

SITE PLAN

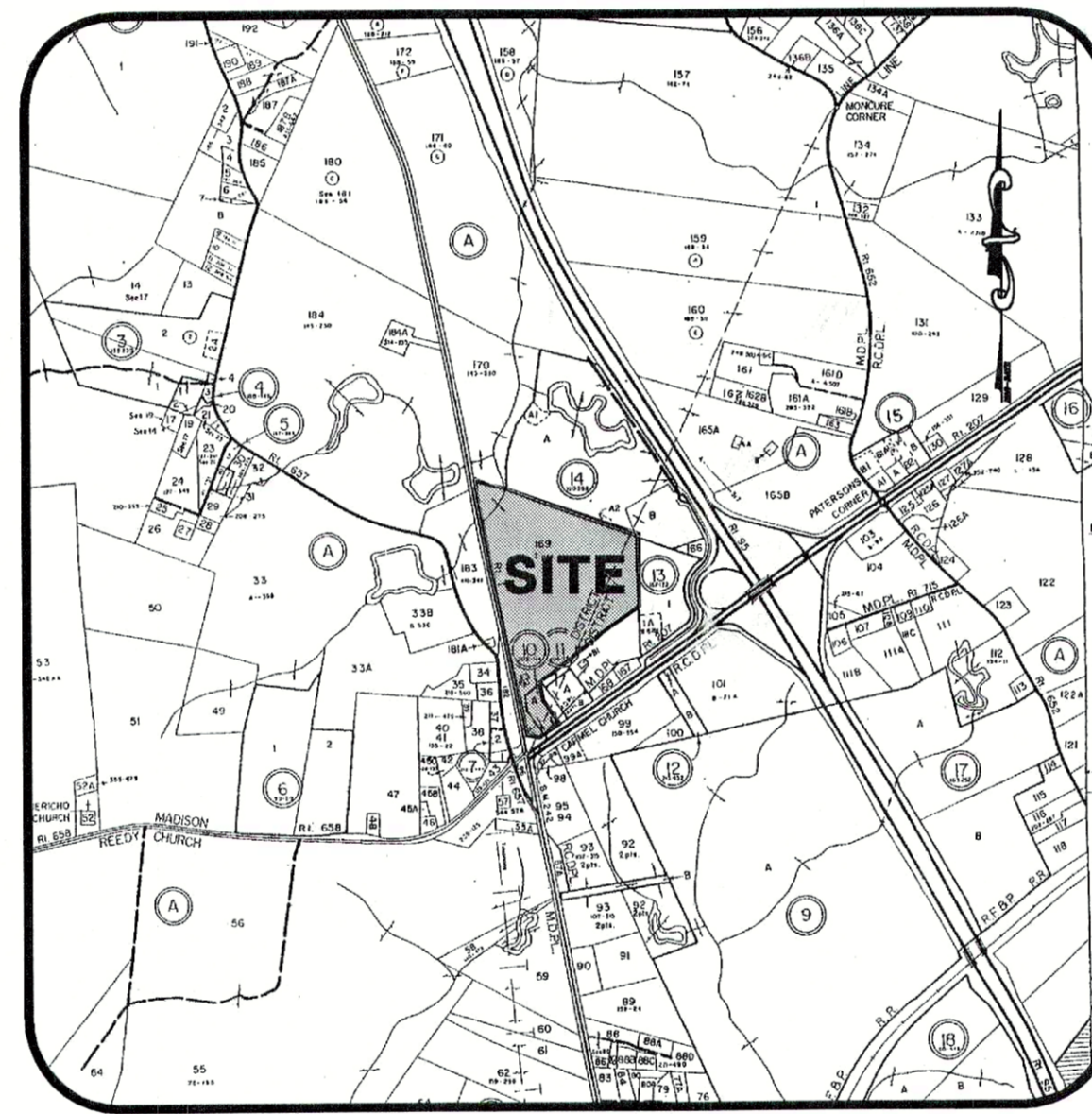
CULPEPER FARMERS' CO-OP

TAX MAP 82-A-169

REEDY CHURCH MAGISTERIAL DISTRICT
CAROLINE COUNTY, VIRGINIA

APPLICANT:

CULPEPER FARMERS' CO-OP INC.
ATTN: DICK BEARD
15172 BRANDY ROAD
CULPEPER, VA 22701
(540)825-2200



VICINITY MAP SCALE: 1" = 2,000'

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- 12.) STORM SEWER CALCULATIONS & PROFILES
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WEBB AND ASSOCIATES

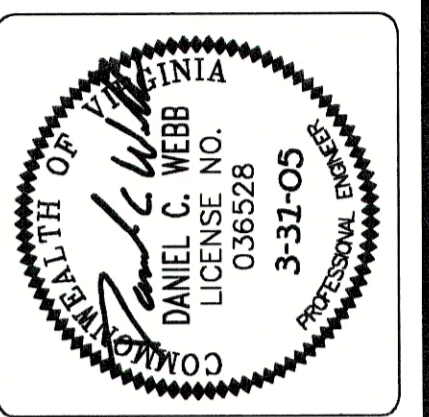
A SURVEYING AND DESIGN COMPANY

11903 BOWMAN DRIVE, SUITE 106, FREDERICKSBURG, VA. 22408
(540)371-1209 (804)633-9907 FAX (540)371-4650

APPROVALS

AGENT, BOARD OF SUPERVISORS _____
VIRGINIA DEPARTMENT OF TRANSPORTATION _____
DEPARTMENT OF UTILITIES _____
FIRE MARSHALL _____

REVISION	DATE	DESCRIPTION	BY
PER COUNTY COMMENTS	2/4/05		SLB
PER COUNTY COMMENTS	3/11/05		SLB
PER COUNTY COMMENTS	3/24/05		SLB
PER COUNTY COMMENTS	3/31/05		SLB



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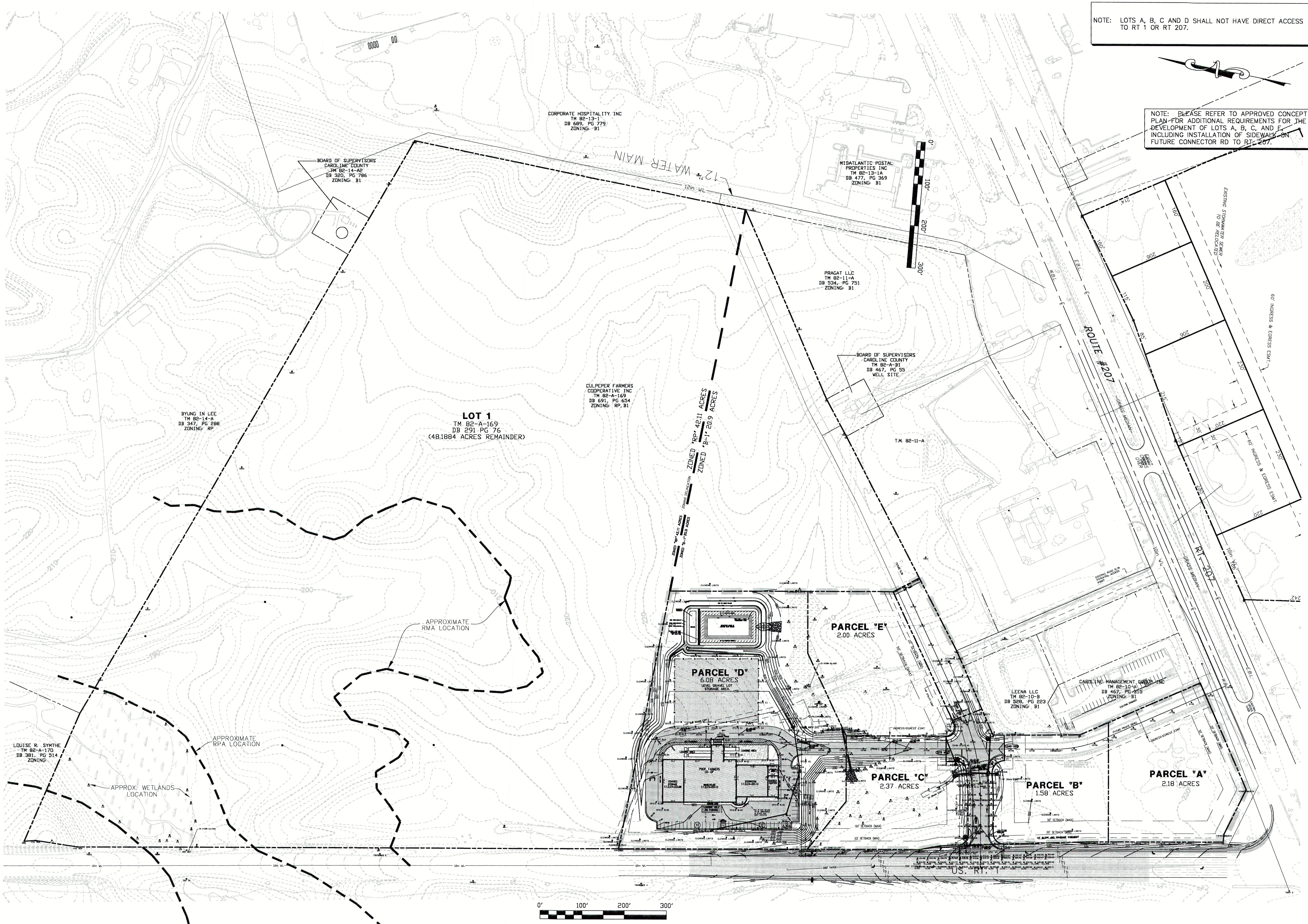
COVER SHEET
CULPEPER FARMERS'
CO-OP
REEDY CHURCH MAGISTERIAL DISTRICT
& MADISON MAGISTERIAL DISTRICT
CAROLINE COUNTY, VIRGINIA

DATE: SEPT. 29, 2004
SCALE: AS SHOWN
DESIGNED BY: SLB
DRAWN BY: CLW
CHECKED BY: DCW
ACAD FILE: <04D100ACP>
DRAWING NO: 04-D-100

SHEET NO. **1**
OF 13 SHEETS

NOTE: LOTS A, B, C AND D SHALL NOT HAVE DIRECT ACCESS TO RT 1 OR RT 207.

NOTE: PLEASE REFER TO APPROVED CONCEPT PLAN FOR ADDITIONAL REQUIREMENTS FOR THE DEVELOPMENT OF LOTS A, B, C, AND D, INCLUDING INSTALLATION OF SIDEWALK ON FUTURE CONNECTOR RD TO RT 207.



REVISION	DATE	PER COUNTY COMMENTS	BY
	2/4/05	PER COUNTY COMMENTS	SLB
	3/11/05	PER COUNTY COMMENTS	SLB



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 A SURVEYING AND DESIGN COMPANY
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 (540)371-1209 (804)633-9907 FAX(540)371-4850



OVERALL PLAN
CULPEPER FARMERS' CO-OP
 & MADISON MAGISTERIAL DISTRICT
 CAROLINE COUNTY, VIRGINIA

DATE: SEPT. 29, 2004
 SCALE: 1" = 100'
 DESIGNED BY: SLB
 DRAWN BY: CLW
 CHECKED BY: DCW

ACAD FILE: <04D100BCP>
 DRAWING NO: 04-D-100

SHEET NO. **2**
 OF 13 SHEETS

CHESAPEAKE BAY CALC'S

IMPERVIOUS SURFACES IN RMA:

STRUCTURE AREA = 26,521 SQ.FT.
 ASPHALT/GRAVEL = 94,300 SQ.FT.
 TOTAL = 120,821 SQ.FT.

IMPERVIOUS RATIO = 120,821/264,845 or 46%

RMA ON SITE: YES

RPA ON SITE: YES

NOTE: IF THE BOUNDARIES OF A RMA INCLUDE ONLY A PORTION OF A LOT, TRACT, PARCEL OF LAND, OR DEVELOPMENT PROJECT, THE ENTIRE LOT, PARCEL OR DEVELOPMENT PROJECT SHALL BE DEEMED TO BE IN THE RMA.

SEEDING RECOMMENDATIONS

PERMANENT SEEDING:

100-120 LBS./AC. TALL FESCUE
 12 LBS./AC. ANNUAL RYEGRASS
 1,200 LBS./AC. 10-10-10
 2 TONS/AC. AGRICULTURE LIMESTONE ON SANDY SOILS
 3 TONS/AC. AGRICULTURE LIMESTONE ON CLAYEY SOILS
 1,500 TO 2,000 LBS./AC. STRAW MULCH

TEMPORARY SEEDING:

60 LBS./AC. GERMAN MILLET (SUMMER MONTHS)

60 LBS./AC. ANNUAL RYEGRASS
 OR (LATE FALL OR EARLY WINTER)
 100 LBS./AC/ CEREAL RYE

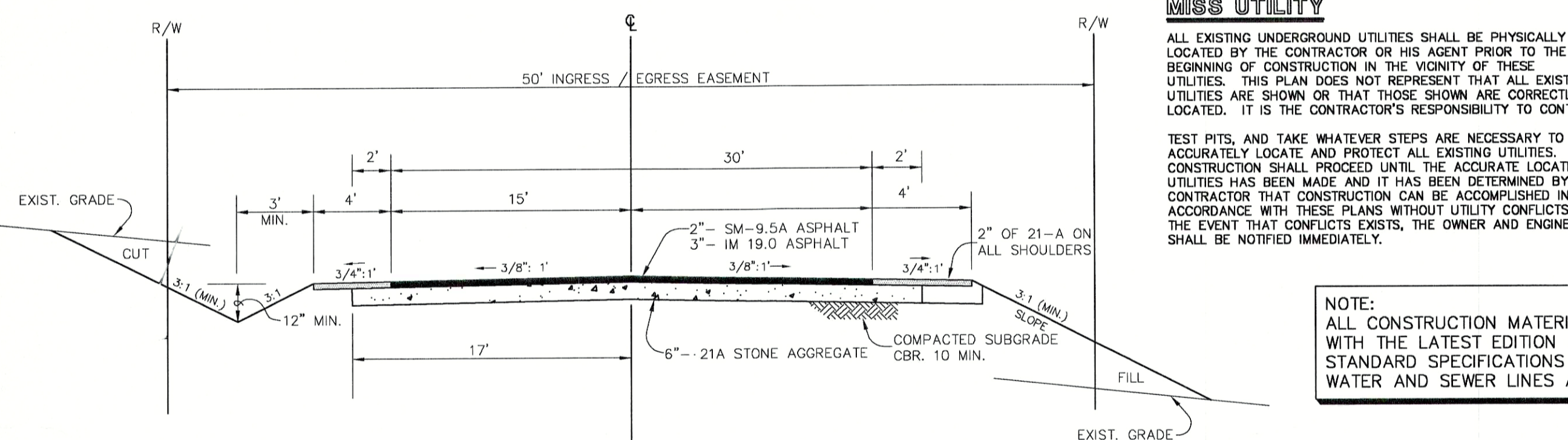
450 LBS./AC. 10-20-20 FERTILIZER
 2 TONS/AC. AGRICULTURE LIMESTONE
 1,500 TO 2,000 LBS./AC/ STRAW MULCH

NOTE: FOR LAWN TYPE COVER (HIGH USE AREAS) INCREASE THE TALL FESCUE RATE TO 200-250 LBS./AC. OR 5-6 LBS./1,000 SQ.FT.

NOTE: IF 3 TONS OF LIME IS USED, BE SURE IT IS WORKED INTO THE TOP 2-4 INCHES OF THE GROUND SURFACE.

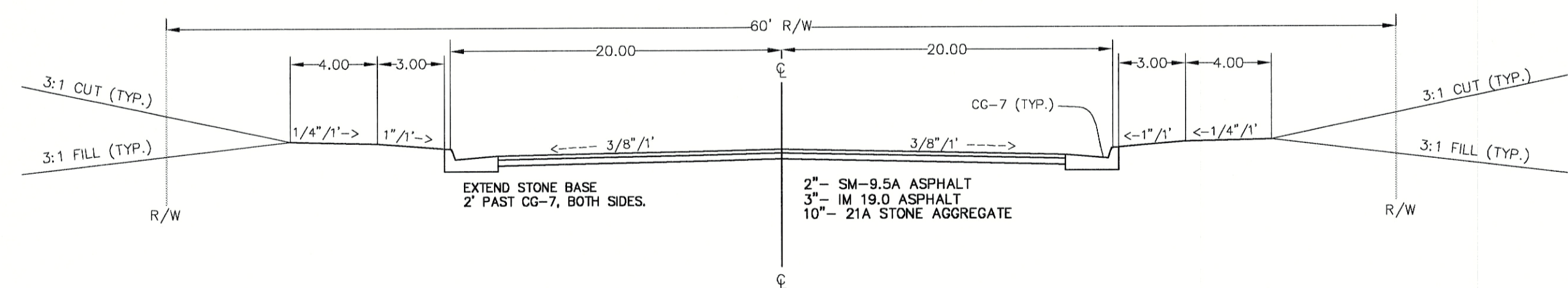
SETBACKS

COUNTY
 FRONT (FROM PROPERTY LINE) - 40'
 SIDE - 15'
 REAR - 35'



50' INGRESS / EGRESS EASEMENT

N.T.S.



TYPICAL SECTION-40' FC-FC

NOT TO SCALE

NOTE: THE TYPICAL SECTIONS, BASE & PAVEMENT DESIGN ARE APPROVED BY THE ENGINEER AND VIRGINIA DEPARTMENT OF TRANSPORTATION WITH THE CONTINGENCY THAT THE SUBGRADE HAS CBR OF 10 OR GREATER. NO SOILS REPORT BY OWNER.

GENERAL NOTES

- ALL CONSTRUCTION TO CONFORM TO EXISTING STATE AND COUNTY BUILDING CODES.
- THE CONTRACTOR SHALL OBTAIN A PERMIT FROM THE RESIDENT ENGINEER PRIOR TO STARTING ANY CONSTRUCTION WITHIN ANY VDOT RIGHT-OF-WAY.
- BEFORE DIGGING CALL MISS UTILITY OF CENTRAL VIRGINIA AT 1(800)257-7777.
- EXISTING UTILITIES SHOWN IN A GENERAL WAY ONLY. CONTRACTOR TO FIELD LOCATE EACH FOR EXACT LOCATION.
- CONTRACTOR SHALL BE RESPONSIBLE TO SEE THAT ALL EROSION AND SEDIMENT CONTROL STANDARDS ARE MET.
- CONTRACTOR TO SEED AND MULCH ALL DISTURBED AREAS.
- CONTRACTOR TO VERIFY ALL DIMENSIONS AND ELEVATIONS IN FIELD BEFORE STARTING CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCY.
- ALL EXISTING UNDERGROUND UTILITIES SHALL BE PHYSICALLY LOCATED BY THE CONTRACTOR OR HIS AGENT PRIOR TO THE BEGINNING OF CONSTRUCTION IN THE VICINITY OF THESE UTILITIES. THIS PLAN DOES NOT REPRESENT THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THOSE SHOWN ARE CORRECTLY LOCATED. IT IS THE CONTRACTORS RESPONSIBILITY TO CONTACT EACH UTILITY COMPANY, CALL MISS UTILITY (1-800-257-7777), DIG TEST PITS, AND TAKE WHATEVER STEPS ARE NECESSARY TO ACCURATELY LOCATE AND PROTECT ALL EXISTING UTILITIES. NO CONSTRUCTION SHALL PROCEED UNTIL THE ACCURATE LOCATIONS OF UTILITIES HAVE BEEN MADE AND IT HAS BEEN DETERMINED BY THE CONTRACTOR THAT CONSTRUCTION CAN BE ACCOMPLISHED IN ACCORDANCE WITH THESE PLANS WITHOUT UTILITY CONFLICTS. IN THE EVENT THAT CONFLICTS EXISTS THE OWNER AND ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
- EXISTING EDGE OF PAVEMENT IS TO BE SAWCUT AT VDOT DIRECTION PRIOR TO EXCAVATION TAKING PLACE.
- THE VDOT APPROVAL OF THESE PLANS WILL EXPIRE THREE (3) YEARS FROM DATE OF APPROVAL.
- ALL UTILITIES SHALL BE IN PLACE PRIOR TO PLACEMENT OF BASE MATERIAL.
- A COPY OF THE C.B.R. REPORT SHALL BE SUBMITTED PRIOR TO THE PLACEMENT OF THE BASE MATERIAL. IF THE C.B.R. VALUES ARE LESS THAN 10, THE DEVELOPER WILL BE REQUIRED TO SUBMIT HIS REVISED PAVEMENT DESIGN FOR VDOT APPROVAL.
- BASE MUST BE APPROVED BY VDOT FOR DEPTH, TEMPLATE, AND COMPACTION BEFORE SURFACE TREATMENT IS APPLIED.
- PRIME COAT MUST BE APPLIED TO ROAD BASE AGGREGATE PRIOR TO APPLICATION OF ASPHALT SURFACE (PRIME COAT RC-250, 0.3 GALLONS PER SQUARE YARD). CONTRACTOR SHALL DO OVERLOT GRADING AS NECESSARY TO PRECLUDE PONDING OF WATER ADJACENT TO ROADWAY.
- A TESTING FIRM WILL BE EMPLOYED BY THE DEVELOPER TO PROVIDE COMPACTION REPORTS IN ACCORDANCE WITH DIVISION III OF THE 2002 ROAD & BRIDGE SPECIFICATIONS.
- AGGREGATE BASE TY. 21A WILL BE STOCKPILED OR OBTAINED IN SUFFICIENT QUANTITY TO PROVIDE A MINIMUM 4" SHOULDER ON GRADE WITH THE EXISTING PAVEMENT PRIOR TO THE CLOSE OF CONSTRUCTION EVENTS THE DAY CUTTING OUT AT THE EDGE OF PAVEMENT OCCURS. FAILURE TO DO SO WILL INITIATE THE USE OF STATE FORCES, EQUIPMENT, AND MATERIALS IN THE CONSTRUCTION OF THE SHOULDER AT THE EXPENSE OF THE BOND HOLDER. VDOT WILL NOT BE RESPONSIBLE FOR THE CONTRACTORS FAILURE TO PROVIDE A SAFE PASSAGE FOR THE PUBLIC.

MISS UTILITY

ALL EXISTING UNDERGROUND UTILITIES SHALL BE PHYSICALLY LOCATED BY THE CONTRACTOR OR HIS AGENT PRIOR TO THE BEGINNING OF CONSTRUCTION IN THE VICINITY OF THESE UTILITIES. THIS PLAN DOES NOT REPRESENT THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THOSE SHOWN ARE CORRECTLY LOCATED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT TEST PITS, AND TAKE WHATEVER STEPS ARE NECESSARY TO ACCURATELY LOCATE AND PROTECT ALL EXISTING UTILITIES. NO CONSTRUCTION SHALL PROCEED UNTIL THE ACCURATE LOCATION OF UTILITIES HAS BEEN MADE AND IT HAS BEEN DETERMINED BY THE CONTRACTOR THAT CONSTRUCTION CAN BE ACCOMPLISHED IN ACCORDANCE WITH THESE PLANS WITHOUT UTILITY CONFLICTS. IN THE EVENT THAT CONFLICTS EXISTS, THE OWNER AND ENGINEER SHALL BE NOTIFIED IMMEDIATELY.

NOTE:
 ALL CONSTRUCTION MATERIALS AND METHODS SHALL CONFORM WITH THE LATEST EDITION OF THE CAROLINE COUNTY UTILITY STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION OF WATER AND SEWER LINES AND RELATED WORK.

NOTE:
 AS PER VDOT ROAD & BRIDGE STANDARDS A CD-2 UNDER DRAIN SHOULD BE CONSTRUCTED SUCH THAT THE ELEVATION AT THE OUTLET OF THE PIPE SHALL BE A MINIMUM OF ONE FOOT ABOVE THE INVERT ELEVATION OF THE RECEIVING DITCH.

STREETS

- ALL WORK SHOWN HEREON SHALL BE IN STRICT ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION.
- IT IS THE INTENT OF THESE DRAWINGS TO SHOW ALL NECESSARY WORK, THE COMPLETION OF WHICH WILL RENDER THE STREETS SHOWN HEREON ELIGIBLE FOR ACCEPTANCE INTO THE VIRGINIA SECONDARY HIGHWAY SYSTEM. ANY ITEM OF WORK NOT SPECIFICALLY SHOWN BUT NECESSARY TO SUCH ELIGIBILITY FOR ACCEPTANCE IS HEREBY IMPLIED.
- A PERMIT MUST BE OBTAINED FROM THE RESIDENT ENGINEER, VIRGINIA DEPARTMENT OF TRANSPORTATION PRIOR TO STARTING ANY CONSTRUCTION WITHIN ANY STATE RIGHT-OF-WAY. CONTACT CHRIS GOFORTH, VDOT AT (804) 633-5091.
- CONTRACTOR SHALL DO OVERLOT GRADING AS NECESSARY TO PRECLUDE THE PONDING OF WATER ADJACENT TO THE ROADWAY.
- THE CONTRACTOR MUST SPECIFY IN WRITING TO THE OWNER AND RESIDENT ENGINEER, V.D.O.T. PRIOR TO CONSTRUCTION, THE TYPE AND SIZE AGGREGATE FOR THE ITEM NUMBER SELECTED UNDER THE REQUIRED CATEGORY FOR EACH ROAD IN THIS DEVELOPMENT.
- THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER DEPARTMENT OF TRANSPORTATION 72 HRS. PRIOR TO PLACEMENT OF BASE MATERIALS AND 48 HRS PRIOR TO THE PLACEMENT OF SURFACE MATERIAL.
- ALL CULVERT PIPES SHALL BE OF A TYPE APPROVED BY THE VIRGINIA DEPARTMENT OF TRANSPORTATION. ALL PIPE MATERIAL SHALL BE REINFORCED CONCRETE.
- ALL ENTRANCE PIPES FOR DRIVEWAYS SHALL BE A MINIMUM OF 15" IN DIAMETER. SEE PLAN & PROFILE SHEETS OF THESE PLANS FOR PROPER SIZES.
- THE CONTRACTOR SHALL ERRECT ONE STREET SIGN AT EACH INTERSECTION WITHIN THE SUBDIVISION. THE SIGN SHALL BE OF A TYPE APPROVED BY THE THE VDOT AND CAROLINE COUNTY.
- ALL PAVEMENT FILLET RADII WILL BE AS INDICATED ON THE PLANS.
- SLOPE EASEMENTS WILL BE REQUIRED AT ALL LOCATIONS WHERE THE TOP OF CUT OR THE TOE OF FILL EXCEEDS THE PROPOSED DEDICATION RIGHT-OF-WAY. SEE PLAT FOR EXACT LOCATION.
- ALL GRADED AREAS WITHIN PROPOSED RIGHT-OF-WAY WILL BE SEEDED IN ACCORDANCE WITH V.D.O.T. SPECIFICATIONS.
- IT WILL BE THE DEVELOPER'S RESPONSIBILITY TO HAVE CBR TEST RESULTS AND PAVEMENT DESIGNS SUBMITTED TO & APPROVED BY VDOT PRIOR TO PLACING ANY BASE MATERIAL.
- EC-2 OR EC-3 MUST HAVE A MIN. WIDTH OF 4' IN FILL SECTION AND 5' IN CUT SECTIONS.
- IF RUNNING WATER IS PRESENT IN OUTLET CHANNEL OR ROADSIDE DITCH DURING CONSTRUCTION WHERE DITCH PROTECTION IS REQUIRED, THE BOTTOM OF THE CHANNEL/DITCH WILL BE LINED WITH V.D.O.T. RIP-RAP STONE AS PRESCRIBED BY THE RESIDENT ENGINEER OR REPRESENTATIVE. THE SLOPES OF THE CHANNEL/DITCH WILL RECEIVE PROTECTIVE COVERING AS NOTED ON APPROVED PLANS.
- THE CONTRACTOR SHALL PROVIDE STOP SIGNS IN ACCORDANCE WITH VDOT SPECIFICATIONS AS SHOWN ON THE PLANS.
- THE CONDITION OF THE EXISTING CULVERTS HAS NOT BEEN ADDRESSED BY THE ENGINEER. THE REPLACEMENT &/OR ACCEPTANCE OF THE EXISTING CULVERTS SHALL BE COORDINATED WITH THE PROPER AUTHORITIES.

