

FILE REF.

CONSTRUCTION NOTES

Unless otherwise noted, existing trees, shrubbery, walls, columns, fences, etc. will remain intact and shall be protected from damage during construction.

Reconnect all existing roof drains disturbed by construction (whether shown or not) that drain to the street. They shall be reconnected in such a manner so as to ensure proper drainage, run under the proposed crosswalk and through the proposed curb.

Where permanent steps cannot be immediately installed, temporary steps must be supplied. They must be of the same riser and tread size as the existing steps or the proposed, whichever the field engineer deems more appropriate.

Driveways shall be constructed in accordance with standard no. B.C.-500.01. The new drive shall slope from the back of the depressed curb to the limit of paving, and meet existing joint. (Unless designated to Saw Cut)

All unpaved areas disturbed by construction shall be topsoiled and sodded. (A minimum of 2")

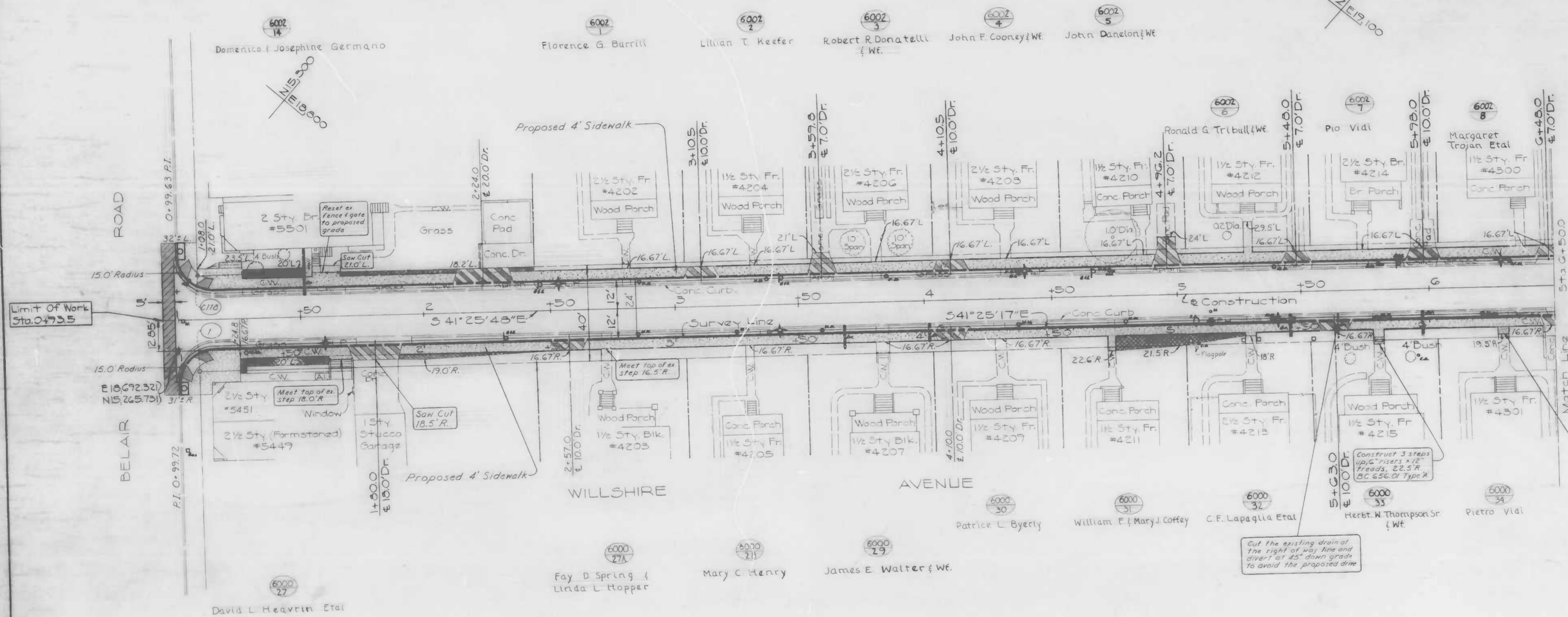
RIGHT OF WAY COORDINATES			
POINT	EAST	NORTH	STATION OFFSET
C118	18,720.99	15,280.36	1+08.00 18.32' L.
1	18,691.067	15,253.815	1+08.10 21.68' R.

BASELINE OF CONSTRUCTION COORDINATES		
STATION	EAST	NORTH
5+50.0	18,999.724	14,936.838
1+00.0	18,701.957	15,274.232

REVISIONS		
NO.	DESCRIPTION	DATE BY

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: See sheet 8 of 12 for proposed Storm Drainage.



CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
BUREAU OF HIGHWAYS
CONTRACT NO. 3059

WILLSHIRE AVENUE
BELAIR RD. ~ GREENHILL AVE.
BELAIR RD. TO STA.G+500
PLAN

SCALE: 1" = 20' DATE: _____
HIGHWAY ENGINEERING DIVISION SHEET 3 OF 12

FILE REF.

Book No.: L-1153 & X-892
DRAWN BY: S. Vozburg
EXAMINED BY: W.F. Crampton, Jr.

FILE REF.

POINT	RIGHT OF WAY COORDINATES		
	EAST	NORTH	STATION
3	19,393.127	14,521.152	11+21.98
2	19,364.62	14,492.99	11+24.24

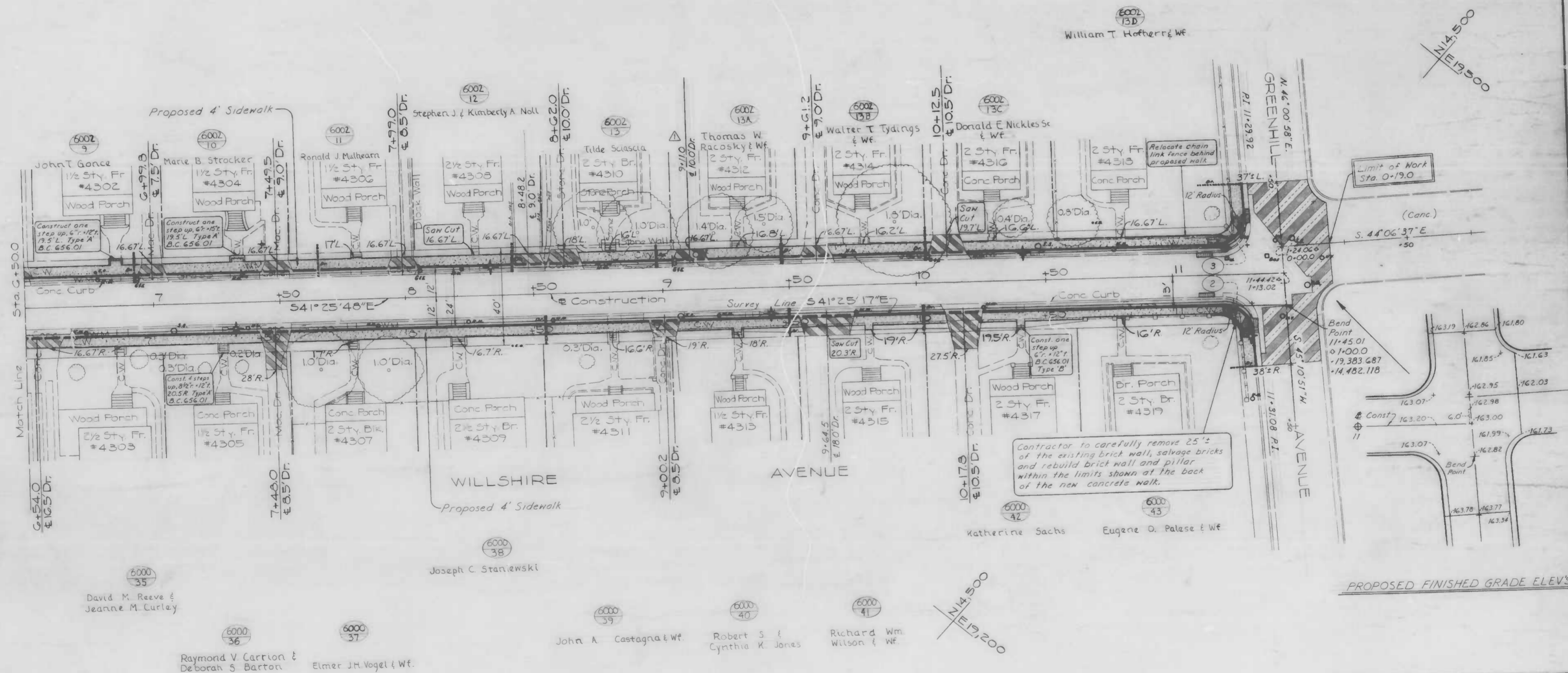
STATION	BASELINE OF CONSTRUCTION COORDINATES	
	EAST	NORTH
7+50.0	19,132.365	14,786.885
11+00.0	19,363.661	14,524.468
11+44.420	19,393.056	14,491.161
1+24.060	19,400.999	14,498.827

REVISIONS		
NO.	DESCRIPTION	DATE BY
1	Installed Driveway Opening at Sta. 9+11.0	4-14-87 S.V.

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: For detailed Construction Notes see sheet 3 of 12.

NOTE: See sheet 8 of 12 for proposed Storm Drainage.



PROPOSED FINISHED GRADE ELEV'S.

CITY OF BALTIMORE
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF HIGHWAYS
 CONTRACT NO. 3053

WILLSHIRE AVENUE
 BELAIR RD ~ GREENHILL AVE.
 STA. 6+50.0 TO GREENHILL AVE.
 PLAN

SCALE 1" = 20' DATE
 HIGHWAY ENGINEERING DIVISION SHEET 4r OF 12

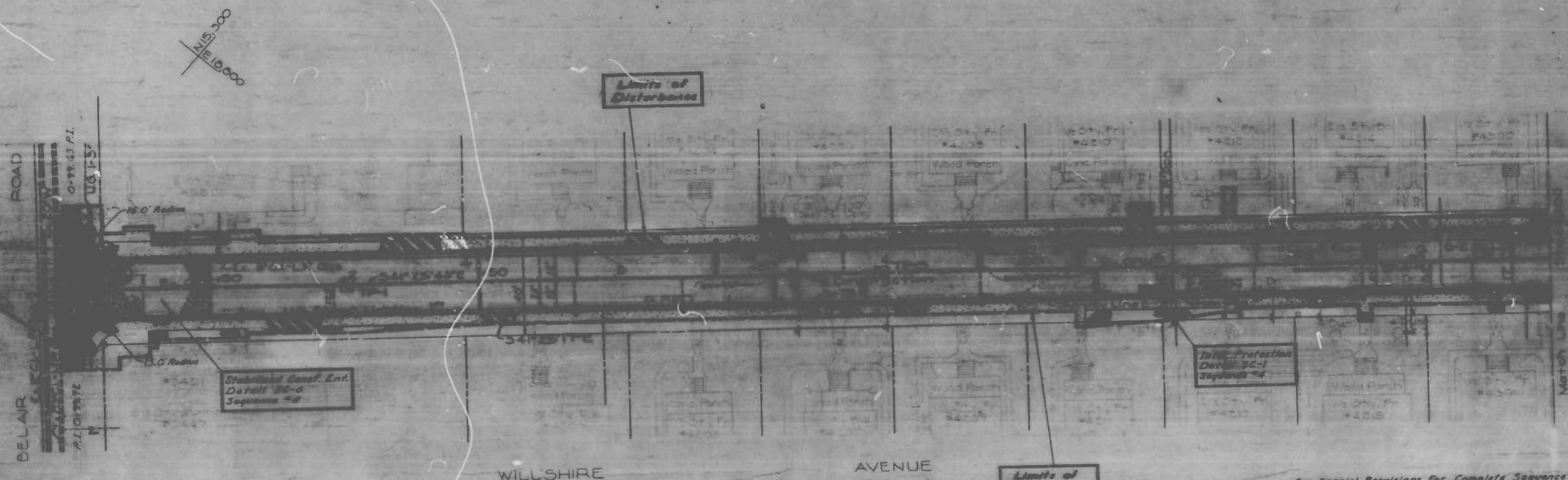
FILE REF.

Book No.: L-1153 & X-892
 DRAWN BY J. Vosburg
 EXAMINED BY W. F. Crampton, Jr.

FILE REF.

REVISIONS	
NO.	DESCRIPTION

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



See Special Provisions for Complete Sequence of Operations.
See Sheet (11) For Erosion Control Details.
See Sheet (12) For Erosion Control Notes.

No Staging Area or Stockpiling of Materials Will be Permitted on This Project.

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
BUREAU OF HIGHWAYS
CONTRACT NO 3059

WILLSHIRE AVENUE
BELAIR RD. ~ GREENHILL AVE.
BELAIR RD TO STA G+50.0

EROSION & SEDIMENT CONTROL PLAN

SCALE 1" = 20'
DATE: 9/12/57
HIGHWAY ENGINEERING DIVISION

FILE REF.

Book No: L-1153-832 WATER ENGINEERING DIVISION

DESIGNED BY: R.V. Proctor
DRAWN BY: J.A. Ciesiak
CHECKED BY: Wm. W. Jones
EXAMINED BY: W.F.C. Chief, Water Eng. Sect.

FILE REF.

000000
WILLSHIRE

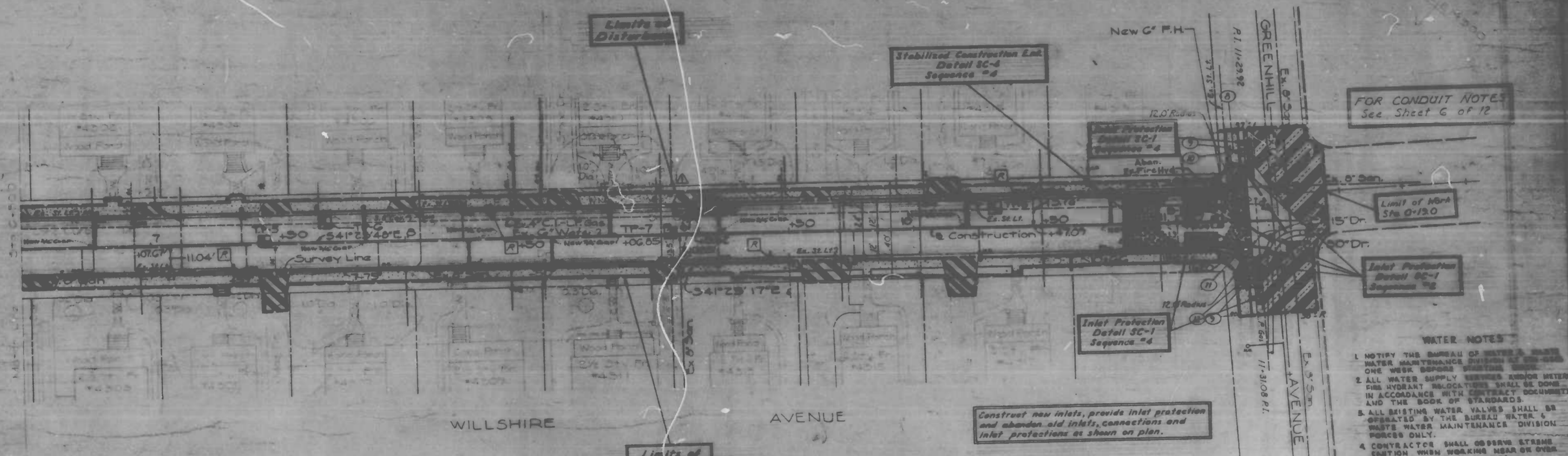
REVISIONS

1	Installed Driveway Opening at Sta. 6+77.0
---	---

NOTE: OBSTRUCTIONS ARE SHOWN ON THIS PLAN FOR THE CONVENIENCE OF THE CONTRACTOR ONLY, AND THE CITY DOES NOT GUARANTEE THE CORRECTNESS OF THE DIMENSIONS OF THE OBSTRUCTIONS. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND LOCATIONS OF OBSTRUCTIONS BEFORE STARTING WORK.

