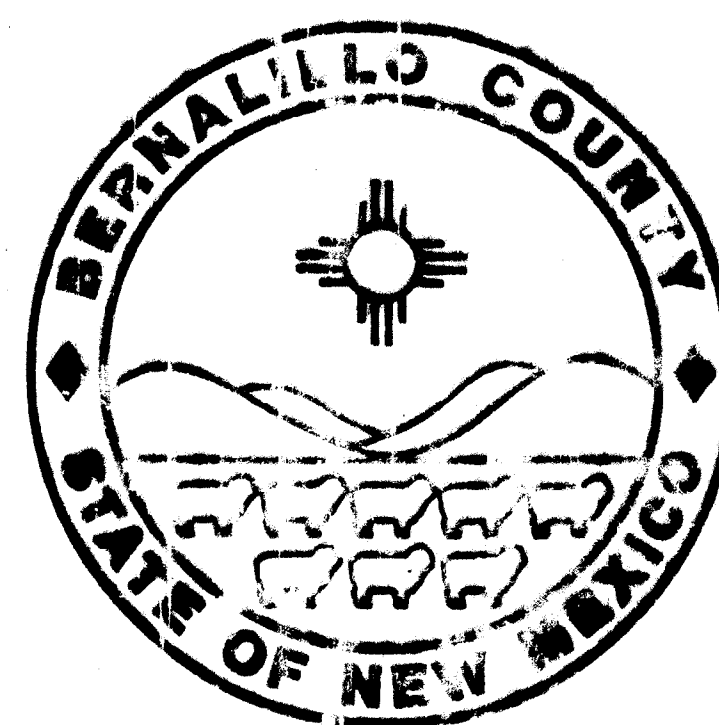


BERNALILLO COUNTY

CONSTRUCTION PLANS

TOWER ROAD



TOWER ROAD

**230 FEET EAST OF INTERSECTION
OF TOWER ROAD AND 86th STREET
TO THE JUNCTION OF TOWER
ROAD AND BRIDGE BLVD.**

RECORD DRAWINGS

Substantial Completion: 12-05-96

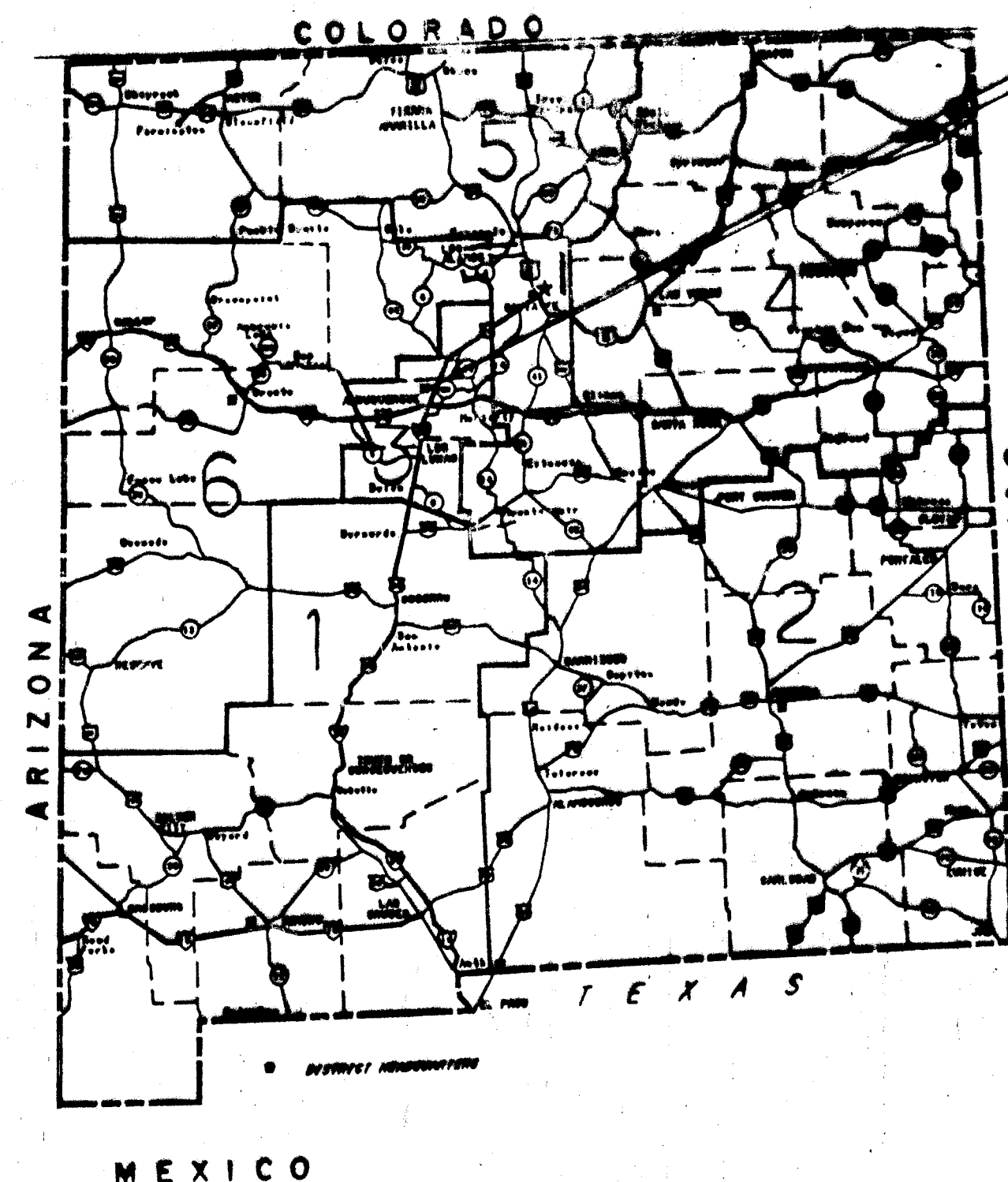
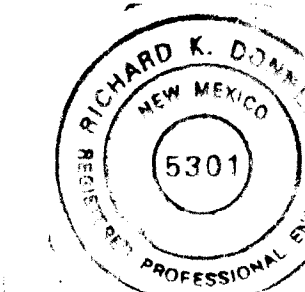
THESE RECORD DRAWINGS WERE PREPARED BY CYGNET®
ENGINEERING FROM FIELD INFORMATION SUPPLIED BY
BERNALILLO COUNTY PUBLIC WORKS DIVISION, WHICH WAS
RESPONSIBLE FOR CONSTRUCTION INSPECTION AND TESTING.
THEY REPRESENT THE BEST AVAILABLE RECORD OF THE AS-BUILT
IMPROVEMENTS.

THE SANITARY SEWER AND WATER FACILITIES IN THIS PROJECT WERE CONSTRUCTED UNDER A BERNALILLO COUNTY CONSTRUCTION CONTRACT. TRANSFER TO CITY OWNERSHIP WAS IN ACCORDANCE WITH A MEMO OF UNDERSTANDING (CCN# 9601138).

PRIME CONTRACTOR: ALBUQUERQUE ASPHALT, INC.
UTILITY SUBCONTRACTOR: CONDORE CONSTRUCTION CO.

COUNTY INSPECTOR: BILL BERRINGER
CONSTRUCTION MANAGER: DON MITCHELL
COUNTY PROJECT MANAGER: ERIC ZAMORA
CITY PROJECT MANAGER: GREG OLSON

Hugobert Ober 12/17/9



AS BUILT5 PLANS

APPROVAL OF AS BUILT DRAWINGS
CHIEF CONSTRUCTION ENGINEER
[Signature]
DATE 12-8-91

| | | | | | | | | | | | | | | |
|----|---|---|---|---|---|---|---|---|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 26 | | 5 | 3 | 3 | 2 | | 9 | 0 | 9 | 7 | L | 0 | | |

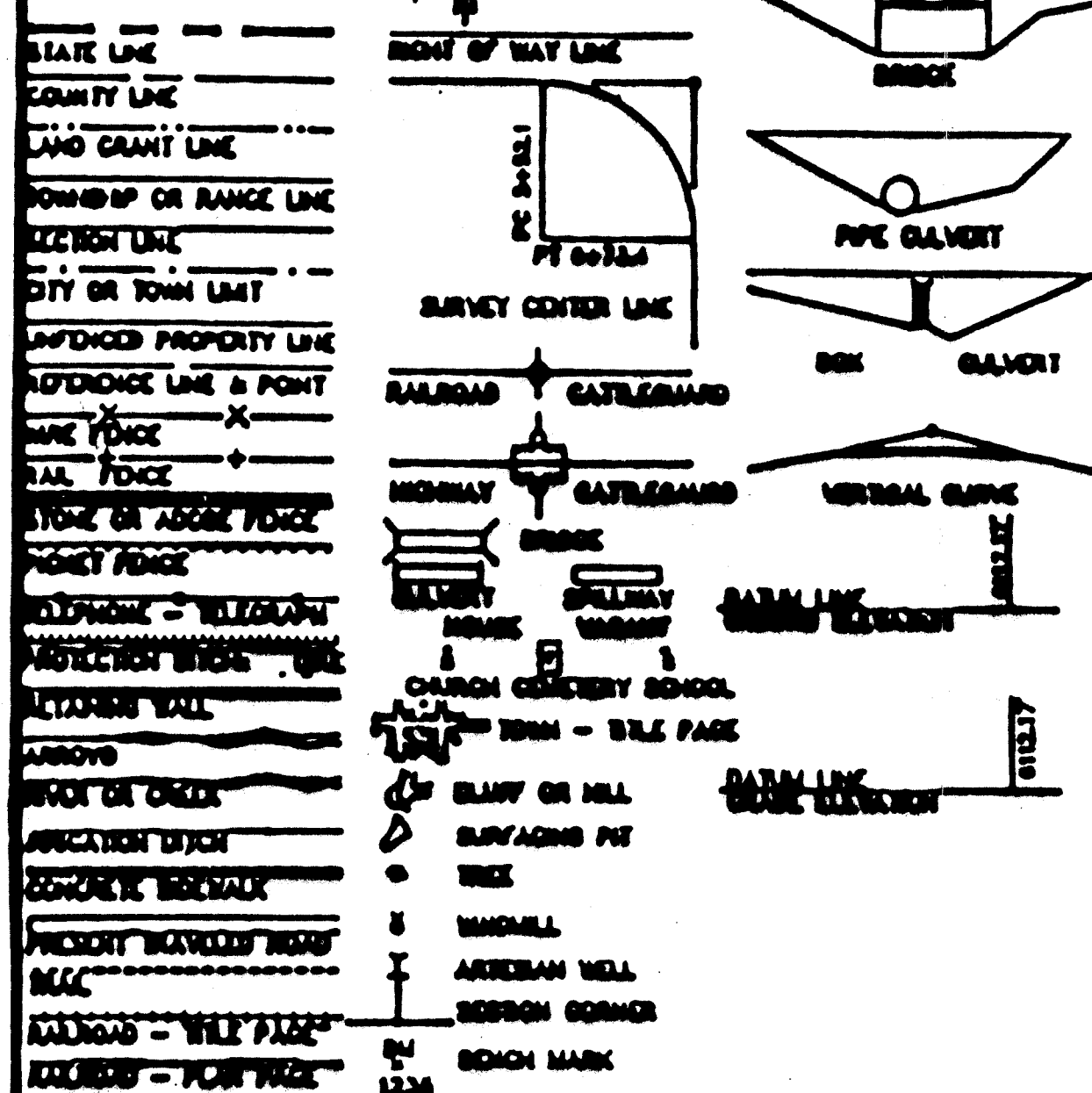
APPROVED: _____ DATE: _____
 BERNALILLO COUNTY PUBLIC WORKS

SCANNED BY
BY LASON

[illegible]

