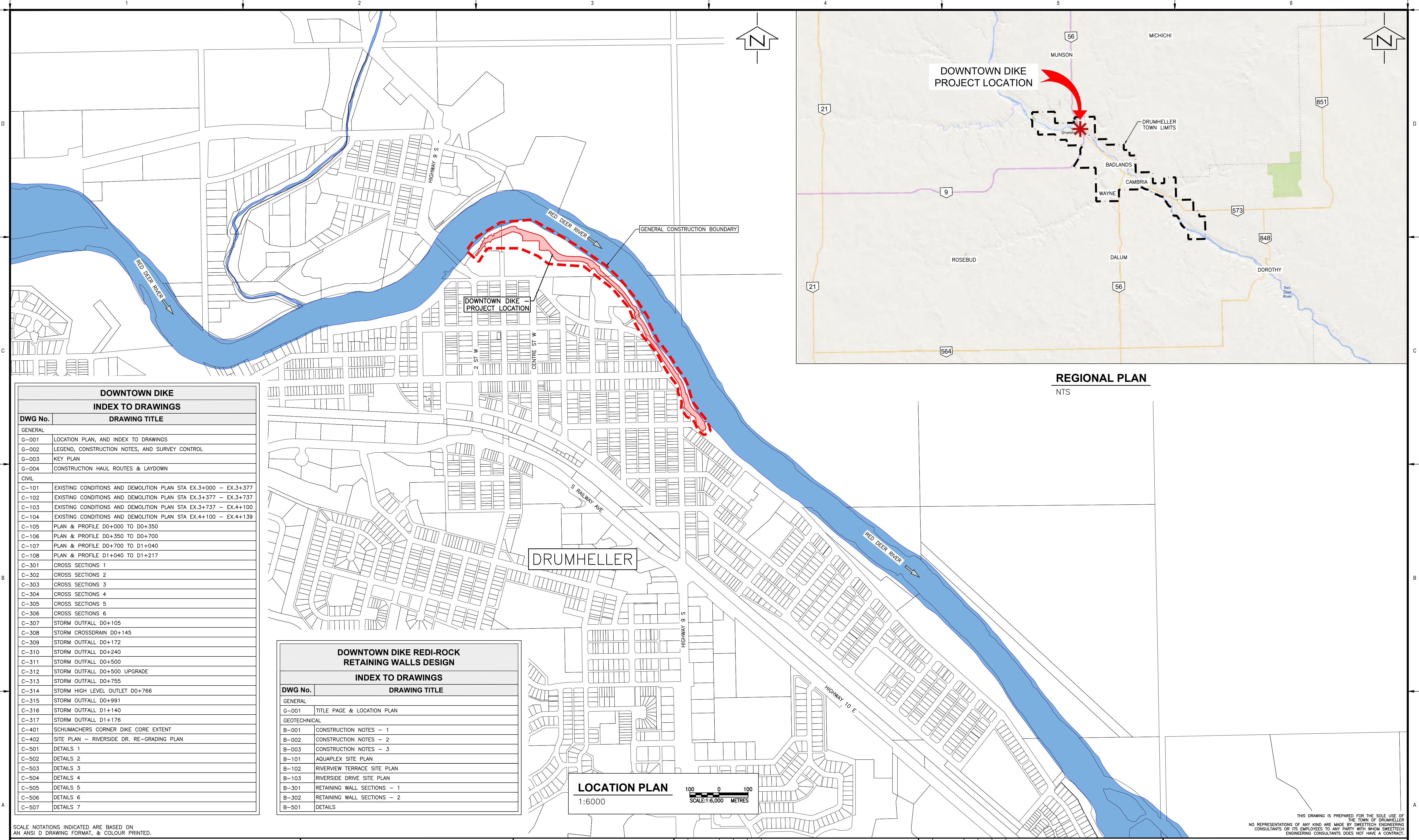


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DOWNTOWN DIKE	
INDEX TO DRAWINGS	
DWG No.	DRAWING TITLE
GENERAL	
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G-003	KEY PLAN
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C-102	EXISTING CONDITIONS AND DEMOLITION PLAN STA EX.3+377 - EX.3+737
C-103	EXISTING CONDITIONS AND DEMOLITION PLAN STA EX.3+737 - EX.4+100
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C-309	STORM OUTFALL D0+172
C-310	STORM OUTFALL D0+240
C-311	STORM OUTFALL D0+500
C-312	STORM OUTFALL D0+500 UPGRADE
C-313	STORM OUTFALL D0+755
C-314	STORM HIGH LEVEL OUTLET D0+766
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DOWNTOWN DIKE REDI-ROCK	
RETAINING WALLS DESIGN	
DWG No.	DRAWING TITLE
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G-001	TITLE PAGE & LOCATION PLAN
GEOTECHNICAL	
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B-501	DETAILS

**LOCATION PLAN**  
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SCALE: 1:6,000 METRES

**REGIONAL PLAN**  
NTS

THIS DRAWING IS PREPARED FOR THE SOLE USE OF THE TOWN OF DRUMHELLER. NO REPRESENTATIONS OF ANY KIND ARE MADE BY SWEETECH ENGINEERING CONSULTANTS OR ITS EMPLOYEES TO ANY PARTY WITH WHOM SWEETECH ENGINEERING CONSULTANTS DOES NOT HAVE A CONTRACT.

			<p><b>PERMIT TO PRACTICE</b> 1963401 ALBERTA LTD. RM APSEA ID # 57914 DATE: 2023-03-20 <b>PERMIT NUMBER: P013638</b> The Association of Professional Engineers and Geoscientists of Alberta (APESGA)</p>	Rev	Date	Des	Dwn	Chk	Description	Rev	Date	Des	Dwn	Chk	Description
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<b>TOWN OF DRUMHELLER</b>	
<b>DOWNTOWN DIKE</b>	
<b>LOCATION PLAN, AND INDEX TO DRAWINGS</b>	
Project No.	21.2311.002
Group	GENERAL
Drawing No.	<b>G-001</b>
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LEGEND:					
EXISTING:		PROPOSED:			
RED DEER RIVER ☉	-	-----	DOWNTOWN DIKE ☉	-	-----
DIKE ☉	-	-----	RETAINING WALL	-	=====
PROPERTY LINES	-	-----	EDGE OF PAVEMENT	-	-----
SURVEYED BANK LINES	-	-----	TOP OF SLOPE	-	-----
JERSEY BARRIER	-	-----	TOE OF SLOPE	-	-----
WATER MAIN	-	-----	MINOR CONTOURS	-	-----
GAS MAIN	-	-----	MAJOR CONTOURS	-	-----
SANITARY SEWER MAIN	-	-----	SWALE	-	-----
STORM SEWER MAIN	-	-----	STM PIPE	-	-----
ELECTRICAL LINES	-	-----	CATCH BASIN	-	-----
TELUS LINES	-	-----	MANHOLE	-	-----
FENCE	-	-----	OUTFALL	-	-----
PATHWAY	-	-----			
MANHOLE	-	-----			
CATCH BASIN	-	-----	PROPOSED DOWNTOWN DIKE FOOTPRINT	-	-----
STREET LIGHT	-	-----			
PEDESTAL	-	-----	TOP SOIL/ORGANICS STRIPPING LIMITS	-	-----
OUTFALL	-	-----			
ALBERTA SURVEY CONTROL MARKER	-	-----	TRAIL RECLAMATION	-	-----
BENCH	-	-----	CONSTRUCTION LAYDOWN	-	-----
TABLE	-	-----			
SIGNAGE	-	-----	SPRAY PARK CONSTRUCTION (NOT IN THIS CONTRACT)	-	-----
PETRIFIED WOOD	-	-----			
TRASH CAN	-	-----	PR. REINFORCED TURF	-	-----

**CONSTRUCTION NOTES:**

- GENERAL:**
- ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO PROJECT SPECIFICATIONS, AND RELEVANT ALBERTA TRANSPORTATION CIVIL WORKS MASTER SPECIFICATIONS, UNLESS NOTED OTHERWISE. WHEN A CONFLICT BETWEEN SPECIFICATIONS ARISES, DISCUSS ANY UNCERTAINTIES WITH THE ENGINEER PRIOR TO CONSTRUCTION AND/OR INSTALLATION.
  - TOPOGRAPHIC SURVEY IS PROVIDED ON AN AS-IS BASIS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM INDEPENDENT PRE AND POST DISTURBANCE SURVEY FOR THE PURPOSES OF CONSTRUCTION LAYOUT AND QUANTITY RECONCILIATION AS APPLICABLE TO EXECUTE AND RECORD PROGRESS OF THE WORKS.
  - ALL AFFECTED RESIDENTS AND BUSINESSES SHALL BE NOTIFIED IN WRITING A MINIMUM OF 7 BUSINESS DAYS PRIOR TO ANY SCHEDULED ACCESS AND/OR SERVICE DISRUPTIONS.
  - CONTRACTOR SHALL PREPARE A TRAFFIC MANAGEMENT PLAN AND PEDESTRIAN MANAGEMENT PLAN (I.E. TRAIL DETOUR PLAN) TO ADDRESS CONSTRUCTION IMPACTS.
  - DURING CONSTRUCTION, ENSURE ALL OH&S REGULATIONS ARE FOLLOWED, CONTRACTOR SHALL PROVIDE THE ENGINEER WITH ALBERTA OCCUPATIONAL HEALTH AND SAFETY REPORTS, IF APPLICABLE.
  - SITE SECURITY IS THE RESPONSIBILITY OF THE PRIME CONTRACTOR. THE ENGINEER IS NOT RESPONSIBLE FOR SECURITY IN, ON, OR ABOUT THE PROJECT SITE, NOR FOR CONTRACTOR COMPLIANCE.
  - ENSURE THE CURRENT MUNICIPAL OH&S GROUND DISTURBANCE PRACTICE AND PROCEDURES ARE FOLLOWED. CONTACT ALBERTA ONE CALL FOR EXTERNAL UTILITY LOCATES AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
  - CONFIRM ALL EXISTING SERVICES, CONNECTIONS AND CROSSING POINTS AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION ON ANY SUCH ITEM. NOTIFY THE ENGINEER SHOULD CONFLICTS BE FOUND.
  - TEMPORARY SIGNAGE AND FENCING MAINTENANCE DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR.
  - ADJUST ALL EXISTING AND NEW APPURTENANCES TO MEET THE FINAL DESIGN GRADES.
  - RESTORE ALL THE AREAS AFFECTED BY CONSTRUCTION WORKS TO THEIR ORIGINAL CONDITION OR BETTER.

- ENVIRONMENTAL:**
- USE BEST MANAGEMENT PRACTICES (BMP), IN ACCORDANCE WITH ALBERTA BMP GUIDELINES AND REGULATIONS, DURING CONSTRUCTION. ADJUST WORK ACTIVITIES DURING PERIODS OF PRECIPITATION AND/OR SNOWMELT TO MITIGATE AGAINST SEDIMENT RELEASE TO THE STORM DRAIN SYSTEM OR NATURAL WATER BODIES INCLUDING THE RED DEER RIVER. NO MUD TRACKING ON TO NEARBY ROADWAYS IS PERMITTED.
- THE MINIMUM BMP'S TO CONSIDER ARE:
- CONTRACTOR SHALL PREPARE AND SUBMIT AN ECO PLAN FOR APPROVAL PRIOR TO CONSTRUCTION. CONTRACTOR TO ADHERE TO ECO PLAN THROUGHOUT CONSTRUCTION.
  - ADHERE TO ALL APPLICABLE REGULATORY PERMITS, APPROVALS, AND CONDITIONS.
  - INSPECT ALL EQUIPMENT DAILY FOR FLUID LEAKS AND REPAIR AS NEEDED.
  - ENSURE SPILL PROTECTION MEASURES ARE IN PLACE DURING REFUELLING OF EQUIPMENT.
  - KEEP A SPILL KIT ON SITE AT ALL TIMES.
  - CONTRACTOR SHALL PROTECT ALL TREES TO REMAIN FROM DAMAGE DURING CONSTRUCTION. NOTIFY THE ENGINEER IMMEDIATELY IF A POSSIBLE CONFLICT IS FOUND.
  - CONTRACTOR TO COMPLETE BIRD NEST AND WILDLIFE SWEEP PRIOR TO REMOVING ANY TREES ON SITE IF REQUIRED BY REGULATORY ACT. ADDITIONAL NEST SWEEPS MAY BE REQUIRED IF PRESCRIBED BY PROJECT BIOLOGIST.

- UTILITIES:**
- LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES SHOWN ON DRAWINGS ARE APPROXIMATE ONLY. CONTRACTOR IS RESPONSIBLE TO DETERMINE EXACT LOCATION AND ELEVATION PRIOR TO CONSTRUCTION.
  - THE CONTRACTOR IS WARNED THAT CONFLICTS WITH EXISTING UTILITY SERVICES MAY EXIST. PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT ALL APPROPRIATE UTILITY COMPANIES FOR LINE LOCATIONS, AND CONTRACTOR SHALL THEN LOCATE ALL UTILITIES (INCLUDING DEPTH). SWEETECH ENGINEERING CONSULTANTS ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. ANY CONFLICTS WITH THE CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY SO THAT MITIGATION OF CONFLICTS WITH THESE EXISTING UTILITIES CAN BE CONSIDERED.
  - ALL EXISTING UTILITIES SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR. UTILITIES THAT ARE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER OR ENGINEER.
  - ENSURE ALL EXISTING WATER SYSTEMS REMAIN IN USE DURING CONSTRUCTION.
  - IF GAS MAINS ARE PRESENT WITHIN PROJECT AREA, APEX UTILITIES AND OH&S REGULATIONS SHALL BE FOLLOWED. APEX UTILITIES REPRESENTATIVE MAY BE REQUIRED TO BE PRESENT WHEN WORKING ADJACENT TO GAS MAINS (ESPECIALLY HIGH PRESSURE).
  - IF ATCO ELECTRIC UTILITIES ARE FOUND WITHIN THE PROJECT AREA, THE CONTRACTOR SHALL PROVIDE 72 HOURS NOTICE PRIOR TO EXCAVATION. A REPRESENTATIVE FROM ATCO WILL BE SCHEDULED TO BE PRESENT DURING EXCAVATION.
  - WHERE HEAVY WORK IS REQUIRED WITHIN THE EXCAVATION ZONE SURROUNDING UTILITY POLES, AND A POLE HOLD IS REQUIRED, THE CONTRACTOR MUST BE AUTHORIZED AND BE ABLE TO PULL A LIVE LINE PERMIT.

- REFERENCE:**
- SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.
  - EXISTING GROUND CONTOURS FROM HUNTER WALLACE SURVEYS LTD. RECEIVED ON JANUARY 18TH 2023.
  - 2019 AERIAL IMAGERY PROVIDED BY DRUMHELLER RESILIENCY AND FLOOD MITIGATION OFFICE.
  - PROJECT COORDINATE SYSTEM NAD83-3TM114.
  - RED DEER RIVER BANK LINE PROVIDED BY HUNTER WALLACE SURVEYS LTD.
  - RIVER STATIONING PROVIDED BY NORTHWEST HYDRAULIC CONSULTANTS.
  - UTILITIES PROVIDED BY DRUMHELLER RESILIENCY AND FLOOD MITIGATION OFFICE.

Table 1: Flood Frequency Estimates for Red Deer River near Drumheller (NHC 2020)

Return Period	Naturalized Peak Instantaneous Discharge (m³/s)	Regulated Peak Instantaneous Discharge (m³/s)
1:100	2260	1850
1:5	807	542
1:2	448	330

**SURVEY CONTROL**

PROJECT HORIZONTAL DATUM IS GRID FOR ALBERTA NAD83, 3 DEGREE ZONE, CENTRE AT 114° WEST (CANAD3-3TM114). ALL ELEVATIONS ARE SHOWN IN METRES TO CANADIAN GEODETIC VERTICAL DATUM 1928 (CGVD28) CONFIRMED BY TIES TO ALBERTA SURVEY CONTROL MARKERS (ASCM) IN THE PROJECT AREA:

POINT #	NORTHING	EASTING	ELEV	DESC.
371419	5704120.994	89887.383	682.345	ASCM
333830	5704070.443	90098.890	681.449	ASCM
417469	5703757.371	90303.534	684.371	ASCM
639732	5703923.309	90272.646	681.725	ASCM
416636	5704765.602	89475.019	686.227	ASCM

**DRAWING ABBREVIATIONS**

APPROX	APPROXIMATELY	DR	DRIVE
FB	FREEBOARD	ST	STREET
ELEV	ELEVATION	AVE	AVENUE
DWG	DRAWING	STA	STATION
☉	CENTRE LINE	IFT	ISSUED FOR TENDER
TYP	TYPICAL	HW	HEAD WALL
SP added	STANDARD PROCTOR MAXIMUM DRY DENSITY	RS	RIVER STATION
OMC	OPTIMUM MOISTURE CONTENT	D	DIKE STATION
C/W	COMES WITH	PVI	POINT OF VERTICAL INFLECTION
W/	WITH	BVCS	BEGINNING VERTICAL CURVE STATION
PE	POLYETHYLENE	BVCE	BEGINNING VERTICAL CURVE ELEVATION
INV	INVERT	EVCS	END VERTICAL CURVE STATION
STM	STORM	EVCE	END VERTICAL CURVE ELEVATION
SAN	SANITARY	LVC	LENGTH OF VERTICAL CURVE
PR.	PROPOSED		
EX.	EXISTING		
MIN	MINIMUM		
MAX	MAXIMUM		
TBD	TO BE DETERMINED		
TBC	TO BE CONFIRMED		

SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.



**PERMIT TO PRACTICE**  
1963401 ALBERTA LTD.  
RW SIGNATURE: [Signature]  
RW APEGA ID #: 67014  
DATE: 2023-03-20  
**PERMIT NUMBER: P013638**  
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

Rev	Date	Des	Dwn	Chk	Description
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Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER**  
**DOWNTOWN DIKE**  
**LEGEND, CONSTRUCTION NOTES, AND SURVEY CONTROL**

Project No. **21.2311.002** Drawing No. **G-002** Rev. **0**  
Group **GENERAL**

THIS DRAWING IS PREPARED FOR THE SOLE USE OF THE TOWN OF DRUMHELLER. NO REPRESENTATIONS OF ANY KIND ARE MADE BY SWEETECH ENGINEERING CONSULTANTS OR ITS EMPLOYEES TO ANY PARTY WITH WHOM SWEETECH ENGINEERING CONSULTANTS DOES NOT HAVE A CONTRACT.



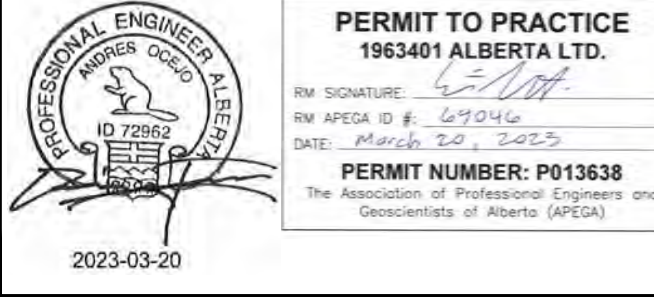
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PR. DISTURBANCE BELOW 1:2 YEAR FLOOD LEVEL	
LENGTH	AREA
510 m*	2250 m <sup>2</sup> *
*ADDITIONAL TEMPORARY DISTURBANCE MAY BE REQUIRED DURING CONSTRUCTION	



SCALE: 1:2,000 METRES  
 SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.

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Rev	Date	Des	Dwn	Chk	Description
0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER

Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER**  
**DOWNTOWN DIKE**  
**KEY PLAN**

Project No. <b>21.2311.002</b>	Drawing No.	Rev.
Group <b>GENERAL</b>		<b>G-003</b>
		<b>0</b>

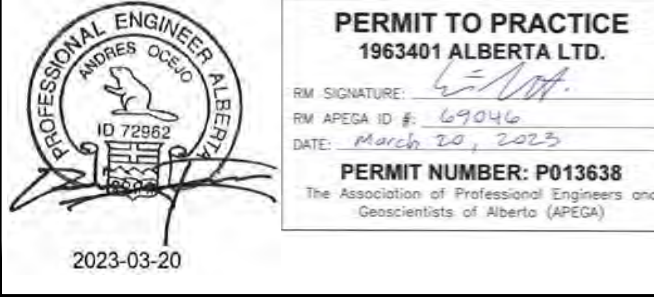


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 SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.  
 2023-03-20  
 THIS DRAWING IS PREPARED FOR THE SOLE USE OF THE TOWN OF DRUMHELLER  
 NO REPRESENTATIONS OF ANY KIND ARE MADE BY SWEETECH ENGINEERING CONSULTANTS OR ITS EMPLOYEES TO ANY PARTY WITH WHOM SWEETECH ENGINEERING CONSULTANTS DOES NOT HAVE A CONTRACT.



- NOTES:**
1. CONTRACTOR TO PROVIDE PR. HAUL ROUTE FOR CONTRACTOR SUPPLIED BORROW.
  2. ACCESS TO CONSTRUCTION LAYDOWN AREA IS VIA VETERANS WAY ONLY.
  3. CONTRACTOR MAY CHANGE CONSTRUCTION HAUL ROUTES AT ANY TIME DURING CONSTRUCTION WITH PRIOR APPROVAL FROM THE TOWN OF DRUMHELLER AND ENGINEER OF RECORD.
  4. NO ACCESS TO THE WEST, EAST OR SOUTH SIDE UNTIL AFTER SEPT. 4, 2023.
  5. HAUL ROUTE THROUGH SPRAY PARK TO BE ALLOWED AFTER SEPT. 4TH, 2023, CONTRACTOR SHALL TAKE CARE TO NOT DAMAGE UNDERGROUND INFRASTRUCTURE IN THIS AREA.
  6. ROTARY SPRAY PARK SANITARY DRAINAGE RE-ALIGNMENT WORK TO BE COMPLETED BY THE TOWN OF DRUMHELLER AFTER SEPT. 4TH 2023. CONTRACTOR TO COORDINATE WITH SPRAY PARK CONTRACTOR TO ENSURE ACCESS TO BOTH SITES IS MAINTAINED.

SCALE: 1:4,000  
 SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.



Rev	Date	Des	Dwn	Chk	Description
0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER

Rev	Date	Des	Dwn	Chk	Description

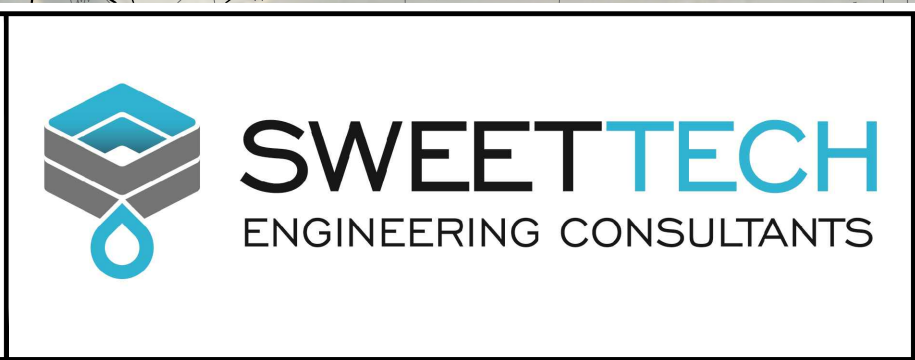
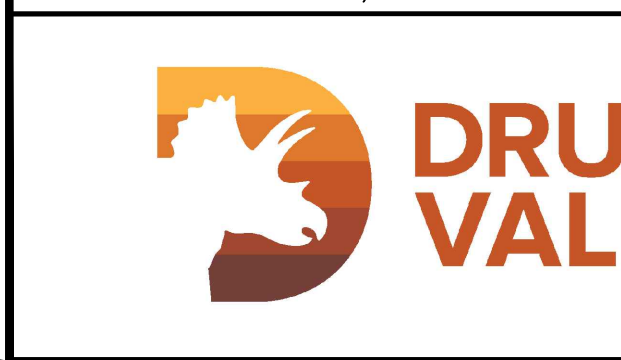
**TOWN OF DRUMHELLER  
DOWNTOWN DIKE**

**CONSTRUCTION HAUL ROUTES & LAYDOWN**

Project No.	21.2311.002	Drawing No.	G-004	Rev.	0
Group	GENERAL				



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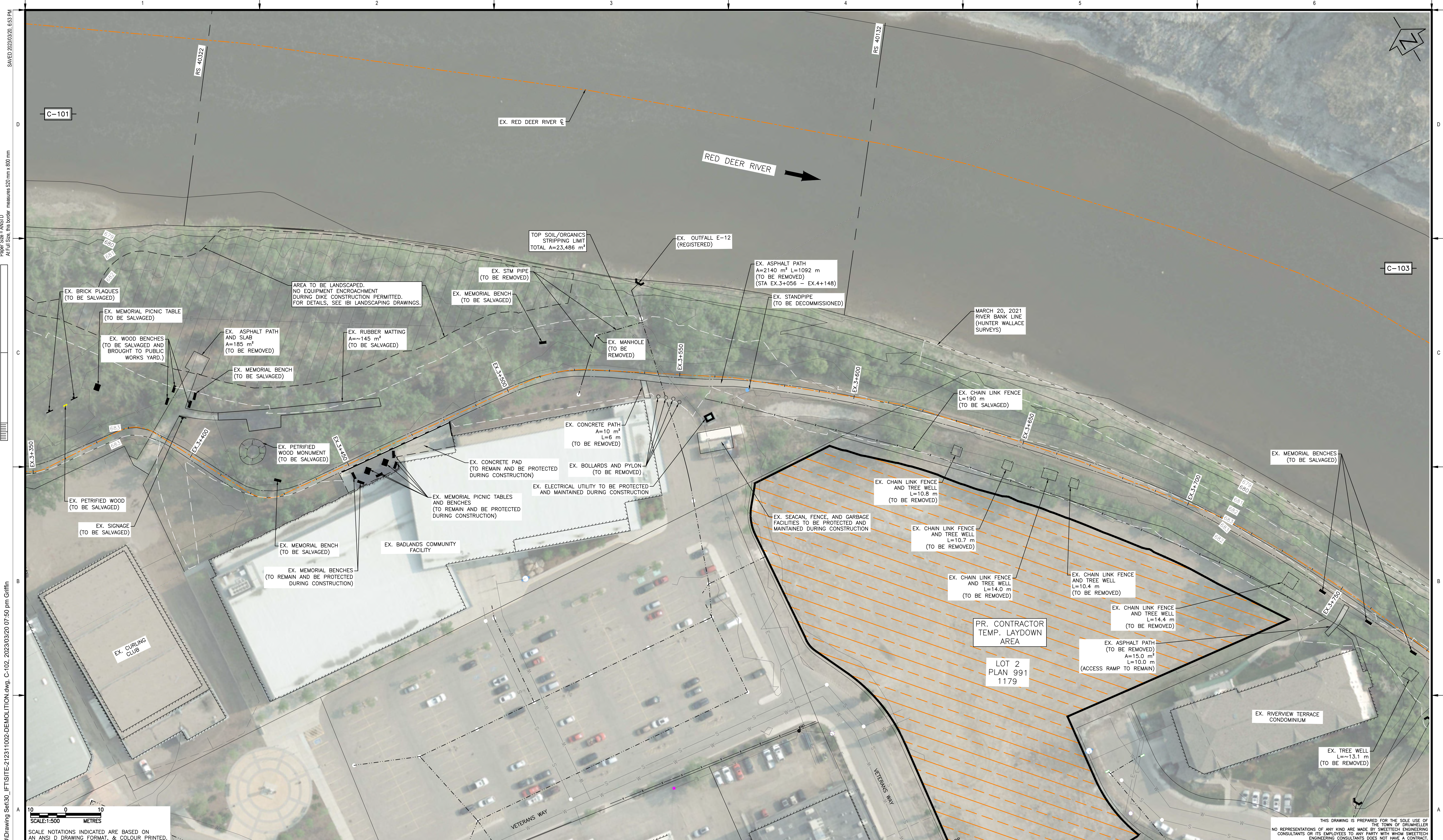
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 PROFESSIONAL ENGINEER ALBERTA  
 PERMIT TO PRACTICE  
 1963401 ALBERTA LTD.  
 RW SIGNATURE: [Signature]  
 RW APEGA ID #: 67014  
 DATE: 2023.03.20 - 2025  
 PERMIT NUMBER: P013638  
 The Association of Professional Engineers and Geoscientists of Alberta (APEGA)  
 2023-03-20

Rev	Date	Des	Dwn	Chk	Description
0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER

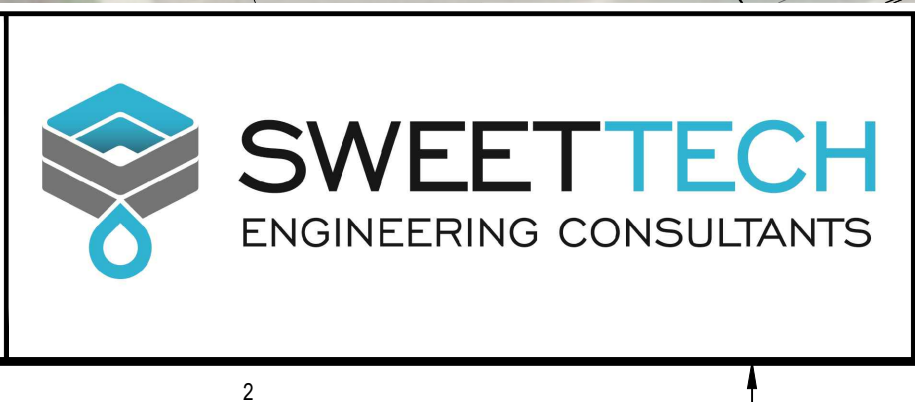
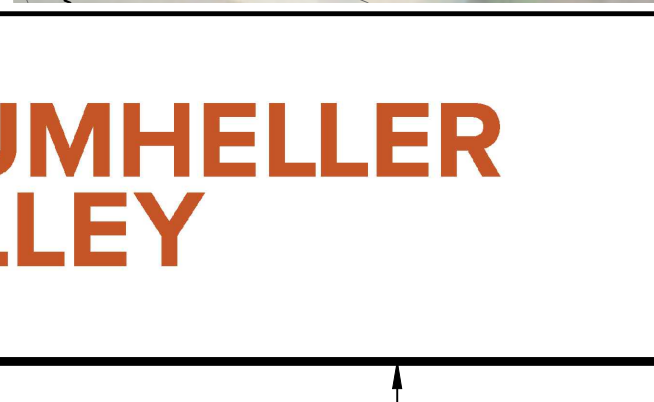
Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER**  
**DOWNTOWN DIKE**  
**EXISTING CONDITIONS AND DEMOLITION PLAN**  
**STA EX.3+000 - EX.3+377**  
 Project No. **21.2311.002** Drawing No. **C-101** Rev. **0**  
 Group **CIVIL**





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 SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.



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 1963401 ALBERTA LTD.  
 RW SIGNATURE: [Signature]  
 RW APEGA ID #: 07014  
 DATE: 2023-03-20  
**PERMIT NUMBER: P013638**  
 The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

Rev	Date	Des	Dwn	Chk	Description
0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER

Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER**  
**DOWNTOWN DIKE**  
**EXISTING CONDITIONS AND DEMOLITION PLAN**  
**STA EX.3+377 - EX.3+737**

Project No. **21.2311.002**      Drawing No. **C-102**      Rev. **0**  
 Group **CIVIL**

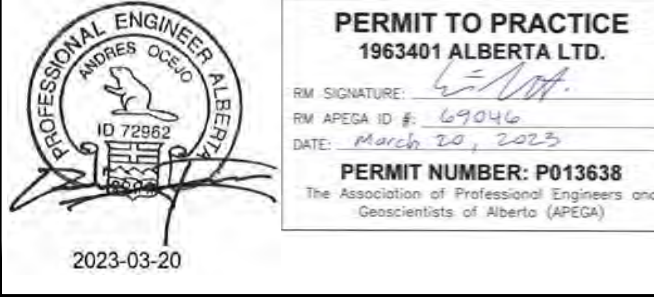
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 SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.



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0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER

Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER**  
**DOWNTOWN DIKE**

**EXISTING CONDITIONS AND DEMOLITION PLAN**  
**STA EX.3+737 - EX.4+100**

Project No. <b>21.2311.002</b>	Drawing No. <b>C-103</b>	Rev. <b>0</b>
Group <b>CIVIL</b>		





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1963401 ALBERTA LTD.  
RM SIGNATURE: [Signature]  
RM APEGA ID #: 67914  
DATE: 2023-03-20  
**PERMIT NUMBER: P013638**  
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

Rev	Date	Des	Dwn	Chk	Description
0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER

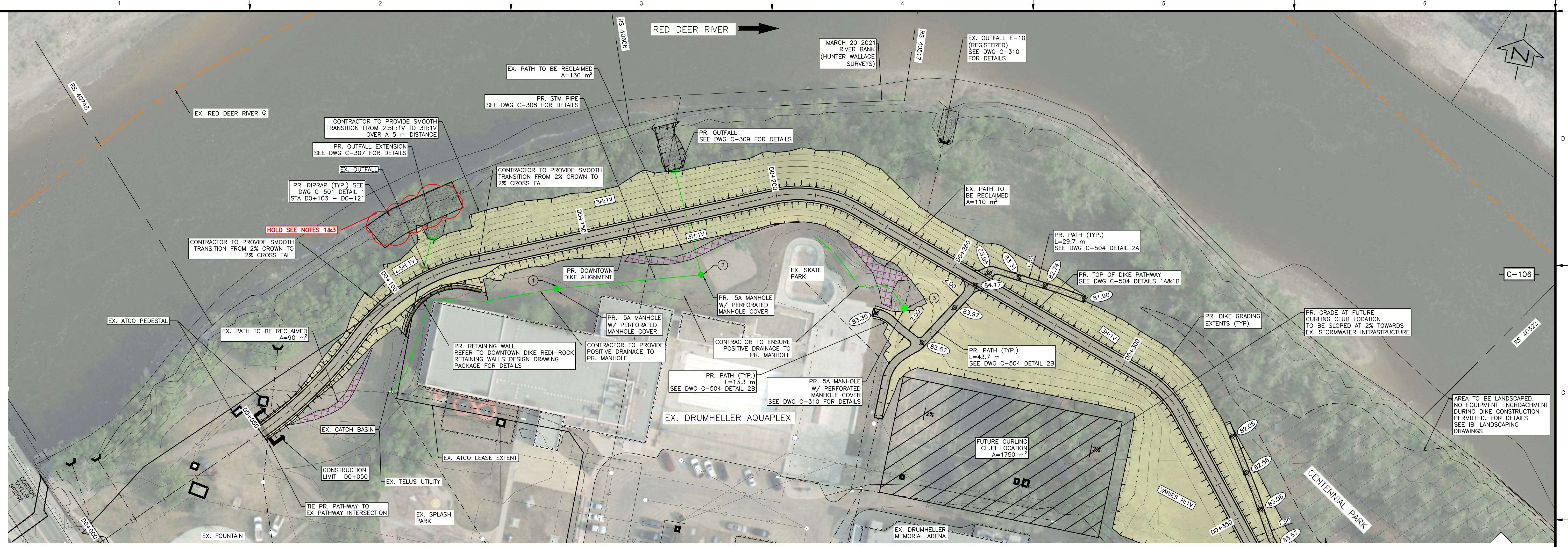
Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER**  
**DOWNTOWN DIKE**  
**EXISTING CONDITIONS AND DEMOLITION PLAN**  
**STA EX.4+100 - EX.4+139**

Project No. **21.2311.002** Drawing No. **C-104** Rev. **0**  
Group **CIVIL**



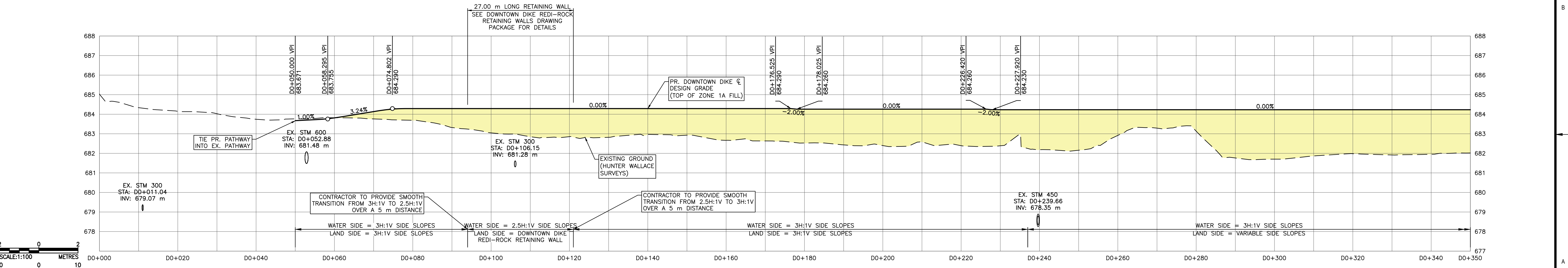
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PVI STA:D0+058.295 PVI STA:D0+074.802  
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 K:2.503 K:2.000  
 LVC:5.603 LVC:6.486  
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 BVCE: 683.727 BVCE: 684.185  
 EVCS: D0+061.096 EVCS: D0+078.045  
 EVCE: 683.846 EVCE: 684.290

**PLAN**  
 SCALE = 1:500

- NOTES:**
1. PERMITS AND APPROVALS (BY OWNER/ENGINEER) ARE REQUIRED FOR HOLD AREAS PRIOR TO CONSTRUCTION.
  2. PROVIDE SMOOTH TRANSITION OVER APPROX. 5 m DISTANCE WHEN DIKE SLOPES CHANGE.
  3. NO ENCROACHMENT OR CONSTRUCTION WITHIN AREAS MARKED HOLD UNTIL HOLD IS LIFTED BY ENGINEER.
  4. PR. IRRIGATION LINES TO BE CONFIRMED BY TOWN OF DRUMHELLER (SEPARATE CONTRACT).