STREET SIGN DETAILS

- THE MINIMUM HEIGHT OF EACH SIGN BLANK SHALL BE 6 INCHES. LETTERS FOR STREET NAMES SHALL BE 4 INCHES IN HEIGHT (SERIES C LETTERS).
- THE MAXIMUM LENGTH OF SIGN BLANKS SHALL BE 54". WHERE A STREET NAME DOES NOT FIT INTO THIS LENGTH, LETTERING MAY BE REDUCED BY 1" IN HEIGHT AND TO SERIES B LETTERING. (REFERENCES TO SERIES B AND SERIES C LETTERS SHALL REFER TO SUCH TITLES AS ADOPTED BY VDOT.)
- STREET SIGNS SHALL BE MADE OF ENGINEERING GRADE OR HIGH INTENSITY REFLECTIVE METAL SHEETING.
- ALL SIGNS FOR STREETS AND DRIVEWAYS ASSIGNED NAMES FOR EMERGENCY 911 PURPOSES SHALL BE BLUE IN BACKGROUND COLOR WITH WHITE LETTERING.
- STREET SIGNS SHALL BE MOUNTED ATOP 2 3/8" DIAMETER GALVANIZED METAL PIPES AT A HEIGHT OF NOT LESS THAN 9 FEET ABOVE GRADE. STREET SIGNS FOR PRIVATE ROADS ALTERNATELY MAY BE MOUNTED ON 4" BY 4" PRESSURE TREATED WOOD POSTS AT A HEIGHT OF NOT LESS THAN 7' ABOVE GRADE.
- SIGNS MOUNTED ON GALVANIZED PIPES SHALL BE ATTACHED FIRMLY TO A BRACKET BY MEANS OF 3 SET SCREWS OF NOT LESS THAN 5/16" DIAMETER THROUGH A WALL SECTION HAVING NOT LESS THAN .312 THICKNESS. SIGNS MOUNTED ON WOOD POSTS SHALL BE ATTACHED FIRMLY TO THE POSTS BY MEANS OF NOT LESS THAN 3 2" BY 5/16" LAG SCREWS.

HIGHWAY CORRIDOR OVERLAY DISTRICT

- THIS PROJECT IS LOCATED WITHIN A HIGHWAY CORRIDOR DISTRICT. THE HIGHWAY CORRIDOR DISTRICT IS AN OVERLAY DISTRICT AND IS IN ADDITION TO AND SHALL OVERLAY ALL OTHER ZONING DISTRICTS.
- ALL UTILITIES SHALL BE INSTALLED UNDERGROUND.
- ALL LIGHTING SHALL BE SHIELDED AND DIRECTED DOWNWARD SO THAT THE LIGHT SOURCE IS SHIELDED FROM DIRECT VIEW FROM ANY ADJOINING RESIDENTS OR PUBLIC RIGHT-OF-WAYS.
- ALL EXTERIOR LIGHTING SHALL BE ARRANGED AND INSTALLED SO THAT DIRECT OR REFLECTIVE ILLUMINATION DOES NOT EXCEED 0.5 FOOT CANDLES ABOVE BACKGROUND LEVELS, MEASURED AT LOT LINES.
- THE MEASURE HEIGHT OF ALL LIGHT POLES SHALL NOT EXCEED 35 FEET.

CROSS DRAINS

A CD-2 IS REQUIRED AT STATION 12+13 ON LORRAINE DRIVE.

NOTE:
 ALL NECESSARY WETLANDS PERMITS SHALL BE OBTAINED PRIOR TO CONSTRUCTION.

CONSTRUCTION NOTES

WATER & SEWER

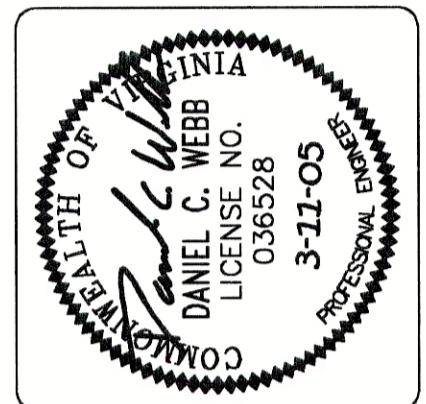
- CONTACT THE CAROLINE COUNTY DEPARTMENT OF UTILITIES AT, 804-633-4386, 48 HOURS BEFORE BEGINNING WORK ON WATER OR SANITARY SEWER UTILITIES, INCLUDING SERVICE TAPS.
- CONTACT THE DEPARTMENT OF PUBLIC WORKS AT 804-633-4386 TO COORDINATE THE REQUIREMENTS FOR BACK FLOW PREVENTION.
- ALL WATER LINES AND CONSTRUCTION THEREOF SHALL COMPLY WITH THE STANDARDS AND SPECIFICATIONS OF CAROLINE COUNTY AND THE VIRGINIA DEPARTMENT OF HEALTH. INSPECTION AND APPROVAL OF ALL WORK AND MATERIALS PERTAINING TO WATER SHALL BE UNDER THE JURISDICTION OF CAROLINE COUNTY, VIRGINIA.
- ALL WATER LINES SHALL BE EITHER PRESSURE CLASS 150 (DR-18) POLY-VINYL CHLORIDE PIPE MEETING THE REQUIREMENTS OF AWWA C900 OR DUCTILE IRON PRESSURE CLASS 350 PIPE MEETING THE REQUIREMENTS OF AWWA C151 WITH MECHANICAL OR PUSH-ON JOINTS. PVC PIPE MUST BE INSTALLED WITH INSULATED 12 GAUGE SOLID COPPER TRACING WIRE SECURED TO THE TOP OF THE PIPE. ALL PIPE SHALL HAVE BLUE WARNING TAPE BURIED 1' BELOW GRADE OVER THE TOP OF THE PIPE.
- THERE SHALL BE A 10' HORIZONTAL SEPARATION BETWEEN WATER LINES AND SEWER LINES, AND A VERTICAL SEPARATION OF 18" BETWEEN THE BOTTOM OF THE WATER MAIN AND THE TOP OF THE SEWER. THIS APPLIES TO HOUSE SEWER LATERALS ALSO.
- ALL GRAVITY SEWER PIPE AND FITTINGS 4" THROUGH 15" DIA. SHALL MEET ASTM D3034, SDR35, MINIMUM. ALL SEWER PIPE AND FITTINGS 18" THROUGH 40" DIA. SHALL MEET ASTM F679, WALL THICKNESS T-1, MINIMUM.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR DAILY AS-BUILT INFORMATION ON ALL CONSTRUCTION. ALL LATERALS AND APPURTENANCES WILL BE REFERENCED FROM THE CLOSEST MANHOLE. THE CONTRACTOR SHALL MAINTAIN DAILY AS-BUILT DRAWINGS AT THE CONSTRUCTION SITE.
- WATER AND SEWER IMPROVEMENTS SHALL NOT BE ACCEPTED UNTIL THE UTILITY APPROVES AS-BUILT DRAWINGS.
- ALL WATERLINE AND SEWER SELECT BACKFILL, STRUCTURAL BACKFILL AND BEDDING MATERIAL SHALL BE COMPACTED TO 95% VTM-1 DENSITY. ALL CONTROLLED FILL IN TRENCHES UNDER PAVEMENT SHALL BE COMPACTED TO 95% VTM-1 DENSITY.
- DEVELOPER/OWNER IS RESPONSIBLE TO RESPOND TO MISS UTILITY REQUESTS UNTIL WATER AND SEWER LINES ARE ACCEPTED BY COUNTY. ANY DAMAGE TO WATER AND SEWER MAINS MUST BE REPAIRED BEFORE ACCEPTANCE BY THE UTILITY COMPANY.
- ALL MANHOLES IN PAVED AREAS, KEPT LAWNS AND OTHER GREEN AREAS SHALL HAVE STANDARD FRAMES AND SOLID COVERS UNLESS NOTED OTHERWISE. ALL OTHER MANHOLES SHALL HAVE WATERTIGHT FRAMES AND COVERS UNLESS NOTED OTHERWISE.
- ALL MANHOLES SHALL HAVE FRAMES BOLTED TO CONE.
- ALL MANHOLES SHALL HAVE INTERNAL CHIMNEY SEALS INSTALLED.
- ALL BLOWOFF VALVES (B.O.V.) ARE TO BE IN-GROUND-FLUSHING HYDRANTS.
- USE APPLICABLE STANDARD DETAILS FROM CAROLINE COUNTY WATER AND SEWER CONSTRUCTION STANDARDS.
- ALL WATER MAINS AND FORCE MAINS SHALL HAVE MINIMUM 42" COVER.
- ALL SEWER LINES UNDER PAVEMENTS SHALL HAVE A MINIMUM OF 48" COVER. ALL SEWER LINES INSTALLED IN EASEMENTS WITH NO VEHICULAR TRAFFIC SHALL HAVE A MINIMUM OF 36" COVER.
- DUCTILE IRON SANITARY SEWER PIPE SHALL HAVE INTERIOR LINING OF SEWER COAT OR EQUAL AND BE POLY ENCASED, UNLESS NOTED OTHERWISE.
- SEWER FORCE MAINS SHALL BE EITHER PRESSURE CLASS 150 (DR-18) POLY-VINYL CHLORIDE PIPE MEETING THE REQUIREMENTS OF AWWA C900 OR DUCTILE IRON PRESSURE CLASS 350 PIPE MEETING THE REQUIREMENTS OF AWWA C151 WITH MECHANICAL OR PUSH-ON JOINTS. PVC PIPE MUST BE INSTALLED WITH INSULATED 12 GAUGE SOLID COPPER TRACING WIRE SECURED TO THE TOP OF THE PIPE. ALL PIPE SHALL HAVE GREEN WARNING TAPE BURIED 1' BELOW GRADE OVER THE TOP OF THE PIPE.
- WATER AND SEWER CONSTRUCTION PERMITS MUST BE OBTAINED FROM THE UTILITY DEPARTMENT AT LEAST 48 HOURS PRIOR TO START OF WATER AND SEWER CONSTRUCTION.
- AFTER A DEPARTMENT OF UTILITIES CONSTRUCTION PERMIT HAS BEEN ISSUED, ALL CHANGES TO WATER AND SEWER FACILITIES TO BE CONSTRUCTED USING THESE PLANS MUST BE SUBMITTED TO THE DEPARTMENT OF UTILITIES IN WRITING AND APPROVED PRIOR TO CONSTRUCTION. CONTACT ALLEN RAMSAY, PUBLIC WORKS DIRECTOR, 804-633-4386.
- ALL WATER AND SEWER LINES SHALL BE TREATED AS CONNECTIONS AND NOT EXTENSIONS, PER MEETING WITH ALAN RAMSEY ON 12-7-04.

SITE STATISTICS:

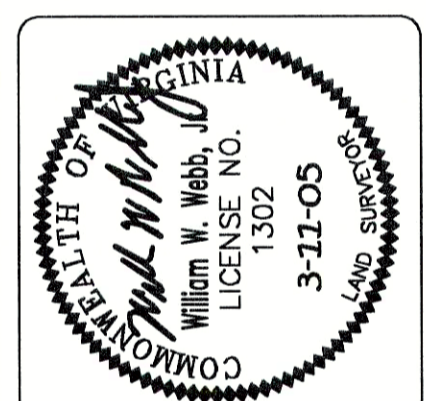
1. CULPEPER FARMER'S COOPERATIVE
 2. APPLICANT/OWNER:
 CULPEPER FARMER'S COOPERATIVE
 PO BOX 2002
 CULPEPER, VA 22701
 (540)-825-2200
 3. TM 82-A-169
 4. TOTAL AREA: 63.1063 ACRES
 14.797 ACRES (PHASE I)
 PARCEL "A" : 2.18 ACRES
 PARCEL "B" : 1.58 ACRES
 PARCEL "C" : 1.86 ACRES
 PARCEL "D" : 6.08 ACRES
 PARCEL "E" : 2.00 ACRES
 RIGHT-OF-WAY : 1.097 ACRES
 TOTAL : 14.797 ACRES
 UNDEVELOPED : 48.3093 ACRES

- NO PLACES OF BURIAL KNOWN.
- USE: COMMERCIAL
- ROADS: PUBLIC
- THIS PROPERTY WILL BE SERVICED BY PUBLIC WATER AND SEWER
- ZONING: B-1, HIGHWAY CORRIDOR OVERLAY DISTRICT

REVISION	BLOCK	SUB	DATE	DESCRIPTION	BY
2/4/05					
3/11/05					



WEBB AND ASSOCIATES
 A SURVEYING AND DESIGN COMPANY
 11903 BOWMAN DRIVE, SUITE 106,
 FREDERICKSBURG, VA 22408
 (804)633-9807 FAX(540)371-4650
 (540)371-1209



NOTES & DETAILS SHEET
CULPEPER FARMERS'
CO-OP
 REEDY CHURCH MAGISTERIAL DISTRICT
 & MADISON MAGISTERIAL DISTRICT
 CAROLINE COUNTY, VIRGINIA

DATE: SEPT. 29, 2004

SCALE: AS SHOWN

DESIGNED BY: SLB

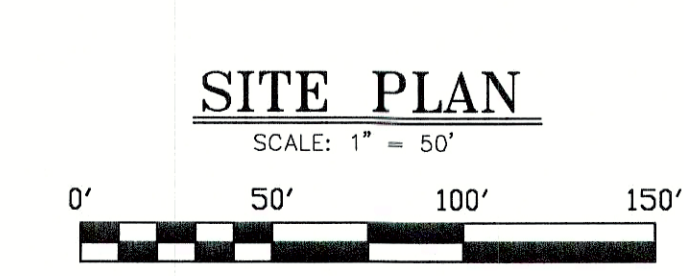
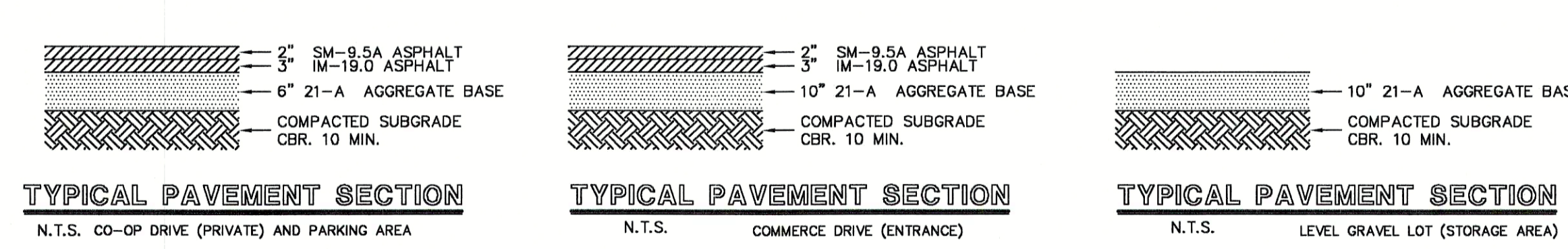
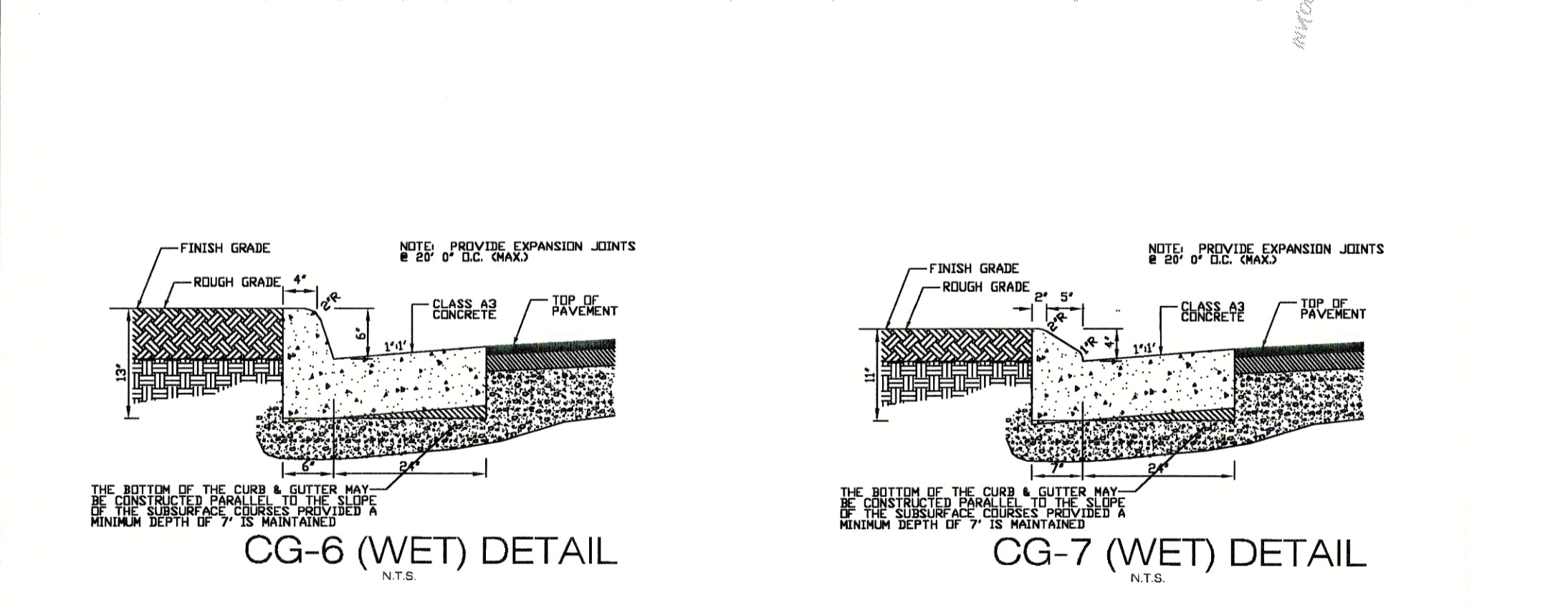
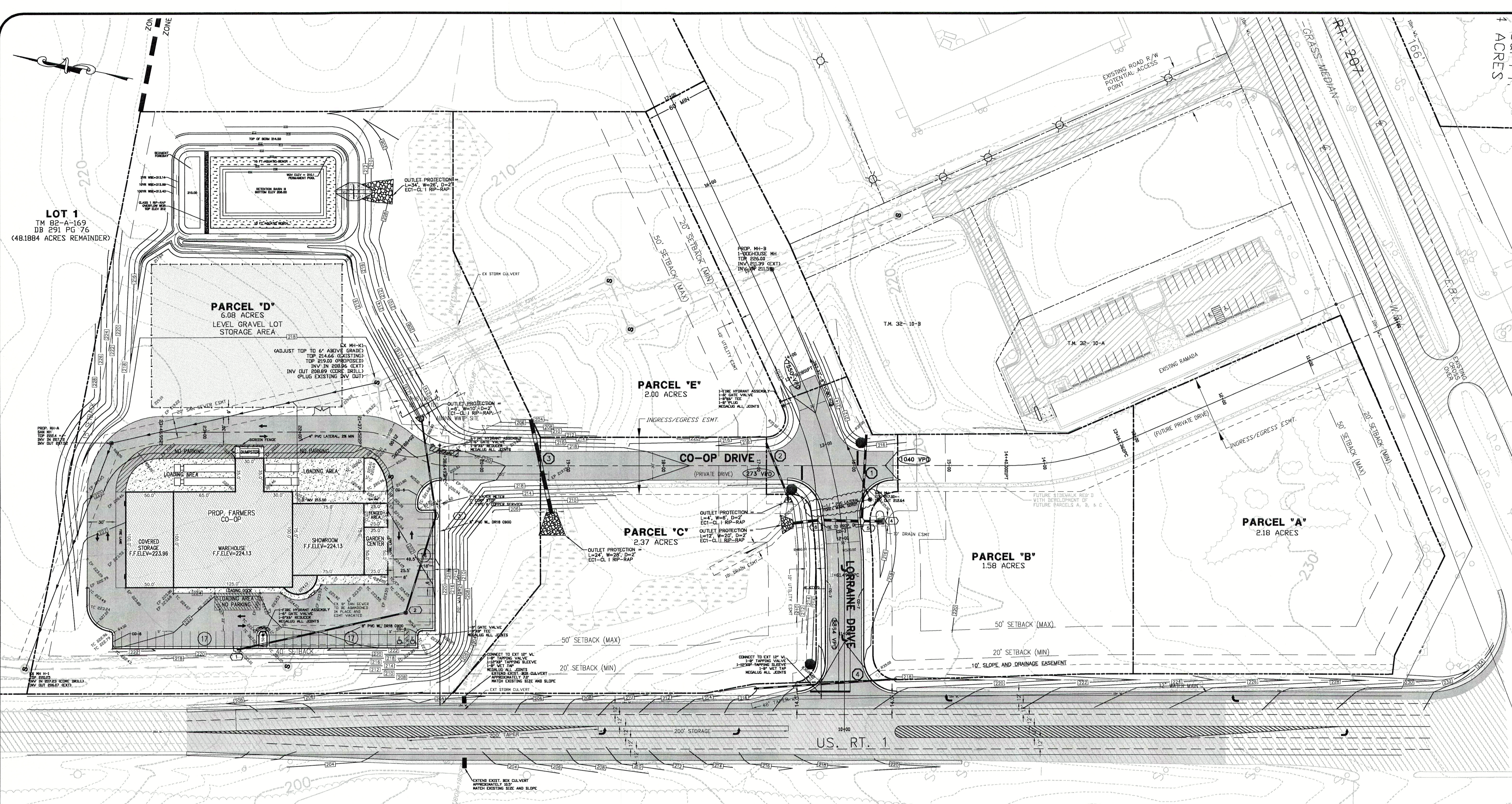
DRAWN BY: CLW

CHECKED BY: DCW

ACAD FILE: <04D100CCP>

DRAWING NO: 04-D-100

SHEET NO. **3**
 OF 13 SHEETS



- DENOTES PROPOSED CONCRETE AREAS
- DENOTES PROPOSED ASPHALT AREAS
- DENOTES EXISTING ASPHALT AREAS

NOTE: THE LIMITS OF THE PROPOSED MARKINGS ARE APPROXIMATE AND SHALL BE MODIFIED IN THE FIELD TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT MARKINGS.

NOTE: THE OPEN DISPLAY AREA LOCATED ON THE NORTH SIDE OF THE BUILDING AND THE OPEN AIR GARDEN CENTER ON THE SOUTH SIDE OF THE BUILDING MUST BE WHOLLY SCREENED FROM VIEW ON THE FRONT AND ENDS OF THE BUILDING WITH A SOLID WALL CONSISTENT WITH THE ARCHITECTURAL DESIGN OF THE SHOWROOM AND WAREHOUSE AND SHALL BE CONTINUED ACROSS THE ENTIRE FRONTAGE OF THE BUILDING AND THE TWO EXPOSED ENDS.

FOLLOWING FINAL GRADING, THE COUNTY WILL INSPECT THE SITE AND DETERMINE WHETHER THE LANDSCAPING AND SITE CONDITIONS ADEQUATELY SCREEN THE OPEN DISPLAY AREA AND GARDEN CENTER. ADDITIONAL SCREENING MAY BE REQUIRED, AS DETERMINED BY THE COUNTY, TO WHOLLY SCREEN THE OPEN DISPLAY AREA AND/OR GARDEN CENTER. ADDITIONAL SCREENING MAY INCLUDE ADDITIONAL LANDSCAPING AND/OR INSTALLATION OF A SOLID WALL ALONG THE FRONT AND SIDES OF THE BUILDING. AT THAT TIME, BASED ON CONDITIONS OF THE SITE, THE APPLICANT MAY APPLY FOR A SPECIAL EXCEPTION TO ALLOW DECORATIVE FENCING TO BE UTILIZED AS SCREENING FOR THE OPEN DISPLAY AREA AND GARDEN CENTER.

THE OUTSIDE STORAGE AREA BEHIND THE BUILDING TO BE SCREENED USING DECORATIVE FENCING. SEE SHEET 13 FOR SCREEN FENCE DETAIL.

NOTE: A LIGHTING PLAN TO BE PREPARED BY OTHERS

PARKING SCHEDULE

		REQUIRED	PROVIDED
RETAIL/LAWN AND GARDEN CENTER	7,976 SF	1 SPACE/200 SF	40 48
HANDICAP ACCESSIBLE SPACES		2 SPACES/50 SPACES	2 2

REVISION BLOCK

REVISION	DATE	BY	DESCRIPTION
1	2/4/05	SLB	PER COUNTY COMMENTS
2	3/11/05	SLB	PER COUNTY COMMENTS
3	3/24/05	SLB	PER COUNTY COMMENTS
4	3/31/05	SLB	PER COUNTY COMMENTS
5	2/1/06	SLB	REVISED GRADES



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A SURVEYING AND DESIGN COMPANY
11903 BOWMAN DRIVE, SUITE 106,
FREDERICKSBURG, VA. 22408
(540)371-1209 (804)633-9907 FAX (540)371-4650



GRADING PLAN

CULPEPER FARMERS' CO-OP
REEDY CHURCH MAGISTERIAL DISTRICT & MADISON MAGISTERIAL DISTRICT
CAROLINE COUNTY, VIRGINIA

DATE: SEPT. 29, 2004
SCALE: 1" = 50'
DESIGNED BY: SLB
DRAWN BY: CLW
CHECKED BY: DCW
ACAD FILE: <04D100DCP>
DRAWING NO: 04-D-100

SHEET NO. **4**
OF 13 SHEETS

LOT 1
 TM 82-A-169
 DB 291 PG 76
 (48.1884 ACRES REMAINDER)

PARCEL 'D'
 6.08 ACRES
 LEVEL GRAVEL LOT
 STORAGE AREA

PARCEL 'E'
 2.00 ACRES

PARCEL 'C'
 2.37 ACRES

PARCEL 'B'
 1.58 ACRES

PROP. FARMERS
 CO-OP

WAREHOUSE
 F.F.ELEV=224.13

SHOWROOM
 F.F.ELEV=224.13

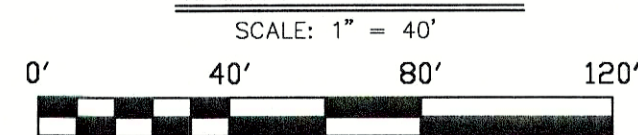
GARDEN
 CENTER

CO-OP DRIVE
 (PRIVATE DRIVE)

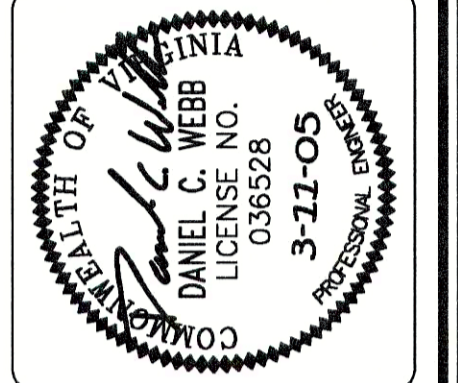
GRAINE DRIVE

U.S. RT. 1

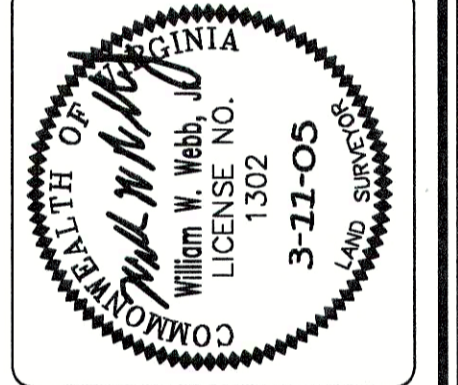
SITE PLAN



REVISION	DATE	DESCRIPTION	BY
PER COUNTY COMMENTS	2/4/05		SLB
PER COUNTY COMMENTS	3/11/05		SLB



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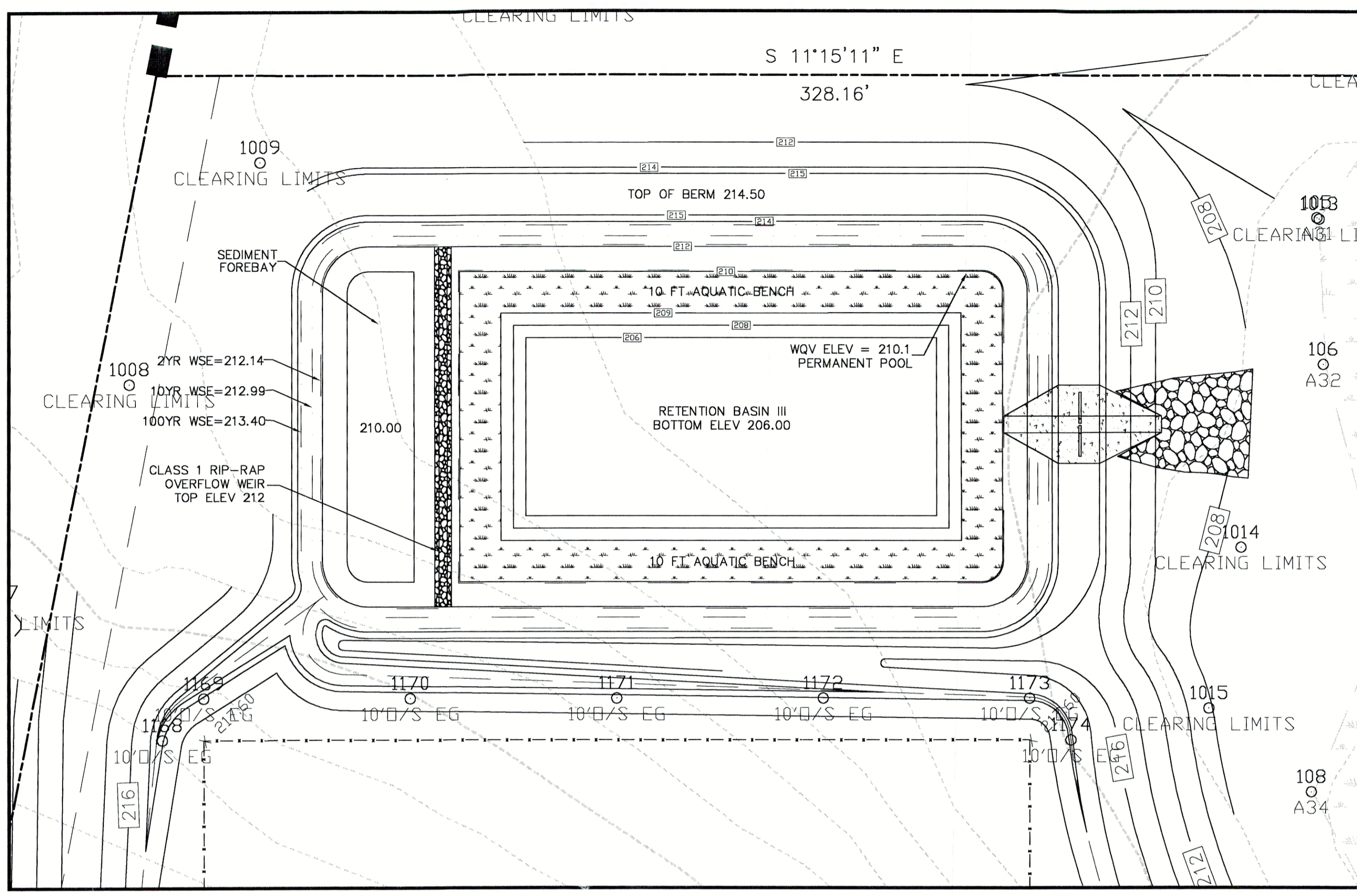


