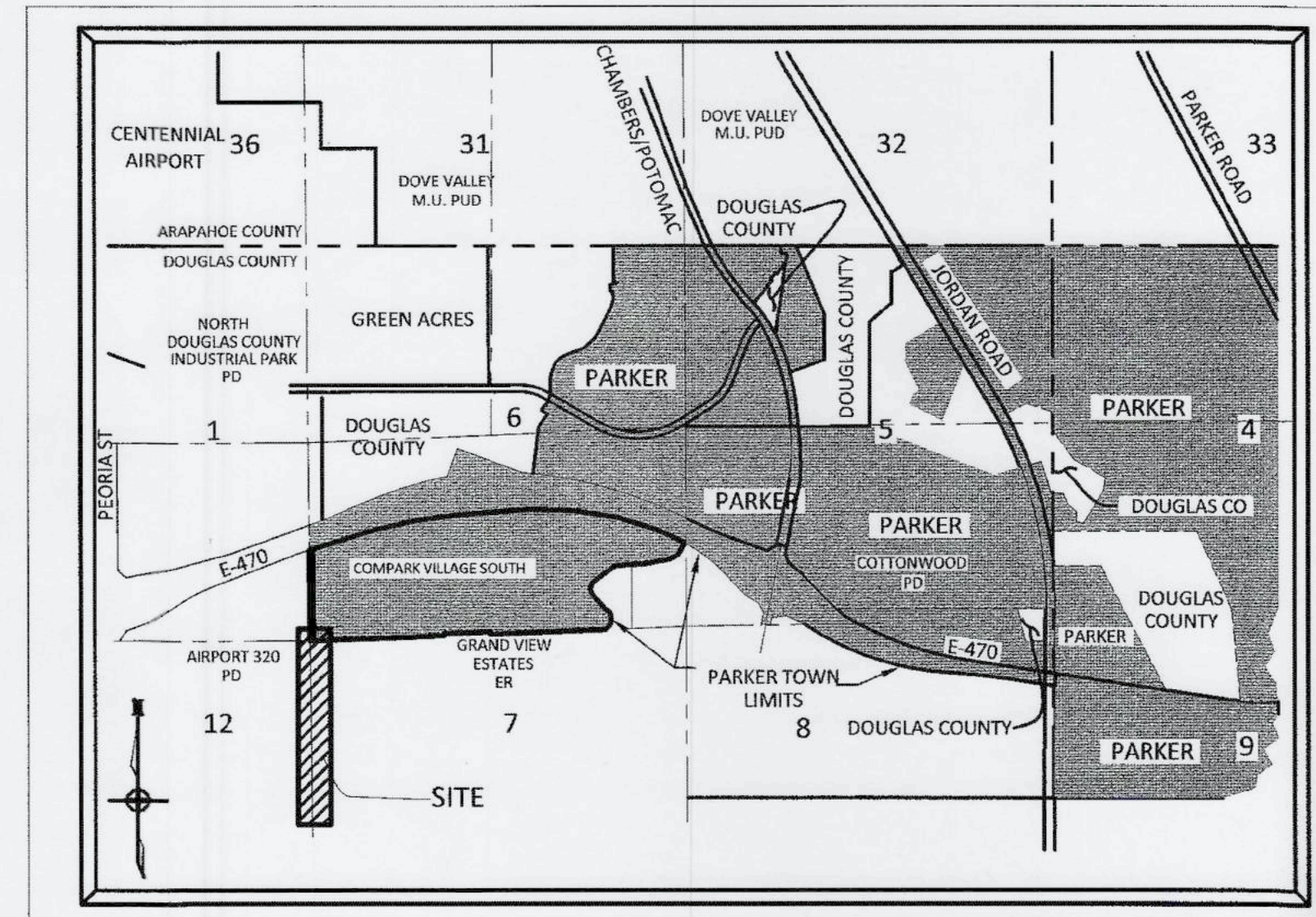


GRADING, EROSION, AND SEDIMENT CONTROL PLANS FOR COMPARK VILLAGE SOUTH FILING NO. 1 FIRST STREET IMPROVEMENTS COUNTY OF DOUGLAS, STATE OF COLORADO



VICINITY MAP
N.T.S.

