



Millimeters  
Scale For Microfilming  
Inches

0 35FT 70FT 140FT  
SCALE: 1"=70'

**LEGEND**

- EXISTING GRADE MAJOR CONTOUR
- - - EXISTING GRADE MINOR CONTOUR
- PROPOSED GRADE MAJOR CONTOUR
- - - PROPOSED GRADE MINOR CONTOUR
- PROPOSED SUBSTATION BASELINE
- CHAINLINK FENCE
- SILT FENCE
- PROPERTY BOUNDARY
- ROCK CHECK DAM
- WATER SHEET FLOW
- FG: FINISH GRADE (TOP OF SURFACE ROCK)
- SG: SUBGRADE (TOP OF FLEXIBLE BASE)
- RG: ROUGH GRADE (TOP OF DIRT)
- EG: EXISTING GRADE

- NOTES**
- CUT AND FILL VOLUMES ARE RAW VOLUMES WITH NO ALLOWANCES FOR SHRINKAGE WHERE APPLICABLE.
  - THE CONTRACTOR SHALL STRIP ALL TOPSOIL AND ORGANIC MATERIAL FROM THE WORKING AREA. CUT AND FILL VOLUMES ARE BASED ON THE ASSUMPTION THAT THE DEPTH OF TOPSOIL STRIPPED FROM THE WORKING AREA IS IN ACCORDANCE WITH THE DEPTH SHOWN IN THE EARTHWORK QUANTITIES TABLE. THE ACTUAL DEPTH OF ORGANIC MATERIAL NEEDING REMOVAL MAY VARY. IT IS RECOMMENDED THAT A GEOTECHNICAL ENGINEER IS ON-SITE TO ENSURE THAT ALL ORGANIC MATERIAL HAS BEEN REMOVED. THE STRIPPED TOPSOIL MAY BE USED FOR EMBANKMENTS AND SLOPES OUTSIDE THE IMMEDIATE AREA OF THE PAD.
  - SUITABLE EXCESS FILL INCLUDING WASTE TOP SOILS MAY BE USED FOR EMBANKMENTS AND SLOPES OUTSIDE OF THE IMMEDIATE AREA OF THE PAD.
  - SITE AND ROADWAY TO BE COVERED BY ROAD BASE GRAVEL (FLEXIBLE BASE) AS A WORKING SURFACE.
  - SLOPE ACCESS ROADS FOR DRAINAGE.
  - NEW YARD CONTOURS INDICATE SUBGRADE AND DO NOT INCLUDE CRUSHED ROCK SURFACING; NEW APPROACH CONTOURS INDICATE FINISH GRADE; YARD SUBGRADE TO MATCH APPROACH FINISH GRADE; YARD FINISH ROCK WILL FEATHER OUT ONTO APPROACH.
  - ALL AREAS NOT RECEIVING CRUSHED ROCK SURFACING OR ROAD BASE (FLEXIBLE BASE) SHALL BE FILLED WITH TOPSOIL AND RE-SEEDED.
  - CRUSHED ROCK SURFACING SHALL NOT BE PLACED UNTIL ALL SUBGRADE CONDUIT, GROUNDING AND UTILITIES ARE COMPLETE.
  - SUBGRADE INCLUDES FLEXIBLE BASE MATERIAL.
  - THE EARTHWORK CONTRACTOR SHALL FURNISH AND INSTALL COMPACTED NON-EXPANSIVE BACKFILL.

**APPROXIMATE EARTHWORK QUANTITIES**

TOTAL GRADED AREA			
	11.5	ACRES	
<b>TOPSOIL</b>			
REMOVAL	AREA (SF)	DEPTH (IN)	VOL (CY)
YARD	477669	3	4423
POND	22156	3	205
APPROACH	24857	3	230
TOTALS	11.5	ACRES	4858
RE-USED ON SITE	0	4	0
EXPORT / STOCKPILED / WASTED			4858

CUT/FILL QUANTITIES*			
	CUT	FILL	NET
YARD	29330	26158	3172
POND	2602	91	2711
APPROACH	472	3076	2604
NET CUT/FILL TO R.G.	32604	29325	3279
ONSITE MATERIAL IS SUITABLE AS FILL			32604
CUT AVAILABLE FOR FILL			0
STRUCTURAL FILL REQUIRED			0

SELECT IMPORT**			
	AREA (SF)	DEPTH (IN)	VOL (CY)
YARD-FLEXIBLE BASE	408257	8	10090
APPROACH-FLEXIBLE BASE	14386	14	622
	12	12	1
TOTAL			10703

**SUMMARY**

TOTAL CUT (TOPSOIL + NET CUT)	37462	CY
TOTAL FILL (SELECT IMPORT + NET FILL)	40028	CY
TOTAL EXPORT / STOCKPILED / WASTED	8137	CY
TOTAL IMPORT (SELECT IMPORT + STRUCTURAL FILL)	10703	CY

**ISSUED FOR REVIEW**

no.	date	by	ckd	description
A	09/10/24	KJF	SKC	PRELIMINARY
B	09/20/24	KJF	SKC	PRELIMINARY
C	10/11/24	KJF	SKC	PRELIMINARY
D	11/05/24	KJF	SKC	PRELIMINARY
E	12/13/24	KJF	SKC	ISSUED FOR REVIEW
F	01/14/25	KJF	SKC	ISSUED FOR PERMITTING
G	01/29/25	DAS	SKC	ISSUED FOR REVIEW
H	03/04/25	DAS	SKC	ISSUED FOR REVIEW

Engineering with Distinction  
**ECI** ELECTRICAL CONSULTANTS, INC.  
 BILLINGS, MONTANA

date	12/06/24	detailed	KJF/ECI
designed	KJF/ECI	checked	SKC/ECI

**LS POWER GRID**  
 CALIFORNIA

COLLINSVILLE 500-230 KV SUBSTATION  
 LS POWER GRID  
 CALIFORNIA, LLC  
 SITE GRADING PLAN

project	rev	date
	H	03/04/25

drawing  
**CL-C-GRD-002**

sheet 2 of 6 sheets  
 COLLINSVILLE CIVIL DESIGN.DWG