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EROSION PREVENTION AND SEDIMENT CONTROL NOTES

- PERFORM EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) IN ACCORDANCE WITH COUNTY OF LAKE CODE OF ORDINANCES.
- THE APPROVED PLANS SHALL CONFORM TO THE COUNTY OF LAKE CODE OF ORDINANCES.
- THE PROPERTY OWNER IS RESPONSIBLE FOR PREVENTING STORM WATER POLLUTION GENERATED YEAR ROUND. WORK SITES WITH INADEQUATE EROSION PREVENTION AND/OR SEDIMENT CONTROL MAY BE SUBJECT TO STOP WORK ORDER AND/OR ADDITIONAL INSPECTION FEES TO VERIFY COMPLIANCE WITH COUNTY OF LAKE REQUIREMENTS.
- IF DISCREPANCIES OCCUR BETWEEN THESE NOTES, MATERIAL REFERENCED ON THE APPROVED PLANS OR MANUFACTURER'S RECOMMENDATIONS, THEN THE MOST PROTECTIVE SHALL APPLY.
- AT ALL TIMES THE PROPERTY OWNER IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH THE STATE OF CALIFORNIA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBING ACTIVITIES SUCH AS CLEARING, GRADING, EXCAVATION, STOCKPILING, AND RECONSTRUCTION OF EXISTING FACILITIES INVOLVING REMOVAL AND REPLACEMENT.
- THE PROPERTY OWNER MUST IMPLEMENT AN EFFECTIVE COMBINATION OF EPSC ON ALL DISTURBED AREAS DURING THE RAINY SEASON (OCTOBER 1 - APRIL 30). GRADING AND DRAINAGE IMPROVEMENT SHALL BE PERMITTED DURING THE RAINY SEASON ONLY WHEN ON-SITE SOIL CONDITIONS PERMIT THE WORK TO BE PERFORMED IN COMPLIANCE WITH COUNTY OF LAKE CODE.
- DURING THE RAINY SEASON, STORM WATER BMP'S SHALL BE IMPLEMENTED AND FUNCTIONAL ON THE SITE AT ALL TIMES AND THE AREA OF ERODIBLE LAND EXPOSED AT ANY ONE TIME DURING THE WORK SHALL NOT EXCEED ONE ACRE OR 20 PERCENT OF THE PERMITTED WORK AREA, WHICHEVER IS GREATER, AND THE TIME OF EXPOSURE SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE.
- DURING THE NON-RAINY SEASON, ON ANY DAY WHEN THE NATIONAL WEATHER SERVICE FORECAST IS A CHANCE OF RAIN OF 30 PERCENT OR GREATER WITHIN THE NEXT 24 HOURS, STORM WATER BMP'S SHALL BE IMPLEMENTED AND FUNCTIONAL ON THE SITE TO PREVENT SOIL AND OTHER POLLUTANT DISCHARGES. AT ALL OTHER TIMES, BMP'S SHOULD BE STORED ON SITE IN PREPARATION FOR INSTALLATION PRIOR TO RAIN EVENTS.
- EPSC BMP'S SHALL BE INSPECTED BY THE PROPERTY OWNER BEFORE FORECASTED STORM EVENTS AND AFTER STORM EVENTS TO ENSURE BMP'S ARE FUNCTIONING PROPERLY. EPSC BMP'S THAT HAVE FAILED OR ARE NO LONGER EFFECTIVE SHALL BE PROMPTLY REPLACED. EPSC BMP'S SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED.
- THE LIMITS OF GRADING SHALL BE DEFINED AND MARKED ON SITE TO PREVENT DAMAGE TO SURROUNDING TREES AND OTHER VEGETATION. PRESERVATION OF EXISTING VEGETATION SHALL OCCUR TO THE MAXIMUM EXTENT PRACTICABLE. ANY EXISTING VEGETATION WITHIN THE LIMITS OF GRADING THAT IS TO REMAIN UNDISTURBED BY THE WORK SHALL BE IDENTIFIED AND PROTECTED FROM DAMAGE BY MARKING, FENCING, OR OTHER MEASURES.
- CHANGES TO THE EPSC PLAN MAY BE MADE TO RESPOND TO FIELD CONDITIONS IF THE ALTERNATIVE BMP'S ARE EQUIVALENT OR MORE PROTECTIVE THAN THE BMP'S SHOWN ON THE APPROVED PLANS. ALTERNATIVE BMP'S ARE SUBJECT TO REVIEW AND APPROVAL BY COUNTY OF LAKE STAFF.
- DISCHARGES OF POTENTIAL POLLUTANTS FROM CONSTRUCTION SITES SHALL BE PREVENTED USING SOURCE CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SEDIMENT, TRASH, NUTRIENTS, PATHOGENS, PETROLEUM HYDROCARBONS, METALS, CONCRETE, CEMENT, ASPHALT, LIME, PAINT, STAINS, GLUES, WOOD PRODUCTS, PESTICIDES, HERBICIDES, CHEMICALS, HAZARDOUS WASTE, SANITARY WASTE, VEHICLE OR EQUIPMENT WASH WATER, AND CHLORINATED WATER.
- ENTRANCE(S) TO THE CONSTRUCTION SITE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF POTENTIAL POLLUTANTS OFFSITE. POTENTIAL POLLUTANTS DEPOSITED ON PAVED AREAS WITHIN THE COUNTY RIGHT-OF-WAY, SUCH AS ROADWAYS AND SIDEWALKS, SHALL BE PROPERLY DISPOSED OF AT THE END OF EACH WORKING DAY OR MORE FREQUENTLY AS NECESSARY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING CONSTRUCTION VEHICLES LEAVING THE SITE ON A DAILY BASIS TO PREVENT DUST, SILT, AND DIRT FROM BEING RELEASED OR TRACKED OFFSITE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AT THE END OF EACH WORKING DAY OR MORE OFTEN, AS NECESSARY.
- ALL DISTURBED AREAS SHALL BE PROTECTED BY USING EROSION PREVENTION BMP'S TO THE MAXIMUM EXTENT PRACTICABLE, SUCH AS ESTABLISHING VEGETATION COVERAGE, HYDROSEEDING, STRAW MULCH, GEOTEXTILES, PLASTIC COVERS, BLANKETS, OR MATS. TEMPORARY REVEGETATION SHALL BE INSTALLED AS SOON AS PRACTICAL AFTER VEGETATION REMOVAL, BUT IN ALL CASES PRIOR TO OCTOBER 1. PERMANENT REVEGETATION OR LANDSCAPING SHALL BE INSTALLED PRIOR TO FINAL INSPECTION.
- WHENEVER IT IS NOT POSSIBLE TO USE EROSION PREVENTION BMP'S ON EXPOSED SLOPES, SEDIMENT CONTROL BMP'S SUCH AS FIBER ROLLS AND SILT FENCES SHALL BE INSTALLED TO PREVENT SEDIMENT MIGRATION. FIBER ROLLS AND SILT FENCES SHALL BE TRENCHED AND KEYED INTO THE SOIL AND INSTALLED ON CONTOUR. SILT FENCES SHALL BE INSTALLED APPROXIMATELY 2 TO 5 FEET FROM THE TOP OF SLOPE.
- HYDROSEEDING SHALL BE CONDUCTED IN A THREE STEP PROCESS. FIRST, EVENLY APPLY SEED MIX AND FERTILIZER TO THE EXPOSED SLOPE. SECOND, EVENLY APPLY MULCH OVER THE SEED AND FERTILIZER. THIRD, STABILIZE THE MULCH IN PLACE. AN EQUIVALENT SINGLE STEP PROCESS, WITH SEED, FERTILIZER, WATER, AND BONDED FIBERS IS ACCEPTABLE.

APPLICATIONS SHALL BE BROADCASTED MECHANICALLY OR MANUALLY AT THE RATES SPECIFIED BELOW. SEED MIX AND FERTILIZER SHALL BE WORKED INTO THE SOIL BY ROLLING OR TAMPING. IF STRAW IS USED AS MULCH, STRAW SHALL BE DERIVED FROM WHEAT, RICE, OR BARLEY AND BE APPROXIMATELY SIX TO EIGHT INCHES IN LENGTH. STABILIZATION OF MULCH SHALL BE DONE HYDRAULICALLY BY APPLYING AN EMULSION OR MECHANICALLY BY CRIMPING OR PUNCHING THE MULCH INTO THE SOIL. EQUIVALENT METHODS AND MATERIALS MAY BE USED ONLY IF THEY ADEQUATELY PROMOTE VEGETATION GROWTH AND PROTECT EXPOSED SLOPES.

