

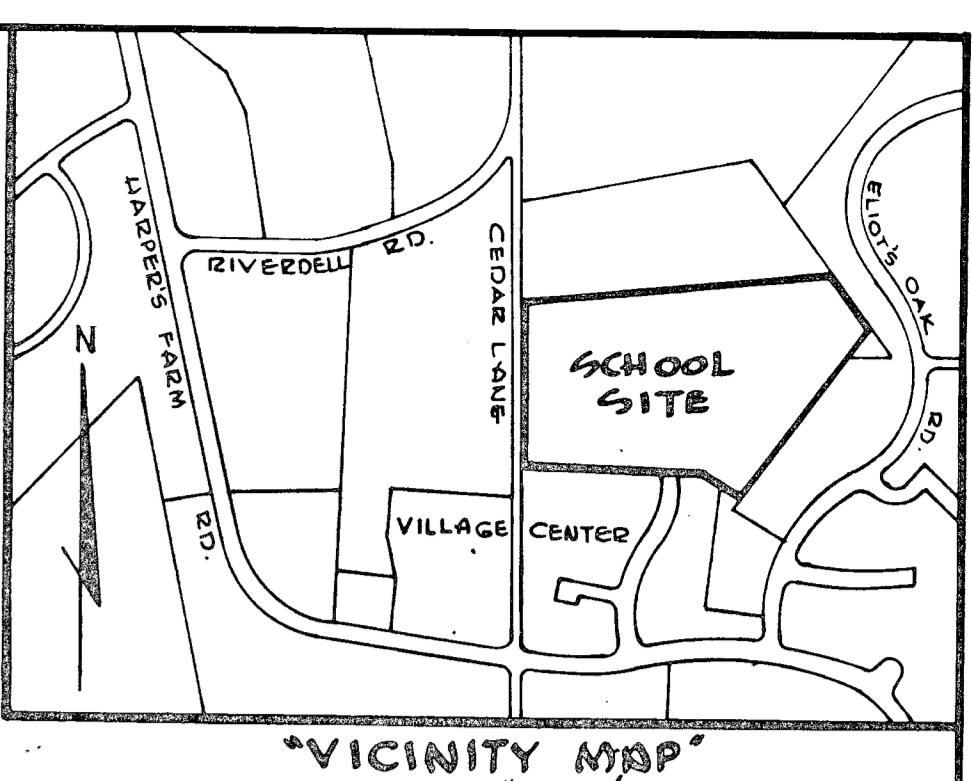
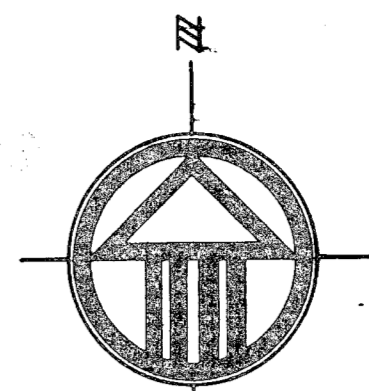
TYPICAL SECTION OF BEAVERKILL ROAD FROM EXIST. PAVING TO SOUTH BOUNDARY OF SCHOOL
NO SCALE

BIT. CONC. SURFACE	BAND C-3	FINAL PHASE
BIT. CONC. BINDER	BAND A-5	
BIT. CONC. BASE PLACED IN ONE COURSE	BAND C-1 OR C-5	FIRST PHASE

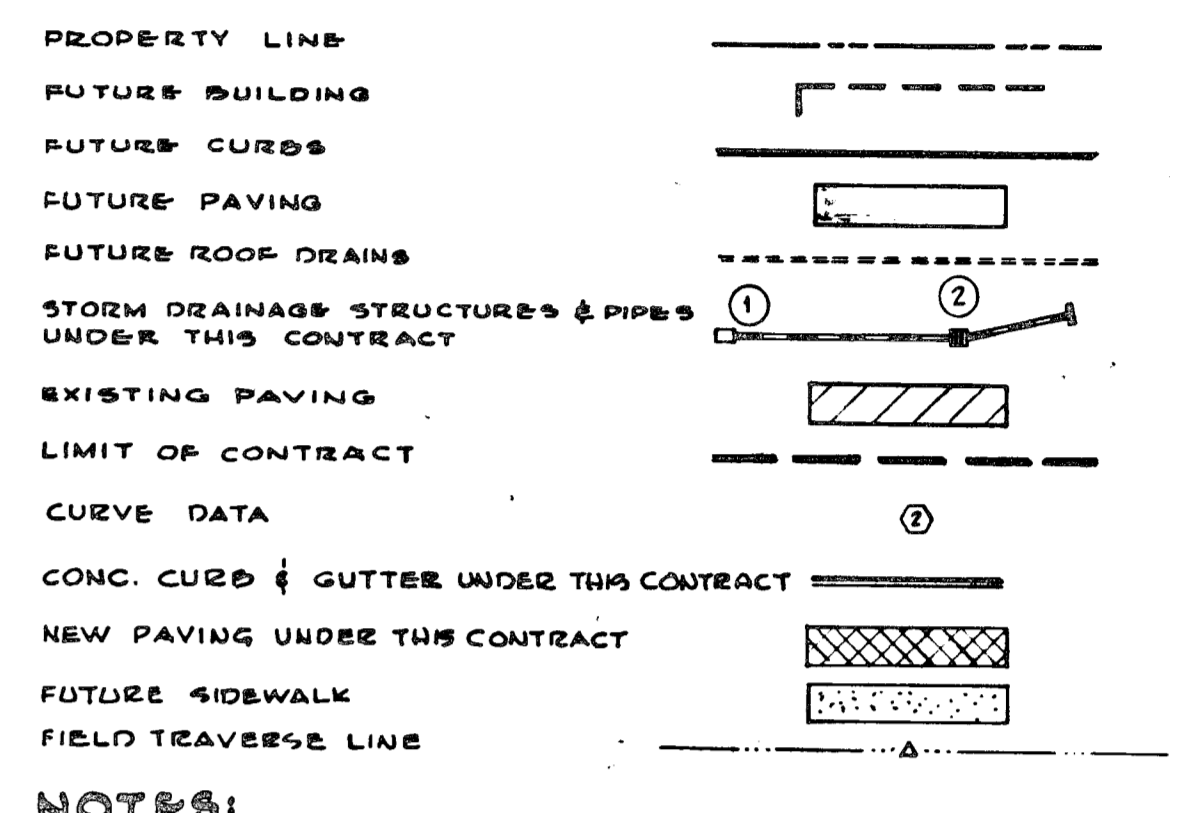
SUBGRADE	ARTICLE C-2
BASE COURSE	C-19 OR C-33
BINDER COURSE	C-51
SURFACE COURSE	C-31

NOTE: PAVEMENT TO BE CONSTRUCTED IN ACCORDANCE WITH THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND SPECIFICATIONS DWG. D-119 PG. 165

TYPICAL PAVING DETAIL FOR PAVING UNDER THIS CONTRACT
NO SCALE

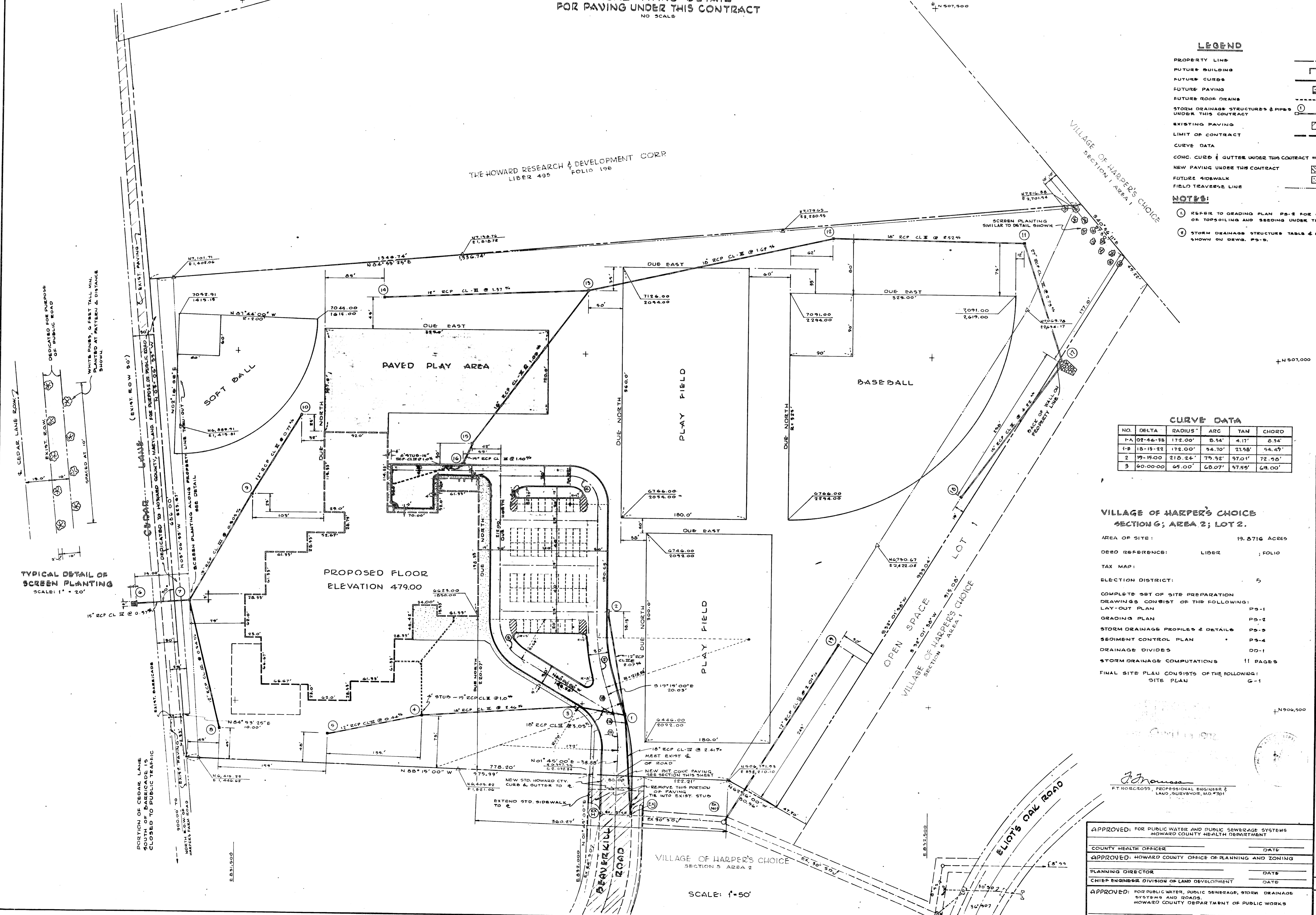


LEGEND



NOTES:
 1 REFER TO GRADING PLAN PS-2 FOR GRADING, LIMITS OF TOPSOILING AND SEEDING UNDER THIS CONTRACT.
 2 STORM DRAINAGE STRUCTURES TABLE & DETAILS ARE SHOWN ON DWGS. PS-5.

