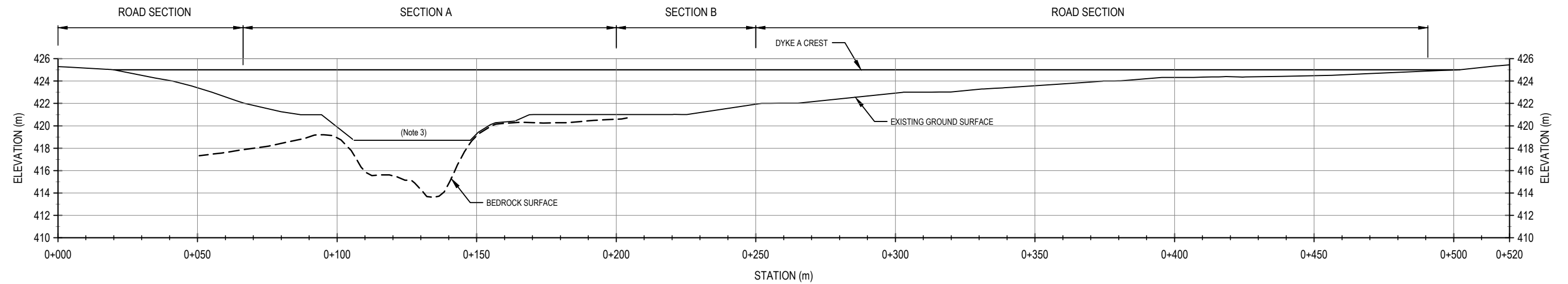
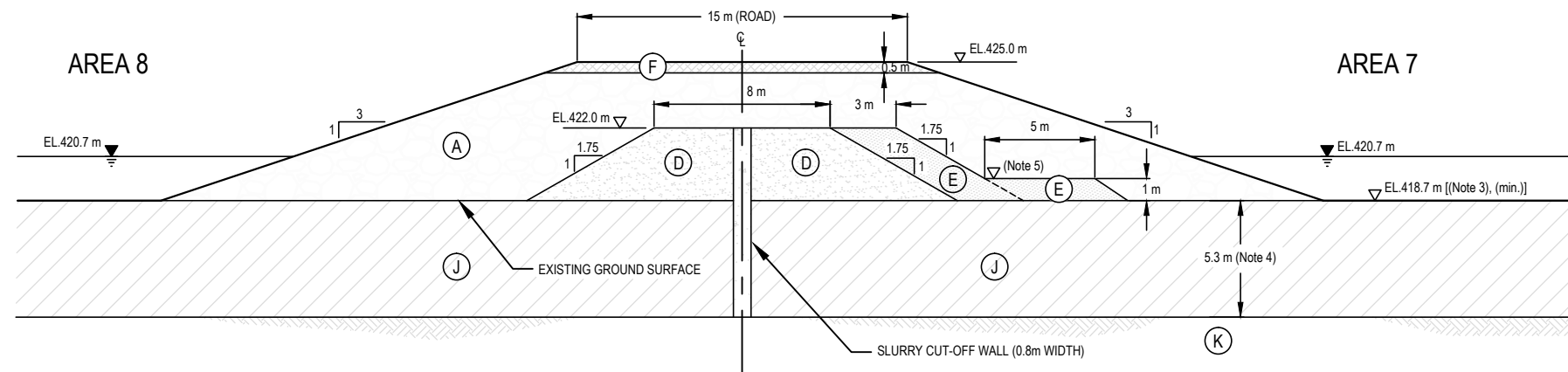


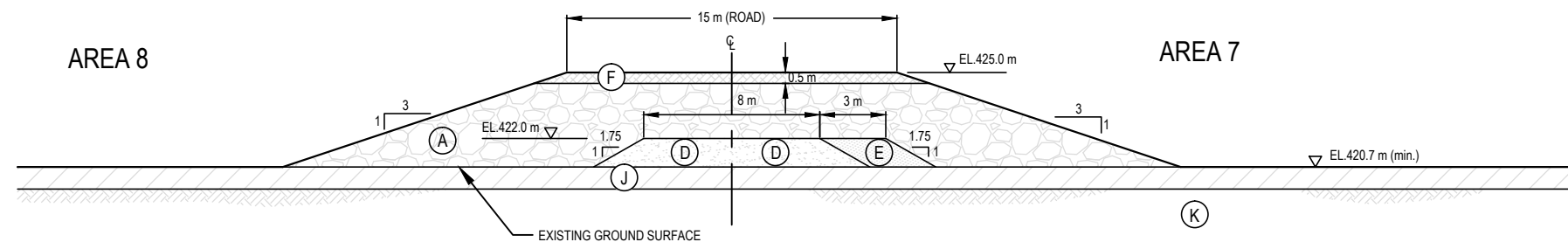
Q:\Edmonton\Drafting\CIVIL\3D\E14101143\Production Drawing\Updated Dyke Design Memo March 2012\E14101143_FIG 2-16_R1.dwg [FIGURE 2] March 27, 2012 - 4:01:42 pm (BY: GAMME, DON)



PROFILE - DYKE A



TYPICAL SECTION A - DYKE A (WATER RETENTION/DIVERSION DYKE)



TYPICAL SECTION B - DYKE A

- | | |
|-----------------------|--------------------|
| (A) MINE ROCK FILL | (G) RIP RAP |
| (B) TRANSITION | (H) FINE PK FILTER |
| (C) LINER BEDDING | (I) COARSE PK |
| (D) TILL FILL | (J) OVERBURDEN |
| (E) TILL FILTER | (K) BEDROCK |
| (F) ROAD SURFACE FILL | |

- NOTES
- DIMENSIONS ARE IN METERS UNLESS SPECIFIED OTHERWISE
 - PROFILE OF BEDROCK SURFACE ELEVATION ESTIMATED FROM AMEC 2004 GEOTECHNICAL SITE INVESTIGATION
 - BATHYMETRY INFORMATION TO BE VERIFIED
 - TOP OF BEDROCK DEPTH TO BE VERIFIED
 - BLANKET FILTER TO BE PLACED WHERE GROUND SURFACE IS EQUAL TO OR BELOW THE ELEVATION OF 420.0 m

STATUS
ISSUED FOR USE

CLIENT

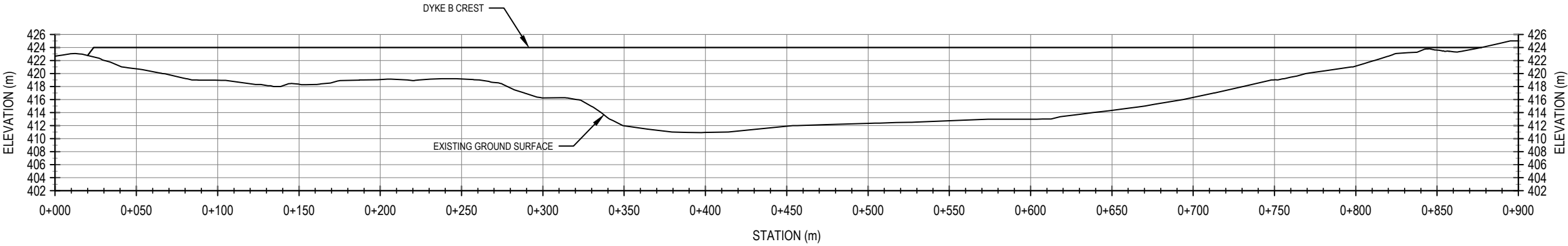


2012 GAHCHO KUÉ EIS SUPPLEMENT
NWT, CANADA

PROFILE AND TYPICAL SECTION
DYKE A

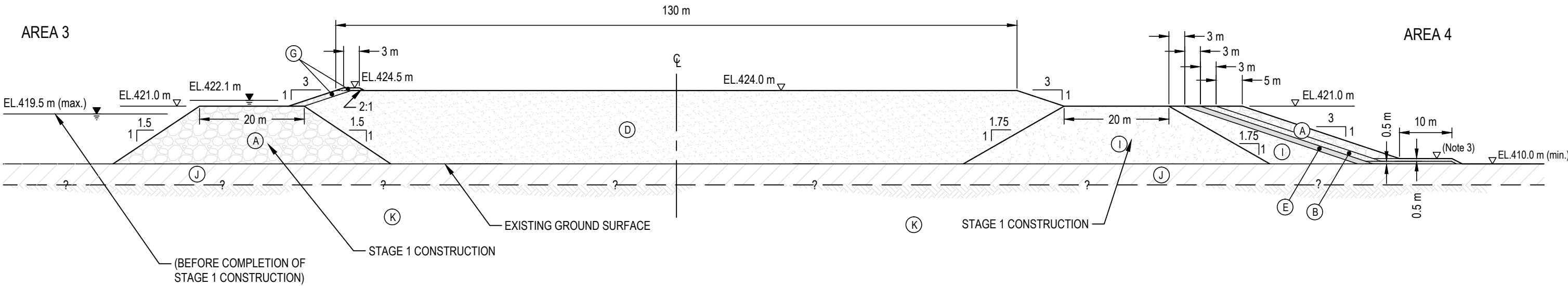
PROJECT NO. E14101143	DWN DRG	CKD GZ	REV 0	Figure 2
OFFICE EDM	DATE March 23, 2012			

Q:\Edmonton\Drafting\CIVIL\3D\E14101143\Production Drawing\Updated Dyke Design Memo March 2012\E14101143_FIG 2-16_R1.dwg [FIGURE 3] March 27, 2012 - 12:25:45 pm (BY: GAMMIE, DON)