MATERIALS	APPLICATION RATE (POUNDS PER ACRE)
SEED MIX	
Bromus mollis (BLANDO BROME)	40
Trifolium hirtum (HYKON ROSE CLOVER)	20
FERTILIZER	
6-20-0 & 15% SULPHUR	500
MULCH	
STRAW	4000
HYDRAULIC STABILIZING*	
M-BINDER OR SENTINEL	75-100
EQUIVALENT MATERIAL	PER MANUFACTURER
*NDN-ASPHALTIC, DERIVED FROM PLANTS	

- DUST CONTROL SHALL BE PROVIDED BY CONTRACTOR DURING ALL PHASES OF CONSTRUCTION.
- STORM DRAIN INLETS SHALL BE PROTECTED FROM POTENTIAL POLLUTANTS UNTIL DRAINAGE CONVEYANCE SYSTEMS ARE FUNCTIONAL AND CONSTRUCTION IS COMPLETE.
- ENERGY DISSIPATORS SHALL BE INSTALLED AT STORM DRAIN OUTLETS WHICH MAY CONVEY ERODIVE STORM WATER FLOW.
- SOIL, MATERIAL STOCKPILES, AND FERTILIZING MATERIAL SHALL BE PROPERLY PROTECTED WITH PLASTIC COVERS OR EQUIVALENT BMP'S TO MINIMIZE SEDIMENT AND POLLUTANT TRANSPORT FROM THE CONSTRUCTION SITE.
- SOLID WASTE, SUCH AS TRASH, DISCARDED BUILDING MATERIALS AND DEBRIS, SHALL BE PLACED IN DESIGNATED COLLECTION AREAS OR CONTAINERS. THE CONSTRUCTION SITE SHALL BE CLEARED OF SOLID WASTE DAILY OR AS NECESSARY. REGULAR REMOVAL AND PROPER DISPOSAL SHALL BE COORDINATED BY THE CONTRACTOR.
- A CONCRETE WASHOUT AREA SHALL BE DESIGNATED TO CLEAN CONCRETE TRUCKS AND TOOLS. AT NO TIME SHALL CONCRETE PRODUCTS AND WASTE BE ALLOWED TO ENTER COUNTY WATERWAYS SUCH AS CREEKS OR STORM DRAINS. NO WASHOUT OF CONCRETE, MORTAR MIXERS, OR TRUCKS SHALL BE ALLOWED ON SOIL. CONCRETE WASTE SHALL BE PROPERLY DISPOSED.

EROSION PREVENTION AND SEDIMENT CONTROL NOTES (CONT)

- PROPER APPLICATION, CLEANING, AND STORAGE OF POTENTIALLY HAZARDOUS MATERIALS, SUCH AS PAINTS AND CHEMICALS, SHALL BE CONDUCTED TO PREVENT THE DISCHARGE OF POLLUTANTS.
- TEMPORARY RESTROOMS AND SANITARY FACILITIES SHALL BE LOCATED AND MAINTAINED DURING CONSTRUCTION ACTIVITIES TO PREVENT THE DISCHARGE OF POLLUTANTS.
- APPROPRIATE VEHICLE STORAGE, FUELING, MAINTENANCE, AND CLEANING AREAS SHALL BE DESIGNATED AND MAINTAINED TO PREVENT DISCHARGE OF POLLUTANTS.

