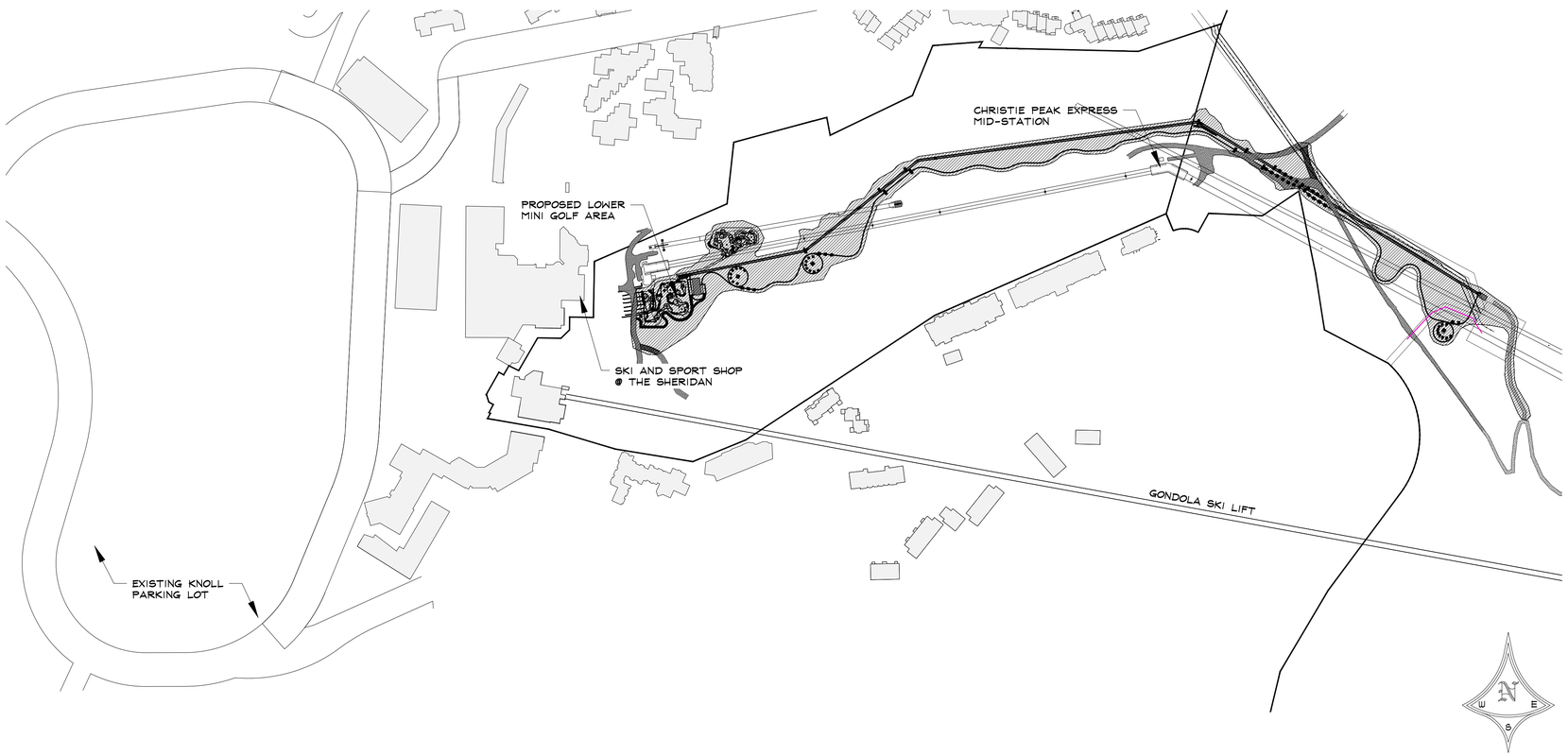
STANDARD CSMP NOTES

1. THIS PLAN SHALL BE KEPT ON SITE AT ALL TIMES AND UPDATED TO REFLECT ANY CHANGES.
2. CONCRETE WASTE AND WASHOUT WATER FROM MIXING TRUCKS SHALL BE CONTAINED ON SITE, REMOVED FROM THE SITE, AND PROPERLY DISPOSED. MATERIALS SHOULD NOT ENTER STATE WATERS.
3. CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING TEMPORARY EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION AND ESTABLISHING ANY REQUIRED BEST MANAGEMENT PRACTICES (BMP's).
4. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL LOCAL, STATE, AND FEDERAL LAWS. IN ADDITION CONTRACTOR MUST OBTAIN REQUIRED PERMITS.
5. CLEARING OR GRADING SHALL NOT BEGIN UNTIL ALL SEDIMENT CONTROL DEVICES HAVE BEEN INSTALLED.
6. THE CONTRACTOR SHALL PROMPTLY REMOVE ALL SEDIMENT, MUD, AND CONSTRUCTION DEBRIS THAT MAY ACCUMULATE IN THE RIGHT OF WAY, PRIVATE PROPERTY, OR WATER WAYS AS A RESULT OF THE CONSTRUCTION ACTIVITIES.
7. ALL INGRESS, EGRESS POINTS AND VEHICLE ACCESS POINTS ONTO DISTURBED SITE MUST BE STABILIZED WITH A VEHICLE CONTROL PAD. ACCESS SHALL ONLY BE VIA APPROVED LOCATIONS AS SHOWN OR APPROVED CSMP.
8. SOIL STABILIZATION MEASURES SHALL BE IN PLACE AND AREAS ARE TO BE RE-VEGETATED: (1) FOR STOCKPILES, IF INACTIVE FOR MORE THAN 30 DAYS (2) FOR AREAS OF LAND DISTURBANCE WITHIN ONE GROWING SEASON.
9. INLET PROTECTION SHALL BE INSTALLED IN CONJUNCTION WITH STORM DRAIN INLETS WHERE DRAINAGE AREA IS NOT VEGETATED.
10. BMP's SHALL BE USED, MODIFIED, AND MAINTAINED WHENEVER NECESSARY TO REFLECT CURRENT CONDITIONS. BMP's SHALL BE INSPECTED WEEKLY AND AFTER EVERY STORM EVENT. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM BMP's WHEN THE SEDIMENT LEVEL REACHES THE HEIGHT OF THE BMP.
11. EMERGENCY ACCESS MUST BE KEPT OBSTACLE FREE AND PASSABLE AT ALL TIMES.
12. FOR ANY WORK TO BE DONE IN THE RIGHT OF WAY, COORDINATE WITH THE CITY CONSTRUCTION SITE MANAGER REGARDING SPECIAL PERMITTING. NO WORK SHALL BE CONDUCTED IN R.O.W. BETWEEN NOVEMBER 1 AND APRIL 1 WITHOUT PRIOR APPROVAL FROM THE DIRECTOR OF PUBLIC WORKS.
13. WHERE REQUIRED AS PART OF THE R.O.W. PERMIT OR WHERE SITE WORK AFFECTS THE PEDESTRIAN OR VEHICLE TRAVEL WAY, TRAFFIC CONTROL SHALL BE INSTALLED. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
14. SIDEWALKS ADJACENT TO CONSTRUCTION SITES SHALL BE MAINTAINED, FOR PUBLIC USE, BY THE CONTRACTOR. IN AREAS WHERE CONSTRUCTION IS TAKING PLACE NEXT TO THE SIDEWALK AND OVERHEAD HAZARDS ARE POSSIBLE, CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING SIDEWALK PROTECTION.



NOTES:

1. EROSION AND SEDIMENT CONTROL PLAN:
   REFER TO ATTACHED SHEETS C-0 THROUGH C-11.
2. SITE CONSTRUCTION FACILITIES:
   A,B,C. STORAGE, STAGING & STOCKPILE AREAS SHALL OCCUR @ THE EXISTING KNOLL PARKING LOT & THE PROPOSED LOWER MINI-GOLF AREA.
   D. DUMPSTERS & TRASH RECEPTACLES WILL BE PROVIDED AT THE KNOLL PARKING LOT.
   E. A TEMPORARY SANITARY FACILITY WILL BE PROVIDED @ THE CHRISTIE PEAK EXPRESS MID STATION. WORKERS SHALL HAVE ACCESS TO THE EXISTING SANITARY FACILITIES @ THE PLAZA STAGE & AT THE SKI AND SPORT SHOP AT THE SHERIDAN HOTEL.
   F. LOADING AREAS WILL BE AT THE KNOLL PARKING LOT
   G. TRAILERS & FIELD OFFICES WILL BE LOCATED AT THE EXISTING KNOLL PARKING LOT.
   H. THERE ARE NO LPG TANKS ANTICIPATED AT THIS TIME
3. PARKING:
   A. PARKING FOR WORKERS WILL BE PROVIDED FOR AT THE KNOLL PARKING LOT.
4. EXTERNAL TRAFFIC CONTROL PLAN:
   A. TRUCK SCHEDULE T.B.D. PER WEIGAND SCHEDULE
   B. ALL SITE ACCESS POINTS ARE EXISTING - NO CHANGES ARE ANTICIPATED.
   C. NO CHANGES ARE ANTICIPATED TO SIDEWALKS AND TRAILS.
5. INTERNAL ACCESS:
   A. ALL INTERNAL ROUTES ARE EXISTING. NO CHANGES ARE ANTICIPATED.
   B. ALL EMERGENCY ACCESS ROUTES ARE EXISTING. NO CHANGES ARE ANTICIPATED.

1 CONSTRUCTION SITE MANAGEMENT PLAN

NOT A CERTIFIED PLAT-BASED ON SURVEY BY LANDMARK ENGINEERING DATED: 04.28.2016
CONTOUR LINES NOT SHOWN THIS PLAN FOR CLARITY

SCALE: 1" = 200'-0"

Steamboat Engineering & Architectural Design, Inc.
2740 Acre Lane Suite E Steamboat Springs, CO 80487
Phone: 970 . 871 . 9101 Fax: 970 . 871 . 9089
E-mail: Steve@seadinc.com

ALPINE COASTER SITE

2305 MT. WERNER CIRCLE
STEAMBOAT SPRINGS, COLORADO

A SITE/GRADING PLAN FOR:
SSRC - STEAMBOAT SKI & RESORT CORP.

ISSUE DATES

CONCEPTUAL
06 . 13 . 16
06 . 20 . 16
06 . 24 . 16
06 . 29 . 16
PROGRESS
07 . 06 . 16
FINAL CHECK SET
07 . 13 . 16
GRADING PERMIT
07 . 15 . 16

DRAWN BY:
SJM/JEM
PROJECT # 16020

CONSTRUCTION SITE MANAGEMENT PLAN

CSMP

SHEET 1 of 14

EROSION AND SEDIMENT CONTROL PLAN GENERAL NOTES:

1. PLEASE REFER TO THE EXISTING STORM WATER DISCHARGE PERMIT #COR03M706 FOR STEAMBOAT SKI AND RESORT CORPORATION. NO ADDITIONAL PERMITTING FROM THE ARMY CORPS OF ENGINEERS WILL BE REQUIRED.

2. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING EROSION AND SEDIMENT CONTROL MEASURES AT ALL TIMES DURING CONSTRUCTION. THE STORMWATER MANAGEMENT PLANS MAY BE MODIFIED WITH APPROPRIATE APPROVALS FROM THE ENGINEER, AND MAY REQUIRE ADDITIONAL MEASURES AS FIELD CONDITIONS WARRANT.

3. A THOROUGH INSPECTION OF THE STORMWATER MANAGEMENT PLAN BEST MANAGEMENT PRACTICES (BMPS) SHALL BE PERFORMED EVERY FOURTEEN (14) CALENDAR DAYS AND AFTER ANY STORM EVENT OR SNOWMELT EVENT. PERIODIC INSPECTIONS SHALL ALSO INCLUDE INSPECTING EQUIPMENT FOR LEAKS AND REVIEWING EQUIPMENT MAINTENANCE PRACTICE. ALL INSPECTIONS AND MAINTENANCE SHALL BE DOCUMENTED BY THE PROJECT EROSION CONTROL SUPERVISOR AND MADE AVAILABLE TO THE ENGINEER UPON REQUEST. ANY EROSION CONTROL BMP THAT HAS BEEN COMPROMISED OR HAS BEEN DISTURBED SHALL BE REPLACED OR RECONSTRUCTED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL EROSION CONTROL BMPS IN PLACE AND EFFECTIVE PRIOR TO A STORM EVENT.

4. THE STORMWATER MANAGEMENT PLAN LOG BOOK SHALL BE UPDATED EVERY FOURTEEN (14) DAYS. THIS LOG SHALL REMAIN ON SITE AVAILABLE FOR REVIEW BY THE ENGINEER UPON REQUEST. MAINTENANCE ACTIVITIES TO CORRECT PROBLEMS NOTED DURING INSPECTIONS MUST BE DOCUMENTED AND KEPT IN THE STORMWATER MANAGEMENT PLAN LOG BOOK. THE STORMWATER MANAGEMENT PLAN MUST BE UPDATED TO REFLECT ALL CHANGES TO BMP'S AND PHASING AS THE CHANGES OCCUR.

5. ALL STREETS WITHIN AND IMMEDIATELY SURROUNDING A CONSTRUCTION SITE SHALL BE CLEANED OF DIRT AND DEBRIS ON A WEEKLY BASIS AND IMMEDIATELY FOLLOWING A SPILL OR TRACKING OF EARTH MATERIALS. STREETS SHALL BE CLEANED BY SCRAPING AND SWEEPING THE DIRT OFF THE ROADWAYS. SCRAPED OR SWEPT MATERIAL SHALL NOT BE DEPOSITED IN THE ROADSIDE DITCHES OR IN THE CREEK. DIRT TRACKED ONTO ROADWAYS AND OTHER PAVED SURFACES SHALL BE CLEANED UP BY THE END OF THE WORKDAY.

6. ALL CONSTRUCTION SITE OPERATORS SHALL CONTROL WASTE SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, HAZARDOUS CHEMICALS (TO INCLUDE BUT NOT LIMITED TO HEAVY EQUIPMENT MAINTENANCE FLUIDS, MOTOR OIL, ANTIFREEZE AND VEHICLE FUEL), LITTER, AND SANITARY WASTE AT THE CONSTRUCTION SITE THAT MAY CAUSE ADVERSE IMPACTS TO STORMWATER QUALITY.

7. ALL POTENTIAL POLLUTION SOURCES ON-SITE SHALL BE IDENTIFIED AND CONTROL MEASURES INSTALLED AND PRACTICED TO MINIMIZE THE LIKELIHOOD OF A RELEASE.

8. ALL PORTABLE TOILET FACILITIES SHALL BE LOCATED AWAY FROM GUTTERS, INLETS DITCHES, DRAINAGEWAYS, RECEIVING WATERS AND AREAS SUSCEPTIBLE TO FLOODING OR DAMAGE BY CONSTRUCTION EQUIPMENT.

9. ALL PORTABLE TOILET FACILITIES SHALL BE SECURED IN PLACE BY STAKES INTO THE GROUND TO PREVENT TIPPING.

10. STOCKPILES INCLUDING LANDSCAPING MATERIALS, EARTH MATERIALS AND DIRT FROM GRADING OR EXCAVATION SHALL NOT BE LOCATED ADJACENT TO WATERWAYS.

11. ALL MATERIAL IMPORTED TO OR EXPORTED FROM THE SITE SHALL BE PROPERLY COVERED TO PREVENT THE LOSS OF MATERIAL DURING TRANSPORT. HAUL ROUTES MUST BE PRE-APPROVED BY THE CITY. NO MATERIAL SHALL BE TRANSPORTED TO ANOTHER SITE WITHOUT FIRST OBTAINING A GRADING PERMIT FROM THE CITY.

12. THE CONCRETE WASHOUT CONTAINMENT STRUCTURE SHALL CONTAIN ALL WASHOUT WATER. STORMWATER SHALL NOT CARRY WASTES FROM WASHOUT LOCATION.

13. THE CONCRETE WASHOUT CONTAINMENT STRUCTURE SHALL BE LOCATED A MINIMUM OF FIFTY (50) FEET HORIZONTAL FROM WATERS OF THE STATE. THE CONCRETE WASHOUT CONTAINMENT STRUCTURE SHALL BE SIGNED AS – "CONCRETE WASHOUT."