GEOMETRIC PLAN
CULPEPER FARMERS' CO-OP
 REEDY CHURCH MAGISTERIAL DISTRICT
 & MADISON MAGISTERIAL DISTRICT
 CAROLINE COUNTY, VIRGINIA

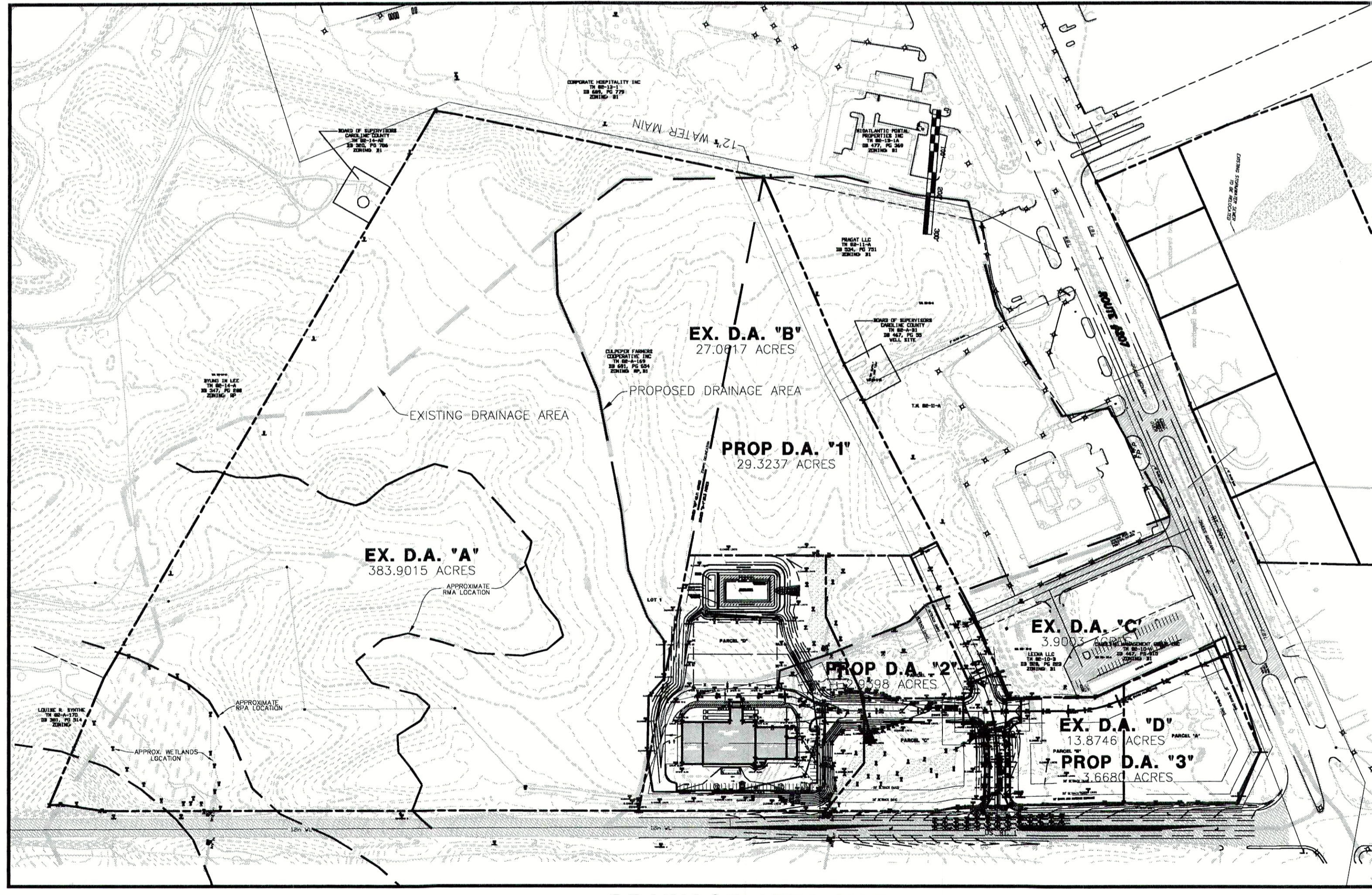
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 DRAWING NO: 04-D-100

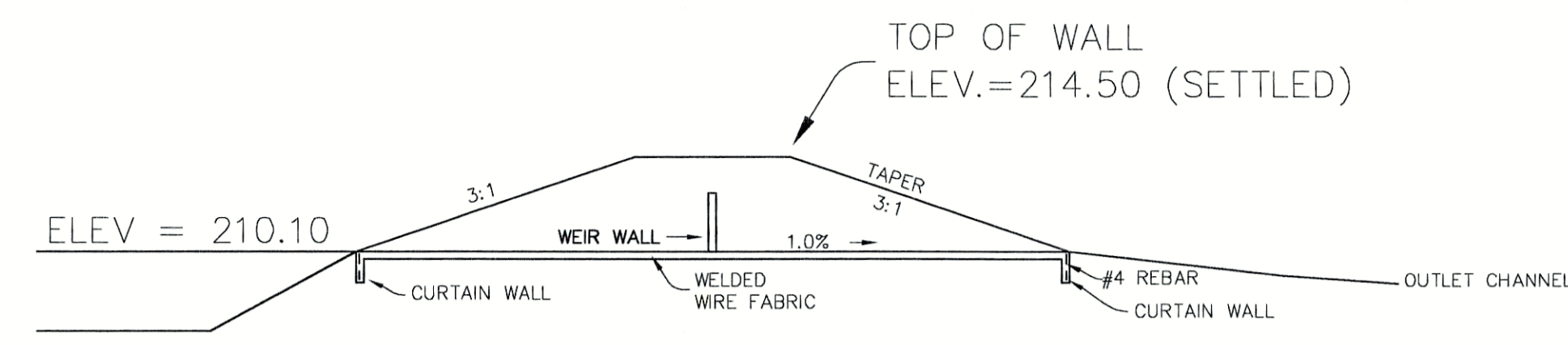
SHEET NO. **5**
 OF 13 SHEETS



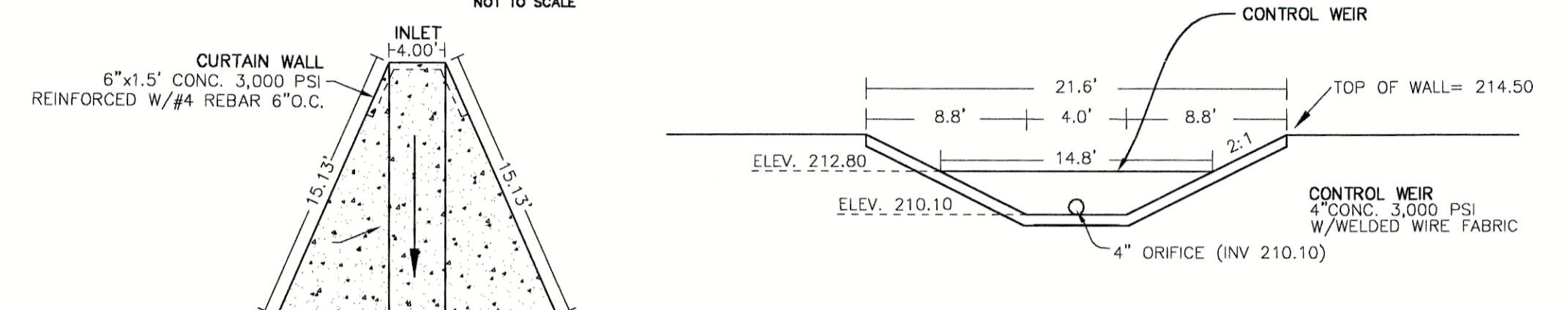
SWM POND
SCALE 1" = 20'



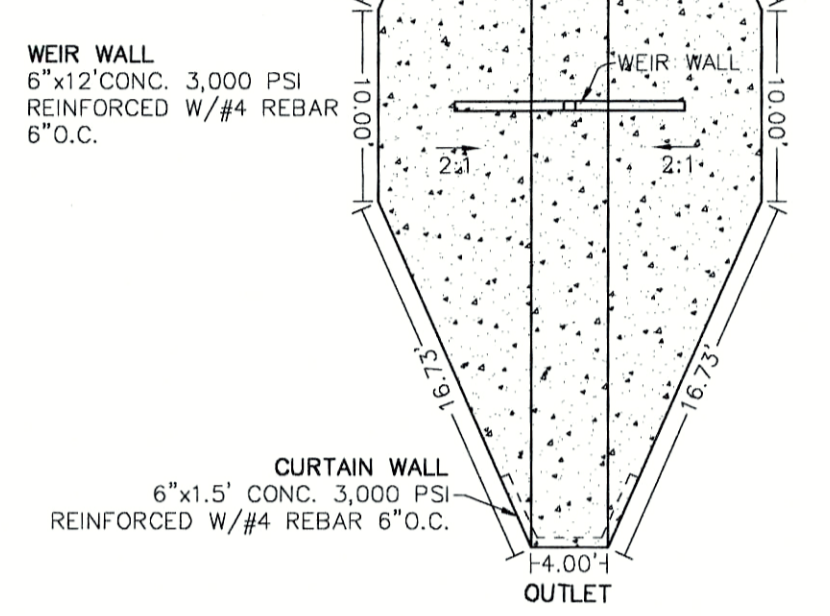
DRAINAGE AREA MAP
SCALE 1" = 200'



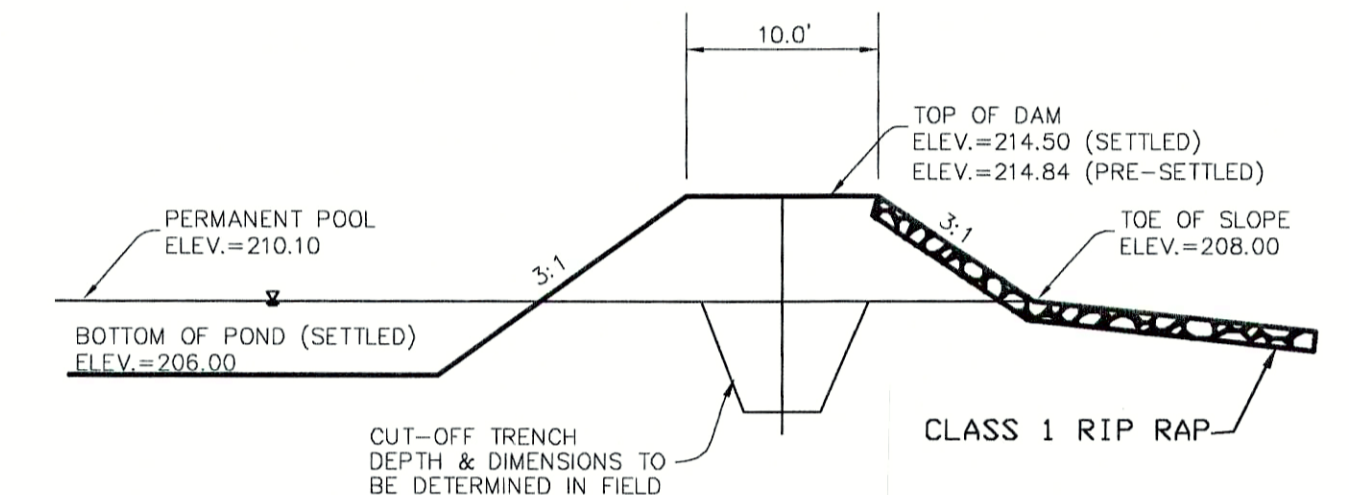
WEIR WALL & CONTROL SECTION PROFILE
NOT TO SCALE



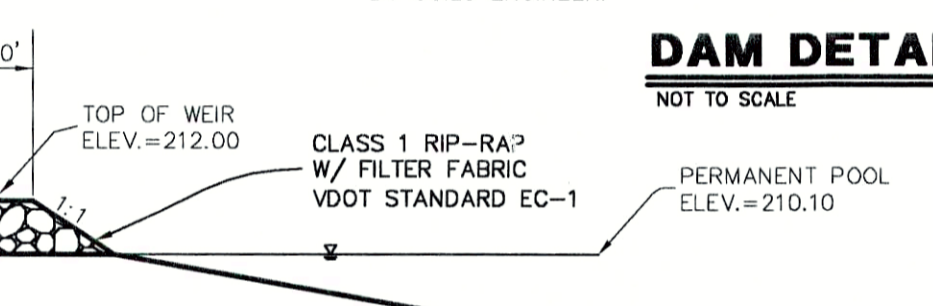
CONC. WEIR FRONT
NOT TO SCALE



CONC. WEIR & CONTROL SECTION PLAN VIEW
NOT TO SCALE



DAM DETAIL
NOT TO SCALE



FOREBAY CONTROL WEIR DETAIL
NOT TO SCALE

NOTE:
CONTRACTOR TO REMOVE UNSUITABLE MATERIAL UNDER DAM PER GEOTECHNICAL REPORT.

NOTE:
THE MINIMUM SETTLING ALLOWANCE OF THE POND DAM IS 5% WHEN COMPACTION EQUALS OR EXCEEDS 95%.

NOTE:
GEOTECHNICAL INVESTIGATION REQUIRED PRIOR TO CONSTRUCTION OF POND DAM TO DETERMINE MATERIAL SUITABILITY, INFILTRATION RATE, AND SEASONAL WATER TABLE.

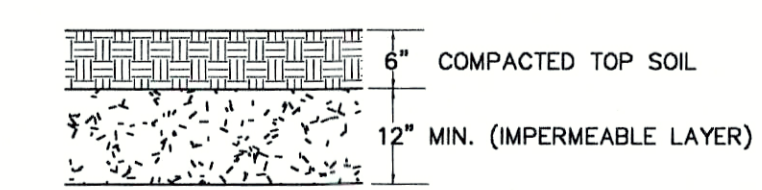
PONDSCAPING

THE AQUATIC BENCH WILL BE PLANTED WITH VEGETATION AS SHOWN. THE CONTRACTOR SHALL CHOOSE THE VEGETATION FROM THE LISTS BELOW IN ACCORDANCE WITH WHAT SPECIES ARE AVAILABLE.

EMERGENTS		
COMMON NAME	SIZE	SPACING
PICKERELL WEED	INDIVIDUAL CELL-PACK	3' O.C.
LIZARDS TAIL	INDIVIDUAL CELL-PACK	3' O.C.
ARROW-ARUM	INDIVIDUAL CELL-PACK	3' O.C.
SOFT-STEM BULLRUSH	INDIVIDUAL CELL-PACK	3' O.C.
BUTTONBUSH	INDIVIDUAL CELL-PACK	4' O.C.

- 3,800 SF REPRESENTS THE AQUATIC BENCH AREA WHICH IS TO BE PLANTED WITH EMERGENT WETLAND PLANTS
- THE EMERGENT WETLANDS PLANTS ARE TO BE PLANTED FROM THE LIST ABOVE
- A MINIMUM OF 3 DIFFERENT PLANT SPECIES SHALL BE PLANTED
- THE LANDSCAPE CONTRACTOR SHALL VERIFY THE SUITABILITY OF EACH PLANT SPECIES FOR THE LOCATION AND DEPTH PLANTED
- EMERGENT PLANTS MAY BE TRANSPLANTED FROM EARLY APRIL TO MID-JUNE
- THE WETLANDS SHALL BE FLOODED IMMEDIATELY FOLLOWING PLANTING. DORMANT RHIZOMES MAY BE PLANTED IN FALL OR WINTER

AQUATIC BENCH - ELEV. 209.00 TO 210.10
AREA = 3,838 SF



POND BOTTOM DETAIL
NOT TO SCALE

DAM SPECIFICATIONS

GENERAL NOTES

- DAM TO BE CONSTRUCTED FROM CLAYS. DAM MATERIAL TO BE APPROVED BY A SOILS ENGINEER PRIOR TO PLACEMENT.
- EMBANKMENT MATERIAL SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR AT OPTIMUM TO 3% ABOVE OPTIMUM MOISTURE CONTENT IN 8" LIFTS. THE FILL WILL BE FREE OF TOP SOIL, ORGANIC MATTER, & STONES LARGER THAN 6".
- ALL AREAS BENEATH THE DAM SHALL BE CLEARED OF ALL ROOTS, STUMPS AND TOP SOIL BEFORE PLACING FILL.
- SUFFICIENT TOP SOIL TO BE STOCK PILED TO PROVIDE A 6" COVER OVER THE EMBANKMENT.
- ANTI-SLEEP COLLARS SHALL BE PLACED BY EXCAVATING THE COMPACTED FILL AND THEN BACKFILLING WITH HAND TAMPED MATERIAL.
- THE DAM SHALL BE SEEDED, LIMED, FERTILIZED, AND MULCHED.
- ONCE SITE IS STABILIZED REMOVE E&S CONTROLS.
- A SOILS ENGINEER WILL PROVIDE A GEOTECHNICAL INVESTIGATION REPORT OF THE POND AREA AND APPROVE MATERIAL FOR DAM PRIOR TO PLACEMENT AND DETERMINE DEPTH AND DIMENSIONS NECESSARY FOR CUT OFF TRENCH.

REVISION	BLOCK	DATE	BY	DESCRIPTION
2/4/05	SLB			PER COUNTY COMMENTS
3/11/05	SLB			PER COUNTY COMMENTS

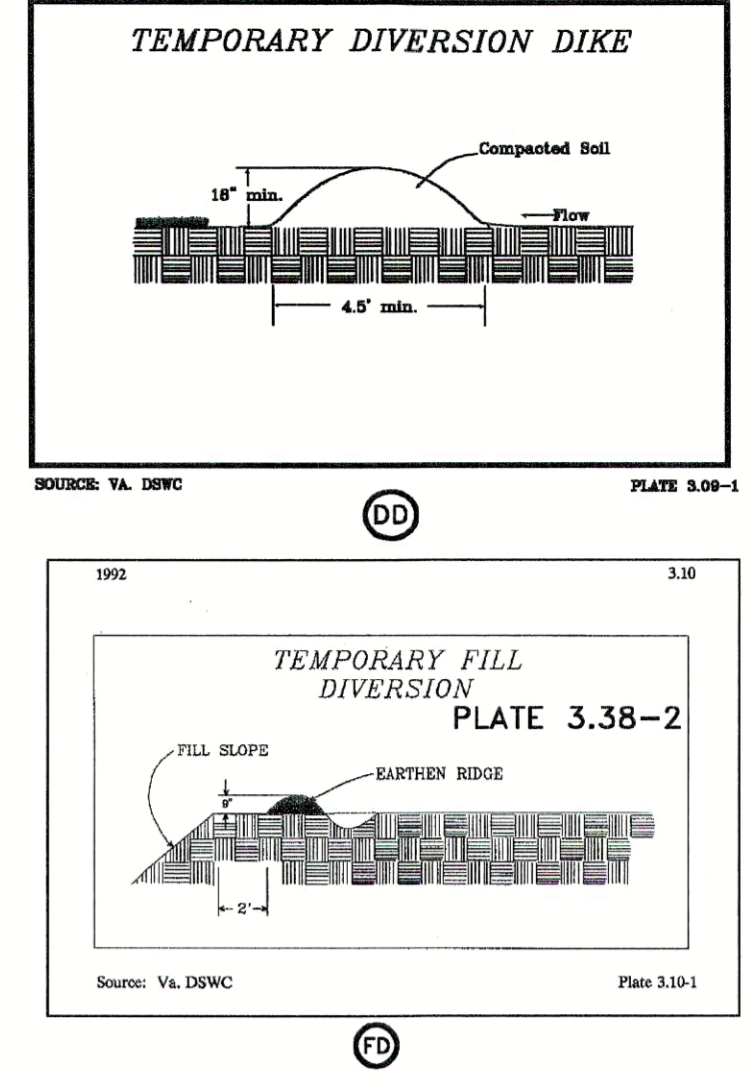
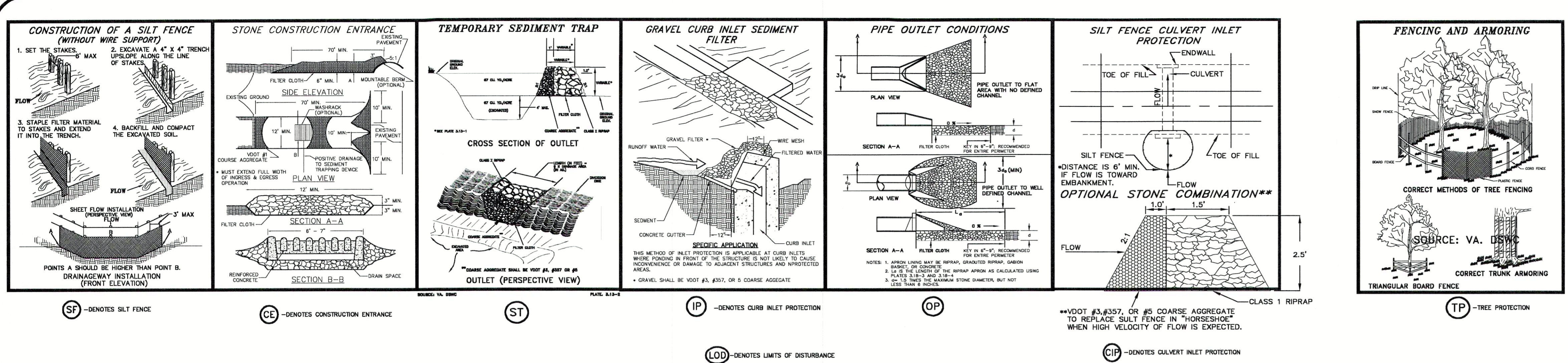


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SWM/SANITARY SEWER PROFILES
CULPEPER FARMERS' CO-OP
REEDY CHURCH MAGISTERIAL DISTRICT
& MADISON MAGISTERIAL DISTRICT
CAROLINE COUNTY, VIRGINIA

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COST ESTIMATE OF SILTATION CONTROL MEASURES

DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
CONSTRUCTION ENTRANCE	EACH	1	\$1,200	\$1,200.00
SILT FENCE	L.F.	750 L.F.	\$4.00	\$3,000.00
SEDIMENT TRAP	EACH	2	\$1,000.00	\$2,000.00
OUTLET PROTECTION	C.Y.	139 C.Y.	\$35	\$4,874.00
PERMANENT SEEDING	ACRE	7.4 AC.	\$1,000	\$7,400.00
TOTAL PROJECT COST:				\$18,474.00

EROSION AND SEDIMENT CONTROL NARRATIVE
PROJECT DESCRIPTION:
 THIS PROJECT INCLUDES THE CONSTRUCTION OF A ROAD, BUILDING, PARKING LOT AND UTILITIES TO ACCOMMODATE A RETAIL FARM SUPPLY STORE IN STAFFORD COUNTY, VIRGINIA. THE PROPOSED ROADS AND UTILITIES WILL ALSO SERVE THREE NEW COMMERCIAL PARCELS. THE TOTAL DISTURBANCE FOR THE PROJECT IS +/- 7.1 ACRES.

SEQUENCE OF CONSTRUCTION:
 CLEAR ENOUGH AREA TO PROVIDE ACCESS TO SITE AND INSTALL CONSTRUCTION ENTRANCE. INSTALL SEDIMENT TRAP #1 AND SEDIMENT TRAP #2 AND ASSOCIATED DIVERSION. INSTALL SILT FENCE. FINISH REMAINING CLEARING AND BEGIN INITIAL GRADING. INSTALL CULVERTS AND STORM SEWER. INSTALL INLET AND OUTLET PROTECTION ON STORM SEWER AND CULVERTS. DURING GRADING OPERATIONS ENSURE THAT BUILDING SITE AND PARKING LOT DRAIN INTO TRAP #1 BY USING TEMPORARY FILL DIVERSION AND DIVERSION DIKE. COMPLETE ROUGH GRADING. COMPLETE BUILDING AND UTILITY CONSTRUCTION. FINISH GRADE AREAS TO BE TOPSOILED AND SEEDING. UPON STABILIZATION OF THE SITE REMOVE ALL EROSION AND SEDIMENT CONTROL MEASURES AND SEED AND MULCH ANY REMAINING DISTURBED AREAS.

EXISTING CONDITIONS:
 THIS SITE IS CURRENTLY WOODED. THE SITE IS SITUATED ON THE SOUTHERN FACE OF A HILL. THE SITE GENERALLY SLOPES FROM NORTH TO SOUTH. THE SITE IS BORDERED BY VACANT LAND TO THE NORTH AND EAST. COMMERCIAL DEVELOPMENTS BORDER THE SITE TO THE SOUTH AND ROUTE 1 BORDERS THE SITE TO THE WEST. RUNOFF IS CHANNLED BY WETLANDS WHICH RUN FROM THE EAST TO THE WEST AND EVENTUALLY PASS UNDER ROUTE 1.

ADJACENT AREAS:
 NO IMPACT TO ADJACENT AREAS IS EXPECTED DURING THIS PROJECT.

OFFSITE AREAS:
 NO OFFSITE AREAS ARE PROPOSED WITH THIS PROJECT. DURING THE COURSE OF THE PROJECT SHOULD AN OFFSITE BORROW OR DISPOSAL AREA BECOME NECESSARY THE CONTRACTOR MUST USE AN APPROVED SITE.

CRITICAL AREAS:
 THE CRITICAL AREAS INCLUDE THE WETLANDS WITHIN THE PARCEL. EVERY EFFORT SHOULD BE MADE NOT TO DISTURB THE WETLANDS. WHERE DISTURBANCE IS NECESSARY FOR ROAD FILL STABILIZATION MEASURES MUST BE APPLIED IMMEDIATELY AFTER BEING BROUGHT TO FINAL GRADE. NO IMPACT TO THE WETLANDS IS EXPECTED.

EROSION AND SEDIMENT CONTROL MEASURES:
 EROSION AND SEDIMENT CONTROL MEASURES FOR THIS SITE INCLUDE SILT FENCE, DIVERSION DIKE, TEMPORARY FILL DIVERSION, A CONSTRUCTION ENTRANCE, SEDIMENT TRAPS, CULVERT INLET PROTECTION, OUTLET PROTECTION, AND TEMPORARY AND PERMANENT SEEDING. ALL CONTROL MEASURES MUST BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE LATEST VERSION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

THE CONSTRUCTION ENTRANCE MUST BE INSPECTED TO ENSURE IT IS NOT CLOGGED AND IS FUNCTIONING PROPERLY. CLEANING OF THE STONE OR TOP DRESSING WITH ADDITIONAL STONE MAY BECOME NECESSARY.

