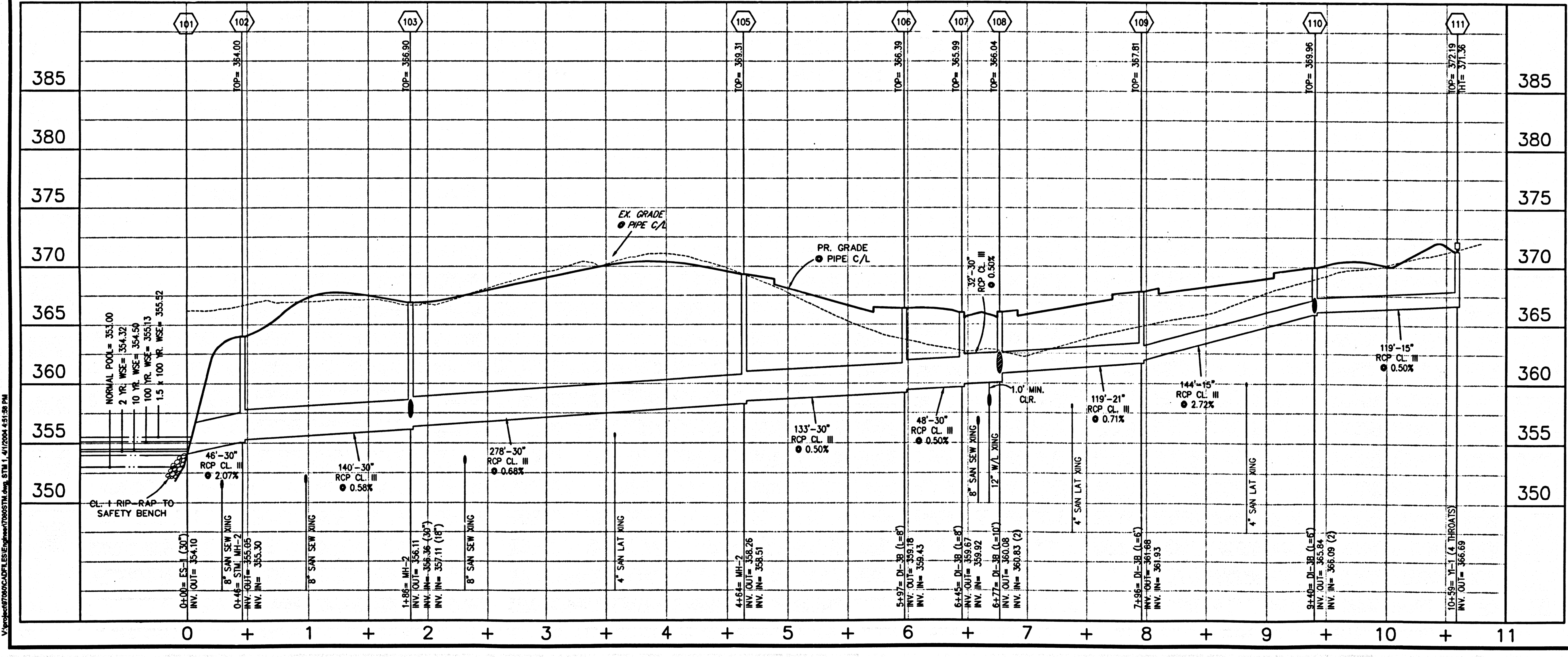
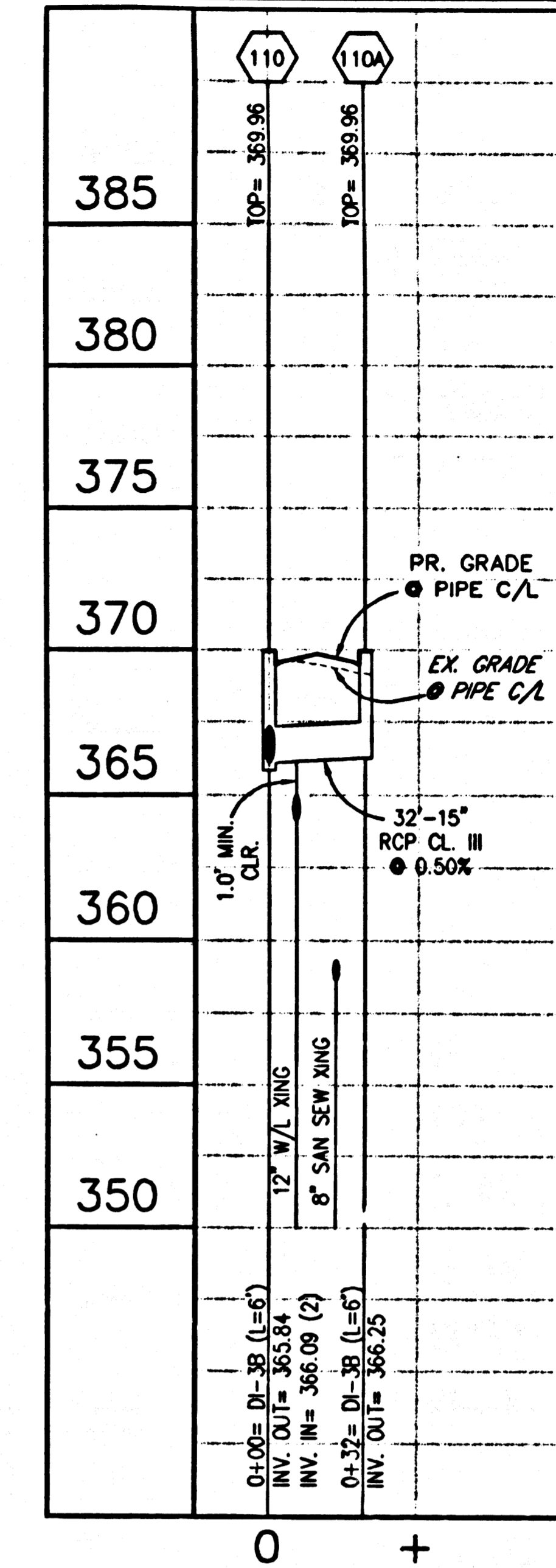
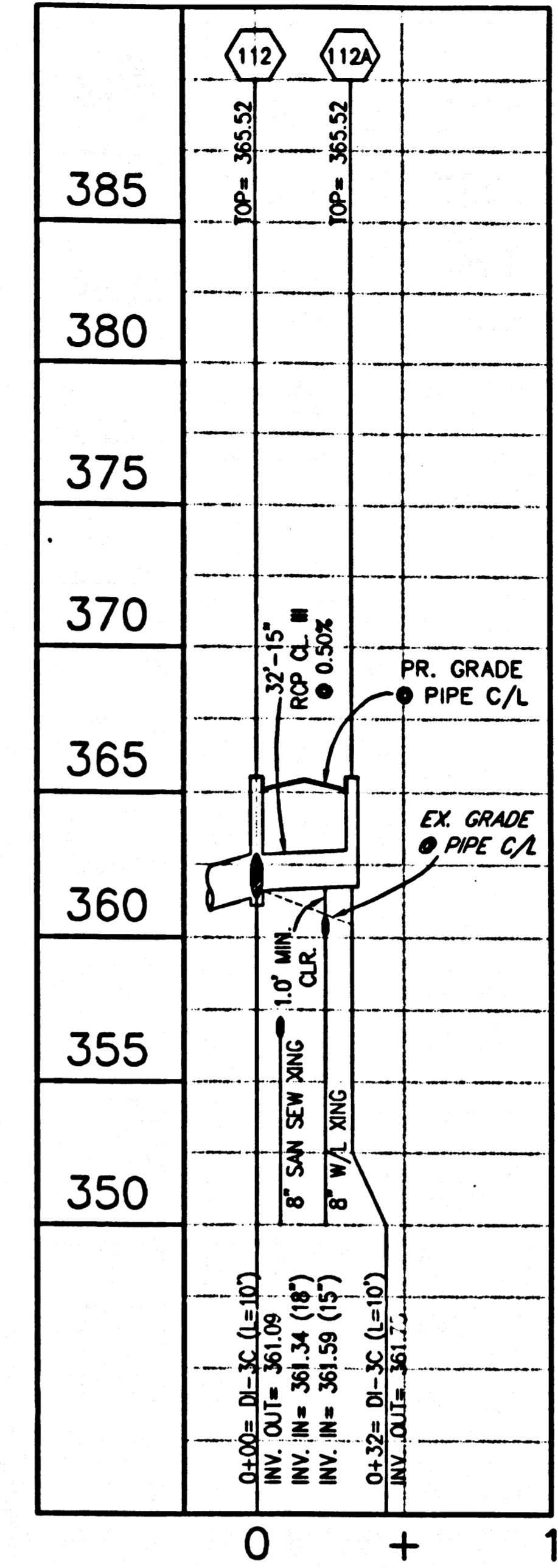
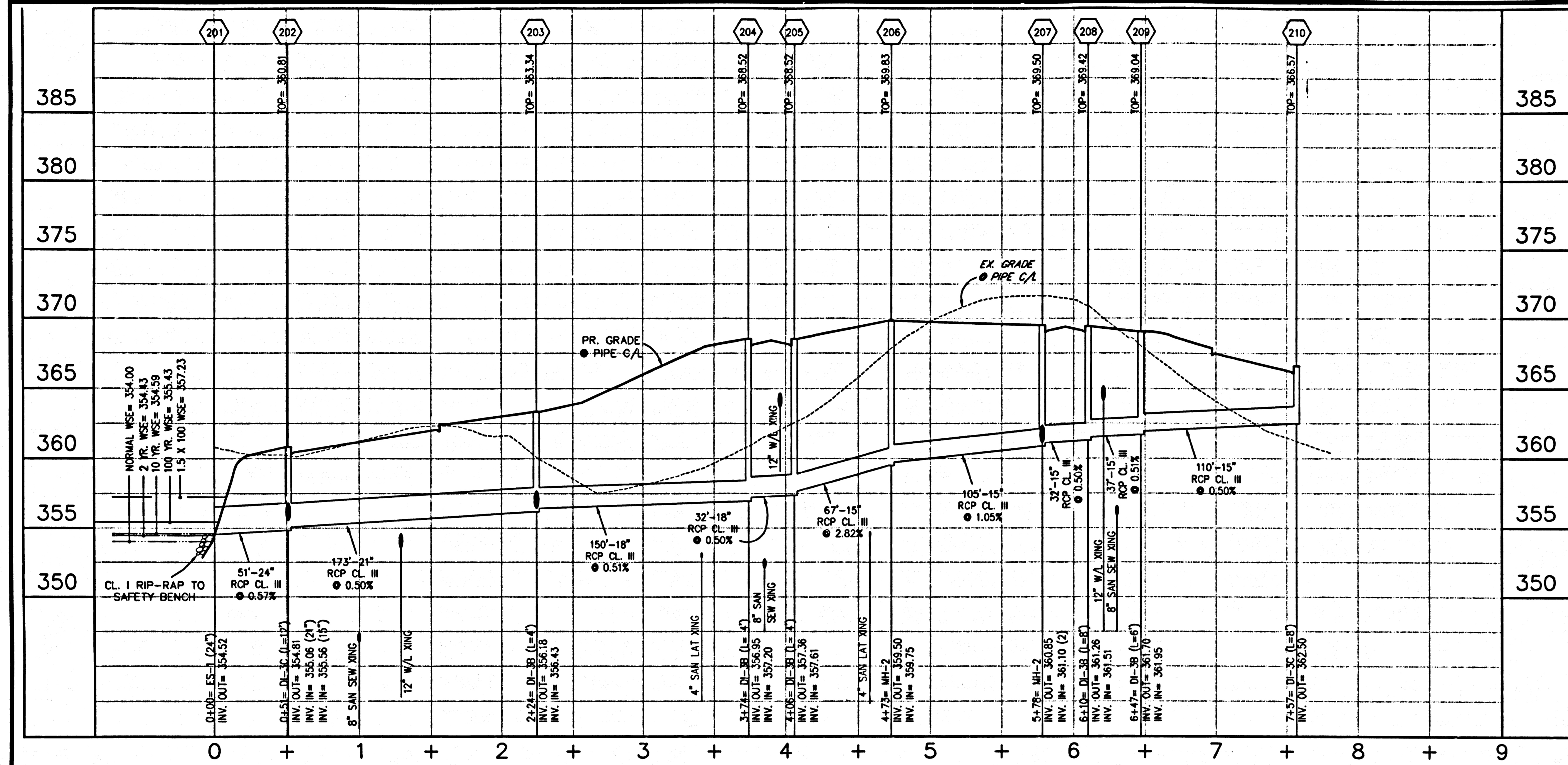
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SANITARY SEWER PLAN AND PROFILES  
**THOMPSON ROAD PROPERTY**  
 GREAT BRITAIN  
 FAIRFAX COUNTY, VIRGINIA



DESIGNED BY: ATO
DRAFTED BY: CAD
CHECKED BY: MRT
DATE: OCTOBER, 2003
SCALE: HOR. 1" = 80'
VERT. 1" = 5'
SHEET 13 OF 31
CD. NO. 9820-SD-02
CAD NAME: 7060SAN2.DWG
LAYOUT: SAN2
FILE NO. 97060-37



**STORM SEWER PROFILES**

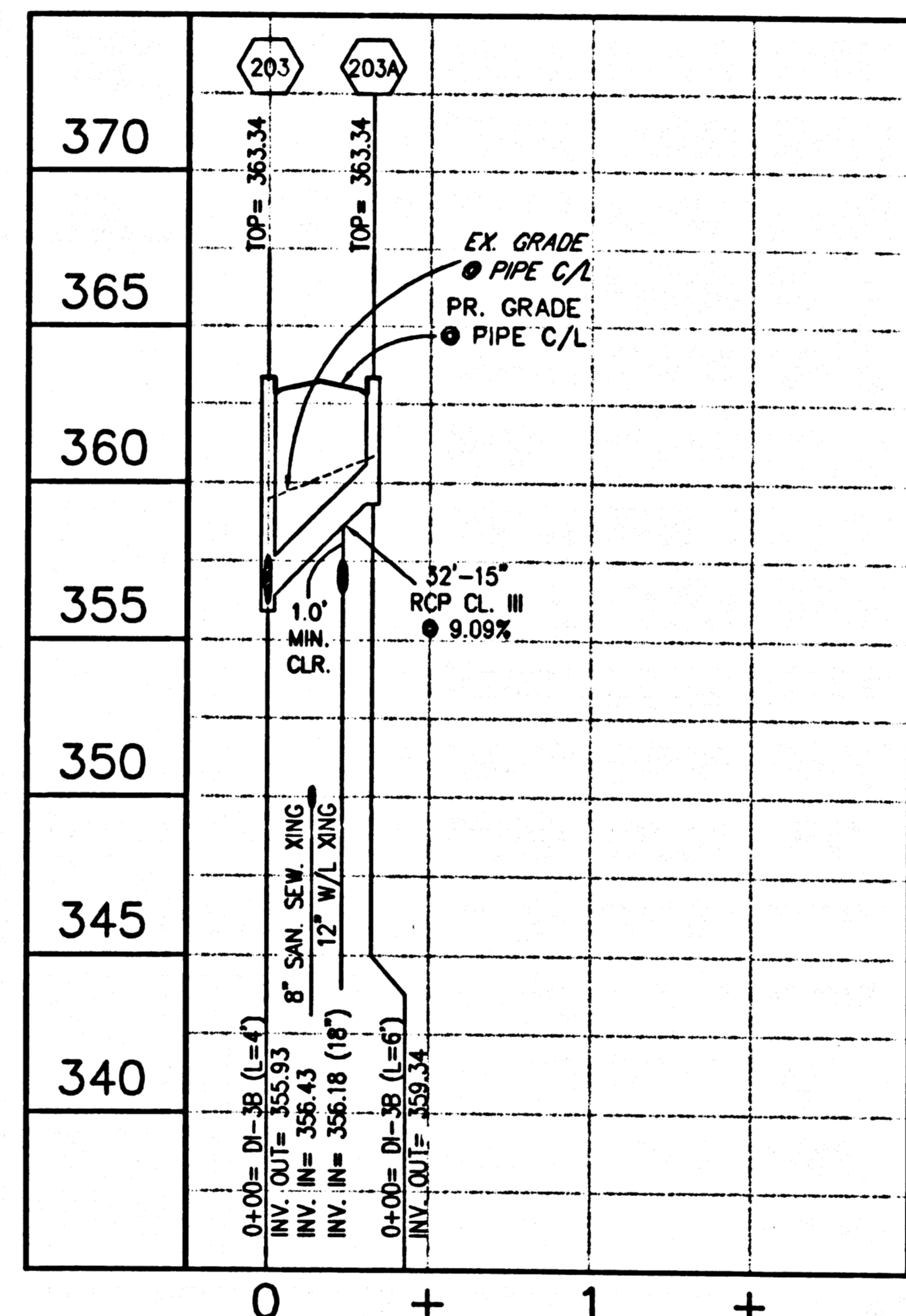
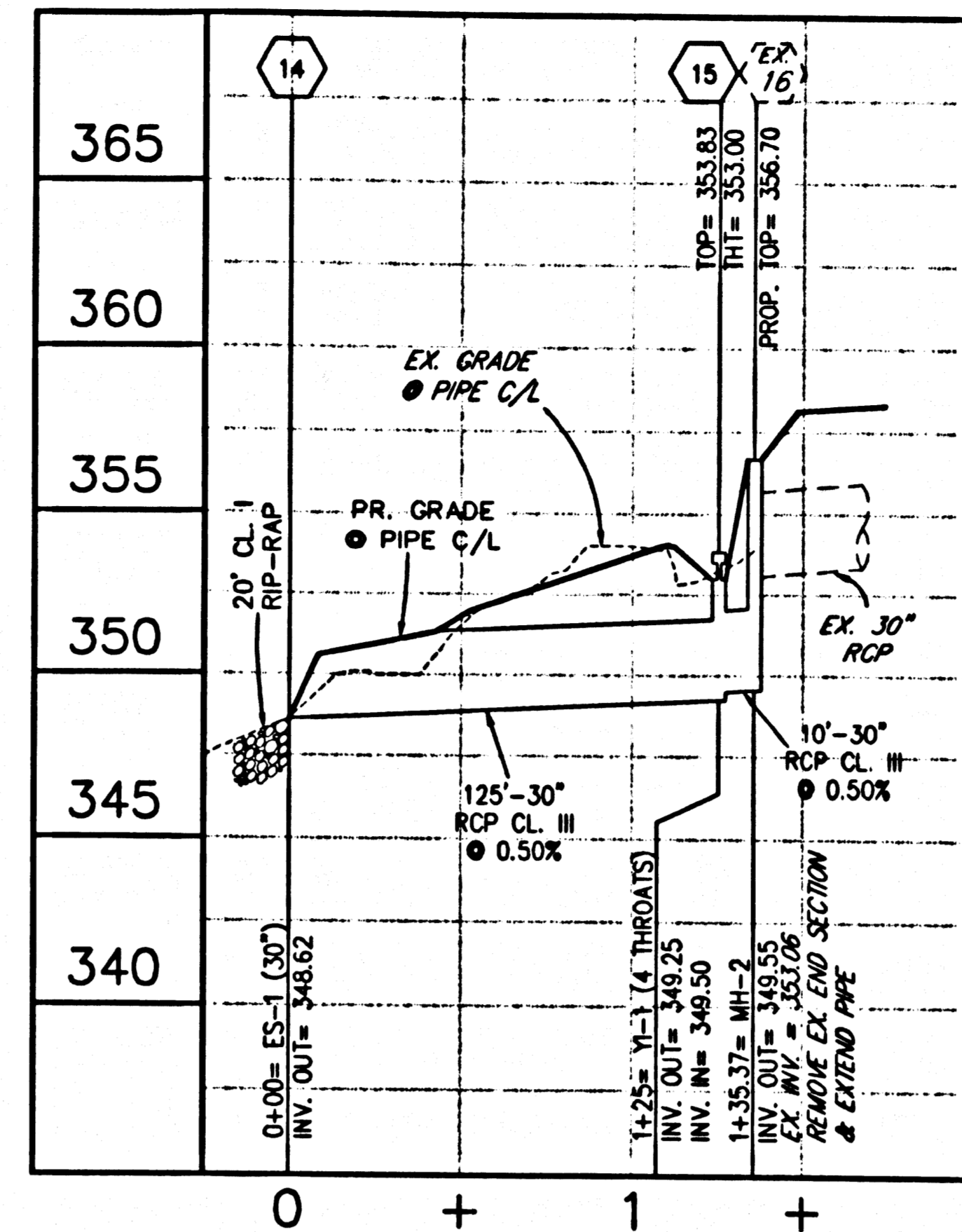
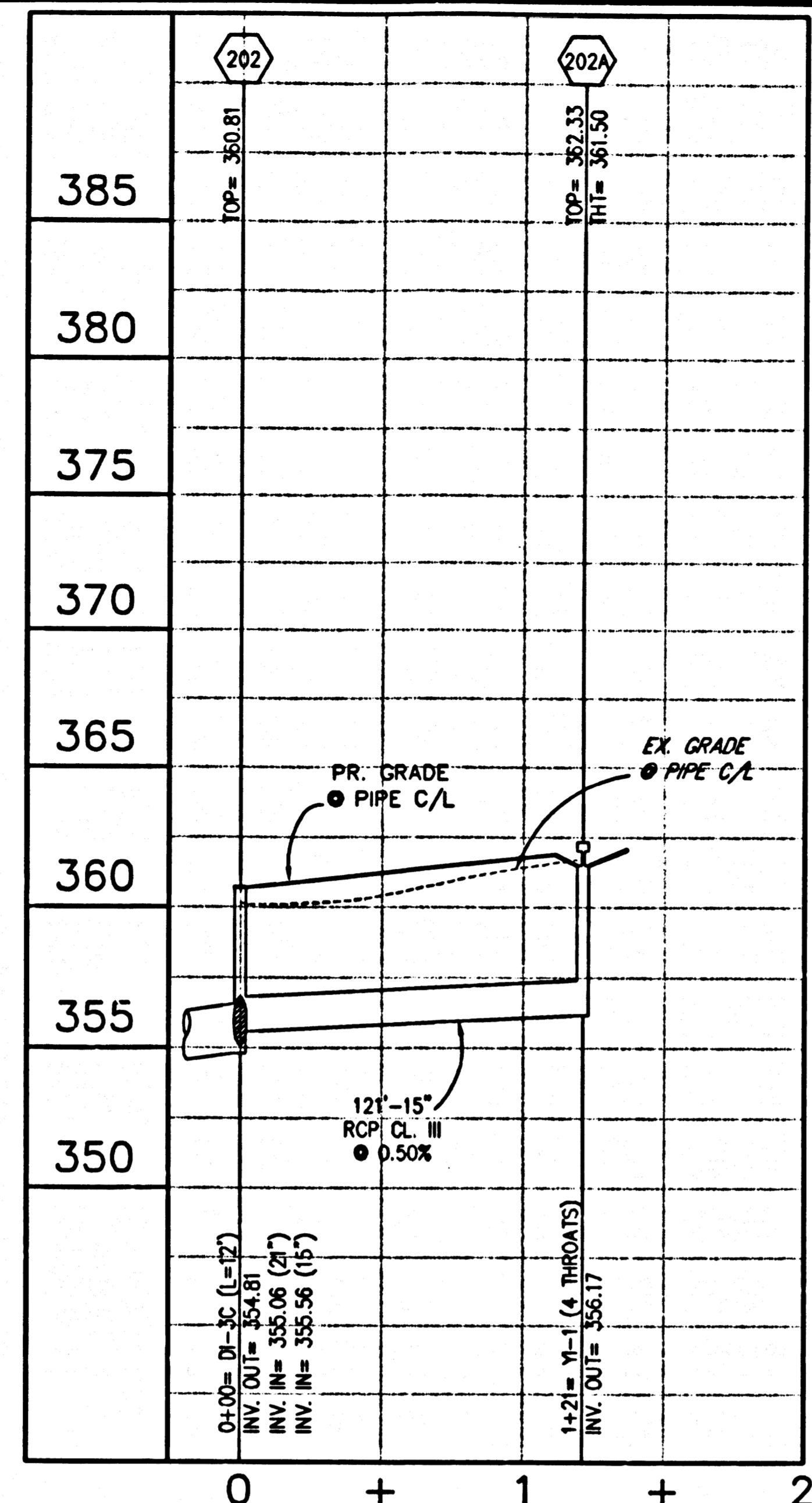
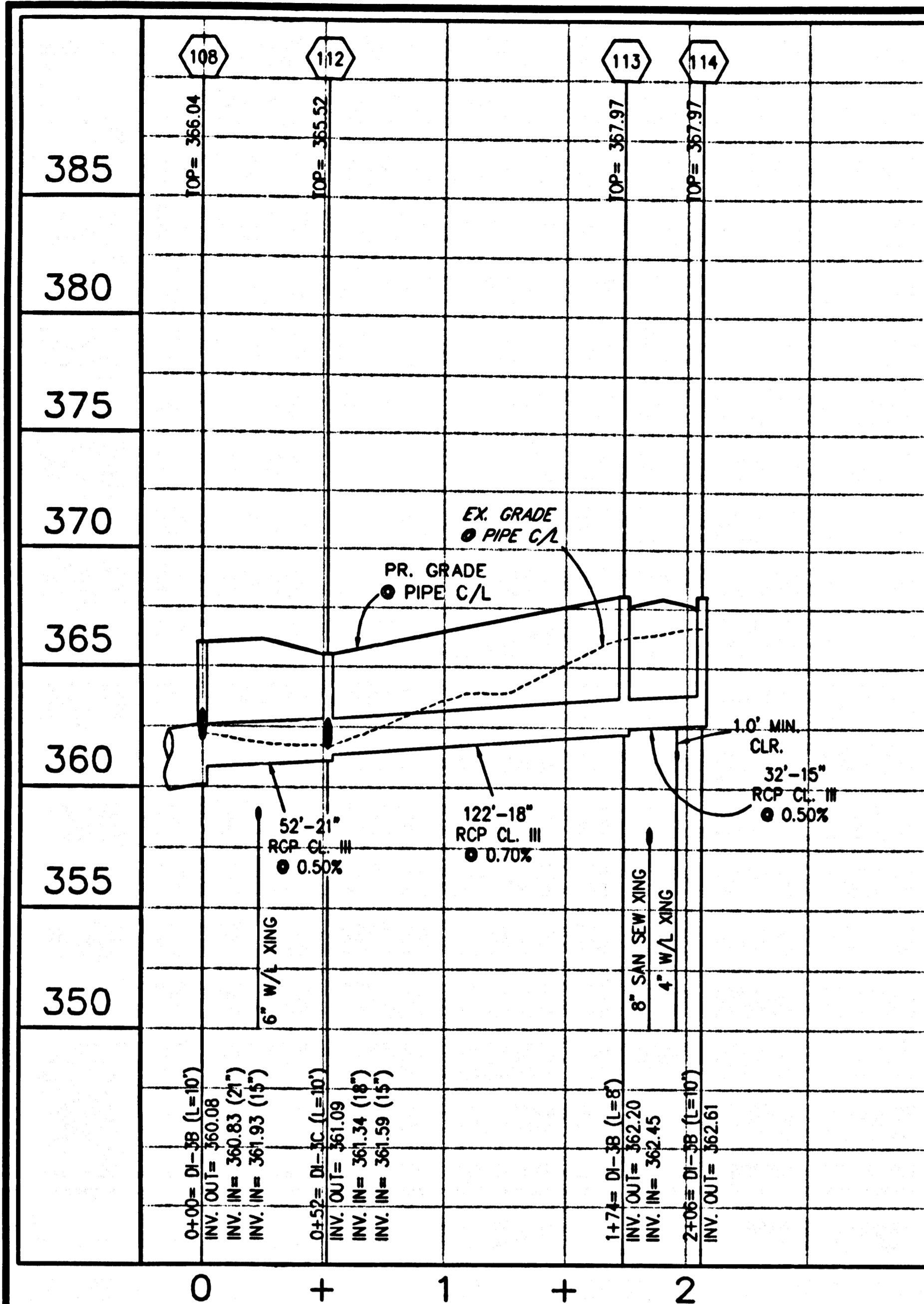
**THOMPSON ROAD PROPERTY**

SUBDIVISION  
FAIRFAX COUNTY, VIRGINIA

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DESIGNED BY: ATO  
DRAFTED BY: CAD  
CHECKED BY: MRT  
DATE: OCTOBER, 2003  
SCALE: HOR. 1" = 80'  
VERT. 1" = 5'

SHEET 14 OF 31  
CO. NO. 9820-SD-02  
CAD NAME: 7060STM.DWG  
LAYOUT: STM-1  
FILE NO. 97060-37



### OUTFALL/STORMWATER MANAGEMENT NARRATIVE

#### PRE-DEVELOPMENT CONDITIONS:

THIS SITE IS LOCATED IN THE CUB RUN WATERSHED. THIS PROJECT IS FOR THE CONSTRUCTION OF 30 SINGLE FAMILY DETACHED HOMES. THERE ARE CURRENTLY 6 RESIDENCES EXISTING ON THE SITE, CONSISTING OF THE PRIMARY STRUCTURE, ACCESSORY OUT BUILDINGS, DRIVEWAYS, AND SOME MAINTAINED LAWN/TURF. FIVE OF THESE RESIDENCES ARE TO BE REMOVED. THE SITE IS MOSTLY WOODED, WITH THE REST BEING COVERED WITH GRASS MAINTAINED BY THE HOMEOWNER. THE FLOODPLAIN FOR FLATLICK BRANCH RUNS THROUGH THE MIDDLE OF THE SITE HAS BEEN APPROVED (CO #8820-FP-02). THE EXISTING RUNOFF FROM THIS SITE DRAINS TOWARD THE EXISTING FLOODPLAIN CHANNEL FROM BOTH SIDES. THIS SITE IS LOCATED WITHIN A WATER SUPPLY PROTECTION OVERLAY DISTRICT THAT REQUIRES A 50-PERCENT PHOSPHOROUS REMOVAL EFFICIENCY.

#### POST-DEVELOPMENT CONDITIONS:

THE RUNOFF FROM 19.18 ACRES OF THE SITE WILL BE COLLECTED BY INLETS AND PIPED TO THE TWO PROPOSED STORMWATER MANAGEMENT PONDS. THE PONDS HAVE BEEN SIZED SO THAT THEY ACCOMMODATE THE ONSITE AND OFFSITE (20.33 ACRES) FLOWS. DISCHARGE FROM THE PONDS IS LESS THAN THE PRE-DEVELOPMENT RUNOFF. THE OUTFALL FROM THE PONDS (STR #120 & #220) IS PIPED AND DISCHARGED INTO THE EXISTING FLOOD PLAIN (CO# 8820-FP-02) FOR FLATLICK BRANCH. THERE IS ANOTHER OUTFALL FROM STRUCTURE 14, WHICH IS A COMBINATION OF STORMWATER FROM EXISTING STORM STRUCTURE 16 (OAK HILL RESERVE, SECTION 2, CO #349-SD-02) THAT EMPTIES ONTO THE SITE AND COLLECTS OVERLAND DRAINAGE TO THE FLOODPLAIN CHANNEL. THE REMAINDER OF THE SITE THAT IS NOT COLLECTED BY THE STORM SEWER SYSTEM WILL SHEET FLOW NATURALLY. THE FLOW THAT NATURALLY FLOW OFFSITE ARE LESS TAN OR EQUAL TO THE PRE-DEVELOPMENT CONDITION. PARCEL "A" WILL BE PLACED IN CONSERVATION EASEMENTS AND TWO ONSITE WET PONDS PROVIDE ADDITIONAL BMP CREDIT. THE TWO WET PONDS WILL PRIVATELY OWNED AND MAINTAINED BY THE PROJECT H.O.A. SINCE THE PIPES FROM THE PONDS OUTFALL INTO AN EXISTING APPROVED FLOODPLAIN, THIS CONSTITUTES AN ADEQUATE OUTFALL PURSUANT TO PFM SECTION 6-1400. A FLOODPLAIN AND STORM DRAINAGE EASEMENT IS BEING PROVIDED FOR THE EXISTING FLOODPLAIN.

#### CONCLUSION:

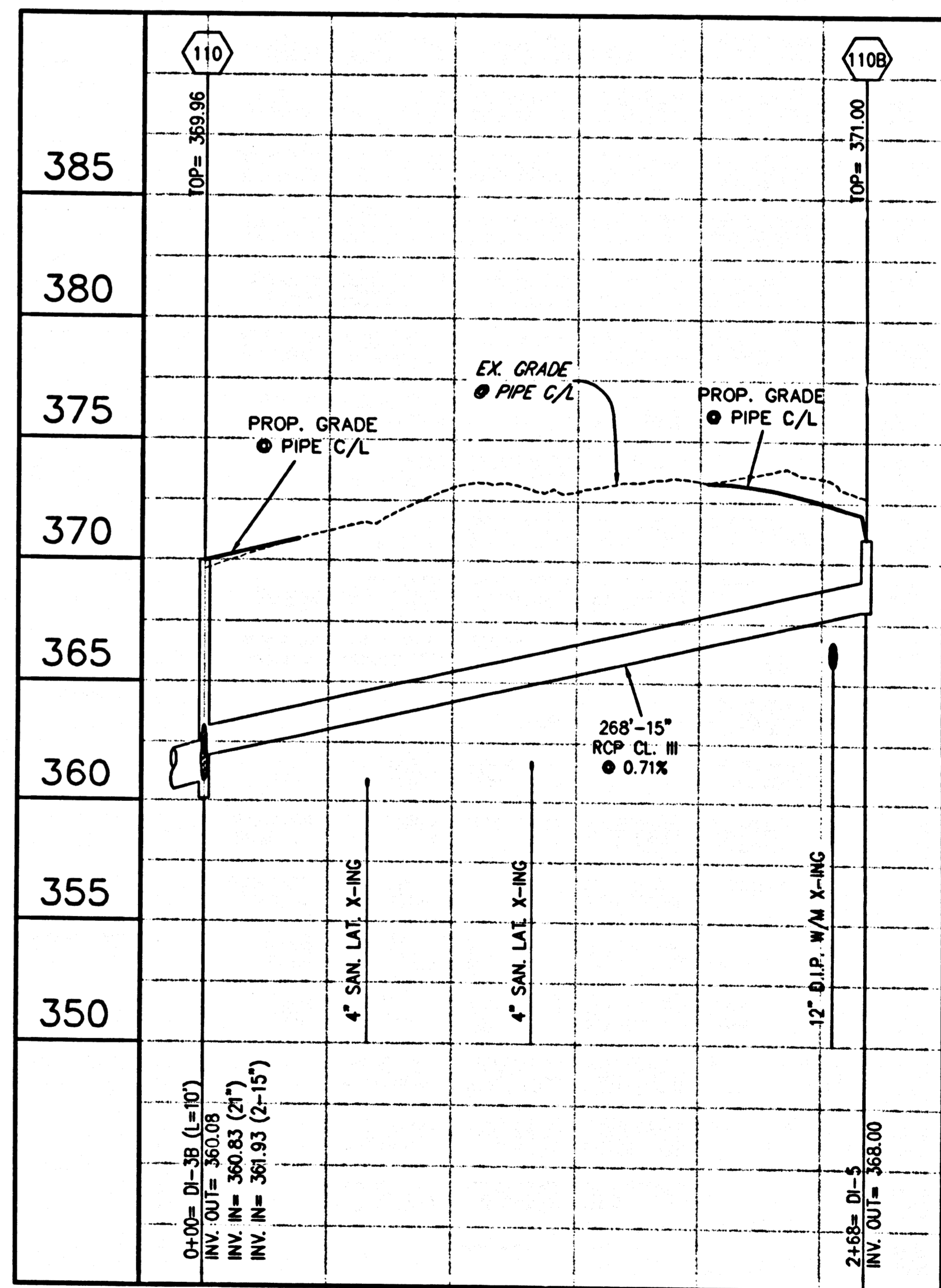
THE STORM SEWER SYSTEM WILL BE SIZED TO BE ADEQUATE TO CARRY THE RUNOFF FROM A 10 YEAR STORM EVENT AFTER THE DEVELOPMENT IS COMPLETED. THERE ARE NO KNOWN DOWNSTREAM DRAINAGE PROBLEMS. IT IS OUR OPINION THAT THE OUTFALL IS ADEQUATE AND THE DISCHARGE FROM THIS DEVELOPMENT WILL HAVE NO ADVERSE IMPACTS EITHER AT THE POINT OF DISCHARGE OR FURTHER DOWNSTREAM.

#### STORM DRAIN DESIGN COMPUTATIONS

From Inlet #		To Structure		Structure Type	Drainage Area (acres)	Runoff C	Incr. C*A	Accum. C*A	IC To Pipe (min.)	Time of Concentration		Q Accum. (c.f.s.)	Pipe Diameter (inches)	Slope (%)	Manning 'n'	Design Velocity (f.p.s.)	Flow Full Velocity (f.p.s.)	Profile			
210	209	DH-3C	0.52							0.46	0.23							0.23	5.0	5.0	7.27
209	208	DH-3C	0.06	0.06	0.28	0.28	5.0	5.0	7.27	0.44	2.11	15"	0.51	0.013	4.61	3.76	32	0.19	361.70	361.10	362.42
208	207	DH-3C	0.46	0.46	0.22	0.69	5.0	5.0	7.27	1.60	3.71	15"	0.50	0.013	4.57	3.72	32	0.19	361.30	361.10	362.42
207	207	DH-3C	0.52	0.44	0.23	0.28	5.0	5.0	7.27	1.67	1.67	15"	0.51	0.013	4.61	3.76	32	0.19	361.30	361.10	362.42
207	206	MH-2	0.00	0.00	0.00	0.00	5.0	5.0	7.27	0.00	0.00	18"	0.50	0.013	4.57	3.72	32	0.19	361.10	361.10	362.42
206	206	MH-2	0.00	0.00	0.00	0.00	5.0	5.0	7.27	0.00	0.00	18"	0.50	0.013	4.57	3.72	32	0.19	361.10	361.10	362.42
205	204	DH-3C	0.15	0.58	0.06	0.62	5.0	5.0	7.27	0.58	0.58	18"	0.50	0.013	4.57	3.72	32	0.19	360.80	360.70	362.42
204	203	DH-3C	0.03	0.12	0.02	0.04	5.0	5.0	7.27	0.15	0.15	18"	0.51	0.013	4.61	3.76	32	0.19	360.60	360.50	362.42
203A	203	DH-3C	0.33	0.46	0.16	0.16	5.0	5.0	7.27	1.09	1.09	18"	0.50	0.013	4.57	3.72	32	0.19	360.30	360.30	362.42
203	202	DH-3C	0.06	0.72	0.06	0.90	5.0	5.0	7.27	0.44	6.54	21"	0.50	0.013	4.57	3.72	121	0.61	358.80	358.80	362.42
202A	202	YH-1	2.34	0.36	0.59	0.59	5.0	5.0	7.27	4.26	4.26	18"	0.50	0.013	4.57	3.72	121	0.61	358.17	358.58	362.42
202	201	DH-3C	0.69	0.60	0.35	1.34	5.0	5.0	7.27	2.54	13.38	24"	0.67	0.013	4.57	3.72	67	0.29	354.01	354.92	362.42

#### STORM INLET COMPUTATIONS

Inlet #	Type	Length (ft)	Drainage Area (Acres)	Runoff C	NC C*A	I (ft/hr)	Q (cfs)	Q <sub>catch</sub> (cfs)	Q <sub>gully</sub> (cfs)	S (ft)	S <sub>catch</sub> (ft)	S <sub>gully</sub> (ft)	S <sub>over</sub> (ft)	T (ft)	W (ft)	WT (ft)	S <sub>v</sub> (ft)	S <sub>v</sub> /S <sub>catch</sub>	WT/S <sub>v</sub>	SW (ft)	SW/S <sub>v</sub>	E <sub>o</sub>	n	n <sub>v</sub>	n <sub>s</sub> (ft/s)	n <sub>s</sub> (ft/s)	P <sub>ft/c</sub> (ft)	L <sub>LT</sub>	d	h	Q	Q <sub>catch</sub>	T <sub>s</sub>	T <sub>s</sub> Spread @ 5'ap (ft)	Remarks	
210	DH-3C	6	0.52	0.44	0.23	4.00	0.82	0.00	0.82	0.020	3.08	2.00	0.85	0.083	4.0	0.05	0.083	4.0	0.05	0.083	4.0	0.09	3.00	0.146	0.146	7.40	11.60	1.00	0.11	1.00	0.68	0.94	0.24	0.00	5.36	
209	DH-3C	6	0.06	0.28	0.28	4.00	0.28	0.00	0.28	0.020	0.008	1.38	2.00	0.083	4.0	1.47	0.083	4.0	1.00	0.300	1.048	4.10	1.46	1.00	1.00	1.00	0.23	0.00	0.00	0.00	0.00	5.36				



### THOMPSON ROAD PROPERTY

SULLY DISTRICT  
FAIRFAX COUNTY, VIRGINIA

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#### STORM SEWER PROFILES & COMPUTATIONS

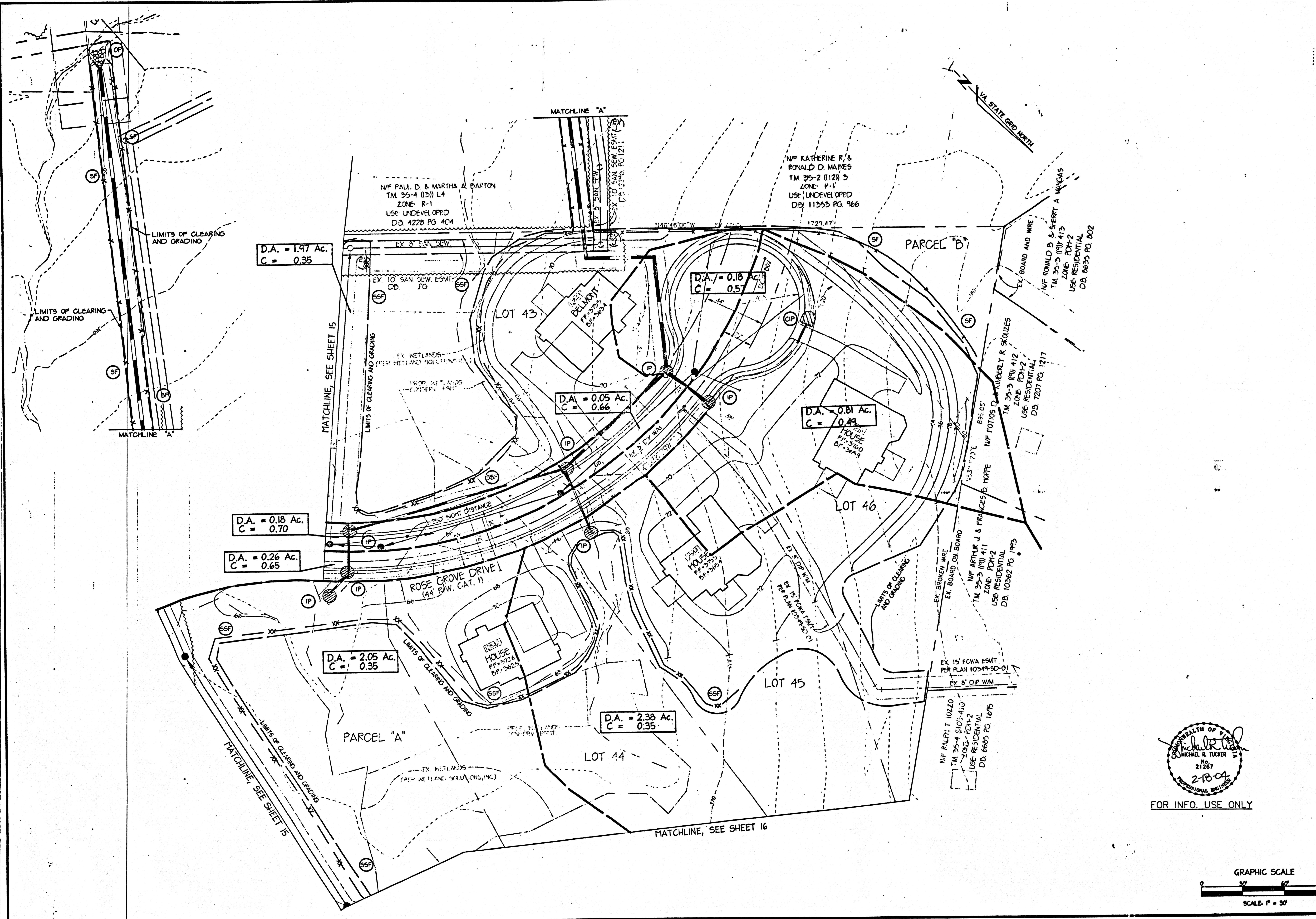
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(703)419-8100 (Fax)  
www.bccon.com

