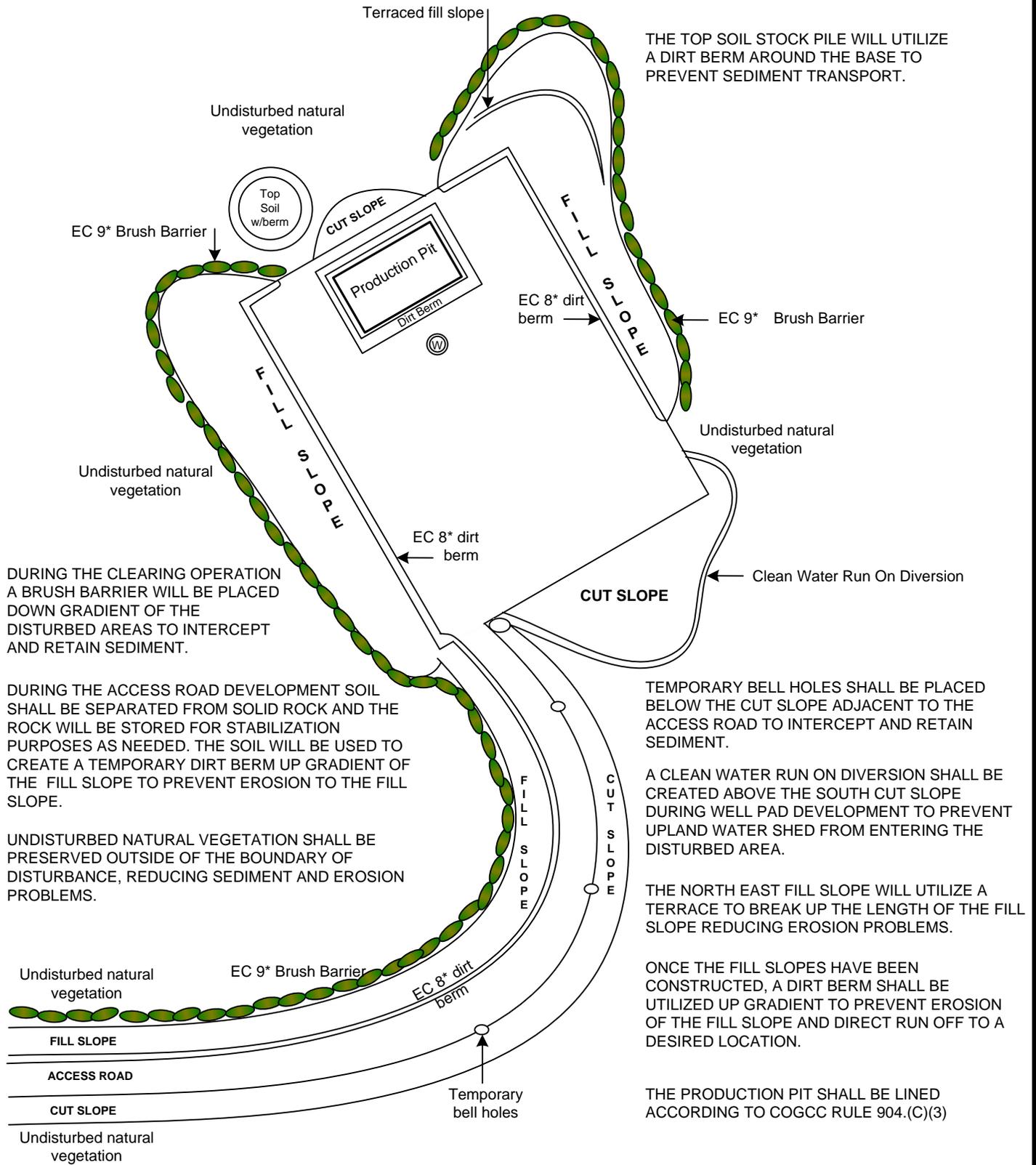


# B.M.P. IMPLEMENTATION DURING CLEARING AND WELL PAD/ACCESS ROAD DEVELOPMENT



THE TOP SOIL STOCK PILE WILL UTILIZE A DIRT BERM AROUND THE BASE TO PREVENT SEDIMENT TRANSPORT.

DURING THE CLEARING OPERATION A BRUSH BARRIER WILL BE PLACED DOWN GRADIENT OF THE DISTURBED AREAS TO INTERCEPT AND RETAIN SEDIMENT.

DURING THE ACCESS ROAD DEVELOPMENT SOIL SHALL BE SEPARATED FROM SOLID ROCK AND THE ROCK WILL BE STORED FOR STABILIZATION PURPOSES AS NEEDED. THE SOIL WILL BE USED TO CREATE A TEMPORARY DIRT BERM UP GRADIENT OF THE FILL SLOPE TO PREVENT EROSION TO THE FILL SLOPE.

