AMENITY SITE AT RIDGEGATE SW VILLAGE

A PORTION OF THE RIDGEGATE PLANNED DEVELOPMENT DISTRICT, EAST SIDE PROPERTY

LOCATED IN THE NW QUARTER OF THE NE QUARTER OF SECTION 23, TOWNSHIP 6 SOUTH, RANGE 67 WEST OF THE 6TH P.M.

CITY OF LONE TREE, COUNTY OF DOUGLAS, STATE OF COLORADO

GESC PLANS

ABBREVIATIONS FINAL DEVELOPMENT PLAN ALGEBRAIC DIFFERENCE FINAL DRAINAGE REPORT PROPOSED POINT OF REVERSE CURVATURE FLARED END SECTION ARCH ARCHITECT POINT OF TANGENCY FINISHED GRADE ASCE AMERICAN SOCIETY OF CIVIL POLYVINYL CHLORIDE **ENGINEERS** ASSEMBLY FILING AVE FIBER OPTIC CABLE REINFORCED CONCRETE PIPE AVENUE BOX BASE RIGHT OF WAY BOUNDARY GEOGRAPHIC INFORMATION RIGHT BOTTOM OF PIPE SOUTH STE STEEL GAS LINE BLOW OFF VALVE BUTTERFLY VALVE GPS GLOBAL POSITIONING SYSTEM SANITARY SEWER GATE VALVE BOULEVARD SQUARE FEET BOTTOM OF WALL HANDICAP STREET HIGH DEFLECTION COUPLING STATION CURB & GUTTER CABLE TELEVISION STM HIGH DENSITY POLYETHYLENE STORM SEWER $\langle \rangle$ CATCH BASIN HYDRAULIC GRADE LINE SQUARE YARD HOME OWNERS ASSOCIATION SQUARE YARD INCH COLORADO DEPARTMENT OF THRUST BLOCK LINCOLN AVE. TOP BACK OF CURB IRRIGATION EASEMENT TOP BACK OF WALK CUL-DE-SAC CFS CUBIC FEET PER SECOND INTERSECTION TELEPHONE CENTER LINE TOP OF ASPHALT TOB TOC TOE CLOMR CONDITIONAL LETTER OF MAP IRRIGATION TOP OF BOX KICK (THRUST) BLOCK TOP OF CURB OR CONCRETE REVISION LANDSCAPE EASEMENT TOE OF SLOPE TOF CORRUGATED METAL PIPE LINEAR FEET TOP OF FOUNDATION TOP TOP OF PIPE CONC LOMR LETTER OF MAP REVISION TOP OF SLOPE CONCRETE LOW POINT CORRUGATED STEEL PIPE LUMP SUM **TYPICAL** LEFT UDFCD URBAN DRAINAGE AND FLOOD MAX MAXIMUM CONTROL DISTRICT MDDP MASTER DEVELOPMENT UTILITY EASEMENT CUBIC YARD UTILITY & DRAINAGE EASEMENT DRAINAGE BASIN PLANNING UNDERGROUND ELECTRIC MINIMUM VERTICAL POINT OF CURVATURE - HAPPY DRAINAGE EASEMENT NORTH NRCP NON-REINFORCED CONCRETE VERTICAL POINT OF DIAMETER CREEK INTERSECTION VERTICAL POINT OF TANGENCY DESIGN REVIEW COMMITTEE VEHICLE TRACKING CONTROL DWELLING UNITS OVERHEAD UTILITY POINT OF CURVATURE WATER LINE POINT OF COMPOUND ENERGY GRADE LINE WATER RESOURCES DEPARTMENT RIDGEGATE SW VILLAGE ELECTRIC WATER SURFACE EOA EDGE OF ASPHALT WATER SURFACE ELEVATION EASEMENT WTR WATER PROFESSIONAL ENGINEER FILING 1 EST ESTIMATE POINT OF INTERSECTION YR YEAR EXISTING PKWY PARKWAY BADGER GULCH NOTE: 1. THE GRADING, EROSION AND SEDIMENT CONTROL PLAN INCLUDED HEREIN HAS BEEN PLACED IN THE CITY OF LONE TREE FILE FOR THIS PROJECT AND APPEARS TO FULFILL APPLICABLE LONE TREE GRADING, EROSION AND SEDIMENT CONTROL CRITERIA, AS AMENDED. ADDITIONAL GRADING, EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED OF THE PERMITTEES DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED. THE VICINITY MAP REQUIREMENTS OF THIS PLAN SHALL RUN WITH THE LAND AND BE THE OBLIGATION OF THE PERMITTEES, UNTIL SUCH TIME AS THE PLAN IS PROPERLY COMPLETED,

MODIFIED OR VOIDED.

SHEET INDEX

1 COVER SHEET
2 GENERAL NOTES
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7-9 GESC NOTES AND DETAILS

SCALE: 1"=2000'

NOTICE TO CONTRACTOR:

- 1. BY ACCEPTING AND UTILIZING THESE PLANS, THE CONTRACTOR AGREES THAT THEY SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSON AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND CIVIL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE CIVIL ENGINEER.
- 2. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES, CONDUITS OR OTHER STRUCTURES SHOWN ON THESE PLANS WAS OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THE ENGINEER ASSUMES NO LIABILITY WHATSOEVER FOR THE ACCURACY OR COMPLETENESS OF SUCH DATA. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ALL UTILITY LINES, CONDUITS OR STRUCTURES WHETHER OR NOT SHOWN ON THESE PLANS AND BY ACCEPTING AND UTILIZING THESE PLANS, ASSUMES ALL RESPONSIBILITY FOR THE PROTECTION AND/OR ANY DAMAGE TO SAID FACILITIES.

APPLICANT/OWNER

SH LYRIC, LLC 9380 STATION ST. SUITE 600 LONE TREE, CO 80124 P~303.791.8180

CIVIL ENGINEER

JR ENGINEERING
7200 SOUTH ALTON WAY, SUITE C400
CENTENNIAL, CO
P~303.267.6220

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PLANNER

P~303.470.2855

SAGE DESIGN GROUP 1500 SOUTH PEARL STREET, SUITE 200 DENVER, CO 80210



TRAFFIC ENGINEER

JR ENGINEERING
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P~303.267.6183

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GEOTECHNICAL ENGINEER

CTL THOMPSON, INC 1971 WEST 12TH VAE. DENVER, CO 80204 P~303.825.0777

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BASIS OF BEARING

BEARING SHOWN HEREON ARE GRID BEARINGS DERIVED FROM GPS OBSERVATION BASED UPON THE COLORADO COORDINATE SYSTEM OF 1983 CENTRAL ZONE (NAD 83, 2011) REFERENCED TO THE SOUTH LINE OF THE SOUTHEAST QUARTER OF SECTION 23, TOWNSHIP 6 SOUTH, RANGE 67 WEST, SIXTH PRINCIPAL MERIDIAN BEING MONUMENTED AS SHOWN HEREON, TAKEN TO BEAR NORTH 89*31'58" EAST, A DISTANCE OF 2635.13 FEET.

BENCHMARK

NGS CONTROL POINT UNBEWUST BEING A 3.5 INCH DIAMETER BRASS CAP. LOCATED ABOUT 3.2 MILES SOUTH OF INTERSTATE 25 AND COLORADO STATE HIGHWAY 470 INTERCHANGE, GO SOUTH ON INTERSTATE 25 FOR 2.9 MILES TO EXIT 191. PROCEED ON A PAVED ROAD TO THE SOUTHWEST FOR 0.2 MILES TO THE STATION ON THE LEFT. IN THE NORTHWEST CORNER OF A 24 FOOT BY 16 FOOT ROCK OUTCROP. IT IS 22.5 FEET EAST OF THE CENTERLINE OF THE PAVED ROAD, 123 FEET NORTH OF THE OUTLET OF A 3 FOOT CORRUGATED STEEL PIPE CULVERT AND APPROXIMATELY 350 FEET WEST OF THE WEST EDGE OF OIL OF SOUTHBOUND INTERSTATE 25, ELEVATION: 6125.32 (NAVD88).

SOIL PREPARATION NOTE:

SOIL PREPARATION SHALL BE PER RECOMMENDATIONS FROM THE GEOTECHNICAL REPORT PREPARED FOR THIS SITE:

GEOTECHNICAL ENGINEER: CTL THOMPSON, INC PROJECT NUMBER: DN49.935.007-125-R1

THE CONTRACTOR IS TO REVIEW THIS REPORT IN FULL PRIOR TO BID. INFORMATION IN THE GEOTECHNICAL REPORT SUPERCEDES ANY CONFLICTING INFORMATION CONTAINED IN THE CONSTRUCTION PLANS AND SPECIFICATIONS.

<u>APPROVALS</u>

CITY OF LONE TREE

DATE

THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED BY THE CITY OF LONE TREE FOR GRADING AND EROSION CONTROL IMPROVEMENTS ONLY.



now what's below.

Call before you dig.

ENGINEER'S STATEMENT

ENGINEERING DIVISION ACCEPTANCE BLOCK

THE GRADING, ERC INCLUDED HEREIN SUPERVISION IN CITY OF LONE CONTROL (GESC

PRELIMINARY
NOT FOR
CONSTRUCTION

AARON L. CLUTTER, P.E. COLORADO P.E. 36742 FOR AND ON BEHALF OF JR ENGINEERING, LLC

DATE

JOB NO. 15950.06

THESE DRAWINGS ARE
APPROVED BY THE
APPROPRIATE REVIEWIN
AGENCIES, JR ENGINEER
APPROVES THEIR USE
ONLY FOR THE PURPOS
DESIGNATED BY WRITTEI
AUTHORIZATION.

SH LYRIC, LLC 9380 STATION ST. SUITE 600 ONE TREE, CO 8012 OFFICE PHONE (303) 791-8180

> Springs 719–593–2593 ngineering.com

03-740-9393 • Colorado Sprin 970-491-9888 • www.jrengineer

A west Centennial 303-740-9 Fort Collins 970-491-9

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TY SITE AT RIDGEGATE SW VILLAGE COVER SHEET

SHEET 1 OF 9

GENERAL NOTES:

- 1. THE SITE SHALL BE STRIPPED OF ALL VEGETATIVE AND ORGANIC MATERIAL A MINIMUM OF 6" IN ALL AREAS. ALL STRIPPING MATERIALS SHALL BE STOCKPILED ON SITE TO BE USED IN LANDSCAPING.
- 2. THE CONTRACTOR SHALL PROTECT ALL ADJACENT PROPERTY TO THE PROJECT WORK SITE (SEE THE GESC PLAN APPROVED BY CITY OF LONE TREE).
- 3. ALL SILT FENCE SHALL BE INSTALLED ALONG THE CONTOUR.
- 4. THE MAXIMUM HEIGHT OF ALL STOCKPILES SHALL BE 20' FROM FINISHED GROUND.
- 5. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION OF IMPROVEMENTS SHALL MEET OR EXCEED THE GOVERNING CITY, COUNTY, AND/OR STATE AND APPLICABLE UTILITY DISTRICT STANDARDS AND SPECIFICATIONS, AND APPLICABLE STATE AND FEDERAL REGULATIONS. WHERE THERE IS A CONFLICT BETWEEN THESE PLANS AND ANY APPLICABLE STANDARDS, THE HIGHER QUALITY STANDARD SHALL APPLY. ALL WORK SHALL BE INSPECTED AND APPROVED BY THE CITY AND APPLICABLE UTILITY DISTRICT(S).
- 6. THE SITE CONSTRUCTION PLANS LISTED WITHIN THIS PLAN SET ARE NOT FOR CONSTRUCTION UNLESS APPROVED BY THE APPROPRIATE GOVERNING JURISDICTION. THE CONTRACTOR SHALL CONFIRM SAID APPROVAL PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL KEEP ONE (1) SIGNED COPY OF THE APPROVED SET OF PLANS, APPROPRIATE SPECIFICATIONS AND STANDARDS, AND APPROVED PERMITS ONSITE AT ALL TIMES.
- 7. ALL REFERENCES TO ANY PUBLISHED STANDARDS SHALL REFER TO THE LATEST REVISION OF SAID STANDARDS, UNLESS SPECIFICALLY STATED OTHERWISE.
- 8. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND LICENSES FOR WORK INCLUDING, BUT NOT LIMITED TO DEMOLITION, STREET CUTS, UTILITY INTERFERENCES, TRAFFIC CONTROL, GRADING, AND UTILITY FROM ALL APPLICABLE AGENCIES; AND FOR COMPLYING WITH ALL PROVISIONS INCLUDED THEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL OTHER APPLICABLE PERMITS NOT SPECIFICALLY REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
- 9. ANY DISRUPTION OF UTILITY SERVICE THAT IS REQUIRED TO ADJUST, EXTEND, RELOCATE OR OTHERWISE REARRANGE ANY UTILITY WITHIN THE PROJECT AREA SHALL BE COORDINATED IN ADVANCE WITH THE AFFECTED UTILITY ENTITY.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF PROJECT SAFETY INCLUDING, BUT NOT LIMITED TO, EXCAVATION, TRENCHING, SHORING, TRAFFIC CONTROL, AND SECURITY.
- 11. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH THE M.U.T.C.D. TO THE APPROPRIATE RIGHT—OF—WAY AUTHORITY (CITY, COUNTY, OR STATE) FOR APPROVAL, PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN, OR AFFECTING, THE RIGHT—OF—WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY AND ALL TRAFFIC CONTROL DEVICES AS MAY BE REQUIRED BY THE CONSTRUCTION ACTIVITIES. ALL WORK WITHIN THE RIGHT OF WAY SHALL BE DONE IN ACCORDIANCE WITH THE GOVERNING AUTHORITY'S STANDARDS AND SPECIFICATIONS.
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANING AND RESTORATION OF ANY EXISTING IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO STREET PAVEMENT, FENCES, SOD, LANDSCAPING, SPRINKLER SYSTEMS, AND UTILITIES DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL LOCATION AND CONDITION.
- 13. ALL DEMOLITION, REMOVAL, DISPOSAL, AND ABANDONMENT OF UTILITIES, STRUCTURES, SITE IMPROVEMENTS, AND SITE FURNISHINGS SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL STANDARDS AND SPECIFICATIONS, AND PERMIT REQUIREMENTS.
- 14. ALL DISTURBED SOIL, ON— OR OFF—SITE AND RELATED TO WORK AT THIS PROJECT SITE, IS REQUIRED TO BE PROTECTED FROM WIND AND STORM WATER EROSION. TO MITIGATE EROSION. THE CONTRACTOR SHALL USE STANDARD EROSION CONTROL TECHNIQUES DESCRIBED IN THESE PLANS.
- 15. ALL STRUCTURAL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY GROUND—DISTURBING ACTIVITY. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN GOOD REPAIR BY THE CONTRACTOR UNTIL SUCH TIME AS THE ENTIRE DISTURBED AREA IS STABILIZED WITH HARD SURFACE OR PERMANENT LANDSCAPING. THE CONTRACTOR IS RESPONSIBLE FOR REFERRING TO ANY EROSION AND SEDIMENT CONTROL, STORMWATER MANAGEMENT, STORMWATER POLLUTION PREVENTION, OR SIMILAR PLAN AND/OR NARRATIVE AND ASSOCIATED PERMITS INCLUDING, BUT NOT LIMITED TO GRADING PERMITS, AND COMPLYING WITH THE REQUIREMENTS THEREIN.
- 16. IF, DURING THE CONSTRUCTION PROCESS, CONDITIONS ARE ENCOUNTERED BY THE CONTRACTOR, HIS SUBCONTRACTORS, OR OTHER AFFECTED PARTIES, WHICH COULD INDICATE A SITUATION THAT IS NOT IDENTIFIED IN THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE OWNER/DEVELOPER AND THE ENGINEER IMMEDIATELY.
- 17. <u>BENCHMARK VERIFICATION:</u> THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS AND THE PROPOSED ELEVATIONS IN THIS CONSTRUCTION PLAN SET AGAINST THE PROJECT BENCHMARK, IDENTIFIED HEREIN, PRIOR TO COMMENCING WORK.
- 18. IF DEWATERING IS REQUIRED, A STATE CONSTRUCTION DEWATERING DISCHARGE PERMIT IS REQUIRED FOR DISCHARGES TO A STORM SEWER, CHANNEL, IRRIGATION DITCH, ANY STREET THAT IS TRIBUTARY TO THE AFOREMENTIONED FACILITIES OR ANY WATER OF THE UNITED STATES.
- 19. A STATE AIR QUALITY PERMIT IS REQUIRED FOR LAND DISTURBANCE ACTIVITIES THAT ARE MORE THAN 25 CONTIGUOUS ACRES OR MORE THAN 6 MONTHS IN DURATION. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL BE RESPONSIBLE FOR OBTAINING THE REQUIRED AIR QUALITY PERMIT AND FOR COMPLYING WITH ALL PROVISIONS INCLUDED THEREIN.
- 20. ALL ROADWAY OVER EXCAVATION TO BE DONE IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS. FINAL PAVEMENT DESIGN TO BE PROVIDED BY GEOTECHNICAL ENGINEER AFTER OVERLOT GRADING IS COMPLETE. CONTRACTOR TO CONFIRM ROADWAY OVER EXCAVATION REQUIREMENTS WITH OWNER AND GEOTECHNICAL ENGINEER.

