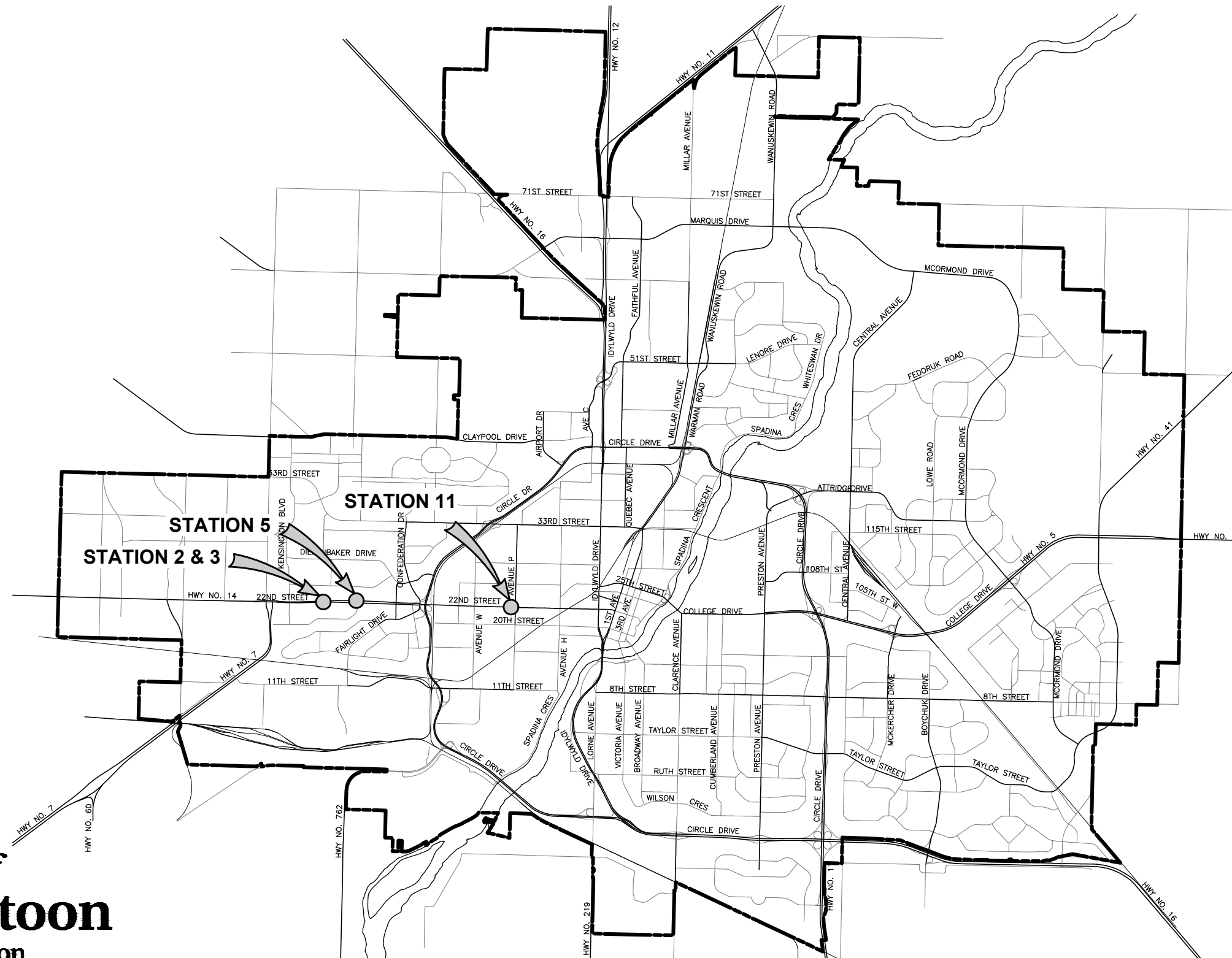


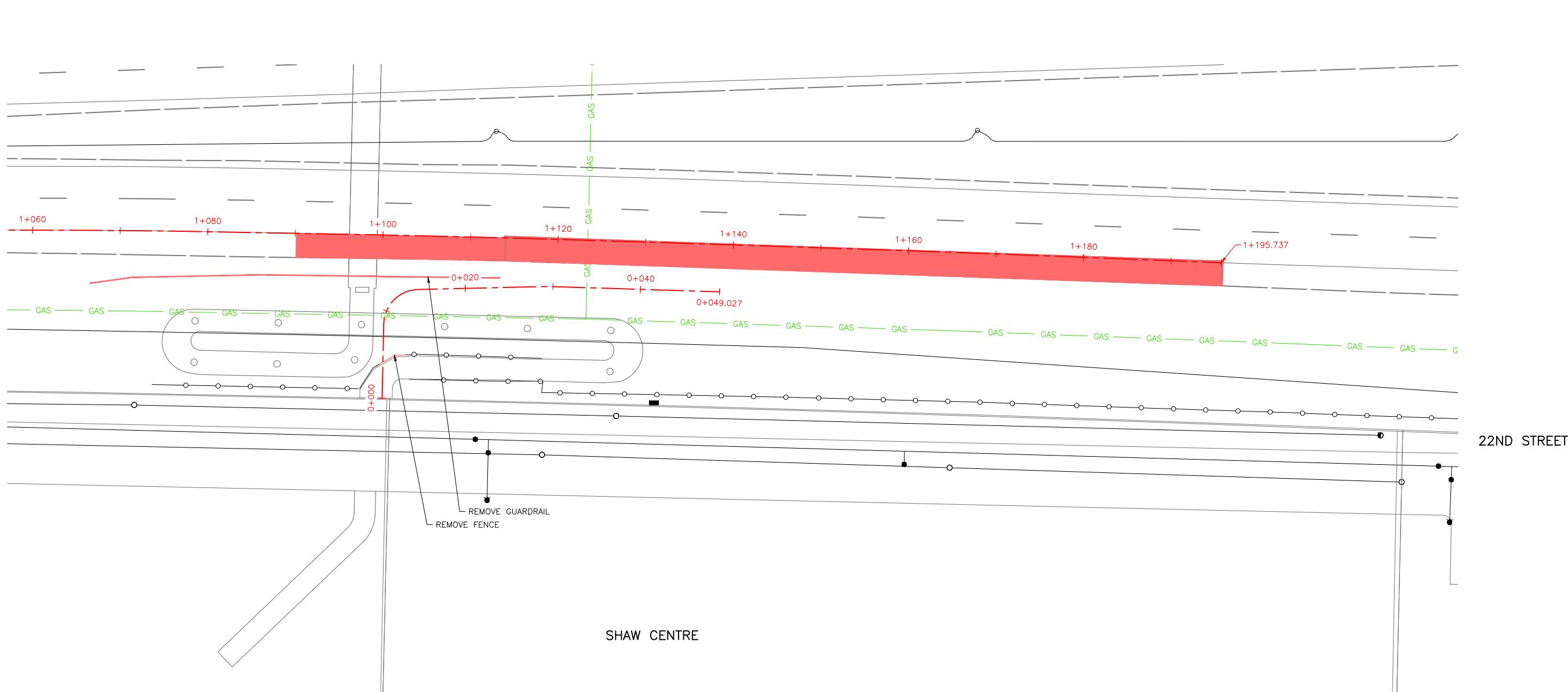
BUS RAPID TRANSIT SYSTEM STATION DESIGNS CONTRACT NO. 1



	DRAWING INDEX						DRAWING INDEX			
PLAN NO.	DESCRIPTION					PLAN NO.	DESCRIPTION			
Z0012044-TR-1000	COVER PAGE					Z0012044-TR-1600	STANDARD DETAILS W-BEAM TO BARRIER TRANSITION			
Z0012044-TR-1001	INDEX OF DRAWINGS					Z0012044-TR-1601	STANDARD DETAILS FLEAT 350 END TERMINAL			
						Z0012044-TR-1602	STANDARD DETAILS BARRIER TO CURB TRANSITION SHEET 1 OF 2			
Z0012044-TR-1100	STATION 2 RED LINE 22ND STREET & SHAW CENTRE REMOVALS PLAN					Z0012044-TR-1603	STANDARD DETAILS BARRIER TO CURB TRANSITION SHEET 2 OF 2			
Z0012044-TR-1101	STATION 2 RED LINE 22ND STREET & SHAW CENTRE INSTALLATION PLAN									
Z0012044-TR-1102	STATION 2 RED LINE 22ND STREET & SHAW CENTRE CROSS SECTIONS									
Z0012044-TR-1103	STATION 2 RED LINE 22ND STREET & SHAW CENTRE CROSS SECTIONS									
Z0012044-TR-1104	STATION 2 RED LINE 22ND STREET & SHAW CENTRE SIDEWALK PROFILE									
Z0012044-TR-1105	STATION 2 RED LINE 22ND STREET & SHAW CENTRE PLATFORM DETAILS									
Z0012044-TR-1106	STATION 2 RED LINE 22ND STREET & SHAW CENTRE GUARDRAIL DETAILS									
Z0012044-TR-1200	STATION 3 RED LINE 22ND STREET & SHAW CENTRE REMOVALS PLAN									
Z0012044-TR-1201	STATION 3 RED LINE 22ND STREET & SHAW CENTRE INSTALLATION PLAN									
Z0012044-TR-1202	STATION 3 RED LINE 22ND STREET & SHAW CENTRE CROSS SECTIONS									
Z0012044-TR-1203	STATION 3 RED LINE 22ND STREET & SHAW CENTRE CROSS SECTIONS									
Z0012044-TR-1204	STATION 3 RED LINE 22ND STREET & SHAW CENTRE SIDEWALK PROFILE									
Z0012044-TR-1205	STATION 3 RED LINE 22ND STREET & SHAW CENTRE PLATFORM DETAILS									
Z0012044-TR-1300	STATION 5 RED LINE 22ND STREET & HART ROAD REMOVALS PLAN									
Z0012044-TR-1301	STATION 5 RED LINE 22ND STREET & HART ROAD INSTALLATION PLAN									
Z0012044-TR-1302	STATION 5 RED LINE 22ND STREET & HART ROAD CROSS SECTIONS									
Z0012044-TR-1303	STATION 5 RED LINE 22ND STREET & HART ROAD PLATFORM DETAILS									
Z0012044-TR-1400	STATION 11 RED/GREEN LINE 22ND STREET & AVE P REMOVALS PLAN									
Z0012044-TR-1401	STATION 11 RED/GREEN LINE 22ND STREET & AVE P INSTALLATION PLAN									
Z0012044-TR-1402	STATION 11 RED/GREEN LINE 22ND STREET & AVE P CROSS SECTIONS									
Z0012044-TR-1403	STATION 11 RED/GREEN LINE 22ND STREET & AVE P PLATFORM DETAILS									
Z0012044-TR-1500	STANDARD DETAILS UNDERGROUND ELECTRICAL CONNECTIONS									
Z0012044-TR-1501	STANDARD DETAILS RIGID PAVEMENT TYPICAL JOINT DETAILS									
Z0012044-TR-1502	STANDARD DETAILS PLATFORM STRUCTURAL DETAILS									
11						<div><div></div><div>City of Saskatoon</div><div>Transportation</div></div>		BUS RAPID TRANSIT SYSTEM		<div><div>ENGINEER</div><div>SCALES : HOR. _____ VERT. _____</div><div>SHEET NO. _____</div></div> <div><div>PLAN NO.</div><div>Z0012044-TR-1001</div></div>
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3	ISSUED FOR TENDER	2024-07-22	CIMA+							
2	ISSUED FOR REVIEW	2024-07-16	CIMA+							
1	ISSUED FOR REVIEW	2024-06-20	CIMA+							
	PLAN DESCRIPTION/REVISION	DATE	BY	SEAL						

FILE NAME: Z0012044-TR-1001-CONTRACT_1_INDEX.DWG PLOT: July 22, 2024 10:50 AM BY: MADI MUKHANOVA

LEGEND:
[Red Box] ASPHALT REMOVAL



Association of Professional Engineers & Geoscientists
of Saskatchewan
CERTIFICATE OF AUTHORIZATION
CIMA CANADA
Number C1396
Permission to Consult held by:
Discipline: Sk. Reg. No. Signature
TRANSPORTATION 13420

CIMA+

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3	ISSUED FOR TENDER	2024-07-22	CIMA+
2	ISSUED FOR REVIEW	2024-07-16	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

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BUS RAPID TRANSIT SYSTEM
STATION 2
RED LINE
22ND STREET & SHAW CENTRE
REMOVALS PLAN

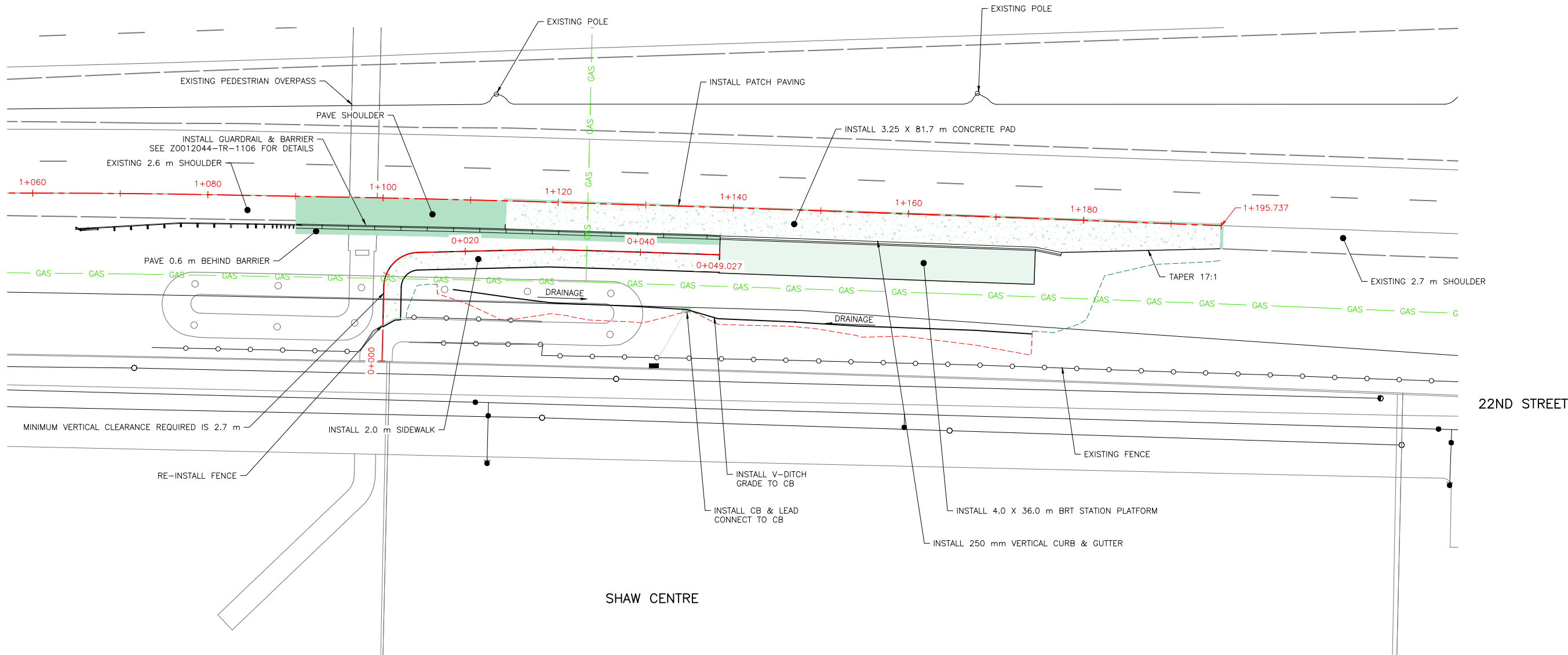
ENGINEER	
SCALES : HOR. 1:500 VERT. DATE	
SHEET NO. PLAN NO.	
-	Z0012044-TR-1100

LEGEND:

- ASPHALT INSTALLATION
- CONCRETE INSTALLATION
- BRT STATION PLATFORM INSTALLATION
- DAYLIGHT - CUT
- DAYLIGHT - FILL

NOTES:

1. CONTRACTOR TO MATCH EXISTING INFRASTRUCTURE AT TIE IN POINTS.
2. 250 mm VERTICAL CURB & GUTTER SHALL BE TAPERED FLUSH WITH SHOULDER SURFACE
3. SEE SHEET Z0012044-TR-1104 FOR SIDEWALK PROFILE.