**DOWNTOWN DIKE PROFILE**  
 SCALE = H=1:500 V=1:100

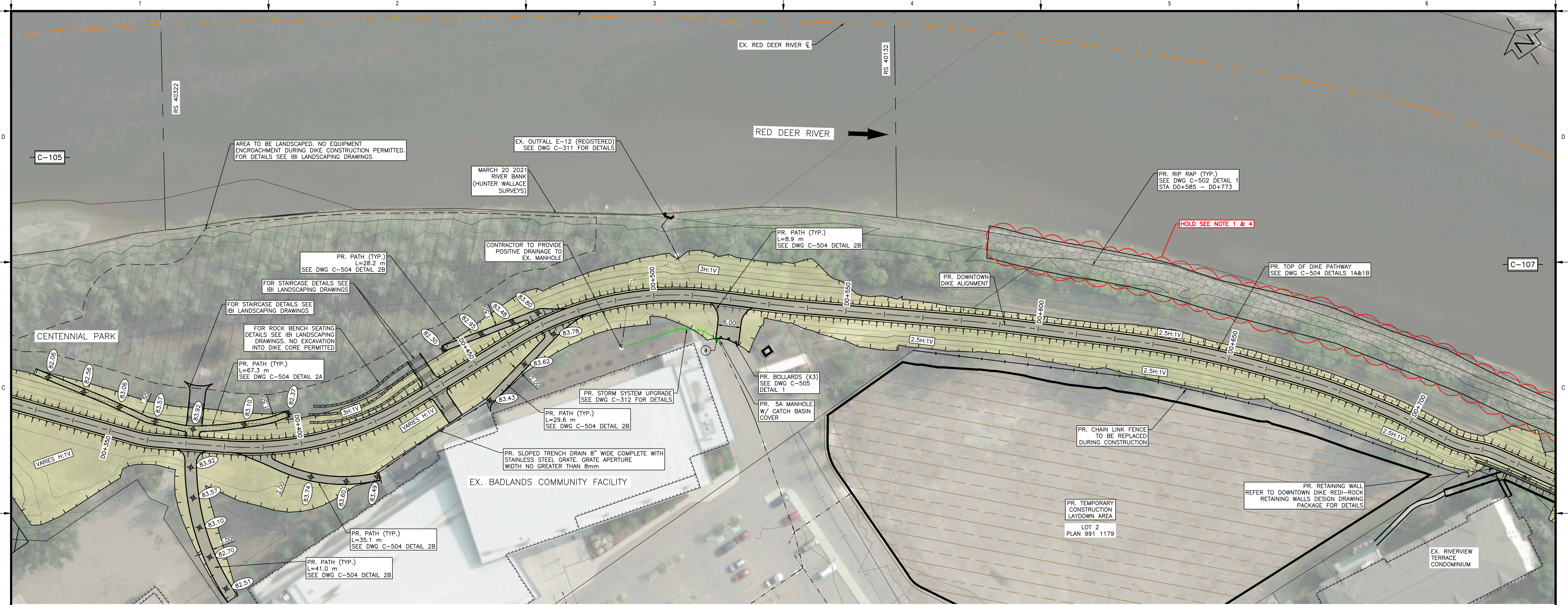
SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED

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			<b>PERMIT TO PRACTICE</b> 1963401 ALBERTA LTD. RW SIGNATURE: [Signature] RW APEGA ID #: 57914 DATE: 2023-03-20 <b>PERMIT NUMBER: P013638</b> <small>The Association of Professional Engineers and Geoscientists of Alberta (APEGA)</small>	<b>Rev</b> 0 23/03/20 AO GM CC/ES ISSUED FOR TENDER	<b>Rev</b> Date Des Dwn Chk Description	<b>TOWN OF DRUMHELLER</b> <b>DOWNTOWN DIKE</b> <b>PLAN &amp; PROFILE D0+000 TO D0+350</b>	Project No. <b>21.2311.002</b> Group <b>CIVIL</b>	Drawing No. <b>C-105</b> Rev. <b>0</b>
				Project No. <b>21.2311.002</b> Group <b>CIVIL</b>	Drawing No. <b>C-105</b> Rev. <b>0</b>			

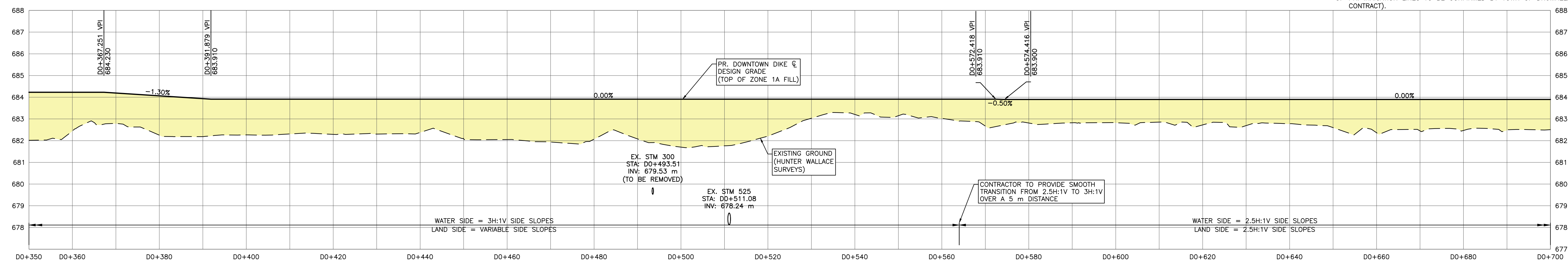


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**PLAN**  
 SCALE = 1:500

- NOTES:
1. PERMITS AND APPROVALS (BY OWNER/ENGINEER) ARE REQUIRED FOR HOLD AREAS PRIOR TO CONSTRUCTION.
  2. PROVIDE SMOOTH TRANSITION OVER 5 m DISTANCE, WHEN DIKE SLOPES CHANGE.
  3. ACCESS TO CONSTRUCTION LAYDOWN AREA IS VIA VETERANS WAY ONLY.
  4. NO ENCROACHMENT OR CONSTRUCTION WITHIN AREAS MARKED AS HOLD UNTIL HOLD IS LIFTED BY ENGINEER.
  5. PR. IRRIGATION LINES TO BE CONFIRMED BY TOWN OF DRUMHELLER (SEPARATE CONTRACT).



**DOWNTOWN DIKE PROFILE**  
 SCALE = H=1:500 V=1:100

SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.



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 RW APEGA ID #: 27914  
 DATE: 2023-03-20  
 PERMIT NUMBER: P013638  
 The Association of Professional Engineers and Geoscientists of Alberta (APEGA)  
 2023-03-20

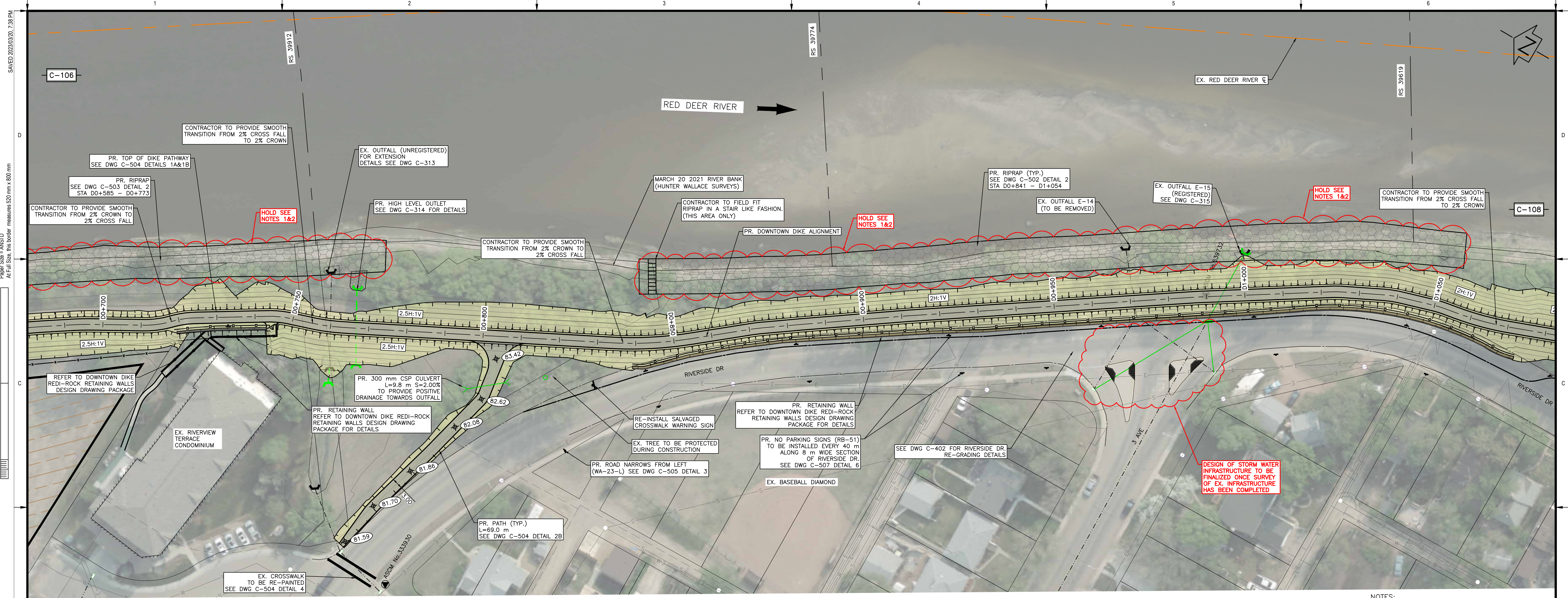
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0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER						

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**TOWN OF DRUMHELLER**  
**DOWNTOWN DIKE**  
**PLAN & PROFILE D0+350 TO D0+700**

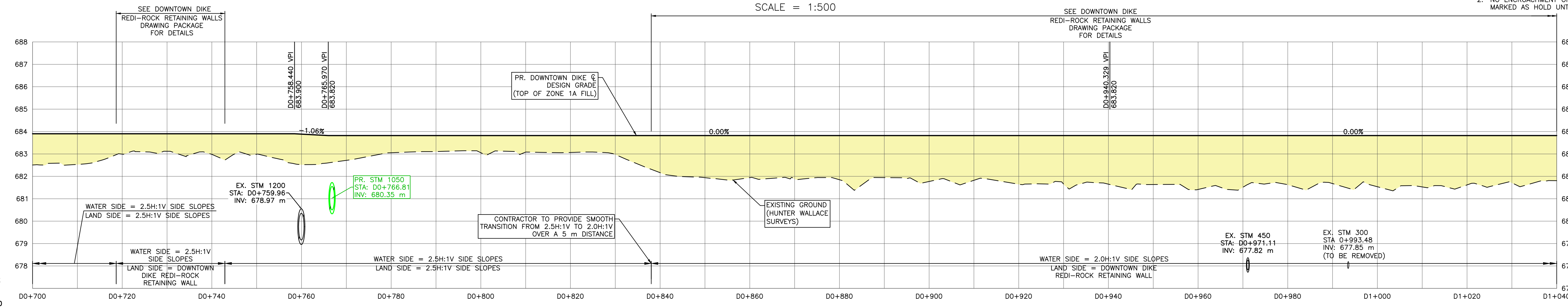
Project No. **21.2311.002** Drawing No. **C-106** Rev. **0**  
 Group **CIVIL**





PLAN  
SCALE = 1:500

- NOTES:
1. PERMITS AND APPROVALS (BY OWNER/ENGINEER) ARE REQUIRED FOR HOLD AREAS PRIOR TO CONSTRUCTION.
  2. NO ENCROACHMENT OR CONSTRUCTION WITHIN AREAS MARKED AS HOLD UNTIL HOLD IS LIFTED BY ENGINEER.

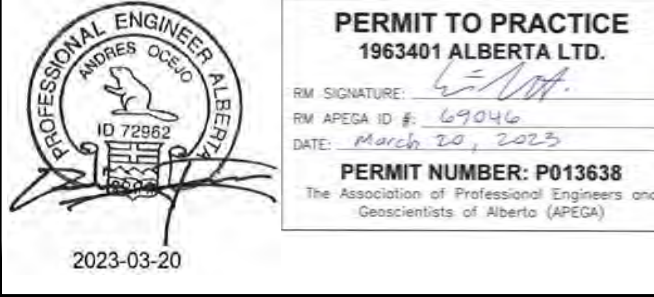


DOWNTOWN DIKE PROFILE  
SCALE = H=1:500 V=1:100

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Rev	Date	Des	Dwn	Chk	Description
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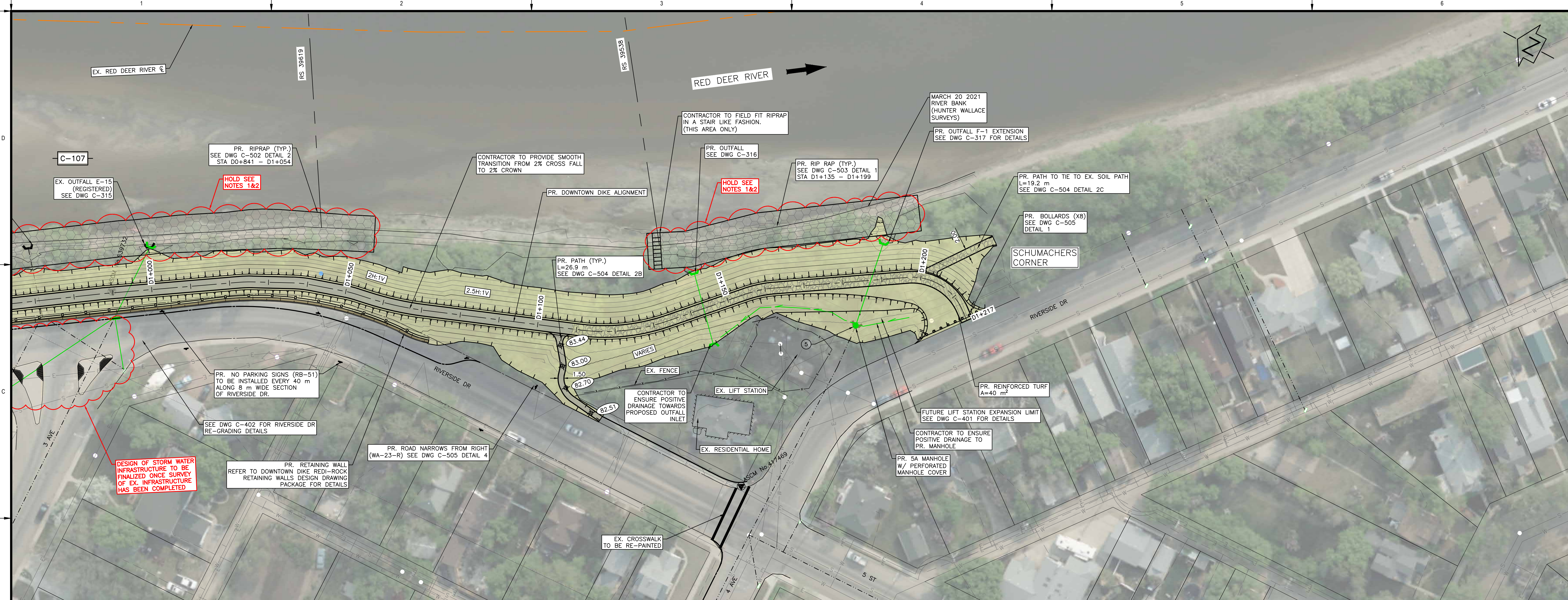
Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER**  
**DOWNTOWN DIKE**  
**PLAN & PROFILE D0+700 TO D1+040**

Project No. **21.2311.002** Drawing No. **C-107** Rev. **0**  
Group **CIVIL**

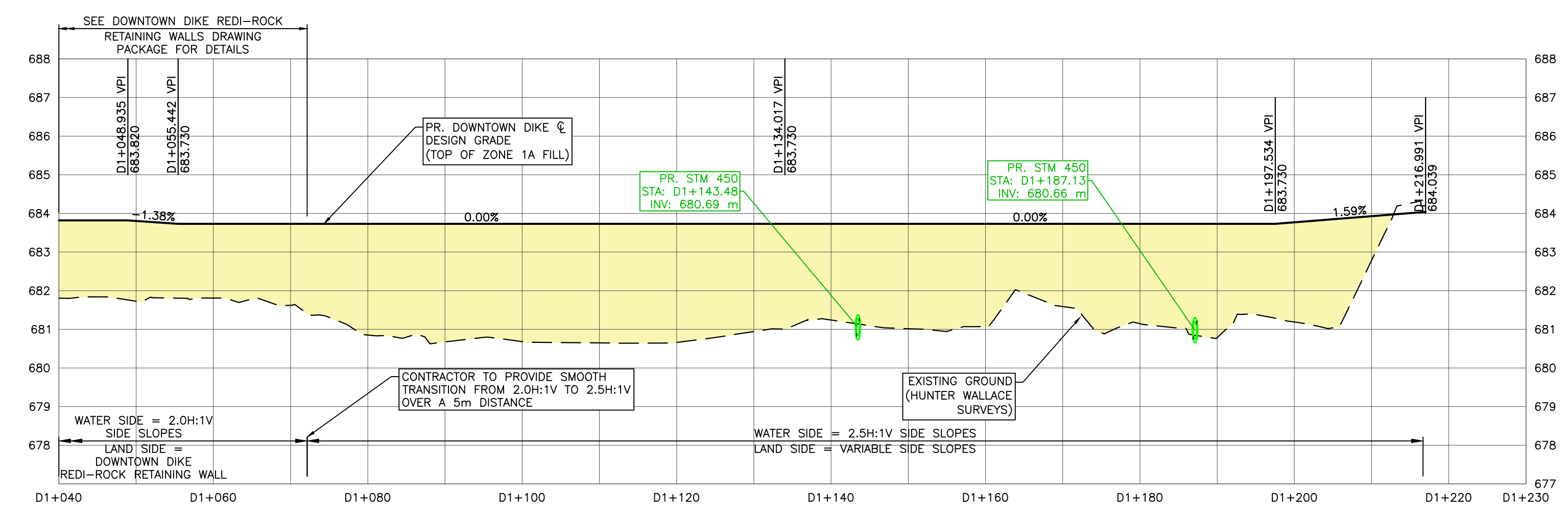


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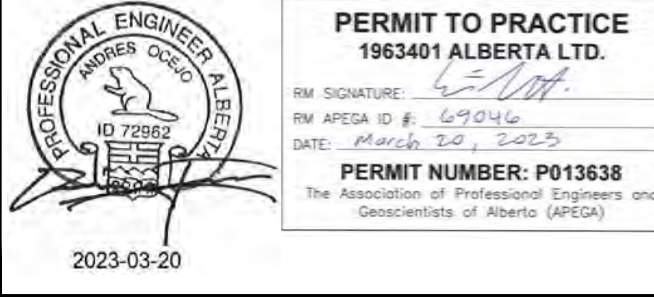
PLAN  
SCALE = 1:500

- NOTES:
1. PERMITS AND APPROVALS (BY OWNER/ENGINEER) ARE REQUIRED FOR HOLD AREAS PRIOR TO CONSTRUCTION.
  2. NO ENCROACHMENT OR CONSTRUCTION WITHIN AREAS MARKED AS HOLD UNTIL HOLD IS LIFTED BY ENGINEER.



DOWNTOWN DIKE PROFILE  
SCALE = H=1:500 V=1:100

SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.



Rev	Date	Des	Dwn	Chk	Description
0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER

Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER**  
**DOWNTOWN DIKE**

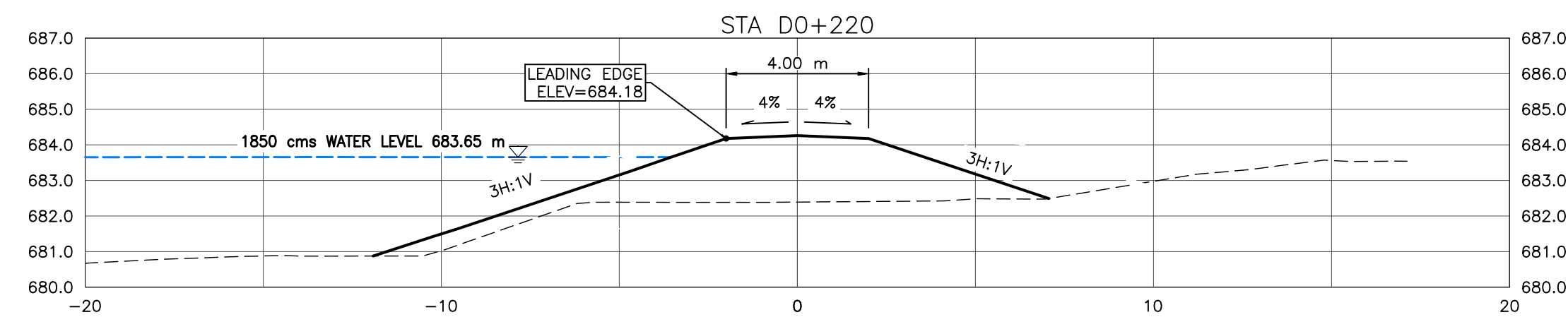
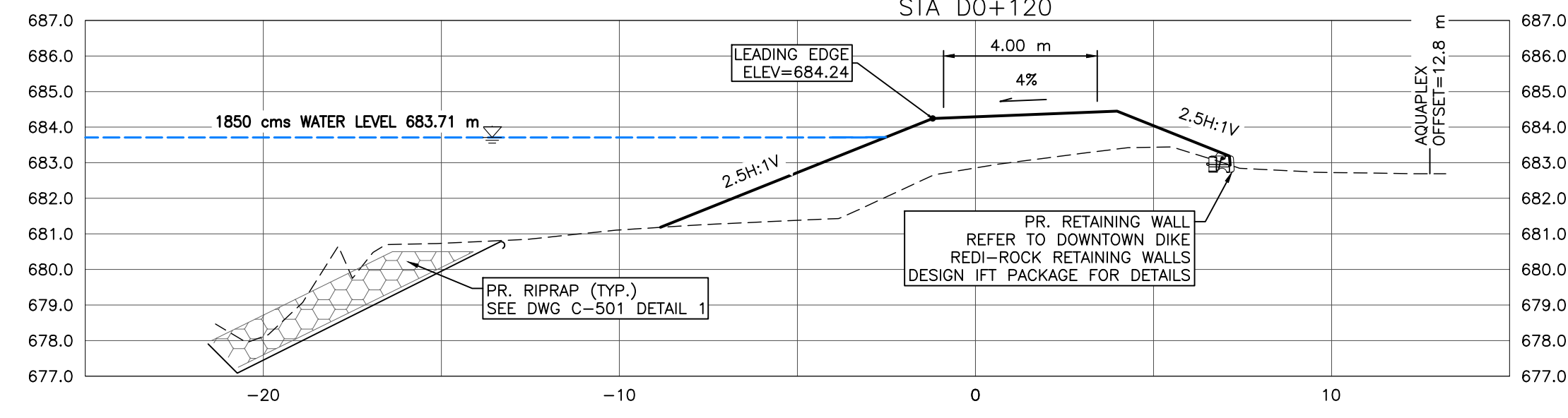
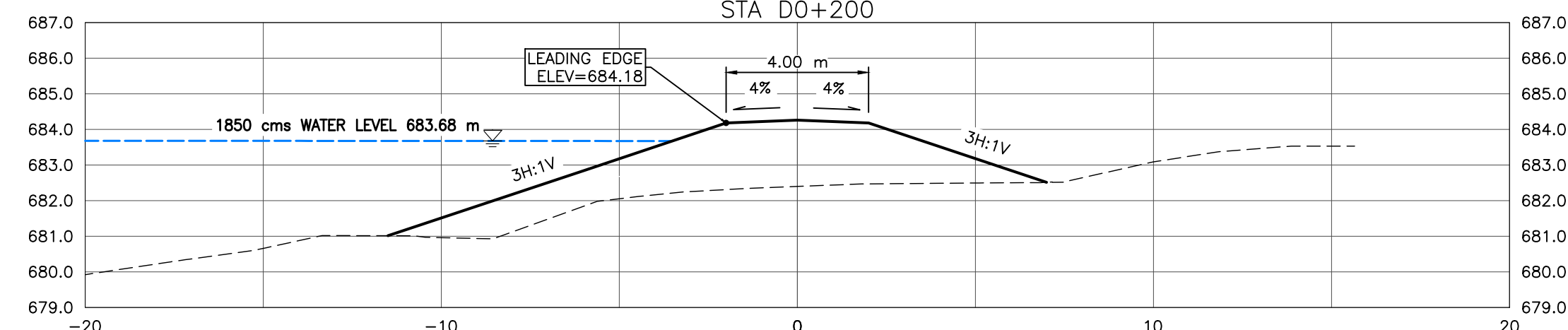
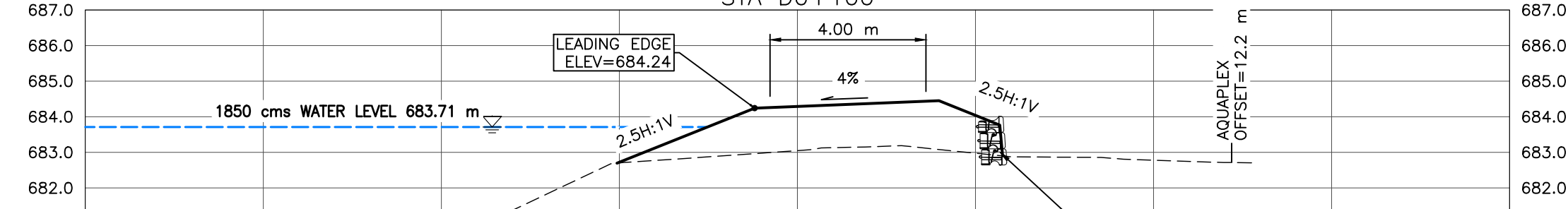
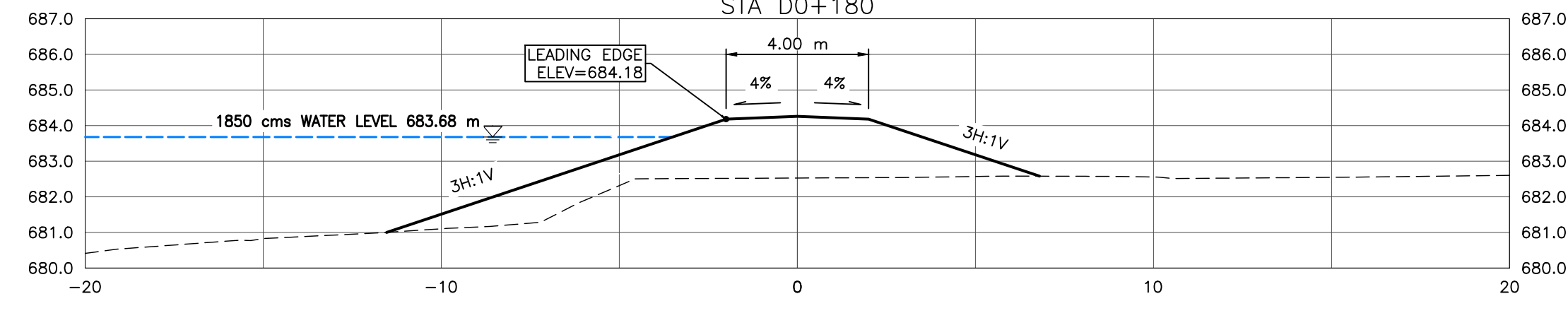
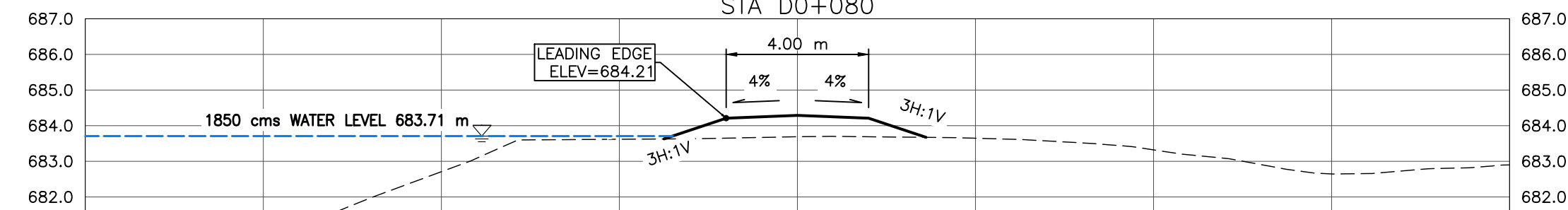
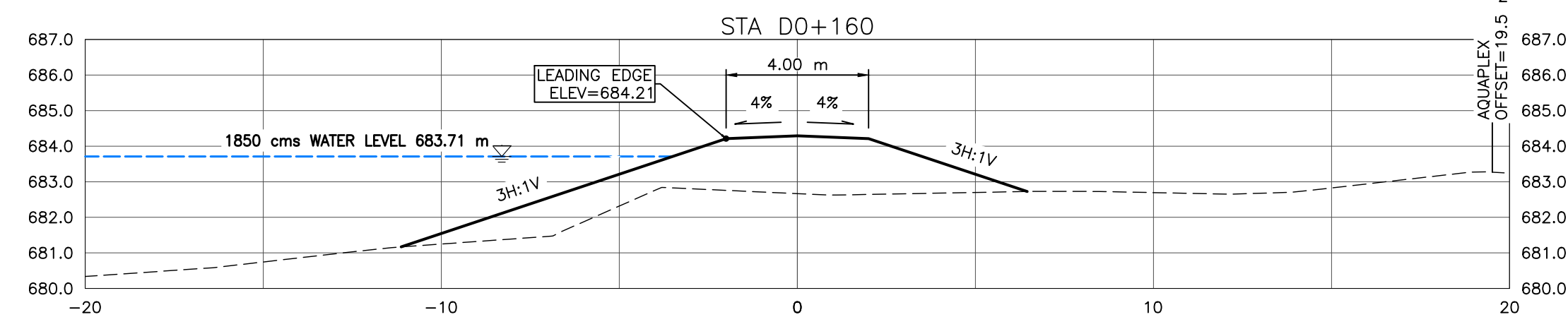
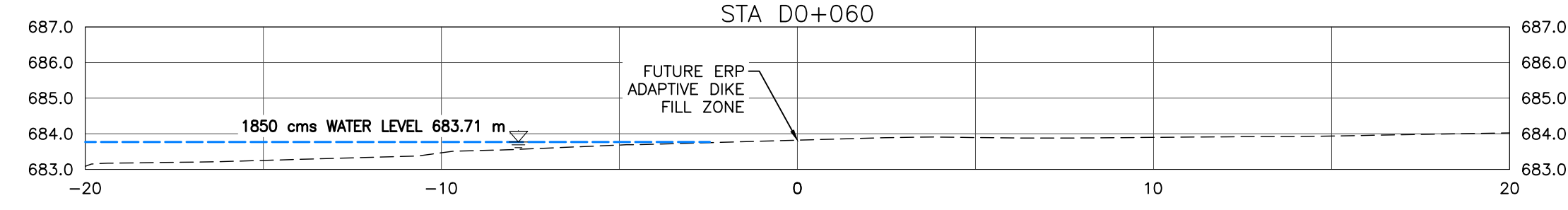
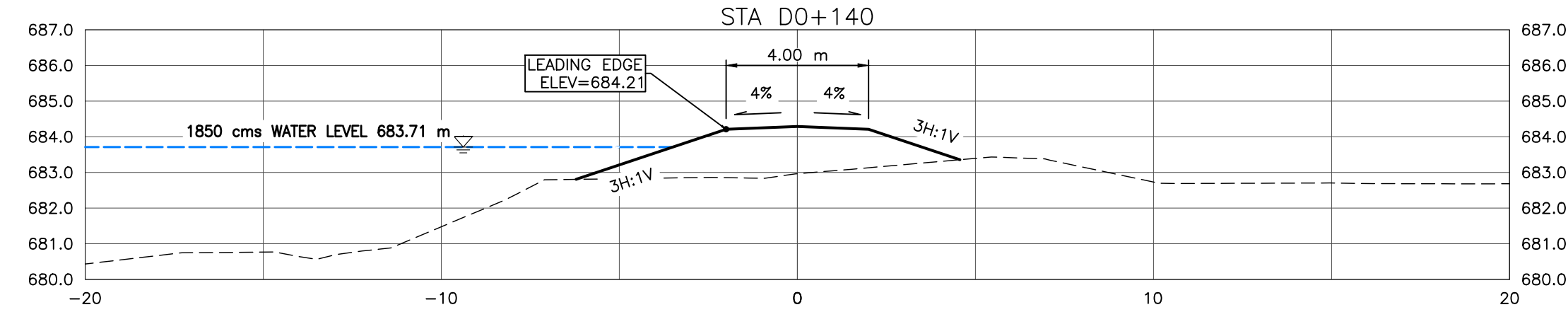
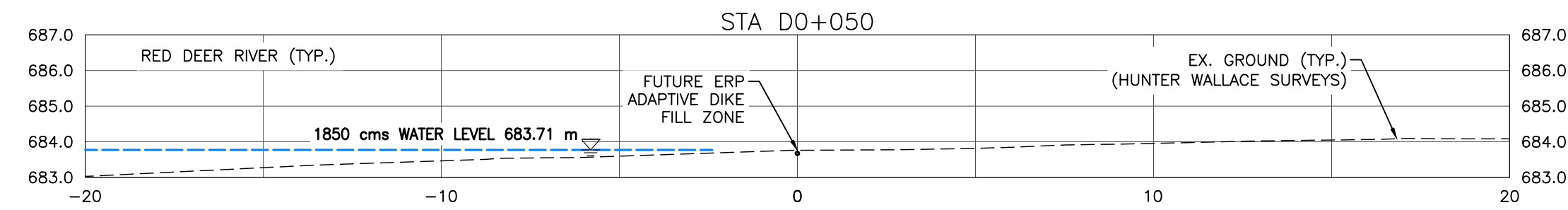
**PLAN & PROFILE D1+040 TO D1+217**

Project No. <b>21.2311.002</b>	Drawing No. <b>C-108</b>	Rev. <b>0</b>
Group <b>CIVIL</b>		

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**NOTES:**

1. PROPOSED DOWNTOWN DIKE RETAINING WALL HAND RAILS NOT SHOWN FOR CLARITY. (RETAINING WALL REFER TO DOWNTOWN DIKE REDI-ROCK RETAINING WALL DWG PACKAGE FOR DETAILS).
2. PR. ASPHALT PATHWAY NOT SHOWN FOR CLARITY. ASPHALT PATHWAY 1 TO BE FIELD FIT AND APPROVED BY ENGINEER PRIOR TO CONSTRUCTION (SEE DETAIL DWG C-504 2A/2B FOR ASPHALT PATHWAY STRUCTURE).
3. DESIGN GRADES SHOWN ARE TO TOP OF IMPERVIOUS FILL MATERIAL UNLESS OTHERWISE STATED.

**REFERENCE:**

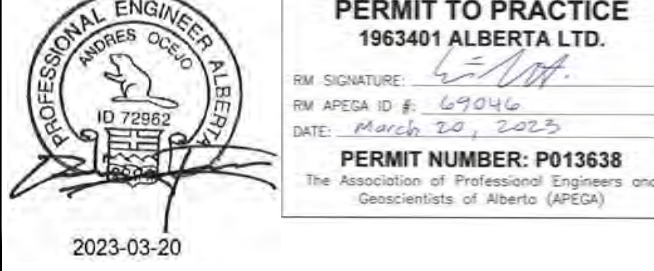
1. RIVER WATER LEVELS PROVIDED BY NHC (NORTHWEST HYDRAULIC CONSULTANTS) AT THE RS (RIVER STATIONING) SHOWN ON KEY PLAN

**CROSS SECTIONS**

1:150



SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.



