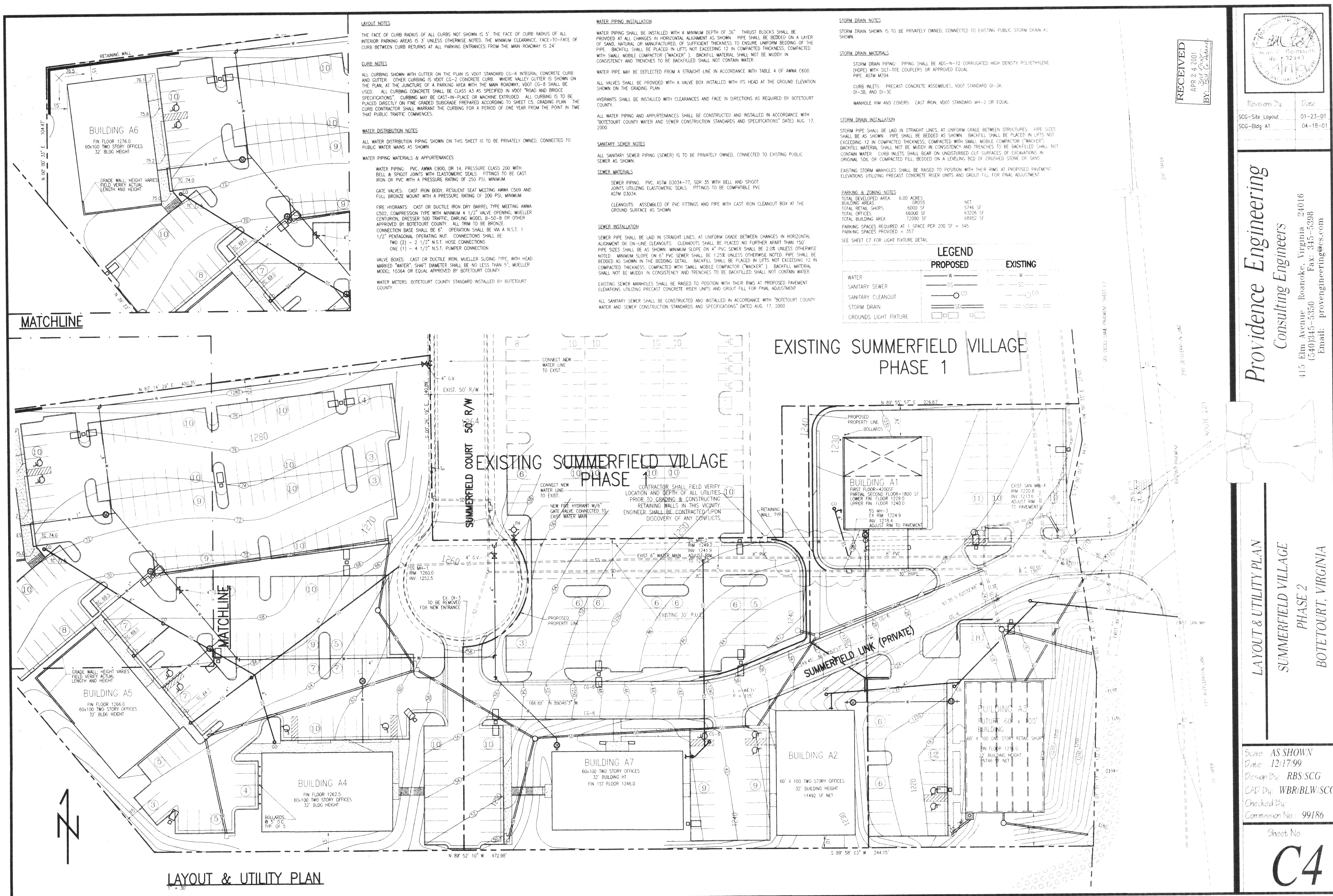




LAYOUT & UTILITY PLAN

LAYOUT NOTES
THE FACE OF CURB RADIUS OF ALL CURBS NOT SHOWN IS 5' THE FACE OF CURB RADIUS OF ALL INTERIOR PARKING AREAS IS 3' UNLESS OTHERWISE NOTED. THE MINIMUM CLEARANCE, FACE-TO-FACE OF CURB BETWEEN CURB RETURNS AT ALL PARKING ENTRANCES FROM THE MAIN ROADWAY IS 24'

CURB NOTES
ALL CURBING SHOWN WITH GUTTER ON THE PLAN IS VDOT STANDARD CG-6 INTEGRAL CONCRETE CURB AND GUTTER. OTHER CURBING IS VDOT CG-2 CONCRETE CURB. WHERE VALLEY GUTTER IS SHOWN ON THE PLAN, AT THE JUNCTION OF A PARKING AREA WITH THE MAIN ROADWAY, VDOT CG-8 SHALL BE USED. ALL CURBING CONCRETE SHALL BE CLASS A3 AS SPECIFIED IN VDOT ROAD AND BRIDGE SPECIFICATIONS. CURBING MAY BE CAST-IN-PLACE OR MACHINE EXTRUDED. ALL CURBING IS TO BE PLACED DIRECTLY ON FINE GRADED SUBGRADE PREPARED ACCORDING TO SHEET C5, GRADING PLAN. THE CURB CONTRACTOR SHALL WARRANT THE CURBING FOR A PERIOD OF ONE YEAR FROM THE POINT IN TIME THAT PUBLIC TRAFFIC COMMENCES.

WATER DISTRIBUTION NOTES
ALL WATER DISTRIBUTION PIPING SHOWN ON THIS SHEET IS TO BE PRIVATELY OWNED, CONNECTED TO PUBLIC WATER MAINS AS SHOWN.

WATER PIPING MATERIALS & APPURTENANCES
WATER PIPING: PVC, AWWA C900, OR 14" PRESSURE CLASS 200 WITH BELL & SPIGOT JOINTS WITH ELASTOMERIC SEALS. FITTINGS TO BE CAST IRON OR PVC WITH A PRESSURE RATING OF 250 PSI, MINIMUM.
GATE VALVES: CAST IRON BODY, RESILIENT SEAT MEETING AWWA C509 AND FULL BRONZE MOUNT WITH A PRESSURE RATING OF 200 PSI, MINIMUM.
FIRE HYDRANTS: CAST OR DUCTILE IRON DRY BARREL TYPE MEETING AWWA C502, COMPRESSION TYPE WITH MINIMUM 4 1/2" VALVE OPENING; MUELLER CENTURION, DRESSER 500 TRAFFIC, DARLING MODEL B-50-B OR OTHER APPROVED BY BOTETOURT COUNTY. ALL TRIM TO BE BRONZE. CONNECTION BASE SHALL BE 6". OPERATION SHALL BE VIA A N.S.T. 1 1/2" PENTAGONAL OPERATING NUT. CONNECTIONS SHALL BE TWO (2) - 2 1/2" N.S.T. HOSE CONNECTIONS. ONE (1) - 4 1/2" N.S.T. PUMPER CONNECTION.
VALVE BOXES: CAST OR DUCTILE IRON, MUELLER SLIDING TYPE, WITH HEAD MARKED "WATER". SHAFT DIAMETER SHALL BE NO LESS THAN 5". MUELLER MODEL 10364 OR EQUAL APPROVED BY BOTETOURT COUNTY.
WATER METERS: BOTETOURT COUNTY STANDARD INSTALLED BY BOTETOURT COUNTY.

WATER PIPING INSTALLATION
WATER PIPING SHALL BE INSTALLED WITH A MINIMUM DEPTH OF 36" THROUST BLOCKS SHALL BE PROVIDED AT ALL CHANGES IN HORIZONTAL ALIGNMENT AS SHOWN. PIPE SHALL BE BEDDED ON A LAYER OF SAND, NATURAL OR MANUFACTURED, OF SUFFICIENT THICKNESS TO ENSURE UNIFORM BEDDING OF THE PIPE. BACKFILL SHALL BE PLACED IN LIFTS NOT EXCEEDING 12 IN COMPACTED THICKNESS, COMPACTED WITH SMALL MOBILE COMPACTOR ("WACKER"). BACKFILL MATERIAL SHALL NOT BE MUDDY IN CONSISTENCY AND TRENCHES TO BE BACKFILLED SHALL NOT CONTAIN WATER.
WATER PIPE MAY BE DEFLECTED FROM A STRAIGHT LINE IN ACCORDANCE WITH TABLE 4 OF AWWA C600.
ALL VALVES SHALL BE PROVIDED WITH A VALVE BOX INSTALLED WITH ITS HEAD AT THE GROUND ELEVATION SHOWN ON THE GRADING PLAN.
HYDRANTS SHALL BE INSTALLED WITH CLEARANCES AND FACE IN DIRECTIONS AS REQUIRED BY BOTETOURT COUNTY.
ALL WATER PIPING AND APPURTENANCES SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH "BOTETOURT COUNTY WATER AND SEWER CONSTRUCTION STANDARDS AND SPECIFICATIONS" DATED AUG. 17, 2000.

SANITARY SEWER NOTES
ALL SANITARY SEWER PIPING (SEWER) IS TO BE PRIVATELY OWNED, CONNECTED TO EXISTING PUBLIC SEWER AS SHOWN.

SEWER MATERIALS
SEWER PIPING: PVC, ASTM D3034-77, SDR 35 WITH BELL AND SPIGOT JOINTS UTILIZING ELASTOMERIC SEALS. FITTINGS TO BE COMPATIBLE PVC ASTM D3034.
CLEANOUTS: ASSEMBLED OF PVC FITTINGS AND PIPE WITH CAST IRON CLEANOUT BOX AT THE GROUND SURFACE AS SHOWN.

