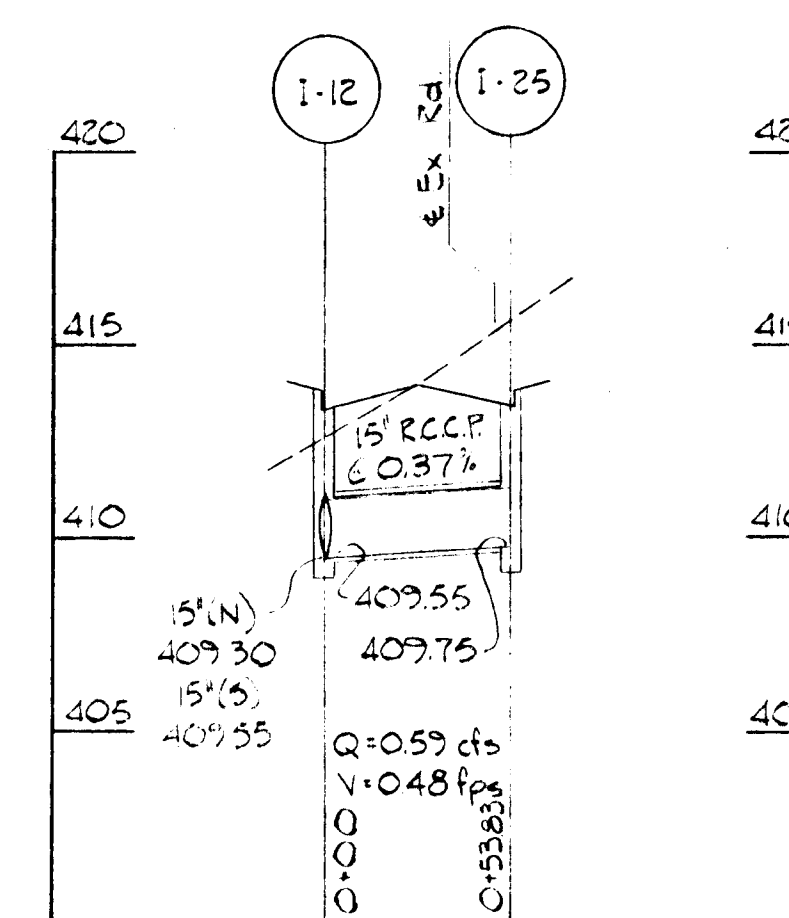
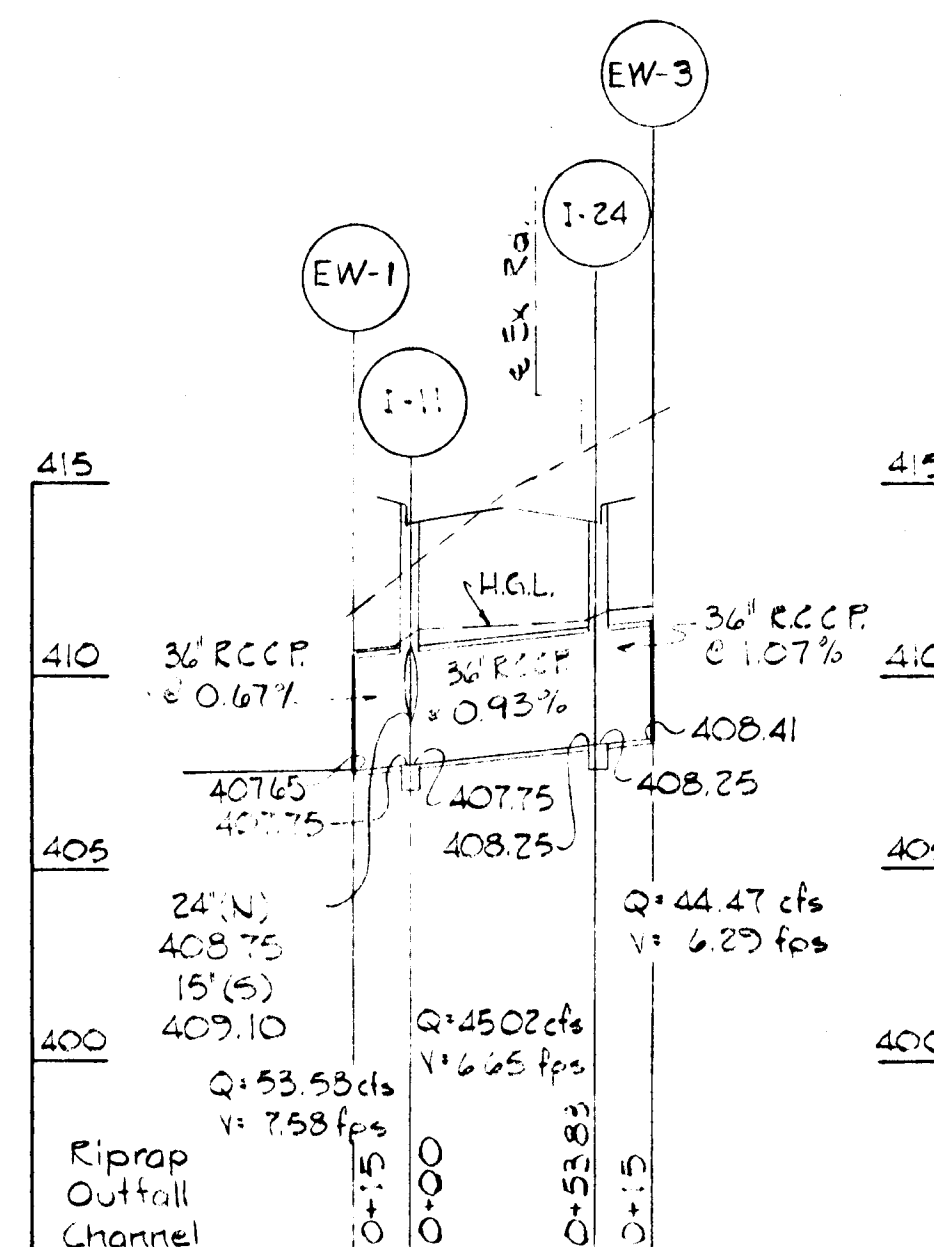
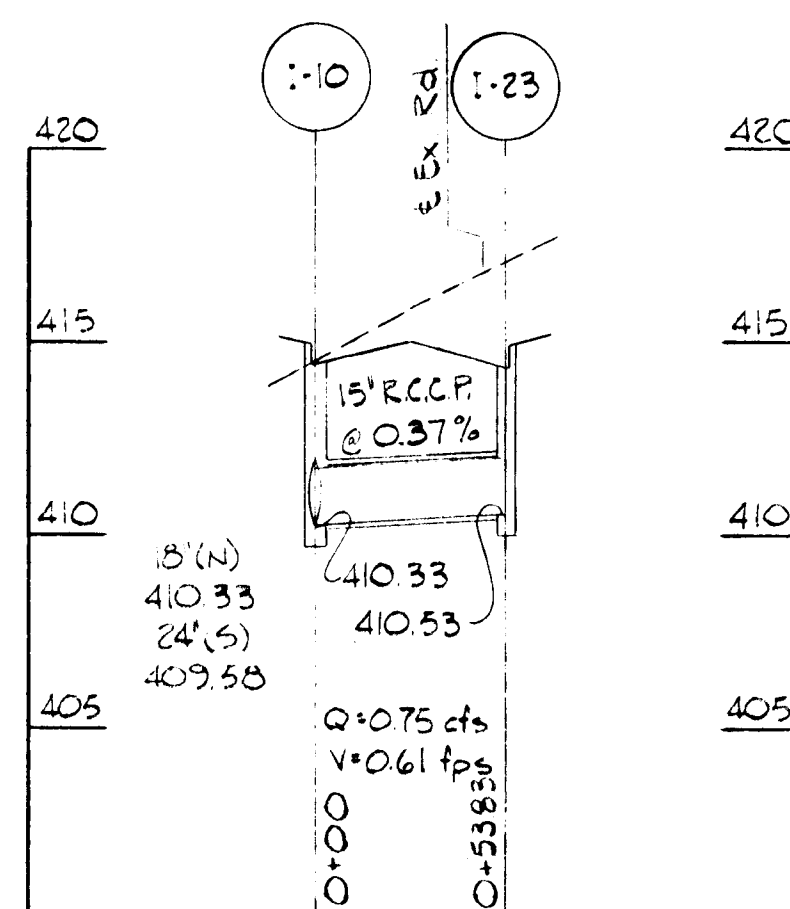
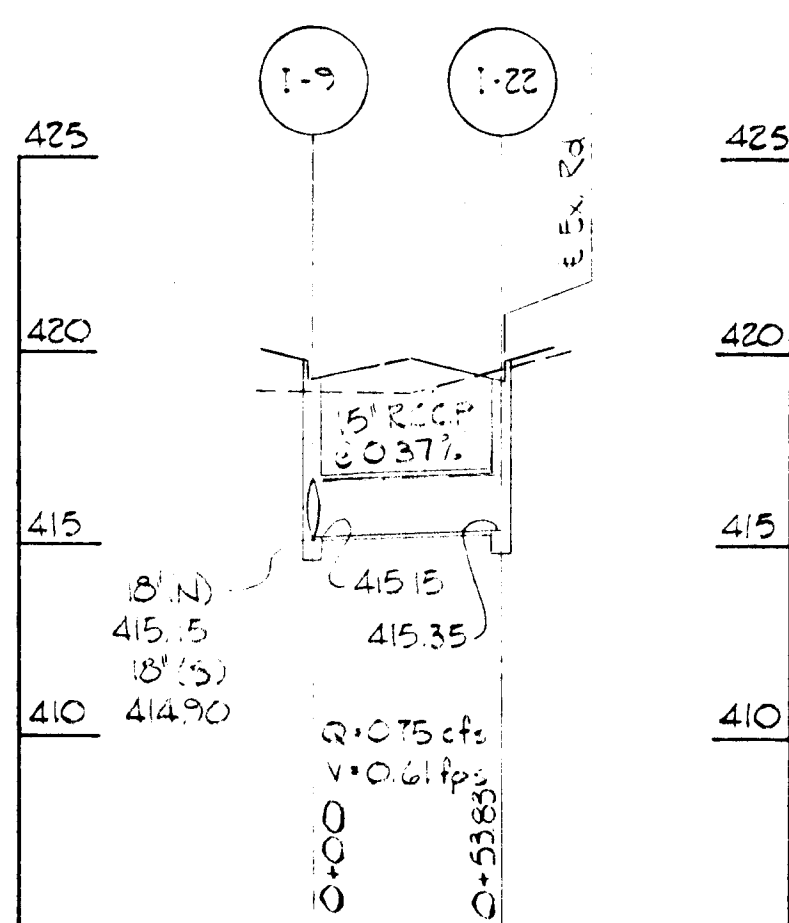


NOTE: ALL STORM DRAINS TO BE CLASS 4 UNLESS OTHERWISE STATED.

NOTE: INVERT ELEVATIONS SHOWN ON STORM DRAIN PROFILES ARE ON CULVERT GRADES PROJECTED TO E. OF PROP. INLETS.



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

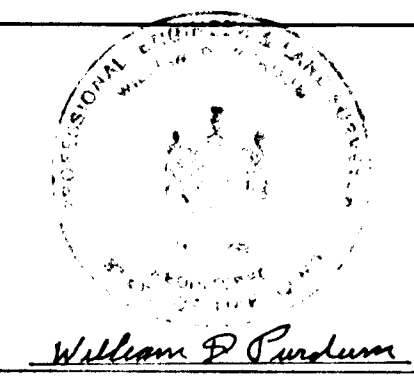
James J. ... 7/15/88
DIRECTOR OF PUBLIC WORKS DATE

...
CHIEF, BUREAU OF ENGINEERING DATE

...
CHIEF, DIVISION OF ROADS, BRIDGES AND STORM DRAINAGE DATE

PURDUM & JESCHKE
CONSULTING ENGINEERS
LAND SURVEYORS

1029 North Calvert Street
Baltimore, Maryland 21202 301/837-0194



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CHK:	
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BY:	
NO.:	
REVISION:	
DATE:	

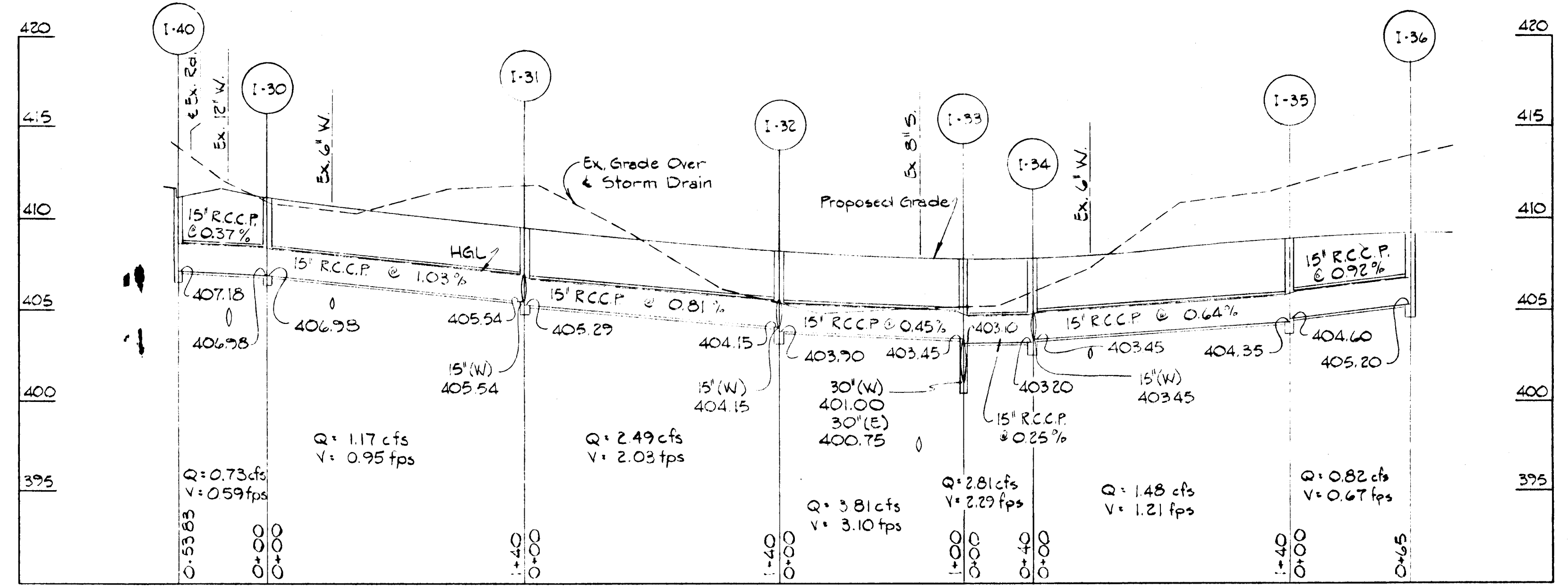
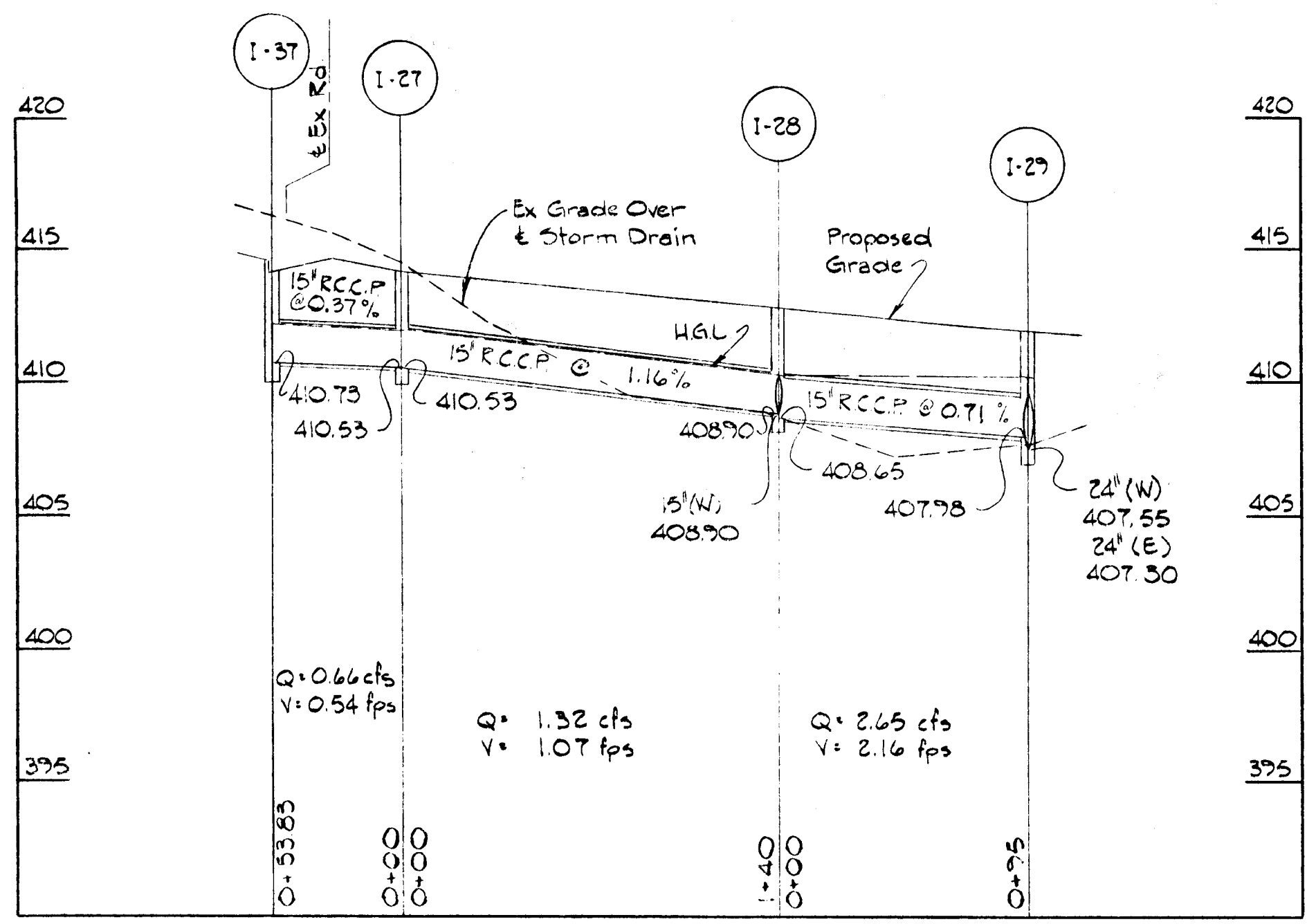
STORM DRAIN
PROFILES
CEDAR LANE-PHASE I

600' SCALE MAP NO. _____ BLOCK NO. _____

HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
CAPITAL PROJECT J-4086
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

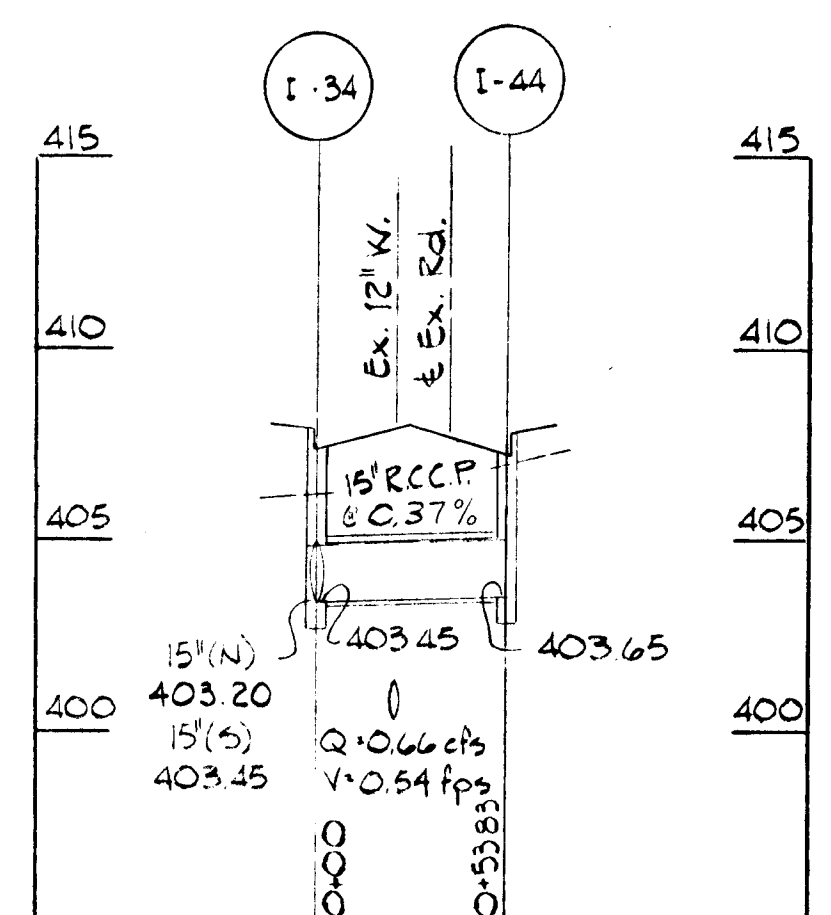
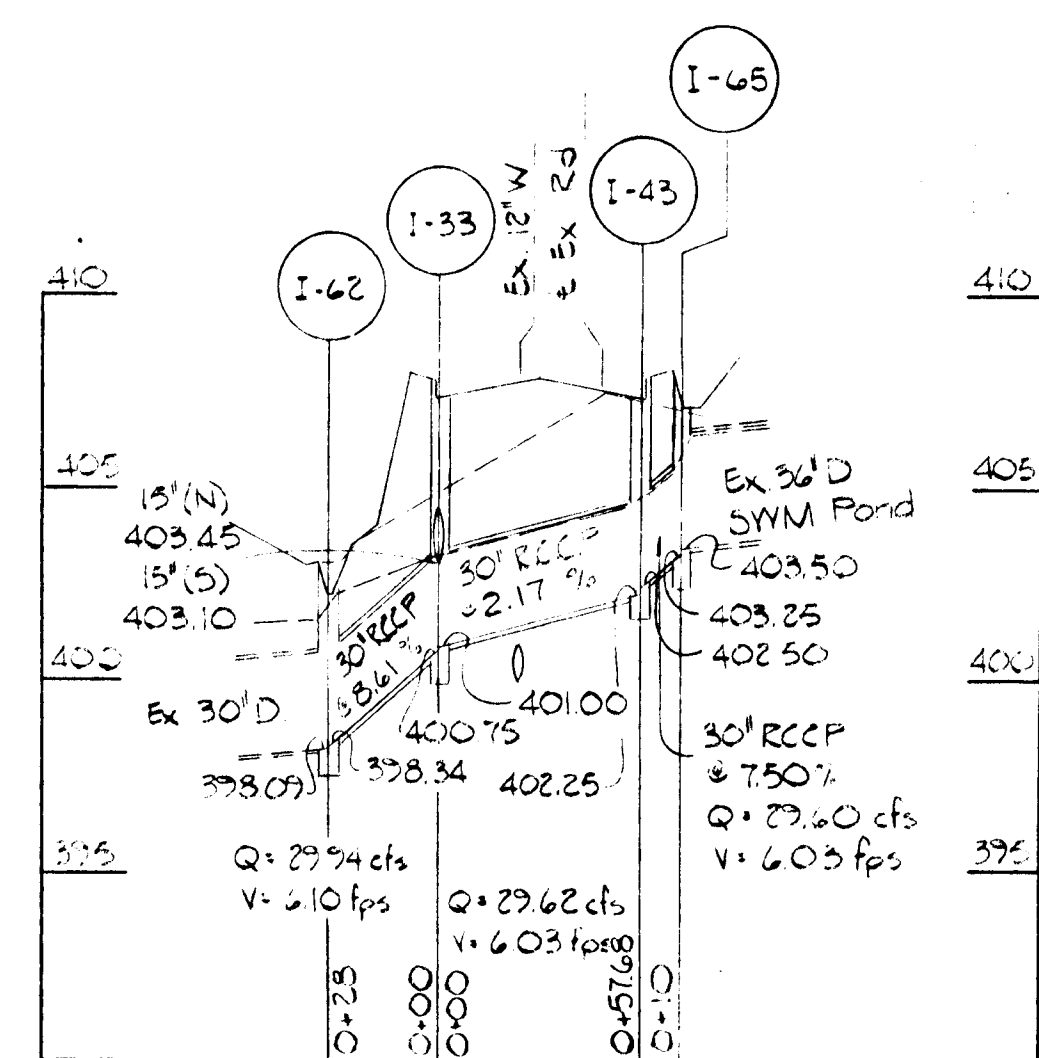
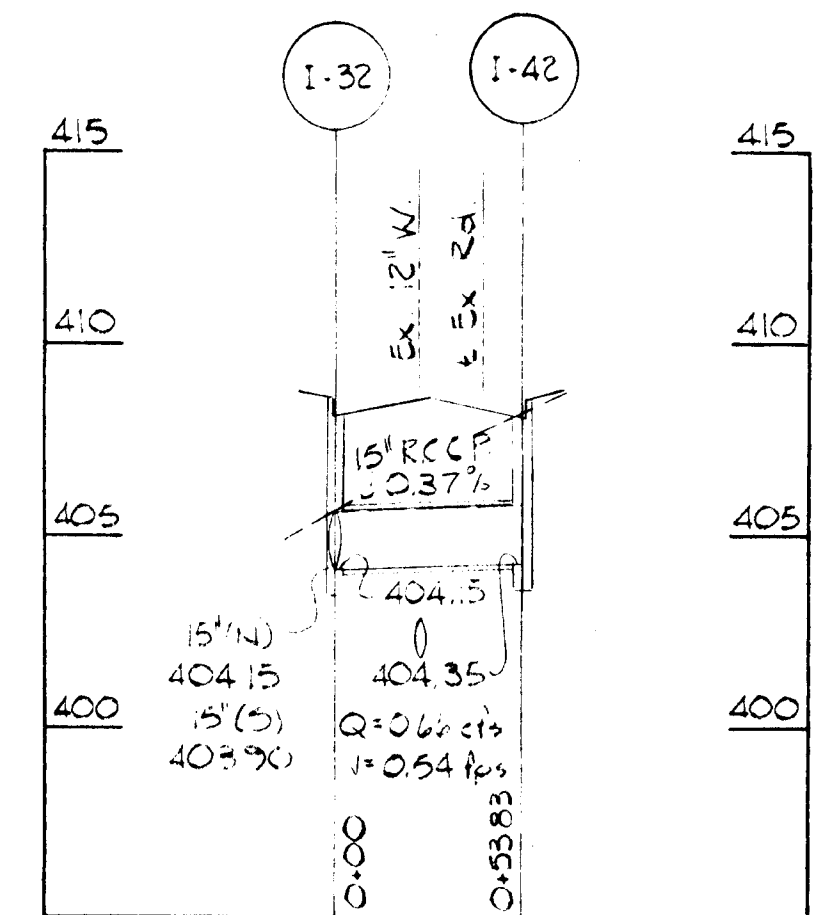
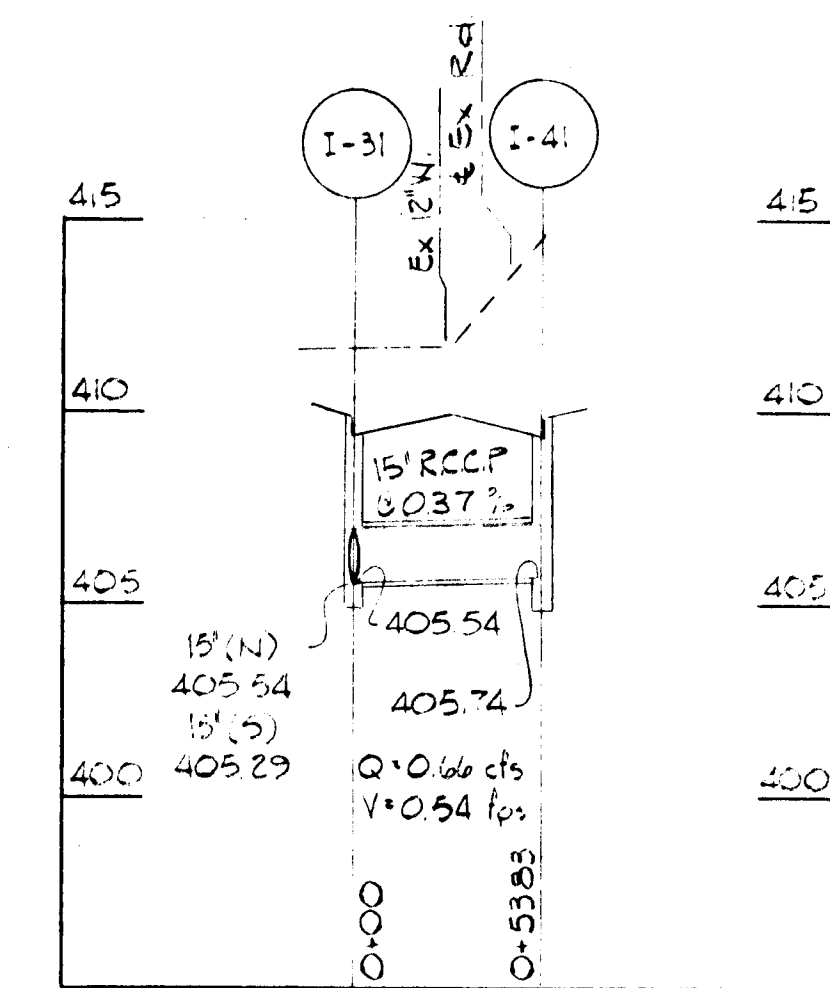
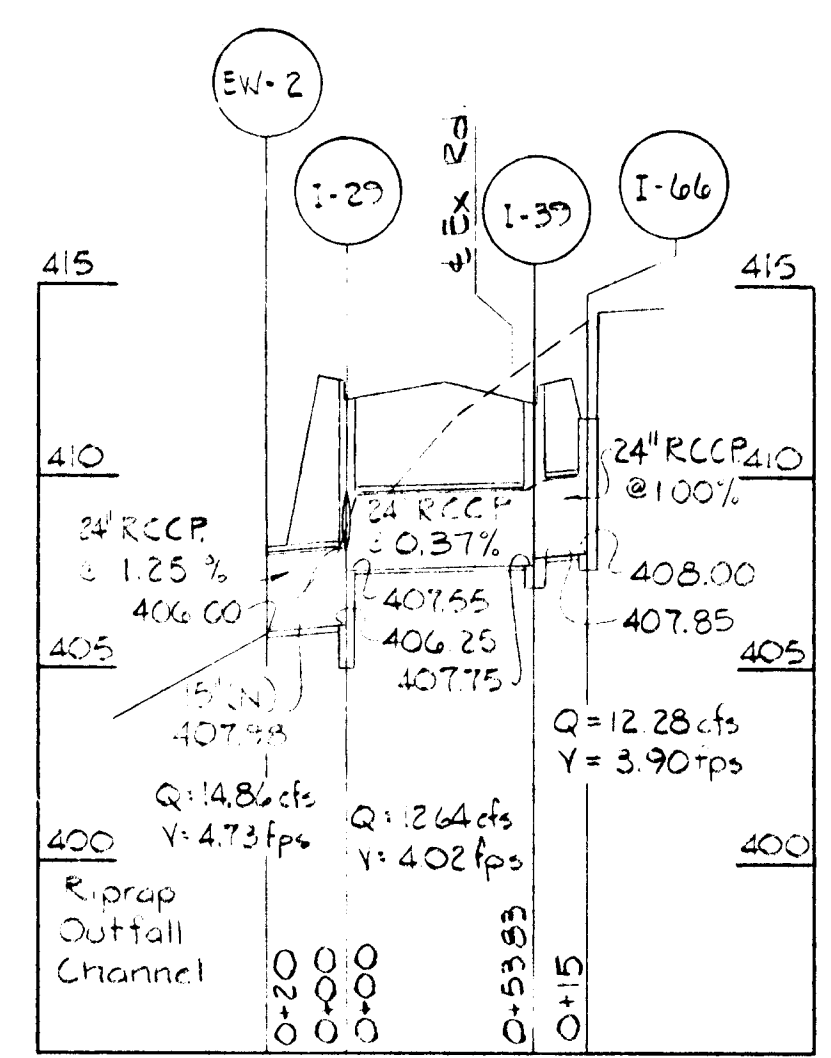
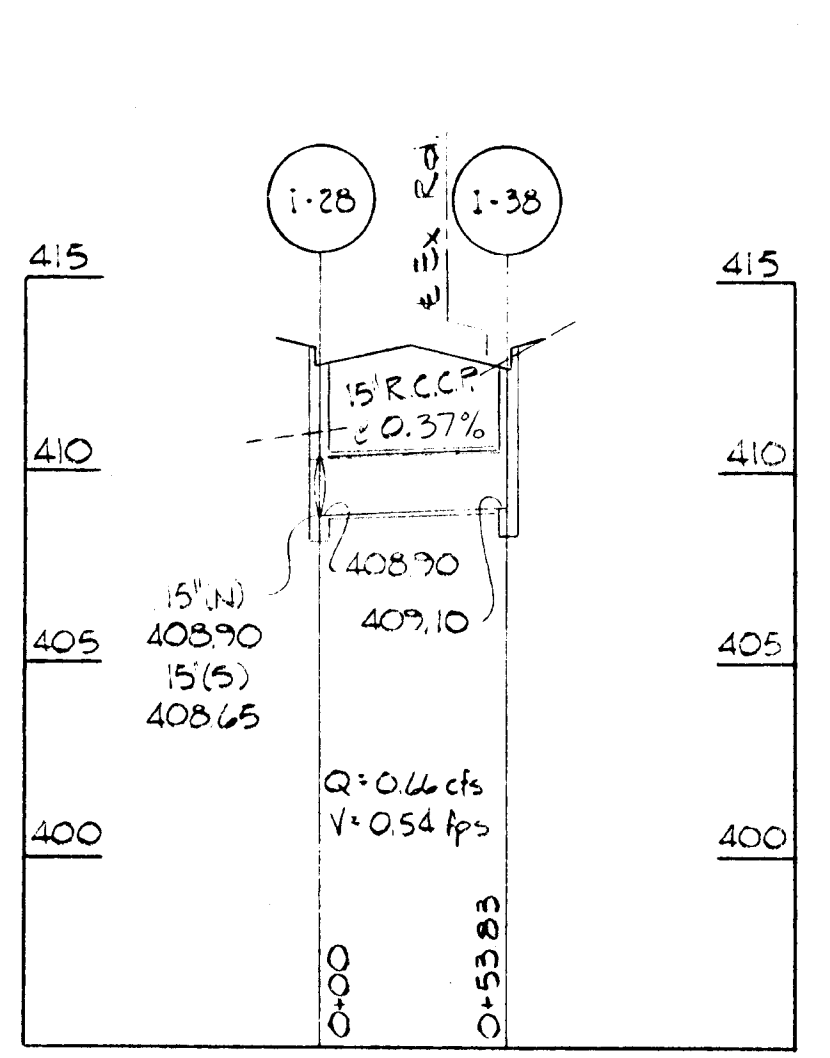
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VERT: 1"=5'

SHEET
15 OF 22



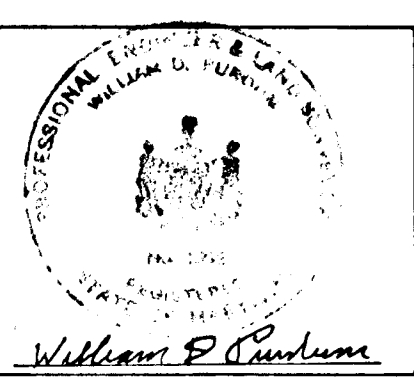
NOTE: ALL STORM DRAIN PIPE TO BE CLASS 4 UNLESS OTHERWISE STATED.

NOTE: INVERT ELEVATIONS SHOWN ON STORM DRAIN PROFILES ARE ON CULVERT GRADES PROJECTED TO & OF PROP. INLETS



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Ramon M. ... DIRECTOR OF PUBLIC WORKS
... CHIEF, BUREAU OF ENGINEERING
 CHIEF, DIVISION OF ROADS, BRIDGES AND STORM DRAINAGE

PURDUM & JESCHKE
CONSULTING ENGINEERS
LAND SURVEYORS
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Baltimore, Maryland 21202 301/837-0194



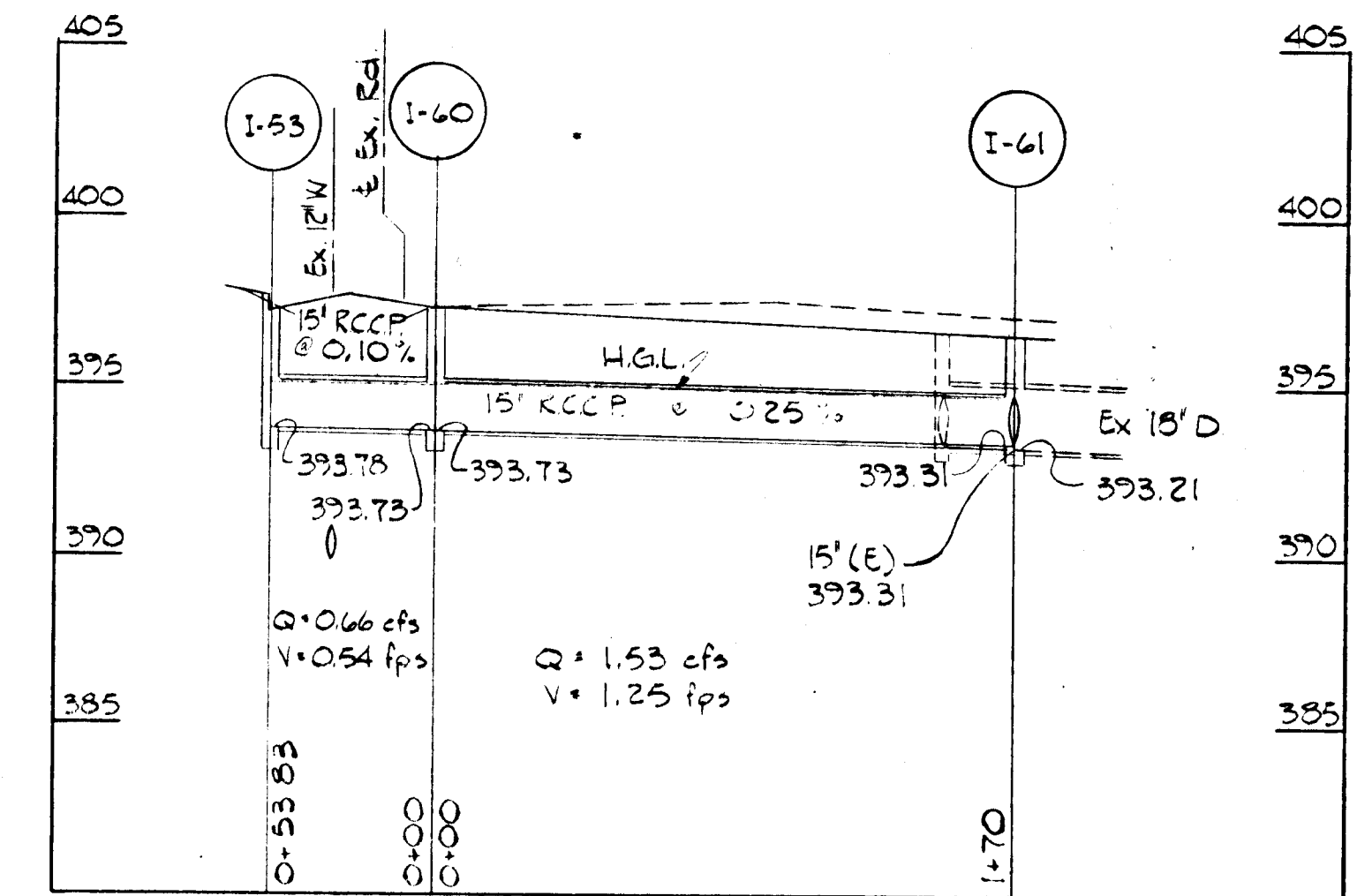
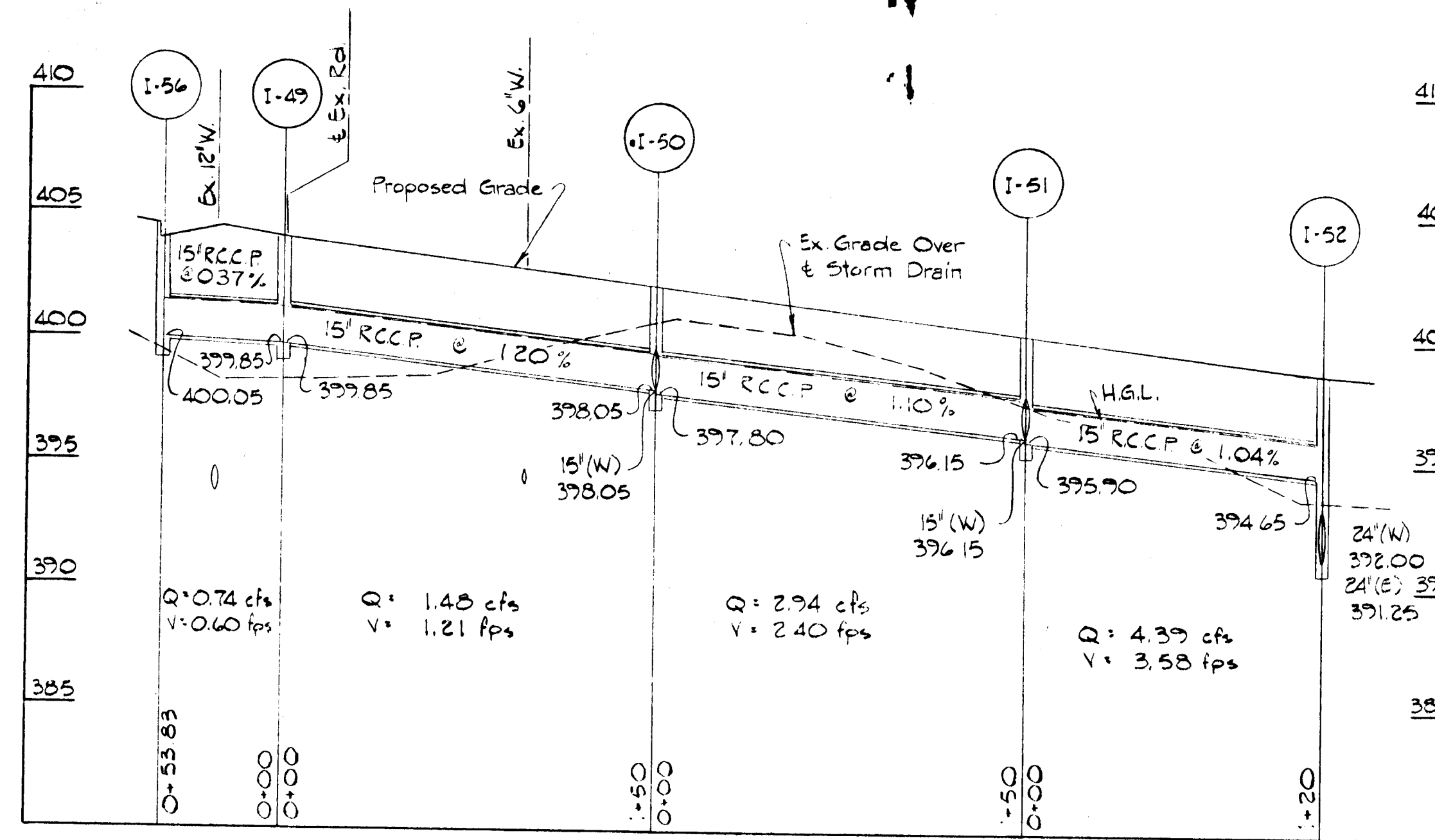
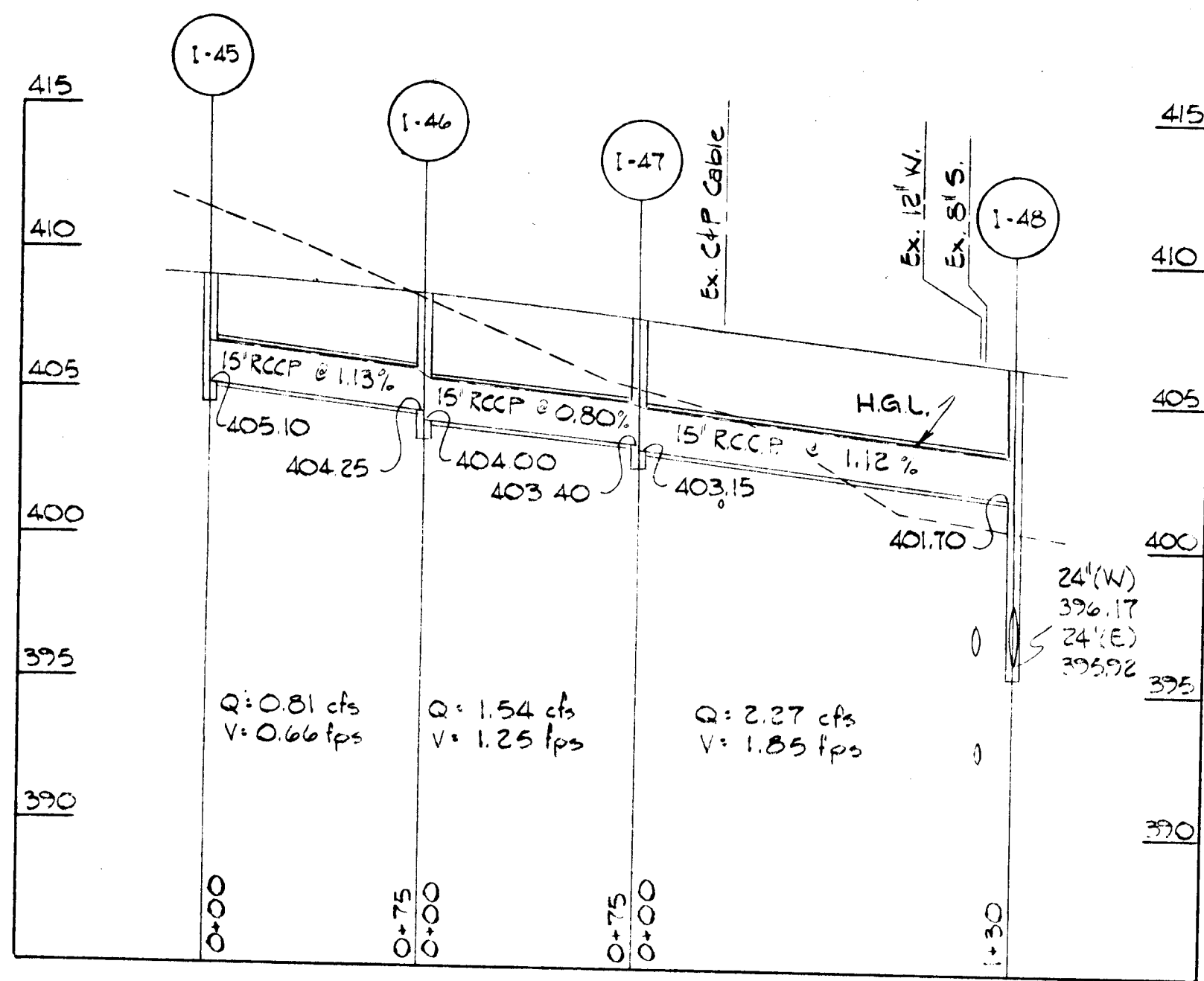
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REVISION:	
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STORM DRAIN
PROFILES
CEDAR LANE-PHASE I
 600' SCALE MAP NO. _____ BLOCK NO. _____

HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
CAPITAL PROJECT J-4086
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

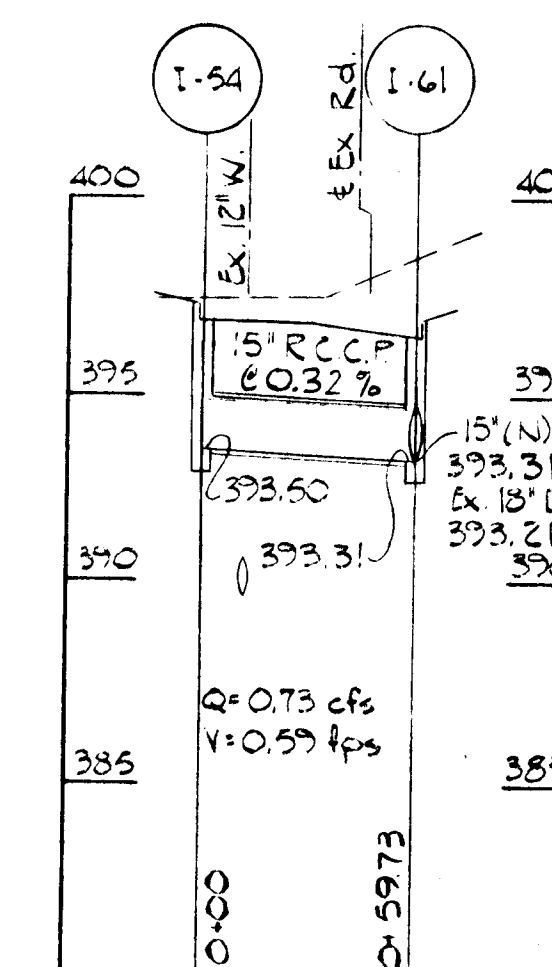
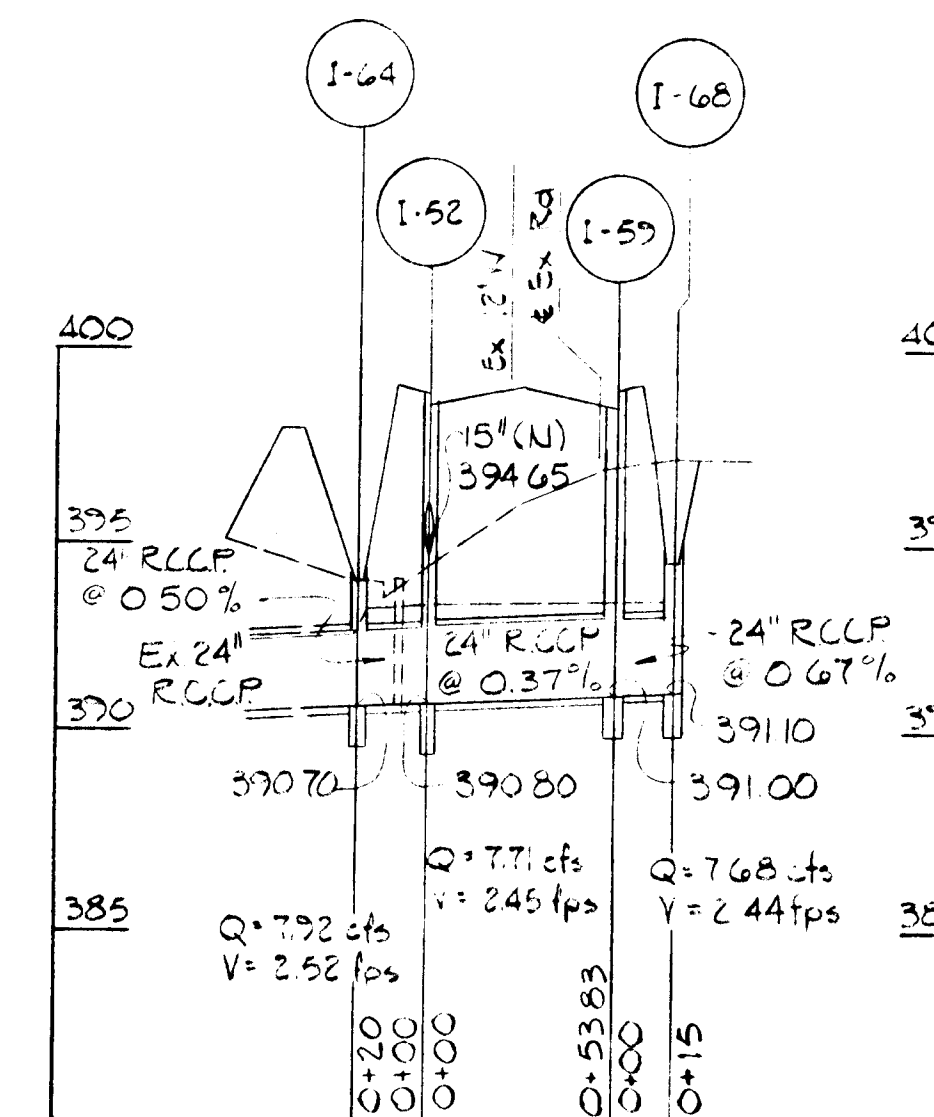
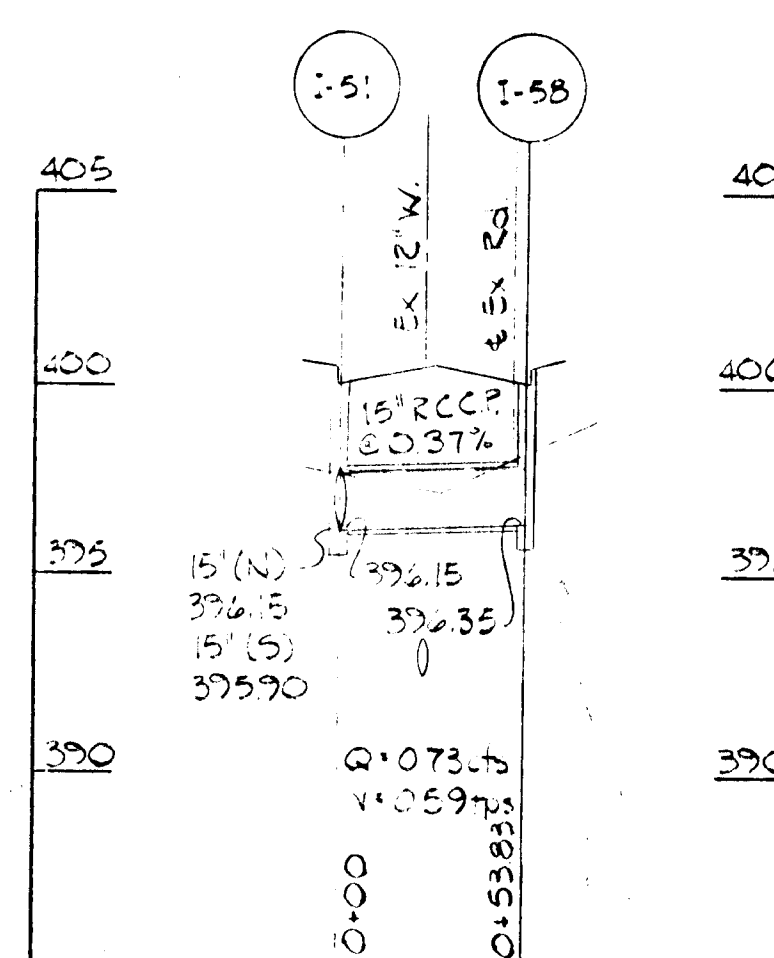
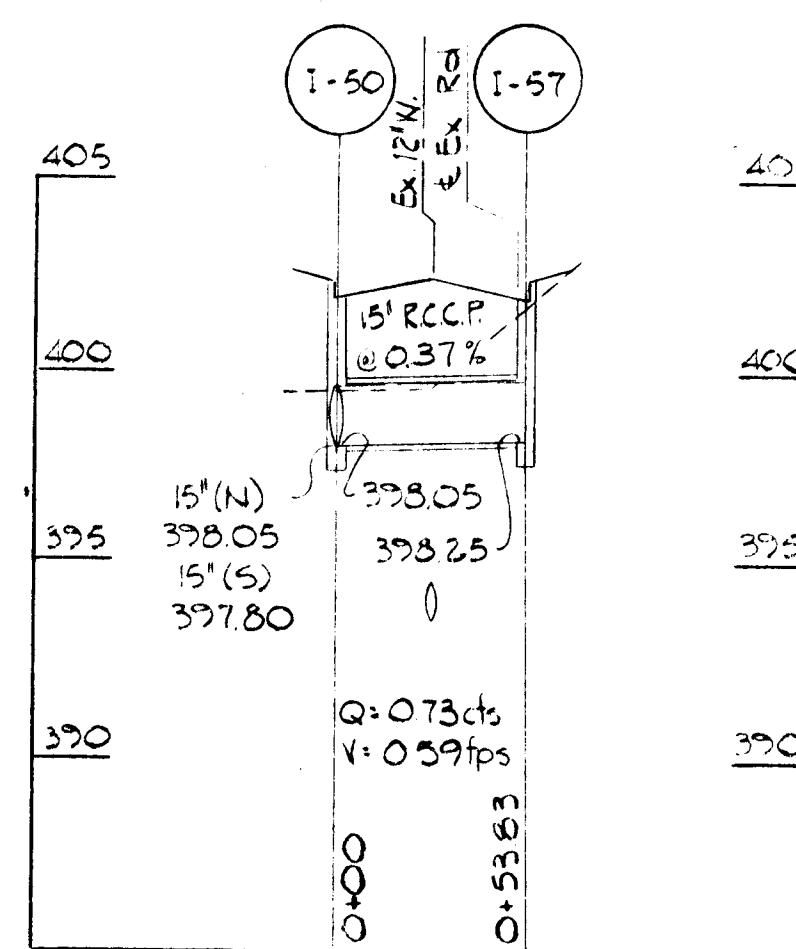
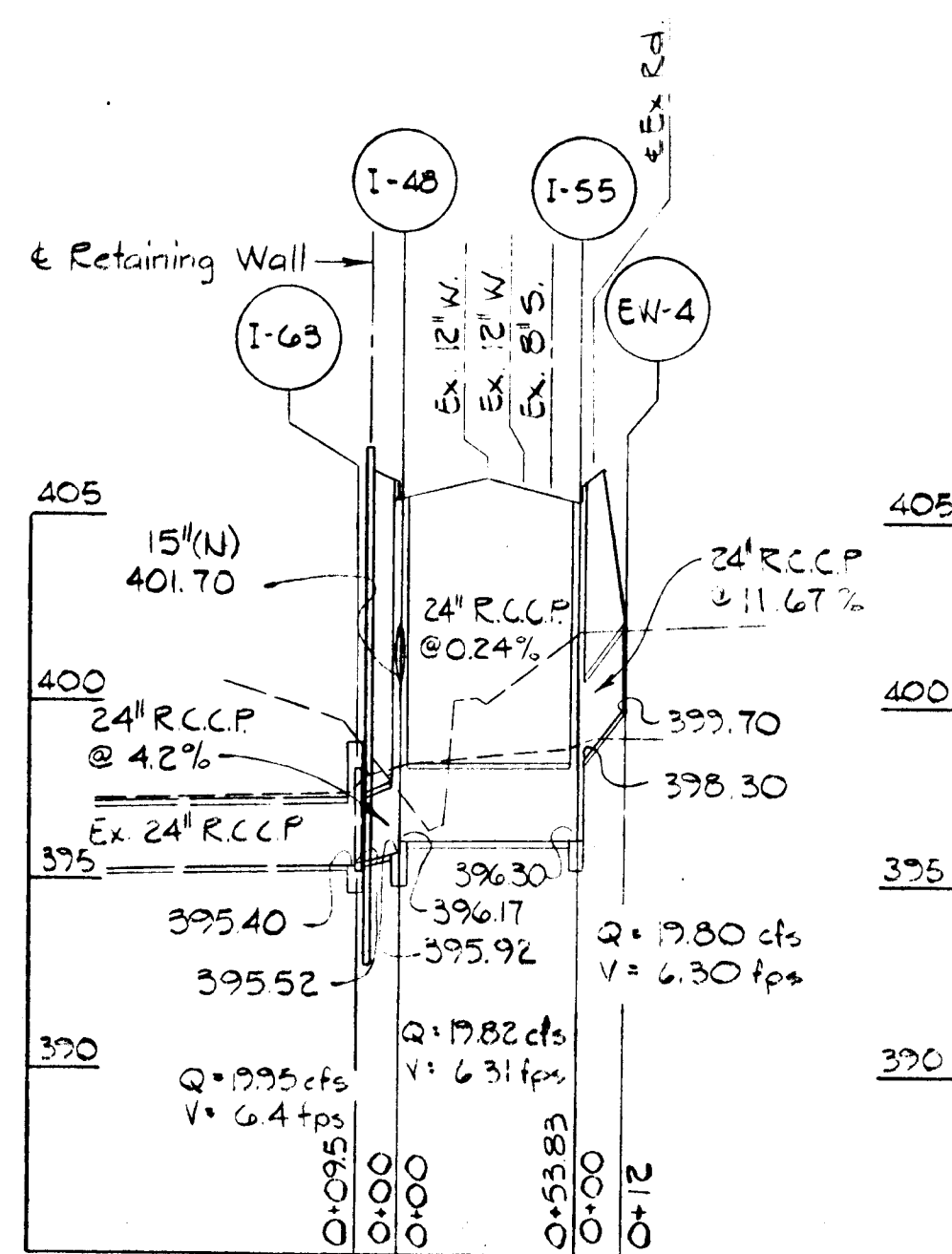
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SHEET
16 OF 22

FINAL 7/19/88



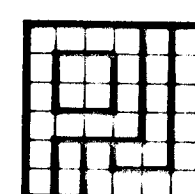
NOTE: ALL STORM DRAIN PIPE TO BE CLASS 4 UNLESS OTHERWISE STATED.

NOTE: INVERT ELEVATIONS SHOWN ON STORM DRAIN PROFILES ARE ON GULVERT GRADES PROJECTED TO \pm OF PROP INLETS.



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Ramon A. L... *7-11-88*
DIRECTOR OF PUBLIC WORKS DATE
... *7/11/88*
CHIEF, DIVISION OF ROADS, BRIDGES AND STORM DRAINAGE DATE



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LAND SURVEYORS
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Baltimore, Maryland 21202 301/837-0194

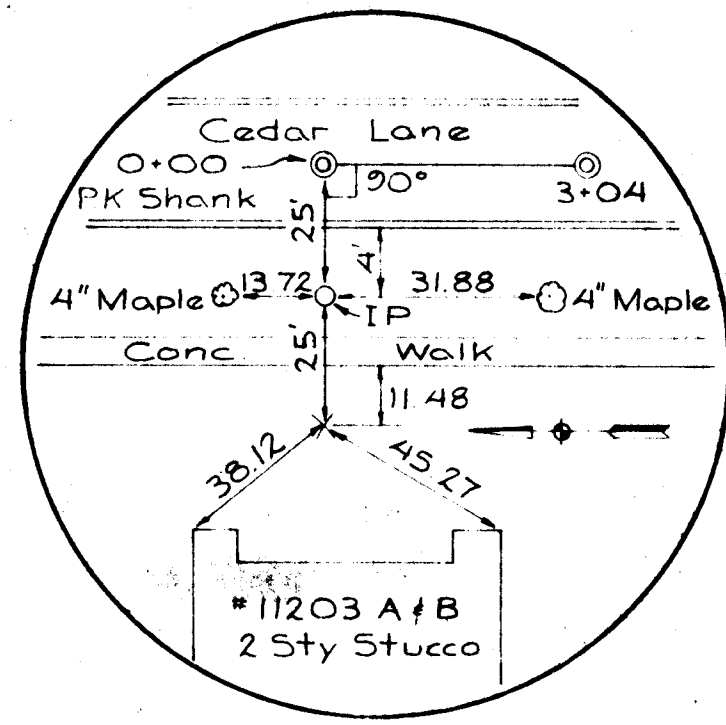


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DATE:	BY	NO.	REVISION

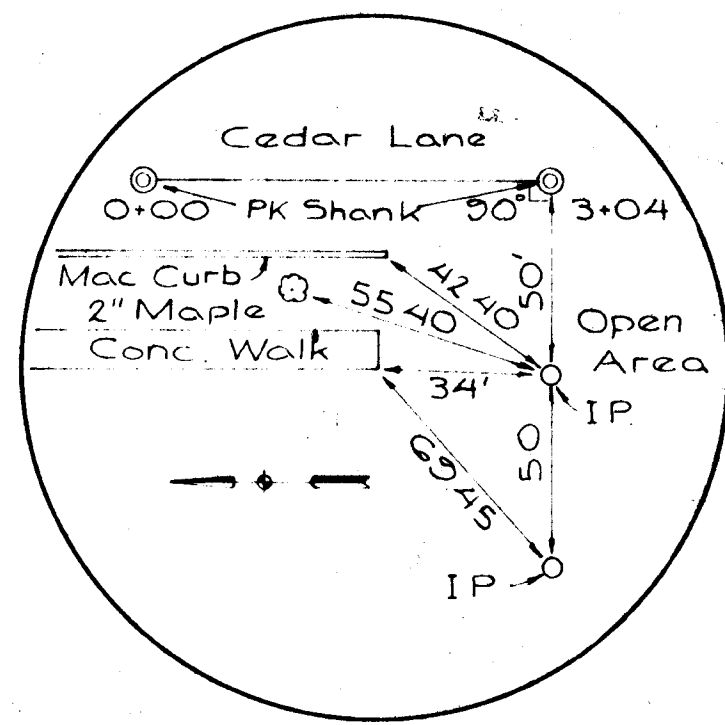
STORM DRAIN
PROFILES
CEDAR LANE-PHASE I

HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
CAPITAL PROJECT J-4086
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

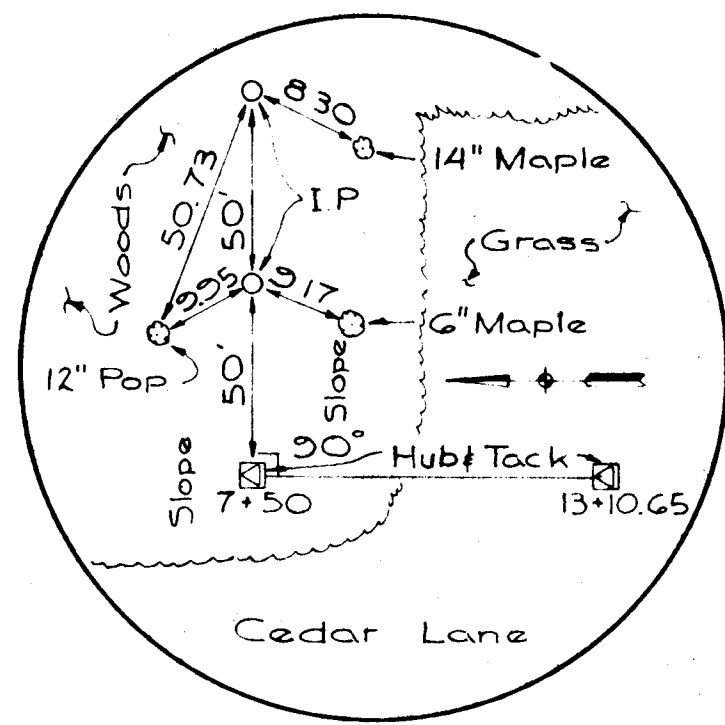
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VERT. 1"=5'
SHEET
17 OF 22



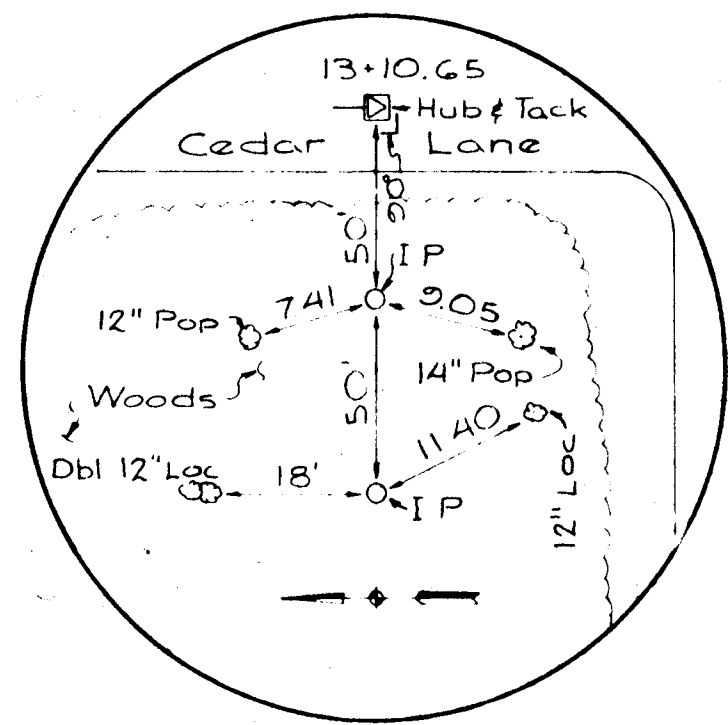
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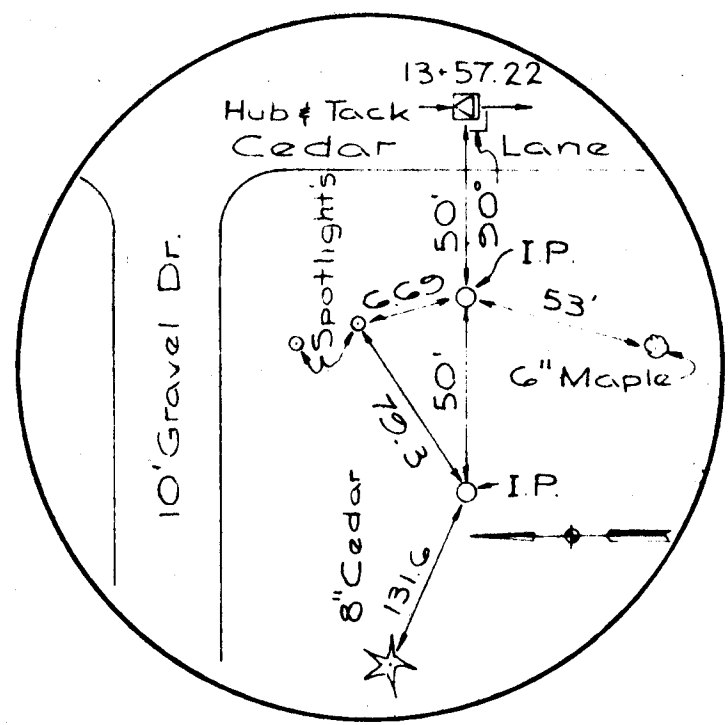
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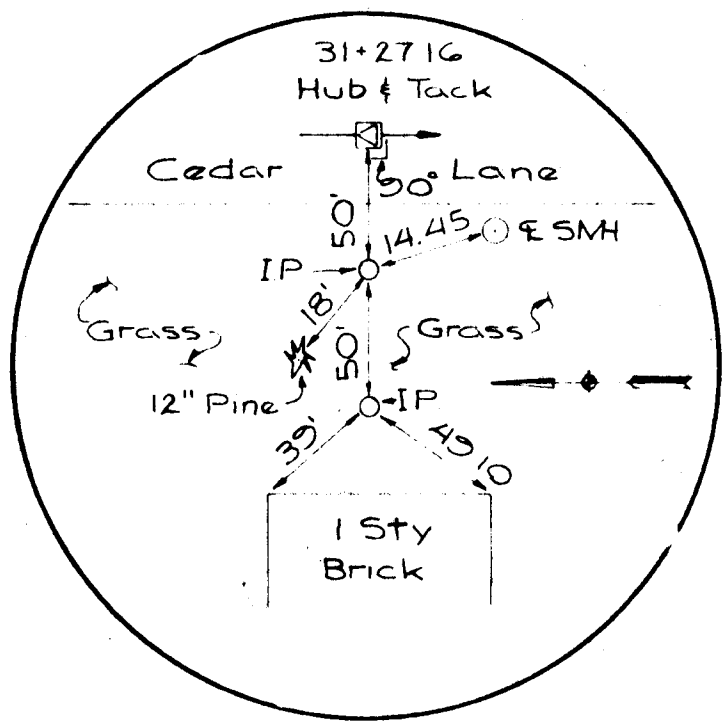
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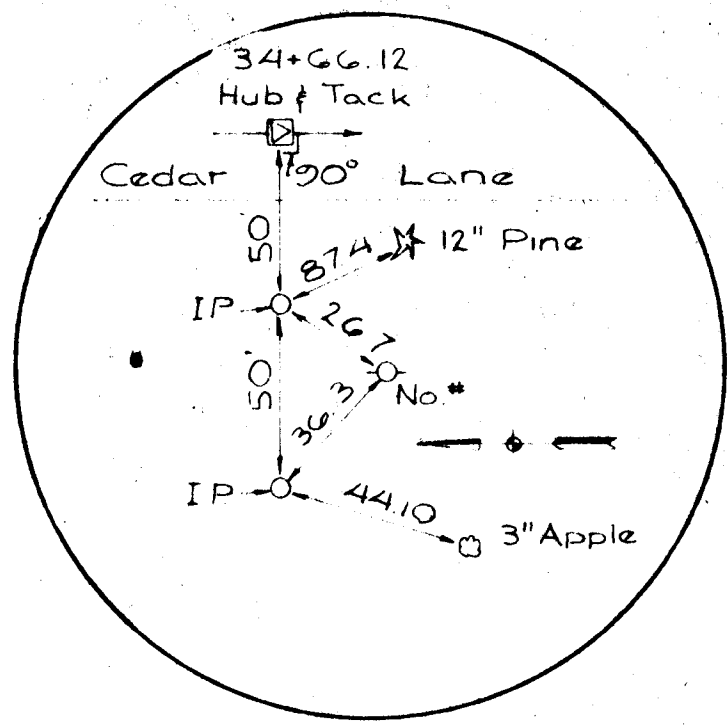
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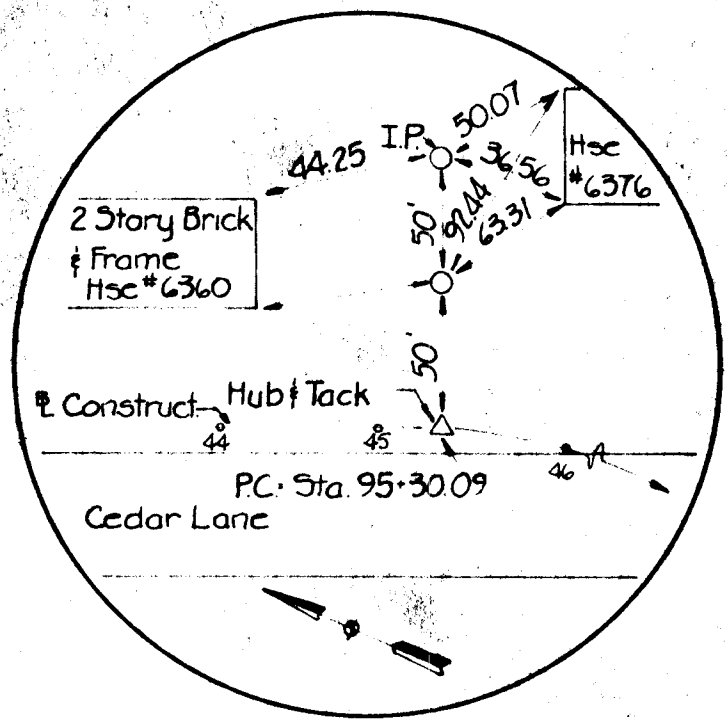
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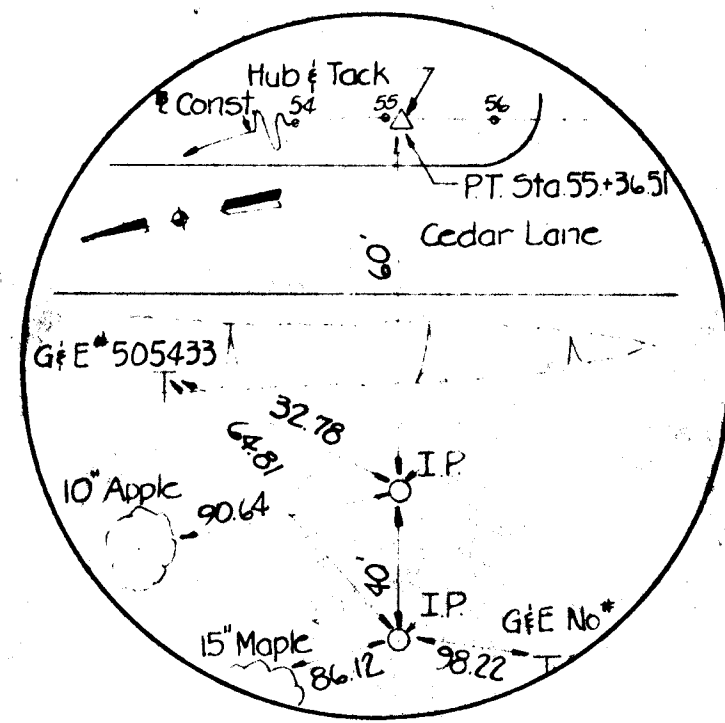
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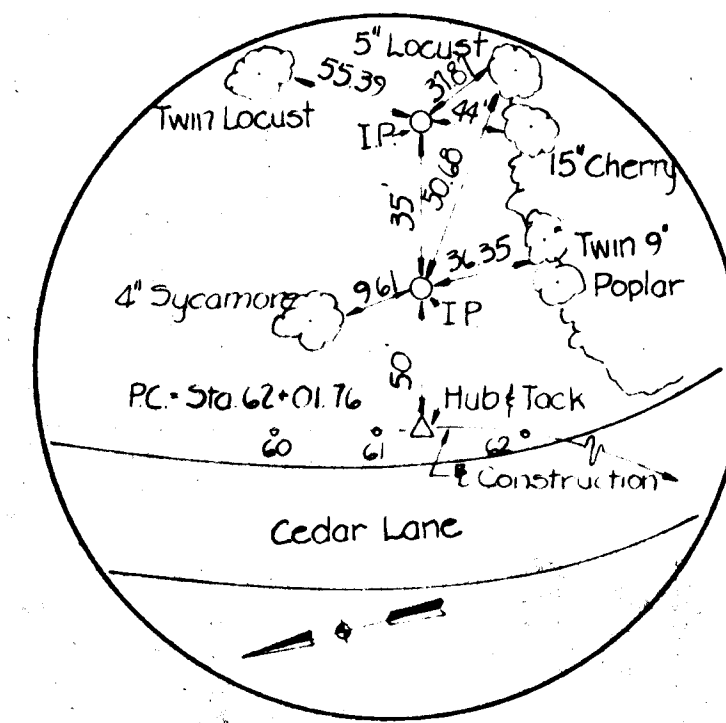
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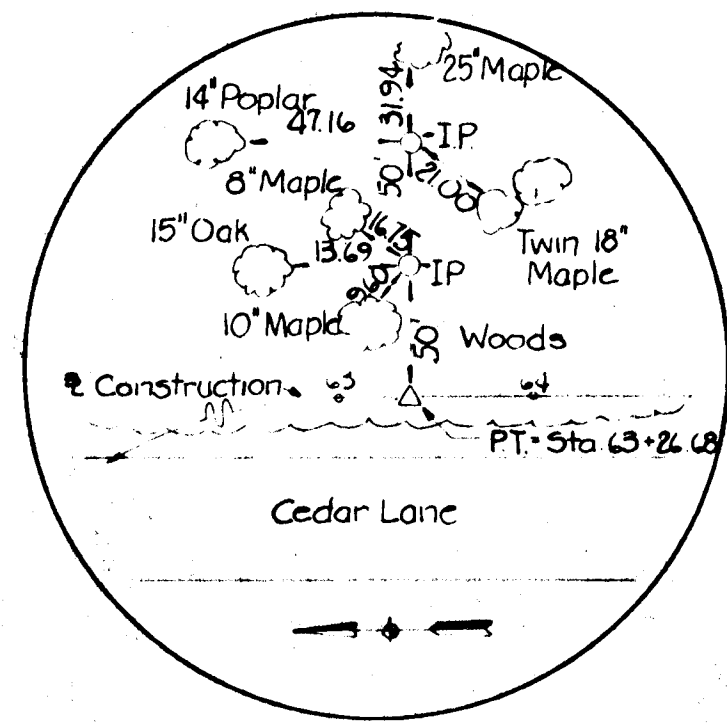
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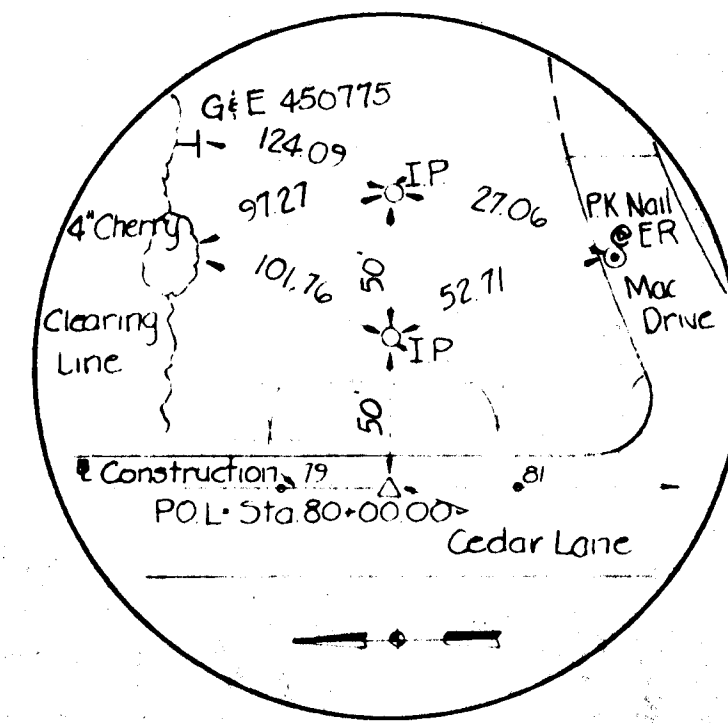
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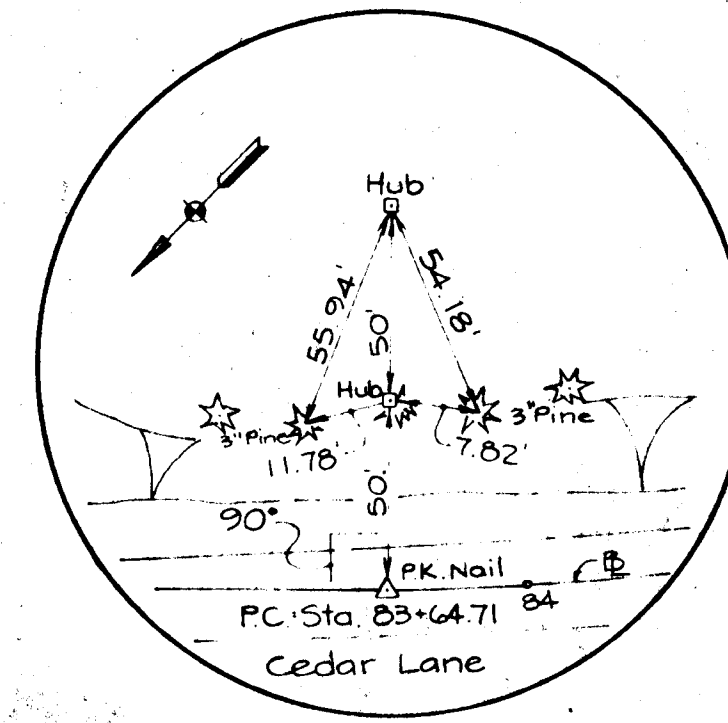
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POL=STA 80+00.00
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PC=STA 83+64.71
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E 830456.215

BM*107 Elev. 457.36

□ Cut 1/4\"/>

BM*108 Elev. 437.21

□ Cut nail East side of C&P#55, West side of Cedar Lane, 70'± Northwest of Δ 908

BM*109 Elev. 404.69

□ Cut nail East side of C&P#45, West side of Cedar Lane, 100'± South of Intersection of Hilltop Rd., 40'± Southwest of Δ 909

BM*110 Elev. 392.15

□ Cut nail West side of GE#243871 Northwest Corner Intersection of Owen Brown & Cedar Lane, 30'± North of Δ 910

BM*111 Elev. 410.31

□ Cut nail, East Side of C&P#20 West Side Cedar Lane @ Entrance of Convalescent Home, 40'± Northwest of Δ 911

BM*111-A Elev. 390.80

□ Cut nail, East side of C&P#18, West side Intersection of Freetown Rd. & Cedar Lane.

BM*112 Elev. 381.74

□ Cut nail set West side of 30 Locust tree, East side of Cedar Lane, 15'± Northeast of Δ 912

BM*113 Elev. 351.03

□ Cut nail set in West side of GE#62242, West side of Cedar Lane, 100'± North of Intersection of Braeburn Rd., 100'± West of Δ 913

BM*114 Elev. 337.46

□ PK nail @ Edge of Road Δ 914.

BM*115 Elev. 350.21

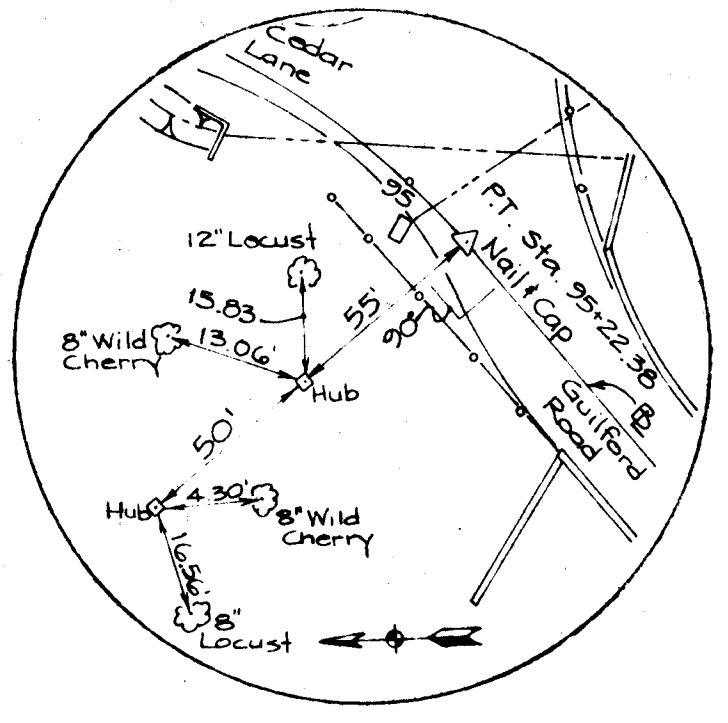
□ Spike, West side of EGE#450774, 30'± East of Δ 915, East side of Cedar Lane.

BM*116 Elev. 317.15

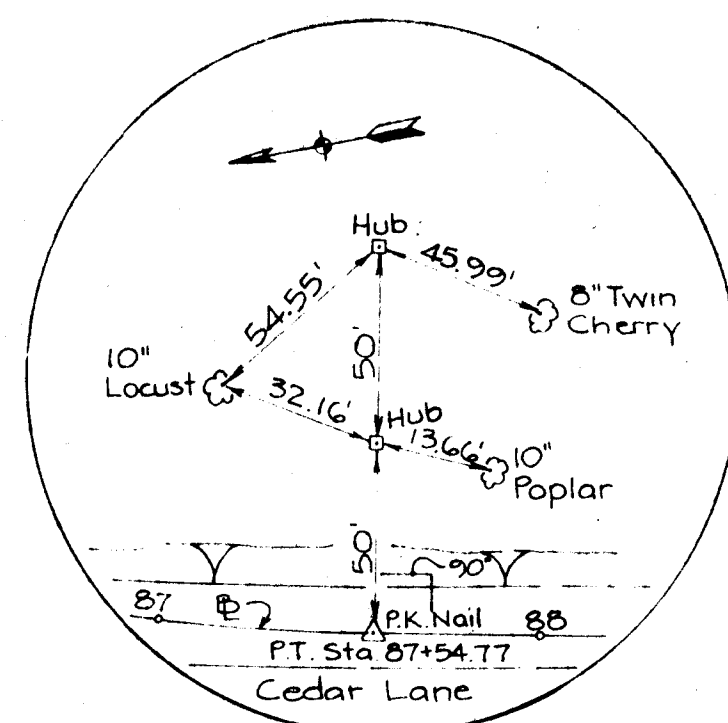
□ Cut nail West side of GE#132254, East side of Cedar Lane, 100'± Δ 916

BM*117 Elev. 303.39

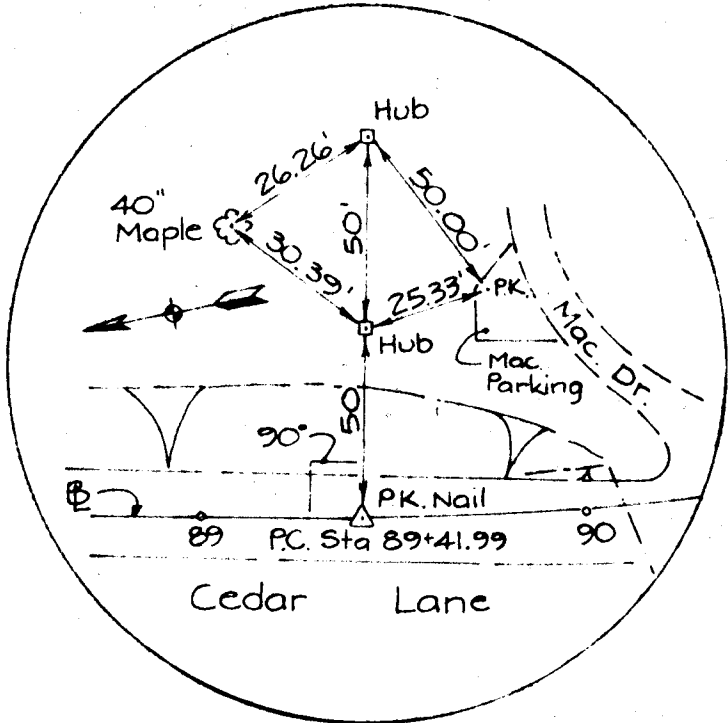
□ Spike, West side of GE#162252, East side of Cedar Lane, 300'± North of Route 32, 100'± South of Δ 917.