**REGISTERED PROFESSIONAL ENGINEER**  
MODEL & TUCKER  
2187  
3-29-04

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**BC REVISIONS**  
REVISION REVISION PER THE SUBMIT COMMENTS

DESIGNED BY: ATO  
CHECKED BY: CAD  
CREATED BY: MRT  
DATE: OCTOBER, 2003  
SCALE: HOR. 1" = 50'  
VERT. 1" = 5'  
SHEET 15 OF 31  
CO. NO. 9820-SD-02  
CAD NAME: 70605M.DWG  
LAYOUT: STM 2  
FILE NO. 97060-37



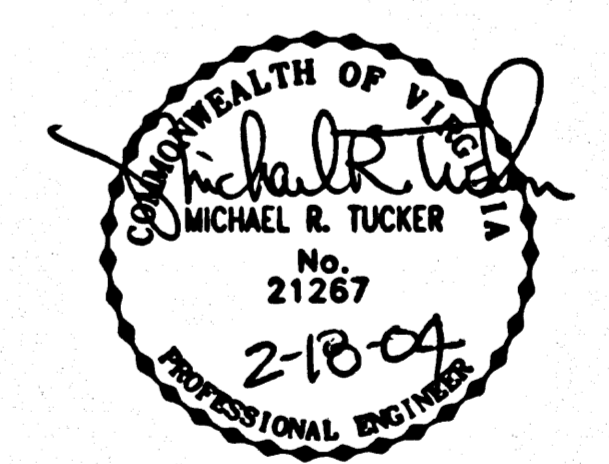
**Dalton & Kendall**  
 Engineering - Surveying - Land Planning  
 1420 QUARRY ROAD, MANASSAS, VIRGINIA 20108  
 (703) 349-5175 Fax (703) 349-2524

DATE	DESIGNER	DESCRIPTION	APPROVED	DATE

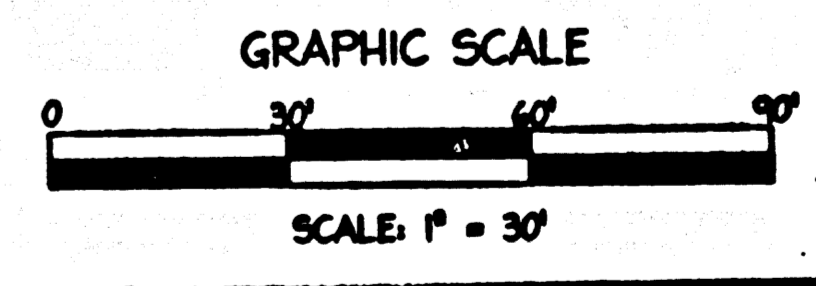
EROSION SEDIMENT CONTROL - PHASE II  
**OAK HILL RESERVE**  
 SECTION 2  
 (FORMERLY STONEHAVEN MANOR)  
 SULLY MAGISTERIAL DISTRICT  
 FAYETTE COUNTY, VIRGINIA

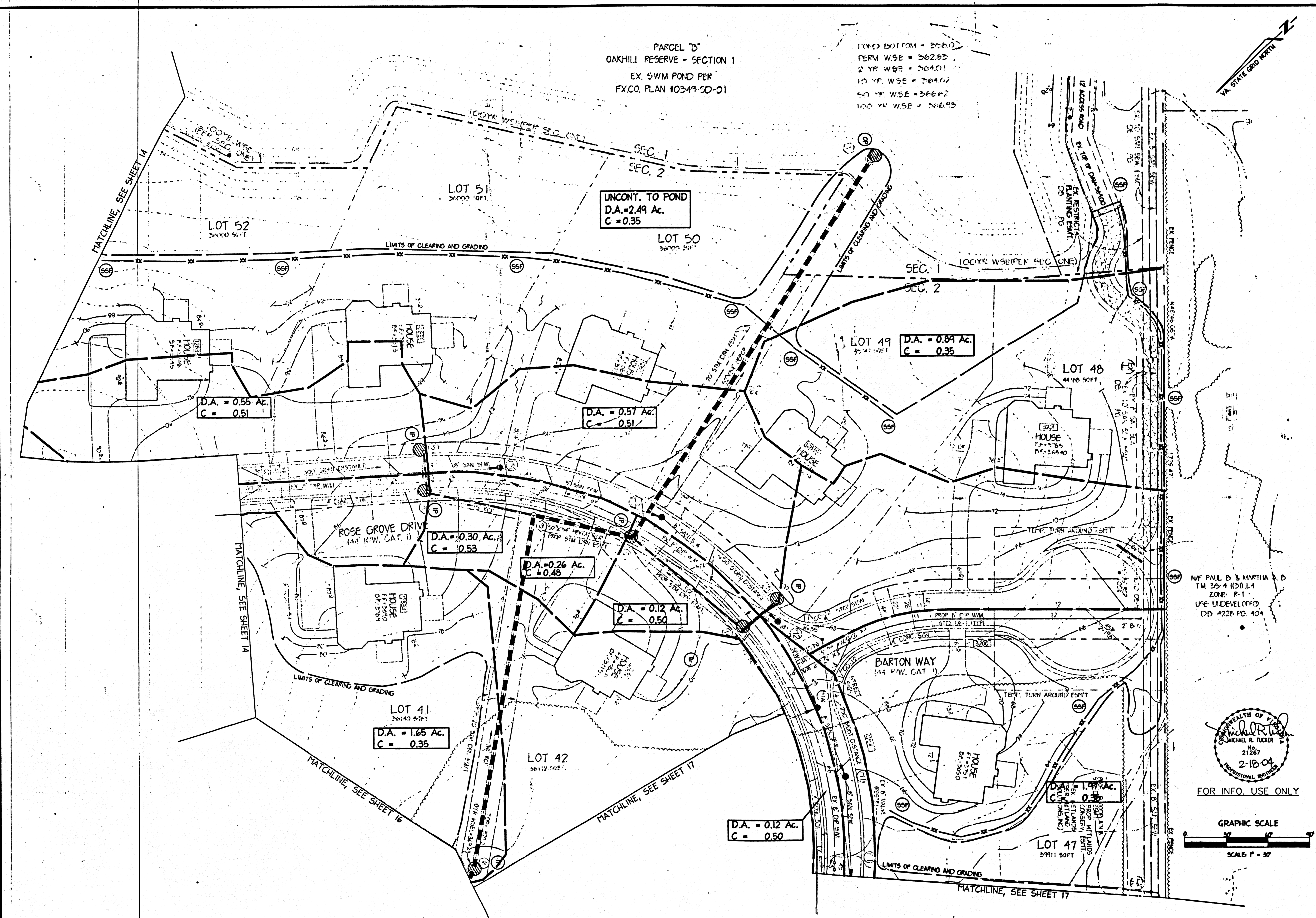
SCALE: 1" = 30'  
 DATE: JUNE 2001  
 DRAWN BY: KES  
 DESIGNED BY: KES

PROFESSIONAL ENGINEER  
 STATE OF VIRGINIA  
 No. 21267  
 2-18-01



FOR INFO, USE ONLY





PARCEL "D"  
OAKHILL RESERVE - SECTION 1  
EX. SWM POND PER  
FX.CO. PLAN #0349-5D-01

100% BOTTOM = 306.0  
PERM WSE = 302.65  
2 YR WSE = 304.01  
10 YR WSE = 304.67  
50 YR WSE = 306.62  
100 YR WSE = 308.23

UNCONT. TO POND  
D.A. = 2.49 Ac.  
C = 0.35

D.A. = 0.55 Ac.  
C = 0.51

D.A. = 0.57 Ac.  
C = 0.51

LOT 49  
D.A. = 0.89 Ac.  
C = 0.35

ROSE GROVE DRIVE  
D.A. = 0.30 Ac.  
C = 0.53

D.A. = 0.26 Ac.  
C = 0.48

D.A. = 0.12 Ac.  
C = 0.50

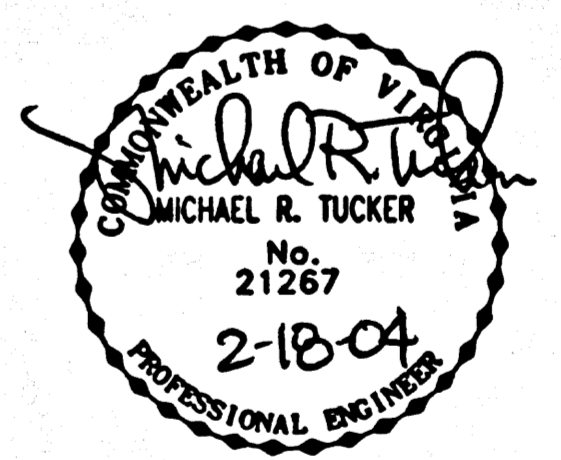
LOT 41  
D.A. = 1.65 Ac.  
C = 0.35

LOT 42  
D.A. = 0.12 Ac.  
C = 0.50

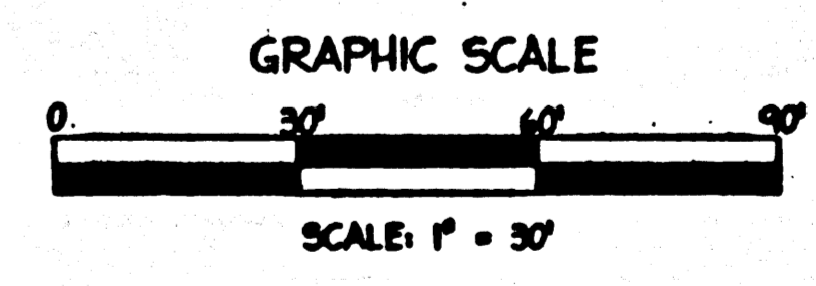
D.A. = 0.12 Ac.  
C = 0.50

LOT 47  
D.A. = 1.98 Ac.  
C = 0.35

MT PAUL D & MARTHA A D  
TM 35-4 (D) L4  
ZONE: P-1  
USE UNDEVELOPED  
DD 4226 PG. 404



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EROSION AND SEDIMENT CONTROL - PHASE II  
**OAK HILL RESERVE**  
SECTION 2  
(FORMERLY STONEHAVEN MANOR)  
SULLY REGISTRARIAL DISTRICT  
FAIRFAX COUNTY, VIRGINIA

SCALE: 1" = 30'  
DATE: JUNE, 2001  
DRAWN BY: KES  
DESIGNED BY: KES

FILE NO. 00038  
SHEET 15B OF 41

**INLET COMPUTATIONS**

Inlet #	Type	Length ft	Sta.	Drain Area (Ac.)	C	CA	CA I	In/H	Q INCR cfs	Q Carry-Over cfs	OT Gutter Flow cfs	S Gutter Slope	Sx Cross Slope	T (Sloped)	W ft	W/H	SW ft/H	SW Sx	Eo (#10)	a	SW= d(12W)	Se ft/R= Sx+SWCo	L(R) Length	P Effec. Length	L D	E R	H Inter. cfs	Q Ob Carry-Over cfs	T Spread @ 50 ft
8	SC	6	E	0.36	0.58	0.21	4.0	0.84	0.00	0.84	0.0010	0.0208		8.97	2.00	-	0.0833							0.18	0.29	0.62		8.88	
23	SC	6	W	0.37	0.58	0.21	4.0	0.86	0.00	0.86	0.0010	0.0208		3.20	2.00	-	0.0833							0.08	0.29	0.28		3.87	
24	SC	6	N	0.09	0.70	0.06	4.0	0.25	0.00	0.25	0.0010	0.0208		5.39	2.00	-	0.0833							0.10	0.29	0.34		4.71	

**YARD INLET COMPUTATIONS**

Inlet #	Type	Length ft	Drain Area	C	CA	I in/hr	Q Incr. cfs	No. of Throats	L	Q	L	H	H	Top	Throat Inv.	10 YR WSE
6	YI-1	4.0	1.65	0.35	0.58	7.27	4.20	3	12.0	0.35	0.50	0.55	0.27	370.00	369.17	369.44
8A	YI-1	4.0	1.17	0.35	0.41	7.27	2.98	3	12.0	0.25	0.50	0.52	0.26	370.40	369.57	369.83

**STORMWATER MANAGEMENT NARRATIVE**

**PROJECT DESCRIPTION**  
 THE OAK HILL RESERVE (FORMERLY STONEHAVEN MANOR) PROJECT TOTALS 56.91 ACRES OF R-1 ZONED PROPERTY IN THE SULLY DISTRICT OF FAIRFAX COUNTY. THE PROPERTY IS APPROXIMATELY 25% WOODED WITH MAINLY DECIDUOUS TREES. THE PRIOR USE OF THE PROPERTY WAS A SMALL FARM AND THE SITE CONTAINED A HOUSE WITH BARN AND OUTBUILDINGS. THE STRUCTURES HAVE BEEN RAZED WITH THE CONSTRUCTION OF SECTION ONE OF THIS PROJECT. AN EXISTING POND WILL BE DEMOLISHED FOR THE CONSTRUCTION OF THE WET POND AS PART OF SECTION ONE. PLAN 0344-SD-01.

SECTION TWO OF OAK HILL RESERVE CONSISTS OF THE CONSTRUCTION OF ROADWAYS AND UTILITIES FOR THE REMAINING 23 LOTS OF THE SUBDIVISION PROJECT. THE DRY POND SHOWN ON THE PRELIMINARY PLAN HAS BEEN REMOVED DUE TO WETLAND IMPACTS AND THE EXTENSIVE EMBANKMENT NECESSARY TO PROVIDE PROPER CAPACITY AND OPERATION OF THE POND.

THE WET POND IN SECTION ONE WAS DESIGNED TO PROVIDE DETENTION AND DAMPS FOR BOTH SECTIONS 1 AND 2 OF THIS PROJECT. THE DETENTION AND DAMP CALCULATIONS THAT DEMONSTRATE THAT THE FACILITIES CONSTRUCTED UNDER THE SECTION 1 PLANS (0344-SD-01) ARE INCLUDED IN THIS PLAN SET FOR INFORMATIONAL PURPOSES (SHEETS 30 - 30).

**DAMP NARRATIVE**

THE WET POND IN SECTION ONE, COMBINED WITH OPEN SPACE PARCELS WITHIN THE PROJECT, WAS DESIGNED TO PROVIDE DAMPS FOR THE ENTIRE OAK HILL RESERVE PROJECT. DAM CALCULATIONS FROM THE SECTION 1 PLANS (0344-SD-01) ARE INCLUDED AS SHEETS 31 & 36 OF THIS PLAN SET.

**OVERLAND RELIEF**

OVERLAND RELIEF OF 100 YEAR STORM FLOWS IS PROVIDED BY DISCHARGE TO THE SECTION 1 POND AND BY OVERTOP TO THE PROPOSED STREETS.

**ADEQUATE OUTFALL NARRATIVE**

ALL RUNOFF FROM SECTION TWO OF OAK HILL RESERVE SUBDIVISION LEAVES THE SITE AT TWO POINTS OF CONCENTRATION AND AS SHEET FLOW ALONG THE SOUTHERN PROPERTY LINE. PLEASE SEE THE E5-2 SHEETS FOR DRAINAGE AREAS.

APPROXIMATELY 105 ACRES OF THE SITE AND 223 ACRES OF OFFSITE WATERSHED FLOWS TO THE SWM POND CONSTRUCTED WITH SECTION ONE OF OAK HILL RESERVE (0344-SD-01). THE POND WAS DESIGNED FOR FLOWS FROM THESE AREAS AND THE ADEQUACY OF THE OUTFALL FOR THE DISCHARGE FROM THE POND WAS ESTABLISHED IN THE SECTION 1 PLANS (SEE SHEET 30).

THE SECOND CONCENTRATED DISCHARGE POINT DRAINS 5.91 ACRES AND DISCHARGES THROUGH A 30" RCP TO A NATURAL BED AND BANKS OFFSITE CHANNEL. THIS CHANNEL WILL ALSO RECEIVE 3-43 ACRES OF SHEET FLOW. THE TOTAL POST-DEVELOPED FLOW IS LESS THAN THE FLOW FROM THE PRE-DEVELOPED CONDITIONS (17.6 ACRES) SINCE PORTIONS OF THAT AREA ARE NOW DIVERTED TO THE SECTION 1 SWM / DAM FACILITY. THE PRE / POST-DEVELOPMENT FLOWS, AND THE ADEQUACY OF THE BED & BANKS CHANNEL ARE SHOWN IN THE CALCULATIONS BELOW.

AS SHOWN IN THIS NARRATIVE AND THE CALCULATIONS ON THIS SHEET THIS OUTFALL POINTS FOR THIS SITE MEET FAIRFAX COUNTY PPM ADEQUATE OUTFALL REQUIREMENTS AND DO NOT CAUSE ADVERSE IMPACTS DOWNSTREAM OF THE SITE AS DEFINED IN THE PPM. IT IS THEREFORE OUR OPINION THAT THE OUTFALL FOR THIS SITE IS ADEQUATE.

**OVERLAND RELIEF CALCULATIONS - LOT 35 / 36**

THIS CALCULATION IS FOR OVERLAND RELIEF AT LOT 35/36, ASSUMING BLOCKAGE OF THE 24" STORM SEWER SYSTEM. 100 YEAR FLOWS ARE:  
 100 YR. FLOW FROM DETENTION POND ON PARCEL 7" = 30 CFS  
 100 YR. FLOW TO STR. 10 = 527 (AC) X 0.25 (C) X 9.0 (IN/HR) = 112 CFS  
 0-100 TOTAL = 412 CFS

THE "SADDLE" AREA BETWEEN LOTS 35/36 IS MODELLED AS A BROAD CRESTED TRIANGULAR SHAPED WEIR.  
 Q = (CW) (L) (H)<sup>1.5</sup> CW = 3.0 L=24  
 H = HEAD = DEPTH OF FLOW = 0.61  
 100 YR. WSE = 375.6 + 0.77 = 376.37 THE LOWEST GROUND ELEVATION NEAR HOUSE 36 IS IN EXCESS OF 376.  
 SEE SHEET 16 FOR PLOT OF LIMITS.

**SWALE VELOCITY CALCULATION - LOT 35 - SECTION A-A**

THE GRASSED SWALE IN THE REAR OF LOT 35 RECEIVES FLOW FROM A TOTAL OF 1.16 ACRES, AT SECTION A-A (SHEET 16). THE CHANNEL IS A BROAD SWALE, ROUGHLY IN A V SHAPE, WITH SIDE SLOPES OF 2:1 (12 FEET FALL OVER 24' LENGTH).  
 C = 0.35 I-2 = 5.9 IN/HR A = 1.16 AC. Q-2 = 221 CFS  
 MAX. DEPTH = 0.25'  
 TOP WIDTH = 6.0'  
 FLOW AREA = 1.11 SF.  
 VEL. = 1.91 FPS  
 THIS VELOCITY IS NON-EROSIVE FOR A SODDED SWALE.  
 NOTE: ALL LOTS ARE SODDED IN THIS PROJECT BY WINCHESTER HOMES)

**STORM SEWER COMPUTATIONS**

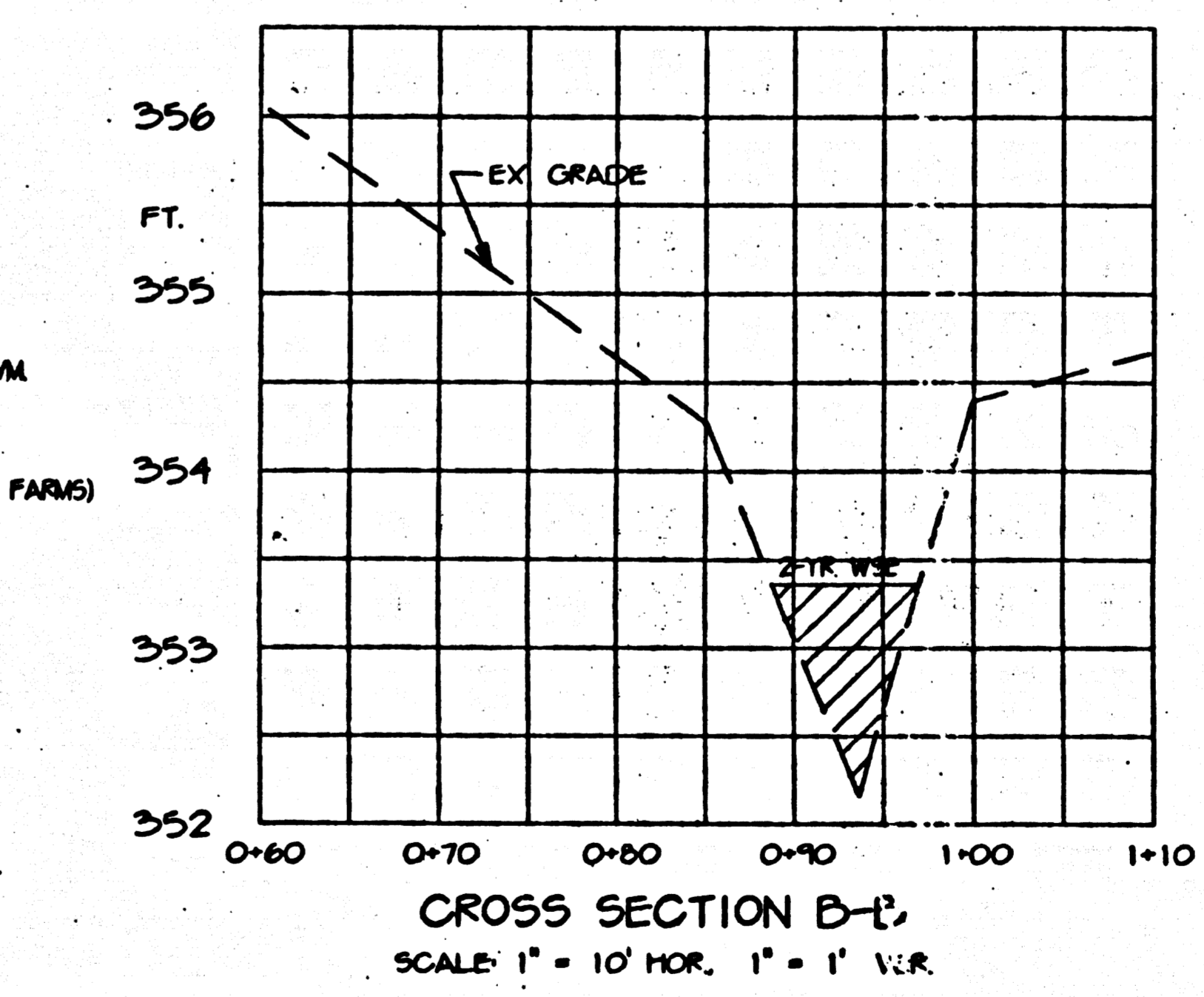
FROM	TO	DRAIN AREA (AC)	RUNOFF COEFF	C = A	INLET TIME	RAIN INT.	RUNOFF Q	INVERT ELEVATIONS	LENG.	SLOPE	EQ. DIA.	PIPE TYP	CAP.	FULL FLOW VEL	FLOW TIME	REMARKS
8A	8	1.17	0.35	0.41	5	7.27	2.98	367.65	367.40	0.0036	15	0.013	3.88	3.2	21.9	
13	12	0.78	0.51	0.40	5	7.27	2.89	376.18	375.54	0.0200	15	0.013	9.12	7.4	4.3	

**HYDRAULIC GRADELINE COMPUTATIONS**

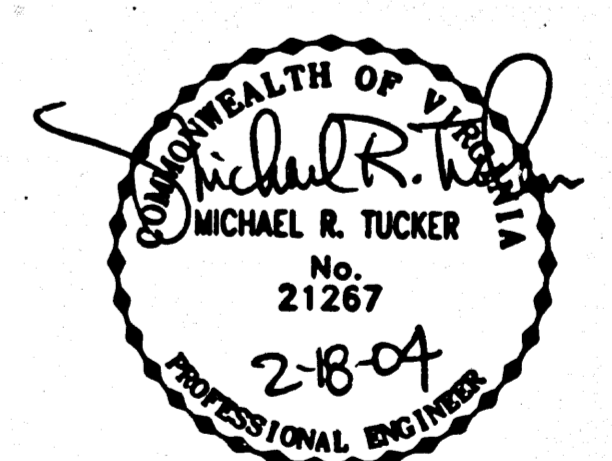
INLET STATION	STRUCT. TYPE	OUTLET WATER SURFACE	JUNCTION LOSS												FINAL INLET WATER SURFACE	RM. ELEV.						
			Qp	Qo	Lo	Sfo	Hf	Vo	Ho	Qi	Vi	QV1	V <sup>2</sup> /2g	HI			ANGLE	dH	Hf	1.3 HI (YI & DI Only)	0.5 HI	
1	DI	365.27	42	30.8	323.0	0.0021	0.898	5.4	0.113	37.0	5.5	203.3	0.47	0.16	90	0.33	0.51	0.79	0.39	1.08	366.35	374.22

**DRIVEWAY CULVERT CALCULATIONS**

LOCATION	DRAINAGE AREA	"C"	"I"	"S"	PIPE SIZE	HW/D	HW DEPTH
SWM ACCESS # LOT 48	0.60 AC.	0.45	727	1.96 CFS	15" RCP	0.66	0.65'



**OUTFALL SUMMARY OF BED AND BANKS CHANNEL - SECTION B-B**  
 \*POST DEVELOPED FLOWS INCLUDE OFFSITE DRAINAGE AREAS.  
 PREDEVELOPMENT FLOW TO CHANNEL = PROP STR #16.  
 A = 17.6 ACRES + PEAK DISCHARGE FROM FRANKLIN FARMS PARCEL X SWA  
 17 ACRE FLOW AREA: 17 ACRES FLOW AREA:  
 C = 0.30 I-2 = 5.9 IN/HR Q-2 = 10 CFS (10-10 MIN)  
 Q-2 = 0.30(5.9)(17.6) = 31.2 CFS (END PLANS SECT 5A, FRANKLIN FARMS)  
 Q-2 (PRE) = 31.1 + 10 = 41.1 CFS  
 POST DEVELOPMENT FLOW - AT OUTFALL BELOW ST. 16.  
 A = 424 ACRES I-2 = 5.9 IN/HR Q-2 = 221 CFS  
 C = 0.40 I-2 = 5.9 IN/HR Q-2 = 221 CFS  
 Q = 0.40(5.9)(424) = 220 CFS  
 V-2 = 4.61 FPS, CHANNEL SLOPE = 2.5%  
 NOTE: A LARGE PORTIONS OF POST-DEVELOPED FLOWS ARE DIVERTED TO THE CENTRAL WET POND UNDER POST-DEVELOPED CONDITIONS. THE WET POND (SEE SECTION 1 PLANS) IS DESIGNED FOR THESE FLOWS.



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DATE	DESIGNED BY	DESCRIPTION	REVISION BLOCK

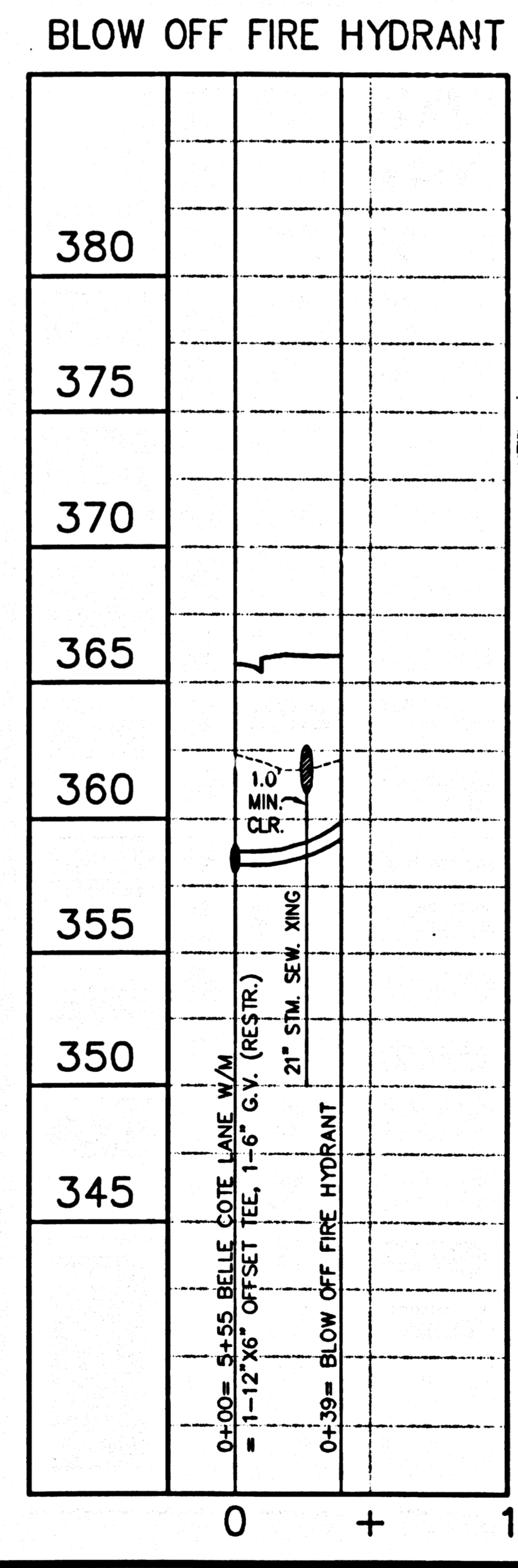
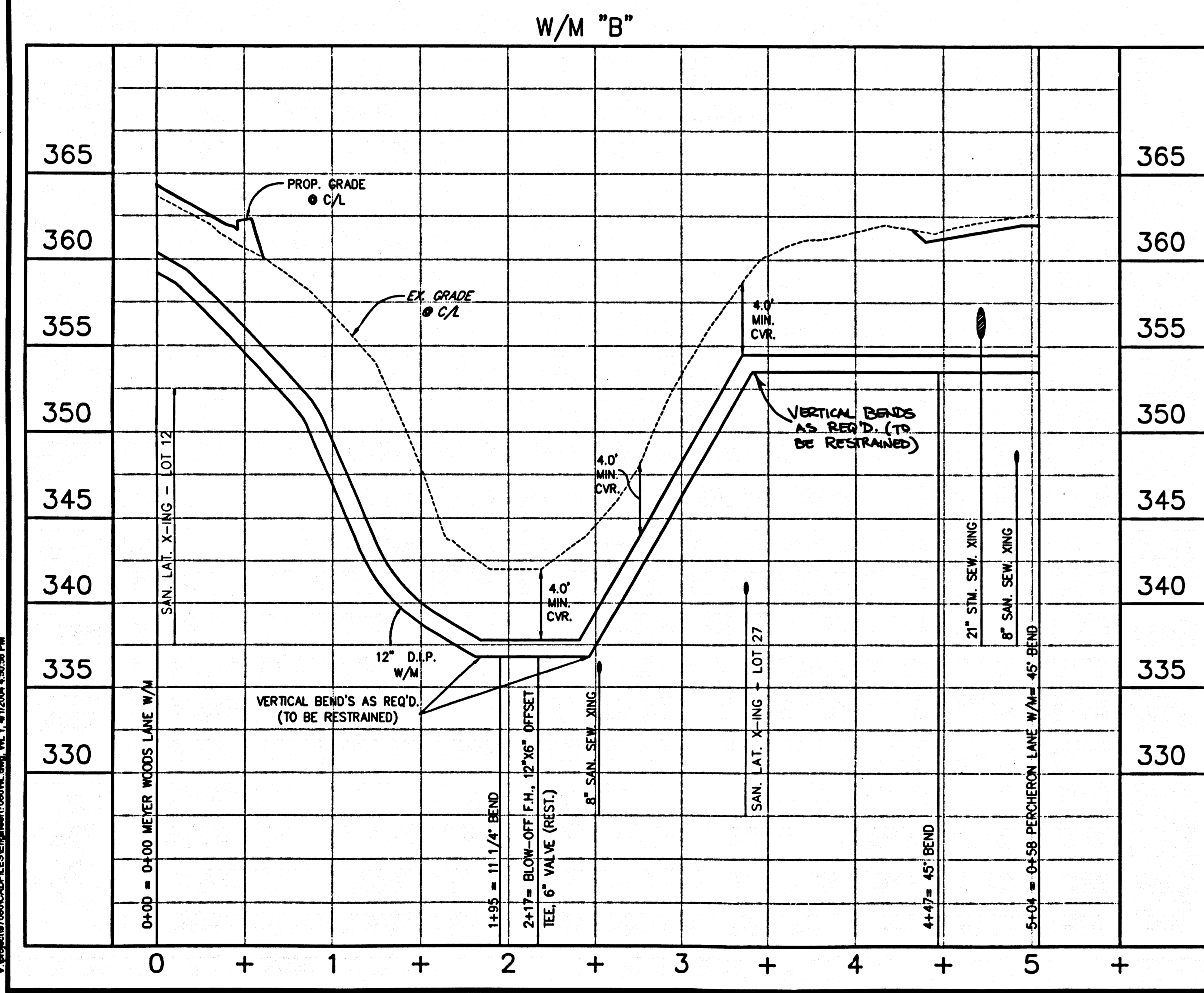
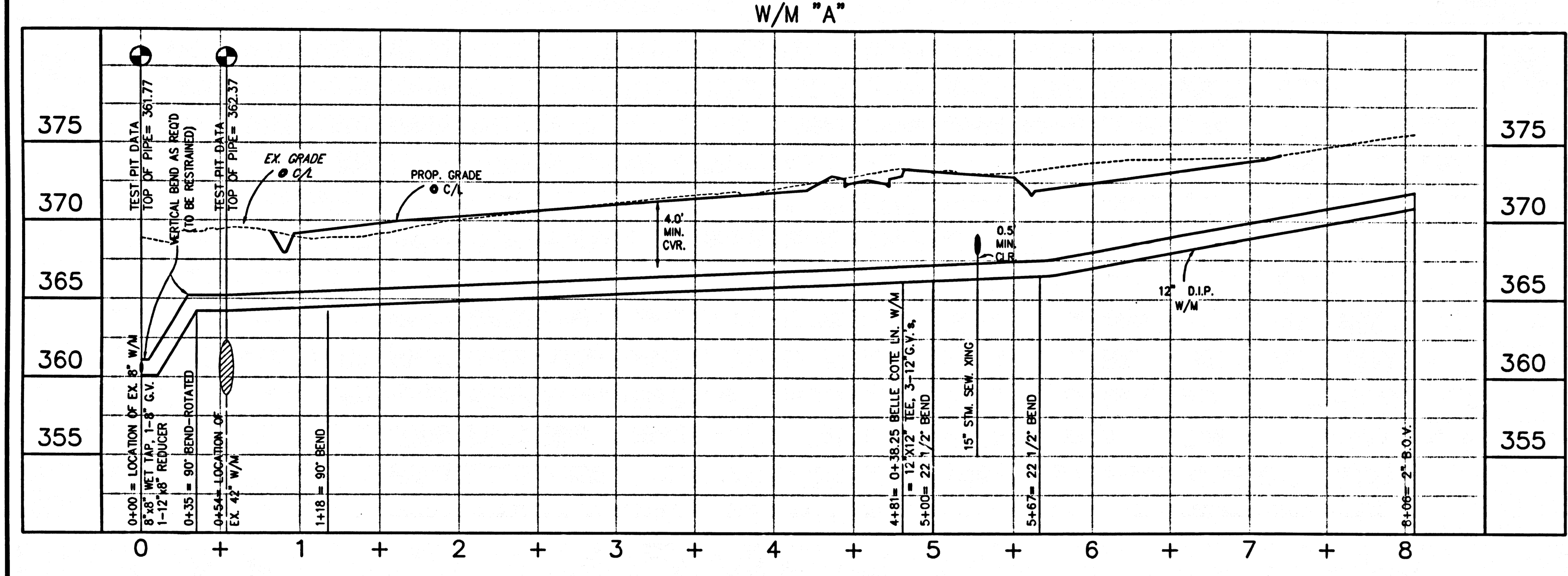
STORM SEWER COMPUTATIONS AND NARRATIVES  
**OAK HILL RESERVE**  
 SECTION 2  
 (FORMERLY STONEHAVEN MANOR)  
 SULLY MAGISTERIAL DISTRICT  
 FAIRFAX COUNTY, VIRGINIA

SCALE: NTS  
 DATE: DEC. 2001  
 DRAWN BY: ARD  
 DESIGNED BY: ARD

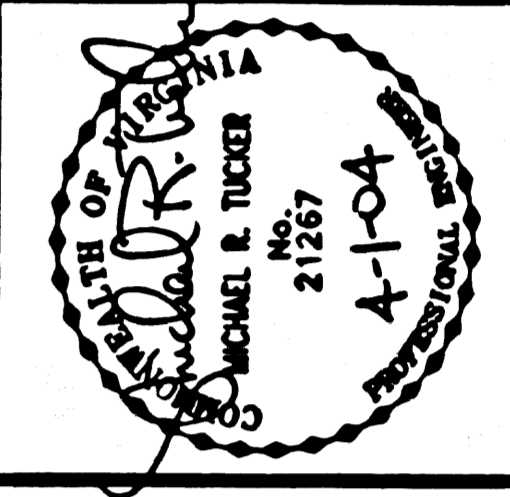
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2187  
 MICHAEL R. TUCKER  
 PROFESSIONAL ENGINEER  
 COMMONWEALTH OF VIRGINIA  
 EXPIRES 12/31/2004

JOB NO. - 00080  
 SHEET 29 OF 41



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WATERMAIN PROFILES

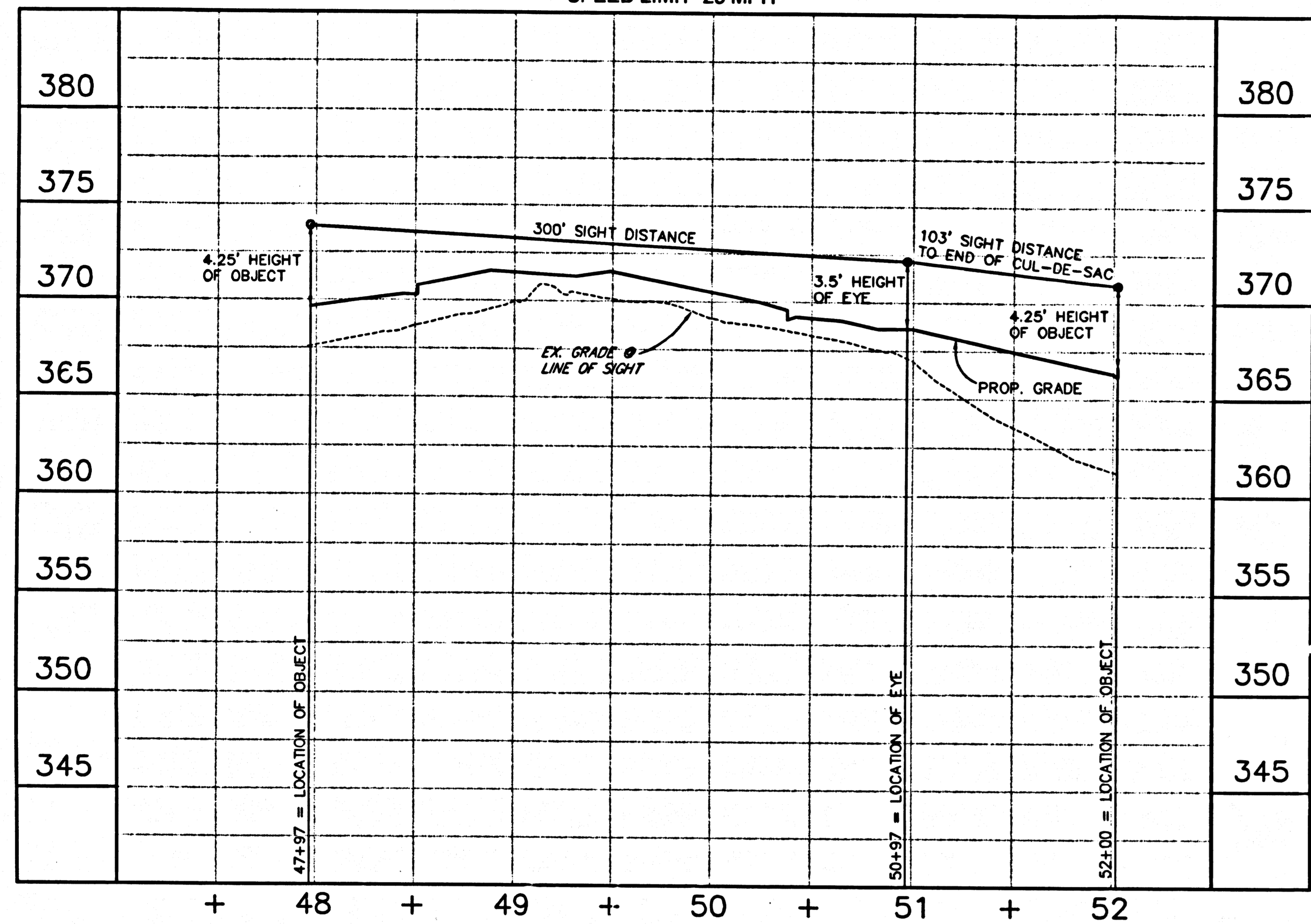
**THOMPSON ROAD PROPERTY**  
 SULLY DISTRICT  
 FAIRFAX COUNTY, VIRGINIA

BC REVISIONS	DESIGNED BY: ATO
2/1/04 REVISE PER L&E SIGN. COMMENTS	DRAFTED BY: CAD
4/1/04 REVISE PER P&A COMMENTS	CHECKED BY: MRT
	DATE: OCTOBER, 2003
	SCALE: HOR. 1" = 50'
	VERT. 1" = 5'
	SHEET 16 OF 31
	CO. NO. 9820-S0-02
	CAD NAME: 7060WL.DWG
	LAYOUT: WL 1
	FILE NO. 97060-37