SEWER INSTALLATION
SEWER PIPE SHALL BE LAID IN STRAIGHT LINES, AT UNIFORM GRADE BETWEEN CHANGES IN HORIZONTAL ALIGNMENT OR ON-LINE CLEANOUTS. CLEANOUTS SHALL BE PLACED NO FURTHER APART THAN 150'. PIPE SIZES SHALL BE AS SHOWN. MINIMUM SLOPE ON 4" PVC SEWER SHALL BE 2.0% UNLESS OTHERWISE NOTED. MINIMUM SLOPE ON 6" PVC SEWER SHALL BE 1.25% UNLESS OTHERWISE NOTED. PIPE SHALL BE BEDDED AS SHOWN IN THE BEDDING DETAIL. BACKFILL SHALL BE PLACED IN LIFTS NOT EXCEEDING 12 IN COMPACTED THICKNESS, COMPACTED WITH SMALL MOBILE COMPACTOR ("WACKER"). BACKFILL MATERIAL SHALL NOT BE MUDDY IN CONSISTENCY AND TRENCHES TO BE BACKFILLED SHALL NOT CONTAIN WATER.
EXISTING SEWER MANHOLES SHALL BE RAISED TO POSITION WITH THEIR RIMS AT PROPOSED PAVEMENT ELEVATIONS UTILIZING PRECAST CONCRETE RISER UNITS AND GROUT FILL FOR FINAL ADJUSTMENT.
ALL SANITARY SEWER SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH "BOTETOURT COUNTY WATER AND SEWER CONSTRUCTION STANDARDS AND SPECIFICATIONS" DATED AUG. 17, 2000.

STORM DRAIN NOTES
STORM DRAIN SHOWN IS TO BE PRIVATELY OWNED, CONNECTED TO EXISTING PUBLIC STORM DRAIN AS SHOWN.

STORM DRAIN MATERIALS
STORM DRAIN PIPING: PIPING SHALL BE ADS-N-12 CORRUGATED HIGH DENSITY POLYETHYLENE (HDPE) WITH SILENT-TITE COUPLERS OR APPROVED EQUAL PIPE. ASTM M294.
CURB INLETS: PRECAST CONCRETE ASSEMBLIES, VDOT STANDARD DI-3A, DI-3B, AND DI-3C.
MANHOLE RIM AND COVERS: CAST IRON, VDOT STANDARD MH-2 OR EQUAL.

STORM DRAIN INSTALLATION
STORM PIPE SHALL BE LAID IN STRAIGHT LINES, AT UNIFORM GRADE BETWEEN STRUCTURES. PIPE SIZES SHALL BE AS SHOWN. PIPE SHALL BE BEDDED AS SHOWN. BACKFILL SHALL BE PLACED IN LIFTS NOT EXCEEDING 12 IN COMPACTED THICKNESS, COMPACTED WITH SMALL MOBILE COMPACTOR ("WACKER"). BACKFILL MATERIAL SHALL NOT BE MUDDY IN CONSISTENCY AND TRENCHES TO BE BACKFILLED SHALL NOT CONTAIN WATER. CURB INLETS SHALL BEAR ON UNDISTURBED CUT SURFACES OF EXCAVATIONS IN ORIGINAL SOIL OR COMPACTED FILL, BEDDED ON A LEVELING BED OF CRUSHED STONE OR SAND.
EXISTING STORM MANHOLES SHALL BE RAISED TO POSITION WITH THEIR RIMS AT PROPOSED PAVEMENT ELEVATIONS UTILIZING PRECAST CONCRETE RISER UNITS AND GROUT FILL FOR FINAL ADJUSTMENT.

PARKING & ZONING NOTES
TOTAL DEVELOPED AREA: 6.00 ACRES
BUILDING AREAS: 6000 SF
TOTAL RETAIL SHOPS: 6000 SF
TOTAL OFFICES: 66000 SF
TOTAL BUILDING AREA: 72000 SF
PARKING SPACES REQUIRED AT 1 SPACE PER 200 SF = 345
PARKING SPACES PROVIDED = 357
SEE SHEET C7 FOR LIGHT FIXTURE DETAIL.

	GROSS	NET
TOTAL DEVELOPED AREA	6.00 ACRES	5746 SF
BUILDING AREAS	6000 SF	63206 SF
TOTAL RETAIL SHOPS	6000 SF	68952 SF
TOTAL OFFICES	66000 SF	
TOTAL BUILDING AREA	72000 SF	

LEGEND

PROPOSED	EXISTING
WATER	W
SANITARY SEWER	SS
SANITARY CLEANOUT	SS CO
STORM DRAIN	SD
GROUND LIGHT FIXTURE	

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Revisions 34

SCG-Site Layout 01-23-01

SCG-Bldg A1 04-18-01

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LAYOUT & UTILITY PLAN

SUMMERFIELD VILLAGE

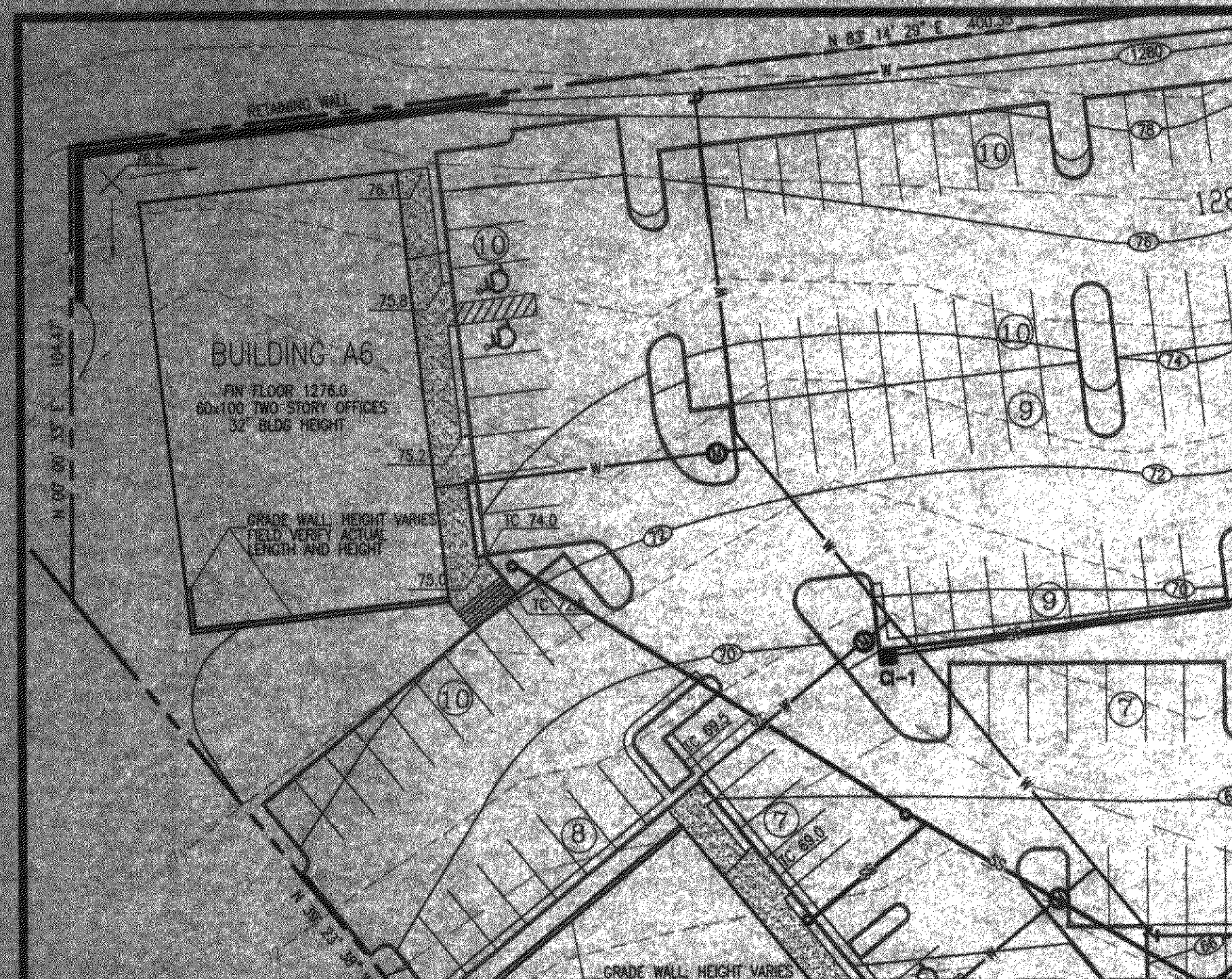
PHASE 2

BOTETOURT, VIRGINIA

Scale: AS SHOWN
Date: 12/17/99
Design By: RBS/SCG
CAD By: WBR/BLW/SCG
Checked By:
Commission No: 99186

Sheet No.

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GRADING NOTES

GRADING MATERIAL

MATERIAL TO BE USED FOR EARTHWORK AND GRADING ON THIS PROJECT IS TO BE MATERIALS FROM WITHIN THE SITE OR OFFSITE MATERIALS CAPABLE OF ACHIEVING THE FOLLOWING PERFORMANCE AS DETERMINED BY THE SOILS ENGINEER. THE SOILS ENGINEER BEING A PROFESSIONAL ENGINEER, REGISTERED IN VIRGINIA, ROUTINELY ENGAGED IN THE TESTING AND ASSESSMENT OF SOILS AND OTHER FOUNDATION AND ROADWAY MATERIALS.

ROADWAY AREAS: CAPABLE OF POSSESSING A CALIFORNIA BEARING RATION (CBR) OF AT LEAST 10 AFTER COMPACTION.

BUILDING AREAS: CAPABLE OF POSSESSING A SOIL BEARING CAPACITY OF 1500 PSF AFTER COMPACTION TO 95% MAXIMUM DENSITY, MODIFIED PROCTOR, ASTM D1557.

PREPARATION OF SITE FOR EXCAVATION OR PLACEMENT OF FILL

PRIOR TO EXCAVATION OR FILLING OPERATIONS THE AFFECTED AREA OF THE SITE SHALL BE STRIPPED OF TOPSOIL, IF ANY IS PRESENT, AND THE RESULTING VOLUME OF TOPSOIL SHALL BE STOCKPILED FOR LATER USE AT A LOCATION APPROVED BY THE OWNER.

PRIOR TO PLACEMENT OF FILL THE STRIPPED AREA TO RECEIVE FILL SHALL BE PRODFOLLOED WITH A LOADED DUMP TRUCK. IF AREAS EXIST WHERE THE SOIL DEPRESSES OR 'PUMPS' BELOW THE TRUCKS WHEELS AFTER A FEW PASSES, THE AREAS ARE TO BE EXAMINED BY THE SOILS ENGINEER FOR ASSESSMENT AND DETERMINATION OF REMEDIAL MEASURES.