CIMA+

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3	ISSUED FOR TENDER	2024-07-22	CIMA+
2	ISSUED FOR REVIEW	2024-07-16	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

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DATE	DATE
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BUS RAPID TRANSIT SYSTEM

STATION 2

RED LINE

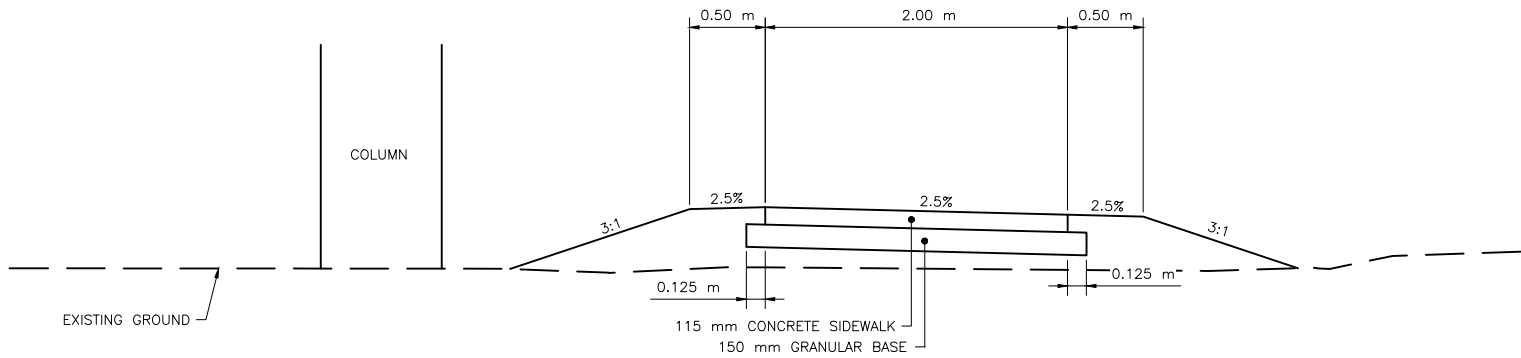
22ND STREET & SHAW CENTRE

INSTALLATION PLAN

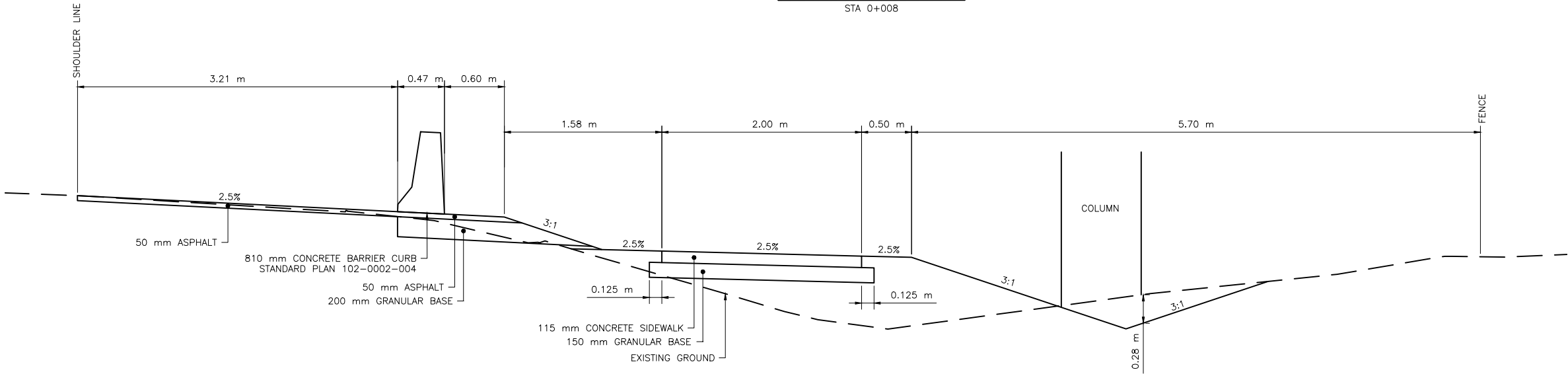
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HOR. 1:500	DATE
VERT.	
SHEET NO.	PLAN NO.
-	Z0012044-TR-1101

FILE NAME: Z0012044-TR-1100-CONTRACT_1_STATION_2.DWG PLOT: July 22, 2024 10:32 AM BY: MADI MUKHANOY

- NOTES:
- SEE THE FOLLOWING STANDARD PLANS FOR FURTHER DETAILS:
 - FULL HEIGHT CURBS WITH GUTTER - 102-0002-001
 - GRADE CONSTRUCTION FOR CURB & GUTTER - 102-0002-018
 - GRADE CONSTRUCTION FOR WALKWAY & SEPARATE SIDEWALK - 102-0002-020
 - CONTROL JOINTS - 102-0002-021
 - DOWEL/CONTROL JOINT LOCATION AND SPACING - 102-0002-022
 - TYPICAL TRANSITION, COMBINED SIDEWALK & CURB - 102-0002-028
 - SEPARATE SIDEWALK - 102-0002-031
 - GUTTER PATCH PAVING - 102-0002-049
 - TRANSITION TO 250 mm VERTICAL CURB - 102-0002-074



TYPICAL CROSS SECTION
STA 0+008



TYPICAL CROSS SECTION
STA 0+020.5 / STA 1+110



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3	ISSUED FOR TENDER	2024-07-22	CIMA+
2	ISSUED FOR REVIEW	2024-07-16	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

SEAL

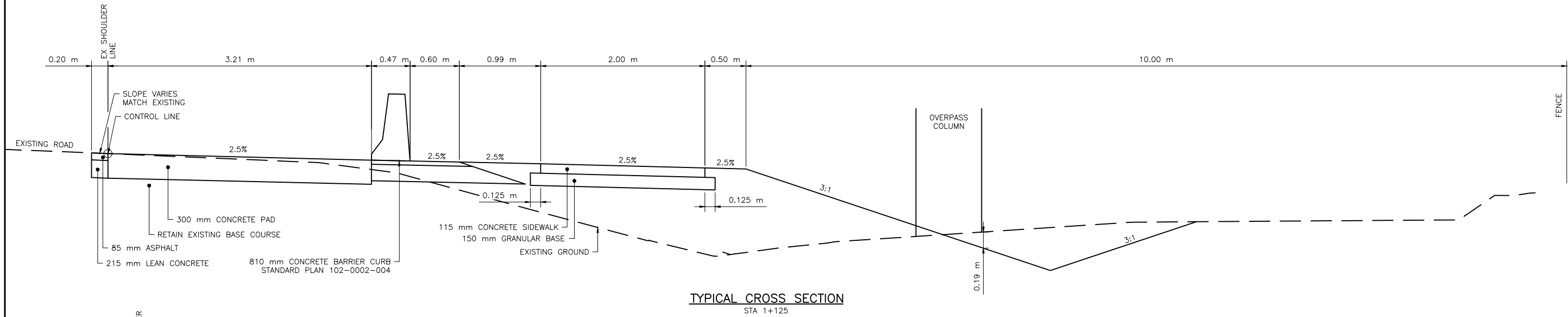
CHECKED BY:	CHECKED BY:
DATE	DATE
DRAWN BY:	DATE



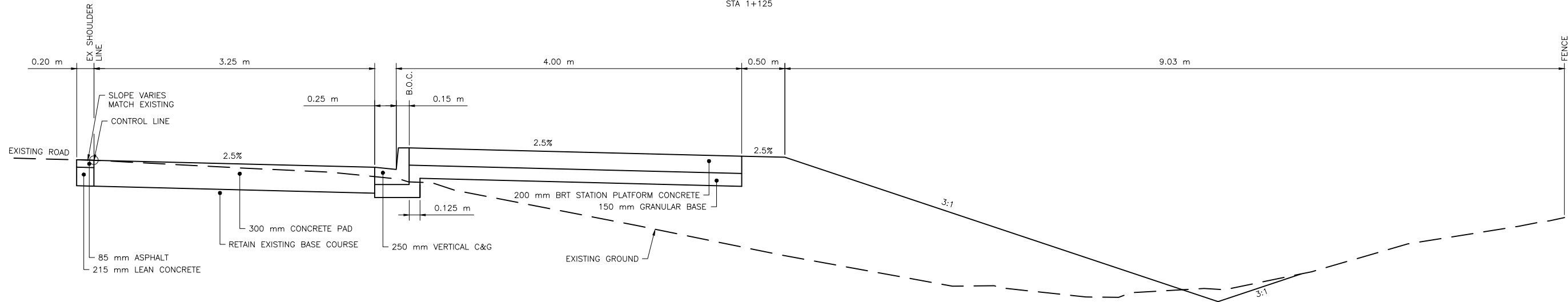
BUS RAPID TRANSIT SYSTEM
STATION 2
RED LINE
22ND STREET & SHAW CENTRE
CROSS SECTIONS

ENGINEER	
SCALES :	
HOR. 1:50	DATE
VERT.	
SHEET NO.	PLAN NO.
-	Z0012044-TR-1102

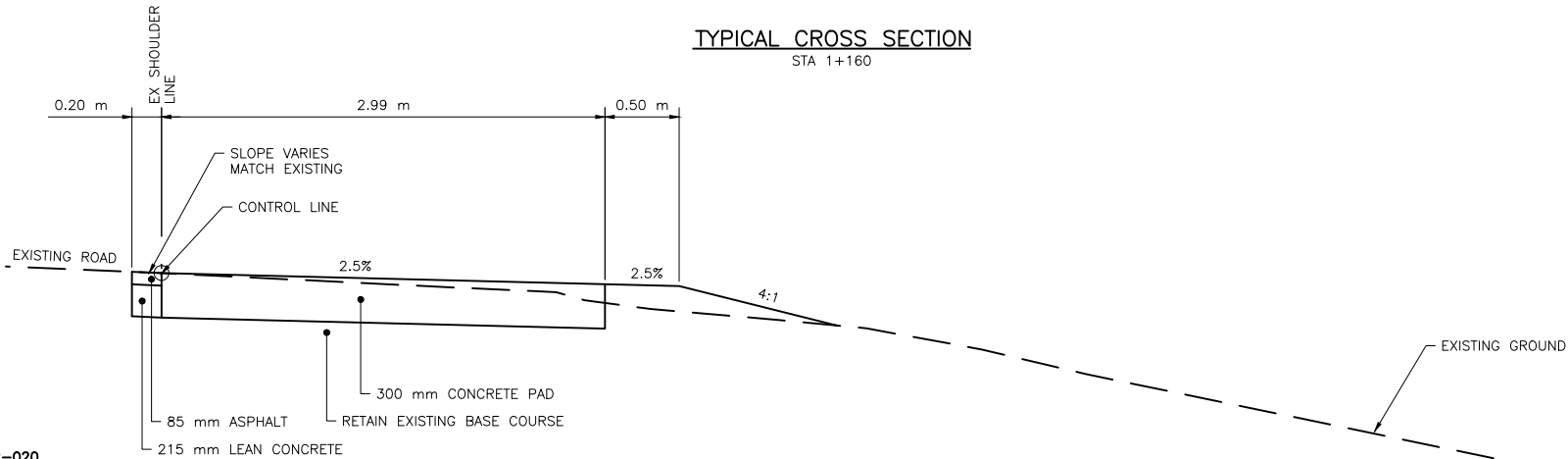
FILE NAME: Z0012044-TR-1100-CONTRACT_1_STATION_2.DWG PLOT: July 22, 2024 10:32 AM BY: MADHUKHANOV



TYPICAL CROSS SECTION
STA 1+125



TYPICAL CROSS SECTION
STA 1+160



TYPICAL CROSS SECTION
STA 1+190

NOTES:

- SEE THE FOLLOWING STANDARD PLANS FOR FURTHER DETAILS:
 - FULL HEIGHT CURBS WITH GUTTER - 102-0002-001
 - GRADE CONSTRUCTION FOR CURB & GUTTER - 102-0002-018
 - GRADE CONSTRUCTION FOR WALKWAY & SEPARATE SIDEWALK - 102-0002-020
 - CONTROL JOINTS - 102-0002-021
 - DOWEL/CONTROL JOINT LOCATION AND SPACING - 102-0002-022
 - TYPICAL TRANSITION, COMBINED SIDEWALK & CURB - 102-0002-028
 - SEPARATE SIDEWALK - 102-0002-031
 - GUTTER PATCH PAVING - 102-0002-049
 - TRANSITION TO 250 mm VERTICAL CURB - 102-0002-074



CIMA+

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3	ISSUED FOR TENDER	2024-07-22	CIMA+
2	ISSUED FOR REVIEW	2024-07-16	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

SEAL

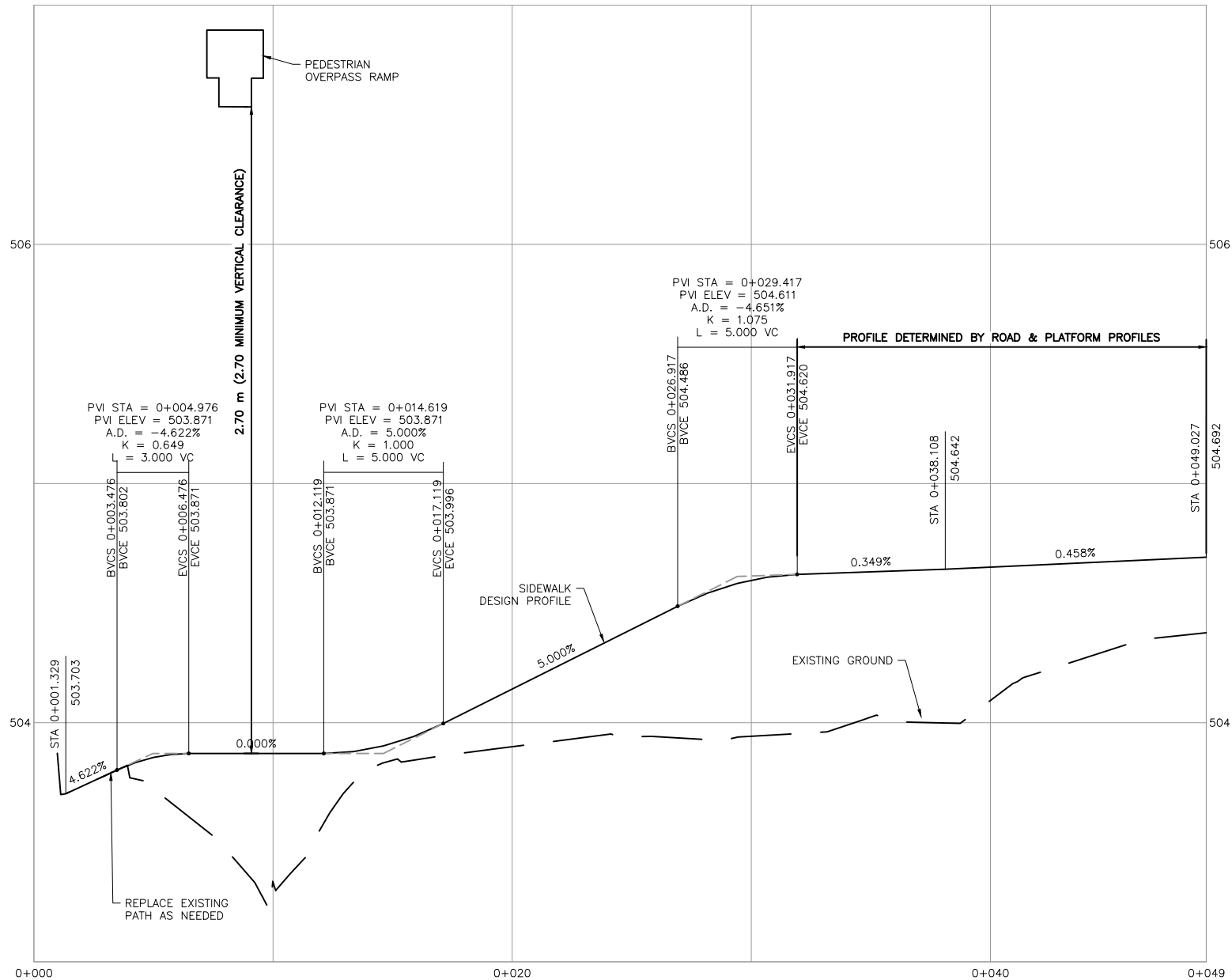
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BUS RAPID TRANSIT SYSTEM
STATION 2
RED LINE
22ND STREET & SHAW CENTRE
CROSS SECTIONS

ENGINEER	
SCALES:	
HOR. 1:50	DATE
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SHEET NO.	PLAN NO.
-	Z0012044-TR-1103

FILE NAME: Z0012044-TR-1100-CONTRACT_1_STATION_2.DWG PLOT: July 22, 2024 10:32 AM BY: MADI MUKHANDY



SIDEWALK PROFILE
1:250



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3	ISSUED FOR TENDER	2024-07-22	CIMA+
2	ISSUED FOR REVIEW	2024-07-16	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

SEAL

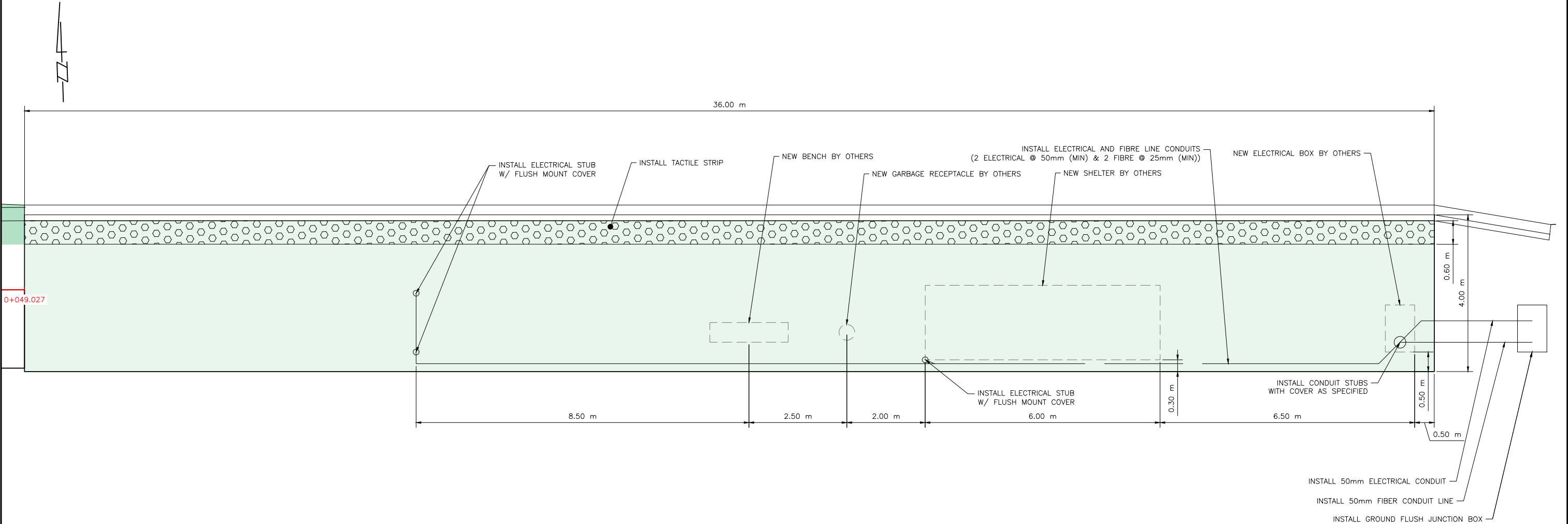
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DATE	DATE
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BUS RAPID TRANSIT SYSTEM
STATION 2
RED LINE
22ND STREET & SHAW CENTRE
SIDEWALK PROFILE

