

20' WATER EASEMENT

LIGHT DUTY 6 BIT CONC WALK
SEE SHEET 4 OF 22 FOR CONTINUATION OF WALK

PROPOSED MIDDLE SCHOOL

FFE = 371.5
(2 STORY)

TRIE RETENTION SOIL PROTECTION AREAS WILL BE DELINEATED WITH FENCING AND/OR TEMPORARY SIGNAGE AS APPROPRIATE (SEE TREE PROTECTION FENCE AND TEMPORARY SIGNAGE DETAILS) PRIOR TO THE INSTALLATION OF SEDIMENT & EROSION CONTROL DEVICES OR THE BEGINNING OF ANY CONSTRUCTION ACTIVITY FENCING SHALL NOT BE CONSIDERED INSTALLED CORRECTLY UNTIL REVIEWED BY A LANDSCAPE ARCHITECT OR QUALIFIED NATURAL RESOURCE PROFESSIONAL FAMILIAR WITH THE PLAN ATTACHMENT OF SIGNS IS PROHIBITED ROOT PRUNING WILL BE PERFORMED AS SPECIFIED ON THIS PLAN (SEE ROOT PRUNING DETAIL)

THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 161200 OF THE HOWARD COUNTY CODE FOREST CONSERVATION ACT NO CLEARING GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT HOWEVER FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED

LIGHT DUTY 6 BIT CONC WALK

HEAVY DUTY 6 BIT CONC WALK

HANDICAPPED RAMP TYPE 'B'

HEAVY DUTY CONCRETE PAVEMENT

HEAVY DUTY CONCRETE PAVEMENT

12 X 44 BUS PARKING LANES WITH YELLOW TRAFFIC PAINT TYP

75 SETBACK STRUCTURE & USE

20' WATER EASEMENT

SEE ARCH DRWS FOR BACKBOARD DETAIL

CONC EXIT PAD TYP

PROP GREASE INTERCEPTOR WITH 24" MANHOLES SEE MECH DRWS FOR LOCATION AND DETAIL

HANDICAPPED SINGLE SIGN
HANDICAPPED DOUBLE SIGN
HANDICAPPED RAMP TYPE 'A'
HANDICAPPED VAN SIGN

MAIN HANDICAPPED ENTRANCE

VAN HANDICAPPED PARKING SPACE
7 HANDICAPPED RAMP TYPE 'C'

DUMPSTER AREA ENLARGEMENT
CONC C&G TYP
HEAVY DUTY CONCRETE PAVEMENT
6 HANDICAPPED RAMP TYPE 'C'

HEAVY DUTY BIT CONC PAVEMENT TYP
DUST COLLECTOR
6 HANDICAPPED RAMP TYPE 'C'

SCREEN WALL SEE ARCH DRAWINGS
CONCRETE WALK
YARD INLET
SAN M.H. 3 R TYP

DOUBLE 400 WATT METAL HALIDE LIGHT FIXTURE ON 24' POLE TYP
2.5' DIA STEPPING STONES (TYP)
4 WIDE 6" CONC WALK AROUND FLAGPOLE BASE
FLAGPOLE BASE

STANDARD STOP SIGN

SINGLE 400 WATT METAL HALIDE LIGHT FIXTURE ON 24' POLE TYP

CONC. C&G TYP

HANDICAPPED RAMP TYPE 'A'

BUS LOOP

DRAIN INLET TYP

HEAVY DUTY PAVEMENT TYP

HEAVY DUTY PAVEMENT TYP

HEAVY DUTY PAVEMENT TYP

HEAVY DUTY PAVEMENT TYP

HEAVY DUTY PAVEMENT TYP

HEAVY DUTY PAVEMENT TYP

HEAVY DUTY PAVEMENT TYP

HEAVY DUTY PAVEMENT TYP

HEAVY DUTY PAVEMENT TYP

HANDICAPPED SINGLE SIGN

HANDICAPPED DOUBLE SIGN

HANDICAPPED RAMP TYPE 'A'

HANDICAPPED VAN SIGN

VAN HANDICAPPED PARKING SPACE

7 HANDICAPPED RAMP TYPE 'C'

DUMPSTER AREA ENLARGEMENT

CONC C&G TYP

HEAVY DUTY CONCRETE PAVEMENT

6 HANDICAPPED RAMP TYPE 'C'

HEAVY DUTY BIT CONC PAVEMENT TYP

DUST COLLECTOR

6 HANDICAPPED RAMP TYPE 'C'

SCREEN WALL SEE ARCH DRAWINGS

CONCRETE WALK

YARD INLET

SAN M.H. 3 R TYP

DOUBLE 400 WATT METAL HALIDE LIGHT FIXTURE ON 24' POLE TYP

2.5' DIA STEPPING STONES (TYP)

4 WIDE 6" CONC WALK AROUND FLAGPOLE BASE

FLAGPOLE BASE

STANDARD STOP SIGN

SINGLE 400 WATT METAL HALIDE LIGHT FIXTURE ON 24' POLE TYP

CONC. C&G TYP

HEAVY DUTY 6 BIT CONC WALK BEGINS

CONC WALK ENDS

HANDICAPPED SINGLE SPACE

HEAVY DUTY PAVING TYP

HEAVY DUTY PAVING TYP

HEAVY DUTY PAVING TYP

HEAVY DUTY PAVING TYP

HEAVY DUTY PAVING TYP

HEAVY DUTY PAVING TYP

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HEAVY DUTY PAVING TYP

HEAVY DUTY PAVING TYP

HEAVY DUTY 6 BIT CONC WALK BEGINS

CONC WALK ENDS

HANDICAPPED SINGLE SPACE

HEAVY DUTY PAVING TYP

HEAVY DUTY PAVING TYP

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HEAVY DUTY PAVING TYP

HEAVY DUTY PAVING TYP

HEAVY DUTY PAVING TYP

LEGEND

- EXPANSION JOINT
- CONSTRUCTION JOINT
- CONCRETE WALK CURB & GUTTER
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING TREE LINE
- HEAVY DUTY BITUMINOUS PAVEMENT
- NUMBER OF PARKING SPACES
- MANHOLE COVER OR CLEAN OUT

APPROVED HOWARD COUNTY DEPT OF PLANNING & ZONING

John DeWitt
CHIEF DEVELOPMENT ENGINEERING DIVISION

Jim Brannaman
CHIEF DIVISION OF LAND DEVELOPMENT & RESEARCH

James S. Smith
DIRECTOR

1/24/96 DATE
2/2/96 DATE
2/5/96 DATE

| Date | No | Revision Description |
|---------|----|--|
| 7-19-96 | 1 | Adjusted paving & removed 1 HC |
| 3-16-98 | 2 | RELOCATE ONE HANDICAPPED PARKING SPACE |

Southeastern Middle School

OWNER DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
16910 ROUTE 108
ELICOTT CITY, MD 21113

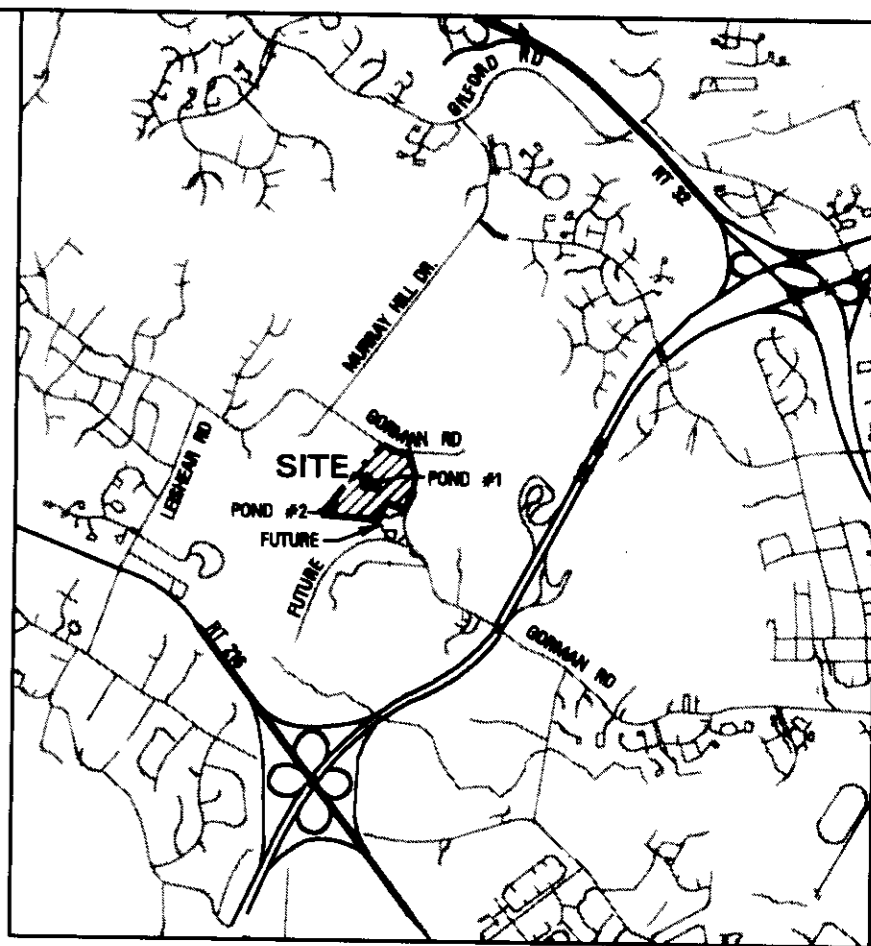
DMW
Duff McCune Walker, Inc.
390 East Pennsylvania Avenue
Towson, Maryland 21286
410 296 3222
Fax 410 296 4700

1-3-96
Date

| DESIGN | DATE | BY | CHKD BY | APP'D BY |
|--------------|--------|-----|---------|----------|
| DESIGN | 1-3-96 | JAW | JAW | JAW |
| PERMITS | 1-3-96 | JAW | JAW | JAW |
| CONSTRUCTION | 1-3-96 | JAW | JAW | JAW |

GRADING AND SURFACE TREATMENTS PLAN FOR MIDDLE SCHOOL

Des No: Scale: 1" = 30' Plot No: 941404
 Date: 8-96
 Professional Engineer's Number: 10551



LOCATION MAP
SCALE: 1" = 400'

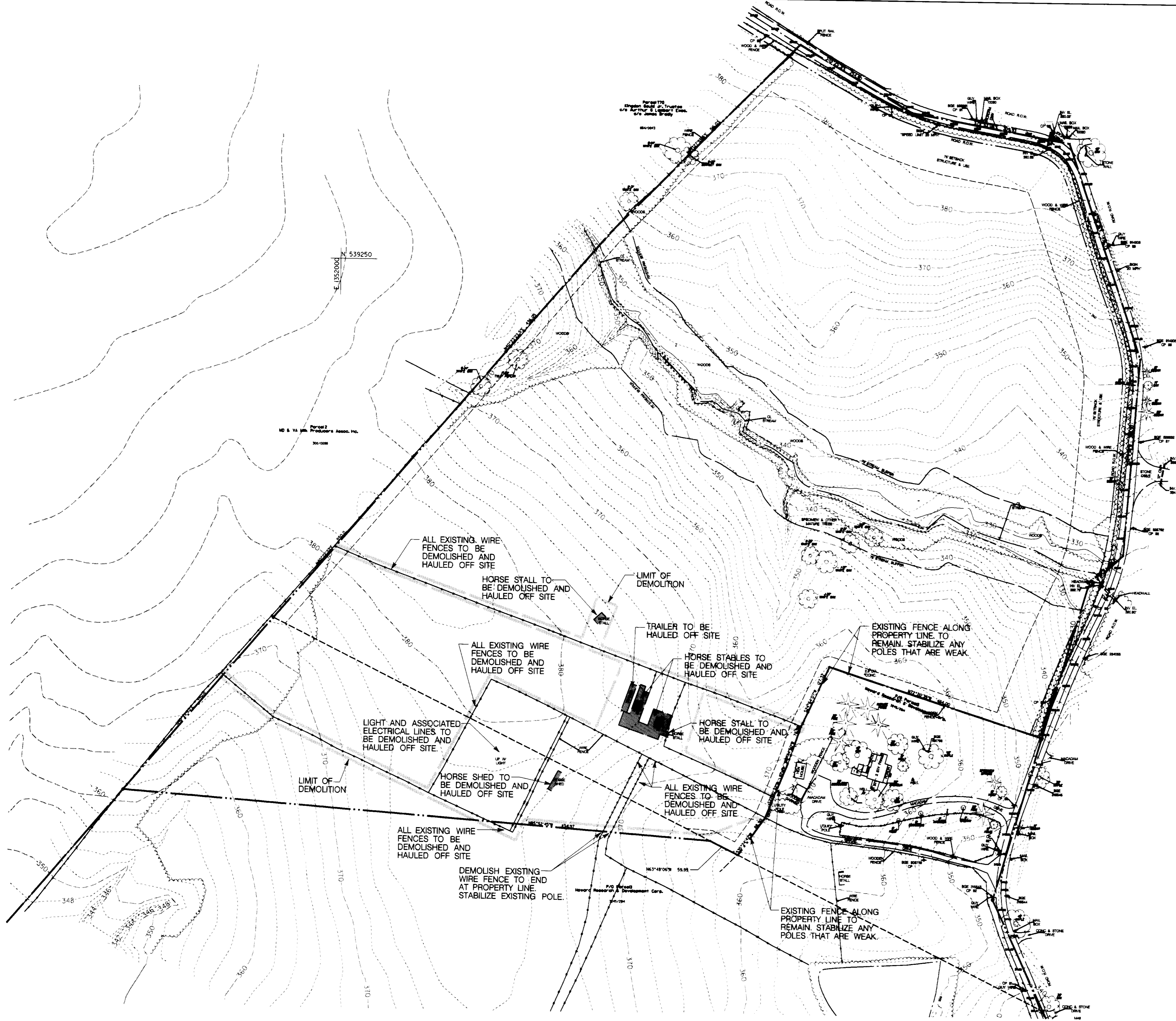
BENCHMARK
HORIZONTAL (NAD 83) AND VERTICAL (NGVD 29)
CONTROL, BASED UPON HOWARD COUNTY TRAVERSE
POINTS 47AB, 42EA, AND 194005

LEGEND

| SYMBOL | DESCRIPTION |
|--------|------------------------------|
| | LIMIT OF DEMOLITION CONTRACT |

DEMOLITION NOTES:

1. SEE FOREST CONSERVATION AND AFFORESTATION PLAN FOR VEGETATION TO BE REMOVED.
2. PLAN DEPICTS LIMIT OF DEMOLITION ONLY. SEE SITE DEVELOPMENT PLANS SHEETS 3 AND 4 FOR LIMIT OF GRADING AND DISTURBANCE.
3. COORDINATE WITH POWER COMPANY FOR REMOVAL OF ELECTRICAL LINES.
4. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 A MINIMUM OF FIVE WORKING DAYS PRIOR TO CONSTRUCTION.



DEMOLITION PLAN
SCALE: 1" = 100'

| | |
|--|-----------------|
| APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING | |
| <i>[Signature]</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION | 1/28/96 DATE |
| <i>[Signature]</i> CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH | 2/6/96 DATE |
| <i>[Signature]</i> DIRECTOR | 2/5/96 DATE |

| Date | No. | Revision Description |
|------|-----|----------------------|
| | | |
| | | |

Southeastern Middle School

OWNER /DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 ROUTE 108
ELLCOTT CITY, MD 21043

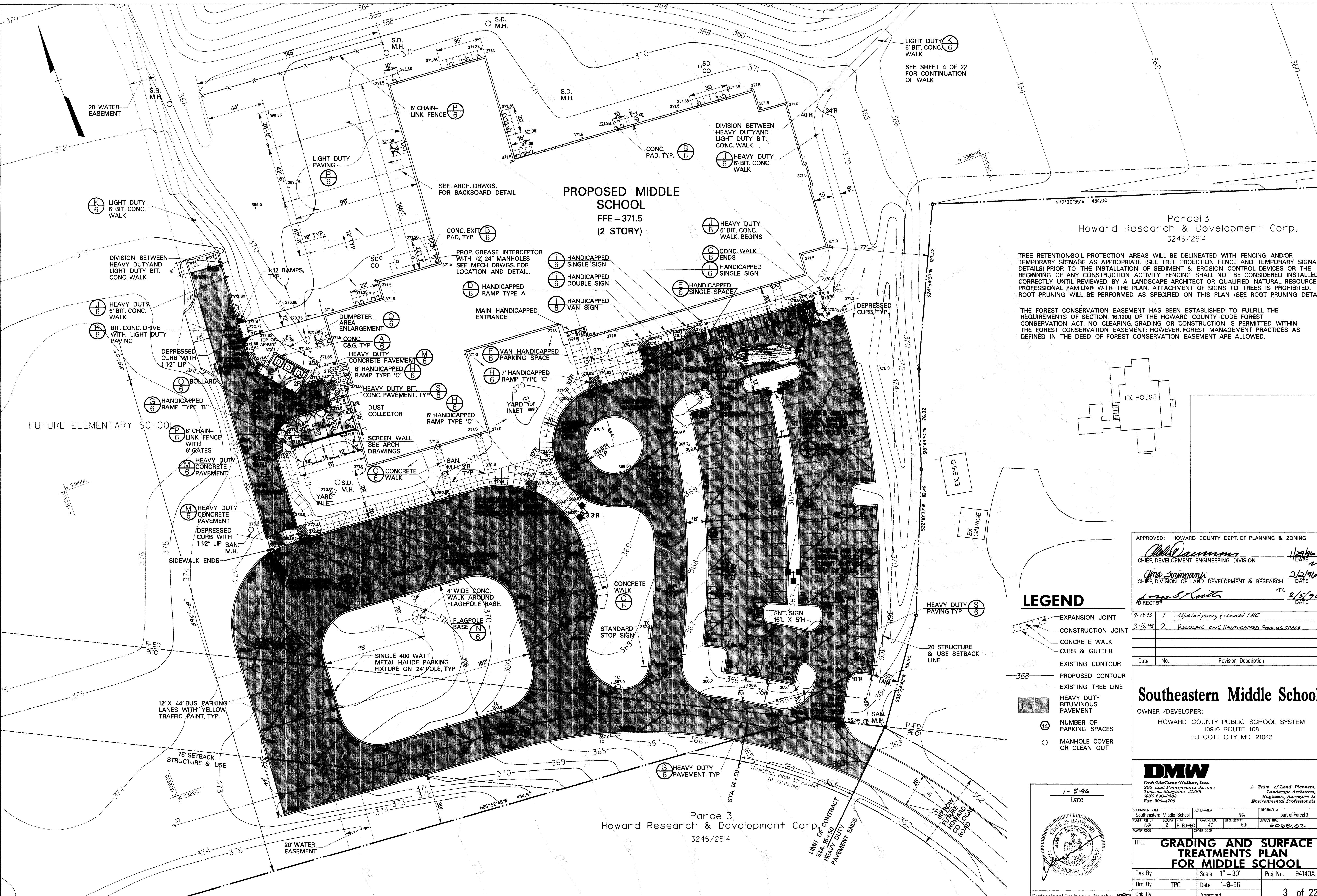
DMW
Darr McCune-Walker, Inc.
300 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax: 296-4706
A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

1-3-96
Date

Professional Engineer Number: 4055

| | | | |
|--|----------------------|---------------------|------------------------------|
| SUBMITTER NAME Southeastern Middle School | | SECTION AREA N/A | DISPATCH part of Parcel 3 |
| DATE OF PLAN 2 | REVISIONS R-ED/EP | DATE OF PLAN 47 | DATE OF PLAN 6th |
| TITLE DEMOLITION PLAN | | Scale 1" = 100' | Proj. No. 94140A |
| Des By TPC | Scale 1" = 100' | Proj. No. 94140A | |
| Drn By TPC | Date 1-3-96 | | |
| Chk By Approved | | | 2 of 22 |

SDP-96-42



PROPOSED MIDDLE SCHOOL
FFE = 371.5
(2 STORY)

Parcel 3
Howard Research & Development Corp.
3245/2514

TREE RETENTION/SOIL PROTECTION AREAS WILL BE DELINEATED WITH FENCING AND/OR TEMPORARY SIGNAGE AS APPROPRIATE (SEE TREE PROTECTION FENCE AND TEMPORARY SIGNAGE DETAILS) PRIOR TO THE INSTALLATION OF SEDIMENT & EROSION CONTROL DEVICES OR THE BEGINNING OF ANY CONSTRUCTION ACTIVITY. FENCING SHALL NOT BE CONSIDERED INSTALLED CORRECTLY UNTIL REVIEWED BY A LANDSCAPE ARCHITECT, OR QUALIFIED NATURAL RESOURCE PROFESSIONAL FAMILIAR WITH THE PLAN. ATTACHMENT OF SIGNS TO TREES IS PROHIBITED. ROOT PRUNING WILL BE PERFORMED AS SPECIFIED ON THIS PLAN (SEE ROOT PRUNING DETAIL).

THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.

LEGEND

- EXPANSION JOINT
- CONSTRUCTION JOINT
- CONCRETE WALK CURB & GUTTER
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING TREE LINE
- HEAVY DUTY BITUMINOUS PAVEMENT
- NUMBER OF PARKING SPACES
- MANHOLE COVER OR CLEAN OUT

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

| | | |
|--|--------|------|
| <i>W.D. O'Connell</i> | 1/2/96 | DATE |
| CHIEF, DEVELOPMENT ENGINEERING DIVISION | | |
| <i>Anna S. Ginnery</i> | 2/6/96 | DATE |
| CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH | | |
| <i>James S. Smith</i> | 2/5/96 | DATE |
| DIRECTOR | | |

| Date | No. | Revision Description |
|---------|-----|--|
| 7-19-96 | 1 | Adjusted paving & removed T.H.C. |
| 3-16-98 | 2 | RELOCATE ONE HANDICAPPED PARKING SPACE |

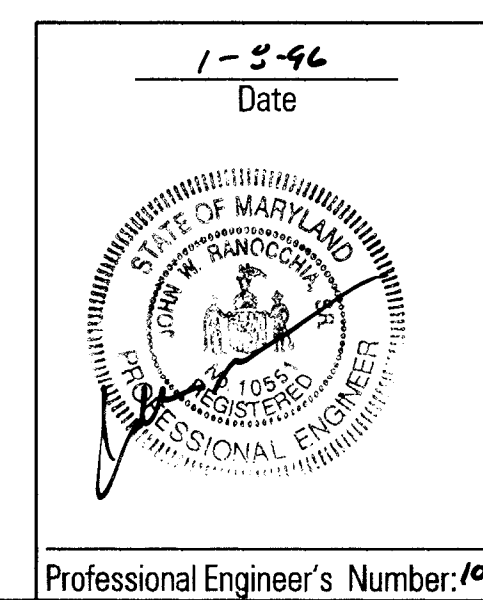
Southeastern Middle School
OWNER /DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 ROUTE 108
ELlicott CITY, MD 21043

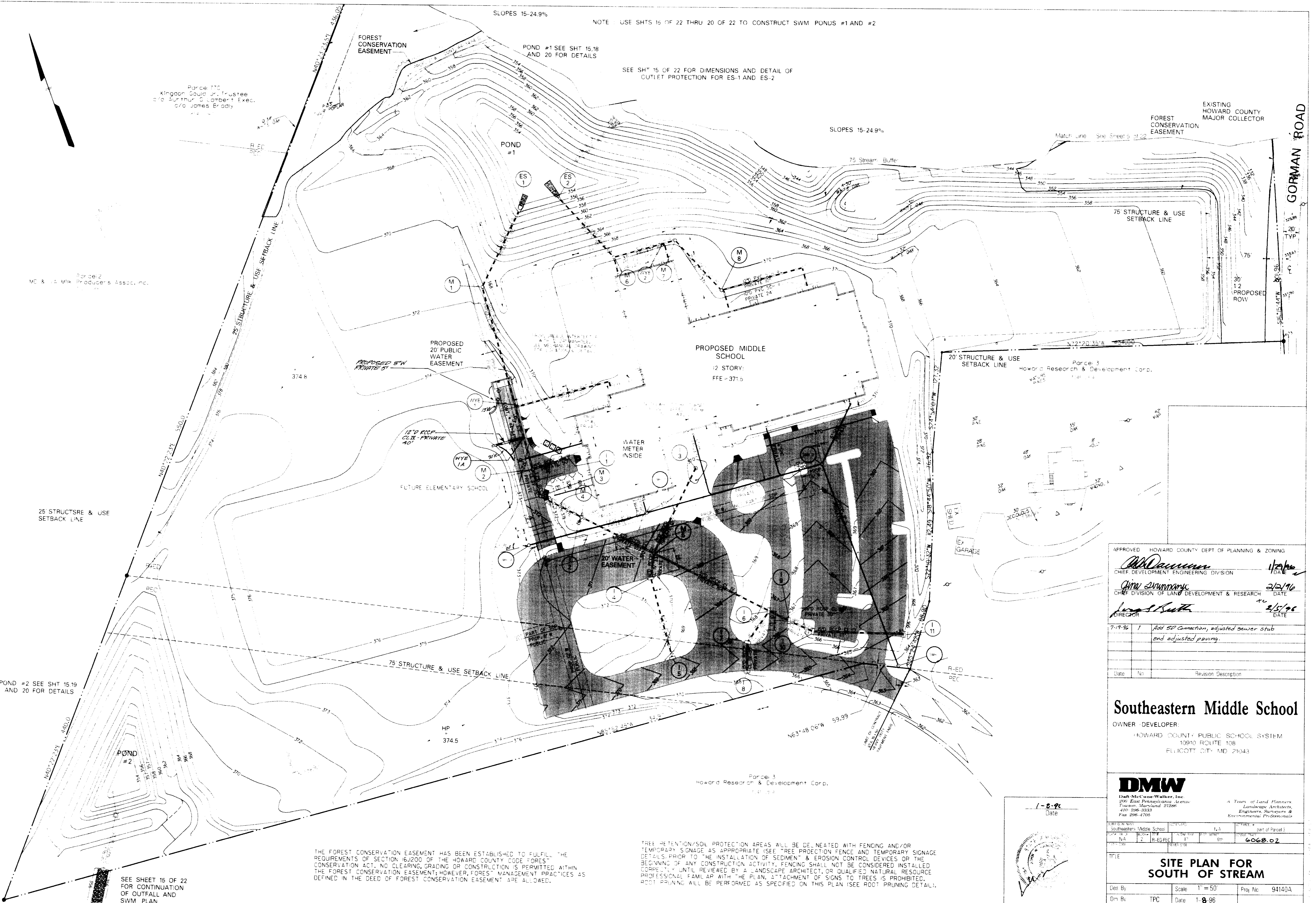
DMW
Dan McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4705

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

| | | | | | |
|-----------------|----------------------------|--------------|----------|--------------|------------------|
| DISCUSSION NAME | Southeastern Middle School | SECTION/AREA | N/A | DATE | part of Parcel 3 |
| PLAN # | 28-1P | BLOCK # | 47 | TAXING YEAR | 47 |
| WATER CODE | 1/A | ZONE | R-ED/PEC | LOT DISTRICT | 8th |
| TITLE | 606B.02 | | | | |

| | | |
|--|----------|-----------|
| TITLE | | |
| GRADING AND SURFACE TREATMENTS PLAN FOR MIDDLE SCHOOL | | |
| Des By | Scale | Proj. No. |
| Drn By | Date | 94140A |
| Chk By | Approved | 3 of 22 |





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APPROVED HOWARD COUNTY DEPT OF PLANNING & ZONING

John D. ... 1/2/96 DATE
CHIEF DEVELOPMENT ENGINEERING DIVISION

John ... 2/5/96 DATE
CHIEF DIVISION OF LAND DEVELOPMENT & RESEARCH

James ... 2/5/96 DATE
DIRECTOR

| | | |
|---------|----|---|
| 7-19-96 | 1 | Add SD Connection, adjusted sewer stub and adjusted paving. |
| Date | No | Revision Description |

Southeastern Middle School

OWNER - DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 ROUTE 108
ELICOTT CITY, MD 21043

DMW
Dan McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
410-296-3533
Fax 296-4705

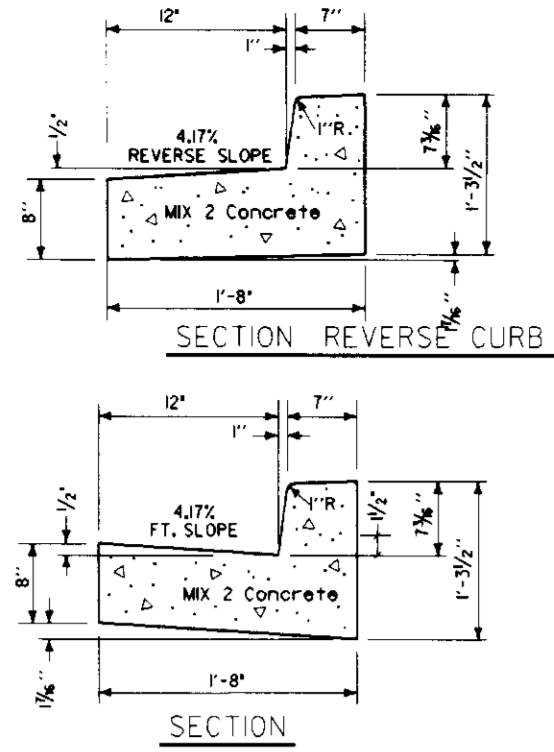
A Team of Land Planners
Landscape Architects
Engineers, Surveyors &
Environmental Professionals

1-8-96
Date

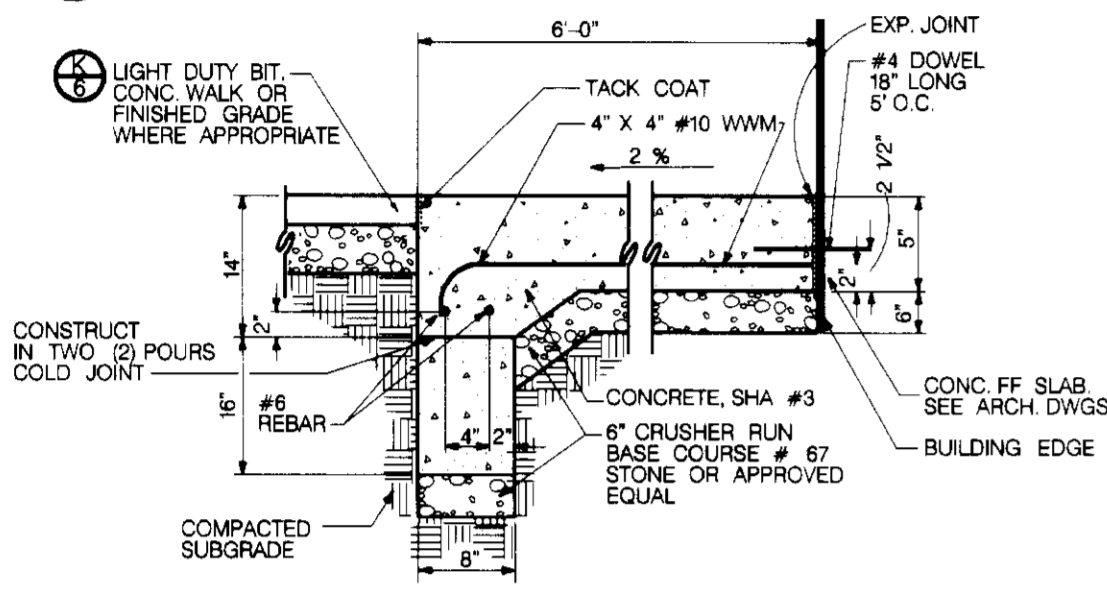
Professional Engineer Number 70557

| | | | | | | | |
|-------------|----------|---------------|-----------|-------------------------------|--|---------------------|--|
| SHEET NO. 2 | | SHEET TOTAL 2 | | DATE 1-8-96 | | PROJECT NO. 606B-02 | |
| TITLE | | | | SITE PLAN FOR SOUTH OF STREAM | | | |
| Des. By | Scale | 1" = 50' | Proj. No. | 94140A | | | |
| Drn. By | TPC | Date | 1-8-96 | 4 of 22 | | | |
| Chk. By | Approved | | | | | | |

