

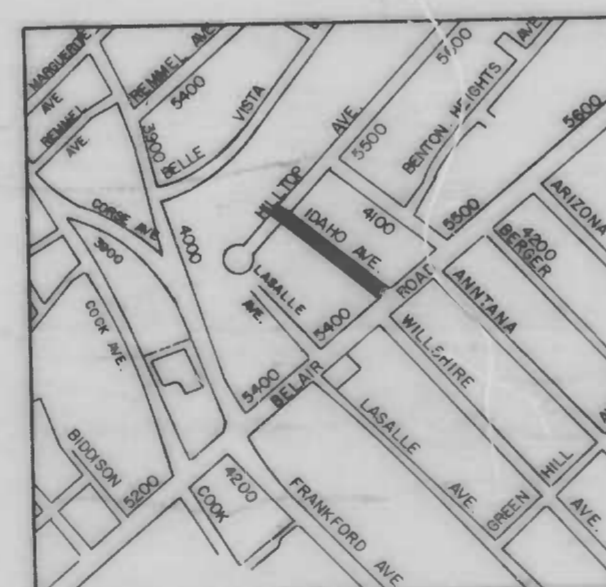
REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	SHEET NO. 1, 3, 4, 6, 7, 8	3/12/87	ME
2	Drain Realignment	7/15/87	ME

**CITY OF BALTIMORE**  
**DEPARTMENT OF PUBLIC WORKS**  
**BUREAU OF HIGHWAYS**  
**GRADING, CURBING, PAVING, DRAINAGE, AND UTILITY ADJUSTMENTS**  
**IDAHO AVE.**  
**HILLTOP AVE. TO BELAIR ROAD**



CITY OF BALTIMORE BUREAU OF HIGHWAYS CONTRACT NO. 3065

INDEX OF SHEETS	
NO.	DESCRIPTION
1.	TITLE SHEET
2.	DETAIL SECTION & DETAILS
3.	PLAN SHEET
4.	UTILITY PLAN SHEET
5.	PROFILE SHEET
6.	STORM DRAIN PLAN
7.	STORM DRAIN PROFILE
8.	SOIL EROSION / SEDIMENT CONTROL PLAN
9.	SOIL EROSION / SEDIMENT CONTROL DETAILS
10.	SOIL EROSION / SEDIMENT CONTROL NOTES



LOCATION PLAN  
SCALE: 1" = 500'

FIELD BOOKS	
NO.	DESCRIPTION
L-1178	CROSS-SECTIONS & LOCATION

DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS

APPROVED *Raymond W. Holland*  
CHIEF, HIGHWAY ENGINEERING DIVISION

APPROVED *Judith M. Mann*  
CHIEF, ENVIRONMENTAL SERVICES DIVISION

OFFICE OF TRANSPORTATION 8/5/86  
APPROVED *[Signature]*  
DIRECTOR OF OFFICE OF TRANSPORTATION

APPROVED

*Thomas M. Kuntz*  
DIRECTOR OF PUBLIC WORKS

APPROVED

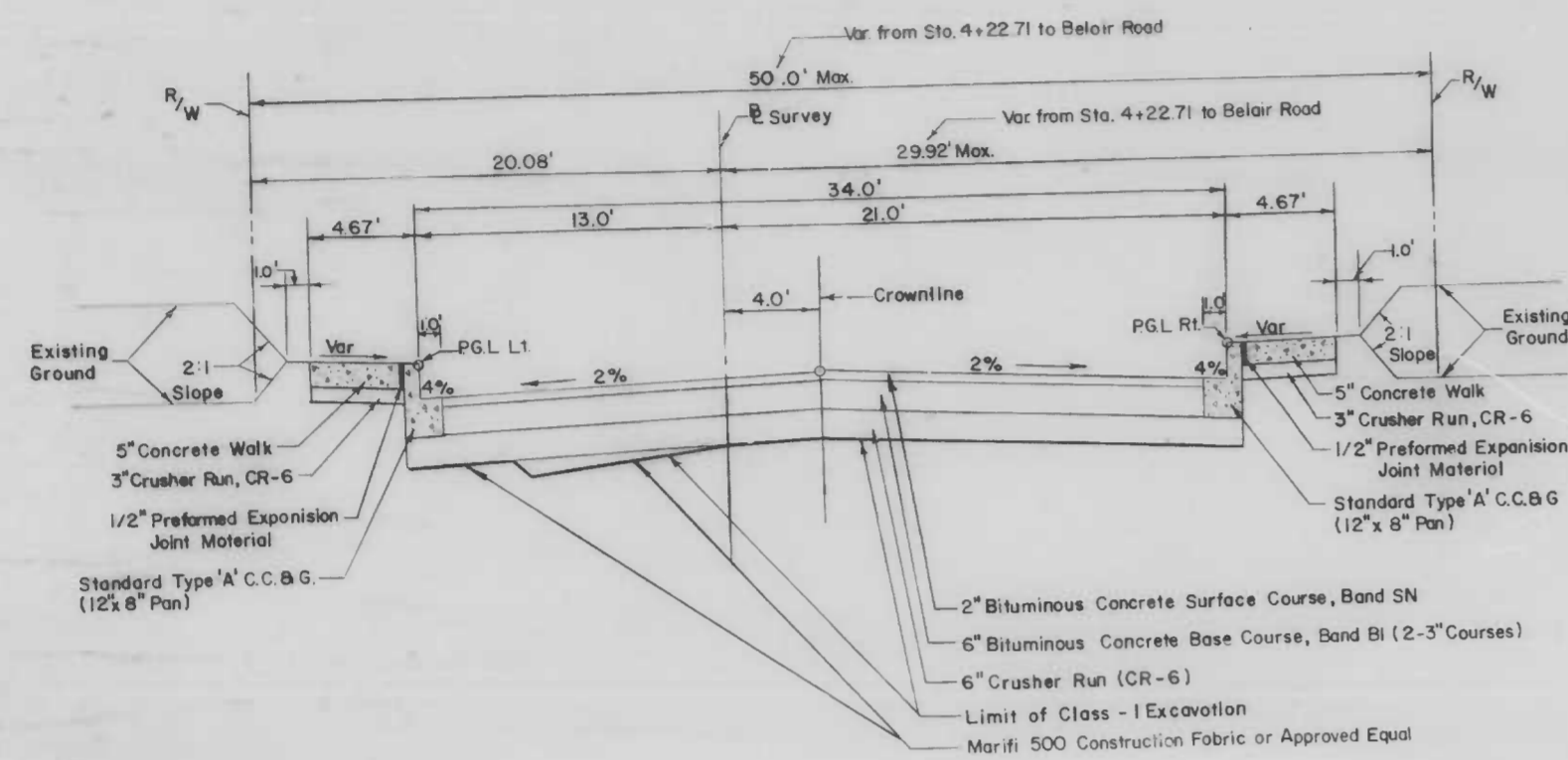
*George A. [Signature]*  
HEAD, BUREAU OF HIGHWAYS

NO. OF REVIEW	R/W RELEASE	GRADE ESTD	HIGHWAY DESIGN	STRUCTURAL	DRAINAGE	LIGHTING	CONDUIT	SEDIMENTATION AND EROSION CONTROL	OFFICE OF TRANSPORTATION	WASTE WATER ENGINEERING	WATER ENGINEERING
BY	<i>gsh</i>	<i>RL</i>	<i>DR</i>		<i>JC Burch</i>	<i>JC Burch</i>					
DATE	8/4/86	8/7/86	8/5/86		8-15-86	8/6/86	8/6/86	8/6/86	8/5/86	8/9/86	8/5/86

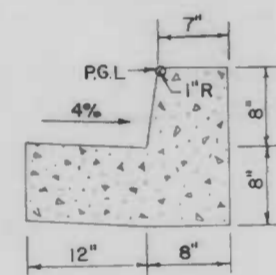
CONT. No 3065

FILE REF.

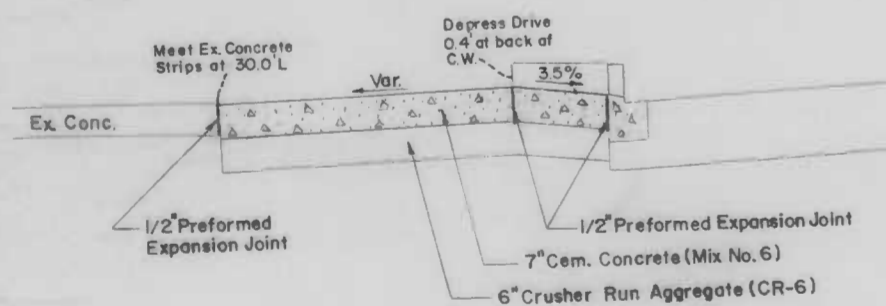
REVISIONS			
NO.	DESCRIPTION	DATE	BY



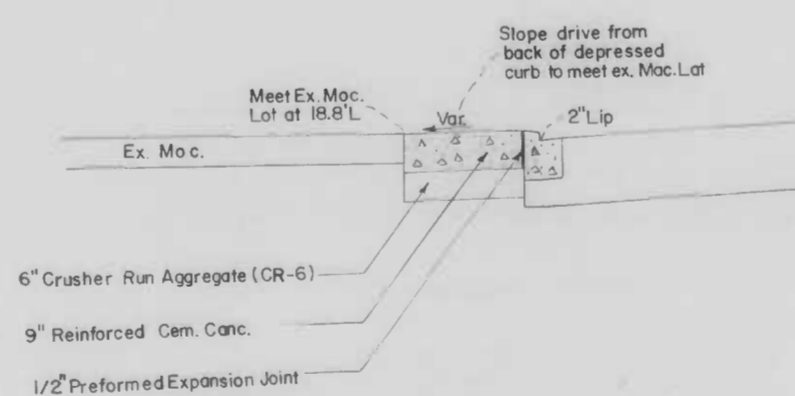
TYPICAL SECTION - IDAHO AVENUE  
From Hilltop Ave. to Belair Rd.



Standard Type "A" Comb. Curb & Gutter (12" x 8" Pan)



Detail for Drive at Sta. 1+77.0 (Left)



Detail for Drive at Sta. 5+91.0 (Left)

LEGEND

- Indicates limit of proposed full depth paving
- Indicates area to be stripped to the existing concrete base and repaved with 3\"/>
- Indicates limit of proposed concrete walk (5\"/>
- Indicates proposed driveway - 7\"/>
- Indicates area of proposed driveway to be paved using materials similar to existing driveway
- Indicates limit of proposed cut-slope
- Indicates limit of proposed fill-slope
- Indicates special pedestrian ramp, Type 7 - (BC.655.26)
- Indicates standard pedestrian ramp at alley, Type 5 - (BC.655.24)
- Indicates standard pedestrian ramp, Type 1 - (BC.655.20)
- Indicates area of flat fill for "dressing up"
- Indicates Tree or Shrubs to be removed.
- Indicates area of utility trench repair (BC.576.20)

Notes:  
All slopes and "dressing up" areas as well as all other unpaved areas disturbed during construction shall be covered with 2\"/>

DRAWN BY MICHAEL JAMES  
EXAMINED BY M.A.F./W.F.C.

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3065

**IDAHO AVENUE**  
FROM HILLTOP AVENUE TO BELAIR ROAD  
DETAIL SECTION & DETAILS

SCALE NO SCALE      DATE  
HIGHWAY ENGINEERING DIVISION      SHEET 2 OF 10

FILE REF.

FILE REF.

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	Extended Drain And Made Change To The Notes	3/12/87	KE

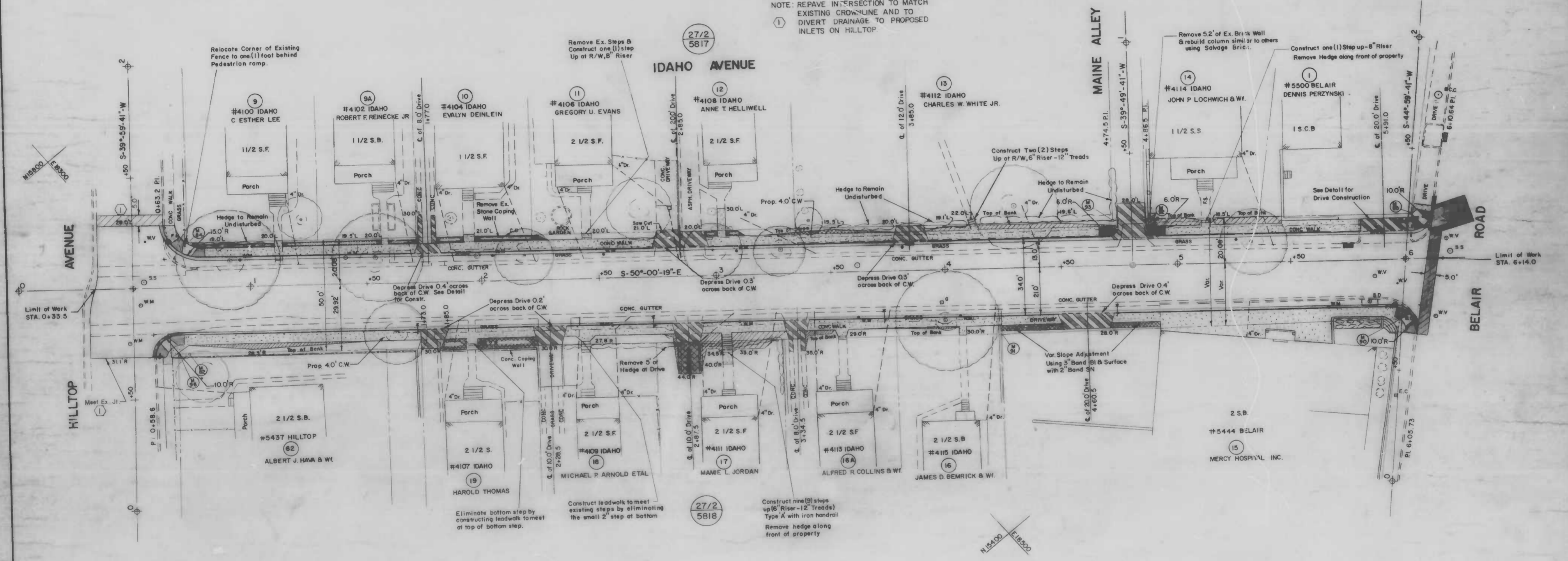
TREE REMOVAL CHART			
STATION	OFFSET	TRUNK DIA.	SPREAD
0+91.33	11.62' L	24"	43'
1+53.96	11.67' L	22"	40'
1+61.91	22.03' R	13"	28'
1+98.52	11.50' L	2.7"	STUMP
2+10.40	11.11' L	1.2"	25'
2+98.77	11.43' L	1.4"	27'
3+28.01	10.76' L	2.3"	23'
3+99.62	22.90' R	2.0"	45'
5+32.67	9.42' L	1.8"	29'