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 RW SIGNATURE: [Signature]  
 RW AREGA ID #: 679316  
 DATE: 2023-03-20

**PERMIT NUMBER: P013638**  
 The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

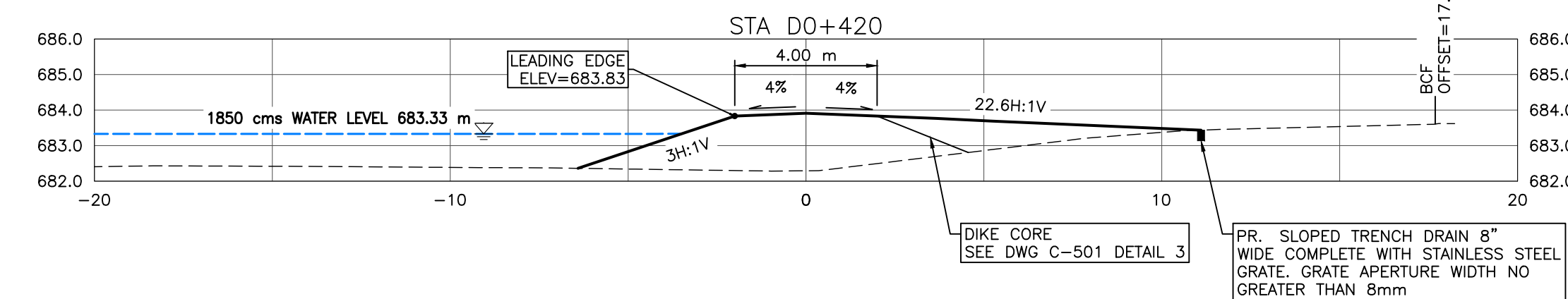
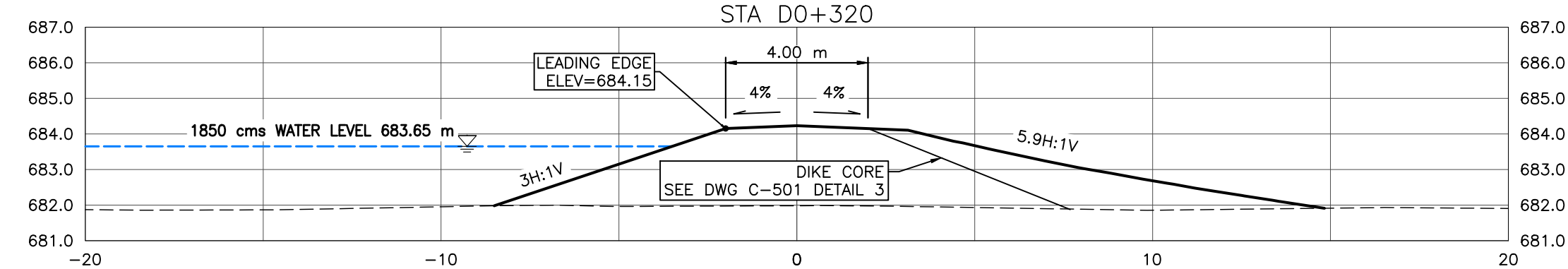
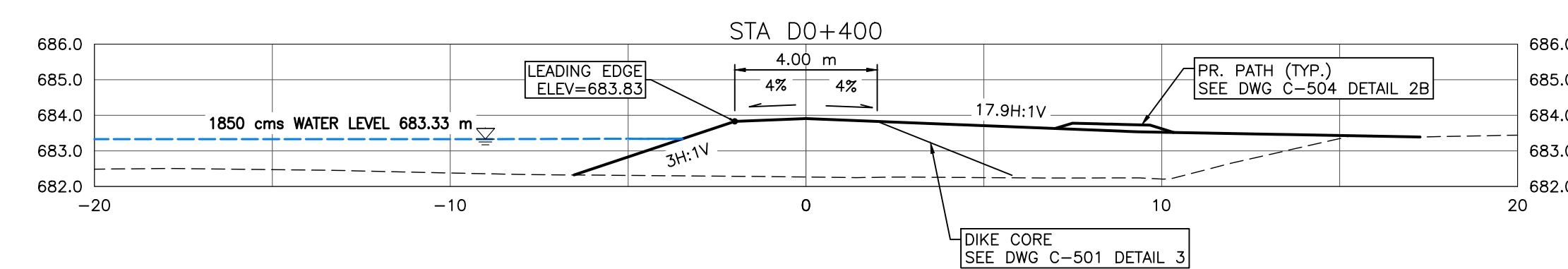
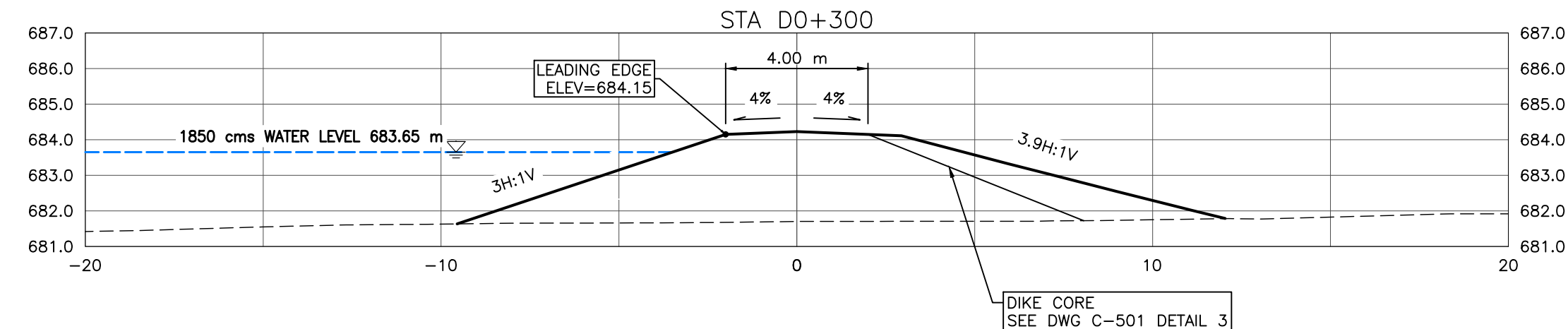
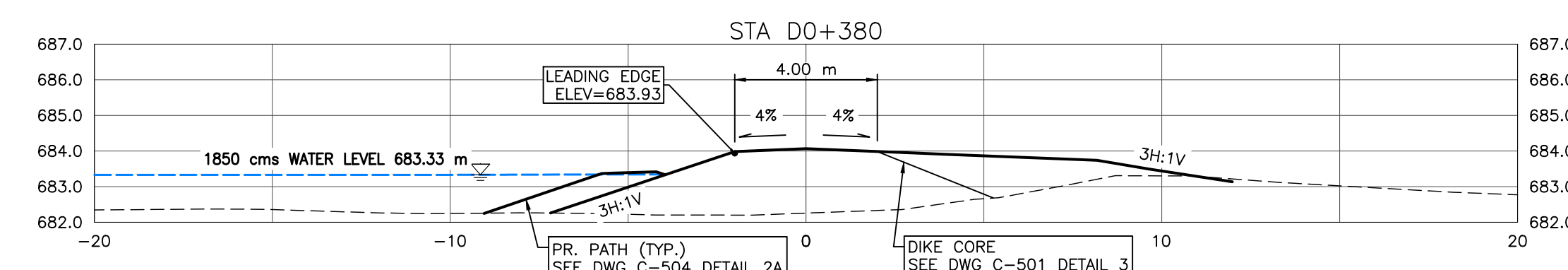
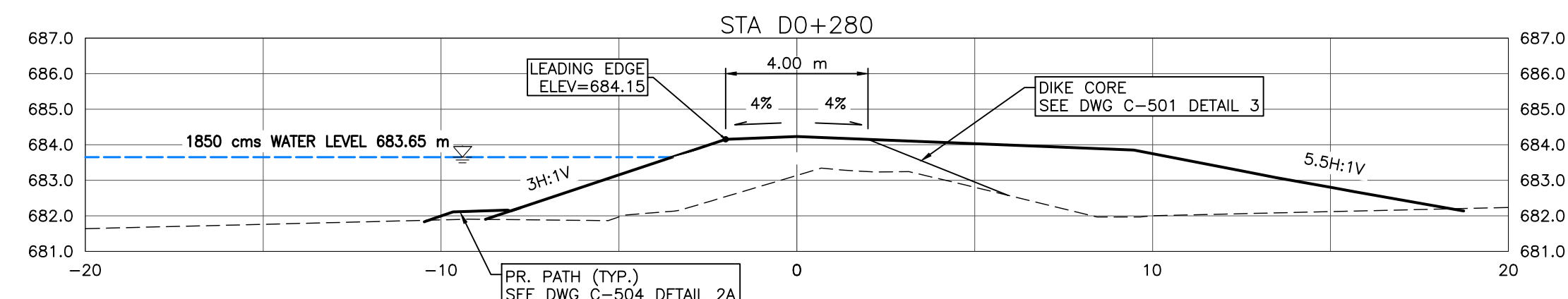
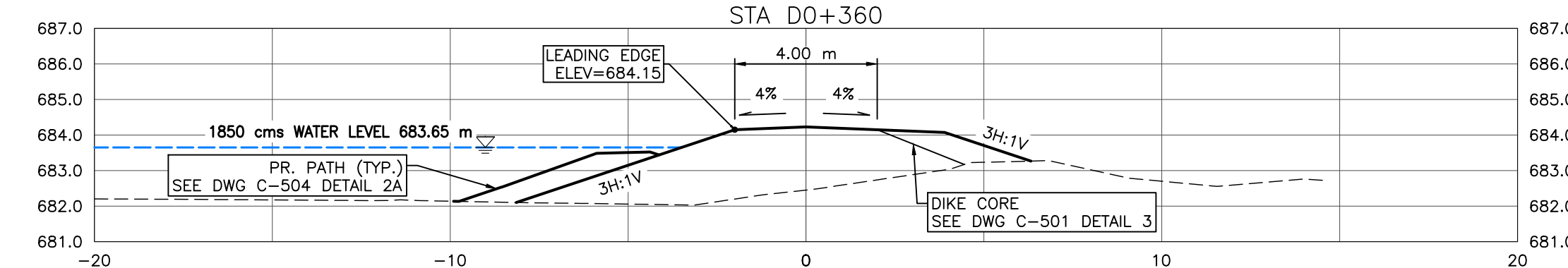
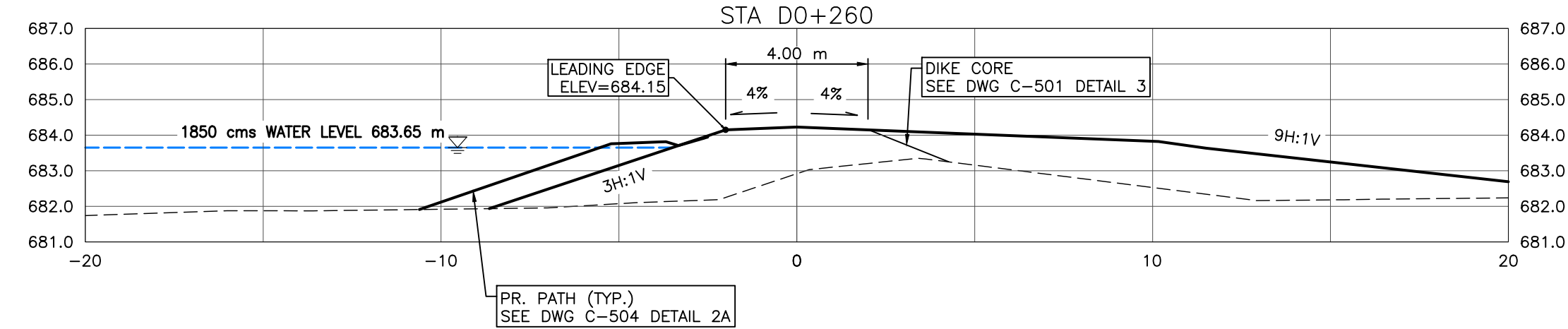
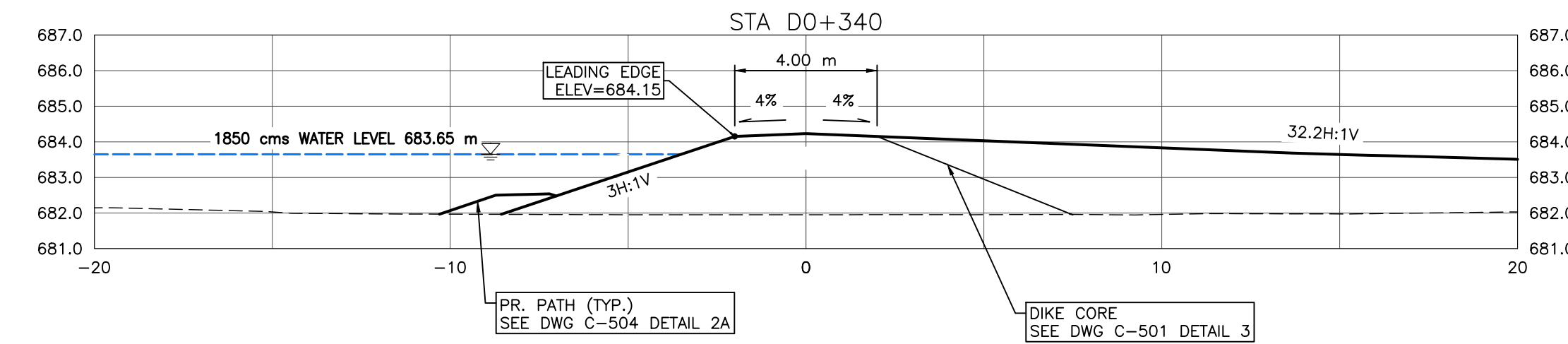
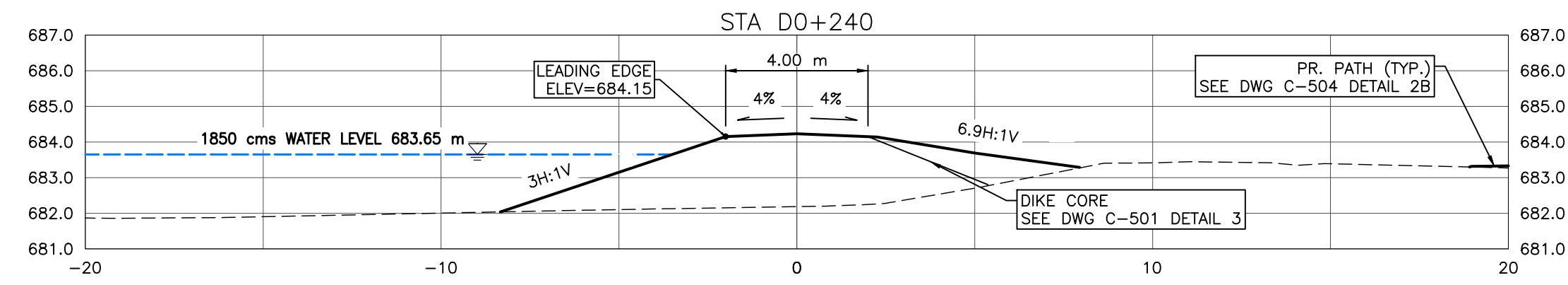
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0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER						

<b>TOWN OF DRUMHELLER</b>			
<b>DOWNTOWN DIKE</b>			
<b>CROSS SECTIONS 1</b>			
Project No.	<b>21.2311.002</b>	Drawing No.	
Group	<b>CIVIL</b>		
		<b>C-301</b>	<b>0</b>

THIS DRAWING IS PREPARED FOR THE SOLE USE OF THE TOWN OF DRUMHELLER. NO REPRESENTATIONS OF ANY KIND ARE MADE BY SWEETTECH ENGINEERING CONSULTANTS OR ITS EMPLOYEES TO ANY PARTY WITH WHOM SWEETTECH ENGINEERING CONSULTANTS DOES NOT HAVE A CONTRACT.



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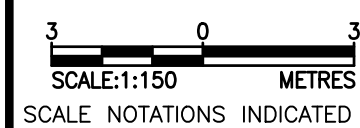
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1. PROPOSED DOWNTOWN DIKE RETAINING WALL HAND RAILS NOT SHOWN FOR CLARITY. (RETAINING WALL REFER TO DOWNTOWN DIKE REDI-ROCK RETAINING WALL DWG PACKAGE FOR DETAILS).
2. PR. ASPHALT PATHWAY NOT SHOWN FOR CLARITY. ASPHALT PATHWAY 1 TO BE FIELD FIT AND APPROVED BY ENGINEER PRIOR TO CONSTRUCTION (SEE DETAIL DWG C-504 2A/2B FOR ASPHALT PATHWAY STRUCTURE).
3. DESIGN GRADES SHOWN ARE TO TOP OF IMPERVIOUS FILL MATERIAL UNLESS OTHERWISE STATED.

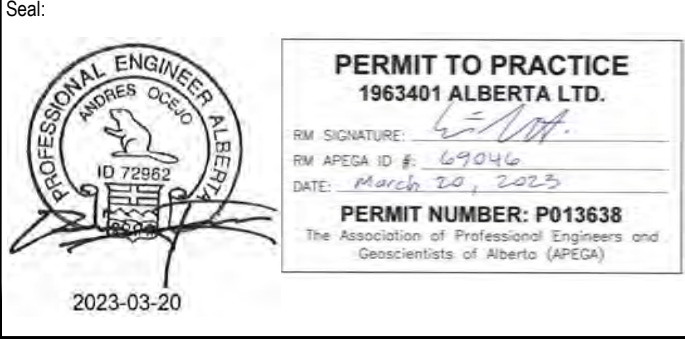
**REFERENCE:**

1. RIVER WATER LEVELS PROVIDED BY NHC (NORTHWEST HYDRAULIC CONSULTANTS) AT THE RS (RIVER STATIONING) SHOWN ON KEY PLAN

**CROSS SECTIONS**  
1:150



SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.



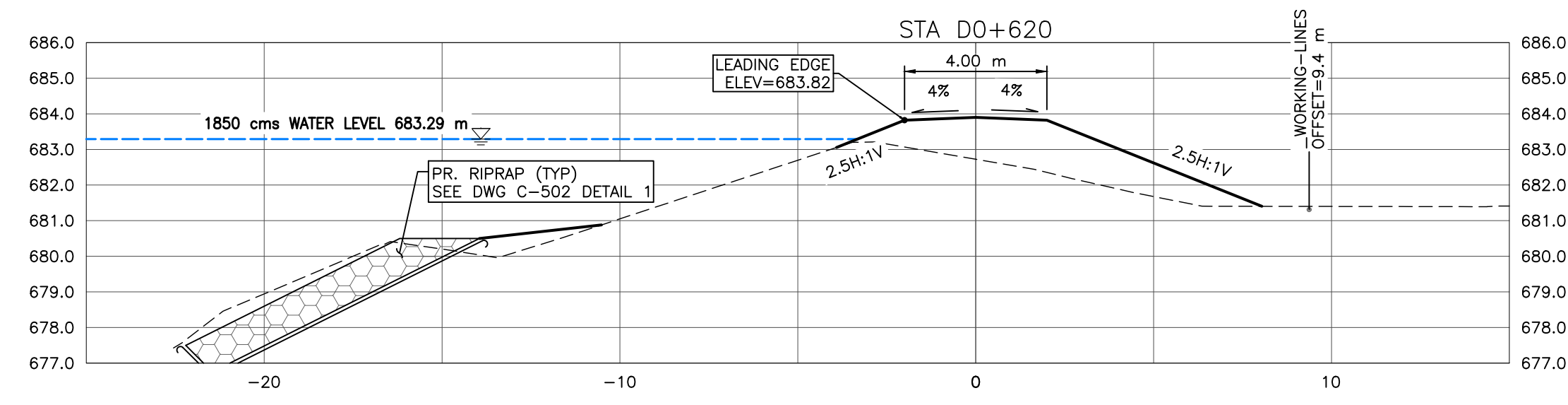
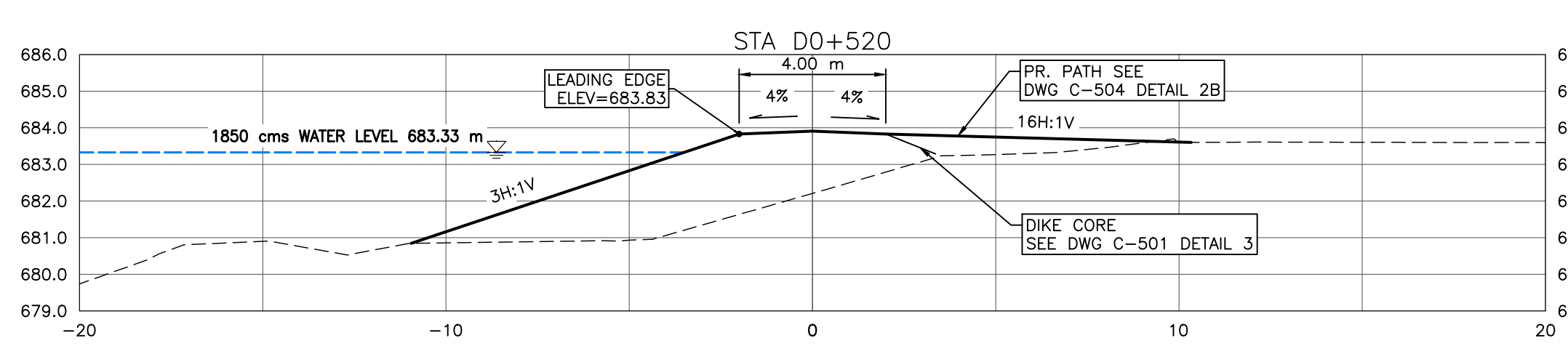
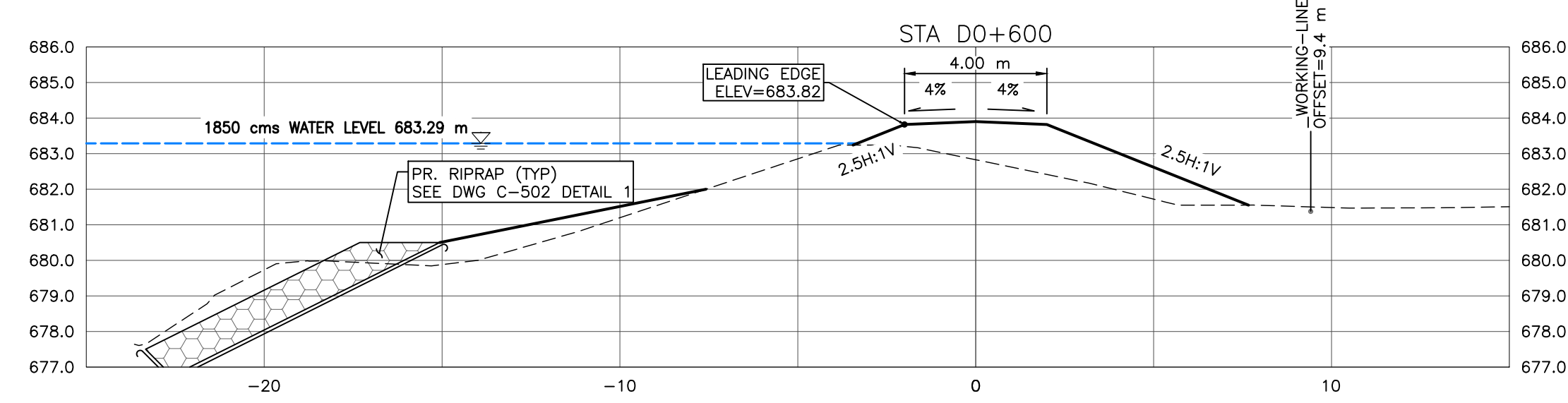
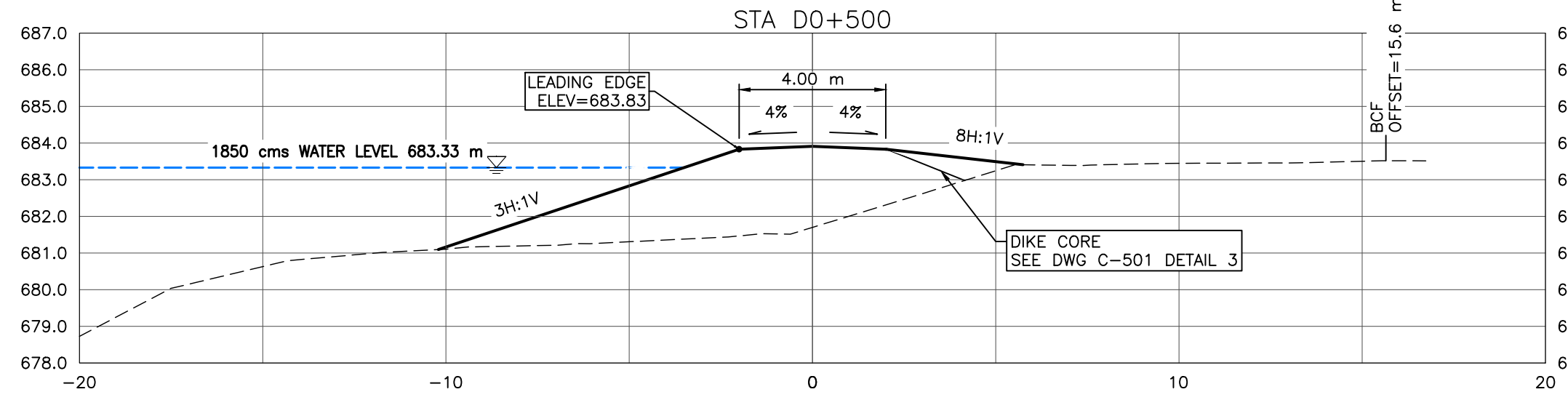
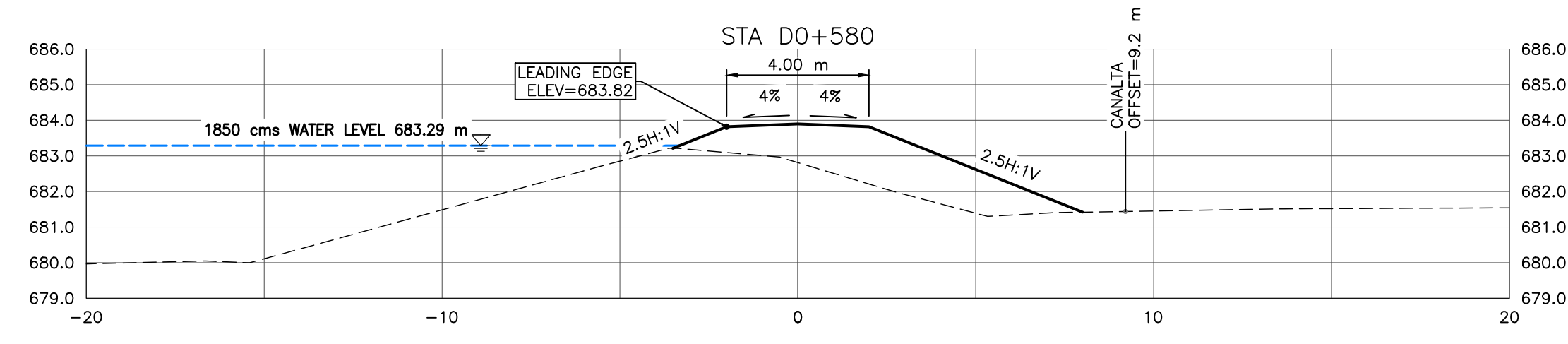
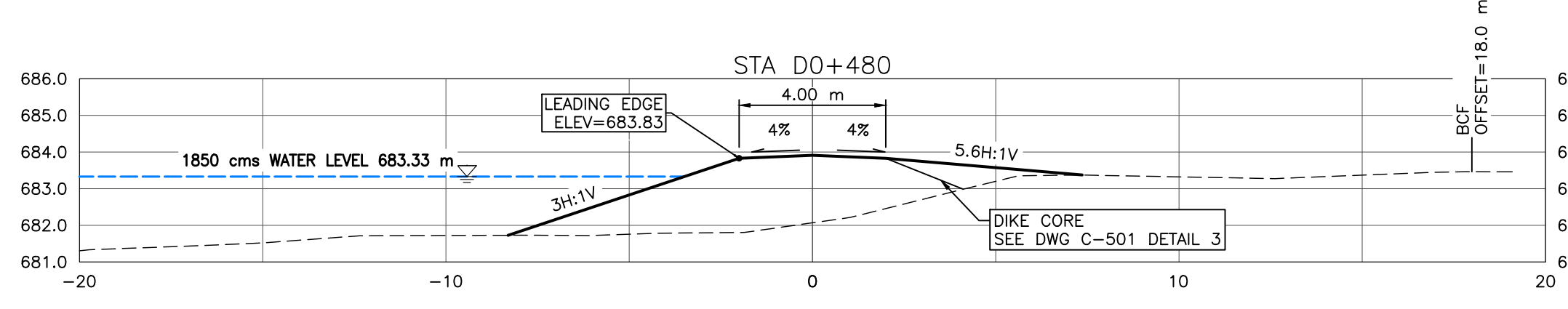
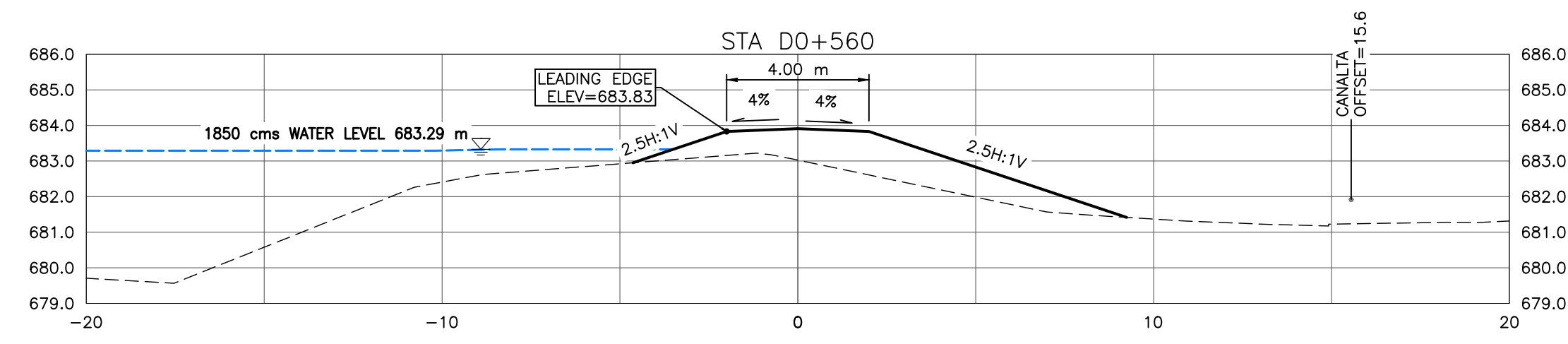
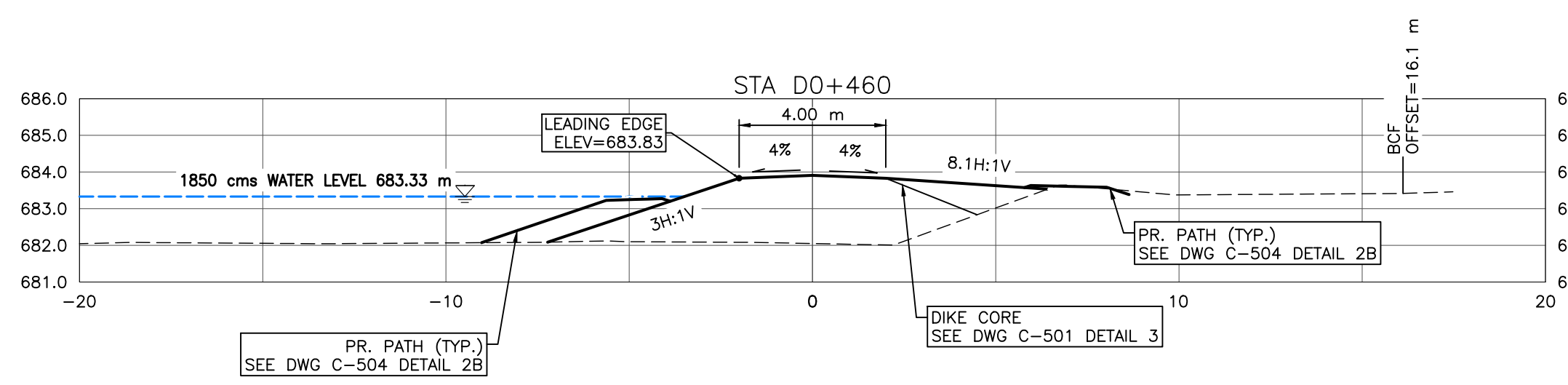
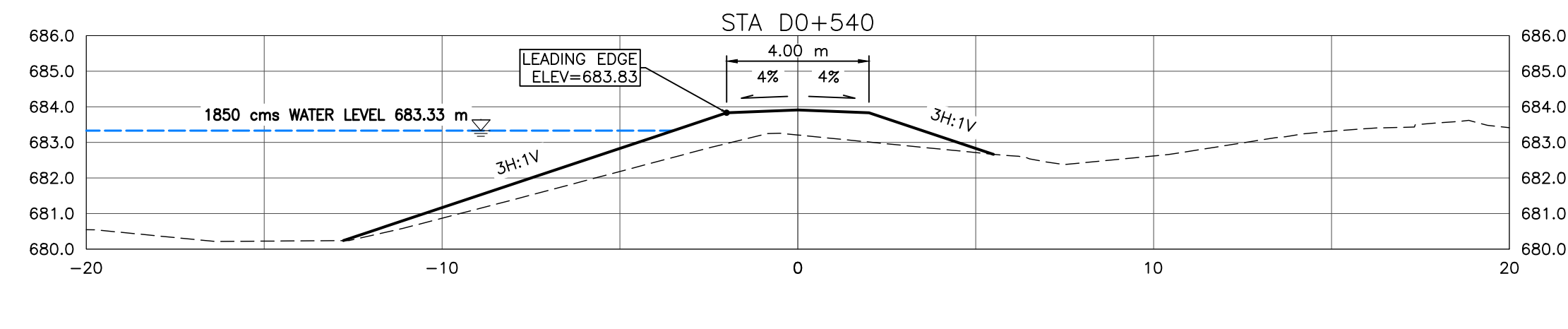
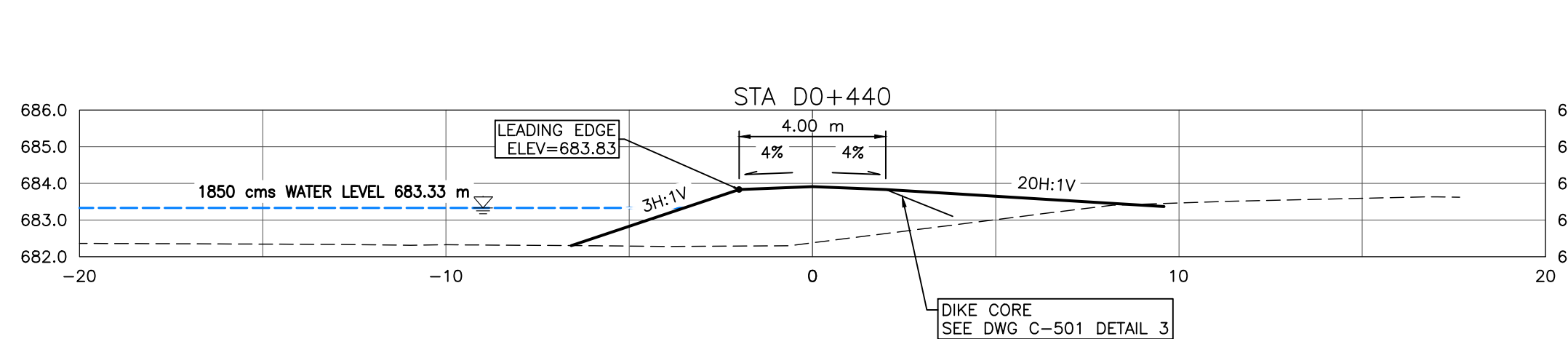
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0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER						

<b>TOWN OF DRUMHELLER DOWNTOWN DIKE CROSS SECTIONS 2</b>			
Project No.	21.2311.002	Drawing No.	
Group	CIVIL		
			<b>C-302</b>
			<b>0</b>

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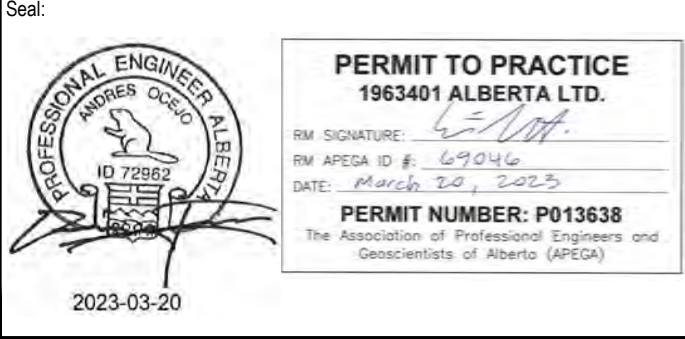
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2. PR. ASPHALT PATHWAY NOT SHOWN FOR CLARITY. ASPHALT PATHWAY & TO BE FIELD FIT AND APPROVED BY ENGINEER PRIOR TO CONSTRUCTION (SEE DETAIL DWG C-504 2A/2B FOR ASPHALT PATHWAY STRUCTURE).
3. DESIGN GRADES SHOWN ARE TO TOP OF IMPERVIOUS FILL MATERIAL UNLESS OTHERWISE STATED.
4. RIVERSIDE DRIVE NOT SHOWN FOR CLARITY
5. GEOGRID NOT SHOWN FOR CLARITY

- REFERENCE:**
1. RIVER WATER LEVELS PROVIDED BY NHC (NORTHWEST HYDRAULIC CONSULTANTS) AT THE RS (RIVER STATIONING) SHOWN ON KEY PLAN

**CROSS SECTIONS**  
1:150

SCALE: 1:150  
METRES

SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.



Rev	Date	Des	Dwn	Chk	Description
0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER

Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER**  
**DOWNTOWN DIKE**  
**CROSS SECTIONS 3**