SDP 96-42

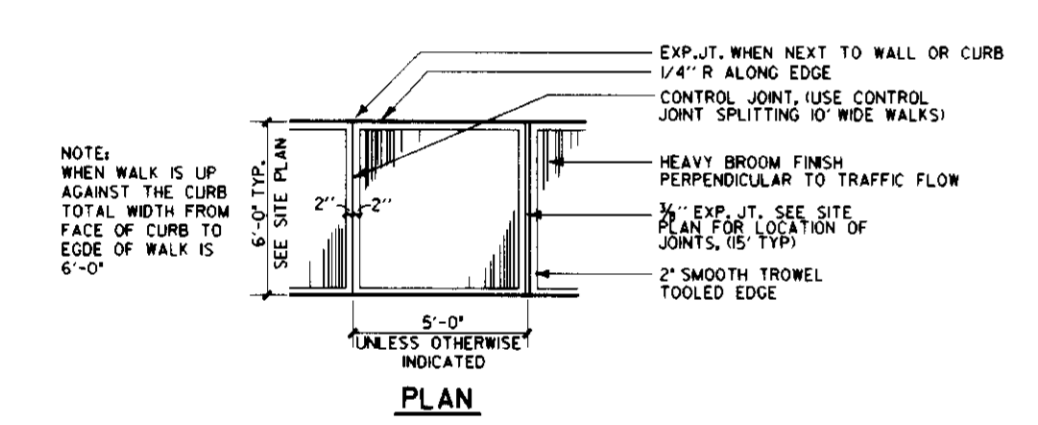


A Concrete Curb, Typ.
Not To Scale

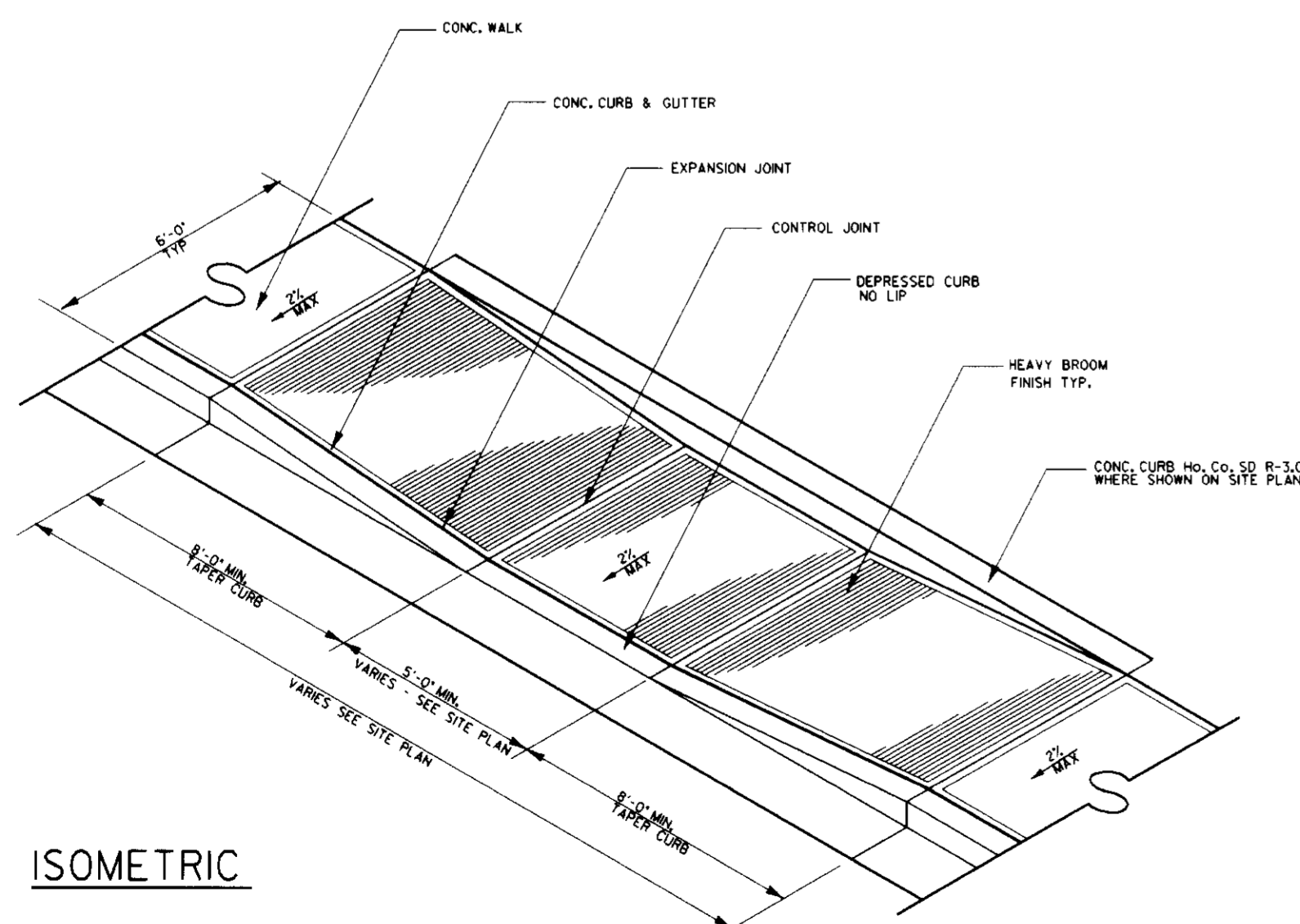


B Concrete Exit Pad
Not To Scale

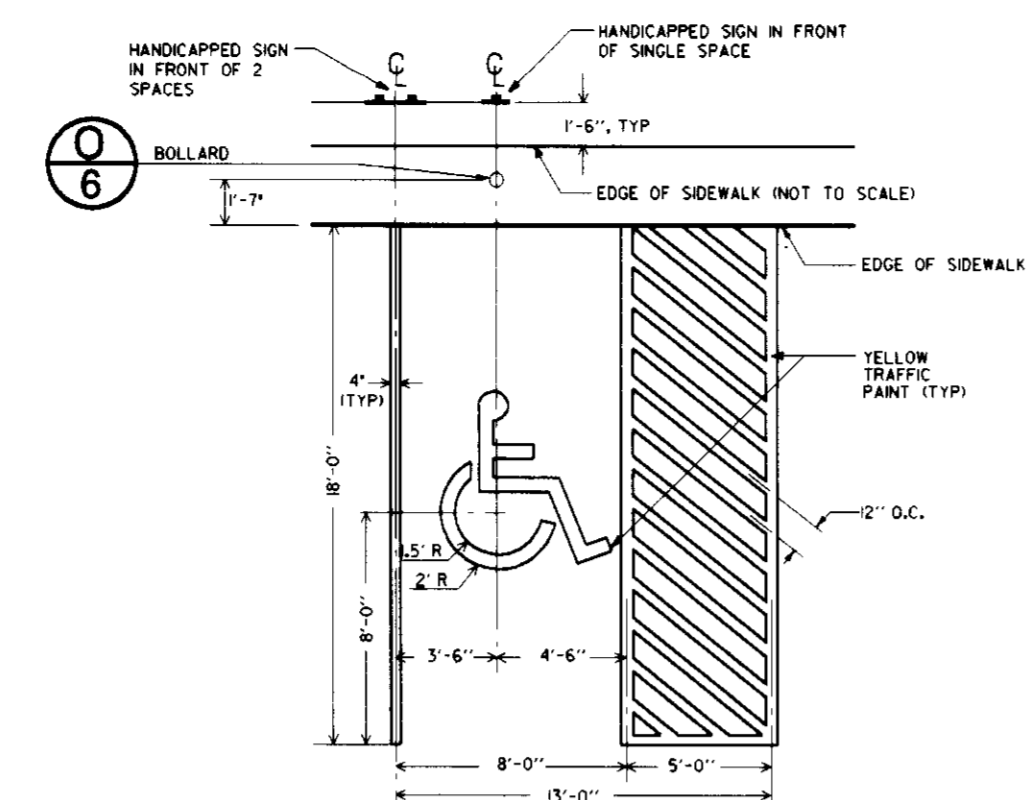
- NOTES:
- 1/2" PREFORMED BITUMINOUS EXPANSION MATERIAL IN EXPANSION JOINTS TO BE KEPT 1/4" BELOW SURFACE OF SIDEWALK
 - CONCRETE TO BE MIX NO. 2
 - WHEN SIDEWALK ADJUTS CURB, WALK SHALL BE 1/4" ABOVE CURB WITH 1/2" PREFORMED BITUMINOUS EXPANSION MATERIAL BETWEEN SIDEWALK AND CURB
 - CONCRETE WALK WITHIN 6" OF BUILDING SHALL HAVE 6" OF #6 STONE OR APPROVED EQUAL AS A BASE COURSE



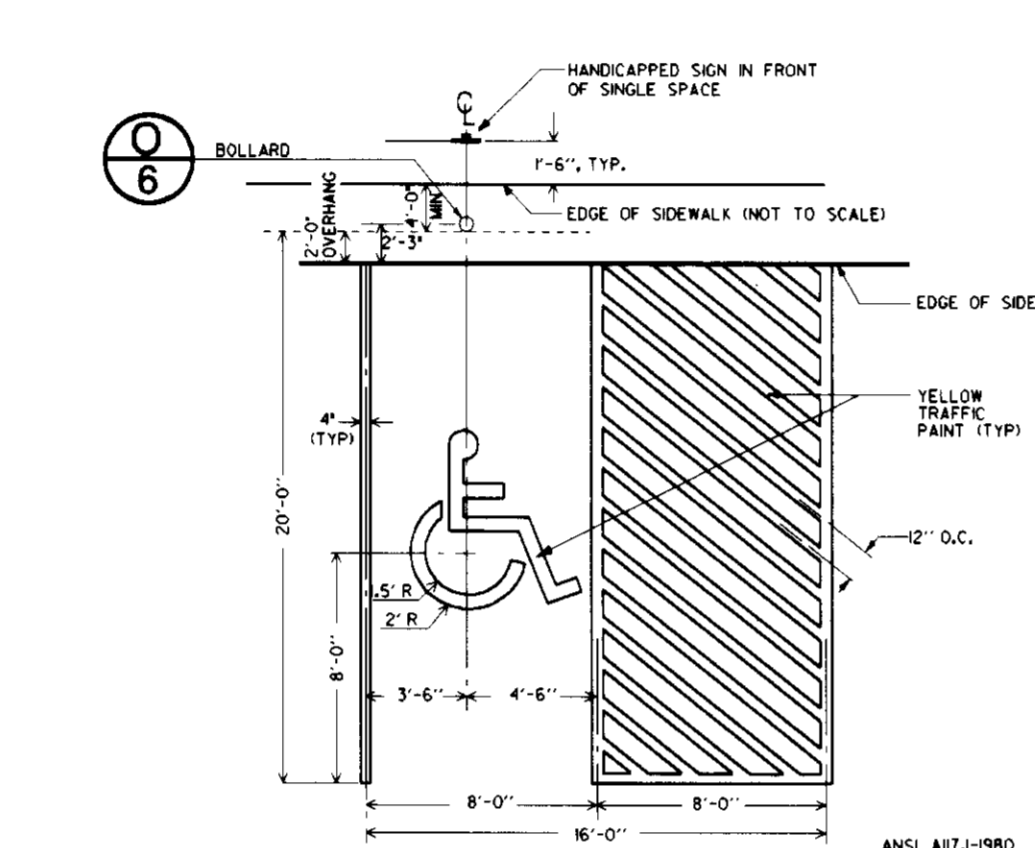
C Concrete Walk
Not To Scale



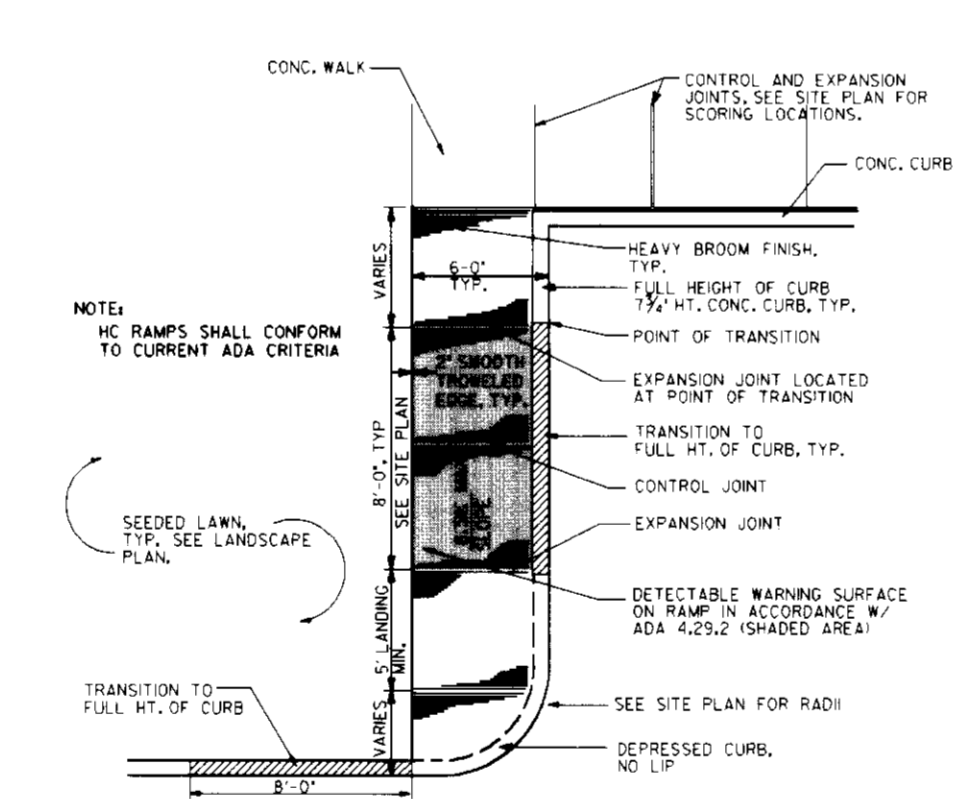
D Handicapped Ramp - A
Not To Scale



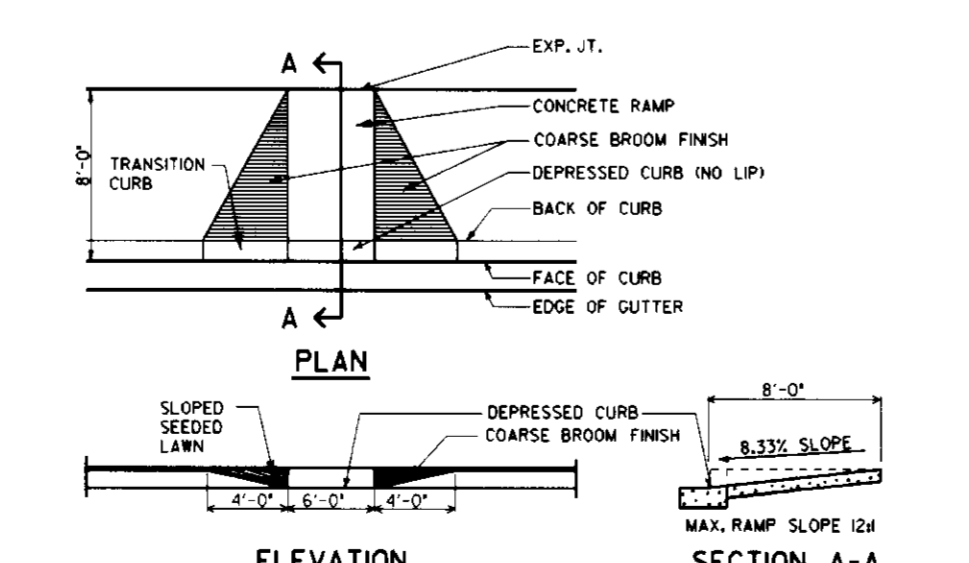
E Handicapped Parking Space
Not To Scale



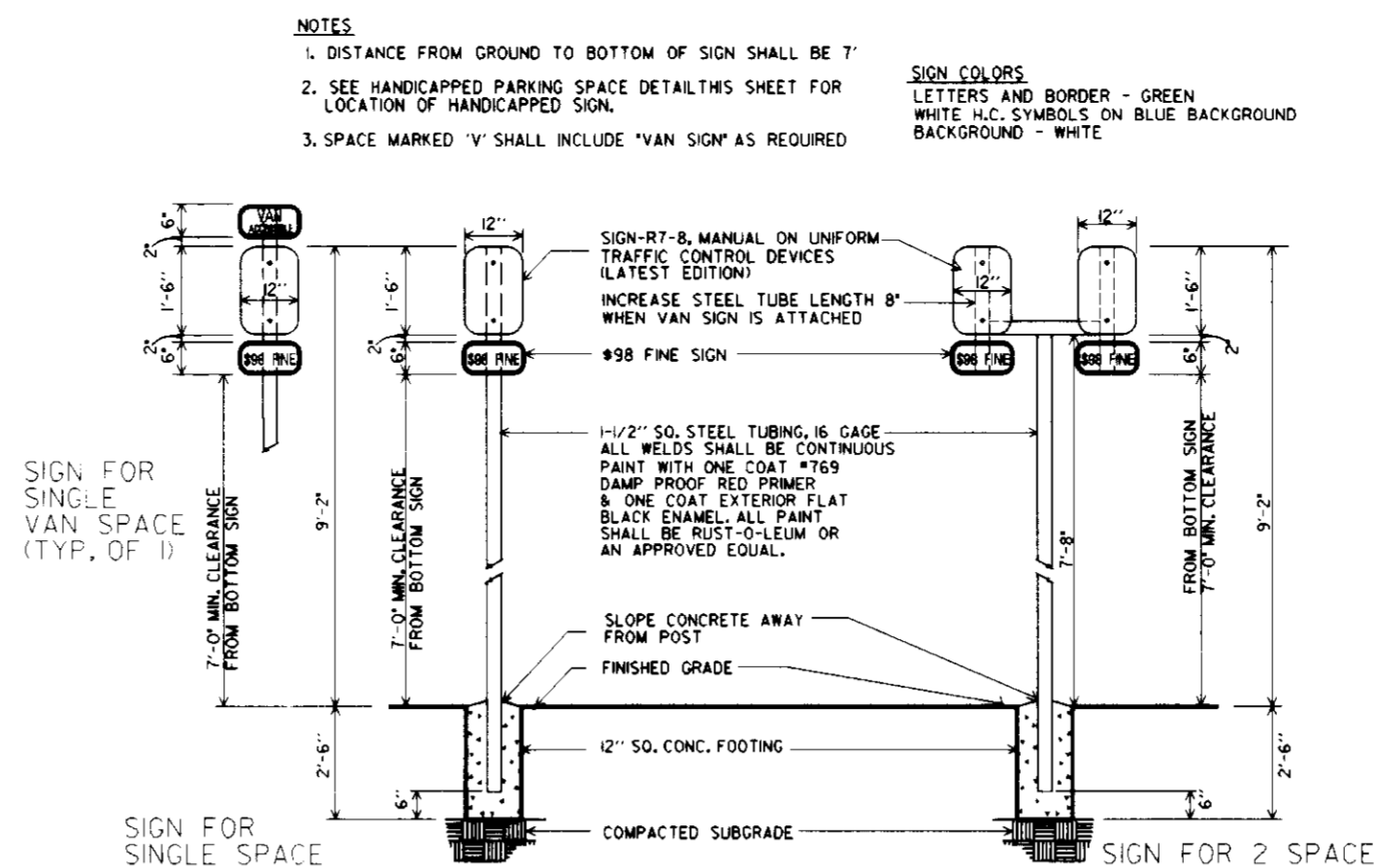
F Handicapped Van Parking Space
Not To Scale



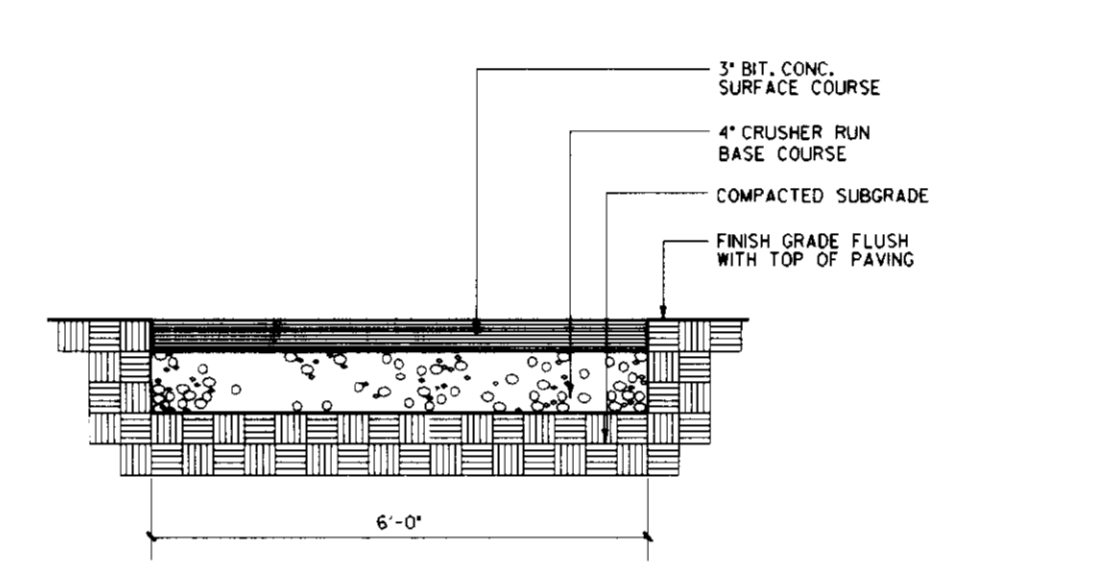
G Handicapped Ramp - B
Not To Scale



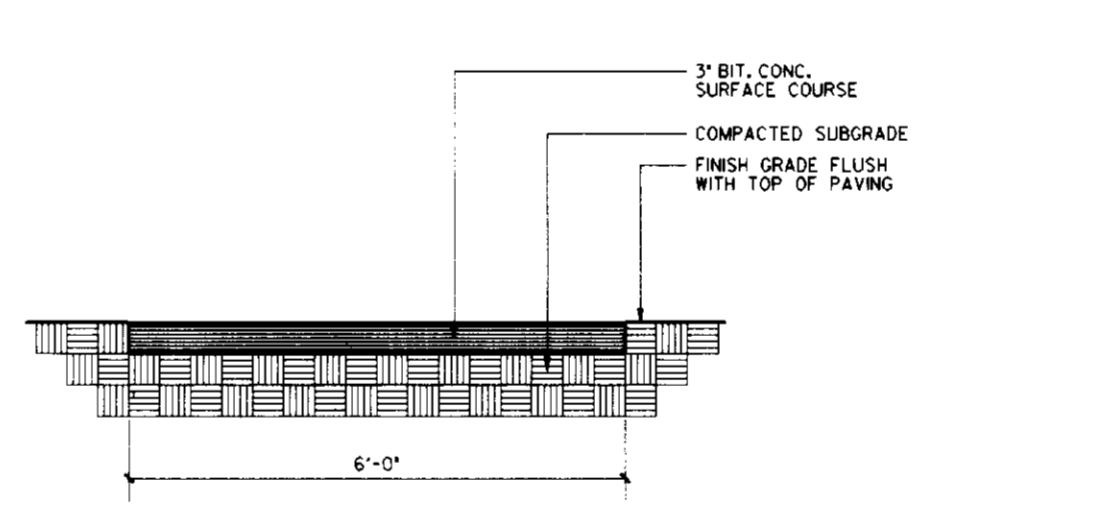
H Handicapped Ramp - C
Not To Scale



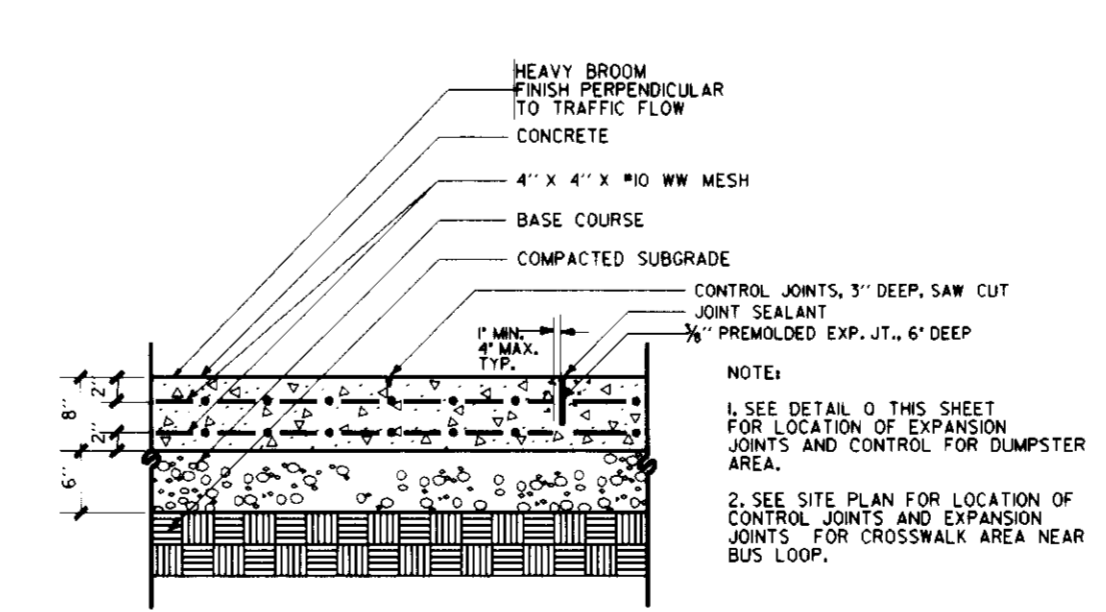
I Handicapped Signs
Not To Scale



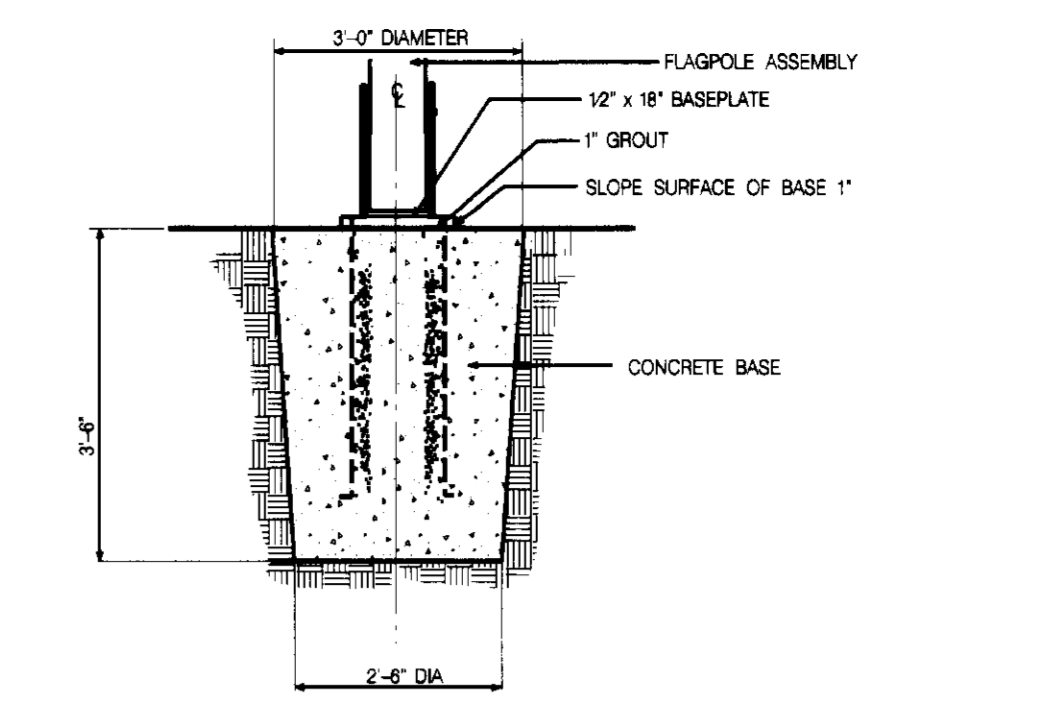
J Heavy Duty Bit. Conc. Walk
Not To Scale



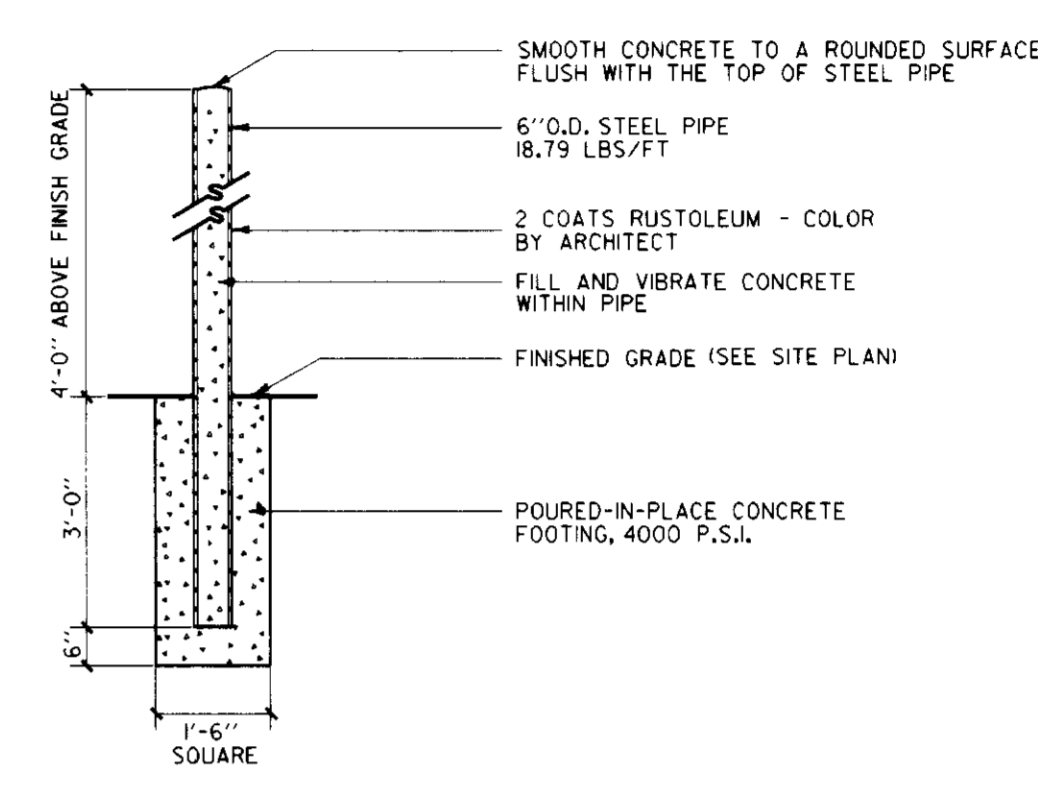
K Light Duty Bit. Conc. Walk
Not To Scale



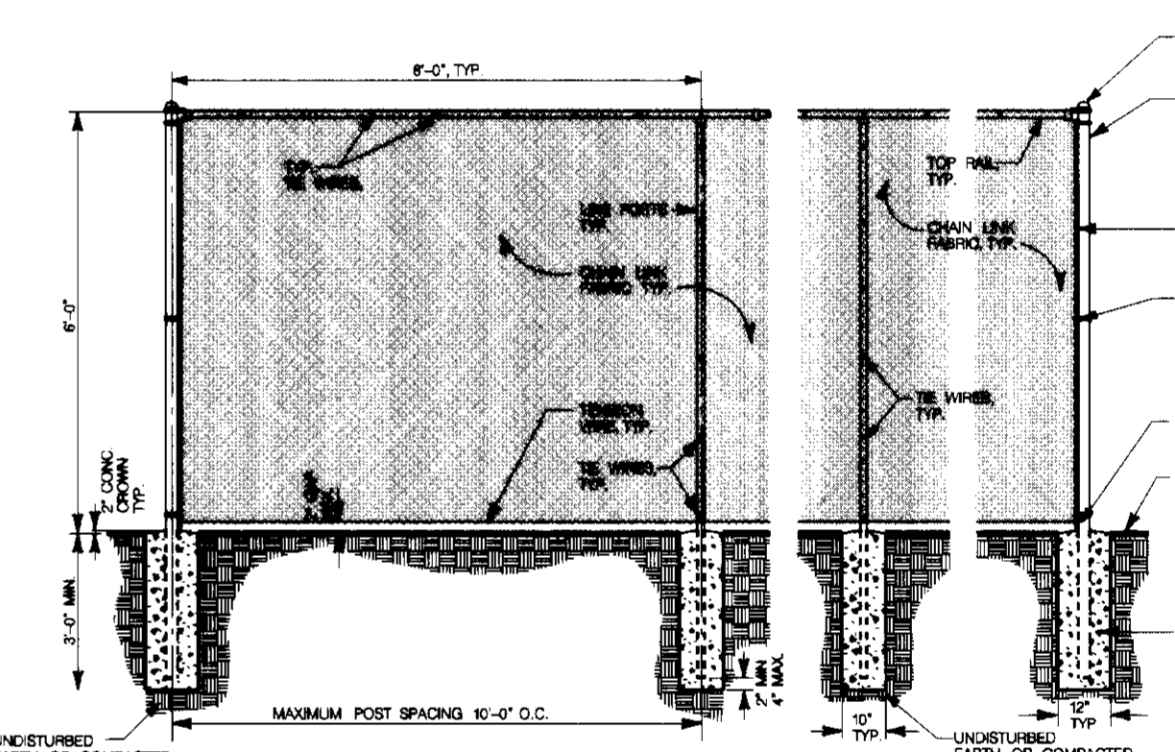
M Heavy Duty Concrete Pavement
Not To Scale



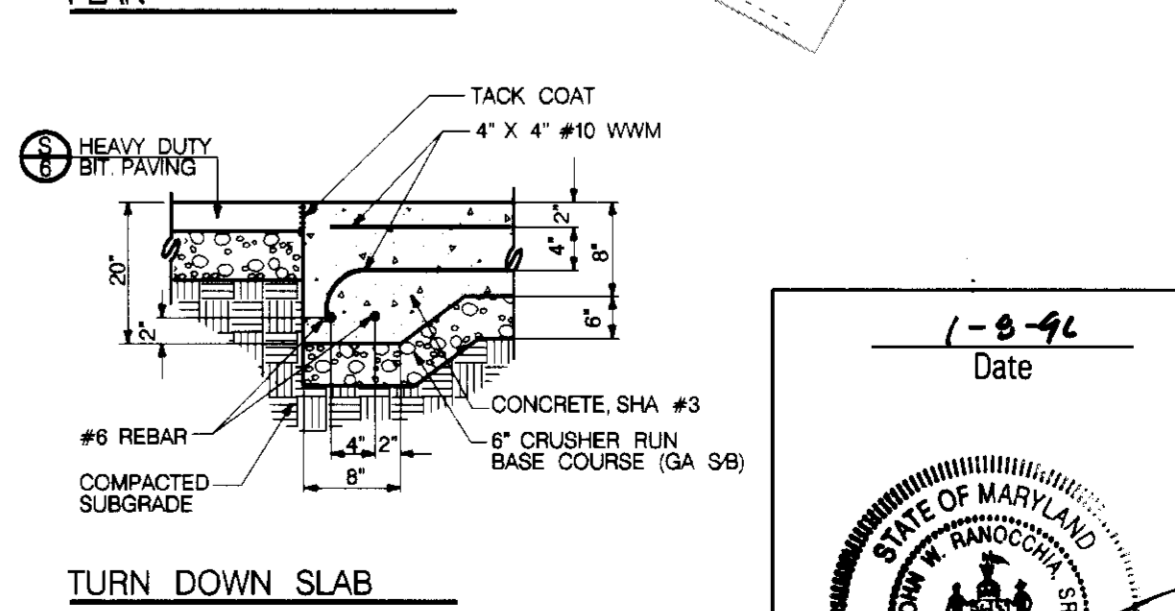
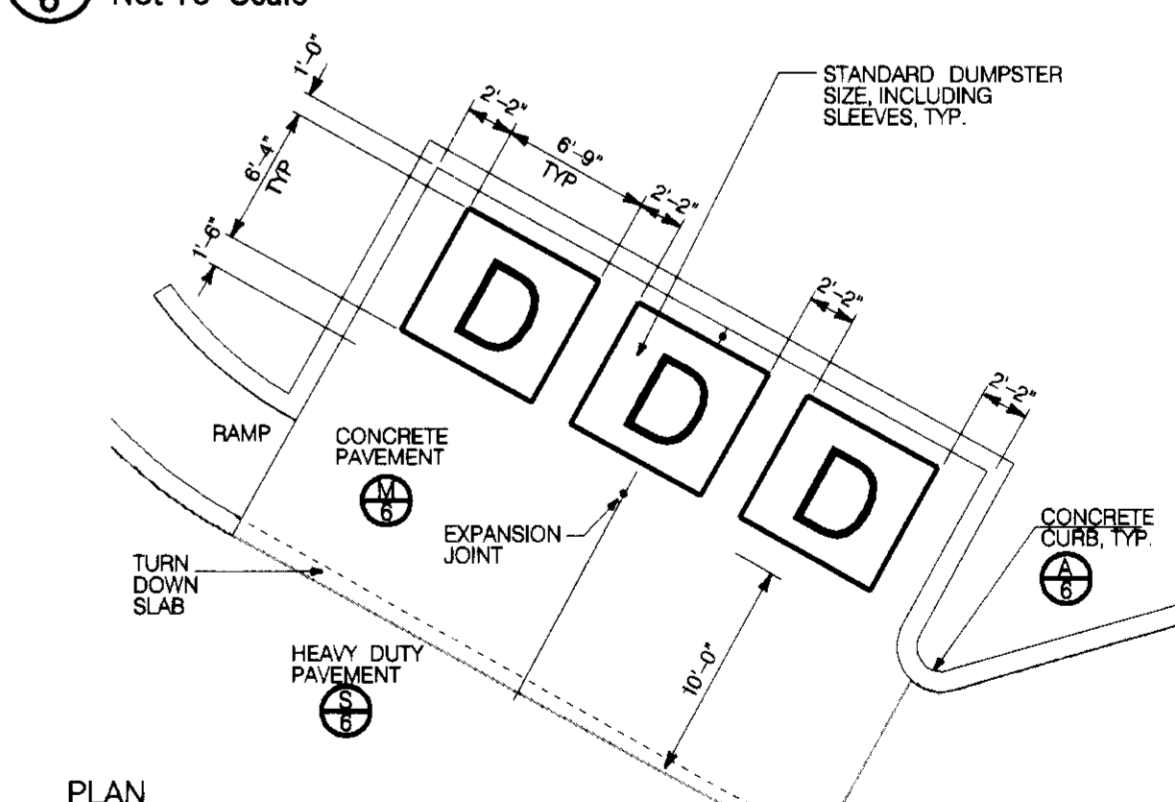
N Flagpole Anchor & Base
Not To Scale