OWNER/DEVELOPER

470 COMPARK
290 FILLMORE ST #1A
DENVER, CO 80206

AGENCY LIST

MANHARD LTD	(303) 708-0500
DOUGLAS COUNTY ENGINEERING	(303) 660-7490
DENVER UTILITY INFORMATION	(303) 534-6700
PUBLIC SERVICE COMPANY OF COLORADO	(303) 571-2565
IREA	(303) 688-3100
XCEL ENERGY	(303) 329-1618
SOUTH METRO FIRE	(720) 488-7200
STONEGATE VILLAGE METRO DISTRICT	(303) 858-9909
COMCAST	(720) 490-3867
CENTURY LINK	(303) 792-6069
INTERMOUNTAIN RURAL ELECTRIC ASSOCIATION	(303) 688-3100
UTILITY NOTIFICATION COMPANY OF COLORADO	1-(303) 922-1987 (811)

KEY CONTACTS

MIKE VICKERS
470 COMPARK
(303)-881-6292

ENGINEER/SURVEYOR

8008 E. Arapahoe Court, Suite 110, Centennial, CO 80112 ph:303.708.0500 fc:303.708.0400 manhard.com
Civil Engineers • Surveyors • Water Resource Engineers • Water & Wastewater Engineers
Construction Managers • Environmental Scientists • Landscape Architects • Planners

SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	GENERAL NOTES
3	INITIAL GESC PLAN
4	INTERIM GESC PLAN
5	FINAL GESC PLAN
6	FIRST STREET P&P
7	FIRST STREET P&P
8	GESC DETAILS - 1 OF 3
9	GESC DETAILS - 2 OF 3
10	GESC DETAILS - 3 OF 3

DOUGLAS COUNTY
OCT 14 2016
ENGINEERING SERVICES

BENCHMARKS

SOURCE BENCHMARKS:
DOUGLAS COUNTY BM 1.115010
A DOUGLAS COUNTY GIS MONUMENT SET IN CONCRETE LOCATED APPROXIMATELY 130 FEET SOUTHWESTERLY OF THE CENTERLINE OF CHAMBERS ROAD AND 95 FEET NORTHWESTERLY OF THE CENTERLINE OF COMPARK BOULEVARD. ELEVATION = 5752.84 (NAVD 88)

SITE BENCHMARKS:
1. A NO. 5 REBAR WITH 2" ALUMINUM CAP STAMPED "LS 28286, 2001" FOUND AT THE SOUTHWEST CORNER OF SECTION 6, T6S, R66W LOCATED ON THE WEST LINE OF FIRST STREET APPROXIMATELY 1000 FEET NORTH OF ELM AVENUE. ELEVATION = 5845.51
2. A 2.5" IRON PIPE WITH 3.25" ALUMINUM CAP STAMPED "PLS 12405, 1997" FOUND AT THE SOUTHEAST CORNER OF SECTION 6, T6S, R66W LOCATED APPROXIMATELY 960 FEET NORTH OF THE CENTERLINE OF AVENTERRA PARKWAY AND APPROXIMATELY 1050 FEET WEST OF THE CENTERLINE OF CHAMBERS ROAD. ELEVATION = 5808.06

DOUGLAS COUNTY GESC NOTE

THE GRADING, EROSION, AND SEDIMENT CONTROL PLAN INCLUDED HEREIN HAS BEEN PLACED IN THE DOUGLAS COUNTY FILE FOR THIS PROJECT AND APPEARS TO FULFILL APPLICABLE DOUGLAS COUNTY GRADING, EROSION AND SEDIMENT CONTROL CRITERIA, AS AMENDED. ADDITIONAL GRADING, EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED OF THE PERMITTEE(S) DUE TO UNFORSEEN EROSION PROBLEMS OR IF THE SUBMITTED GESC PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS GESC PLAN SHALL RUN WITH THE LAND AND BE THE OBLIGATION OF THE PERMITTEE(S), UNTIL SUCH TIME AS THE GESC PLAN IS PROPERLY COMPLETED, MODIFIED, OR VOIDED.

