

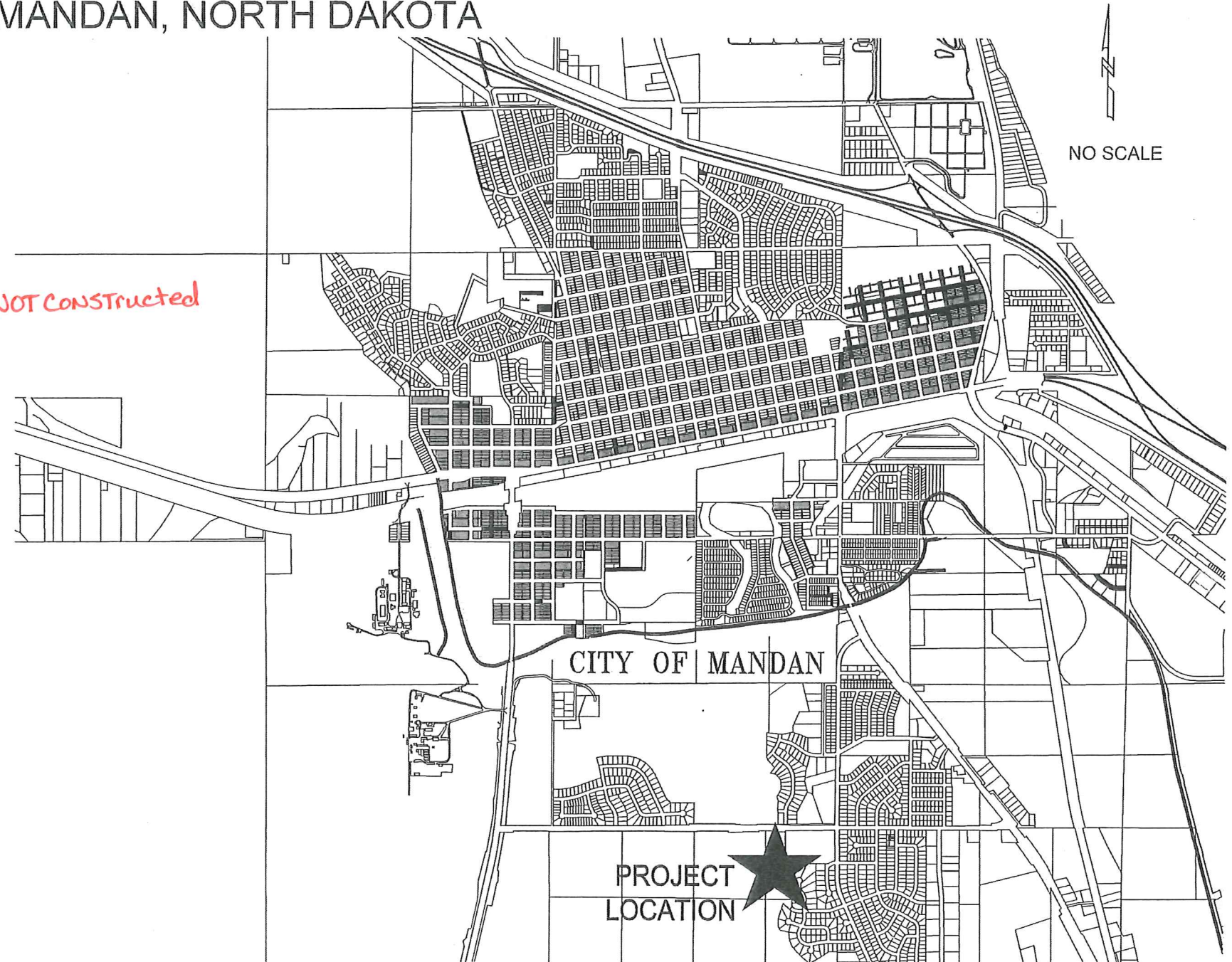
LINCOLN RIDGE 6TH ADDITION
 STREET IMPROVEMENT, DISTRICT NO. 191 **ASBUILT**
 CITY PROJECT NO. 2014-04
 MANDAN, NORTH DAKOTA

INDEX OF DRAWINGS

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7	STREET DETAILS
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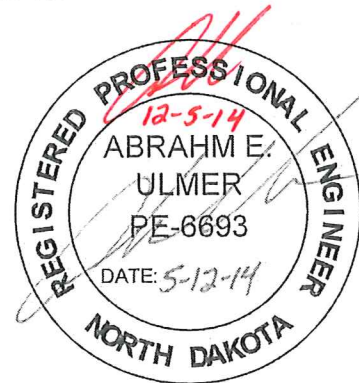
> phase 2 - NOT constructed

* PHASE 2 NOT TO BE CONSTRUCTED AT THIS TIME



DESIGN ENGINEER'S CERTIFICATE

I, ABRAHM E. ULMER, A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NORTH DAKOTA, HEREBY CERTIFY THAT THE PLANS FOR LINCOLN RIDGE 6TH ADDITION STREET IMPROVEMENT DIST. NO. 191, CITY PROJECT NO. 2014-04, MANDAN, NORTH DAKOTA WERE PREPARED UNDER MY SUPERVISION AND ARE COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



ABRAHM E. ULMER, P.E.
 REGISTERED PROFESSIONAL ENGINEER
 NORTH DAKOTA REGISTRATION NO. 6693

PROJECT LOCATION ★

TOMAN ENGINEERING
 501 1st Street NW, Mandan, ND 58554
 Phone: 701-663-6483 * Fax: 701-663-0923

CAUTION
 UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATION PRIOR TO EXCAVATION.

LINCOLN RIDGE 6TH ADDITION
 MANDAN, ND

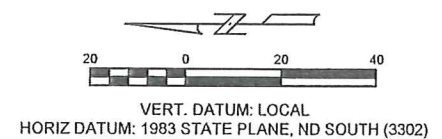
STREET IMPROVEMENT DIST. NO. 191
 CITY PROJECT NO. 2014-04

SHEET 1 OF 8 MAY, 2014

TITLE SHEET

SCHOOL DISTRICT 3RD ADDITION

REPLAT OF LOTS 7 & 8, BLOCK 2, LINCOLN RIDGE EATATES & AUD. LOT "A"



LEGEND

- EXISTING TELEPHONE PEDESTAL
- ☆ EXISTING STREET LIGHT
- ⊕ EXISTING UTILITY POLE
- ⊖ EXISTING ANCHOR POLE
- ⊞ EXISTING ELECTRICAL BOX
- EXISTING TREE
- ⊙ EXISTING FIRE HYDRANT
- ⊗ EXISTING GATE VALVE
- ⊠ EXISTING SIGN
- s — s — EXISTING SANITARY SEWERMAIN
- w — w — EXISTING WATERMAIN
- e — e — EXISTING ELECTRICAL
- oh — oh — EXISTING OVERHEAD POWER LINE
- ≡≡≡≡≡ EXISTING CURB & GUTTER
- ss — ss — EXISTING STORM SEWER
- g — g — EXISTING GAS LINE
- t — t — EXISTING TELEPHONE CABLE
- - - - - PROPOSED CONTOUR MAJOR
- - - - - PROPOSED CONTOUR MINOR
- ⊕ PROPOSED FIRE HYDRANT
- ⊙ PROPOSED GATE VALVE
- ⊖ PROPOSED CURB STOP
- ⊗ PROPOSED SANITARY SEWER MANHOLE
- ⊠ PROPOSED STREET SIGN
- ☆ PROPOSED STREET LIGHT
- ⊞ PROPOSED JUNCTION BOX
- u — u — PROPOSED UNDERGROUND ELECTRIC
- ≡≡≡≡≡ PROPOSED CURB & GUTTER
- w — w — PROPOSED WATERMAIN
- w — w — PROPOSED WATER SERVICE
- s — s — PROPOSED SANITARY SEWERMAIN
- s — s — PROPOSED SANITARY SERVICE
- ⊙ PROPOSED STORM SEWER MANHOLE
- ⊞ PROPOSED 2' X 3' CATCH BASIN
- ⊞ PROPOSED 2' X 6' CATCH BASIN
- ⊞ PROPOSED FLARED END SECTION
- ss — ss — PROPOSED STORM SEWER