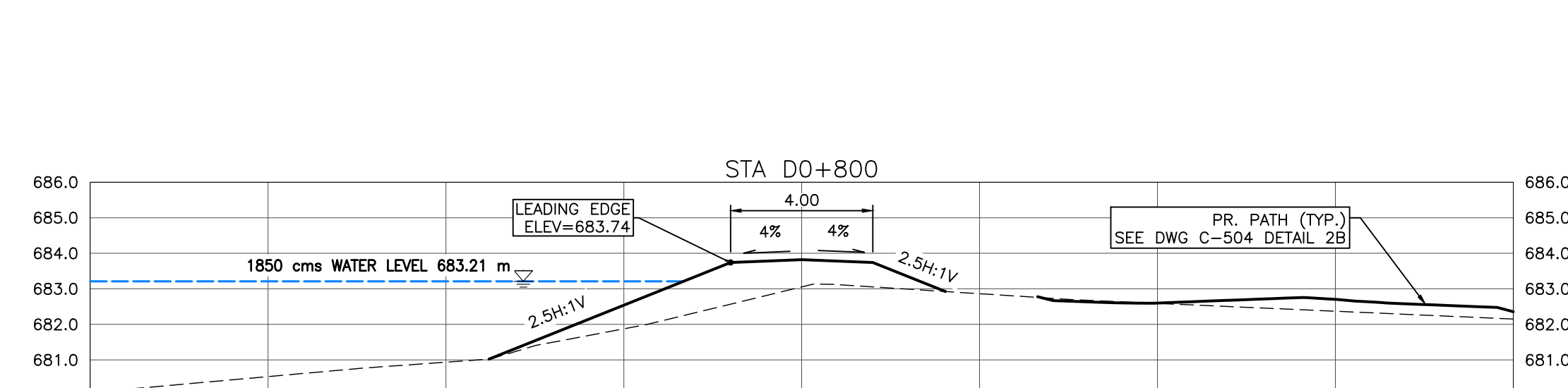
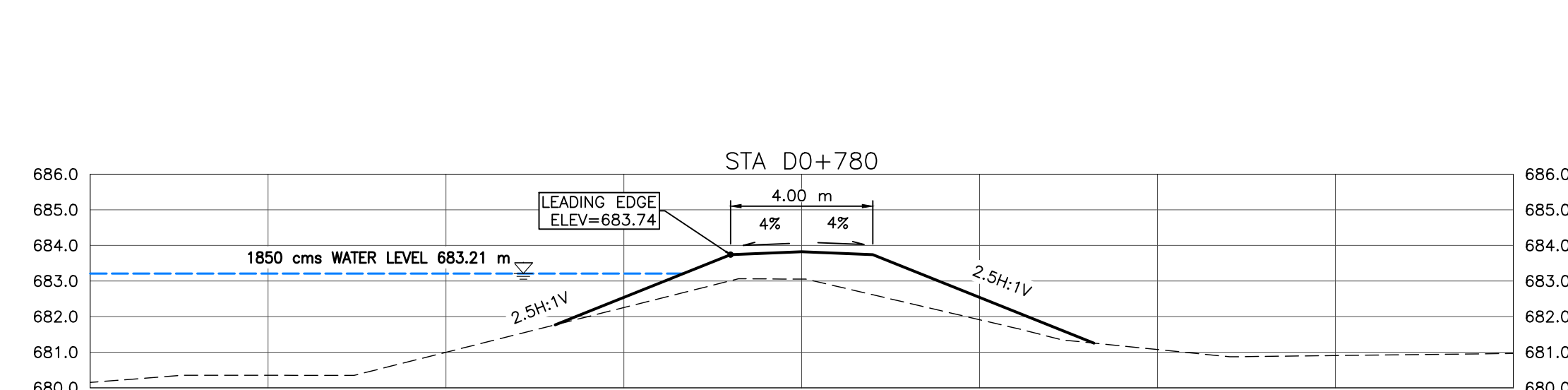
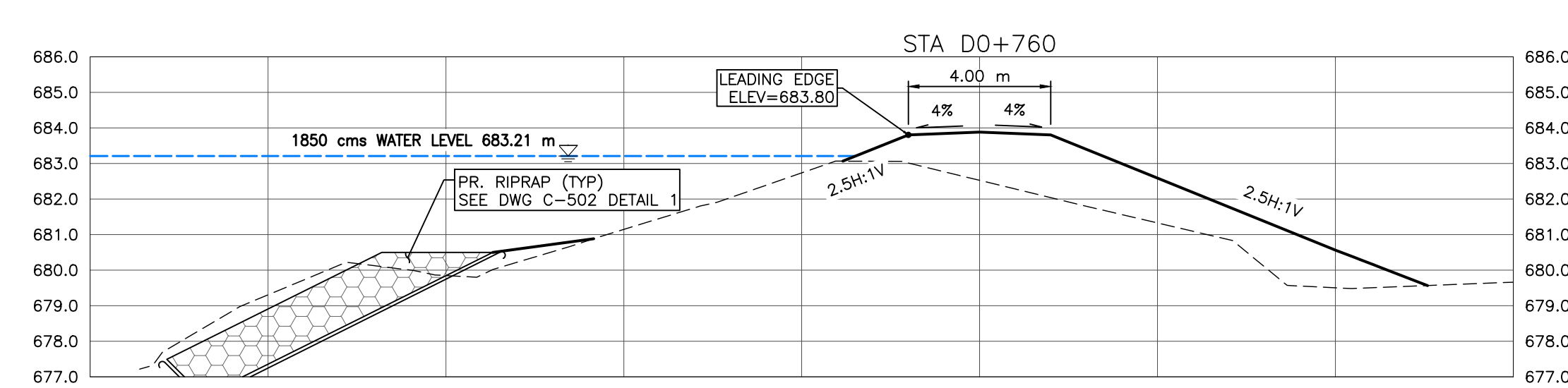
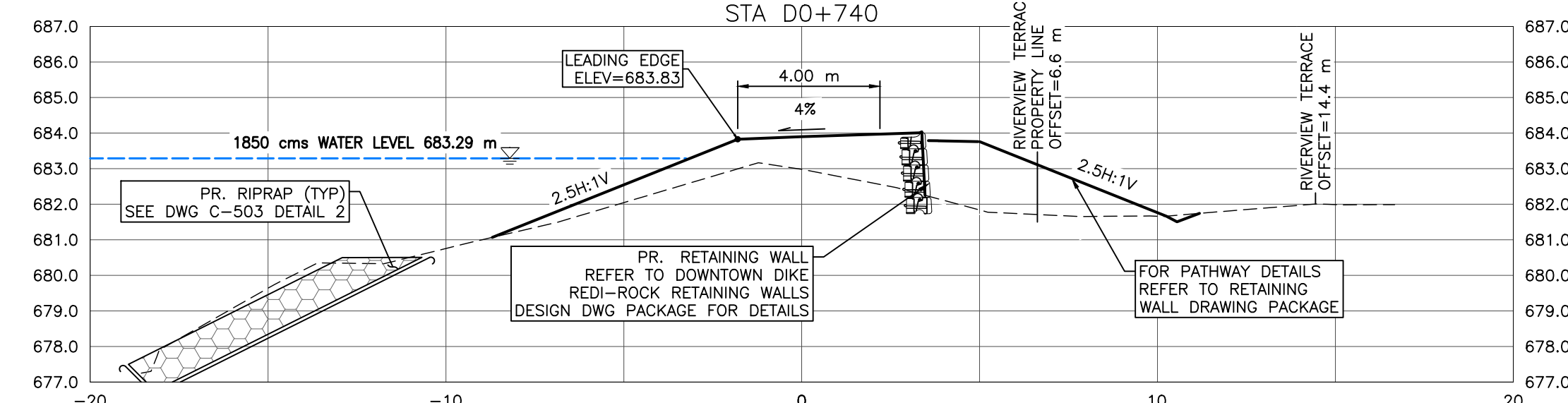
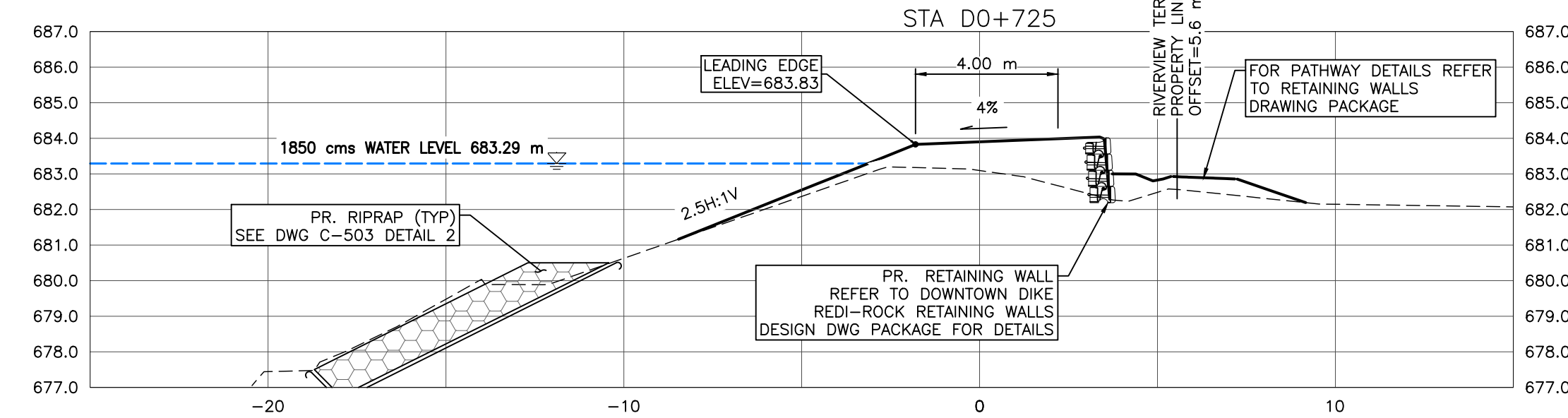
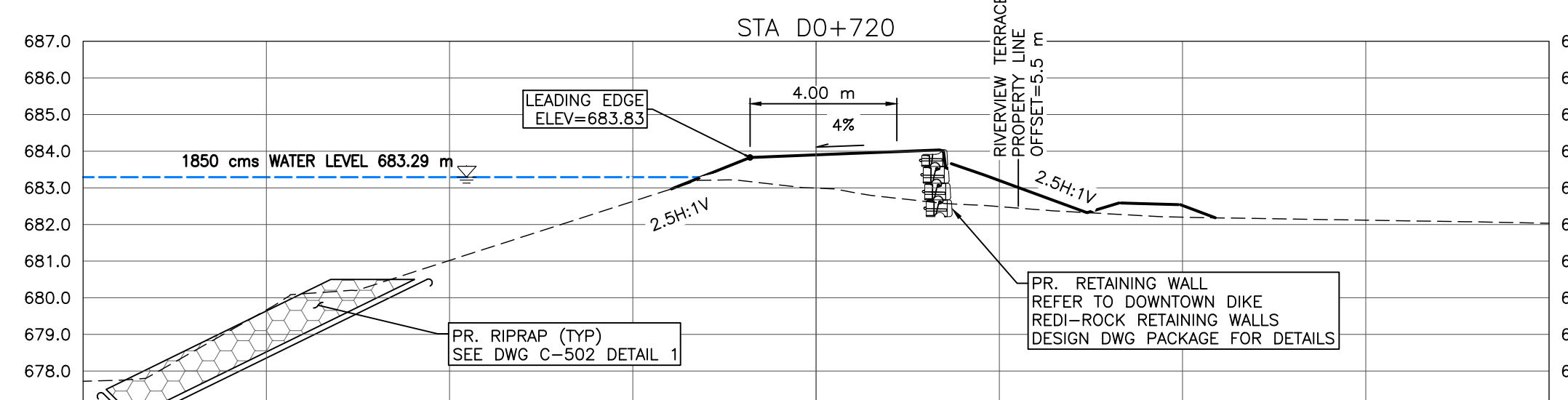
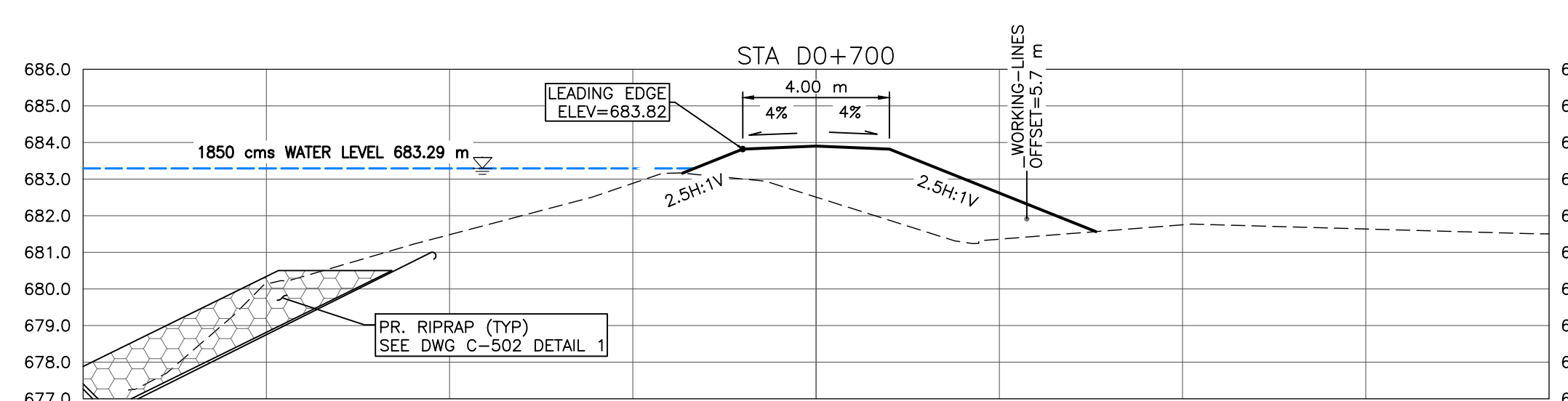
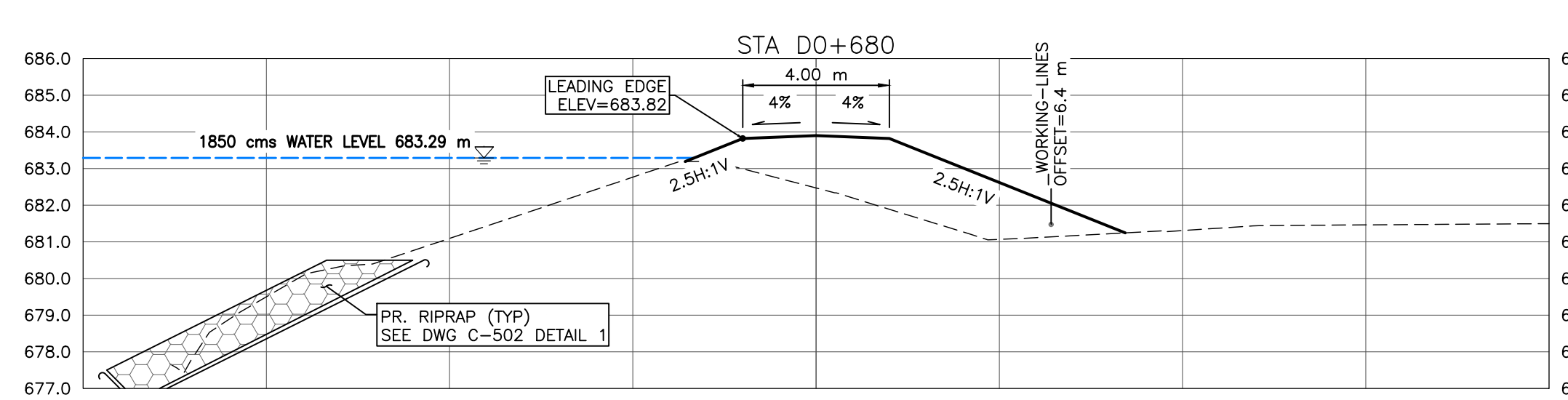
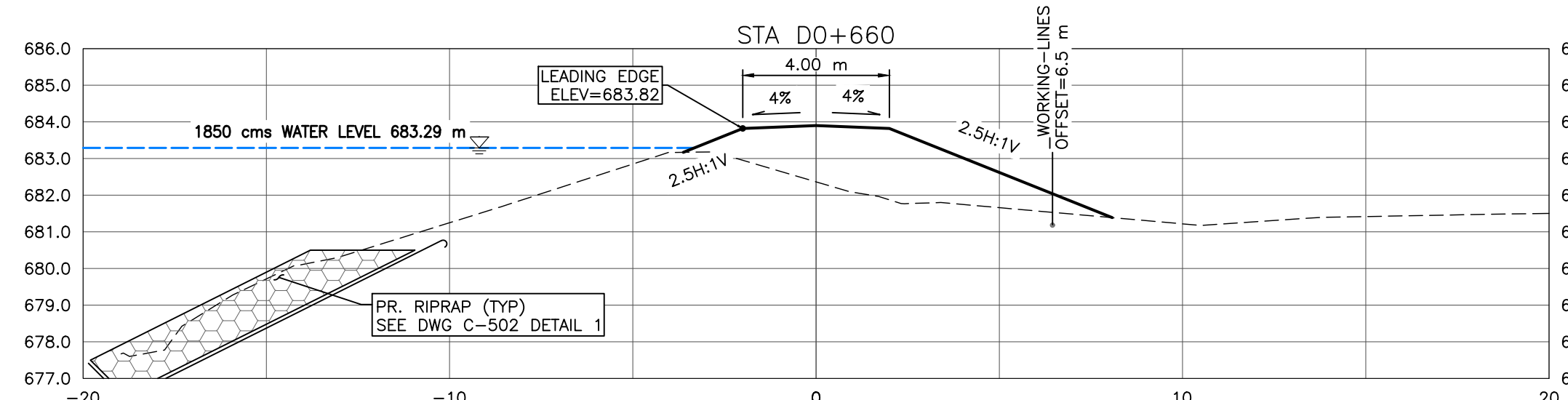
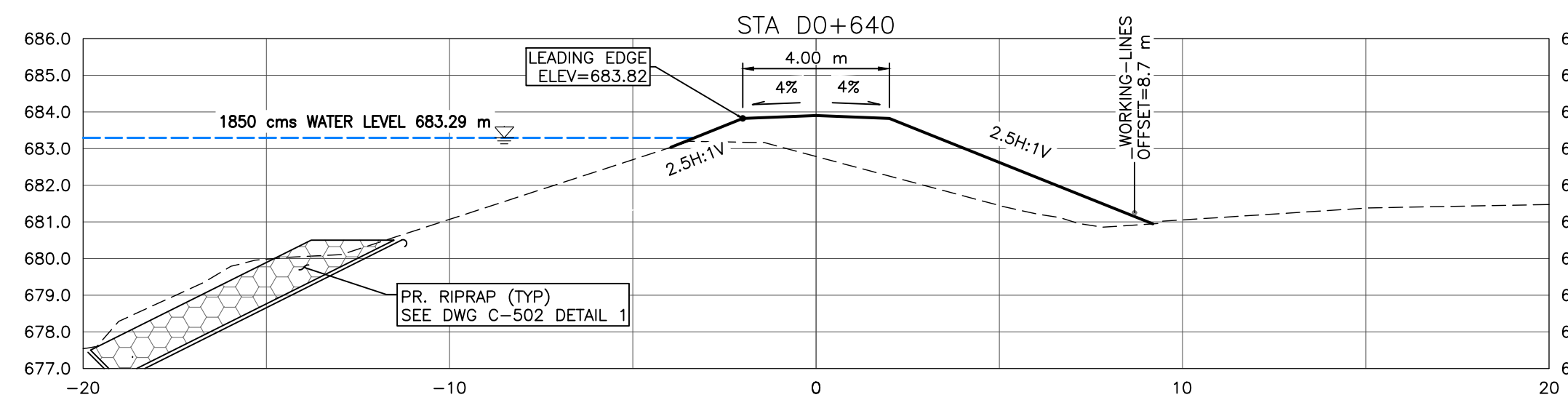
Project No. **21.2311.002** Drawing No. **C-303** Rev. **0**

Group **CIVIL**

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**NOTES:**

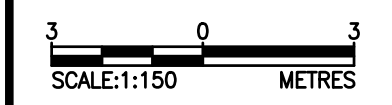
1. PROPOSED DOWNTOWN DIKE RETAINING WALL HAND RAILS NOT SHOWN FOR CLARITY. (RETAINING WALL REFER TO DOWNTOWN DIKE REDI-ROCK RETAINING WALL DWG PACKAGE FOR DETAILS).
2. PR. ASPHALT PATHWAY NOT SHOWN FOR CLARITY. ASPHALT PATHWAY 1 TO BE FIELD FIT AND APPROVED BY ENGINEER PRIOR TO CONSTRUCTION (SEE DETAIL DWG C-504 2A/2B FOR ASPHALT PATHWAY STRUCTURE).
3. DESIGN GRADES SHOWN ARE TO TOP OF IMPERVIOUS FILL MATERIAL UNLESS OTHERWISE STATED.

**REFERENCE:**

1. RIVER WATER LEVELS PROVIDED BY NHC (NORTHWEST HYDRAULIC CONSULTANTS) AT THE RS (RIVER STATIONING) SHOWN ON KEY PLAN

**CROSS SECTIONS**

1:150



SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.



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 1963401 ALBERTA LTD.  
 RW SIGNATURE: [Signature]  
 RW APEGA ID #: 67914  
 DATE: 2023-03-20  
**PERMIT NUMBER: P013638**  
 The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

Rev	Date	Des	Dwn	Chk	Description
0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER

Rev	Date	Des	Dwn	Chk	Description

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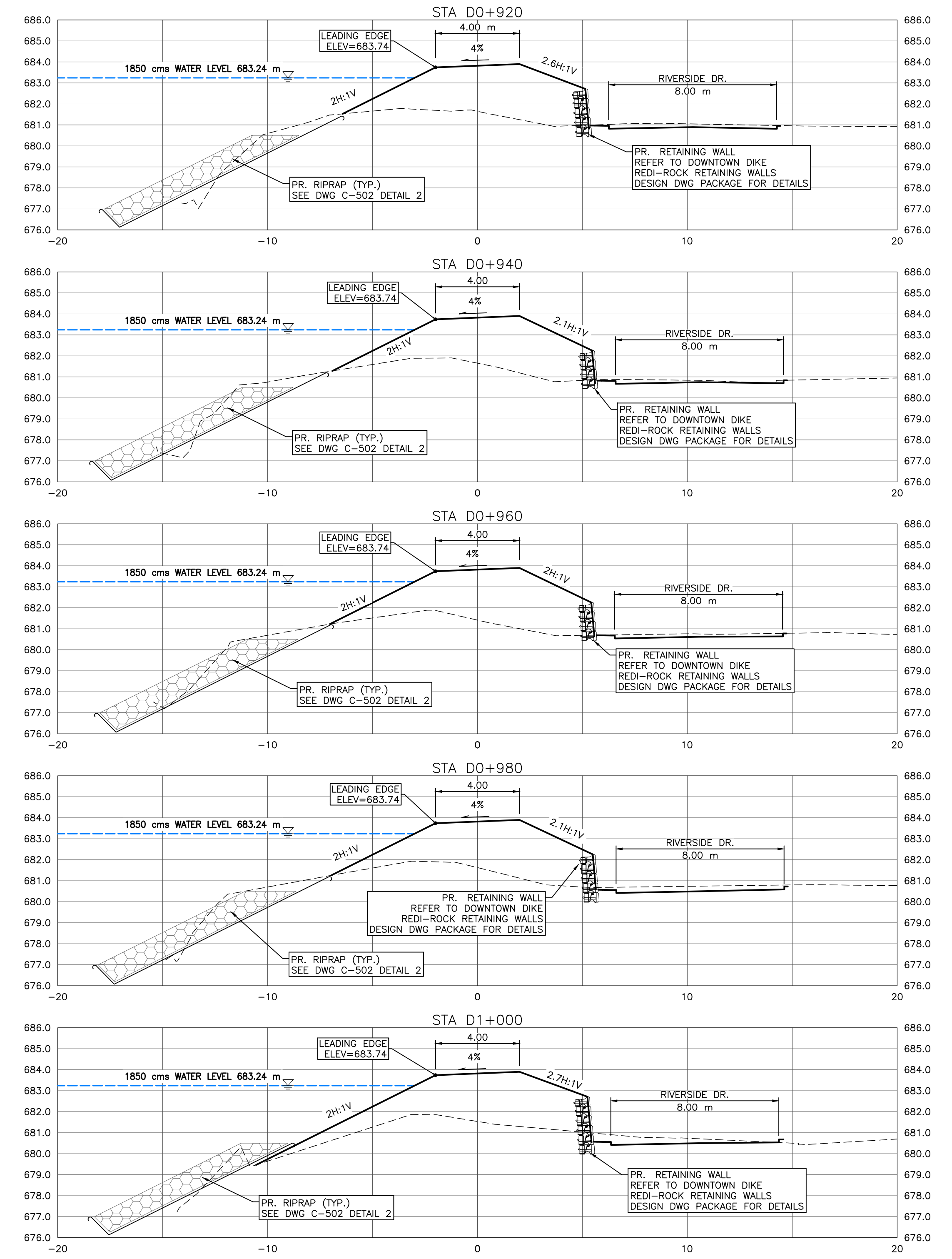
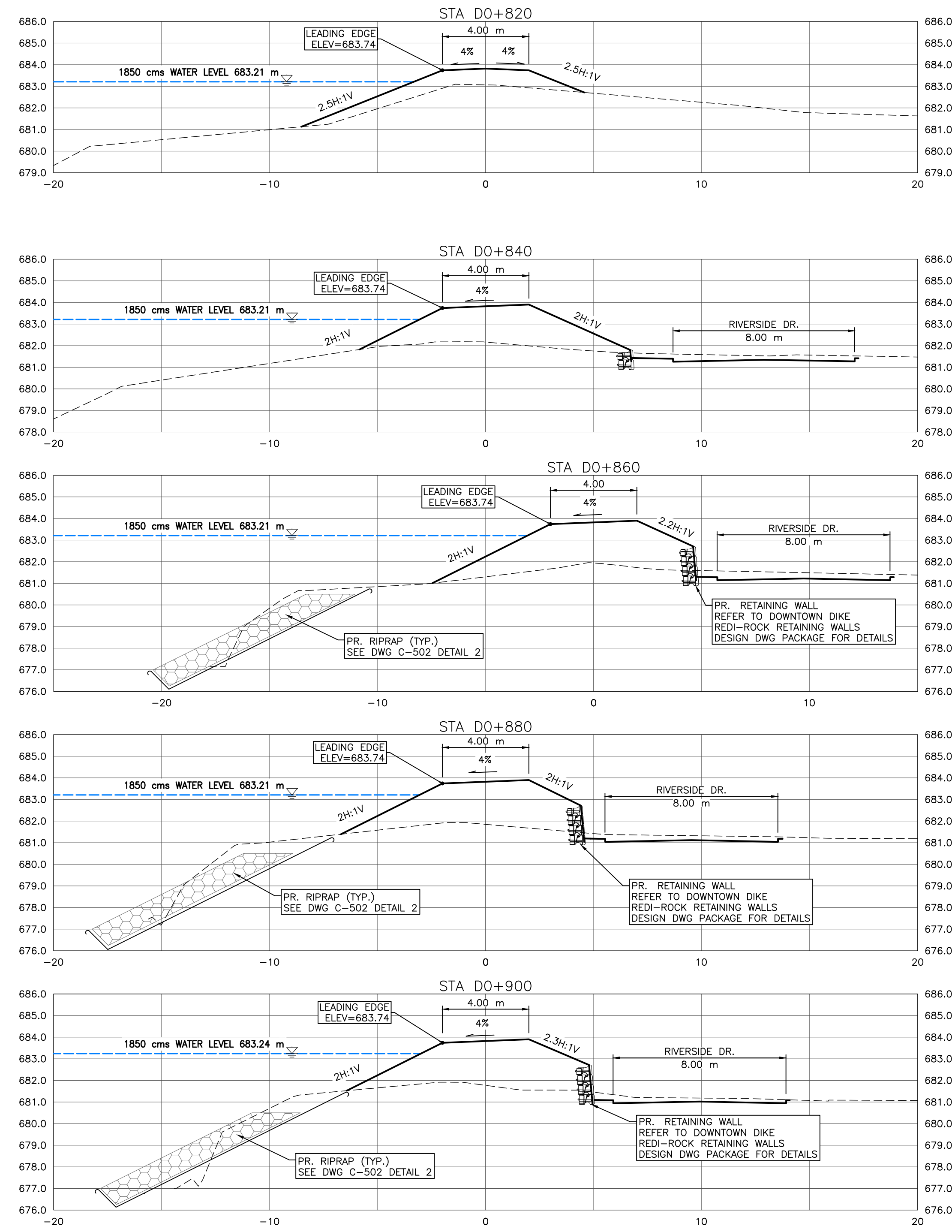
**TOWN OF DRUMHELLER  
DOWNTOWN DIKE  
CROSS SECTIONS 4**

Project No. **21.2311.002** Drawing No. **C-304** Rev. **0**

Group **CIVIL**



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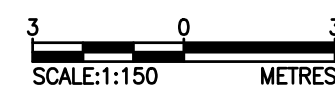
**NOTES:**

1. PROPOSED DOWNTOWN DIKE RETAINING WALL HAND RAILS NOT SHOWN FOR CLARITY. (RETAINING WALL REFER TO DOWNTOWN DIKE REDI-ROCK RETAINING WALL DWG PACKAGE FOR DETAILS)
2. PR. ASPHALT PATHWAY NOT SHOWN FOR CLARITY. ASPHALT PATHWAY & TO BE FIELD FIT AND APPROVED BY ENGINEER PRIOR TO CONSTRUCTION (SEE DETAIL DWG C-504 2A/2B FOR ASPHALT PATHWAY STRUCTURE)
3. DESIGN GRADES SHOWN ARE TO TOP OF IMPERVIOUS FILL MATERIAL UNLESS OTHERWISE STATED.
4. RIVERSIDE DRIVE NOT SHOWN FOR CLARITY
5. GEOGRID NOT SHOWN FOR CLARITY

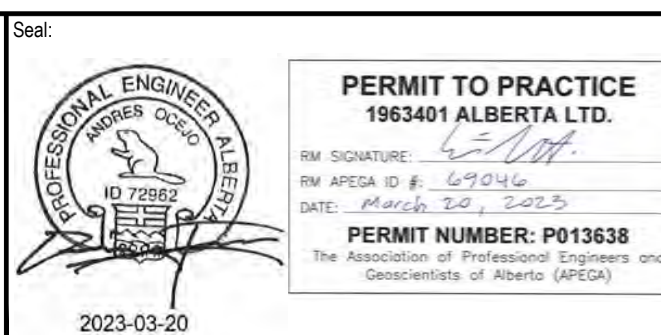
**REFERENCE:**

1. RIVER WATER LEVELS PROVIDED BY NHC (NORTHWEST HYDRAULIC CONSULTANTS) AT THE RS (RIVER STATIONING) SHOWN ON KEY PLAN

**CROSS SECTIONS**  
1:150



SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.



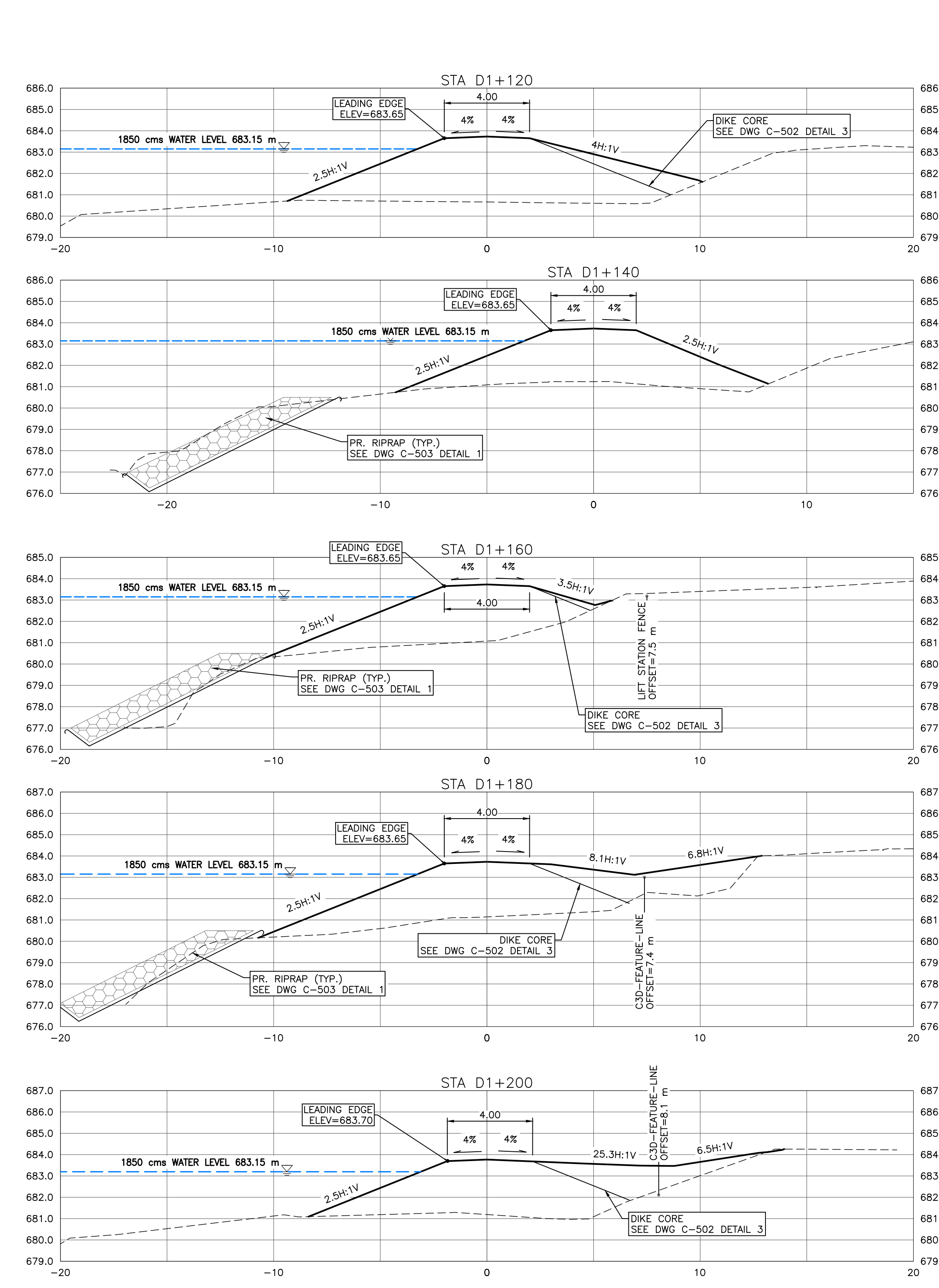
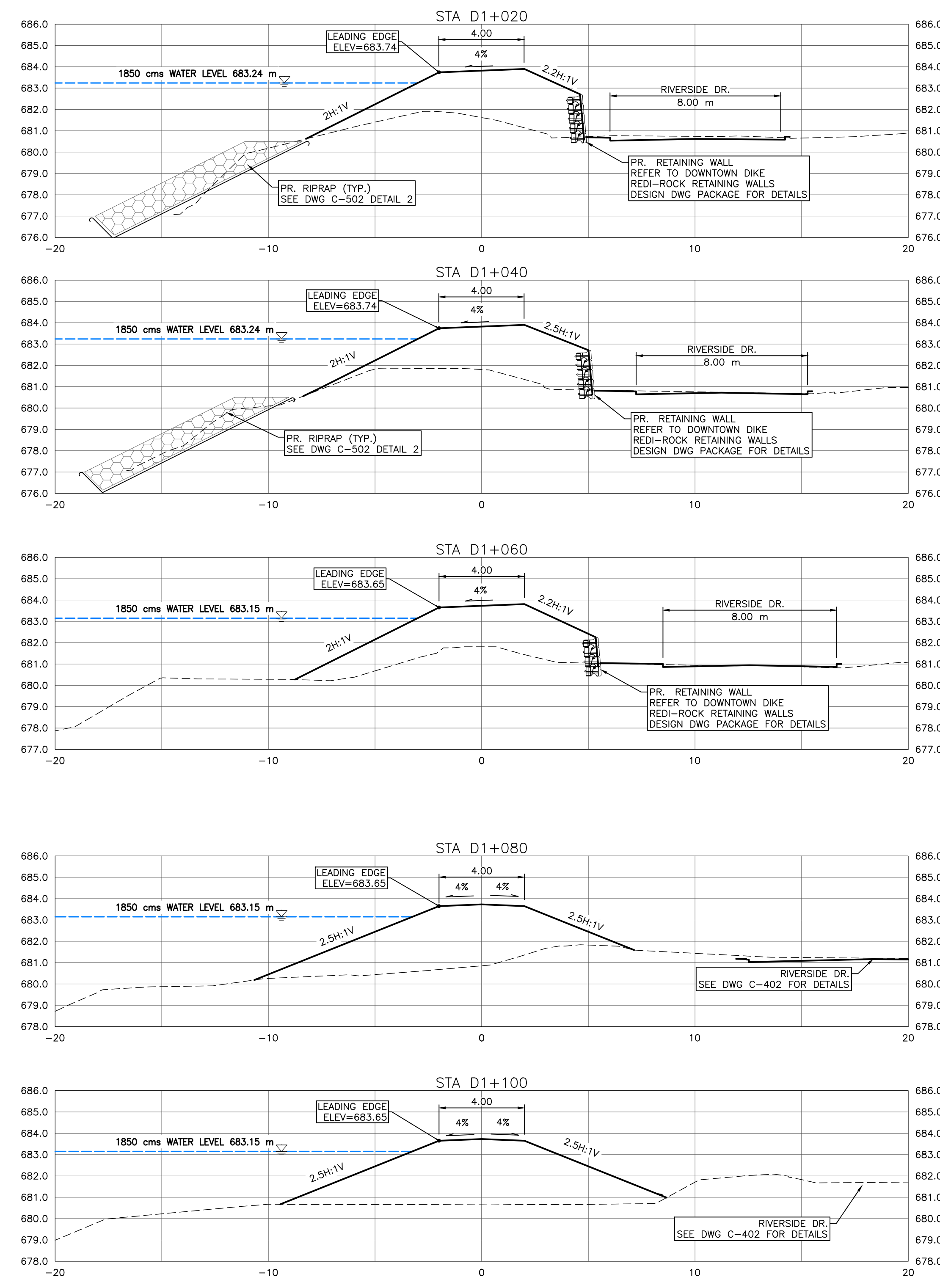
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<b>TOWN OF DRUMHELLER</b>	
<b>DOWNTOWN DIKE</b>	
<b>CROSS SECTIONS 5</b>	
Project No.	21.2311.002
Group	CIVIL
Drawing No.	C-305
Rev.	0

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 NO REPRESENTATIONS OF ANY KIND ARE MADE BY SWEETTECH ENGINEERING CONSULTANTS OR ITS EMPLOYEES TO ANY PARTY WITH WHOM SWEETTECH ENGINEERING CONSULTANTS DOES NOT HAVE A CONTRACT.



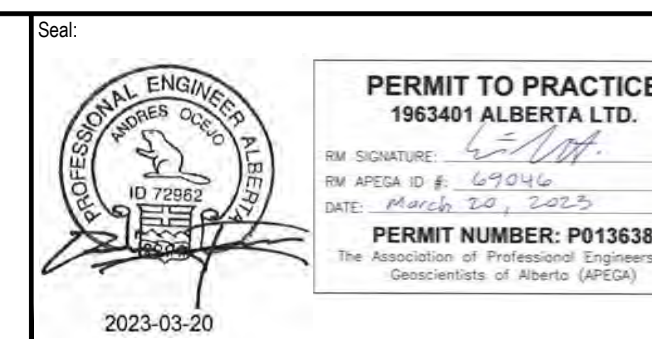
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- NOTES:**
- PROPOSED DOWNTOWN DIKE RETAINING WALL HAND RAILS NOT SHOWN FOR CLARITY. (RETAINING WALL REFER TO DOWNTOWN DIKE REDI-ROCK RETAINING WALL DWG PACKAGE FOR DETAILS).
  - ASPHALT PATHWAY NOT SHOWN FOR CLARITY. ASPHALT PATHWAY 4 TO BE FIELD FIT AND APPROVED BY ENGINEER PRIOR TO CONSTRUCTION (SEE DETAIL DWG C-504 2A/2B FOR ASPHALT PATHWAY STRUCTURE).
  - DESIGN GRADES SHOWN ARE TO TOP OF IMPERVIOUS FILL MATERIAL UNLESS OTHERWISE STATED.
- REFERENCE:**
- RIVER WATER LEVELS PROVIDED BY NHC (NORTHWEST HYDRAULIC CONSULTANTS) AT THE RS (RIVER STATIONING) SHOWN ON KEY PLAN

**CROSS SECTIONS**  
1:150

SCALE: 1:150  
METRES



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1963401 ALBERTA LTD.

RM SIGNATURE: [Signature]  
RM APEGA ID #: 67914  
DATE: 2023-03-20

**PERMIT NUMBER: P013638**  
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

Rev	Date	Des	Dwn	Chk	Description
0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER

Rev	Date	Des	Dwn	Chk	Description

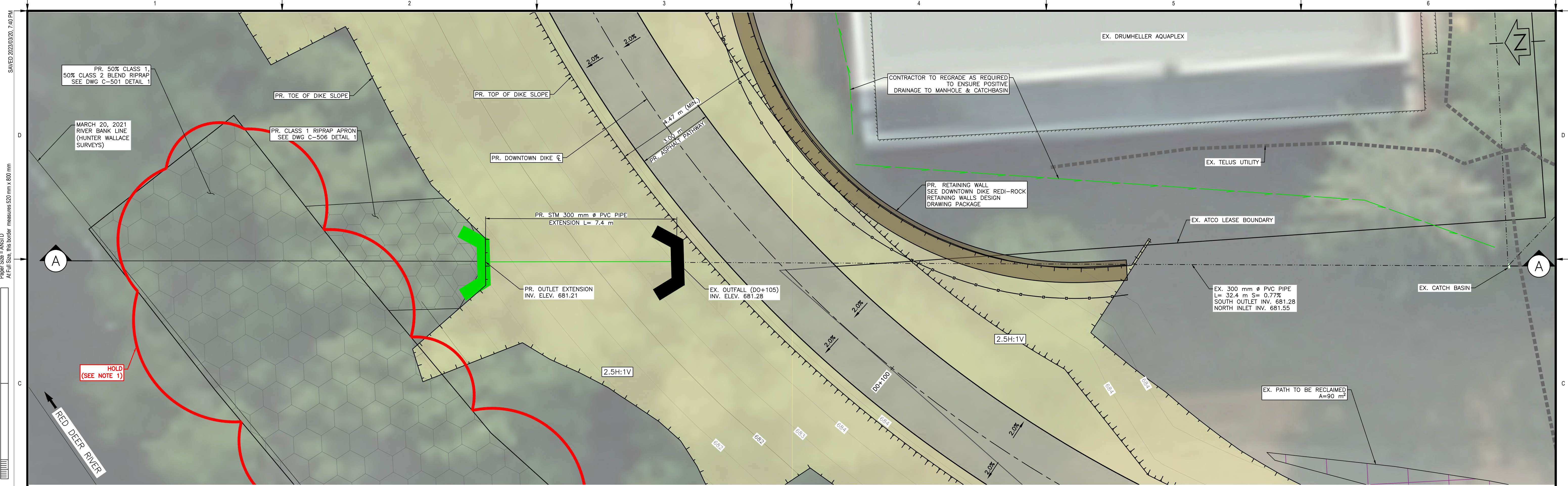
**TOWN OF DRUMHELLER**  
**DOWNTOWN DIKE**  
**CROSS SECTIONS 6**

Project No. **21.2311.002** Drawing No. **C-306** Rev. **0**

Group **CIVIL**

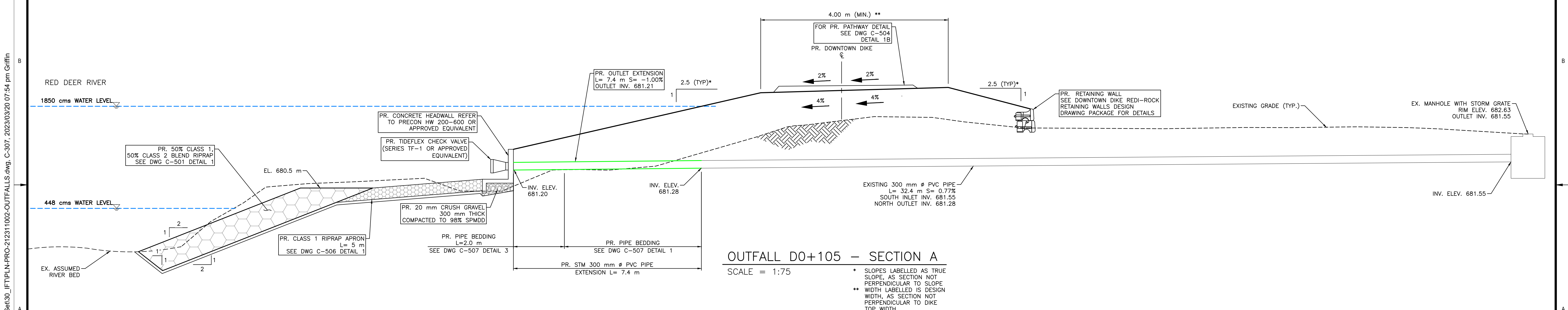
THIS DRAWING IS PREPARED FOR THE SOLE USE OF THE TOWN OF DRUMHELLER. NO REPRESENTATIONS OF ANY KIND ARE MADE BY SWEETECH ENGINEERING CONSULTANTS OR ITS EMPLOYEES TO ANY PARTY WITH WHOM SWEETECH ENGINEERING CONSULTANTS DOES NOT HAVE A CONTRACT.