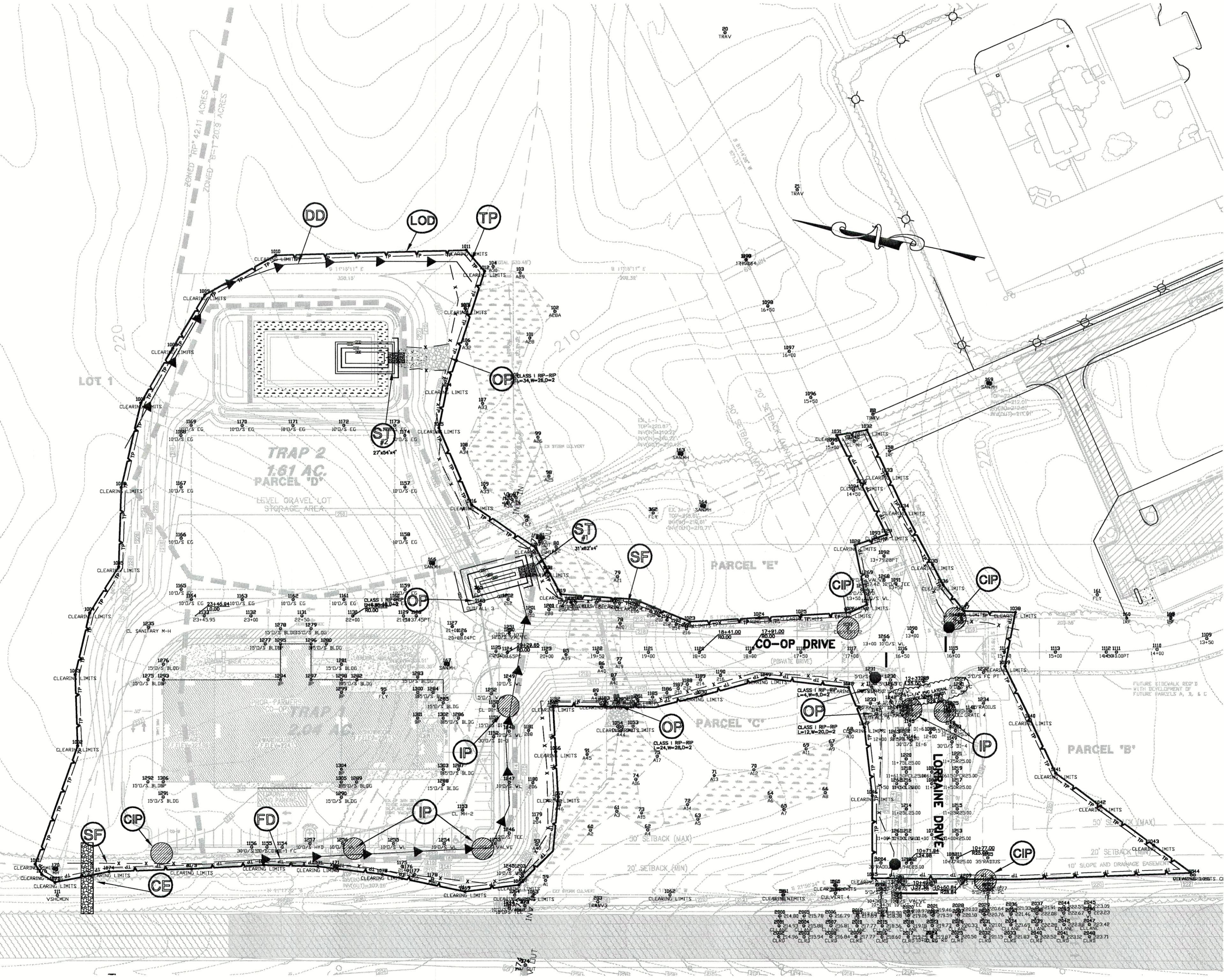
SILT FENCE INLET PROTECTION, AND CULVERT INLET PROTECTION MUST BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND DAILY DURING PROLONGED RAIN. REPAIRS MUST BE MADE IMMEDIATELY. SEDIMENT DEPOSITS MUST BE REMOVED WHEN IT REACHES 1/2 THE HEIGHT OF THE BARRIER. MAINTENANCE MAY INCLUDE COMPLETE REPLACEMENT OF THE SILT FENCE.

DIVERSION DIKE AND TEMPORARY FILL DIVERSION MUST BE INSPECTED AFTER EVERY STORM OR ONCE EVERY TWO WEEKS IF NO STORM OCCURS AND REPAIRS MADE TO THE DIKE, FLOW CHANNEL, OUTLET OR SEDIMENT TRAPPING FACILITY, AS NECESSARY. CONSTRUCTION TRAFFIC DAMAGE MUST BE REPAIRED DAILY.

SEDIMENT TRAPS MUST BE CLEANED OUT WHEN SEDIMENT REACHES 1/2 THE HEIGHT OF THE WET STORAGE VOLUME. FILTER STONE MUST BE CLEANED OR REPLACED WHEN CHOKED WITH SEDIMENT. DESIGN ELEVATION MUST BE RESTORED WHEN ALTERED BY EROSION, SEDIMENTATION, OR CONSTRUCTION TRAFFIC.

PERMANENT STABILIZATION:
 THE SITE MUST BE PERMANENTLY STABILIZED IN ACCORDANCE WITH MINIMUM STANDARD 3 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS AND WITH THE TABLE ON THIS SHEET.

TREE PRESERVATION MEASURES:
 INSTALL TREE PROTECTION MEASURES IN ACCORDANCE WITH DETAIL AS NECESSARY TO PROTECT EXISTING TREES WHICH ARE TO REMAIN ADJACENT TO AND OUTSIDE OF LIMITS OF DISTURBANCE DURING CLEARING AND CONSTRUCTION.



SITE PLAN
 SCALE: 1"=60'

TEMP. SEDIMENT TRAPS

NO.	DRAINAGE AREA	WIER LENGTH	STORAGE REQUIRED	LxWxDDEPTH	STORAGE PROVIDED
1	2.04 AC.	12'	273 CY	31'x62'x4'	285 CY
2	1.61 AC.	10'	216 CY	27'x54'x4'	216 CY

SEEDING RECOMMENDATIONS
 (FOR MOST SITES)
 PERMANENT SEEDING:
 100-120 LBS./AC. TALL FESCUE
 12 LBS./AC. ANNUAL RYEGRASS
 1,200 LBS./AC. 10-10-10
 2 TONS/AC. AGRICULTURE LIMESTONE ON SANDY SOILS
 3 TONS/AC. AGRICULTURE LIMESTONE ON CLAYEY SOILS
 5,500 TO 2,000 LBS./AC. STRAW MULCH
 TEMPORARY SEEDING:
 60 LBS./AC. GERMAN MILLET (SUMMER MONTHS)
 60 LBS./AC. ANNUAL RYEGRASS
 OR (LATE FALL OR EARLY WINTER)
 100 LBS./AC. CEREAL RYE
 450 LBS./AC. 10-20-20 FERTILIZER
 2 TONS/AC. AGRICULTURE LIMESTONE
 NOTE: 1,500 TO 2,000 LBS./AC. STRAW MULCH
 FOR LAWN TYPE COVER (HIGH USE AREAS) INCREASE THE TALL FESCUE RATE TO 200-250 LBS./AC. OR 5-6 LBS./1,000 SQ.FT.
 NOTE: IF 3 TONS OF LIME IS USED, BE SURE IT IS WORKED INTO THE TOP 2-4 INCHES OF THE GROUND SURFACE.

EROSION & SEDIMENT CONTROL NOTES

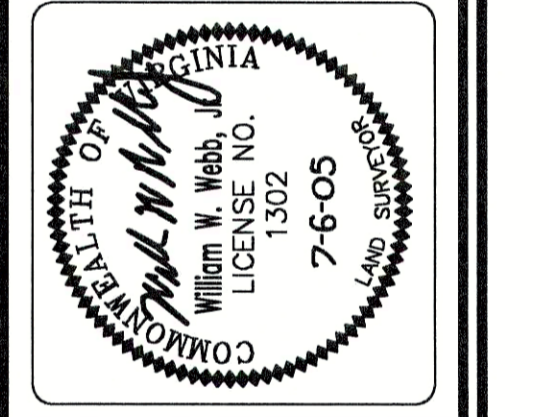
- ALL MECHANICAL EROSION AND SEDIMENT CONTROLS ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING AND GRADING.
- ALL SEWER LINES NOT IN STREETS ARE TO BE MULCHED AND SEEDING WITHIN 7 DAYS AFTER BACKFILL.
- ALL TEMPORARY EARTH BERMS, DIVERSIONS AND SEDIMENT CONTROLS DAMS ARE TO BE MULCHED AND SEEDING IMMEDIATELY AFTER GRADING. HAY OR STRAW OR COMPARABLE MULCH IS REQUIRED.
- ALL LAND, ON OR OFF SITE, WHICH IS DISTURBED BY CONSTRUCTION AND WHICH IS NOT BUILT UPON OR SURFACED SHALL BE ADEQUATELY STABILIZED TO CONTROL EROSION AND SEDIMENTATION.
- ALL EROSION AND SEDIMENT CONTROL, INCLUDING SEEDING AND MULCHING SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS CONTAINED IN THE CAROLINE COUNTY EROSION AND SEDIMENT CONTROL ORDINANCE.
- ADDITIONAL SEDIMENT CONTROLS WILL BE INSTALLED IF ON SITE INSPECTIONS REVEAL PROBLEMS.
- STOCKPILED TOPSOIL WILL BE SURROUNDED BY EARTH BERMS AND/OR STRAW BALE SEDIMENT BARRIERS.
- ALL MEASURES ARE TO BE INSPECTED DAILY BY THE SITE SUPERINTENDENT ANY DAMAGED STRUCTURAL MEASURES WILL BE REPAIRED BY THE CLOSE OF THE FOLLOWING DAY. SEDIMENT CONTROLS WILL BE REMOVED AFTER AREAS ABOVE THEM HAVE BEEN STABILIZED.
- THIS PROJECT WILL START _____ AND BE COMPLETED _____
- THE AREAS USED FOR BURNING DEBRIS SHALL BE SEEDING AFTER DEBRIS REMOVAL IS COMPLETED. USING APPROPRIATE SEEDING MIXTURE RECOMMENDED IN PLAN.
- PERMANENT OR TEMPORARY SEEDING SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SEEDING SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE A FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 30 DAYS. PERMANENT SEEDING SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
- SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.
- STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION
- BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND THE RECEIVING CHANNEL.
- ALL DRAINAGE CALCULATIONS ARE BASED ON THE METHODS SET FORTH IN THE VIRGINIA DEPARTMENT OF HIGHWAYS' DRAINAGE MANUAL. ALL DRAINAGE, CULVERTS AND OUTLET DITCHES ARE DESIGNED FOR A TEN YEAR FREQUENCY STORM.
- STRAW BALE BARRIERS SHOWN IN ROAD DITCHES FOR EROSION CONTROL DURING CONSTRUCTION SHALL BE REMOVED WHEN DITCHES ARE LINED WITH SOO OR JUTE MESH.
- THIS EROSION AND SEDIMENT CONTROL PLAN APPLIES TO ROAD, SEWER LINE AND WATER LINE CONSTRUCTION.
- THE CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS IMMEDIATELY
- ALL FILL SLOPES SHALL BE SEEDING AND STABILIZED IMMEDIATELY AFTER INSTALLATION
- THE CONTRACTOR SHALL KEEP THE ROADWAYS, DRAINAGEWAYS AND PROPERTIES ADJACENT TO THE SITE CLEAN OF MUD, SILT, TRASH, DUST AND ANY OTHER DEBRIS WHICH MIGHT BE GENERATED BY THE CONTRACTORS ACTIVITIES ON
- UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
 A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
 B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPSIDE SLOPE OF TRENCHES.
 C. EFFLUENT FROM DEWATERING OPERATION SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
 D. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS
 E. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

REVISION BLOCK

DATE	BY	DESCRIPTION
2/4/05	SLB	PER COUNTY COMMENTS
3/11/05	SLB	PER COUNTY COMMENTS
7/6/05	CLW	REVISED CONST ENTRANCE

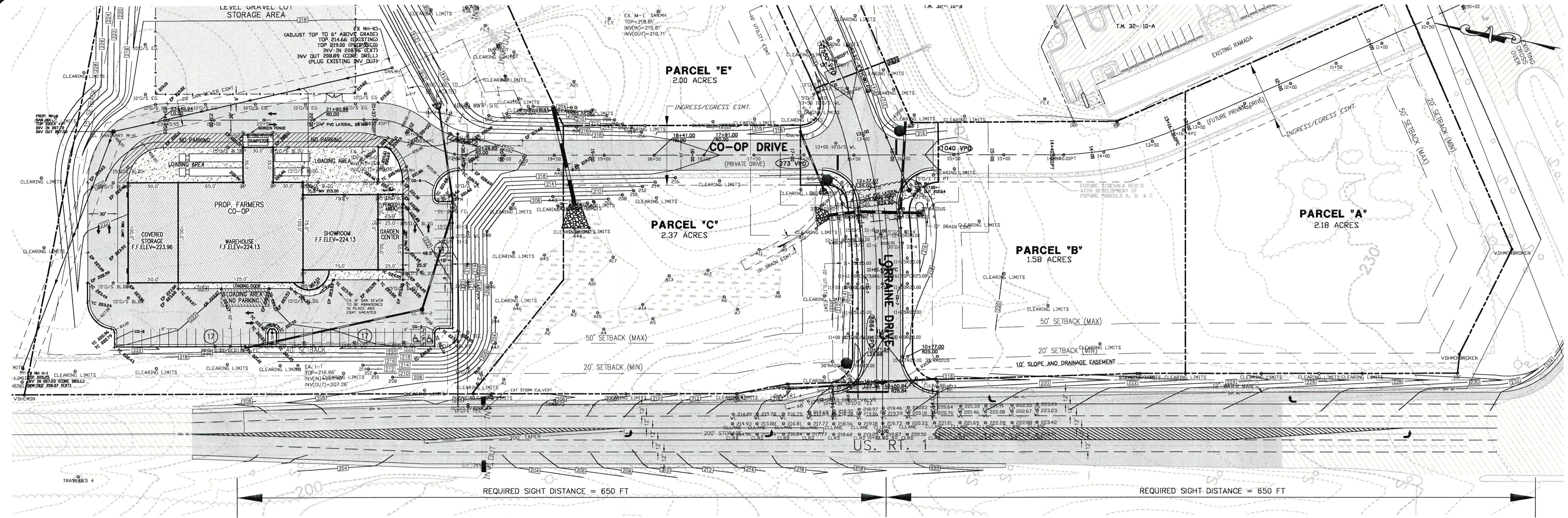


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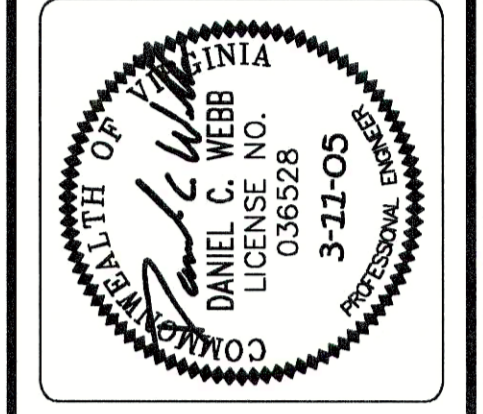


E&S PLAN
CULPEPER FARMERS' CO-OP
 REEDY CHURCH MAGISTERIAL DISTRICT & MADISON MAGISTERIAL DISTRICT
 CAROLINE COUNTY, VIRGINIA

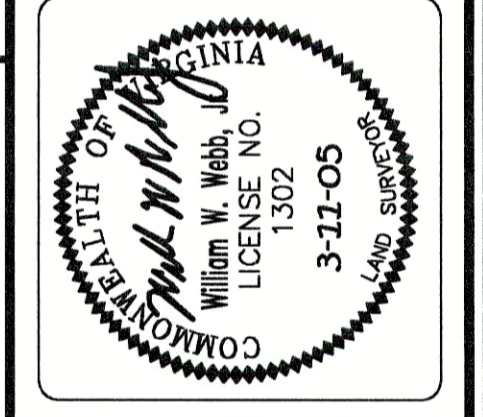
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 SHEET NO. 7 OF 13 SHEETS



REVISION BLOCK		DATE	DESCRIPTION
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ROUTE 1 IMPROVEMENTS
CULPEPER FARMERS' CO-OP
 REEDY CHURCH MAGISTERIAL DISTRICT & MADISON MAGISTERIAL DISTRICT
 CAROLINE COUNTY, VIRGINIA

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NOTE: ALL JOINTS AT TERMINUS OF PAVEMENT OVERLAY ON RT. 1 SHALL BE SAW CUT.

NOTE: CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE FROM AWAY FROM ROAD.

NOTE: REQUIRED SIGHT DISTANCE ON RT 1 IS 650 FEET.

ROUTE #1 IMPROVEMENTS
 SCALE: 1" = 50'

■ DENOTES PROP. ASPHALT
 ■ DENOTES EXISTING ASPHALT TO BE OVERLAYED
 ■ DENOTES EXISTING ASPHALT

VEHICLE TRIPS PER DAY				
SUBJECT	EXP. USAGE	AREA, SF	TPD, AREA	TPD, TOTAL
CO-OP	RETAIL CENTER	5,600 SF	40.67 TPD/1000 SF	228
	GARDEN CENTER	1,260 SF	36.08 TPD/1000 SF	45
			SUB-TOTAL	273
LOT A	GAS STATION	5,000 SF	77.68 TPD/1000 SF	388
LOT B	FAST FOOD	5,000 SF	130.34 TPD/1000 SF	652
BALANCE	COMMERCIAL PARK	50.41 ACRES	149.79 TPD/ACRE	7,550
			GRAND-TOTAL	8,864

NOTE: CALCULATIONS ASSUME ALL TRAFFIC ENTERING AND LEAVING ON RT 1, ACTUAL NUMBERS WILL BE LESS WHEN CONNECTION TO RT 207 IS COMPLETED.

COMMERCIAL ENTRANCE WORKSHEET FOR UNDIVIDED FOUR-LANE HIGHWAYS

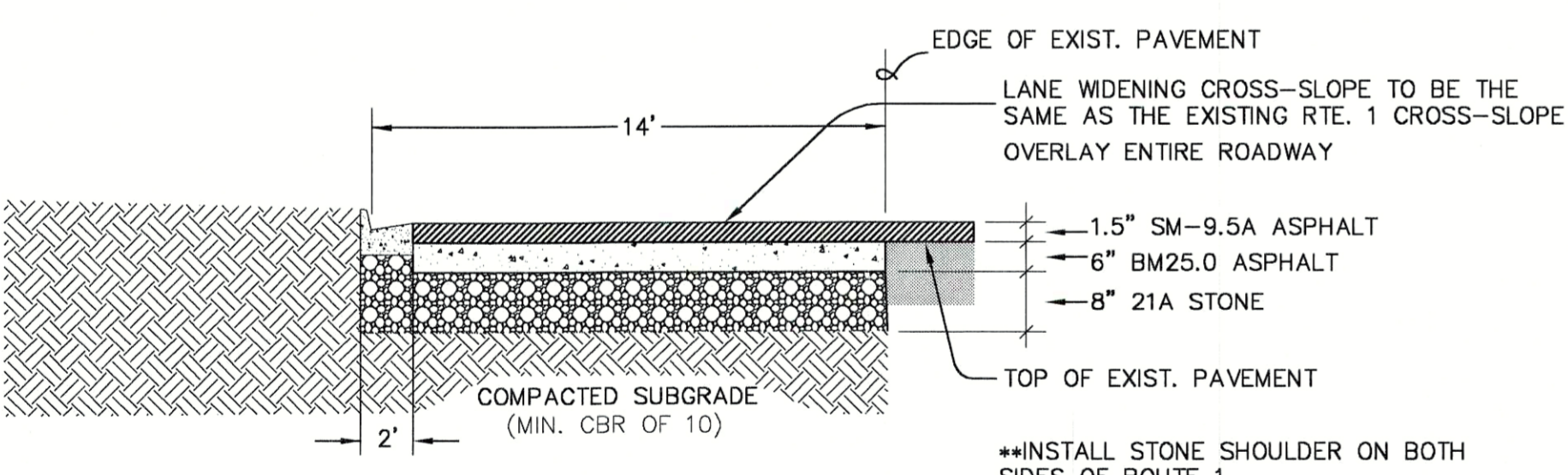
ENTRANCE LOCATION: CULPEPER FARMERS' CO-OP, US RT 1 CARMEL CHURCH

ENTER / SELECT THESE FOUR KNOWN CRITERIA:	DESIGN SPECS:
HIGHWAY POSTED SPEED (MPH) ? 45 4	CATEGORY = D
HIGHWAY TRAFFIC VOLUME (VPD) ? 13,564 12	MIN. ENTR. RADIUS = 25'
HIGHWAY FUNCTIONAL CLASSIFICATION PRINCIPAL ARTERIAL HIGHWAY 4	RIGHT TURN LANE*
TRAFFIC GENERATED BY SITE (VPD) 8,864 10	MIN. TAPER = 150'
	MIN. DECEL = 200'
	LEFT TURN LANE**
	MIN. STORAGE (L1) = 200'
	MIN. TAPER (T2) = 200'
	LANE SHIFT TRANSITION TO LTL**
	IF ALL WIDENING IS ON ONE SIDE OF CL: TAPER (T1) LENGTH = 463'
	IF WIDENING IS EQUAL ON BOTH SIDES OF CL: TAPER (T1) LENGTH = 232'
REMARKS (Optional):	FULL FRONTAGE DEVELOP. REQ'D? YES

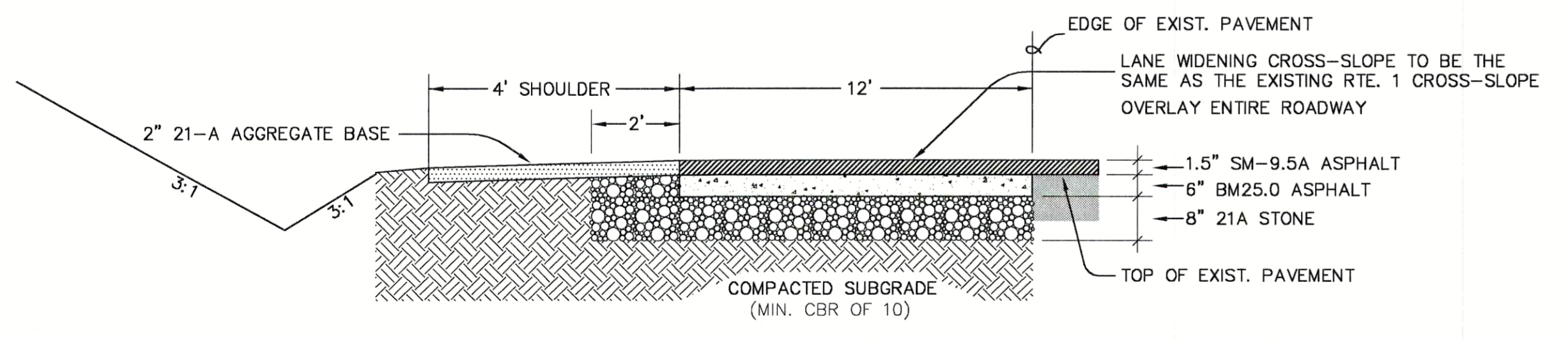
NOTES:
 1. Date MUST be entered in ALL FOUR "KNOWN CRITERIA" Cells ("Boxes")
 2. Use "Tab" Key to move to next Cell
 3. Select Printer Icon to Print

? Highway Traffic Volume (VPD) must include "New" Traffic Generated by Site (VPD)

? VDOT Prod. Date: LAD SPN 4/10/02 Release 2.0

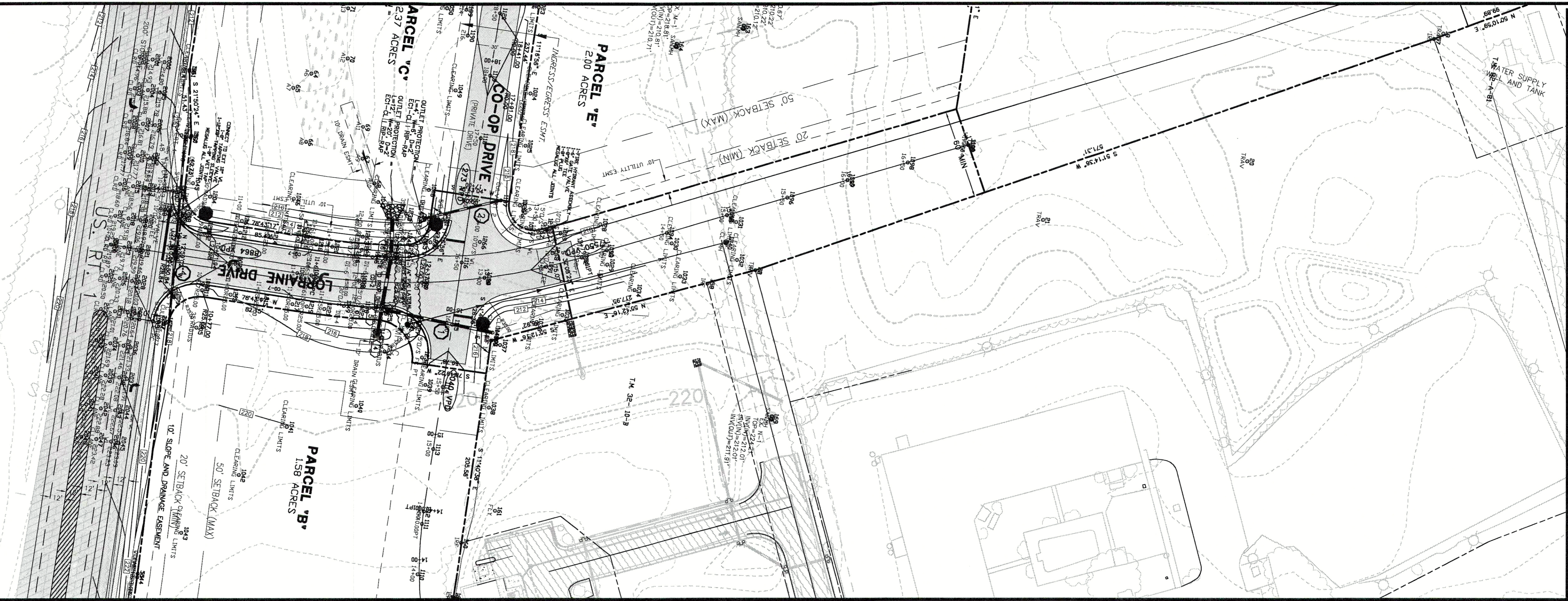
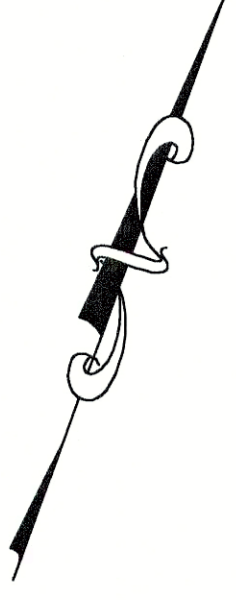


TYPICAL TURN LANE PAVEMENT SECTION AT CURB
 N.T.S.



TYPICAL TURN LANE PAVEMENT SECTION
 N.T.S.

