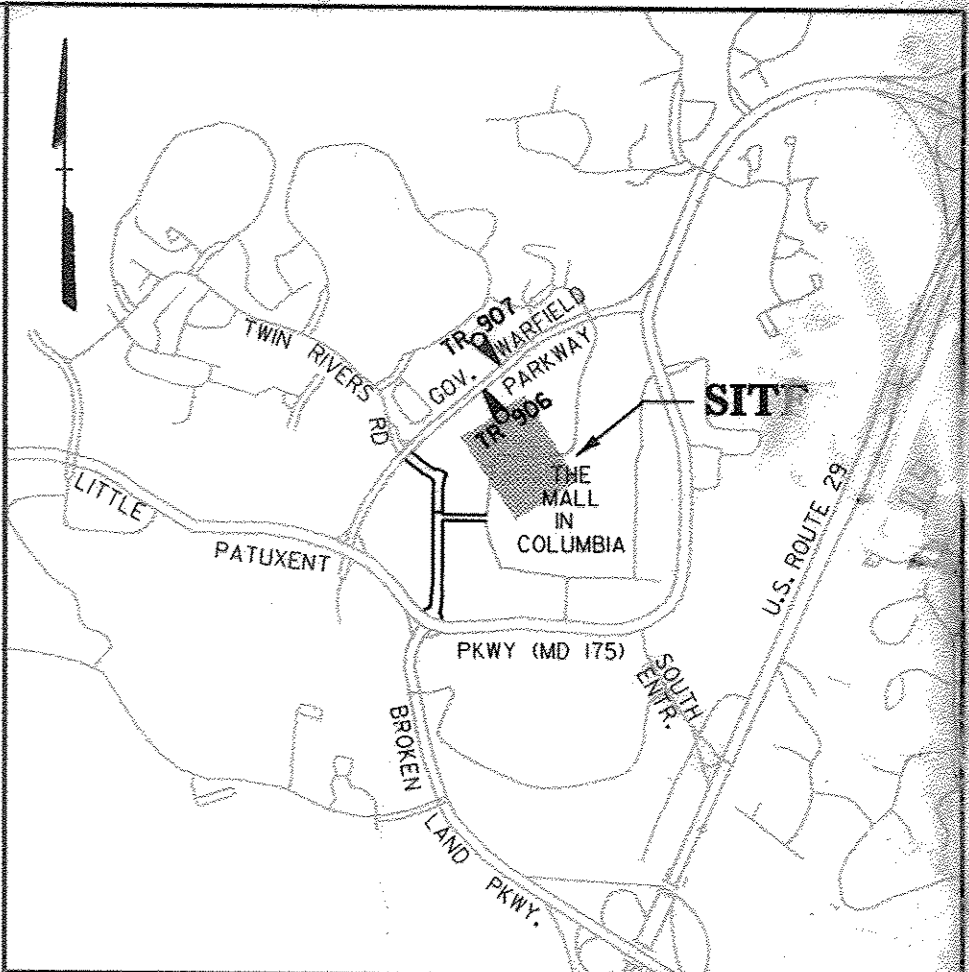


SHEET	DESCRIPTION
1	COVER SHEET
2	SITE DEVELOPMENT PLAN
3	SITE DEVELOPMENT PLAN
4	SITE DEVELOPMENT PLAN
5	DEMOLITION PLAN
6	SITE DETAILS
7	PAVING LEGEND & SITE DETAILS
8	STORM DRAINAGE AREA AND SOILS MAP
9	STORM DRAIN PROFILES
10	STORM DRAIN PROFILES
11	SEWER PROFILES
12	WATER PROFILES
13	EROSION AND SEDIMENT CONTROL PLAN
14	EROSION AND SEDIMENT CONTROL DETAILS
15	EROSION AND SEDIMENT CONTROL DETAILS
16	EROSION AND SEDIMENT CONTROL DETAILS
17	BUILDING ELEVATIONS
18	STORM DRAIN PROFILES
19	PLANTING PLAN
20	PLANTING PLAN
21	PLANTING PLAN

LOT / PARCEL	STREET ADDRESS
42	10300 LITTLE PATUXENT PARKWAY

LEGEND	
---	PROPERTY LINE
---	LIMIT OF DISTURBANCE
---	STATE WETLAND BUFFER
---	50' STREAM BUFFER
---	6" STANDARD COMB. C&G
---	6" REV. COMB. C&G
---	EX. CONTOUR
---	EX. WATER
---	EX. SANITARY SEWER
---	EX. STORM DRAIN
---	EX. GAS
---	EX. EDGE OF ROAD
---	PROP. CONTOUR
---	PROP. UTILITIES
---	6" STANDARD COMB. C&G
---	6" REV. COMB. C&G
---	CONC. LIGHT POLE ISLAND
---	CONCRETE

- GENERAL NOTES
- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications, if applicable.
  - The contractor shall notify the Bureau of Engineering/Construction Inspection Division at (410) 313-8800 at least five (5) working days prior to the start of work.
  - The contractor shall notify 'Miss Utility' at 1-800-257-7777 at least 48 hours prior to any excavation work.
  - Traffic control devices, markings, and signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
  - All plan dimensions are to the face of curb unless otherwise noted.
  - Topography was field run surveyed by Duff-McCune-Walker, Inc. in July 1995, and Fisher, Collins & Carter, Inc. in 1994. Expanded Per SDP 97-107, SDP 97-158 & SDP 99-16.
  - Coordinates and bearings shown hereon are referred to the Maryland coordinate system (NAD 27) as projected from the following 'Whitman, Reardon & Assoc.' traverse stations:  
TR 101 N 503690.8580 E 83902.2760  
TR 102 N 503690.7010 E 83834.2860
  - Stormwater management is provided on-site by an underground detention facility for quantity, per SDP 97-107.
  - Stormwater management facilities are privately maintained.
  - No wetlands exist within the limits of disturbance.
  - The existing utilities were located from available records and field survey prepared by Duff-McCune-Walker, Inc. The contractor must dig test pits, by hand, at all utility crossings and connection points at least 5 days prior to starting work to verify exact location.
  - The soils analysis was prepared by R. Baizer Group.
  - Handicap parking details shall be in accordance with the 'Maryland Building Code for the Handicapped', Section 5.01-7.05.
  - Any damage to County owned right-of-way to be corrected at the contractor's expense.
  - All sidewalks shall be cross sloped at 1/4 inch per foot.
  - Trench bedding for storm drainage structures shall be in accordance with Howard County Standard 02.01.
  - Department of Planning and Zoning reference file numbers:  
FDP Ph. 47-A-VI, FDP Ph. 101A, FDP Phase 224A, SDP 80-01, F-97-19, F-97-53, F-97-155, F-97-159, S-96-09, SDP 97-107, SDP 97-158, SDP 98-44, WP 98-81, SDP 98-124, SDP 99-16.
  - All inlets shall be constructed in accordance with Howard County standards or MSHA Standards as specified on the structure schedule.
  - All materials and construction is to be in accordance with the Howard County Design Manual Volume IV.
  - The building setback restrictions from the property lines and right-of-way lines of any public road shall be in accordance with FDP Phase 47-A-VI.
  - All on-site driveways and parking areas to be privately maintained.
  - All curb radii are five feet unless otherwise labeled.
  - All equipment and tools shall be placed as not to interfere with vehicular or pedestrian movement unless specified.
  - The contractor shall be responsible for any damage to existing property which may occur as a result of his negligence in the execution of the work.
  - All paving areas indicated are private.
  - All proposed handicap ramps shall be in accordance with the current A.D.A. Standards.
  - Existing lights per SDP 97-107 & SDP 97-158 to be relocated as necessary. Outdoor lighting shall conform to Section 134 of the Zoning Regulations.
  - There is no floodplain on this site.
  - Public Water and Sewer is utilized for this site.
  - This plan is exempt from Forest Conservation in accordance with Section 16-1202 (b) (ii).



LOCATION MAP  
SCALE: 1" = 200'

ELEVATIONS SHOWN HEREON ARE BASED ON THE FOLLOWING TRAVERSE STATIONS ESTABLISHED BY FISHER, COLLINS AND CARTER, INC. (MSVD 29 VERTICAL DATUM)

TR 906	N 504280.1630	E 838550.3680	ELEV. 381.500
TR 907	N 504400.6701	E 838647.7701	ELEV. 394.150

APPROVED SDP LEGEND  
1" = 400'

VICINITY MAP  
1" = 200'

SITE ANALYSIS

- Zonings: New Town - Commercial (Per FDP Ph. 47-A-VI) County Standard 02.01.
- Phase IV Area/Limit of Disturbance = 9.0 Ac.
- Proposed Use: Cinema, Restaurants, Retail and Parking.
- Area Tabulation
 

A. Project Area	13191	70,285 Ac.
B. Building Area		
I. Proposed Buildings		
a. Cinema	1,631,110 SF (58,521 Net) 2012 Seats (13,200 SF Mezzanine)	
b. Restaurants	29,073 SF Gross (25,023 S.F. Net)	
c. Retail	62,000 SF Gross (46,750 S.F. Net)	
C. Total Building Area Per This Submission	1,722,183 SF Gross (1,295,000 S.F. Net)	
D. Limit of Disturbance	9.0 Ac.	
E. Impervious Area	8.9 Ac.	
F. Green Area	0.1 Ac.	

- Parking Tabulation (CHANGED PARKING IS PERMITTED IN ACCORDANCE WITH ZONING REGULATIONS)
 

A. Parking Spaces Required (per parking study approved 1-6-2000)	
1. General Retail (1,115,554 SF @ 4.5/1000) = 5020 sp.	
2. Office Space (1700 SF @ 2/1000) = 3 sp.	
3. Restaurants (25,023 SF @ 4.5/1000) = 350 sp.	
4. Retail (62,000 SF @ 4.5/1000) = 210 sp.	
5. Cinema (2,581 seat @ 1/4 seats) = 645 sp.	
6. Total	6,228
(6,228 sp. PROV. 2,995 EXCESS)	

Existing Parking	Parking Deleted or Restriped per Phase IV Construction	Proposed Surface or Restriped Parking Phase IV	Total
6,785 (incl. 104 HC)	339 Sp. (incl. 17 HC)	81 (incl. 31 HC)	6,409 STAND. SP. (118 HC SP.)

- Handicap Spaces Required
  - 6,409 sp. provided = 76 HC
  - HC spaces prop. = 118 HC SP.
  - Excess = 42 HC SP.

1/8/00	REV. REST. #2
3/1/00	OUTDOOR SEATING to INDOOR
3/1/01	REV. REST. LABEL IN SITE ANALYSIS
3/1/04	REV. PKG. SP. INFO. IN SITE ANALYSIS
2/20/05	REV. VIC. MAP & SITE ANALYSIS TO ADD THE CINEMA

APPROVED  
PLANNING BOARD  
OF HOWARD COUNTY  
DATE: FEBRUARY 10, 2000

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Chief, Development Engineering Division MK	3/2/00
Chief, Division of Land Development	3/1/00
Director	3/20/00

3-27-00	4	REV. SITE ANALYSIS CINEMA S.F.
6-18-01	2	REV. REST. SF IN SITE ANALYSIS
11-29-00	1	REV. REST. SF IN SITE ANALYSIS

THE MALL IN COLUMBIA  
PHASE IV  
COLUMBIA TOWN CENTER  
SECTION 2 AREA 1  
LOT 42  
HOWARD COUNTY, MD

OWNER / DEVELOPER:  
THE HOWARD RESEARCH & DEVELOPMENT CORP.  
COLUMBIA MALL, INC.  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MARYLAND 21044

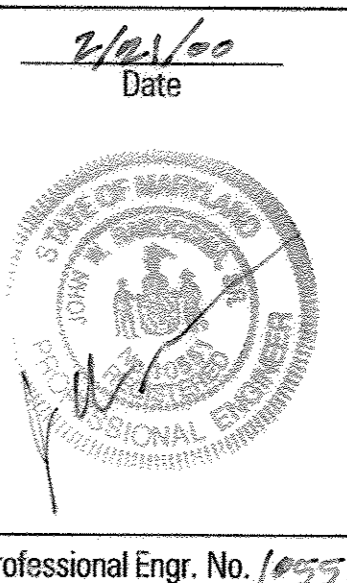
DMW  
Duff-McCune-Walker, Inc.  
200 East Pennsylvania Avenue  
Towson, Maryland 21286  
(410) 296-3333  
Fax: 296-4700

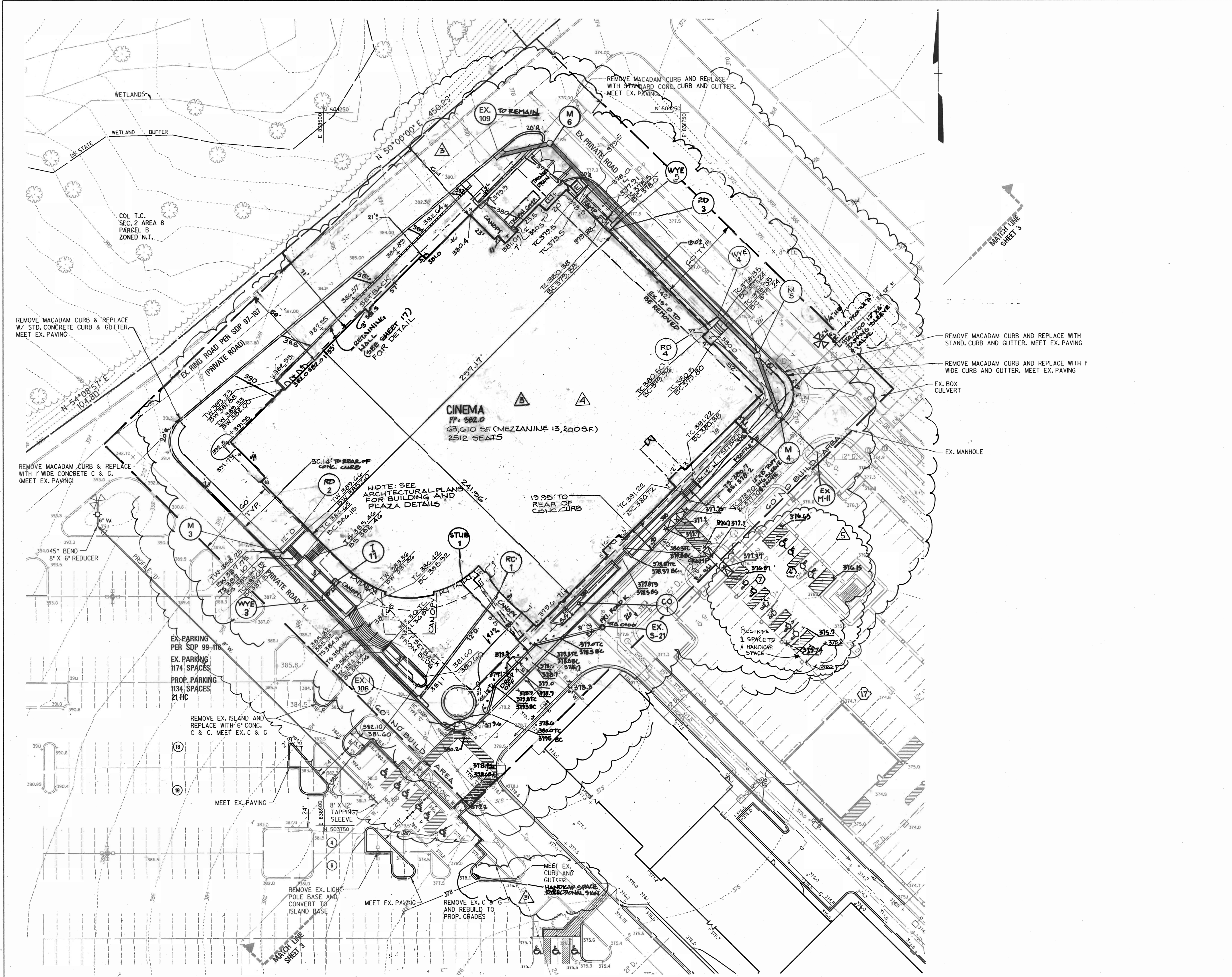
A Team of Land Planners,  
Landscape Architects,  
Engineers, Surveyors &  
Environmental Professionals

SECTION NAME	COLUMBIA TOWN CTR.	SECTION/AREA	21	TOWNSHIP #	42
SP	3058A-442	TAXING MAP	30,36	GEN. TRACT	6054
WATER CODE	13,208 L-1 N.T.	WATER CODE	5TH		

TITLE: PHASE IV SITE DEVELOPMENT PLAN COVER SHEET

Des By	MJP	Scale	AS SHOWN	Proj. No.	95019B1
Dwn By	KDE	Date	2-22-00		
Chk By	JWR	Approved			1 OF 21





Date: 2/10/00

STATE OF MARYLAND  
 JOHN W. BARDON, JR.  
 PROFESSIONAL ENGINEER

Professional Eng. No. 10551

APPROVED  
 PLANNING BOARD  
 HOWARD COUNTY  
 DATE FEBRUARY 10, 2000

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	
<i>[Signature]</i>	DATE: 3/9/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	
<i>[Signature]</i>	DATE: 3/17/00
CHIEF DIVISION OF LAND DEVELOPMENT	
<i>[Signature]</i>	DATE: 3/22/00
<i>[Signature]</i>	DATE: 3/22/00
2/16/00 5	REV. HC SPACES IN PARKING DECK
12/20/02 3	REV. CINEMA BLDG, PLAZA, UTILS.
12-21-02 4	REV. BLDG, STAIRS, GRADES & UTILITIES

Date: \_\_\_\_\_ No. \_\_\_\_\_ Revision Description

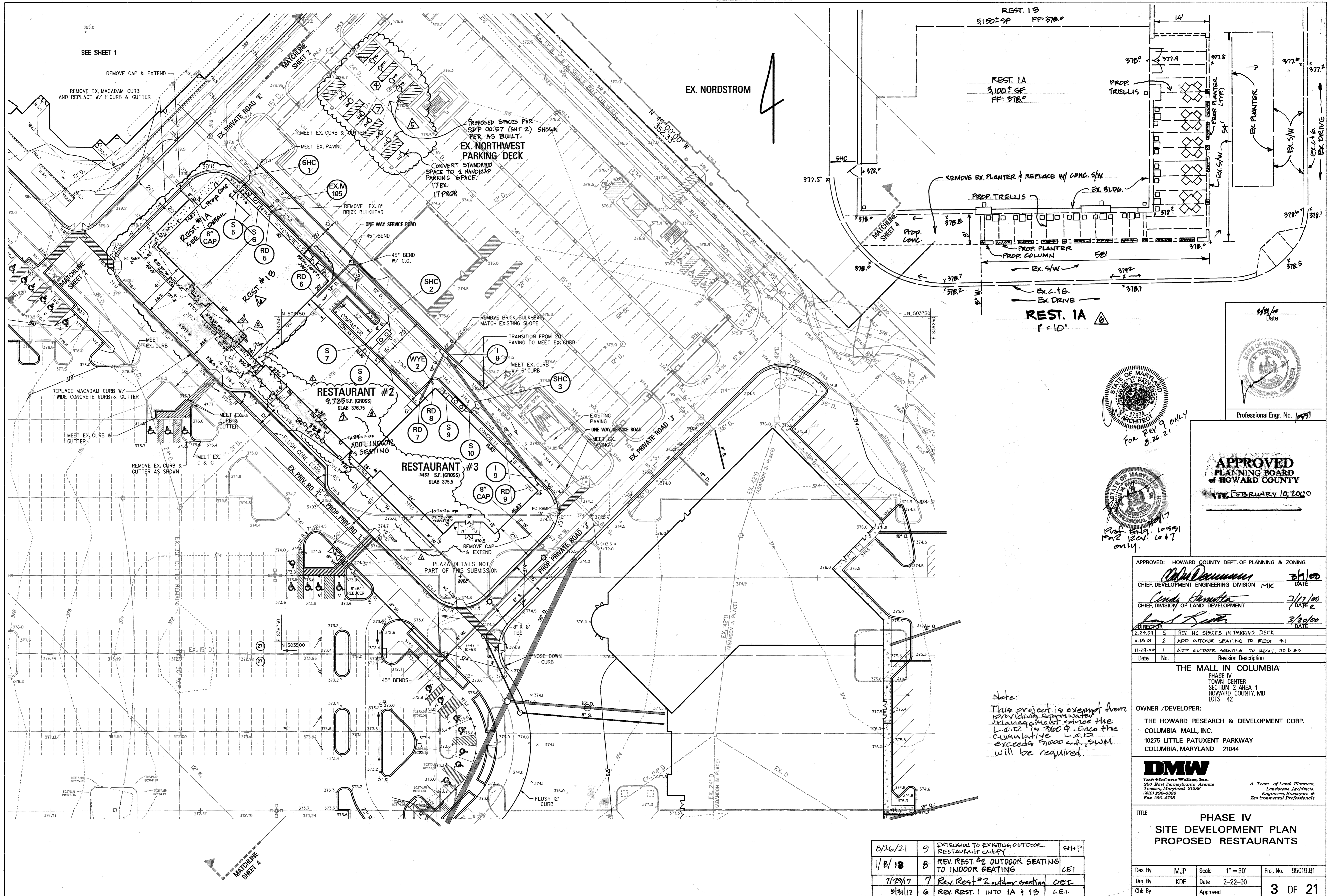
**THE MALL IN COLUMBIA**  
 REVISED PHASE IV  
 TOWN CENTER  
 SECTION 2 AREA 1  
 HOWARD COUNTY, MD  
 LOT 42

OWNER /DEVELOPER:  
 THE HOWARD RESEARCH & DEVELOPMENT CORP.  
 COLUMBIA MALL, INC.  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044

**DMW**  
 Draft-McCune-Walker, Inc.  
 200 East Pennsylvania Avenue  
 Towson, Maryland 21286  
 (410) 296-3353  
 Fax 296-4705

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

TITLE			
<b>PHASE IV SITE DEVELOPMENT PLAN CINEMA SITE</b>			
Des By	MJP	Scale	1" = 30'
Proj. No.	95019.B1	Drn By	KDE
Date	2-22-00	Chk By	Approved
			<b>2 OF 21</b>



Date: 1/18/21  
Professional Engr. No. 10701

STATE OF MARYLAND  
ARCHITECT  
10701  
FOR REV. 9 ONLY  
8.26.21

STATE OF MARYLAND  
PROFESSIONAL ENGINEER  
10701  
FOR REV. 9 ONLY  
8.26.21

**APPROVED**  
**PLANNING BOARD**  
**OF HOWARD COUNTY**  
DATE: FEBRUARY 10, 2020

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

<i>John Danner</i>	2/10/20
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	DATE
<i>Andy Krumholz</i>	3/12/20
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
<i>Scott J. Guter</i>	3/20/20
DIRECTOR	DATE

Date	No.	Revision Description
2.24.04	5	REV. HC SPACES IN PARKING DECK
6.18.01	2	ADD OUTDOOR SEATING TO REST #1
11.29.00	1	ADD OUTDOOR SEATING TO REST. #2 & #3

**THE MALL IN COLUMBIA**  
**PHASE IV**  
**TOWN CENTER**  
**SECTION 2 AREA 1**  
**HOWARD COUNTY, MD**  
**LOTS 42**

OWNER / DEVELOPER:  
**THE HOWARD RESEARCH & DEVELOPMENT CORP.**  
**COLUMBIA MALL, INC.**  
**10275 LITTLE PATUXENT PARKWAY**  
**COLUMBIA, MARYLAND 21044**

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

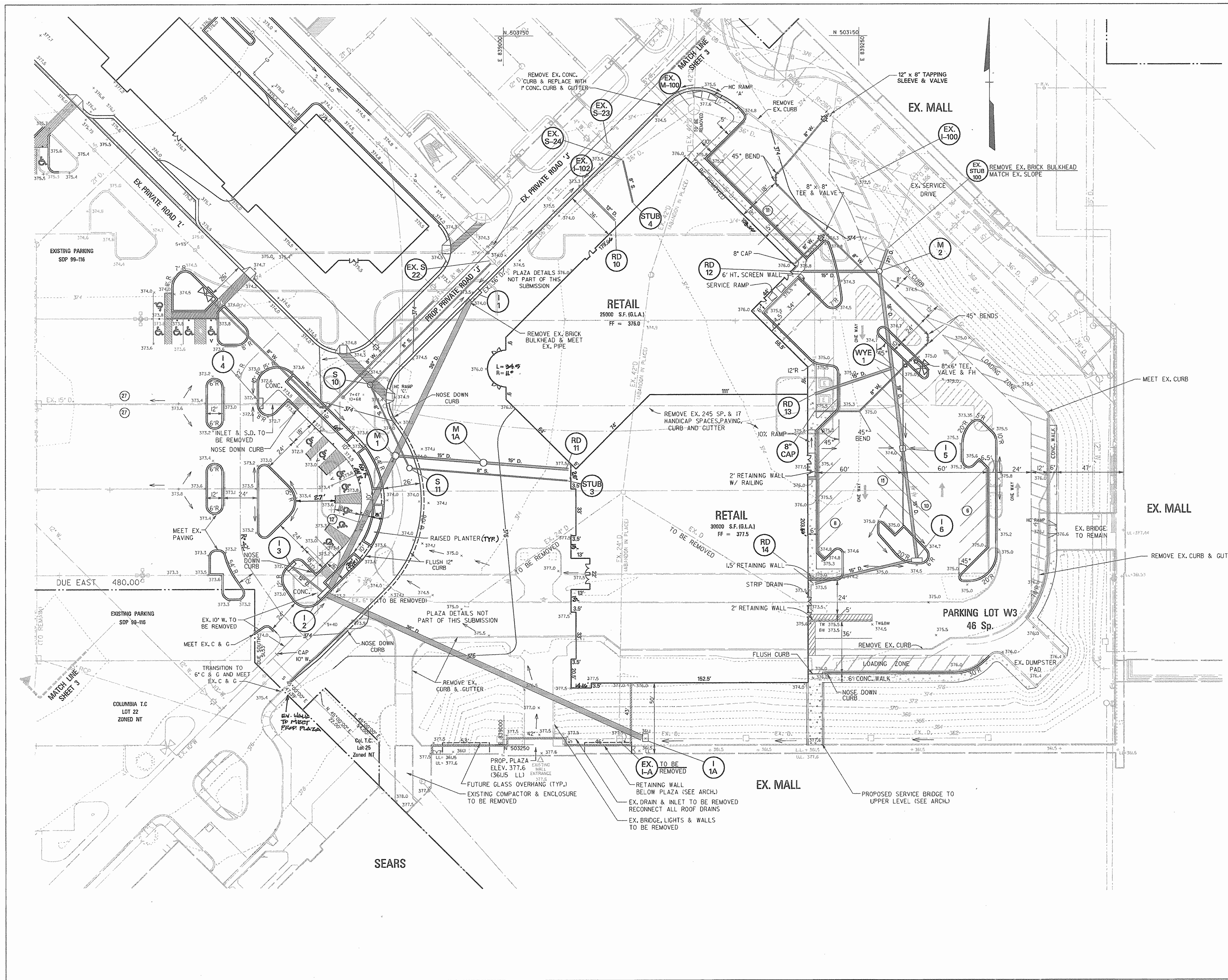
A Team of Land Planners,  
Landscape Architects,  
Engineers, Surveyors &  
Environmental Professionals

TITLE: **PHASE IV**  
**SITE DEVELOPMENT PLAN**  
**PROPOSED RESTAURANTS**

Des By	MJP	Scale	1" = 30'	Proj. No.	95019.B1
Drn By	KDE	Date	2-22-00	<b>3 OF 21</b>	
Chk By		Approved			

8/26/21	9	EXTENSION TO EXISTING OUTDOOR RESTAURANT CANOPY	SMHP
1/18/18	8	REV. REST. #2 OUTDOOR SEATING TO INDOOR SEATING	LE1
7/22/17	7	REV. REST. #2 outdoor seating	CEI
2/11/17	6	REV. REST. 1 INTO 1A & 1B	CEI

Note:  
This project is exempt from providing stormwater management since the L.O.D. is 200 ft. Once the cumulative L.O.D. exceeds 5000 ft., SWM will be required.



Date: 2/20/00

Professional Engr. No. 12971

**APPROVED**  
**PLANNING BOARD**  
**OF HOWARD COUNTY**  
**DATE FEBRUARY 10, 2000**

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

*Mark K. Miller* 2/20/00  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MKK DATE

*David Hamilton* 3/17/00  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Robert J. Smith* 3/20/00  
 DIRECTOR DATE

12-1-99	A	REVISE FF ELEV. OF RETAIL FROM 377.5 TO 376.0
Date	No.	Revision Description

**THE MALL IN COLUMBIA**  
 PHASE IV  
 TOWN CENTER  
 SECTION 2 AREA 1  
 HOWARD COUNTY, MD  
 LOT 42

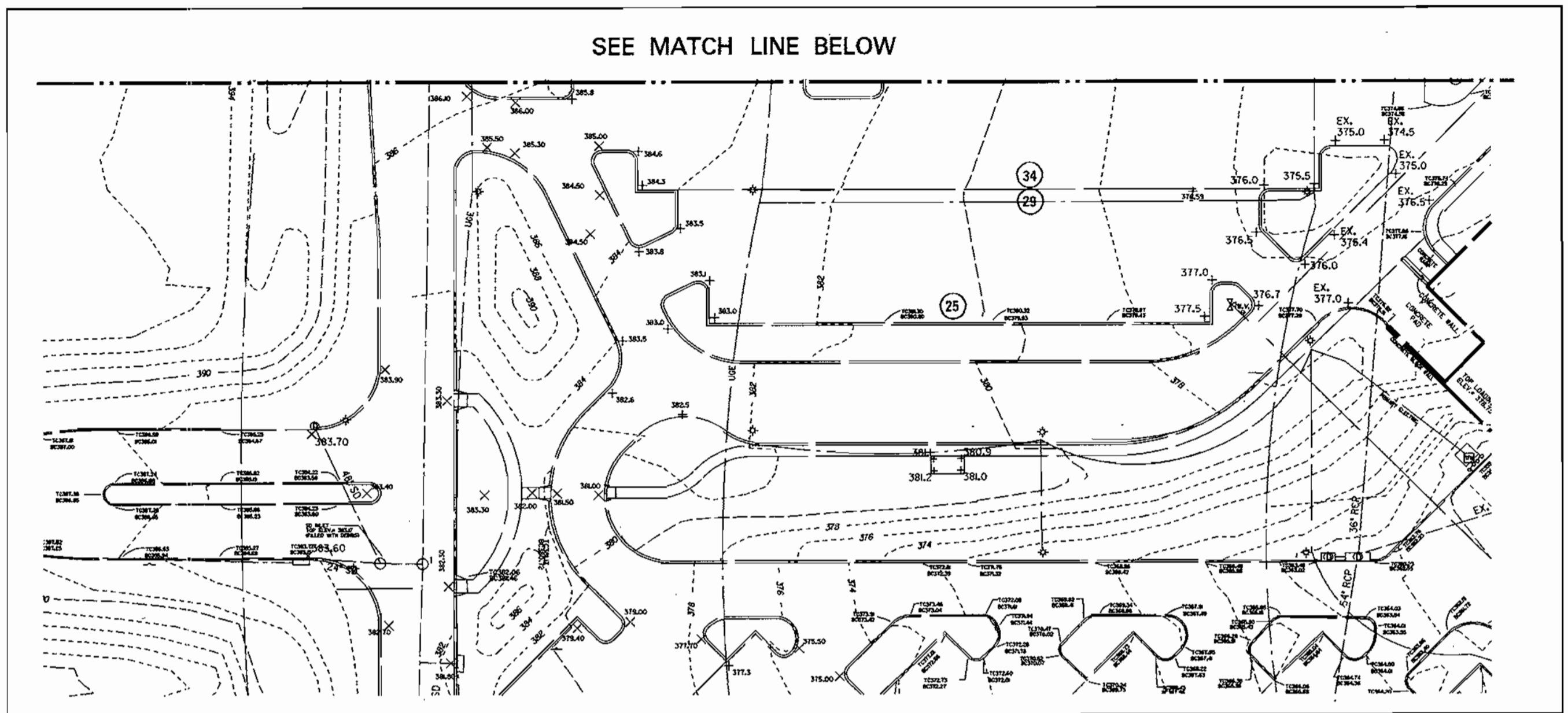
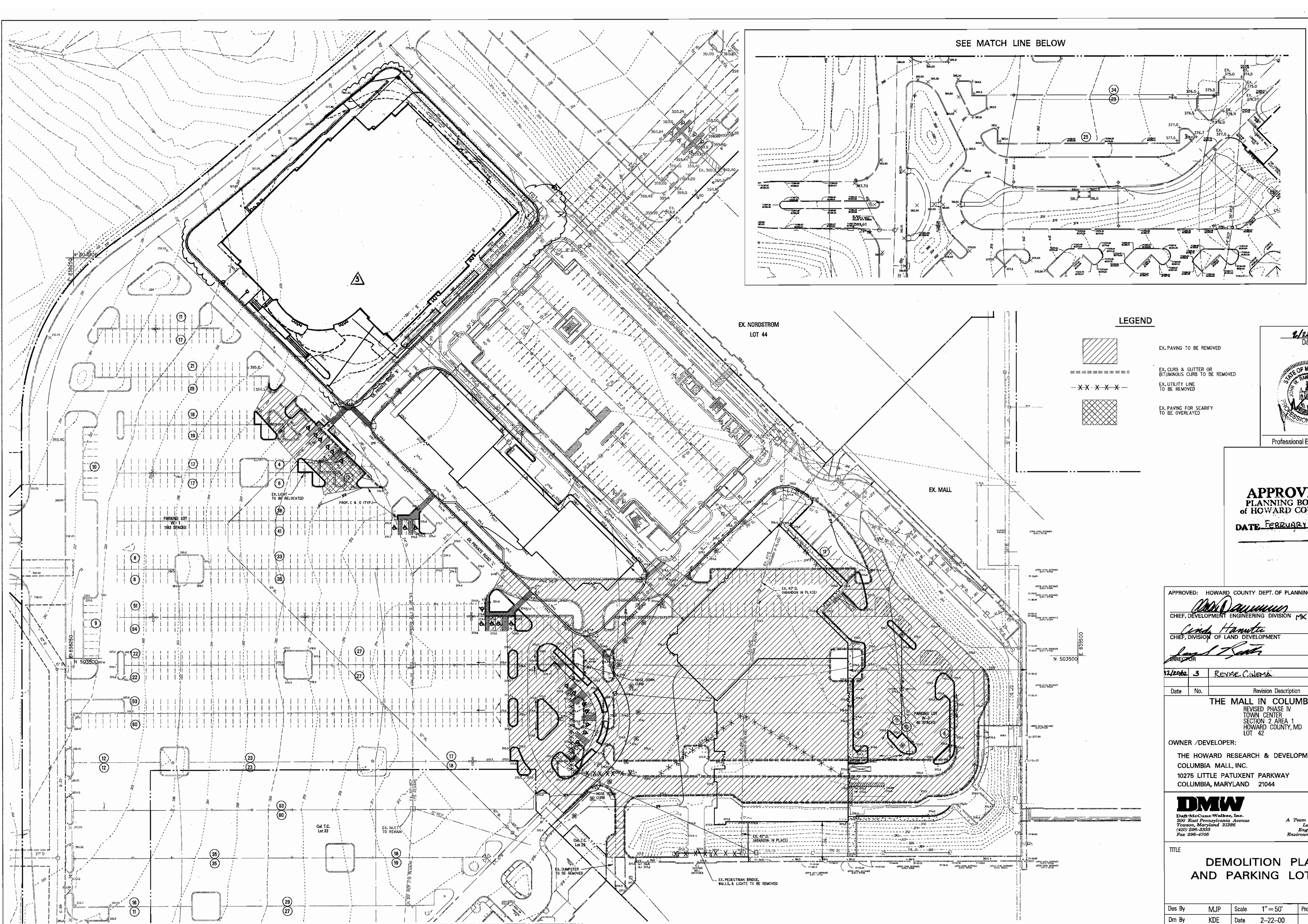
OWNER / DEVELOPER:  
 THE HOWARD RESEARCH & DEVELOPMENT CORP.  
 COLUMBIA MALL, INC.  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044

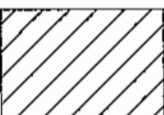
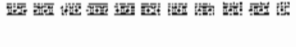


**DMW**  
 Duff-McCune-Walker, Inc.  
 200 East Pennsylvania Avenue  
 Fossom, Maryland 21088  
 (410) 296-3333  
 Fax 296-4705

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


TITLE  
**PHASE IV**  
**SITE DEVELOPMENT PLAN**  
**RETAIL BUILDINGS**

Des By	MJP	Scale	1" = 30'	Proj. No.	95019.B1
Dim By	KDE	Date	2-22-00		
Chk By	Approved				4 OF 21



- LEGEND**
-  EX. PAVING TO BE REMOVED
  -  EX. CURB & GUTTER OR BITUMINOUS CURB TO BE REMOVED
  -  EX. UTILITY LINE TO BE REMOVED
  -  EX. PAVING FOR SCARIFY TO BE OVERLAYED