PERFORMANCE STANDARD NOTES:

1. TEMPORARY EROSION CONTROL FACILITIES AND/OR PERMANENT FACILITIES INTENDED TO CONTROL EROSION OF AN EARTH DISTURBANCE OPERATION SHALL BE INSTALLED BEFORE ANY EARTH DISTURBANCE OPERATIONS TAKE PLACE.

2. EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY REDUCE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION.

3. PERSONS ENGAGED IN EARTH DISTURBANCES SHALL DESIGN, IMPLEMENT, AND MAINTAIN ACCEPTABLE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES, IN CONFORMANCE WITH THE EROSION CONTROL TECHNICAL STANDARDS ADOPTED BY CDOT.

4. EARTH DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED AND COMPLETED IN SUCH A MANNER SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST POSSIBLE PERIOD OF TIME.

5. SEDIMENT CAUSED BY ACCELERATED SOIL EROSION SHALL BE CONTAINED ON SITE.

6. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF WATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE DESIGNED TO LIMIT THE WATER FLOW TO A NON-EROSIVE VELOCITY.

7. RECORDS OF SPILLS, LEAKS, OR OVERFLOWS THAT RESULT IN THE DISCHARGE OF POLLUTANTS MUST BE DOCUMENTED AND MAINTAINED. SOME SPILLS MAY NEED TO BE REPORTED TO THE DIVISION IMMEDIATELY: SPECIFICALLY, A RELEASE OF ANY CHEMICAL, OIL, PETROLEUM PRODUCT, SEWAGE, ETC., WHICH MAY ENTER WATERS OF THE STATE, MUST BE REPORTED. MORE GUIDANCE IS AVAILABLE ON THE WEB AT WWW.CDPHE.STATE.CO.US/EMP/SPILLSANDRELEASED.HTM. THE DIVISION'S TOLL FREE 24-HOUR ENVIRONMENTAL EMERGENCY SPILL REPORTING LINE IS 1.877.518.5608. IN ADDITION TO CONTACTING CDPHE, ALSO IMMEDIATELY CALL THE STEAMBOAT SPRINGS ENGINEERING DEPARTMENT AT 970-879-2060

BMP MAINTENANCE NOTES:

1. IT IS ANTICIPATED THAT THE BMPS IMPLEMENTED AT THE SITE WILL HAVE TO BE MODIFIED TO ADAPT TO CHANGING CONDITIONS OR TO ENSURE THAT POTENTIAL POLLUTANTS ARE BEING PROPERLY MANAGED AT THE SITE. WHEN BMPS ARE MODIFIED, THE SWMP MUST BE MODIFIED TO ACCURATELY REFLECT THE ACTUAL FIELD CONDITIONS.

2. THE OWNER/CONTRACTOR SHALL MAINTAIN ALL SEDIMENT CONTROL LOGS AND SILT FENCING SO THAT IT FUNCTIONS PROPERLY DURING CONSTRUCTION AND WORK SUSPENSIONS. ALL SEDIMENT CONTROL LOGS AND SILT FENCING SHALL BE REMOVED BY THE CONTRACTOR UPON SUBSTANTIAL PERMANENT STABILIZATION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

3. ALL INLET/OUTLET PROTECTIONS WILL BE CHECKED FOR MAINTENANCE AND FAILURE. SEDIMENT SHALL BE REMOVED AND PROPERLY DISPOSED OF ONCE IT HAS ACCUMULATED TO HALF THE DESIGN OF THE TRAP.

4. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY, OR CONTAINED UNTIL APPROPRIATE CLEANUP METHODS CAN BE EMPLOYED. MANUFACTURE'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE FOLLOWED, ALONG WITH PROPER DISPOSAL METHODS.

5. EACH CONCRETE TRUCK OPERATOR SHALL BE AWARE OF THE DESIGNATED CONCRETE WASHOUT AREA.

6. THE CONTRACTOR SHALL CHECK THE CAPACITY FOR ALL CONCRETE WASHOUT AREAS. WASTE MATERIALS MUST BE REMOVED BY THE CONTRACTOR AND LEGALLY DISPOSED OF WHEN ACCUMULATIONS AMOUNT TO TWO-THRDS OF THE WET STORAGE CAPACITY OF THE STRUCTURE.

7. ALL CONCRETE WASHOUT AREAS SHALL BE CLEARLY MARKED. THE CONCRETE WASHOUT CONTAINMENT DETAIL WILL INCLUDE ORANGE PLASTIC CONSTRUCTION FENCING OR EQUIVALENT AROUND THE WASHOUT STRUCTURE AND A SIGN POSTED WITH THE WORDS "CONCRETE WASHOUT".

8. THE CONCRETE WASHOUT AREA SHALL BE REPAIRED AND/OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE.

9. AT THE END OF CONSTRUCTION, ALL CONCRETE SHALL BE REMOVED FROM THE SITE AND LEGALLY DISPOSED OF AT AN APPROVED WASTE SITE.

STANDARD STEAMBOAT SPRINGS CONSTRUCTION SITE MANAGEMENT PLAN NOTES:

1. THIS PLAN SHALL BE KEPT ON SITE AT ALL TIMES AND UPDATED TO REFLECT ANY CHANGES.

2. CONCRETE WASTE AND WASHOUT WATER FROM MIXING TRUCKS SHALL BE CONTAINED ON SITE, REMOVED FROM THE SITE, AND PROPERLY DISPOSED. MATERIALS SHOULD NOT ENTER STATE WATERS.

3. CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING TEMPORARY EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION AND ESTABLISHING ANY REQUIRED PERMANENT BEST MANAGEMENT PRACTICES (BMPS).

4. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL LOCAL, STATE, AND FEDERAL LAWS. IN ADDITION CONTRACTOR MUST OBTAIN REQUIRED PERMITS.

5. CLEARING OR GRADING SHALL NOT BEGIN UNTIL ALL SEDIMENT CONTROL DEVICES HAVE BEEN INSTALLED.

6. THE CONTRACTOR SHALL PROMPTLY REMOVE ALL SEDIMENT, MUD, AND CONSTRUCTION DEBRIS THAT MAY ACCUMULATE IN THE RIGHT OF WAY, PRIVATE PROPERTY, OR WATER WAYS AS A RESULT OF THE CONSTRUCTION ACTIVITIES.

7. ALL INGRESS, EGRESS POINTS AND VEHICLE ACCESS POINTS ONTO DISTURBED SITE MUST BE STABILIZED WITH A VEHICLE TRACKING CONTROL PAD. ACCESS SHALL ONLY BE VIA APPROVED LOCATIONS AS SHOWN ON APPROVED CSMP.

8. SOIL STABILIZATION MEASURES SHALL BE IN PLACE AND AREAS ARE TO BE REVEGETATED: (1) FOR STOCKPILES, IF INACTIVE FOR MORE THAN 30 DAYS (2) FOR AREAS OF LAND DISTURBANCE WITHIN ONE GROWING SEASON.

9. INLET PROTECTION SHALL BE INSTALLED IN CONJUNCTION WITH STORM DRAIN INLETS WHERE DRAINAGE AREA IS NOT VEGETATED.

10. BMPS SHALL BE USED, MODIFIED, AND MAINTAINED WHENEVER NECESSARY TO REFLECT CURRENT CONDITIONS. BMPS SHALL BE INSPECTED WEEKLY AND AFTER EVERY STORM EVENT. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM BMPS WHEN THE SEDIMENT LEVEL REACHES ½ THE HEIGHT OF THE BMP.

11. EMERGENCY ACCESS MUST BE KEPT OBSTACLE FREE AND PASSABLE AT ALL TIMES.

12. FOR ANY WORK TO BE DONE IN THE RIGHT OF WAY, COORDINATE WITH THE CITY CONSTRUCTION SITE MANAGER REGARDING SPECIAL PERMITTING. NO WORK SHALL BE CONDUCTED IN THE ROW BETWEEN NOVEMBER 1 AND APRIL 1 WITHOUT PRIOR APPROVAL FROM THE DIRECTOR OF PUBLIC WORKS.

13. WHERE REQUIRED AS PART OF THE ROW PERMIT OR WHERE SITE WORK AFFECTS THE PEDESTRIAN OR VEHICLE TRAVEL WAY, TRAFFIC CONTROL SHALL BE INSTALLED. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.

14. SIDEWALKS ADJACENT TO CONSTRUCTION SITES SHALL BE MAINTAINED, FOR PUBLIC USE, BY THE CONTRACTOR. IN AREAS WHERE CONSTRUCTION IS TAKING PLACE NEXT TO THE SIDEWALK AND OVERHEAD HAZARDS ARE POSSIBLE, CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING SIDEWALK PROTECTION.

STANDARD EROSION AND SEDIMENT CONTROL NOTES

1. THE CONTRACTOR MUST NOTIFY THE CITY OF STEAMBOAT SPRINGS AT LEAST THREE DAYS PRIOR TO STARTING CONSTRUCTION.

2. ALL GRADING, EROSION, AND SEDIMENT CONTROL MUST CONFORM TO APPROVED PLANS. REVISIONS TO DISTURBANCE AREAS, SLOPES, AND/OR EROSION AND SEDIMENT CONTROL MEASURES ARE NOT PERMITTED WITHOUT PRIOR APPROVAL FROM THE CITY OF STEAMBOAT SPRINGS.

3. THE EXISTING STORMWATER DISCHARGE PERMIT #COR03M706 MUST BE KEPT ON SITE AT ALL TIMES THROUGHOUT THE CONSTRUCTION PROCESS.

4. EROSION CONTROL BEST MANAGEMENT PRACTICES (BMPS) MUST BE INSTALLED PRIOR TO GRADING ACTIVITIES, TO THE MAXIMUM EXTENT PRACTICABLE. ANY PROJECT THAT REQUIRES A STATE STORMWATER DISCHARGE PERMIT REQUIRES PHASING. PHASED EROSION CONTROL PLANS MUST BE PREPARED BY THE CONTRACTOR.

5. ALL TEMPORARY AND PERMANENT SOIL EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. FOR EXAMPLE, EROSION CONTROL BLANKETS, SEDIMENT CONTROL LOGS, OR SILT FENCES WILL REQUIRE REPLACEMENT WHEN THE BMP FAILS. SEDIMENT TRAPS AND BASINS WILL REQUIRE SEDIMENT REMOVAL ACCORDING TO CDPHE GUIDELINES.

6. ALL TOPSOIL, WHERE PHYSICALLY PRACTICABLE, MUST BE SALVAGED AND NO TOPSOIL SHALL BE REMOVED FROM THE SITE EXCEPT AS SET FORTH IN THE APPROVED PLANS. TOPSOIL AND OVERBURDEN MUST BE SEGREGATED AND STOCKPILED SEPARATELY. TOPSOIL AND OVERBURDEN MUST BE REDISTRIBUTED WITHIN THE GRADED AREA AFTER ROUGH GRADING TO PROVIDE A SUITABLE BASE FOR AREAS THAT MUST BE SEEDED AND PLANTED. RUNOFF FROM THE STOCKPILED AREA MUST BE CONTROLLED TO PREVENT EROSION AND SEDIMENTATION OF RECEIVING WATERS. TOPSOIL IS TO BE AMENDED WITH COMPOST TO PROMOTE SEED GROWTH.

7. THE LANDOWNER AND/OR CONTRACTOR MUST IMMEDIATELY TAKE ALL NECESSARY STEPS TO CONTROL SEDIMENT DISCHARGE.

8. THE LANDOWNER AND/OR CONTRACTOR IS RESPONSIBLE FOR CLEAN UP AND REMOVAL OF ALL SEDIMENT AND DEBRIS FROM ALL DRAINAGE INFRASTRUCTURE AND OTHER PUBLIC FACILITIES.

9. THE LANDOWNER AND/OR CONTRACTOR MUST TAKE REASONABLE PRECAUTIONS TO ENSURE THAT VEHICLES DO NOT TRACK OR SPILL EARTH MATERIALS ON TO STREETS/ROADS AND MUST IMMEDIATELY REMOVE SUCH MATERIALS IF THIS OCCURS.

10. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING *LITTER SUCH AS DISCARDED BUILDING MATERIALS. CONCRETE TRUCK WASHOUT, CHEMICALS, AND SANITARY WASTE, AS APPLICABLE. IN ADDITION, SPILL PREVENTION AND CONTAINMENT BMPS FOR CONSTRUCTION MATERIALS, WASTE, AND FUEL MUST BE PROVIDED, AS APPLICABLE. LOCATIONS OF STOCKPILES, CONCRETE WASHOUT AREAS, AND TRASH RECEPTACLES MUST BE CLEARLY SHOWN ON THE PLANS. *LITTERING IS DEFINED AND ENFORCED BY COLORADO REVISED STATUES, SECTION 18-4-511.

11. THE STORM SEWER LINES WILL BE CLEANED BY CONTRACTOR UPON COMPLETION OF THE PROJECT.

12. SEEDING AND MULCHING SHALL BE COMPLETED WITHIN 30 DAYS OF INITIAL EXPOSURE OR 7 DAYS AFTER GRADING IS SUBSTANTIALLY COMPLETED IN A GIVEN AREA. THIS MAY REQUIRE MULTIPLE MOBILIZATIONS FOR SEEDING AND MULCHING.

13. TEMPORARY VEGETATIVE COVER CONSISTING OF ANNUAL RYE GRASS MUST BE HYDRO-SEEDED AT 20 POUNDS PURE LIVE SEED PER ACRE. MULCH CONSISTING OF GRASS HAY, APPLIED AT A RATE OF ONE TON PER ACRE AND CRIMPED MUST BE USED TO STABILIZE THE EXPOSED SURFACE.

PERMANENT SEED MIX IS AS FOLLOWS: "NATIVE GRASS SEED MIX" (REFER TO REVEGETATION SPECIFICATION SECTION 02933)

MULCH CONSISTING OF GRASS HAY, APPLIED AT A RATE OF ONE TON PER ACRE AND CRIMPED MUST BE USED TO STABILIZE THE EXPOSED SURFACE. SEE EROSION CONTROL PLAN FOR LOCATIONS OF EROSION CONTROL BLANKETS.

14. FUGITIVE DUST EMISSIONS RESULTING FROM GRADING ACTIVITIES AND/OR WIND SHALL BE CONTROLLED USING THE BEST AVAILABLE CONTROL TECHNOLOGY, AS DEFINED BY THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, AT THE TIME OF GRADING. DURING GRADING, APPLYING A COMBINATION OF WATER, TACKIFIER AND SILT FENCE TO BREAK UP WIND SURFACE VELOCITIES MAY CONTROL DUST. IF WIND SPEEDS EXCEED THE ABILITY OF BMPS TO CONTROL FUGITIVE DUST, GRADING ACTIVITIES MUST CEASE. THE CONTRACTOR SHALL OBTAIN A PERMIT FROM THE CDPHE AIR POLLUTION CONTROL DIVISION IF REQUIRED.

15. ALL DISTURBED FILL SLOPES GREATER THAN OR EQUAL TO 3:1, FLOWLINES OF SWALES, GUTTER DOWNSPOUTS, OR ADDITIONAL AREAS AT THE DISCRETION OF COUNTY STAFF, SHALL BE PROTECTED WITH AN EROSION BLANKET. SEE EROSION CONTROL PLANS FOR ADDITIONAL LOCATIONS OF EROSION CONTROL BLANKETS.

17. THE CITY OF STEAMBOAT SPRINGS, OR ITS AUTHORIZED REPRESENTATIVE, MAY MODIFY THE EROSION AND SEDIMENT CONTROL PLAN AS FIELD CONDITIONS WARRANT.

18. THE CONTRACTOR IS RESPONSIBLE FOR PREPARING AND SUBMITTING A TEMPORARY DEWATERING PLAN IF NEEDED TO THE CITY OF STEAMBOAT SPRINGS FOR REVIEW AND APPROVAL 10 DAYS PRIOR TO INITIATING CONSTRUCTION.

