

THE MINIMUM REQUIRED BEARING CAPACITY OF THE BASE SHALL BE 1000 psf.

**TYPICAL SECTION - REDI ROCK WALL - GRAVITY WALL
(TYPICAL DETAIL ONLY - SEE WALL FACE DRAWING FOR SPECIFIC BLOCK CONFIGURATIONS)**

"REDIROCK" SEGMENTAL RETAINING WALL
(NOT TO SCALE)

GENERAL NOTES:

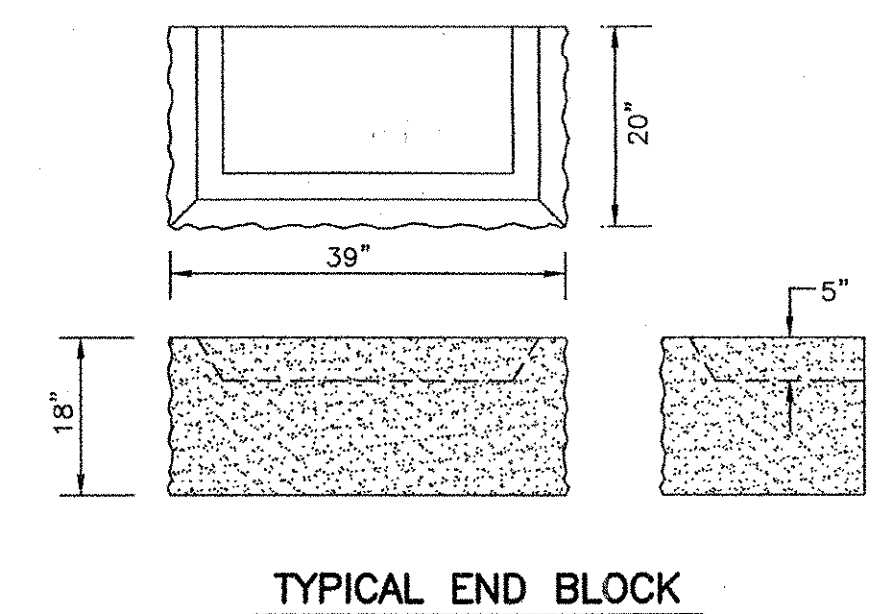
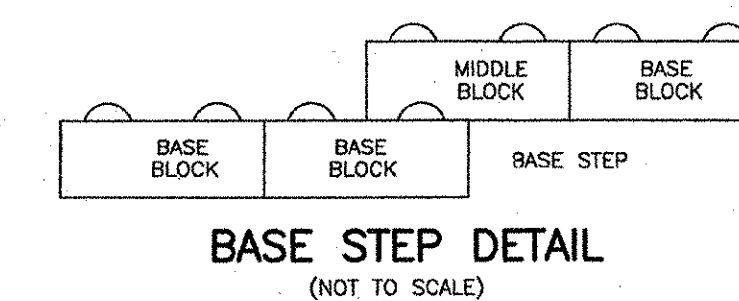
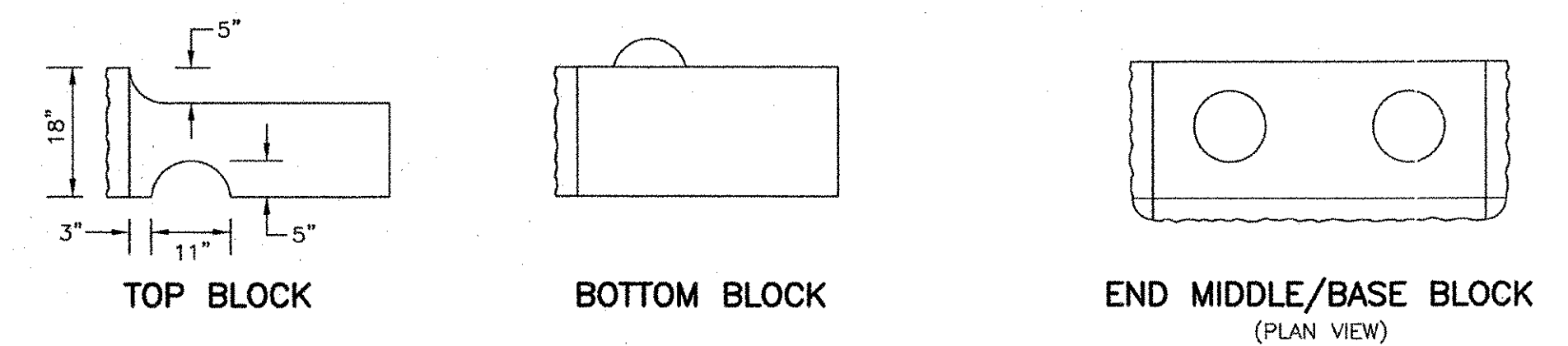
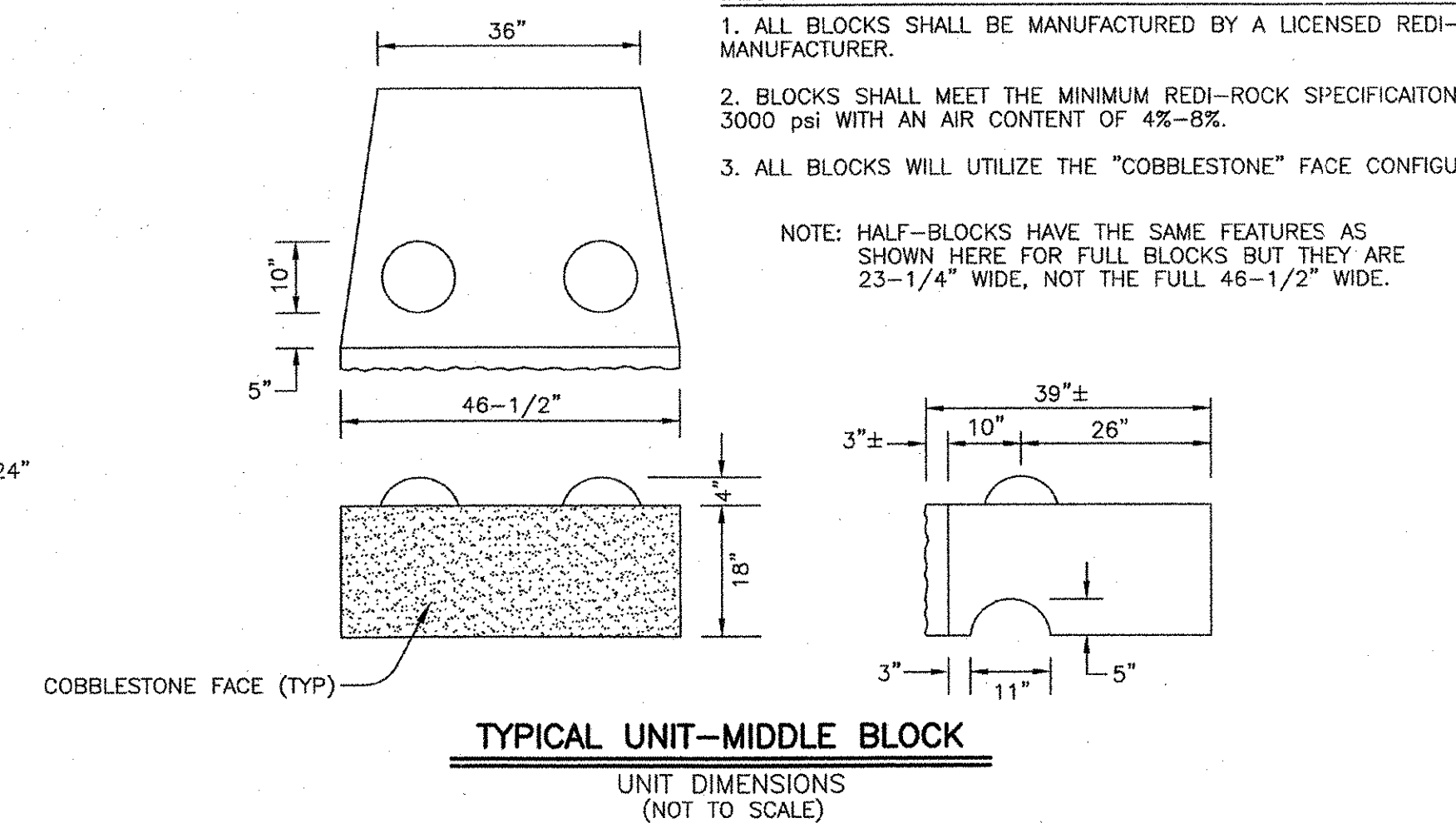
1. STRIP ALL VEGETATION, ORGANIC SOILS AND UNSUITABLE FILL SOILS FROM THE WALL ALIGNMENT AREA.
2. BENCH CUT ALL EXCAVATED SLOPES.
3. DO NOT OVER EXCAVATE UNLESS DIRECTED TO DO SO BY THE ENGINEER IN ORDER TO REMOVE UNSUITABLE SOIL.
4. THE CONTRACTOR SHALL REMOVE ANY UNSUITABLE MATERIAL AS DIRECTED BY THE ENGINEER. THE OVEREXCAVATED MATERIAL SHALL BE REPLACED WITH MATERIAL MEETING THE "BACKFILL GENERAL REQUIREMENTS" SHOWN ELSEWHERE ON THIS SHEET.
5. LEVELING PAD SHALL CONSIST OF COMPACTED, GRANULAR FILL, 12" THICK AND EXTENDING AT LEAST 12" TO EITHER SIDE OF THE BASE BLOCK. GRANULAR BACKFILL SHALL MEET THE REQUIREMENTS FOR ITEM 704.08, GRANULAR BACKFILL FOR STRUCTURES, VT AOT SPECIFICATIONS, LATEST EDITION.