CONVENTIONAL
ON PLAN

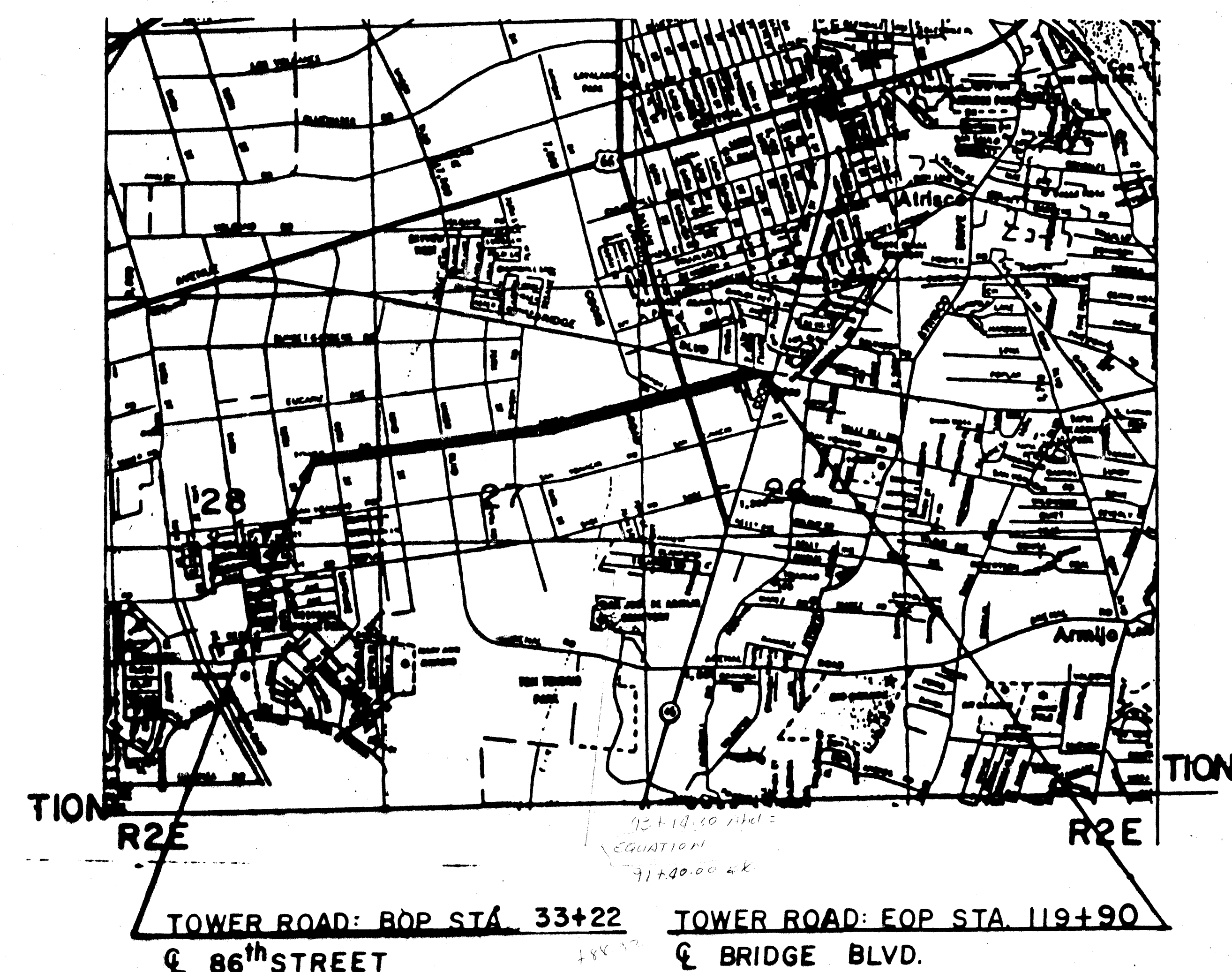
SIGNS
ON PROFILE



TOWER ROAD CONSTRUCTION

JCT. TOWER ROAD AND 86TH
STREET EAST TO JCT. TOWER
ROAD AND BRIDGE BLVD.

PROJECT LENGTH 1.642 MILES
R.O.W LENGTH 1.642 MILES



BOOK NUMBERS
No books furnished for this project

SCALES
Plan 1" = 100'
Profile 1" = 10'

SHIPPING POINTS
Albuquerque

NEW MEXICO STATE HIGHWAY AND TRANSPORTATION
DEPARTMENT STANDARD SPECIFICATIONS FOR ROAD AND
BRIDGE CONSTRUCTION EDITION OF 1994 SHALL GOVERN
CONSTRUCTION OF THIS PROJECT.

TYPE OF CONSTRUCTION

IMPROVEMENTS INCLUDE UNCLASSIFIED
EXCAVATION, SANITARY SEWER LINE, PLACEMENT
OF BASE COURSE, ASPHALT PAVEMENT, RETENTION
PONDS AND MISCELLANEOUS CONSTRUCTION.

AS BUILT PLANS

VICINITY MAP

CYGNET® ENGINEERING
NO. 12, UNSER BLVD SUITE B
RIO RANCHO, N.M. 87124
(505) 891-1770

SCANNED BY
BY LASON

ONLY FOR
SEWER/WATER
OF 15 for 505 #0

BERNALILLO COUNTY
TOWER ROAD PROJECT

| SHEET NO. | DESCRIPTION | REVISION DATE | SERIAL NO. |
|-----------|---|---------------|--------------|
| 1 | 1-1 TITLE PAGE | | |
| 2 | 1-2 VICINITY MAP | | |
| 3 | 1-3 INDEX OF SHEETS | | |
| 4 | 1-4 SUMMARY OF QUANTITIES | | |
| 5 | 1-5 GENERAL NOTES | | |
| 6-7 | 2-1 2-1A TYPICAL SECTIONS | | |
| | 2-2 SURFACING SCHEDULE | | |
| | 2-3 ESTIMATED STRUCTURE QUANTITY | | |
| | 2-4 EROSION CONTROL | | |
| 8-13 | 3-1 - 3-6 PLAN AND PROFILE SHEETS | | |
| | 5-1 SIGN FACE DETAILS-CONSTRUCTION TRAFFIC PLAN | | |
| | 5-2 TRAFFIC CONTROL PLAN | | |
| | | | |
| | | | |
| | 5-3 SUMMARY OF QUANTITIES & NOTES | | |
| | | | |
| | 6-1 PERMANENT SIGNING | | |
| | 6-2 SIGNALIZATION PLANS | | |
| | | | |
| | MODIFIED CONCRETE BLANKETS | | BBG-001 & 05 |
| | MAXIMUM & MINIMUM COVERS STEEL ARCH PIPES | | BMC-002 |
| | CORRUGATED METAL & CULVERT PIPE ARCH BEDDING AND BACKFILLING | | BMC-005 |
| | | | |
| | DESIGN LOADS FOR SQUARE TUBING POSTS | | SN-75-1 |
| | ALUMINUM PANEL SIGNS SHEETS 1 & 2 | | SN-75-02 |
| | TRAFFIC MARKER HAZARD DETAILS | | SN-75-8 |
| | BARRICADES & CHANNELIZATION DEVICES | | SN-77-9 |
| | TEMPORARY EROSION & SEDIMENT CONTROL MEASURES | | DRAWING-050 |
| 14 | SEWER MANHOLE TYPE "E" CITY OF ALB | | DWG 2102 |
| 15 | SEWER MANHOLE FRAME & COVER | | DWG 2110 |

AS BUILT PLANS

CYGNET ENGINEERING
12 UNSER BLVD. SUITE B
RIO RANCHO, NM 87124
(505) 891-1770

SCANNED BY
BY LASON

SUMMARY OF QUANTITIES

SUMMARY OF BID QUANTITIES
TOWER ROAD

| ITEM NO. | ITEM DESCRIPTION | UNIT | ESTIMATE | FINAL |
|----------|--|------|----------|---------|
| 201000 | CLEARING AND GRUBBING | L.S. | 1 | 1 |
| 203000 | UNCLASSIFIED EXCAVATION | C.Y. | 16000 | 13003 |
| 207000 | SUBGRADE PREPARATION | S.Y. | 30610 | 41947 |
| 302000 | PROCESSING, PLACING & COMPACTING EXISTING PAVEMENT | S.Y. | 7402 | 7206 |
| 304000 | BASE COURSE OR SUBBASE | TON | 9006 | 8672.36 |
| 401010 | PMBP 1-B | TON | 4736 | 5178.63 |
| 401230 | 85-100 BITUMINOUS MATERIAL | TON | 240 | 245.53 |
| 401300 | HYDRATED LIME | TON | 70 | 74.08 |
| 401900 | BITUMINOUS PAVEMENT FOR DITCHES | S.Y. | 3073 | 4209 |
| 408000 | ASPHALT FOR PRIME COAT | TON | 36 | 4.40 |
| 511000 | STRUCTURAL CONCRETE CLASS A | C.Y. | 26 | 8.0 |
| 540200 | WELDED WIRE FABRIC | LBS | 286 | 180 |
| 541200 | STRUCTURAL STEEL MISC. STL. | LBS | 3430 | 0 |
| 570156 | 20" X 20" (NOM) CULVERT PIPE ARCH | L.F. | 240 | 320 |
| 603000 | FILTER DAM | L.F. | 180 | 25 |
| 603100 | TEMPORARY SOIL STABILANT | ACRE | 2 | 0 |
| 606600 | TEMPORARY CONCRETE WALL BARRIER | L.F. | 400 | 300 |
| 606619 | RESETTING OF CONCRETE WALL BARRIER | L.F. | 2000 | 1200 |
| 614012 | PIPE CASING 12" | L.F. | 77 | 80 |
| 632000 | CLASS "A" SEEDING | ACRE | 8 | 0 |
| 532030 | CLASS "B" SEEDING | ACRE | 1 | 0 |
| 662060 | MANHOLE TYPE E-4' 0'-6" DP | E.A. | 1 | 1 |
| 662062 | MANHOLE TYPE E-4' OVR 6' - 10' DP | E.A. | 6 | 6 |
| 662064 | MANHOLE TYPE E-4' OVR 10'-14' DP | E.A. | 4 | 3 |
| 662400 | ADJUST MANHOLE TO GRADE | E.A. | 6 | 7 |
| 663610 | POLYVINYL CHLORIDE PIPE 10" | L.F. | 68 | 80 + 20 |
| 663775 | WET CONNECTION TO EXISTING WATERLINE | L.S. | 1 | 1 |
| 663908 | SANITARY SEWER - 8" | L.F. | 200 | 25 |
| 663910 | SANITARY SEWER - 10" | L.F. | 2060 | 2000 |
| 663944 | SANITARY SEWER SERVICE LATERAL 4" | E.A. | 14 | 23 |
| 701000 | ALUMINUM SIGNING | S.F. | 102 | 190.70 |
| 701100 | POSTS FOR ALUM. SIGNS | L.F. | 212 | 200.00 |
| 702000 | CONSTRUCTION SIGNING | S.F. | 262 | 344 |
| 702100 | POSTS FOR CONSTRUCTION SIGNING | L.F. | 112 | 0 |
| 702110 | PORTABLE SIGN SUPPORT | E.A. | 16 | 18 |
| 702238 | BARRICADES TYPE III - 8' | E.A. | 4 | 2 |

| ITEM NO. | ITEM DESCRIPTION | UNIT | ESTIMATE | FINAL |
|------------|--|------|----------|--------|
| 700000 | CHANNELIZATION DEVICE (BRL) TYPE H | E.A. | 36 | 85 |
| 700000 | ROAD DELINEATOR TYPE (HAZARD) | E.A. | 16 | 14 |
| 70000A | REFL. PAINTED MARKINGS (POLYESTER) | L.F. | 23000 | 21624 |
| 704213 | REFL. PLAST PYMT STRIPE 12" | L.F. | 72 | 97 |
| 704300 | REFL. CORR. ARROW (THRU & RIGHT) | E.A. | 2 | 2 |
| 700010 | RIGID ELECTRICAL CONDUIT 1" | L.F. | 530 | 46 |
| 710000 | ELECTRICAL PULL BOX (STANDARD) | E.A. | 2 | 2 |
| 713030 | LOOP DETECTOR WIRE | L.F. | 300 | 1201 |
| 713200 | LOOP LEAD-IN CABLE | L.F. | 530 | 350 |
| 713300 | DETECTOR SAW CUT | L.F. | 190 | 438.5 |
| 304000-001 | BASE COURSE OR SUBBASE DRIVEWAY | S.Y. | 0 | 152.6 |
| 401010-001 | ASPHALT BITUM. PAVING | TON | 0 | 541.22 |
| 401010-002 | BITUMINOUS DRIVEWAY PAVING NON-MACHINE LAYDOWN | S.Y. | 0 | 209.40 |
| 401010-003 | BITUMINOUS DRIVEWAY PAVING MACHINE LAYDOWN | S.Y. | 0 | 943.20 |
| 806210 | ROCK BRADS | E.A. | 0 | 1 |
| 623001 | MINI DRAINAGE CORRECTIONS, COMPLETE | L.S. | 0 | 1 |
| 623001-001 | MEDIAN DROP INLET | E.A. | 0 | 1 |
| 702335 | VERTICAL PANEL TYPE BACK TO BACK | E.A. | 0 | 50 |
| 703002 | TYPE II DELINEATOR | E.A. | 0 | 6 |
| 70400A-001 | REFL. CONC. - 16 MIL TAPE | E.A. | 0 | 14 |
| 704300-001 | REFLECTORIZED RIGHT OR LEFT TURN ARROW | E.A. | 0 | 5 |
| 704300-002 | REFLECTORIZED THRU ARROW | E.A. | 0 | 1 |
| 701100 | REMOVAL OF PAVEMENT STRIPE | L.F. | 0 | 157.50 |
| 662060-001 | 10" WATERLINE EXTENSION COMPLETE | L.S. | 0 | 1 |

CYGNET® ENGINEERING
#12 UNSER BLVD. STE B
RIO RANCHO, N.M. 87124
(505) 891-1770

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: TOWER ROAD SEWER INSTALLATION

| | | | |
|--------------------------|------------------------|---------------------------|----------|
| Design Review Complete | City Engineer Approved | mm/dd/yy | mm/dd/yy |
| City Project No. 6552 SB | | Scale Map No. L-10 & L-11 | |

