

# Appendix A

## Background Information

*Design / As-Built Plans – Reconstruction of Highway 642 (100 Avenue); 10 Plans*

*Alignment Options – Highway 642 (100 Avenue)*



## Design / As-Built Plans

---

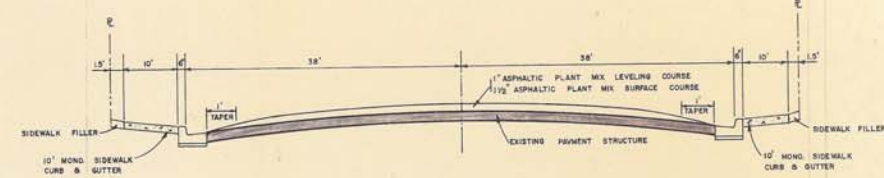
*Reconstruction of Highway 642 (100 Avenue); 10 Plans*



DRAWING REFERENCE

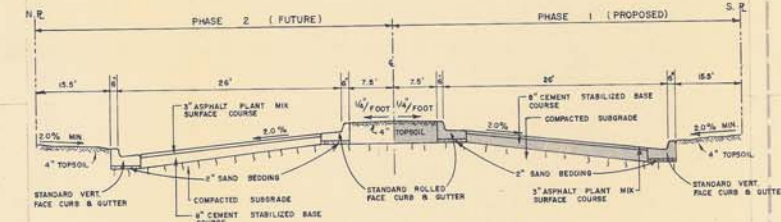
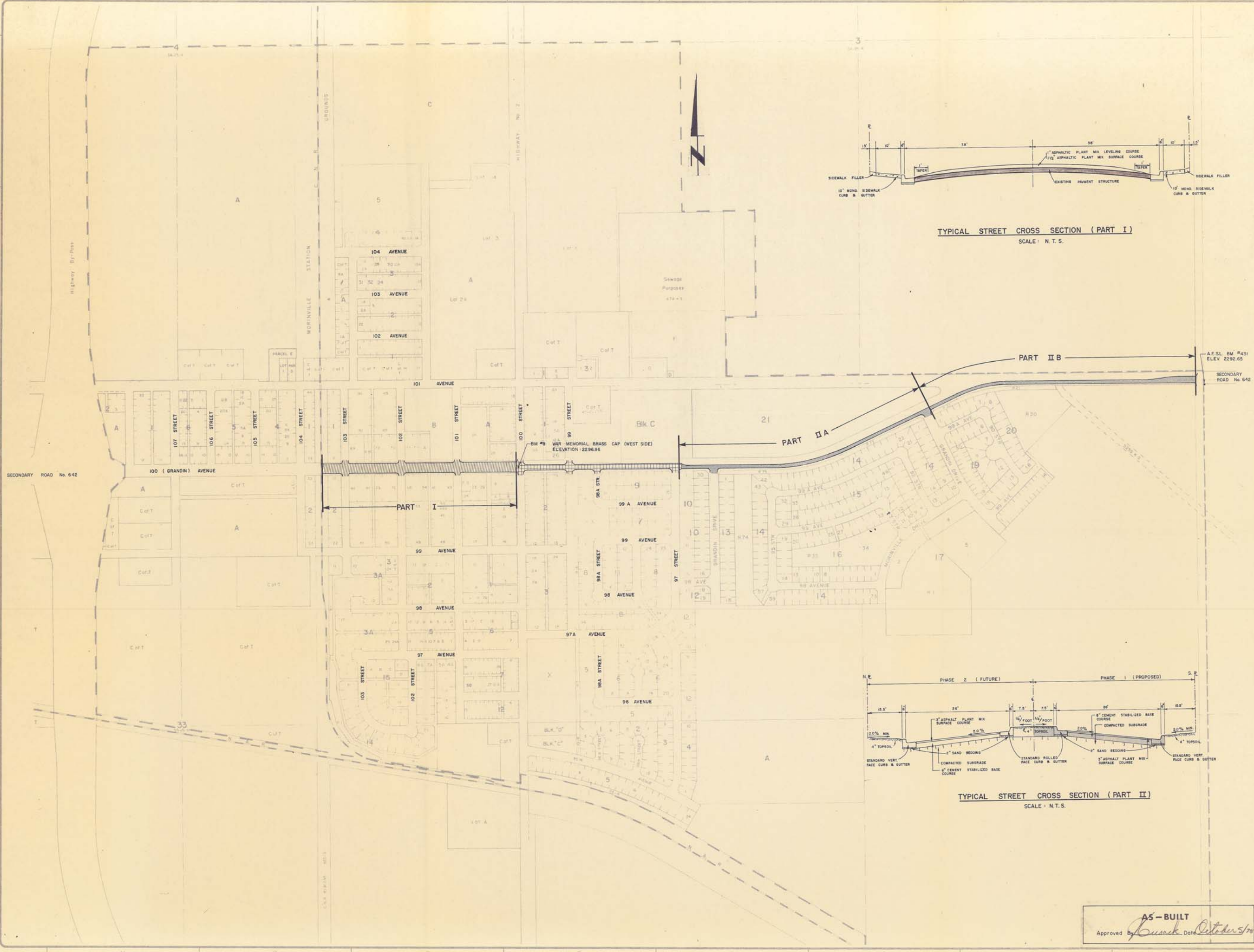
LEGEND

-  EXISTING PAVEMENT TO BE RESURFACED (PART I)
-  EXISTING PAVEMENT
-  PROPOSED PAVEMENT, CURB AND GUTTER (PART II) (PHASE I ONLY)



TYPICAL STREET CROSS SECTION (PART I)

SCALE: N.T.S.



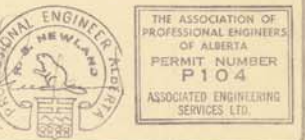
TYPICAL STREET CROSS SECTION (PART II)

SCALE: N.T.S.

NO.	DATE	BY	CHKD.	REVISIONS
2	29/9/78	E.D.	J.C.	REVISED TO AS-BUILT
1	1/9/77	P.B.	J.C.	ISSUED FOR CONSTRUCTION
0	3/8/77	W.W.	J.C.	ISSUED FOR TENDER
A	26/7/77	W.W.	J.C.	ISSUED FOR APPROVAL

REVISIONS

PROJECT NO.	E76C
SCALE	1" = 300'
DESIGNED BY	William Wong
DRAWN BY	J. Ousek 26/7/77
CHECKED BY	J.C. 26/7/77
APPROVED BY	
DATE	JULY, 1977



TOWN OF MORINVILLE

MORINVILLE, ALBERTA

RECONSTRUCTION OF  
SECONDARY ROAD No. 642

SITE PLAN



AS-BUILT  
Approved By *William Wong* Date *October 5/78*

PROJECT NUMBER	REV.	SHEET
E76C-C1	2	10



DRAWING REFERENCE

LEGEND

-  EXISTING WATER MAIN, VALVE AND HYDRANT
-  PROPOSED WATER MAIN AND VALVE (BY OTHERS)
-  EXISTING SANITARY SEWER AND MANHOLE
-  EXISTING SEPARATE SIDEWALK
-  EXISTING 10' MONO SIDEWALK, CURB & GUTTER TO BE REPLACED
-  EXISTING SWALE TO BE REPLACED
-  EXISTING PAVEMENT TO BE RESURFACED
-  (3) DRAWING WHERE PLAN PROFILE CONTINUED
-  → DIRECTION OF DRAINAGE FLOW

NOTE: 1. CHAINAGE CALCULATED ALONG C.R.W.  
2. ALL CURB RETURNS ARE 20' UNLESS OTHERWISE NOTED.

NO	DATE	BY	ENG.	SUBJECT
2	29/9/78	ED.	J.C.	REVISED TO AS-BUILT
1	1/9/77	PB.	J.C.	ISSUED FOR CONSTRUCTION
0	4/9/77	K.S.N.	D.M.	ISSUED FOR TENDER

REVISIONS

JOB NUMBER	E76C
SCALE	HOR 1" = 40' VERT 1" = 4'
DRAWN	<i>William Wong</i>
DESIGNED	<i>Paul W. Bennett</i>
CHECKED	<i>Paul W. Bennett</i>
APPROVED	<i>Paul W. Bennett</i>
DATE	JULY, 1977