BY OTHERS

BY OTHERS

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PHASE 1

PHASE 2
(NOT TO BE CONSTRUCTED AT THIS TIME)

FH TN=1730.14

FH TN=1726.08

FH TN=1717.32

FH TN=1713.94

LENA COURT SE

MIA COURT SE

WILL COURT SE

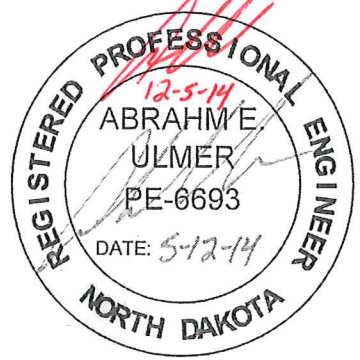
MARIO COURT SE

16TH STREET SE

MACEDONIA AVENUE SE
(UNDER CONSTRUCTION IN 2014)

MACEDONIA HILLS FIRST ADDITION

* Elevations shown were taken using GPS survey equipment.



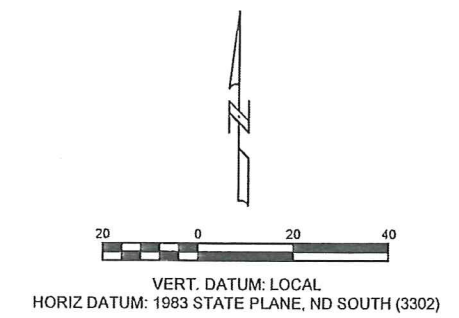
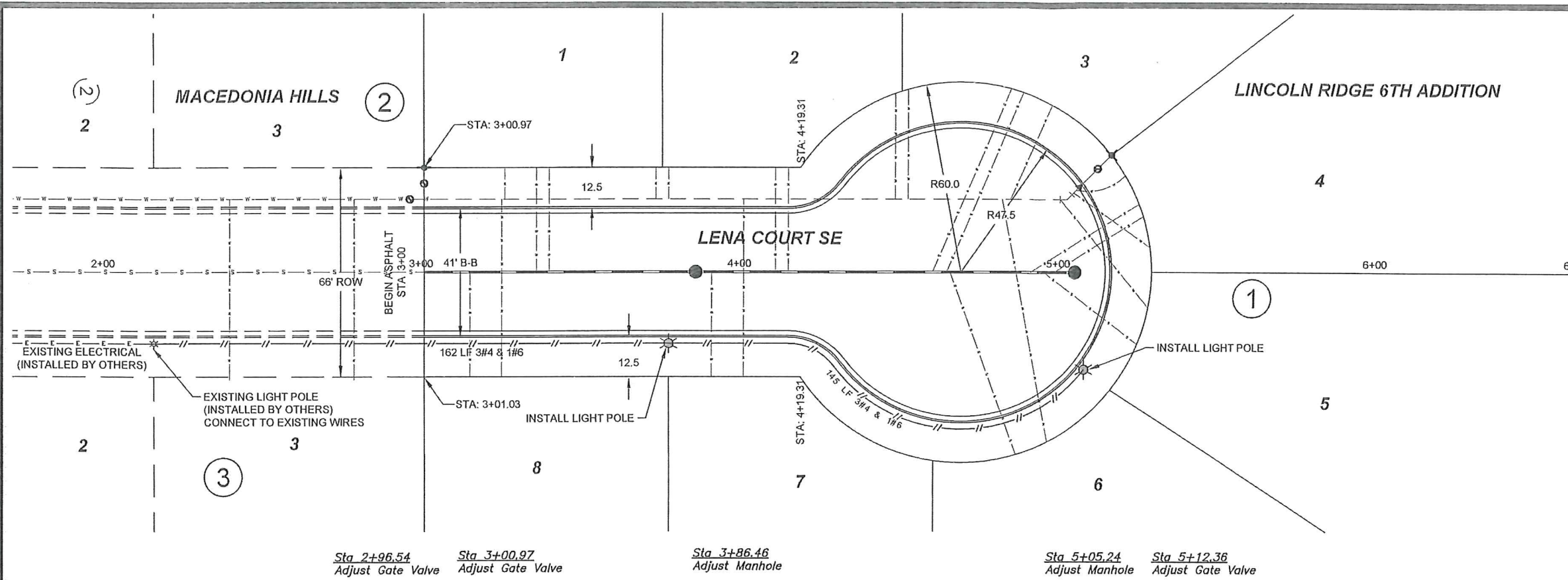
TOMAN ENGINEERING
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LINCOLN RIDGE 6TH ADDITION
MANDAN, ND
STREET IMPROVEMENT DIST. NO. 191
CITY PROJECT NO. 2014-04

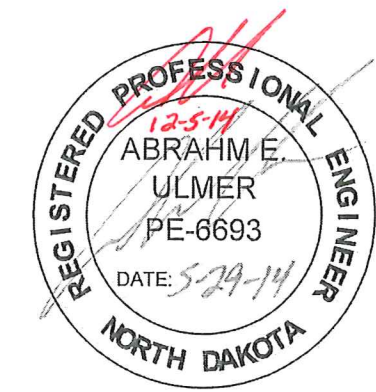
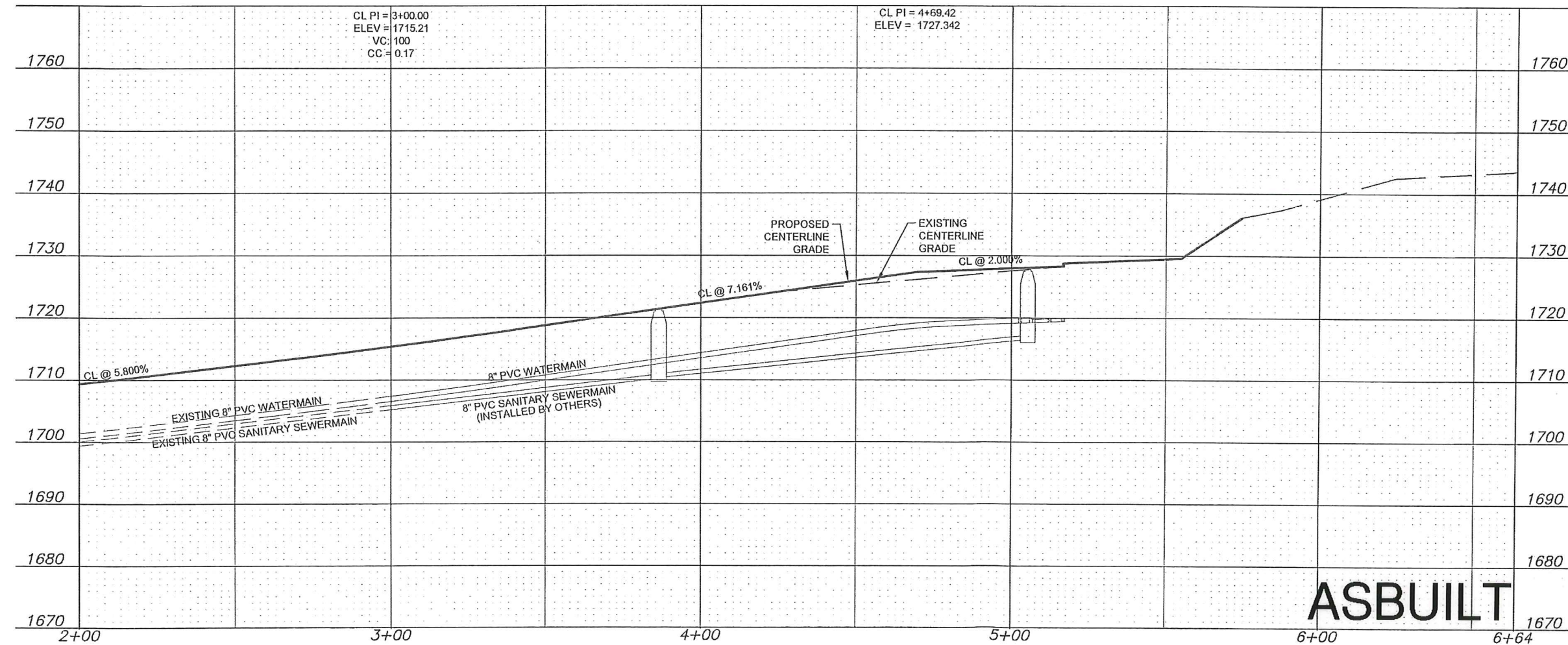
SHEET 2 OF 8 MAY, 2014