**OUTFALL D0+105 – PLAN**  
SCALE = 1:75

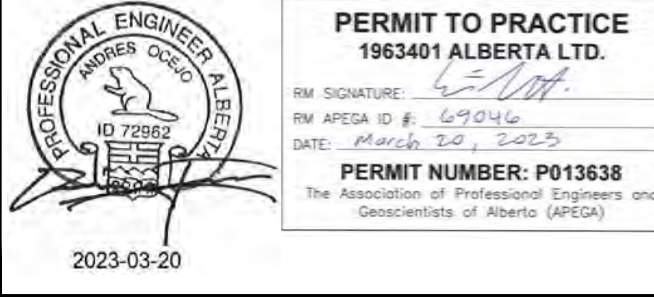
- NOTES:**
1. PERMITS AND APPROVALS (BY OWNER/ENGINEER) ARE REQUIRED FOR HOLD AREAS PRIOR TO CONSTRUCTION.
  2. FOR PATHWAY AND DIKE CREST SLOPE DETAILS SEE DWG C-504 DETAIL 1B.



**OUTFALL D0+105 – SECTION A**  
SCALE = 1:75

- \* SLOPES LABELLED AS TRUE SLOPE, AS SECTION NOT PERPENDICULAR TO SLOPE
- \*\* WIDTH LABELLED IS DESIGN WIDTH, AS SECTION NOT PERPENDICULAR TO DIKE TOP WIDTH

SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.



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1963401 ALBERTA LTD.

RM SIGNATURE: [Signature]  
RM APEGA ID #: 67014  
DATE: 2023-03-20

PERMIT NUMBER: P013638  
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

Rev	Date	Des	Dwn	Chk	Description
0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER

Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER  
DOWNTOWN DIKE  
STORM OUTFALL D0+105**

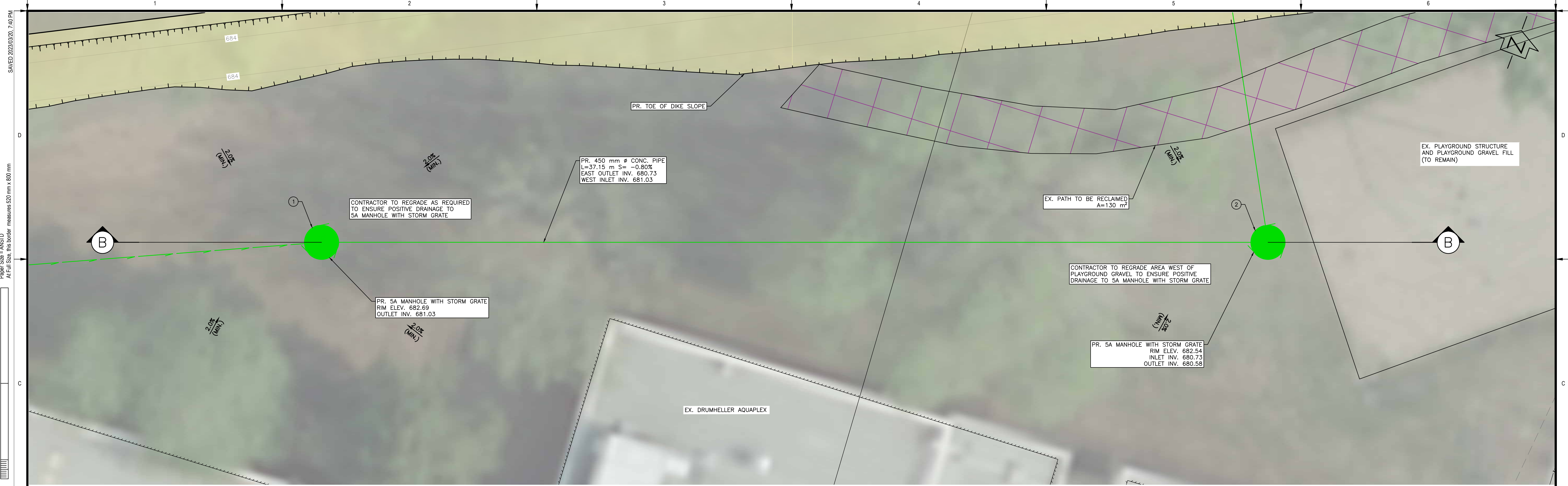
Project No. **21.2311.002** Drawing No. **C-307** Rev. **0**

Group **CIVIL**

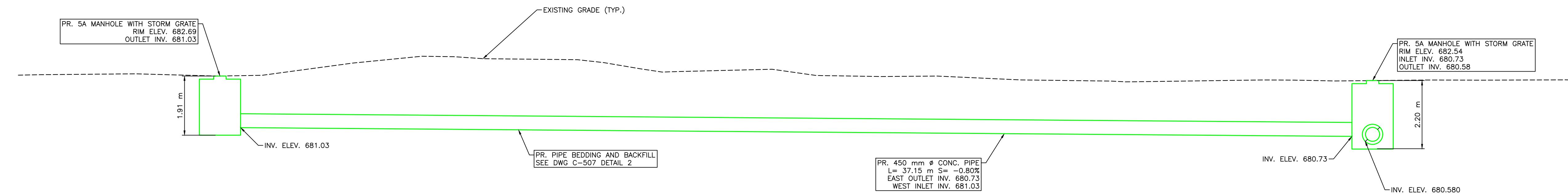
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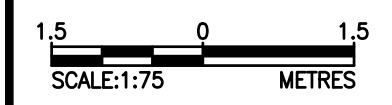


CROSSDRAIN D0+145 - PLAN  
SCALE = 1:75



CROSSDRAIN D0+145 - SECTION B  
SCALE = 1:75

\* SLOPES LABELLED AS TRUE SLOPE, AS SECTION NOT PERPENDICULAR TO SLOPE

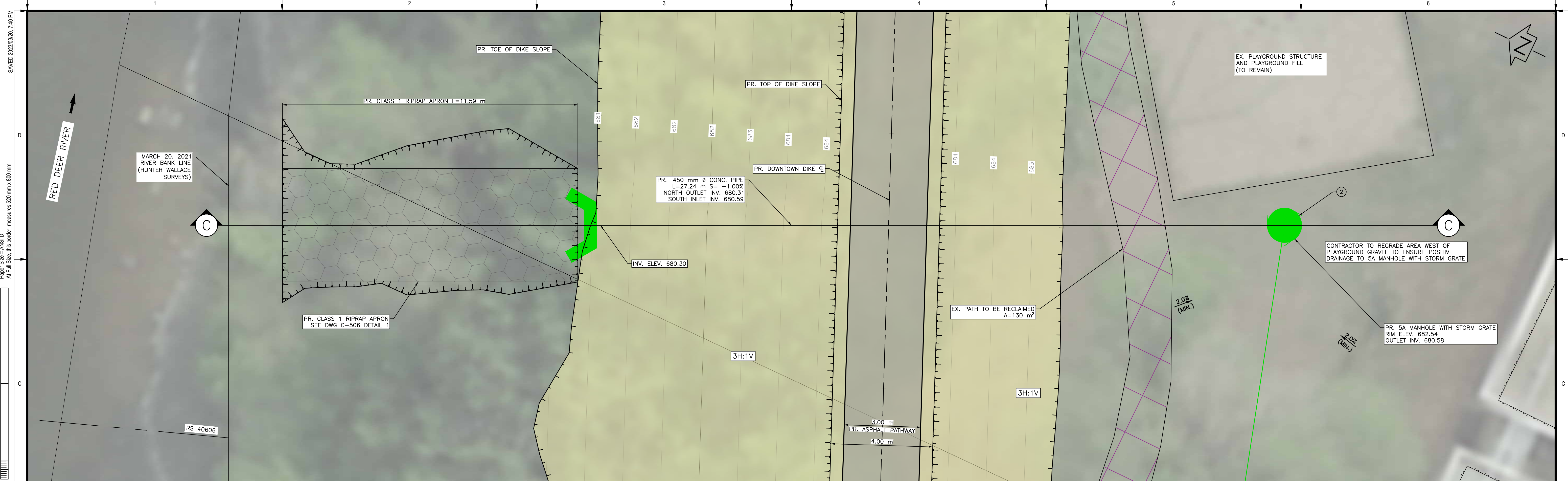


SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.

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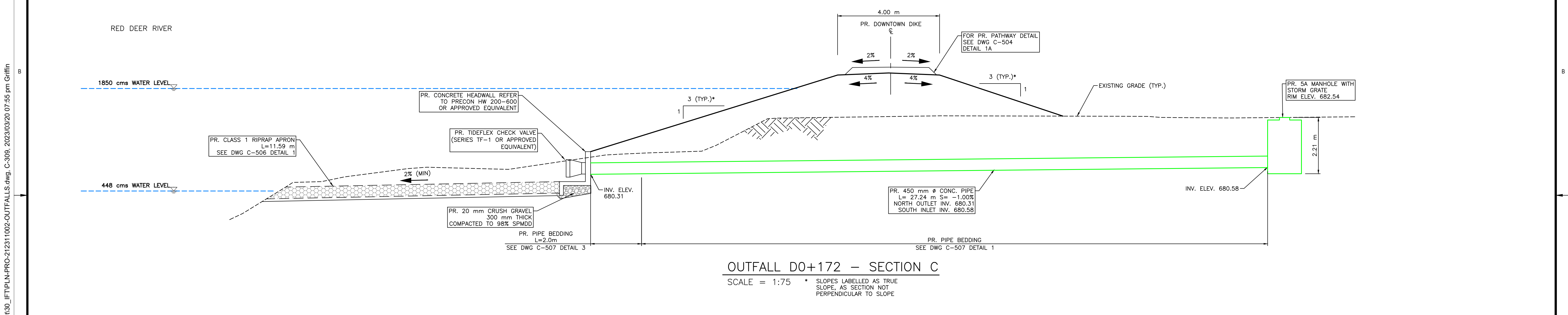
			<b>PERMIT TO PRACTICE</b> 1963401 ALBERTA LTD. RM SIGNATURE: [Signature] RM APEGA ID #: 67014 DATE: 2023-03-20 <b>PERMIT NUMBER: P013638</b> The Association of Professional Engineers and Geoscientists of Alberta (APEGA)	<b>Rev</b>	<b>Date</b>	<b>Des</b>	<b>Dwn</b>	<b>Chk</b>	<b>Description</b>	<b>Rev</b>	<b>Date</b>	<b>Des</b>	<b>Dwn</b>	<b>Chk</b>	<b>Description</b>
				0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER						
<b>TOWN OF DRUMHELLER</b> <b>DOWNTOWN DIKE</b> <b>STORM CROSSDRAIN D0+145</b>															
											Project No. <b>21.2311.002</b>	Drawing No.	<b>C-308</b>	<b>0</b>	
											Group <b>CIVIL</b>				





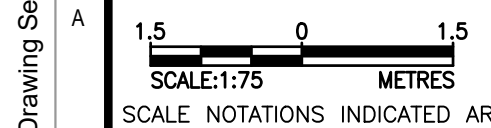
OUTFALL D0+172 - PLAN  
SCALE = 1:75

- NOTES:
1. PERMITS AND APPROVALS (BY OWNER/ENGINEER) ARE REQUIRED FOR HOLD AREAS PRIOR TO CONSTRUCTION.
  2. FOR PATHWAY AND DIKE CREST SLOPE DETAILS SEE DWG C-504 DETAIL 1A.

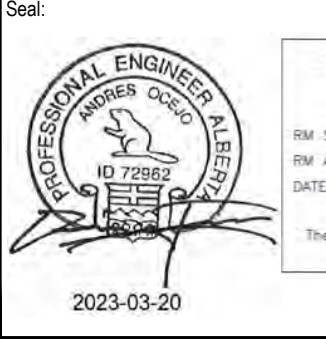


OUTFALL D0+172 - SECTION C  
SCALE = 1:75

\* SLOPES LABELLED AS TRUE SLOPE, AS SECTION NOT PERPENDICULAR TO SLOPE



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Rev	Date	Des	Dwn	Chk	Description	Rev	Date	Des	Dwn	Chk	Description
0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER						

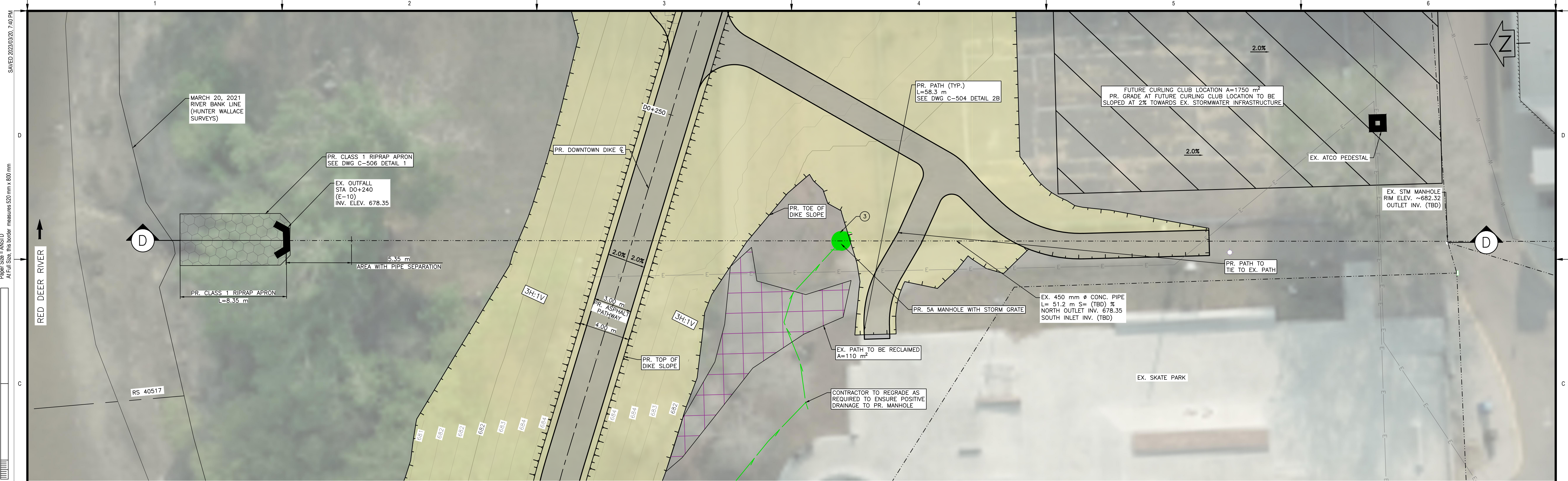
<b>TOWN OF DRUMHELLER</b>	
<b>DOWNTOWN DIKE</b>	
<b>STORM OUTFALL D0+172</b>	
Project No. <b>21.2311.002</b>	Drawing No. <b>C-309</b>
Group <b>CIVIL</b>	Rev. <b>0</b>

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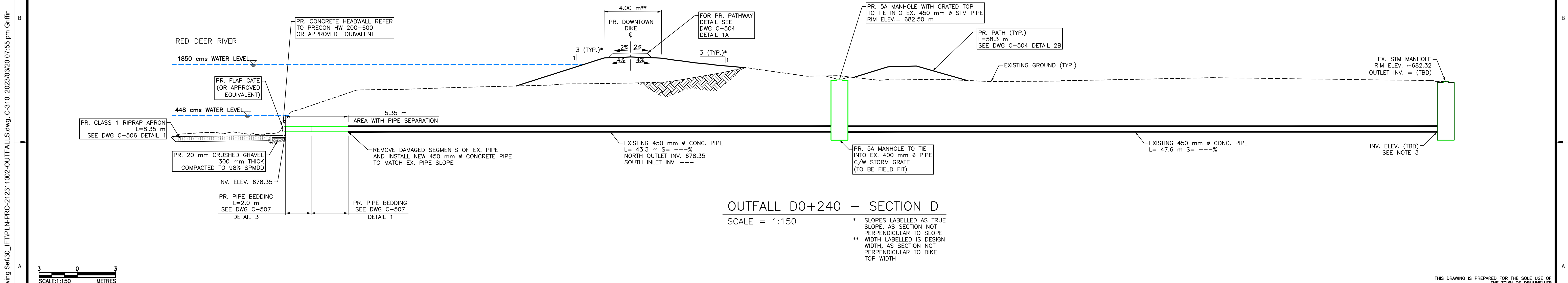
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OUTFALL DO+240 -- PLAN  
SCALE = 1:150

- NOTES:
1. PERMITS AND APPROVALS (BY OWNER/ENGINEER) ARE REQUIRED FOR HOLD AREAS PRIOR TO CONSTRUCTION.
  2. FOR PATHWAY AND DIKE CREST SLOPE DETAILS SEE DWG C-504 DETAIL 1A.
  3. INVERT ELEVATION OF EX. 450 mm CONC. PIPE AT EX. STM MANHOLE (SOUTH SIDE OF PLAN VIEW) TO BE SURVEYED AND PROVIDED TO SWEETECH PRIOR TO CONSTRUCTION BEGINNING



OUTFALL DO+240 -- SECTION D  
SCALE = 1:150

- \* SLOPES LABELLED AS TRUE SLOPE, AS SECTION NOT PERPENDICULAR TO SLOPE
- \*\* WIDTH LABELLED IS DESIGN WIDTH, AS SECTION NOT PERPENDICULAR TO DIKE TOP WIDTH

SCALE: 1:150 METRES  
SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.



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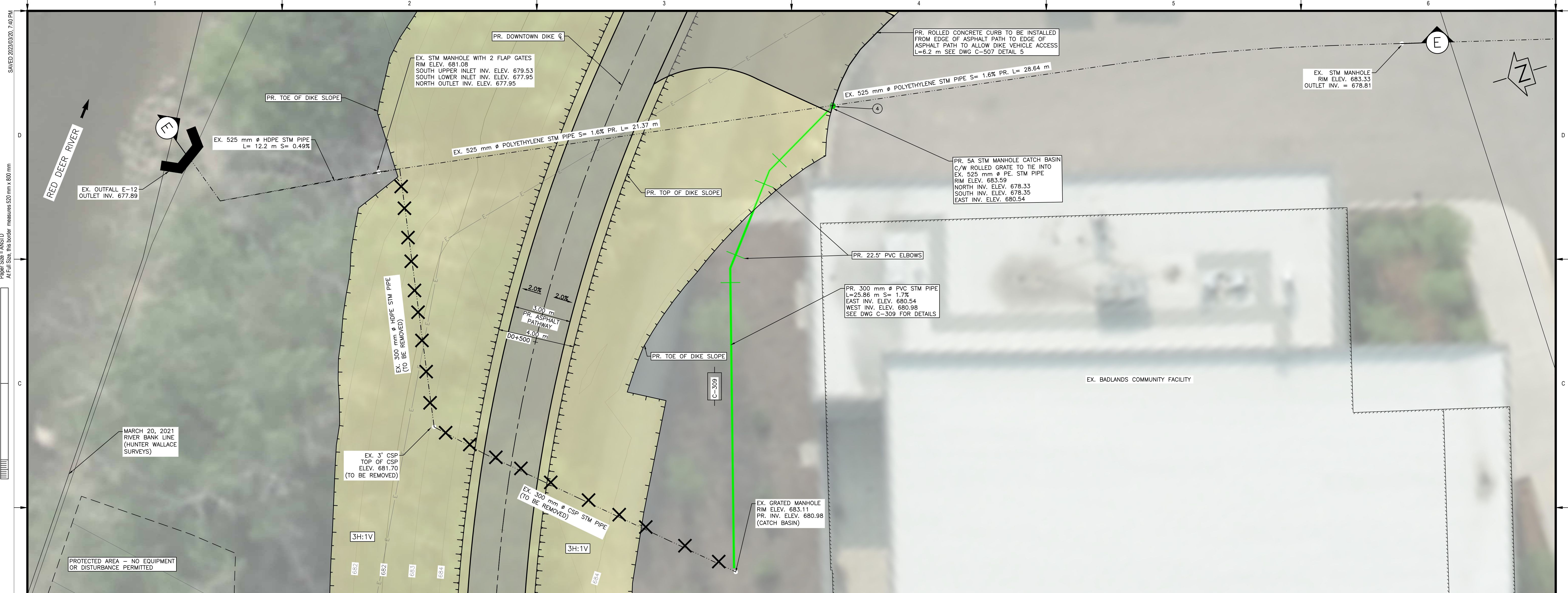
Rev	Date	Des	Dwn	Chk	Description
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TOWN OF DRUMHELLER  
DOWNTOWN DIKE  
STORM OUTFALL DO+240

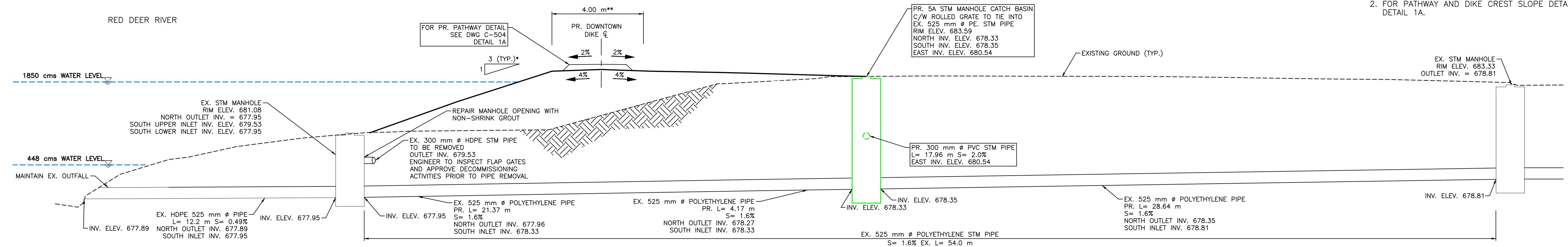
Project No. 21.2311.002  
Group CIVIL  
Drawing No. C-310  
Rev. 0





OUTFALL D0+500 PLAN  
SCALE = 1:100

- NOTES:
1. PERMITS AND APPROVALS (BY OWNER/ENGINEER) ARE REQUIRED FOR HOLD AREAS PRIOR TO CONSTRUCTION.
  2. FOR PATHWAY AND DIKE CREST SLOPE DETAILS SEE DWG C-504 DETAIL 1A.

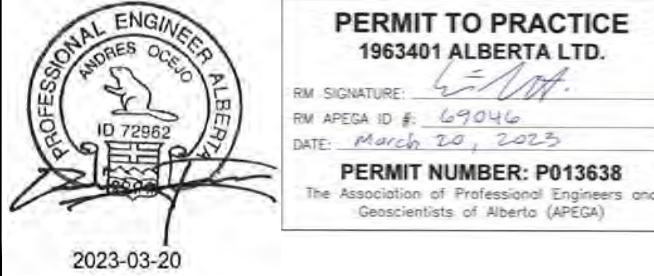


OUTFALL D0+500 - SECTION E  
SCALE = 1:100

- \* SLOPES LABELLED AS TRUE SLOPE, AS SECTION NOT PERPENDICULAR TO SLOPE
- \*\* WIDTH LABELLED IS DESIGN WIDTH, AS SECTION NOT PERPENDICULAR TO DIKE TOP WIDTH

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SCALE: 1:100 METRES  
SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED



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The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

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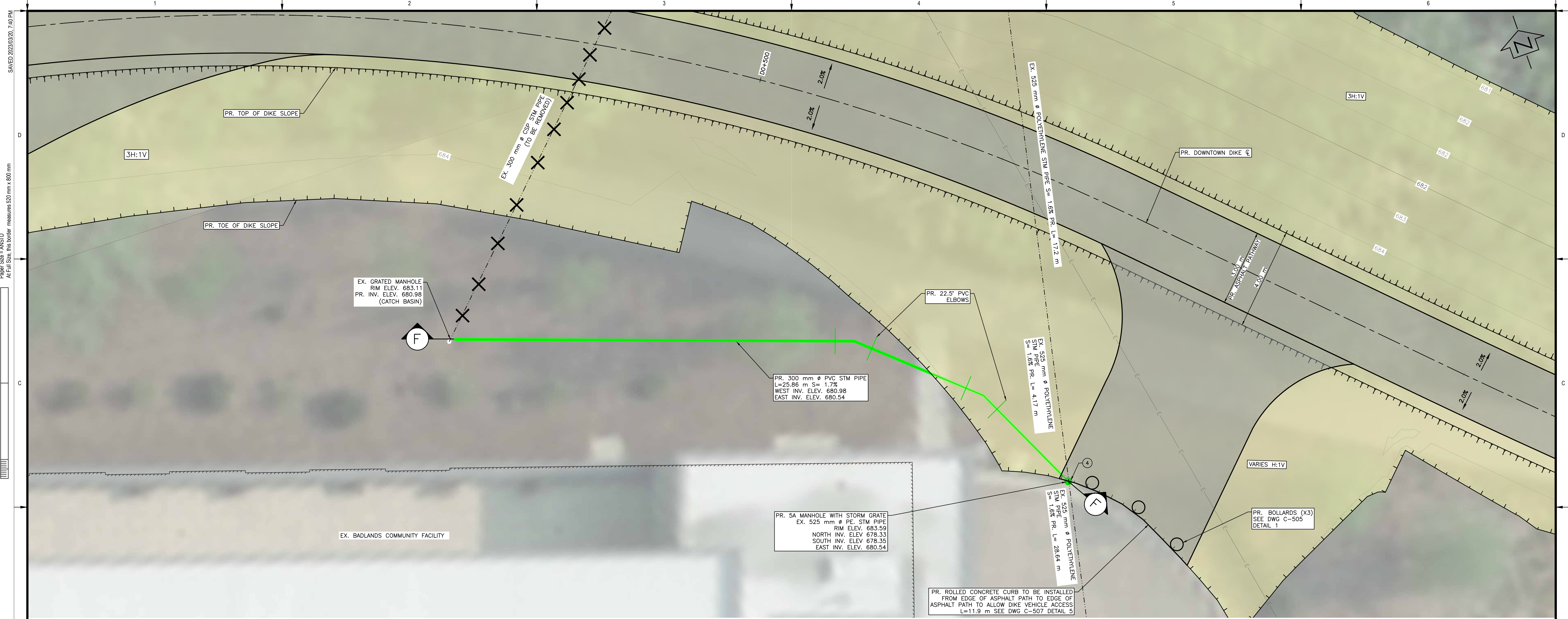
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TOWN OF DRUMHELLER  
DOWNTOWN DIKE  
STORM OUTFALL D0+500

Project No. 21.2311.002  
Group CIVIL  
Drawing No. C-311  
Rev. 0

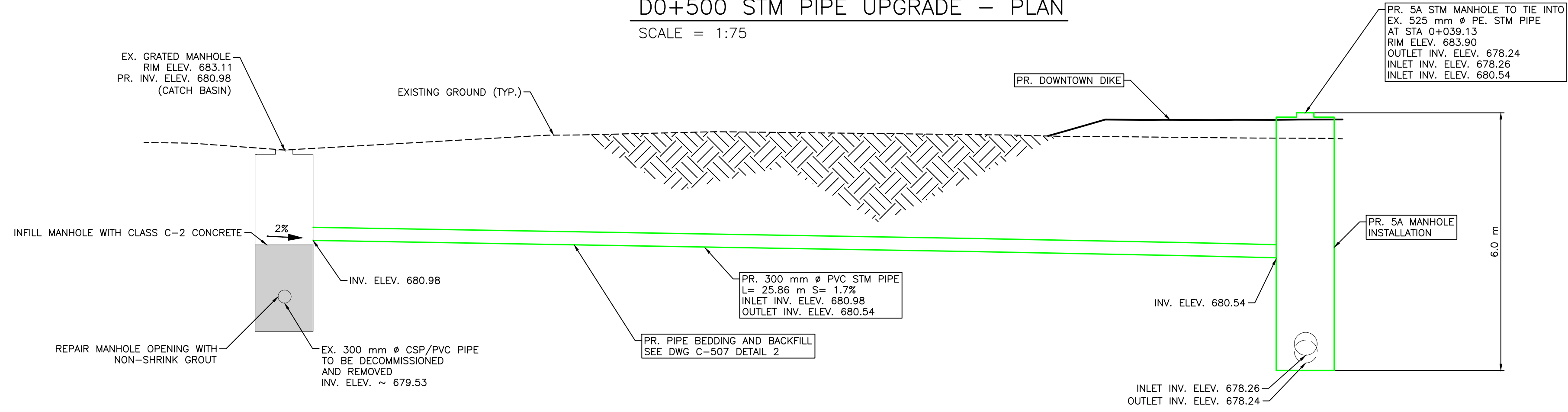
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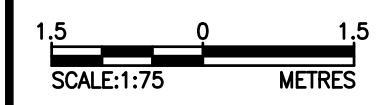


**D0+500 STM PIPE UPGRADE – PLAN**  
SCALE = 1:75

- NOTES:**
1. PERMITS AND APPROVALS (BY OWNER/ENGINEER) ARE REQUIRED FOR HOLD AREAS PRIOR TO CONSTRUCTION.
  2. FOR PATHWAY AND DIKE CREST SLOPE DETAILS SEE DWG C-504 DETAIL 1A AND DETAIL 1B.



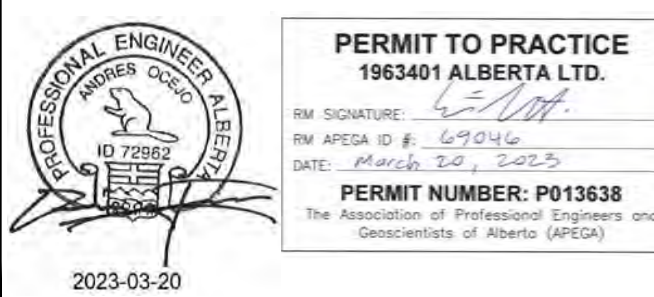
**D0+500 STM PIPE UPGRADE – SECTION F**  
SCALE = 1:75



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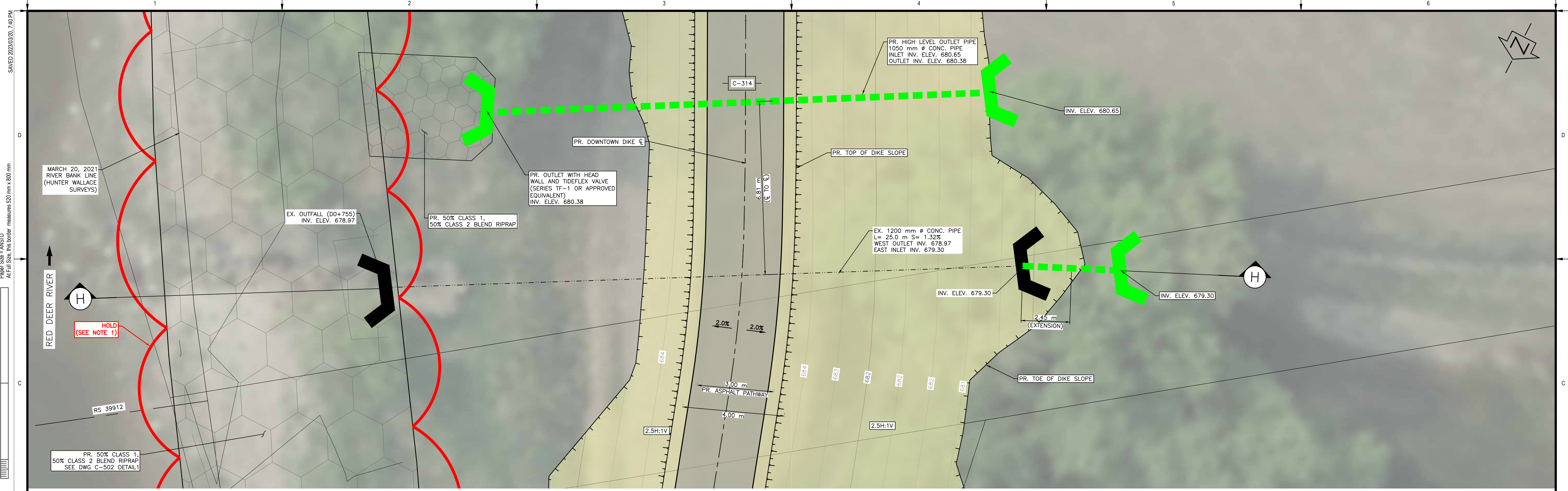
Rev	Date	Des	Dwn	Chk	Description
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Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER**  
**DOWNTOWN DIKE**  
**STORM OUTFALL D0+500 UPGRADE**

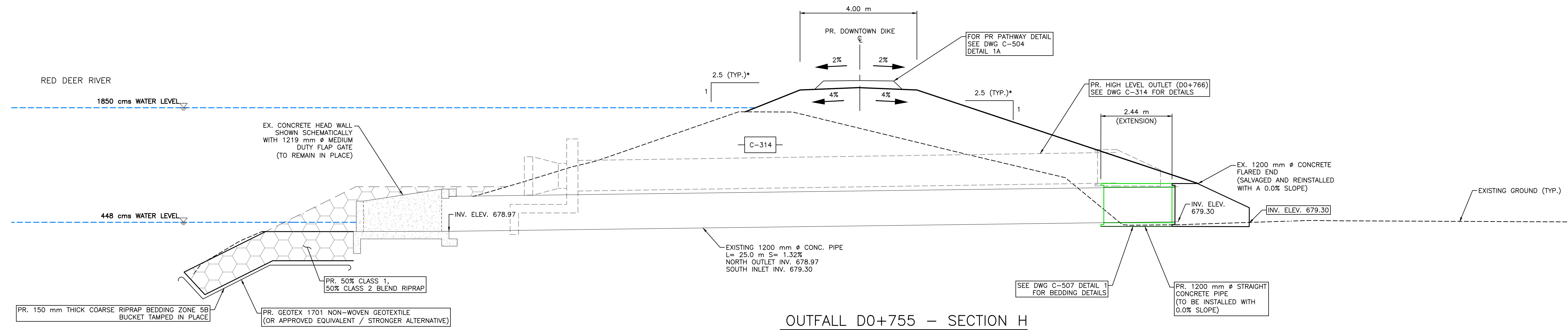
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Group **CIVIL**





**OUTFALL D0+755 – PLAN**  
SCALE = 1:75

- NOTES:**
1. PERMITS AND APPROVALS (BY OWNER/ENGINEER) ARE REQUIRED FOR HOLD AREAS PRIOR TO CONSTRUCTION.
  2. FOR PATHWAY AND DIKE CREST SLOPE DETAILS SEE DWG C-504 DETAIL 1A.



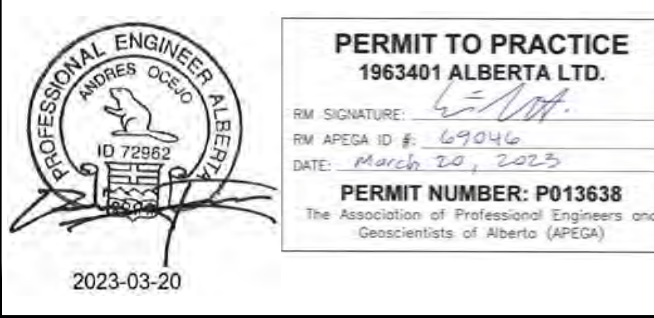
**OUTFALL D0+755 – SECTION H**  
SCALE = 1:75

\* SLOPES LABELLED AS TRUE SLOPE, AS SECTION NOT PERPENDICULAR TO SLOPE

SCALE: 1:75 METRES  
SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.

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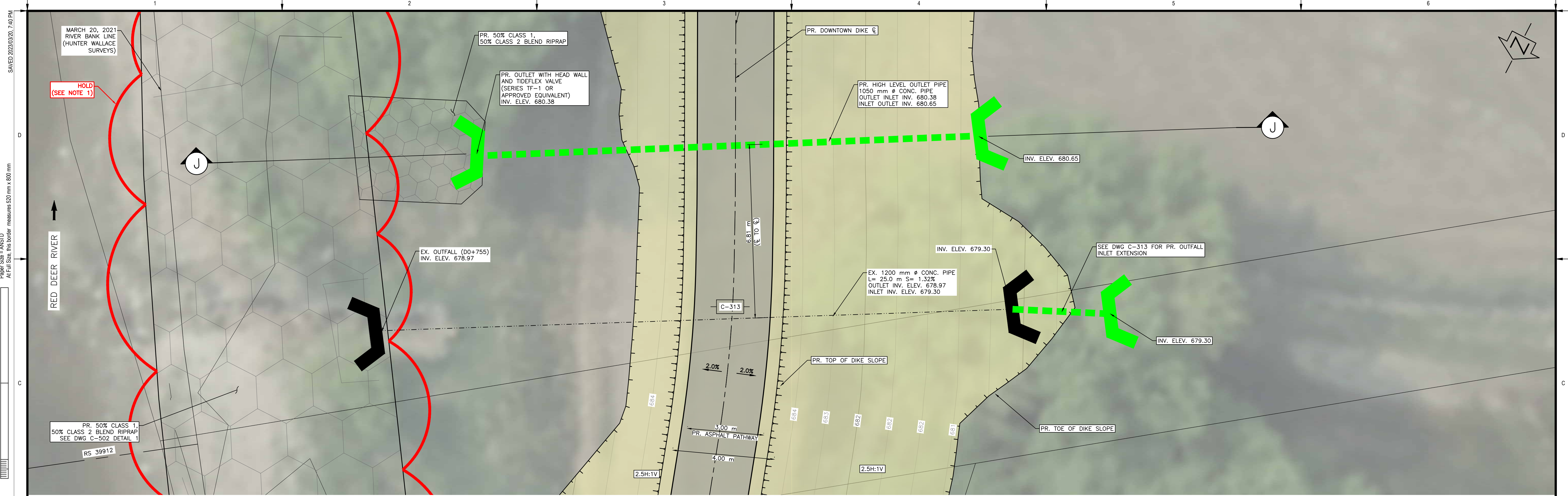
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0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER						

<b>TOWN OF DRUMHELLER</b>	
<b>DOWNTOWN DIKE</b>	
<b>STORM OUTFALL D0+755</b>	
Project No. <b>21.2311.002</b>	Drawing No. <b>C-313</b>
Group <b>CIVIL</b>	Rev. <b>0</b>

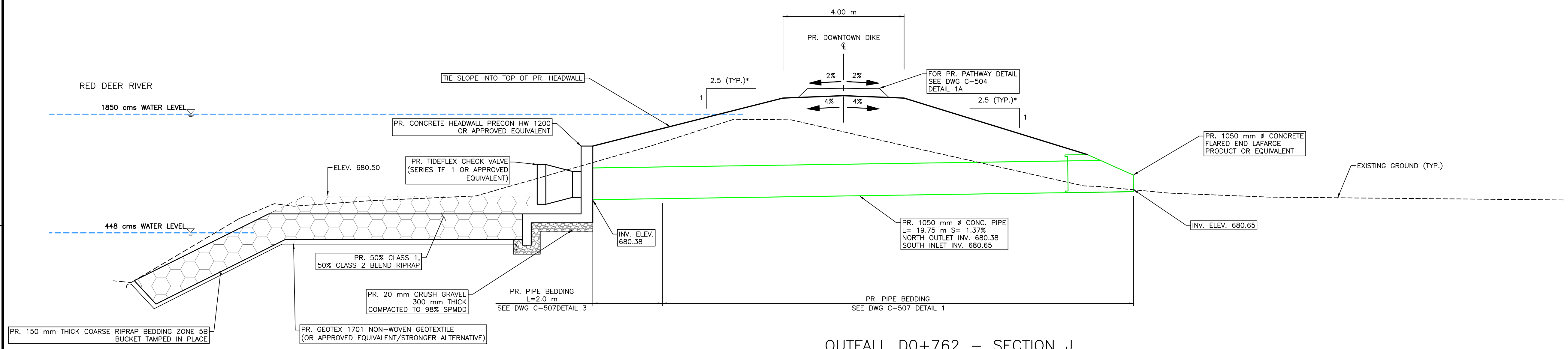




OUTFALL D0+762 – PLAN

SCALE = 1:75

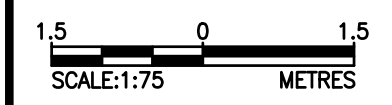
- NOTES:
1. PERMITS AND APPROVALS (BY OWNER/ENGINEER) ARE REQUIRED FOR HOLD AREAS PRIOR TO CONSTRUCTION.
  2. FOR PATHWAY AND DIKE CREST SLOPE DETAILS SEE DWG C-504 DETAIL 1A.