19. BMP MAINTENANCE AND REPLACEMENT MAY REQUIRE PERIODIC WORK. THIS IS TO OCCUR PER CDPHE REQUIREMENTS AS SOON AS POSSIBLE, AND AT SPECIFIC POINTS OF SEDIMENT ACCUMULATION, PHASING, OR DAILY ACTIVITIES.

SITE DESCRIPTION

CONSTRUCTION ACTIVITY	GRADING & EXCAVATION, RETAINING WALLS, DRAINAGE AND ASSOCIATED IMPROVEMENTS FOR ALPINE COASTER & MINI GOLF COURSE.
DISTURBANCE AREA	DISTURBANCE AREA = APPROX. 6.51 ACRES (283,700 SQ. FT.)
RUNOFF COEFFICIENTS	C100 = 0.50, APPROXIMATE C5 = 0.15, APPROXIMATE
EXISTING VEGETATION	NATIVE GRASSES.
SOIL CONDITION	GENERALLY, SURFACE SOIL CONDITIONS CONSIST OF ROUTT LOAM, WHICH IS TYPICALLY A HIGHLY EROSIVE SOIL.
PROPOSED LANDSCAPE AREA	ALL DISTURBED AREAS WILL BE REVEGETATED WITH NATIVE GRASSES.
POTENTIAL POLLUTION SOURCES	SEDIMENT, VEHICLE REFUELING, LEAKING VEHICLES, OFF-SITE VEHICLE TRACKING, CONCRETE
LOCATION OF NON-STORMWATER DISCHARGE	THE CONTRACTOR WILL DESIGNATE A CONFINED, CONCRETE WASH-OUT AREA ON SITE.
NAME AND LOCATION OF RECEIVING WATERS	BURGESS CREEK WITHIN EXISTING CULVERT ADJACENT TO THE SITE.

OVERALL SCOPE / PROJECT CHARACTERISTICS

INDUSTRIAL ACTIVITIES	NONE KNOWN
FINAL SITE DISPOSITION	THE SITE WILL BE RETURNED TO ORIGINAL CONDITIONS OR BETTER. DISTURBED SLOPES WILL RECEIVE HYDROMULCH SEEDING WITH FIBER BOND MATRIX.
EROSION CONTROL MEASURES	STRAW WATTLES OR SILT FENCE WILL BE AT THE TOE OF FILL SLOPES TO MINIMIZE SEDIMENT TRANSPORT. INLET AND OUTLET PROTECTION WILL BE PROVIDED AT ALL CULVERTS AND STORM SEWER. GRAVEL FILTER BAGS WILL BE PLACED WITHIN SWALES. A CONCRETE WASH-OUT AREA WILL BE PROVIDED. A VEHICLE TRACKING PAD WILL BE PROVIDED TO REDUCE TRACKING MUD ONTO THE PAVED ACCESS ROADWAY. A TEMPORARY SEDIMENT POND WILL BE UTILIZED WITHIN THE EXISTNG DEPRESSION NEAR THE BASE OF THE CHRISTIE LIFT.
OFFSITE FLOWS	NONE.

SCHEDULE OF GRADING ACTIVITIES/SEQUENCE

1. INSTALL EROSION CONTROL MEASURES
2. EARTHWORK/GRADING
3. CULVERT CONSTRUCTION
4. BUILDING & FOUNDATION CONSTRUCTION
5. FINE GRADING
6. FINAL STABILIZATION

BEST MANAGEMENT PRACTICES (BMP's)

STORM WATER QUALITY BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED TO MINIMIZE SOIL EROSION, SEDIMENTATION, INCREASED POLLUTION LOADS AND CHANGED WATER FLOW CHARACTERISTICS RESULTING FROM LAND DISTURBING ACTIVITY TO THE MAXIMUM EXTENT PRACTICAL, AS TO MINIMIZE POLLUTION OF RECEIVING WATERS.

MATERIALS HANDLING AND SPILL PREVENTION	MATERIALS EXPECTED TO BE PRESENT ARE AS FOLLOWS: PETROLEUM PRODUCTS & CONCRETE. NO CHEMICALS OR FUELS ARE TO BE STORED ON SITE. THE FOLLOWING MATERIAL MANAGEMENT PRACTICES SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF. • PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS WITH ORIGINAL MANUFACTURER LABEL. • ALL OF THE PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER. • ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTATIVE MAINTENANCE. • CONCRETE TRUCKS WILL BE ALLOWED MINIMAL WASHING ONLY IN DESIGNATED WASHOUT AREA. • THE SWMP ADMINISTRATOR SHALL BE NOTIFIED OF ANY SPILLS. CONTAINMENT OF THE SPILL MUST OCCUR IMMEDIATELY. IN THE EVENT OF A SPILL THE FOLLOWING AGENCIES MUST BE CONTACTED: COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT 303-692-3500 STEAMBOAT SPRINGS ENGINEERING DEPARTMENT – 970-879-2060
OTHER CONTROLS	WASTE MATERIALS WILL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN A DUMPSTER. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. ALL SANITARY WASTE WILL BE COLLECTED FROM PORTABLE UNITS A MINUMUM OF THREE TIMES PER WEEK. THE PAVED STREET ADJACENT TO THE SITE SHALL BE SWEPT TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE.
INSPECTION AND MAINTE-NANCE	INSPECTIONS: 1. PERFORM EVERY 14 DAYS, AND FOLLOWING A STORM EVENT 2. COMPLETE AN INSPECTION REPORT FOR EACH INSPECTION PERFORMED 3. KEEP INSPECTION REPORTS ON SITE: 1. PERFORM MAINTENANCE ON ITEMS OR AREAS IDENTIFIED IN THE INSPECTION REPORT IMMEDIATELY. 2. PERFORM MAINTENANCE AS INDICATED IN THE URBAN DRAINAGE & FLOOD CONTROL DISTRICT, URBAN STORM DRAINAGE DRITERIA MANUAL, VOL 3, PER MANUFACTURER'S SPECIFICATIONS OR OTHER SOURCES DETERMINED TO BE ACCEPTABLE. AN EFFICIENT RECORD-KEEPING SYSTEM IS A HELPFUL TOOL IN MANAGING INSPECTION AND MAINTENANCE REPORTS. IT IS RECOMMENDED THAT A LOGBOOK BE MAINTAINED FOR INSPECTION REPORTS, MAINTENANCE RECORDS, SPILL RESPONSE, WEATHER CONDITIONS, TRAINING CORRESPONDENCE, ETC.

Steamboat Engineering & Architectural Design, Inc.
2740 Acre Lane Suite E Steamboat Springs, CO 80487
Phone: 970 . 871 . 9101 Fax: 970 . 871 . 9089
E-mail: Steve@seadinc.com

ALPINE COASTER SITE

2205 MT. WERNER CIRCLE
STEAMBOAT SPRINGS, COLORADO

A SITE/GRADING PLAN FOR:
SSRC - STEAMBOAT SKI & RESORT CORP.

ISSUE DATES
CONCEPTUAL
06 . 13 . 16
06 . 20 . 16
06 . 24 . 16
06 . 29 . 16
PROGRESS
07 . 06 . 16
FINAL CHECK SET
07 . 13 . 16
GRADING PERMIT
07 . 15 . 16

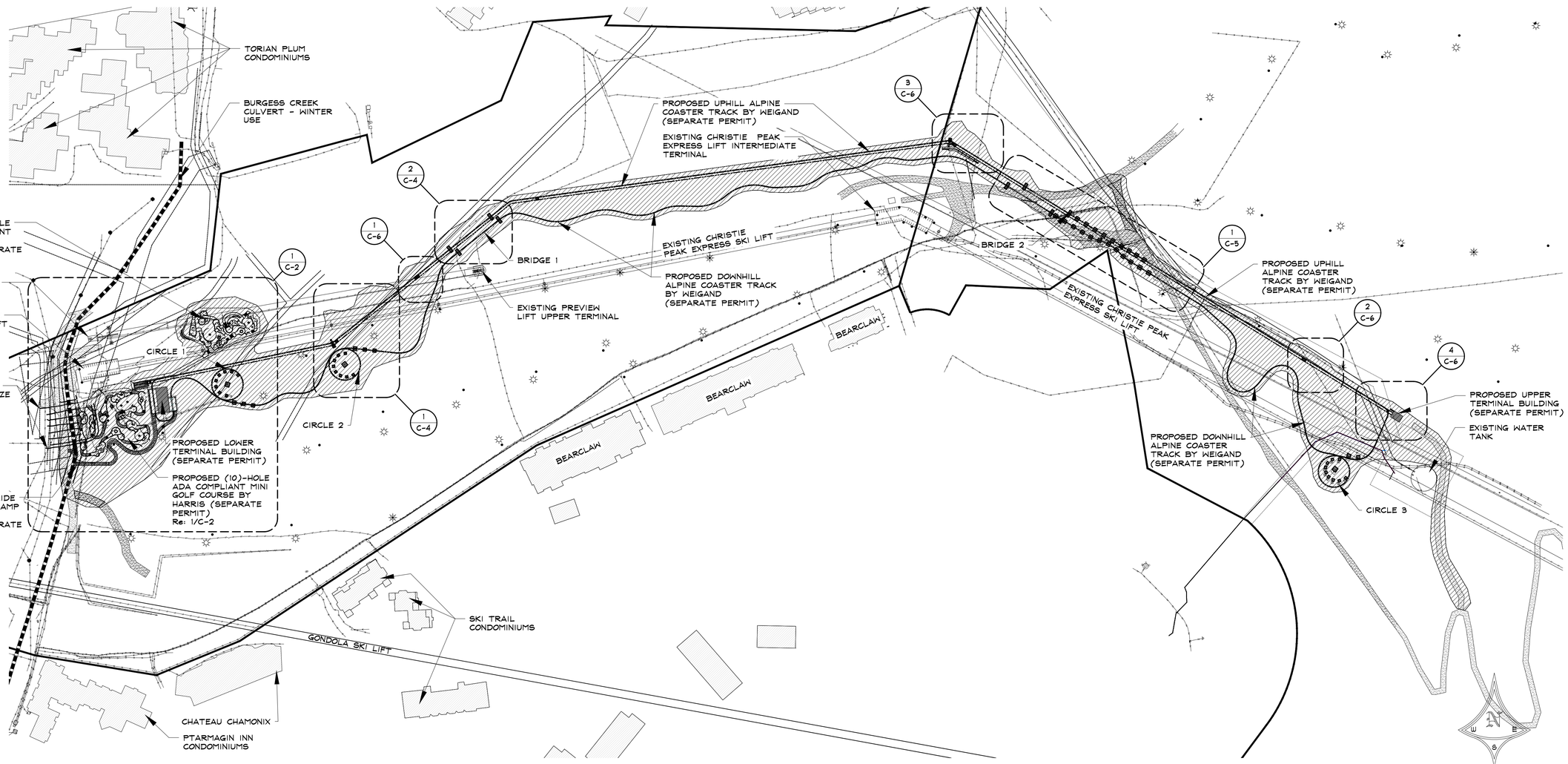
DRAWN BY:
SJM/JEM
PROJECT # 16020

GENERAL NOTES

C-0

KEY

- = EXISTING GRAVEL ROAD
- = PROPOSED GRAVEL WALKWAY
- = PROPOSED COASTER STRUCTURE
- = PROPOSED CONCRETE WALKWAY
- RR = RIPRAP
- = APPROXIMATE LIMITS OF DISTURBANCE = 283,700 SQ. FT. = 6.51 ACRES
- = PROPOSED SILOAM STONE RETAINING WALL (Re: SHEET C-7)
- SCL = SEDIMENT CONTROL LOG
- IP = INLET PROTECTION
- OP = OUTLET PROTECTION
- CWA = CONCRETE WASHOUT AREA
- PS = HYDROSEED & MULCH
- XE = EXISTING ELECTRIC
- XG = EXISTING GAS
- XS = EXISTING SEWER
- XT = EXISTING TELEPHONE
- XW = EXISTING WATER
- = EXISTING/NEW CULVERT
- = EXISTING LIGHT STRUCTURE & POWER SUPPLY



1 OVERALL SITE PLAN - ALPINE COASTER & MINI GOLF COURSE AT SSRC

NOT A CERTIFIED PLAT-BASED ON SURVEY BY LANDMARK ENGINEERING DATED: 04.28.2016
CONTOUR LINES NOT SHOWN THIS PLAN FOR CLARITY

SCALE: 1" = 100'-0"

Steamboat Engineering & Architectural Design, Inc.
2740 Acre Lane Suite E Steamboat Springs, CO 80487
Phone: 970 . 871 . 9101 Fax: 970 . 871 . 9089
E-mail: Steve@seadinc.com

ALPINE COASTER SITE

2305 MT. WERNER CIRCLE
STEAMBOAT SPRINGS, COLORADO

A SITE/GRADING PLAN FOR:
SSRC - STEAMBOAT SKI & RESORT CORP.

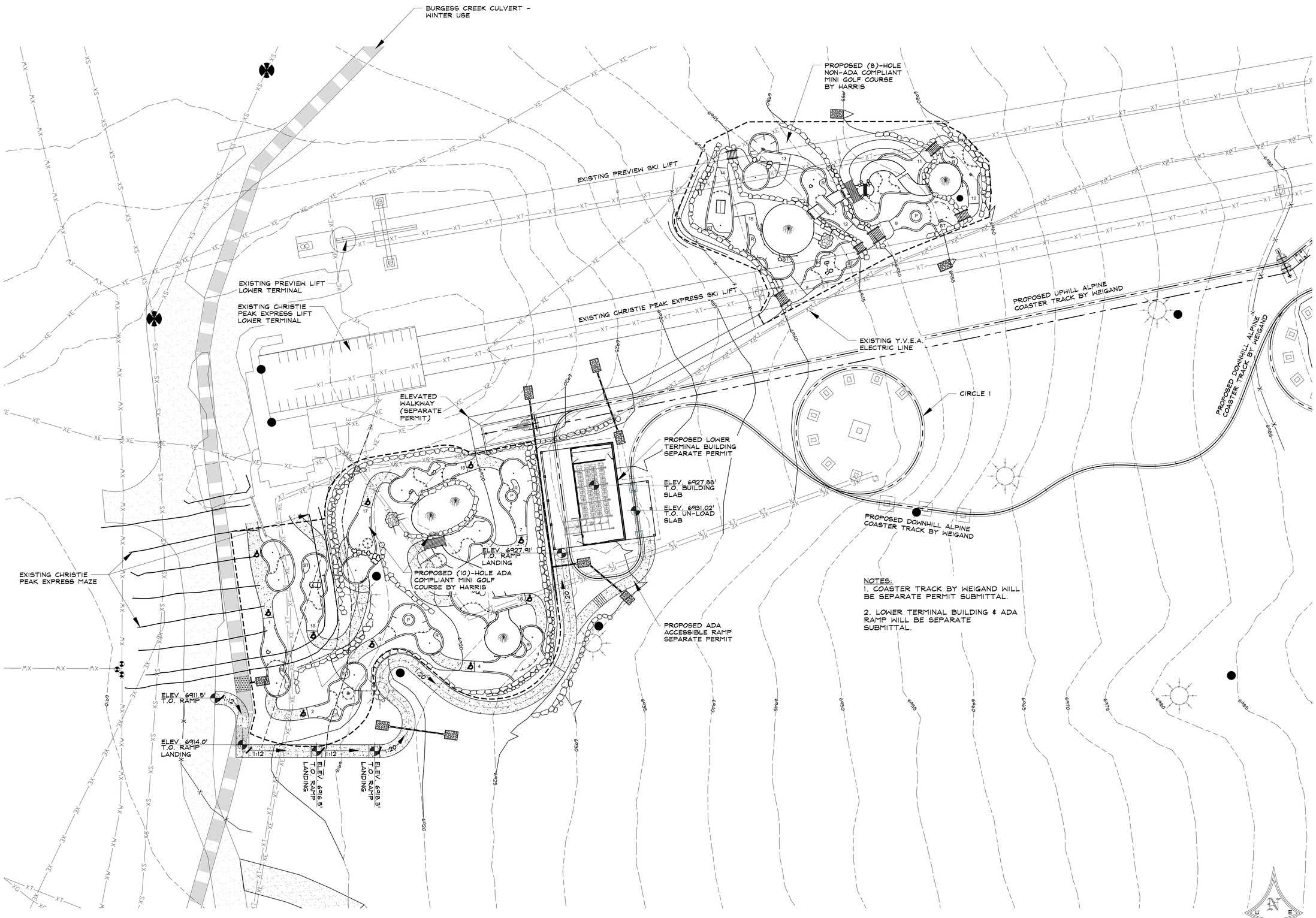
ISSUE DATES

CONCEPTUAL
06 . 13 . 16
06 . 20 . 16
06 . 24 . 16
06 . 29 . 16
PROGRESS
07 . 06 . 16
FINAL CHECK SET
07 . 13 . 16
GRADING PERMIT
07 . 15 . 16

DRAWN BY:
SJM/JEM
PROJECT # 16020

OVERALL SITE PLAN

C-1



1 ENHANCED SITE PLAN @ PROPOSED LOWER BUILDING / PROPOSED MINI GOLF COURSE BY HARRIS

NOT A CERTIFIED PLAT-BASED ON SURVEY BY LANDMARK ENGINEERING DATED: 04.28.2016
MINI GOLF COURSE BY HARRIS DATED 04.07.2016
DASHED CONTOUR LINES REPRESENT EXISTING ELEVATIONS
CONTOUR LINES ARE 5'-0" INTERVALS THIS PLAN

SCALE: 1" = 20'-0"

Steamboat Engineering & Architectural Design, Inc.
2740 Acre Lane Suite E Steamboat Springs, CO 80487
Phone: 970 . 871 . 9101 Fax: 970 . 871 . 9089
E-mail: Steve@seadinc.com

ALPINE COASTER SITE

2305 MT. WERNER CIRCLE
STEAMBOAT SPRINGS, COLORADO

A SITE/GRADING PLAN FOR:
SSRC - STEAMBOAT SKI & RESORT CORP.