2/21/00  
Date



Professional Engr. No. 10997

**APPROVED**  
PLANNING BOARD  
of HOWARD COUNTY  
DATE FEBRUARY 10, 2000

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

*Chris Dammann* 2/21/00  
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

*Chris Hanotte* 3/17/00  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE R

*David S. Katz* 3/20/00  
DIRECTOR DATE

Date	No.	Revision Description
12/20/00	3	REVISE CINEMA
<b>THE MALL IN COLUMBIA</b> REVISED PHASE IV TOWN CENTER SECTION 2 AREA 1 HOWARD COUNTY, MD LOT 42		

OWNER / DEVELOPER:  
THE HOWARD RESEARCH & DEVELOPMENT CORP.  
COLUMBIA MALL, INC.  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MARYLAND 21044

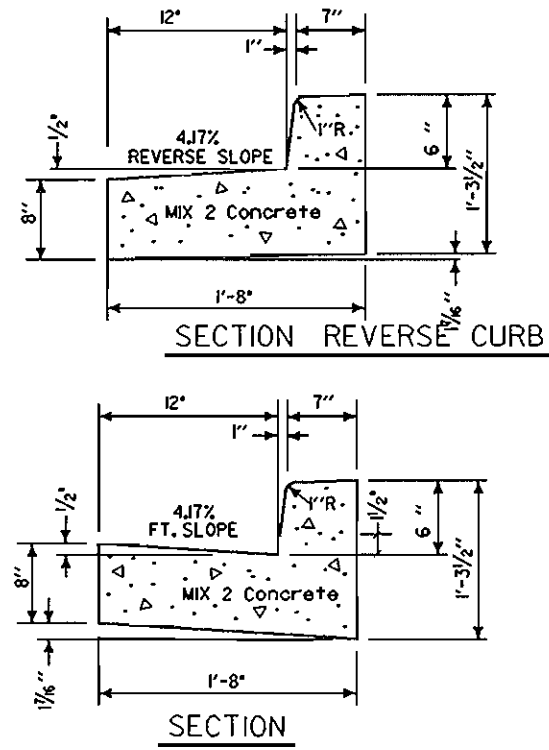
**DMW**  
Darr-McCune-Walkes, Inc.  
200 East Pennsylvania Avenue  
Towson, Maryland 21286  
(410) 296-2329  
Fax 296-4706

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

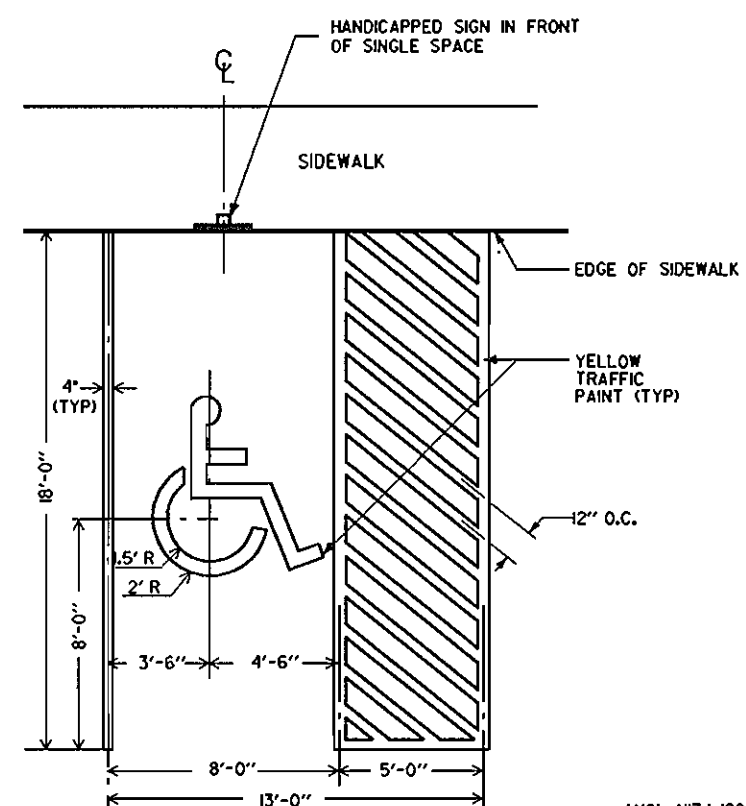
TITLE  
**DEMOLITION PLAN  
AND PARKING LOT W-1**

Des By MJP Scale 1" = 50' Proj. No. 95019.01  
Dwn By KDE Date 2-22-00  
Chk By mp Approved 5 OF 21

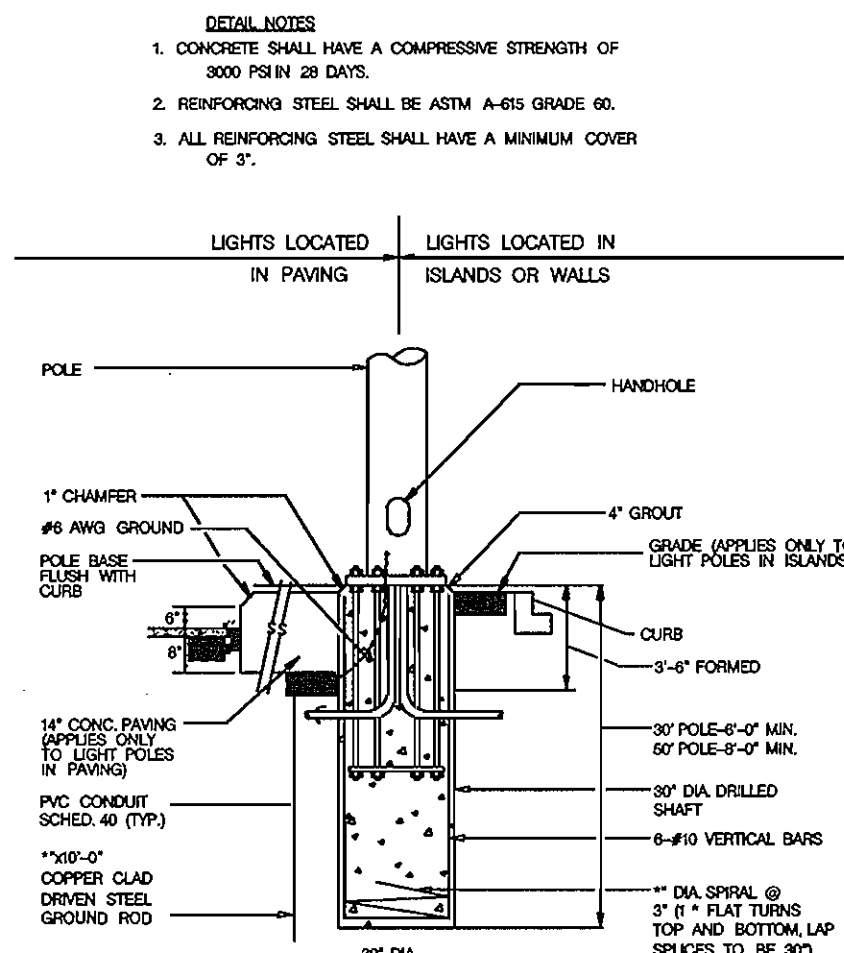
SEE MATCH LINE ABOVE



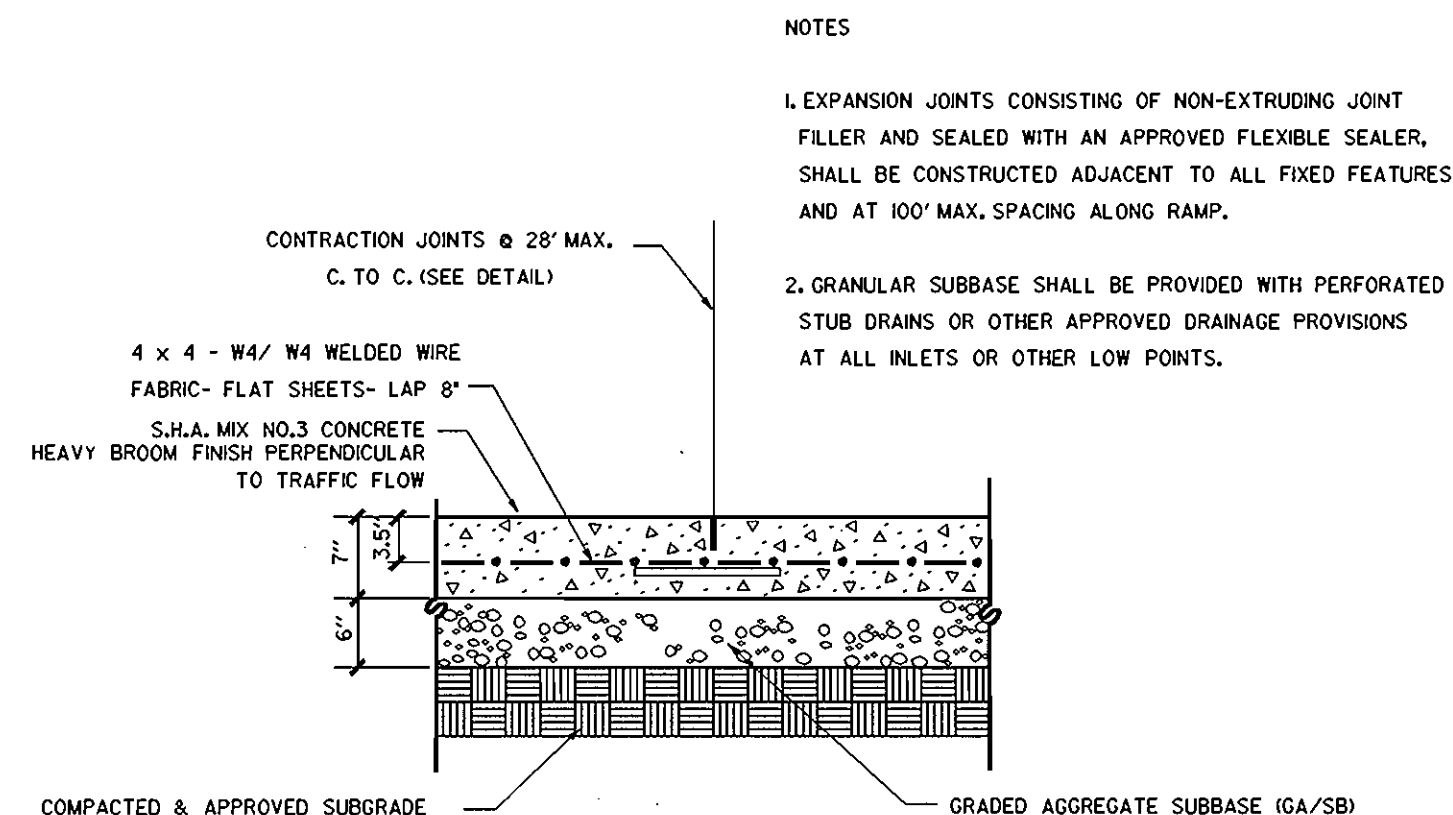
**Concrete Curb & Gutter**  
Not To Scale



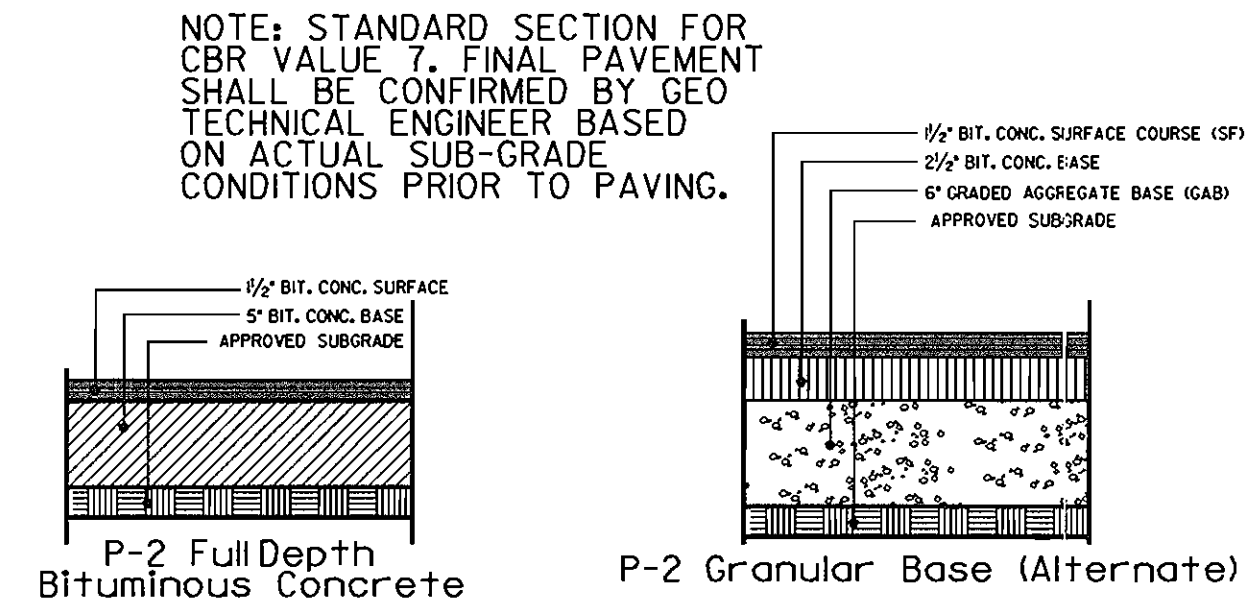
**Handicapped Parking Space**  
Not To Scale



**Pole Base Detail**  
Not To Scale

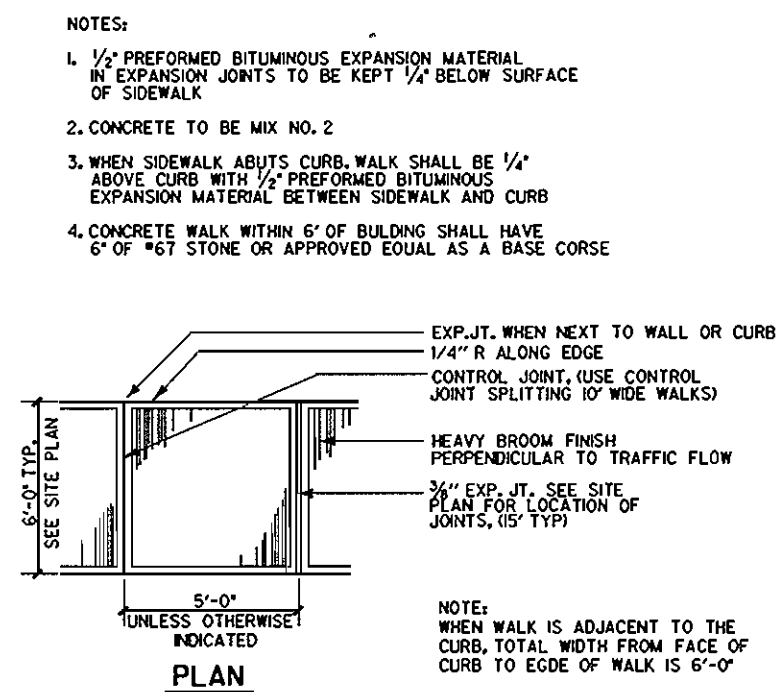


**Ramp Loading Dock Concrete Paving**  
Not To Scale

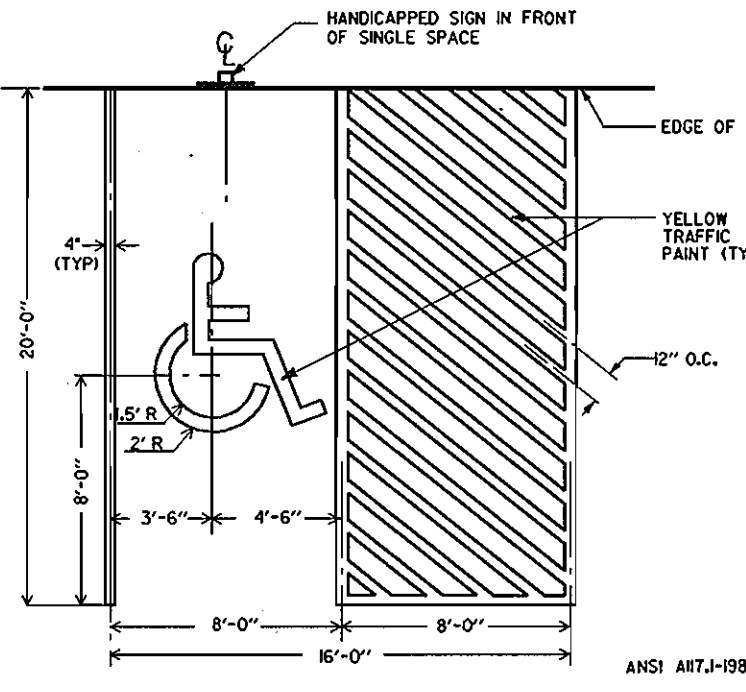


**Typical Paving Section (P-2)**  
Not To Scale

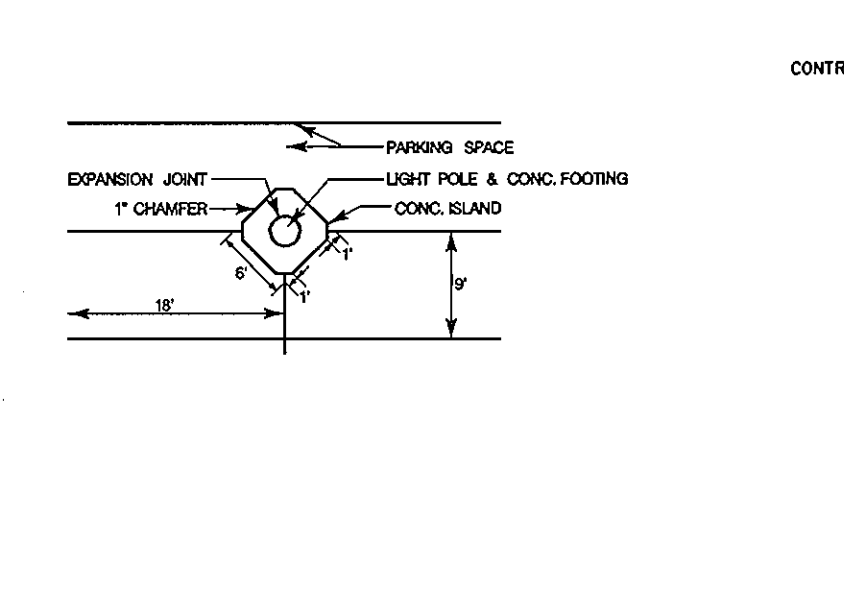
See Sheet 7 For Paving Legend



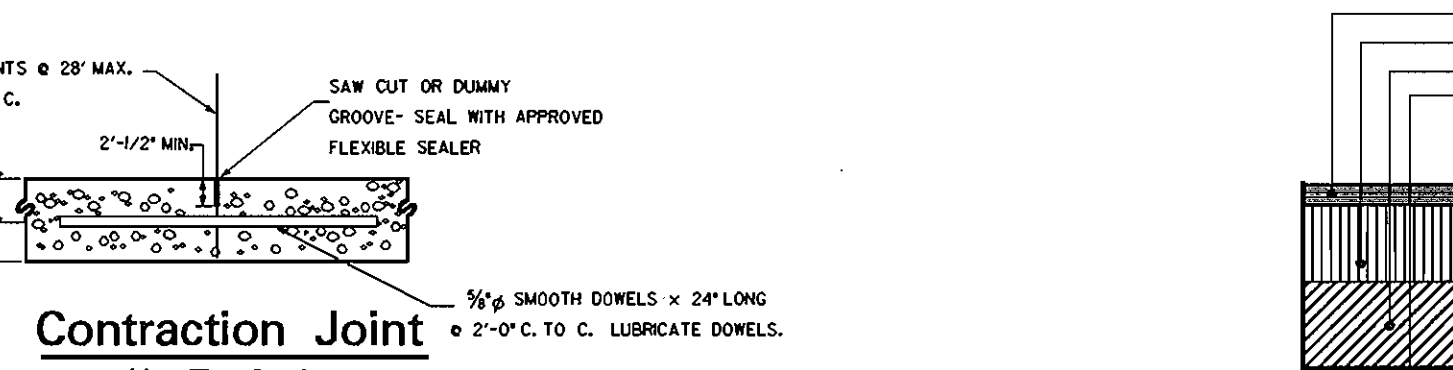
**Concrete Walk**  
Not To Scale



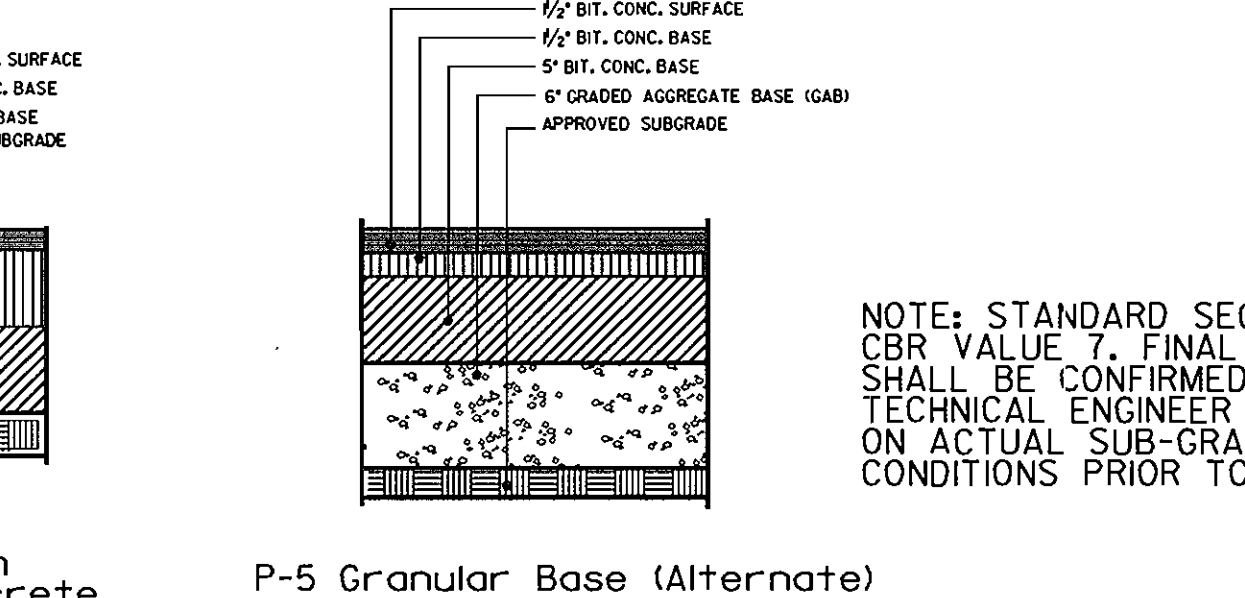
**Handicapped Van Parking Space**  
Not To Scale



**Pole Base Detail**  
Not To Scale

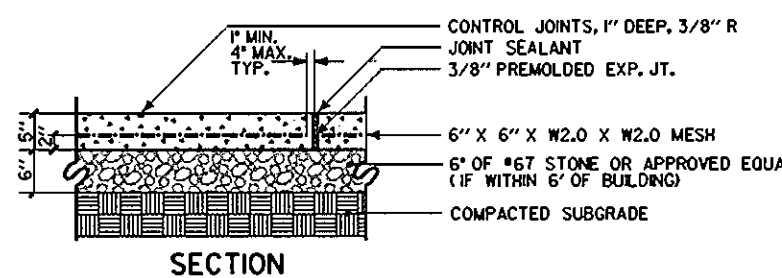


**Contraction Joint**  
Not To Scale

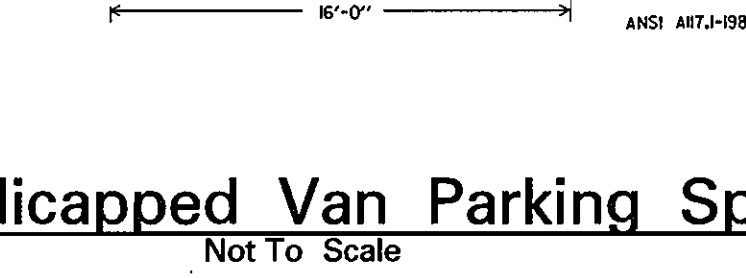


**Typical Paving Section (P-5)**  
Not To Scale

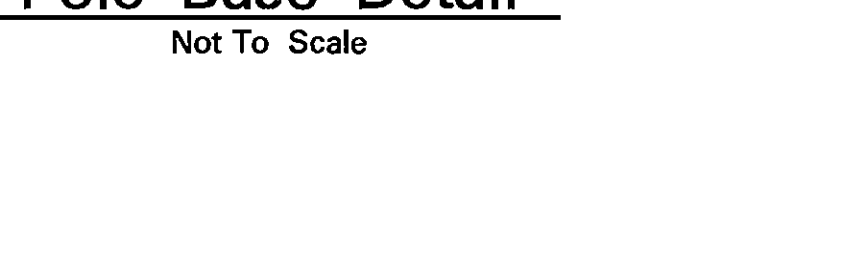
NOTE: STANDARD SECTION FOR CBR VALUE 7. FINAL PAVEMENT SHALL BE CONFIRMED BY GEO TECHNICAL ENGINEER BASED ON ACTUAL SUB-GRADE CONDITIONS PRIOR TO PAVING.



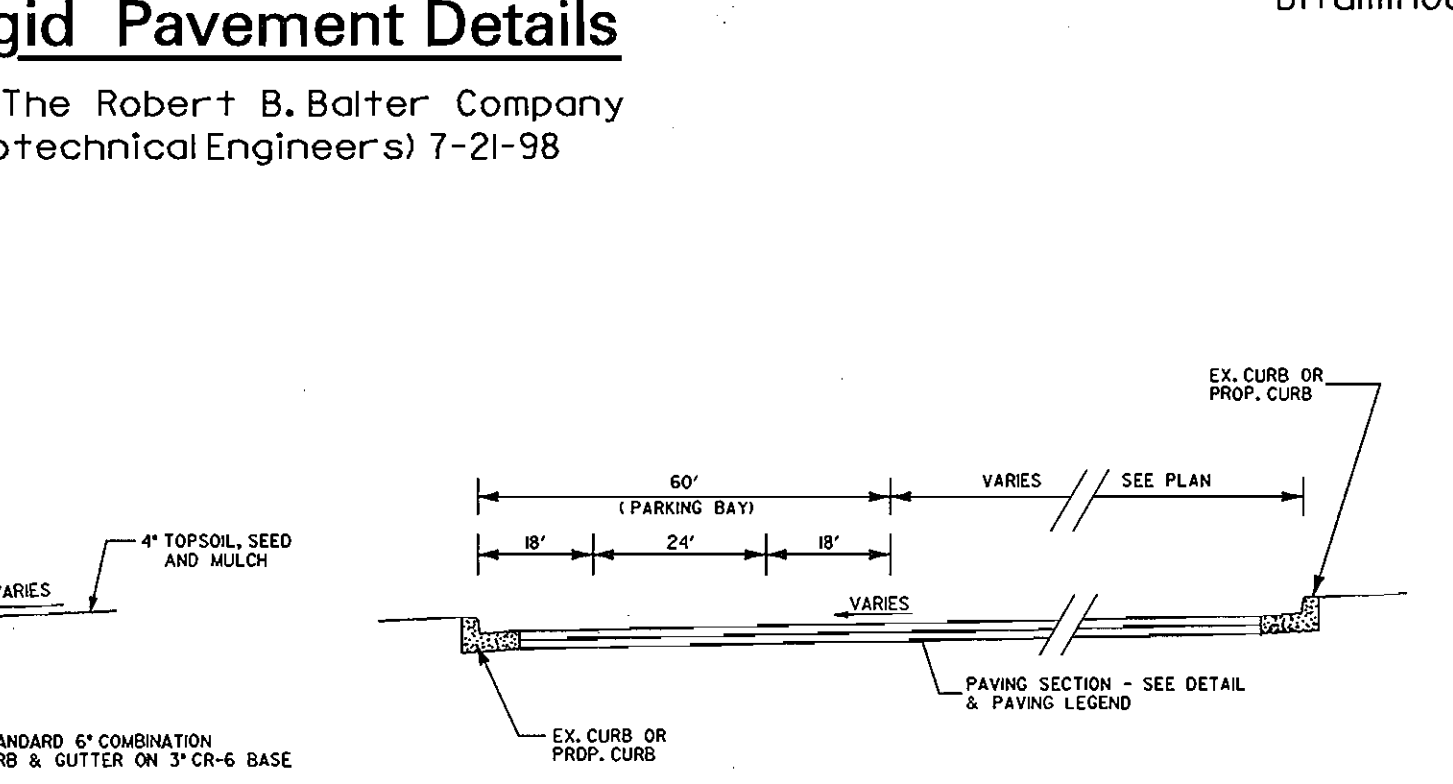
**Concrete Walk**  
Not To Scale



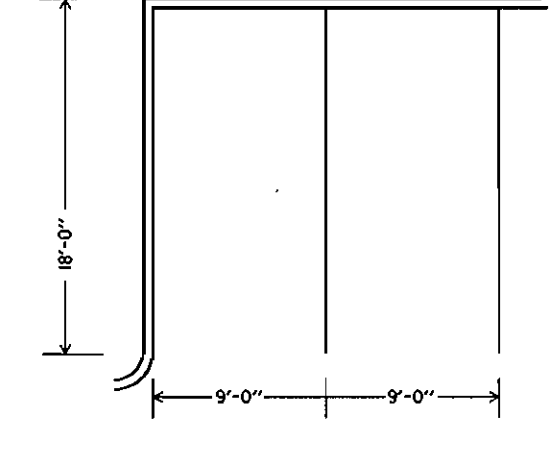
**Handicapped Van Parking Space**  
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**Pole Base Detail**  
Not To Scale

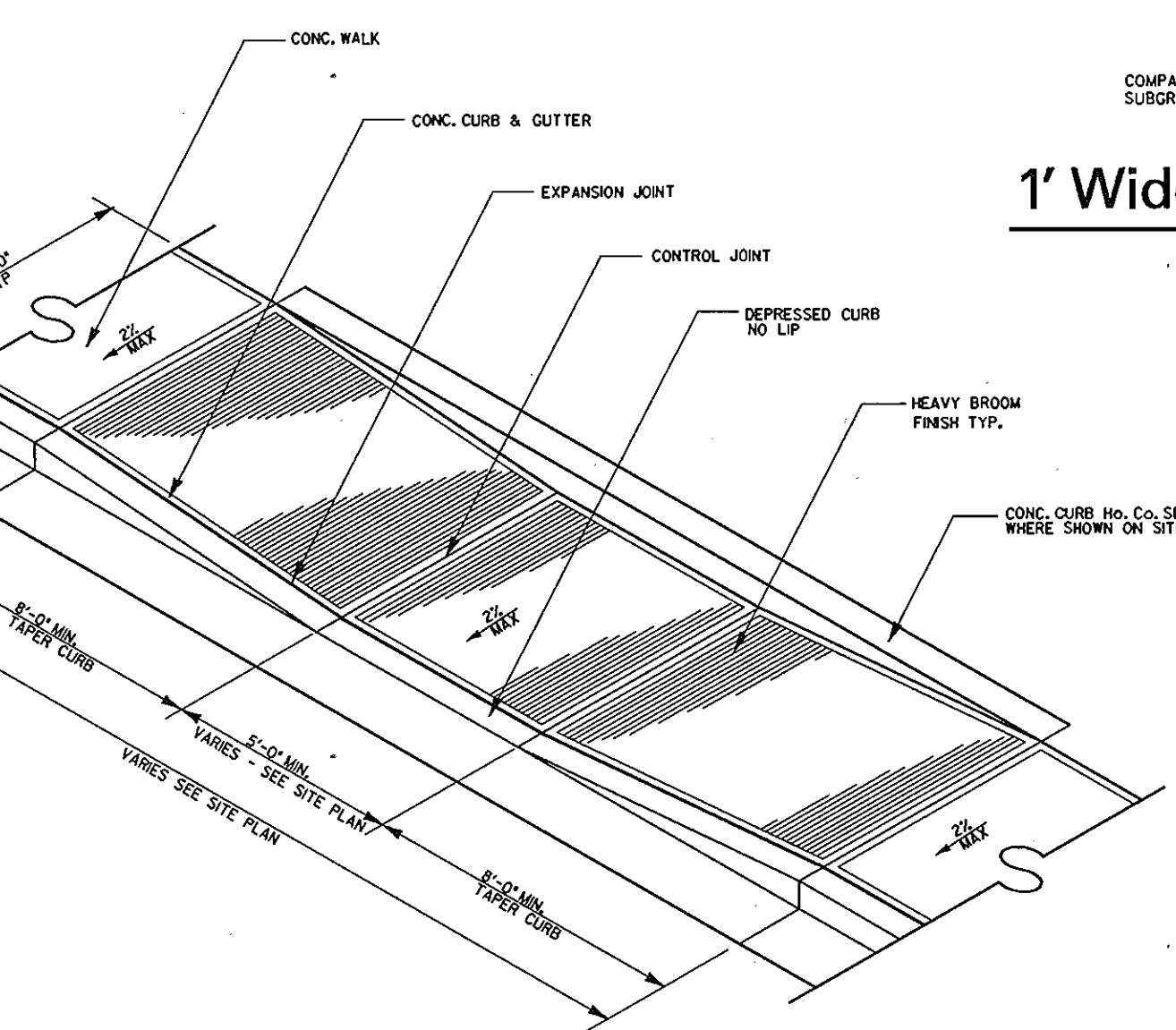


**Typical Section Private Parking**  
Not To Scale

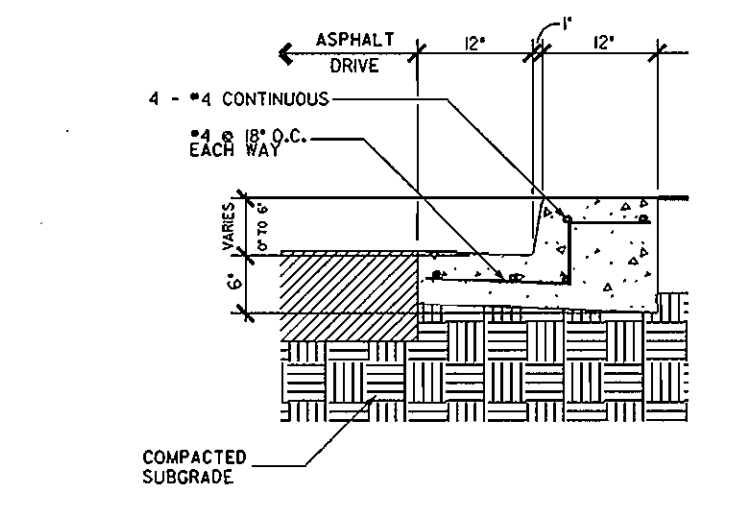


**Standard Parking Space**  
Not To Scale

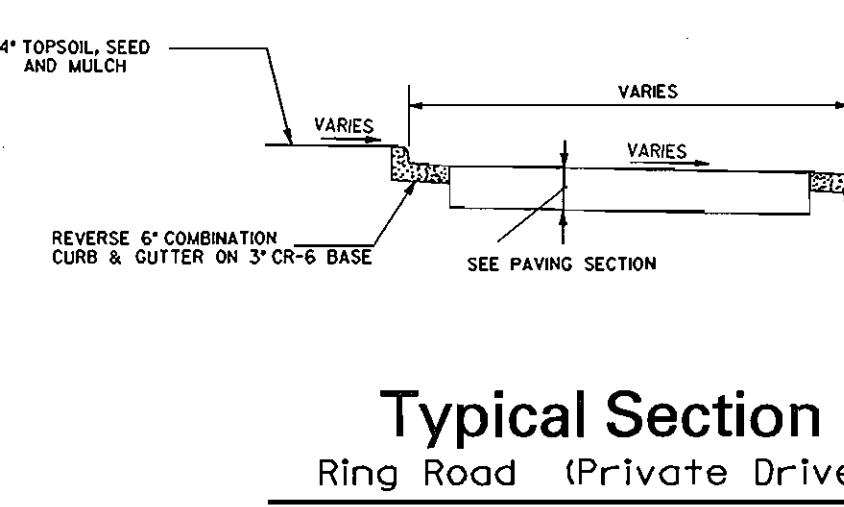
APPROVED PLANNING BOARD of HOWARD COUNTY DATE FEBRUARY 10, 2000