0 100 m
Scale: 1: 3 000
VERTICAL EXAGGERATION = 4x

PROFILE - DYKE B



TYPICAL SECTION - DYKE B (INTERNAL WATER RETENTION DYKE)

(A) MINE ROCK FILL	(G) RIP RAP
(B) TRANSITION	(H) FINE PK FILTER
(C) LINER BEDDING	(I) COARSE PK
(D) TILL FILL	(J) OVERBURDEN
(E) TILL FILTER	(K) BEDROCK
(F) ROAD SURFACE FILL	

- NOTES
- DIMENSIONS ARE IN METERS UNLESS SPECIFIED OTHERWISE
 - OVERBURDEN THICKNESS TO BE DETERMINED IN FUTURE SITE INVESTIGATION
 - BLANKET FILTER TO BE PLACED WHERE GROUND SURFACE IS EQUAL TO OR BELOW THE ELEVATION OF 414.0 m

STATUS
ISSUED FOR USE

CLIENT



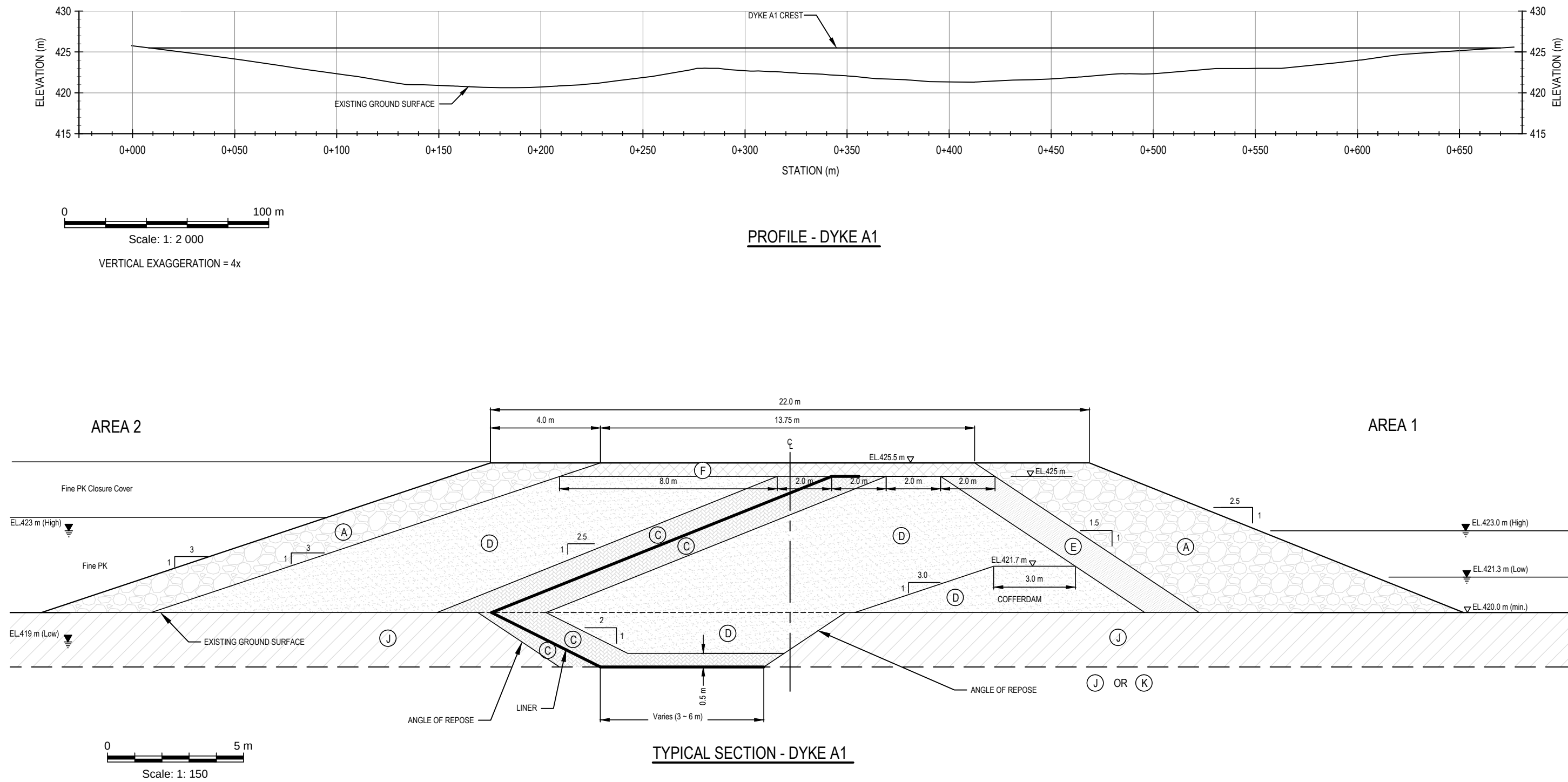
2012 GAHCHO KUÉ EIS SUPPLEMENT
NWT, CANADA

PROFILE AND TYPICAL SECTION
DYKE B

PROJECT NO. E14101143	DWN DRG	CKD GZ	REV 0
OFFICE EDM	DATE March 23, 2012		

Figure 3

Q:\Edmonton\Drafting\CIVIL\3D\E14101143\Production Drawing\Updated Dyke Design Memo March 2012\E14101143 FIG 2-16 R1.dwg [FIGURE 4] March 26, 2012 - 4:41:24 pm (BY: GAMME, DON)



(A) MINE ROCK FILL	(G) RIP RAP
(B) TRANSITION	(H) FINE PK FILTER
(C) LINER BEDDING	(I) COARSE PK
(D) TILL FILL	(J) OVERBURDEN
(E) TILL FILTER	(K) BEDROCK
(F) ROAD SURFACE FILL	

- NOTES**
- DIMENSIONS ARE IN METERS UNLESS SPECIFIED OTHERWISE
 - OVERBURDEN THICKNESS TO BE DETERMINED IN FUTURE SITE INVESTIGATION
 - KEY TRENCH EXCAVATED TO COMPETENT OVERBURDEN (SATURATED INORGANIC PERMAFROST WHEN AVAILABLE) OR TOP OF BEDROCK

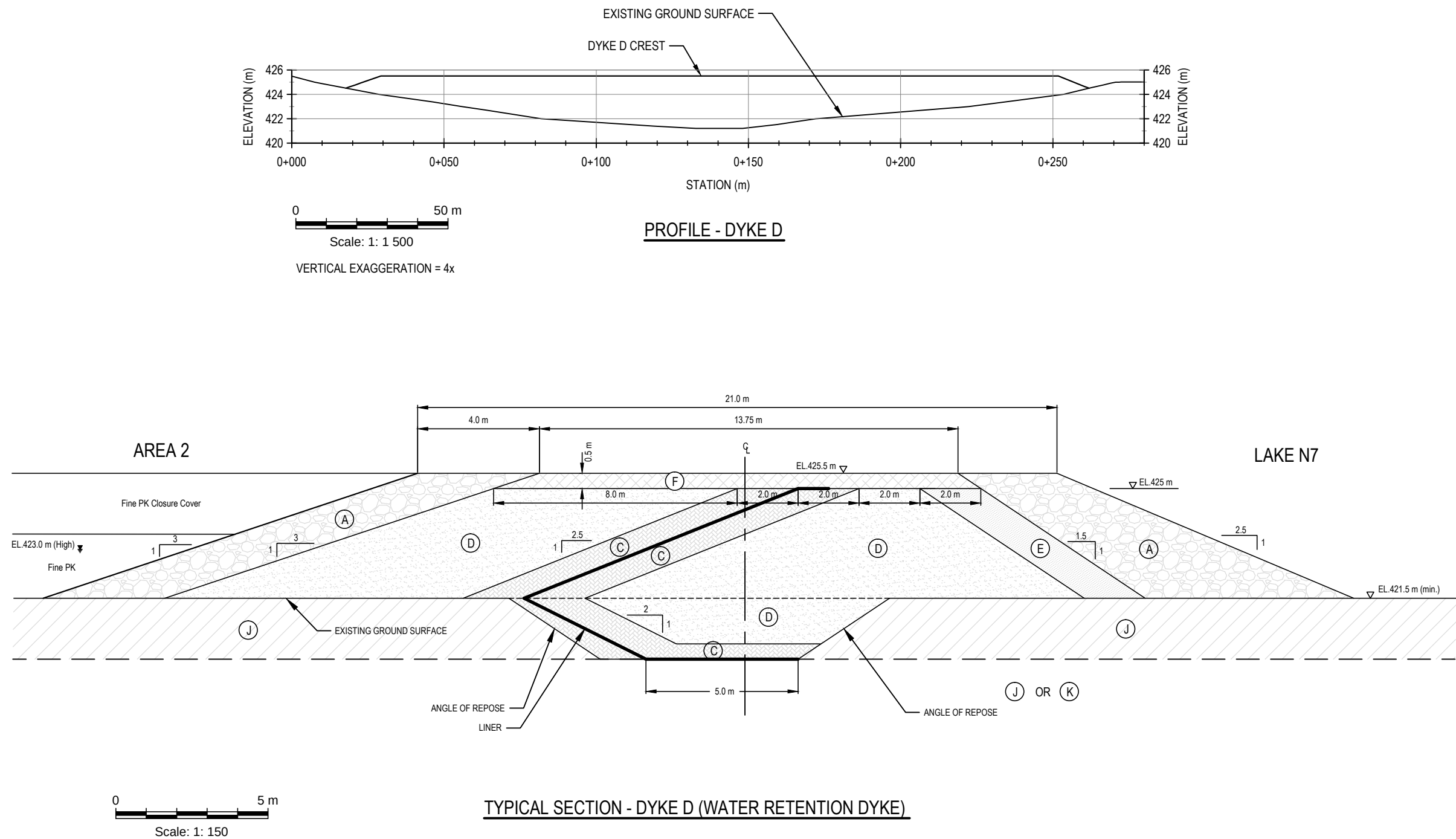
STATUS
ISSUED FOR USE

CLIENT



2012 GAHCHO KUÉ EIS SUPPLEMENT NWT, CANADA				
PROFILE AND TYPICAL SECTION DYKE A1				
PROJECT NO. E14101143	DWN DRG	CKD GZ	REV 0	Figure 4
OFFICE EDM	DATE March 23, 2012			