THE HOWARD RESEARCH & DEVELOPMENT CORP.
LIBER 495 FOLIO 198



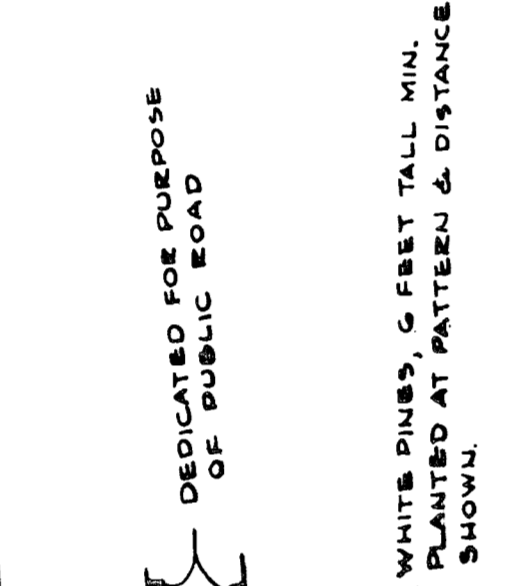
CURVE DATA

NO.	DELTA	RADIUS	ARC	TAN	CHORD
1A	07°46'19"	172.00'	0.54'	4.17'	8.54'
1B	18°15'22"	172.00'	54.70'	23.58'	54.45'
2	19°15'00"	210.24'	75.32'	37.01'	72.95'
3	60°00'00"	65.00'	68.07'	57.55'	69.00'

VILLAGE OF HARPER'S CHOICE SECTION 6, AREA 2; LOT 2.

AREA OF SITE: 19.8716 ACRES
 DEED REFERENCE: LIBER 495, FOLIO 198
 TAX MAP:
 ELECTION DISTRICT: 5
 COMPLETE SET OF SITE PREPARATION DRAWINGS CONSIST OF THE FOLLOWING:
 LAY-OUT PLAN PS-1
 GRADING PLAN PS-2
 STORM DRAINAGE PROFILES & DETAILS PS-3
 SEDIMENT CONTROL PLAN PS-4
 DRAINAGE DIVIDES DD-1
 STORM DRAINAGE COMPUTATIONS 11 PAGES
 FINAL SITE PLAN CONSISTS OF THE FOLLOWING:
 SITE PLAN G-1

TYPICAL DETAIL OF SCREEN PLANTING
SCALE: 1" = 20'



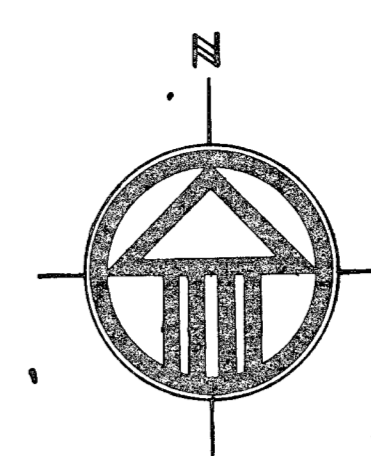
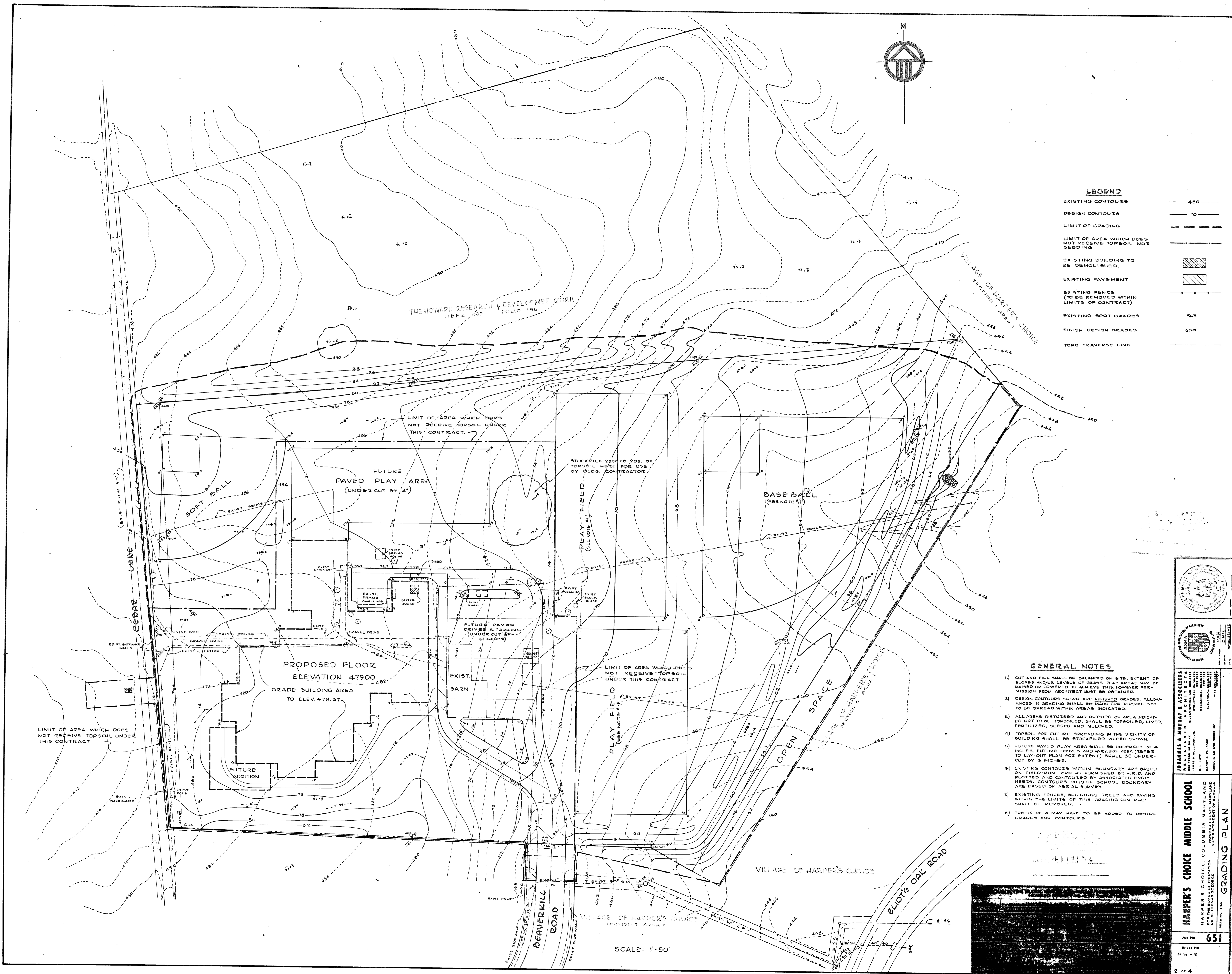
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
 HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER _____ DATE _____
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 PLANNING DIRECTOR _____ DATE _____
 CHIEF ENGINEER DIVISION OF LAND DEVELOPMENT _____ DATE _____
 APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR: _____ DATE _____ CHIEF, BUREAU OF HIGHWAYS, DATE _____

JOHANNES & MURRAY & ASSOCIATES
 ARCHITECTS AND ENGINEERS
 1417 FREDERICK DRIVE, SUITE 200
 FREDERICK, MARYLAND 21704
 PHONE: (301) 771-1111
 FAX: (301) 771-1112

HARPER'S CHOICE MIDDLE SCHOOL LAYOUT PLAN

DATE: 05/15/2007

SHEET NO. 651



LEGEND

EXISTING CONTOURS	— 480 —
DESIGN CONTOURS	— 70 —
LIMIT OF GRADING	— — — —
LIMIT OF AREA WHICH DOES NOT RECEIVE TOPSOIL NOR SEEDING	— — — —
EXISTING BUILDING TO BE DEMOLISHED	[Hatched Box]
EXISTING PAVEMENT	[Diagonal Lines]
EXISTING FENCE (TO BE REMOVED WITHIN LIMITS OF CONTRACT)	— — — —
EXISTING SPOT GRADES	74.7
FINISH DESIGN GRADES	61.9
TOPO TRAVERSE LINE	— — — —

GENERAL NOTES

- CUT AND FILL SHALL BE BALANCED ON SITE. EXTENT OF SLOPES AND/OR LEVELS OF GRASS PLAY AREAS MAY BE RAISED OR LOWERED TO ACHIEVE THIS, HOWEVER PERMISSION FROM ARCHITECT MUST BE OBTAINED.
- DESIGN CONTOURS SHOWN ARE FINISHED GRADES. ALLOWANCES IN GRADING SHALL BE MADE FOR TOPSOIL NOT TO BE SPREAD WITHIN AREAS INDICATED.
- ALL AREAS DISTURBED AND OUTSIDE OF AREA INDICATED NOT TO BE TOPSOILED, SHALL BE TOPSOILED, LIMED, FERTILIZED, SEEDING AND MULCHED.
- TOPSOIL FOR FUTURE SPREADING IN THE VICINITY OF BUILDING SHALL BE STOCKPILED WHERE SHOWN.
- FUTURE PAVED PLAY AREA SHALL BE UNDERCUT BY 4 INCHES. FUTURE DRIVES AND PARKING AREA (REFER TO LAYOUT PLAN FOR EXTENT) SHALL BE UNDERCUT BY 6 INCHES.
- EXISTING CONTOURS WITHIN BOUNDARY ARE BASED ON FIELD-RUN TOPO AS FURNISHED BY H.E.D. AND PLOTTED AND CONTOURED BY ASSOCIATED ENGINEERS. CONTOURS OUTSIDE SCHOOL BOUNDARY ARE BASED ON AERIAL SURVEY.
- EXISTING FENCES, BUILDINGS, TREES AND PAVING WITHIN THE LIMITS OF THIS GRADING CONTRACT SHALL BE REMOVED.
- PREFIX OF 4 MAY HAVE TO BE ADDED TO DESIGN GRADES AND CONTOURS.

