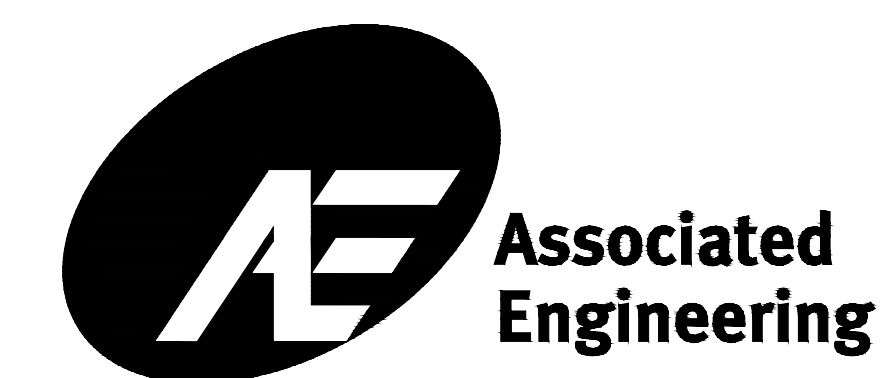


# TA'AN KWACH'AN COUNCIL

## C-9B SUBDIVISION - PHASE 2

### SURFACE WORKS & DEEP UTILITIES WHITEHORSE, YUKON 2024-2025



May 2024  
ISSUED FOR TENDER

**DRAWING LIST**

DWG. NO.	REV.	DWG. TITLE	NOTES
<b>GENERAL</b>			
1	0	COVER	
2	0	DRAWING LIST	
3	0	LEGEND	
4	0	WHISTLE BEND ON & OFF SITE LIMITS	
5	0	GRUBBING & STRIPPING PLAN	
6	0	DRAWING INDEX	
7	0	LOT PRE-GRADING PLAN	
8	0	FUTURE LOT GRADES	
9	0	HYDRANT COVERAGE PLAN	
10	0	SIGN & LINE PARKING OVERALL PLAN	
11	0	EROSION & SEDIMENT CONTROL PLAN	
<b>ROAD PLAN AND PROFILE</b>			
12	0	KISHWÓOT STREET - STA. 1+000 TO 1+320	
13	0	REAR LANE 1 - STA. 15+000 TO 15+250	
14	0	REAR LANE 1 - STA. 15+250 TO 15+460	
15	0	FRANK SLIM AVENUE EXTENSION - STA. 3+000 TO 3+260	
16	0	REAR LANE 2 - STA. 14+080 TO 14+300	
17	0	WATER MAIN DETAILS	
<b>INTERSECTION DETAILS</b>			
18	0	SPOT ELEVATION & CURB RETURN DETAILS	
<b>TYPICAL CROSS SECTIONS</b>			
19	0	TYPICAL CROSS SECTIONS	
<b>MISCELLANEOUS</b>			
20	0	TYPICAL DETAILS - SHEET 1 OF 7	
21	0	TYPICAL DETAILS - SHEET 2 OF 7	
22	0	TYPICAL DETAILS - SHEET 3 OF 7	
23	0	TYPICAL DETAILS - SHEET 4 OF 7	
24	0	TYPICAL DETAILS - SHEET 5 OF 7	
25	0	TYPICAL DETAILS - SHEET 6 OF 7	
26	0	TYPICAL DETAILS - SHEET 7 OF 7	

**PHASE 1 DRAWING LIST - INCLUDED FOR INFORMATION ONLY**

DWG. NO.	REV.	DWG. TITLE	NOTES
<b>GENERAL</b>			
1	1	COVER	FOR INFORMATION ONLY
2	1	DRAWING LIST	FOR INFORMATION ONLY
3	1	LEGEND	FOR INFORMATION ONLY
4	1	WHISTLE BEND ON & OFF SITE LIMITS	FOR INFORMATION ONLY
5	1	GRUBBING & STRIPPING PLAN	FOR INFORMATION ONLY
6	1	HYDRANT COVERAGE PLAN	FOR INFORMATION ONLY
7	1	SIGN & LINE PARKING OVERALL PLAN	FOR INFORMATION ONLY
8	1	EROSION & SEDIMENT CONTROL PLAN	FOR INFORMATION ONLY
9	1	OVERALL LOT LAYOUT	FOR INFORMATION ONLY
10	1	LOT PRE-GRADING PLAN	FOR INFORMATION ONLY
11	1	FUTURE LOT GRADES	FOR INFORMATION ONLY
<b>ROAD PLAN AND PROFILE</b>			
12	1	ROAD 1 - STA. 1+000 TO 1+240	FOR INFORMATION ONLY
13	1	ROAD 2 - STA. 3+080 TO 3+200 & PUL STA. 2+000 TO 2+100	FOR INFORMATION ONLY
14	1	ROAD 3 - STA. 14+000 TO 14+220	FOR INFORMATION ONLY
<b>INTERSECTION DETAILS</b>			
15	1	SPOT ELEVATION & CURB RETURN DETAILS	FOR INFORMATION ONLY
<b>TYPICAL CROSS SECTIONS</b>			
16	1	TYPICAL CROSS SECTIONS	FOR INFORMATION ONLY
<b>MISCELLANEOUS</b>			
17	1	TYPICAL DETAILS - SHEET 1 OF 7	FOR INFORMATION ONLY
18	1	TYPICAL DETAILS - SHEET 2 OF 7	FOR INFORMATION ONLY
19	1	TYPICAL DETAILS - SHEET 3 OF 7	FOR INFORMATION ONLY
20	1	TYPICAL DETAILS - SHEET 4 OF 7	FOR INFORMATION ONLY
21	1	TYPICAL DETAILS - SHEET 5 OF 7	FOR INFORMATION ONLY
22	1	TYPICAL DETAILS - SHEET 6 OF 7	FOR INFORMATION ONLY
23	1	TYPICAL DETAILS - SHEET 7 OF 7	FOR INFORMATION ONLY
<b>LANDSCAPING</b>			
24	A	LANDSCAPING PLAN	NOT IN CONTRACT - FOR INFORMATION ONLY
<b>ATCO DRAWINGS - PHASE 1</b>			
1088947_CIVIL			



CITY OF WHITEHORSE  
DESIGN APPROVALS

MANAGER OF OPERATIONS \_\_\_\_\_ DATE \_\_\_\_\_  
 MANAGER OF ENGINEERING SERVICES \_\_\_\_\_ DATE \_\_\_\_\_  
 MANAGER OF WATER & WASTE SERVICES \_\_\_\_\_ DATE \_\_\_\_\_



Suite 301-4109 4th Ave.  
Whitehorse, Yukon  
Canada Y1A 1H6  
Phone: 867-456-2711  
Fax: 604-291-6163

**Associated Engineering**

REVISIONS :			
NO.	DATE	ENG.	SUBJECT
0	2024 MAY 21	S.B.	ISSUED FOR TENDER

PROJECT :  
**TA'AN KWACH'AN C-9B  
SUBDIVISION - PHASE 2**

DRAWING TITLE :  
**DRAWING LIST**

SCALE : N.T.S.  
 DATE : 2024/05/24  
 DESIGN : J.S.  
 DRAWN : J.S.  
 CHECKED : S.B.  
 APPROVED : S.B.

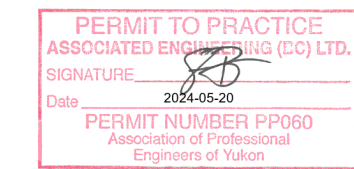
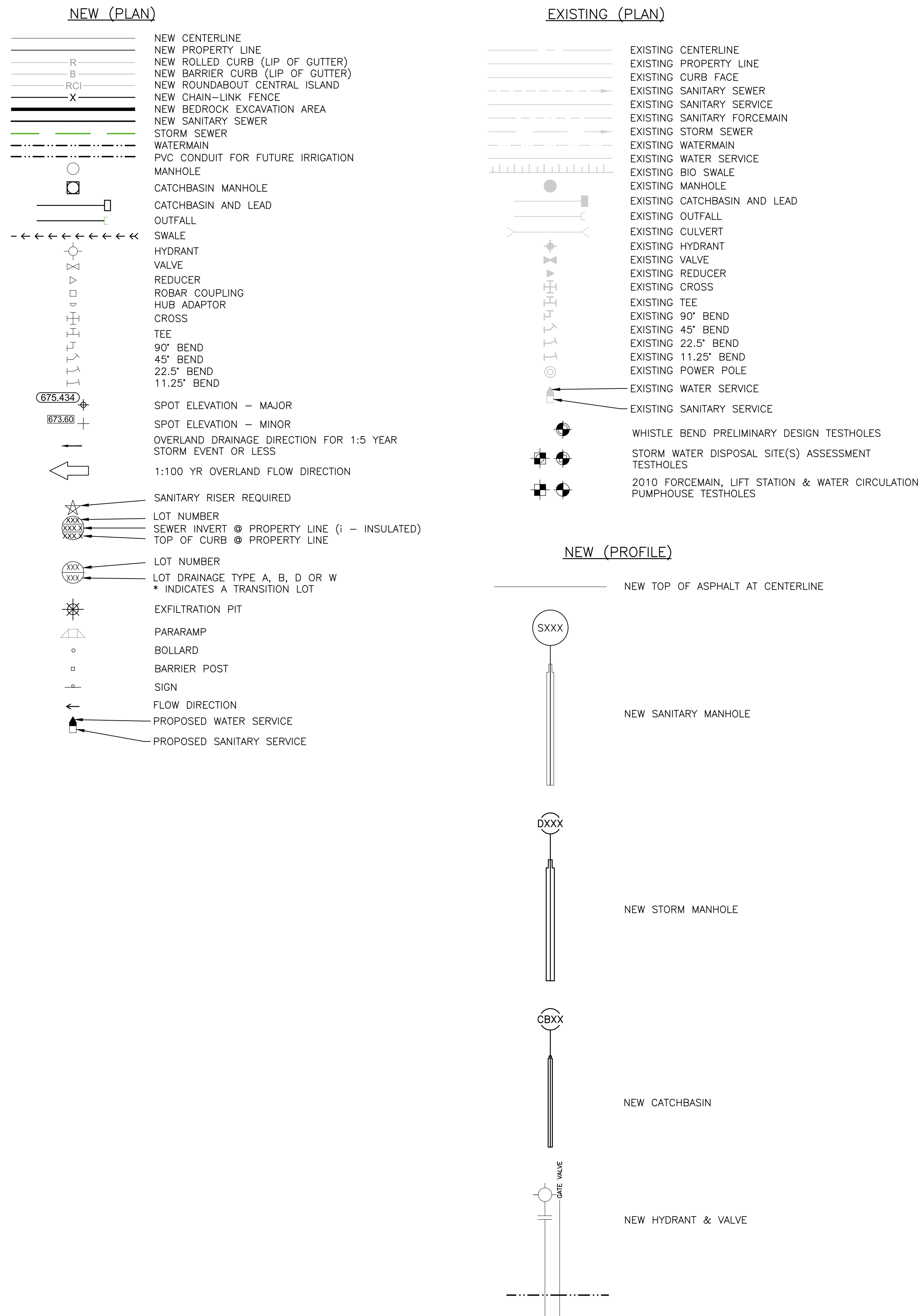
DRAWING NUMBER :  
**2183-17A-C-001**

SHEET :  
**2**

## ABBREVIATIONS

A.C.	ASBESTOS CEMENT	INV.	INVERT
Ac.	ACRES	I.P.	IRON PIN
AD	DIFFERENCE IN VERTICAL CURVE GRADE	K	K VALUE = LVC/AD
AVE	AVENUE	L	LENGTH
AZ	AZIMUTH	Lc	LENGTH OF CURVE
BC	BEGINNING OF CURVE	LP	LOW POINT
BD	BEND	LPE	LOW POINT ELEVATION
BF	BUTTERFLY VALVE	LPS	LOW POINT STATION
BLK	BLOCK	LT	LEFT
BM	BENCH MARK	LVC	LENGTH OF VERTICAL CURVE
BOC	BACK OF CURB	m	METRE(S)
BOW	BACK OF WALK	MH	MANHOLE
BVC	BEGINNING OF VERTICAL CURVE	MJ	MECHANICAL JOINT
BVCE	BEGINNING OF VERTICAL CURVE ELEVATION	mm	MILLIMETRE(S)
BVCS	BEGINNING OF VERTICAL CURVE STATION	N	NORTH
CAP.	CAPACITY	No.	NUMBER
CB	CATCH BASIN	N.I.C.	NOT IN CONTRACT
CBMH	CATCH BASIN MANHOLE	NTS	NOT TO SCALE
CBL	CATCH BASIN LEAD	O.D.	OUTSIDE DIAMETER
CBTOG	CATCH BASIN TOP OF GRATE	O.S.	OFFSET
CC	CURB COCK	O.G.	ORIGINAL GROUND
C & G	CURB & GUTTER	PAV'T	PAVEMENT
CL	CLASS	PC	PRESSURE CLASS
CL	CLASS	P.I.	POINT OF INTERSECTION
CL	CENTERLINE	R	RADIUS
CMP	CORRUGATED METAL PIPE	PR.	NEW
CONC.	CONCRETE	PVIC	POINT OF VERTICAL INTERSECTION
C.P.	CONTROL POINT	R	RADIUS
CSP	CORRUGATED STEEL PIPE	RED.	REDUCER
Δ	DELTA	REV	REVISION
D	DEGREE OF CURVE	ROW	RIGHT OF WAY
DEF'N	DEFLECTION	RT	RIGHT
DES. Q	DESIGN FLOW	RU	RE-USED
D.I.	DUCTILE IRON	S	SOUTH
DMH	DROP MANHOLE	SAN	SANITARY SEWER
DWG	DRAWING	SH	SHOULDER
EASE.	EASEMENT	SPD.	STANDARD PROCTOR DENSITY
E	EAST	SPEC.	CONTRACT SPECIFICATIONS
EC	END OF CURVE	STM	STORM SEWER
ELEV	ELEVATION	ST.	STREET
EVC	END OF VERTICAL CURVE	STA	STATION
EVCE	END OF VERTICAL CURVE ELEVATION	STD.	STANDARD
EVCS	END OF VERTICAL CURVE STATION	T	TANGENT or SUB-TANGENT
EXIST.	EXISTING	TH	TEST HOLE
F	FLANGE	TOP	TOP OF PAVEMENT
FOC	FACE OF CURB	V.C.	VERTICAL CURVE
FOV	FACE OF WALK	VEL.	VELOCITY
G.V.	GATE VALVE	VERT.	VERTICAL
GR.	GRADE	VPI	VERTICAL POINT OF INTERSECTION
H	HUB	W	WEST
ha	HECTARE	WAT	WATERMAIN
HORZ.	HORIZONTAL		
HP	HIGH POINT		
HPE	HIGH POINT ELEVATION		
HPS	HIGH POINT STATION		
HYD or H	HYDRANT		
I.D.	INSIDE DIAMETER		
INT.	INTERSECTION		

## SYMBOLS



CITY OF WHITEHORSE  
DESIGN APPROVALS

MANAGER OF OPERATIONS	DATE
MANAGER OF ENGINEERING SERVICES	DATE
MANAGER OF WATER & WASTE SERVICES	DATE



Suite 301-4109 4th Ave.  
Whitehorse, Yukon  
Canada Y1A 1H6  
Phone: 867-456-2711  
Fax: 604-291-6163

REVISIONS :			
NO.	DATE	ENG.	SUBJECT
0	2024 MAY 21	S.B.	ISSUED FOR TENDER

PROJECT :  
**TA'AN KWACH'AN C-9B  
SUBDIVISION - PHASE 2**

DRAWING TITLE :  
**GENERAL  
LEGEND**

SCALE :	N.T.S.
DATE :	2024/05/24
DESIGN :	J.S.
DRAWN :	J.S.
CHECKED :	S.B.
APPROVED :	S.B.

DRAWING NUMBER :	SHEET :
<b>2183-17A-C-002</b>	<b>3</b>





- NOTES:**
1. ALL STATIONING IS IN METRES & DECIMAL THEREOF.
  2. ALL LEGAL PINS AND COORDINATE CONTROL MONUMENTS TO BE PROTECTED. ANY LOSS OR DAMAGE DUE TO CONTRACTOR'S WORKMANSHIP WILL BE REPLACED AT CONTRACTOR'S EXPENSE.
  3. LOCATIONS SHOWN FOR ALL EX. UTILITIES ARE APPROXIMATE ONLY. CONTRACTOR WILL BE REQUIRED TO ENSURE ALL EX. UTILITIES ARE PROPERLY LOCATED TO CONFIRM LOCATION AND ELEVATION, AND ARE PROTECTED DURING CONSTRUCTION.
  4. ALL MATERIALS TO BE DISPOSED OF SHALL BE TAKEN TO DUMP SITES, AS APPROVED BY THE ENGINEER.
  5. ALL MATERIALS AND CONSTRUCTION SHALL BE TO CITY OF WHITEHORSE SERVING STANDARDS MANUAL.

PERMIT TO PRACTICE  
 ASSOCIATED ENGINEERING (CIC) LTD.  
 SIGNATURE: *[Signature]*  
 Date: 2024-05-20  
 PERMIT NUMBER PPO60  
 Association of Professional Engineers of Yukon

**CITY OF WHITEHORSE  
 DESIGN APPROVALS**

MANAGER OF OPERATIONS \_\_\_\_\_ DATE \_\_\_\_\_

MANAGER OF ENGINEERING SERVICES \_\_\_\_\_ DATE \_\_\_\_\_

MANAGER OF WATER & WASTE SERVICES \_\_\_\_\_ DATE \_\_\_\_\_



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 Fax: 604-291-6163

**AE Associated Engineering**

**REVISIONS :**

NO.	DATE	ENG.	SUBJECT
0	2024 MAY 21	S.B.	ISSUED FOR TENDER

*[Professional Engineer Seal: STEVEN S. BISHOP, ENGINEER, 2024-05-20]*

**PROJECT :**  
 TA'AN KWACH'AN C-9B  
 SUBDIVISION - PHASE 2

**DRAWING TITLE :**  
 GENERAL  
 WHISTLE BEND ON & OFF  
 SITE LIMITS

SCALE : 1:4000

DATE : 2024/05/24

DESIGN : J.S.

DRAWN : J.S.

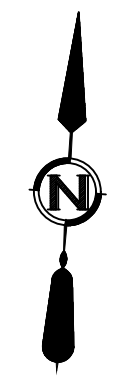
CHECKED : S.B.

APPROVED : S.B.

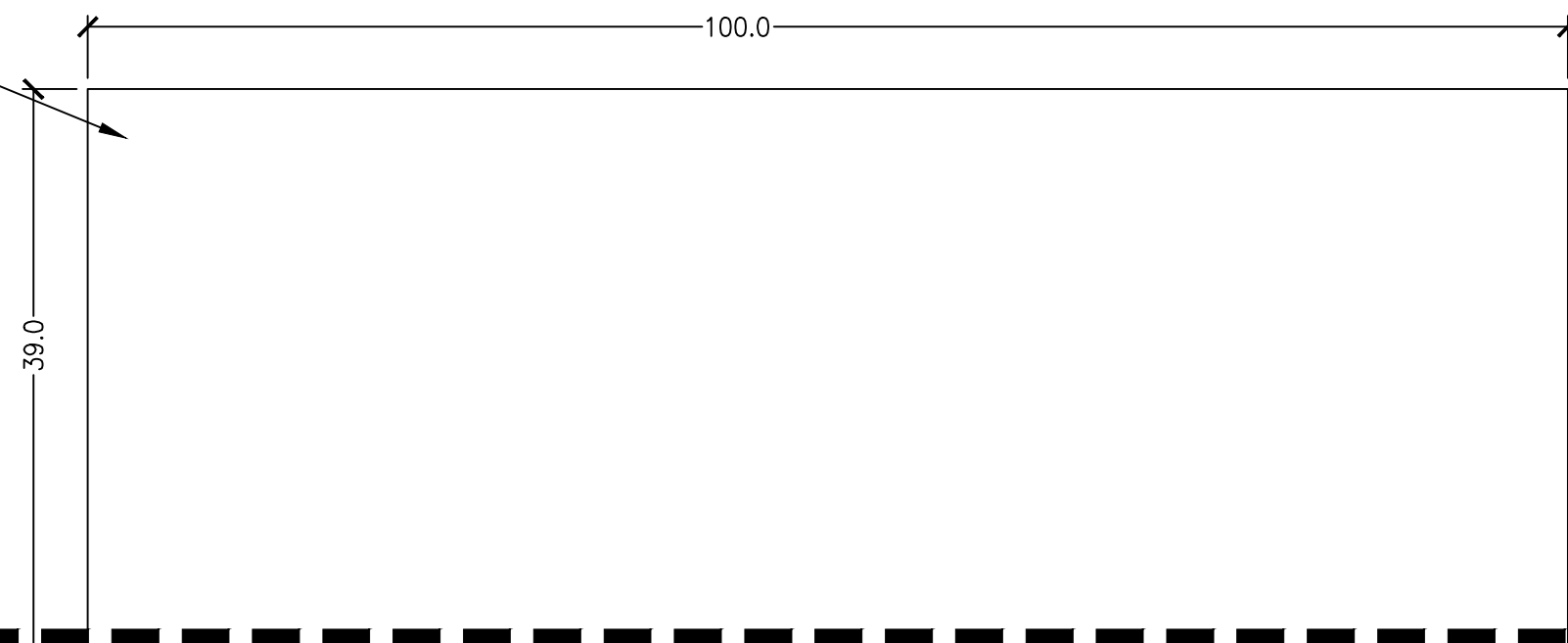
DRAWING NUMBER : 2183-17A-C-003

SHEET : 4

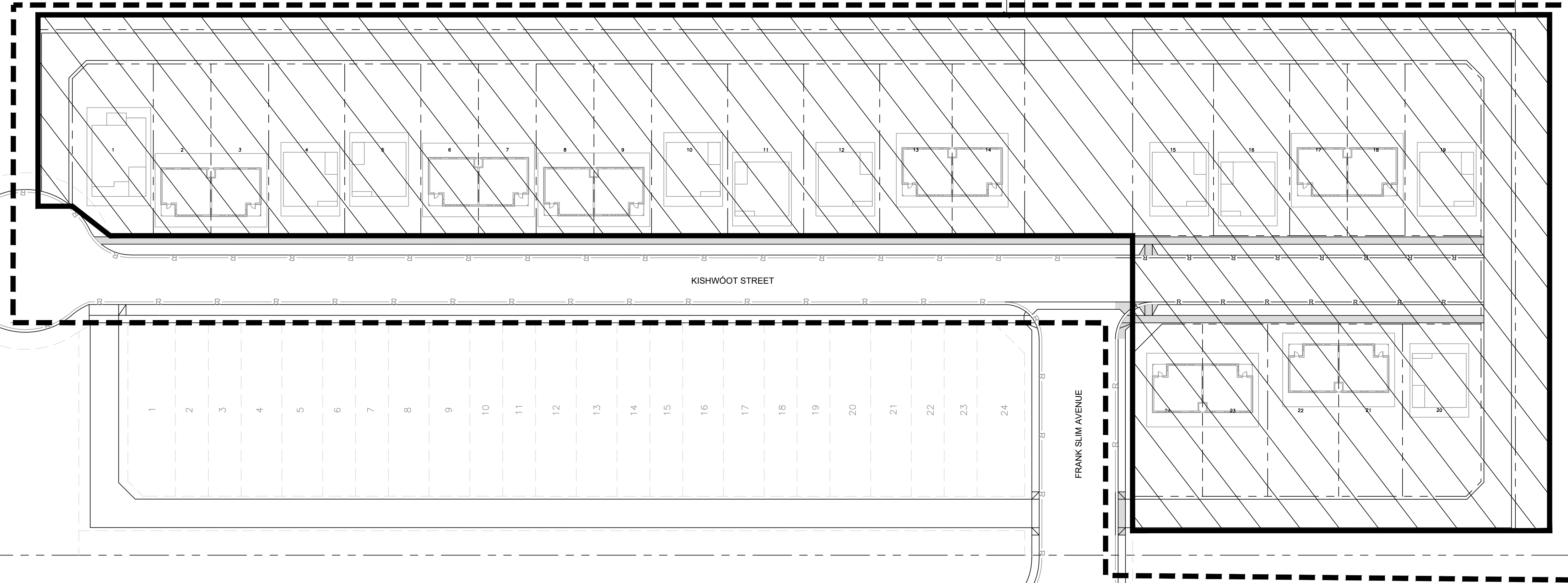




APPROXIMATE AREA FOR PROVISIONAL LAYDOWN  
ONLY TO BE CLEARED IF REQUIRED  
FINAL SIZE AND LOCATION TO BE DETERMINED  
ON SITE WITH ENGINEER  
GRADE AND FENCE AS REQUIRED



LIMIT OF CONSTRUCTION



KISHWÓOT STREET

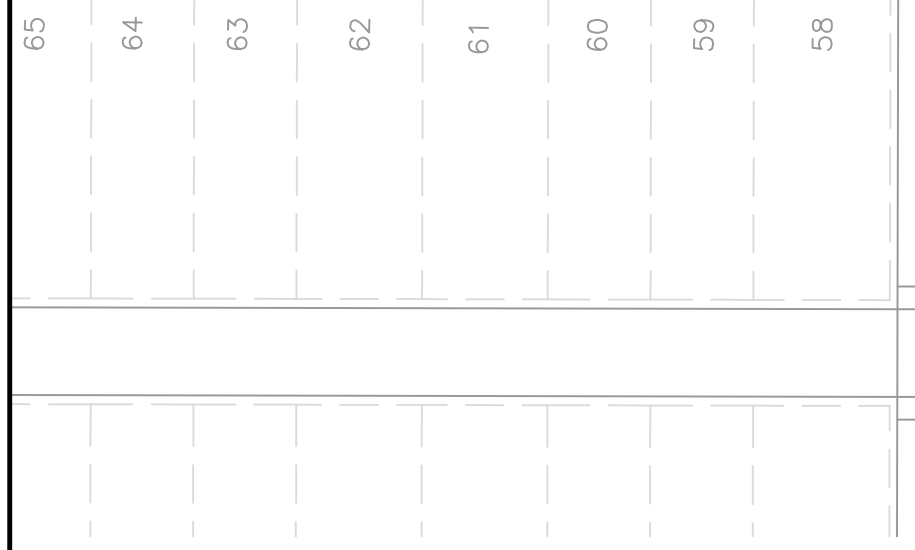
FRANK SLIM AVENUE


WITCH HAZEL DRIVE

TYRELL CRESCENT

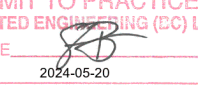
MARATHON WAY

53



**LEGEND**  
 AREA TO BE CLEARED, GRUBBED & STRIPPED  
AREA = 1.9 Ha

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  4. ALL MATERIALS TO BE DISPOSED OF SHALL BE TAKEN TO DUMP SITES, AS APPROVED BY THE ENGINEER.
  5. ALL MATERIALS AND CONSTRUCTION SHALL BE TO CITY OF WHITEHORSE SERVICING STANDARDS MANUAL.
  6. CLEARING AND GRUBBING LIMITS SHOWN ARE APPROXIMATE AND MAY BE INCREASED IN FIELD BY ENGINEER TO FACILITATE CONSTRUCTION OF DEEP/SHALLOW UTILITIES AND SURFACE DRAINAGE.

PERMIT TO PRACTICE  
ASSOCIATED ENGINEERING (C) LTD.  
SIGNATURE:   
Date: 2024-05-20  
PERMIT NUMBER PPO60  
Engineers of Yukon

**CITY OF WHITEHORSE  
DESIGN APPROVALS**

MANAGER OF OPERATIONS \_\_\_\_\_ DATE \_\_\_\_\_

MANAGER OF ENGINEERING SERVICES \_\_\_\_\_ DATE \_\_\_\_\_

MANAGER OF WATER & WASTE SERVICES \_\_\_\_\_ DATE \_\_\_\_\_




Suite 301-4109 4th Ave.  
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Canada Y1A 1H6  
Phone: 867-456-2711  
Fax: 604-291-6163

**Associated Engineering**

**REVISIONS :**

NO.	DATE	ENG.	SUBJECT
0	2024 MAY 21	S.B.	ISSUED FOR TENDER

  
PROFESSIONAL ENGINEER  
STEVEN HUGH TEALBURY  
2024-05-20

**PROJECT :**  
TA'AN KWACH'AN C-9B  
SUBDIVISION - PHASE 2

**DRAWING TITLE :**  
CLEARING LIMITS

SCALE : 1:500

DATE : 2024/05/24

DESIGN : J.S.

DRAWN : J.S.

CHECKED : S.B.

APPROVED : S.B.

DRAWING NUMBER : 2183-17A-C-004

SHEET : 5





LIMIT OF CONSTRUCTION

2183-17a-C-102

2183-17a-C-103

2183-17a-C-104

2183-17a-C-101

KISHWOOT STREET

FRANK SLIM AVENUE

2183-17a-C-105

WITCH HAZEL DRIVE

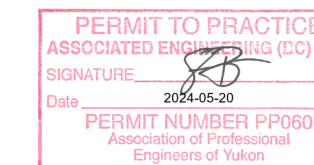
TYRELL CRESCENT

MARATHON WAY

53

NOTES:

1. ALL STATIONING IS IN METRES & DECIMAL THEREOF.
2. ALL LEGAL PINS AND COORDINATE CONTROL MONUMENTS TO BE PROTECTED. ANY LOSS OR DAMAGE DUE TO CONTRACTOR'S WORKMANSHIP WILL BE REPLACED AT CONTRACTOR'S EXPENSE.
3. LOCATIONS SHOWN FOR ALL EX. UTILITIES ARE APPROXIMATE ONLY. CONTRACTOR WILL BE REQUIRED TO ENSURE ALL EX. UTILITIES ARE PROPERLY LOCATED TO CONFIRM LOCATION AND ELEVATION, AND ARE PROTECTED DURING CONSTRUCTION.
4. ALL MATERIALS TO BE DISPOSED OF SHALL BE TAKEN TO DUMP SITES, AS APPROVED BY THE ENGINEER.
5. ALL MATERIALS AND CONSTRUCTION SHALL BE TO CITY OF WHITEHORSE SERVING STANDARDS MANUAL.



CITY OF WHITEHORSE  
DESIGN APPROVALS

MANAGER OF OPERATIONS \_\_\_\_\_ DATE \_\_\_\_\_

MANAGER OF ENGINEERING SERVICES \_\_\_\_\_ DATE \_\_\_\_\_

MANAGER OF WATER & WASTE SERVICES \_\_\_\_\_ DATE \_\_\_\_\_



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Fax: 604-291-6163



**Associated Engineering**

REVISIONS :

NO.	DATE	ENG.	SUBJECT
0	2024 MAY 21	S.B.	ISSUED FOR TENDER



PROJECT :  
**TA'AN KWACH'AN C-9B  
SUBDIVISION - PHASE 2**

DRAWING TITLE :  
**DRAWING INDEX**

SCALE : 1:500

DATE : 2024/05/24

DESIGN : J.S.

DRAWN : J.S.

CHECKED : S.B.

APPROVED : S.B.

DRAWING NUMBER : 2183-17A-C-401

SHEET : 6



- NOTES:
1. ALL STATIONING IS IN METRES & DECIMAL THEREOF.
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  4. ALL MATERIALS TO BE DISPOSED OF SHALL BE TAKEN TO DUMP SITES, AS APPROVED BY THE ENGINEER.
  5. ALL MATERIALS AND CONSTRUCTION SHALL BE TO CITY OF WHITEHORSE SERVICING STANDARDS MANUAL.
  6. LOT PRE-GRADING TO BE COMPACTED TO 98% SPDD, UNLESS OTHERWISE NOTED.

PERMIT TO PRACTICE  
 ASSOCIATED ENGINEERING (C) LTD.  
 SIGNATURE: [Signature]  
 Date: 2024-05-20  
 PERMIT NUMBER FP060  
 Association of Professional Engineers of Yukon

CITY OF WHITEHORSE  
 DESIGN APPROVALS

MANAGER OF OPERATIONS \_\_\_\_\_ DATE \_\_\_\_\_

MANAGER OF ENGINEERING SERVICES \_\_\_\_\_ DATE \_\_\_\_\_

MANAGER OF WATER & WASTE SERVICES \_\_\_\_\_ DATE \_\_\_\_\_



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 Whitehorse, Yukon  
 Canada Y1A 1H6  
 Phone: 867-456-2711  
 Fax: 604-291-6163

**AE** Associated Engineering

REVISIONS :

NO.	DATE	ENG.	SUBJECT
0	2024 MAY 21	S.B.	ISSUED FOR TENDER



PROJECT :  
**TA'AN KWACH'AN C-9B  
 SUBDIVISION - PHASE 2**

DRAWING TITLE :  
**LOT PRE-GRADING**

SCALE : 1:500

DATE : 2024/05/24

DESIGN : J.S.

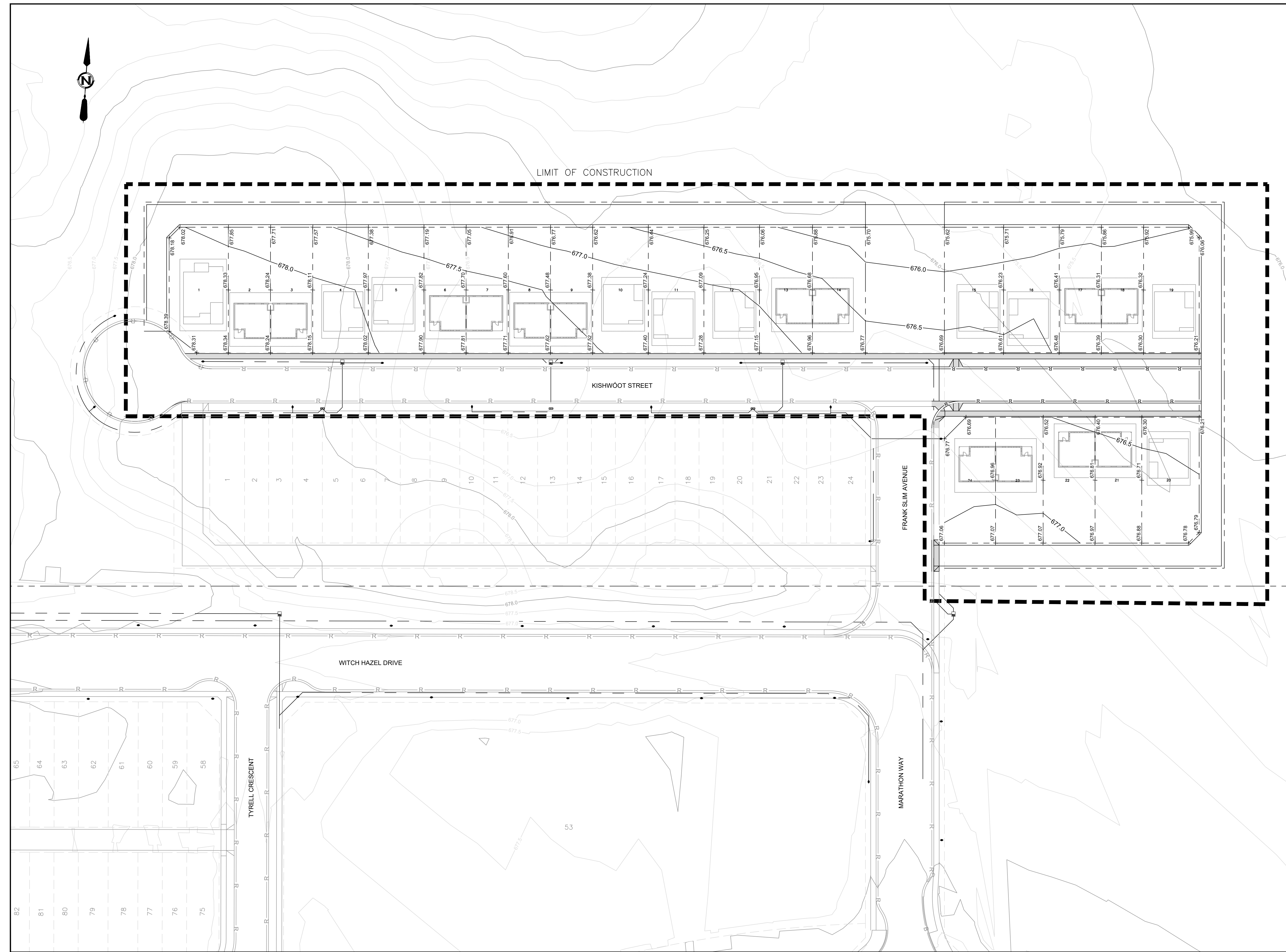
DRAWN : J.S.

CHECKED : S.B.

APPROVED : S.B.

DRAWING NUMBER : 2183-17A-C-402

SHEET : 7





- NOTES:**
1. ALL STATIONING IS IN METRES & DECIMAL THEREOF.
  2. ALL LEGAL PINS AND COORDINATE CONTROL MONUMENTS TO BE PROTECTED. ANY LOSS OR DAMAGE DUE TO CONTRACTOR'S WORKMANSHIP WILL BE REPLACED AT CONTRACTOR'S EXPENSE.
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  4. ALL MATERIALS TO BE DISPOSED OF SHALL BE TAKEN TO DUMP SITES, AS APPROVED BY THE ENGINEER.
  5. ALL MATERIALS AND CONSTRUCTION SHALL BE TO CITY OF WHITEHORSE SERVING STANDARDS MANUAL.
  6. LOT GRADES SHOWN ON THIS DRAWING REPRESENT FINAL LANDSCAPED ELEVATIONS. CONTRACTOR TO REFER TO PRE-GRADING PLAN FOR LOT CORNER ELEVATIONS DURING CONSTRUCTION.