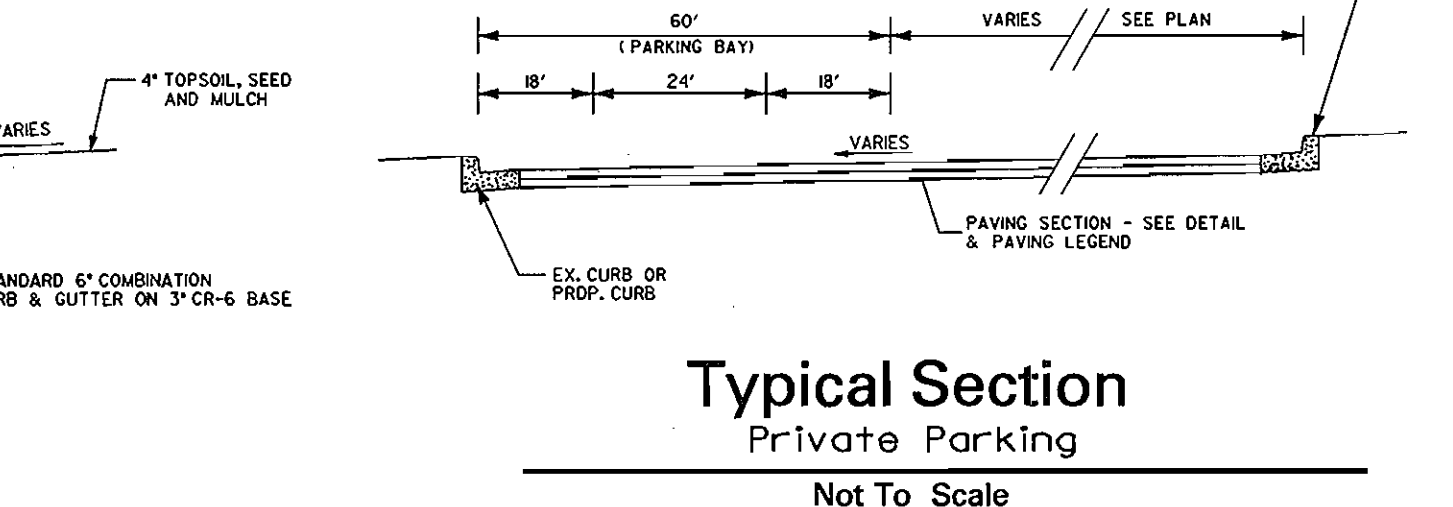
**Handicapped Ramp - A**  
Not To Scale



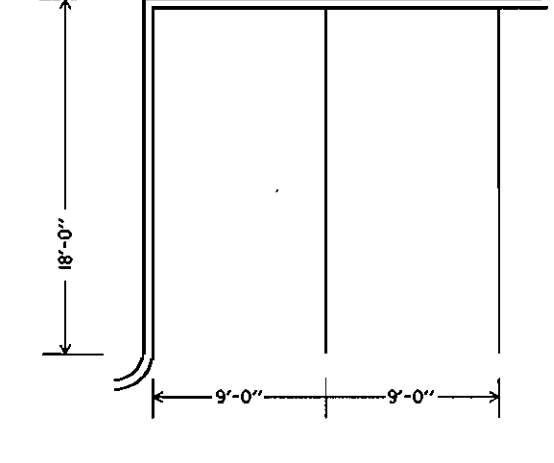
**1' Wide Concrete Curb Detail**  
Not To Scale



**Typical Section Ring Road (Private Drive)**  
Not To Scale



**Typical Section Private Parking**  
Not To Scale



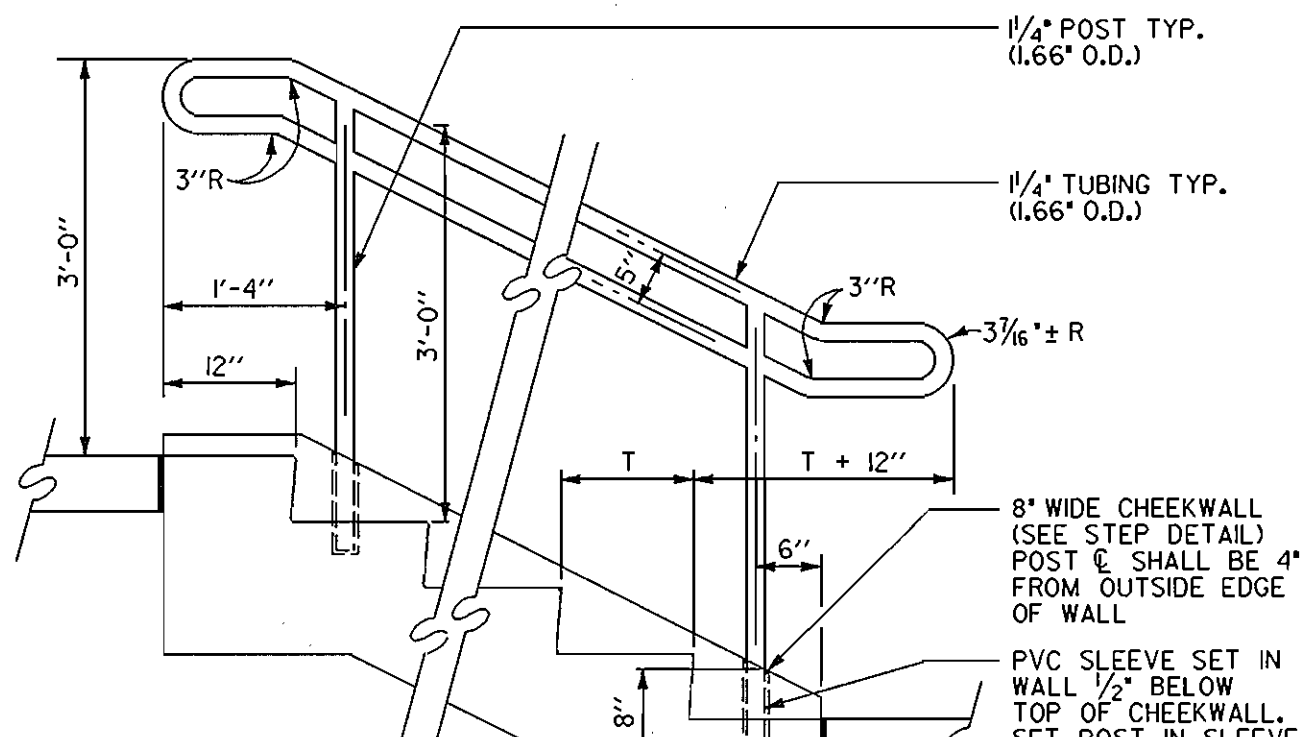
**Standard Parking Space**  
Not To Scale

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
 Chief, Development Engineering Division MK 3/5/00 DATE  
 Chief, Division of Land Development 3/17/00 DATE  
 Director 3/30/00 DATE

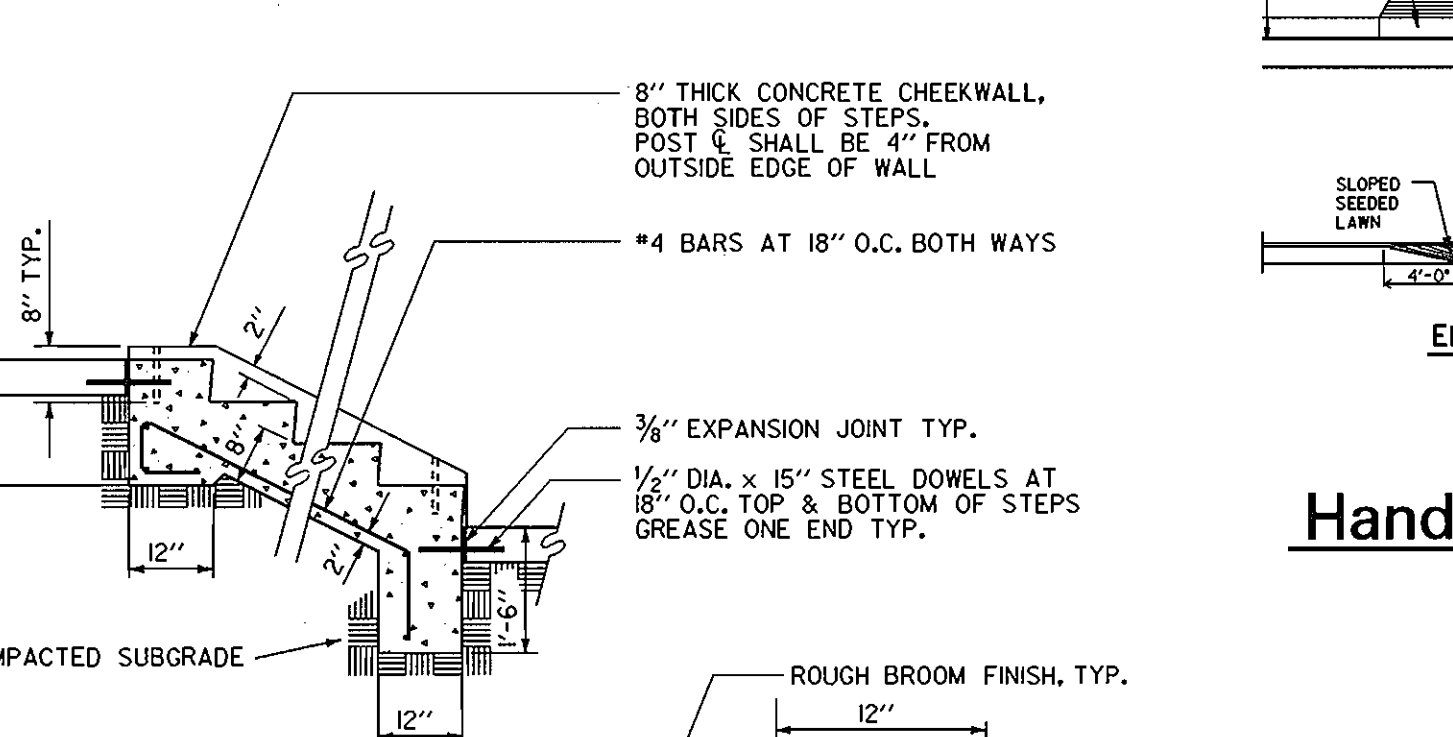
THE MALL IN COLUMBIA  
 PHASE IV  
 TOWN CENTER  
 SECTION 2, AREA 1  
 HOWARD COUNTY, MD  
 LOT 42  
 OWNER / DEVELOPER:  
 THE HOWARD RESEARCH & DEVELOPMENT CORP.  
 COLUMBIA MALL, INC.  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044

**DMW**  
 Daft-McCune-Walker, Inc.  
 200 East Pennsylvania Avenue  
 Towson, Maryland 21286  
 (410) 296-3833  
 Fax 296-4705  
 A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

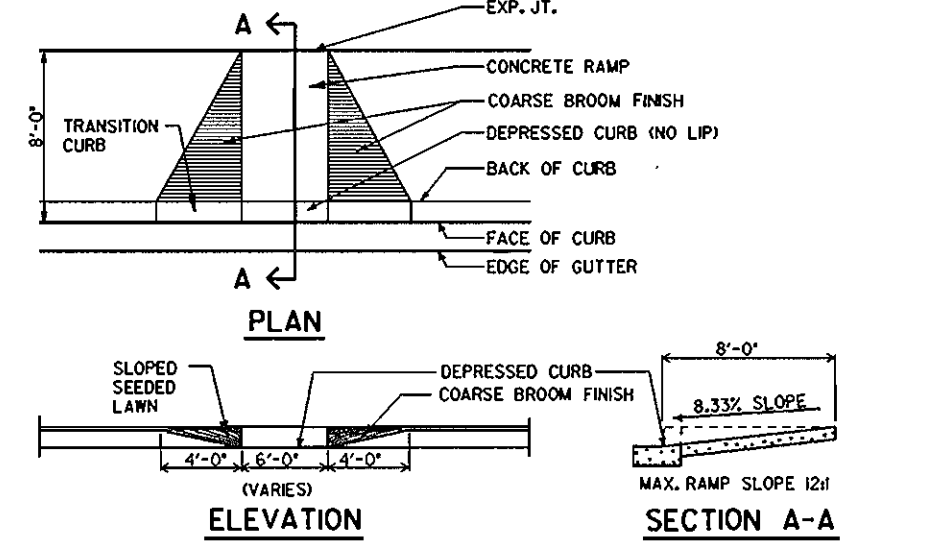
Date	No.	Revision Description
		THE MALL IN COLUMBIA PHASE IV TOWN CENTER SECTION 2, AREA 1 HOWARD COUNTY, MD LOT 42
		OWNER / DEVELOPER: THE HOWARD RESEARCH & DEVELOPMENT CORP. COLUMBIA MALL, INC. 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044
		<b>DMW</b> Daft-McCune-Walker, Inc. 200 East Pennsylvania Avenue Towson, Maryland 21286 (410) 296-3833 Fax 296-4705 A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals
		TITLE: PHASE IV SITE DETAILS
Des By	MJP	Scale AS SHOWN Proj. No. 95019 B1
Dim By	KDE	Date 2-22-00
Chk By	JWR	Approved 6 OF 21



**Railing**  
Not To Scale

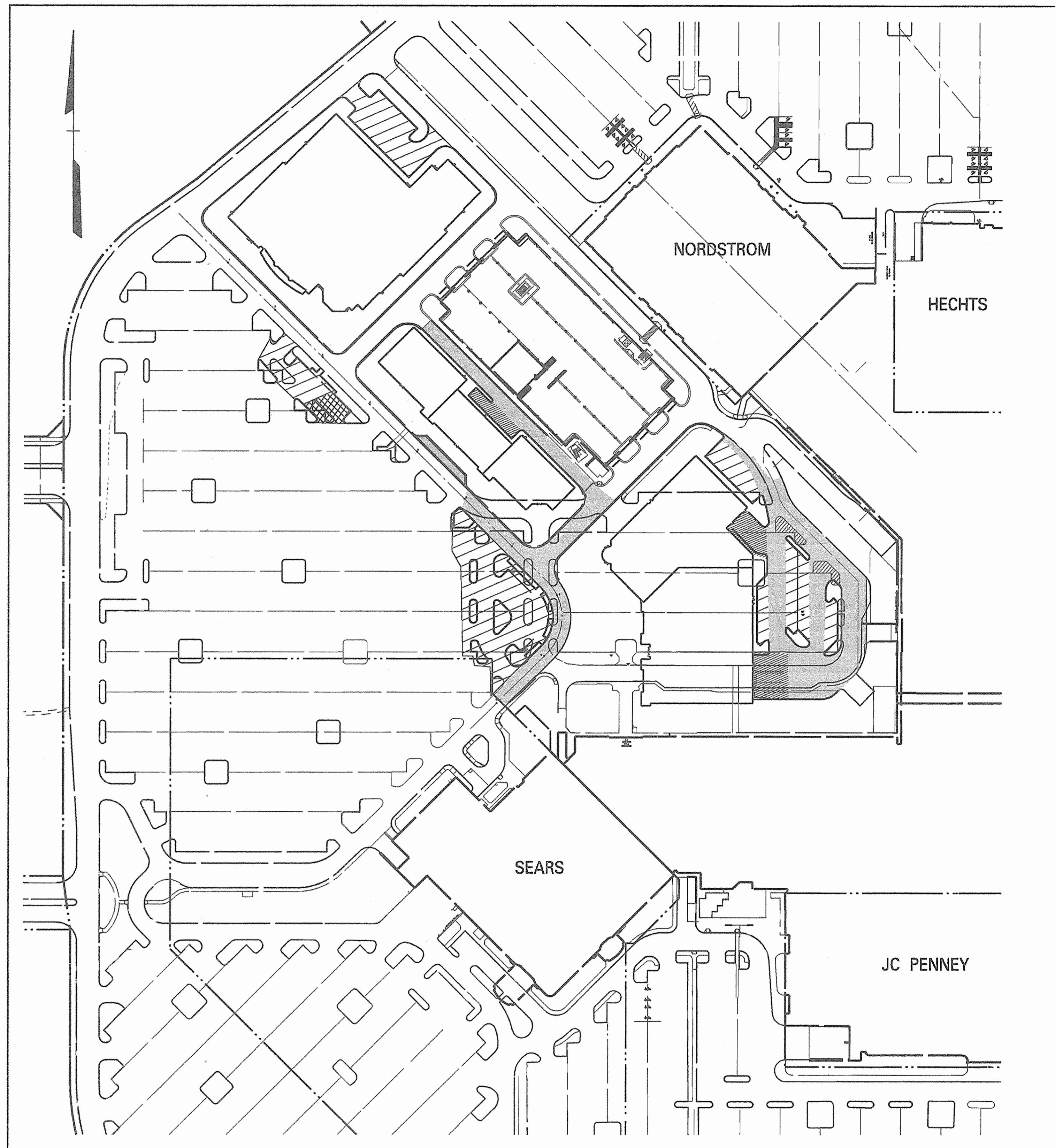


**Concrete Steps**  
Not To Scale



**Handicapped Ramp - C**  
Not To Scale

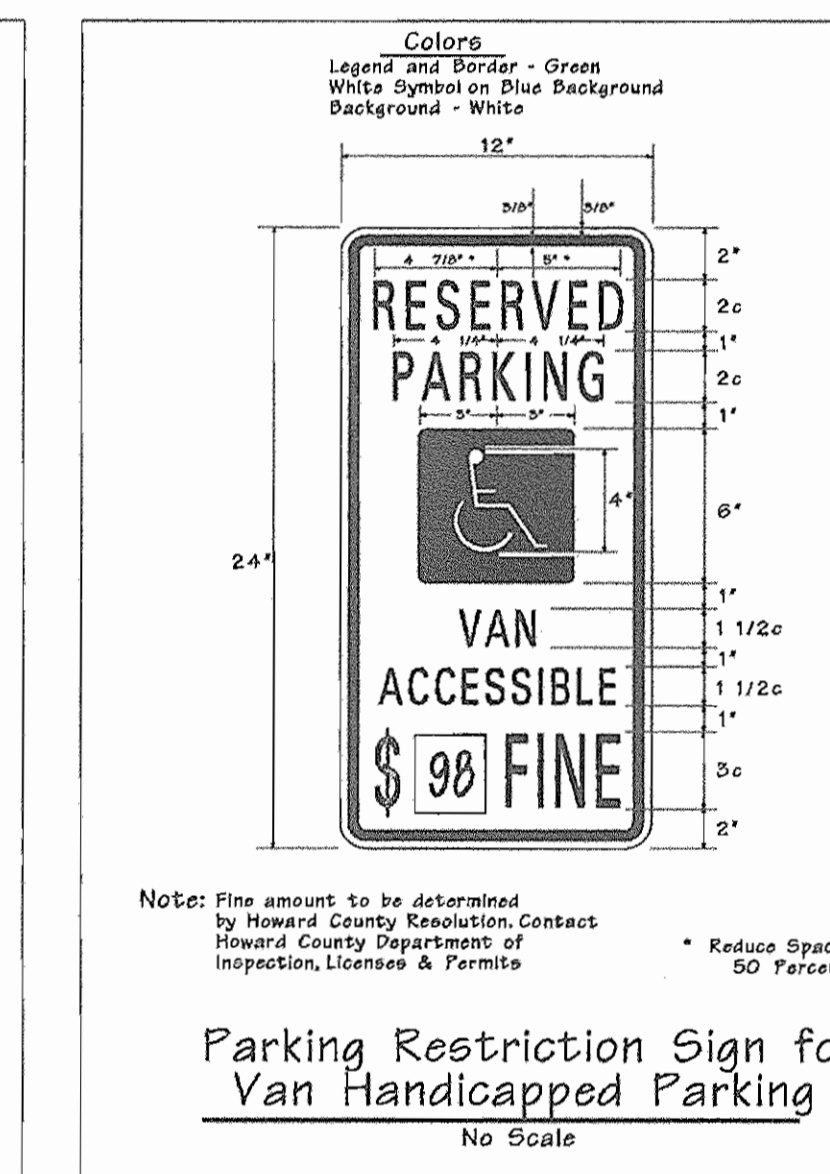
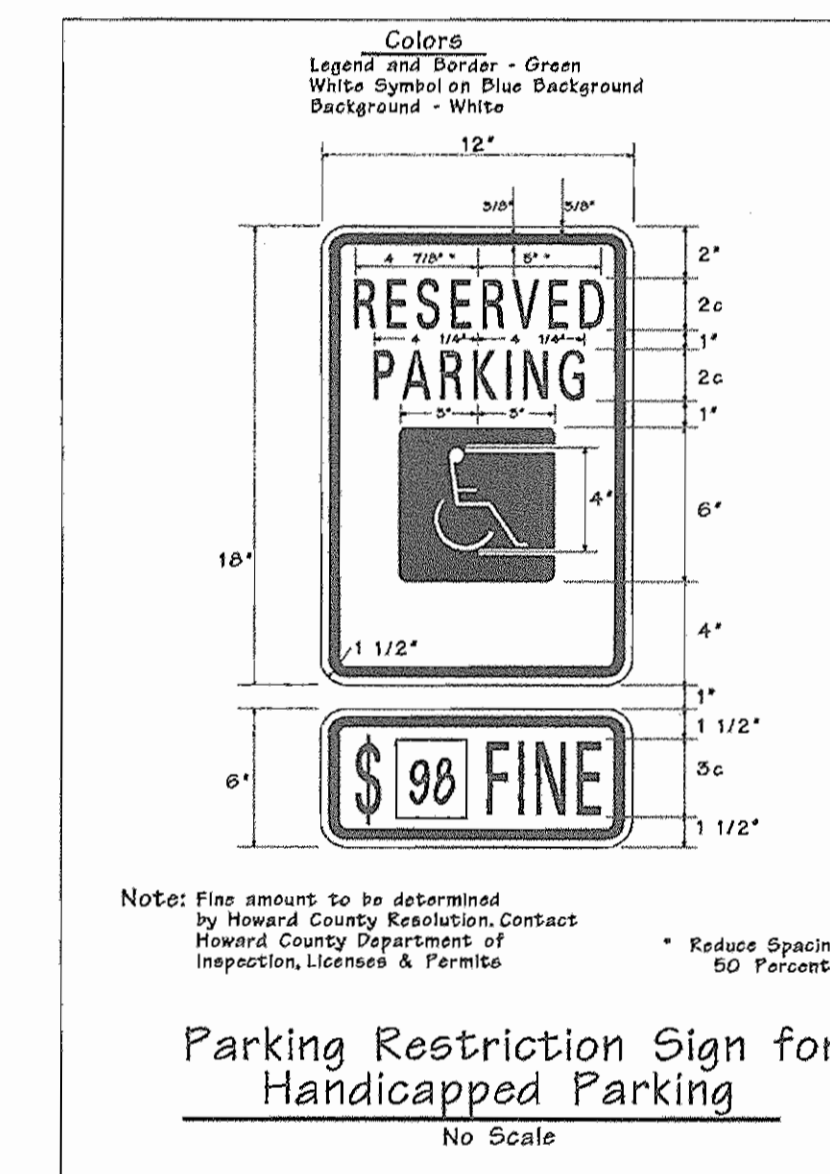
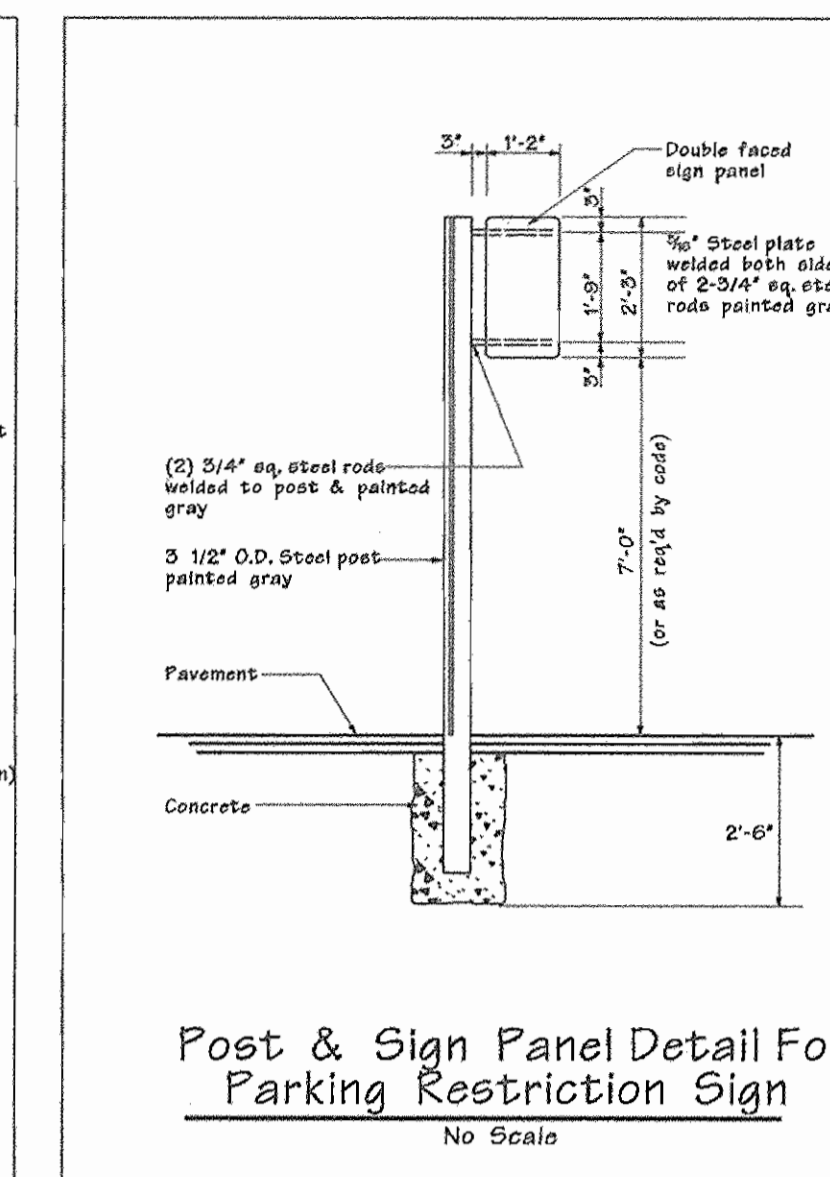
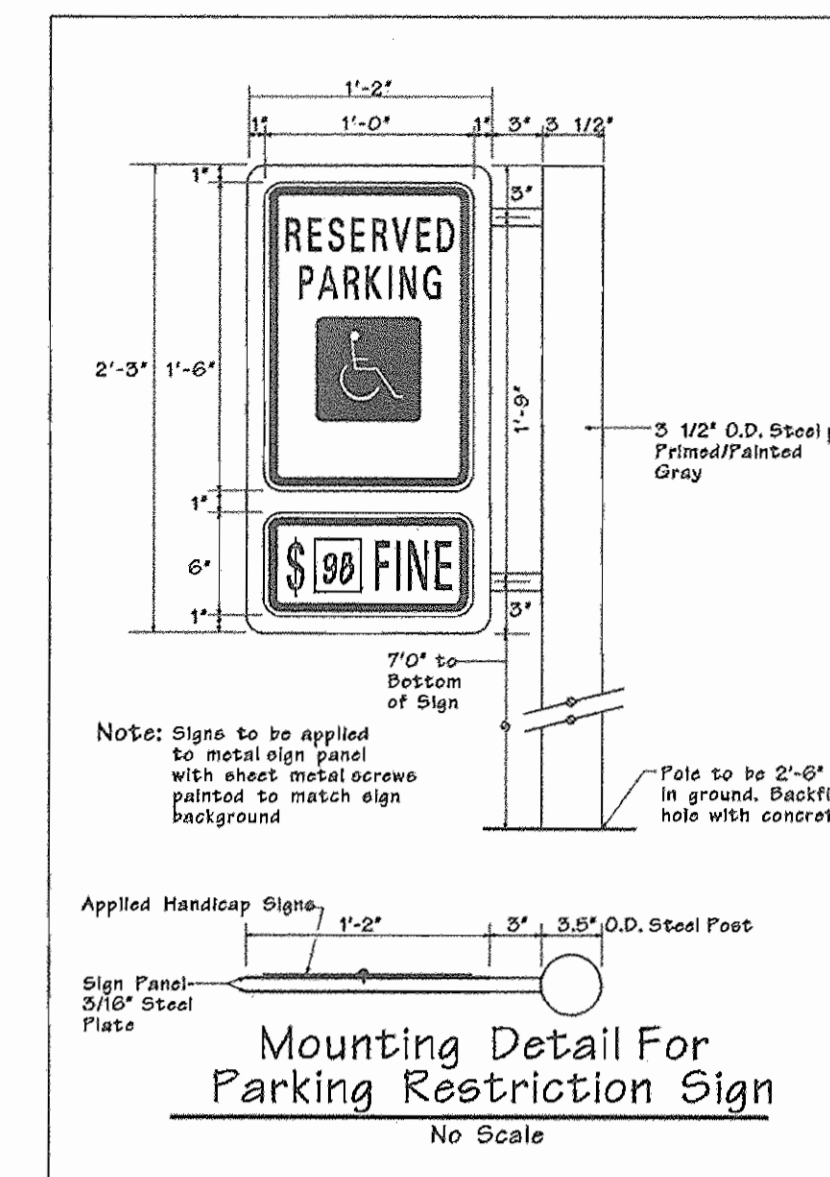
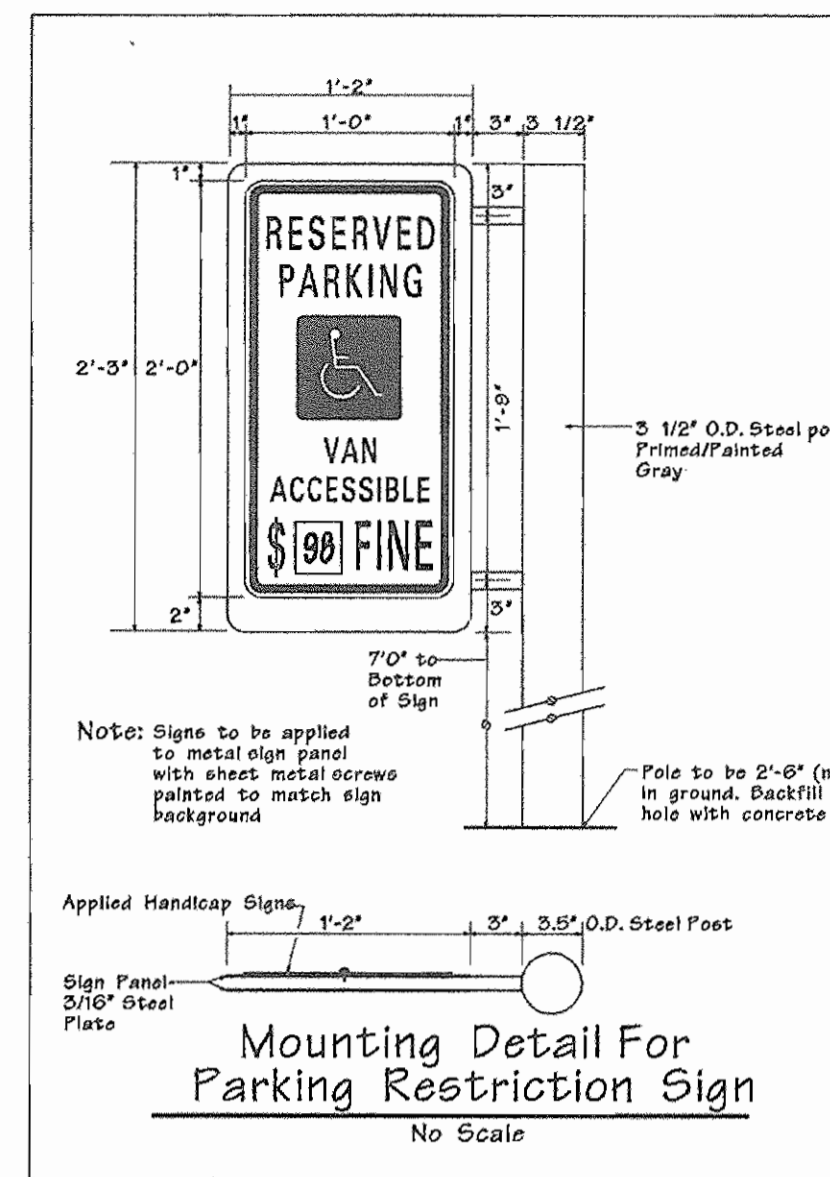
Professional Engr. No. 10027  
 State of Maryland Professional Engineer



**PAVING LEGEND**

SCALE: 1" = 100'

SYMBOL	DESCRIPTION
	P-5 PAVING
	P-2 PAVING
	1" ± OVERLAY
	CONCRETE
	PAVING TO BE REMOVED



**APPROVED**  
PLANNING BOARD  
of HOWARD COUNTY  
DATE: FEBRUARY 10, 2000

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

*Chad Dammann* 2/9/00  
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

*Condi Hamilton* 2/17/00  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Paul S. Kauter* 3/29/00  
DIRECTOR DATE

Date	No.	Revision Description
		THE MALL IN COLUMBIA PHASE IV TOWN CENTER SECTION 2 AREA 1 HOWARD COUNTY, MD LOT 42

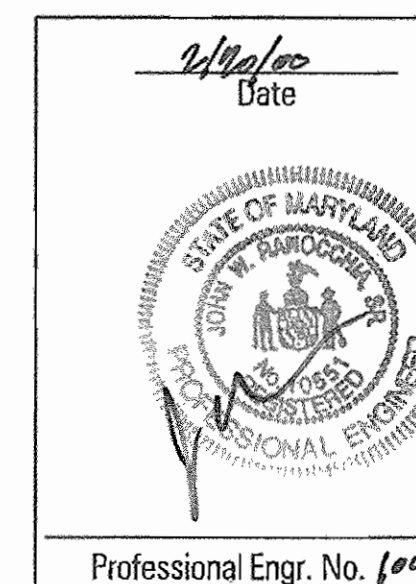
OWNER / DEVELOPER:  
THE HOWARD RESEARCH & DEVELOPMENT CORP.  
COLUMBIA MALL, INC.  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MARYLAND 21044

**DMW**  
Doherty-McCune-Walker, Inc.  
200 East Pennsylvania Avenue  
Towson, Maryland 21286  
(410) 296-3328  
Fax 296-4705

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

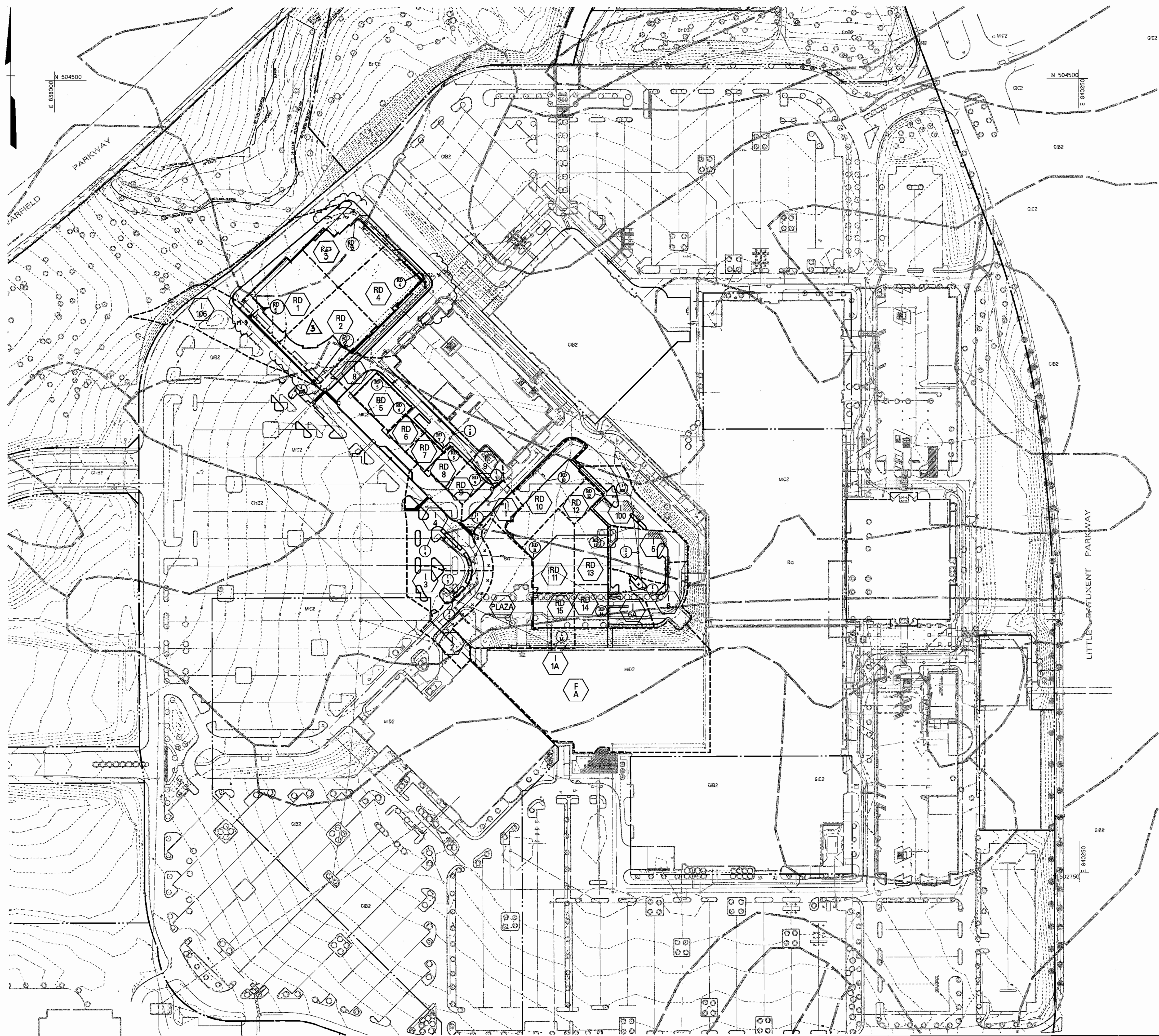
TITLE  
**PHASE IV  
PAVING LEGEND & SITE DETAILS**

Des By	MJP	Scale	AS SHOWN	Proj. No.	95019 B1
Drn By	SPV	Date	2-22-00		
Chk By	JWR	Approved			7 OF 21



Professional Engr. No. 15601

SDP-00-57



SOILS LEGEND

HYDROLOGIC SOILS	KEY	NAME	SLOPE
D	Bc	BAILIE SILT LOAM	
C	BcC2	BRANDYWINE LOAM	8 TO 15 PERCENT SLOPES, MODERATELY ERODED
C	BcD3	BRANDYWINE LOAM	15 TO 25 PERCENT SLOPES, SEVERELY ERODED
B	ChB2	CHESTER SILT LOAM	3 TO 8 PERCENT SLOPES, MODERATELY ERODED
B	GIB2	GLENELG LOAM	3 TO 8 PERCENT SLOPES, MODERATELY ERODED
B	GIC2	GLENELG LOAM	8 TO 15 PERCENT SLOPES, MODERATELY ERODED
C	GhB2	GLENVILLE SILT LOAM	3 TO 8 PERCENT SLOPES, MODERATELY ERODED
B	MC2	MANOR LOAM	8 TO 15 PERCENT SLOPES, MODERATELY ERODED
B	MD2	MANOR LOAM	15 TO 25 PERCENT SLOPES, MODERATELY ERODED

SEE SOILS MAP 24

NOTE: DRAINAGE AREA IS FOR ULTIMATE CONDITION.