P&A: 7/26/04

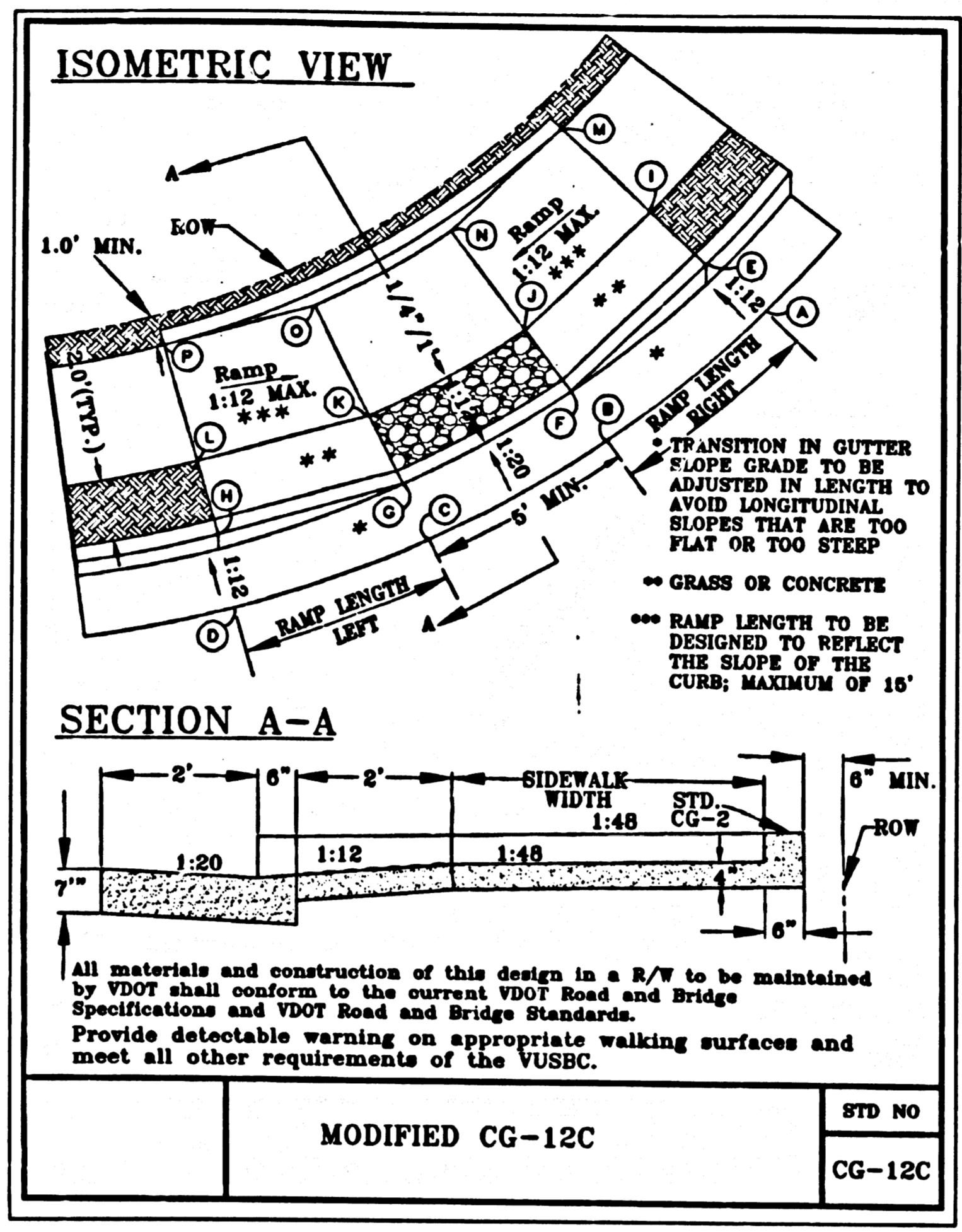


**ROSE GROVE DRIVE  
AT PERCHERON DRIVE INTERSECTION  
SIGHT DISTANCE PROFILE  
SPEED LIMIT=25 MPH**

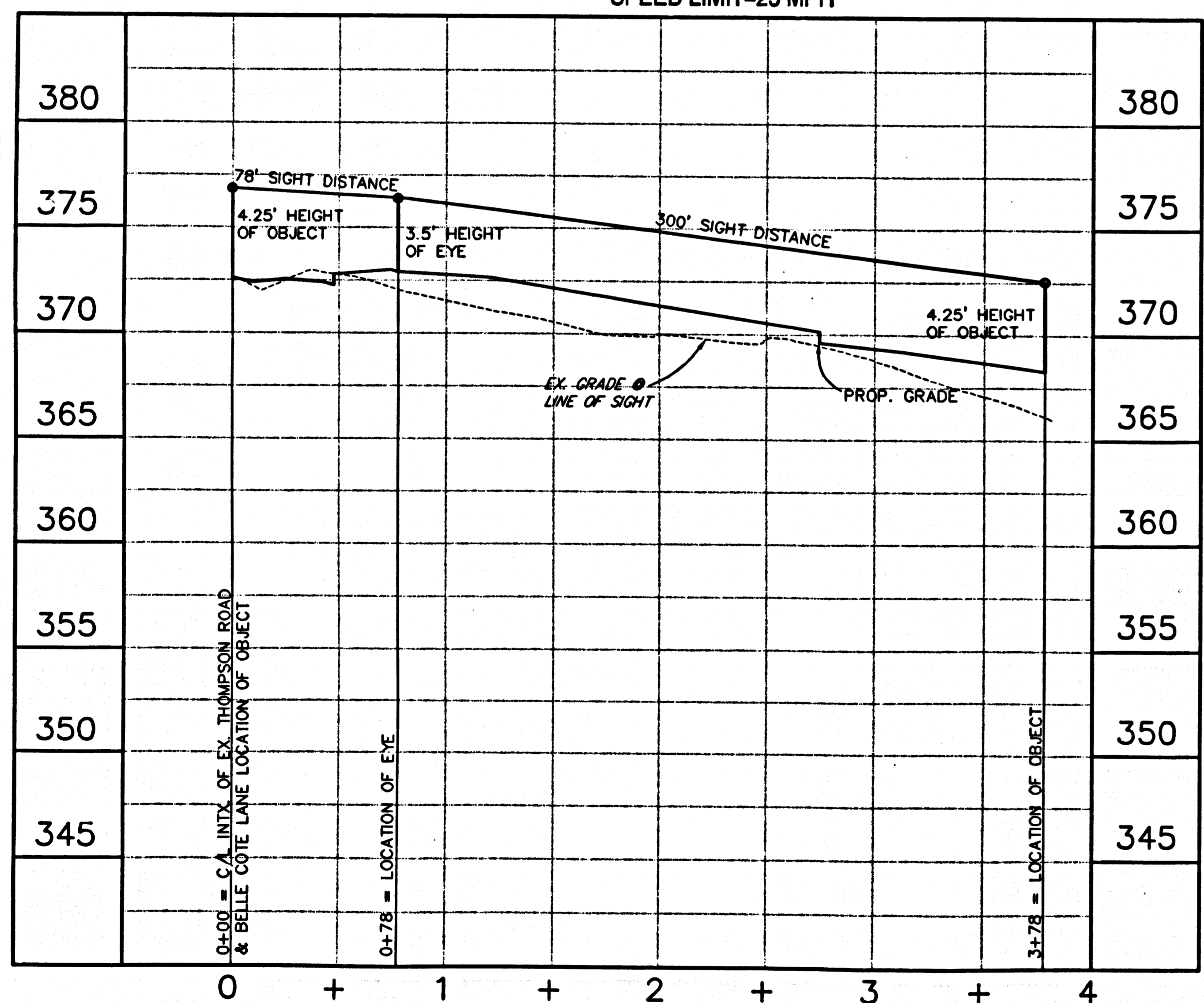


**VDOT STANDARD CG-12C DESIGN TABLE**

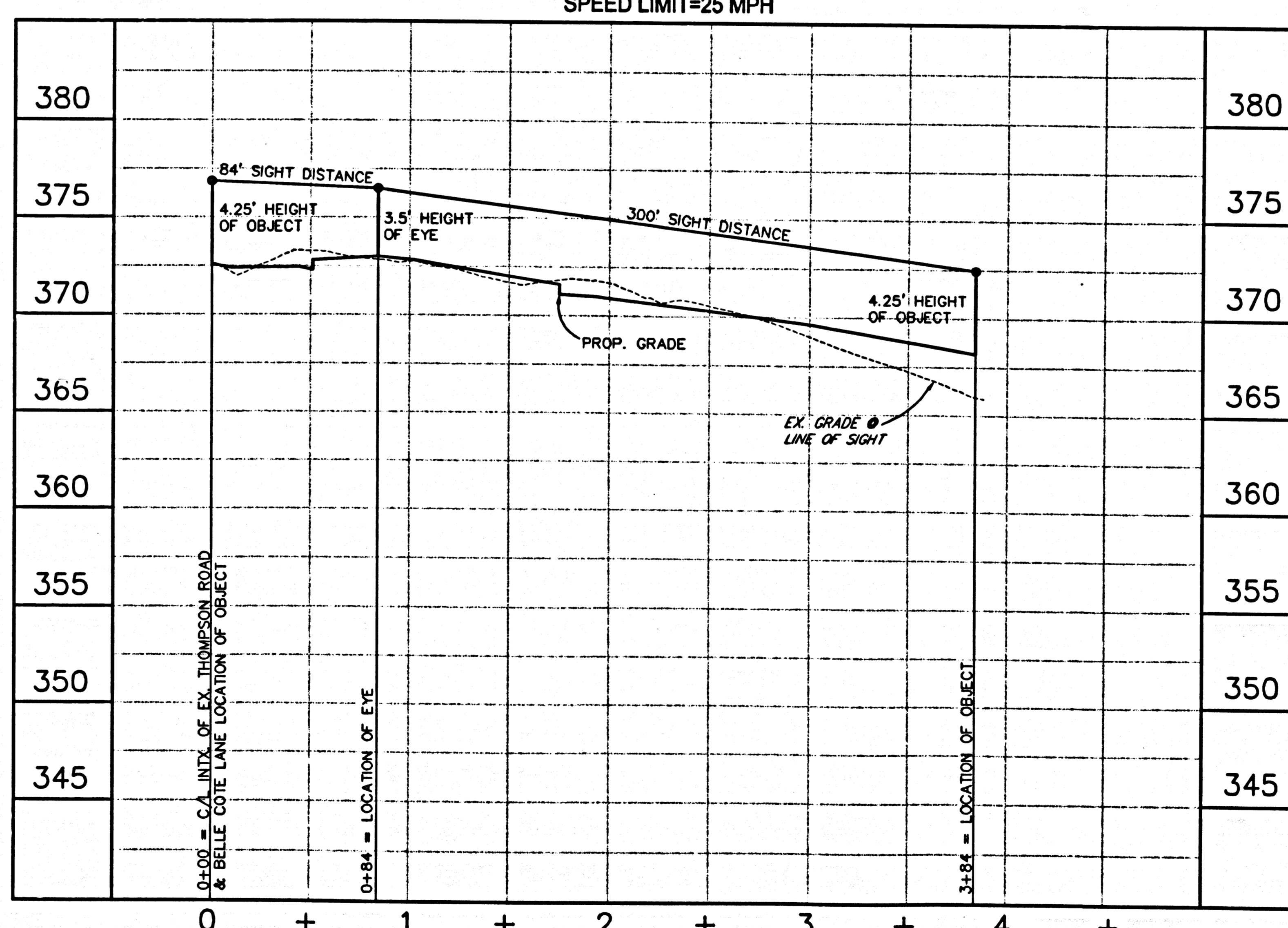
Ramp Length, ft		CG-12C	Spot Elevation															
Left	Right		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
5.0	5.0	1	72.62	72.52	72.50	72.50	72.95	72.42	72.40	72.83	73.01	72.63	72.89	73.10	72.72	72.70	72.98	
6.0	6.0	2	73.39	73.25	72.50	72.50	73.72	73.15	72.40	72.83	73.78	73.36	72.89	73.87	73.46	72.70	72.98	
5.0	5.0	3	65.76	65.79	65.82	65.84	66.09	65.69	65.72	66.17	66.15	65.90	66.23	66.24	65.99	66.02	66.32	
5.0	5.0	4	65.75	65.73	65.62	65.55	66.08	65.63	65.32	65.88	66.14	65.84	65.94	66.23	65.93	65.82	66.03	
5.0	5.0	5	69.27	69.28	69.24	69.20	69.60	69.18	69.14	69.53	69.66	69.39	69.59	69.74	69.48	69.44	69.67	



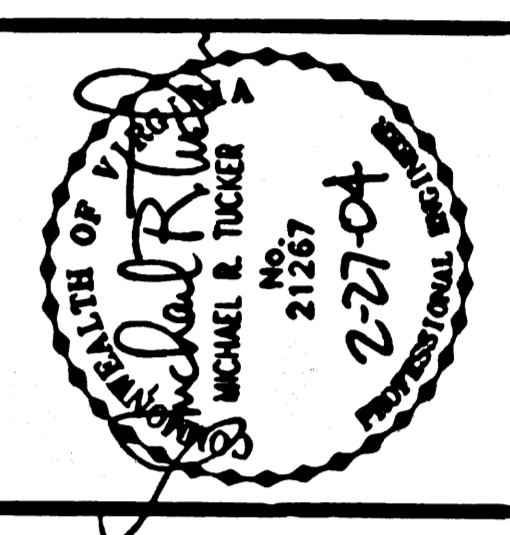
**BELLE COTE LANE  
LEFT D/W ENTRANCE  
SIGHT DISTANCE PROFILE  
SPEED LIMIT=25 MPH**



**BELLE COTE LANE  
RIGHT D/W ENTRANCE  
SIGHT DISTANCE PROFILE  
SPEED LIMIT=25 MPH**



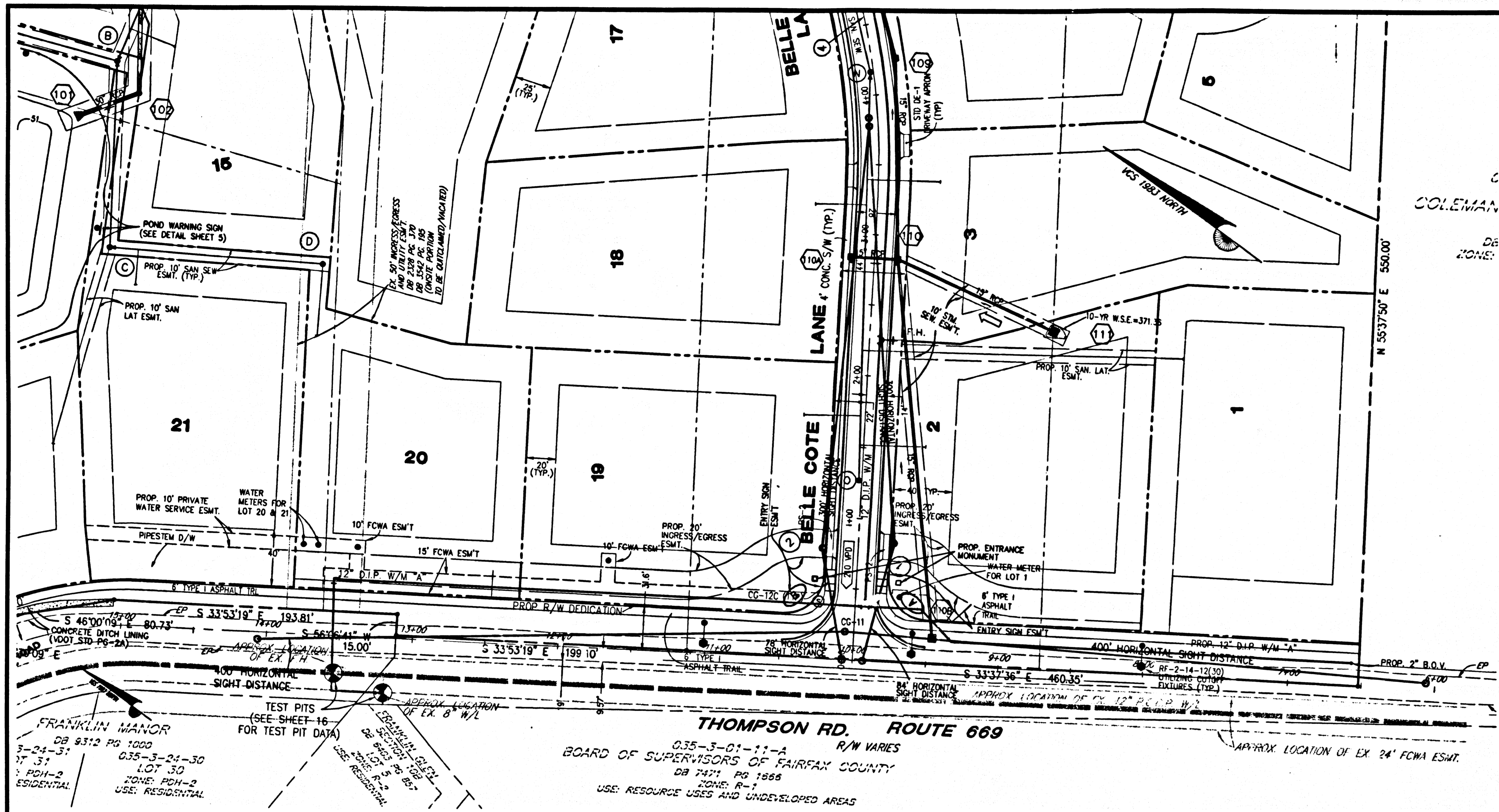
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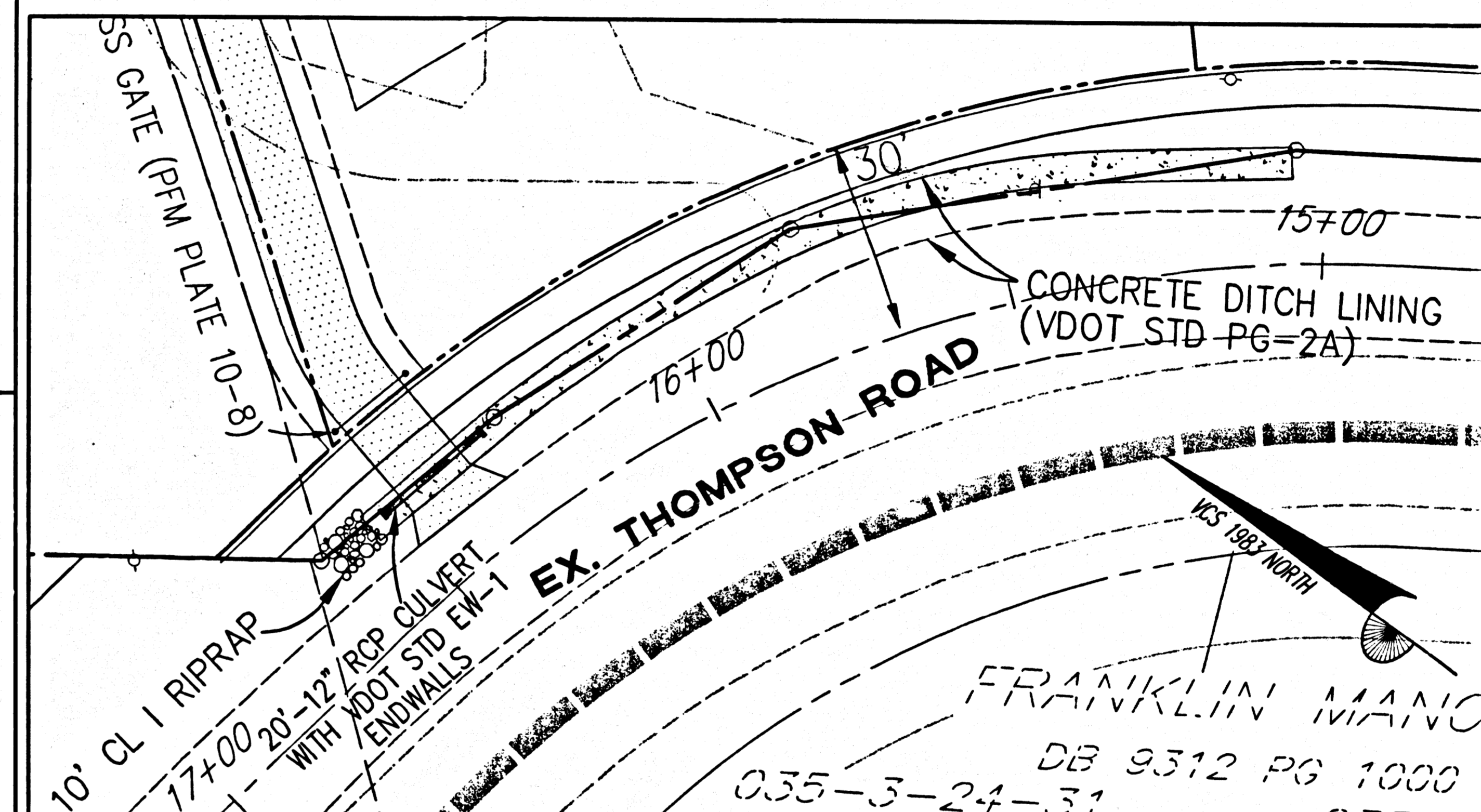
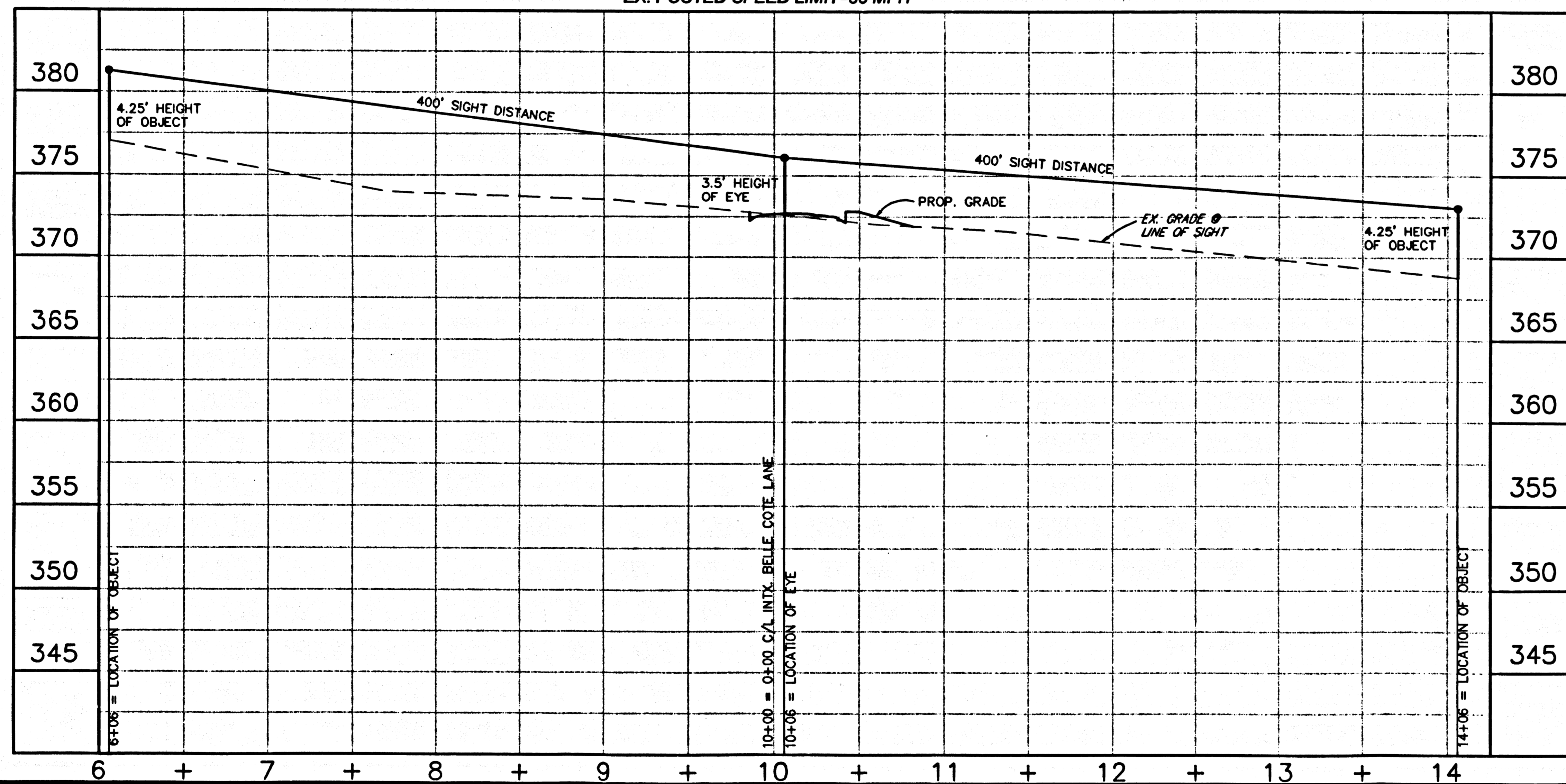
SIGHT DISTANCE PROFILES & CG-12 DETAILS  
**THOMPSON ROAD PROPERTY**  
SULLY DISTRICT  
FAIRFAX COUNTY, VIRGINIA

BC REVISIONS	DESIGNED BY: ATO
EZL/JACK: REVISION PER LR SUBM. COMMENTS	DRAFTED BY: CAD
	CHECKED BY: MRT
	DATE: OCTOBER, 2003
	SCALE: HOR: 30' VERT: 1"=5'
	SHEET 16A OF 31
	CO. NO. 9820-SD-02
	CAD NAME: 706ORPP.DWG
	LAYOUT: RPPS
	FILE NO. 97060-37

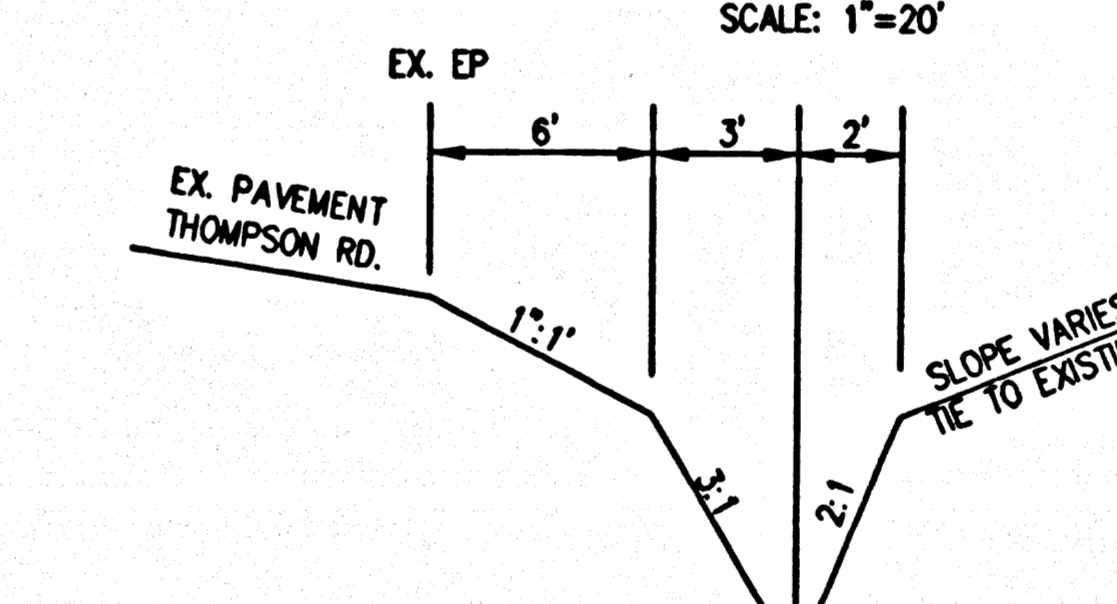
8/25/03 7:06:03 AM 706ORPP



EXISTING THOMPSON ROAD  
(ROUTE 669)  
SIGHT DISTANCE PROFILE  
EX. POSTED SPEED LIMIT=35 MPH



CONCRETE-LINED DITCH CLOSE-UP



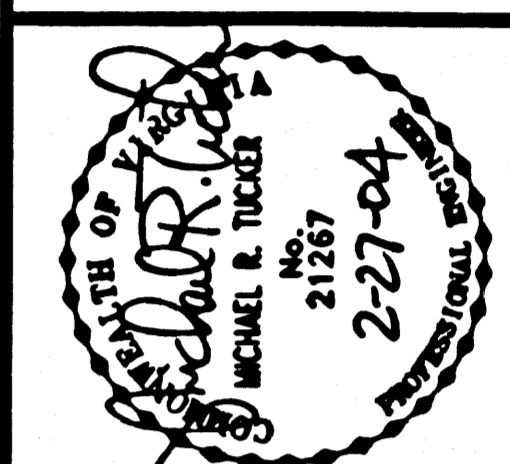
TYPICAL DITCH SECTION  
BASED ON VDOT'S 1996 SUBD. STREET REQUIREMENTS  
(24.VAC 30-90-380 TABLE 1)  
(NOT TO SCALE)

THOMPSON ROAD DITCH COMPUTATIONS

Station along Thompson Road	Longitudinal Slope (ft/ft)	Cumulative Area (Acres)	C-factor	2-yr Flow (cfs)	2-yr Velocity (ft/s)	TYPE OF DITCH LINING	10-yr Flow (cfs)	10-yr WSE (ft)	Depth of Water (10-yr) (ft)
6+99	0.00968	0.55	0.45	1.35	1.91	GRASS	1.80	374.40	0.59
7+99	0.00968	0.74	0.45	1.81	2.06	GRASS	2.42	373.47	0.66
8+99	0.00961	0.96	0.45	2.35	2.20	GRASS	3.14	372.59	0.73
11+20	0.00961	0.29	0.45	0.71	1.62	GRASS	0.95	370.33	0.47
12+20	0.00968	0.51	0.45	1.25	1.88	GRASS	1.67	369.53	0.58
13+20	0.00968	0.76	0.45	1.86	2.07	GRASS	2.49	368.61	0.67
14+20	0.01360	0.94	0.45	2.30	2.48	GRASS	3.08	367.59	0.68
15+18	0.04444	1.00	0.45	2.45	3.93	Concrete	3.27	363.37	0.56
16+12	0.07690	1.25	0.45	3.06	5.11	Concrete	4.09	356.13	0.55

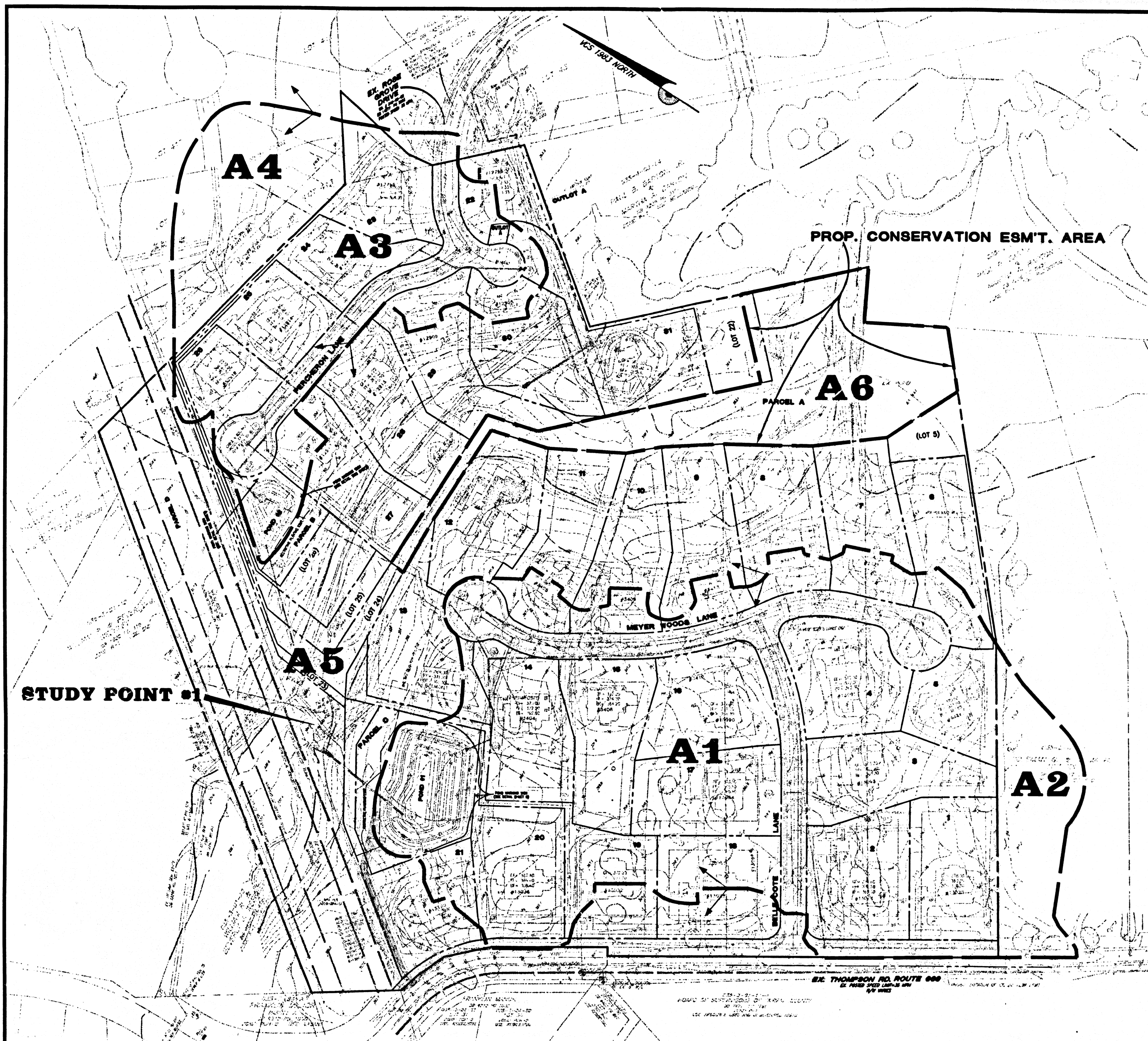
Tc=5 min., 2-yr I=5.45, 10-yr I=7.27  
VELOCITY SHOWN IS BASED ON GRASS LINING.

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SIGHT DISTANCE PROFILE AND DITCH COMPUTATIONS  
**THOMPSON ROAD PROPERTY**  
SULLY DISTRICT  
FAIRFAX COUNTY, VIRGINIA

DESIGNED BY: ATO  
CHECKED BY: MRT  
DATE: OCTOBER, 2003  
SCALE: HOR. 50' VERT. 1"=5'  
SHEET 16BOF 31  
CO. NO. 9820-SD-02  
CAD NAME: 7060RPP.DWG  
LAYOUT: RPP6  
FILE NO. 97060-37



**BMP MAP**

**BMP FACILITY DESIGN CALCULATIONS**

**II. WATERSHED INFORMATION**

**PART 1: LIST ALL OF THE SUBAREAS AND "C" FACTORS USED IN THE BMP COMPUTATIONS**

SUBAREA DESIGNATION & DESCRIPTION (1)	"C" FACTOR (2)	AREA (AC) (3)
A1 POND-1 ONSITE DETAINED	0.50	14.28
A2 POND-1 OFFSITE DETAINED	0.40	0.93
A3 POND-2 ONSITE DETAINED	0.50	4.95
A4 POND-2 OFFSITE DETAINED	0.40	0.78
A5 ONSITE UNDETAINED	0.24	15.53
A6 OPEN SPACE UNDETAINED	0.16	2.5

**PART 2: COMPUTE THE WEIGHTED AVERAGE "C" FACTOR FOR THE SITE**

(A) AREA OF THE SITE	(a) 37.26	ACRES	
(B) SUBAREA DESIGNATION (1)	"C" FACTOR (2)	AREA (AC) (3)	PRODUCT (4)
A1	0.50	14.28	7.14
A2	0.40	0.93	0.37
A3	0.50	4.95	2.48
A4	0.24	15.53	3.73
A5	0.16	2.5	0.38
(b) TOTAL		37.26	13.72
(C) WEIGHTED AVERAGE "C" FACTOR		(b) / (a) = (c)	0.37

**PART 3: COMPUTE THE TOTAL PHOSPHORUS REMOVAL FOR THE SITE**

SUBAREA DESIGNATION (1)	BMP TYPE (2)	REMOVAL EFF. (%) (3)	AREA (AC) (4)	"C" FACTOR RATIO (5)	PRODUCT (6)
A1	WET	65	14.28	1.36	33.9
A2	WET	65	0.93	1.09	0.4
A3	WET	50	4.95	1.36	9.0
A4	WET	50	0.78	1.09	0.2
A5	UND	0	15.53	0.65	0.0
A6	OPEN	100	2.5	1.00	6.8
(a) TOTAL			37.26		50.3

**PART 4: DETERMINE COMPLIANCE WITH PHOSPHORUS REMOVAL REQUIREMENT**

(A) SELECT REQUIREMENT: (a) 50%  
 (FAIRFAX COUNTY CHESAPEAKE BAY PRESERVATION AREA - 40%)  
 OR (FAIRFAX COUNTY WATER SUPPLY OVERLAY DISTRICT - 50%)

(B) IF LINE 3 (a) 50.3% > LINE 4(a) 50% THEN PHOSPHORUS REMOVAL REQUIREMENT IS SATISFIED.

**V. STORAGE**

**PART 7: COMPUTE THE WEIGHTED AVERAGE "C" FACTOR FOR EACH PROPOSED BMP FACILITY**

(A) LIST AREAS TO BE CONTROLLED BY THE PROPOSED BMP.

SUBAREA DESIGNATION (1)	"C" FACTOR (2)	AREA (AC) (3)	PRODUCT (4)
A1	0.50	14.28	7.14
A2	0.40	0.93	0.37
A3	0.50	4.95	2.48
A4	0.40	0.78	0.31
(a) 20.94			9.75
(C) WEIGHTED AVERAGE "C" FACTOR		(b) / (a) = (c)	0.47

**PART 8: DETERMINE THE STORAGE REQUIRED FOR EACH PROPOSED FACILITY**

(A) EXTENDED DETENTION DRY POND  
 CHART A6-40 VALUE (APPENDIX 4-3) FOR BMP STORAGE PER ACRE  
 [(4375 x "C") - 875] OR [31.25 x % BMP] = (a) 1162.446275 CF/AC

DESIGN 1 (48 HOUR DRAWDOWN)  
 LINE 7(a) 20.94 X LINE 8(a) 1162.446275 = 24,311.6 CF

(B) WET POND  
 VOLUME OF RUNOFF PER ACRE FROM MEAN STORM  
 [1452 x "C"] = 1452 x LINE 7(c) = (b) 676.2 CF/AC

\*DESIGN 1 (2.5 x VOLUME OF RUNOFF FROM MEAN STORM EVEN IN WET STORAGE WITH EXTENDED DETENTION ABOVE THE PERMANENT POOL)  
 WET STORAGE  
 2.5 X LINE 7(a) 20.94 X LINE 8(b) 676.2 = 35,399.0 CF

EXTENDED DETENTION  
 LINE 7 (a) 20.94 X LINE 8(b) 676.2 = 14,159.6 CF

\*DESIGN 2 (4.0 x VOLUME OF RUNOFF FROM MEAN STORM)  
 4.0 X LINE 7(a) 20.94 X LINE 8(b) 676.2 = 56638 CF

BMP VOL. POND #1	47060	CF
BMP VOL. POND #2	10,658	CF
TOTAL BMP VOL.	57,718	CF

POND #1 IS AN EXTENDED DETENTION WET POND WITH A SEDIMENT FOREBAY. THIS IS ALLOWED TO HAVE A 65% EFFICIENCY FOR PHOSPHORUS REMOVAL UNDER THE GUIDELINES FOR INNOVATIVE BMPs. THE FOREBAY IS DESIGNED USING 0.1 INCH PER ACRE UNDER THE MINIMUM STANDARDS IN THE VIRGINIA STORMWATER MANAGEMENT HANDBOOK.

**SWM/BMP NARRATIVE**

**PRE-DEVELOPMENT CONDITIONS:**  
 THIS SITE IS LOCATED IN THE CUB RUN WATERSHED. THE EXISTING RUNOFF FROM THIS SITE FLOWS TO AN EXISTING FLOODPLAIN CHANNEL THAT RUNS THROUGH THE MIDDLE OF THIS SITE CALLED FLATLICK BRANCH. THE FLOODPLAIN HAS BEEN DELINEATED WITH PURSUANT TO AN APPROVED FLOODPLAIN STUDY (COUNTY #9820 FP-02). THERE IS ALSO SUBSTANTIAL RESOURCE PROTECTION AREAS ON THE SITE THAT HAVE BEEN DELINEATED PURSUANT TO THE ASSOCIATED RPA PLAN (COUNTY #9820-RPA-01). THIS SITE IS LOCATED WITHIN THE OCCOQUAN WATER SUPPLY PROTECTION OVERLAY DISTRICT THAT REQUIRES A 50% PHOSPHORUS REMOVAL EFFICIENCY FOR THE SITE.

**POST-DEVELOPMENT CONDITIONS:**  
 THE TWO PROPOSED STORMWATER MANAGEMENT PONDS ARE COLLECTING THE RUNOFF FROM 19.23 ACRES OF THE SITE. THE PONDS HAVE BEEN SIZED SO THAT THEY ACCOMMODATE THE ONSITE AND OFFSITE (20.94 ACRES IN TOTAL) FLOWS. DISCHARGE FROM THE PONDS IS LESS THAN THE PRE-DEVELOPMENT RUNOFF (SEE SWM SUMMARY, THIS SHEET). THE OUTFALL FROM THE PONDS IS PIPED AND DISCHARGED INTO THE EXISTING FLOODPLAIN. THE REMAINDER OF THE SITE THAT IS NOT COLLECTED BY THE STORM SEWER SYSTEM IS BEING ALLOWED TO SHEET FLOW OFFSITE NATURALLY. A PORTION OF THE FLOODPLAIN AREA IS BEING PLACED IN CONSERVATION EASEMENT AND THE TWO ONSITE WET PONDS PROVIDE ADDITIONAL BMP CREDIT. THE TWO WET PONDS WILL PRIVATELY OWNED AND MAINTAINED BY THE PROJECT H.O.A. POND #1 IS A WET POND DESIGNED WITH SEDIMENT FOREBAY TO INCREASE ITS PHOSPHORUS REMOVAL EFFICIENCY TO 65%.