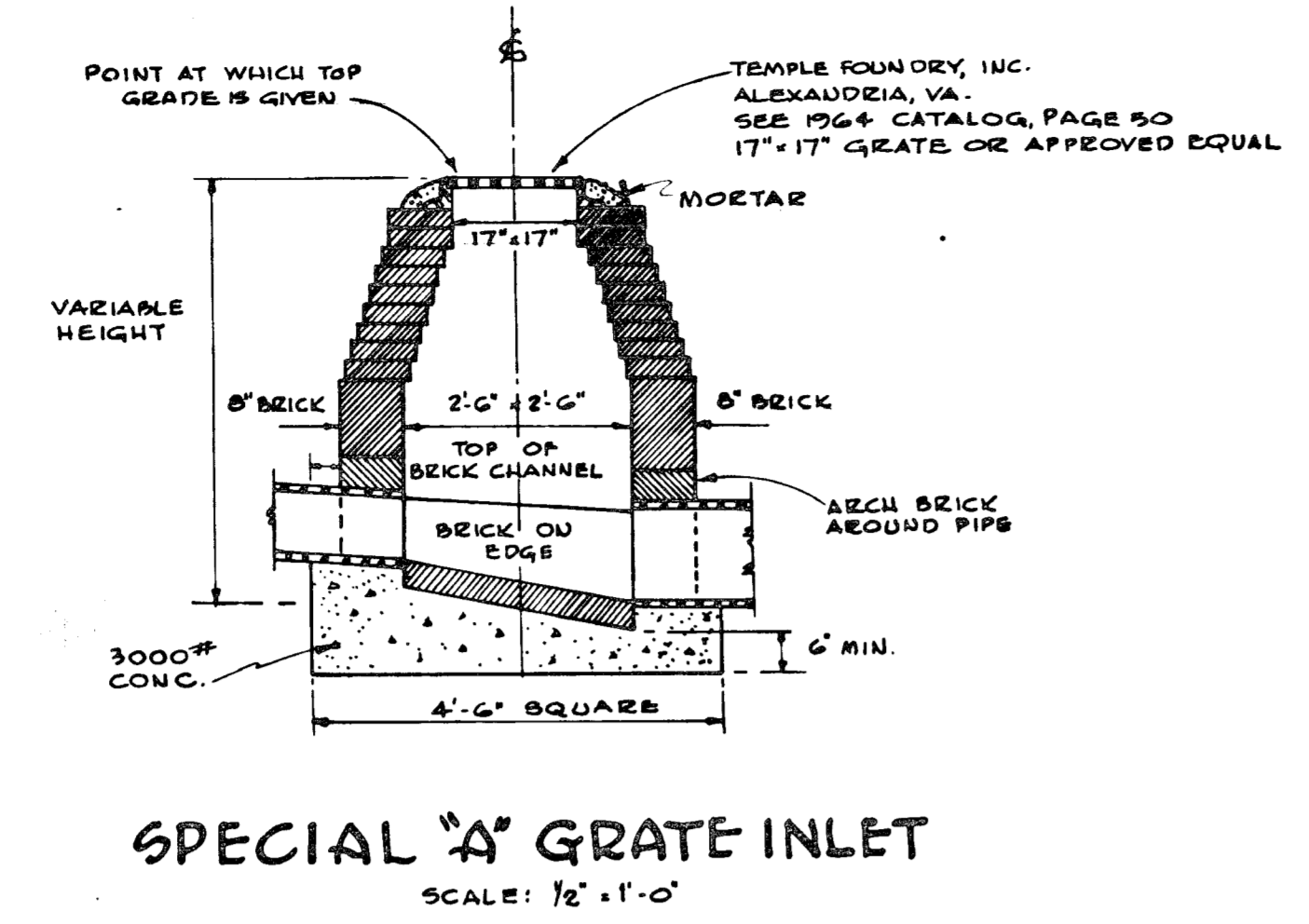
JOHANNES & MURRAY & ASSOCIATES
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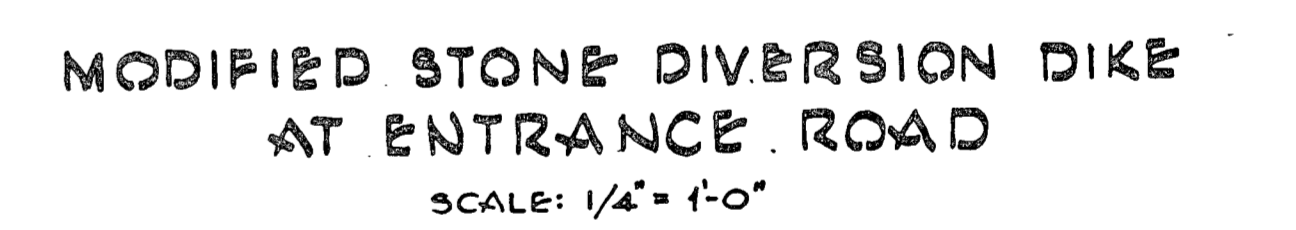