PERMIT TO PRACTICE  
 ASSOCIATED ENGINEERING (C) LTD.  
 SIGNATURE: [Signature]  
 2024-05-20  
 PERMIT NUMBER FP060  
 Association of Professional Engineers of Yukon

**CITY OF WHITEHORSE  
 DESIGN APPROVALS**

MANAGER OF OPERATIONS DATE  
 MANAGER OF ENGINEERING SERVICES DATE  
 MANAGER OF WATER & WASTE SERVICES DATE



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**AE Associated Engineering**

**REVISIONS :**

NO.	DATE	ENG.	SUBJECT
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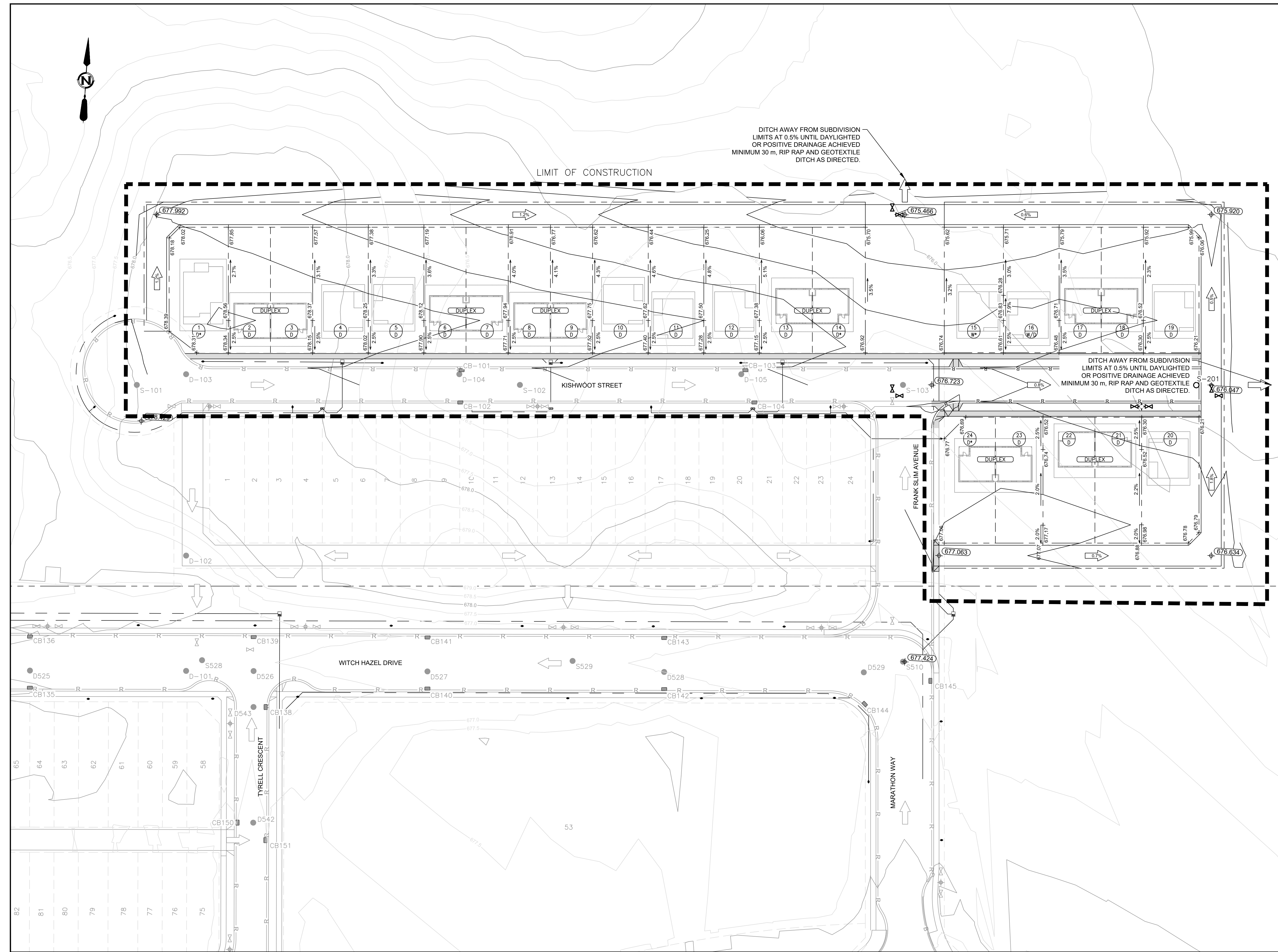


**PROJECT :**  
 TA'AN KWACH'AN C-9B  
 SUBDIVISION - PHASE 2

**DRAWING TITLE :**  
 FUTURE LOT GRADES

SCALE : 1:500  
 DATE : 2024/05/24  
 DESIGN : J.S.  
 DRAWN : J.S.  
 CHECKED : S.B.  
 APPROVED : S.B.

DRAWING NUMBER : 2183-17A-C-403  
 SHEET : 8



DITCH AWAY FROM SUBDIVISION LIMITS AT 0.5% UNTIL DAYLIGHTED OR POSITIVE DRAINAGE ACHIEVED MINIMUM 30 m, RIP RAP AND GEOTEXTILE DITCH AS DIRECTED.

DITCH AWAY FROM SUBDIVISION LIMITS AT 0.5% UNTIL DAYLIGHTED OR POSITIVE DRAINAGE ACHIEVED MINIMUM 30 m, RIP RAP AND GEOTEXTILE DITCH AS DIRECTED.



NOTES:

1. ALL STATIONING IS IN METRES & DECIMAL THEREOF.
2. ALL LEGAL PINS AND COORDINATE CONTROL MONUMENTS TO BE PROTECTED. ANY LOSS OR DAMAGE DUE TO CONTRACTOR'S WORKMANSHIP WILL BE REPLACED AT CONTRACTOR'S EXPENSE.
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5. ALL MATERIALS AND CONSTRUCTION SHALL BE TO CITY OF WHITEHORSE SERVICING STANDARDS MANUAL.

PERMIT TO PRACTICE  
ASSOCIATED ENGINEERING (CIC) LTD.  
SIGNATURE: *[Signature]*  
Date: 2024-05-20  
PERMIT NUMBER FP060  
Engineers of Yukon

CITY OF WHITEHORSE  
DESIGN APPROVALS

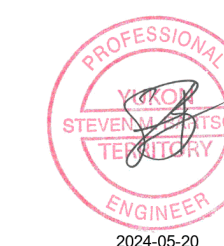
MANAGER OF OPERATIONS \_\_\_\_\_ DATE \_\_\_\_\_  
MANAGER OF ENGINEERING SERVICES \_\_\_\_\_ DATE \_\_\_\_\_  
MANAGER OF WATER & WASTE SERVICES \_\_\_\_\_ DATE \_\_\_\_\_



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NO.	DATE	ENG.	SUBJECT
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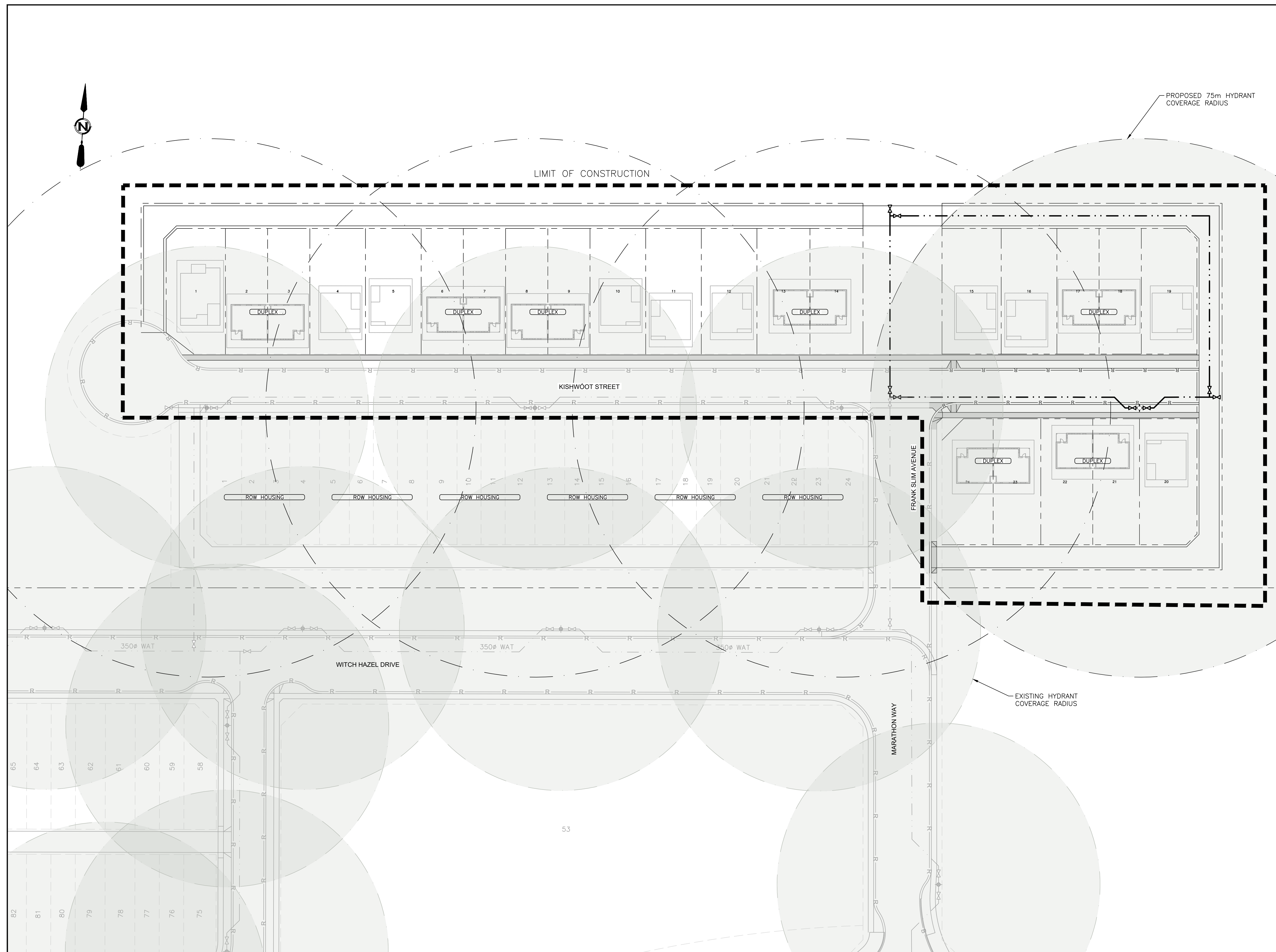


PROJECT :  
**TA'AN KWACH'AN C-9B  
SUBDIVISION - PHASE 2**

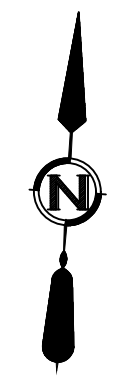
DRAWING TITLE :  
**HYDRANT COVERAGE  
PLAN**

SCALE : H 1:500  
DATE : 2024/05/24  
DESIGN : J.S.  
DRAWN : J.S.  
CHECKED : S.B.  
APPROVED : S.B.

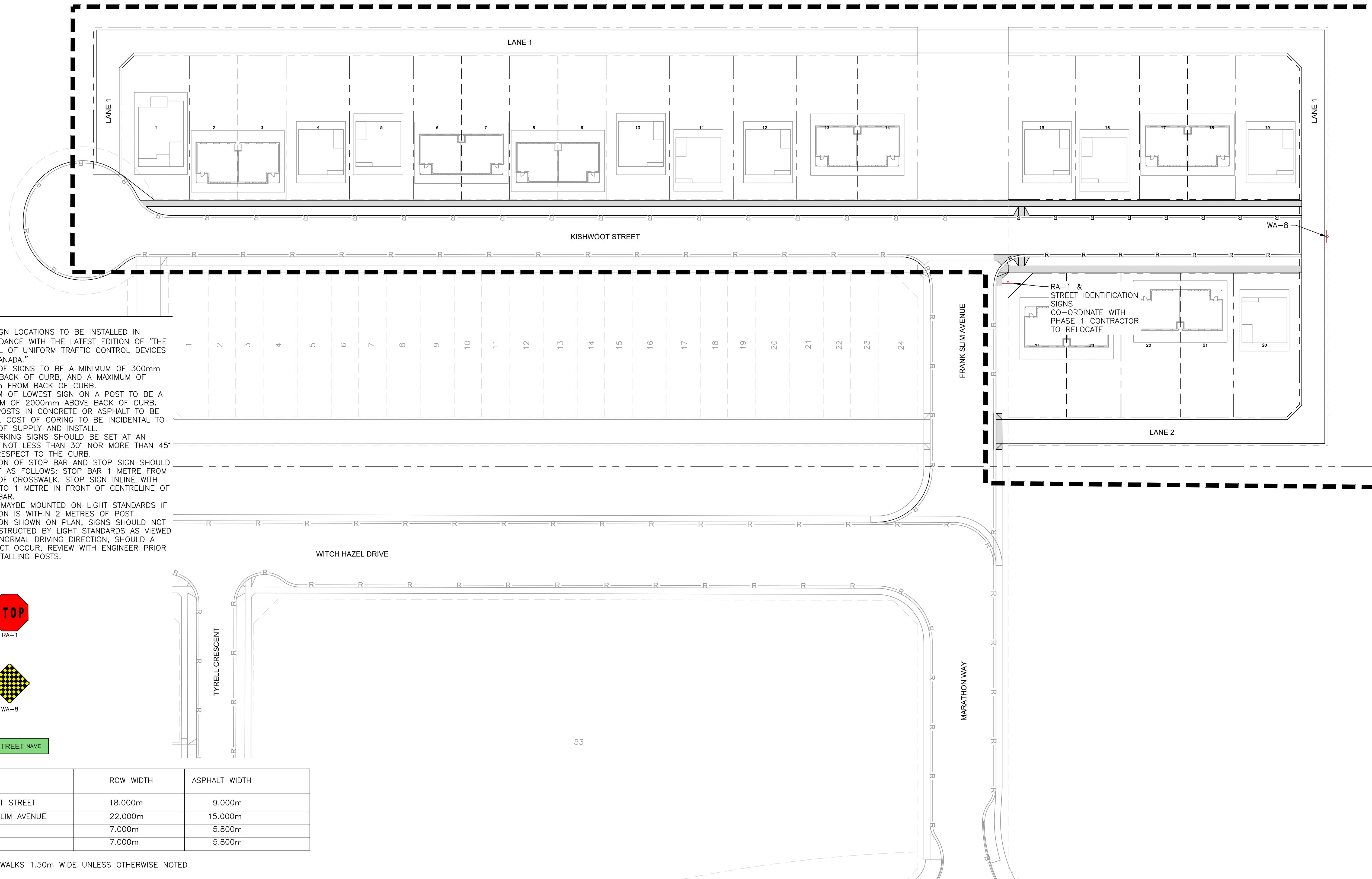
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SHEET : 9



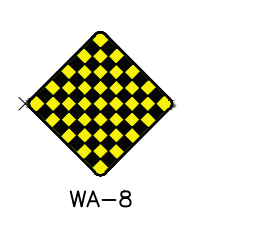
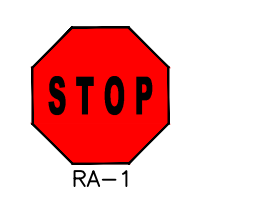




LIMIT OF CONSTRUCTION



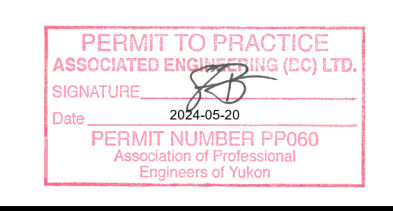
- NOTES:
1. ALL SIGN LOCATIONS TO BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF "THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR CANADA."
  2. EDGE OF SIGNS TO BE A MINIMUM OF 300mm FROM BACK OF CURB, AND A MAXIMUM OF 600mm FROM BACK OF CURB.
  3. BOTTOM OF LOWEST SIGN ON A POST TO BE A MINIMUM OF 2000mm ABOVE BACK OF CURB.
  4. SIGN POSTS IN CONCRETE OR ASPHALT TO BE CORED, COST OF CORING TO BE INCIDENTAL TO COST OF SUPPLY AND INSTALL.
  5. NO PARKING SIGNS SHOULD BE SET AT AN ANGLE NOT LESS THAN 30° NOR MORE THAN 45° WITH RESPECT TO THE CURB.
  6. LOCATION OF STOP BAR AND STOP SIGN SHOULD BE SET AS FOLLOWS: STOP BAR 1 METRE FROM EDGE OF CROSSWALK, STOP SIGN INLINE WITH OR UPTO 1 METRE IN FRONT OF CENTRELINE OF STOP BAR.
  7. SIGNS MAYBE MOUNTED ON LIGHT STANDARDS IF LOCATION IS WITHIN 2 METRES OF POST LOCATION SHOWN ON PLAN, SIGNS SHOULD NOT BE OBSTRUCTED BY LIGHT STANDARDS AS VIEWED FROM NORMAL DRIVING DIRECTION, SHOULD A CONFLICT OCCUR, REVIEW WITH ENGINEER PRIOR TO INSTALLING POSTS.



ROAD	ROW WIDTH	ASPHALT WIDTH
KISHWÓOT STREET	18.000m	9.000m
FRANK SLIM AVENUE	22.000m	15.000m
LANE 1	7.000m	5.800m
LANE 2	7.000m	5.800m

ALL SIDEWALKS 1.50m WIDE UNLESS OTHERWISE NOTED

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  4. ALL MATERIALS TO BE DISPOSED OF SHALL BE TAKEN TO DUMP SITES, AS APPROVED BY THE ENGINEER.
  5. ALL MATERIALS AND CONSTRUCTION SHALL BE TO CITY OF WHITEHORSE SERVICING STANDARDS MANUAL.



CITY OF WHITEHORSE  
DESIGN APPROVALS

MANAGER OF OPERATIONS \_\_\_\_\_ DATE \_\_\_\_\_

MANAGER OF ENGINEERING SERVICES \_\_\_\_\_ DATE \_\_\_\_\_

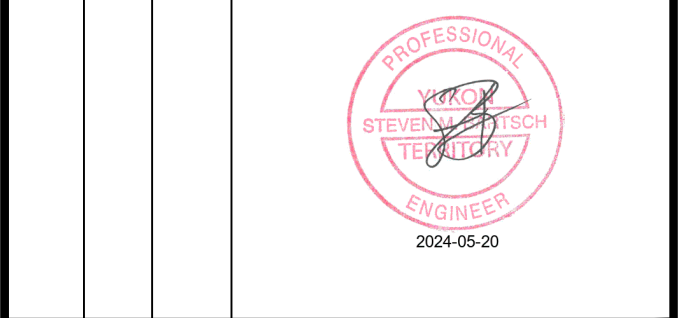
MANAGER OF WATER & WASTE SERVICES \_\_\_\_\_ DATE \_\_\_\_\_



Suite 301-4109 4th Ave.  
Whitehorse, Yukon  
Canada Y1A 1H6  
Phone: 867-456-2711  
Fax: 604-291-6163

REVISIONS :

NO.	DATE	ENG.	SUBJECT
0	2024 MAY 21	S.B.	ISSUED FOR TENDER



PROJECT :  
**TA'AN KWACH'AN C-9B  
SUBDIVISION - PHASE 2**

DRAWING TITLE :  
**LINE PAINTING &  
SIGNAGE PLAN**

SCALE : 1:500

DATE : 2024/05/24

DESIGN : J.S.

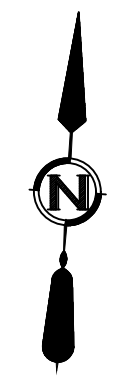
DRAWN : J.S.

CHECKED : S.B.

APPROVED : S.B.

DRAWING NUMBER :	SHEET :
2183-17A-C-405	10





LIMIT OF CONSTRUCTION

SILT FENCE AT OVERLAND OVERFLOW POINT (TYP.)

KISHWOOT STREET

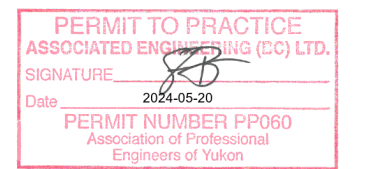
ROCK SOCK (TYP.)

FRANK SLIM AVENUE

WITCH HAZEL DRIVE

NOTES:

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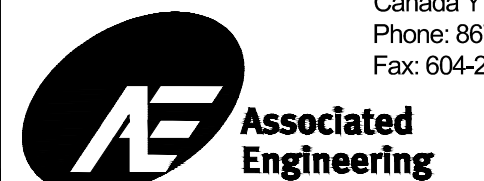


CITY OF WHITEHORSE  
DESIGN APPROVALS

MANAGER OF OPERATIONS	DATE
MANAGER OF ENGINEERING SERVICES	DATE
MANAGER OF WATER & WASTE SERVICES	DATE



Suite 301-4109 4th Ave.  
Whitehorse, Yukon  
Canada Y1A 1H6  
Phone: 867-456-2711  
Fax: 604-291-6163



REVISIONS :

NO.	DATE	ENG.	SUBJECT
0	2024 MAY 21	S.B.	ISSUED FOR TENDER



PROJECT :  
TA'AN KWACH'AN C-9B  
SUBDIVISION - PHASE 2

DRAWING TITLE :  
SEDIMENT & EROSION  
CONTROL PLAN

SCALE :	1:500
DATE :	2024/05/24
DESIGN :	J.S.
DRAWN :	J.S.
CHECKED :	S.B.
APPROVED :	S.B.

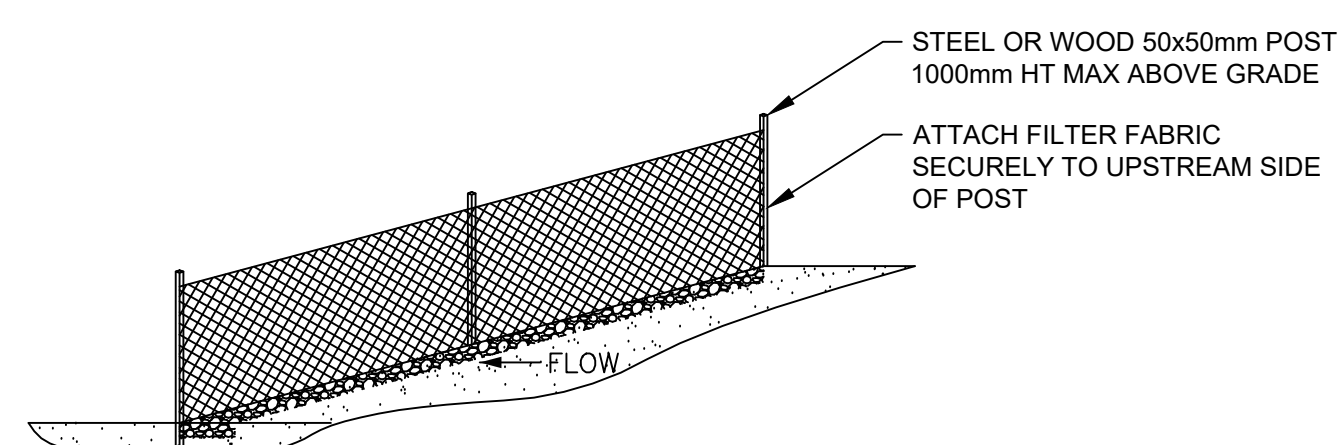
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2183-17A-C-406	11

NOTES:

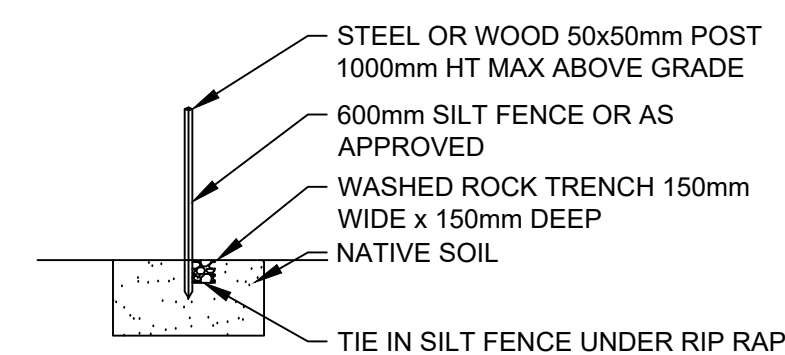
1. SEDIMENT AND EROSION CONTROL TO BE INSTALLED UPON COMPLETION OF PAVING AND MAINTAINED UNTIL THE ISSUE OF THE CONSTRUCTION COMPLETION CERTIFICATE.
2. SILT FENCE TO BE INSPECTED DURING WEEKLY SITE INSPECTIONS AND AFTER ANY PRECIPITATION EXCEEDING 40mm OVER A 24hr PERIOD.
3. FABRIC TO BE TRENCHED IN, TIGHT AND CONSISTENT BETWEEN ALL POSTS. ADD ADDITIONAL POSTS AS REQUIRED.
4. OVERALL FENCE INSTALLATION TO BE INSTALLED IN STRATEGIC SEMI-CIRCLES, WITH THE CROWN OF THE CURVE TO BE IN THE DIRECTION OF WATER FLOW. THE INTENT IS TO INCREASE STABILIZATION & EFFECTIVENESS OF THE SILT FENCE.
5. WHEN INSTALLING SEVERAL LENGTHS OF FENCE, OVERLAP THE EDGES BY 0.50m.
6. AT FAC, OR OWNERS DISCRETION, ALL POSTS TO BE REMOVED AND FABRIC TO BE CUT FLUSH WITH GROUND - DO NOT PULL FENCE FABRIC FROM TRENCH.
7. SEDIMENT TO BE REMOVED WHEN ACCUMULATION REACHES 1/3 OF FENCE HEIGHT.
8. SEDIMENT TO BE DISPOSED OF ON-SITE TO LOCATION DETERMINED BY ENGINEER

LEGEND

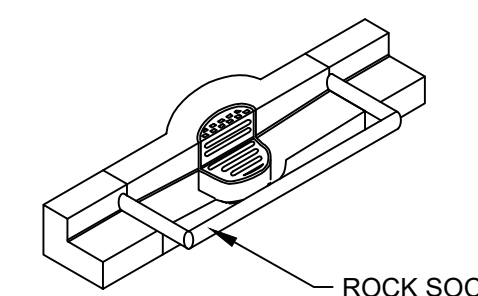
- - - SILT FENCE TO BE INSTALLED AS REQUIRED AS PER DETAIL 1 & 2
- SEDIMENT BARRIER OR ROCK SOCK TO BE INSTALLED ON CATCHBASIN OR CATCHBASIN MANHOLE AS REQUIRED AS PER DETAIL 3



1 DETAIL N.T.S.  
SILT FENCE DETAIL

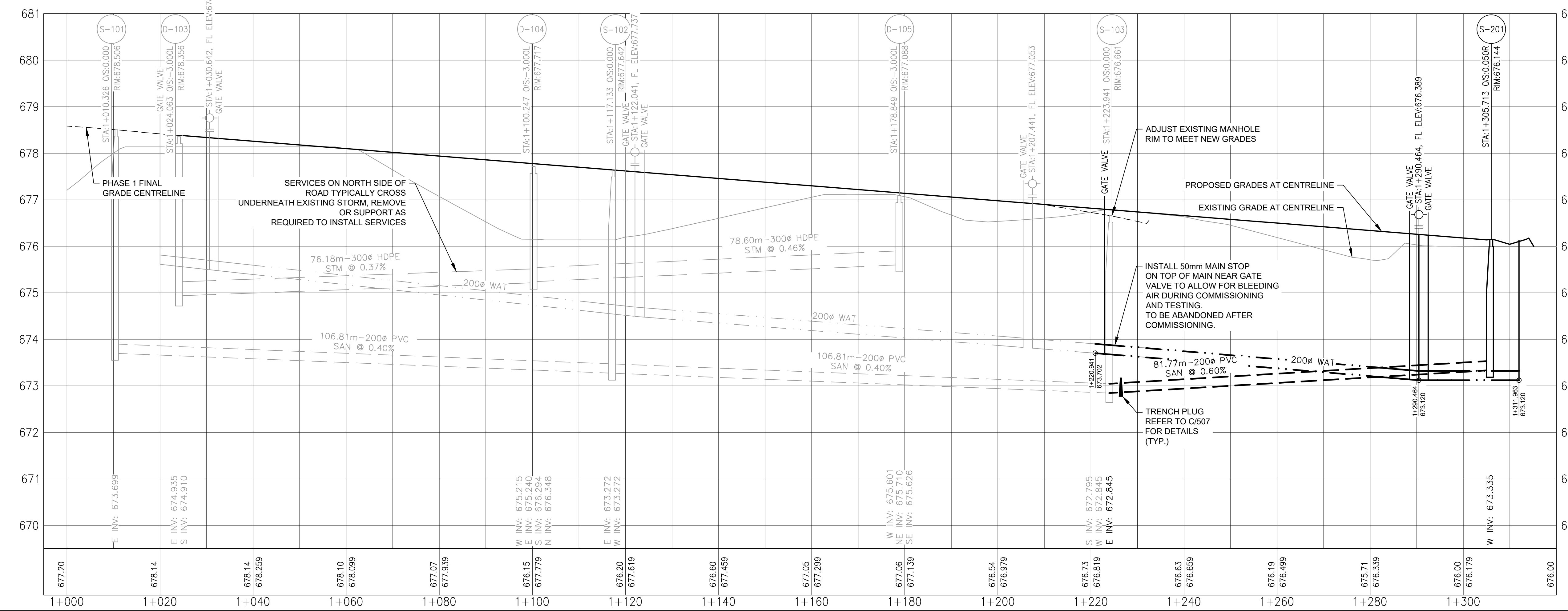
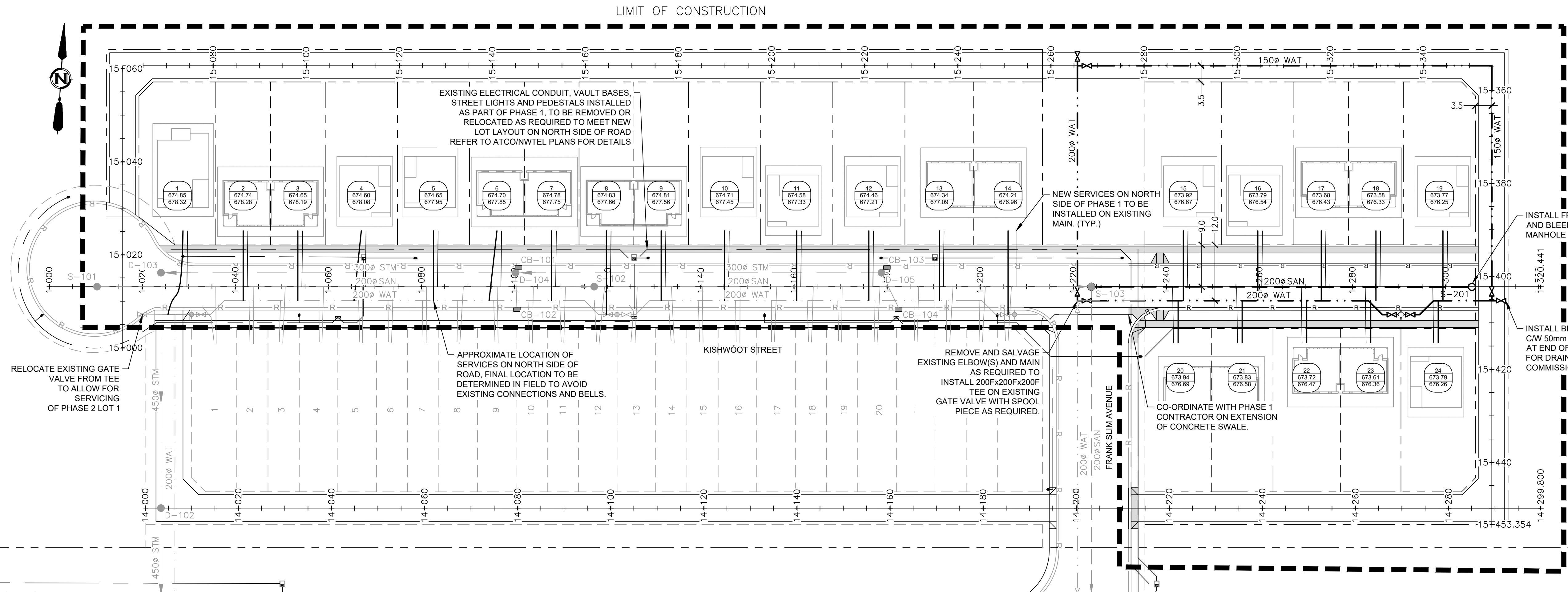


2 DETAIL N.T.S.  
SILT FENCE DETAIL



3 DETAIL N.T.S.  
CATCH BASIN INLET SEDIMENT BARRIER





- NOTES:**
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  5. ALL MATERIALS AND CONSTRUCTION SHALL BE TO CITY OF WHITEHORSE SERVICING STANDARDS MANUAL.
  6. LOT GRADES SHOWN ON THIS DRAWING REPRESENT FINAL LANDSCAPED ELEVATIONS. CONTRACTOR TO REFER TO PRE-GRADING PLAN FOR LOT CORNER ELEVATIONS DURING CONSTRUCTION.

PERMIT TO PRACTICE  
ASSOCIATED ENGINEERING (CIC) LTD.  
SIGNATURE: [Signature]  
Date: 2024-05-20  
PERMIT NUMBER PP060  
Registration of Professional  
Engineers of Yukon

**CITY OF WHITEHORSE  
DESIGN APPROVALS**

MANAGER OF OPERATIONS DATE \_\_\_\_\_

MANAGER OF ENGINEERING SERVICES DATE \_\_\_\_\_

MANAGER OF WATER & WASTE SERVICES DATE \_\_\_\_\_



Suite 301-4109 4th Ave.  
Whitehorse, Yukon  
Canada Y1A 1H6  
Phone: 867-456-2711  
Fax: 604-291-6163

**Associated Engineering**

**REVISIONS :**

NO.	DATE	ENG.	SUBJECT
0	2024 MAY 21	S.B.	ISSUED FOR TENDER

PROJECT :  
**TA'AN KWACH'AN C-9B  
SUBDIVISION - PHASE 2**

DRAWING TITLE :  
**PLAN/PROFILE  
KISHWOOT STREET  
STA 1+000 TO 1+320**

SCALE : H 1:500 V 1:50

DATE : 2024/05/24

DESIGN : J.S.

DRAWN : J.S.

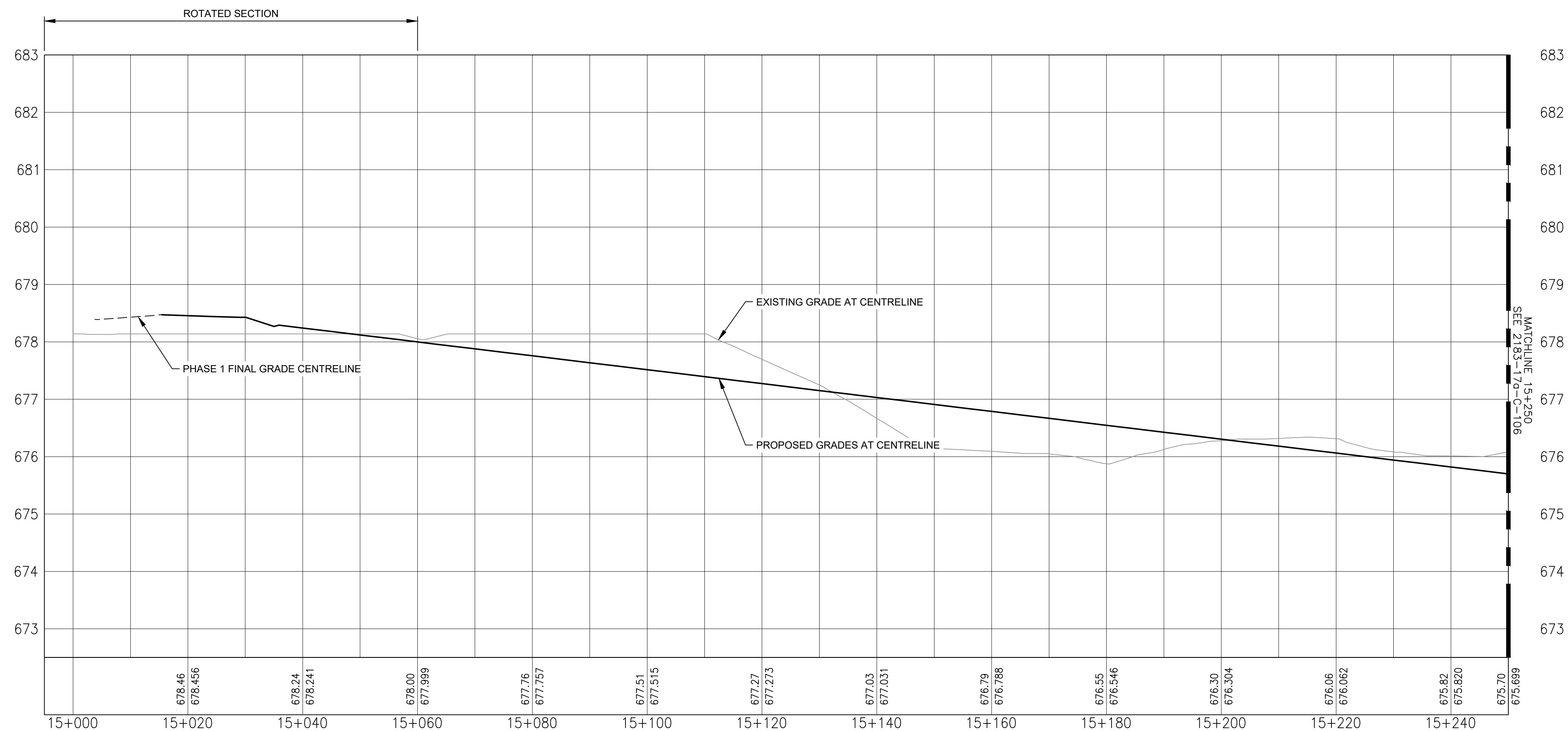
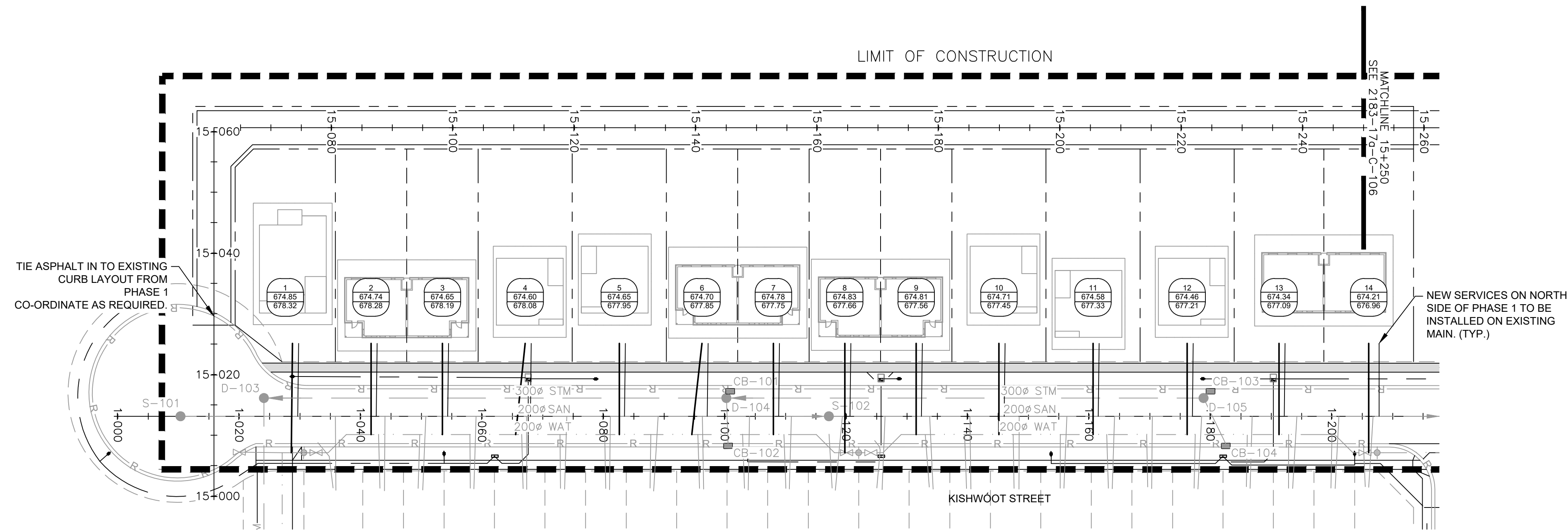
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APPROVED : S.B.