**STORMWATER MANAGEMENT SUMMARY**

**ALLOWABLE RELEASE CALCULATIONS**  
 TOTAL SITE AREA = 37.26 Acres  
 ONSITE AREA UNDETAINED = 18.03 Acres  
 OFFSITE AREA DETAINED = 1.71 Acres

YR. STORM EVENT	"C" FACTOR	INTENSITY (in/hr)	AREA (acres)	FLOW (cfs)
Q2	0.25	4.60	37.26	42.85
Q10	0.25	5.92	37.26	55.14

TOTAL SITE PRE-DEVELOPMENT RUNOFF				
Q2	0.25	4.60	37.26	19.08
Q10	0.25	5.92	37.26	24.55

OFFSITE FLOW DETAINED IN ONSITE PONDS				
Q2	0.40	4.60	1.71	3.16
Q10	0.40	5.92	1.71	4.06

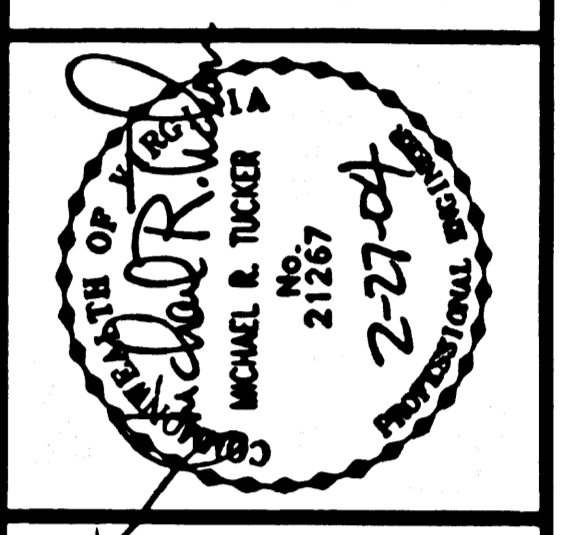
ALLOWABLE RELEASE FLOW CALCULATION				
SITE PRE-DEV.	POST-DEV. UNDETAINED	OFFSITE DETAINED	ALLOWABLE RELEASE	
Q2	42.85	18.06	3.15	
Q10	55.14	24.55	4.05	

ACTUAL RELEASE FLOW FROM PONDS PER SWM ROUTINGS				
YR. STORM EVENT	POND #1 PEAK FLOW (cfs)	POND #2 PEAK FLOW (cfs)	TOTAL FLOW (cfs)	
Q2	12.83	11.42	24.25	
Q10	19.47	14.48	33.95	

(SEE SHEETS 20 & 21 FOR POND ROUTING COMPUTATIONS)

SEDIMENT FOREBAY SIZING FOR POND #1				
POND DRAINAGE AREA	FOREBAY SIZING 0.10 IN/AC	SEDIMENT FOREBAY VOLUME		
15.21 AC.	X	1.52 ACRE-INCH/10X		
	OR	5518 CUBIC FEET		

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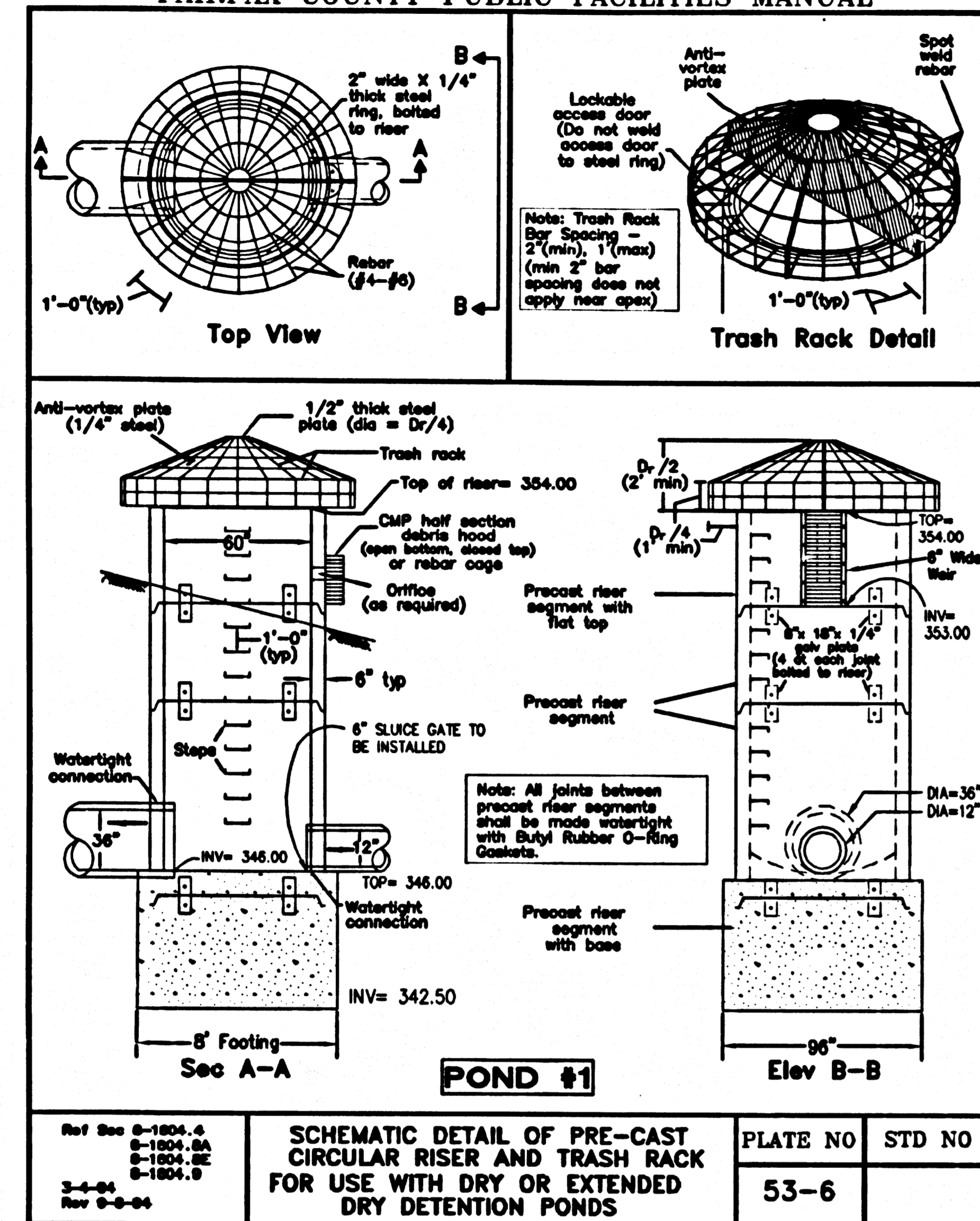


**BMP/SWM COMPUTATIONS**

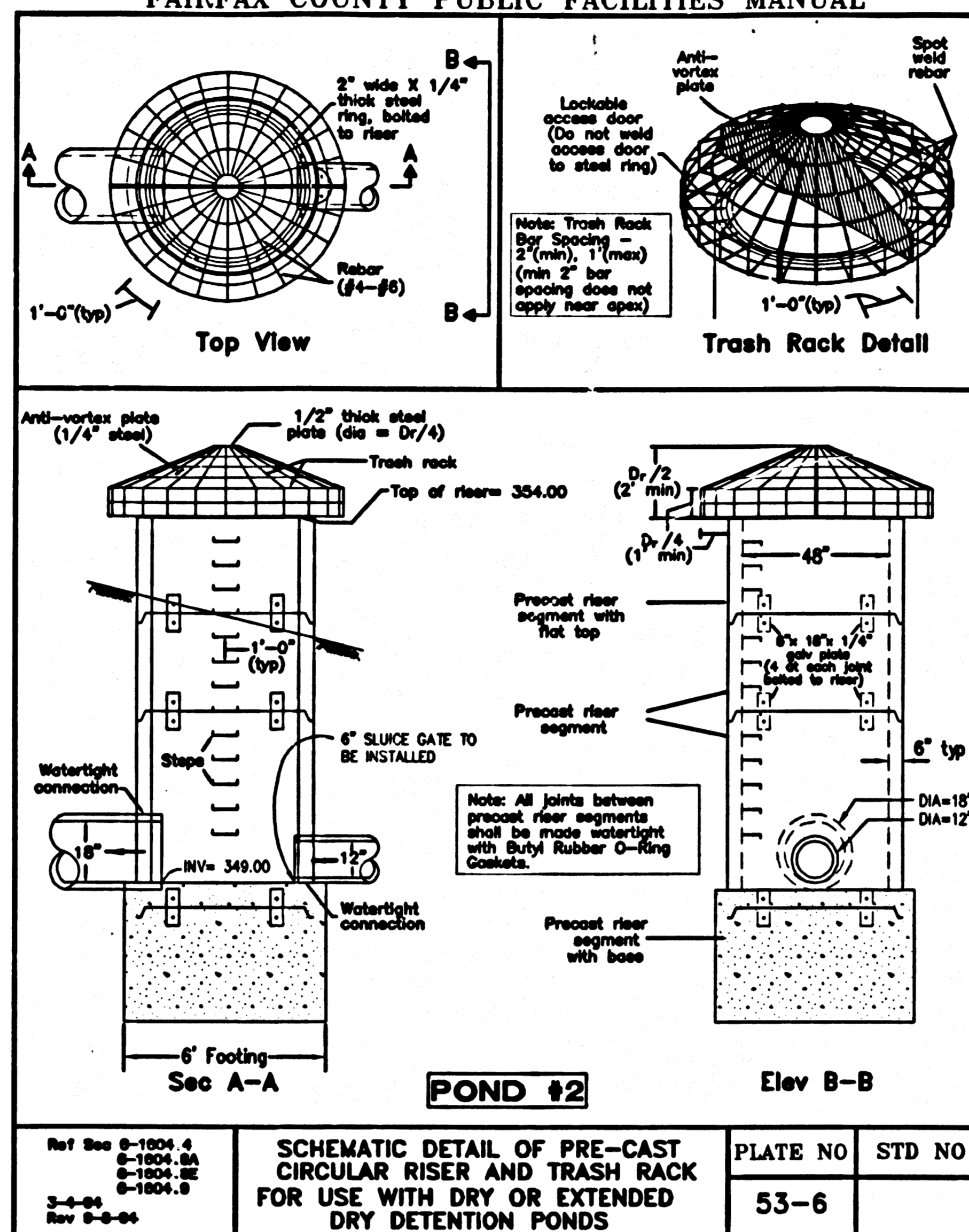
**THOMPSON ROAD PROPERTY**  
 SULLY DISTRICT  
 FAIRFAX COUNTY, VIRGINIA

DESIGNED BY: ATO
DRAFTED BY: CAD
CHECKED BY: MRT
DATE: OCTOBER, 2003
SCALE: HOR: 1" = 100' VERT:
SHEET 17 OF 31
CO. NO. 9820-S0-02
CAD NAME: 7060BMP.DWG
LAYOUT: BMP
FILE NO. 97090-37

FAIRFAX COUNTY PUBLIC FACILITIES MANUAL



FAIRFAX COUNTY PUBLIC FACILITIES MANUAL



SEE SHEET 17 FOR STUDY POINT #1 LOCATION

DAM BREACH ANALYSIS FOR POND #1  
EXISTING FLOW TO STUDY POINT #1

Q-100	= 1630 CFS
Q-5.0x100	= 7650 CFS

FLOW FROM 9820-FP-02

PROPOSED DAM - SUNNY DAY FAILURE

$Q_p$	= $(3.1)(b)(C)(1+C/H^2)(0.5)^{3/3}$	
$Q_p$	= 318.46	Peak Breach Flow (cfs)
$V_r$	= 1.31	reservoir volume (ac-ft)
$H_d$	= 8.00	dam height (ft)
$A_s$	= 0.41	reservoir surface area (ac)
$K_o$	= 1.00	Froelich Constant (1.0 for piping, 1.4 for overtopping)
$b$	= 17.09	breach width (ft)
$C$	= 0.66	constant
$t$	= 0.11	time to breach (hr)
$t$	= 6.8	time to breach (min)

PROPOSED DAM - OVERTOPPING FAILURE

$Q_{breach}$	= $(3.1)(b)(C)(1+C/H^2)(0.5)^{3/3}$	
$Q_{breach}$	= 483.55	Peak Breach Flow (cfs) (5.0x100 Year Storm)
$V_r$	= 3.85	reservoir volume (ac-ft)
$H_d$	= 12.00	dam height (ft)
$A_s$	= 0.61	reservoir surface area (ac)
$K_o$	= 1.40	Froelich Constant (1.0 for piping, 1.4 for overtopping)
$b$	= 34.67	breach width (ft)
$C$	= 0.41	constant
$t$	= 0.13	time to breach (hr)
$t$	= 7.8	time to breach (min)

DAM BREACH ANALYSIS FOR POND #2  
EXISTING FLOW TO STUDY POINT #1

Q-100	= 1630 CFS
Q-5.0x100	= 7650 CFS

FLOW FROM 9820-FP-02

PROPOSED DAM - SUNNY DAY FAILURE

$Q_{breach}$	= $(3.1)(b)(C)(1+C/H^2)(0.5)^{3/3}$	
$Q_{breach}$	= 70.86	Peak Breach Flow (cfs)
$V_r$	= 0.13	reservoir volume (ac-ft)
$H_d$	= 5.00	dam height (ft)
$A_s$	= 0.08	reservoir surface area (ac)
$K_o$	= 1.00	Froelich Constant (1.0 for piping, 1.4 for overtopping)
$b$	= 8.53	breach width (ft)
$C$	= 0.22	constant
$t$	= 0.06	time to breach (hr)
$t$	= 3.6	time to breach (min)

PROPOSED DAM - OVERTOPPING FAILURE

$Q_{breach}$	= $(3.1)(b)(C)(1+C/H^2)(0.5)^{3/3}$	
$Q_{breach}$	= 242.5	Peak Breach Flow (cfs) (5.0x100 Year Storm)
$V_r$	= 0.89	reservoir volume (ac-ft)
$H_d$	= 11.00	dam height (ft)
$A_s$	= 0.19	reservoir surface area (ac)
$K_o$	= 1.40	Froelich Constant (1.0 for piping, 1.4 for overtopping)
$b$	= 23.53	breach width (ft)
$C$	= 0.19	constant
$t$	= 0.07	time to breach (hr)
$t$	= 4.2	time to breach (min)

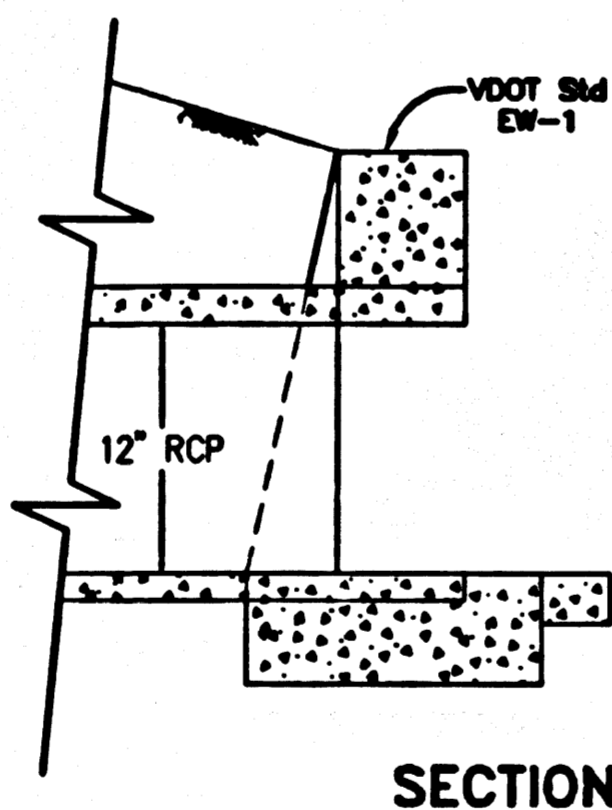
DAM BREACH ANALYSIS

THIS SITE CONSISTS OF 31 LOTS AND TWO (2) SWAMP FACILITIES THAT ARE USED TO REDUCE THE POST-DEVELOPMENT FLOWS TO PRE-DEVELOPMENT CONDITIONS AND REDUCE THE PHOSPHOROUS LOADING BY GREATER THAN FIFTY PERCENT. BOTH PONDS HAVE BEEN GRADED IN SUCH A MANNER THAT THEY ARE TOTALLY IN A CUT SITUATION. THE TWO PONDS OUTFALL DIRECTLY INTO THE APPROVED MAJOR FLOODPLAIN FOR FLATLICK BRANCH (COUNTY 9820-FP-02).

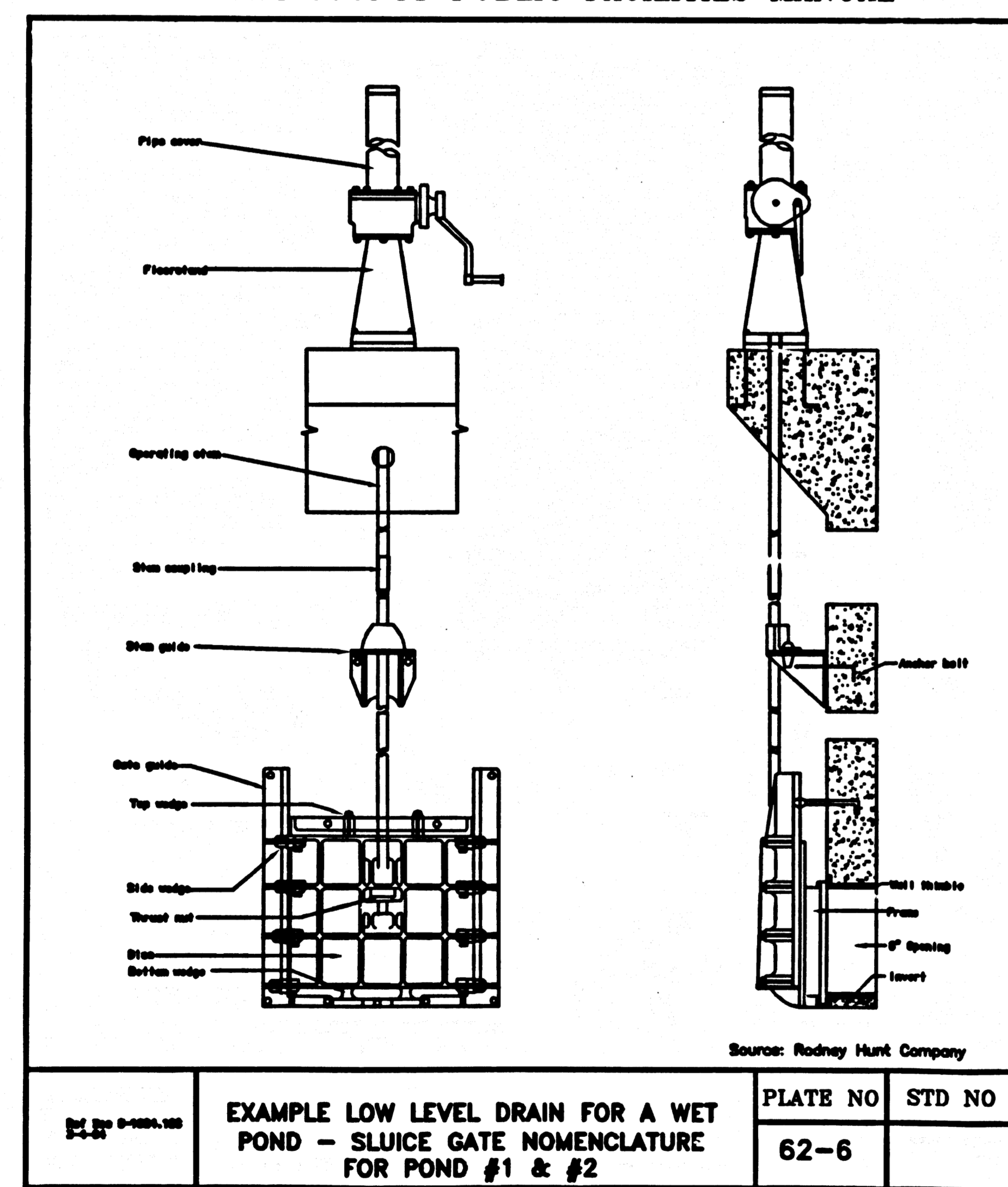
THE FREADE EQUATION WAS USED TO ANALYZE THE BREACH OF BOTH PONDS IN THE UNLIKELY EVENT THAT A BREACH WOULD OCCUR. IT WAS ASSUMED THAT THE PONDS WOULD ONLY BREACH TO THE INVERT OF THE BOTTOM OF THE PONDS. POND #1 AND #2 WILL GENERATE A TOTAL SUNNY DAY BREACH OF 359.32 CFS AND AN OVERTOPPING BREACH FLOW OF 726.15 CFS. THE PONDS WOULD BREACH AT THE 6x100 YEAR STORM. THE EXISTING FLOWS IN THE FLOODPLAIN ARE SUBSTANTIALLY LARGER THAN THE FLOWS GENERATED BY A BREACH EVENT.

SINCE THE PONDS ARE IN CUT AND THE BREACH FLOW ARE SUBSTANTIALLY LESS THAN THE EXISTING FLOODPLAIN, IT IS OUR OPINION THAT THE LOCATION OF THESE TWO PONDS WILL NOT CAUSE ANY IMPACTS ON DOWNSTREAM PROPERTIES.

FOR POND #1 & #2: 12" RCP TO EW-1 FOR DRAWDOWN OF POND FOR MAINTENANCE



FAIRFAX COUNTY PUBLIC FACILITIES MANUAL



OUTLET PROTECTION COMPUTATIONS FOR POND #1

GIVEN  
SEF FLOW(Q) = 60.4 CFS  
OUTLET PIPE DIA. (D) = 36 IN = 3 FT.  
OUTLET PIPE AREA (A) = 7.1 S.F.  
TALWATER (TW) = 0 FT.

1. USING FIGURE B-4 OF HEC-14, DETERMINE THE CRITICAL DEPTH (h<sub>c</sub>)  
h<sub>c</sub> = 2 FT.  
F =  $1.5 < 3$ , CONTINUE WITH STEP 2. IF NOT, SKIP TO STEP 5 AND 6, USING THE TOTAL AREA OF THE OUTLET CONDUIT FOR THE COMPUTATIONS.

2. USE FIGURE B-10 TO DETERMINE Y<sub>0D</sub>

SINCE THE TW = 0, TWD = 0  
 $QD^{2.5} = 3.23$   
Y<sub>0D</sub> = 0.5

3. SOLVE FOR BRINK DEPTH (h<sub>0</sub>)

Y<sub>0</sub> = 0.48 x D = 1.4 FT.

4. USE TABLE B-2 OF HEC-14 TO DETERMINE BRINK AREA (A<sub>0</sub>)

SINCE Y<sub>0D</sub> = 0.48  
A<sub>0</sub> = 0.377 x D<sup>2</sup> = 3.4 SF

5. SOLVE FOR NORMAL FLOW DEPTH (h<sub>n</sub>)

Y<sub>n</sub> = (A<sub>0</sub>/2)<sup>0.5</sup> = 1.3 FT.

6. SOLVE FOR EXIT VELOCITY

V<sub>0</sub> = Q/A<sub>0</sub> = 15 FPS

7. SOLVE FOR FROUDE NUMBER

Fr =  $V_0(32.2 \times Y_0)^{1/2} = 2.33$

8. USE FIGURE X1-2 OF HEC-14 TO DETERMINE h<sub>w</sub>/h<sub>n</sub>, THEN SOLVE FOR h<sub>w</sub>

h<sub>w</sub>/h<sub>n</sub> = 0.4, D<sub>50</sub> = 0.62 FT.  
h<sub>w</sub> = 0.9, h<sub>n</sub> = 1.2

9. SOLVE FOR h<sub>w</sub>D<sub>50</sub>

h<sub>w</sub>D<sub>50</sub> = 0.55  
L = 15 x h<sub>w</sub> = 17.5 FT.  
L = 4 x D = 12 FT.

USE L = 20 FT.

USE PLATE NO. 58-4 OF THE PFM TO DETERMINE THE RPRAP SIZE THAT CAN WITHSTAND THE FLOW VELOCITY.

BASED ON AN EXIT VELOCITY OF 15.03 FPS, CLASS I RPRAP WILL BE USED.  
PLACE RPRAP IN ACCORDANCE WITH PLATE 60-6 OF THE PFM.

OUTLET PROTECTION COMPUTATIONS FOR POND #2

GIVEN  
SEF FLOW(Q) = 20.2 CFS  
OUTLET PIPE DIA. (D) = 18 IN = 1.5 FT.  
OUTLET PIPE AREA (A) = 1.8 S.F.  
TALWATER (TW) = 0 FT.

1. USING FIGURE B-4 OF HEC-14, DETERMINE THE CRITICAL DEPTH (h<sub>c</sub>)  
h<sub>c</sub> = 1.5 FT.  
F = 1.5 < 1.5, CONTINUE WITH STEP 2. IF NOT, SKIP TO STEP 5 AND 6, USING THE TOTAL AREA OF THE OUTLET CONDUIT FOR THE COMPUTATIONS.

2. USE FIGURE B-10 TO DETERMINE Y<sub>0D</sub>

SINCE THE TW = 0, TWD = 0  
 $QD^{2.5} = 7.34$   
Y<sub>0D</sub> = 1

3. SOLVE FOR BRINK DEPTH (h<sub>0</sub>)

Y<sub>0</sub> = 1 x D = 1.5 FT.

4. USE TABLE B-2 OF HEC-14 TO DETERMINE BRINK AREA (A<sub>0</sub>)

SINCE Y<sub>0D</sub> = 1  
A<sub>0</sub> = 0.7854 x D<sup>2</sup> = 1.8 SF

5. SOLVE FOR NORMAL FLOW DEPTH (h<sub>n</sub>)

Y<sub>n</sub> = (A<sub>0</sub>/2)<sup>0.5</sup> = 0.9 FT.

6. SOLVE FOR EXIT VELOCITY

V<sub>0</sub> = Q/A<sub>0</sub> = 11.5 FPS

7. SOLVE FOR FROUDE NUMBER

Fr =  $V_0(32.2 \times Y_0)^{1/2} = 2.08$

8. USE FIGURE X1-2 OF HEC-14 TO DETERMINE h<sub>w</sub>/h<sub>n</sub>, THEN SOLVE FOR h<sub>w</sub>

h<sub>w</sub>/h<sub>n</sub> = 0.45, D<sub>50</sub> = 0.42 FT.  
h<sub>w</sub> = 1.4, h<sub>n</sub> = 1.3

9. SOLVE FOR h<sub>w</sub>D<sub>50</sub>

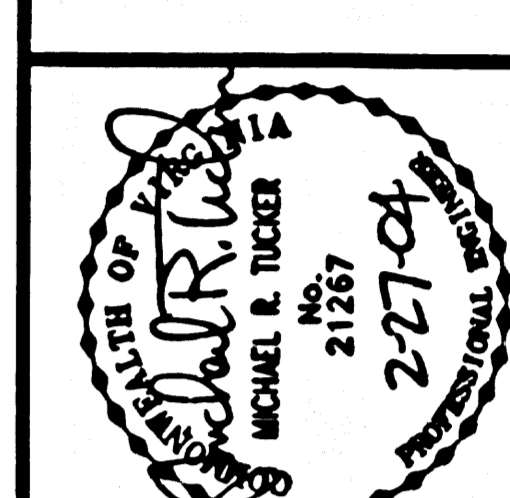
h<sub>w</sub>D<sub>50</sub> = 3.11  
L = 15 x h<sub>w</sub> = 19.7 FT.  
L = 4 x D = 6 FT.

USE L = 20 FT.

USE PLATE NO. 58-4 OF THE PFM TO DETERMINE THE RPRAP SIZE THAT CAN WITHSTAND THE FLOW VELOCITY.

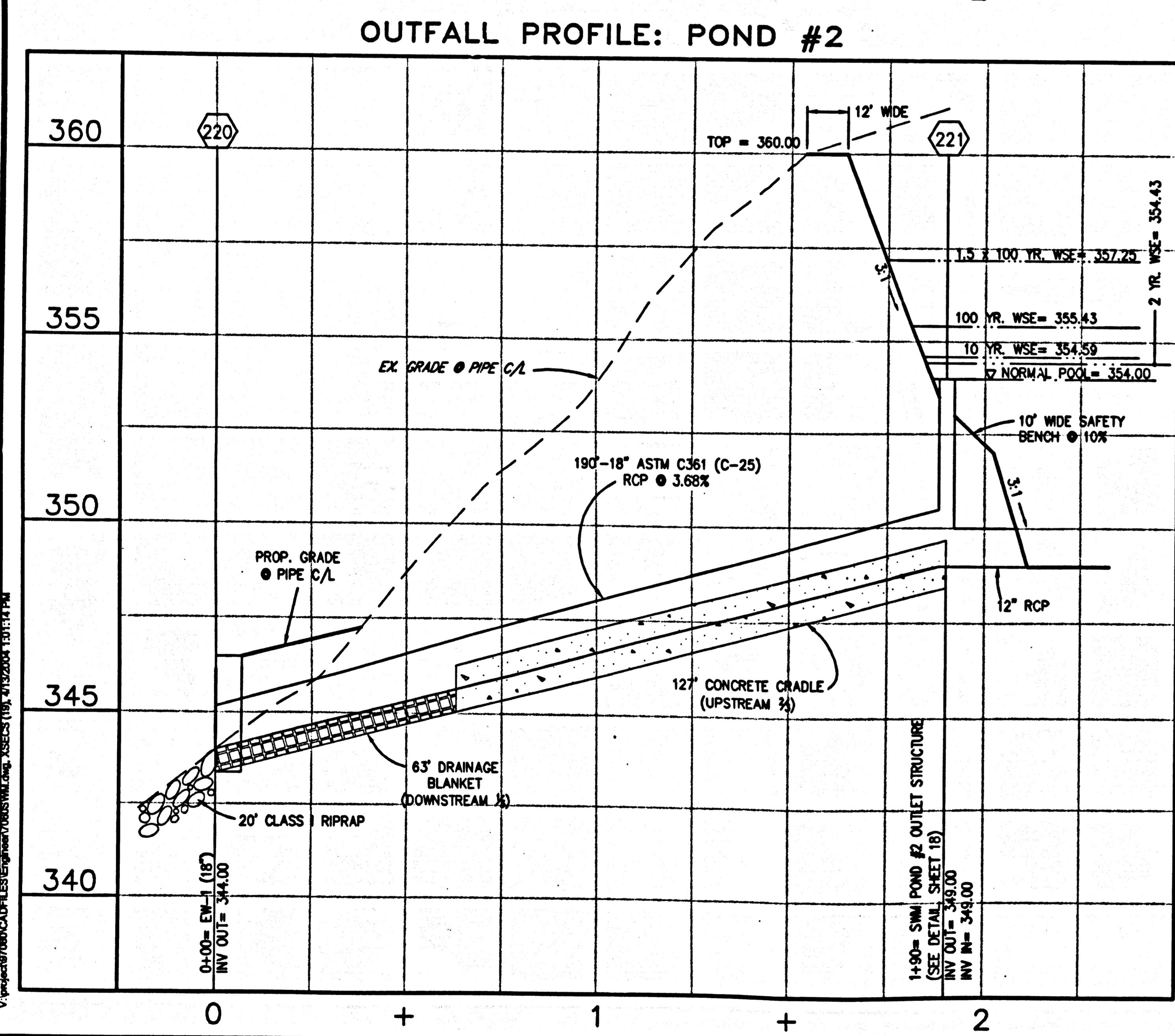
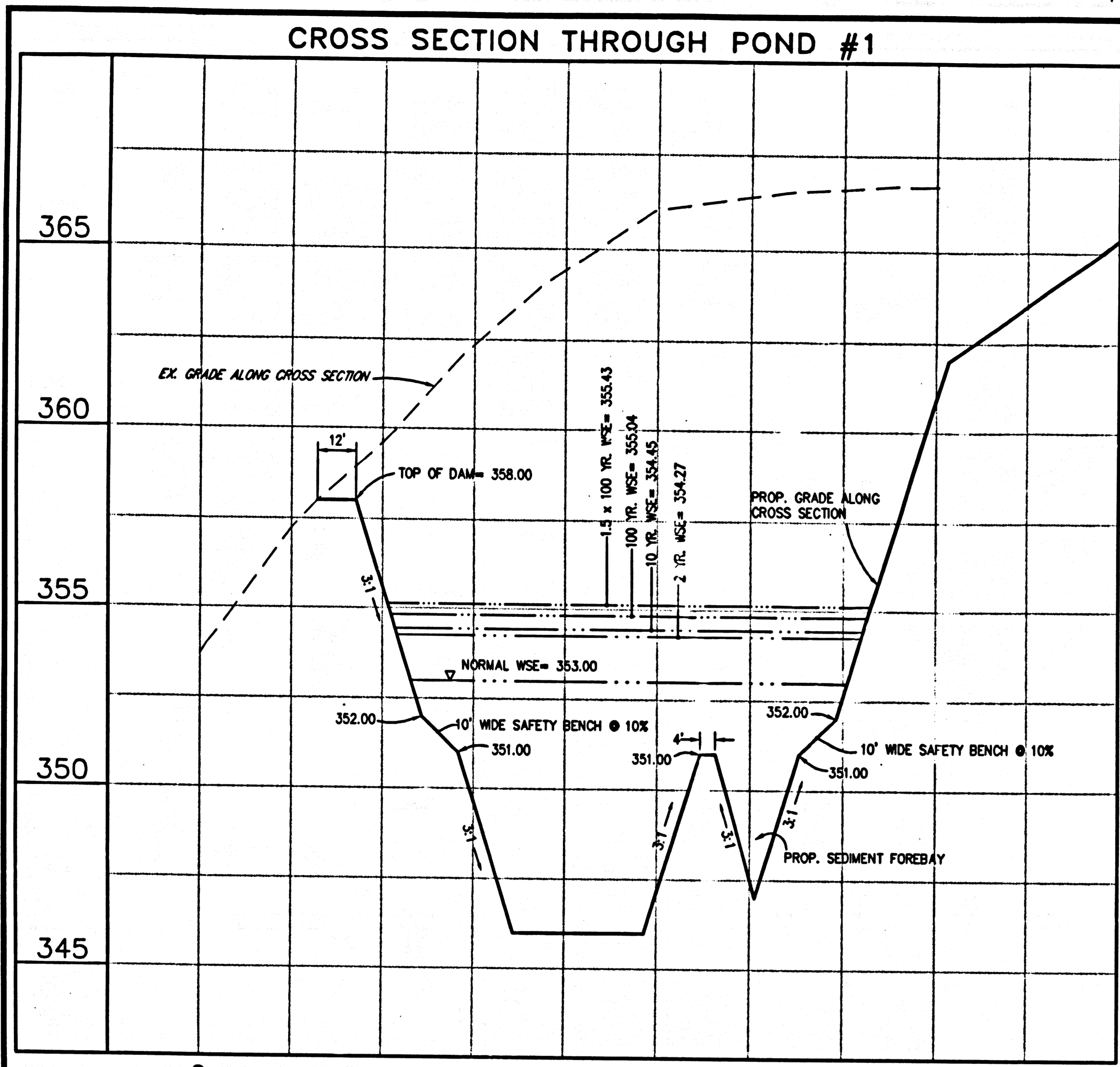
BASED ON AN EXIT VELOCITY OF 11.5 FPS, CLASS I RPRAP WILL BE USED.  
PLACE RPRAP IN ACCORDANCE WITH PLATE 60-6 OF THE PFM.

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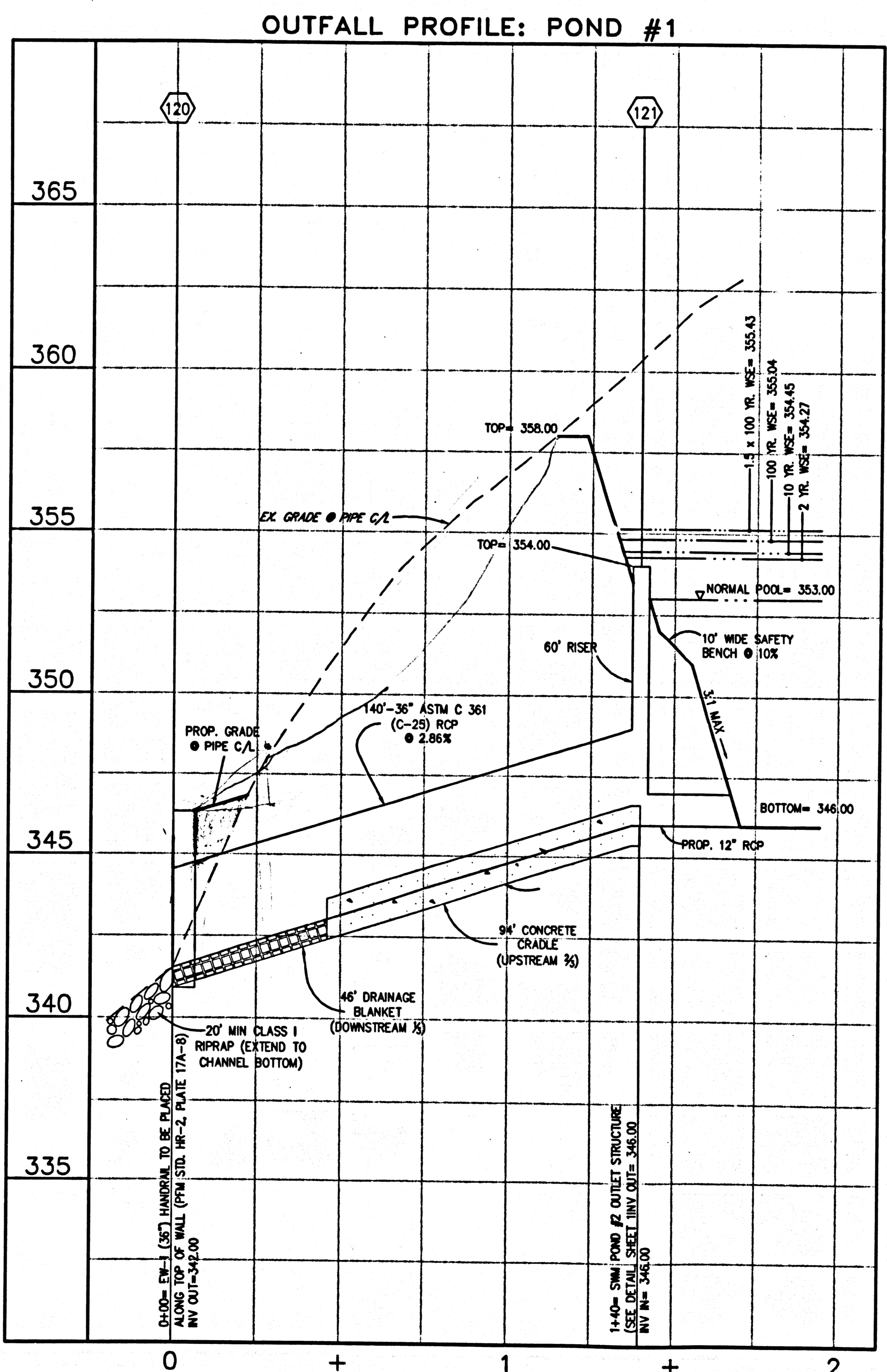
STORMWATER MANAGEMENT COMPUTATIONS  
DETAILS/DAM BREACH ANALYSIS  
**THOMPSON ROAD PROPERTY**  
SULLY DISTRICT  
FAIRFAX COUNTY, VIRGINIA

DESIGNED BY: ATO
DRAFTED BY: CAD
CHECKED BY: MRT
DATE: OCTOBER, 2003
SCALE: HOR: 1" = 50'
VERT: 1" = 5'
SHEET 18 OF 31
CO. NO. 9820-SD-02
CAD NAME: 7060SWM.DWG
LAYOUT: DETAILS
FILE NO. 97050-37



### POND NOTES

- PONDS #1 & #2 HAVE A CLASS "C" DAM AND GEOTECHNICAL REQUIREMENTS ARE REQUIRED.
- CONCRETE CRADLE SHALL BE INSTALLED ON THE UPSTREAM 2/3 OF THE PIPE. SEE DETAIL THIS SHEET.
- DRAINAGE BLANKET SHALL BE INSTALLED ON THE DOWNSTREAM 1/3 OF THE PIPE.
- THE SLUICE GATES SHALL BE OPERATED AND MAINTAINED IN CONFORMANCE WITH THE FAIRFAX COUNTY FACILITIES MANUAL (PFM).
- BOTH WET PONDS SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE HOMEOWNERS' ASSOCIATION. WET PONDS ARE REQUIRED TO MEET THE W.S.P.O.D. PHOSPHORUS REMOVAL REQUIREMENTS.
- COMBINED SPILLWAYS HAVE BEEN USED TO MINIMIZE THE IMPACTS TO RESOURCE PROTECTION AREAS (RPA).
- ALL CONSTRUCTION SHALL CONFORM TO PFM STANDARDS.
- RIPRAP LENGTHS HAVE BEEN DESIGNED PURSUANT TO HEC-14. SEE COMPS. ON SHEET 18.
- INSTALL POND LININGS IN ACCORDANCE WITH THE GEOTECHNICAL REQUIREMENTS.