ROADWAY COORDINATES			
POINT	DESCRIPTION	EAST	NORTH
STA. 0+50	IDAHO AVE. X STA. 1+00 HILLTOP AVE.	18290.223	15732.444
STA. 4+80.5	IDAHO AVE. X STA. 0+00 MAINE AL.	18620.031	15455.754
STA. 6+00	IDAHO AVE. X STA. 1+00 BELAIR RD.	18711.580	15378.950

Right-of-Way Coordinates			
Point	Station	Offset	North
M-84	0+73.64	20.08' L	18321.24
M-93	4+72.73	20.08' L	18626.98
M-92	4+86.72	20.08' L	18637.70
M-85	6+03.13	20.08' L	18726.88
M-96	0+68.85	29.92' R	18285.43
M-82	0+73.64	29.92' R	18289.10
M-91	4+22.71	29.92' R	18556.52
M-90	5+96.12	27.88' R	18691.14

NOTE: OBSTRUCTIONS ARE SHOWN ON THIS DRAWING FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND THE CITY DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION.

NOTE: REPAVE INTERSECTION TO MATCH EXISTING CROWNLINE AND TO DIVERT DRAINAGE TO PROPOSED INLETS ON HILLTOP.



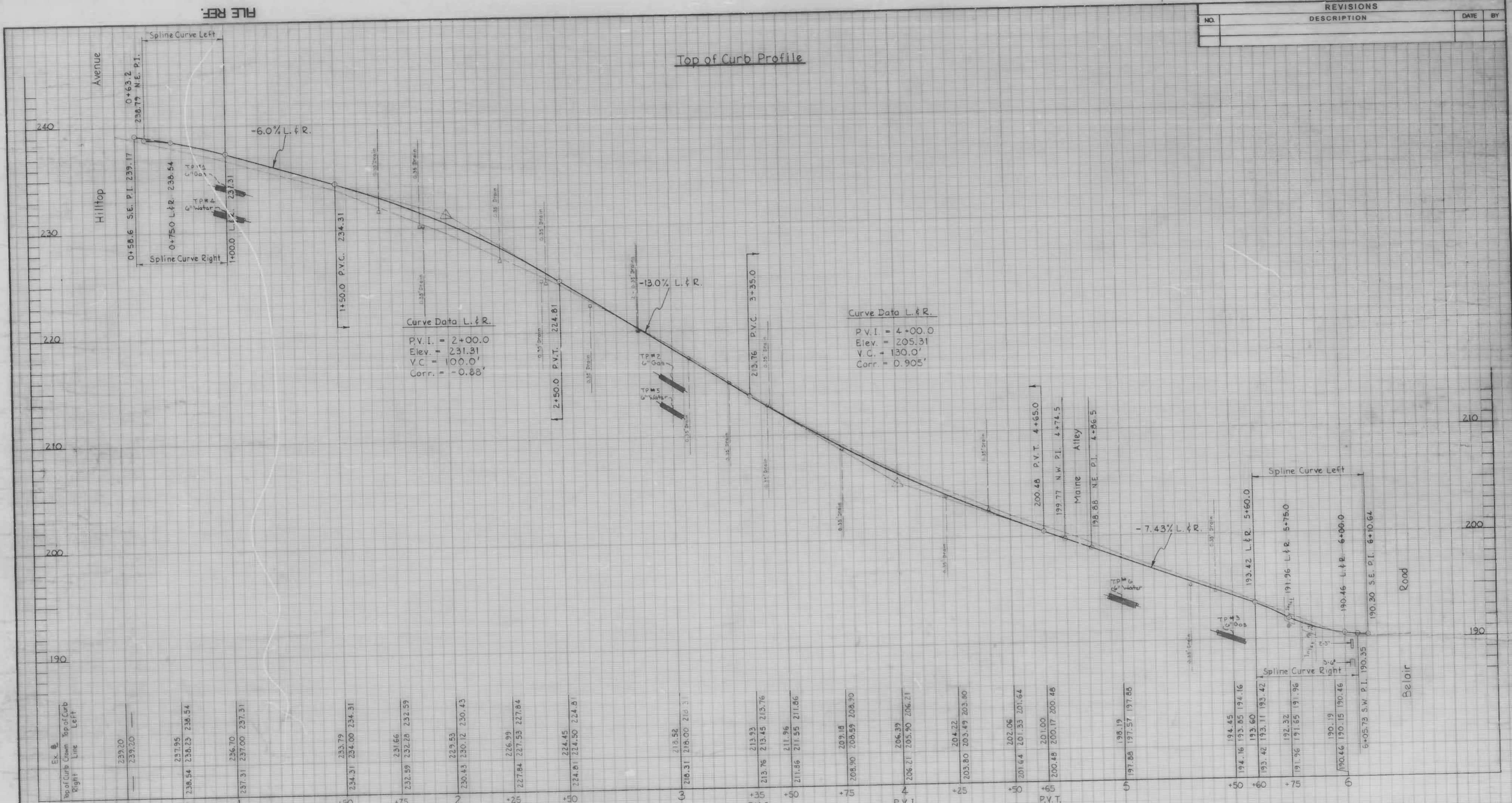
FIELD BOOK L-1178  
DRAWN BY M. JAMES  
EXAMINED BY M.A.F. & W.F.C.

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3065  
  
IDAHO AVENUE  
FROM HILLTOP AVENUE TO BELAIR ROAD  
  
PLAN

SCALE 1" = 20'  
HIGHWAY ENGINEERING DIVISION  
DATE  
SHEET 3 OF 10

FILE REF.

REVISIONS			
NO.	DESCRIPTION	DATE	BY



Book No. L-1178  
 Drawn By: Mike Forish, Jr.  
 Exam'd By: W.F. Crumpton

CITY OF BALTIMORE  
 DEPARTMENT OF PUBLIC WORKS  
 BUREAU OF ENGINEERING  
 CONTRACT NO. 3065

IDAHO AVENUE  
 HILLTOP AVENUE ~ BELAIR ROAD  
 PROFILE

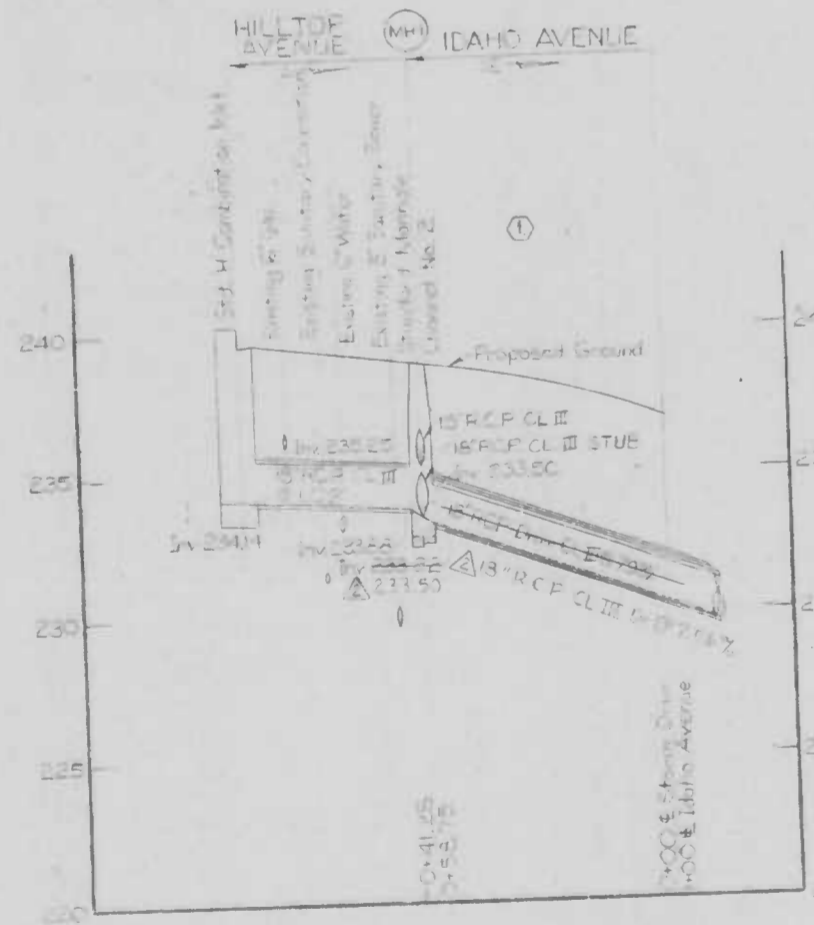
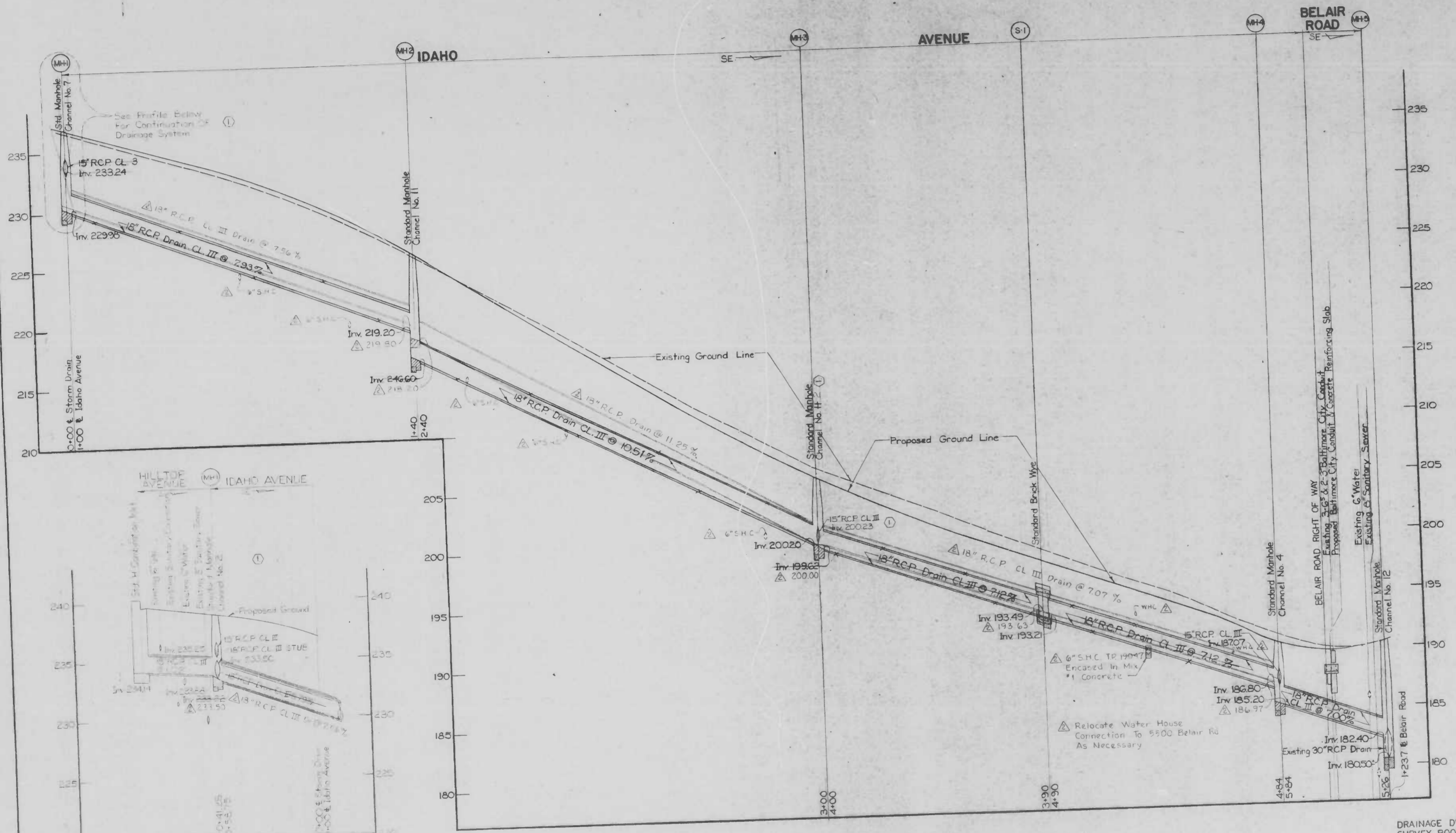
SCALE HORIZ. 1"=20.0' VERT. 1"=4.0' DATE  
 HIGHWAY ENGINEERING DIVISION SHEET 5 OF 10

FILE REF.

FILE REF.