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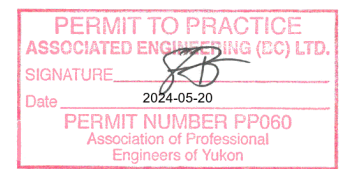
SHEET : **12**





**NOTES:**

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6. LOT GRADES SHOWN ON THIS DRAWING REPRESENT FINAL LANDSCAPED ELEVATIONS. CONTRACTOR TO REFER TO PRE-GRADING PLAN FOR LOT CORNER ELEVATIONS DURING CONSTRUCTION.



**CITY OF WHITEHORSE  
DESIGN APPROVALS**

MANAGER OF OPERATIONS	DATE
MANAGER OF ENGINEERING SERVICES	DATE
MANAGER OF WATER & WASTE SERVICES	DATE



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Whitehorse, Yukon  
Canada Y1A 1H6  
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Fax: 604-291-6163

**Associated Engineering**

**REVISIONS :**

NO.	DATE	ENG.	SUBJECT
0	2024 MAY 21	S.B.	ISSUED FOR TENDER



PROJECT :  
**TA'AN KWACH'AN C-9B  
SUBDIVISION - PHASE 2**

DRAWING TITLE :  
**PLAN/PROFILE  
REAR LANE 1  
15+000 TO 15+250**

SCALE : H 1:500 V 1:50

DATE : 2024/05/24

DESIGN : J.S.

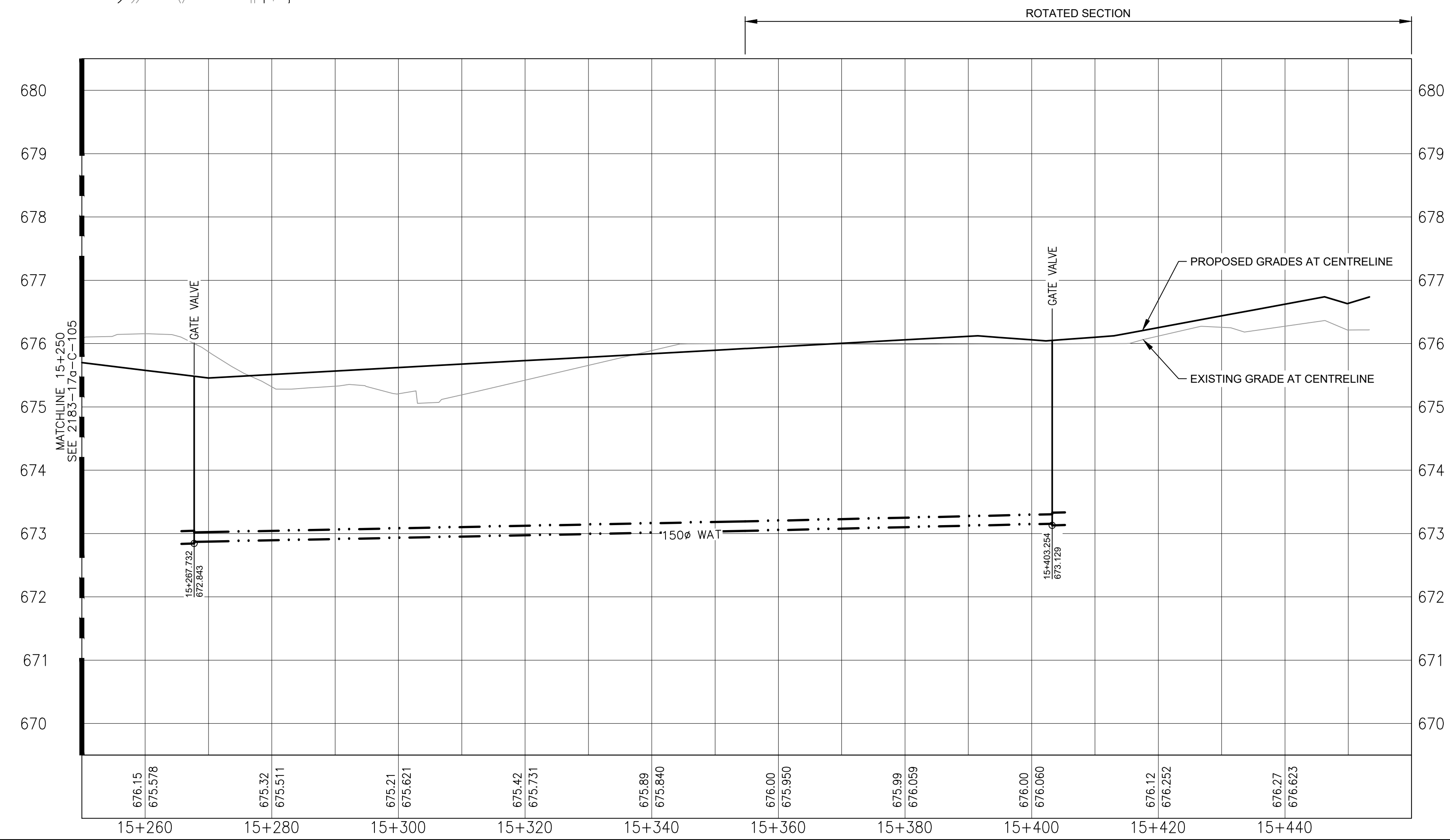
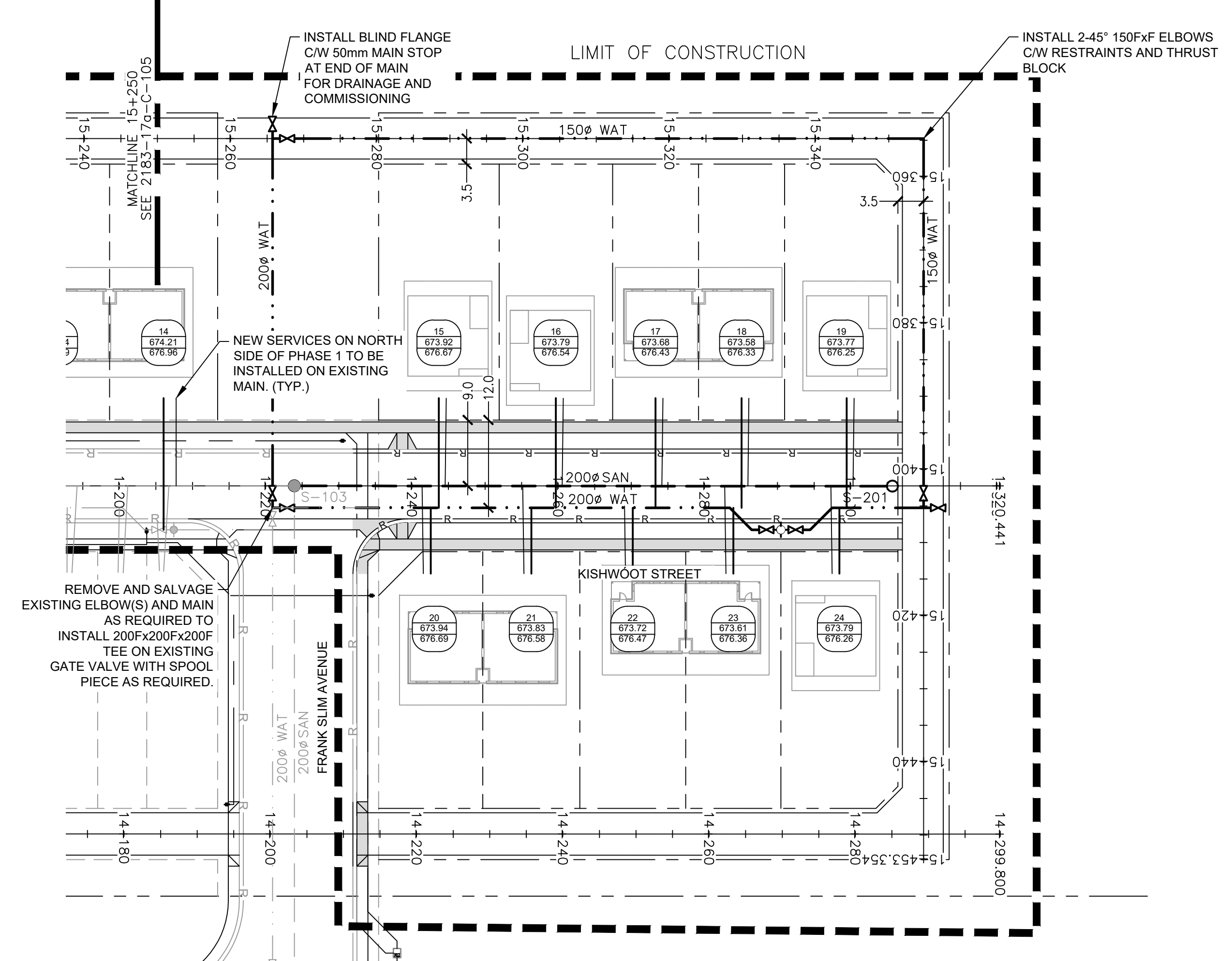
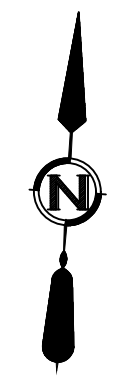
DRAWN : J.S.

CHECKED : S.B.

APPROVED : S.B.

DRAWING NUMBER :	SHEET :
<b>2183-17A-C-102</b>	<b>13</b>





- NOTES:
1. ALL STATIONING IS IN METRES & DECIMAL THEREOF.
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PERMIT TO PRACTICE  
ASSOCIATED ENGINEERING (C) LTD.  
SIGNATURE: [Signature]  
Date: 2024-05-20  
PERMIT NUMBER: PPO60  
Association of Professional  
Engineers of Yukon

CITY OF WHITEHORSE  
DESIGN APPROVALS

MANAGER OF OPERATIONS \_\_\_\_\_ DATE \_\_\_\_\_

MANAGER OF ENGINEERING SERVICES \_\_\_\_\_ DATE \_\_\_\_\_

MANAGER OF WATER & WASTE SERVICES \_\_\_\_\_ DATE \_\_\_\_\_



Suite 301-4109 4th Ave.  
Whitehorse, Yukon  
Canada Y1A 1H6  
Phone: 867-456-2711  
Fax: 604-291-6163

**AE** Associated Engineering

REVISIONS :

NO.	DATE	ENG.	SUBJECT
0	2024 MAY 21	S.B.	ISSUED FOR TENDER

PROFESSIONAL  
STEVEN HUGH  
TERRY  
ENGINEER  
2024-05-20

PROJECT :  
TA'AN KWACH'AN C-9B  
SUBDIVISION - PHASE 2

DRAWING TITLE :  
PLAN/PROFILE  
REAR LANE 1  
15+250 TO 15+460

SCALE : H 1:500 V 1:50

DATE : 2024/05/24

DESIGN : J.S.

DRAWN : J.S.

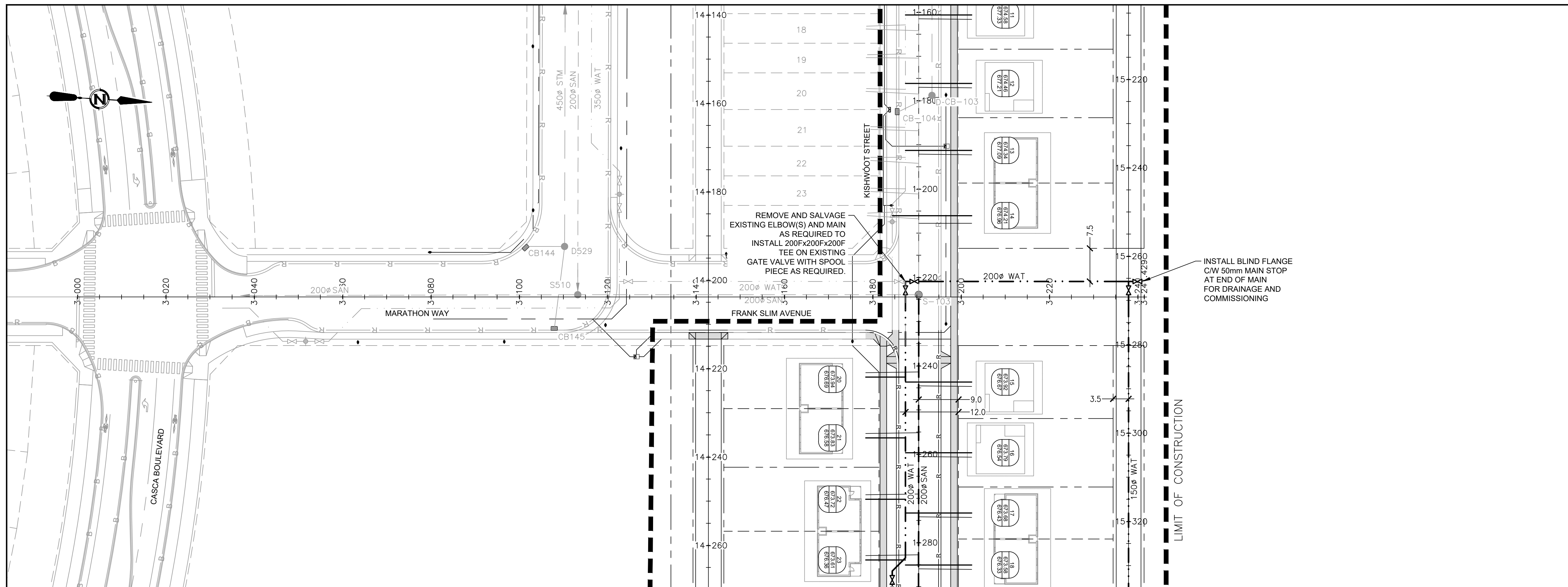
CHECKED : S.B.

APPROVED : S.B.

DRAWING NUMBER : 2183-17A-C-103

SHEET : 14





- NOTES:**
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PERMIT TO PRACTICE  
ASSOCIATED ENGINEERING (C) LTD.  
SIGNATURE: [Signature]  
Date: 2024-05-20  
PERMIT NUMBER FP060  
Association of Professional Engineers of Yukon

**CITY OF WHITEHORSE  
DESIGN APPROVALS**

MANAGER OF OPERATIONS	DATE
MANAGER OF ENGINEERING SERVICES	DATE
MANAGER OF WATER & WASTE SERVICES	DATE



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Fax: 604-291-6163

**Associated Engineering**

**REVISIONS :**

NO.	DATE	ENG.	SUBJECT
0	2024 MAY 21	S.B.	ISSUED FOR TENDER

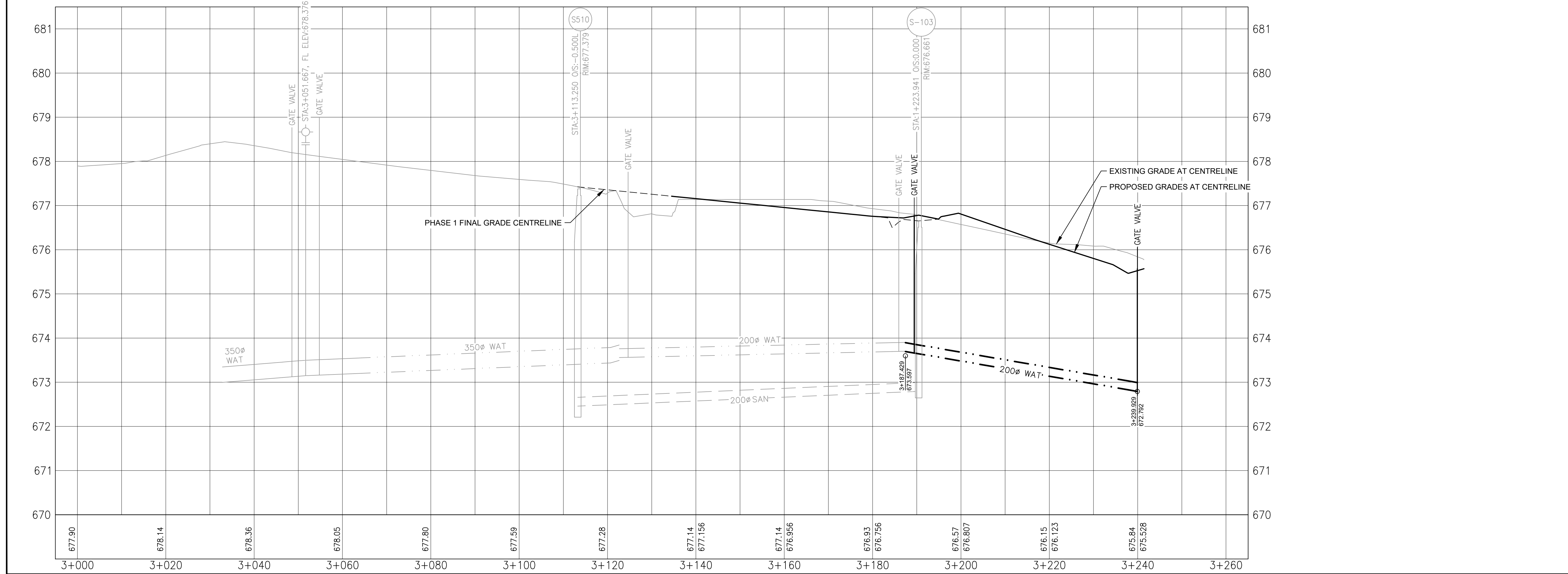
PROFESSIONAL ENGINEER  
STEVEN H. BISHOP  
2024-05-20

**PROJECT :**  
TA'AN KWACH'AN C-9B  
SUBDIVISION - PHASE 2

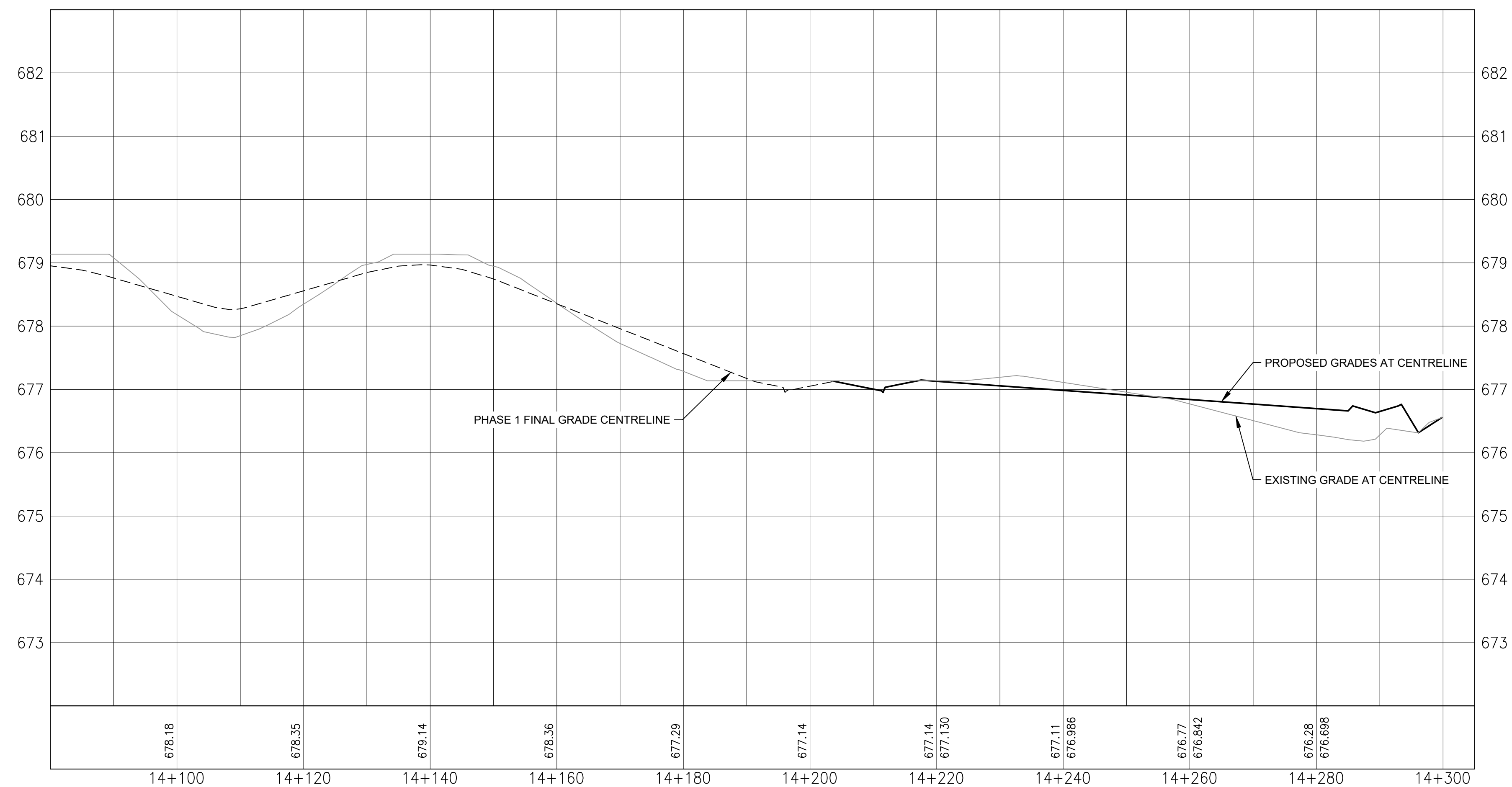
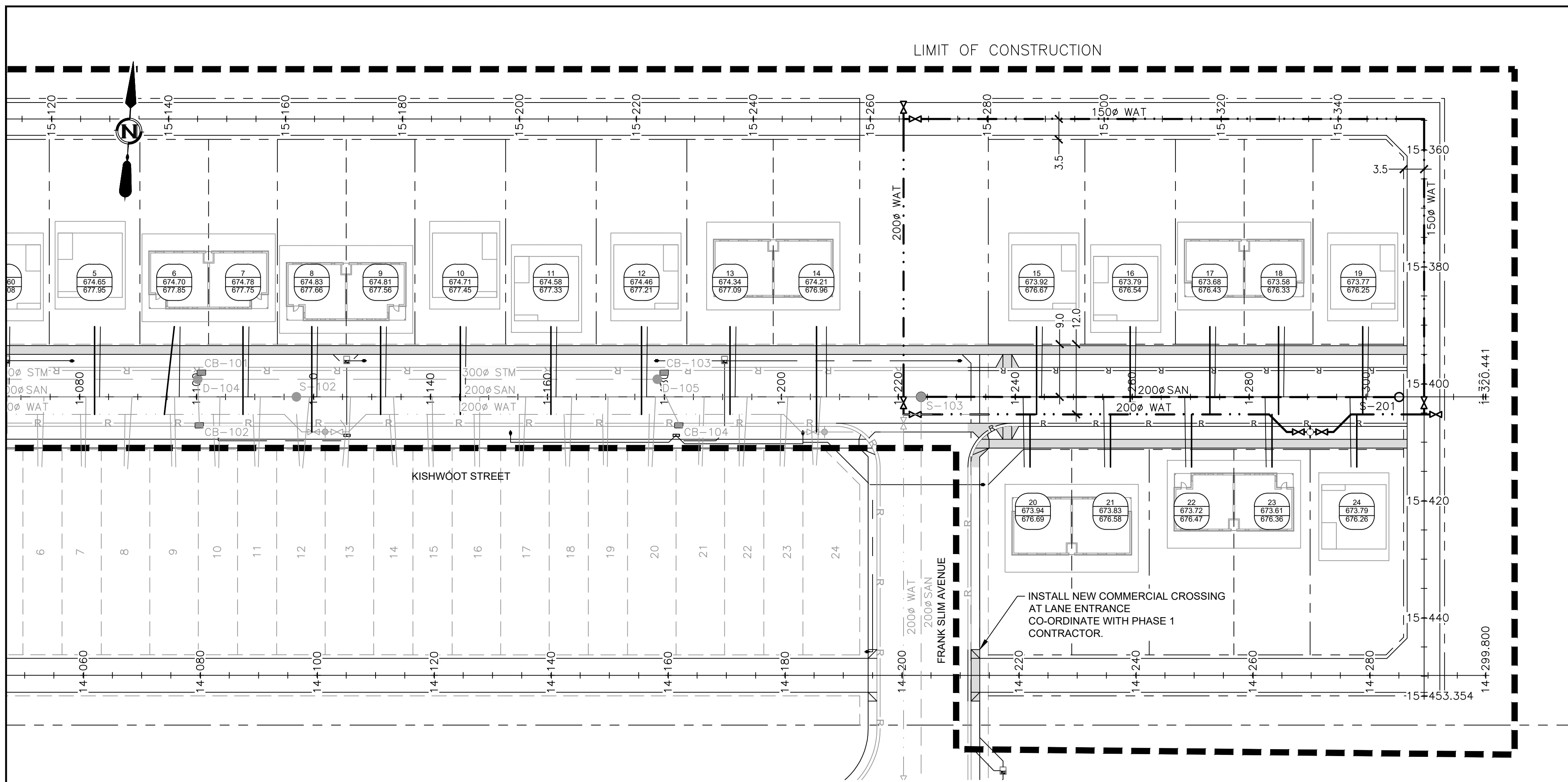
**DRAWING TITLE :**  
PLAN/PROFILE  
FRANK SLIM AVENUE EXTENSION  
3+000 TO 3+260

SCALE : H 1:500 V 1:50  
DATE : 2024/05/24  
DESIGN : J.S.  
DRAWN : J.S.  
CHECKED : S.B.  
APPROVED : S.B.

DRAWING NUMBER : 2183-17A-C-104  
SHEET : 15







- NOTES:**
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PERMIT TO PRACTICE  
ASSOCIATED ENGINEERING (CIC) LTD.  
SIGNATURE: [Signature]  
Date: 2024-05-20  
PERMIT NUMBER PPO60  
Association of Professional  
Engineers of Yukon

**CITY OF WHITEHORSE  
DESIGN APPROVALS**

MANAGER OF OPERATIONS \_\_\_\_\_ DATE \_\_\_\_\_

MANAGER OF ENGINEERING SERVICES \_\_\_\_\_ DATE \_\_\_\_\_

MANAGER OF WATER & WASTE SERVICES \_\_\_\_\_ DATE \_\_\_\_\_



Suite 301-4109 4th Ave.  
Whitehorse, Yukon  
Canada Y1A 1H6  
Phone: 867-456-2711  
Fax: 604-291-6163

**AE Associated Engineering**

REVISIONS :

NO.	DATE	ENG.	SUBJECT
0	2024 MAY 21	S.B.	ISSUED FOR TENDER

PROFESSIONAL  
ENGINEER  
STEVEN B. BUCHANAN  
2024-05-20

PROJECT :  
**TA'AN KWACH'AN C-9B  
SUBDIVISION - PHASE 2**

DRAWING TITLE :  
**PLAN/PROFILE  
REAR LANE 2  
14+080 TO 14+300**

SCALE : H 1:500 V 1:50

DATE : 2024/05/24

DESIGN : J.S.

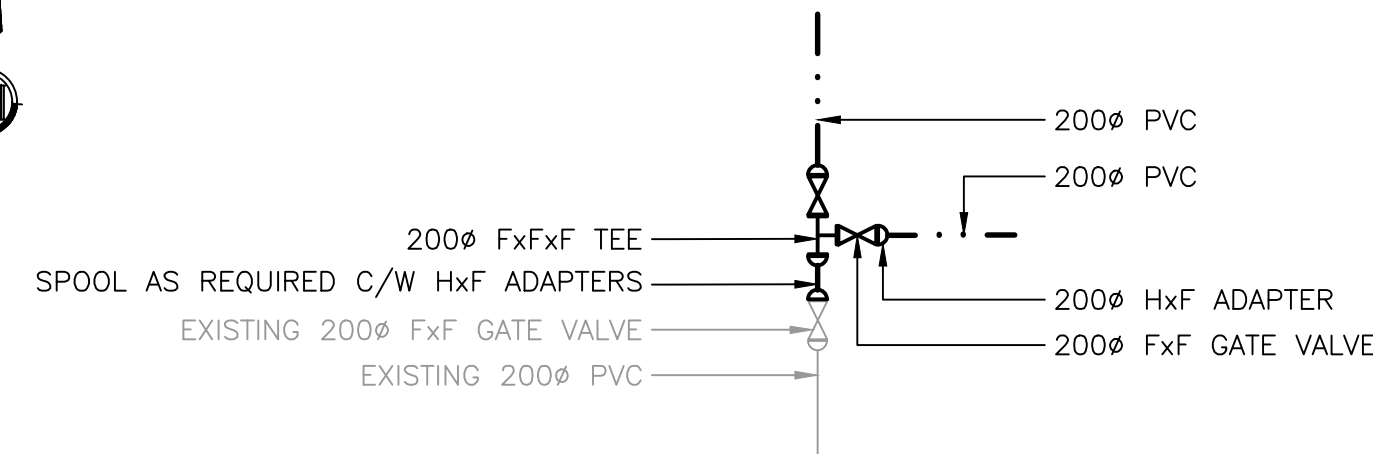
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CHECKED : S.B.

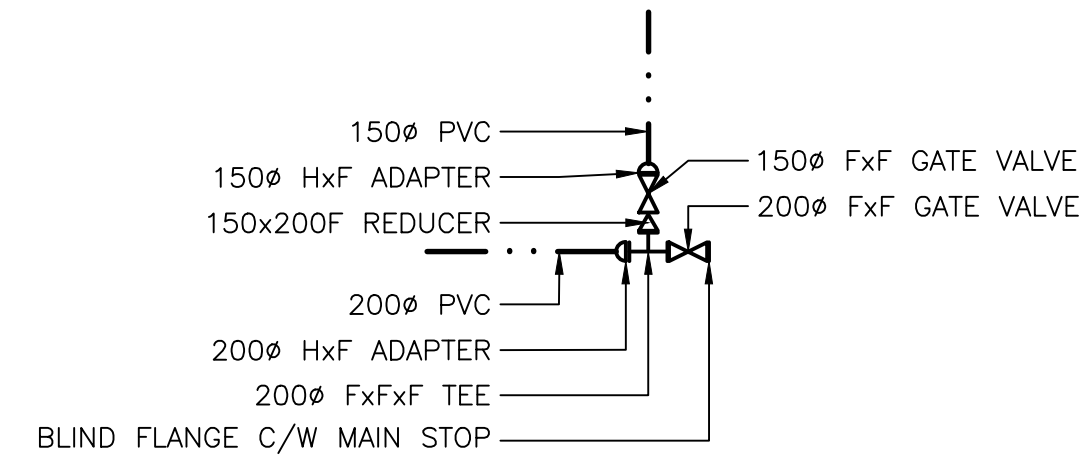
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DRAWING NUMBER : **2183-17A-C-105** SHEET : **16**

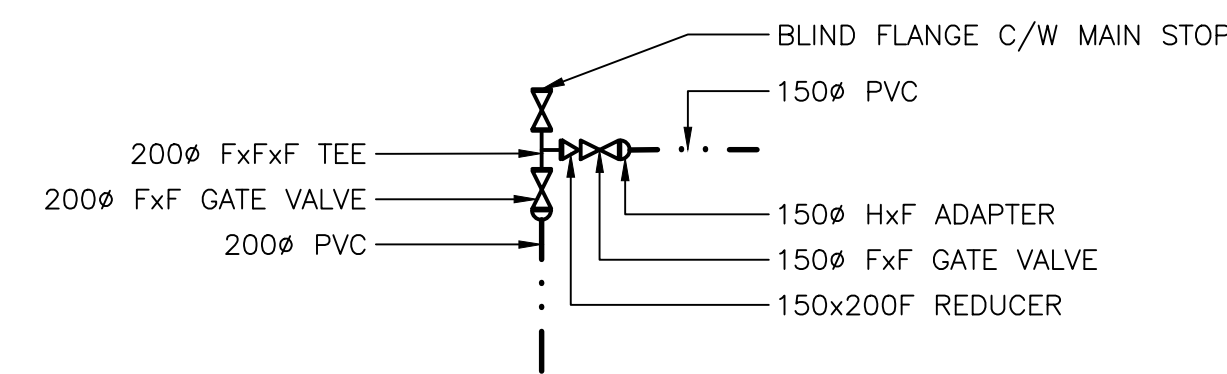




KISHWÓOT STREET AND  
FRANK SLIM AVENUE  
INTERSECTION  
DETAIL 1



KISHWÓOT STREET AND  
LANE 1  
INTERSECTION  
DETAIL 2



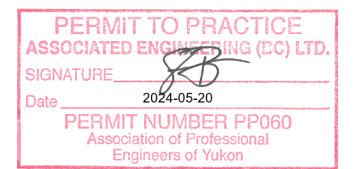
LANE 1 AND  
FRANK SLIM AVENUE  
INTERSECTION  
DETAIL 3

**NOTES:**

1. ALL VALVES AND FITTINGS TO BE RESTRAINED.
2. TIE INS TO BE COORDINATED WITH CITY OF WHITEHORSE ENGINEERING AND WATER AND WASTE DEPARTMENTS.
3. SYMBOL SIZE NOT TO SCALE. CONTRACTOR TO CONFIRM LOCATIONS OF HYDRANTS, VALVES, REDUCERS AND TEES BASED ON ACTUAL DIMENSIONS OF PRODUCTS SUPPLIED.

**NOTES:**

1. ALL STATIONING IS IN METRES & DECIMAL THEREOF.
2. ALL LEGAL PINS AND COORDINATE CONTROL MONUMENTS TO BE PROTECTED. ANY LOSS OR DAMAGE DUE TO CONTRACTOR'S WORKMANSHIP WILL BE REPLACED AT CONTRACTOR'S EXPENSE.
3. LOCATIONS SHOWN FOR ALL EX. UTILITIES ARE APPROXIMATE ONLY. CONTRACTOR WILL BE REQUIRED TO ENSURE ALL EX. UTILITIES ARE PROPERLY LOCATED TO CONFIRM LOCATION AND ELEVATION, AND ARE PROTECTED DURING CONSTRUCTION.
4. ALL MATERIALS TO BE DISPOSED OF SHALL BE TAKEN TO DUMP SITES, AS APPROVED BY THE ENGINEER.
5. ALL MATERIALS AND CONSTRUCTION SHALL BE TO CITY OF WHITEHORSE SERVICING STANDARDS MANUAL.
6. LOT GRADES SHOWN ON THIS DRAWING REPRESENT FINAL LANDSCAPED ELEVATIONS. CONTRACTOR TO REFER TO PRE-GRADING PLAN FOR LOT CORNER ELEVATIONS DURING CONSTRUCTION.