PROJECT LAYOUT

ASBUILT



1. GRADING OF SITE WILL BE COMPLETED BY OTHERS PRIOR TO CONSTRUCTION.
2. SUBGRADE PREP SHALL BE 6" DEPTH WITH COMPACTION 90% MODIFIED, PER CITY OF MANDAN SPECIFICATIONS. MOISTURE REQUIREMENTS SHALL BE NO MORE THAN 3% ABOVE OR 2% BELOW OPTIMUM MOISTURE AS DETERMINED BY ASTM D-1557.
3. SAW CUT EXISTING ASPHALT AND CURB & GUTTER TO MATCH. SAW CUTTING, REMOVAL, AND DISPOSAL SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
4. WATER AND SEWER SHALL BE INSTALLED BY OTHERS PRIOR TO STREET CONSTRUCTION.



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LENA COURT SE - PHASE 1
LINCOLN RIDGE 6TH ADDITION
MANDAN, ND

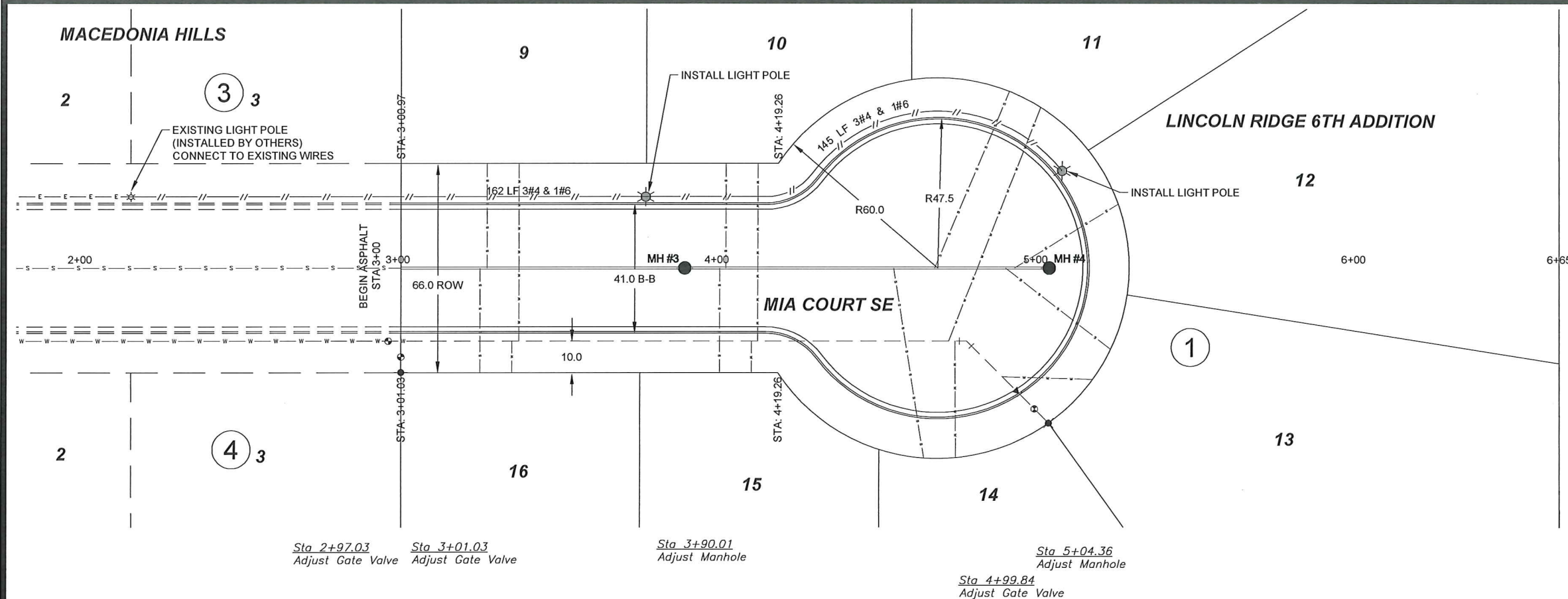
STREET IMPROVEMENT DIST. NO. 191
CITY PROJECT NO. 2014-04
STA 2+00 - STA 6+64
SHEET 3 OF 8