ENGINEER	
SCALES :	
HOR.	DATE
VERT.	
SHEET NO.	PLAN NO.
-	Z0012044-TR-1104

FILE NAME: Z0012044-TR-1100-CONTRACT_1_STATION_2.DWG PLOT: July 22, 2024 10:32 AM BY: MADI MUKHANOY



CIMA+

ENGINEER	
_____ DATE	
SCALES : HOR. 1:100 VERT. _____	
SHEET NO. —	PLAN NO. Z0012044-TR-1105

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3	ISSUED FOR TENDER	2024-07-22	CIMA+
2	ISSUED FOR REVIEW	2024-07-16	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

SEAL

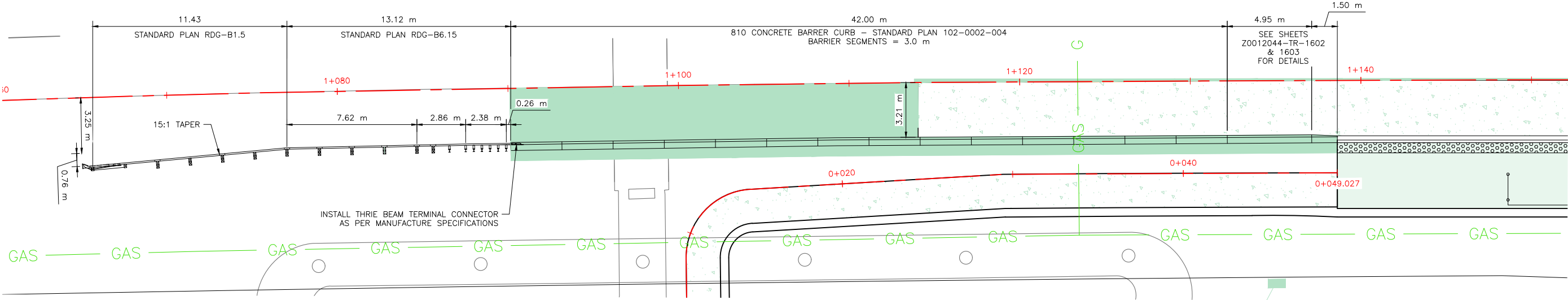
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BUS RAPID TRANSIT SYSTEM
STATION 2 RED LINE 22ND STREET & SHAW CENTRE PLATFORM DETAILS

FILE NAME: Z0012044-TR-1100-CONTRACT_1_STATION_2.DWG PLOT: July 22, 2024 10:32 AM BY: MADI MUKHANOY

NOTES:
1. SEE DRAWINGS Z0012044-TR-1600 TO 1603 FOR GUARDRAIL STANDARD PLANS.



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2	ISSUED FOR TENDER	2024-07-22	CIMA+
1	ISSUED FOR REVIEW	2024-07-16	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

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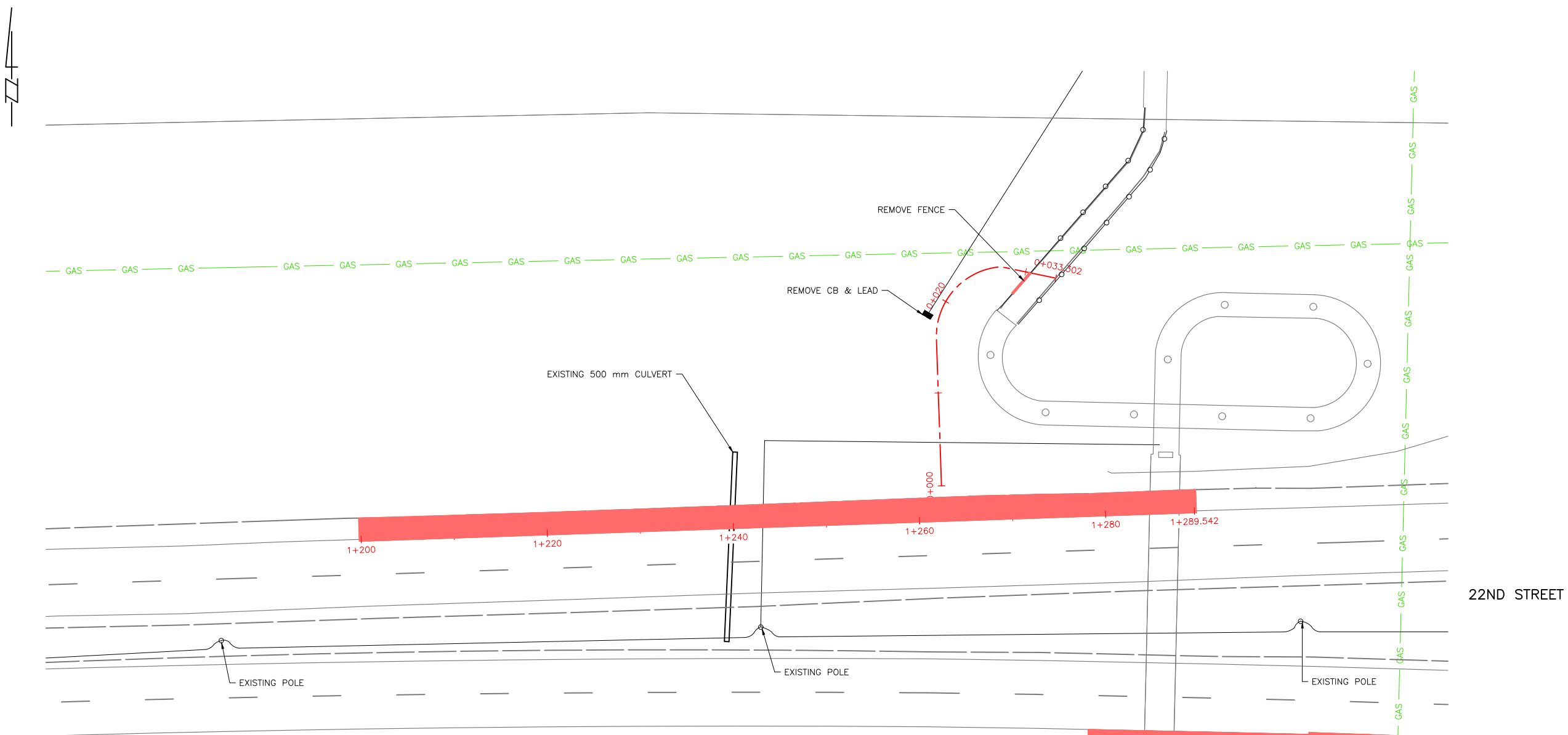
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BUS RAPID TRANSIT SYSTEM
STATION 2
RED LINE
22ND STREET & SHAW CENTRE
GUARDRAIL DETAILS

ENGINEER	
SCALES : HOR. 1:250 VERT. 1:250	DATE
SHEET NO. -	PLAN NO. Z0012044-TR-1106

LEGEND:
[Red Box] ASPHALT REMOVAL



22ND STREET



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3	ISSUED FOR TENDER	2024-07-22	CIMA+
2	ISSUED FOR REVIEW	2024-07-05	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

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BUS RAPID TRANSIT SYSTEM
STATION 3
RED LINE
22ND STREET & SHAW CENTRE
REMOVALS PLAN

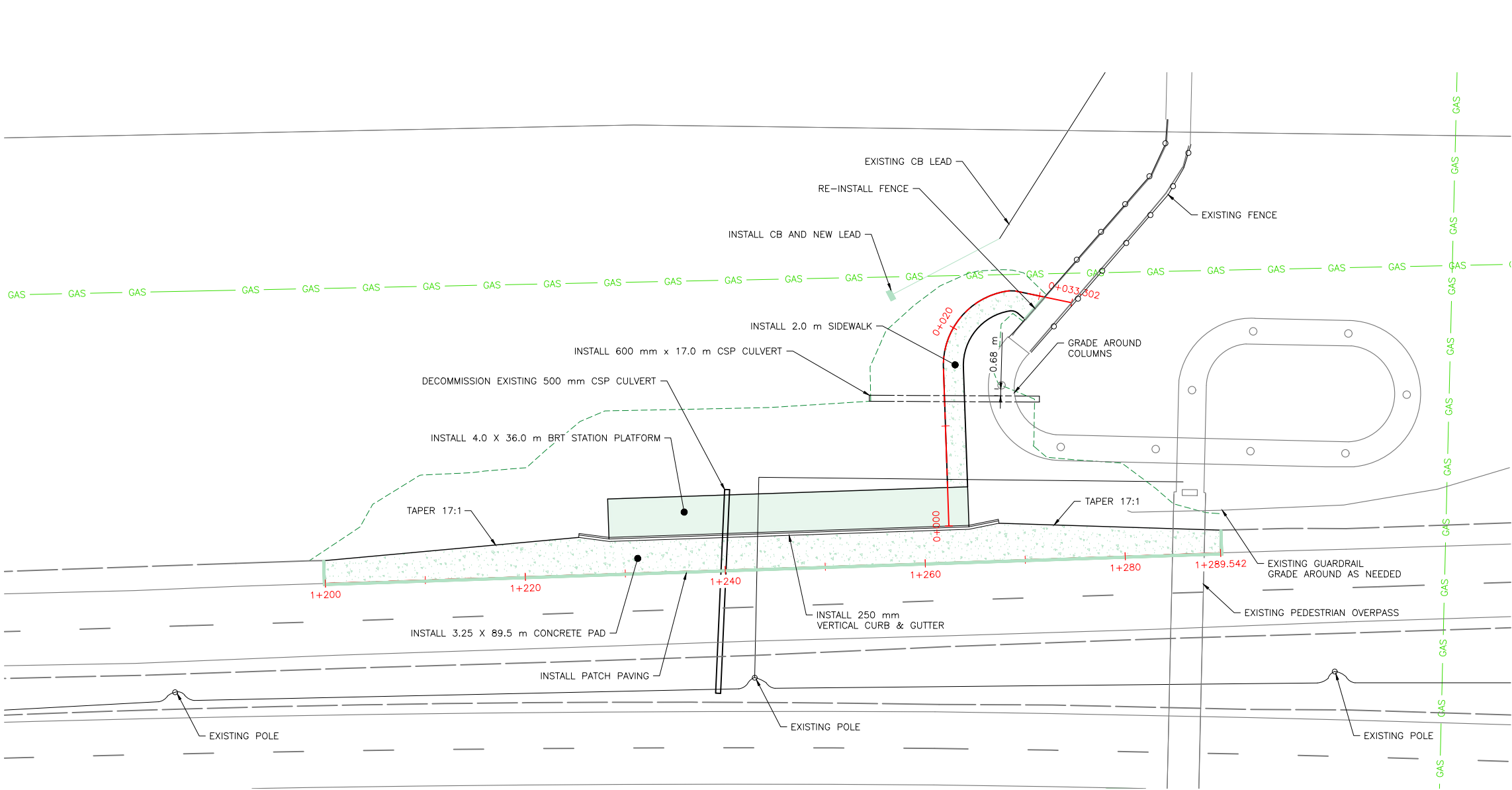
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SCALES : HOR. 1:500 VERT.	DATE
SHEET NO. —	PLAN NO. Z0012044-TR-1200

LEGEND:

- ASPHALT INSTALLATION
- CONCRETE INSTALLATION
- BRT STATION PLATFORM INSTALLATION
- DAYLIGHT - CUT
- DAYLIGHT - FILL

NOTES:

1. CONTRACTOR TO MATCH EXISTING INFRASTRUCTURE AT TIE IN POINTS.
2. 250 mm VERTICAL CURB & GUTTER SHALL BE TAPERED FLUSH WITH SHOULDER SURFACE
3. SIDEWALK LONGITUDINAL GRADE TO MATCH EXISTING, MAX SLOPE 3.0%



22ND STREET



CIMA+

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3	ISSUED FOR TENDER	2024-07-22	CIMA+
2	ISSUED FOR REVIEW	2024-07-05	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

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DATE	DATE
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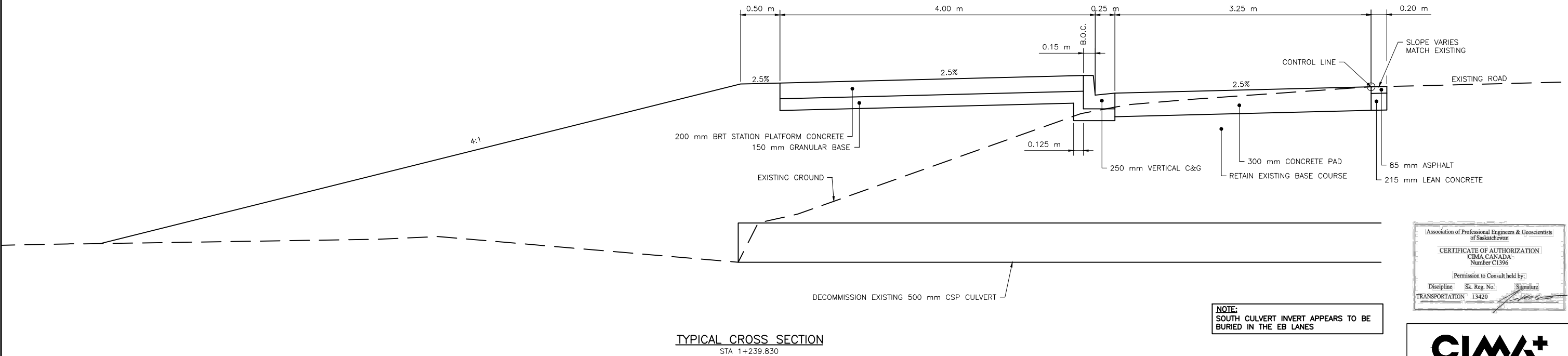
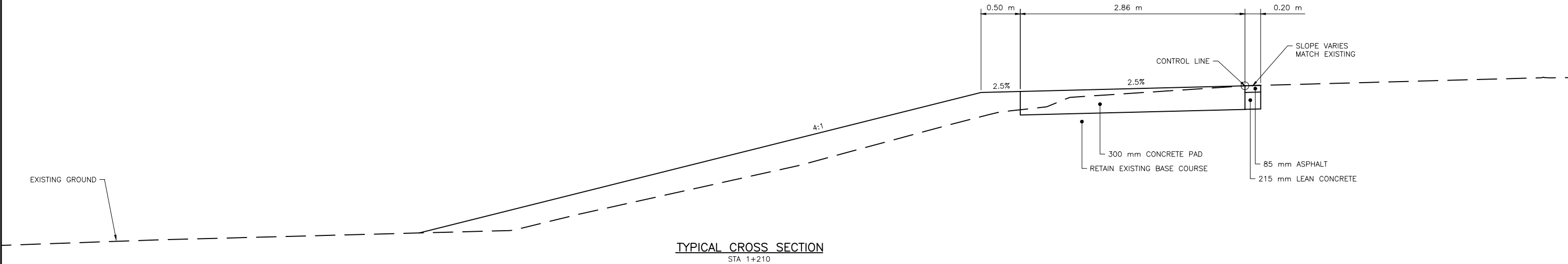


BUS RAPID TRANSIT SYSTEM
STATION 3
RED LINE
22ND STREET & SHAW CENTRE
INSTALLATION PLAN

ENGINEER	
SCALES : HOR. 1:500 VERT. 1:500	DATE
SHEET NO. -	PLAN NO. Z0012044-TR-1201

FILE NAME: Z0012044-TR-1200-CONTRACT_1_STATION_3.DWG PLOT: July 22, 2024 10:29 AM BY: MADI MUKHANOY

- NOTES:
- SEE THE FOLLOWING STANDARD PLANS FOR FURTHER DETAILS:
 - FULL HEIGHT CURBS WITH GUTTER - 102-0002-001
 - GRADE CONSTRUCTION FOR CURB & GUTTER - 102-0002-018
 - GRADE CONSTRUCTION FOR WALKWAY & SEPARATE SIDEWALK - 102-0002-020
 - CONTROL JOINTS - 102-0002-021
 - DOWEL/CONTROL JOINT LOCATION AND SPACING - 102-0002-022
 - TYPICAL TRANSITION, COMBINED SIDEWALK & CURB - 102-0002-028
 - SEPARATE SIDEWALK - 102-0002-031
 - GUTTER PATCH PAVING - 102-0002-049
 - TRANSITION TO 250 mm VERTICAL CURB - 102-0002-074



NOTE:
SOUTH CULVERT INVERT APPEARS TO BE
BURIED IN THE EB LANES



CIMA+

ENGINEER

SCALES :
HOR. 1:50
VERT. DATE

SHEET NO. PLAN NO.
- Z0012044-TR-1202

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3	ISSUED FOR TENDER	2024-07-22	CIMA+
2	ISSUED FOR REVIEW	2024-07-05	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