### POND #1: COMPOSITE OUTFLOW SUMMARY

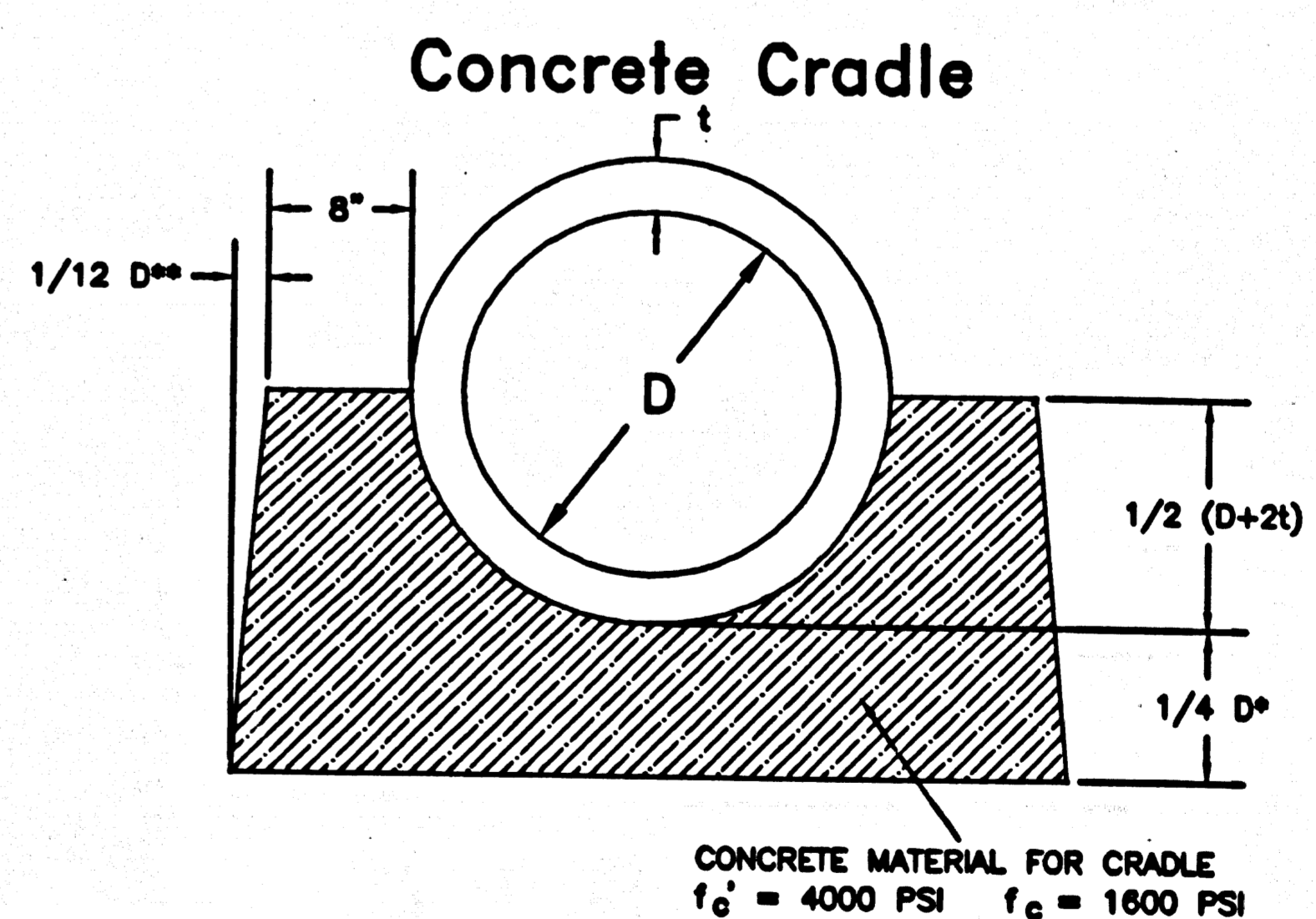
\*\*\*\*\* COMPOSITE OUTFLOW SUMMARY \*\*\*\*\*

WS Elev. Total Q	Q	Converge	Notes
Elev. ft	cfs	TW Elev Error +/-ft	Contributing Structures
346.00	.00	Free Outfall	(no Q: SP,WR,CV)
346.50	.00	Free Outfall	(no Q: SP,WR,CV)
347.00	.00	Free Outfall	(no Q: SP,WR,CV)
347.50	.00	Free Outfall	(no Q: SP,WR,CV)
348.00	.00	Free Outfall	(no Q: SP,WR,CV)
348.50	.00	Free Outfall	(no Q: SP,WR,CV)
349.00	.00	Free Outfall	(no Q: SP,WR,CV)
349.50	.00	Free Outfall	(no Q: SP,WR,CV)
350.00	.00	Free Outfall	(no Q: SP,WR,CV)
350.50	.00	Free Outfall	(no Q: SP,WR,CV)
351.00	.00	Free Outfall	(no Q: SP,WR,CV)
351.50	.00	Free Outfall	(no Q: SP,WR,CV)
352.00	.00	Free Outfall	(no Q: SP,WR,CV)
352.50	.00	Free Outfall	(no Q: SP,WR,CV)
353.00	.00	Free Outfall	(no Q: SP,WR,CV)
353.50	.53	Free Outfall	WR,CV (no Q: SP)
354.00	1.50	Free Outfall	WR,CV (no Q: SP)
354.50	19.42	Free Outfall	SP,WR,CV
355.00	51.37	Free Outfall	SP,WR,CV
355.50	91.11	Free Outfall	SP,WR,CV (no Q: WE)
356.00	100.40	Free Outfall	SP,WR,CV (no Q: WE)
356.50	103.49	Free Outfall	SP,WR,CV (no Q: WE)
357.00	106.47	Free Outfall	SP,WR,CV (no Q: WE)
357.50	109.37	Free Outfall	SP,WR,CV (no Q: WE)
358.00	112.21	Free Outfall	SP,WR,CV (no Q: WE)

### POND #2: COMPOSITE OUTFLOW SUMMARY

\*\*\*\*\* COMPOSITE OUTFLOW SUMMARY \*\*\*\*\*

WS Elev. Total Q	Q	Converge	Notes
Elev. ft	cfs	TW Elev Error +/-ft	Contributing Structures
349.00	.00	Free Outfall	(no Q: SP,CV)
349.50	.00	Free Outfall	(no Q: SP,CV)
350.00	.00	Free Outfall	(no Q: SP,CV)
350.50	.00	Free Outfall	(no Q: SP,CV)
351.00	.00	Free Outfall	(no Q: SP,CV)
351.50	.00	Free Outfall	(no Q: SP,CV)
352.00	.00	Free Outfall	(no Q: SP,CV)
352.50	.00	Free Outfall	(no Q: SP,CV)
353.00	.00	Free Outfall	(no Q: SP,CV)
353.50	.00	Free Outfall	(no Q: SP,CV)
354.00	.00	Free Outfall	(no Q: SP,CV)
354.50	13.33	Free Outfall	SP,CV
355.00	19.81	Free Outfall	SP,CV
355.50	20.32	Free Outfall	SP,CV
356.00	20.82	Free Outfall	SP,CV
356.50	21.31	Free Outfall	SP,CV
357.00	21.79	Free Outfall	SP,CV
357.50	22.28	Free Outfall	SP,CV
358.00	22.72	Free Outfall	SP,CV
358.50	23.17	Free Outfall	SP,CV
359.00	23.61	Free Outfall	SP,CV
359.50	24.04	Free Outfall	SP,CV
360.00	24.46	Free Outfall	SP,CV



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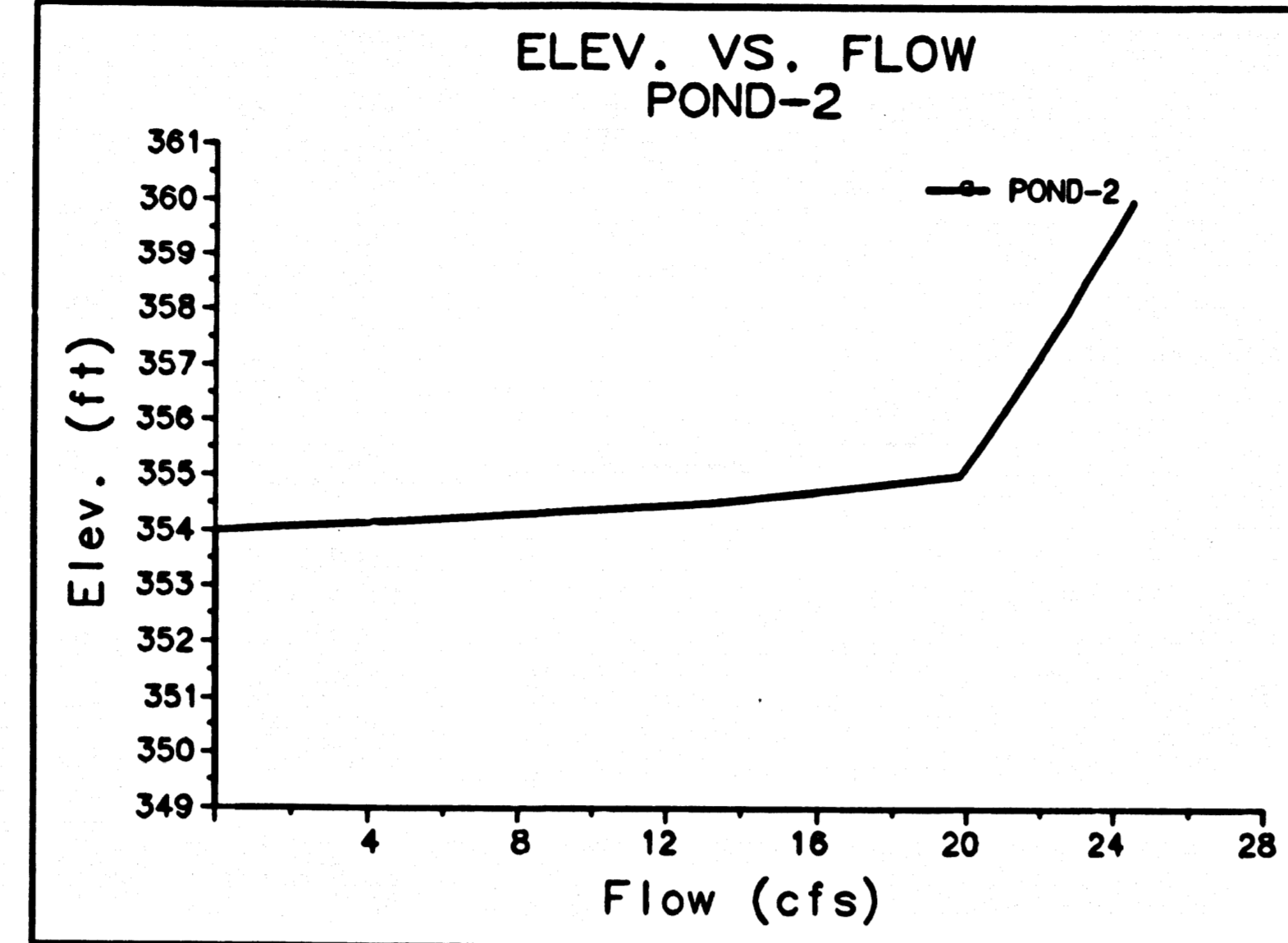
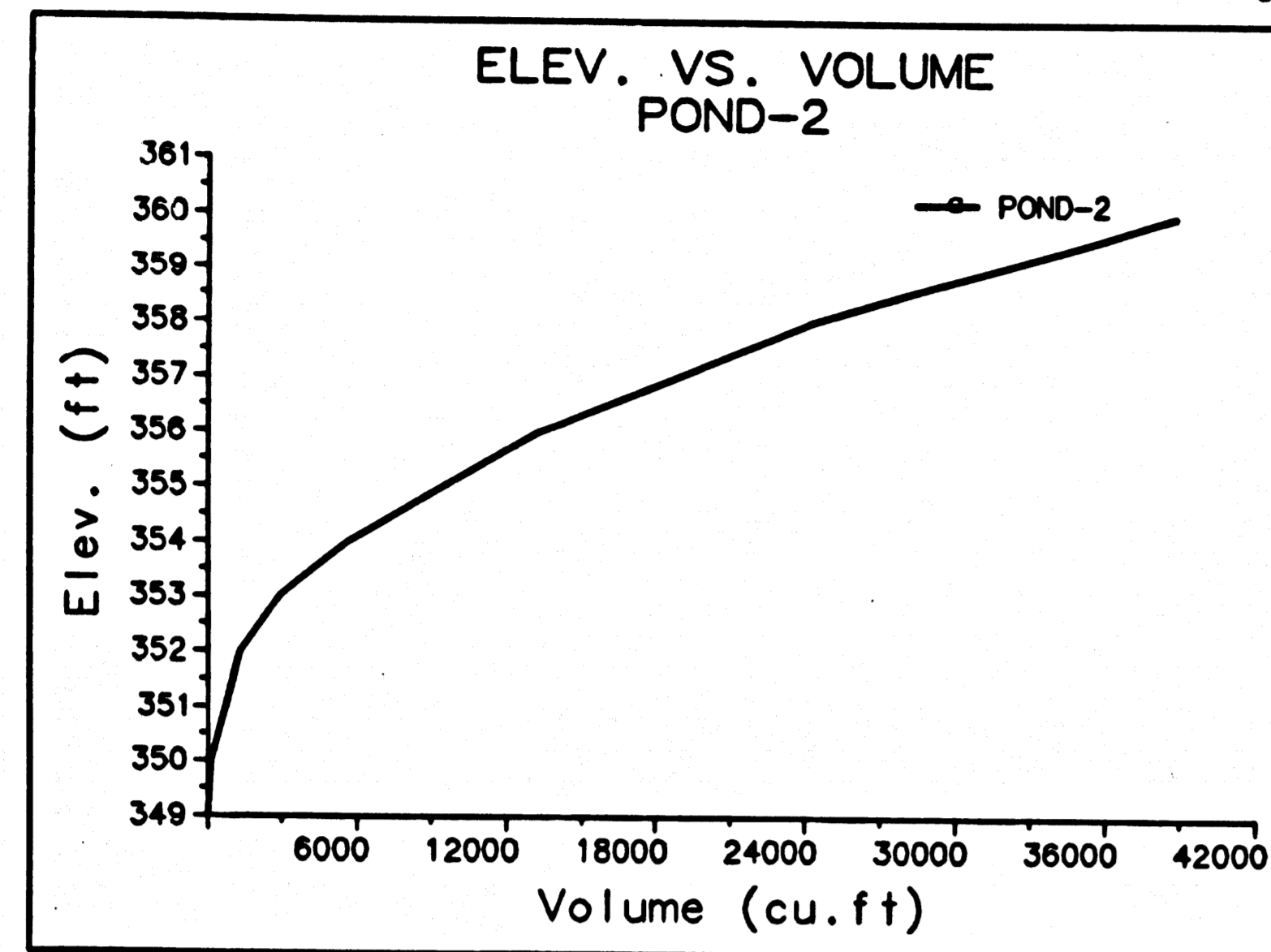
STORMWATER MANAGEMENT COMPUTATIONS  
CROSS-SECTIONS  
**THOMPSON ROAD PROPERTY**  
FAIRFAX COUNTY, VIRGINIA

DESIGNED BY: ATO  
DRAFTED BY: CAD  
CHECKED BY: MRT  
DATE: OCTOBER, 2003  
SCALE: HOR. 1" = 25'  
VERT. 1" = 2.5'  
SHEET 19 OF 31  
CO. NO. 9820-SD-02  
CAD NAME: 70605VM.DWG  
LAYOUT: XSECS  
FILE NO. 97060-37



**POND #2: POND ROUTING COMPUTATIONS - NORMAL CONDITIONS**

Elevation (ft)	Planimeter (sq. in)	Area (sq. ft)	A1+A2+sqrt(A1*A2) (sq. ft)	Volume (cu. ft)	Volume Sum (cu. ft)
349.00	-----	0	0	0	0
350.00	-----	316	316	105	105
352.00	-----	909	1781	1174	1279
353.00	-----	2436	4833	1811	2890
354.00	-----	3088	8267	2756	5646
356.00	-----	4536	11367	7578	13224
358.00	-----	6350	16253	10835	24059
360.00	-----	8429	22095	14730	38789



**POND #2: 100 YEAR STORM EVENT**

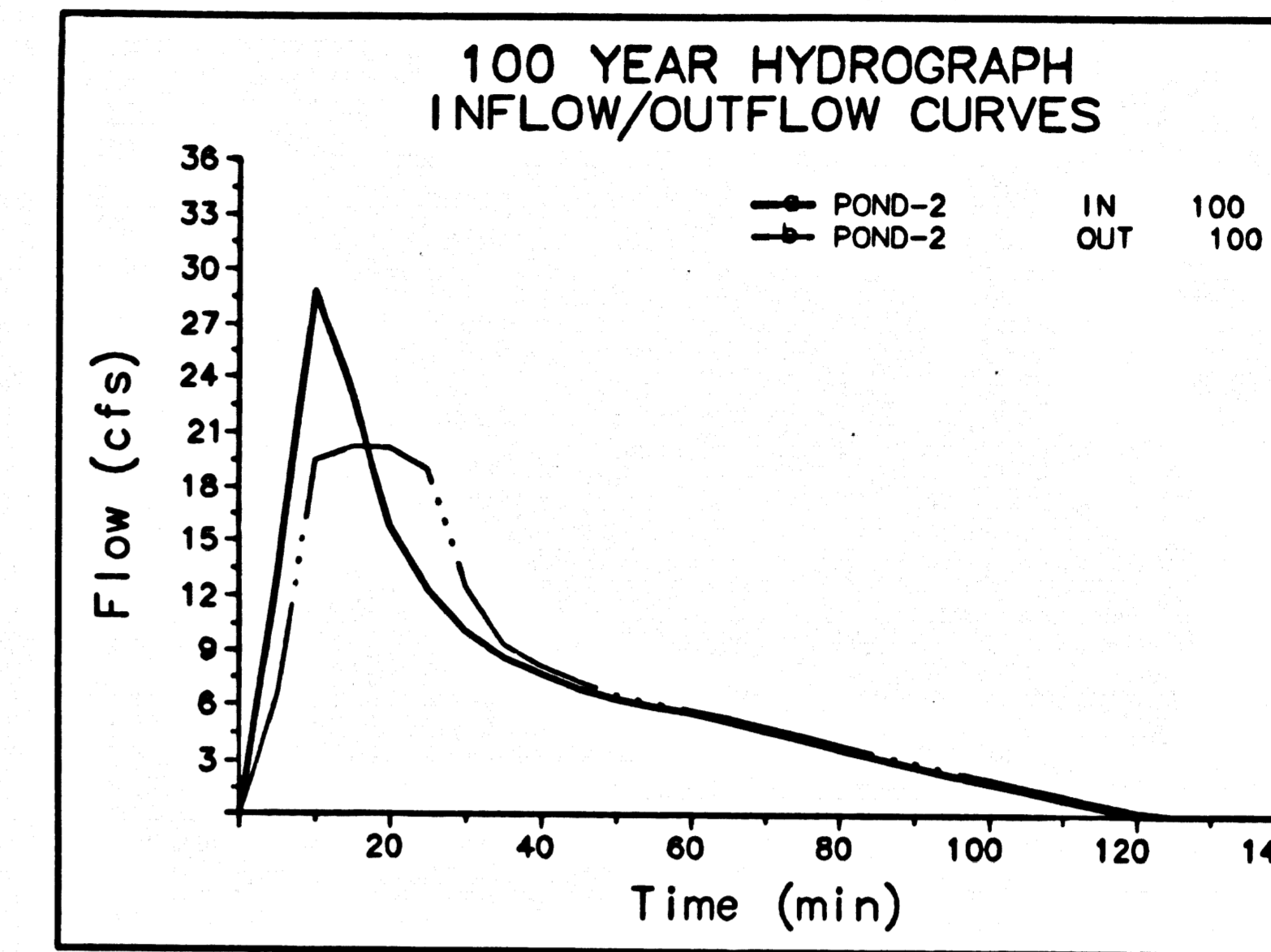
**INITIAL CONDITIONS**

Starting WS Elev = 354.00 ft  
 Starting Volume = 0 cu.ft  
 Starting Outflow = .00 cfs  
 Starting Infiltr. = .00 cfs  
 Starting Total Out = .00 cfs  
 Time Increment = 5.00 min

**INFLOW/OUTFLOW HYDROGRAPH SUMMARY**

Peak Inflow = 28.77 cfs at 10.00 min  
 Peak Outflow = 20.26 cfs at 15.00 min  
 Peak Elevation = 355.43 ft  
 Peak Storage = 5130 cu.ft

Time min	HYDROGRAPH ORDINATES (cfs)				
	Time on left represents time for first value in each row.	Output Time Increment = 5.00 min			
.00	.00	6.53	19.52	20.26	20.19
25.00	19.08	12.50	9.39	8.17	7.28
50.00	6.59	6.13	5.77	5.38	4.82
75.00	4.46	3.98	3.50	3.04	2.57
100.00	2.11	1.65	1.17	.69	.23
125.00	.00				



**POND #2: 2 YEAR STORM EVENT**

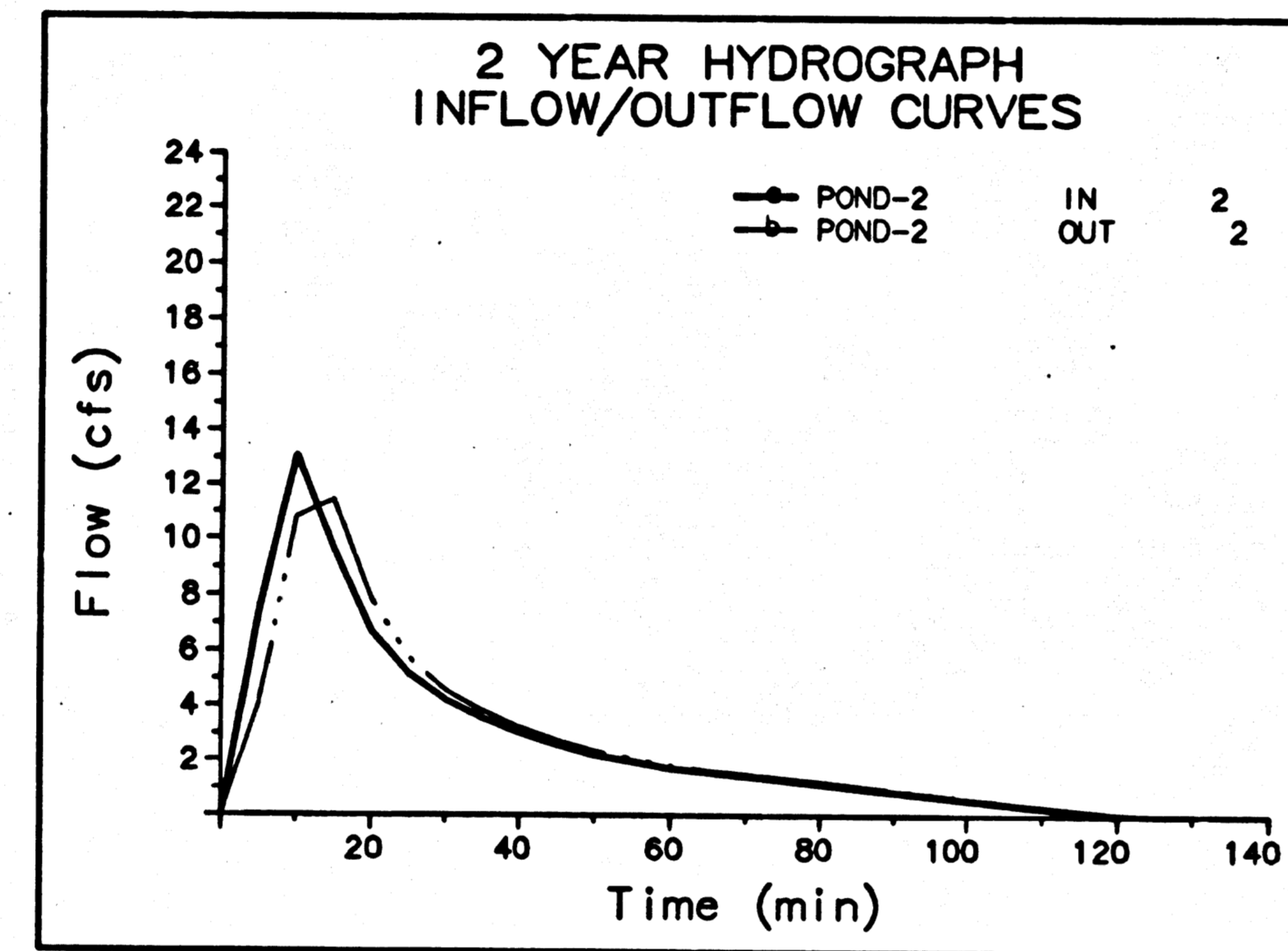
Name.... POND-2      OUT Tag: 2      Event: 2 yr

**LEVEL POOL ROUTING SUMMARY**

**INFLOW/OUTFLOW HYDROGRAPH SUMMARY**

Peak Inflow = 13.06 cfs at 10.00 min  
 Peak Outflow = 11.42 cfs at 15.00 min  
 Peak Elevation = 354.43 ft  
 Peak Storage = 7029 cu.ft

Time min	HYDROGRAPH ORDINATES (cfs)				
	Time on left represents time for first value in each row.	Output Time Increment = 5.00 min			
.00	.00	4.02	10.81	11.42	7.85
25.00	5.74	4.59	3.82	3.22	2.75
50.00	2.36	2.06	1.81	1.61	1.48
75.00	1.34	1.19	1.05	.91	.77
100.00	.63	.48	.34	.20	.06
125.00	.00				



**POND #2: 150 YEAR STORM EVENT**

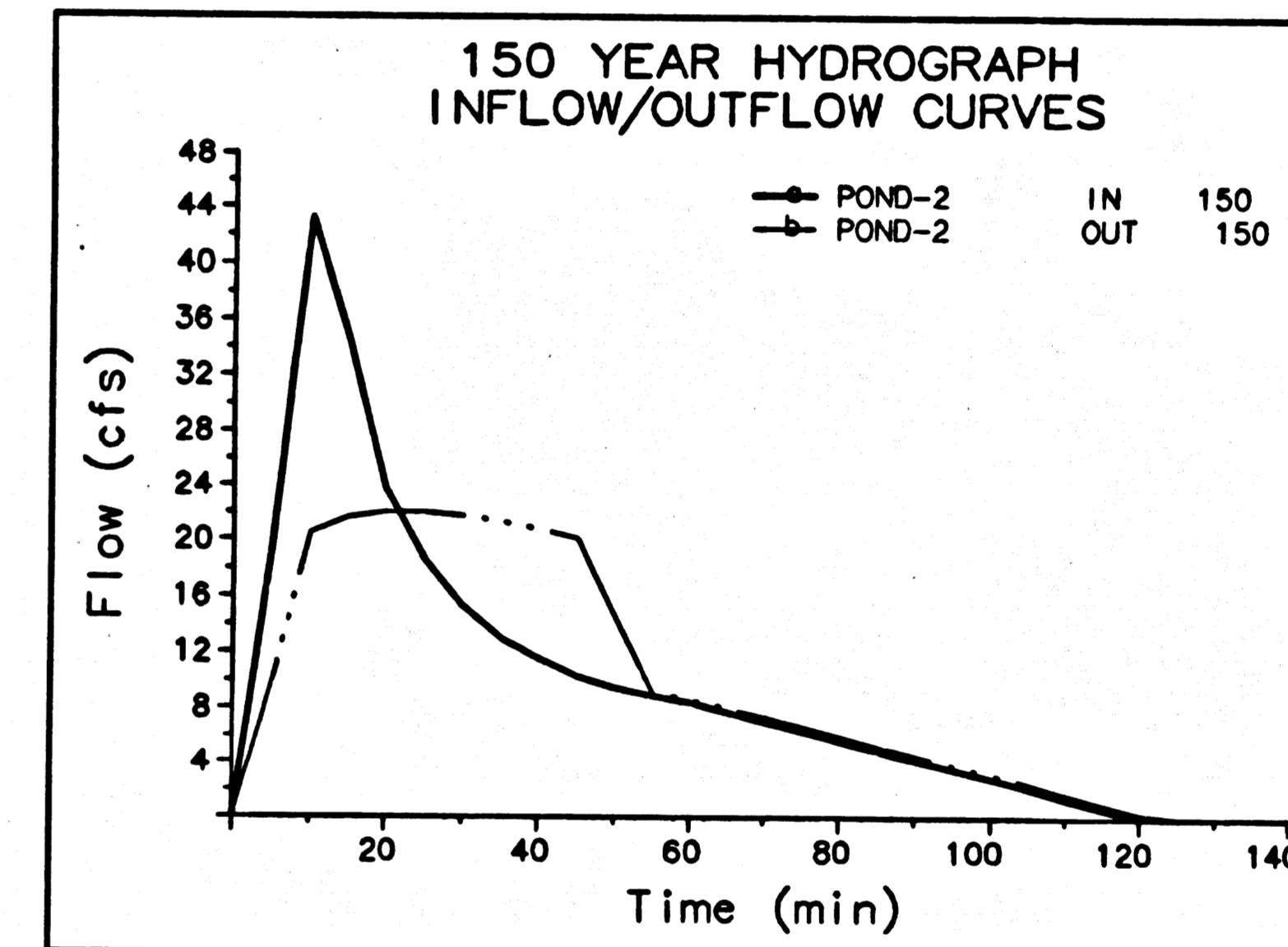
**INITIAL CONDITIONS**

Starting WS Elev = 354.00 ft  
 Starting Volume = 0 cu.ft  
 Starting Outflow = .00 cfs  
 Starting Infiltr. = .00 cfs  
 Starting Total Out = .00 cfs  
 Time Increment = 5.00 min

**INFLOW/OUTFLOW HYDROGRAPH SUMMARY**

Peak Inflow = 43.15 cfs at 10.00 min  
 Peak Outflow = 22.00 cfs at 20.00 min  
 Peak Elevation = 357.23 ft  
 Peak Storage = 13794 cu.ft

Time min	HYDROGRAPH ORDINATES (cfs)				
	Time on left represents time for first value in each row.	Output Time Increment = 5.00 min			
.00	.00	9.80	20.54	21.63	22.00
25.00	21.96	21.71	21.30	20.75	20.06
50.00	14.52	9.19	8.66	8.07	7.38
75.00	6.59	5.97	5.25	4.55	3.86
100.00	3.17	2.48	1.76	1.04	.35
125.00	.00				



**POND #2: 10 YEAR STORM EVENT**

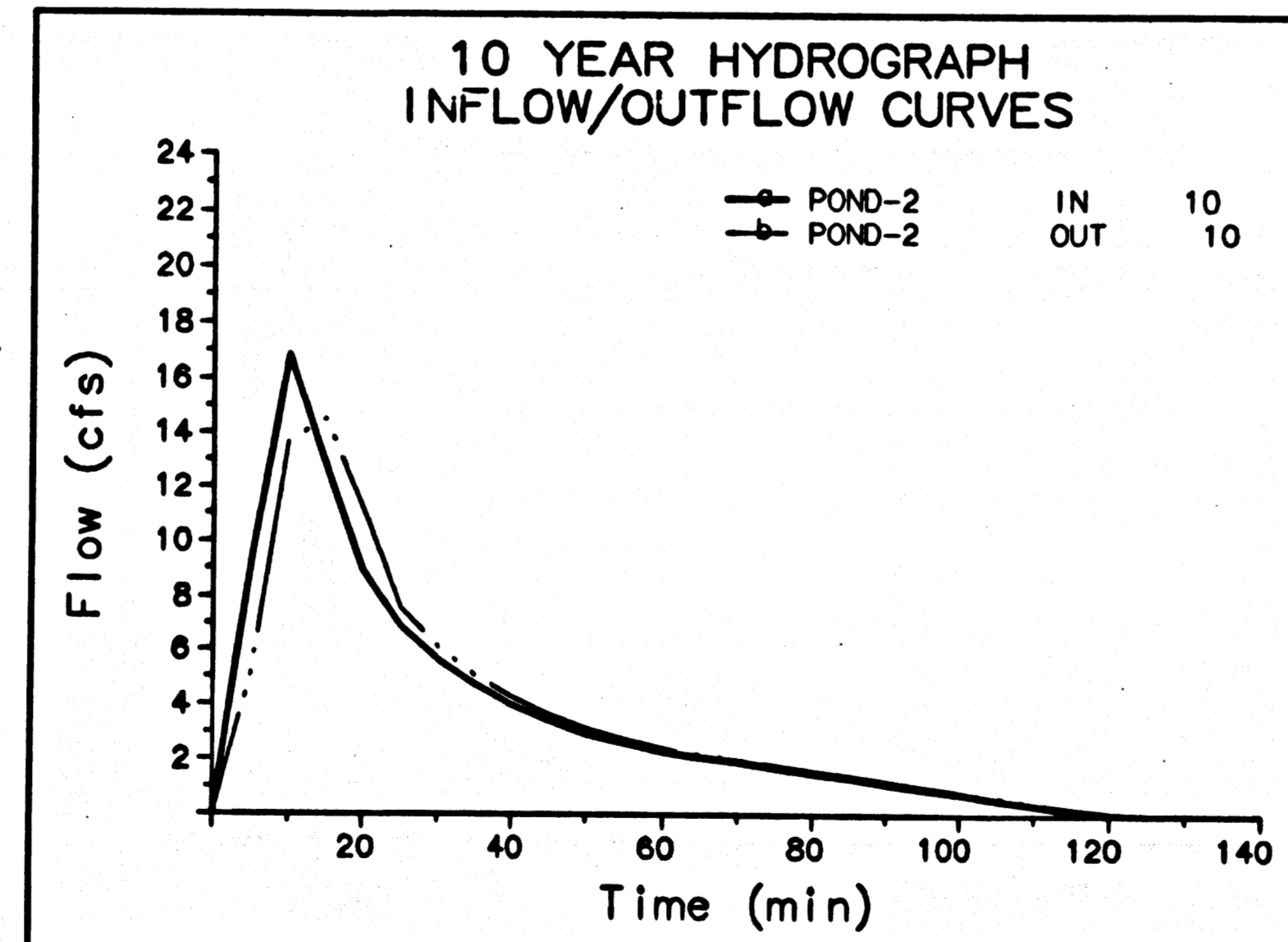
Name.... POND-2      OUT Tag: 10      Event: 10 yr

**LEVEL POOL ROUTING SUMMARY**

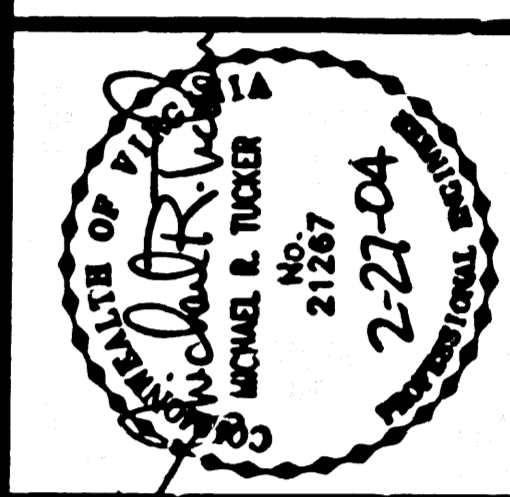
**INFLOW/OUTFLOW HYDROGRAPH SUMMARY**

Peak Inflow = 16.81 cfs at 10.00 min  
 Peak Outflow = 14.48 cfs at 15.00 min  
 Peak Elevation = 354.59 ft  
 Peak Storage = 7581 cu.ft

Time min	HYDROGRAPH ORDINATES (cfs)				
	Time on left represents time for first value in each row.	Output Time Increment = 5.00 min			
.00	.00	5.09	13.65	14.48	11.18
25.00	7.57	6.14	5.10	4.30	3.66
50.00	3.15	2.74	2.41	2.15	1.97
75.00	1.78	1.58	1.40	1.22	1.02
100.00	.83	.65	.45	.27	.08
125.00	.00				



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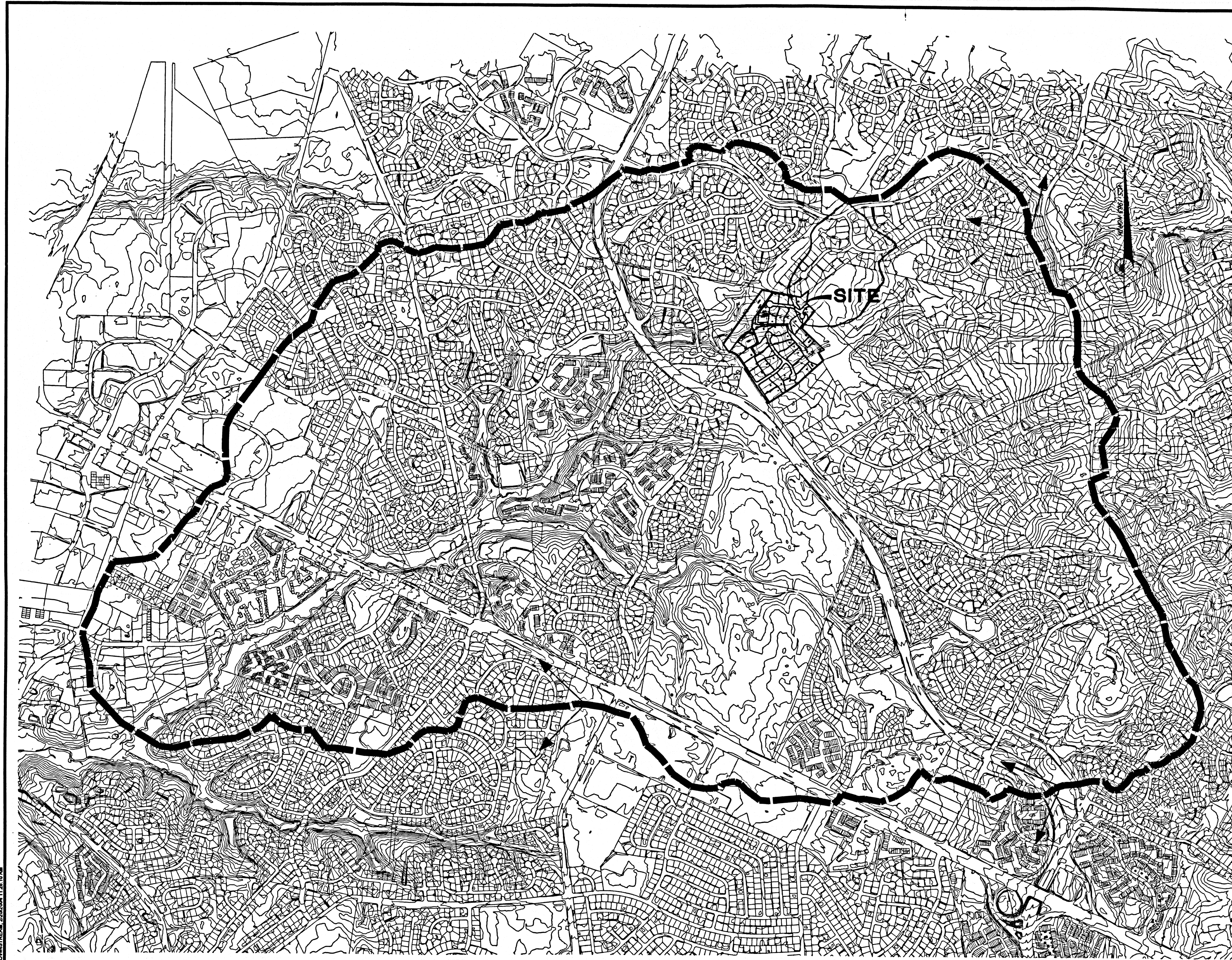


STORMWATER MANAGEMENT COMPUTATIONS  
 POND #2  
**THOMPSON ROAD PROPERTY**  
 SULLY DISTRICT  
 FAIRFAX COUNTY, VIRGINIA

DESIGNED BY: ATO  
 DRAFTED BY: CAD  
 CHECKED BY: MRT  
 DATE: OCTOBER, 2003  
 SCALE: HOR. 1" = 50'  
 VERT. 1" = 5'  
 SHEET 21 OF 31  
 CO. NO. 9820-SD-02  
 CAD NAME: 7060SW.DWG  
 LAYOUT: PND 2  
 FILE NO. 97060-37







**DOWNSTREAM IMPOUNDMENTS ANALYSIS NARRATIVE**

PURSUANT TO THE LETTER TO INDUSTRY, 03-05, INDICATING THAT THE DOWNSTREAM IMPOUNDMENTS WOULD NEED TO BE EVALUATED AT PREDEVELOPMENT CONDITIONS TO ENSURE NO SUBSTANTIAL SILTATION OCCURS DURING CONSTRUCTION, THE IMPOUNDMENTS ARE REQUIRED TO BE EVALUATED IN AN AREA OF 100 TIMES THE DISTURBED SITE AREA.

THE DISTURBED AREA OF THE SITE IS 23.3 ACRES. A DRAINAGE AREA OF 2500 ACRES HAS BEEN EVALUATED AND NO IMPOUNDMENTS APPEAR TO BE LOCATED IN THIS INFLUENCE AREA.

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DOWNSTREAM IMPOUNDMENT ANALYSIS  
**THOMPSON ROAD PROPERTY**  
 SULLY DISTRICT  
 FAIRFAX COUNTY, VIRGINIA

BC REVISIONS
DESIGNED BY: ATO
DRAFTED BY: CAD
CHECKED BY: MRT
DATE: OCTOBER, 2003
SCALE: HOR. 1" = 750' VERT. 1" = 100'
SHEET 23 OF 31
CO. NO. 9820-SD-02
CAD NAME: 7060DOWN.DWG
LAYOUT: DOWNSTREAM
FILE NO. 97060-37

V:\projects\9820\SD\7060DOWN.dwg DOWNSTREAM 2003.11.26.10 AM

2003 10/20/03

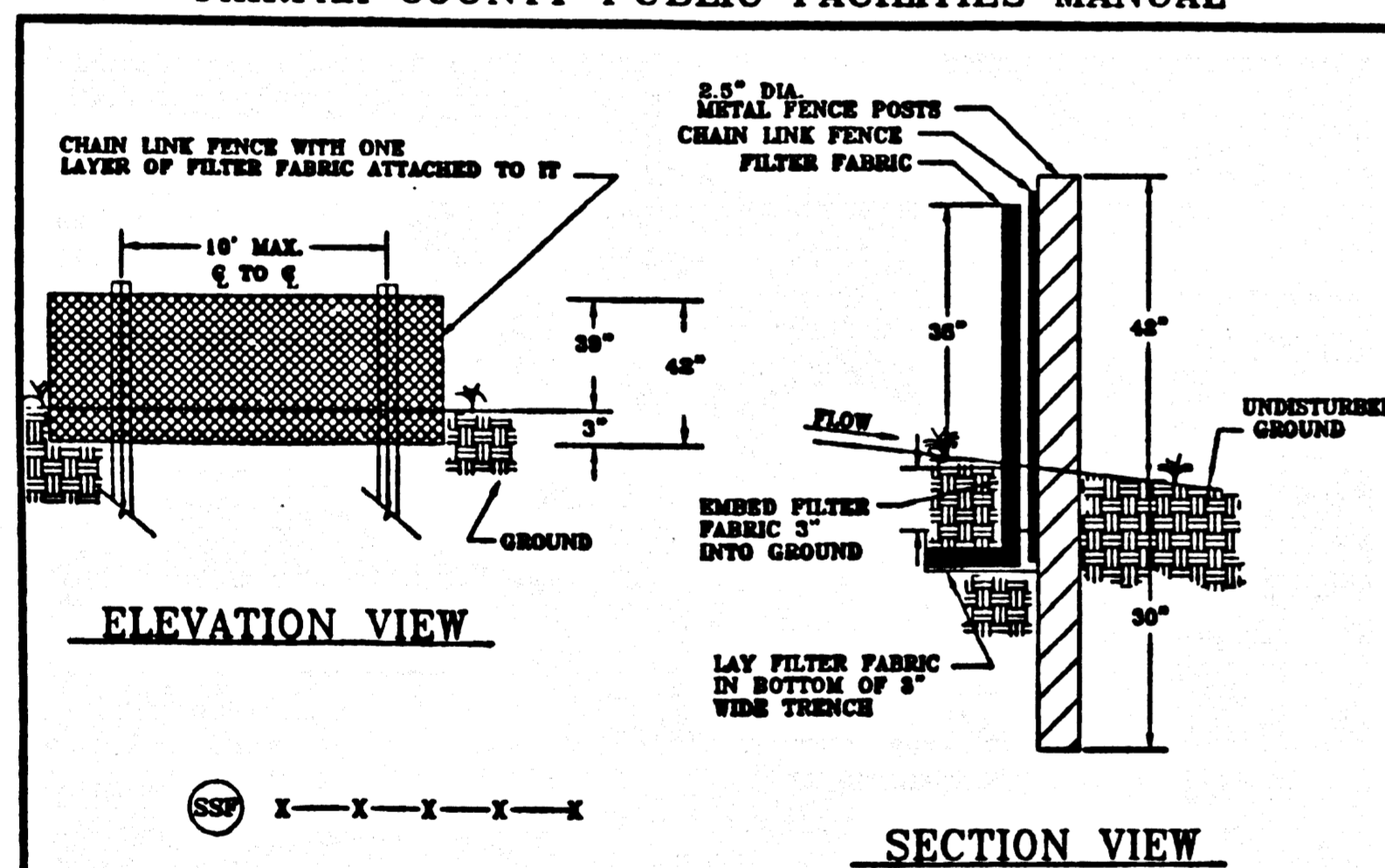
**EROSION & SEDIMENT CONTROL LEGEND PHASE ONE**

- Ⓞ TEMPORARY CONSTRUCTION ENTRANCE WITH WASH RACK (SPEC. 3.02)
- Ⓢ SILT FENCE (SPEC. 3.03)
- Ⓢ SUPER SILT FENCE (PFM PLATE 11-11)
- Ⓜ INLET PROTECTION (SPEC. 3.07)
- Ⓞ OUTLET PROTECTION (SPEC. 3.18)
- Ⓜ TEMPORARY DIVERSION DIKE (SPEC. 3.06)
- Ⓢ TEMPORARY SEDIMENT TRAP (SPEC. 3.13)
- LIMITS OF CLEARING AND GRADING
- DRAINAGE DIVIDE
- SILTATION DIVIDE
- Ⓜ TEMPORARY RIGHT-OF-WAY DIVERSION (SPEC. 3.11)
- Ⓢ INITIAL LIMITS OF CLEARING AND GRADING
- Ⓜ TREE PROTECTION (SPEC. 3.36)
- Ⓢ TEMPORARY SLOPE DRAIN (SPEC. 3.15)
- Ⓢ SUPER SILT FENCE
- Ⓞ CHECK DAM (SPEC. 3.20)
- Ⓢ EX. TREES      Ⓢ PROP. TREES
- Ⓢ EX. TREE LINE      Ⓢ PROP. TREE LINE

SPECIFICATIONS PER VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK (1992).

**NOTE:**  
ALL UTILITY STREAM CROSSINGS SHALL BE DONE IN CONFORMANCE TO THE VESCH.

**FAIRFAX COUNTY PUBLIC FACILITIES MANUAL**



**SUPER SILT FENCE**  
NO SCALE

**FENCING**

Chain link fence shall be 36" above grade with 2" embedded for a total fabric width of 48". The post shall be 42" above grade with 30" placed below grade (without concrete) for a total length of 72".

**NOTES**

1. Chain link fence shall be fastened securely to fence posts with wire ties.
2. Filter fabric shall be fastened securely to chain link fence with ties spaced horizontally 24" at the top and midsection.
3. Physical properties of the filter fabric shall conform to the latest edition of THE VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK.
4. When two overlaps of filter fabric adjoin each other, they shall be overlapped by 6".
5. Maintenance shall be performed as needed and material shall be removed when sediment build-up reaches 50% of the height of the super silt fence.

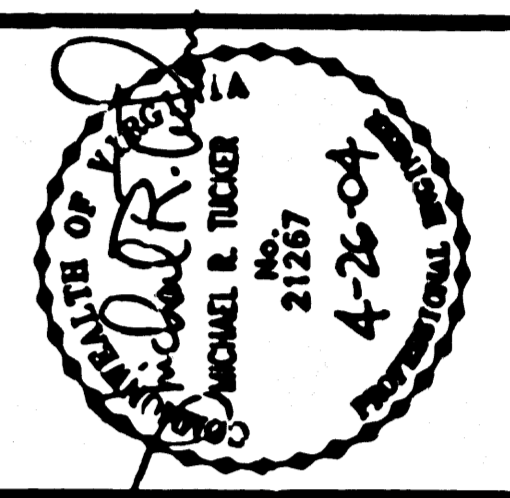
Pl. No. 11-0110.3J	<b>SUPER SILT FENCE</b>	PLATE NO.	ST'D. NO.
Rev. 1-00	NO SCALE	11-11	



**THIS SHEET FOR EROSION & SEDIMENT CONTROL, PHASE I PURPOSES ONLY**

NOTE: SEE SHEET 27 FOR SEDIMENT TRAP & BASIN COMPUTATIONS, DETAILS, AND EROSION & SEDIMENT CONTROL NARRATIVE.