**INSTALL STONE SHOULDER ON BOTH SIDES OF ROUTE 1.



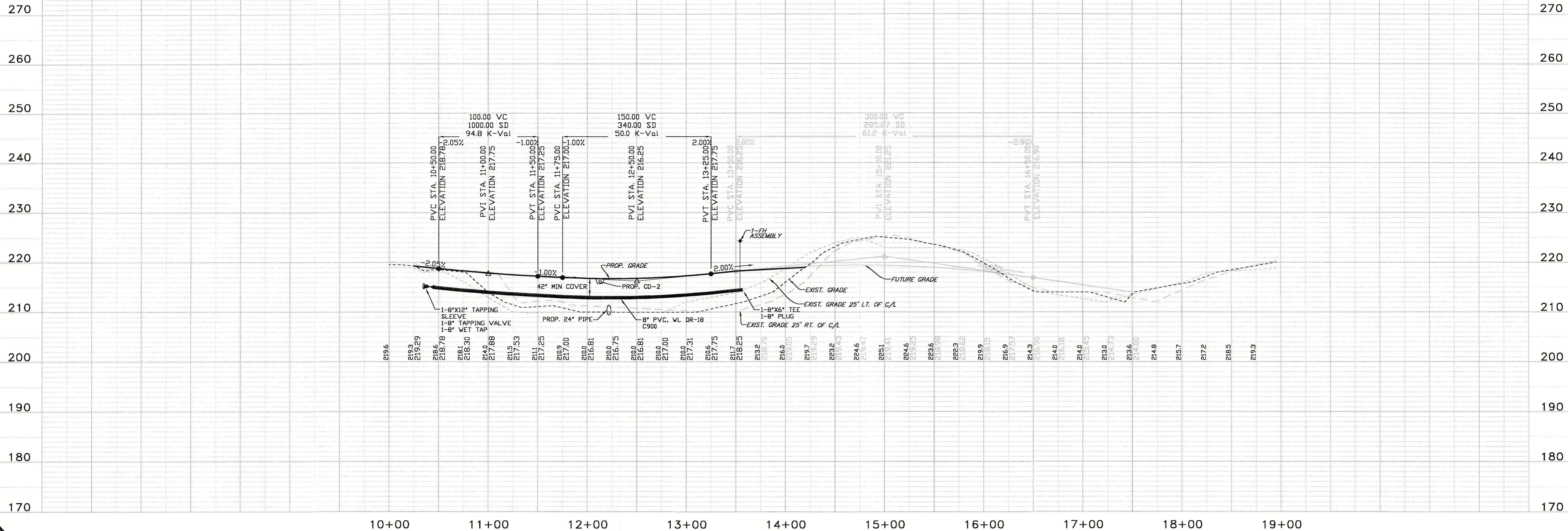
- DENOTES EXIST. ASPHALT
 - DENOTES PROP. ASPHALT

**160' R/W
LORRAINE DRIVE**

SCALE: 1" = 50' (HORIZONTAL)
1" = 10' (VERTICAL)

LEGEND
 - STOP SIGN
 - STREET SIGN

1	2	4
88' of 24" RCP, CLIII S = 0.45% MIN. INV. IN = 210.00 INV. OUT = 209.60 A = 4.53 AC., C = .82 T _c = 13MIN I ₀ = 5.4 Q ₁₀ = 20.39 CFS HW/D = 1.44	62' of 18" RCP, CLIII S = 6.85% MIN. INV. IN = 214.25 INV. OUT = 210.00 A = 0.40 AC., C = .82 T _c = 13MIN I ₀ = 5.4 Q ₁₀ = 1.80 CFS HW/D = 0.48	150' of 15" RCP, CLIII S = 1.13% MIN. INV. IN = 216.69 INV. OUT = 215.00 A = 1.88 AC., C = .63 T _c = 18MIN I ₀ = 4.7 Q ₁₀ = 5.63 CFS HW/D = 1.23

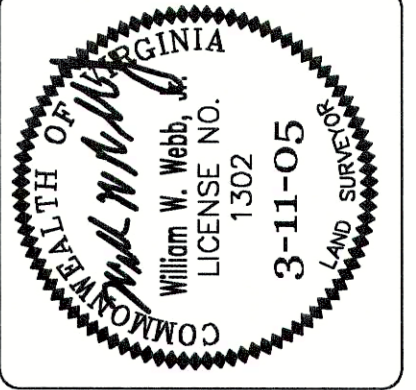


REVISION BLOCK

DATE	DESCRIPTION	BY
2/4/05	PER COUNTY COMMENTS	SLB
3/11/05	PER COUNTY COMMENTS	SLB



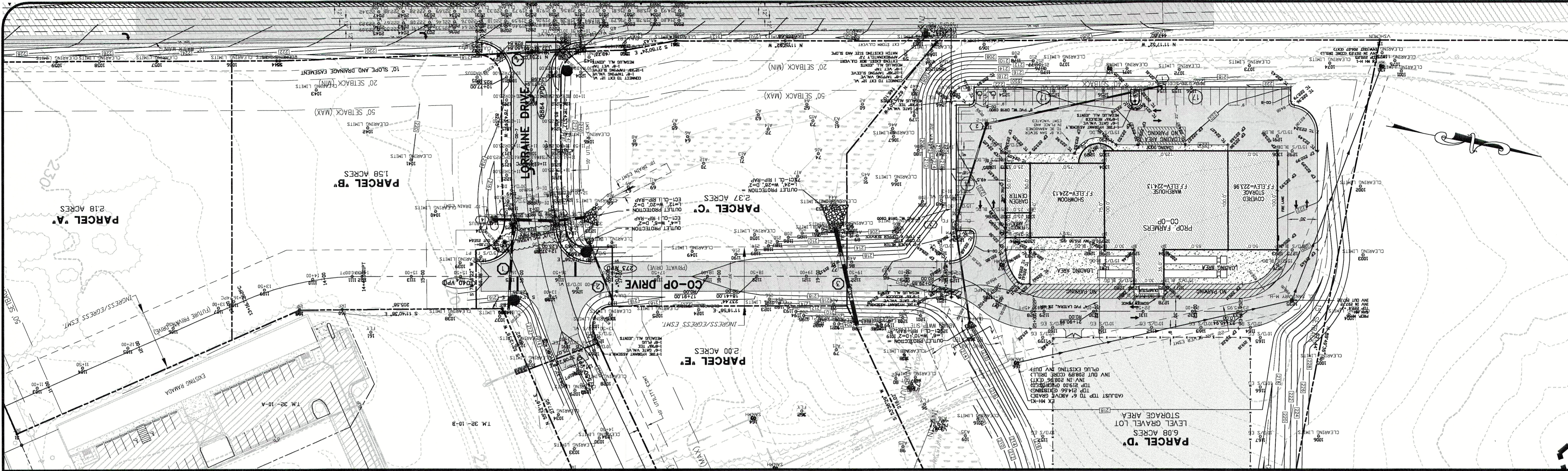
WEBB AND ASSOCIATES
 A SURVEYING AND DESIGN COMPANY
 11903 BOWMAN DRIVE, SUITE 106
 FREDERICKSBURG, VA 22408
 (804)633-9907 FAX (540)371-4650
 (540)371-1209





LORRAINE DRIVE PLAN & PROFILE
CULPEPER FARMERS' CO-OP
 REEDY CHURCH MAGISTERIAL DISTRICT
 & MADISON MAGISTERIAL DISTRICT
 CAROLINE COUNTY, VIRGINIA



DATE: SEPT. 29, 2004
 SCALE: 1" = 50'
 DESIGNED BY: SLB
 DRAWN BY: CLW
 CHECKED BY: DCW
 ACAD FILE: <04D100|CP>
 DRAWING NO: 04-D-100

SHEET NO. **9**
OF 13 SHEETS

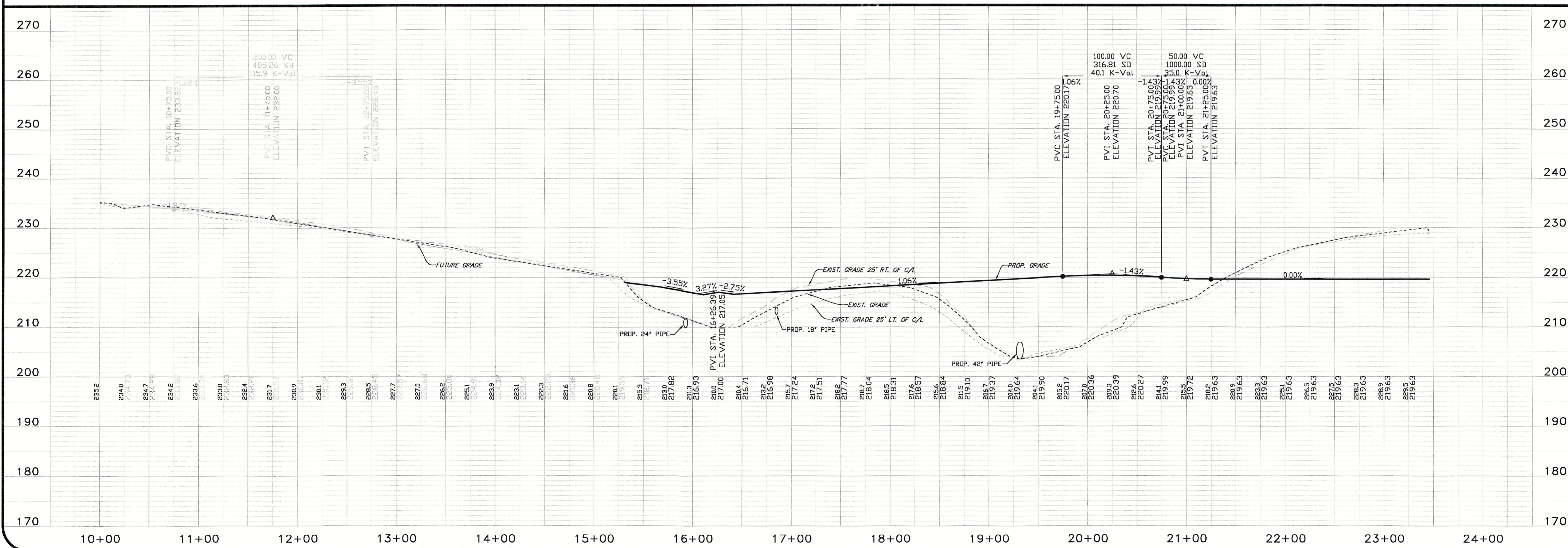


 - DENOTES EXIST. ASPHALT
 - DENOTES PROP. ASPHALT

160' EASEMENT CO-OP DRIVE
 SCALE: 1" = 50' (HORIZONTAL)
 1" = 10' (VERTICAL)

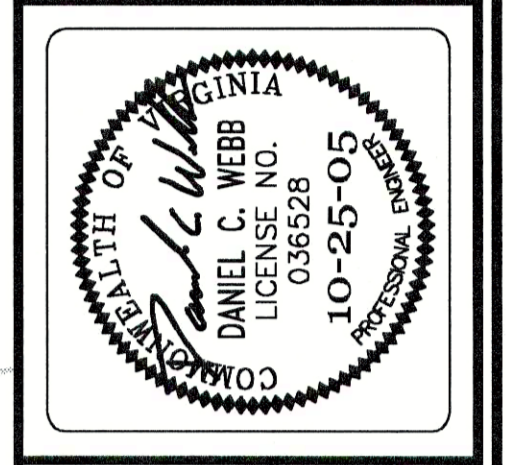
LEGEND
 - STOP SIGN
 - STREET SIGN

1	2	3	4
88' of 24" RCP, CL111 S = 0.45% MIN. INV. IN = 210.00 INV. OUT = 209.60 A = 4.53 AC, C = .82 T _c = 13MIN h ₀ = 5.4 Q ₁₀ = 20.39 CFS HW/D = 1.44	62' of 18" RCP, CL111 S = 6.85% MIN. INV. IN = 214.25 INV. OUT = 210.00 A = 0.40 AC, C = .82 T _c = 13MIN h ₀ = 5.4 Q ₁₀ = 1.80 CFS HW/D = 0.48	101' of 42" RCP, CL111 S = 0.50% MIN. INV. IN = 203.75 INV. OUT = 203.25 A = 28.23 AC, C = .72 T _c = 22MIN h ₀ = 4.2 Q ₁₀ = 98.65 CFS HW/D = 1.46	150' of 15" RCP, CL111 S = 1.13% MIN. INV. IN = 216.69 INV. OUT = 215.00 A = 1.88 AC, C = .63 T _c = 18MIN h ₀ = 4.7 Q ₁₀ = 5.63 CFS HW/D = 1.23

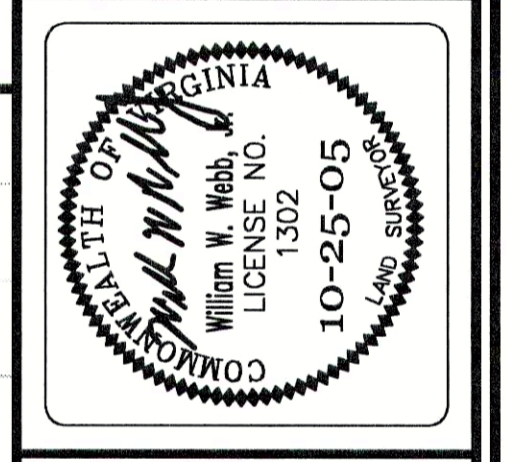


REVISION BLOCK

DATE	DESCRIPTION	BY
2/4/05	PER COUNTY COMMENTS	SLB
3/17/05	PER COUNTY COMMENTS	SLB
10/25/05	PER OWNER	SLB

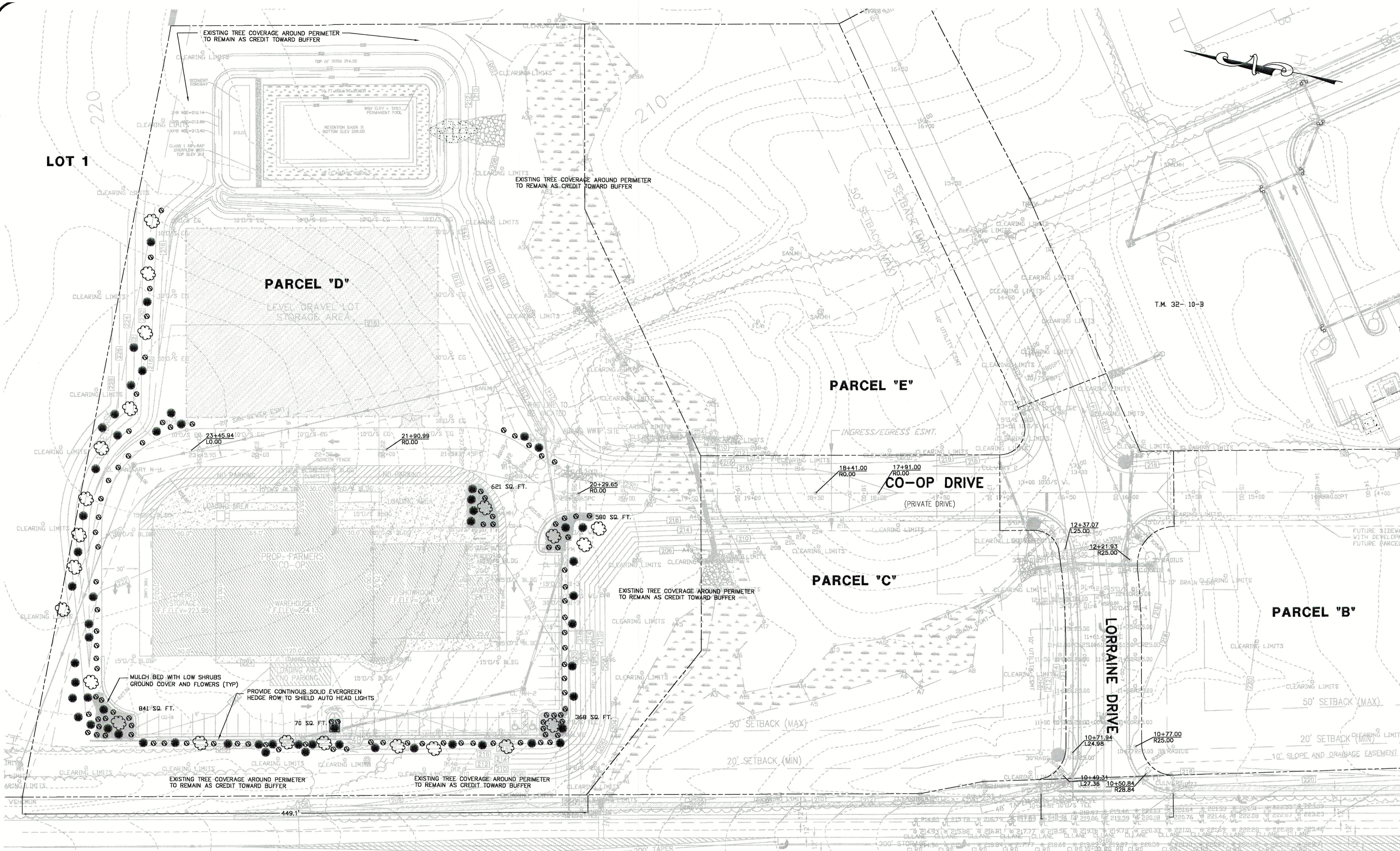


WEBB AND ASSOCIATES
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CO-OP DRIVE PLAN & PROFILE
CULPEPER FARMERS' CO-OP
 REEDY CHURCH MAGISTERIAL DISTRICT
 & MADISON MAGISTERIAL DISTRICT
 CAROLINE COUNTY, VIRGINIA

DATE: SEPT. 29, 2004
 SCALE: 1" = 50'
 DESIGNED BY: SLB
 DRAWN BY: CLW
 CHECKED BY: DCW
 ACAD FILE: <04D100JCP>
 DRAWING NO: 04-D-100



LANDSCAPING REQUIREMENTS

- THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PLANTS AS SHOWN ON THE PLANTING PLAN IN ACCORDANCE WITH THE QUANTITIES, SIZES AND SPECIFICATIONS LISTED IN THE PLANT MATERIAL SCHEDULE.
- TOTAL NUMBER OF PLANTS SHALL BE AS SHOWN ON THE LANDSCAPE PLAN. THIS TOTAL DIFFERS FROM THE PLANT KEY THE CONTRACTOR IS TO NOTIFY THE OWNER OR OWNERS REPRESENTATIVE BEFORE THE BID DATE.
- ALL PLANTS SHALL BE HARDY UNDER CLIMATE CONDITIONS IN THE LOCATION OF THE PROJECT.
- PLANT DIMENSIONS SHALL BE IN ACCORDANCE WITH AMERICAN STANDARDS FOR NURSERY STOCK, LATEST EDITION. BALLED AND BURLAPPED SHALL BE DUG WITH FIRM NATURAL BALLS OF EARTH AND SHALL BE PRUNED, SCORED, DUG IN ACCORDANCE WITH CURRENT ASSN PLANTS SHALL BE IN PROPER NURSERY CONDITION.
- NO B & B PLANTS SHALL BE PLANTED IF BALL IS CRACKED OR EITHER BROKEN DURING THE PROCESS OF PLANTING.
- ALL PLANTS SHALL BE HARDY UNDER CLIMATE CONDITIONS IN THE LOCATION OF THE PROJECT.
- ALL PLANTS SHALL HAVE A NORMAL HABIT OF GROWTH AND SHALL BE SOUND, HEALTHY, VIGOROUS, FREE FROM DISEASE AND INSECT INFESTATION. ANY TREE WITH WEAK, THIN TRUNKS NOT CAPABLE OF SUPPORTING THEMSELVES WHEN THE GROWTH IS NOT ACCEPTABLE, THE MINIMUM ACCEPTABLE SIZE OF ALL PLANTS MEASURED BEFORE PLANTING WITH THE BRANCHES IN NORMAL POSITION SHALL CONFORM TO DIMENSIONS AS SHOWN IN PLANTING SCHEDULE. LARGER PLANTS OF EQUAL QUALITY MAY BE ACCEPTED AT NO ADDITIONAL COST TO THE OWNER.
- SUBSTITUTION OF PLANTS MATERIAL SHALL NOT BE PERMITTED UNLESS AUTHORIZED BY OWNERS OR OWNERS REPRESENTATIVE AND MUST BE APPROVED BY THE COUNTY AGENT PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL LAY OUT, WITH IDENTIFIABLE STAKES, THE LOCATION OF ALL TREES, UNDERGROUND UTILITIES AND OUTLINE OF PLANTING BEDS AS INDICATED ON THE DRAWING. THE LAYOUT OF PLANTING SHALL NOTIFY THE OWNER OR REPRESENTATIVE 48 HOURS PRIOR TO BEGINNING INSTALLATION OF PLANT MATERIAL. IN THE EVENT THAT ROCK OR UNDERGROUND CONSTRUCTION WORK, DISTURBANCE OR UTILITY LINES ARE ENCOUNTERED DURING THESE OPERATIONS OR IN THE EXCAVATION OF ANY PLANT PITS UNDER THIS CONTRACT ALTERNATE LOCATIONS MAY BE SELECTED BY THE L.A. WITH NO ADDITIONAL COST TO THE OWNER.
- PLANTING SOIL SHALL BE NATIVE TOPSOIL WITH OBJECTS NOT LARGER THAN 1" MULCH SHALL BE APPLIED IMMEDIATELY AFTER PLANTING OPERATIONS. MULCH SHALL BE HARDWOOD, MUST BE FREE OF SEEDS, WEEDS, SPORES OR OTHER FOREIGN MATERIAL. MUST BE WELL ROTTED AND OF SUCH CHARACTER AS NOT TO BE EASILY REMOVED BY WIND.
- PRIOR TO INSTALLATION, THE CONTRACTOR SHALL NOTIFY THE OWNER AND OR LANDSCAPE ARCHITECT OF ALL SOIL OR DRAINAGE CONDITIONS IN WHICH ARE DETRIMENTAL TO THE GROWTH OF PLANTS. HE SHALL STATE THE CONDITIONS AND GROWTH OF PLANTS. HE SHALL STATE THE CONDITIONS AND SUBMIT A PROPOSAL FOR CORRECTING THE CONDITIONS, INCLUDING ANY CHANGE IN COST, FOR REVIEW AND ACCEPTANCE BY THE OWNER.
- CONTAINER GROWN PLANTS- ALL PLANTS TO BE PLANTED IN CONTAINERS SHALL BE HEALTHY, VIGOROUS, WELL ROOTED AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THEY SHALL HAVE TOPS WHICH ARE OF GOOD QUALITY AND ARE IN HEALTHY CONDITION. AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE DEFINED AS A PLANT TRANSPLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG FOR THE NEW FIBROUS ROOTS TO HAVE DEVELOPED SO THAT CONTAINER MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER. NO ROOT BOUND GROWN CONTAINER PLANTS SHALL BE PLANTED IF THE ROOT MASS IS BROKEN EITHER BEFORE OR DURING THE PROCESS OF PLANTING.
- PREPARATION OF PLANTS- ALL PLANT PITS SHALL BE CIRCULAR IN OUTLINE. ALL EXCAVATIONS SHALL HAVE VERTICAL SIDES, THE DEPTHS AND WIDTHS FOR EXCAVATIONS OF PLANT PITS SHALL BE THE DEPTHS AND WIDTHS AS SPECIFIED ON PLANTING DETAILS OR AS APPROVED BY THE LANDSCAPE ARCHITECT. LOOSEN SUBGRADE 6" BELOW BOTTOM OF THE PIT. SOIL SEPARATION- SUBGRADE SOIL SHALL BE SEPARATED FROM THE UPPER TOPSOIL PORTIONS AND REMOVED IMMEDIATELY WHEREVER ENCOUNTERED DURING PLANTING OPERATIONS. EXCESS SOILS SHALL BE REMOVED AND LEGALLY DISPOSED.
- SETTING PLANTS- IN GENERAL, SET PLANTS AT SAME RELATION TO FINISHED GRADE AS THE BORE TO THE GROUND FROM WHICH THEY WERE DUG. PREPARE PLANTING PITS AS SPECIFIED AND AS SHOWN ON THE DRAWINGS, PRIOR TO INSERTING PLANTS. USE IDENTIFIABLE BACKFILLED PLANT PITS. WHEN PLANT PITS HAVE BEEN BACKFILLED, APPROXIMATELY 2/3 FULL, WATER THOROUGHLY BEFORE INSTALLING. REMOVAL OF SOIL TO THE TOP OF THE PIT. SET TREE PLUMES AND BRACE BRIDGES IN POSITION UNTIL THE PLANTING SOIL IS WELL TAMPED SOILY AROUND THE BALL AND THE ROOTS.
- GOING AND STAYING- SHALL BE REQUIRED FOR ALL TREES OR PLANTS LIKE SHRUBS IN ACCORDANCE WITH DETAILED DRAWINGS. PRUNING AND STAKING SHALL BE DONE WITHIN 24 HOURS AFTER PLANTING.
- MAINTENANCE OF NEW PLANTINGS SHALL CONSIST OF QUINING WATERING, CULTIVATING, WEEDING, MULDING, TIGHTENING, AND RESTING PLANTS TO PROPER GRADES, AND UPRIGHT POSITION. RESTORATION OF THE PLANTING SAUCER, AND FURNISHING AND APPLYING SUCH SPRAYS AS ARE NECESSARY TO KEEP THE PLANTING FREE FROM INSECTS AND DISEASE. MAINTENANCE SHALL BE PROVIDED UNTIL TIME OF PROFESSIONAL ACCEPTANCE.
- PLANTING AREAS AND PLANTING SHALL BE PROTECTED AT ALL TIME AGAINST TRESPASSING AND DAMAGE OF ANY KIND FOR THE DURATION OF THE MAINTENANCE PERIOD. IF ANY PLANTS BECOME DAMAGED OR INJURED, THEY SHALL BE TREATED OR REPLACED BY THE CONTRACTOR AS DIRECTED BY ARCHITECT AT NO ADDITIONAL COST TO THE OWNER. NO WORK SHALL BE DONE WITHIN, ADJACENT TO, OR OVER ANY PLANT OR PLANTING AREA WITHOUT PROPER SAFEGUARDS AND PROTECTION TO MATERIALS.
- ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR FROM THE DATE OF PROFESSIONAL ACCEPTANCE, TO BE IN GOOD, HEALTHY, AND FLOURISHING CONDITION.
- THE CONTRACTOR SHALL PROVIDE THE OWNERS SPECIFIC MAINTENANCE RECOMMENDATIONS IN WRITING FOR WATERING, FERTILIZING AND MAINTAINING THE PLANT MATERIAL.
- THE LANDSCAPE CONTRACTOR IS NOT RESPONSIBLE FOR REPLACING AT NO COST TO THE OWNER PLANTING MATERIAL WHICH HAS BEEN SIGNIFICANTLY DAMAGED DUE TO IMPROPER OR INADEQUATE MAINTENANCE BY THE OWNER DURING THE ONE YEAR GUARANTEE PERIOD. IMPROPER MAINTENANCE INCLUDES BUT IS NOT LIMITED TO SUCH THINGS AS APPLYING THE WRONG KIND OR AMOUNT OF CHEMICALS OR FERTILIZER OR SEVERELY DAMAGING THE BARK OF TREES WITH LAWN MOWER BLADES. CONTRACTOR IS NOT RESPONSIBLE FOR REPLACEMENT OF PLANTS DAMAGED BY MANUSUAL DURING THIS PERIOD.
- FOR MATERIAL THAT HAS BEEN PROPERLY MAINTAINED BY THE OWNER DURING THE ONE YEAR GUARANTEE PERIOD, THE CONTRACTOR SHALL REPLACE, WITHOUT COST TO THE OWNER AND AS SOON AS WEATHER CONDITIONS PERMIT, ALL DEAD PLANT MATERIAL AND ALL PLANT MATERIAL NOT IN A VIGOROUS THRIVING CONDITION, AS DETERMINED BY THE LANDSCAPE ARCHITECT DURING AND AT THE END OF THE GUARANTEE PERIOD. THE PLANTS SHALL BE FREE OF DEAD BRANCHES AND DEAD BRANCH TIPS, AND SHALL BEAR FOLIAGE OF A NORMAL DENSITY, SIZE SHAPE AND COLOR. REPLACEMENTS SHALL CLOSELY MATCH ADJACENT SPECIMENS OF THE SAME SIZE AND SPECIES. REQUIREMENTS SHALL BE SUBJECT TO ALL REQUIREMENTS STATED IN THIS SPECIFICATION.
- THE GUARANTEE OF ALL REPLACEMENT PLANTS SHALL EXTEND FOR AN ADDITIONAL PERIOD OF ONE YEAR FROM THE DATE OF THEIR ACCEPTANCE AFTER REPLACEMENT OR FOR THE GUARANTEED PERIOD, WHICHEVER TIME IS GREATER. IN THE EVENT THAT A REPLACEMENT IS NOT ACCEPTED DURING OR AT THE END OF THE SAID EXTENDED GUARANTEE PERIOD, THE OWNER MAY ELECT A SUBSTITUTION OR A CREDIT FOR EACH ITEM.
- NO PLANTING SHALL IMPAIR THE SIGHT DISTANCE FOR INTERSECT & EGRESS TO THE SITE. NO SIGNAGE, TREES OR PLANT MATERIAL WITH EXPECTED MATURE GROWTH HEIGHTS OF 2.5 FEET SHALL BE PLANTED WITHIN THE BOUNDARY LINES.