FILE REF. ESD 80-440

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	Extended Drain And Revised Schedules	2/22/86 WSB	
2	Drain Realignment	7/13/87 WSB	



PROFILE

MANHOLE SCHEDULE					
NO.	COORDINATES		INVERT IN	INVERT OUT	GRATE ELEV.
	EAST	NORTH			
MH-1	15334.313	15707.203	229.98	236.78	
MH-2	15441.567	15617.223	219.20	216.60	225.60
MH-3	15564.144	15514.368	200.20	199.62	205.68
MH-4	15705.107	15336.128	182.40	185.20	190.60
MH-5	15745.380	15378.012	182.40	180.50	SET IN FIELD

STRUCTURE SCHEDULE					
NO.	TYPE	COORDINATES		INV. IN	INV. OUT
		EAST	WEST		
S-1	STD. BRICK WYE	15633.093	15456.543	193.49	193.21

DRAWN BY WILLIAM EDWARDS JR.  
EXAMINED BY S. K. BLAKE

DRAINAGE DISTRICT III-A  
SURVEY BOOK L-1178 RECORD PLATS 61-11, 63-11

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3065

**IDAHO AVENUE**  
**FROM HILLTOP AVENUE TO BELAIR ROAD**  
**STORM DRAIN PROFILE**

SCALE 1"=200' HORZ., 1"=40' VERT. DATE MAY 15, 1986  
ENVIRONMENTAL SERVICES DIVISION SHEET 77 OF 10  
FILE REF. ESD 80-440

FILE REF.

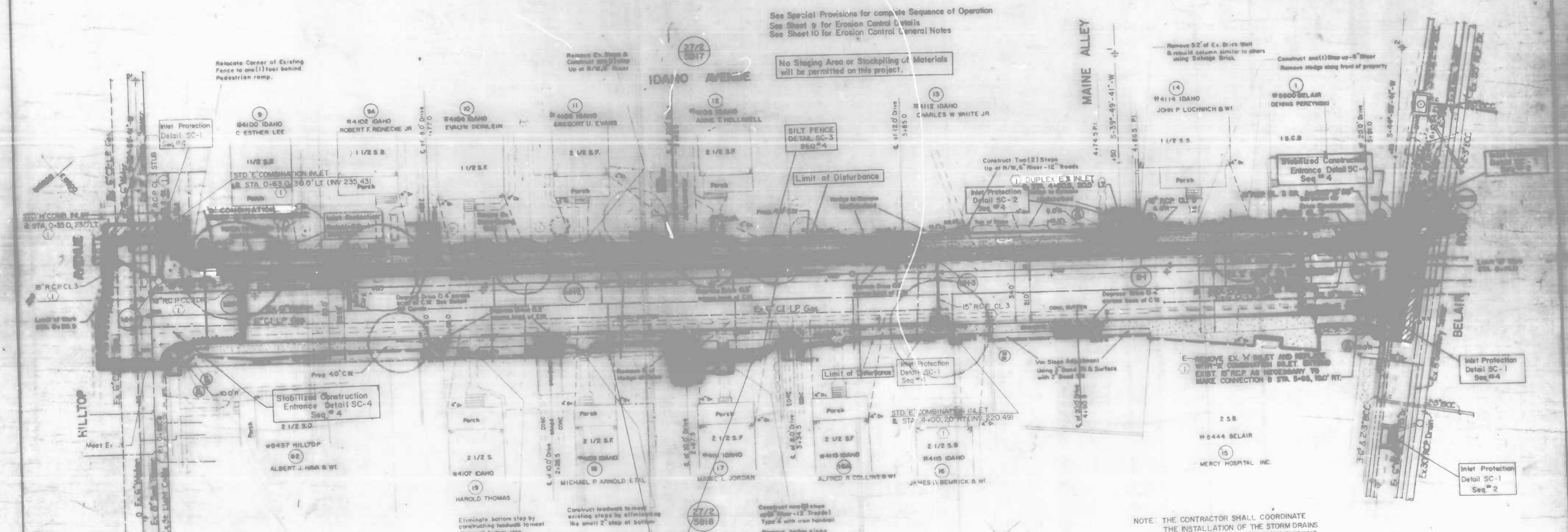
REVISIONS		
NO.	DESCRIPTION	DATE BY
1	Expanded Drain and Made Changes to the Notes	3/1/87 JMS

TREE REMOVAL CHART			
STATION	OFFSET	TRUNK DIA.	SPREAD
0+94.33	11.62'L	24"	43'
1+53.96	11.67'L	22"	40'
1+61.91	22.03'R	13"	28'
1+98.52	11.50'L	2.7"	STUMP
2+18.40	11.11'L	1.2"	25'
2+30.77	11.43'L	1.4"	27'
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ROADWAY COORDINATES			
POINT	DESCRIPTION	EAST	NORTH
STA. 0+50	IDAHO AVE. -> STA. 1+00	18290.223	18732.444
STA. 4+80	5 IDAHO AVE. -> STA. 5+00	18290.091	18485.734
STA. 6+00	IDAHO AVE. -> STA. 1+00	18711.580	18379.950

Right-of-Way CoOrdinates				
Point	Station	Offset	East	North
M-84	0+73.64	20.08'L	18321.24	15732.63
M-93	4+72.73	20.08'L	18626.98	15476.13
M-92	4+85.72	20.08'L	18637.70	15467.14
M-85	8+03.13	20.08'L	18726.88	15392.32
M-96	0+68.85	29.92'R	18285.43	15697.41
M-92	0+73.64	29.92'R	18289.10	15694.32
M-91	4+22.71	29.92'R	18555.52	15469.97
M-90	4+94.12	27.81'R	18691.14	15360.62

NOTE: OBSTRUCTIONS ARE SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. AND THE CITY DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION.



See Special Provisions for complete Sequence of Operation  
See Sheet 9 for Erosion Control Details  
See Sheet 10 for Erosion Control General Notes

No Staging Area or Stockpiling of Materials will be permitted on this project.

NOTE: THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE STORM DRAINS AND THE CONDUIT SYSTEM. THE EXISTING DUCT LINE SHALL BE SUPPORTED AND PROTECTED DURING CONSTRUCTION.

**DRAINAGE NOTES**

- All Channels in Manholes Must Be Constructed To Conform As Closely As Possible To The Standard Channel Called For On The Profiles. Gravel Cradle Is Required Under All Pipe Except Inlet Connections. All Backfill Shall Be Mechanically Tamped. For Standard Details See Baltimore City Book Of Standards.
- Standard Type No. 1 E-Frame And Grates (BC 376.0) Shall Be Used For All New E Inlets. And Standard Type 5-7 Frame And Grates (BC 379.02) Shall Be Used For All New S Inlets. Build E-Comb. Inlets As Per B.C. 376.23
- Build Standard Brick Wye As Per Baltimore City Standard No. BC 318.01.
- All Inlets Are To Be Depressed 2-1/2'.
- All Reinforcing Steel Is To Be Grade 60 Conforming To ASTM A615-79
- Before Doing Any Digging Notify The Following: Miss. Utility 1-800-857-7777, Bureau Of Highways, Street Lighting Section 396-1311, Conduit Section 396-3656.
- Type Of Joint For Pipe  
Type Pipe: Reinforced Concrete Pipe Drain, Reinforced Concrete Pipe Inlet Conn.  
Type Joint: O Ring Rubber Gasket, Cement Mortar Or O Ring Rubber Gasket

- Test Pits for Sanitary Connections intersecting the Proposed Storm Drain Path Must be dug before Construction of Storm Drain for Purposes of Identification and Verification of Clearances
- Build H Combination Inlet As Per B.C. 376.63

DRAINAGE DISTRICT HIL-A  
SURVEY BOOK L-1178 RECORD PLATS 6111, 6311

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO 3065

**IDAHO AVENUE**  
FROM HILLTOP AVENUE TO BELAIR ROAD

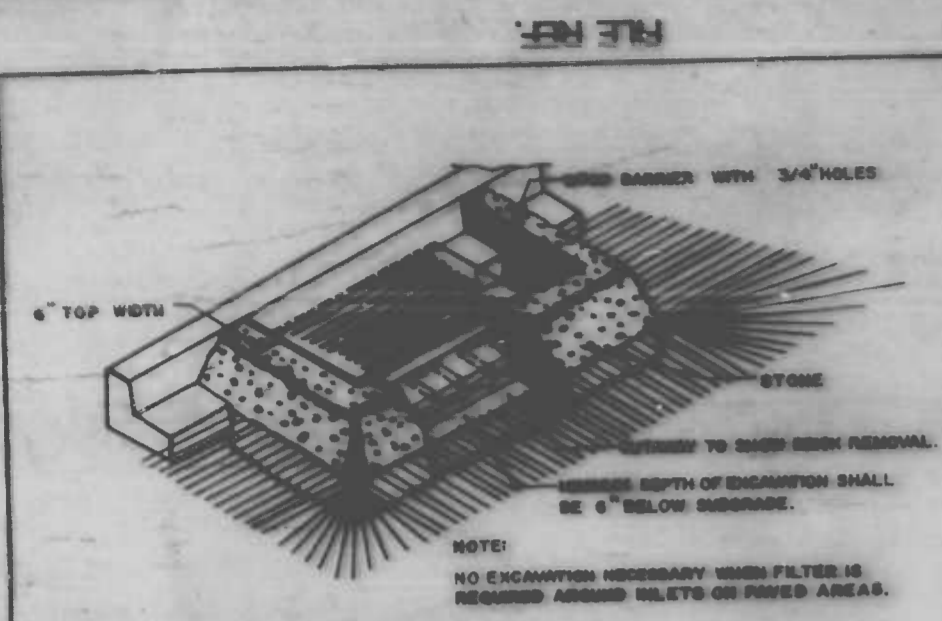
SOIL EROSION / SEDIMENT CONTROL PLAN

SCALE 1" = 20'  
DATE MAY 15, 1986  
ENVIRONMENTAL SERVICES DIVISION  
SHEET 81 OF 10

FIELD BOOK L-1178

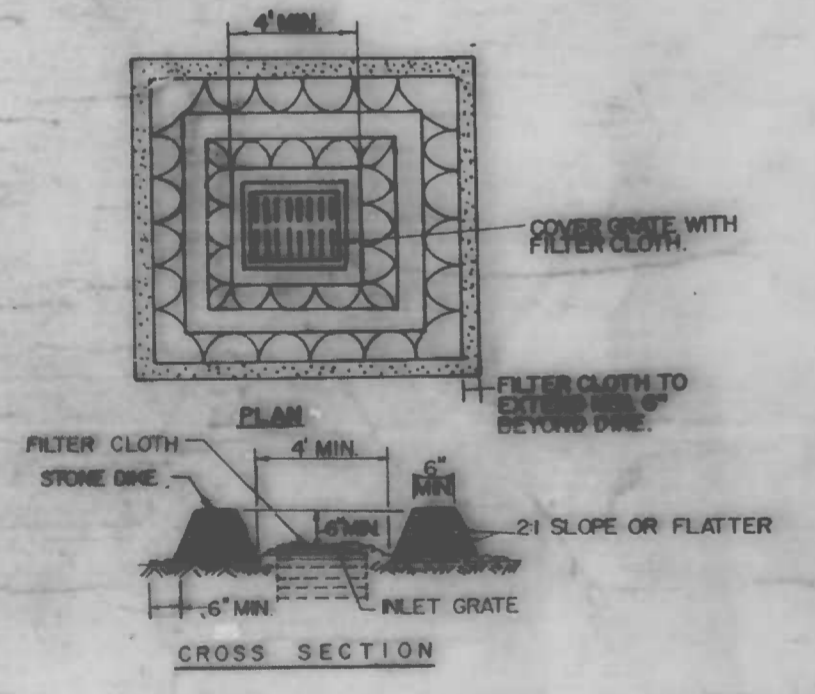
DRAWN BY MICHAEL JAMES  
EXAMINED BY MAT C.F.C.J.

REVISIONS		
NO.	DESCRIPTION	DATE



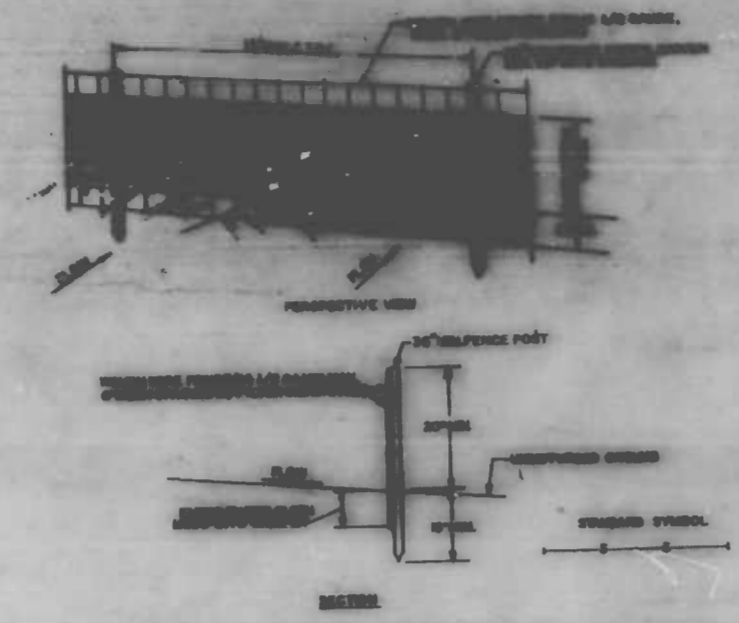
- CONSTRUCTION SPECIFICATIONS**
- Structure shall be inspected after each stone and repairs made as needed.
  - Construction Operations shall be carried out in such a manner that erosion and water pollution is minimized.
  - The structure shall be removed when drainage area has been properly stabilized.
  - The crushed stone used in the outlet shall meet ASTM Designation M3 size no. 2 or 74 or the equivalent such as MSHA no. 2. Crushed material the above application may be used if crushed stone is not available. Crushed can be not used.