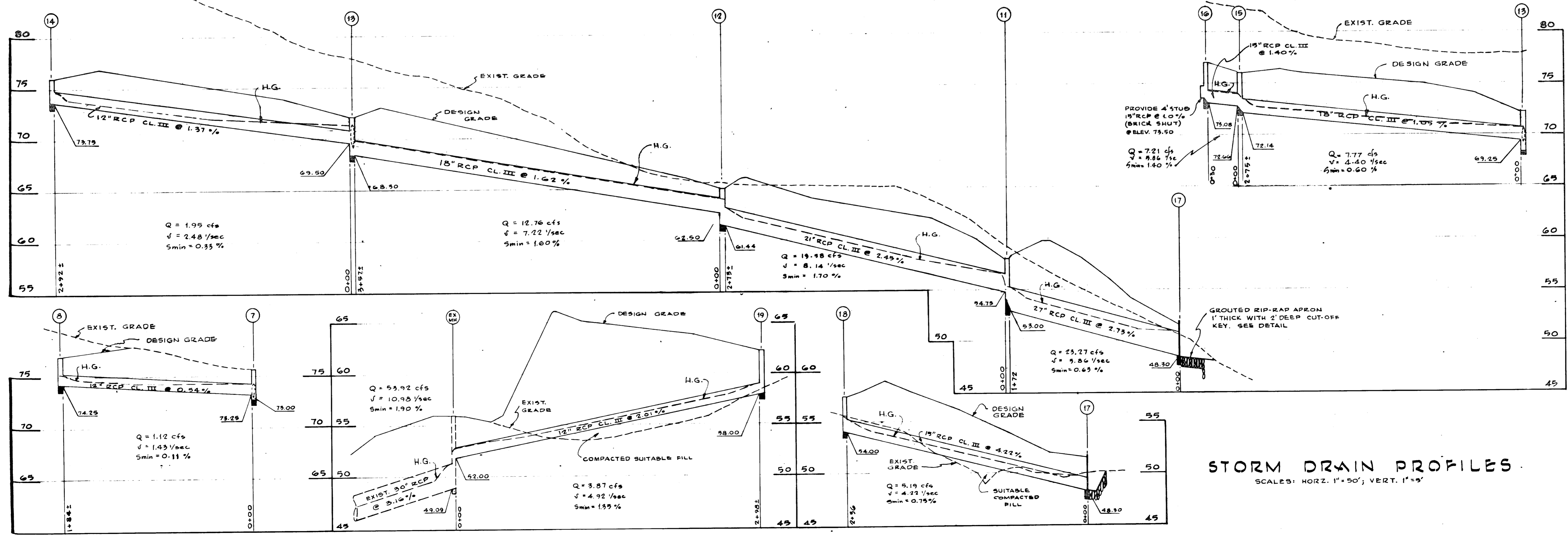
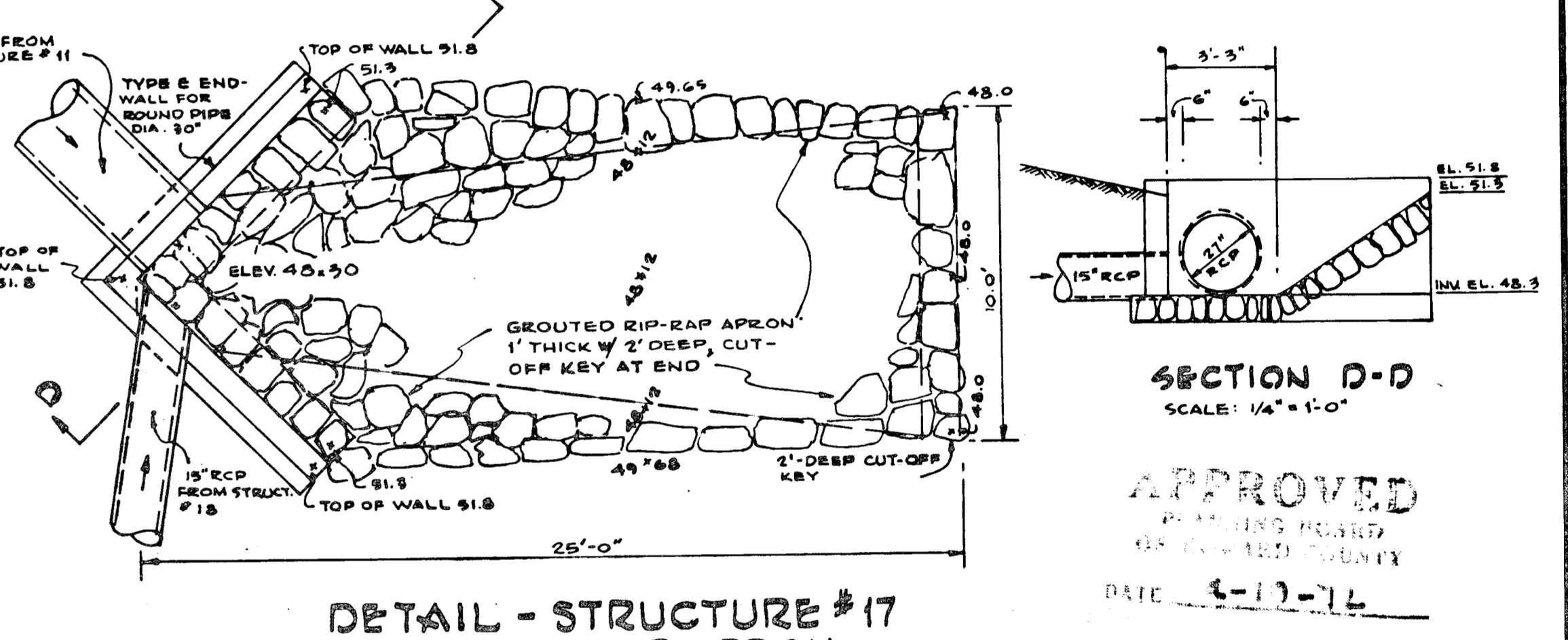
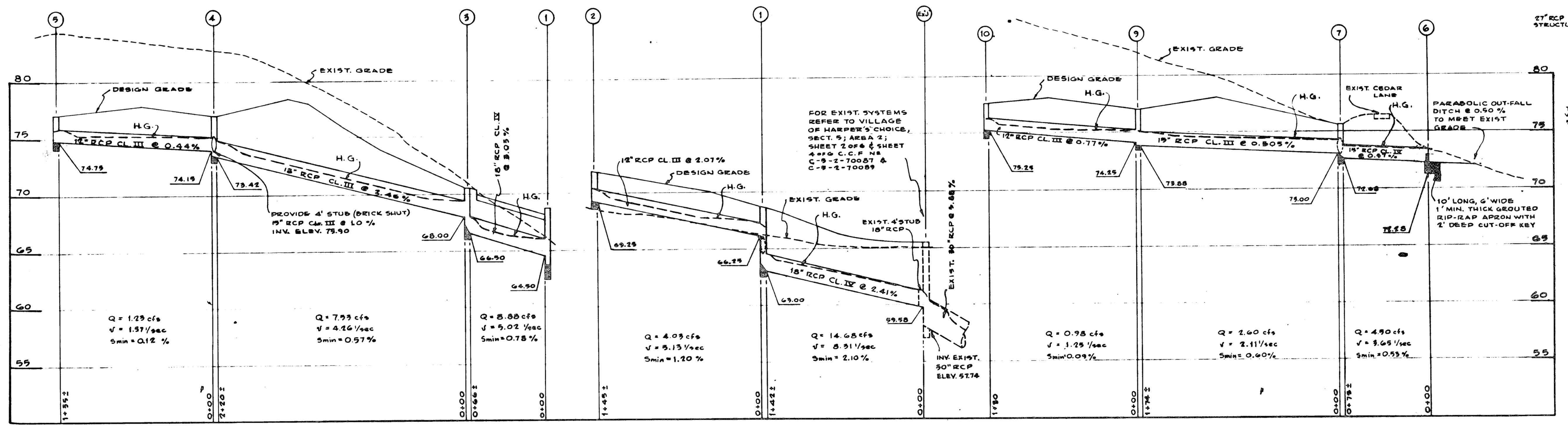
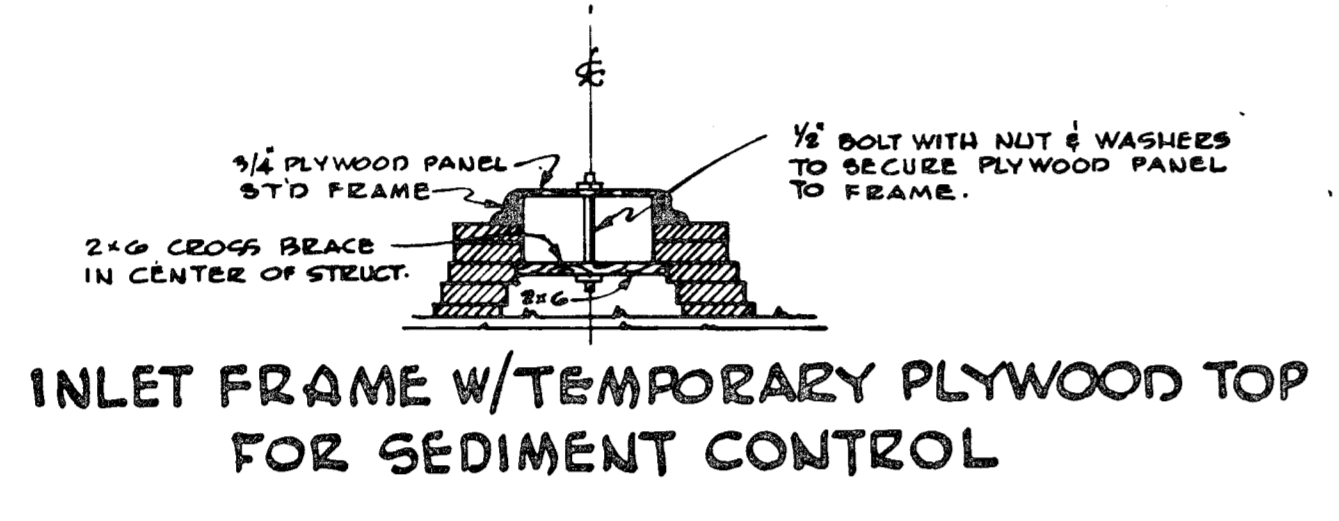
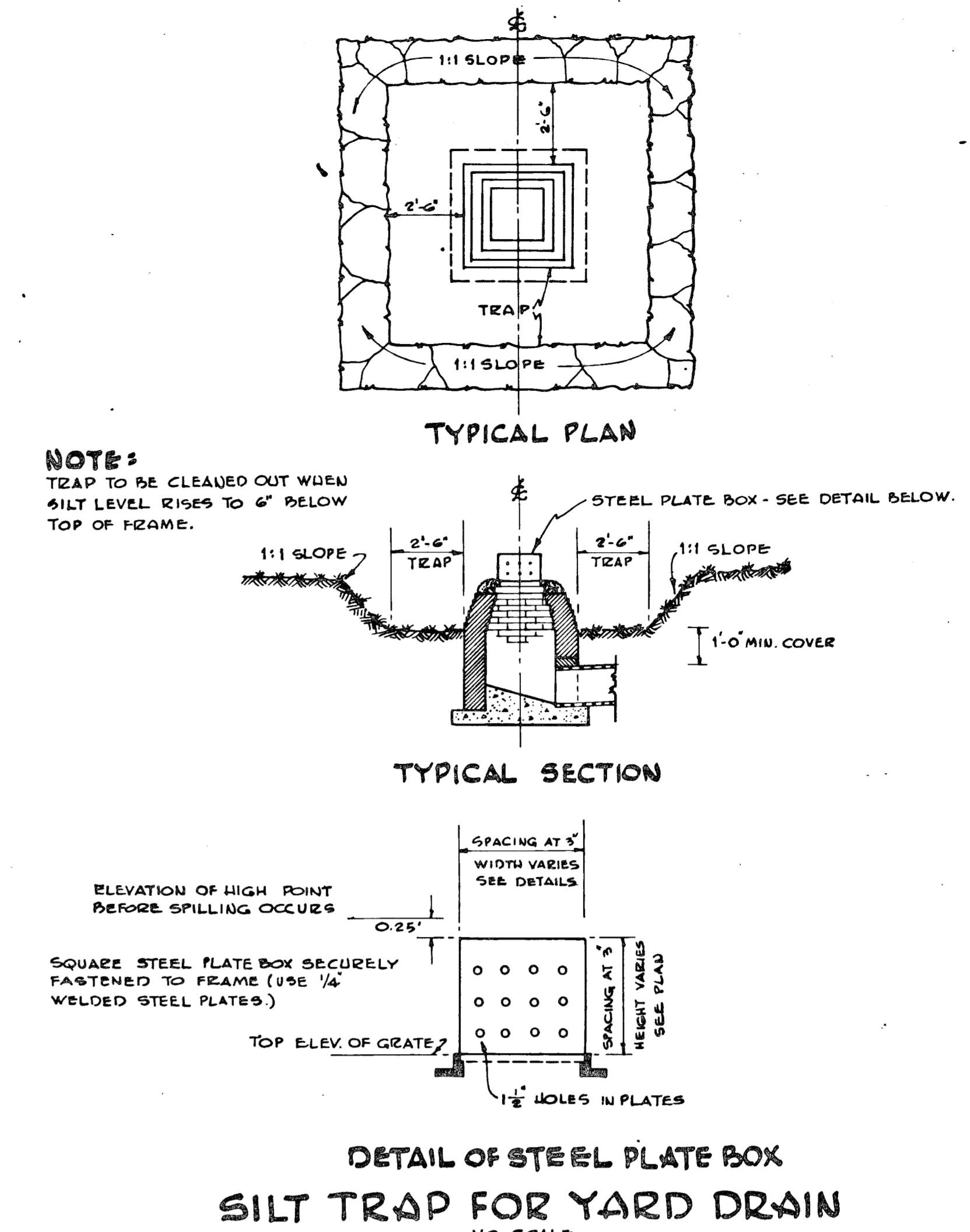