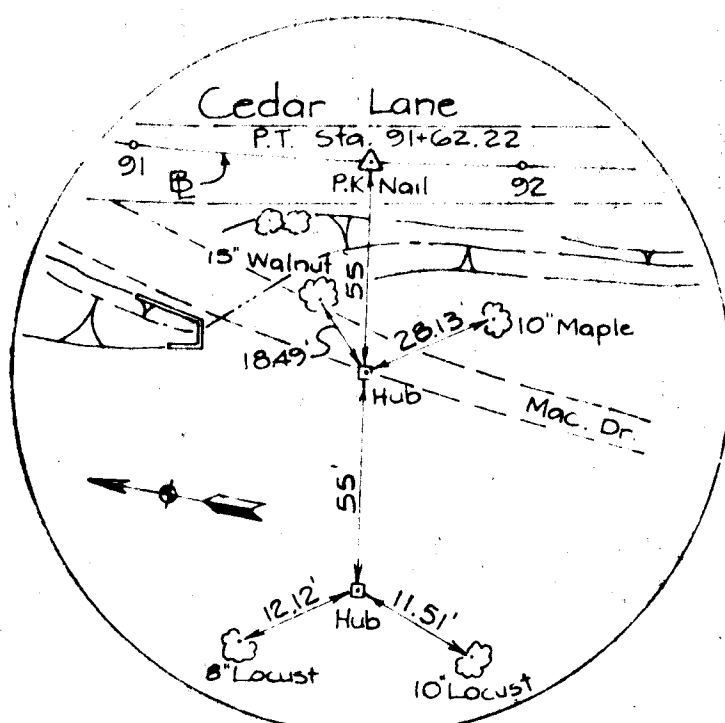
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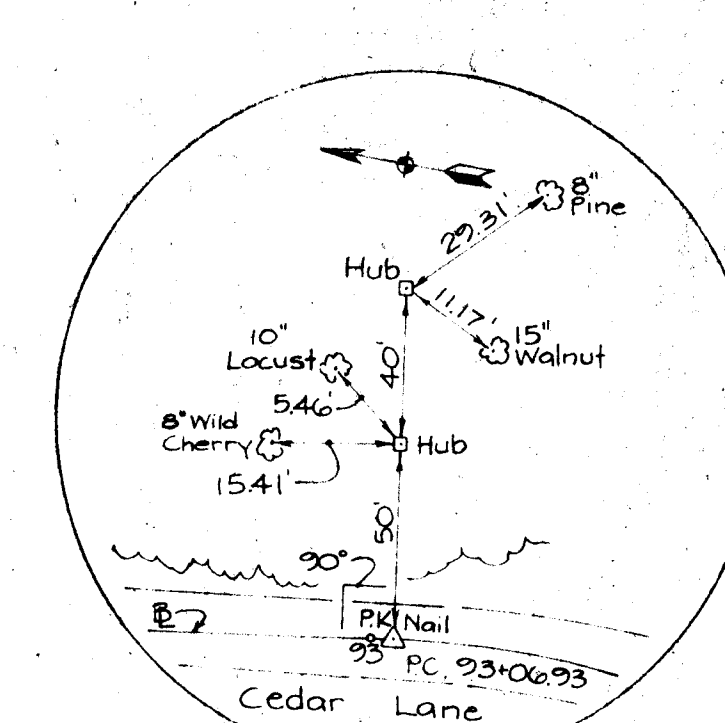
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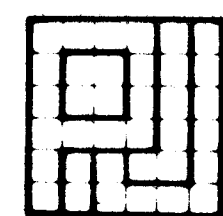


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CHK:				
DATE:	BY	NO	REVISION	DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James M. ... 7-11-88
DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF ENGINEERING DATE
Robert Anderson
CHIEF, DIVISION OF ROADS, BRIDGES, & STORM DRAINAGE DATE



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LAND SURVEYORS
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HORIZONTAL & VERTICAL
CONTROLS
CEDAR LANE
PHASE I

HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
CAPITAL PROJECT J-4086
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

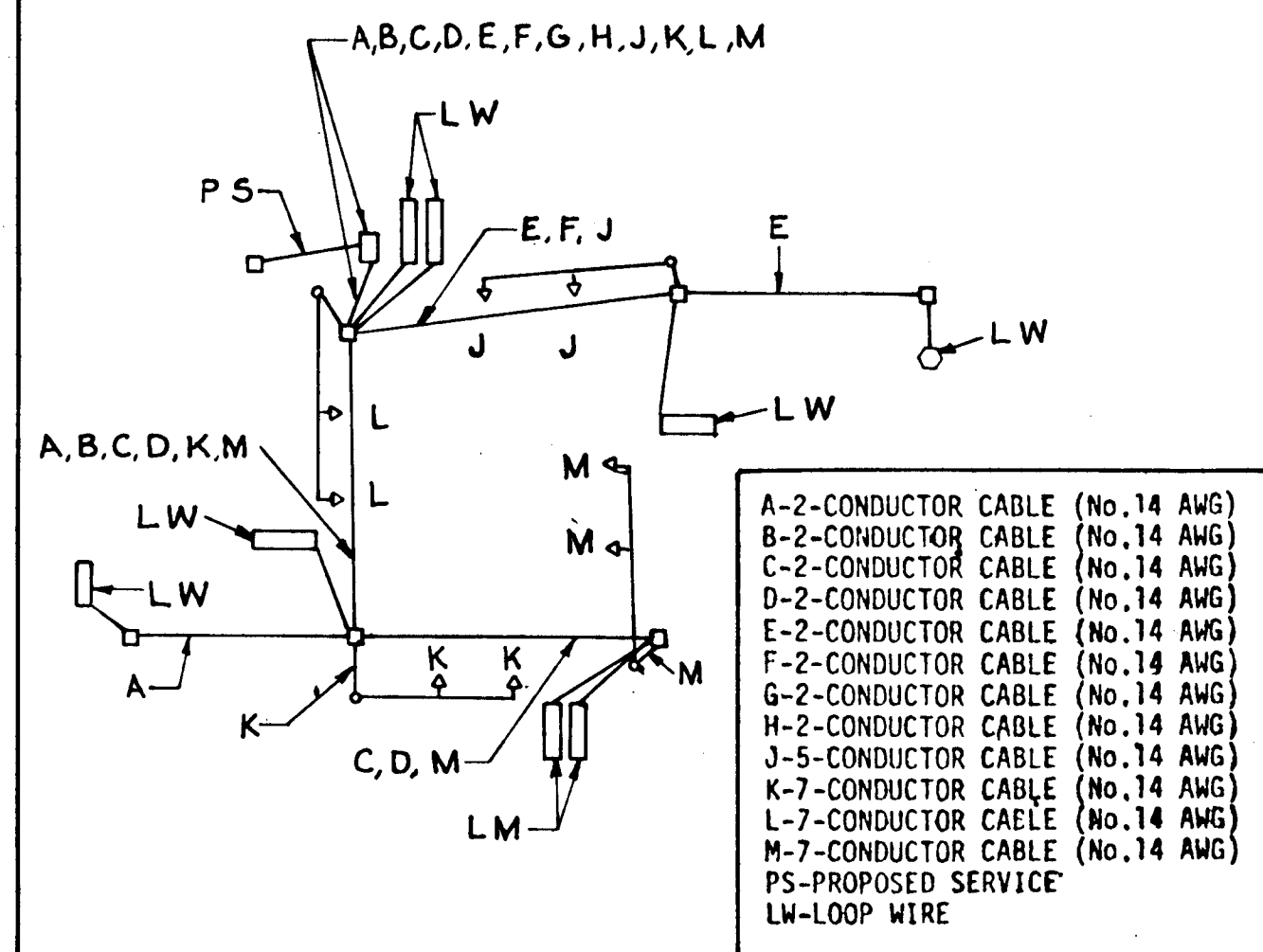
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No. 18	NONE	DRW. W.K.S.
OF 22		CHK. J.A.R.

BORING DATA

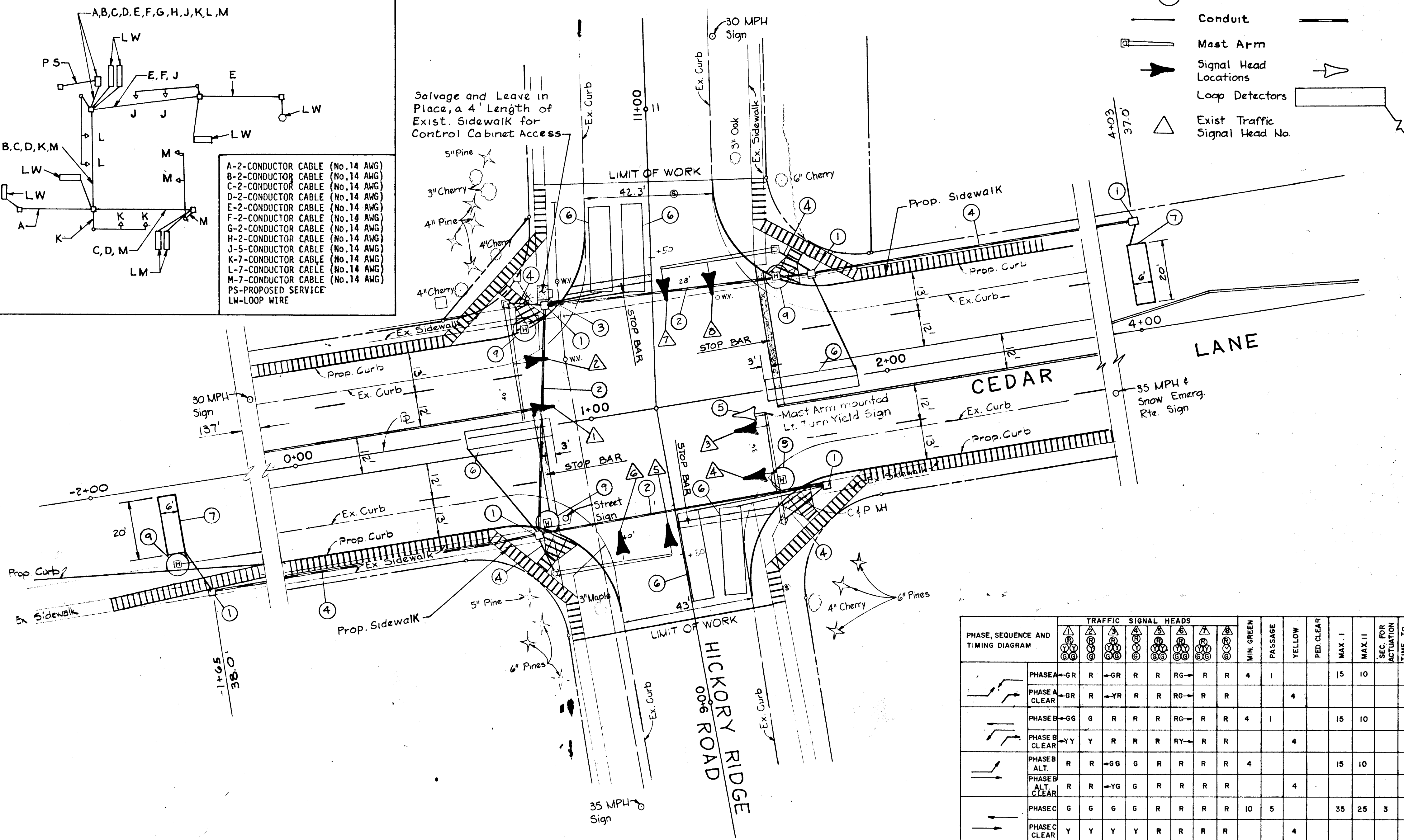
Boring No.	Depth From	Depth To	Description and Remarks
B-1	0.0	0.5	Topsoil
Sta. 2+50	0.5	7.0	Reddish brown to tan moist Clayey SILT, and cf sand, trace rock fragments (At completion hole dry and caved @ 3.3'. Two days after completion, hole backfilled.)
B-2	0.0	0.5	Topsoil
Sta. 6+00	0.5	5.0	Brown very moist CLAY & SILT, little mf sand, Brown moist cf sand, some silt and rock fragments (At completion hole dry and caved @ 2.9'. Two days after completion, hole backfilled.)
B-3	0.0	1.0	Topsoil
Sta. 10+00	1.0	2.0	Brown and gray moist CLAY & SILT, little f sand, trace organic matter (Fill)
CL	2.0	8.0	Brown moist SAND, some silt, trace to little rock fragments and mica (Two days after completion, hole dry and caved @ 4.0')
B-4	0.0	0.5	Topsoil
Sta. 13+50	0.5	2.0	Brown moist of SAND, some clayey silt, little rock fragments, trace mica
15'R	2.0	6.0	Reddish brown to brown moist micaceous of SAND, some silt, trace rock fragments (Two days after completion, hole dry and caved @ 2.2')
B-5	0.0	0.5	Topsoil
Sta. 17+00	0.5	5.0	Brown moist CLAY & SILT, little f sand, trace rock fragments
10'R	5.0	6.0	Light gray very moist of SAND, and clayey silt
	6.0	7.0	Dark brown moist micaceous of SAND, and clayey silt, trace rock fragments (Two days after completion, water @ 3.7', hole caved @ 4.9')
B-6	0.0	0.5	Topsoil
Sta. 21+00	0.5	5.0	Reddish brown moist of SAND, and clay & silt, trace rock fragments
10'R	5.0	7.0	Tan moist of SAND, some silt, trace rock fragments (Two days after completion, hole dry and caved @ 3.3')
B-7	0.0	0.1	Topsoil
Sta. 25+00	0.1	2.0	Dark brown moist of SAND, and clay & silt, trace rock fragments (Fill)
10'R	2.0	2.5	ROCK FRAGMENTS and soil
	2.5	5.0	Brown moist micaceous of SAND, little silt, trace rock fragments
	5.0	8.0	Tan moist micaceous of SAND, some silt and rock fragments (Two days after completion, hole dry and caved @ 4.8')
B-8	0.0	0.5	Topsoil
Sta. 29+00	0.5	4.0	Dark brown Moist Clayey SILT, some mf sand
CL	4.0	6.0	Brown very moist CLAY & SILT, little mf sand (Two days after completion, hole dry and caved @ 5.0')
B-9	0.0	4.0	Brown moist of SAND, and silt, trace rock fragments
Sta. 33+00	4.0	8.0	Brown moist of SAND, little silt, trace rock fragments (Two days after completion, hole dry and caved @ 4.1')
CL			
B-10	0.0	2.0	Dark brown moist of SAND, and silt, trace rock fragments
Sta. 37+00	2.0	4.0	Dark grayish brown moist Clayey SILT, little f sand
10'R	4.0	6.0	Brown very moist SILT & Clay, little f sand (Two days after completion, hole dry and caved @ 4.2')
B-11	0.0	0.1	Topsoil and road stone
Sta. 41+00	0.1	3.5	Dark brown to gray moist of SAND, some silt, some rock fragments
CL	3.5	7.0	Brown moist of SAND, little clay & silt, trace rock fragments (One day after completion, hole dry and caved @ 4.2')
B-12	0.0	1.0	Topsoil and road stone
Sta. 45+00	1.0	7.0	Brown to gray moist of SAND, some silt, trace rock fragments
CL			(Eight days after completion, hole dry and caved @ 4.0')

Additional Boring Data is available from Howard County as contained in the January 7, 1981 geotechnical investigation prepared by Johnson, McCordic and Thompson and Herbst and Associates.

WIRING DIAGRAM



Note: For other Intersection Details, See Sheet B.



LEGEND

- EXISTING PROPOSED
- Ⓜ Handbox
 - Conduit
 - ⊔ Mast Arm
 - ➔ Signal Head Locations
 - ⊔ Loop Detectors
 - △ Exist Traffic Signal Head No.

ITEMS

- ① Place New Handbox.
- ② Place 3" Galvanized Steel Conduit. (Trenched)
- ③ Place 4" PVC Conduit and Elbow. (Trenched)
- ④ Place 2" PVC Conduit. (Trenched)
- ⑤ Relocate Signal Head.
- ⑥ Place Detector Loops 6'x30' With Power Head Plus Detector Leads.
- ⑦ Place Detector Loops 6'x20' With Power Head Plus Detector Leads.
- ⑧ Salvage Existing Equipment, See Special Provisions.
- ⑨ Remove Old Handbox.

PHASE, SEQUENCE AND TIMING DIAGRAM	TRAFFIC SIGNAL HEADS								MIN GREEN	PASSAGE	YELLOW	RED CLEAR	MAX. I	MAX. II	SEC. FOR ACTUATION	TIME TO REDUCTION	TIME BEFORE REDUCTION	MIN. GAP	RECALL	MEMORY	
	Ⓜ	Ⓜ	Ⓜ	Ⓜ	Ⓜ	Ⓜ	Ⓜ	Ⓜ													
PHASE A CLEAR	R	→GR	R	R	RG	R	R	R	4	I			15	10						OFF	NON LOCK
PHASE B CLEAR	R	→YR	R	R	RG	R	R	R	4	I			15	10							
PHASE C CLEAR	R	→GG	G	R	R	RG	R	R	4	I			15	10							
PHASE D CLEAR	R	→YY	Y	R	R	RY	R	R	4	I			15	10							
PHASE E CLEAR	R	→GG	G	R	R	R	R	R	4	I			15	10							
PHASE F CLEAR	R	→YR	Y	R	R	R	R	R	4	I			15	10							
FLASH OPER	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	6	5			20	15						OFF	NON LOCK

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Director of Public Works: *Ramona M. ...* DATE: 7/15/88
 Chief, Bureau of Engineering: *Charles ...* DATE: 7/15/88

PURDUM & JESCHKE
 CONSULTING ENGINEERS
 LAND SURVEYORS

1029 North Calvert Street
 Baltimore, Maryland 21202 301/837-0194

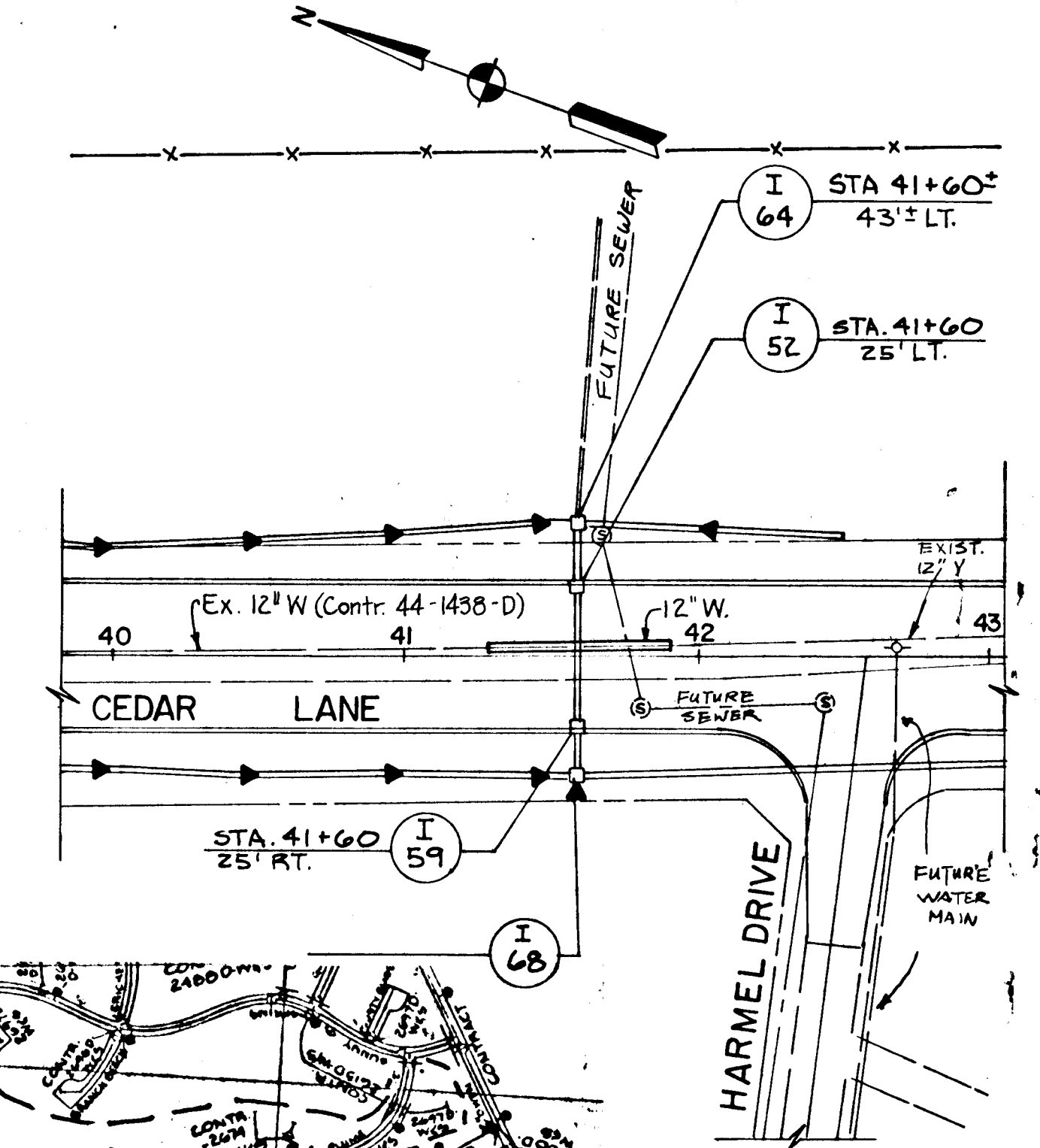
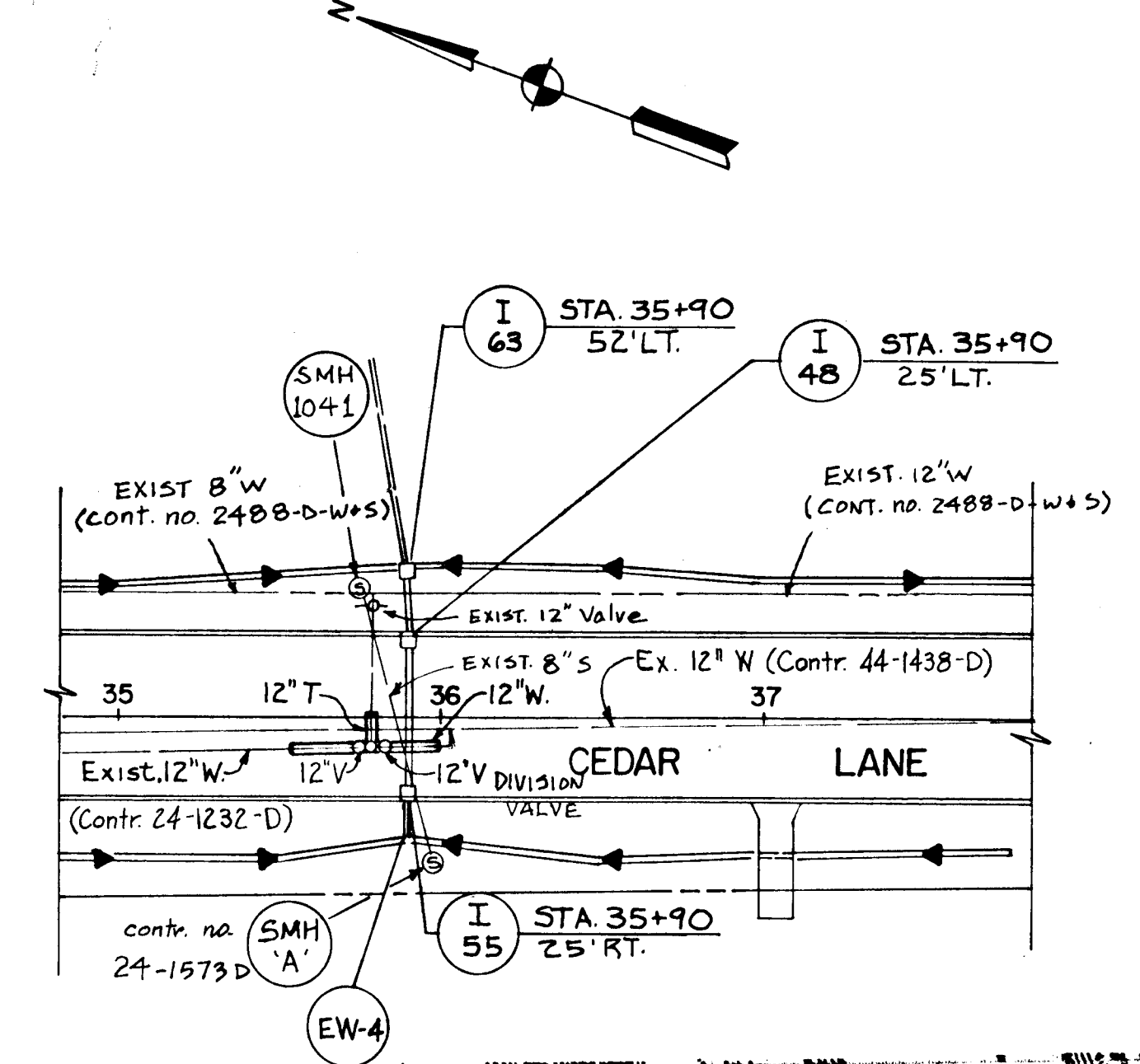
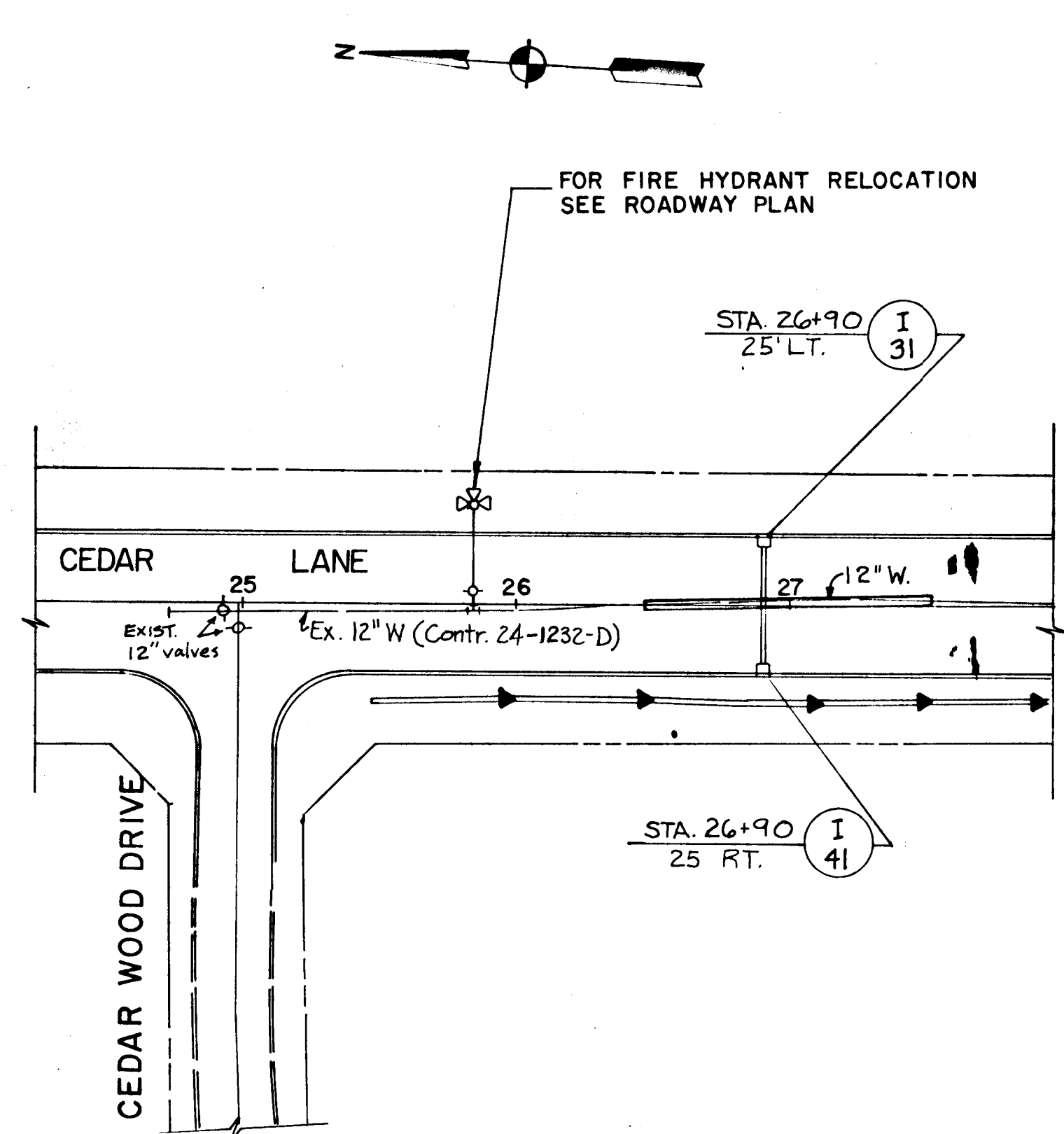
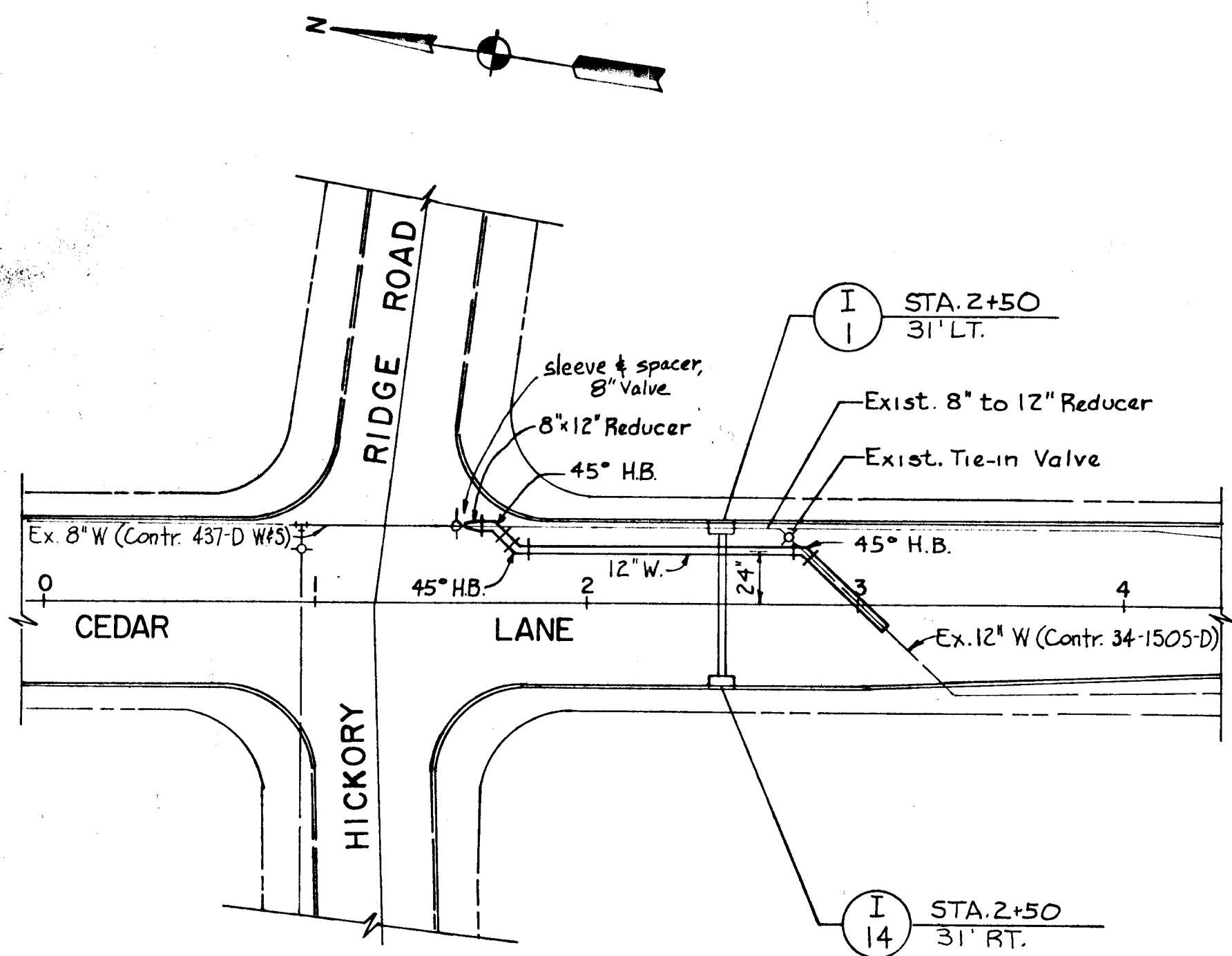
DES: _____
 DRN: _____
 CHK: _____
 DATE: _____

HICKORY RIDGE RD. INTERSECTION
 PLAN TF #246 & BORING DATA
 CEDAR LANE - PHASE I

600' SCALE MAP NO. _____ BLOCK NO. _____

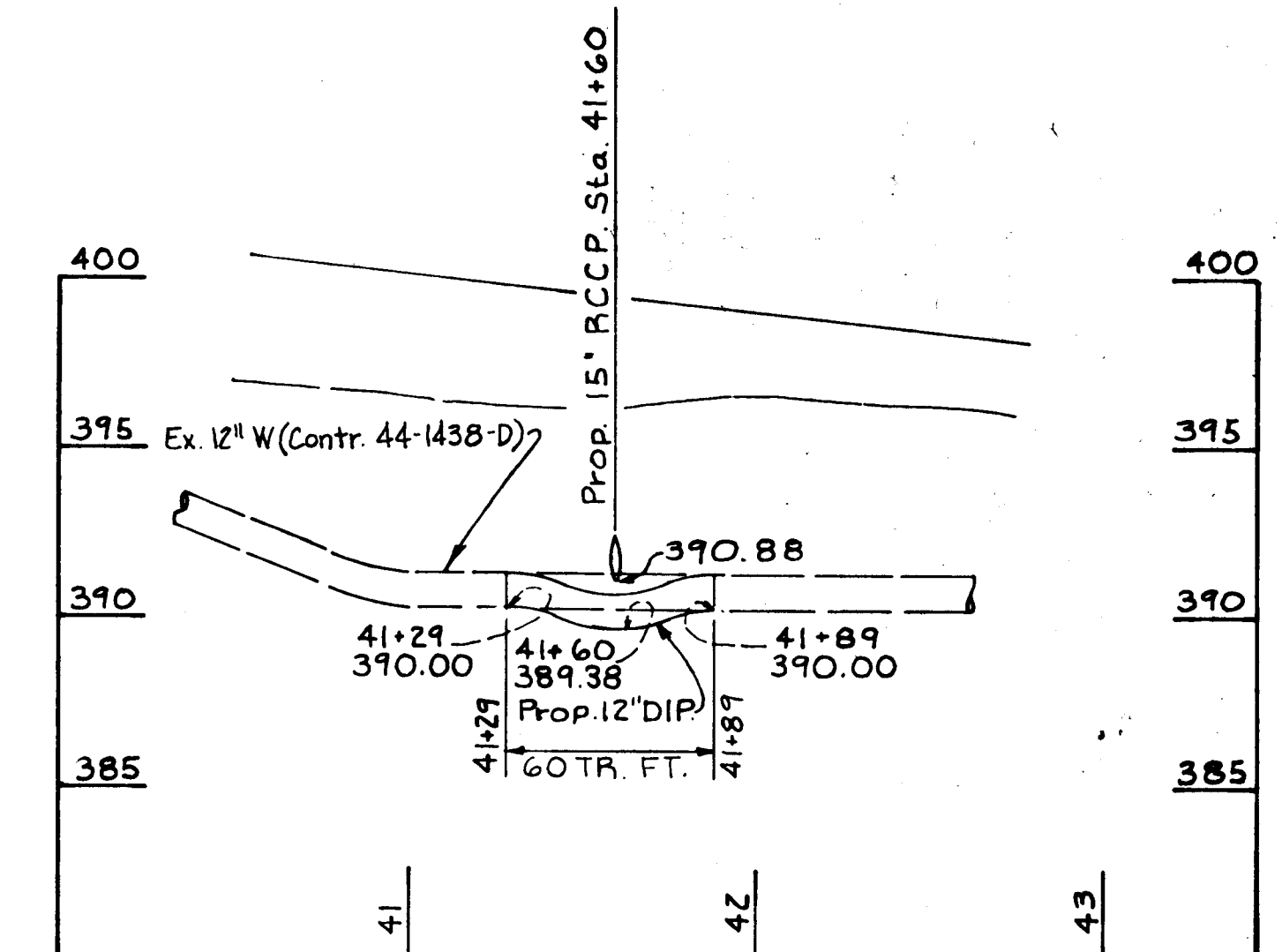
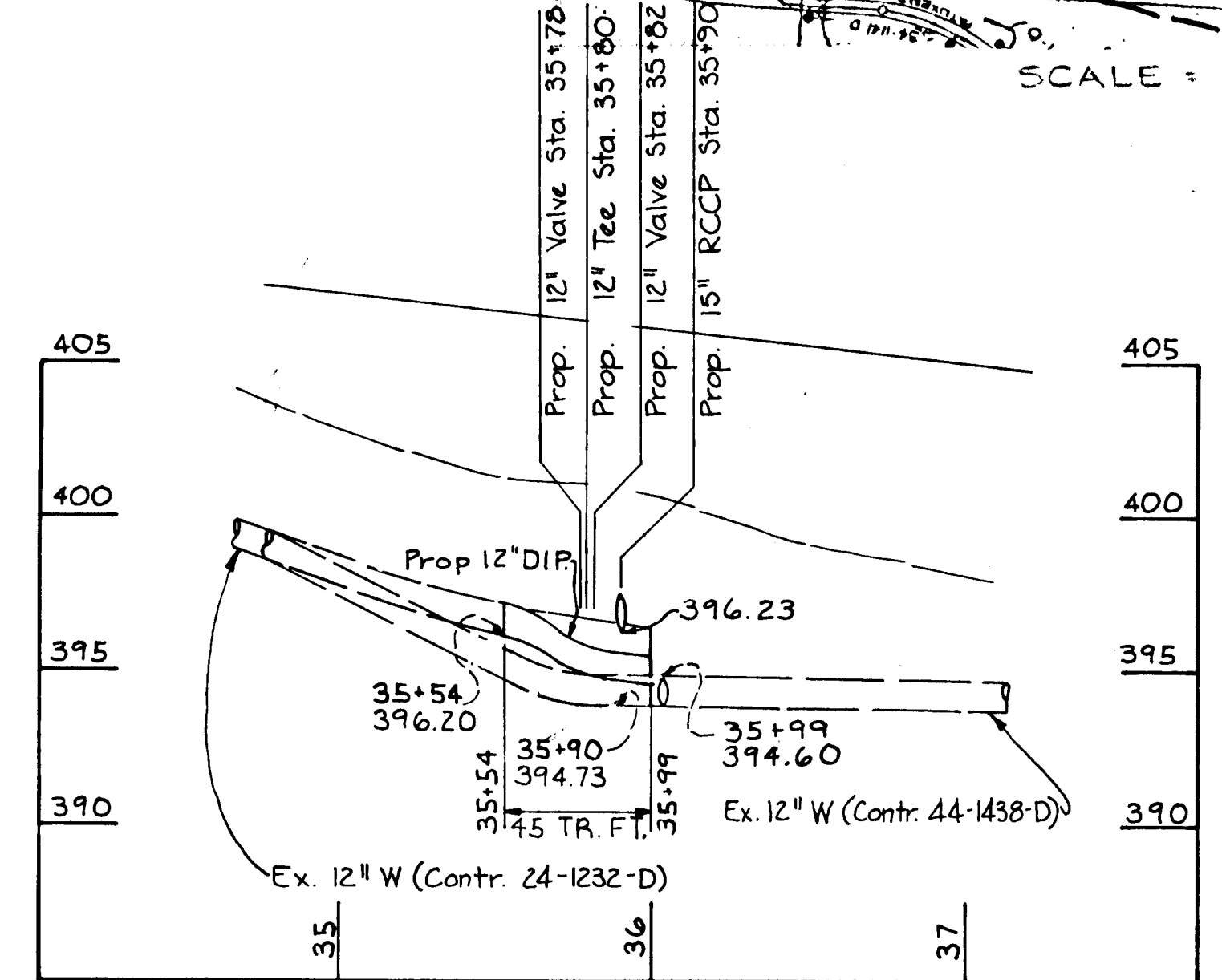
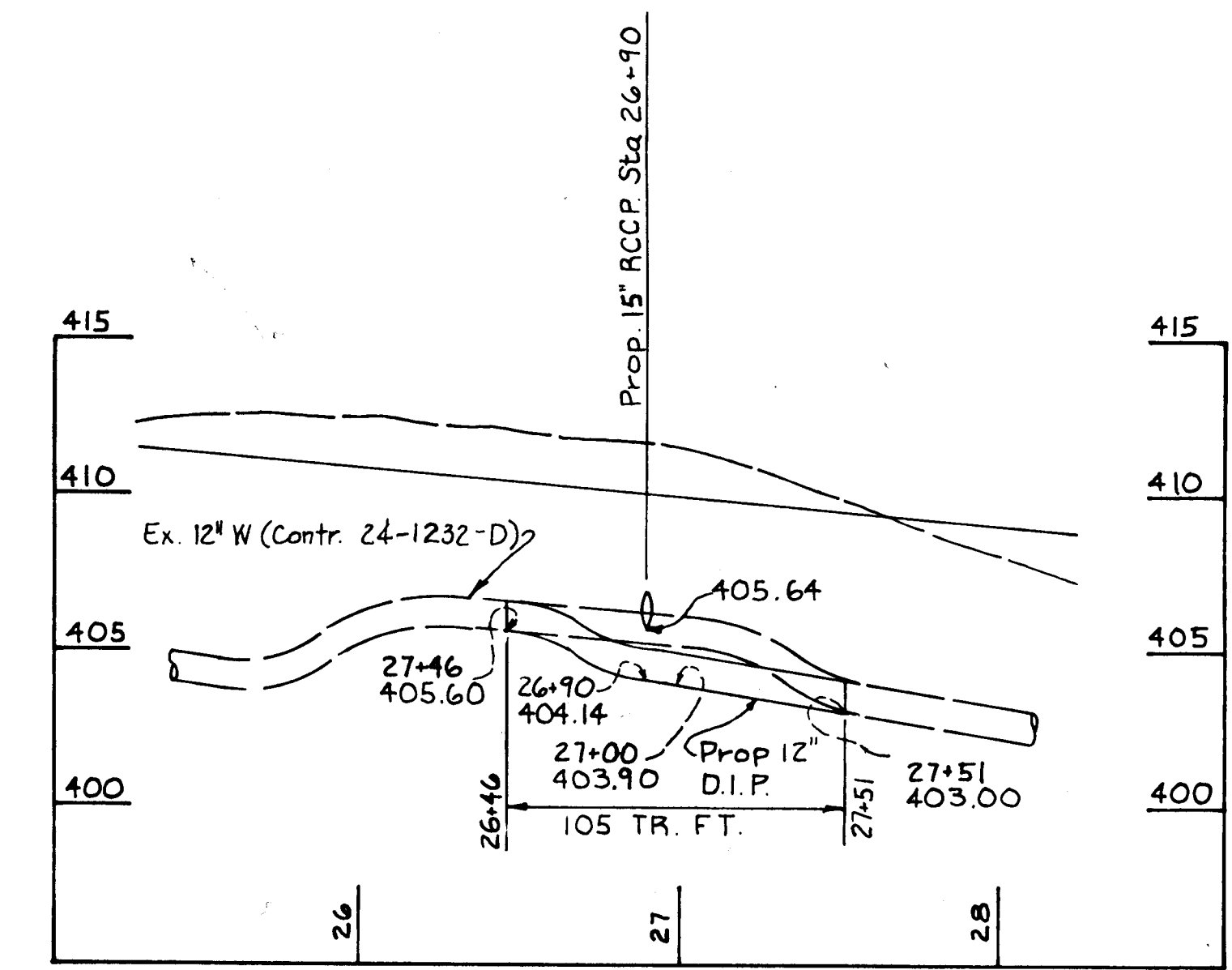
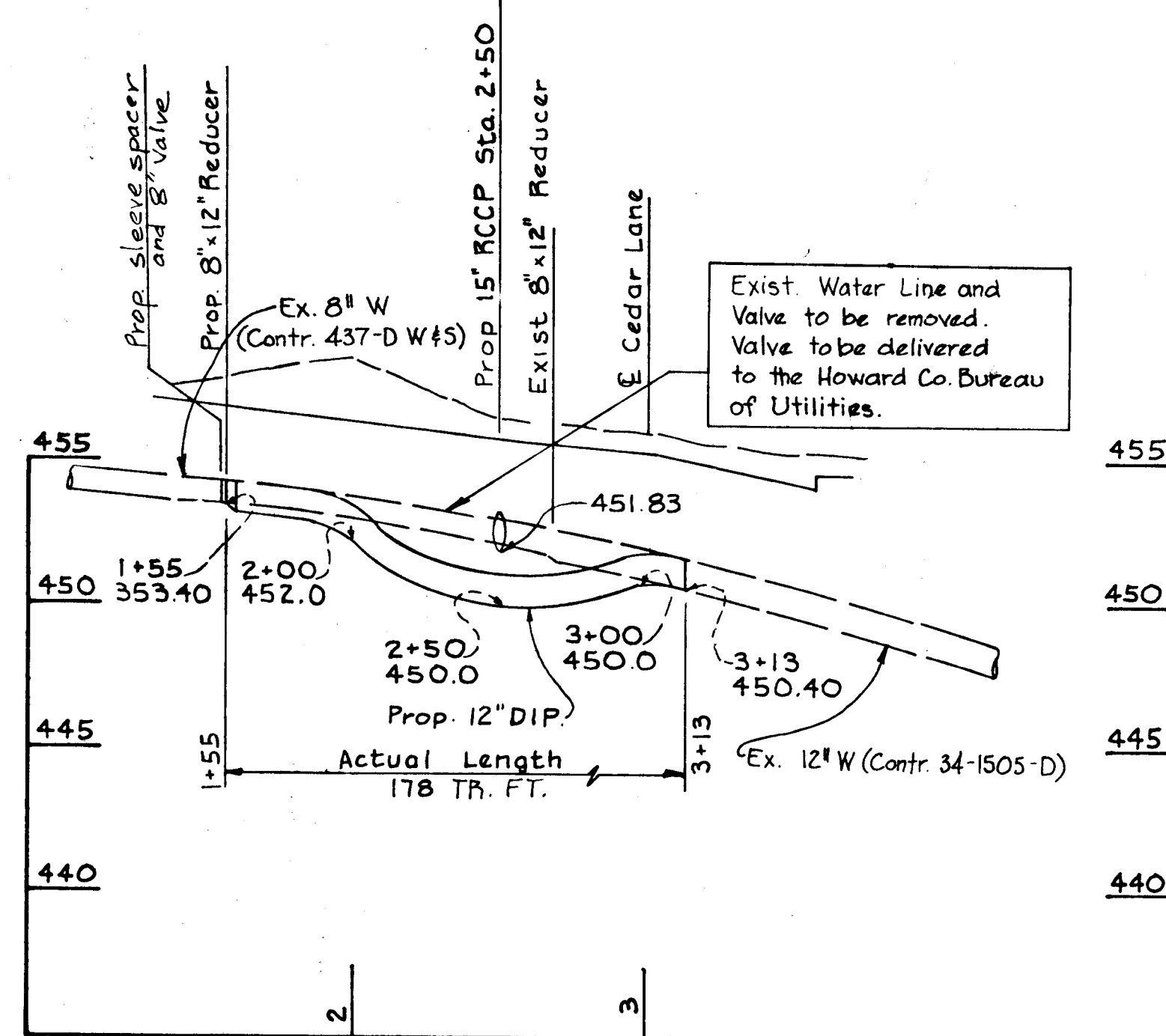
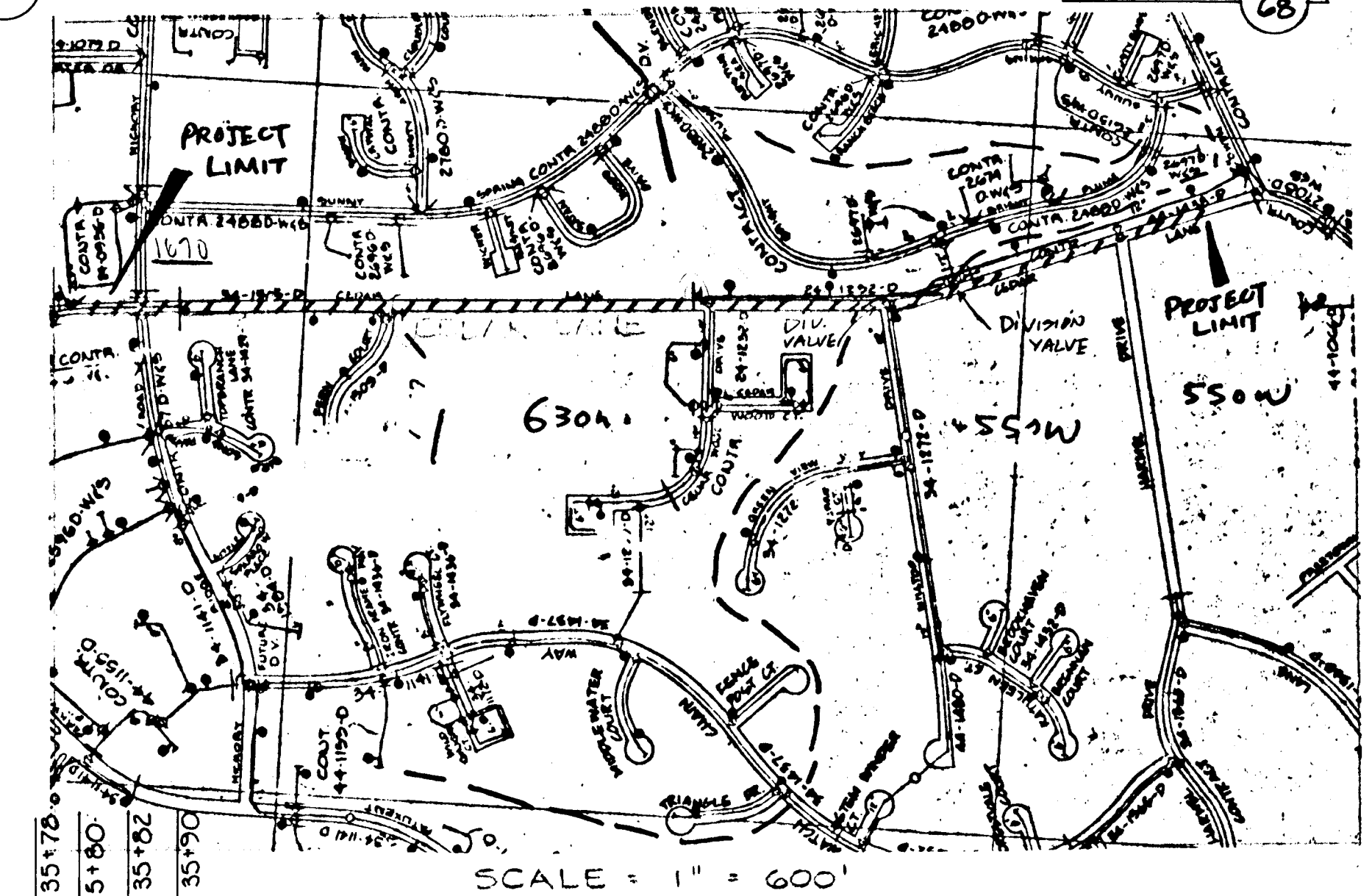
HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 CAPITAL PROJECT J-4086
 ELECTION DISTRICT NO. 5
 HOWARD COUNTY, MARYLAND