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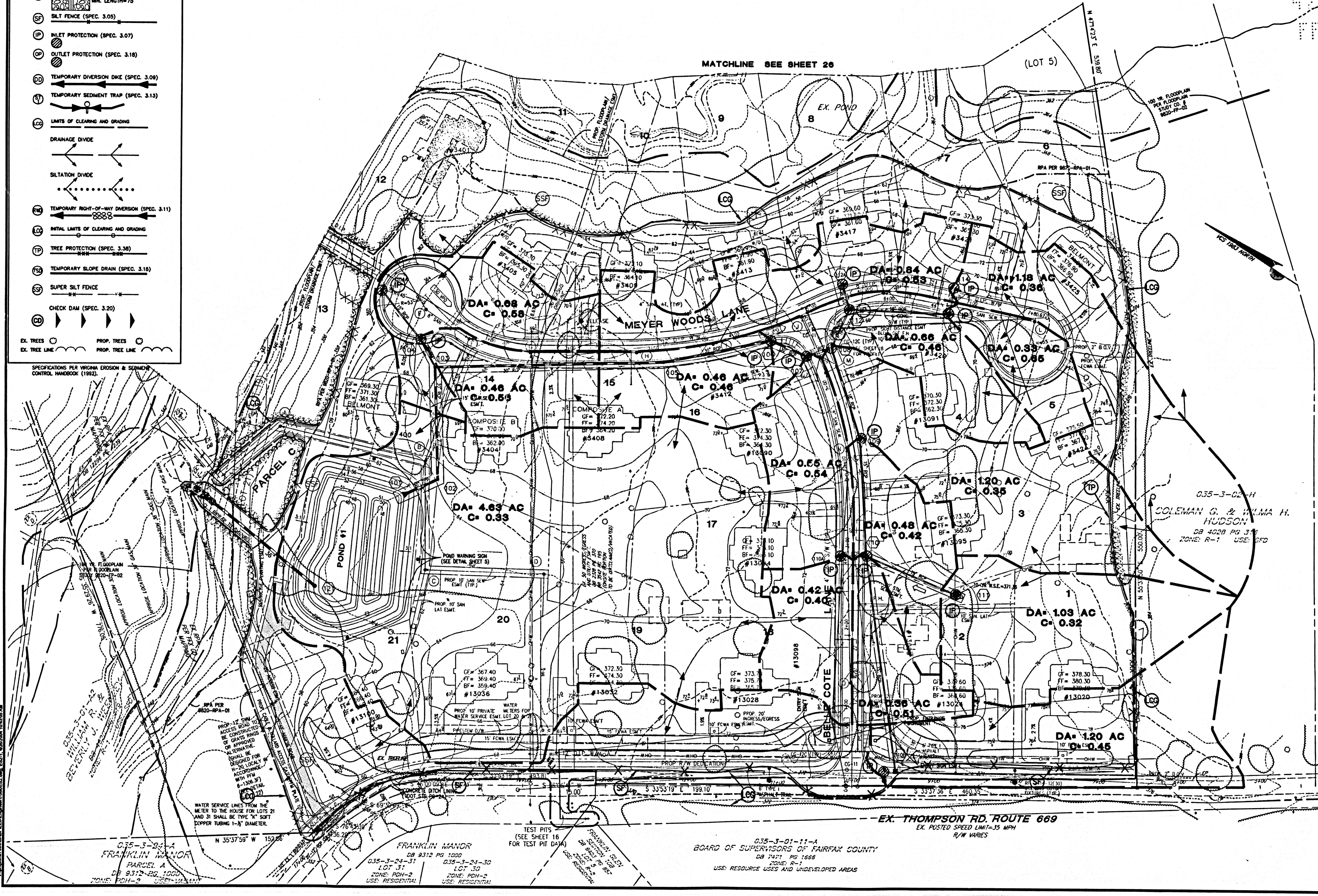
**EROSION & SEDIMENT CONTROL PLAN, PHASE I**  
**THOMPSON ROAD PROPERTY**  
ROLLT DISTRICT  
FAIRFAX COUNTY, VIRGINIA

BC REVISIONS	DESIGNED BY: ATO
ZAJ/DM: REVISION PER THE SUBM. COMMENTS	DRAFTED BY: CAD
	CHECKED BY: MRT
	DATE: OCTOBER, 2003
	SCALE: HOR. 1" = 100'
	VERT. 1" = 10'
	SHEET 24 OF 31
	CO. NO. 9820-SD-02
	CAD NAME: 7060ESI.DWG
	LAYOUT: ESI-1
	FILE NO. 97060-37

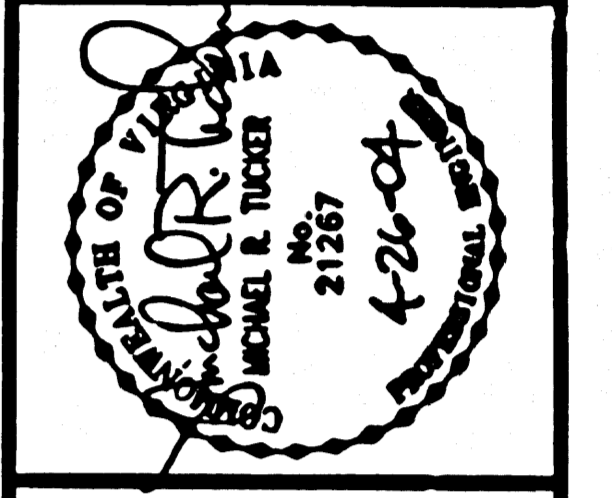
V:\Projects\7060ESI\7060ESI.dwg 10/10/03 10:28:47 AM

**THIS SHEET FOR EROSION & SEDIMENT CONTROL, PHASE II PURPOSES ONLY**

- EROSION & SEDIMENT CONTROL LEGEND PHASE TWO**
- ☉ TEMPORARY CONSTRUCTION ENTRANCE WITH W/SH RACK (SPEC. 3.02)
  - ☉ SILT FENCE (SPEC. 3.05)
  - ☉ INLET PROTECTION (SPEC. 3.07)
  - ☉ OUTLET PROTECTION (SPEC. 3.10)
  - ☉ TEMPORARY DIVERSION DKE (SPEC. 3.09)
  - ☉ TEMPORARY SEDIMENT TRAP (SPEC. 3.13)
  - ☉ LIMITS OF CLEARING AND GRADING
  - ☉ DRAINAGE DIVIDE
  - ☉ SILTATION DIVIDE
  - ☉ TEMPORARY RIGHT-OF-WAY DIVERSION (SPEC. 3.11)
  - ☉ INITIAL LIMITS OF CLEARING AND GRADING
  - ☉ TREE PROTECTION (SPEC. 3.08)
  - ☉ TEMPORARY SLOPE DRAIN (SPEC. 3.15)
  - ☉ SUPER SILT FENCE
  - ☉ CHECK DAM (SPEC. 3.20)
  - ☉ EX. TREES
  - ☉ PROP. TREES
  - ☉ EX. TREE LINE
  - ☉ PROP. TREE LINE
- ☉ SPECIFICATIONS PER VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK (1992).



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 (703)448-8100 (703)448-8108 (Fax)  
 www.bccoon.com



**EROSION & SEDIMENT CONTROL PLAN**  
 PHASE II  
**THOMPSON ROAD PROPERTY**  
 SUDBURY DISTRICT  
 FAIRFAX COUNTY, VIRGINIA

BC REVISIONS	2/17/04 REVISION PER I.H. SUBM. COMMENTS
DESIGNED BY:	ATO
DRAFTED BY:	CAD
CHECKED BY:	MRT
DATE:	OCTOBER, 2003
SCALE:	HOR. 1" = 60' VERT.
SHEET	25 OF 31
CO. NO.	9820-SD-02
CAD NAME:	7060ES2.DWG
LAYOUT:	ES2-1
FILE NO.	97060-37

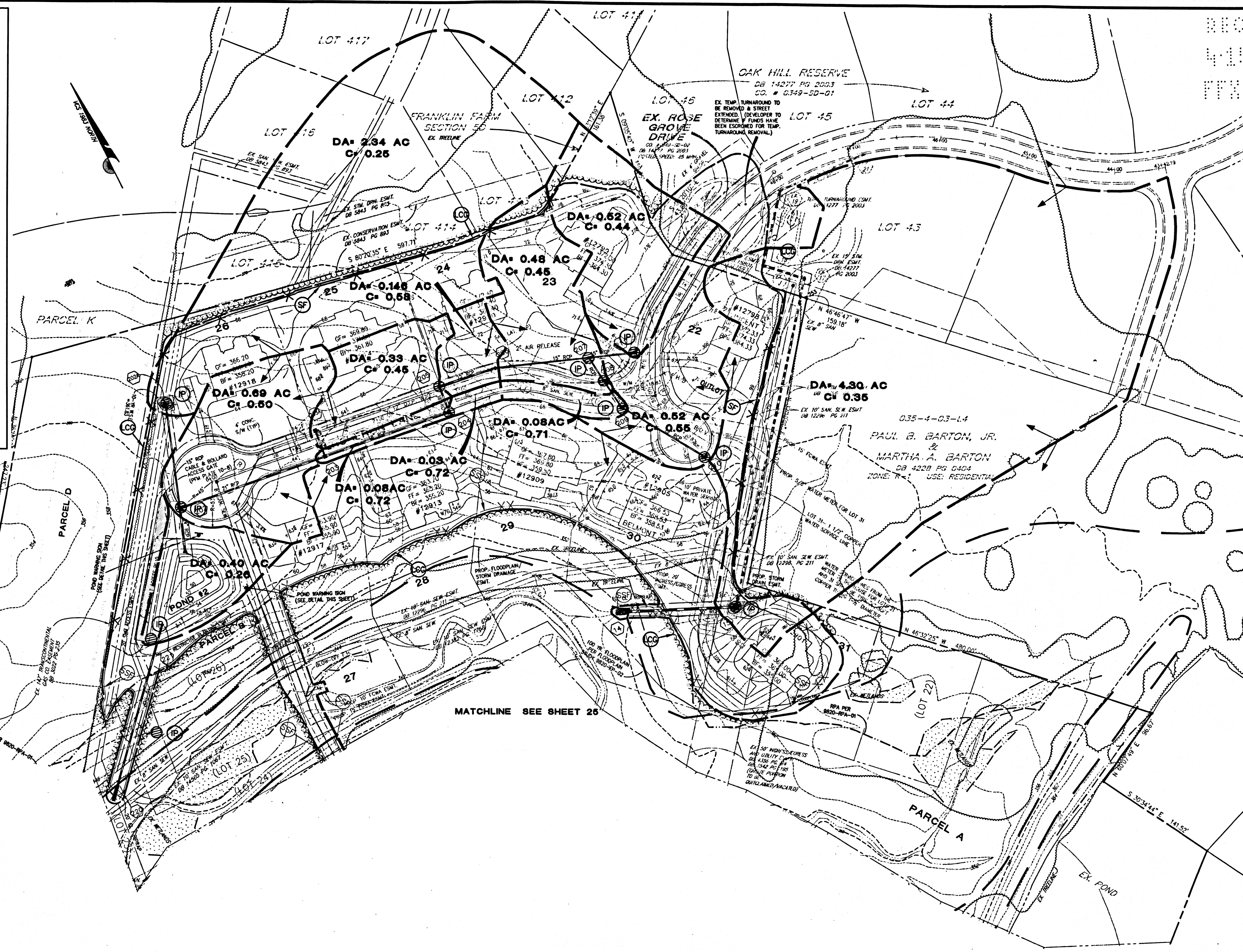
DATE PLOTTED: 10/20/03 10:58 AM

**EROSION & SEDIMENT CONTROL PHASE TWO**

- (CE) TEMPORARY CONSTRUCTION ENTRANCE WITH WASH RACK (SPEC. 3.02)
- (SF) SILT FENCE (SPEC. 3.05)
- (IP) INLET PROTECTION (SPEC. 3.07)
- (OP) OUTLET PROTECTION (SPEC. 3.18)
- (TD) TEMPORARY DIVERSION DIKE (SPEC. 3.09)
- (ST) TEMPORARY SEDIMENT TRAP (SPEC. 3.13)
- (LC) LIMITS OF CLEARING AND GRADING
- DRAINAGE DIVIDE
- SILTATION DIVIDE
- (TR) TEMPORARY RIGHT-OF-WAY DIVERSION (SPEC. 3.11)
- (ML) INITIAL LIMITS OF CLEARING AND GRADING
- (TP) TREE PROTECTION (SPEC. 3.36)
- (SD) TEMPORARY SLOPE DRAIN (SPEC. 3.15)
- (SF) SUPER SILT FENCE
- (CD) CHECK DAM (SPEC. 3.20)
- EX. TREES (Symbol) PROP. TREES (Symbol)
- EX. TREE LINE (Symbol) PROP. TREE LINE (Symbol)

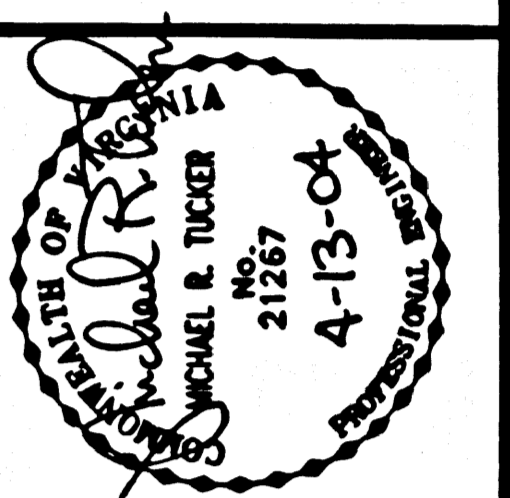
SPECIFICATIONS PER VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK (1992).

035-5-01-A2  
WILLIAM R. & BEVERLY A. WEEKLEY  
DB 4829 PG 419  
ZONE: R-7 USE: SLD



**THIS SHEET FOR EROSION & SEDIMENT CONTROL, PHASE II PURPOSES ONLY**

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**EROSION & SEDIMENT CONTROL PLAN**  
PHASE II  
**THOMPSON ROAD PROPERTY**  
SHILLY DISTRICT  
FAIRFAX COUNTY, VIRGINIA

BC REVISIONS	DATE	REVISION PER I.T. SUBM. COMMENTS
DESIGNED BY:	ATO	
DRAFTED BY:	CAD	
CHECKED BY:	MRT	
DATE:	OCTOBER, 2003	
SCALE:	HOR. 1" = 50'	
	VERT.	
SHEET	26 OF 31	
CO. NO.	9820-SD-02	
CAD NAME:	7060ES2.DWG	
LAYOUT:	ES2-2	
FILE NO.	97060-37	

PLOT'S 7060ES 7060ES.DWG 7060ES





**FAIRFAX COUNTY PRIORITY RATING FORM FOR E&S CONTROL**

PROJECT NAME: Thompson Road Property PROJECT NUMBER: 9820-SD-02  
 TAX MAP: 35-3-35-4 EVALUATOR: DATE: 11/1/03

**A. Percentage of Disturbed Area to Total Site Area**

> 60%	[X]	3
31 to 60%	[ ]	2
10 to 30%	[ ]	1

If the disturbed area is greater than 10 acres, the project is initially rated a high priority.

**B. Watersource Crossing**

Yes	[X]	3
No	[ ]	0

If yes, project is initially rated a high priority.

**C. Distances of Disturbed Area to Downstream Adjacent Property**

< 50-feet	[X]	3
50 to 150-feet	[ ]	2
> 150-feet	[ ]	0

**D. Distances of Any Portion of the Disturbed Area to a Natural Watersource**

< 50-feet	[X]	3
50 to 150-feet	[ ]	2
> 150-feet	[ ]	0

**E. Minimum Vegetative Buffer (Trees, Shrubs, Grasses and other Plants)**

< 50-feet	[X]	3
50 to 150-feet	[ ]	2
> 150-feet	[ ]	0

**F. Distance Between the Site Outfall and any Downstream, Wet Ponds, Wetlands, Parkland or other Land Considered Environmentally Sensitive by the Director.**

< 2,500-feet	[X]	3
2,500 to 5,000-feet	[ ]	2
> 5,000-feet	[ ]	0

**G. Critical Slopes Within 50-feet of Adjacent Property**

Are there any slopes of 0 to 7% greater than or equal to 300-feet in length, or:	[X]	3
Are there any slopes of 7 to 15% greater than or equal to 150-feet in length, or:	[ ]	2
Are there any slopes greater than 15% and greater than or equal to 75-feet in length	[ ]	0

If "Yes" to any of the above

Not Applicable if critical slope is > 50-feet from adjacent property	[ ]	0
High (< or = 0.37)	[ ]	3
Medium (0.38 to 0.50)	[ ]	2
Low (< 0.34)	[X]	1

**H. Soil Erodibility (Based on K Factor)**

High (< or = 0.37)	[ ]	3
Medium (0.38 to 0.50)	[ ]	2
Low (< 0.34)	[X]	1

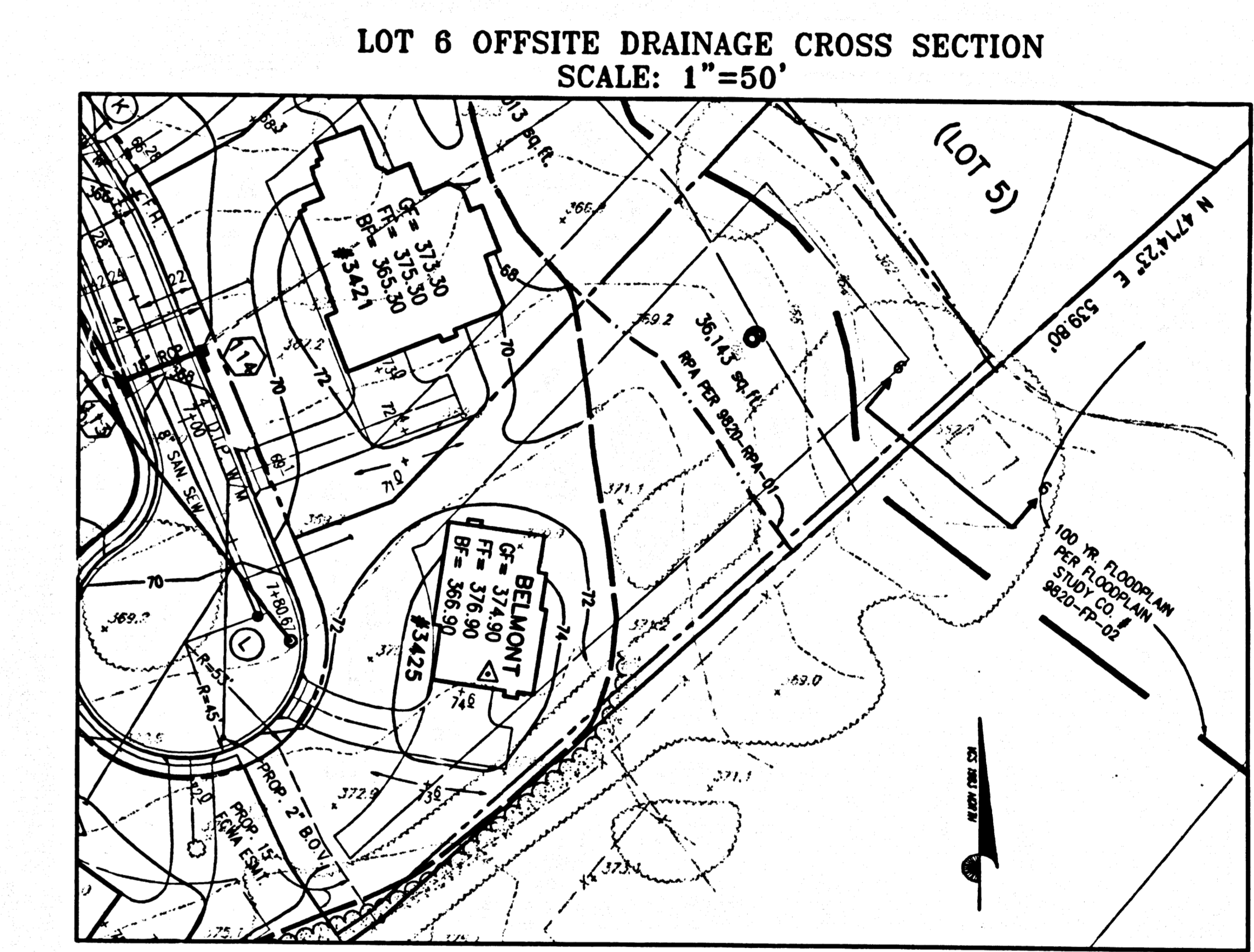
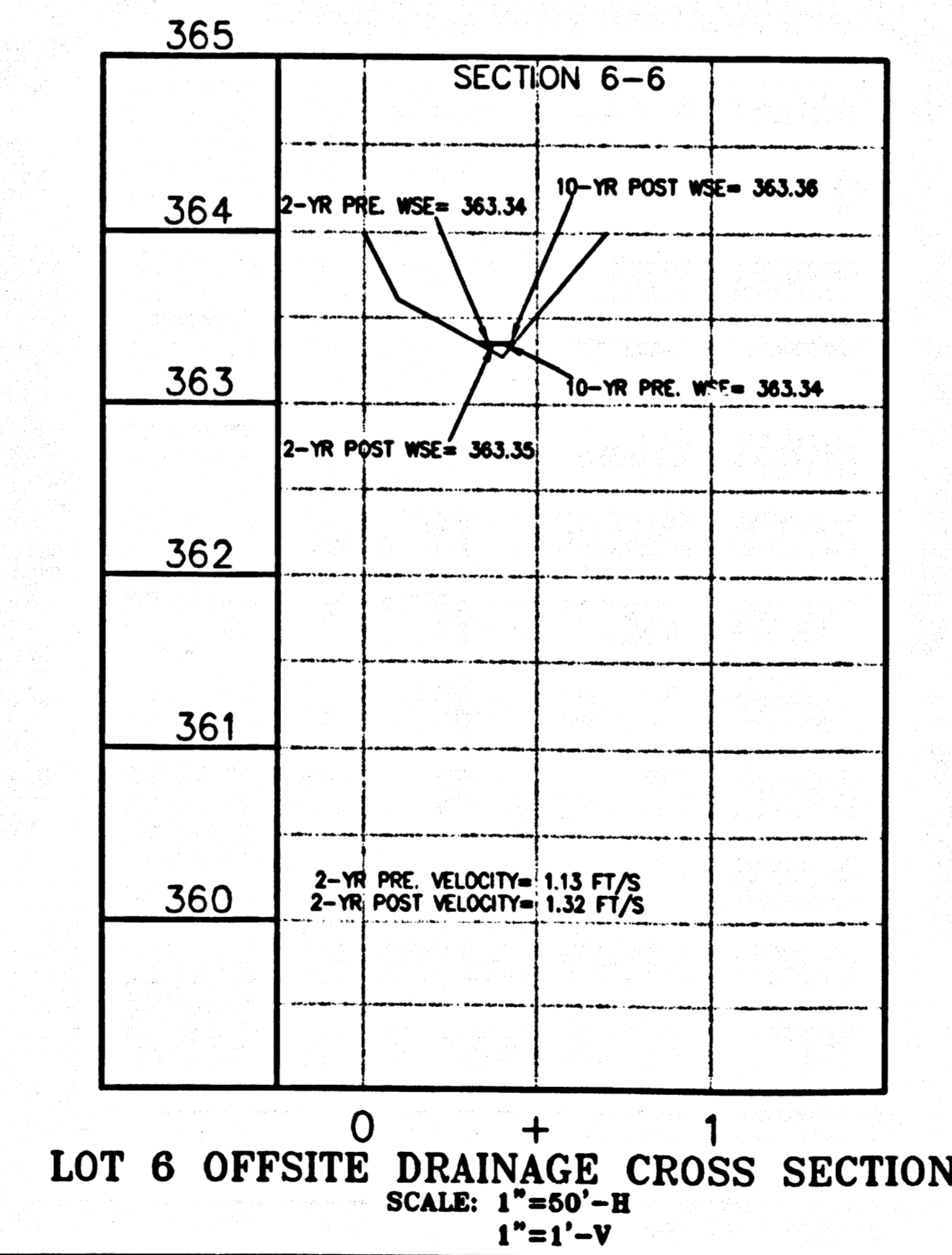
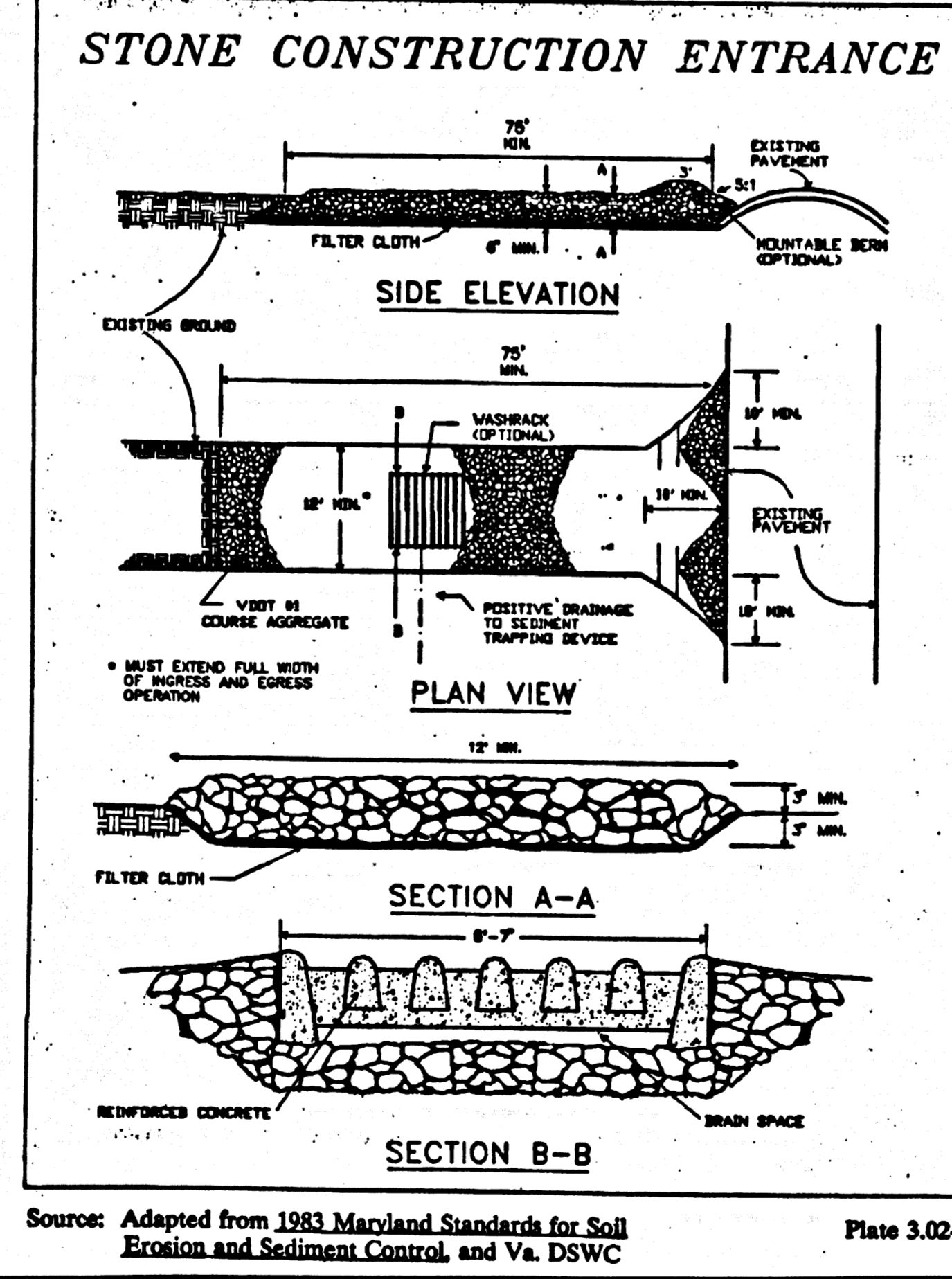
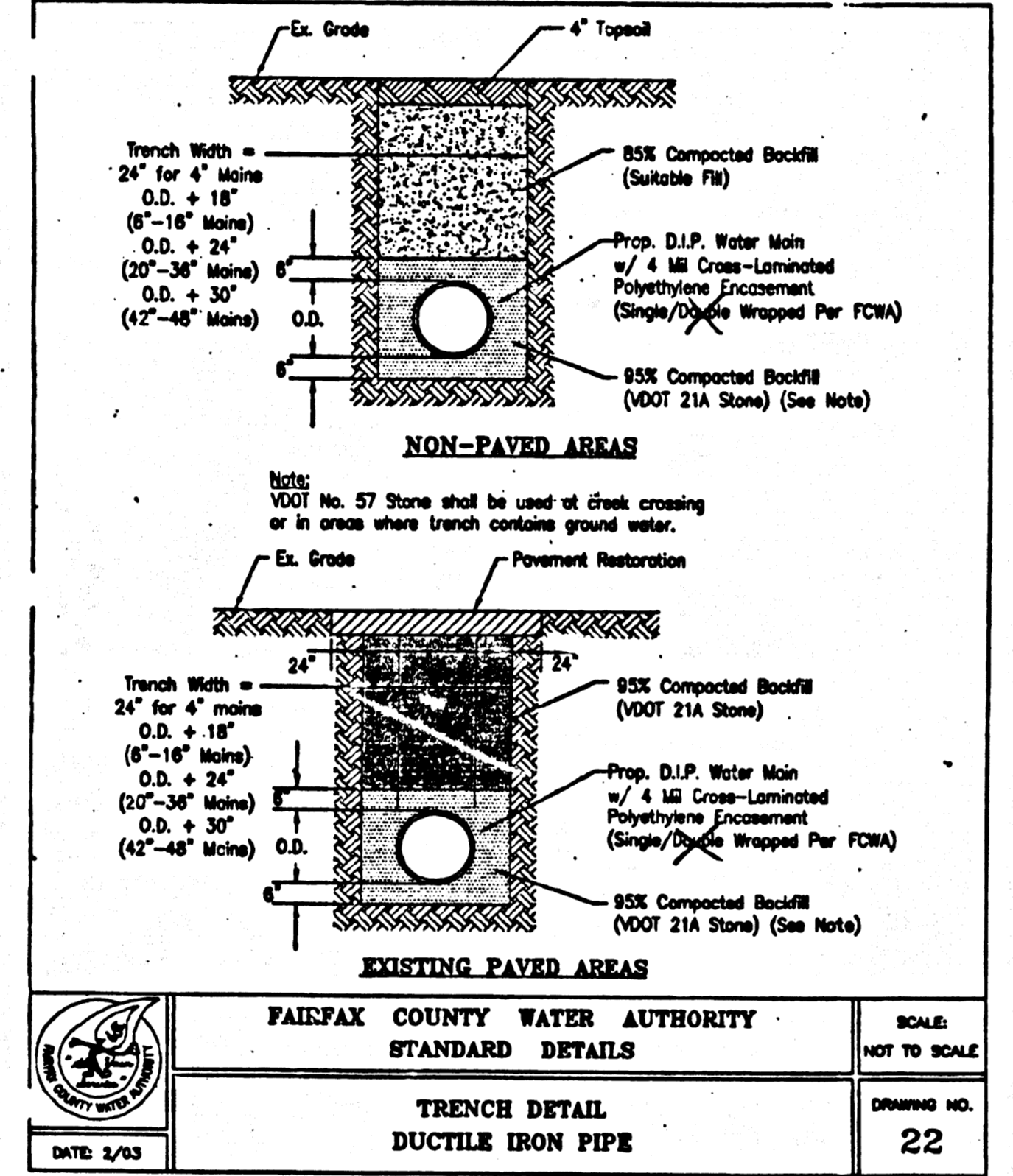
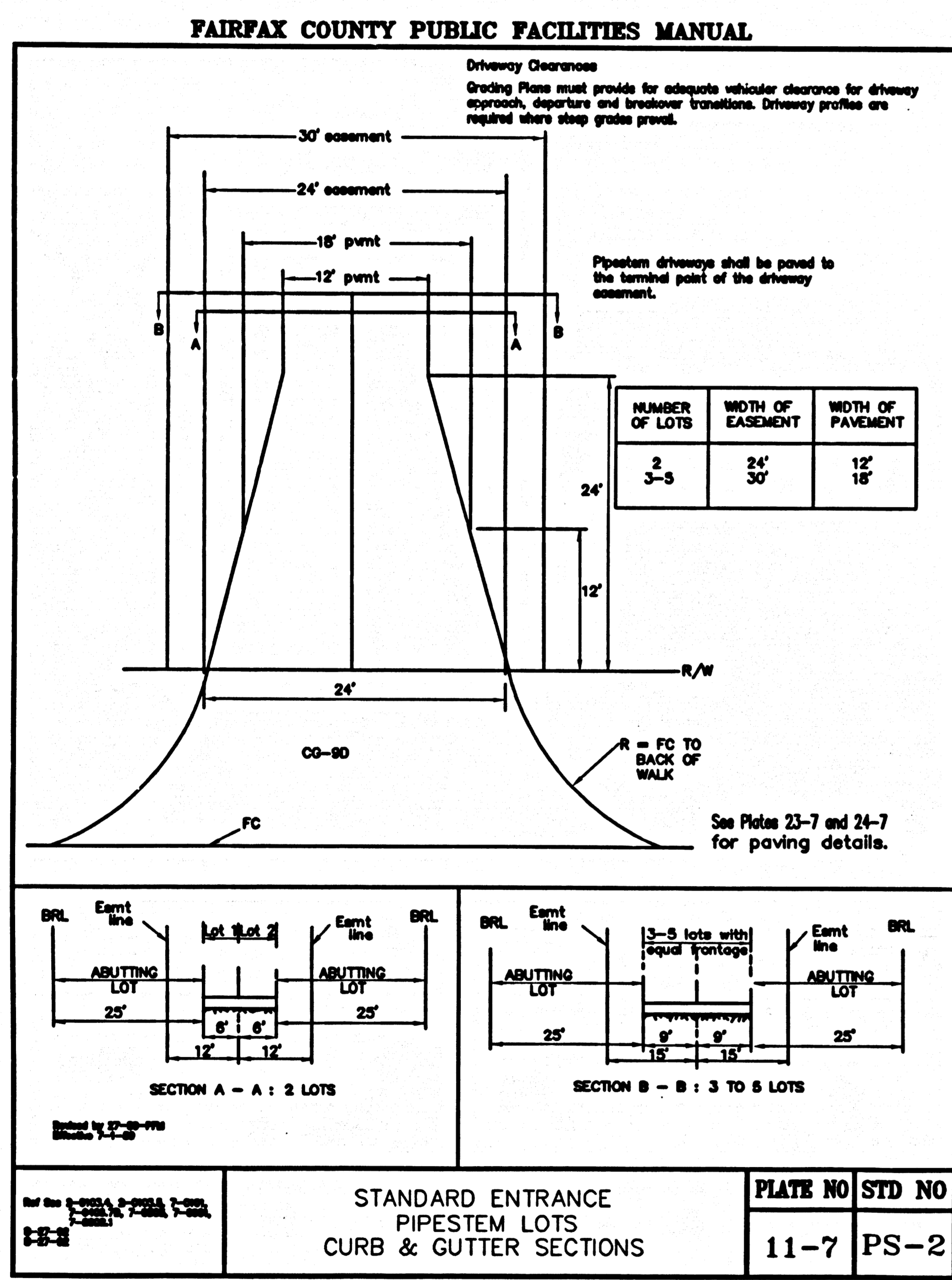
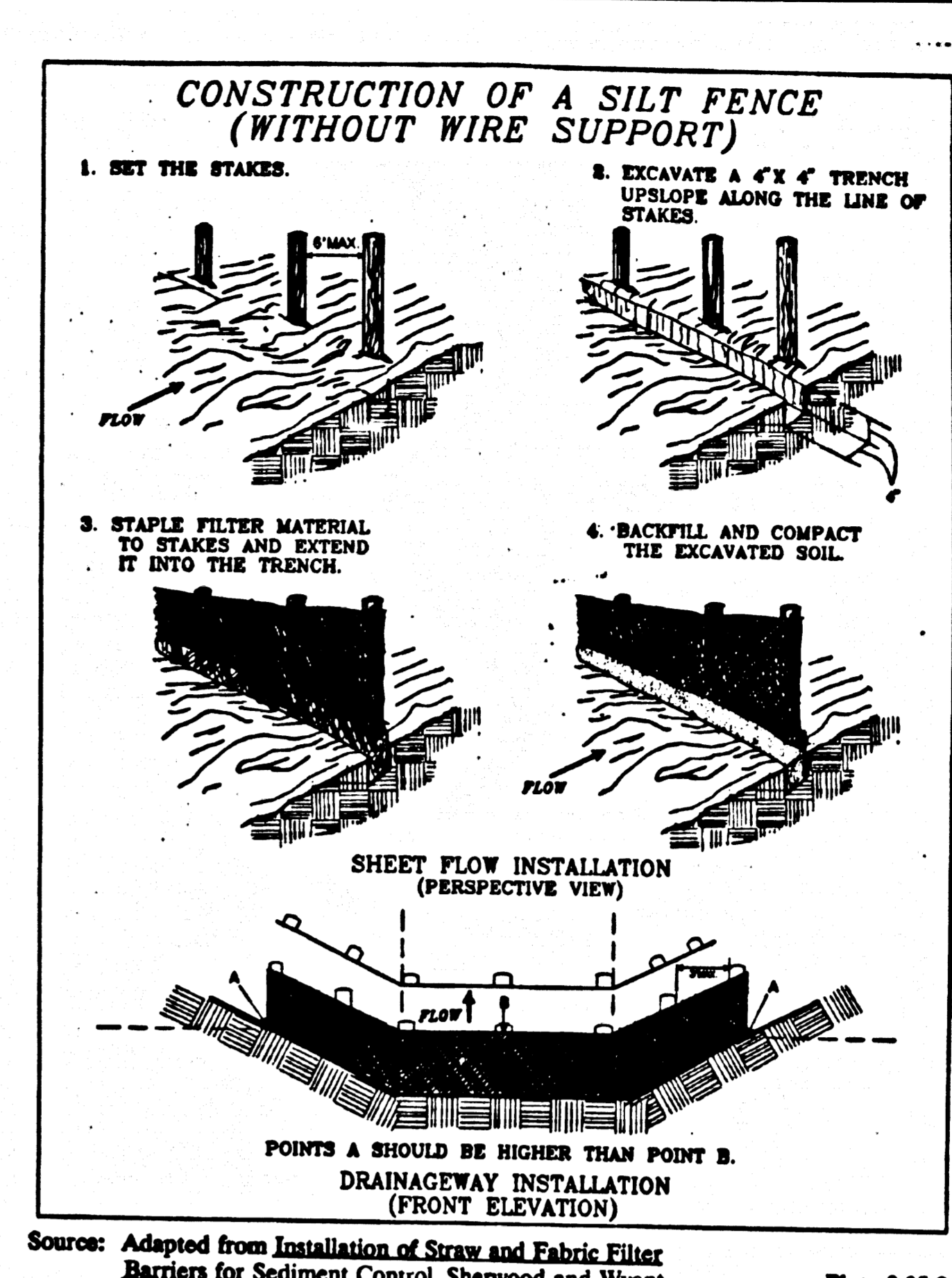
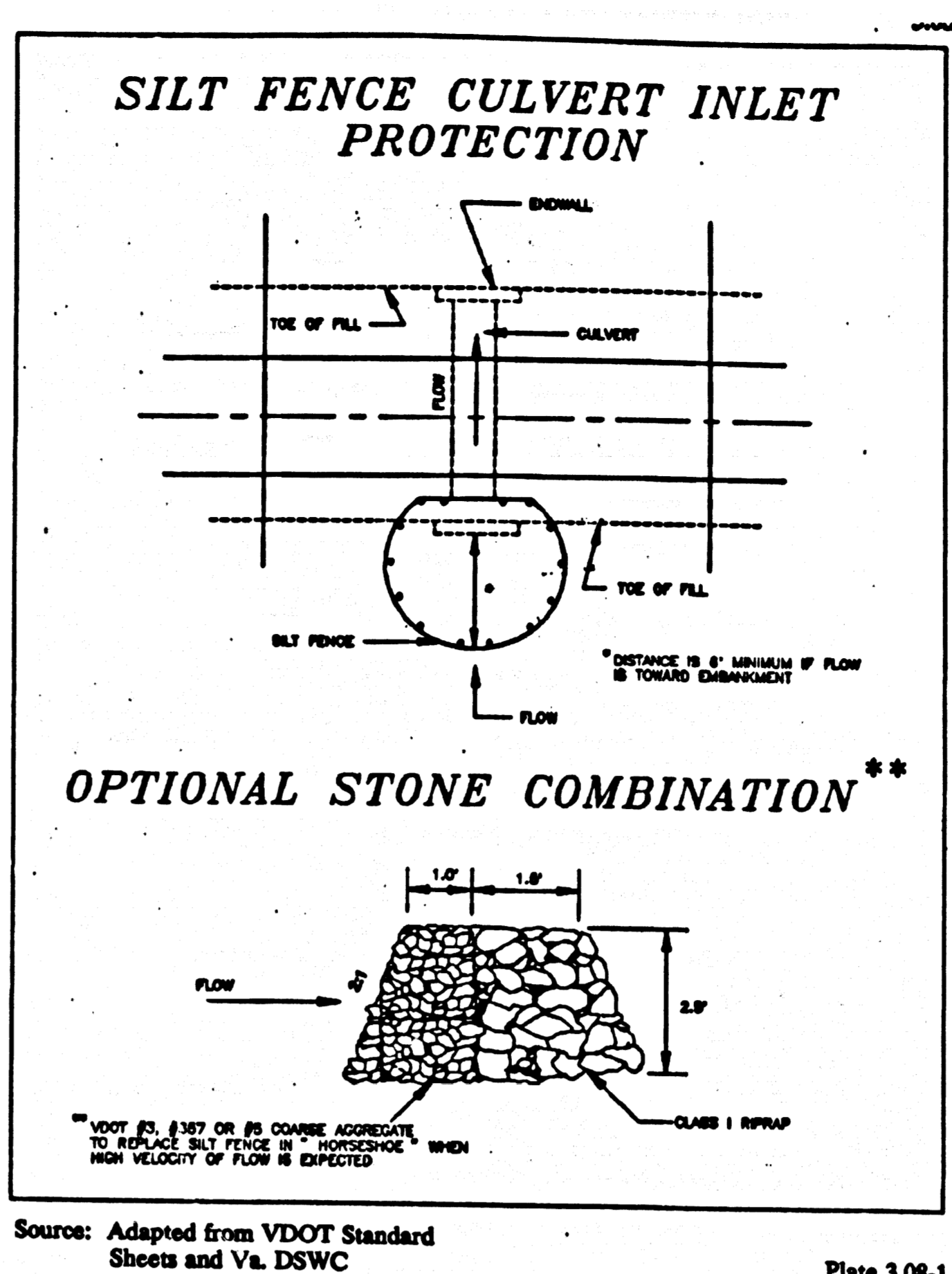
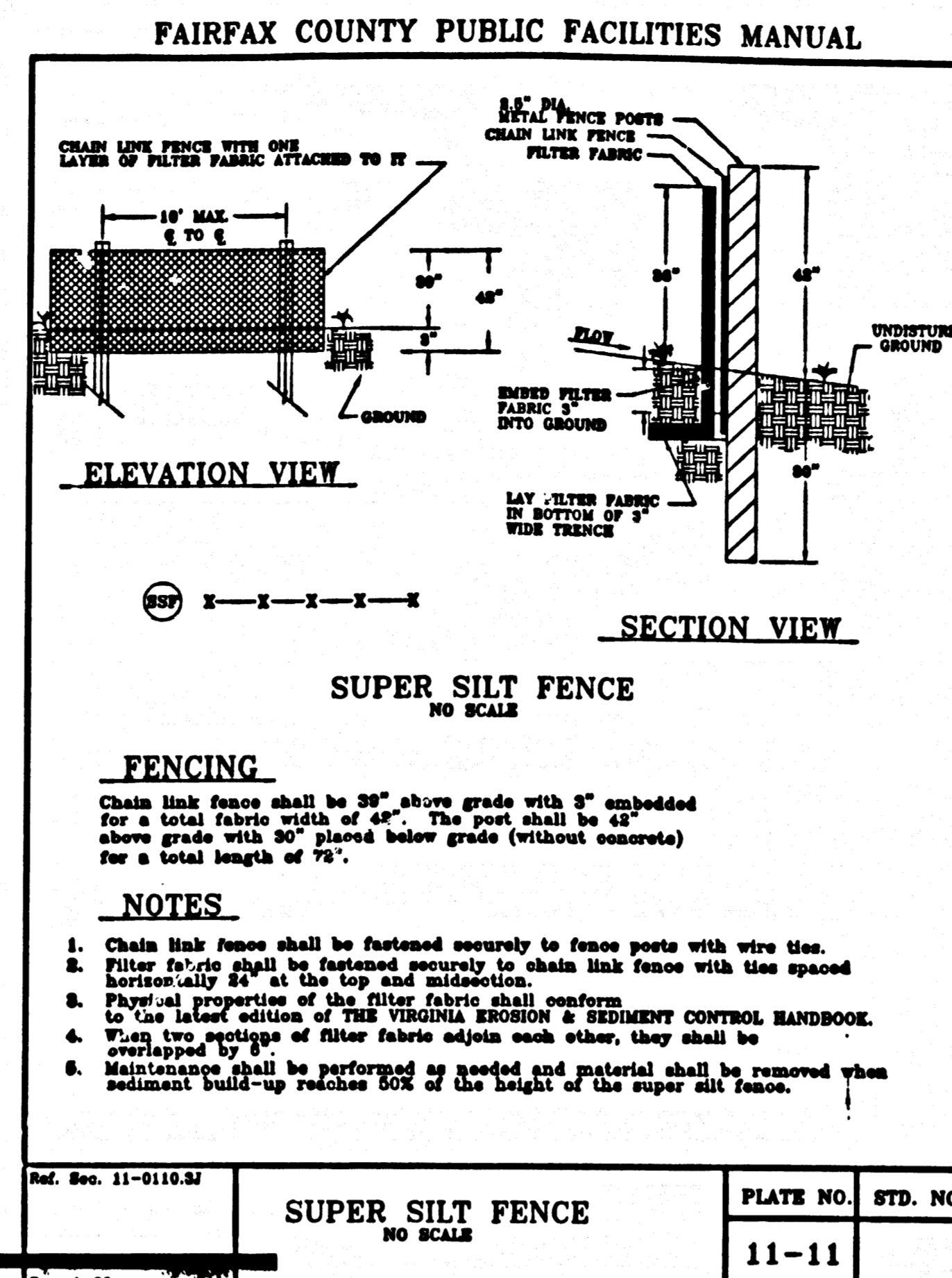
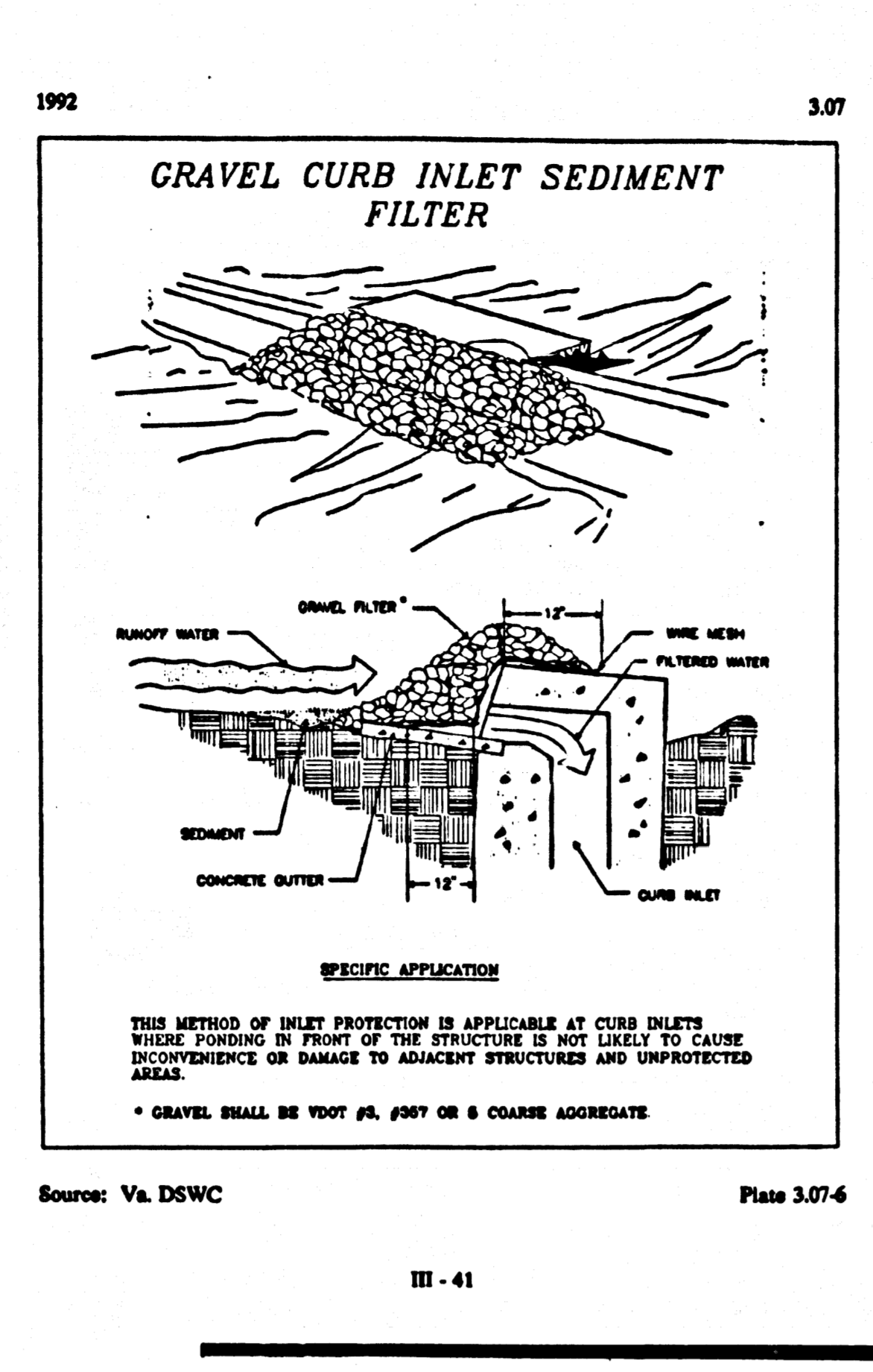
TOTAL OVERALL RATING: 17