O Bollard
Not To Scale

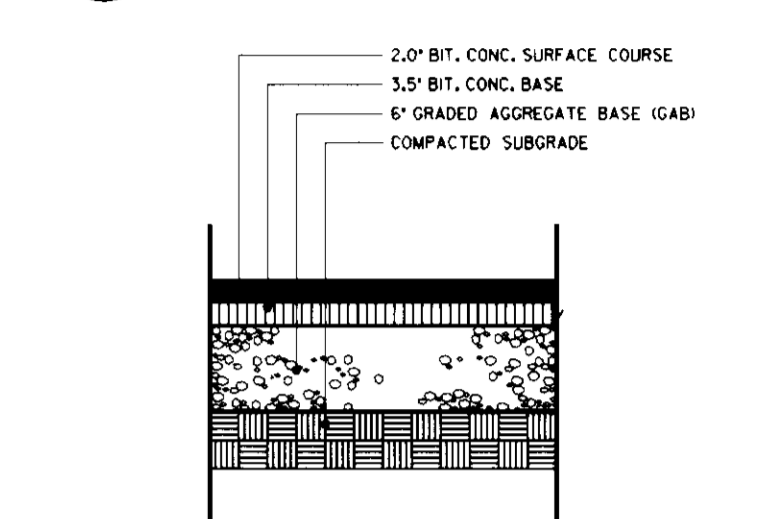


P Chain-Link Fence
Not To Scale

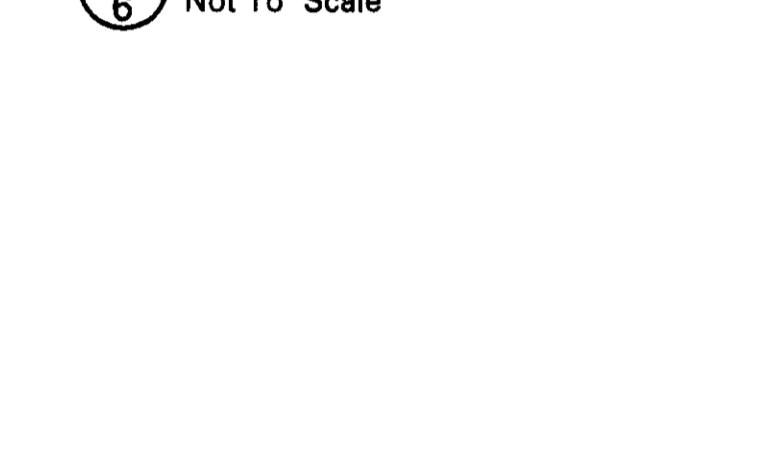


Q Dumpster Enlargement
Not To Scale

R Light Duty Paving
Not To Scale



S Heavy Duty Paving
Not To Scale



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
Howard County
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
Jim Summerville
 CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH
James S. Smith
 DIRECTOR

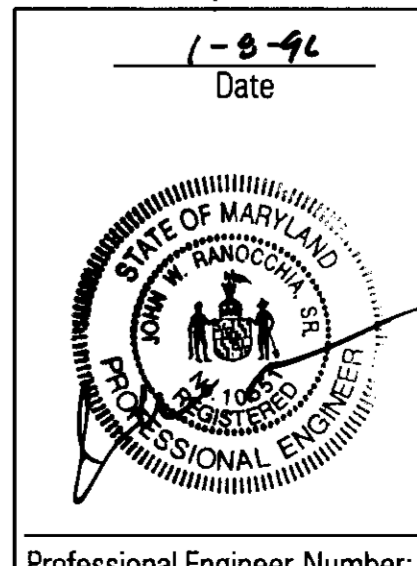
| Date | No. | Revision | Description |
|------|-----|----------|-------------|
| | | | |

Southeastern Middle School
 OWNER / DEVELOPER:
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10910 ROUTE 108
 ELLICOTT CITY, MD 21043

DMW
 Dan McCann-Walkers, Inc.
 3000 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 396-5333
 Fax: 396-4705

| SECTION NAME | SECTION NO. | DATE | BY | CHKD. |
|----------------------------|-------------|------|----|-------|
| Southeastern Middle School | N/A | 4/7 | | |

| TITLE | | | | |
|--------------|-----|----------|----------|------------------|
| SITE DETAILS | | | | |
| Des By | TPC | Scale | As Noted | Proj. No. 94140A |
| Drn By | TPC | Date | 1-8-96 | 6 of 22 |
| Chk By | | Approved | | |



SDP-96-42

LEGEND

DRAINAGE AREA BOUNDARY

AG. ZONING
C DA 7% IMPERVIOUS

Parcel 770
Kingdon Gould Jr. Trustee
c/o Arthur G Lambert Exec.
c/o James Brady
854/0043

Parcel 2
MD & VA Milk Producers Assoc. Inc.
302/0288

P/O Parcel 3
Howard Research & Development Corp.
3245/254

P/O Parcel 3
Howard Research & Development Corp.
3245/254

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

John D. ... 1/26/96
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Anna ... 2/6/96
CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE

James ... 2/15/96
DIRECTOR DATE

| Date | No. | Revision Description |
|------|-----|----------------------|
| | | |
| | | |


Southeastern Middle School

OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 ROUTE 108
ELLICOTT CITY, MD 21043

DMW
Doherty-McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3833
Fax 296-4706

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

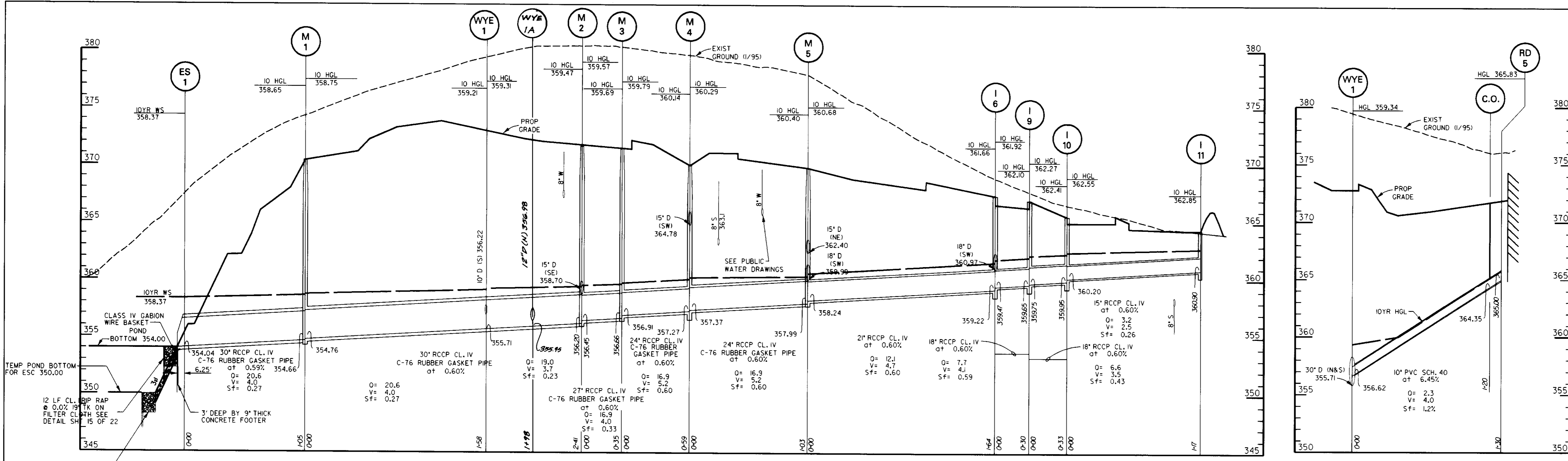
1-8-96
Date



Professional Engineer Number: 10551

| | | | | | |
|--------------------------------------|---------------|--------------|----------|--------------|------------------|
| SECTION NAME | Middle School | SECTION AREA | N/A | DATE | part of Parcel 3 |
| PLAT NO. | 2 | BLOCK | 47 | PLAT OFFICER | 60202 |
| WATER CODE | R-ED/PEC | SEWER CODE | | | |
| TITLE | | | | | |
| STORM DRAIN DRAINAGE AREA MAP | | | | | |
| Des By | RLH | Scale | 1" = 50' | Proj No. | 94140A |
| Dim By | NB | Date | 1-8-96 | | |
| Chk By | Approved | | | | 7 of 22 |

SDP 96 42



INLET SCHEDULE

| NO. | TYPE | Q(2 yr) | INV. OUT | TOP ELEV. * | DETAIL | WIDTH |
|------|--------|---------|----------|-------------|-----------|-------|
| I-1 | TYPE 5 | 1.65 | 366.50 | 370.5 | S.D. 4.22 | N/A |
| I-2 | YARD | 0.11 | 366.58 | 370.0 | S.D. 4.14 | N/A |
| I-3 | YARD | 0.11 | 366.00 | 369.3 | S.D. 4.14 | N/A |
| I-4 | A-10 | 1.35 | 364.20 | 370.2 | S.D. 4.02 | 2'-6" |
| I-5 | A-10 | 2.83 | 365.48 | 368.8 | S.D. 4.02 | 2'-6" |
| I-6 | A-10 | 0.77 | 359.22 | 367.4 | S.D. 4.02 | 2'-6" |
| I-7 | A-10 | 2.18 | 363.04 | 367.0 | S.D. 4.02 | 2'-6" |
| I-8 | A-10 | 1.06 | 363.68 | 367.0 | S.D. 4.02 | 2'-6" |
| I-9 | A-10 | 0.89 | 359.65 | 366.8 | S.D. 4.02 | 2'-6" |
| I-10 | A-5 | 2.18 | 359.95 | 365.6 | S.D. 4.01 | 2'-6" |
| I-11 | A-5 | 1.95 | 360.90 | 364.4 | S.D. 4.01 | 2'-6" |

** NOTE: A-10 MODIFIED LENGTH OF OPENING = 15'

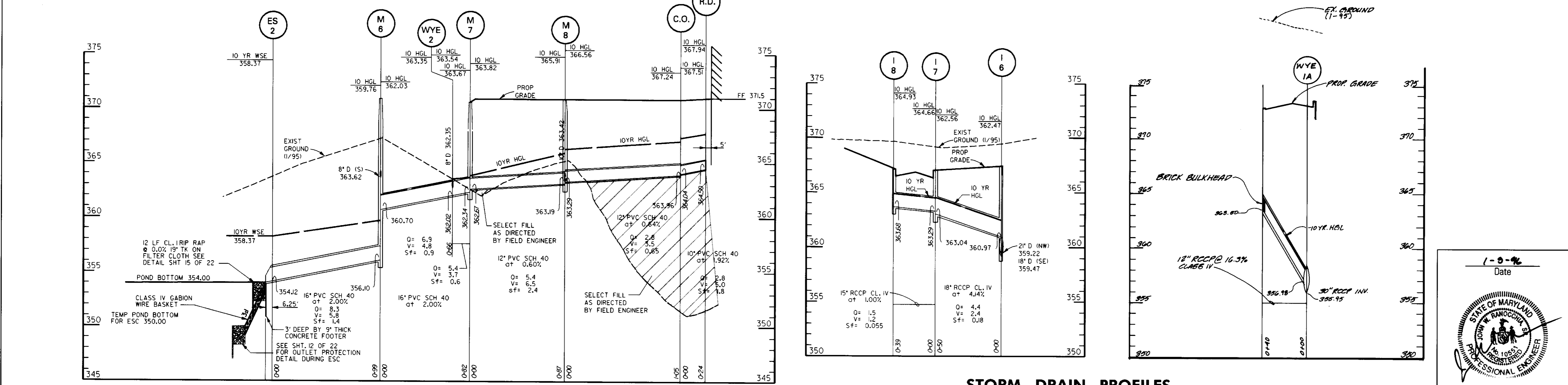
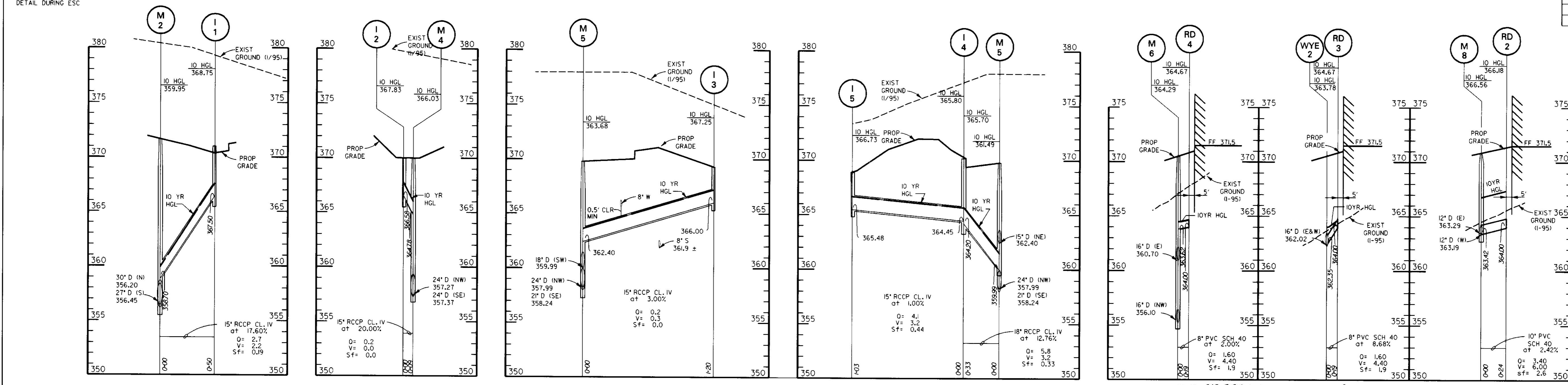
* NOTE: ELEVATIONS REPRESENT TOP OF CURB @ HEADPIPE FOR A-5, A-10 & A-15 INLETS

STRUCTURE SCHEDULE

| NO. | TYPE | SIZE | INV. OUT | DETAIL NO. |
|------|------------------|------|----------|------------|
| ES1 | CONC END SECTION | 30" | 354.0 | SD5.52 |
| ES2 | PVC END SECTION | 16" | 354.0 | |
| WYE2 | PVC WYE | 16x8 | 362.02 | |

MANHOLE SCHEDULE

| NO. | TYPE | INV. OUT | TOP ELEV. | DETAIL NO. |
|-----|---------|----------|-----------|------------|
| 1 | 60" DIA | 354.66 | 370.4 | G 5.13 |
| 2 | 60" DIA | 356.20 | 376.65 | G 5.13 |
| 3 | 60" DIA | 356.66 | 371.5 | G 5.13 |
| 4 | 48" DIA | 357.27 | 370.0 | G 5.12 |
| 5 | 60" DIA | 357.99 | 367.8 | G 5.13 |
| 6 | 48" DIA | 356.10 | 370.9 | G 5.12 |
| 7 | 48" DIA | 362.34 | 370.6 | G 5.12 |
| 8 | 48" DIA | 363.19 | 370.7 | G 5.12 |



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH
 DIRECTOR

DATE: 1/28/96
 DATE: 2/6/96
 DATE: 2/6/96

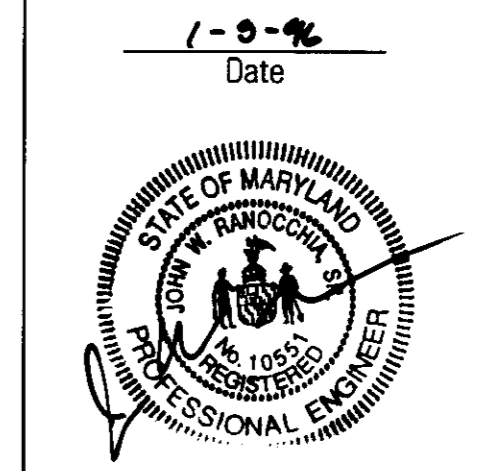
| Date | No. | Revision Description |
|---------|-----|----------------------------------|
| 7-19-96 | 1 | Added SD to WYE 1A; Added WYE 1A |

Southeastern Middle School

OWNER / DEVELOPER:
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10910 ROUTE 108
 ELLICOTT CITY, MD 21043

DMW
 Deft-McCune-Walker, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 286-3838
 Fax: 286-4706

A Team of Land Planners,
 Landscape Architects,
 Engineers, Surveyors &
 Environmental Professionals

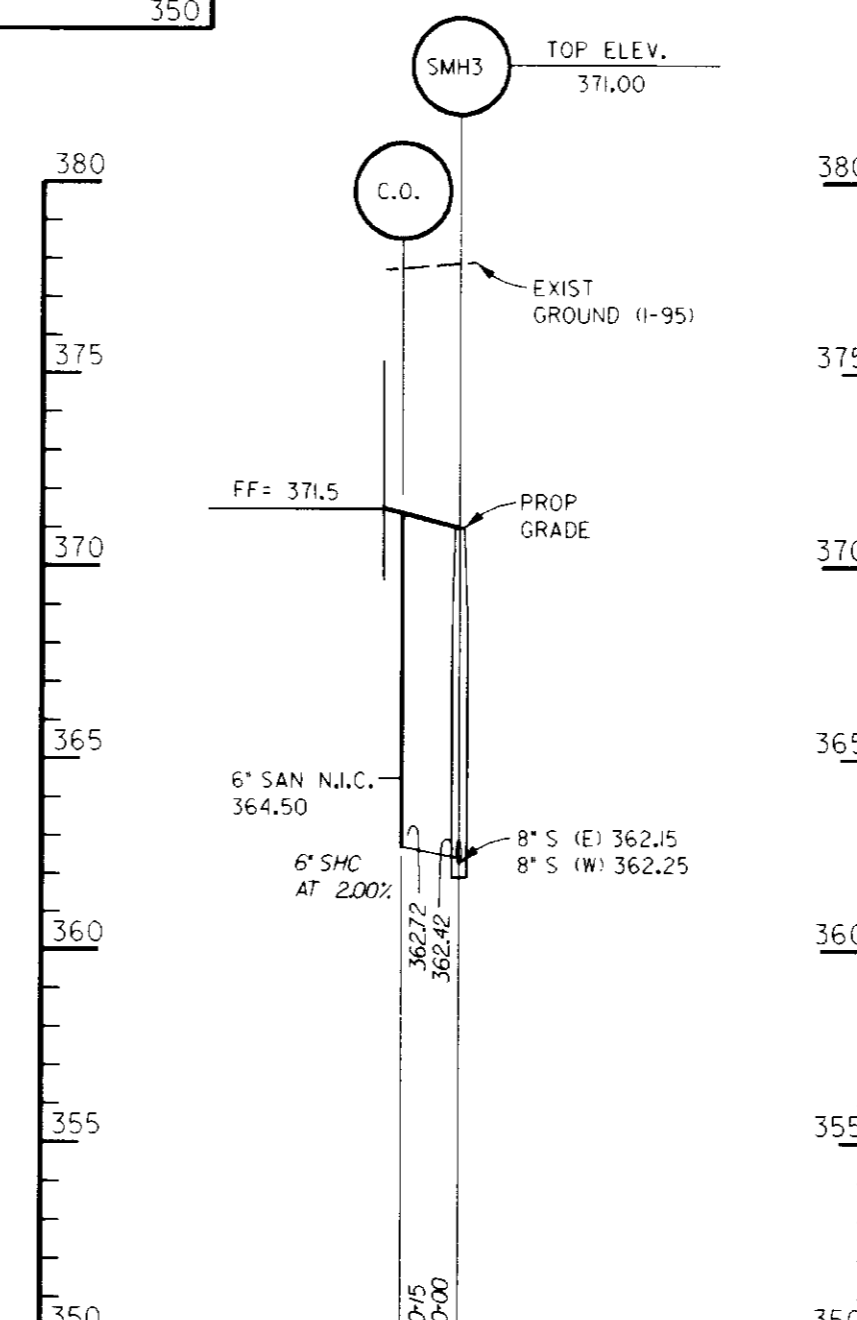
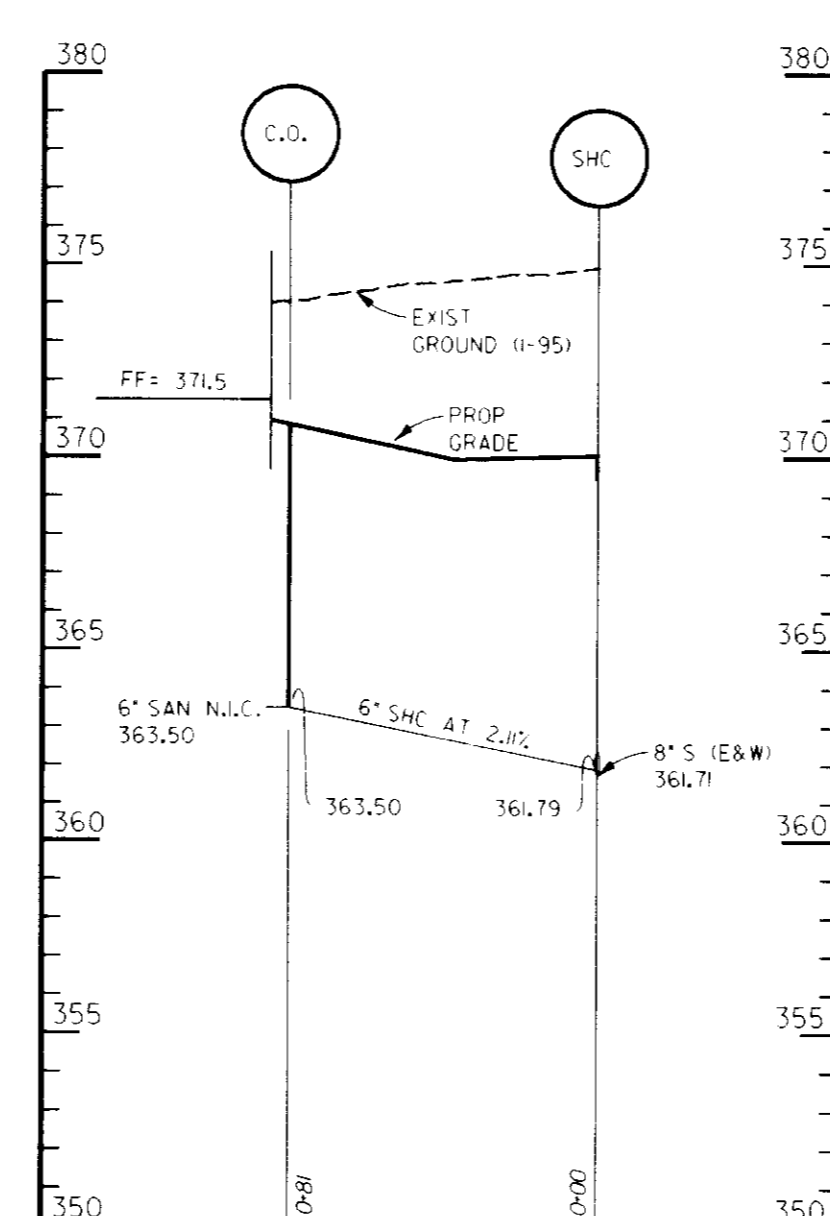
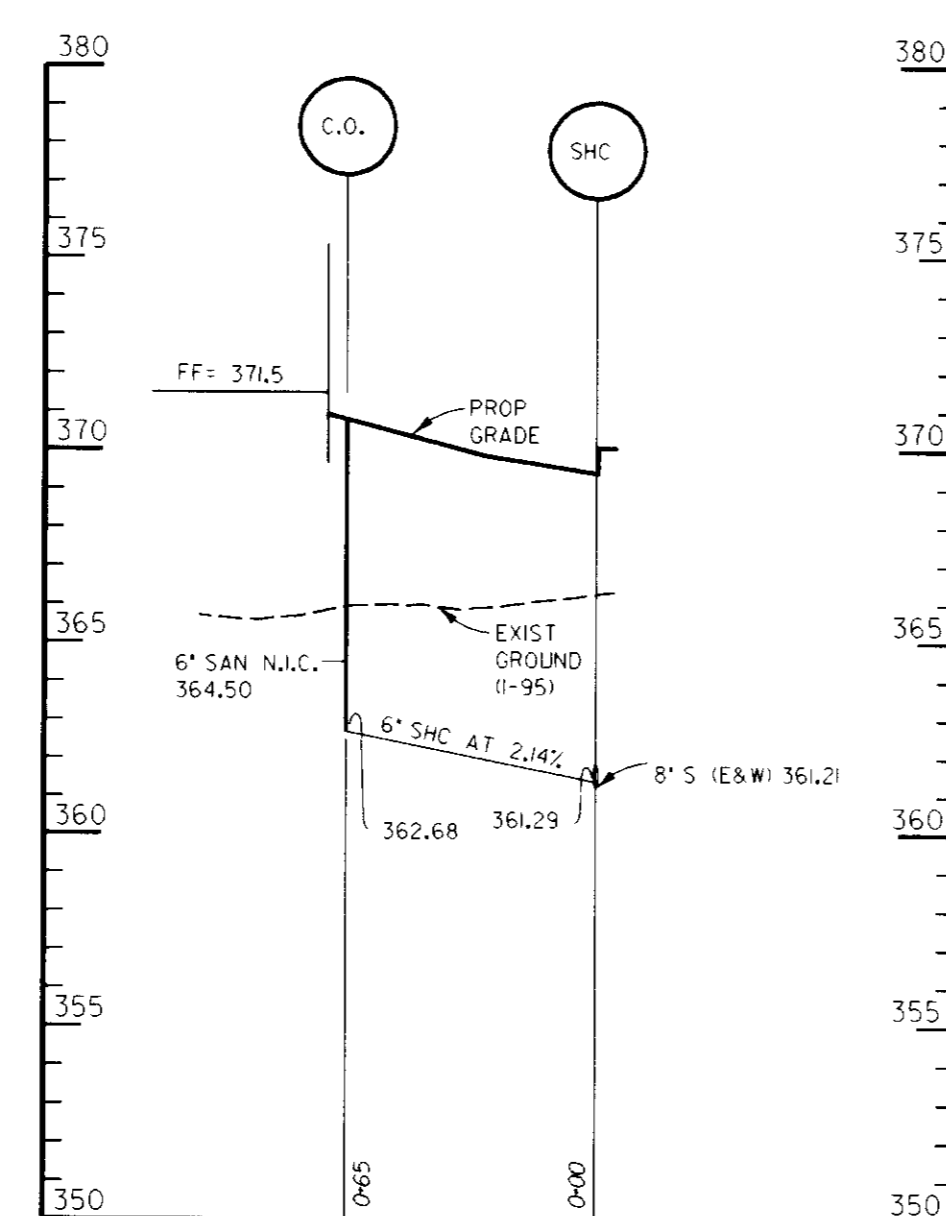
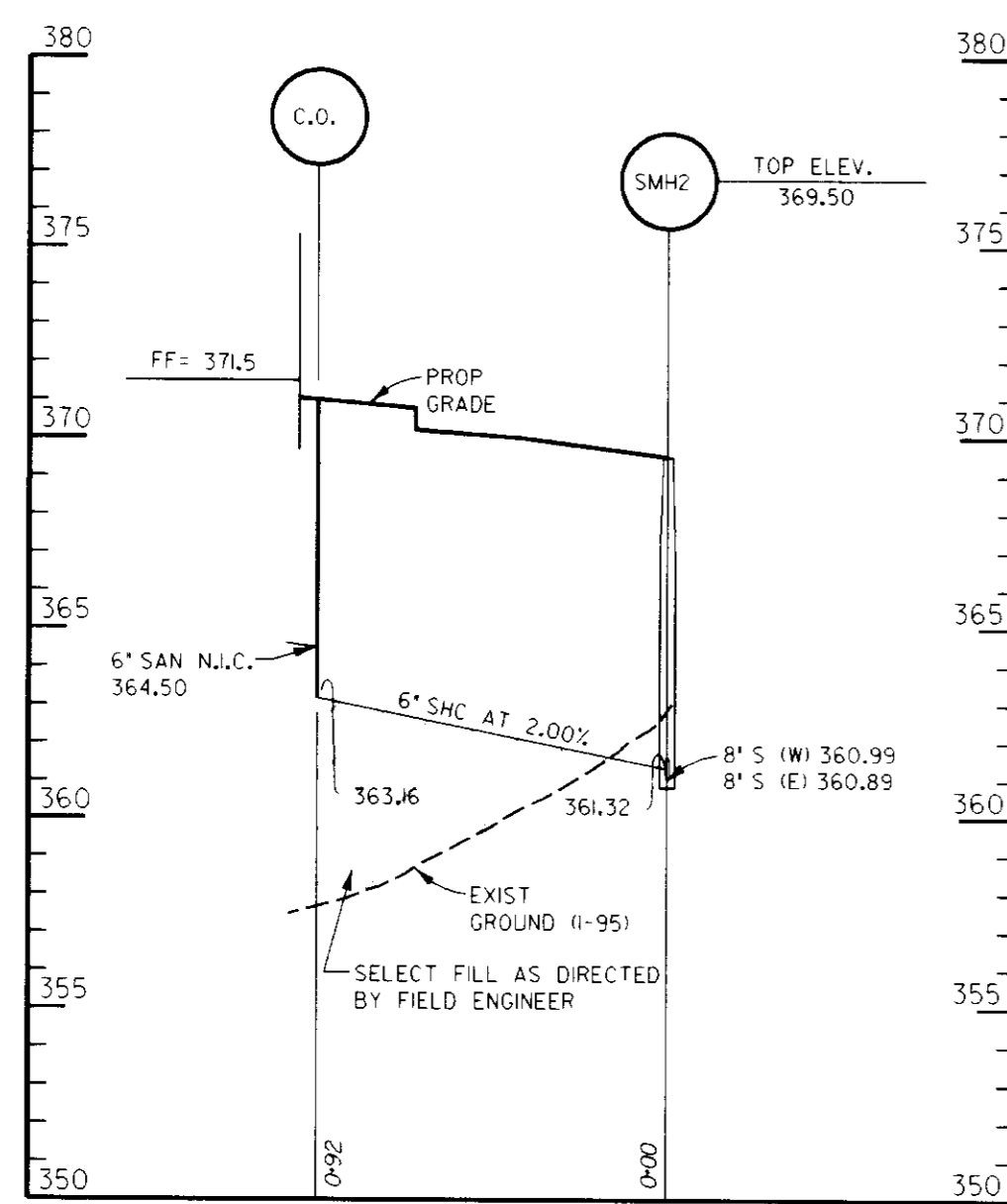
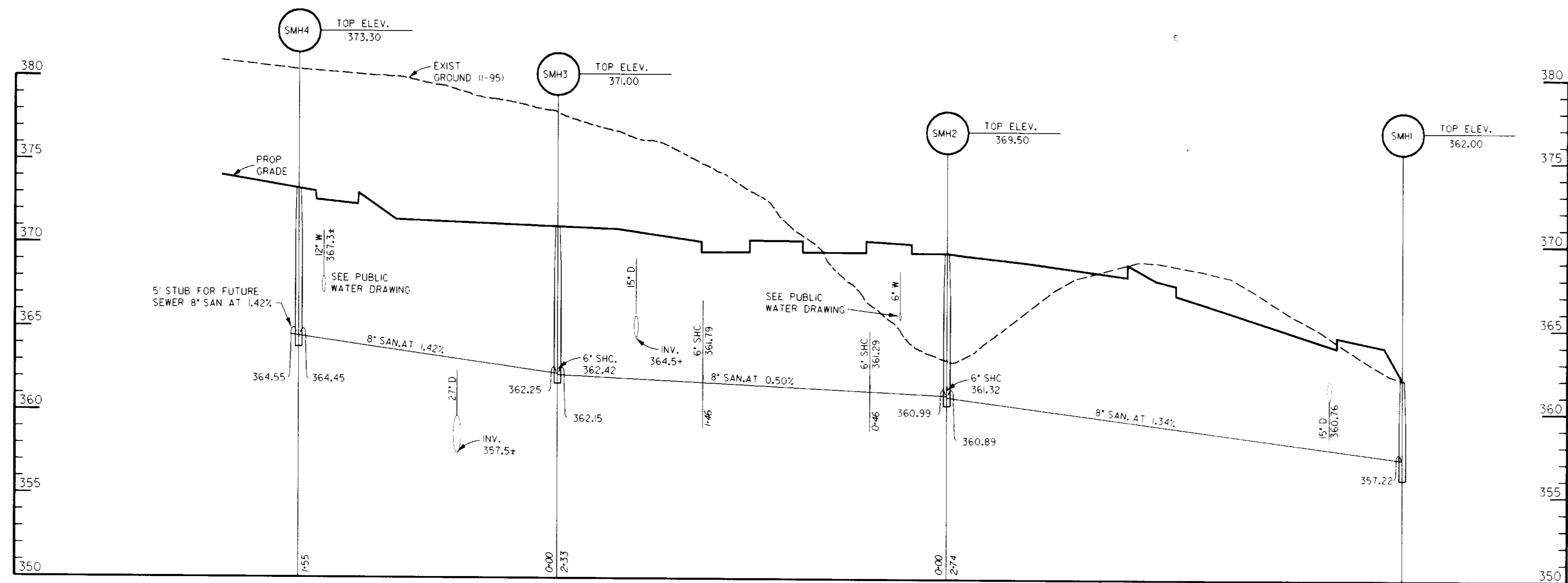


| SECTION NAME | SECTION AREA | SECTION DATE | SECTION NO. |
|----------------------------|--------------|--------------|------------------|
| Southeastern Middle School | NA | NA | part of Parcel 3 |
| 24" RCPD | 47 | 8th | 6068.02 |