COMPACTION REQUIREMENTS

SOIL COMPACTION SHALL BE PER RECOMMENDATIONS FROM THE GEOTECHNICAL REPORT PREPARED FOR THIS SITE:

- PRIOR TO FILL PLACEMENT, THE GROUND SURFACE IN AREAS TO BE FILLED SHOULD BE STRIPPED OF DEBRIS, VEGETATION/ORGANICS AND OTHER DELETERIOUS MATERIAS, SCARIFIED AND MOISTURE CONDITIONED TO BETWEEN 1 AND 4 PERCENT ABOVE OPTIMUM MOISTURE CONTENT FOR CLAY OR WITHIN 2 PERCENT OF OPTIMUM FOR SAND AND GRAVEL, AND COMPACTED TO AT LEAST 95 PERCENT OF STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D 698)
- UTILITY TRENCH BACKFILL SHOULD BE MOISTENED BETWEEN OPTIMUM AND 4 PERCENT WETTER AND COMPACTED TO AT LEAST 95 PERCENT OF STANDARD PROCTOR MAXIMUM DRY DENSITY FOR CLAY AND MOISTENED WITHIN 2 PERCENT OF OPTIMUM AND COMPACTED TO 100 PERCENT OF STANDARD PROCTOR FOR SAND.
- SUB-EXCAVATION FILL SHOULD BE MOISTURE-CONDITIONED BETWEEN OPTIMUM AND 4 PERCENT ABOVE OPTIMUM MOISTURE CONTENT FOR CLAY OR WITHIN 2 PERCENT OF OPTIMUM FOR SAND. FILL SHOULD BE COMPACTED AT LEAST 95 PERCENT OF STANDARD PROCTOR MAXIMUM DRY DENSITY.

EXCAVATION SCOPE OF WORK:

THE SCOPE OF WORK

- A. SITE PREPARATION
- 1. PRIOR TO COMMENCEMENT OF EXCAVATION, THE SITE SHALL BE STRIPPED IN CONFORMANCE WITH THE REQUIREMENTS OF THE SOILS ENGINEER AND APPROVED PLANS.
 REMOVAL OF STRIPPINGS SHALL EXTEND 5 FEET AT ALL TIMES BEYOND THE BOUNDARIES OF THE AREAS RECEIVING FILL. THE DEPTH OF THE STRIPPING SHALL BE AT THE SOLE
 DISCRETION OF AND DIRECTED BY THE SOILS ENGINEER. ALL STRIPPINGS SHALL BE STORED ON SITE AND PLACED AT THE DIRECTION OF THE BUILDER.
- 2. WITHIN THE GRADING LIMITS, ALL EXISTING STRUCTURES SUCH AS FENCES, DRAINAGE DEVICES, ASPHALT, ETC., SHALL BE REMOVED, EXCEPT AS OTHERWISE DIRECTED BY THE BUILDER OR CONSTRUCTION PLANS. NO PROCESSING OF THIS MATERIAL WILL BE ALLOWED, UNLESS APPROVED BY SOILS ENGINEER OR BY BUILDER. NO ONSITE BURNING
- 3. ONCE THE VEGETATION HAS BEEN REMOVED TO THE SATISFACTION OF THE SOILS ENGINEER, THE AREA OF THE SITE TO RECEIVE THE FILL SHALL BE SCARIFIED AND RE—COMPACTED TO A DEPTH OF AT LEAST 12 INCHES OR AS DIRECTED BY THE SOILS ENGINEER. THE CONTRACTOR SHALL NOT PLACE FILL UNTIL THE SOILS ENGINEER HAS RELEASED THE AREA FOR FILL PLACEMENT WITH VERBAL APPROVAL.
- 4. DURING ALL CLEARING, GRUBBING, STRIPPING, SITE PREPARATION, EXCAVATION AND GRADING, DUST CONTROL SHALL BE MAINTAINED BY THE CONTRACTOR TO THE SPECIFICATIONS OF THE BUILDER, SOILS ENGINEER, LOCAL GOVERNING JURISDICTION, TRI—COUNTY HEALTH AND CDPHE. DUST CONTROL SHALL BE REQUIRED UNTIL THE BUILDER HAS ACCEPTED THE SITE.
- 5. ALL VEGETATION, WITH THE EXCEPTION OF TOPSOIL, AND DEBRIS RESULTING FROM CLEARING AND GRUBBING SHALL BE REMOVED FROM THE SITE AND HAULED TO AN APPROPRIATE WASTE DISPOSAL FACILITY, UNLESS OTHERWISE DIRECTED BY BUILDER.
- B. EXCAVATION AND GRADING
- 1. THE WORK SHALL CONSIST OF ALL LABOR, FUEL, EQUIPMENT AND MATERIALS, NECESSARY TO COMPLETE THE EXCAVATION AND EMBANKMENT (MASS GRADING) IN CONFORMANCE WITH THE APPROVED GRADING PLANS, TO A TOLERANCE OF TWO TENTHS OF ONE FOOT.
- 2. THE CONTRACTOR SHALL HAVE SUITABLE AND SUFFICIENT EQUIPMENT ON THE JOB SITE TO PROCESS AND COMPACT THE AMOUNT OF FILL BEING PLACED, IN CONFORMANCE WITH THE SPECIFICATIONS DEFINED BY THE PROJECT SOILS REPORT AND THE SITE SOILS ENGINEER.
- 3. COMPACTION OF EACH LAYER SHALL BE CONTINUOUS OVER ITS ENTIRE AREA AND THE COMPACTION EQUIPMENT SHALL MAKE SUFFICIENT TRIPS TO ENSURE THAT THE REQUIRED DENSITY HAS BEEN OBTAINED, PER SOILS ENGINEERS TESTING AND APPROVALS.
- 4. COMPACTION, MOISTURE—DENSITY TESTING SHALL BE PROVIDED BY THE BUILDER IN THE LOCATIONS AND FREQUENCY DIRECTED BY THE SOILS ENGINEER. THIS TESTING SHALL BE CONDUCTED BY THE SOILS ENGINEER TO ENSURE THAT THE FILL CONFORMS TO THE REQUIREMENTS OF THE PROJECT SOILS REPORT. THE CONTRACTOR AND HIS EMPLOYEES SHALL PROVIDE ASSISTANCE TO THE SOILS ENGINEER AS REQUESTED. TO FACILITATE FIELD COMPACTION AND MOISTURE—DENSITY TESTING, THE CONTRACTOR SHALL EXCAVATE TEST PITS IN LOCATIONS AND AT DEPTHS REQUESTED BY THE SOILS ENGINEER. IN THE EVENT OF A FAILED COMPACTION TEST, AS DETERMINED BY THE SOILS ENGINEER, THE CONTRACTOR SHALL REWORK THE MATERIAL UNTIL IT CONFORMS TO THE SPECIFICATIONS OF THE PROJECT SOILS REPORT TO THE SATISFACTION OF THE SOILS ENGINEER. THE COST OF ANY REWORKING SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND NO ADDITIONAL COMPENSATION SHALL BE CONSIDERED. ALL REWORK SHALL BE AT THE SOLE EXPENSE OF THE CONTRACTOR.
- 5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND TRANSPORTING ALL CONSTRUCTION WATER NECESSARY TO COMPLETE THE WORK AT THEIR SOLE EXPENSE.
- 6. ALL STOCKPILING AND WASTING OF MATERIAL WILL BE CONSIDERED INCIDENTAL TO THE CONTRACTOR'S PRICING, AND NO COMPENSATION WILL BE MADE FOR STOCKPILING OR RETURNING THE STOCKPILED MATERIAL TO THE PROJECT AS COMPACTED FILL OR OTHERWISE. STOCKPILE LOCATIONS SHALL BE APPROVED BY THE BUILDER.
- 7. ROCK ENCOUNTERED, BOTH RIPPABLE AND NON-RIPPABLE, SHALL BE REMOVED FROM THE SITE AT THE DISCRETION OF THE SOILS ENGINEER AND BUILDER AND SHALL BE INCLUDED AS A CONTRACTOR'S UNIT BID PRICE.
- COMPACTED FILLS
- 1. DELETERIOUS MATERIAL NOT DISPOSED OF DURING CLEARING OR DEMOLITION SHALL BE REMOVED FROM THE FILL AS DIRECTED BY THE SOILS ENGINEER.
- 2. MATERIAL THAT IS CONSIDERED UNSUITABLE BY THE SOILS ENGINEER SHALL NOT BE USED IN THE COMPACTED FILL.
- 3. WHERE THE SLOPE RECEIVING FILL EXCEEDS A RATIO OF FIVE—HORIZONTAL TO ONE VERTICAL, THE FILL SHALL BE KEYED WITH A MINIMUM KEY WIDTH OF 6 FEET AND BENCHED THROUGH ALL UNSUITABLE TOPSOIL, COLLUVIUM, ALLUVIUM OR CREEP MATERIAL INTO SOUND BEDROCK OR FIRM MATERIAL OR AS DIRECTED BY THE SOILS ENGINEER. ALL NECESSARY EXCAVATION PROCESSES MUST CONFORM TO ALL OSHA REGULATIONS AND GUIDELINES.
- 4. NO FILL MATERIAL SHALL BE PLACED UPON FROZEN SUB-GRADE, SPREAD OR ROLLED WHILE IT IS FROZEN OR THAWING OR DURING UNFAVORABLE WEATHER CONDITIONS.

D. CERTIFICATION

1. CERTIFICATION OF THE GRADING SHALL BE DONE IN A TIMELY MANNER. CONTRACTOR SHALL PROVIDE NOTICE TO BUILDER WHEN AN AREA IS READY TO BE CERTIFIED. CONTRACTOR SHALL HAVE 2 DAYS FROM THE TIME THE GRADE CERTIFICATION STAKING IS COMPLETE TO REGRADE ALL AREAS GREATER THAN 0.20' VARIANCE FROM THE APPROVED PLAN GRADES. . UNTIL THE SITE IS ACCEPTED BY BUILDER, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DRAIN AND/OR PUMP ALL AREAS WHERE WATER HAS COLLECTED AND PROTECT THE WORK SITE FROM DAMAGE AS A RESULT OF RAIN, SNOW, SLEET, HAIL OR ANY OTHER FORM OF PRECIPITATION, AT CONTRACTOR'S SOLE EXPENSE.

ADDITIONAL PROVISIONS

- A. UPON COMPLETION OF THE WORK, THE SITE SHALL BE RIPPED OR SURFACE RUFFENED PERPENDICULAR TO SLOPE AS DIRECTED BY BUILDER, AND ALL TRASH REMOVED, TO THE SATISFACTION OF THE BUILDER.
- B. ALL HAUL ROADS OR OTHER AREAS OUTSIDE OF THE PROJECT THAT HAVE BEEN DISTURBED BY THE GRADING OPERATION SHALL BE RETURNED TO THEIR ORIGINAL GRADE, BLADED SMOOTH AND/OR RIPPED TO THE SATISFACTION OF THE BUILDER.
- C. THE CONTRACTOR, AT HIS EXPENSE, SHALL REMOVE SPILLAGE AND/OR TRACKING RESULTING FROM HAULING OR CONSTRUCTION OPERATIONS ALONG OR ACROSS ANY PUBLICLY TRAVELED ROADWAYS, IMMEDIATELY.
- D. CONTRACTOR SHALL COMPLY WITH THE <u>APPROVED</u> EROSION CONTROL PLAN. CONTRACTOR SHALL REPAIR/REPLACE ANY DAMAGE CAUSED BY THE CONTRACTOR DURING THE PERFORMANCE OF THEIR WORK. THE COST OF REPAIR OR REPLACEMENT SHALL BE BORNE BY THE CONTRACTOR AND INCLUDED IN THEIR SCOPE OF WORK.
- E. CONTROL OF NUISANCE WATER OR CONSTRUCTION WATER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND INCLUDED IN THE SCOPE OF WORK. CONTRACTOR SHALL CONTROL SURFACE RUNOFF WATER TO AVOID DAMAGE TO ADJOINING PROPERTIES OR TO FINISHED WORK ON THE SITE. THE CONTRACTOR SHALL EMPLOY APPROPRIATE MEASURES TO PREVENT EROSION OF GRADED AREAS UNTIL SUCH TIME AS PERMANENT DRAINAGE AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED OR UNTIL ROUGH GRADE ACCEPTANCE. ALL MEASURES SHALL BE IN CONFORMANCE WITH GESC AND SWMP PLANS FOR THE SITE.
- F. ALL ON-SITE MATERIALS, HAZARDOUS MATERIALS, SHALL BE MAINTAINED, CONTROLLED, STORED AND CONTAINED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL RULES AND REGULATIONS. ALL COSTS ASSOCIATED SHALL BE THE CONTRACTORS RESPONSIBILITY.
- G. EXCAVATION OF SUBSURFACE MATERIAL WHICH CANNOT BE REMOVED BY RIPPING WITH D8 DOZER SHALL BE APPROVED BY THE BUILDER IN ADVANCE AND SHALL BE PAID AT STANDARD EQUIPMENT RATES. NO PAYMENT SHALL BE MADE FOR LOSS TIME AND CONTRACTOR SHALL SUBMIT EXTRA WORK TIME SHEET EACH DAY FOR SIGNATURE BY THE BUILDER. PAYMENT SHALL BE LIMITED TO RIPPING EQUIPMENT ONLY.