SCALE 1" = 20'
 SHEET 19 OF 22



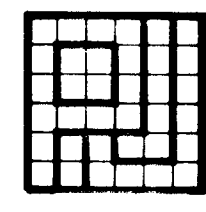
Water Main Construction Notes

1. All pipe elevations shown are invert elevations.
2. Clear all utilities by a minimum of 6".
3. All water mains to be D.I.P. class 52.
4. Tops of all water mains to have a minimum of 3 feet cover unless otherwise noted.
5. Valves adjacent to tees shall be strapped to tees.
6. All fittings shall be buttressed or anchored with concrete in accordance with the Standard Details unless otherwise provided for on the drawings.
7. The Contractors shall not operate any water main valves on the existing water system.
8. The existing 8" pipe and valve are to be removed and the valve is to be delivered to the Bureau of Utilities. (STA 2+75)

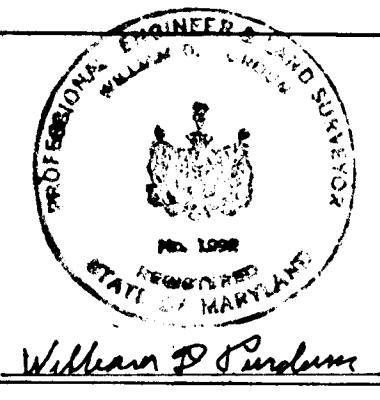


DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *Richard A. Howard* 7-15-88
 Chief, Bureau of Engineering: _____
 Chief, Bureau of Utilities: _____
 Chief, Utility Division: _____



PURDUM & JESCHKE
CONSULTING ENGINEERS
LAND SURVEYORS
1029 North Calvert Street
Baltimore, Maryland 21202 301/837-0194



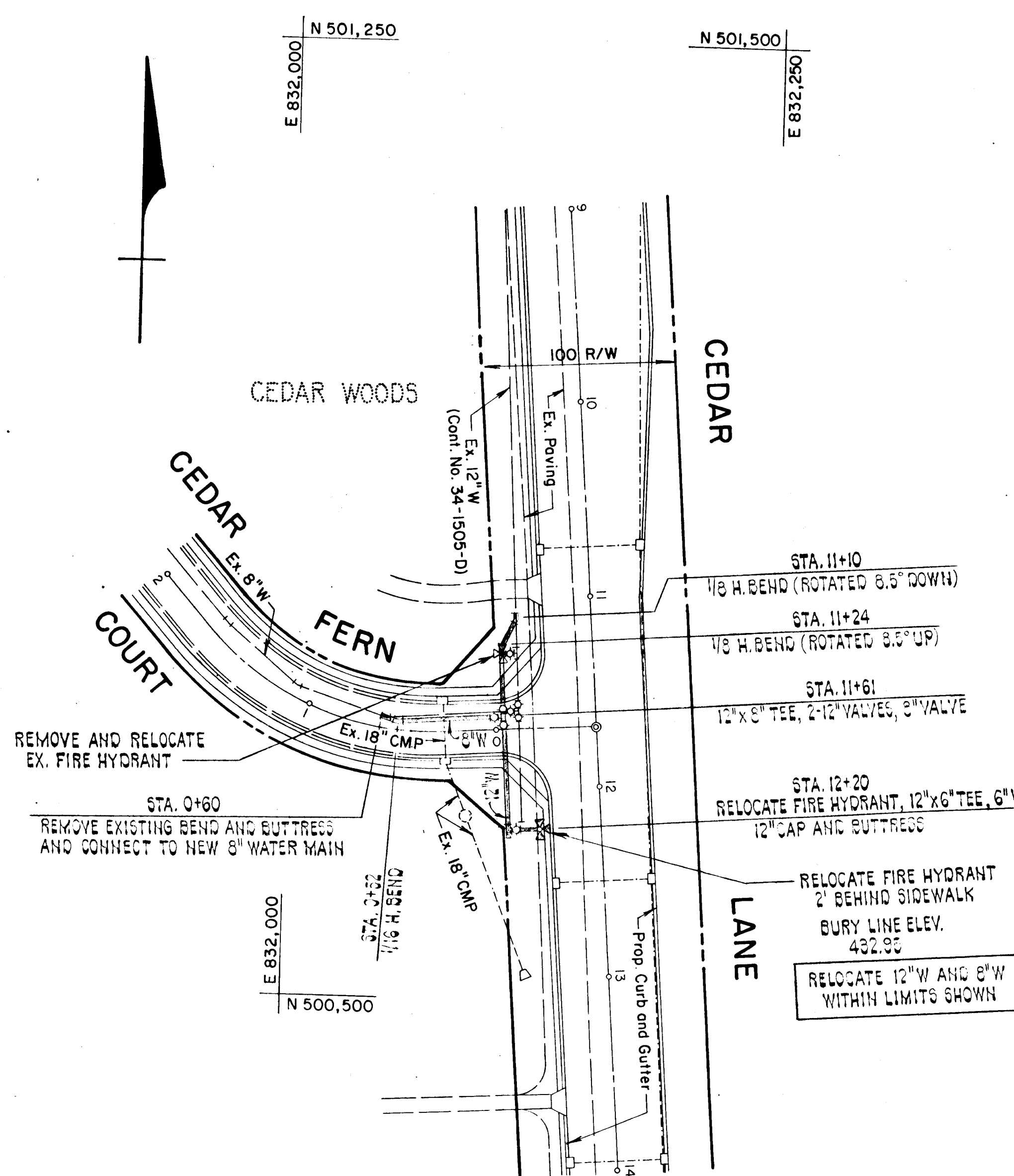
DES:	
DRN:	
CHK:	
DATE:	
BY:	
NO.:	
REVISION:	
DATE:	

WATER MAIN CONTRACT:
RELOCATIONS 44-1834
CEDAR LANE - PHASE I

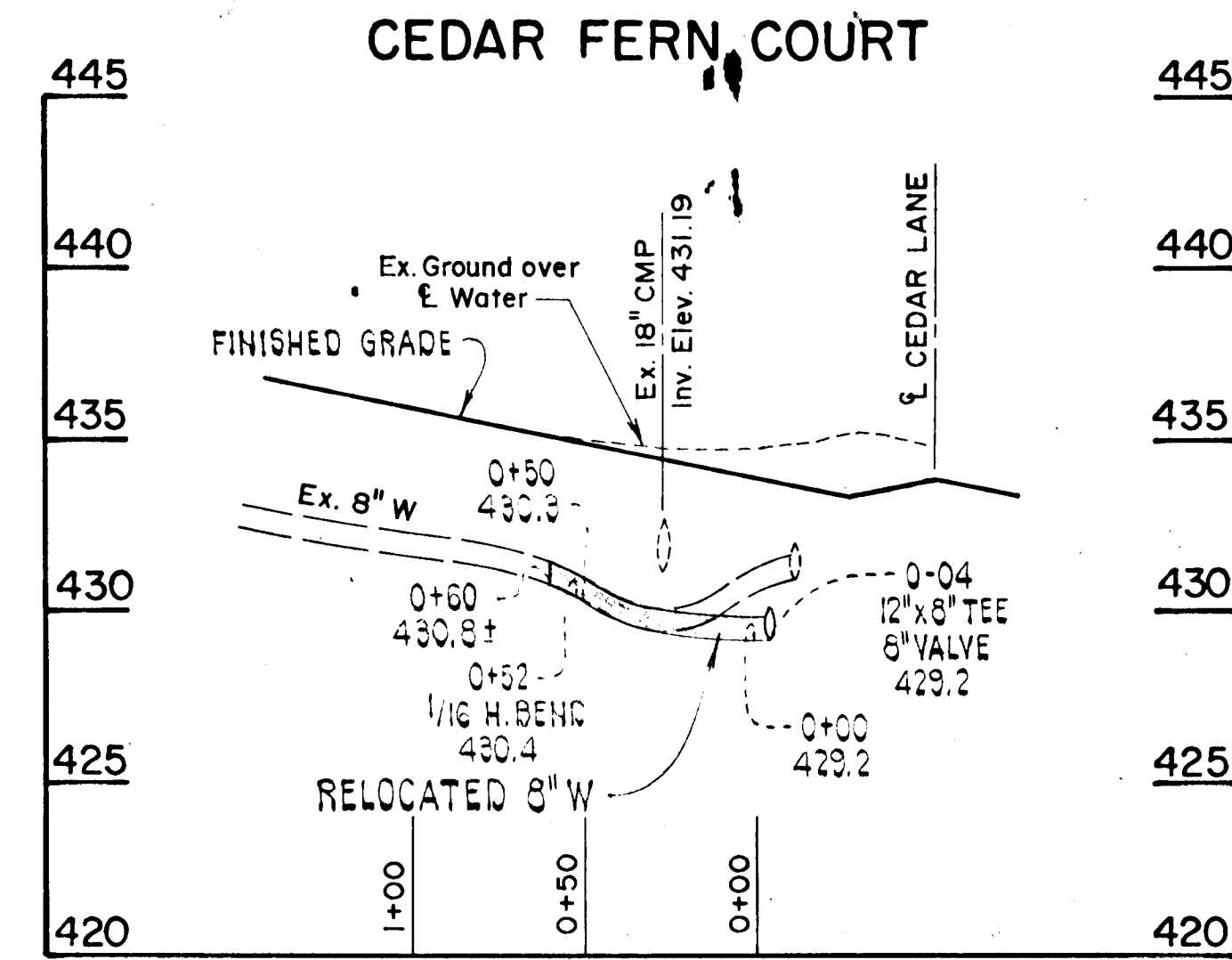
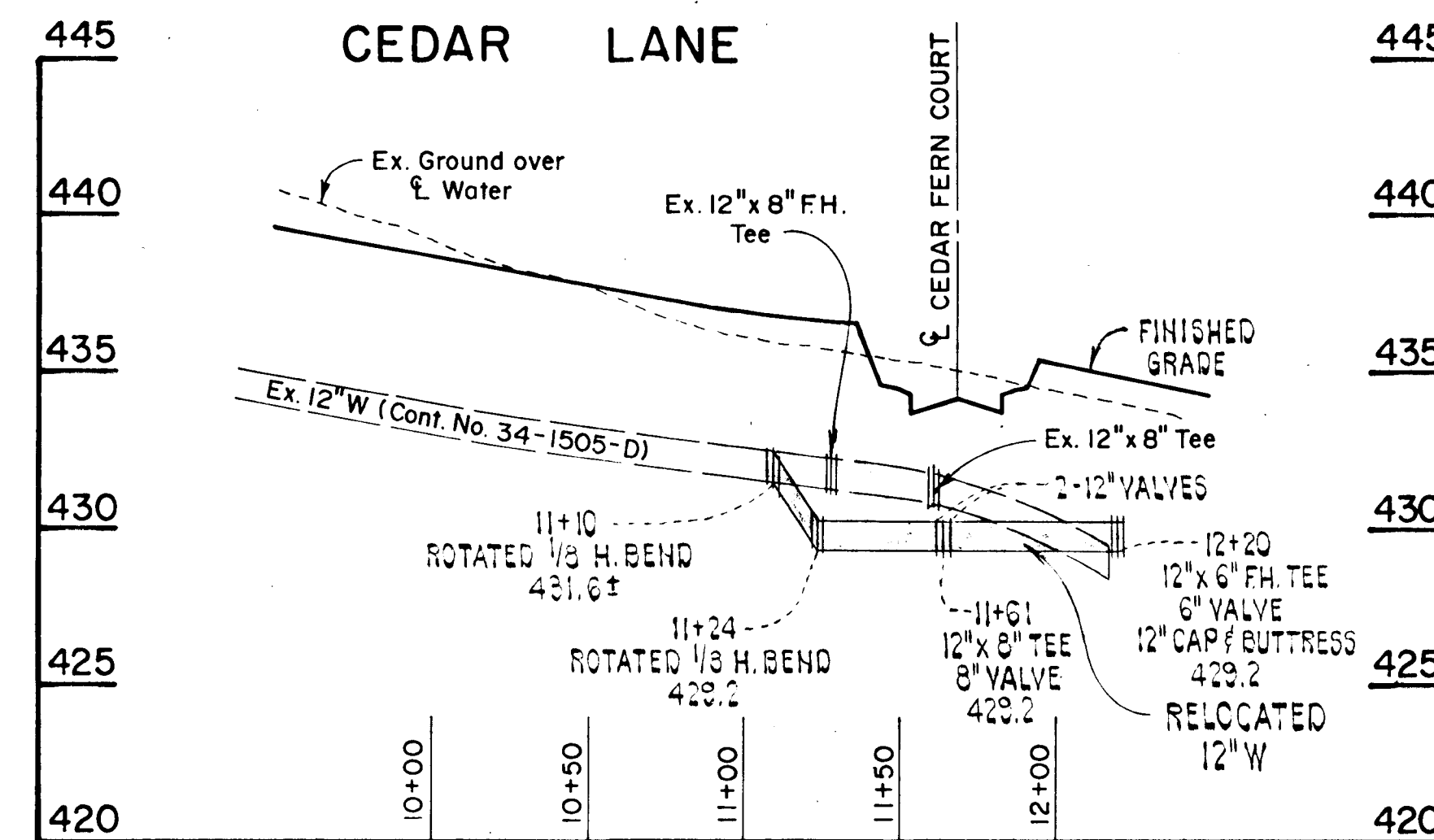
HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
CAPITAL PROJECT J-4086
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

SCALE
HORIZ 1" = 50'
VERT. 1" = 5'
SHEET
20 OF 22

FINAL 7/19/88



PLAN
SCALE: 1"=50'



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

GENERAL NOTES

- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL CONTROLS ARE BASED ON THE MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0", MINIMUM OR TUNNEL AS REQUIRED. ANY COST INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN UNIT PRICES BID FOR CONSTRUCTION OF THE MAIN.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS USE HOWARD COUNTY STANDARD DETAILS.
- FOR MATERIALS AND CONSTRUCTION METHODS USE HOWARD COUNTY STANDARD SPECIFICATIONS.
- CONTRACTOR SHALL LOCATE EXISTING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 - STATE HIGHWAY ADMINISTRATION - 531-5533
 - BALTIMORE GAS AND ELECTRIC COMPANY - UNDERGROUND ELECTRIC DISTRIBUTION CUSTOMER SERVICE - 685-0123
 - BALTIMORE GAS AND ELECTRIC COMPANY - UNDERGROUND GAS DISTRIBUTION CUSTOMER SERVICE - 685-0123.
 - "MISS UTILITY" - 1-559-0100.
 - CHESAPEAKE AND POTOMAC (C&P) TELEPHONE COMPANY - 725-9976.
 - AMERICAN TELEPHONE AND TELEGRAPH - CABLE LOCATION DIVISION - 393-3553.
 - COLONIAL PIPELINE COMPANY - 781-4681.
 - BUREAU OF UTILITIES HOWARD COUNTY - 992-2366.
- ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOP OF ALL WATER MAINS SHALL HAVE MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- BLOCK ALL FITTINGS WITH CONCRETE. AS DETAILED IN THE HOWARD COUNTY STANDARD DETAILS.
- BURY LINE ELEVATIONS ON FIRE HYDRANTS SHALL BE SET TO THE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT TO BE COMPACTED IN ACCORDANCE WITH SECTION 1003 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM. ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATION C-153 DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.

CONSTRUCTION SEQUENCE

- CONSTRUCT BYPASS LINE FROM APPROXIMATELY STA. 11+13 TO STA. 12+20 (CEDAR LANE) AND STA. 0+00 TO STA. 0+52 (CEDAR FERN COURT). DISINFECT NEW LINES WITH CHLORINE/WATER SWAB PRIOR TO ASSEMBLY.
- CONSTRUCT STANDARD BUTTRESSES WITH STRAPPING AND LET CONCRETE CURE OVERNIGHT.
- DEWATER EXISTING MAINS.
- CONNECT NEW BYPASS TO EXISTING MAINS.
- REFILL LINES AND EXAMINE FOR LEAKS PRIOR TO BACKFILL.
- REMOVE AND GALVANE THE ABANDONED MAINS, FITTINGS, AND VALVES.
- BACKFILL ALL TRENCHES IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

MAY 16, 1989

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James P. Lewis 6-1-89
DIRECTOR OF PUBLIC WORKS DATE

Robert B. Benner 6-1-89
CHIEF, BUREAU OF UTILITIES DATE

William B. Ray 5-25-89
CHIEF, BUREAU OF ENGINEERING DATE

O. J. Donohue 5-25-89
CHIEF, UTILITY DESIGN DIVISION DATE

PURDUM & JESCHKE
CONSULTING ENGINEERS
AND LAND SURVEYORS

1029 N. CALVERT ST.
BALTIMORE, MD. 21202

Richard H. Benish

DES: ARW			
DRN: ARW			
CHK: RHB			
DATE:	BY:	NO.:	REVISION

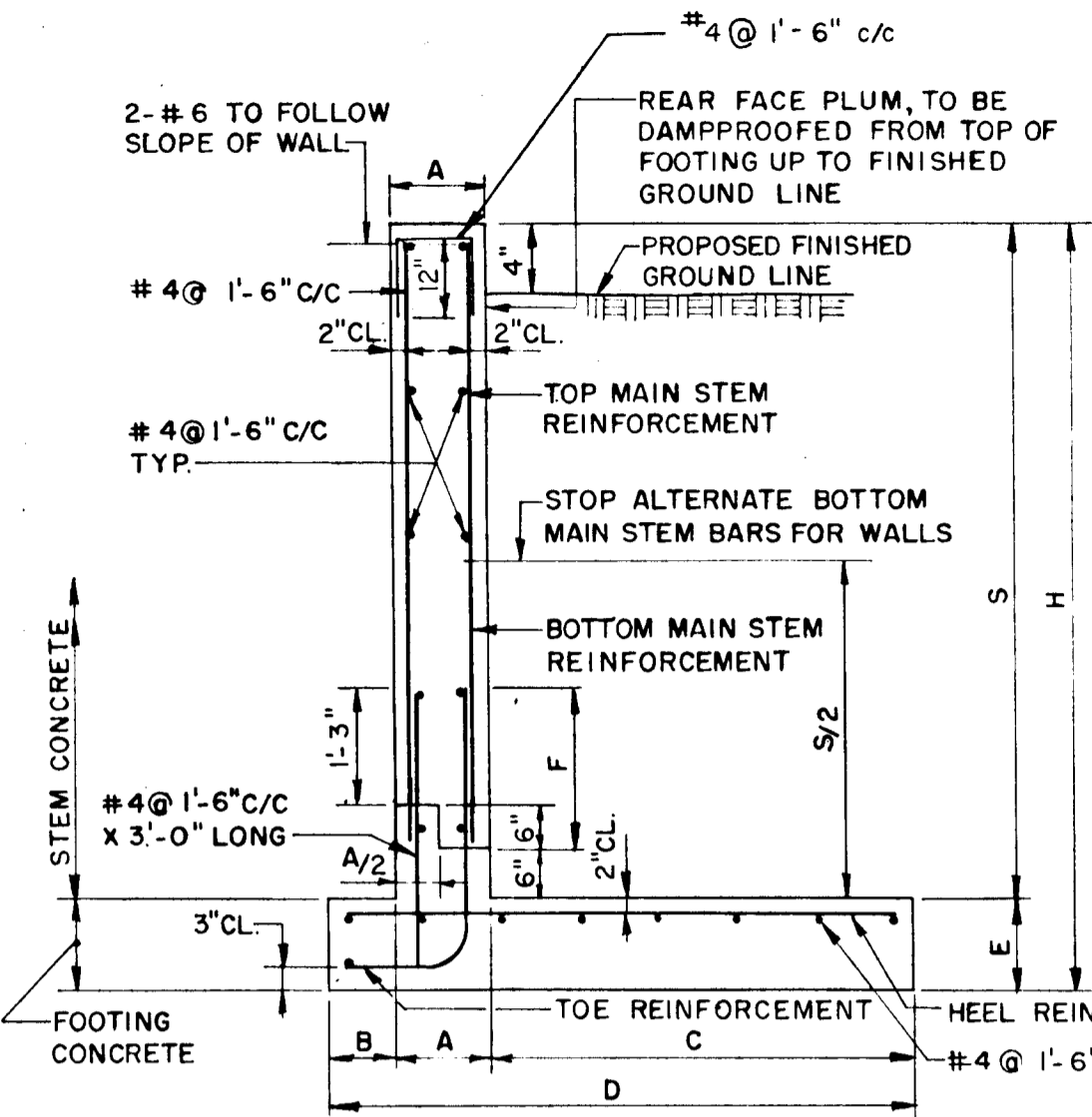
**CEDAR FERN COURT
WATER MAIN RELOCATION
PLAN AND PROFILE**

CONTRACT NO. 4-4-1834
**CEDAR LANE - PHASE I
CAPITAL PROJECT J-4086
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND**

SCALE
HOR: 1"=50'
VERT: 1"=5'
SHEET
20A OF 22

ALL REINFORCEMENT BARS SHALL BE EPOXY COATED.

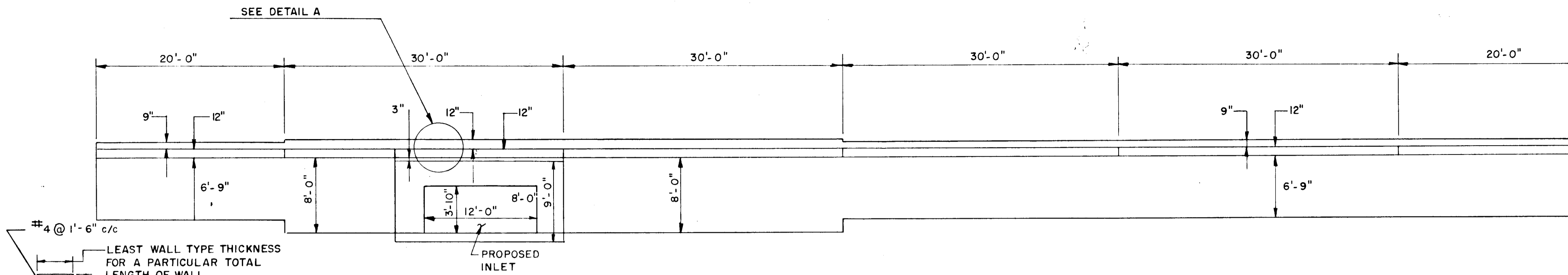
CONTRACTOR HAS OPTION OF LAPPING REINFORCEMENT WITH TOE REINFORCEMENT AND/OR DOWELS AS SHOWN, OR BY EXTENDING THE TOE AND/OR DOWEL REINFORCEMENT WITH NO SPLICING HOWEVER NO ADDITIONAL COMPENSATION TO CONTRACTOR WILL BE ALLOWED FOR WHICHEVER ALTERNATIVE IS SELECTED.



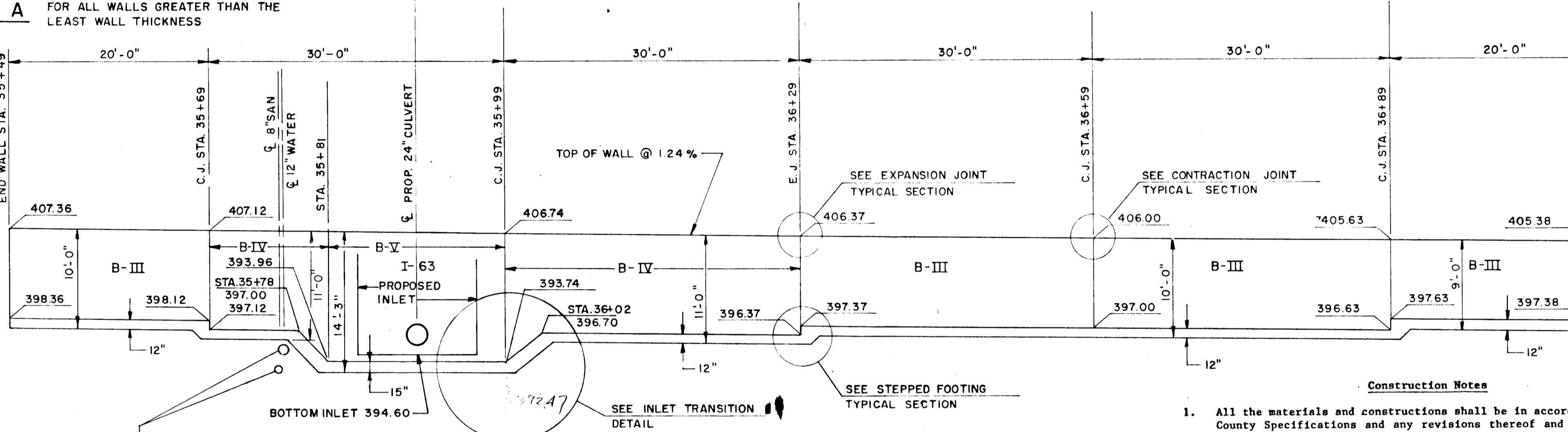
WALL TYPE	H	A	B	C	D	E	TOE REINFORC.	HEEL REINFORC.	TOP MAIN STEM REINFORC.	BOTTOM MAIN STEM REINFORC.
B-III	10'-0"	1'-0"	9'	6'-9"	8'-6"	1'-0"	#5@9"C/C	#5@9"C/C	#5@9"C/C	#5@9"C/C
B-IV	12'-0"	1'-0"	1'-0"	8'-0"	10'-0"	1'-0"	#6@7"C/C	#6@7"C/C	#6@12"C/C	#6@7"C/C
B-V	14'-0"	1'-3"	1'-0"	9'-0"	11'-3"	1'-3"	#6@6"C/C	#6@6"C/C	#6@10"C/C	#6@6"C/C

REINFORCING WALL TYPICAL SECTION
N.T.S.

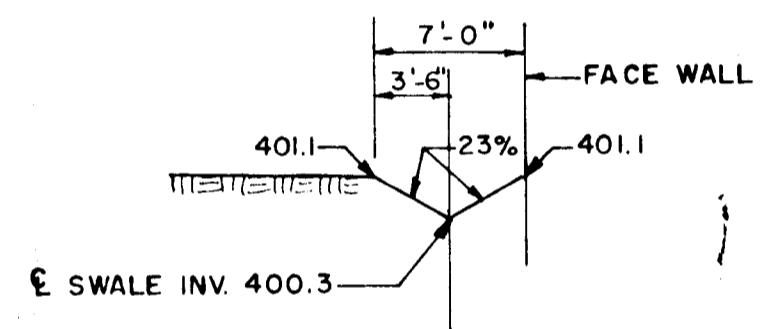
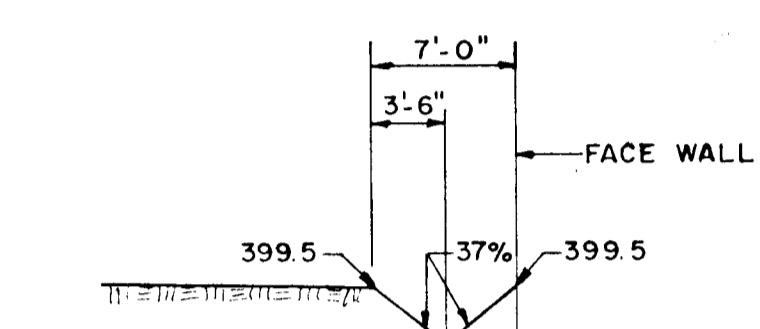
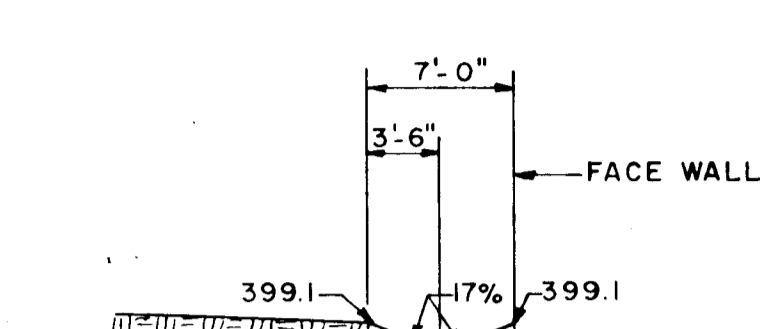
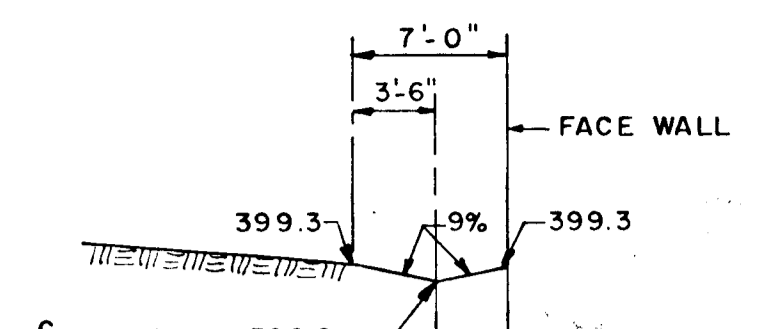
DETAIL A
N.T.S.



PLAN
SCALE: 1/8"=1'-0"

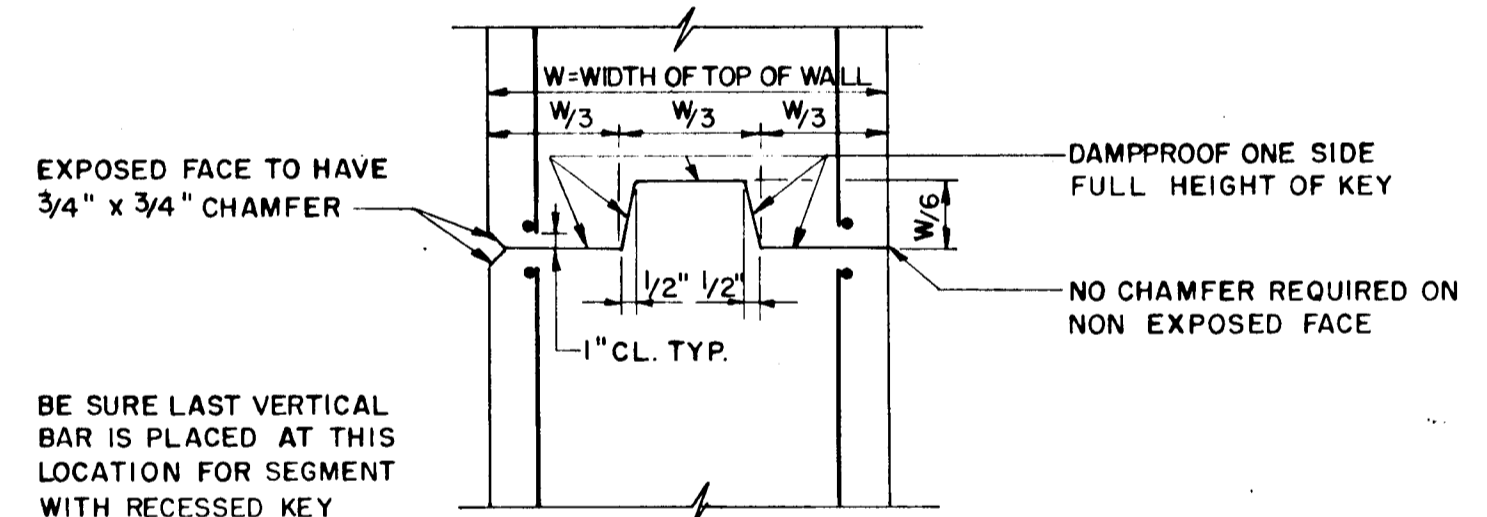


ELEVATION
SCALE: 1/8"=1'-0"

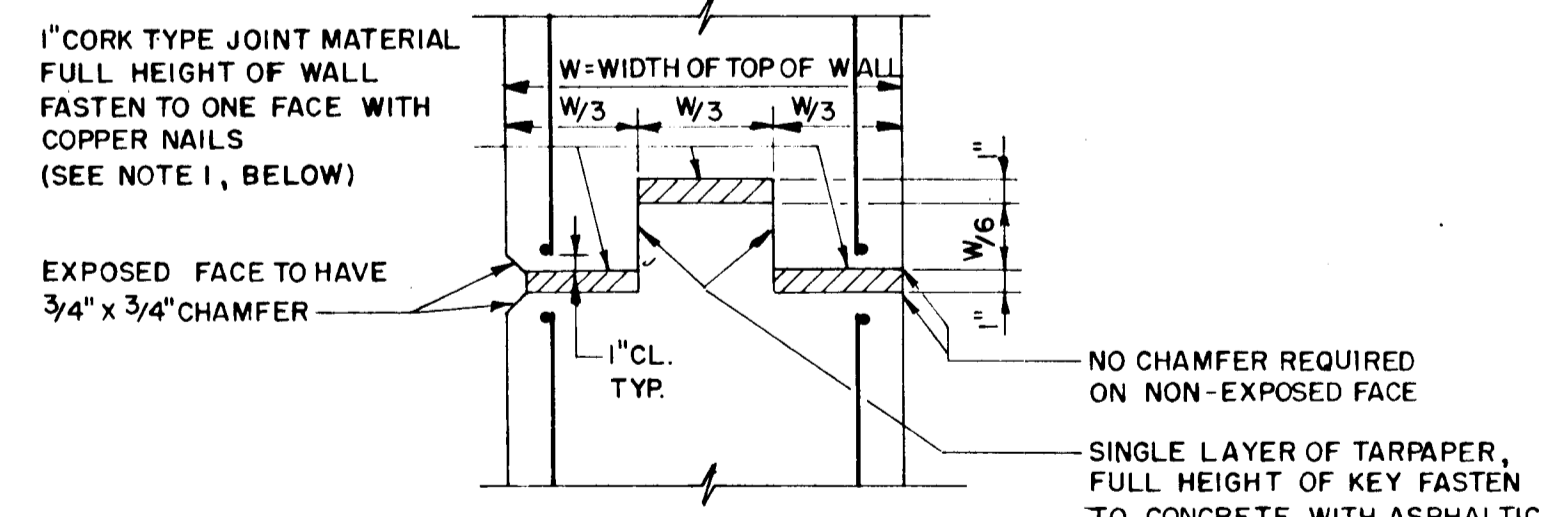


CONTROL SWALE CROSS SECTIONS
N.T.S.

- Construction Notes**
- All the materials and constructions shall be in accordance with Howard County Specifications and any revisions thereof and additional plans thereto and Special Provisions.
 - All splices, not shown, shall be lapped to bar diameters. Minimum cover for any bar shall be 2" unless otherwise noted. Reinforcing steel in wall shall be epoxy coated as indicated.
 - Grout for setting fence posts shall consist of one (1) part Portland Cement to three (3) parts clean, well-graded sand and a minimum amount of water to produce a workable mix.
 - 2-ply membrane waterproofing to be placed 12" each side of joint on unexposed surface to within 6" of finished grade.

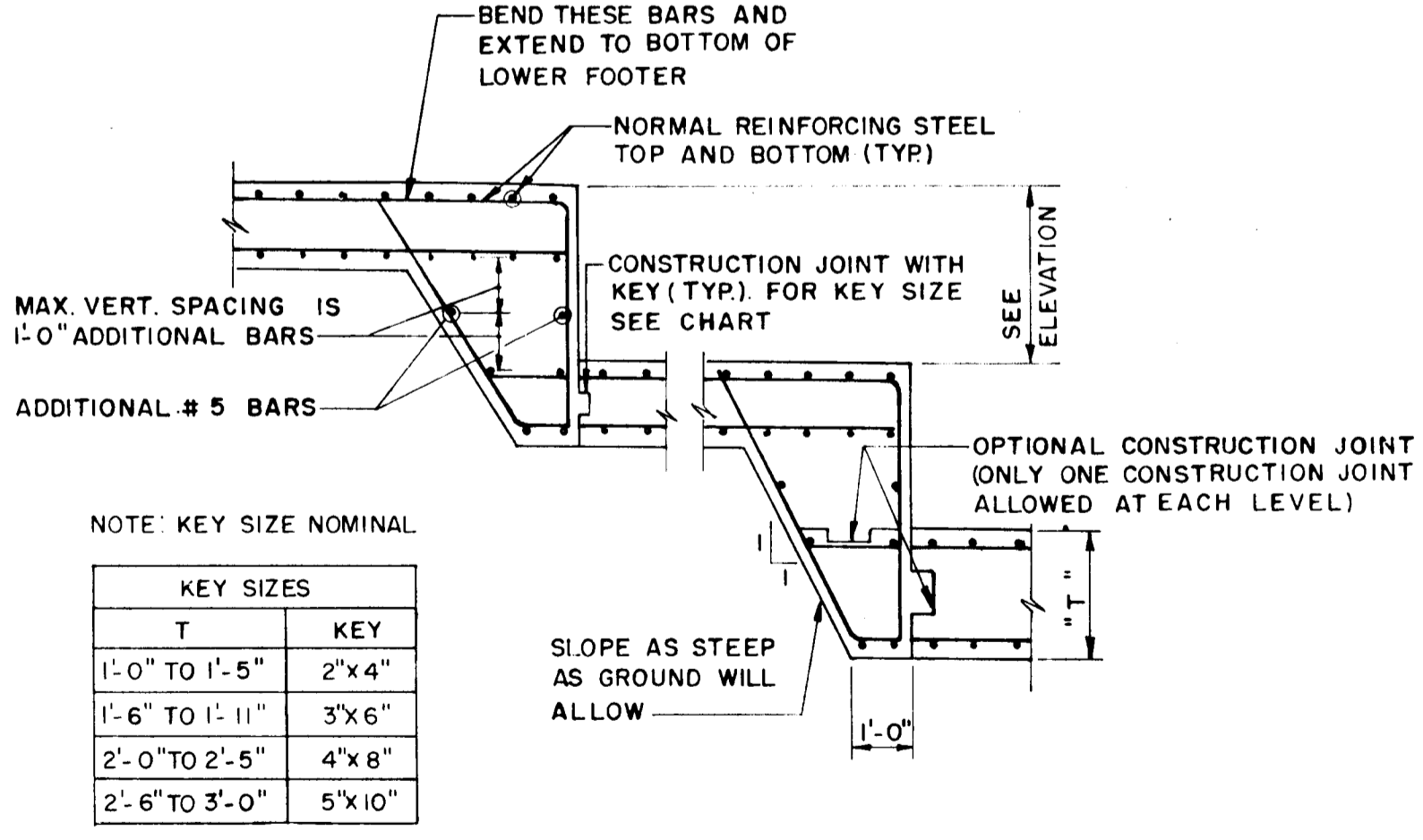


CONTRACTION JOINT TYPICAL SECTION
N.T.S.