UTILITY PROFILES

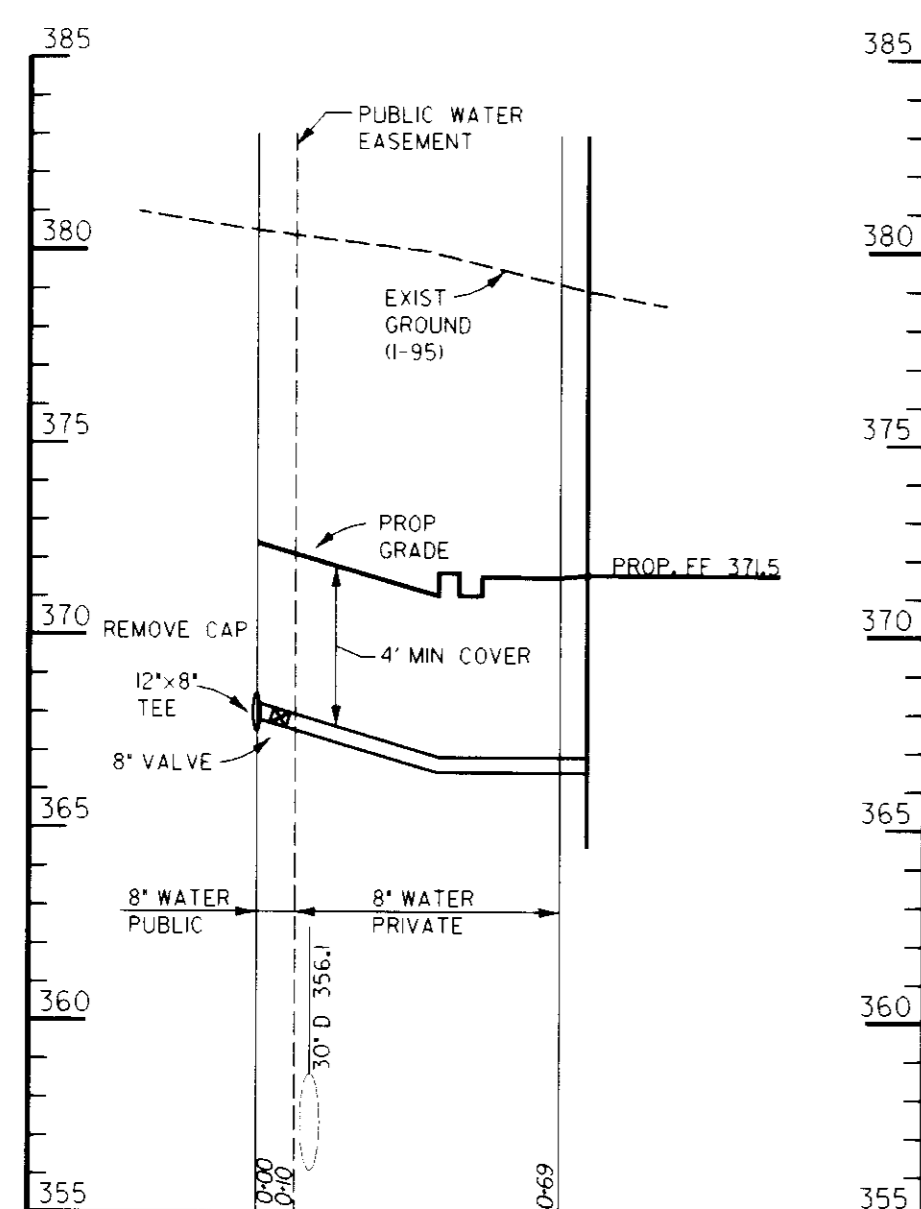
| Des By | JWR | Scale | AS NOTED | Proj. No. | 94140A |
|--------|-----|----------|----------|-----------|---------|
| Dm By | NB | Date | 1-9-96 | | |
| Chk By | | Approved | | | 8 of 22 |

STORM DRAIN PROFILES
 SCALE: HORIZ. 1" = 50'
 VERT. 1" = 5'



SANITARY PROFILES
SCALE: HORIZ. 1"=50'
VERT. 1"=5'

NOTE: ALL SEWER MONHOLES SHALL BE 15 PER HOWARD COUNTY C 5.01 - 4' MANHOLES



PRIVATE WATER PROFILE
SCALE: HORIZ. 1"=50'
VERT. 1"=5'

NOTE: TURN UP WATER MAIN INSIDE BUILDING WITHIN 1 FT. OF BUILDING WALL TO ALLOW FOR TEST

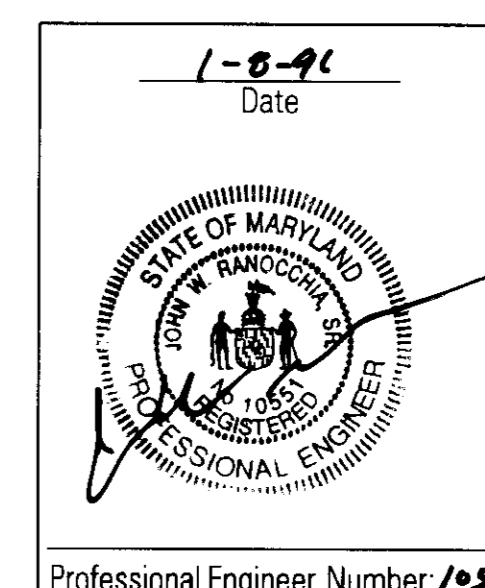
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 Chief Development Engineering Division
 Chief, Division of Land Development & Research
 Director

| Date | No. | Revision Description |
|---------|-----|----------------------|
| 1/28/96 | | |
| 2/2/96 | | |
| 2/17/96 | | |

Southeastern Middle School

OWNER / DEVELOPER:
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10910 ROUTE 108
 ELLICOTT CITY, MD 21043

DMW
 Daft McCune-Walker, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3333
 Fax 296-4706
 A Team of Land Planners,
 Landscape Architects,
 Engineers, Surveyors &
 Environmental Professionals



| | | |
|----------------------------|-------------|-----------|
| SECTION NAME | SECTION NO. | DATE |
| Southeastern Middle School | N/A | 1/28/96 |
| PLAN | SECTION | DATE |
| N/A | 2 | 1-8-96 |
| WATER CODE | SEWER CODE | PROJECT # |
| | | 6068.02 |
| TITLE | | |
| UTILITY PROFILES | | |
| Des By | Scale | Proj. No. |
| RLH | AS NOTED | 94140A |
| Dim By | Date | |
| NB | 1-8-96 | |
| Chk By | Approved | |
| | | 9 of 22 |

SDP-96-42

| BASIN TABLE | | | |
|---|-----------|--------|--|
| BASIN NUMBER | #1 | #2 | |
| EXISTING DRAINAGE AREA AC. | 5.3 | 5.37 | |
| INTERM DRAINAGE AREA AC. | 6.1 | 5.1 | |
| PROPOSED DRAINAGE AREA AC. | 10.45 | 5.1 | |
| STORAGE REQUIRED C.F. | WET 18810 | 9666 | |
| | DRY 18810 | 9666 | |
| TOTAL | 37620 | 19332 | |
| STORAGE PROVIDED C.F. | WET 19416 | 10200 | |
| | DRY 18810 | 9800 | |
| TOTAL | 38226 | 20000 | |
| EXISTING GROUND ELEV. | 356.6 | 358.6 | |
| TOP EMBANKMENT ELEV. | 362.7 | 362.3 | |
| RISER CREST ELEV. | 356.2 | 358.1 | |
| WET STORAGE ELEV. | 354.0 | 356.6 | |
| CLEANOUT ELEV. | 352.3 | 354.9 | |
| BOTTOM ELEV. | 350.0 | 350.0 | |
| O INTO BASIN C.F.S. | 52.61 | 28.78 | |
| O OUT BARREL C.F.S. | 12.85 | 19.55 | |
| O OUT EMERGENCY SPILLWAY | 0 | 12.86 | |
| BASIN DEPTH | WET 4.0 | 6.6 | |
| | DRY 2.2 | 1.5 | |
| TOTAL | 6.2 | 8.1 | |
| DESIGN HIGHWATER 10 YR. | 359.49 | 360.36 | |
| FREEBORD PROVIDED | 2.51 | 1.59 | |
| BARREL DIAMETER | 36" | 24" | |
| RISER DIA. / INTERIOR DIMENSIONS | 4'x4' | 4'x4' | |
| EMERGENCY SPILLWAY WIDTH | NA | 25' | |
| INTERM SWM REQUIRED 2YR | 2.16 | 3.47 | |
| INTERM SWM PROVIDED 2YR | 1.65 | 2.86 | |
| DISTANCE FROM TOP OF RISER TO CLEAN OUT | 8.7' | 6.43' | |

Parcel 770
Kingdon Gould Jr. Trustee
c/o Arthur G. Lambert Exec.
c/o James Brady
854/0043

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.
P. Engler 1/25/96
U.S.D.A. NATURAL RESOURCE CONSERVATION SERVICE
DATE
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF HOWARD SOIL CONSERVATION DISTRICT.
Robert Zich 1/25/96
APPROVED: HOWARD SOIL CONSERVATION DISTRICT
PLAN NUMBER

| SEDIMENT TRAP TABLE | | | |
|----------------------------------|----------|----|--|
| TRAP NUMBER | #1 | #2 | |
| TRAP TYPE | ST-II | | |
| EXISTING DRAINAGE AREA AC. | 4.1 | | |
| INTERM DRAINAGE AREA AC. | 0.8 | | |
| PROPOSED DRAINAGE AREA AC. | 0.5 | | |
| STORAGE REQUIRED C.F. | WET 7380 | | |
| | DRY 7380 | | |
| TOTAL | 14760 | | |
| STORAGE PROVIDED C.F. | WET 7616 | | |
| | DRY 8384 | | |
| TOTAL | 16000 | | |
| EXISTING GROUND ELEV. | 342.0 | | |
| TOP EMBANKMENT ELEV. | 345.6 | | |
| CREST ELEV. | 344.6 | | |
| WET STORAGE ELEV. | 342.0 | | |
| CLEANOUT ELEV. | 340.0 | | |
| BOTTOM ELEV. | 338.0 | | |
| DEPTH OF CHANNEL (G) | NA | | |
| OUTLET WIDTH (D) | 17 | | |
| BOTTOM DIMENSION | 44x28 | | |
| TRAP SLOPES | 2:1 | | |
| TRAP DEPTH | WET 4.0 | | |
| | DRY 2.6 | | |
| TOTAL | 6.6 | | |
| BARREL DIAMETER | NA | | |
| RISER DIA. / INTERIOR DIMENSIONS | NA | | |

DA TO SUPER SILT FENCE
EX = 0.9 AC
INT = 0.8 AC
PROP = 0.7 AC

DA TO SUPER SILT FENCE
EX = 10.7 AC
INT = 2.6 AC
PROP = 2.5 AC

| LEGEND | |
|--------|----------------------------------|
| SS | SUPER SILT FENCE |
| S | SILT FENCE |
| --- | EXISTING DA |
| --- | INTERM DA |
| --- | PROPOSED DA |
| SP | TEMP STOCK PILE |
| --- | TEMP SWALE |
| --- | EARTH DIKE |
| SCE | STABILIZED CONSTRUCTION ENTRANCE |
| ▲▲▲ | MOUNTABLE BERM |
| □ | INLET PROTECTION |
| --- | LIMIT OF DISTURBANCE |
| --- | TEMP SEC CONTOURS |
| --- | RP RAP PROTECTION |

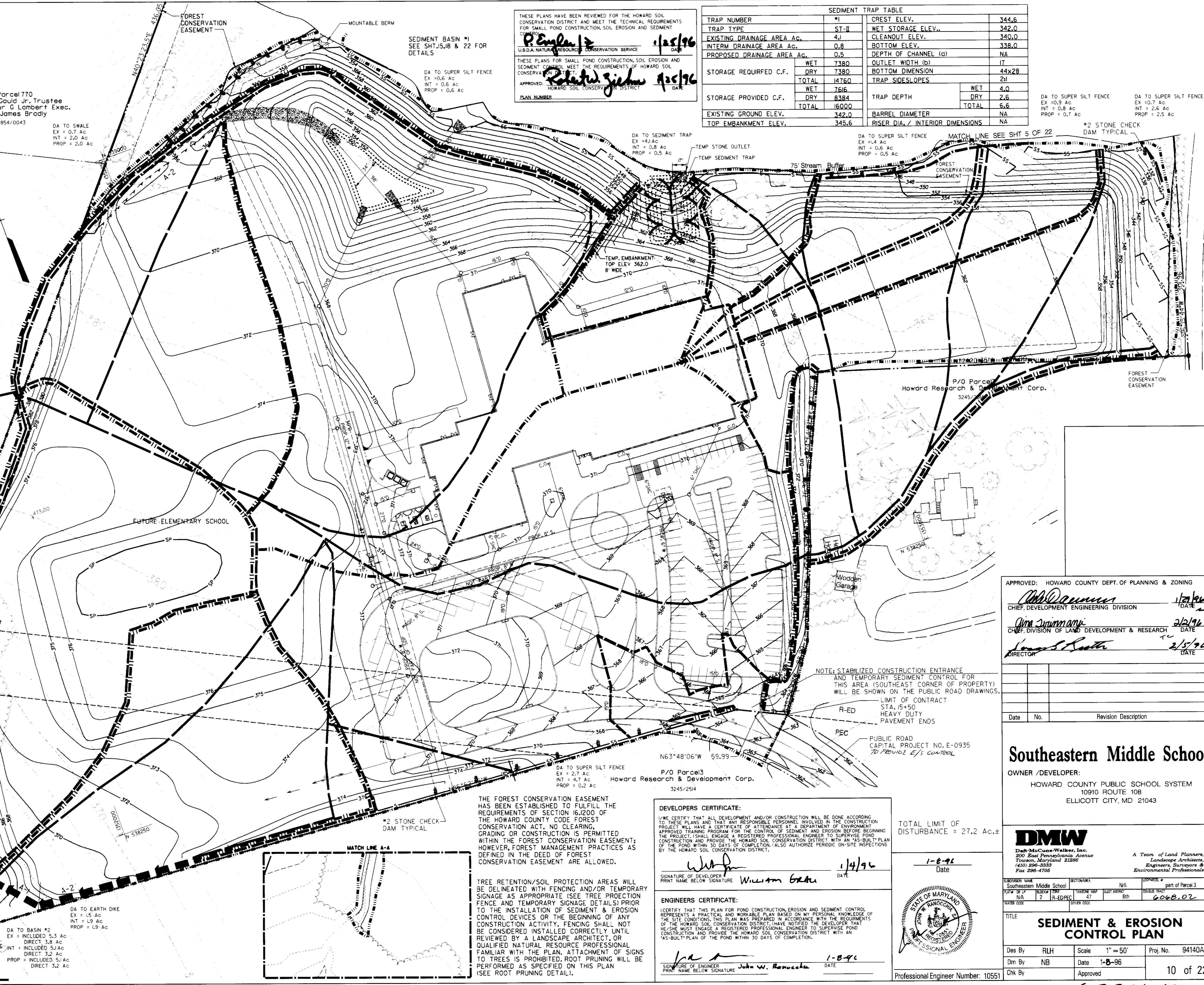
NOTE: STOCKPILE ENOUGH MATERIAL TO RAISE THE BOTTOM OF THE PONDS TO FINAL GRADE. (SEE SWM PLAN SHT 15 OF 22 FOR FINAL GRADES)

Parcel 2
MD & VA Milk Producers Assoc. Inc.
302/0288

NO DISTURBED AREA IS TO DRAIN INTO SWALE STABILIZE SWALE IMMEDIATELY AFTER GRADING

DA TO SWALE
EX = 6.4 AC
INT = 6.4 AC
PROP = 6.4 AC

SEDIMENT BASIN #2
SEE SHT. 15, 19 & 20 FOR DETAILS



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
William G. Gahan 1/24/96
CHIEF DEVELOPMENT ENGINEERING DIVISION
Olga Summery 2/2/96
CHIEF DIVISION OF LAND DEVELOPMENT & RESEARCH
James R. Smith 2/15/96
DIRECTOR

Southeastern Middle School
OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 ROUTE 108
ELLCOTT CITY, MD 21143

DMW
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200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-8333
Fax 296-4706
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

| REVISIONS | | | |
|-----------|-----|----------|-------------|
| Date | No. | Revision | Description |
| | | | |

| | | | |
|-------------------------------|--|-----------|----------|
| TITLE | SEDIMENT & EROSION CONTROL PLAN | | |
| Des By | RLH | Scale | 1" = 50' |
| Dwn By | NB | Date | 1-8-96 |
| Chk By | | Approved | |
| Professional Engineer Number: | 10551 | Proj. No. | 94140A |

DEVELOPERS CERTIFICATE:
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

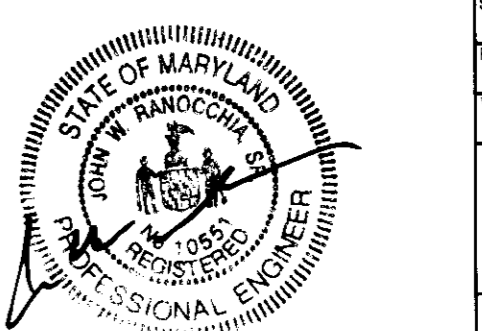
SIGNATURE OF DEVELOPER: *William G. Gahan* 1/24/96
PRINT NAME BELOW SIGNATURE: William G. Gahan DATE

ENGINEERS CERTIFICATE:
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTICED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

SIGNATURE OF ENGINEER: *John W. Ranucha* 1-8-96
PRINT NAME BELOW SIGNATURE: John W. Ranucha DATE

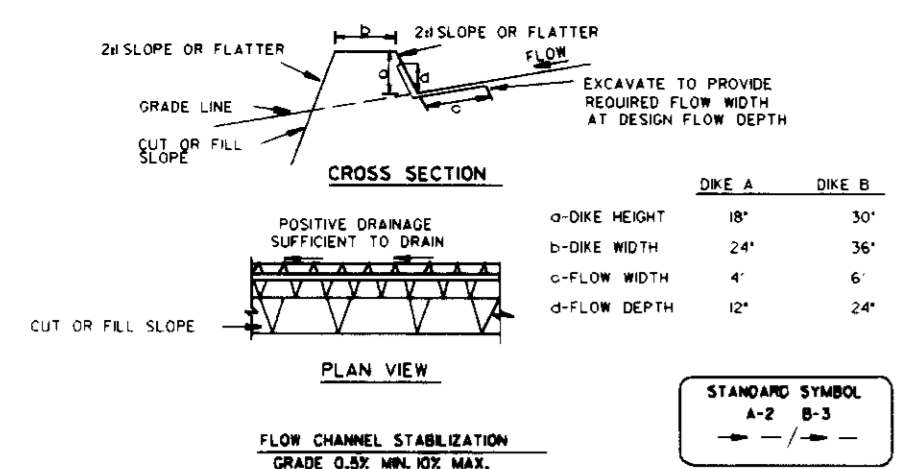
TOTAL LIMIT OF DISTURBANCE = 27.2 AC ±

1-8-96
Date



THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.200 OF THE HOWARD COUNTY CODE FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.

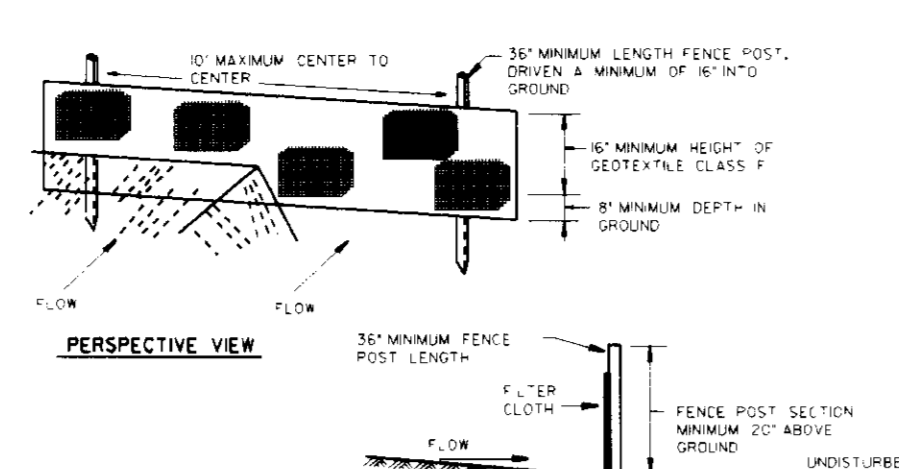
TREE RETENTION/SOIL PROTECTION AREAS WILL BE DELINEATED WITH FENCING AND/OR TEMPORARY SIGNAGE AS APPROPRIATE (SEE TREE PROTECTION FENCE AND TEMPORARY SIGNAGE DETAILS) PRIOR TO THE INSTALLATION OF SEDIMENT & EROSION CONTROL DEVICES OR THE BEGINNING OF ANY CONSTRUCTION ACTIVITY. FENCING SHALL NOT BE CONSIDERED INSTALLED CORRECTLY UNTIL REVIEWED BY A LANDSCAPE ARCHITECT, OR QUALIFIED NATURAL RESOURCE PROFESSIONAL FAMILIAR WITH THE PLAN. ATTACHMENT OF SIGNS TO TREES IS PROHIBITED. ROOT PRUNING WILL BE PERFORMED AS SPECIFIED ON THIS PLAN (SEE ROOT PRUNING DETAIL).



CONSTRUCTION SPECIFICATIONS

1. Seed and cover with straw mulch.
2. Seed and cover with Erosion Control Matting or the like with a 3.4" x 7 stone or recycled concrete equivalent pressed into the soil minimum.

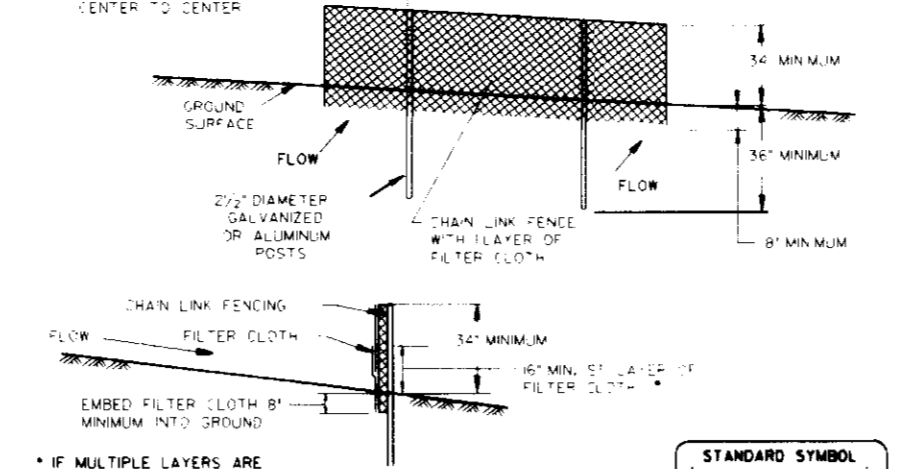
1. Temporary earth dikes shall have uninterrupted positive grade to the center. Spot elevations may be necessary for grades less than 1%.
2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
3. Runoff diverted from an undisturbed area shall enter directly into an undisturbed stabilized area or a non-erodible velocity.
4. All trees, brush, stumps, obstructions, and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
5. The dike shall be excavated or graded to the grade and cross section as required to meet the criteria specified herein and be free of blemishes or other irregularities which will reduce normal flow.
6. Filter cloth shall be compacted by earth moving equipment.
7. All earth removed and not needed for construction shall be placed so that it shall not interfere with the functioning of the dike.
8. Inspection and maintenance must be provided periodically and after each rain event.



CONSTRUCTION SPECIFICATIONS

1. Fence shall be 42" high and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing, the specification for a 6' fence shall be used substituting 42" fabric and 6' high posts.
2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and true rods, drive anchors and post caps are not required except on the ends of the fence.
3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
4. Filter cloth shall be embedded a minimum of 8" into the ground.
5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and fasted.
6. Maintenance shall be performed as needed and all tubes removed when "bubbling" develops in the silt fence or when silt reaches 50% of fence height.
7. Filter cloth shall be fastened securely to each fence post with wire ties or staples of top and mid section and meet the following requirements for Geotextile Class I:

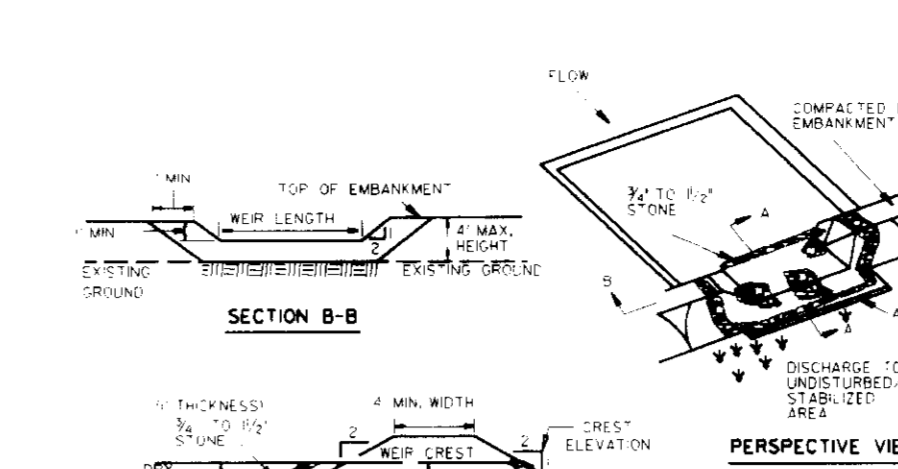
1. Fence posts shall be a minimum of 3/4" diameter driven 40" minimum into the ground. Wood posts shall be 2" x 2" square minimum cut, or 1 1/2" diameter minimum round and shall be of sound quality hardwood. Steel posts shall be standard T or U section weighting not less than 100 lb per linear foot.
 2. Geotextile shall be fastened securely to each fence post with wire ties or staples of top and mid section and meet the following requirements for Geotextile Class I:
- | | | | |
|----------------------|-------------------|-------------|-----|
| Tensile Strength | 50 lb/in (min) | Test Method | 509 |
| Tensile Modulus | 20 lb/in (min) | Test Method | 509 |
| Flow Rate | 0.3 gal/min (min) | Test Method | 322 |
| Filtering Efficiency | 75% (min) | Test Method | 322 |
3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
 4. Silt fence shall be inspected after each individual and notified when tubes clog or when sediment accumulation reaches 50% of the fabric height.



CONSTRUCTION SPECIFICATIONS

1. Temporary earth dikes shall have uninterrupted positive grade to the center. Spot elevations may be necessary for grades less than 1%.
2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
3. Runoff diverted from an undisturbed area shall enter directly into an undisturbed stabilized area or a non-erodible velocity.
4. All trees, brush, stumps, obstructions, and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
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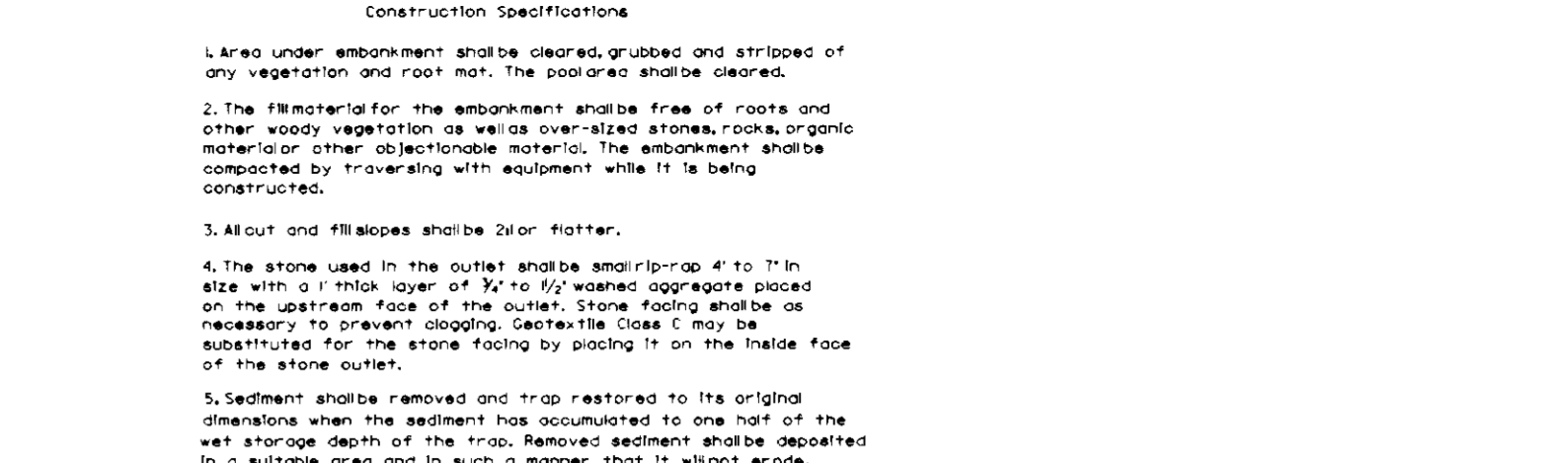
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1. Temporary earth dikes shall have uninterrupted positive grade to the center. Spot elevations may be necessary for grades less than 1%.
2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
3. Runoff diverted from an undisturbed area shall enter directly into an undisturbed stabilized area or a non-erodible velocity.
4. All trees, brush, stumps, obstructions, and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
5. The dike shall be excavated or graded to the grade and cross section as required to meet the criteria specified herein and be free of blemishes or other irregularities which will reduce normal flow.
6. Filter cloth shall be compacted by earth moving equipment.
7. All earth removed and not needed for construction shall be placed so that it shall not interfere with the functioning of the dike.
8. Inspection and maintenance must be provided periodically and after each rain event.

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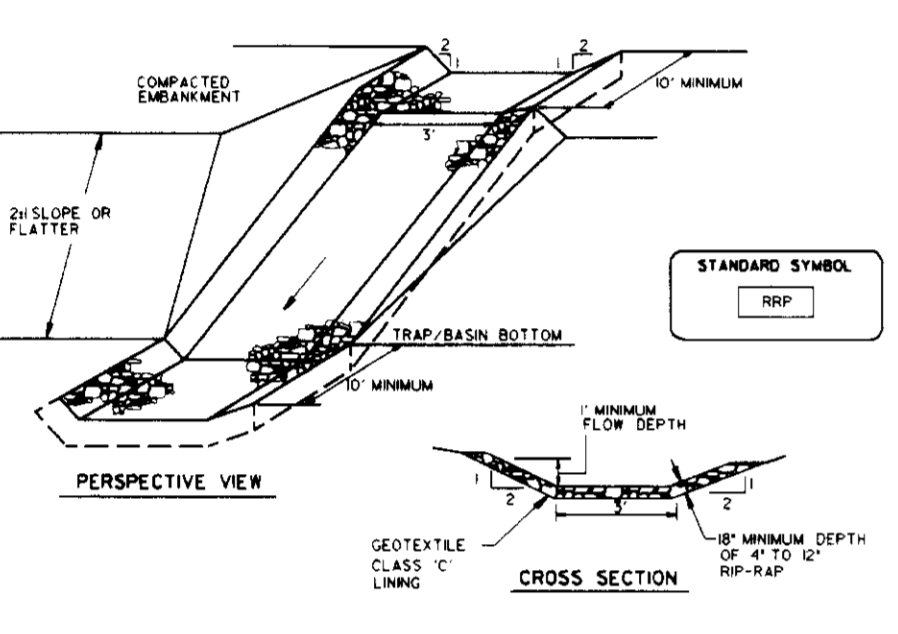
U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION
EARTH DIKE
NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION
SILT FENCE
NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION
SUPER SILT FENCE
NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION
STONE OUTLET SEDIMENT TRAP - ST II
NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION
STONE OUTLET SEDIMENT TRAP - ST II
NOT TO SCALE

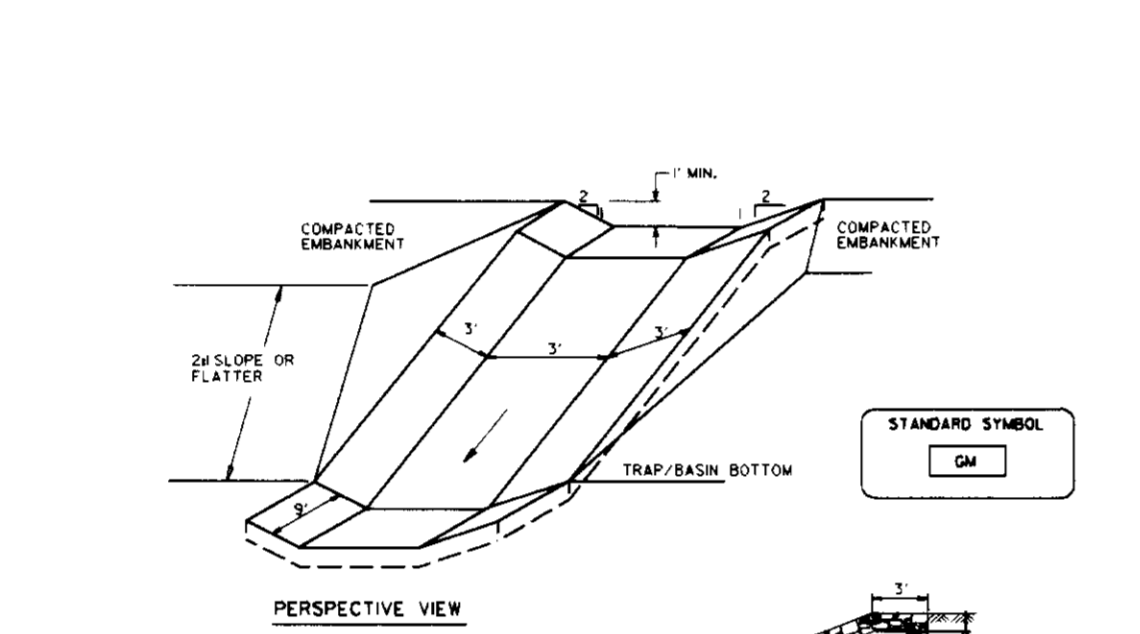


CONSTRUCTION SPECIFICATIONS

1. Rip-rap lined inflow channels shall be in depth, have a trapezoidal cross section with 2:1 slopes and 3' minimum bottom width. The channel shall be lined with 4" to 24" rip-rap to a depth of 18".
2. Filter cloth shall be installed under rip-rap. Filter cloth shall be Geotextile Class I.
3. Entrance and exit sections shall be installed as shown on the detail section.
4. Rip-rap used for the lining may be recycled for permanent outlet protection if the fabric is to be converted to a stormwater management facility.
5. Gabion inflow protection may be used in lieu of rip-rap inflow protection.
6. Rip-rap should blend into existing ground.
7. Rip-rap inflow protection shall be used where the slope is between 4:1 and 6:1 for slopes flatter than 4:1 use earth with temporary, weed lining criteria.