Q:\Edmonton\Drafting\CIVIL\3D\E141E1410143\Production Drawing\Updated Dyke Design Memo March 2012\E14101143 FIG 2-16_R1.dwg [FIGURE 5] March 26, 2012 - 4:42:36 pm (BY: GAMME, DON)



- | | |
|-----------------------|--------------------|
| (A) MINE ROCK FILL | (G) RIP RAP |
| (B) TRANSITION | (H) FINE PK FILTER |
| (C) LINER BEDDING | (I) COARSE PK |
| (D) TILL FILL | (J) OVERBURDEN |
| (E) TILL FILTER | (K) BEDROCK |
| (F) ROAD SURFACE FILL | |

- NOTES**
- DIMENSIONS ARE IN METERS UNLESS SPECIFIED OTHERWISE
 - OVERBURDEN THICKNESS TO BE DETERMINED IN FUTURE SITE INVESTIGATION
 - KEY TRENCH EXCAVATED TO COMPETENT OVERBURDEN (SATURATED INORGANIC PERMAFROST WHEN AVAILABLE) OR TOP OF BEDROCK

STATUS
ISSUED FOR USE

CLIENT



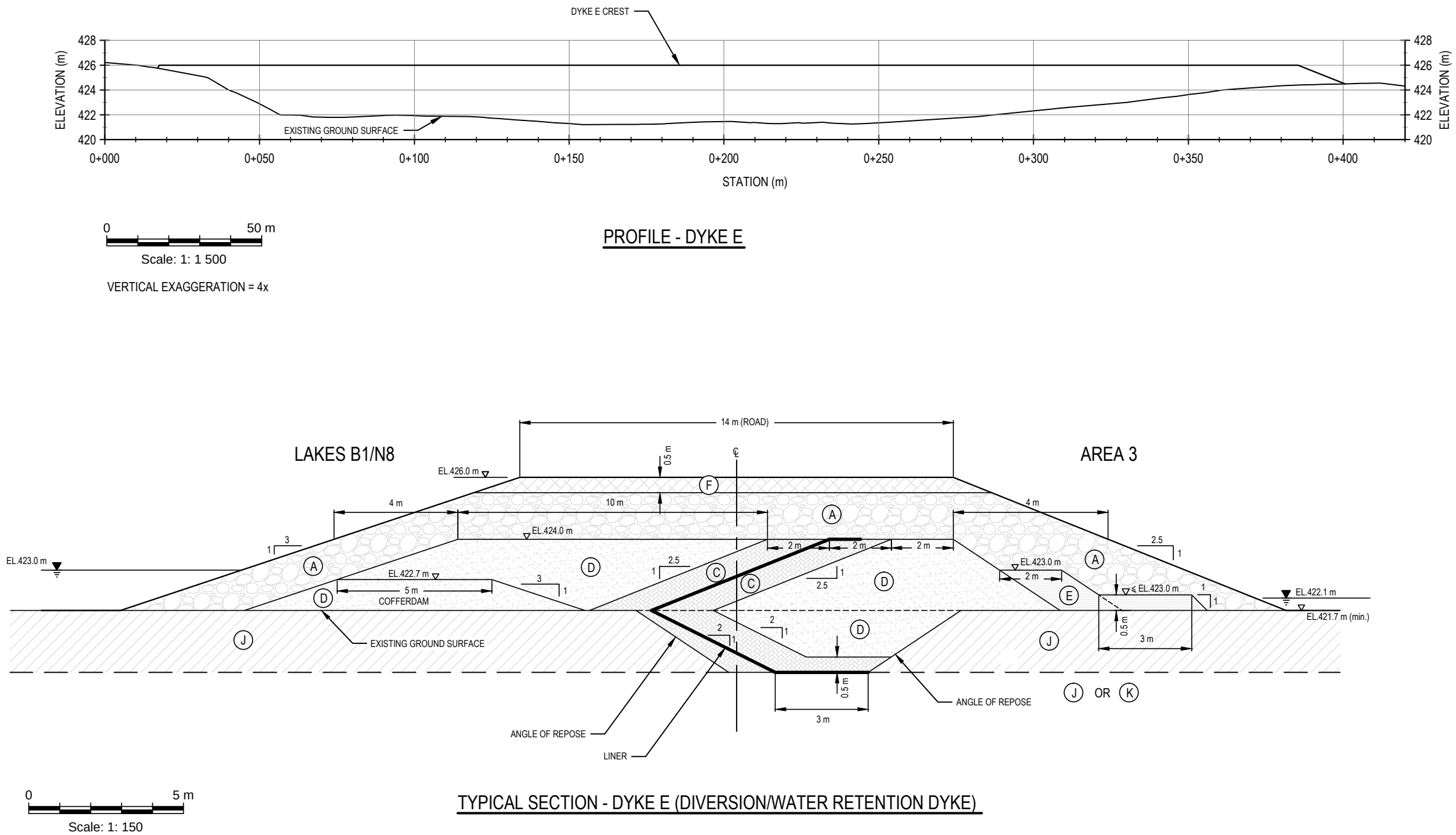
2012 GAHCHO KUÉ EIS SUPPLEMENT
NWT, CANADA

PROFILE AND TYPICAL SECTION
DYKE D

PROJECT NO. E14101143	DWN DRG	CKD GZ	REV 0
OFFICE EDM	DATE March 23, 2012		

Figure 5

Q:\Edmonton\Drafting\CIVIL\3D\E141\14101143\Production Drawing\Updated Dyke Design Memo March 2012\E14101143_FIG 2-16_R1.dwg [FIGURE 6] March 27, 2012 - 12:24:51 pm (BY: GAMMIE, DON)



STATUS
ISSUED FOR USE

CLIENT



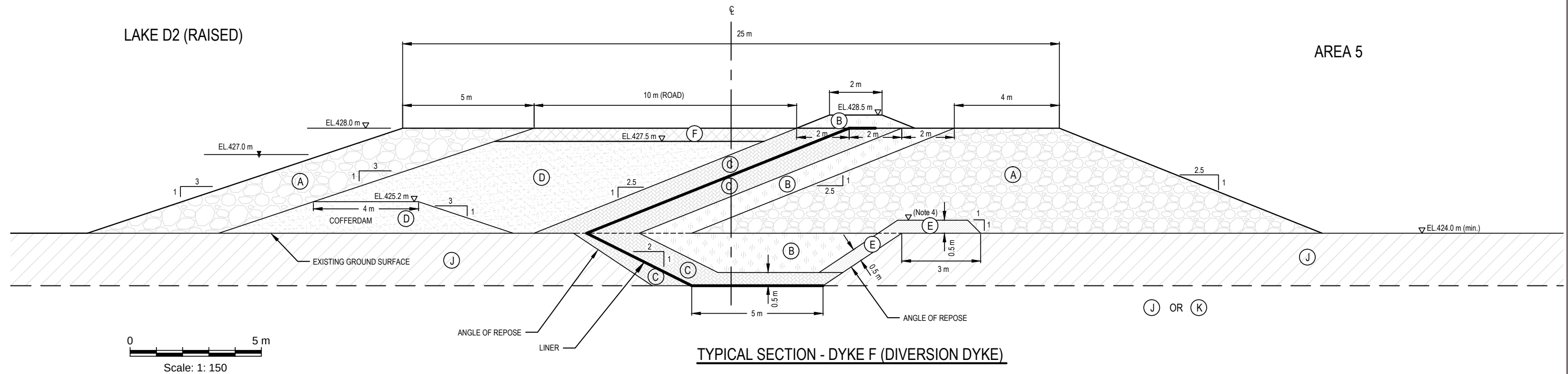
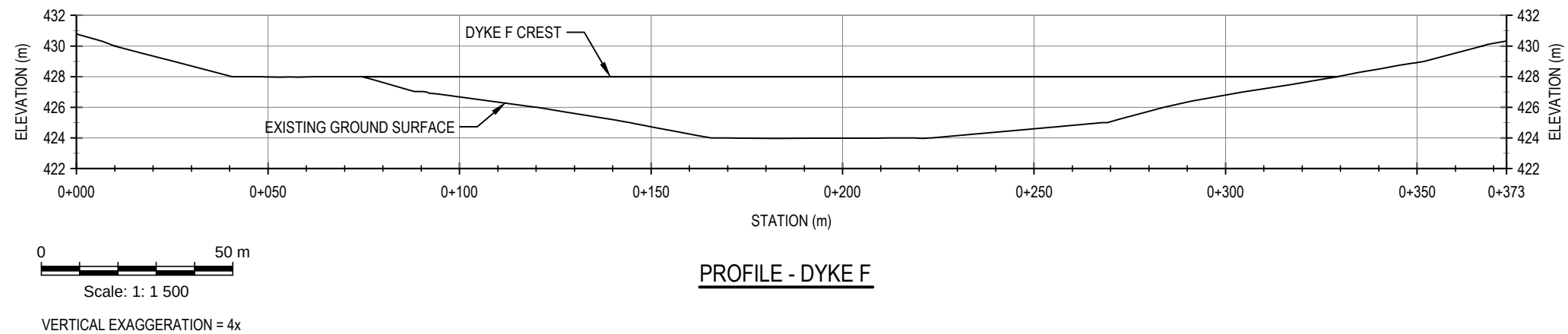
2012 GAHCHO KUÉ EIS SUPPLEMENT
NWT, CANADA