PLACEMENT OF FILL

MATERIAL TO BE USED AS FILL SHALL BE SOIL MATERIAL, ONSITE OR FROM OFFSITE WHICH CAN MEET THE ABOVE CRITERIA AND SHALL BE FREE OF PLANTS, GRASS, TREE ROOTS, TRASH, OR OTHER ORGANIC OR OTHERWISE DELETERIOUS MATERIAL. TOPSOIL IS NOT TO BE USED FOR FILL MATERIAL. FILL MATERIAL SHALL BE FREE OF ICE. FILL MATERIAL SHALL BE OF SUCH A MOISTURE CONTENT THAT SUCCESSFUL COMPACTION CAN BE ACHIEVED. ROCK MATERIAL WITH LARGEST DIMENSION OF NO MORE THAN 12" IS ALLOWED IN THE FILL MATERIAL. LARGER ROCKS MAY BE INCLUDED ONLY WITH SPECIFIC DIRECTIONS FROM THE SOILS ENGINEER AS TO PLACEMENT IN THE FILL AND SPECIAL COMPACTION AROUND THEM. ROCKS LARGER THAN 12" SHALL NOT BE PLACED IN FILL BENEATH BUILDING AREAS.

THE SURFACE OF SUBGRADE TO RECEIVE FILL SHALL BE SCARIFIED IMMEDIATELY PRIOR TO PLACEMENT OF FILL. FILL SHALL BE PLACED IN LIFTS NOT EXCEEDING 12" IN THICKNESS WITH ANY ROCK MATERIAL UNIFORMLY DISTRIBUTED WITHIN THE LIFT. COMPACTION SHALL PROCEED USING COMPACTION EQUIPMENT COMPATIBLE WITH THE MATERIAL. UPON COMPLETION OF COMPACTION THE LIFT SHALL BE TESTED FOR COMPACTION WITH THE FOLLOWING TEST DISTRIBUTION:

ROADWAY AND BUILDING AREAS: ONE TEST PER 3000 SQUARE FEET

YARD AREAS: ONE TEST PER 10000 SQUARE FEET

ANY LIFT WHICH DOES NOT MEET COMPACTION REQUIREMENTS SHALL BE SCARIFIED TO A DEPTH EQUAL TO ITS THICKNESS AND RECOMPACTED.

FINE GRADING

YARD AREAS AND SUBGRADE TO RECEIVE PAVEMENT SHALL BE FINE GRADED WITH MACHINERY COMPATIBLE WITH THE MATERIAL AND LOCATION WITHIN THE SITE. CUTTINGS FROM GRADING SHALL BE SPOILED ONTO YARD AREAS AND NOT ONTO ROADWAY OR BUILDING AREAS.

ROADWAY AND PARKING PAVEMENT CONSTRUCTION

PREPARATION OF SUBGRADE

SUBGRADE SHALL BE FINE GRADED BY CUTTING DOWN SURFACES LEFT FROM ROUGH GRADING OPERATIONS. PRIOR TO PLACEMENT OF BASE MATERIAL, ROADWAY AND PARKING SUBGRADES SHALL BE PRODFOLLOED WITH A LOADED DUMP TRUCK TO CHECK FOR SOFT AREAS. UPON DISCOVERY OF A SOFT AREA THE SOILS ENGINEER SHALL DIRECT THE CONTRACTOR AS TO REMEDIAL MEASURES.

PLACEMENT OF BASE

NO. 2 1/4 CRUSHED STONE BASE SHALL BE PLACED AND IMMEDIATELY COMPACTED TO A 100% DENSITY, MODIFIED PROCTOR, OR TO ANOTHER MEASURE OF COMPACTION RECOGNIZED BY THE SOILS ENGINEER.

PLACEMENT OF PAVEMENT

ALL BITUMINOUS CONCRETE PAVING MATERIAL SHALL CONFORM TO THE 100T 'ROAD AND BRIDGE SPECIFICATIONS' WITH REGARD TO BITUMINOUS MATERIAL, AGGREGATES, AND MIXING METHODS. PAVEMENT PLACED IN THE US 220 RIGHT-OF-WAY AND FOR THE MAIN ROADWAY THROUGH PHASE 2 OF SUMMERFIELD VILLAGE SHALL BE DONE UNDER THE SUPERVISION OF A REPRESENTATIVE OF VDOT AND APPROVED FOR ACCEPTANCE BY VDOT. PAVEMENT PLACED IN PARKING AREAS SHALL BE WARRANTED BY THE PAVING CONTRACTOR FOR A PERIOD OF ONE YEAR AFTER THE POINT IN TIME WHICH TRAFFIC COMMENCES UPON IT.

DRAINAGE FIXTURE SCHEDULE						
MARK	VDOT	STD	TYPE	LENGTH	RIM	INVERT IN/INVERT OUT
CI-1	DI-3A	4'			1268.0	N/A
CI-2	DI-3A	4'			1268.7	1263.0
CI-3	DI-3A	8'			1260.0	N/A
CI-4	DI-3A	8'			1250.0	N/A
CI-5	DI-3B	15'			1239.5	1233.3
CI-6	DI-3A	4'			1228.5	N/A
CI-7	DI-3B	25'			1228.0	1221.7
CI-8	DI-3B	4'			1216.0	N/A
CI-9	DI-1	N/A			1221.9	N/A
CI-10	DI-3B	8'			1221.3	1215.3
CI-11	DI-3A	4'			1211.5	1207.5
CI-12	DI-1	N/A			1241.4	N/A
CI-13	DI-3B	8'			1264.6	N/A
CI-14	DI-3B	8'			1263.0	N/A
STMH-1	STORM MANHOLE	N/A			1249.0	1244.50
STMH-2	STORM MANHOLE	N/A			1232.25	1228.25
STMH-3	STORM MANHOLE	N/A			1217.0	1210.0
						1206.0 (24")

LEGEND

PROPOSED

W

SS

CO

SD

□ □ □ □

EXISTING

W

SS

CO

SD

□ □ □ □

WATER

SANITARY SEWER

SANITARY CLEANOUT

STORM DRAIN

GROUND LIGHT FIXTURE

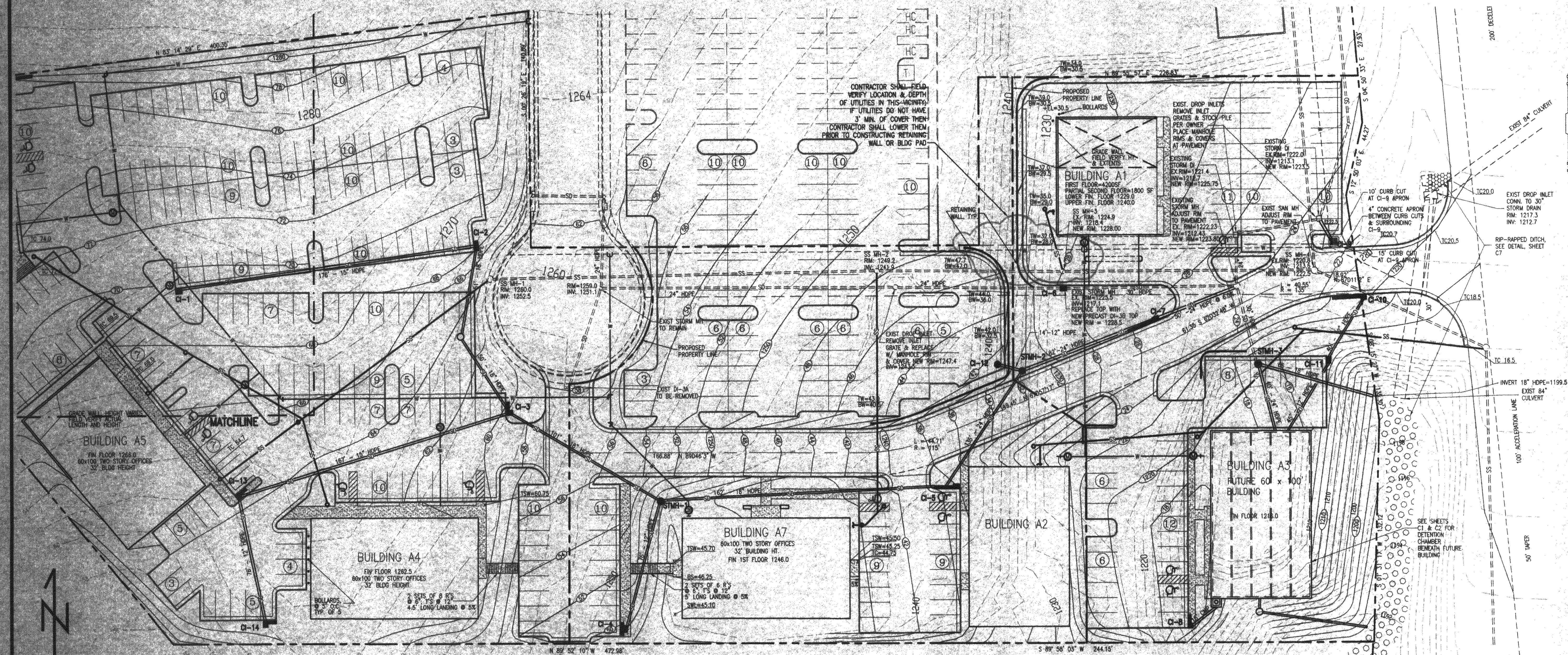
TC = TOP OF CURB

TSW = TOP OF SIDEWALK

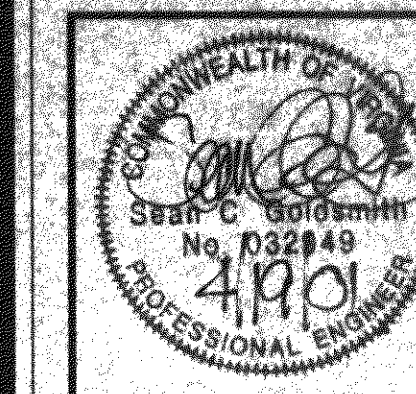
TW = TOP OF WALL

BW = BOTTOM OF WALL

MATCHLINE



GRADING PLAN



Revisions By	Date
SCG-SITE UTILITIES	1-23-01
SCG-LWR BLDG A1	3-07-01
SCG-RAISE BLDG A1	4-18-01