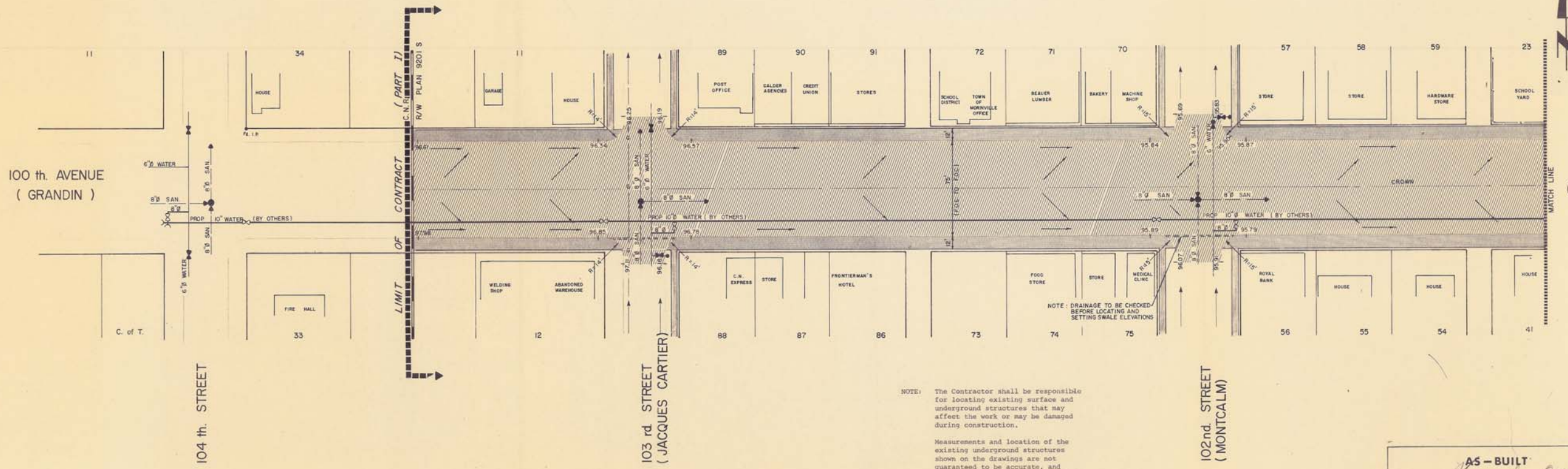
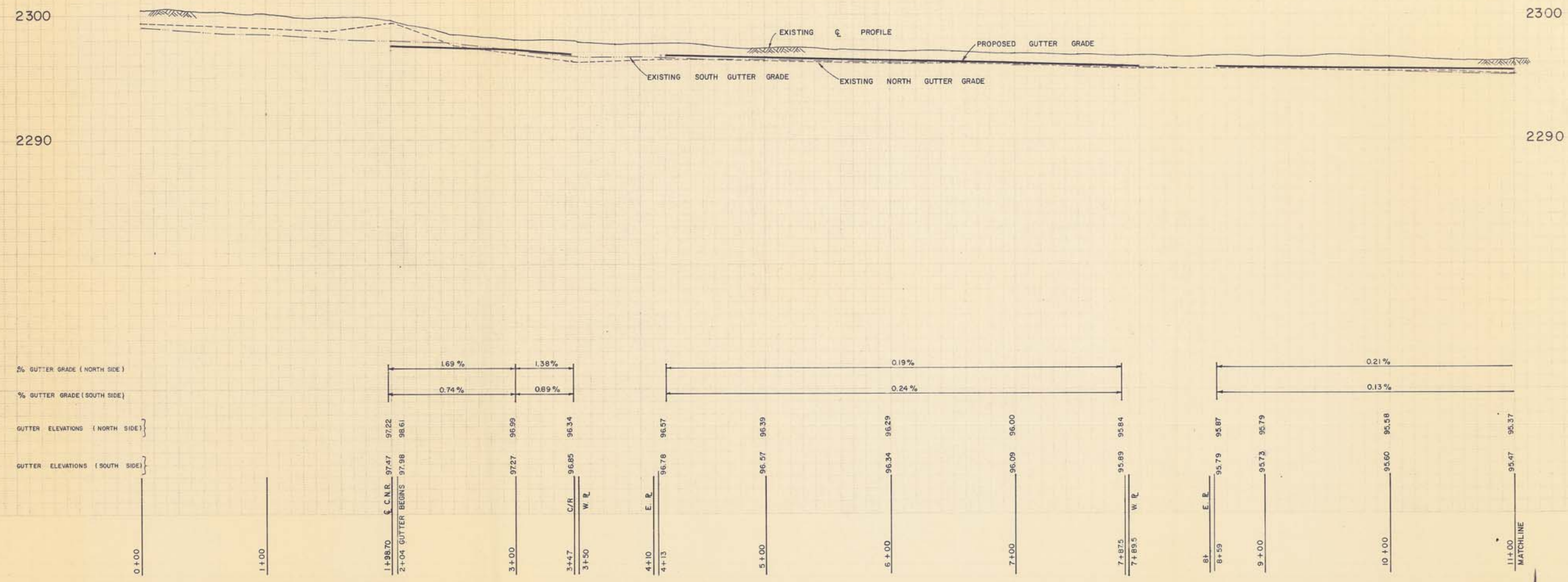
TOWN OF MORINVILLE

MORINVILLE, ALBERTA

RECONSTRUCTION OF SECONDARY ROAD No. 642

PLAN PROFILE - 100th AVENUE  
STA. 0+00 TO STA. 11+00

DRAWING NUMBER	REV	SHEET
E76C - C2	2	2/10



NOTE: The Contractor shall be responsible for locating existing surface and underground structures that may affect the work or may be damaged during construction.

Measurements and location of the existing underground structures shown on the drawings are not guaranteed to be accurate, and must be verified by the Contractor prior to proceeding with construction.

AS-BUILT  
Approved By *[Signature]* Date *October 5/78*



DRAWING REFERENCE

LEGEND

- EXISTING WATER MAIN, VALVE AND HYDRANT
- PROPOSED WATER MAIN AND VALVE (BY OTHERS)
- EXISTING SANITARY SEWER AND MANHOLE
- EXISTING SEPARATE SIDEWALK
- EXISTING 12" MONO SIDEWALK, CURB & GUTTER TO BE REPLACED
- EXISTING 36" MAIN TO BE REPLACED
- EXISTING PAVEMENT TO BE RESURFACED
- DRAWING WHERE PLAN PROFILE CONTINUED
- EXISTING GAS LINE
- DIRECTION OF DRAINAGE FLOW
- EXISTING PAVEMENT, CURB & GUTTER

NOTE: 1. CHAINAGE CALCULATED ALONG C/R/W  
2. ALL CURB RETURNS ARE 20' UNLESS OTHERWISE NOTED.

NO.	DATE	BY	ENG.	SUBJECT
2	29/9/78	E.D.	J.C.	REVISED TO AS-BUILT
1	1/9/77	P.B.	J.C.	ISSUED FOR CONSTRUCTION
0	4/8/77	K.S.N.	D.M.	ISSUED FOR TENDER

JOB NUMBER	E76C
SCALE	HOR. 1" = 40' VERT. 1" = 4'
DRAWN	<i>William Wong</i>
DESIGNED	<i>David Armstrong</i>
CHECKED	<i>John B. Chisholm</i>
APPROVED	
DATE	JULY, 1977



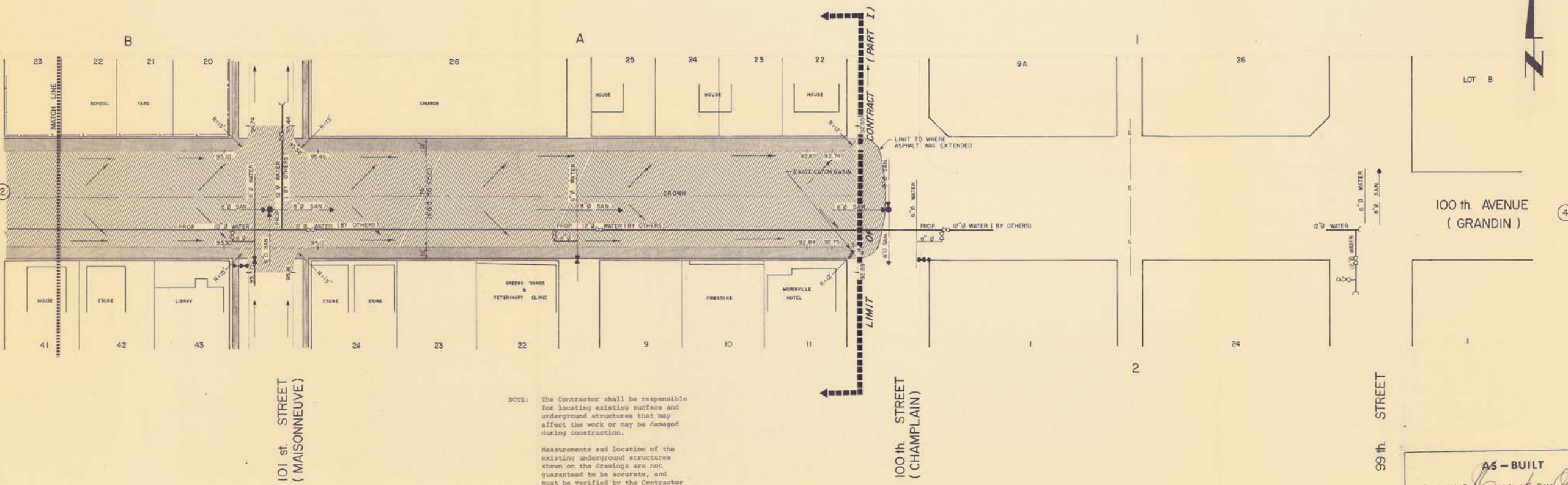
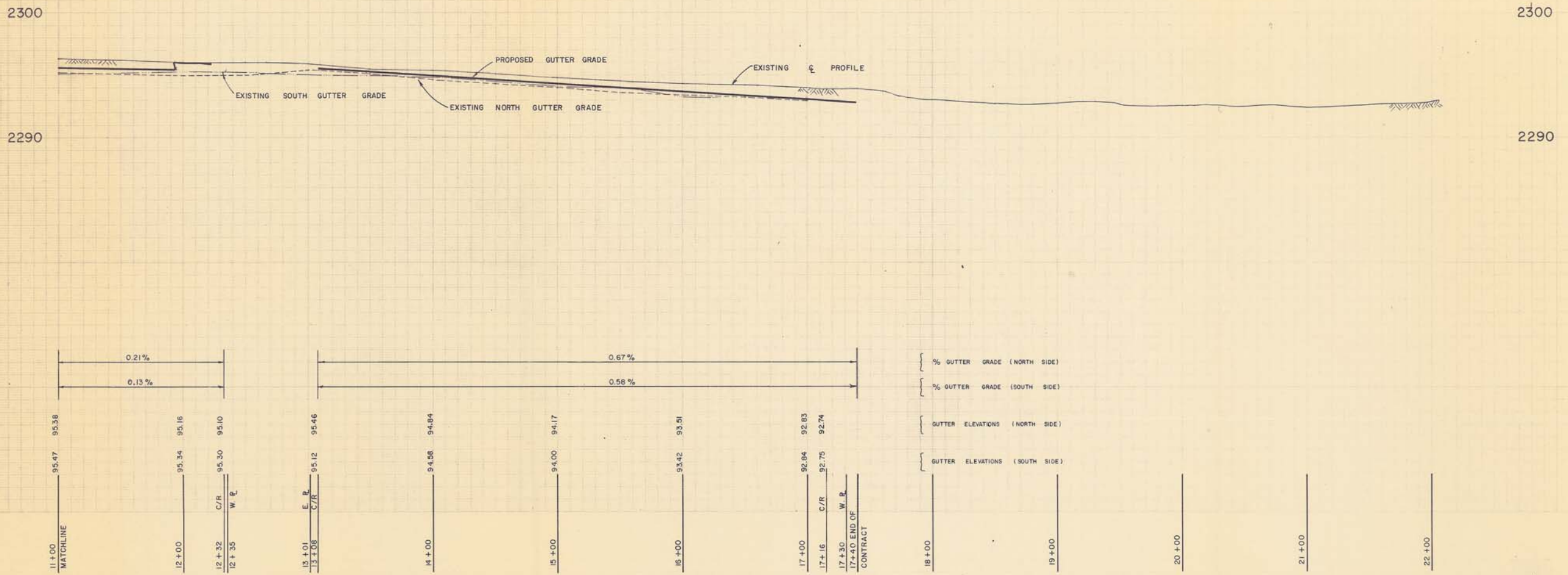
TOWN OF MORINVILLE