**OVERALL RATING**

H > 22	[ ]	High
15 > H and < or = to 22	[X]	Medium
H < or = to 14	[ ]	Low

PROJECT PRIORITY LEVEL: Medium

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



**OFFSITE DRAINAGE COMPUTATIONS**

Lot #	Pre-Development Area to Offsite (Ac.)	Post-Development Area to Offsite (Ac.)	Pre-Development C-factor	Post-Development C-factor	Pre-Development 2-yr Flow (cfs)	Pre-Development 10-yr Flow (cfs)	Post-Development 2-yr Flow (cfs)	Post-Development 10-yr Flow (cfs)
6	0.18	0.28	0.35	0.42	0.34	0.44	0.44	0.55
22	0.35	0.51	0.35	0.45	0.67	0.89	0.73	0.97

1"=50' HORIZ. 1"=10' VERT. 1"=10' HORIZ. 1"=10' VERT.

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**THOMPSON ROAD PROPERTY**  
 SULLY DISTRICT  
 FAIRFAX COUNTY, VIRGINIA

EROSION & SEDIMENT CONTROL DETAILS

DESIGNED BY: ATO  
 DRAFTED BY: CAD  
 CHECKED BY: MRT  
 DATE: OCTOBER, 2003  
 SCALE: HOR. AS NOTED VERT. AS NOTED  
 SHEET 29 OF 31  
 CO. NO. 9820-SD-02  
 CAD NAME: 7060ESD.DWG  
 LAYOUT: INFO & DETAILS  
 FILE NO. 97060-37





**4.0 GEOTECHNICAL EVALUATION AND RECOMMENDATIONS**

The following information is based in part on the results of our geotechnical study and a review of the site grading plan entitled, "Thompson Road Property" prepared by BC Consultants and dated July 7, 2003.

It is our considered opinion that the subject property is adaptable to the proposed residential development. The following sections provide general construction guidelines for site grading and earthwork activities which include the suitability of on-site borrow material, the control of groundwater, and the placement of compacted fill for building pads and pavements. Geotechnical recommendations are also provided for the design and construction of the foundations and below-grade walls of the proposed houses, and the SWM facilities.

**4.1 Existing Structures**

The site grading plan indicates that all of the existing buildings on the project site will be removed except for the house located on Parcel D.2. All other existing structures, including building materials, foundations (slabs and footings), buried utilities (septic fields), and existing fill located within the offset setback of the proposed house pads, roadways, and utility easements shall be removed in their entirety. The Geotechnical Engineer or his assigned representative shall inspect the subsurface to verify that all unsuitable material has been undercut to a natural firm substrate.

**4.2 Suitability of On-Site Materials**

The low plasticity natural soils and weathered rock of Strata I and II are generally suitable for use as structural fill for building pads, pavement areas, and backfill over site utilities. However, highly elastic SILT (MH) soils were encountered at locations across the property. Where high plasticity or clayey soils with liquid limit values greater than 40 and plasticity indices greater than 15 are encountered during the construction phase of the project, these soils are not suitable for use as structural fill or the direct subgrade support for building foundations or paved roadways. These soils, if encountered within the offset stakes of buildings and roadways, shall be undercut and replaced with approved structural fill to provide a minimum buffer of 4 feet below footings and 2 feet below grade slabs and pavements. Furthermore, high plasticity or clayey soils are not suitable for use as backfill material against foundation walls.

We anticipate that the natural soil moisture of the on-site material will generally be near optimum moisture conditions. However, if earthwork is performed during wet seasons of the year or after periods of heavy precipitation, the material may have to be scarified and aerated to be properly compacted for use as structural fill.

**4.3 Excavation of On-Site Soils**

We anticipate that conventional earth-moving equipment will be suitable for the excavation of the residual soils of Stratum I. However, heavier excavation equipment, pneumatic hammers and/or controlled blasting may be necessary to excavate dense weathered rock of Stratum II or to achieve proposed grades for building foundations, utility inverts, SWM facility grades and general cut areas.

We anticipate that perched groundwater may be encountered during general earthwork activities. Groundwater seepage may be encountered in low-lying areas of the site from the side slopes of utility trenches, basement excavations or proposed cut areas greater than 2 feet below existing grade. Temporary dewatering methods, i.e. sump pits and continuous pumping, may be necessary during these construction activities, especially if work is planned during the wet season of the year.

Temporary excavations greater than 4 feet shall be properly shored or sloped away from the excavation with a minimum grade of 1.5 H to 1.0 V. If sloping of temporary trenches and pits is not desired, then trench boxes should be utilized. All excavations shall be performed in accordance with OSHA and VOSHHA regulations.

**4.4 General Site Grading**

**4.4.1 Stripping of Topsoil**

All areas proposed for cut or fill shall be cleared, grubbed and stripped of all topsoil and root mat layer to the proposed limits of construction as shown on the approved plans for this project. The depth of the topsoil encountered at the test boring locations varied between 3 and 4 inches; therefore, we recommend that the depth of stripping be determined in the field. For preliminary purposes, we estimate stripping depths of 6 to 12 inches to remove topsoil and soil, near surface soils. Deeper stripping depths may be necessary in low-lying areas of the site. Topsoil may be stockpiled for later use in easement areas or as the final 8 to 12 inches of over lot site grading around buildings.

**4.4.2 Proof-rolling**

All areas delineated and surveyed in the field to receive structural fill shall be proof-rolled with a fully-loaded rubber-tired dump truck to identify all soft or unstable areas to be undercut. The geotechnical engineer or his assigned representative shall decide on the depth of undercut in order to avoid the removal of suitable or otherwise firm soils.

**4.4.3 Borrow Material**

All borrow material, whether on-site or imported from an off-site source, should be tested for suitability and quality prior to its use as fill or backfill. We recommend that the material be tested to determine particle gradation, plasticity, maximum dry density, and CBR. The following standard tests should be performed to determine the above properties of all imported fill material:

Particle Gradation ASTM D422  
Plasticity ASTM D4318  
Standard Proctor VTM-1, ASTM D698  
CBR VTM-3

Structural fill material shall consist of quality, low plasticity, non-organic soils that classify as GW, GP, GM, GC, SW, SP, SC or SM in accordance with ASTM D2487 and shall have a maximum of 30% retained on a U.S. standard 3/4 inch sieve. Structural fill may consist of soils that classify as ML and CL provided that the material has a liquid limit and plasticity index less than or equal to 40 and 15, respectively, and a maximum of J-Drain passing U.S. Standard No. 200 sieve. All fill material shall be free of ice, snow, construction debris, expansive soils, and organic or other deleterious material. Structural fill shall not contain rock sizes greater than 3 inches in diameter.

**4.4.4 Fill Placement and Testing**

Fill material placed in paved areas shall be placed in no greater than 8 inch loose lifts and compacted to at least 95% of the maximum dry density as determined per VTM-1 method. However, the final floor shall be compacted to 100% of the maximum dry density as determined per VTM-1 method. The compacted fill shall extend a minimum of 2 feet laterally outside the curb line plus 1 foot for every 1 foot of fill above the subgrade. All VDOT roadways and frontage improvements shall be constructed in accordance with VDOT Road and Bridge Specifications.

Fill materials for the building pads shall be placed in no greater than 8 inch loose lifts and compacted to at least 95% of the maximum dry density as determined in accordance with specifications set forth in ASTM D698 (Standard Proctor). The compacted fill for the building pads shall extend a minimum of 5 feet laterally outside the building pad plus 1 foot for every 1 foot of fill above the existing subgrade.

To ensure proper compaction efforts, field density determinations shall be performed in accordance with specifications set forth in ASTM D2922 (nuclear method) or D1556 (sand cone method). Compaction tests shall be performed on every lift of fill placed. The moisture content of the fill being placed shall be within 2 percentage points of the optimum moisture content of the material. These tests shall be performed at a minimum frequency of testing as outlined in the Statement of Inspections provided by the Geotechnical Engineer of Record for the project.

**4.4.5 Site Utilities**

Utility excavations may encounter the dense weathered rock of Stratum II or underlying sandstone rock. Therefore, controlled blasting or pneumatic rammers may be required to excavate to the invert elevation of site utilities. Temporary excavations greater than 4 feet for site utilities shall be properly shored or sloped away from the excavation with a minimum grade of 1.5H:1V. If sloping of temporary trenches and pits is not desired, then trench boxes should be utilized. All excavations shall be performed in accordance with the OSHA and VOSHHA regulations. Groundwater seepage may be encountered during the excavation of deep utility trenches. Therefore, dewatering measures consisting of sump pits with continuous pumping may be necessary.

When hand-held tampers are used to compact the backfill materials, lift thickness shall be reduced to not more than 6 inches to ensure achieving compacted wedge between the pipe and the bedding layer. Backfill materials for use in utility trenches shall meet the material requirements of Section 4.4.2 of this report.

**4.5 Foundation Support**

The single-family detached homes can be supported on conventional shallow foundations such as continuous wall or column spread footings bearing on natural low plasticity approved soils or properly compacted structural fill. Elastic SILT (MH) soils were encountered in the borings and test pits at some areas of the site. These soils are prone to high shrink-swell behavior when exposed to variations in soil moisture and are not suitable for direct footing support. Highly plastic or elastic soils (CH/MI), if encountered at the footing spread, shall be undercut to a minimum of 4 feet below the footing bottom and replaced with properly compacted structural fill.

Footings supported on approved natural soils of Strata I or II or properly compacted structural fill may be designed for an allowable soil bearing pressure of 2,500 psf. Footing lines to be located along a transition zone from natural soils to structural fill or soil rock transitions shall be properly shored or sloped away from the excavation with a minimum grade of 1.5H:1V in each direction from the transition plane.

As a minimum, wall footings shall not be less than 16 inches in width and column footings shall not be less than 30 inches in diameter. Footings shall be designed for all exterior footings, however, that are located within permanently heated areas may be located at nominal depth below the slab elevation.

The use of the above specified uniform allowable bearing capacity will minimize the total settlement to 1 inch or less with differential settlement of less than 1/8 inch or less in accordance with standard engineering practices.

All footings and slabs shall be inspected for quality of the subgrade material, concrete formwork and placement of reinforcing steel. The inspection shall be performed by a qualified soil inspector under the direction of a Virginia-registered geotechnical engineer. The inspection shall consist of probing or perfron-j hand auger borings in any of the footing trenches. If visual inspection of the subgrade material and/or hand auger recovery materials reveals the presence of fine-grained soils or alluvial soils, i.e., clayey silt or silty clay, we recommend that a sample of the subgrade soil be tested to ensure that the plasticity material having liquid limit greater than 40 and a plasticity index greater than 15 is not present at the footing subgrade level. Dynamic cone penetration tests should also be performed to verify the available soil bearing pressure. Footing supports should be protected from precipitation, seepage, surface run-off and flow. We recommend that the footings be cast the same day of excavation.

**4.6 Ground-supported Slabs**

Single-family dwellings can be designed to have typical ground-supported concrete slabs bearing on approved natural low-plasticity soils of Strata I or II or on properly compacted structural fill. However, moderate to high plasticity fine-grained soils with liquid values greater than 40 and plasticity indices greater than 15 may be encountered at shallow depths below existing grades. These soils are prone to high shrink-swell behavior when exposed to variations in soil moisture and are not suitable for the direct support of foundation slabs.

Highly plastic or elastic soils. If encountered at the slab subgrade, shall be undercut to at least 2 feet below the bottom of the slab subgrade and replaced with properly compacted structural fill.

We recommend that all grade slabs be allowed to float, i.e. be discontinuous at walls and piers. The slab shall rest upon a minimum of 4 inches of free draining granular base. A polyethylene liner or similar vapor barrier should be provided between the underside of the slab and the granular base to limit moisture migration.

The slab subgrades should be protected from incident weather by the diversion of on-site surface runoff away from the slab area and to maintain dry conditions until the construction is complete. Such precautions will prevent costly undercutting of soft and low bearing soils.

**4.7 Foundations Walls, Backfill and Drainage**

The site grading plan indicates that single-family homes will be constructed with below-grade foundation walls. Below-grade foundation walls shall be designed for an equivalent fluid pressure of 60 psf per foot of wall depth. The equivalent fluid pressure is recommended based on the assumption that the backfill material may consist of on-site soils that classify as silty SAND (SM) type soils. Silty SILT (ML) soils may be used for foundation wall backfill provided that the material contains a maximum of 65% fines passing the No. 200 Sieve. Soils having liquid limit and plasticity index greater than 40 and 15, respectively, shall not be used for backfill against the foundation walls. Backfill material shall not contain rock sizes greater than 3 inches in diameter.

The lateral pressures recommended above also assume that adequate drainage behind the wall will be provided to prevent accumulation of free water. The recommendations do not include the effects of surcharge loading which shall be included in the wall design as additional lateral pressure acting uniformly against the wall.

Interior and exterior foundation drains are required for dwellings with below-grade foundations. The exterior drain shall consist of a 4-inch perforated flexible pipe embedded in 12 inches of VDOT No. 57 stone or washed bank run gravel. The stone shall be wrapped with filter fabric to avoid clogging with fines. The interior drain shall be installed under the slab and should tie into the exterior drain via weep holes through the footings. The weep holes, 1.5 inch diameter PVC pipes, shall be spaced at no more than 8 feet on center. The interior drain shall also consist of 12 inch layer of VDOT No. 57 stone wrapped with filter fabric. Alternatively, a prefabricated drainage system such as J-Drain may be installed per the manufacturers guidelines. See Figure 2, "Foundation Drainage Detail" at the end of this report.

Where drainage by gravity is not permitted, the invert of the exterior drain shall be located above the invert of the interior drain and the interior drain pipe shall be extended to the sump pump. However, if drainage by gravity can be achieved through extending the outlet pipe of the exterior drain to a safe daylight point, then the invert of interior drain should be higher than the exterior drain to allow the flow of groundwater through the weep holes and safely discharge away from the house. The outlet pipe from the interior drain or the sump pump shall discharge to a point of daylight as directed by the Civil Engineer.

**4.8 Pavement Subgrade Preparation**

The subgrade for paved areas within the right-of-way of roadways and the proposed pedestrian trail shall consist of natural low plasticity soils of Stratum I or II or recently-placed and compacted structural fill.

If fine-grain soils having liquid limit and plasticity index values greater than 40 and 15, respectively, are encountered at proposed subgrade elevations, these materials shall be undercut to a minimum depth of 2 feet below pavement subgrade and replaced with properly compacted structural fill.

Prior to placement of subbase stone, the subgrade shall be proof-rolled with a loaded dump truck to detect any soft, yielding or high plasticity soils. Unsuitable areas shall be undercut and replaced with controlled-compacted fill. The fill shall be compacted per requirements outlined in Section 4.4, "General Site Grading".

As the engineering characteristics of the on site soils vary throughout the site, CBR tests shall be performed within the proposed pavement areas at

the time of construction in order to permit proper pavement design. However, for preliminary design purposes, a CBR value ranging between 4 and 8 may be anticipated for subgrade soils consisting of on-site soils. All pavement materials and construction methods shall comply with the current VDOT specifications.

**4.9 Geotechnical Requirements for the SWM Facilities**

**4.9.1 Foundation Support of Embankment and Auxiliary Structures**

The grading plans indicate that the project will include the construction of two SWM facilities (wet ponds) at the northwestern portion of the site. The site grading plans indicate that each pond will be excavated below existing grades with cuts up to 20 feet at Pond #1 and 13 feet at Pond #2. Blasting will be necessary for each of the SWM facilities to reach proposed grades. The dam embankments are expected to consist of in-situ natural materials with the exception of backfill over inlet and outlet pipes, and possibly backfill required for areas which are over-fractured as part of the expected rock excavation. All soil, yielding subgrade soils, or highly fractured rock areas below the 10-year WSE, shall be undercut to a bearing stratum approved by the geotechnical engineer or his assigned representative.

Settlement in the SWM facility areas is not anticipated based on the subsurface conditions. Based on a review of the invert elevation shown on the site plans, we anticipate that the principal outlet pipes and risers will bear on dense rock. The subgrade shall be inspected and approved by the geotechnical engineer or his assigned representative to ensure adequate support and to check for variations in the subsurface conditions. A lean concrete mat may be placed to provide a level subgrade surface.

**4.9.2 Concrete Cradle and Drainage Blanket**

The principal outlet pipe through the embankment of Pond #1 will consist of a single 36-inch diameter reinforced concrete pipe (RCP) and a single 18-inch RCP for Pond #2. The outlet pipes will extend from the riser structures to rip-rap lined aprons located at the downstream sides of the embankments. The outlet pipes shall be supported on concrete cradles through the embankment for a distance of two-thirds (2/3) of the overall length of the pipes. The remaining one-third (1/3) of the overall pipe length on the downstream side shall be bedded in a minimum of 8 inches of No. 78 stone. To minimize the infiltration of fines, the stone bedding shall be wrapped in an approved non-woven geotextile having an apparent opening size of greater than or equal to 70, i.e. Amoco 4535. A 4-inch diameter sloped PVC pipe shall be installed as a relief drain near the bottom of the stone on each side of the drainage blanket. The PVC pipe shall be positively sloped and extended to daylight at the rip-rap lined aprons. Additionally, all pipe joints shall be fitted with O-ring rubber gaskets.

A construction detail showing the concrete cradle and stone bedding for the SWM facilities are shown on Figure 3 presented at the end of this report. We anticipate that the design or layout of the proposed SWM facilities occur, GC&T requests the opportunity to review the revisions and provide an amendment to the geotechnical recommendations.

**4.9.3 Impervious Pond Liners**

We anticipate that competent SANDSTONE rock will be exposed across the entire embankment slopes and pond basin. To maintain proposed water levels and limit piping along the principal outlet, an impervious liner shall be installed across each pond basin extending to the 10-year WSE. The impervious liner shall consist of an 18-inch thick clay (CL/CH) or elastic SILT (MH) liner which is properly compacted. Material suitable for the liner is expected from other areas of the site.

If clay-type soils with a minimum of 70% passing the #200 U.S. standard sieve are not available, the use of a synthetic liner, i.e., Claymax or Volclay, may be more feasible and cost effective.

**4.9.4 General Construction Guidelines**

The following construction guidelines shall be used during the subgrade preparation for the embankment fill and associated structures.

- Perched groundwater seepage may be encountered during the excavation of the pond basin below existing grades. Sump pits and continuous pumping may be necessary to achieve a dry working area.

- Prior to the placement of fill in the SWM areas, all vegetation, root mat, twigs, and any other soft or deleterious material shall be stripped.

- The following requirements shall apply to all fill material used to construct the dam embankments and backfill around the outlet pipes:

Classification (ASTM D2487) SC, CL, ML  
Fasting No. 200 (%) 45-70  
Liquid Limit 20-50  
Plastic Index 10-25  
Max. Dry Density (min.) 105 pcf

Rock sizes greater than four inches in diameter will not be permitted for use as structural fill for the embankments.

- Any fill used to construct the embankments shall be properly wedged into natural in-situ soils and shall be placed and compacted at a moisture content of 2 to 3 percentage points above the optimum moisture content to ensure proper compaction.

- Backfill material over the outlet pipes shall be placed in 4 to 6 inch lifts and compacted to a minimum density of 95% of the materials maximum dry density obtained in accordance with ASTM D698. Compacted fill layers which become smooth due to compaction equipment or construction traffic shall be scarified to a depth of 2 inches to allow for adequate bonding between layers. We recommend utilizing walk-behind vibratory sheep-foot rollers to compact the fill against the pipes. Hand-held tampers are not recommended because this type of equipment may not ensure proper compaction against the conduit.

- The pond embankment slopes shall be stabilized with permanent seeding immediately following the final grading for erosion control purposes.

**FAIRFAX COUNTY INSPECTION REQUIREMENTS**

1. All construction involving problem soil must be performed under the full-time inspection of the geotechnical engineer.

2. The geotechnical engineer shall furnish a written opinion to the County as to whether or not the work has been performed in accordance with the approved plans prior to the issuance of the residential use permit.

3. Review and approval of plans, specifications and reports by the County, with or without recommendations by the Geotechnical Review Board, shall in no way relieve the Developer of the responsibility for the design, construction and performance of the structures, pavement and slopes on the project and damage to the surrounding properties."

We, Geotechnical Consulting & Testing, Inc. (GC&T) have reviewed the site grading plan, entitled "Thompson Road Property" (Plan Number 9820-SR-02-1) and find that the plan has been prepared in general accordance with the recommendations provided in GC&T's Geotechnical Report (Project No. 23D-2042-1, dated December 11, 2003, and subject to the conditions outlined in Fairfax County's approval letter, dated February 24, 2004.

Abdallah A. Adas, P.E.  
Commonwealth of Virginia  
P.E. No. 20757



DEPARTMENT OF PUBLIC WORKS  
AND ENVIRONMENTAL SERVICES  
Environmental and Facilities Review Division  
12455 Government Center Parkway, Suite 533  
Fairfax, Virginia 22035-0543  
Telephone: 703-324-1728 Fax: 703-324-6889

February 4, 2004

Abdallah A. Adas, P.E.  
GC & T, Inc.  
21305 Government Way  
Dulles, Virginia 20166

Reference: Geotechnical Report for Thompson Road Property, Project #9820-SR-02-1, Plan Map 8023-3-42 and 035-4-25, Study District, Type: Residential/SWM

Dear Mr. Adas:

The referenced geotechnical report prepared on behalf of Winchester Homes, Inc., dated December 11, 2003, with your Project Number 23D-2042-1, has been reviewed and is generally acceptable.

The recommendations in the approved geotechnical report shall be shown on requirements on the construction plans (Fairfax County Public Facilities Manual (PFM), Section 4-4501). The geotechnical engineer shall review the grading and construction plans and state his opinion as to whether or not the plans have been prepared in accordance with the approved recommendations.

The following requirements of the PFM and the Code of the County of Fairfax, Virginia, shall be shown on the plans prior to approval:

- All construction involving problem soil must be performed under the full-time inspection of the geotechnical engineer.
- The geotechnical engineer shall furnish a written opinion to the County as to whether or not the work has been performed in accordance with the approved plans prior to the issuance of any occupancy or use permit.
- Review and approval of plans, specifications and reports by the County, with or without recommendations by the Geotechnical Review Board, shall in no way relieve the Developer of the responsibility for the design, construction and performance of the structures, pavement and slopes on the project and damage to the surrounding properties.
- During construction, the owner shall employ an engineer licensed in the State of Virginia to

Abdallah A. Adas, P.E.  
Project #9820-SR-02-1  
Page 2

Inspect the construction of the dam and file the inspection report with the County not more than thirty (30) days following the completion of the dam. (PFM 6-1607.2A; 6-16-72B).

5. As-built plans shall be provided as required. (PFM 6-1607.3).

If you have any questions, please contact me at 703-324-1720.

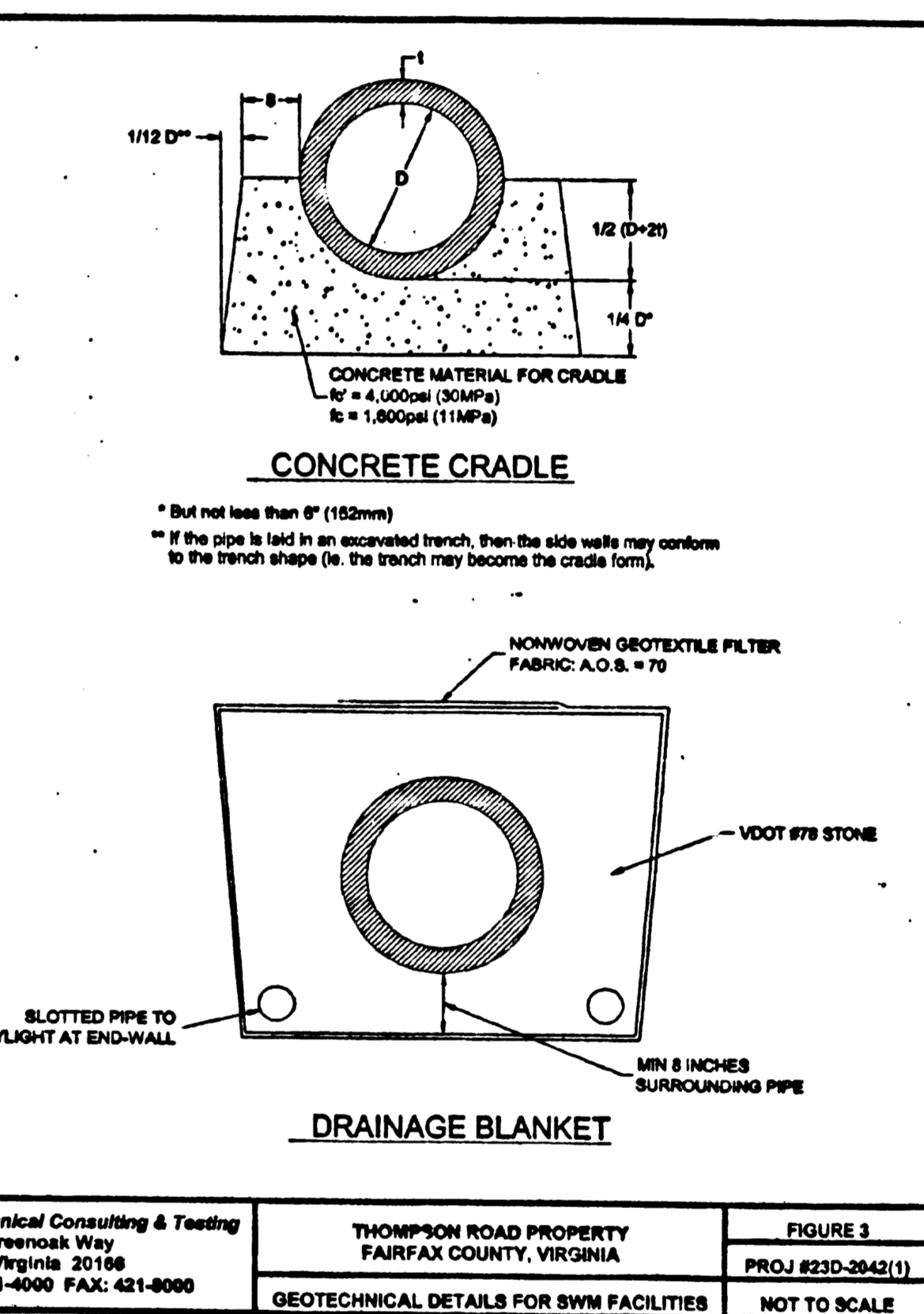
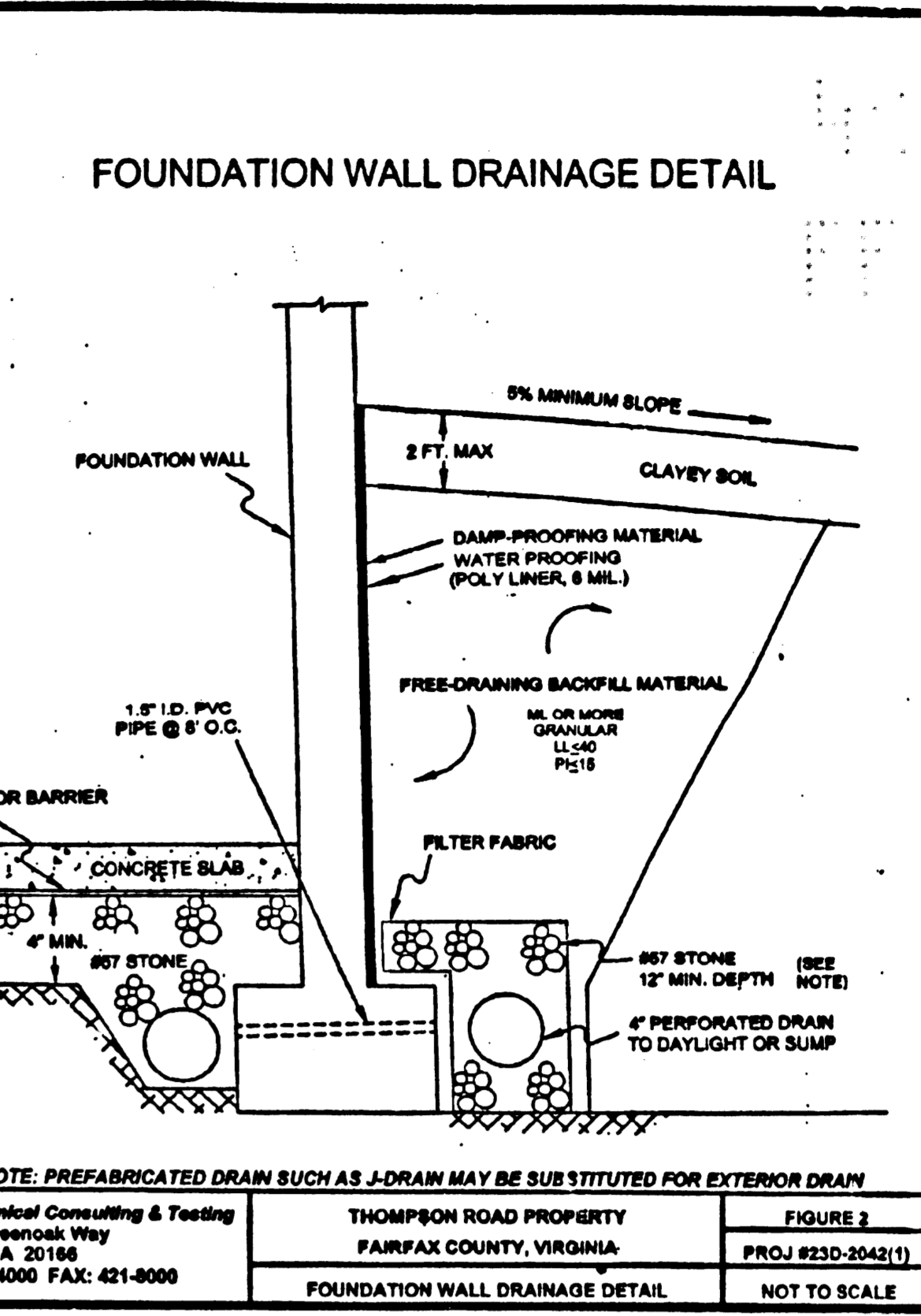
Sincerely,

*[Signature]*  
Bijan Sifalari  
Chief Geotechnical Engineer.

RJS/je

cc: Sylvia Kuzipke, Winchester Homes, Inc.  
Anthony Owens, The B.C. Consultants  
Citizen Assembly, Chief Site Review Engineer, EFRD, DFW/B

Geotechnical File



**BC Consultants**  
Planners - Engineers - Surveyors - Landscape Architects  
12600 Fair Lakes Circle, Suite 100, Fairfax, VA 22033  
(703)449-8100 (703)449-8108 (Fax)  
www.bccol.com

**GEOTECHNICAL REQUIREMENTS**

**THOMPSON ROAD PROPERTY**

SULLY DISTRICT  
FAIRFAX COUNTY, VIRGINIA

DESIGNED BY: ATO	BC REVISIONS
DRAFTED BY: CAD	1/2/04
CHECKED BY: MRT	REVISION PER THE SUBM. COMMENTS
DATE: OCTOBER, 2003	
SCALE: HOR. N/A	
VERT.	
SHEET 31 OF 31	
CO. NO. 9820-SR-02	
CAD NAME: 7060GEO.DWG	
LAYOUT: N/A	
FILE NO. 97060-37	

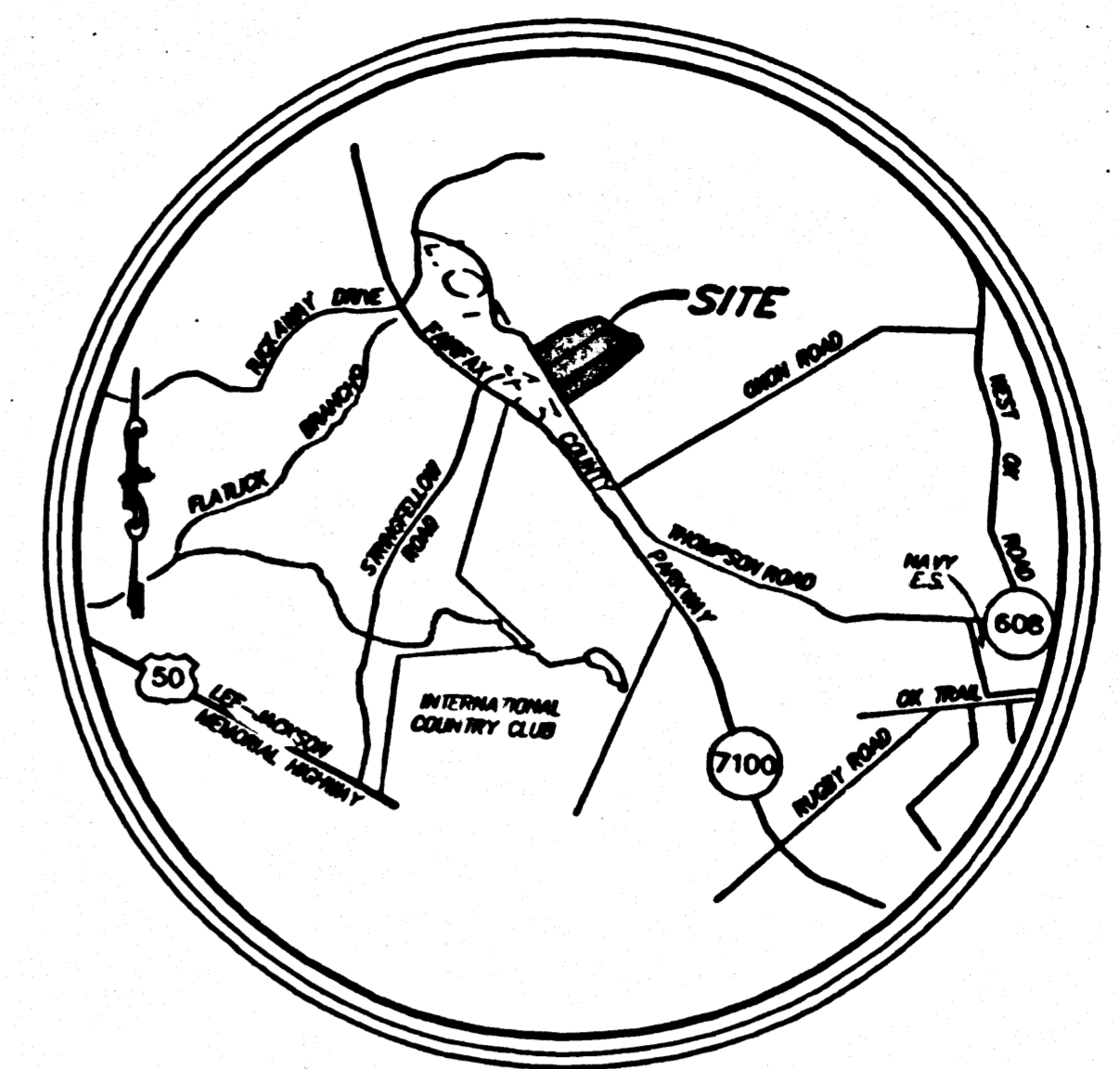
NOTES

- 1) THE PROPERTIES DELINEATED ON THIS PLAT ARE LOCATED ON ASSESSMENT MAP NO. 35-3--(2)--PARCELS B, C1, D2, E1, F1, G & M2 AND ARE ZONED R-1.
2) THE PROPERTIES SHOWN ON THIS SURVEY ARE ALSO KNOWN AS TRACTS B, C-1, E-1, F-1 AND G OF THE DIVISION OF THE DAM DEVELOPMENT CORPORATION...
3) THE PLAT OF THE PROPERTY SHOWN HEREON IS REFERENCED TO THE VIRGINIA COORDINATE SYSTEM OF 1983 AS COMPUTED FROM A FIELD SURVEY WHICH TIES THIS BOUNDARY TO THE FAIRFAX COUNTY GEOGRAPHIC INFORMATION SYSTEM MONUMENT (NAME & NO. & COMBINED GRID & ELEV. FACTOR).
4) PARCELS "A" "B" & "C" ARE HEREBY CONVEYED TO A HOMEOWNERS ASSOCIATION AS OPEN SPACE AND SHALL NOT BE DEDICATED, DEFACED, NOR OTHERWISE DISTURBED IN ANY MANNER AT ANY TIME WITHOUT THE APPROVAL OF THE DIRECTOR, EXCEPT FOR ROUTINE MAINTENANCE AS DESCRIBED IN SECTION 2-702.5 OF THE ZONING ORDINANCE OF FAIRFAX COUNTY.
5) PIPESTEM DRIVEWAYS
A.) PRIVATE DRIVE, PRIVATELY OWNED AND PRIVATELY MAINTAINED BY THE LOT OWNERS, SPECIFICALLY LOTS 1, 2, 18, 20 AND 21.
B.) OWNERS OF ADJUTING LOTS UTILIZING PIPESTEM DRIVEWAYS AUTOMATICALLY ASSUME AN OBLIGATION FOR MAINTENANCE OF THE PIPESTEM DRIVEWAY, WHICH OBLIGATION IS A CONDITION OF THE OWNERSHIP WHICH RUNS WITH THE LAND.
C.) THERE IS AN EASEMENT FOR INGRESS-EGRESS, CONSTRUCTION, MAINTENANCE OF UTILITIES AND COUNTY AND OTHER EMERGENCY VEHICLES.
6.) ENGINEERING GEOLOGY AND/OR SOIL REPORTS HAVE BEEN REVIEWED AND APPROVED BY THE DIRECTOR FOR THE PROPERTY DESCRIBED HEREIN AND ARE AVAILABLE FOR REVIEW IN THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES (DPW&ES). SITE CONDITIONS ARE OF SUCH A NATURE THAT LAND SLIPPAGE OR FOUNDATION PROBLEM POSSIBILITIES REQUIRED THE SUBMITTAL OF SOIL REPORTS. A COPY OF SAID SOIL REPORT IS AVAILABLE FROM DPW&ES.
7.) NO USE SHALL BE MADE OF, NOR SHALL ANY IMPROVEMENTS BE MADE IN THE FLOODPLAIN EASEMENT WITHOUT SPECIFIC AUTHORIZATION FROM FAIRFAX COUNTY.
8.) ALL MONUMENTATION SHOWN HEREON AS I.P.F., I.P.S., MON., ETC. ARE FROM A BOUNDARY SURVEY PERFORMED BY BC CONSULTANTS DATED FEBRUARY, 2004.