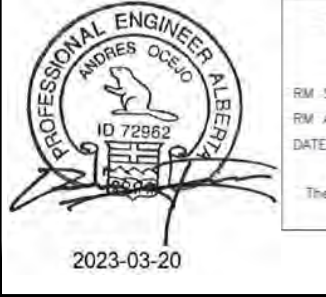
OUTFALL D0+762 – SECTION J

SCALE = 1:75

\* SLOPES LABELLED AS TRUE SLOPE, AS SECTION NOT PERPENDICULAR TO SLOPE



SCALE: 1:75 METRES  
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TOWN OF DRUMHELLER  
DOWNTOWN DIKE  
STORM HIGH LEVEL OUTLET D0+766

Project No. 21.2311.002  
Group CIVIL

Drawing No. C-314  
Rev. 0

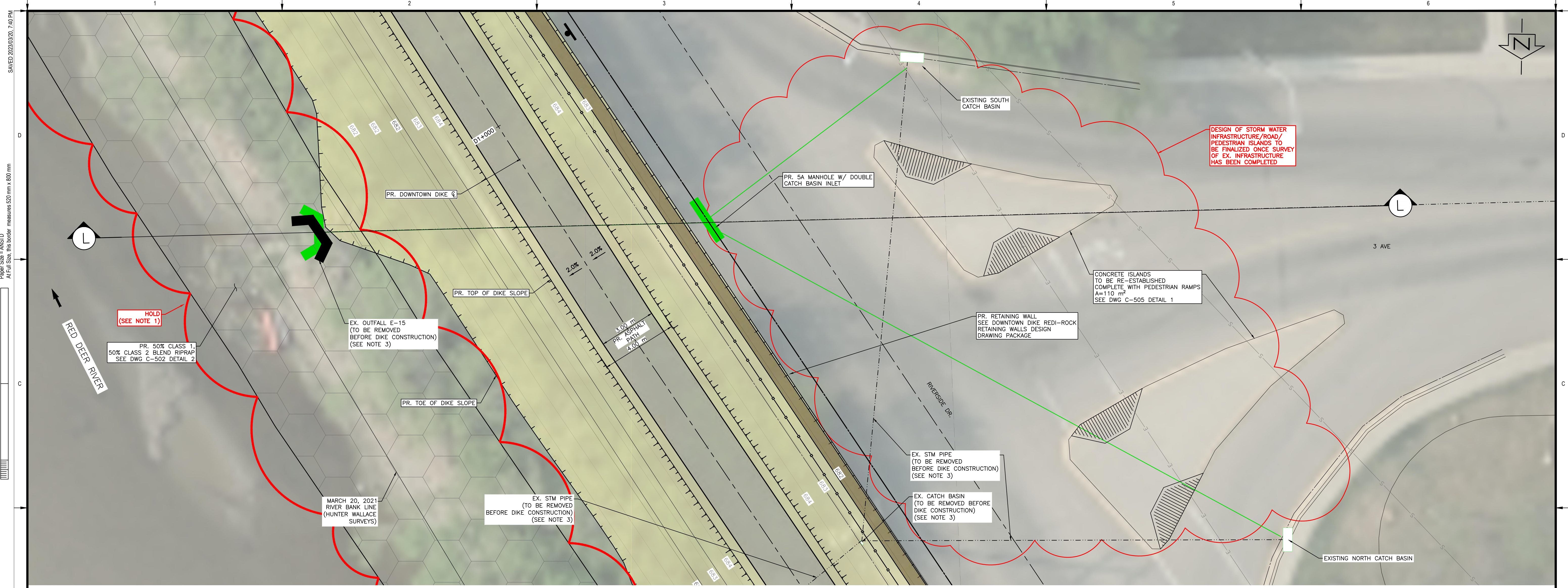
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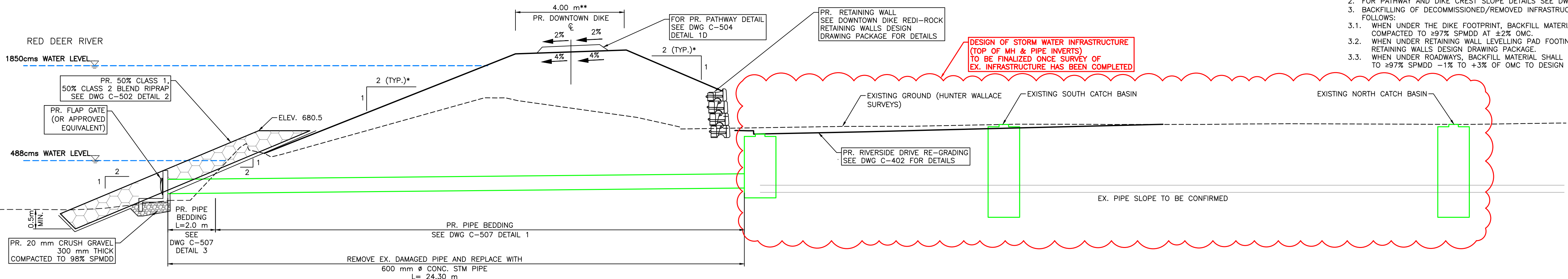
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**OUTFALL D0+991 (E-15) – PLAN**  
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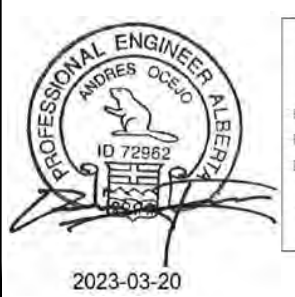
- NOTES:**
1. PERMITS AND APPROVALS (BY OWNER/ENGINEER) ARE REQUIRED FOR HOLD AREAS PRIOR TO CONSTRUCTION.
  2. FOR PATHWAY AND DIKE CREST SLOPE DETAILS SEE DWG C-504 DETAIL 1D.
  3. BACKFILLING OF DECOMMISSIONED/REMOVED INFRASTRUCTURE IS TO BE PERFORMED AS FOLLOWS:
    - 3.1. WHEN UNDER THE DIKE FOOTPRINT, BACKFILL MATERIAL SHALL BE REWORKED CLAY TILL FILL COMPACTED TO ≥97% SPMDI AT ±2% OMC.
    - 3.2. WHEN UNDER RETAINING WALL LEVELLING PAD FOOTING, SEE DOWNTOWN DIKE REDI-ROCK RETAINING WALLS DESIGN DRAWING PACKAGE.
    - 3.3. WHEN UNDER ROADWAYS, BACKFILL MATERIAL SHALL BE ZONE 4C GRAVEL FILL COMPACTED TO ≥97% SPMDI -1% TO +3% OF OMC TO DESIGN SUBGRADE ELEVATION.



**OUTFALL D0+991 (E-15) – SECTION L**  
SCALE = H=1:100 V=1:100

\* SLOPES LABELLED AS TRUE SLOPE, AS SECTION NOT PERPENDICULAR TO SLOPE  
\*\* WIDTH LABELLED IS DESIGN WIDTH, AS SECTION NOT PERPENDICULAR TO DIKE TOP WIDTH

SCALE: 1:100 METRES  
SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.



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Rev	Date	Des	Dwn	Chk	Description	Rev	Date	Des	Dwn	Chk	Description
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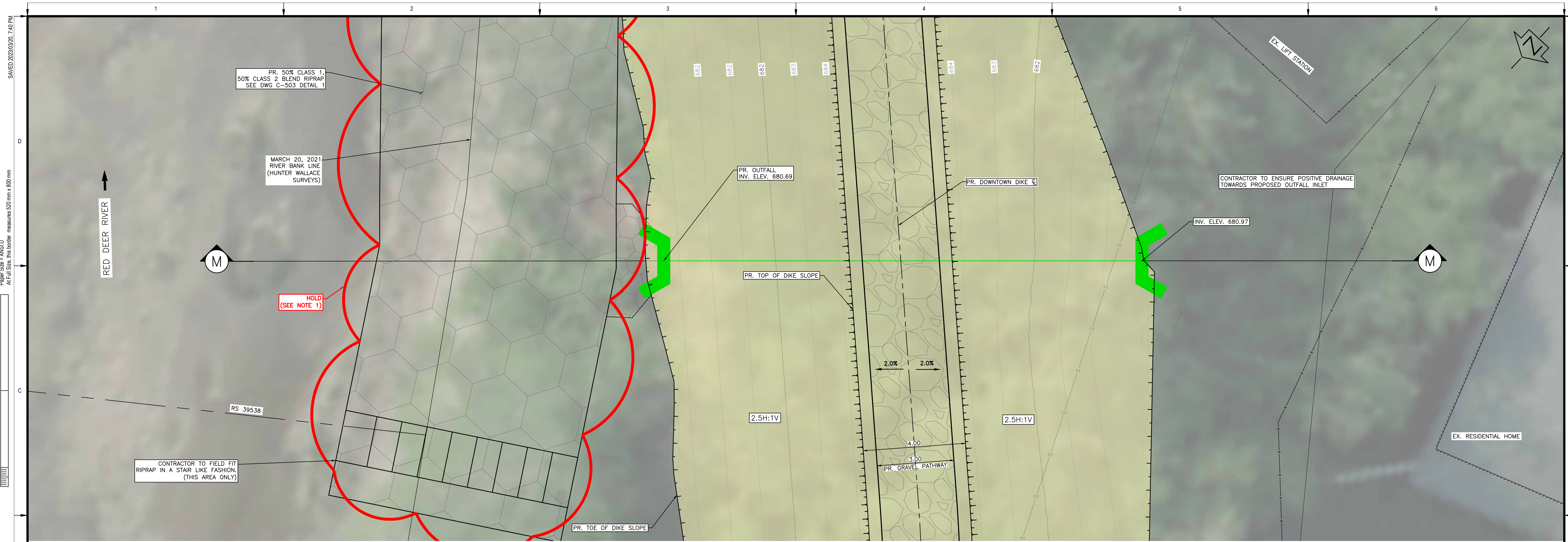
**TOWN OF DRUMHELLER**  
**DOWNTOWN DIKE**  
**STORM OUTFALL D0+991**

Project No. **21.2311.002** Drawing No. **C-315** Rev. **0**  
Group **CIVIL**

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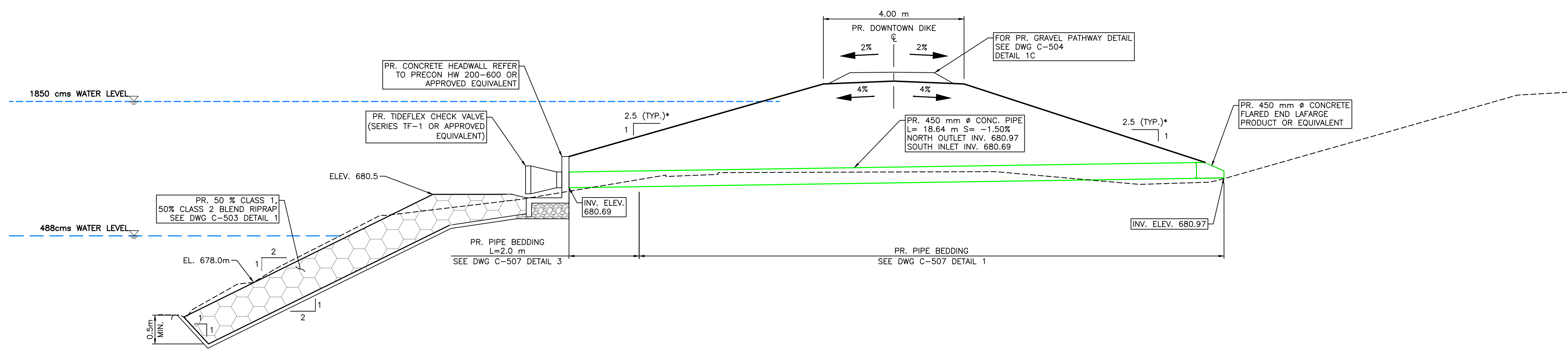
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CROSSDRAIN D1+140 – PLAN  
SCALE = 1:75

- NOTES:
1. PERMITS AND APPROVALS (BY OWNER/ENGINEER) ARE REQUIRED FOR HOLD AREAS PRIOR TO CONSTRUCTION.
  2. FOR PATHWAY AND DIKE CREST SLOPE DETAILS SEE DWG C-504 DETAIL 1C



CROSSDRAIN D1+140 – SECTION M  
SCALE = H=1:75

\* SLOPES LABELLED AS TRUE SLOPE AS SECTION NOT PERPENDICULAR TO SLOPE

SCALE: 1:75 METRES

SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.

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 RM APEGA ID #: 67014  
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**PERMIT NUMBER: P013638**  
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0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER

Rev	Date	Des	Dwn	Chk	Description

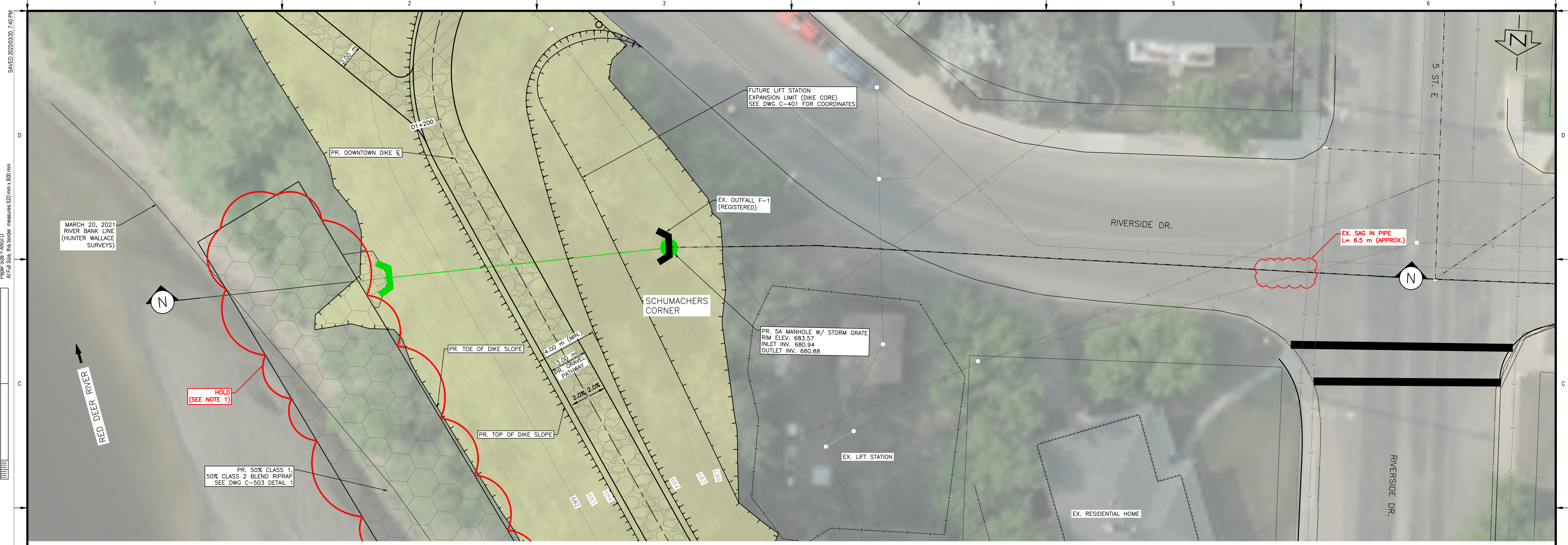
**TOWN OF DRUMHELLER**  
**DOWNTOWN DIKE**  
**STORM OUTFALL D1+140**

Project No. **21.2311.002** Drawing No. **C-316** Rev. **0**  
 Group **CIVIL**

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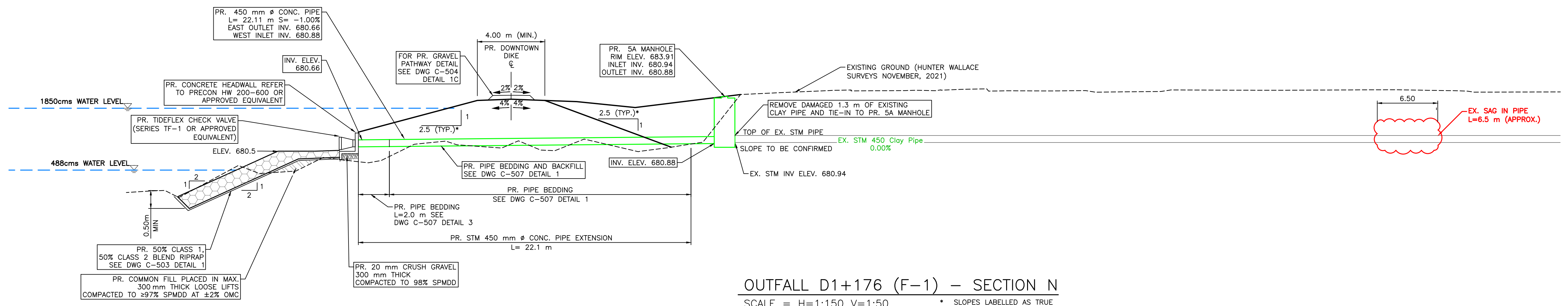
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OUTFALL D1+176 (F-1) – PLAN  
SCALE = 1:150

- NOTES:
1. PERMITS AND APPROVALS (BY OWNER/ENGINEER) ARE REQUIRED FOR HOLD AREAS PRIOR TO CONSTRUCTION.
  2. FOR PATHWAY AND DIKE CREST SLOPE DETAILS SEE DWG C-504 DETAIL 1C.

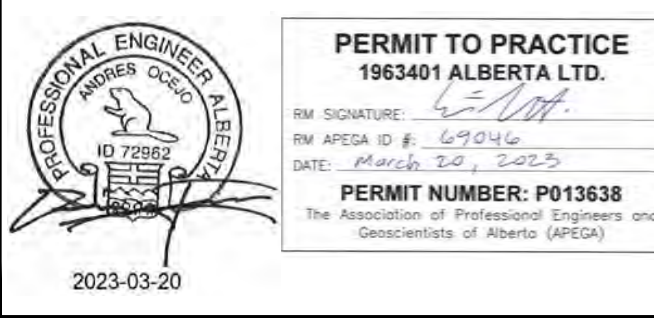
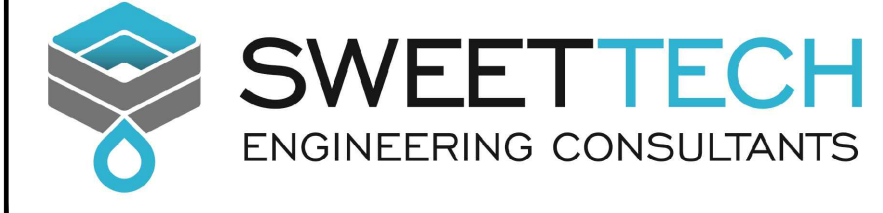


OUTFALL D1+176 (F-1) – SECTION N  
SCALE = H=1:150 V=1:50

- \* SLOPES LABELLED AS TRUE SLOPE, AS SECTION NOT PERPENDICULAR TO SLOPE
- \*\* WIDTH LABELLED IS DESIGN WIDTH, AS SECTION NOT PERPENDICULAR TO DIKE TOP WIDTH

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0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER

Rev	Date	Des	Dwn	Chk	Description

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**TOWN OF DRUMHELLER**  
**DOWNTOWN DIKE**  
**STORM OUTFALL D1+176**

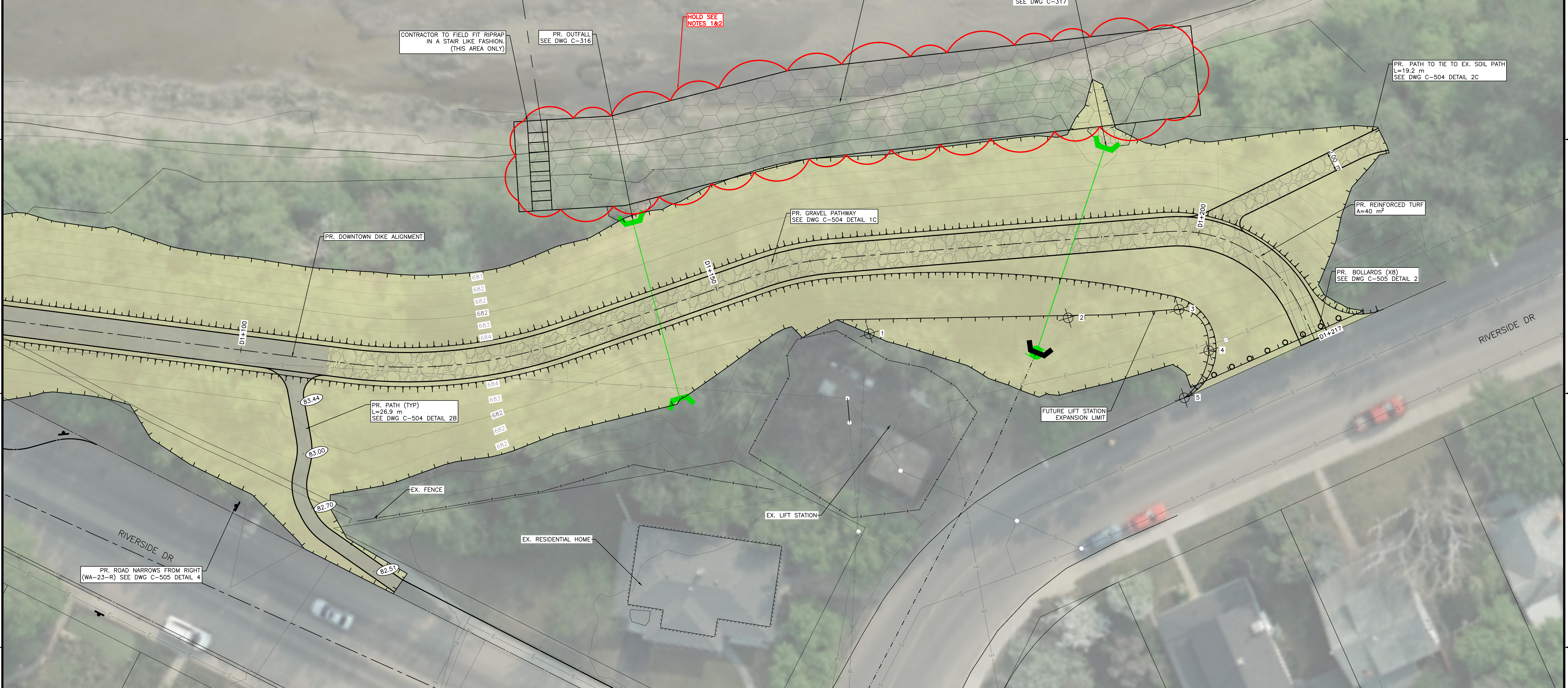
Project No. **21.2311.002** Drawing No. **C-317** Rev. **0**  
Group **CIVIL**



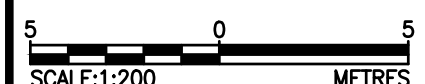
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 Paper Size - ANSI D  
 At Full Size, this border measures 520 mm x 800 mm  
 100 millimeters  
 50  
 10  
 0

LIMIT OF FUTURE LIFT STATION EXPANSION			
Point #	Northing	Easting	ELEVATION
1	5703766.587	90347.386	683.332
2	5703749.323	90358.309	683.273
3	5703739.683	90364.373	683.453
4	5703735.015	90362.064	684.214
5	5703734.981	90356.611	684.234

RED DEER RIVER →



- NOTES:**
1. PERMITS (BY OWNER/ENGINEER) ARE REQUIRED FOR HOLD AREAS PRIOR TO CONSTRUCTION.
  2. NO ENCROACHMENT OR CONSTRUCTION WITHIN AREAS MARKED AS HOLD UNTIL HOLD IS LIFTED BY ENGINEER.



SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.

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Professional Engineer Seal  
**PERMIT TO PRACTICE**  
 1963401 ALBERTA LTD.  
 RW SIGNATURE: [Signature]  
 RW APEGA ID #: 67014  
 DATE: 2023-03-20  
**PERMIT NUMBER: P013638**  
 The Association of Professional Engineers and Geoscientists of Alberta (APEGA)  
 2023-03-20

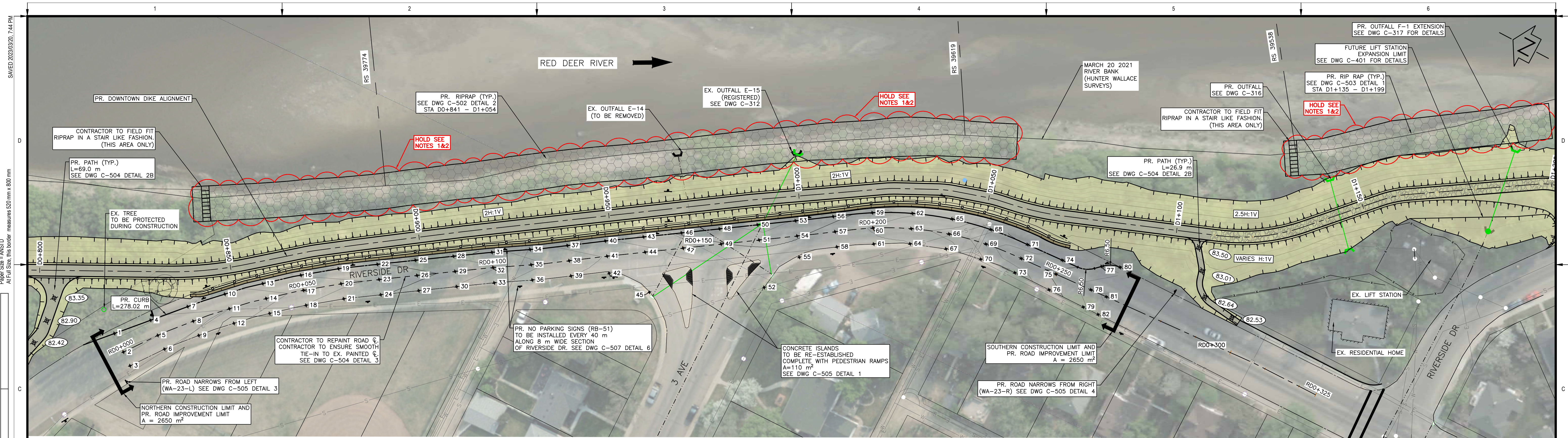
Rev	Date	Des	Dwn	Chk	Description
0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER

Rev	Date	Des	Dwn	Chk	Description

**TOWN OF DRUMHELLER**  
**DOWNTOWN DIKE**  
**SITE PLAN - SCHUMACHERS CORNER DIKE CORE EXTENT**

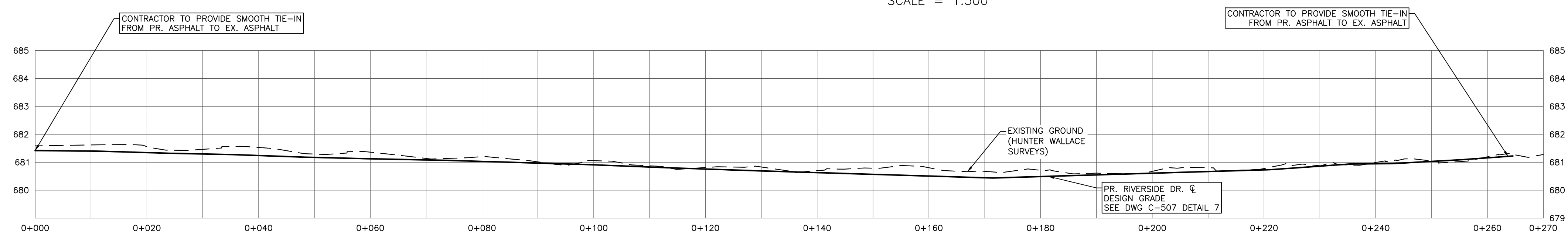
Project No. **21.2311.002** Drawing No. **C-401** Rev. **0**  
 Group **CIVIL**





PLAN - RIVERSIDE DR.  
SCALE = 1:500

- NOTES:
1. PERMITS (BY OWNER/ENGINEER) ARE REQUIRED FOR HOLD AREAS PRIOR TO CONSTRUCTION.
  2. NO ENCROACHMENT OR CONSTRUCTION WITHIN AREAS MARKED AS HOLD UNTIL HOLD IS LIFTED BY ENGINEER.



PROFILE - RIVERSIDE DR.  
SCALE = H=1:500 V=1:100

RIVERSIDE DR. REGRADING LAYOUT POINTS				RIVERSIDE DR. REGRADING LAYOUT POINTS				RIVERSIDE DR. REGRADING LAYOUT POINTS				RIVERSIDE DR. REGRADING LAYOUT POINTS				RIVERSIDE DR. REGRADING LAYOUT POINTS				RIVERSIDE DR. REGRADING LAYOUT POINTS						
Point #	Northing	Easting	Elevation	Point #	Northing	Easting	Elevation	Point #	Northing	Easting	Elevation	Point #	Northing	Easting	Elevation	Point #	Northing	Easting	Elevation	Point #	Northing	Easting	Elevation			
1	5704056.202	90162.507	681.312	15	5704022.711	90186.073	681.163	29	5703984.884	90218.404	680.971	43	5703945.453	90249.363	680.550	57	5703901.728	90273.932	680.549	71	5703855.595	90294.437	681.007			
2	5704051.869	90159.311	681.419	16	5704020.138	90198.730	681.095	30	5703982.662	90215.077	680.891	44	5703943.225	90246.041	680.630	58	5703899.463	90270.634	680.555	72	5703855.346	90290.445	680.948			
3	5704048.650	90156.937	681.339	17	5704017.700	90195.560	681.175	31	5703978.672	90227.323	680.829	45	5703937.357	90237.287	680.679	59	5703895.401	90282.874	680.669	73	5703855.091	90286.368	680.868			
4	5704049.467	90169.965	681.465	18	5704015.261	90192.389	681.095	32	5703976.551	90223.932	680.909	46	5703937.146	90254.931	680.489	60	5703893.375	90279.425	680.609	74	5703845.614	90295.060	681.089			
5	5704045.934	90167.359	681.400	19	5704012.212	90204.827	681.045	33	5703974.430	90220.540	680.829	47	5703934.919	90251.609	680.569	61	5703891.284	90275.796	680.582	75	5703845.365	90291.067	681.031			
6	5704042.714	90164.985	681.326	20	5704009.773	90201.657	681.125	34	5703970.193	90232.625	680.750	48	5703928.840	90260.499	680.427	62	5703886.045	90287.610	680.728	76	5703845.086	90286.590	680.953			
7	5704042.526	90177.652	681.407	21	5704007.334	90198.486	681.044	35	5703968.072	90229.234	680.830	49	5703926.613	90257.177	680.507	63	5703884.459	90283.938	680.669	77	5703835.802	90298.382	681.170			
8	5704039.457	90174.973	681.347	22	5704003.733	90210.583	681.004	36	5703965.951	90225.843	680.751	50	5703920.533	90266.067	680.366	64	5703882.885	90280.279	680.598	78	5703835.385	90291.690	681.159			
9	5704036.444	90172.342	681.269	23	5704001.496	90207.267	681.084	37	5703962.035	90238.090	680.679	51	5703918.306	90262.745	680.446	65	5703876.159	90291.148	680.791	79	5703835.078	90286.772	681.083			
10	5704035.439	90185.073	681.217	24	5703999.259	90203.951	681.007	38	5703959.765	90234.797	680.759	52	5703911.359	90252.382	680.575	66	5703875.049	90287.305	680.729	80	5703831.355	90300.463	0.000			
11	5704032.606	90182.250	681.297	25	5703995.420	90216.165	680.951	39	5703957.495	90231.503	680.701	53	5703912.227	90271.636	680.409	67	5703873.943	90283.474	680.650	81	5703830.964	90291.966	681.223			
12	5704029.773	90179.426	681.217	26	5703993.194	90212.842	681.031	40	5703953.801	90243.765	680.714	54	5703910.000	90268.313	680.489	68	5703865.915	90293.423	680.923	82	5703830.729	90286.854	681.145			
13	5704027.945	90192.123	681.162	27	5703990.968	90209.519	680.951	41	5703951.531	90240.472	680.691	55	5703906.888	90263.671	680.463	69	5703865.293	90289.472	680.862							
14	5704025.328	90189.098	681.242	28	5703987.105	90221.730	680.891	42	5703948.967	90236.752	680.683	56	5703903.992	90277.229	680.469	70	5703864.641	90285.326	680.781							

SCALE: 1:100 METRES  
SCALE: 1:500 METRES  
SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.



PROFESSIONAL ENGINEER ALBERTA  
PERMIT TO PRACTICE  
1963401 ALBERTA LTD.  
RM SIGNATURE: [Signature]  
RM AREGA ID #: 57034  
DATE: 2023-03-20  
PERMIT NUMBER: P013638  
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

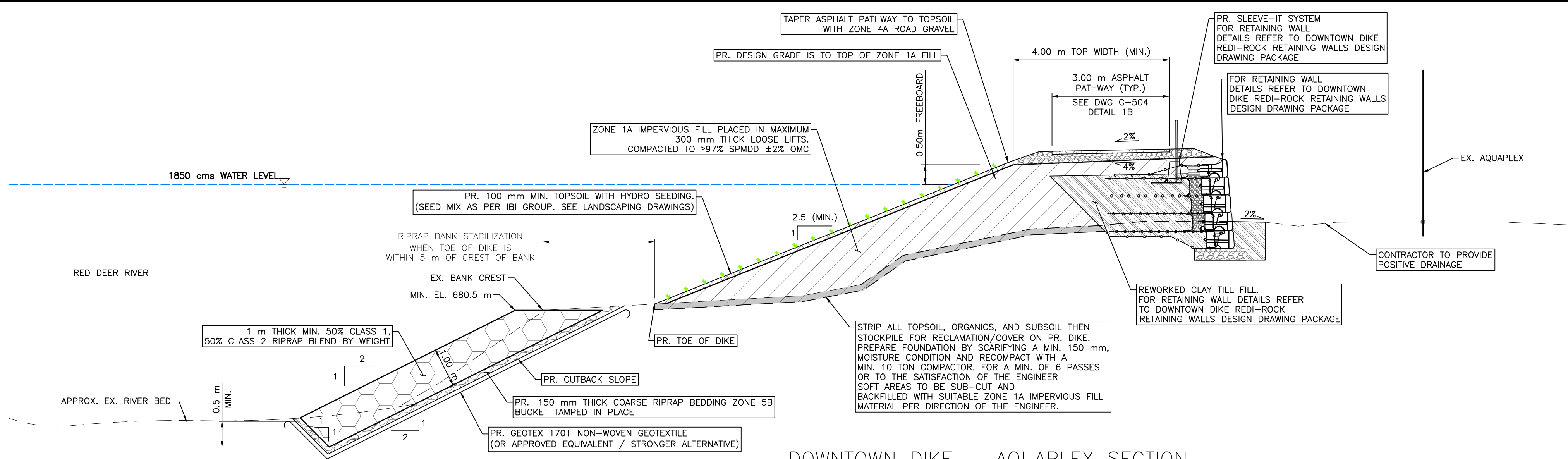
Rev	Date	Des	Dwn	Chk	Description	Rev	Date	Des	Dwn	Chk	Description
0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER						

TOWN OF DRUMHELLER  
DOWNTOWN DIKE  
SITE PLAN - RIVERSIDE DR. RE-GRADING PLAN

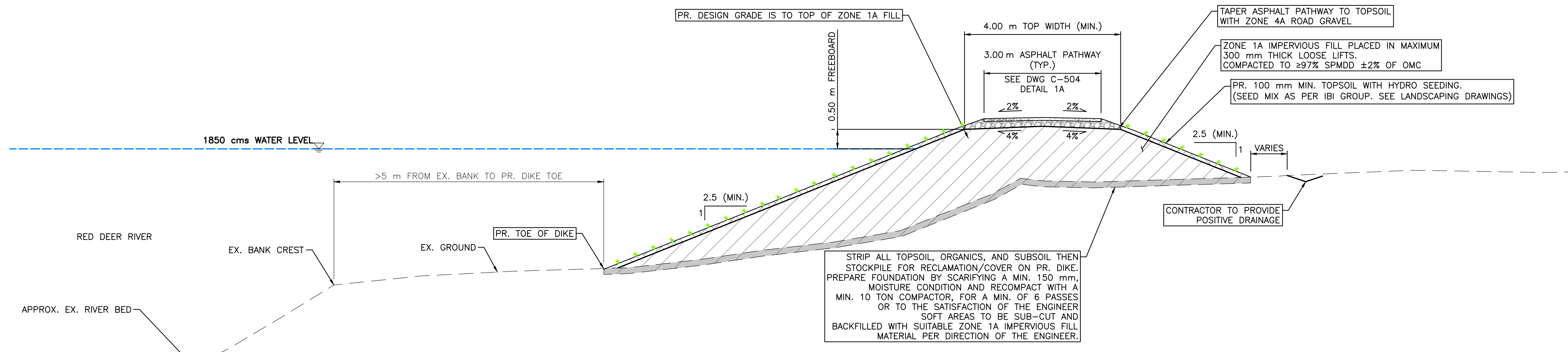
Project No. 21.2311.002  
Group CIVIL  
Drawing No. C-402  
Rev. 0

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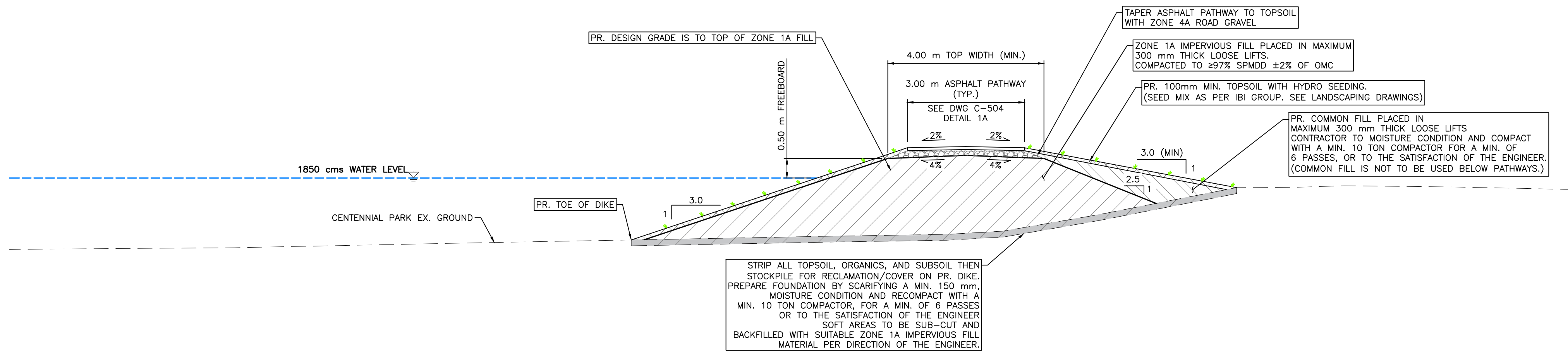




1  
 1:75  
 DOWNTOWN DIKE - AQUAPLEX SECTION  
 (STA D0+094 - STA D0+122)



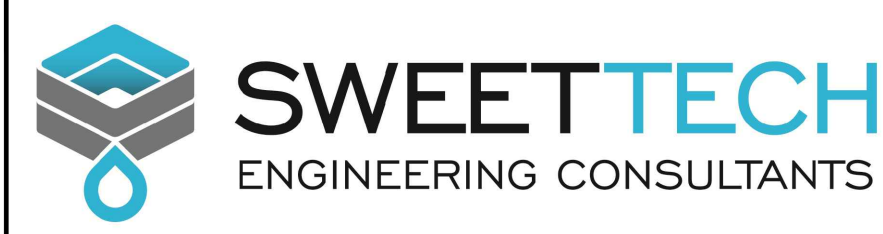
2  
 1:75  
 DOWNTOWN DIKE - TYPICAL SECTION (STA D0+094 -  
 STA D0+773 - STA D0+838)



3  
 1:75  
 DOWNTOWN DIKE - CENTENNIAL PARK SECTION  
 (STA D0+122 - STA D0+564)

1.5 0 1.5  
 SCALE: 1:75 METRES

SCALE NOTATIONS INDICATED ARE BASED ON  
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 RM AREGA ID #: 67014  
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Rev	Date	Des	Dwn	Chk	Description
0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER

Rev	Date	Des	Dwn	Chk	Description

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 THE TOWN OF DRUMHELLER  
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 CONSULTANTS OR ITS EMPLOYEES TO ANY PARTY WITH WHOM SWEETECH  
 ENGINEERING CONSULTANTS DOES NOT HAVE A CONTRACT.