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U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION
 RIP-RAP INFLOW PROTECTION
NOT TO SCALE

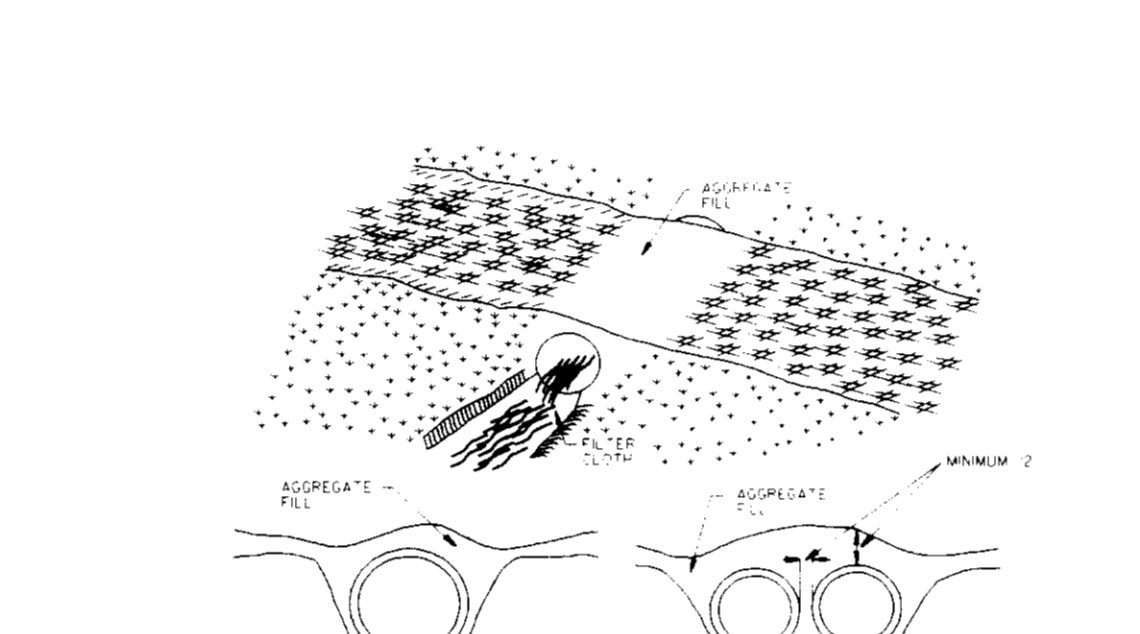


CONSTRUCTION SPECIFICATIONS

1. Gabion inflow protection shall be constructed of 9" x 3" x 3" gabion baskets forming a trapezoidal cross section 1 foot with 2:1 side slopes, and a 3' bottom width.
2. Geotextile Class C shall be installed under gabion baskets.
3. The stone used to fill the gabion baskets shall be 4" - 7".
4. Gabions shall be installed in accordance with manufacturer's recommendations.
5. Gabion inflow protection shall be used where concentrated flow is present on slopes steeper than 4:1.

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U.S. DEPARTMENT OF AGRICULTURE
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MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION
GABION INFLOW PROTECTION
NOT TO SCALE

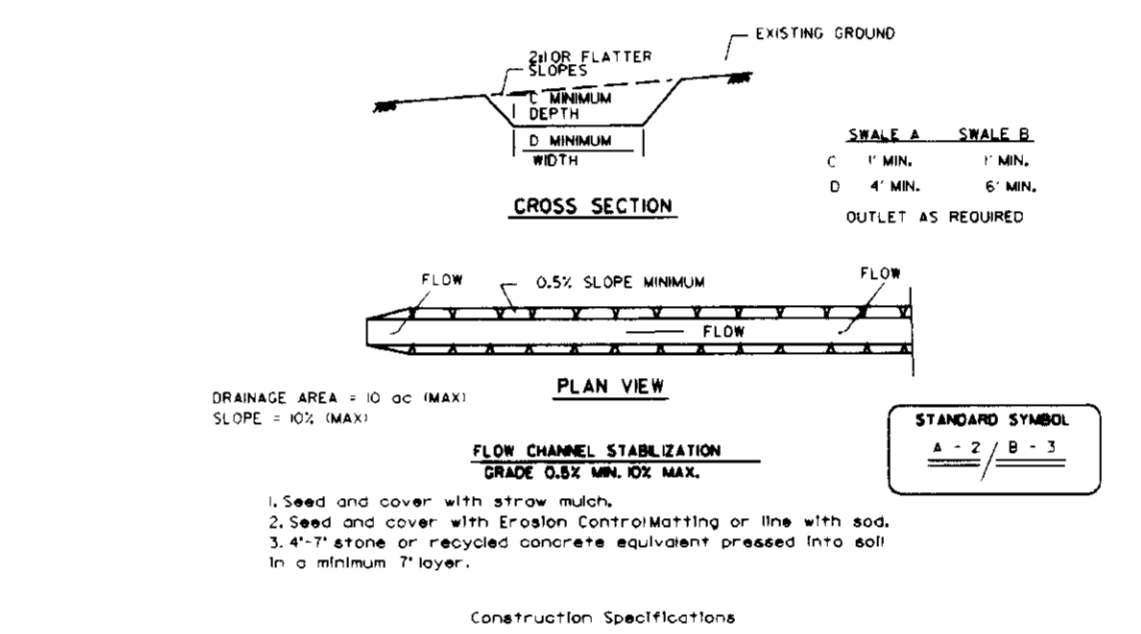


CONSTRUCTION SPECIFICATIONS

1. Restrictions: No construction or removal of a temporary access culvert shall be permitted between October 1 through April 30 for Ocean and Ocean In Tributaries and between March 1 through June 15 for non-tidal waterways.
2. Culvert Strength: All culverts shall be strong enough to support their cross sections area under maximum expected loads.
3. Culvert Size: The size of the culvert pipe shall be the largest pipe diameter that will fit into the existing channel without major excavation of the existing channel or without major approach fills. If a channel width exceeds 3 feet, corrugated pipe may be used unless the cross section area of the pipe is greater than 60 percent of the cross section area of the existing channel; the minimum size culvert may be used if a 6" diameter pipe, in all cases the pipe shall be large enough to convey normal stream flows.
4. Culvert Length: The culvert shall extend a minimum of one foot beyond the upstream and downstream toe to the aggregate placed around the culvert. In no case shall the culvert exceed 40 feet in length.
5. Filter Cloth: Filter cloth shall be placed on the upstream and downstream aggregate. The filter cloth shall cover the entire culvert and extend a minimum of 18 inches and a maximum one foot beyond the end of the culvert and bedding material. Filter cloth reduces settlement and improves crossing stability.
6. Culvert Placement: The invert elevation of the culvert shall be installed on the natural streambed grade to minimize interference with fish passage of fish.
7. Culvert Protection: The culvert shall be covered with a minimum of one foot of aggregate. If multiple culverts are used they shall be separated by at least 12" of compacted aggregate fill.
8. Stabilization: Areas disturbed during culvert installation shall be stabilized with a minimum of 20% of the disturbance in accordance with the contractor's "Critical Area Stabilization with Permanent Seeding".

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U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION
TEMPORARY ACCESS CULVERT
NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

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SOIL CONSERVATION SERVICE
MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION
TEMPORARY SWALE
NOT TO SCALE

Permanent Seeding Notes

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent and/or vegetative cover is needed.

Seeding Preparation: Loosen upper 3 inches of soil by raking, grading, or other acceptable means before seeding if not previously loosened.

Soluble Fertilizer: Apply 1/2 to 2 tons per acre of 10-20-20 fertilizer (10 lbs/1000 sq. ft.) and 1000 lbs/acre of 0-10-10 fertilizer (10 lbs/1000 sq. ft.) before seeding. Horvath or dia into upper 3 inches of soil. If rate of seeding only 100 lbs per acre 30-0-30 ureaform fertilizer (10 lbs/1000 sq. ft.).

Seeding: Apply 1/2 to 2 tons per acre of 10-20-20 fertilizer (10 lbs/1000 sq. ft.) and 1000 lbs/acre of 0-10-10 fertilizer (10 lbs/1000 sq. ft.) before seeding. Horvath or dia into upper 3 inches of soil. If rate of seeding only 100 lbs per acre 30-0-30 ureaform fertilizer (10 lbs/1000 sq. ft.).

Mulching: Apply 1/2 to 2 tons per acre (10 to 30 lbs/1000 sq. ft.) of unrotted animal or straw immediately after seeding. Another 1/2 ton of straw or other material using mulch on slopes 8 feet or higher. Use 348 gallons per acre (18 gal/100 sq. ft.) for mulching.

Maintenance: Inspect seeding area and make needed repairs, replacements and reseedings.

Temporary Seeding Notes

Apply to graded or cleared areas that will be redistributed where a short-term vegetative cover is needed.

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Soluble Fertilizer: Apply 600 lbs per acre 0-10-10 fertilizer (10 lbs/1000 sq. ft.)

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Soluble Fertilizer: Apply 600 lbs per acre 0

REFERENCE DRAWINGS
 FOR PLANT LIST SEE SHEET 14
 FOR PLANT SPECS & DETAILS SEE SHEET 14

NOTE:
 THIS PLAN HAS BEEN PREPARED IN
 ACCORDANCE WITH THE PROVISIONS OF
 SECTION 16.124 OF THE HOWARD COUNTY
 LANDSCAPE MANUAL.



Parcel 770
 Kingdon Gould Jr. Trustee
 c/o Arthur G Lambert Exec.
 c/o James Brady
 854/0043

Parcel 2
 MD & VA Milk Producers Assoc. Inc.
 302/0288

P/O Parcel 3
 Howard Research & Development Corp.
 3245/2514

PROPOSED MIDDLE SCHOOL

FUTURE ELEMENTARY SCHOOL

| No | Revision | Date |
|----|---|---------|
| 1 | Revised Storm Water Management Pond No. 2 to accommodate a proposed classroom addition. | 2/25/96 |
| | | |
| | | |

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Chad D. ... 1/29/96
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Uma Summery 2/2/96
 CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE

Joseph ... 2/15/96
 DIRECTOR DATE

Southeastern Middle School

OWNER / DEVELOPER:
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10810 ROUTE 108
 ELLICOTT CITY, MD 21043

DMW
 Draft McCune-Walker, Inc.
 3020 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 286-3333
 Fax 296-4705

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

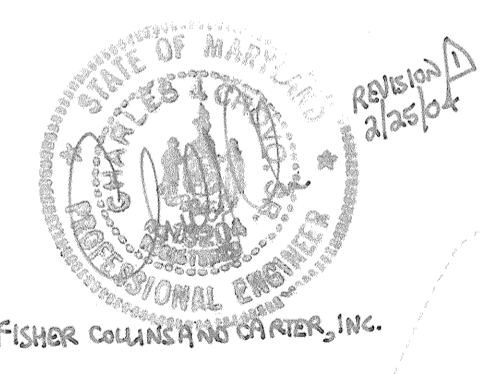
| DATE | NO. | REVISION DESCRIPTION |
|------|-----|----------------------|
| | | |
| | | |

| | | | | |
|-------------|----------|----------|-----------|----------|
| DESIGNED BY | SCALE | 1" = 50' | PROJ. NO. | 94140A |
| DRAWN BY | DATE | 1-8-96 | | |
| CHECKED BY | APPROVED | | | 13 OF 22 |

1/8/96
 Date

MM

268
 Landscape Architect's Number



SDP-96-42

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FOR PLANT LIST SEE SHEET 14
FOR PLANT SPECS & DETAILS SEE SHEET 14

NOTE:
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Parcel 170
Kingdon Gould Jr. Trustee
c/o Arthur G Lambert Exec.
c/o James Brady
854/0043

Parcel 2
MD & VA Milk Producers Assoc. Inc.
302/0288

AFFORESTATION
AREA

GORMAN ROAD
PERIMETER B 295 LF TYPE 'B'

Match Line - See Sheet 5 of 22

75' Stream Buffer

SEED

5 M
11 PS

14 PS
9 PA

220 LF - TO BE PLANTED AS TYPE 'D'

PERIMETER C 410 LF - TYPE 'C'

PROPOSED MIDDLE SCHOOL

FUTURE ELEMENTARY SCHOOL

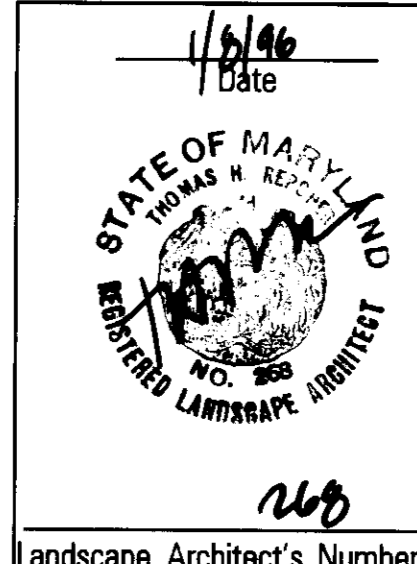
P/O Parcel 3
Howard Research & Development Corp.
3245/2514

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
Chad R. ... 1/28/96
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Chia ... 2/2/96
CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE
James ... 2/17/96
DIRECTOR DATE

| Date | No. | Revision Description |
|------|-----|----------------------|
| | | |

Southeastern Middle School
OWNER /DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 ROUTE 108
ELLCOTT CITY, MD 21043

DMW
Duff McCune Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4705
A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals



| | | | | | |
|--|-----------------|-------------------------|------------------|--------------------------------|-----------------------|
| SUBDIVISION NAME Southeastern Middle School | | SECTION AREA IVA | | LMPARCEL # part of Parcel 3 | |
| PLAT OR LOT N/A | BLOCK FMS# 2 | MARKING MAP R-ED/PEC | LOT CORNER 47 | GRID CORNER 6th | GRID VALUE 6060.02 |
| TITLE LANDSCAPE PLAN | | | | | |
| Des By | Scale | 1" = 50' | Proj. No. | 94140A | |
| Drn By | TPC | Date | 1-8-96 | 13 of 22 | |
| Chk By | MM | Approved | | | |

SDP-96-42

PLANT LIST

| KEY | QUANTITY | BOTANICAL NAME | COMMON NAME | SIZE | CONDITION | REMARKS |
|-----------------|----------|--|------------------------------|-----------------------|--------------|-----------|
| OVERSTORY TREES | | | | | | |
| F | 8 | Fraxinus pennsylvanica 'Autumn Purple' | Autumn Purple White Ash | 13-15', 2 1/2"-3" cal | B&B | Full Head |
| LS | 11 | Liquidambar styraciflua | Sweet Gum | 11-13', 2 1/2"-3" cal | B&B | Full Head |
| T | 13 | Tilia cordata 'Greenspire' | Greenspire Littleleaf Linden | 12-14', 2 1/2"-3" cal | B&B | Full Head |
| FLOWERING TREES | | | | | | |
| M | 9 | Magnolia stellata | Star Magnolia | 8-10' ht | B&B | Full Head |
| EVERGREEN TREES | | | | | | |
| PA | 58 | Pinus strobus | Norway Spruce | 8-10' ht | B&B | Unsheared |
| PS | 25 | Pinus strobus | Eastern White Pine | 8-10' ht | B&B | Unsheared |
| SHRUBS | | | | | | |
| B | 38 | Berberis julianae 'nana' | Dwarf Wintergreen Barberry | 18-24" spd | B&B or cont. | 3.5' OC |

SCHEDULE A

LANDSCAPE REQUIREMENTS:

| CATEGORY | ADJACENT TO ROADWAYS | | ADJACENT TO PERIMETER PROPERTIES | |
|---|----------------------|--------------------|----------------------------------|--------------------|
| | LANDSCAPE TYPE 'E' | LANDSCAPE TYPE 'B' | LANDSCAPE TYPE 'C' | LANDSCAPE TYPE 'A' |
| • LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER | 153 LF | 255 LF | 815 LF | 312 LF |
| • CREDIT FOR EXISTING VEGETATION | NO | NO | NO | NO |
| • CREDIT FOR WALL, FENCE OR BERM | NO | NO | ** YES, 34" 3' HIGH BERM | NO |
| • NUMBER OF PLANTS REQUIRED | | | | |
| SHADE TREES | 4 | 5 | 12 | 5 |
| EVERGREEN TREES | 0 | 6 | 24 | 0 |
| SHRUBS | 38 | 0 | 0 | 0 |
| • NUMBER OF PLANTS PROVIDED | #1 | #2 | | |
| SHADE TREES | 3 | 2 | 12 | 7 |
| EVERGREEN TREES | 0 | 12 | 46 | 25 |
| OTHER TREES (2-1 SUB.) | 2 | 0 | 9 | 0 |
| SHRUBS (10-1 SUB.) | 38 | 0 | 0 | 0 |

** CREDIT FOR 3' HIGH BERM SCREENING PARKING LOT ALONG PERIMETER D

#1 (2) EVERGREEN TREES SUBSTITUTED FOR 1 SHADE TREE
#2 (6) EVERGREEN TREES SUBSTITUTED FOR 3 SHADE TREES

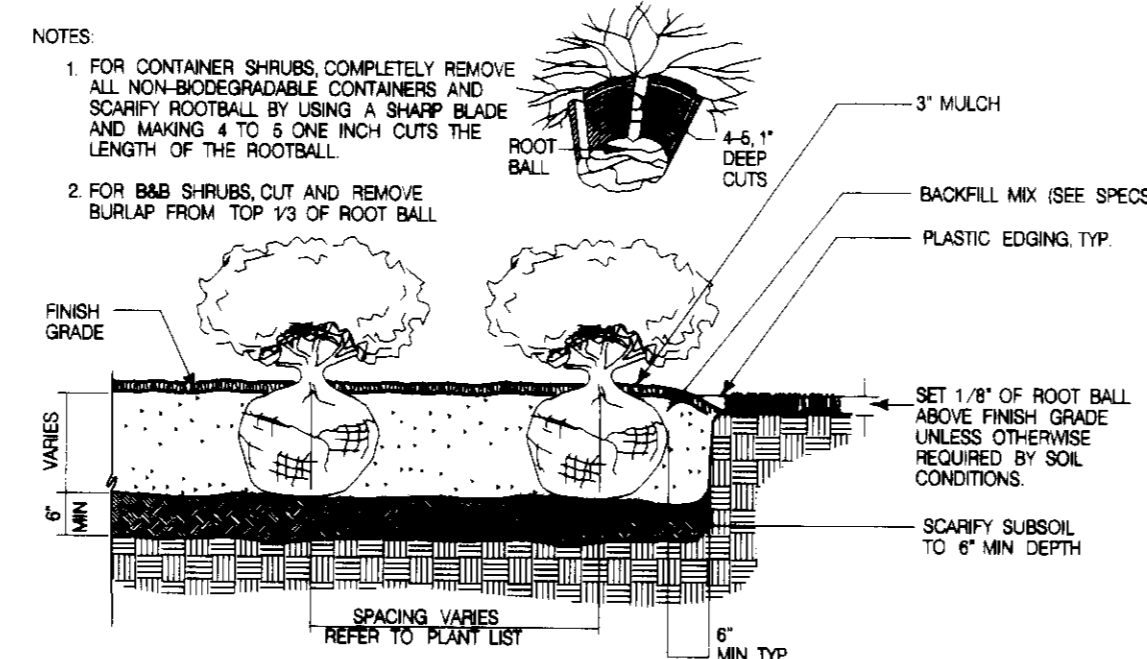
SCHEDULE B

PARKING LOT INTERNAL LANDSCAPING

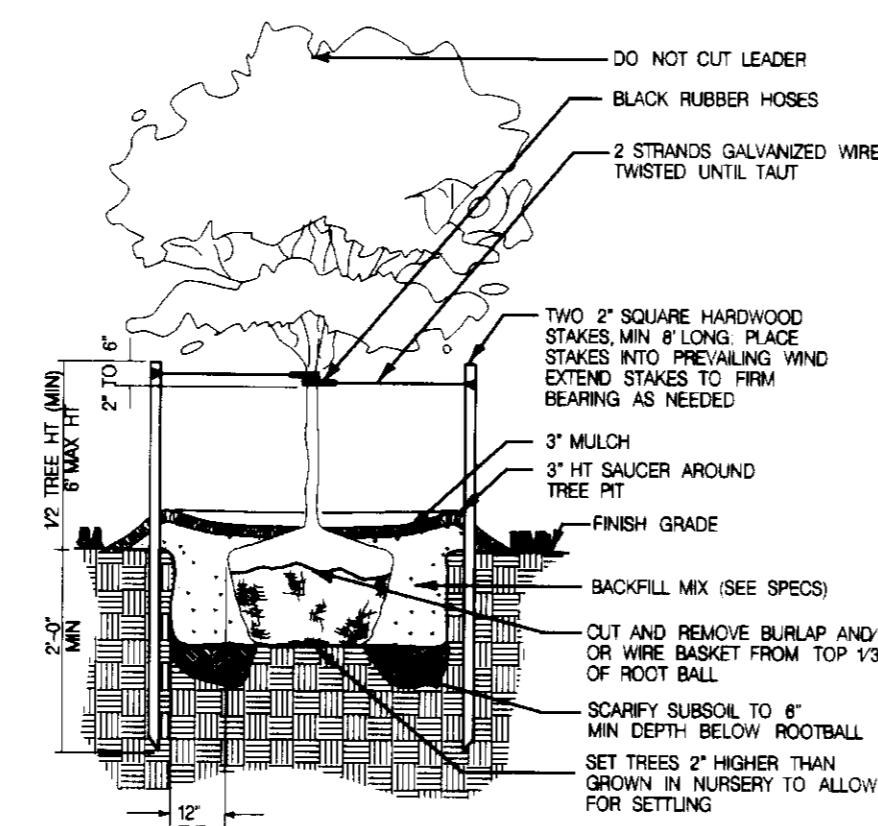
| | |
|---|-----|
| • NUMBER OF PARKING SPACES | 105 |
| • NUMBER OF TREES REQUIRED @ 120 SPACES | 5 |
| • NUMBER OF TREES PROVIDED | |
| SHADE TREES | 7 |
| OTHER TREES (2-1 SUB.) | 0 |
| • PARKING ISLANDS REQUIRED @ 120 SPACES | 5 |
| • PARKING ISLANDS PROVIDED | 8 |

LANDSCAPE NOTES

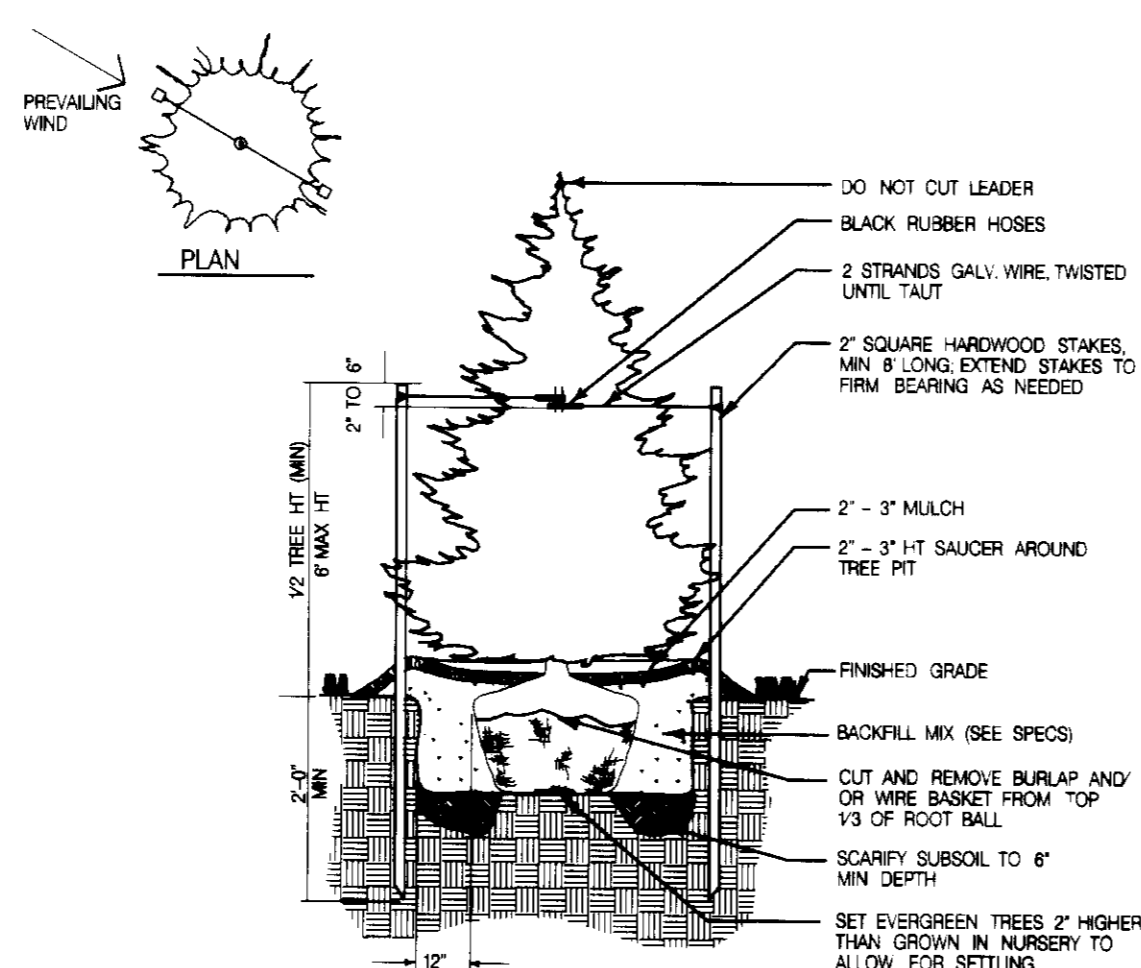
- The contractor shall review architectural/engineering plans to become thoroughly familiar with grading and surface utilities.
- All equipment and tools shall be placed so as not to interfere or hinder the pedestrian and vehicular traffic flow.
- The contractor shall coordinate with lighting and irrigation contractors regarding timing of installation of plant material.
- The contractor shall insure that his work does not interrupt established or projected drainage patterns.
- During planting operations, excess waste materials shall be promptly and frequently removed from the site.
- Call Miss Utility a minimum of three days prior to any excavation. The contractor is advised of the existence of underground utilities on the site. Their exact location shall be verified in the field with the owner or general contractor prior to the commencement of any digging operations. In the event they are uncovered, the contractor shall be held responsible for all damage to utilities and such damage shall not result in any additional expenses to the owner. Any damage of unreported lines shall not be the responsibility of the contractor.
- If utility lines are encountered in excavation of tree pits, other locations for trees shall be made by the contractor without additional compensation. No changes of location shall be made without approval by the landscape architect.
- Maintain positive drainage out of planting beds at a minimum 2% slope. All grades, dimensions, and existing conditions shall be verified by the contractor on site before construction begins. Any discrepancies shall be brought to the attention of the landscape architect or owner.
- Every possible safeguard shall be taken to protect building surfaces, equipment, and furnishing. The contractor shall be responsible for any damage or injury to person or property which may occur as a result of his negligence in the execution of the work.
- In the event of variation between quantities shown on the plant list and the plans, the plans shall control. The contractor is responsible for verifying all plant quantities prior to the commencement of work. Seed quantity take-offs are the responsibility of the contractor. All discrepancies shall be reported to the landscape architect for clarification prior to bidding. The contractor shall furnish plant material in sizes as specified in plant list.
- Plants shall be located as shown on the drawings or as designated in the field. The contractor shall stake all material located on the site for review and/or adjustment by the landscape architect prior to planting. All locations are to be approved by the landscape architect before excavation.
- Plants shall conform to current "American Standards for Nursery Stock" by American Association of Nurserymen (AAN), particularly with regard to size, growth, size of ball, and density of branch structure. Plant material shall be tagged at the source by the landscape architect unless this requirement is specifically waived.
- All plants (B&B or container) shall be properly identified by weather-proof labels securely attached thereto before delivery to project site. Labels shall identify plants by name, species, and size. Labels shall not be removed until the final inspection by the landscape architect or agent in charge.
- Any material and/or work may be rejected by the landscape architect if it does not meet the requirements of the specifications. All rejected materials shall be removed from the site by the contractor.
- No substitutions shall be made without written consent of the owner or landscape architect.
- The landscape architect or owner shall have the right, at any stage of the operations, to reject any and all work and material which, in his opinion, does not meet the requirements of these plans and specifications.
- The contractor shall be wholly responsible for stability and conditions of all trees and shrubs and shall be legally liable for any damage caused by instability of any plant materials. Staking of all trees shall be done utilizing a method agreed upon by the landscape architect, as indicated on the documents.
- All proposed trees to be installed either entirely on or entirely out of planting beds. Planting bed lines are not to be obstructed. All shrubs and ground cover areas shall be planted in continuous prepared bed and top dressed with 3-inch shredded hardwood mulch. Mulch shall have been shredded within the last six months.
- Spade edge all planting beds.
- Maintenance shall begin after each plant has been installed and shall continue until 90 days after final acceptance by the architect or owner representative. Maintenance includes watering, pruning, weeding, fertilizing, mulching, replacement of sick or dead plants, and any other care necessary for the proper growth of the plant material. The contractor must be able to provide continued maintenance if requested by the owner.
- Upon completion of all landscaping, an acceptance of work shall be held. The contractor shall notify the landscape architect or owner for scheduling the inspection at least seven (7) days prior to the anticipated inspection date.
- All trees shall be guaranteed for 12 months from the date of acceptance. All shrubs and ground covers shall be guaranteed for 12 months from the date of acceptance. Replacement plants used shall be guaranteed for an additional 90 days.
- The contractor is responsible for testing project soils. The contractor is to provide a certified soils report to the owner. The contractor shall verify that the soils on site are acceptable for the proper growth of the proposed plant material. Should the contractor find poor soil conditions, the contractor shall be required to provide soil amendments as necessary. These amendments shall include, but not be limited to, fertilizers, lime, and topsoil. Proper planting soils must be verified prior to planting of materials.
- The contractor shall dispose of stumps and major roots of all plants to be removed. Any depressions caused by removal operations shall be refilled with fertile, friable soil placed and compacted so as to reestablish proper grade for new planting and/or lawn areas.
- The contractor shall insure adequate vertical drainage in all plant beds.
- All disturbed areas of the site not planted with shrubs or ground cover shall be fine graded and seeded. See Sediment & Erosion Control Plans for details.



SHRUB BED PLANTING
NOT TO SCALE



TREE PLANTING - LESS THAN 3" CALIPER
NOT TO SCALE



EVERGREEN TREE PLANTING
NOT TO SCALE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 [Signature] 1/28/96
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
 [Signature] 2/2/96
 CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE
 [Signature] 2/5/96
 DIRECTOR DATE

| Date | No. | Revision Description |
|------|-----|----------------------|
| | | |

Southeastern Middle School
 OWNER /DEVELOPER:
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10910 ROUTE 108
 ELLICOTT CITY, MD 21043

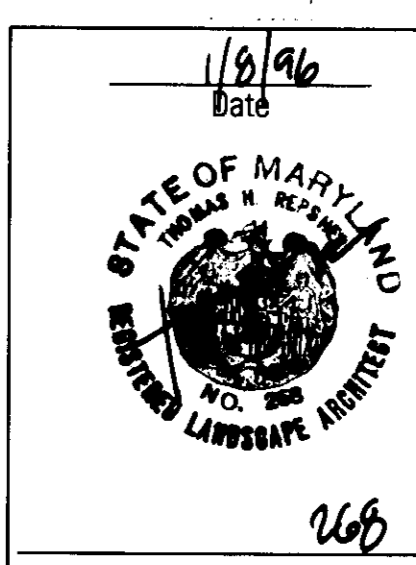
DMW
 DeR. McCune Walker, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-9333
 Fax: 296-4705
 A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

| SECTION NAME | SECTION NO. | SECTION # |
|----------------------------|-------------|------------------|
| Southeastern Middle School | NA | part of Parcel 3 |
| PLAN NO. | SECTION NO. | DATE |
| NA | 2 | 1-8-96 |
| PROJECT NO. | SECTION NO. | DATE |
| 6068.02 | 6068.02 | |

LANDSCAPE DETAILS

| | | | | |
|--------|-------|----------|-----------|----------|
| Des By | Scale | 1" = 50' | Proj. No. | 94140A |
| Dim By | TPC | Date | 1-8-96 | |
| Chk By | MM | Approved | | 14 of 22 |

NOTE:
 THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY LANDSCAPE MANUAL.