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ENGINEER'S STATEMENT

THE GRADING, ERP PRELIMINARY
INCLUDED HEREIN PRELIMINARY
SUPERVISION IN
CITY OF LONE
CONTROL (GESC)
CONSTRUCTION

AARON L. CLUTTER, P.E. COLORADO P.E. 36742 FOR AND ON BEHALF OF JR ENGINEERING, LLC

DATE

SHEET 2 OF 9

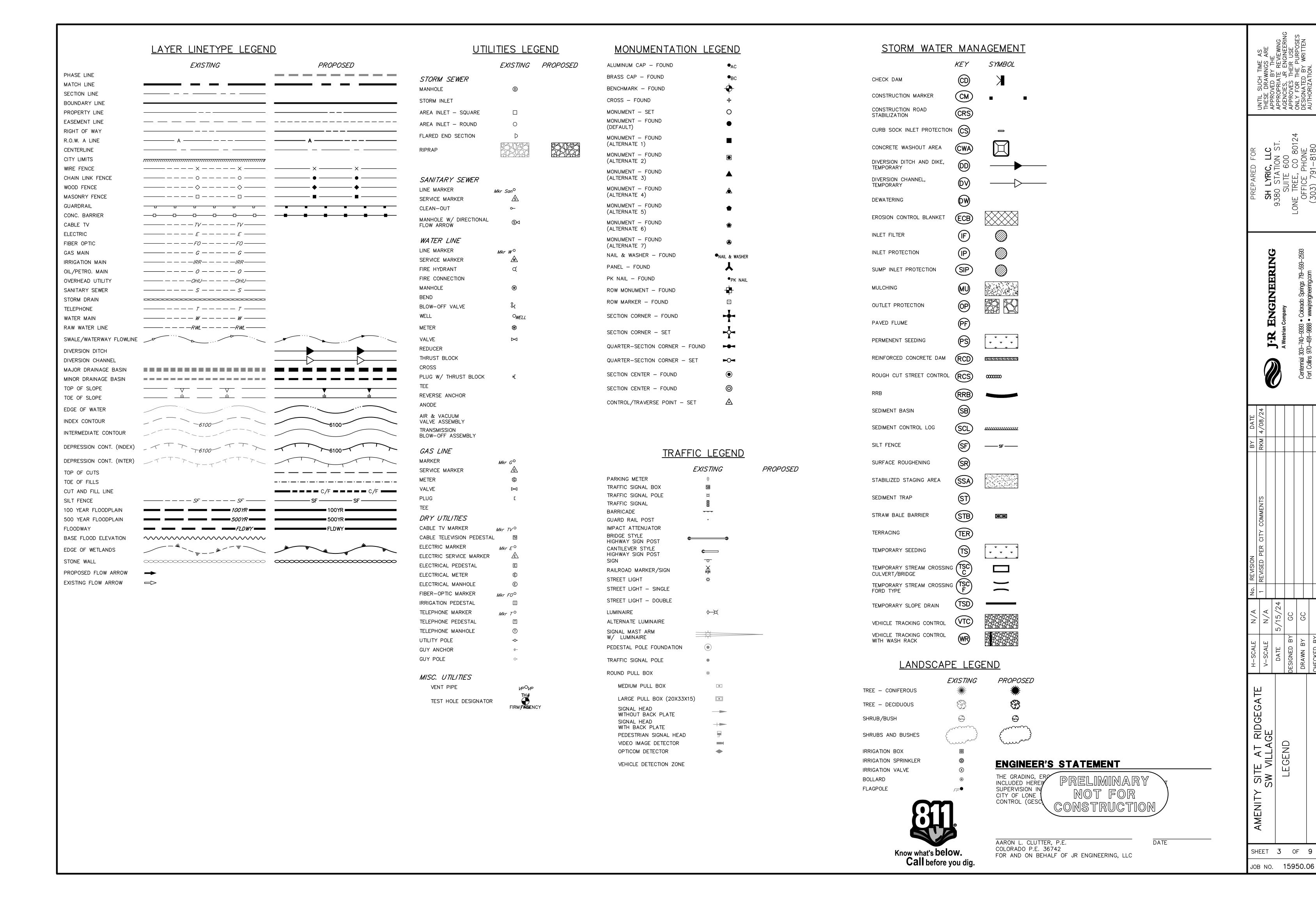
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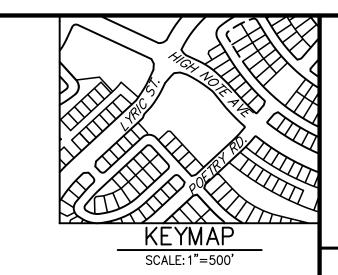
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ENGINEER'S STATEMENT

THE GRADING, EROSION, AND SEDIMENT CONTROL PLAN INCLUDED HEREIN HAS BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF CITY OF LONE TREE GRADING, EROSION, AND SEDIMENT CONTROL (GESC) CRITERIA

CITY OF LONE TREE



ORIGINAL SCALE: 1" = 30'

30 15 0

PROPOSED LIMITS OF DISTURBANCE:

1. SEE SHEET 1 FOR BENCHMARK AND SHEET 3 FOR LEGEND.

CONTROL MEASURES ONSITE AT ALL TIMES. EXCESS DUST

7. PORTABLE TOILET SHALL BE PLACED ON A PERVIOUS SURFACE AND STAKED DOWN ON ALL FOUR SIDES.

8. ADJACENT ROADWAYS SHALL BE KEPT CLEAR OF DEBRIS AND SOIL TRACKOUT AT ALL TIMES AND SHALL BE CLEANED

IMMEDIATELY USING DRY METHODS ONLY.

9. SEE COVER SHEET OF LONE TREE STANDARD NOTES AND DETAILS (SHEET 1 OF 3) FOR LEGEND OF BMP NAMES AND SYMBOLS.

GENERATED FROM OPERATIONS AS DETERMINED BY THE CITY IS GROUNDS FOR STOPPING ALL WORK UNTIL DUST CAN BE

SEE SHEET 2 FOR STANDARD GESC NOTES.
 SEE SHEETS 7 - 9 FOR STANDARD GESC DETAILS.
 NO GRADING OPERATIONS SHALL OCCUR WITHIN 20' OF OVERHEAD TRANSMISSION TOWERS.

5. CONSTRUCTION MARKERS TO BE PLACED 100' APART 6. CONTRACTOR SHALL HAVE ADEQUATE DUST SUPPRESSION

TOTAL DISTURBED AREA: 3.26 ACRES

NOTES:

CONTROLLED.

TOTAL SITE AREA: 3.26 ACRES WITHIN TRACT AS, RIDGEGATE SW VILLAGE FILING 1

AARON L. CLUTTER, P.E. COLORADO P.E. 36742 FOR AND ON BEHALF OF JR ENGINEERING, LLC SHEET 4 OF 9

SITE AT RIDGEGATE SW VILLAGE

AMENITY

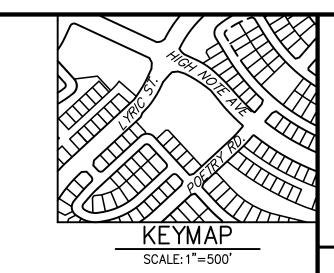
GESC

JOB NO. 15950.06

THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED BY THE CITY OF LONE TREE FOR GRADING AND EROSION CONTROL IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK







SITE AT RIDGEGA SW VILLAGE GESC TERIM AMENITY

ENGINEER'S STATEMENT

THE GRADING, EROSION, AND SEDIMENT CONTROL PLAN INCLUDED HEREIN HAS BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF CITY OF LONE TREE GRADING, EROSION, AND SEDIMENT CONTROL (GESC) CRITERIA



ORIGINAL SCALE: 1" = 30

30 15 0

EARTHWORK TABLE

SEE SHEET 1 FOR BENCHMARK AND SHEET 3 FOR LEGEND.
 SEE SHEET 2 FOR STANDARD GESC NOTES.
 SEE SHEETS 7 - 9 FOR STANDARD GESC DETAILS.
 NO GRADING OPERATIONS SHALL OCCUR WITHIN 20' OF OVERHEAD TRANSMISSION TOWERS.
 CONSTRUCTION MARKERS TO BE PLACED 100' APART
 CONTRACTOR SHALL HAVE ADEQUATE DUST SUPPRESSION CONTROL MEASURES ONSITE AT ALL TIMES. EXCESS DUST GENERATED FROM OPERATIONS AS DETERMINED BY THE CITY IS GROUNDS FOR STOPPING ALL WORK UNTIL DUST CAN BE CONTROLLED.

CONTROLLED.

7. PORTABLE TOILET SHALL BE PLACED ON A PERVIOUS SURFACE AND STAKED DOWN ON ALL FOUR SIDES.

8. ADJACENT ROADWAYS SHALL BE KEPT CLEAR OF DEBRIS AND SOIL TRACKOUT AT ALL TIMES AND SHALL BE CLEANED IMMEDIATELY USING DRY METHODS ONLY.

9. SEE COVER SHEET OF LONE TREE STANDARD NOTES AND DETAILS (SHEET 1 OF 3) FOR LEGEND OF BMP NAMES AND

10. SEE COVER SHEET OF LONE TREE STANDARD NOTES AND DETAILS (SHEET 1 OF 3) FOR LEGEND OF BMP NAMES AND

11. SHADED BMPS INSTALLED IN THE INITIAL STAGE SHALL BE

12. ALL INTERIM BMPS, INCLUDING SEEDING AND MULCHING OF

13. SEE CONSTRUCTION PLANS FOR DETAILS OF PERMANENT DRAINAGE FACILITIES SUCH AS DETENTION FACILITIES, CULVERTS, STORM DRAINS, AND INLET AND OUTLET

DISTURBED AREAS, MUST BE COMPLETED PRIOR TO ISSUANCE

LEFT IN PLACE IN THE INTERIM STAGE.

OF ANY CURB AND GUTTER PERMITS.

CUT VOLUME 757 Cu. Yd. FILL VOLUME 4021 Cu. Yd. NET FILL 3264<FILL> Cu. Yd.

NOTES:

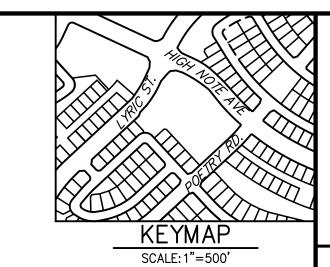
SYMBOLS.

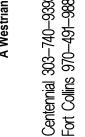
PROTECTION.

AARON L. CLUTTER, P.E. COLORADO P.E. 36742 FOR AND ON BEHALF OF JR ENGINEERING, LLC

SHEET 5 OF 9 JOB NO. 15950.06







ENGINEERING DIVISION ACCEPTANCE BLOCK

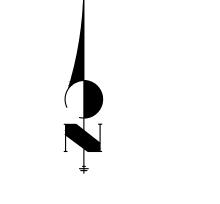
THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED BY THE CITY OF LONE TREE FOR GRADING AND EROSION CONTROL IMPROVEMENTS ONLY.

LANDSCAPING LEGEND:

SEED, SOD, OR PERMANENT LANDSCAPING. REF. LANDSCAPING PLANS FOR FINAL SITE STABILIZATION

NOTES:

- 1. SEE SHEET 1 FOR BENCHMARK AND SHEET 3 FOR LEGEND.
- 2. SEE SHEET 2 FOR STANDARD GESC NOTES. 3. SEE SHEETS 7 - 9 FOR STANDARD GESC DETAILS.
- 4. NO GRADING OPERATIONS SHALL OCCUR WITHIN 20' OF OVERHEAD TRANSMISSION TOWERS.
- CONSTRUCTION MARKERS TO BE PLACED 100' APART 6. CONTRACTOR SHALL HAVE ADEQUATE DUST SUPPRESSION CONTROL MEASURES ONSITE AT ALL TIMES. EXCESS DUST GENERATED FROM OPERATIONS AS DETERMINED BY THE CITY IS GROUNDS FOR STOPPING ALL WORK UNTIL DUST CAN BE CONTROLLED.
- 7. PORTABLE TOILET SHALL BE PLACED ON A PERVIOUS SURFACE AND STAKED DOWN ON ALL FOUR SIDES.
- 8. ADJACENT ROADWAYS SHALL BE KEPT CLEAR OF DEBRIS AND SOIL TRACKOUT AT ALL TIMES AND SHALL BE CLEANED IMMEDIATELY USING DRY METHODS ONLY. 9. SEE COVER SHEET OF LONE TREE STANDARD NOTES AND
- DETAILS (SHEET 1 OF 3) FOR LEGEND OF BMP NAMES AND
- 10. SEE COVER SHEET OF LONE TREE STANDARD NOTES AND DETAILS (SHEET 1 OF 3) FOR LEGEND OF BMP NAMES AND SYMBOLS.
- 11. SHADED BMPS INSTALLED IN THE INITIAL STAGE SHALL BE
- LEFT IN PLACE IN THE INTERIM STAGE. 12. ALL INTERIM BMPS, INCLUDING SEEDING AND MULCHING OF DISTURBED AREAS, MUST BE COMPLETED PRIOR TO ISSUANCE
- OF ANY CURB AND GUTTER PERMITS. 13. SEE CONSTRUCTION PLANS FOR DETAILS OF PERMANENT
- DRAINAGE FACILITIES SUCH AS DETENTION FACILITIES, CULVERTS, STORM DRAINS, AND INLET AND OUTLET PROTECTION.
- 14. ALL DISTURBED AREAS SHALL BE STABILIZED PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY. LANDSCAPED AREAS THAT CANNOT BE COMPLETED DUE TO SEASONAL CONSTRAINTS MUST BE COVERED WITH EROSION CONTROL BLANKET UNTIL LANDSCAPING CAN BE COMPLETED.



30 15 0 ORIGINAL SCALE: 1" = 30

ENGINEER'S STATEMENT

THE GRADING, EROSION, AND SEDIMENT CONTROL PLAN INCLUDED HEREIN HAS BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF CITY OF LONE TREE GRADING, EROSION, AND SEDIMENT CONTROL (GESC) CRITERIA