PROFILE AND TYPICAL SECTION
DYKE E

PROJECT NO. E14101143	DWN DRG	CKD GZ	REV 0
OFFICE EDM	DATE March 23, 2012		

Figure 6

Q:\Edmonton\Drafting\CIVIL\3D\E141\1410143\Production Drawing\Updated Dyke Design Memo March 2012\E1410143 FIG 2-16 R1.dwg [FIGURE 7] March 26, 2012 - 4:54:58 pm (BY: GAMME, DON)



- | | |
|-----------------------|--------------------|
| (A) MINE ROCK FILL | (G) RIP RAP |
| (B) TRANSITION | (H) FINE PK FILTER |
| (C) LINER BEDDING | (I) COARSE PK |
| (D) TILL FILL | (J) OVERBURDEN |
| (E) TILL FILTER | (K) BEDROCK |
| (F) ROAD SURFACE FILL | |

- NOTES
- DIMENSIONS ARE IN METERS UNLESS SPECIFIED OTHERWISE
 - OVERBURDEN THICKNESS TO BE DETERMINED IN FUTURE SITE INVESTIGATION
 - KEY TRENCH EXCAVATED TO COMPETENT OVERBURDEN (SATURATED INORGANIC PERMAFROST WHEN AVAILABLE) OR TOP OF BEDROCK
 - BLANKET FILTER TO BE PLACED WHERE GROUND SURFACE IS EQUAL TO OR BELOW THE ELEVATION OF 426 m

STATUS
ISSUED FOR USE

CLIENT

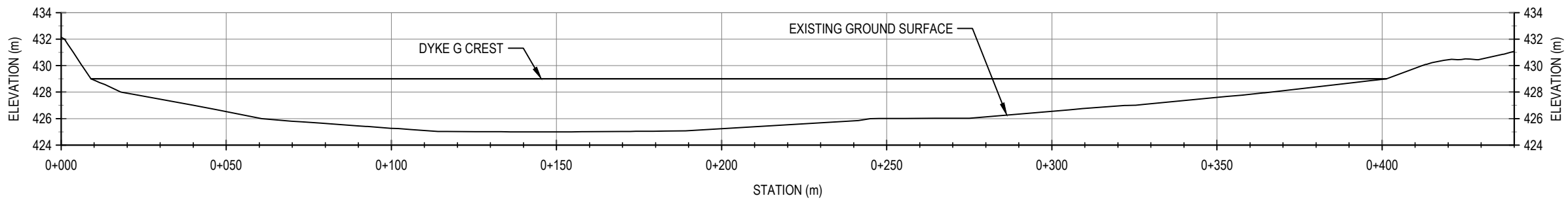


2012 GAHCHO KUÉ EIS SUPPLEMENT
NWT, CANADA

PROFILE AND TYPICAL SECTION
DYKE F

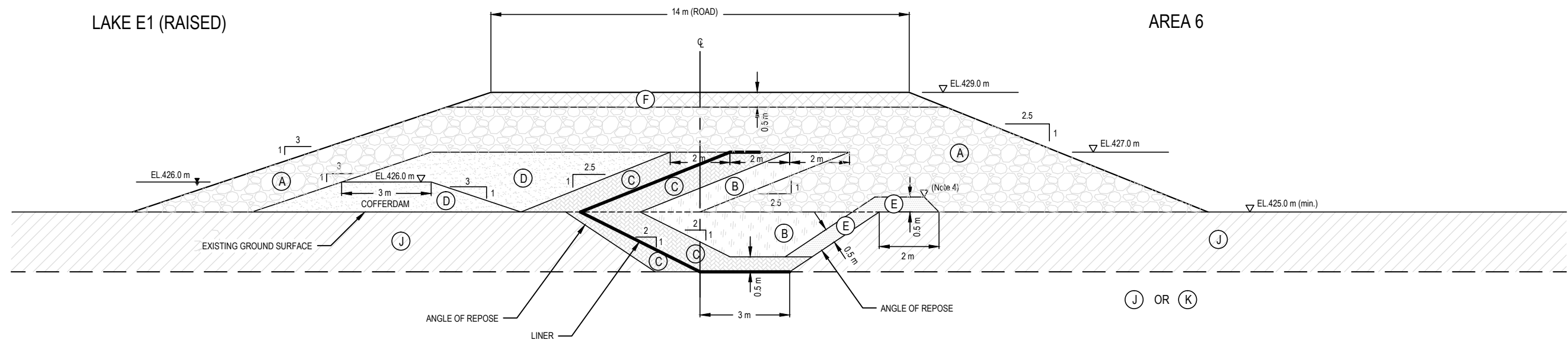
PROJECT NO. E14101143	DWN DRG	CKD GZ	REV 0
OFFICE EDM	DATE March 23, 2012		

Figure 7



0 50 m
Scale: 1: 1 500
VERTICAL EXAGGERATION = 4x

PROFILE - DYKE G



0 5 m
Scale: 1: 150

TYPICAL SECTION - DYKE G (DIVERSION DYKE)

- | | |
|-----------------------|--------------------|
| (A) MINE ROCK FILL | (G) RIP RAP |
| (B) TRANSITION | (H) FINE PK FILTER |
| (C) LINER BEDDING | (I) COARSE PK |
| (D) TILL FILL | (J) OVERBURDEN |
| (E) TILL FILTER | (K) BEDROCK |
| (F) ROAD SURFACE FILL | |

- NOTES
- DIMENSIONS ARE IN METERS UNLESS SPECIFIED OTHERWISE
 - OVERBURDEN THICKNESS TO BE DETERMINED IN FUTURE SITE INVESTIGATION
 - KEY TRENCH EXCAVATED TO COMPETENT OVERBURDEN (SATURATED INORGANIC PERMAFROST WHEN AVAILABLE) OR TOP OF BEDROCK
 - BLANKET FILTER TO BE PLACED WHERE GROUND SURFACE IS EQUAL TO OR BELOW THE ELEVATION OF 426.0 m

STATUS
ISSUED FOR USE

CLIENT



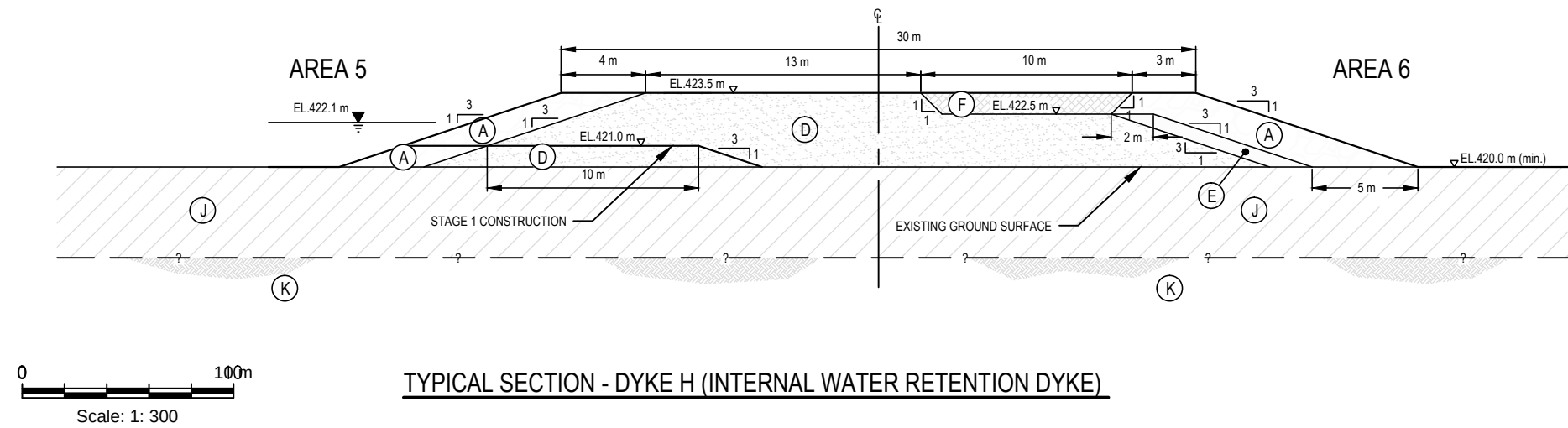
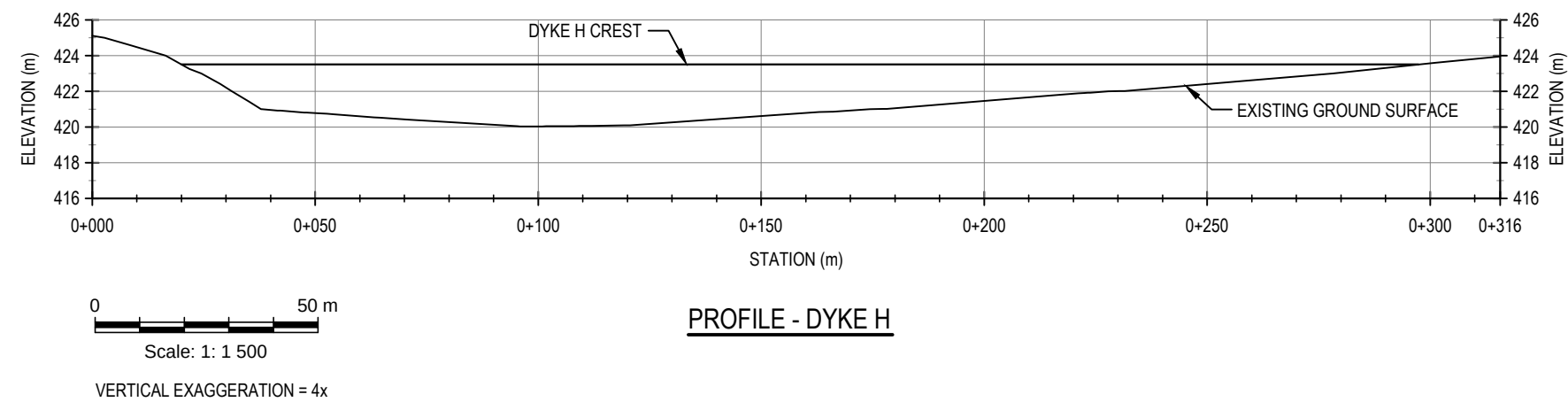
2012 GAHCHO KUÉ EIS SUPPLEMENT
NWT, CANADA