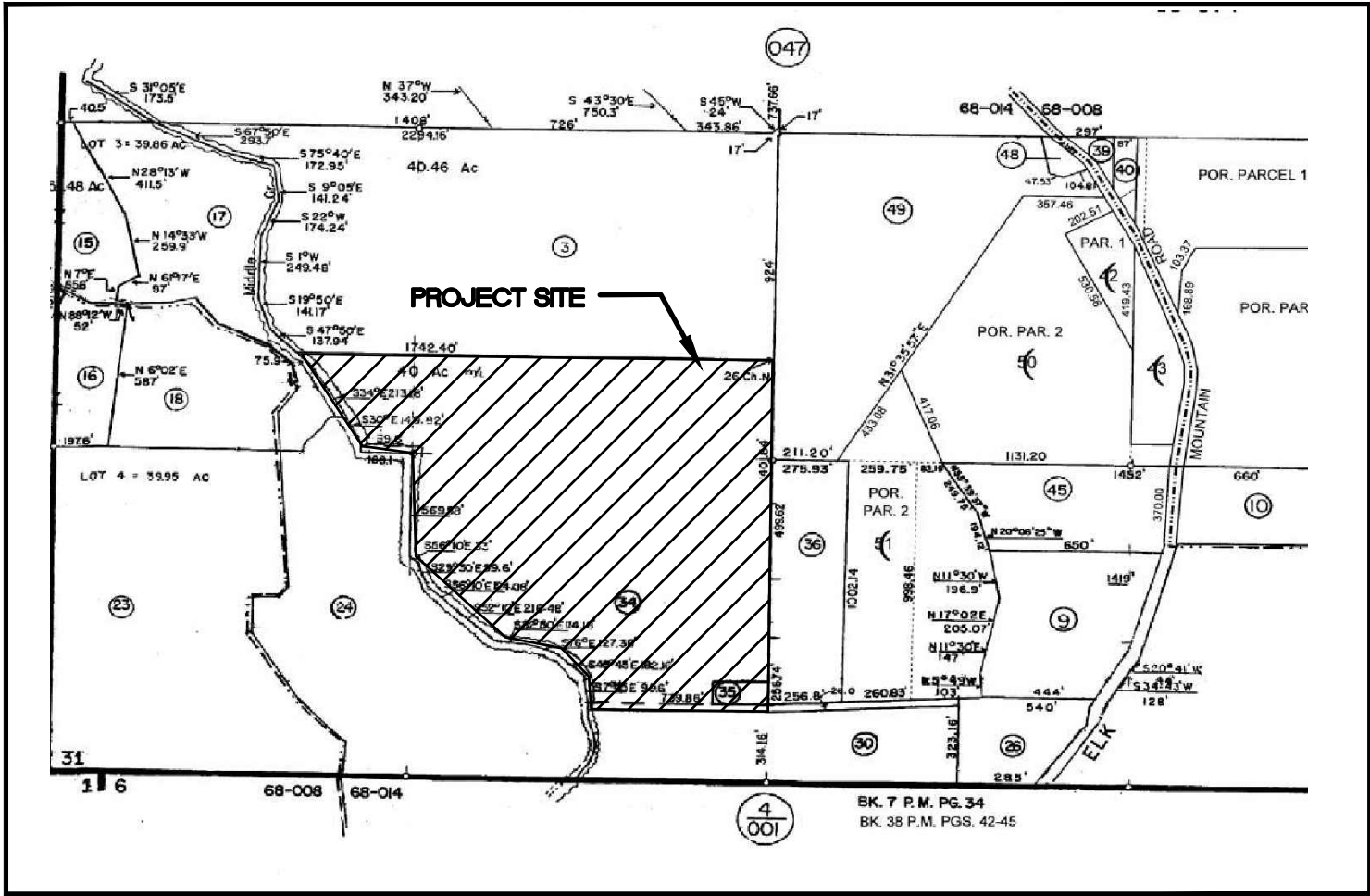
GRADING AND DRAINAGE NOTES

- PERFORM GRADING AND DRAINAGE IMPROVEMENTS IN ACCORDANCE WITH THE COUNTY OF LAKE CODE OF ORDINANCES, COUNTY OF LAKE REGULATIONS AND, IF APPLICABLE, TO THE RECOMMENDATIONS OF THE SOILS REPORT PJC & ASSOCIATES, DATED OCTOBER 08, 2020.
- ALL WORK SHALL BE DONE IN COMPLIANCE WITH THE APPROVED PLANS AND SPECIFICATIONS. THE APPROVED PLANS AND SPECIFICATIONS SHALL NOT BE CHANGED WITHOUT THE WRITTEN APPROVAL OF THE COUNTY OF LAKE. PROPOSED MODIFICATIONS TO THE APPROVED PLANS AND SPECIFICATIONS SHALL BE SUBMITTED TO COUNTY OF LAKE IN WRITING, TOGETHER WITH ALL NECESSARY TECHNICAL INFORMATION AND DESIGN DETAILS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROPERTY OWNER AND ENGINEER OF RECORD, IF APPLICABLE, UPON DISCOVERING DISCREPANCIES, ERRORS, OR OMISSIONS IN THE APPROVED PLANS. PRIOR TO PROCEEDING, THE PROPERTY OWNER SHALL HAVE THE APPROVED PLANS REVISED TO CLARIFY IDENTIFIED DISCREPANCIES, ERRORS, OR OMISSIONS. COUNTY OF LAKE MAY REQUIRE UNAUTHORIZED WORK TO BE REDONE OR REMOVED TO VERIFY COMPLIANCE WITH COUNTY OF LAKE CODE. COUNTY OF LAKE MAY IN THE EVENT OF NON-COMPLIANT ACTION AND SEEK THE IMPOSITION OF CIVIL PENALTIES FOR VIOLATIONS OF CODE OF ORDINANCES.
- THE GRADING OR DRAINAGE PERMIT AND A COPY OF THE APPROVED PLANS SHALL BE MAINTAINED ON THE PROJECT SITE FOR THE DURATION OF CONSTRUCTION ACTIVITIES.
- COUNTY OF LAKE MAY ORDER THAT ANY WORK STOP IMMEDIATELY IF IT IS PERFORMED CONTRARY TO COUNTY OF LAKE CODE, THE APPROVED PLANS AND SPECIFICATIONS, PERMIT CONDITIONS, OR ANY WORK THAT HAS BECOME HAZARDOUS TO PROPERTY OR THE PUBLIC. A GRADING OR DRAINAGE PERMIT MAY BE SUSPENDED, REVOKED, OR MODIFIED BY COUNTY OF LAKE IN ACCORDANCE WITH CODE OF ORDINANCES.
- ISSUANCE OF A GRADING OR DRAINAGE PERMIT BY COUNTY OF LAKE DOES NOT ELIMINATE THE RESPONSIBILITY OF THE PROPERTY OWNER TO SECURE PERMITS FROM OTHER AGENCIES WITH REGULATORY RESPONSIBILITIES FOR THE USES AND CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE WORK SHOWN ON THE APPROVED PLANS. FAILURE TO OBTAIN ALL REQUIRED PERMITS MAY RESULT IN FINES FROM OTHER AGENCIES.
- EXISTING DRAINAGE COURSES RECEIVING WATERS FROM THE PROJECT SITE AND LOCATED THROUGH THE PROJECT SITE SHALL REMAIN OPEN AND CLEAR OF DEBRIS TO PROPERLY CONVEY STORM WATER. IF EXISTING DRAINAGE COURSES RECEIVING WATERS FROM THE PROJECT SITE ARE LOCATED IN THE COUNTY RIGHT-OF-WAY AND NEED MAINTENANCE, CONTACT THE DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS FOR FURTHER ASSISTANCE. IN ANY EVENT, THE PROPERTY OWNER AND/OR CONTRACTOR SHALL BE HELD LIABLE FOR ANY DAMAGE DUE TO OBSTRUCTING NATURAL DRAINAGE PATTERNS.
- THE CONTRACTOR SHALL CONTACT THE UNDERGROUND SERVICE ALERT (USA), AT 811, AT LEAST TWO WORKING DAYS, BUT NOT MORE THAN 14 CALENDAR DAYS, PRIOR TO EXCAVATION. THE CONTRACTOR SHALL UNCOVER RELEVANT UTILITIES TO VERIFY THEIR LOCATION. IF UNEXPECTED OR UNEXPECTED UTILITIES ARE ENCOUNTERED DURING EXCAVATION, NOTIFY USA, THE UTILITY OWNER, AND/OR THE ENGINEER OF RECORD, IF APPLICABLE, IMMEDIATELY. UTILITIES INCLUDE BUT ARE NOT LIMITED TO WATER, SEWER, ELECTRICAL, GAS, TELEPHONE, AND CABLE/TV. THE EXCAVATOR SHALL DELINEATE WITH PAINT OR OTHER SUITABLE MARKINGS THE AREA TO BE EXCAVATED.
- IN THE EVENT CULTURAL RESOURCES (SUCH AS HISTORICAL, ARCHAEOLOGICAL, AND PALEONTOLOGICAL RESOURCES, AND HUMAN REMAINS) ARE DISCOVERED DURING GRADING OR OTHER CONSTRUCTION ACTIVITIES, WORK SHALL IMMEDIATELY BE HALTED WITHIN THE VICINITY OF THE FIND. A QUALIFIED ARCHEOLOGIST SHALL BE CONSULTED FOR AN ON-SITE EVALUATION. ADDITIONAL MITIGATION MAY BE REQUIRED BY THE COUNTY. PER THE ARCHEOLOGIST'S RECOMMENDATIONS, IF HUMAN BURIALS OR HUMAN REMAINS ARE ENCOUNTERED, THE CONTRACTOR SHALL ALSO NOTIFY THE COUNTY CORNER.
- SHOULD GRADING OPERATIONS ENCOUNTER HAZARDOUS MATERIALS, OR WHAT APPEAR TO BE HAZARDOUS MATERIALS, STOP WORK IMMEDIATELY IN THE CONTAMINATED AREA AND CONTACT 911 OR THE APPROPRIATE AGENCY FOR FURTHER INSTRUCTION.
- RETAINING WALLS, ARE NOT APPROVED UNDER A GRADING PERMIT. A SEPARATE BUILDING PERMIT IS REQUIRED.
- EQUIPMENT SHALL NOT CROSS OR DISTURB CHANNELS OF ACTIVELY FLOWING STREAMS WITHOUT A COUNTY OF LAKE APPROVED ROILING PERMIT AND BEST MANAGEMENT PRACTICES.
- GRADING AND DRAINAGE IMPROVEMENTS SHALL BE SET BACK FROM LAKES, PONDS, STREAMS, AND WETLANDS IN COMPLIANCE WITH THE REQUIREMENTS OF COUNTY OF LAKE CODE OF ORDINANCES. EXISTING VEGETATION SHALL BE RETAINED IN STREAM SETBACK AREAS TO FILTER SOIL AND OTHER POLLUTANTS CARRIED IN STORM WATER.
- EXCESS SOIL SHALL BE REMOVED FROM THE PROJECT SITE UNLESS DEPICTED TO REMAIN ON SITE PER THE APPROVED PLAN. THE SITE RECEIVING SOIL MAY REQUIRE A GRADING PERMIT UNLESS EXEMPTED BY COUNTY OF LAKE CODE.
- CONTOURS, ELEVATIONS, AND SHAPES OF FINISHED SURFACES SHALL BE BLENDED WITH ADJACENT NATURAL TERRAIN TO ACHIEVE A CONSISTENT GRADE AND NATURAL APPEARANCE. BORDERS OF CUT SLOPES AND FILLS SHALL BE ROUNDED OFF TO A MINIMUM RADIUS OF FIVE FEET TO BLENDED WITH THE NATURAL TERRAIN.
- FILL MATERIAL SHALL NOT INCLUDE ORGANIC, FROZEN, OR OTHER DELETERIOUS MATERIALS. NO ROCK OR SIMILAR IRREDUCIBLE MATERIAL GREATER THAN SIX INCHES IN ANY DIMENSION SHALL BE INCLUDED IN FILLS EXCEPT WHERE APPROVED BY THE SOILS ENGINEER. FILLS SHALL BE CONSTRUCTED IN LIFTS NOT EXCEEDING EIGHT INCHES IN DEPTH. COMPLETED FILLS SHALL BE STABLE, WELL-INTEGRATED, AND BONDED TO ADJACENT MATERIALS AND THE MATERIALS ON WHICH THEY REST. FILLS SHALL BE COMPETENT TO SUPPORT ANTICIPATED LOADS AND BE STABLE AT THE DESIGN SLOPES SHOWN ON THE APPROVED PLANS AND SPECIFICATIONS OR AS DIRECTED BY THE SOILS ENGINEER.
- GROUND SURFACES SHALL BE PREPARED TO RECEIVE FILL BY REMOVING VEGETATION, TOPSOIL, AND OTHER UNSUITABLE MATERIALS, AND SCARIFYING THE GROUND TO PROVIDE A BOND WITH THE FILL MATERIAL.
- FILL SHALL NOT BE PLACED ON NATURAL SLOPES STEEPER THAN 2H:1V (50 PERCENT), UNLESS DIRECTED BY THE PROJECT GEOTECHNICAL ENGINEER.
- FILLS INTENDED TO SUPPORT STRUCTURES OR SURCHARGES SHALL BE COMPACTED TO A MINIMUM OF 90 PERCENT OF MAXIMUM DRY DENSITY, AS DETERMINED BY ASTM D 1557, MODIFIED PROCTOR. A HIGHER COMPACTION PERCENTAGE MAY BE REQUIRED BY THE SOILS ENGINEER.
- FILLS NOT INTENDED TO SUPPORT STRUCTURES OR SURCHARGES SHALL BE COMPACTED AS FOLLOWS:
 - FILL GREATER THAN THREE FEET IN DEPTH SHALL BE COMPACTED TO THE DENSITY SPECIFIED BY THE SOILS ENGINEER.
 - FILLS NO GREATER THAN THREE FEET IN DEPTH SHALL BE COMPACTED TO THE DENSITY NECESSARY FOR THE INTENDED USE OR AS DIRECTED BY THE SOILS ENGINEER.
- MCE IS NOT RESPONSIBLE FOR DETERMINING STREAM AND/OR HABIT CLASSIFICATION OR LOCATION. OWNER IS RESPONSIBLE FOR HIRING A QUALIFIED CONSULTANT TO DELINEATE JURISDICTIONAL STREAMS OR HABITATS ON HIS/HER PROPERTY.

AB	AGGREGATE BASE	PIV	POST INDICATOR VALVE
AC	ASPHALT CONCRETE	PSE	PRIVATE SEWER EASEMENT
ANG	ANGLE	PT	POINT OF TANGENCY
BC	BEGIN CURVE	PUE	PUBLIC UTILITY EASEMENT
BD	BLOW-OFF	PVC	POLYVINYLCHLORIDE PIPE
BSL	BUILDING SETBACK LINE	PVT	PRIVATE
BSW	BACK OF SIDEWALK	R	RADIUS
BVC	BEGIN VERTICAL CURVE	R/W	RIGHT OF WAY
BW	BOTTOM OF WALL	RCP	REINFORCED CONCRETE PIPE
CB	CATCH BASIN	RET	RETAINING WALL
CON	CONCRETE	RPT	REDUCED PRESSURE
CPP	CRURBED PLASTIC PIPE	RF	BACK FLOW PREVENTER
DI	DROP INLET	S	SLOPE
DIP	DUCTILE IRON PIPE	SD	STORM DRAIN
DVY	DRIVEWAY	SDII	STORM DRAIN DROP INLET
EC	END CURVE	SE	PUBLIC STORM DRAIN EASEMENT
EG	EXISTING GROUND	SDMH	STORM DRAIN MANHOLE
ELEV	ELEVATION	SS	SANITARY SEWER
EP	EDGE OF PAVEMENT	SSCD	SANITARY SEWER CLEANOUT
ESMT	EASEMENT	SSMH	SANITARY SEWER MANHOLE
EVC	END VERTICAL CURVE	STA	STATION
(E), EX	EXISTING	STD	STANDARD
FG	FACE OF CURB	SW	SIDEWALK
FB	FINISH GRADE	SWE	SIDEWALK EASEMENT
GB	GRADE BREAK	TC	TOP OF CURB
HDPE	HIGH DENSITY POLYETHYLENE	TG	TOP OF GRATE
HT	HEIGHT	TW	TOP OF WALL
MDN	STANDARD CITY MONUMENT	TYP	TYPICAL
PAE	PRIVATE ACCESS, MAINTENANCE, DRAINAGE, SIDEWALK, AND UTILITY EASEMENT	UNO	UNLESS NOTED OTHERWISE
PC	POINT OF CURVATURE	W	WATER
PCC	PORTLAND CEMENT CONCRETE	WL	WATER LINE
		WM	WATER METER
		WS	WATER SERVICE