6. MINIMUM EMBEDMENT OF WALL BELOW FINISH GRADE SHALL BE AS INDICATED ON THE WALL FACE DRAWING.
7. FOLLOW APPLICABLE PROVISIONS OF THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WRITTEN SPECIFICATIONS, ESPECIALLY WITH REGARDS TO LEVELING OF BLOCKS AND BASE.
8. DRAINAGE FILL SHALL BE VT AOT ITEM 704.08, GRANULAR BACKFILL FOR STRUCTURES (MOD.), EXTENDING A MINIMUM OF 24" BEHIND THE WALL BLOCK. A NONWOVEN GEOTEXTILE FABRIC MEETING VT AOT ITEM 649.41 SHALL BE USED TO SEPARATE THE CUT OR FILL FACE FROM THE DRAINAGE MATERIAL.
9. WHERE PERFORATED HDPE DRAINS ARE USED, PROVIDE OUTLETS AT THE ENDS OF THE WALL OR AT A LOW COLLECTION POINT ALONG THE WALL. (ALTERNATE OUTLET METHODS MAY BE APPROVED BY THE DESIGN ENGINEER.)
10. BACKFILL AND COMPACT THE FILL MATERIAL BEHIND THE WALL AS THE WALL IS INSTALLED.
11. COMPACTION TESTS SHALL BE TAKEN AS THE WALL IS INSTALLED. THE MINIMUM NUMBER OF TESTS SHALL BE DETERMINED BY THE ENGINEER.
12. PLACE A FILTER FABRIC (VT AOT ITEM 649.41) OVER THE DRAINAGE MATERIAL TO MINIMIZE SOIL MIGRATION FROM THE SURFACE MATERIAL INTO THE DRAINAGE MATERIAL.
13. COMPACTION SHALL BE TO 92% (MODIFIED PROCTOR) OR 95% (STANDARD PROCTOR).