HYDROLOGIC CHART

NO.	AREA	C	% IMP
RD 1	0.39	0.95	100
RD 2	0.50	0.95	100
RD 3	0.35	0.95	100
RD 4	0.25	0.95	100
RD 5	0.18	0.95	100
RD 6	0.09	0.95	100
RD 7	0.09	0.95	100
RD 8	0.09	0.95	100
RD 9	0.09	0.95	100
RD 10	0.25	0.95	100
RD 11	0.35	0.95	100
RD 12	0.11	0.95	100
RD 13	0.27	0.95	100
RD 14	0.18	0.95	100
RD 15	0.14	0.95	100
PLAZA	0.75	0.95	100
I- 1A	0.06	0.28	10
I- 1	0.23	0.95	100
I- 2	0.29	0.95	100
I- 3	0.24	0.95	100
I- 4	0.57	0.95	100
I- 5	0.38	0.95	100
I- 6	0.27	0.95	100
I- 6A	0.21	0.95	100
I- 7	0.58	0.95	100
I- 8	0.42	0.95	100
I- 9	0.09	0.95	100
F-A	2.60	0.95	100

**APPROVED**  
PLANNING BOARD  
OF HOWARD COUNTY  
DATE: FEBRUARY 10, 2000

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
*[Signature]* 2/9/00  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE  
*[Signature]* 3/17/00  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE  
*[Signature]* 3/20/00  
 DIRECTOR DATE

12/20/02 3 REVISE CINEMA AND DRAINS  
 Date No. Revision Description  
 THE MALL IN COLUMBIA  
 PHASE IV  
 TOWN CENTER  
 SECTION 2 AREA 1  
 LOT 42  
 OWNER /DEVELOPER:  
 THE HOWARD RESEARCH & DEVELOPMENT CORP.  
 COLUMBIA MALL, INC.  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044

**DMW**  
 Dean McCreary-Walker, Inc.  
 200 East Pennsylvania Avenue  
 Towson, Maryland 21286  
 (410) 296-3255  
 Fax 296-4705  
 A Team of Land Planners,  
 Landscape Architects,  
 Engineers, Surveyors &  
 Environmental Professionals



TITLE  
**PHASE IV  
 STORM DRAIN  
 DRAINAGE AREA MAP**  
 Des By RLH Scale 1" = 100' Proj. No. 95019B1  
 Dwn By KDE Date 2-22-00  
 Chk By JWR Approved 8 OF 21



**INLET SCHEDULE**

NO.	TYPE	Q. 2YR.	INV. OUT.	TOP ELEV.	DETAIL	WIDTH	LOCATION
I-11	YARD INLET	0.02	379.00	381.70	SD	2'-6"	ROAD 'L' STA 1+79.31 LT
I-12	YARD INLET	0.08	379.84	387.50	SD	2'-6"	ROAD 'L' STA 1+28.32 LT

**INLET SCHEDULE**

NO.	TYPE	Q. 2YR.	INV. OUT.	TOP ELEV.	DETAIL	WIDTH	LOCATION
I-1	A-10	1.30	353.57	374.00	SD 4.41	4'-0"	ROAD 'J' STA 9+52 ± BUILT OVER EX. PIPE
I-1A	DOUBLE 'S'	0.11	356.40	361.30	SD 4.23	---	BUILT OVER EX. PIPE
I-2	A-10	1.65	355.09	373.70	SD 4.41	4'-6"	ROAD 'L' STA 9+26
I-3	A-10	1.36	369.30	373.20	SD 4.41	2'-6"	---
I-4	A-10	3.76	367.70 ±	372.90	SD 4.41	2'-6"	BUILT OVER EX. PIPE
I-5	DOUBLE 'S'	2.12	368.15	374.00	SD 4.23	---	---
I-6	A-10	1.53	369.19	375.00	SD 4.41	2'-6"	---
I-7	A-10	3.25	368.80	378.50	SD 4.41	2'-6"	---
I-8	DOUBLE 'S' COMB.	2.35	367.90	374.50	SD 4.34	---	SERVICE ROAD STA 2+04
I-9	A-10	0.51	369.75	374.50	SD 4.41	2'-6"	SERVICE ROAD STA 3+26

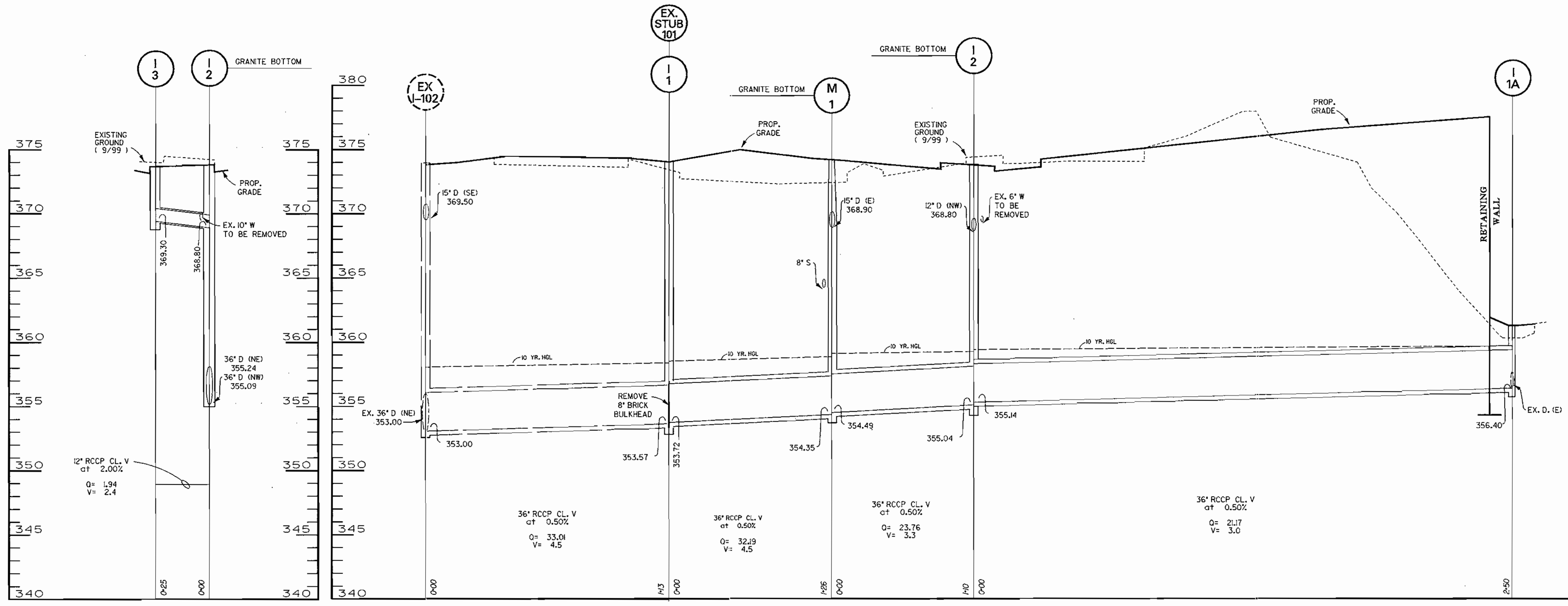
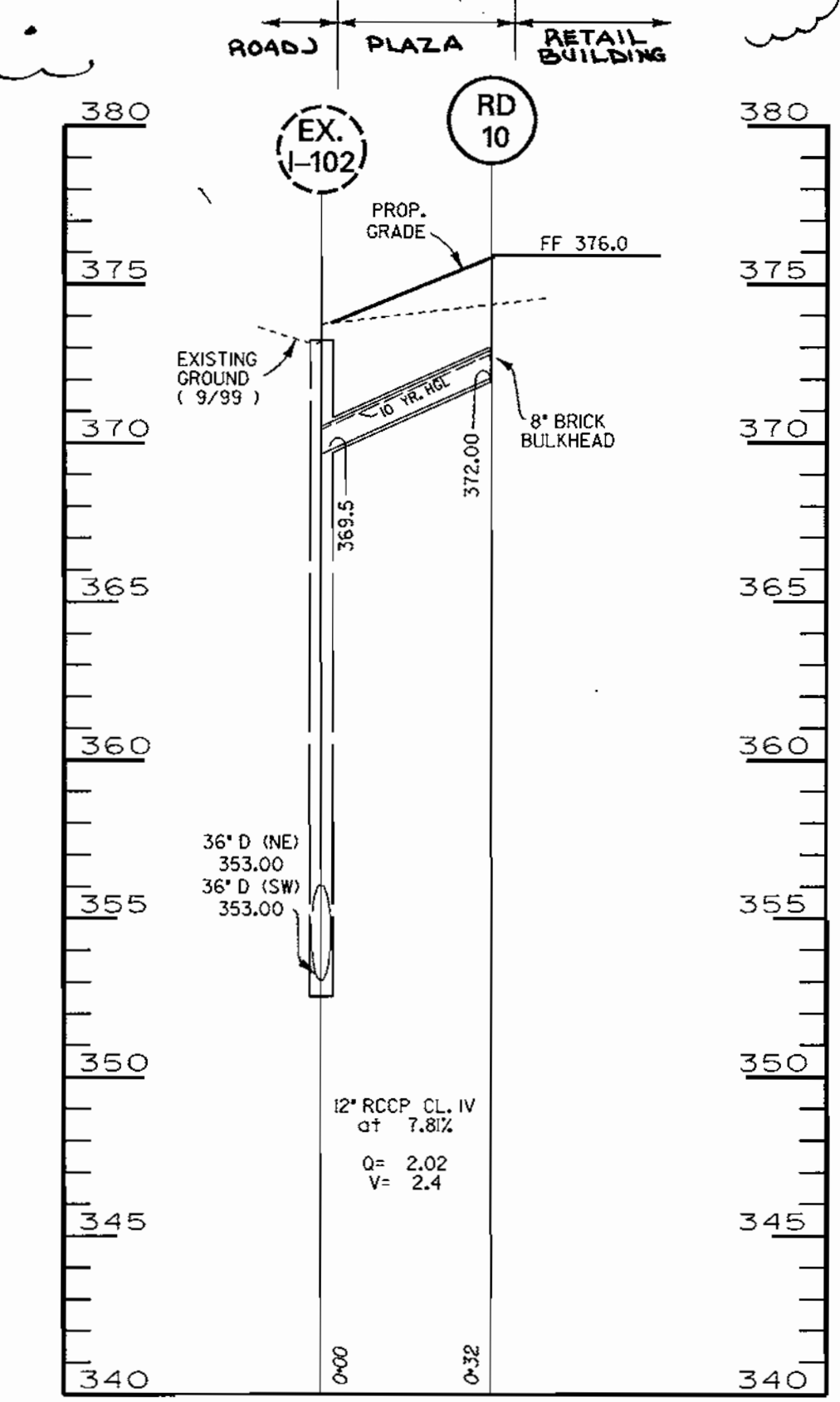
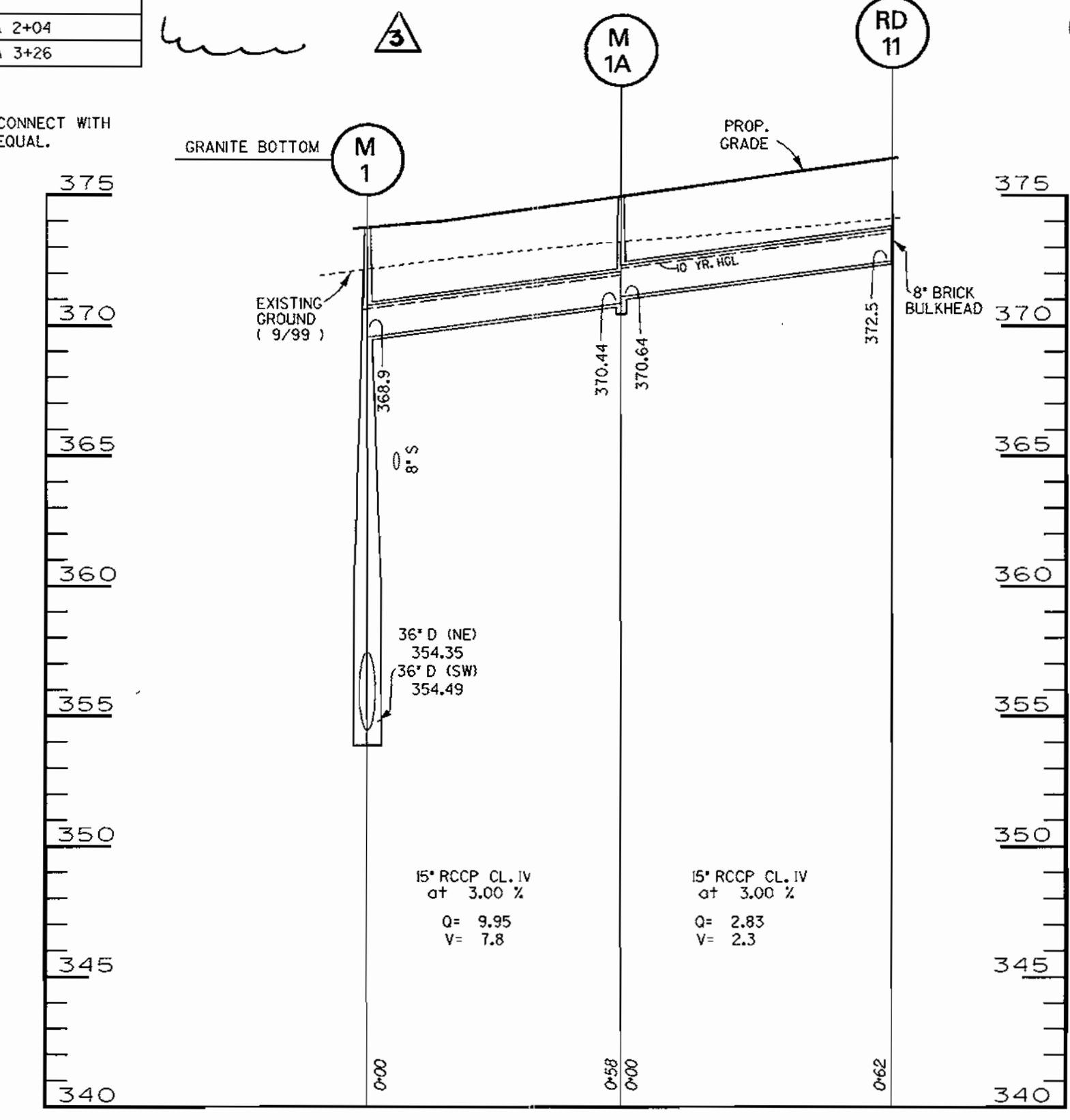
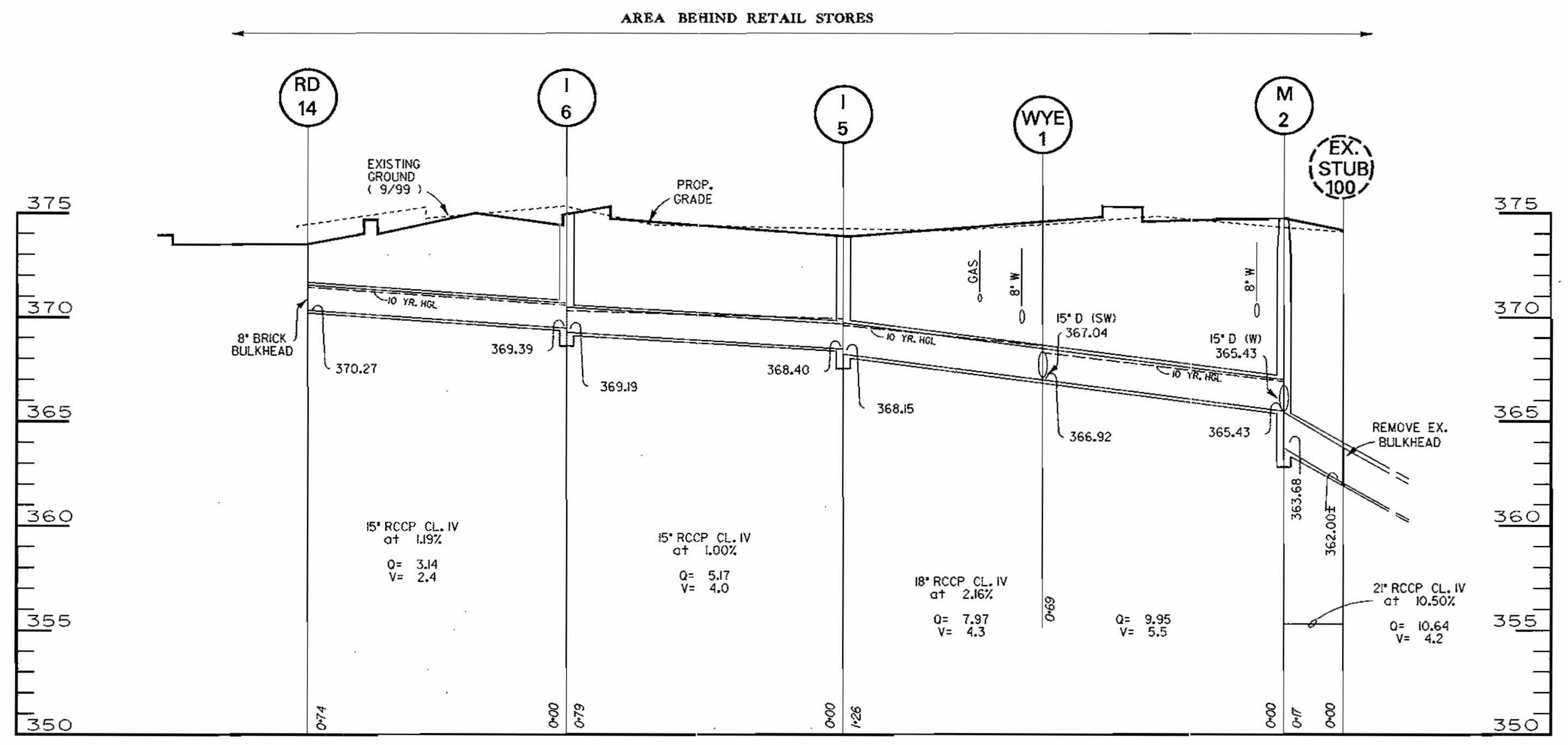
**MANHOLE SCHEDULE**

NO.	TYPE	SIZE	INV. OUT.	TOP ELEV.	DETAIL	LOCATION
M-1	48" DIA.	354.35	373.80	G 5.12	ROAD 'L' STA 8+02 2' LT	
M-1A	48" DIA.	370.44	374.50	G 5.12	---	
M-2	48" DIA.	363.68	374.30	G 5.12	N 503437 E 839034	
M-3	48" DIA.	379.74	390.00	G 5.12	ROAD 'L' STA 1+00 17' LT	
M-4	48" DIA.	366.16	376.50	G 5.12	ROAD 'J' STA 2+18 38 RT	
M-5	48" DIA.	367.15	371.50	G 5.12	ROAD 'J' STA 2+61 20 RT	
M-6	48" DIA.	374.00	378.00	G 5.12	ROAD 'J' STA 0+36 20 RT	

**STRUCTURE SCHEDULE**

NO.	TYPE	SIZE	INV. OUT.	DETAIL
WYE 1	WYE CONNECTION	15 x 18	366.92	HO. CO. SD. LI
WYE 2	WYE CONNECTION	12 x 12	369.47	HO. CO. SD. LI
WYE 3	WYE CONNECTION	8 x 12	378.88	HO. CO. SD. LI
WYE 4	WYE CONNECTION	8 x 12	379.52	HO. CO. SD. LI
WYE 5	WYE CONNECTION	12 x 8	372.36	HO. CO. SD. LI
WYE 6	WYE CONNECTION	12 x 8	373.82	HO. CO. SD. LI

• PROVIDE GRANITE BOTTOM AND INTERMEDIATE LANDING (DETAIL G 5J5) ALL INVERTS TO BE FULLY DEVELOPED  
 •• TOP OF CURB ELEV. UNLESS NOTED  
 ••• PROVIDE RETICULAR GRATE TOP ELEV. = GRATE  
 NOTE: AT ALL ROOF DRAIN CONNECTIONS, CONNECT WITH "FERRO" COUPLING OR APPROVED EQUAL.



**STORM DRAIN PROFILES**

SCALE: HORIZ. 1"=30'  
 VERT. 1"=5'

**APPROVED**  
 PLANNING BOARD  
 of HOWARD COUNTY  
 DATE: FEBRUARY 10, 2000



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
 [Signature] 3/5/00 DATE  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK  
 [Signature] 7/12/00 DATE  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 [Signature] 7/20/00 DATE  
 DIRECTOR

12-20-02 3 REVISE SCHEDULES  
 1-4-2000 A REVISE PROFILES  
 Date No. Revision Description

**THE MALL IN COLUMBIA**  
 PHASE IV  
 TOWN CENTER  
 SECTION 2 AREA 1  
 HOWARD COUNTY, MD  
 LOT 42

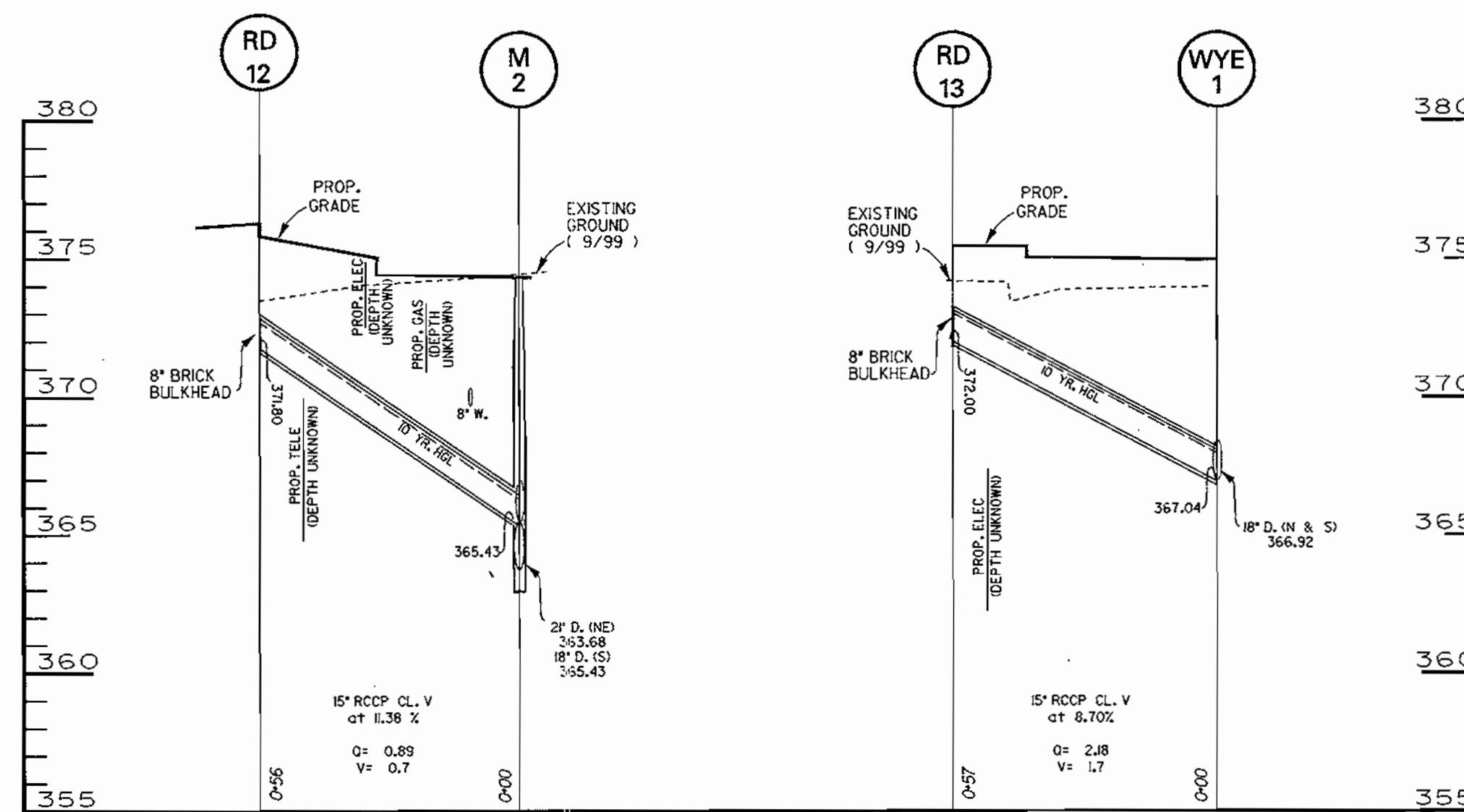
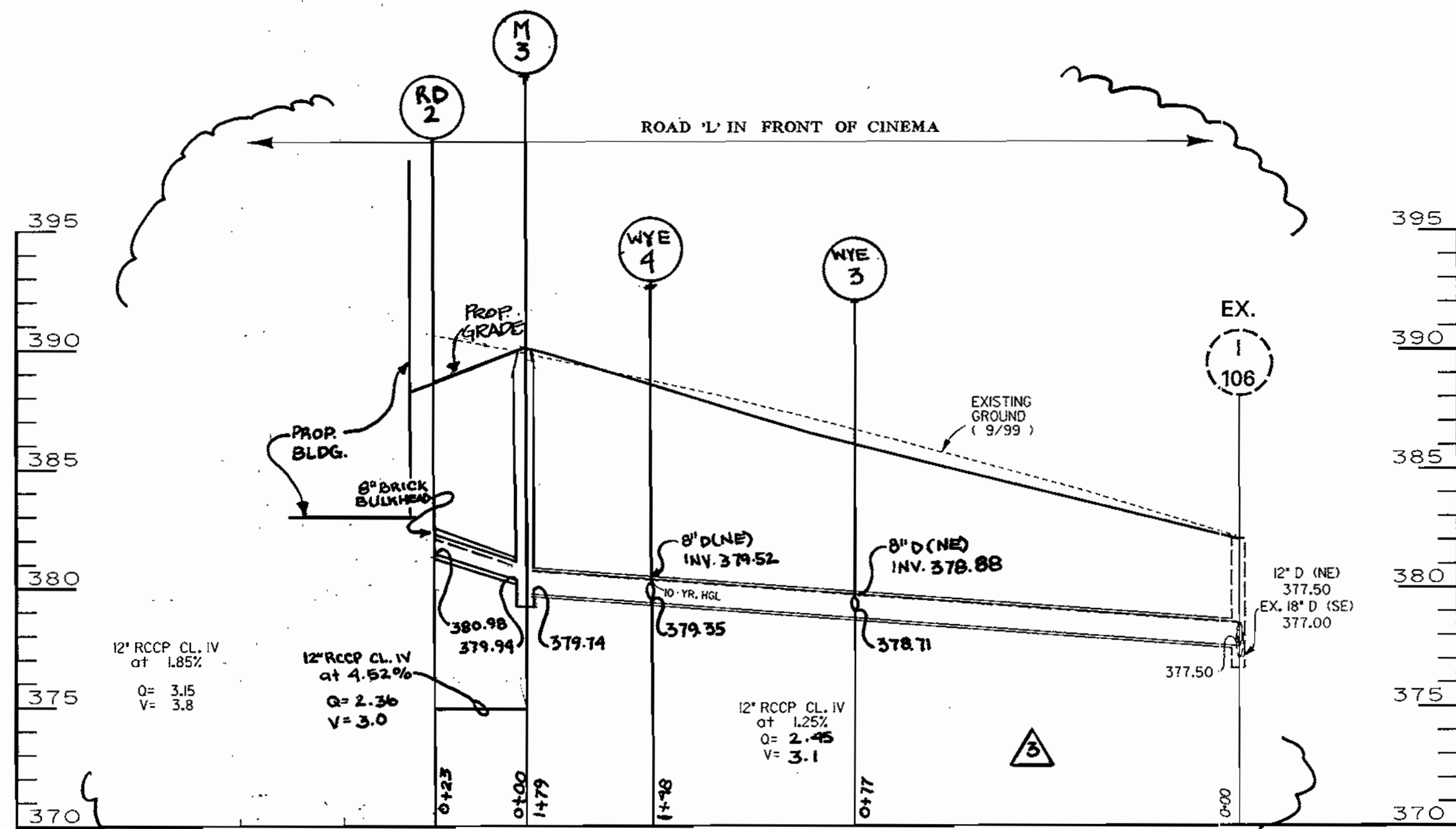
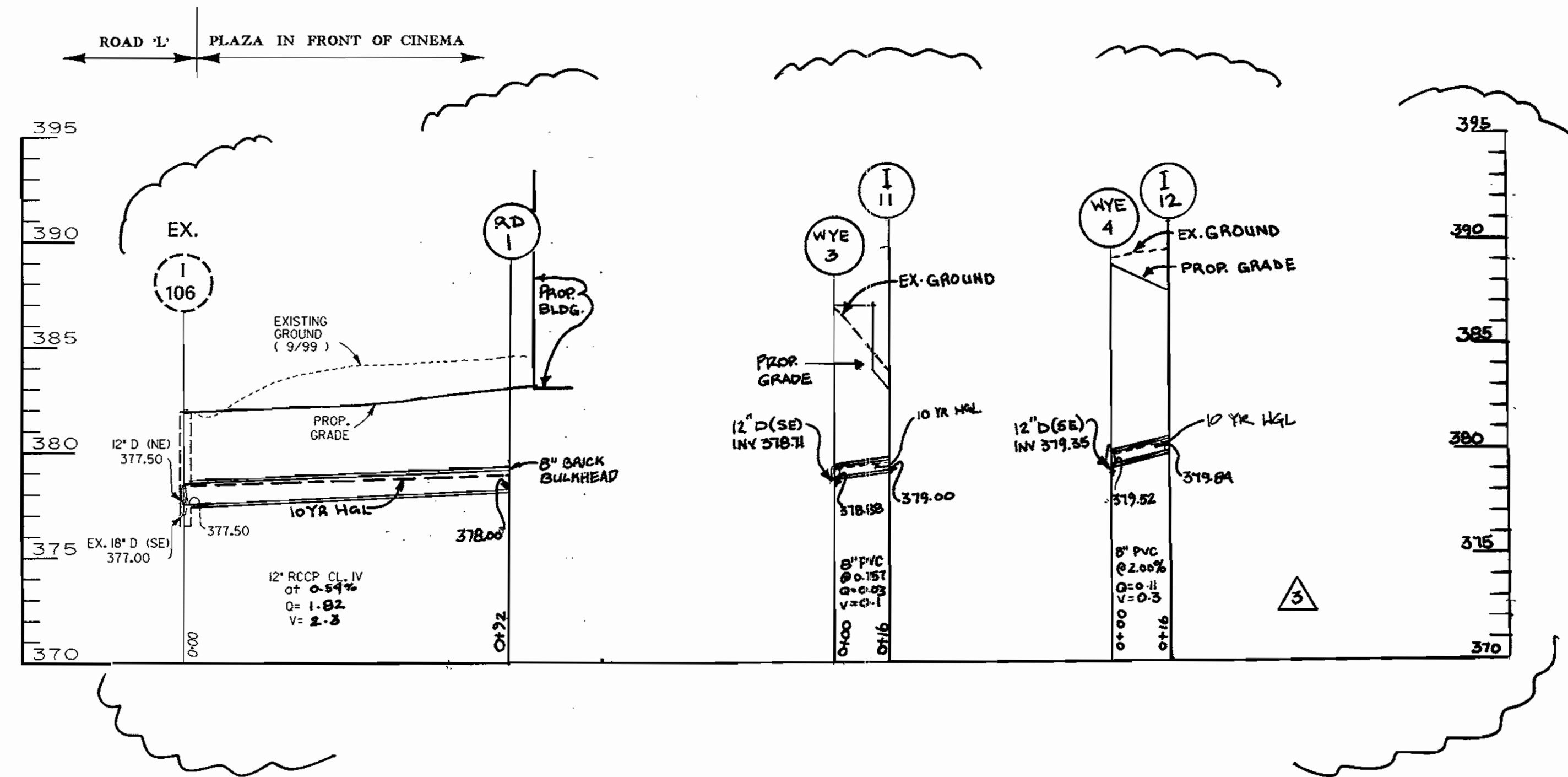
OWNER / DEVELOPER:  
 THE HOWARD RESEARCH & DEVELOPMENT CORP.  
 COLUMBIA MALL, INC.  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044

**DMW**  
 Draft McCusker-Walker, Inc.  
 200 East Pennsylvania Avenue  
 Towson, Maryland 21286  
 (410) 296-3393  
 Fax 296-4705

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

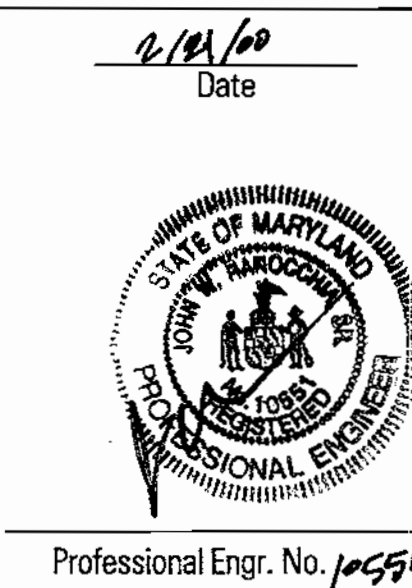
TITLE  
**PHASE IV  
 STORM DRAIN PROFILES**

Des By	RLH	Scale	HORIZ 1"=30' VERT 1"=5'	Proj. No.	95019B1
Drn By	KMF	Date	2-22-00		
Chk By	JWR	Approved			9 OF 21



**STORM DRAIN PROFILES**

SCALE: HORIZ. 1" = 30'  
VERT. 1" = 5'



**APPROVED**  
PLANNING BOARD  
OF HOWARD COUNTY  
DATE: FEBRUARY 10, 2000

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
 Chief, Development Engineering Division MK 2/10/00  
 Chief, Division of Land Development 3/17/00  
 Director 3/20/00

Date	No.	Revision Description
12-20-02	3	REVISE PROFILES
1-4-2000	A	REVISED PROFILES