UNDISTURBED NATURAL VEGETATION SHALL BE PRESERVED OUTSIDE OF THE BOUNDARY OF DISTURBANCE, REDUCING SEDIMENT AND EROSION PROBLEMS.

TEMPORARY BELL HOLES SHALL BE PLACED BELOW THE CUT SLOPE ADJACENT TO THE ACCESS ROAD TO INTERCEPT AND RETAIN SEDIMENT.

A CLEAN WATER RUN ON DIVERSION SHALL BE CREATED ABOVE THE SOUTH CUT SLOPE DURING WELL PAD DEVELOPMENT TO PREVENT UPLAND WATER SHED FROM ENTERING THE DISTURBED AREA.

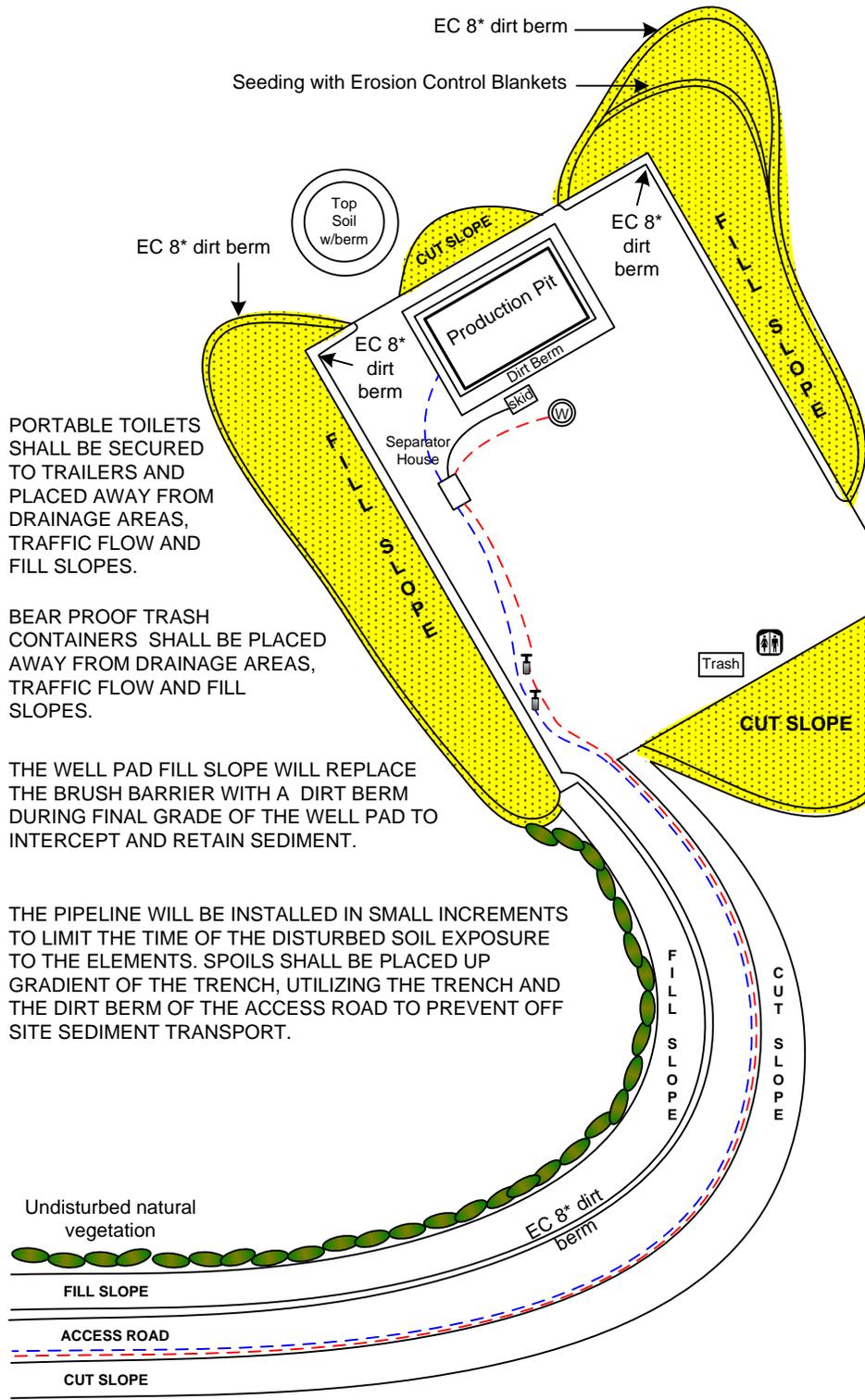
THE NORTH EAST FILL SLOPE WILL UTILIZE A TERRACE TO BREAK UP THE LENGTH OF THE FILL SLOPE REDUCING EROSION PROBLEMS.