**TOWN OF DRUMHELLER**  
**DOWNTOWN DIKE**

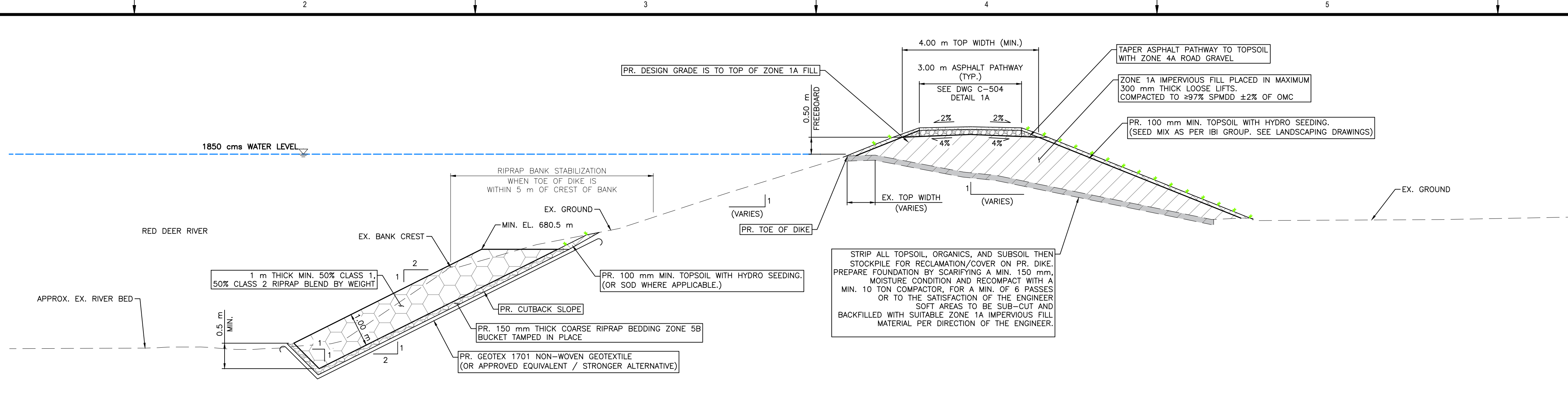
**DETAILS 1**

Project No. **21.2311.002** Drawing No. **C-501** Rev. **0**  
 Group **CIVIL**

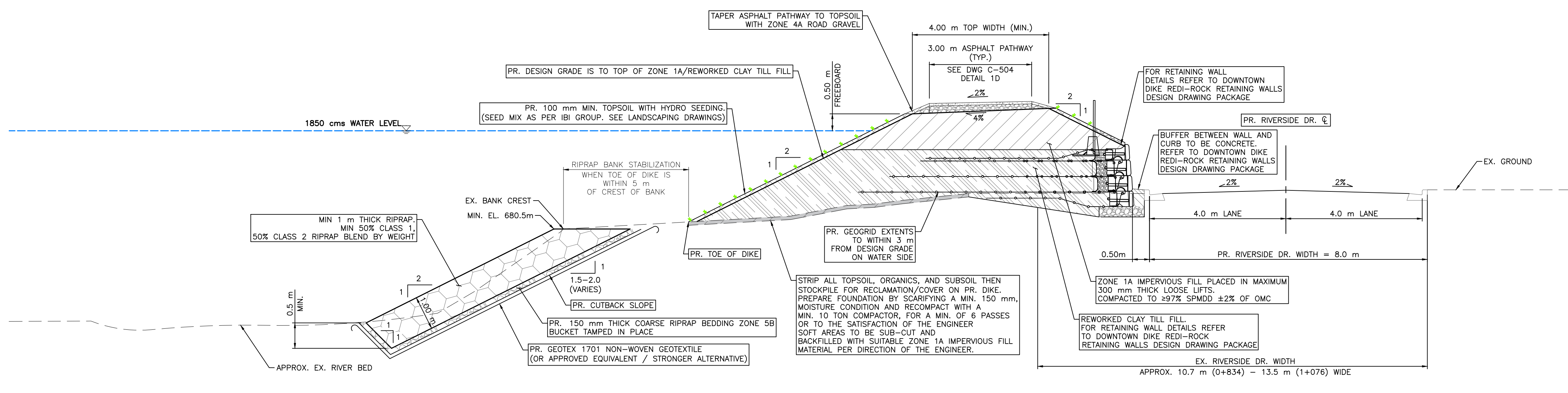


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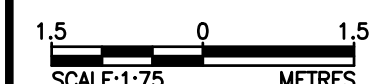
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At Full Size, this border measures 520 mm x 800 mm



1  
DOWNTOWN DIKE – CANALTA LOT SECTION (STA D0+564 – STA D0+718; STA D0+743 – STA D0+773)  
1:75



2  
DOWNTOWN DIKE – RIVERSIDE DR. SECTION (STA D0+838 – STA D1+072)  
1:75



SCALE: 1:75 METRES  
SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.



Seal  
  
**PERMIT TO PRACTICE**  
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 RM APEGA ID #: 67014  
 DATE: 2023-03-20  
**PERMIT NUMBER: P013638**  
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 2023-03-20

Rev	Date	Des	Dwn	Chk	Description	Rev	Date	Des	Dwn	Chk	Description
0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER						

**TOWN OF DRUMHELLER**  
**DOWNTOWN DIKE**  
**DETAILS 2**

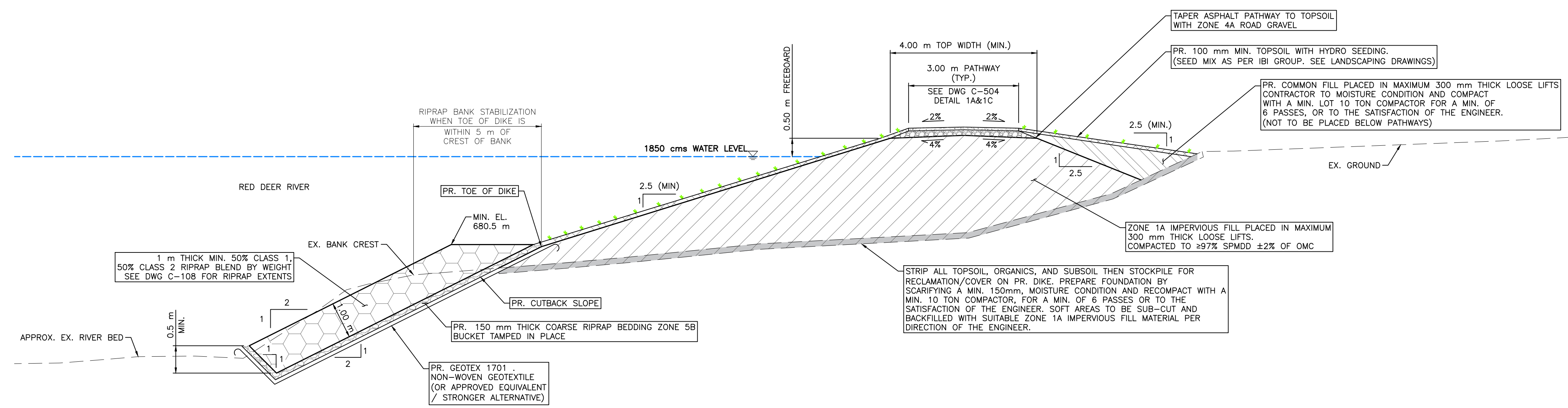
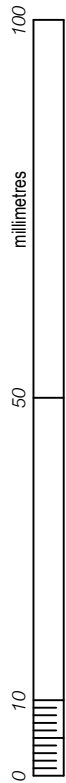
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 Group **CIVIL**

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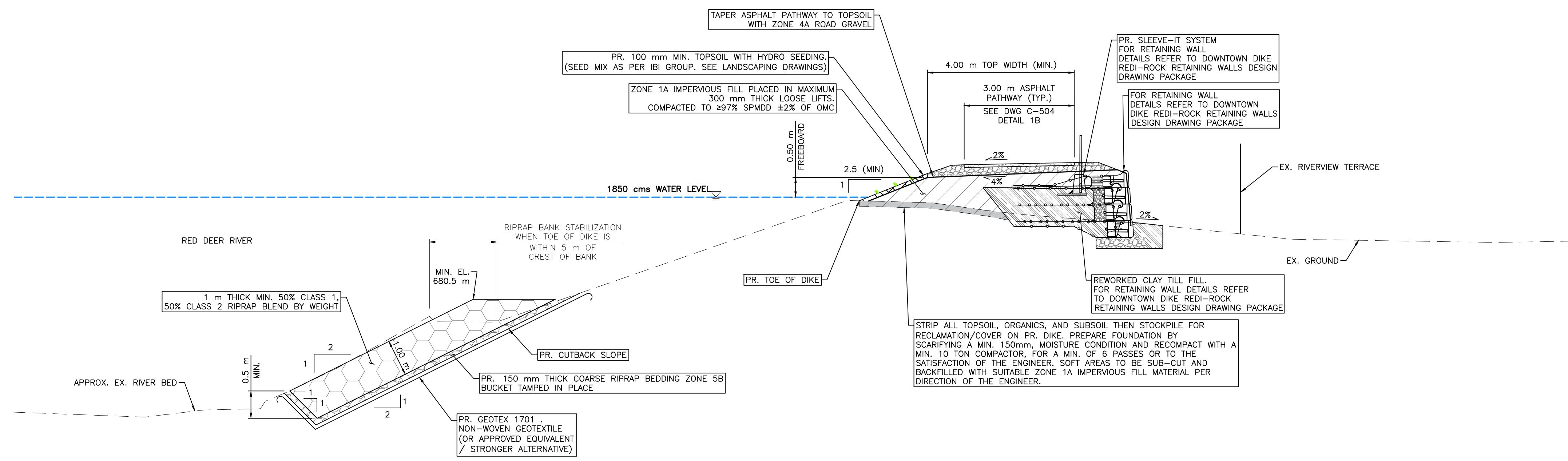


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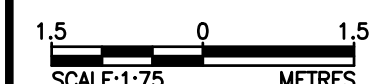
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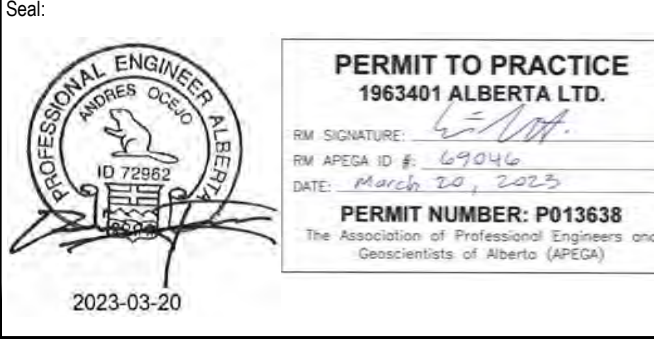
1  
 DOWNTOWN DIKE – SCHUMACHERS CORNER  
 SECTION (STA D1+072 – STA D1+217)  
 1:75



2  
 DOWNTOWN DIKE – RIVERVIEW TERRACE SECTION  
 (STA D0+718 – STA D0+743)  
 1:75



SCALE: 1:75 METRES  
 SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.



Rev	Date	Des	Dwn	Chk	Description
0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER

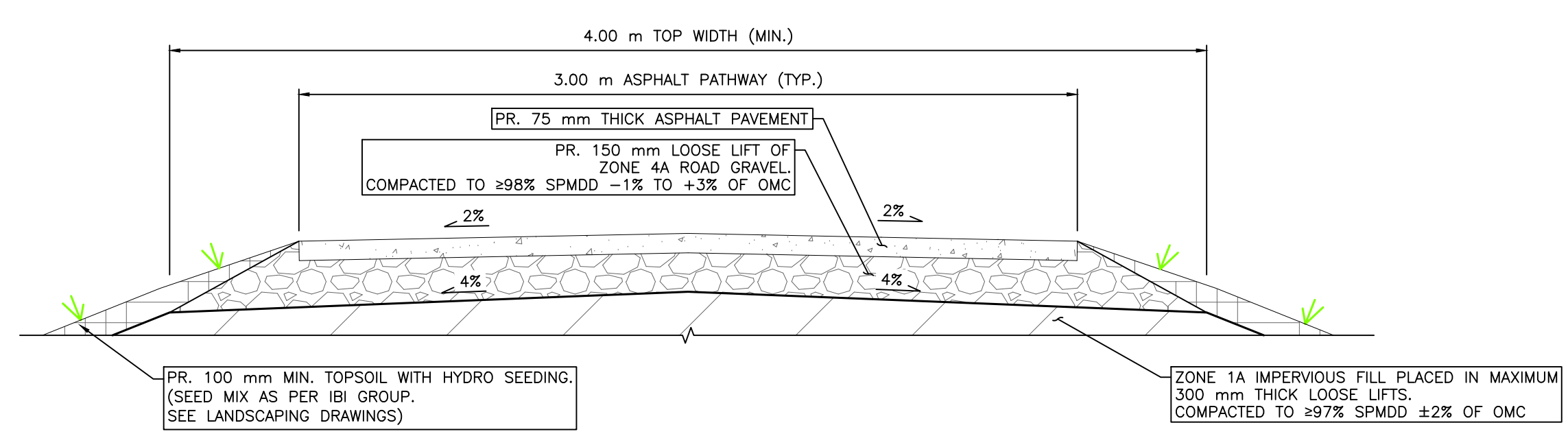
Rev	Date	Des	Dwn	Chk	Description

TOWN OF DRUMHELLER  
 DOWNTOWN DIKE  
 DETAILS 3

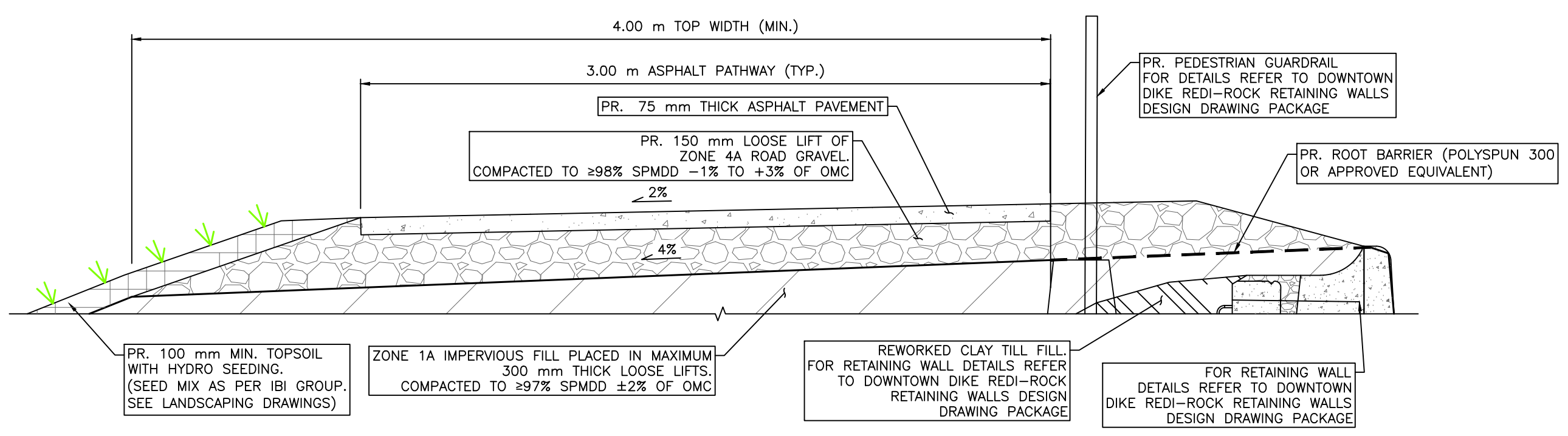
Project No. **21.2311.002** Drawing No. **C-503** Rev. **0**  
 Group **CIVIL**

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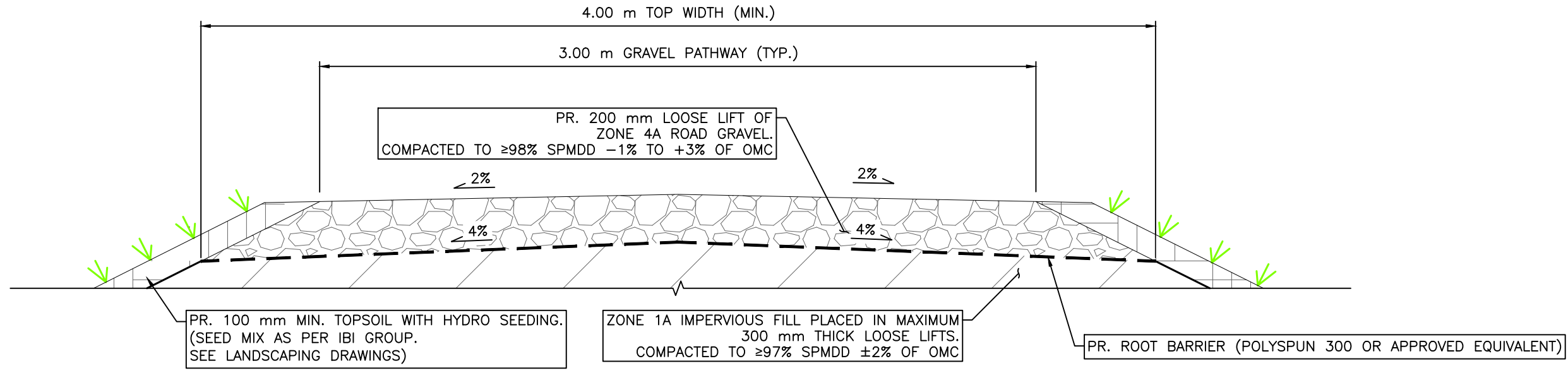




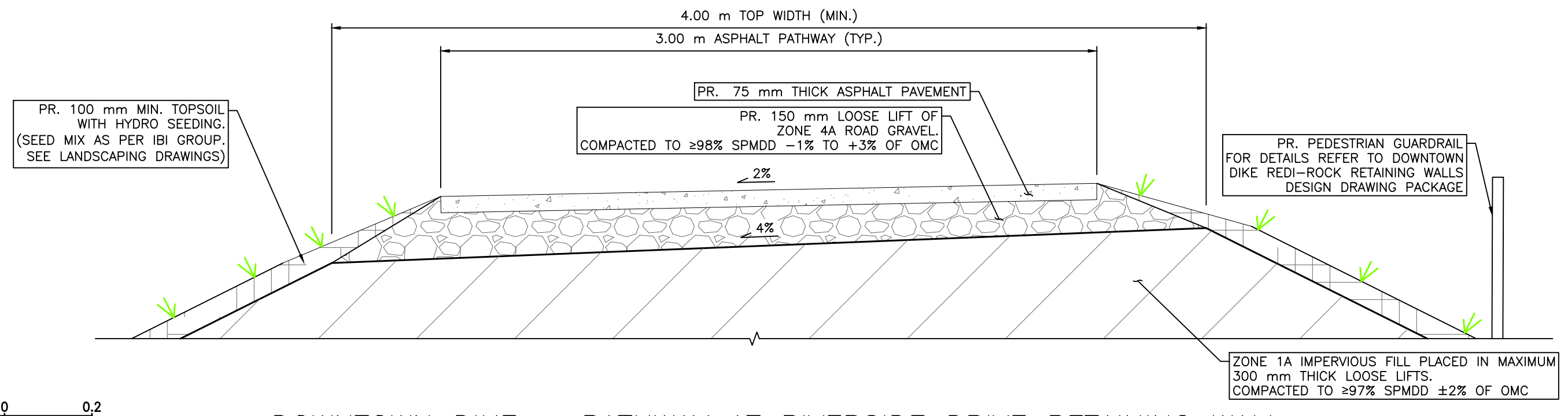
**1A** DOWNTOWN DIKE - CROWNED ASPHALT PATHWAY  
 (STA D0+050 - STA D0+094; STA D0+122 - STA D0+718;  
 STA D0+743 - STA D0+838; STA D1+062 - STA D1+108)  
 1:20



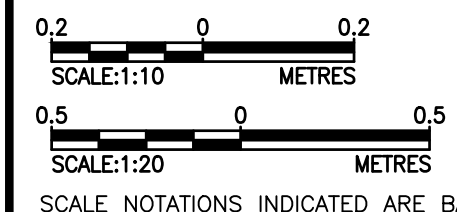
**1B** DOWNTOWN DIKE - PATHWAY AT AQUAPLEX AND RIVERVIEW TERRACE  
 (STA D0+094 - STA D0+122; STA D0+718 - STA D0+743)  
 1:20



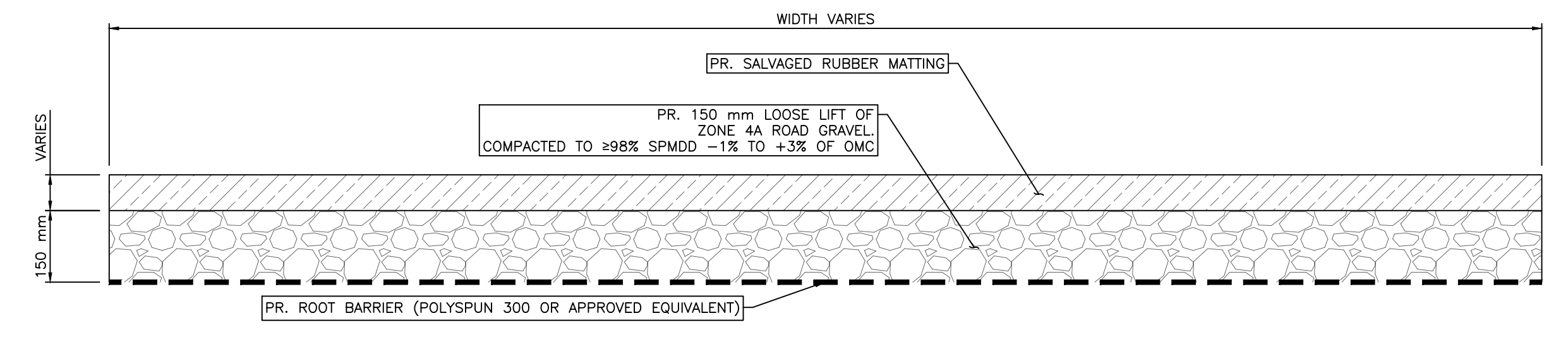
**1C** DOWNTOWN DIKE - CROWNED GRAVEL PATHWAY  
 (STA D1+108 - D1+204)  
 1:20



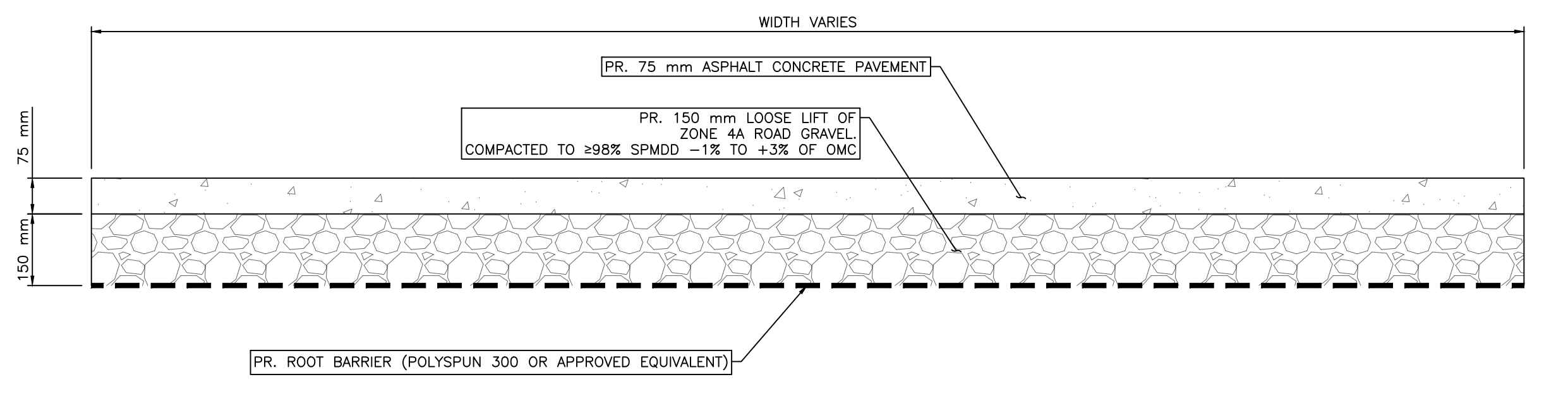
**1D** DOWNTOWN DIKE - PATHWAY AT RIVERSIDE DRIVE RETAINING WALL  
 (STA D0+838 - STA D1+062)  
 1:20



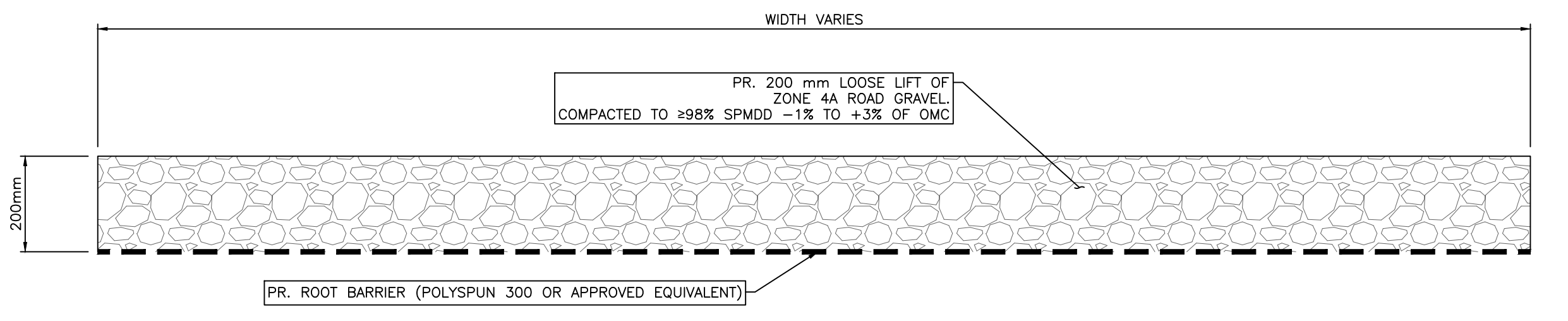
SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.



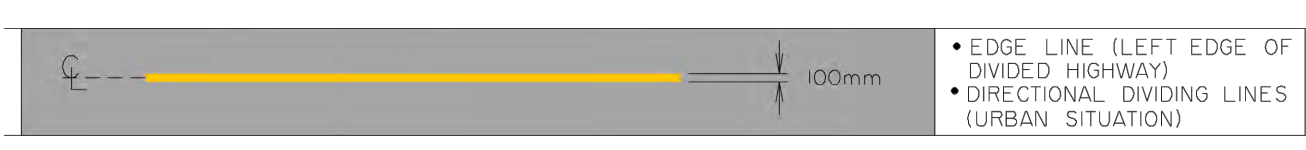
**2A** DOWNTOWN DIKE - RECYCLED RUBBER CONNECTOR TRAIL  
 1:10



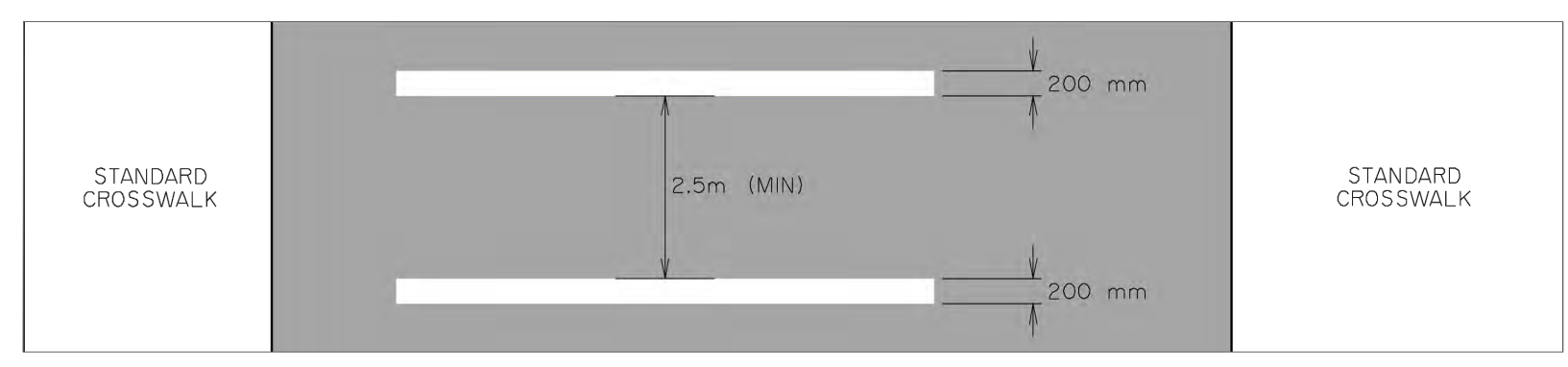
**2B** DOWNTOWN DIKE - ASPHALT CONNECTOR TRAIL  
 1:10



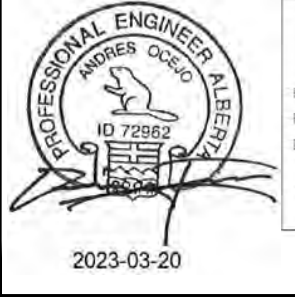
**2C** DOWNTOWN DIKE - GRAVEL CONNECTOR TRAIL  
 1:10



**3** PR. YELLOW LINE PAINTING (TYP)  
 N.T.S.



**4** PR. CROSS WALK LINES  
 N.T.S.



**PERMIT TO PRACTICE**  
 1963401 ALBERTA LTD.  
 RM SIGNATURE: [Signature]  
 RM APEGA ID #: 67914  
 DATE: 2023-03-20  
**PERMIT NUMBER: P013638**  
 The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

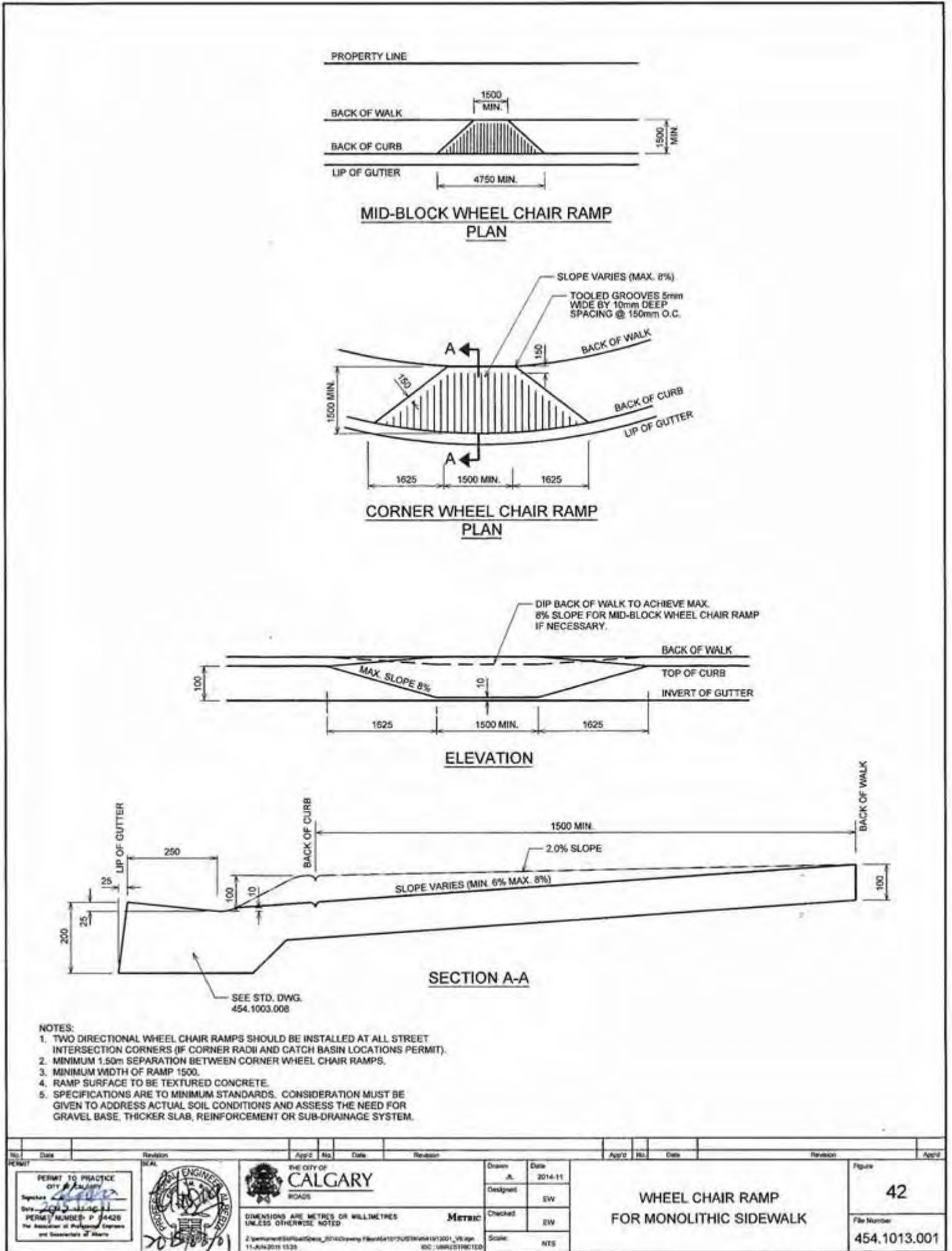
Rev	Date	Des	Dwn	Chk	Description
0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER

Rev	Date	Des	Dwn	Chk	Description

TOWN OF DRUMHELLER DOWNTOWN DIKE DETAILS 4			
Project No.	21.2311.002	Drawing No.	C-504
Group	CIVIL	Rev.	0

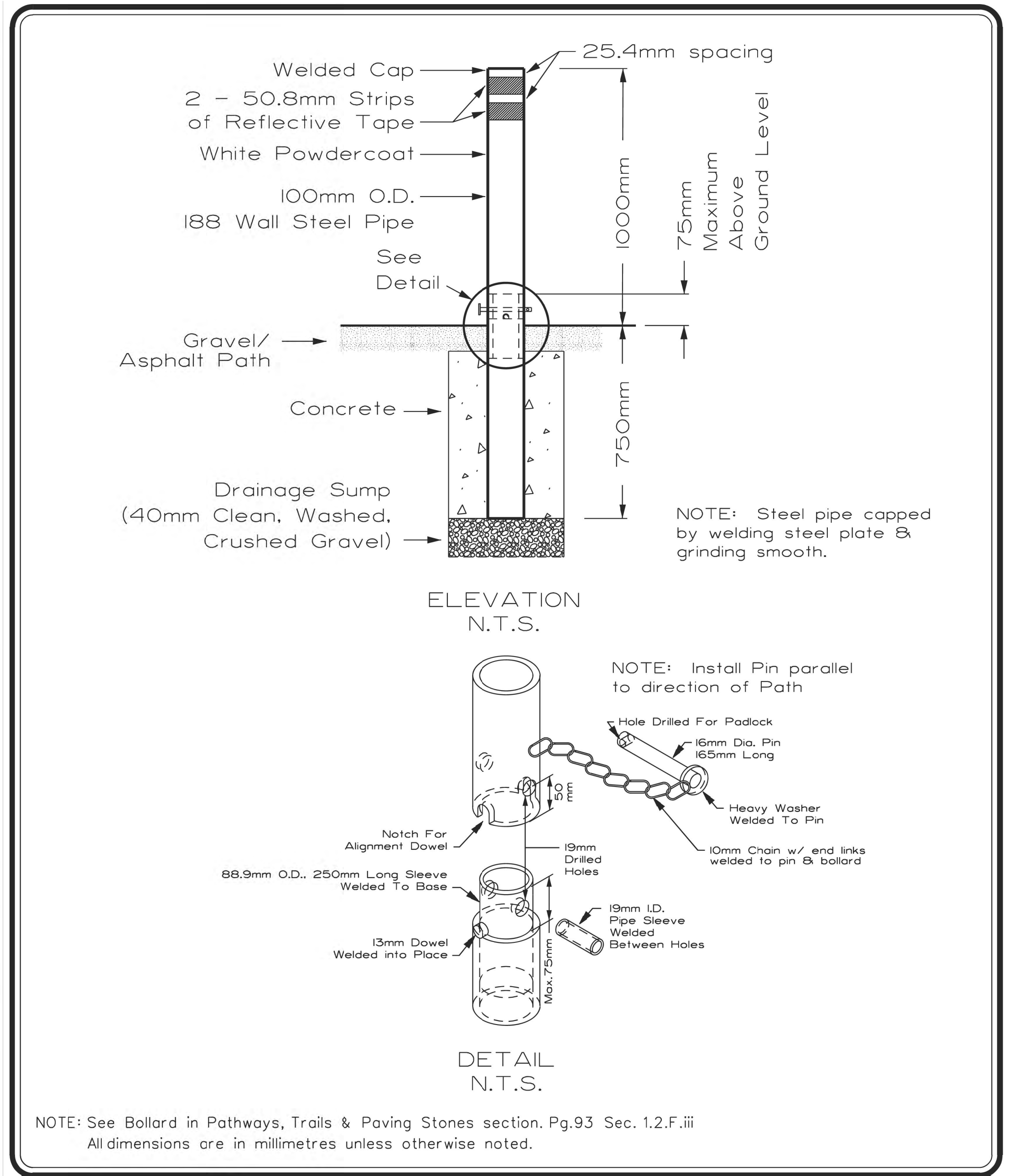
THIS DRAWING IS PREPARED FOR THE SOLE USE OF THE TOWN OF DRUMHELLER. NO REPRESENTATIONS OF ANY KIND ARE MADE BY SWEETECH ENGINEERING CONSULTANTS OR ITS EMPLOYEES TO ANY PARTY WITH WHOM SWEETECH ENGINEERING CONSULTANTS DOES NOT HAVE A CONTRACT.