CITY OF LONE TREE



AARON L. CLUTTER, P.E. COLORADO P.E. 36742 FOR AND ON BEHALF OF JR ENGINEERING, LLC

AMENITY SHEET 6 OF 9

ITE AT RIDGEGAT V VILLAGE

JOB NO. 15950.06



- PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION, HAS REVIEWED THE DOCUMENT AND FOUND IT IN GENERAL COMPLIANCE WITH THE CITY OF LONE TREE SUBDIVISION REGULATIONS AND/OR THE GRADING. EROSION AND SEDIMENT CONTROL (GESC) CRITERIA MANUAL. THE CITY OF LONE TREE ENGINEER, THROUGH ACCEPTANCE OF THIS OCCUMENT, ASSUMES NO RESPONSIBILITY (OTHER THAN AS STATED ABOVE) FOR THE COMPLETENESS AND/OR ACCURACY OF THESE DOCUMENTS.
- THE ADEQUACY OF THIS GESC PLAN LIES WITH THE ORIGINAL DESIGN ENGINEER.
- THE GESC PLAN SHALL BE CONSIDERED VALID FOR TWO (2) YEARS FROM THE DATE OF ACCEPTANCE BY THE CITY OF LONE TREE, AFTER WHICH TIME THE PLAN SHALL BE VOID AND WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY THE CITY OF LONE TREE.
- ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE CITY OF LONE TREE ENGINEERING DIVISION. THE CITY OF LONE TREE RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO THE GESC MANUAL, GESC PLAN OR GESC PERMIT.
- THE PLACEMENT OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs) SHALL BE IN ACCORDANCE WITH THE CITY OF LONE TREE - ACCEPTED GESC PLAN AND THE CITY OF LONE TREE GESC MANUAL ANY VARIATION IN MATERIAL, TYPE OR LOCATION OF EROSION AND SEDIMENT CONTROL BMPs FROM THE CITY OF
- LONE TREE ACCEPTED GESC PLAN WILL REQUIRE APPROVAL FROM AN ACCOUNTABLE REPRESENTATIVE OF THE CITY OF LONE TREE ENGINEERING DIVISION.
- AFTER THE GESC PLAN HAS BEEN ACCEPTED, THE GESC PERMIT APPLIED FOR, FEES AND FISCAL SECURITY SUBMITTED TO THE CITY, AND THE GESC FIELD MANUAL OBTAINED AND REVIEWED, THE CONTRACTOR MAY INSTALL THE INITIAL—STAGE EROSION AND SEDIMENT CONTROL BMPs INDICATED ON THE ACCEPTED GESC PLAN.
- MEANS OF DEFINING THE LIMITS OF CONSTRUCTION, INCLUDING CONSTRUCTION LIMITS ADJACENT TO STREAM CORRIDORS AND OTHER AREAS TO BE PRESERVED.
- AFTER INSTALLATION OF THE INITIAL-STAGE EROSION AND SEDIMENT CONTROL BMPs, THE PERMITTEE SHALL CALL THE CITY OF LONE TREE CONSTRUCTION INSPECTOR AT (303) 662-8112 TO SCHEDULE A PRECONSTRUCTION MEETING AT THE PROJECT SITE. THE REQUEST SHALL BE MADE A MINIMUM OF THREE BUSINESS DAYS PRIOR TO THE REQUESTED MEETING TIME. NO CONSTRUCTION ACTIVITIES SHALL BE PLANNED WITHIN 24 HOURS AFTER THE PRECONSTRUCTION MEETING. PRECONSTRUCTION MEETING.
- 10. THE OWNER OR OWNER'S REPRESENTATIVE, THE GESC MANAGER, THE GENERAL CONTRACTOR, AND THE GRADING SUBCONTRACTOR, IF DIFFERENT FROM THE GENERAL CONTRACTOR, MUST ATTEND THE PRECONSTRUCTION MEETING. IF ANY OF THE REQUIRED PARTICIPANTS FAIL TO ATTEND THE PRECONSTRUCTION MEETING, OR IF THE GESC FIELD MANUAL IS NOT ON SITE, OR IF THE INSTALLATION OF THE INITIAL BMPs ARE NOT APPROVED BY THE CITY OF LONE TREE GESC INSPECTOR, THE APPLICANT WILL HAVE TO PAY A REINSPECTION FEE, ADDRESS ANY PROBLEMS WITH BMP INSTALLATION, AND CALL TO RESCHEDULE THE MEETING, WITH A CORRESPONDING DELAY IN THE START OF CONSTRUCTION. THE CITY OF LONE TREE STRONGLY ENCOURAGES THE APPLICANT TO HAVE THE ENGINEER OF RECORD AT THE PRECONSTRUCTION MEETING. FAILURE OF THE ENGINEER OF RECORD TO ATTEND MAY RESULT IN A
- CONSTRUCTION SHALL NOT BEGIN UNTIL THE CITY OF LONE TREE GESC INSPECTOR APPROVES THE INSTALLATION OF THE INITIAL BMPS AND THE APPROVED GESC PERMIT IS PICKED UP FROM THE CITY AND IS IN-HAND ON THE SITE. THE COMPLETED PERMIT WILL BE AVAILABLE WITHIN 24-HOURS AFTER THE INSTALLATION OF THE INITIAL BMPS ARE
- 12. THE GESC MANAGER SHALL STRICTLY ADHERE TO THE CITY OF LONE TREE—APPROVED LIMITS OF CONSTRUCTION AT ALL TIMES. THE CITY OF LONE TREE ENGINEERING DIVISION MUST APPROVE ANY CHANGES TO THE LIMITS OF CONSTRUCTION AND, AT THE DISCRETION OF THE ENGINEERING DIVISION, ADDITIONAL EROSION/SEDIMENT CONTROLS MAY BE REQUIRED IN ANY ADDITIONAL AREAS OF CONSTRUCTION.
- . THE MAXIMUM AREA OF CONSTRUCTION SHALL BE LIMITED TO 40 ACRES (70 ACRES IF APPROVED FOR SOIL MITIGATION OPERATIONS) TO REDUCE THE AMOUNT OF LAND DISTURBED AT ANY ONE TIME. LARGER SITES SHALL BE DIVIDED INTO PHASES THAT ARE EACH 40 (OR 70) ACRES OR LESS IN SIZE. THESE PROJECTS SHALL CONDUCT GRADING ACTIVITIES IN ACCORDANCE WITH THE ACCEPTED GESC PLAN. BMP INSTALLATION AND APPROVAL BY THE CITY OF LONE TREE AT THE START AND COMPLETION OF EACH PHASE SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN THE GESC MANUAL AND/OR GESC FIELD MANUAL.
- 14. PRIOR TO ACTUAL CONSTRUCTION. THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES. FOR INFORMATION, CONTACT THE DENVER INTER-UTILITY GROUP AT 1-800-922-1987 OR FAX AT (303) 534-6700. 15. NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED WHEREVER POSSIBLE. EXPOSURE OF SOIL TO EROSION
- BY REMOVAL OR DISTURBANCE OF VEGETATION SHALL BE LIMITED TO THE AREA REQUIRED FOR IMMEDIATE CONSTRUCTION OPERATIONS.
- 16. THE GESC PERMIT SHALL BE VALID FOR A PERIOD OF ONE (1) YEAR, UNLESS EXTENDED.

SIGN

8'x8' MIN. OR AS REQUIRED TO CONTAIN WASTE CONCRETE

SECTION B SCALE: 1" = 10'-0"

2. THE CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON SITE.

3. VEHICLE TRACKING CONTROL (DETAIL 24) IS REQUIRED AT THE ACCESS POINT.

5. EXCAVATED MATERIAL SHALL BE UTILIZED IN PERIMETER BERM CONSTRUCTION.

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

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

3. WHEN THE CONCRETE WASHOUT AREA IS REMOVED, TH DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE CITY.

4. INSPECT WEEKLY, DURING AND AFTER ANY STORM EVENT.

CWA CONCRETE WASHOUT AREA 4

CONCRETE WASHOUT AREA MAINTENANCE NOTES

4. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE WASHOUT AREA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT AREA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.

CONCRETE WASHOUT AREA INSTALLATION NOTES

SEE PLAN VIEW FOR:
 LOCATIONS OF CONCRETE WASHOUT AREA.

OF SEDIMENT AND/OR CONSTRUCTION DEBRIS.

17. A COPY OF THE GESC PERMIT, ACCEPTED GESC PLANS AND THE GESC FIELD MANUAL SHALL BE ON SITE AT ALL 18. THE GESC MANAGER SHALL BE RESPONSIBLE FOR ENSURING THAT THE SITE REMAINS IN COMPLIANCE WITH THE GESC PERMIT AND SHALL BE THE PERMITTEE'S CONTACT PERSON WITH THE CITY FOR ALL MATTERS PERTAINING TO THE GESC PERMIT. THE GESC MANAGER SHALL BE PRESENT AT THE SITE THE MAJORITY OF THE TIME AND SHALL

BE AVAILABLE THROUGH A 24-HOUR CONTACT NUMBER. IN THE EVENT THAT THE CONTRACTOR'S GESC MANAGER IS

NOT ON SITE AND CANNOT BE REACHED DURING A VIOLATION, THE ALTERNATE GESC MANAGER SHALL BE CONTACTED. IF NEITHER THE GESC MANAGER NOR ALTERNATE GESC MANAGER CAN BE CONTACTED DURING ANY

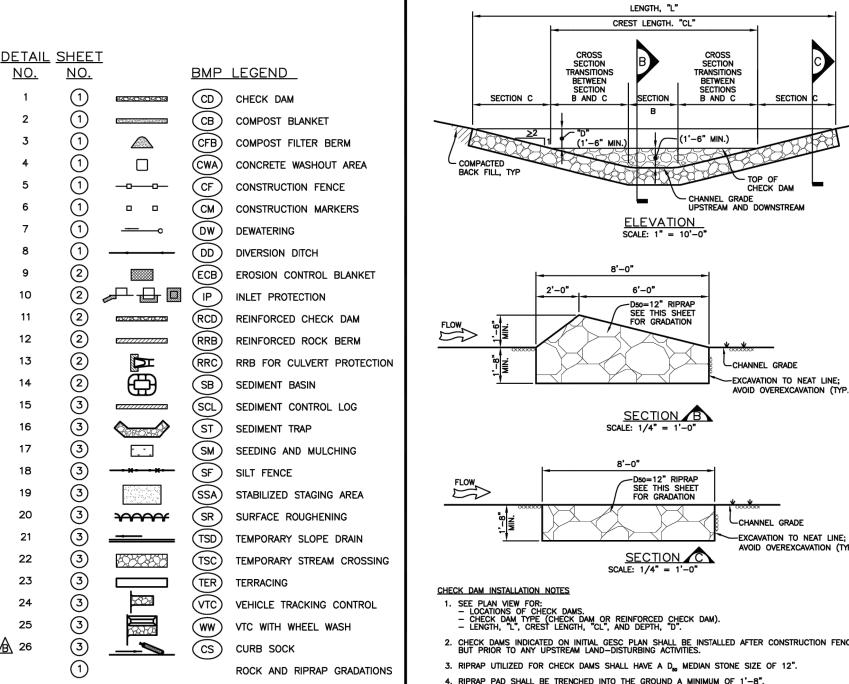
- 19. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE THROUGH THE CITY OF LONE TREE-APPROVED ACCESS POINT. A VEHICLE TRACKING CONTROL PAD IS REQUIRED AT ALL ACCESS POINTS ON THE SITE. ADDITIONAL STABILIZED CONSTRUCTION ENTRANCES MAY BE ADDED WITH AUTHORIZATION FROM THE CITY OF LONE TREE
- 20. THE GESC MANAGER IS RESPONSIBLE FOR CLEANUP OF SEDIMENT OR CONSTRUCTION DEBRIS TRACKED ONTO ADJACENT PAVED AREAS. PAVED AREAS INCLUDING STREETS ARE TO BE KEPT CLEAN THROUGHOUT BUILD-OUT AND SHALL BE CLEANED, WITH A STREET SWEEPER OR SIMILAR DEVICE, AT FIRST NOTICE OF ACCIDENTAL TRACKING OR AT THE DISCRETION OF THE CITY OF LONE TREE GESC INSPECTOR. STREET WASHING IS NOT ALLOWED. THE CITY OF LONE TREE RESERVES THE RIGHT TO REQUIRE ADDITIONAL MEASURES TO ENSURE AREA STREETS ARE KEPT FREE

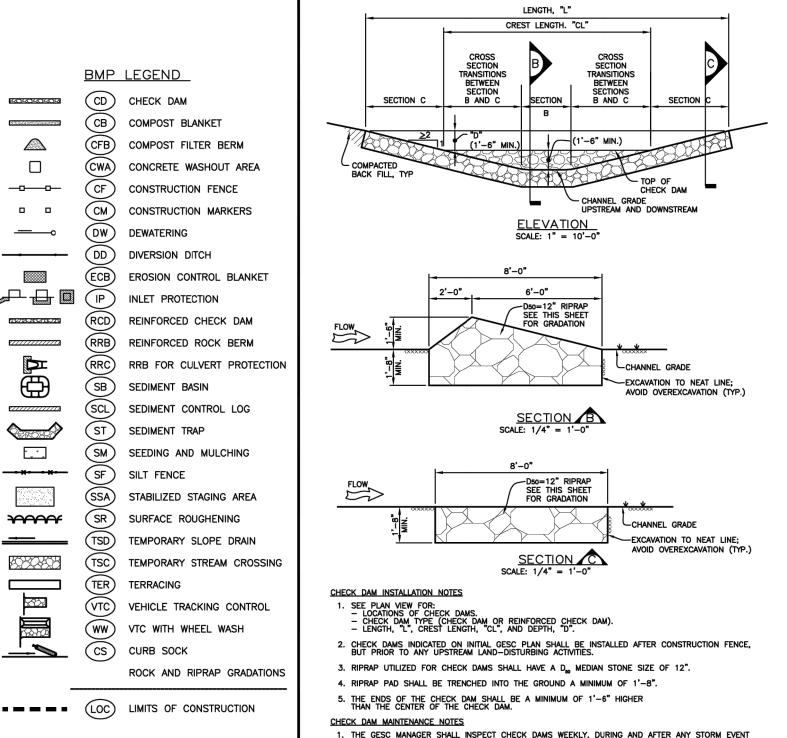
√(DETAIL 24)

