



REQUEST FOR QUOTATION

Deliver supplies/services FOB destination to the address 141 Monticello Trail, Columbia, SC 29203 unless specified differently.

Upon Receipt, **the bidder should submit a written quotation that includes your company letterhead.** The closing date/time specified above is the time by which a quotation is required. A public opening will not be held for quotations.

Do not include any taxes in the quotation price(s). You must include all other costs, shipping, freight, installation, etc., as applicable. Unless otherwise stated, all prices must be firm.

The State of South Carolina reserves the right to reject any or all quotes and to cancel the quotation.

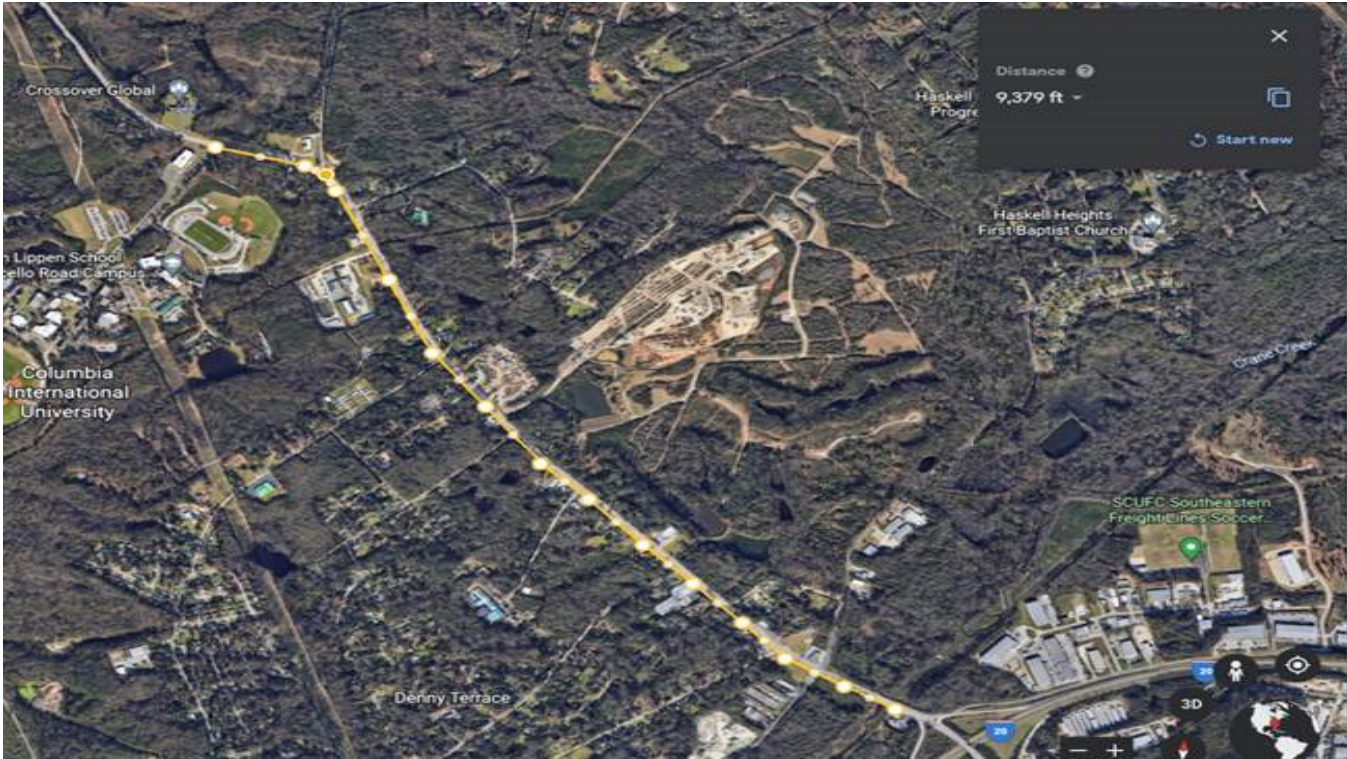
Right to protest under Section 11-35-4210(1) of the Consolidated Procurement Code does not apply. Re: Small purchases (less than \$50,000 in actual or potential value) Section 11-35-1550(3).

Return Quote No Later Than: April 4, 2022	Quote Number: (example FLS-FA-Date) FLS-FA-032222
Requested by: Diane Parker	
Phone Number: 803-896-4333	Email: diane.parker@llr.sc.gov
Title of Quotation Request: Location and Marking of Sewer Line	
Quantity	Item Description
1	Locate approximately 4.25 miles of forced main sewer line from the SC State Fire Academy located at 141 Monticello Trailer to Interstate 20 (measuring approximately 22,500 linear feet)
	No other utilities will be marked.
	Provide a digital map with GPS coordinates with an aerial background.
	The forced main sewer line will be marked using paint, flags, and permanent marking whiskers and rhino markers. The permanent markers will alternate with whisker and then rhino style
	markers every 200ft. Where line runs under sidewalk, adhere a rhino style cap or similar marking onto the sidewalk, without creating a trip hazard.
	Also include a CAD drawing with an aerial image background to include linework version.



South Carolina Department of Labor, Licensing and Regulation
South Carolina Fire Academy
141 Monticello Trail • Columbia, SC 29203
803-896-9800 • Fax: 803-896-9806 • www.llronline.com

South Carolina State Fire- Sewer Line Measurement Sidewalk Distance



Sewer line starts at 141 Monticello Trail, Columbia, SC 29203 and runs to 5901 Monticello Road, Columbia, SC 29203

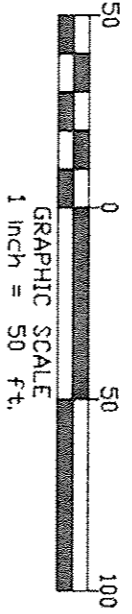


**Line location: Approx. 10ft edge of payment/roadway. Approximate Sewer Line length: 4.26 miles - 22,500ft
22,500ft (Full Sewer Line) | 9,379ft (Under sidewalk coverage Columbia International University (CIU) to
Gas Station at I-20 | 13,121ft (State Fire to CIU)**

GENERAL NOTES

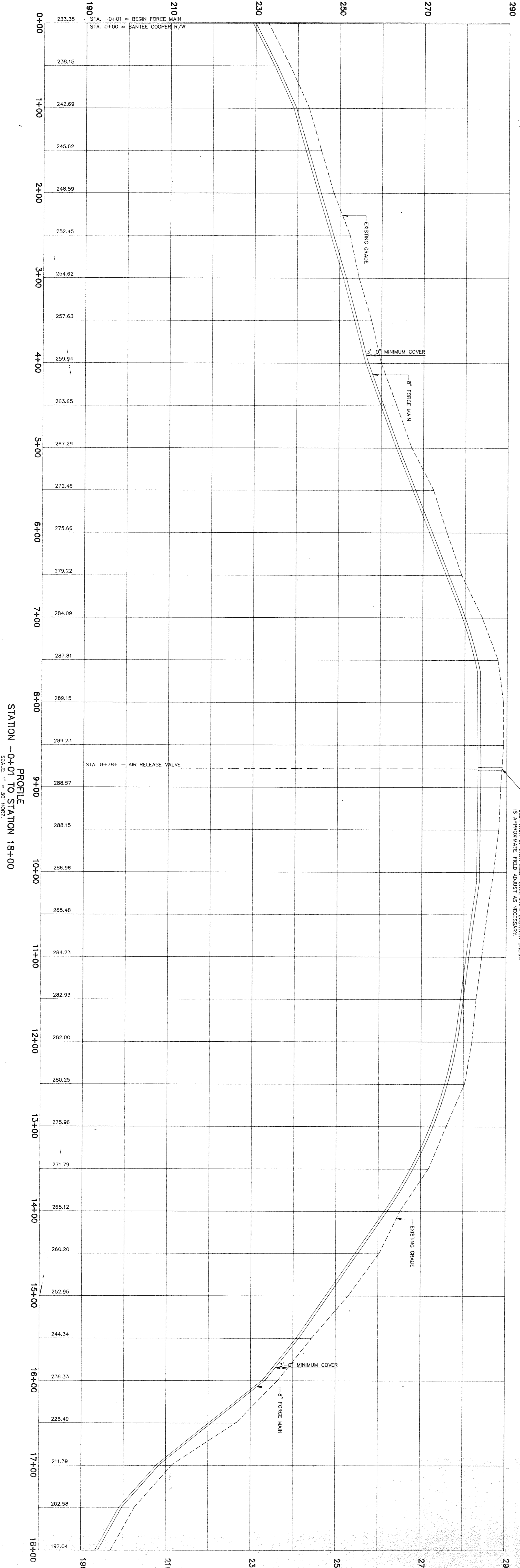
1. ALL ELEVATIONS ARE MEAN SEA LEVEL, DATUM.
2. RIGHTS-OF-WAY AS INDICATED ARE APPROXIMATE LOCATIONS TAKEN FROM SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION RECORD DRAWINGS.
3. CONTRACTOR SHALL ADHERE TO SOUTH CAROLINA DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS ALLOWED STREET REMOVAL AT ANY PERIOD OF CONSTRUCTION IS 2.000 L.F.
4. CONTRACTOR SHALL ADHERE TO SOUTH CAROLINA DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS DATED MARCH, 1987, CONCERNING STREET REMOVAL.
5. OTHER THAN PAVED AREAS WILL BE GRASSED TO EQUAL OR BETTER THAN EXISTING AREAS.
6. MINING STATE OF SOUTH CAROLINA ELECTRIC AND GAS RIGHTS-OF-WAY WILL BE MAINTAINED AS SHOWN ON RECORD DRAWINGS.
7. THE CONTRACTOR SHALL ACQUIRE A COPY OF THE APPROVED SOUTH CAROLINA DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION ENCROACHMENT PERMITS PRIOR TO BEGINNING CONSTRUCTION.
8. LOCATION OF ALL BORED UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND BASED ON RECORD DRAWINGS. CONTRACTOR SHALL VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.
9. ALL UTILITIES SHALL BE RECESSED TO THE DEPTH INDICATED ON THE DRAWINGS PRIOR TO CONSTRUCTION.

PLAN



LEGEND

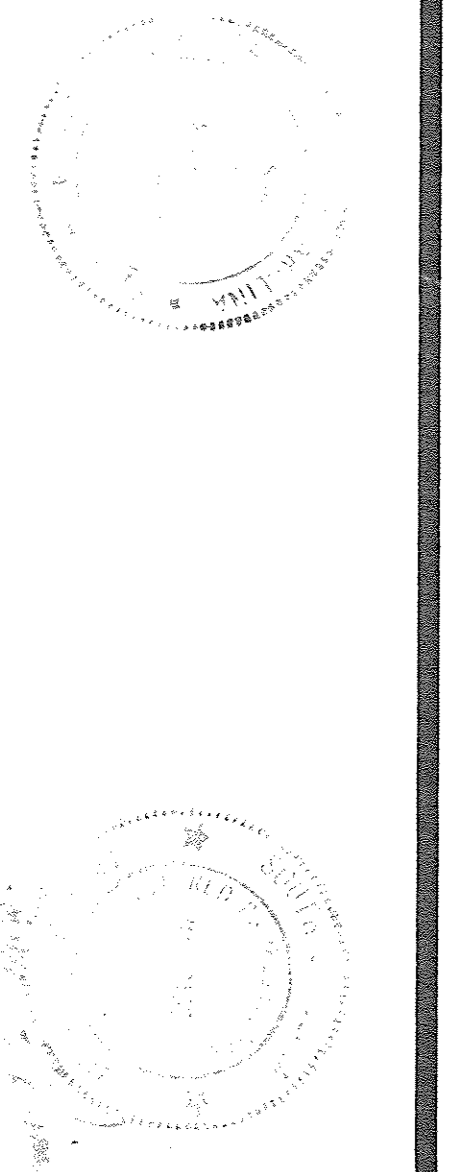
SYMBOL	DESCRIPTION
(Solid line)	PROPERTY LINE WITH IRON
(Dashed line)	OVERHEAD ELECTRIC W/POLE
(Line with 'x' marks)	UNDERGROUND ELECTRIC W/POLE
(Line with 'o' marks)	FORCE MAIN
(Line with 'x' marks)	CHAIN LINK FENCE
(Line with 'o' marks)	UNDERGROUND GAS LINE



PROFILE
STATION 0+01 TO STATION 18+00
SCALE: 1" = 30' VERT.
1" = 10' HORIZ.

REVISION	DESCRIPTION

McNair, Johnson & Associates
825 CERVINS STREET, COLUMBIA, S.C.
Architects and Engineers

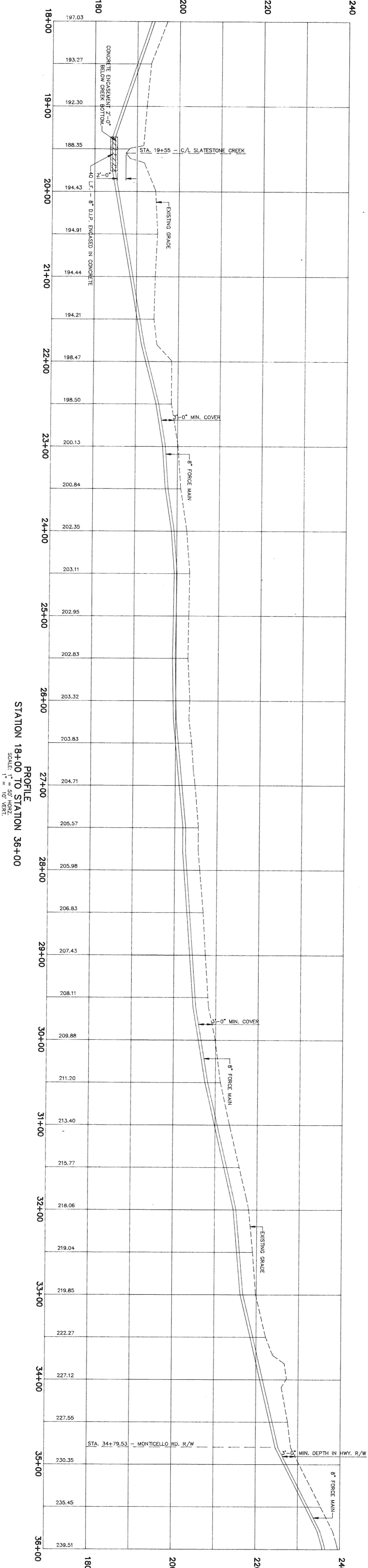
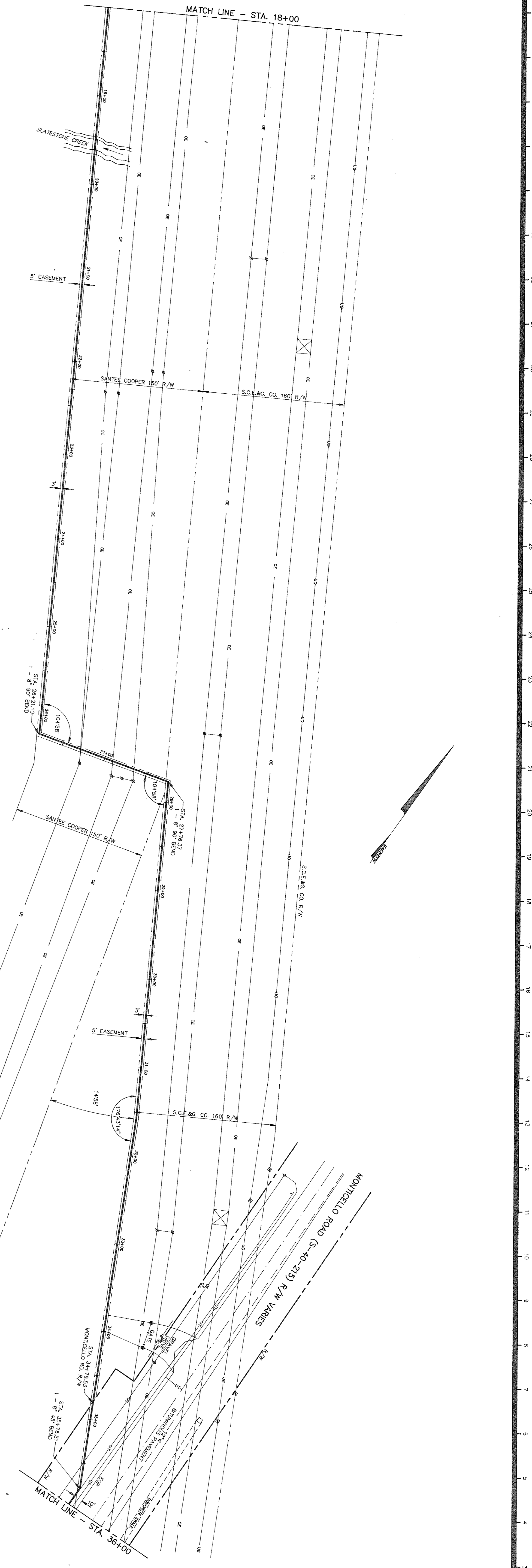
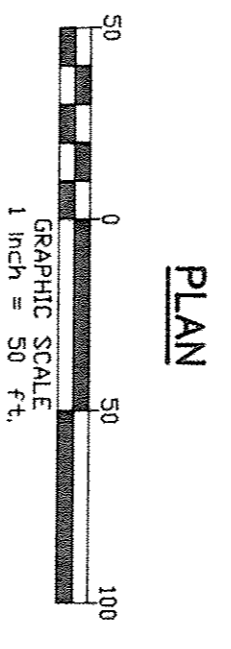