REVISION BLOCK		DATE	DESCRIPTION
PER COUNTY COMMENTS	2/4/05		
PER COUNTY COMMENTS	3/11/05		



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 A SURVEYING AND DESIGN COMPANY
 11903 BOWMAN DRIVE, SUITE 106
 FREDERICKSBURG, VA 22408
 (540)371-1209 (804)633-9907 FAX(540)371-4650



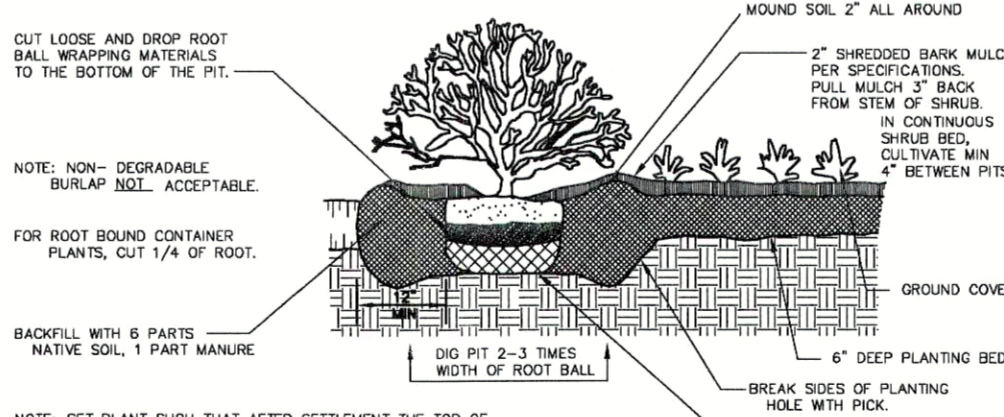
LANDSCAPE PLAN
CULPEPER FARMERS' CO-OP
 REEDY CHURCH MAGISTERIAL DISTRICT & MADISON MAGISTERIAL DISTRICT
 CAROLINE COUNTY, VIRGINIA

DATE: SEPT. 29, 2004
 SCALE: 1" = 40'
 DESIGNED BY: SLB
 DRAWN BY: CLW
 CHECKED BY: DCW
 ACAD FILE: <04D100KCP>
 DRAWING NO: 04-D-100
 SHEET NO: 11
 OF 13 SHEETS

PLANTING SCHEDULE

KEY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	REQUIRED QUANTITY	REQUIRED NUMBER	NUMBER PROVIDED FOR BUFFERS *			TOTAL PROVIDED	ESTIMATED COST	
							CANOPY	UNDERSTORY	SHRUBS		REQ'D	PROVIDED	EACH	TOTAL
CANOPY	LARGE DEODIOUS	3" CALIPER & 12" HIGH	B&B		1 PER 50 FT	18	18	4	22	\$150.00	\$4,050.00	
	ACER RUBRUM	RED MAPLE				3	3	7	4			
	ACER SACCHARUM	SUGAR MAPLE				3	3	3	3			
	CELTIS OCCIDENTALIS	COMMON HACKBERRY				3	3	3	3			
	QUERCUS RUBRA	RED OAK				3	3	3	3			
	QUERCUS VIRGINIANA	LIVE OAK				2	2	2	2			
	ULMUS PARVIFOLIA	LACEBARK ELM				2	2	2	2			
	FAGUS SYLVATICA	EUROPEAN BEECH				2	2	2	2			
	UNDERSTORY	SMALL EVERGREEN	SMALL DEODIOUS	6" HIGH	B&B	1 PER 30 FT	30	48	5	57	\$50.00	\$2,600.00
				6" HIGH	B&B	1 PER 50 FT	18		9	9		
CORNUS KOUSA		KOUSA DOGWOOD				9	9	5	14			
PINUS STROBUS		WHITE PINE				30	30	30	30			
ACER PALMATUM		JAPANESE MAPLE				4	4	13	13			
SHRUBS	MEDIUM SHRUBS	30" HIGH	B&B		1 PER 15 FT	60	62	34	96	\$20.00	\$1,860.00	
	PIERS JAPONICA	JAPANESE PIERS				9	9	5	14			
	BENBERG THUNBERGII	JAPANESE BAYBERRY				9	9	5	14			
	BIJOU SEMPERVIRENS	AMERICAN BOXWOOD				9	9	5	14			
	ILEX CORNUTA BURFORDII	BURFORD HOLLY				9	9	5	14			
	NANDINA DOMESTICA	NANDINA				9	9	5	14			
	REPHOLIPS UMBELLATA	INDIA HAWTHORN				9	9	5	14			
	VIORNIUM CARLISII	FRAGRANT VIBURNUM				4	4	12	12			
	TOTAL EST COST											\$8,510.00

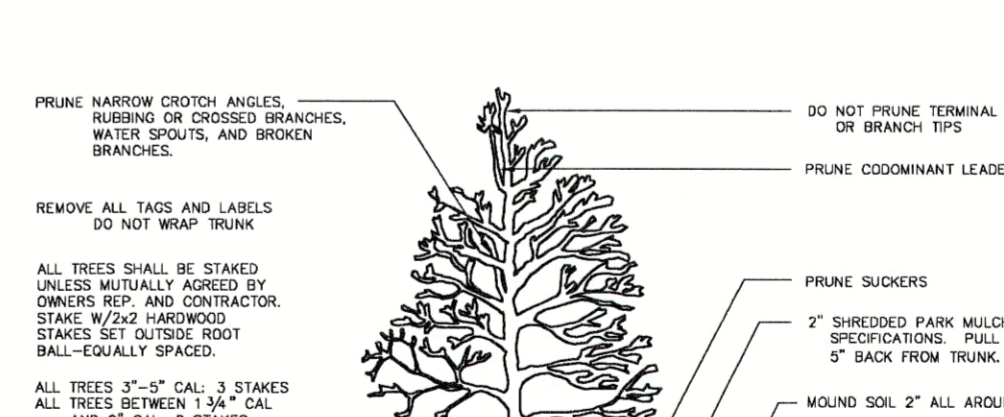
NOTE: ACTUAL NUMBER, LOCATION AND VARIETY OF PLANTINGS MAY VARY.
 * NOTE: LENGTH OF PERIMETER BUFFER REQUIRED = 908 FT.
 THE CALCULATED NUMBER OF TREES AND SHRUBS ARE BASED ON PARKING LOT AND PERIMETER REQUIREMENTS. EXISTING TREE BUFFERS TO REMAIN WHERE POSSIBLE.
 SELECTED TREES & SHRUBS MUST MEET MINIMUM REQUIREMENTS OF CAROLINE COUNTY. CONTACT PLANNING OFFICE FOR APPROVAL PRIOR TO ORDERING PLANTS.
 CREDIT FOR EXISTING TREE BUFFER MAY REDUCE THE NUMBER OF REQUIRED TREES.
 SOLID HEDGEROW SHALL CONSIST OF DRAWF BURFORD HOLLIES, 3' ON CENTER, 24" MIN HEIGHT AT TIME OF PLANTING.



SHRUB PLANTING DETAIL
 NOT TO SCALE

QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IT IS THE CONTRACTORS RESPONSIBILITY TO BID ON PROPER QUANTITIES SHOWN ON THE PLANS.

ALL PLANTINGS THAT ARE DESTROYED OR DAMAGED DURING CONSTRUCTION OF SITE SHALL BE REPLACED FOLLOWING COMPLETION OF FINAL GRADING.



TREE PLANTING DETAIL
 NOT TO SCALE

① REMOVE ALL LABELS AFTER FINAL INSPECTION
 ② SUITABLE SOIL MAY BE NEEDED FOR PLANT BEDS. THIS SOIL WILL NEED TO BE OBTAINED OFF-SITE.

PERIMETER LANDSCAPE CALCULATION
 LANDSCAPING "B" OPTION 1 - HIGHWAY CORRIDOR
 1 LARGE TREE PER 50 LINEAR FEET
 1 EVERGREEN PER 30 LINEAR FEET
 1 SMALL DEODIOUS TREE PER 50 LINEAR FEET
 1 MEDIUM SHRUB PER 15 LINEAR FEET
 LOW GROUND COVER DISPERSED THROUGHOUT
 NOTE: A CONTINUOUS EVERGREEN HEDGE WILL BE PLACED ALONG THE FRONT OF THE PARKING AREA IN LIEU OF THE 4 FT BERM.

PARKING LOT LANDSCAPE CALCULATION
 REQUIRED LANDSCAPING = 20 SF PER PARKING SPACE
 48 PARKING SPACES
 LANDSCAPING AREA=20 s.f./SPACE X 47= 960 s.f.
 2,480 s.f. PROVIDED
 REQUIRED TREES = 1 TREE/200 SF REQ'D AREA
 REQUIRED TREES = 960 SF / 200 = 5
 PROVIDED TREES AND SHRUBS = 6 CANOPY TREES, 3 UNDERSTORY, 32 SHRUBS

NOTE: [Symbol] DENOTES PARKING LOT LANDSCAPE AREA

THIS PLAN FOR LANDSCAPING PURPOSES ONLY!!

STORM SEWER SCHEDULE

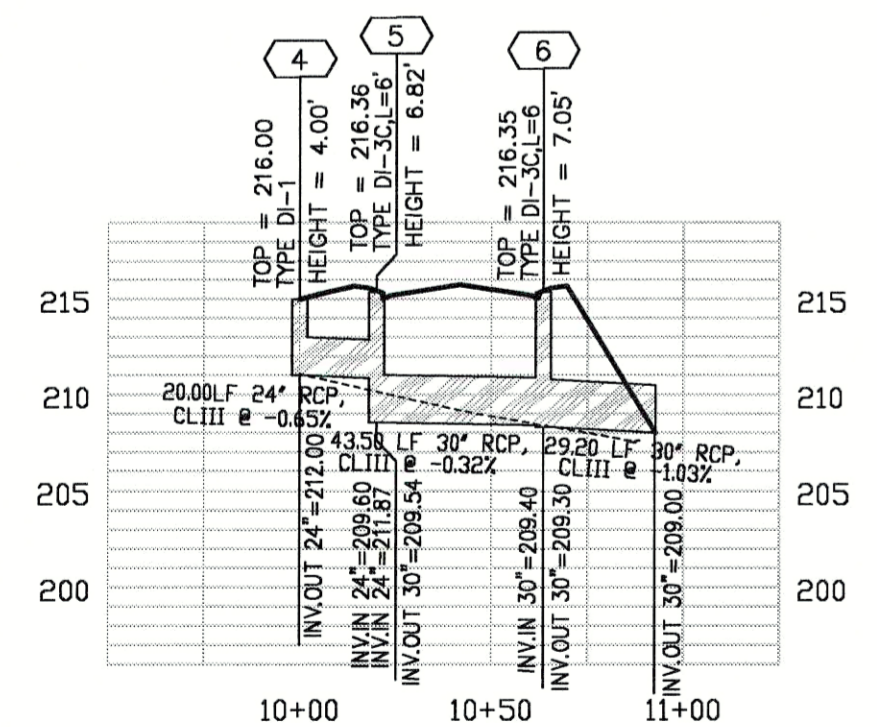
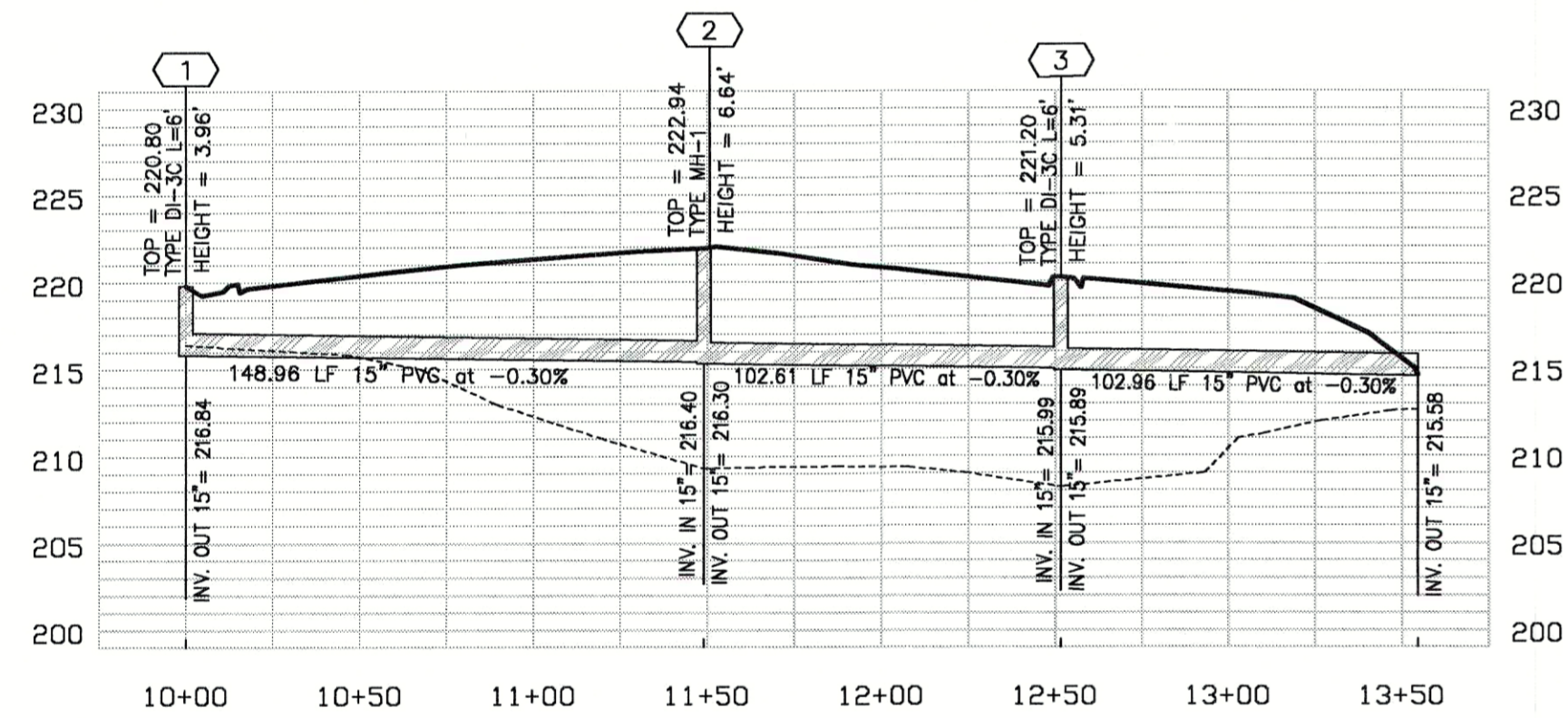
Line	To Line	Line Length (ft)	Incr Area (ac)	Total Area (ac)	Runoff Coeff (C)	Incr C x A	Total C x A	Inlet Time (min)	Time Conc (min)	Rainfall (in/hr)	Total Runoff (cfs)	Adm Flow (cfs)	Total Flow (cfs)	Capac Full (cfs)	Veloc (ft/s)	Pipe Size (in)	Pipe Slope (%)	Inv ElevUp (ft)	Inv ElevDn (ft)	HGLUp (ft)	HGLDn (ft)	Grnd/RimUp (ft)	Grnd/RimDn (ft)	Line ID
1	End	30	0.11	8.14	0.9	0.1	4.96	6	8.4	5.7	28.47	0	37.88	41.01	8.94	30	1	209.3	209	211.44	210.91	218	212	OUT-1, CL III
2	1	44	0.53	8.03	0.9	0.48	4.86	8	8.3	5.8	27.98	0	37.39	23.13	7.82	30	0.32	209.54	209.4	212.59	212.22	218	218	2-1, CL III
3	2	91	3.9	3.9	0.8	3.12	3.12	8	8	5.8	18.12	0	18.12	14.23	5.77	24	0.4	210	209.64	214.52	213.94	218	218	3-2, CL III
4	2	20	3.6	3.6	0.35	1.26	1.26	8	8	5.8	7.32	9.41	16.73	18.24	6.54	24	0.65	213.63	213.5	215.14	215.03	218	218	4-2, CL III
4	End	103	0.39	0.76	0.9	0.35	0.68	5	7.5	6.3	4.33	0	4.33	3.54	3.53	15	0.3	215.89	215.58	217.29	216.83	220.36	215.58	5-OUT, CL II
5	4	103	0	0.37	0	0	0.33	0	6.6	6.6	2.19	0	2.19	3.54	1.79	15	0.3	216.3	215.99	217.63	217.51	222.78	220.36	6-5, CL III
6	5	181	0.37	0.37	0.9	0.33	0.33	5	7.1	7.1	2.36	0	2.36	3.53	2.13	15	0.3	216.94	216.4	217.89	217.66	220.76	222.78	7-6, CL III

INLET CALCULATIONS

Line No.	Inlet ID	Area (ac)	Inlet Time (min)	Inlet (in/hr)	Runoff Coeff (C)	Q = CIA (cfs)	Q Carry-over (cfs)	Q Captured (cfs)	Q Bypassed (cfs)	Junct Type	Curb Height (in)	Curb Length (ft)	Grate Area (sqft)	Grate Length (ft)	Grate Width (ft)	Gutter Slope (%)	Gutter Width (ft)	Cross Slope, Sw (ft/ft)	Cross Slope, Sx (ft/ft)	Inlet Depth (ft)	Inlet Depth (ft)	Inlet Spread (ft)	Gutter Depth (ft)	Gutter Spread (ft)	Bypass Line No. (%)
1	DI-3C, L=6"	0.11	22	4.08	0.9	0.4	0	0.4	0	Curb	6	6	...	...	...	Sag	2	0.08	0.031	2	0.24	2.21	0.17	2.21	Offsite
2	DI-3C, L=6"	0.53	22	4.08	0.9	1.95	0	1.95	0	Curb	6	6	...	...	...	Sag	2	0.08	0.031	2	0.36	6.34	0.29	6.34	1
3	ENDSECTION	3.9	22	4.08	0.8	12.74	0	12.74	0	Hdwall	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
4	DI-1	3.6	22	4.08	0.35	14.55	0	14.55	0	Grote	...	...	2.33	2.5	2.5	Sag	2	0.031	0.1	2	1.35	11.85	1.05	11.85	2
5	DI-3C, 6 FT	0.39	22	4.03	0.9	1.42	0	1.42	0	Curb	6	6	...	...	...	Sag	2	0.08	0.05	2	0.33	3.17	0.22	3.17	Offsite
6	MANHOLE	0	0	0	0	0	0	0	0	MH	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Offsite
7	DI-3C, 6 FT	0.37	22	4.03	0.9	1.34	0	1.34	0	Curb	6	6	...	...	...	Sag	2	0.08	0.05	2	0.32	3.06	0.21	3.06	Offsite

HYDRAULIC GRADE LINE CALCULATIONS

Line	Pipe Size (in)	Q (cfs)	Inv ElevDn (ft)	HGLDn (ft)	DepthDn (ft)	AreaDn (sqft)	VelocDn (ft/s)	Vel HdDn (ft)	ECU Dn (ft)	SFDn (%)	Line Length (ft)	Inv ElevUp (ft)	HGLUp (ft)	DepthUp (ft)	AreaUp (sqft)	VelocUp (ft/s)	Vel HdUp (ft)	ECU Up (ft)	SFU (%)	StAve (ft)	Energy Loss (ft)	JLCCoeff (K)	Minor Loss (ft)	Line ID
1	30	37.9	209	210.91	1.91	4.02	9.41	1.38	212.29	0.984	30	209.3	211.44	2.14	4.47	8.47	1.12	212.55	0.795	0.89	0.267	0.7	0.78	OUT-1, CL III
2	30	37.4	209.4	212.22	2.5	4.91	7.62	0.9	213.12	0.832	44	209.54	212.59	2.5	4.91	7.62	0.9	213.49	0.831	0.832	0.366	1.5	1.35	2-1, CL III
3	24	18.1	209.64	213.94	2	3.14	5.77	0.52	214.46	0.642	91	210	214.52	2	3.14	5.77	0.52	215.04	0.642	0.642	0.584	1	0.52	3-2, CL III
4	24	16.7	213.5	215.03	1.53	2.57	6.5	0.66	215.68	0.632	20	213.63	215.14	1.51	2.54	6.57	0.67	215.81	0.648	0.64	0.128	1	0.67	4-2, CL III
5	15	4.38	215.58	216.83	1.25	1.23	3.57	0.2	217.03	0.461	103	215.89	217.3	1.25	1.23	3.57	0.2	217.5	0.461	0.461	0.474	1.1	0.22	OUT-5, CL II
6	15	2.22	215.99	217.52	1.25	1.23	1.81	0.05	217.57	0.118	103	216.3	217.64	1.25	1.23	1.81	0.05	217.7	0.118	0.118	0.122	0.75	0.04	6-5, CL III
7	15	2.36	216.4	217.68	1.25	1.23	1.92	0.06	217.74	0.133	149	216.84	217.86	1.02	1.08	2.19	0.07	217.94	0.133	0.133	0.199	1	0.07	7-6, CL III

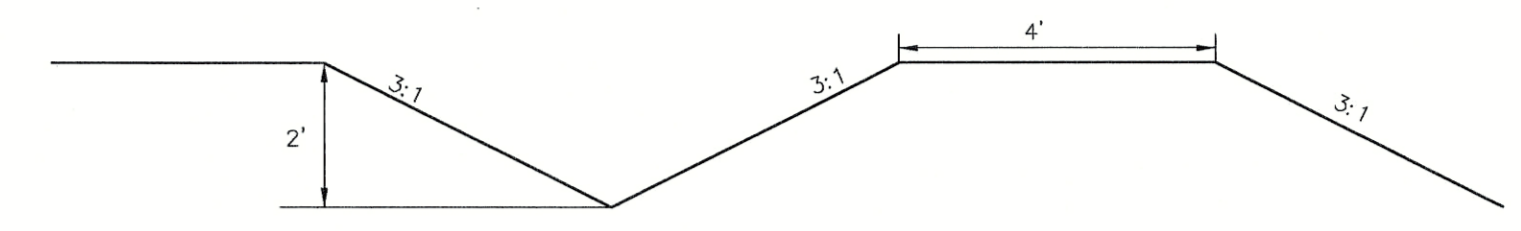


STORM SEWER PROFILES

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

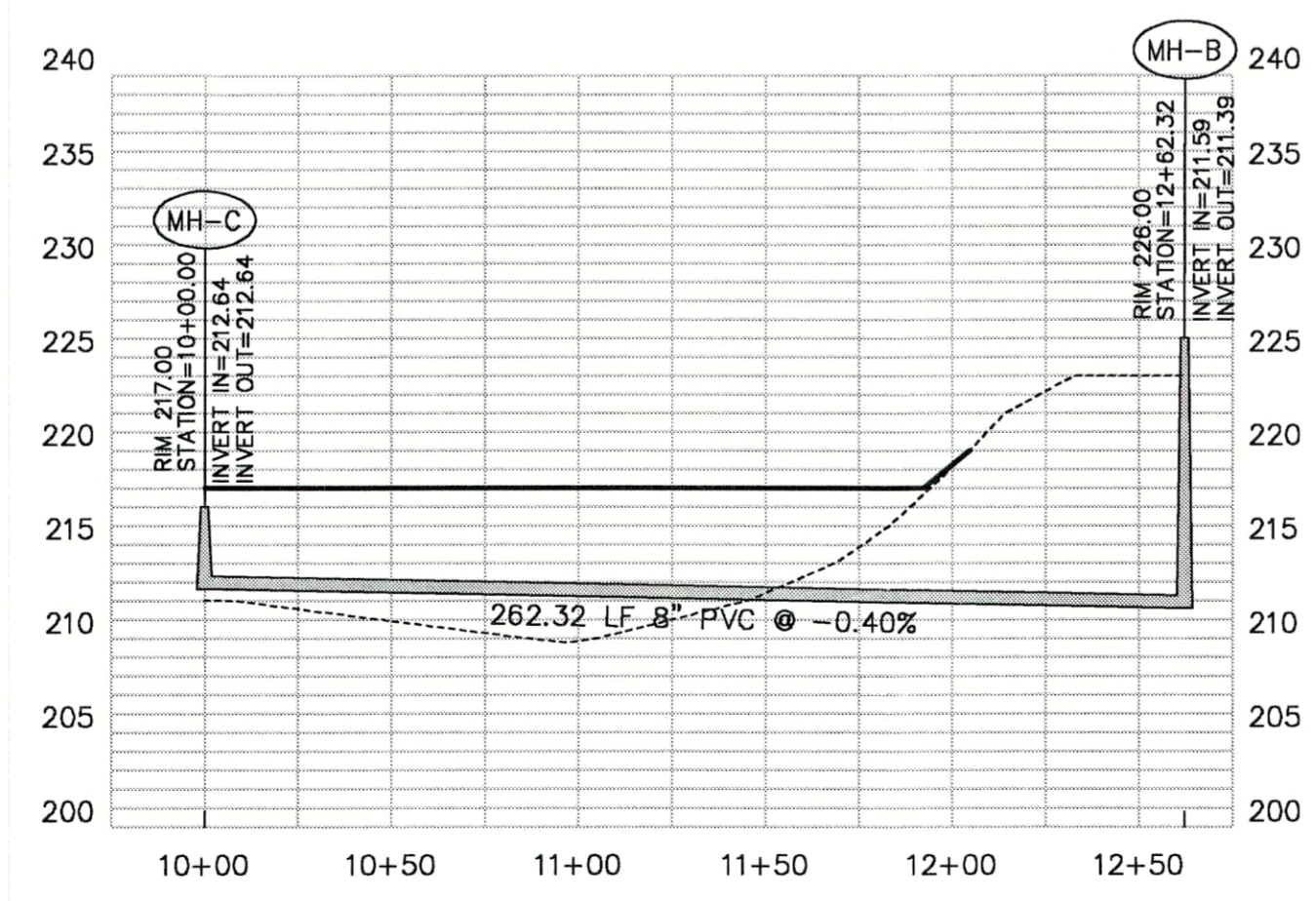
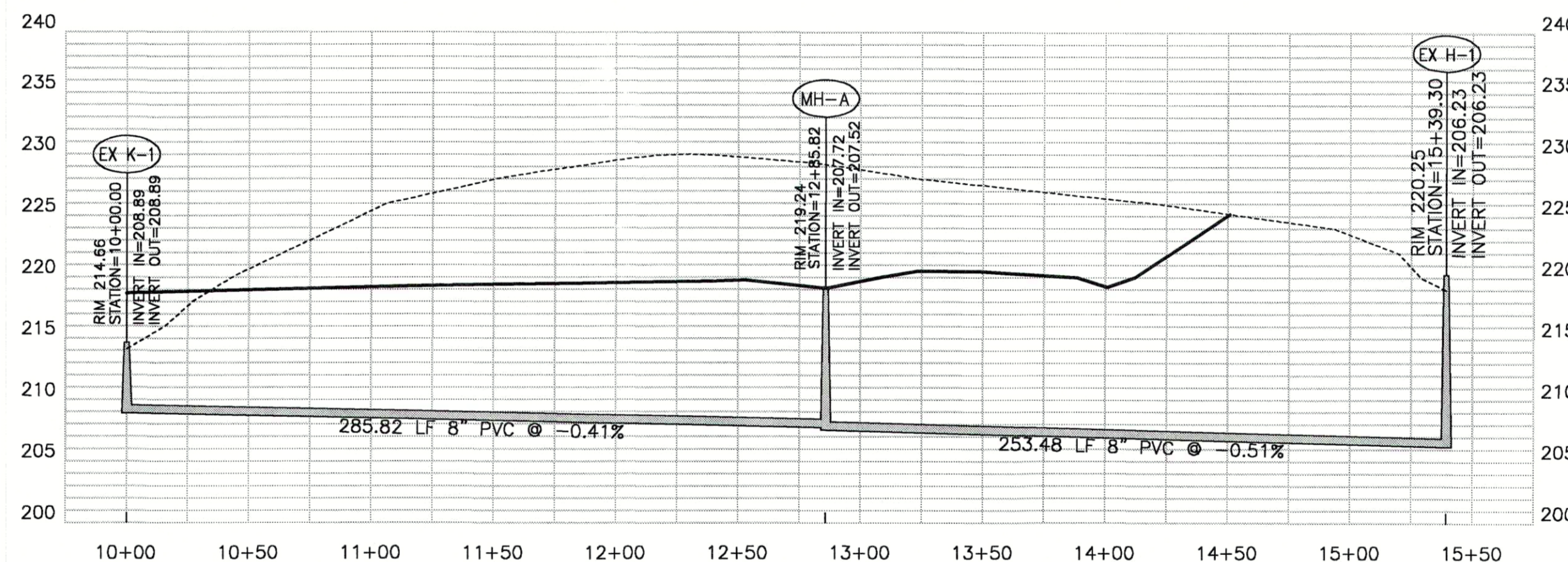
NOTE: IS-1 SHAPING IS REQUIRED ON ALL PROPOSED STORM SEWER STRUCTURES.

NOTE: STANDARD ST-1 STEPS ARE REQUIRED IN ALL PROPOSED STORM SEWER STRUCTURES EXCEEDING 4' IN HEIGHT.