PROFILE AND TYPICAL SECTION
DYKE G

PROJECT NO. E14101143	DWN DRG	CKD GZ	REV 0
OFFICE EDM	DATE March 23, 2012		

Figure 8

Q:\Edmonton\Drafting\Civil\3D\E14101143\Production Drawing\Updated Dyke Design Memo March 2012\E14101143_FIG 2-16_R1.dwg [FIGURE 9] March 27, 2012 - 12:22:19 pm (BY: GAMMIE, DON)



- | | |
|-----------------------|--------------------|
| (A) MINE ROCK FILL | (G) RIP RAP |
| (B) TRANSITION | (H) FINE PK FILTER |
| (C) LINER BEDDING | (I) COARSE PK |
| (D) TILL FILL | (J) OVERBURDEN |
| (E) TILL FILTER | (K) BEDROCK |
| (F) ROAD SURFACE FILL | |

- NOTES**
- DIMENSIONS ARE IN METERS UNLESS SPECIFIED OTHERWISE
 - OVERBURDEN THICKNESS TO BE DETERMINED IN FUTURE SITE INVESTIGATION

STATUS
ISSUED FOR USE

CLIENT

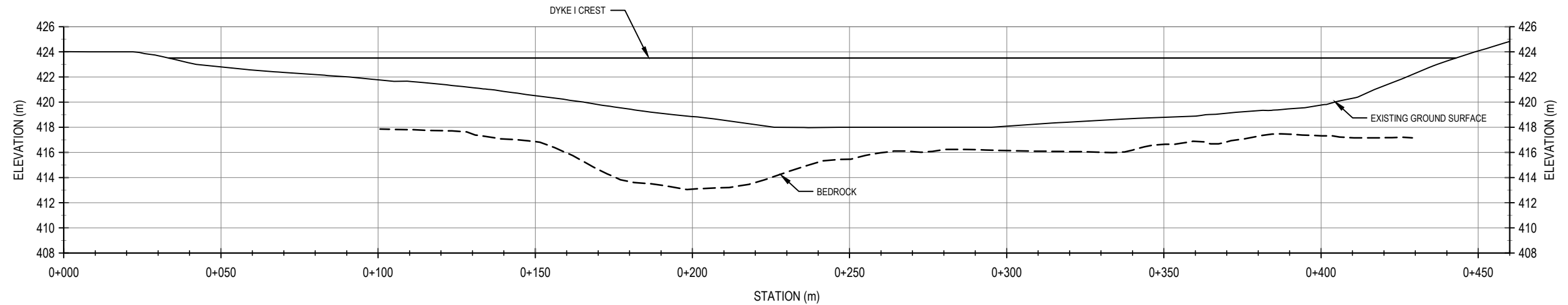


2012 GAHCHO KUÉ EIS SUPPLEMENT
NWT, CANADA

PROFILE AND TYPICAL SECTION
DYKE H

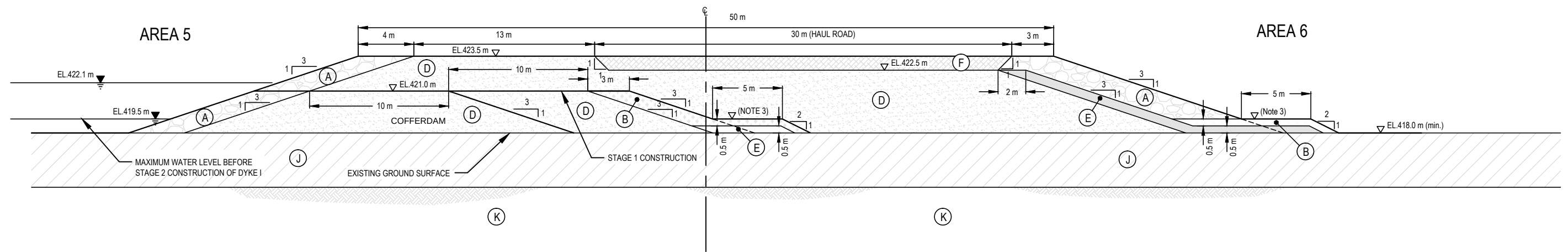
PROJECT NO. E14101143	DWN DRG	CKD GZ	REV 0
OFFICE EDM	DATE March 23, 2012		

Figure 9



0 50 m
Scale: 1: 1 500
VERTICAL EXAGGERATION = 4x

PROFILE - DYKE I



0 10 m
Scale: 1: 300

TYPICAL SECTION - DYKE I (INTERNAL WATER RETENTION DYKE)

- | | |
|-----------------------|--------------------|
| (A) MINE ROCK FILL | (G) RIP RAP |
| (B) TRANSITION | (H) FINE PK FILTER |
| (C) LINER BEDDING | (I) COARSE PK |
| (D) TILL FILL | (J) OVERBURDEN |
| (E) TILL FILTER | (K) BEDROCK |
| (F) ROAD SURFACE FILL | |

- NOTES
- DIMENSIONS ARE IN METERS UNLESS SPECIFIED OTHERWISE
 - PROFILE OF BEDROCK SURFACE ELEVATION ESTIMATED FROM AMEC 2004 GEOTECHNICAL SITE INVESTIGATION
 - BLANKET FILTER TO BE PLACED WHERE GROUND SURFACE IS EQUAL TO OR BELOW THE ELEVATION OF 420.0 m

STATUS
ISSUED FOR USE

CLIENT



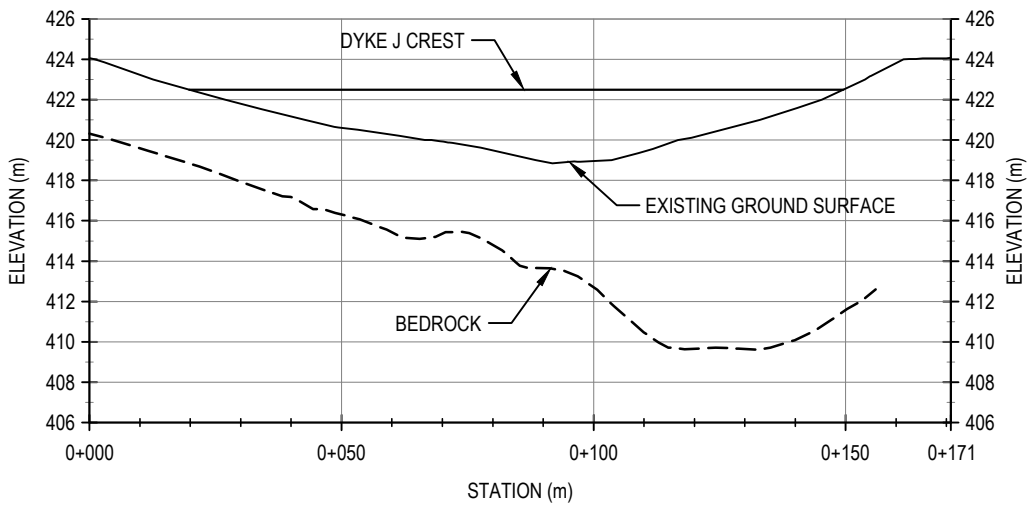
2012 GAHCHO KUÉ EIS SUPPLEMENT
NWT, CANADA

