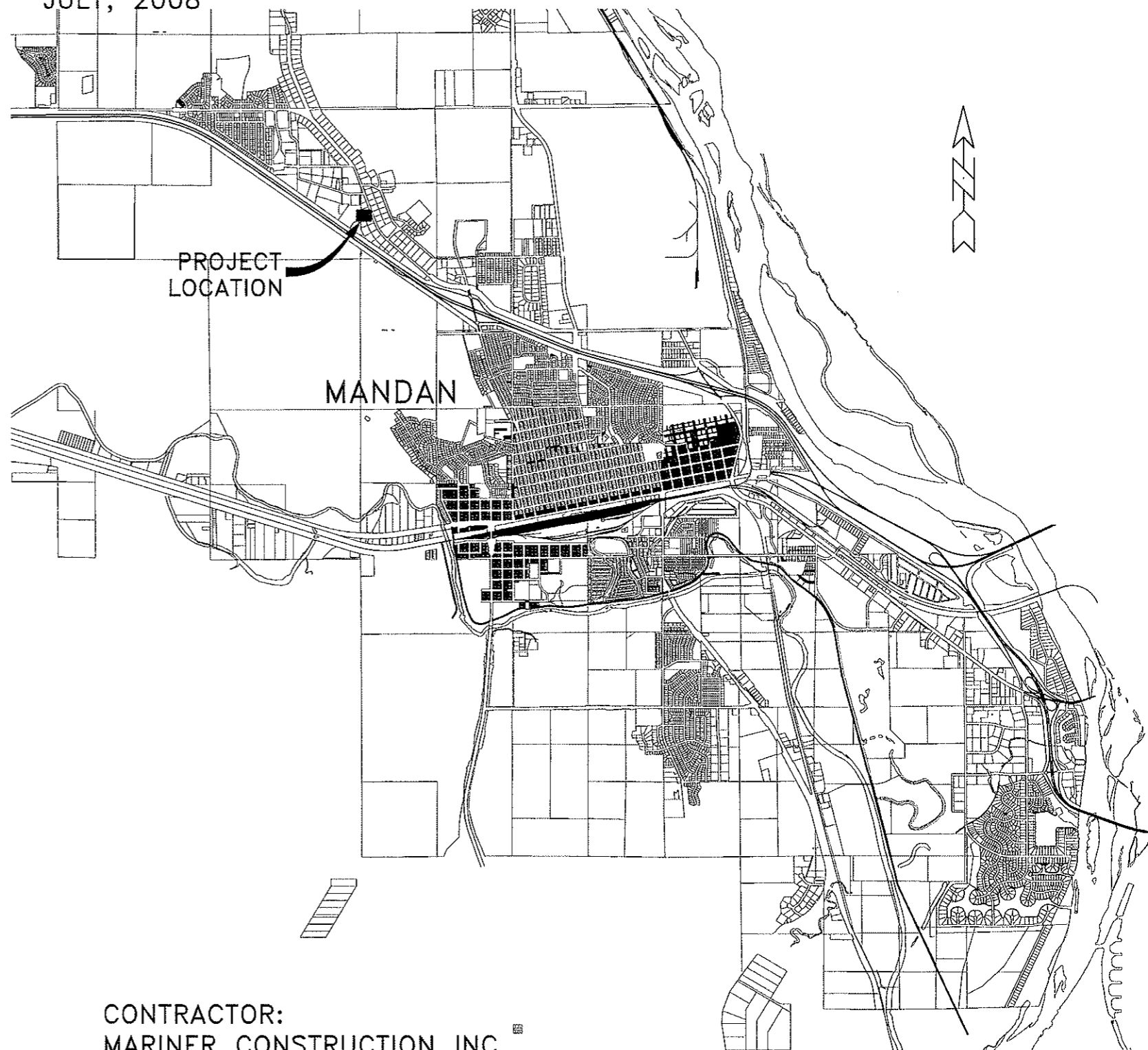


# STREET IMPROVEMENT DISTRICT NO. 150 - AREA "A" NYGREN DRIVE AS-BUILT MANDAN, NORTH DAKOTA

CITY PROJECT NO. 2007-20  
 JULY, 2008

## INDEX OF AS-BUILT DRAWINGS

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1	TITLE SHEET
2	NYGREN DRIVE PLAN & PROFILE
3	DETAIL SHEET
4	STREET LIGHT DETAILS
5	CROSS SECTIONS STA. 0+00 - 1+40
6	CROSS SECTIONS STA. 1+50 - 3+00
7	CROSS SECTIONS STA. 3+20 - 3+73.42