ISSUE DATES

CONCEPTUAL
06 . 13 . 16
06 . 20 . 16
06 . 24 . 16
06 . 29 . 16
PROGRESS
07 . 06 . 16
FINAL CHECK SET
07 . 13 . 16
GRADING PERMIT
07 . 15 . 16

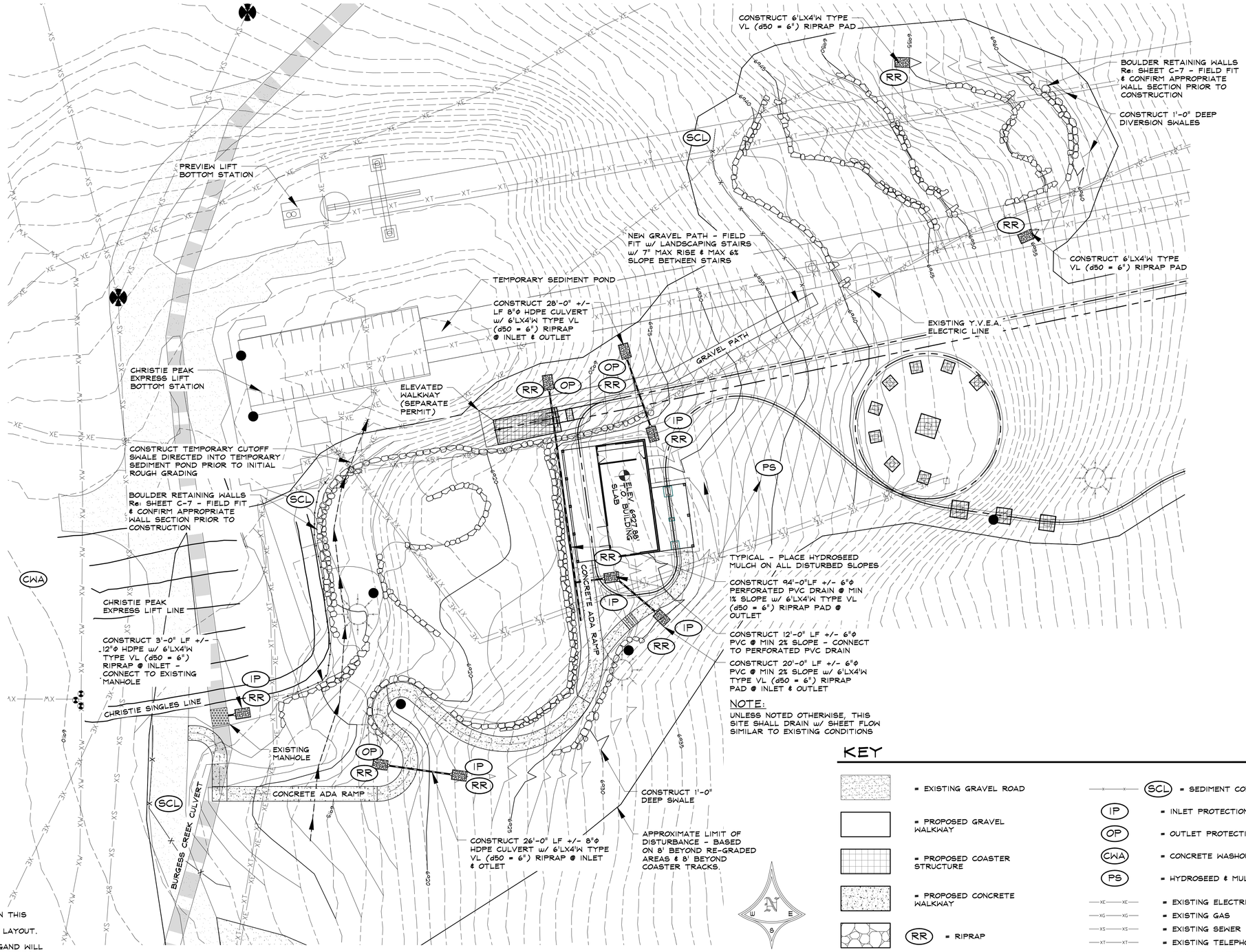
DRAWN BY:
SJM/JEM
PROJECT # 16020

ENHANCED SITE PLAN

C-2

SHEET 4 of 14

Z:\2016\16020_SSRC Alpine Coaster\Drawings\Civil\16020_Site.dwg, C-2, 7/15/2016 9:49:51 AM



NOTE:

GOLF COURSE NOT SHOWN THIS PLAN. REFER TO HARRIS DRAWINGS FOR DESIGN & LAYOUT.

COASTER TRACK BY WEIGAND WILL BE SEPARATE PERMIT SUBMITTAL.

NOTE:

UNLESS NOTED OTHERWISE, THIS SITE SHALL DRAIN w/ SHEET FLOW SIMILAR TO EXISTING CONDITIONS

KEY

- = EXISTING GRAVEL ROAD
- = PROPOSED GRAVEL WALKWAY
- = PROPOSED COASTER STRUCTURE
- = PROPOSED CONCRETE WALKWAY
- RR = RIPRAP
- = PROPOSED SILOAM STONE RETAINING WALL (Re: SHEET C-7)
- SCL = SEDIMENT CONTROL LOG
- IP = INLET PROTECTION
- OP = OUTLET PROTECTION
- CWA = CONCRETE WASHOUT AREA
- PS = HYDROSEED & MULCH
- XE = EXISTING ELECTRIC
- XG = EXISTING GAS
- XS = EXISTING SEWER
- XT = EXISTING TELEPHONE
- XW = EXISTING WATER
- = EXISTING/NEW CULVERT
- = EXISTING LIGHT STRUCTURE & POWER SUPPLY

1 ENHANCED GRADING & EROSION CONTROL PLAN @ LOWER TERMINAL BUILDING / MINI GOLF AREA

NOT A CERTIFIED PLAT-BASED ON SURVEY BY LANDMARK ENGINEERING DATED: 04.28.2016
DASHED CONTOUR LINES REPRESENT EXISTING ELEVATIONS
SOLID CONTOUR LINES REPRESENT PROPOSED ELEVATIONS
CONTOUR LINES ARE 1'-0" INTERVALS THIS PLAN

SCALE: 1" = 20'-0"

Steamboat Engineering & Architectural Design, Inc.
2740 Acre Lane Suite E Steamboat Springs, CO 80487
Phone: 970 . 871 . 9101 Fax: 970 . 871 . 9089
E-mail: Steve@seadinc.com

ALPINE COASTER SITE

2305 MT. WERNER CIRCLE
STEAMBOAT SPRINGS, COLORADO

A SITE/GRADING PLAN FOR:
SSRC - STEAMBOAT SKI & RESORT CORP.

ISSUE DATES

CONCEPTUAL
06 . 13 . 16
06 . 20 . 16
06 . 24 . 16
06 . 29 . 16
PROGRESS
07 . 06 . 16
FINAL CHECK SET
07 . 13 . 16
GRADING PERMIT
07 . 15 . 16

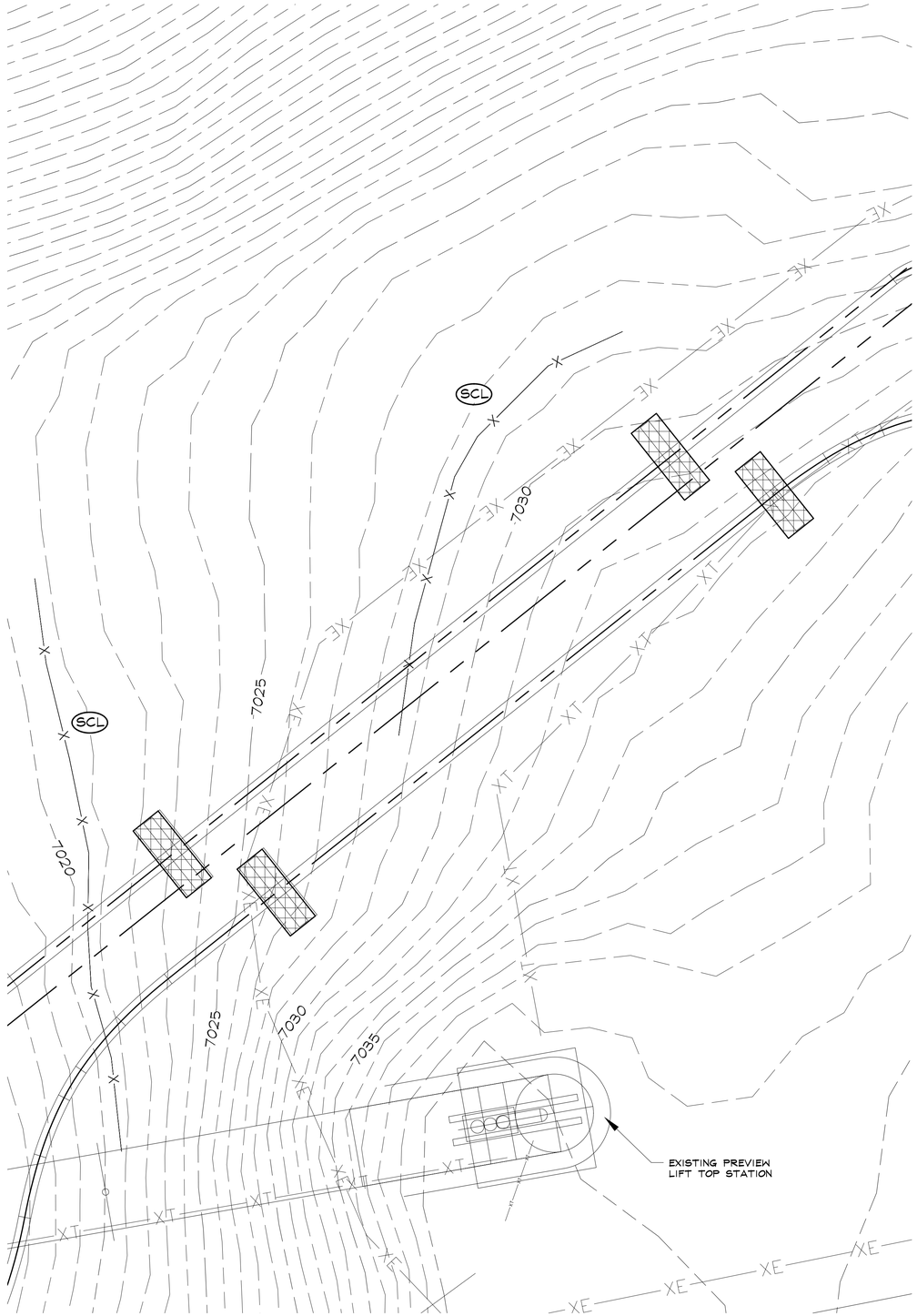
DRAWN BY:
SJM/JEM
PROJECT # 16020

ENHANCED SITE & EROSION CONTROL PLAN

C-3

SHEET 5 of 14

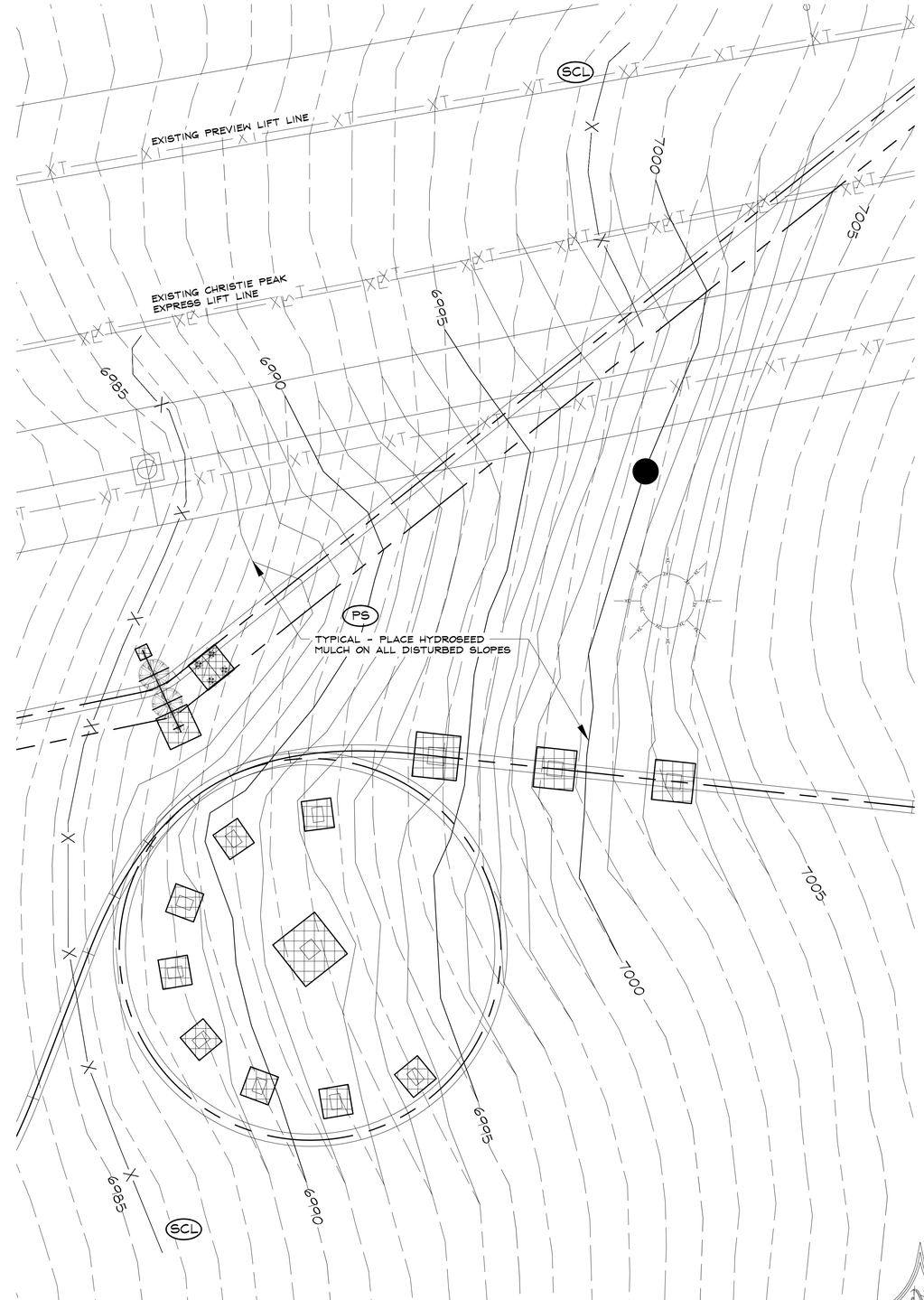
Z:\2016\16020_SSRC Alpine Coaster\Drawings\Civil\16020_Site.dwg, C-3, 7/15/2016 9:49:55 AM



2 ENHANCED GRADING & EROSION CONTROL PLAN @ BRIDGE #1

NOT A CERTIFIED PLAT-BASED ON SURVEY BY LANDMARK ENGINEERING DATED: 04.28.2016
DASHED CONTOUR LINES REPRESENT EXISTING ELEVATIONS
SOLID CONTOUR LINES REPRESENT PROPOSED ELEVATIONS
CONTOUR LINES ARE 1'-0" INTERVALS THIS PLAN
Re: SHEET C-3 FOR KEY

SCALE: 1" = 10'-0"



1 ENHANCED GRADING & EROSION CONTROL PLAN @ CIRCLE #2

NOT A CERTIFIED PLAT-BASED ON SURVEY BY LANDMARK ENGINEERING DATED: 04.28.2016
DASHED CONTOUR LINES REPRESENT EXISTING ELEVATIONS
SOLID CONTOUR LINES REPRESENT PROPOSED ELEVATIONS
CONTOUR LINES ARE 1'-0" INTERVALS THIS PLAN
Re: SHEET C-3 FOR KEY

SCALE: 1" = 10'-0"

Steamboat Engineering & Architectural Design, Inc.
2740 Acre Lane Suite E Steamboat Springs, CO 80487
Phone: 970 . 871 . 9101 Fax: 970 . 871 . 9089
E-mail: Steve@seadinc.com

ALPINE COASTER SITE

2305 MT. WERNER CIRCLE
STEAMBOAT SPRINGS, COLORADO

A SITE/GRADING PLAN FOR:
SSRC - STEAMBOAT SKI & RESORT CORP.