EXPANSION JOINT TYPICAL SECTION
N.T.S.

- NOTES:**
- STOP KEY 9" BELOW TOP OF WALL.
 - REINFORCING STEEL SHALL NOT PASS THROUGH CONTRACTION OR EXPANSION JOINTS
 - KEYS ARE NOMINAL SIZE
 - ONLY PLACE CONTRACTION AND EXPANSION JOINTS IN STEMS (NO JOINT IN FOOTER)



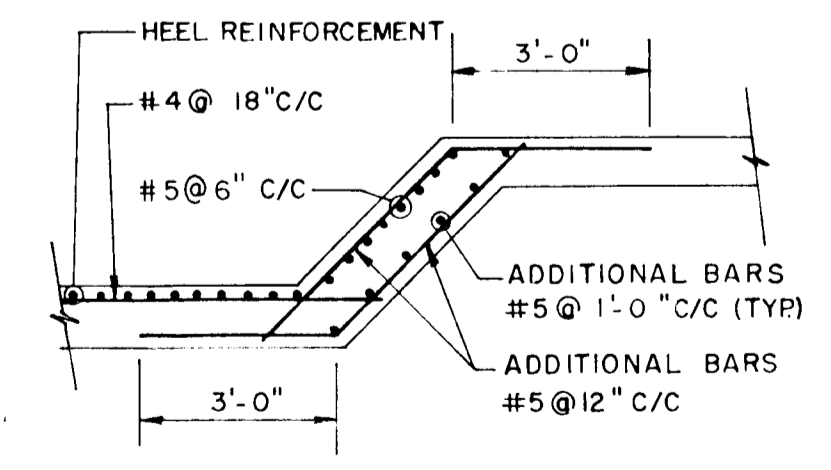
STEPPED FOOTING TYPICAL SECTION
N.T.S.

NOTE: KEY SIZE NOMINAL

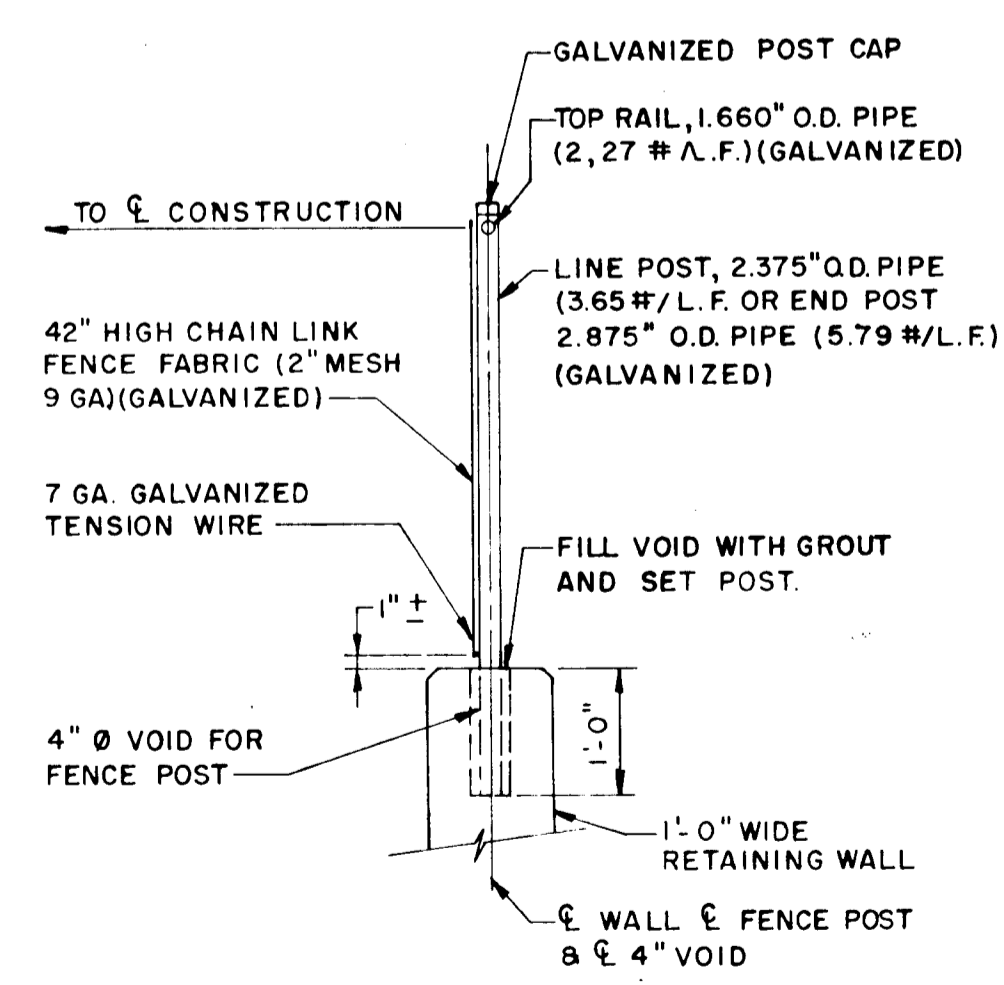
T	KEY
1'-0" TO 1'-5"	2"x4"
1'-6" TO 1'-11"	3"x6"
2'-0" TO 2'-5"	4"x8"
2'-6" TO 3'-0"	5"x10"

QUANTITIES FOR RETAINING WALL AND APPURTENANCES

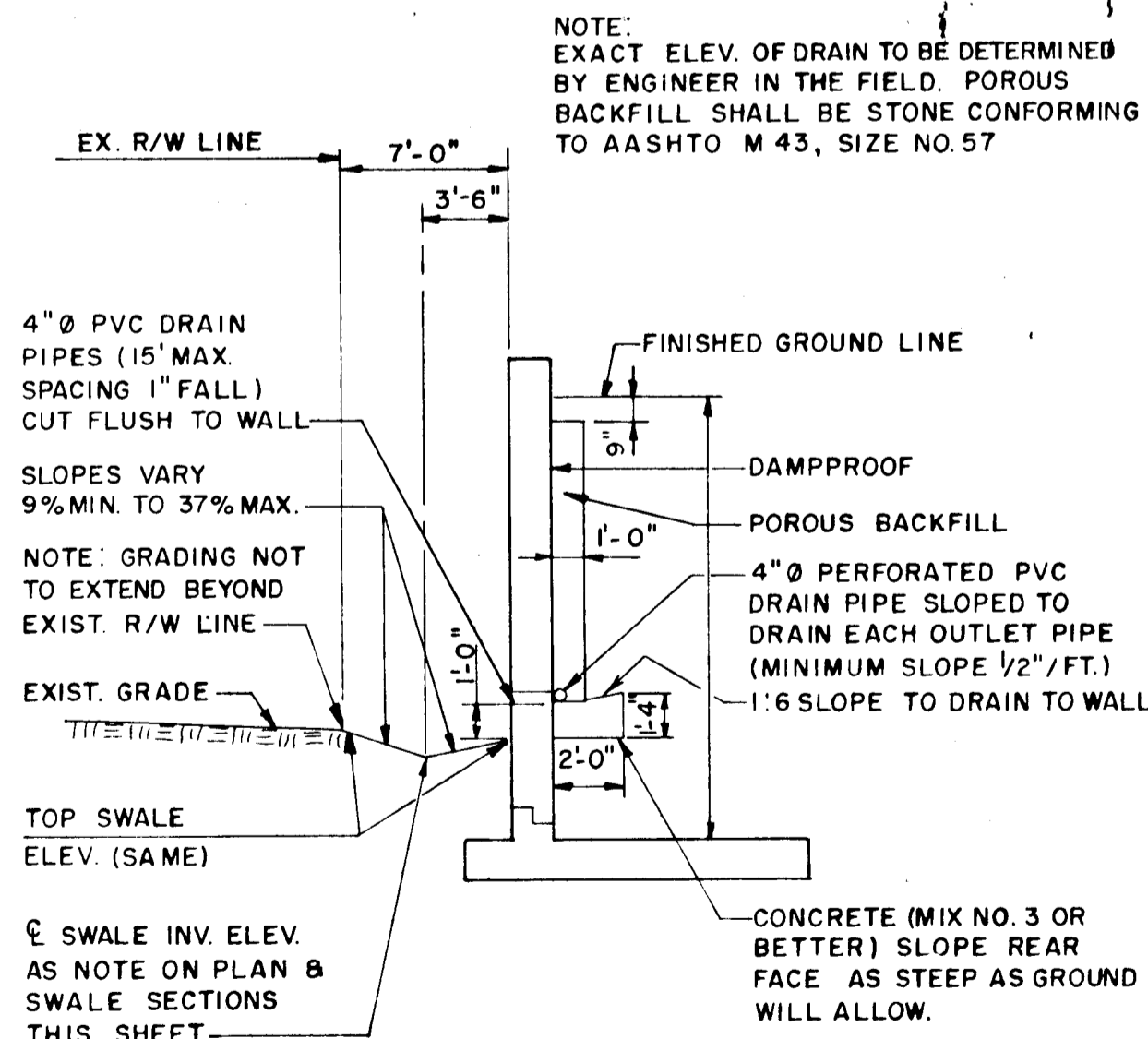
DESCRIPTION	ESTIMATED QUANTITY	PROPOSAL ITEM
CONCRETE (MIX NO 3)	135 C.Y.	135 C.Y.
REINFORCING STEEL (ASTM A-615 GR 60)	10,900 LBS.	N/A
4" PERF. PVC DRAIN	160 L.F.	N/A
4" PVC. OUTLETS	11 L.F.	N/A
EXCAVATION	300 C.Y.	N/A
POROUS BACKFILL (AASHTO M-43 NO.57)	30 C.Y.	N/A
CHAIN LINK FENCE (SEE SPECIAL PROV.)	159 L.F.	159 L.F.



INLET TRANSITION DETAIL
N.T.S.



FENCE POST DETAIL
N.T.S.

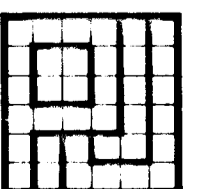


PROPOSED SWALE & RETAINING WALL DRAINAGE SYSTEM TYPICAL SECTION
N.T.S.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING



PURDUM & JESCHKE
CONSULTING ENGINEERS
LAND SURVEYORS

1029 North Calvert Street
Baltimore, Maryland 21202 301/837-0194

DES:	DRN:	CHK:	DATE:	BY:	NO.:	REVISION:	DATE:

RETAINING WALL
STA. 35+49 TO STA. 37+09 LT.
CEDAR LANE - PHASE 1

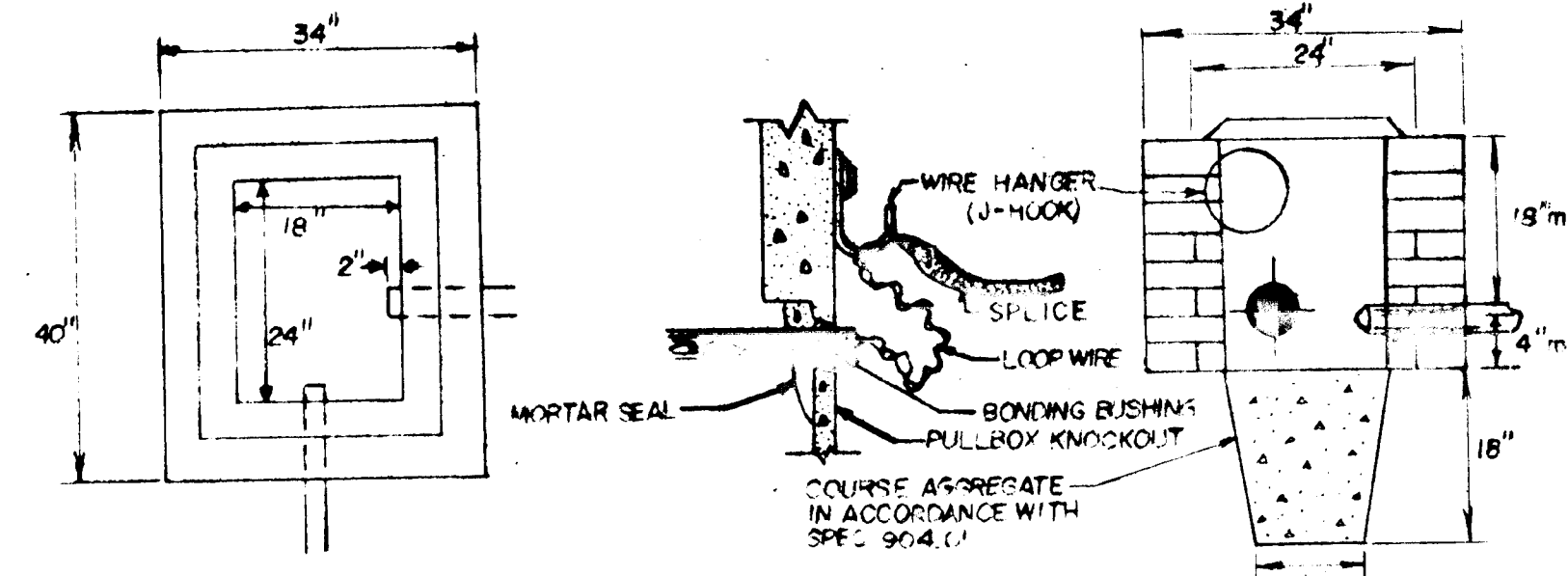
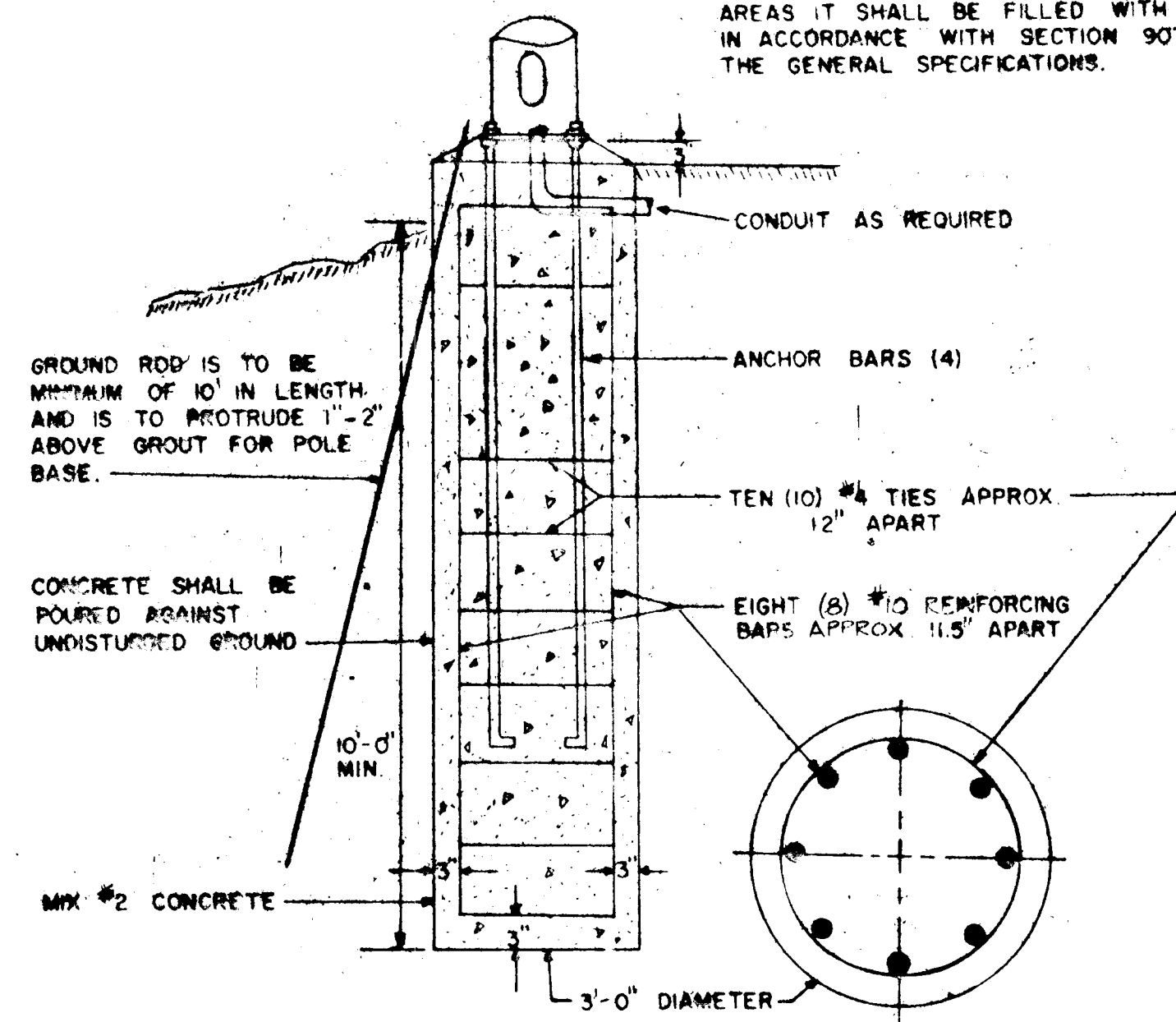
HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
CAPITAL PROJECT J-4086
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET
21 of 22

TYPICAL FOR HANDBOX CONSTRUCTION

FOUNDATIONS
STRAIN POLE

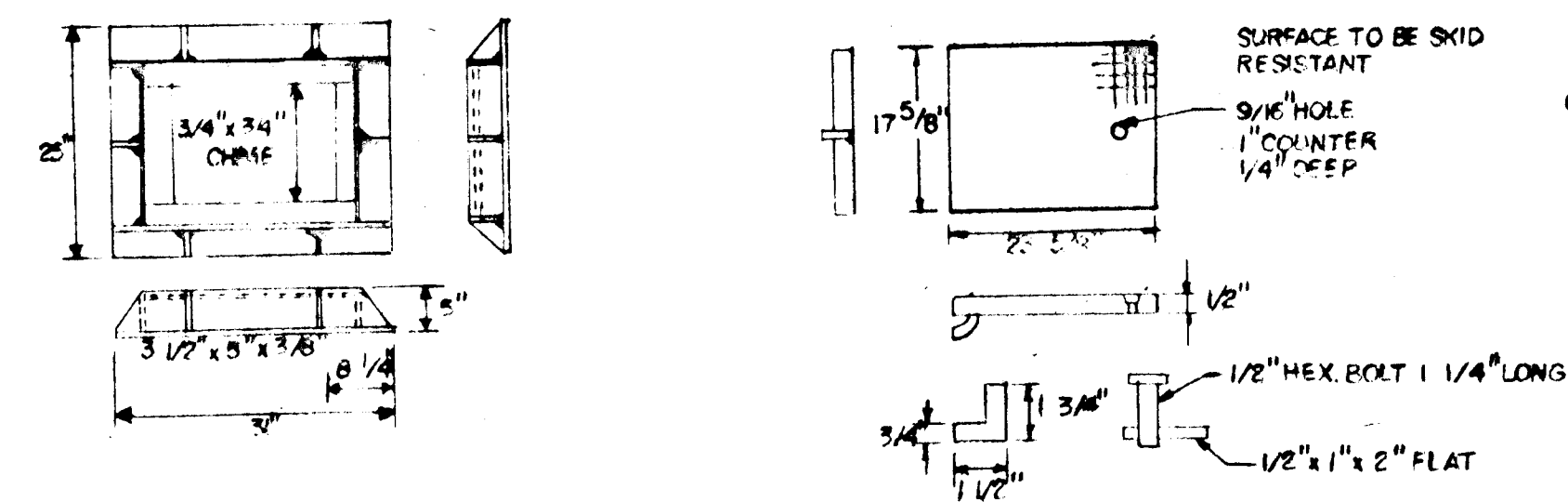
WHEN POLES ARE PLACED IN SIDEWALKS, THE FOUNDATION SHALL BE FLUSH WITH THE CURB AND/OR SURROUNDING AREA, IN OTHER AREAS IT SHALL BE FILLED WITH GROUT IN ACCORDANCE WITH SECTION 907.07.03 OF THE GENERAL SPECIFICATIONS.



NOTES:

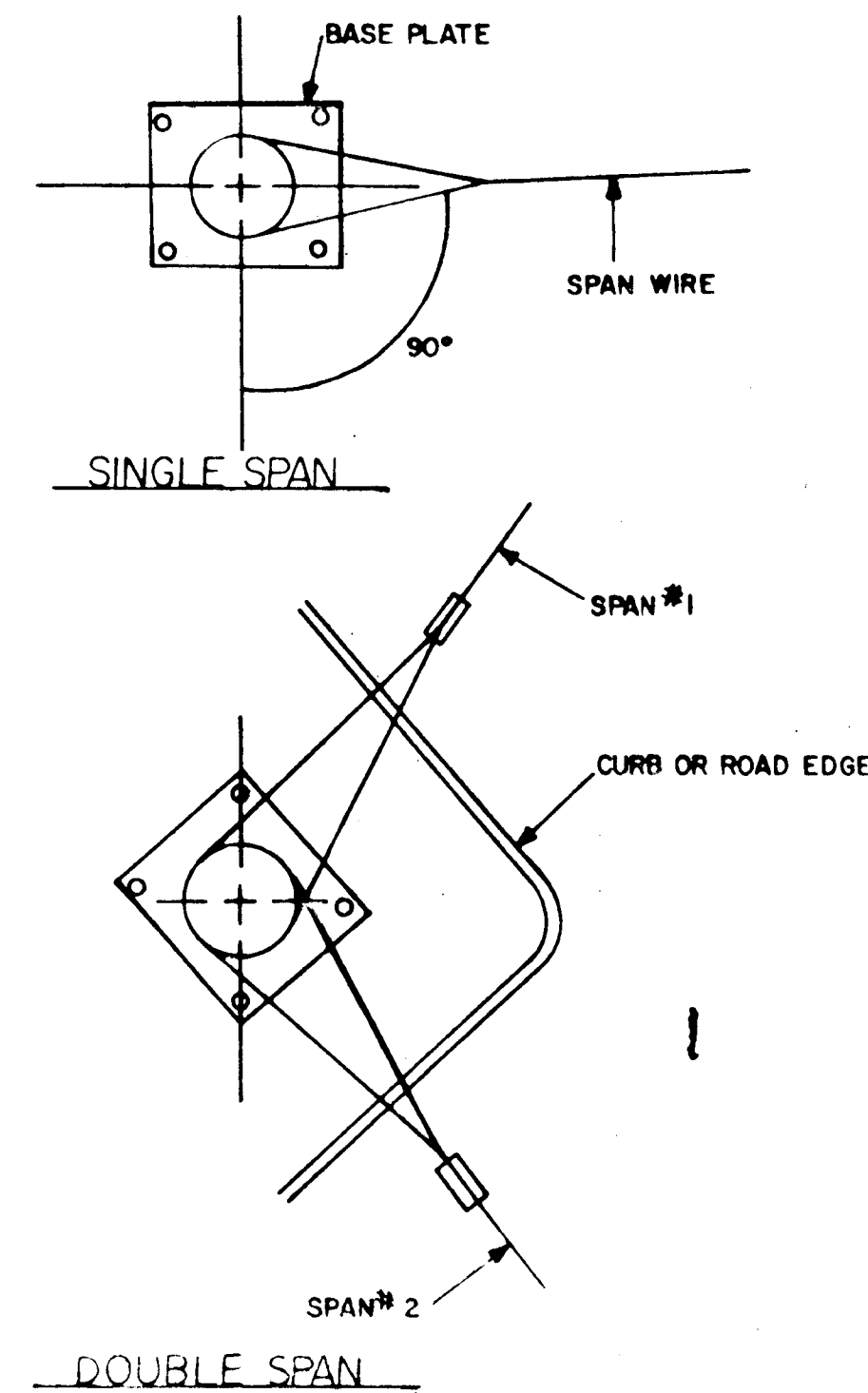
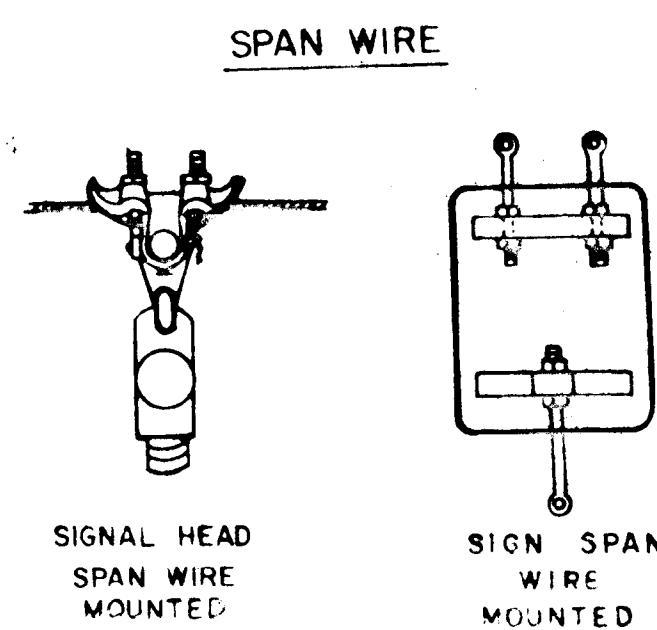
- 1) ANY SPACES BETWEEN THE CONDUIT AND THE HANDBOX WALL SHALL BE PATCHED WITH CONCRETE OR OTHER SEALER APPROVED BY THE ENGINEER.
- 2) ALL METAL CONDUIT ENDS SHALL BE BONDED WITH OTHER CONDUIT ENDS BY USING BONDING BUSHINGS AND NO. 8 AWG COPPER WIRE.
- 3) ALL ELECTRICAL CABLES ARE REQ'D TO HAVE 3' SLACK IN HANDBOX. THIS WIRE IS TO BE SECURED IN THE HANDBOX SO IT DOES NOT LAY ON THE BOTTOM OF THE HANDBOX.
- 4) HANDBOX FRAME & COVER SHALL BE GALVANIZED PER ASTM A 123.
- 5) WHEN ALL CONDUIT AND ELECTRICAL WIRE IS IN PLACE, THE END OF THE CONDUITS SHALL BE SEALED WITH DUCT SEALER OR OTHER Pliable MATERIAL AS APPROVED BY THE ENGINEER.
- 6) WALLS (IF APPLICABLE) SHALL BE BRICK OR CONCRETE BLOCK (NO CINDER BLOCK) ONLY FINAL COURSE SHALL BE CAPPED (NO VOIDS USING CONCRETE BLOCK).

TYPICAL HANDBOX FRAME AND COVER

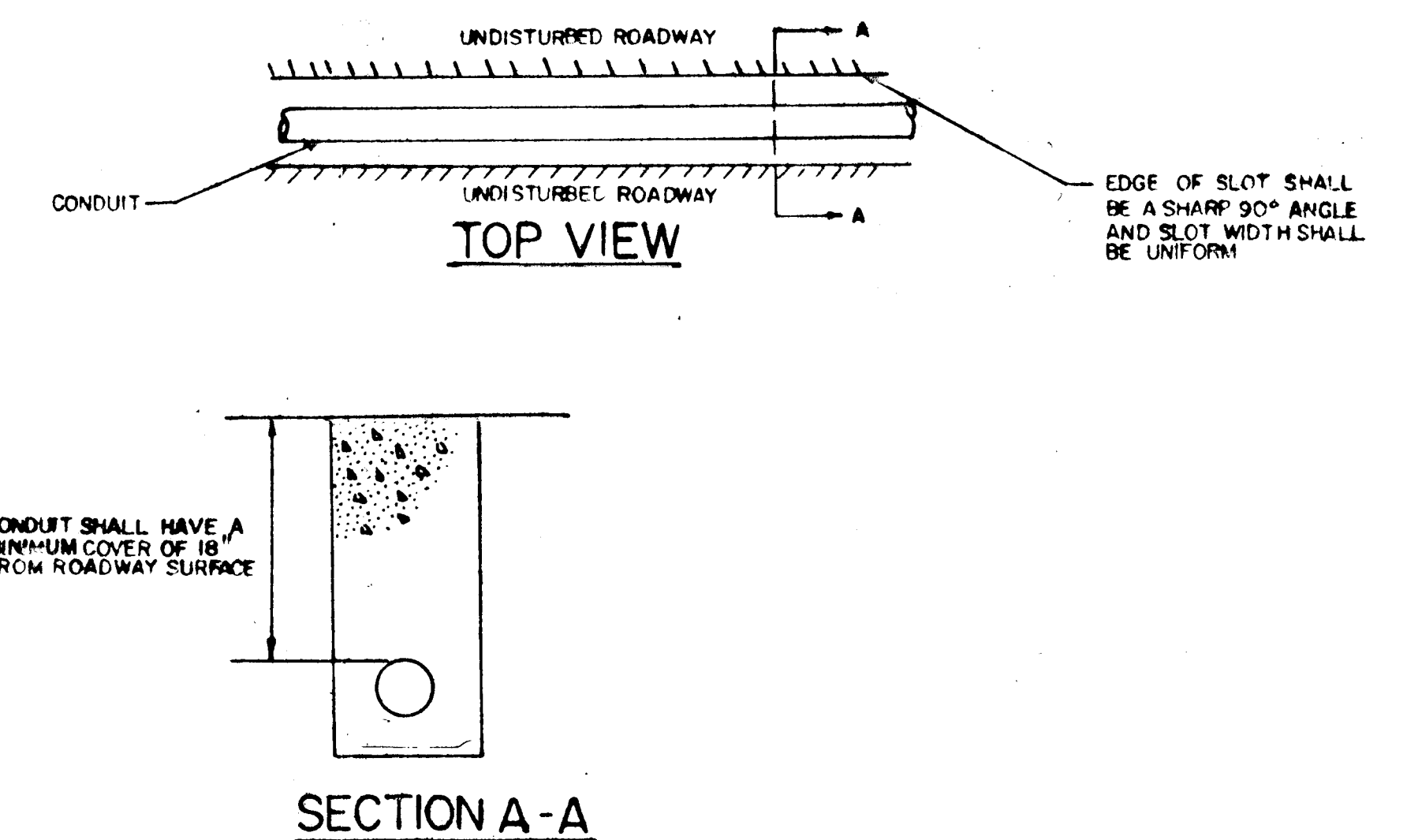


PLACEMENT OF STRAIN POLE vs SPAN WIRE

MOUNTING HARDWARE



SLOT TRENCH CONDUIT IN PAVEMENT



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF ENGINEERING DATE

PURDOM & JESCHKE
CONSULTING ENGINEERS
LAND SURVEYORS

DANIEL CONSULTANTS, INC.
8770 ROUTE 104E SUITE 228
COLUMBIA, MARYLAND

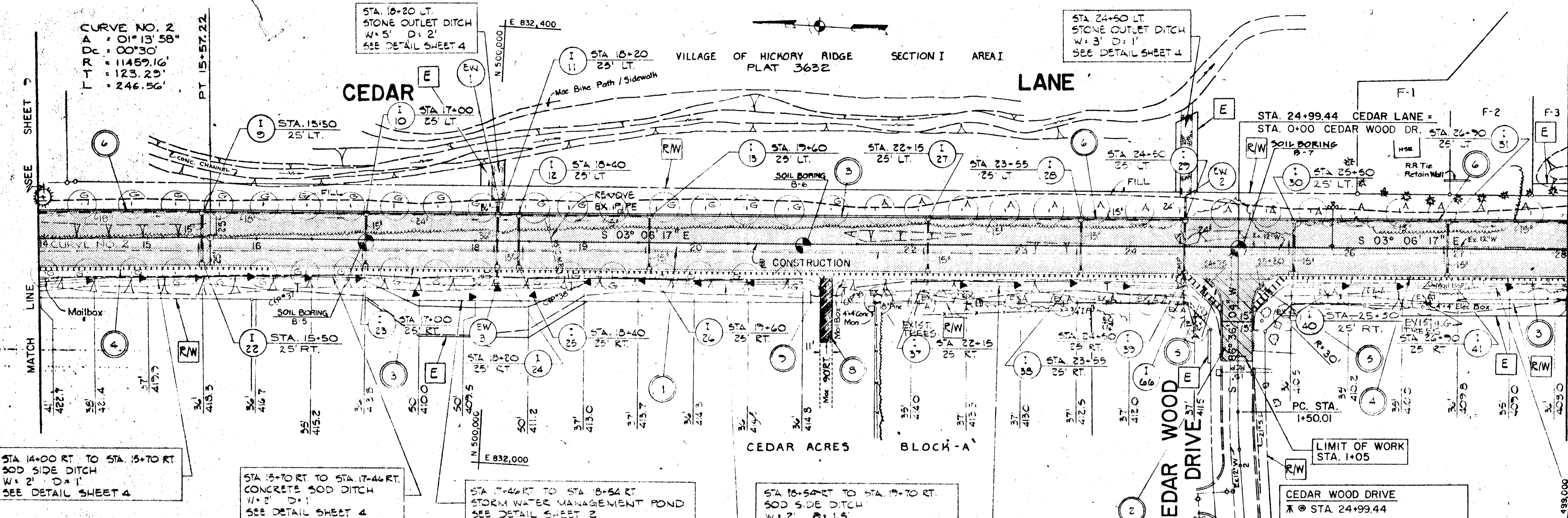


DES: B.H.E.	
DRN: M.H.	
CHK: Z.A.S.	
DATE: 5/12/87	
FY	N.O.
REVISION	DATE

SIGNALIZATION / MAINTENANCE OF TRAFFIC DETAILS
CEDAR LANE - PHASE I

HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
CAPITAL PROJECT J-4086
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

SCALE
1" = 30'
SHEET
22 OF 22



STA 14+00 RT TO STA 15+70 RT
 500 SIDE DITCH
 W=2' D=1'
 SEE DETAIL SHEET 4

STA 15+70 RT TO STA 17+44 RT.
 CONCRETE 500 DITCH
 W=2' D=1'
 SEE DETAIL SHEET 4

STA 17+44 RT TO STA 18+54 RT
 STORM WATER MANAGEMENT POND
 SEE DETAIL SHEET 2

STA 18+54 RT TO STA 19+70 RT.
 500 SIDE DITCH
 W=2' D=1.5'
 STA. 19+70 RT TO STA 21+00 RT.
 500 SIDE DITCH
 W=2' D=1'
 SEE DETAIL SHEET 4

STA 22+00 RT TO STA 24+50 RT.
 500 SIDE DITCH
 W=2' D=1'
 SEE DETAIL SHEET 4

CEDAR WOOD DRIVE
 X @ STA 24+99.44
 BS. STA. 23+00
 FS. 269° 42' 21" D=150.01' (PC.)

STA 25+50 RT TO STA 27+90 RT.
 500 SIDE DITCH
 W=2' D=1'
 STA. 27+90 RT TO STA 28+00 RT.
 500 SIDE DITCH
 W=2' D=1'
 SEE DETAIL SHEET 4

INLET SCHEDULE
 All A-10 Inlets to Include Deflectors. For Details See Howard County Standards SD 4.02 and SD 4.83

PLAN NO.	NO. OF	TYPE	ELEV.	INVERT IN	INVERT OUT	REMARKS
1-9	1	A-10	419.37	415.15	414.90	
1-10	1	A-10	417.55	410.33	409.58	
1-11	1	A-10	417.42	407.75	407.75	
1-12	1	A-10	413.52	409.55	409.30	
1-13	1	A-10	413.52	410.55	410.55	
1-22	1	A-10	419.37	--	415.35	
1-23	1	A-10	417.55	--	410.53	
1-24	1	A-10	413.47	408.25	408.25	
1-25	1	A-10	413.52	--	409.75	

CURB STAKE OUT DATA
CEDAR LANE BASE LINE

STATION	OFFSET
PC 24+54.73	25.00' RT
PC 25+44.73	25.00' RT

CEDAR WOOD DRIVE BASE LINE

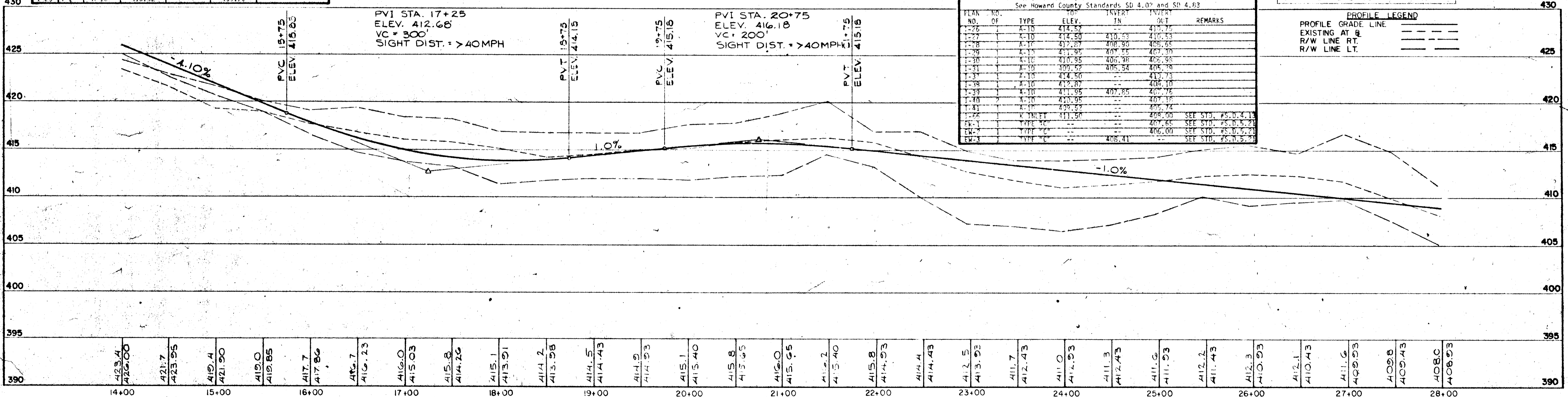
STATION	OFFSET
PT 0+54.77	15.00' RT
PT 0+55.23	15.00' LT

INLET SCHEDULE
 All A-10 Inlets to Include Deflectors. For Details See Howard County Standards SD 4.02 and SD 4.83

PLAN NO.	NO. OF	TYPE	ELEV.	INVERT IN	INVERT OUT	REMARKS
1-26	1	A-10	414.52	--	410.75	
1-27	1	A-10	414.50	410.53	410.53	
1-28	1	A-10	412.87	408.30	408.55	
1-29	1	A-10	411.95	407.55	407.30	
1-30	1	A-10	410.95	406.38	406.38	
1-31	1	A-10	399.57	405.54	404.70	
1-32	1	A-10	414.50	--	410.73	
1-33	1	A-10	413.87	--	408.10	
1-34	1	A-10	413.95	407.85	407.10	
1-35	1	A-10	413.95	--	407.10	
1-36	1	A-10	413.95	--	407.10	
1-37	1	A-10	409.52	--	405.74	
1-38	1	K TRILET	411.50	--	408.00	SEE STD. #S.D. 4.13
EW-1	1	TYPE 'C'	--	--	407.65	SEE STD. #S.D. 5.21
EW-2	1	TYPE 'C'	--	--	406.00	SEE STD. #S.D. 5.21
EW-3	1	TYPE 'C'	--	--	408.41	SEE STD. #S.D. 5.21

PROFILE LEGEND

PROFILE GRADE LINE	---
EXISTING AT R/W LINE RT.	---
R/W LINE RT.	---
R/W LINE LT.	---



NOTE: FOR TREE PLANTING DETAILS SEE SHEET #T-4 OF T-4

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

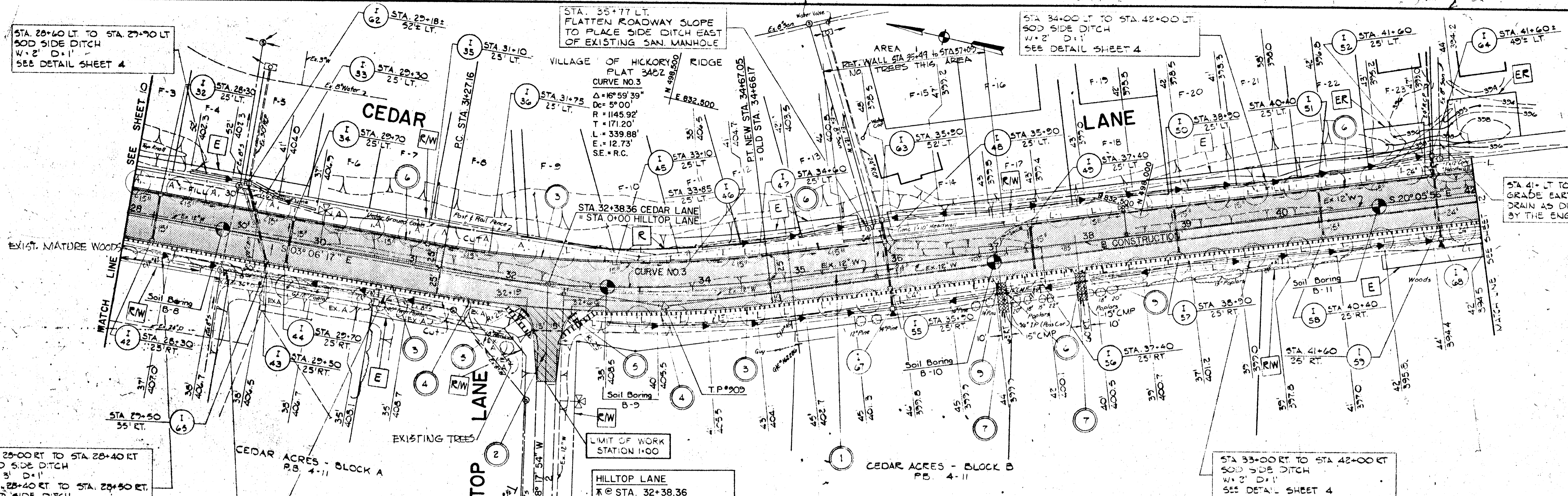
PURDUM & JESCHKE
 CONSULTING ENGINEERS
 LAND SURVEYORS
 1029 North Colvert Street
 Baltimore, Maryland 21202 301/837-0194

DES:	
DRN:	
CHK:	
DATE:	
BY:	NO.
REVISION:	

TREE PLANTING PLAN
PLAN & PROFILE
 STA. 14+00 TO STA. 28+00
 CEDAR LANE-PHASE I

HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 CAPITAL PROJECT J-4086
 ELECTION DISTRICT NO. 5
 HOWARD COUNTY, MARYLAND

SCALE
 HORIZ: 1"=50'
 VERT: 1"=5'
 SHEET
 19 OF 19
 T-2 OF T-4
 24



STA. 28+00 LT. TO STA. 29+00 LT.
SOD SIDE DITCH
W=2' D=1'
SEE DETAIL SHEET 4

STA. 28+50 RT. TO STA. 30+00 RT.
SOD SIDE DITCH W=5' D=1'
DIVERT DITCH TO AVOID SAN.M.
SEE DETAIL SHEET 4

STA. 30+00 RT. TO STA. 30+10 RT.
SOD SIDE DITCH
W=5' D=1'
STA. 30+10 RT. TO STA. 31+30 RT.
SOD SIDE DITCH
W=2' D=1'
SEE DETAIL SHEET 4

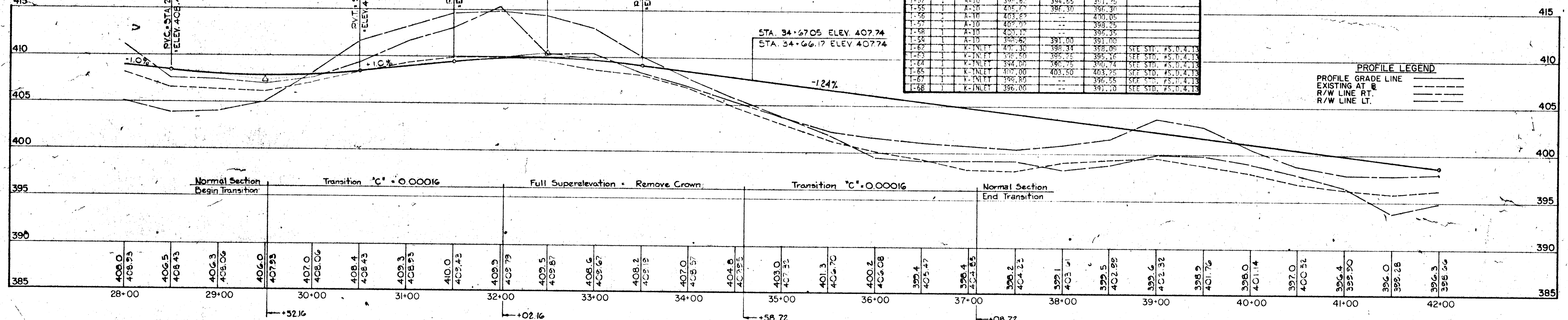
HILLTOP LANE
BS. STA. 31+27.16 (PC)
FS. 264' 10" 59" D=200.00'

CURB STAKE OUT DATA CEDAR LANE BASE LINE			
STATION	OFFSET		
PC 32+02.48	25.00' RT		
PC 32+79.25	25.00' RT		
HILLTOP LANE BASE LINE			
STATION	OFFSET		
PT 0+47.37	15.00' RT		
PT 0+51.43	15.00' LT		

ALL 4-10 Inlets to include Deflectors. For Details See Howard County Standards SD 4.02 and SD 4.83

PLAN NO.	NO.	TYPE	ELEV.	IN	OUT	REMARKS
1-32	A-10		408.12	404.15	403.90	
1-33	A-10		407.42	403.45	400.75	
1-34	A-10		407.4	403.45	403.20	
1-35	A-10		406.45	404.45	404.35	
1-36	A-10		409.17		405.20	
1-37	A-10		408.12		404.35	
1-43	A-10		407.45	407.50	405.75	
1-44	A-10		407.42		405.65	
1-45	A-10		408.07		405.10	
1-46	A-10		408.22	404.25	404.00	
1-47	A-10		407.27	403.45	403.15	
1-48	A-10		405.67	401.0	395.97	
1-49	A-10		407.27	396.85	395.85	
1-50	A-10		407.00	396.45	397.80	
1-51	A-10		400.15	396.15	395.80	
1-52	A-10		398.85	394.65	391.75	
1-53	A-10		405.72	396.30	396.30	
1-54	A-10		403.67		400.00	
1-55	A-10		409.00		398.25	
1-56	A-10		400.15		396.35	
1-57	A-10		398.82	391.00	391.00	
1-58	A-10		407.30	398.34	398.00	SEE STD. #5.0.4.13
1-59	A-10		398.00	395.75	395.10	SEE STD. #5.0.4.13
1-60	A-10		394.00	390.75	390.74	SEE STD. #5.0.4.13
1-61	A-10		407.00	403.50	403.25	SEE STD. #5.0.4.13
1-62	A-10		398.80		396.55	SEE STD. #5.0.4.13
1-63	A-10		398.00		391.70	SEE STD. #5.0.4.13

NOTE:
For Storm Drain Profiles
See Sheets No.