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ENGINEERS, PLANNERS & SURVEYORS
580 CHRIS DRIVE • POST OFFICE BOX 5020
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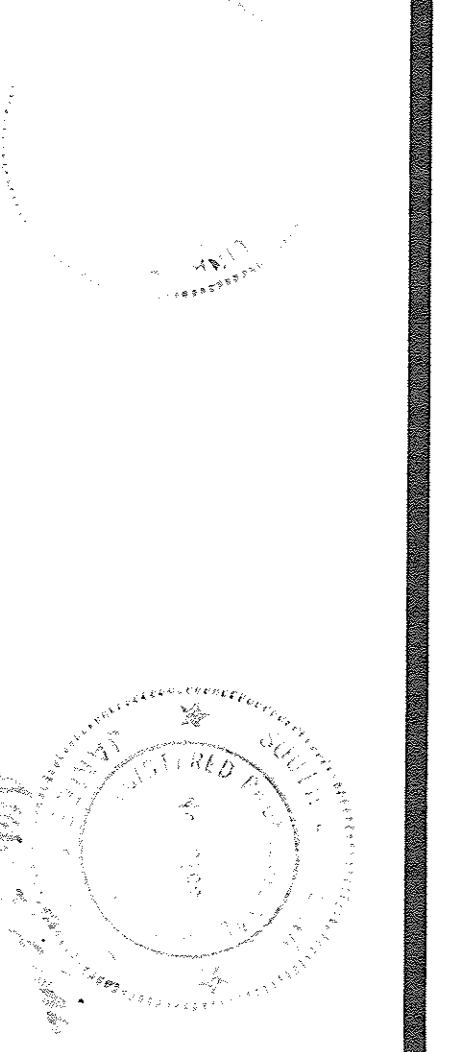
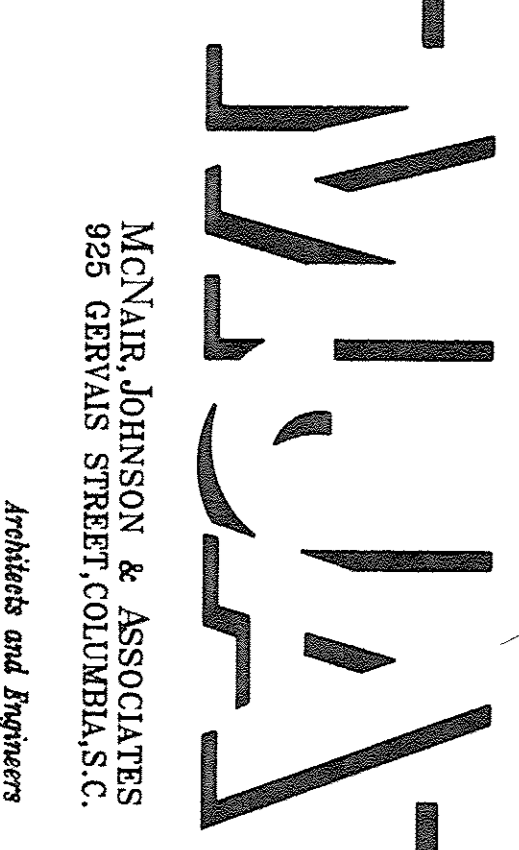
SHEET TITLE: PLAN AND PROFILE
OFF-SITE SANITARY SEWER FORCE MAIN
SOUTH CAROLINA
FIRE ACADEMY RELOCATION
COLUMBIA, SOUTH CAROLINA
PROJECT NO. S147 DATE 3/17/93 DRAWING NO. C-34

LEGEND

SYMBOL	DESCRIPTION
—	PROPERTY LINE WITH IRON
—	PROPERTY LINE WITH ALUMINUM
—	STORM DRAIN LINE W/ CATCH BASIN
—	WATER LINE
—	FORCE MAIN
—	FORCE MAIN CHANGE
—	OVERHEAD ELECTRIC W/ POLE
—	ELECTRIC GUY WIRE W/ POLE
—	UNDERGROUND TELEPHONE
—	UNDERGROUND GAS LINE

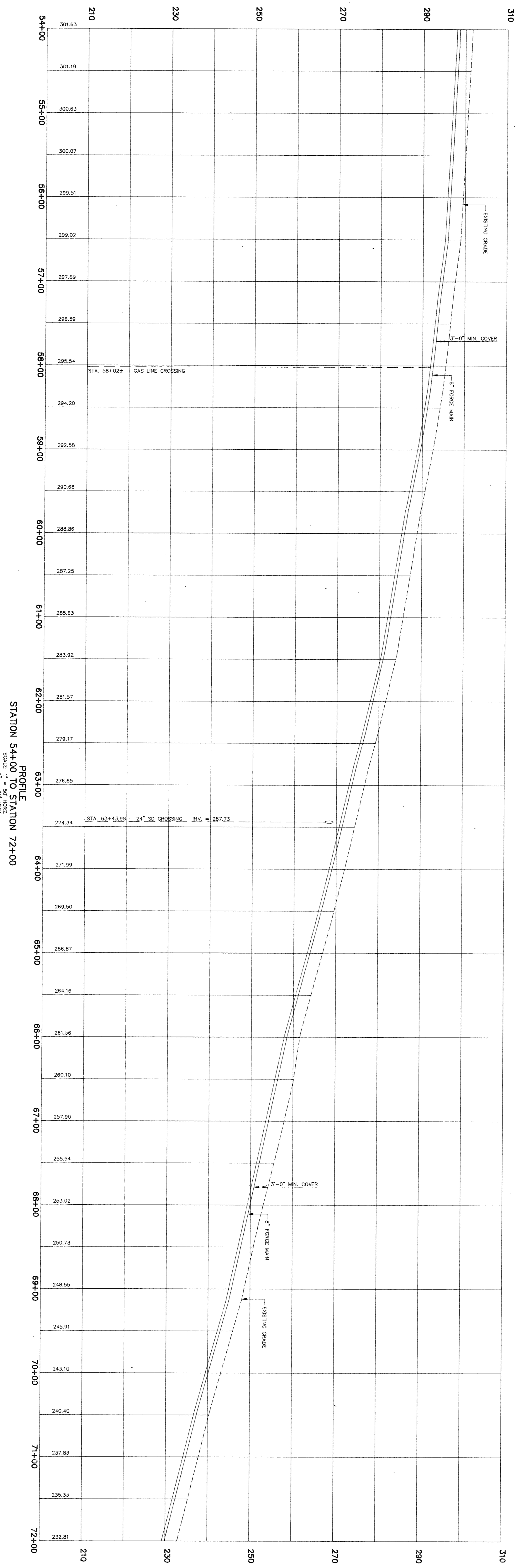
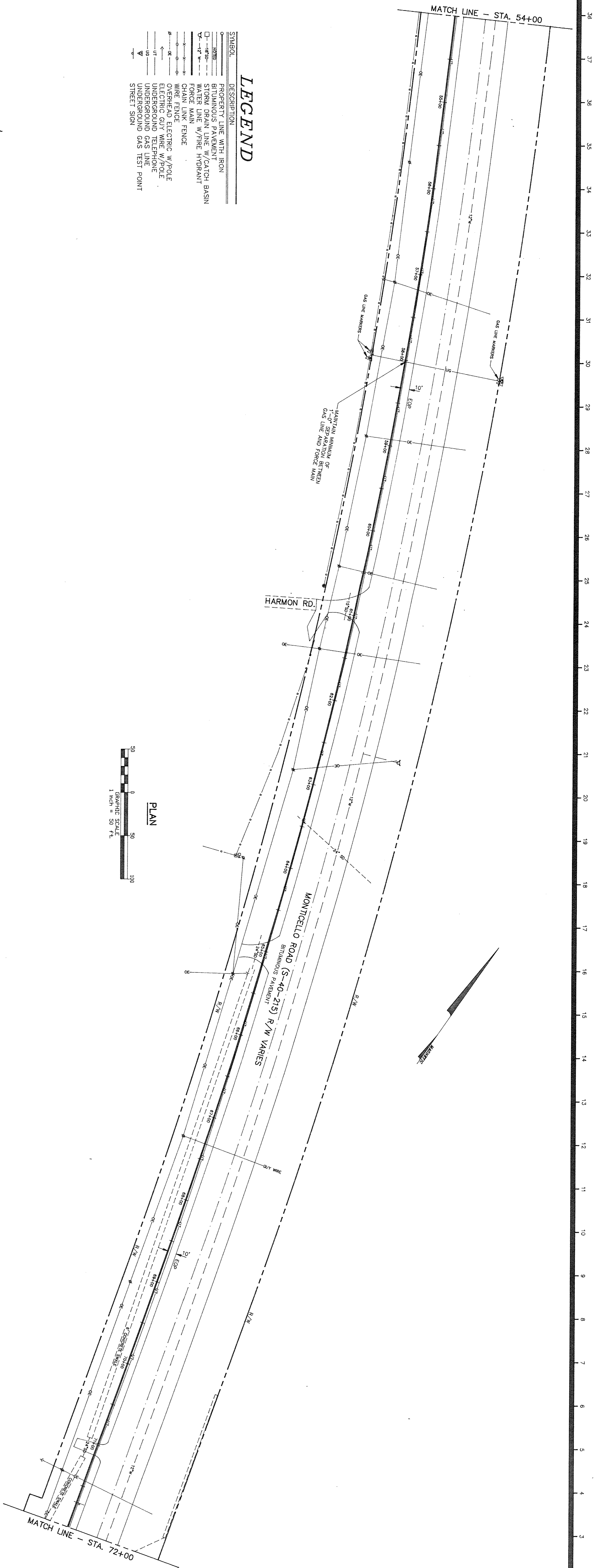


REVISION



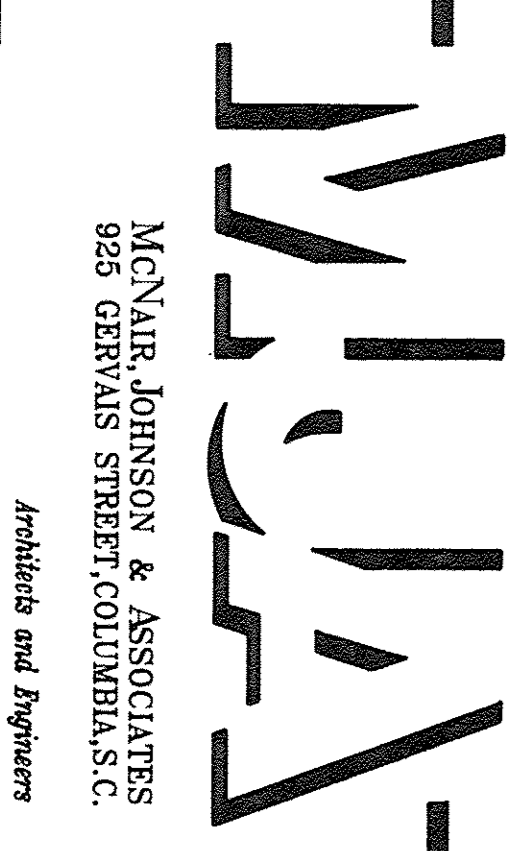
SITE CONSULTANTS, INC. **SC**
ENGINEERS, PLANNERS & SURVEYORS
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SHEET TITLE: OFF-SITE SANITARY SEWER FORCE MAIN
PROJECT NO. S147 DATE 3/17/93
SOUTH CAROLINA
FIRE ACADEMY RELOCATION
COLUMBIA, SOUTH CAROLINA
DRAWING NO. C-35

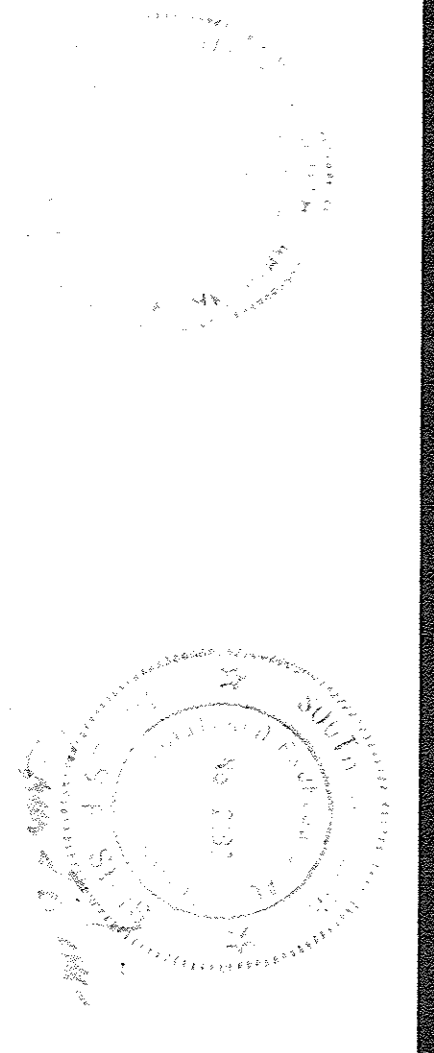


PROFILE
STATION 54+00 TO STATION 72+00
SCALE: H = 1" = 50' VERT.

REVISION



MCNAIR, JOHNSON & ASSOCIATES
825 GERVAIS STREET, COLUMBIA, S.C.
Architects and Engineers

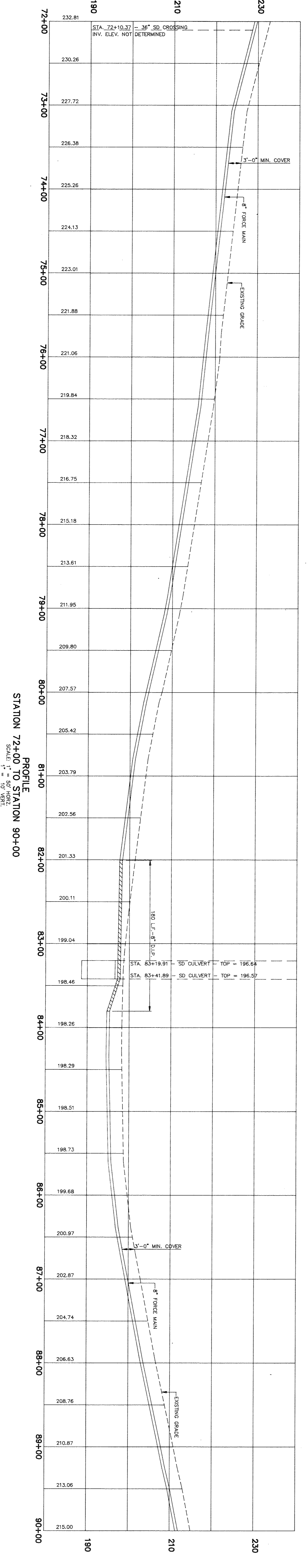
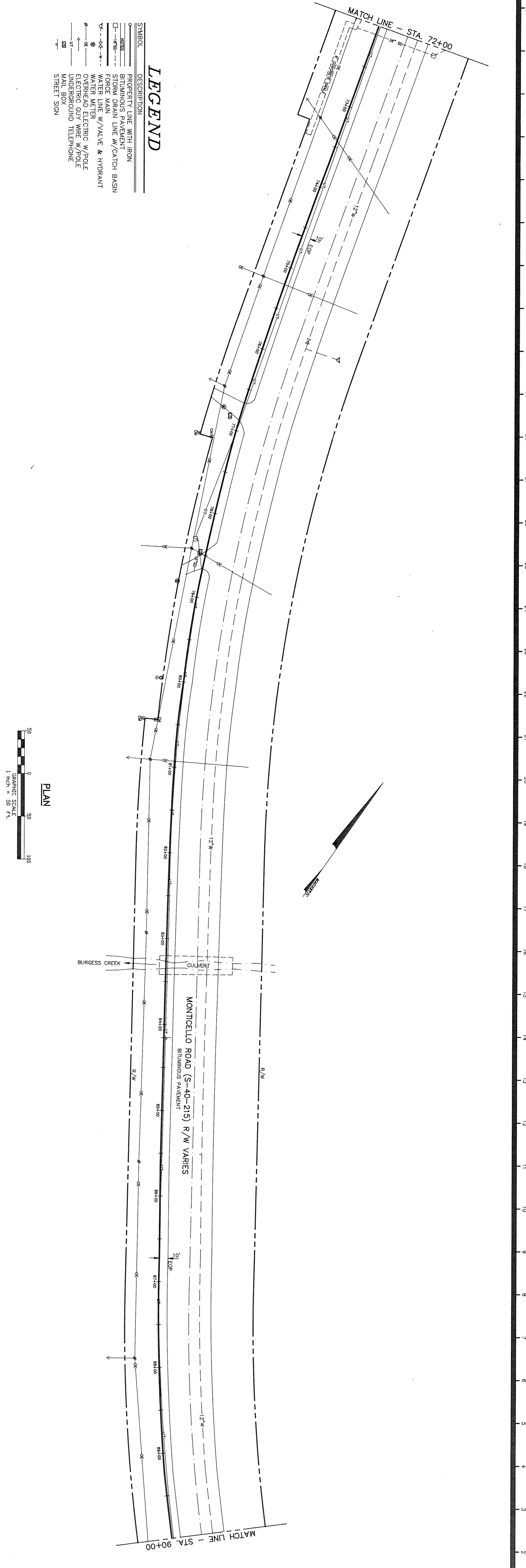