AS BUILT PLANS



SCANNED BY
RYLASON

CYGNET ENGINEERING
12 UNSER BLVD. SUITE B
RIO RANCHO, NM 87124
(505)891-1770

GENERAL NOTES

TOWER ROAD

1. The earthwork quantities are based on a shrinkage factor of 20% in roadway embankment.
2. The design "R" value for this project is 60. Material with an "R" value less than the design "R" value shall not be placed in or be allowed to remain within the top two feet of the finished subgrade. This shall include detour subgrade.
3. The earthwork haul on this project will be considered as included in the contract price for item 203000 unclassified excavation and no separate measurement or payment will be made therefor.
4. The New Mexico State Highway and Transportation Department's Standard Specifications for Road and Bridge Construction Edition of 1994, together with all the Special Provisions and Supplemental Specifications herewith and the Applicable Standard Serial Drawings shall govern the construction of this project.
5. The Contractor shall provide a traffic control plan in accordance with traffic control as shown in the plans and in accordance with current "Manual of Uniform Traffic Control Devices". The Traffic Control plan shall be approved by Bernalillo County Traffic Engineering prior to the Contractor commencing work on this project.
6. Material for the production of surfacing aggregates for this project may be obtained from any source after such material has been approved by the Engineer. This must be done before any material is produced for this project.
7. If a pavement drop-off is created during construction, the Contractor shall initiate protective action in accordance with the NMSHTD's current "Drop-Off Policy". This work shall be considered incidental to the completion of the project and no separate measurement or payment will be made therefor.
8. The Contractor shall warp slopes where necessary to stay within the Right of Way or construction easement limits.
9. The Contractor shall place a string line to guide PMBP laydown operations.
10. The Contractor shall utilize a tapered edge shoe on his laydown machine to approximate theoretical tapers as shown on the plans. A suitable PMBP edge taper must be placed and rolled to the satisfaction of the Engineer.
11. The Contractor shall provide ingress and egress to local businesses and residences for the duration of the project. The Contractor shall advise of and schedule access closures, at least 24 hours in advance, with property owners and the Project Manager.
12. It shall be the Contractor's responsibility to locate and protect all utilities located within the project limits during construction of this project.
13. The Construction Clear Zone for this project has been established at 30 feet from the edge of existing pavement and/or base course. The Contractor shall not store any equipment or material within the Construction Clear Zone unless the equipment or material is properly shielded utilizing current safety design and installation methods. The Safety Design for this shielding shall be provided by the Contractor and must be approved by the Bernalillo County Project Manager before implementing. This work, including design, installation and removal of the shielding, shall be considered incidental to the completion of the project and no separate measurement or payment will be made therefor.
14. Information pertaining to the monumentation plans for this project may be obtained from the Bernalillo County Monumentation Surveyor/Project Manager.
15. The Contractor shall take precautions to protect horizontal and vertical control survey monuments (mark) from damage prior to initiating construction. If during the course of construction operations, the Contractor disturbs or destroys a mark, the Contractor shall establish a new mark in compliance with the standards and procedures set forth in the "GEODETIC MARK PRESERVATION GUIDEBOOK", Nation Geodetic Survey, March 1990, contact: NGS Mark Preservation Center - NOA. Telephone (505) 768-3606.
16. The Contractor shall properly handle and dispose of all asphalt pavement material removed on the project which is not utilized in Item 302000 by either:
-Placing within the new roadway prism at least 2 feet below subgrade and burying at least 1 foot measured normal from exposed slopes; or
-Hauling to an approved landfill in accordance with the regulations of the New Mexico Solid Waste Act
-Payment for this work will be considered included in the contract price for Unclassified Excavation and no separate measurement or payment will be made therefor.
17. All existing highway signs, mailboxes, etc. which interfere with construction operations, shall be removed and reinstalled by the Contractor. This work will be incidental to the completion of the work. If any highway signs, mailboxes, etc. are damaged by the Contractor, he shall replace and reinstall at no additional cost to the County.
18. The Contractor shall be responsible for removal of any materials, asphalts, equipment parts, or other debris which results from the performance of this work.
19. The Contractor shall sweep with a power broom prior to asphalt laydown operations as directed by the Project Manager.
20. The Contractor shall place painted pavement markings, traffic markers, and permanent signing as directed by the Project Manager.
21. Mobilization is not an item under this contract and no direct payment will be made therefor.
22. The Contractor shall furnish, for approval by the Engineer, a suitable Plant Mix Bituminous Paving 1-B mix design performed by a recognized testing laboratory prior to beginning any work.
23. The project must be completed within 120 calendar days. The award is anticipated to take place after bid opening, tabulation and subsequent Bernalillo County Commission action.
24. Prime coat will be applied at the rate of .25 gallons per square yard or as directed by the Project Manager.
25. The Engineer will set line and grade for the sanitary sewer installation and establish existing base staking as determined by the Engineer to be necessary to provide satisfactory finished grade.
26. Item number 663908 Sanitary Sewer - 8" and Item number 663910 Sanitary Sewer - 10" will be bid in place which will include the price for all trenching, placement, and backfilling. Sanitary sewers shall be constructed in accordance with the City of Albuquerque Specifications.
27. Item number 201002 Clearing and Grubbing will include removal of all trash in an environmentally correct manner, the Contractor shall bid this work as a part of the clearing and grubbing item and no separate payment will be made therefor. The trash consists of modern day solid waste which can be removed by raking or sifting in order to remove the larger articles and retain as much soil as possible. The Contractor is further advised that asbestos tile and rubber tires have been dumped on Tower Road and may require special disposal. Other hazardous wastes may be encountered at the time of construction. Any trash accepted by a landfill must be identified and documentation of acceptance shall be furnished to Bernalillo County. The Contractor shall comply with specific OSHA requirements and must hand sort any hazardous materials. The Contractor shall submit a work plan and a list of disposal site(s) for approval by the Bernalillo County Public Works Department and its Engineer prior to beginning any work on this item.
28. Items designated for removal without salvage, unsuitable construction materials and debris from clearing and grubbing are to be placed in an environmentally suitable disposal site secured and coordinated by the Contractor, with the appropriate regulatory agencies, and in accordance with Section 110 Control of Environment. The Contractor shall notify the Project Manager, in writing, of the details of the disposal operations. Borrow material, rock waste, vegetative debris, etc., shall not be placed in wetland areas or areas which may impact endangered species or archaeological resources. An archaeological survey and environmental clearance shall be obtained by the Contractor before disposal sites are accepted in accordance with Subsection 107.23 Contractors Responsibility for Archaeological Clearance.
29. The Contractor shall be responsible for reporting and cleanup of spills associated with project construction and shall report and respond to spills of hazardous materials such as gasoline, diesel, motor oils, solvents, chemicals, toxic and corrosive substances, and other materials which may be a threat to public health or the environment. The Contractor shall be responsible for reporting past spills encountered during construction and of current spills not associated with construction. Reports shall be made immediately to the NM Environment Department Emergency Response Team at 827-4308 or 470-3657 and to the Project Manager.
30. All work in the vicinity of live streams, water impoundment's, wetlands or irrigation supplies shall be effected in such a manner as to minimize vegetation removal, soil disturbance and erosion. Crossing of live streams with heavy equipment shall be minimized, as determined by the Project Manager. Equipment refueling, maintenance and cement dumping in the vicinity of water courses is strictly prohibited and shall be performed in proper containment areas.
31. The Contractor shall strictly adhere to the revegetation and erosion control plan as shown on sheet 2-4. All deviations from this plan must have prior approval of the Project Engineer. The use of erosion control measures shall be included in accordance with the NPDES General Permit Compliance. The Contractor is responsible for compliance with the New Mexico Water Quality Act and applicable Clean Water Act permits and regulations.
32. Sanitary service laterals shall be placed to the right of way line sloping 1/4" per foot. Laterals are to be capped. Sanitary sewers shall be constructed in accordance with the City of Albuquerque Specifications and as follows:
4" service size - 8" or 10" main size - insert manufact. tee/wye or
4" service size - 8" or 10" main size - core drill and install saddle.
33. Loop detector locations shall be placed as directed by the Project Manager.
34. Ditch paving will be placed between station 78+00 and 91+40. Payment for this work will be made under bid item 401900 Bituminous Pavement for Ditches.
35. Contractor shall follow the requirements listed in Bernalillo County's Ordinance number 95-12. The permit fee for this project is expected to be 1.5% of the amount bid, also required is a \$15,000.00 performance bond (see Section 5 pages 24 and 25) naming Bernalillo County as beneficiary. In the event that the amount bid is over \$500,000.00 the permit fee shall be 1.0% of the amount bid, the performance bond would remain the same. As per the New Mexico State Highway and Transportation Standard Specifications for Road and Bridge Construction 1994 edition Section 107.1 and 107.2 no separate payment shall be made therefor.
36. A barricading permit will be required from the County Traffic Control Engineer. Call 848-1504 to obtain prior to commencing work.
37. Electronic Marker disc, color coded green, shall be placed at the end of each sewer service lateral if service hook-up is not made. Cost of the electronic marker disc shall be included in Item number 663944 Sanitary Sewer Service Lateral 4" and no separate payment will be made therefor.

INCIDENTALS

1. Earthwork haul shall be considered included in bid item 203000 and no separate payment will be made. General note #3
2. The construction clear zone, shielding, design of such is considered incidental. General note #13
3. Disposal of asphalt material is considered included in bid item 203000 and no separate payment will be made. General note #16
4. All existing signs, mailboxes and etc. which interfere with construction shall be removed and reinstalled at no additional cost. General note #17
5. The Contractor shall sweep with a power broom prior to asphalt laydown operations. General note #19

ENVIRONMENTAL REQUIREMENTS

1. See General Note 27 regarding the handling of trash and hazardous materials.
2. Ground nesting bird species have been sited within the project limits. In order to limit impacts on protected bird species, Maryann McGraw of the Environmental Section must be contacted (505-827-5264) to check for active nests within the project area. Contact must be made by the Project Manager two weeks prior to the beginning of project construction. If any active nests are found appropriate mitigation measures will be recommended.

ENVIRONMENTAL PROGRAM MANAGER

SPECIAL PROVISIONS

MODIFYING SECTION 106 CONTROL OF MATERIALS 7/24/95

MODIFYING SECTION 401 FOR PLANT MIX BITUMINOUS PAVEMENT (PMBP) 3/13/95

MODIFYING SECTION 401A FOR BITUMINOUS PAVEMENT FOR DITCHES 9/26/94

MODIFYING SECTION 570 PIPE CULVERTS 6/29/94

MODIFYING SECTION 632 FOR SEEDING 1/23/95

MODIFYING SECTION 702 TRAFFIC CONTROL DEVICES FOR CONSTRUCTION 12/31/94

MODIFYING SECTION 702-A TRAFFIC CONTROL PLAN 3/28/95

MODIFYING SECTION 704 PAVEMENT MARKINGS (POLYESTER PAINT) 7/14/95

FOR POLYESTER PAINT ITEM NUMBER 70400A 7/14/95

AS BUILT PLANS

CYGNET® ENGINEERING
#12 UNSER BLVD. STE B
RIO RANCHO, N.M. 87124
(505) 891-1770

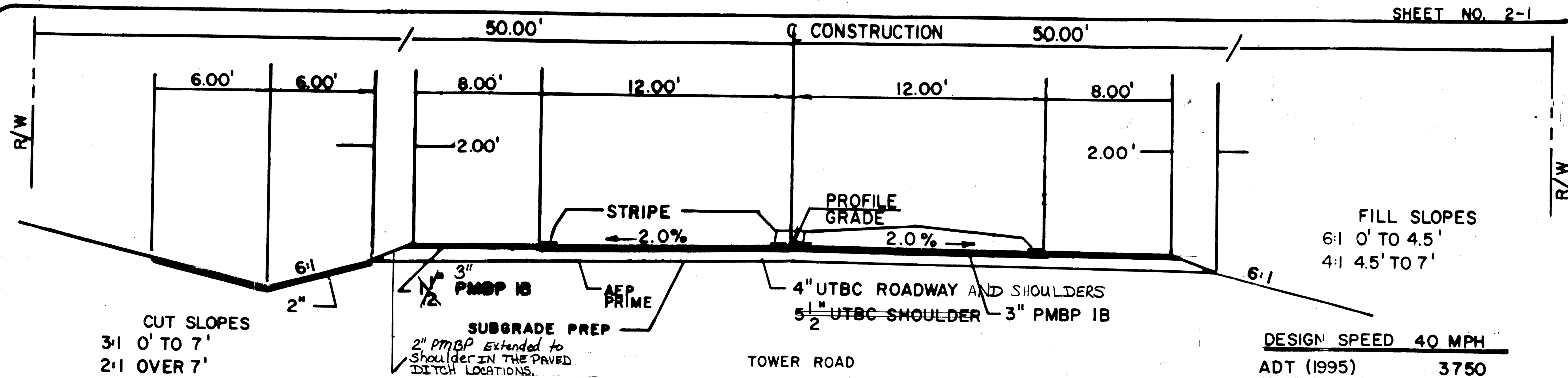
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: TOWER ROAD SEWER INSTALLATION

| | | | |
|--------------------------|--------------------------|-----------|-----------|
| Design Review Committee | City Engineer Approval | ma/day/yr | ma/day/yr |
| | | | |
| City Project No. 5332.90 | Zone Map No. L-10 & L-11 | | |

SCANNED BY
BY LASON

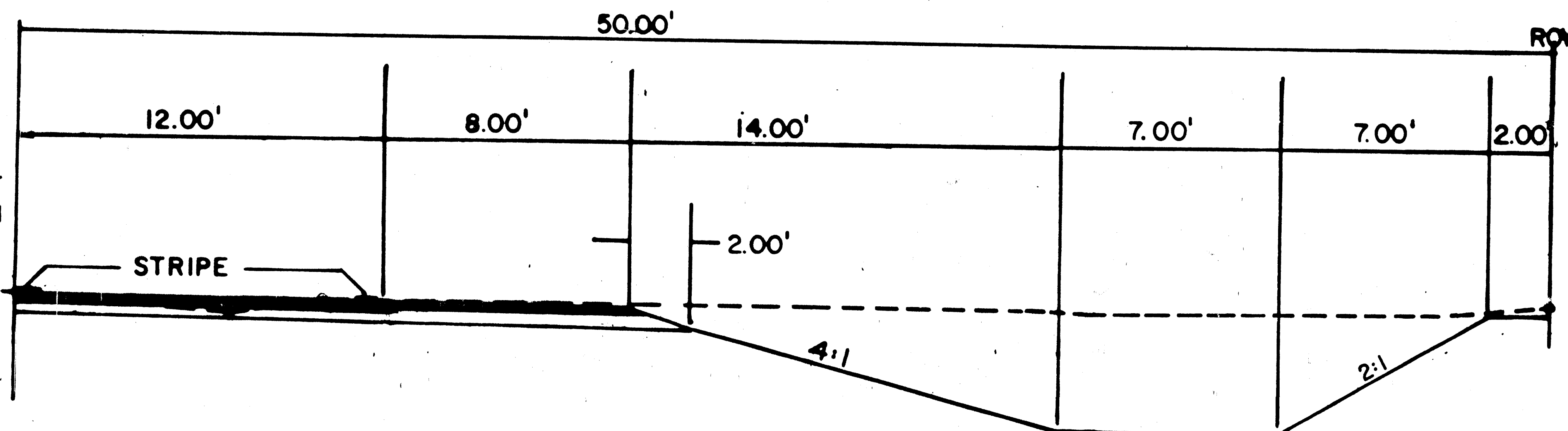
CYGNET ENGINEERING
#12 UNSER BLVD. SUITE B
RIO RANCHO, NM 87124
(505)891-1770



FROM STA. 78+00 TO 91+40
BUILD DITCH PAVING LT. and RT.
T= 2"

35+50 TO 91+40
94+50 TO 119+90 (PROCESSING, PLACING, and
COMPACTING EXISTING PAVEMENT)

SYMMETRICAL ABOUT
C OF CONSTRUCTION



STATION 57+20 TO STATION 65+00
BUILD RETENTION POND LT. AND RT.