MORINVILLE, ALBERTA

RECONSTRUCTION OF SECONDARY ROAD No. 642

PLAN PROFILE - 100th AVENUE  
STA. 11+00 TO STA. 22+00

DRAWING NUMBER	REV	SHEET
E 76 C - C3	2	3/10



NOTE: The Contractor shall be responsible for locating existing surface and underground structures that may affect the work or may be damaged during construction.  
Measurements and location of the existing underground structures shown on the drawings are not guaranteed to be accurate, and must be verified by the Contractor prior to proceeding with construction.

AS-BUILT  
Approved By *[Signature]* Date *October 3/78*



DRAWING REFERENCE

- LEGEND**
- EXISTING WATER MAIN, VALVE, HYDRANT AND PLUG
  - EXISTING SANITARY SEWER AND MANHOLE
  - EXISTING STORM SEWER AND MANHOLE
  - EXISTING GAS LINE
  - PROPOSED PAVEMENT, CURB & GUTTER
  - DRAWING WHERE PLAN PROFILE CONTINUES
  - EXISTING PAVEMENT, CURB & GUTTER
  - DIRECTION OF DRAINAGE FLOW
  - FUTURE CURB GUTTER AND PAVEMENT

NOTE: 1. CHANGES CALCULATED ALONG E/R/W  
2. ALL CURB RETURNS ARE 45° UNLESS OTHERWISE NOTED.

NO.	DATE	BY	ENG.	SUBJECT
2	29-9-78	E.D.	J.C.	REVISED TO AS-BUILT
1	1-9-77	W.W.	J.C.	ISSUED FOR CONSTRUCTION
0	3-8-77	E.D.	D.M.	ISSUED FOR TENDER

JOB NUMBER	E76 C
SCALE	HOR 1" = 40' VERT 1" = 4'
DRAWN	<i>William Wood</i>
DESIGNED	<i>Robert K. [unclear]</i>
CHECKED	<i>John B. [unclear]</i>
APPROVED	
DATE	JULY, 1977



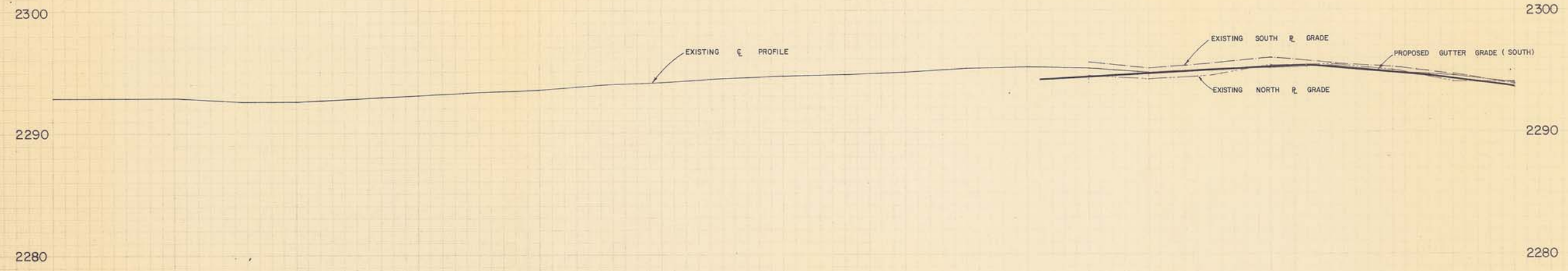
TOWN OF MORINVILLE

MORINVILLE, ALBERTA

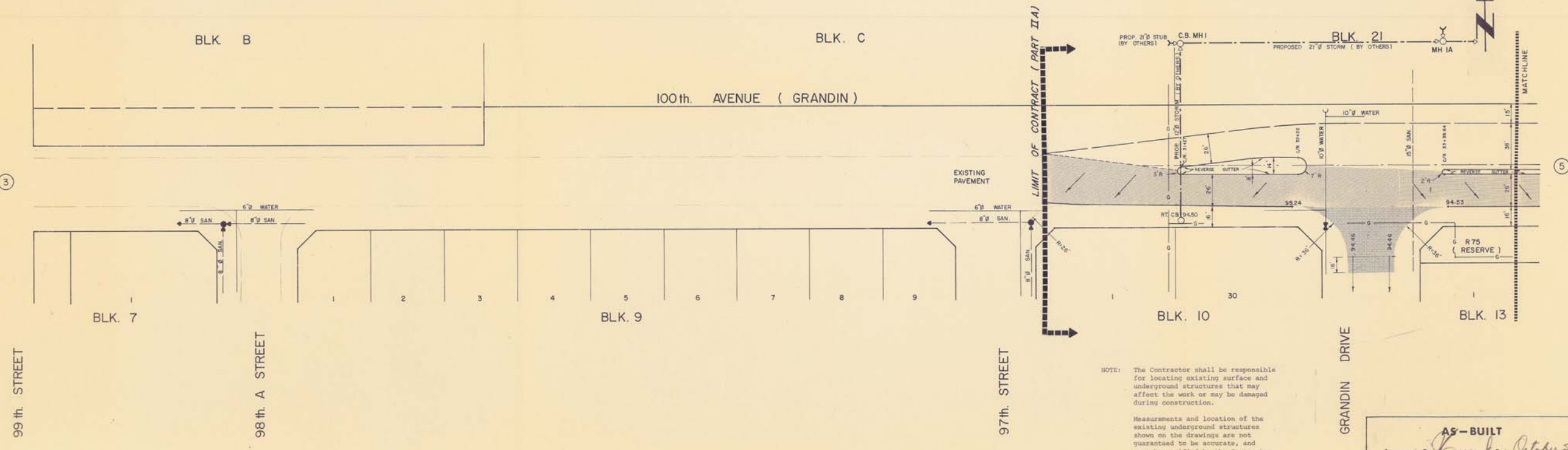
RECONSTRUCTION OF  
SECONDARY ROAD No. 642

PLAN PROFILE - 100th AVENUE  
STA. 22+00 TO STA. 34+00

DRAWING NUMBER	REV	SHEET
E 76 C - C 4	2	4/10



STATION	ELEVATION (SOUTH SIDE)	PERCENT GRADE
30+00	94.33	0.47%
31+00	94.72	
32+00	95.17	
32+15.64	95.24	
33+00	94.53	1.41%
34+00	93.71	

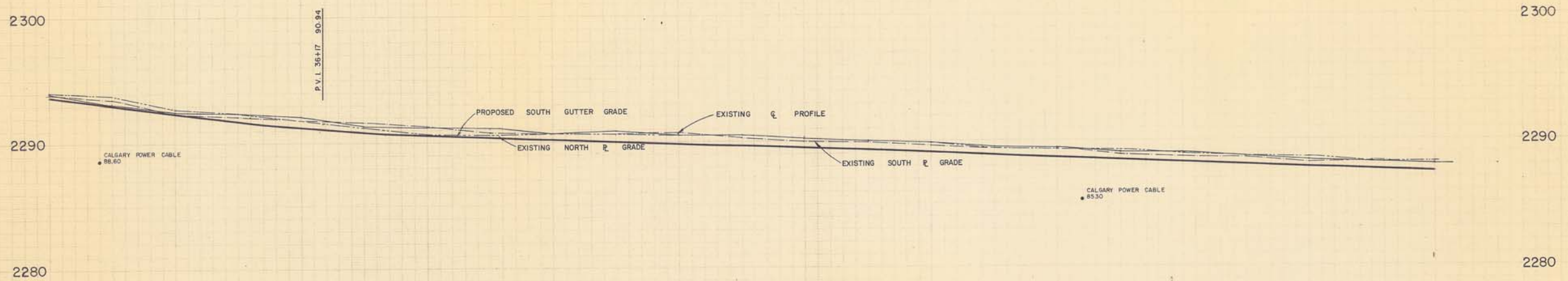


NOTE: The Contractor shall be responsible for locating existing surface and underground structures that may affect the work or may be damaged during construction.