ENGINEER'S CERTIFICATION:

THE GRADING, EROSION, AND SEDIMENT CONTROL PLAN INCLUDED HEREIN HAS BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF THE GRADING, EROSION, AND SEDIMENT CONTROL (GESC) CRITERIA MANUAL OF DOUGLAS COUNTY, AS AMENDED.

RICKY J MOORE, P.E. NUMBER 30877
ON BEHALF OF MANHARD CONSULTING

DU 15-039
DOUGLAS COUNTY
OCT 14 2016
ENGINEERING SERVICES

DOUGLAS COUNTY
OCT 18 2019
ENGINEERING SERVICES



Know what's below.
Call before you dig.

Re-approved
10/23/19
10/21/16
ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR GRADING, EROSION, SEDIMENT CONTROL, STREET AND DRAINAGE IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

Manhard CONSULTING LTD
8008 E. Arapahoe Court, Suite 110, Centennial, CO 80112 ph:303.708.0500 fc:303.708.0400 manhard.com
Civil Engineers • Surveyors • Water Resource Engineers • Water & Wastewater Engineers
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CVS FILING NO. 1 - FIRST STREET IMPROVEMENTS
DOUGLAS COUNTY, COLORADO
COVER SHEET

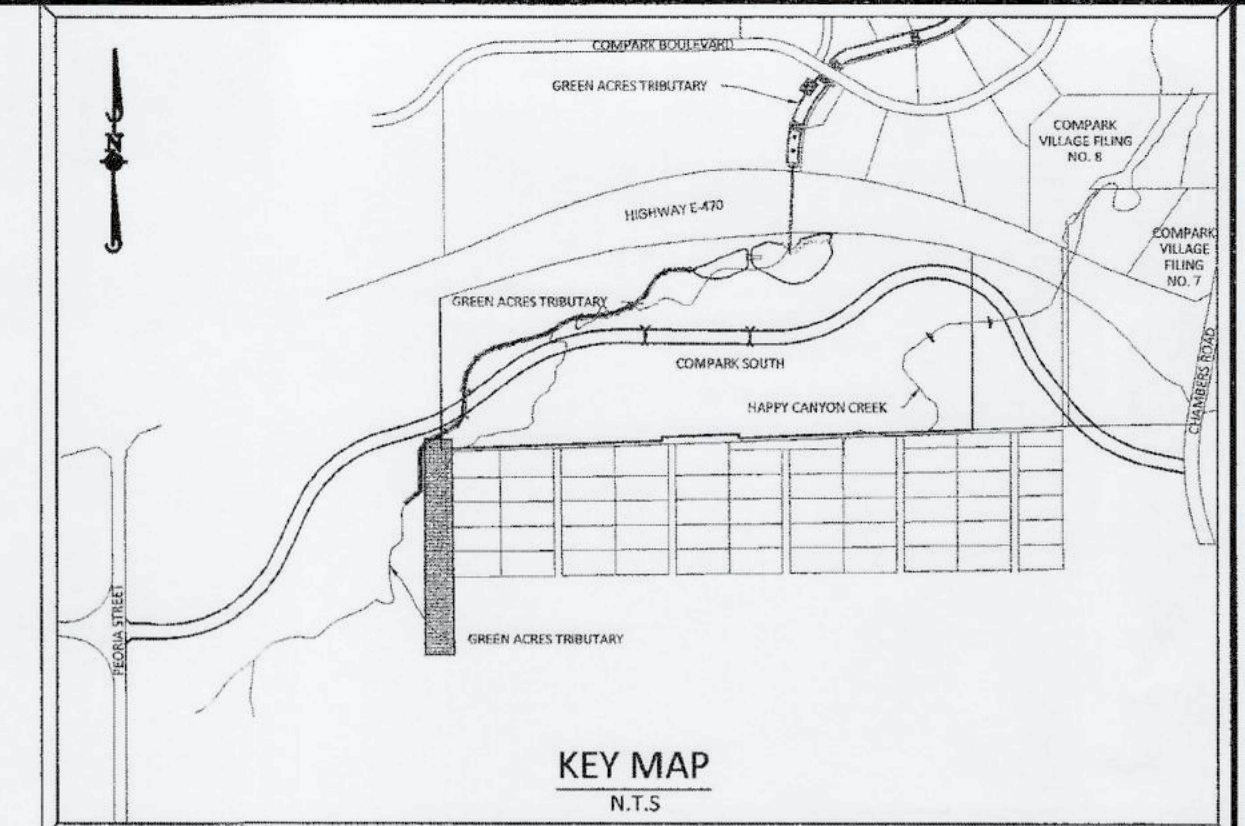
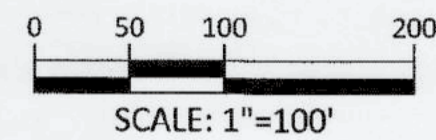
PROFESSIONAL ENGINEER
30877
10.13.16