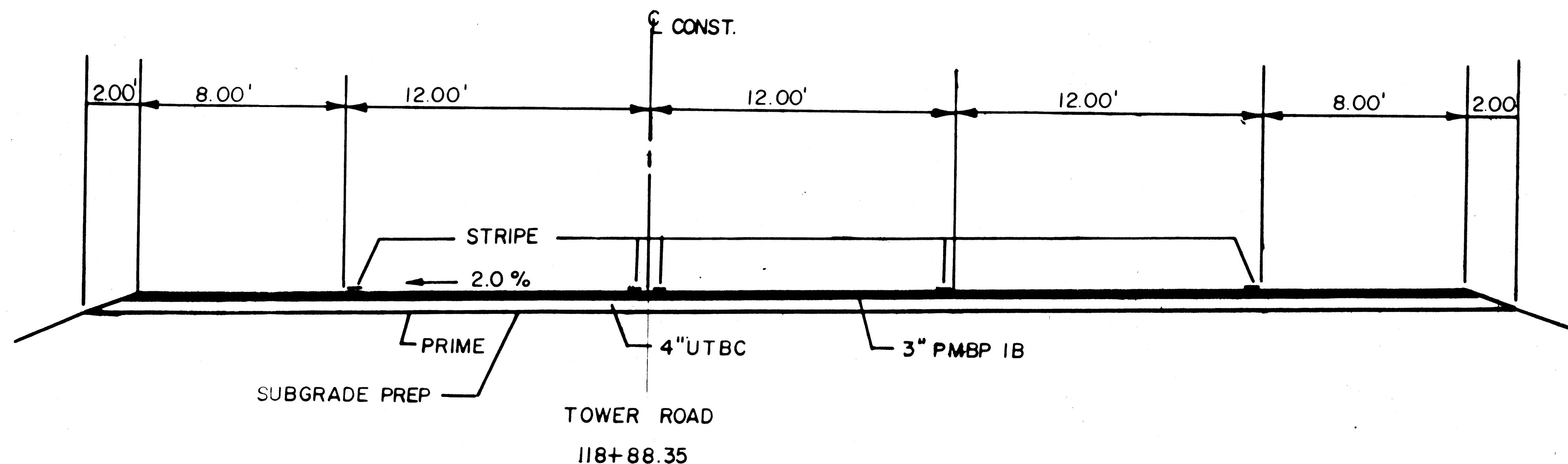
As Built Plans

EXISTING TYPICAL SECTION

STA. 35+50 TO 70+00 DIRT ROAD LANE WIDTHS 10'-12'
STA. 70+00 TO 91+40 BASECOURSE LANE WIDTHS 12'-13'
STA. 94+50 TO 119+90 PMBP LANE WIDTH 12'

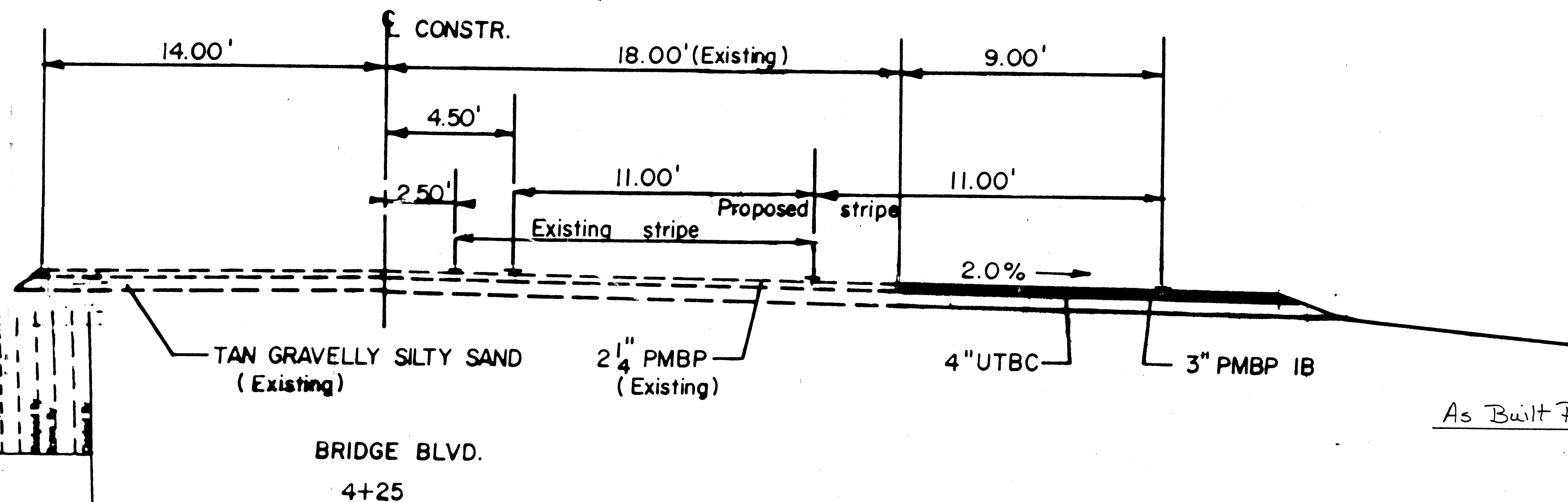
TYPICAL SECTION

CYGNET ENGINEERING
NO. 12, UNSER BLVD. SUITE B
RIO RANCHO, N.M. 87124
(505) 891-1770



NOTE:

CITY STANDARD DWG. 2465 WILL APPLY TO THE PAVEMENT CUTS FOR THE INSTALLATION OF THE 10" SEWER LINE AND THE 10" WATER LINE.



As Built Plans

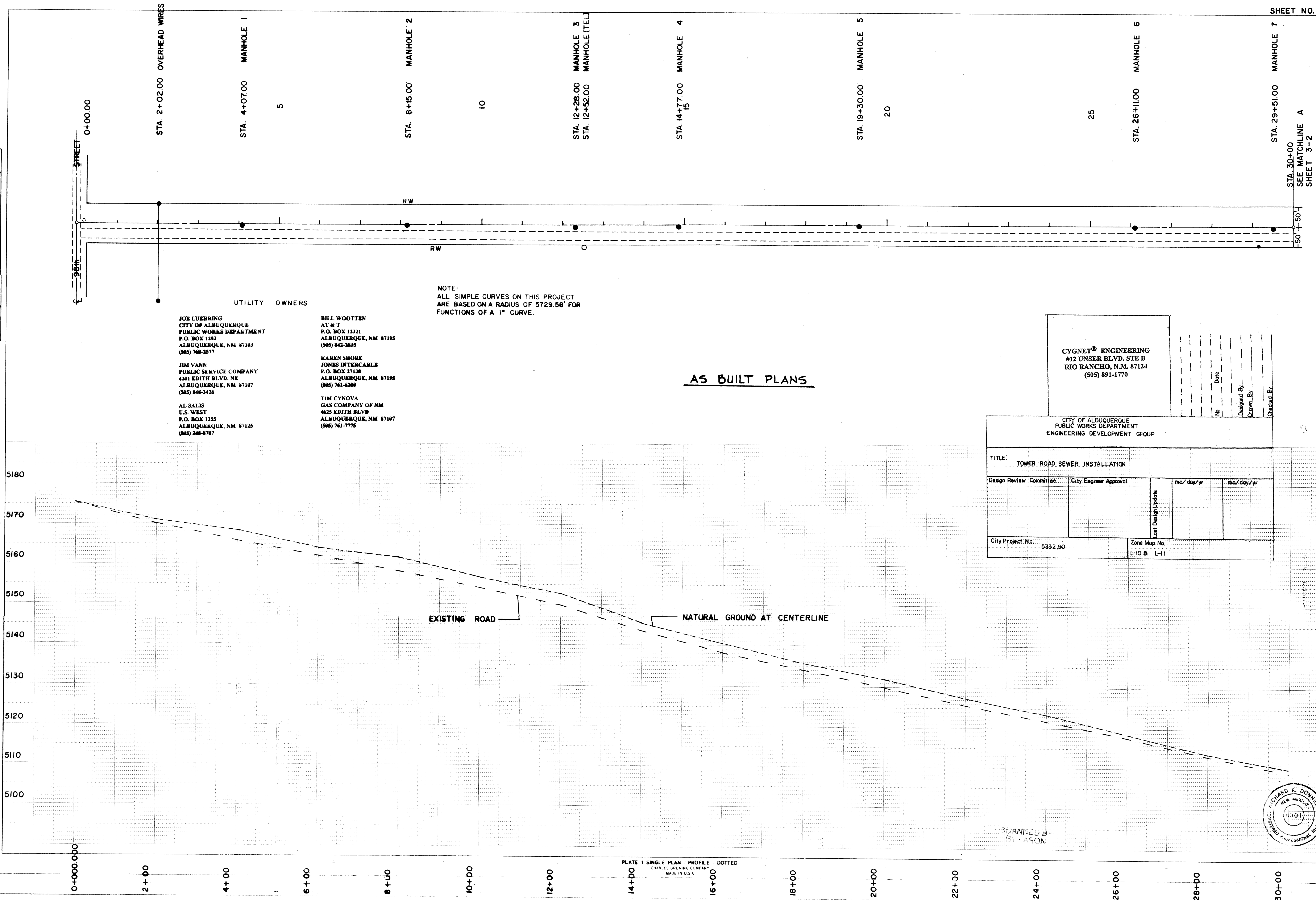
TYPICAL SECTION

CYGNET® ENGINEERING
 #12 UNSER BLVD. STE B
 RIO RANCHO, N.M. 87124
 (505) 891-1770

| | | | |
|---|---------------------------------|----------------------|----------------------|
| CYGNET® ENGINEERING 12 UNSER BLVD. STE B RIO RANCHO, N.M. 87124 (505) 891-1770 | | | |
| CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP | | | |
| TITLE: TOWER ROAD SEWER INSTALLATION | | | |
| Design Review Date: | City Engineer Approval Date: | no./ day/yr Date: | no./ day/yr Date: |
| City Project No. 5384.20 | Rev Map No. L-10 B L-11 | | |