SEAL

CHECKED BY:	CHECKED BY:
DATE	DATE
DRAWN BY:	DATE



BUS RAPID TRANSIT SYSTEM

STATION 3

RED LINE

22ND STREET & SHAW CENTRE

CROSS SECTIONS

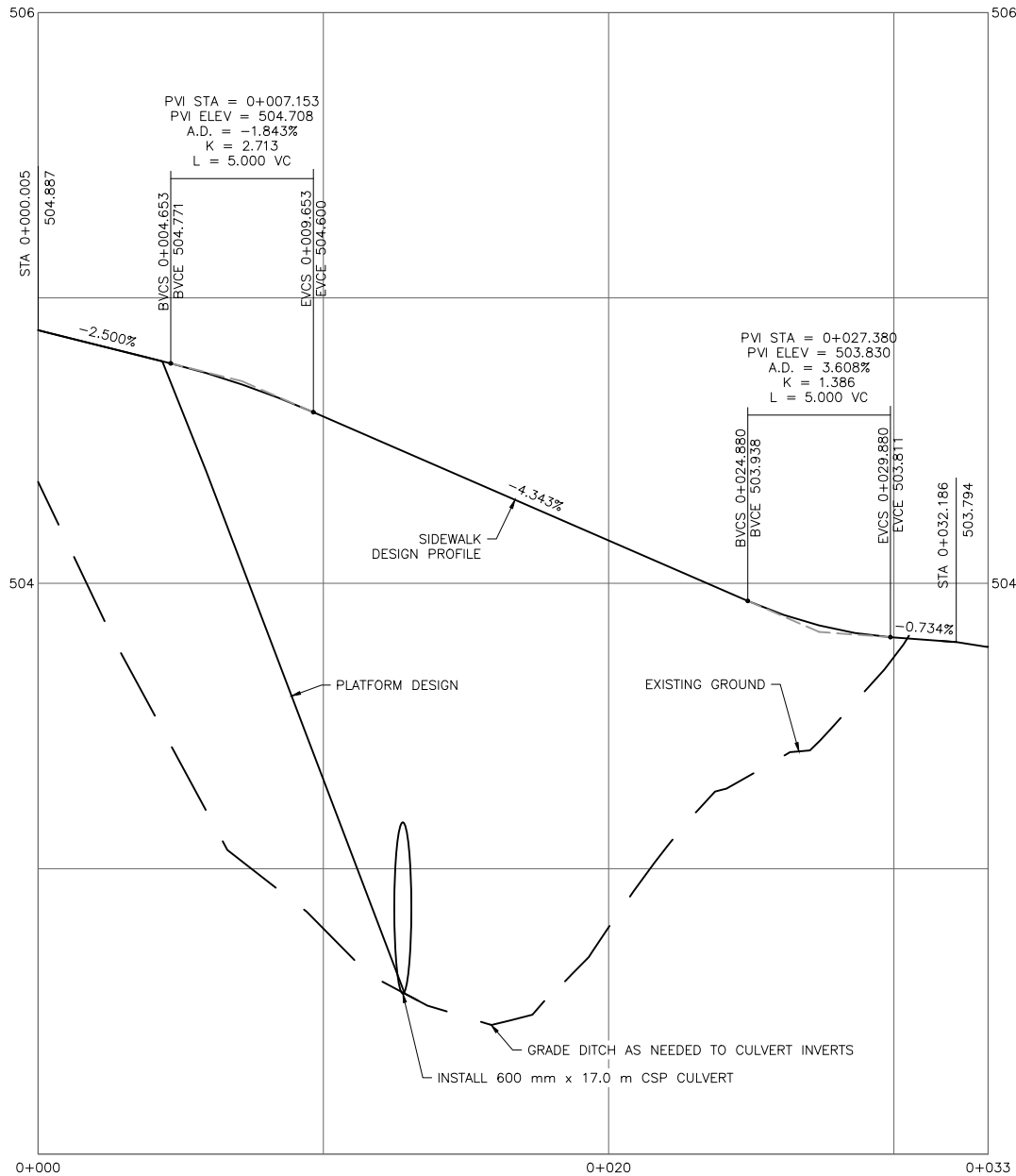
1. SEE THE FOLLOWING STANDARD PLANS FOR FURTHER DETAILS:

- FULL HEIGHT CURBS WITH GUTTER - 102-0002-001
- GRADE CONSTRUCTION FOR CURB & GUTTER - 102-0002-018
- GRADE CONSTRUCTION FOR WALKWAY & SEPARATE SIDEWALK - 102-0002-020
- CONTROL JOINTS - 102-0002-021
- DOWEL/CONTROL JOINT LOCATION AND SPACING - 102-0002-022
- TYPICAL TRANSITION, COMBINED SIDEWALK & CURB - 102-0002-028
- SEPARATE SIDEWALK - 102-0002-031
- GUTTER PATCH PAVING - 102-0002-049
- TRANSITION TO 250 mm VERTICAL CURB - 102-0002-074

[illegible]

FILE NAME: Z0012044-TR-1200-CONTRACT_1_STATION_3.DWG PLOT: July 22, 2024 10:29 AM BY: MADI MUKHANOV

FILE NAME: Z0012044-TR-1200-CONTRACT_1_STATION_3.DWG PLOT: July 22, 2024 10:29 AM BY: MADI MUKHANOY



SIDEWALK PROFILE
1:250



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3	ISSUED FOR TENDER	2024-07-22	CIMA+
2	ISSUED FOR REVIEW	2024-07-05	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

SEAL

CHECKED BY:	CHECKED BY:
DATE	DATE
DRAWN BY	DATE



BUS RAPID TRANSIT SYSTEM

STATION 3

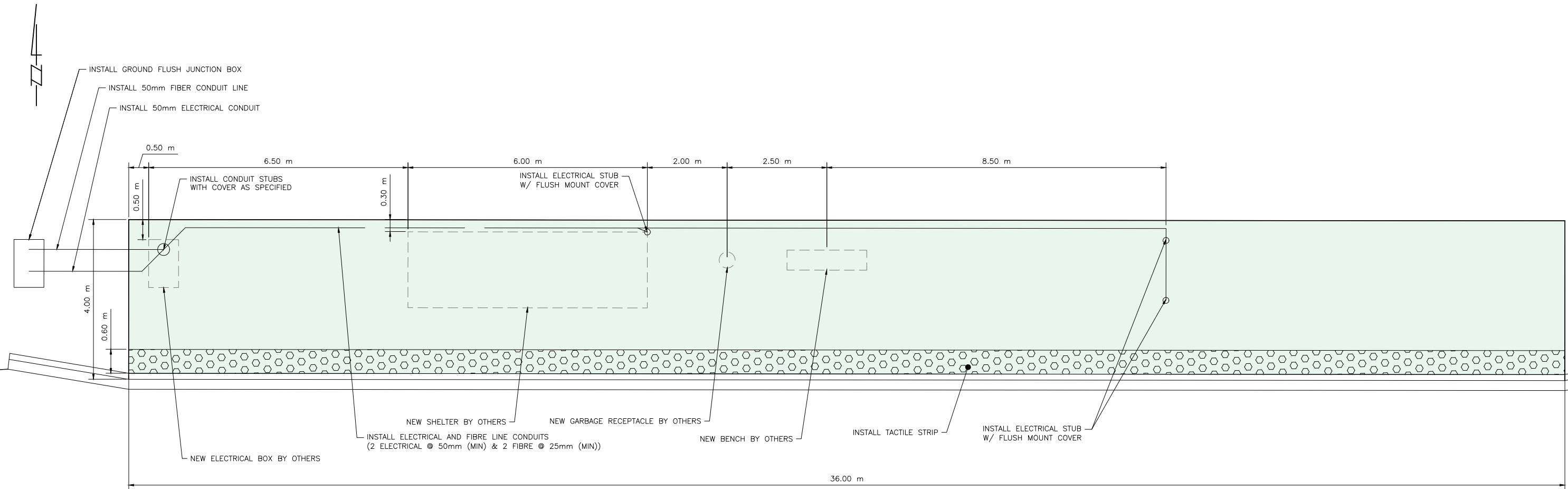
RED LINE

22ND STREET & SHAW CENTRE

SIDEWALK PROFILE

ENGINEER	
SCALES :	
HOR.	DATE
VERT.	
SHEET NO.	PLAN NO.
-	Z0012044-TR-1204

FILE NAME: Z0012044-TR-1200-CONTRACT_1_STATION_3.DWG PLOT: July 22, 2024 10:29 AM BY: MADHUKHANOV



CIMA+

BUS RAPID TRANSIT SYSTEM	
STATION 3	
RED LINE	
22ND STREET & SHAW CENTRE	
PLATFORM DETAILS	
ENGINEER	DATE
SCALES : HOR. 1:100 VERT.	
SHEET NO. -	PLAN NO. Z0012044-TR-1205

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3	ISSUED FOR TENDER	2024-07-22	CIMA+
2	ISSUED FOR REVIEW	2024-07-05	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

SEAL

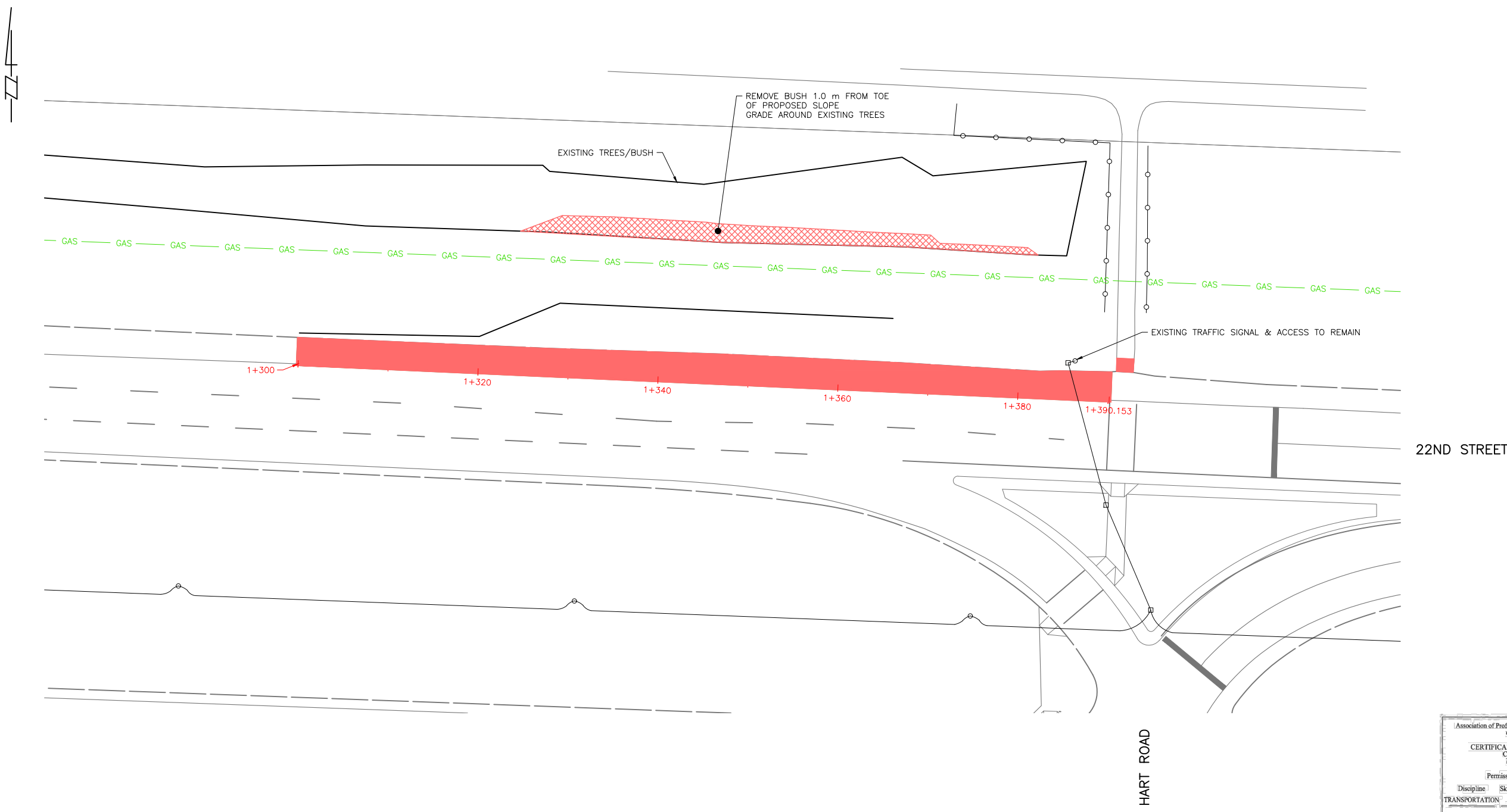
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DATE	DATE
DRAWN BY	DATE



LEGEND:

ASPHALT REMOVAL

VEGETATION REMOVAL



Association of Professional Engineers & Geoscientists
of Saskatchewan

CERTIFICATE OF AUTHORIZATION
CIMA CANADA
Number C1396

Permission to Consult held by:

Discipline: Sk. Reg. No. Signature

TRANSPORTATION: 13420

CIMA+

ENGINEER

SCALES :
HOR. 1:500
VERT. DATE

SHEET NO. PLAN NO.

— Z0012044-TR-1300

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3	ISSUED FOR TENDER	2024-07-22	CIMA+
2	ISSUED FOR REVIEW	2024-07-05	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

CHECKED BY:	CHECKED BY:
DATE	DATE
DRAWN BY	DATE



BUS RAPID TRANSIT SYSTEM

STATION 5

RED LINE

22ND STREET & HART ROAD

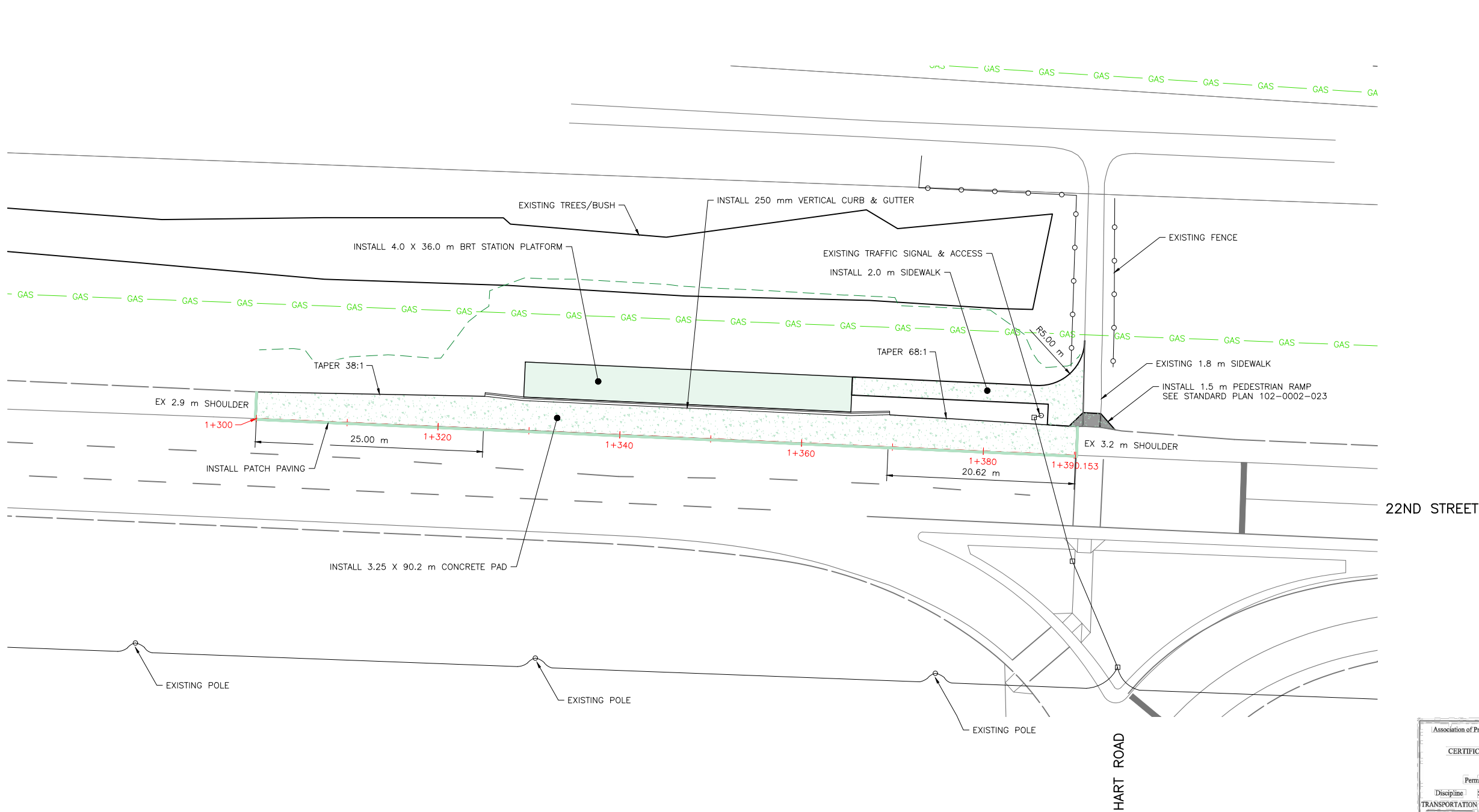
REMOVALS PLAN

LEGEND:

- ASPHALT INSTALLATION
- CONCRETE INSTALLATION
- BRT STATION PLATFORM INSTALLATION
- DAYLIGHT - CUT
- DAYLIGHT - FILL

NOTES:

1. CONTRACTOR TO MATCH EXISTING INFRASTRUCTURE AT TIE IN POINTS.
2. 250 mm VERTICAL CURB & GUTTER SHALL BE TAPERED FLUSH WITH SHOULDER SURFACE
3. SIDEWALK LONGITUDINAL GRADE TO MATCH EXISTING, MAX SLOPE 3.0%



CIMA+

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3	ISSUED FOR TENDER	2024-07-22	CIMA+
2	ISSUED FOR REVIEW	2024-07-05	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

SEAL

CHECKED BY:	CHECKED BY:
DATE	DATE
DRAWN BY:	DATE



BUS RAPID TRANSIT SYSTEM

STATION 5
RED LINE
22ND STREET & HART ROAD
INSTALLATION PLAN

ENGINEER	
SCALES :	
HOR. 1:500	DATE
VERT.	
SHEET NO.	PLAN NO.
-	Z0012044-TR-1301

NOTES:

1. SEE THE FOLLOWING STANDARD PLANS FOR FURTHER DETAILS:
- FULL HEIGHT CURBS WITH GUTTER - 102-0002-001
 - GRADE CONSTRUCTION FOR CURB & GUTTER - 102-0002-018
 - GRADE CONSTRUCTION FOR WALKWAY & SEPARATE SIDEWALK - 102-0002-020
 - CONTROL JOINTS - 102-0002-021
 - DOWEL/CONTROL JOINT LOCATION AND SPACING - 102-0002-022
 - TYPICAL TRANSITION, COMBINED SIDEWALK & CURB - 102-0002-028
 - SEPARATE SIDEWALK - 102-0002-031
 - GUTTER PATCH PAVING - 102-0002-049
 - TRANSITION TO 250 mm VERTICAL CURB - 102-0002-074

EXISTING GROUND

TYPICAL CROSS SECTION

STA 1+310

EXISTING GROUND

TYPICAL CROSS SECTION

STA 1+350

TYPICAL CROSS SECTION

STA 1+380



CIMA+

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3	ISSUED FOR TENDER	2024-07-22	CIMA+
2	ISSUED FOR REVIEW	2024-07-05	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

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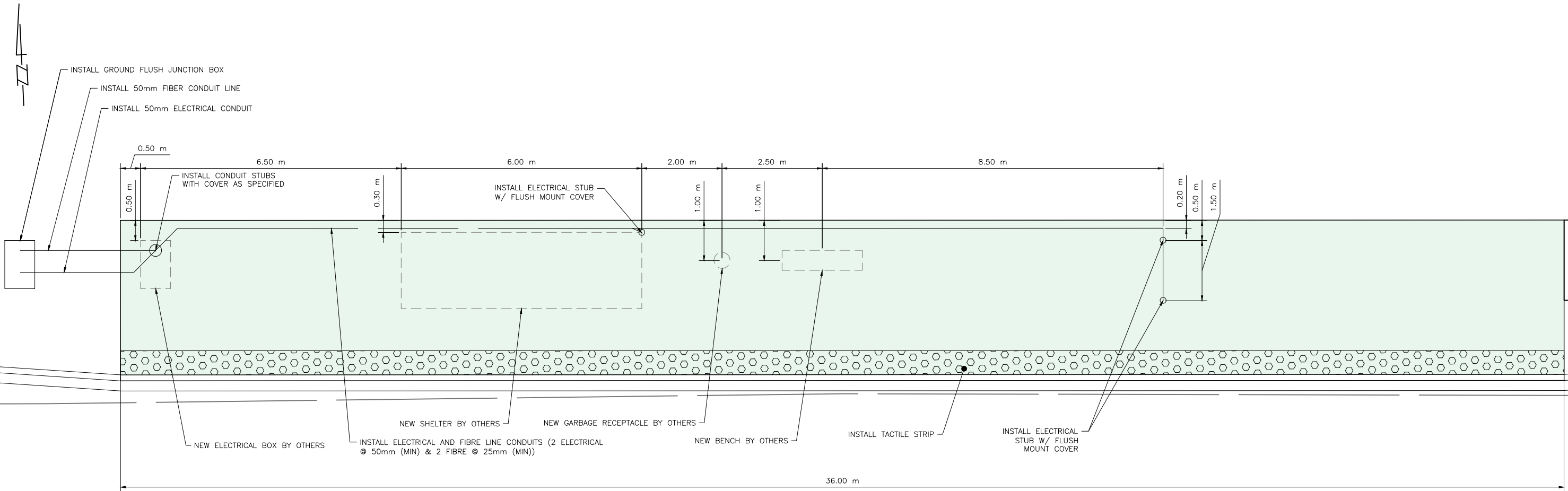


BUS RAPID TRANSIT SYSTEM

STATION 5
RED LINE
22ND STREET & HART ROAD
CROSS SECTIONS

ENGINEER	
SCALES :	
HOR. 1:50	DATE
VERT.	
SHEET NO.	PLAN NO.
-	Z0012044-TR-1302

FILE NAME: Z0012044-TR-1300-CONTRACT_1_STATION_5.DWG PLOT: July 22, 2024 10:26 AM BY: MADI MUKHANOVI



CIMA+

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3	ISSUED FOR TENDER	2024-07-22	CIMA+
2	ISSUED FOR REVIEW	2024-07-05	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

SEAL

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DATE	DATE
DRAWN BY	DATE



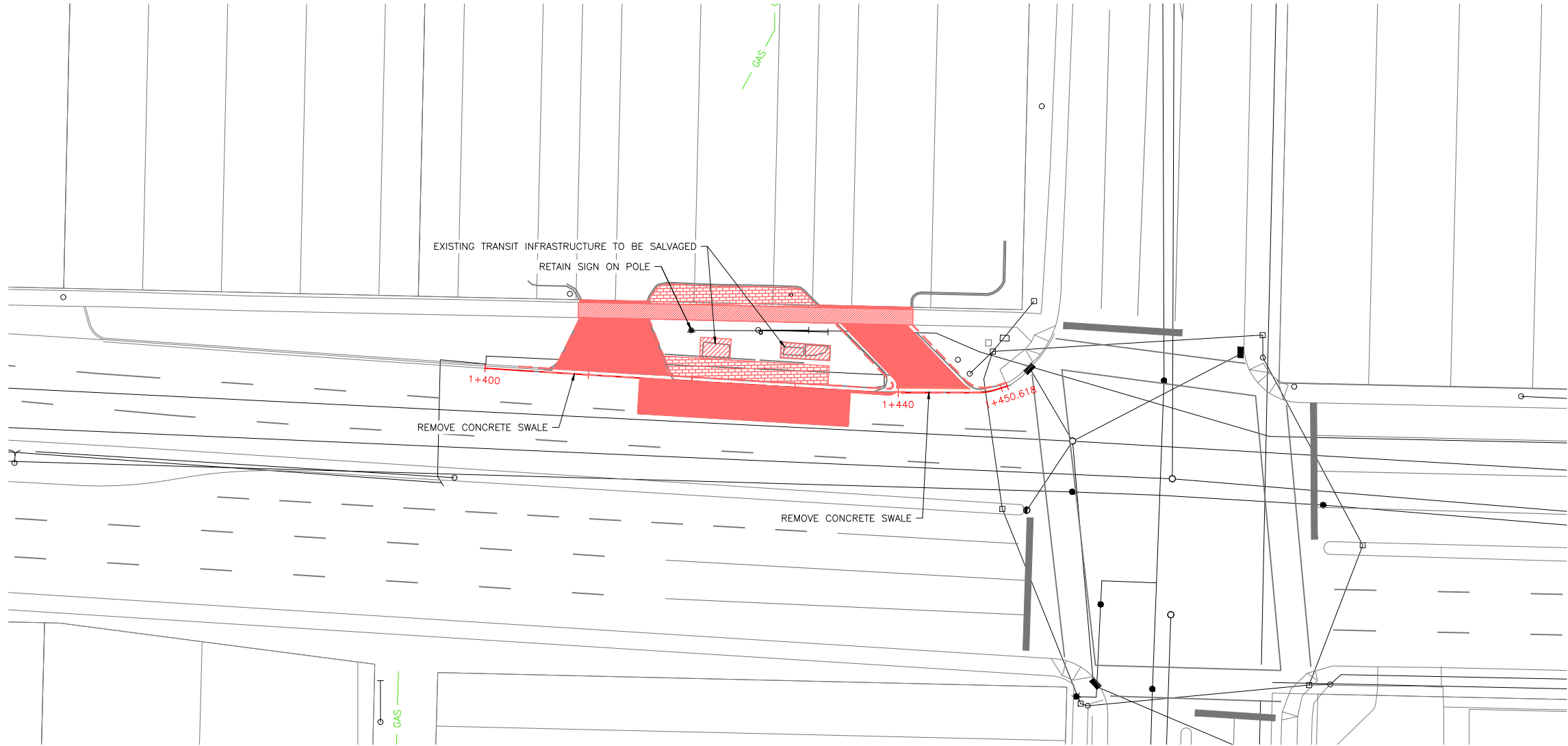
BUS RAPID TRANSIT SYSTEM

STATION 5
RED LINE
22ND STREET & HART ROAD
PLATFORM DETAILS

ENGINEER	
SCALES : HOR. 1:100 VERT.	DATE
SHEET NO. -	PLAN NO. Z0012044-TR-1303

LEGEND:

- ASPHALT REMOVAL
- CONCRETE REMOVAL
- BRICK REMOVAL
- REMOVE CURB



22ND STREET

AVE P



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3	ISSUED FOR TENDER	2024-07-22	CIMA+
2	ISSUED FOR REVIEW	2024-07-05	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

SEAL

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DATE	DATE
DRAWN BY:	DATE



BUS RAPID TRANSIT SYSTEM

STATION 11
RED/GREEN LINE
22ND STREET & AVE P
REMOVALS PLAN

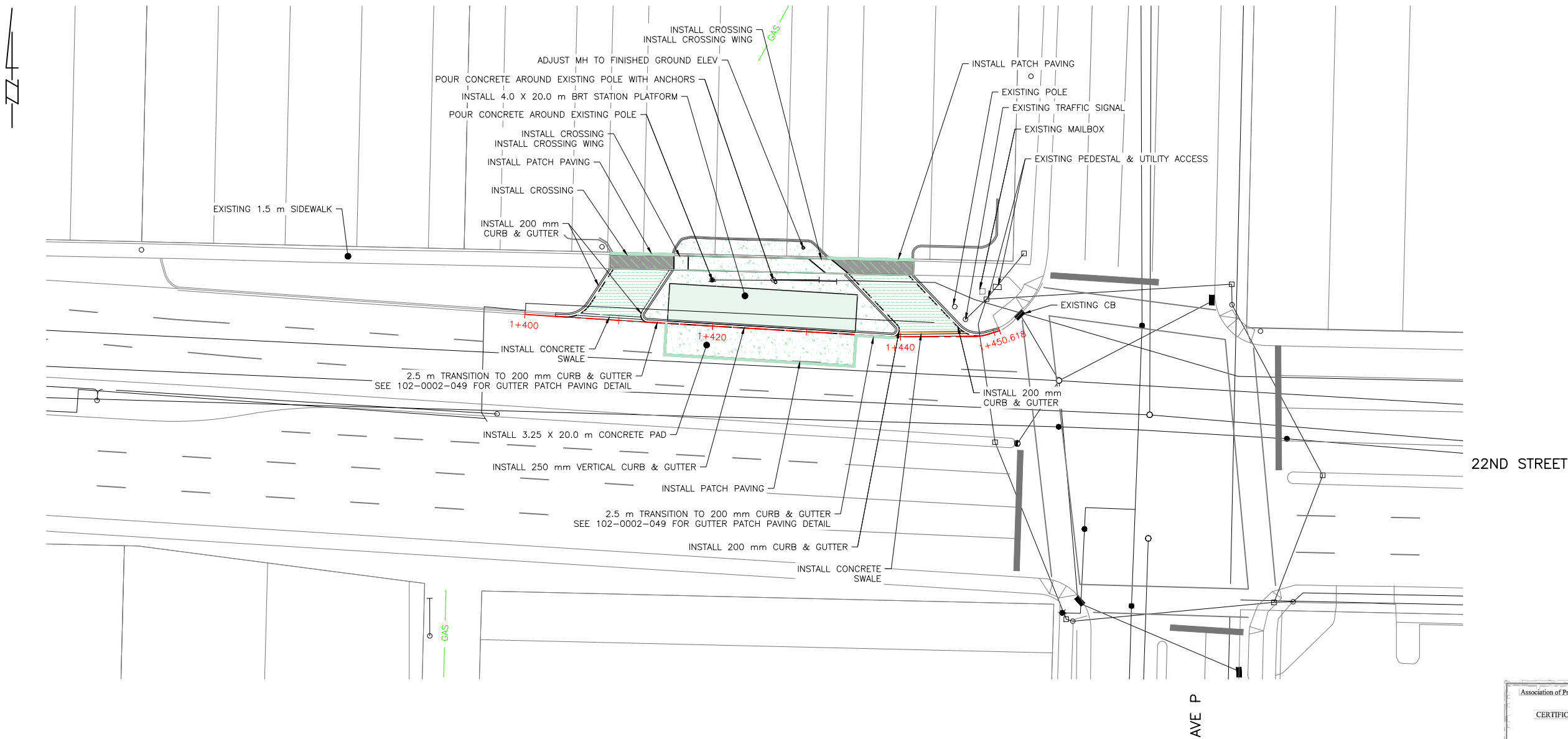
ENGINEER	
SCALES : HOR. 1:500 VERT.	DATE
SHEET NO. -	PLAN NO. Z0012044-TR-1400

LEGEND:

- ASPHALT INSTALLATION
- CONCRETE INSTALLATION
- CROSSING INSTALLATION (180 mm THICKNESS)
- 50 mm MILL & FILL
- BRT STATION PLATFORM INSTALLATION
- DAYLIGHT - CUT
- DAYLIGHT - FILL

NOTES:

1. CONTRACTOR TO MATCH EXISTING INFRASTRUCTURE AT TIE IN POINTS.
2. SIDEWALK LONGITUDINAL GRADE TO MATCH EXISTING, MAX SLOPE 3.0%



CIMA+

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2	ISSUED FOR REVIEW	2024-07-05	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

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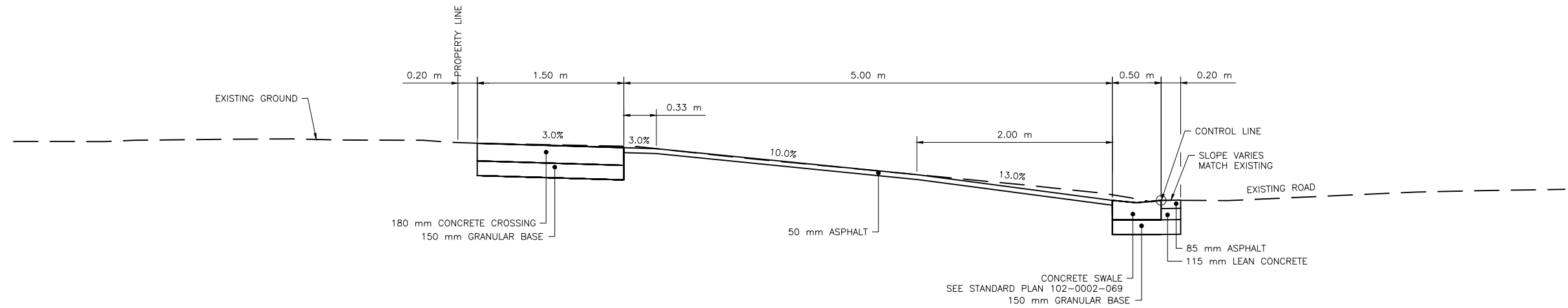


BUS RAPID TRANSIT SYSTEM

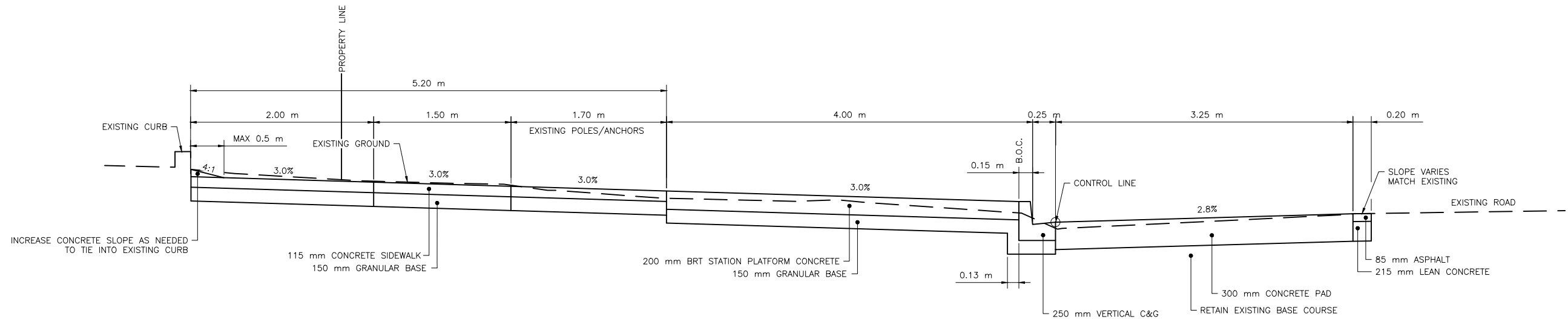
STATION 11
RED/GREEN LINE
22ND STREET & AVE P
INSTALLATION PLAN

ENGINEER	
SCALES : HOR. 1:500 VERT. DATE	
SHEET NO. PLAN NO.	
-	Z0012044-TR-1401

FILE NAME: Z0012044-TR-1400-CONTRACT_1_STATION_11.DWG PLOT: July 22, 2024 11:09 AM BY: MADJ MUKHANOY



TYPICAL CROSS SECTION
STA 1+410



TYPICAL CROSS SECTION
STA 1+425



CIMA+

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3	ISSUED FOR TENDER	2024-07-22	CIMA+
2	ISSUED FOR REVIEW	2024-07-05	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