Measurements and location of the existing underground structures shown on the drawings are not guaranteed to be accurate, and must be verified by the Contractor prior to proceeding with construction.

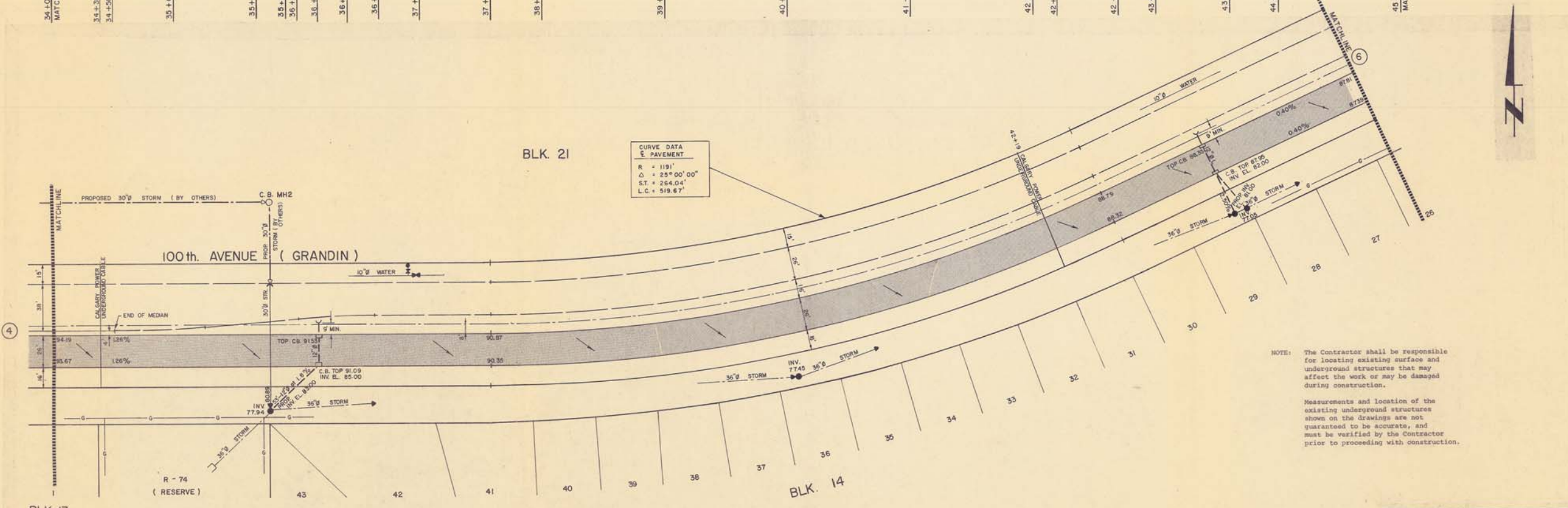
**AS-BUILT**  
Approved By *[Signature]* Date *October 5/78*





Station	% GUTTER GRADE (BOTH SIDE)	GUTTER ELEVATIONS (NORTH SIDE)	GUTTER ELEVATIONS (SOUTH SIDE)
34+00 MATCHLINE			
35+00			
36+00			
37+00			
38+00			
39+00			
40+00			
41+00			
42+00			
43+00			
44+00			
45+00 MATCHLINE			

CURVE DATA  
 PAVEMENT  
 R = 1191'  
 Δ = 25° 00' 00"  
 S.T. = 264.04'  
 L.C. = 519.67'



NOTE: The Contractor shall be responsible for locating existing surface and underground structures that may affect the work or may be damaged during construction.

Measurements and location of the existing underground structures shown on the drawings are not guaranteed to be accurate, and must be verified by the Contractor prior to proceeding with construction.

AS-BUILT  
 Approved By *[Signature]* Date *October 3/78*

DRAWING REFERENCE

LEGEND

- EXISTING WATER MAIN, VALVE HYDRANT AND PLUG
- EXISTING SANITARY SEWER AND MANHOLE
- EXISTING STORM SEWER AND MANHOLE
- EXISTING GAS LINE
- PROPOSED PAVEMENT, CURB & GUTTER
- PROPOSED TYPE 'K' C.B. AND LEAD
- DRAWING WHERE PLAN PROFILE CONTINUES
- DIRECTION OF DRAINAGE FLOW
- FUTURE CURB GUTTER AND PAVEMENT

NOTE: 1. CHAINAGES CALCULATED ALONG E R/W  
 2. ALL CURB RETURNS ARE 45° UNLESS OTHERWISE NOTED.

NO.	DATE	BY	ENG.	SUBJECT
2	2-10-78	E.D.	J.C.	REVISED TO AS-BUILT
1	1-9-77	W.W.	J.C.	ISSUED FOR CONSTRUCTION
0	3-8-77	E.D.	D.M.	ISSUED FOR TENDER

JOB NUMBER	E76 C
SCALE	HOR 1"=40' VERT 1"=4'
DRAWN	<i>William J. Jay</i>
DESIGNED	<i>William J. Jay</i>
CHECKED	<i>John D. Macleod</i>
APPROVED	<i>[Signature]</i>
DATE	JULY, 1977



TOWN OF MORINVILLE

MORINVILLE, ALBERTA

RECONSTRUCTION OF SECONDARY ROAD No. 642

PLAN PROFILE - 100th AVENUE STA. 34+00 TO STA. 45+00

DRAWING NUMBER	REV.	SHEET
E76 C - C5	2	5/10



DRAWING REFERENCE

- LEGEND**
- EXISTING WATER MAIN, VALVE, HYDRANT AND PLUG
  - EXISTING SANITARY SEWER AND MANHOLE
  - EXISTING STORM SEWER AND MANHOLE
  - EXISTING GAS LINE
  - PROPOSED PAVEMENT, CURB & GUTTER
  - DRAWING WHERE PLAN PROFILE CONTINUES
  - EXISTING C.B. AND LEAD (TYPE 'K')
  - PROPOSED C.B. AND LEAD (TYPE 'K')
  - EXISTING PAVEMENT, CURB & GUTTER
  - DIRECTION OF DRAINAGE FLOW
- NOTE: 1. CHAINAGES CALCULATED ALONG C.R./W.  
2. ALL CURB RETURNS ARE 45° UNLESS OTHERWISE NOTED.
- FUTURE CURB GUTTER AND PAVEMENT.

NO.	DATE	BY	ENG.	SUBJECT
2	2-10-78	ED	J.C.	REVISED TO AS-BUILT
1	1/9/77	P.B.	J.C.	ISSUED FOR CONSTRUCTION
0	3-8-77	E.D.	D.M.	ISSUED FOR TENDER

JOB NUMBER	E76C
SCALE	HOR. 1" = 40' VERT. 1" = 4'
DRAWN	<i>William King</i>
DESIGNED	<i>John B. Armstrong</i>
CHECKED	<i>John B. Armstrong</i>
APPROVED	<i>John King</i>
DATE	JULY, 1977