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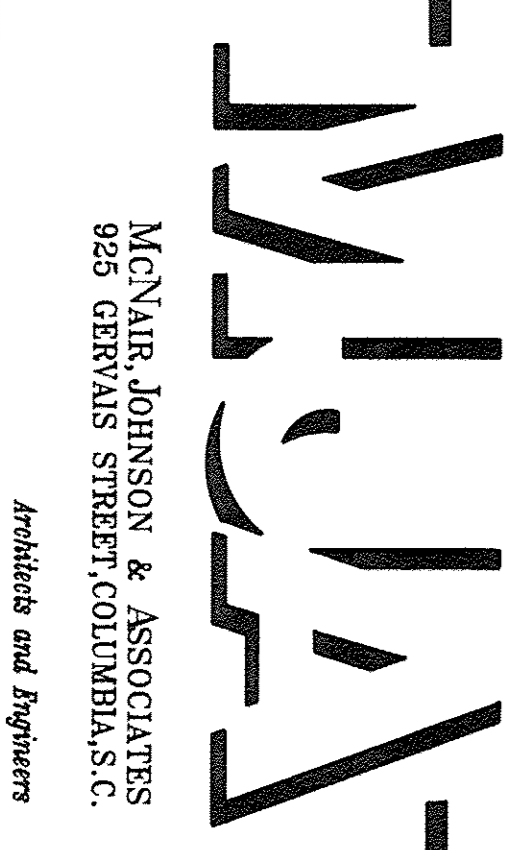
SHEET TITLE
PLAN AND PROFILE
OFF-SITE SANITARY SEWER FORCE MAIN
SOUTH CAROLINA
FIRE ACADEMY RELOCATION
COLUMBIA, SOUTH CAROLINA
PROJECT NO. S147 DATE 3/17/93 DRAWING NO. C-37

LEGEND

SYMBOL	DESCRIPTION
—	PROPERTY LINE WITH IRON
—	BITUMINOUS PAVEMENT
—	STORM DRAIN LINE W/CATCH BASIN
—	WATER LINE W/VALVE & HYDRANT
—	WATER METER
—	OVERHEAD ELECTRIC W/POLE
—	UNDERGROUND WIRE PHONE
—	MAIL BOX
—	STREET SIGN

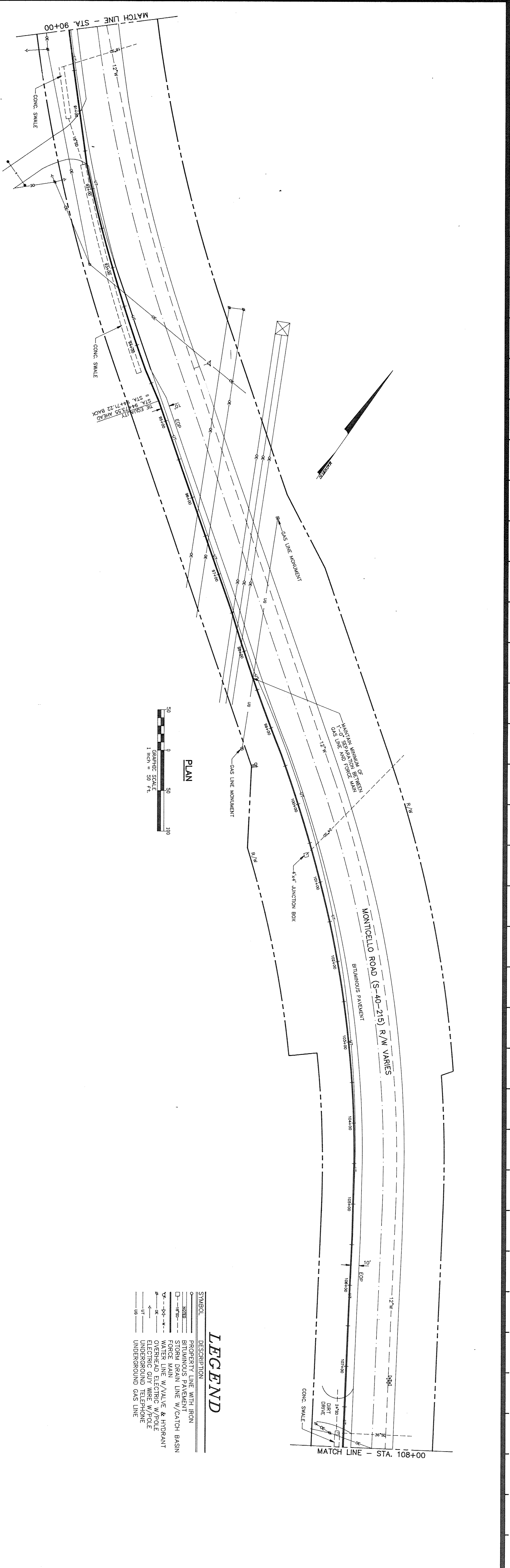


REVISION



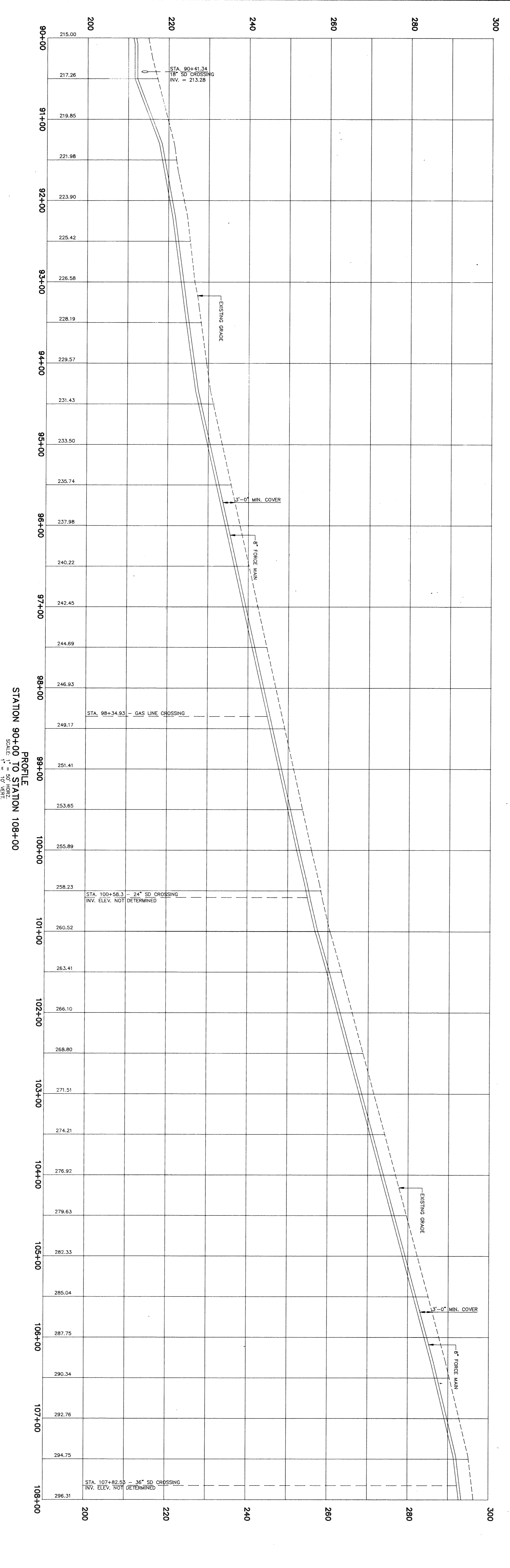
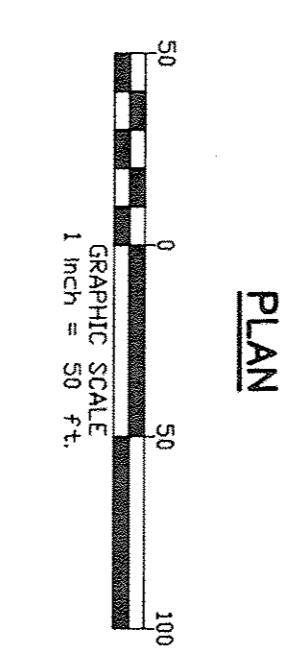
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SHEET TITLE
PLAN AND PROFILE
OFF-SITE SANITARY SEWER FORCE MAIN
SOUTH CAROLINA
FIRE ACADEMY RELOCATION
COLUMBIA, SOUTH CAROLINA
PROJECT NO. S147 DATE 3/17/93 DRAWING NO. C-38



LEGEND

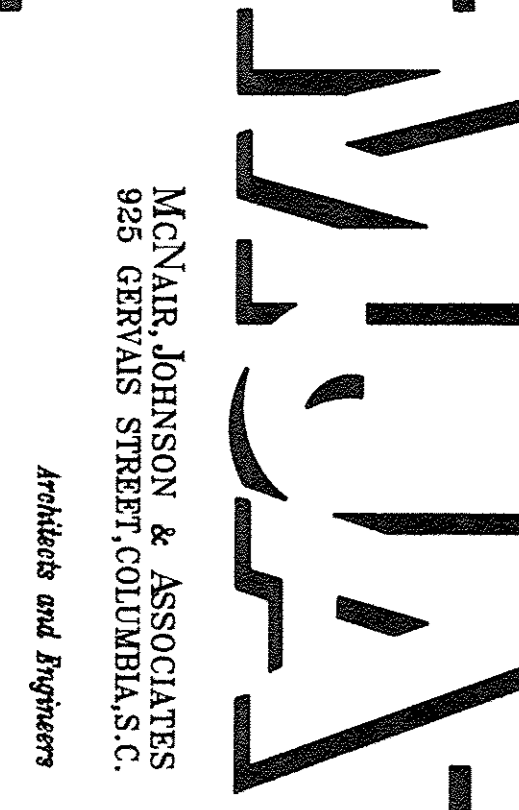
SYMBOL	DESCRIPTION
—	PROPERTY LINE WITH IRON
—	WATER MAIN
—	STORM DRAIN LINE W/CATCH BASIN
—	FORCE MAIN
—	WATER LINE W/VALVE & HYDRANT
—	ELECTRIC WIRE W/POLE
—	UNDERGROUND TELEPHONE
—	UNDERGROUND GAS LINE



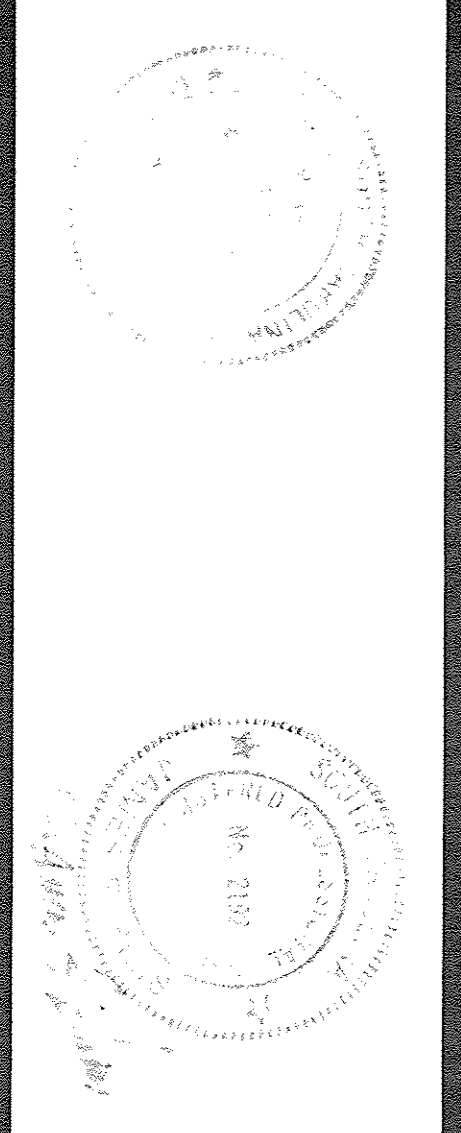
PROFILE
STATION 90+00 TO STATION 108+00
SCALE: 1" = 50' VERT.

REVISION

NO.	DESCRIPTION



MCNAIR, JOHNSON & ASSOCIATES
925 GERVAIS STREET, COLUMBIA, S.C.
Architects and Engineers



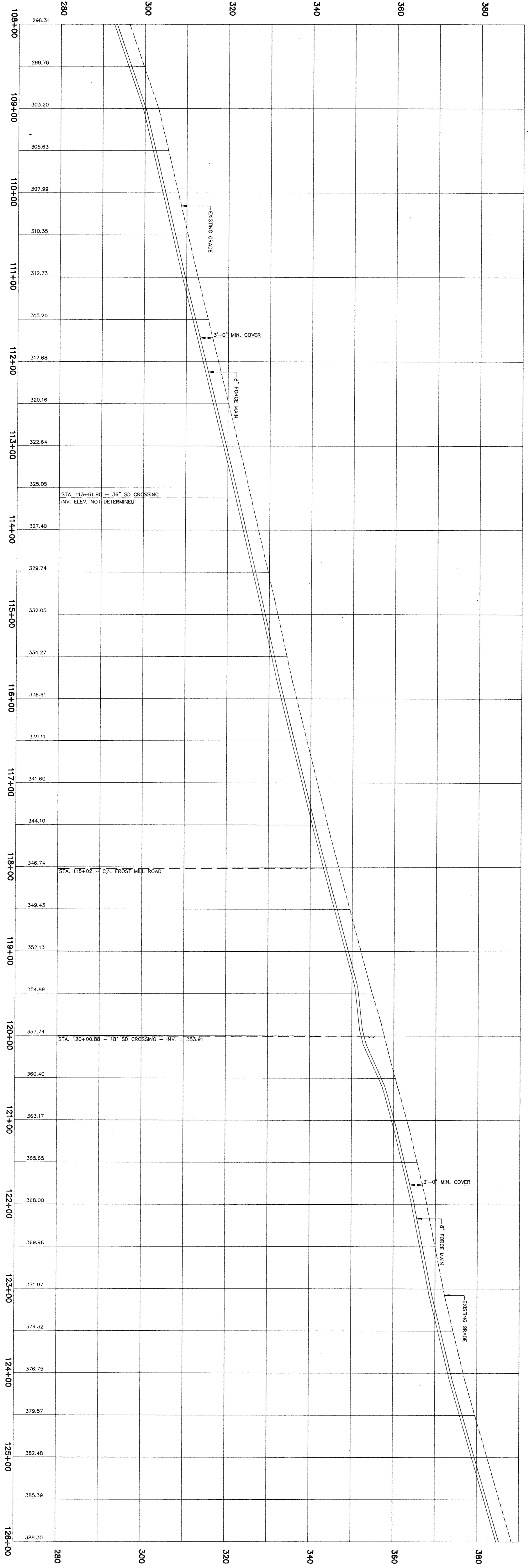
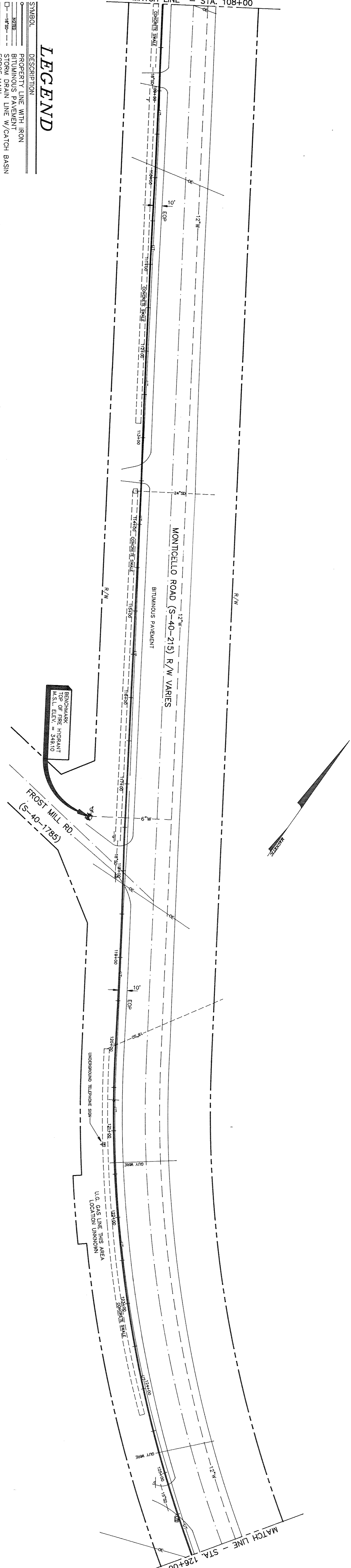
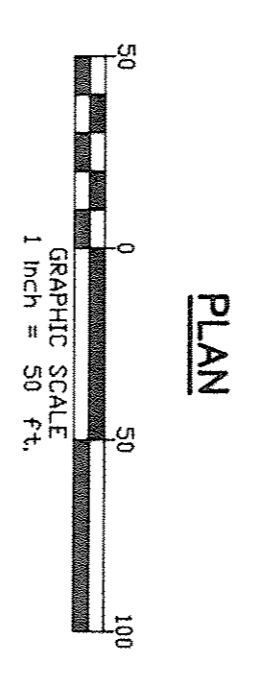
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CAYCE/WEST COLUMBIA, S.C. 29171 • (803) 796-1977

SHEET TITLE: PLAN AND PROFILE
OFF-SITE SANITARY SEWER FORCE MAIN
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FIRE ACADEMY RELOCATION
COLUMBIA, SOUTH CAROLINA
PROJECT NO. S147 DATE 3/17/93 DRAWING NO. C-39

MATCH LINE - STA. 108+00

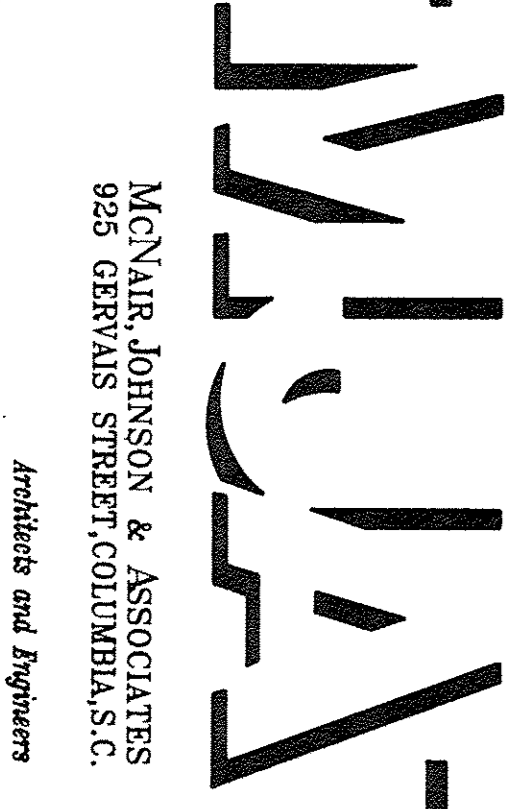
LEGEND

SYMBOL	DESCRIPTION
—	EXISTING GRADE
---	PROPOSED GRADE
—+—	FORCED MAIN WITH IRON
—+—	BITUMINOUS PAVEMENT
—+—	STOPPED DRAIN LINE W/ CATCH BASIN
—+—	FORCED MAIN W/ VALVE & HUBGRANT
—+—	OVERHEAD ELECTRIC W/ POLE
—+—	ELECTRIC GUY WIRE W/ POLE
—+—	UNDERGROUND TELEPHONE
—+—	UNDERGROUND TELEPHONE SIGN
—+—	STREET SIGN

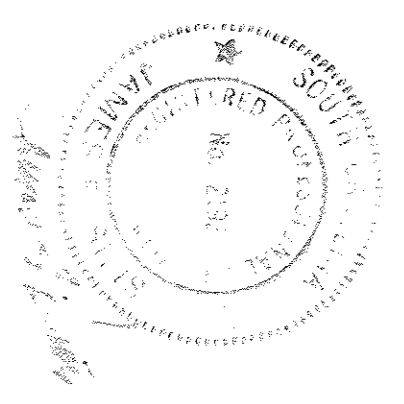


PROFILE
STATION 108+00 TO STATION 126+00
SCALE: 1" = 50' VERT.
1" = 10' HORIZ.