DITCH SECTION A-A

NOT TO SCALE



SANITARY SEWER PROFILES

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

REVISION BLOCK		DATE	DESCRIPTION
PER COUNTY COMMENTS	SLB		
PER COUNTY COMMENTS	SLB		



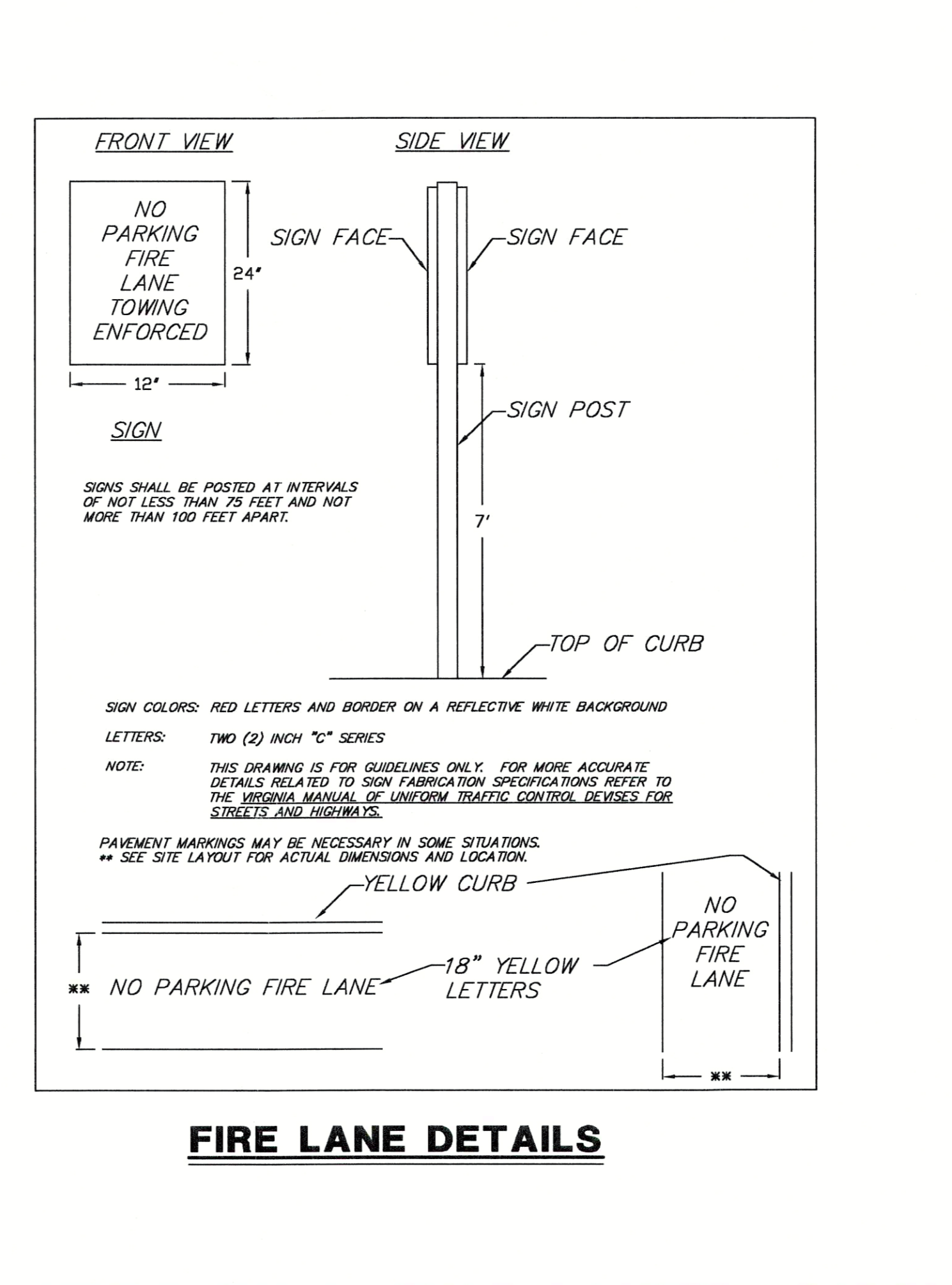
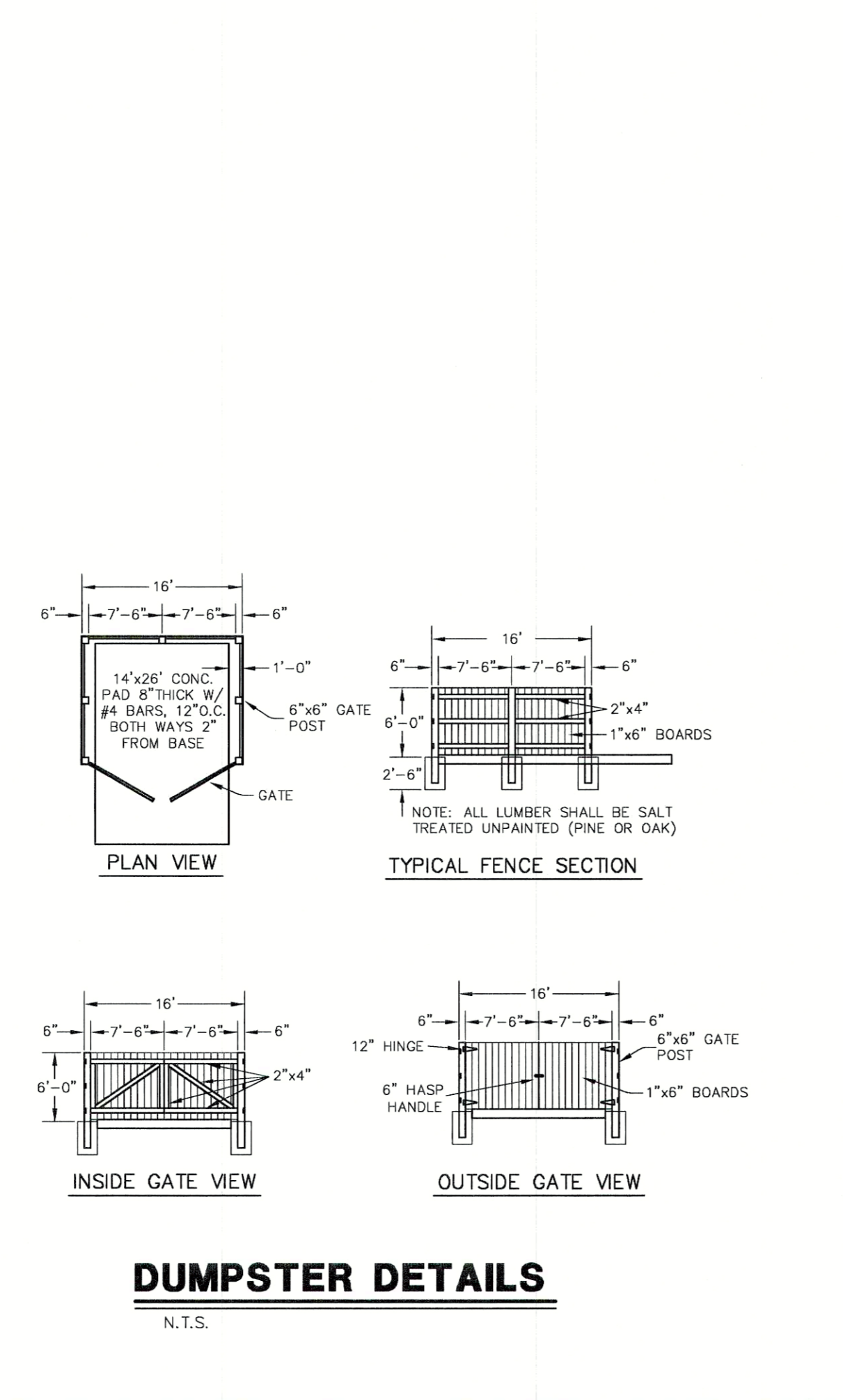
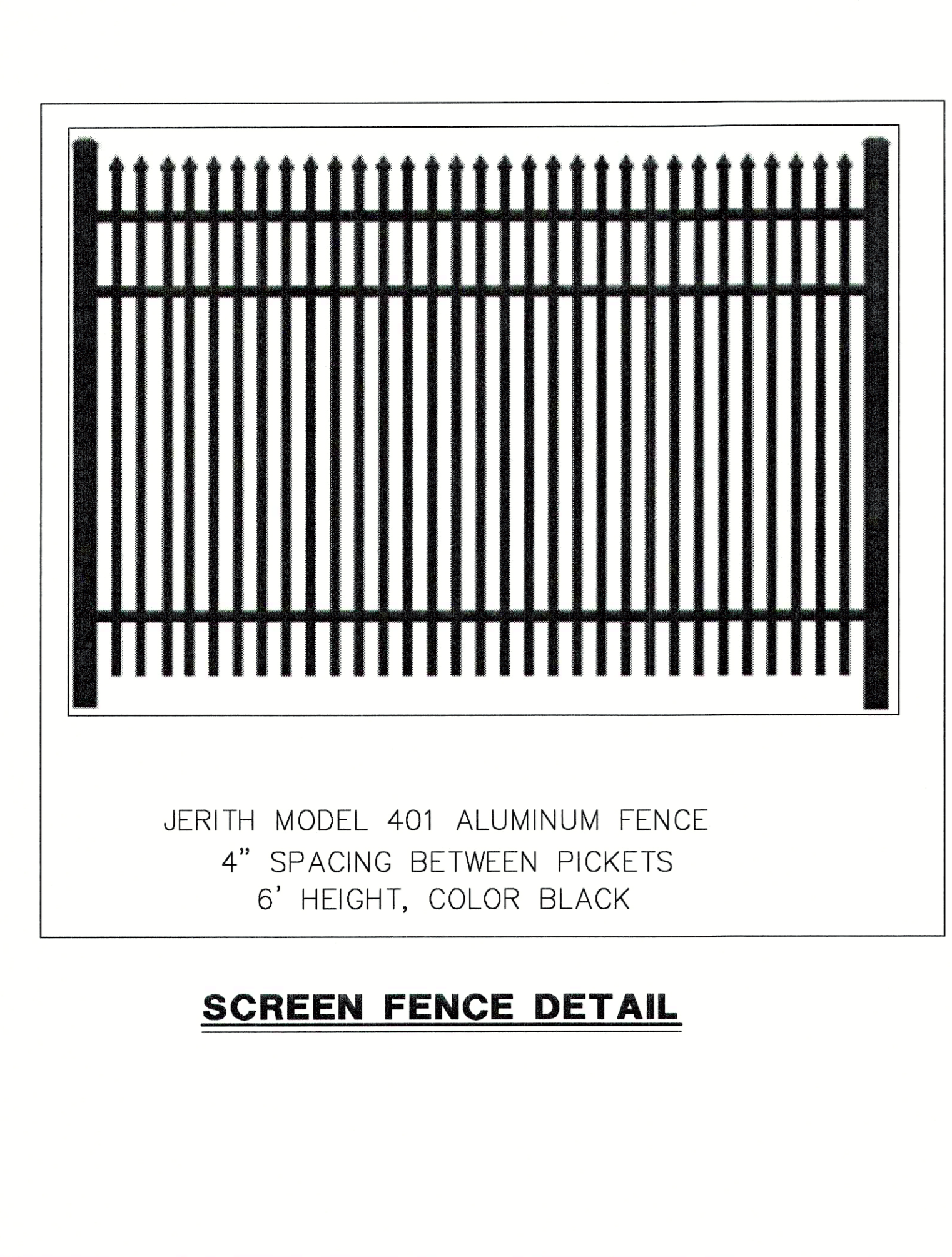
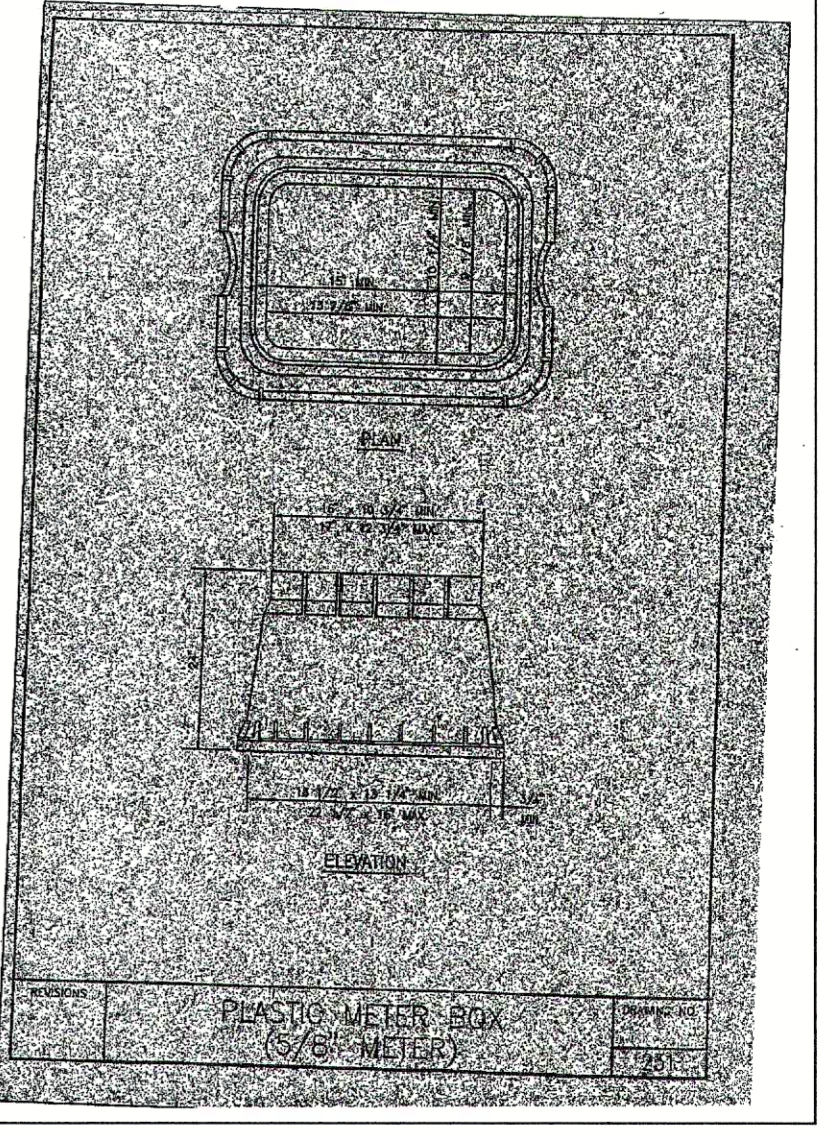
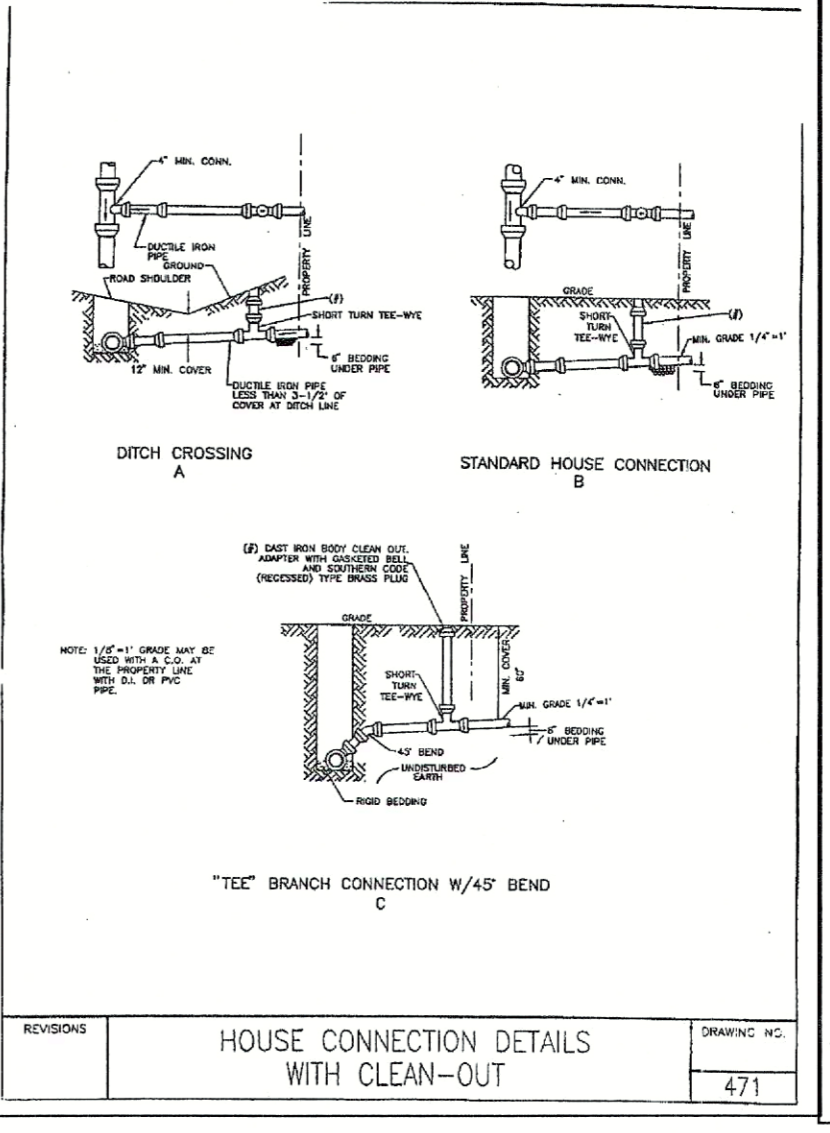
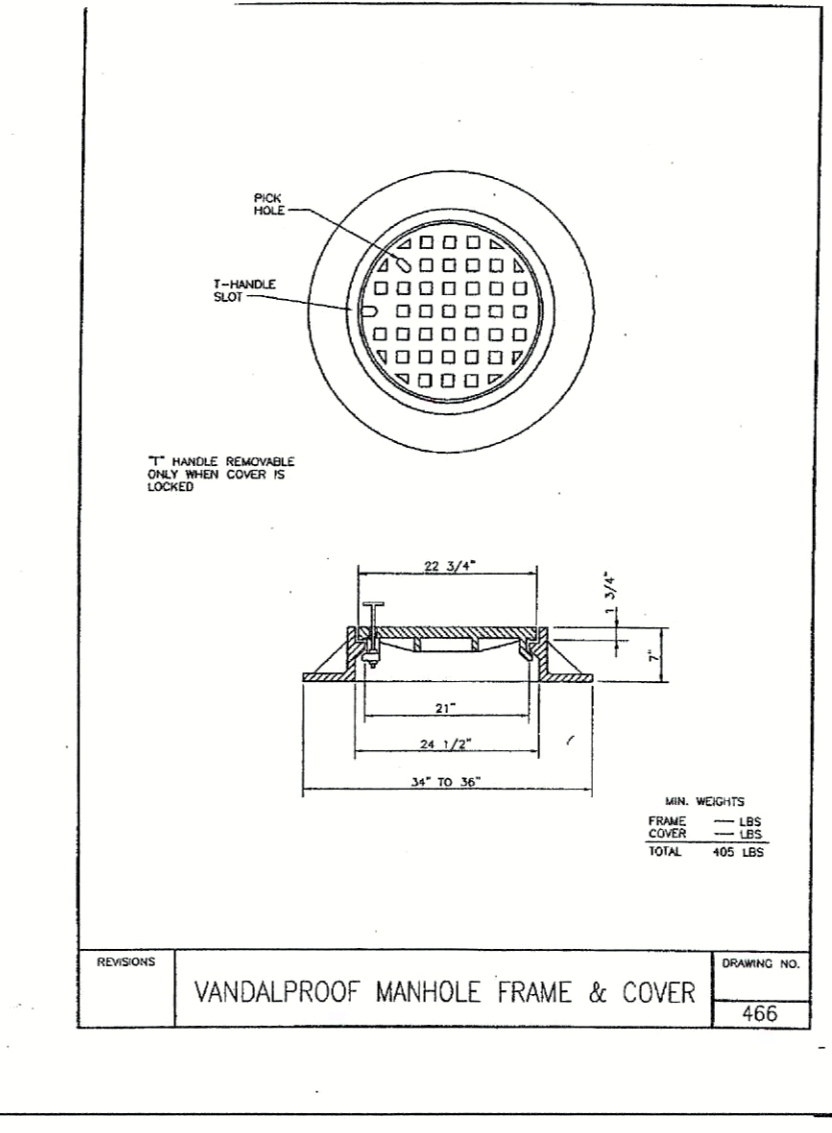
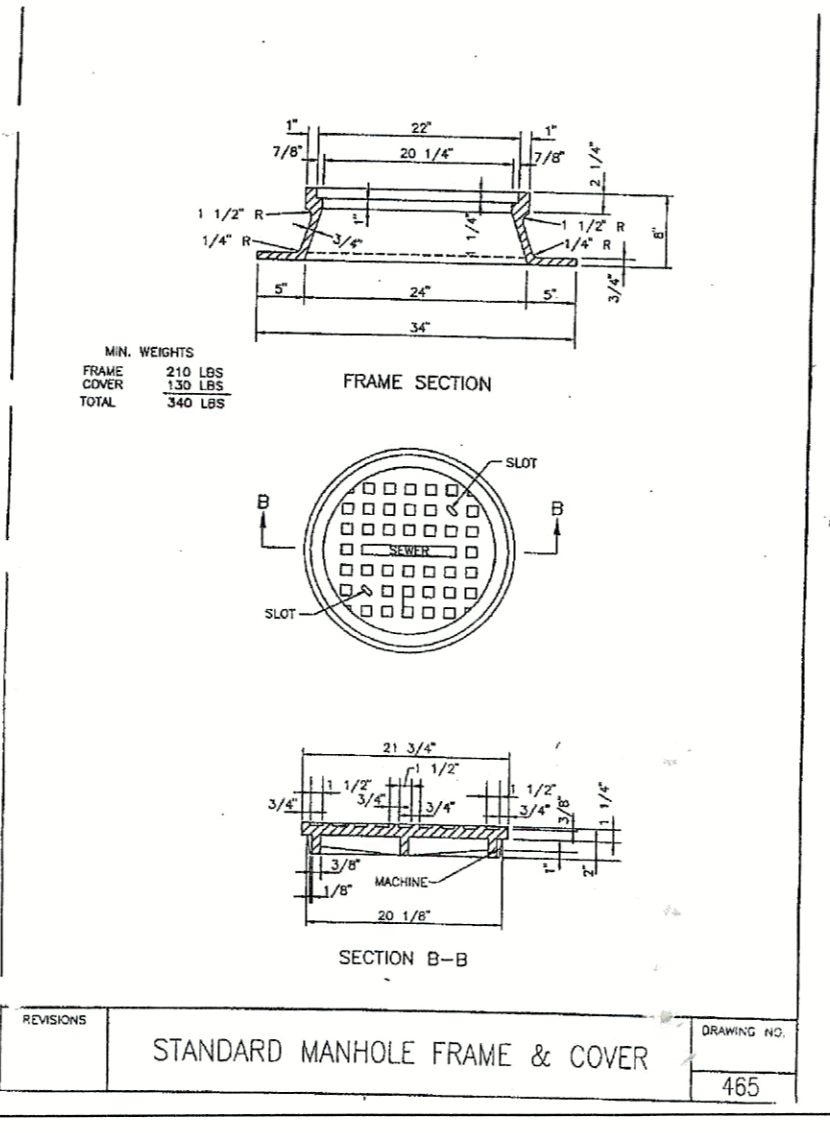
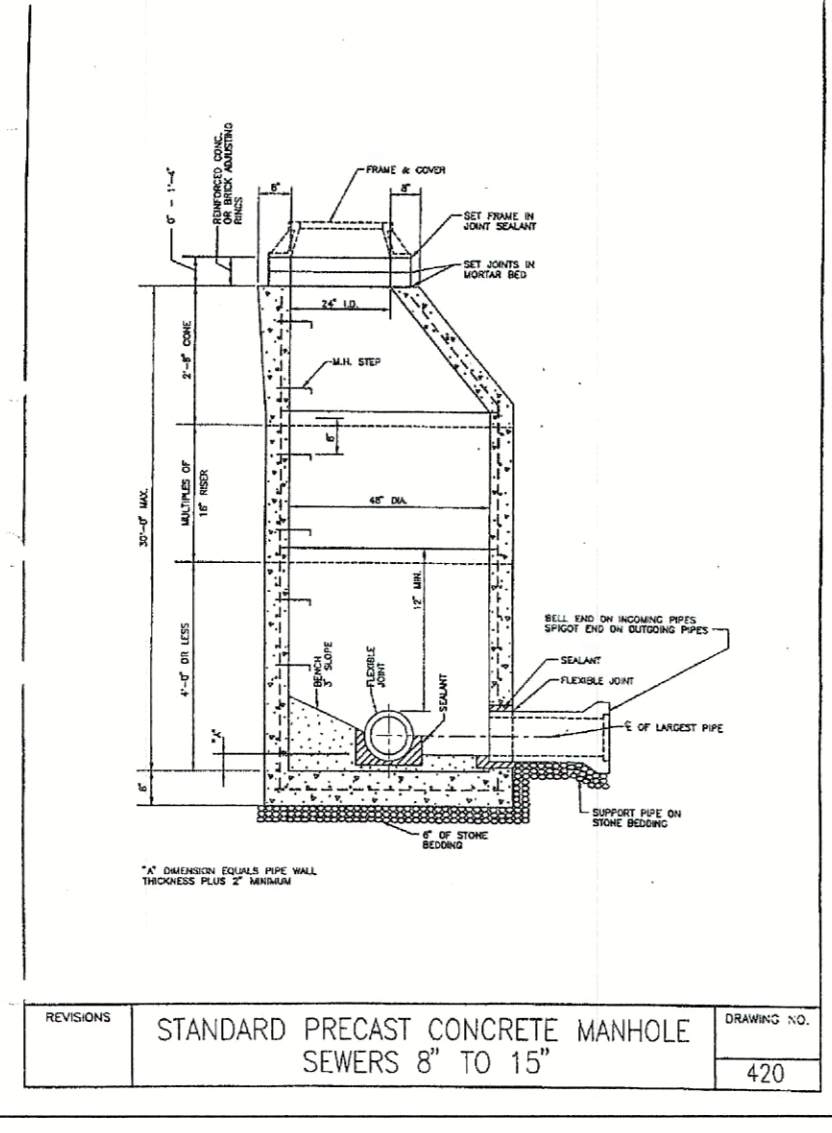
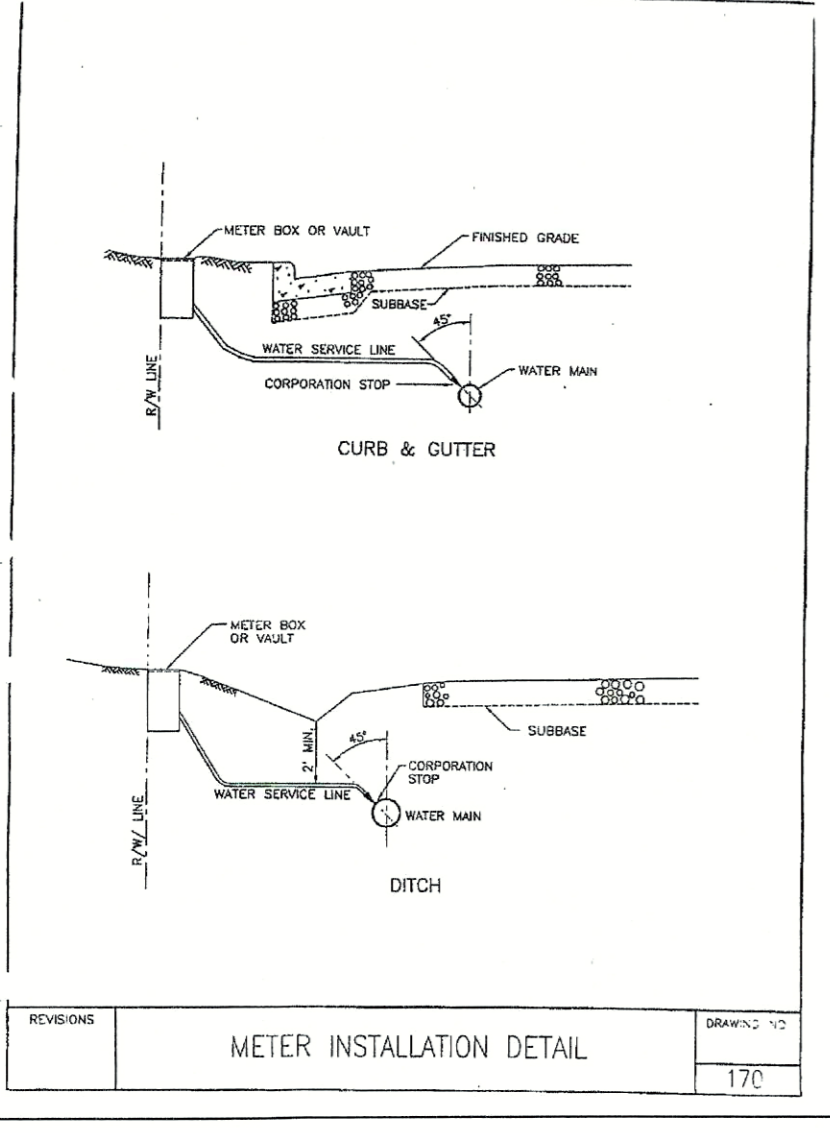
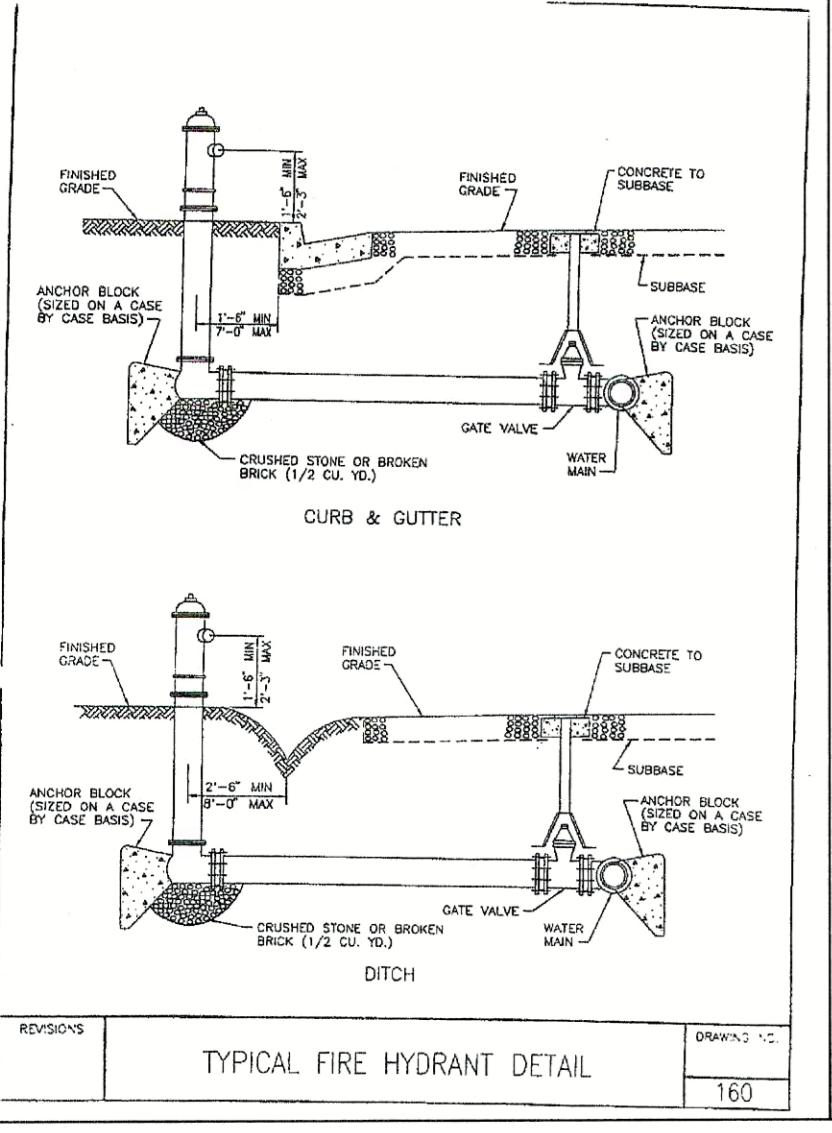
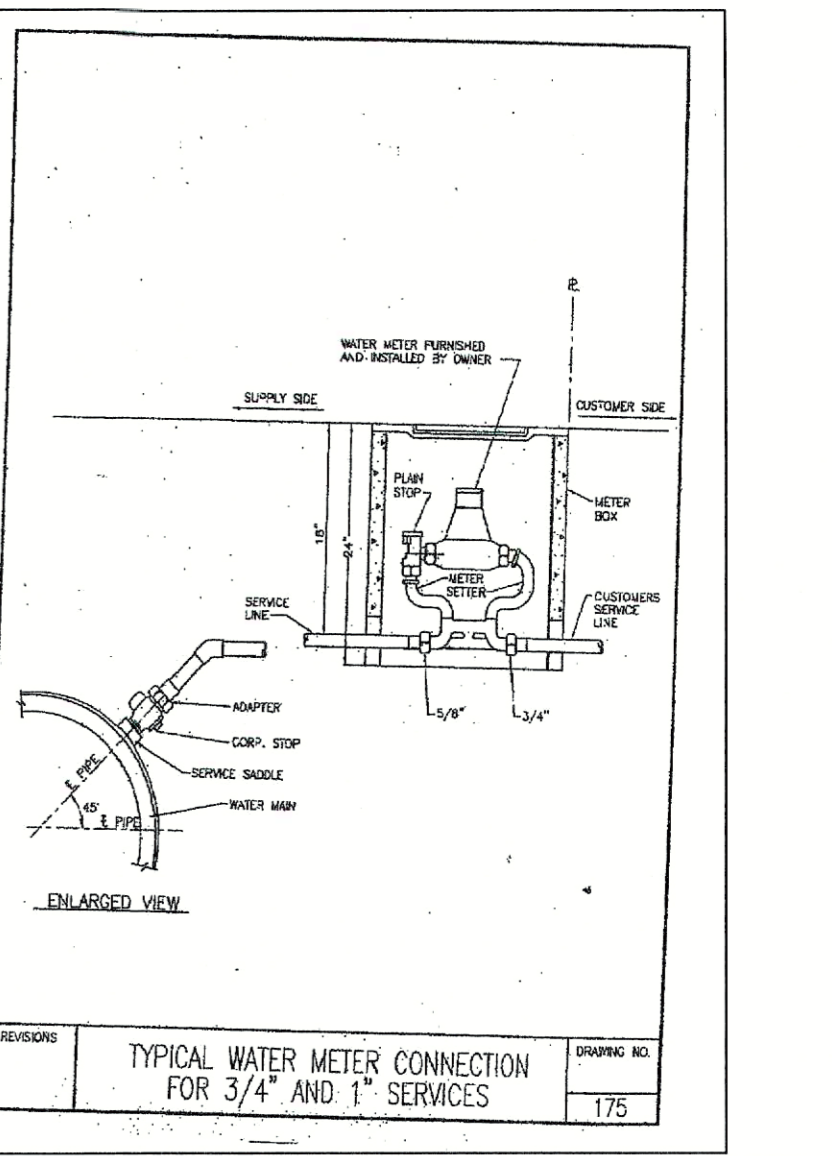
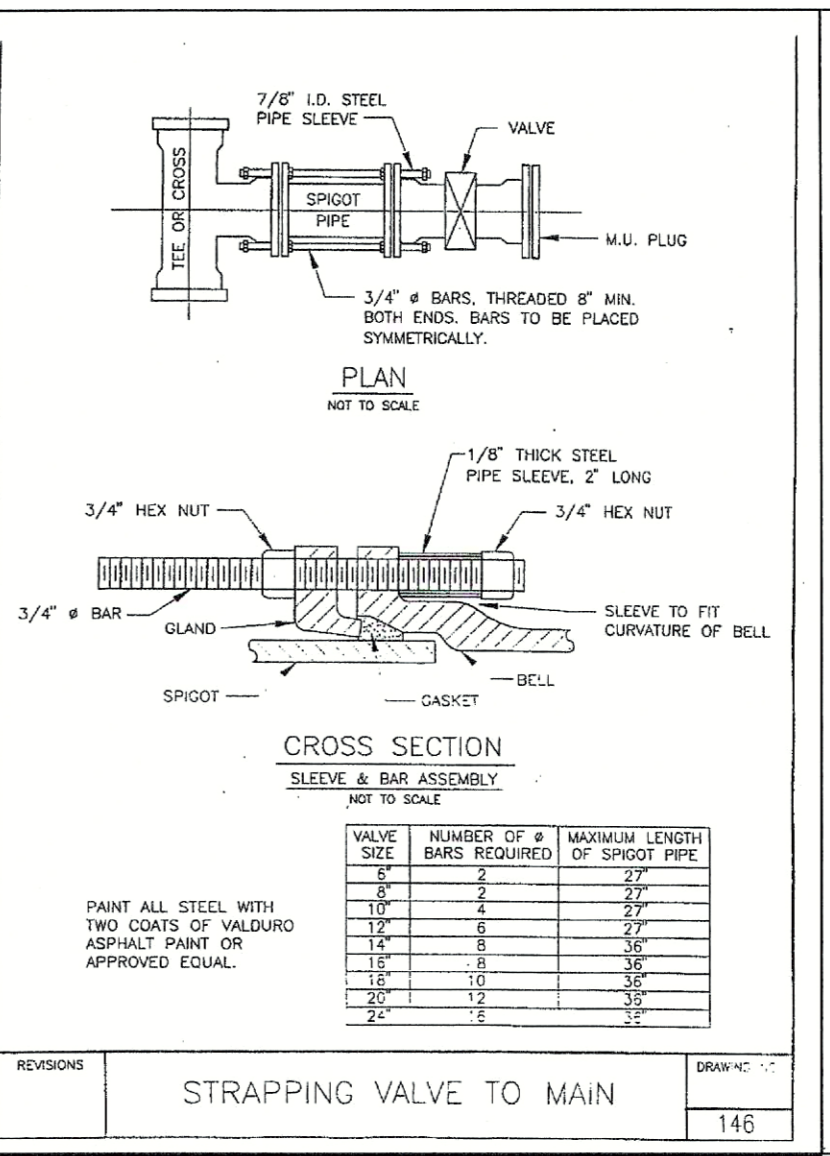
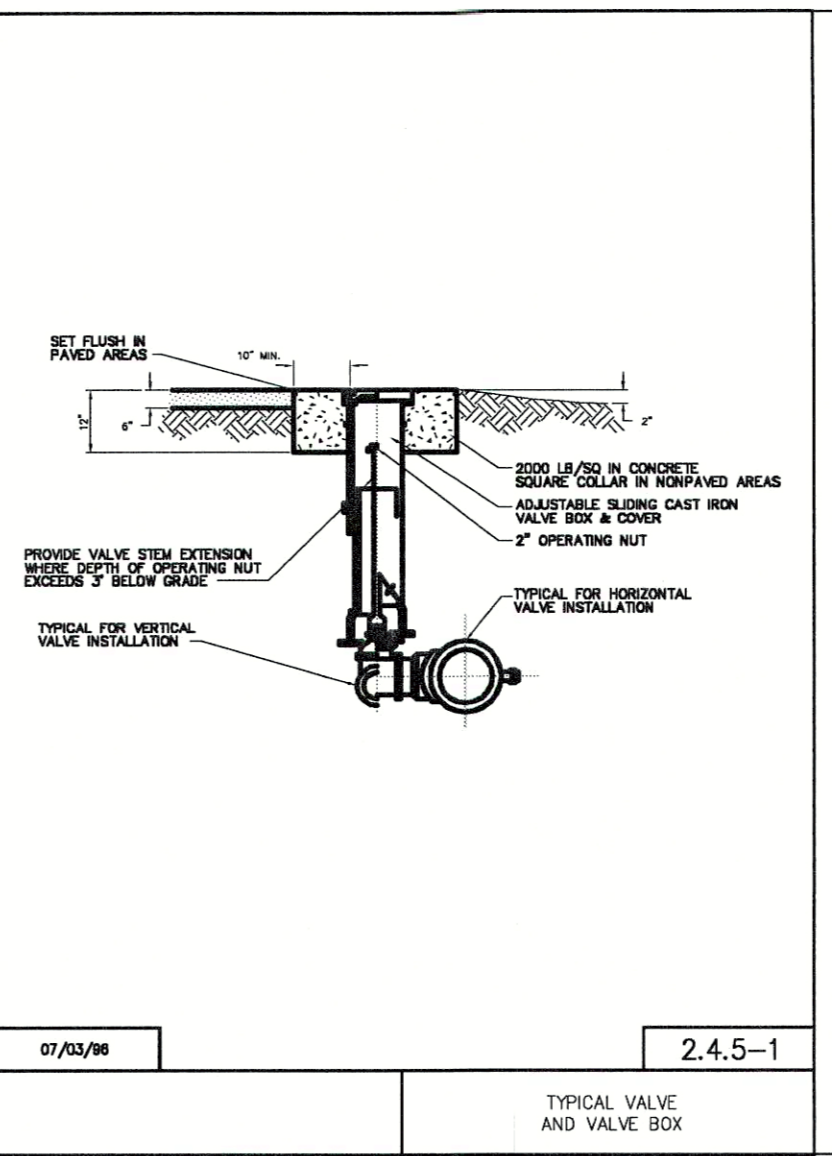
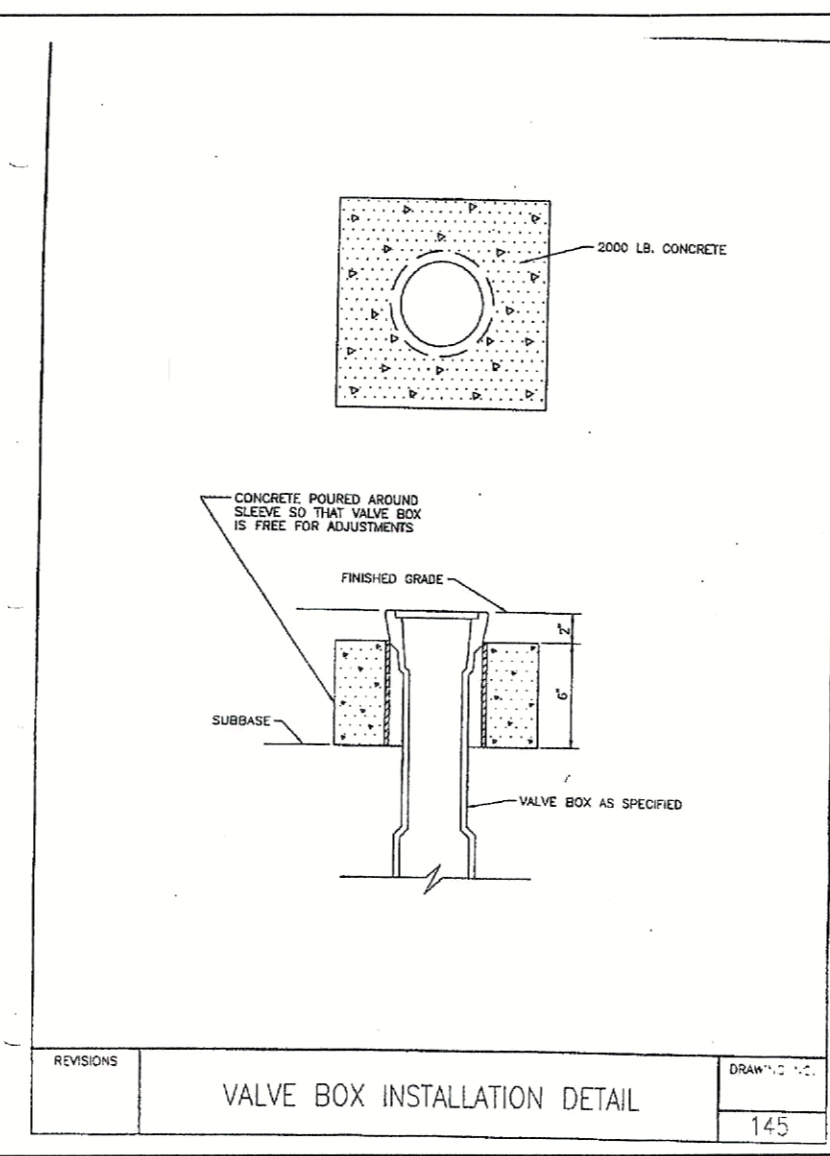
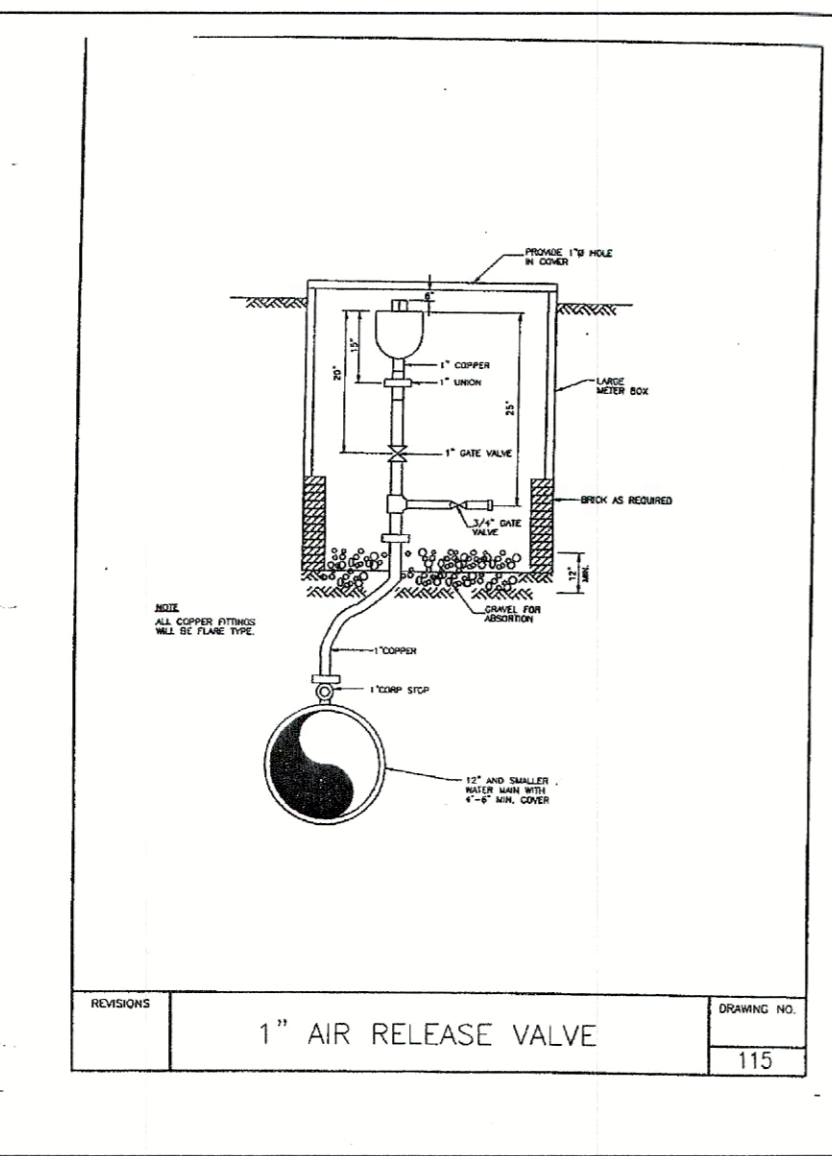
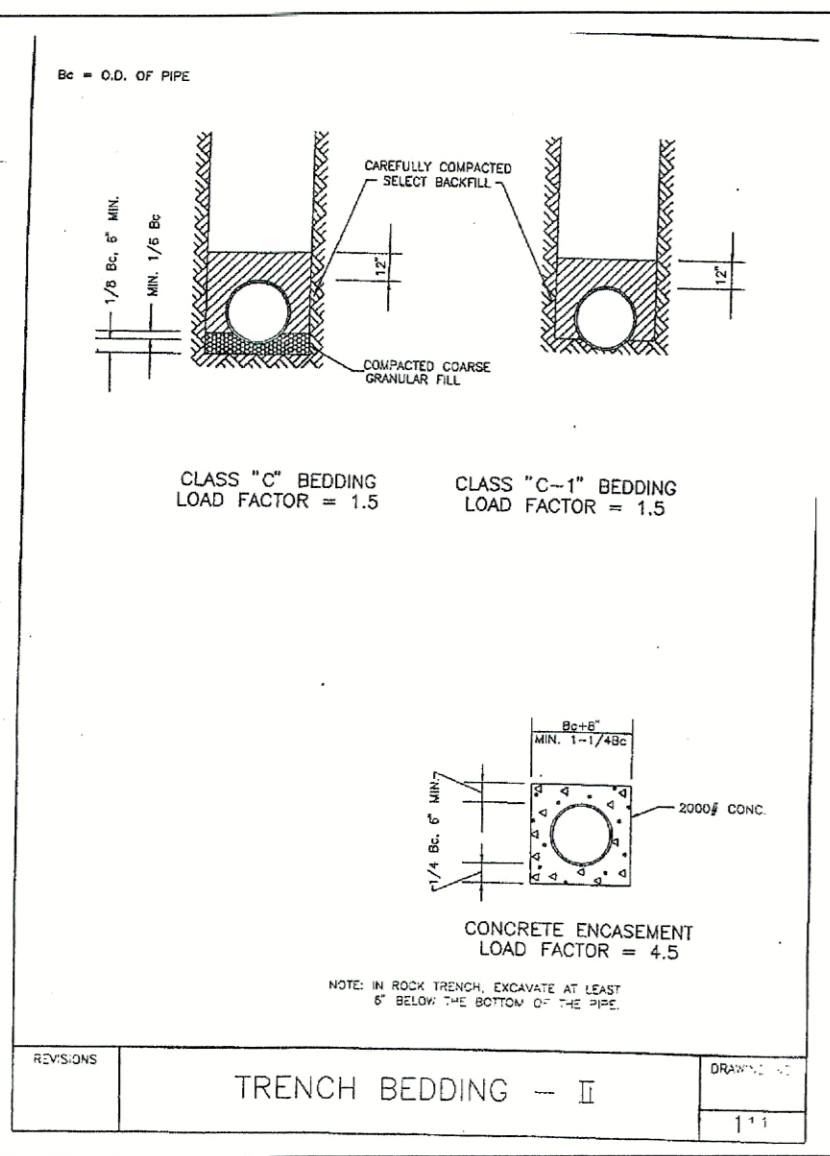
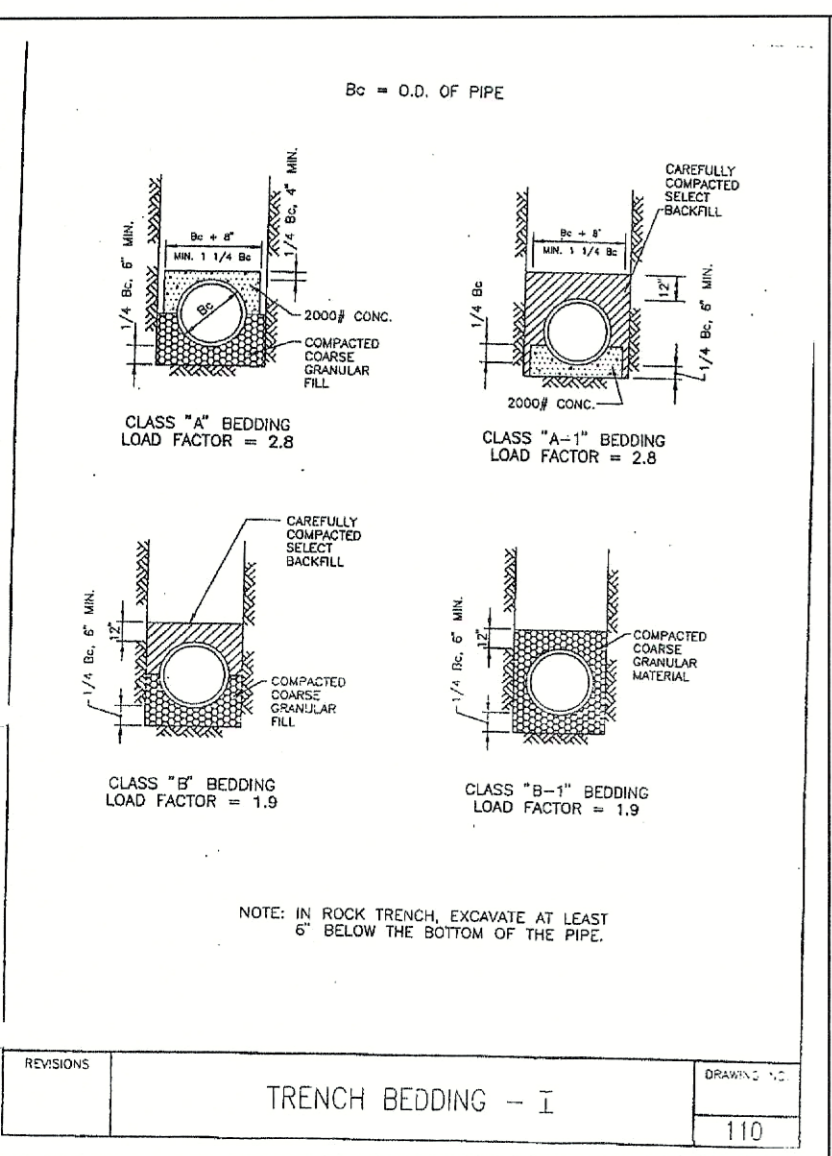
WEBB AND ASSOCIATES
A SURVEYING AND DESIGN COMPANY
11903 BOWMAN DRIVE, SUITE 106,
FREDERICKSBURG, VA 22408
(540)371-1203 (804)633-9007 FAX (540)371-4650