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GRADING PLAN

SUMMERFIELD VILLAGE

PHASE 2

BOTETOURT, VIRGINIA

Scale: AS SHOWN

Date: 12/17/99

Design By: RBS/SCG

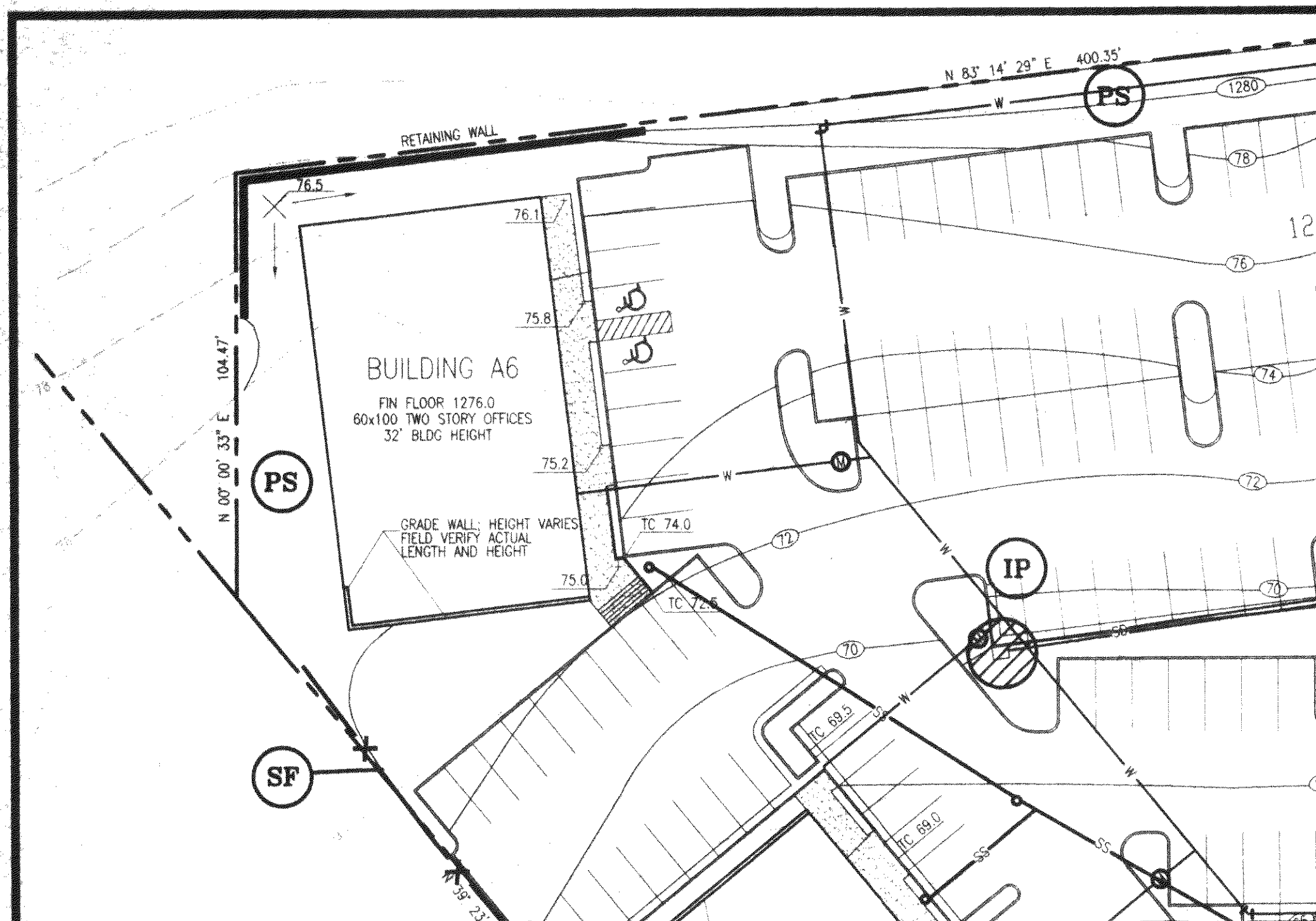
CAD By: WBR/BLW/SCG

Checked By:

Commission No.: 99186

Sheet No.

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EROSION CONTROL NOTES

1. MAINTAIN SILT FENCE AND INLET PROTECTION AT ALL TIMES DURING CONSTRUCTION
2. NORMAL PERMANENT SEEDING (TYPE PS ON PLAN)

MINIMUM CARE LAWN

COMMERCIAL OR RESIDENTIAL
KENTUCKY 31 FESCUE
IMPROVED PERENNIAL RYEGRASS
KENTUCKY BLUEGRASS

TOTAL LBS.
PER ACRE
200-250 LBS.
90-100%
0-10%
0-10%

GENERAL SLOPE (3:1 OR LESS)

KENTUCKY 31 FESCUE
RED TOP GRASS
SEASONAL NURSE CROP **

128 LBS.
2 LBS.
20 LBS.
150 LBS.

LOW MAINTENANCE SLOPE (STEEPER THAN 3:1)

KENTUCKY 31 FESCUE
RED TOP GRASS
SEASONAL NURSE CROP **
CROWN VETCH **

108 LBS.
2 LBS.
20 LBS.
150 LBS.

** USE SEASONAL NURSE CROP IN ACCORDANCE WITH SEEDING DATES AS STATED BELOW:
MARCH, APRIL THROUGH MAY 15TH ANNUAL RYE
MAY 16TH THROUGH AUGUST 15TH FOXTAIL MILLET
AUGUST 16TH THROUGH SEPTEMBER, OCTOBER ANNUAL RYE
NOVEMBER THROUGH FEBRUARY WINTER RYE

LIMING & FERTILIZING

LIME: 2 TONS/ACRE (90 LBS/1000 SF)
AGRICULTURAL GRADE

FERTILIZER

MIXED GRASSES AND LEGUMES: 1000 LBS./ACRE 10-20-10 OR EQUIVALENT NUTRIENTS (23 LBS./1000 SF).

LEGUME STANDS ONLY: 1000 LBS./ACRE 5-20-10 (23 LBS./1000 SF) IS PREFERRED; HOWEVER, 1000 LBS./ACRE OF 10-20-10 OR EQUIVALENT MAY BE USED.

GRASS STANDS ONLY: 1000 LBS./ACRE 10-20-10 OR EQUIVALENT NUTRIENTS; (23 LBS./1000 SF).

IMMEDIATELY UPON COMPLETION OF SEEDING, COVER THE SEEDED AREAS WITH MULCH OF MATERIAL AND APPLICATION PRESCRIBED IN STD AND SPEC. 3.35 OF VA ESC HANDBOOK.

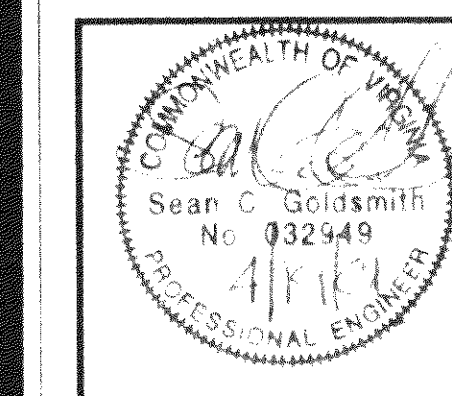
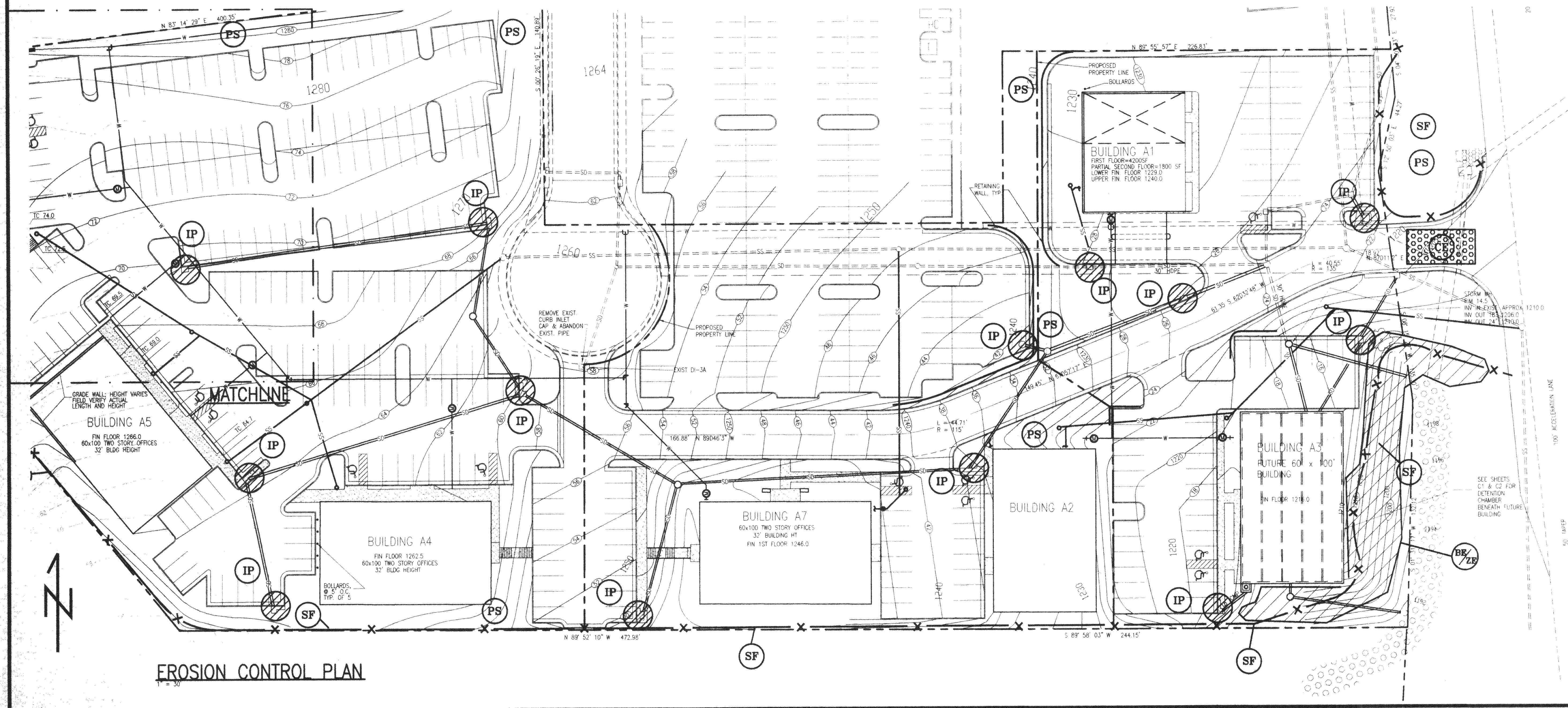
PERMANENT SEEDING AND SOIL STABILIZATION FOR ROADSIDE EMBANKMENT ALONG INDUSTRIAL DRIVE (TYPE BE/ZE ON PLAN).