PREPARED BY:  
 TOMAN ENGINEERING

*Ronald Manchester*

DATE: *Mar 9, 2009*

RONALD MANCHESTER R.P.E. 3252

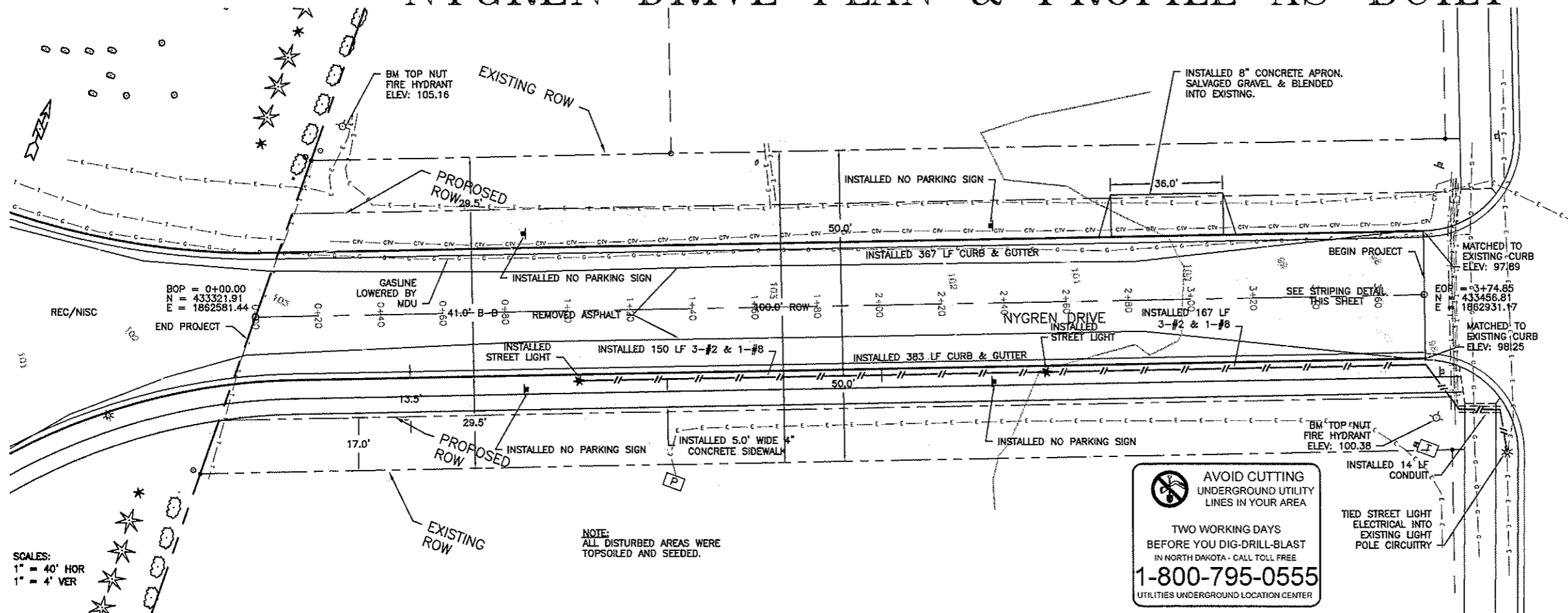


CONTRACTOR:  
 MARINER CONSTRUCTION INC.  
 1771 W CAVALRY DRIVE  
 BISMARCK, ND 58504  
 PHONE#: (701) 258-3925



TOMAN ENGINEERING COMPANY  
 CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS  
 501 1ST ST. N.W. • MANDAN, NORTH DAKOTA 58504 • 701-863-6483

# NYGREN DRIVE PLAN & PROFILE AS-BUILT



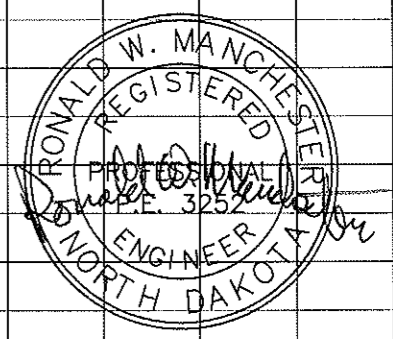
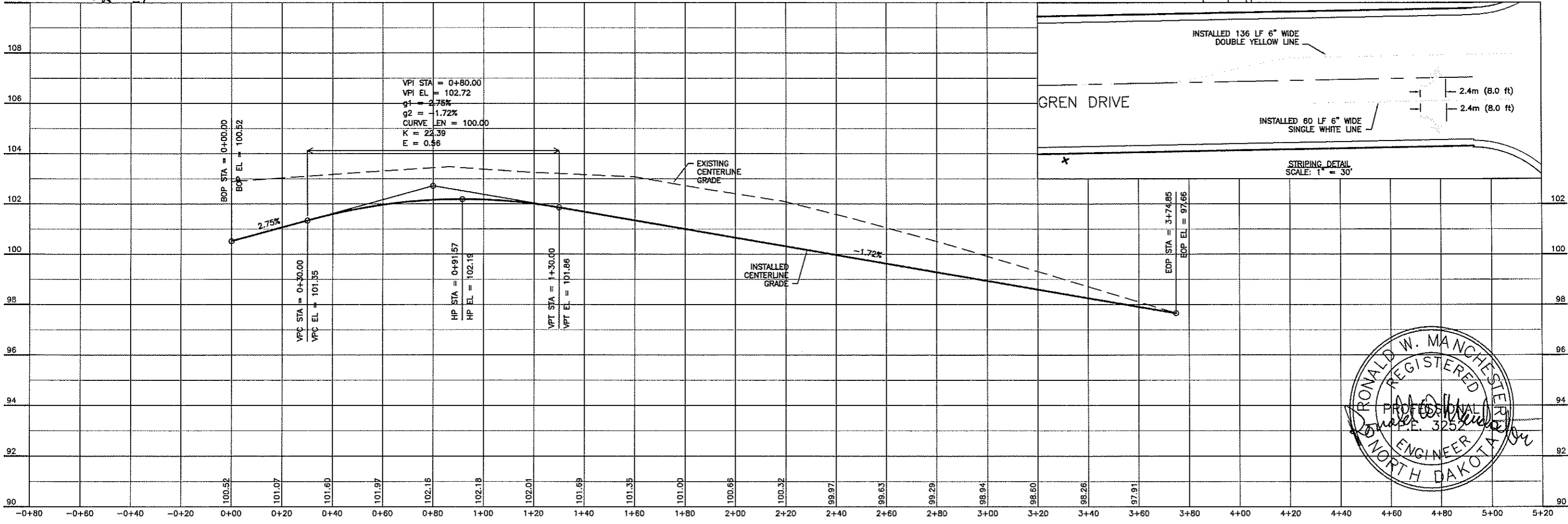
- LEGEND**
- \* EXISTING STREET LIGHT
  - [P] EXISTING ELECTRICAL BOX
  - [T] EXISTING TELEPHONE PEDESTAL
  - [T] EXISTING TELEPHONE VAULT
  - EXISTING FIRE HYDRANT
  - ⊕ EXISTING GATE VALVE
  - EXISTING CURB STOP
  - EXISTING CATCH BASIN
  - EXISTING MANHOLE
  - ⊗ EXISTING SPRINKLER HEAD
  - ⊞ EXISTING SIGN
  - ⊞ EXISTING CONIFER
  - ⊞ EXISTING DECIDUOUS TREE
  - ⊞ EXISTING BUSH
  - EXISTING FENCE POST
  - EXISTING PROPERTY CORNER
  - SET PROPERTY CORNER
  - EXISTING ASPHALT
  - EXISTING CURB & GUTTER
  - EXISTING CONCRETE
  - X EXISTING FENCE
  - - - EXISTING UNDERGROUND ELECTRIC
  - - - EXISTING GAS LINE
  - - - EXISTING CABLE TV
  - - - EXISTING TELEPHONE
  - \* INSTALLED STREET LIGHT
  - INSTALLED SIGN
  - INSTALLED UNDERGROUND ELECTRIC
  - INSTALLED CURB & GUTTER
  - INSTALLED CONCRETE SIDEWALK

SCALES:  
1" = 40' HOR  
1" = 4' VER

NOTE:  
ALL DISTURBED AREAS WERE  
TOPSOILED AND SEEDED.