NOTE: Estimate for Erosion Control, Telephone Co. Cables, Wood Poles, etc. 1-800-257-7777 or Dept. 3100000. Starting work to see that you mark the location of these features.

NOTE: See sheet 8 of 12 for Storm Drainage.



FOR CONDUIT NOTES
See Sheet 6 of 12

Limit of Work
Sta. 6+19.0

Inlet Protection
Detail SC-1
Sequence #2

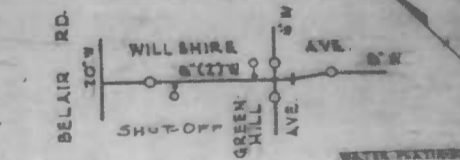
WATER NOTES

1. NOTIFY THE BUREAU OF WATER & WASTE WATER MAINTENANCE DIVISION AT 310-2222 ONE WEEK BEFORE STARTING WORK.
2. ALL WATER SUPPLY SERVICES AND/OR FIRE HYDRANT RELOCATIONS SHALL BE DONE IN ACCORDANCE WITH CONTRACT DOCUMENTS AND THE BOOK OF STANDARDS.
3. ALL EXISTING WATER VALVES SHALL BE OPERATED BY THE BUREAU WATER & WASTE WATER MAINTENANCE DIVISION PERSONNEL ONLY.
4. CONTRACTOR SHALL OBSERVE STREAM CAUTION WHEN WORKING NEAR OR OVER EXISTING WATER FACILITIES.
5. EXISTING WATER SUPPLY SERVICES AND/OR METERS TO BE RELOCATED IN WILLSHIRE AVENUE.
 - A) RELOCATION OF FIRE HYDRANT SHALL BE SETTING BY METER ITEM 501
 - B) RELOCATION OF (1)6" PORTABLE USE WATER SERVICES, BY ITEM 501

Construct new inlets, provide inlet protection and abandon old inlets, connections and inlet protections as shown on plan.

See Special Provisions for Complete Sequence of Operations.
See Sheet (11) for Erosion Control Details.
See Sheet (12) for Erosion Control Notes.

No Staging Area or Stockpiling of Materials will be Permitted on this Project.



CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
BUREAU OF HIGHWAYS
CONTRACT NO. 3059

WILLSHIRE AVENUE
BELAIR RD. ~ GREENHILL AVE.
STA. 6+500 TO GREENHILL AVE.
EROSION & SEDIMENT CONTROL PLAN

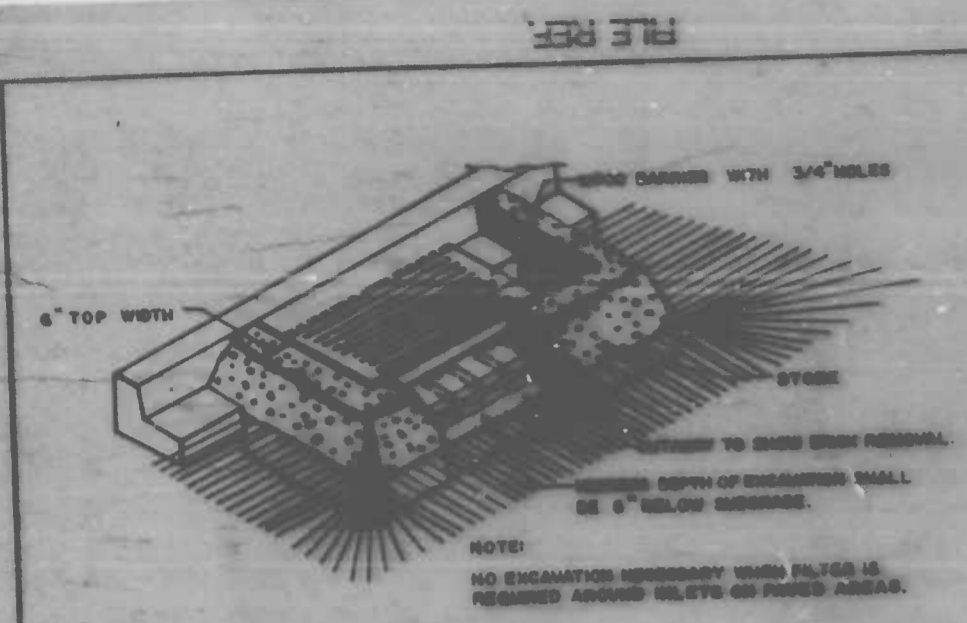
SCALE: 1" = 20' Hor., 1" = 5' Vert. DATE: _____
HIGHWAY ENGINEERING DIVISION, SHEET 10A OF 12

FILE REF.

WATER ENGINEERING DIVISION
ECG

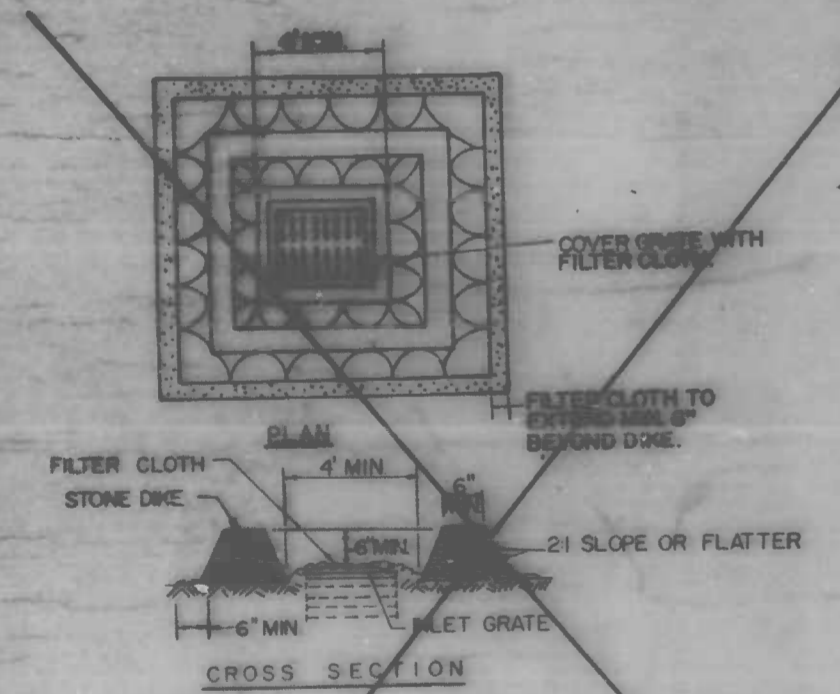
Draw No.: L-1153-R-092
DRAWN BY: L. Williams
CHECKED BY: W. M. Jones
EXAMINED BY: W. F. Crampton
CHIEF, WATER ENG. SECT.

NO.	REVISION	DATE



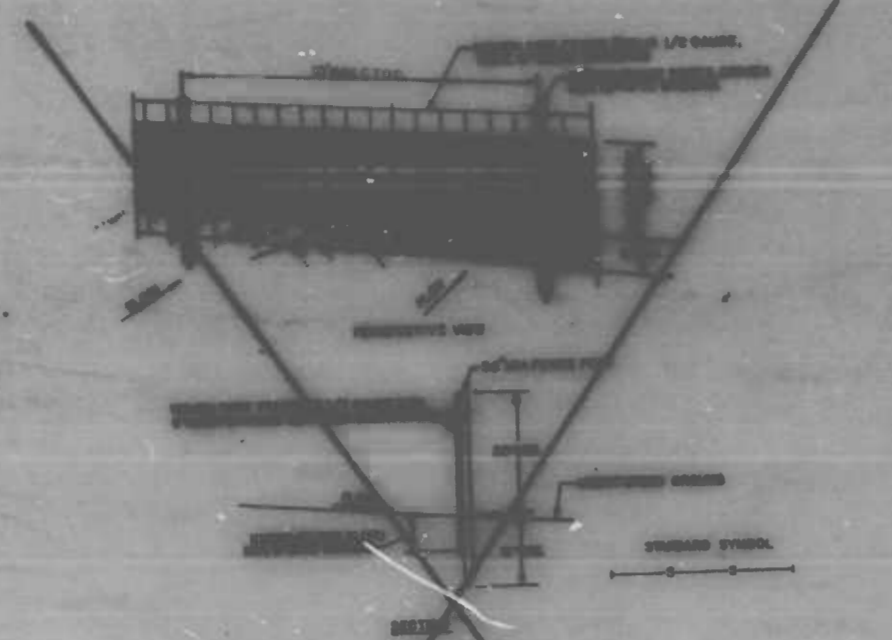
- CONSTRUCTION SPECIFICATIONS**
- Structure shall be installed after each storm and repairs made as needed.
 - Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
 - The structure shall be removed when drainage area has been properly established.
 - The crushed stone used in the outlet shall meet ASTM designation #57 size no. 1 or 2, or its equivalent such as #57 or #59. Gravel meeting this criteria shall not be used if crushed stone is not available. Crushed tan is not acceptable.

**INLET PROTECTION
DETAIL SC-1**



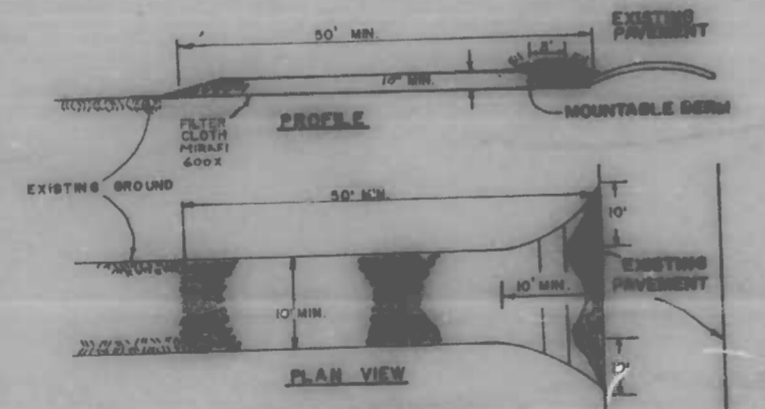
- CONSTRUCTION SPECIFICATIONS**
- Stone for the dike shall be crushed stone. Gravel may be used if crushed stone is not available. The stone shall meet ASTM size no. 1 or 2. Crushed tan is not acceptable or ASTM designation #57 size no. 1 or 2. Crushed tan is not acceptable.
 - Filter cloth shall be Poly-Fiber 2 or approved equal.
 - The structure shall be inspected after each rain and repaired as needed.

**INLET PROTECTION
DETAIL SC-2**



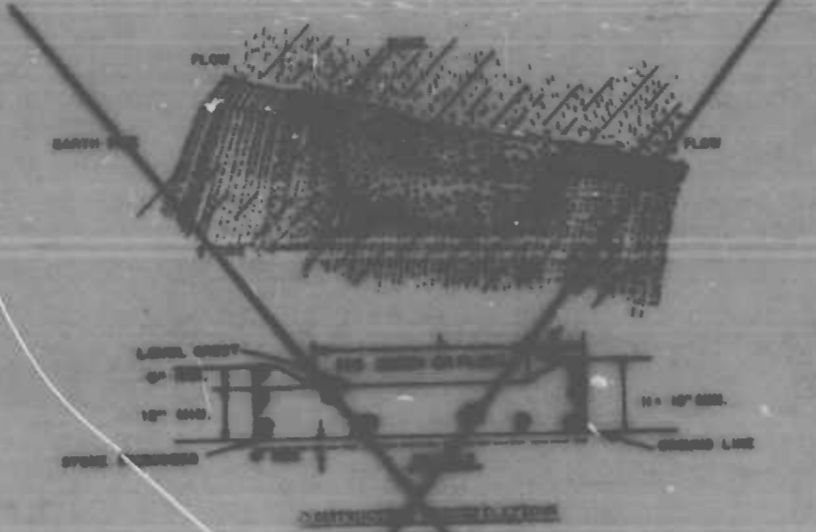
- CONSTRUCTION NOTES FOR FABRICATED SILT FENCE**
- Woven Wire Fence to be fastened securely to fence posts with wire ties or staples.
 - Filter Cloth to be fastened securely to Woven Wire Fence with ties spaced every 24" at top and mid sections.
 - When two sections of Filter Cloth attach each other they shall be overlapped by six inches and folded.
 - Maintenance shall be performed as needed and material removed when "mud-cake" develops in the silt fence.
- POSTS: Steel edge 7" or 8" Type or 2" Hardwood
- FENCE: Woven Wire, 36" x 48" Mesh
- Filter Cloth: Nylon 100X, stabilinks T140H or approved equal
- PREFABRICATED UNIT: 6' x 20' or Equal

**SILT FENCE
DETAIL SC-3**



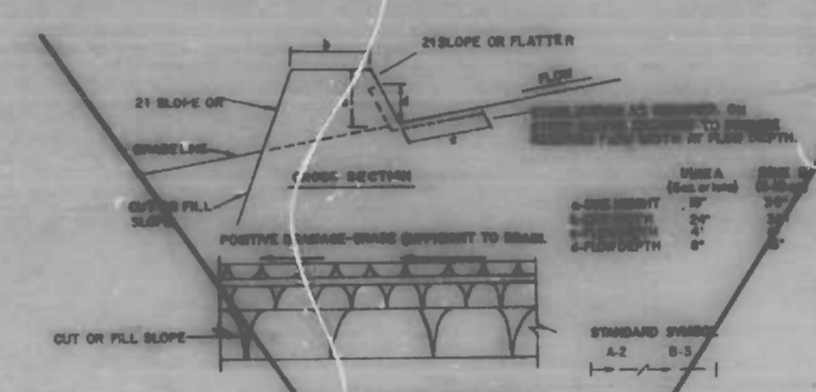
- CONSTRUCTION SPECIFICATIONS**
- Stone size - 1/2" to 2" stones, or recycled or recycled concrete equivalent.
 - Length - As required, but not less than 50 feet (except on a wheelbarrow lot where a 30 foot minimum length would apply).
 - Thickness - Not less than 18" (6" inches).
 - Width - Ten (10) feet minimum, but not less than the full width of the lot where it is used.
 - Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter cloth will not be required on a stable family residence lot.
 - Surface Water - All surface water flowing or directed toward construction entrance shall be directed across the entrance. If piping is impractical, entrance shall be closed across the entrance.
 - Maintenance - The entrance shall be maintained in a condition which will prevent spreading or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or placement of any measures used to trap sediment. All sediment shall be removed, washed or tracked once public rights-of-way must be removed immediately.
 - Inspection - Structure shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on a paved area stabilized with stone and which drains into an approved sediment trapping device.
 - Inspection and repair 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 ASTM size no. 1 or ASTM designation #57 size no. 1 or 2.
 - The crest of the stone dike shall be to or less than 4 inches lower than the lowest elevation of the top of the curb 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 contributing drainage area.
 - The stone outlet structure shall be inspected after each storm, and the stone shall be replaced when the structure ceases to function due to failure or due to silt accumulation among the stone, without, construction traffic damage, etc.