SDP-96-42

INSPECTION SCHEDULE

Prior notification shall be given to the engineer so that inspections may be made at the following stages:

- Upon completion of excavation to subfoundation and where required, installation of structural supports or reinforcement for structures, including but not limited to:
 - Core trenches for structural embankments.
 - Inset-culled structures and anti-seep structures, watertight connectors on pipes, and
 - Trenches for enclosed storm drainage facilities.
- During placement of structural fill, concrete, and installation of piping and catch basins;
- During backfill of foundations and trenches;
- During embankment construction;
- Upon completion of final grading and establishment of permanent stabilization.

No work shall proceed until engineer inspects and approves the work previously completed.

MAINTENANCE SCHEDULE

Routine Maintenance

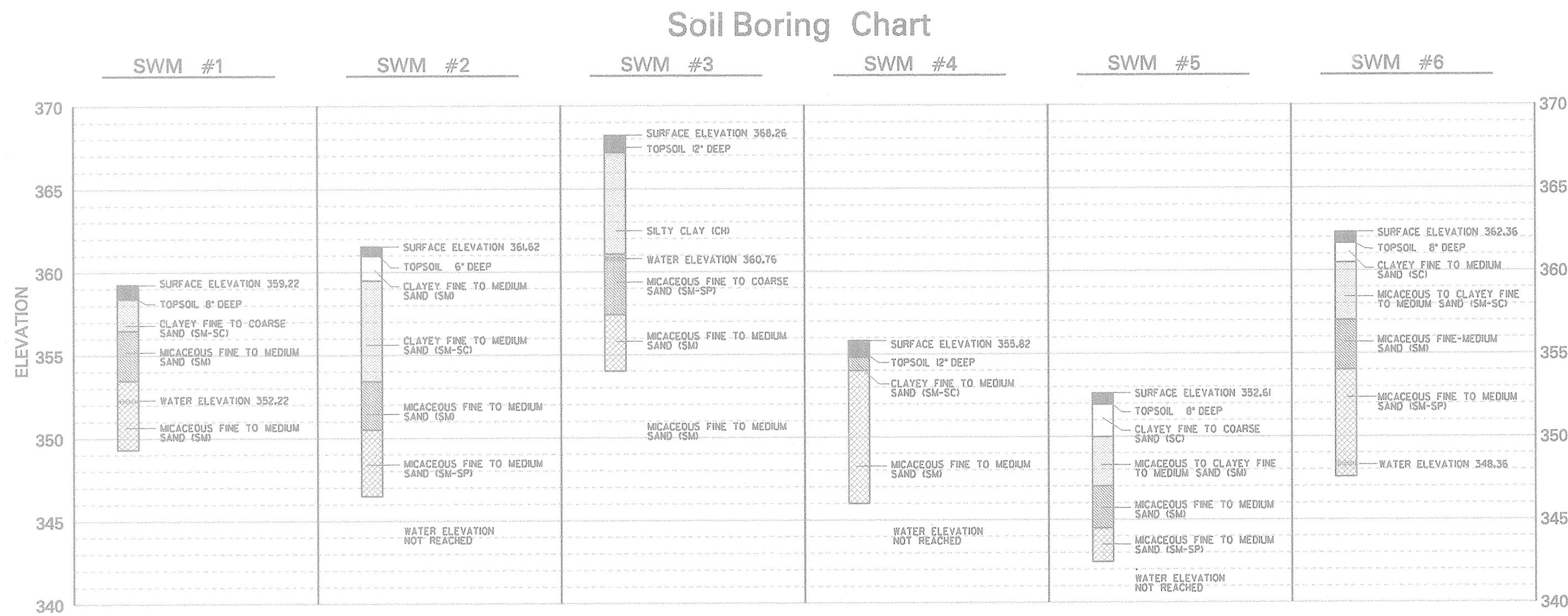
- The facilities shall be inspected annually and after major storms. Inspections should be performed during wet weather to determine if the ponds are functioning properly. The facilities shall be inspected in accordance with the checklist and requirements contained within USDA, NRCS "Standards and Specifications for Ponds" (MS-378). The pond owner(s) and any heirs, successors, or assigns shall be responsible for the safety of the ponds and the continued operation, surveillance, inspection and maintenance thereof. The pond owner(s) shall promptly notify the Soil Conservation District of any unusual observations that may be indications of distress such as excessive seepage, turbid seepage, sliding or slumping.
- The top and side slopes of the embankments shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes, the bottom of the pond, and maintenance access should be mowed as needed.
- Debris and litter next to the outlet structure shall be removed during regular mowing operations and as needed.
- Visible signs of erosion in the ponds as well as rip rap outlet areas shall be repaired as soon as it is noticed.

Non-Routine Maintenance

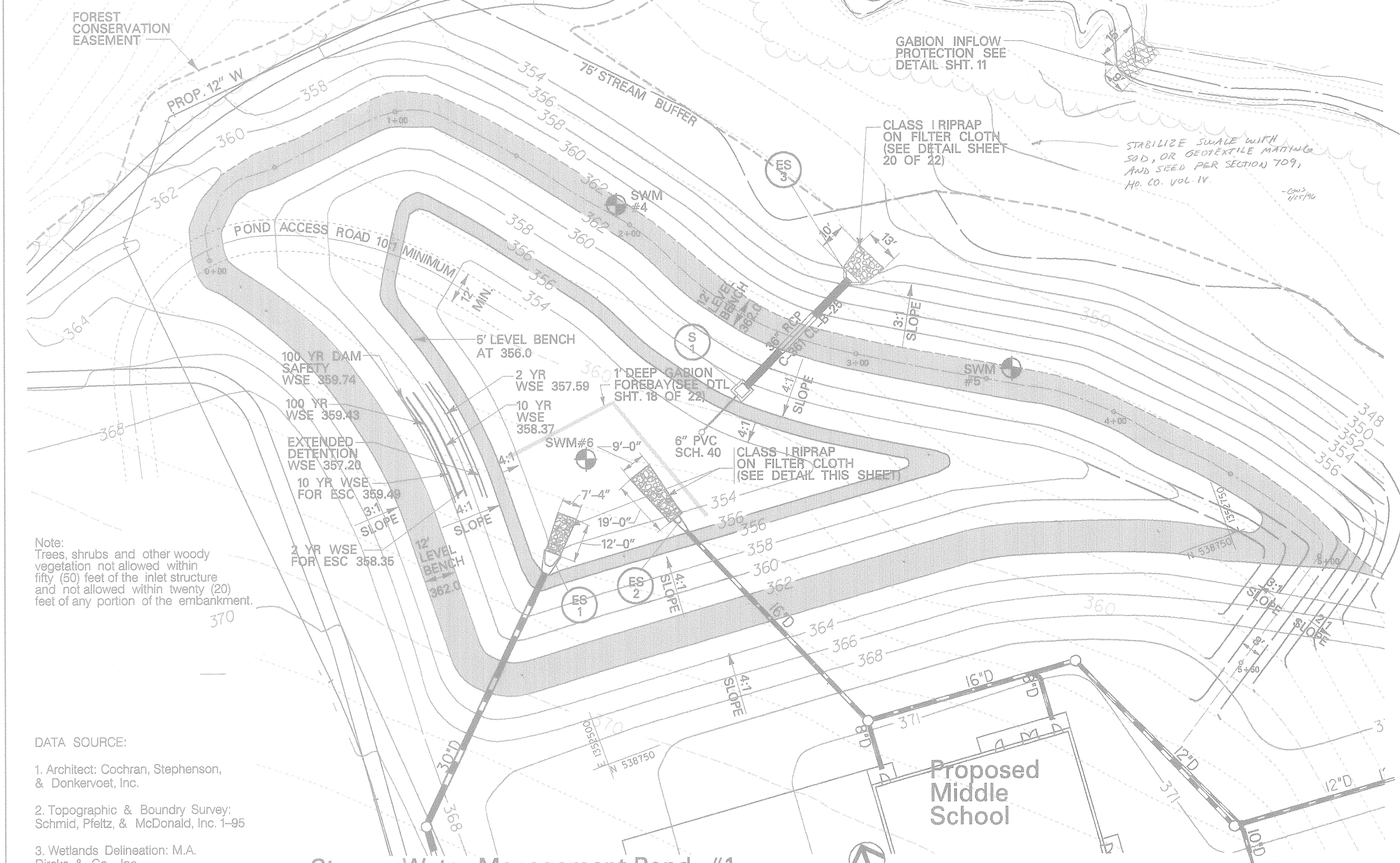
- Structural components of the ponds such as the dam, the riser, and the pipes shall be repaired upon the detection of any damage. The components should be inspected during routine maintenance operations.
- Sediment should be removed when its accumulation significantly reduces the design storage, interferes with the function of the riser, when deemed necessary for aesthetic reasons or when deemed necessary by Howard County's Department(s) of Public Works /Zoning.

GEOTECH RECOMMENDATIONS

- The earthwork operations should be accomplished during the drier seasons, preferably during the summer months, when rainfall is less.
- Construct earth berms or other appropriate features along the top of any newly created or existing slope, where possible, to control surface run-off and minimize the formation of gullies down the face of the slope until slope stabilization is achieved.
- Immediately after final grading, the slopes should be seeded, fertilized and covered with an appropriate mulch and binder.
- Periodic examination of the slope areas during and after construction to locate and regrade any slope areas subjected to scouring from excessive surface run-off.



NOTE: BEARING STRENGTH FOR ALL 6 BORINGS IS 1.5 KSF



Storm Water Management Pond #1
Extended Detention Hazard Class A
SCALE: 1"=30'

DATA SOURCE:

- Architect: Cochran, Stephenson, & Donkervoet, Inc.
- Topographic & Boundary Survey: Schmid, Pflitz, & McDonald, Inc. 1-95
- Wetlands Delineation: M.A. Dircks & Co., Inc.

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

APPROVED: *[Signature]* DATE: 1/25/96

DEVELOPERS CERTIFICATE:

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I/WE SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I/WE ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF DEVELOPER: *[Signature]* DATE: 1/4/96

ENGINEERS CERTIFICATE:

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND FEASIBLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE ADVISED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

SIGNATURE OF ENGINEER: *[Signature]* DATE: 1-6-96

AS-BUILT CERTIFICATION

HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

SIGNATURE: _____ DATE: _____

AS-BUILT CERTIFICATION

INSPECTION OF THE POND SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, NRCS "STANDARDS AND SPECIFICATIONS FOR PONDS" AND THE POND OWNERS AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF. THE POND OWNERS SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

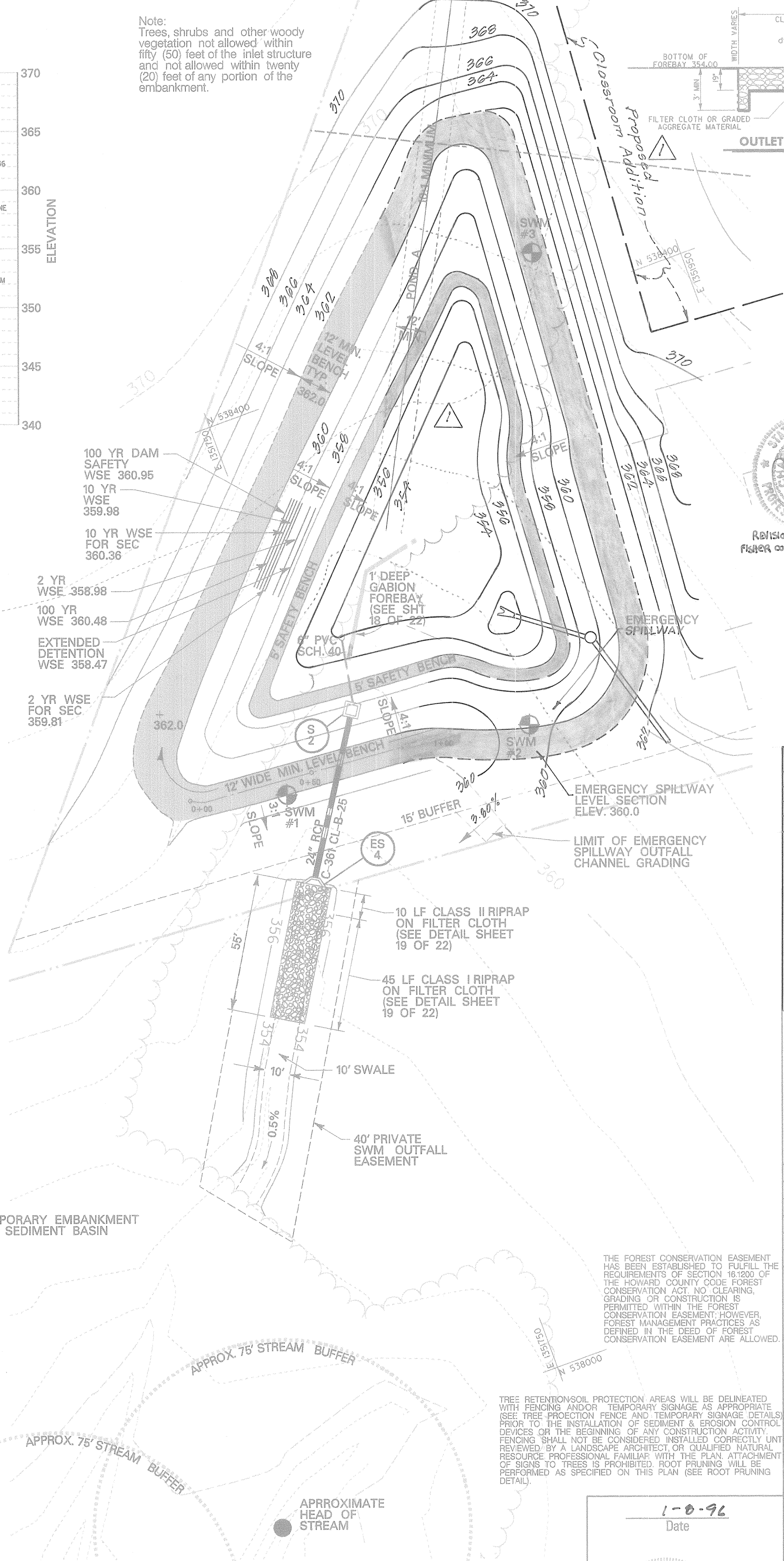
SIGNATURE: _____ DATE: _____

AS-BUILT CERTIFICATION

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SIGNATURE: _____ DATE: _____

Storm Water Management Pond #2
Extended Detention Hazard Class A
SCALE: 1"=30'

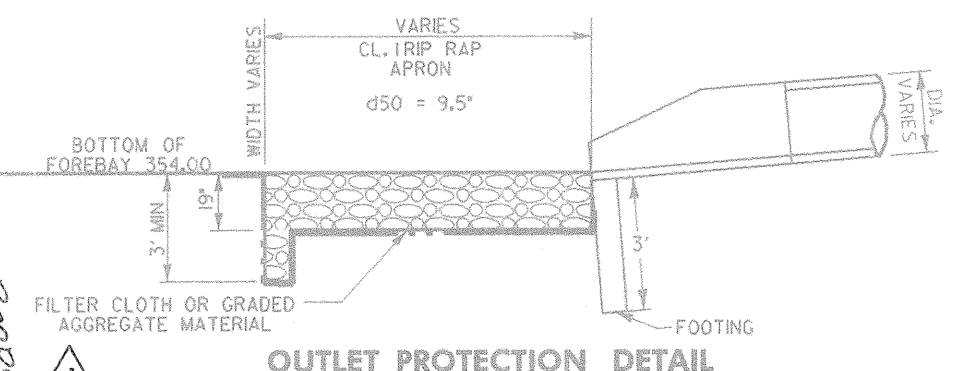


Storm Water Management Pond #2
Extended Detention Hazard Class A
SCALE: 1"=30'

THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 19-220 OF THE HOWARD COUNTY CODE. FOREST CONSERVATION ACT NO CLEARING, GRUBBING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.

THE FOREST RETENTION/SOIL PROTECTION AREAS WILL BE DELINEATED WITH FENCING AND/OR TEMPORARY SIGNAGE AS APPROPRIATE (SEE TREE PROTECTION FENCE AND TEMPORARY SIGNAGE DETAILS) PRIOR TO THE INSTALLATION OF SEDIMENT & EROSION CONTROL DEVICES ON THE BEGINNING OF ANY CONSTRUCTION ACTIVITY. FENCING SHALL NOT BE CONSIDERED INSTALLED CORRECTLY UNTIL REVIEWED BY A LANDSCAPE ARCHITECT OR QUALIFIED NATURAL RESOURCE PROFESSIONAL FAMILIAR WITH THE PLAN. ATTACHMENT OF SIGNS TO TREES IS PROHIBITED. ROOT PRUNING WILL BE PERFORMED AS SPECIFIED ON THIS PLAN (SEE ROOT PRUNING DETAIL).

Note: Trees, shrubs and other woody vegetation not allowed within fifty (50) feet of the inlet structure and not allowed within twenty (20) feet of any portion of the embankment.



DESIGN FLOW SUMMARY

| Pond # | 2-Year | 10-Year | 100-Year |
|------------------------------|--------|---------|----------|
| Proposed Inflow (cfs) | 19.89 | 42.89 | 69.93 |
| Allowable Release (cfs) | 0.94 | 8.87 | 21.19 |
| Proposed Outflow (cfs) | 0.41 | 6.86 | 31.39 |
| Water Surface Elevation (ft) | 337.59 | 338.37 | 339.43 |
| Storage Provided (AC - ft) | 0.82 | 1.96 | 1.70 |

DESIGN FLOW SUMMARY

| Pond # | 2-Year | 10-Year | 100-Year |
|------------------------------|--------|---------|----------|
| Proposed Inflow (cfs) | 17.08 | 36.66 | 69.52 |
| Allowable Release (cfs) | 9.85 | 28.26 | 47.04 |
| Proposed Outflow (cfs) | 3.94 | 25.19 | 57.00 |
| Water Surface Elevation (ft) | 338.88 | 339.98 | 340.48 |
| Storage Provided (AC - ft) | 0.91 | 0.80 | 0.98 |

DESIGN FLOW SUMMARY

| Pond # | 2-Year | 10-Year | 100-Year |
|-----------------------|--------|---------|----------|
| Proposed Inflow (cfs) | 12.26 | 48.32 | |
| Proposed Peak (cfs) | 11.41 | 44.21 | |

DESIGN FLOW SUMMARY

| Pond # | 2-Year | 10-Year | 100-Year |
|-----------------------|--------|---------|----------|
| Proposed Inflow (cfs) | 1.57 | 5.69 | |
| Proposed Peak (cfs) | 0.47 | 1.91 | |

DESIGN FLOW SUMMARY

| Pond # | 2-Year | 10-Year | 100-Year |
|-----------------------|--------|---------|----------|
| Proposed Inflow (cfs) | 10.63 | 29.16 | |
| Proposed Peak (cfs) | 4.08 | 25.87 | |

General Notes:

- These facilities are privately owned and shall be maintained by Howard County Public Schools.
- These facilities lie within the Middle Patuxent River watershed.
- These facilities are hazard class A.

| No. | Revision | Date |
|-----|--|---------|
| 1 | Regraded Storm Water Management Pond No. 2 to accommodate a proposed classroom addition. | 2-28-96 |

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

[Signature] 1/29/96
CHIEF DEVELOPMENT ENGINEERING DIVISION

[Signature] 2/2/96
CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH

[Signature] 2/5/96
DIRECTOR

Southeastern Middle School
OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 ROUTE 108
ELLCOTT CITY, MD 21043

DMW
Date: McCase Walker, Inc.
300 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3533
Fax: 296-4706

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

| SECTION | SECTION AREA | SECTION NO. | SECTION DATE |
|----------------------------|--------------|------------------|--------------|
| Southeastern Middle School | NA | part of Parcel 3 | |
| DATE | 2 | REVISED | 6/28/92 |

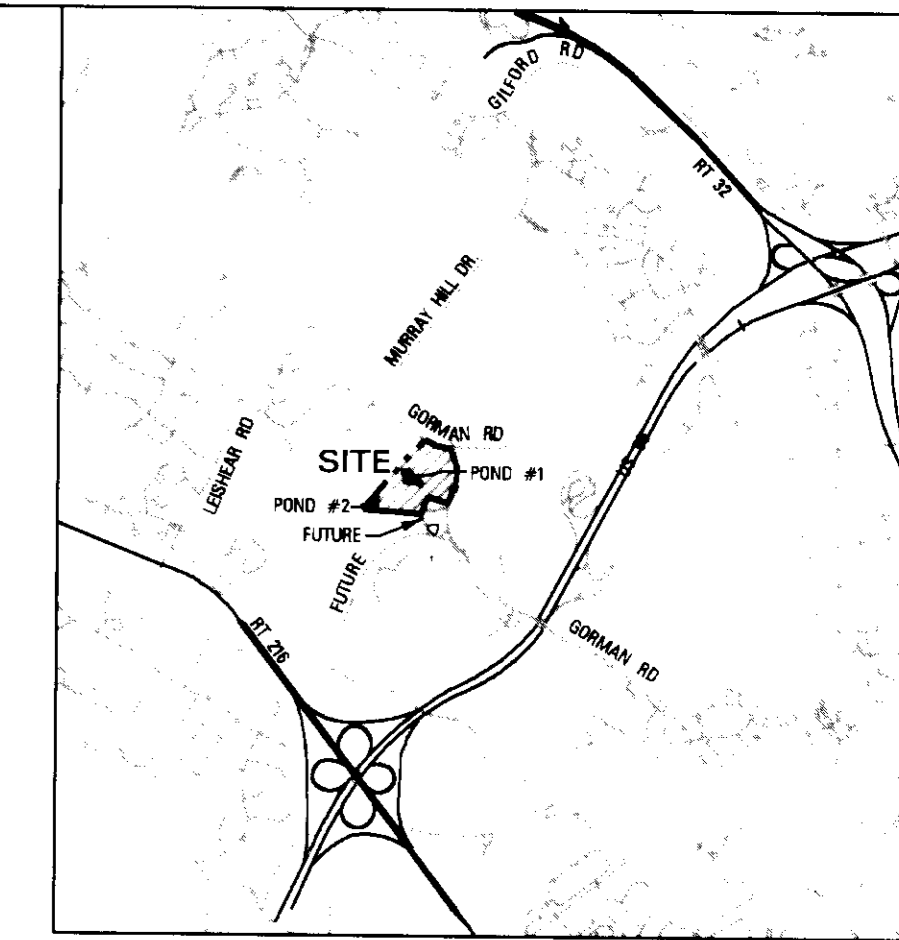
TITLE: STORMWATER MANAGEMENT PLAN

| Des By | PSN | Scale | 1"=30' | Proj. No. | 94140A |
|--------|----------|-------|--------|-----------|--------|
| Dm By | TPC | Date | 1-8-96 | | |
| Chk By | Approved | | | 15 of 22 | |

1-8-96
Date

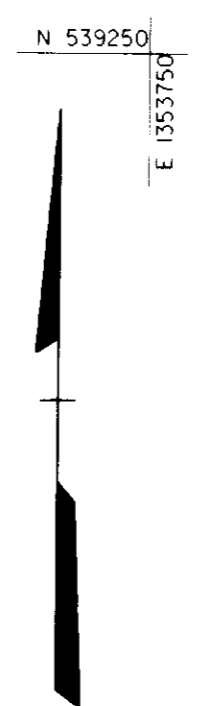
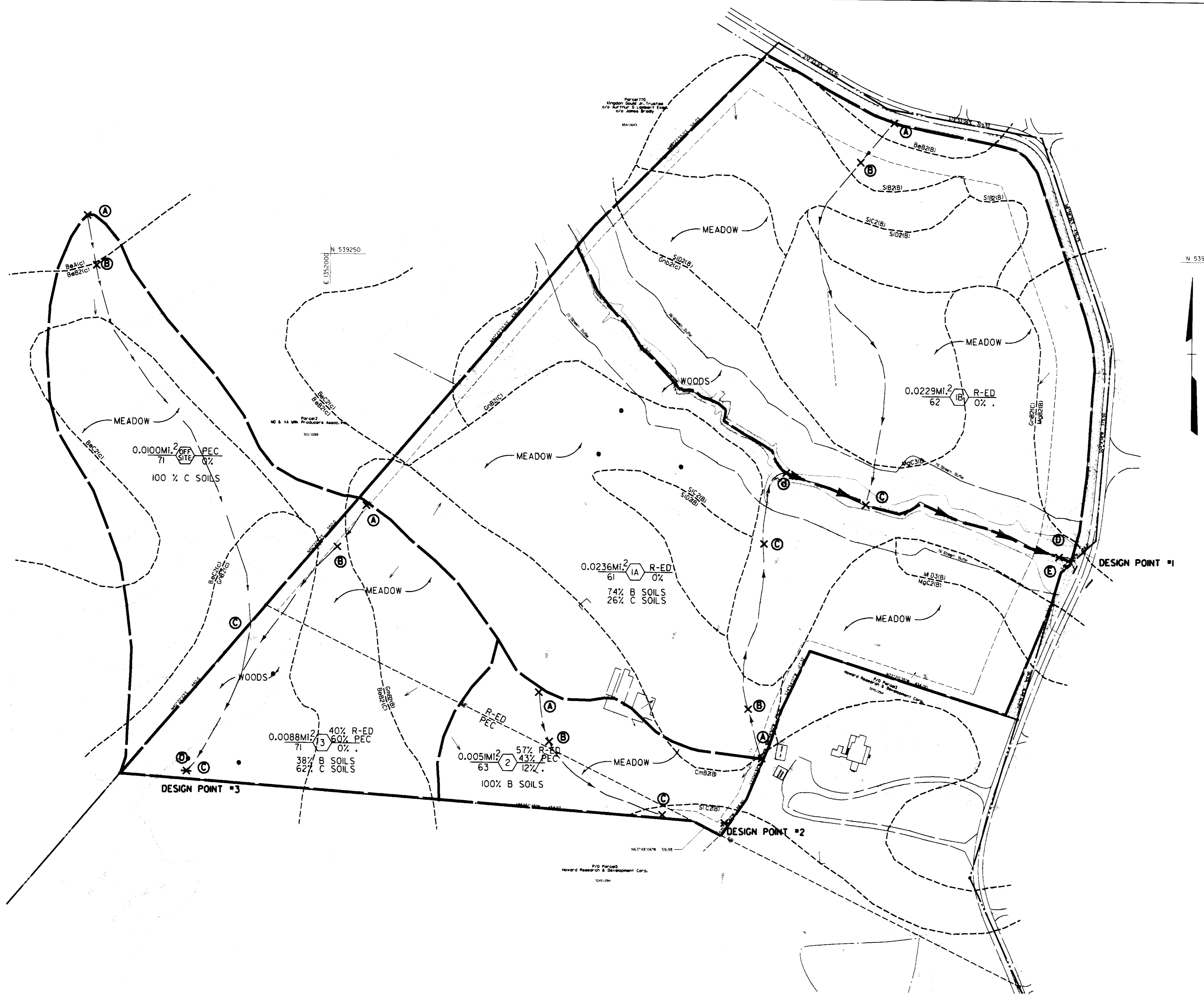
Professional Engineer Number: *[Signature]*

SDP-96-42



LOCATION MAP
SCALE: 1" = 4000'

BENCHMARK
HORIZONTAL (NAD 83) AND VERTICAL (NVD 29)
CONTROL BASED UPON HOWARD COUNTY TRAVERSE
POINTS 474B, 42EA, AND 1941005



LEGEND

- D. A. LIMIT ———
- SOIL LIMITS - - - - -
- TC LINE (A) X (B)
- SOIL TYPE MC2
- COMBINATION TC & DA LIMIT ———>

DA IN MI.² / ZONING RCN / A2 / % IMP.

EXISTING DRAINAGE AREA MAP
SCALE: 1" = 100'

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

John W. Ramo 1/25/96
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Anna Jurmaga 2/2/96
CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE

Joseph L. Smith 2/17/96
DIRECTOR DATE

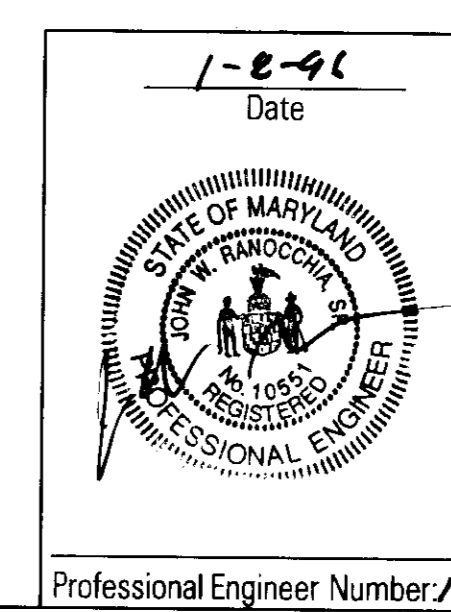
| Date | No. | Revision Description |
|------|-----|----------------------|
| | | |

Southeastern Middle School

OWNER /DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 ROUTE 108
ELLCOTT CITY, MD 21043

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Dale McCusker Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
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Fax 296-4705

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals



| | | | | |
|--|----------------------|----------------|-----------------------|----------------|
| PROJECT NAME Southeastern Middle School | SECTION/FILES N/A | DATE 1-8-96 | DESIGNER JWR | DATE 1-8-96 |
| PLANS N/A | TAXING 87 | RELET 87 | DESIGN NO. 9068.02 | DATE 1-8-96 |
| <p>EXISTING SWM DRAINAGE AREA MAP</p> <p>Des By PSN Scale 1" = 100' Proj. No. 94140A</p> <p>Drn By NB Date 1-8-96</p> <p>Chk By Approved 16 of 22</p> | | | | |

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

P. Engel 1/25/96
U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE

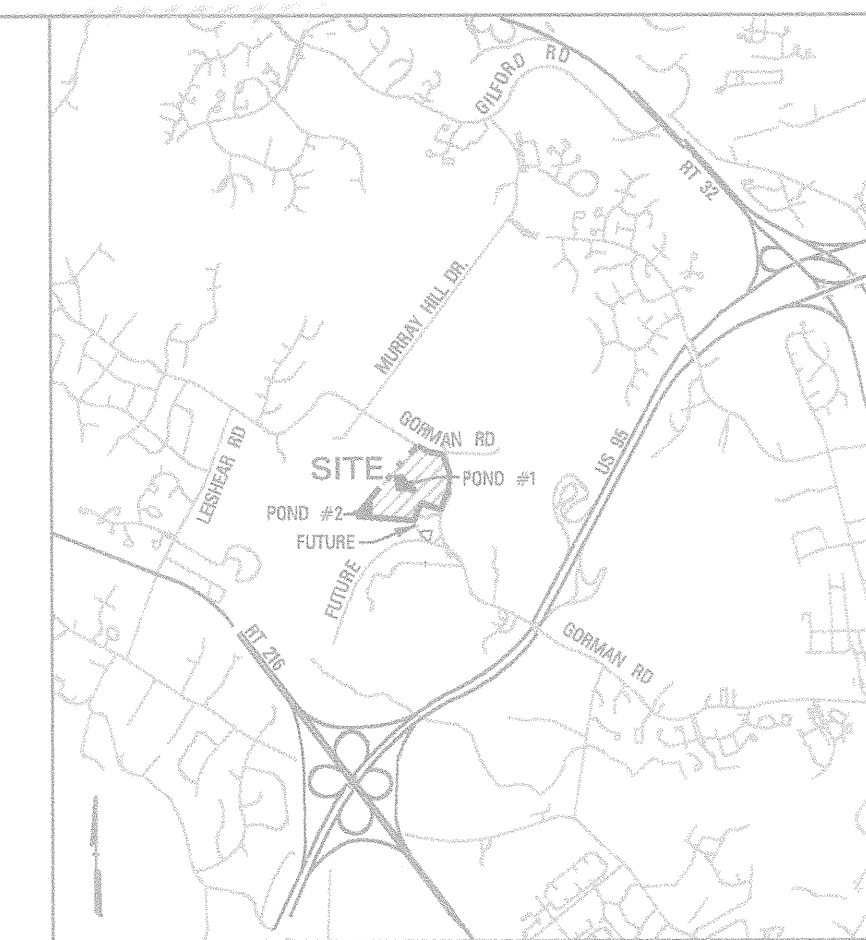
APPROVED: *Robert J. Zelen* 1/25/96
HOWARD SOIL CONSERVATION DISTRICT DATE

DEVELOPERS CERTIFICATE:
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

William Gean 1/4/96
SIGNATURE OF DEVELOPER DATE
PRINT NAME BELOW SIGNATURE

ENGINEERS CERTIFICATE:
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

John W. Ramo 1-8-96
SIGNATURE OF ENGINEER DATE
PRINT NAME BELOW SIGNATURE



LOCATION MAP
SCALE: 1" = 400'

BENCHMARK
HORIZONTAL (NAD 83) AND VERTICAL (NVD 29)
CONTROL BASED UPON HOWARD COUNTY TRAVERSE
POINTS 47AB, 42EA, AND 1541005

N 539250
E 193750

LEGEND

- D. A. LIMIT ———
- SOIL LIMITS - - - - -
- TC LINE (A) — (B)
- SOIL TYPE MIC2
- COMBINATION TC & DA LIMIT ———>

DA IN MI² / ZONING RCN / A₂ / 1/2 IMP.

| No. | Revision | Date |
|-----|--|---------|
| 1 | Regraded Storm Water Management Pond No. 2 to accommodate a proposed classroom addition. | 2/25/96 |



PROPOSED DRAINAGE AREA MAP
SCALE: 1" = 100'

N 537750
E 193750



THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

William Gear 1/25/96
DATE

U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE

APPROVED: *Robert Zehm* 1/25/96
DATE

HOWARD SOIL CONSERVATION DISTRICT

DEVELOPERS CERTIFICATE:
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I/SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I/ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

William Gear 1/4/96
SIGNATURE OF DEVELOPER
PRINT NAME BELOW SIGNATURE **William Gear** DATE

ENGINEERS CERTIFICATE:
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

John W. Rawochin 1-8-96
SIGNATURE OF ENGINEER
PRINT NAME BELOW SIGNATURE **John W. Rawochin** DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Chris Stumm 1/29/96
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

China Stumm 2/5/96
CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE

James Hester 2/5/96
DIRECTOR DATE

| Date | No. | Revision Description |
|------|-----|----------------------|
| | | |