**AVOID CUTTING**  
UNDERGROUND UTILITY  
LINES IN YOUR AREA

TWO WORKING DAYS  
BEFORE YOU DIG-DRILL-BLAST  
IN NORTH DAKOTA - CALL TOLL FREE  
**1-800-795-0555**  
UTILITIES UNDERGROUND LOCATION CENTER



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PROJECT: STREET IMP. DISTRICT NO. 150 - AREA "A"  
 NYGREN DRIVE AS-BUILT  
 PLAN & PROFILE

NO.	REVISIONS	DATE	BY	DATE	BY

TITLE: STREET IMP. DISTRICT NO. 150 - AREA "A"  
 SHEET NUMBER  
**2**  
 OF 7 SHEETS

H:\Projects\2000216\CRCP\1001.dwg, 9/9/2009 9:41:03 AM, 12, PEB

# DETAILS AS-BUILT

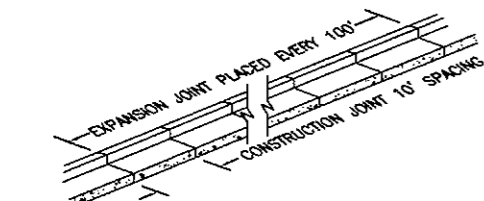
NO SCALE

**AVOID CUTTING UNDERGROUND UTILITY LINES IN YOUR AREA**

TWO WORKING DAYS BEFORE YOU DIG-DRILL-BLAST IN NORTH DAKOTA - CALL TOLL FREE

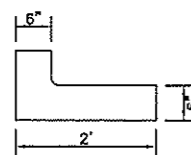
**1-800-795-0555**

UTILITIES UNDERGROUND LOCATION CENTER



NOTE: CONSTRUCTION JOINT 10' SPACING

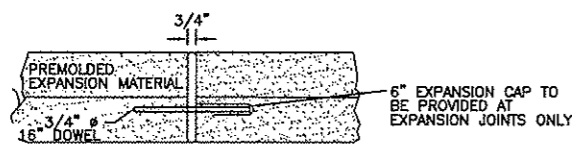
SECTION VIEW OF CONSTRUCTION JOINT (SAW CUT ON SLABS HAND EDGE ON CURB & GUTTER)



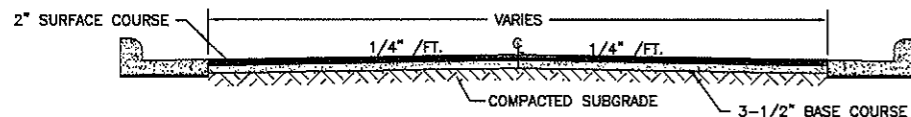
NOTE: 3/4" FELT EXPANSION JOINT PLACED EVERY 100'

SECTION VIEW OF EXPANSION JOINT

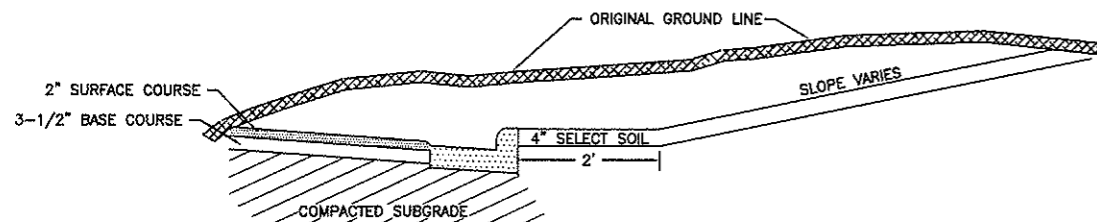
NOTE: EXPANSION CAPS TO BE OF 30 GA. STEEL ONE-HALF DOWEL TO BE COATED WITH HEAVY GREASE TO BE PLACED EVERY 100', AND AT ALL CURVE P.C. & P.T.'S