**INLET PROTECTION  
DETAIL SC-1**



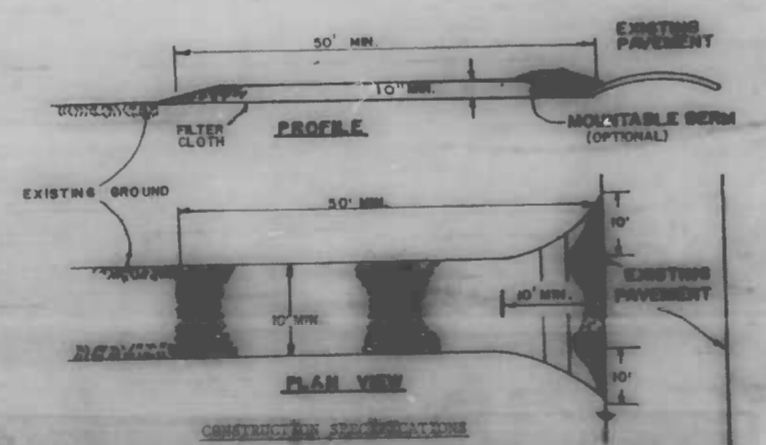
- CONSTRUCTION SPECIFICATIONS**
- Stone for the Dike shall be crushed stone. Gravel may be used if crushed stone is not available. The stone shall meet MSHA size no. 2 or ASTM Designation M3 size no. 2 or 74. Crushed can be not used.
  - Filter cloth shall be 70% Filter X or approved equal.
  - The structure shall be inspected after each rain and repairs made as needed.

**INLET PROTECTION  
DETAIL SC-2**



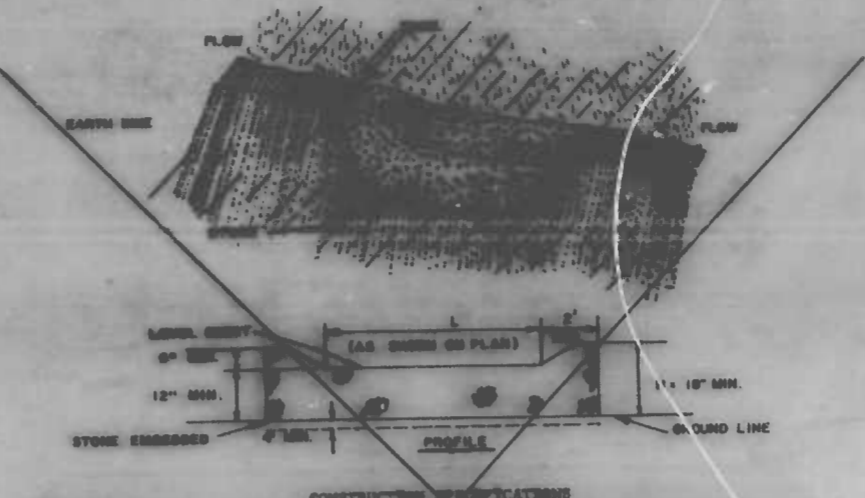
- CONSTRUCTION NOTES FOR FABRICATED SILT FENCE**
- Woven Wire Fence to be furnished closely to fence posts with wire size as specified.
  - Filter Cloth to be fastened closely to Woven Wire Fence with lines spaced every 24" as top and mid section.
  - When two sections of Filter Cloth adjoin each other they shall be overlapped by six inches and folded.
  - Maintenance shall be performed as needed and material removed when "bulges" develop in the silt fence.
- POSTS: Steel galvanized 1/2" dia. or 2" diameter  
 FENCE: Woven Wire, 36 Ga. 6" Max Mesh opening  
 FILTER CLOTH: 70% Filter X, Minimum 100% permeability, 12" or approved equal  
 PREFABRICATED UNIT: GEOTAR, ENVIROFENCE, OR Equal

**SILT FENCE  
DETAIL SC-3**



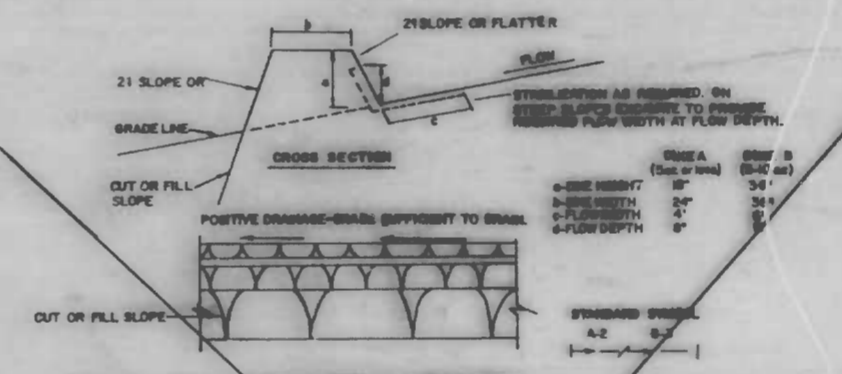
- CONSTRUCTION SPECIFICATIONS**
- Stone Size - Use 2" stone, or equivalent or approved crushed aggregate equivalent.
  - Length - As specified, but not less than 50 feet (except on a single cut-off dike less than a 50 foot minimum length would apply).
  - Thickness - Not less than 18" (10" thickness).
  - Width - Two (2) feet minimum, but not less than the full width as per the above drainage or access course.
  - Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
  - Maintenance - All surface water flowing or directed toward construction entrances shall be piped across the entrance. If piping is impractical, a portable pump with 5/8" diameter will be provided.
  - Weathering - The entrance shall be constructed in a condition which will prevent flooding or flow of sediment onto public right-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or diameter of any concrete used to trap sediment. All sediment applied, dumped, washed or tracked onto public right-of-way must be removed immediately.
  - Weathering - When weather is anticipated, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
  - Inspection and maintenance shall be provided after each rain.

**STABILIZED CONSTRUCTION ENTRANCE  
DETAIL SC-4  
HEAVY DUTY ENTRANCE**



- CONSTRUCTION SPECIFICATIONS**
- The stone shall be crushed stone. Gravel may be used if crushed stone is not available. The stone shall meet MSHA size no. 2 or ASTM Designation M3 size no. 2 or 74.
  - The crest of the stone dike shall be at least six inches lower than the lowest elevation of the top of the earth dike and shall be level.
  - The stone outlet structure shall be embedded into the soil a minimum of four inches.
  - The minimum length, in feet, of the crest of the stone outlet structure shall be equal to six times the number of acres of construction discharge area.
  - The stone outlet structure shall be inspected after each rain, and the stone shall be replaced when the structure ceases to function as intended due to silt accumulation along the stone, washed, construction traffic damage, etc.

**STONE OUTLET STRUCTURE  
DETAIL SC-5  
N.I.C.**



- CONSTRUCTION SPECIFICATIONS**
- All Earth Dikes shall be compacted by earth working equipment.
  - All Dikes shall have positive drainage to an outlet.
  - Top width may be wider and side slopes may be flatter if desired to facilitate crossing by construction traffic.
  - Field location should be designed as needed to utilize a stabilized, safe outlet.
  - Dikes shall have an outlet that functions with a minimum of erosion. Runoff shall be conveyed to a sediment trapping device such as a sediment basin where either the dike channel. The drainage area above the dike are not adequately stabilized.
  - Stabilization shall be: (a) In accordance with standard specifications for seed and straw mat or straw mat if not in seedling season, (b) Flow channel as per the detail below. Stone Dike need not be stabilized.

**FLOW CHANNEL STABILIZATION**

TYPE OF CHANNEL	CHANNEL GRADE	TYPE A	TYPE B
1	0.5-1.0%	Seed and Straw Mat	Seed and Straw Mat
2	1.1-5.0%	Seed and Straw Mat	Seed using Jute, or Shovelmat; Sed; 2" Stone
3	5.1-8.0%	Seed with Jute, or Sed; 2" Stone	Lined Rip-Rap 4-8"
4	8.1-20%	Lined Rip-Rap 4-8"	Engineering Design

- Stone to be 2 inch stone, or approved equivalent, in a layer at least 3 inches in thickness and be placed into the soil with construction equipment.
- Rip-Rap to be 4-8 inches in a layer at least 8 inches thickness and placed into the soil.
- Approved equivalent can be substituted for any of the above materials.
- Periodic inspection and required maintenance must be provided after each rain event.

**EARTH / STONE DIKE  
DETAIL SC-6/DETAIL SC-7  
N.I.C.**

- LEGEND**
- LIMITS OF DISTURBANCE
  - [Symbol] INLET PROTECTION (SC-1 OR SC-2 AS NOTED)
  - [Symbol] SILT FENCE (SC-3)
  - [Symbol] STABILIZED CONSTRUCTION ENTRANCE (SC-4)
  - [Symbol] STONE OUTLET STRUCTURE (SC-5) N.I.C.
  - [Symbol] EARTH/STONE DIKE (SC-6 OR SC-7 AS NOTED) N.I.C.

CITY OF BALTIMORE  
 DEPARTMENT OF PUBLIC WORKS  
 BUREAU OF HIGHWAYS  
 CONTRACT NO. 3065

**IDAHO AVENUE**  
 FROM HILLTOP AVENUE TO BELAIR ROAD  
 SOIL EROSION / SEDIMENT CONTROL DETAILS

SCALE: NO SCALE  
 HIGHWAY ENGINEERING DIVISION  
 SHEET 9 OF 10

DRAWN BY A. MOSCATO  
 EXAMINED BY MAF/WFC

FILE REF.

REVISIONS		DATE	BY
NO.	DESCRIPTION		

**STABILIZATION SPECIFICATIONS**

**TEMPORARY STABILIZATION - ARTICLE 36.12**

**Planting Season** Temporary seeding can be done anytime of the year except when the ground is frozen. This item shall consist of furnishing and placing all fertilizer, temporary seed and mulch on areas disturbed for more than fourteen (14) days.

**Schedule of Procedure** The contractor shall provide temporary stabilization as specified in the approved sediment control plan.

**Seedbed Preparation** When the area to be seeded is packed and hard, the top layer of topsoil shall be loosened by raking or other means before seed is applied.

**Lime** No lime shall be required for temporary seeding.

**Fertilizer** Commercial fertilizer of an analysis 5-10-5 applied at a rate of 35 pounds per 1000 square feet.

**Seeding** (Section 20.28-1) Seed mixture, Annual Ryegrass applied at the rate of 3 pounds per 1000 square feet.

**Mulching** Applied at the rate of 100 pounds per 1000 square feet. Mulch anchoring - asphalt mix at the rate of 10 gallons per 1000 square feet. The mulch shall be applied by blowing and the asphalt binder material shall be sprayed into the mulch.

**PERMANENT STABILIZATION - ARTICLE 36.09**

**Planting Season** No sod shall be placed between the dates of June 1 and August 15 inclusive nor at anytime when the temperature is below thirty-two (32) degrees Fahrenheit. No frozen sod shall be used and no sod shall be placed upon frozen soil.

**Seedbed Preparation** Before placing or depositing sod upon any surfaces, all shaping and dressing of such surfaces shall have been completed. The completed area to be sodded shall present a smooth, uniform, well-limed surface free to line and cross section and any raking required to accomplish this will be done prior to the placing of the sod.

**Fertilizers** All areas to be sodded shall be fertilized with a commercial fertilizer of an analysis 10-10-10 one ureaform fertilizer 38-0-0 applied at the rate of 20 and 5 pounds respectively per 1000 square feet.

**NOTE:** After sod is in place, topdress the sod with Ureaform fertilizer 38-0-0 at the rate of 5 pounds per 1000 sq. ft.

**Lime** Limed at the rate of 100 pounds of ground limestone per 1000 square feet. The lime and the 10-10-10 and 38-0-0 fertilizers shall be worked into the top two (2) inches of soil prior to placing sod.

**Seedmixture Grass Sod** (Section 20.28-3)

**TYPE A - Bluegrass Sod**

- not less than 60% Kentucky Bluegrass
- not more than 35% Creeping Red Fescue
- not more than 10% other grasses and legumes

**TYPE B - Tall Fescue Sod**

- not less than 80% Tall Fescue
- not more than 20% other grasses and legumes

**IDAHO AVE. - CONT. No. 3065**

Designated Area	STABILIZATION		Type of Stabilization	Sequence *
	Active	Inactive		
Prepared Paved	X		6" Sub-Base, CR-6	#5
Strip & Resurf.	X	X	Bituminous Concrete	#6 #7
Concrete Driveways	X		6" Sub-Base, CR-6	#6
Concrete Walks	X	X	7" Concrete	#6
Cut Slope	X		3" Crusher Run, CR-6	#5 #6
Fill Slope	X		5" Concrete Walk	#6
Fill Slope	X		Temporary Stabilization - Annual Ryegrass	#5 #6
Fill Slope	X		Permanent Stabilization - Sod	#5 #6
Fill Slope	X	X	Temporary Stabilization - Annual Ryegrass	#5 #6
Fill Slope	X	X	Permanent Stabilization - Sod	#5 #6
Trench Repair	X	X	6" Sub-Base, CR-6	#3
Trench Repair	X	X	6" Concrete	#3

**Notes:**

- Quantities listed herein are to be used only to assist in developing the Soil Erosion/Sediment Control plans. There is no guarantee that these quantities are complete and the Contractor should not rely on the accuracy of these figures in preparing and submitting a Bid.
- No Staging Area or Stockpiling of Material will be permitted on this project.

\* See Special Provisions for complete "Sequence of Operations"

DRAWN BY MICHAEL JAMES  
EXAMINED BY MAT WIRE

**BALTIMORE CITY SEDIMENT CONTROL**

Title 8, Subtitle 11, Natural Resources, Annotated Code of Maryland and Baltimore City Ordinance 1985, require that provisions to control erosion and sediment shall be included for all City land disturbances. As required by State Law, construction cannot be started until such erosion and sediment control provisions are approved.