REVISION

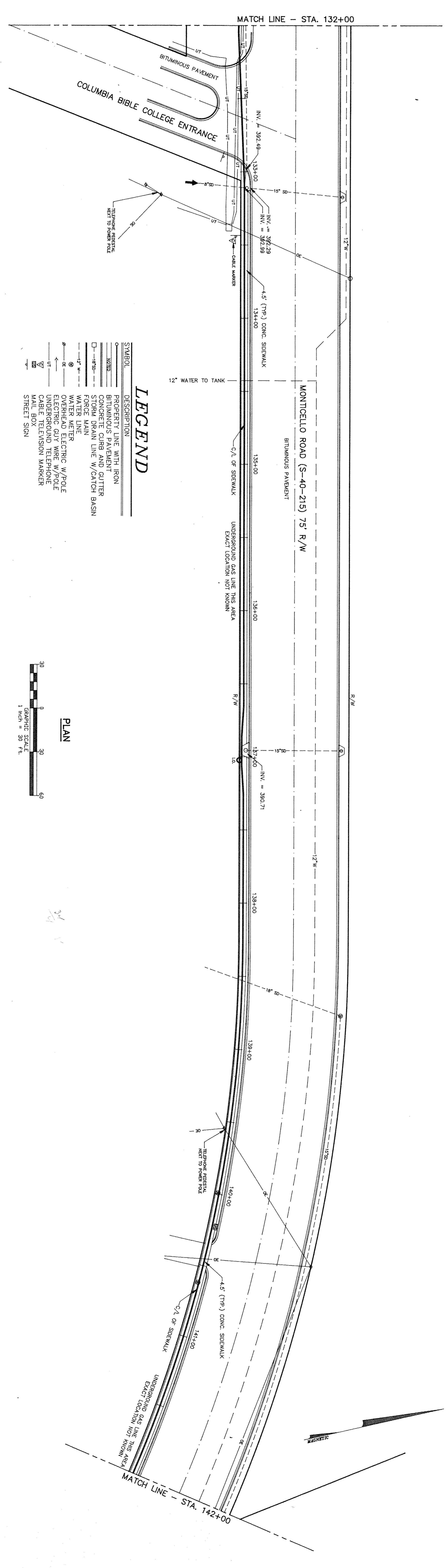


MCNAIR, JOHNSON & ASSOCIATES
825 GERVAIS STREET, COLUMBIA, S.C.
Architects and Engineers



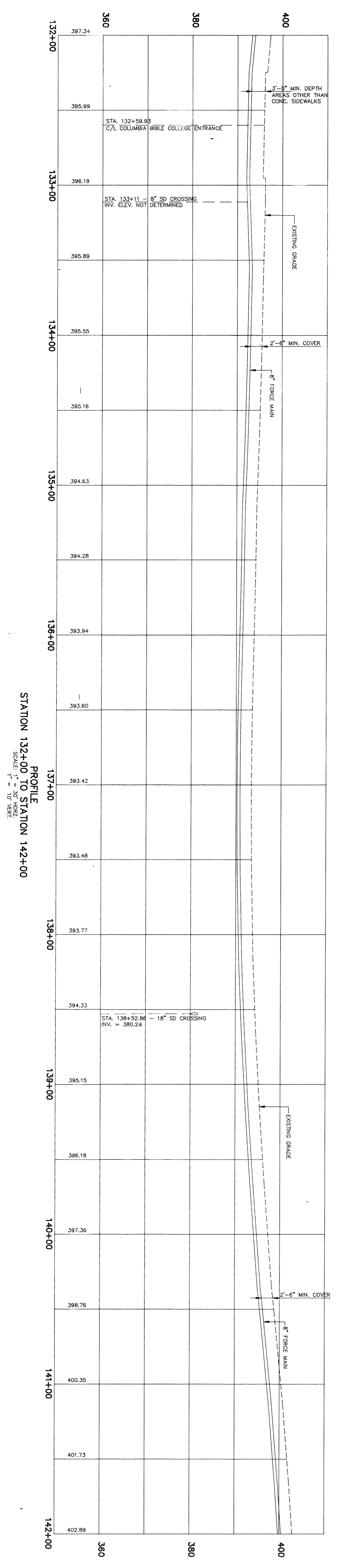
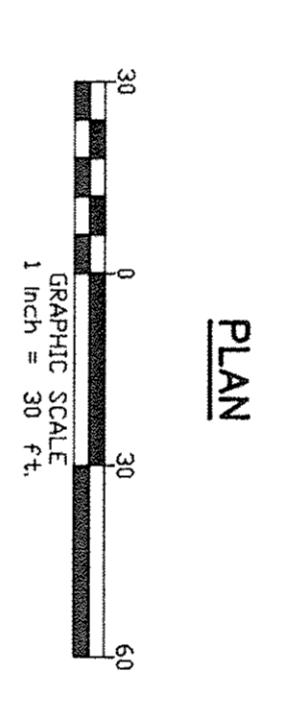
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SHEET TITLE: PLAN AND PROFILE
OFF-SITE SANITARY SEWER FORCED MAIN
SOUTH CAROLINA
FIRE ACADEMY RELOCATION
COLUMBIA, SOUTH CAROLINA
PROJECT NO. S147 DATE 3/17/93 DRAWING NO. C-40



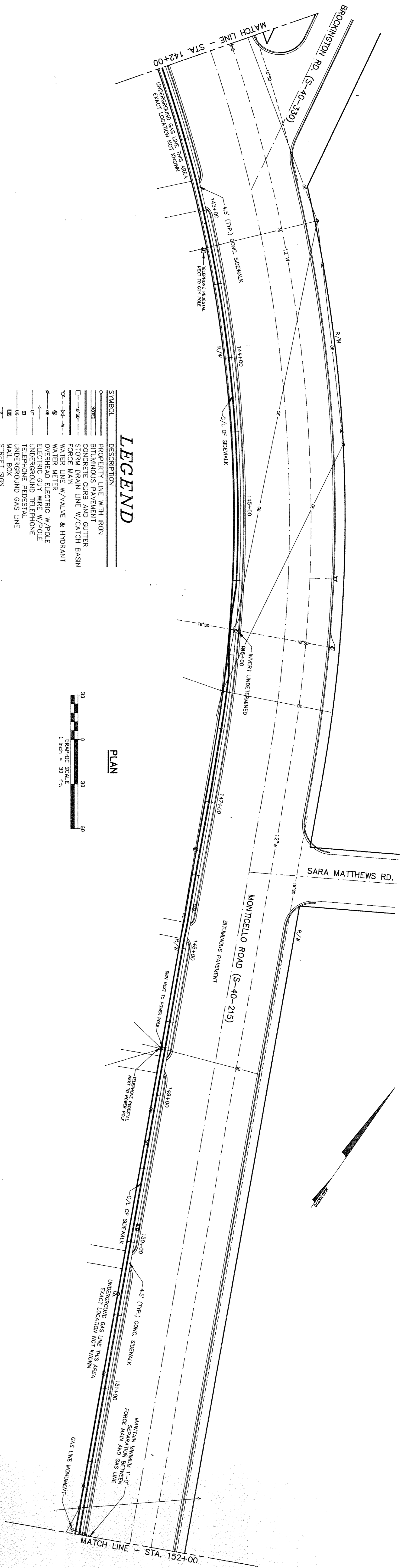
LEGEND

SYMBOL	DESCRIPTION
---	PROPERTY LINE WITH IRON
---	BITUMINOUS PAVEMENT
---	CONCRETE CURB AND GUTTER
---	FORCE MAIN LINE W/ CATCH BASIN
---	FORCE MAIN
---	WATER LINE
---	WATER METER
---	WATER METER CONTROL W/ POLE
---	ELECTRIC CABLE W/ POLE
---	UNDERGROUND TELEPHONE
---	CABLE TELEVISION MARKER
---	STEEL SIGN



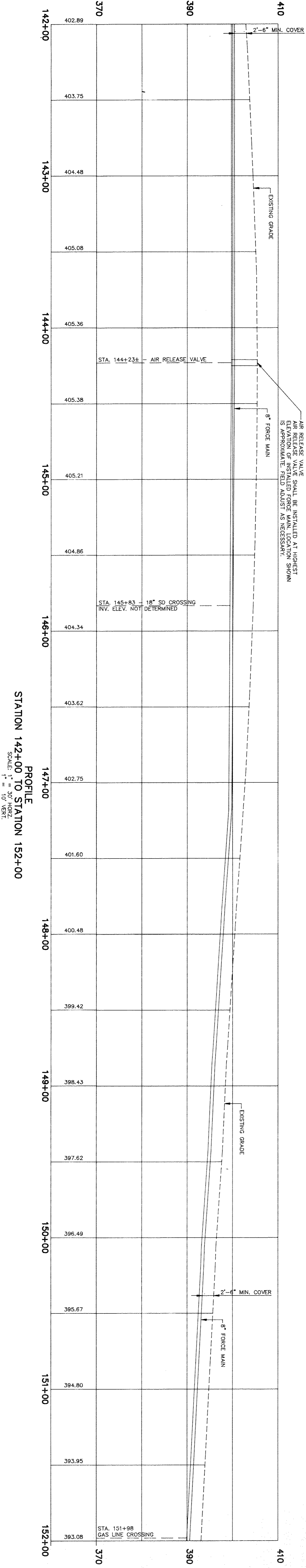
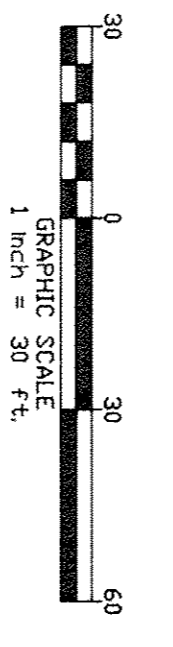
PROFILE
STATION 132+00 TO STATION 142+00
SCALE: 1" = 30' HORIZ.
1" = 10' VERT.

<p>REVISION</p>	<p>McNair, Johnson & Associates 825 GERVAIS STREET, COLUMBIA, S.C. Architects and Engineers</p>
<p>ENGINEERS, PLANNERS & SURVEYORS</p> <p>580 CHRIS DRIVE • POST OFFICE BOX 5020 CAYCE/WEST COLUMBIA, S.C. 29171 • (803) 796-1977</p>	<p>SITE CONSULTANTS, INC.</p> <p>SC</p> <p>ENGINEERS, PLANNERS & SURVEYORS</p> <p>580 CHRIS DRIVE • POST OFFICE BOX 5020 CAYCE/WEST COLUMBIA, S.C. 29171 • (803) 796-1977</p>
<p>PROJECT NO. S147</p> <p>DATE 3/17/93</p> <p>DRAWING NO. C-42</p>	<p>SHEET TITLE</p> <p>PLAN AND PROFILE</p> <p>OFF-SITE SANITARY SEWER FORCE MAIN</p> <p>SOUTH CAROLINA</p> <p>FIRE ACADEMY RELOCATION</p> <p>COLUMBIA, SOUTH CAROLINA</p>



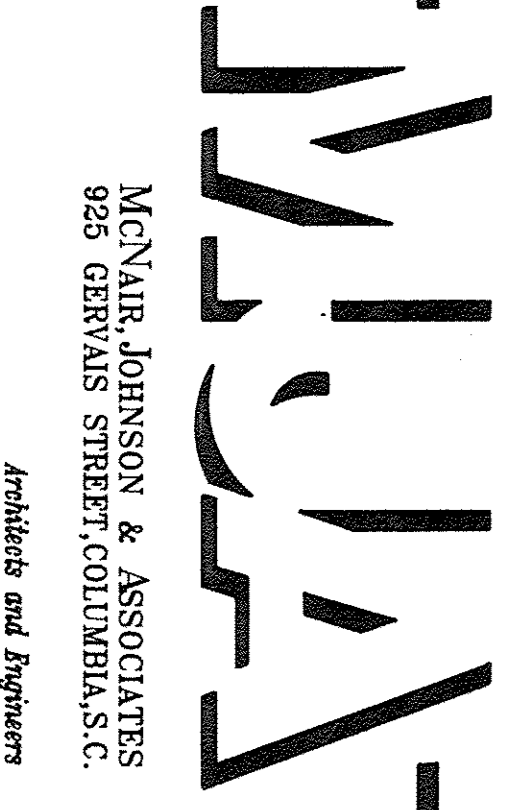
LEGEND

SYMBOL	DESCRIPTION
—	PROPERTY LINE WITH IRON
—	BITUMINOUS PAVEMENT CUTTER
—	STORM DRAIN LINE W/CATCH BASIN
—	FORCE MAIN
—	WATER LINE W/VALVE & HYDRANT
—	OVERHEAD ELECTRIC W/POLE
—	ELECTRIC GUY WIRE W/POLE
—	UNDERGROUND TELEPHONE
—	UNDERGROUND GAS LINE
—	MAIL BOX
—	STREET SIGN

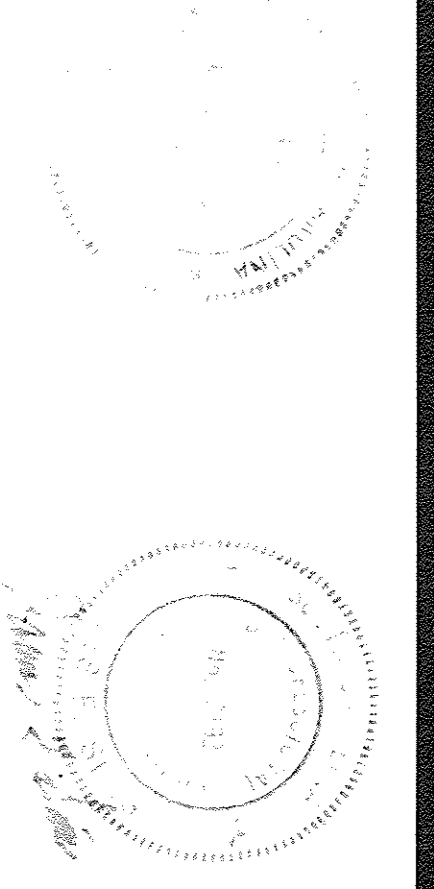


PROFILE
STATION 142+00 TO STATION 152+00
SCALE: 1" = 10' VERT.