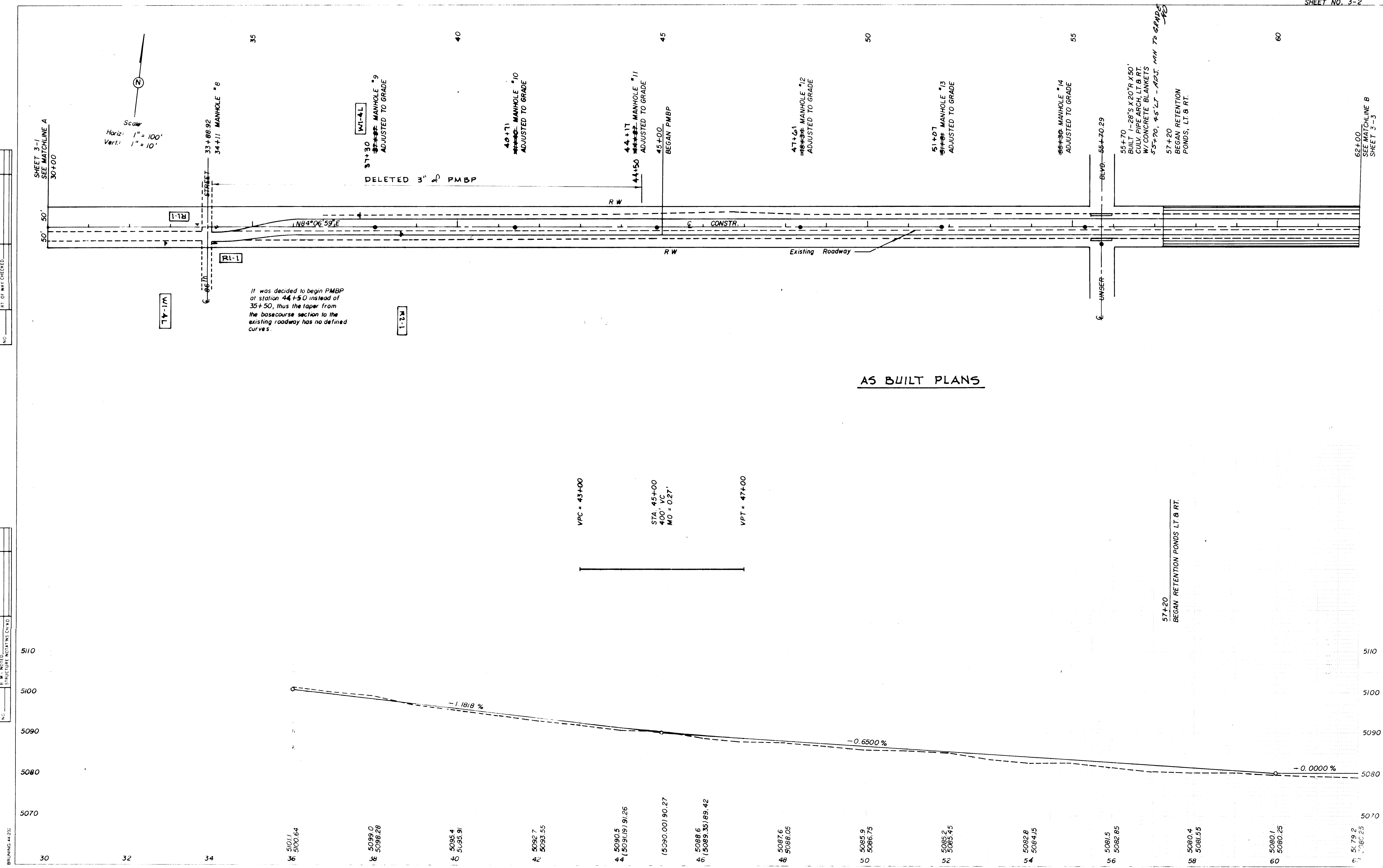
| | | |
|------|------------|---------|
| PLAN | SURVEYED | DATE |
| | NOTED | BY |
| | ALIGNED | CHECKED |
| | RT. OF WAY | CHECKED |
| NO. | | |

| | | |
|---------|-----------|-------|
| PROFILE | SURVEYED | DATE |
| | NOTED | BY |
| | STRUCTURE | NOTED |
| | STRUCTURE | NOTED |
| NO. | | |



| | | |
|-------|----------|------|
| PLAN | SURVEYED | DATE |
| NOTED | PLOTTED | DATE |
| NO | BY | BY |
| | DATE | DATE |

| | | |
|---------|----------|------|
| PROFILE | SURVEYED | DATE |
| NOTED | PLOTTED | DATE |
| NO | BY | BY |
| | DATE | DATE |



SCANNED BY LASON

| PLAN | | DATE | |
|-----------|----------|------|--|
| SURVEYED | PLOTTED | | |
| NOTE BOOK | ALIGNED | | |
| NO. | AS SHOWN | | |

| PROFILE | | DATE | |
|-----------|--------------------------|------|--|
| SURVEYED | PLOTTED | | |
| NOTE BOOK | AS NOTED | | |
| NO. | STRUCTURE NOTATIONS CHRD | | |

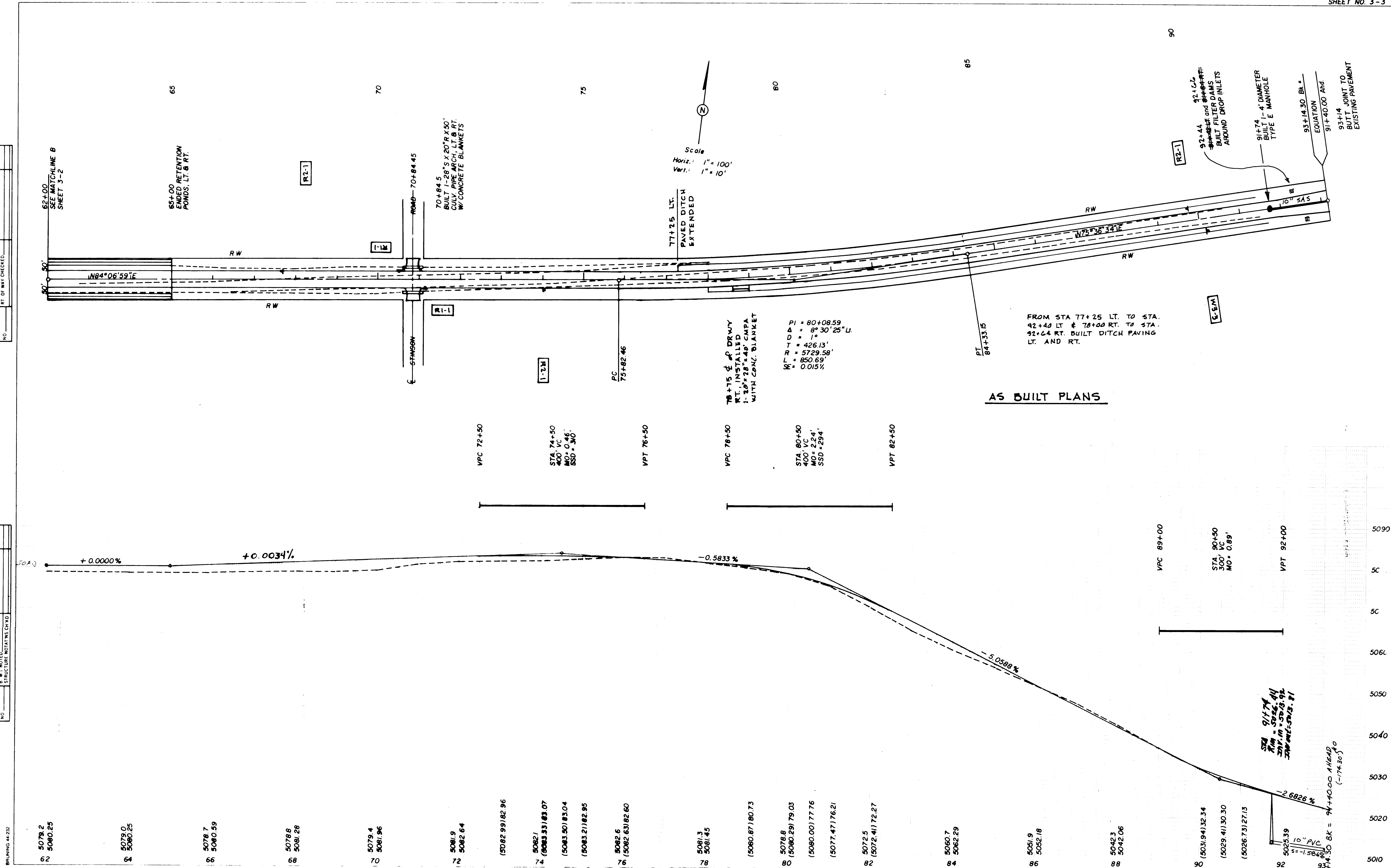
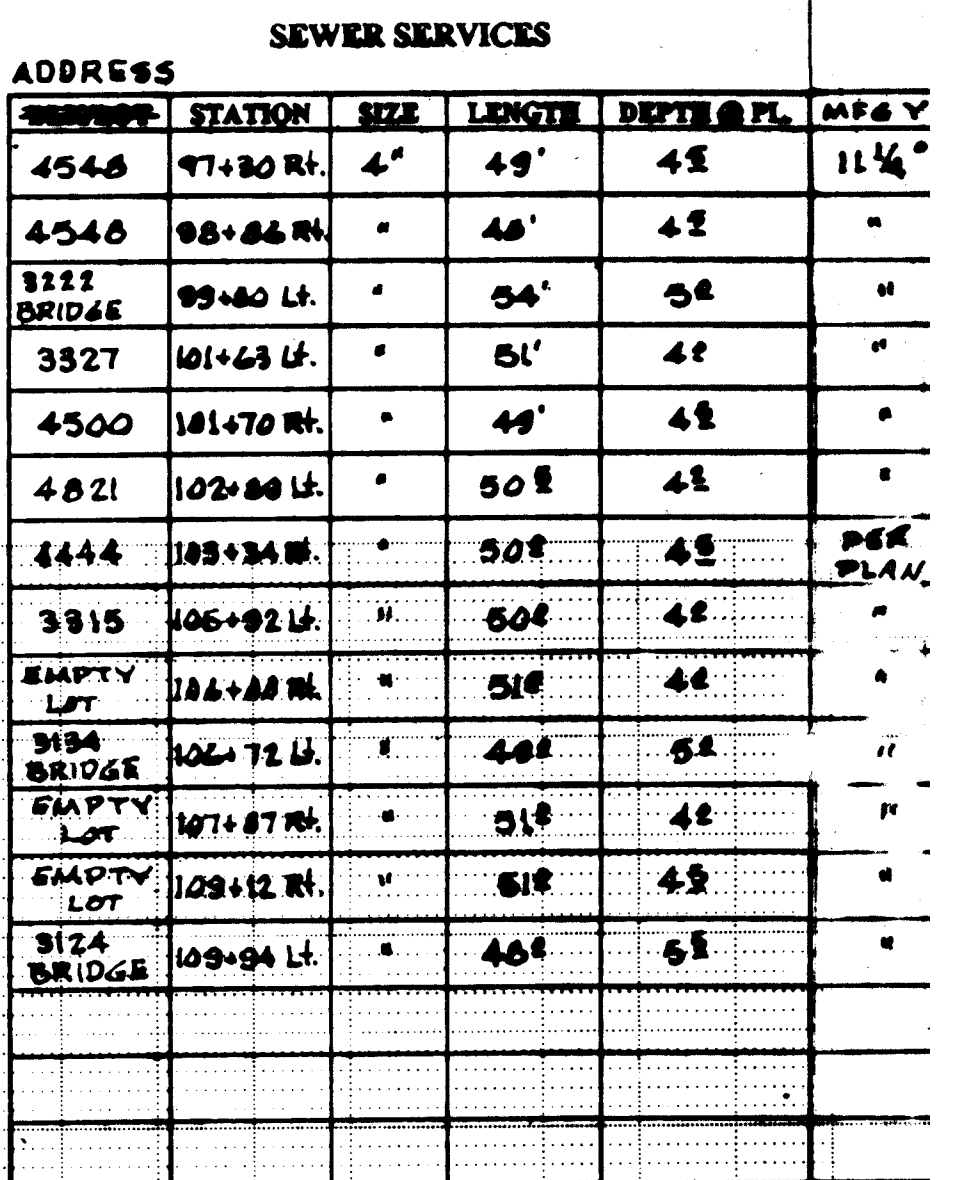


PLATE 1 SINGLE PLAN PROFILE DOTTED
L.P.A.R.L.S. BROWN COMPANY
MADE IN U.S.A.

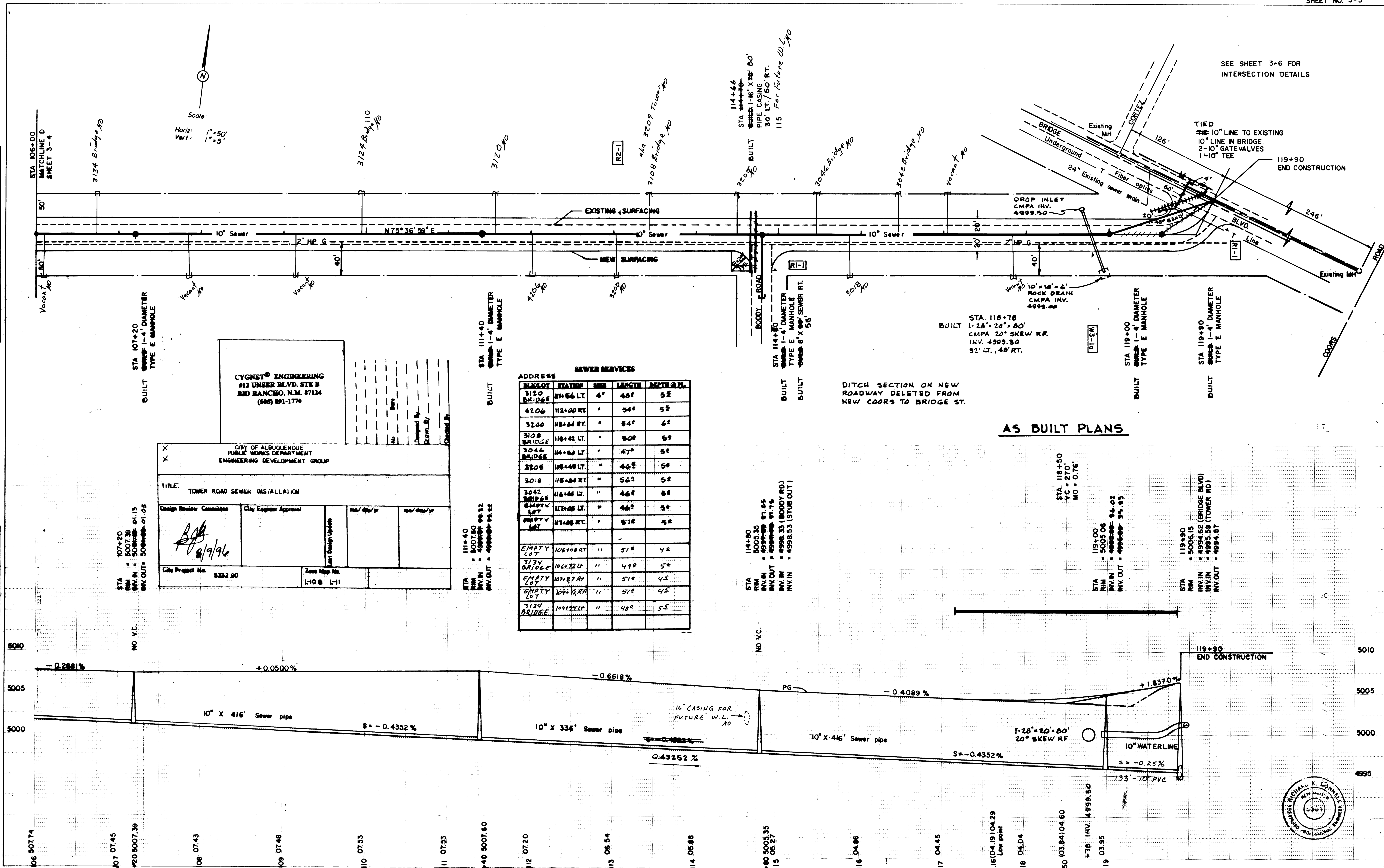
SCANNED BY
RYLASON

CITY PROJECT NO.
5332.90



| PLAN | DATE |
|---------|------|
| BY | |
| CHECKED | |
| NOTED | |
| DATE | |

| PROFILE | DATE |
|---------|------|
| BY | |
| CHECKED | |
| NOTED | |
| DATE | |



CYGNET® ENGINEERING
#13 UNSER BLVD. STE B
BEO RANCHO, N.M. 87124
(505) 891-1770

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: TOWER ROAD SEWER INSTALLATION

| | | | |
|-------------------------|------------------------|------------|------------|
| Design Review Committee | City Engineer Approval | mm/dd/yyyy | mm/dd/yyyy |
| | | mm/dd/yyyy | mm/dd/yyyy |