GROUND SURFACE -

|<-|12" MIN

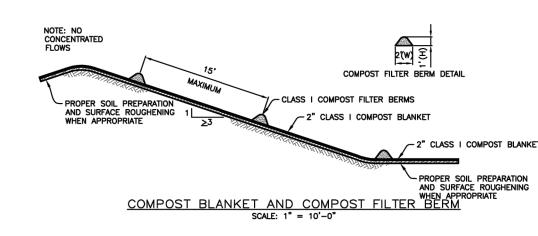
- APPROVED EROSION AND SEDIMENT CONTROL BMPS SHALL BE MAINTAINED AND KEPT IN GOOD REPAIR FOR DURATION OF THIS PROJECT. AT A MINIMUM, THE GESC MANAGER SHALL INSPECT ALL BMPS IN ACCORDANCE WITH THE ACCEPTED GESC PLAN AND GESC MANUAL. ALL NECESSARY MAINTENANCE AND REPAIR ACTIVITIES SHALL BE COMPLETED WITHIN 48 HOURS FOR LEVEL III VIOLATIONS, AND IMMEDIATELY FOR LEVEL II VIOLATIONS, OR AS RECTED BY A CITY OF LONE TREE GESC INSPECTOR. ACCUMULATED SEDIMENT AND CONSTRUCTION DEBRIS SHALL BE REMOVED AND PROPERLY DISPOSED.
- 22. STRAW BALES ARE NOT A GESC-ACCEPTED SEDIMENT CONTROL BMP.
- 23. TOPSOIL SHALL BE STRIPPED AND STOCKPILED IN THE LOCATION SHOWN ON THE ACCEPTED GESC PLAN. THE GESC MANAGER SHALL SCHEDULE AN INSPECTION WITH THE CITY OF LONE TREE GESC INSPECTOR AS SOON AS TOPSOIL STRIPPING IS COMPLETED. FAILURE TO SCHEDULE SUCH INSPECTION OR FAILURE TO STOCKPILE TOPSOIL SHALL RESULT IN ISSUANCE OF A STOP WORK ORDER. THE STOP WORK ORDER SHALL REMAIN IN PLACE UNTIL TOPSOIL IS STOCKPILED ON SITE OR APPROPRIATE SOIL AMENDMENTS ARE STOCKPILED ON SITE.
- 24. THE ACCEPTED GESC PLAN MAY REQUIRE CHANGES OR ALTERATIONS AFTER APPROVAL TO MEET CHANGING SITE OR PROJECT CONDITIONS OR TO ADDRESS INEFFICIENCIES IN DESIGN OR INSTALLATION. THE GESC MANAGER SHALL OBTAIN PRIOR APPROVAL FROM THE DESIGN ENGINEER AND THE CITY OF LONE TREE ENGINEERING FOR ANY
- 25. LINING OF TEMPORARY SWALES AND DITCHES SHALL BE IN ACCORDANCE WITH THE GESC CRITERIA MANUAL.
- 26. NO PERMANENT EARTH SLOPES GREATER THAN 3:1 SHALL BE ALLOWED. 27. ANY SETTLEMENT OR SOIL ACCUMULATIONS BEYOND THE LIMITS OF CONSTRUCTION DUE TO GRADING OR EROSION SHALL BE REPAIRED IMMEDIATELY BY THE GESC MANAGER, THE GESC MANAGER SHALL BE HELD RESPONSIBLE FOR OBTAINING ACCESS RIGHTS TO ADJACENT PROPERTY, IF NEEDED, AND REMEDIATING ANY ADVERSE IMPACTS TO
- ADJACENT WATERWAYS, WETLANDS, PROPERTIES, ETC. RESULTING FROM WORK DONE AS PART OF THIS PROJECT. 28. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- 29. SOILS THAT WILL BE STOCKPILED FOR MORE THAN THIRTY (30) DAYS SHALL BE SEEDED AND MULCHED WITHIN FOURTEEN (14) DAYS OF STOCKPILE CONSTRUCTION, NO STOCKPILES SHALL BE PLACED WITHIN ONE HUNDRED (100) FEET OF A DRAINAGE WAY UNLESS APPROVED BY THE CITY OF LONE TREE ENGINEERING DIVISION.
- D. ALL CHEMICAL OR HAZARDOUS MATERIAL SPILLS WHICH MAY ENTER WATERS OF THE STATE OF COLORADO, WHICH INCLUDE BUT ARE NOT LIMITED TO, SURFACE WATER, GROUND WATER AND DRY GULLIES OR STORM SEWER LEADING TO SURFACE WATER, SHALL BE IMMEDIATELY REPORTED TO THE CDPHE PER CRS 25-8-601, AND THE CITY OF LONE TREE. RELEASES OF PETROLEUM PRODUCTS AND CERTAIN HAZARDOUS SUBSTANCES LISTED UNDER THE EDERAL CLEAN WATER ACT (40 CFR PART 116) MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER AS WELL AS THE CDPHE. THE APPLICABLE CONTACT INFORMATION (SEE APPENDIX A, DOUGLAS COUNTY GESC MANUAL - SUBJECT TO CHANGE) IS: COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT TOLL-FREE 24-HOUR ENVIRONMENTAL EMERGENCY SPILL REPORTING LINE 1-877-518-5608: NATIONAL RESPONSE CENTER (24-HOUR NATIONAL SPILL RESPONSE) 1-800-424-8802; CITY OF LONE TREE PUBLIC WORKS (303) 662-8112. SPILLS THAT POSE AN IMMEDIATE RISK TO HUMAN LIFE SHALL BE REPORTED TO 911. FAILURE TO REPORT AND CLEAN UP ANY SPILL SHALL RESULT IN ISSUANCE OF A STOP WORK ORDER.
- . ALL WORK ON SITE SHALL STAY A MINIMUM OF ONE HUNDRED (100) FEET AWAY FROM ANY DRAINAGE WAY WETLAND, ETC. UNLESS OTHERWISE NOTED ON AN ACCEPTED CITY OF LONE TREE GESC PLAN.
- L PROJECTS SHALL BALANCE EARTHWORK QUANTITIES ON SITE. IN THE EVENT A VARIANCE IS GRANTED BY THE CITY ENGINEER TO ALLOW IMPORT OR EXPORT OF MATERIAL, THE PERMITEE SHALL HAVE A GESC PERMIT IN HAND FOR THE IMPORT OR EXPORT SITE PRIOR TO ANY TRANSPORTING OF EARTHEN MATERIAL. THE GESC MANAGER SHALL NOTIFY THE CITY OF LONE TREE GESC INSPECTOR OF THE LOCATION AND GESC PERMIT NUMBERS OF BOTH THE EXPORTING AND IMPORTING SITES PRIOR TO ANY IMPORT/EXPORT OPERATIONS.
- 33. THE USE OF REBAR, STEEL STAKES OR STEEL FENCE POSTS FOR STAKING OR SUPPORT OF ANY EROSION OR SEDIMENT CONTROL BMP IS PROHIBITED (EXCEPT STEEL TEE-POSTS FOR USE IN SUPPORTING CONSTRUCTION
- THE CLEANING OF CONCRETE DELIVERY TRUCK CHUTES IS RESTRICTED TO APPROVED CONCRETE WASH OUT LOCATIONS ON THE JOB SITE. THE DISCHARGE OF WATER CONTAINING WASTE CONCRETE TO THE STORM SEWER SYSTEM IS PROHIBITED. ALL CONCRETE WASTE SHALL BE PROPERLY CLEANED UP AND DISPOSED AT AN
- DEWATERING ON SITE SHALL BE COORDINATED WITH A CITY OF LONE TREE GESC INSPECTOR AND BE FREE OF SEDIMENT IN ACCORDANCE WITH THE GESC CRITERIA MANUAL.
- ALL PERMANENT INSTALLATIONS OF PIPES FOR STORM SEWERS, SLOPE DRAINS, AND CULVERTS, TOGETHER WITH RIPRAP APRONS OR OTHER INLET AND OUTLET PROTECTION, REQUIRE INSPECTION BY THE CITY OF LONE TREE ENGINEERING (SEPARATE FROM GESC INSPECTIONS).
- 37. ALL DISTURBED AREAS SHALL BE DRILL SEEDED AND CRIMP MULCHED IN ACCORDANCE WITH THE DOUGLAS COUNTY GESC MANUAL CRITERIA AND THE CITY OF LONE TREE SEEDING AND MULCHING DETAIL (#17) INCLUDED HEREIN WITHIN THIRTY DAYS OF INITIAL EXPOSURE OR WITHIN SEVEN DAYS OF SUBSTANTIAL COMPLETION (AS DEFINED BY THE CITY OF LONE TREE) OF AN AREA, WHICHEVER IS LESS. THIS MAY REQUIRE MULTIPLE MOBILIZATIONS FOR
- HYDRAULIC SEEDING AND HYDRAULIC MULCHING ARE NOT AN ACCEPTABLE METHOD OF SEEDING OR MULCHING IN THE CITY OF LONE TREE.
- . NO CURB AND GUTTER PERMITS SHALL BE ISSUED UNTIL ALL DISTURBED AREAS ARE DRILL SEEDED AND CRIMP
- 40. NO PAVING PERMITS SHALL BE ISSUED UNTIL ALL INTERIM INLET PROTECTION IS INSTALLED AND APPROVED BY THE
- 41. A FINAL GESC INSPECTION SHALL BE CONDUCTED A MINIMUM OF TWO WEEKS PRIOR TO THE ANTICIPATED REQUEST FOR CERTIFICATE OR TEMPORARY CERTIFICATE OF OCCUPANCY OR INITIAL ACCEPTANCE.





- THE GESC MANAGER SHALL INSPECT CHECK DAMS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY.
- 2. SEDIMENT ACCUMULATED UPSTREAM OF CHECK DAMS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF CHECK DAM IS WITHIN 1/2 OF THE HEIGHT OF THE CREST. 3. CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE CITY.
- 4. WHEN CHECK DAMS ARE REMOVED, EXCAVATIONS SHALL BE FILLED WITH SUITABLE COMPACTED BACK FILL. ANY DISTURBED AREA SHALL BE SEEDED AND MULCHED AND COVERED WITH EROSION CONTROL BLANKET OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE CITY.





- 1. SEE PLAN VIEW FOR AREA OF COMPOST BLANKET.
- 2. MAY BE USED IN PLACE OF STRAW MULCH OR EROSION CONTROL BLANKET IN AREAS WHERE ACCESS IS DIFFICULT DUE TO LANDSCAPING OR OTHER OBJECTS OR IN AREAS WHERE A SMOOTH TURF GRASS FINISH IS DESIRED.
- SHALL ONLY BE UTILIZED IN AREAS WHERE SHEET FLOW CONDITIONS PREVAIL SHALL BE PROHIBITED IN AREAS OF POSSIBLE CONCENTRATED FLOW. 4. SOIL PREPARATION SHALL BE COMPLETE PER THE SPECIFICATIONS OUTLINED IN THESE CRITERIA PRIOR TO APPLICATION.
- WHEN TURF GRASS FINISH IS NOT DESIRED, SURFACE ROUGHENING ON SLOPES SHALL TAKE PLACE PRIOR TO APPLICATION.
- 6. SHALL BE EVENLY APPLIED AT A DEPTH OF 2 INCH.
- 7. MAYBE APPLIED UTILIZING PNEUMATIC BLOWER, OR BY HAND 8. SEEDING SHALL BE DRILLED PRIOR TO THE APPLICATION OF COMPOST OR SEED MAY BE COMBINED AND BLOWN WITH THE PNEUMATIC BLOWER.
- COMPOST FILTER BERM SHALL BE UTILIZED ON SLOPES WITH A MAXIMUM SPACING OF 15 FEET PER THE REQUIREMENTS FOUND IN THE COMPOST FILTER BERM SECTION.
- 10. THE CECC MANAGED CHALL INCRECT WEEKLY DURING AND AFTER ANY STORM EVENT

10. THE GESC MANAGER SHALL INSPECT	WEEKLY, DURING AND AFTER ANY STORM EVENT.
	OF THE COMPOST BLANKET SHALL BE A CLASS I DWING PHYSICAL, CHEMICAL, AND BIOLOGICAL PARAMET
PARAMETERS	CLASS I COMPOST FOR COMPOST BLANKET
MINIMUM STABILITY INDICATOR	STABLE TO VERY STABLE
SOLUBLE SALTS	MAXIMUM 5mmhos/cm
PH	6.0 - 8.0
AG INDEX	> 10
MATURITY INDICATOR EXPRESSED AS PERCENTAGE OF GERMINATION/VIGOR	80+/80+
MATURITY INDICATOR EXPRESSED AS AMMONIA N/ NITRATE N RATIO	< 4
MATURITY INDICATOR EXPRESSED AS CARBON TO NITROGEN RATIO	20:1
TESTED FOR CLOPYRALID	YES/NEGATIVE RESULT
MOISTURE CONTENT	30-60 %
ORGANIC MATTER CONTENT	25-45 % OF DRY WEIGHT
PARTICLE SIZE DISTRIBUTION	3" (75mm) 100% PASSING 1" (25mm) 95% TO 100% PASSING 3/4" (19mm) 85% TO 90% PASSING 3/8" (9.5mm) 50% TO 60% PASSING #4 20 TO 35% PASSING
PRIMARY, SECONDARY NUTRIENTS; TRACE ELEMENT	MUST BE REPORTED
TESTING AND TEST REPORT SUBMITTAL REQUIREMENTS	STA + CLOPYRALID
ORGANIC MATTER PER CUBIC YARD	MUST REPORT
CHEMICAL CONTAMINANTS	MEET OR EXCEED US EPA CLASS A STANDARD, 40 CFR 503.1 TABLES 1 & 3 LEVELS
MINIMUM MANUFACTURING/PRODUCTION REQUIREMENT	FULLY PERMITTED UNDER COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION
RISK FACTOR RELATING TO PLANT GERMINATION AND HEALTH	LOW

(CB) COMPOST BLANKET (2)

COMPOST FILTER BERM NOTES:

1. SEE PLAN VEW FOR LENGTH OF COMPOST FILTER BERM. 2. SHALL BE APPLIED TO ALL SLOPES RECEIVING A COMPOST BLANKET AT 15' INCREMENTS. 3. FILTER BERMS SHALL RUN PARALLEL TO THE CONTOUR.

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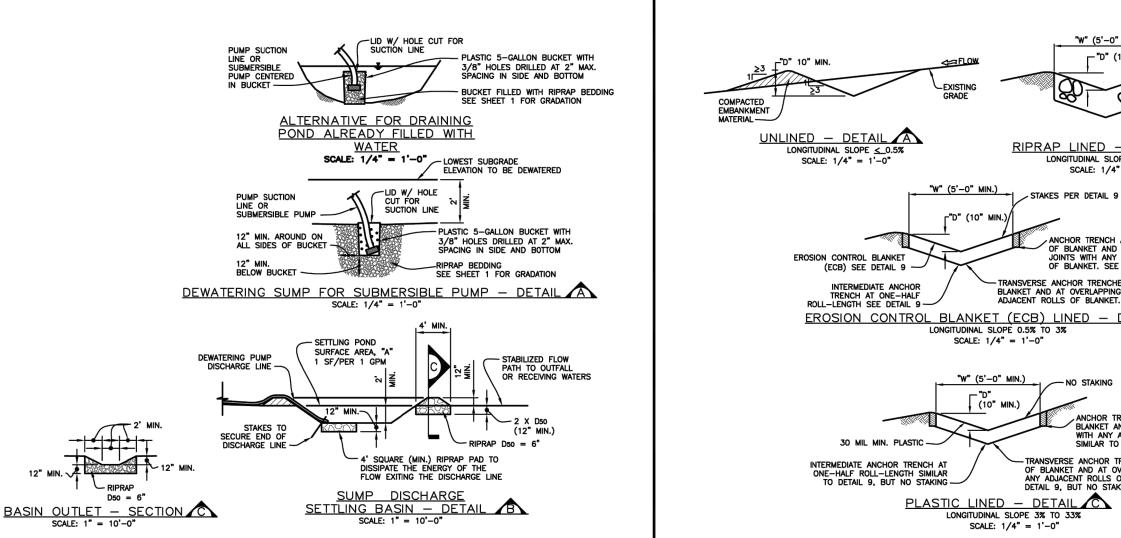
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- 4. FILTER BERMS SHALL BE A MINIMUM OF 1' H x 2' W. 5. FILTER BERMS SHALL BE APPLIED UTILIZING PNEUMATIC BLOWER, OR BY HAND.
- SHALL ONLY BE UTILIZED IN AREAS WHERE SHEET FLOW CONDITIONS PREVAIL; SHALL BE PROHIBITED IN AREAS OF POSSIBLE CONCENTRATED FLOW.
- SOIL PREPARATION SHALL BE COMPLETE PER THE SPECIFICATIONS OUTLINED IN THESE CRITERIA PRIOR TO APPLICATION.
- 8. WHEN TURF GRASS FINISH IS NOT DESIRED, SURFACE ROUGHENING ON SLOPES SHALL TAKE PLACE PRIOR TO APPLICATION.
- SEEDING SHALL BE DRILLED BEFORE THE APPLICATION OF COMPOST OR SEED MAY BE COMBINED AND BLOWN WITH THE PNEUMATIC BLOWER.
- 10. THE GESC MANAGER SHALL INSPECT WEEKLY, DURING AND AFTER ANY STORM EVENT. 11. COMPOST USED IN THE APPLICATION OF THE COMPOST FILTER BERM SHALL BE A CLASS I COMPOST AS DEFINED BY THE FOLLOWING PHYSICAL, CHEMICAL, AND BIOLOGICAL PARAMETERS:

PARAMETERS	CLASS I COMPOST FOR COMPOST FILTER BERM
MINIMUM STABILITY INDICATOR	STABLE TO VERY STABLE
SOLUBLE SALTS	MAXIMUM 5mmhos/cm
PH	6.0 - 8.0
AG INDEX	> 10
MATURITY INDICATOR EXPRESSED AS PERCENTAGE OF GERMINATION/VIGOR	80+/80+
MATURITY INDICATOR EXPRESSED AS AMMONIA N/ NITRATE N RATIO	< 4
MATURITY INDICATOR EXPRESSED AS CARBON TO NITROGEN RATIO	20:1
TESTED FOR CLOPYRALID	YES/NEGATIVE RESULT
MOISTURE CONTENT	30-60 %
ORGANIC MATTER CONTENT	25-45 % OF DRY WEIGHT
PARTICLE SIZE DISTRIBUTION	3" (75mm) 100% PASSING 1" (25mm) 95% TO 100% PASSING 3/4" (19mm) 85% TO 90% PASSING 3/8" (9.5mm) 50% TO 60% PASSING #4 20 TO 35% PASSING
PRIMARY, SECONDARY NUTRIENTS; TRACE ELEMENT	MUST BE REPORTED
TESTING AND TEST REPORT SUBMITTAL REQUIREMENTS	STA + CLOPYRALID
ORGANIC MATTER PER CUBIC YARD	MUST REPORT
CHEMICAL CONTAMINANTS	MEET OR EXCEED US EPA CLASS A STANDARD, 40 CFR 503.1 TABLES 1 & 3 LEVELS
MINIMUM MANUFACTURING/PRODUCTION REQUIREMENT	FULLY PERMITTED UNDER COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, HAZARDOI MATERIALS AND WASTE MANAGEMENT DIVISION
RISK FACTOR RELATING TO PLANT GERMINATION AND HEALTH	LOW
POSSESSION OF A VALID NOTICE OF	UTILIZED IT SHALL BE PRODUCED BY A FACILITY IN AUTHORIZATION (NOA) FOR THE UNRESTRICTED USI PARTMENT OF PUBLIC HEALTH AND ENVIRONMENT. 1 IT DO CITY OF LONE TEFE

- SHALL BE PROVIDED UPON REQUEST TO CITY OF LONE TREE. NOTE: A LAB TEST DETAILING THE CHEMICAL, PHYSICAL, AND BIOLOGICAL PARAMETERS SHALL BE PROVIDED UPON REQUEST BY CITY OF LONE TREE.
- CFB COMPOST FILTER BERM (3)



DEWATERING INSTALLATION NOTES 1. THE GESC MANAGER SHALL OBTAIN A CONSTRUCTION DISCHARGE (DEWATERING) PERMIT FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT PRIOR TO ANY DEWATERING OPERATIONS. ALL DEWATERING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE DISCHARGE PERMIT AND SHALL BE COORDINATED WITH THE CITY OF LONE TREE GESC INSPECTOR.