STORM SEWER CALCS
CULPEPER FARMERS' CO-OP
REEDY CHURCH MAGISTERIAL DISTRICT
& MADISON MAGISTERIAL DISTRICT
CAROLINE COUNTY, VIRGINIA

DATE:	SEPT. 29, 2004
SCALE:	AS SHOWN
DESIGNED BY:	SLB
DRAWN BY:	CLW
CHECKED BY:	DCW

ACAD FILE: <04D100LCP>
DRAWING NO: 04-D-100



WATER AND SANITARY SEWER QUANTITIES

WATER LINE	QUANTITY
8" PVC, DR18 C900	576 FT
6" PVC, DR18 C900	139 FT
GRAVITY SEWER	QUANTITY
8" PVC, SDR 35	538 FT
MANHOLES	1 EACH

MEGALUG JOINT RESTRAINT SCHEDULE

FITTING TYPE	LENGTH OF RESTRAINED JOINTS FROM FITTING			LOCATION
	8" PVC	12" PVC	16" DIP (POLY WRAPPED)	
90 DEG BEND	34 FT	48 FT	65 FT	EACH SIDE OF FITTING
45 DEG BEND	14 FT	20 FT	27 FT	EACH SIDE OF FITTING
22.5 DEG BEND	7 FT	9 FT	13 FT	EACH SIDE OF FITTING
11.25 DEG BEND	3 FT	5 FT	6 FT	EACH SIDE OF FITTING
16"x16" TEE			156 FT	ALONG BRANCH SIDE OF FITTING
12"x12" TEE		92 FT		ALONG BRANCH SIDE OF FITTING
12"x8" TEE	50 FT			ALONG BRANCH SIDE OF FITTING
16"x12" REDUCER			78 FT	ON 16" SIDE OF FITTING
12"x8" REDUCER		63 FT		ON 12" SIDE OF FITTING
16" DEAD END			183 FT	FROM END OF PIPE
12" DEAD END		118 FT		FROM END OF PIPE
8" DEAD END	83 FT	118 FT	78 FT	FROM END OF PIPE

NOTE: ALL TEES SHALL HAVE 5 FT OF SOLID PIPE ON EACH SIDE OF FITTING ALONG RUN. RESTRAINED LENGTHS ARE BASED ON 150 PSI TEST PRESSURE.

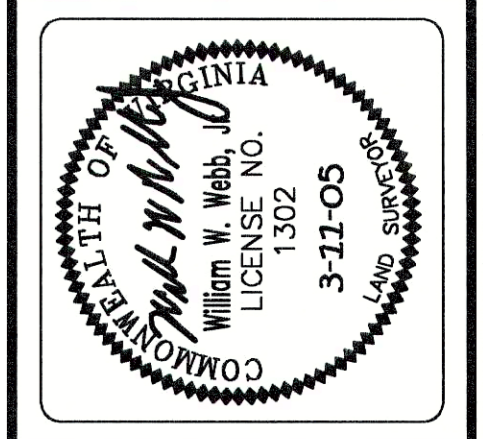
NOTE: IN LIEU OF THRUST BLOCKS AND RODDING. ALL RESTRAINED JOINTS SHALL BE MEGALUGGED AS PER MANUFACTURERS RECOMMENDATIONS

REVISION BLOCK

PER COUNTY COMMENTS	DATE	DESCRIPTION
2/4/05		
3/11/05		



WEBB AND ASSOCIATES
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FREDERICKSBURG, VA 22408
(540)371-1209 (804)633-9907 FAX (540)371-4650



DETAIL SHEET

CULPEPER FARMERS' CO-OP
REEDY CHURCH MAGISTERIAL DISTRICT & MADISON MAGISTERIAL DISTRICT
CAROLINE COUNTY, VIRGINIA

DATE:	SEPT. 29, 2004
SCALE:	AS SHOWN
DESIGNED BY:	SLB
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ACAD FILE:	<04D100MCP>
DRAWING NO:	04-D-100
SHEET NO.	13
OF 13 SHEETS	