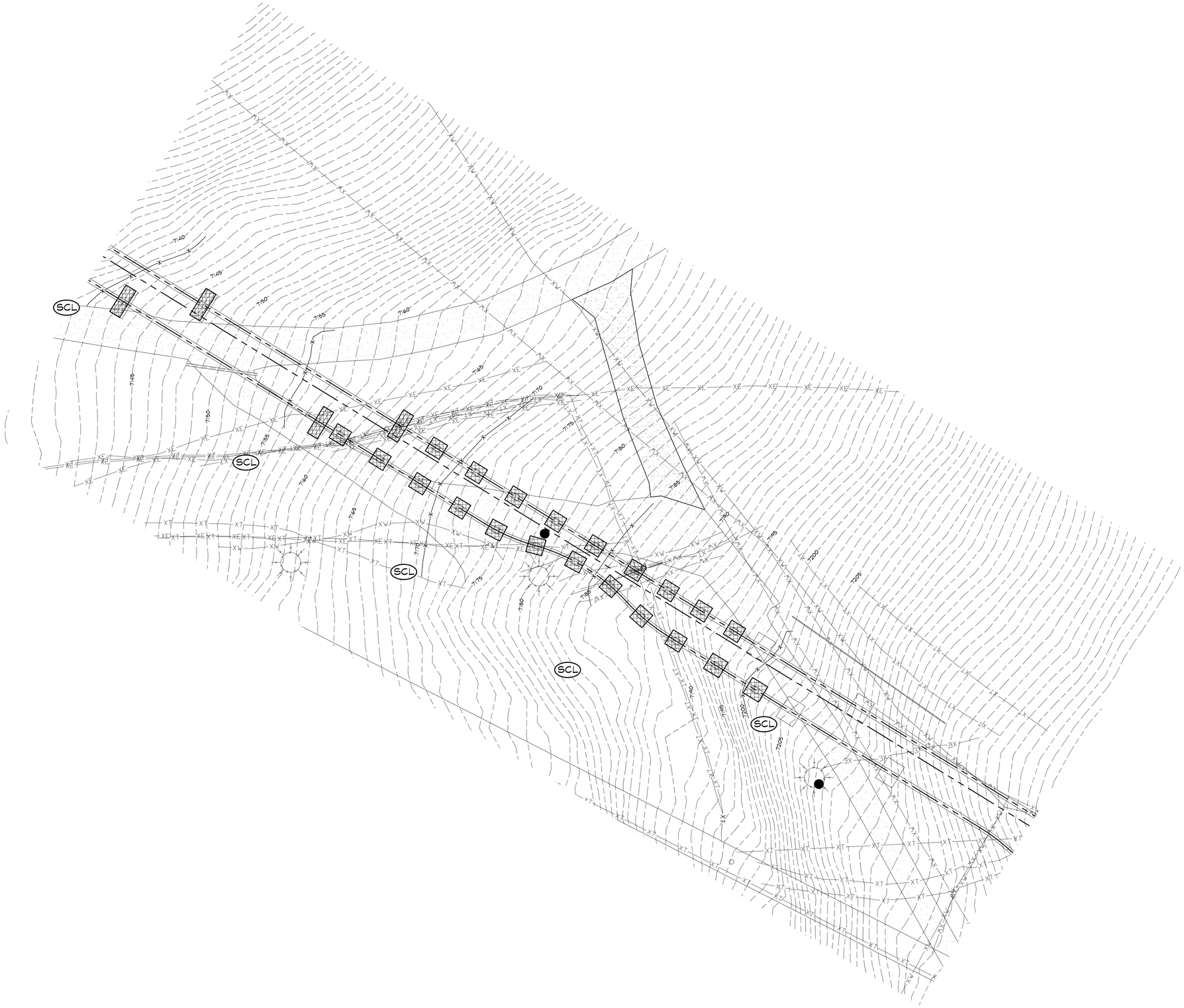
ISSUE DATES

CONCEPTUAL
06 . 13 . 16
06 . 20 . 16
06 . 24 . 16
06 . 29 . 16
PROGRESS
07 . 06 . 16
FINAL CHECK SET
07 . 13 . 16
GRADING PERMIT
07 . 15 . 16

DRAWN BY:
SJM/JEM
PROJECT # 16020

ENHANCED
SITE & EROSION
CONTROL PLAN

C-4



1 ENHANCED GRADING & EROSION CONTROL PLAN @ BRIDGE #2

NOT A CERTIFIED PLAT-BASED ON SURVEY BY LANDMARK ENGINEERING DATED: 04.28.2016
DASHED CONTOUR LINES REPRESENT EXISTING ELEVATIONS
SOLID CONTOUR LINES REPRESENT PROPOSED ELEVATIONS
CONTOUR LINES ARE 1'-0" INTERVALS THIS PLAN
Re: SHEET C-3 FOR KEY

SCALE: 1" = 20'-0"

Steamboat Engineering & Architectural Design, Inc.
2740 Acre Lane Suite E Steamboat Springs, CO 80487
Phone: 970 . 871 . 9101 Fax: 970 . 871 . 9089
E-mail: Steve@seadinc.com

ALPINE COASTER SITE

2305 MT. WERNER CIRCLE
STEAMBOAT SPRINGS, COLORADO

A SITE/GRADING PLAN FOR:
SSRC - STEAMBOAT SKI & RESORT CORP.

ISSUE DATES

CONCEPTUAL
06 . 13 . 16
06 . 20 . 16
06 . 24 . 16
06 . 29 . 16
PROGRESS
07 . 06 . 16
FINAL CHECK SET
07 . 13 . 16
GRADING PERMIT
07 . 15 . 16

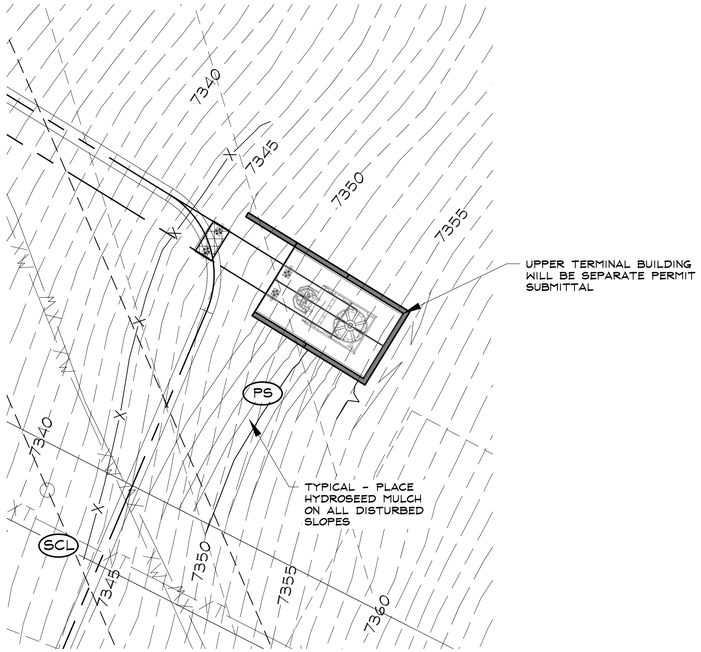
DRAWN BY:
SJM/JEM
PROJECT # 16020

ENHANCED
SITE & EROSION
CONTROL PLAN

C-5

SHEET 7 of 14

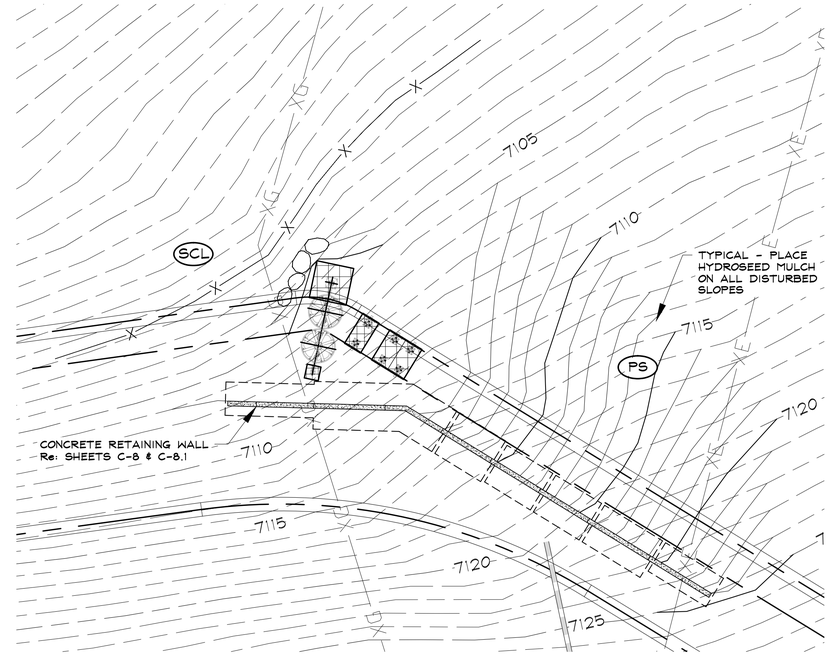
Z:\2016\16020_SSRC Alpine Coaster\Drawings\Civil\16020_Site.dwg, C-5, 7/15/2016 9:50:03 AM



4 ENHANCED GRADING & EROSION CONTROL PLAN @ UPPER TERMINAL BUILDING

NOT A CERTIFIED PLAT-BASED ON SURVEY BY LANDMARK ENGINEERING DATED: 04.28.2016
DASHED CONTOUR LINES REPRESENT EXISTING ELEVATIONS
SOLID CONTOUR LINES REPRESENT PROPOSED ELEVATIONS
CONTOUR LINES ARE 1'-0" INTERVALS THIS PLAN
Re: SHEET C-3 FOR KEY

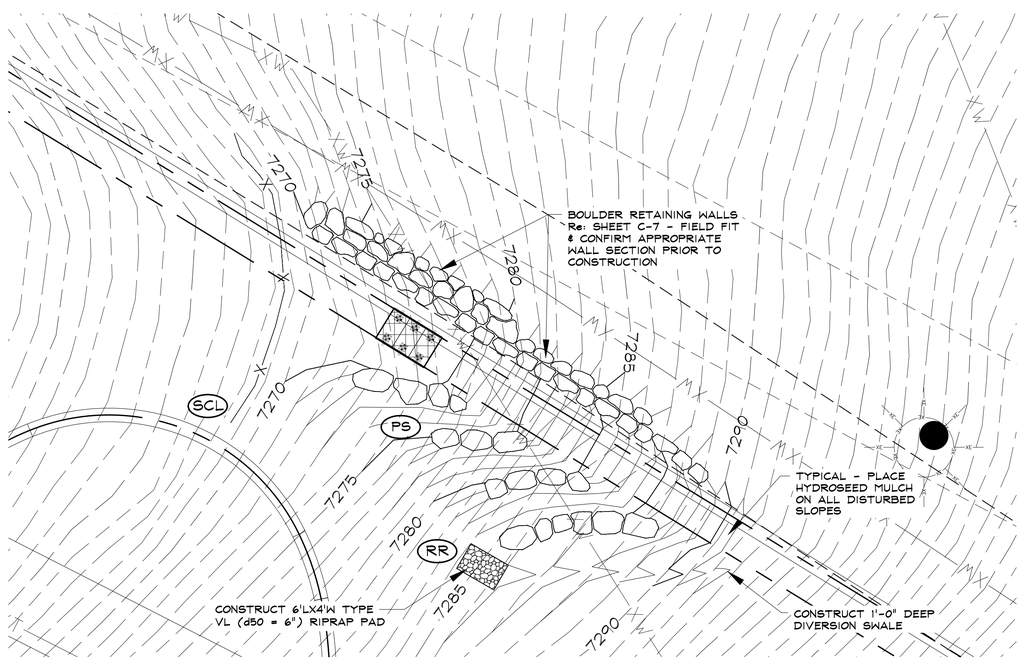
SCALE: 1" = 10'-0"



3 ENHANCED GRADING & EROSION CONTROL PLAN @ STATION 1+647.28

NOT A CERTIFIED PLAT-BASED ON SURVEY BY LANDMARK ENGINEERING DATED: 04.28.2016
DASHED CONTOUR LINES REPRESENT EXISTING ELEVATIONS
SOLID CONTOUR LINES REPRESENT PROPOSED ELEVATIONS
CONTOUR LINES ARE 1'-0" INTERVALS THIS PLAN
Re: SHEET C-3 FOR KEY

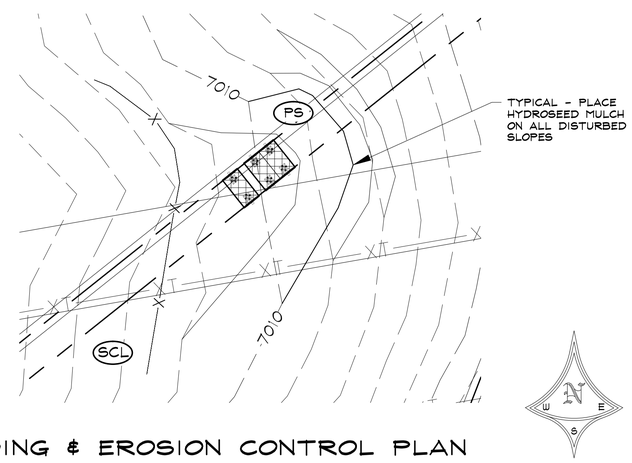
SCALE: 1" = 10'-0"



2 ENHANCED GRADING & EROSION CONTROL PLAN BETWEEN STATIONS 2+376.88 & 2+557.55

NOT A CERTIFIED PLAT-BASED ON SURVEY BY LANDMARK ENGINEERING DATED: 04.28.2016
DASHED CONTOUR LINES REPRESENT EXISTING ELEVATIONS
SOLID CONTOUR LINES REPRESENT PROPOSED ELEVATIONS
CONTOUR LINES ARE 1'-0" INTERVALS THIS PLAN
Re: SHEET C-3 FOR KEY