CITY OF WHITEHORSE  
DESIGN APPROVALS

MANAGER OF OPERATIONS	DATE
MANAGER OF ENGINEERING SERVICES	DATE
MANAGER OF WATER & WASTE SERVICES	DATE



Suite 301-4109 4th Ave.  
Whitehorse, Yukon  
Canada Y1A 1H6  
Phone: 867-456-2711  
Fax: 604-291-6163

**Associated Engineering**

**REVISIONS :**

NO.	DATE	ENG.	SUBJECT
0	2024 MAY 21	S.B.	ISSUED FOR TENDER

PROJECT :  
**TA'AN KWACH'AN C-9B  
SUBDIVISION - PHASE 2**

DRAWING TITLE :  
**WATER MAIN DETAILS**

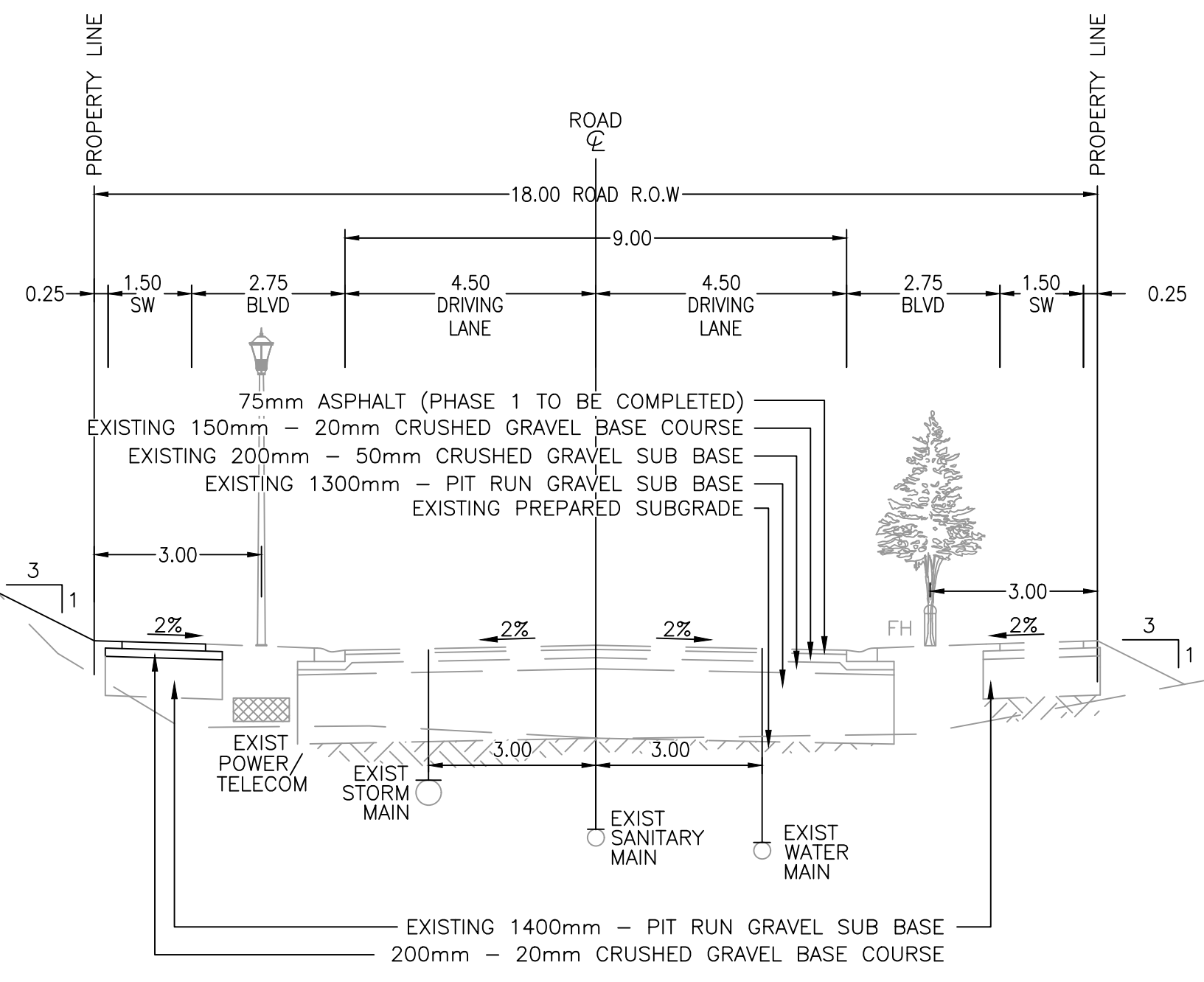
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DATE :	2024/05/24
DESIGN :	J.S.
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CHECKED :	S.B.
APPROVED :	S.B.

DRAWING NUMBER :	SHEET :
2183-17A-C-106	17

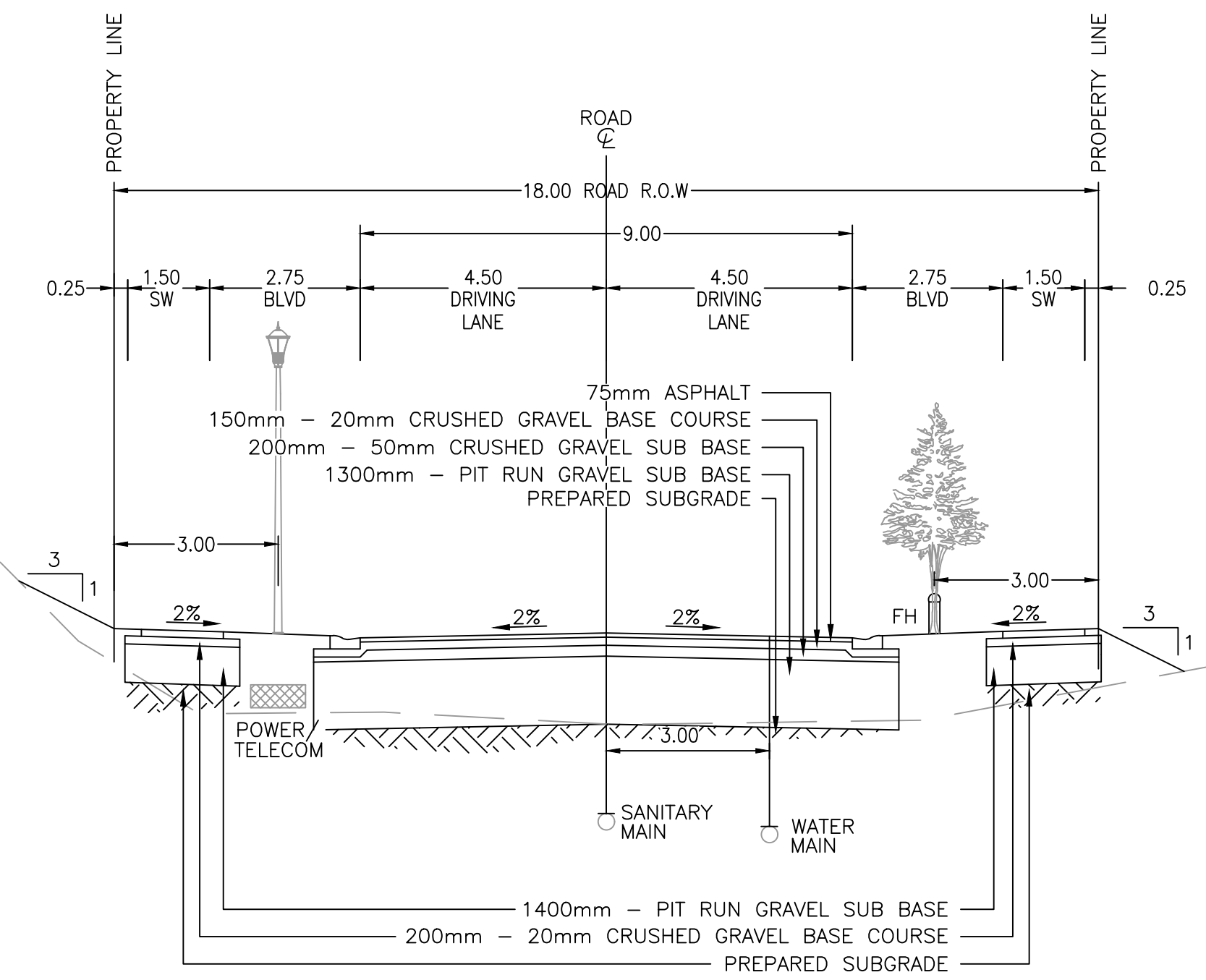




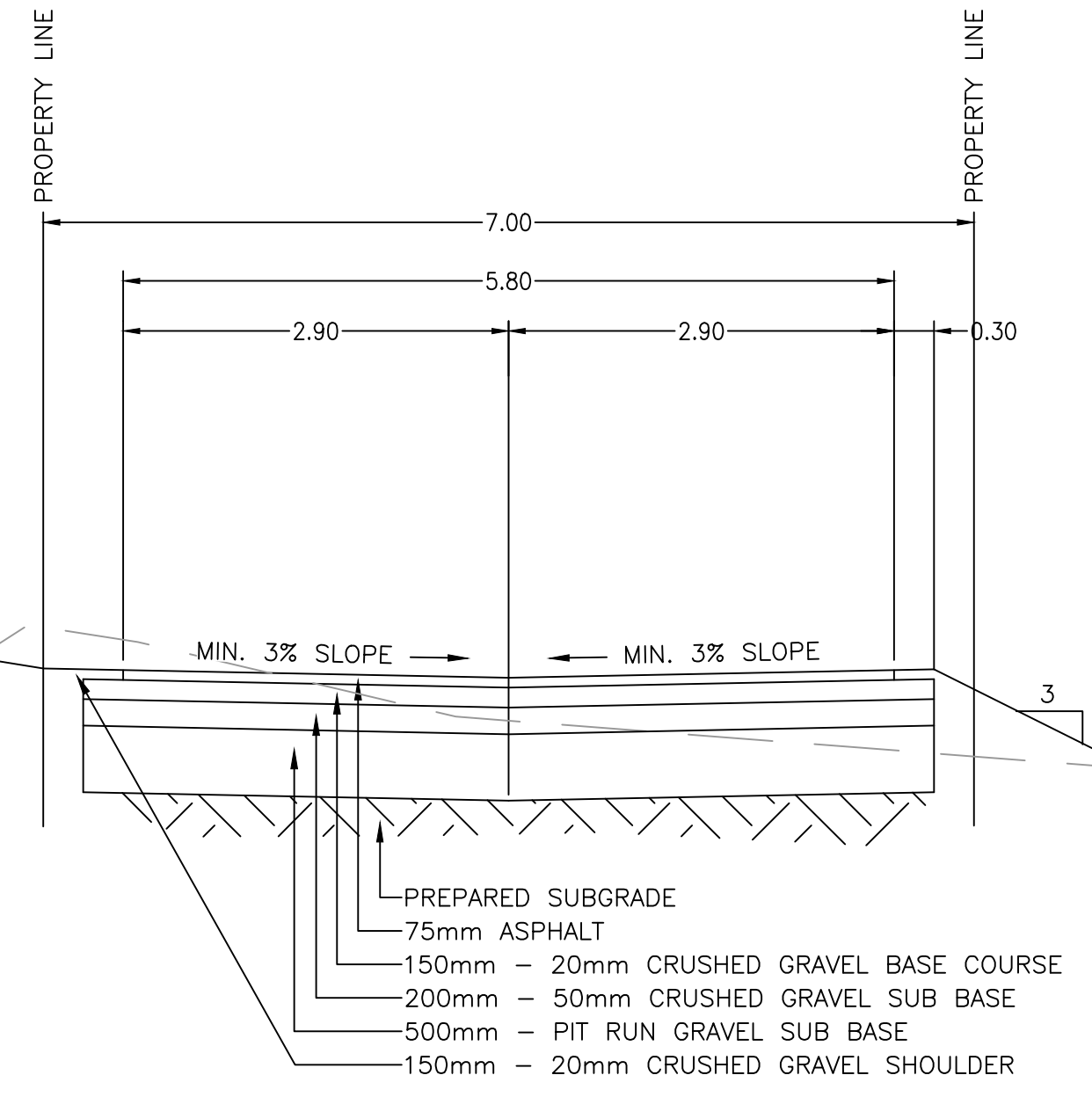




**KISHWÓOT STREET**  
**STA 1+000 - 1+220**  
 SCALE: 1:100



**KISHWÓOT STREET**  
**STA 1+220 - 1+320**  
 SCALE: 1:100



**7.0m LANE**  
 SCALE: 1:50

- NOTES:**
1. ALL SECTIONS ARE LOOKING UP CHAINAGE
  2. INFILL BETWEEN BACK OF CURB AND SIDEWALK IN BOULEVARDS TO WITHIN 25mm OF FUTURE TOPSOIL ELEVATION. MATERIAL FOR FILL TO BE APPROVED BY ON SITE ENGINEER.
  3. SIDEWALK STRUCTURE TYPICAL FOR BOTH SIDES OF ROAD
  4. REFER TO TYPICAL DETAILS FOR EXTENTS OF BASE AND SUB BASE BEYOND ASPHALT AND CONCRETE (MINIMUM 300mm).

PERMIT TO PRACTICE  
 ASSOCIATED ENGINEERING (CIC) LTD.  
 SIGNATURE: [Signature]  
 Date: 2024-05-20  
 PERMIT NUMBER PPO60  
 Association of Professional  
 Engineers of Yukon

**CITY OF WHITEHORSE**  
**DESIGN APPROVALS**

MANAGER OF OPERATIONS	DATE
MANAGER OF ENGINEERING SERVICES	DATE
MANAGER OF WATER & WASTE SERVICES	DATE



Suite 301-4109 4th Ave.  
 Whitehorse, Yukon  
 Canada Y1A 1H6  
 Phone: 867-456-2711  
 Fax: 604-291-6163

**Associated Engineering**

**REVISIONS :**

NO.	DATE	ENG.	SUBJECT
0	2024 MAY 21	S.B.	ISSUED FOR TENDER

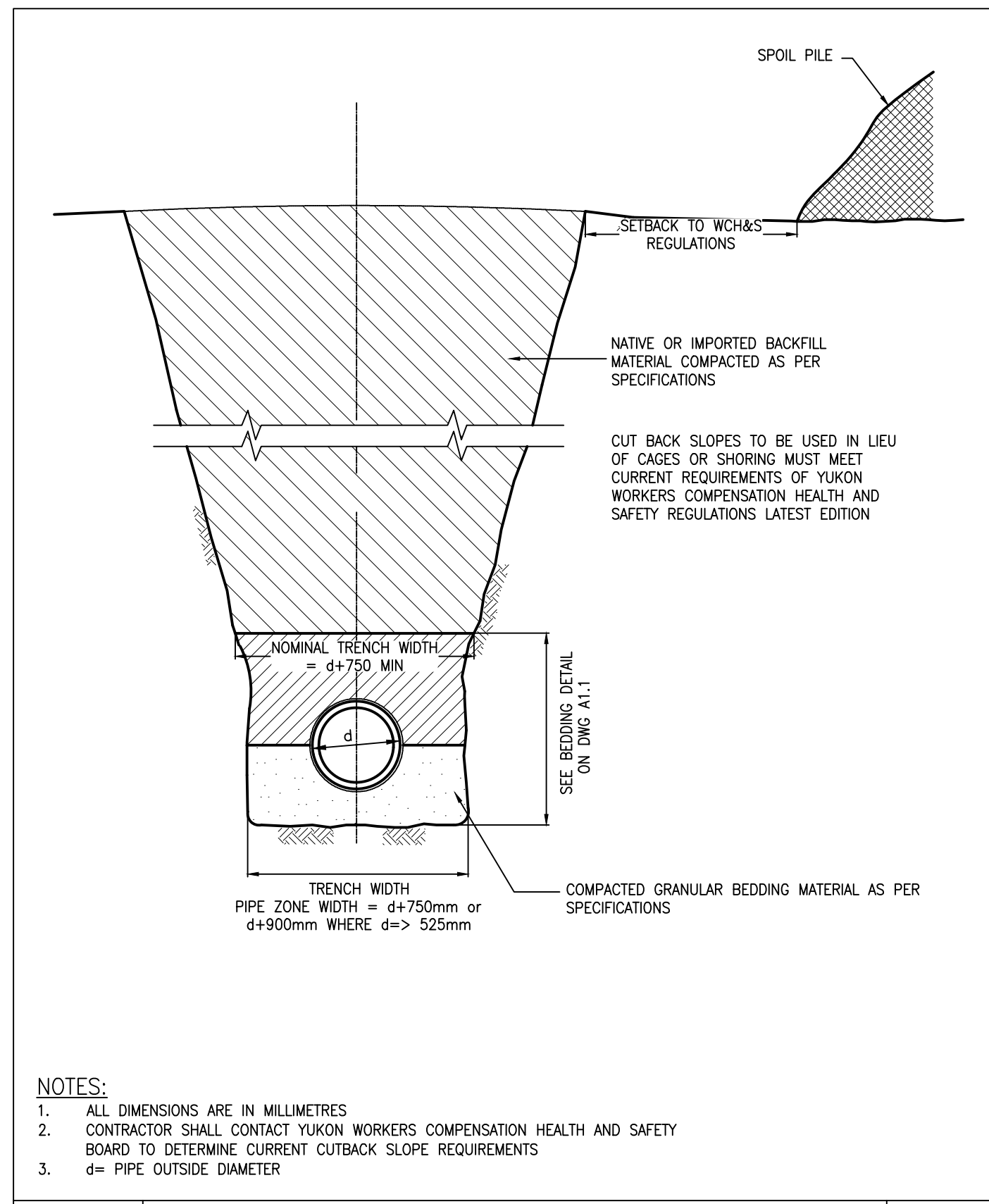
**PROJECT :**  
**TA'AN KWACH'AN C-9B**  
**SUBDIVISION - PHASE 2**

**DRAWING TITLE :**  
**TYPICAL CROSS**  
**SECTIONS**

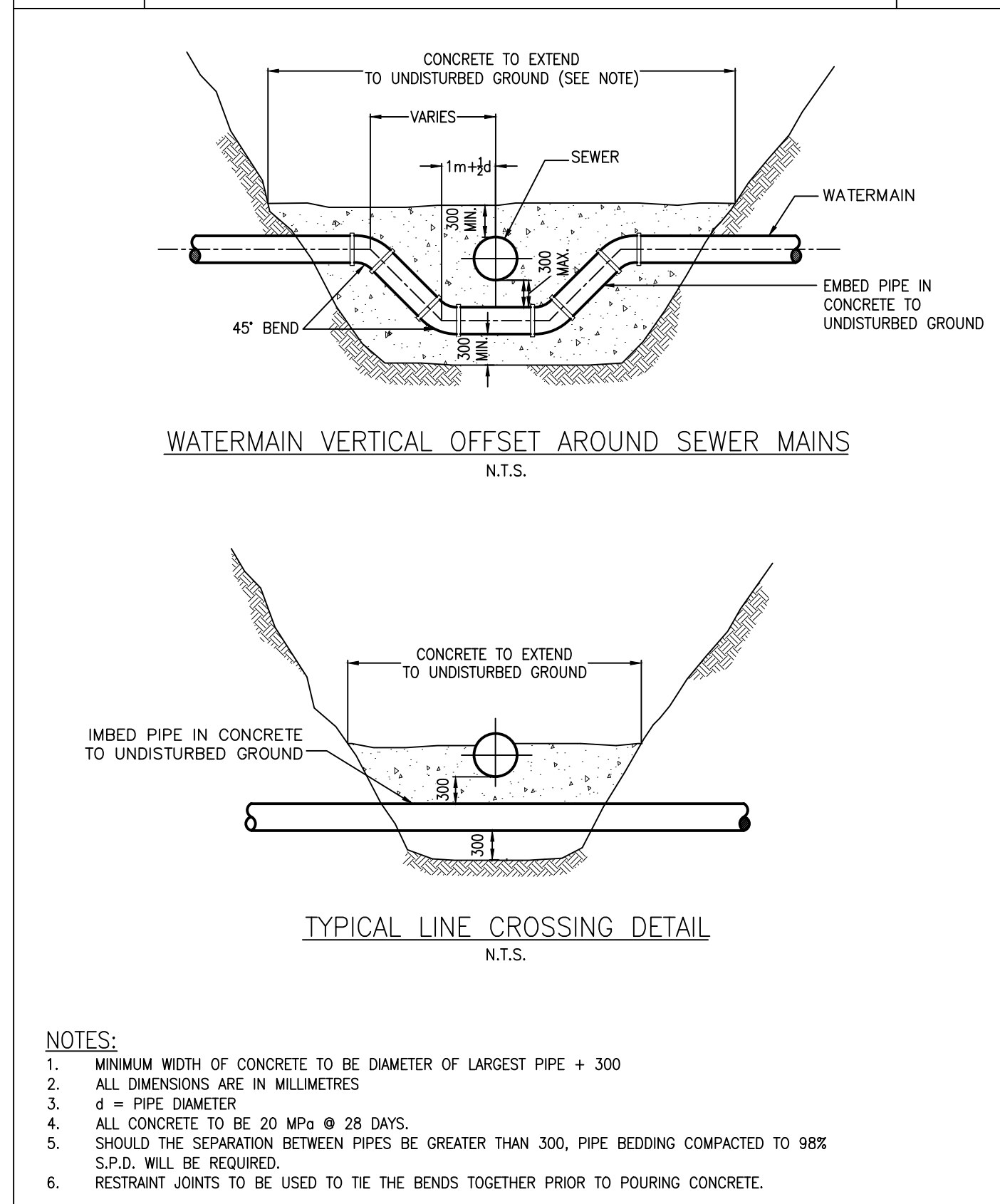
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APPROVED :	S.B.

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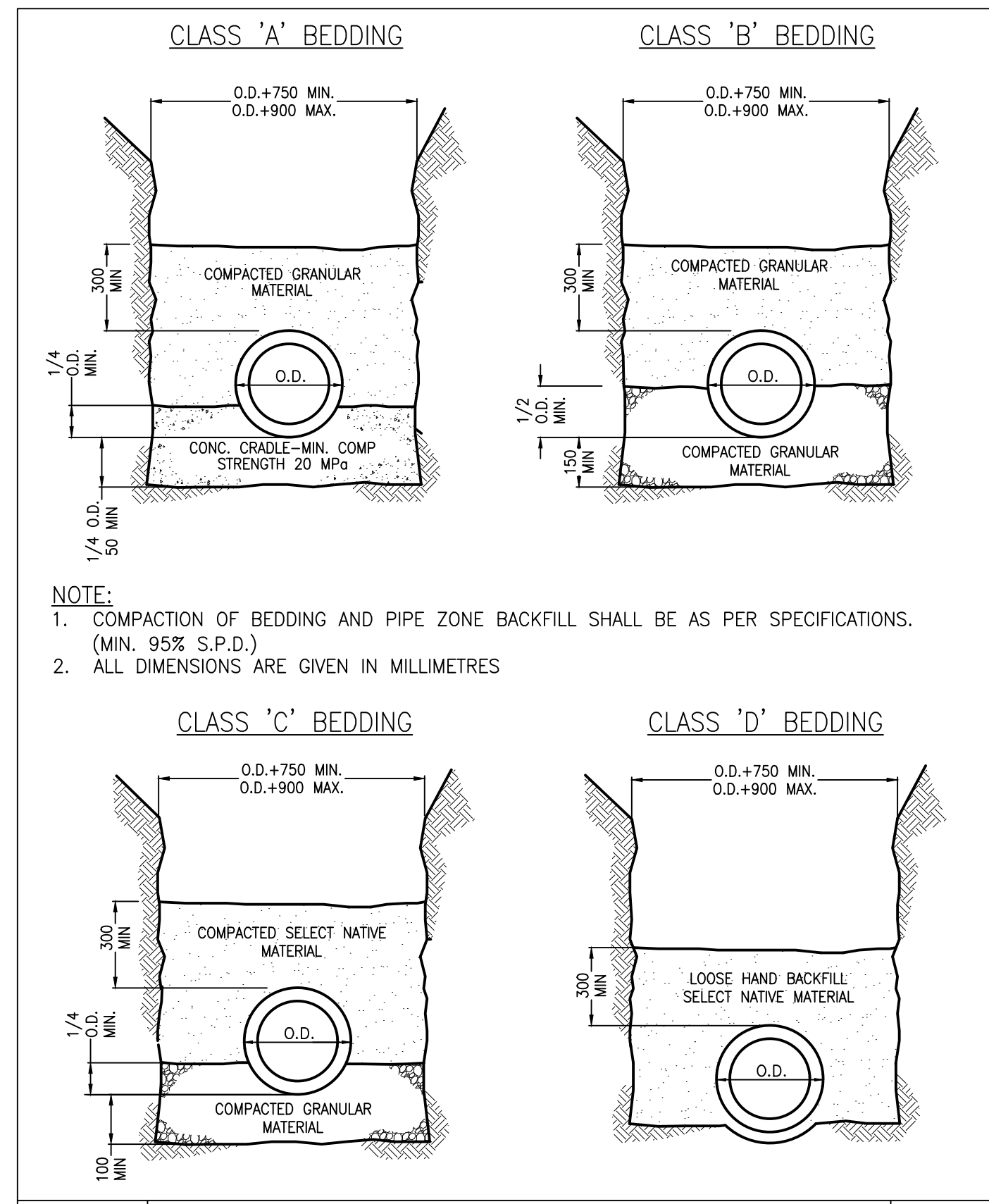




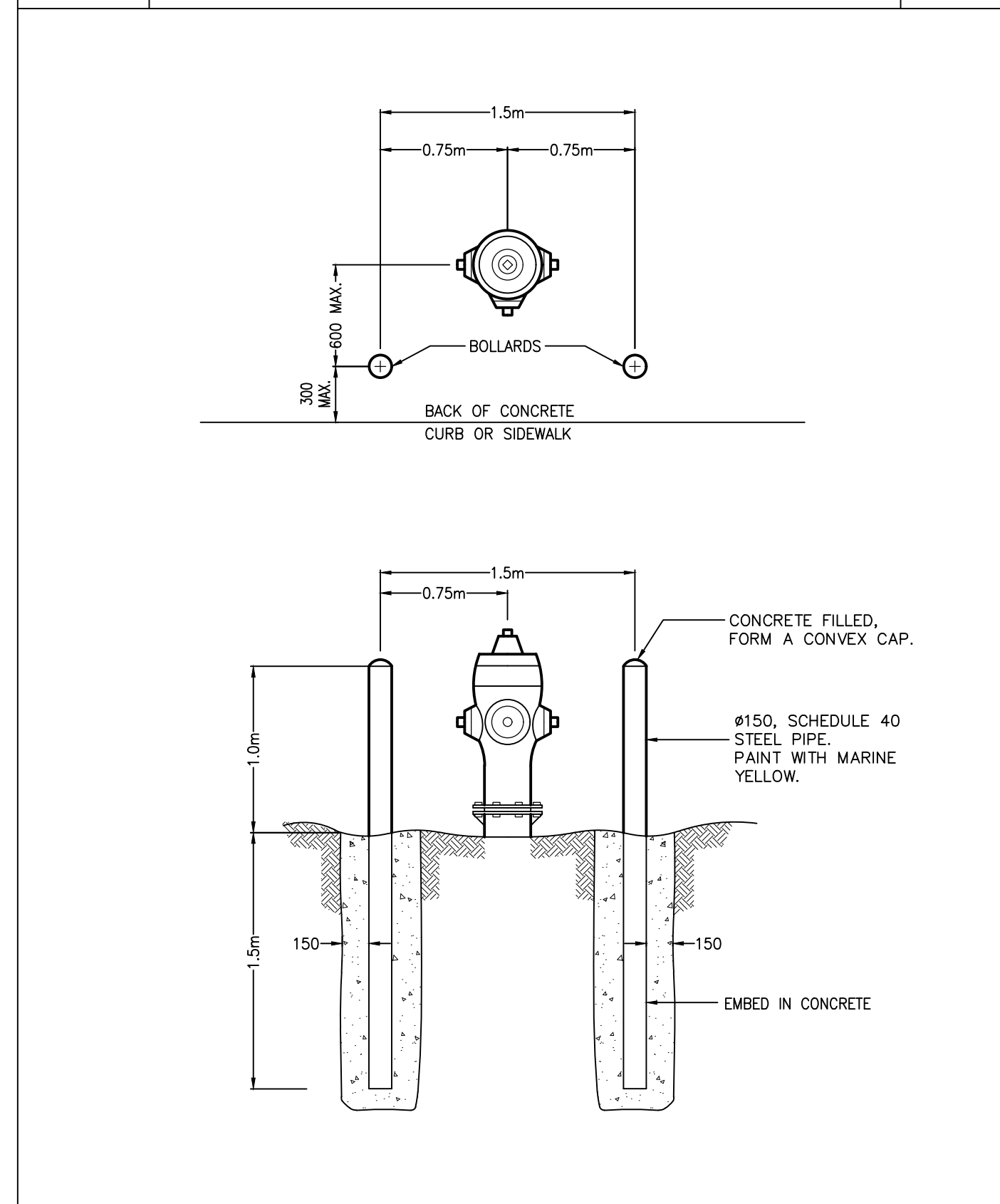
	<b>TRENCHING WIDTHS</b>	STD DWG
	A1.0	
DATE: JANUARY 2007		



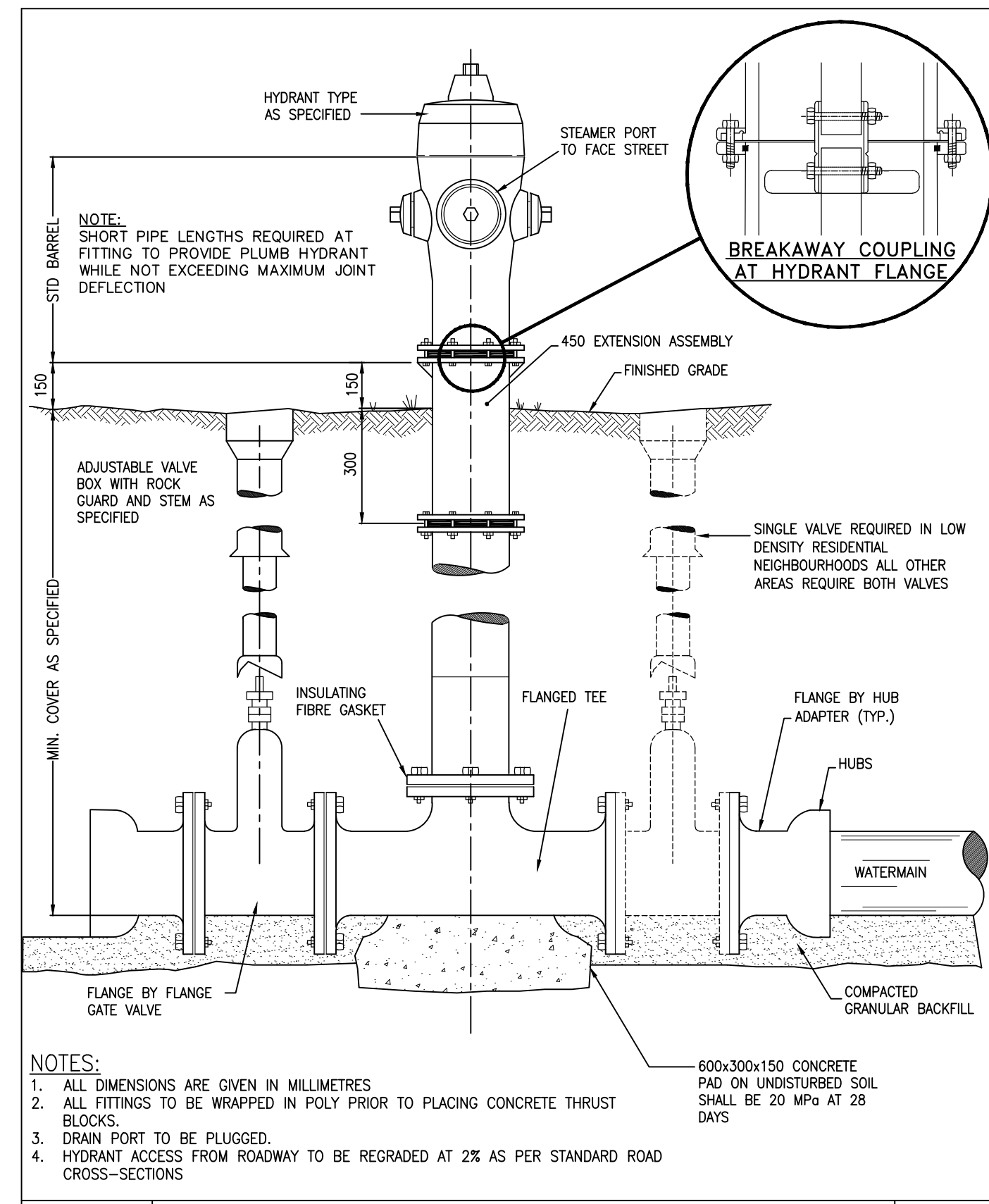
	<b>TYPICAL WATER &amp; SEWER LINE CROSSING DETAILS</b>	STD DWG
	A2.3	
DATE: JANUARY 2007		



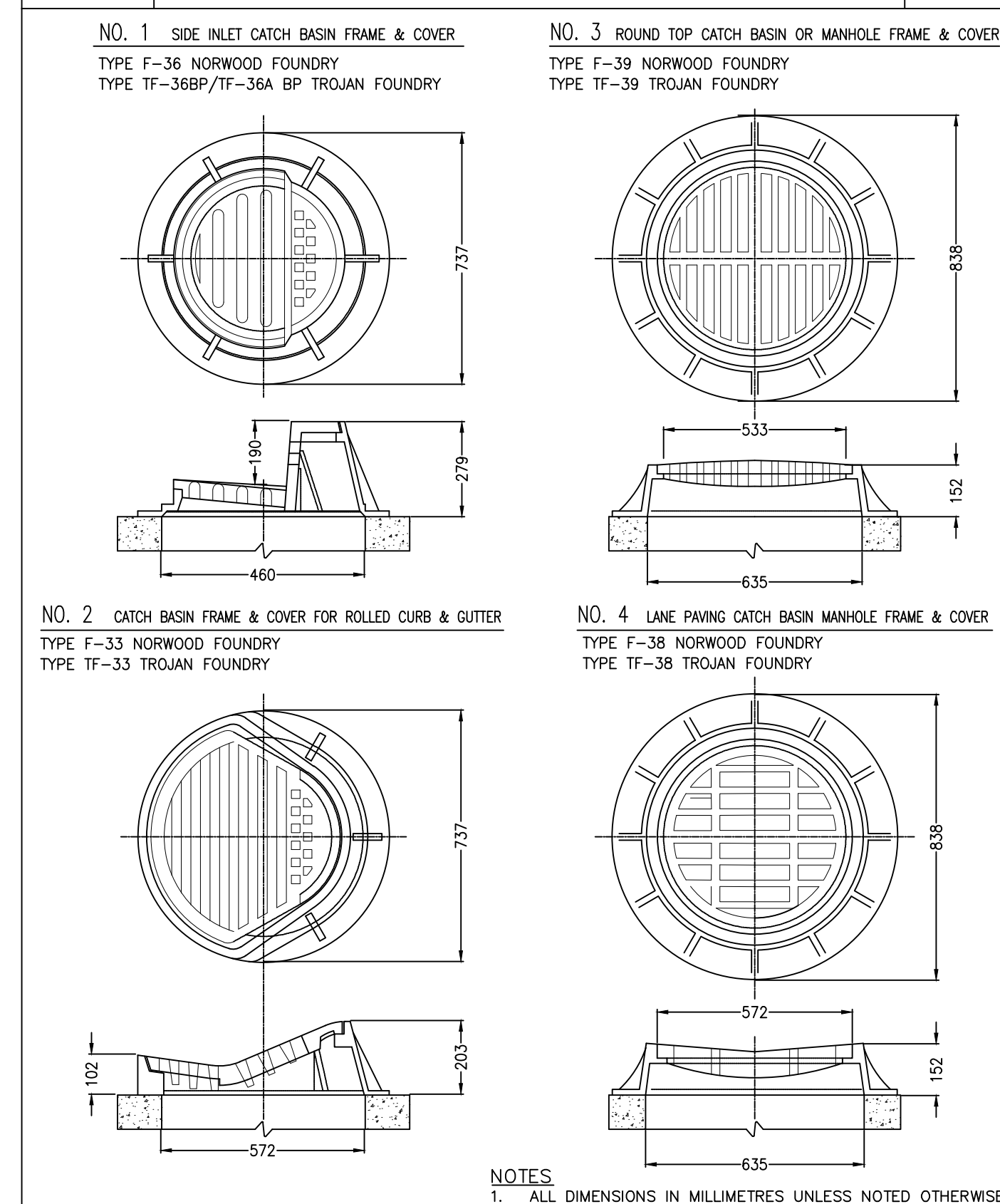
	<b>PIPE BEDDING DETAILS</b>	STD DWG
	A1.1	
DATE: JANUARY 2007		



	<b>BOLLARD DETAIL</b>	STD DWG
	A2.4	
DATE: JANUARY 2007		



	<b>STANDARD ON-LINE HYDRANT DETAIL</b>	STD DWG
	A2.0	
DATE: JANUARY 2020		



	<b>STANDARD FRAMES AND COVERS FOR CATCH BASINS &amp; CB MANHOLES</b>	STD DWG
	A3.0	
DATE: JANUARY 2020		

- NOTES:
- ALL MATERIALS TO BE DISPOSED OF SHALL BE TAKEN TO DUMP SITES, AS APPROVED BY THE ENGINEER.
  - ALL MATERIALS AND CONSTRUCTION SHALL BE TO CITY OF WHITEHORSE SERVING STANDARDS MANUAL.
  - ADDITIONAL STANDARD DETAILS FROM THE CITY OF WHITEHORSE SERVING STANDARDS MANUAL MAY BE REFERENCED THROUGHOUT THE PROJECT AND NOT INCLUDED IN THE TYPICAL DETAIL SHEETS. A FULL LIST OF DETAILS AVAILABLE AT THE LINK: <https://www.whitehorse.ca/business-in-whitehorse/zoning-engineering-standards>. PART 4

<b>CITY OF WHITEHORSE DESIGN APPROVALS</b>	
MANAGER OF OPERATIONS	DATE
MANAGER OF ENGINEERING SERVICES	DATE
MANAGER OF WATER & WASTE SERVICES	DATE



Suite 301-4109 4th Ave.  
 Whitehorse, Yukon  
 Canada Y1A 1H6  
 Phone: 867-456-2711  
 Fax: 604-291-6163