MAY, 2014

ASBUILT

PLAN & PROFILE

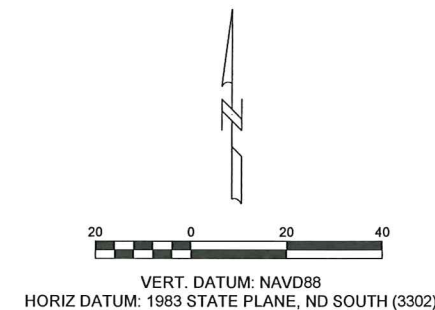
MACEDONIA HILLS



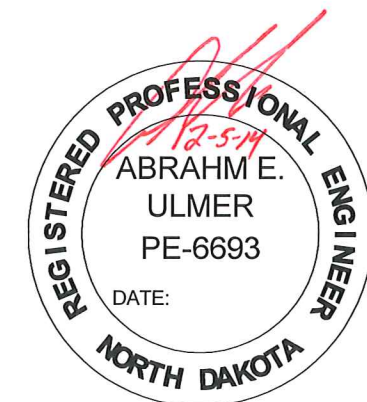
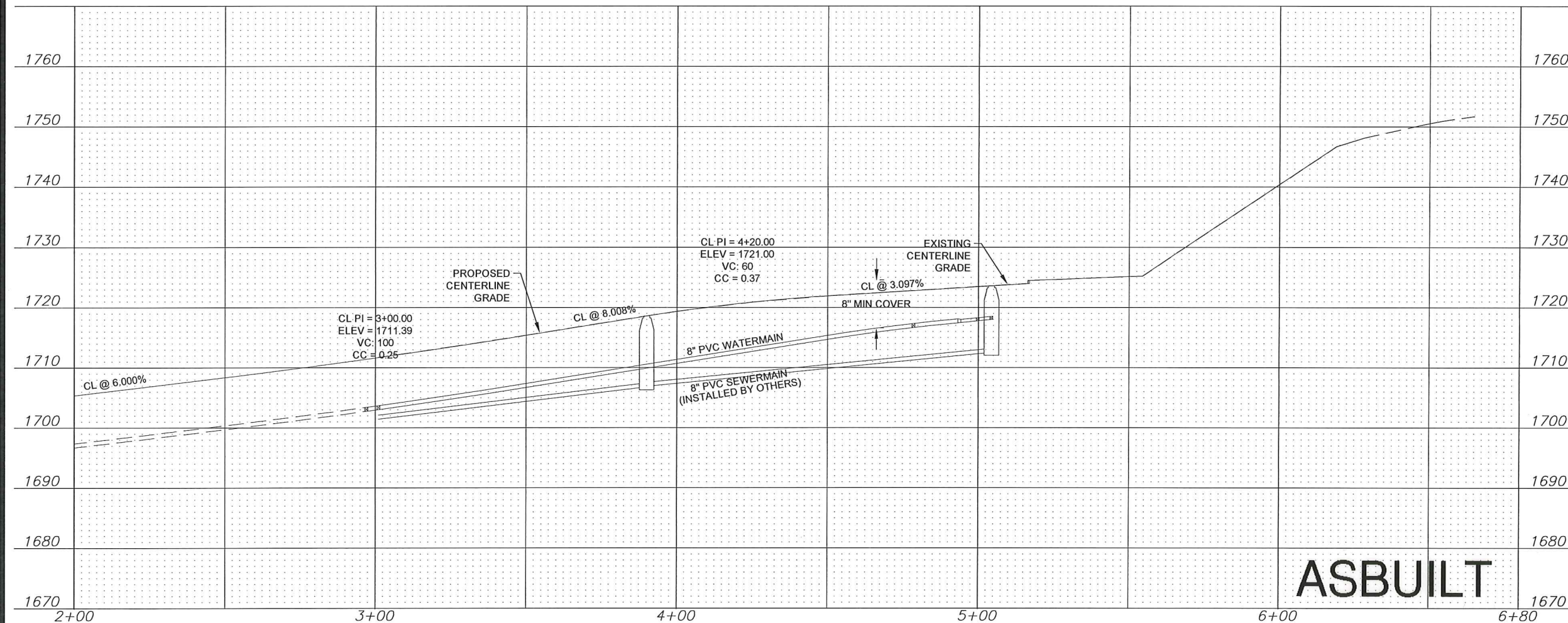
Sta 2+97.03 Adjust Gate Valve
Sta 3+01.03 Adjust Gate Valve

Sta 3+90.01 Adjust Manhole

Sta 5+04.36 Adjust Manhole
Sta 4+99.84 Adjust Gate Valve



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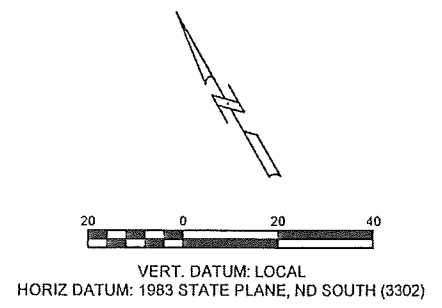
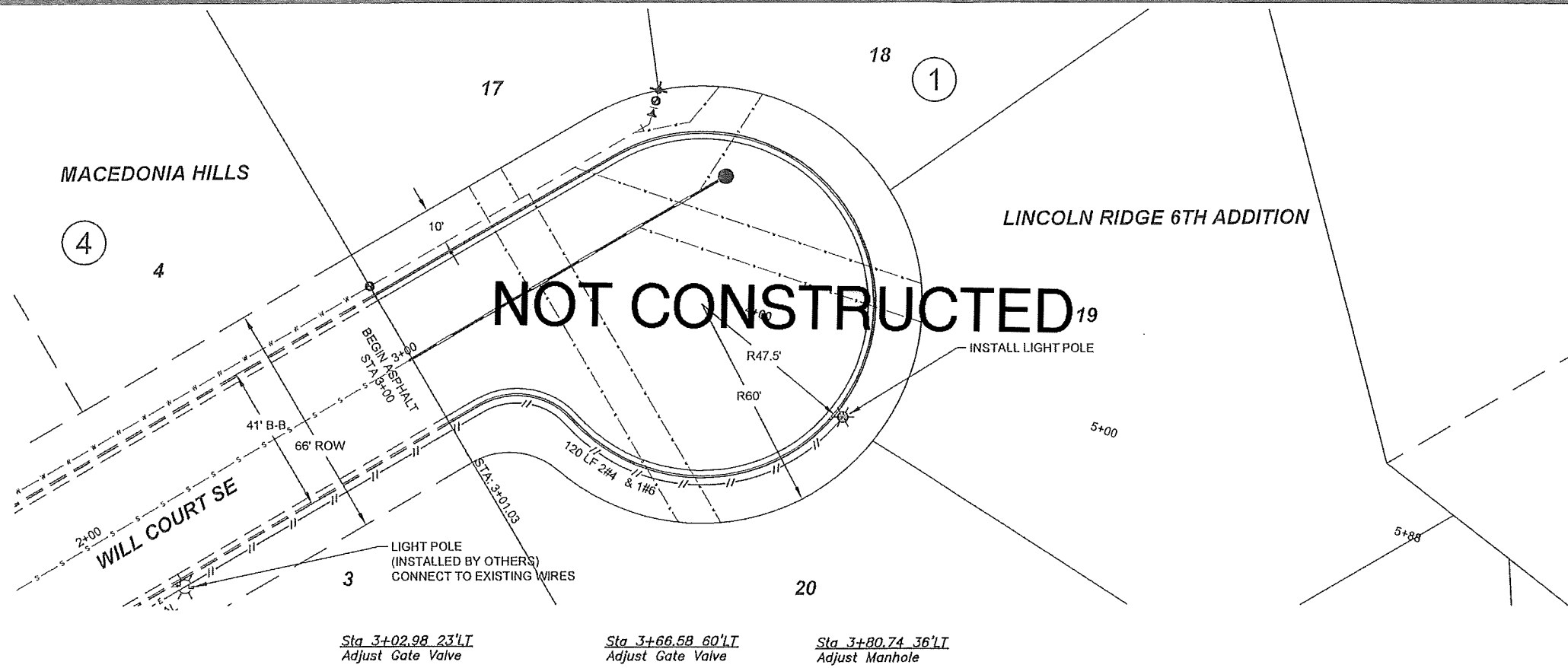
TOMAN ENGINEERING
501 1st Street NW, Mandan, ND 58554
Phone: 701-663-6483 * Fax: 701-663-0923