THE GESC MANAGER SHALL PROVIDE, OPERATE, AND MAINTAIN DEWATERING SYSTEMS OF SUFFICIENT SIZE AND CAPACITY TO PERMIT EXCAVATION AND SUBSEQUENT CONSTRUCTION IN DRY CONDITIONS AND TO LOWER AND MAINTAIN THE GROUNDWATER LEVEL A MINIMUM OF 2-FEET BELOW THE LOWEST POINT OF EXCAVATION AND CONTINUOUSLY MAINTAIN EXCAVATIONS FREE OF WATER UNTIL BACKFILLED TO FINAL GRADE. DEWATERING OPERATIONS SHALL USE ONE OR MORE OF THE DEWATERING SUMPS SHOWN ABOVE OR OTHER MEANS APPROVED BY THE CITY TO REDUCE THE PUMPING OF SEDIMENT, AND SHALL PROVIDE A TEMPORARY BASIN FOR SETTLING PUMPED DISCHARGES PRIOR TO RELEASE OFF SITE OR TO A RECEIVING WATER, SEDIMENT BASIN PER DETAIL 14 MAY BE USED IN LIEU OF SUMP DISCHARGE SETTLING BASIN SHOWN ABOVE.

4. A 4' SQUARE (MIN) RIPRAP PAD SHALL BE PLACED AT DISCHARGE POINT. THE DISCHARGE END OF THE LINE SHALL BE STAKED IN PLACES TO PREVENT MOVEMENT OF RIPRAP PAD.

DEWATERING MAINTENANCE NOTES THE GESC MANAGER SHALL INSPECT DEWATERING SYSTEMS AND PERFORM ANY NECESSARY REPAIRS OR MAINTENANCE ON A HOURLY BASIS. 2. TEMPORARY SETTLING BASINS SHALL BE REMOVED WHEN NO LONGER NEEDED FOR DEWATERING OPERATIONS. ANY DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE CITY.

→ DW DEWATERING 7

THICKNESS=2 x D50 RIPRAP LINED — DETAIL D LONGITUDINAL SLOPE 3% TO 33% SCALE: 1/4" = 1'-0""W" (5'-0" MIN.) STAKES PER DETAIL 9 -Transverse anchor trenches at perimeter of Blanket and at overlapping joints with any Adjacent rolls of Blanket. See Detail 9 EROSION CONTROL BLANKET (ECB) LINED - DETAIL ANCHOR TRENCH AT PERIMETER OF BLANKET AND AT OVERLAPPING JOINTS WITH ANY ADJACENT ROLLS OF BLANKE' SIMILAR TO DETAIL 9, BUT NO STAKING ANSVERSE ANCHOR TRENCHES AT PERIMETE OF BLANKET AND AT OVERLAPPING JOINTS WITH ANY ADJACENT ROLLS OF BLANKET, SIMILAR TO DETAIL 9, BUT NO STAKING

DIVERSION DITCH INSTALLATION NOTES

- 1. SEE PLAN VIEW FOR:

 LOCATION OF DIVERSION DITCH.

 TYPE OF DITCH (UNLINED, ECB LINED, PLASTIC LINED OR RIPRAP LINED).

 LENGTH OF EACH TYPE OF DITCH.

 DEPTH, "D", AND WIDTH, "W" DIMENSIONS.

 FOR ECB LINED DITCH, EROSION CONTROL BLANKET TYPE (SEE DETAIL 9).

 FOR RIPRAP LINED DITCH, SIZE OF RIPRAP, "D50".
- . SEE DRAINAGE PLANS FOR DETAILS OF ANY PERMANENT CONVEYANCE FACILITIES OR DIVERSION DITCHES EXCEEDING A 2-YEAR FLOW RATE OF 10 CFS.
- 3. DIVERSION DITCHES INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY LAND-DISTURBING ACTIVITIES. 4. FOR ECB LINED DITCHES, INSTALLATION OF EROSION CONTROL BLANKET SHALL CONFORM TO THE REQUIREMENTS OF DETAIL 9.
- IN LOCATIONS WHERE CONSTRUCTION TRAFFIC MUST CROSS A DIVERSION DITCH, THE PERMITTEES SHALL INSTALL A TEMPORARY CULVERT WITH A MINIMUM DIAMETER OF 12-INCHES.
- THE GESC MANAGER SHALL INSPECT DIVERSION DITCHES WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY. 2. DIVERSION DITCHES ARE TO REMAIN IN PLACE UNTIL THE END OF CONSTRUCTION, OR, IF APPROVED BY THE CITY, LEFT IN PLACE.
- 3. IF DIVERSION DITCHES ARE REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE CITY.

DIVERSION DITCH 8 A

TABLE 1. RIPRAP GRADATIONS

D50 MEDIAN STONE SIZE (INCHES)	% OF MATERIAL SMALLER THAN TYPICAL STONE	TYPICAL STONE EQUIVALENT DIAMETER (INCHES)	TYPICAL STONE WEIGHT (POUND
6	70 - 100 50 - 70 35 - 50 2 - 10	12 9 6 2	85 35 10 0.4
9	70 - 100 50 - 70 35 - 50 2 - 10	15 12 9 3	160 85 35 1.3
12	70 - 100 50 - 70 35 - 50 2 - 10	21 18 12 4	440 275 85 3
18	100 50 - 70 35 - 50 2 - 10	30 24 18 6	1280 650 275 10
24	100 50 - 70 35 - 50 2 - 10	42 33 24 9	3500 1700 650 35

TABLE 2. RIPRAP BEDDING

SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
	CLASS A
3"	100
1 1/2*	20 - 90
NO. 4	0 - 20
NO. 200	0 - 3
CLASS A FILTE TYPE 1 BEDDI	ECIFICATIONS FOR CDOT R MATERIAL AND UDF NG. ALL ROCK SHALL I ED FACE, ALL SIDES.

TABLE 3. 1 1/2" CRUSHED ROCK

SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES			
	NO. 4			
2"	100			
1 1/2"	90 - 100			
1"	20 - 55			
3/4"	0 - 15			
3/8"	0 - 5			
•				
MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.				

ROCK AND RIPRAP GRADATIONS

	NOTE: SCALES		
6/30/05	ADOPTED FROM DOUGLAS COUNTY GESC PLANS	MLP	SHOWN ARE FOR 24"x36"
5/ /08	EDIT UPDATES 🛕	GAW	SHEETS; ADJUST
1/ /08	ADD CURB SOCK DETAIL 🛕 (REF UDFCD, V3 FIGURE C5-23), MISC. NOTE EDITS	GAW	ACCORDINGLY FOR 11"x17"
			SHEETS.



1. SEE PLAN VIEW FOR:

---- CF CONSTRUCTION FENCE 5

- TYPE OF CONSTRUCTION LIMIT INDICATOR (FENCE OR MARKERS).
- LOCATION AND LENGTH OF FENCE OR LINE OF MARKERS.

STEEL TEE POSTS SHALL BE UTILIZED FOR SUPPORT OF CONSTRUCTION FENCE MAXIMUM SPACING FOR TEE POSTS SHALL BE 15'.

1. ANY DAMAGED FENCE OR MARKERS SHALL BE REPAIRED ON A DAILY BASIS.

(ALTERNATIVE TO CONSTRUCTION FENCE) SCALE: 1/4" = 1-0"

CONSTRUCTION MARKERS 6

CITY OF LONE TREE DEPARTMENT OF PUBLIC WORKS **Engineering Division**

GESC GRADING, EROSION, AND SEDIMENT CONTROL

GESC PLAN STANDARD NOTES AND DETAILS

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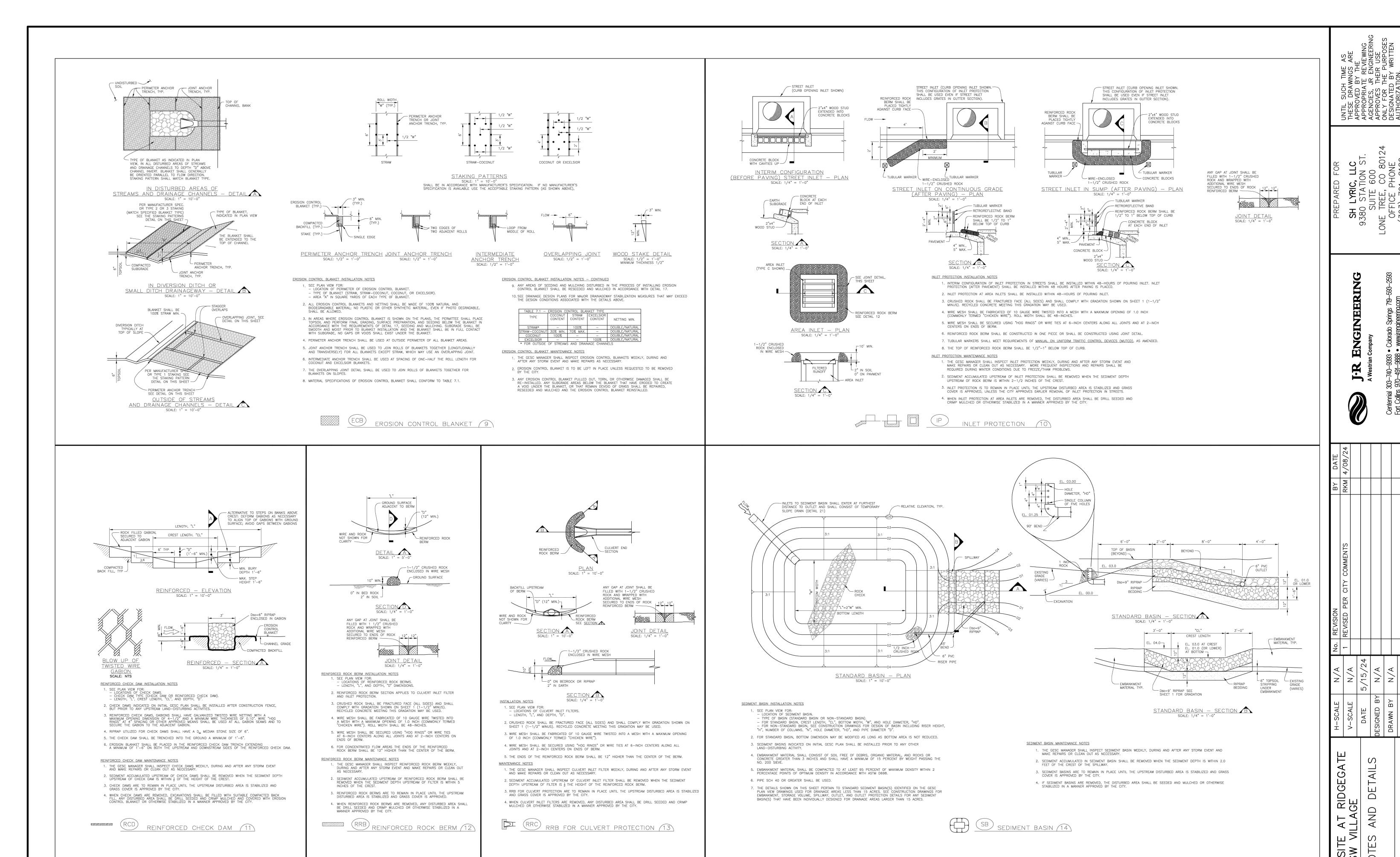
> SHEET **7** OF **9** JOB NO. **15950.06**

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DEPARTMENT OF PUBLIC WORKS

Engineering Division

Sheet Revisions

ADD CURB SOCK DETAIL (REF UDFCD, V3 FIGURE C5-23), MISC. NOTE EDITS

ADOPTED FROM DOUGLAS COUNTY GESC PLANS

EDIT UPDATES

5/ /08

NOTE: SCALES

SHOWN ARE

FOR 24"x36

HEETS; ADJUS

ACCORDINGLY

FOR 11"x17"