OWNER'S DEDICATION

WE, WINCHESTER HOMES INC. AND SCOTT K. AND PATRICIA A. MYERS, BEING THE OWNERS OF THE LAND SHOWN HEREON AND DESCRIBED IN THE SURVEYOR'S CERTIFICATE, DO HEREBY ADOPT THIS PLAT OF (RE)SUBDIVISION, ESTABLISH THE MINIMUM BUILDING RESTRICTION LINES, GRANT THE RIGHTS-OF-WAY AS INDICATED FOR CONSTRUCTION, MAINTENANCE, AND OPERATION OF STREETS, STORM DRAINAGE, SANITARY SEWERS, AND WATERLINES AND AGREE THAT IRON PIPES WILL BE SET AS INDICATED THIS...

FOR: WINCHESTER HOMES, INC WITNESS:
FOR: SCOTT K. MYERS WITNESS:
FOR: PATRICIA A. MYERS WITNESS:



VICINITY MAP SCALE: 1" = 2,000'

SHEET INDEX

- SHEET 1 COVER SHEET
SHEET 2 CURVE TABLE
SHEET 3 LOTS 1 THRU 5, & 15 THRU 18
SHEET 4 LOTS 6 THRU 12 & PARCEL A
SHEET 5 LOTS 13, 14 & 19 THRU 21 & PARCEL C & D
SHEET 6 LOTS 23 THRU 28 & PARCEL A, B & D
SHEET 7 LOTS 22 & 29 THRU 31 PARCEL A

AREA TABULATION

Table with 2 columns: AREA and ACRES. Rows include 31 LOTS (1,354,891 AC), PARCEL A (109,004 AC), PARCEL B (19,581 AC), PARCEL C (47,631 AC), PARCEL D (176,432 AC), STREET DEDICATION (138,364 AC), TOTAL (1,622,840 AC), DENSITY (DU/AC), and OPEN SPACE PROVIDED.

SURVEYOR'S CERTIFICATE

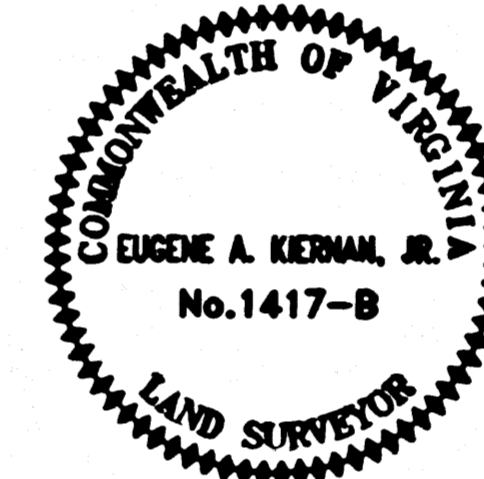
I, EUGENE A. KERNAN JR., A DULY LICENSED LAND SURVEYOR IN THE COMMONWEALTH OF VIRGINIA DO HEREBY CERTIFY THAT I HAVE CAREFULLY SURVEYED THE PROPERTY DELINEATED HEREON AND THAT IT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT IT IS A SUBDIVISION OF (ALL OR PART OF) THE PROPERTY ACQUIRED BY WINCHESTER HOMES, INC AS RECORDED IN DEED BOOK 14874 AT PAGES 31 & 35, DB 14882 PG 2067, DB...

EUGENE A. KERNAN JR. LS# 1417-B DATE

WETLANDS CERTIFICATE

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES.

SIGNATURE: OWNER/DEVELOPER NAME TITLE



FINAL SUBDIVISION PLAT THOMPSON ROAD PROPERTY

(SEE NOTE # 2) SULLY DISTRICT FAIRFAX COUNTY, VIRGINIA SCALE: 1" = 50' DATE: MARCH 17, 2004

BC Consultants logo and contact information: Planners - Engineers - Surveyors - Landscape Architects, 12800 Fair Lakes Circle, Suite 100, Fairfax, VA 22033.

SHEET 1 OF 7

THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER

DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES OFFICE OF SITE DEVELOPMENT SERVICES FAIRFAX, VIRGINIA

FINAL PLAT RECOMMENDED FOR APPROVAL FAIRFAX COUNTY SITE REVIEW BRANCH CHIEF

APPROVED COUNTY OF FAIRFAX OFFICE OF SITE DEVELOPMENT SERVICES SANITARY SEWER SECTION

APPROVED FOR BOARD OF SUPERVISORS FAIRFAX COUNTY, VIRGINIA

APPROVED COUNTY OF FAIRFAX OFFICE OF BUILDING CODE SERVICES PERMITS DIVISION-SITE PERMITS SECTION STREET ADDRESS FUNCTION

APPROVAL VOID IF PLAT IS NOT OFFERED FOR RECORD ON OR BEFORE

APPROVAL VOID IF PLAT IS NOT OFFERED FOR RECORD ON OR BEFORE

REF # 9820-S0-02-2

CO # 9820-RP-

97060.22-21 A

CURVE TABLE

Table with 7 columns: CURVE, RADIUS, LENGTH, TANGENT, CHORD, BEARING, DELTA. Contains 54 rows of curve data.

FINAL PLAT RECOMMENDED FOR APPROVAL FAIRFAX COUNTY SITE REVIEW BRANCH CHIEF

APPROVED COUNTY OF FAIRFAX OFFICE OF SITE DEVELOPMENT SERVICES SANITARY SEWER SECTION

THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER

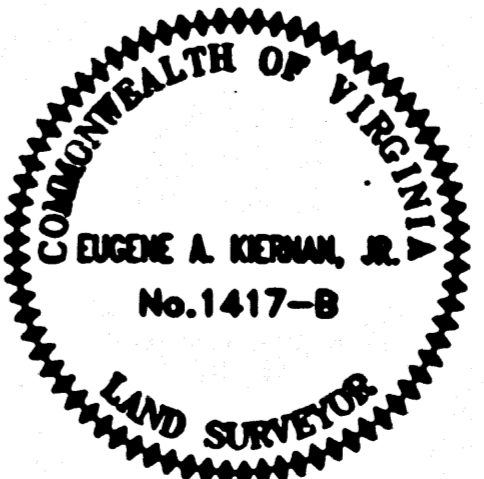
APPROVED FOR BOARD OF SUPERVISORS FAIRFAX COUNTY, VIRGINIA

APPROVED COUNTY OF FAIRFAX OFFICE OF BUILDING CODE SERVICES PERMITS DIVISION-SITE PERMITS SECTION STREET ADDRESS FUNCTION

DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES OFFICE OF SITE DEVELOPMENT SERVICES FAIRFAX, VIRGINIA

APPROVAL VOID IF PLAT IS NOT OFFERED FOR RECORD ON OR BEFORE

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FINAL SUBDIVISION PLAT THOMPSON ROAD PROPERTY

(SEE NOTE # 2) SULLY DISTRICT FAIRFAX COUNTY, VIRGINIA SCALE: 1" = 50' DATE: MARCH 17, 2004

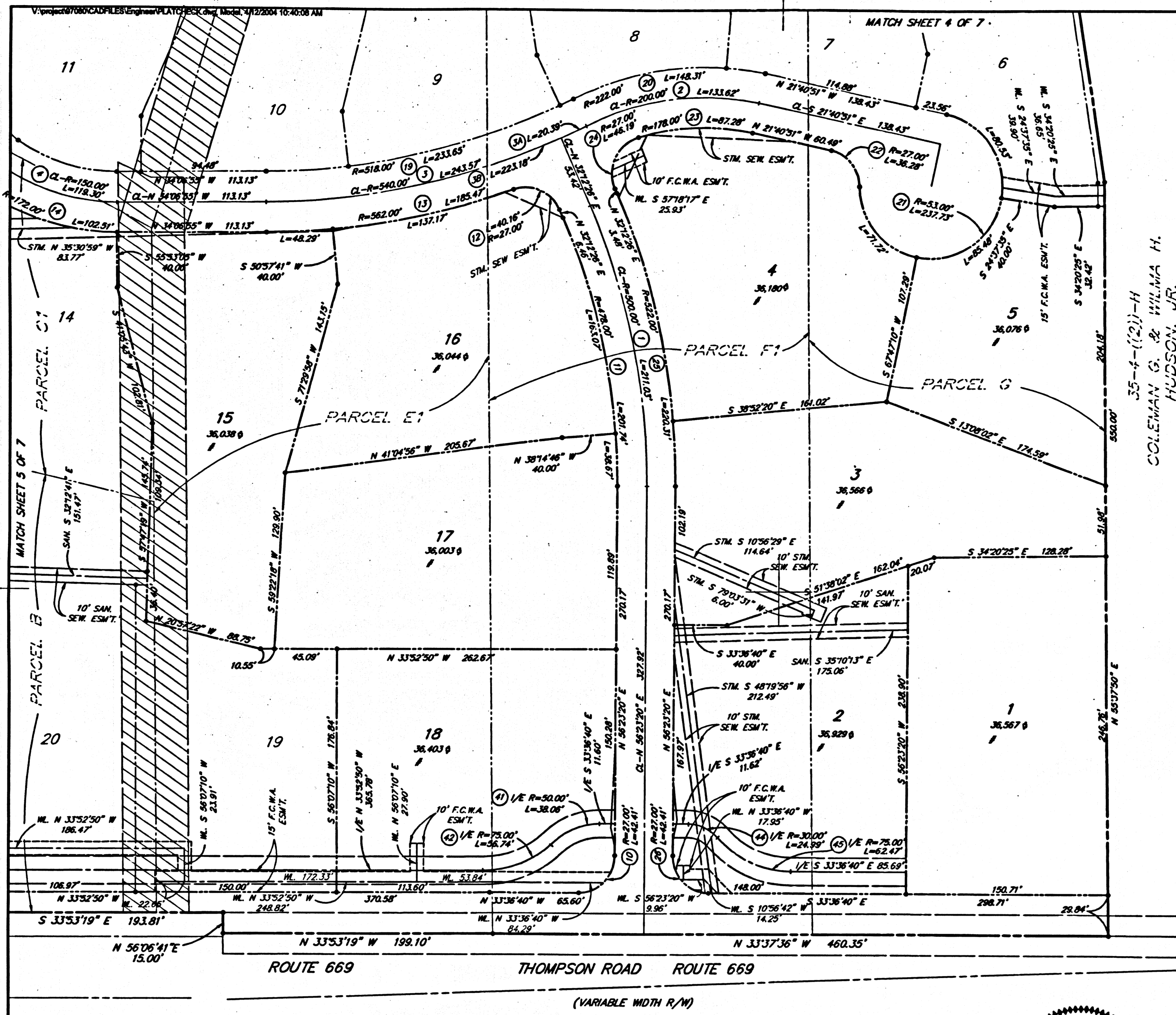
BC Consultants logo and contact information: Planners - Engineers - Surveyors - Landscape Architects, 12800 Fair Lakes Circle, Suite 100, Fairfax, VA 22033.

SHEET 2 OF 7

REF # 9820-S0-02-2

CO # 9820-RP-

97060.22-21 A



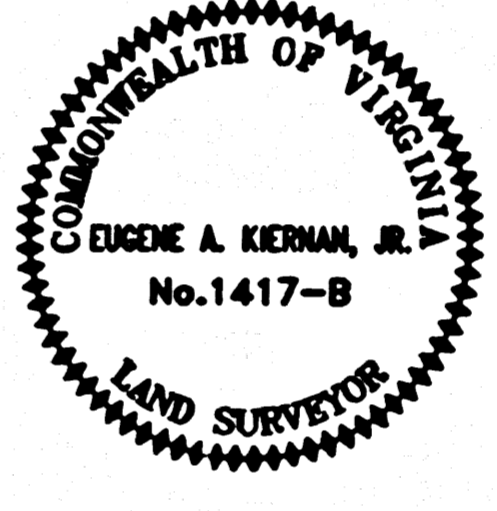
35-4-(12)-H  
 COLEMAN G. & WILLIAMS H.  
 HUDSON, JR.  
 DB 4028 PG 378

<b>FINAL PLAT</b>	
RECOMMENDED FOR APPROVAL FAIRFAX COUNTY SITE REVIEW BRANCH CHIEF	
DATE	AGENT
<b>APPROVED</b>	
FOR BOARD OF SUPERVISORS FAIRFAX COUNTY, VIRGINIA	
DATE	Director Public Works & Environmental Services or Agent
APPROVAL VOID IF PLAT IS NOT OFFERED FOR RECORD ON OR BEFORE	

EX. 50' INGRESS/EGRESS  
 AND UTILITY ESM'T.  
 DB 4356 PG. 64  
 DB 3542 PG. 185

**FINAL SUBDIVISION PLAT**  
**THOMPSON ROAD PROPERTY**  
 (SEE NOTE # 2)  
 SULLY DISTRICT  
 FAIRFAX COUNTY, VIRGINIA  
 SCALE: 1" = 50' DATE: MARCH 16, 2004

**BC Consultants**  
 Planners - Engineers - Surveyors - Landscape Architects  
 12800 Fair Lakes Circle, Suite 100, Fairfax, VA 22033  
 (703) 449-8100 (703) 449-8108 (Fax)  
 www.bcco.com

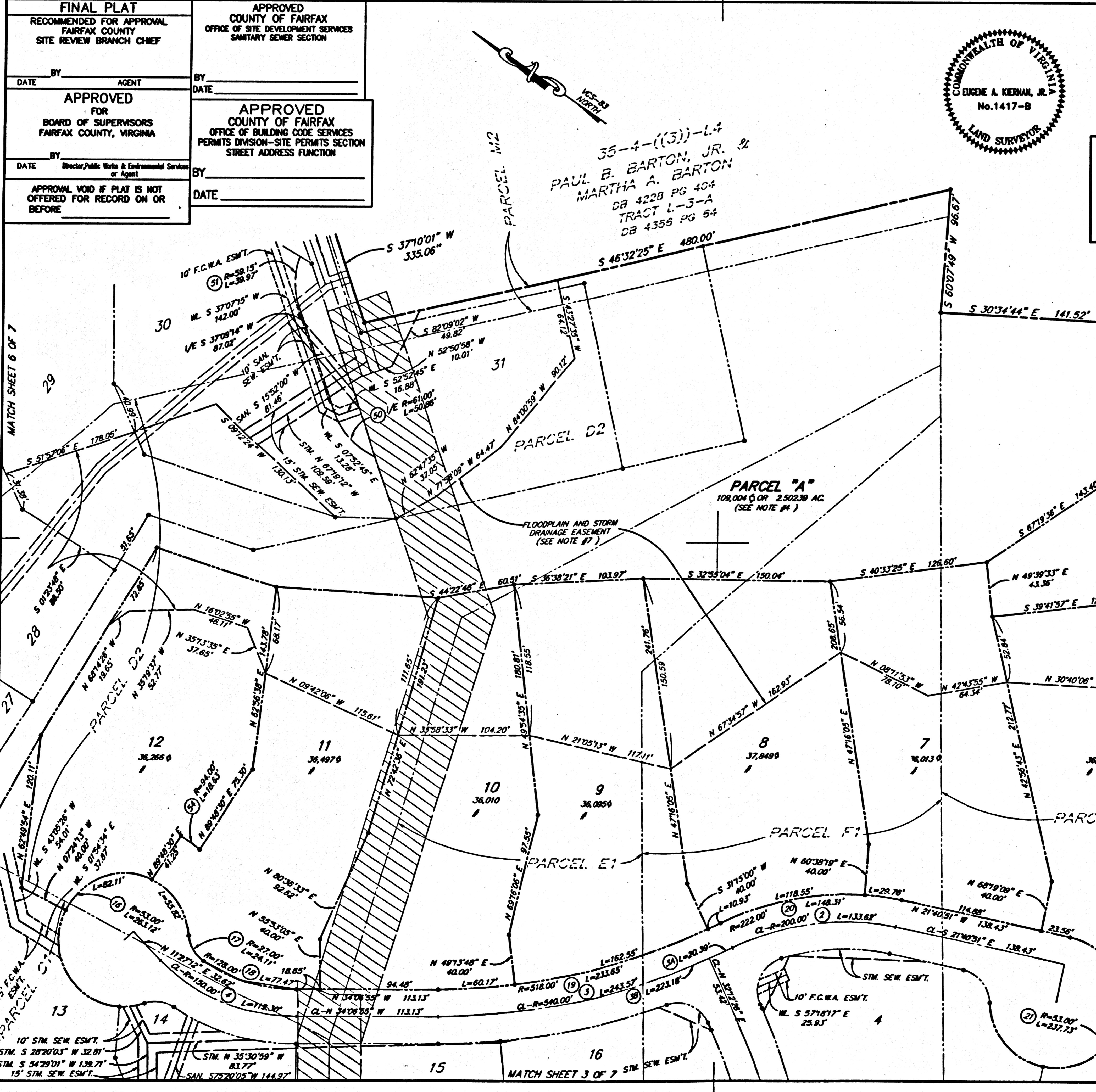


APPROVED COUNTY OF FAIRFAX OFFICE OF BUILDING CODE SERVICES PERMITS DIVISION-SITE PERMITS SECTION STREET ADDRESS FUNCTION	APPROVED COUNTY OF FAIRFAX OFFICE OF SITE DEVELOPMENT SERVICES SANITARY SEWER SECTION
BY _____	BY _____
DATE _____	DATE _____

**THIS APPROVAL IS NOT A  
 COMMITMENT TO PROVIDE  
 PUBLIC SANITARY SEWER**

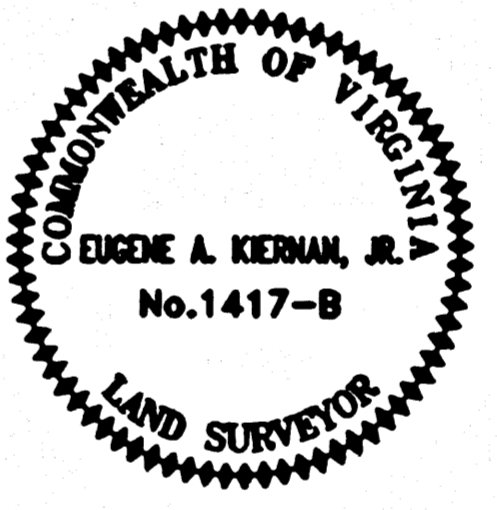
DEPARTMENT OF PUBLIC WORKS  
 AND ENVIRONMENTAL SERVICES  
 OFFICE OF SITE DEVELOPMENT SERVICES  
 FAIRFAX, VIRGINIA

REF. # 9820-SO-02-2 CO. # 9820-RP- 97060.22-21 A



**FINAL SUBDIVISION PLAT**  
**THOMPSON ROAD PROPERTY**  
 (SEE NOTE # 2)  
 SULLY DISTRICT  
 FAIRFAX COUNTY, VIRGINIA  
 SCALE: 1" = 50' DATE: MARCH 17, 2004

**BC Consultants**  
 Planners - Engineers - Surveyors - Landscape Architects  
 12800 Fair Lakes Circle, Suite 100, Fairfax, VA 22033  
 (703) 449-8100 (703) 449-8108 (Fax)  
 www.bcco.com



FINAL PLAT RECOMMENDED FOR APPROVAL FAIRFAX COUNTY SITE REVIEW BRANCH CHIEF	APPROVED COUNTY OF FAIRFAX OFFICE OF SITE DEVELOPMENT SERVICES SANITARY SEWER SECTION
BY _____	BY _____
DATE _____	DATE _____

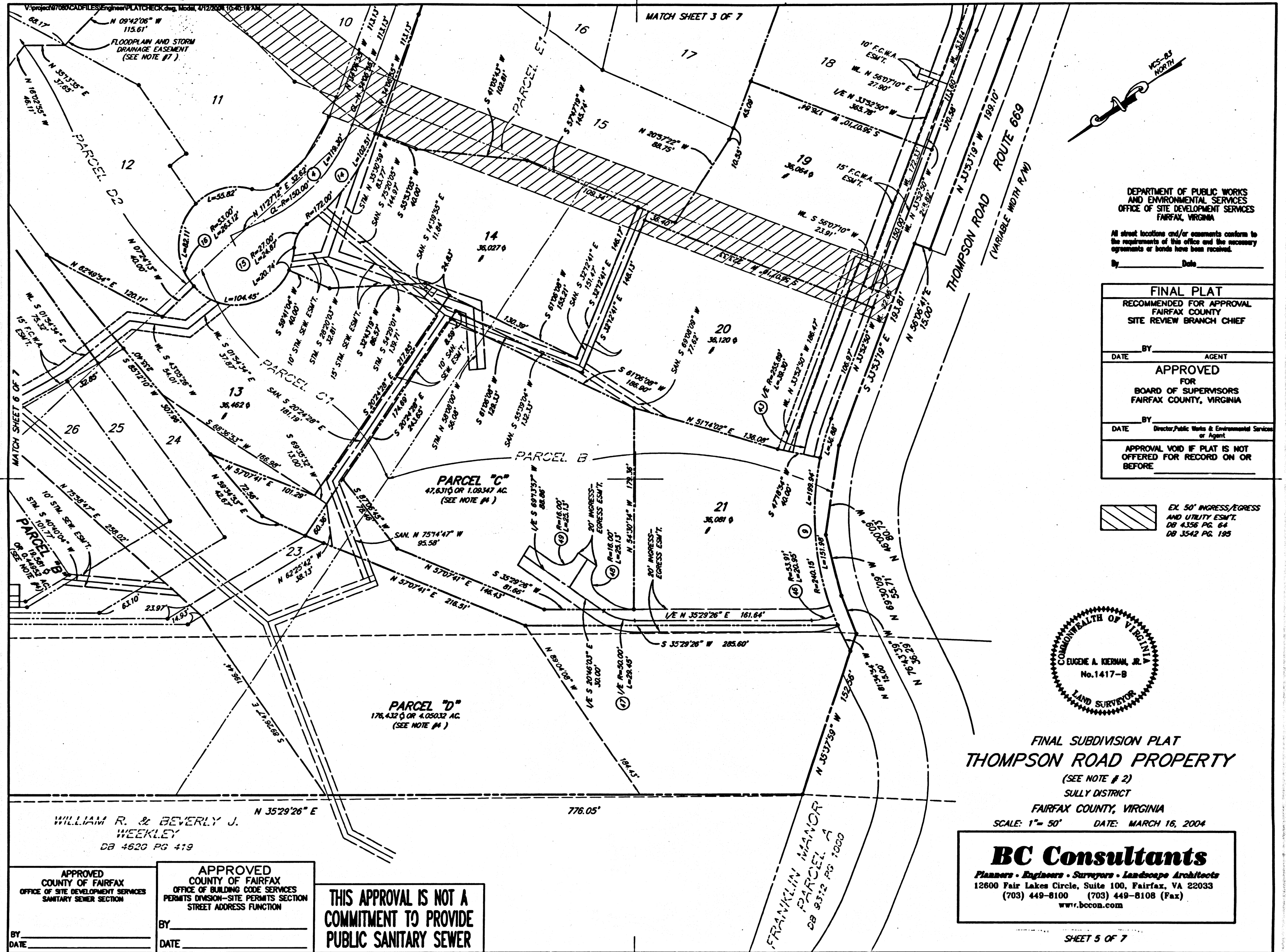
**THIS APPROVAL IS NOT A  
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 PUBLIC SANITARY SEWER**

DEPARTMENT OF PUBLIC WORKS  
 AND ENVIRONMENTAL SERVICES  
 OFFICE OF SITE DEVELOPMENT SERVICES  
 FAIRFAX, VIRGINIA

REF. # 9820-SO-02-2 CO. # 9820-RP- 97060.22-21 A

35-4-(13)-L4  
 PAUL B. BARTON, JR. &  
 MARTHA A. BARTON  
 DB 4228 PG 404  
 TRACT L-3-A  
 DB 4356 PG 64

35-4-(13)-K1  
 PAUL B. BARTON, JR. &  
 MARTHA A. BARTON  
 DB 3413 PG 155



DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES  
OFFICE OF SITE DEVELOPMENT SERVICES  
FAIRFAX COUNTY, VIRGINIA

All street locations and/or easements conform to the requirements of this office and the necessary agreements or bonds have been received.

By: \_\_\_\_\_ Date: \_\_\_\_\_

**FINAL PLAT**  
RECOMMENDED FOR APPROVAL  
FAIRFAX COUNTY  
SITE REVIEW BRANCH CHIEF

BY: \_\_\_\_\_ AGENT

**APPROVED**  
FOR  
BOARD OF SUPERVISORS  
FAIRFAX COUNTY, VIRGINIA

BY: \_\_\_\_\_  
Director/Pub. Works & Environmental Services  
or Agent

APPROVAL VOID IF PLAT IS NOT OFFERED FOR RECORD ON OR BEFORE \_\_\_\_\_

EX. 50' EGRESS/EGRESS AND UTILITY EASE  
DB 4326 PG. 64  
DB 3542 PG. 195



**FINAL SUBDIVISION PLAT**  
**THOMPSON ROAD PROPERTY**  
(SEE NOTE # 2)  
SULLY DISTRICT  
FAIRFAX COUNTY, VIRGINIA  
SCALE: 1" = 50' DATE: MARCH 16, 2004

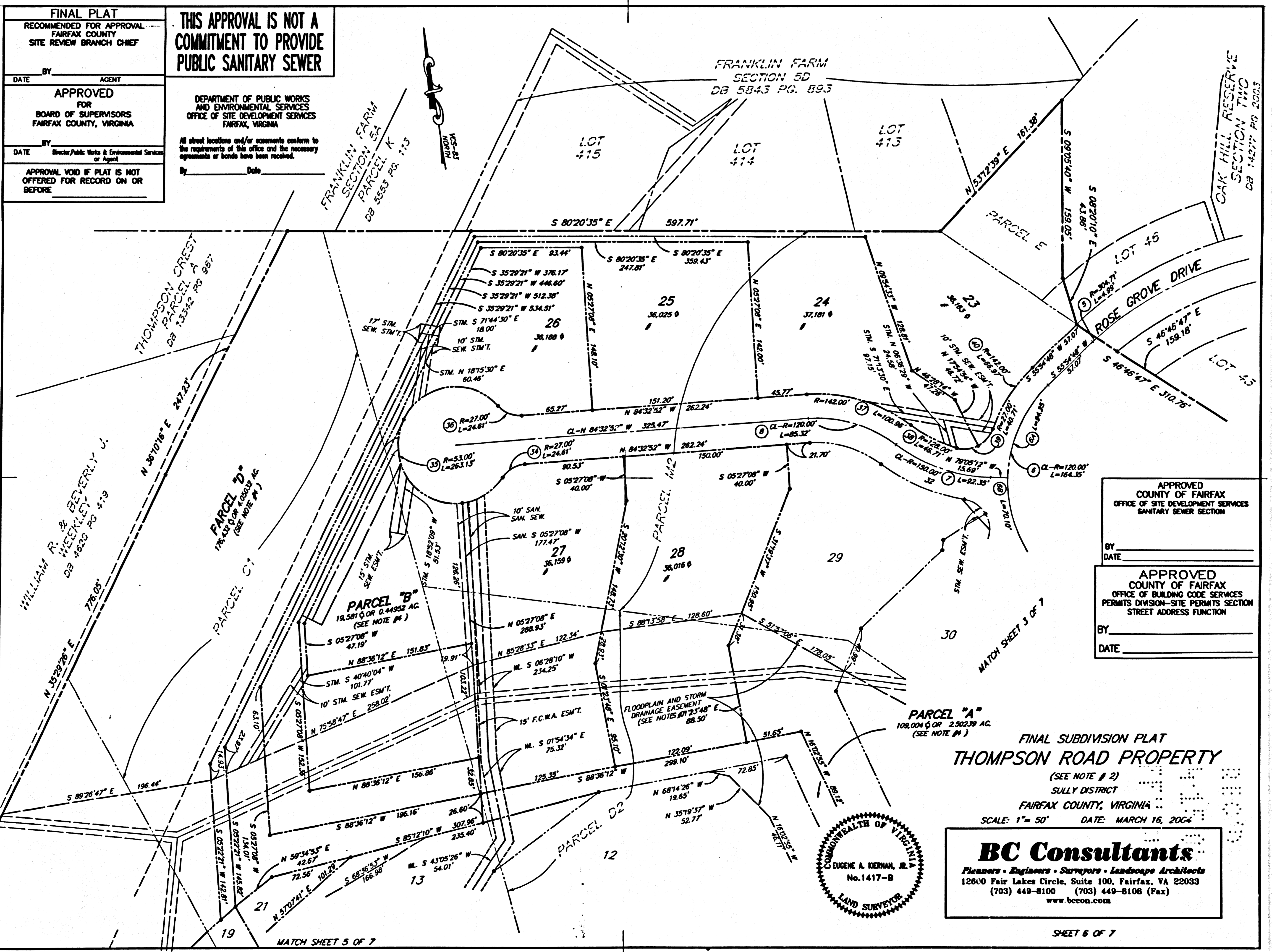
**BC Consultants**  
Planners - Engineers - Surveyors - Landscape Architects  
12800 Fair Lakes Circle, Suite 100, Fairfax, VA 22033  
(703) 449-8100 (703) 449-8108 (Fax)  
www.bccom.com

APPROVED COUNTY OF FAIRFAX OFFICE OF SITE DEVELOPMENT SERVICES SANITARY SEWER SECTION

APPROVED COUNTY OF FAIRFAX OFFICE OF BUILDING CODE SERVICES PERMITS DIVISION-SITE PERMITS SECTION STREET ADDRESS FUNCTION

**THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER**

BY: \_\_\_\_\_ DATE: \_\_\_\_\_



APPROVED COUNTY OF FAIRFAX OFFICE OF SITE DEVELOPMENT SERVICES SANITARY SEWER SECTION

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

APPROVED COUNTY OF FAIRFAX OFFICE OF BUILDING CODE SERVICES PERMITS DIVISION-SITE PERMITS SECTION STREET ADDRESS FUNCTION

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

**FINAL SUBDIVISION PLAT**  
**THOMPSON ROAD PROPERTY**  
(SEE NOTE # 2)  
SULLY DISTRICT  
FAIRFAX COUNTY, VIRGINIA  
SCALE: 1" = 50' DATE: MARCH 16, 2004

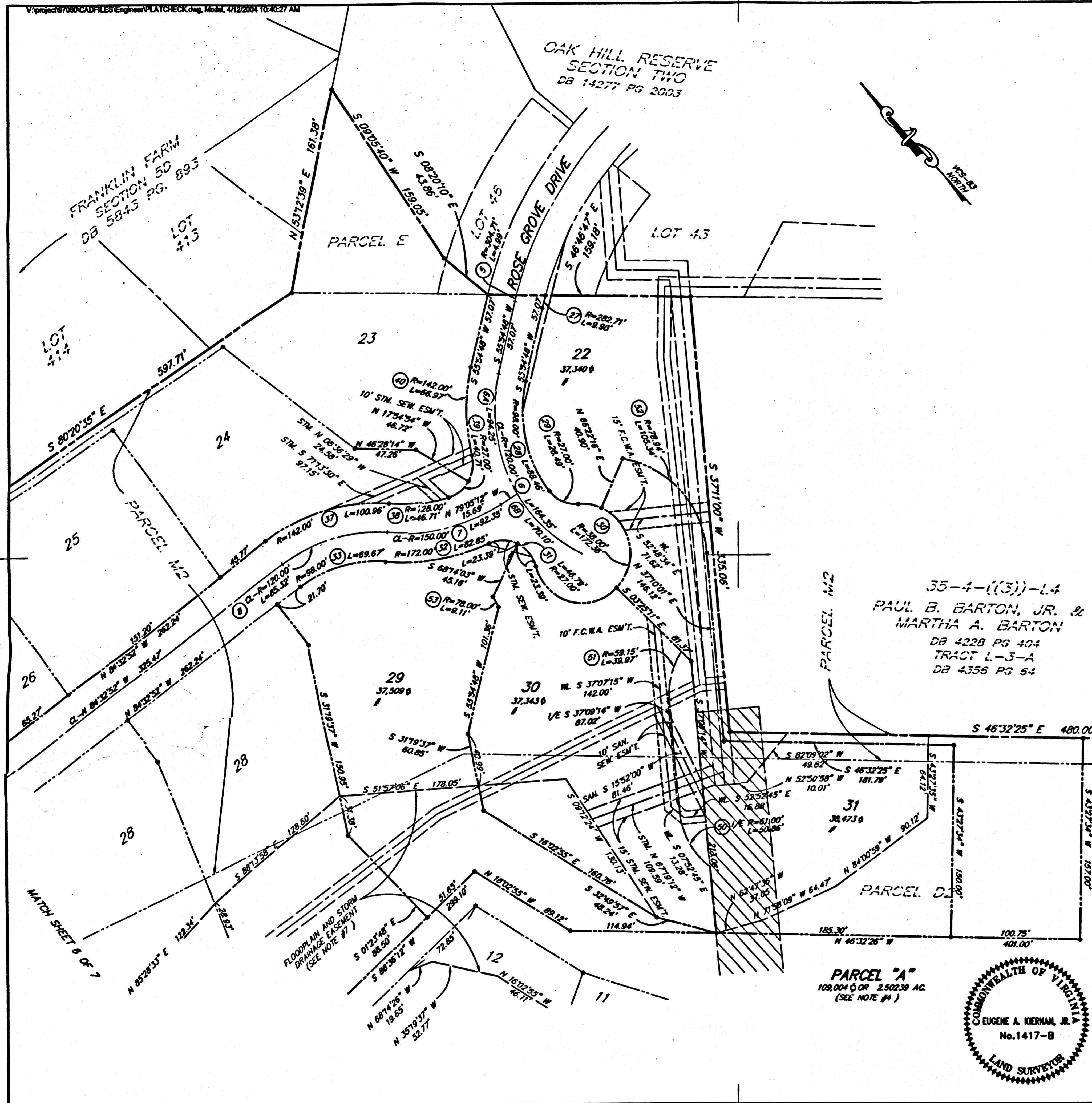
**BC Consultants**  
Planners - Engineers - Surveyors - Landscape Architects  
12800 Fair Lakes Circle, Suite 100, Fairfax, VA 22033  
(703) 449-8100 (703) 449-8108 (Fax)  
www.bccom.com

APPROVED COUNTY OF FAIRFAX OFFICE OF SITE DEVELOPMENT SERVICES SANITARY SEWER SECTION

APPROVED COUNTY OF FAIRFAX OFFICE OF BUILDING CODE SERVICES PERMITS DIVISION-SITE PERMITS SECTION STREET ADDRESS FUNCTION

**THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER**

BY: \_\_\_\_\_ DATE: \_\_\_\_\_



APPROVED  
COUNTY OF FAIRFAX  
OFFICE OF SITE DEVELOPMENT SERVICES  
SANITARY SEWER SECTION

DATE: \_\_\_\_\_

APPROVED  
COUNTY OF FAIRFAX  
OFFICE OF BUILDING CODE SERVICES  
PERMITS DIVISION-SITE PERMITS SECTION  
STREET ADDRESS FUNCTION

DATE: \_\_\_\_\_

**FINAL PLAT**  
RECOMMENDED FOR APPROVAL  
FAIRFAX COUNTY  
SITE REVIEW BRANCH CHIEF

DATE: \_\_\_\_\_

APPROVED  
FOR  
BOARD OF SUPERVISORS  
FAIRFAX COUNTY, VIRGINIA

DATE: \_\_\_\_\_  
Director/Public Works & Environmental Services  
or Agent

APPROVAL VOID IF PLAT IS NOT  
OFFERED FOR RECORD ON OR  
BEFORE

**THIS APPROVAL IS NOT A  
COMMITMENT TO PROVIDE  
PUBLIC SANITARY SEWER**

DEPARTMENT OF PUBLIC WORKS  
AND ENVIRONMENTAL SERVICES  
OFFICE OF SITE DEVELOPMENT SERVICES  
FAIRFAX COUNTY, VIRGINIA

All street locations and/or easements conform to  
the requirements of this office and the necessary  
agreements or bonds have been received.

By: \_\_\_\_\_ Date: \_\_\_\_\_

EX. 50' ADDRESS ADDRESS  
AND UTILITY ESM'T.  
DB 4356 PG 64  
DB 3542 PG 185

35-4-((3))-L4  
PAUL B. BARTON, JR. &  
MARTHA A. BARTON  
DB 4228 PG 404  
TRACT L-3-A  
DB 4356 PG 64

PARCEL "A"  
100,004 SQ. FT. OR 2,302.30 AC.  
(SEE NOTE #4)

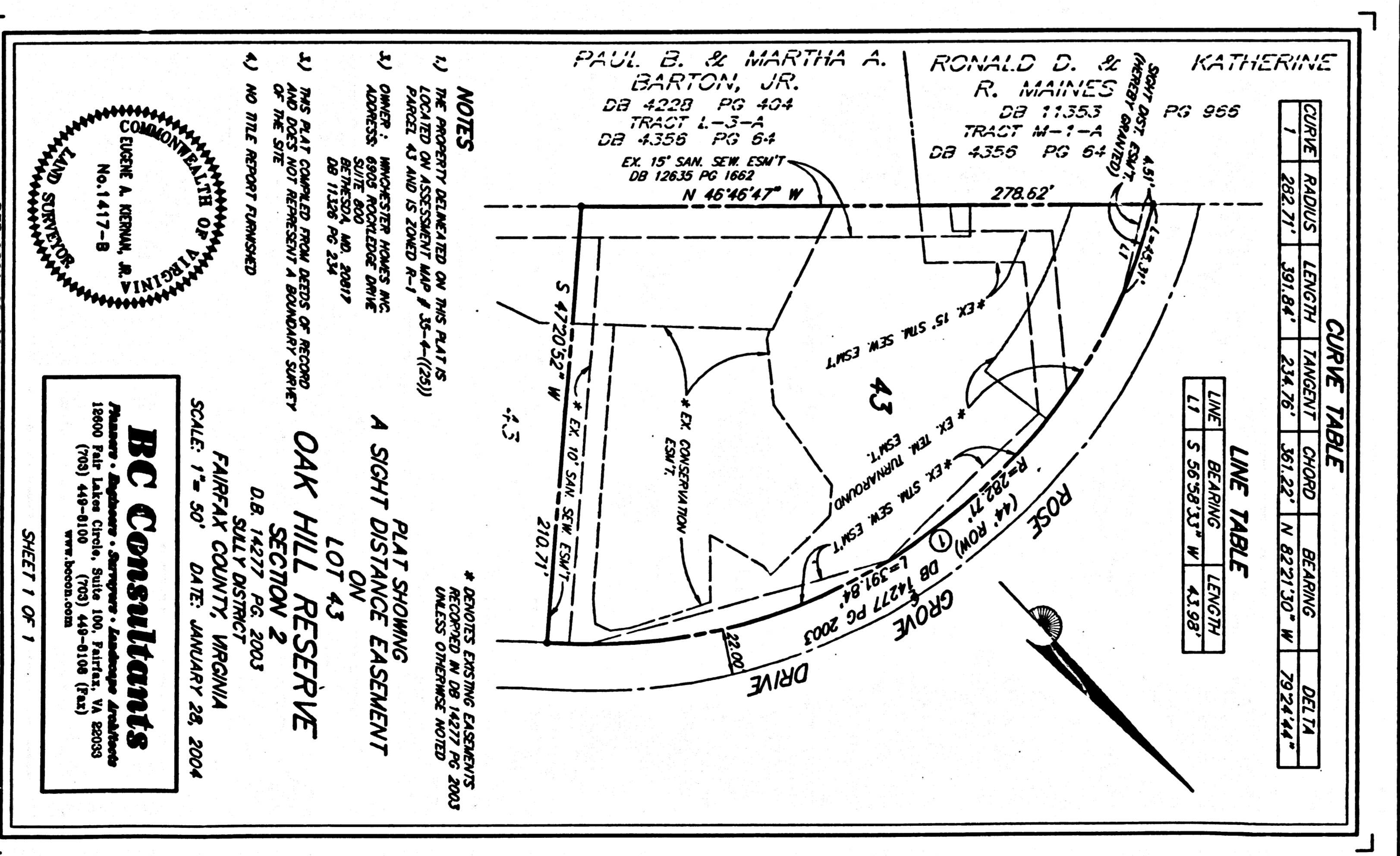
FINAL SUBDIVISION PLAT  
**THOMPSON ROAD PROPERTY**  
(SEE NOTE #2)  
SULLY DISTRICT  
FAIRFAX COUNTY, VIRGINIA  
SCALE: 1" = 50' DATE: MARCH 16, 2004

**BC Consultants**  
Planners - Engineers - Surveyors - Landscape Architects  
12600 Fair Lakes Circle, Suite 100, Fairfax, VA 22033  
(703) 448-8100 (703) 449-8108 (Fax)  
www.bcon.com

LAND SURVEYOR  
EUGENE A. KERNAN, II  
No. 1417-B

SHEET 7 OF 7

REF # 9820-SD-02-2 CO. # 9820-RP- 97060.22-21 A



**NOTES**

- 1) THE PROPERTY DESCRIBED ON THIS PLAT IS SUBJECT TO THE EASEMENTS AND RESTRICTIONS SHOWN HEREON.
- 2) THE PROPERTY IS SUBJECT TO THE EASEMENTS AND RESTRICTIONS SHOWN ON PLAT NO. 35-4-((3))-L4.
- 3) THE PROPERTY IS SUBJECT TO THE EASEMENTS AND RESTRICTIONS SHOWN ON PLAT NO. 35-4-((3))-L4.
- 4) THE PROPERTY IS SUBJECT TO THE EASEMENTS AND RESTRICTIONS SHOWN ON PLAT NO. 35-4-((3))-L4.

A SIGHT DISTANCE EASEMENT ON LOT 43

OAK HILL RESERVE SECTION 2 SULLY DISTRICT FAIRFAX COUNTY, VIRGINIA DB 4228 PG 404 DATE: JANUARY 28, 2004

**BC Consultants**  
12600 Fair Lakes Circle, Suite 100, Fairfax, VA 22033  
(703) 448-8100 (703) 449-8108 (Fax)  
www.bcon.com

PAUL B. & MARTHA A. BARTON, JR.  
DB 4228 PG 404  
TRACT L-3-A  
DB 4356 PG 64

RONALD D. & KATHERINE R. MAHES  
DB 17353  
TRACT L-3-A  
DB 4356 PG 64

EX. 15' SAN. SEW. ESM'T.  
DB 1263 PG 162  
N 46°46'47" W

278.62'

ROSE GROVE DRIVE

LOT 43

LOT 44

PARCEL A

LINE TABLE

LINE	BEARING	LENGTH
L1	S 56°59'53" W	43.98'

CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
1	882.21'	391.84'	234.28'	361.82'	N 82°21'30" W	79°24'44"

97060.22-21 A