ONCE THE FILL SLOPES HAVE BEEN CONSTRUCTED, A DIRT BERM SHALL BE UTILIZED UP GRADIENT TO PREVENT EROSION OF THE FILL SLOPE AND DIRECT RUN OFF TO A DESIRED LOCATION.

THE PRODUCTION PIT SHALL BE LINED ACCORDING TO COGCC RULE 904.(C)(3)



# B.M.P. IMPLEMENTATION DURING UTILITY INSTALLATION. BEGIN FINAL GRADE/STABILIZATION



PORTABLE TOILETS SHALL BE SECURED TO TRAILERS AND PLACED AWAY FROM DRAINAGE AREAS, TRAFFIC FLOW AND FILL SLOPES.

BEAR PROOF TRASH CONTAINERS SHALL BE PLACED AWAY FROM DRAINAGE AREAS, TRAFFIC FLOW AND FILL SLOPES.

THE WELL PAD FILL SLOPE WILL REPLACE THE BRUSH BARRIER WITH A DIRT BERM DURING FINAL GRADE OF THE WELL PAD TO INTERCEPT AND RETAIN SEDIMENT.

THE PIPELINE WILL BE INSTALLED IN SMALL INCREMENTS TO LIMIT THE TIME OF THE DISTURBED SOIL EXPOSURE TO THE ELEMENTS. SPOILS SHALL BE PLACED UP GRADIENT OF THE TRENCH, UTILIZING THE TRENCH AND THE DIRT BERM OF THE ACCESS ROAD TO PREVENT OFF SITE SEDIMENT TRANSPORT.

ONCE THE WELL PAD FILL SLOPES HAVE ACHIEVED FINAL GRADE, DEPENDING ON SOIL CONTENT, SEEDING WITH EROSION CONTROL BLANKETS SHALL BE INSTALLED.

FOR FILL SLOPES THAT CONSIST PRIMARILY OF ROCK, SEEDING WITH A MULCH TACKIFIER WILL BE UTILIZED WHICH WILL OCCUR AFTER ACCESS ROAD FINAL GRADE. BOTH ARE USED TO CONTROL EROSION AND PROMOTE THE ESTABLISHMENT OF VEGETATION.

ONCE THE CUT SLOPES ARE COMPLETE SEEDING WITH EROSION CONTROL BLANKETS SHALL BE INSTALLED IN THE CLEAN WATER RUN ON DIVERSION AND CUT SLOPES. USED TO CONTROL EROSION AND PROMOTE THE ESTABLISHMENT OF VEGETATION.