NOTE: FOR TREE PLANTING DETAILS
SEE SHEET #

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF ENGINEERING _____ DATE _____

PURDUM & JESCHKE
CONSULTING ENGINEERS
LAND SURVEYORS

1029 North Calvert Street
Baltimore, Maryland 21202 301/837-0194

DES	DRN	CHK.	DATE	BY	NO.	REVISION

TREE PLANTING PLAN
PLAN & PROFILE
STA. 28+00 TO STA. 42+00
CEDAR LANE-PHASE I

600' SCALE MAP NO. _____ BLOCK NO. _____

HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
CAPITAL PROJECT J-4086
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

SCALE
HORIZ. 1"=50'
VERT. 1"=5'
SHEET
11 OF 19
1-3 OF T-4

STA. 42+00 LT. TO STA. 44+00 LT.
SOD SIDE DITCH
W=2' D=1'
SEE DETAIL SHEET 4

STA. 42+00 RT. TO STA. 42+10 RT.
SOD SIDE DITCH
W=2' D=1'
SEE DETAIL SHEET 4

CURB STAKE OUT DATA CEDAR LANE BASE LINE	
STATION	OFFSET
PC 42+09.72	25.00' RT
PC 42+90.48	25.00' RT

HARMEL DRIVE BASE LINE	
STATION	OFFSET
PT 0+44.95	15.00' LT
PT 0+56.00	15.00' RT

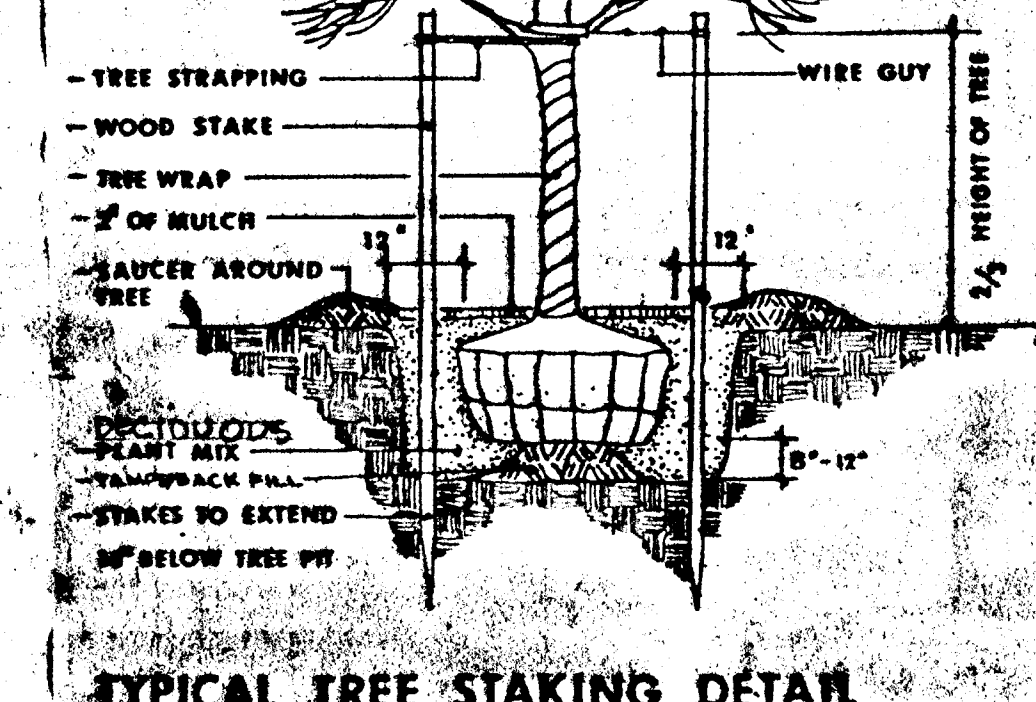
TO BE # 210467
HARMEL DRIVE
X @ STA. 42+57.61
BS. STA. 40+00
FS. 277° 51' 35" D=300.00'

MIT 7 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100

See Howard County Standards SP 4.02 and SP 4.83

PLAN NO.	NO. OF	TYPE	ELEV.	IN	OUT	REMARKS
1-53	1	A-10	397.18	--	397.18	
1-54	1	A-10	397.57	--	397.57	
1-55	1	A-10	397.18	397.18	397.18	
1-56	1	A-10	396.58	397.17	397.40	

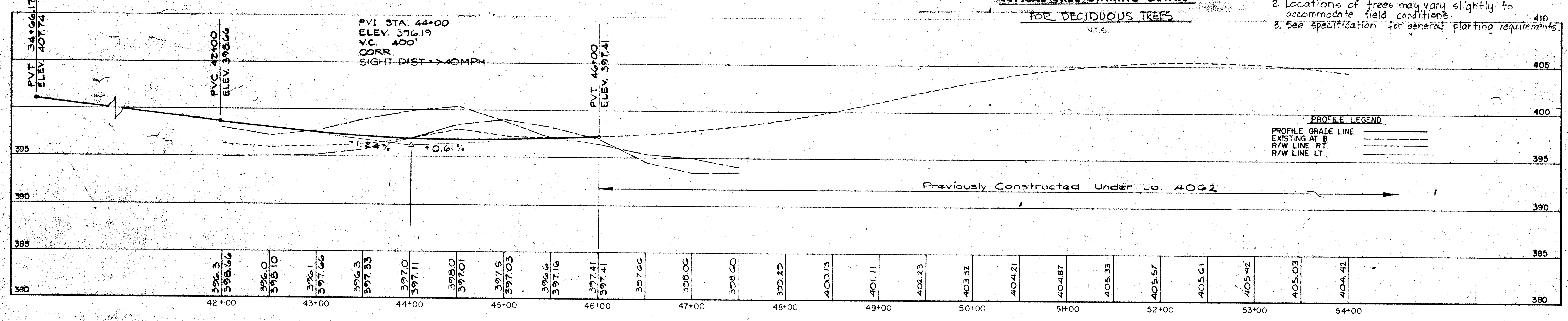
PLAN TREE STAKING



PLANT LIST

Qty	Symbol	Name	Size	Remarks
25	A	ACER RUBRUM Red Maple	2 2/8" cal 12'-14" H	B&B Full Head
52	G	GINKGO BILOBA (male only) Maidenhair Tree	2 2/8" cal 12'-14" H	B&B Full Head
37	Z	ZELKOVA SERRATA Zelkova "Village Green"	2 2/8" cal 11'-14" H	B&B Full Head
43	L	TILIA AMERICANA American Linden	2 2/8" cal 11'-14" H	B&B Full Head
42	T	THUJA OCCIDENTALIS American Arborvitae	3 4" H	B&B Single trunk

NOTES:
1. Contractor to verify underground utilities before digging.
2. Locations of trees may vary slightly to accommodate field conditions.
3. See specification for general planting requirements.



NOTE: FOR TREE PLANTING DETAILS SEE THIS SHEET.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF ENGINEERING _____ DATE _____

PURDUM & JESCHKE
CONSULTING ENGINEERS
LAND SURVEYORS

1029 North Calvert Street
Baltimore, Maryland 21202 301/837-0194

DES:	
DRN:	
CHK:	
DATE:	

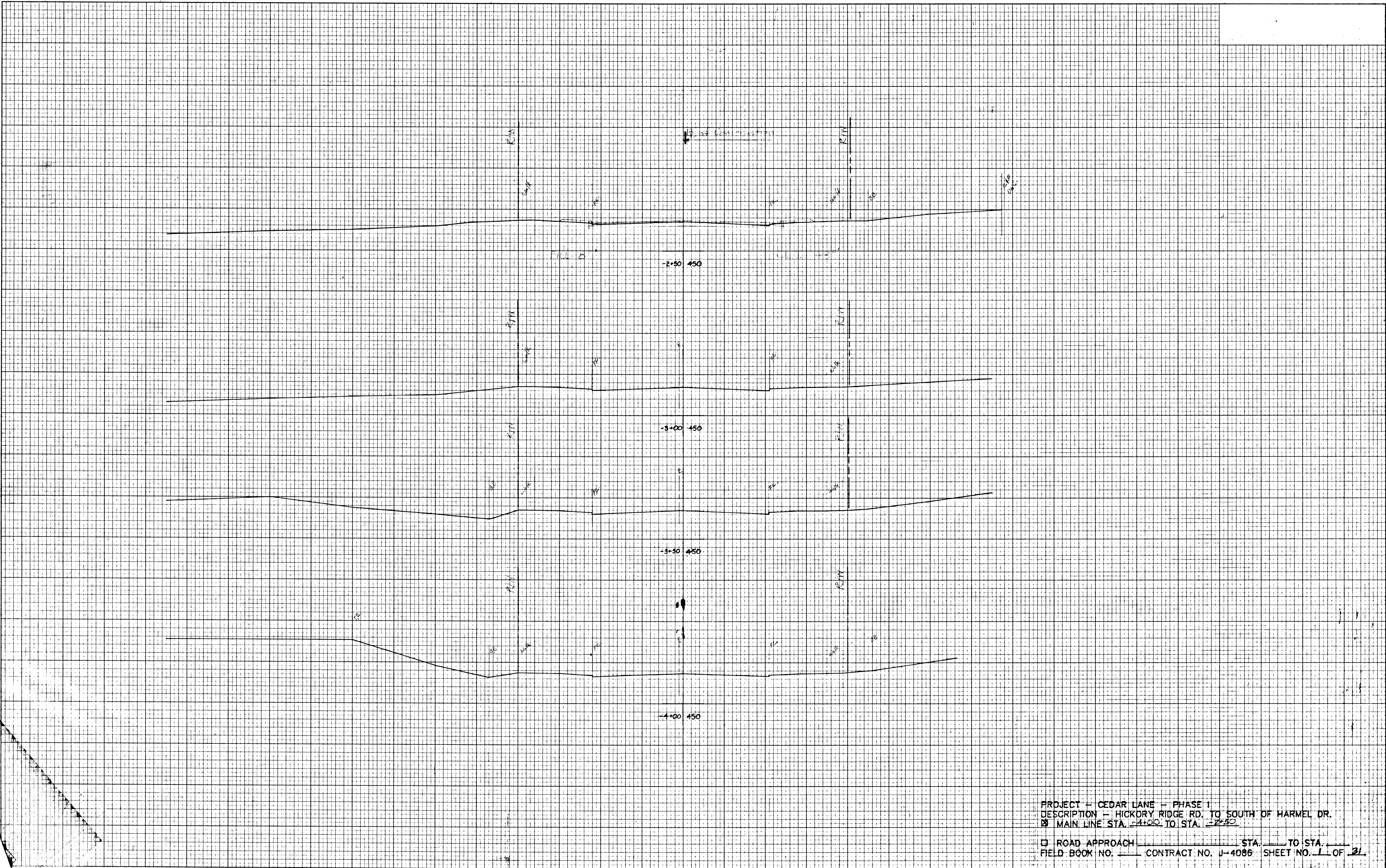
TREE PLANTING PLAN
PLAN & PROFILE
STA. 42 00 TO STA. 45 3009
CEDAR LANE - PHASE I

HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
CAPITAL PROJECT J 4086
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 12 OF 12
T-4 OF T-4

FINAL SURVEYED PLOTTED
 NO. 100K DATE
 NO. AREAS CHECKED

FINAL SURVEYED PLOTTED
 NO. 100K DATE
 NO. AREAS CHECKED



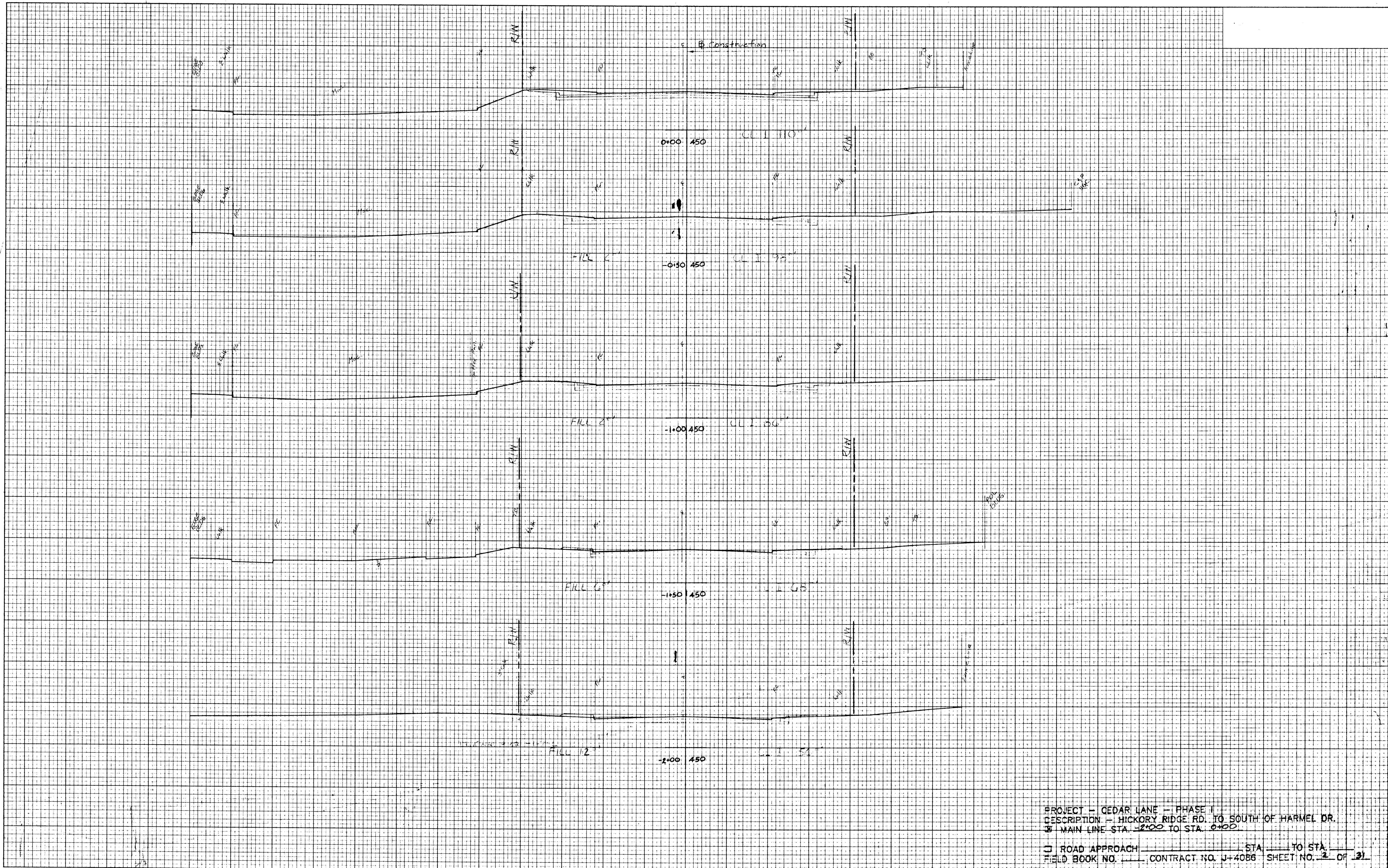
PROJECT - CEDAR LANE - PHASE 1
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. -4+00 TO STA. -2+50
 ROAD APPROACH STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 1 OF 2

PLATE 3 CROSS SECTION O. P. & S. E. STANDARD
 100% RAY AEROPHOT YELLOW-ROSE AND PRINTED IN U. S. A.
 EUGENE DIEZGEN CO.

CEDAR LANE, STA. -4+00 TO STA. -2+50
 VERT. 1" = 10'
 HORIZ. 1" = 10'

FINAL SURVEY BY DATE
 SURVEYED PLOTTED
 NOTE BOOK NO. AREAS CHECKED

ORIGINAL SURVEY BY DATE
 SURVEYED PLOTTED
 NOTE BOOK NO. AREAS CHECKED



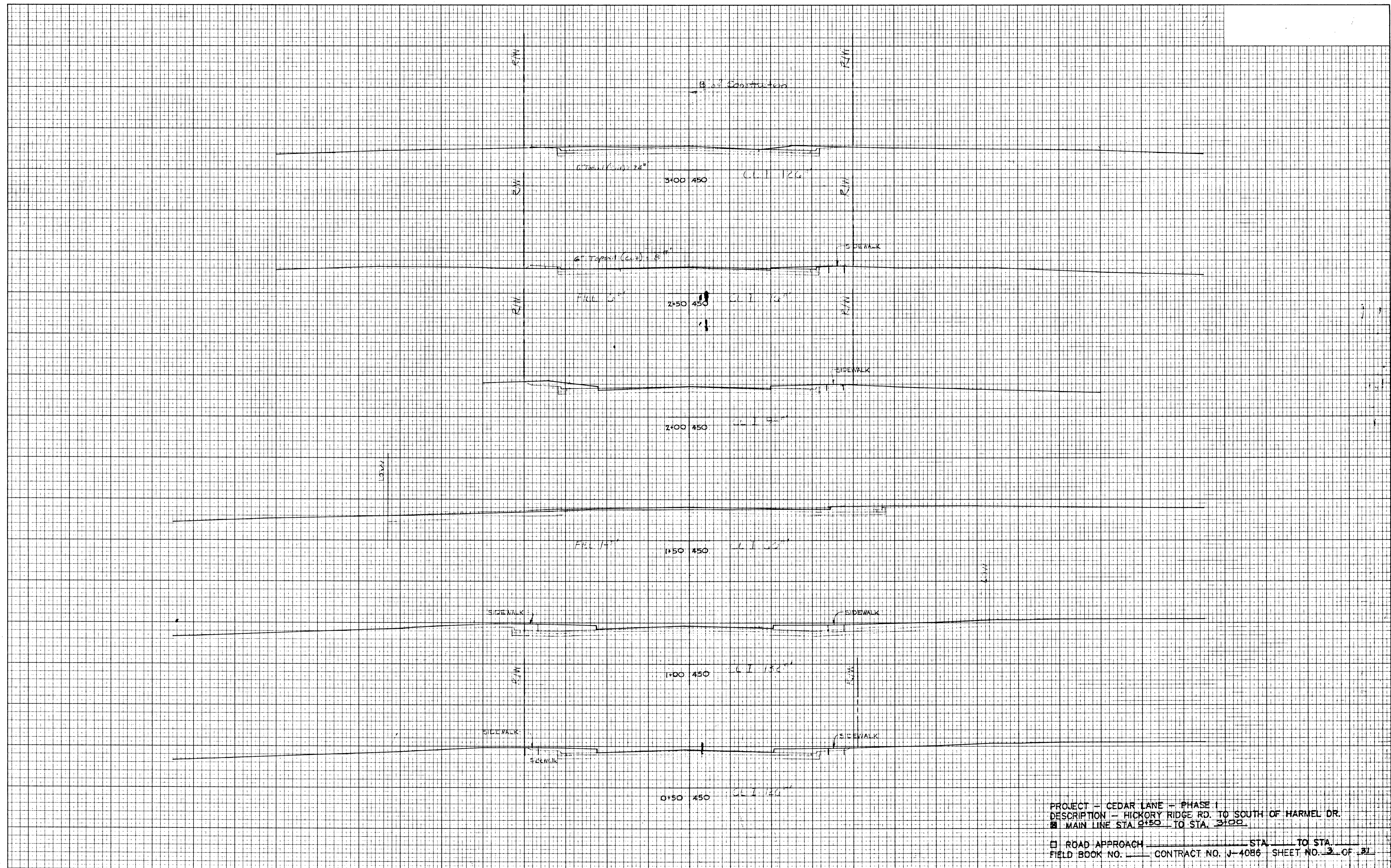
PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. -2+00 TO STA. 0+00
 ROAD APPROACH STA. TO STA.
 FIELD BOOK NO. CONTRACT NO. J-4086 SHEET NO. 2 OF 31

PLATE 3 CROSS SECTION O. P. & R. E. STANDARD
 100% MAG. ACCURATE YELLOW-PAPE AND PRINTED IN U. S. A.
 EUGENE DIETZGEN CO.

CEDAR LANE STA -2+00 TO STA. 0+00
 VERT. 1"=10'

FINAL SURVEY SURVEYED PLOTTED PLANTING AREAS CHECKED
 BY: _____ DATE: _____
 NO. _____

ORIGINAL SURVEY SURVEYED PLOTTED PLANTING AREAS CHECKED
 BY: _____ DATE: _____
 NO. _____



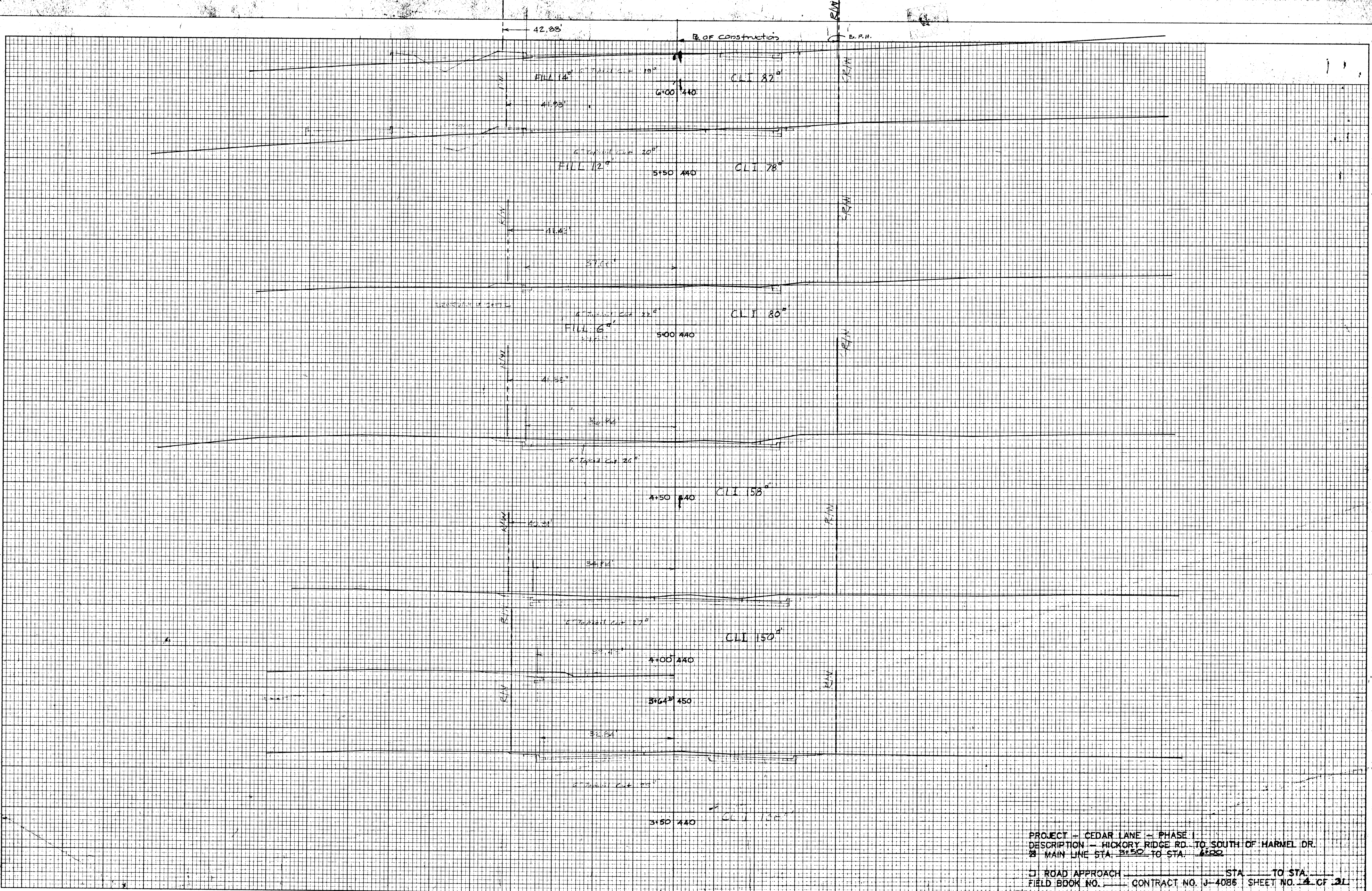
PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. 0+50 TO STA. 3+00
 ROAD APPROACH _____ STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 3 OF 32

PLATE 3 CROSS SECTION O. P. R. & E. STANDARD
 100% MAG. AGEPROOF YELLUM—MADE AND PRINTED IN U. S. A.
 EUGENE DIEZGEN CO.

CEDAR LANE STA. 0+50 TO STA. 3+00
 VERT. 1"=10'

FINAL SURVEY
 SURVEYED
 FOR THIS
 PROJECT
 DATE
 BY
 NO. 42.88

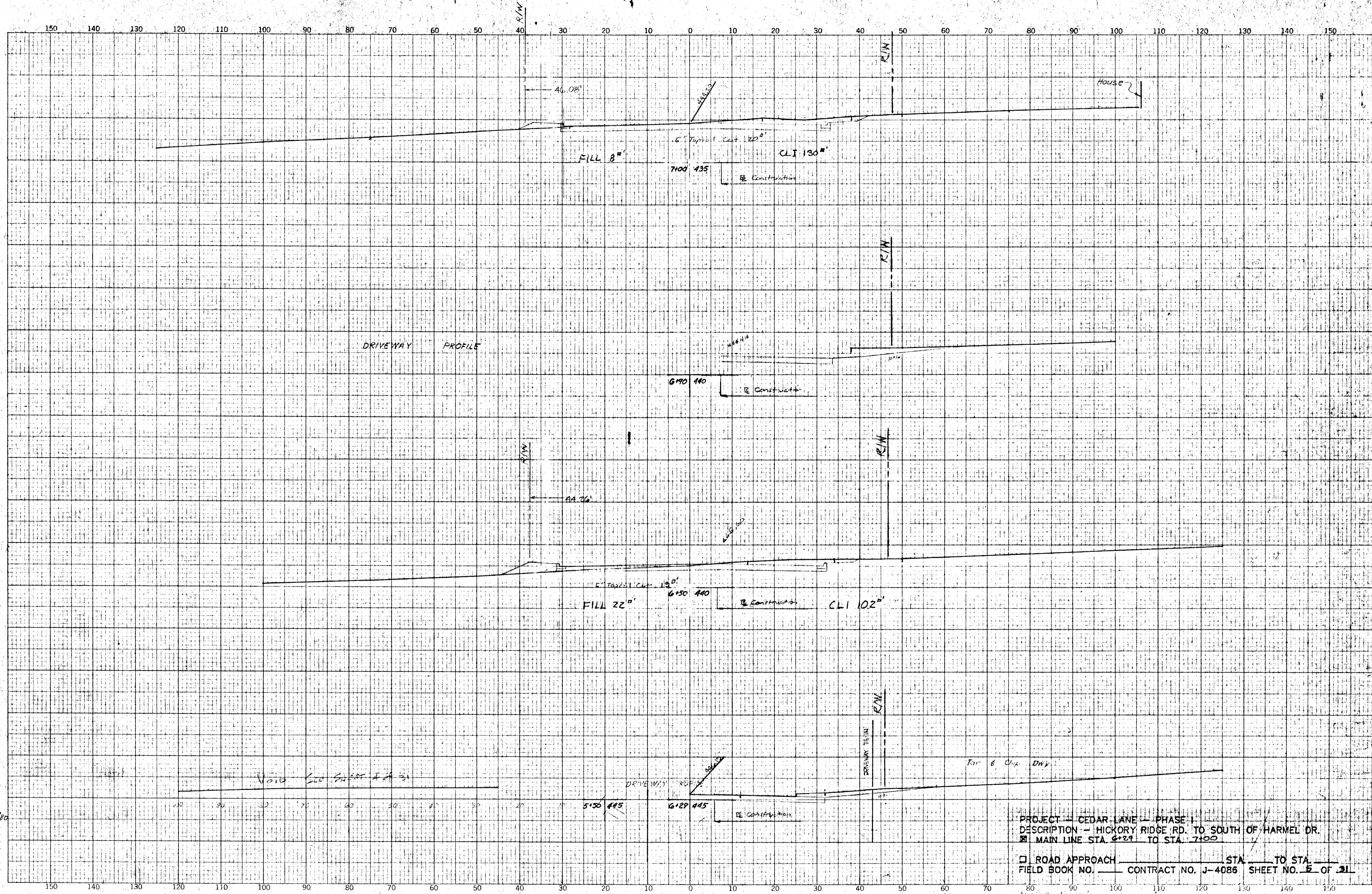
ORIGINAL SURVEY
 PLOTTED
 TEMPLATE
 DATE
 BY
 NO.



PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARNEL DR.
 MAIN LINE STA. 3+50 TO STA. 4+00
 ROAD APPROACH STA. TO STA.
 FIELD BOOK NO. CONTRACT NO. J-4086 SHEET NO. 4 OF 31

PLATE 3 CROSS SECTION O. P. & S. L. STANDARD
 100% RAG APPROOF VELLUM-MADE AND PRINTED IN U. S. A.
 EUGENE DIETZGEN CO.

CEDAR LANE STA 3+50 TO STA. 5+50
 VERT. 1" = 10'



CROSS SECTIONS
Scale 1 inch = 10 feet

Original Plotted by ML Date 10/23/80
 Checked by _____ Date _____
 Template by _____ Date _____
 Area by _____ Date _____
 Final Plotted by _____ Date _____
 Checked by _____ Date _____
 Area by _____ Date _____
 Checked by _____ Date _____

PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. 6+29 TO STA. 7+00

ROAD APPROACH _____ STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 5 OF 31

BOOK NO. _____

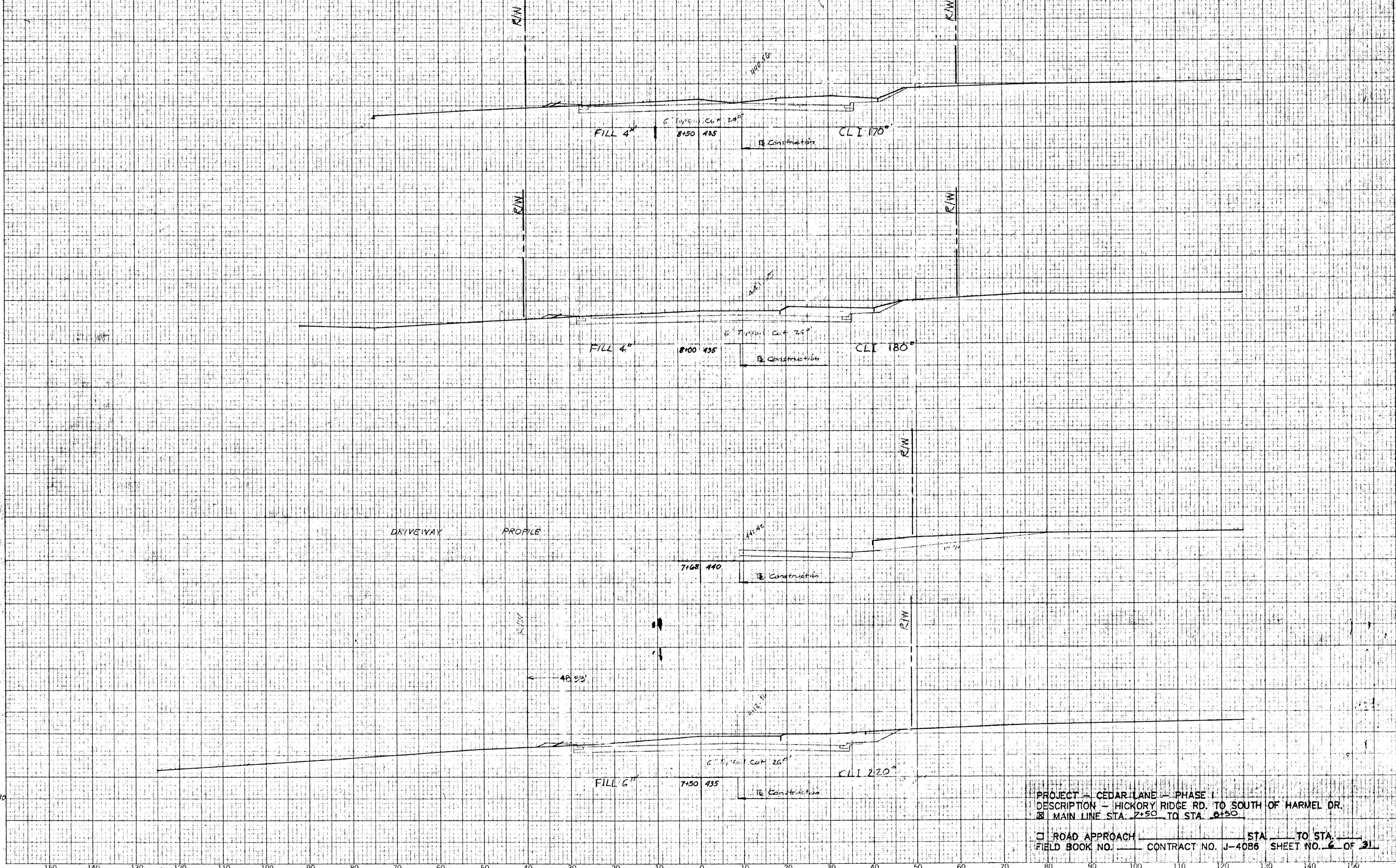
PROJECT CEDAR LANE
DESCRIPTION Mainline

CONTRACT NO. _____

SHEET NO. _____ OF _____
STATION 6+29 TO STATION 7+00

MAR 12 1981

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



CROSS SECTIONS
Scale 1 inch = 10 feet

Original Plotted by ML Date 10/23/80
 Checked by _____ Date _____
 Template by _____ Date _____
 Area by _____ Date _____
 Final Plotted by _____ Date _____
 Checked by _____ Date _____
 Area by _____ Date _____
 Checked by _____ Date _____

PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. 7+50 TO STA. 8+50

ROAD APPROACH STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 6 OF 31

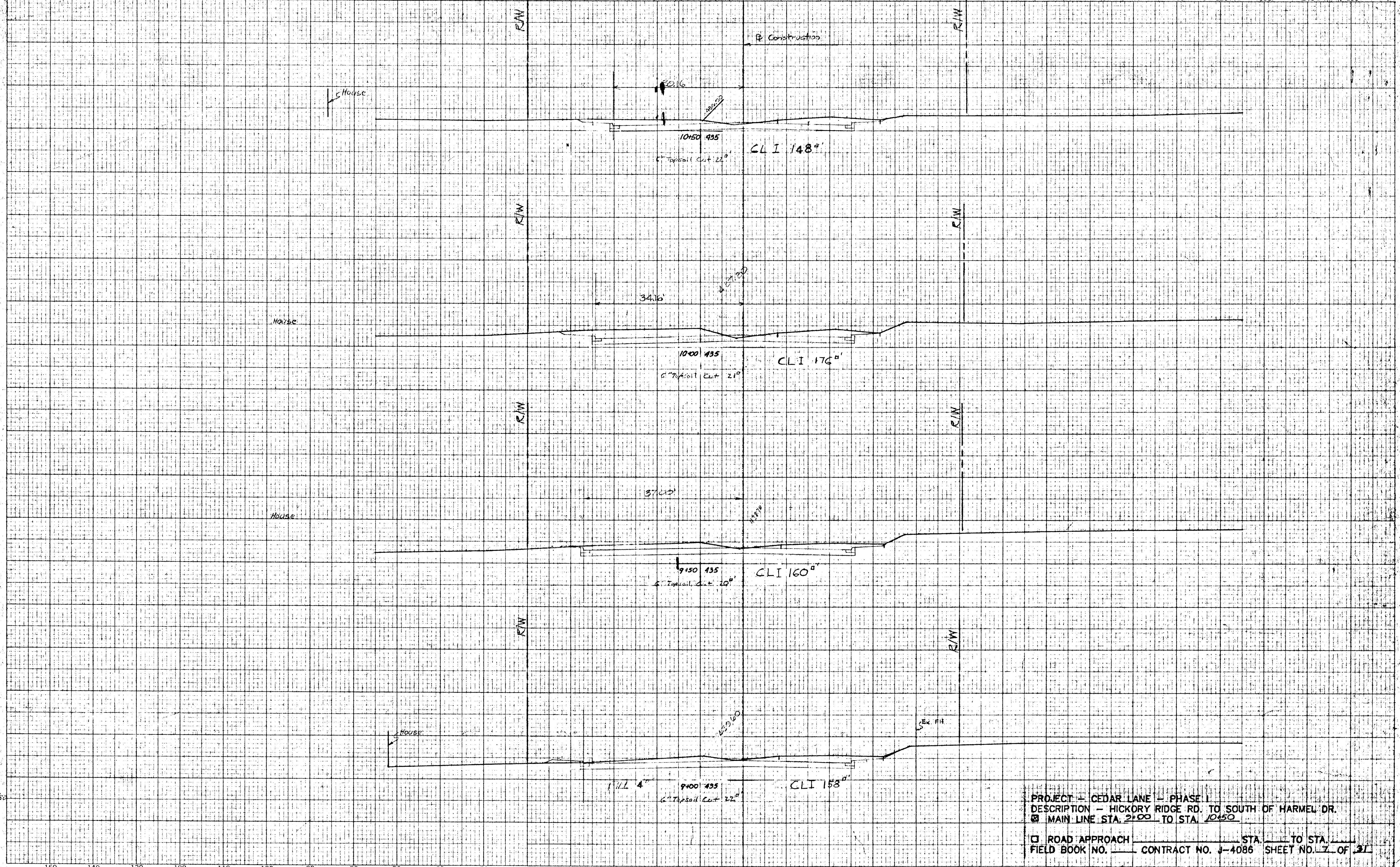
BOOK NO. _____

PROJECT CEDAR LANE
 DESCRIPTION Mainline

CONTRACT NO. _____

SHEET NO. _____ OF _____
 STATION 7+50 TO STATION 8+50

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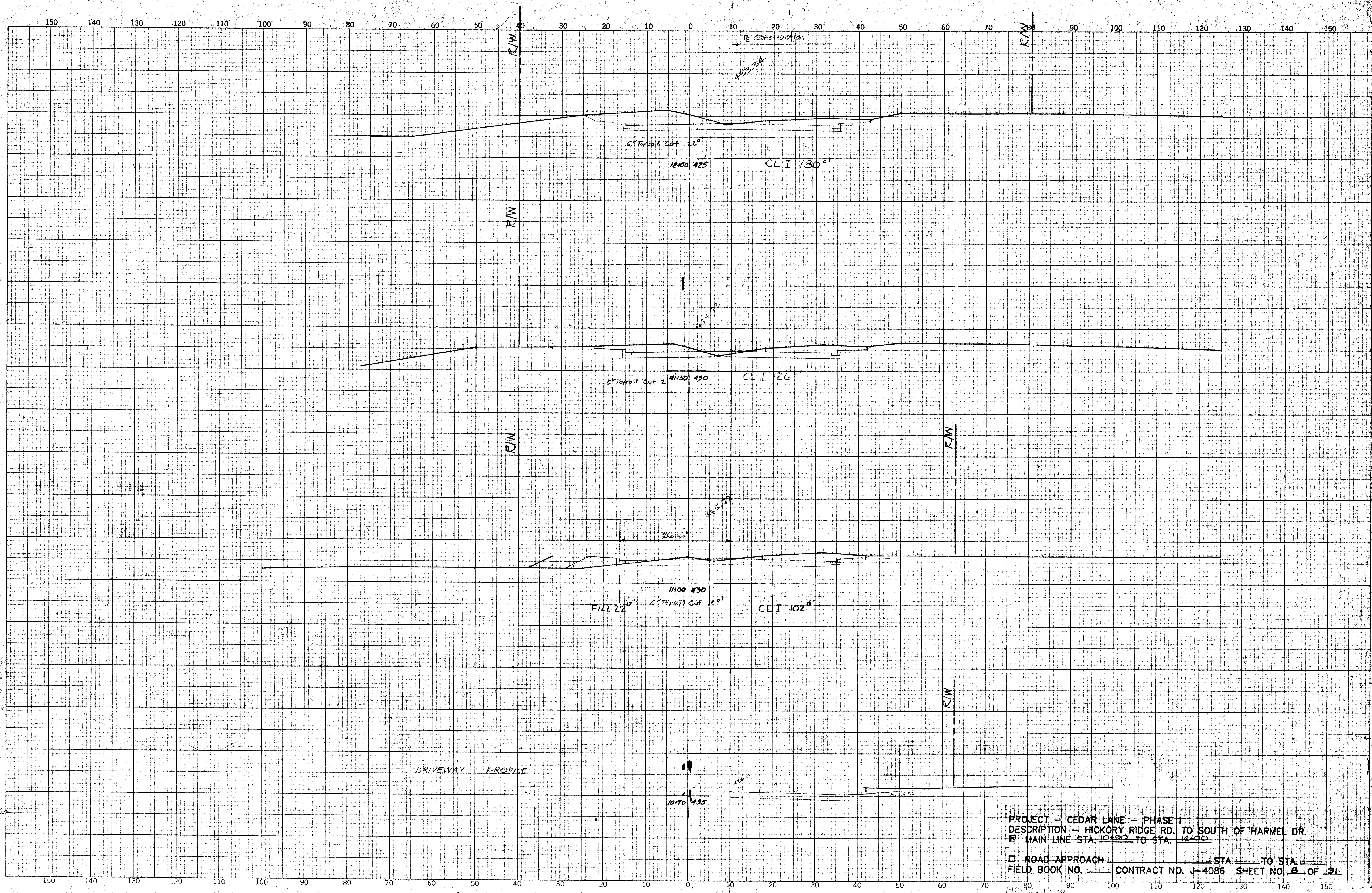
CROSS SECTIONS
Scale 1 Inch = 10 feet