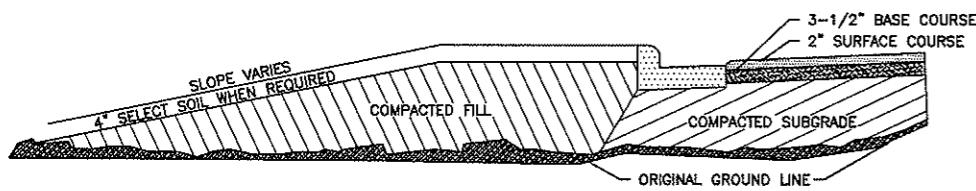
ELEVATION OF EXPANSION JOINT



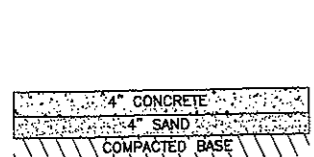
TYPICAL STREET SECTION



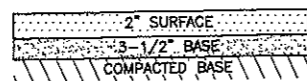
TYPICAL CUT SECTION



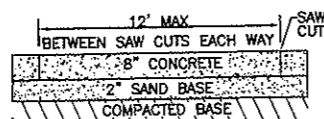
TYPICAL FILL SECTION



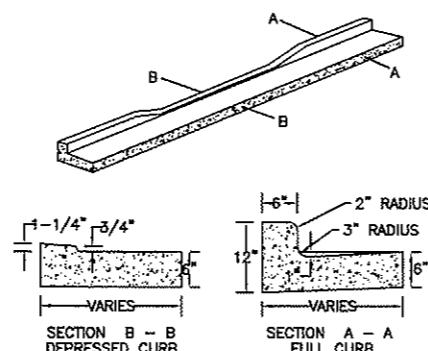
TYPICAL SIDEWALK SECTION



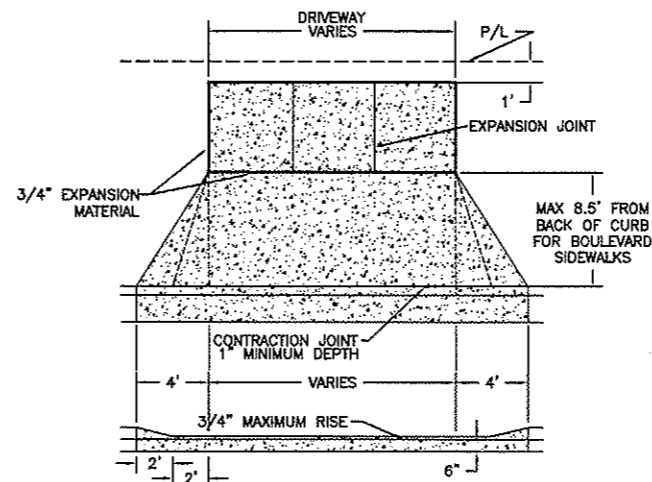
TYPICAL ASPHALT SECTION



CONCRETE APRON DETAIL

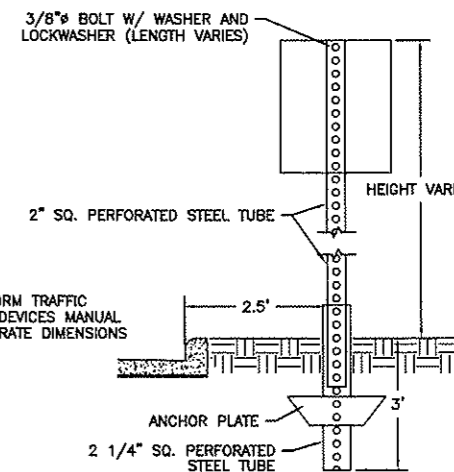


TYPICAL CURB & GUTTER



NOTE: 4" WASHED SAND BASE NEEDED UNDER CONCRETE.

SIDEWALK & DRIVEWAY DETAIL

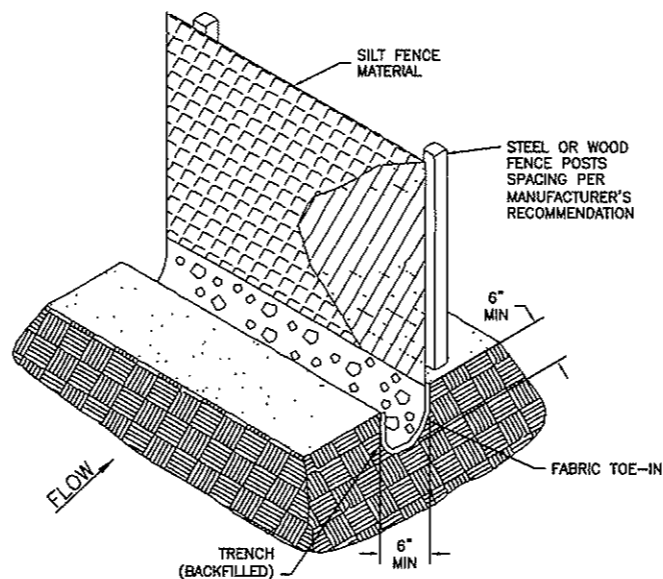


NOTE: SEE UNIFORM TRAFFIC CONTROL DEVICES MANUAL FOR ACCURATE DIMENSIONS

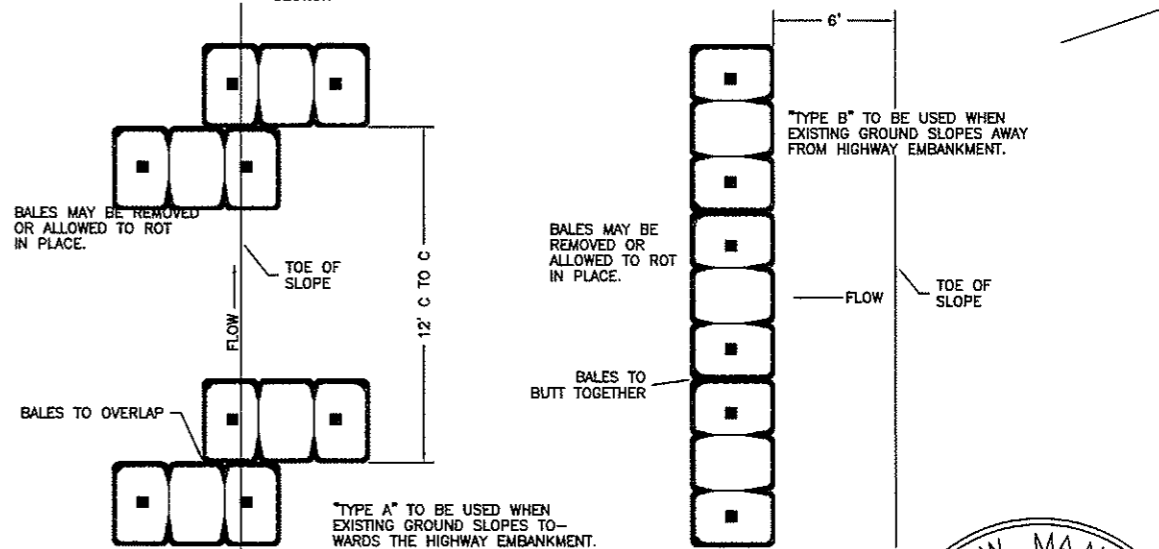
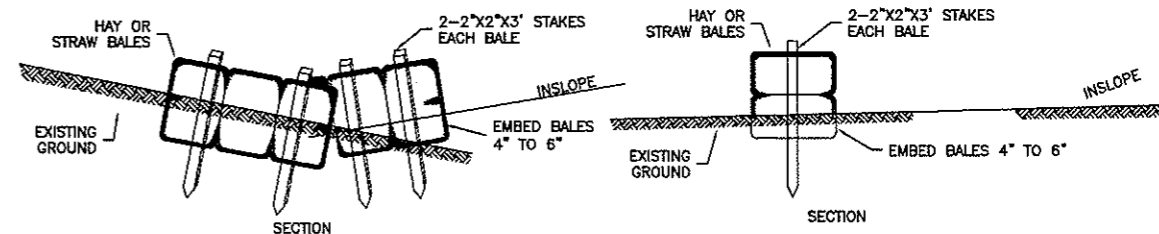
TYPICAL SIGN DETAIL