LIME, FERTILIZE AND SEED ACCORDING TO "LOW MAINTENANCE SLOPE" SCHEDULE IN TYPE PS SEEDING ABOVE.

IMMEDIATELY UPON COMPLETION OF SEEDING, COVER THE SEEDED AREAS WITH SOIL STABILIZATION BLANKET OF JUTE MESH AND STAKE, PIN, OR STAPLE INTO PLACE ACCORDING TO VA. ESC HANDBOOK, TREATMENT TYPE 1.

	LEGEND	
	PROPOSED	EXISTING
WATER	W	W
SANITARY SEWER	SS	SS
SANITARY CLEANOUT	CO	CO
STORM DRAIN	SD	SD
GROUNDS LIGHT FIXTURE		

EROSION CONTROL LEGEND			
MARK	DESCRIPTION	VA ESC HANDBOOK STD. & SPEC	REMARKS
SF	SILT FENCE TYPE SILTATION BARRIER	3.05	
CE	TEMPORARY STONE CONSTRUCTION ENTRANCE	3.02	PAD OF NO. 1 STONE
PS	PERMANENT SEEDING FOR YARD AREAS W/ MULCHING	3.32 3.35	
BE/ZE	PERMANENT SEEDING FOR STEEP BANK & SOIL STABILIZATION BLANKET	3.32 3.36	SEE HATCHED AREA ON PLAN FOR EXTENT
IP	SILT FENCE TYPE INLET PROTECTION	3.07	



Revisions By	Date
SCG-SITE LAYOUT	1-23-01
SCG-BLDG A1	4-18-01

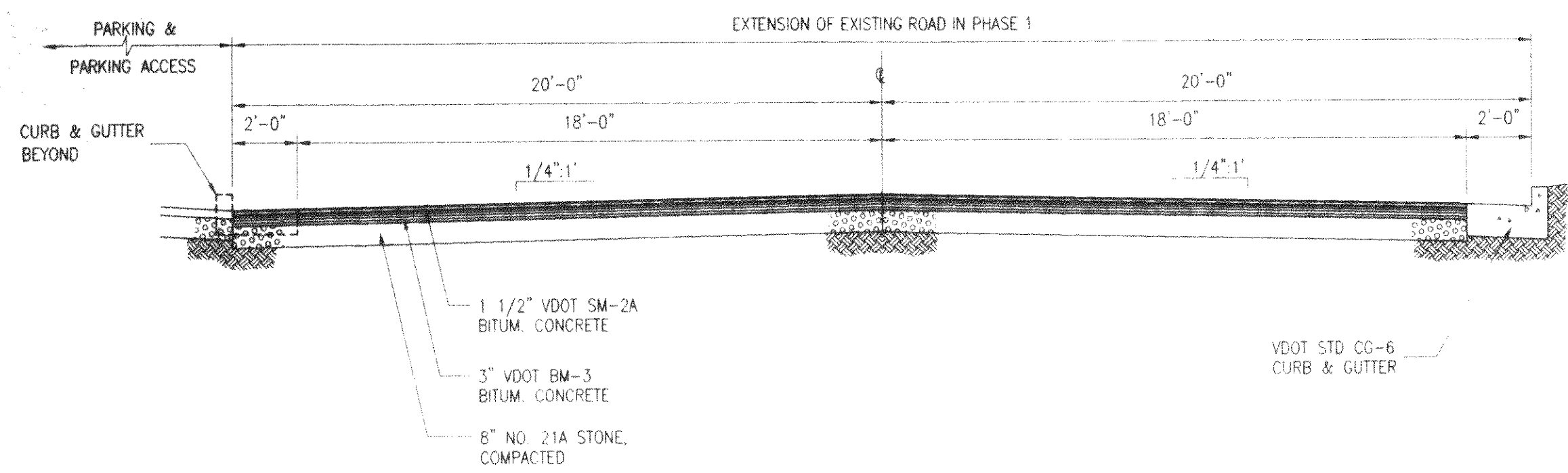
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EROSION CONTROL PLAN
SUMMERFIELD VILLAGE
PHASE 2
BOTETOURT, VIRGINIA

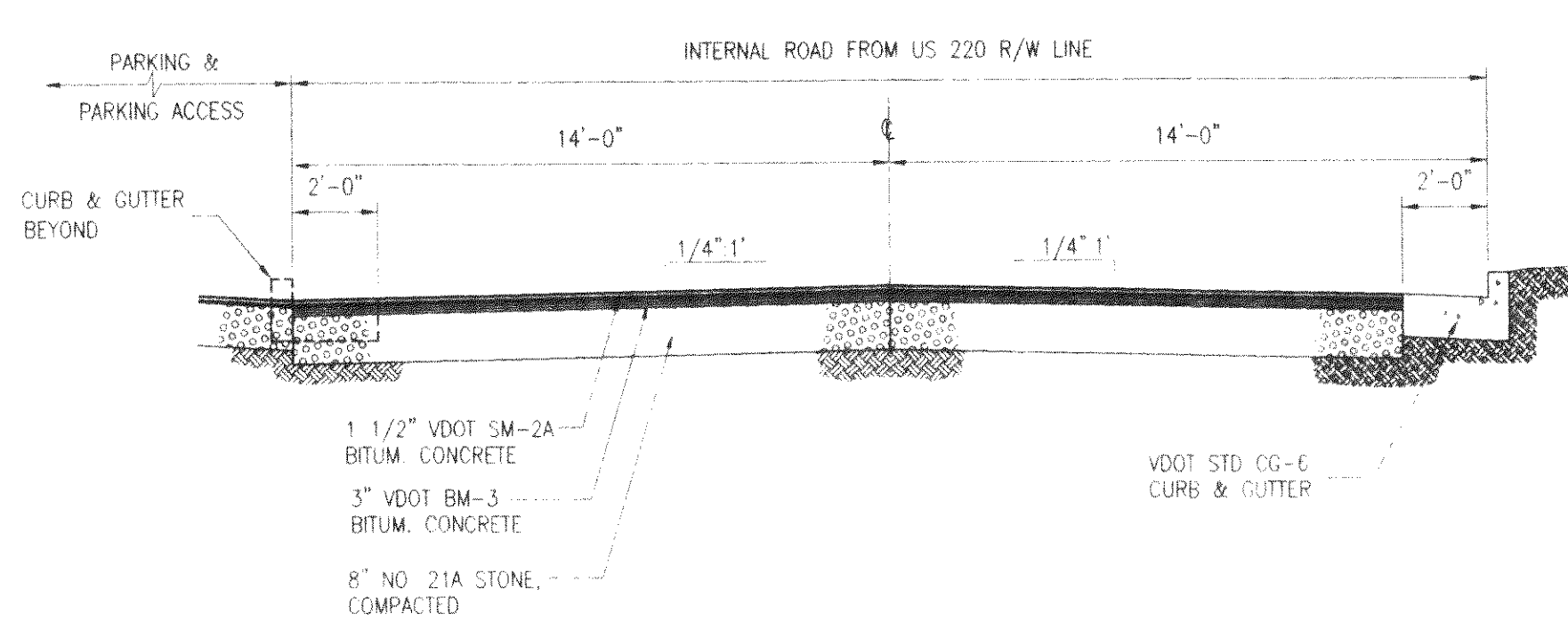
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Commission No.: 99186