Original Plotted by ML Date 10/22/86
 Checked by _____ Date _____
 Template by _____ Date _____
 Area by _____ Date _____
 Plotted by _____ Date _____
 Checked by _____ Date _____
 Area by _____ Date _____
 Checked by _____ Date _____

PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. 2+00 TO STA. 10+50
 ROAD APPROACH STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 7 OF 21

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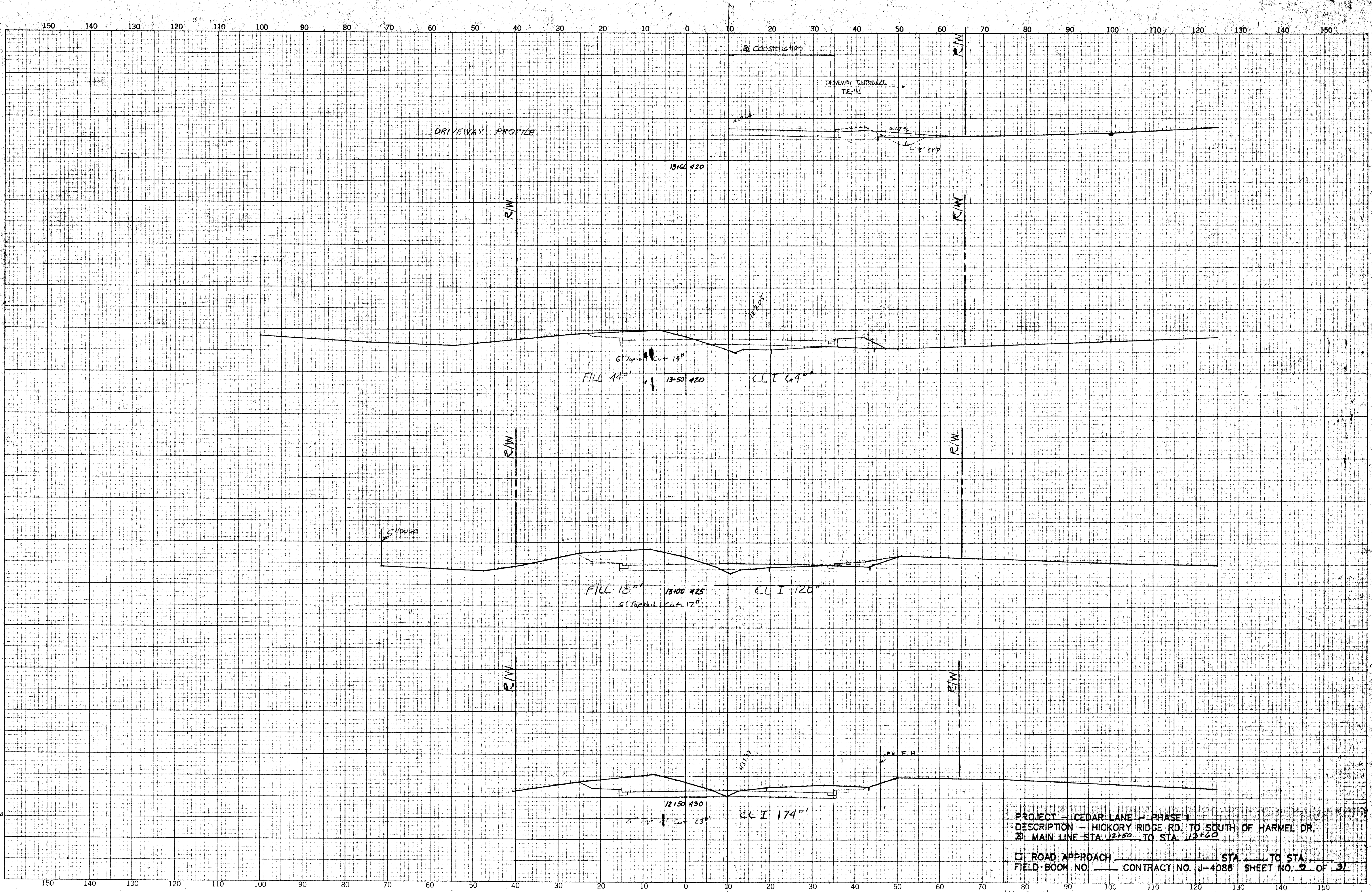
BOOK NO. _____ PROJECT CEDAR LANE CONTRACT NO. _____ SHEET NO. _____ OF _____
 DESCRIPTION MAINLINE STATION 9+00 TO STATION 10+50



CROSS SECTIONS
Scale 1 inch = 10 feet

Original Plotted by ML Date 10/22/50
 Checked by _____ Date _____
 Template by _____ Date _____
 Area by _____ Date _____
 Plots Plotted by _____ Date _____
 Checked by _____ Date _____
 Area by _____ Date _____
 Checked by _____ Date _____

PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. 10+20 TO STA. 12+00
 ROAD APPROACH _____ STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 8 OF 31
 HORIZ. 1" = 10'
 VERT. 1" = 10'



CROSS SECTIONS
Scale 1 inch = 10 feet

Original Plotted by ML Date 10/24/80
 Checked by _____ Date _____
 Template by _____ Date _____
 Area by _____ Date _____
 Final Plotted by _____ Date _____
 Checked by _____ Date _____
 Area by _____ Date _____
 Checked by _____ Date _____

PROJECT - CEDAR LANE - PHASE 1
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR
 MAIN LINE STA. 12+50 TO STA. 13+60
 ROAD APPROACH _____ STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 2 OF 37

BOOK NO. _____ PROJECT CEDAR LANE CONTRACT NO. _____ SHEET NO. _____ OF _____
 DESCRIPTION MAINLINE STATION 12+50 TO STATION 13+60

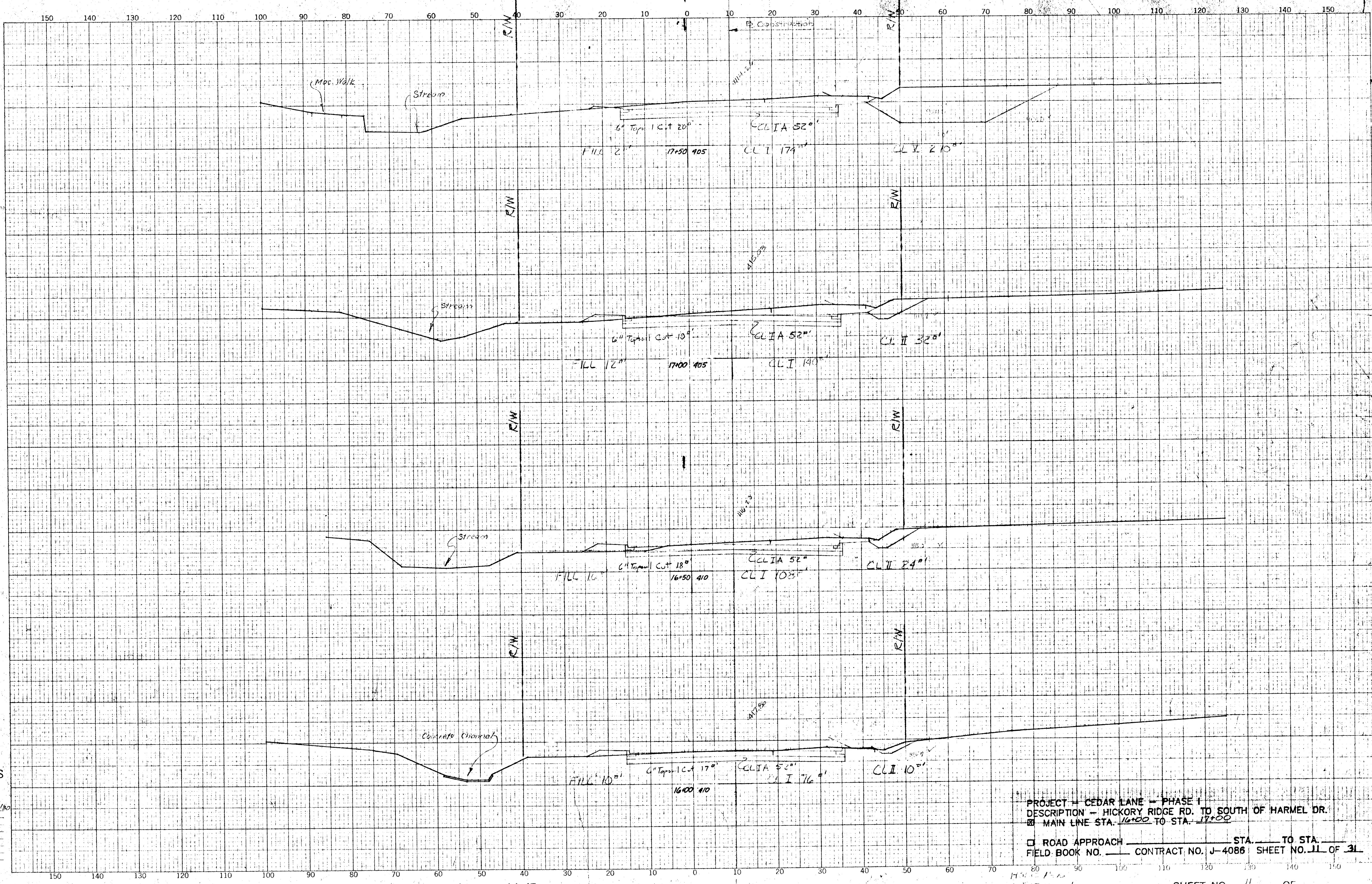
MSR 11 1980



CROSS SECTIONS
Scale 1 inch = 10 feet

Original Plotted by ML Date 10/24/80
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 Template by _____ Date _____
 Area by _____ Date _____
 Final Plotted by _____ Date _____
 Checked by _____ Date _____
 Area by _____ Date _____
 Checked by _____ Date _____

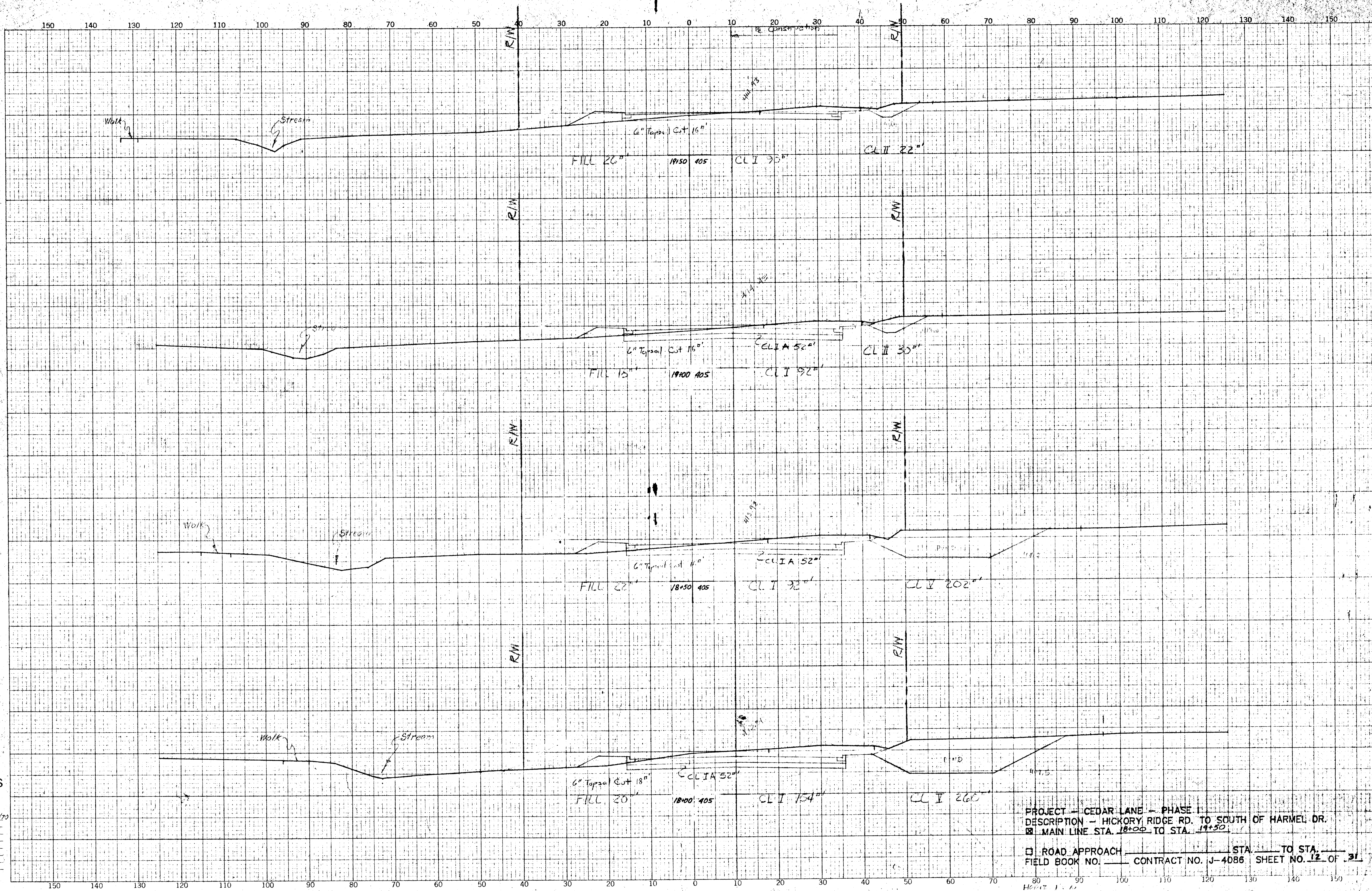
PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. 14+00 TO STA. 15+50
 ROAD APPROACH _____ STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 10 OF 31



CROSS SECTIONS
Scale 1 inch = 10 feet

Original Plotted by ML Date 11/21/30
 Checked by _____ Date _____
 Template by _____ Date _____
 Area by _____ Date _____
 Final Plotted by _____ Date _____
 Checked by _____ Date _____
 Area by _____ Date _____
 Checked by _____ Date _____

PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. 16+00 TO STA. 17+00
 ROAD APPROACH STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 11 OF 31

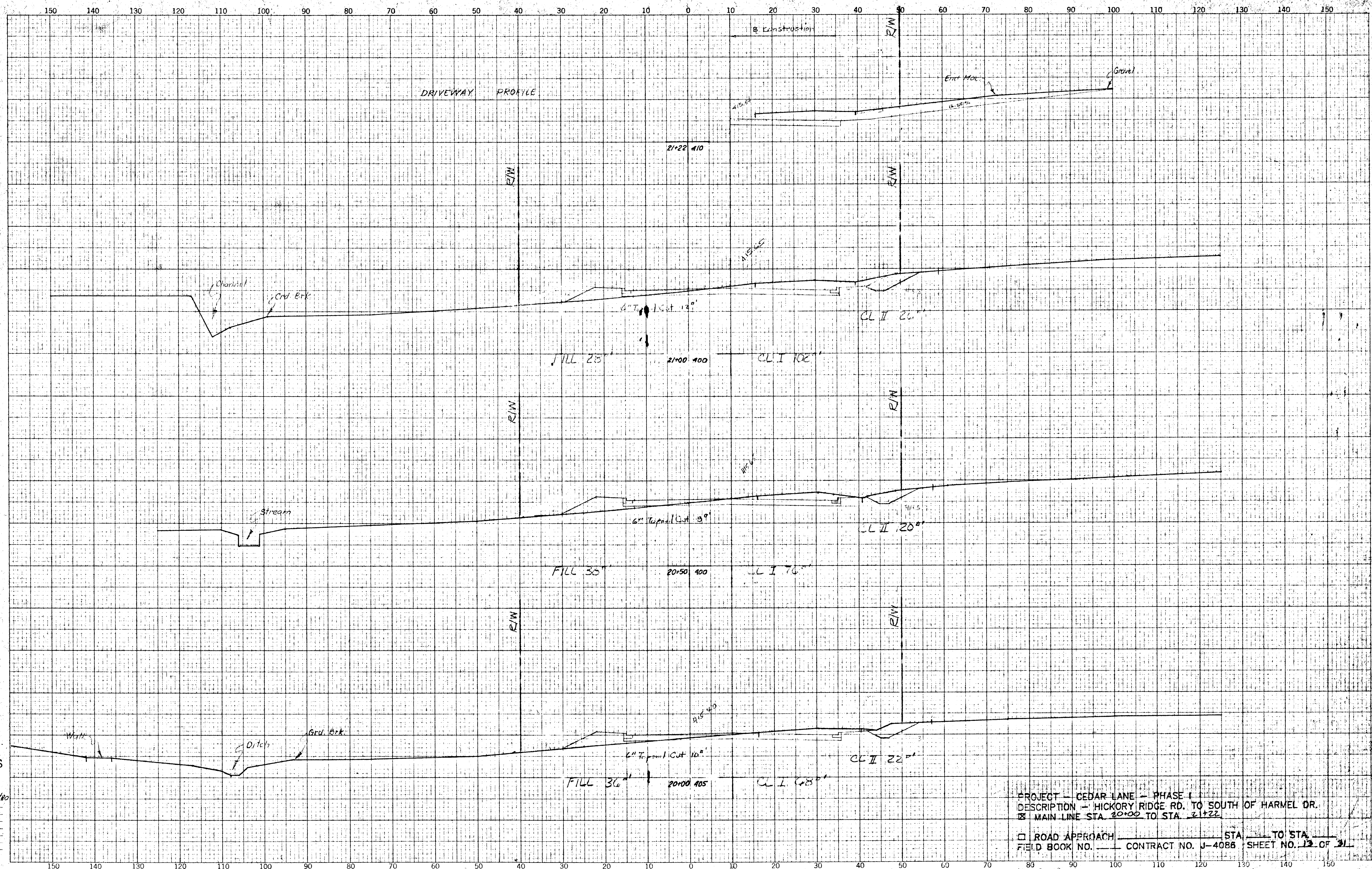


CROSS SECTIONS
Scale 1 inch = 10 feet

Original Plotted by MLL Date 10/24/70
 Checked by _____ Date _____
 Template by _____ Date _____
 Area by _____ Date _____
 Final Plotted by _____ Date _____
 Checked by _____ Date _____
 Area by _____ Date _____
 Checked by _____ Date _____

PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. 18+00 TO STA. 19+50
 ROAD APPROACH STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 12 OF 31

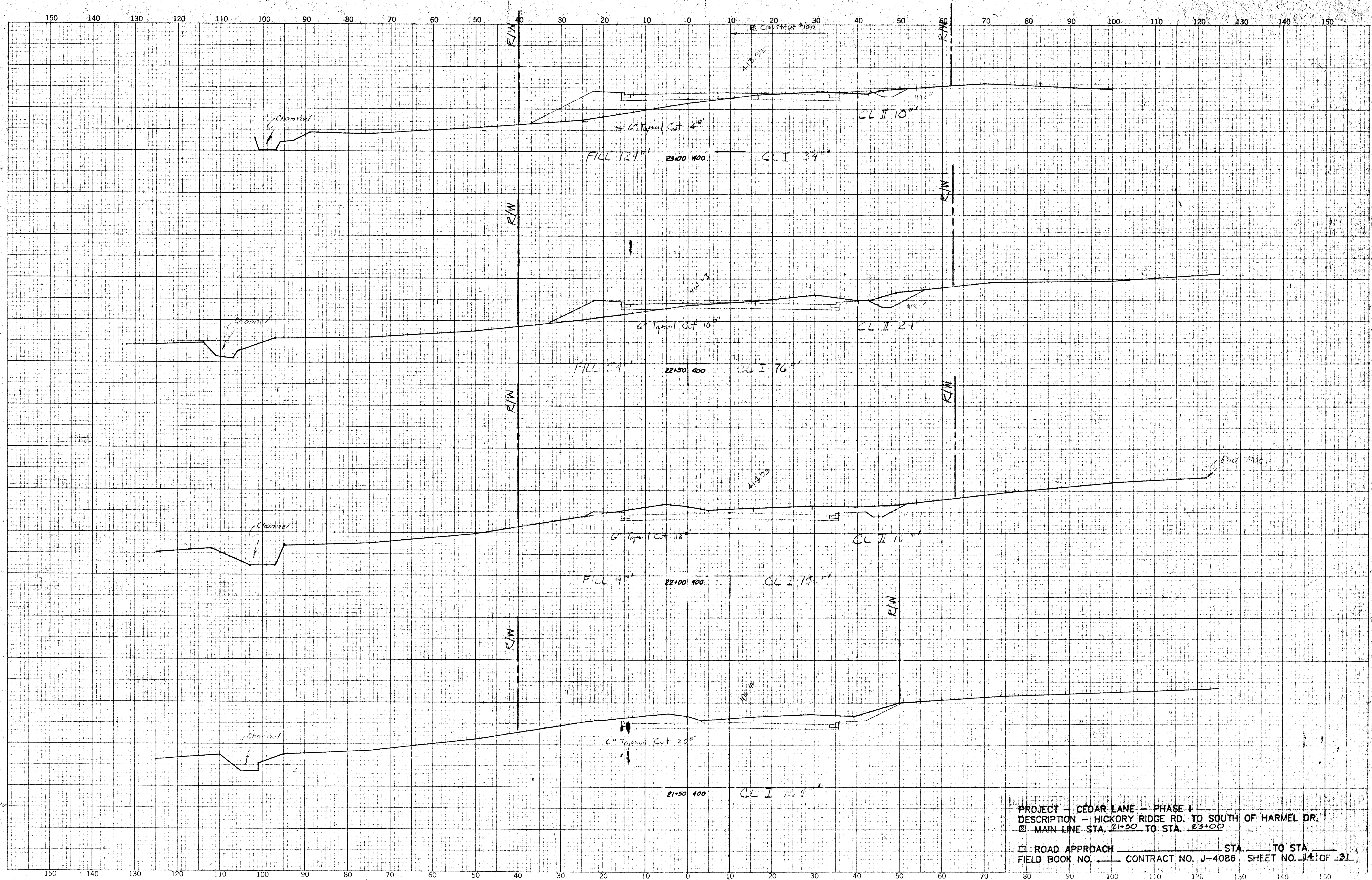
BOOK NO. _____ PROJECT CEDAR LANE CONTRACT NO. _____ SHEET NO. 12 OF _____
 DESCRIPTION MAINLINE STATION 18+00 TO STATION 19+50



CROSS SECTIONS
Scale 1 inch = 10 feet

Original Plotted by ML Date 12/24/80
 Checked by _____ Date _____
 Template by _____ Date _____
 Area by _____ Date _____
 Finals Plotted by _____ Date _____
 Checked by _____ Date _____
 Area by _____ Date _____
 Checked by _____ Date _____

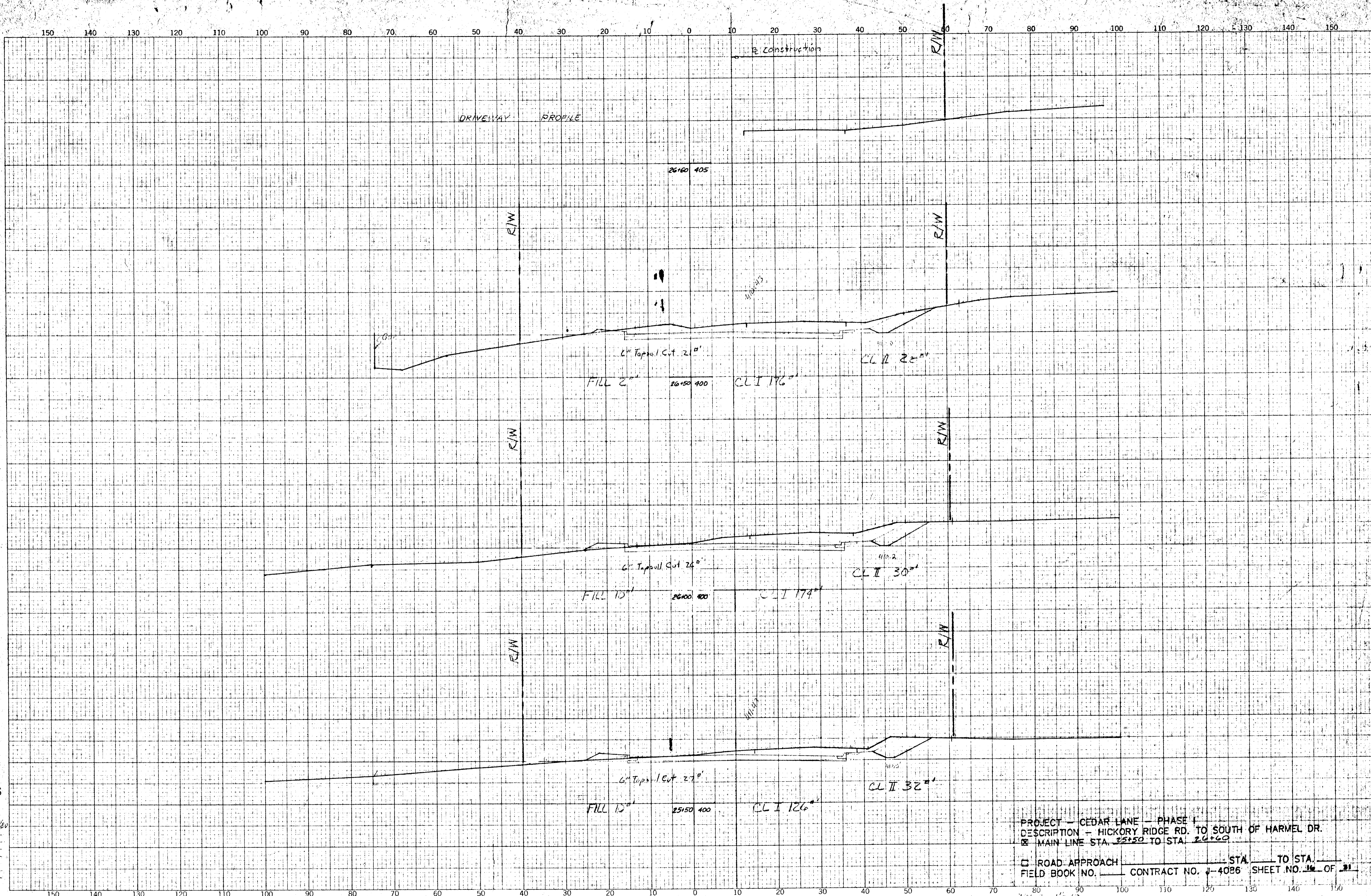
PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. 20+00 TO STA. 21+22
 ROAD APPROACH _____ STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4088 SHEET NO. 13 OF 31



CROSS SECTIONS
Scale 1 inch = 10 feet

Original Plotted by ML Date 10/27/20
 Checked by _____ Date _____
 Template by _____ Date _____
 Area by _____ Date _____
 Final Plotted by _____ Date _____
 Checked by _____ Date _____
 Area by _____ Date _____
 Checked by _____ Date _____

PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. 21+50 TO STA. 23+00
 ROAD APPROACH _____ STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 14 OF 21



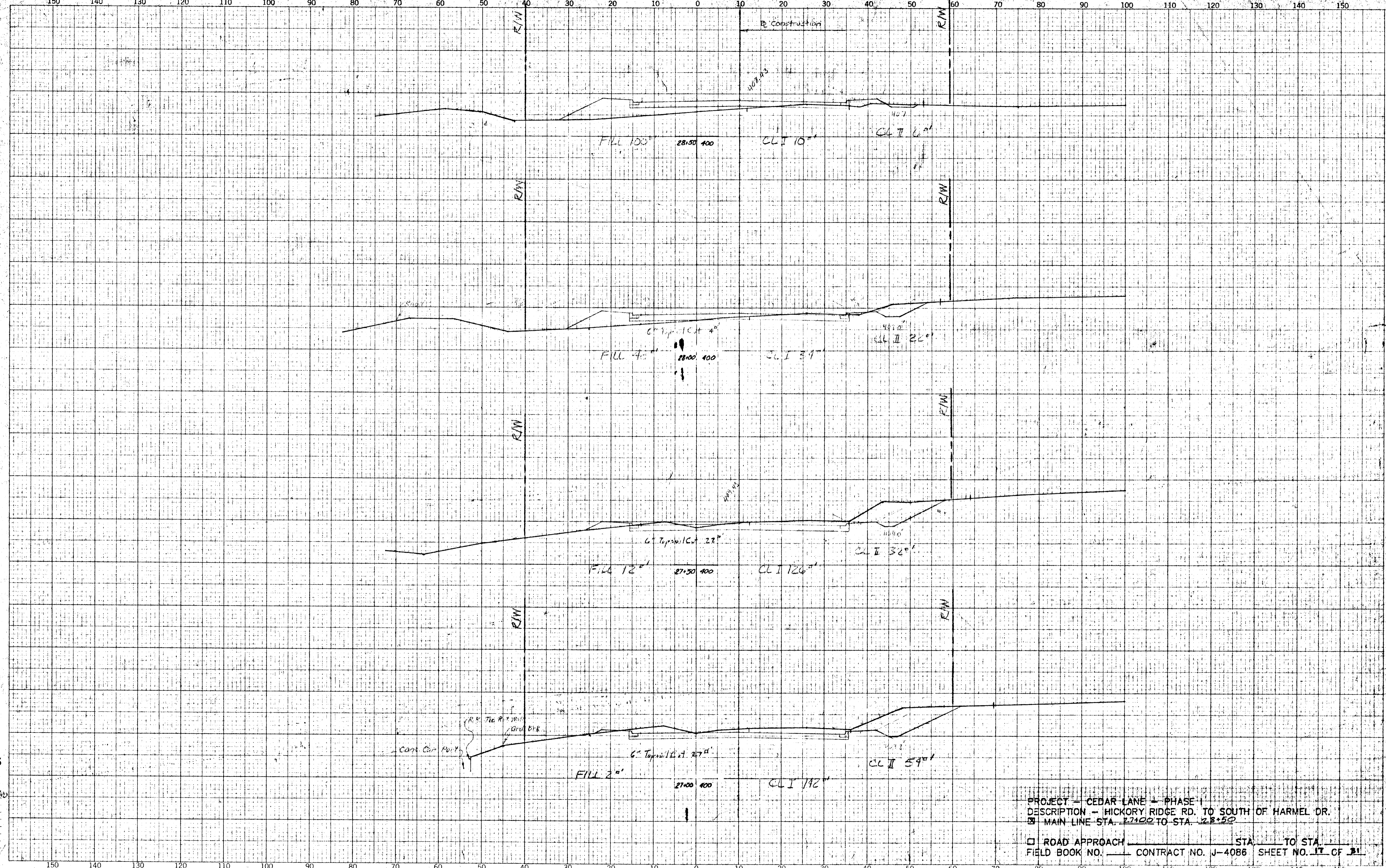
CROSS SECTIONS
Scale 1 inch = 10 feet

Original Plotted by ML Date 02/27/80
 Checked by _____ Date _____
 Template by _____ Date _____
 Area by _____ Date _____
 Final Plotted by _____ Date _____
 Checked by _____ Date _____
 Area by _____ Date _____
 Checked by _____ Date _____

PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. 22+50 TO STA. 26+60
 ROAD APPROACH _____ STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 16 OF 21

BOOK NO. _____ PROJECT CEDAR LANE CONTRACT NO. _____ SHEET NO. 16 OF _____
 DESCRIPTION MAINLINE STATION 25+50 TO STATION 26+60

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



CROSS SECTIONS
Scale 1 inch = 10 feet

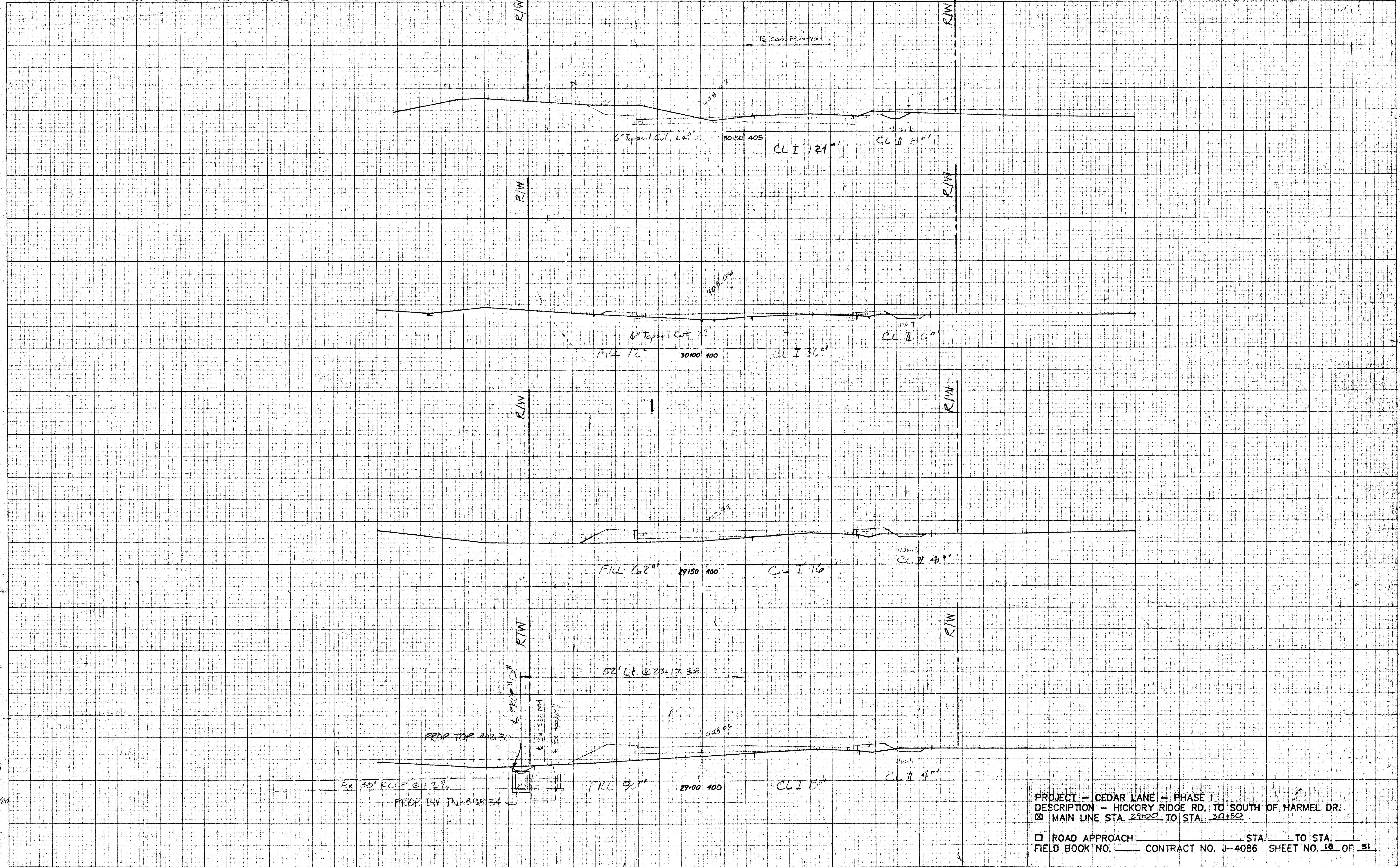
Original Plotted by ML Date 10/20/60
 Checked by _____ Date _____
 Template by _____ Date _____
 Area by _____ Date _____
 Final Plotted by _____ Date _____
 Checked by _____ Date _____
 Area by _____ Date _____
 Checked by _____ Date _____

PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. 27+00 TO STA. 28+50
 ROAD APPROACH _____ STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 17 OF 31

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

BOOK NO. _____ PROJECT CEDAR LANE CONTRACT NO. _____ SHEET NO. 17 OF _____
 DESCRIPTION MAINLINE STATION 27+00 TO STATION 28+50

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



CROSS SECTIONS
Scale 1 inch = 10 feet

Original Plotted by ML Date 10/25/00
 Checked by _____ Date _____
 Template by _____ Date _____
 Area by _____ Date _____
 Final Plotted by _____ Date _____
 Checked by _____ Date _____
 Area by _____ Date _____

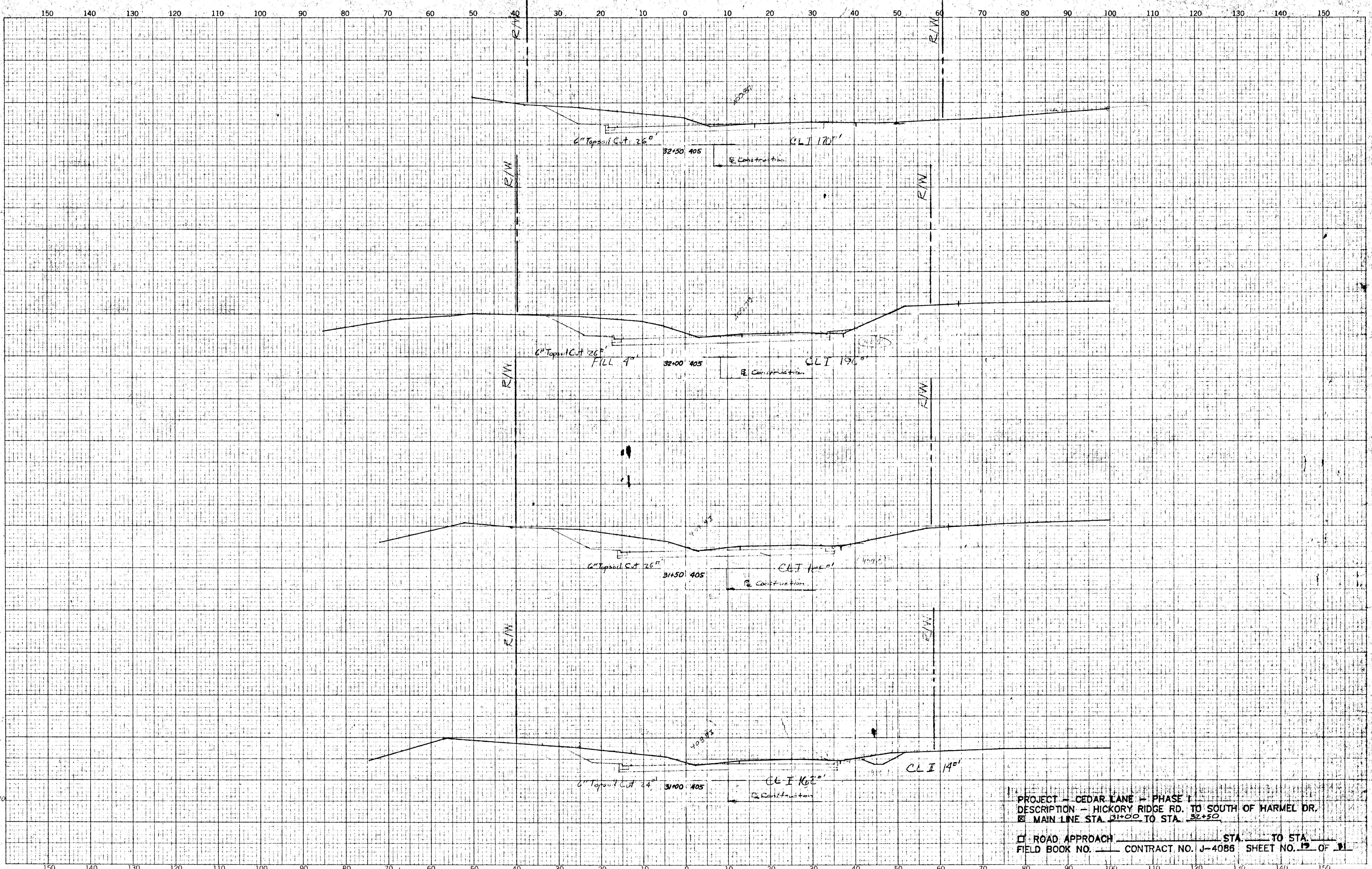
PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. 29+00 TO STA. 30+50
 ROAD APPROACH _____ STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 18 OF 31

BOOK NO. _____

PROJECT CEDAR LANE
 DESCRIPTION MAINLINE

CONTRACT NO. _____

SHEET NO. _____ OF _____
 STATION 29+00 TO STATION 30+50



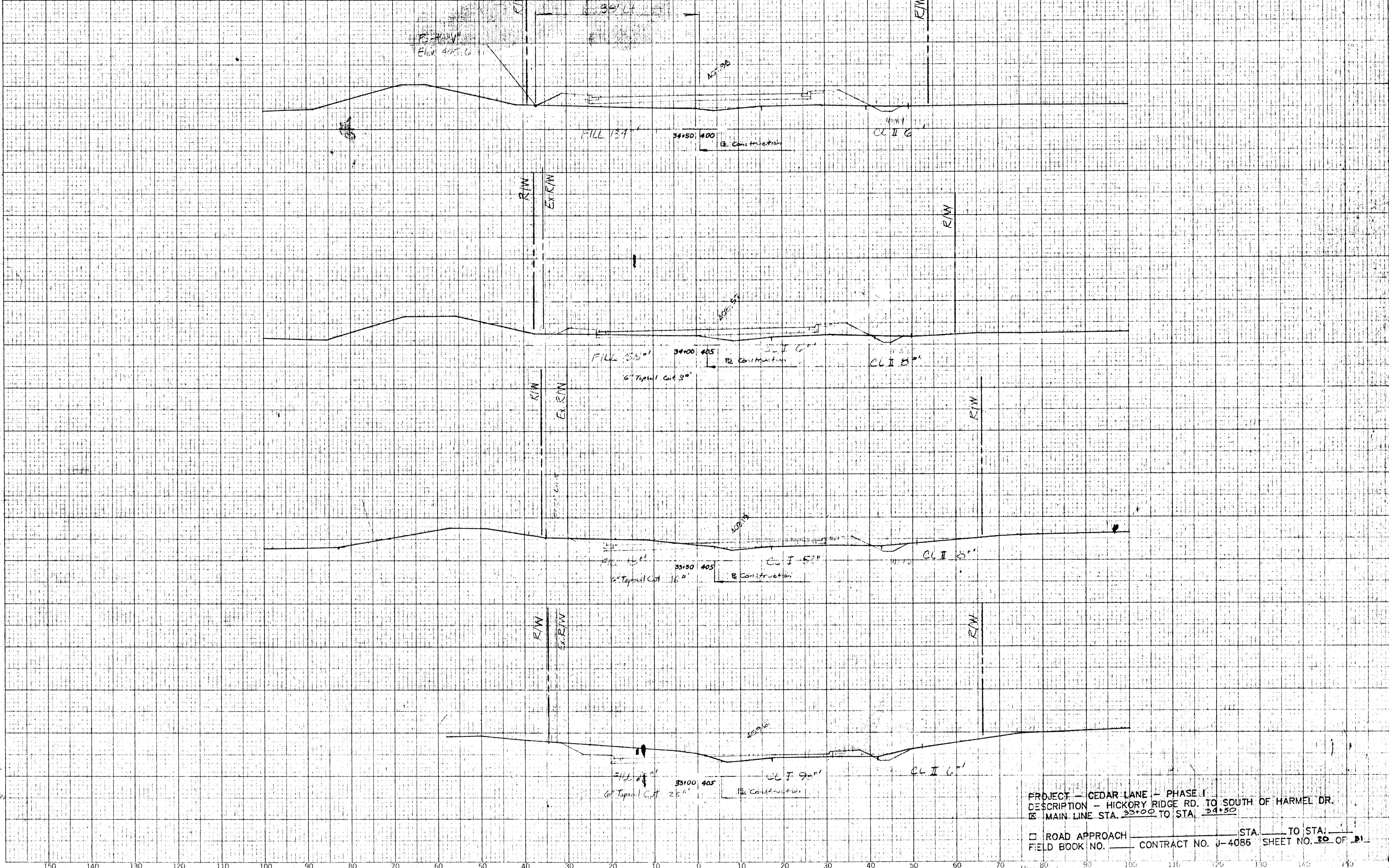
CROSS SECTIONS
Scale 1 inch = 10 feet

Original Plotted by ML Date 10/29/80
 Checked by _____ Date _____
 Template by _____ Date _____
 Area by _____ Date _____
 Final Plotted by _____ Date _____
 Checked by _____ Date _____
 Area by _____ Date _____
 Checked by _____ Date _____

PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. 31+00 TO STA. 32+50
 ROAD APPROACH _____ STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 19 OF 21

BOOK NO. _____ PROJECT CEDAR LANE CONTRACT NO. _____ SHEET NO. _____ OF _____
 DESCRIPTION MAINLINE STATION 31+00 TO STATION 32+50