REVISION

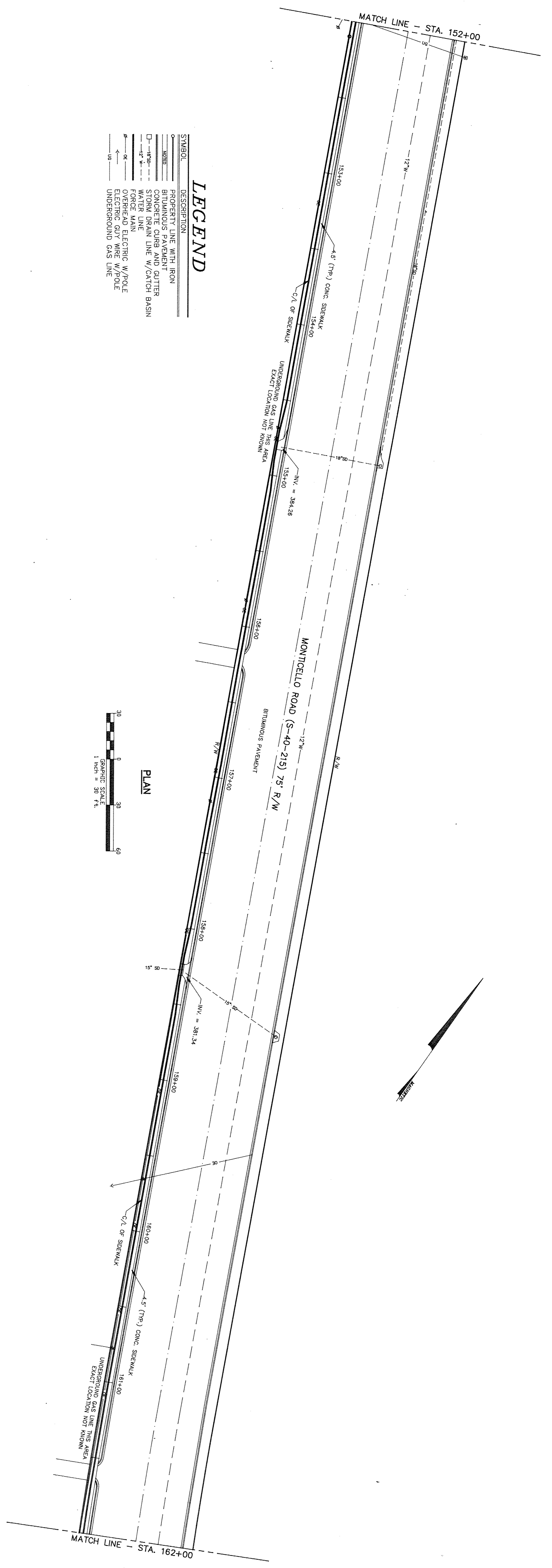


McNAIR, JOHNSON & ASSOCIATES
925 GERVAIS STREET, COLUMBIA, S.C.
Architects and Engineers



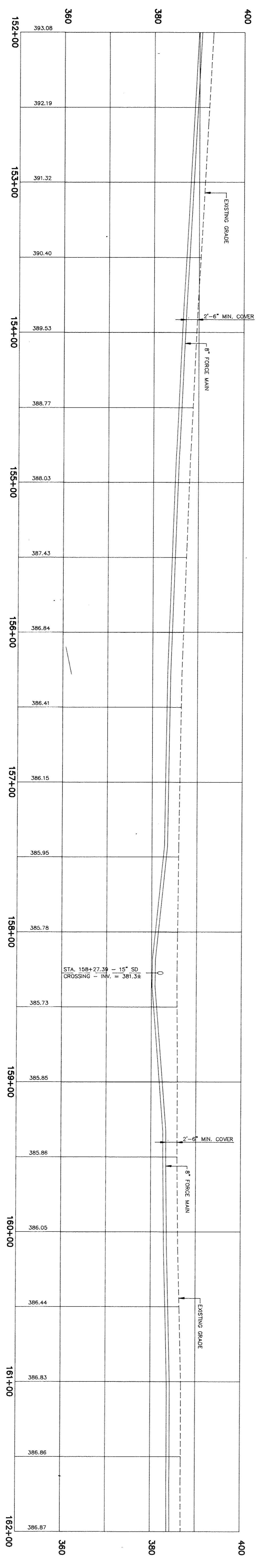
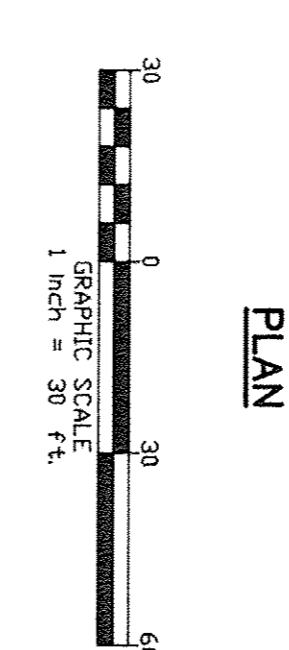
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SHEET TITLE: PLAN AND PROFILE
OFF-SITE SANITARY SEWER FORCE MAIN
SOUTH CAROLINA
FIRE ACADEMY RELOCATION
COLUMBIA, SOUTH CAROLINA
PROJECT NO. S147 DATE 3/17/93 DRAWING NO. C-43



LEGEND

SYMBOL	DESCRIPTION
—	PROPERTY LINE WITH IRON
—	CONCRETE CURB AND GUTTER
—	STORM DRAIN LINE W/CATCH BASIN
—	WATER LINE
—	OVERHEAD ELECTRIC W/POLE
—	ELECTRIC GUY WIRE W/POLE
—	UNDERGROUND GAS LINE



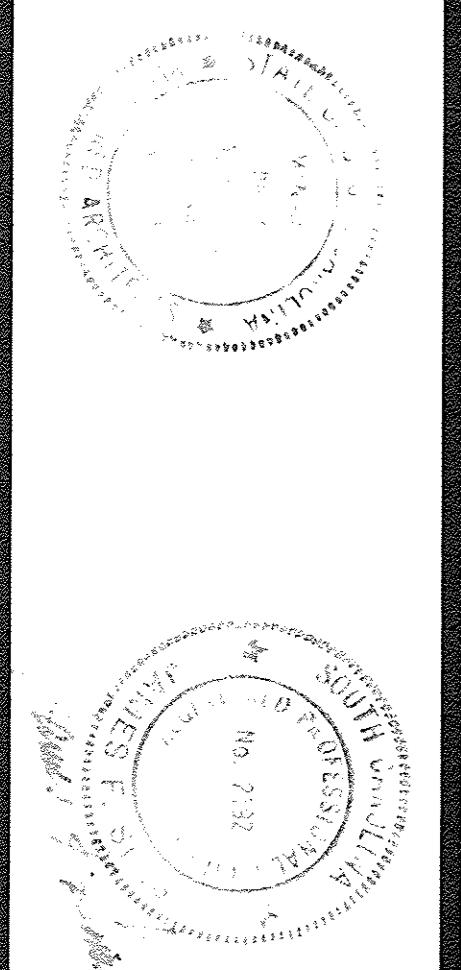
PROFILE
STATION 152+00 TO STATION 162+00
SCALE: 1" = 20' HORIZ
1" = 10' VERT

REVISION

NO.	DATE	DESCRIPTION

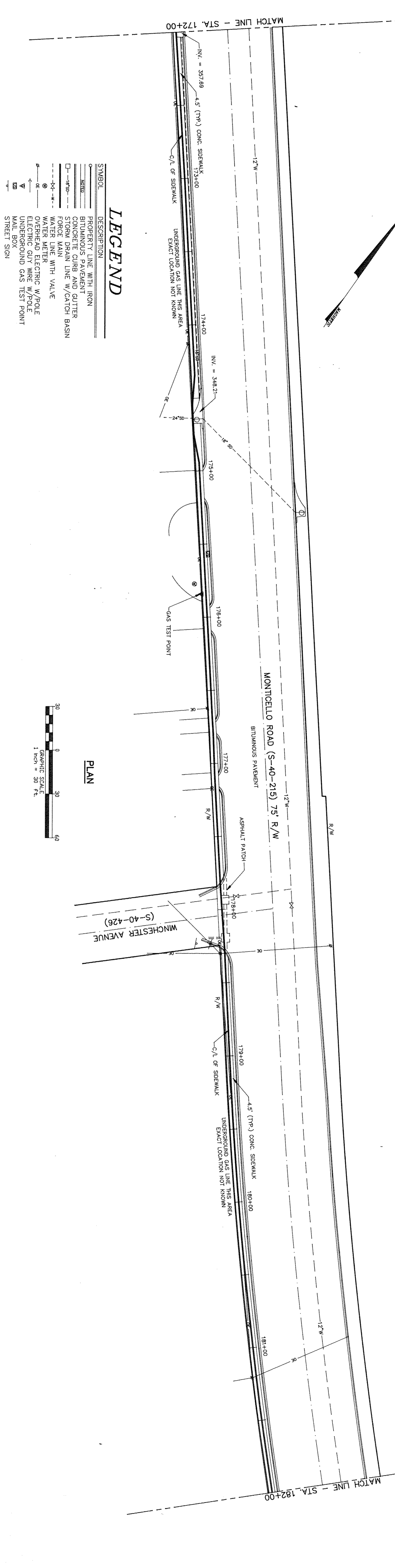


McNAIR, JOHNSON & ASSOCIATES
825 CERVINS STREET, COLUMBIA, S.C.
Architects and Engineers



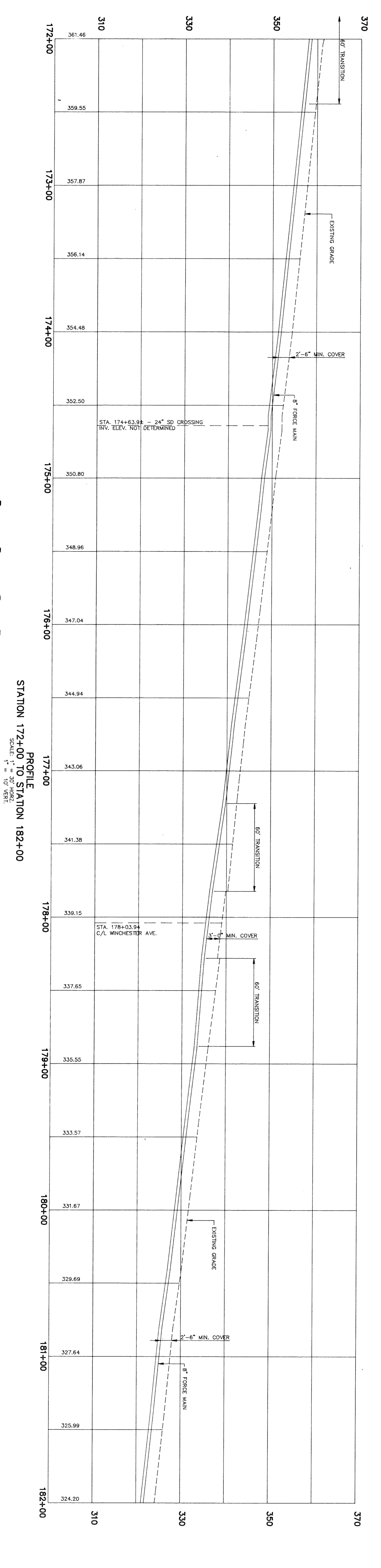
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ENGINEERS, PLANNERS & SURVEYORS
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SHEET TITLE: **PLAN AND PROFILE**
OFF-SITE SANITARY SEWER FORCE MAIN
SOUTH CAROLINA
FIRE ACADEMY RELOCATION
COLUMBIA, SOUTH CAROLINA
PROJECT NO. **S147** DATE **3/17/93** DRAWING NO. **C-44**



LEGEND

SYMBOL	DESCRIPTION
—	PROPERTY LINE WITH IRON
—	BRUNNEN'S PATENT GUTTER
—	STORM DRAIN LINE W/CATCH BASIN
—	FORCE MAIN
—	WATER LINE WITH VALVE
—	UNDERGROUND GAS LINE THIS AREA EXACT LOCATION NOT KNOWN
—	ELECTRIC GUY WIRE W/POLE
—	UNDERGROUND GAS TEST POINT
—	STREET SIGN

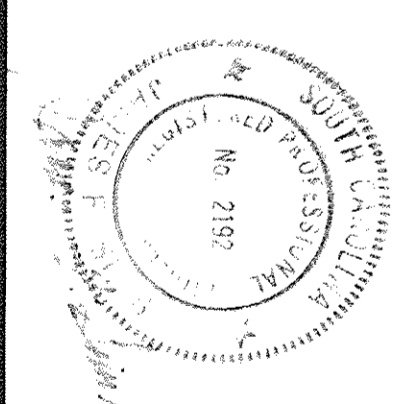


PROFILE
STATION 172+00 TO STATION 182+00
SCALE: 1" = 30' HORIZ
1" = 10' VERT

REVISION

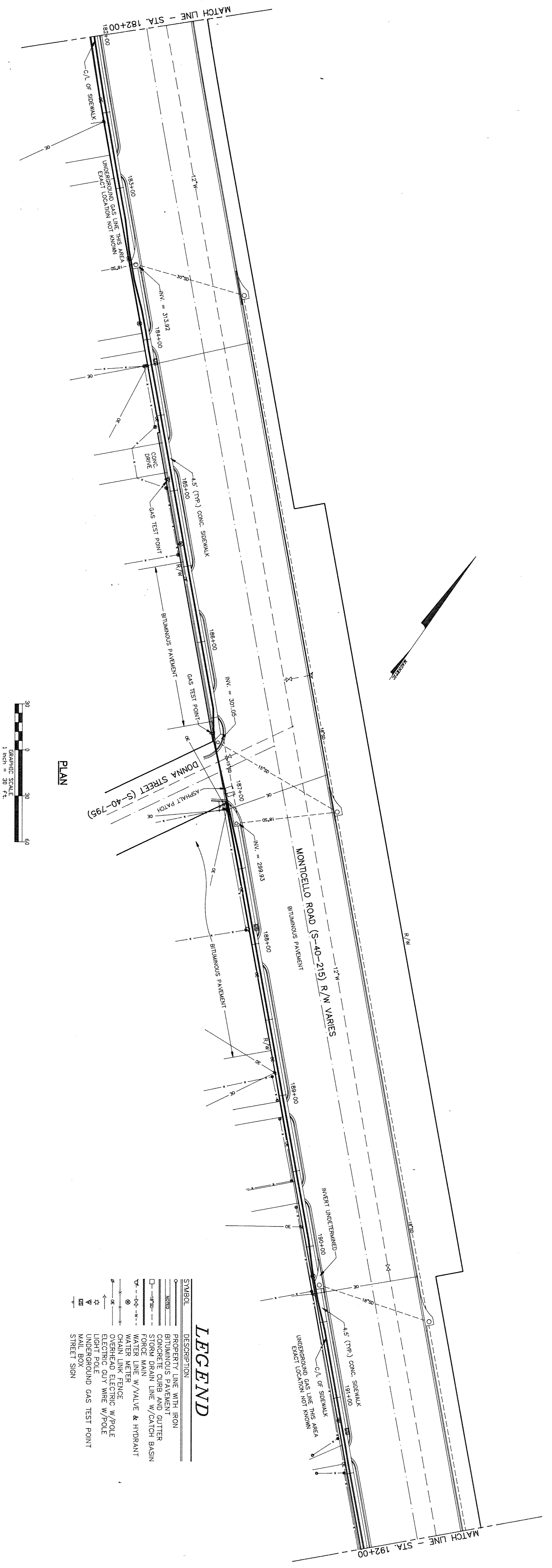


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825 GERVAIS STREET, COLUMBIA, S.C.
Architects and Engineers



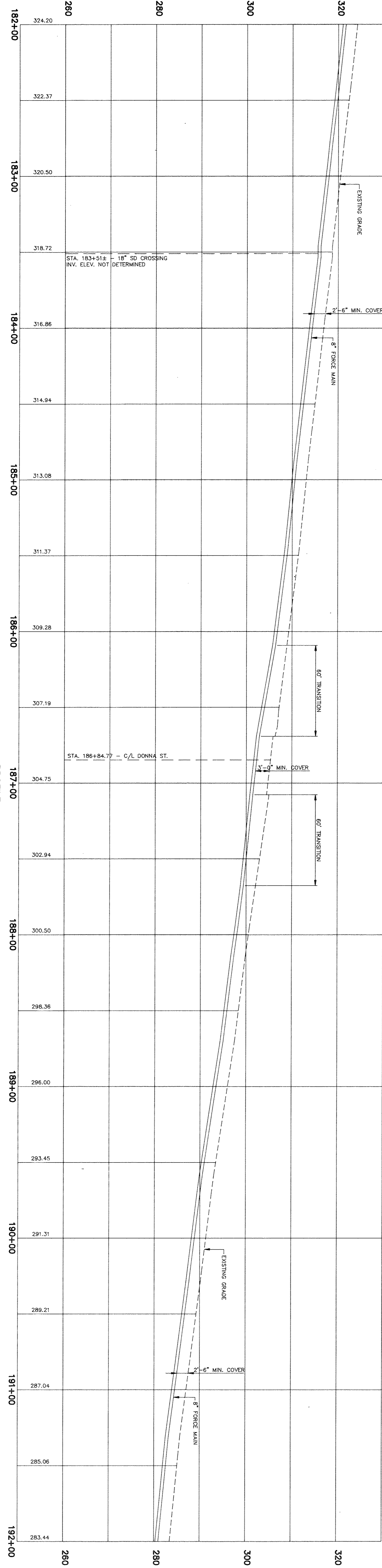
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SHEET TITLE
PLAN AND PROFILE
OFF-SITE SANITARY SEWER FORCE MAIN
SOUTH CAROLINA
FIRE ACADEMY RELOCATION
COLUMBIA, SOUTH CAROLINA
PROJECT NO. S147 DATE 3/17/93 DRAWING NO. C-46