The Contractor must follow all rules and must install all sediment control measures. All work must comply with all requirements of the "Baltimore City Erosion and Sediment Control Manual" and the "1985 Maryland Standards and Specifications For Soil Erosion and Sediment Control", as distributed and modified by the Baltimore City Sediment Control Section.

Nothing herein relieves the Contractor from complying with any and all other Federal, State or Municipal Regulations.

**EROSION AND SEDIMENT CONTROL NOTE**

- All utilities to be constructed first, prior to any construction on the site.
- No pumping from foundation excavations will be allowed directly into City system unless it is filtered by way of Sediment Traps or Filter.
- All excavation material shall be placed on the high side whenever possible and confined to an area where it will not obstruct the normal flow of drainage courses.
- Continuous inspection and maintenance of all Sediment Control devices will be required.

**INSTRUCTIONS**

For land disturbing activities it is understood that the following conditions will be met:

- A. Grading**
- All disturbed areas shall be protected to control erosion and to prevent sedimentation of adjacent properties, storm sewers and/or streams.
  - Sediment control devices such as, diversion basins, sediment traps, silt fences, vegetative stabilization, etc., shall be used to prevent off-site sedimentation at all times, at every location throughout the site where natural or existing conditions would cause sediment to normally wash off the site.
  - No proposed cut or fill will exceed three feet in depth (cut) or height (fill) without erosion and sediment controls. Excavation for foundations.
  - No fill will be placed on any existing slope steeper than 5:1 without erosion and sediment controls.
  - There will be no final graded slope steeper than 2:1.
  - Borrow and/or spoil material shall not be stockpiled within the limits of this project.
  - All fills will be free of any organic or other deleterious materials and will be compacted. All areas to receive fill will have the ground surface prepared by removing all existing vegetation and root mat.
  - The proposed grading will not impair existing surface drainage, constitute a potential erosion hazard, or source of sedimentation to any adjacent property, drainage way or right-of-way.
  - All points of ingress and egress shall be protected to prevent tracking of mud onto public ways.
- B. Stabilization**
- As soon as final grading is completed, all disturbed areas will be stabilized with temporary or permanent mulch, including stone, blacktop, conc. surfacing, etc.
  - For vegetating areas steeper than three horizontal units to one vertical unit, adequate mulch, fertilizer and type of seed will be placed to ensure a vigorous ground cover and such application will be repeated, if necessary, until such growth is established.
  - Timing - Following initial soil disturbances or redisturbances, permanent or temporary stabilization shall be completed within:
    - a. Seven calendar days for the surface of all perimeter dikes, swales, ditches, perimeter slopes, and all slopes greater than three horizontal to one vertical (3:1) and,
    - b. Twenty-four (24) hours for disturbed areas such as base repairs, alley returns, curb repairs, bus pads, pedestrian ramps, sidewalks and backfilled utility trenches. Stabilization shall consist of a minimum of 4 inch Graded Aggregate Sub-base and,
    - c. Fourteen calendar days for all other disturbed or graded areas.
  - For details regarding temporary and permanent stabilization practices, reference the "1985 Maryland Standards and Specifications For Soil Erosion and Sediment Control", or contact the Baltimore City Sediment Control Representative.
  - Sediment control devices are to be removed only after all disturbed areas have been stabilized.

**CONDITIONS**

- The Contractor will submit written notification to the Baltimore City Sediment Control Representative at least three working days before starting any grading activities, stating the following:
- The day he intends to start work
  - The source of all borrow material
  - The designated stockpile area
  - The Contractor's staging area
  - The disposal site for all excess material
  - The construction sequence
  - The completion day of the work.

**SITE DATA**

Total Disturbed Area 29,124.00 S.F.  
Total Cut 1,253.18 C.Y.  
Total Fill 30.00 C.Y.  
Total Excess Material 1,223.18 C.Y.

Department of Public Works, Bureau of Highways  
Environmental Services Division, Erosion and Sediment Control Section  
309 Municipal Building, Baltimore, MD 21202  
Phone - (301) 396-3693

**Owners/Developers Certification**

"I/We hereby certify that any clearing, grading, construction and/or development will be done pursuant to this plan and that all responsible personnel involved in the construction project will have a certification of attendance at a Department of Natural Resources approved training program for the control of sediment and erosion before beginning the project."

*James A. Z...*  
Signature Owner/Developer

JAMES A. Z...  
Date

204 Municipal Bldg  
Address

396-4600  
Phone

**Engineer's Certification**

I certify that this plan for Erosion and Sediment Control represents a practical, workable plan based on personal knowledge of the site condition, and that it was prepared in accordance with the requirements of the Baltimore City Erosion and Sediment Control Section.

*Robert F. Guston*  
Signature

Robert F. Guston  
Print Name

204 Municipal Bldg  
Address

396-4707  
Phone

APPROVED BY:

*Frederick M...*  
EROSION & SEDIMENT CONTROL REPRESENTATIVE

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3065

**IDAHO AVENUE**

FROM HILLTOP AVENUE TO BELAIR ROAD

SOIL EROSION / SEDIMENT CONTROL NOTES

SCALE NONE  
HIGHWAY ENGINEERING DIVISION

DATE SEPT. 27, 1985  
SHEET 10 OF 10

FILE REF.



REVISIONS			
NO.	DESCRIPTION	DATE	BY
(1)	Extended Drain and Made Changes to the Notes	3/12/77	JKK

TREE REMOVAL CHART			
STATION	OFFSET	TRUNK DIA.	SPREAD
0+91.33	11.62'L	24"	43'
1+53.96	11.67'L	22"	40'
1+61.91	22.09'R	13"	28'
1+98.52	11.50'L	2.7"	STUMP
2+18.40	11.11'L	1.2"	25'
2+98.77	11.43'L	1.4"	27'
3+28.01	10.76'L	2.3"	23'
3+99.62	22.90'R	2.0"	45'
5+32.67	9.42'L	1.8"	29'

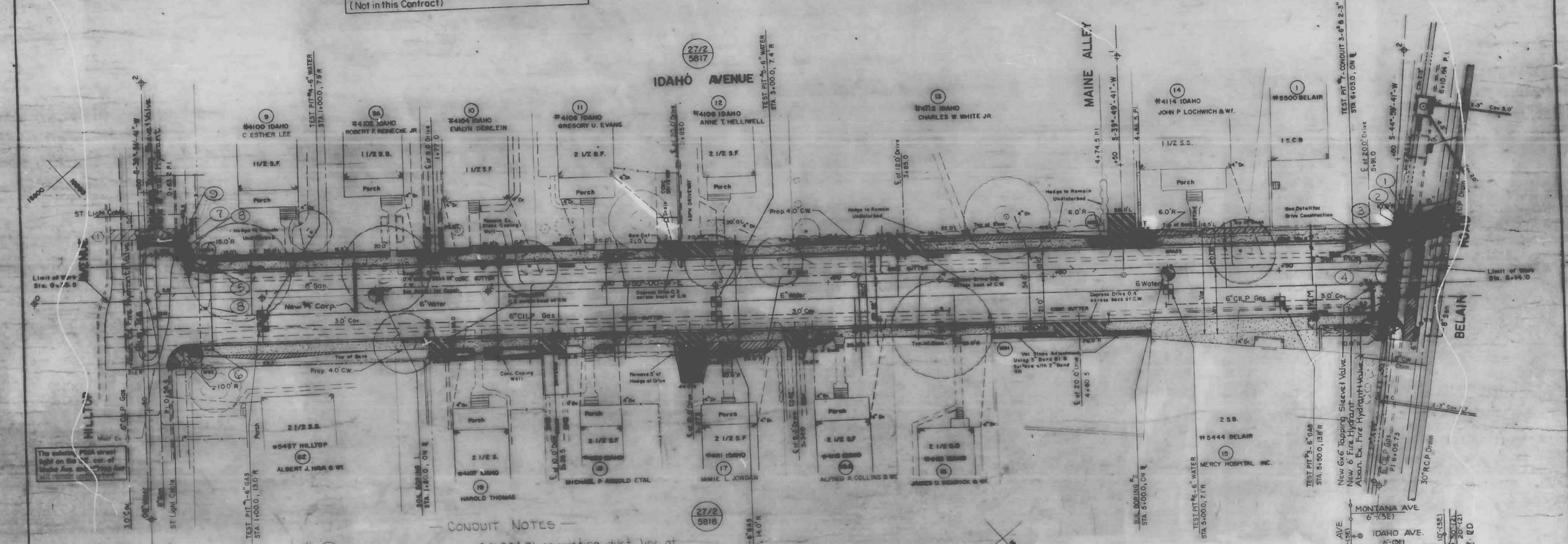
ROADWAY COORDINATES			
POINT	DESCRIPTION	EAST	NORTH
STA. 0+50	IDAHO AVE. - STA. 1+00 HILLTOP AVE.	18290.223	15732.444
STA. 4+80.5	IDAHO AVE. - STA. 0+00 MAINE AL.	18620.031	15655.754
STA. 6+00	IDAHO AVE. - STA. 1+00 BELAIR RD.	18711.580	15378.950

NOTE: OBSTRUCTIONS ARE SHOWN ON THIS DRAWING FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. AND THE CITY DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION.

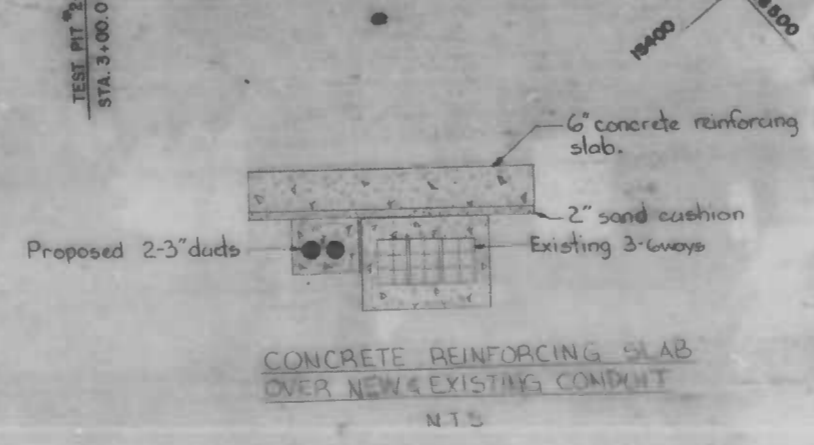
NOTE: Baltimore Gas & Electric Co. - C & P Telephone Co. Contact "Miss Utility" at 559-8100 at least 3 working days prior to starting work so that they can arrange to mark the location of their facilities.

Note: The Contractor shall coordinate the installation of the storm drains and the conduit system. The existing conduit duct line must be supported and protected during construction.

The existing wood pole street lights along Idaho Ave. will be relocated behind the new footway by others. (Not in this Contract)



- CONDUIT NOTES
- \* ① Install new handbox per BC 804.01 on existing duct line at Sta. 6+05, 20' Lt.
  - \* ② Install new handbox per BC 804.01 on existing duct line at Sta. 6+06, 24' Lt.
  - ③ Install 1-3" duct from each hand box to manhole as shown. The separate 1-3" ducts are to be installed in a common trench as 2-3" ducts.
  - ④ Install reinforced concrete pad, per BC 824.08 over new and existing ducts, from curbline to curbline. See detail.
  - ⑤ Install new hand box per BC 804.01 at Sta. 0+78, 15' Lt.
  - ⑥ Install new hand box per BC 804.01 at Sta. 0+78, 23' Rt. Install 1-3" stub westerly 3' and dead end.
  - ⑦ Install new hand box per BC 804.01 at Sta. 0+68, 29' Lt. Install 1-3" stub northerly 3' and dead end.



- WATER NOTES
1. Notify the Bureau of Water & Waste Water Maintenance Division at 596-0243 one week before starting work.
  2. All existing water valves shall be operated by the Bureau of Water & Waste Water Maintenance Division fences only.
  3. All water supply service and/or meters and fire hydrants relocations shall be done in accordance with contract documents and the book of standards.
  4. Contractor shall observe extreme caution when working near or over existing water facilities.
  5. Existing water supply services and/or meters to be relocated in Idaho Avenue.
  6. Relocation of (1) one 3/4" water service 3/4" meter item 807.
  7. Relocation of (1) one single setting 1 1/2" meter item 803.
- Working Pressure: 133 P.S.I.  
Test Pressure: 209 P.S.I.

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF HIGHWAYS  
CONTRACT NO. 3065

**IDAHO AVENUE**  
FROM HILLTOP AVENUE TO BELAIR ROAD

UTILITY PLAN

SCALE: 1" = 20' 0"  
DATE: \_\_\_\_\_  
HIGHWAY ENGINEERING DIVISION  
SHEET 41 OF 10

FIELD BOOK L-1173

WATER ENGINEERING DIVISION

DRAWN BY: M. JAMES  
EXAMINED BY: MAF & W.P.C.