GRADING AND DRAINAGE PLAN

FOR
ELK MOUNTAIN RESERVOIR
UPPER LAKE, CA
APN 002-048-03



AP MAP

NOT TO SCALE

INSPECTION NOTES

- THE PERMITTEE AND THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE WORK TO BE PERFORMED IN COMPLIANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, COUNTY OF LAKE, AND ANY PERMIT CONDITIONS. WORK SHALL BE SUBJECT TO INSPECTION AS REQUIRED BY THE COUNTY OF LAKE PERMIT. THE CONTRACTOR SHALL CONSULT THE PROJECT JOB CARD FOR COORDINATION OF INSPECTION REQUESTS.
- PRIOR TO THE START OF ANY GRADING OR DRAINAGE WORK, THE PERMITTEE SHALL HAVE A PRE-CONSTRUCTION CONSULTATION WITH COUNTY OF LAKE STAFF TO DISCUSS THE SCOPE OF THE PROJECT, PERMIT CONDITIONS, REQUIRED INSPECTIONS, APPROPRIATE APPLICATION OF BEST MANAGEMENT PRACTICES (BMP'S) AND ANY OTHER CONSTRUCTION ISSUES.
- COUNTY OF LAKE MAY REQUIRE PROFESSIONAL INSPECTIONS AND CERTIFICATIONS TO VERIFY PROPER COMPLETION OF THE WORK. WHERE THE USE OF PROFESSIONAL PERSONNEL IS REQUIRED, THESE PERSONNEL SHALL IMMEDIATELY REPORT IN WRITING TO COUNTY OF LAKE AND THE PERMITTEE ANY INSTANCE OF WORK NOT IN COMPLIANCE WITH THE APPROVED PLANS, SPECIFICATIONS, OR ANY PERMIT CONDITIONS. IF PROFESSIONAL PERSONNEL IS CHANGED DURING THE COURSE OF THE WORK, THE WORK SHALL BE STOPPED UNTIL THE REPLACEMENT INDIVIDUAL HAS NOTIFIED COUNTY OF LAKE IN WRITING OF THEIR AGREEMENT TO ACCEPT RESPONSIBILITY FOR APPROVAL OF THE COMPLETED WORK WITHIN THE AREA OF THEIR TECHNICAL COMPETENCE.
- COUNTY OF LAKE SHALL FINAL A PERMIT WHEN ALL WORK, INCLUDING THE INSTALLATION OF ALL DRAINAGE IMPROVEMENTS AND THEIR PROTECTIVE DEVICES, AND ALL STORM WATER BMP'S, HAVE BEEN COMPLETED IN COMPLIANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND ALL FINAL REPORTS HAVE BEEN SUBMITTED AND ACCEPTED. FINAL REPORTS MAY INCLUDE AS-BUILT PLANS, TESTING RECORDS, PROFESSIONAL OPINIONS, AND DECLARATIONS ABOUT COMPLETED WORK FROM PROFESSIONAL PERSONNEL. SIMILAR REPORTS MAY BE REQUIRED AT OTHER STAGES OF THE WORK.
- THE PERMITTEE SHALL PROVIDE ADEQUATE AND SAFE ACCESS TO THE PROJECT SITE FOR INSPECTION DURING THE PERFORMANCE OF ALL WORK.
- DURING CONSTRUCTION ACTIVITIES, THE PROJECT SITE ADDRESS SHALL BE POSTED AS FOLLOWS:
 - THE STREET NUMBERS MUST BE AT LEAST FOUR INCHES TALL, WITH A REFLECTIVE SURFACE.
 - THE ADDRESS MUST BE VISIBLE FROM BOTH DIRECTIONS ALONG THE ROAD.
 - THE ADDRESS MUST BE POSTED AT ALL FORKS IN ANY ACCESS ROAD AND AT THE PROJECT SITE.

ABBREVIATIONS/LEGEND

---	APPROXIMATE ASSESSOR'S PARCEL LINE
---	APPROXIMATE ADJOINING ASSESSOR'S PARCEL LINE
---	DIRT ROAD
---	OVER HEAD WIRES
---	EXISTING FENCE (TYPE VARIES)
---	TREE/BRUSH DRIP LINE
---	CONCRETE
---	RIPRAP
---	SYNTHETIC LINER

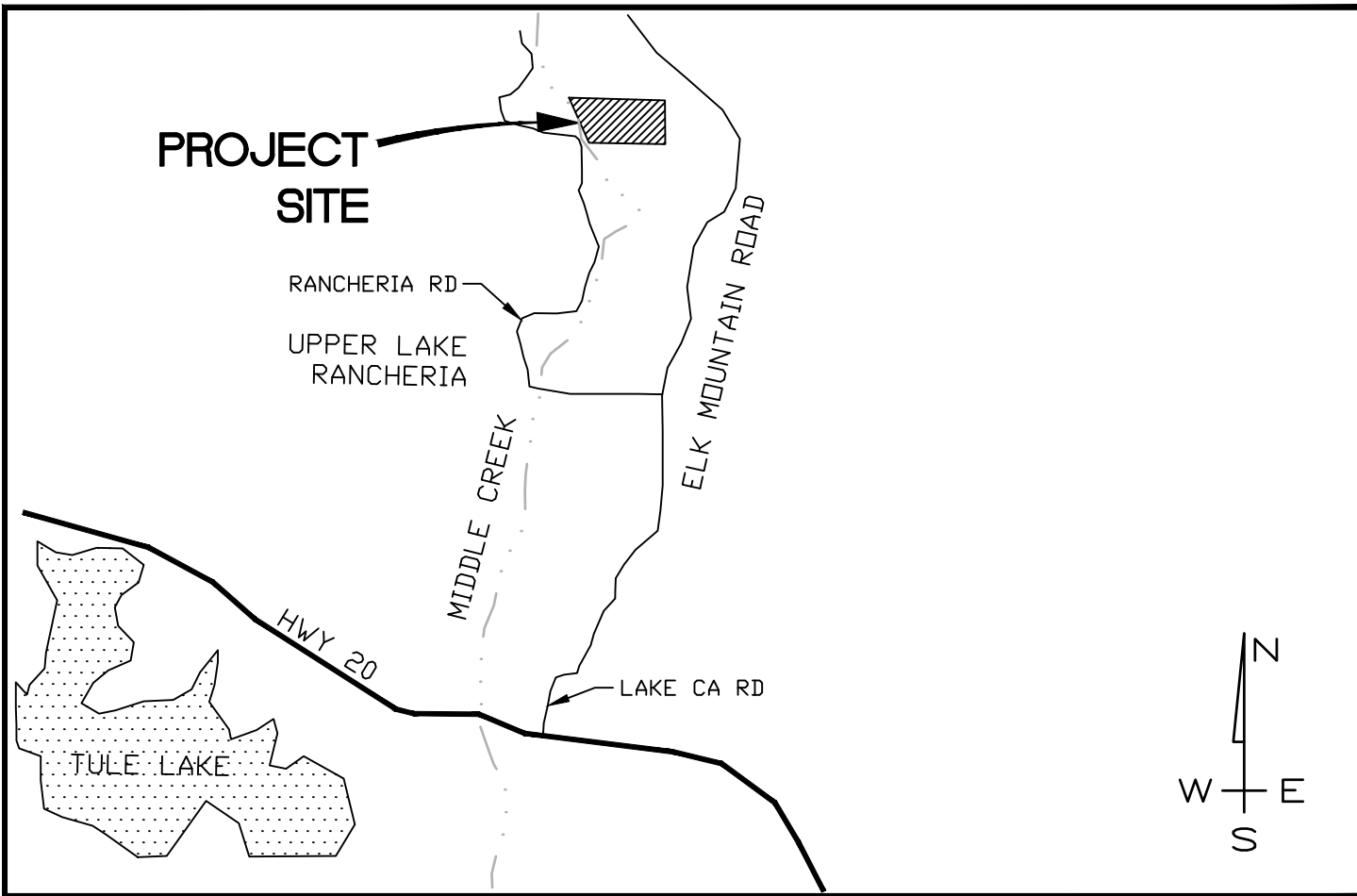
EARTHWORK:

CUT = 9,115 CY
FILL = 7,359 CY
NET = 1,756 CY (CUT)

NET CUT SHALL BE SPREAD OUT OVER ORCHARD AREA.

NOTES:

- THE QUANTITIES LISTED ARE THE ENGINEER'S ESTIMATE OF SURFACE GRADING ONLY. ADDITIONAL SUBSURFACE GRADING WILL BE REQUIRED FOR BENCHING, KEYWAYS, ETC.
- CONTRACTOR IS RESPONSIBLE FOR THEIR OWN EARTHWORK QUANTITIES.
- APPROXIMATE DISTURBED AREA OF SITE = 3.69 ACRES.