**STONE OUTLET STRUCTURE
DETAIL SC-5**



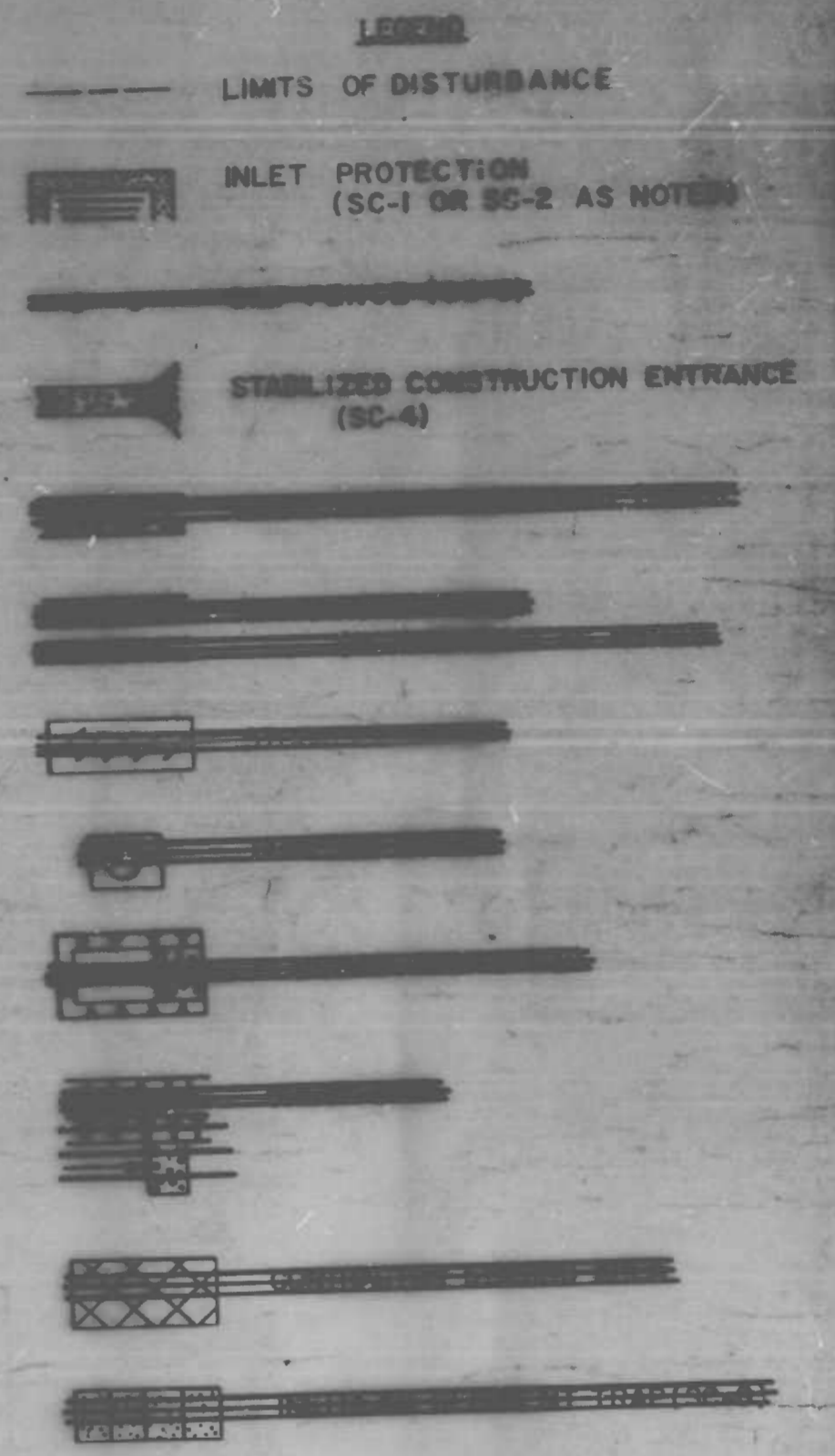
- CONSTRUCTION SPECIFICATIONS**
- All earth dikes shall be connected by earth moving equipment.
 - All dikes shall have positive drainage to an outlet.
 - Top width may be wider and side slopes may be flatter if desired to facilitate crossing by construction traffic.
 - Field location should be adjusted as needed to utilize a stabilized, safe outlet.
 - Dike shall have a positive drainage device such as a sediment basin where either the dike channel or the drainage area above the dike are not adequately stabilized.
 - Stabilization shall be (a) in accordance with standard specifications for seed and straw matting or straw matting if not in seedling season, (b) flow channel as per the sheet below. Stone dikes need not be stabilized.

FLAG CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	STEP A	STEP B
1	0.5-3.0%	Seed and Straw Matting	Seed and Straw Matting
2	3.1-5.0%	Seed and Straw Matting	Seed using Jute, or Accelerator; Soil 3" Stone
3	5.1-8.0%	Seed with Jute, or Soil 3" Stone	Stabil Rip-Rap 4-8"
4	8.1-10%	Lined Rip-Rap 4-8"	Engineering Design

- Stone to be 2 inch stone, or recycled concrete equivalent, to a layer at least 1/2 inches in thickness and be placed into the soil 1/2 inches below the surface.
 - Rip-rap to be 4-8 inches in a layer at least 8 inches thickness and placed into the soil.
 - Approved maintenance 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**



NO STAGING AREA OR STOCKPILING OF MATERIAL WILL BE PERMITTED ON THIS PROJECT.

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
BUREAU OF HIGHWAYS
CONTRACT NO. 3059

WILLSHIRE AVENUE
BELAIR RD. ~ GREENHILL AVE.

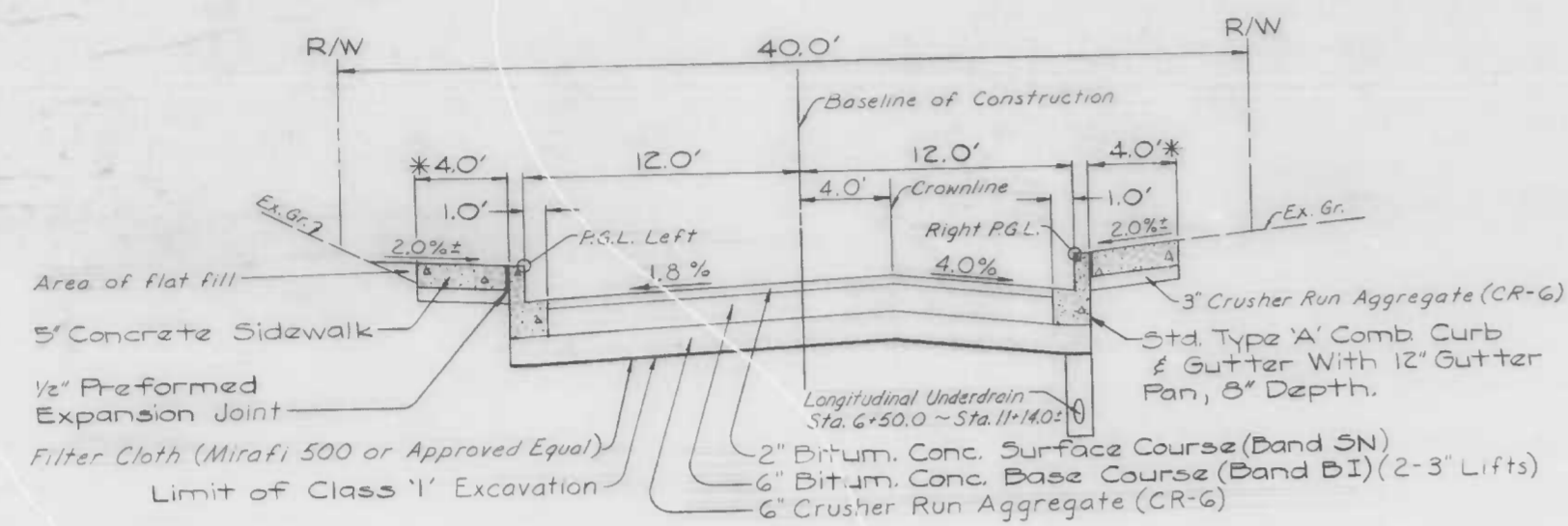
SOIL EROSION / SEDIMENT CONTROL DETAILS

SCALE NO SCALE DATE
HIGHWAY ENGINEERING DIVISION SHEET 11 OF 12

Draw No: L1153 6X892
DRAWN BY A. MOSCATO
EXAMINED BY W. Crumpton

FILE REF.

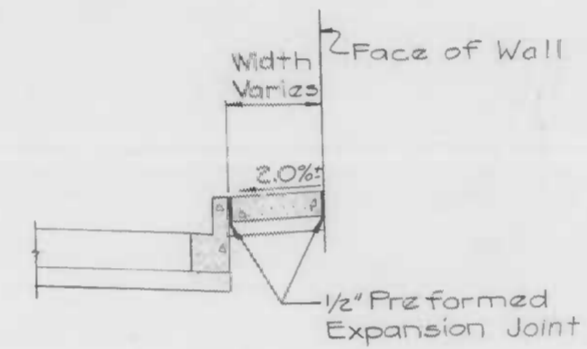
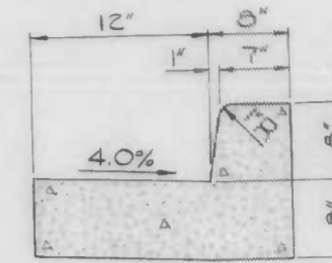
REVISIONS			
NO.	DESCRIPTION	DATE	BY



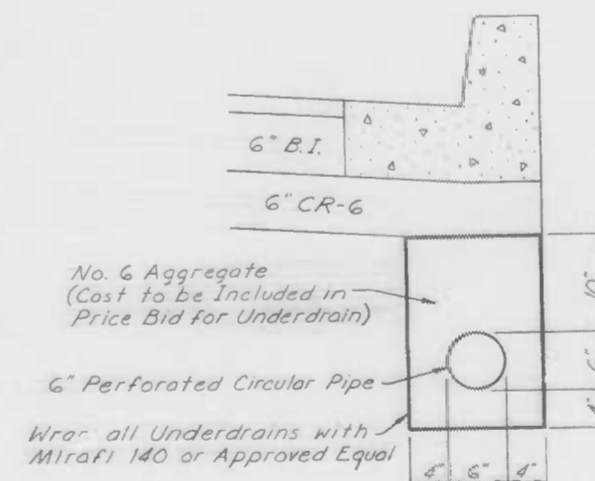
DETAIL SECTION
BELAIR ROAD ~ GREENHILL AVENUE

The walk will vary in width
* in front of #4310, #4314 &
* #4319. See detail to the right.

STANDARD TYPE 'A' COMBINATION CURB & GUTTER



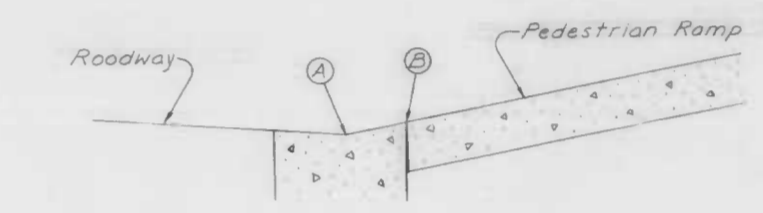
DETAIL SECTION
IN FRONT OF #4310, #4314 & #4319



LONGITUDINAL UNDERDRAIN

SYMBOLS

- Approx. Limit of Proposed Paving
- Approx. Limit of Proposed Concrete Walk (5' Depth)
- Area to be stripped to the existing conc. base and resurfaced with a variable depth bitum. conc. binder course (Band B.I.) and 2\"/>



NOTE: When constructing the curb circle in connection with the installation of all pedestrian ramps; be sure to have the elevation at (B) 1\"/>

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
BUREAU OF HIGHWAYS
CONTRACT NO. 3059

WILSHIRE AVENUE
BELAIR RD ~ GREENHILL AVE.
DETAIL SECTION
& DETAILS

SCALE NO SCALE DATE
HIGHWAY ENGINEERING DIVISION SHEET 2 OF 12

Book No: L-11534 X-892
DRAWN BY S. Yonburg
EXAMINED BY W. F. Crampton, Jr.

FILE REF.

REVISIONS		
NO.	DESCRIPTION	DATE

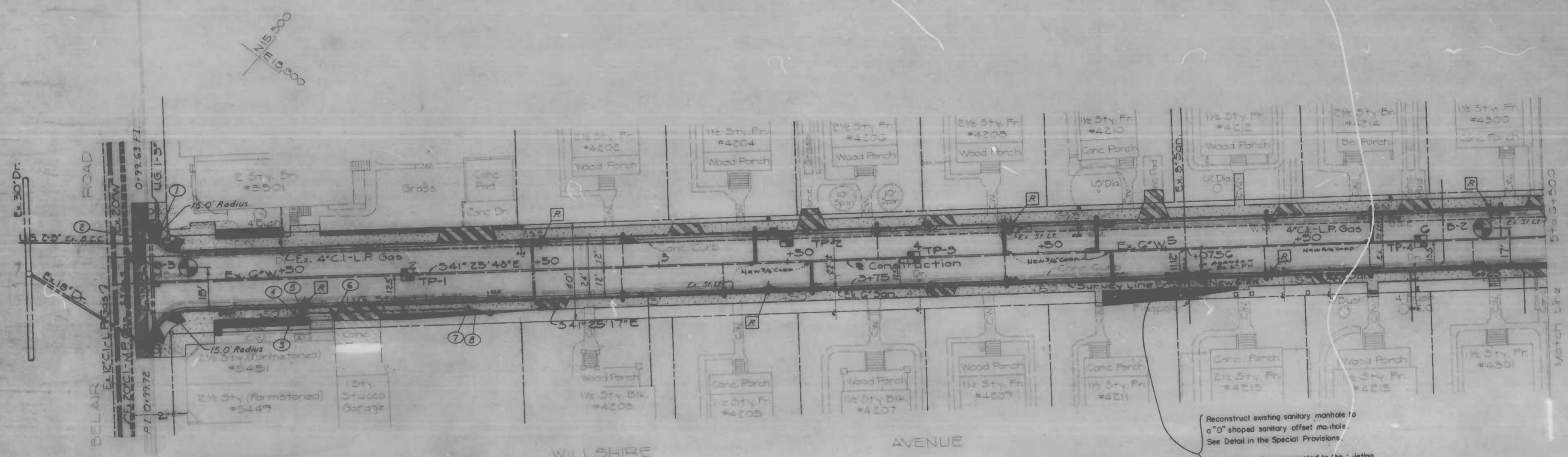
PROPOSED CONDUIT & LIGHTING			
NO.	PLUS	OFFSET	ITEM
1	1-05.0	20.0 L	Handbox B.C. 804.01
2			2-3" Ducts B.C. 824.01
3	1-54.0	18.0 R	Light base B.C. 801.03
4			1-3" Duct B.C. 824.01
5	1-59.0	15.0 R	Handbox B.C. 804.01
6			1-3" Duct B.C. 824.01
7	2-25.0	15.0 R	Handbox B.C. 804.01
8			1-3" Pole connection B.C. 824.01
9			1-3" Duct B.C. 824.01
10	11-25.0	28.0 L	Handbox B.C. 804.01
11			2-3" Ducts B.C. 824.01
12	11-29.0	25.0 R	Handbox B.C. 804.01

- CONDUIT KEY**
- Proposed Duct
 - Proposed Handbox
 - ▲ Relocated Wooden Pole with Light
 - Proposed Light Base
 - ▲ Relocated Wooden Pole (No Light)
 - Existing Wooden Pole
 - Ⓜ Indicates Light Pole & Base to be Removed by Others

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

NOTE: Baltimore Gas & Electric Co. C & P Telephone Co. Contact "Miss Utility" at 1-800-257-7777 at least 3 working days prior to starting work so that they can arrange to mark the location of their facilities.