City Project No. 5332.90

Zone Map No. L-10 & L-11

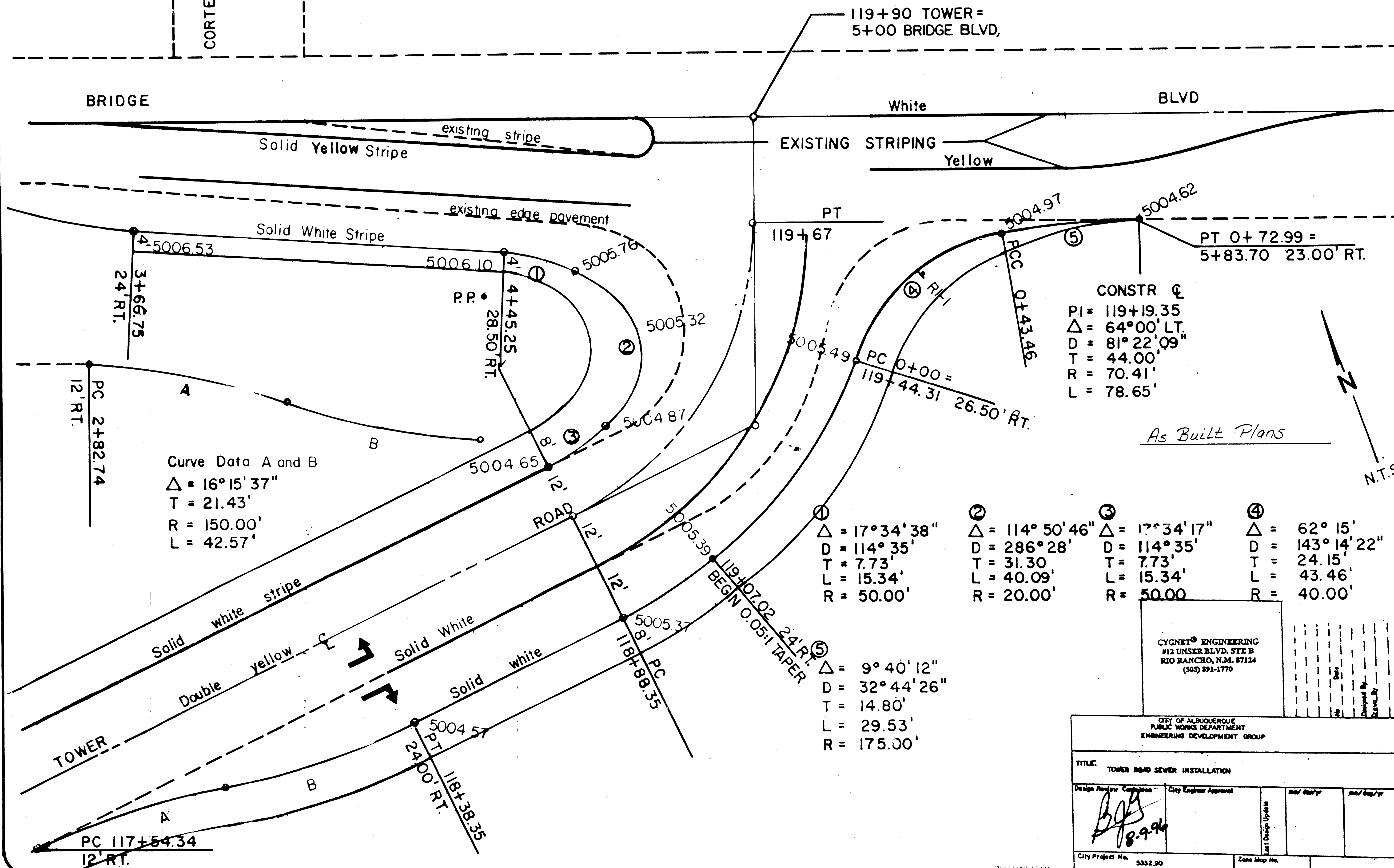
| ADDRESS | STATION | PIPE | LENGTH | DEPTH @ PL. |
|-------------|------------|------|--------|-------------|
| 3120 BRIDGE | 111+66 LT. | 4" | 46' | 5' |
| 4206 | 112+00 RT. | " | 54' | 5' |
| 3200 | 113+44 RT. | " | 54' | 6' |
| 3108 BRIDGE | 118+48 LT. | " | 50' | 5' |
| 3046 BRIDGE | 114+88 LT. | " | 47' | 5' |
| 3208 | 118+48 LT. | " | 46' | 5' |
| 3018 | 118+44 RT. | " | 56' | 5' |
| 3042 BRIDGE | 114+44 LT. | " | 46' | 6' |
| EMPTY LOT | 117+08 LT. | " | 46' | 5' |
| EMPTY LOT | 117+08 RT. | " | 57' | 5' |
| EMPTY LOT | 106+08 RT. | " | 51' | 4' |
| 3134 BRIDGE | 106+72 LT. | " | 49' | 5' |
| EMPTY LOT | 107+87 RT. | " | 51' | 4' |
| EMPTY LOT | 107+12 RT. | " | 51' | 4' |
| 3204 BRIDGE | 109+74 LT. | " | 48' | 5' |

AS BUILT PLANS

CITY PROJECT NO. 5332.90

SCANNED BY BY LASON

Striping shall be coordinated with the
City Traffic Engineer (857-8000) prior
to striping Bridge Blvd.



Curve Data A and B
 $\Delta = 16^\circ 15' 37''$
 $T = 21.43'$
 $R = 150.00'$
 $L = 42.57'$

CONSTR Δ
 $PI = 119+19.35$
 $\Delta = 64^\circ 00' LT.$
 $D = 81^\circ 22' 09''$
 $T = 44.00'$
 $R = 70.41'$
 $L = 78.65'$

As Built Plans

N.T.S.

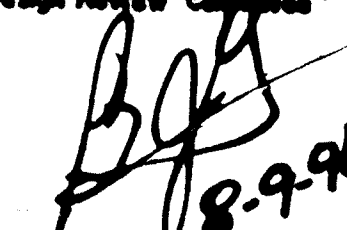
| | | | |
|---|---|---|--|
| ① $\Delta = 17^\circ 34' 38''$ $D = 114^\circ 35'$ $T = 7.73'$ $L = 15.34'$ $R = 50.00'$ | ② $\Delta = 114^\circ 50' 46''$ $D = 286^\circ 28'$ $T = 31.30'$ $L = 40.09'$ $R = 20.00'$ | ③ $\Delta = 17^\circ 34' 17''$ $D = 114^\circ 35'$ $T = 7.73'$ $L = 15.34'$ $R = 50.00'$ | ④ $\Delta = 62^\circ 15'$ $D = 143^\circ 14' 22''$ $T = 24.15'$ $L = 43.46'$ $R = 40.00'$ |
|---|---|---|--|

⑤
 $\Delta = 9^\circ 40' 12''$
 $D = 32^\circ 44' 26''$
 $T = 14.80'$
 $L = 29.53'$
 $R = 175.00'$

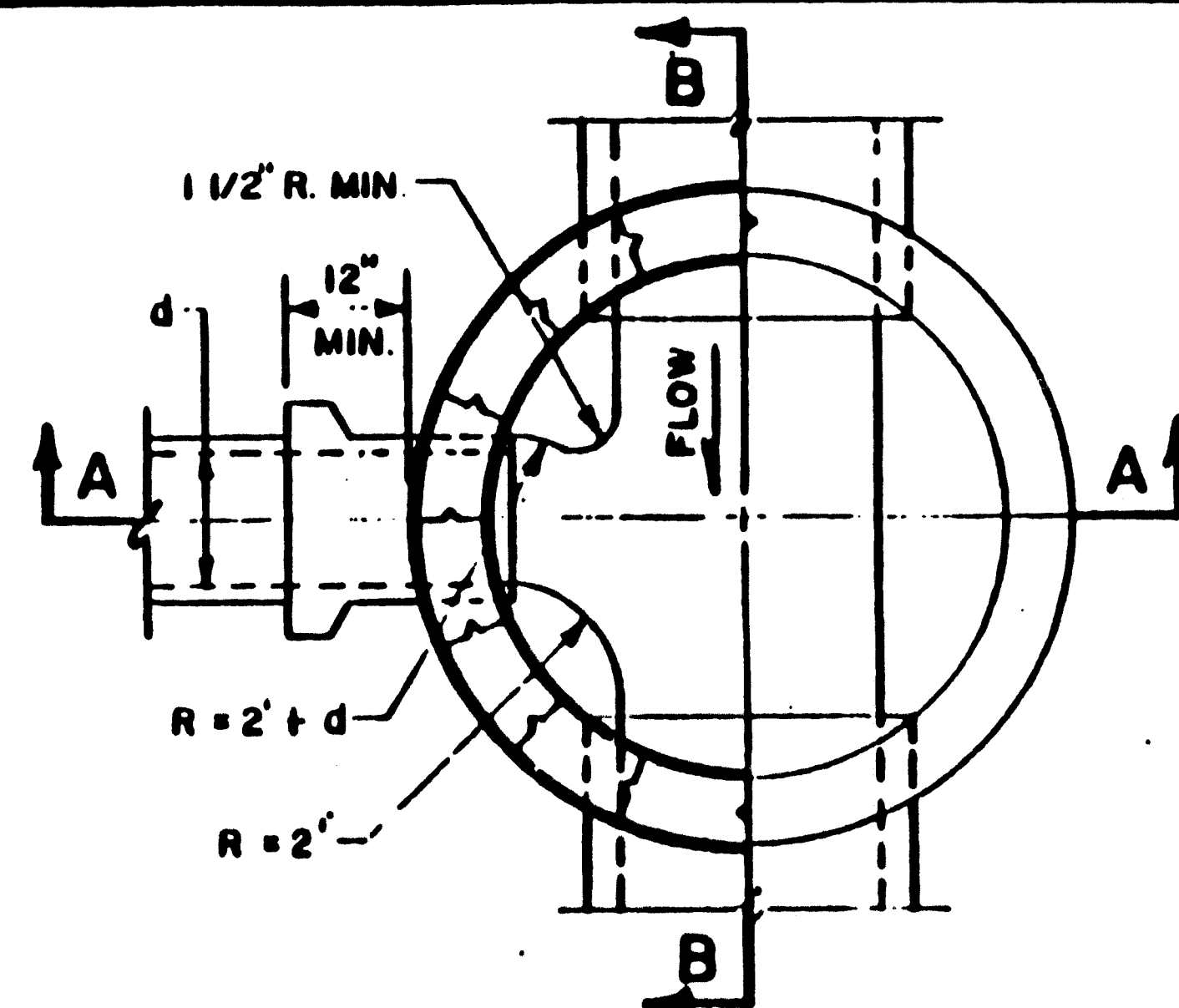
CYGNET® ENGINEERING
 #12 UNSER BLVD. STE B
 RIO RANCHO, N.M. 87124
 (505) 891-1770

CITY OF ALBUQUERQUE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DEVELOPMENT GROUP