PROFILE AND TYPICAL SECTION
DYKE I

PROJECT NO. E14101143	DWN DRG	CKD GZ	REV 0
OFFICE EDM	DATE March 23, 2012		

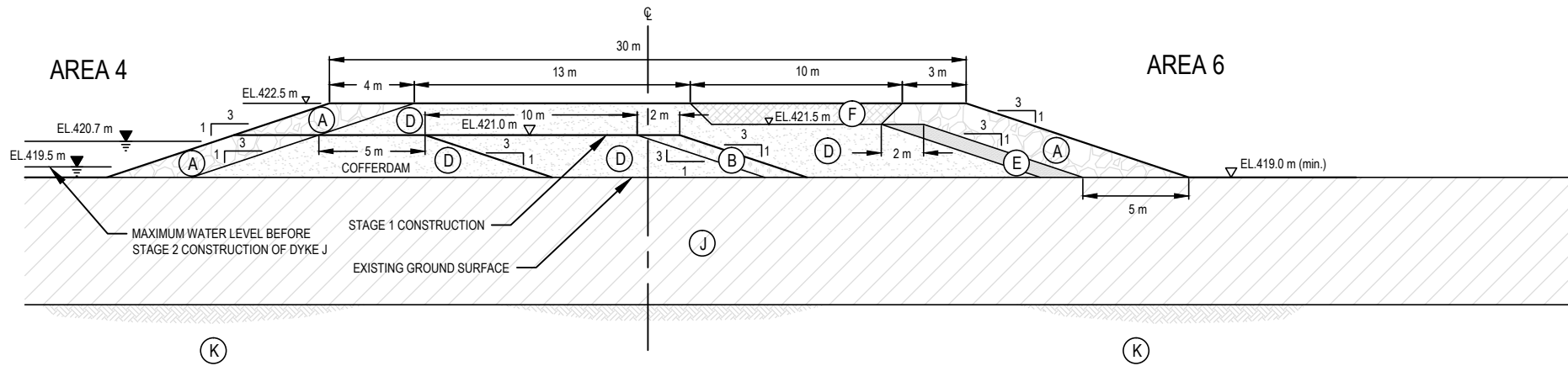
Figure 10

Q:\Edmonton\Drafting\CIVIL\3D\E14101143\Production Drawing\Updated Dyke Design Memo March 2012\E14101143_FIG 2-16_R1.dwg [FIGURE 11] March 26, 2012 - 5:01:30 pm (BY: GAMMIE, DON)



0 50 m
Scale: 1: 1 500
VERTICAL EXAGGERATION = 4x

PROFILE - DYKE J



0 10 m
Scale: 1: 300

TYPICAL SECTION - DYKE J (INTERNAL WATER RETENTION DYKE)

- | | |
|-----------------------|--------------------|
| (A) MINE ROCK FILL | (G) RIP RAP |
| (B) TRANSITION | (H) FINE PK FILTER |
| (C) LINER BEDDING | (I) COARSE PK |
| (D) TILL FILL | (J) OVERBURDEN |
| (E) TILL FILTER | (K) BEDROCK |
| (F) ROAD SURFACE FILL | |

- NOTES
- DIMENSIONS ARE IN METERS UNLESS SPECIFIED OTHERWISE
 - PROFILE OF BEDROCK SURFACE ELEVATION ESTIMATED FROM AMEC 2004 GEOTECHNICAL SITE INVESTIGATION

STATUS
ISSUED FOR USE

CLIENT



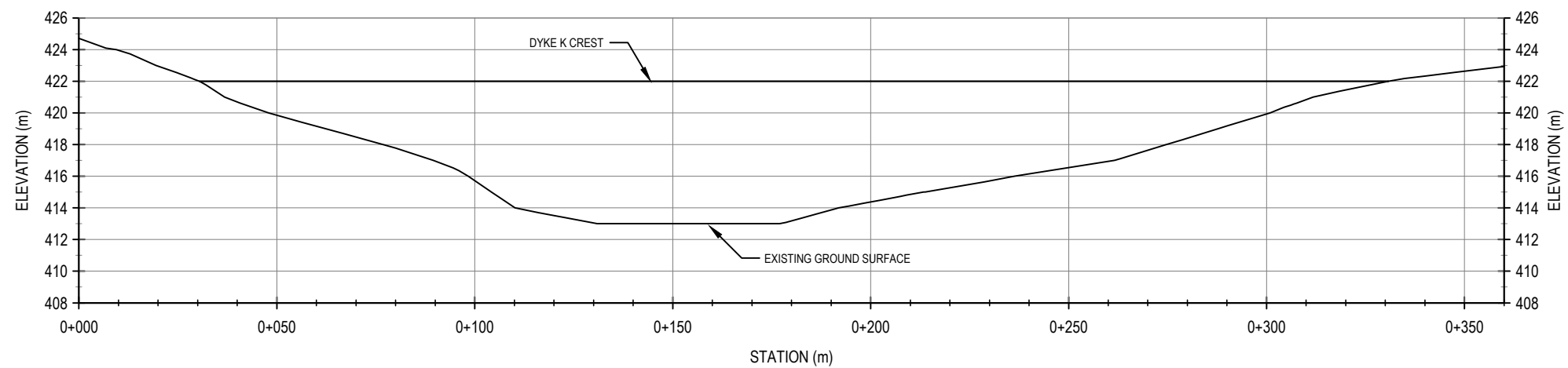
2012 GAHCHO KUÉ EIS SUPPLEMENT
NWT, CANADA

PROFILE AND TYPICAL SECTION
DYKE J

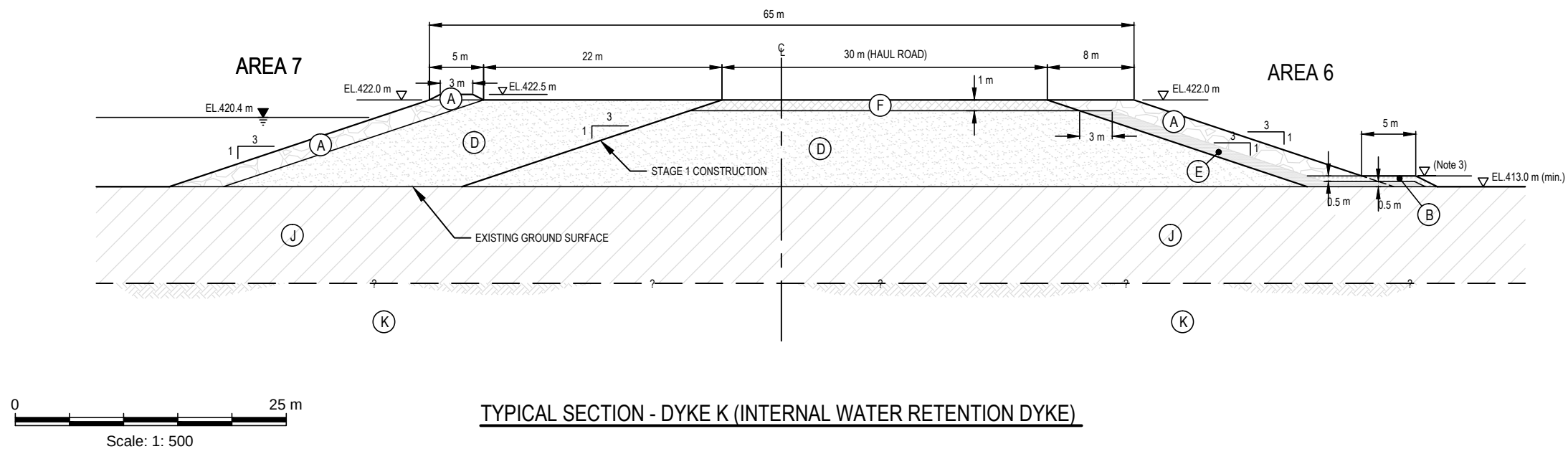
PROJECT NO. E14101143	DWN DRG	CKD GZ	REV 0
OFFICE EDM	DATE March 23, 2012		

Figure 11

Q:\Edmonton\Drafting\CIVIL\3D\E141E1410143\Production Drawing\Updated Dyke Design Memo March 2012\E14101143_FIG 2-16_R1.dwg [FIGURE 12] March 27, 2012 - 12:20:21 pm (BY: GAMMIE, DON)



PROFILE - DYKE K



TYPICAL SECTION - DYKE K (INTERNAL WATER RETENTION DYKE)

- | | |
|-----------------------|--------------------|
| (A) MINE ROCK FILL | (G) RIP RAP |
| (B) TRANSITION | (H) FINE PK FILTER |
| (C) LINER BEDDING | (I) COARSE PK |
| (D) TILL FILL | (J) OVERBURDEN |
| (E) TILL FILTER | (K) BEDROCK |
| (F) ROAD SURFACE FILL | |

- NOTES
- DIMENSIONS ARE IN METERS UNLESS SPECIFIED OTHERWISE
 - OVERBURDEN THICKNESS TO BE DETERMINED IN FUTURE SITE INVESTIGATION
 - BLANKET FILTER TO BE PLACED WHERE GROUND SURFACE IS EQUAL TO OR BELOW THE ELEVATION OF 416.0 m

STATUS
ISSUED FOR USE

CLIENT



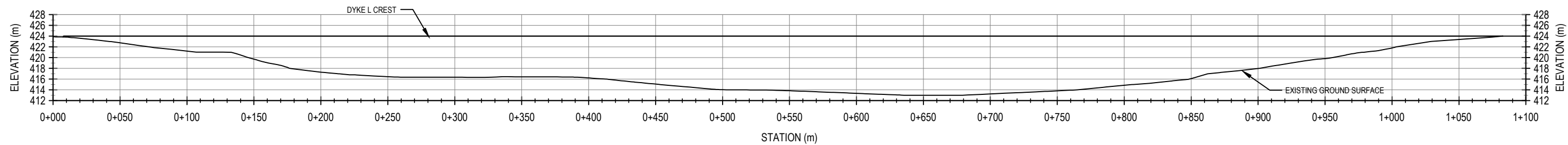
2012 GAHCHO KUÉ EIS SUPPLEMENT
NWT, CANADA