SEAL

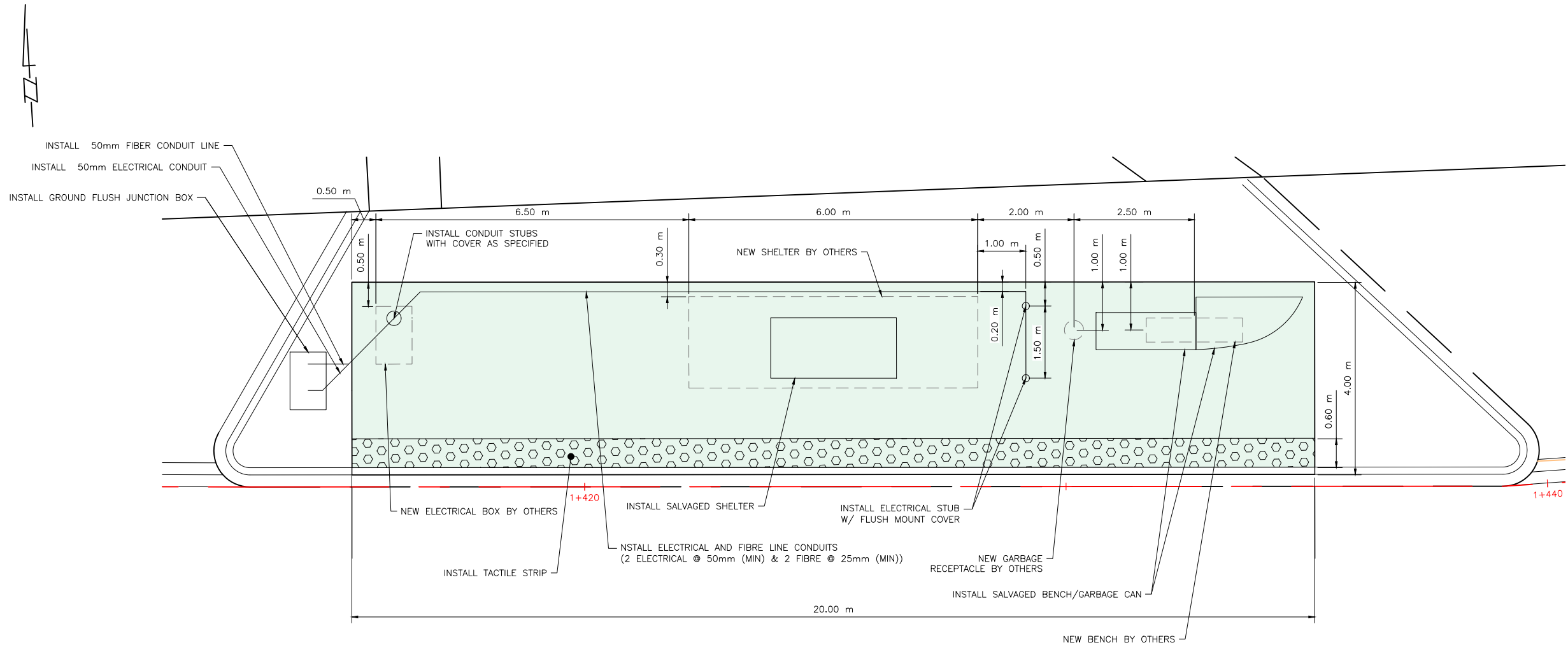
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BUS RAPID TRANSIT SYSTEM
STATION 11
RED/GREEN LINE
22ND STREET & AVE P
CROSS SECTIONS

ENGINEER	DATE
SCALES : HOR. 1:50 VERT.	
SHEET NO. -	PLAN NO. Z0012044-TR-1402

FILE NAME: Z0012044-TR-1400-CONTRACT_1_STATION_11.DWG PLOT: July 22, 2024 11:09 AM BY: MADI MUKHANOY



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3	ISSUED FOR TENDER	2024-07-22	CIMA+
2	ISSUED FOR REVIEW	2024-07-05	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

SEAL

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DATE	DATE
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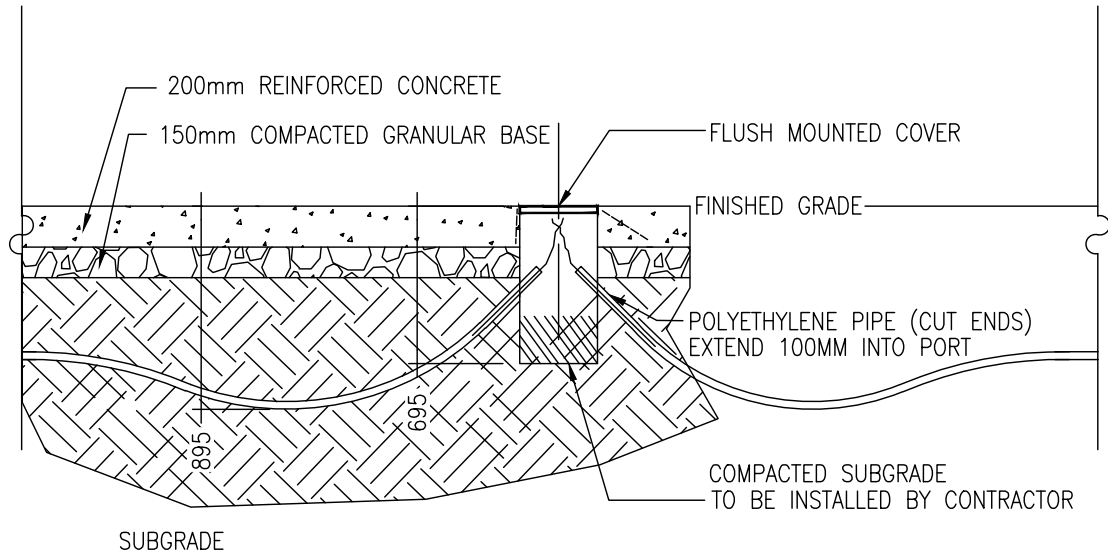


BUS RAPID TRANSIT SYSTEM

STATION 11
RED/GREEN LINE
22ND STREET & AVE P
PLATFORM DETAILS

ENGINEER	
SCALES : HOR. 1:100 VERT. _____	DATE _____
SHEET NO. -	PLAN NO. Z0012044-TR-1403

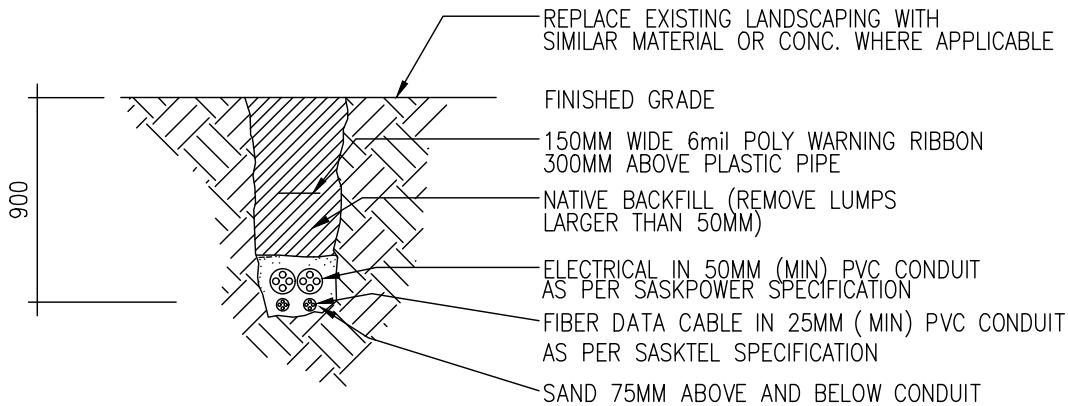
FILE NAME: Z0012044-TR-1500-CONTRACT_1-DETAILS.DWG PLOT: July 22, 2024 10:36 AM BY: MADI MUKHANOY



- NOTE:
1. EXTEND PULL STRING 300 mm PAST THE END OF THE CONDUIT. PROTECT PULL STRING.
 2. INSTALL FLUSH MOUNT COVER TO PROTECT ELECTRICAL
 3. A GRADUAL INCREASE IN DEPTH REDUCES THE CHANGE OF KINKING

ELECTRICAL END LOCATIONS

SCALE 1: 30



CONDUIT DETAIL

SCALE 1: 30

TRACER WIRE TO BE INSTALLED IN ALL CONDUIT.

THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES.



CIMA+

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3	ISSUED FOR TENDER	2024-07-22	CIMA+
2	ISSUED FOR REVIEW	2024-07-05	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

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DATE	DATE
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BUS RAPID TRANSIT SYSTEM

STANDARD DETAILS
UNDERGROUND ELECTRICAL CONNECTIONS

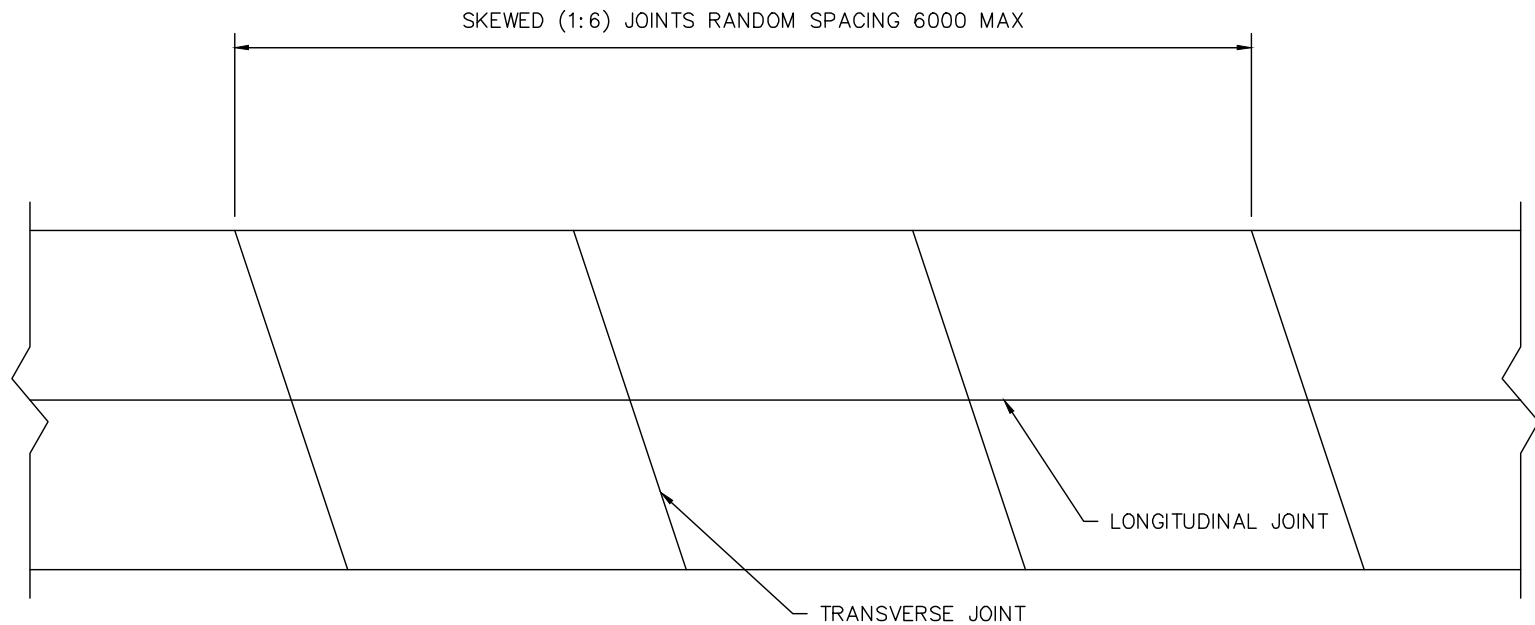
ENGINEER

SCALES :
HOR. NTS
VERT. DATE

SHEET NO. PLAN NO.

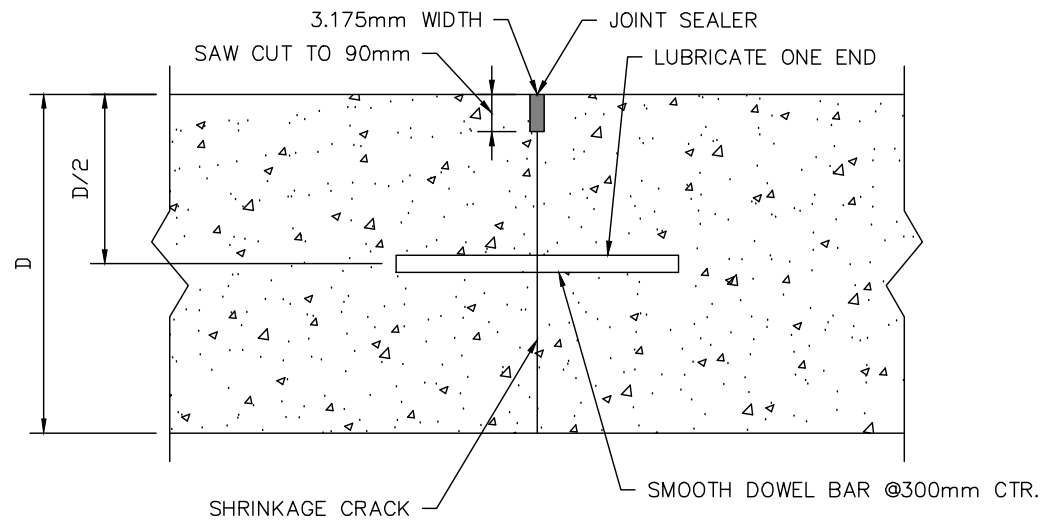
- Z0012044-TR-1500

FILE NAME: Z0012044-TR-1500-CONTRACT_1-DETAILS.DWG PLOT: July 22, 2024 10:36 AM BY: MADI MUKHANOY



- NOTES:
- ALL CONCRETE USED SHALL BE HS OR HSb CEMENT (SULPHATE RESISTANT) AND IN ACCORDANCE WITH CAN/CSA A23.1-04
 - A MINIMUM 56 DAY COMPRESSIVE STRENGTH OF 35MPa AND A MAXIMUM WATER/CEMENT RATIO OF 0.4 IS REQUIRED
 - AIR ENTREATMENT OF 4 TO 7% AND CONCRETE MADE WITH 14 TO 20mm CONCRETE AGGREGATE IS REQUIRED
 - CONCRETE PAVEMENT TYPICAL JOINT ARRANGEMENT SHOWN IN MILLIMETERS
 - DOWELS 30 TO 40mm IN DIAMETER
 - EPOXY-COATED SMOOTH BARS
 - 0.6m LONG
 - PLACED IN CENTER OF SLAB
 - RANDOM SPACING BETWEEN 4 TO 6 METERS
 - 300mm OC SPACING
 - NEED JOINTS TOOLED AND/OR CUT AT LEAST 90mm DEEP IN CENTER OF THESE DOWELS (FOR 300mm SLAB)
 - HOT POUR SEALANT AFTER (BY OTHERS)
 - LONGITUDINAL JOINTS ARE DESIGNED WITH TIE BARS TO CONNECT THE SLABS, ALL TRANSVERSE JOINTS ARE TO BE DOWELED
 - TRANSVERSE JOINTS SHALL BE HAND TROWELED AFTER PLACEMENT TO A DEPTH OF OF AT LEAST 25mm AND THEN SAW CUT TO A MINIMUM DEPTH OF 90mm AND NO MORE THAN 18 HOURS AFTER PLACMENT

CONCRETE PAVEMENT TYPICAL JOINT ARRANGEMENT



DOWELED TRANSVERSE JOINT



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3	ISSUED FOR TENDER	2024-07-22	CIMA+
2	ISSUED FOR REVIEW	2024-07-05	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