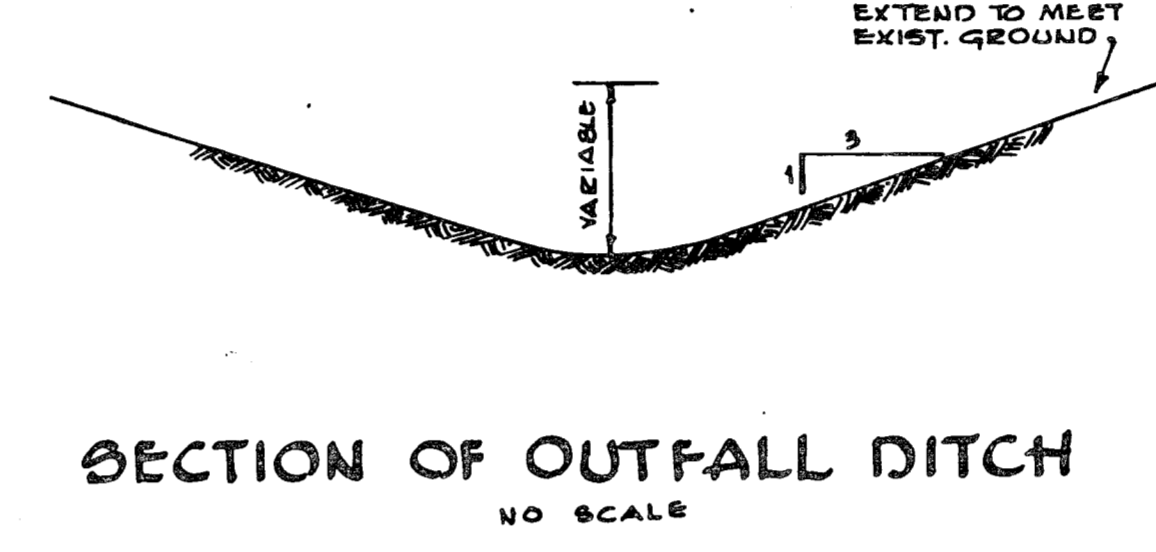
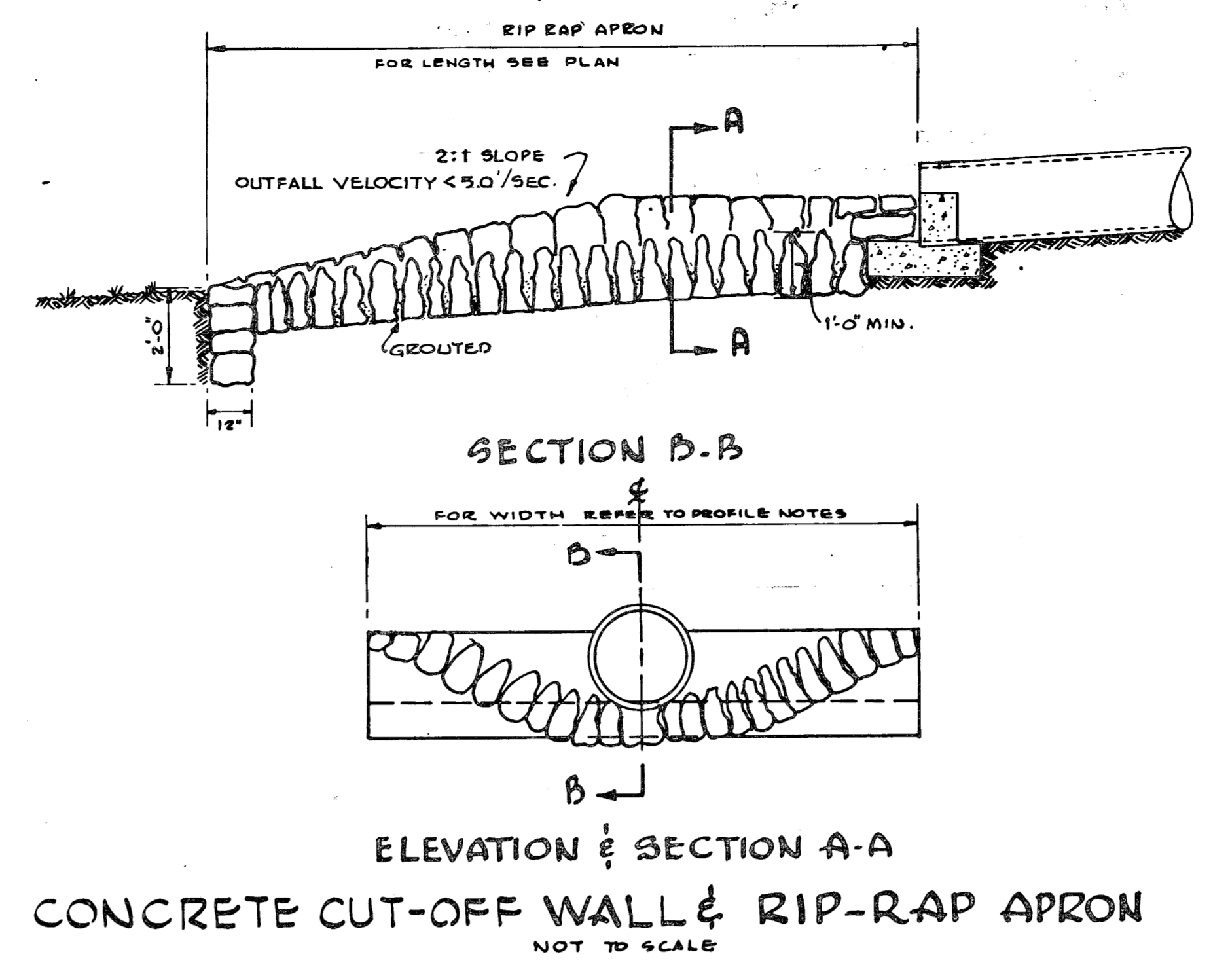
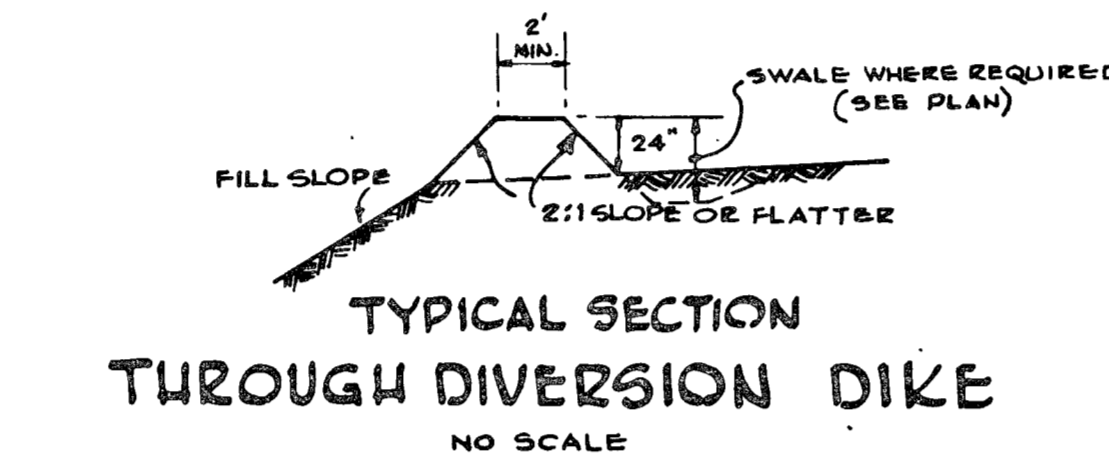
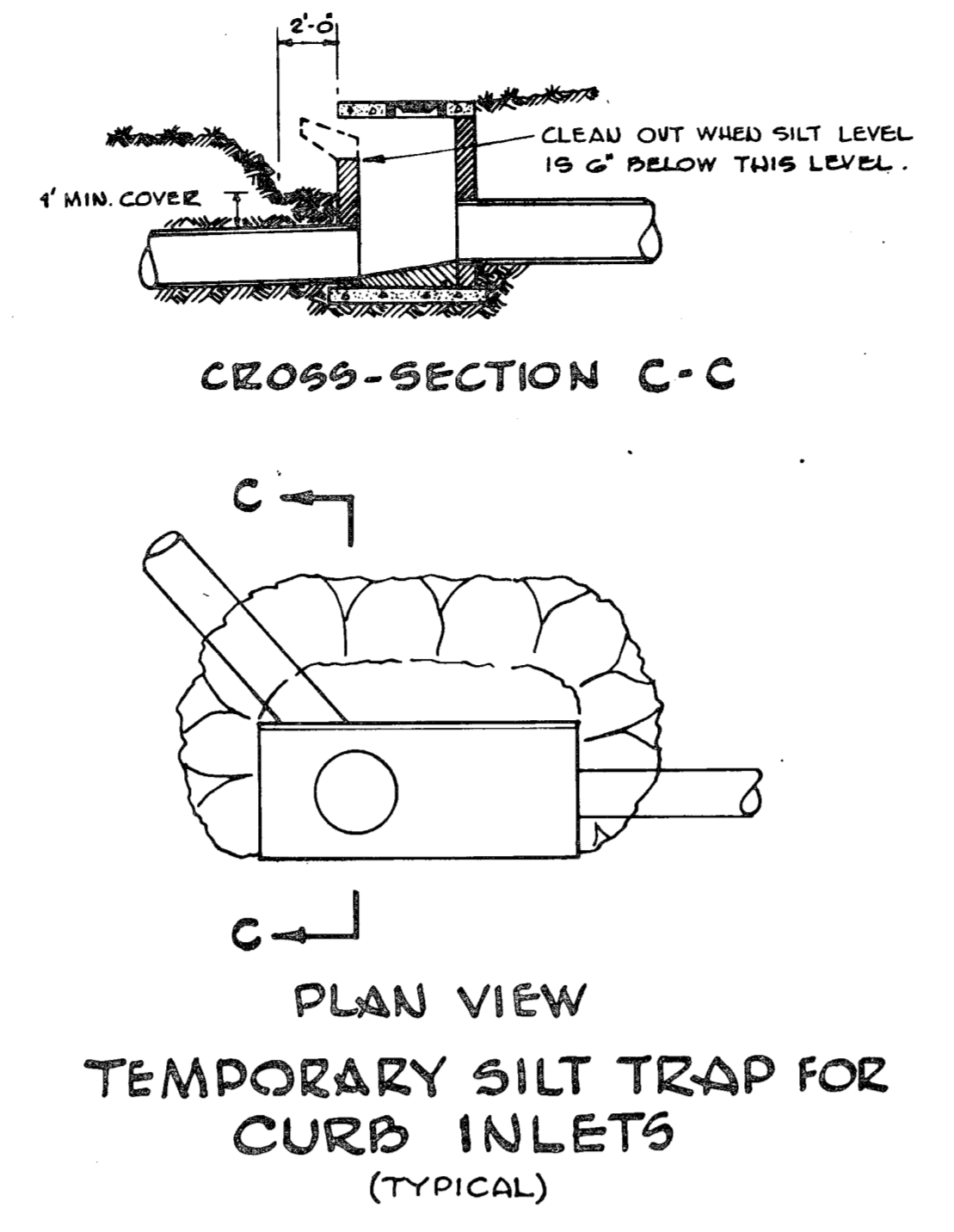
GRADING PLAN