NOTE: See sheet 8 of 12 for proposed Storm Drainage.



Reconstruct existing sanitary manhole to a "D" shaped sanitary offset manhole. See Detail in the Special Provisions.

All sanitary pipes connected to the existing sanitary manhole are to be adjusted as directed by the Engineer. Cost to be included in the unit price bid for "D" shaped offset manhole.

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
BUREAU OF HIGHWAYS
CONTRACT NO. 3059

WILLSHIRE AVENUE
BELAIR RD - GREENHILL AVE.
BELAIR RD TO STAG+500
UTILITY PLAN

SCALE 1"=20'
DATE
HIGHWAY ENGINEERING DIVISION SHEET 6 OF 12
FILE REF.

Book Nos: L-1153 1X-892
DRAWN BY: J. Williams
CHECKED BY: Wm. Walters
EXAMINED BY: W. R. Crampton
WATER ENGINEERING DIVISION
CHIEF WATER ENG. SECT.

FILE REF.

NO.	REVISIONS	DATE	BY
1	Installed Driveway Opening at Sta 3+11.0	4-14-99	2 Y

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.

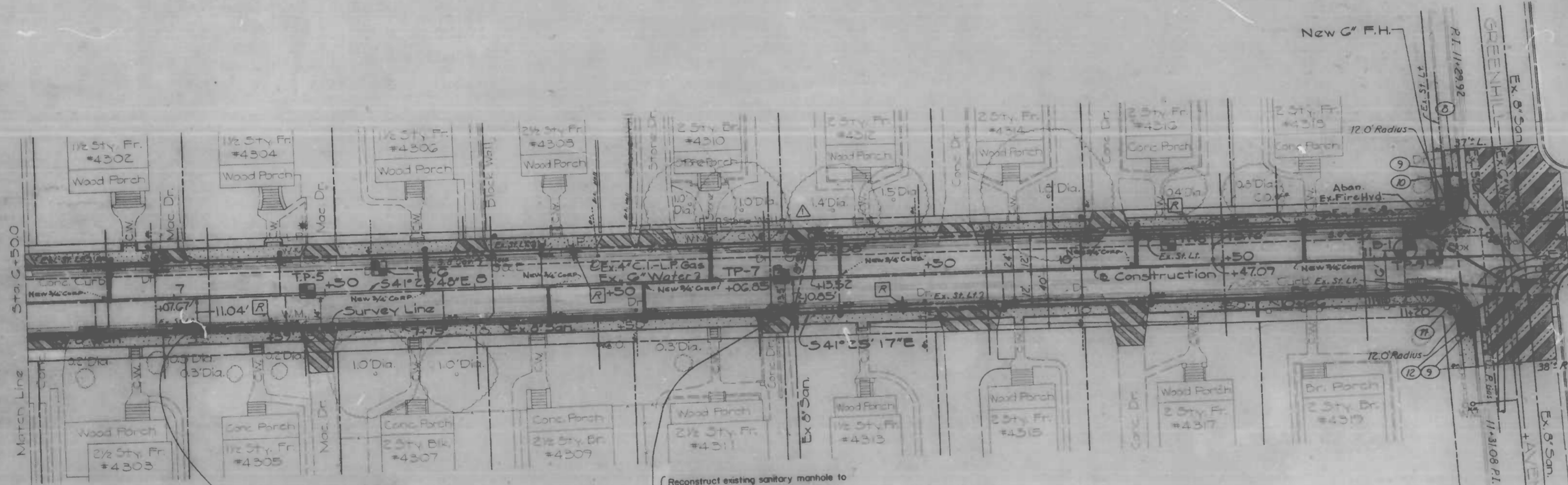
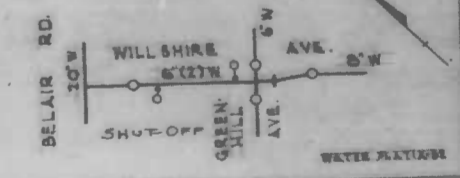
NOTE: Callimore Gas & Electric Co - C & P Telephone Co Contact "Miss Utility" at 1-800-257-7277 at least 3 working days prior to starting work so that they can arrange to mark the location of their facilities.

NOTE: See sheet 8 of 12 for proposed Storm Drainage.

FOR CONDUIT NOTES
See Sheet 6 of 12

WATER NOTES

1. NOTIFY THE BUREAU OF WATER & WASTE WATER MAINTENANCE DIVISION AT 800-0885 ONE WEEK BEFORE STARTING WORKS.
 2. ALL WATER SUPPLY SERVICES AND/OR METERS FOR HYDRANT RELOCATIONS SHALL BE DONE IN ACCORDANCE WITH CONTRACT DOCUMENTS AND THE BOOK OF STANDARDS.
 3. ALL EXISTING WATER VALVES SHALL BE OPERATED BY THE BUREAU WATER & WASTE WATER MAINTENANCE DIVISION FORCES ONLY.
 4. CONTRACTOR SHALL OBSERVE STRONG CAUTION WHEN WORKING NEAR OR OVER EXISTING WATER FACILITIES.
 5. EXISTING WATER SUPPLY SERVICE AND/OR METERS TO BE RELOCATED IN WILLSHIRE AVENUE.
- A) RELOCATION OF ONE METER AND SINGLE SETTING BY WATER ITEM 801
B) RELOCATION OF TWO FOURTEEN 3/4" WATER SERVICES BY ITEM 802



Reconstruct existing sanitary manhole to a "D" shaped sanitary offset manhole. See Detail in the Special Provisions.

Reconstruct existing sanitary manhole to a "D" shaped sanitary offset manhole. See Detail in the Special Provisions.
All sanitary pipes connected to the existing sanitary manholes are to be adjusted as directed by the Engineer. Cost to be included in the unit price bid for "D" shaped offset manhole.

WATER ENGINEERING DIVISION

Book No. 1-L-1151-X-872
DRAWN BY: L. Williams
CHECKED BY: Wm. Walker
EXAMINED BY: W.F. Crampton
CHIEF, WATER ENG. SECT.

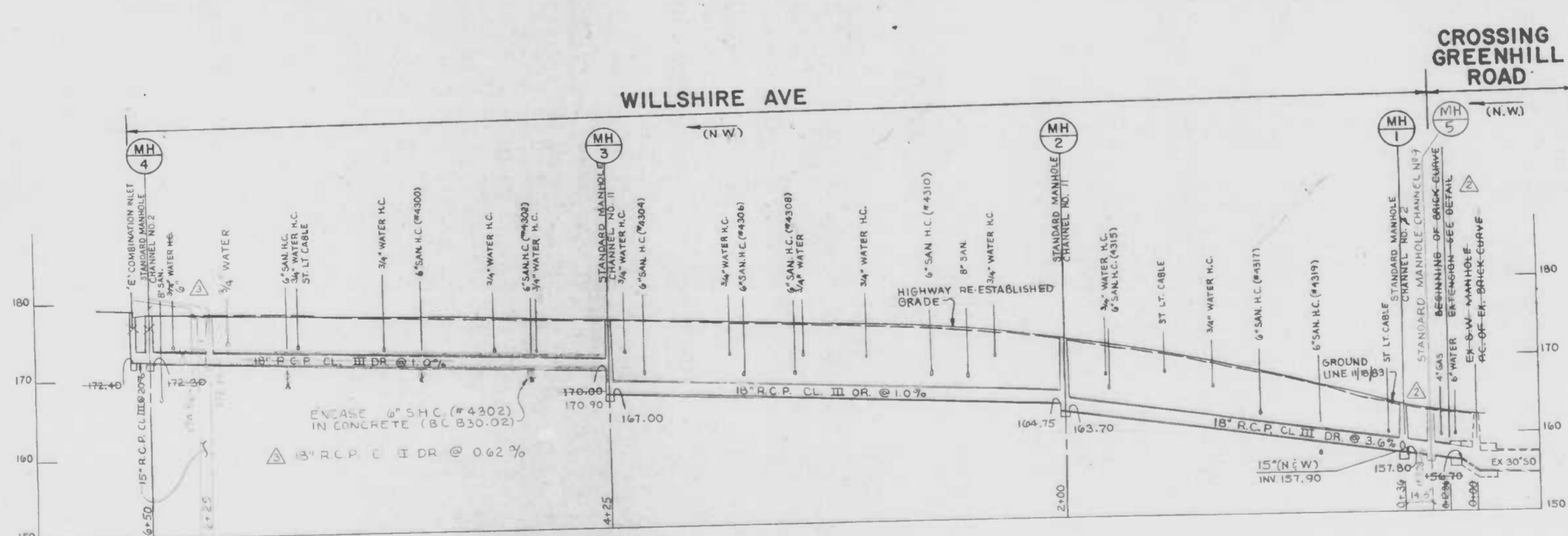
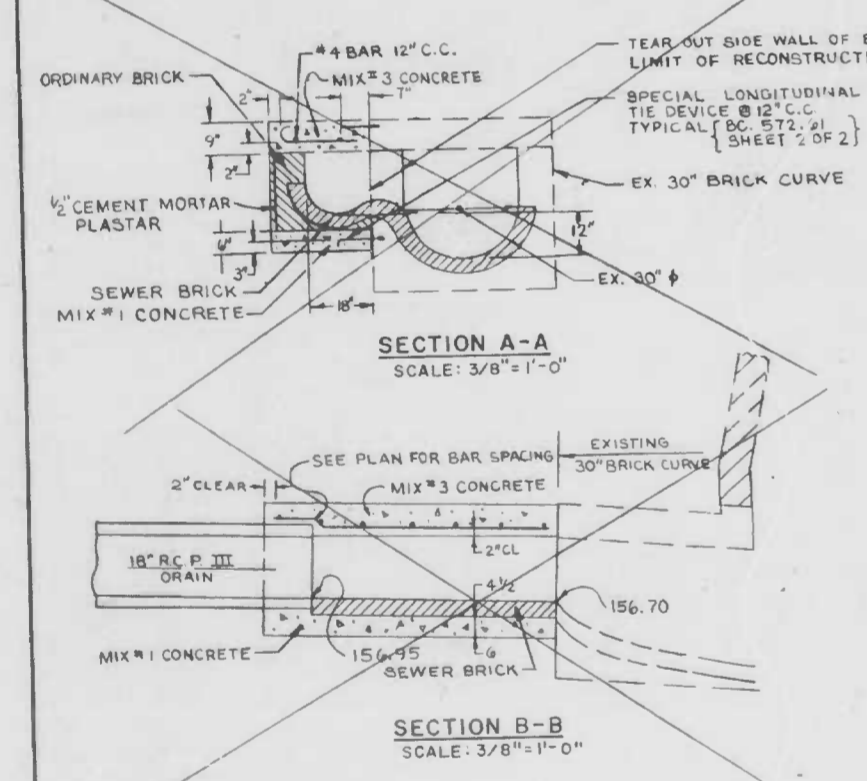
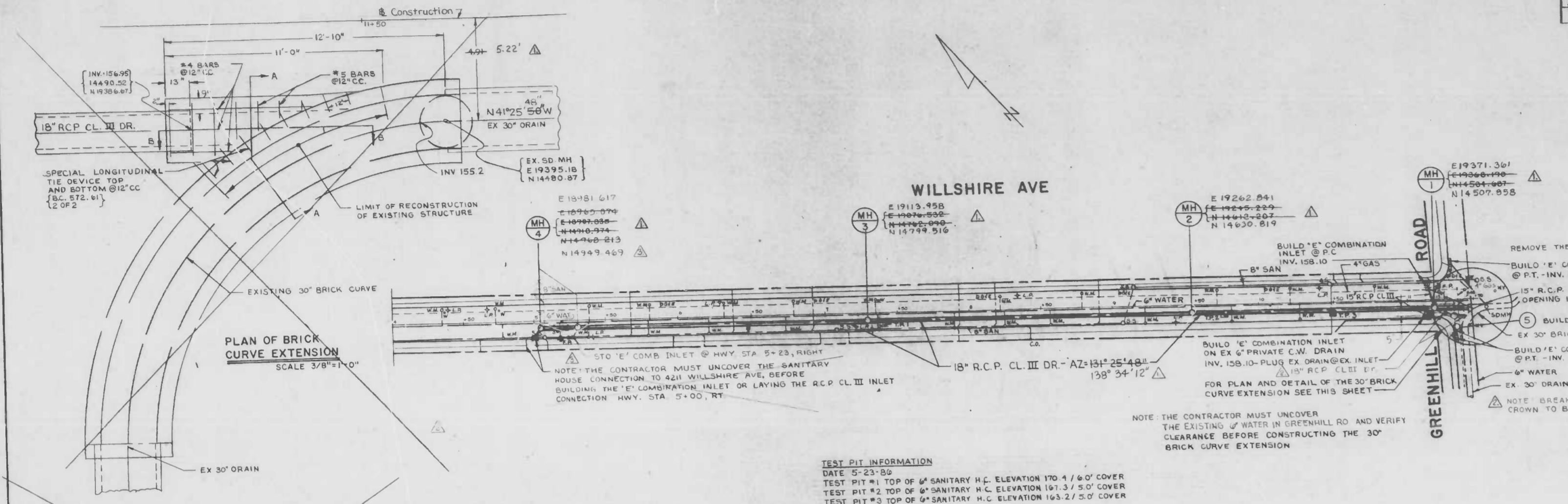
CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
BUREAU OF HIGHWAYS
CONTRACT NO. 3059
WILLSHIRE AVENUE
BELAIR RD - GREENHILL AVE
STA. 6+00 TO GREENHILL AVE
UTILITY PLAN

SCALE: 1" = 20' HOR., 1" = 5' VERT. DATE: HIGHWAY ENGINEERING DIVISION SHEET 7 OF 12

FILE REF.

FILE REF. ESD 80-316

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	Drain Azimuth & Manhole Coordinates	4/13/87	WFP
2	Drain Realignment	4/23/87	WSB
3	Drain Grade Change Between (2) and (3) and (3) Location	5/13/87	WSB



See Storm Water for Original

NOTES:

Standard Type No.1 "E" Frame And Grates (B.C. 37601) Shall Be Used For All New "E" Inlets

All Inlets Are To Be Depressed 2-1/2"

BEFORE DOING ANY DIGGING NOTIFY THE FOLLOWING
Miss Utility 559-0100
Bureau Of Highways, Street Lighting Section 396-1311, Conduit Section 396-3658

All Channels In Manholes Must Be Constructed To Conform As Close As Possible To The Standard Channel Called For On The Profiles. Gravel Crodle Is Required Under All Pipe Except Inlet Connections All Backfill Shall Mechanically Tamped. For Standard Details See Baltimore City Book Of Standards.

Obstructions Shown On These Drawings Are 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.