MIA COURT SE - PHASE 1
LINCOLN RIDGE 6TH ADDITION
MANDAN, NORTH DAKOTA

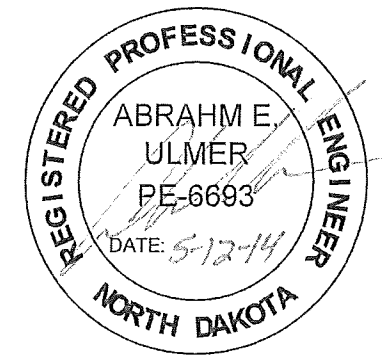
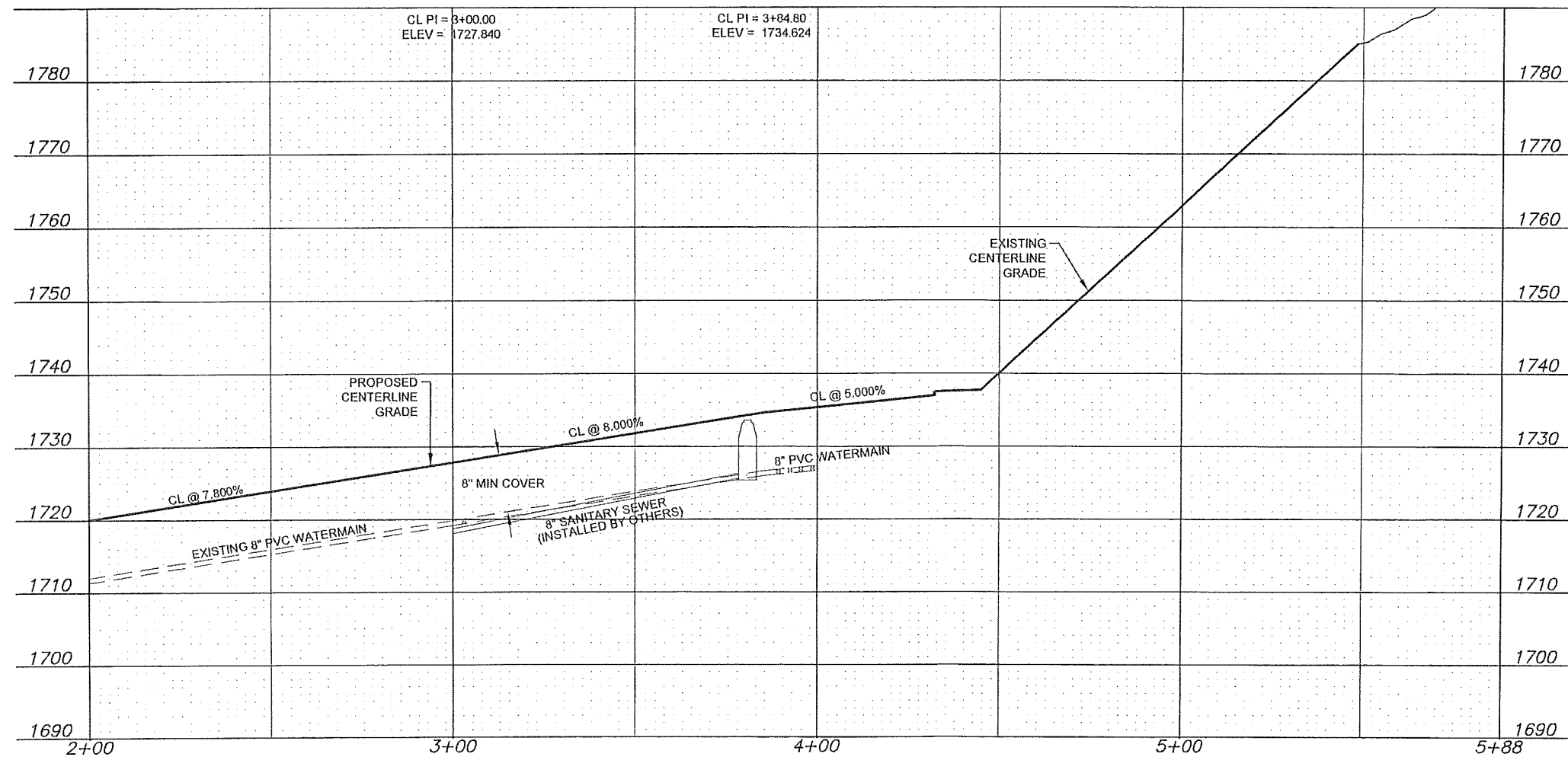
STREET IMPROVEMENT DIST. NO. 191
CITY PROJECT NO. 2014-04
STA 2+00 - STA 6+80
SHEET 4 OF 8

ASBUILT

MAY, 2014
PLAN & PROFILE



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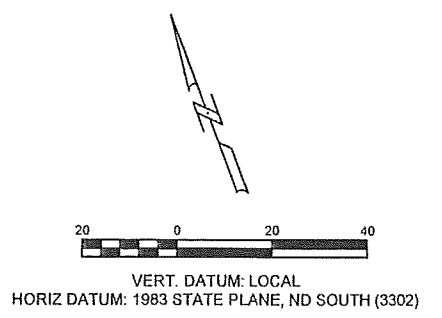
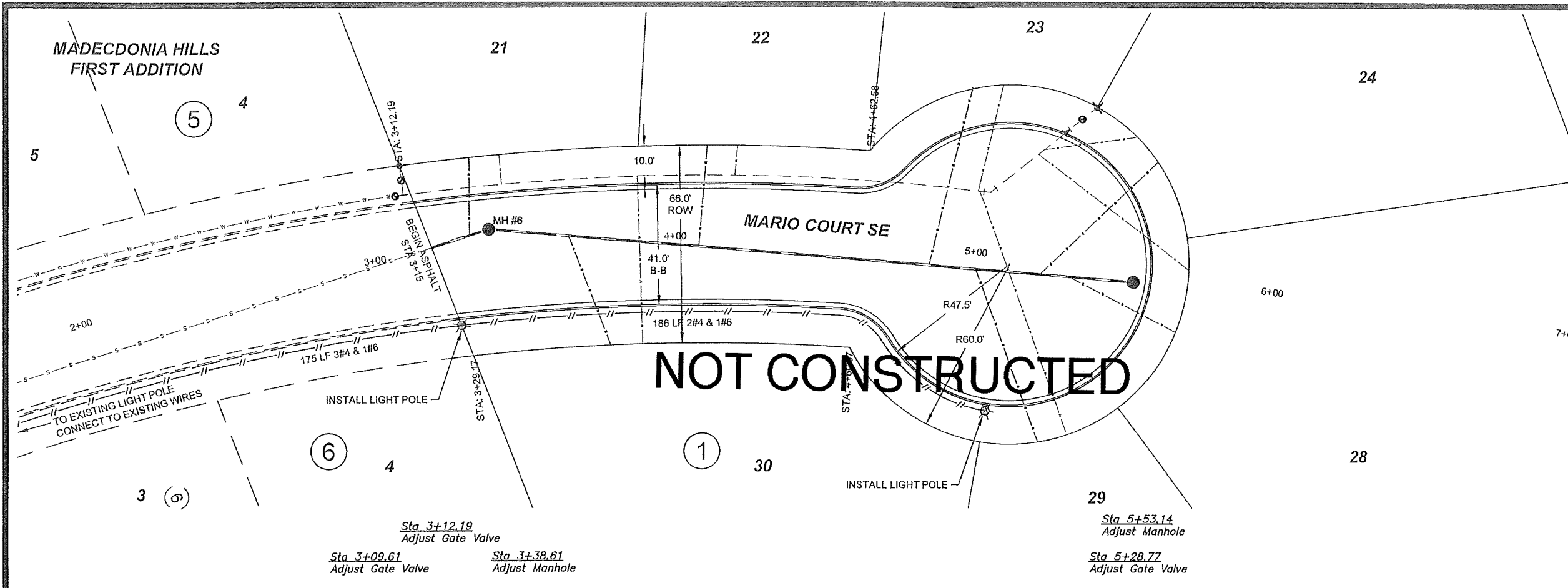
TOMAN ENGINEERING
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WILL COURT SE - PHASE 2
LINCOLN RIDGE 6TH ADDITION
MANDAN, NORTH DAKOTA