**NOTES:**

- SILT FENCE FABRIC SHALL BE ONE OF THE FOLLOWING:
  - A. BURLAP: AASHTO M182
  - B. POLYPROPYLENE FABRIC: ASTM D4397
  - C. NYLON NETTING REINFORCED FABRIC
  - D. PREMANUFACTURED SILT FENCE MEETING EQUAL PROPERTIES OF ABOVE.
- SILT FENCE FABRIC SHALL HAVE A MINIMUM BURSTING STRENGTH 150 PSI
- SILT FENCE FABRIC SHALL HAVE EDGES TREATED TO PREVENT UNRAVELING.
- MINIMUM HEIGHT OF THE SILT FENCE TO BE 2'-6" WITH A MINIMUM OF 6" CLEARANCE BETWEEN THE TOP OF THE SILT FENCE AND THE TOP OF THE POSTS.
- INSTALL THE POSTS ON SLIGHT ANGLE TOWARDS THE ANTICIPATED RUNOFF SURFACE.



SILT FENCE



BALED HAY OR STRAW EROSION CHECKS



PROJECT: STREET IMP. DISTRICT NO. 150 - AREA "A"  
STREET IMP. DISTRICT NO. 150 - AREA "A"  
NYGREN DRIVE AS-BUILT DETAILS

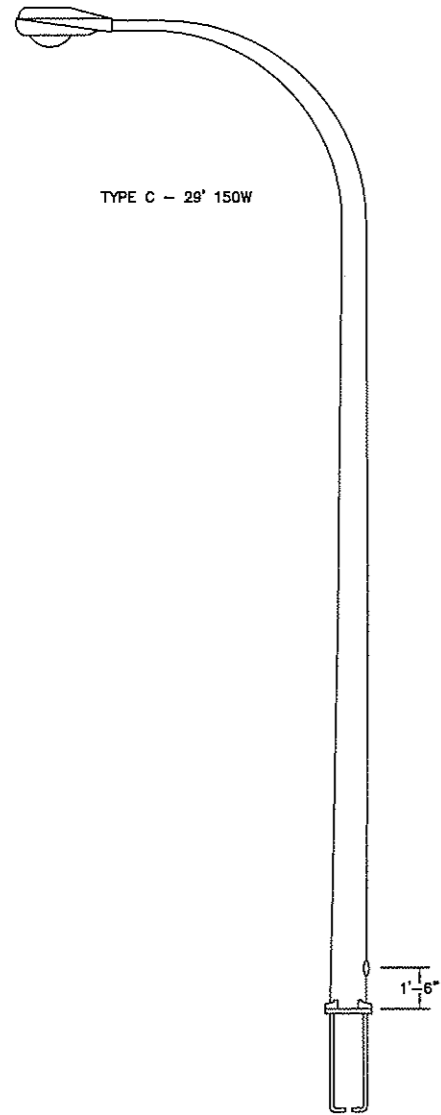
NO.	REVISIONS	BY	DATE	APP'D	DATE

TITLED: STREET IMP. DISTRICT NO. 150 - AREA "A"  
REVISED: 08/07  
DATE: 08/07  
BY: [Signature]  
APP'D: [Signature]