SCALE: 1" = 10'-0"



1 ENHANCED GRADING & EROSION CONTROL PLAN @ STATION 0+575.25

NOT A CERTIFIED PLAT-BASED ON SURVEY BY LANDMARK ENGINEERING DATED: 04.28.2016
DASHED CONTOUR LINES REPRESENT EXISTING ELEVATIONS
SOLID CONTOUR LINES REPRESENT PROPOSED ELEVATIONS
CONTOUR LINES ARE 1'-0" INTERVALS THIS PLAN
Re: SHEET C-3 FOR KEY

SCALE: 1" = 10'-0"

Steamboat Engineering & Architectural Design, Inc.
2740 Acre Lane Suite E Steamboat Springs, CO 80487
Phone: 970 . 871 . 9101 Fax: 970 . 871 . 9089
E-mail: Steve@seadinc.com

ALPINE COASTER SITE

2305 MT. WERNER CIRCLE
STEAMBOAT SPRINGS, COLORADO

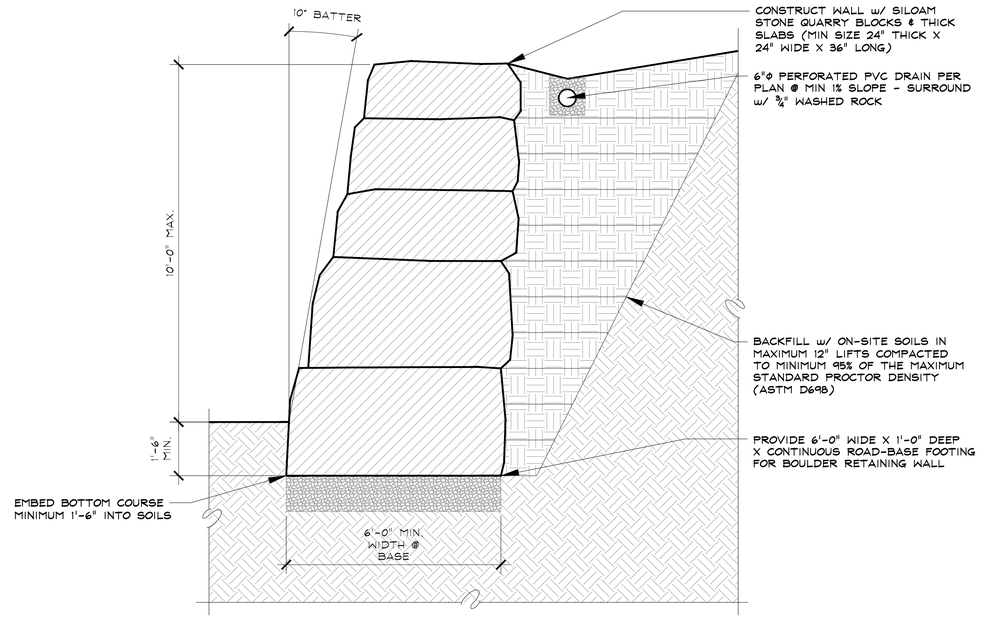
A SITE/GRADING PLAN FOR:
SSRC - STEAMBOAT SKI & RESORT CORP.

ISSUE DATES
CONCEPTUAL
06 . 13 . 16
06 . 20 . 16
06 . 24 . 16
06 . 29 . 16
PROGRESS
07 . 06 . 16
FINAL CHECK SET
07 . 13 . 16
GRADING PERMIT
07 . 15 . 16

DRAWN BY:
SJM/JEM
PROJECT # 16020

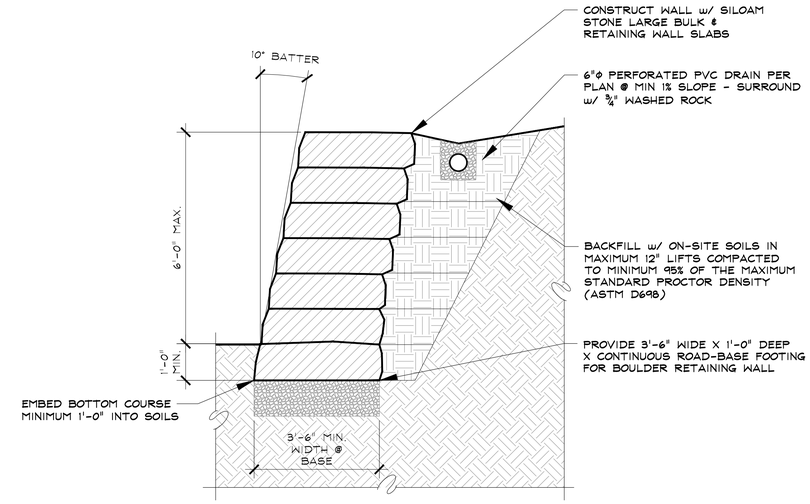
ENHANCED SITE & EROSION CONTROL PLAN

C-6



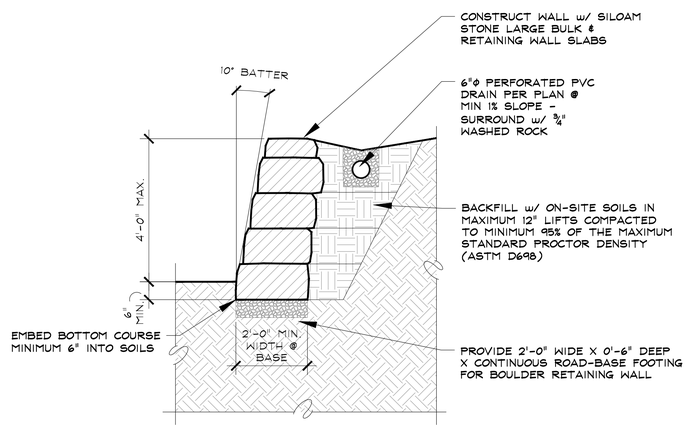
5 BOULDER RETAINING WALL 'C' - MAX. 10'-0" TALL

SCALE: ½" = 1'-0"



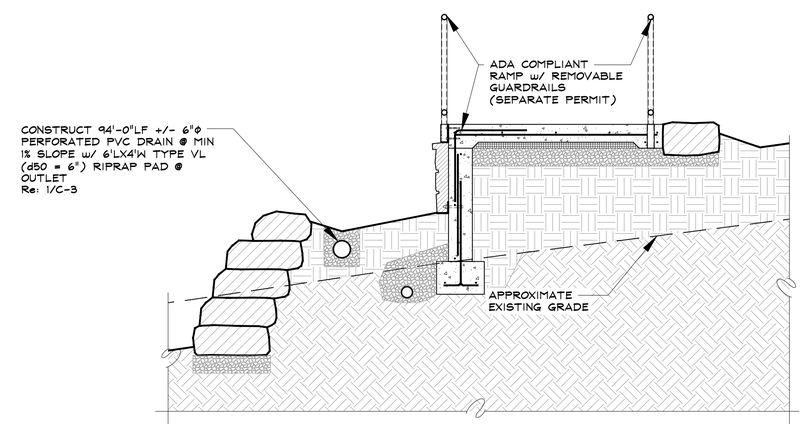
4 BOULDER RETAINING WALL 'B' - MAX. 6'-0" TALL

SCALE: ½" = 1'-0"



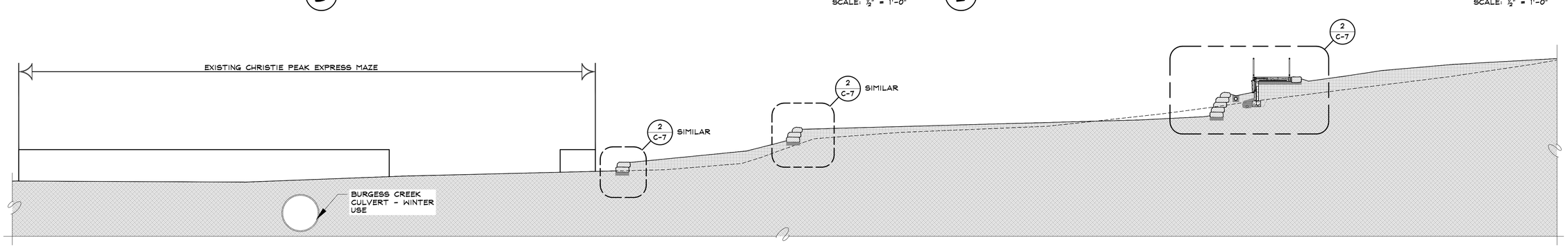
3 BOULDER RETAINING WALL 'A' - MAX. 4'-0" TALL

SCALE: ½" = 1'-0"



2 SECTION THROUGH RAMP & BOULDER WALL

SCALE: ½" = 1'-0"



1 OVERALL SITE SECTION THROUGH CHRISTIE PEAK EXPRESS MAZE, BOULDER WALLS & ADA RAMP

SCALE: ⅛" = 1'-0"

Steamboat Engineering & Architectural Design, Inc.
2740 Acre Lane Suite 'E' Steamboat Springs, CO 80487
Phone: 970 . 871 . 9101 Fax: 970 . 871 . 9089
E-mail: Steve@seadinc.com

ALPINE COASTER SITE

2305 MT. WERNER CIRCLE
STEAMBOAT SPRINGS, COLORADO

A SITE/GRADING PLAN FOR:
SSRC - STEAMBOAT SKI & RESORT CORP.

ISSUE DATES

CONCEPTUAL
06 . 13 . 16
06 . 20 . 16
06 . 24 . 16
06 . 29 . 16
PROGRESS
07 . 06 . 16
FINAL CHECK SET
07 . 13 . 16
GRADING PERMIT
07 . 15 . 16

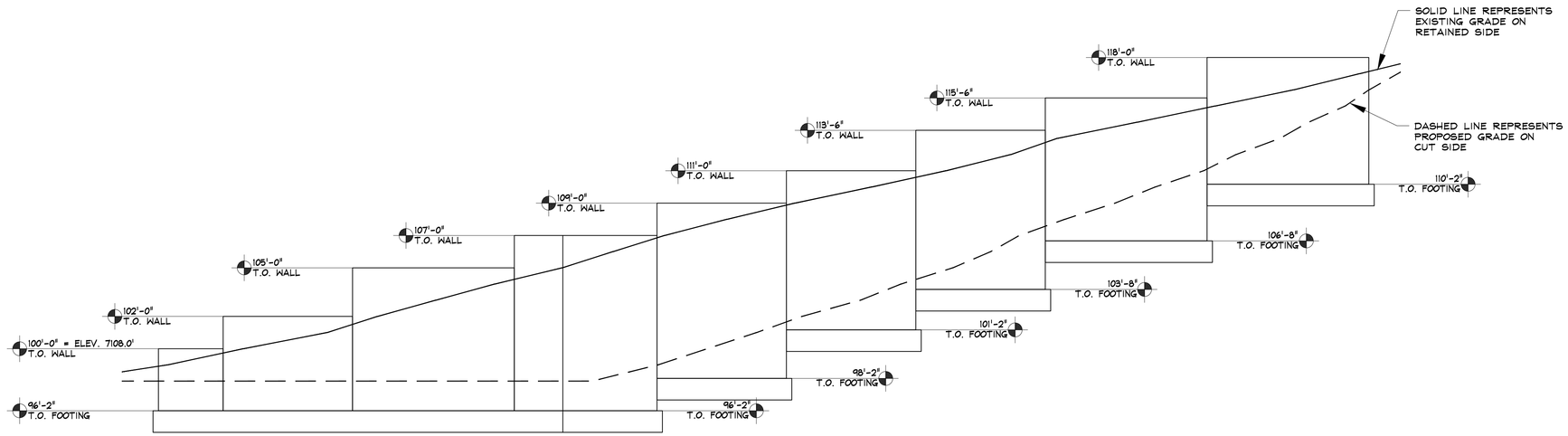
DRAWN BY:
SJM/JEM
PROJECT # 16020

SITE SECTIONS

C-7

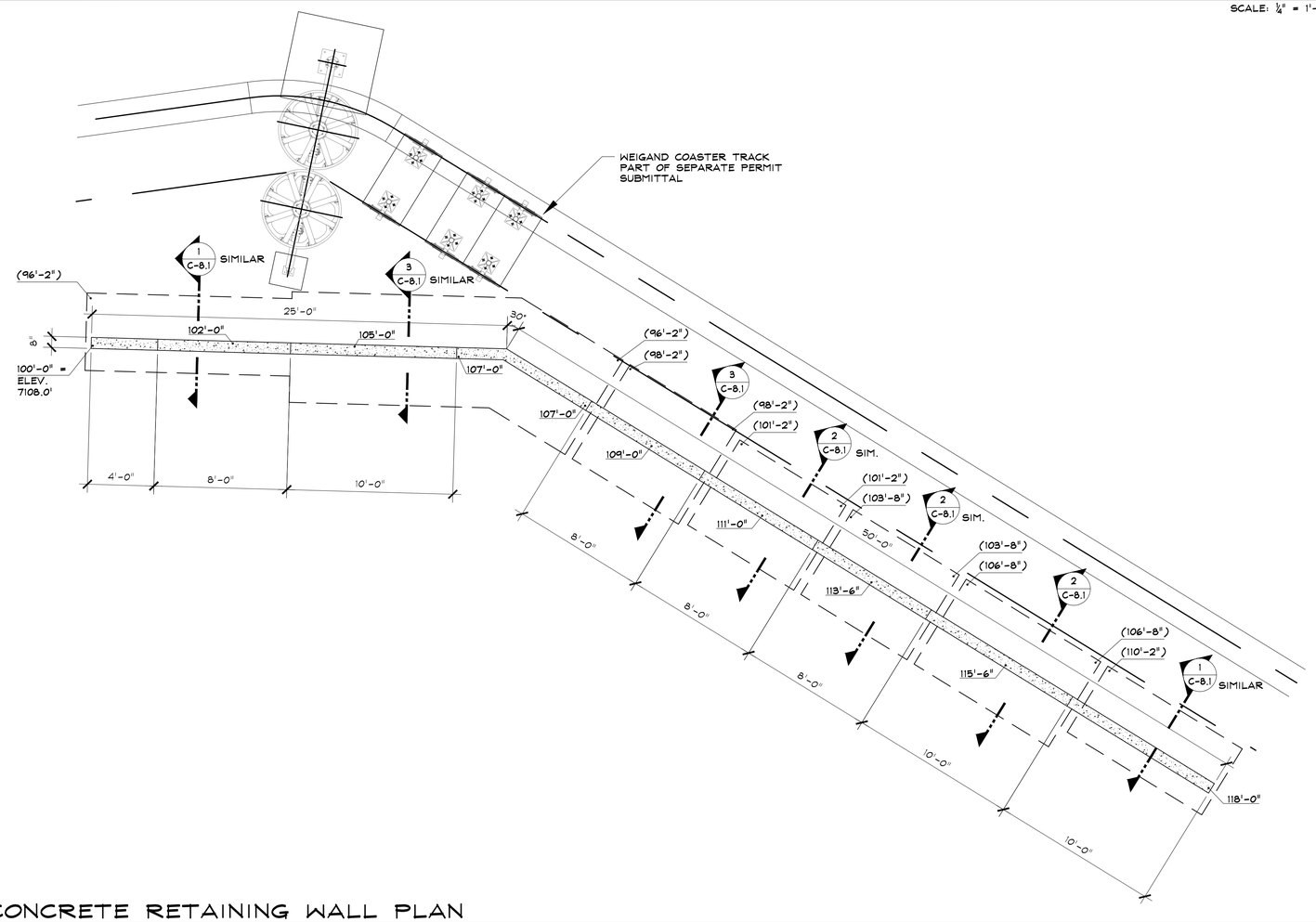
SHEET 9 of 14

Z:\2016\16020_SSRC Alpine Coaster\Drawings\Civil\16020_Site.dwg, C-7, 7/15/2016 9:50:15 AM



2 CONCRETE RETAINING WALL ELEVATION

SCALE: ¼" = 1'-0"



1 CONCRETE RETAINING WALL PLAN

TYPICAL - ELEVATION @ TOP OF CONCRETE WALL INDICATED THUS: ELEV

TYPICAL - ELEVATION @ TOP OF CONCRETE FOOTING INDICATED THUS: (ELEV)

SCALE: ¼" = 1'-0"

Steamboat Engineering & Architectural Design, Inc.
2740 Acre Lane Suite E Steamboat Springs, CO 80487
Phone: 970 . 871 . 9101 Fax: 970 . 871 . 9089
E-mail: Steve@seadinc.com

ALPINE COASTER SITE

2305 MT. WERNER CIRCLE
STEAMBOAT SPRINGS, COLORADO

A SITE/GRADING PLAN FOR:
SSRC - STEAMBOAT SKI & RESORT CORP.