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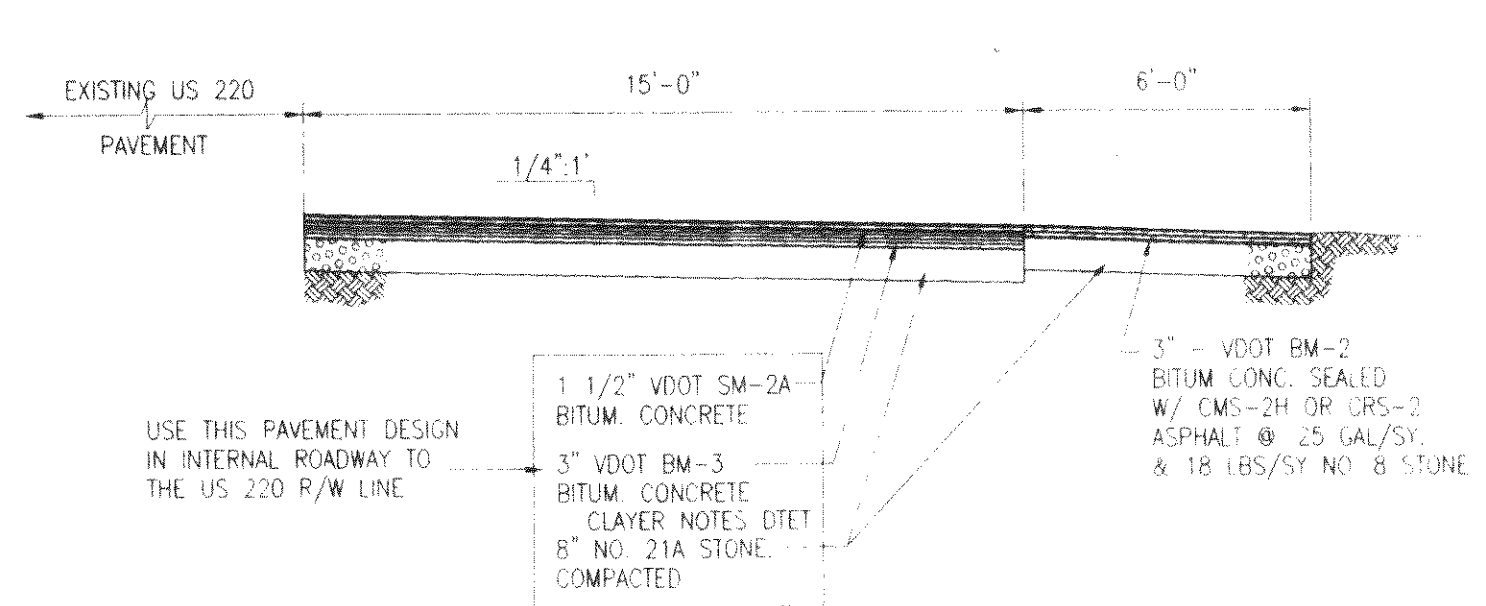
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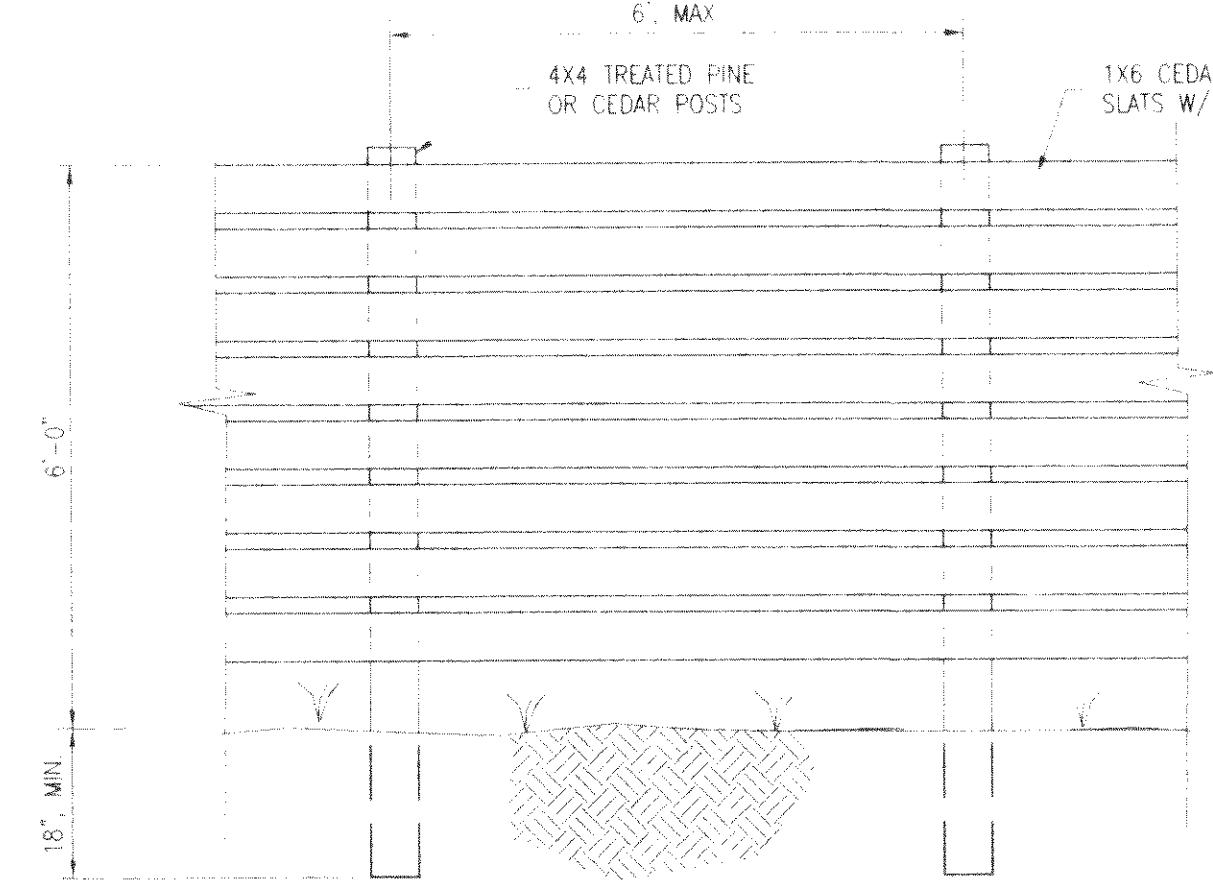
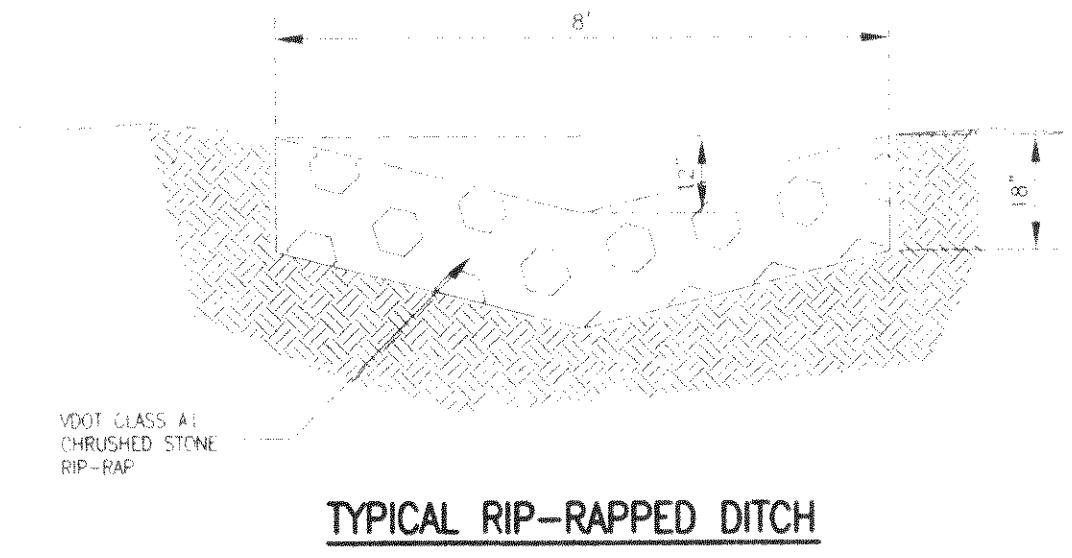
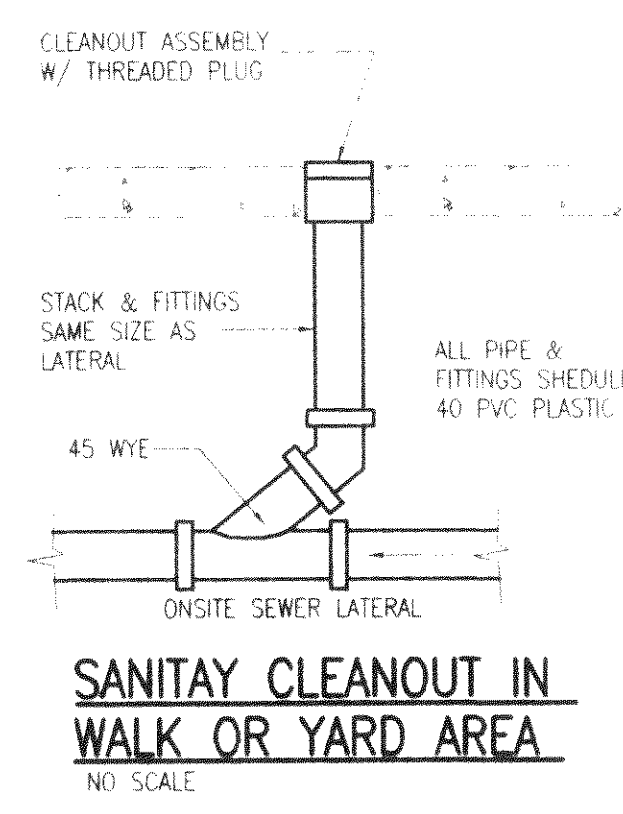
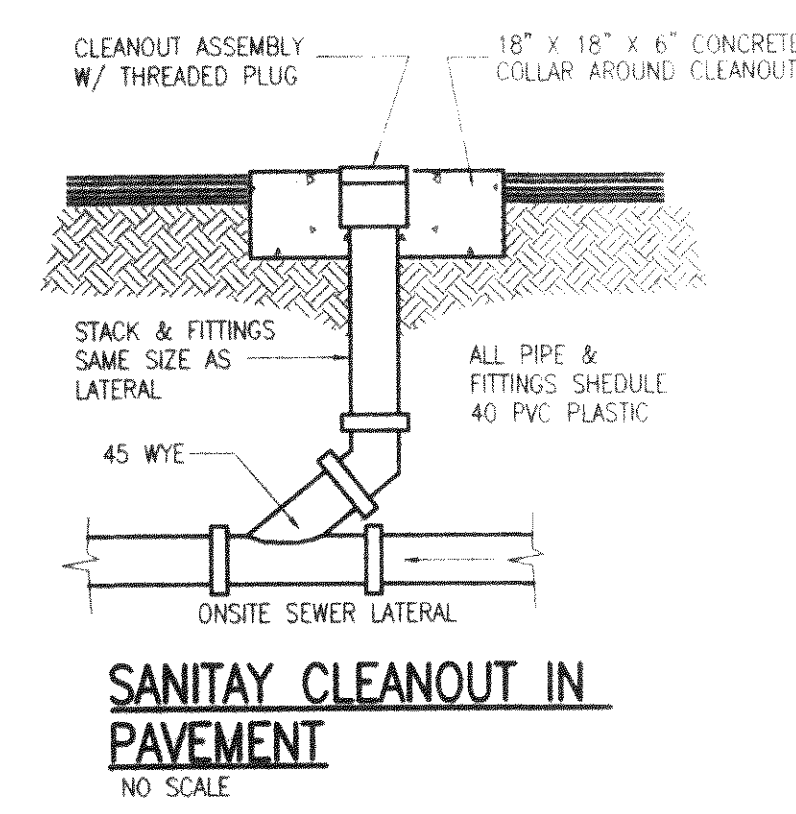
PAVEMENT SECTION - ROAD EXTENSION FROM PHASE 1
1/4" = 1'-0"