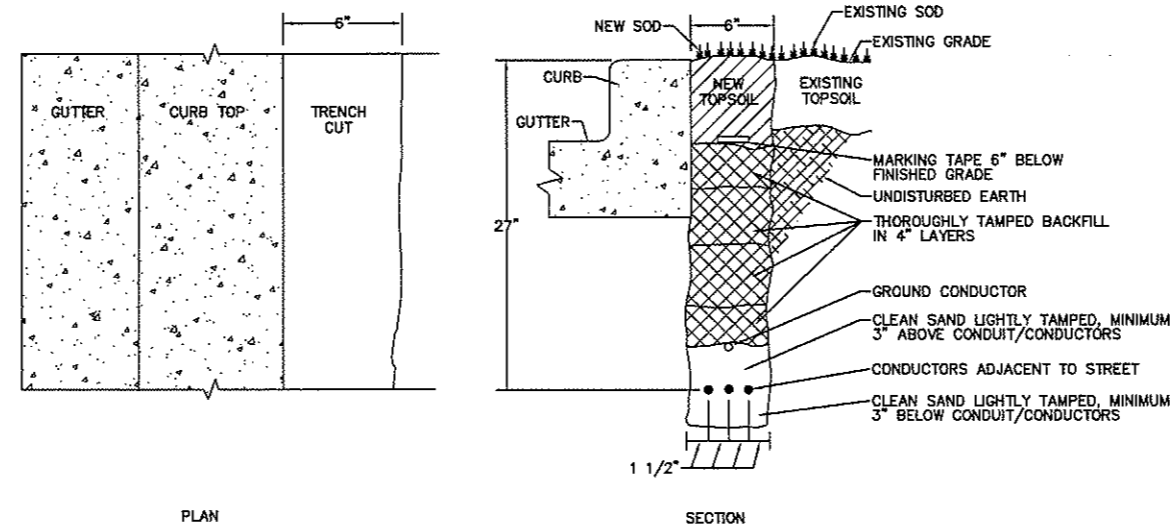
SHEET NUMBER 3 OF 7 SHEETS

# STREET LIGHT DETAILS AS-BUILT

NO SCALE



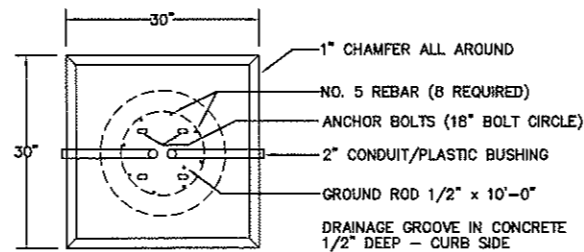
TYPICAL  
POLE DETAIL



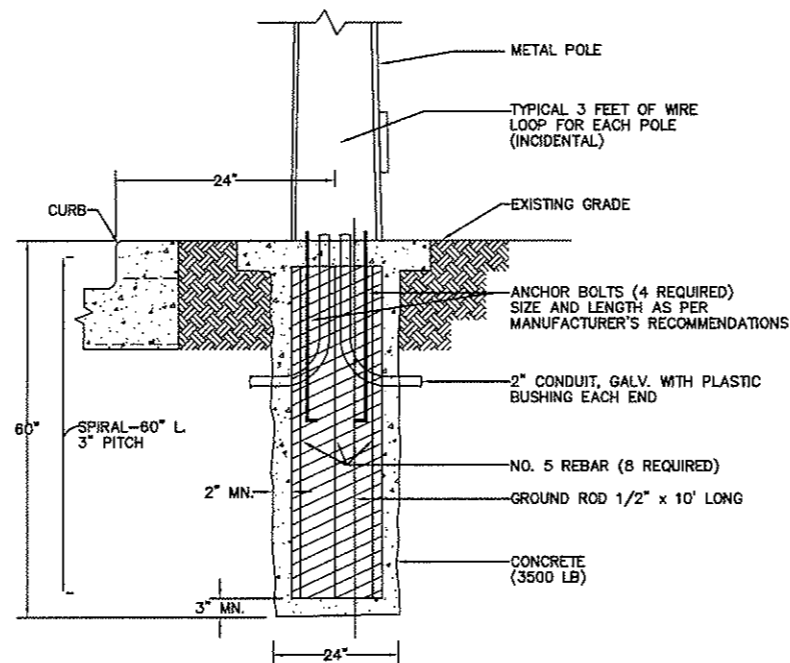
PLAN

SECTION

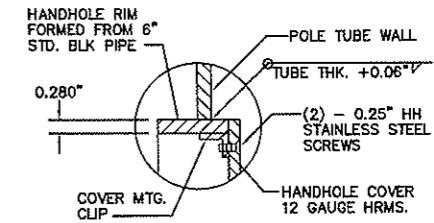
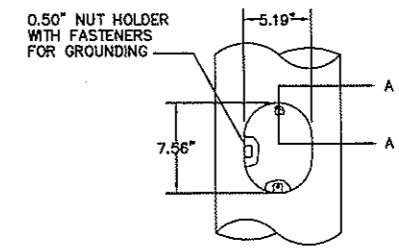
## UNDERGROUND CABLE INSTALLATION