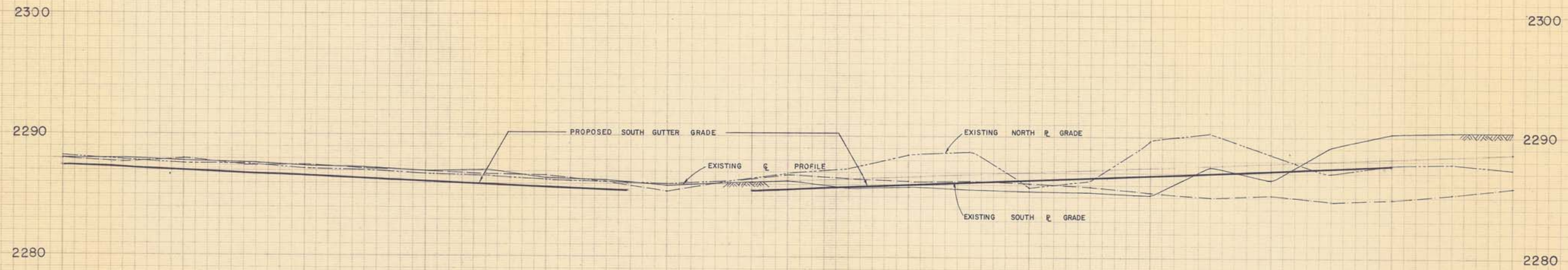
TOWN OF MORINVILLE

MORINVILLE, ALBERTA

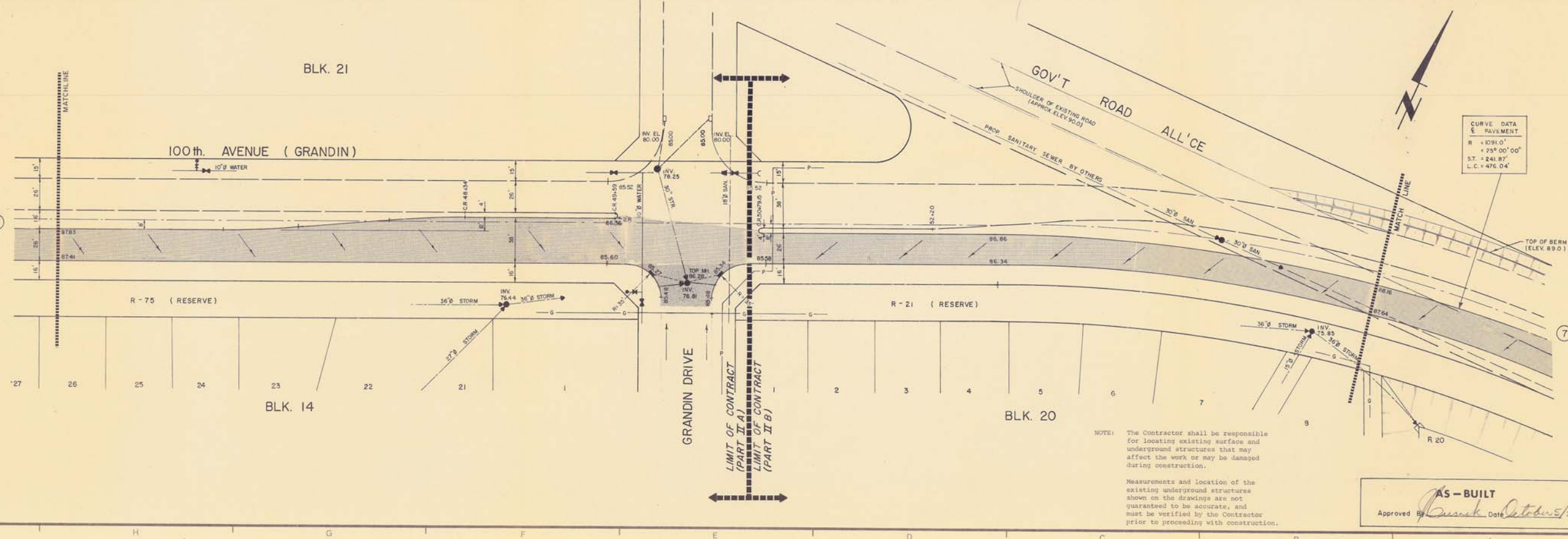
RECONSTRUCTION OF  
SECONDARY ROAD No. 642

PLAN PROFILE - 100th AVENUE  
STA. 45+00 TO STA. 57+00

DRAWING NUMBER	REV	SHEET
E76C - C6	2	6/10



STATION	W.C./R.	W.R.	E.P.L.	GUTTER GRADE (BOTH SIDE)	GUTTER ELEVATIONS (NORTH SIDE)	GUTTER ELEVATIONS (SOUTH SIDE)
45+00				0.40%	87.41	87.43
47+00				0.40%	86.61	87.03
48+00				0.40%	86.21	86.63
49+00				0.40%	85.81	86.23
49+53.15	W.C./R.			0.40%	85.60	
49+79.15	W.R.			0.40%		
50+00				0.40%		
50+59.15	E.P.L.			0.40%		
50+79.15 (20' CUT OFF FROM E.P.L.)				0.40%		
50+85.15	E.O.R.			0.40%		
51+00				0.40%	85.64	86.16
52+00				0.40%	85.64	86.56
52+75.64	B.C.			0.40%	86.24	86.75
53+00				0.40%	86.34	86.96
54+00				0.40%	86.64	87.23
55+00				0.40%	87.04	87.47
56+00				0.40%	87.24	87.66
57+00				0.40%	87.44	87.91
58+00				0.40%	87.64	88.12



NOTE: The Contractor shall be responsible for locating existing surface and underground structures that may affect the work or may be damaged during construction.

Measurements and location of the existing underground structures shown on the drawings are not guaranteed to be accurate, and must be verified by the Contractor prior to proceeding with construction.

**AS-BUILT**  
Approved By *William King* Date *October 5/78*



DRAWING REFERENCE

LEGEND

- EXISTING STORM SEWER AND MANHOLE
- EXISTING CUVERT
- PROPOSED STORM SEWER
- PROPOSED C.B. AND LEAD (TYPE 'K')
- PROPOSED MOVEMENT, CURB & GUTTER
- (B) DRAWING WHERE PLAN PROFILE CONTINUES
- DIRECTION OF DRAINAGE FLOW
- FUTURE CURB GUTTER AND PAVEMENT

- NOTE: 1. CHANGES CALCULATED ALONG Q. R/W  
2. ALL CURB RETURNS ARE 45° UNLESS OTHERWISE NOTED

NO.	DATE	BY	ENG.	SUBJECT
2	2-10-78	E.D.	J.C.	REVISED TO AS-BUILT
1	1/9/77	P.B.	J.C.	ISSUED FOR CONSTRUCTION
0	3/8/77	W.W.	D.M.	ISSUED FOR TENDER

REVISIONS

JOB NUMBER	E76C
SCALE	HOR. 1"=40' VERT. 1"=4'
DRAWN	<i>William J. Jones</i>
DESIGNED	<i>John H. Macdonald</i>
CHECKED	<i>John H. Macdonald</i>
APPROVED	<i>John H. Macdonald</i>
DATE	JULY, 1977



TOWN OF MORINVILLE

MORINVILLE, ALBERTA  
RECONSTRUCTION OF  
SECONDARY ROAD No. 642

PLAN PROFILE -  
STA. 57+00 TO STA. 66+00

DRAWING NUMBER	REV.	SHEET
E76C-C7	2	7/10

2300

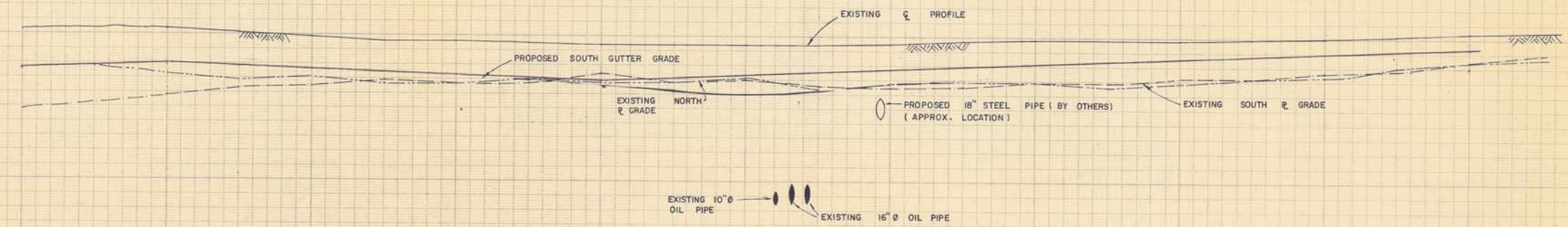
2300

2290

2290

2280

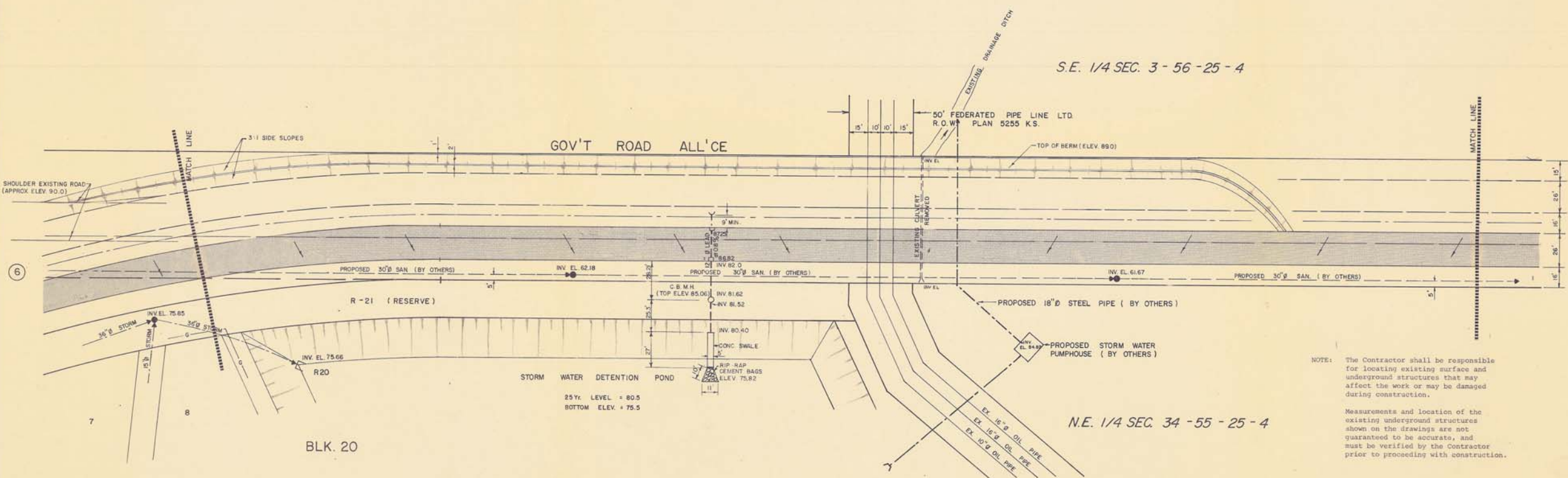
2280



STATION	EXISTING NORTH GRADE	PROPOSED SOUTH GUTTER GRADE	EXISTING SOUTH GRADE
56+00	87.98	88.12	87.98
56+50	88.39	88.39	88.39
57+00	88.91	88.91	88.91
57+20	88.25	88.25	88.25
57+50	88.14	88.14	88.14
58+00	88.03	88.03	88.03
59+00	87.82	87.82	87.82
60+00	87.40	87.40	87.40
61+00	87.50	87.50	87.50
61+50	87.73	87.73	87.73
62+00	88.01	88.01	88.01
63+00	88.27	88.27	88.27
63+50	88.45	88.45	88.45
64+00	88.66	88.66	88.66
64+50	88.85	88.85	88.85
65+00	89.01	89.01	89.01
65+50	89.14	89.14	89.14
66+00	89.56	89.56	89.56
66+00	89.24	89.24	89.24

S.E. 1/4 SEC. 3-56-25-4

GOV'T ROAD ALL'CE



NOTE: The Contractor shall be responsible for locating existing surface and underground structures that may affect the work or may be damaged during construction.  
Measurements and location of the existing underground structures shown on the drawings are not guaranteed to be accurate, and must be verified by the Contractor prior to proceeding with construction.