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GESC PLAN

STANDARD NOTES

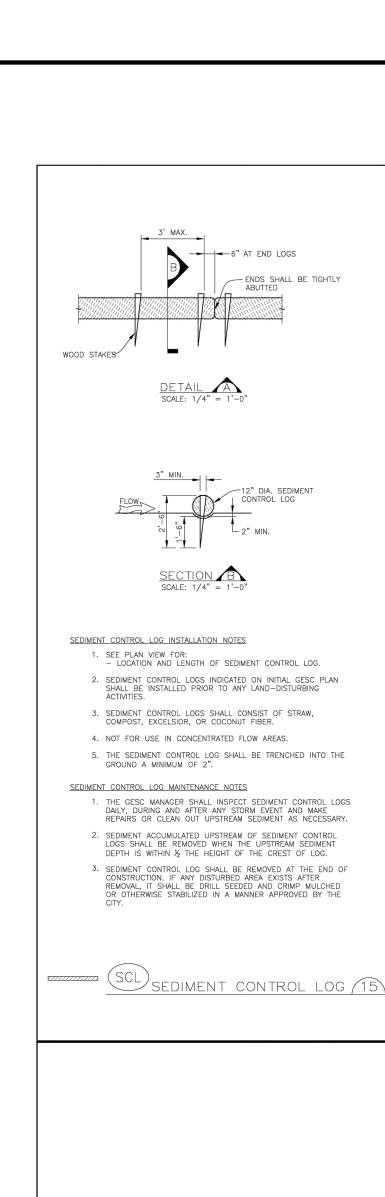
AND DETAILS

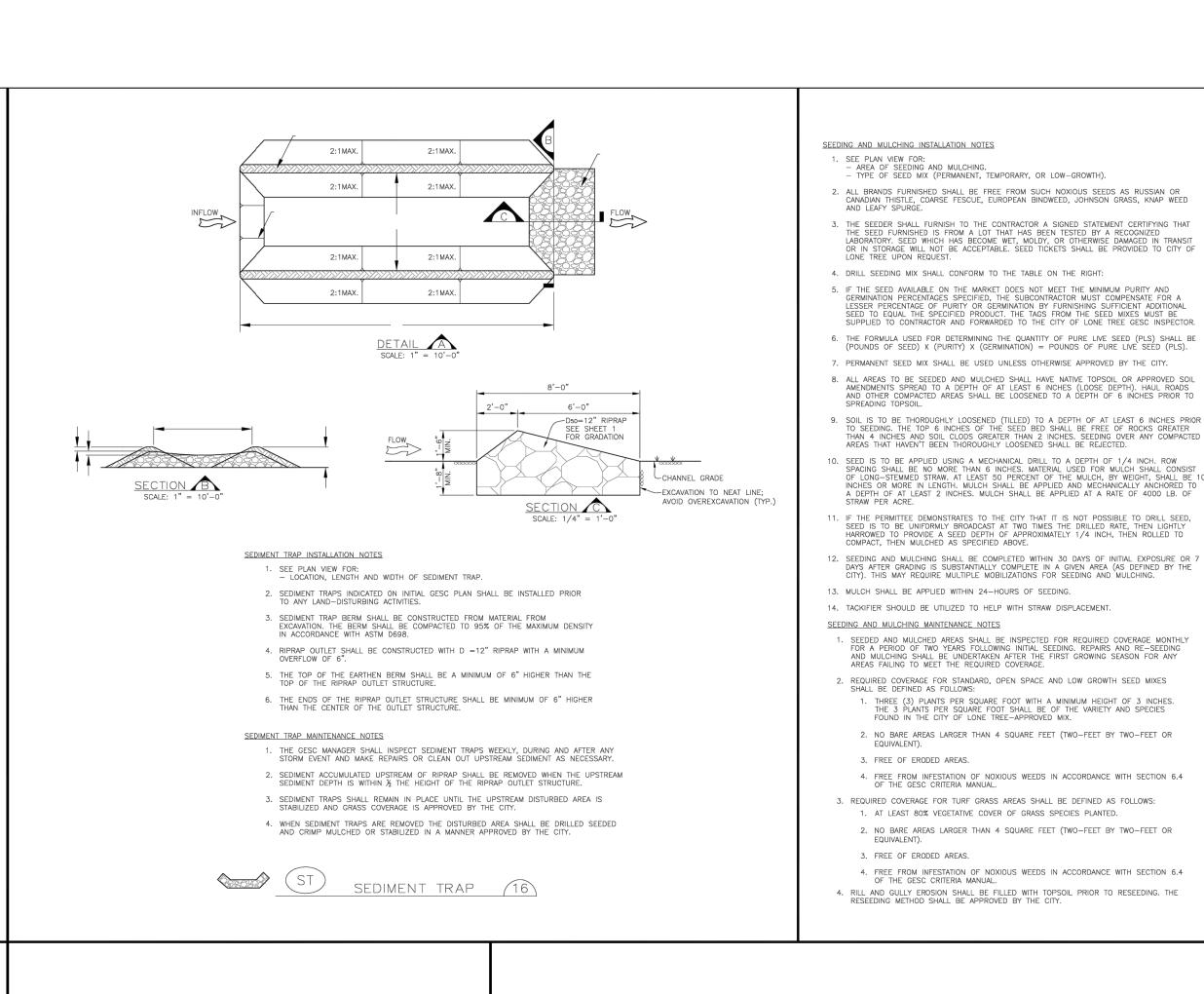
GESC GRADING, EROSION, AND SEDIMENT CONTROL

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EEC	DING AND MULCHING INSTALLATION NOTES	CITY OF	LONE TREE PERM	ANENT D	ORILL SEEDI'	NG MIX
1.	SEE PLAN VIEW FOR: - AREA OF SEEDING AND MULCHING. - TYPE OF SEED MIX (PERMANENT, TEMPORARY, OR LOW-GROWTH).	SPECIES	VARIETY	NOTES	% IN MIX	POUNDS OF I
2	ALL BRANDS FURNISHED SHALL BE FREE FROM SUCH NOXIOUS SEEDS AS RUSSIAN OR	BIG BLUESTEM	KAW	PNWS	10	1.1
	CANADIAN THISTLE, COARSE FESCUE, EUROPEAN BINDWEED, JOHNSON GRASS, KNAP WEED AND LEAFY SPURGE.	YELLOW INDIANGRASS	CHEYENNE	PNWS	10	1
3.	THE SEEDER SHALL FURNISH TO THE CONTRACTOR A SIGNED STATEMENT CERTIFYING THAT THE SEED FURNISHED IS FROM A LOT THAT HAS BEEN TESTED BY A RECOGNIZED	SWITCHGRASS	BLACKWELL	PNWS	10	0.4
	LABORATORY. SEED WHICH HAS BECOME WET, MOLDY, OR OTHERWISE DAMAGED IN TRANSIT OR IN STORAGE WILL NOT BE ACCEPTABLE. SEED TICKETS SHALL BE PROVIDED TO CITY OF LONE TREE UPON REQUEST.	SIDEOATS GRAMA	VAUGHN	PNWB	10	0.9
4.	DRILL SEEDING MIX SHALL CONFORM TO THE TABLE ON THE RIGHT:	WESTERN WHEATGRASS	ARRIBA	PNCS	10	1.6
5.	IE SEED AVAILABLE ON THE MARKET DOES NOT MEET THE MINIMUM PURITY AND INATION PERCENTAGES SPECIFIED, THE SUBCONTRACTOR MUST COMPENSATE FOR A ER PERCENTAGE OF PURITY OR GERMINATION BY FURNISHING SUFFICIENT ADDITIONAL TO EQUAL THE SPECIFIED PRODUCT. THE TAGS FROM THE SEED MIXES MUST BE	BLUE GRAMA	HACHITA	PNWB	10	0.3
		THICKSPIKE WHEATGRASS	CRITANA	PNCS	10	1
	SUPPLIED TO CONTRACTOR AND FORWARDED TO THE CITY OF LONE TREE GESC INSPECTOR.	PRAIRIE SANDREED	GOSHEN	PNWS	10	0.7
6.	THE FORMULA USED FOR DETERMINING THE QUANTITY OF PURE LIVE SEED (PLS) SHALL BE (POUNDS OF SEED) X (PURITY) X (GERMINATION) = POUNDS OF PURE LIVE SEED (PLS).	GREEN NEEDLEGRASS	LODORM	PNCB	10	1
	PERMANENT SEED MIX SHALL BE USED UNLESS OTHERWISE APPROVED BY THE CITY.	SLENDER WHEATGRASS	PRYOR	PNCB	5	0.6
8.	ALL AREAS TO BE SEEDED AND MULCHED SHALL HAVE NATIVE TOPSOIL OR APPROVED SOIL AMENDMENTS SPREAD TO A DEPTH OF AT LEAST 6 INCHES (LOOSE DEPTH). HAUL ROADS AND OTHER COMPACTED AREAS SHALL BE LOOSENED TO A DEPTH OF 6 INCHES PRIOR TO	STREAMBANK WHEATGRASS	SODAR	PNCS	5	0.6
	SPREADING TOPSOIL.				TOTAL	9.2
9.	SOIL IS TO BE THOROUGHLY LOOSENED (TILLED) TO A DEPTH OF AT LEAST 6 INCHES PRIOR TO SEEDING. THE TOP 6 INCHES OF THE SEED BED SHALL BE FREE OF ROCKS GREATER THAN 4 INCHES AND SOIL CLODS GREATER THAN 2 INCHES. SEEDING OVER ANY COMPACTED AREAS THAT HAVEN'T BEEN THOROUGHLY LOOSENED SHALL BE REJECTED.	CITY OF	LONE TREE TEMP	ORARY D	ORILL SEEDII	NG MIX
10.	SEED IS TO BE APPLIED USING A MECHANICAL DRILL TO A DEPTH OF 1/4 INCH. ROW	SPECIES	VARIETY	NOTES	% IN MIX	POUNDS OF I
SPACII OF LC	SPACING SHALL BE NO MORE THAN 6 INCHES. MATERIAL USED FOR MULCH SHALL CONSIST OF LONG-STEMMED STRAW. AT LEAST 50 PERCENT OF THE MULCH, BY WEIGHT, SHALL BE 10 INCHES OR MORE IN LENGTH. MULCH SHALL BE APPLIED AND MECHANICALLY ANCHORED TO	SMOOTH BROMEGRASS	LINCOLN	PICS	30	3.9
	A DEPTH OF AT LEAST 2 INCHES. MULCH SHALL BE APPLIED AT A RATE OF 4000 LB. OF STRAW PER ACRE.	INTERMEDIATE WHEATGRASS	OAHE	PICS	30	4.5

CITY OF LONE TREE TEMPORARY DRILL SEEDING MIX						
SPECIES	VARIETY	NOTES	% IN MIX	POUNDS OF PLS PER ACRE		
SMOOTH BROMEGRASS	LINCOLN	PICS	30	3.9		
INTERMEDIATE WHEATGRASS	OAHE	PICS	30	4.5		
PUBESCENT WHEATGRASS	LUNA	PICS	30	4.2		
ANNUAL RYEGRASS	N/A	AICB	10	0.8		
TOTAL 13.4						
CITY OF LONE TREE LOW-GROWTH DRILL SEEDING MIX						
SPECIES	VARIETY	NOTES	% IN MIX	POUNDS OF PLS PER ACRE		
BUFFALOGRASS	TEXOKA	PNWS	20	3.2		

CITY OF	LONE TREE LOW-	GROWTH	DRILL SEE	DING MIX
SPECIES	VARIETY	NOTES	% IN MIX	POUNDS OF PLS PER ACRE
BUFFALOGRASS	TEXOKA	PNWS	20	3.2
BLUE GRAMA	HACHITA	PNWB	20	0.6
WESTERN WHEATGRASS	ARRIBA	PNCS	20	3.2
SIDEOATS GRAMA	VAUGHN	PNWB	20	1.8
THICKSPIKE WHEATGRASS	CRITANA	PNCS	10	1
STREAMBANK WHEATGRASS	SODAR	PNCS	10	1.2
			TOTAL	11.0

SM SEEDING AND MULCHING 17

CURB SOCK DETAIL A

VARIES
SEE NOTE 2 BELOW

1. SOCKS WILL BE USED UPGRADIENT OF INLET PERPENDICULAR TO AND FLUSH WITH CURB.

NO LESS THAN TWO 10" DIAMETER SOCKS MUST BE USED IN SEQUENCE, SPACED NO MORE THAN 5 FEET APART.
 NO LESS THAN SIX SOCKS SHALL BE USED IF THE 4" SOCK IS USED, ALSO SPACED AT NO MORE THAN 5 FEET APART.

3. INCLINE AT 30 DEGREES FROM PERPENDICULAR, OPPOSITE THE DIRECTION OF FLOW

CURB SOCK DETAIL B

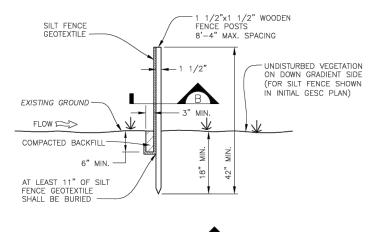
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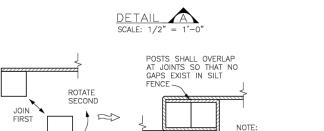
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CURB SOCK INSTALLATION NOTES







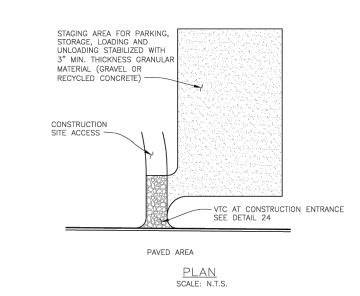
JOINTS — SECTION B SCALE: N.T.S.

SILT FENCE INSTALLATION NOTES

SEE PLAN VIEW FOR:
 LOCATION AND LENGTH OF FENCE.

- 2. ANCHOR TRENCH SHALL BE EXCAVATED WITH TRENCHER, OR WITH SILT FENCE INSTALLATION MACHINE; NO ROAD GRADERS, BACKHOES, ETC. SHALL BE USED. TRENCH SHALL BE COMPACTED BY HAND, WITH "JUMPING JACK", OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND. 3. SILT FENCE GEOTEXTILE SHALL MEET THE FOLLOWING REQUIREMENTS:
- 6-TO 12-GALLONS PER MINUTE PER SQUARE FOOT FLOW CAPACITY.
 90 LB. TENSILE STRENGTH PER ASTM D4622.
 UV DESIGN AT 500 HRS MIN. 70% STRENGTH RETAINED PER ASTM D 4355. 4. SILT FENCE INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY LAND-DISTURBING ACTIVITIES.
- SILT FENCE MAINTENANCE NOTES THE GESC MANAGER SHALL INSPECT SILT FENCE DAILY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
- SEDIMENT ACCUMULATED UPSTREAM OF SILT FENCE SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT REACHES A DEPTH OF 6-INCHES. 3. SILT FENCE SHALL BE REMOVED WHEN THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE CITY. IF ANY DISTURBED AREA EXISTS AFTER REMOVAL, IT SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE CITY.

SF SILT FENCE (18)



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SH LYRIC, LLC 9380 STATION ST SUITE 600 NE TREE, CO 801 OFFICE PHONE (303) 791-8180

ENGINEER

801 NE 180

STABILIZED STAGING AREA INSTALLATION NOTES

- SEE PLAN VIEW FOR GENERAL LOCATION OF STAGING AREA. CONTRACTOR MAY MODIFY LOCATION AND SIZE OF STABILIZED STAGING AREA WITH CITY APPROVAL.
- 2. STABILIZED STAGING AREA SHALL BE LARGE ENOUGH TO FULLY CONTAIN PARKING, STORAGE, AND UNLOADING AND LOADING
- 3. IF REQUIRED BY THE CITY, SITE ACCESS ROADS SHALL BE STABILIZED IN THE SAME MANNER AS THE STAGING AREA.
- 4. STAGING AREA SHALL BE STABILIZED PRIOR TO ANY OTHER OPERATIONS ON THE SITE.
- 5. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM OF 3" OF GRANULAR MATERIAL (GRAVEL OR RECYCLED CONCRETE). STABILIZED STAGING AREA MAINTENANCE NOTES
- THE GESC MANAGER SHALL INSPECT THE STABILIZED STAGING AREA WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
- 2. GESC MANAGER SHALL PROVIDE ADDITIONAL THICKNESS OF GRANULAR MATERIAL IF ANY RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.
- STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING AND LOADING OPERATIONS.
- 4. ANY ACCUMULATED DIRT OR MUD SHALL BE REMOVED FROM THE SURFACE OF THE STABILIZED STAGING AREA.
- 5. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE CITY, USED ON SITE, AND THE AREA TOPSOILED, DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED.

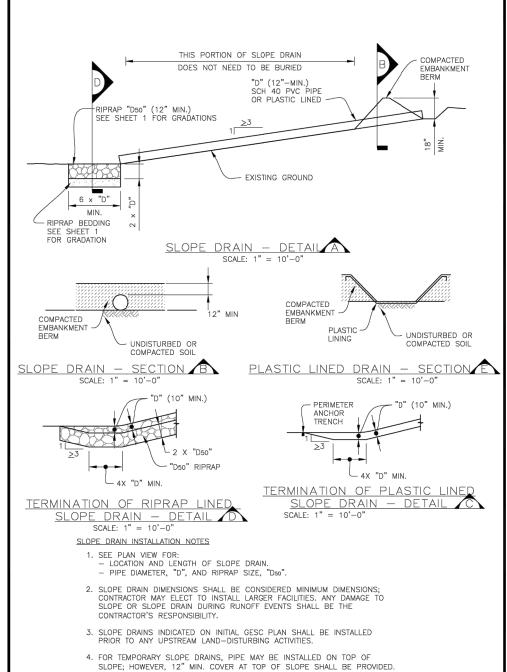
SSA) STABILIZED STAGING AREA (19) [

<u>SECTION</u> A SCALE: 1/4" = 1'-0" SURFACE ROUGHENING INSTALLATION NOTES 1. SURFACE ROUGHENING SHALL BE PROVIDED ON ALL FINISHED GRADES (SLOPES AND "FLAT" AREAS) WITHIN 2 DAYS OF COMPLETION OF FINISHED GRADE (FOR AREAS NOT RECEIVING TOPSOIL) OR WITHIN 2 DAYS OF TOPSOIL PLACEMENT. 2. AREAS WHERE BUILDING FOUNDATIONS, PAVEMENT, OR SOD IS TO BE PLACED WITHIN 7—DAYS OF FINISHED GRADING DO NOT NEED TO BE SURFACE ROUGHENED. DISTURBED SURFACES SHALL BE ROUGHENED USING RIPPING OR TILLING EQUIPMENT ON THE CONTOUR OR TRACKING UP AND DOWN A SLOPE USING EQUIPMENT TREADS. SURFACE ROUGHENING MAINTENANCE NOTES

. THE GESC MANAGER SHALL INSPECT THE SURFACE ROUGHENING WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY. VEHICLES AND EQUIPMENT SHALL GENERALLY BE CONFINED TO ACCESS DRIVES AND SHALL NOT BE DRIVEN OVER AREAS THAT HAVE BEEN SURFACE ROUGHENED.