JOB NO. 651
 SHEET NO. PS-2
 2 OF 4

SCALE: 1"=50'



NOTE: SPECIAL TYPE 'D' GRATE INLET IS SIMILAR, HOWEVER USE 24" X 24" GRATES SHOWN IN CATALOG OF TEMPLE ROUNDY, ALEXANDRIA, VA., PAGE 86 WITH 1" GAGE WIDTH AND 5/8" OPENING. BRICK OPENING OF STRUCTURE HAS TO BE ADJUSTED ACCORDINGLY.



STRUCTURE TABLE

NO.	TYPE	TOP ELEV.	REMARKS
1	A-9 INLET	458.03	HOWARD COUNTY STD. DRG. 64-A
2	A-9 INLET	451.80	"
3	A-9 INLET	450.40	"
4	SPECIAL 'A' INLET	471.00	AS DETAILED
5	SPECIAL 'A' INLET	471.00	"
6	CUT-OFF WALL	"	HOWARD COUNTY STD. DRG. 64-B
7	SPECIAL 'A' INLET	479.60	AS DETAILED
8	SPECIAL 'A' INLET	477.00	"
9	SPECIAL 'A' INLET	477.00	"
10	SPECIAL 'A' INLET	477.90	"
11	TYPE 'E' INLET	458.00	MSRC STD.
12	TYPE 'E' INLET	458.00	"
13	TYPE 'E' INLET	458.00	"
14	SPECIAL 'A' INLET	476.00	"
15	SPECIAL 'A' INLET	476.00	"
16	A-9 INLET	471.80	HOWARD COUNTY STD. DRG. 64-A
17	TYPE 'E' ENDWALL	"	MSRC STD. NO. 334-01 FOR 30" PIPE
18	SPECIAL 'A' INLET	457.50	AS DETAILED
19	SPECIAL 'A' INLET	462.50	"

* WITH GROUDED RIP-RAP APRON OF LENGTH & WIDTH SHOWN ON PROFILES.
ALL EXPOSED PORTIONS OF FRAMES, GRATES AND CHANNELS SHALL RECEIVE 2 COATS OF AN APPROVED PAINT.
WALL THICKNESS OF STRUCTURES IN EXCESS OF 6" OR DEPTH SHALL BE INCREASED 10%.
PROVIDE STEEL OR CAST IRON MANHOLE STEPS, STAGGERED AT 18" O.C. FOR ALL STRUCTURES DEEPER THAN 3 FEET.

STORM DRAIN PROFILES
SCALE: HORIZ. 1" = 50'; VERT. 1" = 4'

APPROVED FOR PUBLIC WATER AND PUBLIC SANITATION SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT.

APPROVED FOR THE BOARD OF EDUCATION
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

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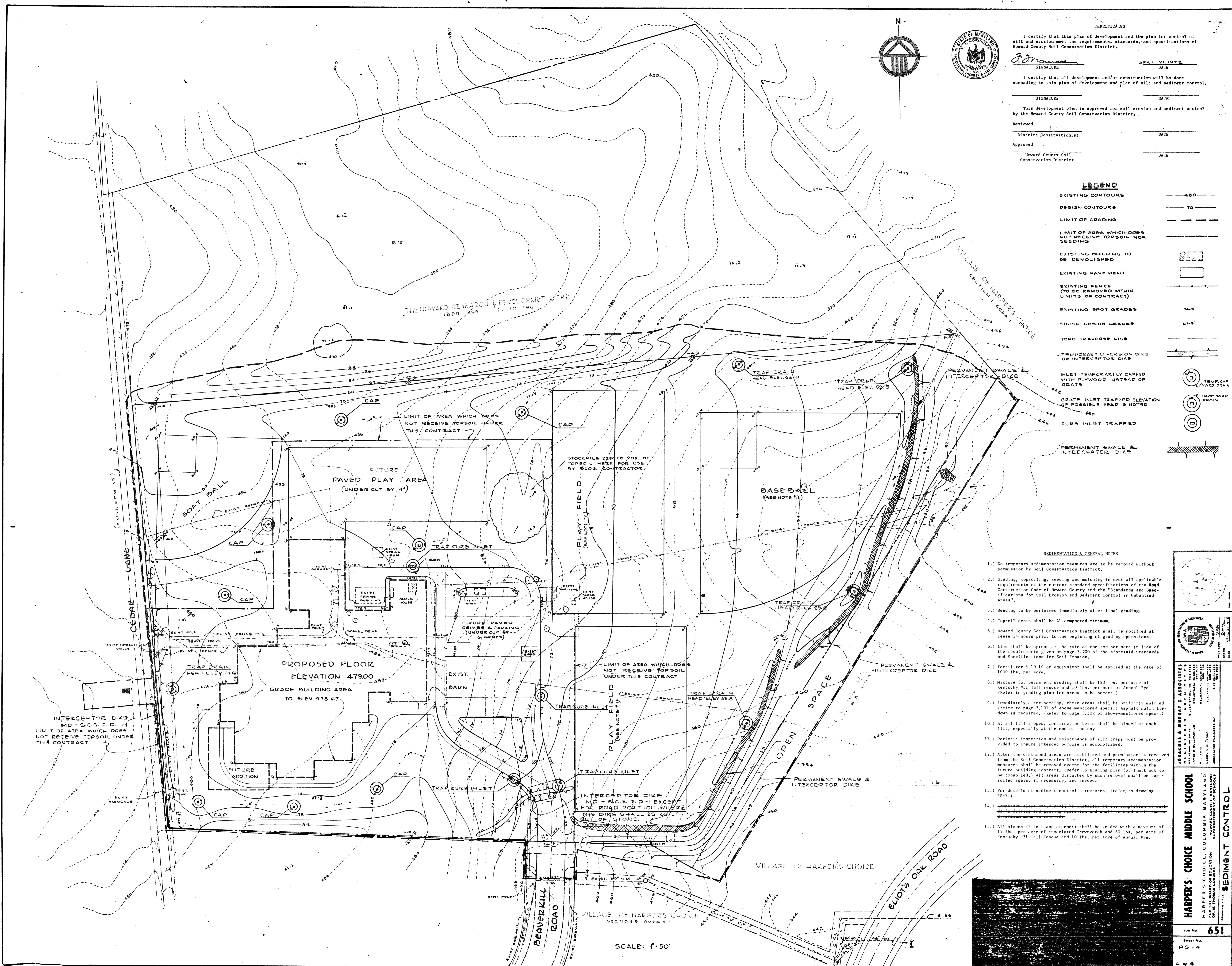
DATE: 1-17-74

JOHANNES & MURRAY & ASSOCIATES
REGISTERED PROFESSIONAL ENGINEERS
1000 N. WASHINGTON ST.
ALEXANDRIA, VA. 22304

HARPER'S CHOICE MIDDLE SCHOOL
HARPER'S CHOICE, COLUMBIA, MARYLAND
FOR THE BOARD OF EDUCATION
HOWARD COUNTY, MARYLAND
DR. W. THOMAS GREEN
SUPERINTENDENT OF SCHOOLS

STONY DRAINAGE PROFILES & DETAILS

JOB NO. 651
SHEET NO. P3-3
3 OF 4



CERTIFICATE

I certify that this plan of development and the plan for control of silt and erosion meet the requirements, standards, and specifications of Howard County Soil Conservation District.

Signature: *[Signature]* Date: APRIL 21 1972

I certify that all development and/or construction will be done according to this plan of development and plan of silt and sediment control.

Signature: _____ Date: _____

This development plan is approved for silt erosion and sediment control by the Howard County Soil Conservation District.

Reviewed: _____ Date: _____
 District Conservationist

Approved: _____ Date: _____
 Howard County Soil Conservation District

LEGEND

EXISTING CONTOURS	---
DESIGN CONTOURS	---
LIMIT OF GRADING	---
LIMIT OF AREA WHICH DOES NOT RECEIVE TOPSOIL NOR SEEDING	---
EXISTING BUILDING TO BE DEMOLISHED	[Hatched Box]
EXISTING PAVEMENT	[Dotted Box]
EXISTING FENCE (TO BE REMOVED WITHIN LIMITS OF CONTRACT)	[Dashed Line]
EXISTING SPOT GRADES	74.4
FINISH DESIGN GRADES	67.9
TOPO TRAVERSE LINE	---
TEMPORARY DIVERSION DIKS OR INTERCEPTOR DIKE	[Symbol]
INLET TEMPORARILY CAPPED WITH PLYWOOD INSTEAD OF GRATE	[Symbol]
GRATE INLET TRAPPED ELEVATION OF POSSIBLE HEAD IS NOTED	[Symbol]
CURB INLET TRAPPED	[Symbol]
PERMANENT SWALE & INTERCEPTOR DIKE	[Symbol]
TEMP. CAP YARD DRAIN	[Symbol]
TRAP YARD DRAIN	[Symbol]