AS-BUILT  
Approved *[Signature]* Date *October 5/78*

BLK. 20

N.E. 1/4 SEC. 34-55-25-4



DRAWING REFERENCE

LEGEND

- PROPOSED SANITARY SEWER AND MANHOLE (BY OTHERS)
- PROPOSED CULVERT (BY OTHERS)
- PROPOSED PAVEMENT, CURB & GUTTER
- DRAWING WHERE PLAN PROFILE CONTINUES
- FUTURE CURB GUTTER AND PAVEMENT

- NOTE: 1. CHAINAGES CALCULATED ALONG C.R.W.  
2. ALL CURB RETURNS ARE 45° UNLESS OTHERWISE NOTED.

NO	DATE	BY	ENG	SUBJECT
2	2/10/78	E.D.	J.C.	REVISED TO AS-BUILT
1	1/9/77	W.W.	J.C.	ISSUED FOR CONSTRUCTION
0	3/8/77	W.W.	D.M.	ISSUED FOR TENDER

REVISIONS

JOB NUMBER	E76C
SCALE	HOR 1" = 40' VERT 1" = 4'
DRAWN	<i>William Wray</i>
DESIGNED	<i>John B. Chiswick</i>
CHECKED	<i>John B. Chiswick</i>
APPROVED	<i>John B. Chiswick</i>
DATE	JULY, 1977

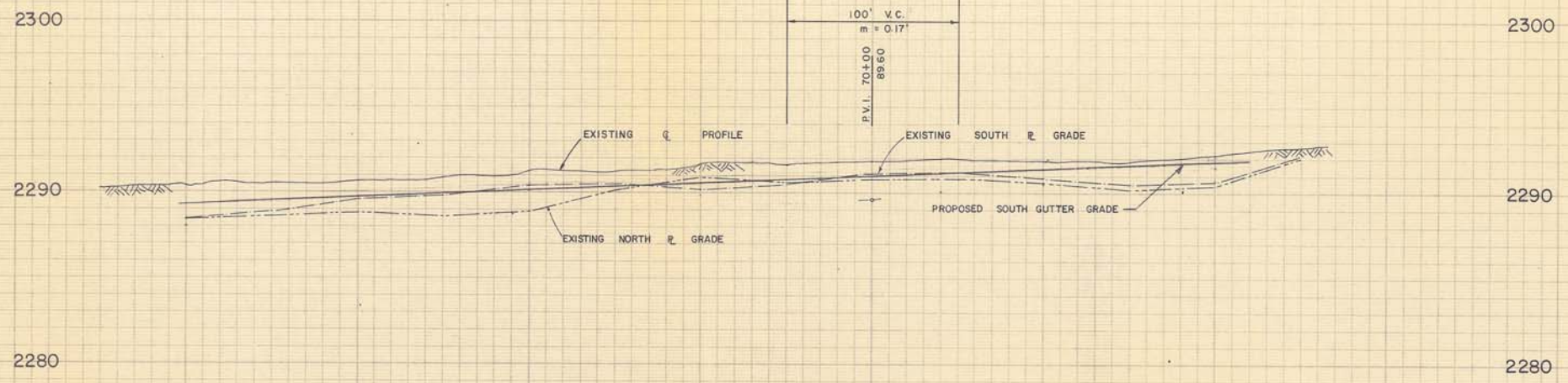


TOWN OF MORINVILLE

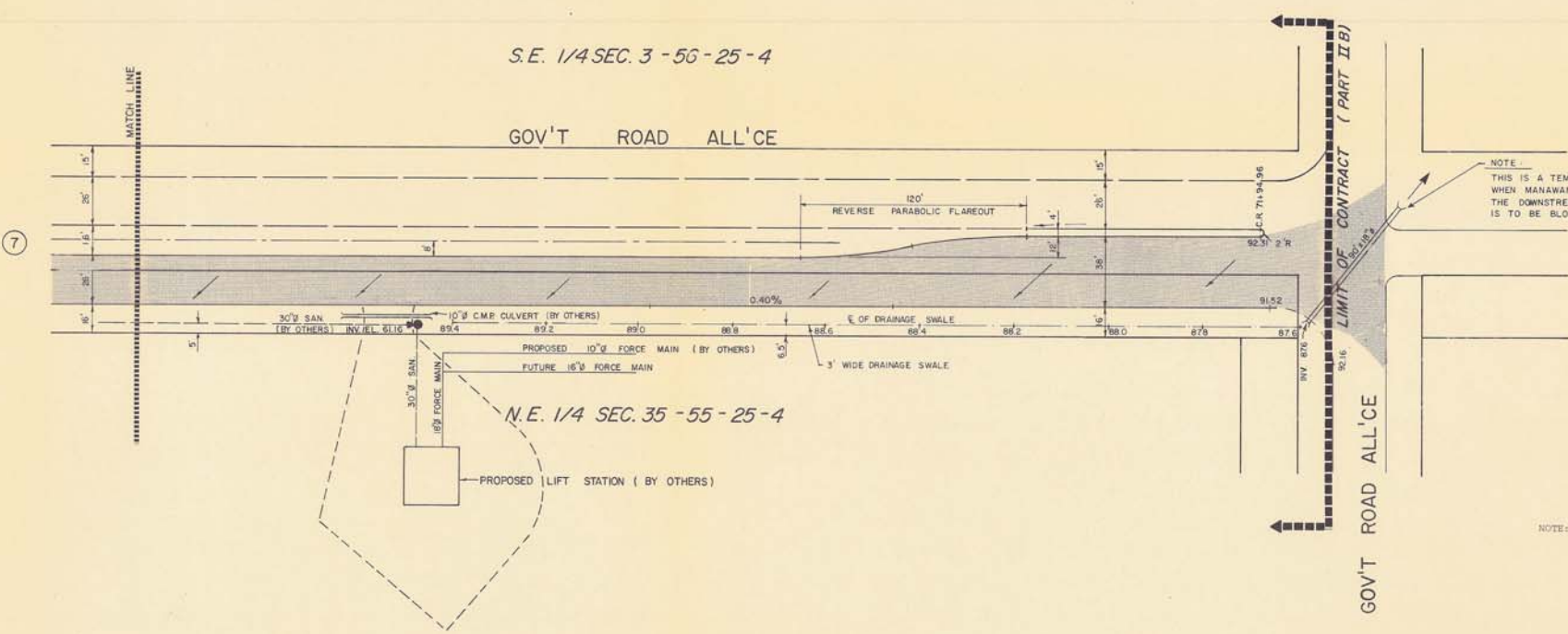
MORINVILLE, ALBERTA  
RECONSTRUCTION OF SECONDARY ROAD No. 642

PLAN PROFILE - STA. 66+00 TO STA. 72+70

DRAWING NUMBER	REV	SHEET
E76C - C8	2	8/10



STATION	ELEVATION	TYPE
66+00	89.24	MATCH LINE
67+00	89.44	
68+00	89.64	
69+00	89.84	
70+00	90.04	
71+00	90.24	
72+00	90.44	
72+35	90.64	LIMIT OF CONTRACT PART II B



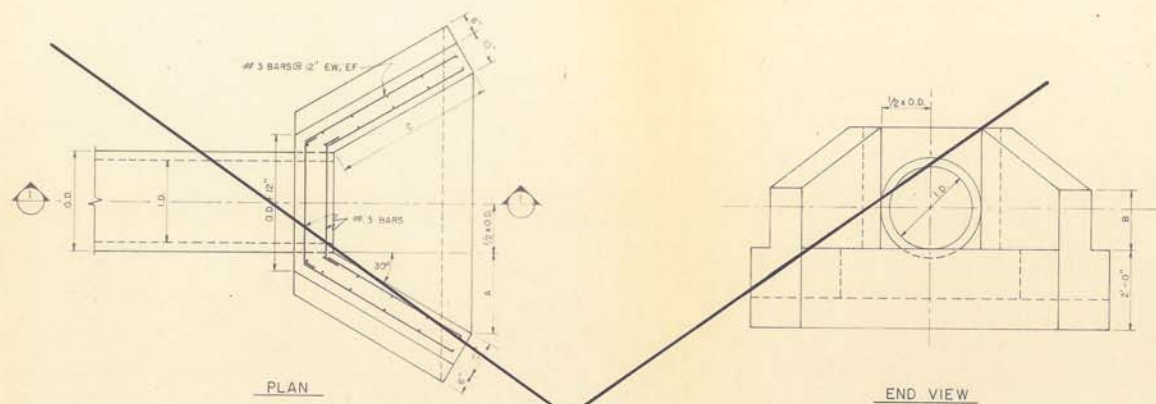
NOTE: THIS IS A TEMPORARY CULVERT WHEN MANAWAN CANAL IS FLOODING, THE DOWNSTREAM END OF THE CULVERT IS TO BE BLOCKED OFF.