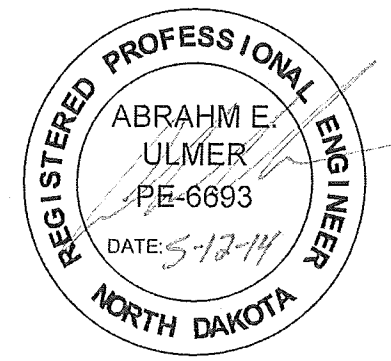
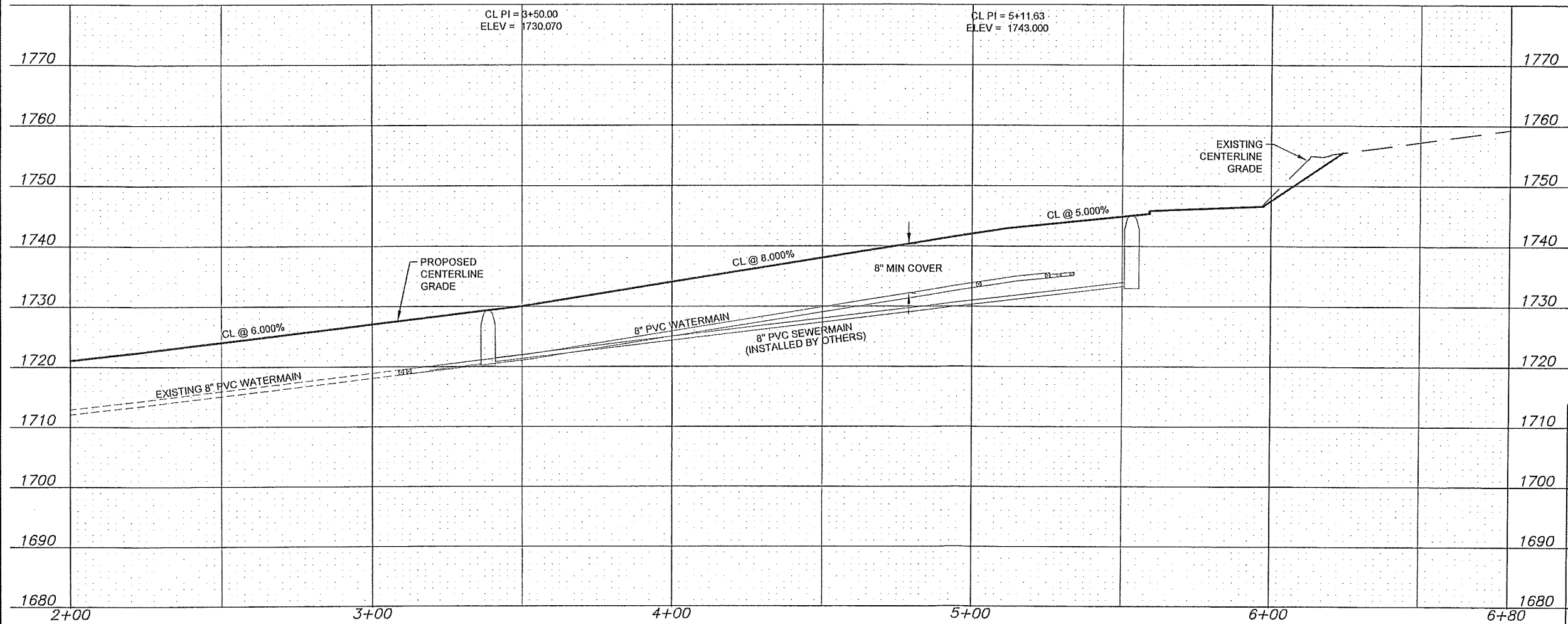
STREET IMPROVEMENT DIST. NO. 191
CITY PROJECT NO. 2014-04
STA 2+00 - STA 5+88
SHEET 5 OF 8

MAY, 2014

PLAN & PROFILE



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3. SAW CUT EXISTING ASPHALT AND CURB & GUTTER TO MATCH. SAW CUTTING, REMOVAL, AND DISPOSAL SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
4. WATER AND SEWER SHALL BE INSTALLED BY OTHERS PRIOR TO STREET CONSTRUCTION.
5. DROP CURB FOR HANDICAP RAMPS SHALL BE PLACED PER ENGINEER'S DIRECTION (INCIDENTAL.)



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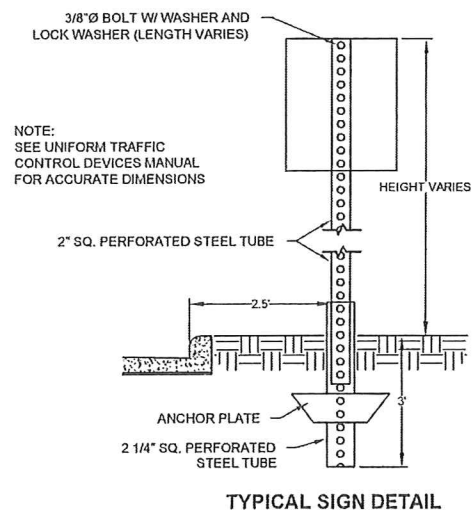
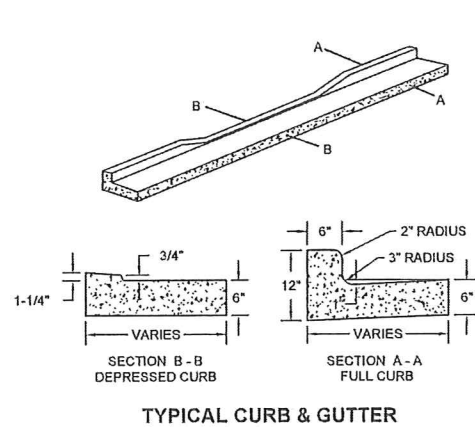
TOMAN ENGINEERING
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MARIO COURT SE - PHASE 2
LINCOLN RIDGE 6TH ADDITION
MANDAN, ND

STREET IMPROVEMENT DIST. NO. 191
DISTRICT NO. 2014-04
STA 2+00 - STA 6+80
SHEET 6 OF 8

MAY, 2014

PLAN & PROFILE



NOTE NO. 1 - USE PRECAST CONCRETE ADJUSTING RINGS FOR ADJUSTMENT OF MANHOLES AND TYPE 24" INLET AND TYPE 24" INLET/MANHOLE. USE CONCRETE BLOCKS FOR ADJUSTMENT OF TYPE 36" AND TYPE 72" INLETS. GROUT SHALL BE PLACED BETWEEN ALL SURFACES. GROUT ON THE INSIDE EDGE OF ADJUSTING RINGS SHALL HAVE A SMOOTH FINISH.

NOTE NO.2 - INLET BACK SHALL BE ADJUSTED TO CONFORM WITH CURB & GUTTER GRADES AND CURB ALIGNMENT.