Southeastern Middle School
OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 ROUTE 108
ELLCOTT CITY, MD 21043

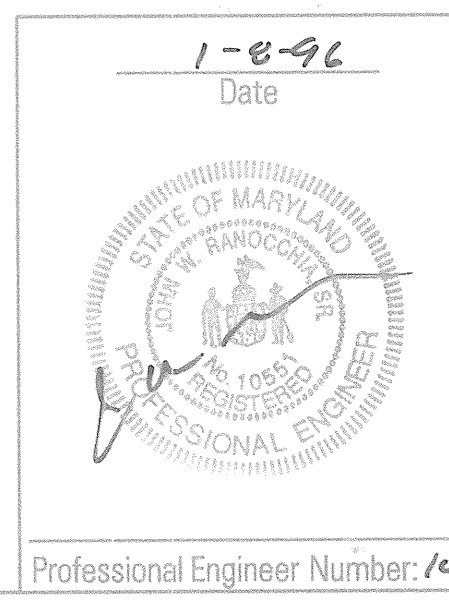
DMW
Darrin DeCicca/Walkers, Inc.
300 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3353
Fax: 296-4705

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

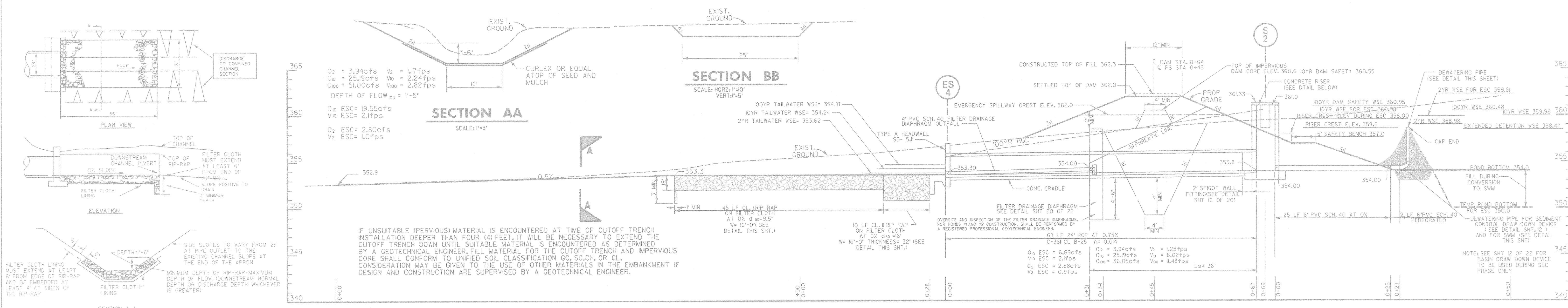
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|---------------------------------------|----------------------------|-------|-------|------------|------|---------|------------------|------|------|
| PROPOSED SWM DRAINAGE AREA MAP | Southeastern Middle School | N/A | FR-ED | 67 | 6th | 6068.02 | part of Parcel 3 | | |

DATE: 1-8-96

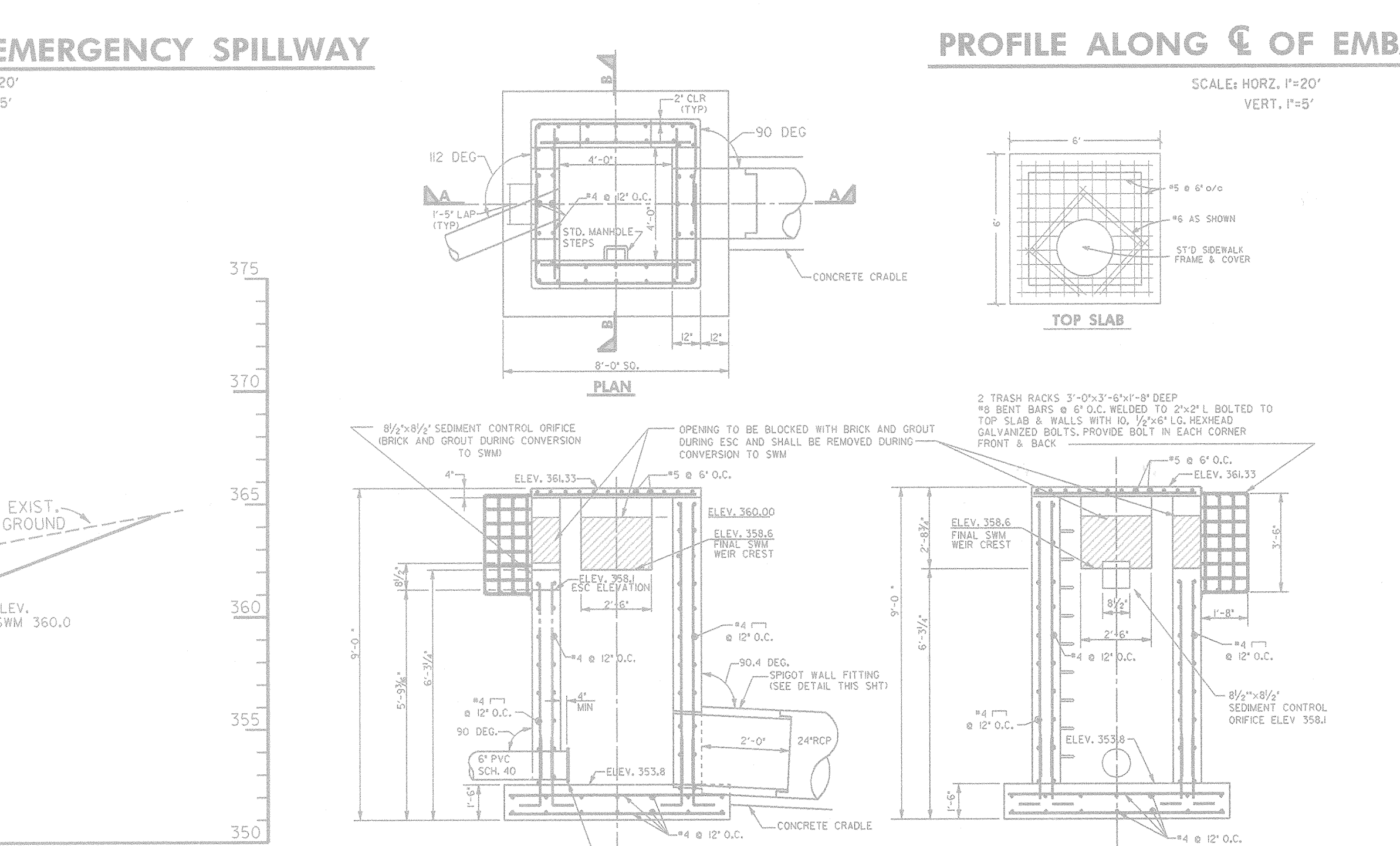
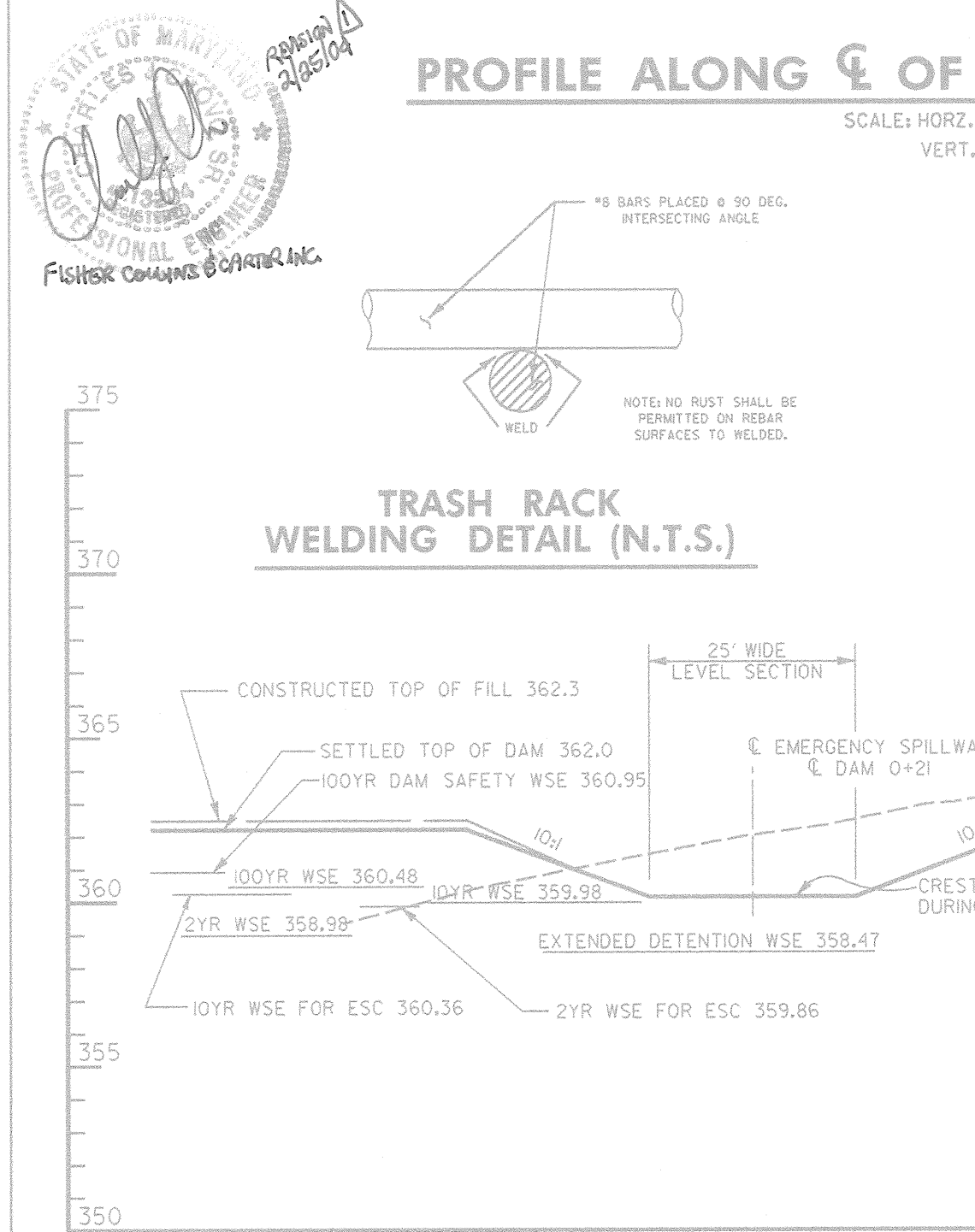
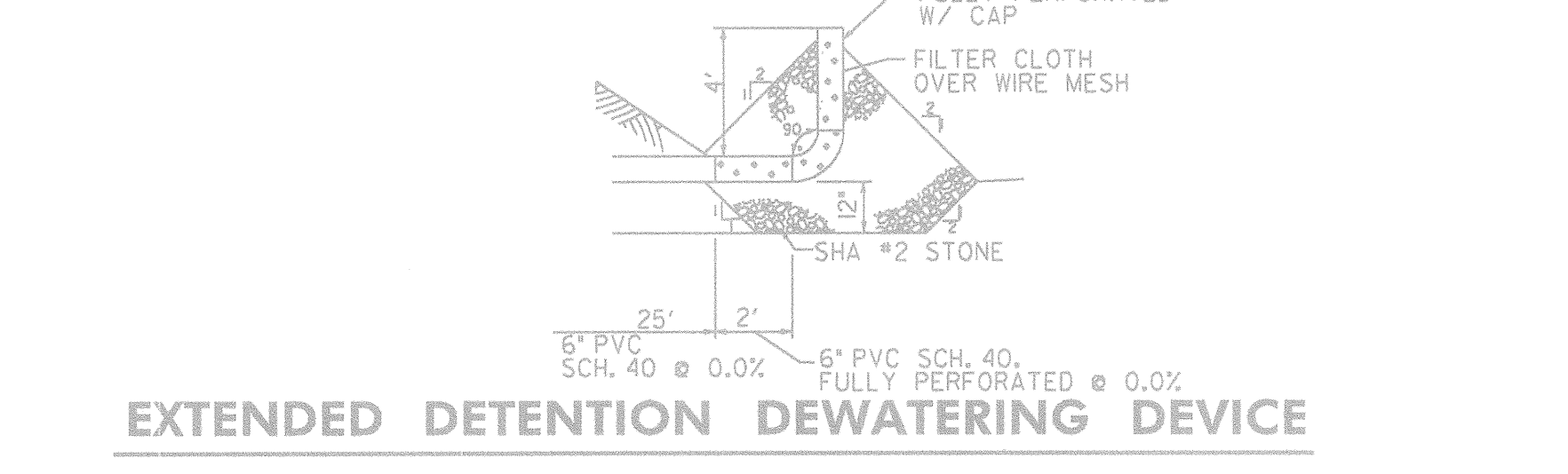
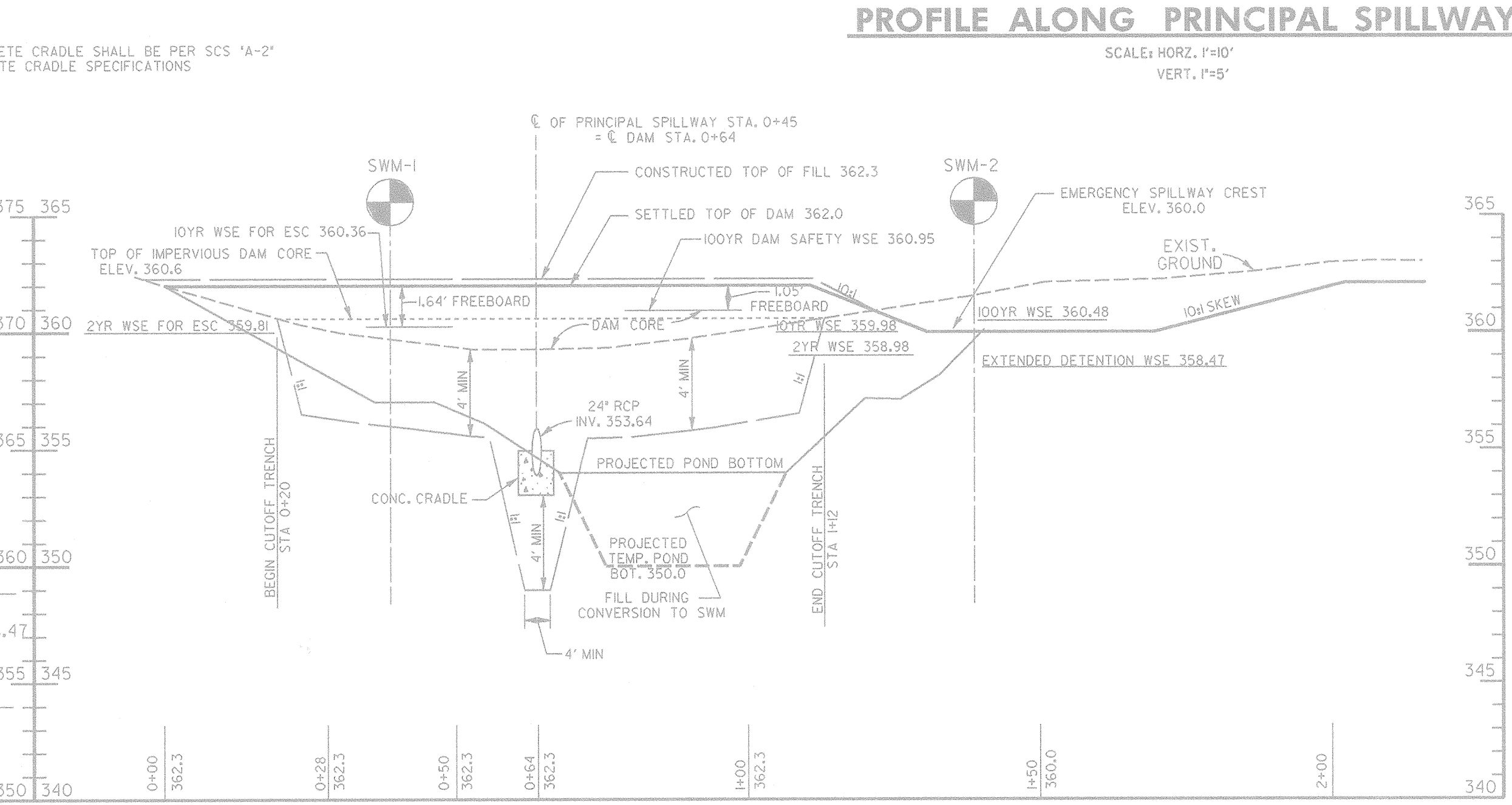
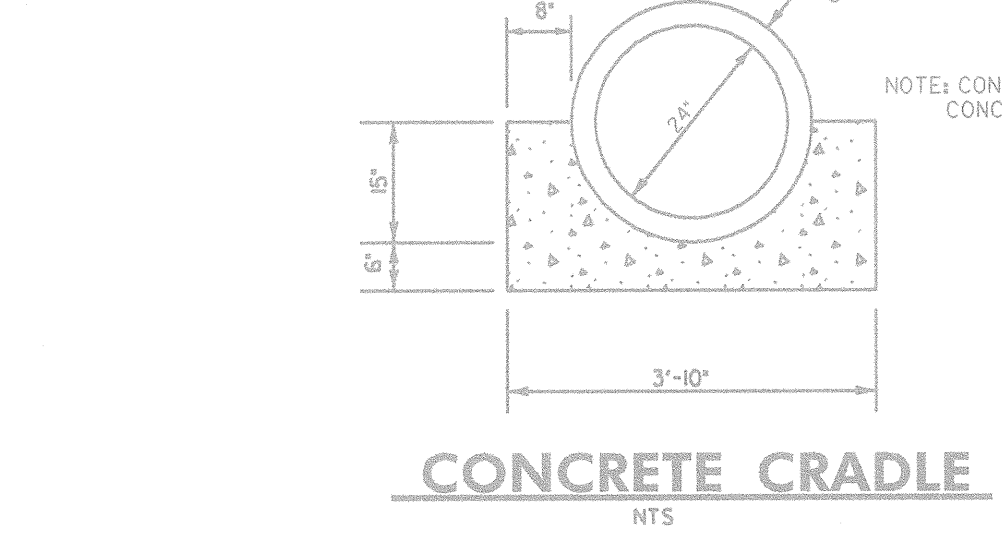
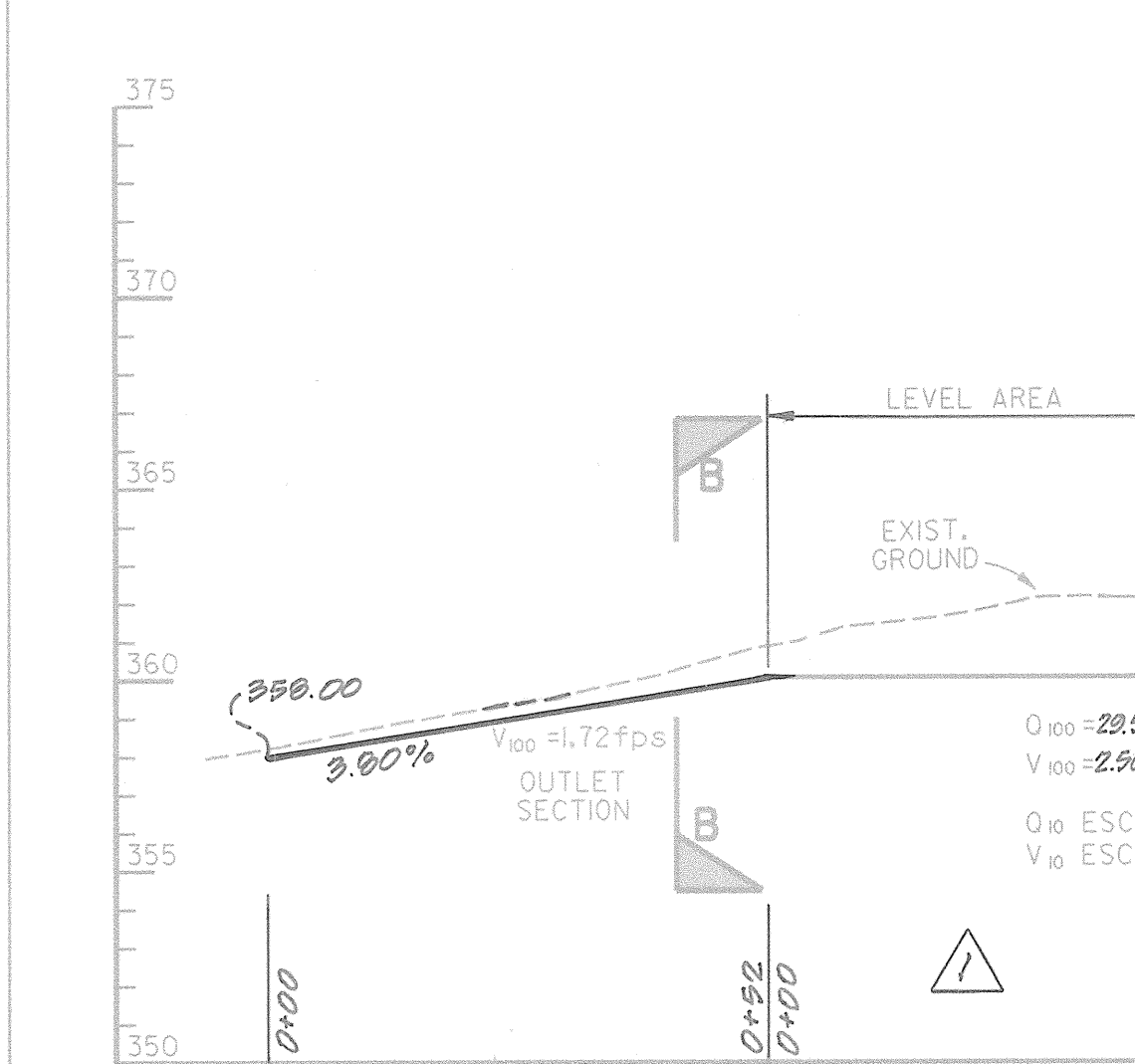
Professional Engineer Number: 14551



SDP-96-42



ROCK OUTLET PROTECTION POND 2
NOT TO SCALE



THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

P. Engler, Jr. 1/25/96
U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF HOWARD SOIL CONSERVATION DISTRICT.

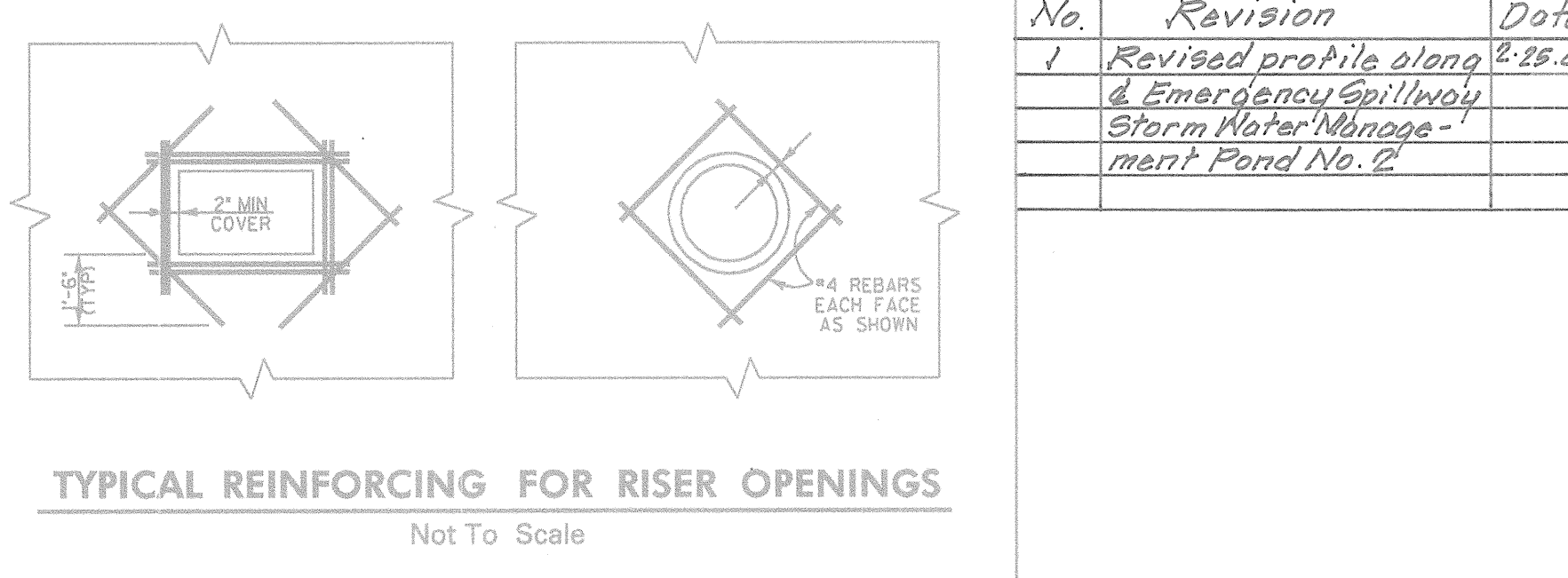
APPROVED: **Robert W. Ziehn** 1/25/96
HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEERS CERTIFICATE:
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

John W. Reimche, Jr. 1-8-91
SIGNATURE OF ENGINEER DATE

DEVELOPERS CERTIFICATE:
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

William Gean 1/4/94
SIGNATURE OF DEVELOPER DATE



| No. | Revision | Date |
|-----|--|---------|
| 1 | Revised profile along C of Emergency Spillway & Emergency Spillway Storm Water Management Pond No. 2 | 2/25/04 |



HOWARD COUNTY DEPT. OF PLANNING & ZONING

William Gean 1/25/96
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

China Summerville 2/2/96
CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE

James S. Smith 2/3/96
DIRECTOR DATE

| Date | No. | Revision Description |
|------|-----|----------------------|
| | | |

Southeastern Middle School
OWNER / DEVELOPER

HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 ROUTE 108
ELLCOTT CITY, MD 21143

DMW
Darr McCune-Walkers, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3353
Fax 296-4708

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

| SECTION NAME | SECTION AREA | SECTION NO. | DATE |
|----------------------------|--------------|-------------|------|
| Southeastern Middle School | | | |

Professional Engineer Number: 10551

1-8-91
Date

STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER

| TITLE | Scale | Proj. No. |
|--|----------|-----------|
| SWM POND 2 PROFILES & DETAILS | AS NOTED | 94140A |

| Des By | Scale | Date | Proj. No. |
|--------|----------|--------|-----------|
| PSN | AS NOTED | 1-8-96 | 94140A |

| Chk By | Approved | Page |
|--------|----------|----------|
| JWR | Approved | 19 of 22 |

AFFORESTATION TABULATION

| | |
|------------------------|------------|
| PROPOSED PER THIS PLAN | 1.58 ACRES |
| FUTURE | 1.78 ACRES |
| TOTAL | 3.36 ACRES |

LEGEND

| SYMBOL | DESCRIPTION |
|--------|------------------------------|
| | PROPOSED GRADING |
| | EXISTING TOPOGRAPHY |
| | 100 YEAR FLOOD PLAIN |
| | LIMIT OF DISTURBANCE |
| | FOREST TO BE REMOVED |
| | ROOT PRUNING TRENCH |
| | CENTER LINE FOR STREAM |
| | FOREST PROTECTION FENCE |
| | FOREST CONSERVATION EASEMENT |

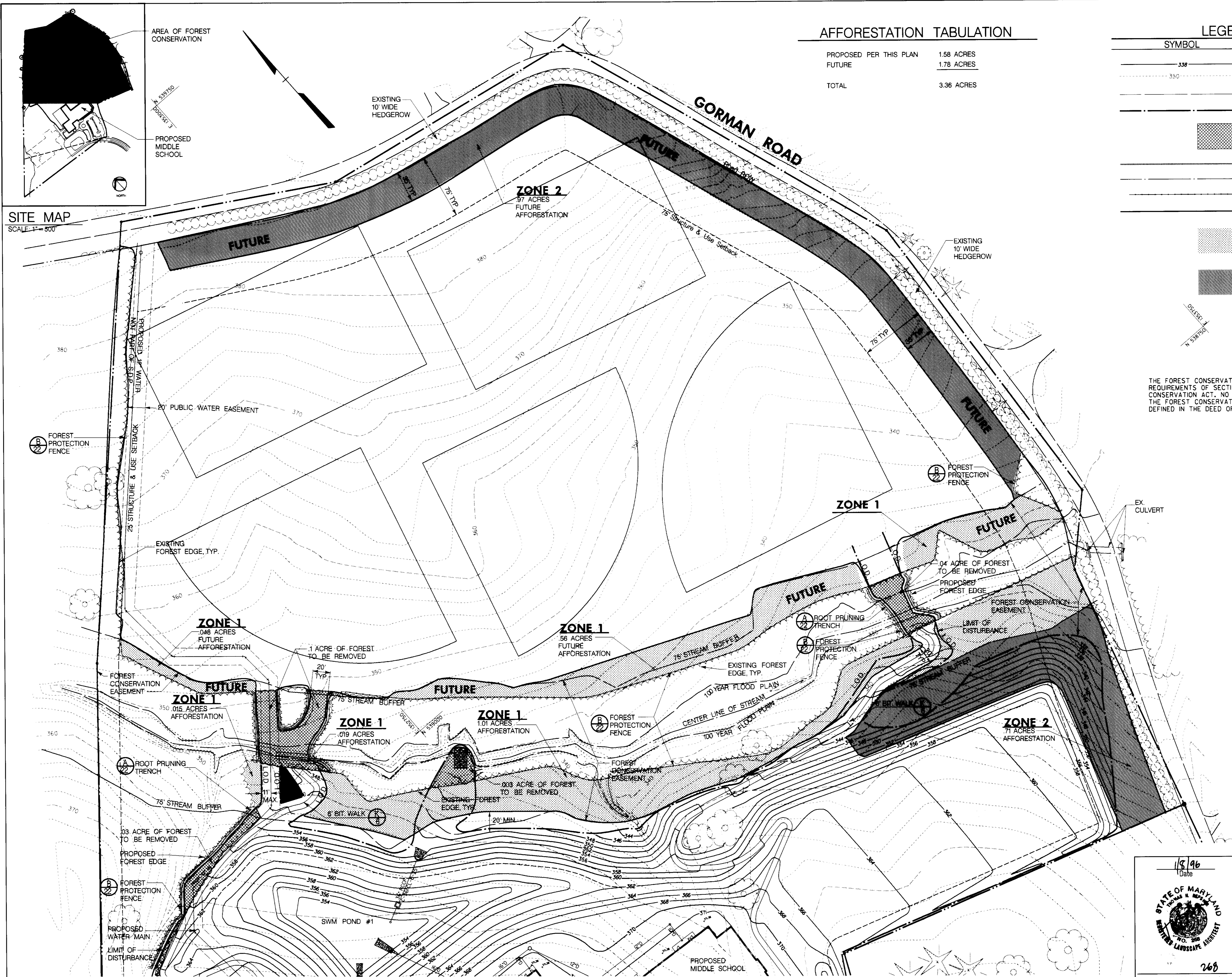
| | |
|--|--|
| | AFFORESTATION ZONE "1" 1.63 +/- ACRES TOTAL |
| | AFFORESTATION ZONE "2" 1.68 +/- ACRES TOTAL |

NOTE:
1. ALL FOREST RETENTION AND AFFORESTATION AREAS SHOWN ON THIS PLAN TO BE IN FOREST CONSERVATION.

THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16J200 OF THE HOWARD COUNTY CODE FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.