<b>REVISIONS :</b>			
NO.	DATE	ENG.	SUBJECT
0	2024 MAY 21	S.B.	ISSUED FOR TENDER

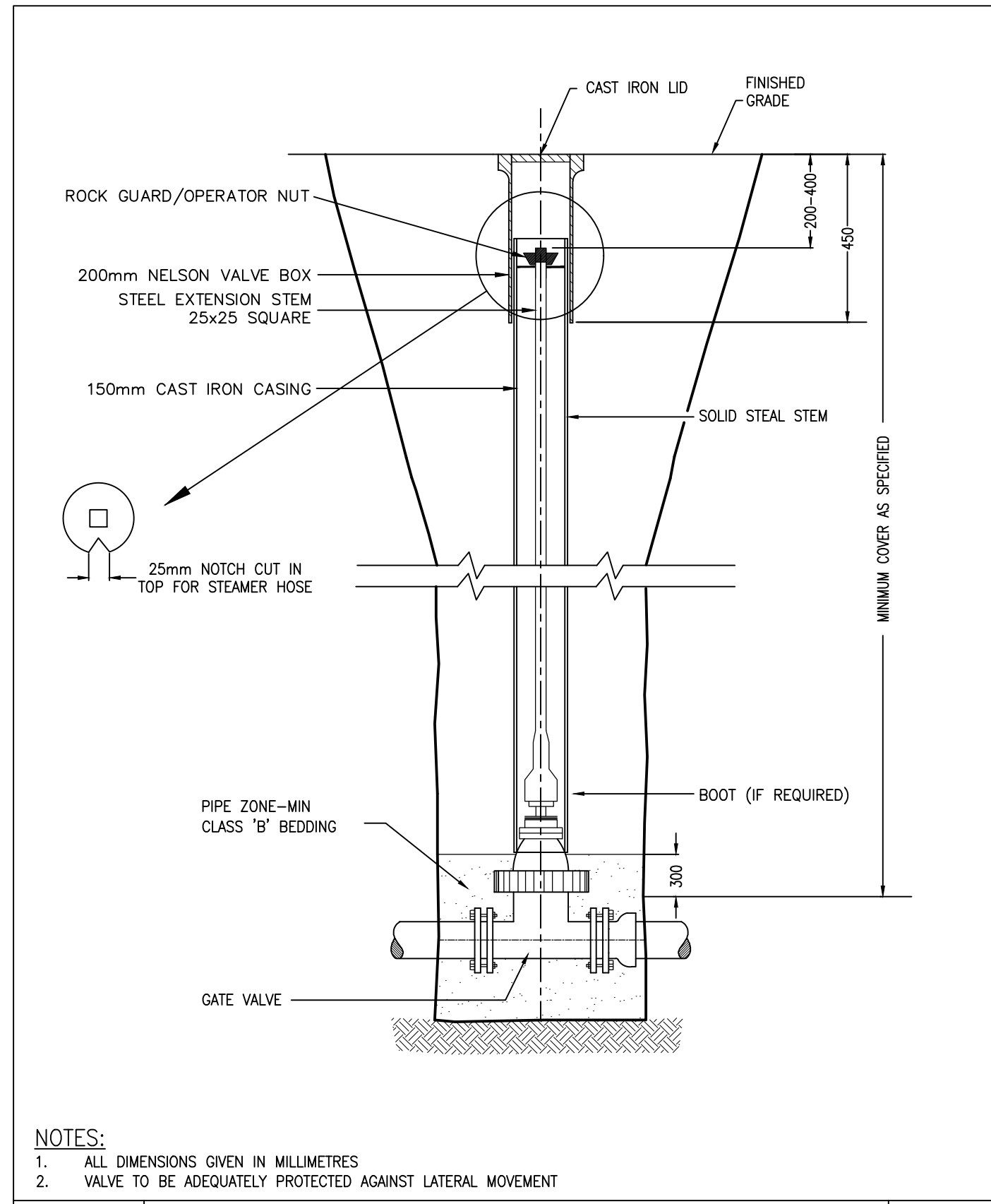
PROJECT :  
**TA'AN KWACH'AN C-9B SUBDIVISION - PHASE 2**

DRAWING TITLE :  
**TYPICAL DETAILS SHEET 1 OF 7**

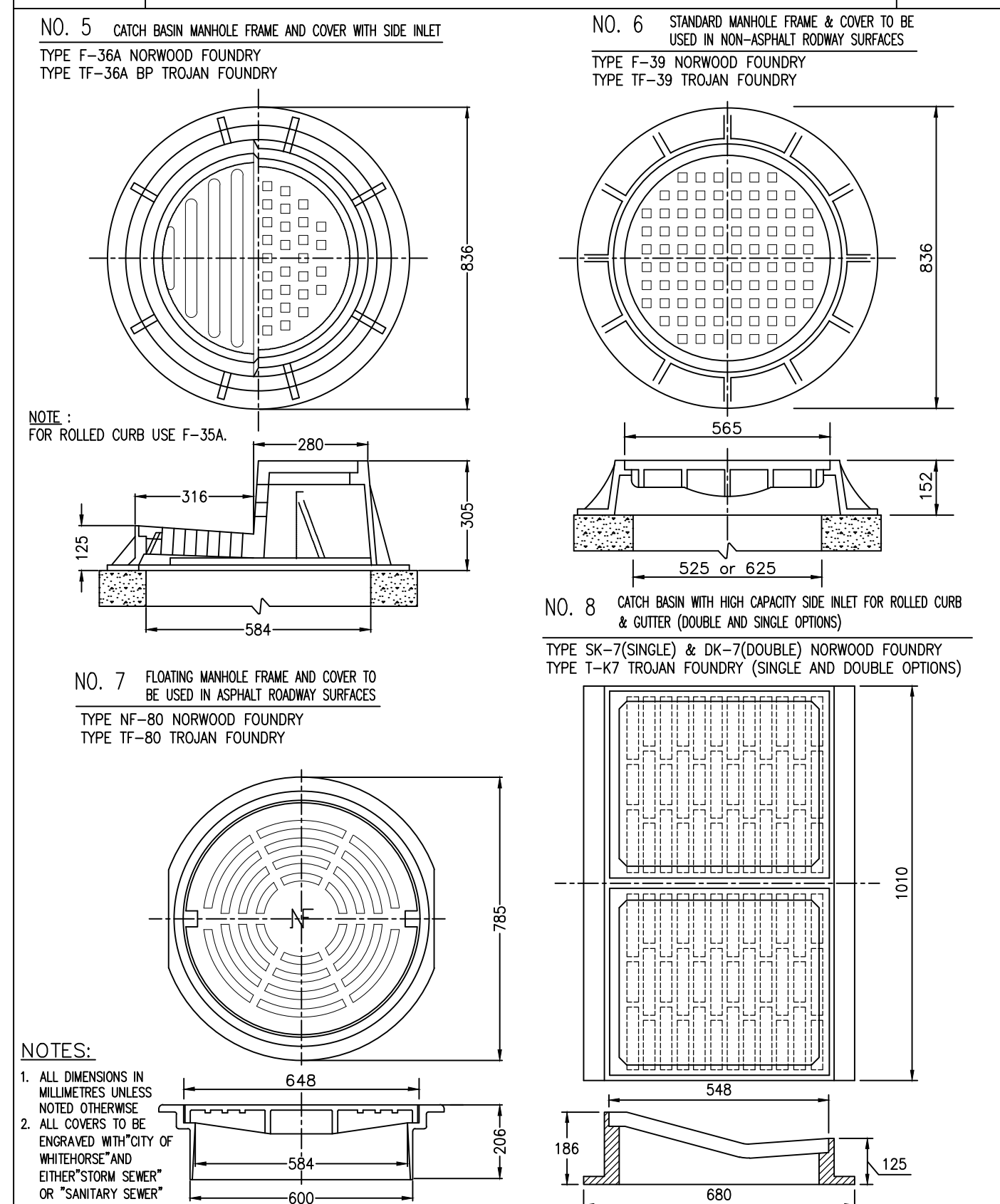
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CHECKED :	S.B.
APPROVED :	S.B.

DRAWING NUMBER :	SHEET :
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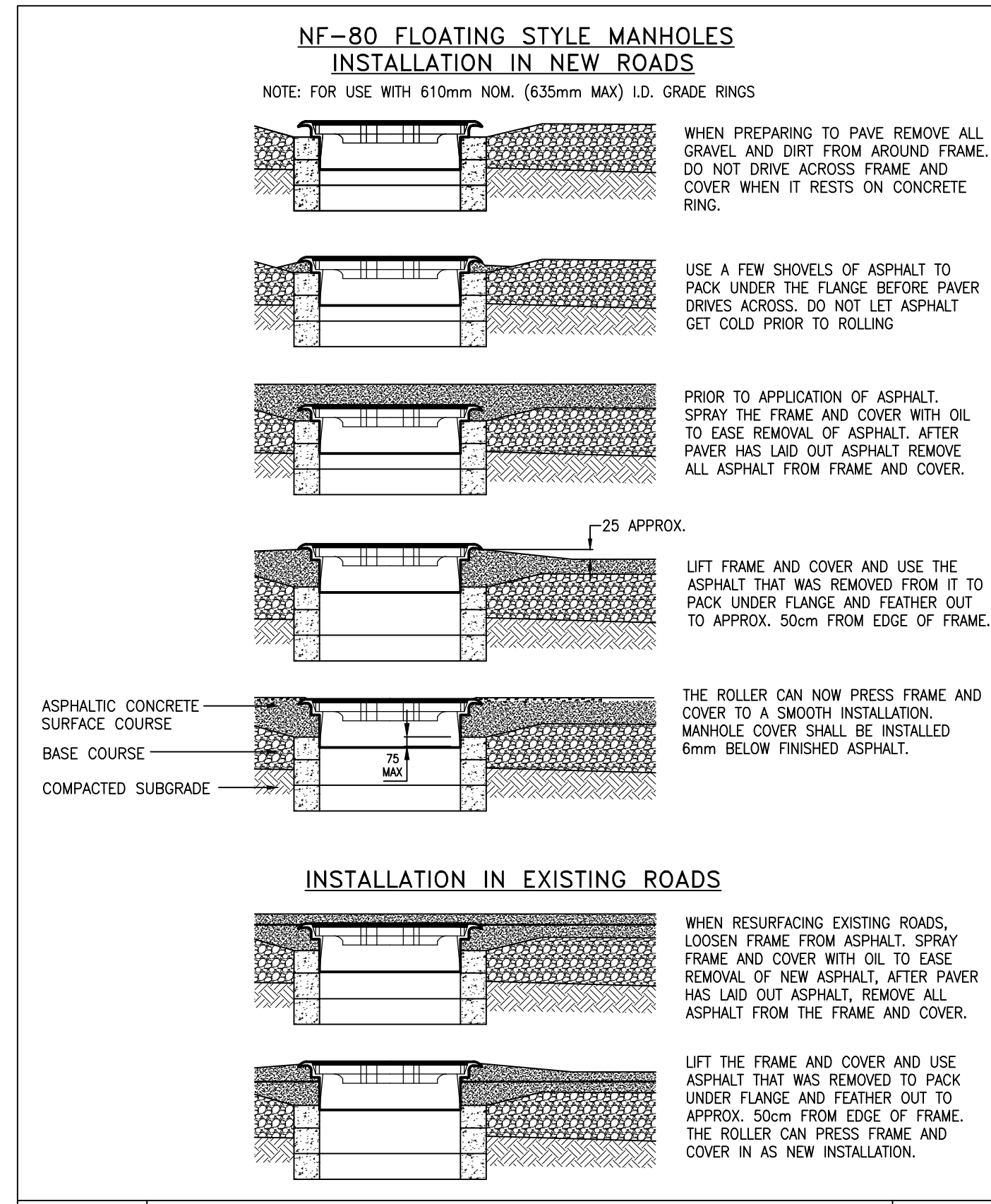




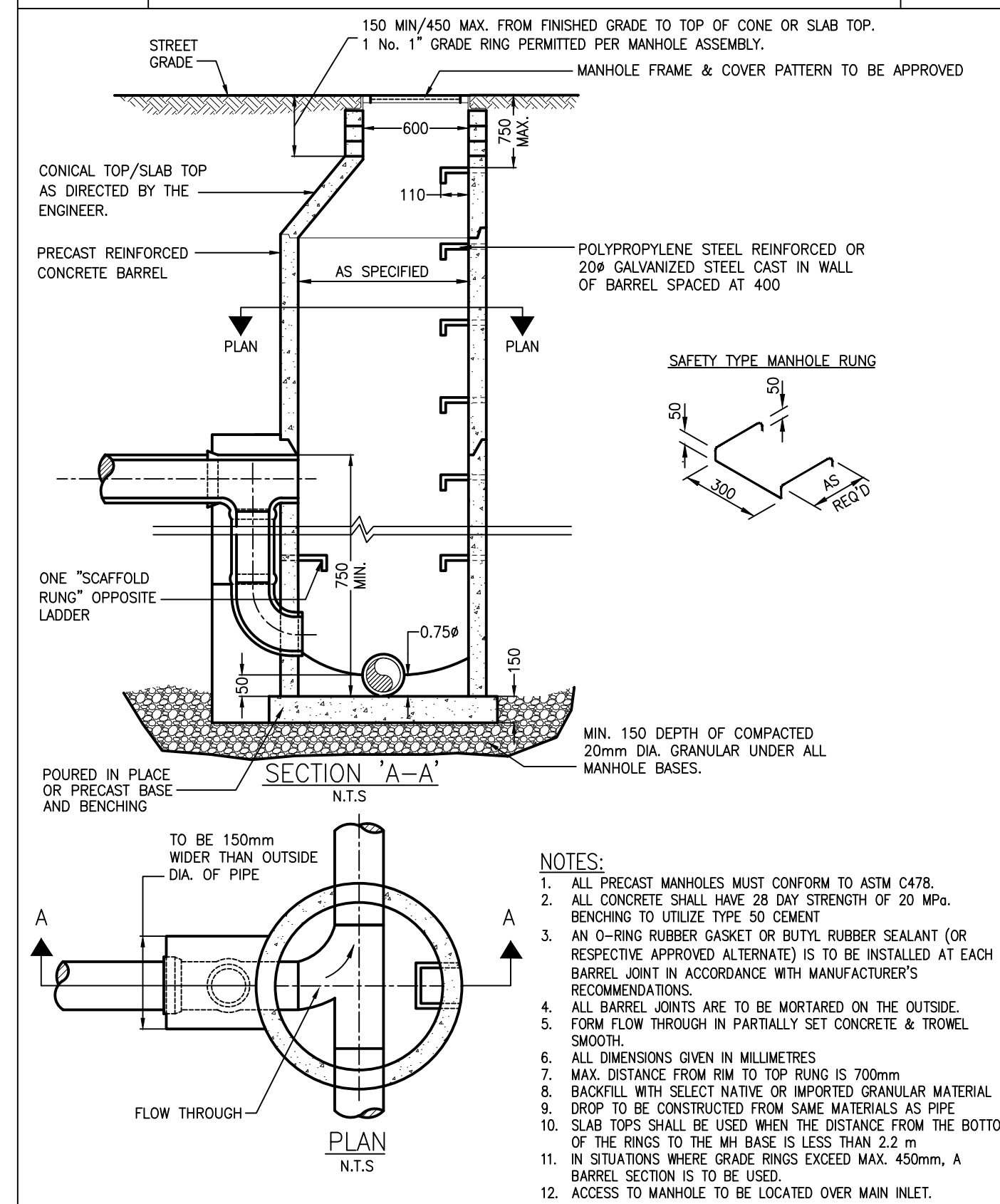
**STANDARD VALVE INSTALLATION DETAIL**  
 STD DWG  
**A2.1**  
 DATE: JANUARY 2015



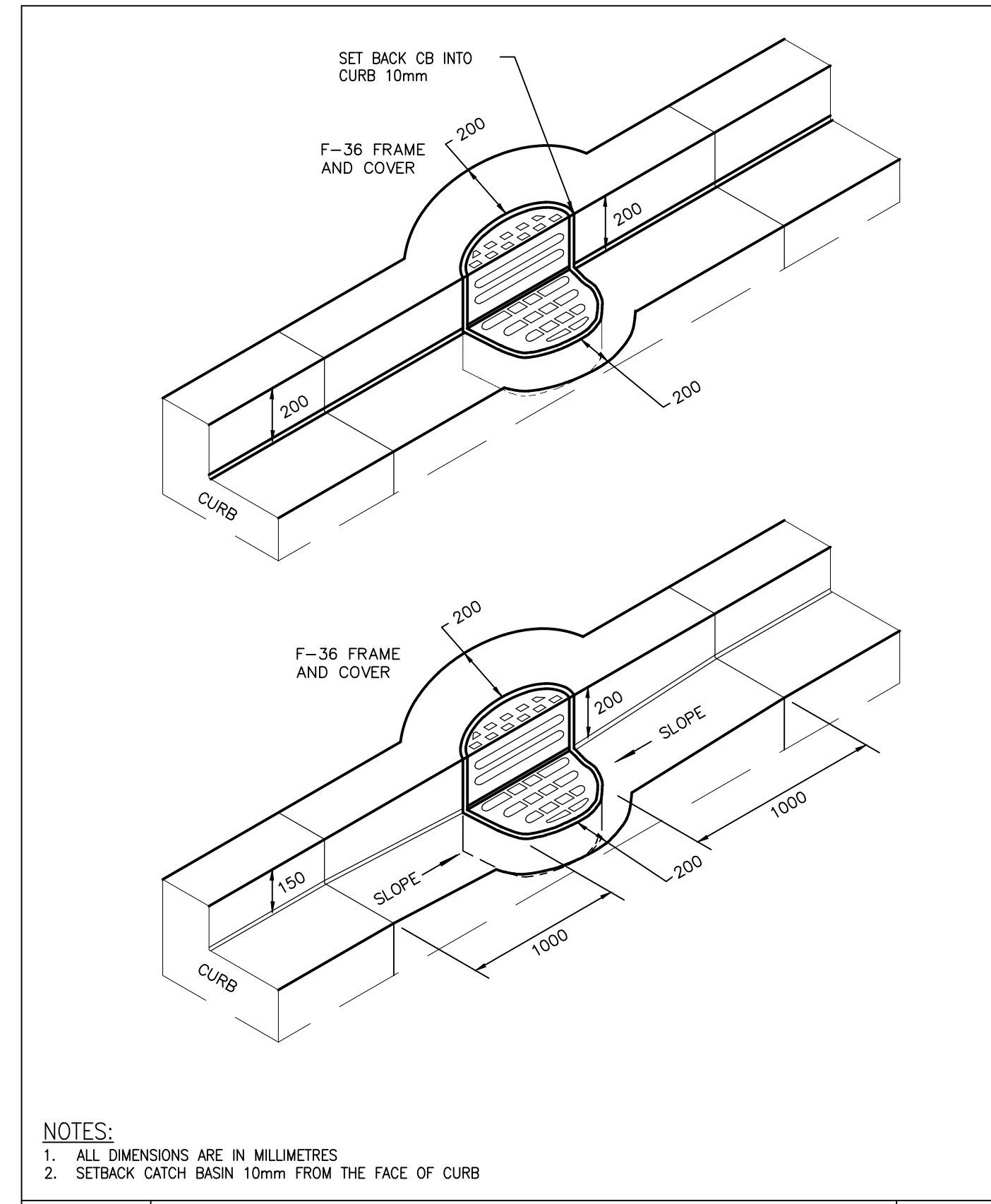
**STANDARD FRAMES AND COVERS FOR MANHOLES AND CATCH BASINS**  
 STD DWG  
**A3.1**  
 DATE: JANUARY 2020



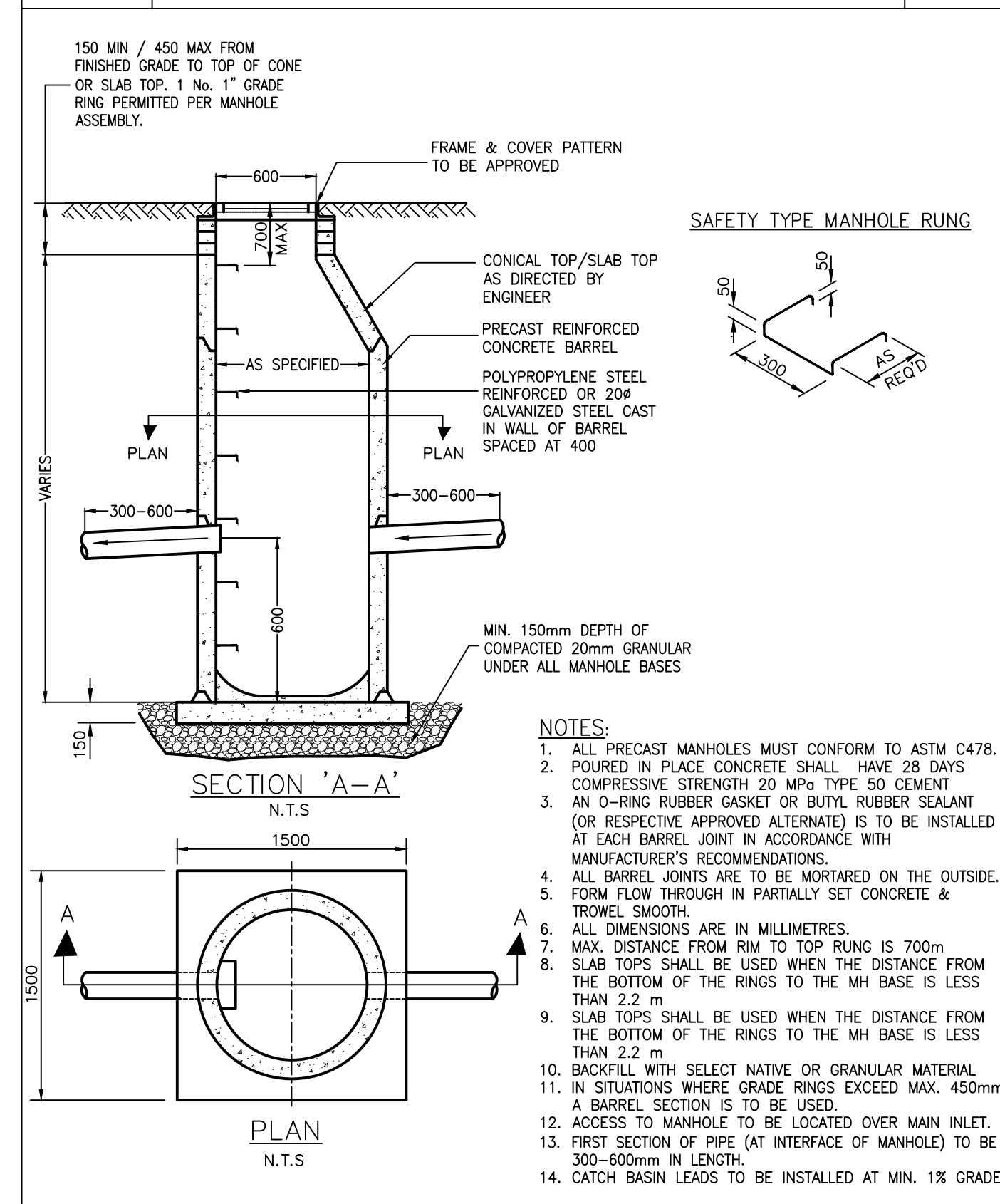
**FLOATING MANHOLE COVER INSTALLATION**  
 STD DWG  
**A3.1a**  
 DATE: DECEMBER 2010



**DROP MANHOLE DETAIL**  
 STD DWG  
**A4.2**  
 DATE: JANUARY, 2020



**TYPICAL CATCH BASIN INSTALLATION DETAIL FOR 150 AND 200 BARRIER CURB**  
 STD DWG  
**A3.3**  
 DATE: JANUARY 2020



**CATCH BASIN MANHOLE**  
 STD DWG  
**A4.3**  
 DATE: JANUARY, 2020

**NOTES:**  
 1. ALL MATERIALS TO BE DISPOSED OF SHALL BE TAKEN TO DUMP SITES, AS APPROVED BY THE ENGINEER.  
 2. ALL MATERIALS AND CONSTRUCTION SHALL BE TO CITY OF WHITEHORSE SERVICING STANDARDS MANUAL.  
 3. ADDITIONAL STANDARD DETAILS FROM THE CITY OF WHITEHORSE SERVICING STANDARDS MANUAL MAY BE REFERENCED THROUGHOUT THE PROJECT AND NOT INCLUDED IN THE TYPICAL DETAIL SHEETS. A FULL LIST OF DETAILS AVAILABLE AT THE LINK: [HTTPS://WWW.WHITEHORSE.CA/BUSINESS-IN-WHITEHORSE/ZONING-ENGINEERING-STANDARDS](https://www.whitehorse.ca/business-in-whitehorse/zoning-engineering-standards). PART 4

**PERMIT TO PRACTICE**  
 ASSOCIATED ENGINEERING (CIC) LTD.  
 SIGNATURE: [Signature]  
 Date: 2024-05-20  
 PERMIT NUMBER: PP060  
 Association of Professional Engineers of Yukon

**CITY OF WHITEHORSE DESIGN APPROVALS**

MANAGER OF OPERATIONS \_\_\_\_\_ DATE \_\_\_\_\_

MANAGER OF ENGINEERING SERVICES \_\_\_\_\_ DATE \_\_\_\_\_

MANAGER OF WATER & WASTE SERVICES \_\_\_\_\_ DATE \_\_\_\_\_



Suite 301-4109 4th Ave.  
 Whitehorse, Yukon  
 Canada Y1A 1H6  
 Phone: 867-456-2711  
 Fax: 604-291-6163

**Associated Engineering**

**REVISIONS :**

NO.	DATE	ENG.	SUBJECT
0	2024 MAY 21	S.B.	ISSUED FOR TENDER

**PROJECT :**  
 TA'AN KWACH'AN C-9B  
 SUBDIVISION - PHASE 2

**DRAWING TITLE :**  
 TYPICAL DETAILS  
 SHEET 2 OF 7

SCALE : N.T.S.

DATE : 2024/05/24

DESIGN : J.S.

DRAWN : J.S.

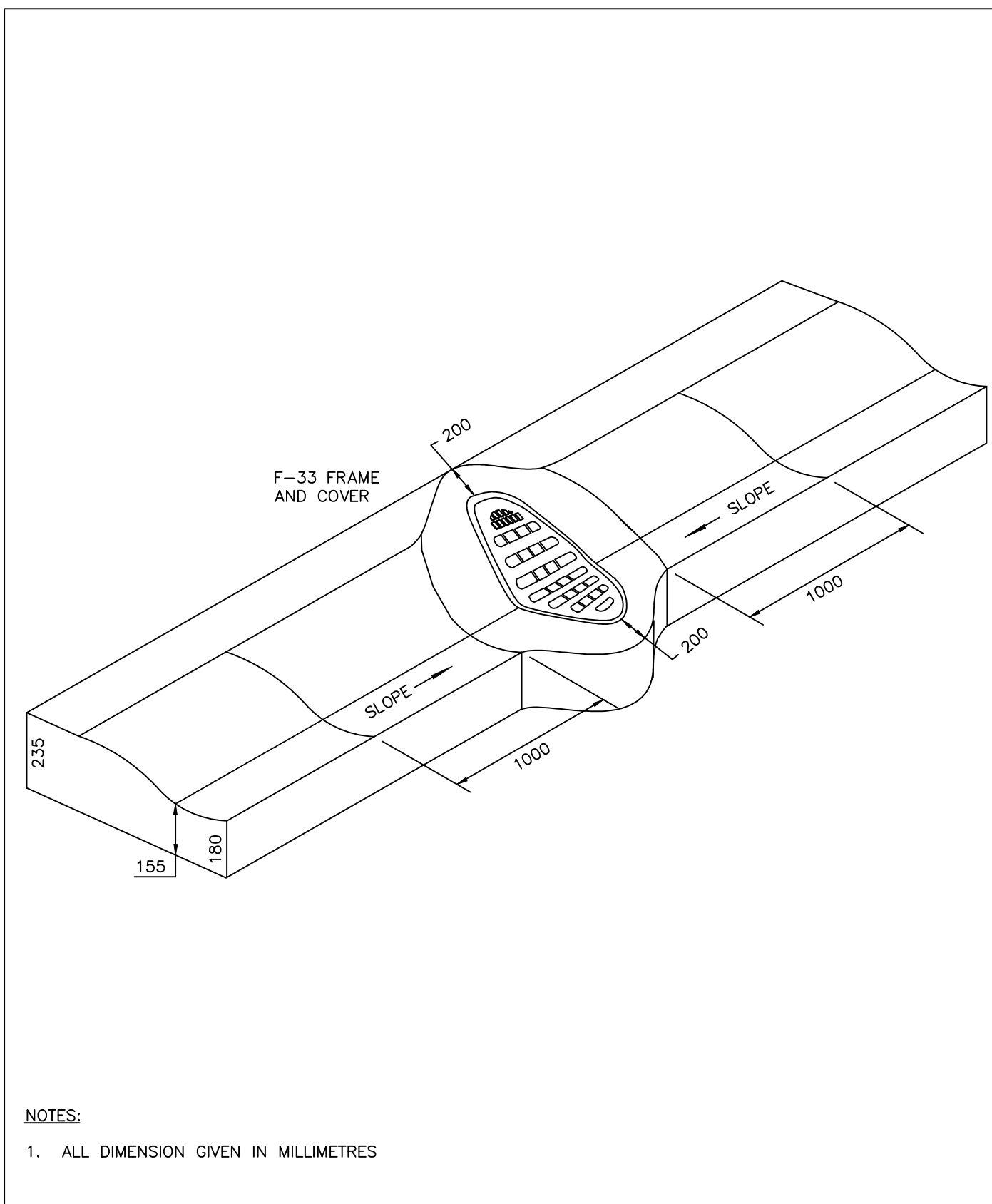
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APPROVED : S.B.

**DRAWING NUMBER :** 2183-17A-C-502

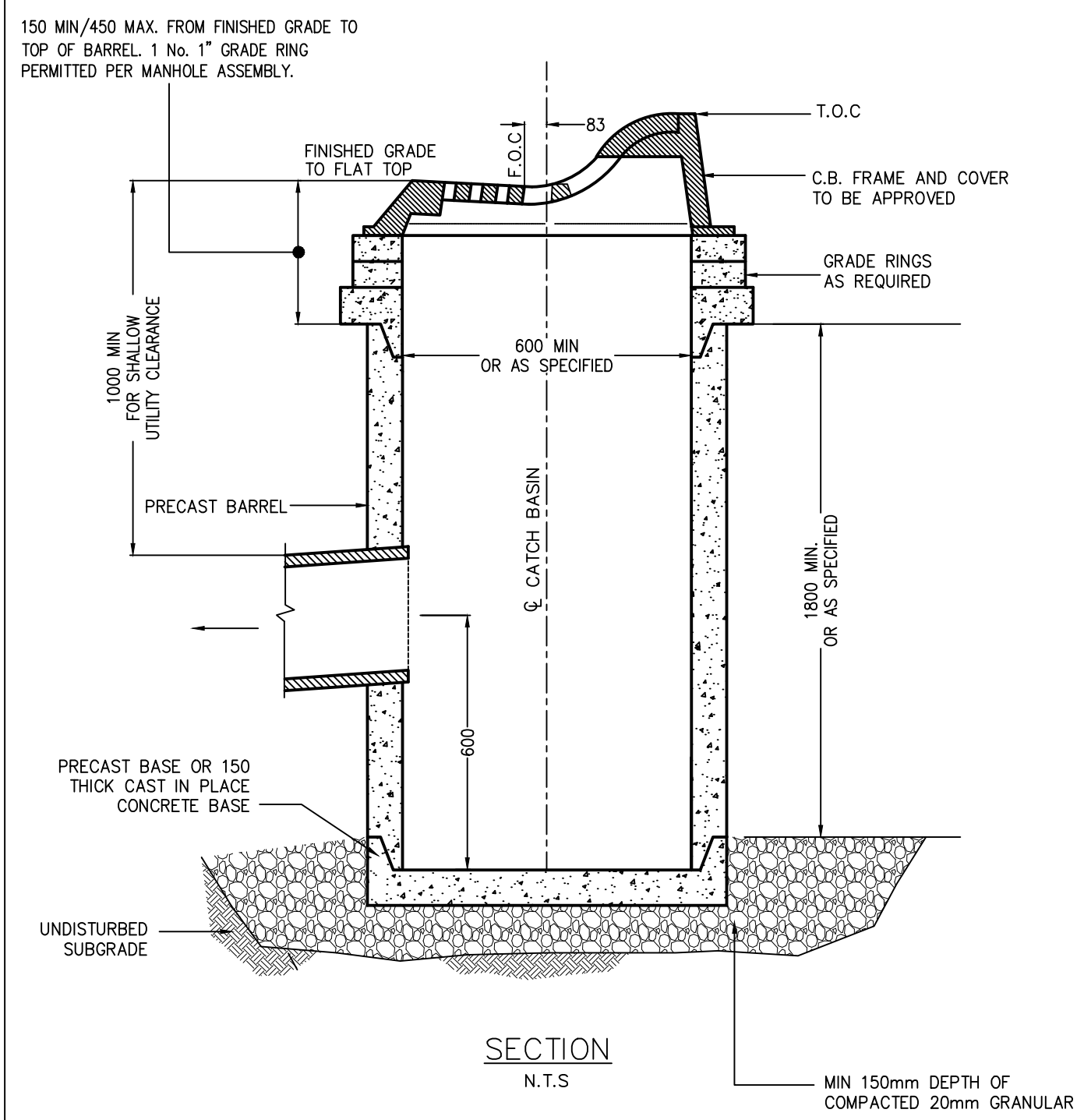
**SHEET :** 18





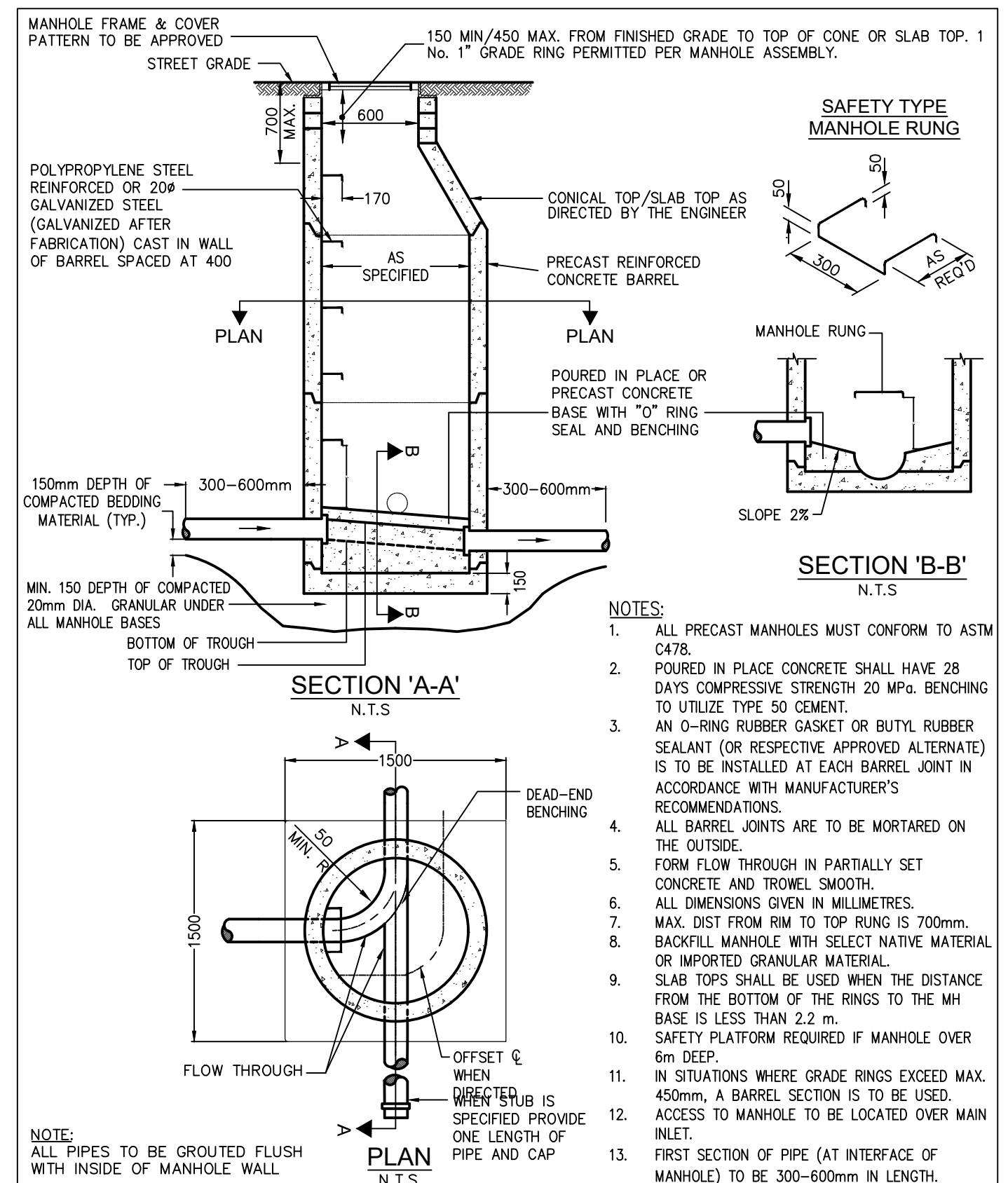
- NOTES:
1. ALL DIMENSION GIVEN IN MILLIMETRES

**TYPICAL CATCH BASIN INSTALLATION DETAIL FOR ROLLED CURB** STD DWG  
A3.4  
DATE: JANUARY, 2020



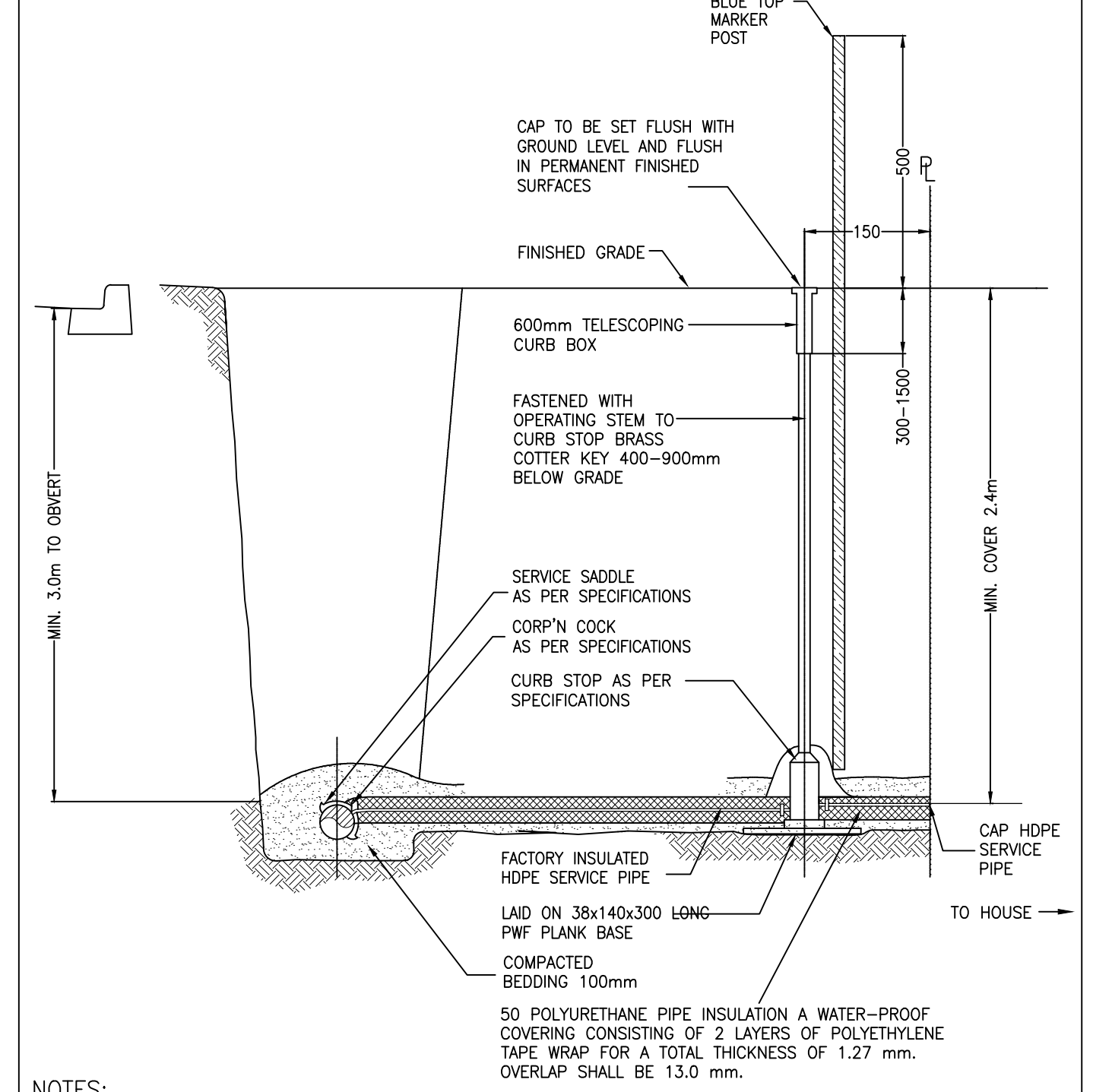
- NOTES:
1. ALL PRECAST MANHOLES MUST CONFORM TO ASTM C478.
  2. POURED IN PLACE CONCRETE SHALL HAVE 28 DAYS COMPRESSIVE STRENGTH 20 MPa TYPE 50 CEMENT.
  3. ALL DIMENSIONS ARE IN MILLIMETRES.
  4. BACKFILL WITH SELECT NATIVE OR GRANULAR MATERIAL.
  5. CATCH BASIN LEADS TO BE INSTALLED AT MIN. 1% GRADE.