14. PROVIDE LATERAL DRAINAGE SWALES TO DIRECT FLOWS AROUND THE ENDS OF THE WALL AND AWAY FROM THE WALL. DURING CONSTRUCTION, DO NOT CONSTRUCT A SWALE BEHIND THE WALL AS PART OF THE FINISHED WALL. GRADE TO ALLOW WATER TO FLOW OVER THE WALL FACE (OR TO A POINT AT LEAST 10 FEET FROM THE REAR OF THE WALL FACE).
15. TURF, OR SOME ACCEPTABLE FORM OF SOIL EROSION PROTECTION, SHOULD BE ESTABLISHED AT THE TOP OF THE WALL (WHERE REQUIRED) BY THE CONTRACTOR AS SOON AS THE WALL IS COMPLETED.
16. RECOMMENDED COMPACTION EQUIPMENT WITHIN 15 FEET OF THE BACK OF THE WALL IS AS FOLLOWS:
0 - 4 FEET HAND TAMP OR VIBRATORY PLATE COMPACTOR
4 - 15 FEET NOTHING LARGER THAN TWO-DRUM, WALK-BEHIND VIBRATORY ROLLER (LARGER ROLLERS CAN BE USED STATICALLY, PROVIDED LIFT SIZE DOES NOT COMPROMISE ACHIEVEMENT OF NECESSARY COMPACTION RATES.)
17. THESE WALLS HAVE BEEN DESIGNED WITH CONSIDERATION OF SEISMIC LOADINGS.
18. A FENCE SHALL BE PLACED ALONG THE TOP OF THE RETAINING WALL. THE TOP BLOCK MAY BE CORED TO ACCEPT THE FENCE POST. IF CORING THE TOP BLOCK, SOME FORM OF NON-SHRINK GROUT OR CAULKING MUST BE USED TO SEAL THE CORED HOLE TO PREVENT WATER INFILTRATION.