LOCATION MAP

NO SCALE

OWNER

FABRICE CAPORAL
PO BOX 1251
ALAMEDA, CA 94501
510-333-2666

CONTACT

CORT MUNSELLE
513 CENTER STREET
HEALDSBURG, CA 95448
(707) 395-0968

INDEX OF DRAWINGS

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PURPOSE STATEMENT

GRADING AND DRAINAGE IMPROVEMENTS FOR CONSTRUCTION OF AGRICULTURAL RESERVOIR.

CONSTRUCTION SCHEDULE

APRIL 1, 2021 --- CLEARING, GRUBBING AND SITE PREPARATION
OCTOBER 15, 2021 --- COMPLETE GRADING, EROSION CONTROL

SURVEY NOTES

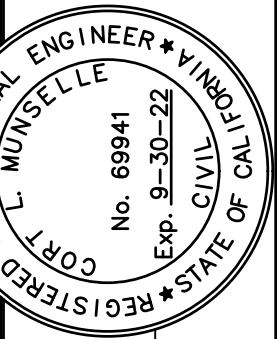
- BOUNDARY LINES SHOWN HEREON ARE DELINEATED FROM LAKE COUNTY, CA GEOGRAPHIC INFORMATION SYSTEM (GIS) ARE APPROXIMATE ONLY, AND DOES NOT CONSTITUTE A BOUNDARY SURVEY.
- UTILITIES SHOWN HEREON ARE BASED UPON PHYSICAL FEATURES OBSERVED AT THE TIME OF THE SURVEY. THE SURVEYOR ACCEPTS NO LIABILITY FOR THE LOCATION, EXISTENCE OR NON-EXISTENCE OF THOSE UNDERGROUND STRUCTURES, UTILITY LINES AND RELATED APPURTENANCES. LOCATION OF UNDERGROUND UTILITIES SHALL BE PERFORMED BY A SUBSURFACE UTILITY LOCATING COMPANY (IF DESIRED).
- BASIS OF BEARINGS/GRID NORTH BASED ON GPS OBSERVATIONS BETWEEN SET CONTROL POINTS POST PROCESSED USING OPUS (ONLINE POSITIONING USER SERVICE).
- ELEVATIONS SHOWN HEREON ARE BASED THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). BENCHMARK CONTROL POINT MCP 103 SET 60D CONTROL POINT. ELEVATION = 1399.45' NAVD 88

SOILS ANALYSIS

THE USDA-SCS SONOMA COUNTY SOIL SURVEY MAPS THE PROJECT SITE AS:
158 LUPUDOMA SILT LOAM, PROTECTED (HYDROLOGIC SOIL GROUP C)
199 RIVERWASH

DATE	BY	DESCRIPTION	REVISION

MUNSELLE CIVIL ENGINEERING
CIVIL ENGINEERING & SURVEYING
LAND PLANNING SERVICES
100 NORTH PINE STREET
UNION, CA 95482
(707) 462-6585



CORT L. MUNSELLE
No. 69941
Exp. 9-30-22
CIVIL
16501 ELK MOUNTAIN
UPPER LAKE, CA 95485

ELK MOUNTAIN RESERVOIR
COVER SHEET, NOTES, LOCATION MAP
APN 002-048-03
16501 ELK MOUNTAIN
UPPER LAKE, CA 95485

11/16/2020

JOB NO.

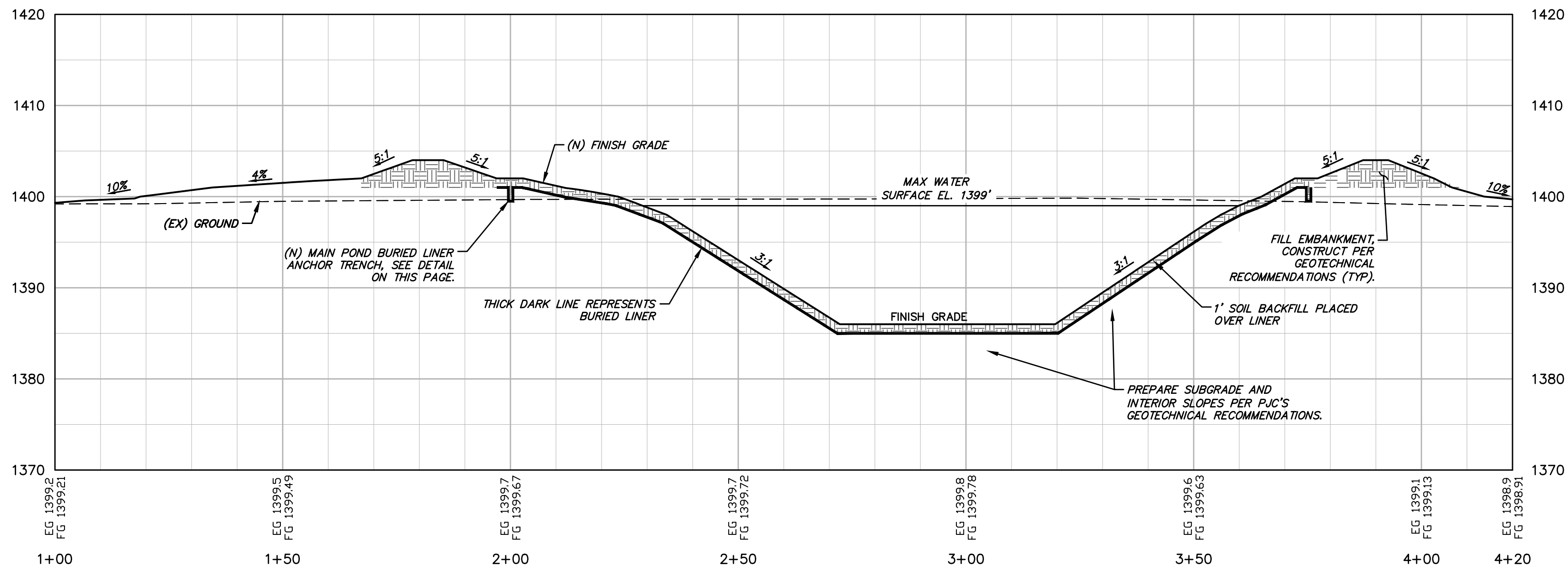
143-20

SHEET NO.