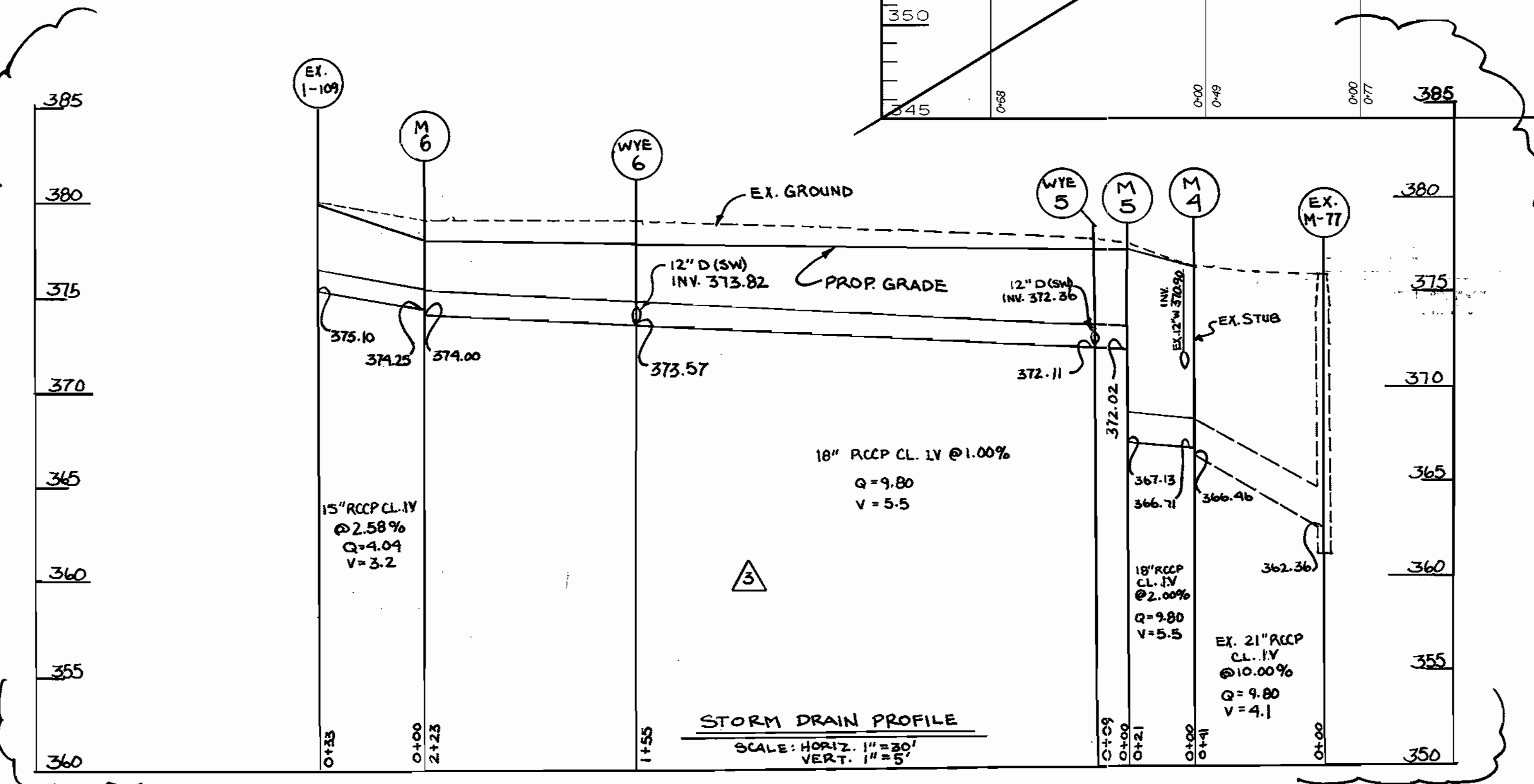
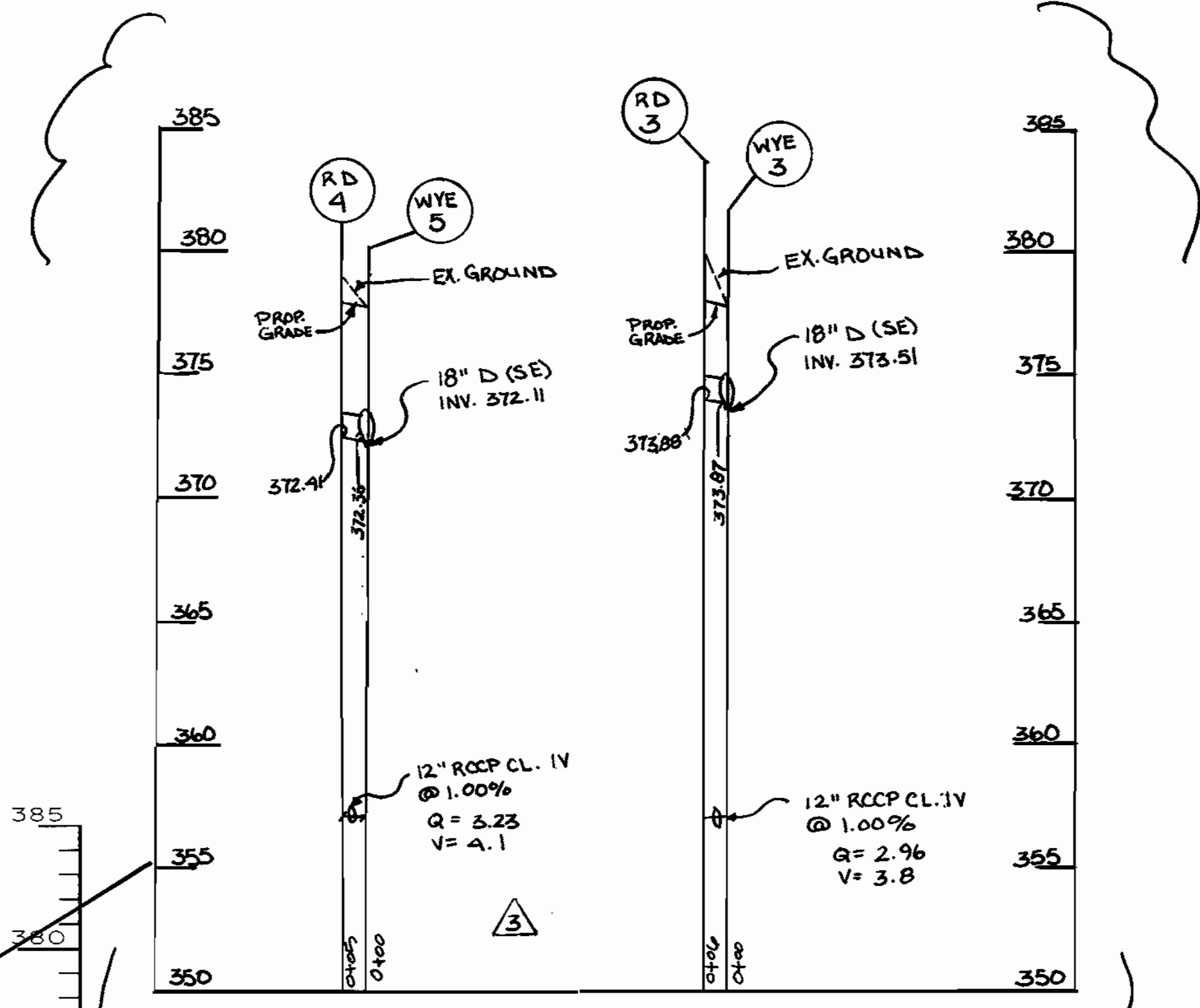
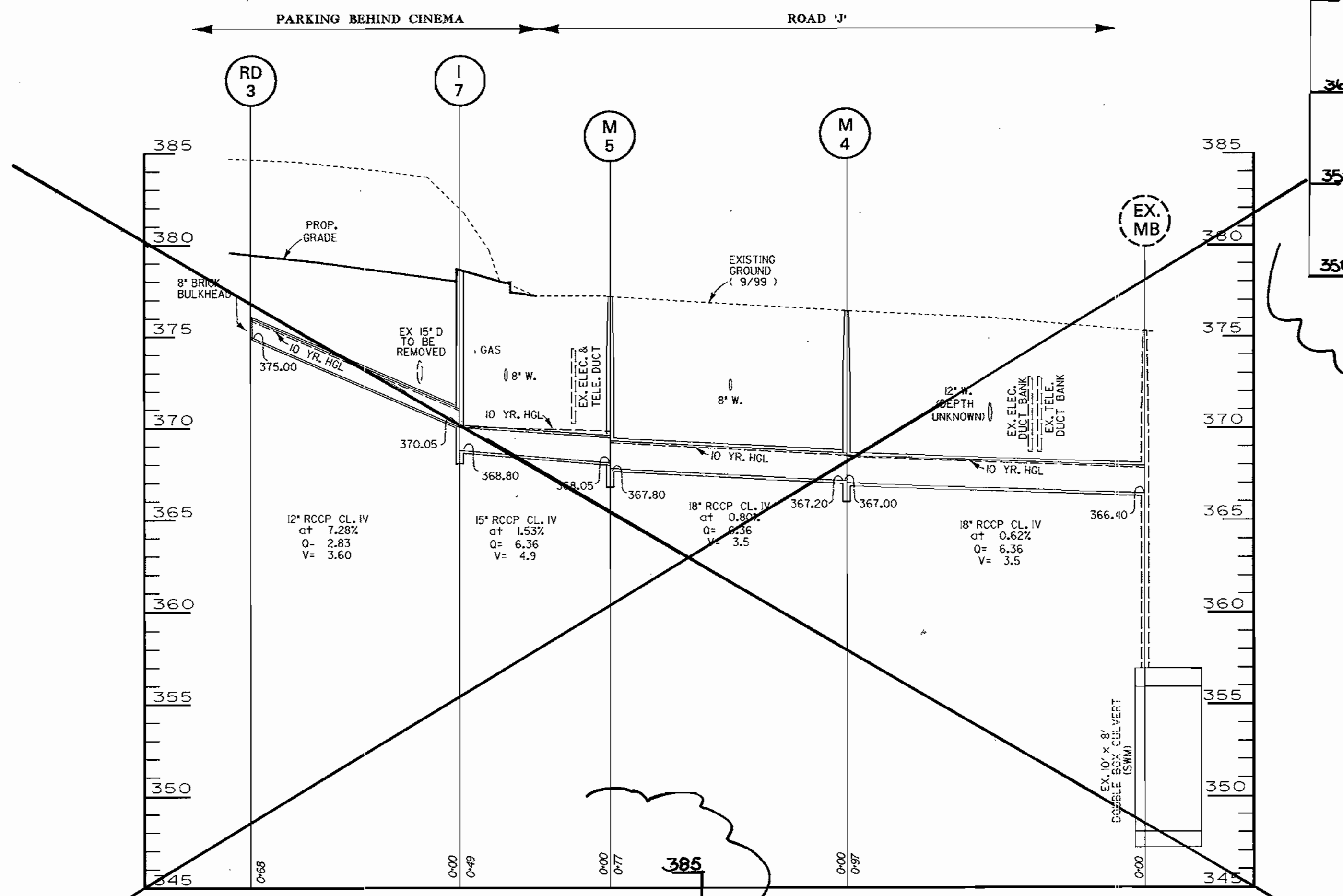
**THE MALL IN COLUMBIA**  
 PHASE IV  
 TOWN CENTER  
 SECTION 2 AREA 1  
 HOWARD COUNTY, MD  
 LOT 42

OWNER / DEVELOPER:  
 THE HOWARD RESEARCH & DEVELOPMENT CORP.  
 COLUMBIA MALL, INC.  
 10275 LITTLE PATUXENT PARKWAY  
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A Team of Land Planners,  
 Landscape Architects,  
 Engineers, Surveyors &  
 Environmental Professionals

TITLE				
<b>PHASE IV STORM DRAIN PROFILES</b>				
Des By	RLH	Scale	HORIZ. 1" = 30' VERT. 1" = 5'	Proj. No. 95019B1
Drn By	KDE	Date	2-22-00	10 OF 21
Chk By	JWR	Approved		



Date: 2/10/00  
 Professional Engr. No. 10951

**APPROVED**  
 PLANNING BOARD  
 of HOWARD COUNTY  
 DATE: FEBRUARY 10, 2000

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	
Chief, Development Engineering Division MKK	3/6/00
Chief, Division of Land Development	3/12/00
Director	3/24/00
12-2000	3 REVISE PROFILES
1-4-2000	A REVISED PROFILE
Date	No. Revision Description
THE MALL IN COLUMBIA PHASE IV TOWN CENTER SECTION 2 AREA 1 HOWARD COUNTY, MD LOT 42	
OWNER / DEVELOPER: THE HOWARD RESEARCH & DEVELOPMENT CORP. COLUMBIA MALL, INC. 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044	
<b>DMW</b> Daft-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	
TITLE <b>PHASE IV          STORM DRAIN PROFILES</b>	
Des By RLH	Scale HORIZ. 1"=30' VERT. 1"=5'
Dim By KDE	Date 2-22-00
Chk By JWVR	Approved
Proj. No. 95019B1	11 OF 21

PROPOSED SANITARY MANHOLE

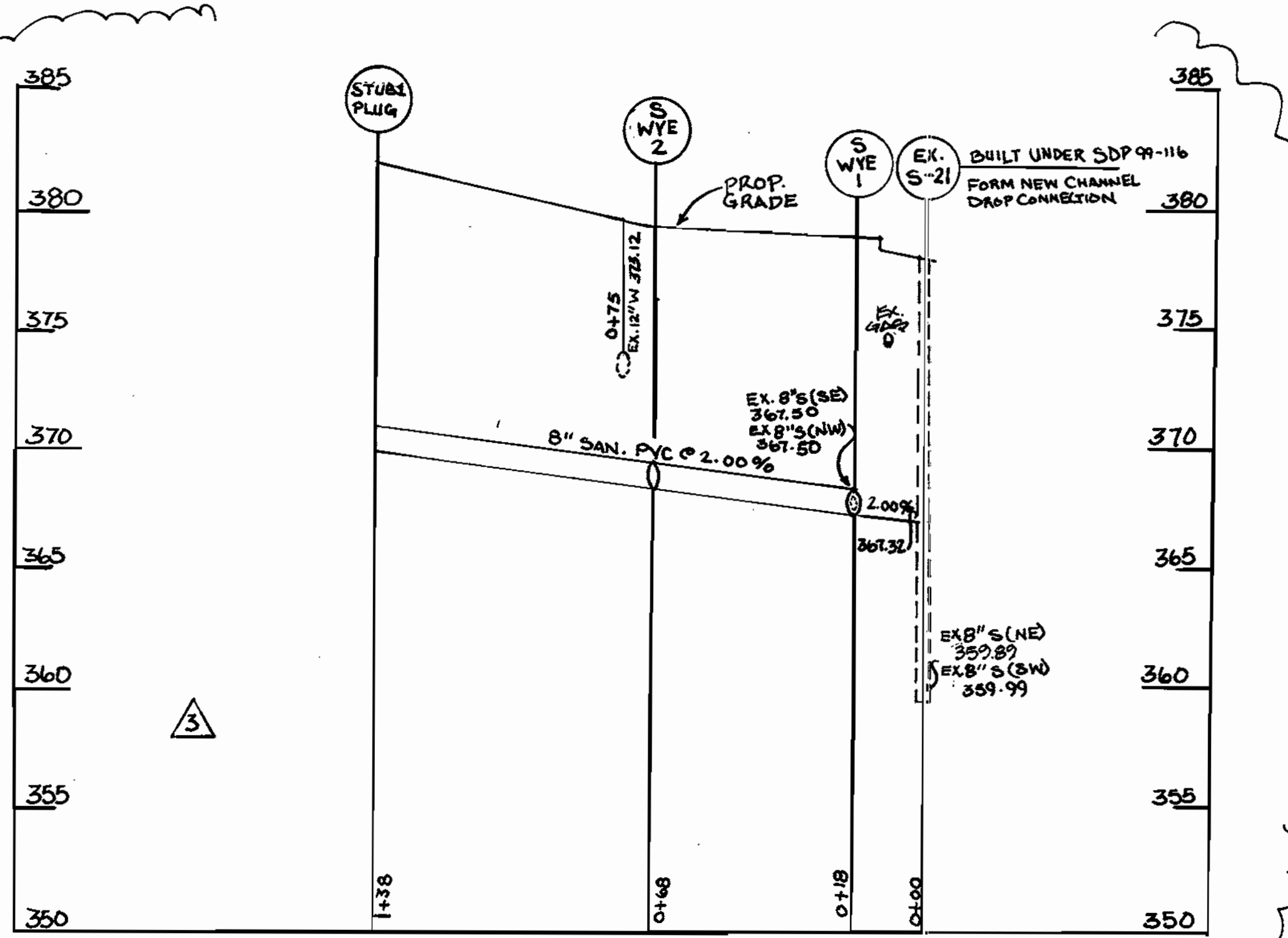
NO.	COORDINATE
S-10	STA. 10+49 ROAD 'J' 7' LT
S-11	STA. 8+14 ROAD 'L' 8' LT

PROPOSED SANITARY CONNECTION

NO.	COORDINATE
STUB-1	AS SHOWN
STUB-3	N 503436.42 E 839044.93
STUB-4	EXTEND EX. 8" SAN. N 503632.60 E 839091.01
WYE-1	AS SHOWN
WYE-2	AS SHOWN

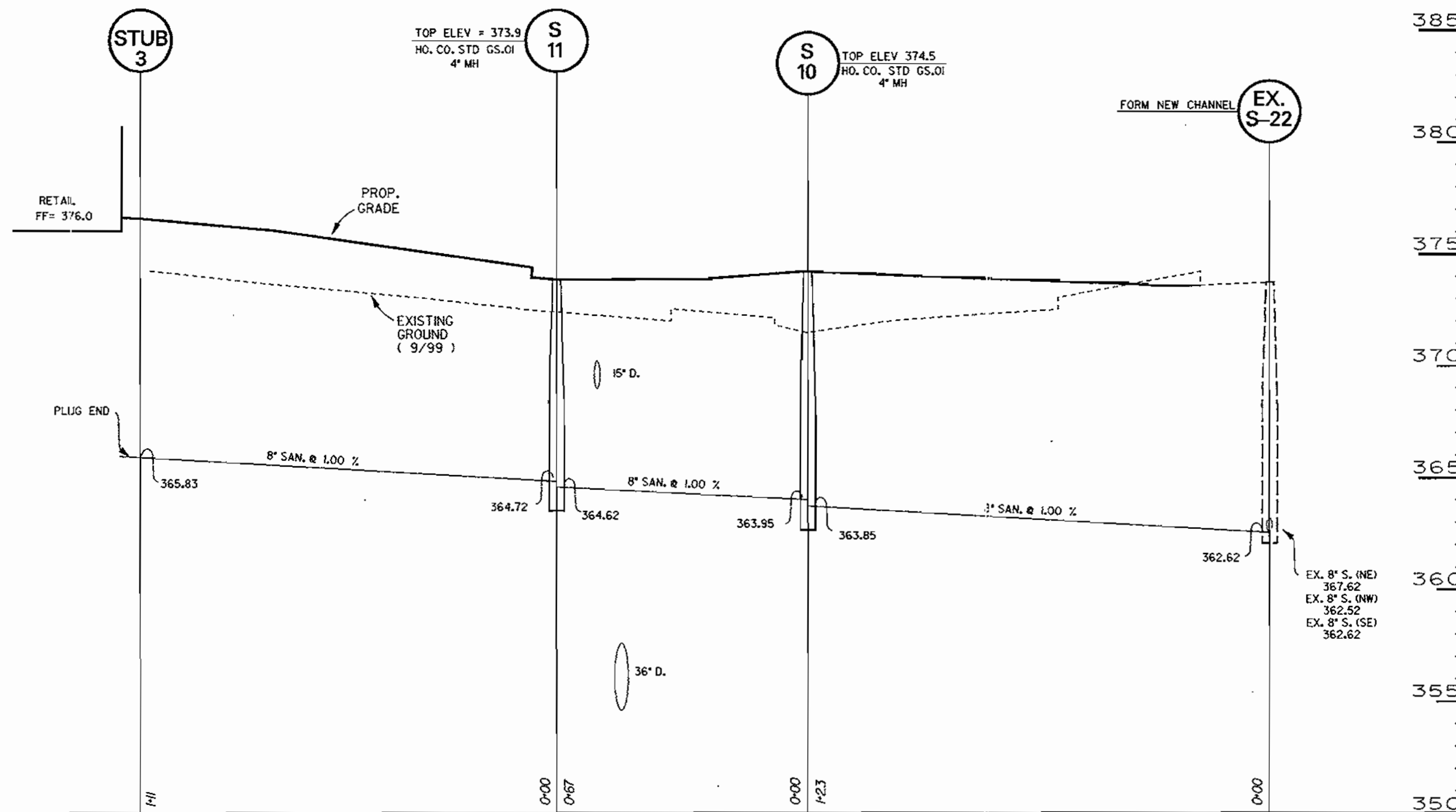
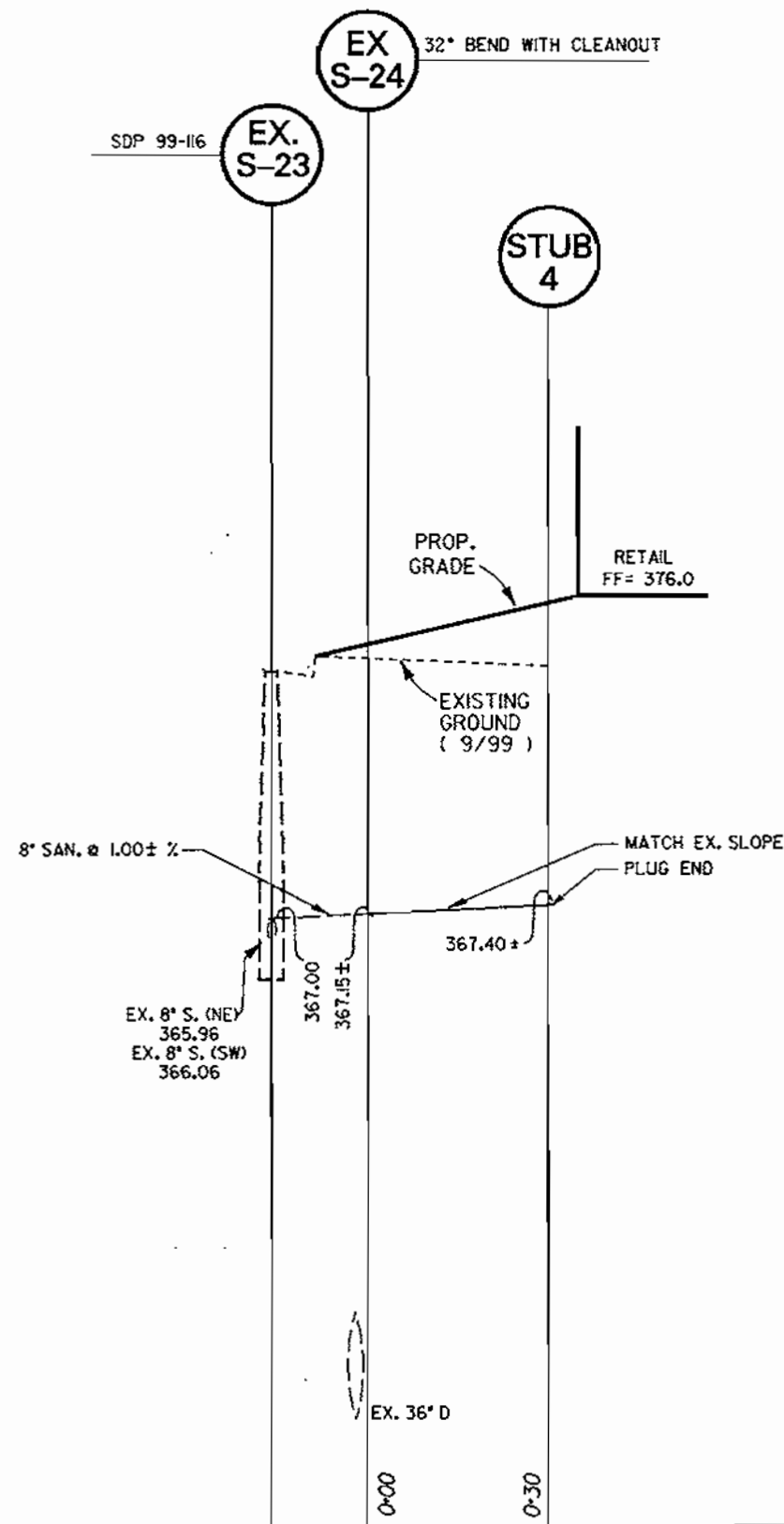
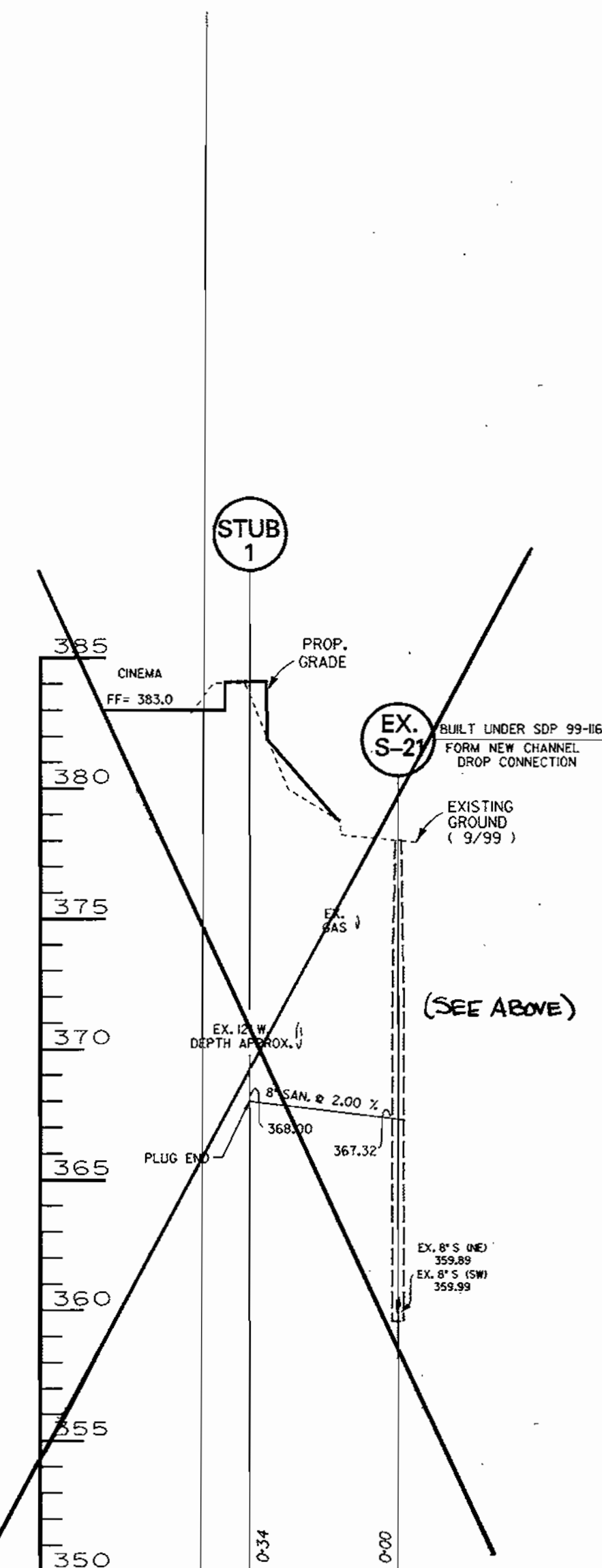
PROPOSED SANITARY CLEANOUTS

NO.	COORDINATE
CO-1	AS SHOWN
CO-2	AS SHOWN



SANITARY SEWER PROFILE

SCALE: HORIZ. 1"=30'  
VERT. 1"=5'



SANITARY SEWER PROFILES

SCALE: HORIZ. 1"=30'  
VERT. 1"=5'

APPROVED  
PLANNING BOARD  
of HOWARD COUNTY  
DATE February 19, 2000



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
 Chief, Development Engineering Division MK 3/9/00  
 Chief, Division of Land Development 3/17/00  
 Director 2/22/00

Date	No.	Revision Description
12-20-00	3	REVISE PROFILES & SCHEDULES
1-4-2000	A	REVISE PROFILES

THE MALL IN COLUMBIA  
 PHASE IV  
 TOWN CENTER  
 SECTION 2 AREA 1  
 HOWARD COUNTY, MD  
 LOT 42  
 OWNER / DEVELOPER:  
 THE HOWARD RESEARCH & DEVELOPMENT CORP.  
 COLUMBIA MALL, INC.  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044



TITLE  
**PHASE IV  
 SANITARY SEWER PROFILES**

Des By	RLH	Scale	HORIZ. 1"=30' VERT. 1"=5'	Proj. No.	95019B1
Dwn By	KDE	Date	2-22-00		
Chk By	JWR	Approved			12 OF 21

**PROPOSED 8" WATER ROAD 'J' & 'L'**

STATION	LOCATION
0+00	EX. 8"x8" TEE & CAP. ROAD 'J' STA. 9+73± 3' RT.±
1+02	45° HORIZ. BEND ROAD 'L' STA. 7+44 12' RT.
1+08	45° HORIZ. BEND ROAD 'L' STA. 7+40 16' RT.
2+19	FIRE HYDRANT ROAD 'L' STA. 6+29 16' RT.

TEST PIT LOCATION

**PROPOSED 8" WATER FOR RESTAURANT # 2**

STATION	LOCATION
1+58	45° HORIZ. BEND ROAD 'L' STA. 5+86 41' LT.
1+64	45° HORIZ. BEND ROAD 'L' STA. 5+82 45' LT.

**PROPOSED 8" WATER BEHIND RETAIL STORES**

STATION	COORDINATES
0+00	12"x8" TEE N 503695± E 839229±
0+59	45° HORIZ. BEND N 503652 E 839192
0+65	45° HORIZ. BEND N 503646 E 839192
2+21	45° HORIZ. BEND N 503539 E 839298
2+27	45° HORIZ. BEND N 503533 E 839298
2+93	45° HORIZ. BEND N 503485 E 839250
3+30	8" CAP N 503485 E 839219

TEST PIT LOCATION

**PROPOSED 8" WATER FOR PROFILE 'A'**

STATION	LOCATION
0+00	6"x12" TEE ROAD 'J' STA. 2+76± 27' LT.
0+15	90° HORIZ. BEND ROAD 'J' STA. 2+61 27' LT.
0+21	FIRE HYDRANT ROAD 'J' STA. 2+11 21' LT.

**PROPOSED 8" WATER FOR PROFILE 'B'**

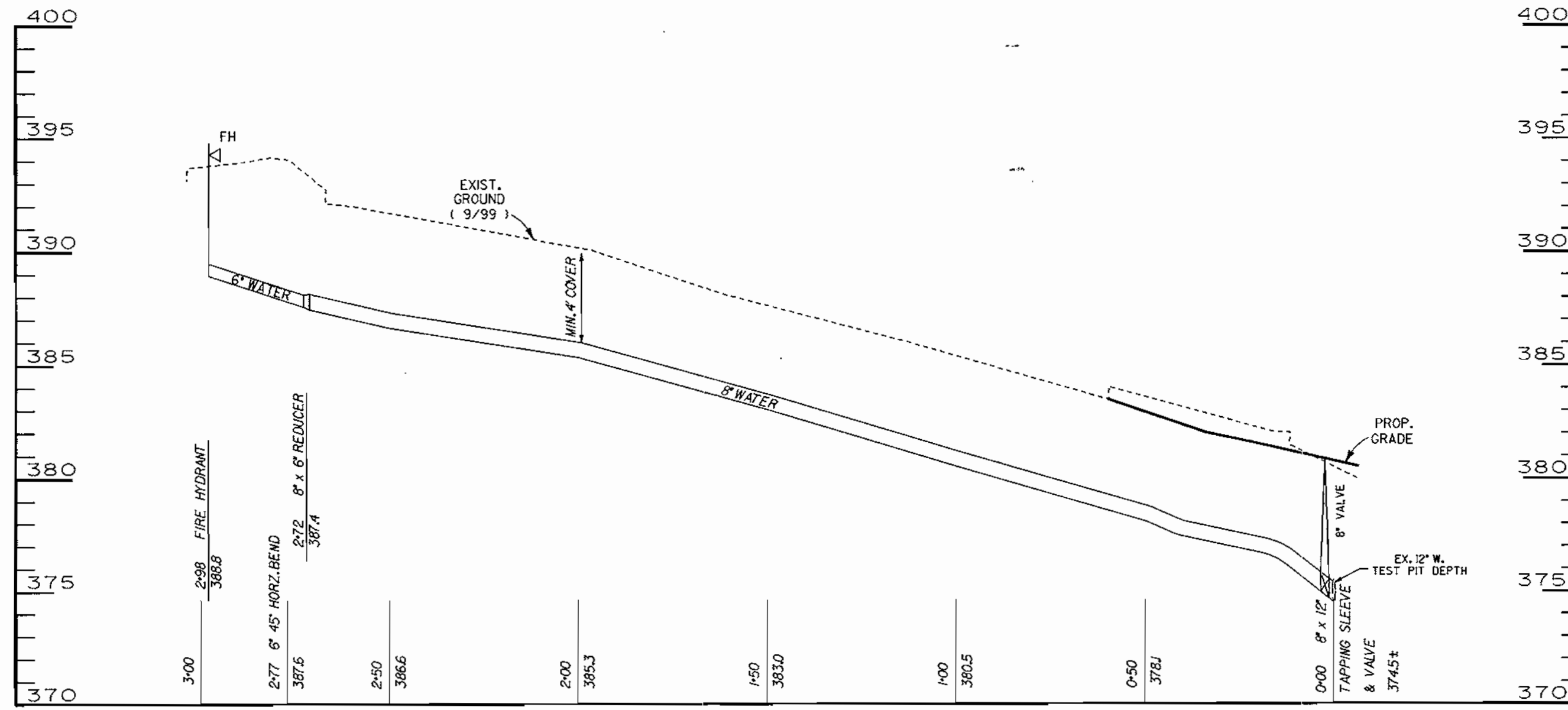
STATION	LOCATION
0+00	8" X 8" TEE AS SHOWN
0+09	8" CAP AS SHOWN

**PROPOSED 8" WATER FOR PROFILE 'C'**

STATION	LOCATION
0+00	8" X 8" TEE ROAD 'L' STA. 1+93 17' LT.
1+02	FIRE HYDRANT ROAD 'J' STA. 0+91 17' RT.