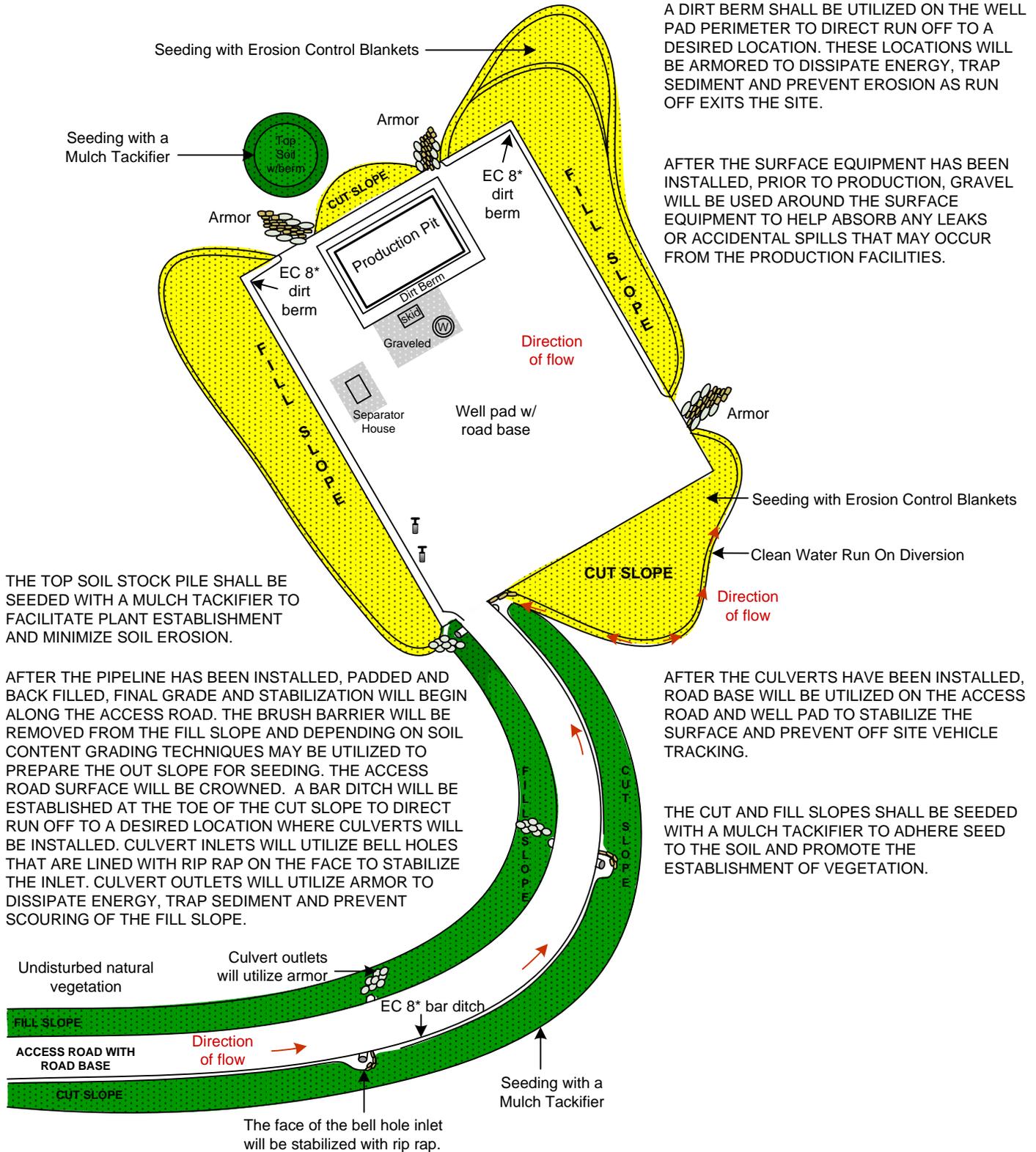
SEEDING WITH EROSION CONTROL BLANKETS  
CLEAN WATER RUN ON DIVERSION

THE TOP SOIL STOCK PILE SHALL BE SEEDING WITH A MULCH TACKIFIER DURING THE ACCESS ROAD FINAL GRADE AFTER UTILITY INSTALLATION.

- GAS LINE
- WATER LINE
- FUEL LINE
- PORTABLE TOILET
- BEAR PROOF TRASH CONTAINER



# B.M.P. IMPLEMENTATION DURING FINAL STABILIZATION



A DIRT BERM SHALL BE UTILIZED ON THE WELL PAD PERIMETER TO DIRECT RUN OFF TO A DESIRED LOCATION. THESE LOCATIONS WILL BE ARMORED TO DISSIPATE ENERGY, TRAP SEDIMENT AND PREVENT EROSION AS RUN OFF EXITS THE SITE.

AFTER THE SURFACE EQUIPMENT HAS BEEN INSTALLED, PRIOR TO PRODUCTION, GRAVEL WILL BE USED AROUND THE SURFACE EQUIPMENT TO HELP ABSORB ANY LEAKS OR ACCIDENTAL SPILLS THAT MAY OCCUR FROM THE PRODUCTION FACILITIES.

THE TOP SOIL STOCK PILE SHALL BE SEEDED WITH A MULCH TACKIFIER TO FACILITATE PLANT ESTABLISHMENT AND MINIMIZE SOIL EROSION.

AFTER THE PIPELINE HAS BEEN INSTALLED, PADDED AND BACK FILLED, FINAL GRADE AND STABILIZATION WILL BEGIN ALONG THE ACCESS ROAD. THE BRUSH BARRIER WILL BE REMOVED FROM THE FILL SLOPE AND DEPENDING ON SOIL CONTENT GRADING TECHNIQUES MAY BE UTILIZED TO PREPARE THE OUT SLOPE FOR SEEDED. THE ACCESS ROAD SURFACE WILL BE CROWNED. A BAR DITCH WILL BE ESTABLISHED AT THE TOE OF THE CUT SLOPE TO DIRECT RUN OFF TO A DESIRED LOCATION WHERE CULVERTS WILL BE INSTALLED. CULVERT INLETS WILL UTILIZE BELL HOLES THAT ARE LINED WITH RIP RAP ON THE FACE TO STABILIZE THE INLET. CULVERT OUTLETS WILL UTILIZE ARMOR TO DISSIPATE ENERGY, TRAP SEDIMENT AND PREVENT SCOURING OF THE FILL SLOPE.

AFTER THE CULVERTS HAVE BEEN INSTALLED, ROAD BASE WILL BE UTILIZED ON THE ACCESS ROAD AND WELL PAD TO STABILIZE THE SURFACE AND PREVENT OFF SITE VEHICLE TRACKING.

THE CUT AND FILL SLOPES SHALL BE SEEDED WITH A MULCH TACKIFIER TO ADHERE SEED TO THE SOIL AND PROMOTE THE ESTABLISHMENT OF VEGETATION.

The face of the bell hole inlet will be stabilized with rip rap.