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



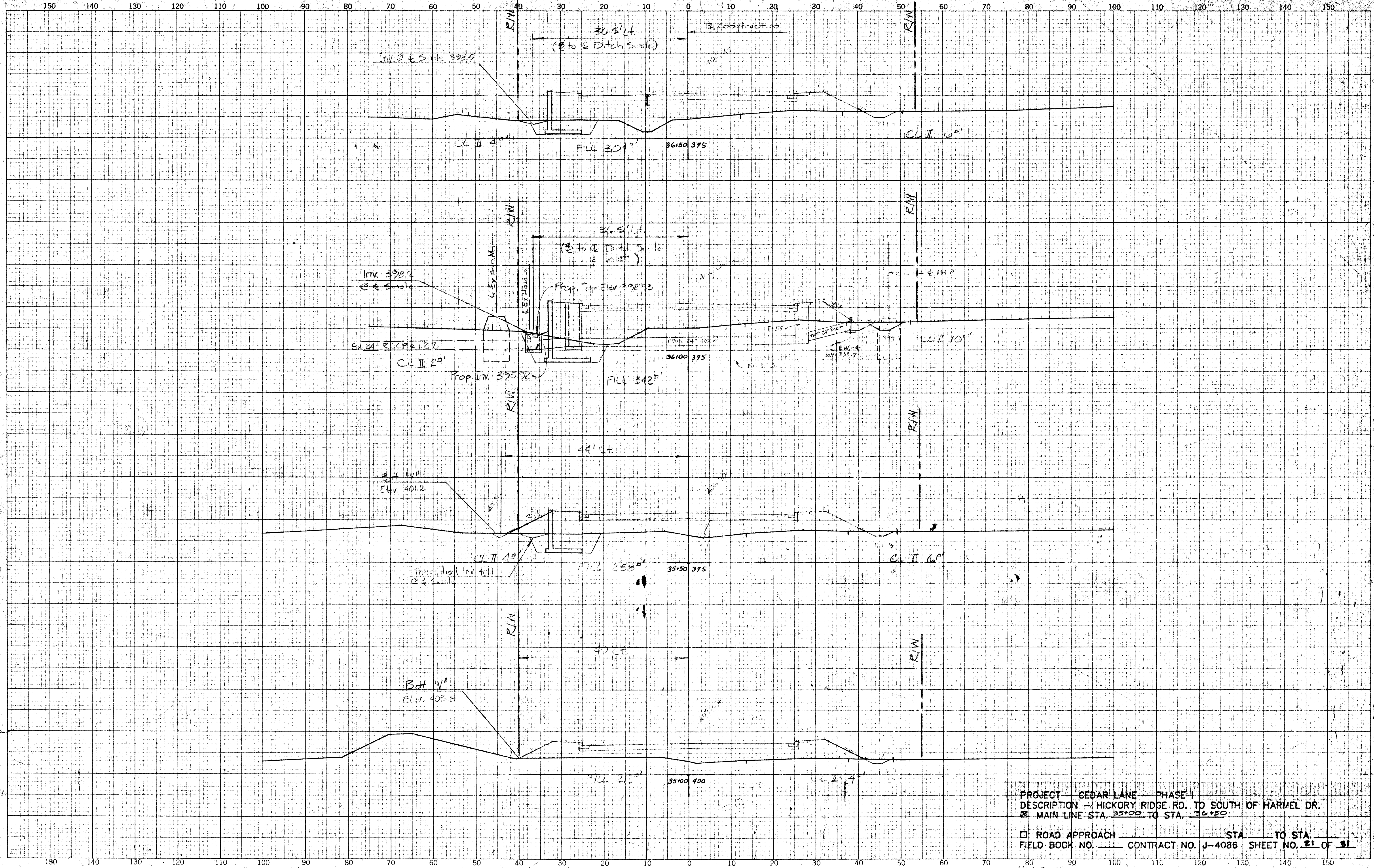
CROSS SECTIONS
Scale 1 inch = 10 feet

Original Plotted by ML Date 12/2/81
 Checked by _____ Date _____
 Template by _____ Date _____
 Area by _____ Date _____
 Final Plotted by _____ Date _____
 Checked by _____ Date _____
 Area by _____ Date _____
 Checked by _____ Date _____

PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. 33+00 TO STA. 34+50
 ROAD APPROACH _____ STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 30 OF 31

BOOK NO. _____ PROJECT CEDAR LANE CONTRACT NO. _____ SHEET NO. _____ OF _____
 DESCRIPTION MAINLINE STATION 33+00 TO STATION 34+50

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

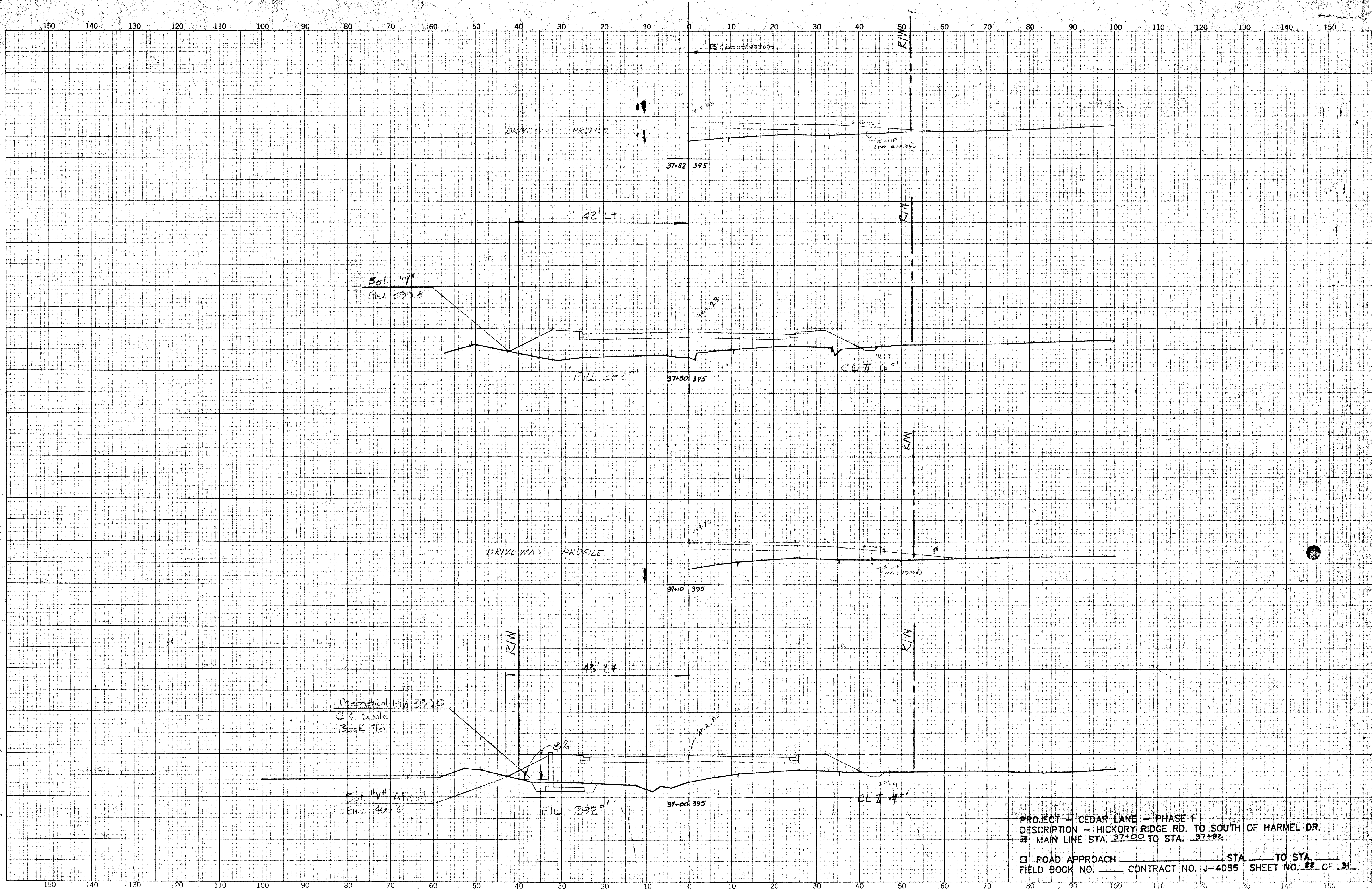


CROSS SECTIONS
Scale 1 inch = 10 feet

Original Plotted by M.E. Date 10/1/88
 Checked by _____ Date _____
 Template by _____ Date _____
 Area by _____ Date _____
 Final Plotted by _____ Date _____
 Checked by _____ Date _____
 Area by _____ Date _____
 Checked by _____ Date _____

PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. 35+00 TO STA. 36+50
 ROAD APPROACH _____ STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 21 OF 31

BOOK NO. _____ PROJECT CEDAR LANE CONTRACT NO. _____ SHEET NO. _____ OF _____
 DESCRIPTION MAINLINE STATION 35+00 TO STATION 36+50

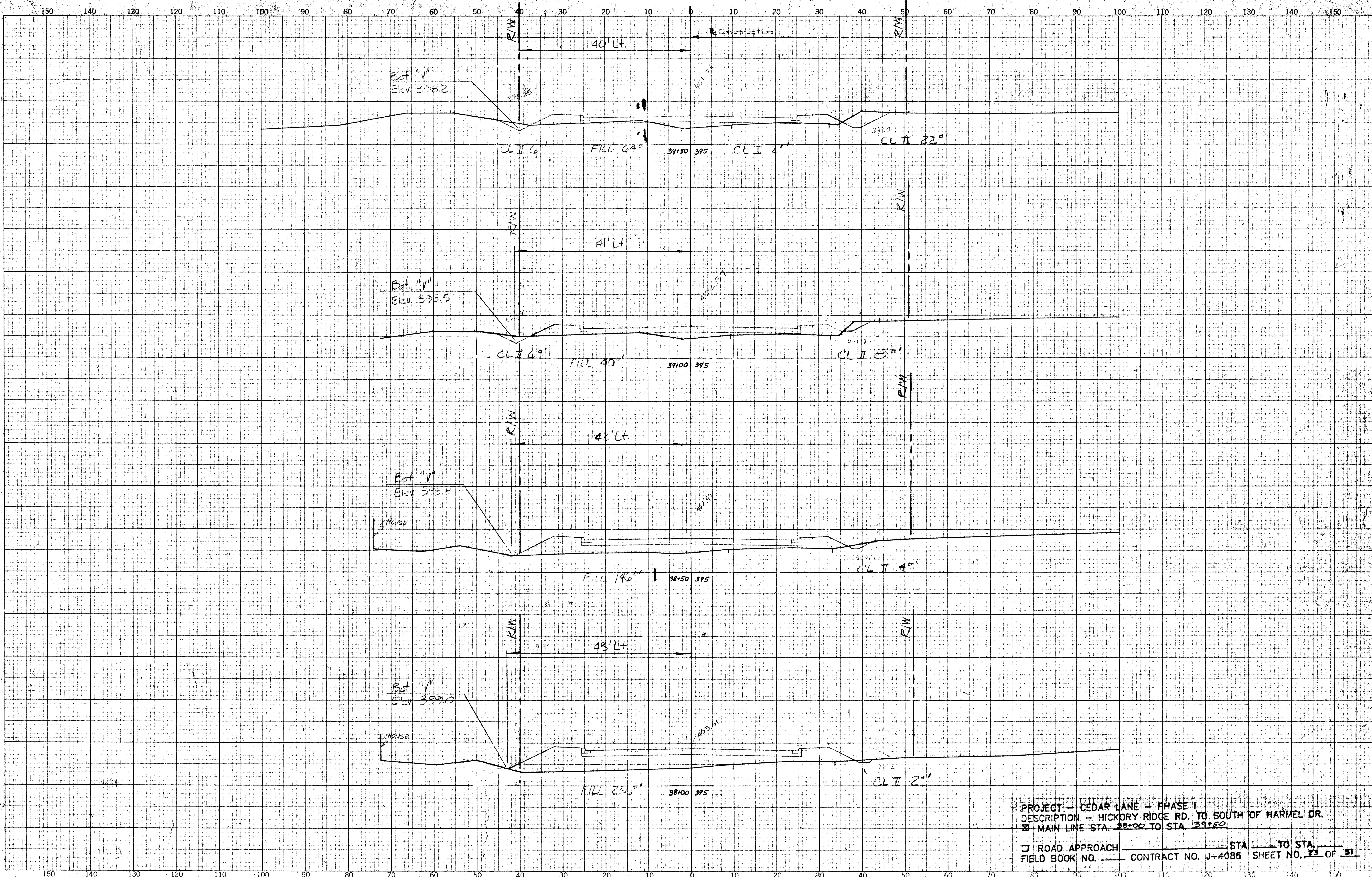


CROSS SECTIONS
Scale 1 inch = 10 feet

Original Plotted by WKS/1/14 Date 10/28/80
 Checked by _____ Date _____
 Template by _____ Date _____
 Area by _____ Date _____
 Final Plotted by _____ Date _____
 Checked by _____ Date _____
 Area by _____ Date _____
 Checked by _____ Date _____

PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. 37+00 TO STA. 37+82
 ROAD APPROACH STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 22 OF 31

BOOK NO. _____ PROJECT CEDAR LANE DESCRIPTION MAINLINE CONTRACT NO. _____ SHEET NO. 22 OF _____ STATION 37+00 TO STATION 37+82



CROSS SECTIONS
Scale 1 inch = 10 feet

Original Plotted by MLC Date 10/29/68
 Checked by _____ Date _____
 Template by _____ Date _____
 Area by _____ Date _____
 Final Plotted by _____ Date _____
 Checked by _____ Date _____
 Area by _____ Date _____
 Checked by _____ Date _____

PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF WARMEL DR.
 MAIN LINE STA. 38+00 TO STA. 39+50

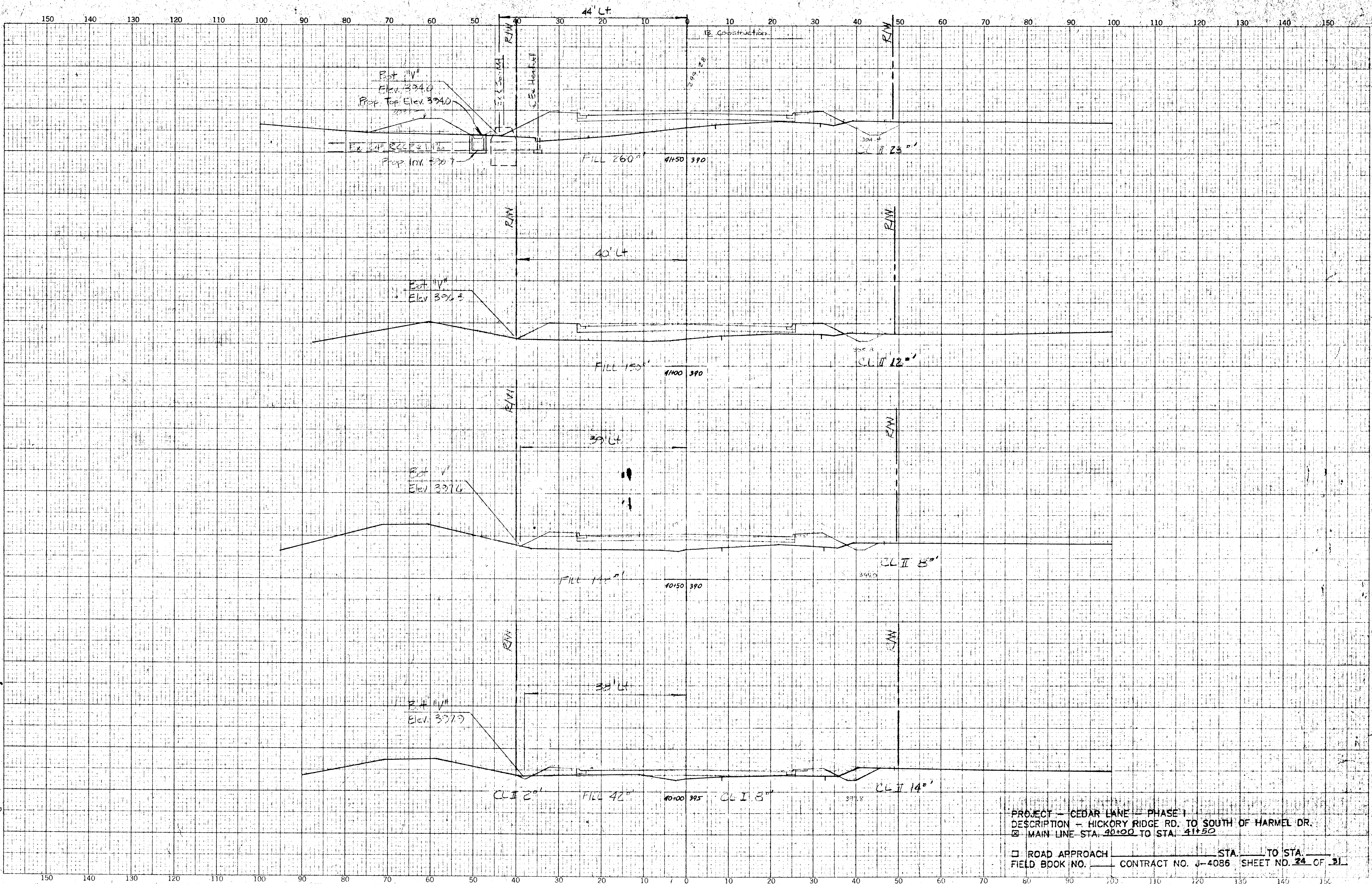
ROAD APPROACH _____ STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 23 OF 31

BOOK NO. _____

PROJECT CEDAR LANE
 DESCRIPTION MAINLINE

CONTRACT NO. _____

SHEET NO. _____ OF _____
 STATION 38+00 TO STATION 39+50

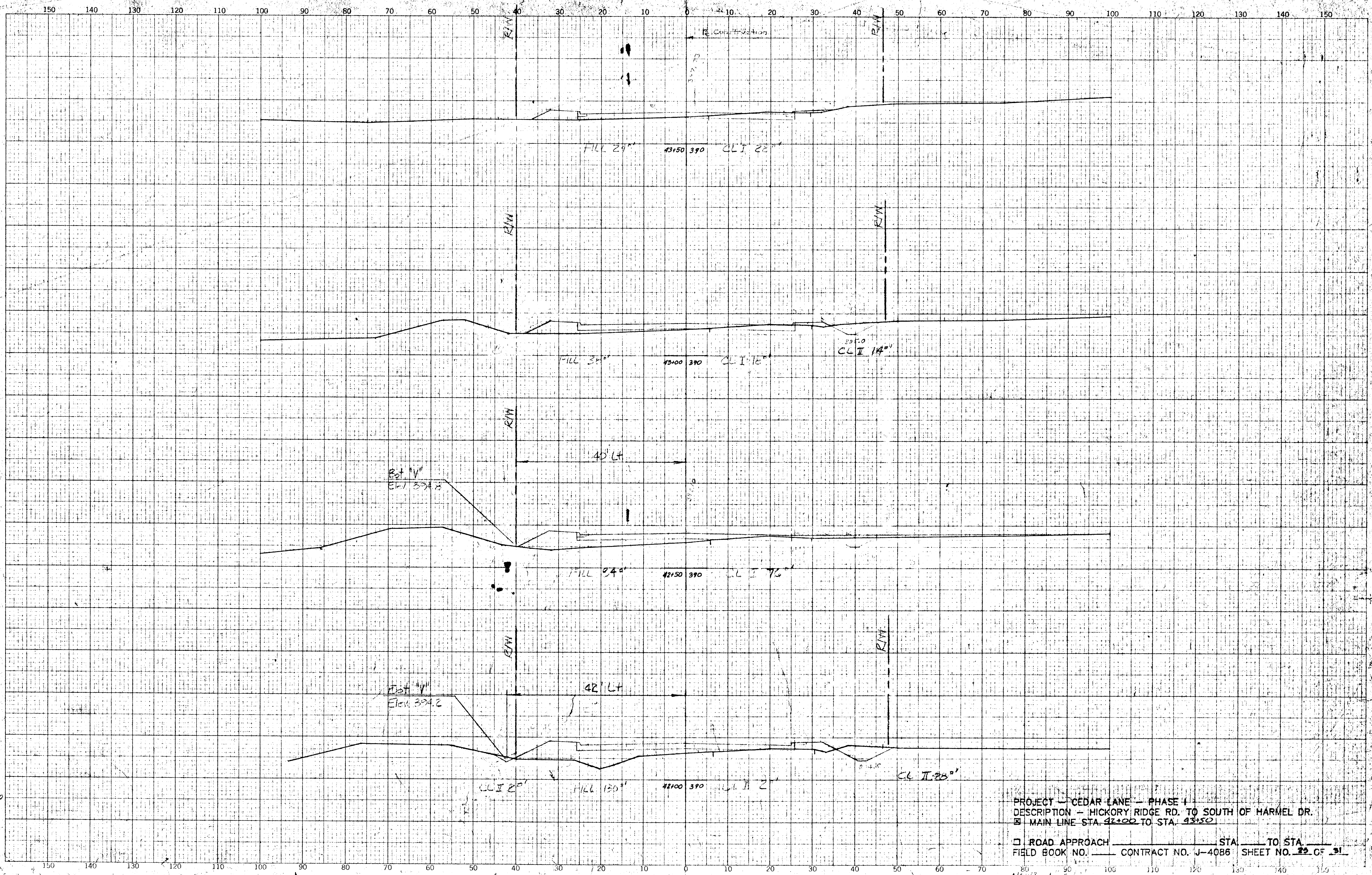


CROSS SECTIONS
Scale 1 inch = 10 feet

Original Plotted by ML Date 10/20/50
 Checked by _____ Date _____
 Template by _____ Date _____
 Area by _____ Date _____
 Plotted by _____ Date _____
 Checked by _____ Date _____
 Area by _____ Date _____
 Checked by _____ Date _____

PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. 40+00 TO STA. 41+50
 ROAD APPROACH _____ STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 24 OF 31

BOOK NO. _____ PROJECT CEDAR LANE CONTRACT NO. _____ SHEET NO. 24 OF 31
 DESCRIPTION MAINLINE STATION 40+00 TO STATION 41+50

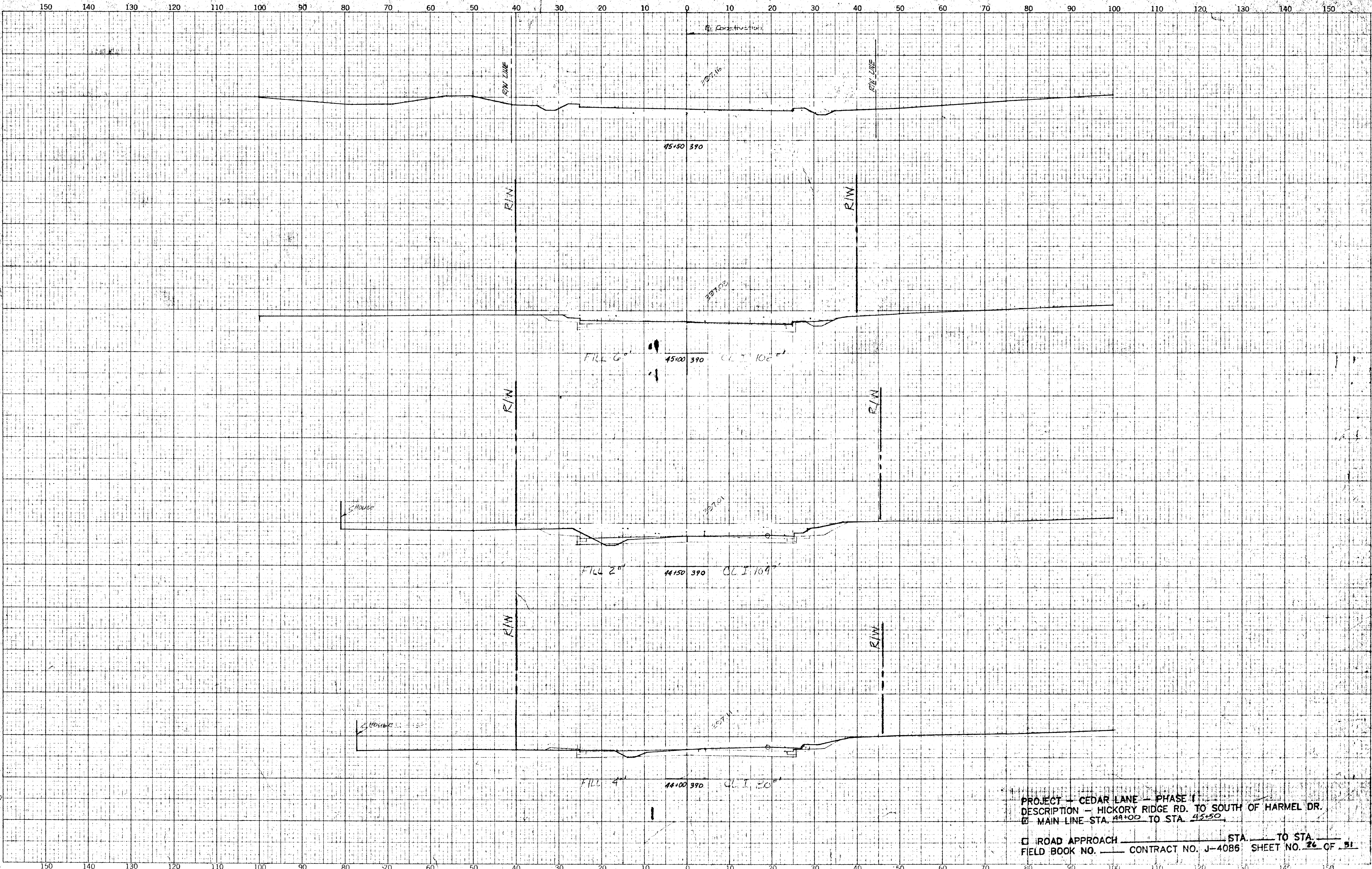


CROSS SECTIONS
Scale 1 inch = 10 feet

Original Plotted By: ML Date: 12/31/10
 Checked by: _____ Date: _____
 Drawn by: _____ Date: _____
 Plotted by: _____ Date: _____
 Checked by: _____ Date: _____
 Plotted by: _____ Date: _____

PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. 42+00 TO STA. 43+50
 ROAD APPROACH STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 22 OF 31
 HORIZ. 1" = 110'
 VERT. 1" = 110'

BOOK NO. _____ PROJECT CEDAR LANE DESCRIPTION MAINLINE CONTRACT NO. _____ SHEET NO. _____ OF _____ STATION 42+00 TO STATION 43+50



CROSS SECTIONS
Scale 1 inch = 10 feet

Original Plotted by ML Date 10/2/60
 Checked by _____ Date _____
 Template by _____ Date _____
 Inset Plotted by _____ Date _____
 Checked by _____ Date _____
 Area by _____ Date _____
 Checked by _____ Date _____

PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. 44+00 TO STA. 45+50

ROAD APPROACH _____ STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 26 OF 31

BOOK NO. _____

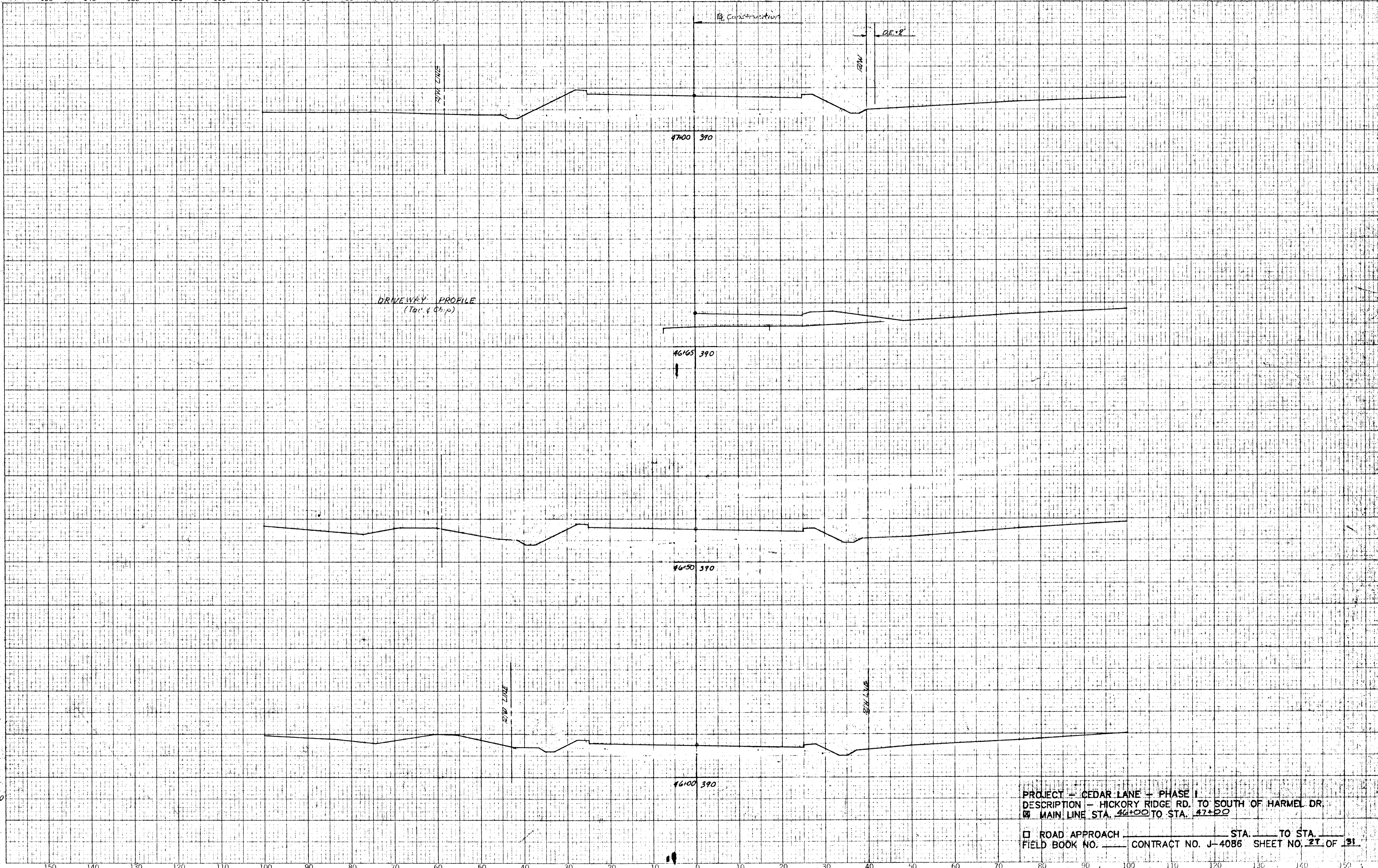
PROJECT CEDAR LANE

CONTRACT NO. _____

DESCRIPTION MAINLINE

SHEET NO. _____ OF _____
 STATION 44+00 TO STATION 45+50

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



CROSS SECTIONS

Scale 1 inch = 10 feet

Original Plotted by ML Date 10/21/50
 Checked by _____ Date _____
 Template by _____ Date _____
 Area by _____ Date _____
 Final Plotted by _____ Date _____
 Checked by _____ Date _____
 Area by _____ Date _____
 Checked by _____ Date _____

PROJECT - CEDAR LANE - PHASE I
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 MAIN LINE STA. 46+00 TO STA. 47+00

ROAD APPROACH _____ STA. _____ TO STA. _____
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 21 OF 31

HORIZ. 1" = 10'
 VERT. 1" = 10'

BOOK NO. _____

PROJECT CEDAR LANE

DESCRIPTION MAINLINE

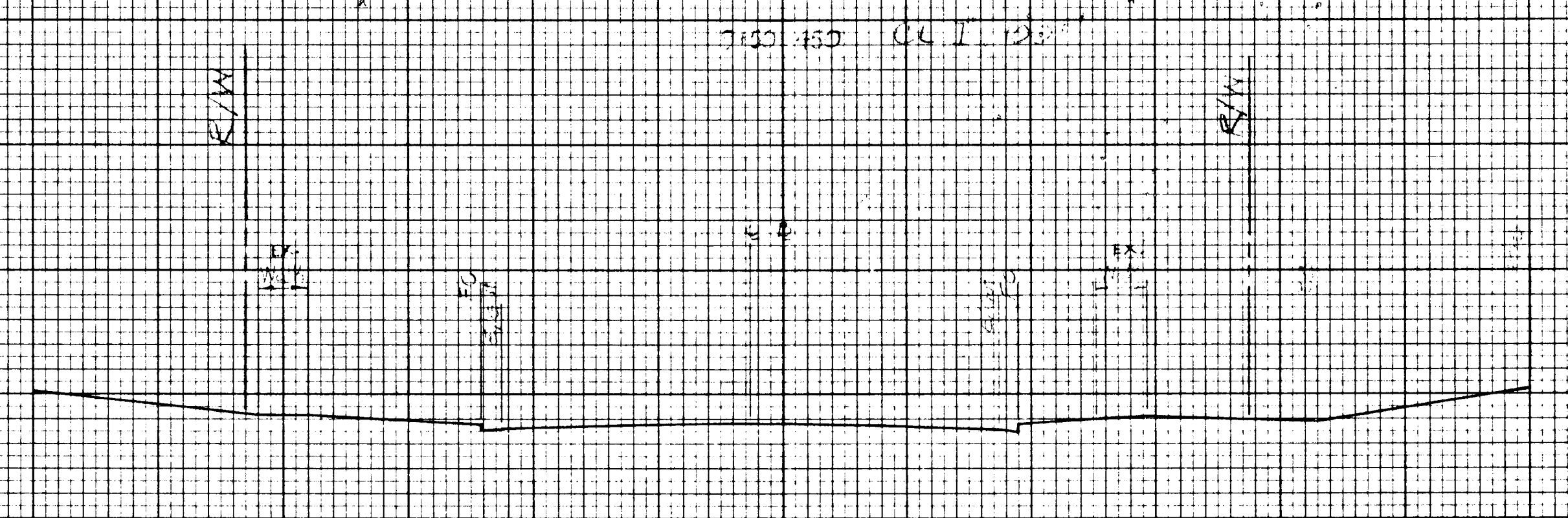
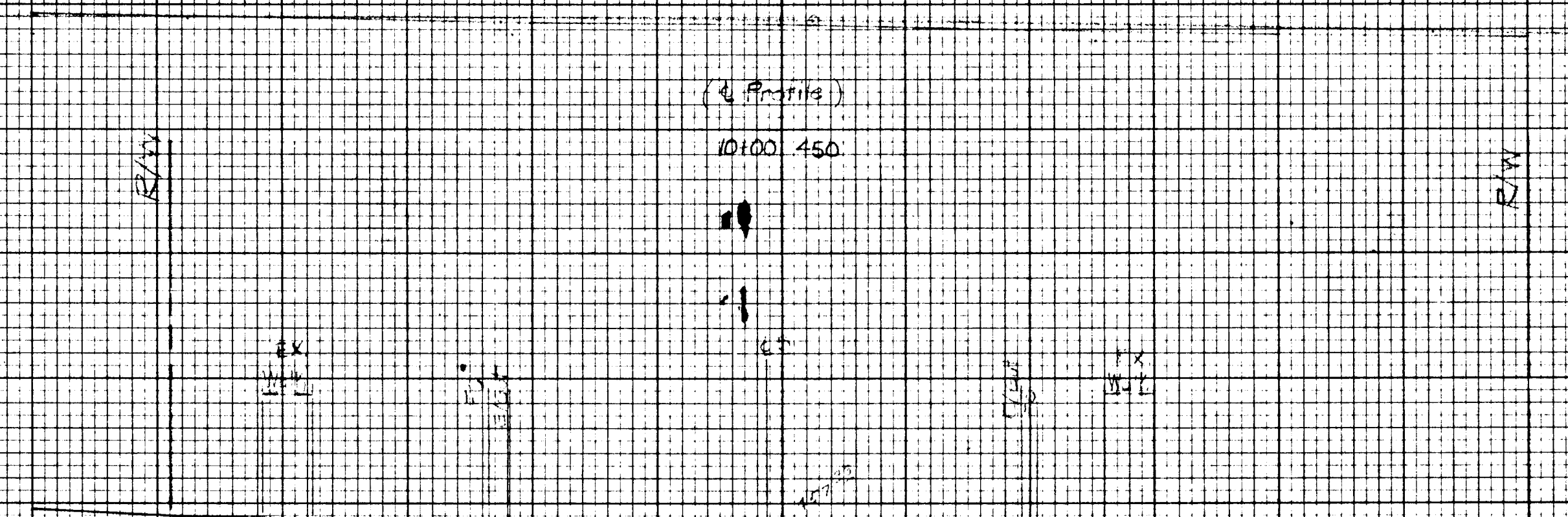
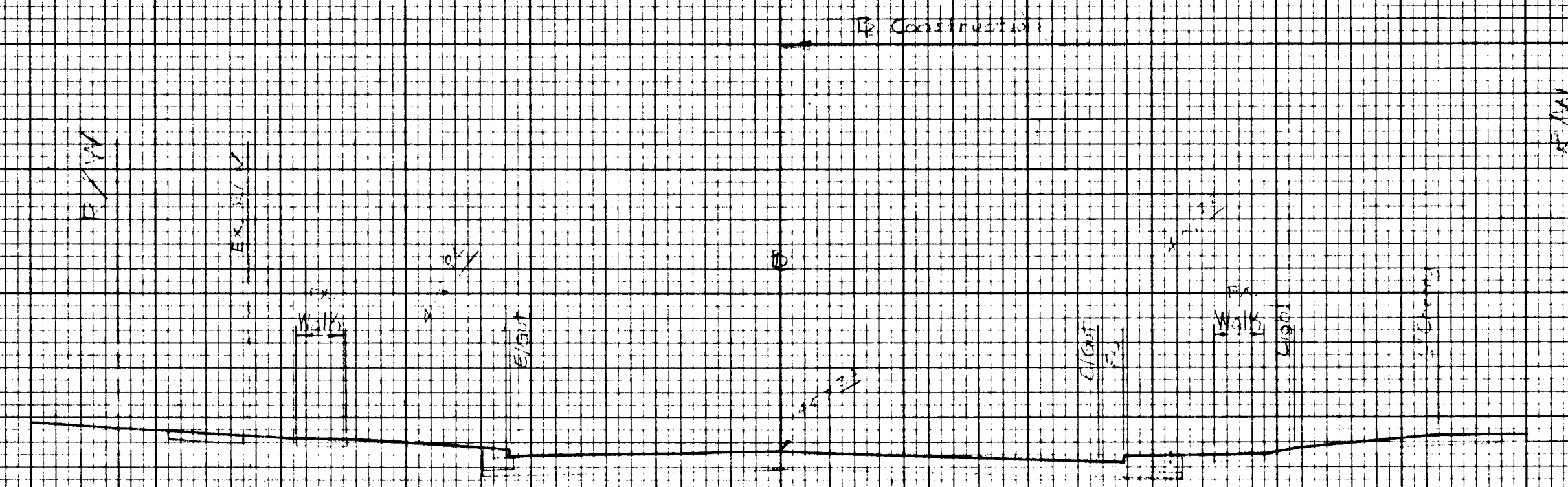
CONTRACT NO. _____

SHEET NO. _____ OF _____

STATION 46+00 TO STATION 47+00

FINAL SURVEY
 SURVEYED _____
 PLOTTED _____
 DATE _____
 NOTE BOOK NO. _____
 AREAS CHECKED _____

ORIGINAL SURVEY
 SURVEYED _____
 PLOTTED _____
 DATE _____
 NOTE BOOK NO. _____
 AREAS CHECKED _____



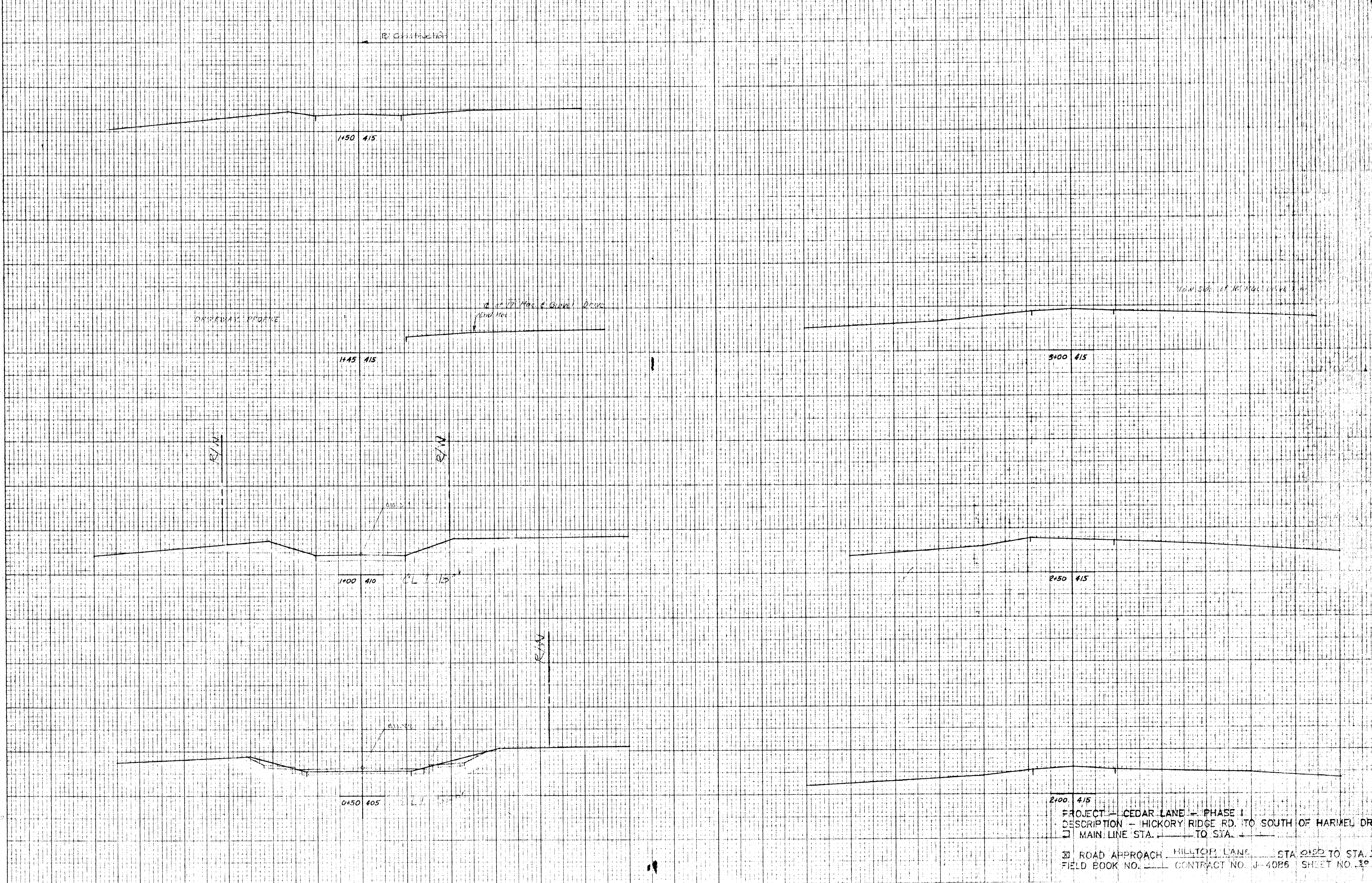
PROJECT - CEDAR LANE - PHASE II
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARMEL DR.
 □ MAIN LINE STA. _____ TO STA. _____
 □ ROAD APPROACH HICKORY RIDGE ROAD STA. 9+00 TO STA. 10+50
 FIELD BOOK NO. _____ CONTRACT NO. J-4026 SHEET NO. 20 OF 31

PLATE 3 CROSS SECTION O. P. R. & E. STANDARD
 100% BAG ACRYLIC VELLUM—MADE AND PRINTED IN U. S. A.
 EUGENE DIETZGEN CO.

STA. 9+00 TO 10+50 HICKORY RIDGE ROAD

VERT. P=10'

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



CROSS SECTIONS
Scale 1 inch = 10 feet

Original Plotted by ME Date 11/7/20
 Checked by _____ Date _____
 Template by _____ Date _____
 Drawn by _____ Date _____
 Plotted by _____ Date _____
 Checked by _____ Date _____
 Prepared by _____ Date _____
 Checked by _____ Date _____

2100 415
 PROJECT - CEDAR LANE - PHASE 1
 DESCRIPTION - HICKORY RIDGE RD. TO SOUTH OF HARVEL DR.
 MAIN LINE STA. _____ TO STA. _____
 ROAD APPROACH HILLTOP LANE STA. 0+50 TO STA. 3+00
 FIELD BOOK NO. _____ CONTRACT NO. J-4086 SHEET NO. 30 OF 31

BOOK NO. _____ PROJECT CEDAR LANE CONTRACT NO. _____ SHEET NO. 30 OF _____
 DESCRIPTION HILLTOP LANE STATION 0+50 TO STATION 3+00