TYPE OF JOINT FOR PIPE

TYPE PIPE	TYPE JOINT
Reinforced Concrete Pipe Drain	"O" Ring Rubber Gasket
Reinforced Concrete Pipe Inlet Conn	Cement Mortar Or "O" Ring Rubber Gasket

SURVEY BOOK L-1153 RECORD PLAT 83.66.
BM 8127 ELEV. 195.08 DRAINAGE DIST. 11A

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
BUREAU OF HIGHWAYS
CONTRACT # 3059

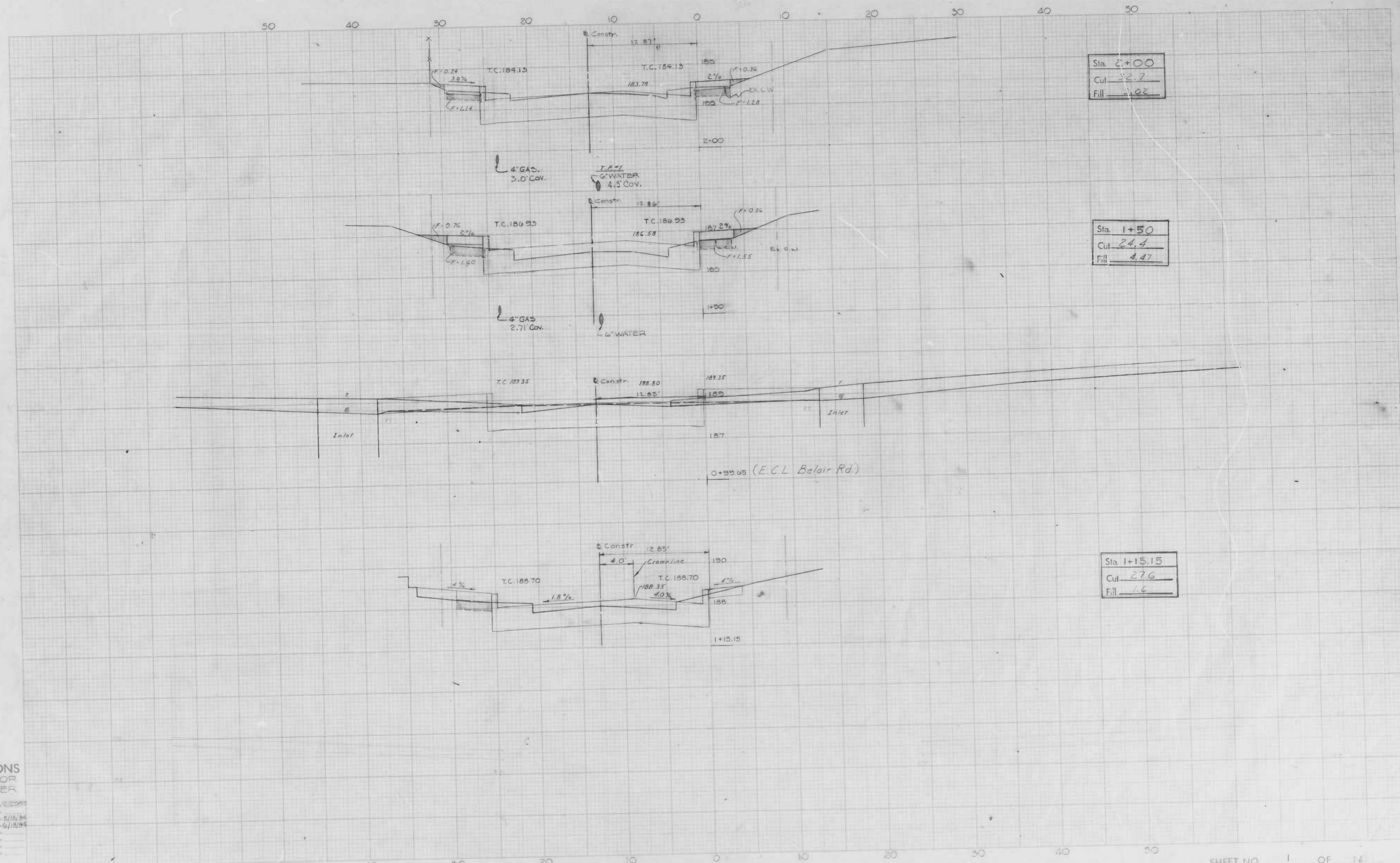
**WILLSHIRE AVENUE
BELAIR RD. & GREENHILL AVE.
STORM DRAIN
PLAN, PROFILE & DETAILS**

SCALE 1"=40' HORIZ., 1"=10' VERT. DATE SEPTEMBER 12, 1986
ENVIRONMENTAL SERVICES DIVISION SHEET 8 OF 12

DRAWN BY WALTER S. BROOKS
EXAMINED BY

Fredrick M. ...
ENVIRONMENTAL SERVICES DIVISION

FILE REF. ESD 80-316



CROSS SECTIONS
 Scale 1 inch = 5' HOR
 2" VER

Original From:	RAK	Date:	5/15/54
Original Checked:	KAK	Date:	5/15/54
Revised:	KAK	Date:	6/15/54
Plotted:		Date:	
Field Checked by:		Date:	
Drawn by:		Date:	

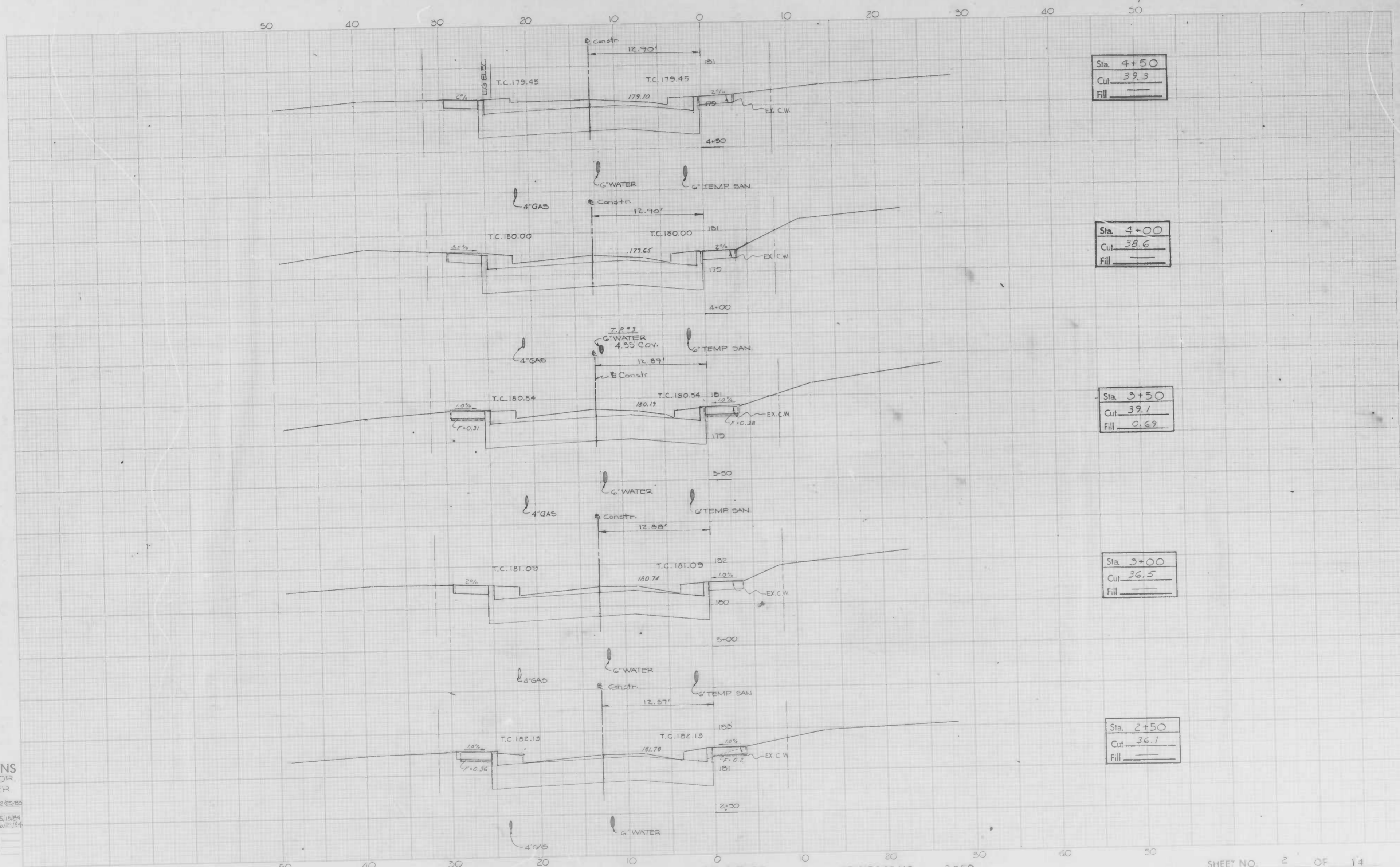
Sta. 4+50
Cut 39.3
Fill

Sta. 4+00
Cut 38.6
Fill

Sta. 3+50
Cut 39.1
Fill 0.69

Sta. 3+00
Cut 36.5
Fill

Sta. 2+50
Cut 36.1
Fill



CROSS SECTIONS
Scale 1 inch = 5' HOR
2" VER.

Designed by: RAK 12/22/80
Checked by: [blank]
Reviewed by: KAK 5/15/84
Approved by: KAK 6/11/84
Date: [blank]
Project: [blank]
Drawn by: [blank]
Date: [blank]

BOOK NO. L-1153

PROJECT WILLSHIRE AVE / GREENHILL AVE TO BELAIR RD
DESCRIPTION WILLSHIRE AVE - CROSS SECTIONS

CONTRACT NO. 3059

SHEET NO. 2 OF 14
STATION 2+50 TO STATION 4+50

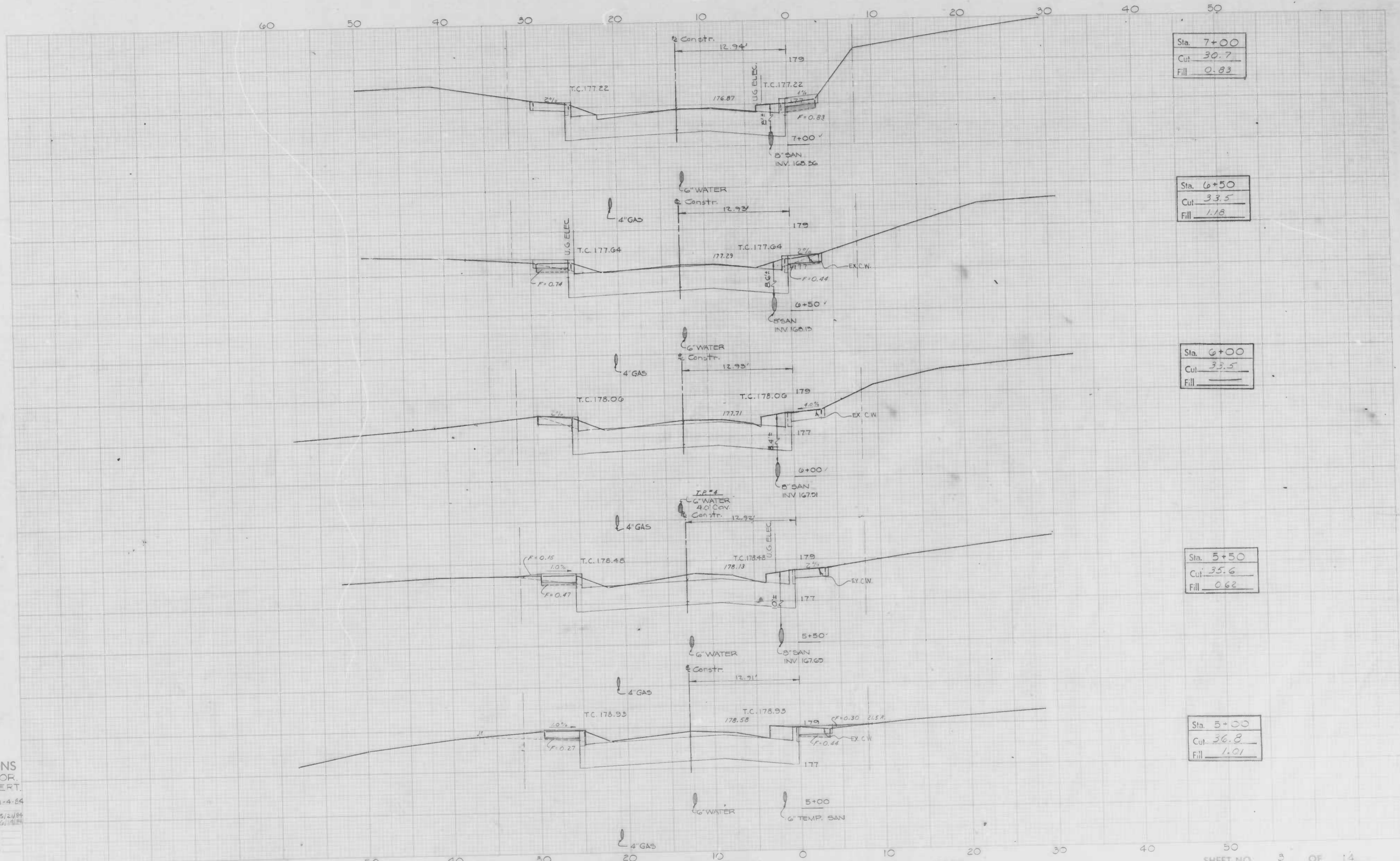
Sta.	7+00
Cut	30.7
Fill	0.83

Sta.	6+50
Cut	33.5
Fill	1.18

Sta.	6+00
Cut	33.5
Fill	

Sta.	5+50
Cut	35.6
Fill	0.62

Sta.	5+00
Cut	36.8
Fill	1.01



CROSS SECTIONS
Scale 1 inch = 5' HOR.
2" VERT.

Original Prepared by	P.A.K.	Date	1-4-54
Original Checked by	K.A.F.	Date	5/2/54
Revised by	K.A.F.	Date	6/1/54
Final Checked by		Date	
Approved by		Date	
Drawn by		Date	
Check by		Date	

BOOK NO. L-1153

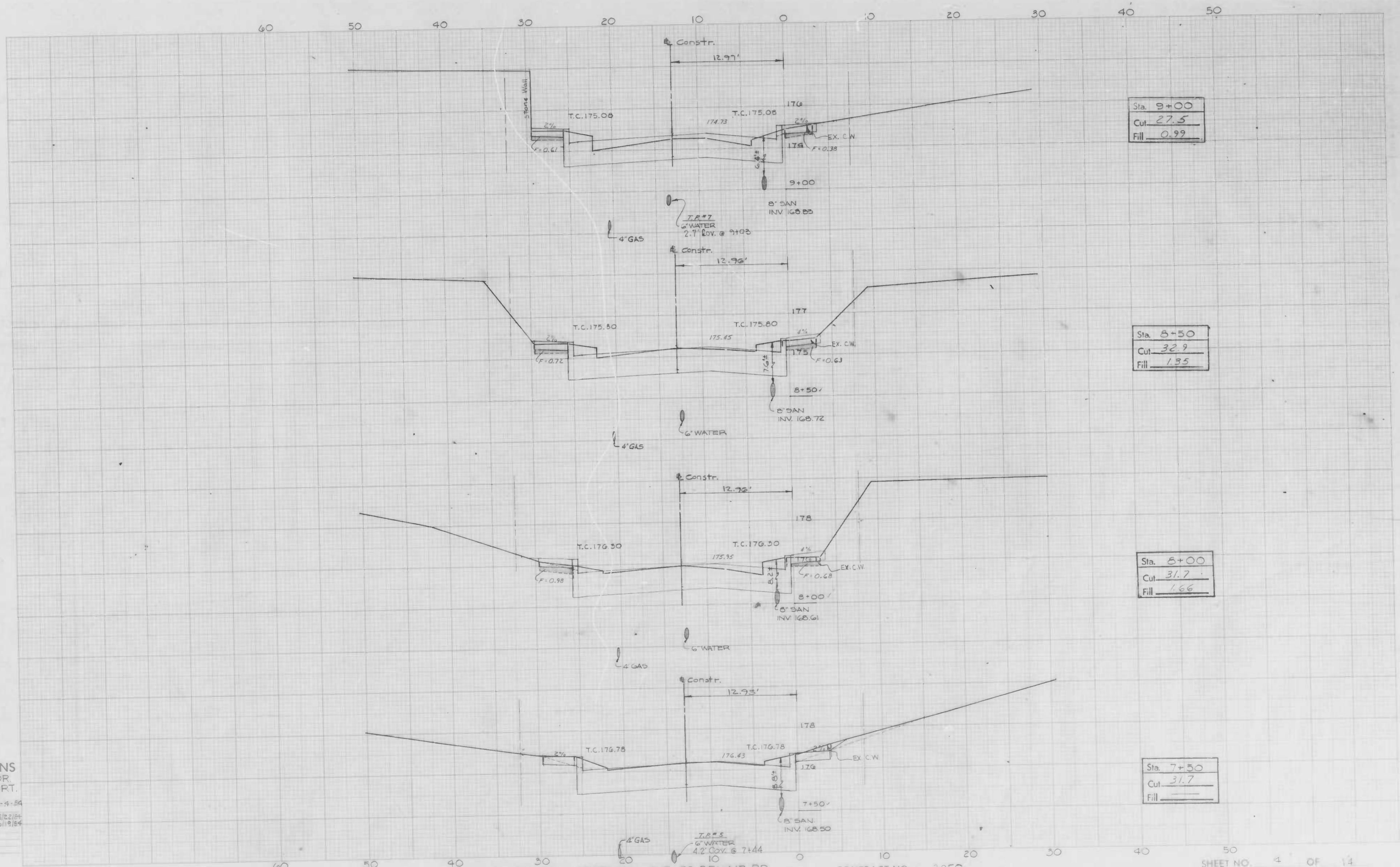
PROJECT WILLSHIRE AVE. / GREENHILL AVE. TO BELAIR RD.
DESCRIPTION WILLSHIRE AVE. - CROSS SECTIONS

CONTRACT NO. 3059

SHEET NO. 3 OF 14
STATION 5+00 TO STATION 7+00

CROSS SECTIONS
Scale 1 inch = 5' HOR.
2" VERT.