PROFILE AND TYPICAL SECTION
DYKE K

PROJECT NO. E14101143	DWN DRG	CKD GZ	REV 0
OFFICE EDM	DATE March 23, 2012		

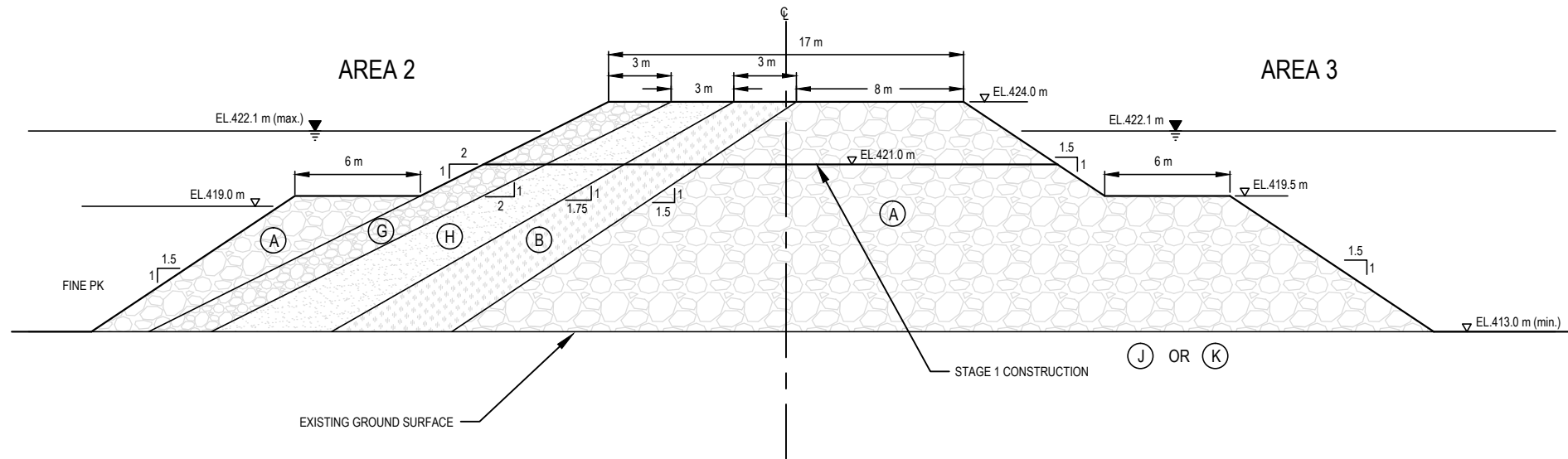
Figure 12

Q:\Edmonton\Drafting\CIVIL\3D\E14101143\Production Drawing\Updated Dyke Design Memo March 2012\E14101143_FIG 2-16_R1.dwg [FIGURE 13] March 27, 2012 - 12:19:06 pm (BY: GAMMIE, DON)



0 100 m
Scale: 1: 3 000
VERTICAL EXAGGERATION = 4x

PROFILE - DYKE L



0 10 m
Scale: 1: 300

TYPICAL SECTION - DYKE L (INTERNAL FILTER DYKE)

- | | |
|-----------------------|--------------------|
| (A) MINE ROCK FILL | (G) RIP RAP |
| (B) TRANSITION | (H) FINE PK FILTER |
| (C) LINER BEDDING | (I) COARSE PK |
| (D) TILL FILL | (J) OVERBURDEN |
| (E) TILL FILTER | (K) BEDROCK |
| (F) ROAD SURFACE FILL | |

NOTES

- DIMENSIONS ARE IN METERS UNLESS SPECIFIED OTHERWISE
- OVERBURDEN THICKNESS TO BE DETERMINED IN FUTURE SITE INVESTIGATION

STATUS
ISSUED FOR USE

CLIENT



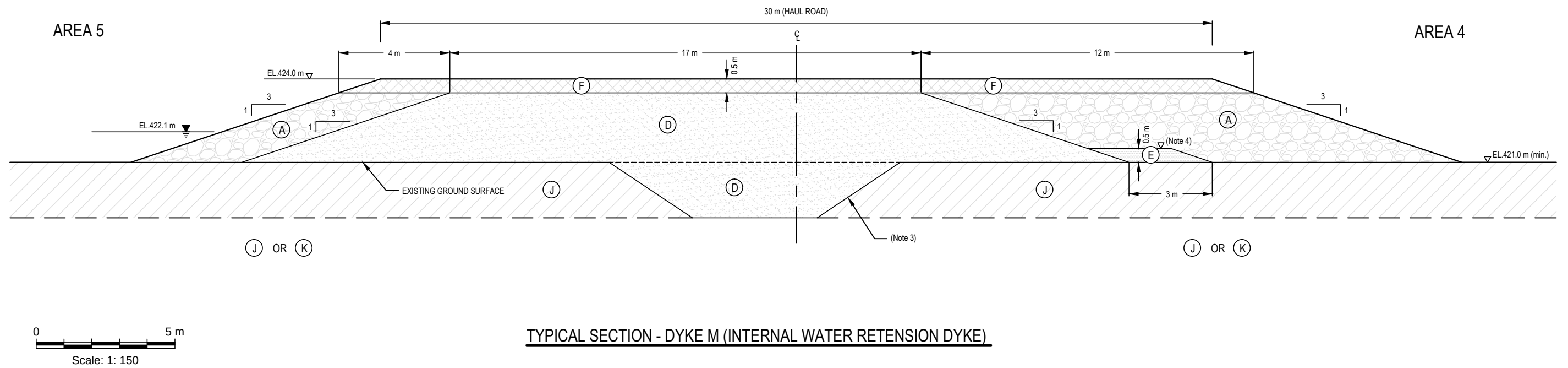
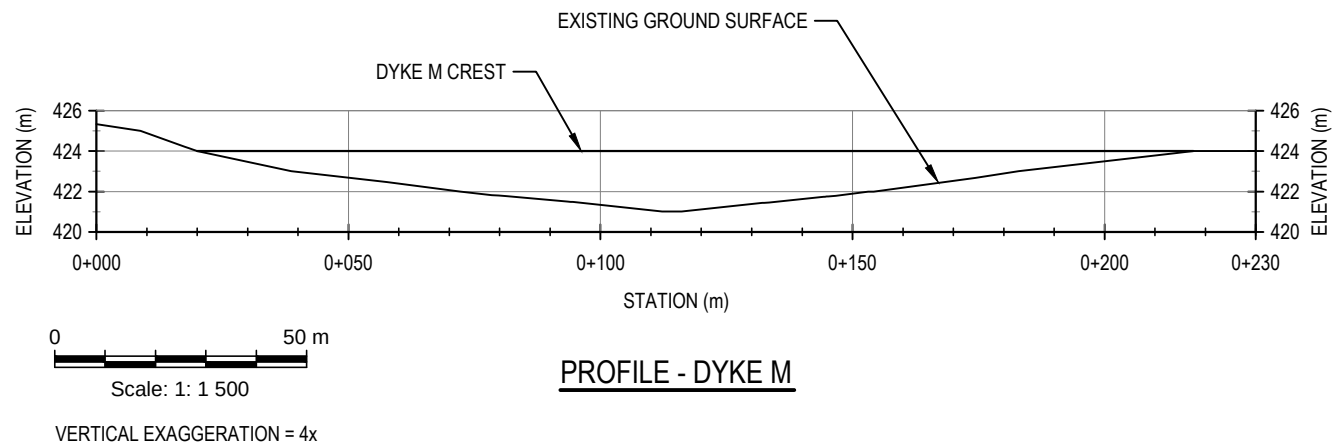
2012 GAHCHO KUÉ EIS SUPPLEMENT
NWT, CANADA

PROFILE AND TYPICAL SECTION
DYKE L

PROJECT NO. E14101143	DWN DRG	CKD GZ	REV 0
OFFICE EDM	DATE March 23, 2012		

Figure 13

Q:\Edmonton\Drafting\CIVIL\3D\E141\14101143\Production Drawing\Updated Dyke Design Memo March 2012\E14101143_FIG 2-16_R1.dwg [FIGURE 14] March 27, 2012 - 12:18:32 pm (BY: GAMMIE, DON)



- | | |
|-----------------------|--------------------|
| (A) MINE ROCK FILL | (G) RIP RAP |
| (B) TRANSITION | (H) FINE PK FILTER |
| (C) LINER BEDDING | (I) COARSE PK |
| (D) TILL FILL | (J) OVERBURDEN |
| (E) TILL FILTER | (K) BEDROCK |
| (F) ROAD SURFACE FILL | |

- NOTES**
- DIMENSIONS ARE IN METERS UNLESS SPECIFIED OTHERWISE
 - OVERBURDEN THICKNESS TO BE DETERMINED IN FUTURE SITE INVESTIGATION
 - REQUIREMENT AND DIMENSIONS OF KEY TRENCH DEPEND ON ACTUAL OVERBURDEN SOIL PROPERTIES
 - BLANKET FILTER TO BE PLACED WHERE GROUND SURFACE IS EQUAL TO OR BELOW THE ELEVATION OF 422.0 m