LEGEND

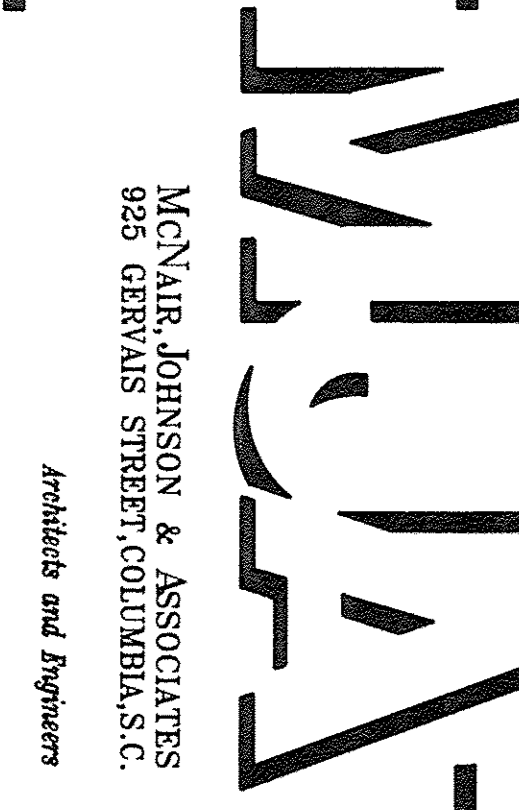
SYMBOL	DESCRIPTION
---	PROPERTY LINE WITH IRON
---	BITUMINOUS PAVEMENT
---	CONCRETE DRIVEWAY AND GUTTER
---	18" SANITARY SEWER FORCE MAIN
---	6" WATER MAIN
---	4" WATER MAIN
---	2" WATER MAIN
---	1" WATER MAIN
---	OVERHEAD ELECTRIC W/POLE
---	ELECTRIC GUY WIRE W/POLE
---	UNDERGROUND GAS TEST POINT
---	MAL BOX
---	STREET SIGN



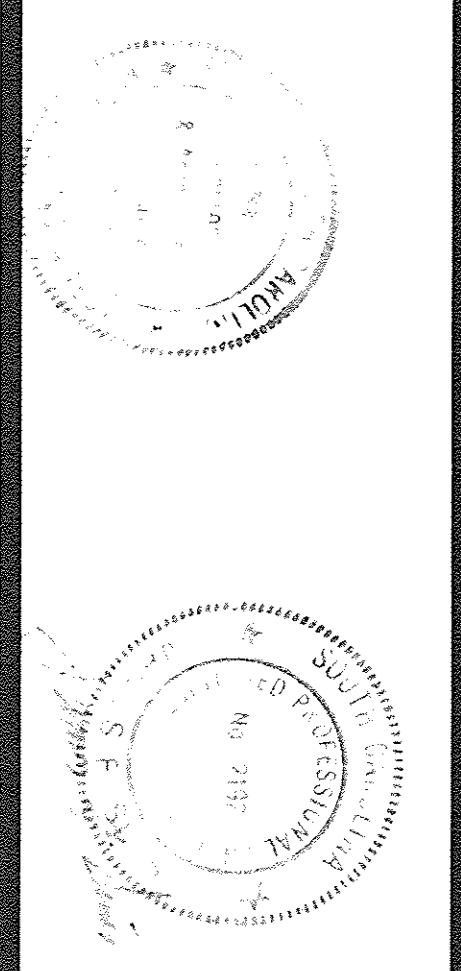
PROFILE STATION 182+00 TO STATION 192+00
SCALE: 1" = 10' HORIZ.
1" = 10' VERT.

REVISION

NO.	DATE	DESCRIPTION

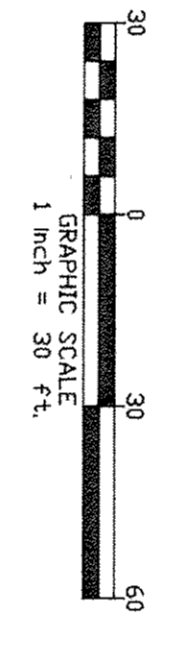
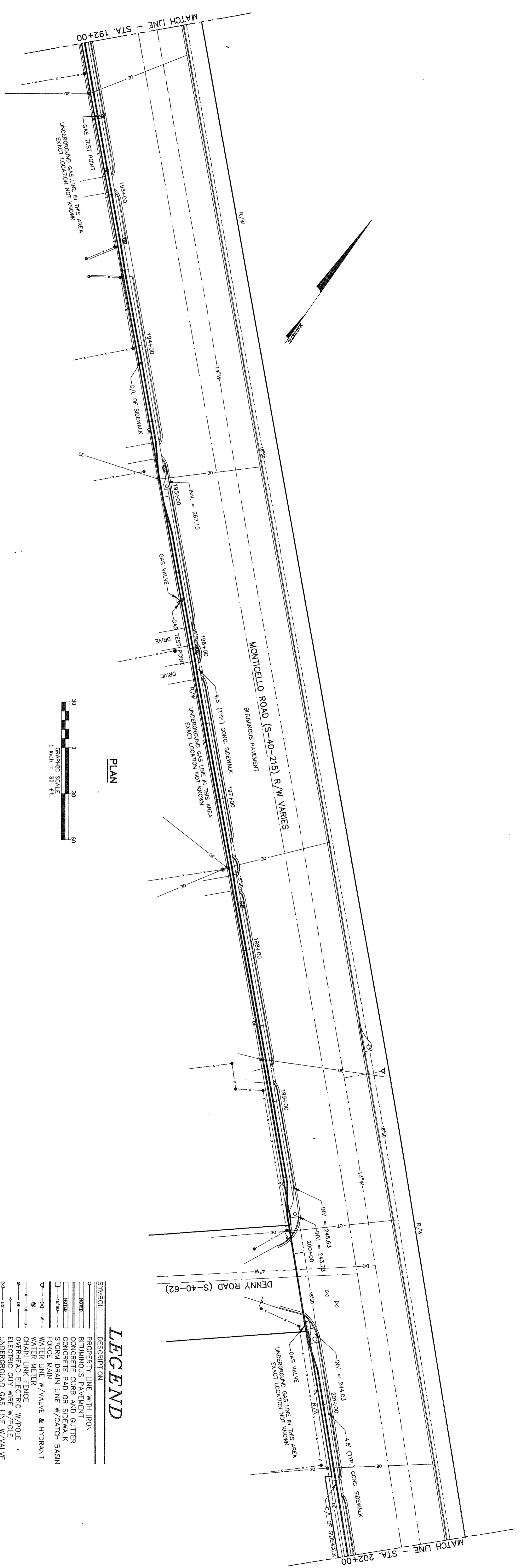


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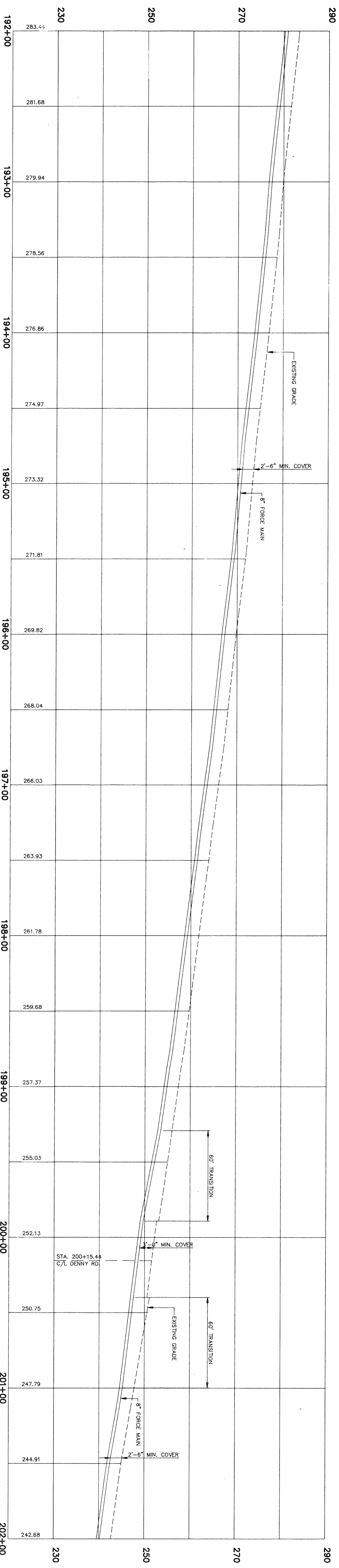
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SHEET TITLE
PLAN AND PROFILE
OFF-SITE SANITARY SEWER FORCE MAIN
SOUTH CAROLINA
FIRE ACADEMY RELOCATION
COLUMBIA, SOUTH CAROLINA
PROJECT NO. S147 DATE 3/17/93 DRAWING NO. C-47



LEGEND

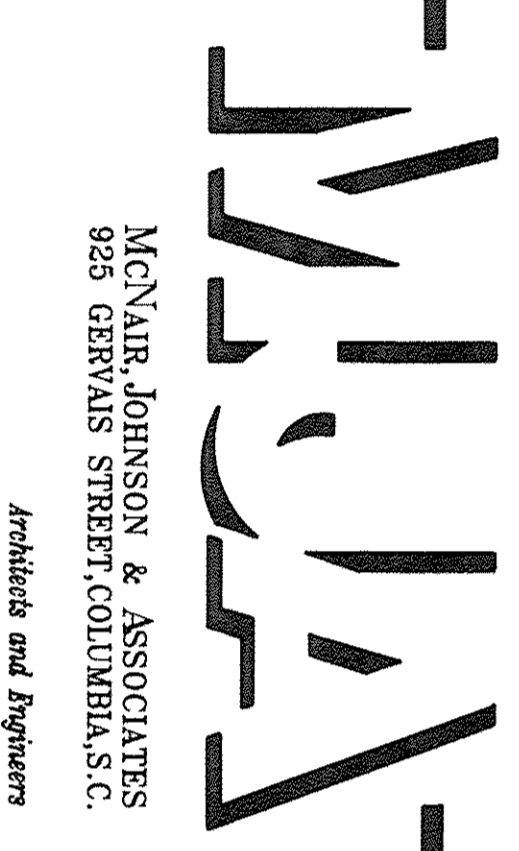
SYMBOL	DESCRIPTION
---	PROPERTY LINE WITH IRON
---	BITUMINOUS PAVEMENT
---	CONCRETE PAVEMENT
---	CONCRETE PAD OR SIDEWALK
---	STORM DRAIN LINE W/ CATCH BASIN
---	FORCE MAIN W/ VALVE & HYDRANT
---	WATER METER
---	CHAIN LINK FENCE
---	OVERHEAD ELECTRIC W/ POLE
---	UNDERGROUND GAS LINE W/ VALVE
---	UNDERGROUND GAS TEST POINT
---	MAIL BOX
---	STREET SIGN



PROFILE
STATION 192+00 TO STATION 202+00
SCALE: 1" = 10' VERT.

REVISION

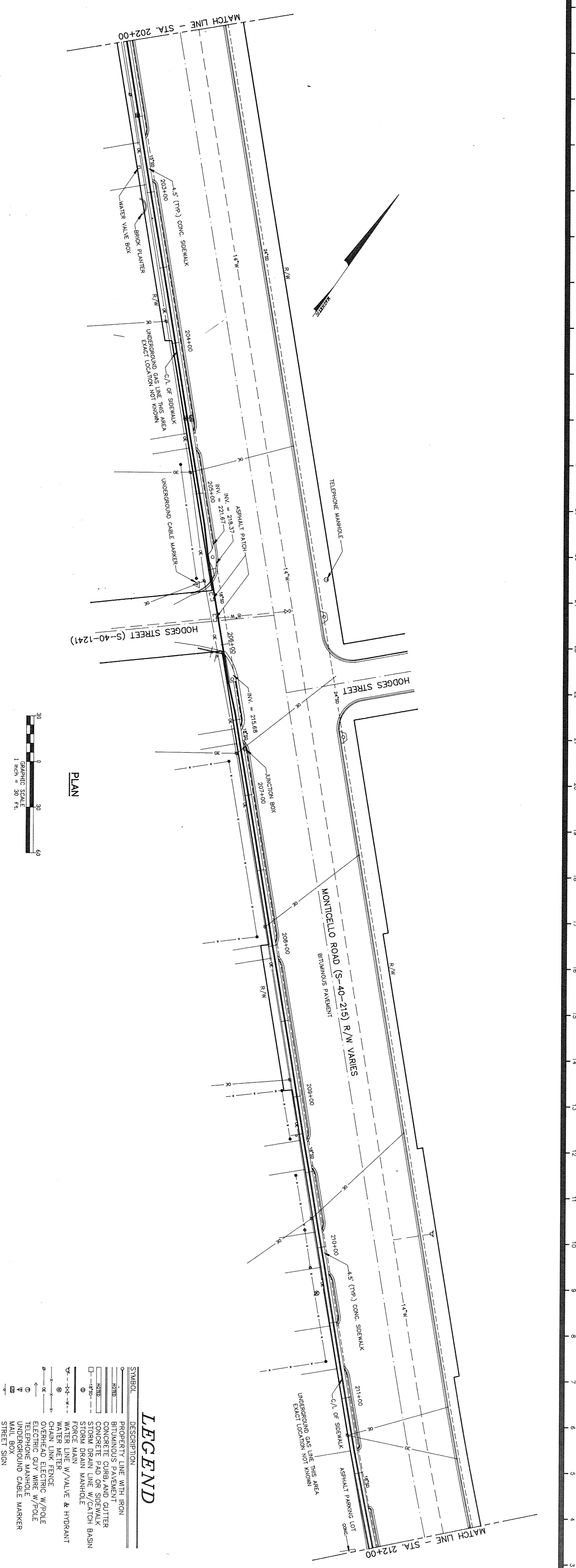
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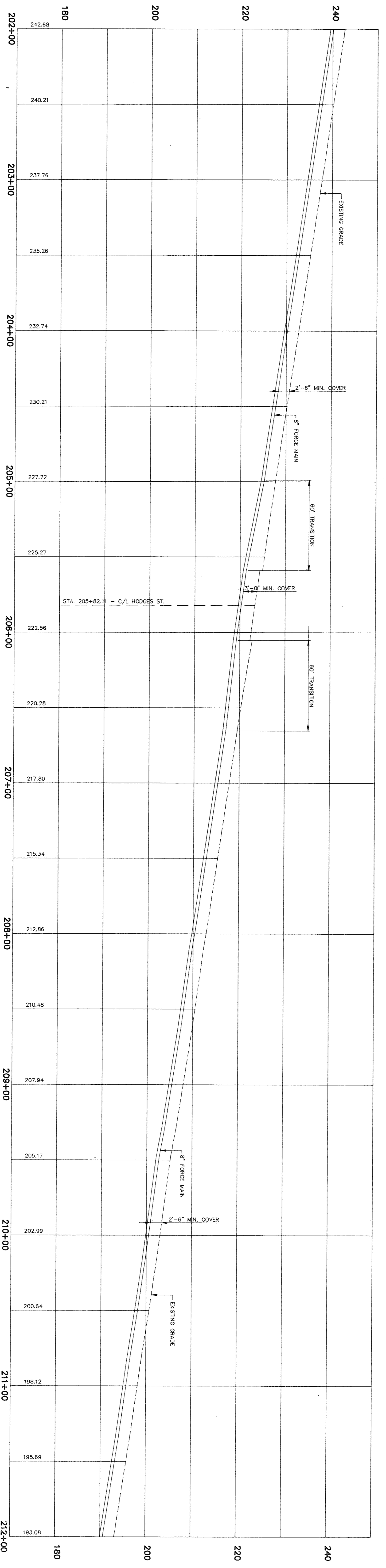
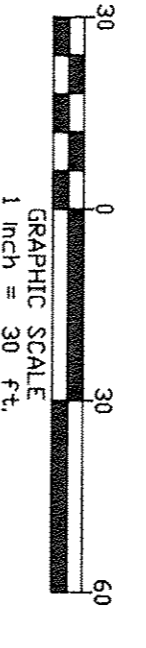
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PLAN AND PROFILE
OFF-SITE SANITARY SEWER FORCE MAIN
SOUTH CAROLINA
FIRE ACADEMY RELOCATION
COLUMBIA, SOUTH CAROLINA
PROJECT NO. S147 DATE 3/17/93 DRAWING NO. C-48



LEGEND

SYMBOL	DESCRIPTION
○	PROPERTY LINE WITH IRON
▬	BITUMINOUS PAVEMENT
▬	CONCRETE CURB AND GUTTER
▬	STORM DRAIN LINE W/CATCH BASIN
▬	STORM DRAIN MANHOLE
▽	FORCE MAIN W/VALVE & HYDRANT
▽	WATER METER
▽	CHAIN LINK FENCE
▽	OVERHEAD ELECTRIC W/POLE
▽	TELEPHONE MANHOLE W/POLE
▽	UNDERGROUND CABLE MARKER
▽	WALL BOX
▽	STREET SIGN



PROFILE
STATION 202+00 TO STATION 212+00
SCALE: 1" = 10' VERT.