Original Planed by: K.A.K. Date: 1-5-54
Original Checked by: K.A.K. Date: 5-22-54
As built by: K.A.K. Date: 6-19-54
Final Checked by: Date:
Printed by: Date:
As by: Date:
Approved by: Date:

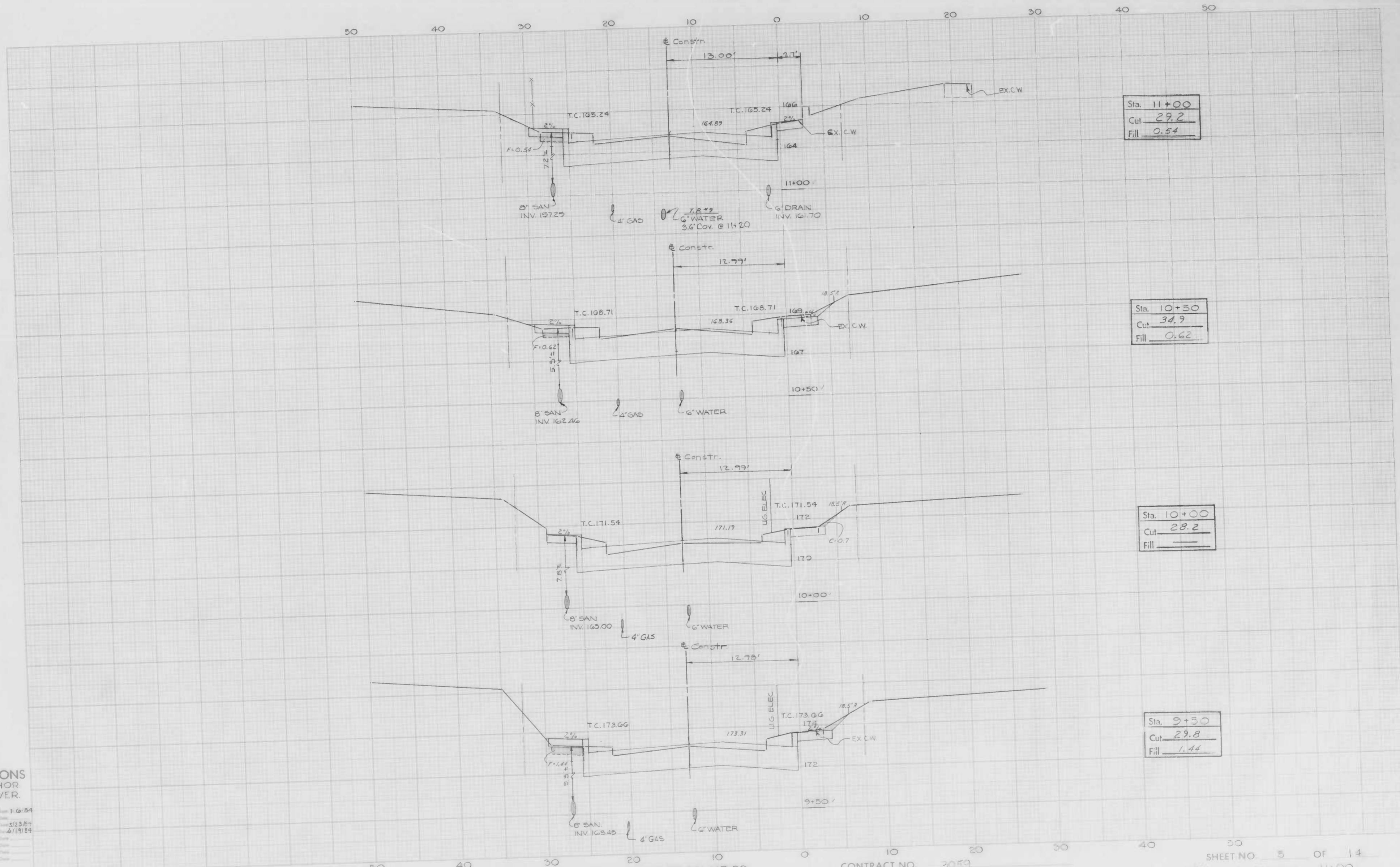


BOOK NO. L-1153

PROJECT WILLSHIRE AVE. / GREENHILL AVE. TO BELAIR RD.
DESCRIPTION WILLSHIRE AVE. - CROSS SECTIONS

CONTRACT NO. 3059

STATION 7+50 TO STATION 9+00
SHEET NO. 4 OF 14



Sta. 11+00
Cut 29.2
Fill 0.54

Sta. 10+50
Cut 34.9
Fill 0.62

Sta. 10+00
Cut 28.2
Fill

Sta. 9+50
Cut 29.8
Fill 1.42

CROSS SECTIONS
Scale 1 inch = 5' HOR
2' VER.

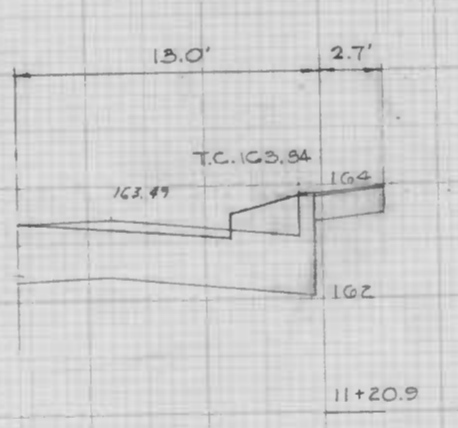
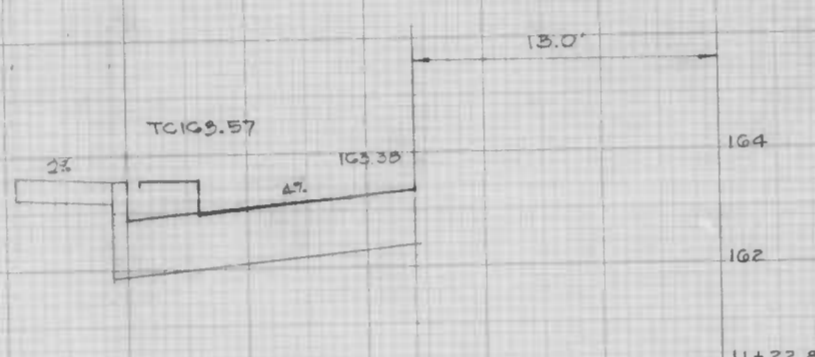
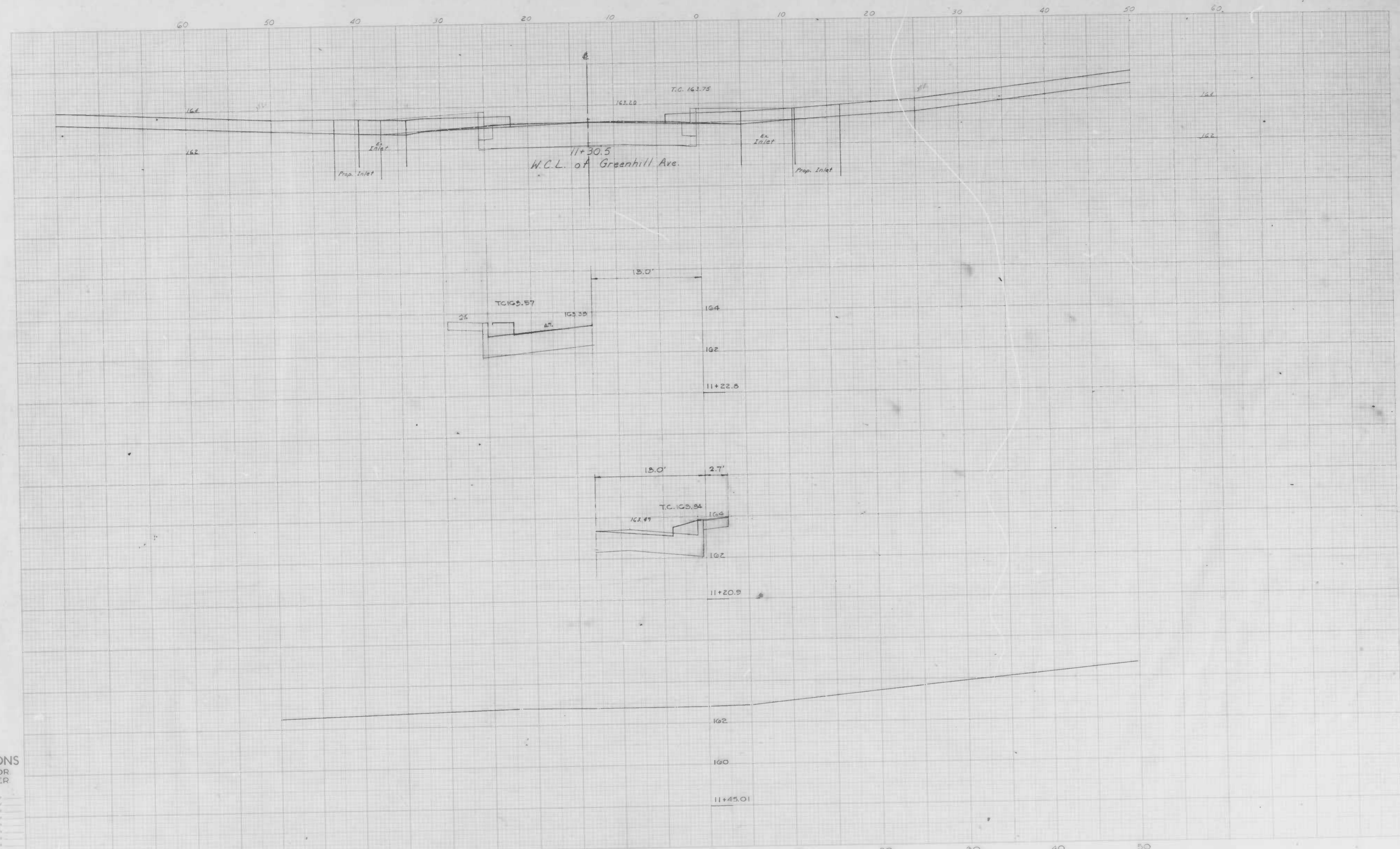
Drawn by: WCPJR Date: 1-6-84
 Checked by: K.A.K. Date: 2/23/84
 Design by: K.A.K. Date: 6/19/84
 Project No.:
 Date:
 Date:
 Date:

BOOK NO. L-1153

PROJECT WILLSHIRE AVE./ GREENHILL AVE TO BELAIR RD.
 DESCRIPTION WILLSHIRE AVE - CROSS SECTIONS

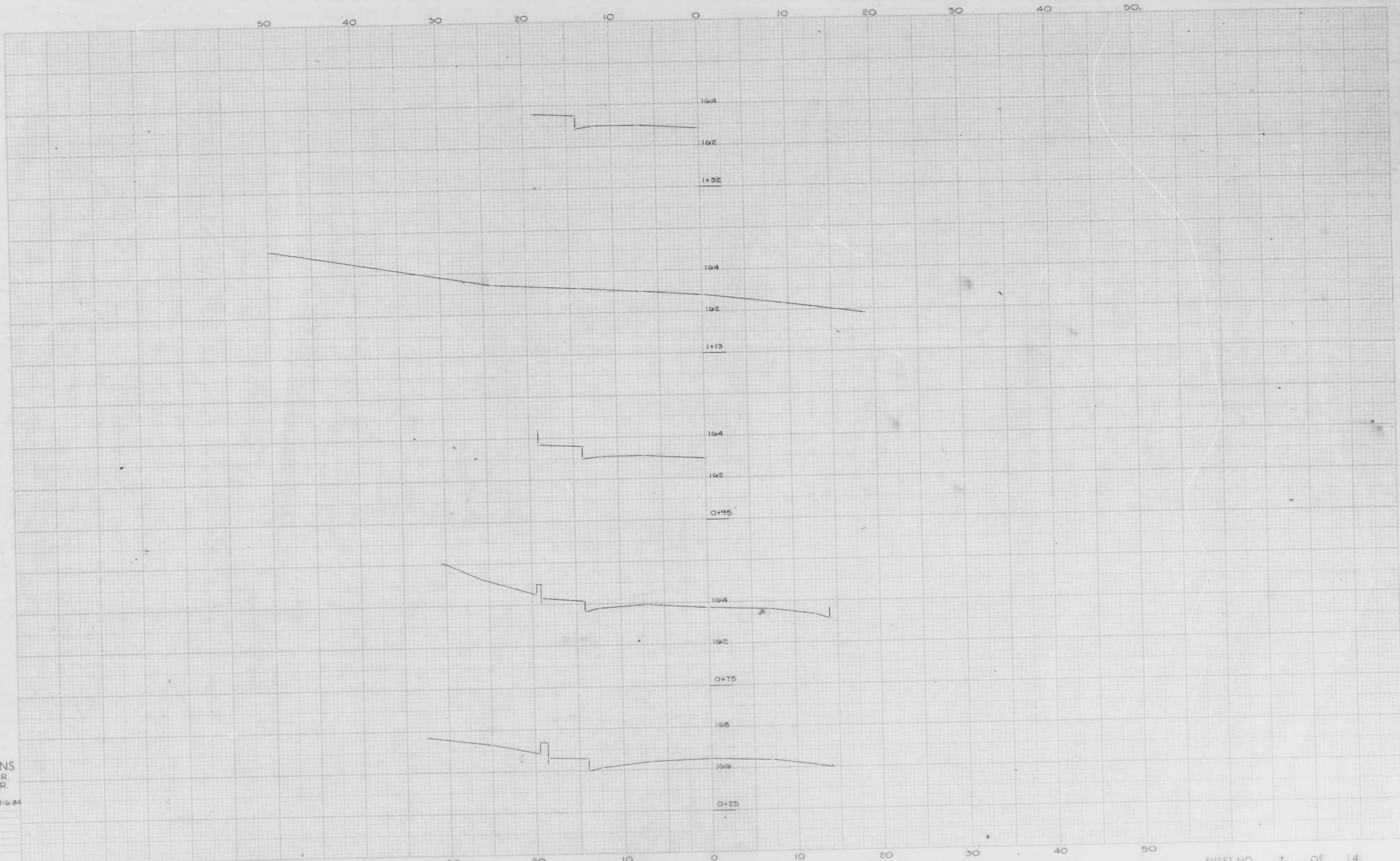
CONTRACT NO. 3059

SHEET NO. 5 OF 14
 STATION 9+50 TO STATION 11+00



CROSS SECTIONS
Scale: 1 inch = 5' HOR
2' VER

Designed by	WCPJR	Date
Drawn by		Date
Checked by		Date
Approved by		Date
Project Engineer		Date
Field Engineer		Date
Asst. Engr.		Date
Site Director		Date



CROSS SECTIONS
 Scale 1" = 5' HOR.
 2" = 1' VER.