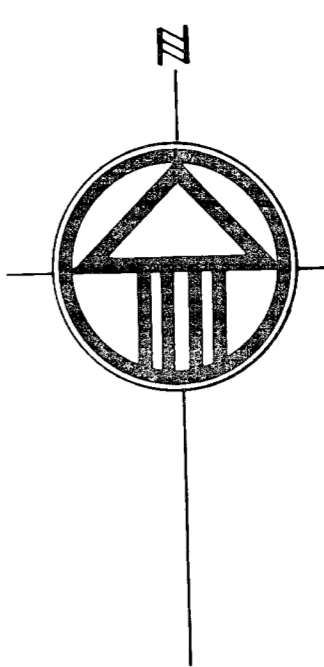
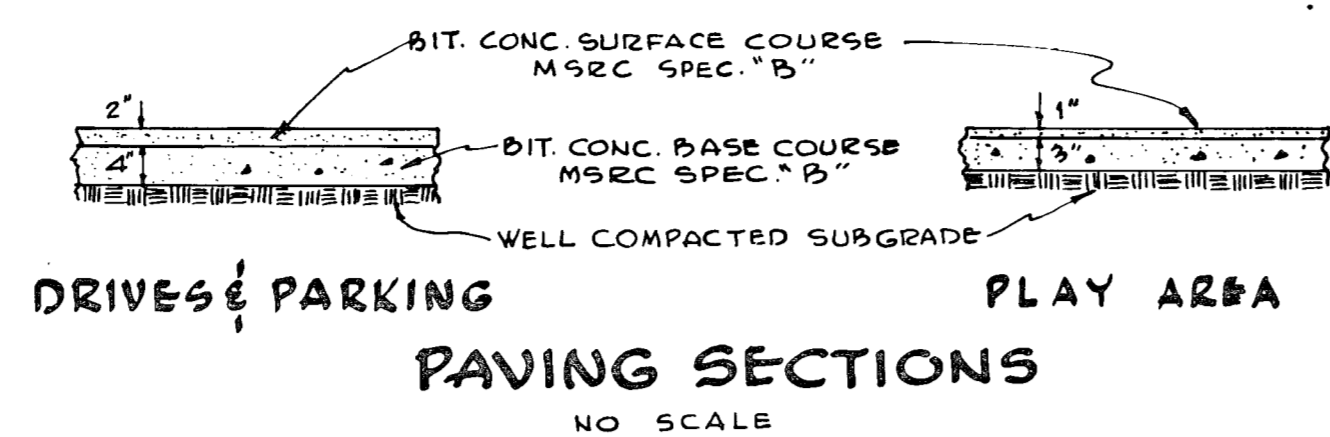
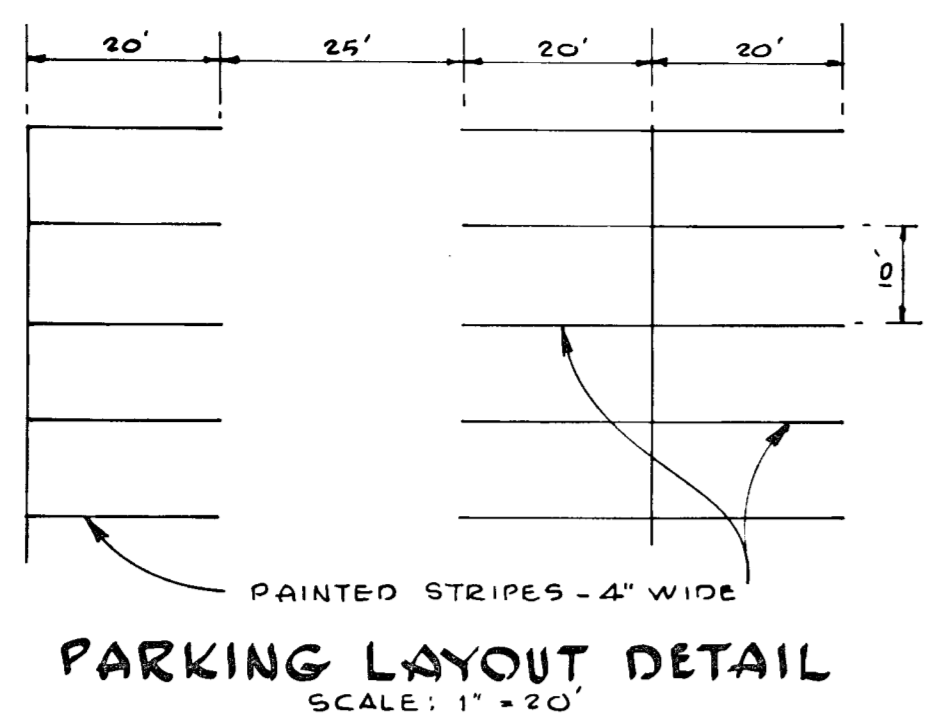
- SEDIMENTATION & GENERAL NOTES**
- No temporary sedimentation measures are to be removed without permission by Soil Conservation District.
 - Grading, topsoiling, seeding and mulching to meet all applicable requirements of the current standard specifications of the Road Construction Code of Howard County and the "Standards and Specifications for Soil Erosion and Sediment Control in Unimproved Areas".
 - Seeding to be performed immediately after final grading.
 - Topsoil depth shall be 4" compacted minimum.
 - Howard County Soil Conservation District shall be notified at least 24 hours prior to the beginning of grading operations.
 - Lime shall be spread at the rate of one ton per acre in lieu of the requirements given on page 3,700 of the aforesaid standards and specifications for Soil Erosion.
 - Fertilizer 5-10-10 or equivalent shall be applied at the rate of 1000 lbs. per acre.
 - Mixture for permanent seeding shall be 120 lbs. per acre of Kentucky #31 tall rescue and 10 lbs. per acre of Annual Rye. (Refer to grading plan for areas to be seeded.)
 - Immediately after seeding, these areas shall be uniformly mulched (refer to page 3,101 of above-mentioned specs.) Asphalt mulch (ie down is required. (Refer to page 3,102 of above-mentioned specs.)
 - At all fill slopes, construction berms shall be placed at each fill, especially at the end of the day.
 - Periodic inspection and maintenance of silt traps must be provided to insure intended purpose is accomplished.
 - After the disturbed areas are stabilized and permission is received from the Soil Conservation District, all temporary sedimentation measures shall be removed except for the facilities within the future building contract. (Refer to grading plan for limit not to be topsoiled.) All areas disturbed by such removal shall be top-soiled again, if necessary, and seeded.
 - For details of sediment control structures, refer to drawing PS-3.)
 - _____
 - All slopes (3 to 1 and steeper) shall be seeded with a mixture of 15 lbs. per acre of inoculated Crownvetch and 60 lbs. per acre of Kentucky #31 tall rescue and 10 lbs. per acre of Annual Rye.

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 OF THE BOARD OF EDUCATION
 HARPER'S CHOICE, MARYLAND

SEDIMENT CONTROL

JOB No. **651**
 SHEET No. **PS-4**
 4 of 4



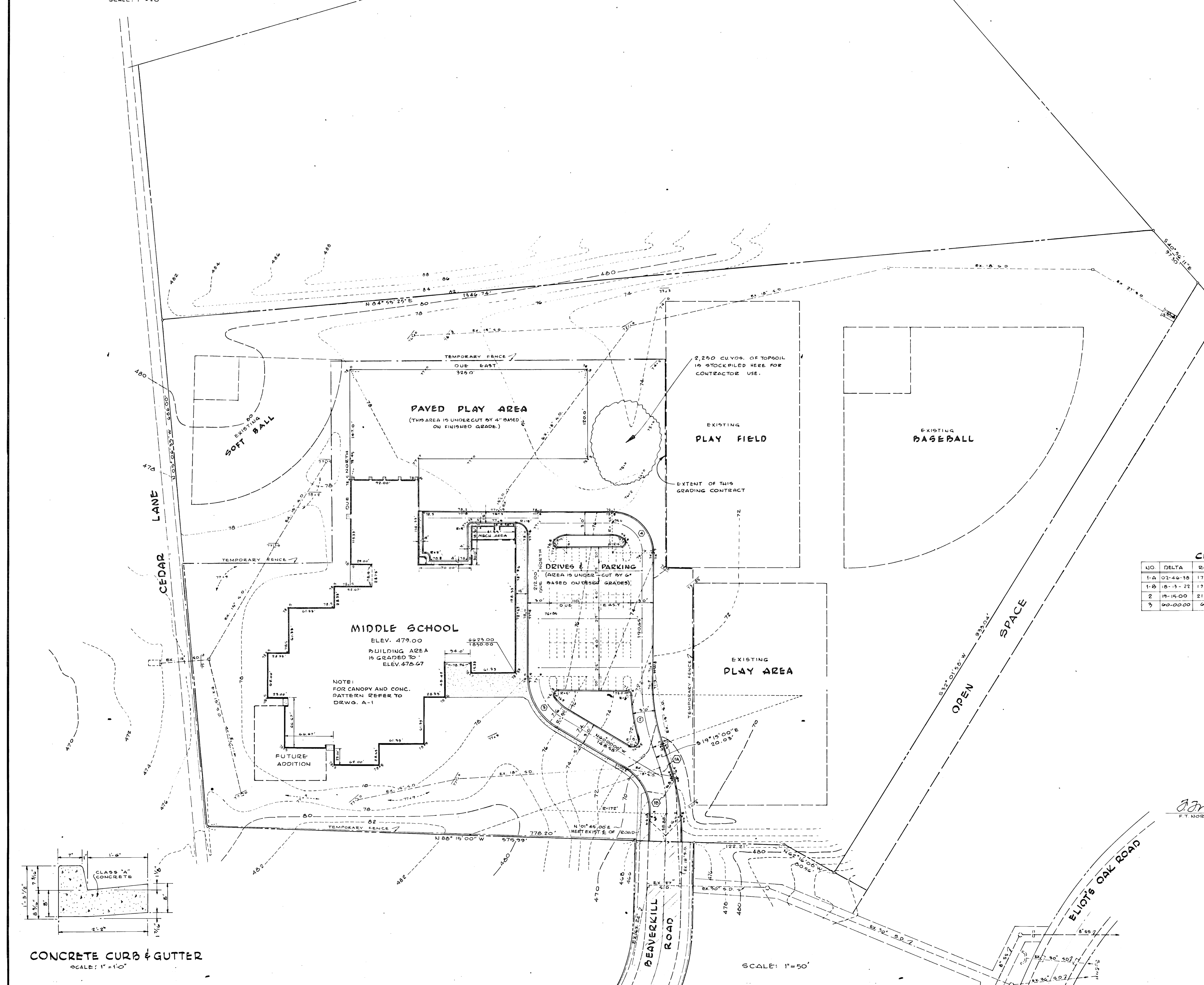
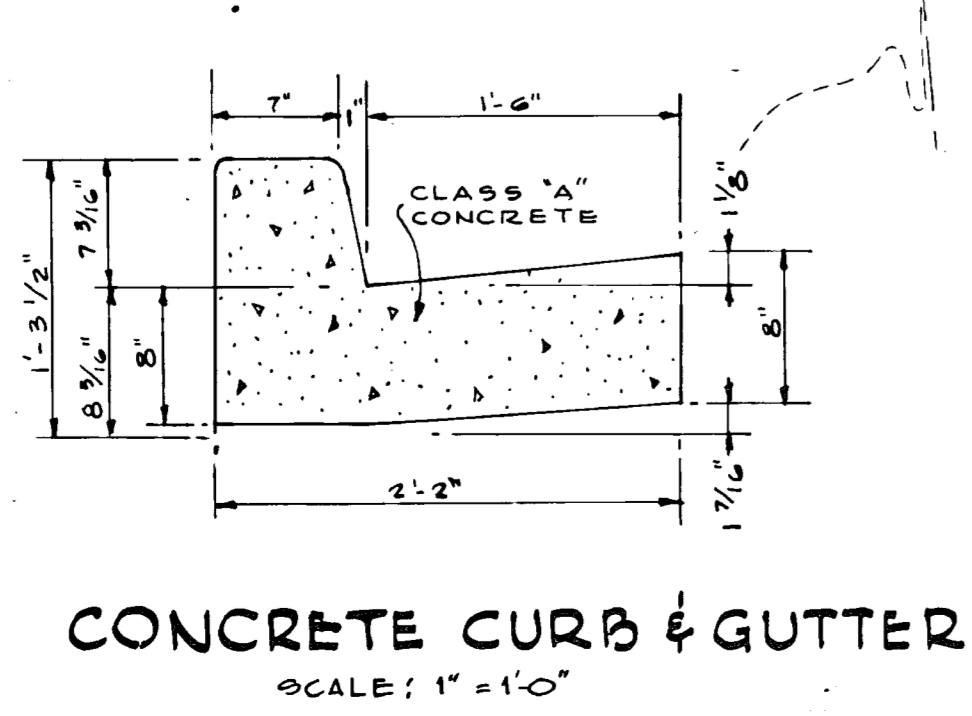
- NOTES**
- THIS IS A PRE-GRADED SITE. PRELIMINARY SITE PREPARATION DETAILS ARE AVAILABLE AT THE ARCHITECT FOR REFERENCE. EXPECTED GRADING TOLERANCE: 0.10'.
 - REFER TO MECH. DWGS FOR EXTENT OF SANITARY SEWER, WATER, GAS & ELECTRIC SERVICES.
 - REFER TO DWG. A-1 FOR ADDITIONAL BUILDING LAYOUT DIMENSIONS & SPOT GRADES.
 - FOUR (4) INCHES OF TOPSOIL HAS TO BE SPREAD OVER ALL UNPAVED AREAS WITHIN LIMIT OF THIS CONTRACT 2250 CU YDS. OF TOPSOIL HAS BEEN STOCKPILED WHERE SHOWN FOR SPREADING.
 - TOPSOIL AREAS ARE TO BE LIMED, FERTILIZED AND SOODED.
 - ANY AREA OUTSIDE OF THIS GRADING CONTRACT AND DISTURBED BY THIS CONSTRUCTION HAS TO BE TOPSOILED & SOODED (THIS BESES ESPECIALLY TO UTILITIES. ANY DISTURBED PAVING HAS TO BE REPLACED.)
 - NOTE: PAVED AREAS HAVE BEEN UNDERCUT. AMOUNT OF UNDERCUT IS SHOWN ON DRAWING.
 - EXISTING SEDIMENT CONTROL FEATURES WITHIN LIMITS OF THIS CONTRACT WILL HAVE TO BE REMOVED WHEN AREA IS STABILIZED. PERMISSION OF SCD WILL HAVE TO BE OBTAINED.
 - PITCH GUTTER AWAY FROM CURB WHERE REQUIRED BY DRAINAGE PATTERN.
 - MATERIAL AND WORKMANSHIP FOR GRADING, SODDING & PAVING WORK TO MEET THE APPLICABLE REQUIREMENTS OF THE ROAD CONSTRUCTION CODE AND STANDARD SPECIFICATIONS OF HOWARD COUNTY AND FOR THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN URBANIZING AREAS.
 - THIS CONTRACTOR SHALL CHECK KEY GRADE POINTS PRIOR TO PROCEEDING WITH CONSTRUCTION. IF ANY DISCREPANCIES ARE NOTED ARCHITECT SHALL BE NOTIFIED IMMEDIATELY SO THAT CORRECTIVE MEASURES CAN BE STARTED.
 - PREFIX OF 4 MAY HAVE TO BE ADDED TO SOME SPOT GRADES AND/OR CONTOURS.
 - CONTOURS SHOWN WITHIN LIMIT OF GRADING REFER TO FINISHED DESIGN GRADES.
 - EXIST. GRADES WITHIN THIS CONTRACT, EXCEPT FOR UNDERCUT AREAS ARE GRADED 4" BELOW DESIGN GRADE (SEE NOTE #1 RE: EXPECTED TOLERANCE) TO ALLOW FOR TOPSOIL SPREADING.