1 WHEEL CHAIR RAMP FOR MONOLITHIC SIDEWALK (CITY OF CALGARY FILE # 454.1013.001) N.T.S.

Detail Sheet 31: Bollards - Removable



	PROJECT TITLE <b>SPECIFICATIONS</b>	DRAWN BY <b>S.P. / W.B.</b>	SCALE <b>N.T.S.</b>
	SHEET TITLE <b>REMOVABLE BOLLARD DETAIL</b>	DATE <b>2006 06 07</b>	SHEET NO. <b>31</b>
		DESIGN BY <b>G.S.</b>	FILE NO.
		DATE <b>1997-06</b>	

2 DIKE ACCESS BOLLARDS N.T.S.

ROAD NARROWS FROM LEFT WA-23-T



SECTION REFERENCE			
DIMENSIONS (mm)		750 x 750	
ENLARGEMENT FACTOR		7.5 X	
COLOUR			
BACKGROUND	BORDER	MESSAGE / SYMBOL	
YELLOW	BLACK	BLACK	

3 SIGN - ROAD NARROWS FROM LEFT N.T.S.

ROAD NARROWS FROM RIGHT WA-23-T



SECTION REFERENCE			
DIMENSIONS (mm)		750 x 750	
ENLARGEMENT FACTOR		7.5 X	
COLOUR			
BACKGROUND	BORDER	MESSAGE / SYMBOL	
YELLOW	BLACK	BLACK	

4 SIGN - ROAD NARROWS FROM RIGHT N.T.S.

SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.



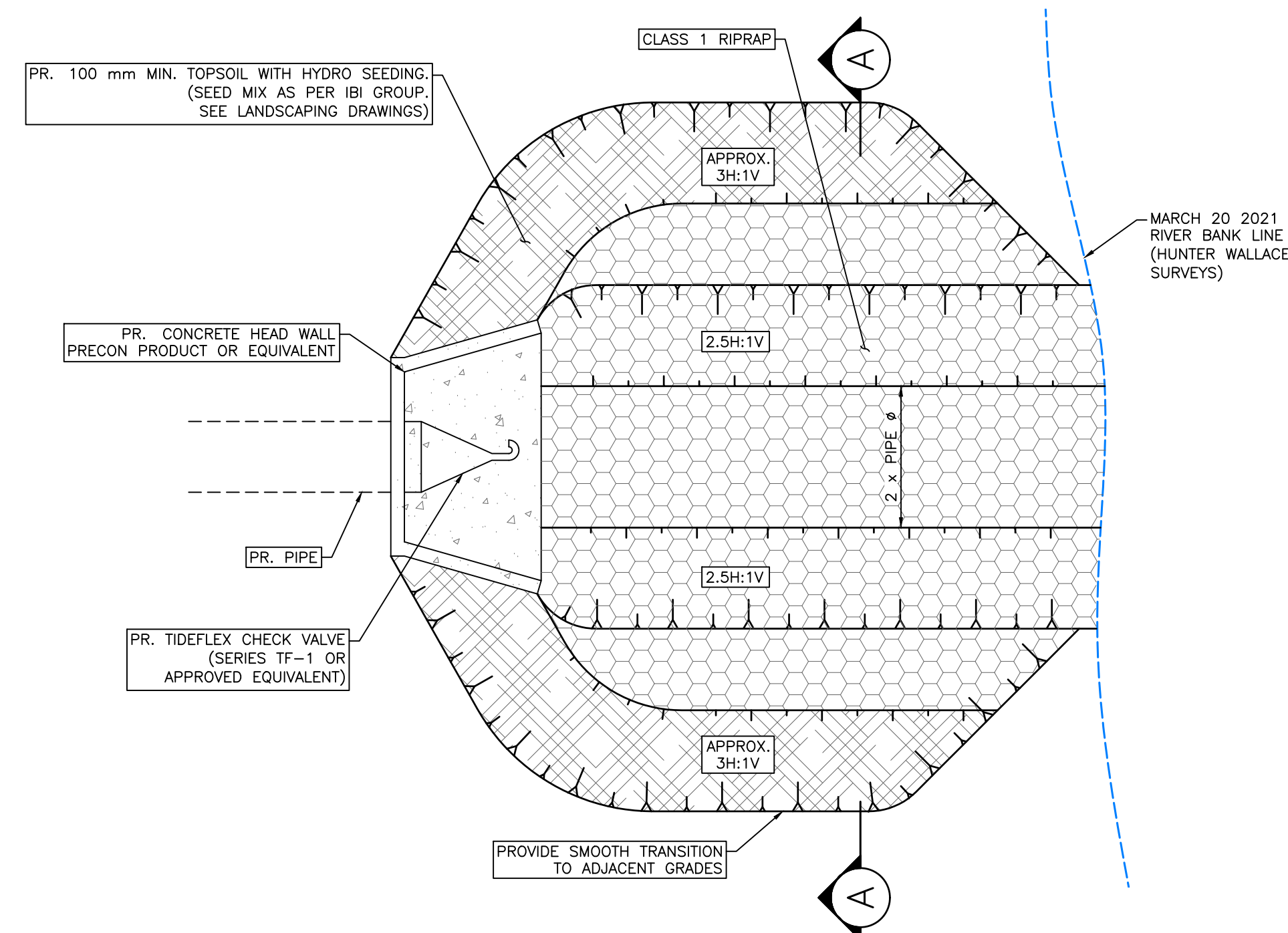
PERMIT TO PRACTICE  
 1963401 ALBERTA LTD.  
 G.S.  
 PERMIT NUMBER: P013638

Rev	Date	Des	Dwn	Chk	Description	Rev	Date	Des	Dwn	Chk	Description
0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER						

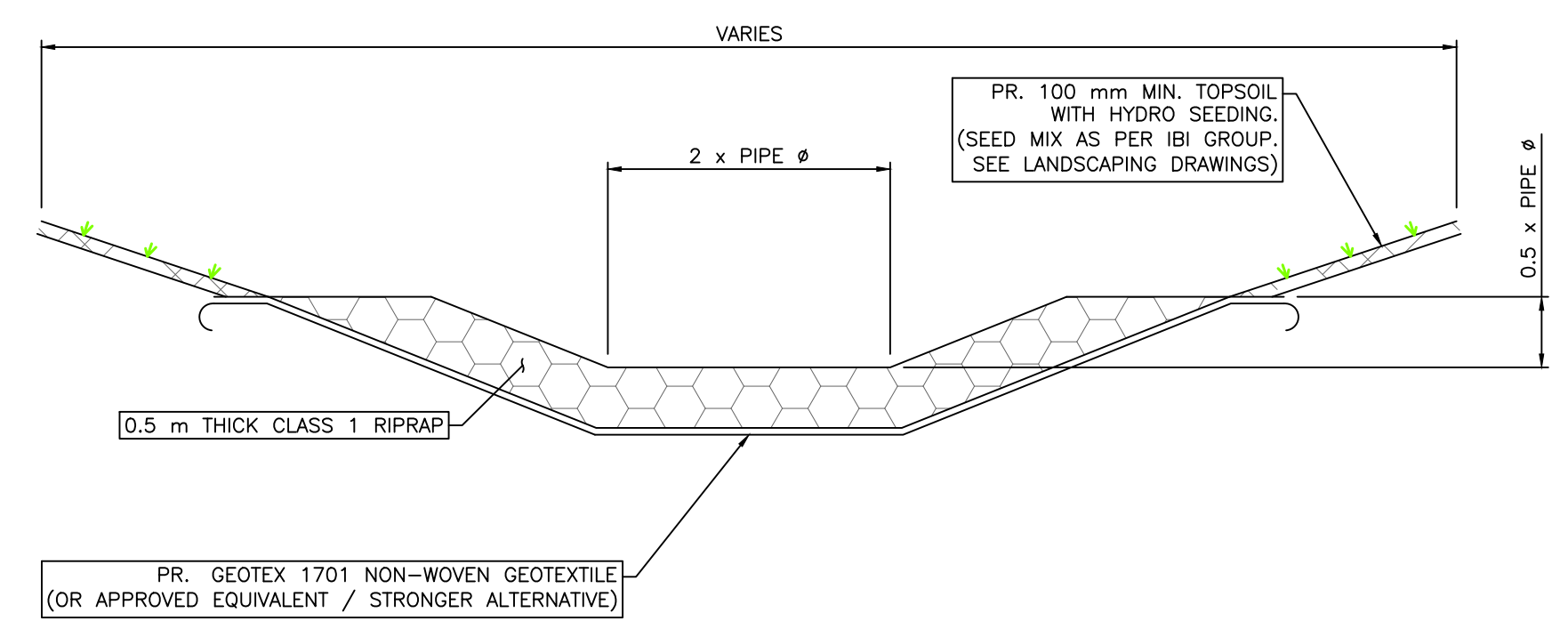
**TOWN OF DRUMHELLER DOWNTOWN DIKE DETAILS 5**

Project No. **21.2311.002** Drawing No. **C-505** Rev. **0**  
 Group **CIVIL**

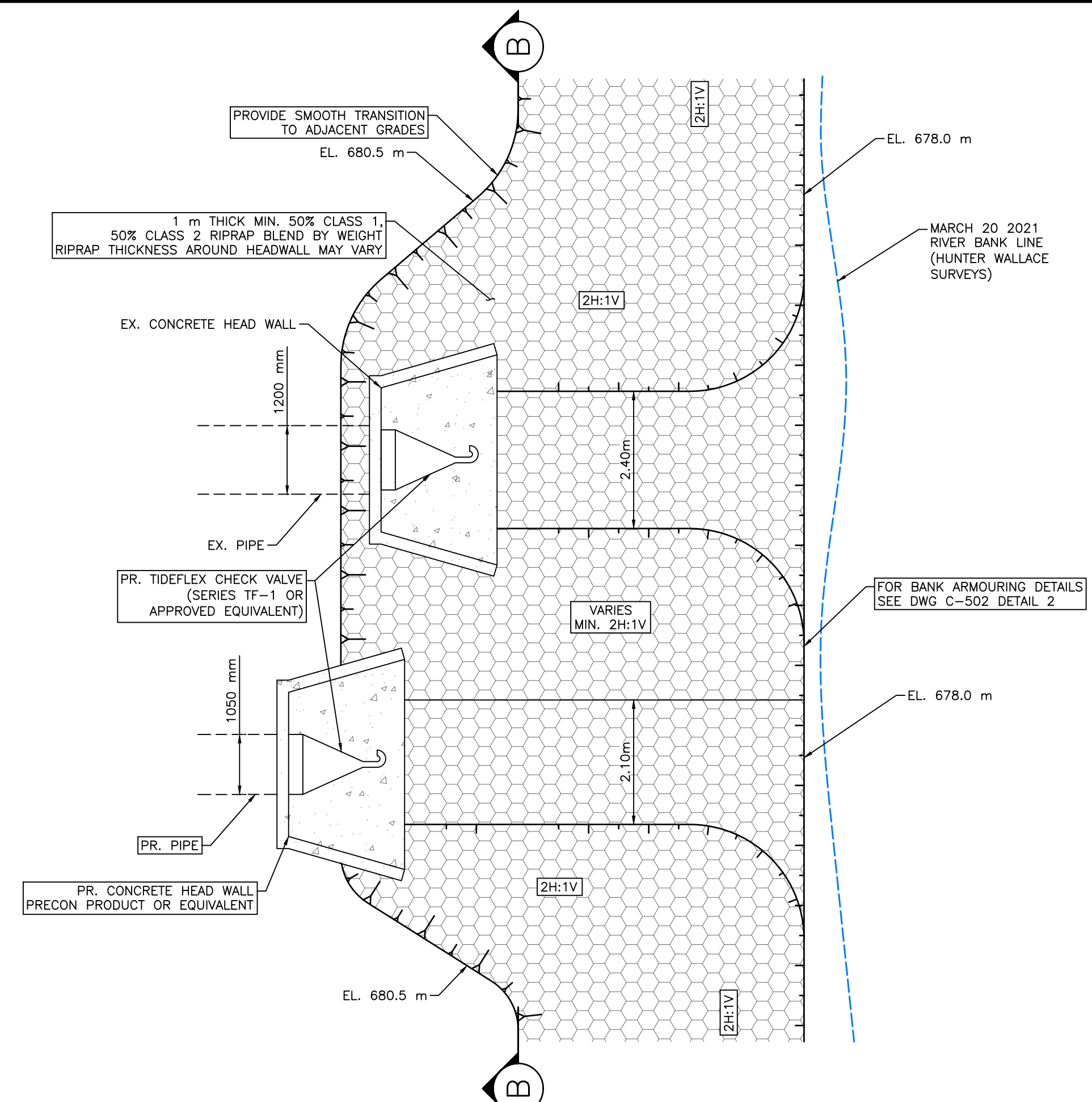




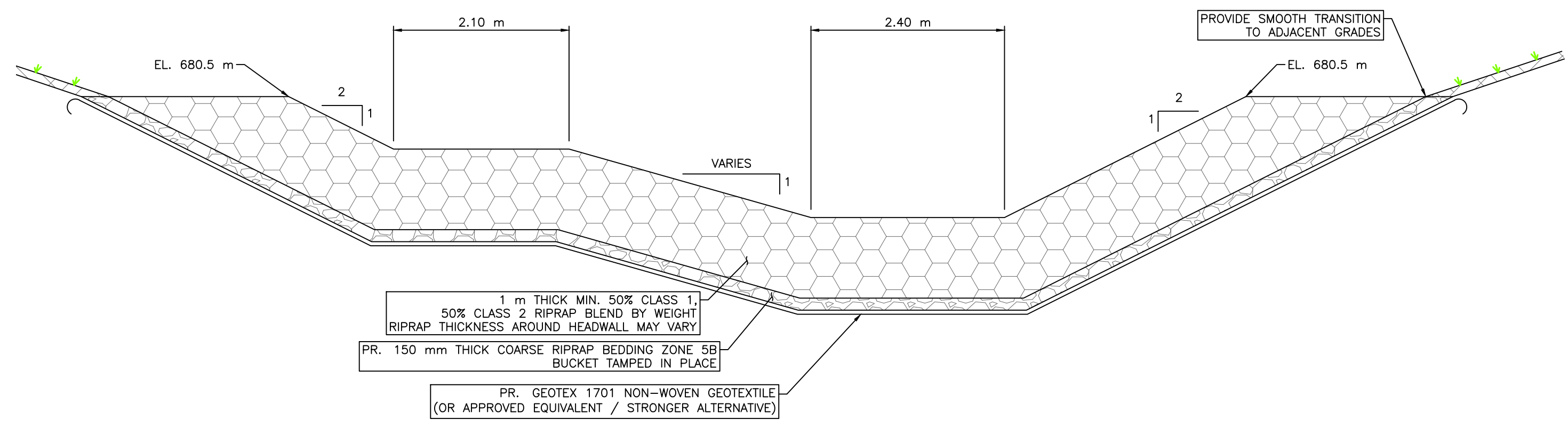
1 DETAIL - RIPRAP APRON  
 N.T.S.



A RIPRAP APRON - SECTION  
 N.T.S.

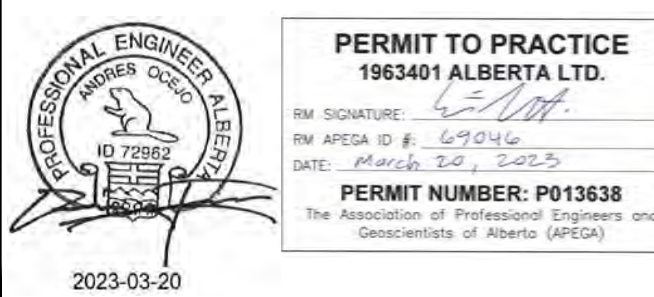
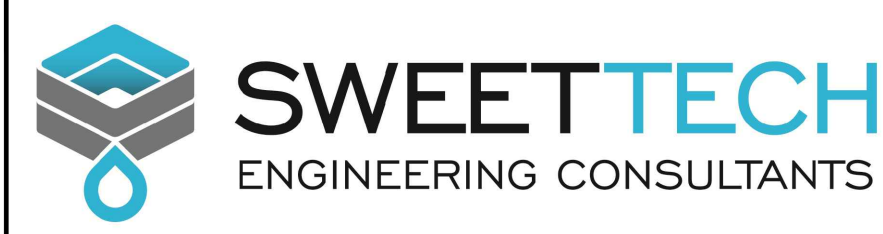


2 DETAIL - RIPRAP APRON TIE TO RIPRAP BANK STABILIZATION  
 N.T.S.



B RIPRAP APRON - SECTION  
 N.T.S.

SCALE NOTATIONS INDICATED ARE BASED ON AN ANSI D DRAWING FORMAT, & COLOUR PRINTED.



Rev	Date	Des	Dwn	Chk	Description
0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER

Rev	Date	Des	Dwn	Chk	Description

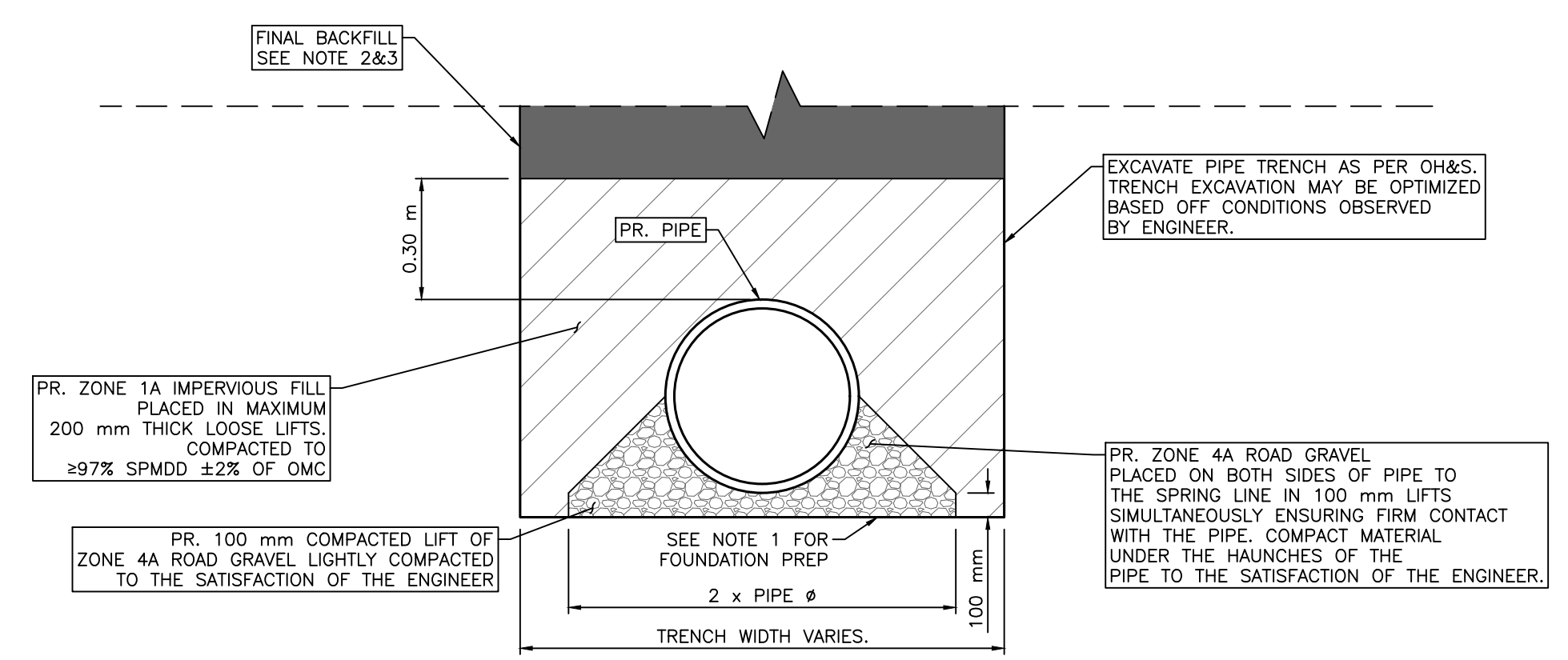
THIS DRAWING IS PREPARED FOR THE SOLE USE OF THE TOWN OF DRUMHELLER. NO REPRESENTATIONS OF ANY KIND ARE MADE BY SWEETECH ENGINEERING CONSULTANTS OR ITS EMPLOYEES TO ANY PARTY WITH WHOM SWEETECH ENGINEERING CONSULTANTS DOES NOT HAVE A CONTRACT.

**TOWN OF DRUMHELLER**  
**DOWNTOWN DIKE**  
**DETAILS 6**

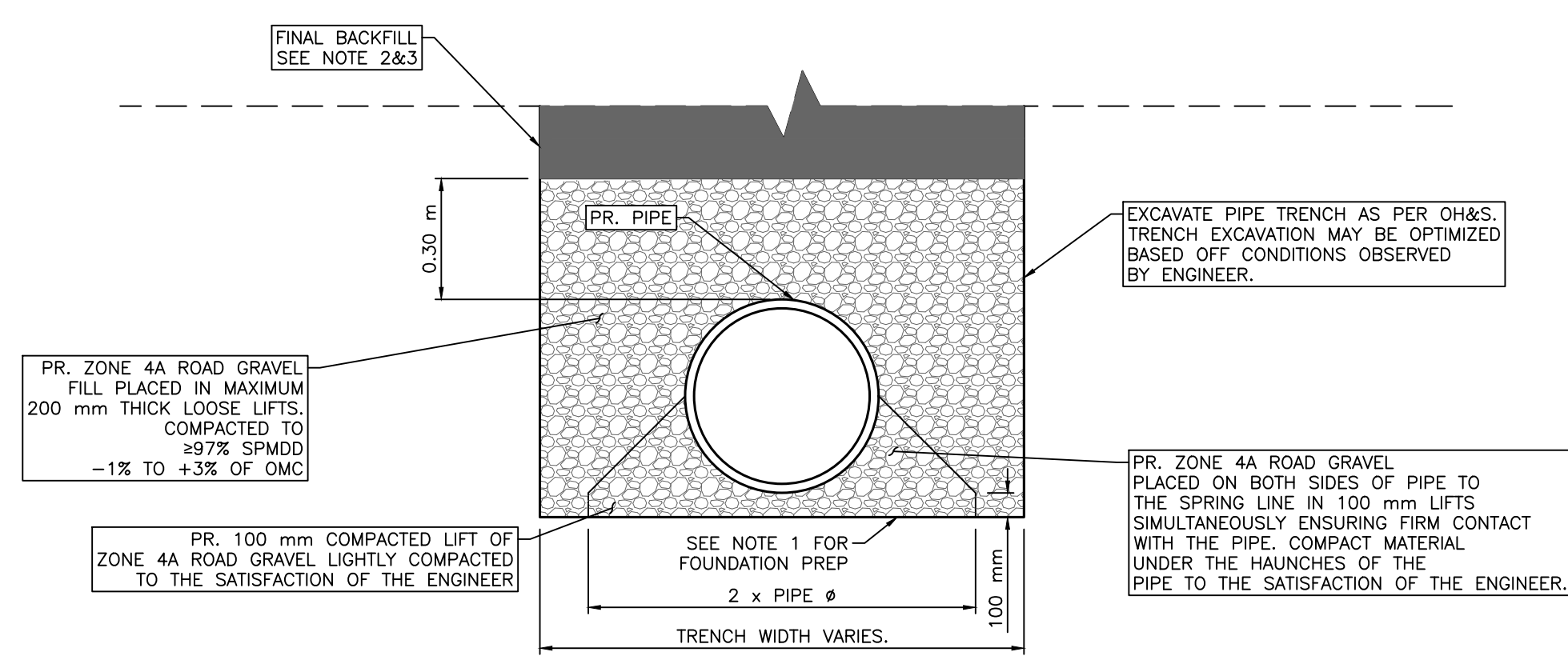
Project No. <b>21.2311.002</b>	Drawing No. <b>C-506</b>	Rev. <b>0</b>
Group <b>CIVIL</b>		



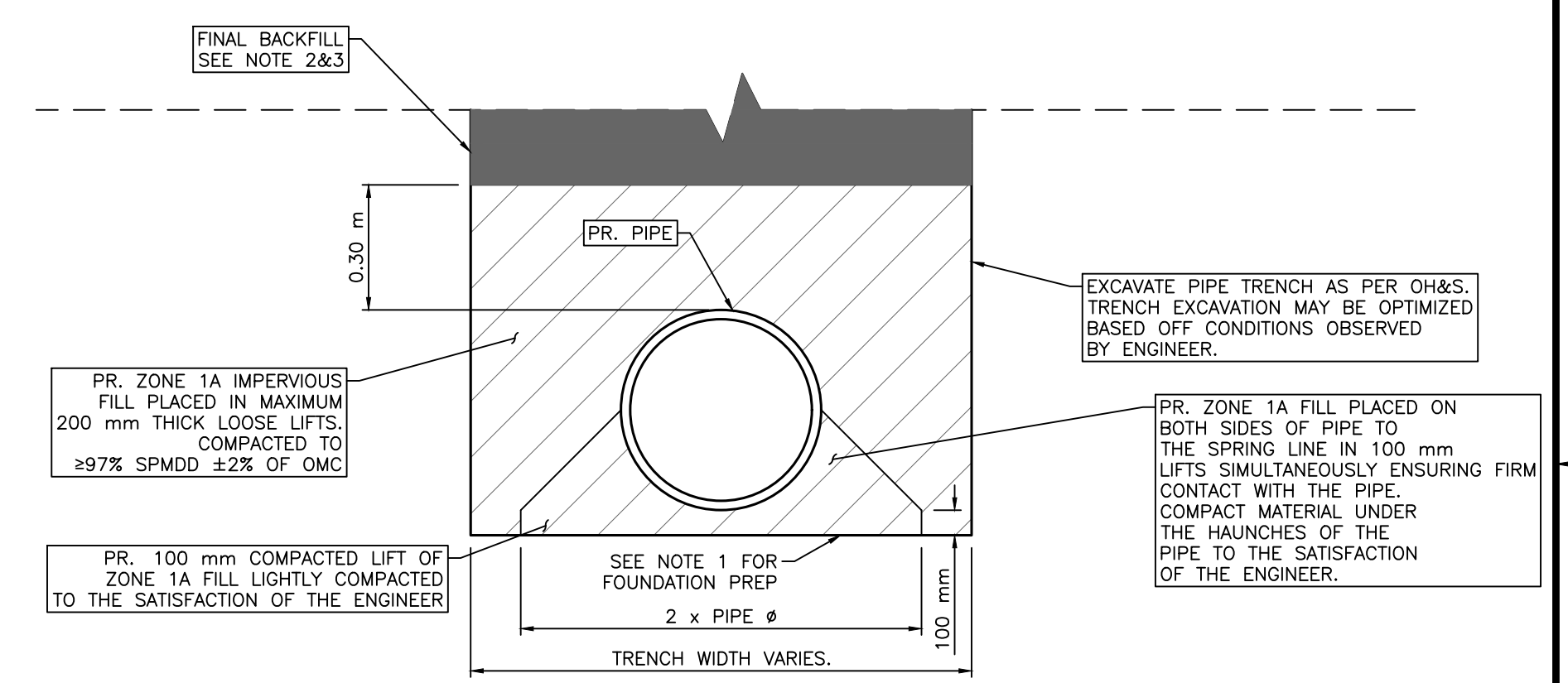
- NOTES:**
- STRIP ALL TOPSOIL, ORGANICS, AND SUBSOIL AS REQUIRED. PREPARE FOUNDATION BY MOISTURE CONDITIONING AND COMPACTING WITH A MIN. 200 KG PLATE TAMPER, FOR A MIN. OF 6 PASSES OR TO THE SATISFACTION OF THE ENGINEER. SOFT AREAS TO BE SUB-CUT AND BACKFILLED WITH SUITABLE RE-WORKED CLAY TILL PER DIRECTION OF THE ENGINEER.
  - FINAL BACKFILL TO BE PLACED AS FOLLOWS:
    - WHEN UNDER THE DIKE FOOTPRINT, FINAL BACKFILL MATERIAL SHALL BE ZONE 1A IMPERVIOUS FILL PLACED AND COMPACTED TO  $\geq 97\%$  SPMD  $\pm 2\%$  OF OMC.
    - WHEN UNDER ROADWAYS, FINAL BACKFILL MATERIAL SHALL BE ZONE 4C GRAVEL FILL COMPACTED TO  $\geq 97\%$  SPMD  $-1\%$  TO  $+3\%$  OF OMC UP TO DESIGN SUBGRADE ELEVATION.
    - OUTSIDE OF THE DIKE FOOT PRINT AND ROADWAYS, FINAL BACKFILL MAY BE COMMON FILL PLACED AND COMPACTED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
  - FOR UTILITIES BEING INSTALLED BENEATH RETAINING WALLS REFER TO DOWNTOWN DIKE REDI-ROCK RETAINING WALLS DESIGN DRAWING PACKAGE



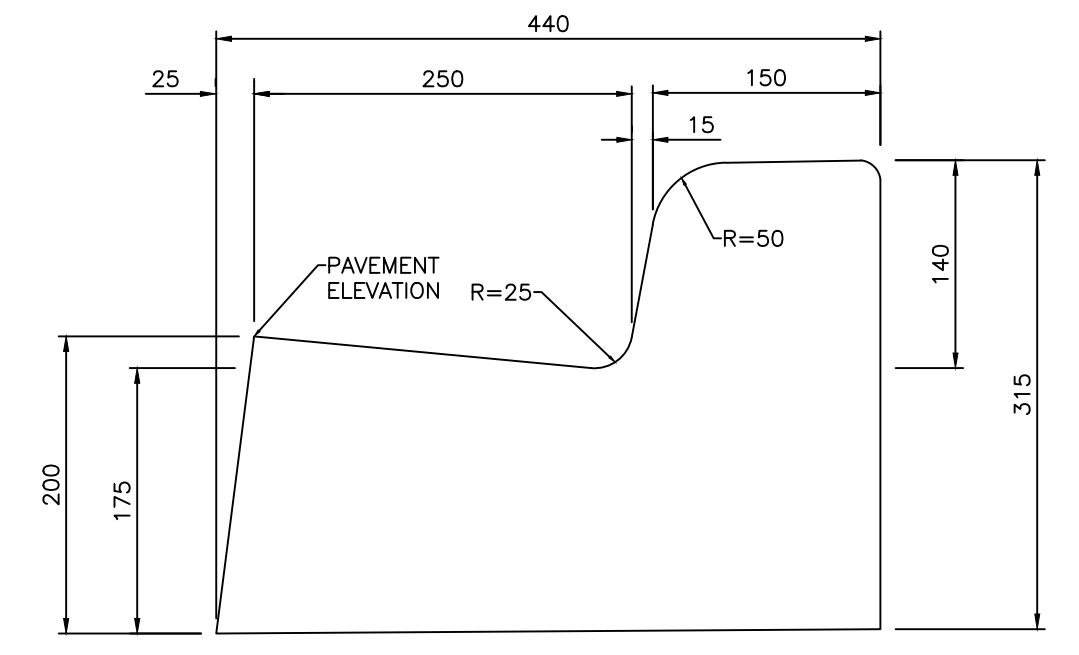
1 DETAIL – PIPE BEDDING AND BACKFILL DETAIL  
 GRAVEL BEDDING, ZONE 1A BACKFILL  
 N.T.S.



2 DETAIL – PIPE BEDDING AND BACKFILL DETAIL  
 GRAVEL BEDDING, GRAVEL BACKFILL  
 N.T.S.

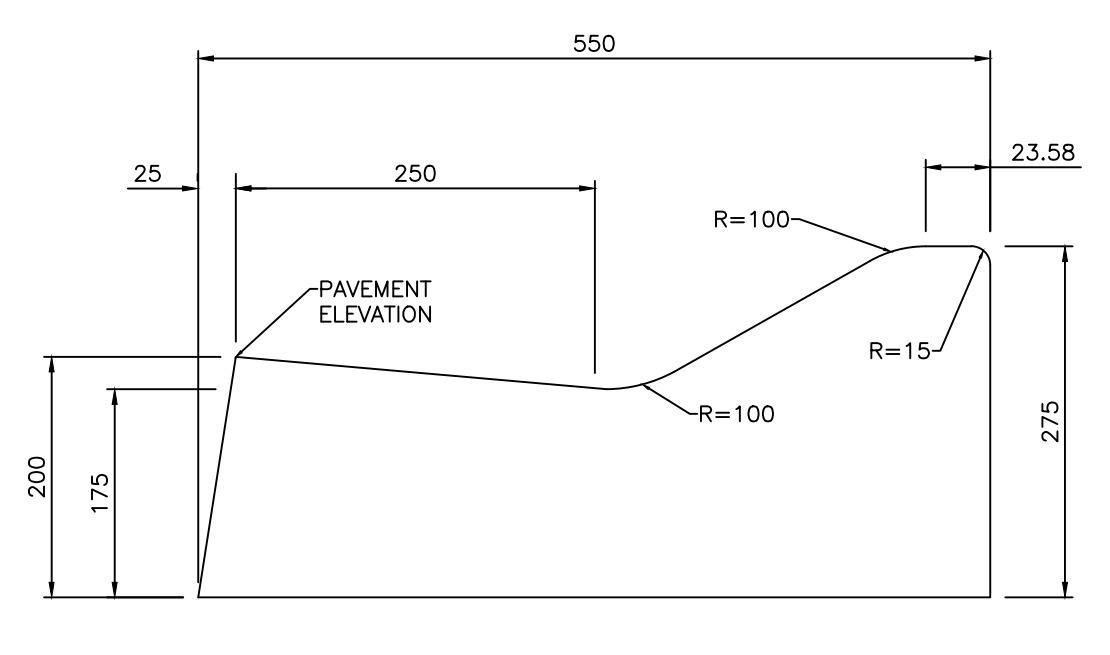


3 DETAIL – PIPE BEDDING AND BACKFILL DETAIL  
 ZONE 1A BEDDING, ZONE 1A BACKFILL  
 N.T.S.



4 DETAIL – STANDARD CURB WITH 250 mm GUTTER  
 N.T.S.

- REVERSE GUTTER TO BE USED ON HIGH SIDE OF ROADWAY IN SUPERELEVATION. BASE GRADIENT TO MATCH CROSSFALL OF PAVEMENT. GUTTER PAN TO BE PARALLEL WITH SURFACE CROSSFALL.
- MINIMUM GUTTER THICKNESS 175 mm.



5 DETAIL – LOW PROFILE ROLLED CURB WITH 250 mm GUTTER  
 N.T.S.

- REVERSE GUTTER TO BE USED ON HIGH SIDE OF ROADWAY IN SUPERELEVATION. BASE GRADIENT TO MATCH CROSSFALL OF PAVEMENT. GUTTER PAN TO BE PARALLEL WITH SURFACE CROSSFALL.
- MINIMUM GUTTER THICKNESS 175 mm.

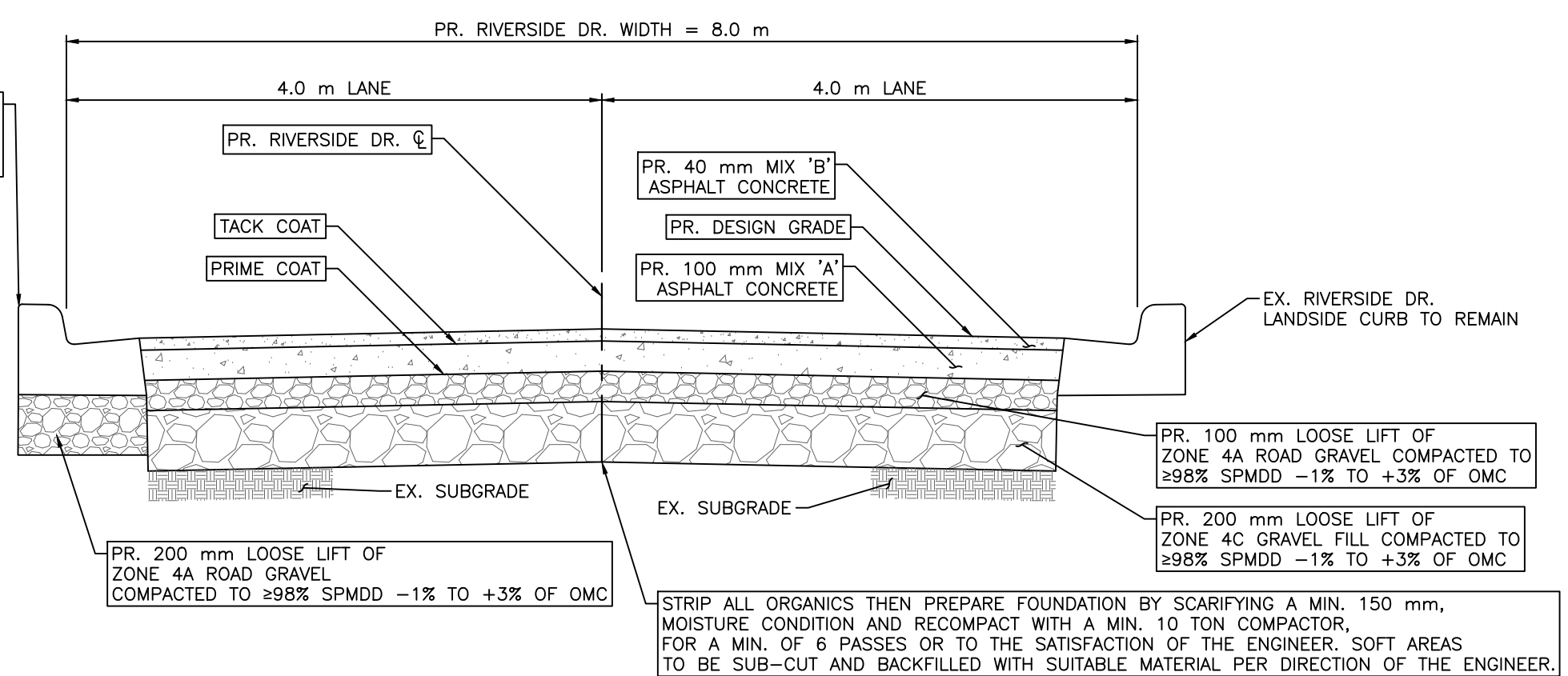
NO PARKING RB-51



SECTION REFERENCE		
DIMENSIONS (mm)		300 x 300
ENLARGEMENT FACTOR		2 X
COLOUR		
BACKGROUND	BORDER	MESSAGE / SYMBOL
WHITE	BLACK	RED / BLACK

Government of Alberta  
 Transportation

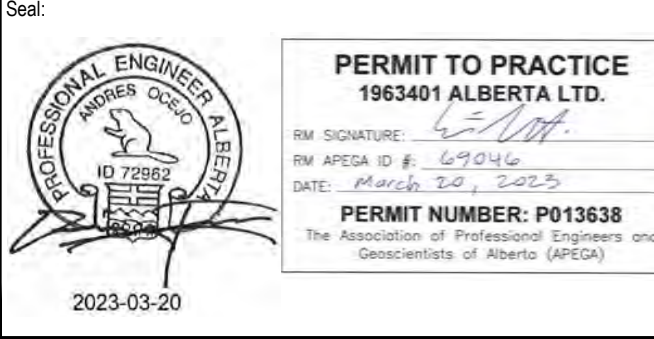
6 RB-51  
 N.T.S.



7 RIVERSIDE DR. – PR. ROAD STRUCTURE  
 N.T.S.

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Rev	Date	Des	Dwn	Chk	Description	Rev	Date	Des	Dwn	Chk	Description
0	23/03/20	AO	GM	CC/ES	ISSUED FOR TENDER						

Project No. 21.2311.002		Group CIVIL	
		Drawing No. C-507	
Rev. 0		TOWN OF DRUMHELLER DOWNTOWN DIKE DETAILS 7	