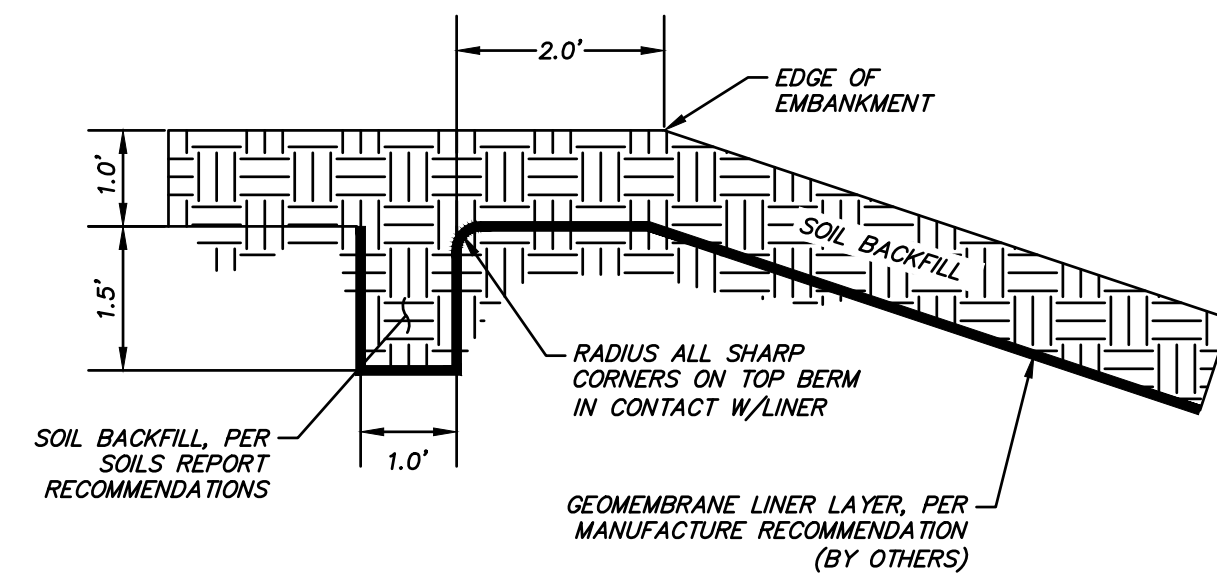
C1

OF 7 SHEETS

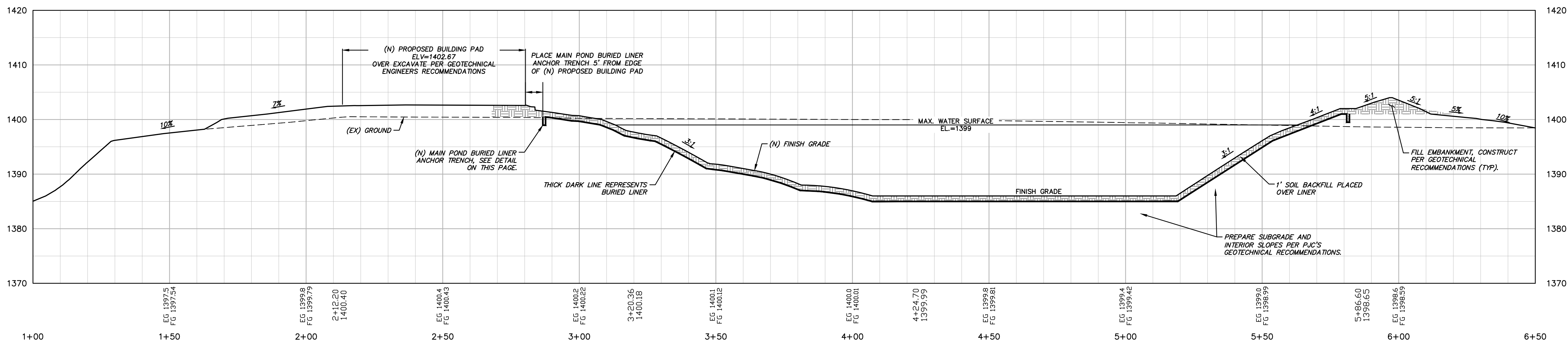
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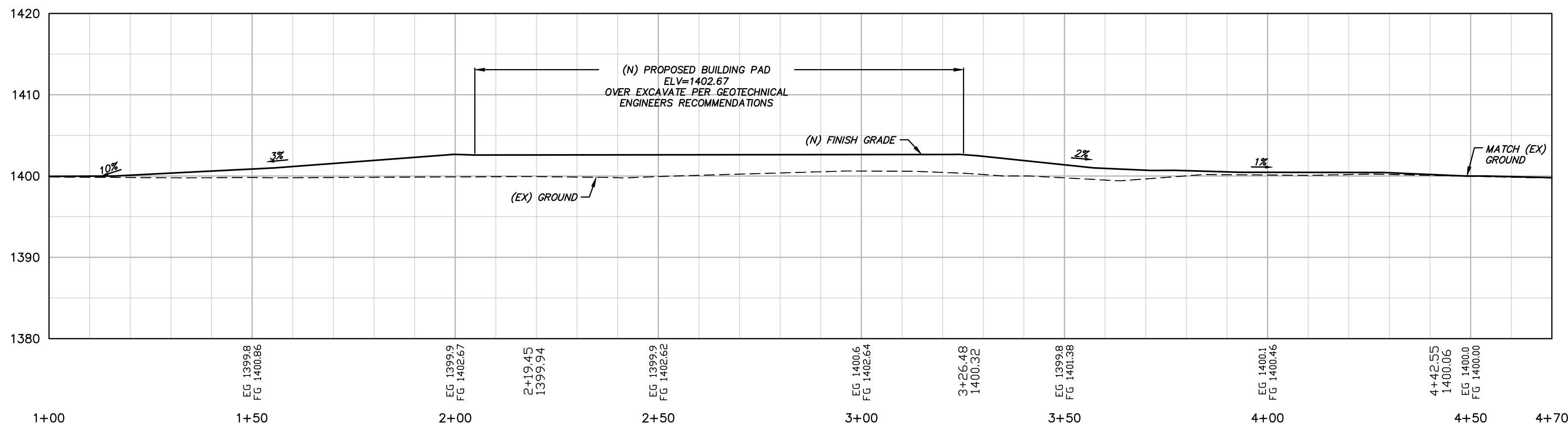
SECTION A
SCALE: HOR. 1"=20'
VER. 1"=10'



**MAIN POND
BURIED LINER ANCHOR TRENCH DETAIL**
NO SCALE



SECTION B
SCALE: HOR. 1"=20'
VER. 1"=10'



SECTION C
SCALE: HOR. 1"=20'
VER. 1"=10'

SECTIONS AND DETAILS

GEOMEMBRANE LINER NOTES:

1. GEOMEMBRANE LINER LAYER SHALL BE SPECIFIED BY THE MANUFACTURER.
2. INSTALL LINER PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
3. LINER SHALL BE ANCHORED INTO TRENCH AT THE TOP OF SLOPE. SEE ANCHOR TRENCH DETAILS ABOVE FOR MAIN POND AND OVERFLOW CHANNEL LINER ANCHORING DETAILS.
4. ALL PENETRATIONS IN LINER SHALL BE SEALED WATER-TIGHT TO PIPE AND LINING SYSTEM PER MANUFACTURERS SPECIFICATIONS AND RECOMMENDATIONS.

GEOMEMBRANE SOIL COVER NOTES:

CARE SHOULD BE TAKEN WHEN COVERING THE LINER TO PREVENT ANY DAMAGE TO THE GEOMEMBRANE OR GEOSYNTHETICS. AT NO TIME WILL CONSTRUCTION EQUIPMENT BE ALLOWED TO DRIVE DIRECTLY ON THE LINER. ACCESS ROADS FOR CLEAN SOIL COVER SHOULD BE MAINTAINED TO PROVIDE 6" MINIMUM, 12" PREFERABLE, BETWEEN THE EXCAVATION EQUIPMENT AND LINER AT ALL TIMES. DAMAGE TO THE LINER SHALL BE REPAIRED PRIOR TO PROCEEDING WITH COVER. COSTS ASSOCIATED WITH REPAIRS ARE THE CONTRACTOR'S RESPONSIBILITY.

COVER MATERIAL SHALL BE PER THE SOIL REPORT RECOMMENDATIONS AND CONSIST OF FINELY-GRAINED SOILS WITH NO GRAVELS IN THE UPPER TWO FEET OF THE INTERIOR SLOPES. SOIL SHALL BE FREE OF SHARP EDGES, STICKS, RUBBISH, AND DEBRIS OR FOREIGN MATERIALS. THE COVER MATERIAL SHALL BE PLACED AS SOON AS PRACTICAL, IN CONJUNCTION WITH OR UPON COMPLETION OF THE LINER INSTALLATION, OR AS THE INSTALLATION PROGRESS TO MINIMIZE TRAFFIC. SITE-SPECIFIC MATERIALS OR SIZES MAY BE ACCEPTABLE. IT IS RECOMMENDED THAT THE CONTRACTOR RECEIVE PRIOR WRITTEN APPROVAL FOR ACCEPTANCE OF THE COVER MATERIALS FROM THE LINER MANUFACTURE BEFORE COVERING THE LINER.

COVER SOILS SHOULD BE DUMPED AND LEVELED OVER THE LINER AND NOT PUSHED FROM ONE END TO THE OTHER TO MINIMIZE ROLLING OF THE GEOMEMBRANE BENEATH THE SOILS. COVER SOIL SHOULD ALWAYS BE PLACED FROM THE BASE UP ON SLOPES, NEVER PUSHED FROM THE TOP OF THE SLOPE DOWNWARDS. EQUIPMENT SHOULD BE TURNED IN LONG SWEEPING TURNS AND NOT SPUN QUICKLY TO ELIMINATE THE CHANCE OF TIRES DIGGING DOWN TO THE LINER THRU THE COVER SOIL.

WHEN COVERING OR INITIALLY FILLING A LINER IT IS IMPORTANT NOT TO LOCK THE LINER INTO PERIMETER ANCHOR TRENCH PRIOR TO COVERING. THIS CAN CAUSE UNDUE STRESS AND TENSION ON THE LINER SLOPES DURING THE COVERING PROCESS. THE ANCHOR TRENCH OR PERIMETER SHELF AREA SHOULD BE THE LAST AREA TO COMPLETE THE COVER PROCESS.

REVISION	DESCRIPTION	BY	DATE

MUNSELLE CIVIL ENGINEERING
♦ CIVIL ENGINEERING ♦ SURVEYING ♦
♦ PLANNING ♦ CONST. MANAGEMENT ♦
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(707) 462-5555



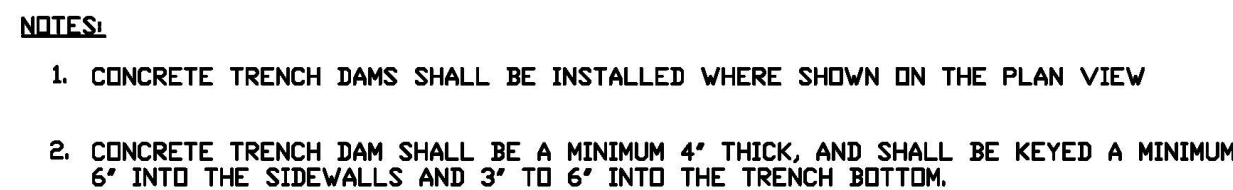
CORT L. MUNSELLE
No. 89941
Exp. 9-30-22
REGISTERED PROFESSIONAL ENGINEER - CIVIL
STATE OF CALIFORNIA

CORT L. MUNSELLE
DATE
PCE 68841

ELK MOUNTAIN RESERVOIR
SECTIONS AND DETAILS
APN 002-048-03
11501 ELK MOUNTAIN
UPPER LAKE, CA 95485

11/16/2020
JOB NO.
143-20
SHEET NO.

