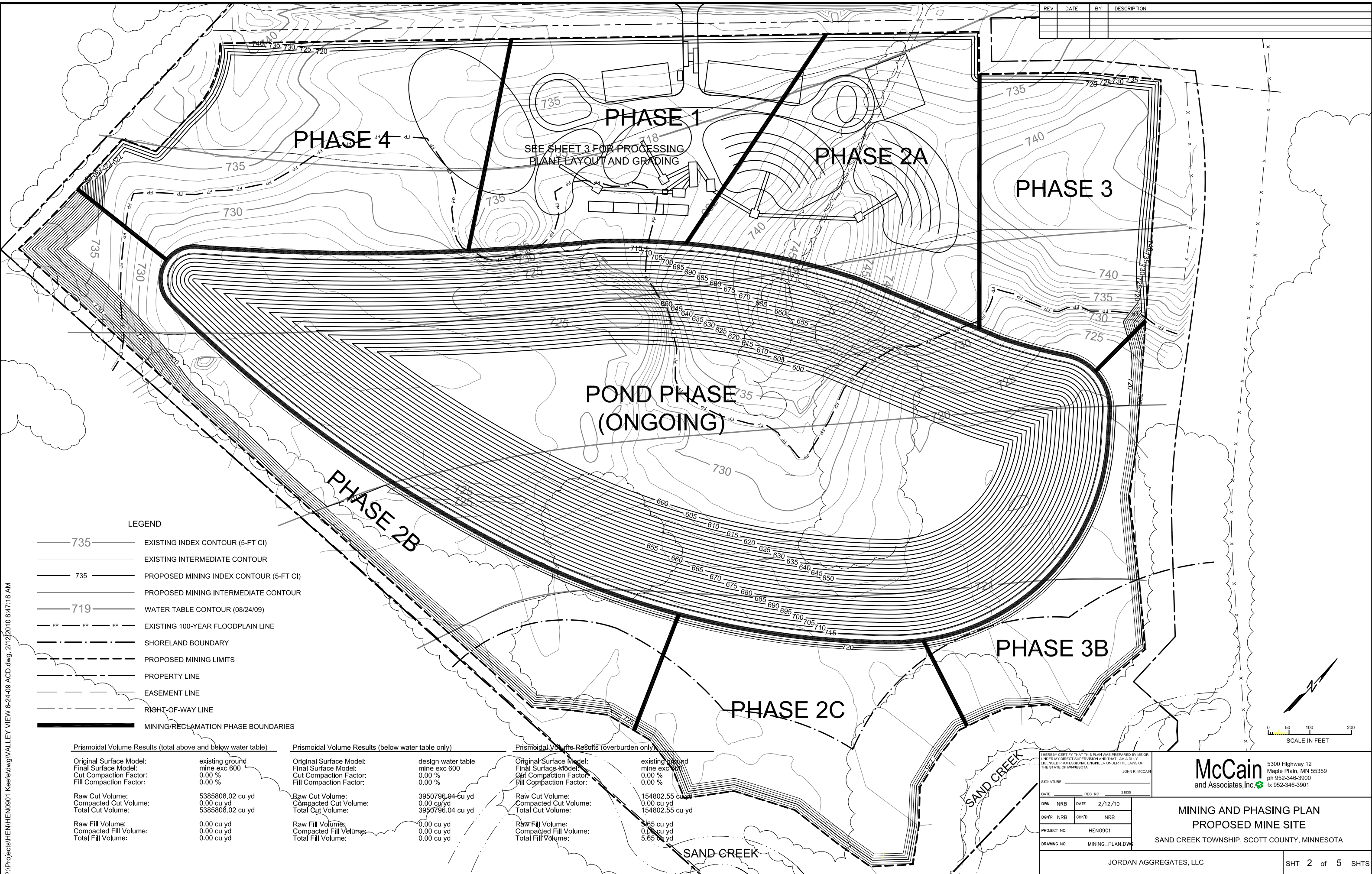


REV	DATE	BY	DESCRIPTION



SEE SHEET 3 FOR PROCESSING
PLANT LAYOUT AND GRADING

LEGEND

- 735 — EXISTING INDEX CONTOUR (5-FT CI)
- — — EXISTING INTERMEDIATE CONTOUR
- 735 — PROPOSED MINING INDEX CONTOUR (5-FT CI)
- — — PROPOSED MINING INTERMEDIATE CONTOUR
- 719 — WATER TABLE CONTOUR (08/24/09)
- FP- -FP- -FP- EXISTING 100-YEAR FLOODPLAIN LINE
- - - SHORELAND BOUNDARY
- - - PROPOSED MINING LIMITS
- - - PROPERTY LINE
- - - EASEMENT LINE
- - - RIGHT-OF-WAY LINE
- - - MINING/RECLAMATION PHASE BOUNDARIES

Prismoidal Volume Results (total above and below water table)

Original Surface Model:	existing ground
Final Surface Model:	mine exc 600
Cut Compaction Factor:	0.00 %
Fill Compaction Factor:	0.00 %
Raw Cut Volume:	5385808.02 cu yd
Compacted Cut Volume:	0.00 cu yd
Total Cut Volume:	5385808.02 cu yd
Raw Fill Volume:	0.00 cu yd
Compacted Fill Volume:	0.00 cu yd
Total Fill Volume:	0.00 cu yd

Prismoidal Volume Results (below water table only)

Original Surface Model:	design water table
Final Surface Model:	mine exc 600
Cut Compaction Factor:	0.00 %
Fill Compaction Factor:	0.00 %
Raw Cut Volume:	3950796.04 cu yd
Compacted Cut Volume:	0.00 cu yd
Total Cut Volume:	3950796.04 cu yd
Raw Fill Volume:	0.00 cu yd
Compacted Fill Volume:	0.00 cu yd
Total Fill Volume:	0.00 cu yd

Prismoidal Volume Results (overburden only)

Original Surface Model:	existing ground
Final Surface Model:	mine exc 600
Cut Compaction Factor:	0.00 %
Fill Compaction Factor:	0.00 %
Raw Cut Volume:	154802.55 cu yd
Compacted Cut Volume:	0.00 cu yd
Total Cut Volume:	154802.55 cu yd
Raw Fill Volume:	5.65 cu yd
Compacted Fill Volume:	0.00 cu yd
Total Fill Volume:	5.65 cu yd

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
JOHN R. MCCAIN

McCain and Associates, Inc.
5300 Highway 12
Maple Plain, MN 55359
ph 952-346-3900
fx 952-346-3901

DATE	REG. NO.	21835
DWN	NRB	DATE 2/12/10
DQWR	NRB	CHK'D NRB
PROJECT NO.	HEN0901	
DRAWING NO.	MINING_PLAN.DWG	

**MINING AND PHASING PLAN
PROPOSED MINE SITE**
SAND CREEK TOWNSHIP, SCOTT COUNTY, MINNESOTA

P:\Projects\HENHEN0901_Keele\dwg\VALLEY VIEW 6-24-09 ACD.dwg, 2/12/2010 8:47:18 AM