ISSUE DATES

CONCEPTUAL
06 . 13 . 16
06 . 20 . 16
06 . 24 . 16
06 . 29 . 16
PROGRESS
07 . 06 . 16
FINAL CHECK SET
07 . 13 . 16
GRADING PERMIT
07 . 15 . 16

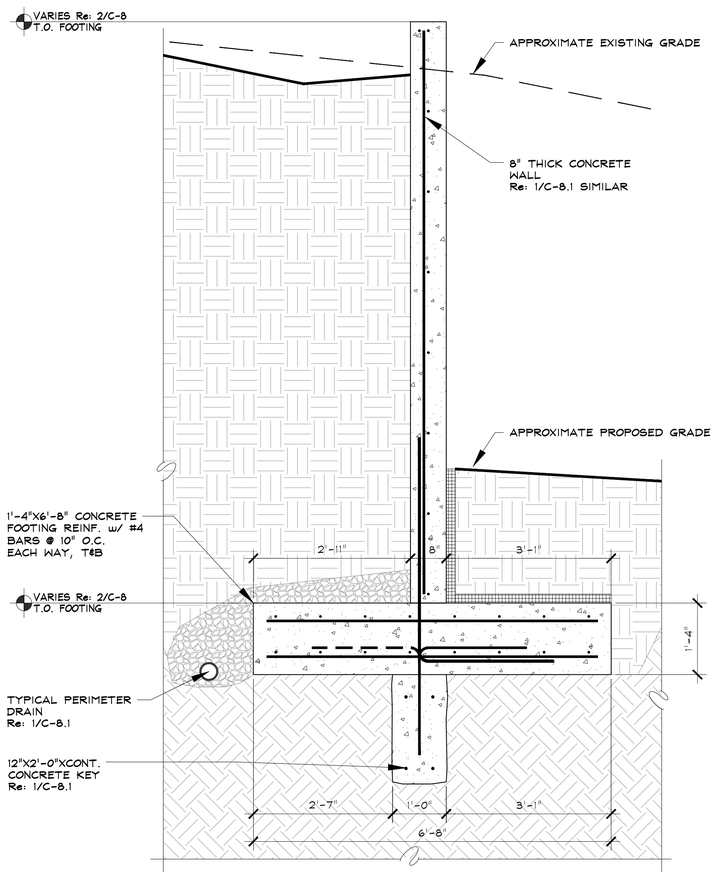
DRAWN BY:
SJM/JEM
PROJECT # 16020

CONCRETE RETAINING WALL PLAN & ELEVATION

C-8

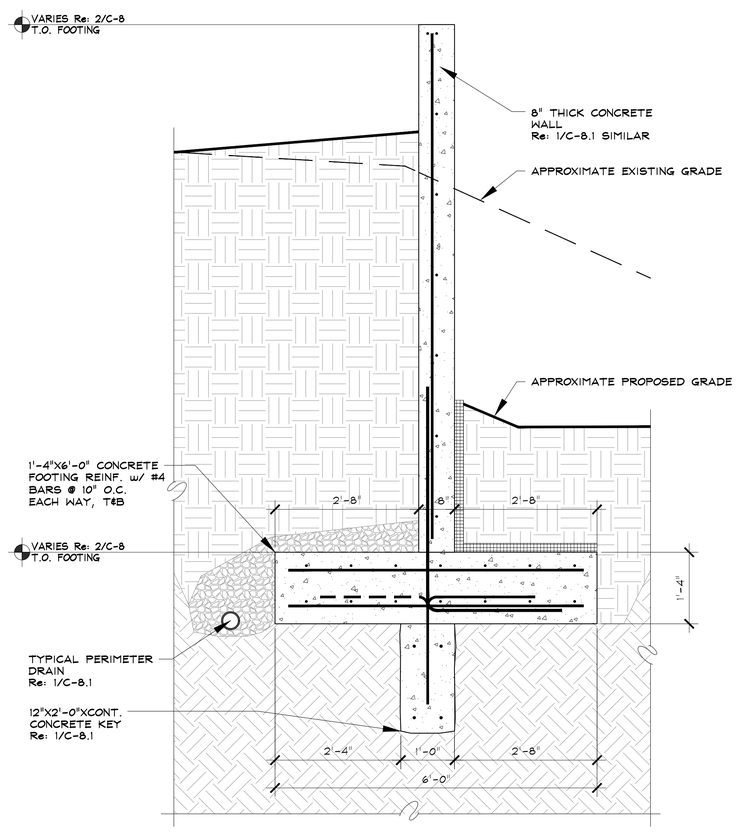
SHEET 10 of 14

Z:\2016\16020_SSRC Alpine Coaster\Drawings\Civil\16020_Site.dwg, C-8, 7/15/2016 9:50:19 AM



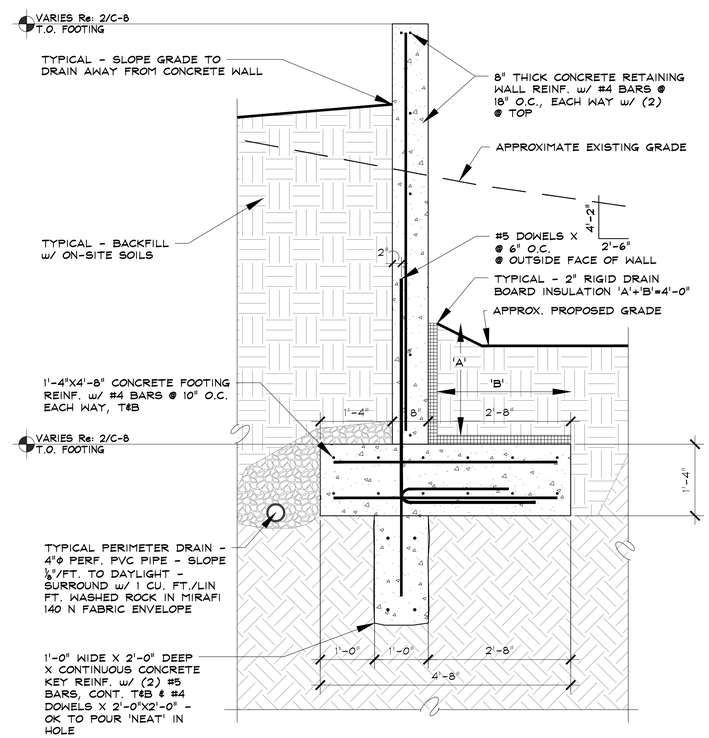
3 CONCRETE RETAINING WALL SECTION

SCALE: 3/4" = 1'-0"



2 CONCRETE RETAINING WALL SECTION

SCALE: 3/4" = 1'-0"



1 CONCRETE RETAINING WALL SECTION

SCALE: 3/4" = 1'-0"

Steamboat Engineering & Architectural Design, Inc.
2740 Acre Lane Suite E Steamboat Springs, CO 80487
Phone: 970 . 871 . 9101 Fax: 970 . 871 . 9089
E-mail: Steve@seadinc.com

ALPINE COASTER SITE

2305 MT. WERNER CIRCLE
STEAMBOAT SPRINGS, COLORADO

A SITE/GRADING PLAN FOR:
SSRC - STEAMBOAT SKI & RESORT CORP.

ISSUE DATES

CONCEPTUAL
06 . 13 . 16
06 . 20 . 16
06 . 24 . 16
06 . 29 . 16
PROGRESS
07 . 06 . 16
FINAL CHECK SET
07 . 13 . 16
GRADING PERMIT
07 . 15 . 16

DRAWN BY:
SJM/JEM
PROJECT # 16020

CONCRETE RETAINING WALL SECTIONS

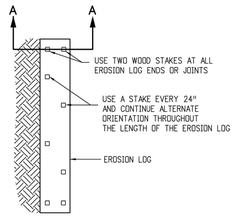
C-8.1

SHEET 11 of 14

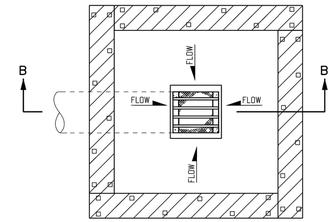
Z:\2016\16020_SSRC_Alpine Coaster\Drawings\Civil\16020_Site.dwg, C-8.1, 7/15/2016 9:50:23 AM

NOTES

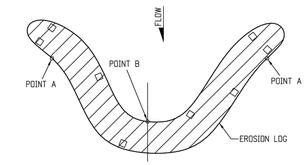
1. EROSION LOGS SHALL BE EMBEDDED 2 INCHES INTO THE SOIL.
2. STAKES SHALL BE EMBEDDED TO A MINIMUM DEPTH OF 12 INCHES.
3. EROSION LOGS SHALL BE TIGHTLY ABUTTED WITH NO GAPS.



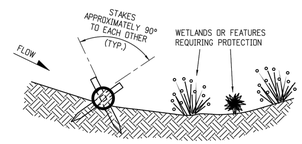
PLAN VIEW



PLAN VIEW

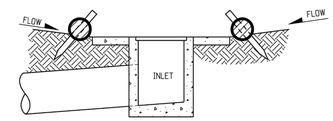


PLAN VIEW



SECTION A-A

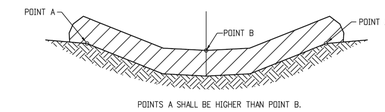
TYPICAL STAKE INSTALLATION



SECTION B-B

NOTE: LOCATE EROSION LOGS AT THE OUTSIDE EDGE OF THE CONCRETE APRON.

EROSION LOG FILTER AT DROP INLET



ELEVATION

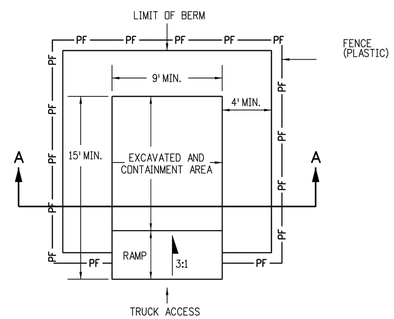
EROSION LOG DITCH INSTALLATION

EROSION LOG APPLICATIONS

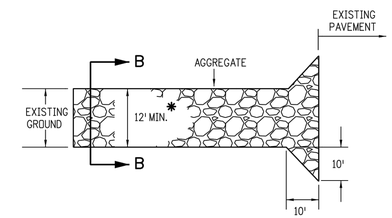
2 STANDARD TEMPORARY EROSION CONTROL SECTIONS

PLANS ARE PER CDOT STANDARD PLAN NO. M-208-1

SCALE: N.T.S.

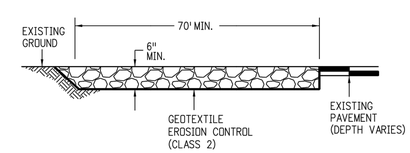


PLAN VIEW

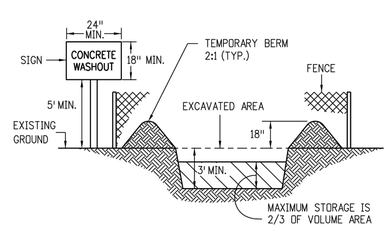


PLAN VIEW

* SHALL EXTEND FULL WIDTH OF INGRESS AND EGRESS OPERATION.



ELEVATION SECTION

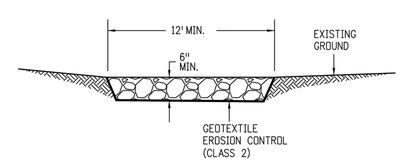


SECTION A-A

NOTES:

1. EROSION BALES MAY BE USED AS AN ALTERNATIVE FOR THE BERM.
2. A FENCE (PLASTIC) CONFORMING TO SUBSECTION 607.02 SHALL BE INSTALLED AROUND THE CONCRETE WASHOUT AREA, EXCEPT AT THE OPENING.
3. THE CONCRETE WASHOUT SIGN SHALL HAVE LETTERS AT LEAST 3 INCHES HIGH AND CONFORM TO SUBSECTION 630.02.

CONCRETE WASHOUT STRUCTURE



SECTION B-B

NOTES:

1. AGGREGATE FOR THE CONSTRUCTION ENTRANCE SHALL CONFORM TO SUBSECTION 208.02 (K).
2. THE CONTRACTOR SHALL PROTECT CURB AND GUTTER THAT CROSSES THE ENTRANCE FROM DAMAGE. PROTECTION OF THE CURB AND GUTTER WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE WORK.

VEHICLE TRACKING PAD

1 STANDARD TEMPORARY EROSION CONTROL SECTIONS

PLANS ARE PER CDOT STANDARD PLAN NO. M-208-1

SCALE: N.T.S.

Steamboat Engineering & Architectural Design, Inc.
2740 Acre Lane Suite E Steamboat Springs, CO 80487
Phone: 970 . 871 . 9101 Fax: 970 . 871 . 9089
E-mail: Steve@seadinc.com

ALPINE COASTER SITE

2305 MT. WERNER CIRCLE
STEAMBOAT SPRINGS, COLORADO

A SITE/GRADING PLAN FOR:
SSRC - STEAMBOAT SKI & RESORT CORP.

ISSUE DATES

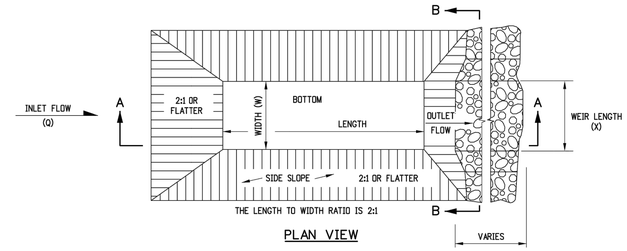
CONCEPTUAL
06 . 13 . 16
06 . 20 . 16
06 . 24 . 16
06 . 29 . 16
PROGRESS
07 . 06 . 16
FINAL CHECK SET
07 . 13 . 16
GRADING PERMIT
07 . 15 . 16

DRAWN BY:
SJM/JEM
PROJECT # 16020

STANDARD DETAILS

C-9

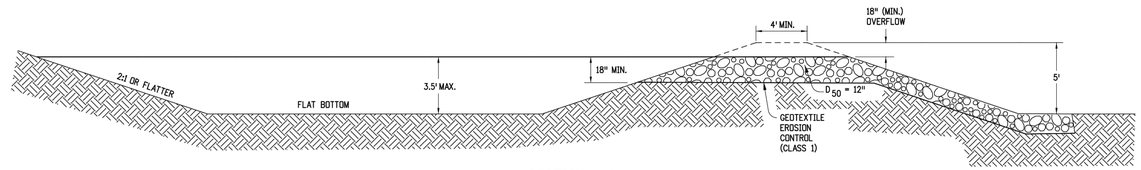
SHEET 12 of 14



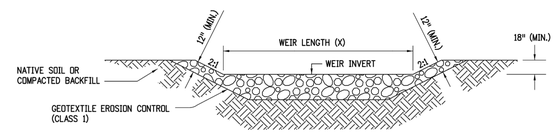
PLAN VIEW

NOTES

1. THE MAXIMUM DRAINAGE AREA IS 5 ACRES.
2. THE MAXIMUM STRUCTURE LIFE IS 2 YEARS.
3. THE STORAGE AREA IS 1800 CUBIC FEET PER ACRE.
4. THE MAXIMUM EMBANKMENT HEIGHT SHALL BE 5 FT. MEASURED ON THE DOWNSTREAM SIDE.
5. THE LENGTH/WIDTH RATIO MAY BE ADJUSTED TO MEET SITE CONDITIONS WHEN APPROVED BY THE ENGINEER.
6. WIDTH (W) OF SEDIMENT TRAP IS APPROXIMATELY EQUAL TO THE WEIR LENGTH (X).
7. SEDIMENT TRAP DESIGN SHALL BE APPROVED BY THE ENGINEER.