NOTE: The Contractor shall be responsible for locating existing surface and underground structures that may affect the work or may be damaged during construction.

Measurements and location of the existing underground structures shown on the drawings are not guaranteed to be accurate, and must be verified by the contractor prior to proceeding with construction.

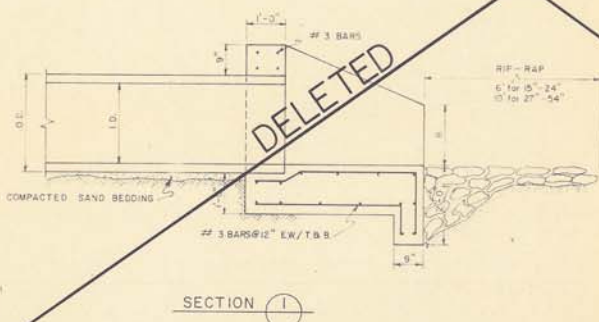
AS-BUILT  
Approved By *[Signature]* Date *October 5/78*





PLAN

END VIEW

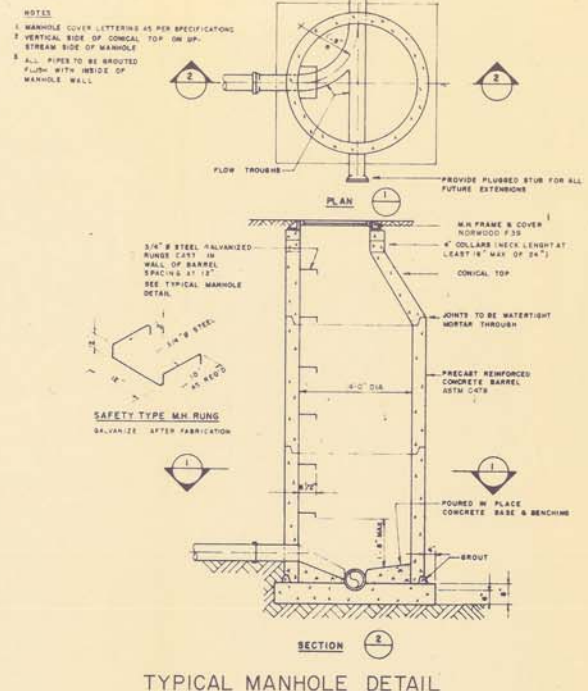


SECTION I

HEADWALL DETAIL  
N.T.S.

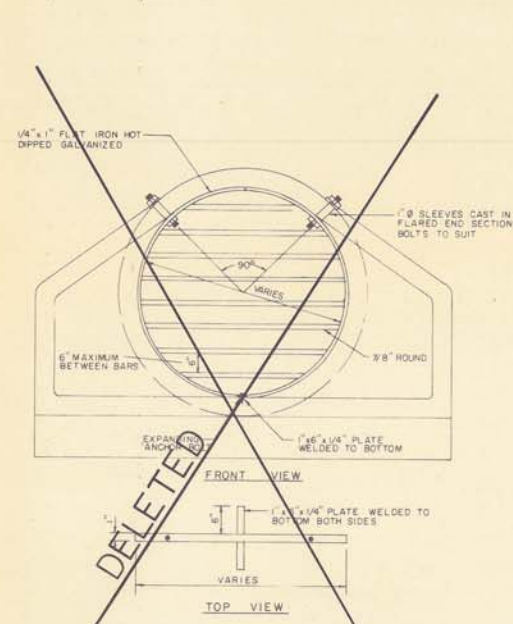
PIPE SIZE (I.D.)	HEADWALL DIMENSIONS			
	A	B	C	D
18" - 24"	2'-0"	1'-6"	4'-0"	18" - 30"
24" - 36"	3'-0"	2'-0"	6'-0"	24" - 42"
42" - 54"	4'-6"	3'-0"	9'-0"	31" - 65"

SPECIFICATION  
1) COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS SHALL BE 3500 p.s.i.  
2) CLEAR COVER FOR RE-BAR ON EARTH FACE SHALL BE 3" AND 2" ELSEWHERE

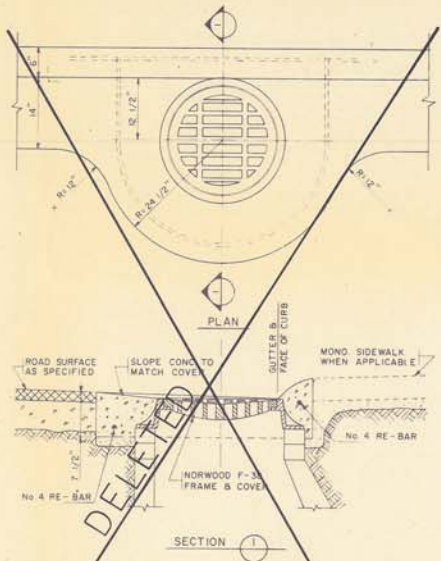


SECTION 2

TYPICAL MANHOLE DETAIL

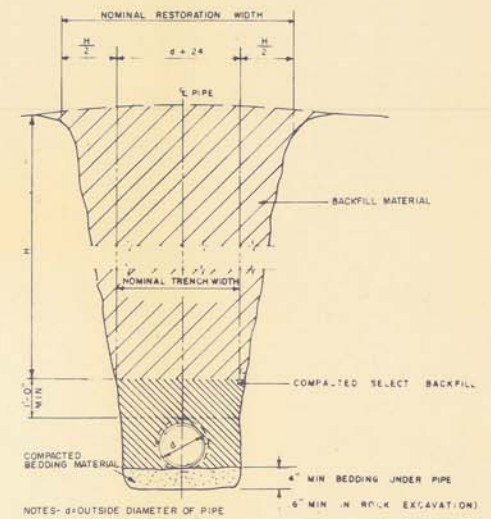


BAR SCREEN DETAIL FOR  
INLET & OUTFALL STRUCTURE



SECTION 1

CATCH BASIN MANHOLE  
INSTALLATION DETAIL



TRENCHING AND BEDDING DETAIL  
SERVICE CONNECTION & C.B. LEADS

NO	DATE	BY	ENG	SUBJECT
2	2-10-78	E.D.	J.C.	REVISED TO AS-BUILT
1	1/9/77	P.B.	J.C.	ISSUED FOR CONSTRUCTION
0	3/8/77	W.W.	D.M.	ISSUED FOR TENDER

REVISIONS

JOB NUMBER	E76C
SCALE	N.T.S.
DRAWN	<i>William Wong</i>
DESIGNED	<i>William Wong</i>
CHECKED	<i>John B. Chapman</i>
APPROVED	<i>John B. Chapman</i>
DATE	JULY, 1977



TOWN OF MORINVILLE

MORINVILLE, ALBERTA

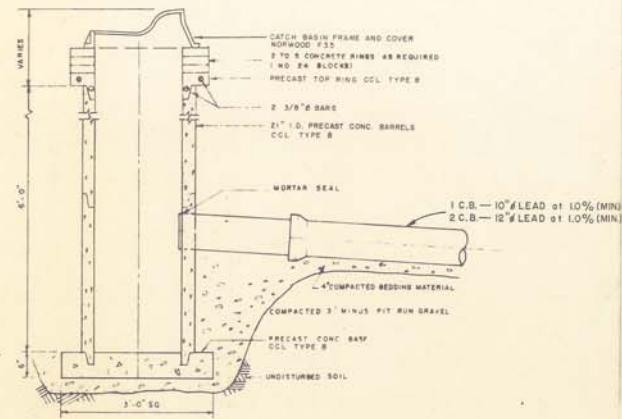
RECONSTRUCTION OF  
SECONDARY ROAD No. 642

DETAILS

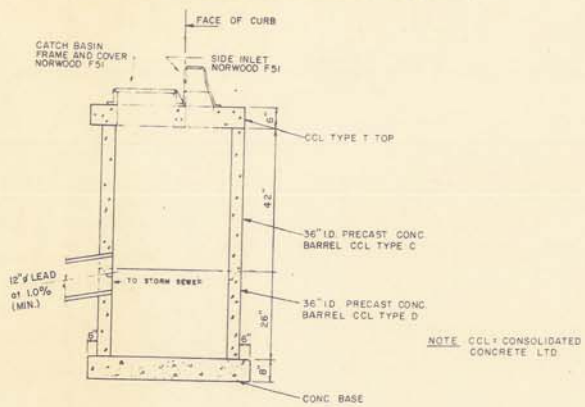
AS-BUILT  
Approved By *[Signature]* Date *October 5/78*