PROJ. MGR.: RJM
PROJ. ASSOC.: BRB
DRAWN BY:
DATE: 07/2016

SHEET
1 OF 10
CLCPKC3.03

Plotfile: 10/13/2016 12:49 PM Draw Name: V:\mcd\mcd\mcd\Projects-DIV\Click3\ComSpec\1010-Urban\Befors Ave\Comp\1010-Urban\Drawings\Plan\Drawings\1010-Urban\GESC COVER.dwg User: mcd Date: 10/13/2016 12:49 PM

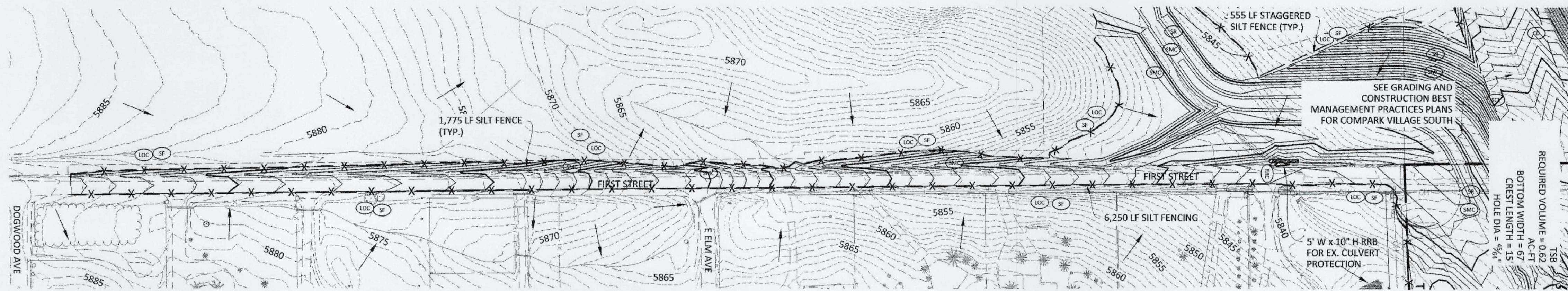
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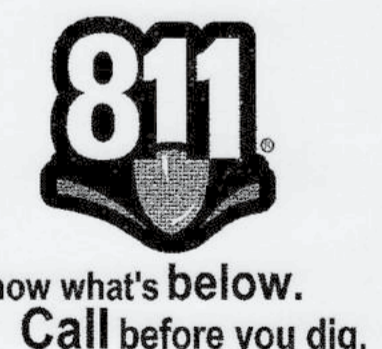
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	FLOW/SLOPE DIRECTION
	CWA CONCRETE WASHOUT AREA
	CD CHECK DAM
	DD DIVERSION DITCH
	ECB EROSION CONTROL BLANKET
	IP INLET PROTECTION
	RRB REINFORCED ROCK BERM
	RRC RRB FOR CULVERT PROTECTION
	SB SEDIMENT BASIN
	SCL SEDIMENT CONTROL LOG
	SMC SEEDING, MULCHING & CRIMPING
	SF SILT FENCE
	SSA STABILIZED STAGING AREA
	SR SURFACE ROUGHENING
	VTC VEHICLE TRACKING CONTROL
	LOC LIMITS OF CONSTRUCTION
	SA STOCKPILE AREA
BMP PHASING LEGEND	
	PROPOSED BMP FOR PHASE
	EXISTING BMP FOR PHASE
	REMOVE EXISTING BMP FOR PHASE