PLAN VIEW

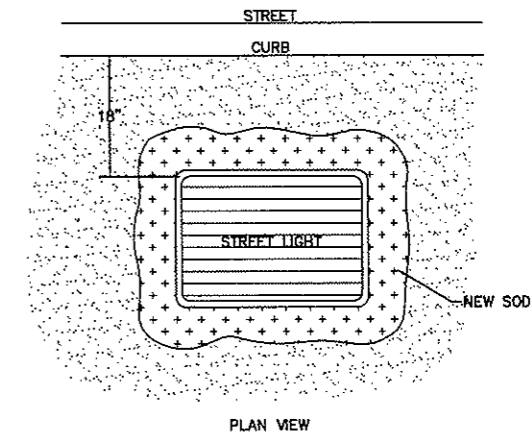


SECTION  
BASE DETAIL

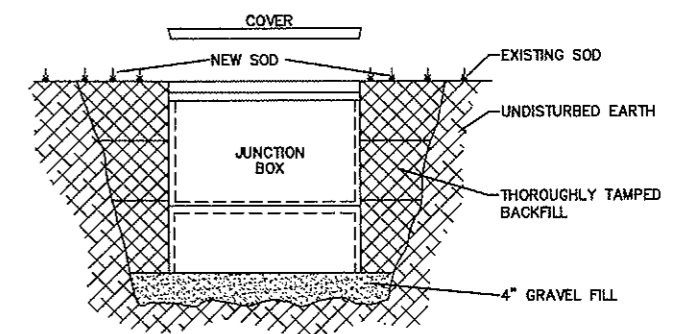


SECTION A-A

## HANDHOLE DETAIL



PLAN VIEW



SECTION

## JUNCTION BOX DETAIL

\* PROVIDE MOUSE HOLES AS REQUIRED FOR EXISTING AND NEW CONDUCTORS



**AVOID CUTTING UNDERGROUND UTILITY LINES IN YOUR AREA**

TWO WORKING DAYS BEFORE YOU DIG-DRILL-BLAST IN NORTH DAKOTA - CALL TOLL FREE

**1-800-795-0555**

UTILITIES UNDERGROUND LOCATION CENTER

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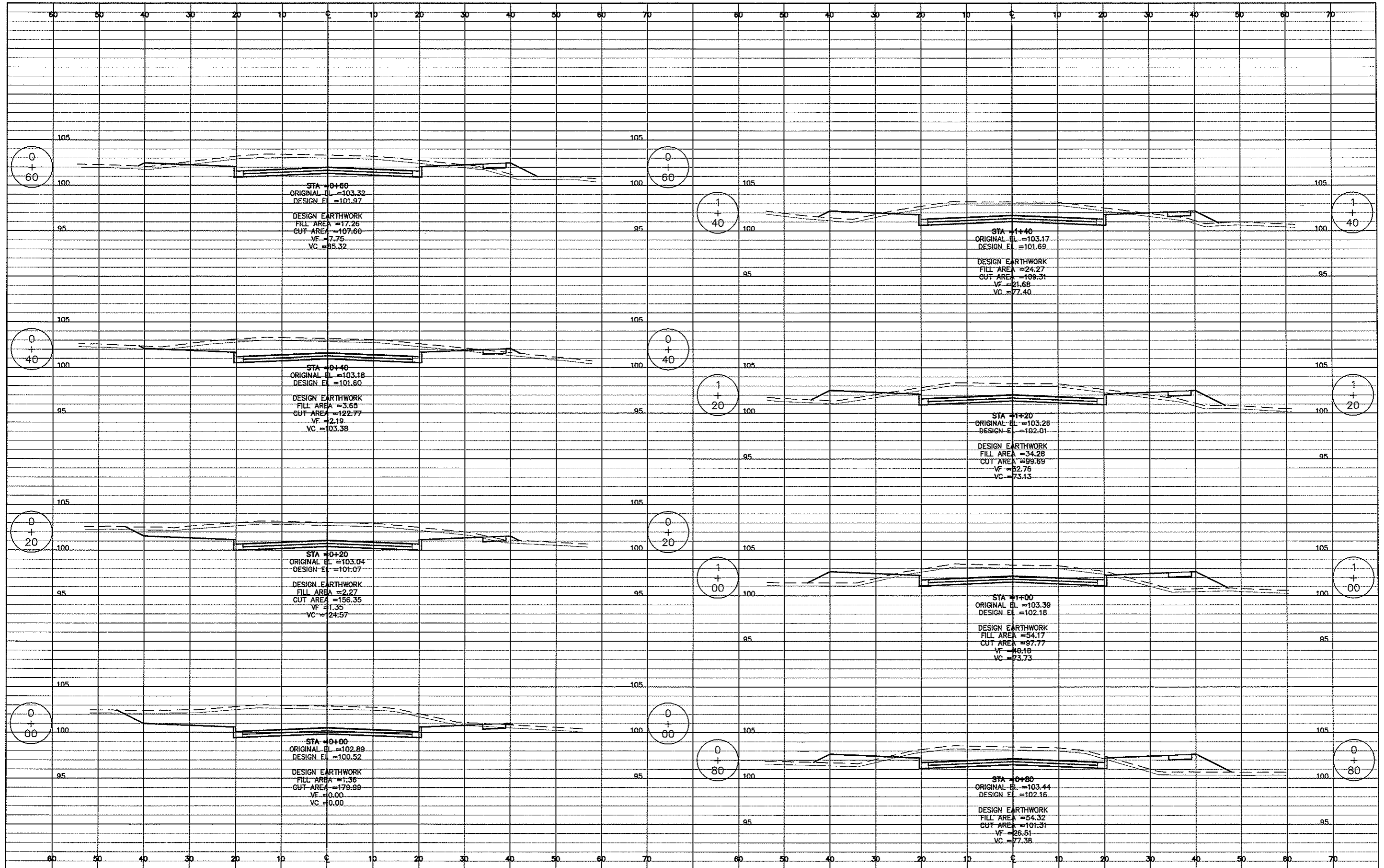
TOMAN ENGINEERING COMPANY  
CONSULTING CIVIL ENGINEERS  
501 1ST ST. N.W. • MANDAN, NORTH DAKOTA 58554 • (701) 835-6443

PROJECT: STREET IMP. DISTRICT NO. 150 - AREA "A"  
STREET IMP. DISTRICT NO. 150 - AREA "A"  
NYGREN DRIVE AS-BUILT  
STREET LIGHT DETAILS

REV. NO.	DATE	BY	DATE	BY
1	08/07	AM		
2				
3				
4				
5				
6				
7				
8				
9				
10				

TITLE: STREET IMP. DISTRICT NO. 150 - AREA "A"  
NO. SHEET NUMBER  
4  
OF 7 SHEETS

# CROSS SECTIONS STA. 0+00 - 1+40 AS-BUILT



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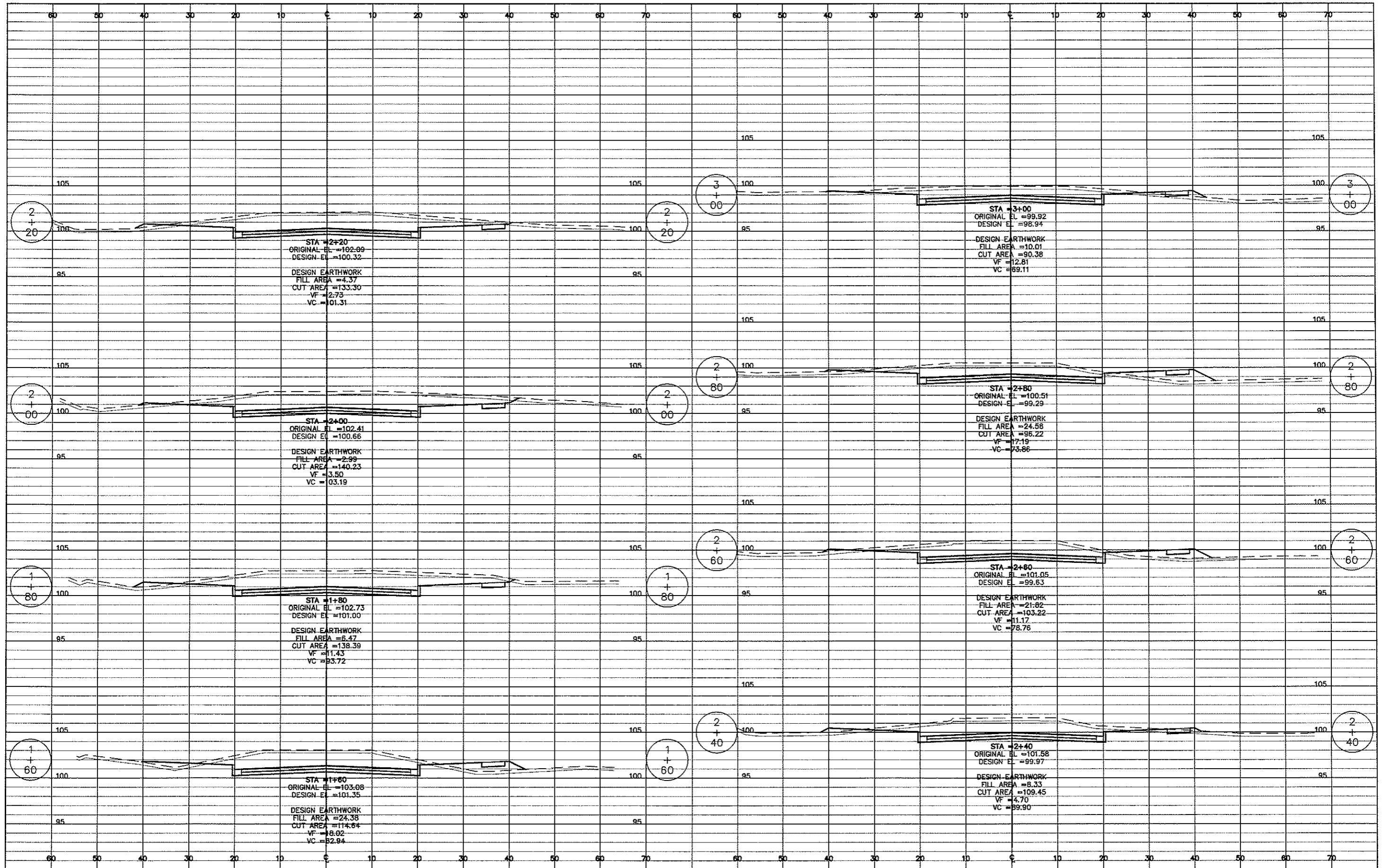
PROJECT: STREET IMP. DISTRICT NO. 150 - AREA "A"  
 NYGREN DRIVE AS-BUILT  
 CROSS SECTIONS STA. 0+00 - 1+40