**ROLLED CURB PRECAST CATCH BASIN WITH SUMP** STD DWG  
A4.5  
DATE: JANUARY, 2020



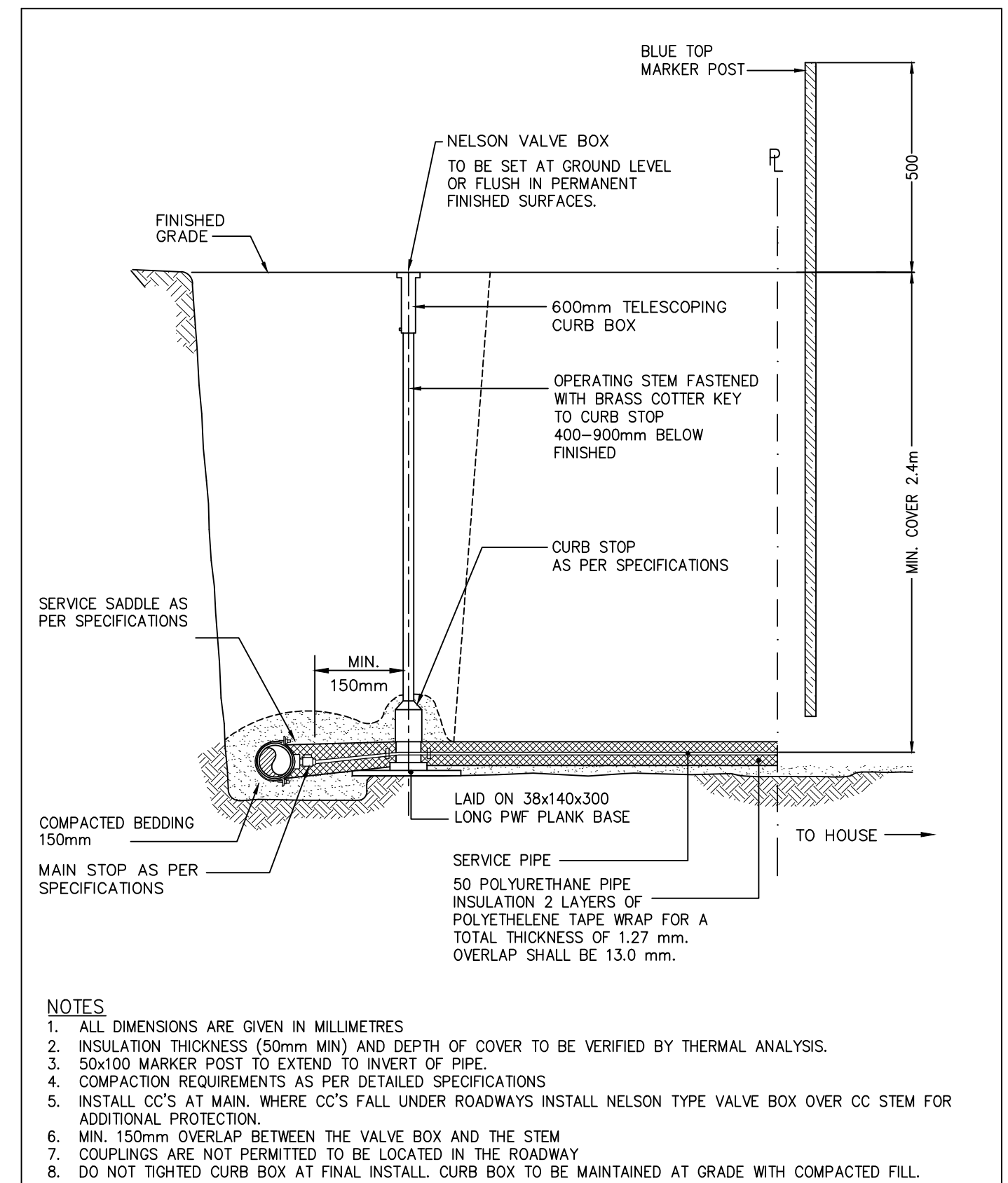
- NOTES:
1. ALL PRECAST MANHOLES MUST CONFORM TO ASTM C478.
  2. POURED IN PLACE CONCRETE SHALL HAVE 28 DAYS COMPRESSIVE STRENGTH 20 MPa. BENCHING TO UTILIZE TYPE 50 CEMENT.
  3. AN O-RING RUBBER GASKET OR BUTYL RUBBER SEALANT (OR RESPECTIVE APPROVED ALTERNATE) IS TO BE INSTALLED AT EACH BARREL JOINT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
  4. ALL BARREL JOINTS ARE TO BE MORTARED ON THE OUTSIDE.
  5. FORM FLOW THROUGH IN PARTIALLY SET CONCRETE AND TROWEL SMOOTH.
  6. ALL DIMENSIONS GIVEN IN MILLIMETRES.
  7. MAX. DIST FROM RIM TO TOP RUNG IS 700mm.
  8. BACKFILL MANHOLE WITH SELECT NATIVE MATERIAL OR IMPORTED GRANULAR MATERIAL.
  9. SLAB TOPS SHALL BE USED WHEN THE DISTANCE FROM THE BOTTOM OF THE RINGS TO THE MH BASE IS LESS THAN 2.2 m.
  10. SAFETY PLATFORM REQUIRED IF MANHOLE OVER 6m DEEP.
  11. IN SITUATIONS WHERE GRADE RINGS EXCEED MAX. 450mm, A BARREL SECTION IS TO BE USED.
  12. ACCESS TO MANHOLE TO BE LOCATED OVER MAIN INLET.
  13. FIRST SECTION OF PIPE (AT INTERFACE OF MANHOLE) TO BE 300-600mm IN LENGTH.

**TYPICAL MANHOLE DETAIL** STD DWG  
A4.0  
DATE: SEPTEMBER, 2020



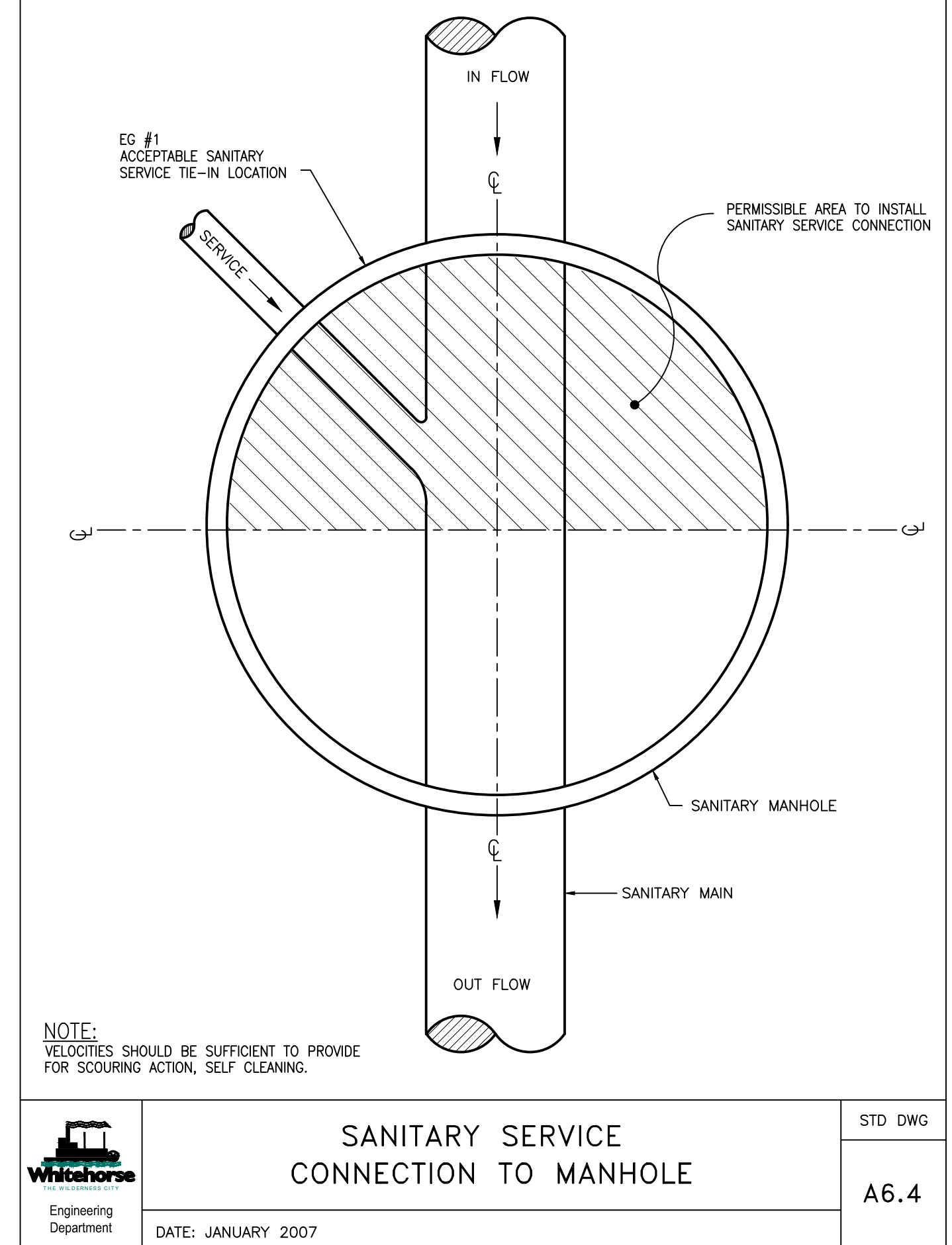
- NOTES:
1. ALL DIMENSIONS ARE GIVEN IN MILLIMETRES
  2. INSULATION THICKNESS (50mm MIN) AND DEPTH OF COVER TO BE VERIFIED BY THERMAL ANALYSIS.
  3. 50x100 TREATED MARKER POST TO EXTEND TO INVERT OF PIPE.
  4. COMPACTION REQUIREMENTS AS PER DETAILED SPECIFICATIONS
  5. MIN. 150mm OVERLAP OF CURB BOX AND STEM
  6. NO COUPLING ARE TO BE IN THE ROADWAY
  7. CURB BOX TO NOT BE TIGHTENED AT FINAL INSTALL AND TO BE MAINTAINED AT GRADE WITH COMPACTED BACKFILL.

**INSULATED WATER SERVICE CONNECTION** STD DWG  
A6.0  
DATE: JANUARY, 2020



- NOTES:
1. ALL DIMENSIONS ARE GIVEN IN MILLIMETRES
  2. INSULATION THICKNESS (50mm MIN) AND DEPTH OF COVER TO BE VERIFIED BY THERMAL ANALYSIS.
  3. 50x100 MARKER POST TO EXTEND TO INVERT OF PIPE.
  4. COMPACTION REQUIREMENTS AS PER DETAILED SPECIFICATIONS
  5. INSTALL CC'S AT MAIN, WHERE CC'S FALL UNDER ROADWAYS INSTALL NELSON TYPE VALVE BOX OVER CC STEM FOR ADDITIONAL PROTECTION
  6. MIN. 150mm OVERLAP BETWEEN THE VALVE BOX AND THE STEM
  7. COUPLINGS ARE NOT PERMITTED TO BE LOCATED IN THE ROADWAY
  8. DO NOT TIGHTEN CURB BOX AT FINAL INSTALL. CURB BOX TO BE MAINTAINED AT GRADE WITH COMPACTED FILL.

**WATER SERVICE CONNECTION IN ASPHALT ROADWAYS** STD DWG  
A6.0a  
DATE: JANUARY, 2020



**SANITARY SERVICE CONNECTION TO MANHOLE** STD DWG  
A6.4  
DATE: JANUARY 2007

- NOTES:
1. ALL MATERIALS TO BE DESIGNED SHALL BE TAKEN TO DUMP SITES, AS APPROVED BY THE ENGINEER.
  2. ALL MATERIALS AND CONSTRUCTION SHALL BE TO CITY OF WHITEHORSE SERVING STANDARDS MANUAL.
  3. ADDITIONAL STANDARD DETAILS FROM THE CITY OF WHITEHORSE SERVING STANDARDS MANUAL MAY BE REFERENCED THROUGHOUT THE PROJECT AND NOT INCLUDED IN THE TYPICAL DETAIL SHEETS. A FULL LIST OF DETAILS AVAILABLE AT THE LINK: [HTTPS://WWW.WHITEHORSE.CA/BUSINESS-IN-WHITEHORSE/ZONING-ENGINEERING-STANDARDS](https://www.whitehorse.ca/business-in-whitehorse/zoning-engineering-standards). PART 4

PERMIT TO PRACTICE  
ASSOCIATED ENGINEERING (CIC) LTD.  
SIGNATURE: [Signature]  
Date: 2024-05-20  
PERMIT NUMBER: PP060  
Association of Professional Engineers of Yukon

CITY OF WHITEHORSE DESIGN APPROVALS

MANAGER OF OPERATIONS	DATE
MANAGER OF ENGINEERING SERVICES	DATE
MANAGER OF WATER & WASTE SERVICES	DATE



Suite 301-4109 4th Ave.  
Whitehorse, Yukon  
Canada Y1A 1H6  
Phone: 867-456-2711  
Fax: 604-291-6163

**Associated Engineering**

REVISIONS :

NO.	DATE	ENG.	SUBJECT
0	2024 MAY 21	S.B.	ISSUED FOR TENDER

PROFESSIONAL ENGINEER  
STEVEN B. BROWN  
2024-05-20

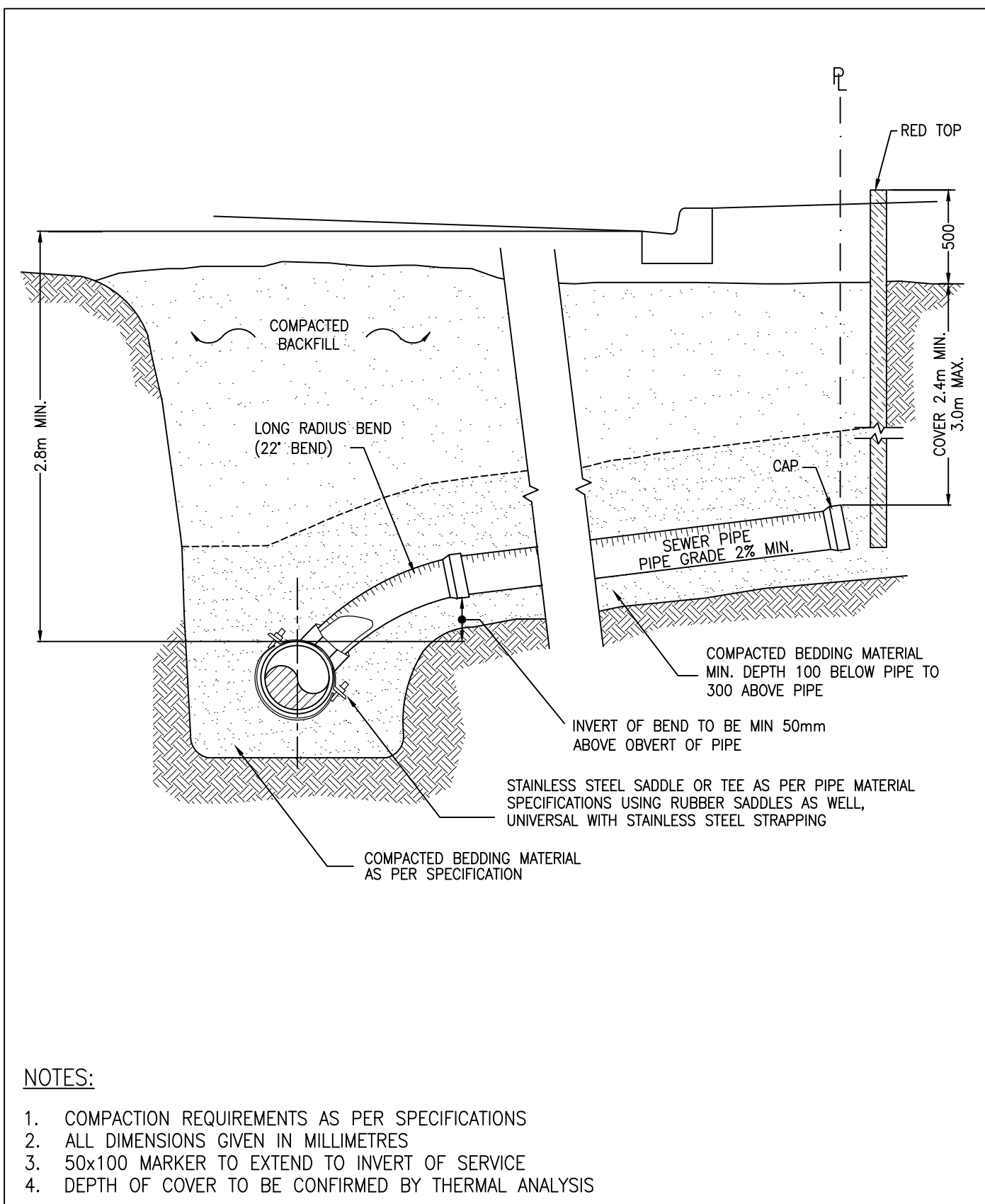
PROJECT :  
**TA'AN KWACH'AN C-9B SUBDIVISION - PHASE 2**

DRAWING TITLE :  
**TYPICAL DETAILS SHEET 3 OF 7**

SCALE :	N.T.S.
DATE :	2024/05/24
DESIGN :	J.S.
DRAWN :	J.S.
CHECKED :	S.B.
APPROVED :	S.B.

DRAWING NUMBER :	SHEET :
2183-17A-C-503	22





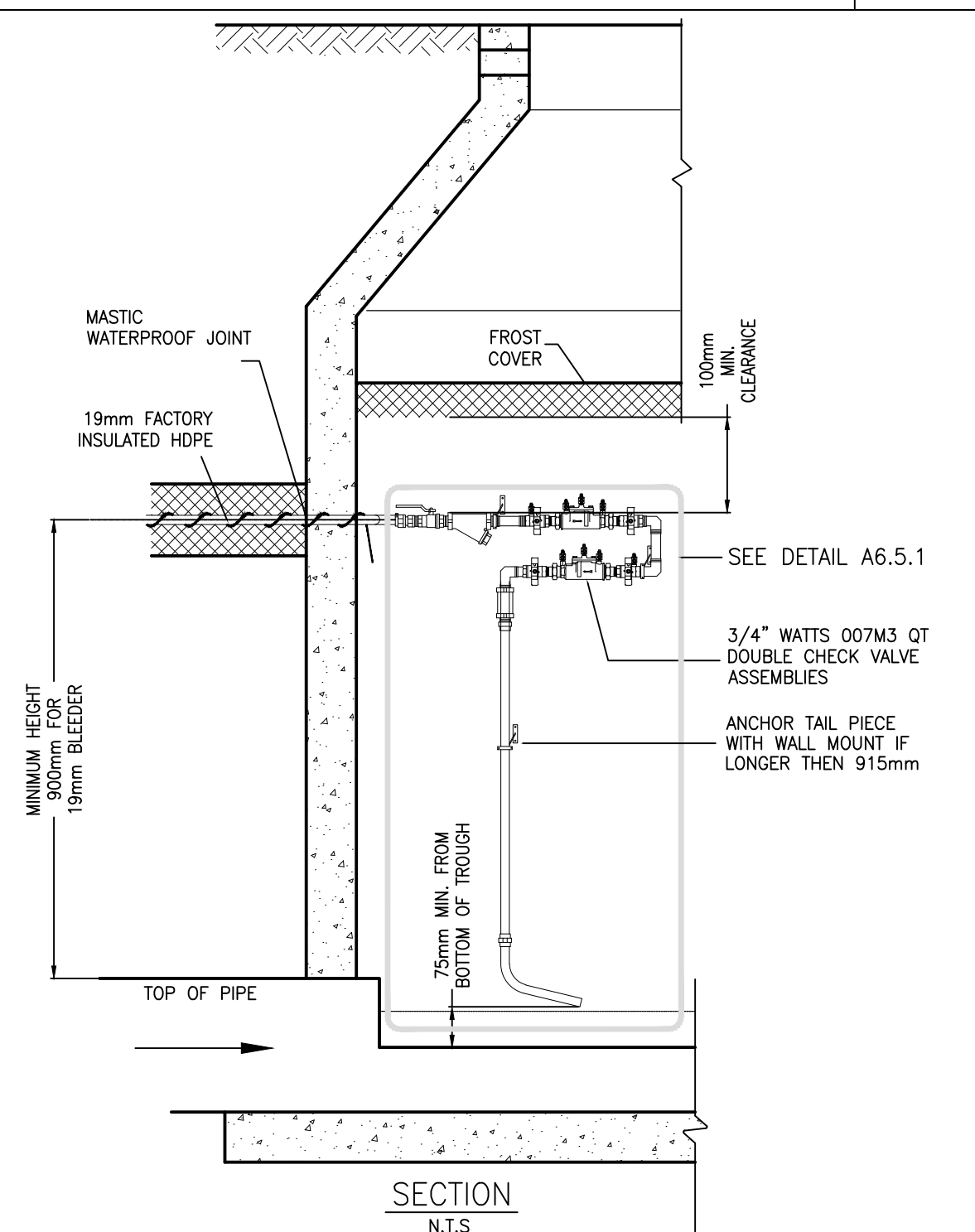
- NOTES:
1. COMPACTION REQUIREMENTS AS PER SPECIFICATIONS
  2. ALL DIMENSIONS GIVEN IN MILLIMETRES
  3. 50x100 MARKER TO EXTEND TO INVERT OF SERVICE
  4. DEPTH OF COVER TO BE CONFIRMED BY THERMAL ANALYSIS

**Whitehorse**  
Engineering Department

**SANITARY SEWER SERVICE (UNINSULTATED)**

STD DWG  
A6.1

DATE: JANUARY 2007



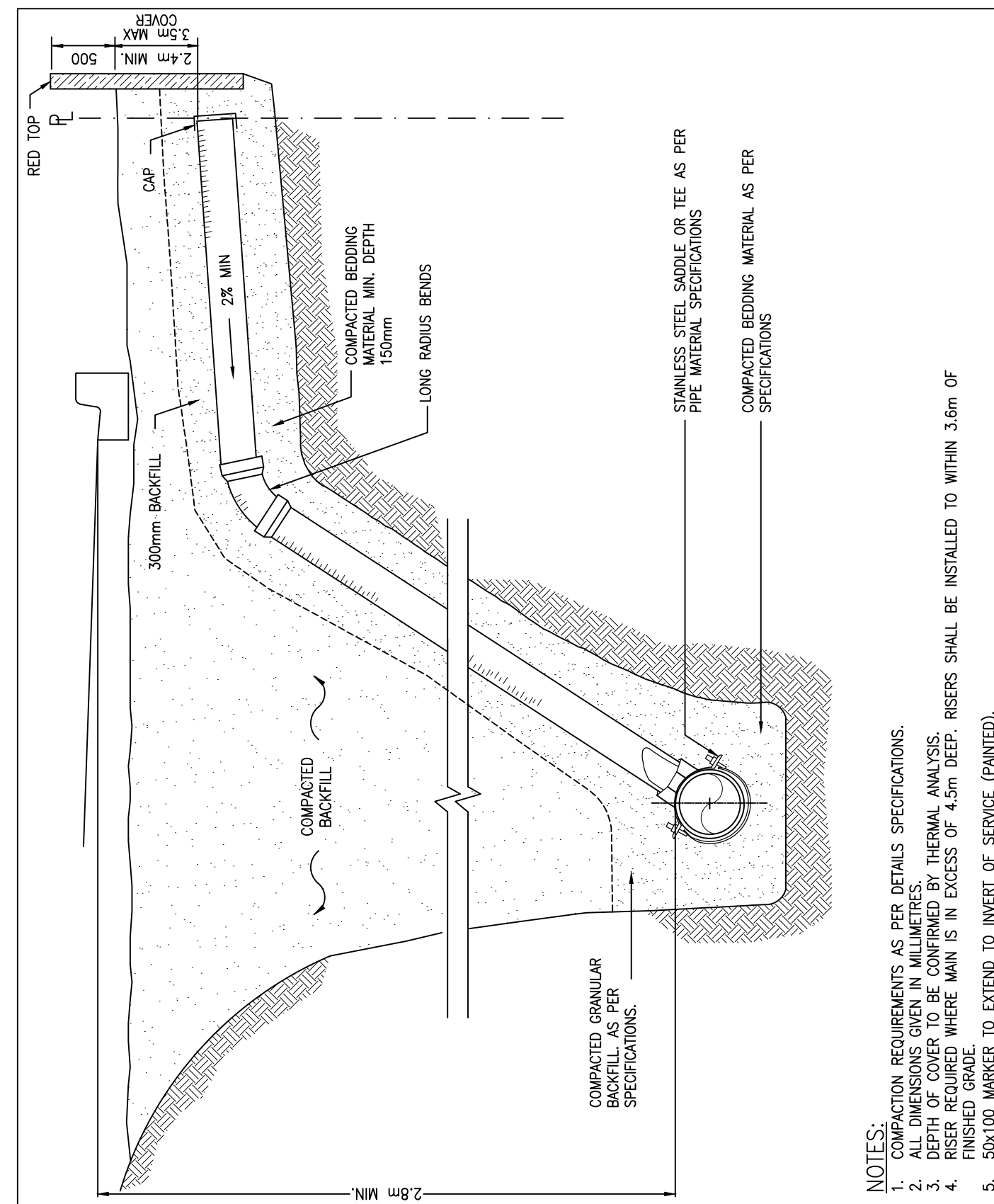
- NOTES:
- 1) ALL FITTINGS ARE TO BE BRASS.
  - 2) IRRIGATION TYPE WATER SERVICE SHALL BE USED WITH BLEEDER INSTALLATION
  - 3) ALL TEST COCKS SHALL BE CAPPED.
  - 4) BLEEDER PIPE TO BE STUBBED A MINIMUM OF 300mm INSIDE MANHOLE FOR FUTURE CONNECTION
  - 5) 600mm LENGTH OF WATER HEAT TRACE WIRE SHALL BE TERMINATED IN CHAMBER FOR FUTURE USE
  - 6) MANHOLE SHALL HAVE FROST COVER AS PER STANDARD DETAIL
  - 7) BLEEDER ASSEMBLY TO BE REMOVABLE IN ONE PIECE FOR ANNUAL MAINTENANCE
  - 8) CURB COCK TO BE INSTALLED A DISTANCE OF 300mm-500mm FROM MAIN.

**Whitehorse**  
Engineering Department

**19mm MANHOLE BLEEDER DETAIL DOUBLE CHECK VALVE**

STD DWG  
A6.5

DATE: FEB. 2019



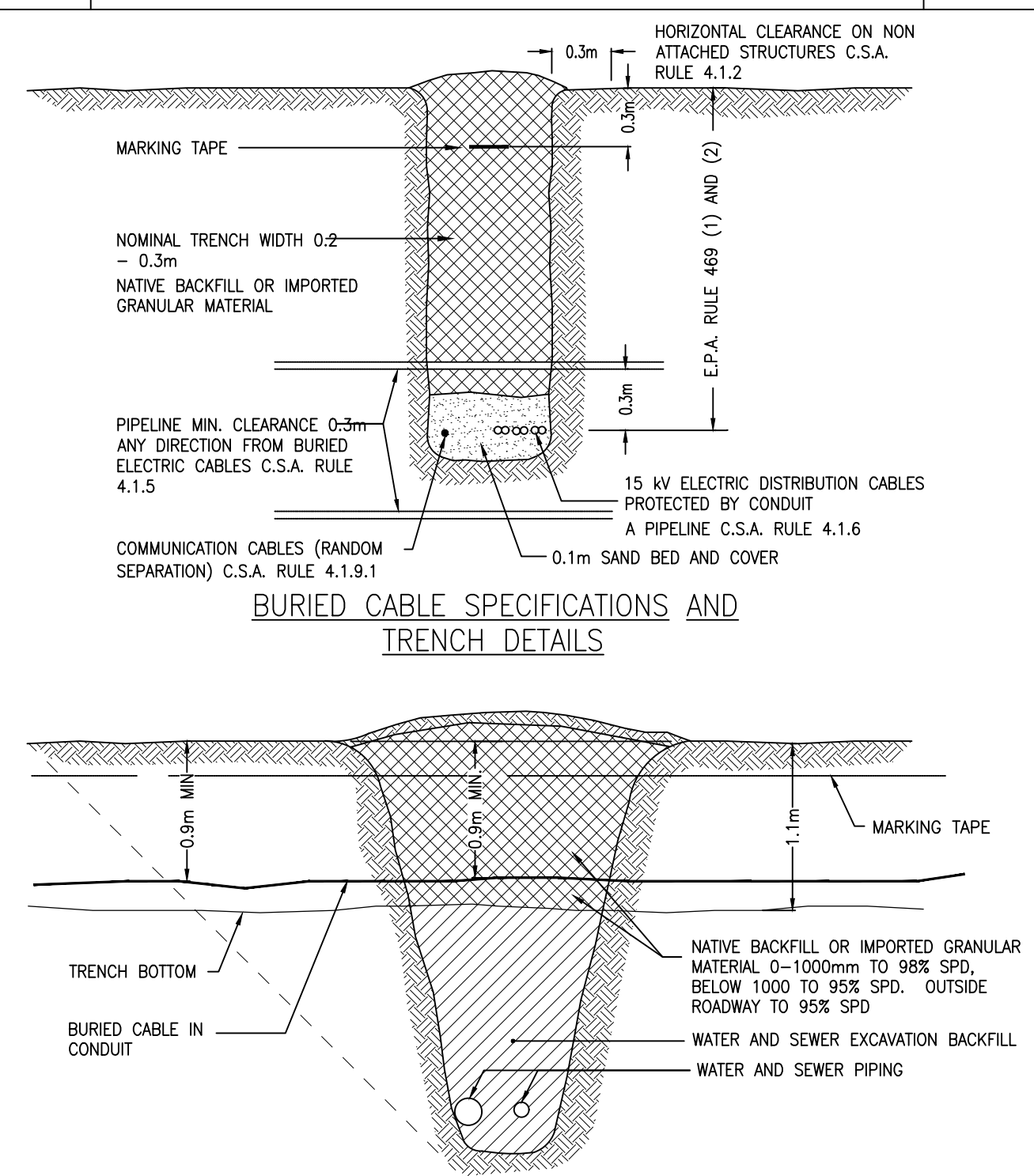
- NOTES:
1. COMPACTION REQUIREMENTS AS PER DETAILS SPECIFICATIONS.
  2. ALL DIMENSIONS GIVEN IN MILLIMETRES.
  3. THERMAL ANALYSIS REQUIRED WHERE RISER SHALL BE INSTALLED WITHIN 3.6m OF FINISHED GRADE.
  4. RISER REQUIRED WHERE MAIN IS IN EXCESS OF 4.5m DEEP.
  5. 50x100 MARKER TO EXTEND TO INVERT OF SERVICE (PAINTED).

**Whitehorse**  
Engineering Department

**SANITARY SEWER SERVICE CONNECTION RISER**

STD DWG  
A6.2

DATE: JANUARY 2007



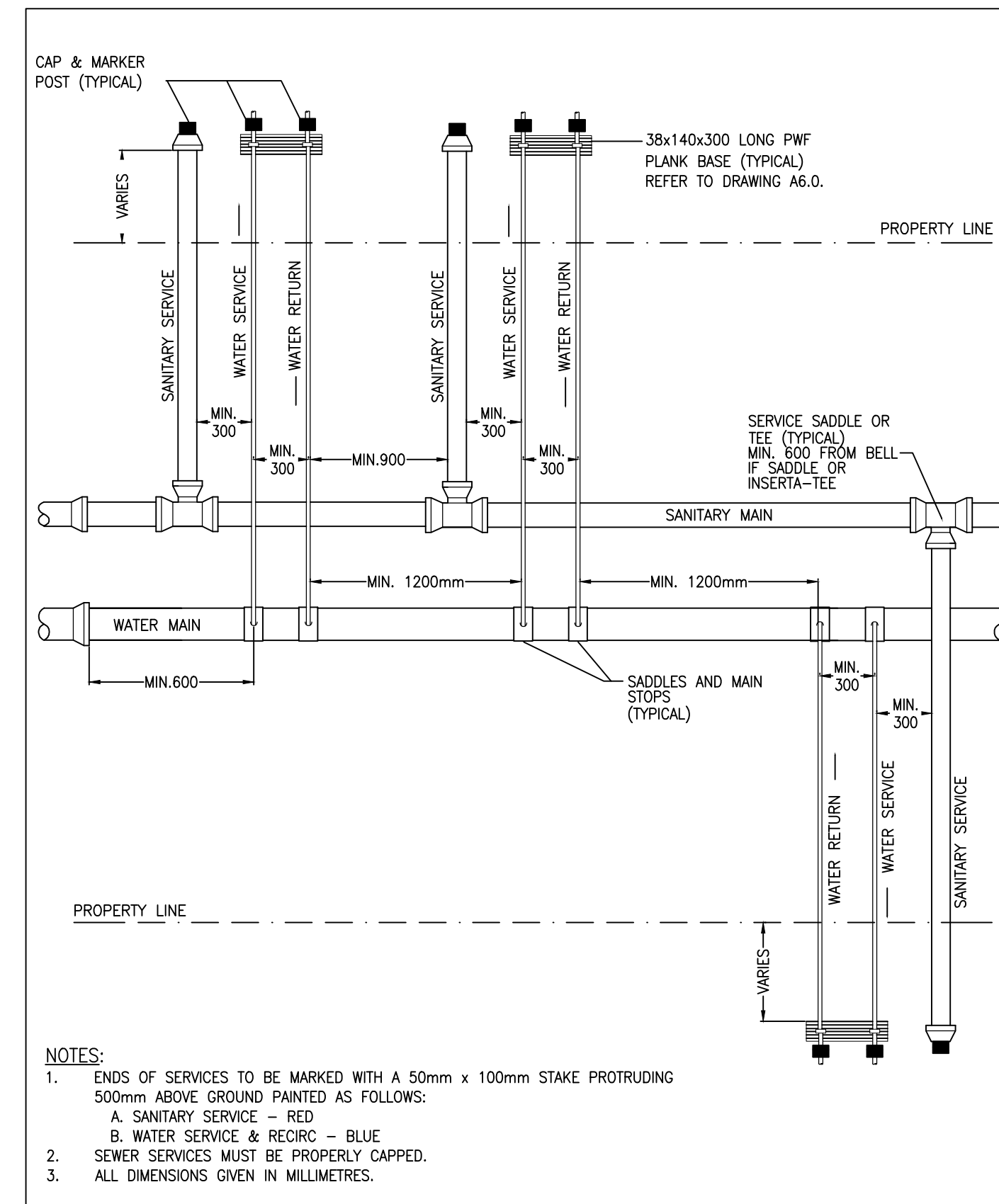
- NOTES:
1. ADOPTED FROM ATCO STANDARD DETAIL.
  2. PIPE CROSSING UNDER ATCO DUCTS REQUIRE ONE WEEK NOTICE TO ATCO. WORK TO BE DONE UNDER ATCO DIRECTION

**Whitehorse**  
Engineering Department

**UNDERGROUND SERVICE CROSSING OF CABLE TRENCH DETAILS**

STD DWG  
A7.0

DATE: JANUARY 2007



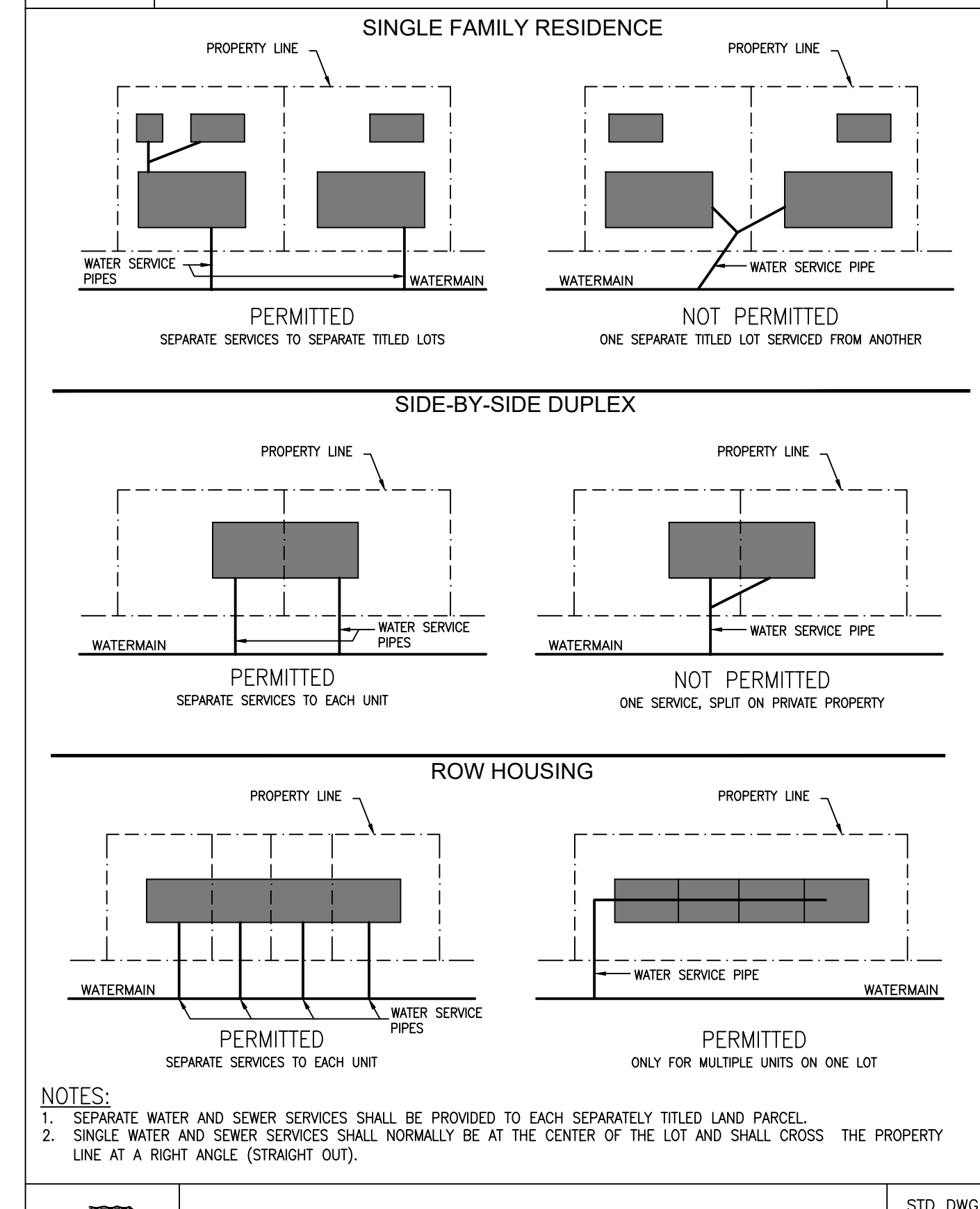
- NOTES:
1. ENDS OF SERVICES TO BE MARKED WITH A 50mm x 100mm STAKE PROTRUDING 500mm ABOVE GROUND PAINTED AS FOLLOWS:  
A. SANITARY SERVICE - RED  
B. WATER SERVICE & REDIC - BLUE
  2. SEWER SERVICES MUST BE PROPERLY CAPPED.
  3. ALL DIMENSIONS GIVEN IN MILLIMETRES.