IF CONDITIONS ARE DIFFERENT THAN THOSE STATED IN THESE DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR MUST CONTACT THE DESIGN ENGINEER PRIOR TO PROCEEDING WITH THE CONSTRUCTION OF THE WALL.

BLOCK SPECIFICATION NOTES:

1. ALL BLOCKS SHALL BE MANUFACTURED BY A LICENSED REDI-ROCK (TM) MANUFACTURER.
2. BLOCKS SHALL MEET THE MINIMUM REDI-ROCK SPECIFICATIONS OF 3000 psi WITH AN AIR CONTENT OF 4%-8%.
3. ALL BLOCKS WILL UTILIZE THE "COBBLESTONE" FACE CONFIGURATION.

NOTE: HALF-BLOCKS HAVE THE SAME FEATURES AS SHOWN HERE FOR FULL BLOCKS BUT THEY ARE 23-1/4" WIDE, NOT THE FULL 46-1/2" WIDE.

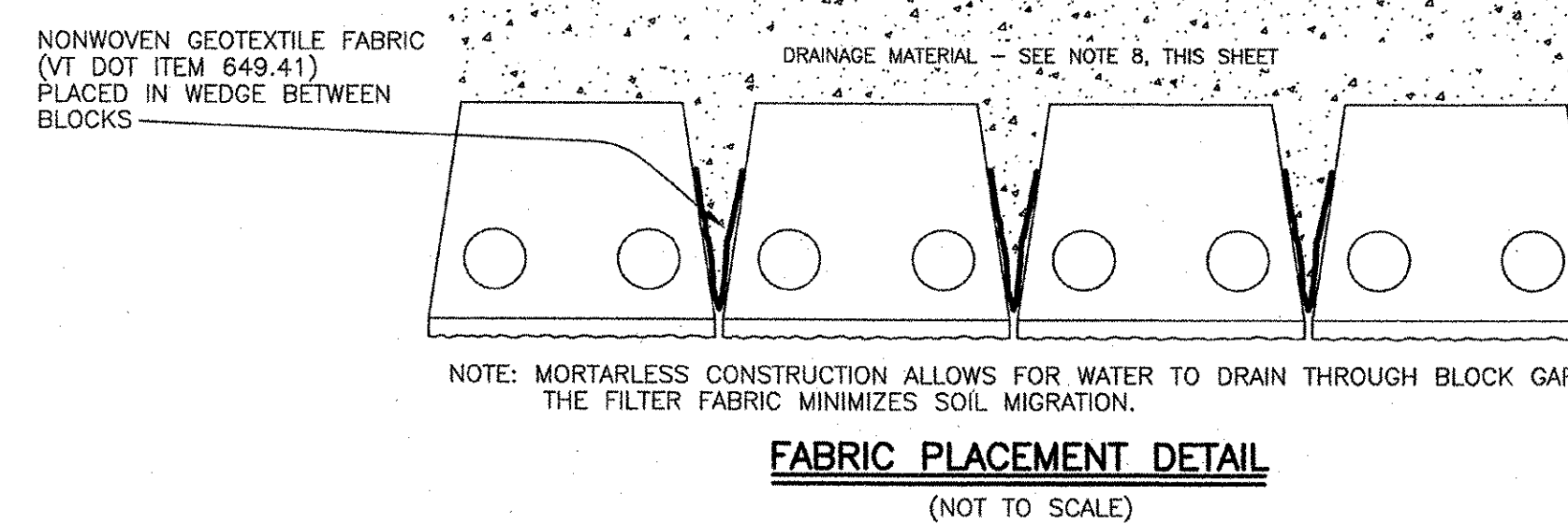
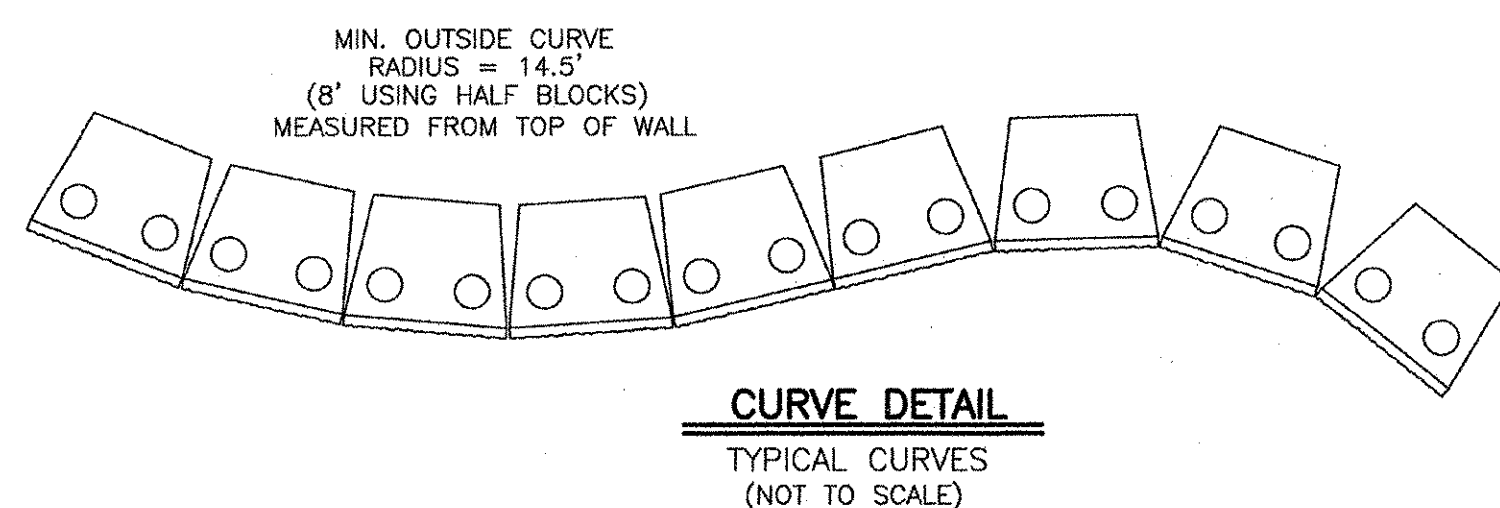