 IN NON-TURF GRASS FINISHED AREAS, SEEDING AND MULCHING SHALL TAKE PLACE DIRECTLY OVER SURFACE ROUGHENED AREAS WITHOUT FIRST SMOOTHING OUT THE SURFACE. 4. IN AREAS NOT SEEDED AND MULCHED AFTER SURFACE ROUGHENING, SURFACES SHALL BE RE—ROUGHENED AS NECESSARY TO MAINTAIN GROOVE DEPTH AND SMOOTH OVER ANY RILL

SR SURFACE ROUGHENING (20)



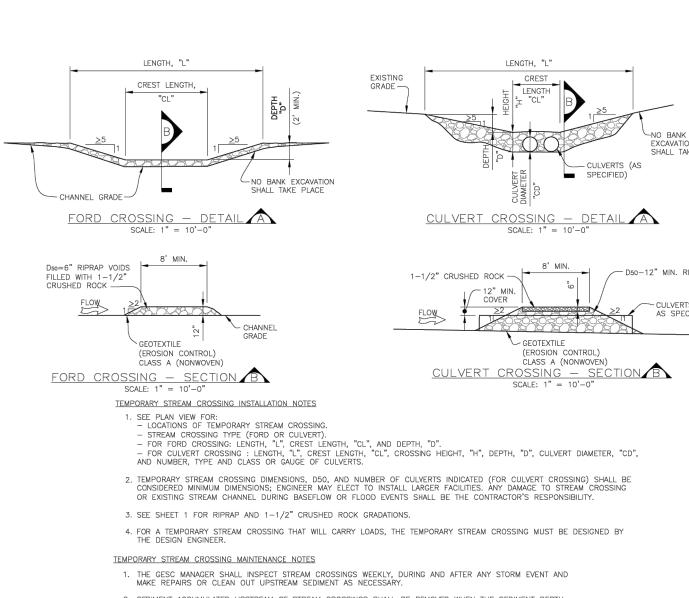
5. A RIPRAP PAD SHALL BE PLACED AT THE OUTFALL OF THE SLOPE DRAIN.

1. THE GESC MANAGER SHALL INSPECT SLOPE DRAINS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS AS NECESSARY.

2. TEMPORARY SLOPE DRAINS ARE TO REMAIN IN PLACE UNTIL NO LONGER NEEDED, BUT SHALL BE REMOVED PRIOR TO THE END OF CONSTRUCTION. WHEN SLOPE DRAINS ARE REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE CITY.

TSD TEMPORARY SLOPE DRAIN (21) A

SLOPE DRAIN MAINTENANCE NOTES



3. STREAM CROSSINGS ARE TO REMAIN IN PLACE UNTIL NO LONGER NEEDED, BUT SHALL BE REMOVED PRIOR TO THE END OF CONSTRUCTION.

4. WHEN STREAM CROSSINGS ARE REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED AND COVERED WITH EROSION CONTROL BLANKET OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE

THREE (3) PLANTS PER SQUARE FOOT WITH A MINIMUM HEIGHT OF 3 INCHES.
 THE 3 PLANTS PER SQUARE FOOT SHALL BE OF THE VARIETY AND SPECIES
 FOUND IN THE CITY OF LONE TREE—APPROVED MIX.

2. NO BARE AREAS LARGER THAN 4 SQUARE FEET (TWO-FEET BY TWO-FEET OR

4. FREE FROM INFESTATION OF NOXIOUS WEEDS IN ACCORDANCE WITH SECTION 6.4 OF THE GESC CRITERIA MANUAL.

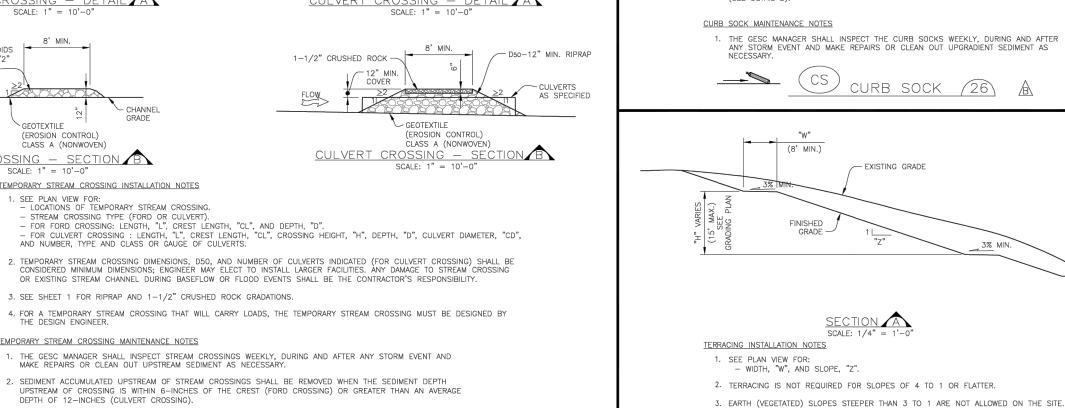
NO BARE AREAS LARGER THAN 4 SQUARE FEET (TWO—FEET BY TWO—FEET OR EQUIVALENT).

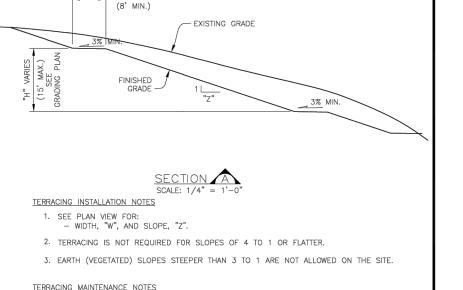
FREE FROM INFESTATION OF NOXIOUS WEEDS IN ACCORDANCE WITH SECTION 6.4
OF THE GESC CRITERIA MANUAL.

1. AT LEAST 80% VEGETATIVE COVER OF GRASS SPECIES PLANTED.

FREE OF ERODED AREAS.

3. FREE OF ERODED AREAS.

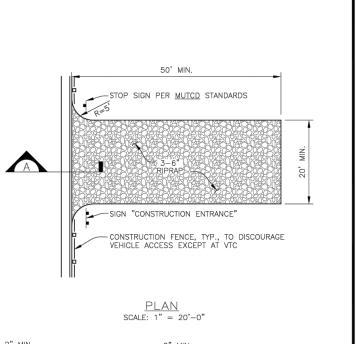


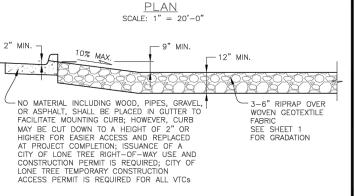


TERRACING MAINTENANCE NOTES

 THE GESC MANAGER SHALL INSPECT THE SURFACE ROUGHENING WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY. 2. ANY RILL EROSION OCCURRING ON SLOPES SHALL BE REPAIRED AND RESEEDED AND MULCHED IN ACCORDANCE WITH DETAIL 17.

TER TERRACING (23)





<u>SECTION</u> A SCALE: 1/4" = 1'-0" VEHICLE TRACKING CONTROL INSTALLATION NOTES 1. VEHICLE TRACKING CONTROL PADS SHALL BE INSTALLED AT EVERY ACCESS POINT TO SITE.

2. VEHICLE TRACKING CONTROL PADS SHALL CONSIST OF HARD, DENSE, DURABLE STONE, ANGULAR IN SHAPE AND RESISTANT TO WEATHERING. ROUNDED STONE OR BOULDERS WILL NOT BE ACCEPTABLE. THE STONES SHALL BE 3" WITH A MAXIMUM SIZE OF 6". THE STONE SHALL HAVE A SPECIFIC GRAVITY OF AT LEAST 2.6. CONTROL OF GRADATION WILL BE BY VISUAL INSPECTIONS.

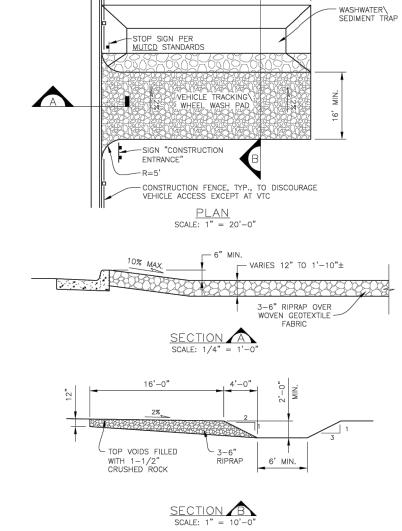
3. WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE VTC STONE TO HELP MINIMIZE MIGRATION OF THE STONE INTO THE UNDERLYING MATERIAL. 4. ANY CRACKED OR DAMAGED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED BY PERMITTEE.

5. A CITY OF LONE TREE TEMPORARY CONSTRUCTION ACCESS PERMIT IS REQUIRED FOR EACH ACCESS/EXIT POINT FROM THE SITE. A STOP SIGN INSTALLED IN ACCORDANCE WITH THE <u>MANUAL ON UNIFORM</u> <u>TRAFFIC CONTROL DEVICES (MUTCD)</u>, AS AMENDED, SHALL BE INSTALLED FOR EXITING TRAFFIC AT THE VTC.

VEHICLE TRACKING CONTROL MAINTENANCE NOTES 1. GESC MANAGER SHALL INSPECT VEHICLE TRACKING CONTROL PADS DAILY. ACCUMULATED SEDIMENTS SHALL BE REMOVED FROM PAD SURFACE. STONE SURFACE SHALL BE CLEAN AND LOOSE ENOUGH TO RUT SLIGHTLY UNDER WHEEL LOADS SUFFICIENTLY TO CAUSE LOOSE GRAVEL TO DISLODGE MUD/SEDIMENT FROM VEHICLE TIRES. WHEN STONE BECOMES COMPACTED AND/OR FILLED WITH SEDIMENT SO THAT THE EFFECTIVENESS OF THE PAD IS DIMINISHED, CONTRACTOR SHALL RIP, TURN OVER, OR OTHERWISE LOOSEN THE STONE, PLACE ADDITIONAL NEW STONE, OR REPLACE STONE AS NECESSARY TO RESTORE EFFECTIVENESS.

VEHICLE TRACKING CONTROL SHALL BE REMOVED AT THE END OF CONSTRUCTION, THE STONE MATERIAL AND GEOTEXTILE REMOVED OR, IF APPROVED BY THE CITY, USED ON SITE, AND THE AREA TOPSOILED, DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN CONFORMANCE WITH CITY APPROVED PLANS FOR SITE AND THE APPLICABLE GESC PERMIT.

VTC VEHICLE TRACKING CONTROL (24)



HICLE TRACKING CONTROL WITH WHEEL WASH INSTALLATION NOTES ALTHOUGH NOT NORMALLY USED, THE CITY RESERVES THE RIGHT TO REQUIRE VEHICLE TRACKING CONTROL WITH WHEEL WASH FACILITIES AT SITES WHERE TRACKING ONTO PAVED AREAS BECOMES A SIGNIFICANT PROBLEM. 2. IF VEHICLE TRACKING CONTROL WITH WHEEL WASH FACILITIES ARE REQUIRED, ALL WHEELS ON EVERY VEHICLE LEAVING THE SITE SHALL BE CLEANED OF MUD USING A PRESSURE-WASHER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A WATER SOURCE.

5. VEHICLE TRACKING CONTROL PADS SHALL CONSIST OF HARD, DENSE, DURABLE STONE, ANGULAR IN SHAPE AND RESISTANT TO WEATHERING. ROUNDED STONE OR BOULDERS WILL NOT BE ACCEPTABLE. THE STONES SHALL BE 3" WITH A MAXIMUM SIZE OF 6". THE STONE SHALL HAVE A SPECIFIC GRAVITY OF AT LEAST 2.6. CONTROL OF GRADATION WILL BE BY VISUAL INSPECTION. WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE VTC STONE TO HELP MINIMIZE MIGRATION OF THE STONE INTO THE UNDERLYING BASE MATERIAL.

5. ANY CRACKED OR DAMAGED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED BY PERMITEE. A CITY OF LONE TREE TEMPORARY CONSTRUCTION ACCESS PERMIT IS REQUIRED FOR EACH ACCESS/EXIT POINT FROM THE SITE. A STOP SIGN INSTALLED IN ACCORDANCE WITH THE <u>MANUAL ON UNIFORM TRAFFIC CONTROL</u> <u>DEVICES (MUTCD)</u>, AS AMENDED, SHALL BE INSTALLED FOR EXITING TRAFFIC AT THE VTC.

HICLE TRACKING CONTROL WITH WHEEL WASH MAINTENANCE NOTES

1. GESC MANAGER SHALL INSPECT VEHICLE TRACKING CONTROL PADS DAILY, ACCUMULATED SEDIMENTS SHALL BE REMOVED FROM PAD SURFACE. STONE SURFACE SHALL BE CLEAN AND LOOSE ENOUGH TO RUT SLIGHTLY UNDER WHEEL LOADS SUFFICIENTLY TO CAUSE LOOSE GRAVEL TO DISLODGE MUD/SEDIMENT FROM VEHICLE TIRES. WHEN STONE BECOMES COMPACTED AND/OR FILLED WITH SEDIMENT SO THAT THE EFFECTIVENESS OF THE PAD IS DIMINISHED, CONTRACTOR SHALL RIP, TURN OVER, OR OTHERWISE LOOSEN THE STONE, PLACE ADDITIONAL NEW STONE, OR REPLACE STONE AS NECESSARY TO RESTORE EFFECTIVENESS. . ACCUMULATED SEDIMENT IN THE WASHWATER/SEDIMENT TRAP SHALL BE REMOVED WHEN THE SEDIMENT DEPTH REACHES AN AVERAGE OF 12-INCHES.

5. VEHICLE TRACKING CONTROL SHALL BE REMOVED AT THE END OF CONSTRUCTION, THE STONE MATERIAL AND GEOTEXTILE REMOVED OR, IF APPROVED BY THE CITY, USED ON SITE, AND THE AREA TOPSOILED, DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN CONFORMANCE WITH CITY APPROVED PLANS FOR SITE AND THE APPLICABLE GESC PERMIT.



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Sheet Revisions NOTE: SCALES SHOWN ARE 6/30/05 | ADOPTED FROM DOUGLAS COUNTY GESC PLANS MLP FOR 24"x36 5/ /08 EDIT UPDATES GAW IEETS; ADJUS ACCORDINGLY ADD CURB SOCK DETAIL (REF UDFCD, V3 FIGURE C5-23), MISC. NOTE EDITS GAW FOR 11"x17' 12/ /09 | UPDATE VTC & WW 🛕 GAW SHFFTS.



CITY OF LONE TREE DEPARTMENT OF PUBLIC WORKS Engineering Division

TSC TEMPORARY STREAM CROSSING (22)

GESC GRADING, EROSION, AND SEDIMENT CONTROL

GESC PLAN STANDARD NOTES AND DETAILS

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