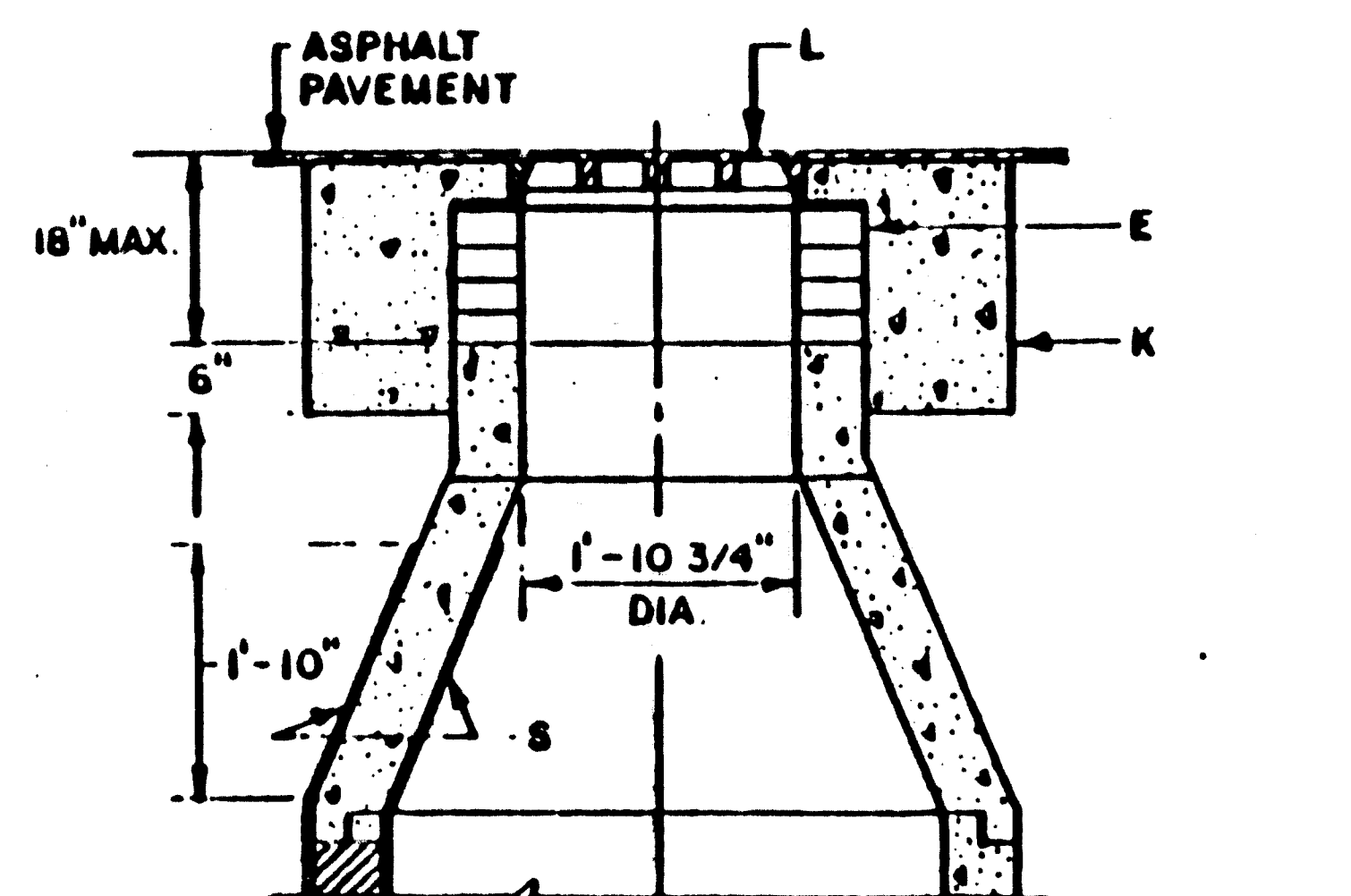
TITLE: TOWER ROAD SEWER INSTALLATION

| | | | |
|---|------------------------|--------------------------|------------|
| Design Review | City Engineer Approval | mm/dd/yyyy | mm/dd/yyyy |
|  | | mm/dd/yyyy | mm/dd/yyyy |
| City Project No. 5332.90 | | Zone Map No. L-10 & L-11 | |

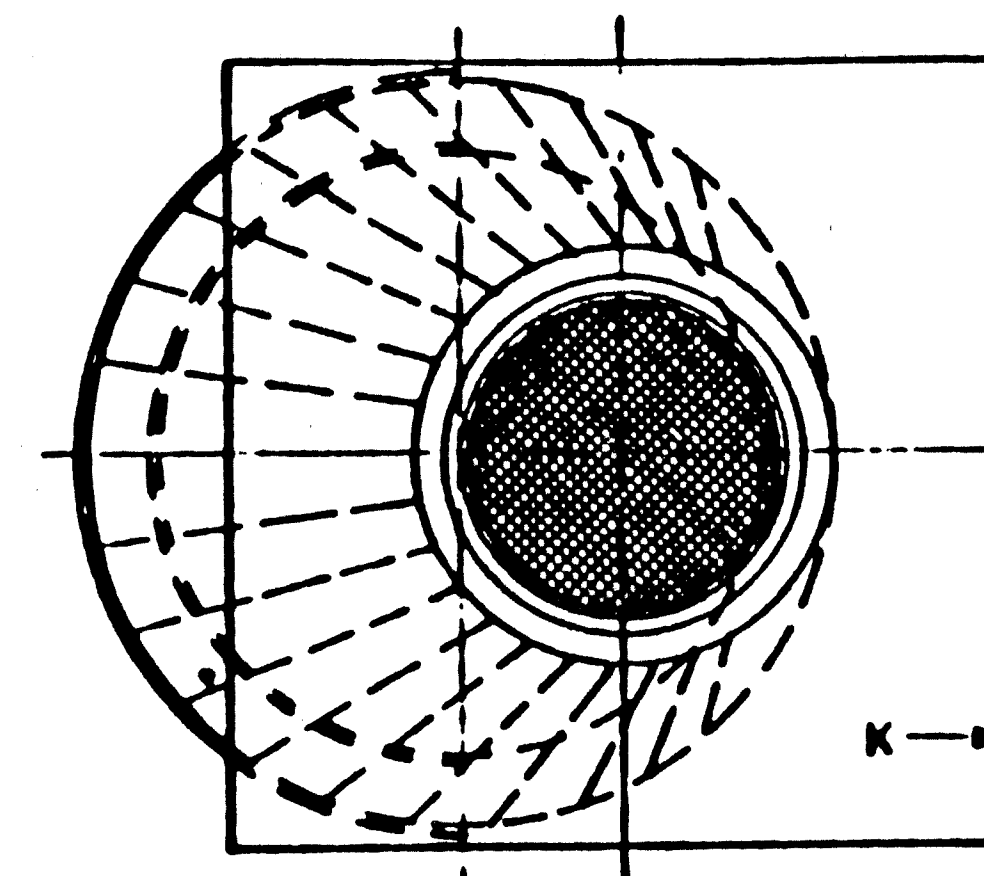
SCANNED BY: JASON



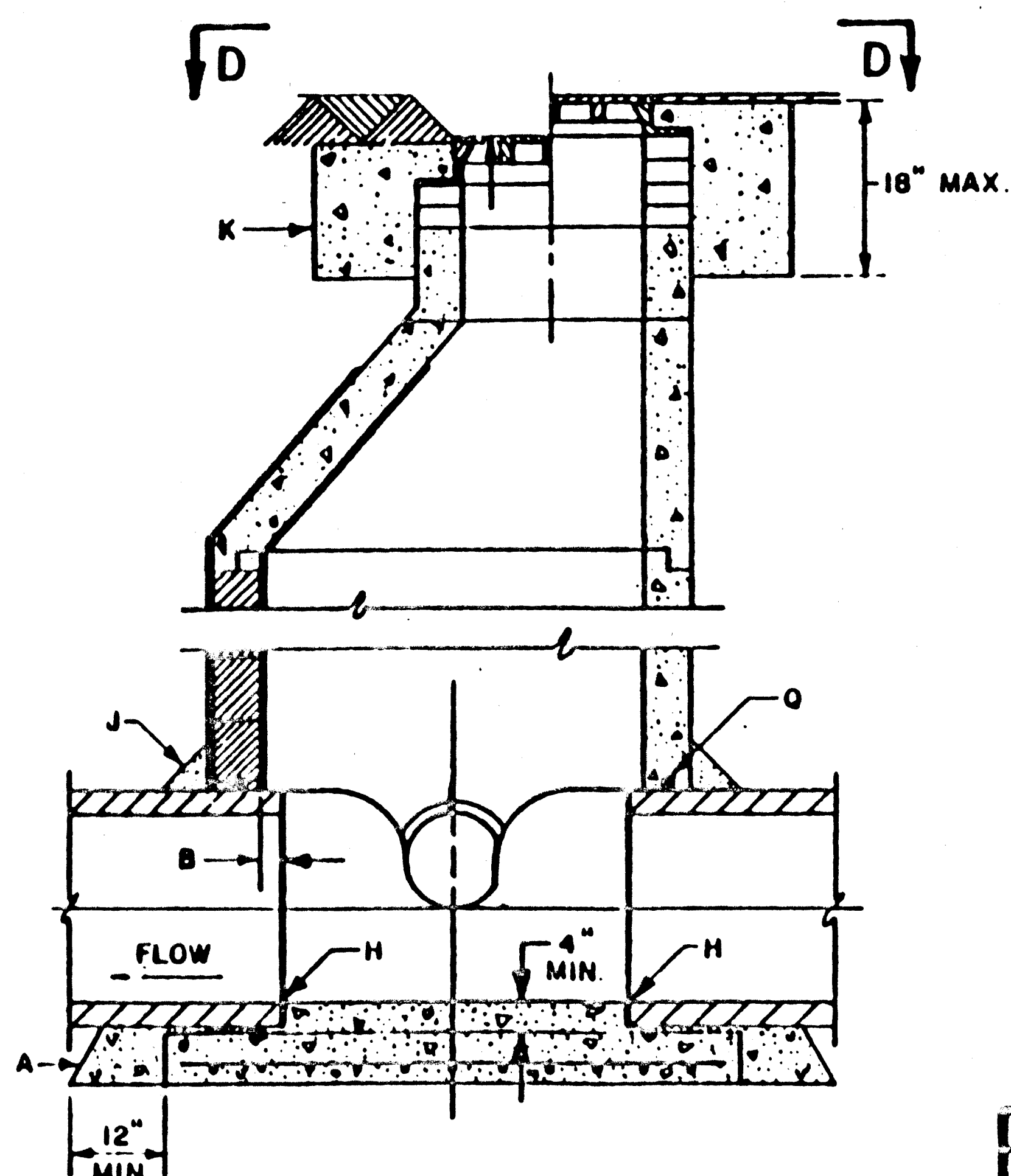
PLAN AT C-C



CROSS SECTION A-A



PLAN AT D-D



CROSS SECTION B-B

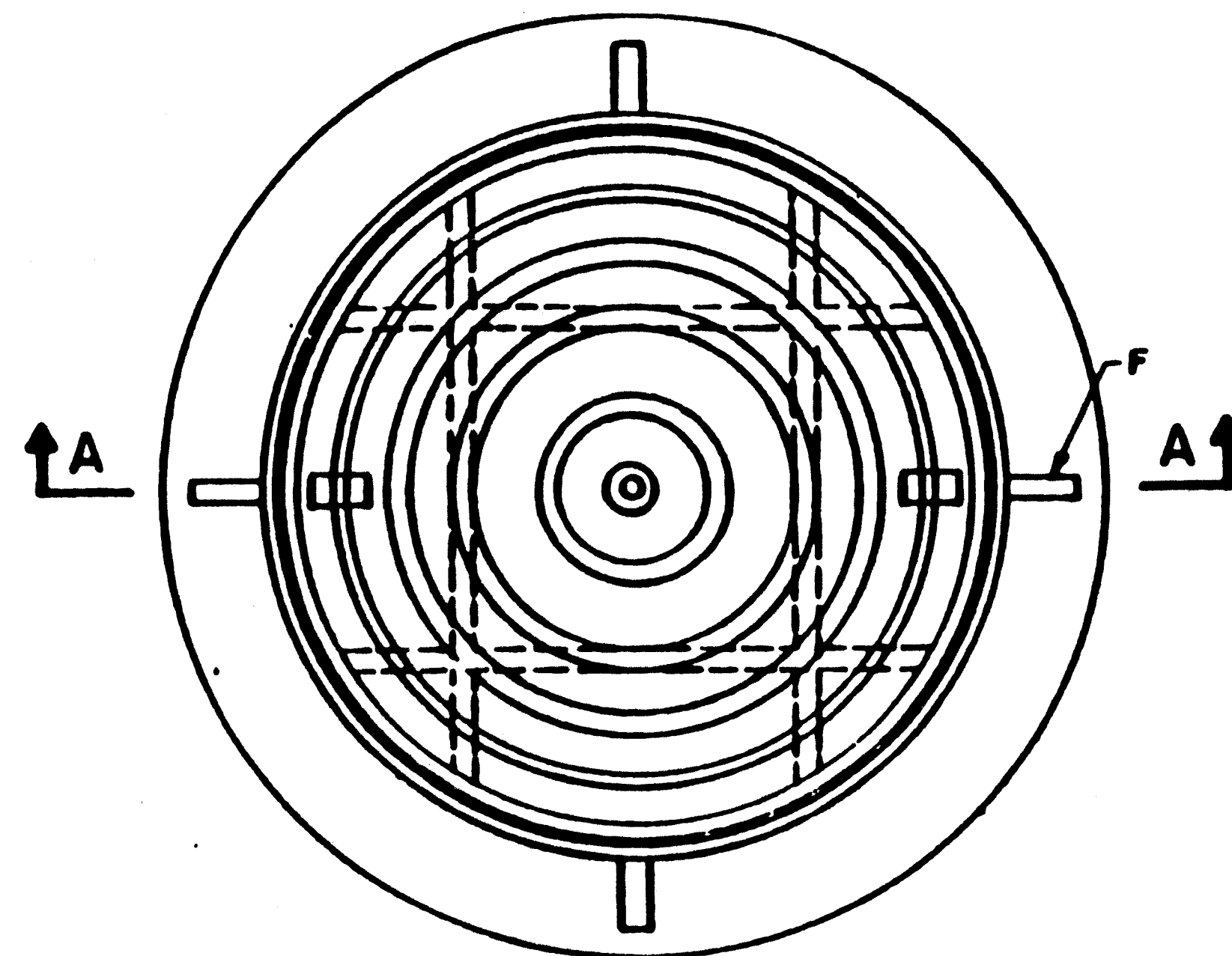
GENERAL NOTES:

1. USE APPROVED MASTIC JOINT MATERIAL FOR ALL JOINTS.
2. M.H. GREATER THAN 18' IN DEPTH SHALL BE OF PRECAST CONC. SECTIONS ONLY.
3. DESIGN APPLIES TO ONLY 4' MANHOLES.
4. USE NON-SHRINK GROUT FOR FILLETS & PIPE PENETRATIONS.
5. POSITION M.H. OPENING OVER THE UPSTREAM SIDE OF MAIN LINE.