C4
OF 7 SHEETS



NO SCALE

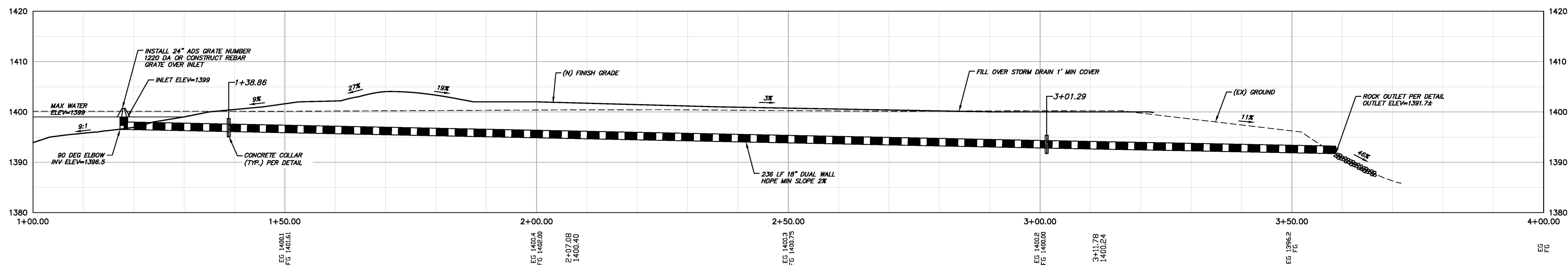


1. 'La' = LENGTH OF APRON. DISTANCE 'La' SHALL BE OF SUFFICIENT LENGTH TO DISSIPATE ENERGY.
2. FILTER MATERIAL SHALL BE FILTER FABRIC OR 6" THICK (MIN.) GRADED GRAVEL LAYER.

NO SCALE

Outlet ID	Riprap Class	d50 Rock	Apron Length "L" (ft.)	Apron Width "W" (ft.)	Apron Depth "H" (in.)
1	2	6	9.0	11.0	20

1. BEFORE PLACING THE FABRIC, THE SURFACE OF THE SLOPE MUST BE FREE OF LOOSE OR EXTRANEOUS MATERIAL AND SHARP OBJECTS THAT MAY DAMAGE THE FABRIC.
2. HANDLE AND PLACE THE FABRIC UNDER MANUFACTURER'S INSTRUCTIONS. PLACE THE FABRIC LOOSELY ON THE SLOPE SUCH THAT IT CONFORMS TO THE SURFACE WITHOUT DAMAGE TO THE FABRIC WHEN THE COVER MATERIAL IS PLACED.
3. THE JOINTS OF THE SLOPE COVER OVERLAPPED JOINTS OR STITCHED SEAMS. IF THE FABRIC IS JOINED WITH OVERLAPPED JOINTS, THE ADJACENT BORDERS OF THE FABRIC MUST BE OVERLAPPED BY AT LEAST 24 INCHES. OVERLAP IN THE SAME DIRECTION THAT THE COVER MATERIAL IS PLACED. IF THE FABRIC IS JOINED BY STITCHED SEAMS, STITCH WITH CONTRASTING COLORED YARN. USE THE SIZE AND COMPOSITION OF YARN THAT IS SPECIFIED BY THE MANUFACTURER. IF THE SLOPE IS 5 TO 10 PERCENT, THE STITCHING SEAM MUST BE 1/2 INCH WIDE. IF THE SLOPE IS STEEPER THAN THAT SPECIFIED FOR THE FABRIC, EXCEPT IF THE STITCHED SEAMS ARE ORIENTED UP AND DOWN A SLOPE, THE STRENGTH MAY BE REDUCED TO A VALUE THAT IS AT LEAST 80 PERCENT OF THAT SPECIFIED FOR THE FABRIC.
4. DO NOT OPERATE EQUIPMENT OR DRIVE VEHICLES DIRECTLY ON THE FABRIC.
5. IF THE FABRIC IS DAMAGED AND CANNOT BE REPAIRED, REPLACE THE FABRIC.
6. IF THE ENGINEER DETERMINES THAT THE FABRIC CAN BE REPAIRED, THEN REPAIR IT BY COVERING THE DAMAGED AREA WITH NEW FABRIC. IF THE REPAIR IS MADE USING OVERLAPPED JOINTS, THE OVERLAP MUST BE AT LEAST 3 FEET.
7. IF PLACEMENT OF ROCKS OR OTHER EQUIPMENT, SUCH AS SPILLWAYS OR OTHER SUITABLE EQUIPMENT, PLACE ROCKS SUCH THAT THERE IS A MINIMUM OF VOIDS LARGER ROCKS ARE IN THE TOE COURSE AND ON THE OUTSIDE SURFACE OF THE SLOPE PROTECTION.



SCALE: HOR. 1"=10'
VER. 1"=10'

1. ALL DISTURBED SOIL SHALL BE SEEDED PER EROSION CONTROL NOTES SHEET C1.

LEGEND

 STRAW WATTLE PER DETAIL ON SHEET C7.

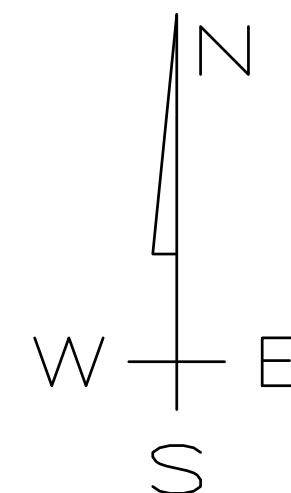
— — — — LIMITS OF DISTURBANCE

EROSION CONTROL PLAN

SCALE: 1" = 20'




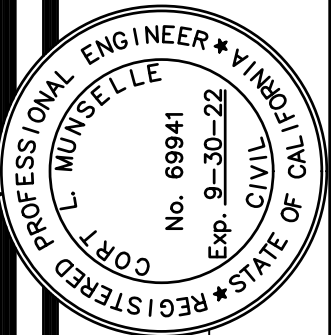
(GRAPHIC SCALE IN FEET)



ELK MOUNTAIN RESERVOIR
EROSION CONTROL PLAN
APN 002-048-03
#ELK MOUNTAIN

APN 002-048-03
11501 ELK MOUNTAIN
UPPER LAKE, CA 95485

 DATE _____
CORT L. MUNSELLE
RCE 69941



MUNSELLE CIVIL ENGINEERING
♦ CIVIL ENGINEERING ♦ SURVEYING ♦
♦ PLANNING ♦ CONST. MANAGEMENT ♦
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UKIAH, CA 95482
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REVISION	DESCRIPTION	BY	DATE

11/16/2020

JOB NO.