**Whitehorse**  
Engineering Department

**SINGLE AND DOUBLE SERVICE LAYOUT**

STD DWG  
A6.3

DATE: FEB. 2019



- NOTES:
1. SEPARATE WATER AND SEWER SERVICES SHALL BE PROVIDED TO EACH SEPARATELY TITLED LAND PARCEL.
  2. SINGLE WATER AND SEWER SERVICES SHALL NORMALLY BE AT THE CENTER OF THE LOT AND SHALL CROSS THE PROPERTY LINE AT A RIGHT ANGLE (STRAIGHT OUT).

**Whitehorse**  
Engineering Department

**WATER SERVICING REQUIREMENTS**

STD DWG  
A8.1

DATE: JANUARY 2013

- NOTES:
1. ALL MATERIALS TO BE DISPOSED OF SHALL BE TAKEN TO DUMP SITES, AS APPROVED BY THE ENGINEER.
  2. ALL MATERIALS AND CONSTRUCTION SHALL BE TO CITY OF WHITEHORSE SERVING STANDARDS MANUAL.
  3. ADDITIONAL STANDARD DETAILS FROM THE CITY OF WHITEHORSE SERVING STANDARDS MANUAL MAY BE REFERENCED THROUGHOUT THE PROJECT AND NOT INCLUDED IN THE TYPICAL DETAIL SHEETS. A FULL LIST OF DETAILS AVAILABLE AT THE LINK: [HTTPS://WWW.WHITEHORSE.CA/BUSINESS-IN-WHITEHORSE/ZONING-ENGINEERING-STANDARDS](https://www.whitehorse.ca/business-in-whitehorse/zoning-engineering-standards). PART 4

**PERMIT TO PRACTICE**  
ASSOCIATED ENGINEERING (CIC) LTD.  
SIGNATURE: [Signature]  
Date: 2024-05-20  
**PERMIT NUMBER FP060**  
Association of Professional Engineers of Yukon

**CITY OF WHITEHORSE DESIGN APPROVALS**

MANAGER OF OPERATIONS \_\_\_\_\_ DATE \_\_\_\_\_

MANAGER OF ENGINEERING SERVICES \_\_\_\_\_ DATE \_\_\_\_\_

MANAGER OF WATER & WASTE SERVICES \_\_\_\_\_ DATE \_\_\_\_\_



Suite 301-4109 4th Ave.  
Whitehorse, Yukon  
Canada Y1A 1H6  
Phone: 867-456-2711  
Fax: 604-291-6163

**Associated Engineering**

REVISIONS :

NO.	DATE	ENG.	SUBJECT
0	2024 MAY 21	S.B.	ISSUED FOR TENDER

PROJECT :  
**TA'AN KWACH'AN C-9B SUBDIVISION - PHASE 2**

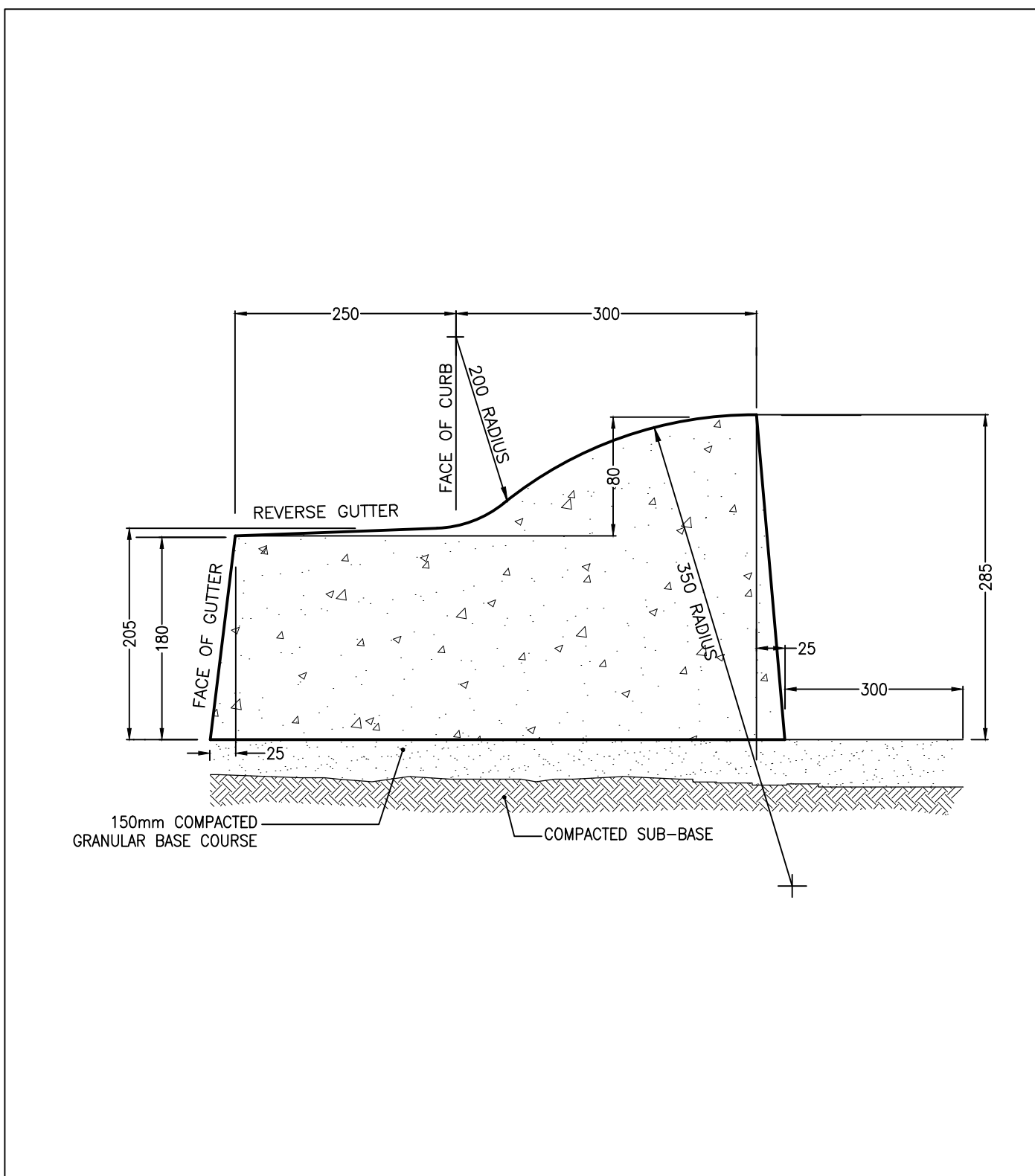
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**TYPICAL DETAILS SHEET 4 OF 7**

SCALE :	N.T.S.
DATE :	2024/05/24
DESIGN :	J.S.
DRAWN :	J.S.
CHECKED :	S.B.
APPROVED :	S.B.

DRAWING NUMBER :  
**2183-17A-C-504**

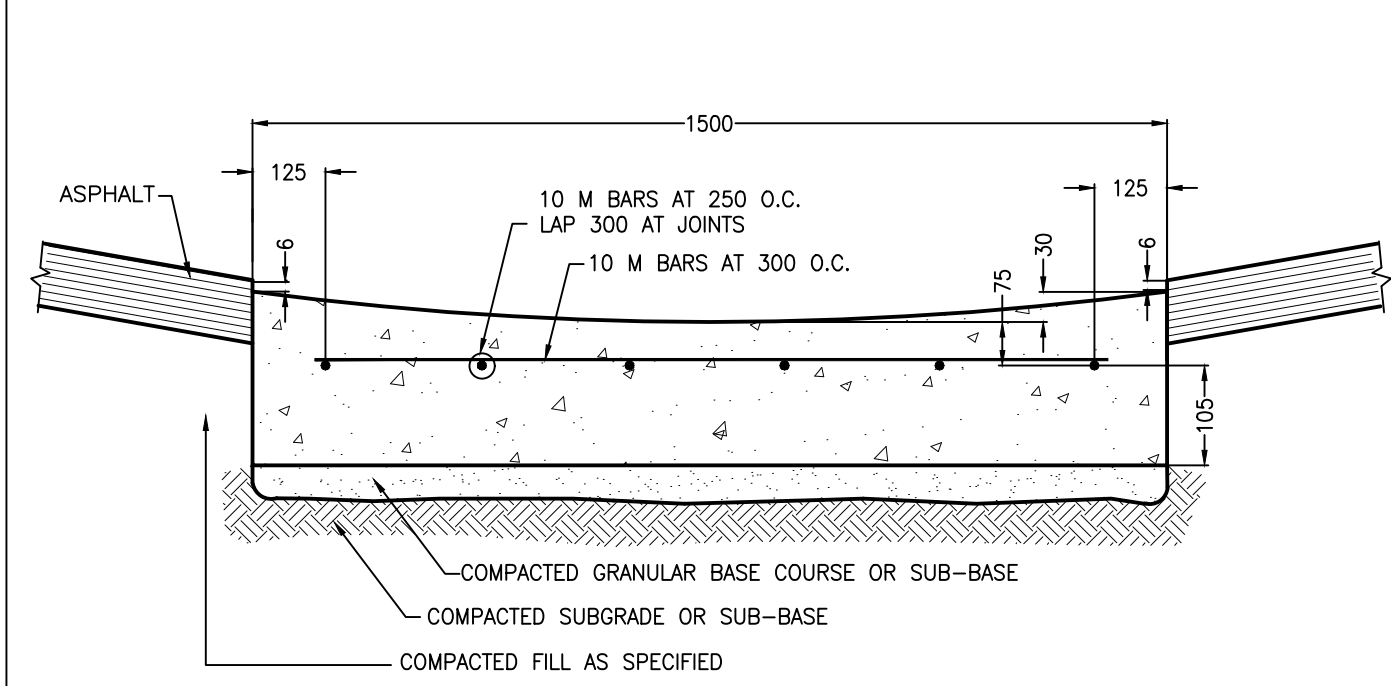
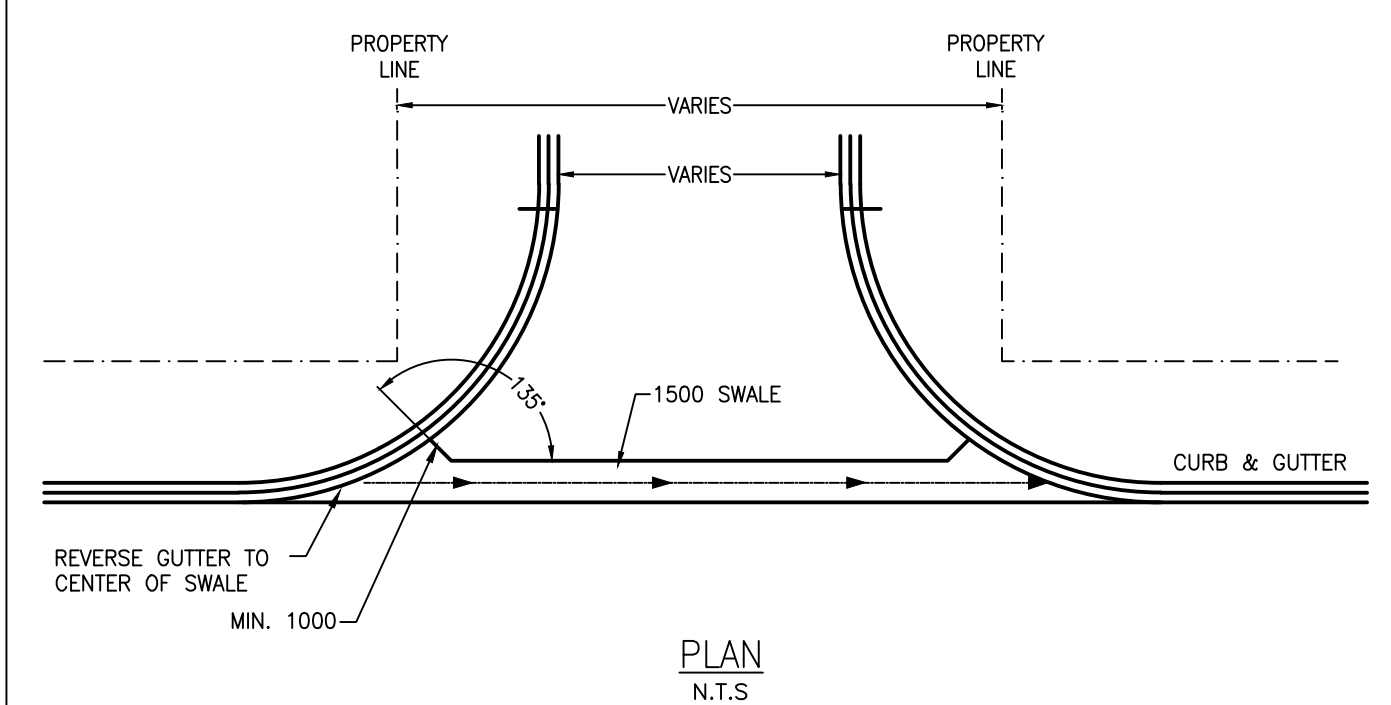
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**23**





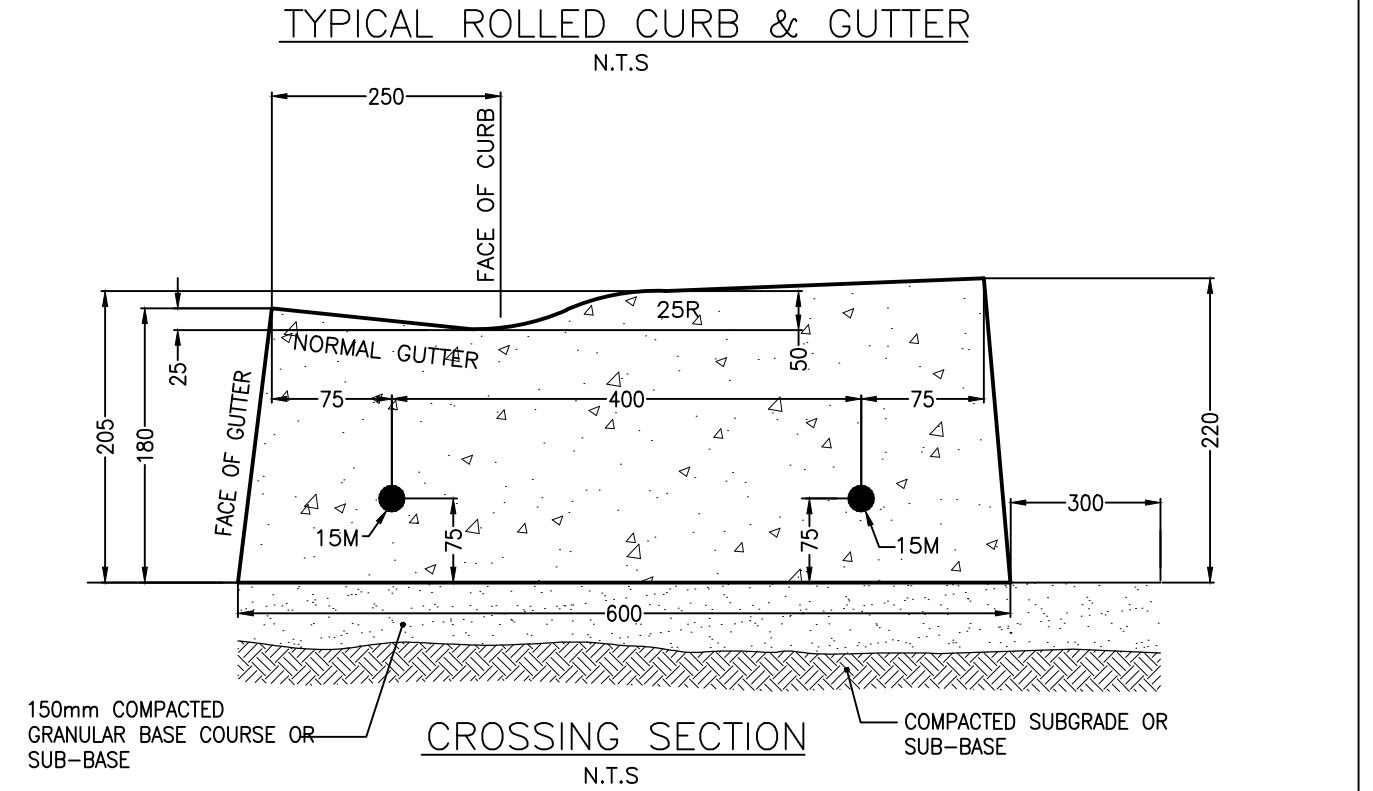
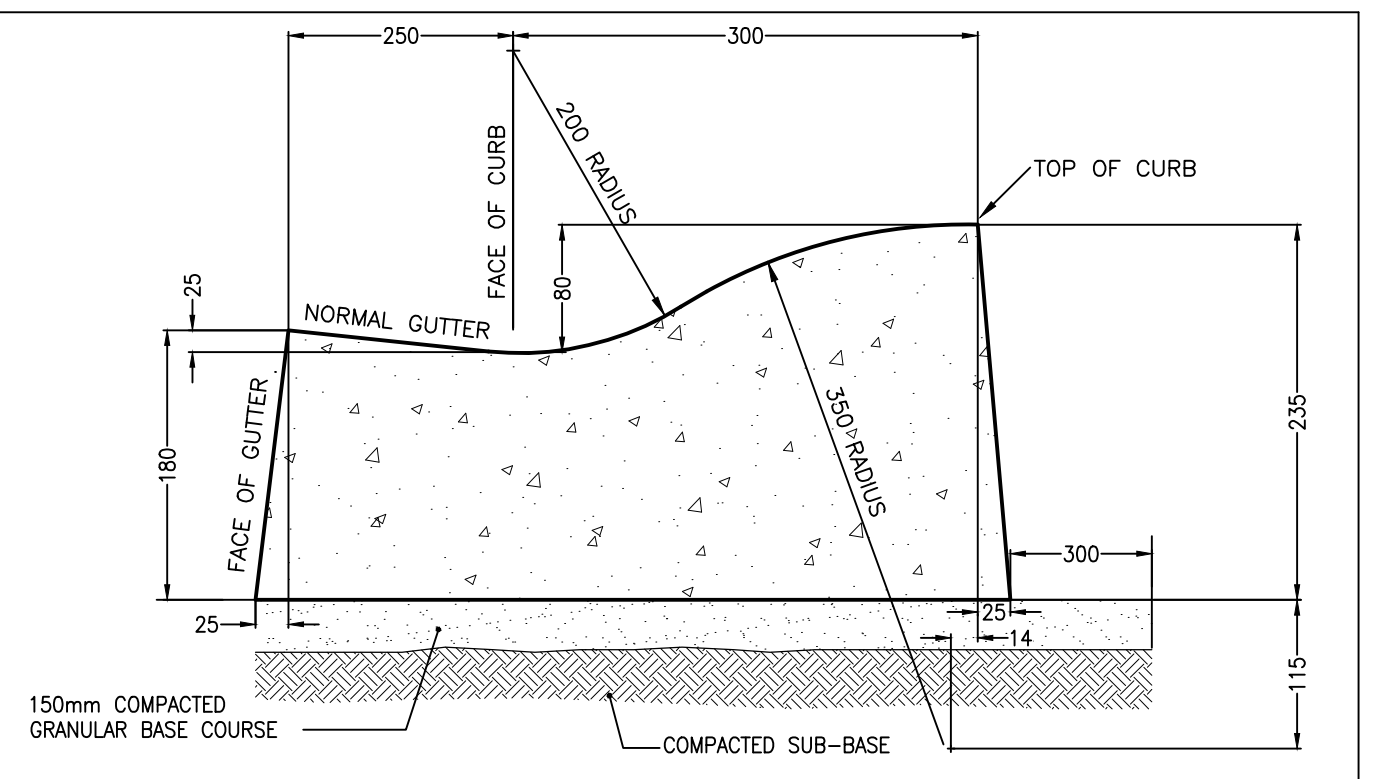
NOTE:  
1. ALL DIMENSIONS ARE IN MILLIMETRES.

**ROLLED CURB & REVERSE GUTTER** STD DWG  
B1.0  
DATE: JANUARY 2015



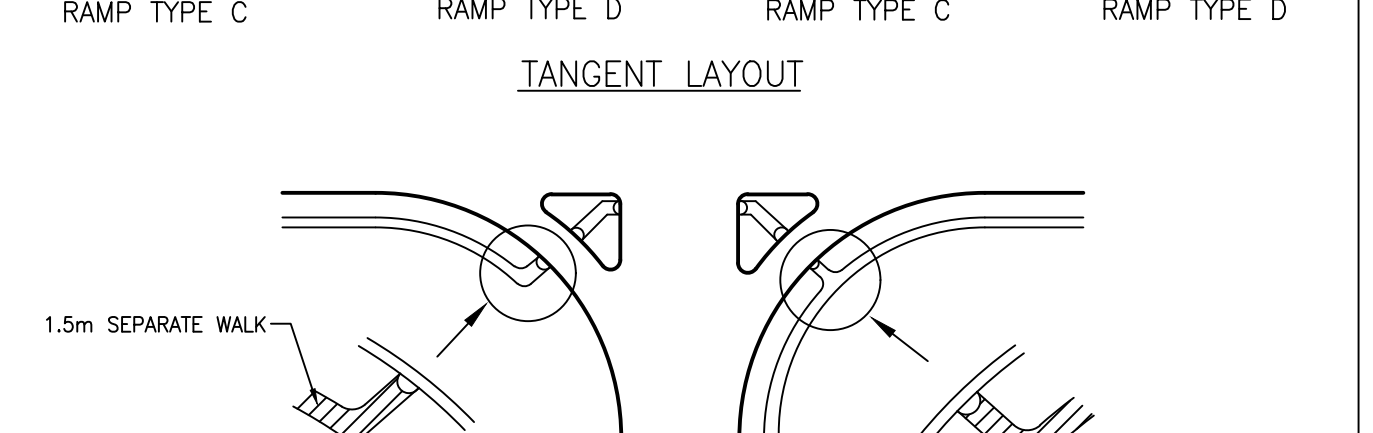
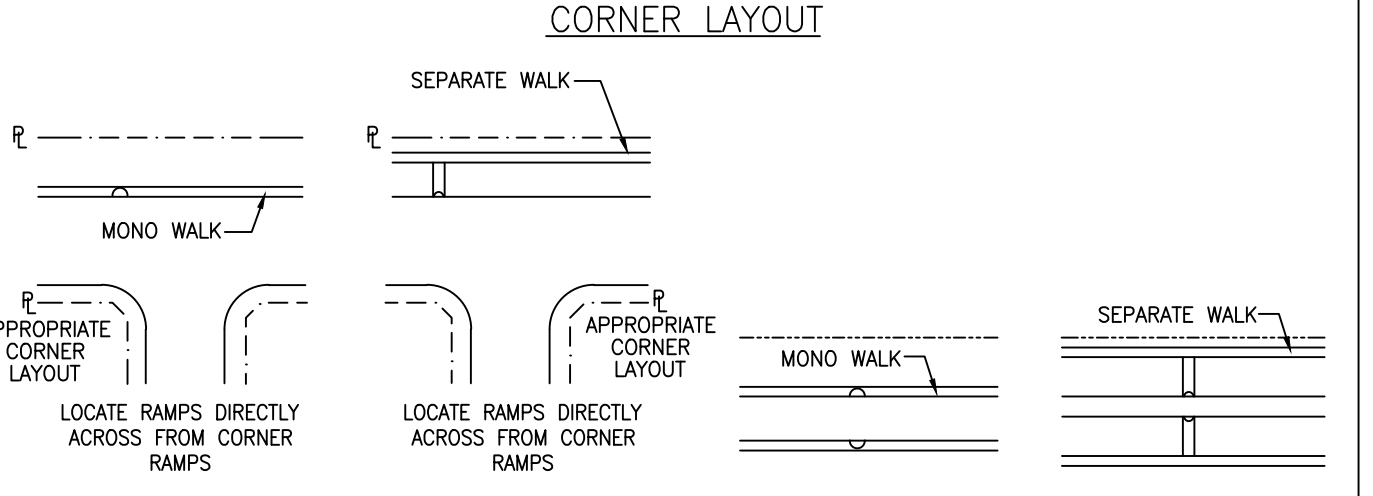
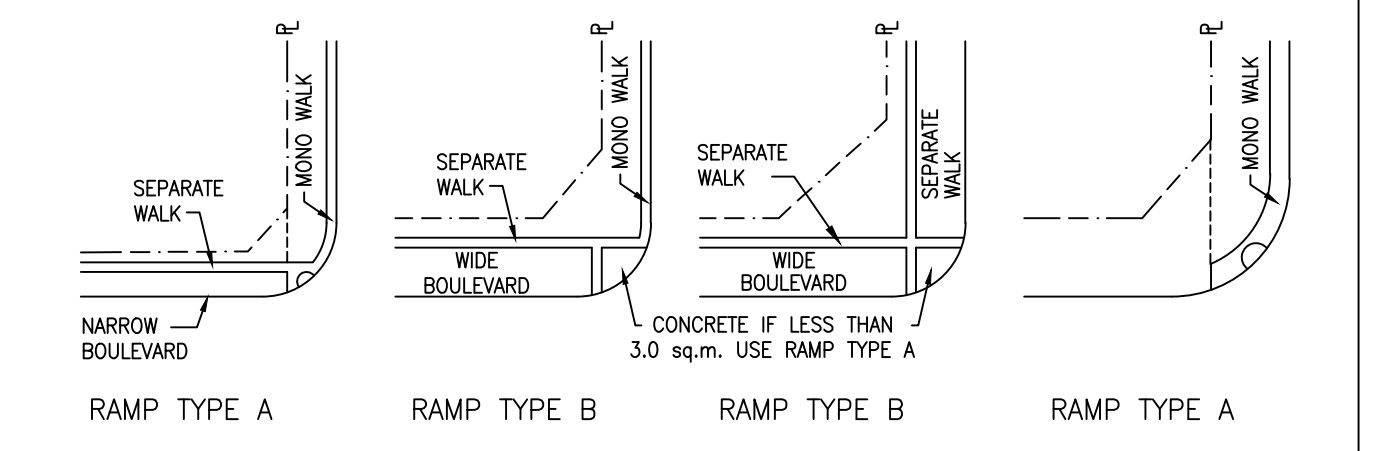
NOTES:  
1. ALL DIMENSIONS ARE IN MILLIMETRES  
2. CONTRACTION JOINTS SPACED AT 3m INTERVAL

**1500mm CONCRETE SWALE PLAN & SECTION** STD DWG  
B5.0  
DATE: JANUARY 2007



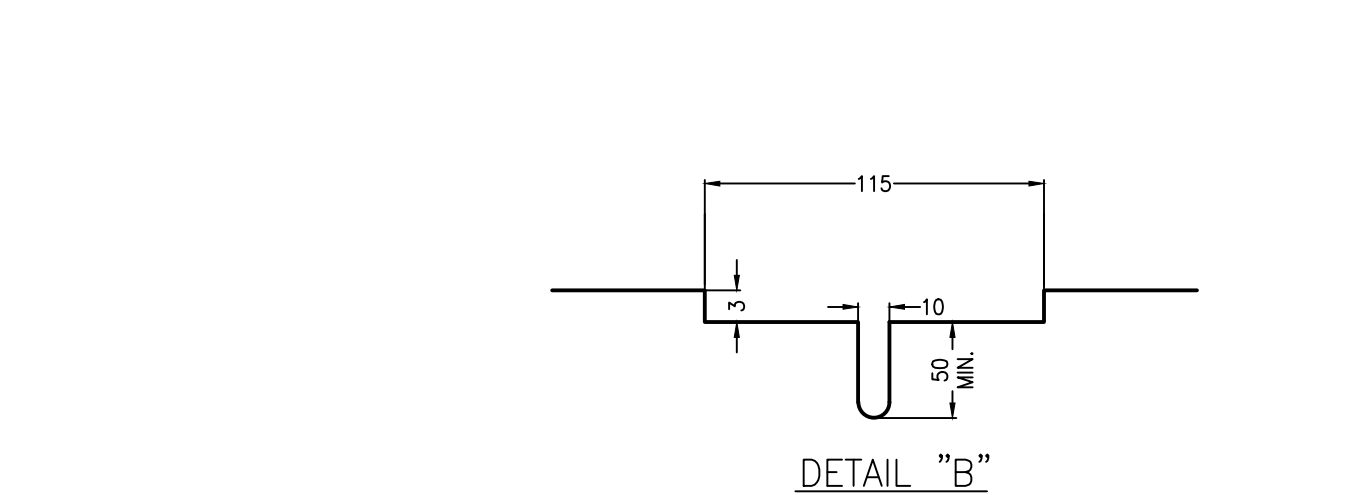
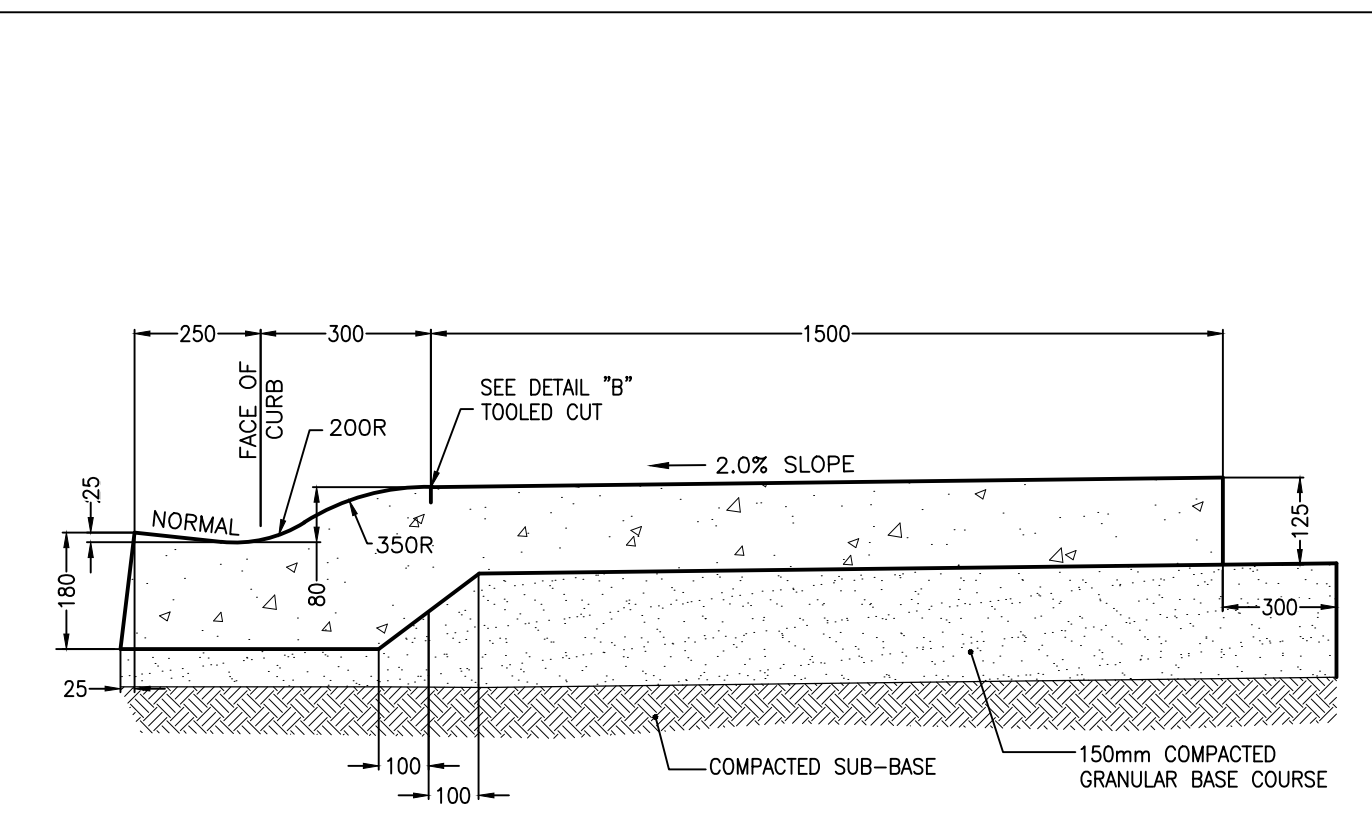
NOTE:  
1. ALL DIMENSIONS ARE IN MILLIMETRES  
2. REINFORCEMENT NOT REQUIRED AT PRIVATE CROSSING

**ROLLED CURB, GUTTER & CROSSING DETAILS COMMERCIAL, LANE & PRIVATE** STD DWG  
B2.0  
DATE: JANUARY 2015



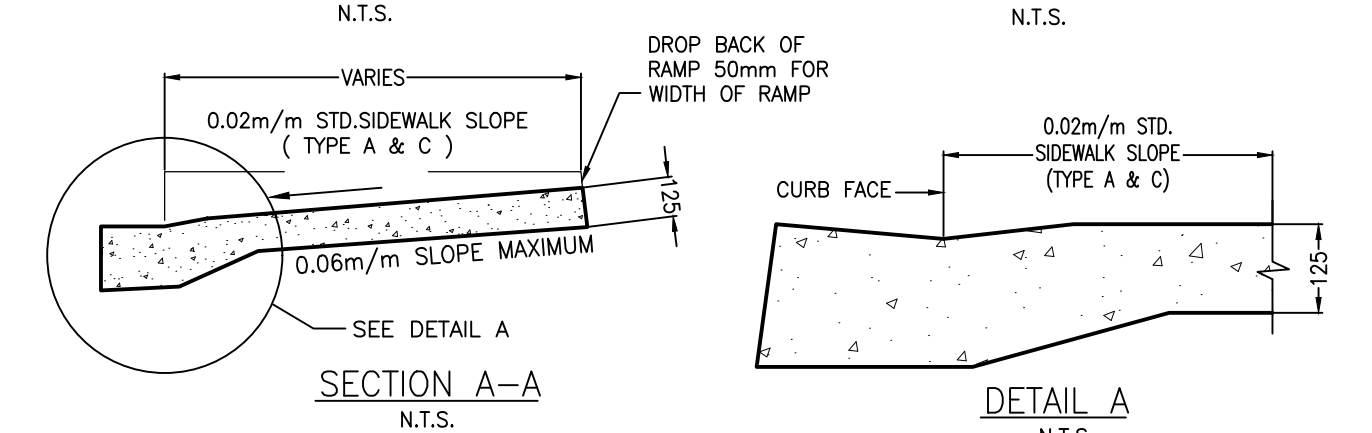
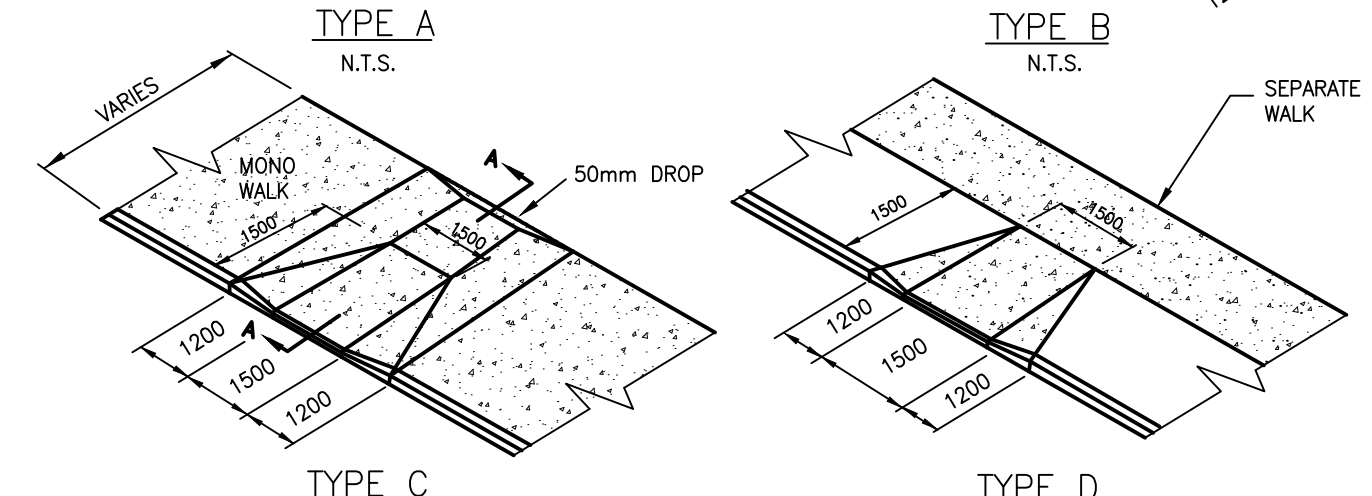
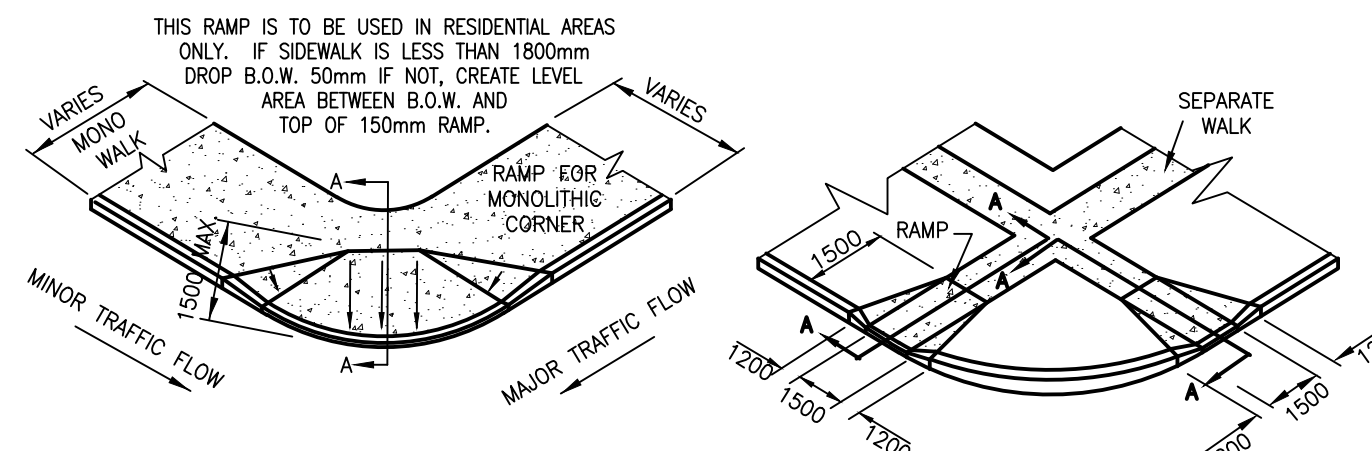
NOTE:  
1. ALL DIMENSIONS ARE IN MILLIMETRES  
2. REINFORCEMENT NOT REQUIRED AT PRIVATE CROSSING

**SIDEWALK RAMP LOCATIONS** STD DWG  
B6.0  
DATE: JANUARY 2007



NOTES:  
1. ALL DIMENSIONS ARE IN MILLIMETRES.  
2. FOR REVERSE GUTTER ON MONO SEE B1.0, B1.1, B1.2.  
3. SHOULD A MONOLITHIC POUR NOT BE POSSIBLE 300 mm, 10M REINFORCING BARS SHALL BE INSERTED INTO THE BACK OF THE CURB AND GUTTER AT 750 mm CENTRE TO CENTRE SPACING STARTING AT 375 mm FROM A CONSTRUCTION JOINT.  
4. FOR AREAS OF TRANSITION BETWEEN ROLLED CURB AND BARRIER CURB THE 100mm DIFFERENCE IN WIDTH SHALL BE BLENDED GRADUALLY OVER THE LENGTH OF A PANEL.