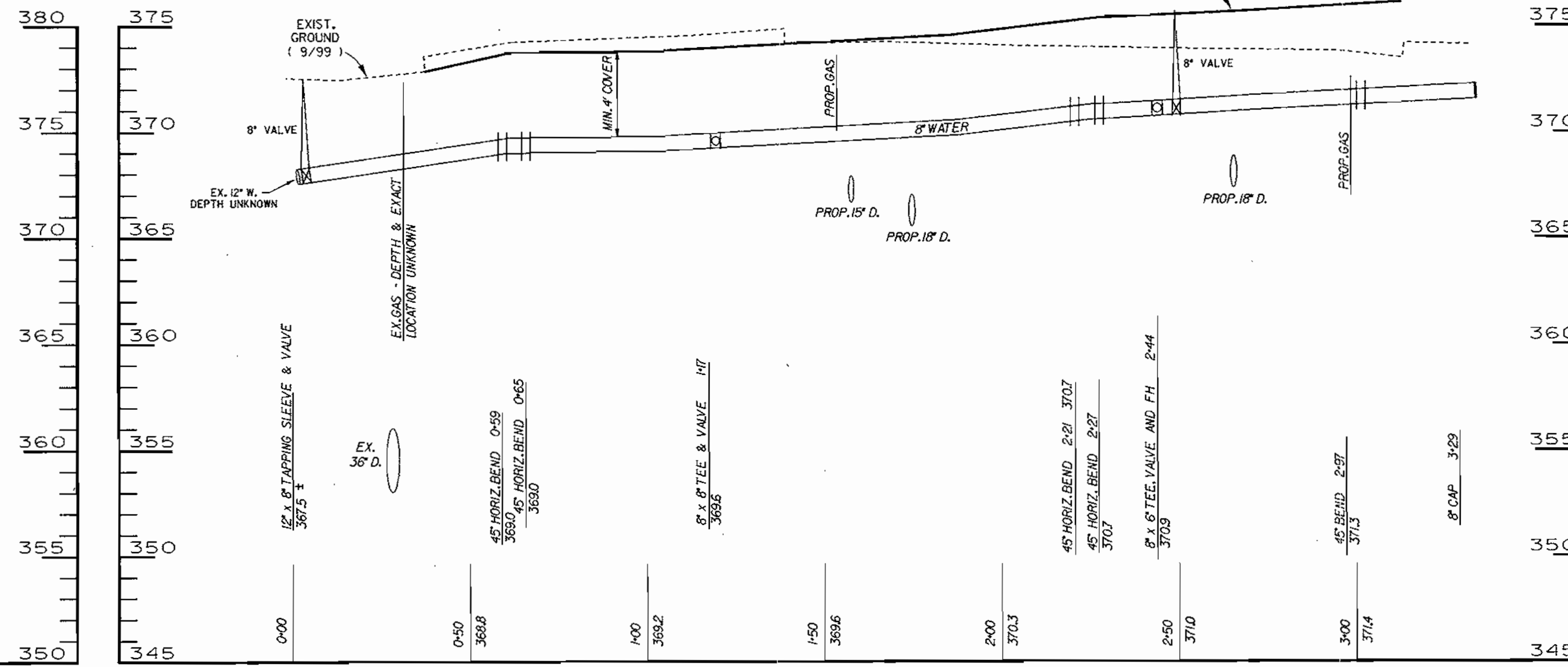
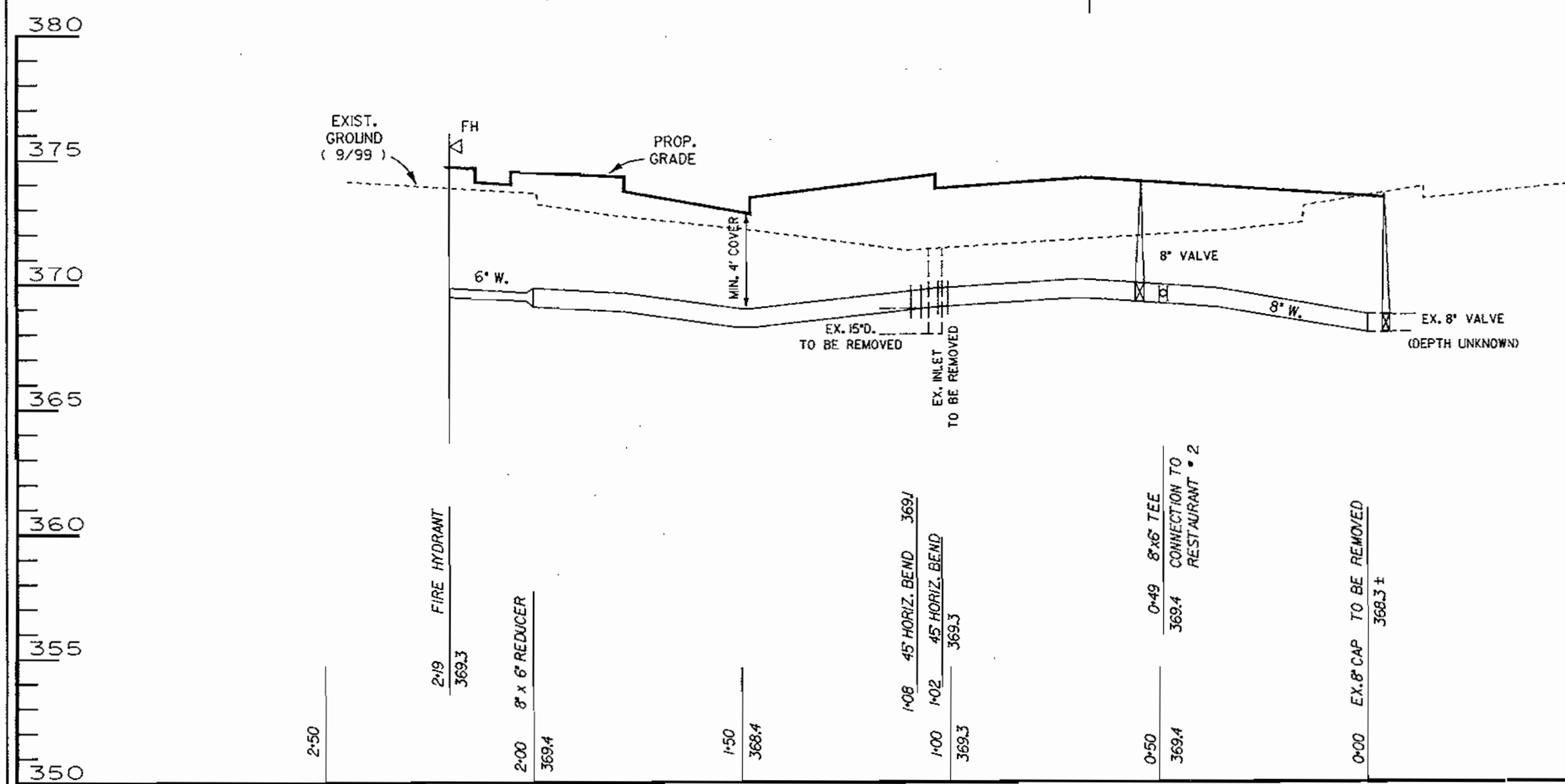
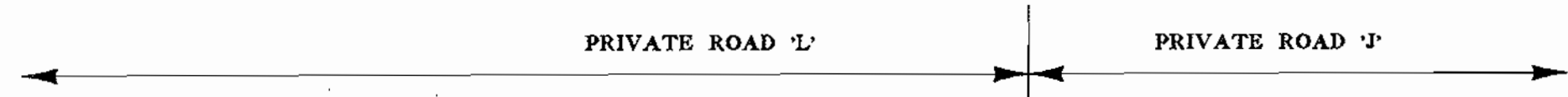
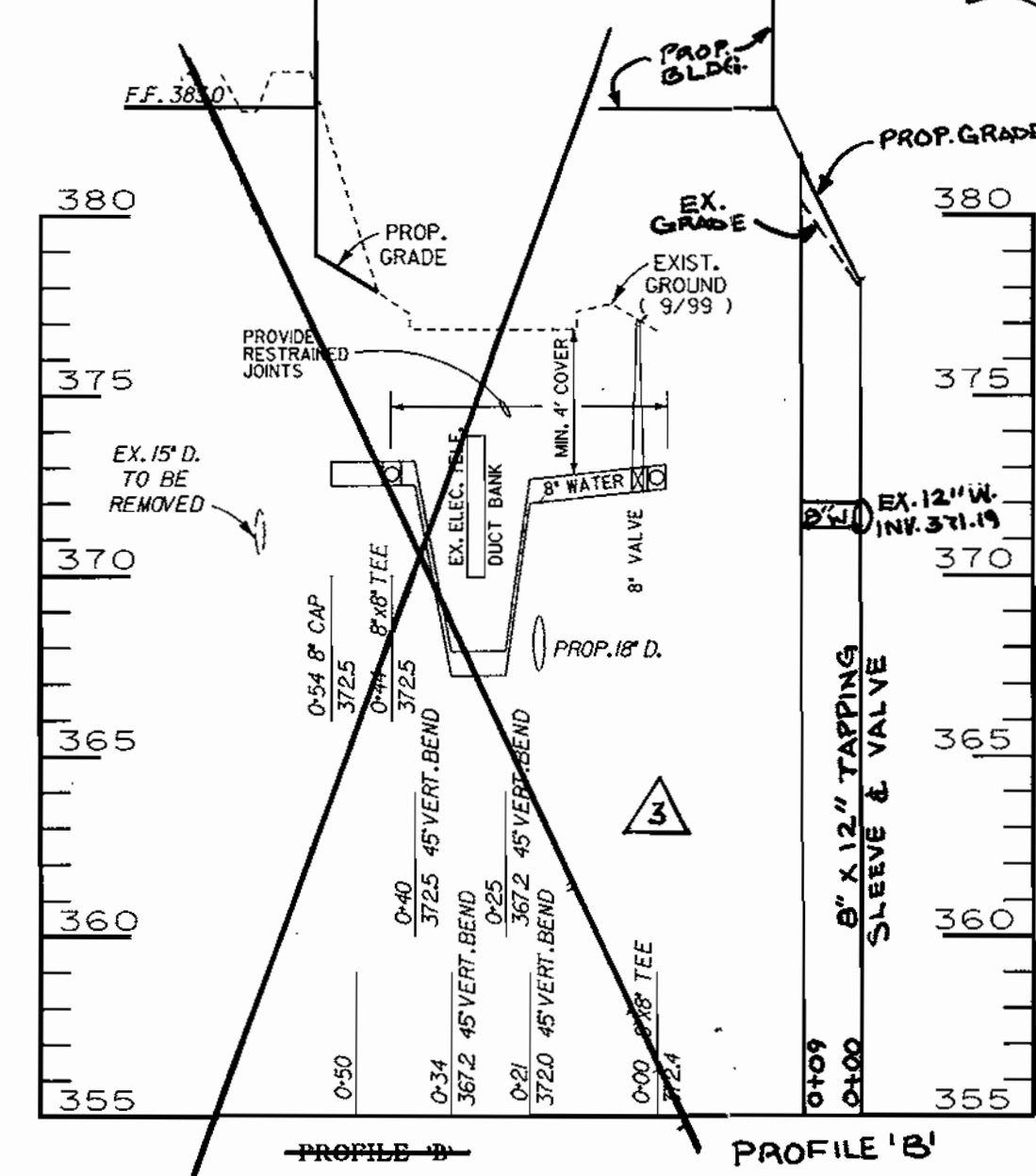
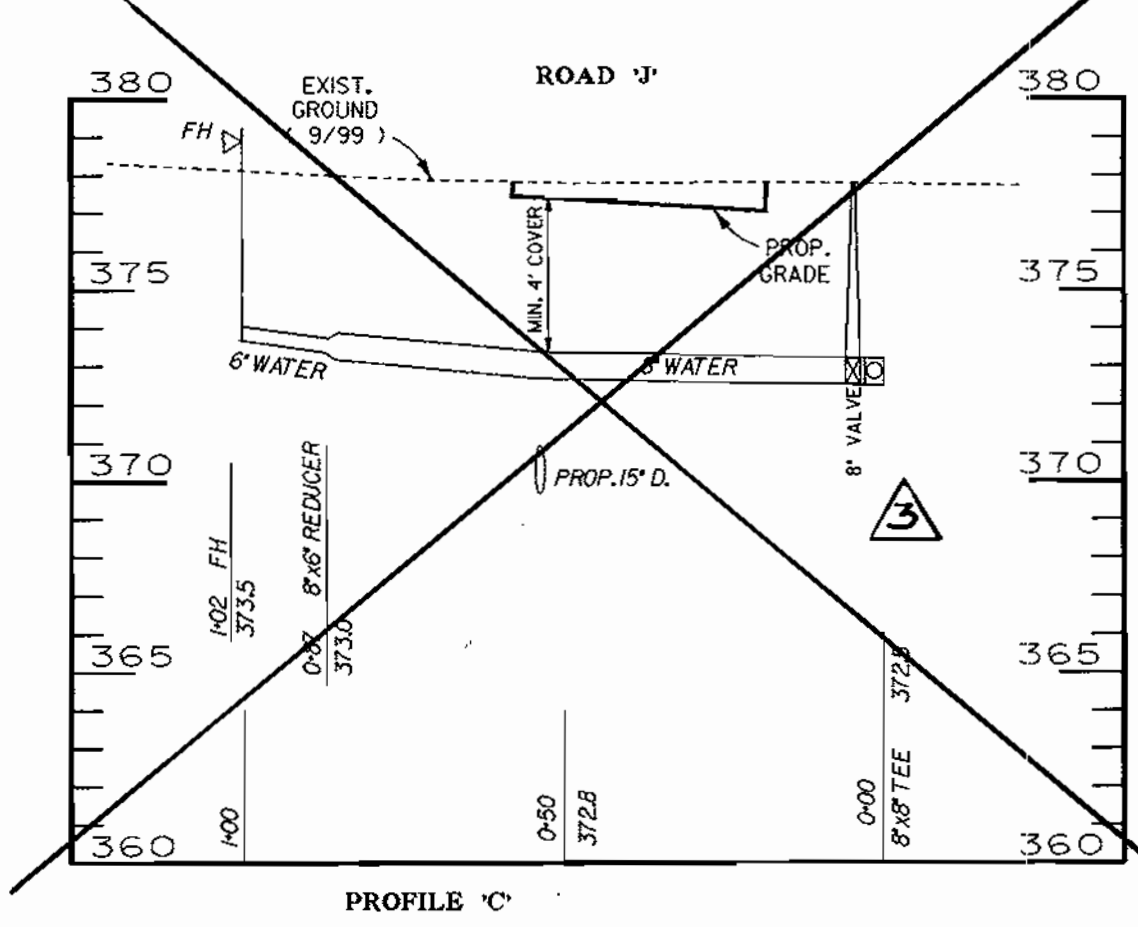
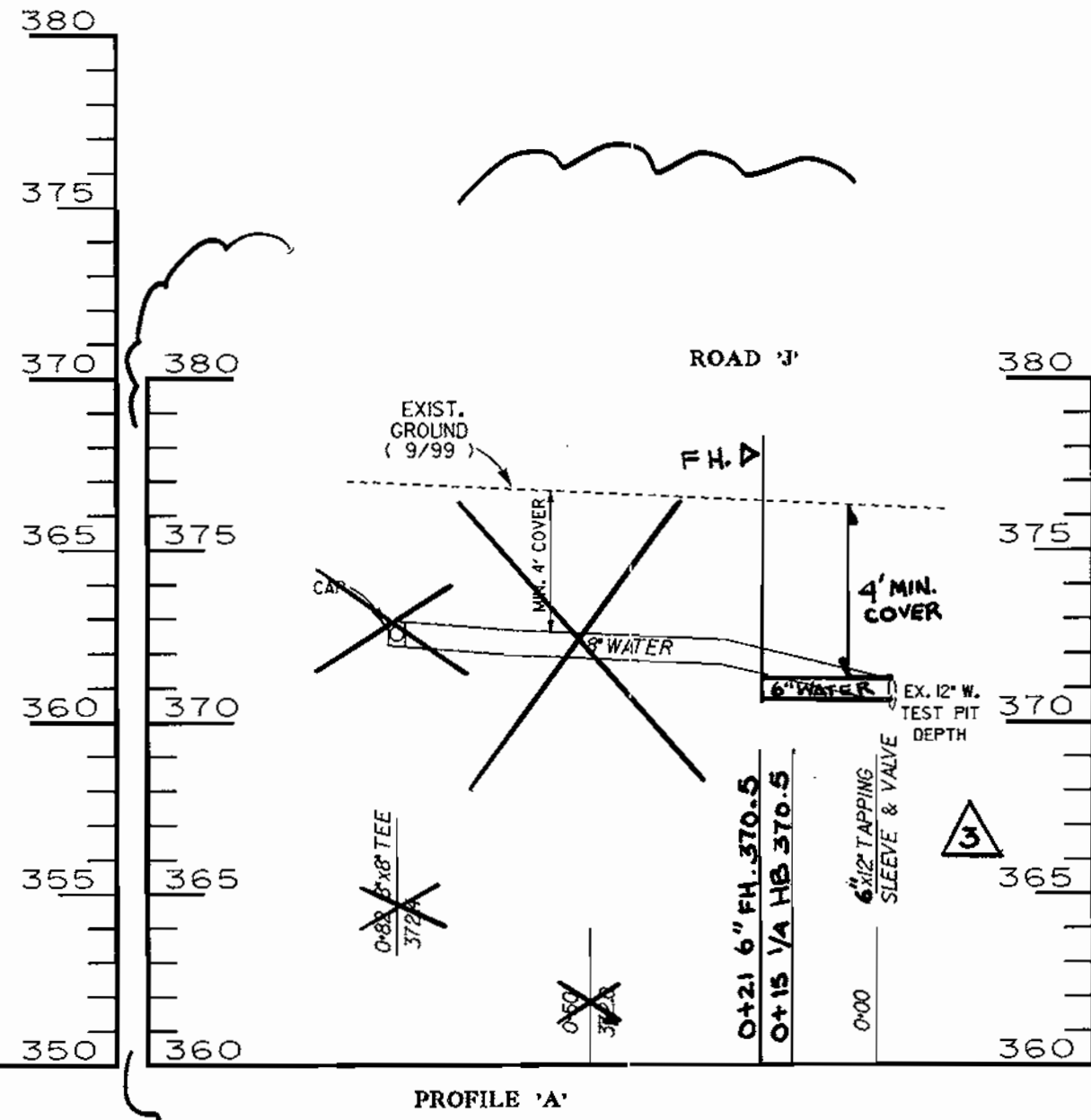
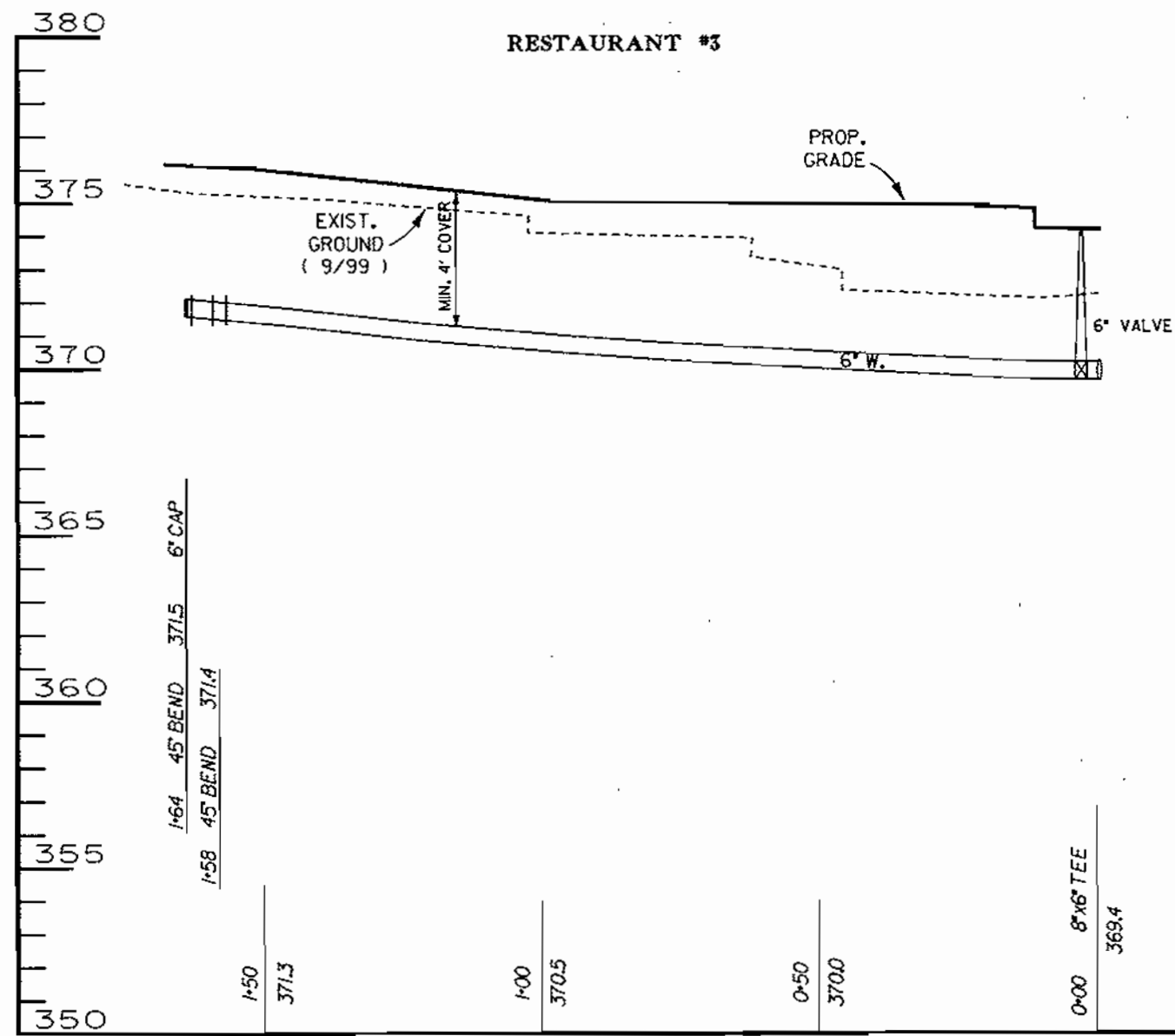
**PROPOSED 8" WATER FOR PROFILE 'D'**

STATION	LOCATION
0+00	12" X 8" TEE N 503765± E 838538±
2+77	45° HORIZ. BEND ROAD 'L' STA. 0+36 56' RT.
2+98	FIRE HYDRANT ROAD 'L' STA. 0+21 41' RT.



**PROPOSED 8" WATER - PROFILE 'D'**

SCALE: HORIZ. 1"=30'  
VERT. 1"=5'



**WATER MAIN PROFILES**

SCALE: HORIZ. 1"=30'  
VERT. 1"=5'

**APPROVED**  
PLANNING BOARD  
of HOWARD COUNTY  
DATE: FEBRUARY 10, 2000

2/10/00  
Date

Professional Engr. No. 10991

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	
<i>William Dammus</i>	2/10/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION MKK	DATE
<i>Cindy Harotta</i>	3/10/00
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
<i>John P. Smith</i>	3/20/00
DIRECTOR	DATE

12-20-00	3	REVISE PROFILES & SCHEDULES
1-4-2000	A	ADDED PROFILE 'D' PER COUNTY COMMENTS
Date	No.	Revision Description

**THE MALL IN COLUMBIA**  
PHASE IV  
TOWN CENTER  
SECTION 2 AREA 1  
HOWARD COUNTY, MD  
LOT 42

OWNER /DEVELOPER:  
THE HOWARD RESEARCH & DEVELOPMENT CORP.  
COLUMBIA MALL, INC.  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MARYLAND 21044

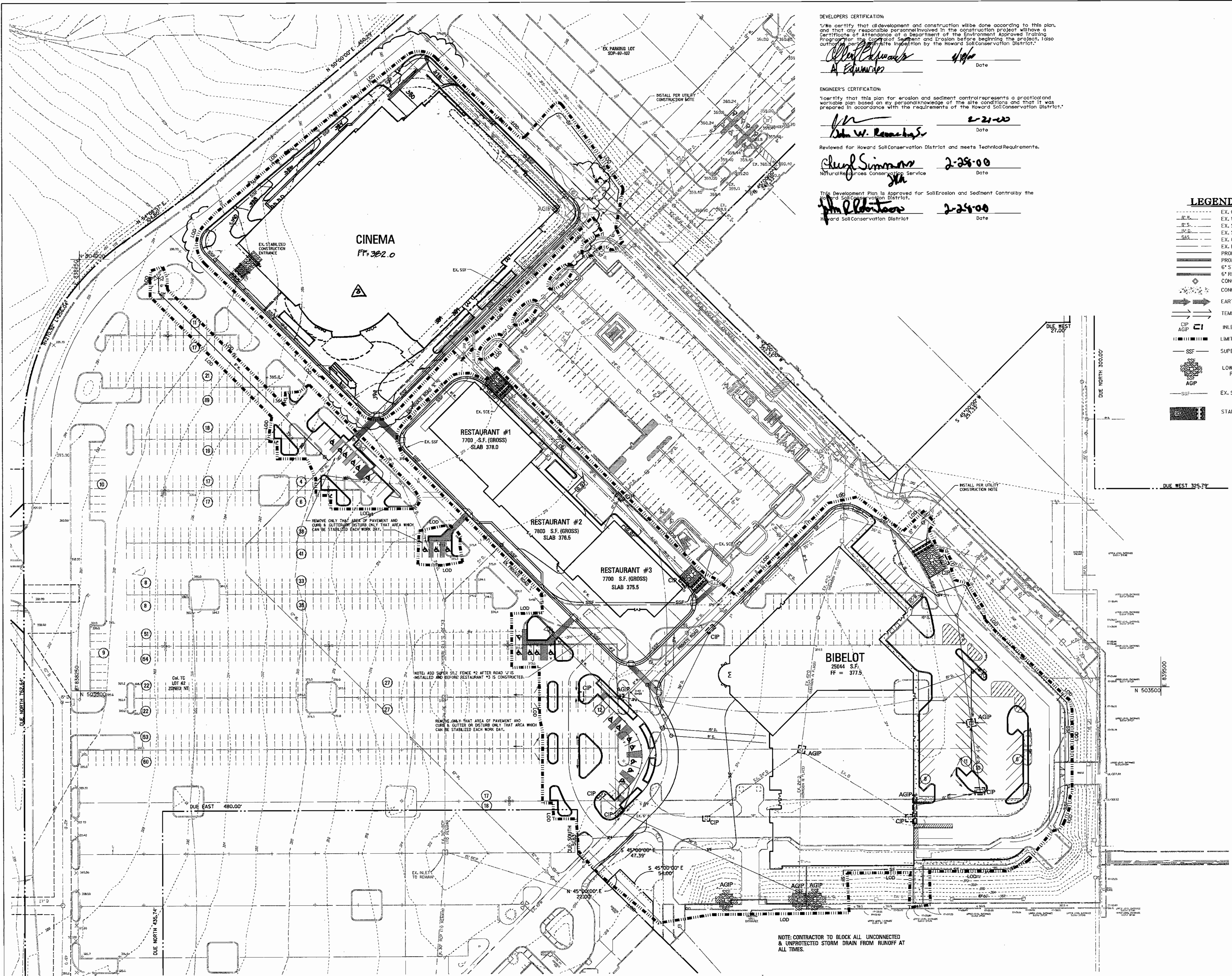
**DMW**  
DeWitt-McCune-Walker, Inc.  
200 East Pennsylvania Avenue  
Towson, Maryland 21286  
(410) 299-3333  
Fax 296-4705

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

TITLE

**PHASE IV  
WATER PROFILES**

Des By	RLH	Scale	HORIZ. 1"=30' VERT. 1"=5'	Proj. No.	9501951
Dm By	KDE	Date	2-22-00		
Chk By	JWR	Approved			13 OF 21



**DEVELOPERS CERTIFICATION:**  
 I/We certify that all development and construction will be done according to this plan, and that any reasonable personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize the Howard Soil Conservation District.

*[Signature]* 4/16/00  
 Date

**ENGINEER'S CERTIFICATION:**  
 I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

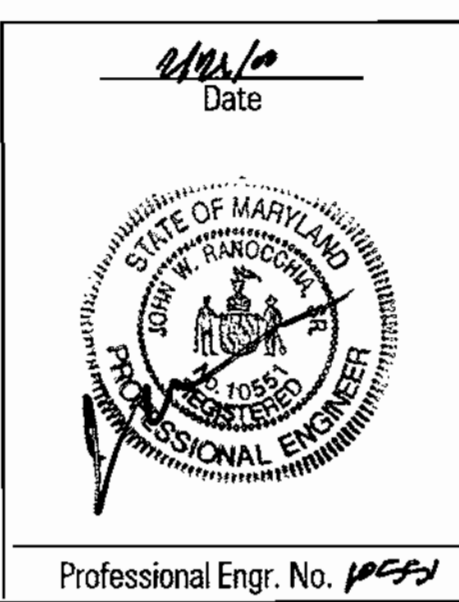
*[Signature]* 2-21-00  
 Date

Reviewed for Howard Soil Conservation District and meets Technical Requirements.

*[Signature]* 2-28-00  
 Date  
 Natural Resources Conservation Service

*[Signature]* 2-24-00  
 Date  
 Howard Soil Conservation District

- LEGEND**
- EX. CONTOUR
  - EX. WATER
  - EX. SANITARY SEWER
  - EX. STORM DRAIN
  - EX. GAS
  - EX. EDGE OF ROAD
  - PROP. CONTOUR
  - PROP. UTILITIES
  - 6" STANDARD COMB. C&G
  - 6" REV. COMB. C&G
  - CONC. LIGHT POLE ISLAND
  - CONCRETE
  - EARTH DIKE
  - TEMPORARY SWALE
  - INLET PROTECTION
  - LIMIT OF DISTURBANCE
  - SUPER SILT FENCE
  - LOW POINT INLET PROTECTION
  - EX. SUPER SILT FENCE
  - STABILIZED CONSTRUCTION ENTRANCE



**APPROVED**  
 PLANNING BOARD  
 of HOWARD COUNTY  
 DATE: FEBRUARY 10, 2000

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

*[Signature]* 3/1/00  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MKK DATE

*[Signature]* 3/17/00  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*[Signature]* 3/2/00  
 DIRECTOR DATE

12-20-02	3	REVISE CINEMA & GRADING
1-4-2000	A	REVISE PER COUNTY COMMENTS
Date	No.	Revision Description
<b>THE MALL IN COLUMBIA</b>		
REVISED PHASE IV TOWN CENTER SECTION 2, AREA 1 HOWARD COUNTY, MD LOT 42		
OWNER / DEVELOPER:		
THE HOWARD RESEARCH & DEVELOPMENT CORP. COLUMBIA MALL, INC. 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044		

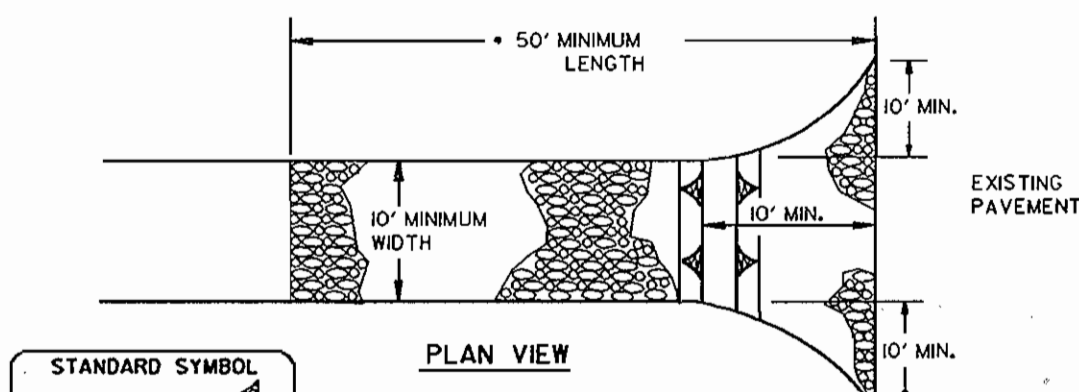
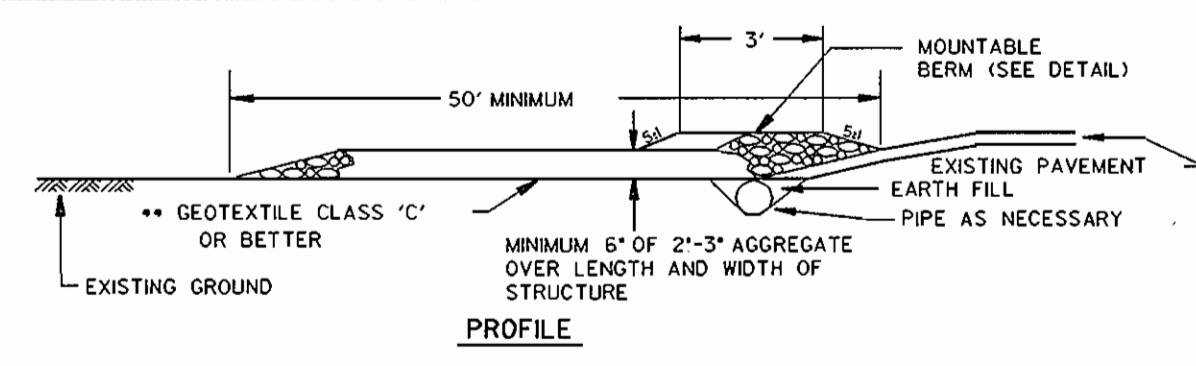
**DMW**  
 Date-McCune-Walker, Inc.  
 200 East Pennsylvania Avenue  
 Towson, Maryland 21286  
 (410) 286-3239  
 Fax 296-4705

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

TITLE  
**PHASE IV  
 EROSION & SEDIMENT CONTROL**

Des By	RLH	Scale	1" = 50'	Proj. No.	95019.B1
Drn By	KDE	Date	2-22-00		
Chk By	Approved				14 OF 21

NOTE: CONTRACTOR TO BLOCK ALL UNCONNECTED & UNPROTECTED STORM DRAIN FROM RUNOFF AT ALL TIMES.



- Construction Specifications**
- Length - minimum of 50' (+30' for single residence lot).
  - Width - 10' minimum, should be flared at the existing road to provide a turning radius.
  - Geotextile fabric Class C (filter cloth) shall be placed over the existing ground prior to placing stone. \*\*The plan approval authority may not require single family residences to use geotextile.
  - Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
  - Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5' slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
  - Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

### 21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

#### DEFINITION

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

#### PURPOSE

To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

#### CONDITIONS WHERE PRACTICE APPLIES

- This practice is limited to areas having 2:1 or flatter slopes where:
  - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
  - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
  - The original soil to be vegetated contains material toxic to plant growth.
  - The soil is so acidic that treatment with limestone is not feasible.
- For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

#### CONSTRUCTION AND MATERIAL SPECIFICATIONS

I. Topsoil salvages from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.

II. Topsoil Specifications - Soil to be used as topsoil must meet the following:

- Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1-1/2" in diameter.
- Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutedge, poison ivy, thistle, or others as specified.
- Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

II. For sites having disturbed areas under 5 acres:

- On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
  - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
  - Organic content of topsoil shall be not less than 1.5 percent by weight.
  - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
  - No food or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.

Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

II. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

#### V. Topsoil Application

- When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
- Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4% - 8% higher in elevation.
- Topsoil shall be uniformly distributed in a 4% - 8% layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
- Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

VI. Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:

- Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
  - Composted sludge shall be supplied by, or originate from a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
  - Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
  - Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
  - Composted sludge shall be amended with a potassium fertilizer applied at a rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

References: Guidelines Specifications, Soil Preparation and Sodding, MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institute, Revised 1973.

#### Sequence of Construction

- Obtain grading permit (2 days).
- Install erosion and sediment control measures (5 days). Maintain all existing erosion and sediment control measures as needed.
- Clear site (7 days).
- Rough grade site. Construct utilities, proposed buildings and roads, and provide inlet protection (90 days).
- Fine grade and construct proposed parking lot (60 days).
- Upon approval of the sediment control inspector, remove erosion and sediment control measures and stabilize (7 days).

#### NOTE:

CONTRACTOR TO BLOCK ALL UNCONNECTED & UNPROTECTED STORM DRAINS FROM RUNOFF AT ALL TIMES AND BRICK SHUT ALL ROOF DRAIN CONNECTIONS (RD ).

#### DEVELOPERS CERTIFICATION:

I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance of a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.

*Cheryl Edwards* 2/18/00  
*H. Edmunds* \_\_\_\_\_ Date

#### ENGINEER'S CERTIFICATION:

I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

*John W. Roush, Jr.* 2-21-00  
 \_\_\_\_\_ Date

Reviewed for Howard Soil Conservation District and meets Technical requirements.