NO.	REVISIONS	DATE	BY	DATE	BY

SHEET NUMBER

5  
 OF 7 SHEETS

# CROSS SECTIONS STA. 1+60 - 3+00 AS-BUILT



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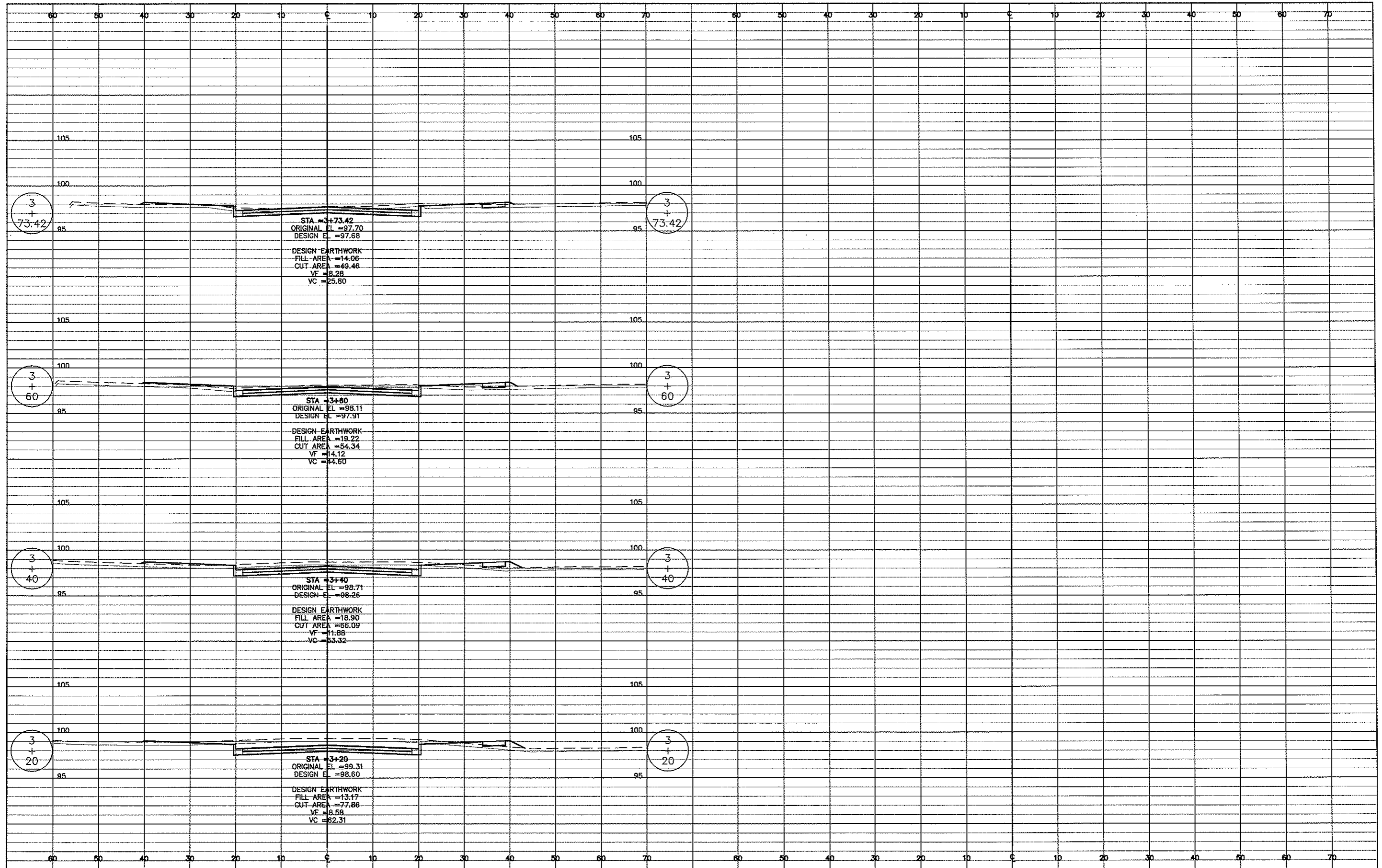
TOMAN ENGINEERING COMPANY  
CONSULTING CIVIL ENGINEERS  
501 1ST ST. N.E. • MINNAPOLIS, MINN. 55412 • (763) 845-8683

PROJECT: STREET IMP. DISTRICT NO. 150 - AREA "A"  
NYGREN DRIVE AS-BUILT  
CROSS SECTIONS STA. 1+60 - 3+00

NO.	DATE	BY	REVISIONS
1	8/27		
2	8/27		

SHEET NUMBER  
**6**  
OF 7 SHEETS

# CROSS SECTIONS STA. 3+20 - 3+73.42 AS-BUILT



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PROJECT:  
 STREET IMP. DISTRICT NO. 150 - AREA "A"  
 NYGREN DRIVE AS-BUILT  
 CROSS SECTIONS STA. 3+20 - 3+73.42

NO.	REVISIONS	BY	DATE	APP'D	DATE
1	ISSUED FOR PERMIT	TECO	3/9/09	TECO	3/9/09
2	REVISED	TECO	3/9/09	TECO	3/9/09

SHEET NUMBER  
 7  
 OF 7 SHEETS