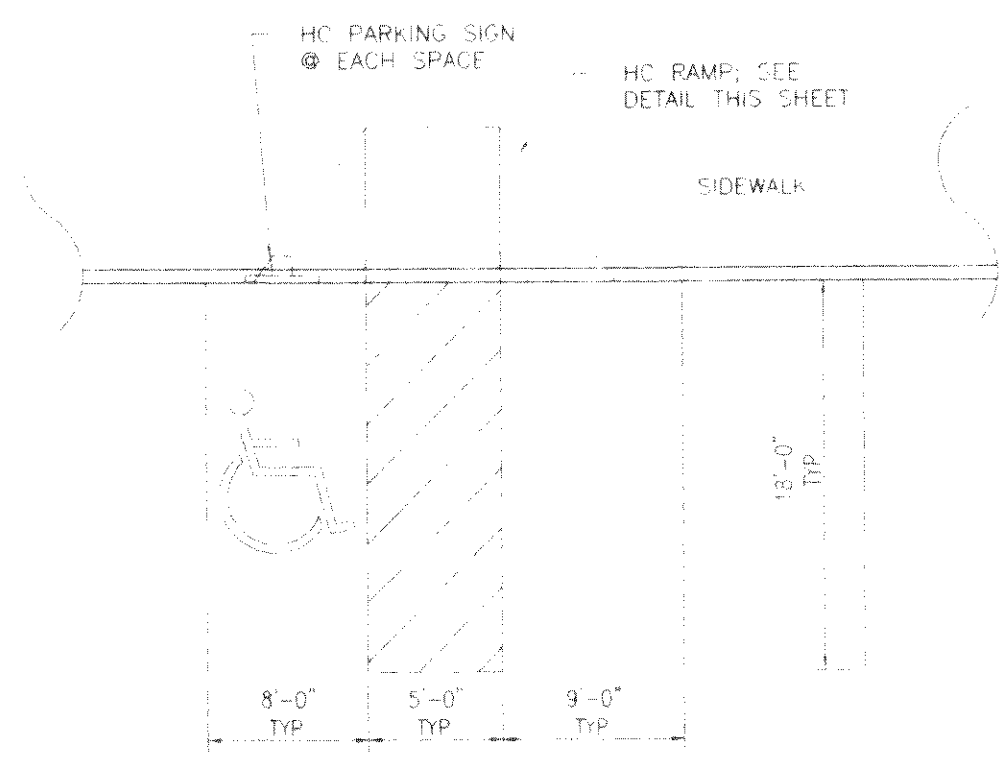
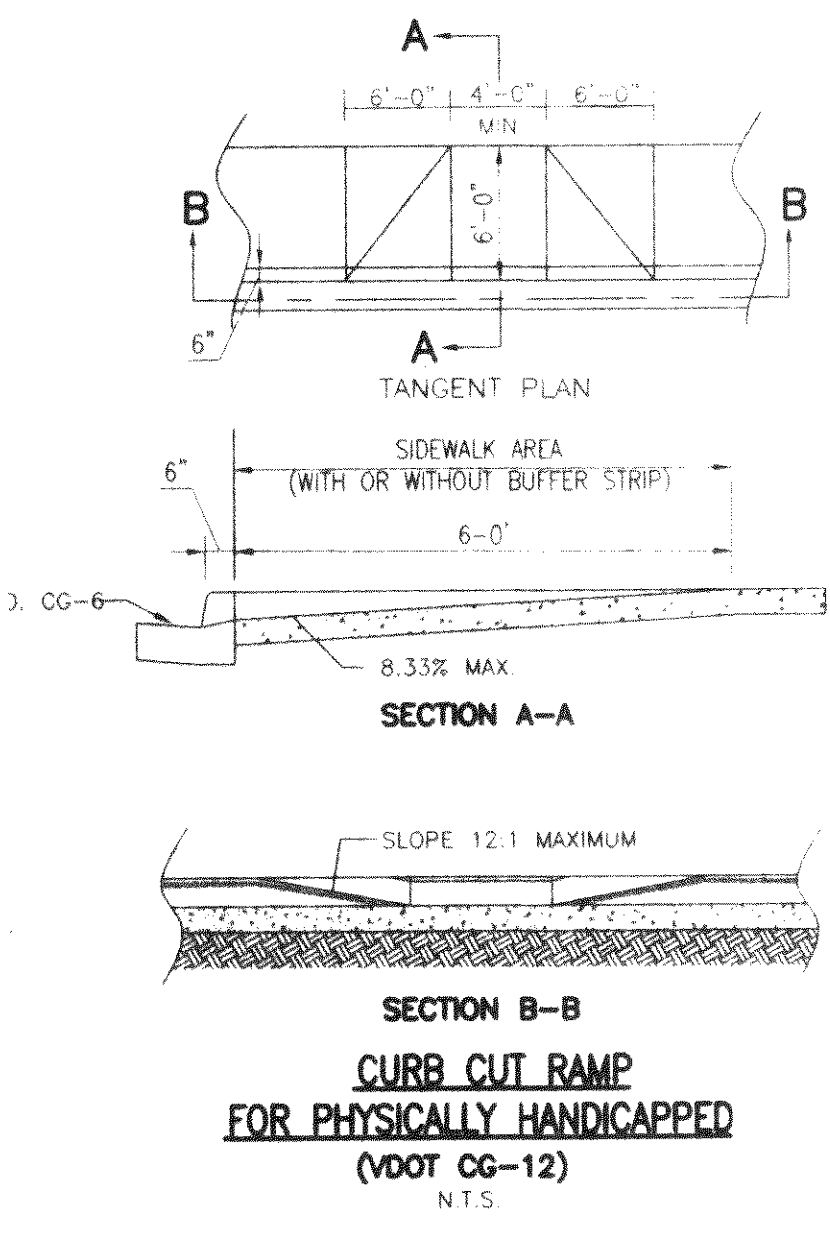
PAVEMENT SECTION - INTERNAL ROAD FROM US 220
1/4" = 1'-0"



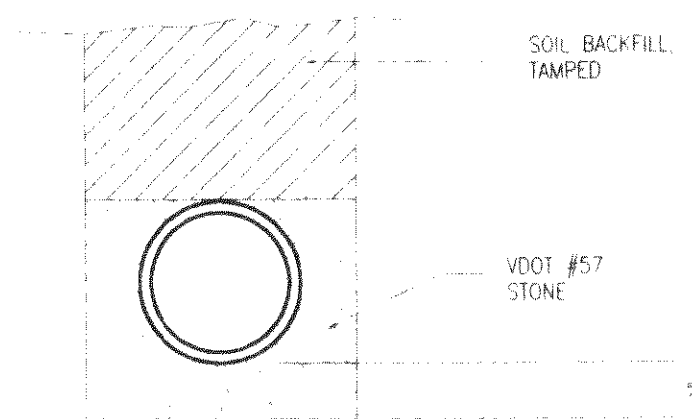
PAVEMENT SECTION - DECEL LANE ALONG US ROUTE 220
1/4" = 1'-0"



SCREENING FENCE DETAIL
1/2" = 1'-0"



PARKING SPACE DETAIL
NO SCALE



STORM AND SANITARY SEWER BEDDING DETAIL
NO SCALE

EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION

THE PURPOSE OF THE PROJECT IS DEVELOPMENT OF THE PHASE 2 OF SUMMERFIELD VILLAGE, CONTAINING BUILDINGS, HOUSING, RETAIL SHOPS AND OFFICES, ON ITS SITE ALONG US ROUTE 220 NEAR THE INTERSECTION OF VIRGINIA ROUTE 654 WITH 220. PART OF THE DEVELOPMENT IS THE REPLACEMENT OF A DETENTION BASIN, INSTALLED AS PART OF PREGRADING OF THE SITE DURING THE CONSTRUCTION OF PHASE 1, WITH A DETENTION CHAMBER.

EXISTING SITE CONDITIONS

THE EXISTING SITE CONSISTS OF A MODERATELY SLOPING PARCEL OF LAND WHICH HAS RECENTLY BEEN PREGRADED AND UPON WHICH PRIMARY DRAINAGE, SEWERAGE, AND WATER DISTRIBUTION UTILITIES HAVE BEEN INSTALLED IN ANTICIPATION OF CONSTRUCTION OF BUILDINGS HOUSING OFFICES AND RETAIL SHOPS. CONSTRUCTION WAS DONE ACCORDING TO DRAWINGS PREPARED BY LHM, P.C., 102 ALBEMARLE AVENUE SE, ROANOKE, TITLED SUMMERFIELD VILLAGE SITE PLAN, DATED 4/1/99. STORMWATER MANAGEMENT FOR THE PROJECT WAS ACHIEVED BY THE DIRECTION OF SURFACE RUNOFF TO AN ONSITE DETENTION BASIN. VEGETATIVE COVER HAS BEEN ESTABLISHED ON THE SITE AS PART OF THE CONSTRUCTION PER THE LHM DRAWINGS.

ADJACENT PROPERTY

PROPERTY ADJACENT TO THE STORMWATER MANAGEMENT AREA INVOLVED IN THIS PROJECT IS THE PREGRADED SUMMERFIELD VILLAGE SITE TO THE NORTH, WEST AND SOUTH AND US ROUTE 220 TO THE EAST.

OFFSITE AREAS

NO OFFSITE AREAS ARE INVOLVED IN THE DEVELOPMENT.

SOILS

LAND SURFACES TO BE DISTURBED BY DEVELOPMENT CONSTRUCTION CONSIST OF A SILTY CLAYEY SOIL. THE SOIL POSSESSES MODERATE ERODIBILITY AND IS COMPATIBLE WITH THE ANTICIPATED VEGETATIVE COVER TO BE ESTABLISHED.

CRITICAL AREAS

THE STEEP SLOPES OF THE EXISTING DETENTION BASIN DAM WILL BE MODIFIED SLIGHTLY TO ACCOMMODATE THE DETENTION CHAMBER, RESULTING IN SIMILAR STEEP SLOPES. THESE SLOPES WILL REQUIRE SPECIAL STABILIZATION PRIOR TO PLANTING VEGETATIVE COVER.

PERMANENT STABILIZATION

NORMAL YARD AREAS

THE STORMWATER MANAGEMENT AREA WILL BE SEEDING AND FERTILIZED AND MULCHED IMMEDIATELY UPON COMPLETION OF GRADING WITH THE FOLLOWING SEEDING, LIMING AND FERTILIZATION SCHEDULE.