SEAL

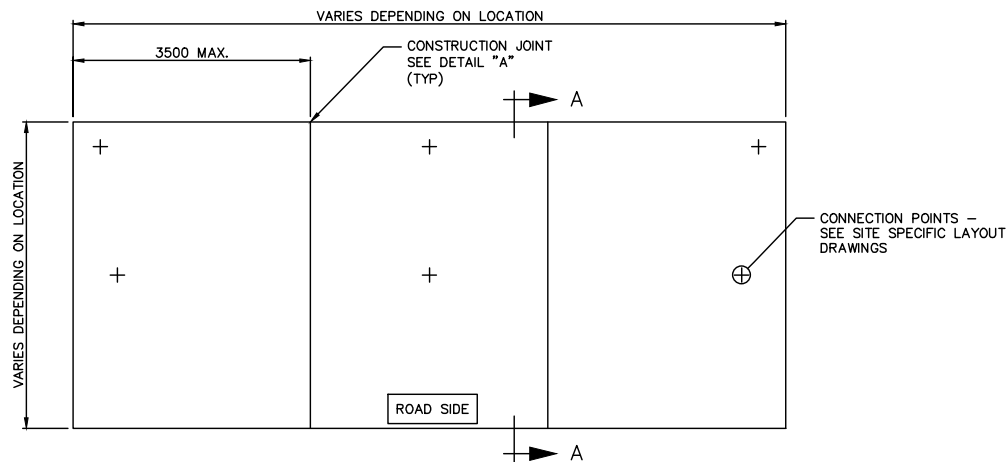
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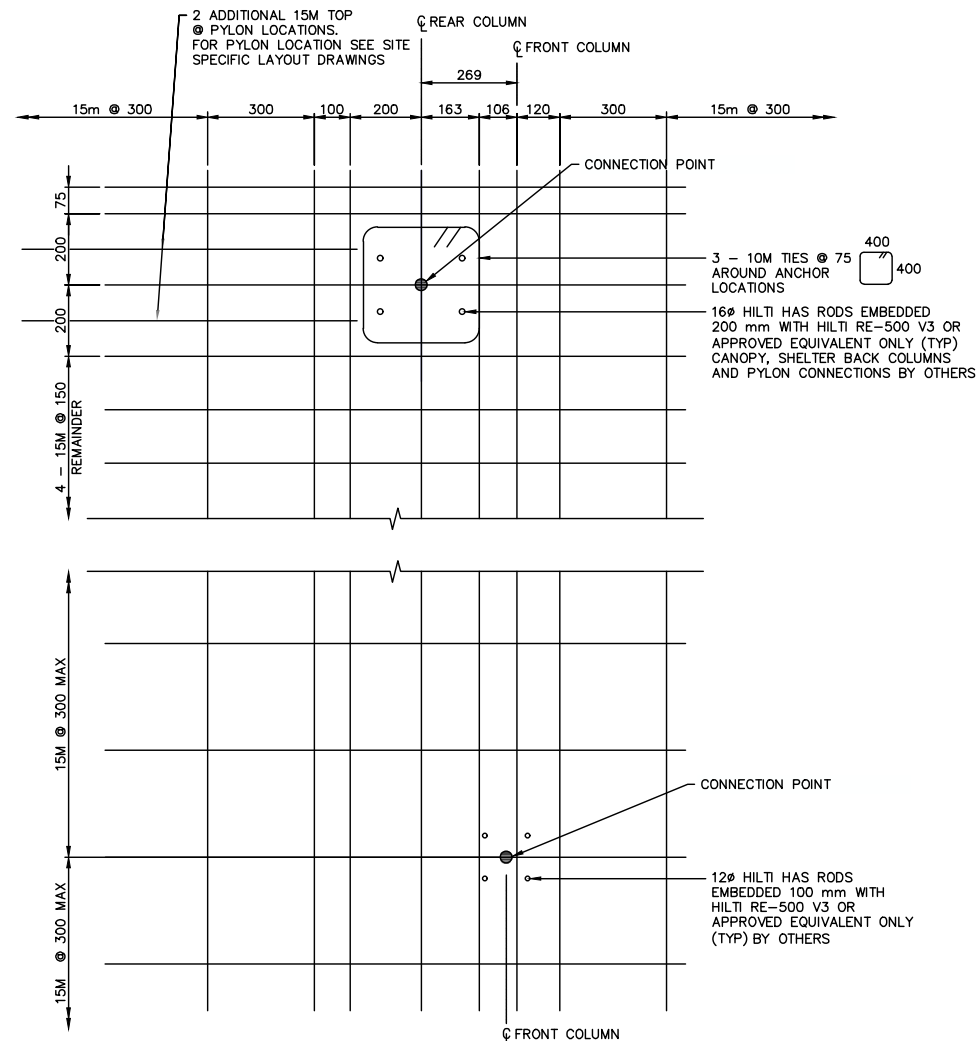
BUS RAPID TRANSIT SYSTEM
STANDARD DETAILS
RIGID PAVEMENT TYPICAL JOINT DETAILS

ENGINEER	
SCALES : HOR. NTS VERT.	DATE
SHEET NO. -	PLAN NO. Z0012044-TR-1501

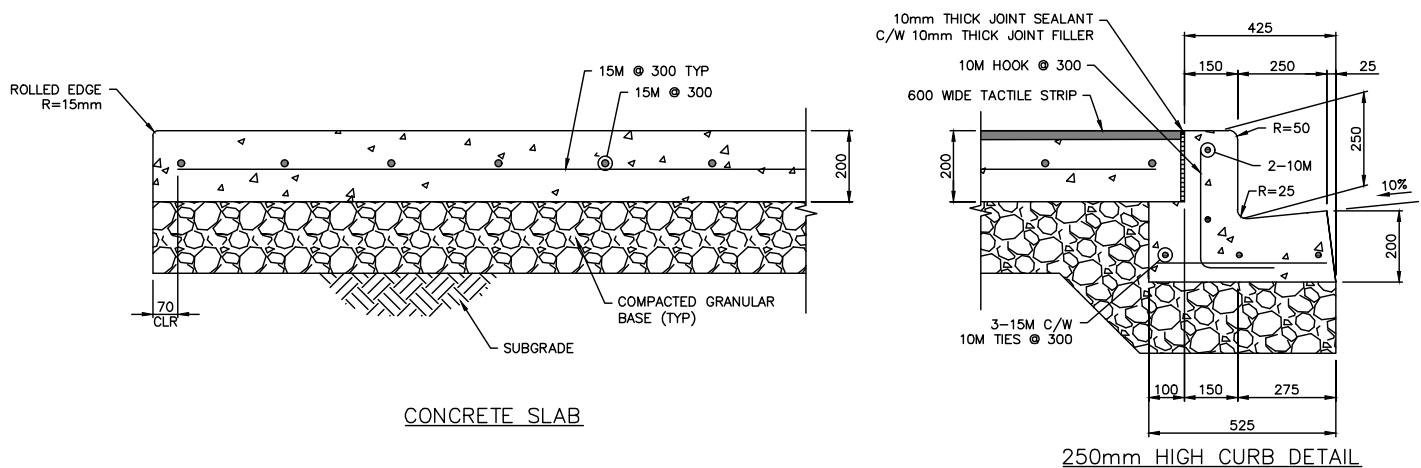
FILE NAME: Z0012044-TR-1500-CONTRACT_1-DETAILS.DWG PLOT: July 22, 2024 10:36 AM BY: MADI MUKHANDOV



TYPICAL PLATFORM SLAB DETAIL
SCALE 1:100

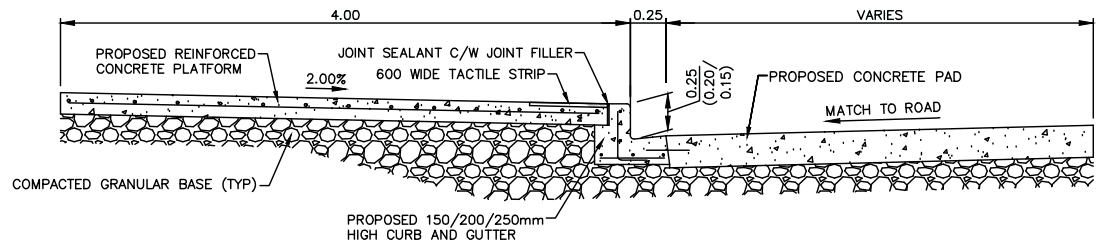


TYPICAL REINFORCING LAYOUT
SCALE 1:20

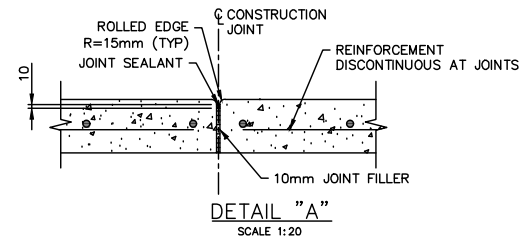


CONCRETE SLAB

250mm HIGH CURB DETAIL



BRT STATION STANDARD PLATFORM CROSS SECTION (4.00m WIDTH @ 0.15m/0.20m/0.25m HEIGHT)
SCALE 1:50



SLAB GENERAL NOTES:

1. CONCRETE SHALL BE EXPOSURE CLASS C-1 IN ACCORDANCE WITH CSA STANDARD A23.1.
2. CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 30 MPa.
3. MINIMUM CONCRETE COVER SHALL BE 60mm UNLESS OTHERWISE NOTED.
4. REINFORCING STEEL SHALL BE IN ACCORDANCE WITH CSA STANDARD G30 18 GRADE 400W.
5. SEE SPECIFICATIONS FOR ADDITIONAL MATERIAL AND FABRICATION REQUIREMENTS.
6. SEE SITE-SPECIFIC LAYOUT DRAWINGS, SHELTER AND CANOPY DETAILS FOR LOCATION OF FUTURE CONNECTION POINTS.
7. CONNECTION POINTS SHALL BE SURVEYED IN PLACE AND REINFORCEMENT ADJACENT TO CONNECTION POINTS SHALL BE CAREFULLY LOCATED RELATIVE TO THESE POINTS AND IN ACCORDANCE WITH THE DETAILS SHOWN.
8. PROVIDE A DIRECT MEANS OF VISUALLY LOCATING EACH CONNECTION POINT AFTER COMPLETION OF THE SLAB, THROUGH PROJECTING A NON-CORROSIVE MARKER THROUGH THE SURFACE AT EACH CONNECTION POINT OR BY ANOTHER APPROVED METHOD. SUBMIT DETAILS OF THE PROPOSED METHOD FOR REVIEW AT LEAST 5 WORKING DAYS PRIOR TO THE FIRST SLAB POUR.
9. LOCATE CONSTRUCTION JOINTS SYMMETRICALLY AND CENTERED BETWEEN SHELTER AND CANOPY SUPPORTS.



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3	ISSUED FOR TENDER	2024-07-22	CIMA+
2	ISSUED FOR REVIEW	2024-07-05	CIMA+
1	ISSUED FOR REVIEW	2024-06-20	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

SEAL

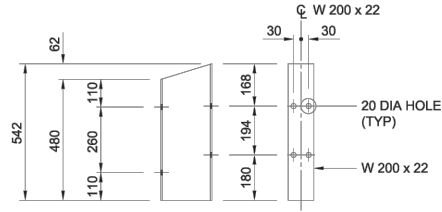
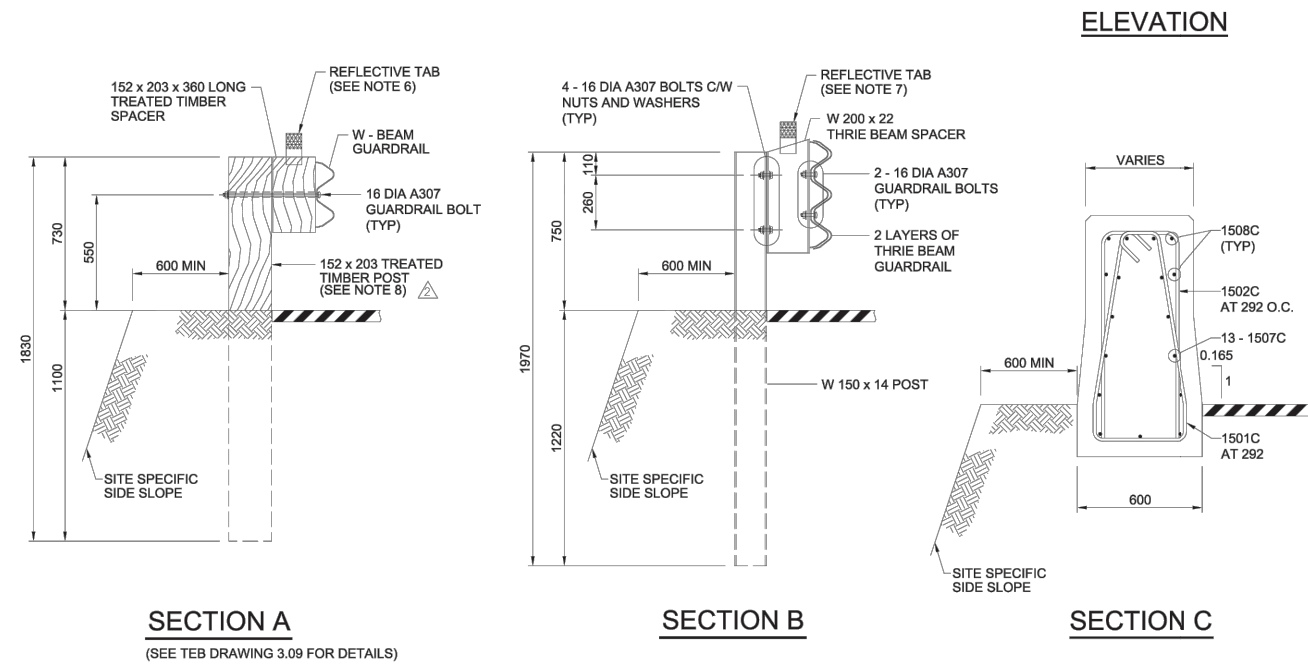
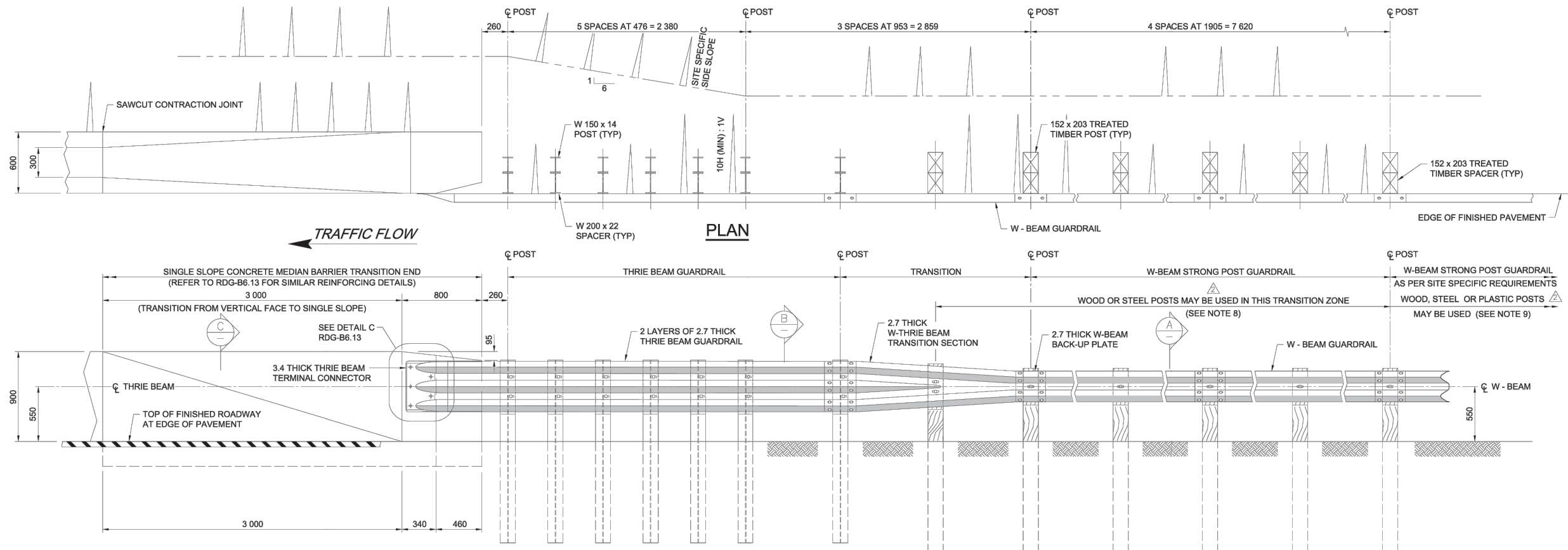
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DATE	DATE
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BUS RAPID TRANSIT SYSTEM
STANDARD DETAILS
PLATFORM STRUCTURAL DETAILS

ENGINEER	
SCALES:	
HOR. NTS	DATE
VERT.	
SHEET NO.	PLAN NO.
-	Z0012044-TR-1502


FILE NAME: Z0012044-TR-1600-CONTRACT_1_GUARDRAIL_DETAILS.DWG PLOT: July 22, 2024 10:38 AM BY: MADI MUKHANOV



- NOTES:**
- LAP GUARDRAIL SECTION IN THE DIRECTION OF TRAFFIC FLOW.
 - ALL FITTINGS AND HARDWARE SHALL BE GALVANIZED.
 - LINE AND ELEVATION OF BARRIER SHALL BE SET BY INSTRUMENT.
 - ACP OR GRANULAR BASE COURSE MAY BE PROVIDED AROUND GUARDRAIL POSTS AS PER SITE SPECIFIC REQUIREMENTS.
 - THIS TRANSITION MAY BE CONSIDERED TO SATISFY NCHRP REPORT 350 REQUIREMENTS FOR TEST LEVEL 4 (TL4).
 - FASTEN REFLECTOR TO TOP OF EVERY SIXTH GUARDRAIL STRONG POST SPACER BY MECHANICAL MEANS SUCH AS NAILING OR STAPLING. ADHESIVE ALONE WILL NOT BE ACCEPTED. REFER TO DRAWING TEB 3.01 FOR REFLECTOR DETAILS.
 - FASTEN REFLECTOR TO TOP OF EVERY SIXTH GUARDRAIL STEEL OFFSET BLOCK WITH APPROVED ADHESIVE. REFER TO DRAWING TEB 3.01 FOR REFLECTOR DETAILS.
 - TRANSITION ZONE CAN BE WOOD OR STEEL POST WITH WOOD SPACER BLOCK. REFER TO STANDARD DRAWING TEB 3.01 FOR POST DETAILS.
 - TYPICAL STRONG POST SYSTEM CAN BE WOOD, STEEL, OR PLASTIC POST WITH WOOD SPACER BLOCK. REFER TO STANDARD DRAWING TEB 3.01 FOR POST DETAILS.

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE INDICATED.