SECTION A-A



SECTION B-B

DRAINAGE AREA (ACRES)	WEIR LENGTH (FEET)
1	4
2	6
3	8
4	10
5	12

WEIR LENGTH TABLE

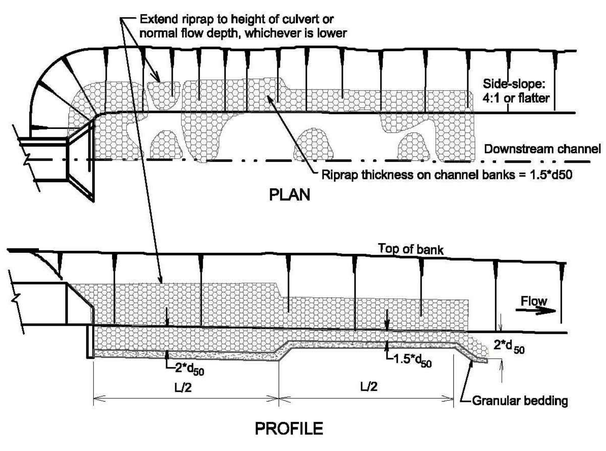
SEDIMENT TRAP

2 STANDARD TEMPORARY EROSION CONTROL SECTIONS

PLANS ARE PER CDOT STANDARD PLAN NO. M-208-1

SCALE: N.T.S.

DRAINAGE CRITERIA MANUAL (V. 1) MAJOR DRAINAGE



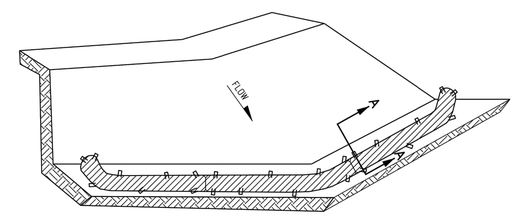
NOTES: 1. Headwall with wingwalls or flared end section required at all culvert outlets.
2. Cutoff wall required at end of wingwall aprons and end section. Minimum depth of cutoff wall = 2*d50 or 3-feet, whichever is deeper.
3. Provide joint fasteners for flared end sections.

Figure MD-25—Culvert and Pipe Outlet Erosion Protection

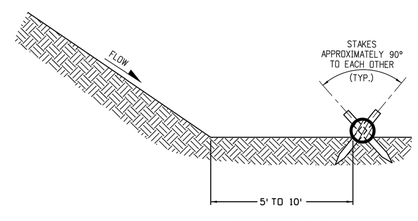
3 CULVERT INLET/OUTLET PROTECTION SECTION

PLANS ARE PER URBAN DRAINAGE AND FLOOD CONTROL DISTRICT MD-111

SCALE: N.T.S.



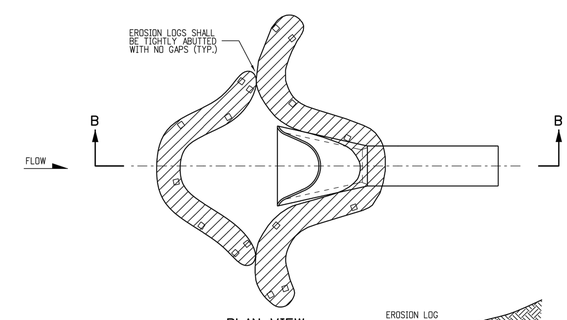
ISOMETRIC VIEW



SECTION A-A

NOTES:
1. EROSION LOGS USED AT TOE OF SLOPE SHALL BE PLACED 5 TO 10 FEET BEYOND TOE OF SLOPE TO PROVIDE STORAGE CAPACITY.
2. EROSION LOGS SHALL BE PLACED ON THE CONTOUR, WITH ENDS FLARED UP SLOPE.

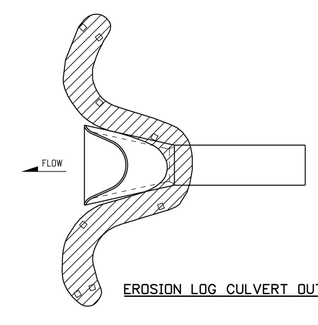
EROSION LOG TOE OF SLOPE PROTECTION



PLAN VIEW

SECTION B-B

EROSION LOG CULVERT INLET PROTECTION



EROSION LOG CULVERT OUTLET PROTECTION

EROSION LOG APPLICATIONS

1 STANDARD TEMPORARY EROSION CONTROL SECTIONS

PLANS ARE PER CDOT STANDARD PLAN NO. M-208-1

SCALE: N.T.S.

Steamboat Engineering & Architectural Design, Inc.
2740 Acre Lane Suite E Steamboat Springs, CO 80487
Phone: 970 . 871 . 9101 Fax: 970 . 871 . 9089
E-mail: Steve@seadinc.com

ALPINE COASTER SITE

2305 MT. WERNER CIRCLE
STEAMBOAT SPRINGS, COLORADO

A SITE/GRADING PLAN FOR:
SSRC - STEAMBOAT SKI & RESORT CORP.

ISSUE DATES
CONCEPTUAL
06 . 13 . 16
06 . 20 . 16
06 . 24 . 16
06 . 29 . 16
PROGRESS
07 . 06 . 16
FINAL CHECK SET
07 . 13 . 16
GRADING PERMIT
07 . 15 . 16

DRAWN BY:
SJM/JEM
PROJECT # 16020

STANDARD DETAILS

C-10

SHEET 13 of 14

Z:\2016\16020_SSRC_Alpine Coaster\Drawings\Civil\16020_Site.dwg, C-10, 7/15/2016 9:50:28 AM

LEGEND

H = MAXIMUM ALLOWABLE HEIGHT OF COVER OVER THE TOP OF THE PIPE, EXCLUDING PAVEMENT THICKNESS.

FILL HEIGHTS AND DESIGN ASSUMPTIONS ARE BASED ON AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4TH EDITION, SECTION 12, FOR 900 PSI LONG TERM STRENGTH OF HDPE, AND AASHTO T180 MINIMUM RELATIVE COMPACTION OF 95% OR 90%.

FILL HEIGHTS ARE BASED ON AASHTO M294 FOR POYLEHTELENE AND AASHTO M330 FOR POLYPROPYLENE, TYPE S PIPES WITH OUTER, CORRUGATED WALLS AND SMOOTH INNER LINEARS.

FILL HEIGHTS, FOR INSTALLATION WITH HIGH WATER TABLE, REQUIRE A SPECIAL DESIGN. THE MAXIMUM HEIGHT IN HIGHWATER LOCATIONS SHOULD BE 15 FEET OR BASED ON AASHTO LRFD DESIGN SPECIFICATIONS.

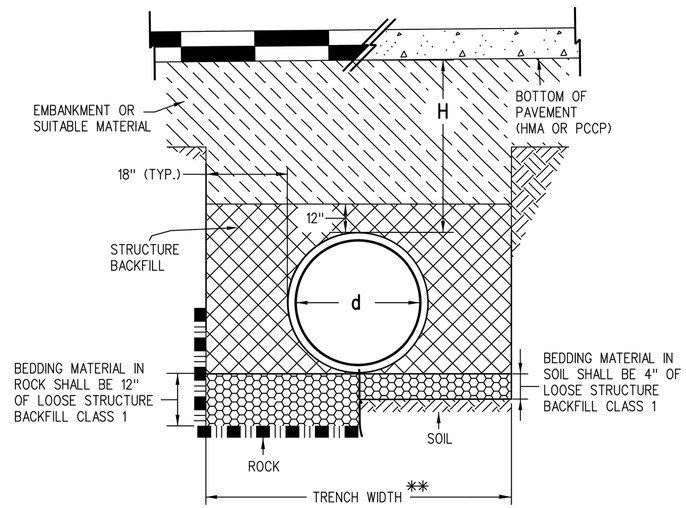
THE MINIMUM COVER SHALL BE AS SHOWN ON THESE TABLES OR CONFORM TO AASHTO REQUIREMENTS, WHICHEVER IS GREATER. THE MINIMUM COVER FOR PIPE IS MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE PAVEMENT: HMA OR PCCP.

THE MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE SUBGRADE DURING CONSTRUCTION. THE MINIMUM COVER IS BASED ON DUAL AXLE LOADS UP TO 50,000 POUNDS.

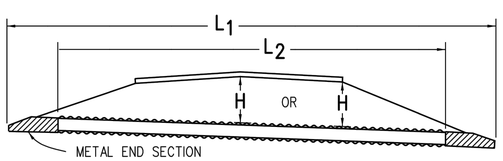
L_1 = LENGTH OF PIPE TO BE MEASURED WHEN PLACED IN ACCORDANCE WITH SECTION 624.

L_2 = LENGTH OF PIPE TO BE MEASURED WHEN PLACED IN ACCORDANCE WITH SECTION 603.

+ = THE MINIMUM SPACING BETWEEN THE OUTSIDE WALLS OF MULTIPLE PIPES OR END SECTIONS IS 18" OR ½(d), WHICHEVER IS GREATER.

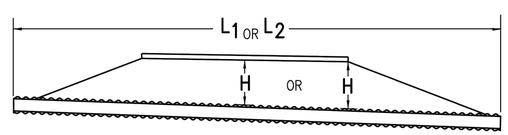


INSTALLATION OF PIPE



NOTE: USE THE H THAT IS GREATER FOR MAXIMUM ALLOWABLE FILL HEIGHT.

PIPE WITH END SECTIONS



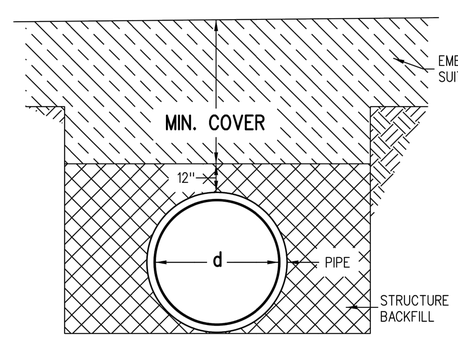
NOTE: USE THE H THAT IS GREATER FOR MAXIMUM ALLOWABLE FILL HEIGHT.

PIPE WITHOUT END SECTIONS

PIPE DIAMETER, d (IN.)	H MINIMUM HEIGHT OF COVER (FT.)		H MAXIMUM HEIGHT OF COVER (FT.)			
			95% COMPACTION		90% COMPACTION	
12	2	*2*	27	*25*	19	*17*
15	2	*2*	29	*27*	20	*20*
18	2	*2*	24	*23*	17	*17*
24	2	*2*	21	*20*	15	*14*
30	2	*2*	18	*23*	12	*17*
36	2	*2*	20	*20*	13	*14*
42	2	*2*	19	*18*	13	*13*
48	3	*2*	17	*20*	12	*13*
60	3	*2.5*	20	*21*	13	*14*

NOTE: THE VALUES FOR POLYPROPYLENE PIPES (AASHTO M330) ARE SHOWN IN ITALICS.

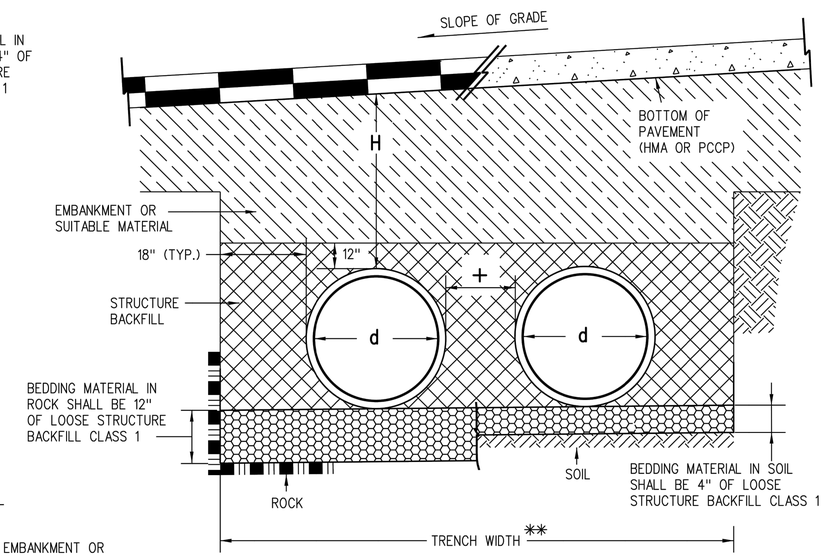
MINIMUM AND MAXIMUM COVER



CONSTRUCTION MINIMUM COVER FOR PIPE

GENERAL NOTES

1. ALL PIPES SHALL MEET THE REQUIREMENTS OF AASHTO M294 FOR POLYETHELENE AND AASHTO M330 FOR POLYPROPYLENE, TYPE S FOR HIGH DENSITY CORRUGATED POLYETHYLENE PIPE (HDPE) AND POLYPROPYLENE PIPE (PP) RESPECTIVELY, WITH SMOOTH INNER SURFACE.
2. WHEN A PIPE IS TO BE EXTENDED, THE SAME PIPE MATERIAL AND SIZE AS IN THE ORIGINAL INSTALLATION SHALL BE USED.
3. MINIMUM COVER SHALL BE PROVIDED DURING CONSTRUCTION TO PROTECT THE PIPE FROM DAMAGE.
4. WHEN INSTALLING A GUARDRAIL OR A SIGN POST DIRECTLY ABOVE A PIPE, THE POST'S BOTTOM MUST BE AT LEAST 1 FOOT ABOVE THE TOP OF THE PIPE. THE HOLE FOR THE POST SHALL BE DRILLED INTO THE SOIL.
5. STRUCTURE BACKFILL MATERIAL SHALL BE CLASS 1.
6. FOR PIPES 24 INCHES OR LESS IN DIAMETER, H MIN. MAY BE REDUCED TO ONE FOOT FOR LOW VOLUME APPROACH ROADS NOT ON STATE HIGHWAYS.



INSTALLATION OF MULTIPLE PIPES

** TRENCH WIDTH ASSUMES STABLE IN-SITU SIDE WALL

NOMINAL PIPE DIAMETER (IN.)	MINIMUM COVER (IN.) FOR INDICATED AXLE LOADS (KIPS)			
	18.0-50.0	50.0-75.0	75.0-110.0	110.0-150.0
24 - 36	24.0	30.0	36.0	36.0
42 - 48	36.0	30.0	42.0	48.0
54 - 60	36.0	36.0	42.0	48.0

AASHTO MINIMUM COVER FOR CONSTRUCTION LOADS

1 CORRUGATED POLYETHYLENE PIPE (AASHTO M294) & POLYPROPYLENE PIPE (AASHTO M330) DETAILS

PLANS ARE PER CDOT STANDARD PLAN NO. M-603-4

SCALE: N.T.S.

Steamboat Engineering & Architectural Design, Inc.
2740 Acre Lane Suite E Steamboat Springs, CO 80487
Phone: 970 . 871 . 9101 Fax: 970 . 871 . 9089
E-mail: Steve@seadinc.com

ALPINE COASTER SITE

2305 MT. WERNER CIRCLE
STEAMBOAT SPRINGS, COLORADO

A SITE/GRADING PLAN FOR:
SSRC - STEAMBOAT SKI & RESORT CORP.

ISSUE DATES
CONCEPTUAL
06 . 13 . 16
06 . 20 . 16
06 . 24 . 16
06 . 29 . 16
PROGRESS
07 . 06 . 16
FINAL CHECK SET
07 . 13 . 16
GRADING PERMIT
07 . 15 . 16

DRAWN BY: SJM/JEM
PROJECT # 16020

STANDARD DETAILS

C-11