*Cheryl Simmons* 2-28-00  
 Natural Resources Conservation Service \_\_\_\_\_ Date

This Development Plan is Approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

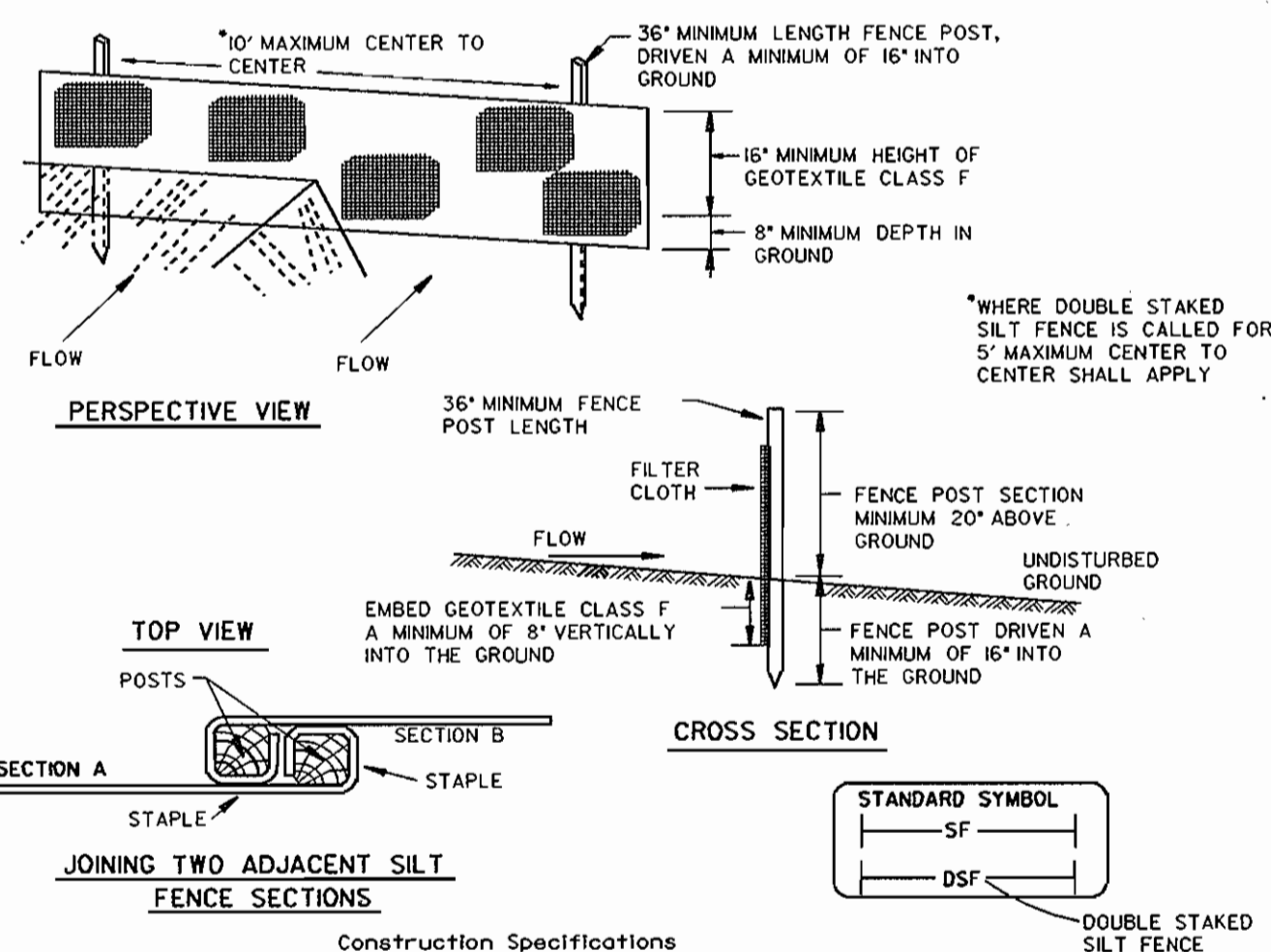
*John W. Roush, Jr.* 2-28-00  
 Howard Soil Conservation District \_\_\_\_\_ Date

U.S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

MARYLAND DEPARTMENT OF ENVIRONMENT  
WATER MANAGEMENT ADMINISTRATION

### STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



- Construction Specifications**
- Fence posts shall be a minimum of 36" long driven 15" minimum into the ground. Wood posts shall be 1/2" x 1/2" square (minimum) cut, or 1 1/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 100 pound per linear foot.
  - Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:
 

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal/11/minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322
  - Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
  - Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

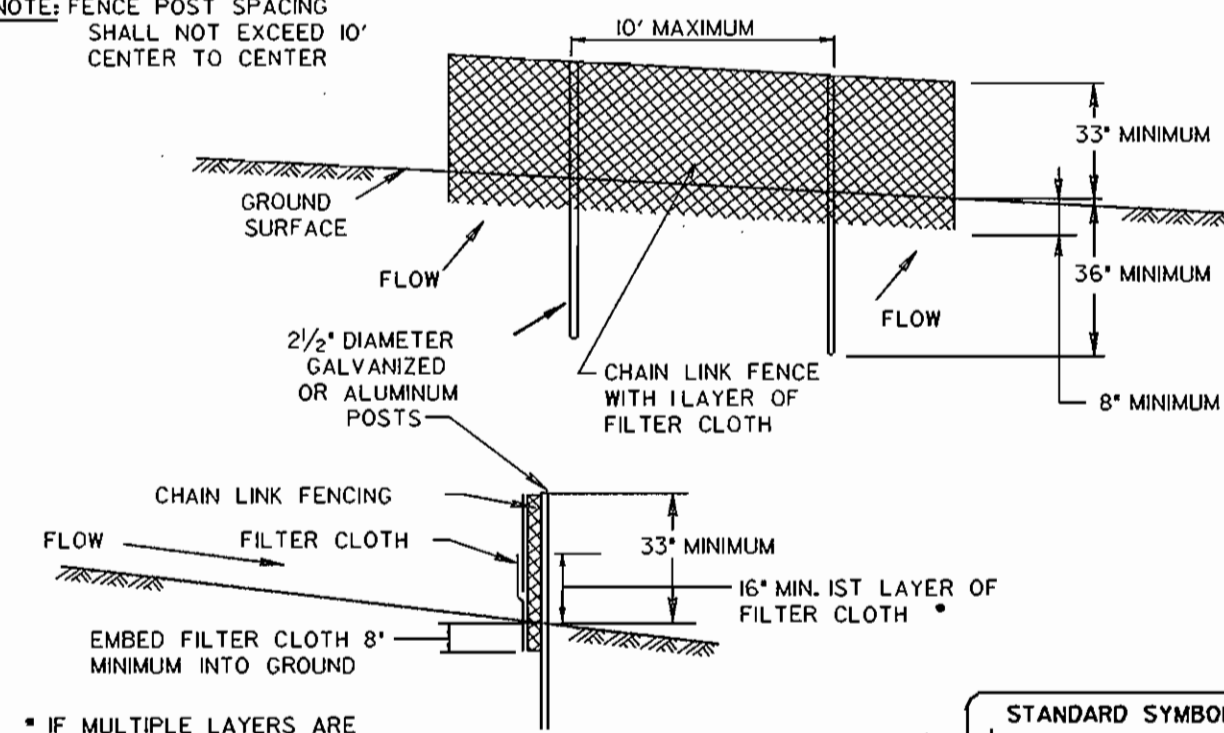
U.S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

MARYLAND DEPARTMENT OF ENVIRONMENT  
WATER MANAGEMENT ADMINISTRATION

### SILT FENCE

NOT TO SCALE

NOTE: FENCE POST SPACING SHALL NOT EXCEED 10' CENTER TO CENTER



#### Construction Specifications

- Fencing shall be 42 inches in height and constructed in accordance with the latest Maryland State Highway (SHA) Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.
- The posts do not need to be set in concrete.
- Chain link fence shall be fastened securely to the fence posts with wire ties or staples. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence. The chain link fencing shall be six (6) gauge or heavier.
- Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
- Filter cloth shall be embedded a minimum of 8" into the ground.
- When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
- Maintenance shall be performed as needed and silt buildup removed when 'bulges' develop in the silt fence, or when silt reaches 50% of fence height

U.S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

H - 26 - 3

MARYLAND DEPARTMENT OF ENVIRONMENT  
WATER MANAGEMENT ADMINISTRATION

### SUPER SILT FENCE

NOT TO SCALE

APPROVED  
PLANNING BOARD  
of HOWARD COUNTY  
DATE: FEBRUARY 10, 2000

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
*John W. Roush, Jr.* 2/15/00  
 CHIEF DEVELOPMENT ENGINEERING DIVISION MK \_\_\_\_\_ DATE  
*Cheryl Simmons* 2/21/00  
 CHIEF DIVISION OF LAND DEVELOPMENT \_\_\_\_\_ DATE  
*John W. Roush, Jr.* 2/28/00  
 DIRECTOR \_\_\_\_\_ DATE

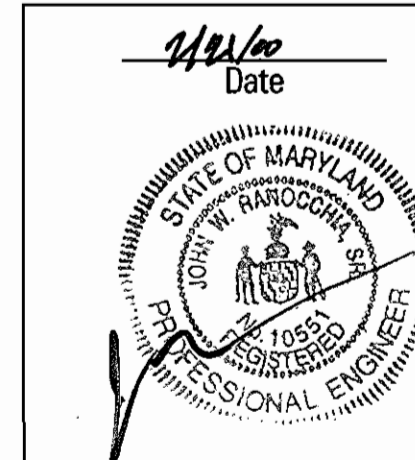
Date No. Revision Description

THE MALL IN COLUMBIA  
 PHASE IV  
 TOWN CENTER  
 SECTION 2 AREA 1  
 HOWARD COUNTY, MD  
 LOT 42  
 OWNER /DEVELOPER:  
 THE HOWARD RESEARCH & DEVELOPMENT CORP.  
 COLUMBIA MALL, INC.  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044

**DMW**  
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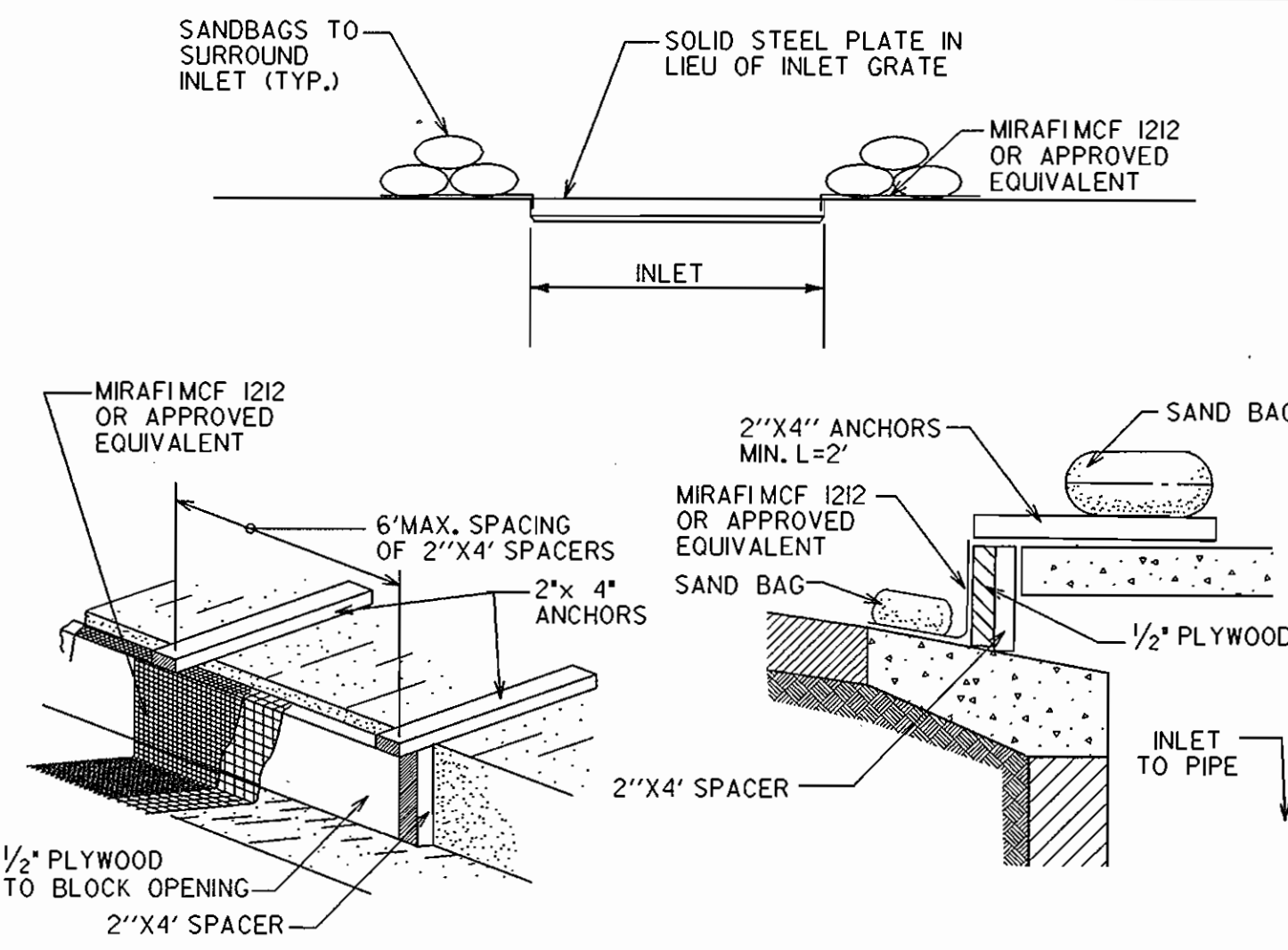
TITLE  
 PHASE IV  
 EROSION & SEDIMENT CONTROL  
 DETAIL SHEET

Des By	RLH	Scale	AS SHOWN	Proj. No.	95019B1
Dim By	KDE	Date	2-22-00		
Chk By	JWR	Approved			15 OF 21



Professional Engr. No. 10553

SDP-00-57



E-16-8D

**INLET CAPPING /BLOCKING DETAIL**

Table 28 Stone Size

NUMBER 57*	SIZE RANGE	D <sub>50</sub>	D <sub>100</sub>	AASHTO	WEIGHT
NUMBER 1	3/8" - 1/2"	1/2"	1/2"	M-43	N/A
RIP-RAP**	2" - 3"	2 1/2"	3"	M-43	N/A
CLASS I	N/A	9.5"	15"	N/A	150lb max.
CLASS II	N/A	16"	24"	N/A	700lb max.
CLASS III	N/A	23"	34"	N/A	2000lb max.

\* This classification is to be used on the inside face of stone outlets and check dams.  
 \*\* This classification is to be used when ever smaller rip-rap is required, the State Highway Administration designation for this stone is Stone For Gabions (905.01.04)

Stone For Gablon Baskets

BASKET THICKNESS	SIZE OF INDIVIDUAL STONES
INCHES	MM
6	150
9	225
12	300
18	460
36	900

NOTE: Recycled concrete equivalent may be substituted for all stone classifications. Recycled concrete equivalent shall be concrete broken into the sizes meeting the appropriate classification, shall contain no steel reinforcement, and shall have a density of 150 pounds per cubic foot.

**MATERIALS SPECIFICATIONS**

H-24-1

**PERMANENT SEEDING NOTES**

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

**SEEDBED PREPARATION:** LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

**SOIL AMENDMENTS:** IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

1. PREFERRED - APPLY 2 TONS PER ACRES DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREA FORM FERTILIZER (9 LBS./1000 SQ.FT.)
2. ACCEPTABLE - APPLY 2 TONS PER ACRES DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

**SEEDING -** FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (14 LBS./1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31 SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (.05 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY OPTION (1) - 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING; OPTION (2) - USE SOD, OPTION (3) - SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

**MULCHING -** APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATIONS USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL./1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL./1000 SQ.FT.) FOR ANCHORING.

**MAINTENANCE -** INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDING.

**TEMPORARY SEEDING NOTES**

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

**SEEDBED PREPARATION -** LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

**SOIL AMENDMENTS -** APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.)

**SEEDING -** FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 15 OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

**MULCHING -** APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED WEEP FREE SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATIONS USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL./1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FT. OR HIGHER, USE 348 GAL. PER ACRE (8 GAL./1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

**PERMANENT SEEDING NOTES**

**SEDIMENT CONTROL GENERAL NOTES**

**DUST CONTROL SPECIFICATIONS**

**Temporary Methods:**

1. Mulches - See Standards for vegetative stabilization with mulches only. Mulch should be clipped or tacked to prevent blowing.
2. Vegetative Cover - See standards for temporary vegetative cover.
3. Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.
4. Irrigation - This is generally done as an emergency treatment. Site is sprinkled with water until the surface is moist. Repeat as needed. At no time should the site be irrigated to the point the runoff begins to flow.
5. Barriers - Solid board fences, snow fences, burlap fences, straw bales, and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 10 times their height are effective in controlling soil blowing.
6. Calcium Chloride - Apply at a rate that will keep surface moist. May need re-treatment.

**Permanent Methods:**

1. Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.
2. Topsoiling - Covering with less erosive soil materials. See standards for topsoiling.
3. Stone - Cover surface with crushed stone or coarse gravel.

U.S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

H - 30 - 1

MARYLAND DEPARTMENT OF ENVIRONMENT  
WATER MANAGEMENT ADMINISTRATION

**DUST CONTROL SPECIFICATIONS**

NOT TO SCALE

Table 27 Geotextile Fabrics

CLASS	APPARENT OPENING SIZE MM. MAX.	GRAB TENSILE STRENGTH LB. MIN.	BURST STRENGTH PSI. MIN.
A	0.30**	250	500
B	0.60	200	320
C	0.30	200	320
D	0.60	90	145
E	0.30	90	145
F (SILT FENCE)	0.40-0.80*	90	190

\* US Std. Sieve CW-02215 \*\* .50 mm max. for Super Silt Fence

The properties shall be determined in accordance with the following procedures:

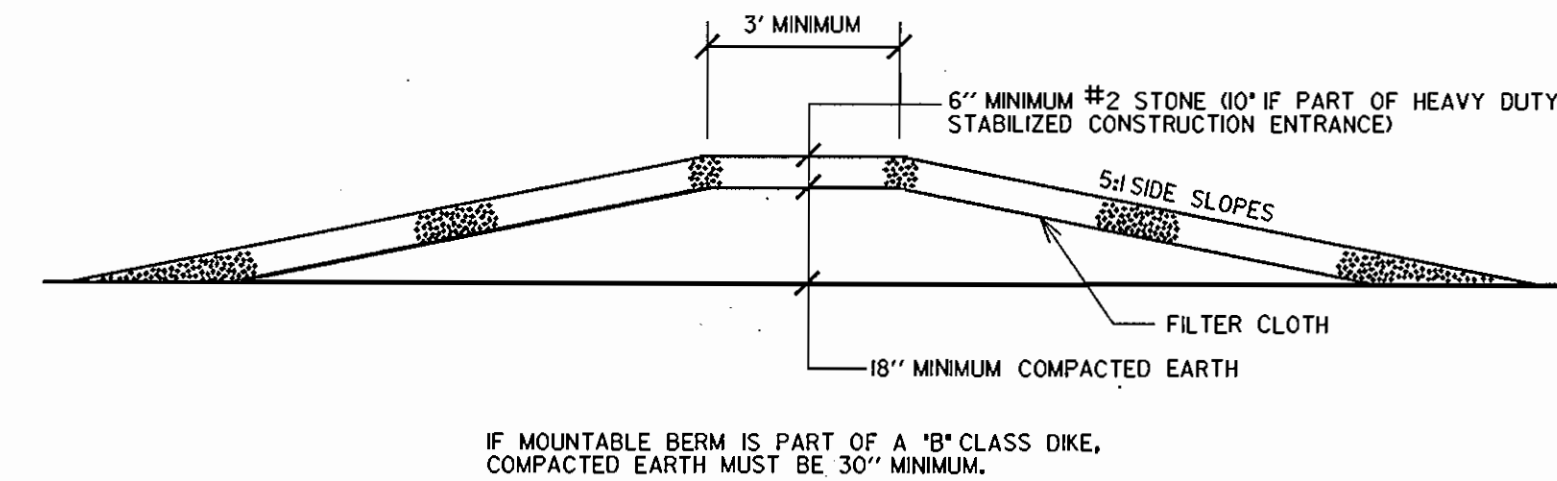
- Apparent opening size MSMT 323
- Grab tensile strength ASTM 1682; 4x8" specimen, 1x2" clamps, 12"/min. strain rate in both principal directions of geotextile fabric.
- Burst strength ASTM D 3786

The fabric shall be inert to commonly encountered chemicals and hydrocarbons, and will be rot and mildew resistant. It shall be manufactured from fibers consisting of long chain synthetic polymers, and composed of a minimum of 85% by weight of polyolefins, polyesters, or polyamides. The geotextile fabric shall resist deterioration from ultraviolet exposure.

In addition, Classes A through E shall have a 0.01cm./sec. minimum permeability when tested in accordance with MSMT 507, and an apparent minimum elongation of 20 percent (20%) when tested in accordance with the grab tensile strength requirements listed above.

**Silt Fence**

Class F geotextile fabrics for silt fence shall have a 50 lb./in. minimum tensile strength and a 20 lb./in. minimum tensile modulus when tested in accordance with MSMT 505. The material shall also have a 0.3 gal./ft./min. flow rate and seventy-five percent (75%) minimum filtering efficiency when tested in accordance with MSMT 322. Geotextile fabrics used in the construction of silt fence shall resist deterioration from ultraviolet exposure. The fabric shall contain sufficient amounts of ultraviolet ray inhibitors and stabilizers to provide a minimum of 12 months of expected usable construction life at a temperature range of 0 to 120 degrees F.



**MOUNTABLE BERM DETAIL**

**DEVELOPERS CERTIFICATION:**

"We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize the Howard Soil Conservation District to inspect the project." (Howard Soil Conservation District)

*John W. Ramonchis* 2-28-00 Date

**ENGINEER'S CERTIFICATION:**

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District." (Howard Soil Conservation District)

*John W. Ramonchis* 2-28-00 Date

Reviewed for Howard Soil Conservation District and meets Technical Requirements.

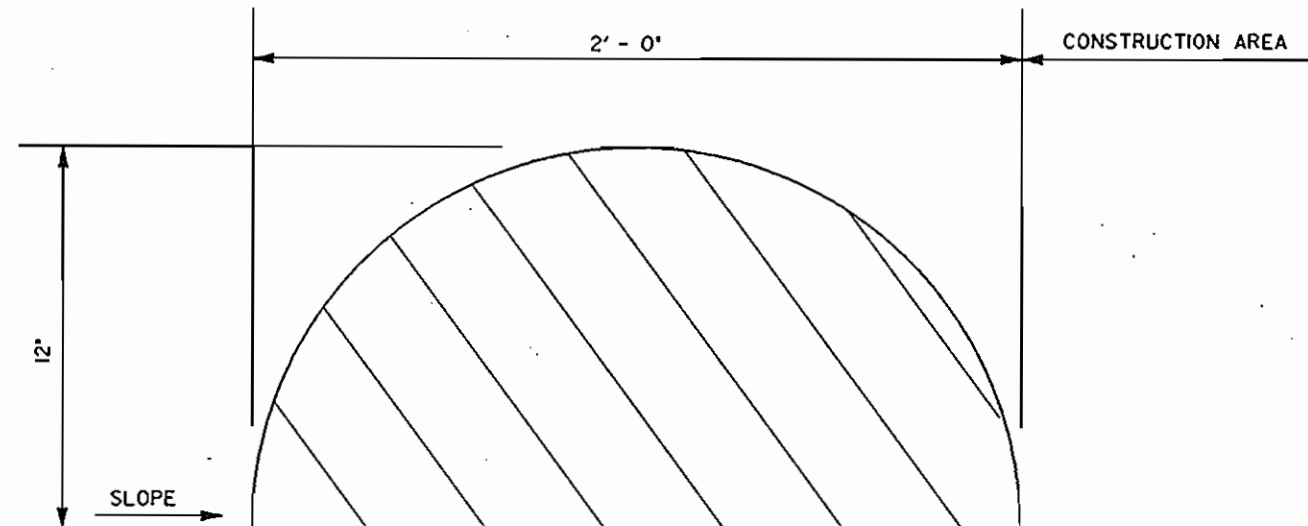
*John Simman* 2-28-00 Date  
Natural Resources Conservation Service

This Development Plan is Approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

*John K. Robinson* 2-28-00 Date  
Howard Soil Conservation District

**APPROVED**  
PLANNING BOARD  
OF HOWARD COUNTY

DATE February 10, 2000

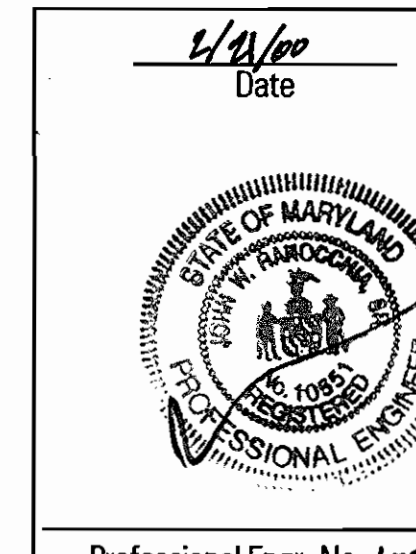


**BITUMINOUS CURB DIVERSION**

**UTILITY CONSTRUCTION OUTSIDE SEDIMENT CONTROL PRACTICES**

1. EXCAVATED TRENCH MATERIAL SHALL BE PLACED ON UPSTREAM SIDE OF TRENCH.
2. IMMEDIATELY FOLLOWING PIPE INSTALLATION, THE TRENCH SHALL BE BACKFILLED, COMPACTED AND IMMEDIATELY STABILIZED (MULCHED, SEEDED, AND/OR SODDED MECHANICAL STABILIZATION) AT THE END OF EACH WORK DAY.
3. SILT FENCE SHALL BE PLACED IMMEDIATELY DOWN STREAM OF ANY DISTURBED AREA INTENDED TO REMAIN DISTURBED LONGER THAN ONE (1) WORKING DAY. (SILT FENCE AS PER SCS STANDARD DRAWING - E-15-3)
4. THE CONTRACTOR SHALL DISTURB AND OPEN TRENCH THE MINIMUM PRACTICAL AREA REQUIRED TO ACCOMPLISH THE WORK DESIGNATED FOR EACH DAY.
5. ALL SEDIMENT AND EROSION CONTROL PRACTICES AND VEGETATIVE STABILIZATION SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS. ANY EROSION AND SEDIMENT CONTROL PRACTICES DAMAGED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

**UTILITY CONSTRUCTION OUTSIDE SEDIMENT CONTROL**



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
*John W. Ramonchis* 2/10/00 DATE  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MKK  
*Chris Hamilton* 3/12/00 DATE  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
*John K. Robinson* 3/20/00 DATE  
 DIRECTOR

THE MALL IN COLUMBIA  
 PHASE IV  
 TOWN CENTER  
 SECTION 2 AREA 1  
 HOWARD COUNTY, MD  
 LOT 42  
 OWNER / DEVELOPER:  
 THE HOWARD RESEARCH & DEVELOPMENT CORP.  
 COLUMBIA MALL, INC.  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044

**DMW**  
 Dan McCann-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

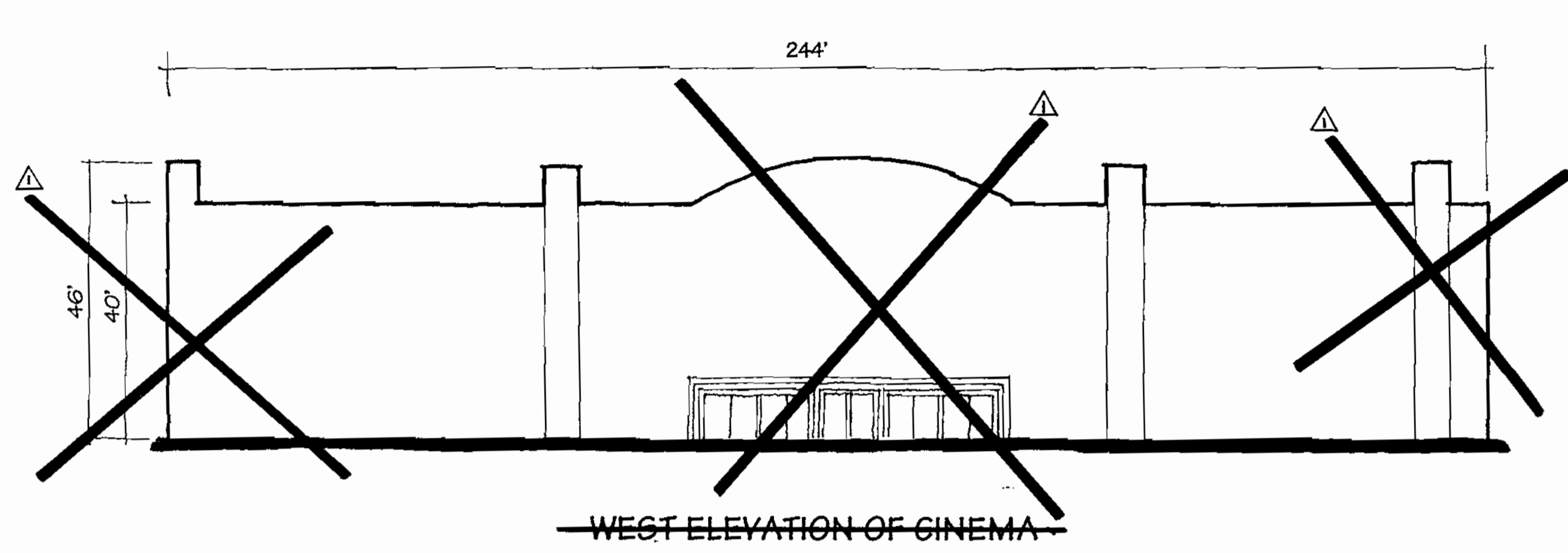
TITLE  
**PHASE IV  
 EROSION & SEDIMENT CONTROL  
 DETAIL SHEET**

Des By	RLH	Scale	AS SHOWN	Proj. No.	9501981
Drn By	KDE	Date	2-22-00		
Chk By	JWR	Approved			16 OF 21

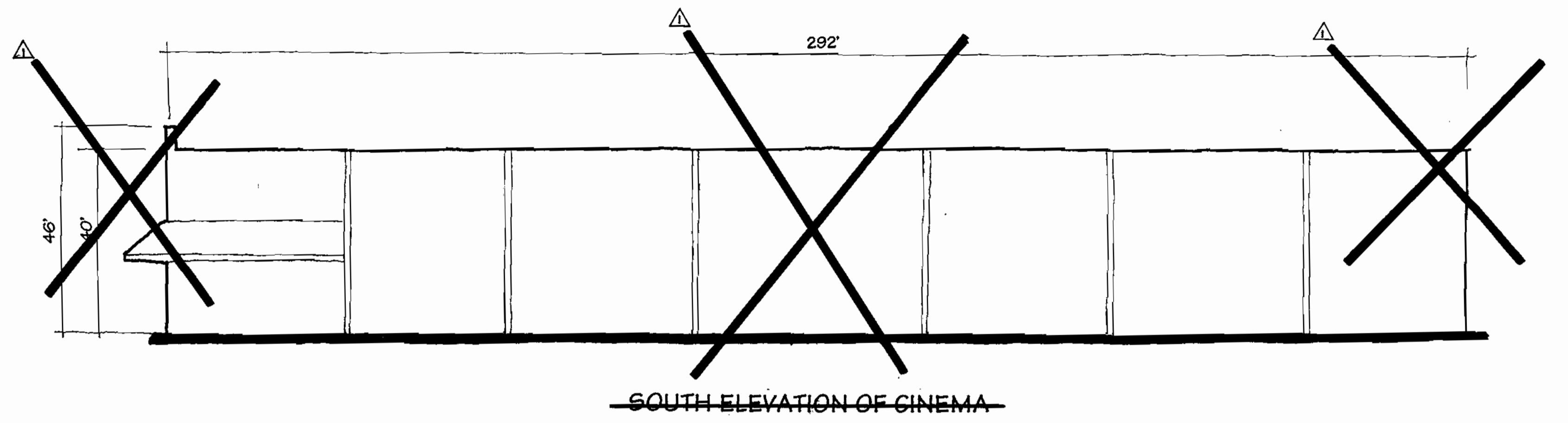
Professional Engr. No. 10291

SDP-00-57

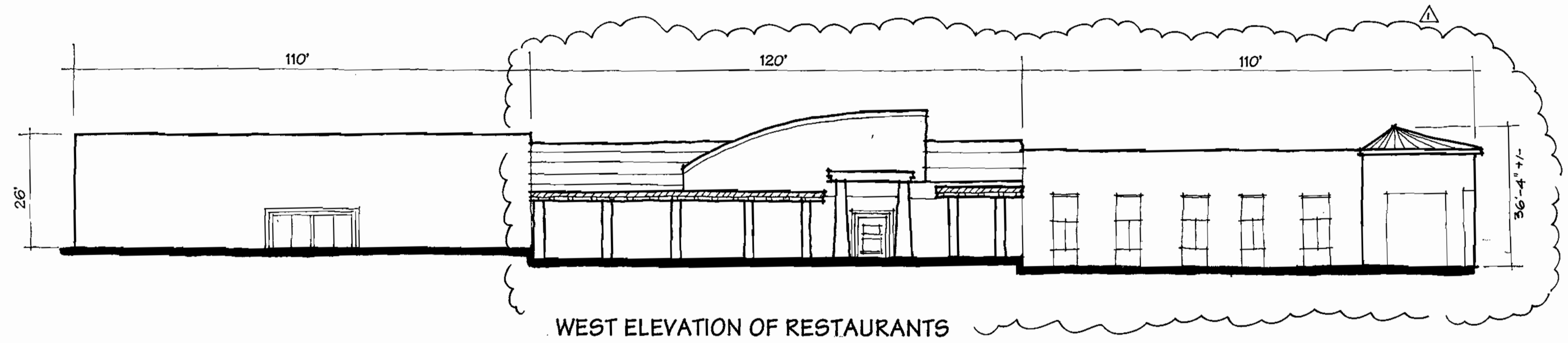




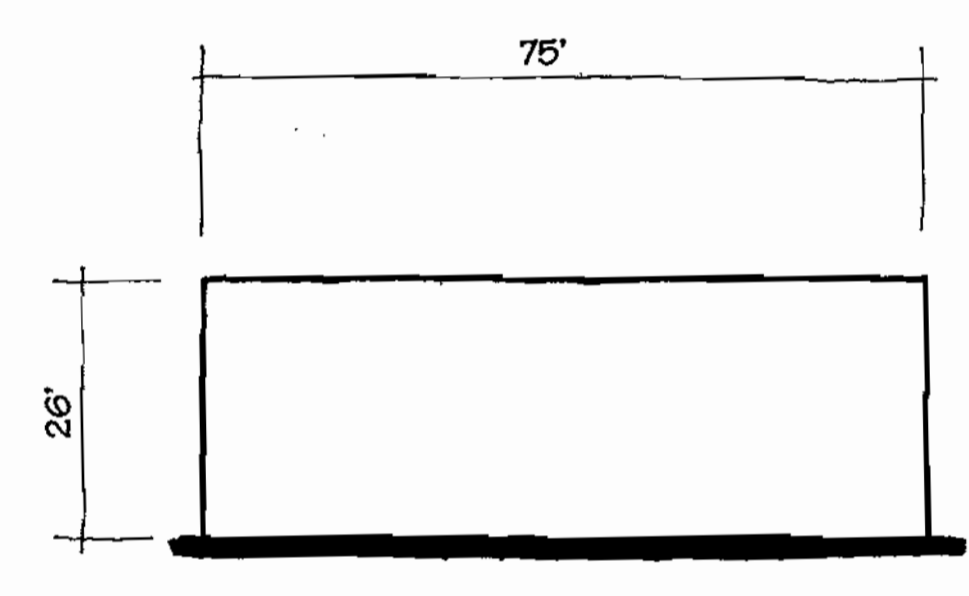
WEST ELEVATION OF CINEMA



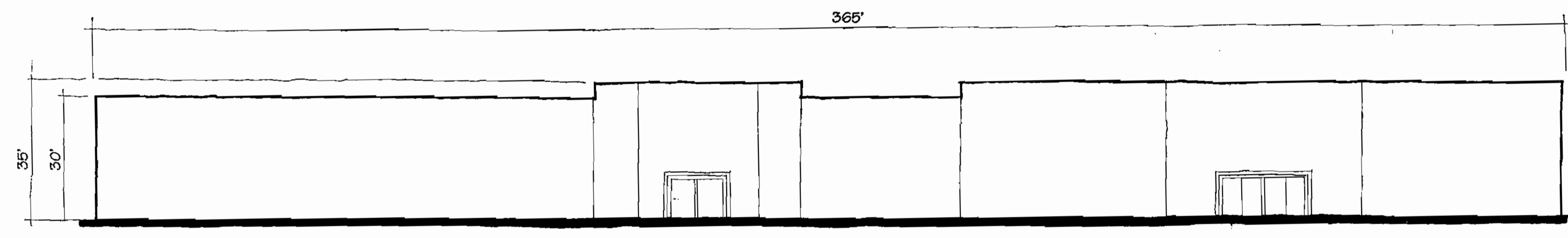
SOUTH ELEVATION OF CINEMA



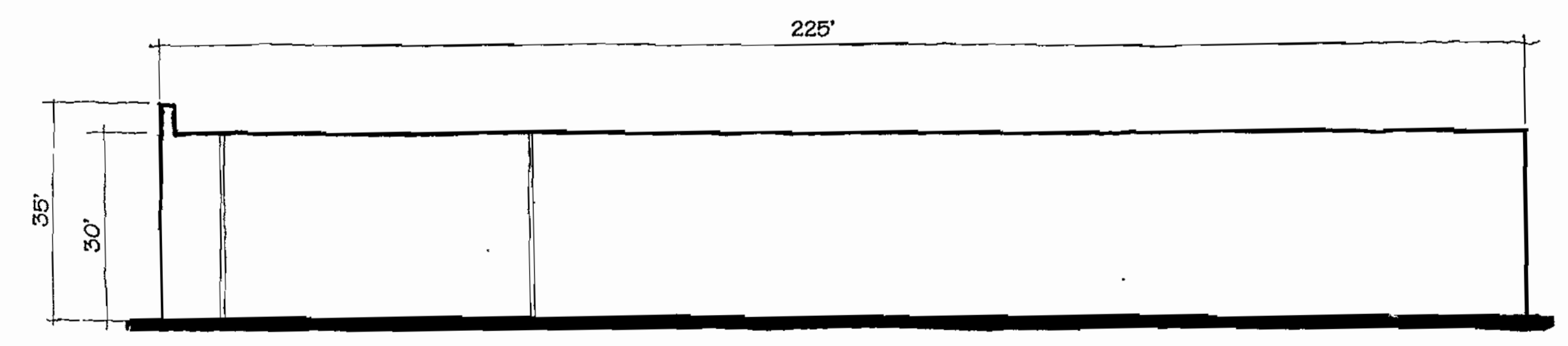
WEST ELEVATION OF RESTAURANTS



SOUTH ELEVATION OF RESTAURANTS



EAST ELEVATION OF RETAIL BUILDINGS



SOUTH ELEVATION OF RETAIL BUILDINGS

11-9-99  
Date  
Professional Engr. No. 10562

APPROVED  
PLANNING BOARD  
of HOWARD COUNTY  
DATE: FEBRUARY 10, 2000

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
*Robert Dammann* 3/6/00  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MKC DATE  
*Leeds Havelle* 3/12/00  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE  
*Frank R. Smith* 3/20/00  
 DIRECTOR DATE