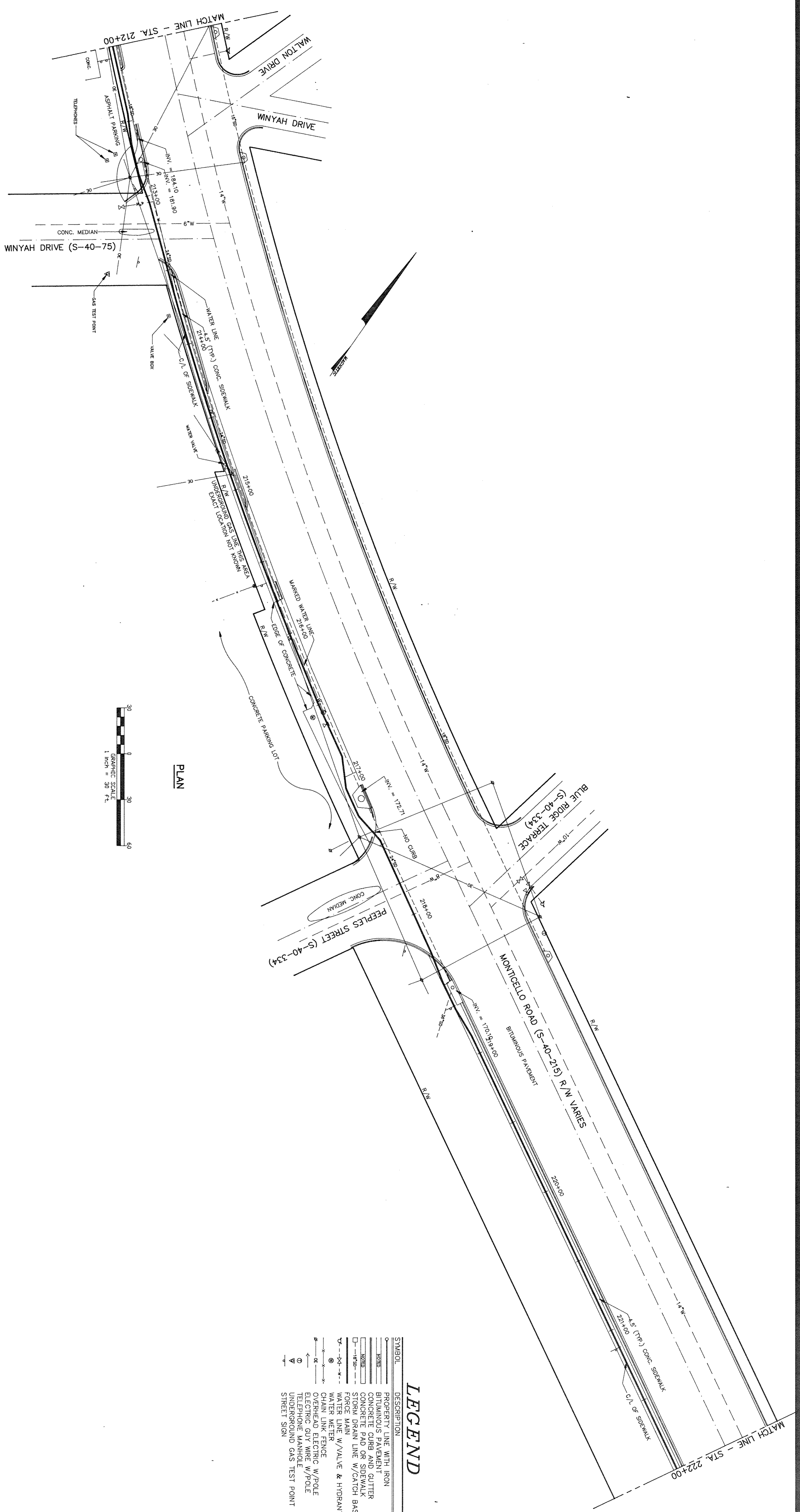
REVISION

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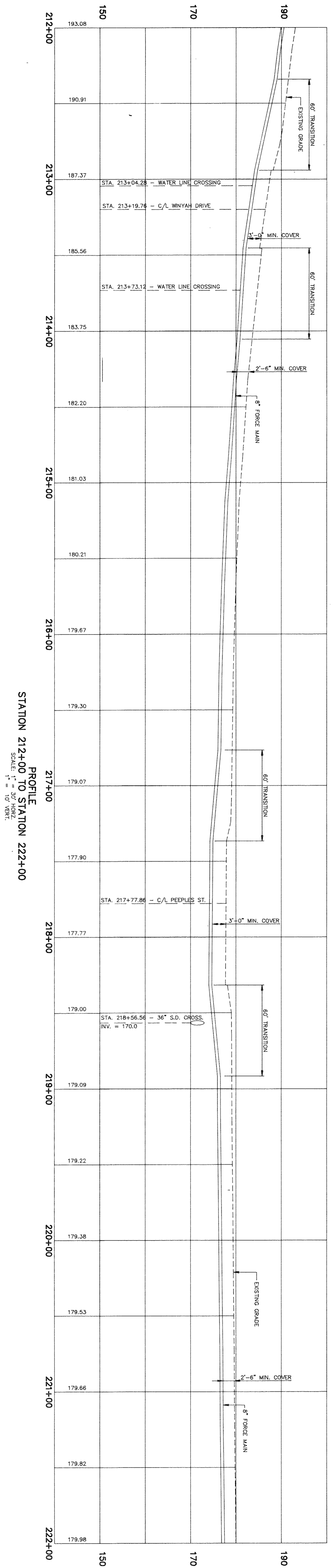
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PLAN AND PROFILE
OFF-SITE SANITARY SEWER FORCE MAIN
SOUTH CAROLINA
FIRE ACADEMY RELOCATION
COLUMBIA, SOUTH CAROLINA
PROJECT NO. S147 DATE 3/17/93 DRAWING NO. C-49



LEGEND

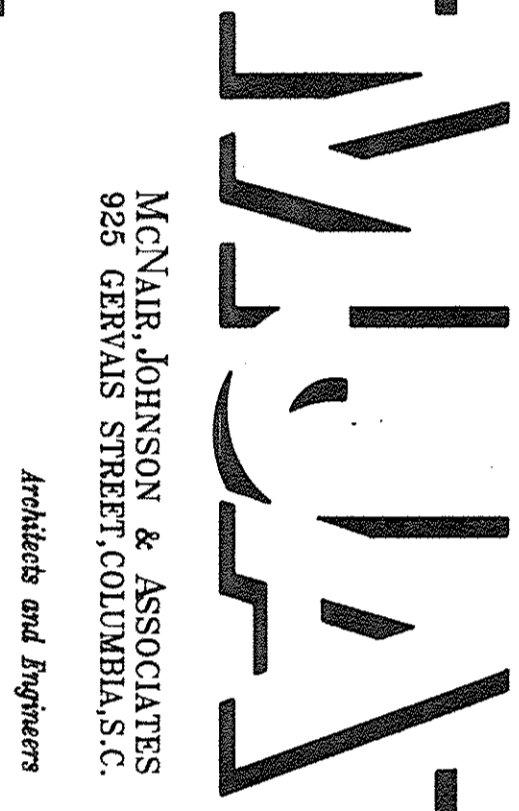
SYMBOL	DESCRIPTION
—	PROPERTY LINE WITH IRON
—	CONCRETE CURB AND GUTTER
—	CONCRETE PAD OR SIDEWALK
—	STORM DRAIN LINE W/CATCH BASIN
—	WATER LINE W/VALVE & HYDRANT
—	WATER METER
—	CHAIN LINK FENCE
—	ELECTRIC GUY WIRE W/POLE
—	TELEPHONE MANHOLE
—	UNDERGROUND GAS TEST POINT
—	STREET SIGN



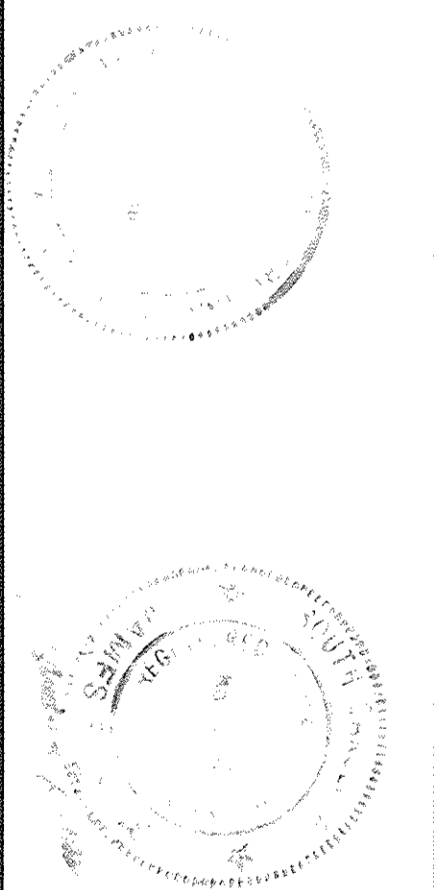
STATION 212+00 TO STATION 222+00
PROFILE

REVISION

NO.	DATE	DESCRIPTION

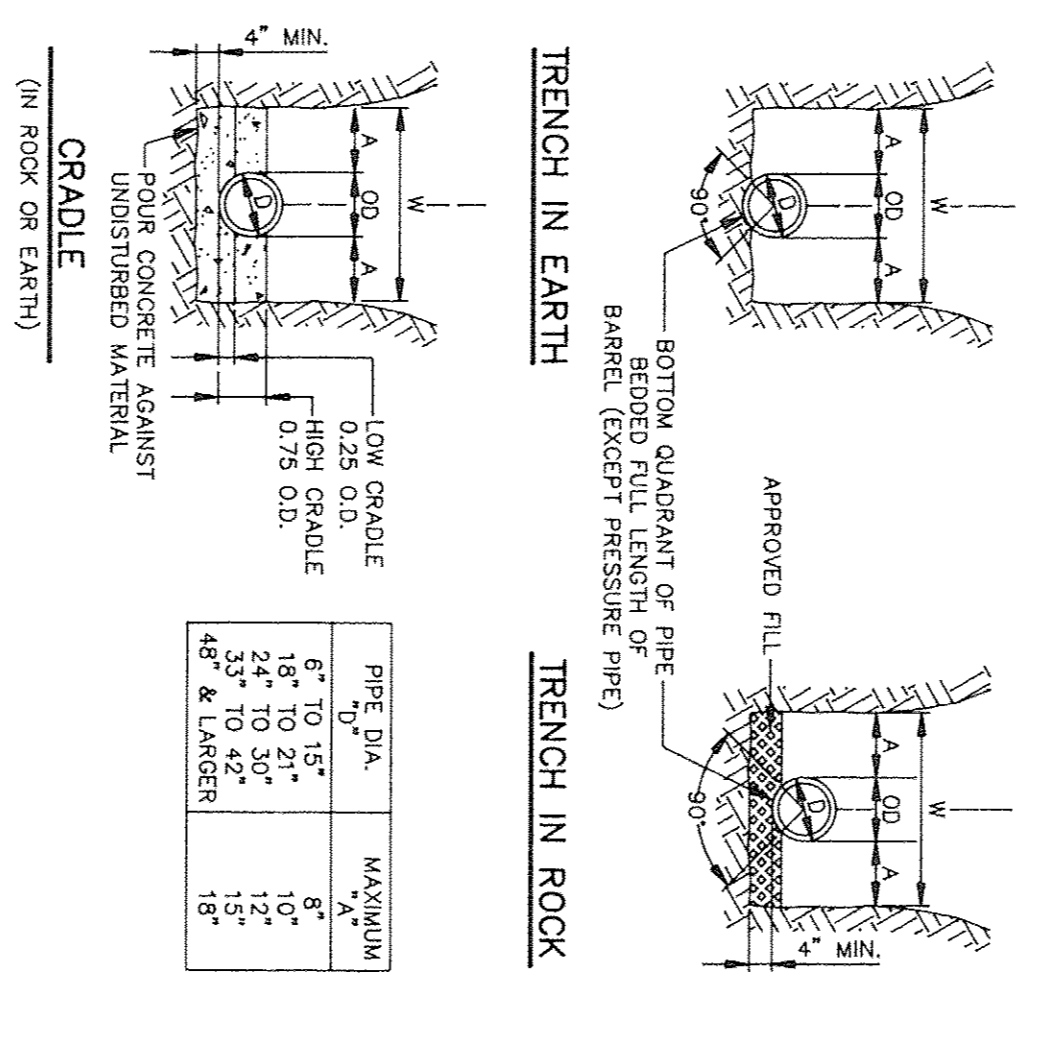
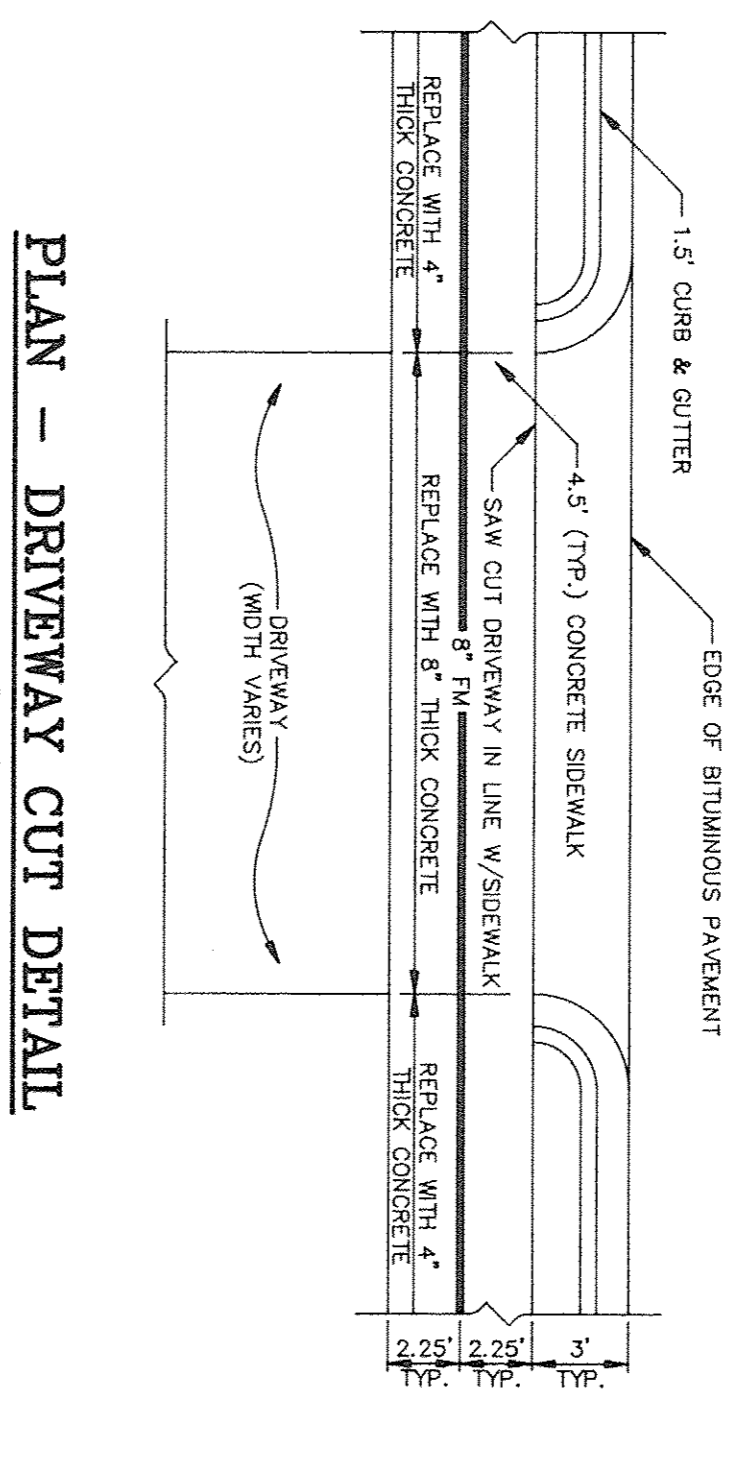
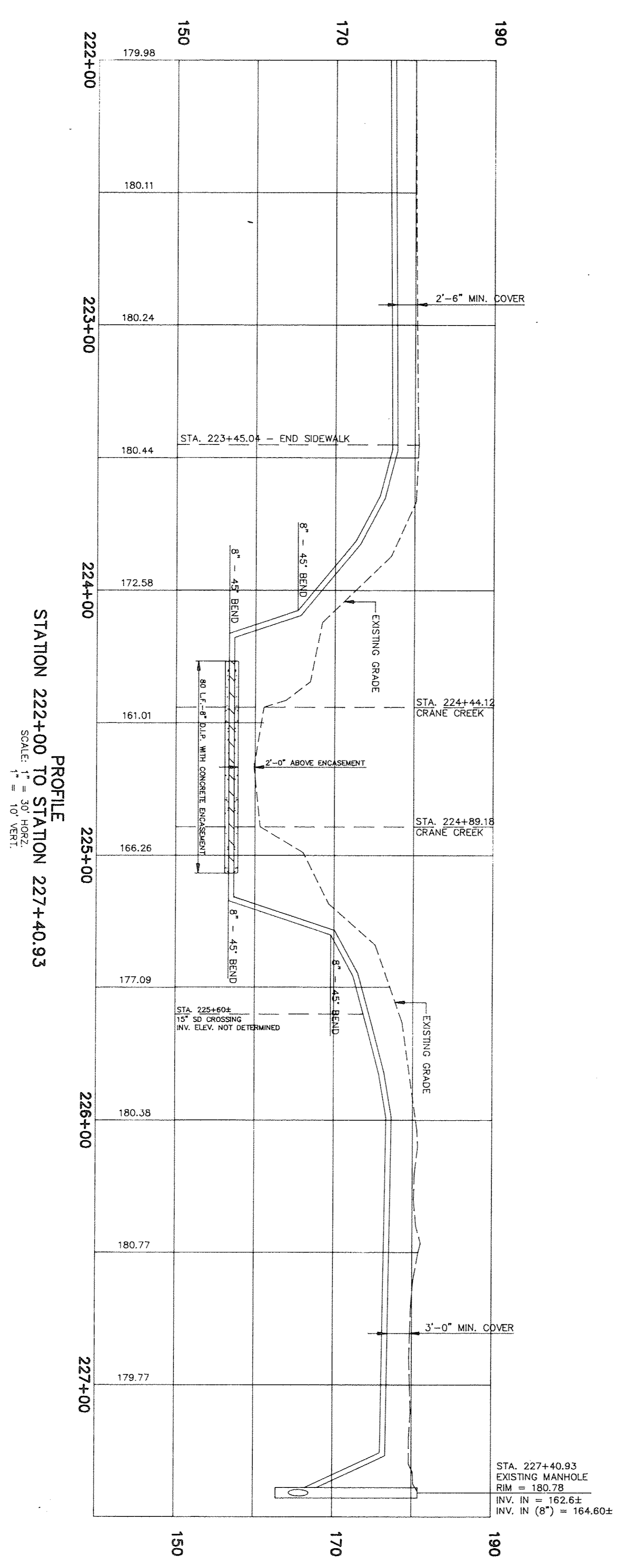
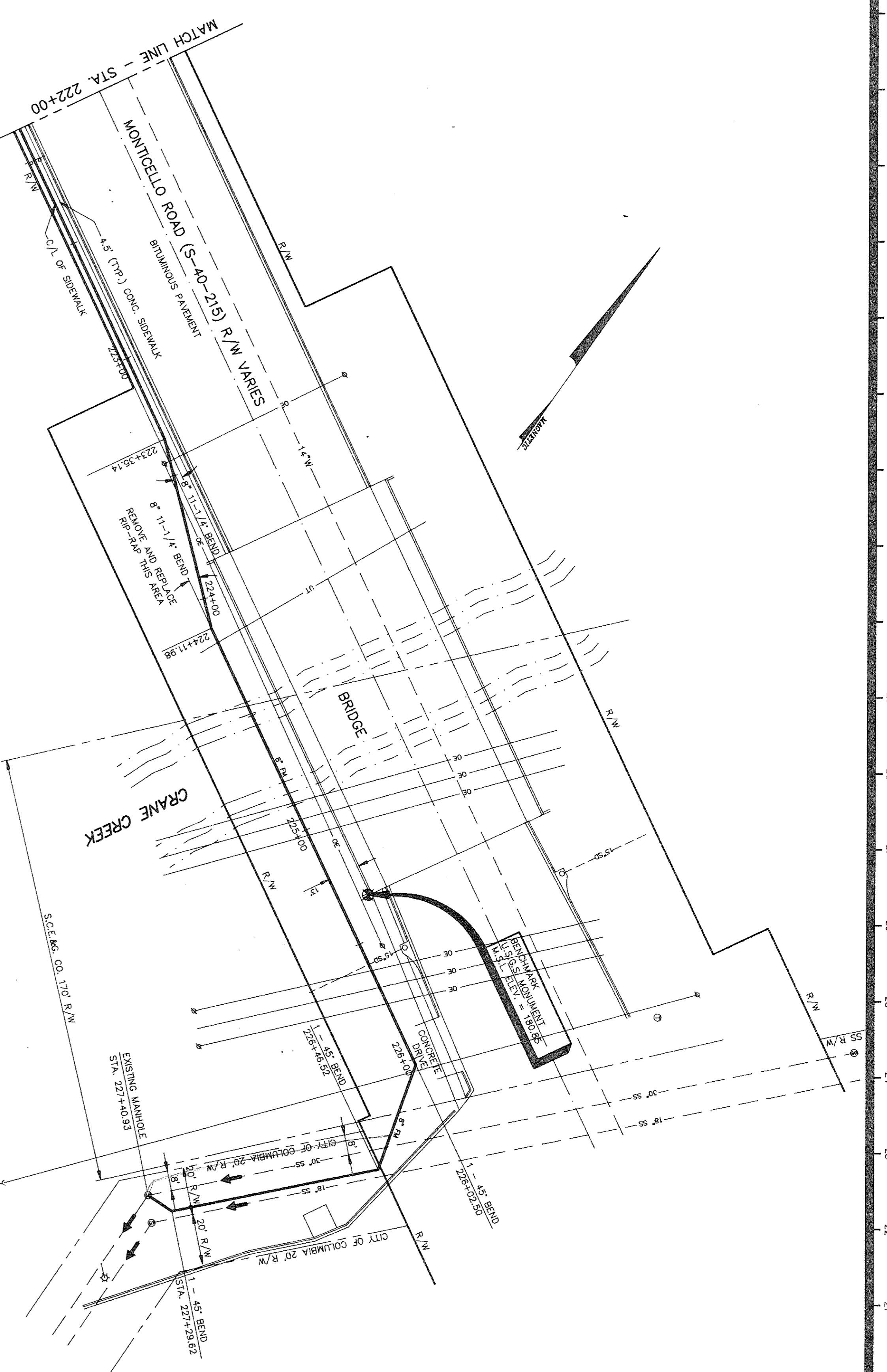