**MONOLITHIC CURB, GUTTER & SIDEWALK ROLLED CURB** STD DWG  
B3.0  
DATE: JANUARY 2015



NOTES:  
1. WHERE RAMP IS TO BE USED AS A TRANSITION USE CENTRE OF RAMP AS THE CENTRE OF THE TRANSITION.  
2. WHERE RAMP IS ENTIRE DEPTH OF THE SIDEWALK, DROP THE BACK OF RAMP 50mm TO REDUCE RAMP GRADE.  
3. WHERE CURB FACE IS 200mm, DISTANCE OF FLARE SHOULD BE 1600mm.  
4. CURBS AND RAMP TO BE POURED MONOLITHICALLY.  
5. CONSTRUCTION JOINT REQUIRED AT EACH SIDE OF RAMP.  
6. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED

**WHEELCHAIR/BIKE RAMP DETAILS** STD DWG  
B6.1  
DATE: JULY 2010

NOTES:  
1. ALL MATERIALS TO BE DISPOSED OF SHALL BE TAKEN TO DUMP SITES, AS APPROVED BY THE ENGINEER.  
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3. ADDITIONAL STANDARD DETAILS FROM THE CITY OF WHITEHORSE SERVICING STANDARDS MANUAL MAY BE REFERENCED THROUGHOUT THE PROJECT AND NOT INCLUDED IN THE TYPICAL DETAIL SHEETS. A FULL LIST OF DETAILS AVAILABLE AT THE LINK: <https://www.whitehorse.ca/business-in-whitehorse/zoning-engineering-standards>. PART 4

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PERMIT NUMBER PP060  
Association of Professional Engineers of Yukon

CITY OF WHITEHORSE  
DESIGN APPROVALS  
MANAGER OF OPERATIONS DATE  
MANAGER OF ENGINEERING SERVICES DATE  
MANAGER OF WATER & WASTE SERVICES DATE



Suite 301-4109 4th Ave.  
Whitehorse, Yukon  
Canada Y1A 1H6  
Phone: 867-456-2711  
Fax: 604-291-6163  
**Associated Engineering**

REVISIONS :			
NO.	DATE	ENG.	SUBJECT
0	2024 MAY 21	S.B.	ISSUED FOR TENDER

PROJECT :  
**TA'AN KWACH'AN C-9B SUBDIVISION - PHASE 2**  
DRAWING TITLE :  
**TYPICAL DETAILS SHEET 5 OF 7**

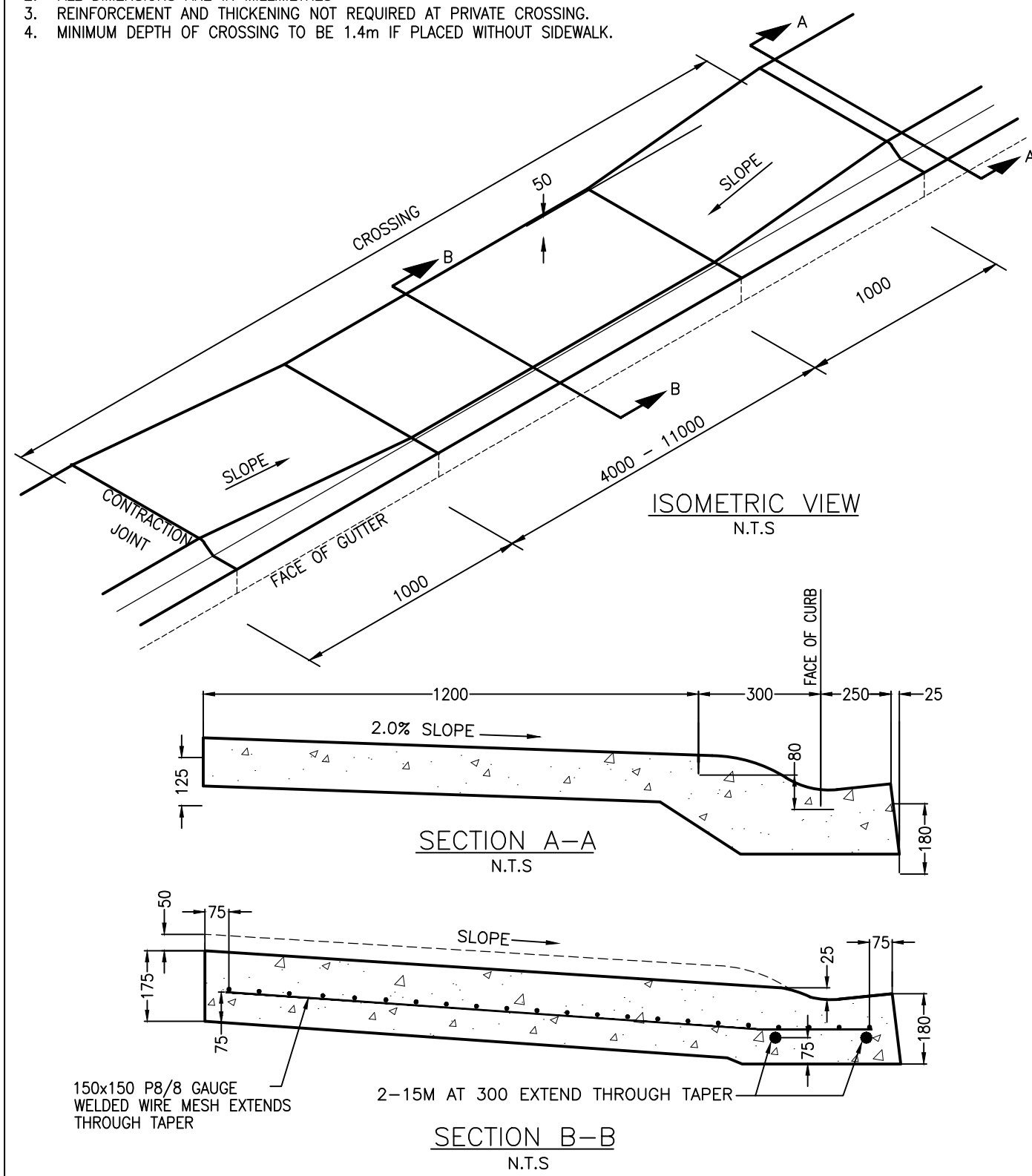
SCALE : N.T.S.  
DATE : 2024/05/24  
DESIGN : J.S.  
DRAWN : J.S.  
CHECKED : S.B.  
APPROVED : S.B.

DRAWING NUMBER : 2183-17A-C-505  
SHEET : 24

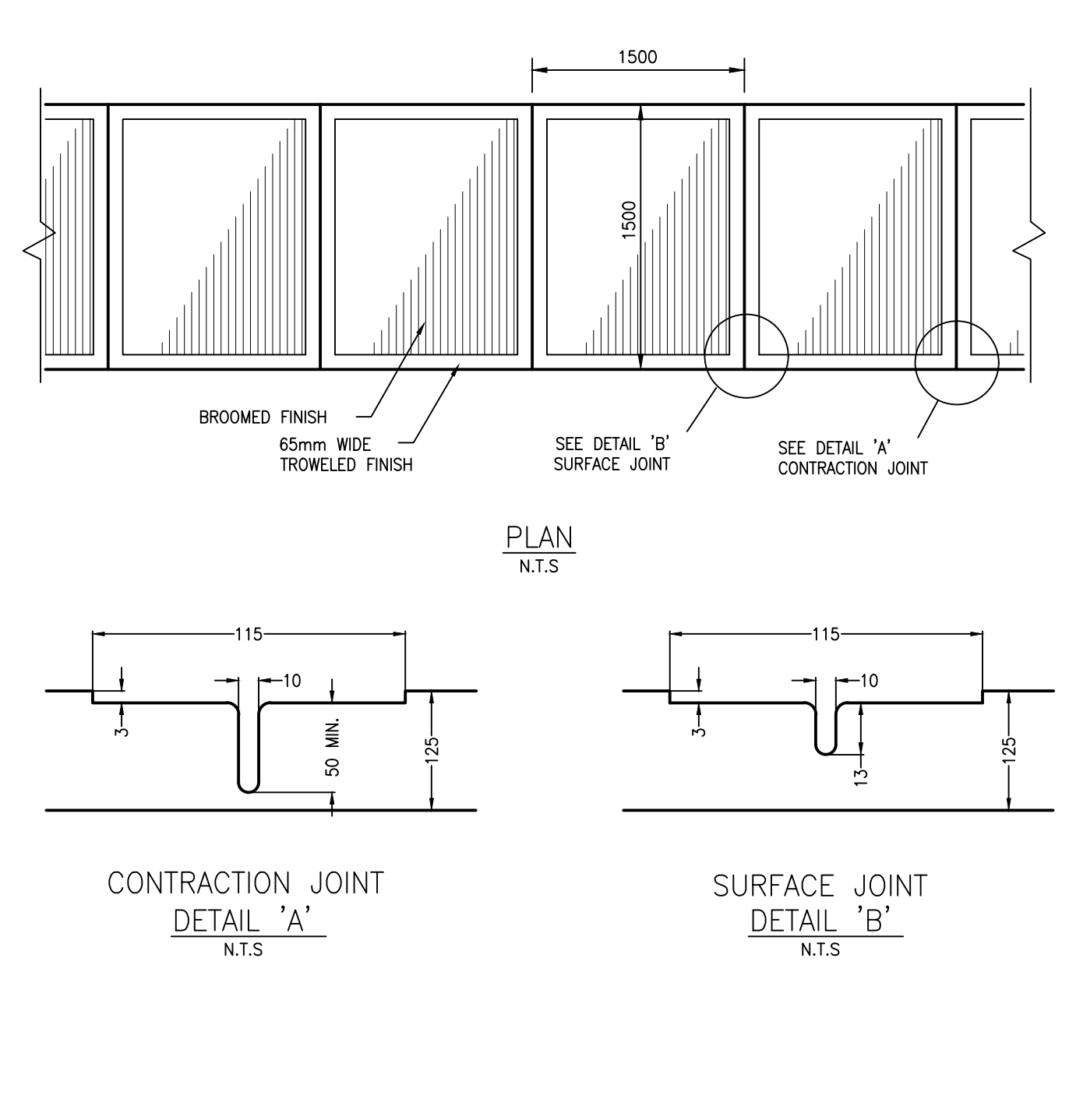


**NOTES**

1. MAINTAIN THICKENED DEPTH THROUGHOUT
2. ALL DIMENSIONS ARE IN MILLIMETRES
3. REINFORCEMENT AND THICKENING NOT REQUIRED AT PRIVATE CROSSING.
4. MINIMUM DEPTH OF CROSSING TO BE 1.4m IF PLACED WITHOUT SIDEWALK.



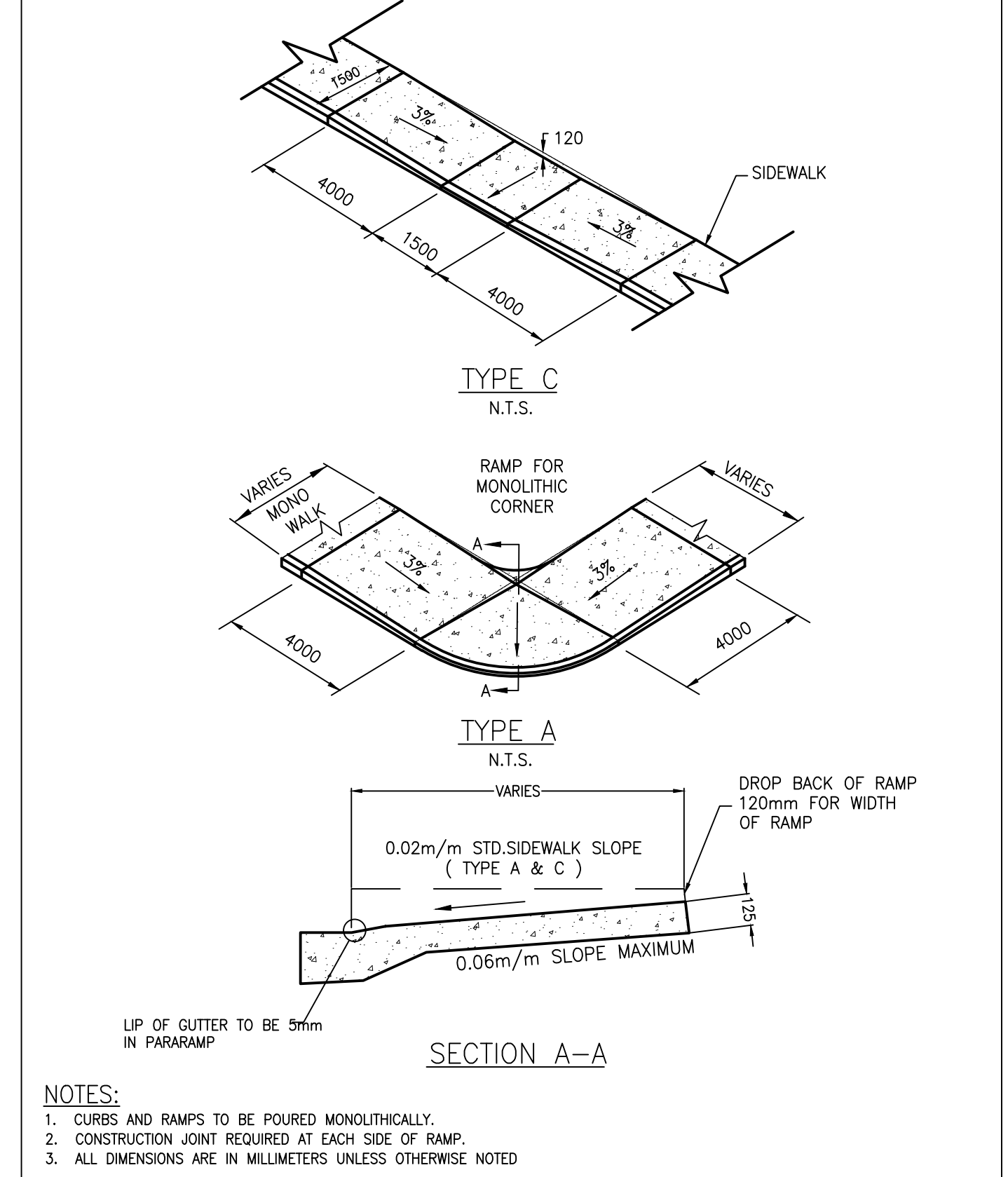
	<b>ROLLED MONOLITHIC CROSSING DETAILS</b> COMMERCIAL, LANE & PRIVATE	STD DWG
	DATE: JANUARY 2007	B4.0



**NOTES:**

1. SIDEWALK & BOULEVARD CROSSFALL TO BE 2% TOWARDS TOP OF CURB.
2. EXPANSION MATERIAL SHALL BE PLACED WHEN ABUTTING EXISTING STRUCTURES.
3. SIDEWALK SHALL HAVE A "BROOMED" FINISH.
4. TRANSVERSE CONTRACTION JOINTS AT THE END OF EACH POUR, AND AT 3m INT.
5. TRANSVERSE SURFACE JOINTS EVERY 3 METRES MIDWAY BETWEEN CONTRACTION JOINTS.
6. ALL DIMENSIONS ARE GIVEN IN MILLIMETRES UNLESS OTHERWISE NOTED.
7. SIMILAR TO DETAIL B3.0 BASE AND SUBBASE REQUIREMENTS TO EXTEND MIN. 300mm BEYOND EDGE OF PANELS

	<b>SEPARATE SIDEWALK DETAILS</b>	STD DWG
	DATE: JANUARY 2007	B8.0



**NOTES:**

1. CURBS AND RAMPS TO BE POURED MONOLITHICALLY.
2. CONSTRUCTION JOINT REQUIRED AT EACH SIDE OF RAMP.
3. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED

	<b>WHEELCHAIR/BIKE RAMP DETAILS</b>	STD DWG
	DATE: JUNE 2015	B6.1a

**NOTES:**

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 PERMIT NUMBER PP060  
 Association of Professional Engineers of Yukon

**CITY OF WHITEHORSE**  
 DESIGN APPROVALS

MANAGER OF OPERATIONS \_\_\_\_\_ DATE \_\_\_\_\_

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MANAGER OF WATER & WASTE SERVICES \_\_\_\_\_ DATE \_\_\_\_\_



Suite 301-4109 4th Ave.  
 Whitehorse, Yukon  
 Canada Y1A 1H6  
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 Fax: 604-291-6163

**Associated Engineering**

**REVISIONS :**

NO.	DATE	ENG.	SUBJECT
0	2024 MAY 21	S.B.	ISSUED FOR TENDER

PROFESSIONAL ENGINEER  
 STEVEN B. BROWN  
 2024-05-20

PROJECT :  
**TA'AN KWACH'AN C-9B**  
 SUBDIVISION - PHASE 2

DRAWING TITLE :  
**TYPICAL DETAILS**  
 SHEET 6 OF 7

SCALE : N.T.S.

DATE : 2024/05/24

DESIGN : J.S.

DRAWN : J.S.

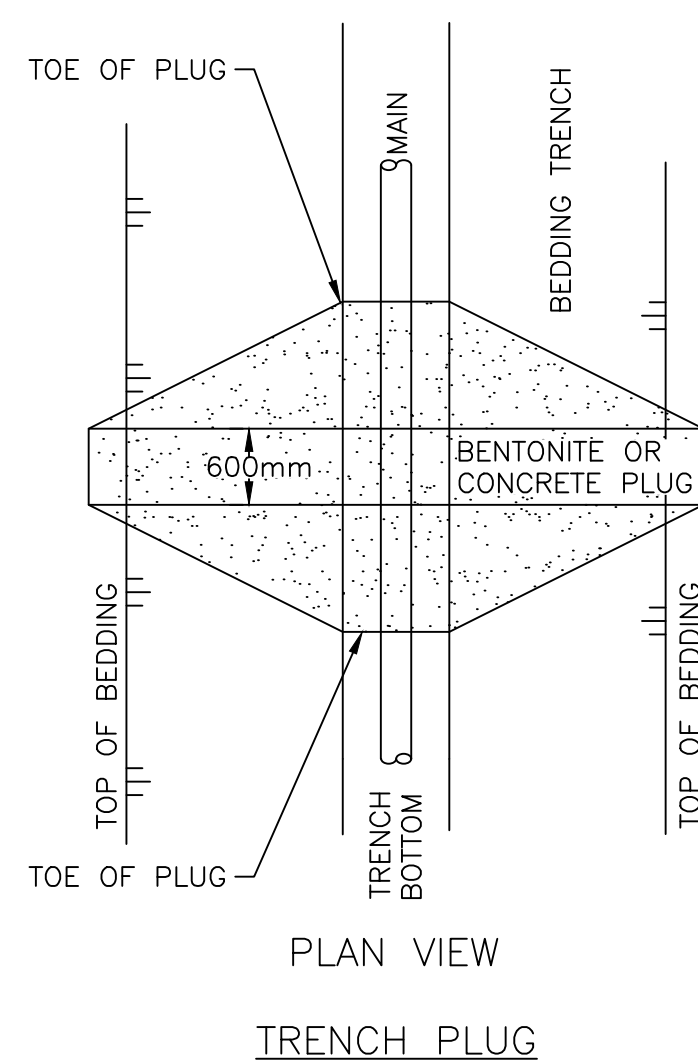
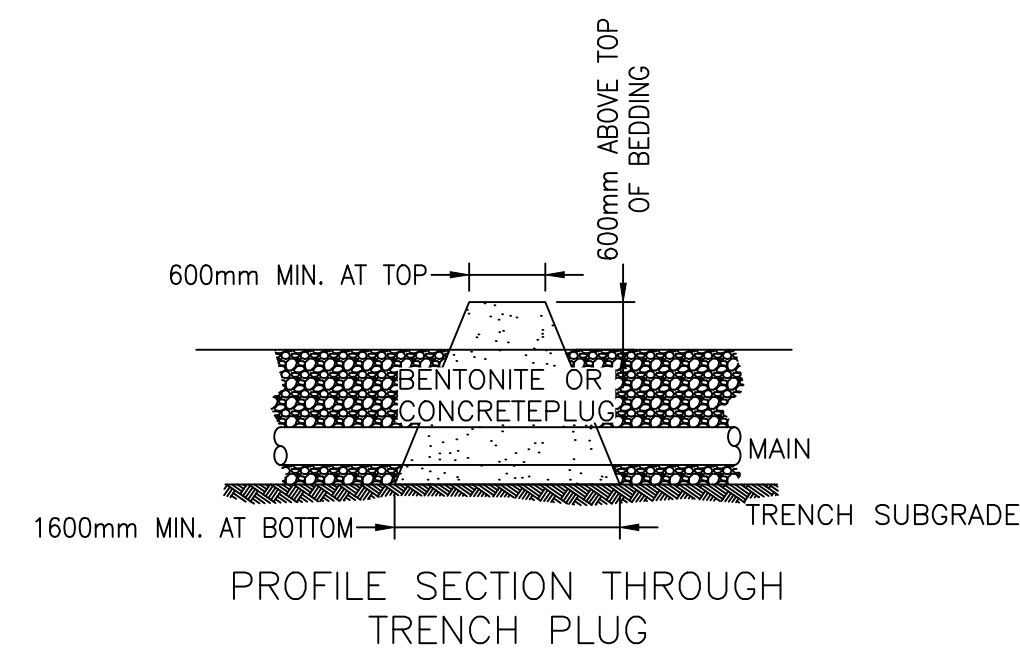
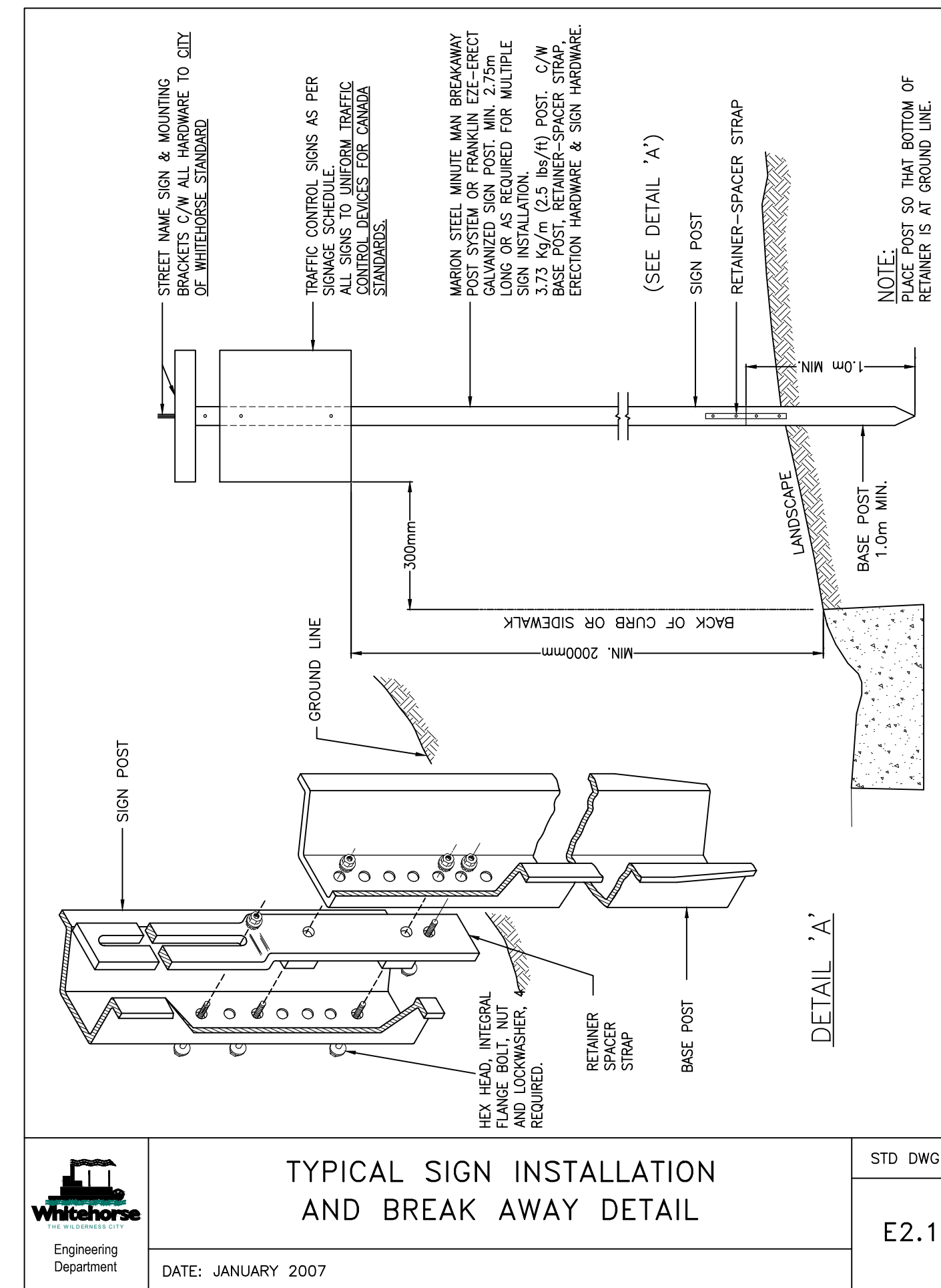
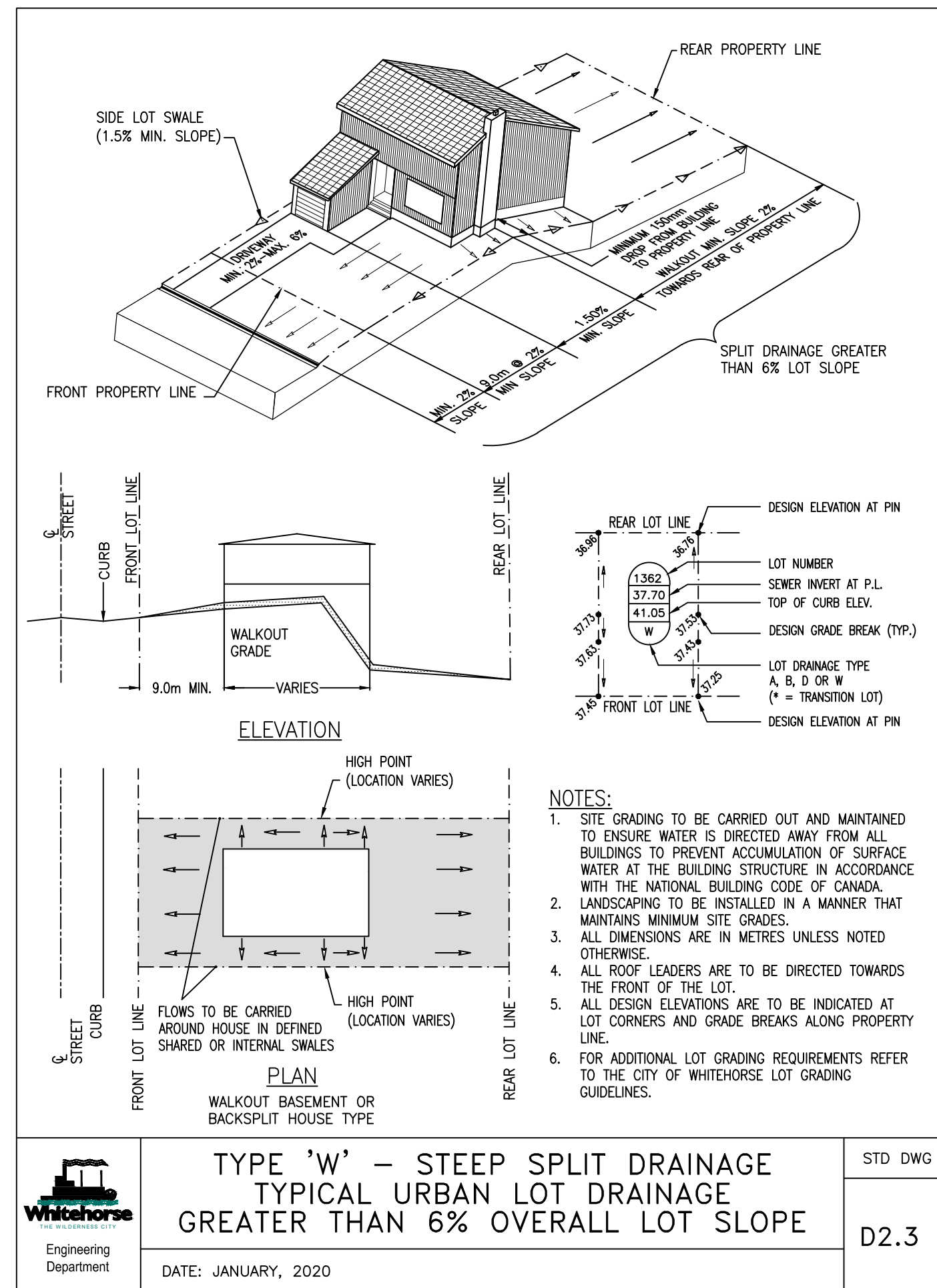
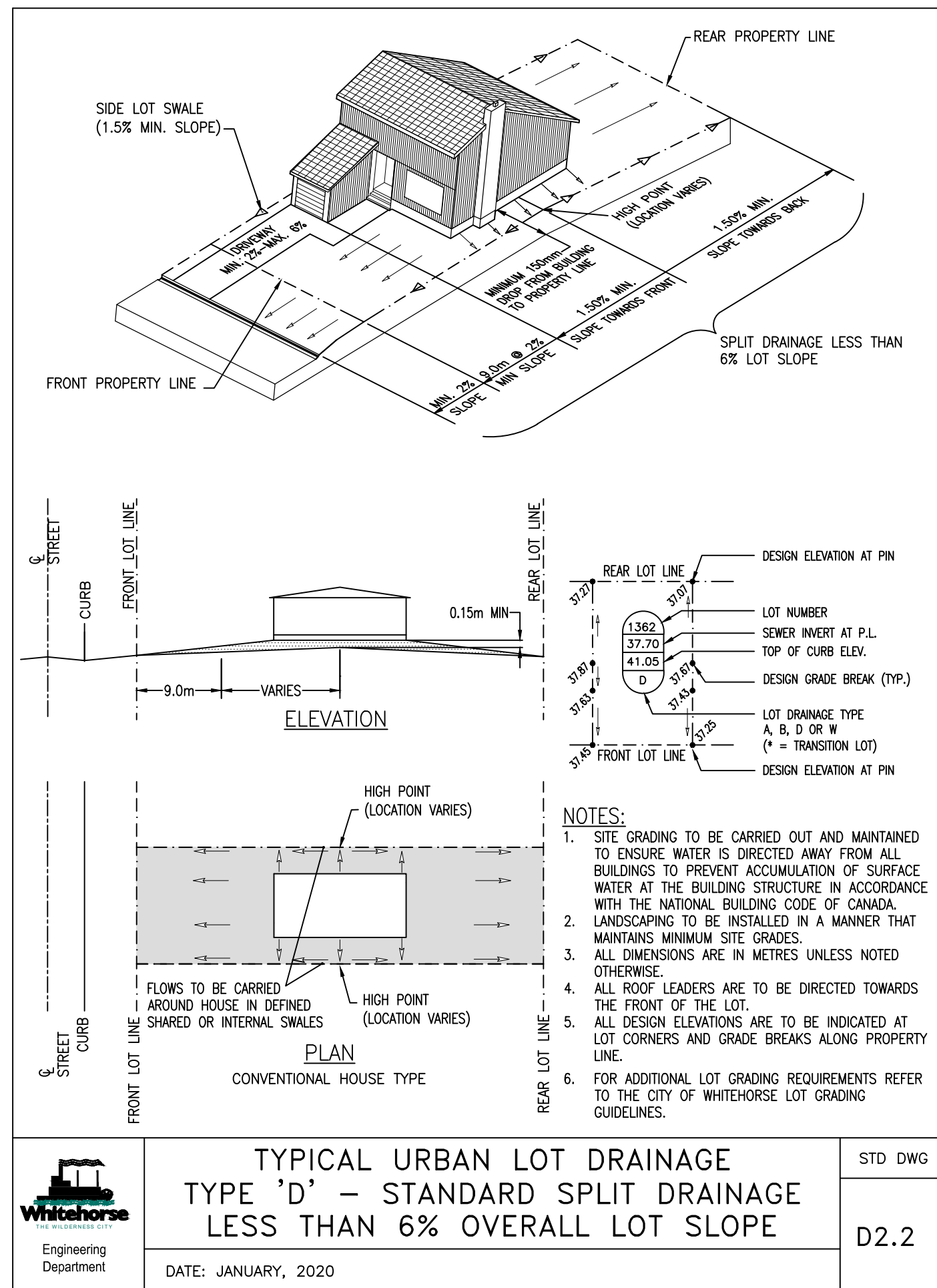
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APPROVED : S.B.

DRAWING NUMBER : 2183-17A-C-506

SHEET : 25

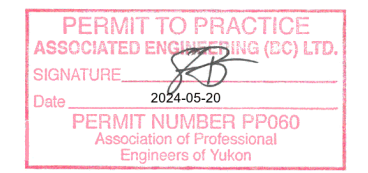




- NOTES:
1. MAX HEIGHT 2.5m
  2. MIN HEIGHT 1.2m
  3. PLUG TO EXTEND A MINIMUM OF 600mm IN ALL DIRECTIONS AROUND PIPE, EXCEPT UNDER MINIMUM 150mm.
  4. TRENCH PLUGS TO BE INSTALLED WITHIN 1 PIPE LENGTH OF ALL UPSTREAM PIPES ENTERING EACH MANHOLE ON THE SANITARY SYSTEM, MAXIMUM SPACING ON SANITARY SYSTEM TO BE 110m
  5. TRENCH PLUGS ON THE WATER SYSTEM MAY BE INCORPORATED INTO THRUST BLOCKS AT HYDRANTS OR TEES, MAXIMUM SPACING ON WATER SYSTEM TO BE 90m

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CITY OF WHITEHORSE DESIGN APPROVALS

MANAGER OF OPERATIONS	DATE
MANAGER OF ENGINEERING SERVICES	DATE
MANAGER OF WATER & WASTE SERVICES	DATE



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PROJECT :  
**TA'AN KWACH'AN C-9B SUBDIVISION - PHASE 2**

DRAWING TITLE :  
**TYPICAL DETAILS SHEET 7 OF 7**

SCALE :	N.T.S.
DATE :	2024/05/24
DESIGN :	J.S.
DRAWN :	J.S.
CHECKED :	S.B.
APPROVED :	S.B.

DRAWING NUMBER :	SHEET :
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