Original Proposed by WCPJr. Date 1-6-84
 Original Checked by _____ Date _____
 Revis. By _____ Date _____
 Revis. Checked by _____ Date _____
 Revis. By _____ Date _____
 Revis. Checked by _____ Date _____



CROSS SECTIONS
 Scale 1 inch = 5' HOR.
 2" VER.

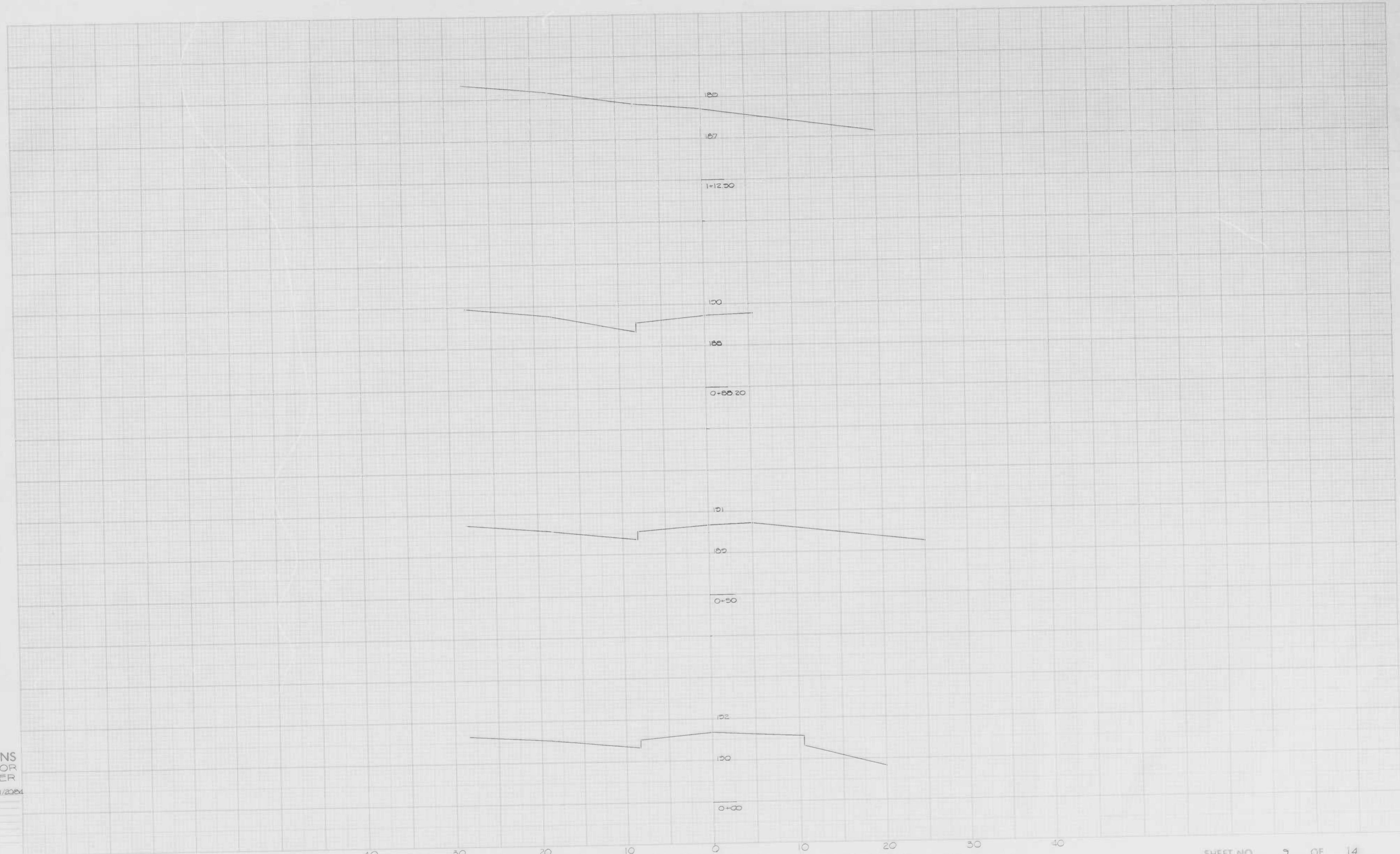
Original Prepared by: RAK Date: 1/20/84
 Original Designer: []
 Designer: []
 Checker: []
 Plotted: []
 Plotted by: []
 Date: []
 Date: []

BOOK NO. L-1153

PROJECT WILLSHIRE AVE / GREENHILL AVE TO BELAIR RD
 DESCRIPTION GREENHILL AVE - CROSS SECTIONS

CONTRACT NO. 3053

SHEET NO. 8 OF 14
 STATION 1+50 TO STATION 2+00



CROSS SECTIONS
Scale 1 inch = 5' HOR
2" VER

Original Prepared by: RAK Date: 1/2004
 Original Checked by: Date:
 Revised by: Date:
 Final Checked by: Date:
 Area Checked by: Date:



CROSS SECTIONS
Scale 1 inch = 5 HORIZ
2 VERT

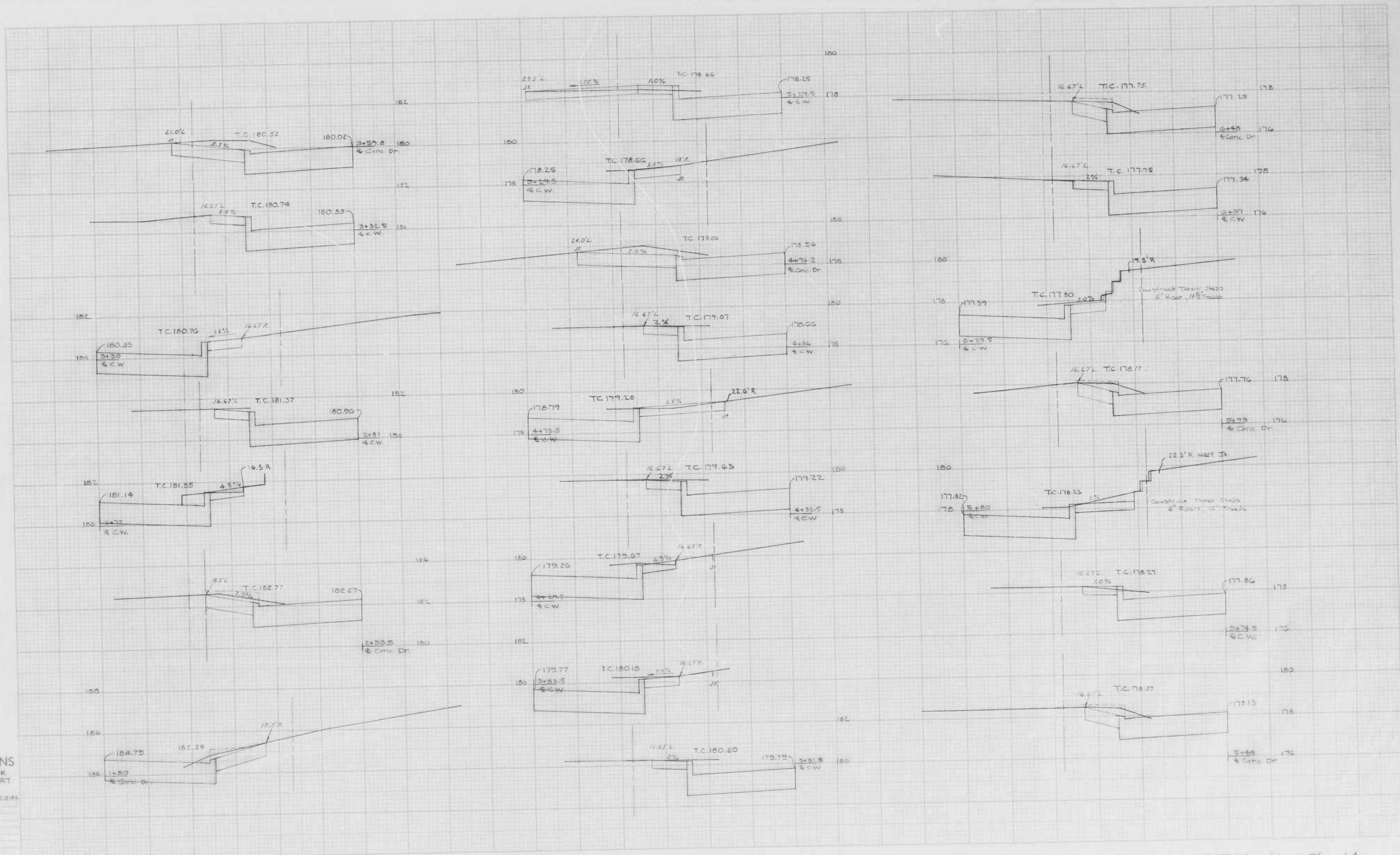
Original Profile by	PAK	1/20/84
Original Elevation by		
Finished by		
Finished Elevation by		
Area by		
Area Elevation by		

BOOK NO. L-1153

PROJECT WILLSHIRE AVE / GREENHILL AVE TO BELAIR RD
DESCRIPTION BELAIR RD - CROSS SECTIONS

CONTRACT NO. 3059

STATION TO STATION SHEET NO. 10 OF 14



CROSS SECTIONS
Scale 1 inch = 5' HOR.
2" VERT.

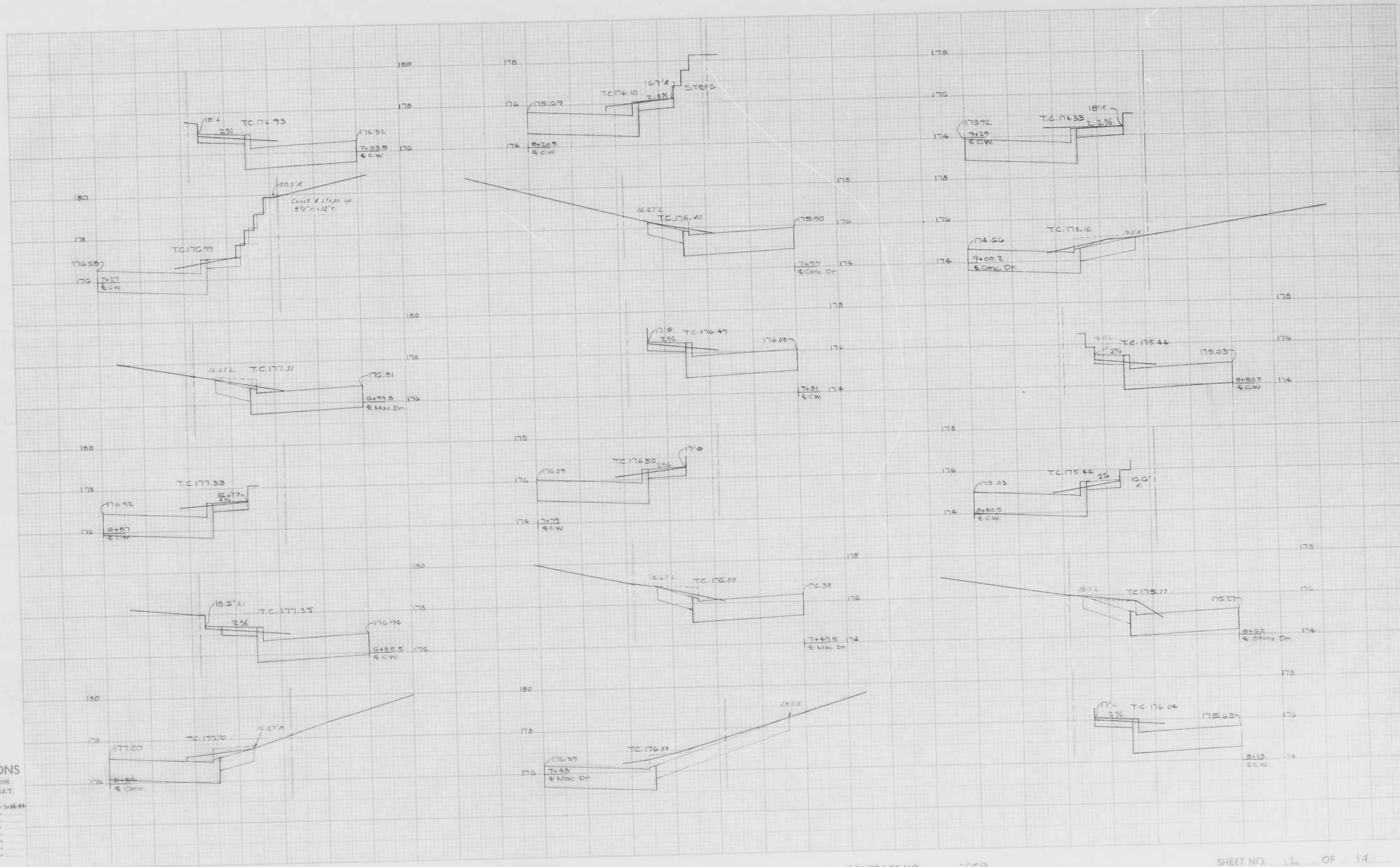
Original Prepared by: P. Z.B. Date: 3-28-54
 Original Checked by: Date: _____
 Transferred by: Date: _____
 Rechecked by: Date: _____
 Final Prepared by: Date: _____
 Final Checked by: Date: _____
 Approved by: Date: _____
 Auto Checked by: Date: _____

BOOK NO. L-1153

PROJECT WILSHIRE AVE.
DESCRIPTION WALLS & ENTRANCES

CONTRACT NO. 3059

STATION SHEET NO. 11 OF 14
TO STATION



CROSS SECTIONS

Scale 1 inch = 5' HOR.
2" VERT.