DRAWING NUMBER	REV	SHEET
E76C-C9	2	9/10

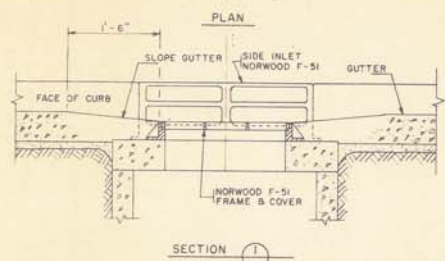
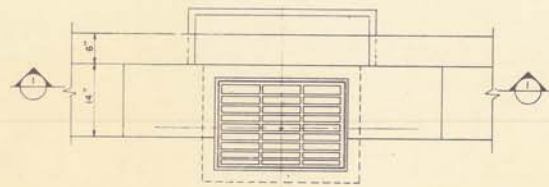




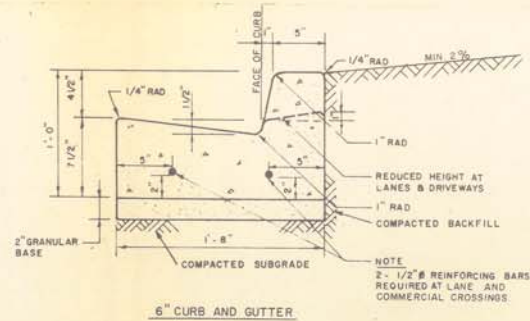
STANDARD 21"Ø CATCH BASIN



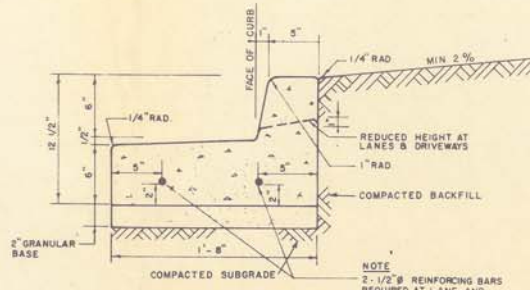
TYPE "K" CATCH BASIN



TYPE "K" CATCH BASIN  
INSTALLATION DETAIL

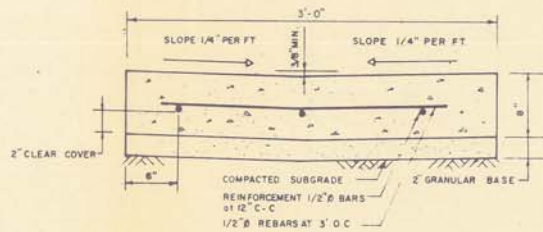


6" CURB AND GUTTER



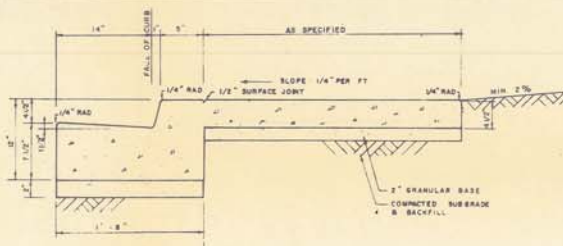
6" CURB AND GUTTER - REVERSE SLOPE

6" FACE CURB AND GUTTER

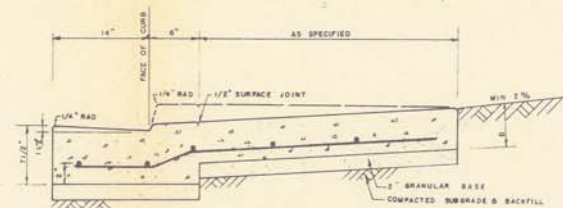


- NOTES
1. SWALE TO MATCH GUTTER INVERT ELEVATION AS UPSTREAM END. LOWER THE GUTTER LIP TO MEET SWALE EDGE.
  2. SWALE EDGES TO MATCH GUTTER INVERT ELEVATION ON DOWNSTREAM END. LOWER THE GUTTER LIP TO MATCH E. OF SWALE.
  3. CROWN OF ROAD TO BE TAPERED TO PROVIDE SMOOTH ACCESS TO SWALE.

SWALE GUTTER



TYPICAL FACE MONOLITHIC SIDEWALK, CURB AND GUTTER



- NOTE
- 0.8" FOR PRIVATE CROSSINGS AND 1" FOR COMMERCIAL AND LAKE CROSSINGS
  - REINFORCING AT LANE AND COMMERCIAL CROSSINGS ONLY 1/2" BARS AT 12" CENTRE TO CENTRE EACH WAY OR EQUIVALENT WELDED WIRE MESH

LANE OR COMMERCIAL CROSSING

TYPICAL MONOLITHIC SIDEWALK, CURB AND GUTTER

NOTE: PAVEMENT STRUCTURE DETAILS  
ON DRAWING No. E76C-CI

DRAWING REFERENCE

NO	DATE	BY	ENG	SUBJECT
2	2-10-78	E.D.	J.C.	REVISED TO AS-BUILT
1	1/9/77	P.B.	J.C.	ISSUED FOR CONSTRUCTION
0	3/8/77	W.W.	D.M.	ISSUED FOR TENDER

REVISIONS

PROJECT NUMBER	E76C
SCALE	N.T.S.
DRAWN BY	William Wray
DESIGNED BY	William Wray
CHECKED BY	John B. Chapman
APPROVED BY	[Signature]
DATE	JULY, 1977



TOWN OF MORINVILLE

MORINVILLE, ALBERTA

RECONSTRUCTION OF  
SECONDARY ROAD No. 642

DETAILS

AS-BUILT  
Approved By [Signature] Date October 5/78

DRAWING NUMBER	REV	SHEET
E 76C - CIO	2	10 / 10



## Alignment Options

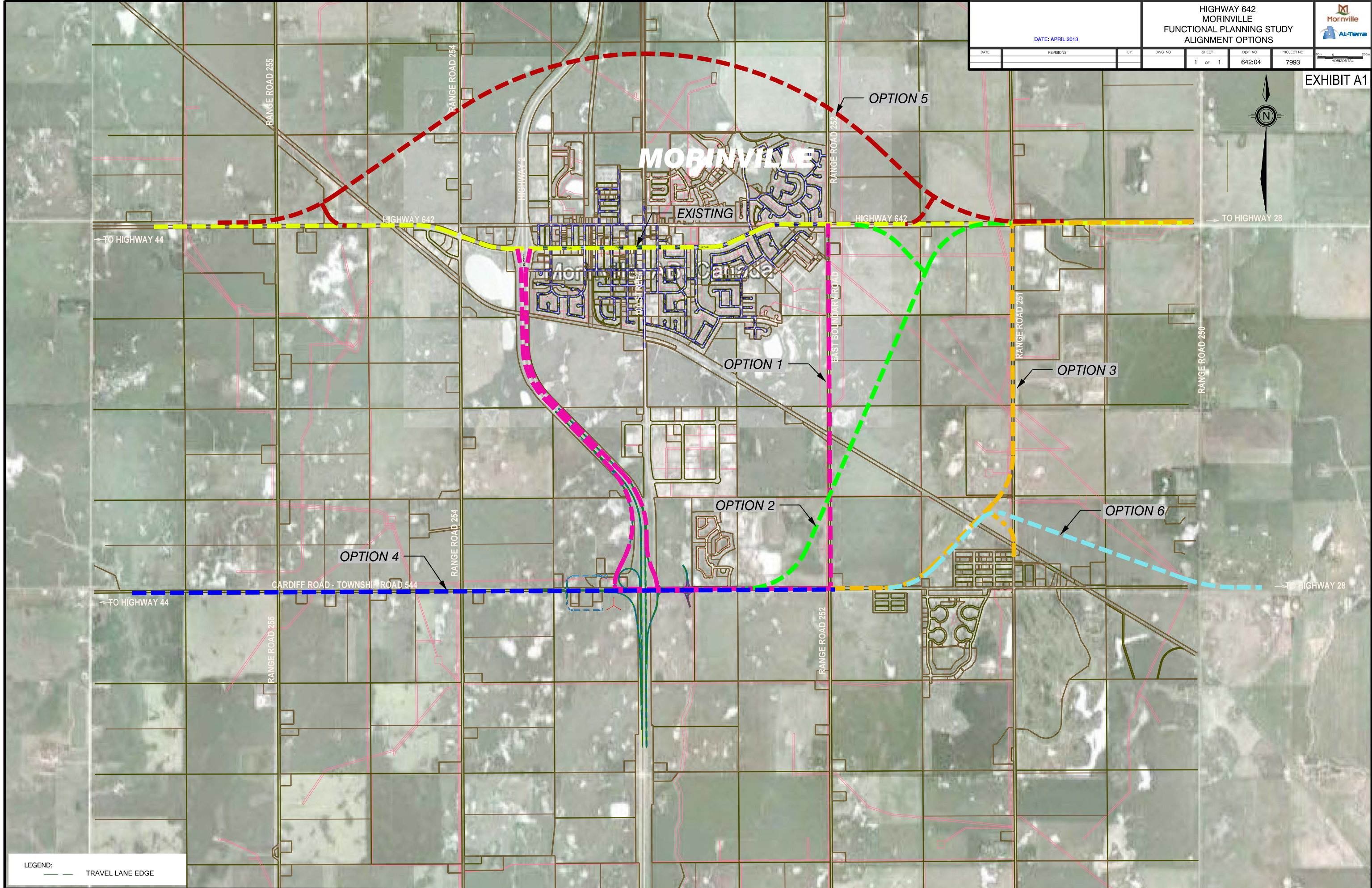
---

*Highway 642 (100 Avenue)*





DATE	REVISIONS	BY	DWG. NO.	SHEET	DIST. NO.	PROJECT NO.
				1 OF 1	642:04	7993



LEGEND:  
--- TRAVEL LANE EDGE