DESIGN ASSUMPTIONS		
SOIL	SOIL UNIT WEIGHT	φ
SELECT FILL/BACKFILL	140	34
RETAINED EARTH	140	30
FOUNDATION SOIL	140	30

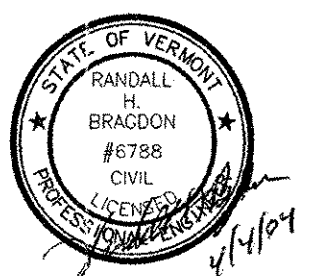
MAX. SLOPE ABOVE WALL = 4H:1V
SEISMIC ACCELERATION = 0.08

MINIMUM FACTORS OF SAFETY	
OVERTURNING	2.0
SLIDING	1.5
BEARING CAPACITY	2.0

COMPACTION NOTE: WHERE THE RETAINING WALL PASSES OVER ANY UTILITY LINES, COMPACTION OF THE SOIL WITHIN THE UTILITY TRENCH IS CRITICAL IN ORDER TO PREVENT SETTLEMENT OF THE WALL. COMPACTION OF ALL FILL MATERIAL IN UTILITY TRENCHES WHICH PASS UNDER THIS RETAINING WALL MUST BE AT LEAST 95% OF THE MAXIMUM DENSITY OF THE FILL MATERIAL.



New England's
SVE
Retaining Wall Designers



NOTE: THIS DRAWING WAS PREPARED FOR USE WITH REDI-ROCK (TM) RETAINING WALL SYSTEMS. CONTACT CARROLL CONCRETE AT (603) 863-1000.

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CIVIL ENGINEERING CONSULTANTS SITE DESIGN SPECIALISTS
RR 2, BOX 155 UNITY, NEW HAMPSHIRE 03773 (603) 863-5454
Est. 1990 Available On The Web At www.SVEngineering.com

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8 REED MILL ROAD, NEWPORT, NH 03773

PROJECT: **RIVERSIDE AVENUE UPGRADE**
BURLINGTON, VT

SHEET TITLE: **RETAINING WALL DESIGN SHEET 1**

DATE: **MAY 12, 2003** SCALE: **AS SHOWN** PROJECT No.: **03-181**

REVISION #1	4/4/04	END BLOCK DETAIL ADDED	RHB	REVISION SET NUMBER
REVISION #2	7/7/03	REVISED ITEM NUMBERS; REMOVED POST DETAIL; REMOVED SOIL SPEC. TABLE; PER CLD	RHB	3
REVISION #1	6/30/03	REVISED DRAWING TO INDICATE VT AOT STANDARDS; MISC. REVISIONS PER CLD REVIEW	RHB	