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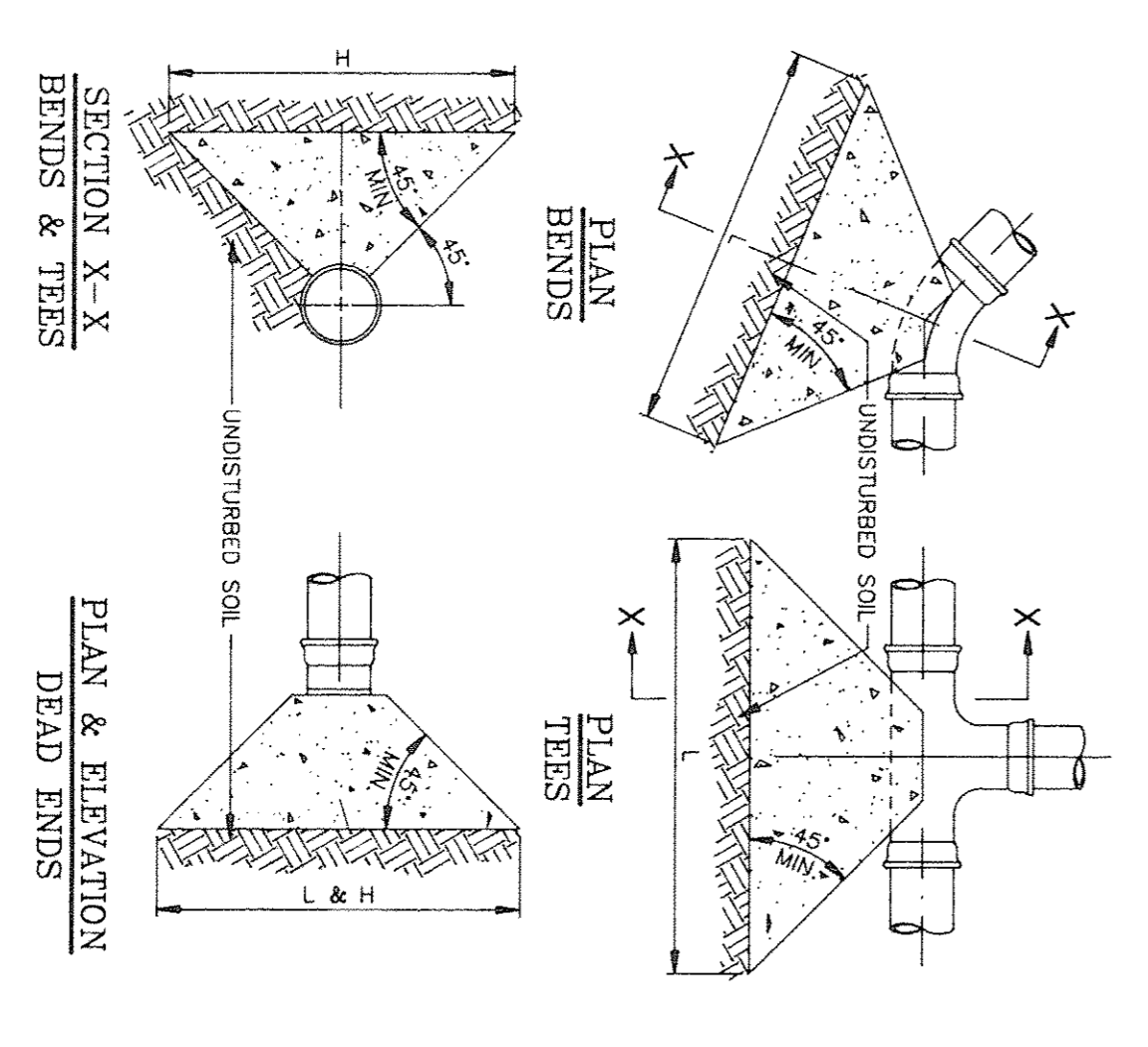
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SHEET TITLE: PLAN AND PROFILE
OFF-SITE SANITARY SEWER FORCE MAIN
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FIRE ACADEMY RELOCATION
COLUMBIA, SOUTH CAROLINA
PROJECT NO. S147 DATE 3/17/93 DRAWING NO. C-50



STANDARD PIPE TRENCH BEDDING

NOT TO SCALE



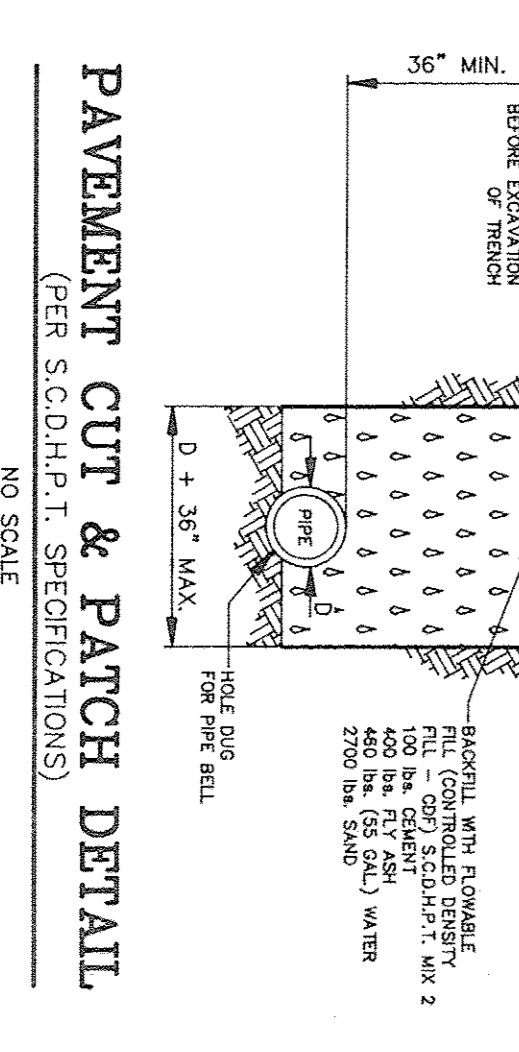
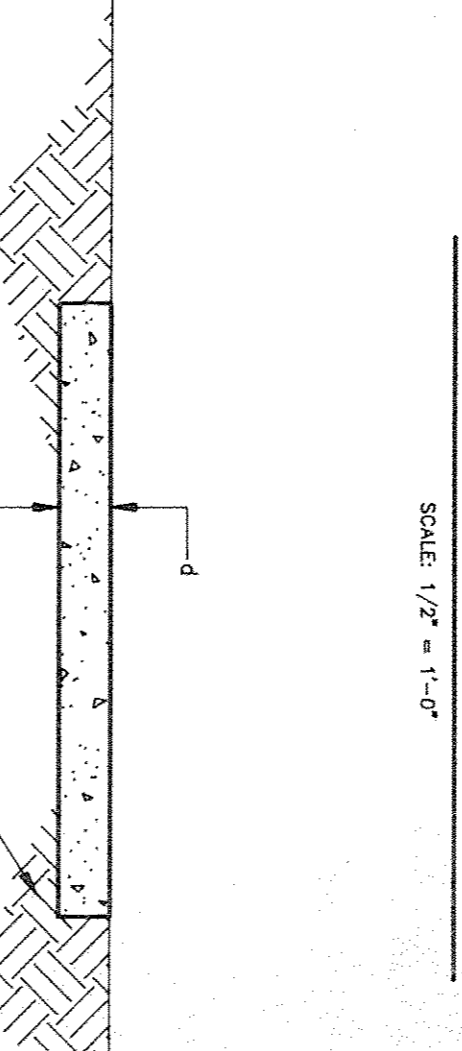
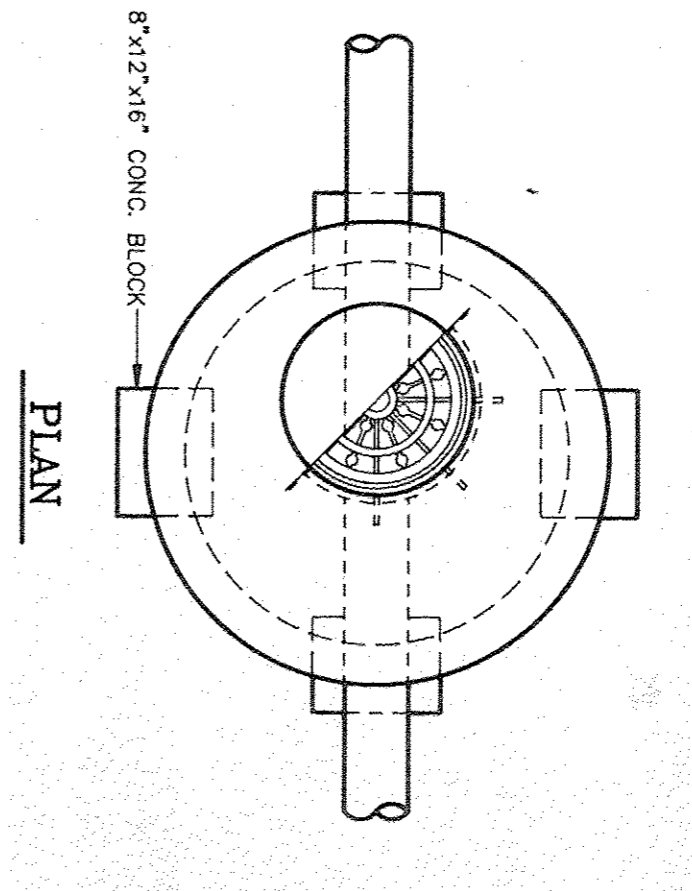
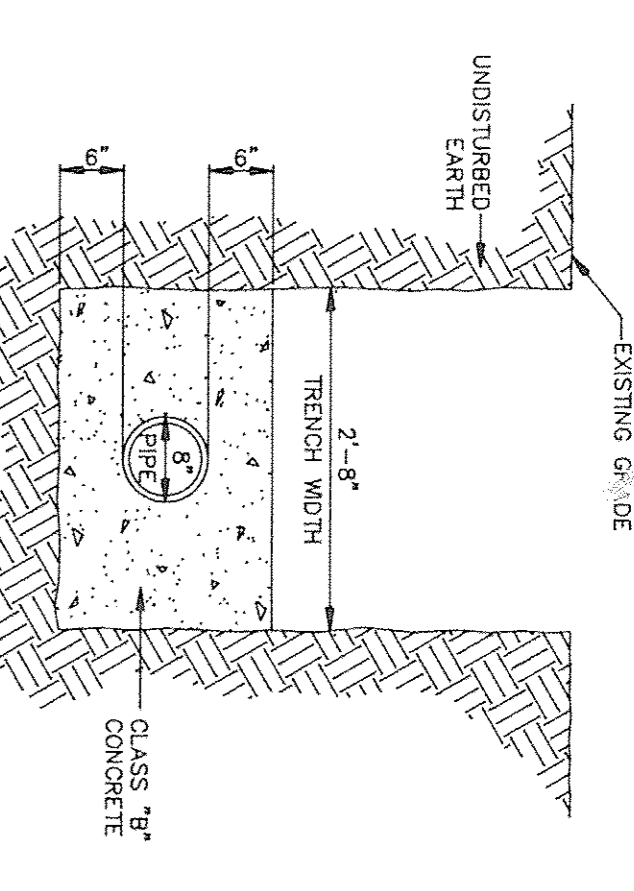
SANITARY SEWER FORCE MAIN THRUST BLOCKS

NOT TO SCALE

TABLE OF BEARING AREAS IN SQ. FT. REQUIRED FOR CONCRETE THRUST BLOCKING

TABLE BASED ON 100 P.S.I. STATIC PRESSURE. TABLE ASSUMES 12" DIA. PIPE AND 1.000 LBS. PER SQ. FT. SOIL BEARING CAPACITY. BEARING CAPACITY OF SOIL MUST BE DETERMINED BY TESTS.

PIPE SIZE	90° BENDS	TEES	HEAD ENDS
8"	7.1	3.8	2.0
12"	11.3	5.0	3.0
18"	17.0	7.5	4.5
24"	22.7	10.0	6.0
30"	28.4	12.5	7.5
36"	34.1	15.0	9.0
42"	39.8	17.5	10.5
48"	45.5	20.0	12.0
54"	51.2	22.5	13.5
60"	56.9	25.0	15.0
66"	62.6	27.5	16.5
72"	68.3	30.0	18.0
78"	74.0	32.5	19.5
84"	79.7	35.0	21.0
90"	85.4	37.5	22.5
96"	91.1	40.0	24.0
102"	96.8	42.5	25.5
108"	102.5	45.0	27.0
114"	108.2	47.5	28.5
120"	113.9	50.0	30.0



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SHEET TITLE: **PLAN AND PROFILE OFF-SITE SANITARY SEWER FORCE MAIN SOUTH CAROLINA FIRE ACADEMY RELOCATION COLUMBIA, SOUTH CAROLINA**

PROJECT NO. **S147** DATE **3/17/93** DRAWING NO. **C-51**