LEGEND

BITUMINOUS CONCRETE PAVING (SEE DETAIL)	---
EXISTING STONE CURB	---
EXISTING PAVING	---
NEW CONCRETE WALKS OR SLABS	---
EXTENT OF TEMPORARY FENCING & LIMIT OF THIS CONTRACT (EXCLUDING UTILITIES)	---
EXISTING SPOT GRADES	52.5
DESIGN SPOT GRADES	53.0
FINISHED CONTOUR BASED ON PRE-GRADING CONTOURS (NOTE: REFER TO NOTE #4 FOR TOPSOIL AND NOTE #7 FOR UNDERCUTTING)	---
CURVE DATA	---
PROPERTY LINE	---
NEW BUILDING	---
NEW CONCRETE CURB & GUTTER (SEE DETAIL)	---
PAINTED LINES	---

CURVE DATA

LC	DELTA	RADIUS	ARC	TAU	CHORD
1-A	02:46:30	172.00'	5.34'	4.11'	8.34'
1-B	18:13:22	172.00'	54.70'	23.56'	54.47'
2	18:15:00	218.24'	73.32'	37.01'	72.98'
3	00:00:00	65.00'	68.07'	37.53'	69.00'



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OF HARPER'S CHOICE
DR. M. THOMAS COOPER, SUPERINTENDENT OF SCHOOLS

FT NORCROSS
PROFESSIONAL ENGINEER & LAND SURVEYOR, MD #01

SITE PLAN

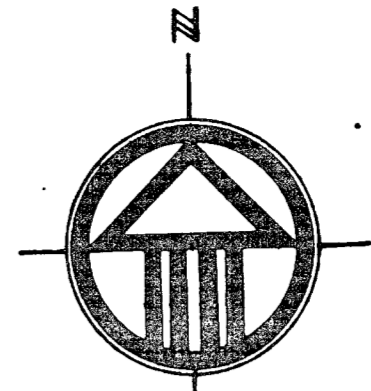
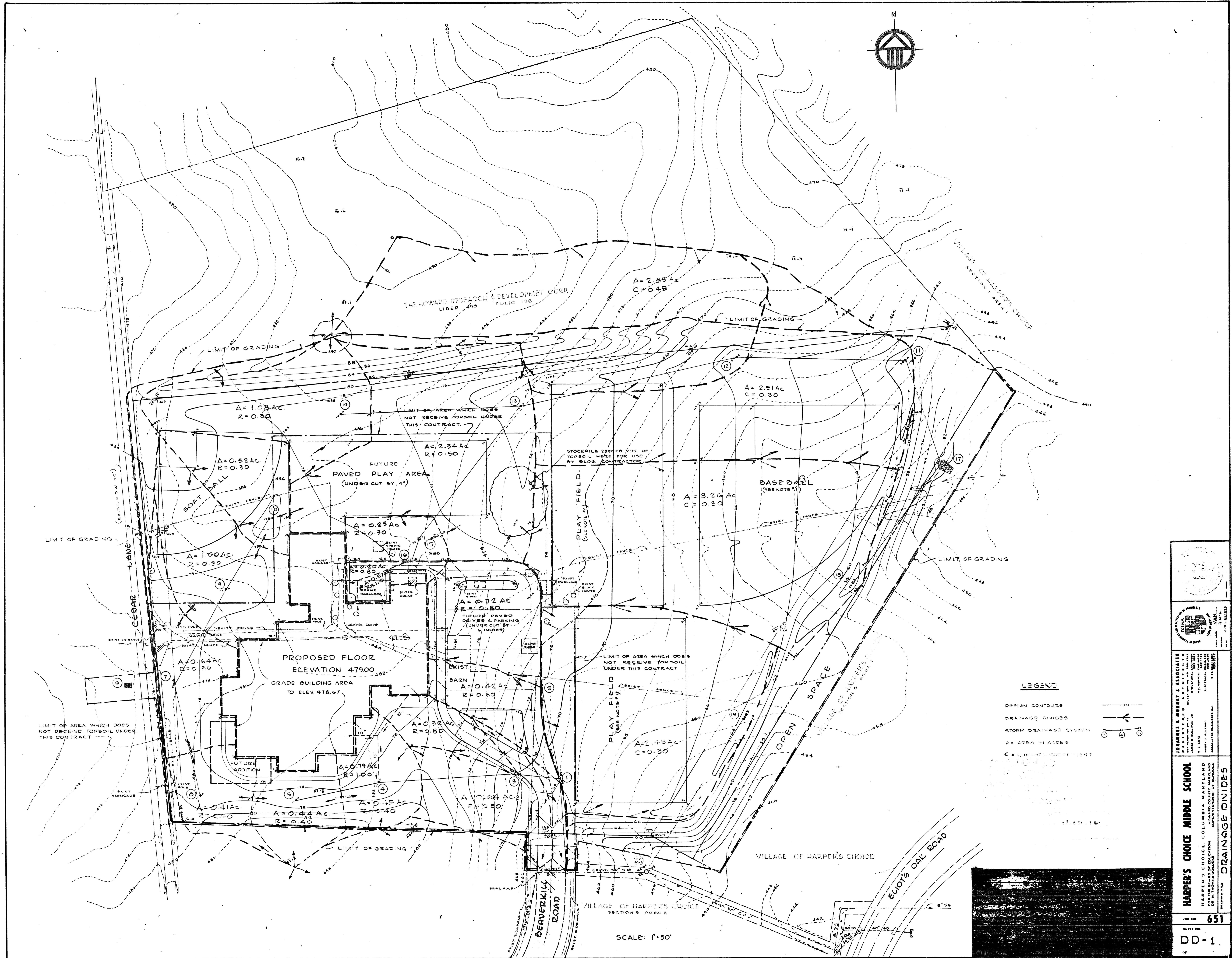
DATE: 07/20/22

PROJECT NO: 19-72-13-02 CDP

JUN NO: 651

SHEET NO: G-1

1 OF 1



LEGEND

- DESIGN CONTOURS
- DRAINAGE DIVIDES
- STORM DRAINAGE SYSTEM
- A = AREA IN ACRES
- C = SLOPE COEFFICIENT

SCALE: 1" = 50'

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SHEET No. **651**
 DD-1