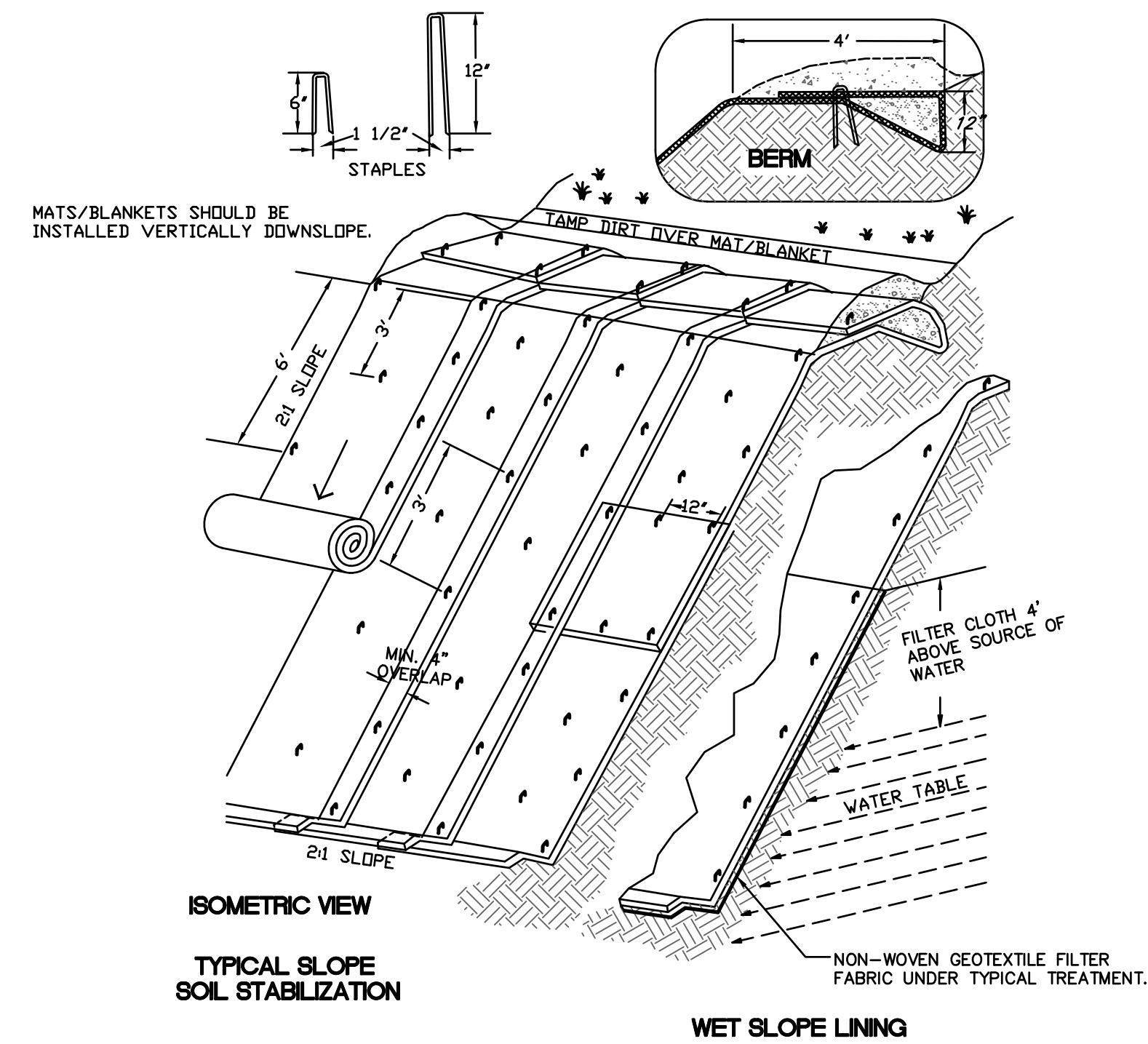
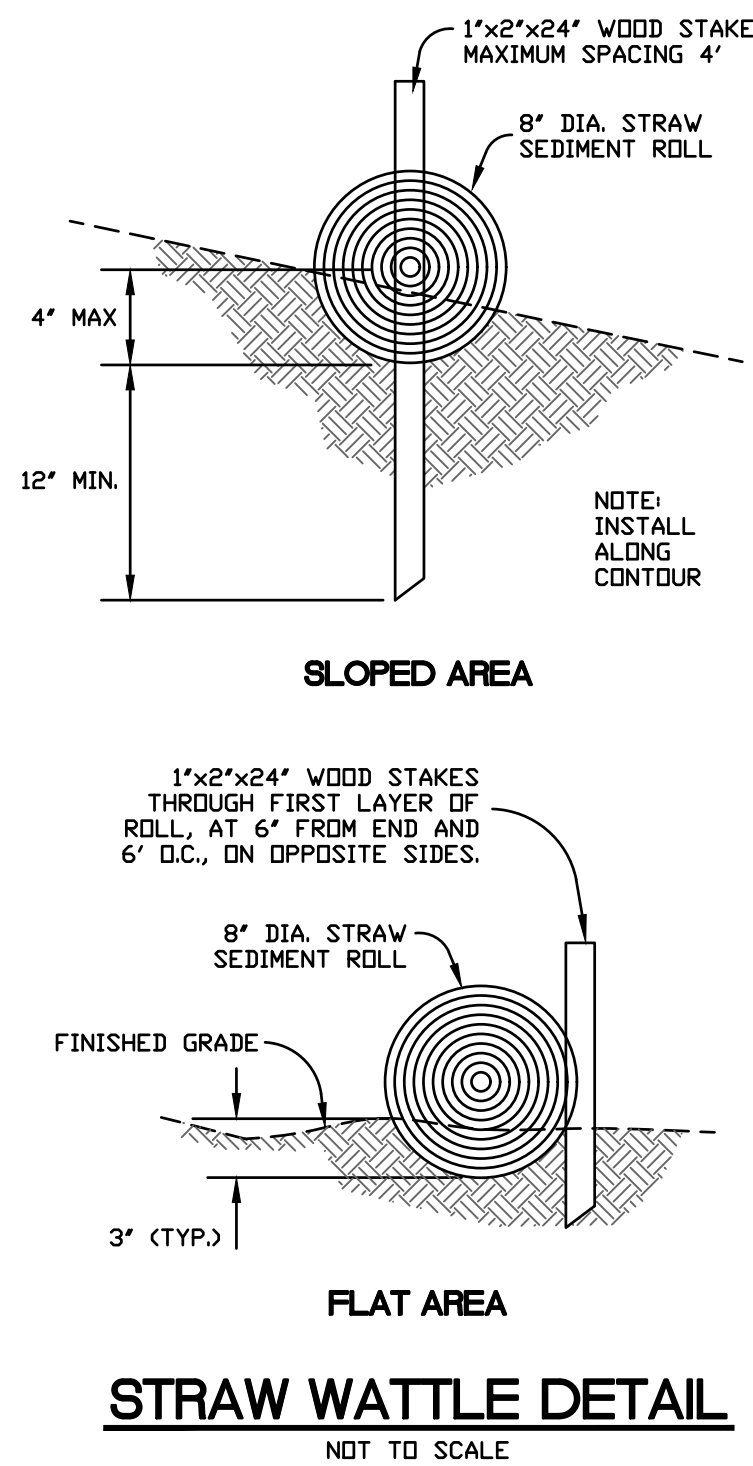
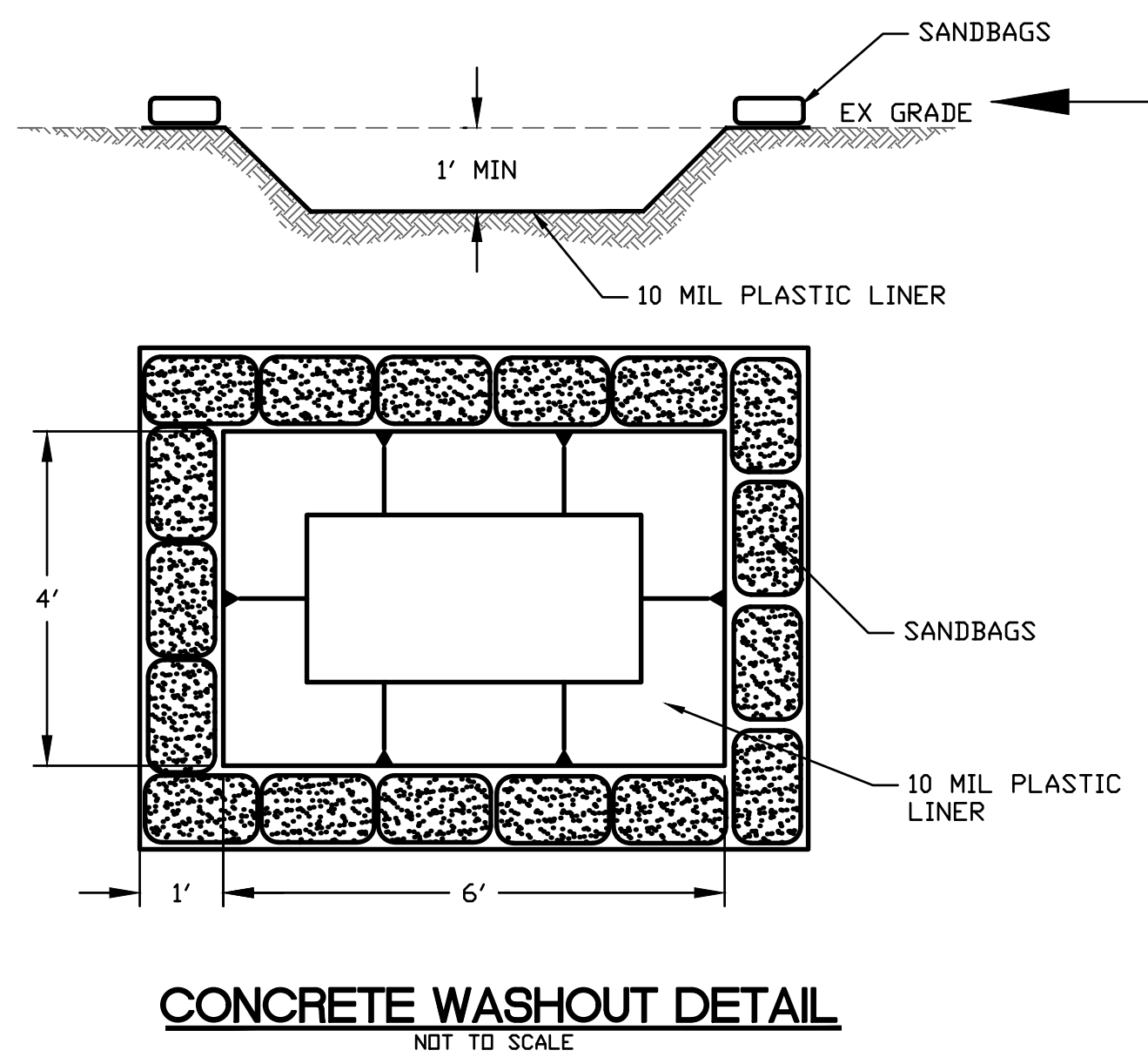
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SHEET NO.

C6

OF 7 SHEETS

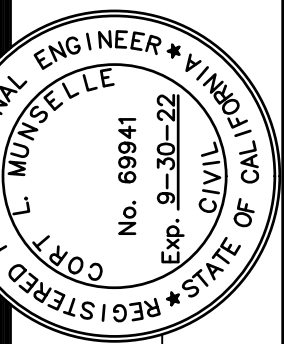
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NOTES:
SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.

REVISION	DESCRIPTION	BY	DATE

MUNSELLE CIVIL ENGINEERING
♦ CIVIL ENGINEERING ♦ SURVEYING ♦
♦ PLANNING ♦ CONST. MANAGEMENT ♦
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UTAH, CA 95482
(707) 462-6556



Cort L. Munselle
CORT L. MUNSELLE DATE
PCE 68841

**ELK MOUNTAIN RESERVOIR
EROSION CONTROL PLAN DETAILS**
APN 002-048-03
11501 ELK MOUNTAIN
UPPER LAKE, CA 95485

11/16/2020
JOB NO.
143-20
SHEET NO.

C7
OF 7 SHEETS