CHECKED BY: \_\_\_\_\_  
CHIEF WATER ENGINEER

FILE REF. ESD 80-433

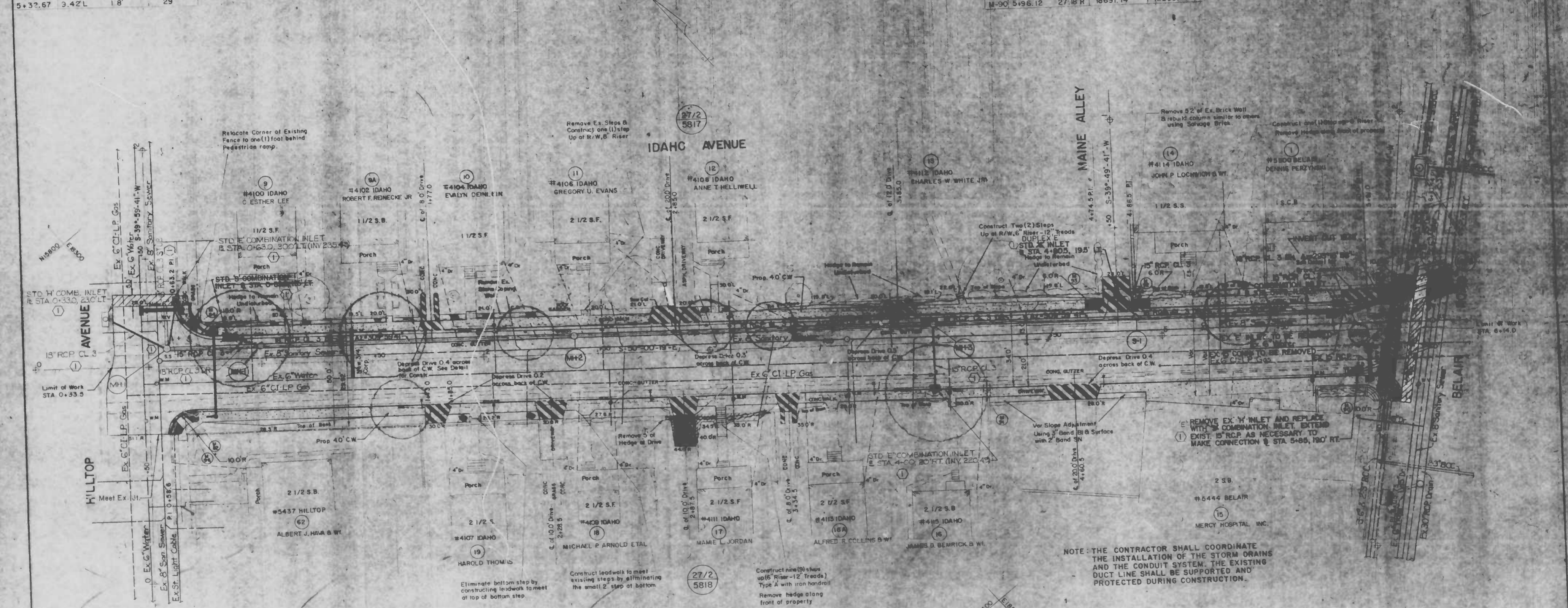
REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	Extended Drain And Made Drains To Tie Notes	3/2/27/ML/EA	

TREE REMOVAL CHART			
STATION	OFFSET	TRUNK DIA	SPREAD
0+91.33	11.62'L	24"	43'
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2+18.40	11.11'L	1.2"	25'
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ROADWAY COORDINATES			
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STA 0+50 IDAHO AVE	STA 1+00 HILLTOP AVE	18290.223	15732.444
STA 4+80.5 IDAHO AVE	STA 0+00 MAINE AL	18620.031	15455.754
STA 6+00 IDAHO AVE	STA 1+00 BELAIR RD	18711.580	15378.950

Right-of-Way Coordinates				
Point	Station	Offset	East	North
M-84	0+75.64	20.08'L	18321.24	15732.63
M-93	4+72.73	20.08'L	18626.98	15476.18
M-92	4+86.72	20.08'L	18637.70	15467.14
M-85	6+03.19	20.08'L	18726.88	15392.32
M-96	0+68.85	29.92'R	18285.43	15697.41
M-82	0+73.64	29.92'R	18289.10	15694.32
M-91	4+22.71	29.92'R	18556.52	15469.97
M-90	5+96.12	27.18'R	18691.14	15360.82

NOTE: OBSTRUCTIONS ARE SHOWN AS EXISTING FOR THE CONVENIENCE OF THE CONTRACTOR ONLY, AND THE CITY DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION.



**DRAINAGE NOTES**

- All Channels in Manholes Must Be Constructed To Conform As Closely As Possible To The Standard Channel Called For On The Profiles. Gravel Cradle Is Required Under All Pipe Except Inlet Connections. All Backfill Shall Be Mechanically Tamped. For Standard Details See Baltimore City Book Of Standards.
- Standard Type No. 1 E' Frame And Grates (BC 372.0) Shall Be Used For All New E' Inlets And Standard Type S-7 Frame And Grates (BC 379.0) Shall Be Used For All New S' Inlets. Build E' Comb Inlets As Per B.C. 372.23
- Build Standard Brick Wye As Per Baltimore City Standard No. BC 318.01.
- All Inlets Are To Be Depressed 2-1/2".
- All Reinforcing Steel Is To Be Grade 60 Conforming To ASTM A615-79.
- Before Doing Any Digging Notify The Following: Miss Utility 1-800-257-7777, Bureau Of Highways, Street Lighting Section 396-131, Conduit Section 396-3658.
- Type Of Joint For Pipe  
 Type Pipe: Reinforced Concrete Pipe Drain, Reinforced Concrete Pipe Inlet Conn.  
 Type Joint: 1" Ring Rubber Gasket, Cement Mortar Or O' Ring Rubber Gasket

NOTE: THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE STORM DRAINS AND THE CONDUIT SYSTEM. THE EXISTING DUCT LINE SHALL BE SUPPORTED AND PROTECTED DURING CONSTRUCTION.

DRAINAGE DISTRICT: HIL-A  
 SURVEY BOOK: L-1178, RECORD PLATS: 6111, 6311

CITY OF BALTIMORE  
 DEPARTMENT OF PUBLIC WORKS  
 BUREAU OF HIGHWAYS  
 CONTRACT NO. 3065

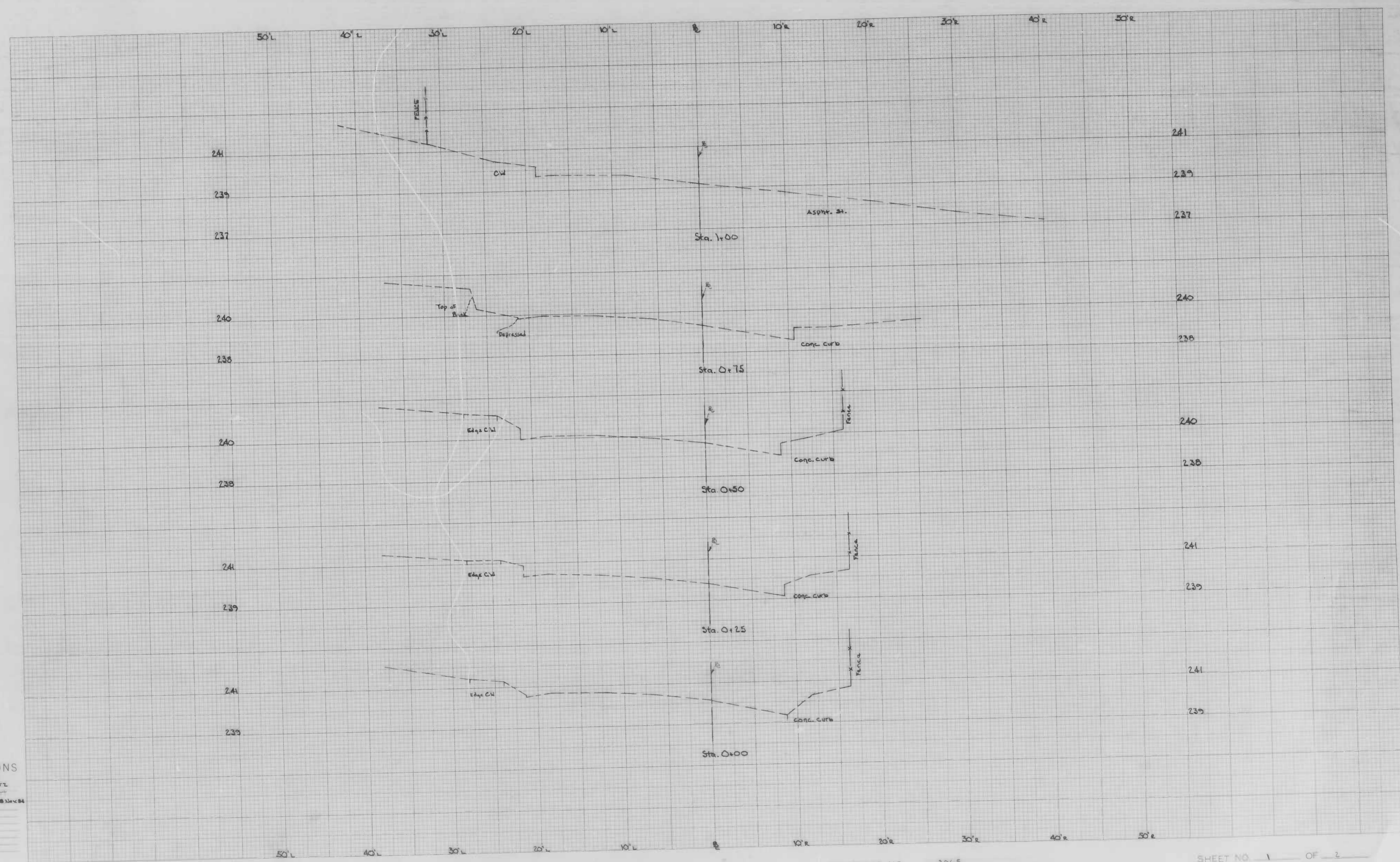
**IDAHO AVENUE**  
 FROM HILLTOP AVENUE TO BELAIR ROAD  
 STORM DRAIN PLAN

SCALE: 1" = 20.0'  
 DATE: MAY 15, 1986  
 ENVIRONMENTAL SERVICES DIVISION  
 SHEET 67 OF 10

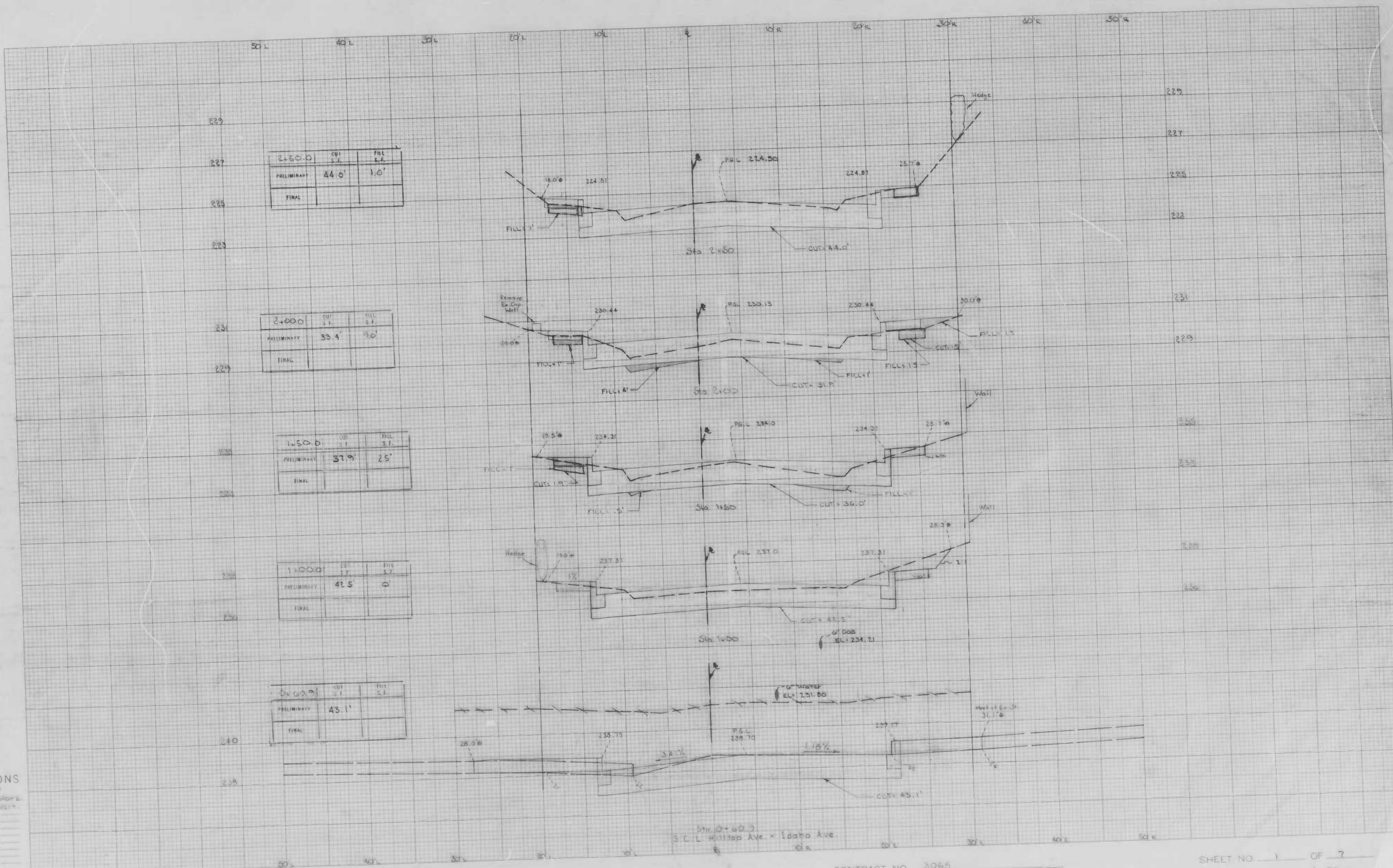
FILE REF. ESD 80-439

FIELD BOOK L-1178

DRAWN BY WILLIAM L. HANCOCK  
 EXAMINED BY S. K. BLANE



**CROSS SECTIONS**  
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 1" = 20' Horz  
 Original Prepared by **IKK** Date **10/14/84**  
 Original Checked by \_\_\_\_\_ Date \_\_\_\_\_  
 Checked by \_\_\_\_\_ Date \_\_\_\_\_  
 Plotted by \_\_\_\_\_ Date \_\_\_\_\_  
 Plotted Checked by \_\_\_\_\_ Date \_\_\_\_\_  
 Area by \_\_\_\_\_ Date \_\_\_\_\_  
 Area Checked by \_\_\_\_\_ Date \_\_\_\_\_