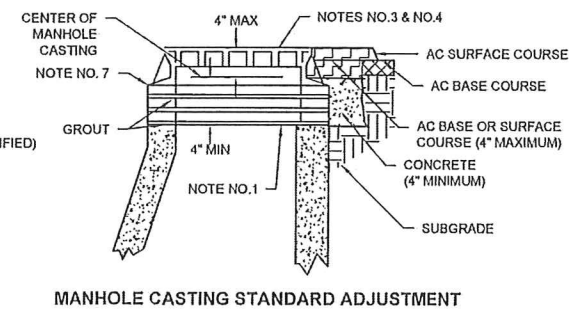
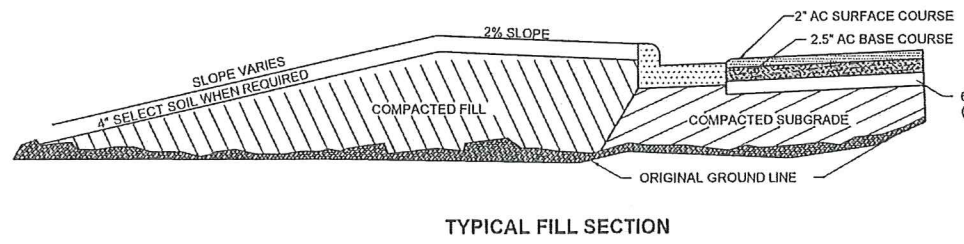
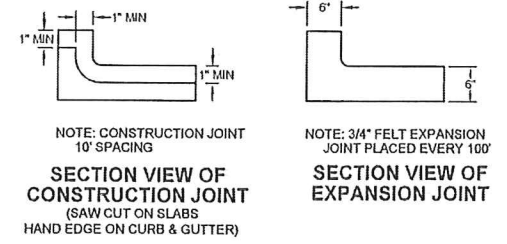
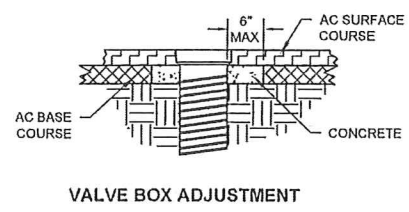
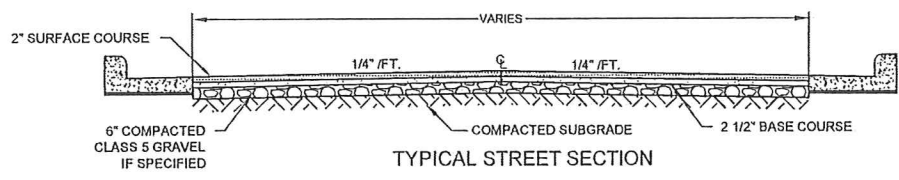
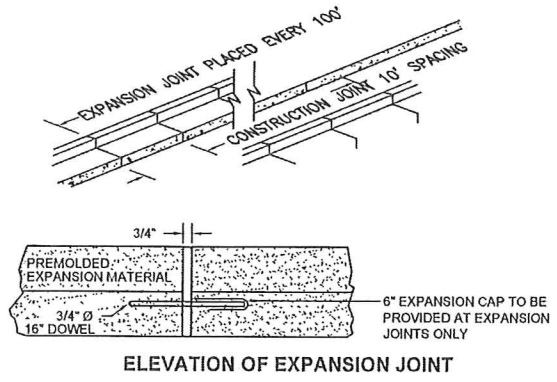
NOTE NO.3 - MANHOLE CASTING SHALL BE ADJUSTED TO CONFORM WITH SLOPE AND GRADE OF PROPOSED CONCRETE OR PAVEMENT.

NOTE NO.4 - MANHOLE CASTING SHALL BE ADJUSTED AFTER THE AC LEVELING COURSE OR THE AC BASE COURSE HAS BEEN PLACED.

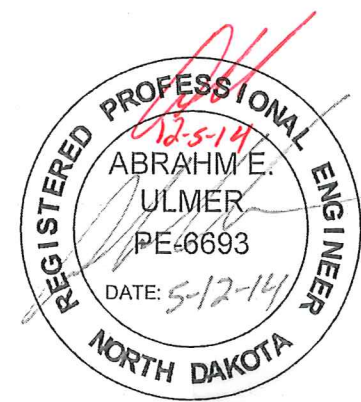
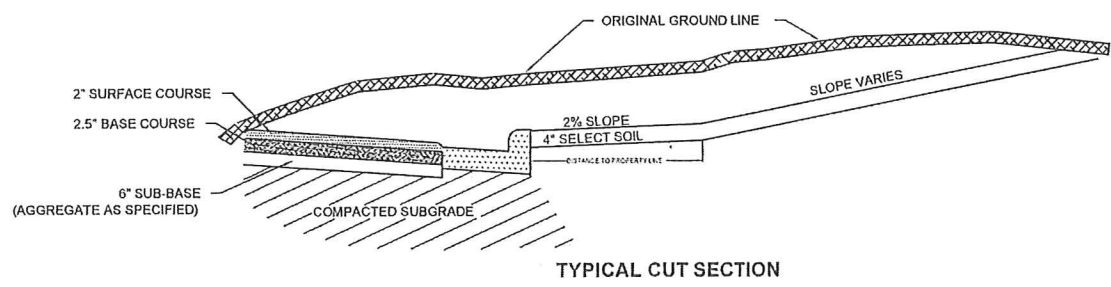
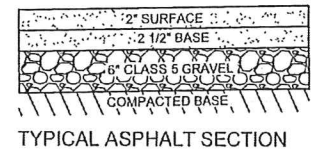
NOTE NO. 5 - INLET AND MANHOLE CASTING SHALL BE CONSIDERED ADJUSTED ONLY WHEN RAISED OR LOWERED BY ADDING OR REMOVING ADJUSTING RINGS OR GROUT.

NOTE NO.6 - ADAPTOR RING SHALL BE AMERICAN HIGHWAY PRODUCTS MANHOLE RISER OR AN APPROVED EQUAL.

NOTE NO.7 - EXTERIOR MANHOLE CHIMNEY SEAL AS MANUFACTURED BY CRETEX OR AN APPROVED EQUAL, IF SPECIFIED.



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



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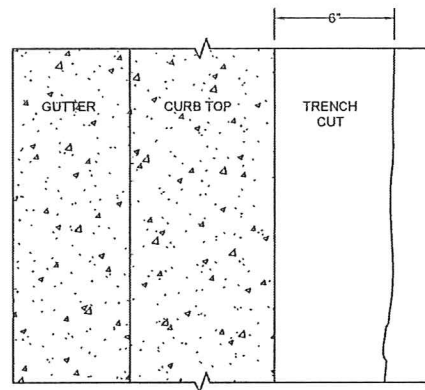
TOMAN ENGINEERING
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LINCOLN RIDGE 6TH ADDITION
MANDAN, NORTH DAKOTA

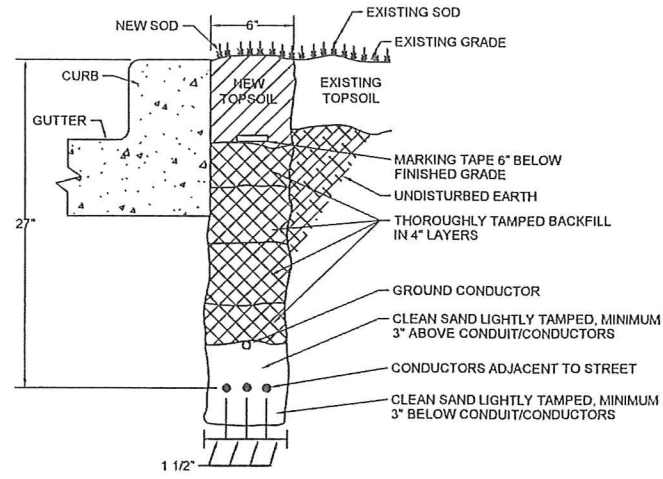
STREET IMPROVEMENT DIST. NO. 191
CITY PROJECT NO. 2014-04