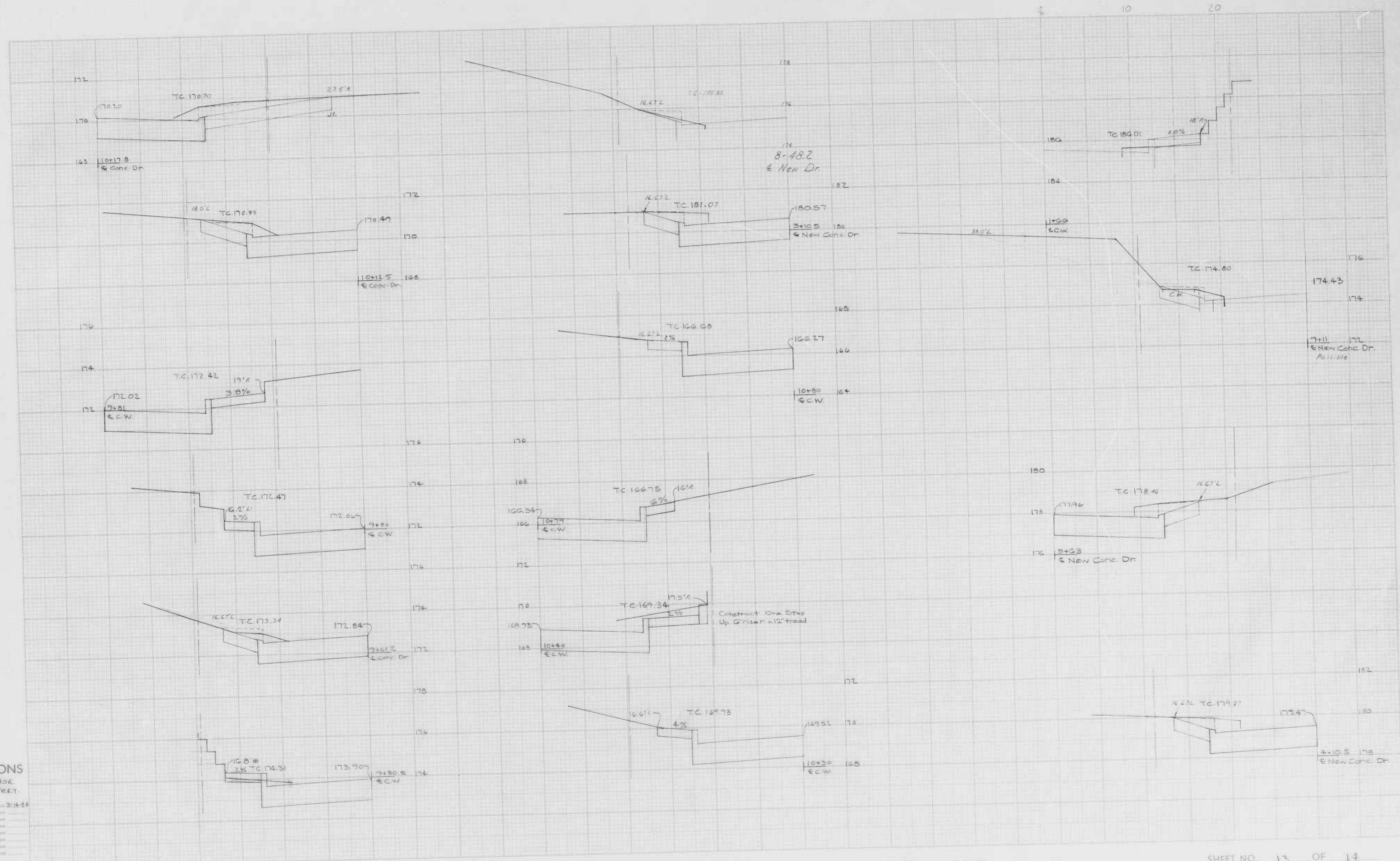
Original Planner	R.V.B.	Date	3-14-84
Original Designer		Date	
Prepared by		Date	
Checked by		Date	
Field Checked by		Date	
Drawn by		Date	
Read Check by		Date	

BOOK NO. L-1153

PROJECT WILLSHIRE AVE.
DESCRIPTION WALLS & ENTRANCES

CONTRACT NO. 3059

STATION _____
SHEET NO. 11 OF 14
TO STATION _____



CROSS SECTIONS
Scale 1 inch = 5' Hor
2" Vert

Original Prepared by	R.V.B.	Date	3-18-34
Original Checked by		Date	
Revised by		Date	
Revised Checked by		Date	
Final Checked by		Date	
Scale Checked by		Date	

BOOK NO. L-1153

PROJECT WILLSHIRE AVE.
DESCRIPTION WALKS & ENTRANCES

CONTRACT NO. 3059

STATION TO STATION SHEET NO. 13 OF 14



CROSS SECTIONS

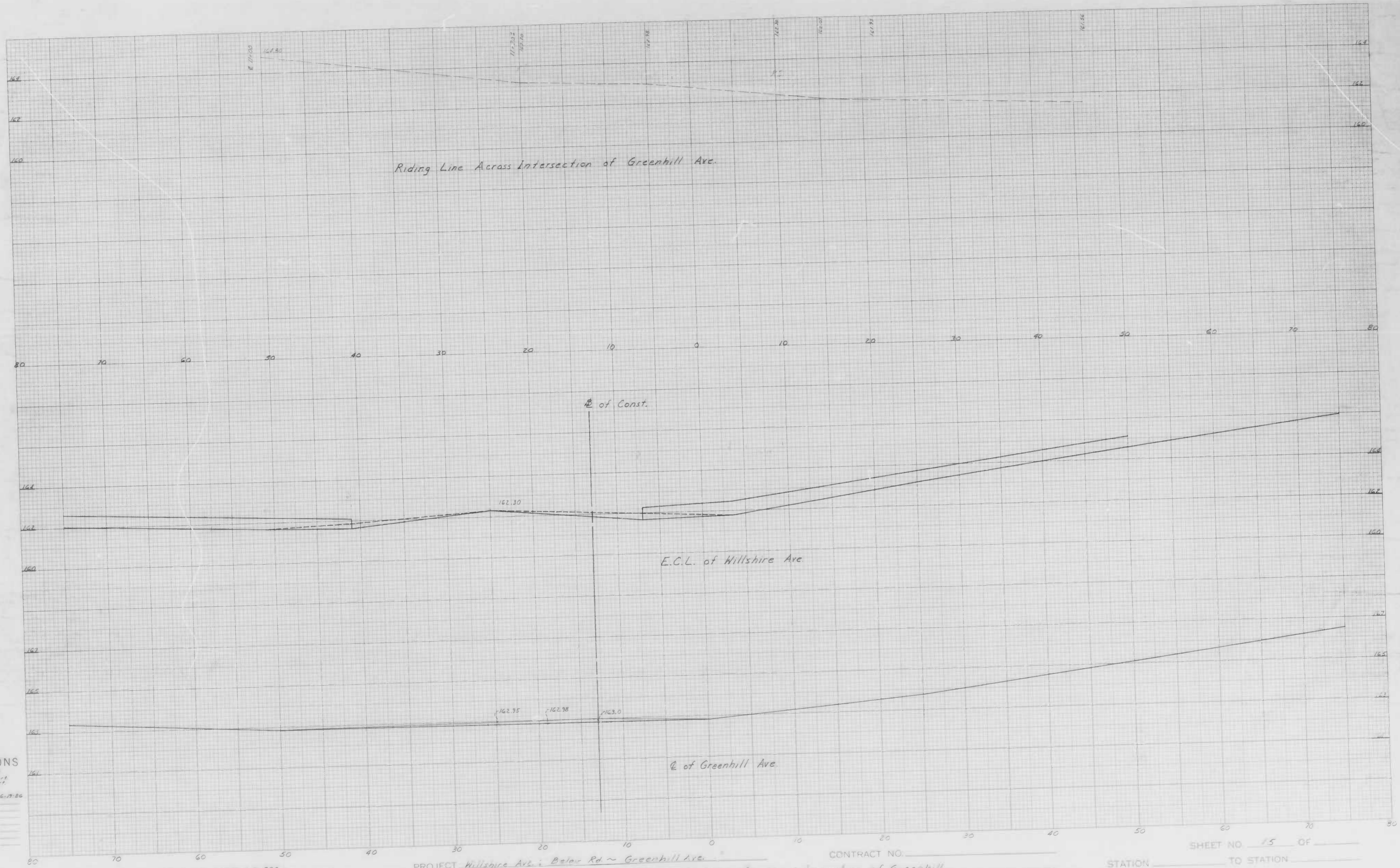
Scale 1 inch = 20 feet
 Original Plotted by G. K. [unclear] Date 2-7-89
 Original Checked by _____ Date _____
 Template by _____ Date _____
 Area by _____ Date _____
 Final Plotted by _____ Date _____
 Final Checked by _____ Date _____
 Area Checked by _____ Date _____

BOOK NO. L-1153

PROJECT Willshire Ave. - Belair Rd. - Greenhill Ave.
 DESCRIPTION Additional Studies

CONTRACT NO. 3059

SHEET NO. 14 OF 16
 STATION 1-56.8 TO STATION 9-60.9



CROSS SECTIONS

Scale 1 inch = 10 feet

Original Plotted by S. Kasberg Date 6-27-86
 Original Checked by _____ Date _____
 Template by _____ Date _____
 Area by _____ Date _____
 Final Plotted by _____ Date _____
 Final Checked by _____ Date _____
 Area by _____ Date _____
 Area Checked by _____ Date _____

BOOK NO. L-1153 + 1-892

PROJECT Willshire Ave. + Bela Rd ~ Greenhill Ave.

CONTRACT NO. _____

DESCRIPTION Additional Sections for the intersection of Greenhill

SHEET NO. 15 OF _____
 STATION _____ TO STATION _____

STABILIZATION SPECIFICATIONS

TEMPORARY STABILIZATION-ARTICLE 36.12

Planting Season: Temporary seeding can be done anytime if the area is not to be used for a long time. This may mean that the seeding and planting of vegetation, temporary seeding and mulch are done immediately after the area is disturbed.

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

Seeding Preparation: When the area to be seeded is exposed and bare, the top layer of topsoil shall be loosened by raking or other means before seed is applied.

Liming: The area shall be limed to the required pH.

Fertilizer: Commercial fertilizer of an analysis 5-10-5 applied at a rate of 25 pounds per 1000 square feet.

Seeding: (Section 20.22-1) Seed mixture, Annual Ryegrass seeded at the rate of 5 pounds per 1000 square feet.

Mulching: Applied at the rate of 100 pounds per 1000 square feet. Mulch application - applied with a spreader or similar device at the rate of 100 pounds per 1000 square feet. The mulch shall be applied by blowing or other means before the area is seeded.

PERMANENT STABILIZATION-ARTICLE 36.08

Planting Season: No sod shall be placed between the dates of June 1 and August 31, inclusive nor at any time when the temperature is below thirty-two (32) degrees Fahrenheit. No sod shall be used and no sod shall be placed upon frost soil.

Soilbed Preparation: Before placing or depositing sod upon any surface, all clearing and dumping of such surface shall have been completed. The completed area to be seeded shall possess a smooth, uniform, level surface free from lumps, rocks, cross sections and any other material that would impede the sod from settling into the soil.

Fertilizer: No sod shall be placed until the soil has been fertilized with a commercial fertilizer of an analysis 10-10-10 and Limestone Fertilizer 38-0-0 applied at the rate of 20 and 5 pounds respectively per 1000 square feet.

NOTE: After sod is in place, topsoil or a 2:1 soil mixture fertilizer 20-0-0 at the rate of 5 pounds per 1000 sq. ft. fertilizer shall be worked into the top two (2) inches of soil prior to placing sod.

Liming: 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 fertilizer shall be worked into the top two (2) inches of soil prior to placing sod.

Sodding: Sod shall be placed (Section 20.22-3):

TYPE A - Dressing Sod:
 not less than 60% locally grown
 not more than 35% Dressing Sod
 not more than 10% other grasses and legumes

TYPE B - Tall Fescue Sod:
 not less than 85% Tall Fescue
 not more than 15% other grasses and legumes

DESIGNATED AREA	STABILIZATION		TYPE OF STABILIZATION	SEQUENCE #
	ACTIVE	INACTIVE		
PROPOSED PAVING	X		6" SUB-BASE, CR-6	"5
STRIP & RESURFACE		X	BITUMINOUS CONCRETE	"6, "7
CONCRETE DRIVEWAYS	X		6" SUB-BASE, CR-6	"5
CONCRETE WALKS		X	7" CEMENT CONCRETE	"6
FLAT FILLS	X		3" SUB-BASE, CR-6	"5
		X	5" CONCRETE WALKS	"6
		X	TEMPORARY STABILIZATION ANNUAL RYEGRASS	"8
		X	PERMANENT STABILIZATION SOG	"7

TOTAL DISTURBED AREA 36,989 SF
 TOTAL CUT 1,272 CY
 TOTAL FILL 42 CY
 TOTAL EXCESS MATERIAL 1,230 CY

NOTE: 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.

SEE SPECIAL PROVISIONS FOR COMPLETE "SEQUENCE OF OPERATIONS".

NO STORAGE AREA OR STOCKPILING OF MATERIAL WILL BE PERMITTED ON THIS PROJECT

NO STORAGE AREA OR STOCKPILING OF MATERIAL WILL BE PERMITTED ON THIS PROJECT

The Contractor shall submit notification to the Baltimore City Sediment Control Representative of 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 storage area
- The Contractor's storage area
- The disposal site for all excess material
- The construction sequence
- The completion day of the work

- All utilities to be excavated first, prior to any construction on the site.
- No parking from foundation excavations will be allowed during the life of the project.
- All excavations shall be backfilled on the day after excavation and shall be compacted to the original state of the soil.
- Continuous inspection and maintenance of all Sediment Control devices will be required.

- INSTRUCTIONS**
- For land clearing activities it is understood that the following conditions will be met:
- A. Seeding**
- Seeding shall be completed within 14 days of the date of disturbance.
 - Seeding shall be done with a broadcast seeder or similar device.
 - Seeding shall be done at the rate of 5 pounds per 1000 square feet.
 - Seeding shall be done on a level surface.
 - Seeding shall be done on a surface that has been limed and fertilized.
 - Seeding shall be done on a surface that has been mulched.
 - Seeding shall be done on a surface that has been watered.
 - Seeding shall be done on a surface that has been protected from wind and sun.
 - Seeding shall be done on a surface that has been protected from frost.
 - Seeding shall be done on a surface that has been protected from other adverse conditions.
- B. Sodding**
- As soon as final grading is completed, all disturbed areas will be stabilized with sod.
 - The sodding shall be done within 14 days of the date of disturbance.
 - The sodding shall be done with a sodding machine or similar device.
 - The sodding shall be done at the rate of 5 pounds per 1000 square feet.
 - The sodding shall be done on a level surface.
 - The sodding shall be done on a surface that has been limed and fertilized.
 - The sodding shall be done on a surface that has been mulched.
 - The sodding shall be done on a surface that has been watered.
 - The sodding shall be done on a surface that has been protected from wind and sun.
 - The sodding shall be done on a surface that has been protected from frost.
 - The sodding shall be done on a surface that has been protected from other adverse conditions.

- CONTINUED**
- The Contractor will submit written notification to the Baltimore City Sediment Control Representative of 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 storage area
 - The Contractor's storage area
 - The disposal site for all excess material
 - The construction sequence
 - The completion day of the work

Owner/Developer Certification

I hereby certify that any clearing, grading, construction and/or other activities shown on this plan and that all responsible personnel involved in the construction project will have a certification of attendance at a minimum of National Stormwater Management Institute program for the control of sediment and erosion before beginning the project.

Signature: *James A. 2.10* Date: 9-17-86
 Title: *204 Municipal Bldg.* Phone: 396-4600

Engineer's Certification

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

Signature: *Robert F. Gusfan* Date: 9-11-86
 Title: *309 Municipal Bldg.* Phone: 396-4707

APPROVED BY: *Frederick M. Rose*
 EROSION & SEDIMENT CONTROL REPRESENTATIVE

CITY OF BALTIMORE
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF HIGHWAYS
 CONTRACT NO. 3059

WILLSHIRE AVENUE
 BELAIR RD. ~ GREENHILL AVE.

SOIL EROSION / SEDIMENT CONTROL NOTES

SCALE NONE DATE SEPT. 27, 1985
 HIGHWAY ENGINEERING DIVISION SHEET 12 OF 12

FILE REF.

Book No. 1-1153 (1-89)
 DRAWN BY: S. Vosburg
 CHECKED BY: W. Crompton