YARD AREA OVER AND IMMEDIATELY AROUND DETENTION CHAMBER

KENTUCKY 31 FESCUE	128 LBS PER ACRE
RED TOP GRASS	2
SEASONAL NURSE CROP	20

SLOPES STEEPER THAN 5:1 (SLOPES BETWEEN DETENTION CHAMBER AND ROUTE 220)

KENTUCKY 31 FESCUE	108 LBS PER ACRE
RED TOP GRASS	2
SEASONAL NURSE CROP	20
CROWN VETCH	20

SEASONAL NURSE CROP

MARCH, APRIL, THRU MAY 15	ANNUAL RYE
MAY 15, THRU AUGUST 15	FOXTAIL MILLET
AUGUST 15, THRU OCTOBER	ANNUAL RYE
NOVEMBER THRU FEBRUARY	WINTER RYE

LIMING AND FERTILIZATION

LIME: AGRICULTURAL GRADE LIMESTONE, 2 TONS PER ACRE

FERTILIZER

MIXED GRASSES & LEGUMES	10-20-10, 1000 LBS PER ACRE
GRASS ONLY	10-20-10, 1000 LBS PER ACRE
LEGUMES ONLY	5-20-10, 1000 LBS PER ACRE PREFERRED
	10-20-10, 1000 LBS PER ACRE ALLOWED

MULCHING

ALL SEEDING AREAS WILL BE MULCHED WITH MATERIALS AND BY METHODS PRESCRIBED IN STANDARD 3.05 IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

STABILIZATION FOR SLOPES STEEPER THAN 3:1

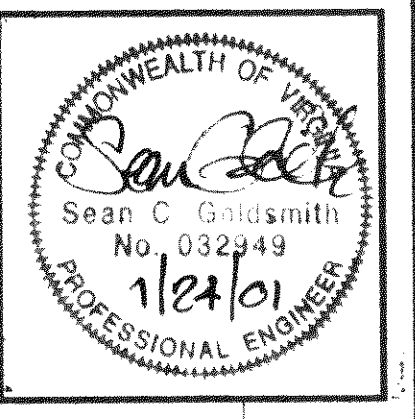
STEEP SLOPES BETWEEN THE DETENTION CHAMBER AND ROUTE 220 SHALL BE STABILIZED WITH SOIL STABILIZATION BLANKET OR MATTING AS PRESCRIBED IN STANDARD AND SPECIFICATION 3.06 IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

TEMPORARY STRUCTURAL PRACTICES

CONSTRUCTION ENTRANCE - US ROUTE 220 WILL BE PROTECTED FROM TRACKING OF MUD BY THE INSTALLATION OF A PAD OF NO. 1 STONE AT THE BEGINNING OF THE NEW INTERNAL ROAD ACCORDING TO STANDARD AND SPECIFICATION 3.02 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, 1992 (ESC HANDBOOK).

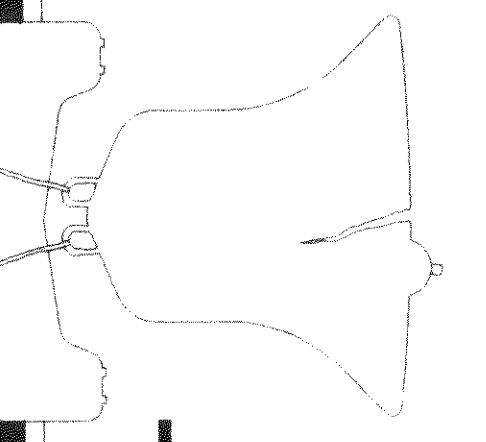
SILT FENCE - ADJOINING PROPERTIES AND THE ROUTE 220 RIGHT-OF-WAY WILL BE PROTECTED FROM OVERLAND MOVING SILT BY FILTER FABRIC TYPE SILT FENCE, ERECTED ACCORDING TO STANDARD AND SPECIFICATION 3.05 OF ESC HANDBOOK.

INLET PROTECTION - CURB INLETS AND YARD INLETS OF THE STORM DRAIN PIPING SYSTEM WILL BE PROTECTED BY THE INSTALLATION OF SILT BARRIERS ACCORDING TO STANDARD AND SPECIFICATION 3.07. SILT FENCE BARRIERS WILL BE USED AT YARD INLETS AND GRAVEL FILTERS AT CURB INLETS.



Revisions By	Date
SCG	01-23-01

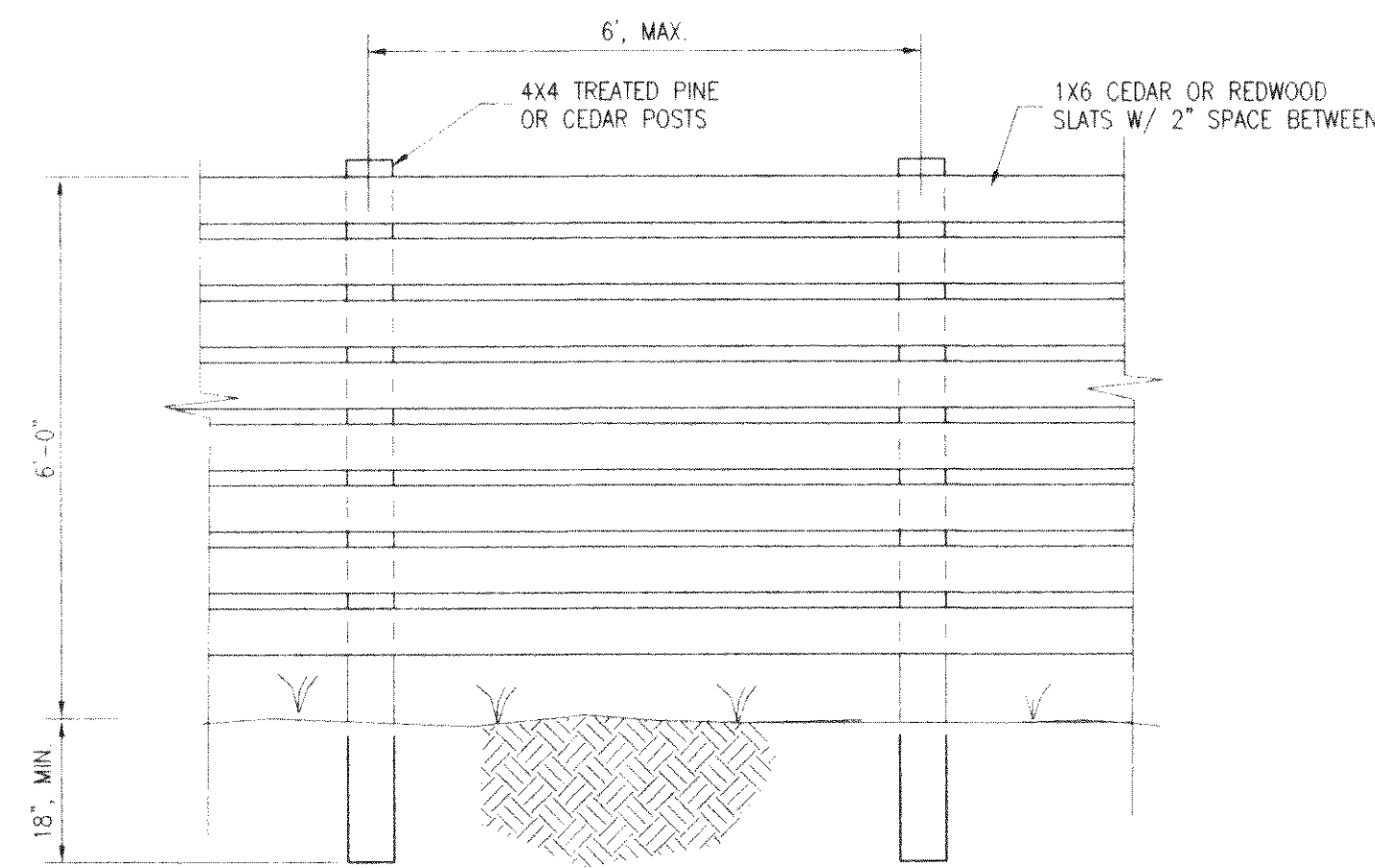
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Email: ProvEng@aol.com

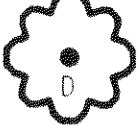


DETAILS
SUMMERFIELD VILLAGE
PHASE 2
BOTETOURT, VIRGINIA

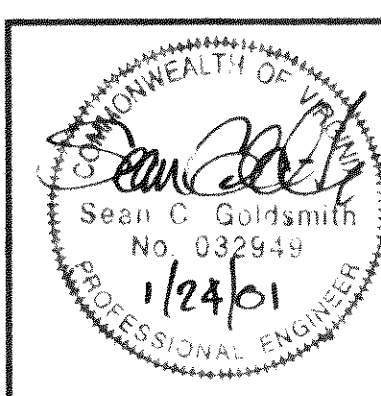
Scale: AS SHOWN
Date: 12/17/99
Design By: RBS/SCG
CAD By: WBR/BLW/SCG
Checked By:
Commission No.: 99186

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C7



PLANT LIST						
MARK	COMMON NAME	BOTANICAL NAME	MATURE HEIGHT	PLANTING HEIGHT	CALIPER	QUANTITY
	AMERICAN CRANBERRY BUSH BRISTLY LOCUST	VIBURNUM TRILOBUM ROBINA FERTILIS	6'-7' 6'	18" MIN	-	153
	WHITE PINE	PINUS STROBUS	80'-100'	6'	-	10
	RED MAPLE	ACER RUBRUM	50'-80'	-	1"	42
	FLOWERING DOGWOOD	CORNUS FLORIDA	30'-40'	-	1"	29
	HORIZONTAL JUNIPER OR SWEET FERN	JUNIPERTUS CONFERT? GINPTONIA PERIGRINA	1' 2'-4'	-	-	9

LANDSCAPING PLAN
1" = 30'



Revisions By	Date
SCG/BLW SITE LAYOUT	1-23-01

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LANDSCAPING PLAN
SUMMERFIELD VILLAGE
PHASE 2
BOTETOURT, VIRGINIA

Scale: *AS SHOWN*
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