SHEET 7 OF 8 MAY, 2014

STREET DETAILS

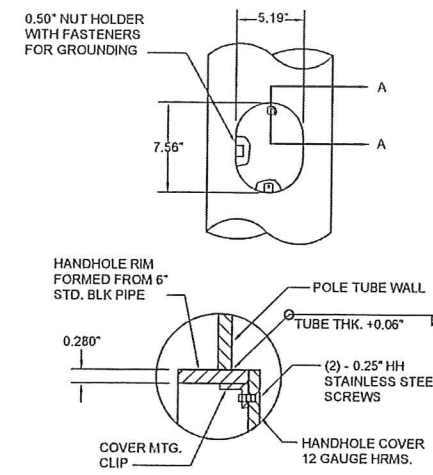


PLAN



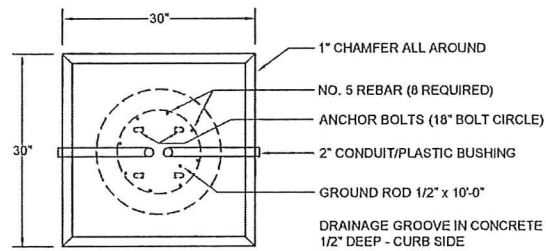
SECTION

UNDERGROUND CABLE INSTALLATION

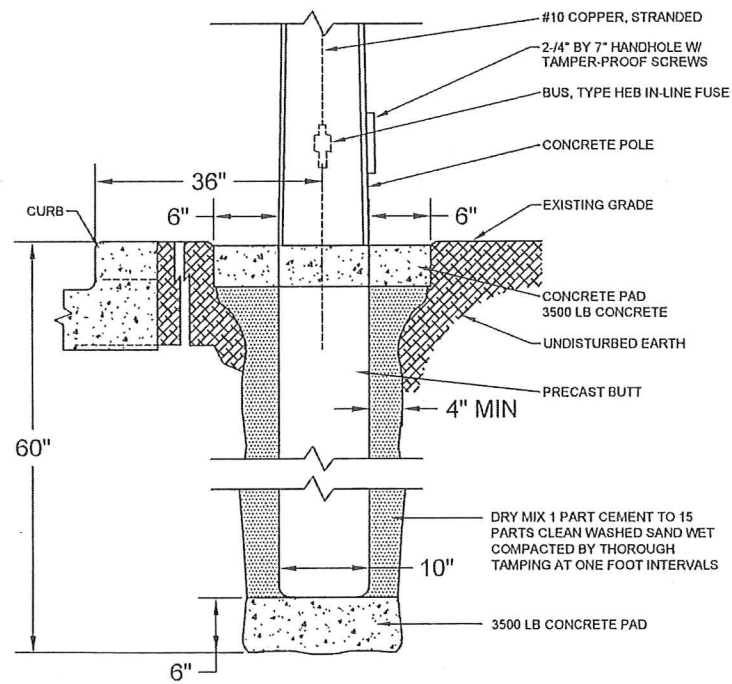


SECTION A-A

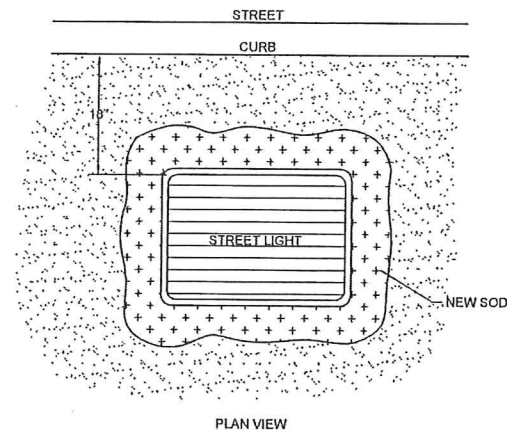
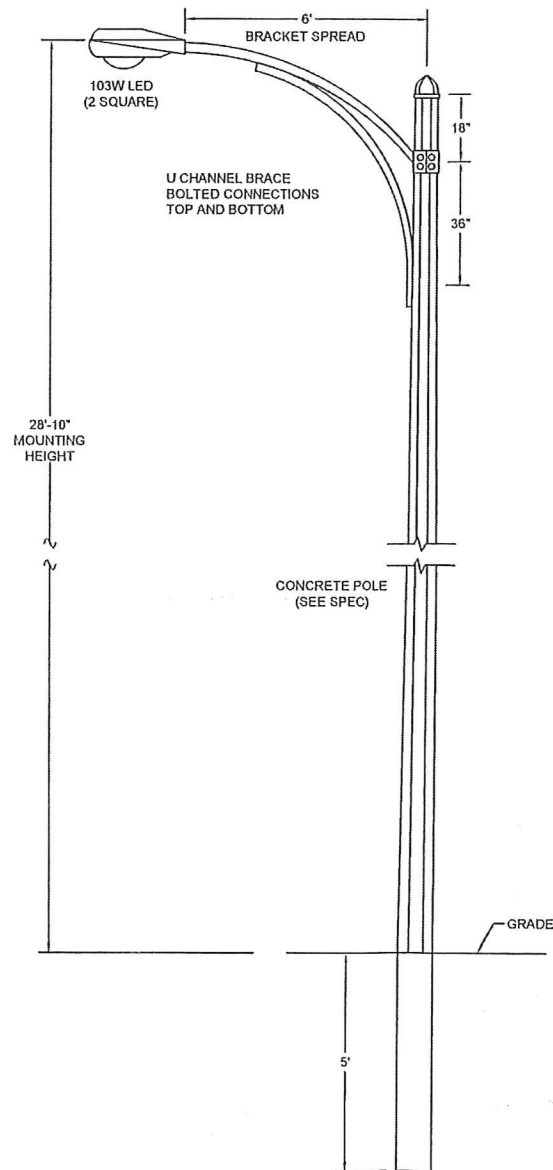
HANDHOLE DETAIL



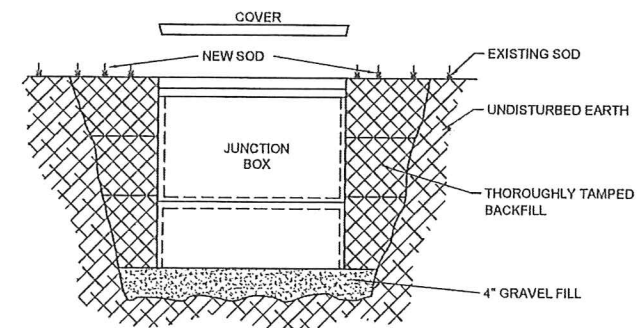
PLAN VIEW



TYPE B & B1 BASE DETAIL SECTION VIEW



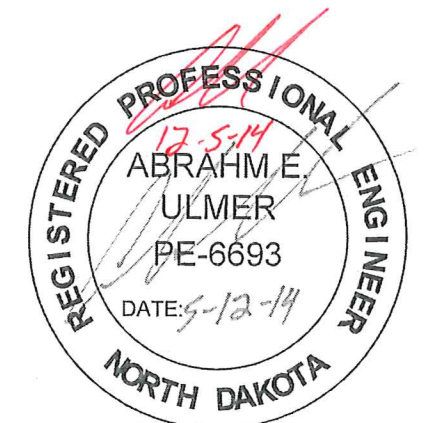
PLAN VIEW



SECTION

* PROVIDE MOUSE HOLES AS REQUIRED FOR EXISTING AND NEW CONDUCTORS

JUNCTION BOX DETAIL



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LINCOLN RIDGE 6TH ADDITION
 MANDAN, NORTH DAKOTA
 STREET IMPROVEMENT DIST. NO. 191
 CITY PROJECT NO. 2014-04

SHEET 8 OF 8 MAY, 2014

STREET LIGHT DETAILS

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