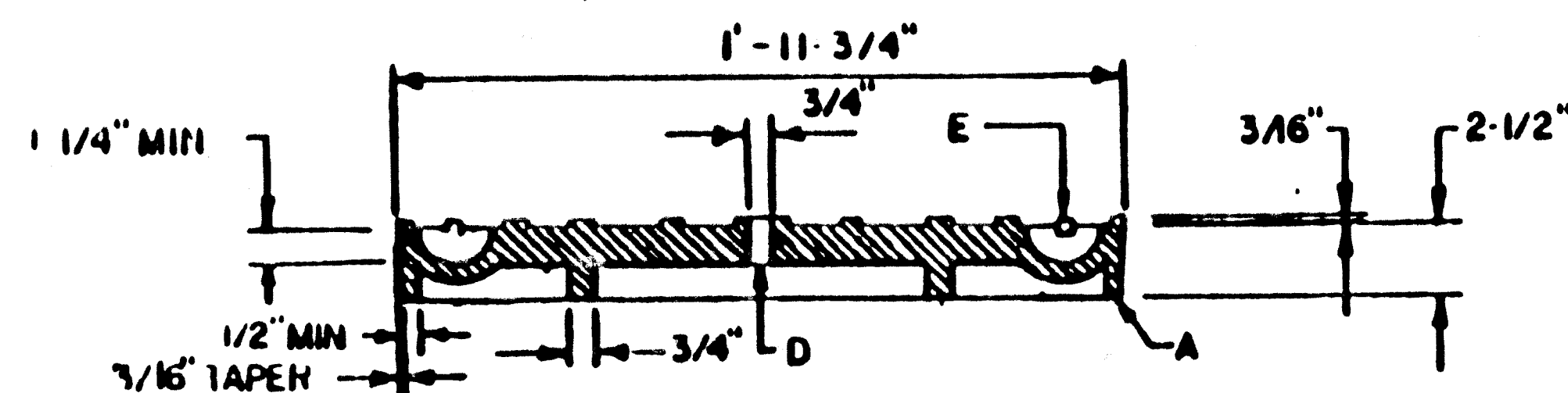
CONSTRUCTION NOTES:

- A. CONCRETE PIPE SUPPORTS SHALL EXTEND OUTSIDE OF M.H. TO BELL OF FIRST JOINT AND SHALL CRADLE PIPE TO SPRING LINE.
- B. PIPE PENETRATION INTO MANHOLE SHALL BE FLUSH TO 2" MAX., MEASURED AT SPRINGLINE OF PIPE.
- C. USE MAX 4 COURSES GR. MS BRICK ON UNPAVED STREET FOR FUTURE ADJ. OF FRAME TO PAVEMENT GRADE. PLASTER INSIDE WITH 1/2" MORTAR.
- D. BASE TO BE POURED IN PLACE USING NO. 4 BARS AT 6" O.C. EA. WAY FOR M.H. DEPTH OF 16' OR GREATER. NO. 4 BARS AT 12" O.C. EA. WAY FOR M.H. LESS THAN 16' DEEP.
- E. INV. ELEV. OF STUB OR LATERAL AS SHOWN ON PLANS.
- F. 6" GROUT FILLET ON UPPER HALF OF PIPE AND AROUND BASE.
- G. USE A 5' x 5' CONCRETE PAD IN ALL AREAS. SLOPE FOR GRADER USE UNPAVED AREAS.
- H. M.H. FRAME AND COVER, SEE DWG. 2110.
- I. CONCRETE FILL, 3000 PSI.
- J. SLOPE 1" PER FT. FROM PIPE CROWN.
- K. SHELF TO BE 9" WIDE MIN.
- L. APPROVED WATERSTOP TO BE WITH TYPE OF PIPE.

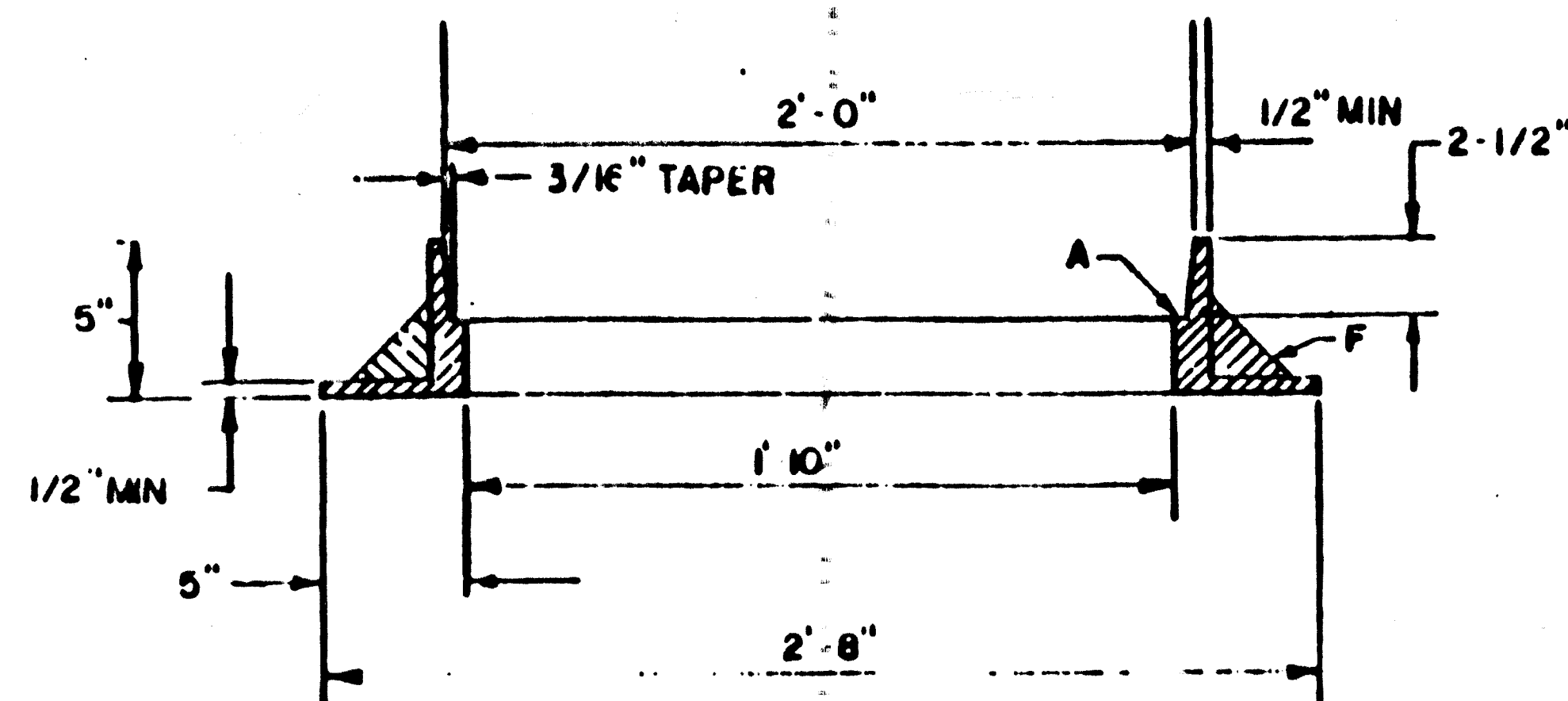
| | |
|------------------|--|
| NM APWA | |
| SEWER | |
| MANHOLE TYPE "E" | |
| DWG. 2102 | |
| AUG. 1986 | |



PLAN

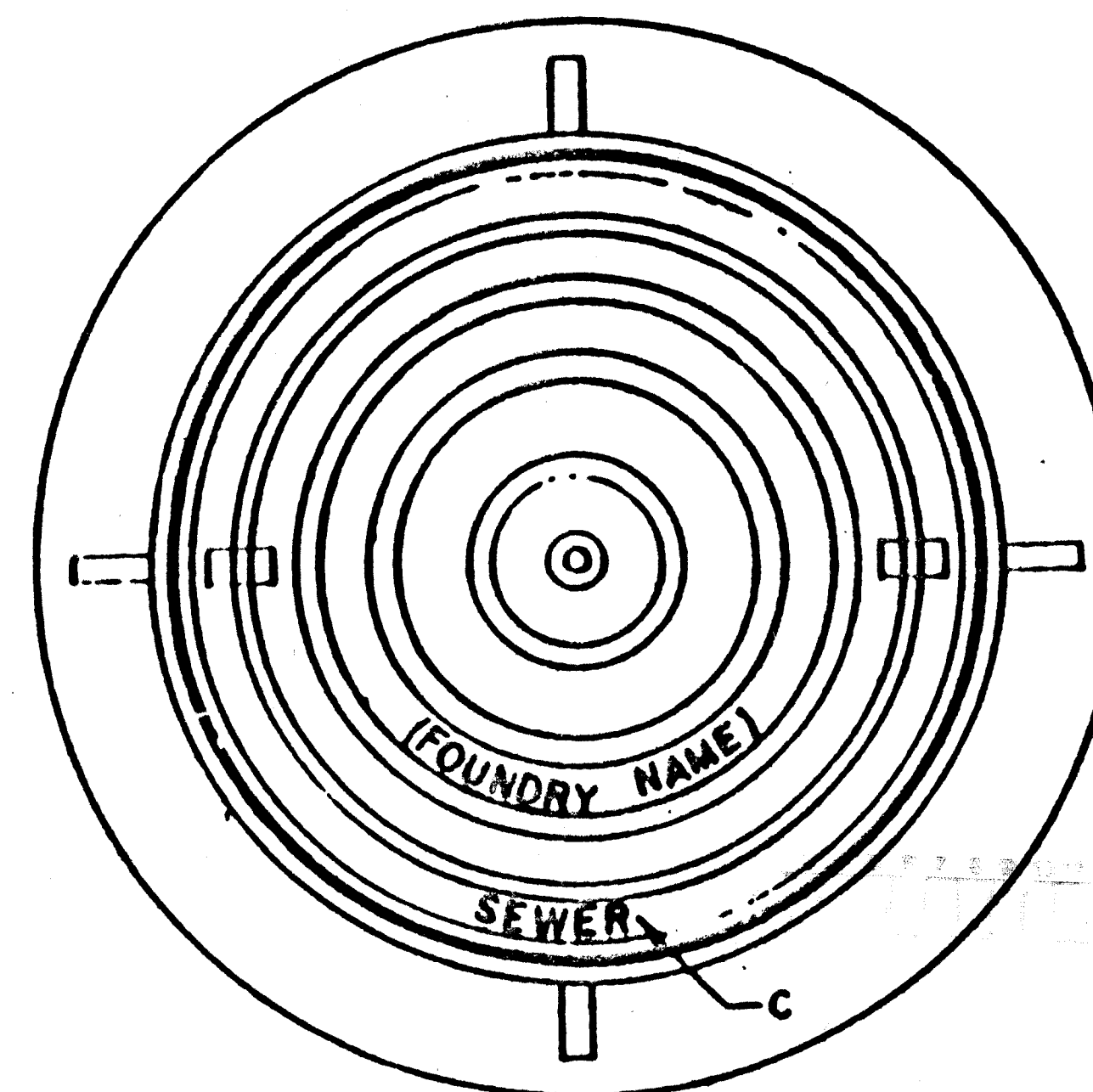


COVER



FRAME

SECTION A-A



LETTERING PLAN

GENERAL NOTES:

1. STANDARD CAST IRON M.H. FRAME AND COVER.
WEIGHTS: COVER = 170 LBS., FRAME = 140 LBS.
TOTAL = 325 LBS. (TOLERANCE $\pm 5\%$)
2. REFERENCE SPEC. SECTION 130.

CONSTRUCTION NOTES:

- A. MACHINED OR GROUND BEARING SURFACES.
- B. "SEWER", "WATER", OR "STORM" CAST ON COVER TO IDENTIFY SANITARY SEWER, WATER OR STORM DRAINAGE SYSTEMS RESPECTIVELY.
- C. LETTER SIZE TO BE 1" MIN. IN HEIGHT, TYPICAL.
- D. VENT HOLE REQUIRED.
- E. MONOLITHIC CAST IRON OR STEEL ROD INSERTS AT MANUFACTURER'S OPTION. IF INSERT IS PROVIDED IT MUST HAVE 3/16" MIN. COVER AND 3/4" END EMBEDMENT IN CASTING.
- F. GUSSETS OPTIONAL IF REQUIRED BY MANUFACTURER.

| | |
|-----------|-------------------------|
| REVISIONS | NM APWA |
| | SEWER |
| | MANHOLE FRAME AND COVER |
| | DWG. 2110 |
| | AUG. 1986 |