STATUS
ISSUED FOR USE

CLIENT



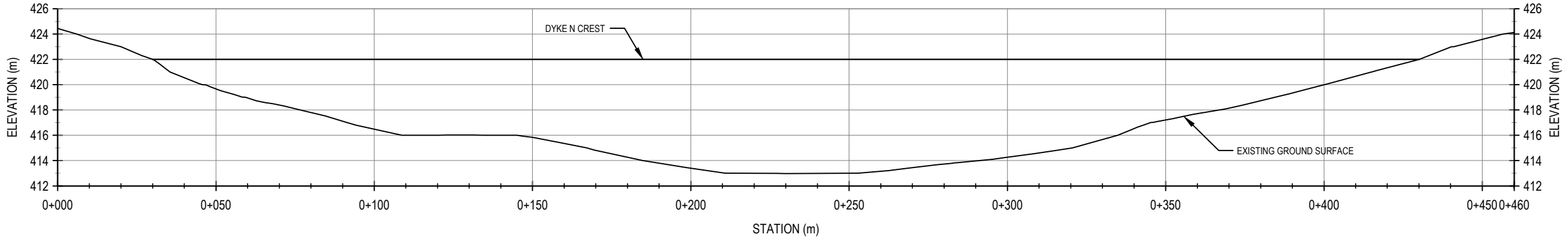
2012 GAHCHO KUÉ EIS SUPPLEMENT
NWT, CANADA

PROFILE AND TYPICAL SECTION
DYKE M

PROJECT NO. E14101143	DWN DRG	CKD GZ	REV 0
OFFICE EDM	DATE March 23, 2012		

Figure 14

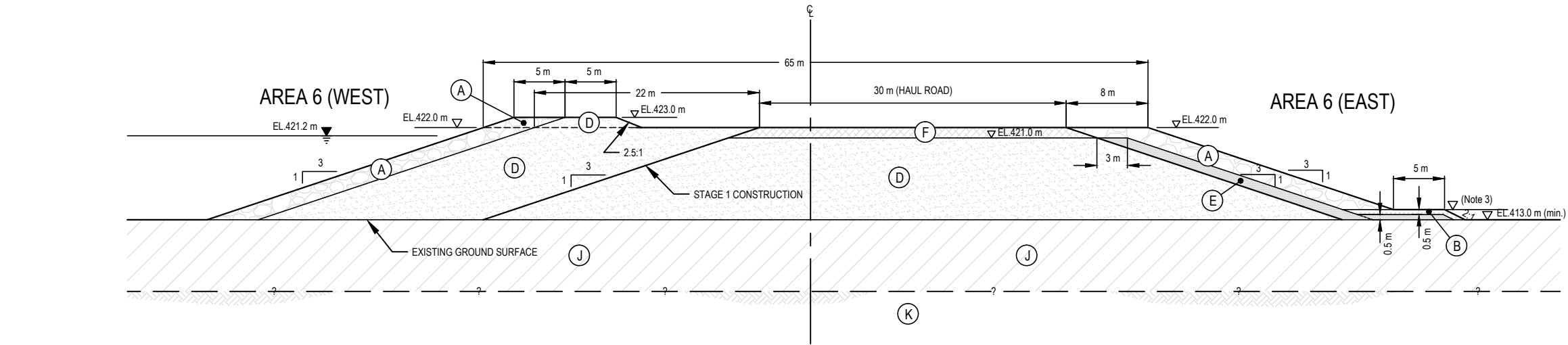
Q:\Edmonton\Drafting\CIVIL\3D\E141E1410143\Production Drawing\Updated Dyke Design Memo March 2012\E14101143_FIG 2-16_R1.dwg [FIGURE 15] March 27, 2012 - 12:17:56 pm (BY: GAMMIE, DON)



0 50 m
Scale: 1: 1 500

VERTICAL EXAGGERATION = 4x

PROFILE - DYKE N



0 25 m
Scale: 1: 500

TYPICAL SECTION - DYKE N (INTERNAL WATER RETENTION DYKE)

- | | |
|-----------------------|--------------------|
| (A) MINE ROCK FILL | (G) RIP RAP |
| (B) TRANSITION | (H) FINE PK FILTER |
| (C) LINER BEDDING | (I) COARSE PK |
| (D) TILL FILL | (J) OVERBURDEN |
| (E) TILL FILTER | (K) BEDROCK |
| (F) ROAD SURFACE FILL | |

NOTES

- DIMENSIONS ARE IN METERS UNLESS SPECIFIED OTHERWISE
- OVERBURDEN THICKNESS TO BE DETERMINED IN FUTURE SITE INVESTIGATION
- BLANKET FILTER TO BE PLACED WHERE GROUND SURFACE IS EQUAL TO OR BELOW THE ELEVATION OF 415.0 m

STATUS
ISSUED FOR USE

CLIENT



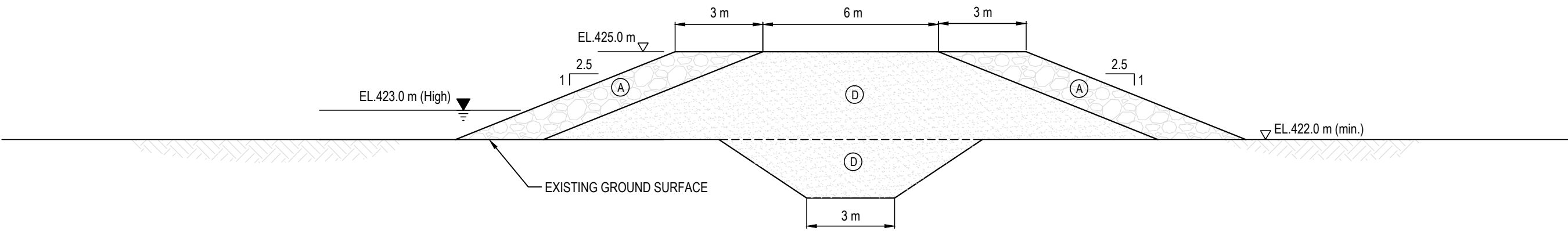
2012 GAHCHO KUÉ EIS SUPPLEMENT
NWT, CANADA

PROFILE AND TYPICAL SECTION
DYKE N

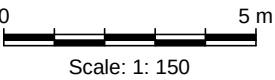
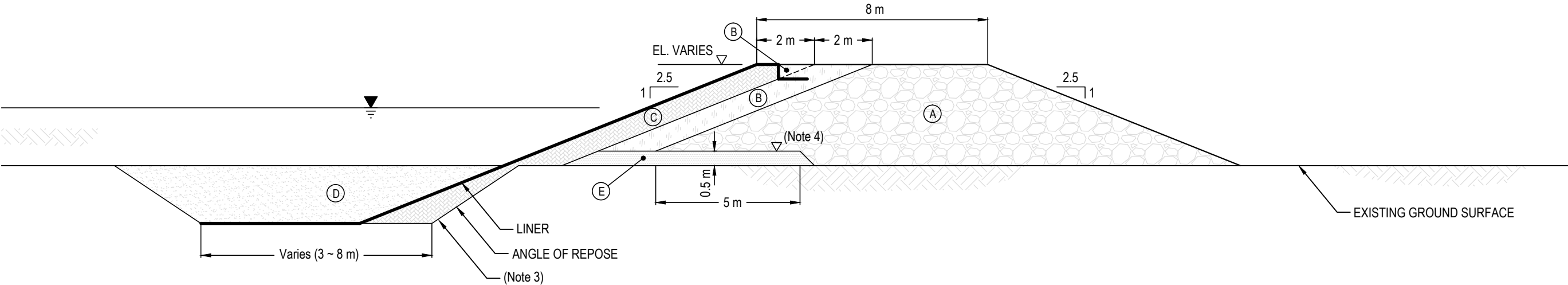
PROJECT NO. E14101143	DWN DRG	CKD GZ	REV 0
OFFICE EDM	DATE March 23, 2012		

Figure 15

Q:\Edmonton\Drafting\Civil\3D\14101143\Production Drawing\Updated Dyke Design Memo March 2012\14101143 FIG 2-16 R1.dwg [FIGURE 16] March 27, 2012 - 4:01:14 pm (BY: GAMMIE, DON)



(a) TYPICAL SECTION FOR AREA 1 PERIMETER BERMS



(b) TYPICAL SECTION FOR WATER COLLECTION POND BERMS

(A) MINE ROCK FILL	(G) RIP RAP
(B) TRANSITION	(H) FINE PK FILTER
(C) LINER BEDDING	(I) COARSE PK
(D) TILL FILL	(J) OVERBURDEN
(E) TILL FILTER	(K) BEDROCK
(F) ROAD SURFACE FILL	

- NOTES
- DIMENSIONS ARE IN METERS UNLESS SPECIFIED OTHERWISE
 - OVERBURDEN THICKNESS TO BE DETERMINED IN FUTURE SITE INVESTIGATION
 - DEPTH OF KEY TRENCH DEPENDS ON OVERBURDEN SOIL PROPERTIES
 - MAXIMUM ELEVATION OF BLANKET FILTER VARIES FOR DIFFERENT WATER COLLECTION POND BERMS

STATUS
ISSUED FOR USE

CLIENT



2012 GAHCHO KUÉ EIS SUPPLEMENT
NWT, CANADA

TYPICAL SECTIONS FOR BERMS

PROJECT NO. E14101143	DWN DRG	CKD GZ	REV 0
OFFICE EDM	DATE March 23, 2012		

Figure 16