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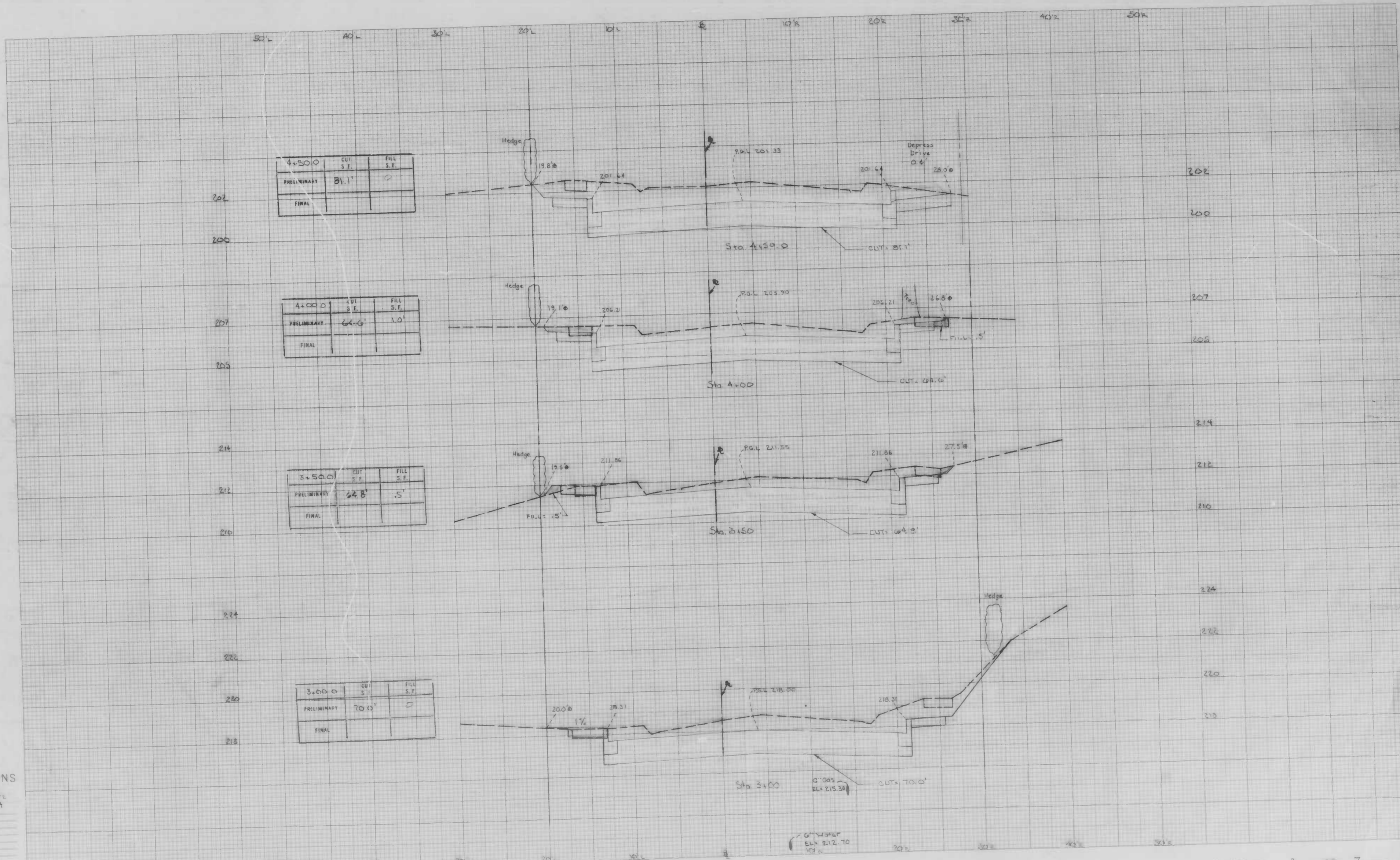
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 Area by \_\_\_\_\_ Date \_\_\_\_\_  
 Field Checked by \_\_\_\_\_ Date \_\_\_\_\_  
 Area Checked by \_\_\_\_\_ Date \_\_\_\_\_

BOOK NO. L-1178

PROJECT IDAHO AVENUE  
 DESCRIPTION Hilltop Curve to Rainier Rd.

CONTRACT NO. 3065

STATION 0+50 TO STATION 1+50  
 SHEET NO. 1 OF 7



CROSS SECTIONS

Scale 1 inch = 10 feet  
 5' Vert  
 2' Vert

Original Printed by \_\_\_\_\_ Date \_\_\_\_\_  
 Original Checked by \_\_\_\_\_ Date \_\_\_\_\_  
 Formulate by \_\_\_\_\_ Date \_\_\_\_\_  
 Final Checked by \_\_\_\_\_ Date \_\_\_\_\_  
 Drawn by \_\_\_\_\_ Date \_\_\_\_\_  
 Arch Checked by \_\_\_\_\_ Date \_\_\_\_\_

BOOK NO. L-1178

PROJECT IDAHO Avenue  
 DESCRIPTION Hilltop Avenue To Baker Road

CONTRACT NO. 3065

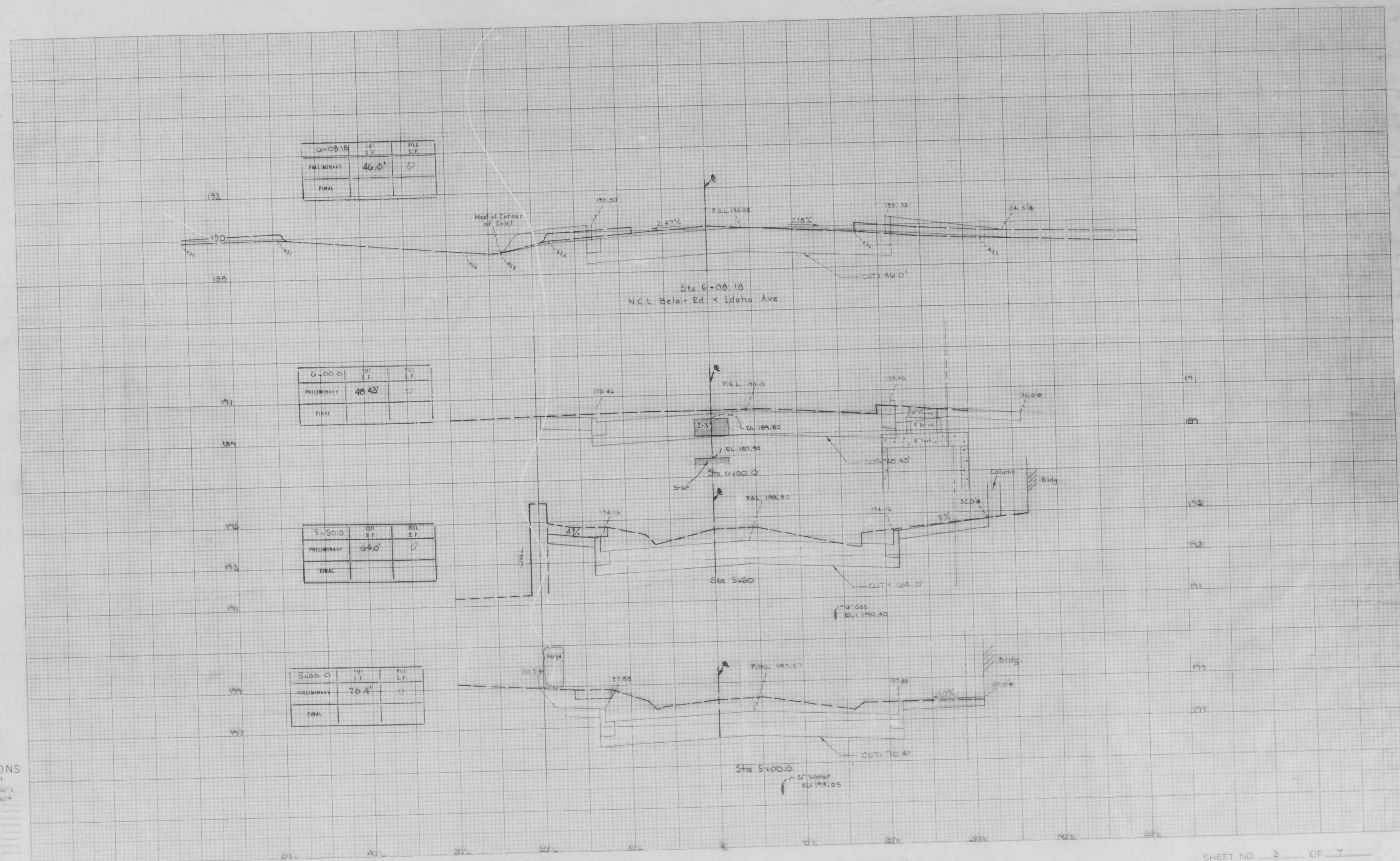
SHEET NO. 2 OF 7  
 STATION 3+00 TO STATION 4+50

Sta.	CUT S.F.	FILL S.F.
6+08.18	46.0'	0
PRELIMINARY		
FINAL		

Sta.	CUT S.F.	FILL S.F.
6+00.0	48.43'	0
PRELIMINARY		
FINAL		

Sta.	CUT S.F.	FILL S.F.
5+50.0	64.0'	0
PRELIMINARY		
FINAL		

Sta.	CUT S.F.	FILL S.F.
5+00.0	76.4'	0
PRELIMINARY		
FINAL		



CROSS SECTIONS  
Scale 1 inch = 10 feet

Original Plotted by	2/1/41
Original Checked by	
Transmitted by	
Area by	
Original Plotted by	
Final Checked by	
Area by	
Final Checked by	