SITE MAP

SCALE: 1" = 500'



| | |
|---|---------|
| APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING | 1/26/96 |
| <i>Carol D...</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION | DATE |
| <i>Uma D...</i> CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH | 2/1/96 |
| <i>Joseph S...</i> DIRECTOR | 2/15/96 |
| | DATE |

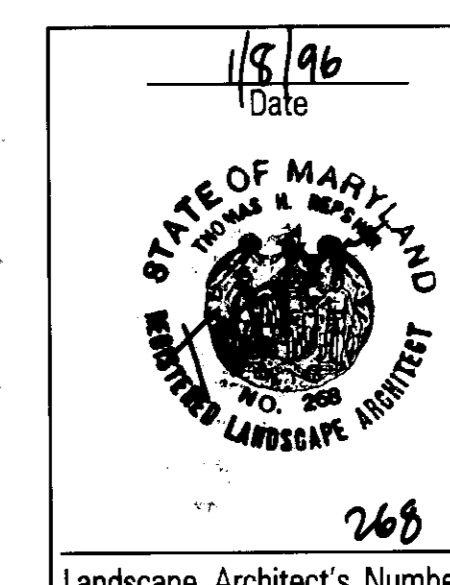
| Date | No. | Revision | Description |
|------|-----|----------|-------------|
| | | | |

Southeastern Middle School
OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 ROUTE 108
ELLCOTT CITY, MD 21043

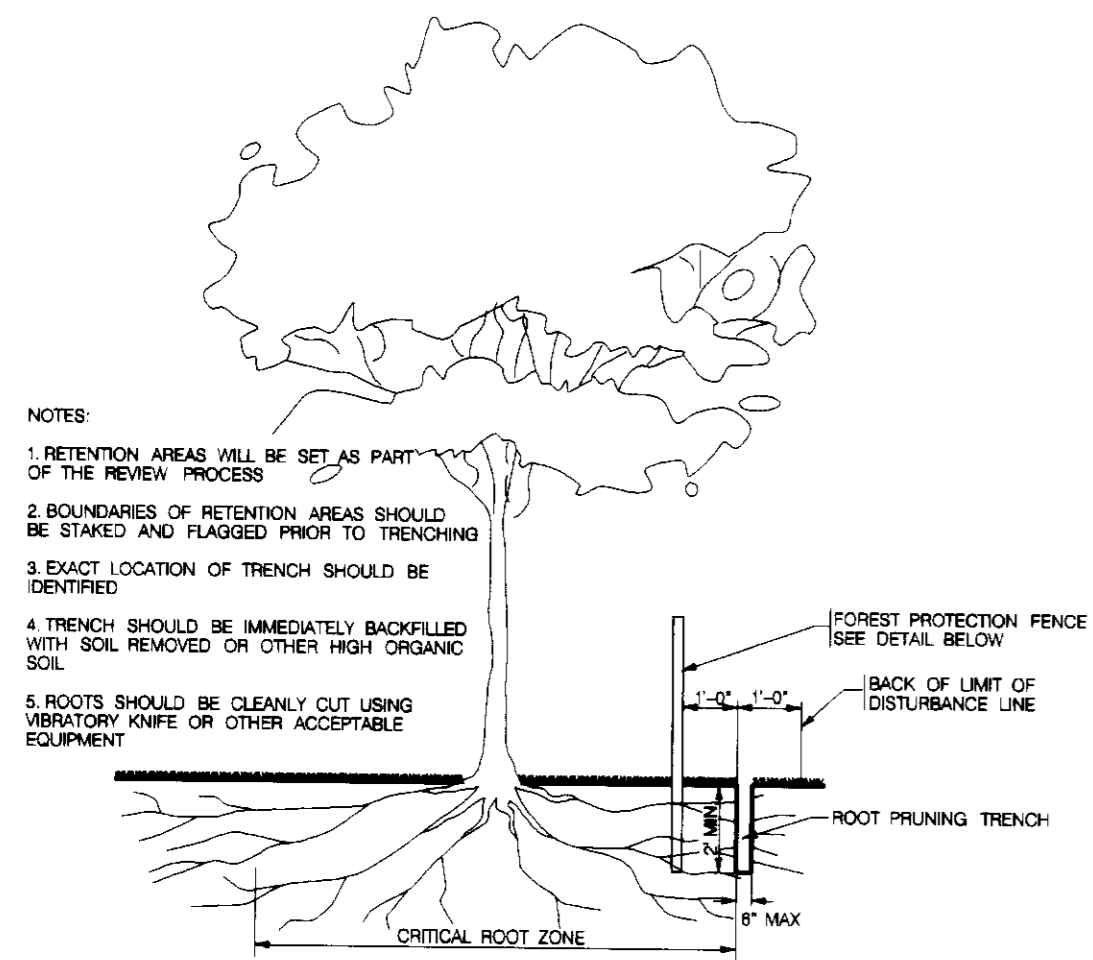
DMW
Dawn McCusker-Walkers, Inc.
300 East Pennsylvania Avenue
Towson, Maryland 21286
Tel: 296-3858
Fax: 296-4705

| | | | | | |
|----------------------------|--------------|--------|----------|-------------|--------|
| SUBMITTER NAME | SECTION/AREA | DATE | SCALE | PROJECT NO. | DATE |
| Southeastern Middle School | N/A | 1/8/96 | 1" = 50' | 94140A | 1/8/96 |

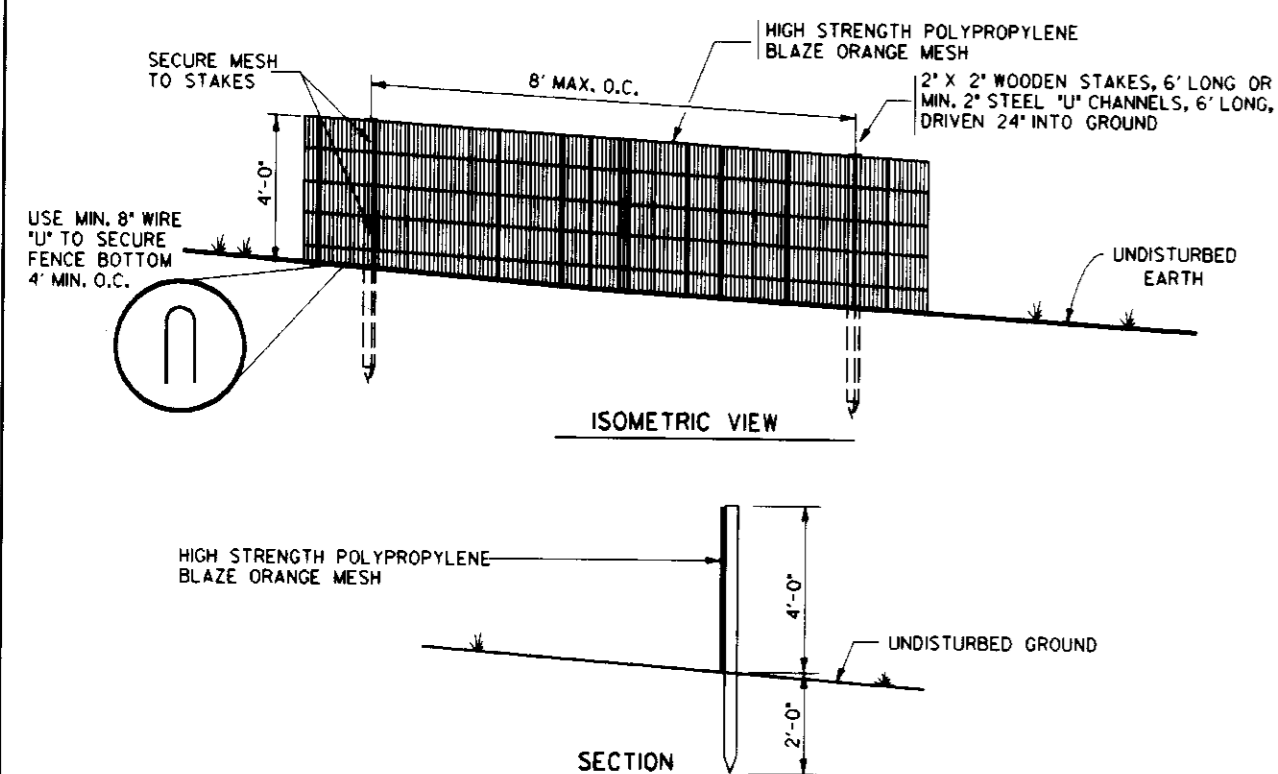
| | | | |
|---|----------|----------|------------------|
| TITLE | | | |
| FOREST CONSERVATION & AFFORESTATION PLAN | | | |
| Des By | Scale | 1" = 50' | Proj. No. 94140A |
| Dm By TPC | Date | 1-8-96 | 21 of 22 |
| Chk By MM | Approved | | |



SDP-96-42

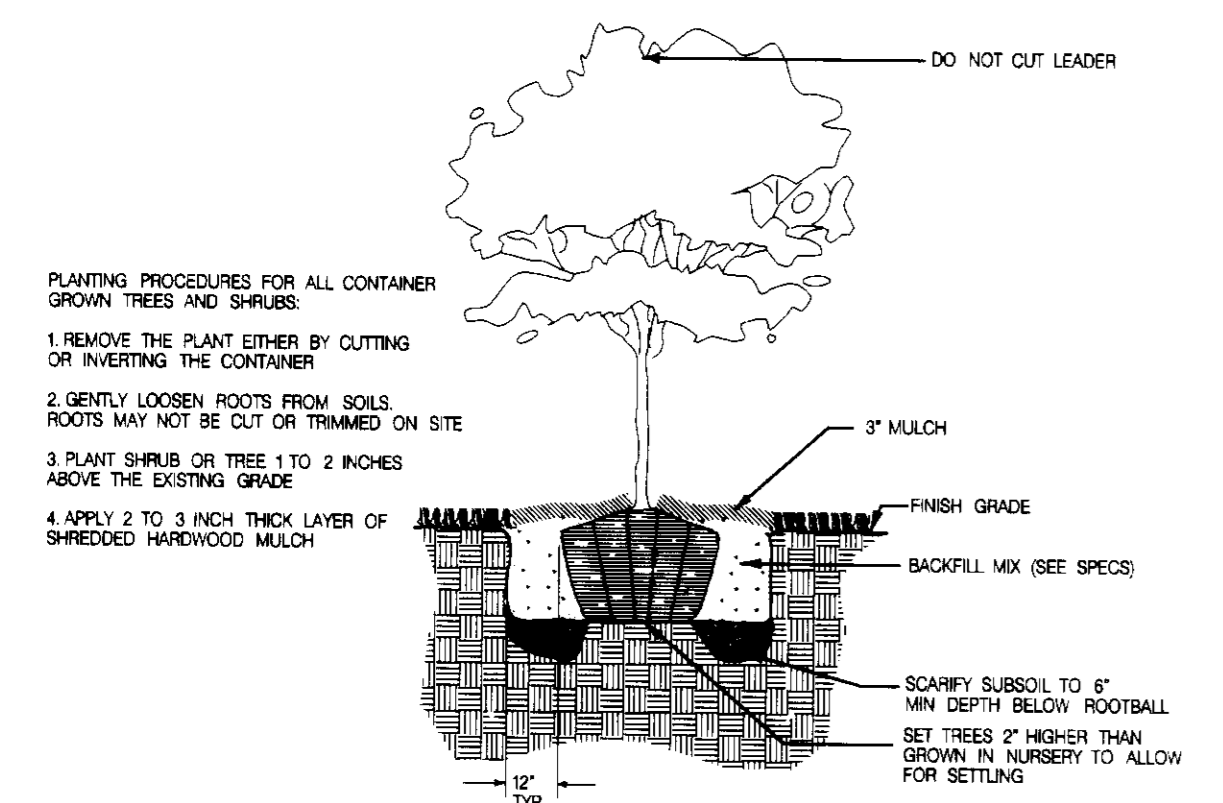


A Typical Root Pruning
22 Not To Scale

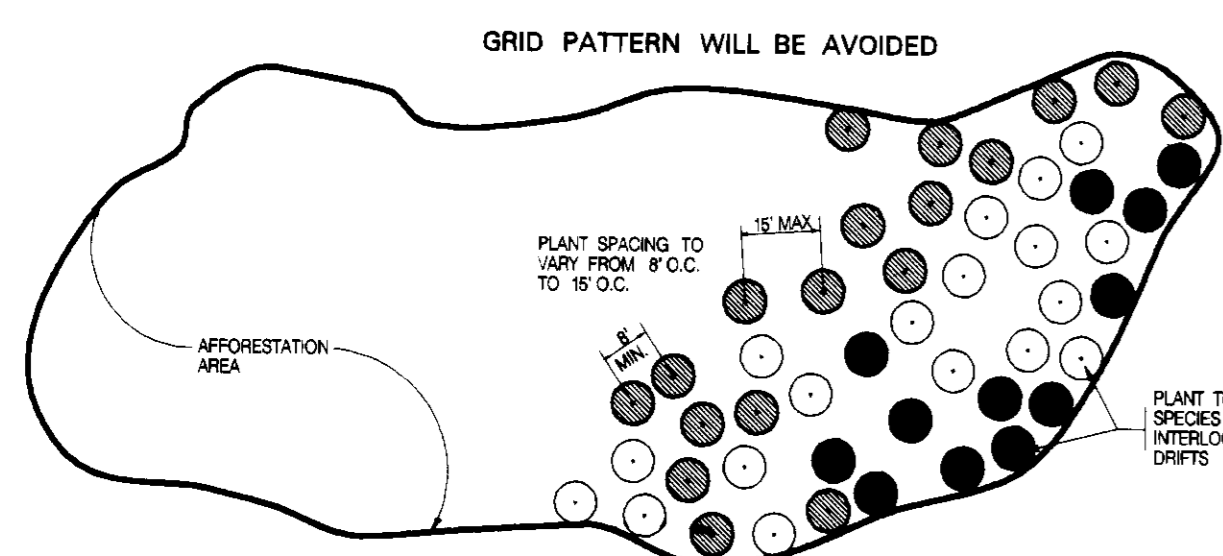


- NOTES:
- THIS DETAIL IS FOR FOREST PROTECTION DEVICE ONLY.
 - FOREST RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
 - BOUNDARIES OF FOREST RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING THE DEVICE.
 - ROOT DAMAGE SHALL BE AVOIDED.
 - PROTECTION SIGNAGE MAY ALSO BE USED.
 - FOREST PROTECTION FENCE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.

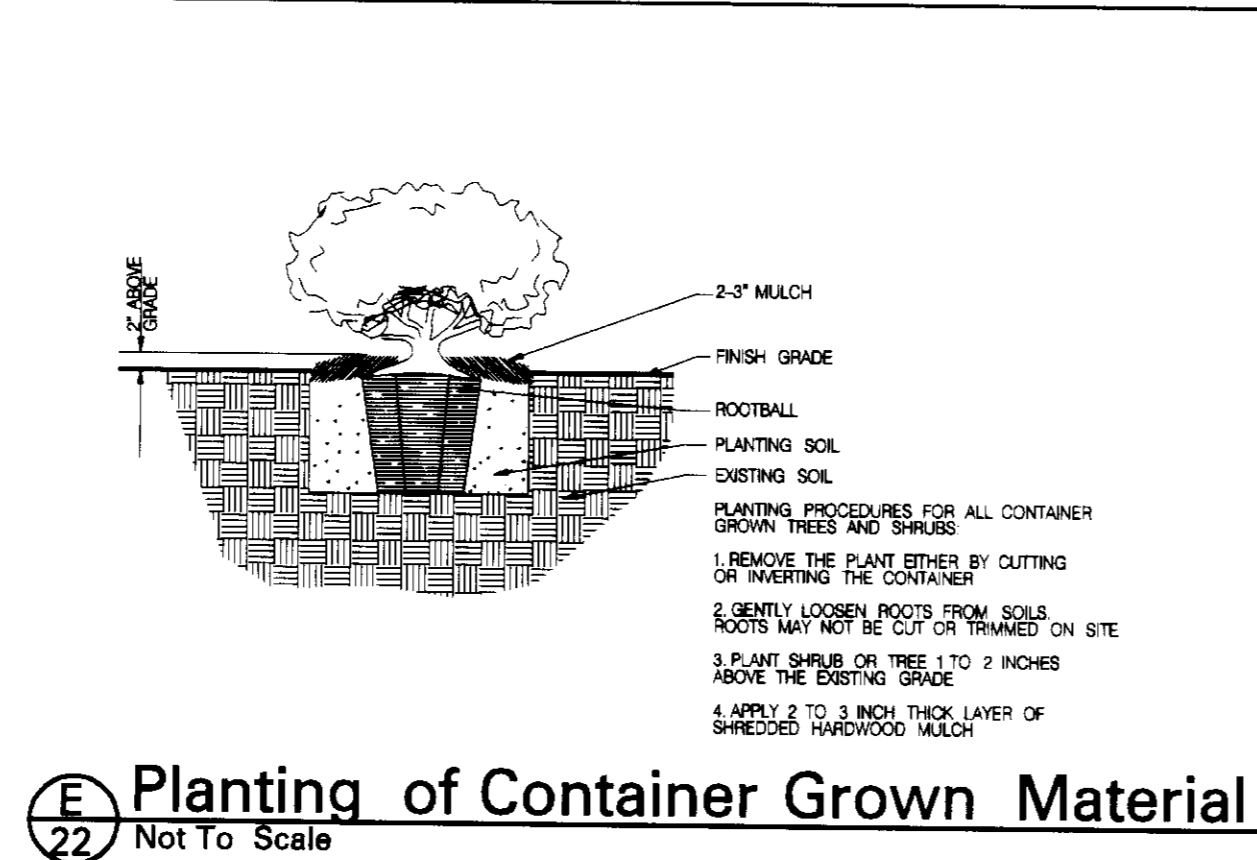
B Forest Protection Fence
22 Not To Scale



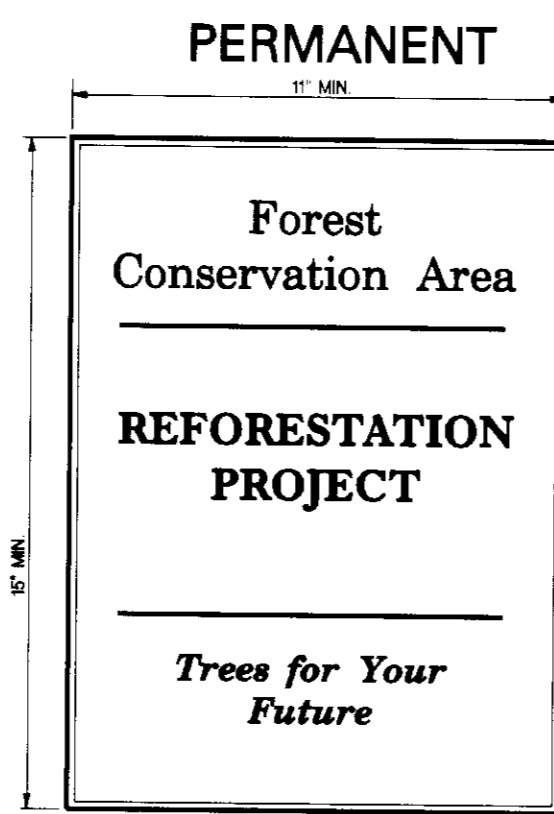
C Typical Tree Planting (For container grown)
22 Not To Scale



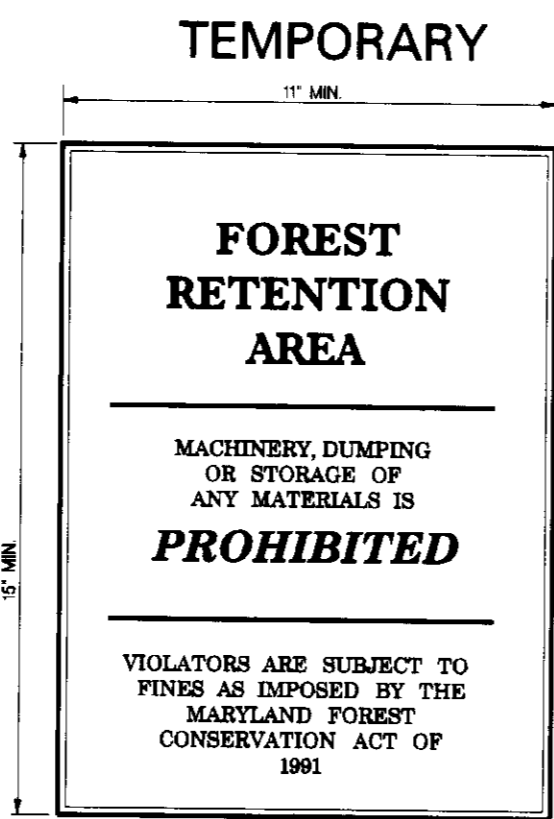
D Planting Design Schematic
22 Not To Scale



E Planting of Container Grown Material
22 Not To Scale



F Afforestation Area Protection Signage
22 Not To Scale



G Forest Retention Area Signage
22 Not To Scale

Forest Conservation Worksheet

NET TRACT AREA:

A. Total Tract Area 39.10
 B. Area within 100 year flood plain 0.90
 C. Area to remain in agricultural production 0.00
 D. Net tract area 38.20

LAND USE CATEGORY: R - EDPEC

E. Afforestation Threshold 15% x D = 5.73
 F. Conservation Threshold 20% x D = 7.64

EXISTING FOREST COVER:

G. Existing forest cover (excluding flood plain) 2.80
 H. Area of forest above afforestation threshold 0.00
 I. Area of forest above conservation threshold 0.00

BREAK EVEN POINT:

J. Forest retention above threshold with no mitigation 0.00
 K. Clearing permitted without mitigation 0.00

PROPOSED FOREST CLEARING:

L. Total area of forest to be cleared 0.20
 M. Total area of forest to be retained 2.60

PLANTING REQUIREMENTS:

N. Reforestation for clearing above conservation threshold 0.00
 O. Reforestation for clearing below conservation threshold 0.40
 P. Credit for retention above conservation threshold 0.40
 R. Total reforestation required 0.40
 S. Total afforestation required 2.93
 T. Total reforestation and afforestation required 3.33

GOALS & OBJECTIVES

Development of the Southeastern Middle School site under the current Forest Conservation Act requires the afforestation of approximately 3.3 acres. The majority of the existing forest is located adjacent to a residential street system. Approximately 0.9 +/- acres of proposed forest clearing will take place within this high priority area to allow for the installation of a public water supply main, a temporary construction access, and two pedestrian crossings to allow access to the northeast side of the stream. Forests to be retained will continue to function as a riparian buffer/wildlife corridor along this system.

The objective of afforestation at the Southeastern Middle School site is to establish a fast growing hardwood forest which mirrors the species composition of the surrounding existing forests. Afforestation efforts will augment the existing riparian forest by filling in gaps within the stream buffer and flood plain, thereby increasing the functional value of the system. Additional afforestation will provide a buffer/landscape screen along Gorman Road north of the stream. Species selected are typically adapted to the mesic moisture regimes present in the areas to be planted. Container-grown stock has been selected exclusively as studies indicate significantly higher survival rates for such plants. Larger caliper trees will be used for planting of edge adjacent to high traffic (parking lots, etc.) areas.

Forest Retention

The retention/Soil Protection areas will be delineated with fencing and/or temporary signage as appropriate (see Tree Protection Fence and Temporary Signage Details) prior to the beginning of any construction activity. Fencing shall not be considered installed correctly until reviewed by a landscape architect or qualified natural resource professional familiar with the plan. Attachment of signs to trees is prohibited. Root pruning will be performed as specified on the plan (see root pruning detail).

Preconstruction Meeting/Construction Period Practices

After tree retention areas have been fenced and before construction begins a required preconstruction meeting shall be held. The principle contractors, engineer, Howard County inspectors and a qualified professional familiar with the plan shall be present. All items pertaining to forest retention, tree preservation, and construction period practices shall be discussed.

Any changes to the plan due to on-site conditions must be approved by the Howard County Department of Planning and Zoning.

No grading, excavation, utility placement, sediment and erosion control activities, or vehicular traffic will occur within forest retention areas.

Storage of equipment and materials shall not be permitted in the forest retention areas.

There will be no burial or disposal of discarded material on-site within the retention area.

There will be no open burning within 100 feet of woodlands.

Temporary structures including, but not limited to construction trailers, sanitary facilities, etc. shall not be placed within the forest retention areas.

Employee parking shall not be permitted in the forest retention areas.

Post Construction Management/Maintenance by Contractor

All dead trees or tree limbs which pose an immediate safety hazard will be felled. Trees dropped within the forest retention area will not be removed.

All temporary forest protection structures will be removed after construction and permanent signage will be placed where indicated on the plan.

A 2-year Contractor's Maintenance and Monitoring Period shall begin at mobilization. Seventy five percent survivorship must be guaranteed for this period. The site shall be inspected at the end of the two year period to ascertain survivorship and provide for replacement if necessary.

The Contractor's maintenance of new planting shall consist of watering, cultivating, weeding, and mulching as necessary to insure survival.

Contractor shall protect planting areas and plants at all times against damage of all kinds for duration of maintenance period. Maintenance includes temporary protection barriers and signs as required for protection. If any plants become damaged or injured, because sufficient protection was not provided, treat or replace as directed by Landscape Architect at no additional cost to Owner.

NOTE: AFFORESTATION PLANTINGS TO BE INSTALLED WITHIN TWO-YEARS OF POST-CONSTRUCTION STABILIZATION;

HOWEVER, PORTIONS OF THE SITE'S AFFORESTATION REQUIREMENT ARE TO BE IMPLEMENTED IN THE AREA NORTH OF THE STREAM. EARTHWORK FOR THE PROPOSED ATHLETIC FIELDS IN THIS AREA TO BE COMPLETED AT A LATER DATE. AFFORESTATION PLANTINGS IN THIS AREA TO BE INSTALLED WITHIN TWO-YEARS OF POST-CONSTRUCTION STABILIZATION OF THE PROPOSED ATHLETIC FIELDS.

ALL FOREST RETENTION & AFFORESTATION AREAS SHOWN ON THIS PLAN TO BE PLACED IN FOREST CONSERVATION

STANDARDS AND SPECIFICATIONS

- PLANT MATERIAL SELECTION**

A. Nursery grown plant materials greater than 1" caliper should meet or exceed the requirements of the American Nurseryman Specifications, i.e. should be typical of the species and variety, have a normal habit of growth, be first quality, sound, vigorous, well-branched, have healthy, well-furnished root systems, and be free of disease, insect pests and mechanical injuries.

B. Planting stock less than 1" caliper should meet the following standards:
 Seedling/whips:
 Hardwoods - 1/4" to 1/2" caliper with roots not less than 8" long
 Shrubs - 1/8" or larger caliper with 8" root system.
- PLANTING SITE PREPARATION**

Soils shall not be disturbed outside the area necessary for planting individual specimens.
- PLANTING PERIOD**

All material shall be planted between September 15 and May 31. Material shall not be installed when ground is frozen.
- PLANT MATERIAL STORAGE**

Plants should be planted within 24 hours of delivery if possible. Plant material which are left unplanted for more than 24 hours shall be protected from direct sun and weather and kept moist. Nursery stock should not be left unplanted for more than two weeks.
- ON-SITE INSPECTION**

Prior to planting, planting stock shall be inspected by the landscape architect or other qualified professional familiar with this plan. Plant material not conforming to standard nurseryman specifications for size, form, vigor, roots, trunk wounds, insects and disease should be replaced.
- TOPSOIL FOR PLANTING SOIL**

A. On-site material or imported from same source as topsoil used on site for fresh grading.
 1. Uniform composition, free of subsoil clay lumps, stones, stumps, roots or similar objects larger than 1 inch.
 2. Topsoil must be free of plants or plant parts of bermudagrass, quackgrass, Johnsongrass, nutgrass, poison ivy, Canada thistle, or others as specified.
 3. All topsoil shall be tested by a recognized laboratory for pH and soluble salts. A pH of 4.5 to 7.5 is required. Soluble salts shall not be higher than 500 parts per million.

7. ADDITIVE FOR BACKFILL MIX

- A. Wood Residues:
- Source shall be well composted, not chemically treated.
 - Physical properties - grading:
 U.S. Sieve Dry Weight Percent Passing:
 36" 100
 1/4" 90 - 100
 No. 8 70 - 100
 No. 35 0 - 30
 - Organic content by ash analysis 90 - 100 percent dry weight
 - Chemistry:
 Range:
 a. Saturation Extract Conductivity (EC) _____ Nil - 3.5
 b. Reaction (pH) _____ 3.0 - 5.5
- B. Sand
- Physical Properties - Grading:
 U.S. Sieve Dry Weight Percent Passing:
 No. 4 100
 No. 10 95 - 100
 No. 18 90 - 100
 No. 35 65 - 100
 No. 40 0 - 50
 No. 140 0 - 20
 No. 270 0 - 7

4. CHEMISTRY

- Saturation Extract Conductivity (EC) _____ Nil - 3.5
- Sodium Absorption Ratio (SAR) _____ Nil - 6.0
- Boron - ppm in saturation extract solution _____ Nil - 1.0
- Reaction (pH) _____ 6.0 - 7.5
- Available calcium - sodium acetate extractable - ppm _____ Nil - 2000 dry weight
- Treble Superphosphate: Commercial product containing 19 to 20 percent available phosphoric acid.

8. MULCH

- Shredded long fiber hardwood.
- Mulch shall have been shredded within the last six (6) months.

9. PLANTING MIX

- Planting mix shall be prepared at approved on-site staging area using approved on-site existing soil. Mix minimum quantities of 20 cubic yards or sufficient mix for entire job if less than 20 cubic yards is required.
- Thoroughly mixed in the following proportions for tree and shrub planting mix:
 5 cy Existing soil
 2 cy Sharp sand
 3 cy Wood residuals
 4.5 lbs. Treble superphosphate
 5 lbs. Dolomite limestone (limestrate for acid loving plants)

10. LAYOUT AND EXCAVATION OF PLANTING AREAS

- Plants shall be placed in each 2' max x 4' max locations shown at spacing as indicated on the plan.
- The Landscape Architect or qualified professional will check location of plants in the field and shall adjust to exact position before planting begins.
- Subsoil shall not be worked when moisture content is so great that excessive compaction will occur, nor when it is so dry that clods will not readily break. Water shall be applied, if necessary, to bring soil to an optimum moisture content before tillage and planting.
- Tree pits shall not be excavated more than 24 hours in advance of planting operation. Tree pits shall be excavated to the following dimensions:
 Excavation for:
 Canned Trees: Can + 12 in. Width, Can + 4 in. Depth
 B&B Trees: Ball + 12 in. Width, Ball + 4 in. Depth
 E. Excavate shrub pits to the following depths:
 Excavation for:
 Shrubs: Ball or Can + 8 in. Width, Can + 4 in. Depth, not less than 12" if

11. PREPARING PLANT MATERIALS FOR PLANTING

- Container stock shall be removed carefully, after cans have been cut out on two sides with approved cutter. Do not use spade to cut cans. Do not lift or handle container plants by tops, stems or trunks at any time.
 - Do not bind or handle any plant with wire or rope at any time so as to damage bark or break branches. Lift and handle plants only from bottom of ball.
 - Balled and burlapped (B&B) plants shall have firm balls of earth. Plants moved with a ball will not be accepted if the ball is cracked or broken before or during planting operations. B&B material shall be dug only when dormant. Pre-dug stored B&B material shall be inspected and approved at the storage site.
 - Do not force roots for bare rooted trees into excavated or custom dig pits to receive roots without deformation.
- 12. MIXING**
- Mix soil base, amendments and chemical additives by mechanical means.
 - Soil and sand bases shall be completely pulverized and free of lumps or aggregated material. Moisture content of base materials shall not be such that chemical granular or pelletized additives become dissolved during the mixing process.
 - Mix media in quantities of not less than 20 cubic yards or mix total quantity required if less than 50 cubic yards. The Contractor shall be responsible for continuity between batches.
 - Contaminating backfill mix with unmixd soil in backfill mixing lots shall be avoided.

13. INSTALLATION OF B&B AND CONTAINERIZED PLANT MATERIAL

- Sharply the walls and bottom of all plant pits immediately prior to the placement of plant and backfill mix. The Contractor shall remove all glazing of soil caused by an auger or mechanical hole digger.
- Place B&B plants carefully in the prepared planting pit. Do not disturb root ball or untie twine or roping until backfill settlement is complete and tree is staked, if applicable. Fill planting pit by flooding each 8 inches of backfill for balls greater than 24 inch diameter. Fill plant pits with soil mix to depth to receive plant root ball, so that top of ball is 2 inches above finished grade. Wrap trunks with double layer of wire wrap.
- Wells around trees and shrubs: after planting is complete, form a soil well 3 inches high around each plant, extending to the outer limit of the plant pit in accordance with planting details shown on the Drawings.
- Smooth planted areas to conform to specified grades after full settlement as occurred. Contractor shall bear final responsibility for proper surface drainage of planted areas. Any discrepancy in the drawings or specifications, obstructions on the site, or prior work done by another party, which Contractor feels precludes establishing proper drainage shall be brought to the attention of the Landscape Architect in writing.
- Water all plants immediately again after planting.
- Spread mulch in required areas to the compacted depth of 2 inches.

GUARANTEE:

A MINIMUM SURVIVAL RATE OF 75% IS TO BE GUARANTEED AT THE END OF THE TWO YEAR MAINTENANCE PERIOD.

NOTE:

- SEE SHEET 12 FOR AFFORESTATION AREA SEEDING SPECIFICATIONS

Reforestation Planting Plan

| Species | Size | Spacing | Quantity | Planting Units | Stage | Stratum | Tolerance | Remarks |
|----------------------------|--------|---------|------------|----------------|------------|------------|-----------|--------------|
| ZONE 1 (0.95 acres) | | | | | | | | |
| Lindocedron tulipifera | 1" | 15 x 15 | 60 | na | Early-Mid | Canopy | I | Container |
| Lindocedron tulipifera | 18-24" | 11 x 11 | 20 | na | Early-Mid | Canopy | I | 1 Gal. Cont. |
| Quercus alba | 1" | 15 x 15 | 80 | na | Mid-Late | Canopy | I | Container |
| Quercus alba | 18-24" | 11 x 11 | 20 | na | Mid-Late | Canopy | I | 1 Gal. Cont. |
| Nyssa sylvatica | 18-24" | 11 x 11 | 40 | na | Early-Mid | Sub-Canopy | I | 1 Gal. Cont. |
| Acer rubrum | 18-24" | 11 x 11 | 25 | na | Early-Mid | Sub-Canopy | I | Container |
| Lindera benzoin | 18-24" | 11 x 11 | 25 | na | Early-Late | Understory | T | Container |
| Viburnum dentatum | 18-24" | 11 x 11 | 25 | na | Early-Late | Understory | T | Container |
| ZONE 2 (0.30 acres) | | | | | | | | |
| Lindocedron tulipifera | 1" | 15 x 15 | 50 | na | Early-Mid | Canopy | I | Container |
| Lindocedron tulipifera | 18-24" | 11 x 11 | 25 | na | Early-Mid | Canopy | I | 1 Gal. Cont. |
| Quercus rubra | 1" | 15 x 15 | 50 | na | Mid-Late | Canopy | MT | Container |
| Quercus rubra | 18-24" | 11 x 11 | 25 | na | Mid-Late | Canopy | MT | 1 Gal. Cont. |
| Carya glabra | 18-24" | 11 x 11 | 40 | na | Early-Mid | Sub-Canopy | MT | Container |
| Viburnum prunifolium | 18-24" | 11 x 11 | 32 | na | Early-Late | Understory | T | Container |
| Cornus florida | 18-24" | 11 x 11 | 30 | na | Early-Late | Understory | VT | Container |
| TOTALS | | | 565 | na | | | | |

NOTE:

- THE PRECISE LOCATION OF PLANT MASSINGS WILL BE LOCATED IN THE FIELD BY LANDSCAPE ARCHITECT.
- GRID PATTERNS WILL BE AVOIDED

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

[Signature] 1/28/96
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 2/2/96
 CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE

[Signature] 2/17/96
 DIRECTOR DATE

| Date | No. | Revision | Description |
|------|-----|----------|-------------|
| | | | |
| | | | |
| | | | |

Southeastern Middle School

OWNER / DEVELOPER:
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10910 ROUTE 108
 ELLICOTT CITY, MD 21043

DMW
 Dawn McCune-Walker, Inc.
 2029 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3338
 Fax 296-4705

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

1/8/96
 Date

STATE OF MARYLAND
 LANDSCAPE ARCHITECT

109
 Landscape Architect's Number:

REVISION NAME: Southeastern Middle School, REVISION AREA: N/A, PART OF PARCEL 3

PLAN OR LOT: N/A, BLOCK: 2, ZONE: ED-PEP, AVENUE WAY: 6th, ELEV. DEMO: 0.00, ORIGIN TRACT: 10079.02

WATER CODE: _____, SEWER CODE: _____

TITLE: **FOREST CONSERVATION DETAILS**

Des By: ECH, Scale: As Shown, Proj. No.: 94140A
 Dwn By: TPC, Date: 1-8-96
 Chk By: MM, Approved

22 of 22

SDP-96-42