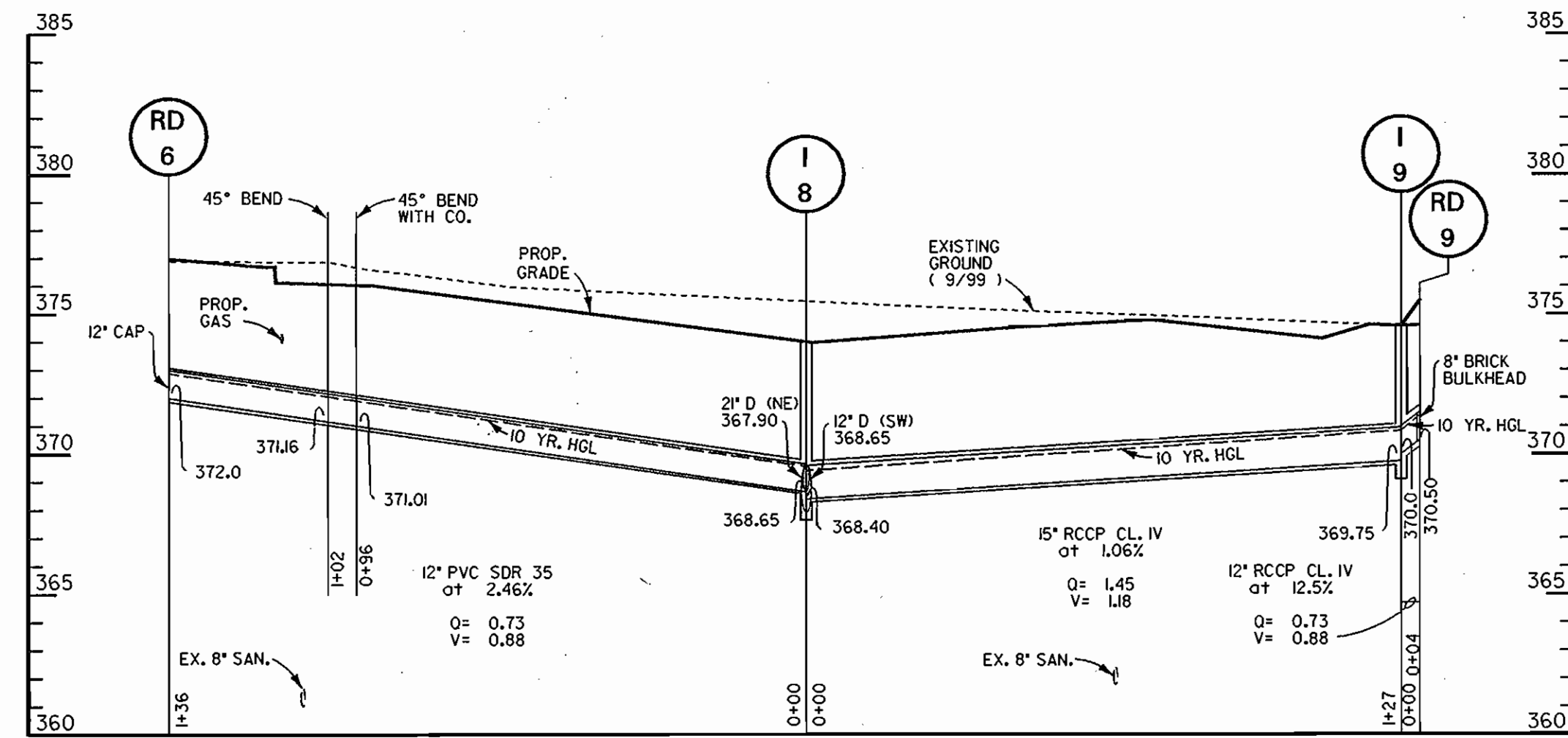
Date	No.	Revision Description
11/28/00	1	REV. WEST 1 & 2 WEST ELEV., DELETE CINEMA

THE MALL IN COLUMBIA  
 REVISED PHASE IV  
 TOWN CENTER  
 SECTION 2 AREA 1  
 HOWARD COUNTY, MD  
 LOT 42  
 OWNER /DEVELOPER:  
 THE HOWARD RESEARCH & DEVELOPMENT CORP.  
 COLUMBIA MALL, INC.  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044

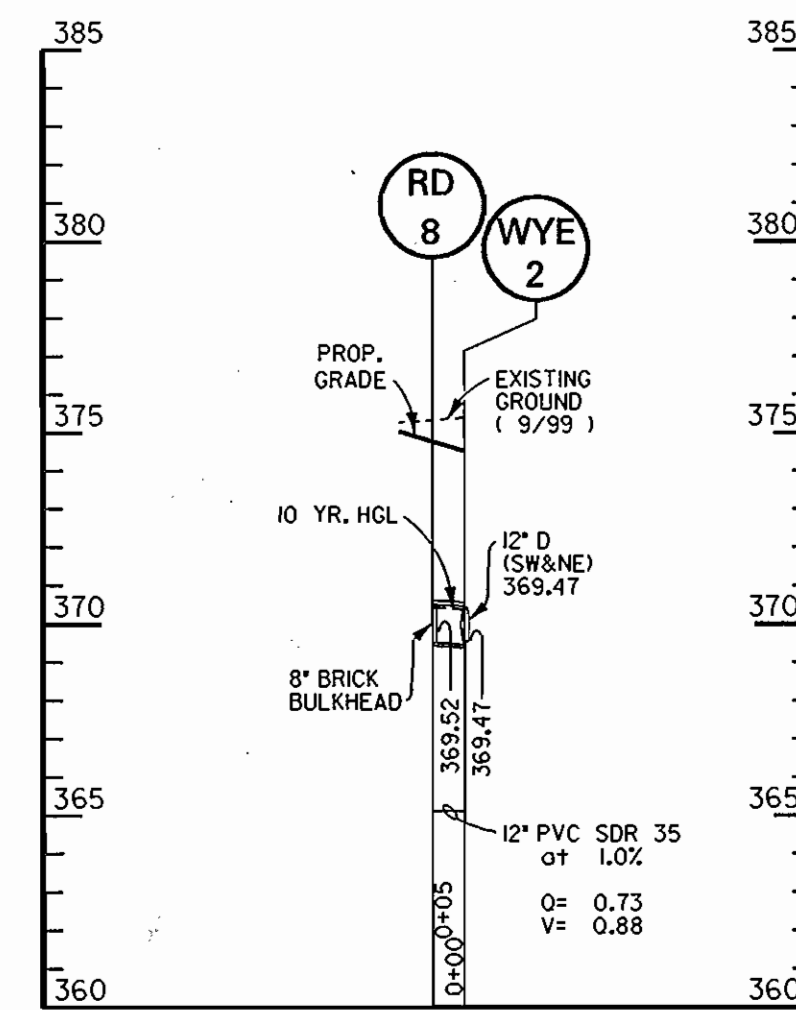
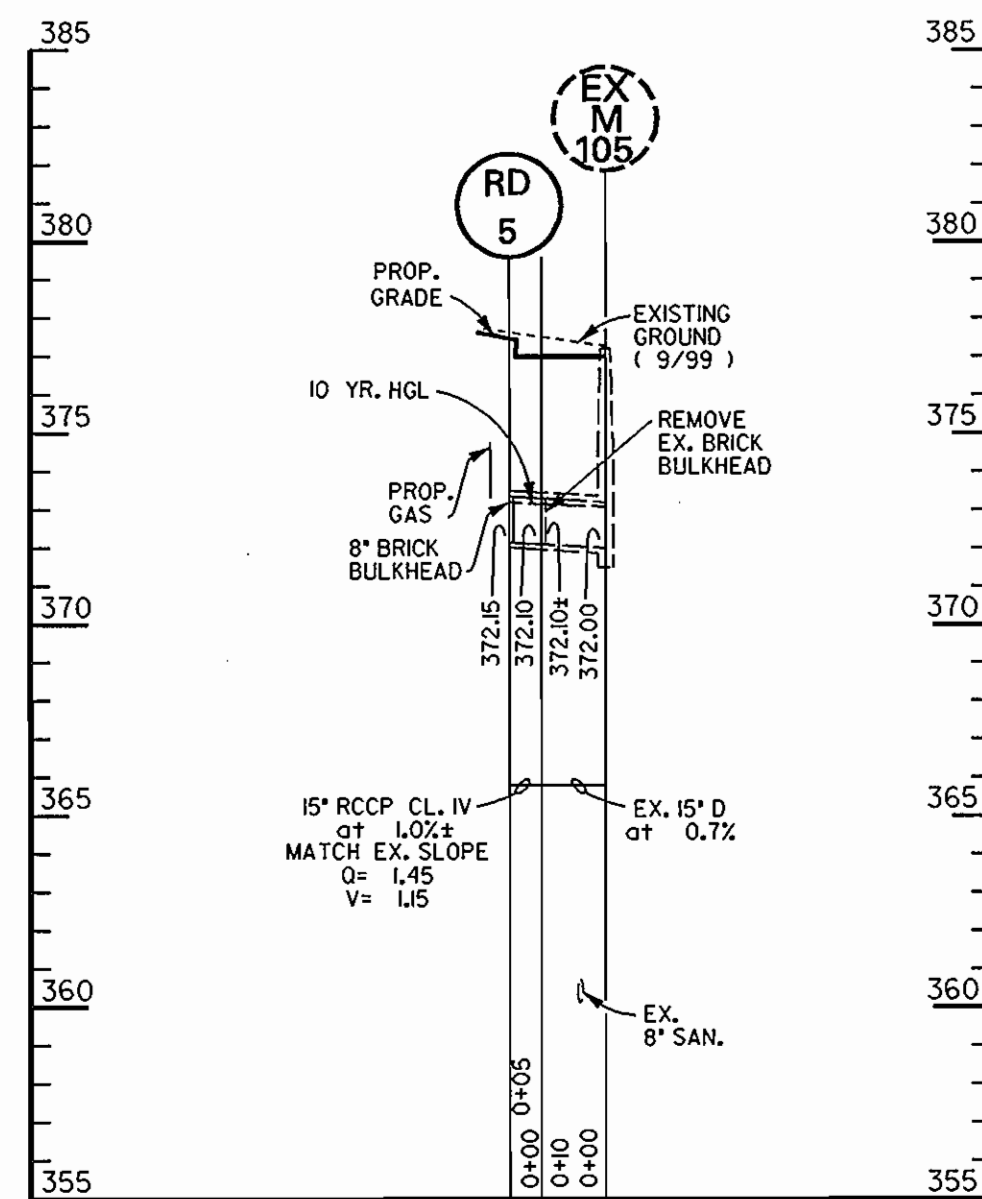
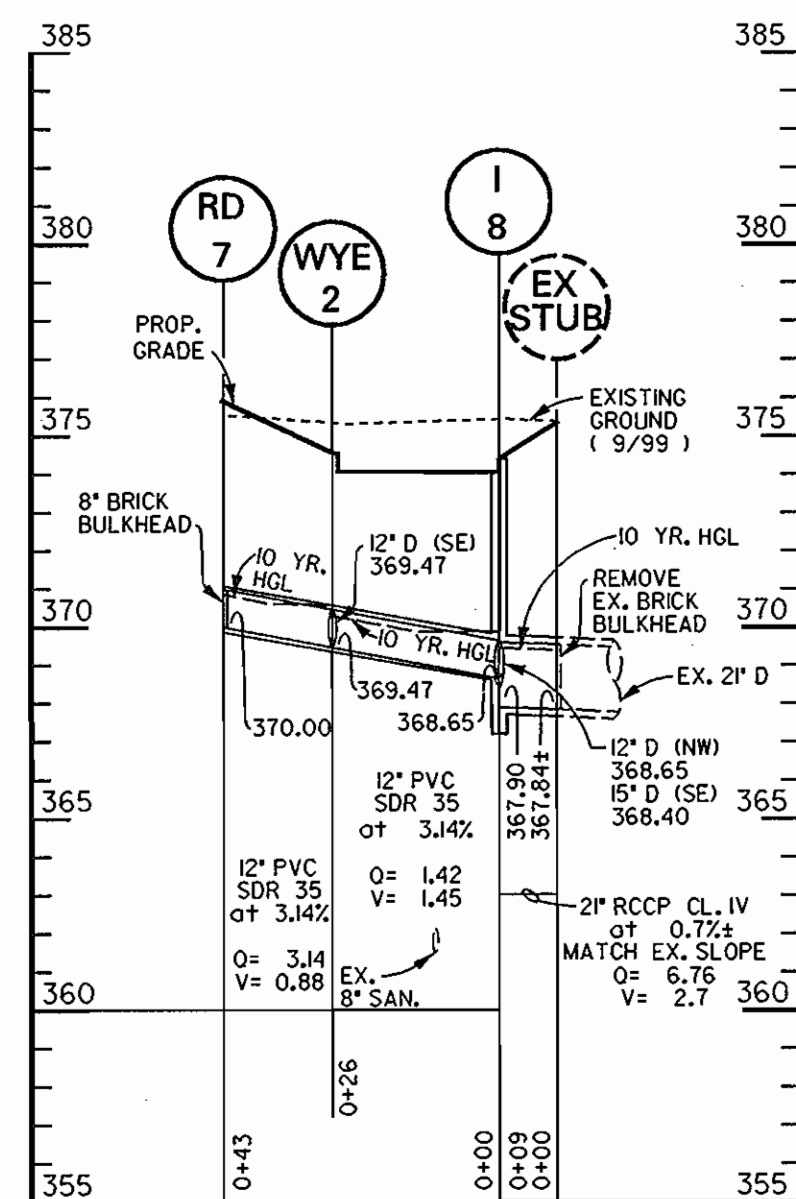
**DMW**  
 DeA McCune-Walker, Inc.  
 200 East Pennsylvania Avenue  
 Towson, Maryland 21286  
 (410) 296-5823  
 Fax 296-4705  
 A Team of Land Planners,  
 Landscape Architects,  
 Engineers, Surveyors &  
 Environmental Professionals

TITLE  
**PHASE IV  
 BUILDING ELEVATIONS**

Des By MJP Scale 1" = 20' Proj. No. 95019.B1  
 Dwn By MEC Date 2.22.00  
 Chk By Approved 17 OF 21



MAIN LINE



STORM DRAIN PROFILES

SCALE: HORIZ. 1"=30'  
VERT. 1"=5'

1/28/00  
Date

APPROVED AND  
PLANNING BOARD of HOWARD COUNTY  
DATE FEBRUARY 10, 2000

Professional Engr. No. 102451

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	DATE
<i>[Signature]</i>	3/1/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>[Signature]</i>	3/17/00
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
<i>[Signature]</i>	3/20/00
DIRECTOR	DATE

Date No. Revison Description

**THE MALL IN COLUMBIA**  
PHASE IV  
TOWN CENTER  
SECTION 2 AREA 1  
HOWARD COUNTY, MD  
LOT 42

OWNER /DEVELOPER:  
THE HOWARD RESEARCH & DEVELOPMENT CORP.  
COLUMBIA MALL, INC.  
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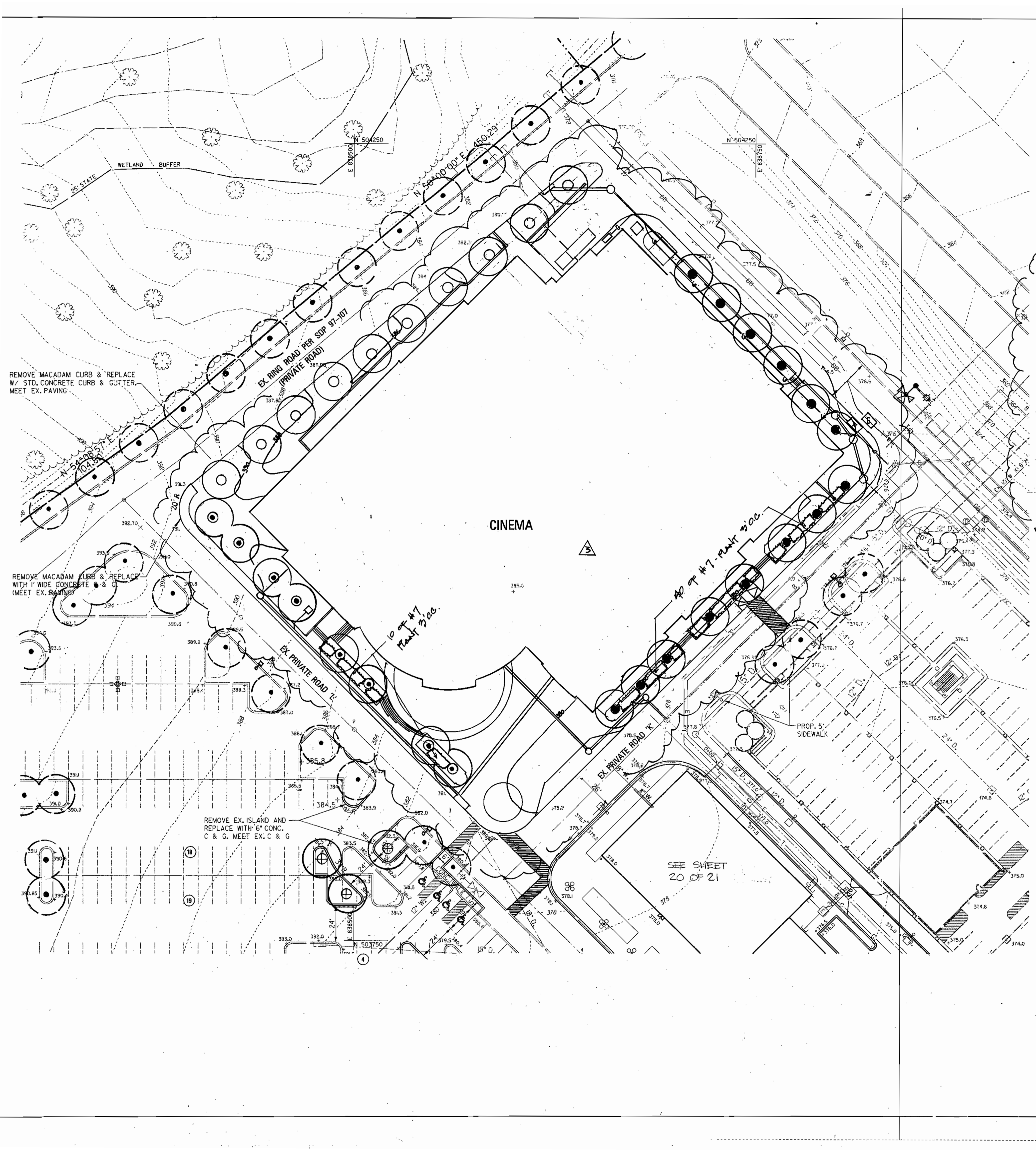
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Phone: (410) 296-3333  
Fax: 296-4705

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

TITLE

**PHASE IV  
STORM DRAIN PROFILES**

Des By	RLH	Scale	HORIZ. 1"=30' VERT. 1"=5'	Proj. No.	95019B1
Drn By	KDE	Date	2-22-00		
Chk By	JWR	Approved			18 OF 21



**LIGHTING LEGEND**  
 [Symbol] EX. LIGHTS  
 [Symbol] PROPOSED LIGHTS (BY OTHERS)

**PLANT LIST SHEETS L1, L2 & L3**

NO.	SYMBOL	QUN	PLANT NAME	SIZE	ROOT	REMARKS
1.	[Symbol]	21	ACER RUBRUM 'ARMSTRONG' ARMSTRONG MAPLE	2-2 1/2" CAL 12-14" HT	B & B	FULL HEADS
2.	[Symbol]	28	GLEBITZIA INERMIS 'TRII' 'SKYLINE' SKYLINE 'HONEY LOCUST	2-2 1/2" CAL 12-14" HT	B & B	FULL HEADS
3.	[Symbol]	9	MALUS 'SNOWDRIFT' SNOWDRIFT CRABAPPLE	2-2 1/2" CAL 6-10" HT	B & B	FULL HEADS
4.	[Symbol]	5	PINUS STROBUS WHITE PINE	8-10" HGT	B & B	FULL SHAPE
5.	[Symbol]	10	PLATANUS ACERIFOLIA LONDON PLANETREE	2 1/2-3 1/4" CAL 12-14" HT	B & B	FULL HEADS
6.	[Symbol]	16	QUERCUS PALICTRIS PIN OAK	2 1/2-3 1/4" CAL 12-14" HT	B & B	FULL HEADS
7.	[Symbol]	50	TAXUS MEDIA DENSIFORMIS DENSIFORMIS YEW	3" O.D. HEEDGE	B & B	FULL SHAPE
8.	[Symbol]		EXISTING TREES TO REMAIN; CONTRACTOR TO PROTECT TREES DURING CONSTRUCTION			
9.	[Symbol]		ALL AREAS DISTURBED DURING CONSTRUCTION TO BE GRADED & SEEDED AFTER DEDIMENT PLANT			

NOV 10, 1999  
Date



*Charles H. Shaw*

**General Planting Notes**

- All plant material to meet A.A.N. Standards
- Landscape Contractor to follow landscape specification guidelines for Baltimore Washington Metro area approved by ICAMW
- No substitutions to be made without consent of Landscape Architect or Owner
- All beds to be topped with three inches of hardwood mulch.
- Landscape Contractor to verify location of utilities with Owner before planting.
- Landscape Architect/Owner shall select, verify and/or approve all plant material. At Owners discretion, specimen and other plant material will be selected.
- Contractor shall notify Miss Utility 72 hours prior to construction.

8. SITE LIGHTING TO BE ACCORDANCE WITH MECH./ELECT PLANS IN ENGINEERS SITE PLAN SET AND SECTION 13.9 ZONING  
 9. PLANTING PLANS SH1, L1, L2 & L3 ARE FOR LANDSCAPING ONLY

10. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.104 OF THE HOWARD CO. CODE & THE LANDSCAPE MANUAL FOLLOWING THE ALTERNATIVE COMPLIANCE METHOD. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPE TREES IN THE AMOUNT OF \$20,000, MUST BE POSTED AS PART OF THE GRADING PERMIT (50 TREES, 0 P.L. TREES 50 SHRUBS.)

11. THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERRING FENCES, AND WALL. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITIONS, & WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, MAINTAINED OR REPLACED.

12. DEVELOPER'S/BUILDER'S CERTIFICATION  
 I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN SECTION 16.104 OF THE HOWARD CO. LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

*Charles H. Shaw* 11.9.99  
 NAME DATE  
**Charles H. Shaw**  
 Landscape Architect  
 6651 Cedar Lane  
 Columbia, MD 21044

**APPROVED**  
**PLANNING BOARD**  
 HOWARD COUNTY

DATE: FEBRUARY 10, 2000

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
*Michael J. Williams* 2/10/00  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE  
*David J. Edwards* 2/17/00  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE  
*John J. Smith* 2/20/00  
 DIRECTOR DATE

12/02/02 3 REV. PLANTINGS & QUANTITIES

Date	No.	Revision Description
		THE MALL IN COLUMBIA REVISED PHASE IV TOWN CENTER SECTION 2 AREA 1 HOWARD COUNTY, MD LOTS 42

OWNER / DEVELOPER:  
 THE HOWARD RESEARCH & DEVELOPMENT CORP.  
 COLUMBIA MALL, INC.  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044

**DMW**  
 Draft McCreary-Walker, Inc.  
 300 East Pennsylvania Avenue  
 Towson, Maryland 21286  
 (410) 296-3333  
 Fax 296-4700  
 A Team of Land Planners,  
 Landscape Architects,  
 Engineers, Surveyors &  
 Environmental Professionals

TITLE  
**PHASE IV**  
**SITE DEVELOPMENT PLAN**  
**CINEMA SITE**  
**LIGHTING & PLANTING PLAN**

Des By *Shaw* Scale 1" = 30' Proj. No. 95019.B1  
 Dwn By Date 2.22.00 L-1  
 Chk By Approved 19 of 21

SEE SHEET 19 OF 21

REMOVE EX. MACADAM CURB AND REPLACE W/ 1' CURB & GUTTER

MEET EX. CURB & GUTTER

EX. NORTHWEST PARKING DECK

EX. NORDSTROM

RESTAURANT #1  
8250 S.F. (GROSS)  
SLAB 378.0

RESTAURANT #2  
7200 S.F. (GROSS)  
SLAB 376.5

RESTAURANT #3  
8250 S.F. (GROSS)  
SLAB 375.5

REMOVE BRICK BULKHEAD, MATCH EXISTING SLOPE

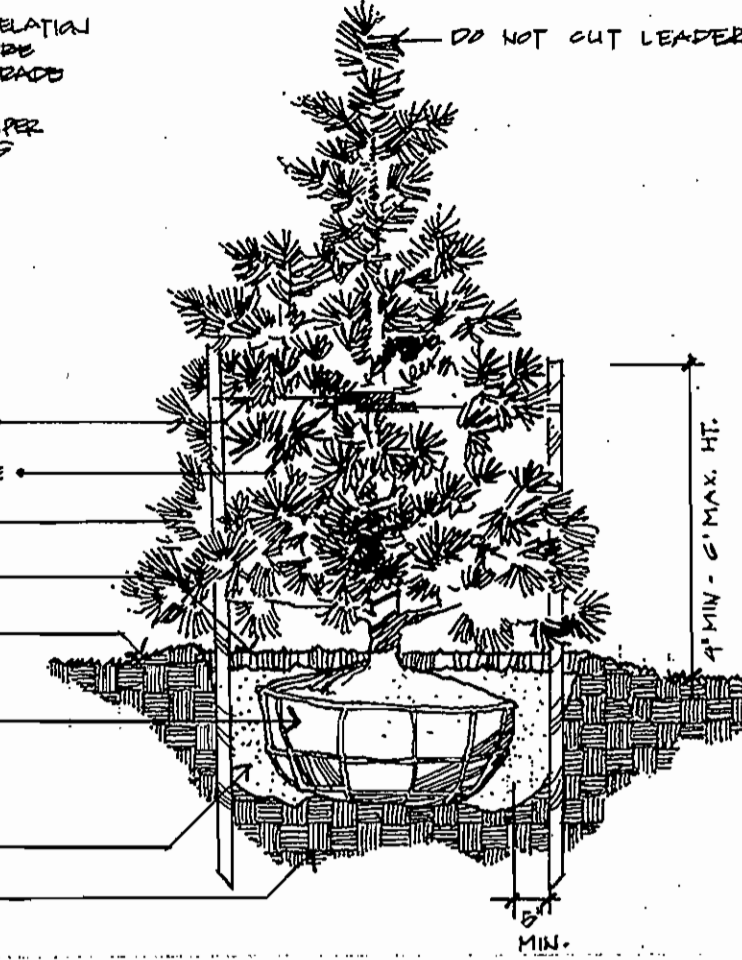
MEET EX. CURB W/ 6" CURB

EXISTING FAVERS

REMOVE CAP & EXTEND

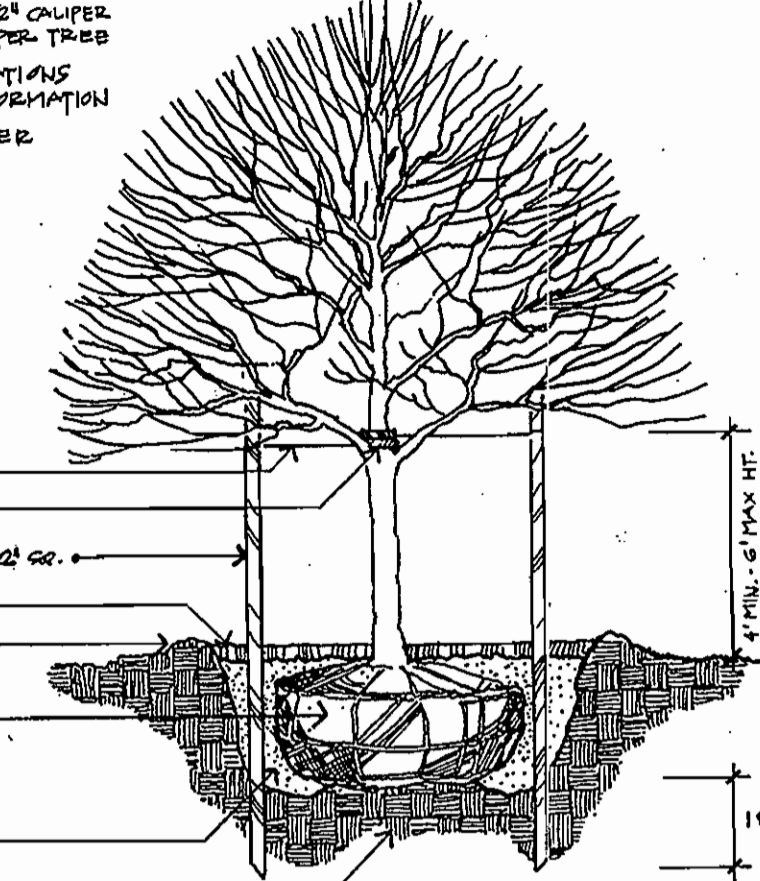
SEE SHEET 21 OF 21

- TREES SHALL BEAR SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUSLY EXISTING GRADE
- 2" D. TRUNK UNDER 4" IN GULCH WITH 2" HORIZONTAL SPACES PER TREE



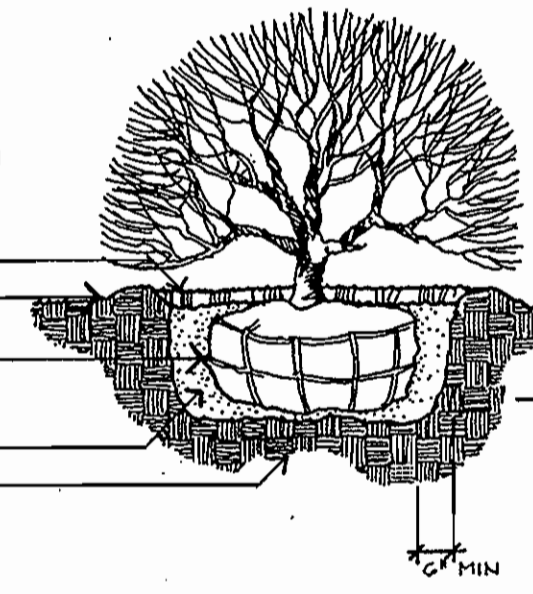
EVERGREEN PLANTING DETAIL

- GUY TREES UP TO 3/4" GAUGE WITH STAKES - 2 PER TREE
- REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION
- NEVER CUT LEADER OUT OF TREE



DECIDUOUS TREE PLANTING DETAIL

- SHRUB SHALL BEAR SAME RELATION TO FINISH GRADE AS IT BORE TO PREVIOUSLY EXISTING GRADE
- THIN BRANCHED AND PRUNGE (NOT ALL END-TIPS) BY 1/3, RETAINING NORMAL PLANT SHAPE.
- REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION



SHRUB PLANTING DETAIL

NOV 10, 99  
Date



Charles H. Shaw

APPROVED  
PLANNING BOARD  
HOWARD COUNTY  
DATE FEBRUARY 10, 2000

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	3/6/00
CHIEF, DIVISION OF LAND DEVELOPMENT	3/7/00
DIRECTOR	3/29/00

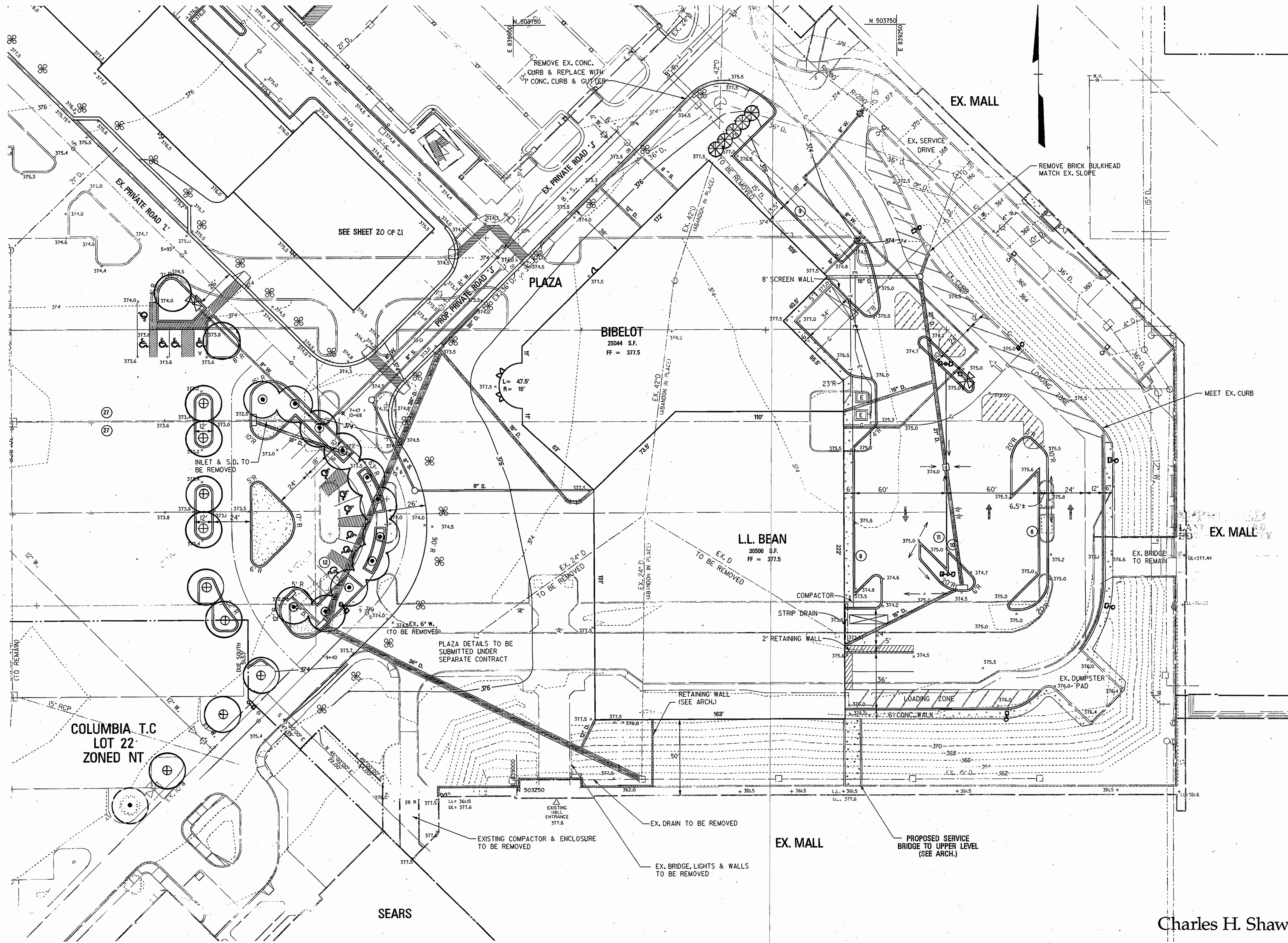
Date	No.	Revision Description
		THE MALL IN COLUMBIA PHASE IV TOWN CENTER SECTION 2 AREA 1 HOWARD COUNTY, MD LOTS 42
OWNER / DEVELOPER: THE HOWARD RESEARCH & DEVELOPMENT CORP. COLUMBIA MALL, INC. 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044		

**DMW**  
Duff-McCune-Walker, Inc.  
200 East Pennsylvania Avenue  
Towson, Maryland 21286  
(410) 286-3338  
Fax 296-4705

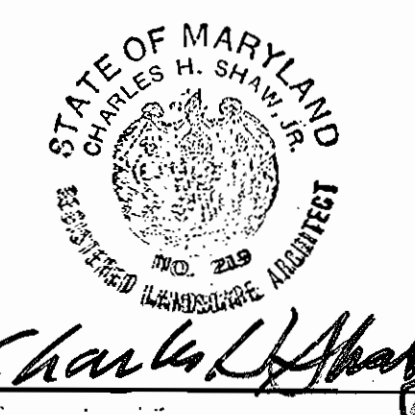
A Team of Land Planners,  
Landscape Architects,  
Engineers, Surveyors &  
Environmental Professionals

Charles H. Shaw  
Landscape Architect  
6651 Cedar Lane  
Columbia, MD 21044

TITLE	PHASE IV SITE DEVELOPMENT PLAN PROPOSED RESTAURANTS	
LIGHTING & PLANTING PLAN		
Des By	Scale 1" = 30'	Proj. No. 95019.B1
Dm By	Date 2-22-00	L2
Chk By	Approved	20 of 21



NOV. 10, 1999  
Date



*Charles H. Shaw*

**APPROVED**  
PLANNING BOARD  
of HOWARD COUNTY  
DATE FEBRUARY 10, 2000

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	
<i>John D. Williams</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	3/9/00 DATE
<i>Chris Handley</i> CHIEF, DIVISION OF LAND DEVELOPMENT	3/17/00 DATE
<i>Joseph S. Smith</i> DIRECTOR	3/23/00 DATE

Date	No.	Revision Description
		THE MALL IN COLUMBIA PHASE IV TOWN CENTER SECTION 2 AREA 1 HOWARD COUNTY, MD LOTS 42
OWNER / DEVELOPER: THE HOWARD RESEARCH & DEVELOPMENT CORP. COLUMBIA MALL, INC. 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044		

**DMW**  
Darr-McCune-Walkers, Inc.  
300 East Pennsylvania Avenue  
Towson, Maryland 21286  
(410) 296-3333  
Fax: 296-4705

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

TITLE	PHASE IV SITE DEVELOPMENT PLAN TOWN CENTER AREA	
LIGHTING & PLANTING PLAN		
Des By <i>Shaw</i>	Scale 1" = 30'	Proj. No. 95019.B1
Drn By	Date 2-22-00	L-3
Chk By	Approved	21 of 21

Charles H. Shaw  
Landscape Architect  
6651 Cedar Lane  
Columbia, MD 21044