BOOK NO. 1-1178

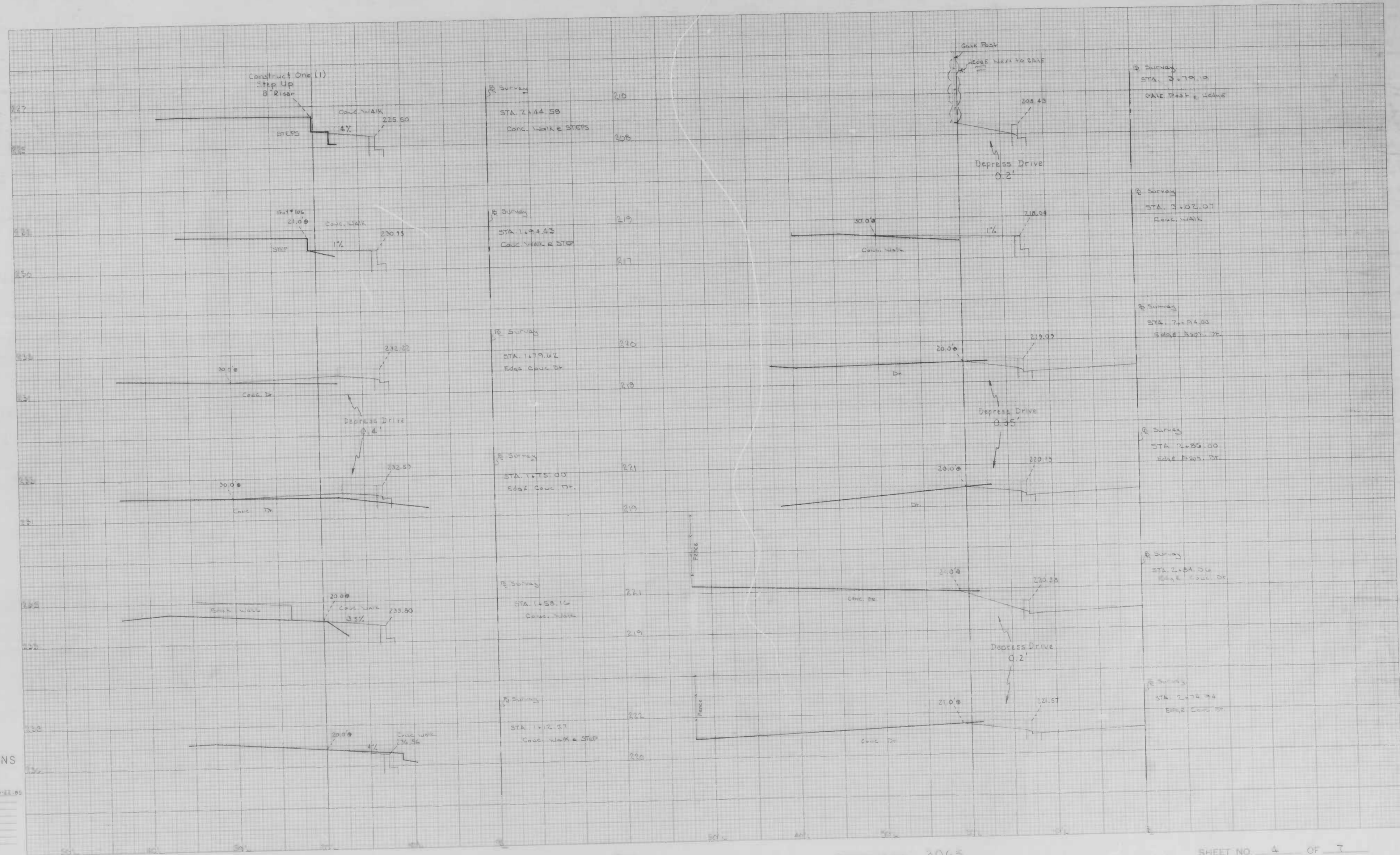
PROJECT IDAHO Avenue

DESCRIPTION Hilltop Avenue to Bonnie Rd

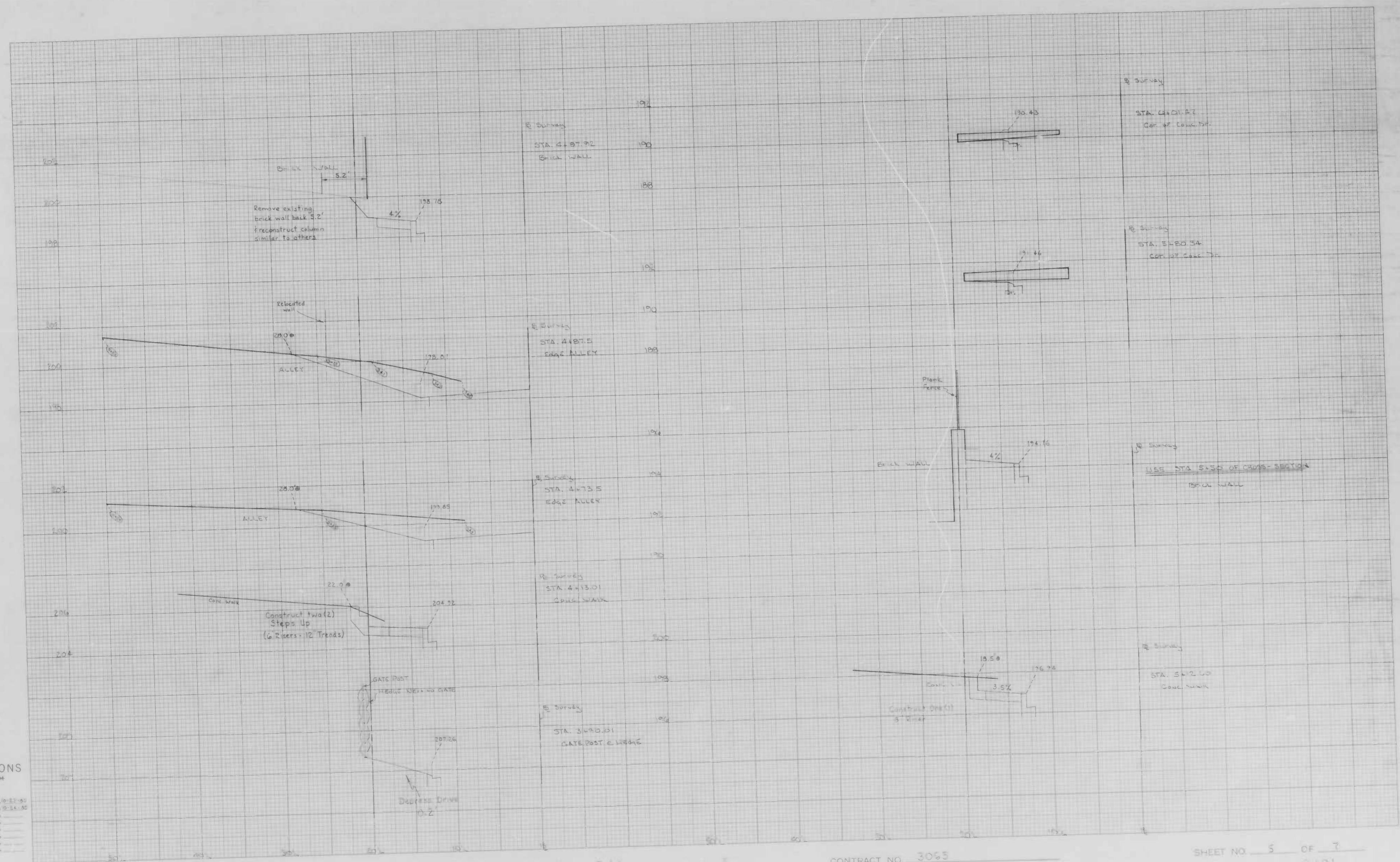
CONTRACT NO.

SHEET NO. 3 OF 7

STATION 5+00 TO STATION 6+00



**CROSS SECTIONS**  
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 Hor. 1" = 20'  
 Ver. 1" = 2'  
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 Original Checked by \_\_\_\_\_  
 Template by \_\_\_\_\_  
 Area by \_\_\_\_\_  
 Plots Plotted by \_\_\_\_\_  
 Plots Checked by \_\_\_\_\_  
 Area by \_\_\_\_\_  
 Area Checked by \_\_\_\_\_



**CROSS SECTIONS**  
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 Area by ...  
 Area Checked by ...

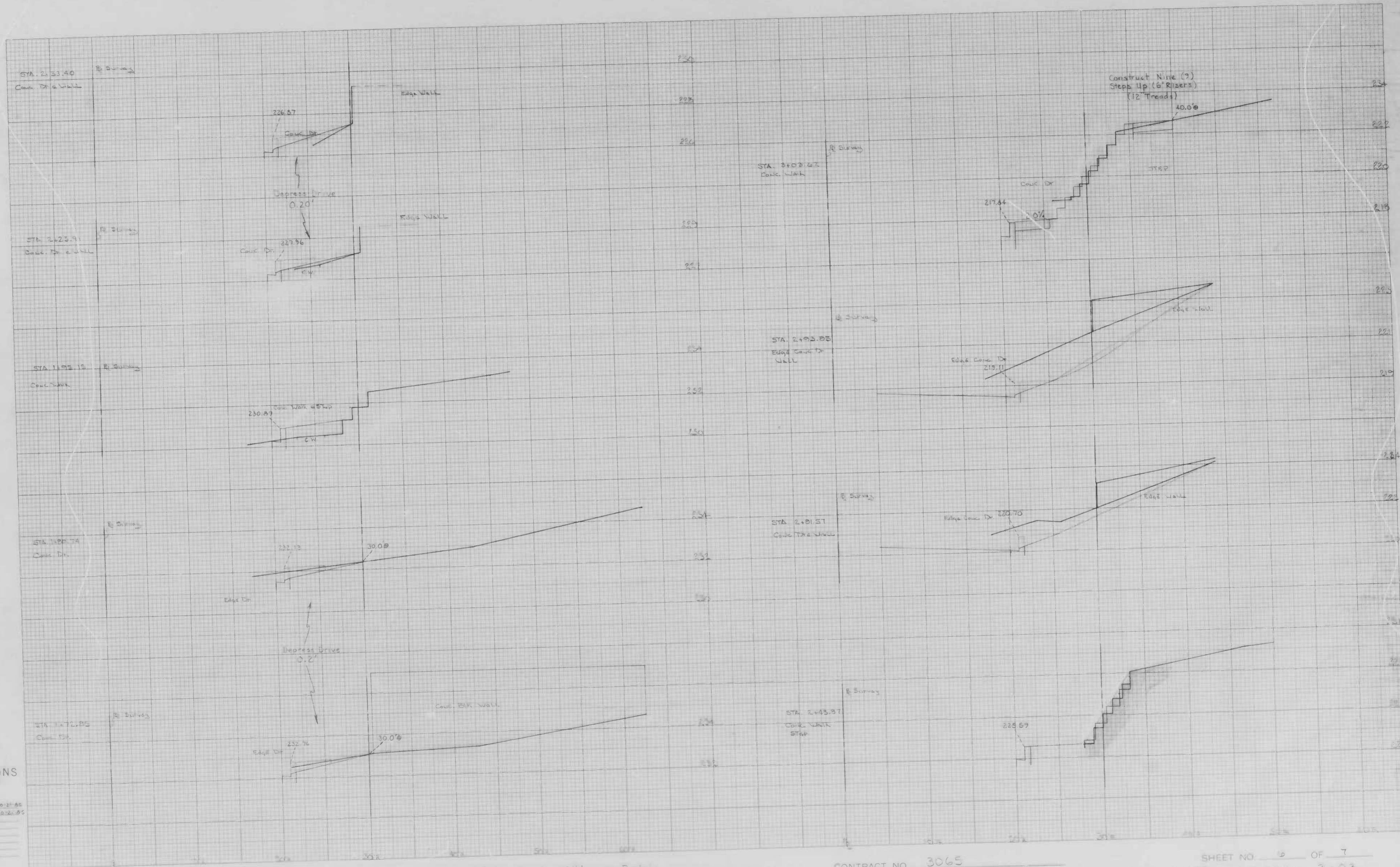
BOOK NO. L-1178

PROJECT Idaho Ave. Hilltop ~ Belair  
 DESCRIPTION Studies - Left Side

CONTRACT NO. 3055

SHEET NO. 5 OF 7  
 STATION 3+70 TO STATION 6+01





CROSS SECTIONS

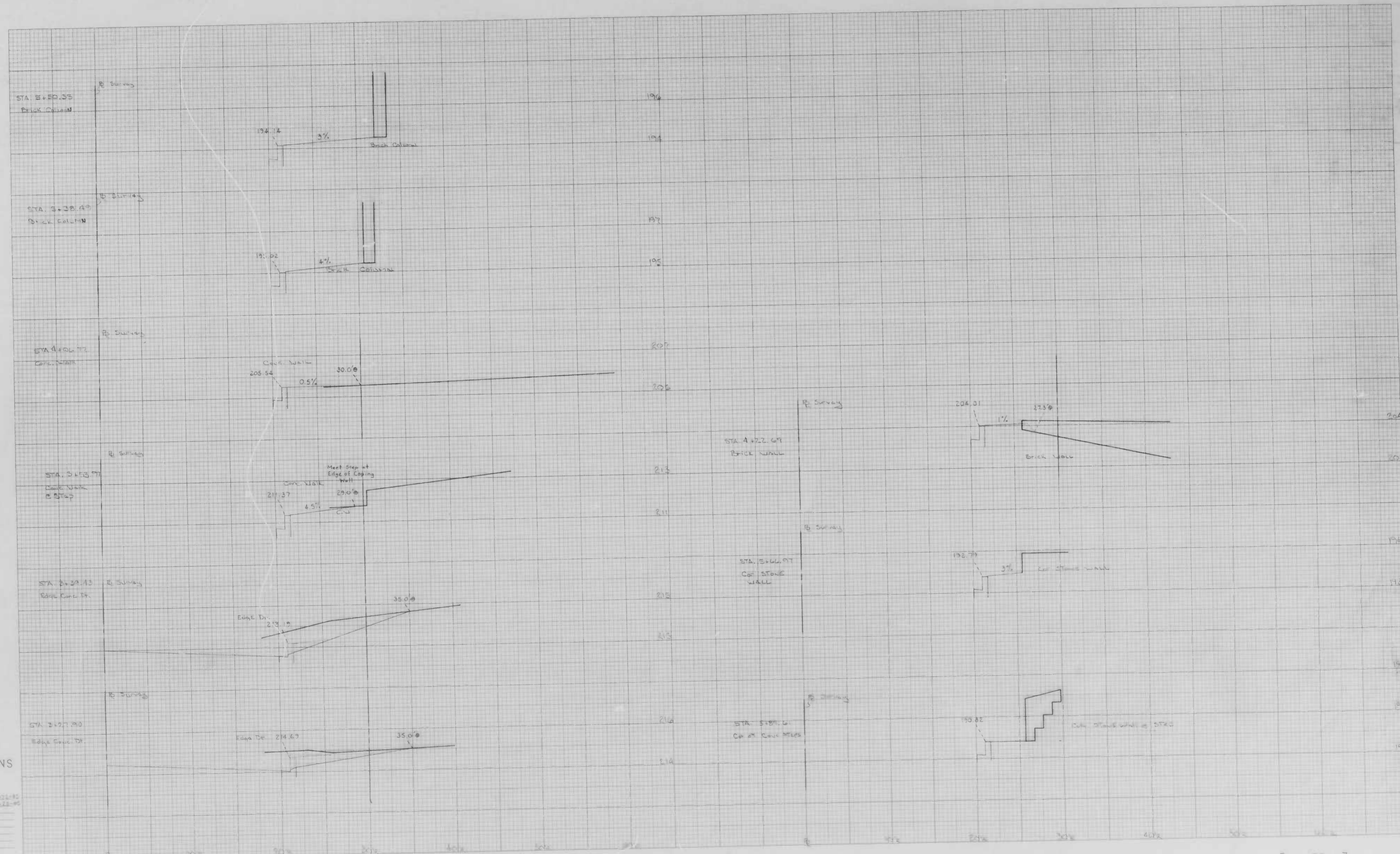
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 Plotted by \_\_\_\_\_ Date \_\_\_\_\_  
 Final Checked by \_\_\_\_\_ Date \_\_\_\_\_  
 Area by \_\_\_\_\_ Date \_\_\_\_\_  
 Area Checked by \_\_\_\_\_ Date \_\_\_\_\_

BOOK NO. L-1178

PROJECT Idaho Ave. Hilltop ~ Belair  
 DESCRIPTION Studies - Right Side

CONTRACT NO. 3065

SHEET NO. 5 OF 7  
 STATION 1+72 TO STATION 3+03



CROSS SECTIONS

Scale 1 inch = 10 feet  
 Hor. 1" = 5'  
 Ver. 1" = 2'

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 Original Checked by M. J. [unclear] Date 10-21-50  
 Template by [unclear] Date [unclear]  
 Area by [unclear] Date [unclear]  
 Finally Checked by [unclear] Date [unclear]  
 Area by [unclear] Date [unclear]  
 Area Checked by [unclear] Date [unclear]

BOOK NO. L-1178

PROJECT Idaho Ave. Hilltop ~ Belair  
 DESCRIPTION Studies - Right Side

CONTRACT NO. 3065

SHEET NO. 7 OF 7  
 STATION 3+27 TO STATION 5+33