NOTE 8 AND 9 ADDED	HC	11 MAR 2016
NOTES 6 AND 7 REVISED	PM	9 JUL 09
No.	REVISIONS	BY DATE

Approved:			
Allan Kwan Executive Director, Technical Standards Branch			
Date: NOVEMBER, 2007			
<p>TRANSITION OF W-BEAM GUARDRAIL TO TL-4 SINGLE SLOPE CONCRETE ROADSIDE BARRIER</p>			
Prepared By: NSP	Checked By: WS	Scale: N.T.S	Dwg No.: RDG-B6.15



APPENDIX B6

H-APP-B6-19

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2	ISSUED FOR TENDER	2024-07-22	CIMA+	
1	ISSUED FOR REVIEW	2024-07-16	CIMA+	
	PLAN DESCRIPTION/REVISION	DATE	BY	SEAL

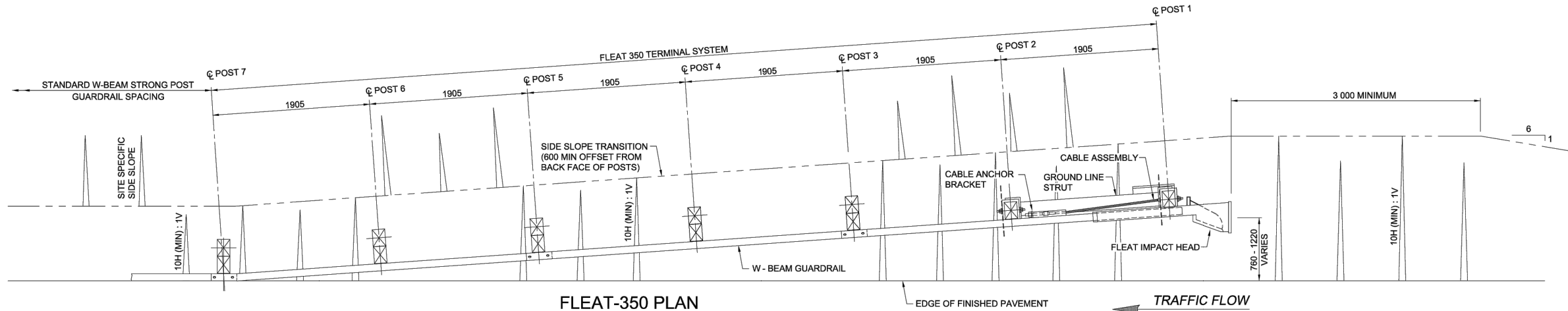
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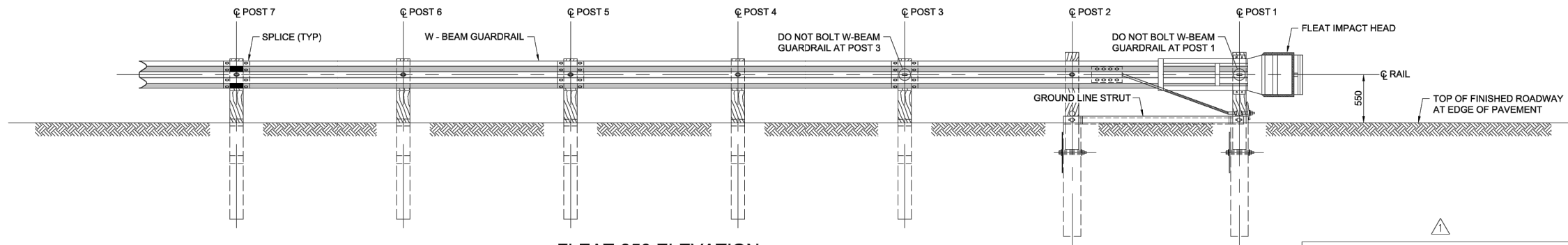
BUS RAPID TRANSIT SYSTEM
STANDARD DETAILS
W-BEAM TO BARRIER TRANSITION

ENGINEER	
SCALES : HOR. NTS VERT. DATE	
SHEET NO. PLAN NO.	
-	Z0012044-TR-1600

FILE NAME: Z0012044-TR-1600-CONTRACT_1_GUARDRAIL_DETAILS.DWG PLOT: July 22, 2024 10:38 AM BY: MADI MUKHANOV



FLEAT-350 PLAN



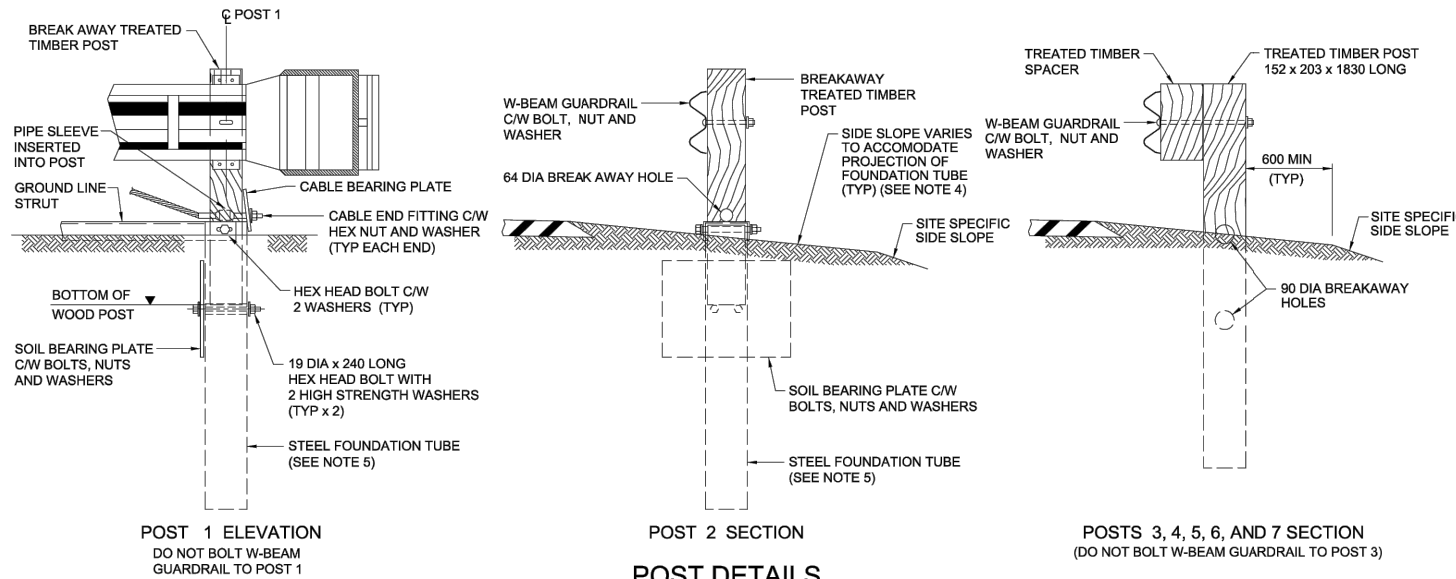
FLEAT-350 ELEVATION

REFER TO THE MANUFACTURER FOR THE LATEST DRAWINGS AND SPECIFICATIONS

NOTES:

1. THE FLEAT 350 SYSTEM DEPICTED ON THIS DRAWING IS PROPRIETARY TO ROAD SYSTEMS INC (RSI) AND MEETS THE REQUIREMENTS OF NCHRP REPORT 350 FOR TEST LEVEL 3 (TL-3). THE INSTALLATION OF THIS SYSTEM SHALL BE AS PER THE RSI INSTALLATION MANUAL.
2. THIS DRAWING SHOWS THE INSTALLATION OF THE RIGHT SHOULDER EXTRUDER TERMINAL. FOR LEFT SHOULDER INSTALLATIONS, SUCH AS FOR UNIDIRECTIONAL TRAFFIC OR DIVIDED HIGHWAYS WITH WIDE MEDIANS, THE EXTRUDER TERMINAL SHOWN IS INVERTED.
3. RAIL SECTIONS ARE TO BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW.
4. TOP OF FOUNDATION TUBES SHALL BE SET BETWEEN 64 AND 76 ABOVE THE TOP OF PAVED SHOULDER EDGE AND SHALL NOT PROJECT MORE THAN 100 ABOVE THE FINISHED SIDE SLOPE GRADE AT POST.
5. FOR POSTS 1 AND 2, THE FOLLOWING FOUNDATION TUBES MAY BE USED:
 - a. 1830 LONG SPLIT OR SOLID FOUNDATION TUBES WITHOUT SOIL BEARING PLATES.
 - b. 1524 LONG SOLID OR 1370 LONG SOLID FOUNDATION TUBES WITH SOIL BEARING PLATES.
6. TO ENSURE PROPER DELINEATION, REFLECTIVE SHEETING ON THE FRONT FACE OF THE FLEAT 350 HEAD SHALL BE PROVIDED AS PART OF THE INSTALLED SYSTEM.
7. POST 3 MARKS THE BEGINNING OF THE CALCULATED LENGTH OF NEED.
8. ALL FITTINGS AND HARDWARE SHALL BE GALVANIZED.
9. POSTS SHALL BE SET BY INSTRUMENT FOR ALIGNMENT AND GRADE.

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE INDICATED.



POST DETAILS

Approved:			
Allan Kwan			
Executive Director, Technical Standards Branch			
Date: NOVEMBER, 2007			
W-BEAM STRONG POST TL-3 FLEAT 350 ENERGY ABSORBING TERMINAL			
Prepared By: MO	Checked By: WS	Scale: N.T.S.	Dwg No.: RDG-B1.5

H-APP-B1-24

APPENDIX B1

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2	ISSUED FOR TENDER	2024-07-22	CIMA+
1	ISSUED FOR REVIEW	2024-07-16	CIMA+
	PLAN DESCRIPTION/REVISION	DATE	BY

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BUS RAPID TRANSIT SYSTEM

STANDARD DETAILS
FLEAT 350 END TERMINAL

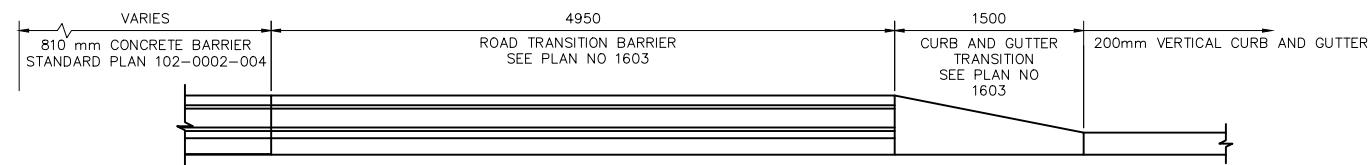


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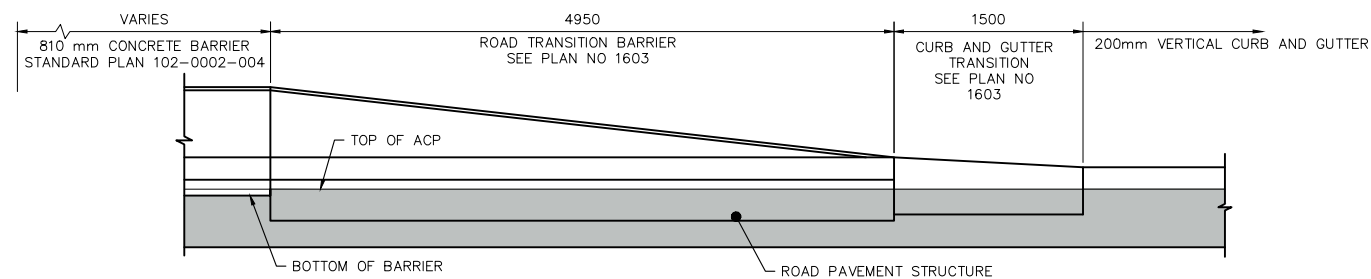
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SCALES : HOR. NTS VERT.	DATE
SHEET NO. -	PLAN NO. Z0012044-TR-1601

GENERAL NOTES:

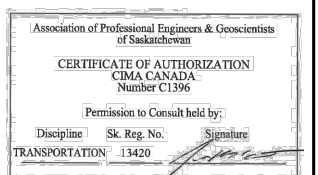
- SEE ROADWAY DRAWING B-R-6000 FOR ROAD CURB & GUTTER DETAILS.
- ALL REINFORCING STEEL SHALL BE GRADE 400R OR 400W; DEFORMED BILLET STEEL BARS CONFORMING TO CSA G30.18, PLAIN FINISH.
- ALL GALVANIZING SHALL MEET THE REQUIREMENTS OF ASTM A123.
- ALL DAMAGED GALVANIZING SHALL BE REPAIRED BY ZINC METALLIZING AS PER ASTM STANDARD A780.
- ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF AWS SPECIFICATIONS D1.1 AND CSA W59.

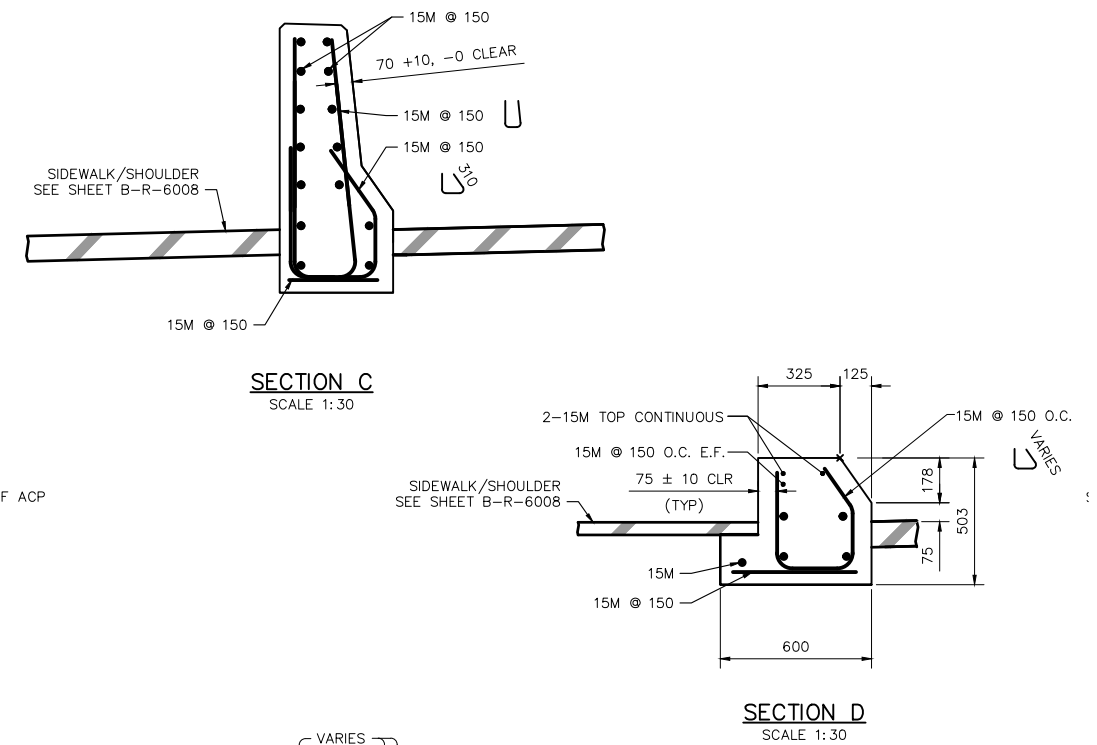


BARRIER PLAN VIEW
SCALE 1:60

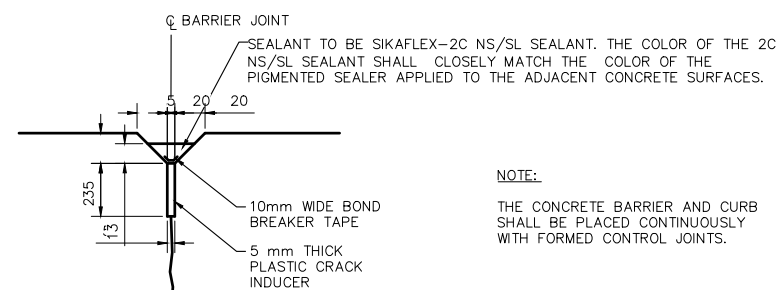


BARRIER SECTION VIEW
SCALE 1:60

[illegible]

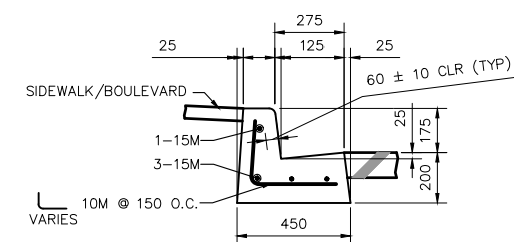


SECTION D
SCALE 1:30



NOTE:

THE CONCRETE BARRIER AND CURB SHALL BE PLACED CONTINUOUSLY WITH FORMED CONTROL JOINTS.




SECTION F
SCALE 1:30

Association of Professional Engineers & Geoscientists
of Saskatchewan

CERTIFICATE OF AUTHORIZATION
CIMA CANADA
Number C1396

Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
TRANSPORTATION	13420	



CHECKED BY:	CHECKED BY:
DATE	DATE
DRAWN BY _____	DATE _____



STANDARD DETAILS
BARRIER TO CURB TRANSITION
SHEET 2 OF 2

ENGINEER _____	
SCALES : _____ HOR. : AS NOTED _____ VERT. : _____	_____ <div style="text-align: right;">DATE _____</div>
SHEET NO. _____ <div style="text-align: center; font-size: 2em;">—</div>	PLAN NO. _____ <div style="text-align: center; font-size: 2em;">Z0012044—TR—1603</div>