- NOTES:**
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 - SHADED BMPs WERE INSTALLED IN INITIAL OR INTERIM GESC DRAWING UNLESS OTHERWISE NOTED, AND UNLESS OTHERWISE INDICATED SHALL BE LEFT IN PLACE UNTIL REVEGETATION ESTABLISHMENT IS APPROVED BY THE COUNTY.
 - ALL INTERIM EROSION AND SEDIMENT CONTROL BMPs, INCLUDING DRILL SEEDING AND CRIMP MULCHING OF DISTURBED AREAS, MUST BE INSTALLED, INSPECTED, AND APPROVED BY THE COUNTY PRIOR TO THE ISSUANCE OF A RIGHT-OF-WAY USE AND CONSTRUCTION PERMIT FOR THE PURPOSE OF PAVING OR INSTALLATION OF CURB AND GUTTER.
 - ANY SLOPES BETWEEN 3:1 AND 4:1 WILL REQUIRE THE USE OF EROSION CONTROL BLANKETS OR MECHANICALLY BONDED FIBER MATRIX.
 - SEE CONSTRUCTION PLANS FOR DETAILS OF PERMANENT DRAINAGE FACILITIES SUCH AS WATER QUALITY FACILITIES, CULVERTS, STORM DRAIN, INLETS, OUTLET PROTECTION, AND ROADWAY IMPROVEMENTS.
 - ACCEPTANCE OF THE POST-CONSTRUCTION PERMANENT BMPs WILL NOT OCCUR UNTIL ALL TRIBUTARIES TO THE POST-CONSTRUCTION PERMANENT BMPs ARE COMPLETE AND FINAL LANDSCAPE HAS BEEN ESTABLISHED.
 - EROSION CONTROL BLANKET SHALL BE USED IN AREAS WHERE 4:1 OR STEEPER SLOPE PREVAILS. COMPOST BLANKET SHALL NOT BE USED IN AREAS WHERE CONCENTRATED FLOW ROUTES OCCUR.
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 - THESE IMPROVEMENTS ARE TO BE CONSTRUCTED AS A PART OF THE BELFORD/GREEN ACRES TRIBUTARY IMPROVEMENT PROJECT KNOWN AS COMPAK VILLAGE SOUTH FILING 1. SEE PLANS FOR MORE INFORMATION.
 A) CONSTRUCTION ACCESS WILL BE MADE VIA PEORIA STREET. NO ACCESS VIA GRAND VIEW ESTATES.



[Signature]
 10/23/16
 ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

10/2/16

THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR GRADING, EROSION, SEDIMENT CONTROL, STREET AND DRAINAGE IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

Manhard CONSULTING LTD
1001 S. Peoria Street, Suite 100, Denver, CO 80202
 Phone: 303.733.8800 Fax: 303.733.8801
 Email: info@manhardconsulting.com Website: www.manhardconsulting.com

CVS FILING NO. 1 - FIRST STREET IMPROVEMENTS
DOUGLAS COUNTY, COLORADO
INITIAL GESC PLAN

DATE: 07/2016
 SHEET: 3 OF 10
 CLCPK3.03

PROJ. MGR.: RJM
 PROJ. ASSOC.: BRS
 DRAWN BY:
 DATE: 07/2016

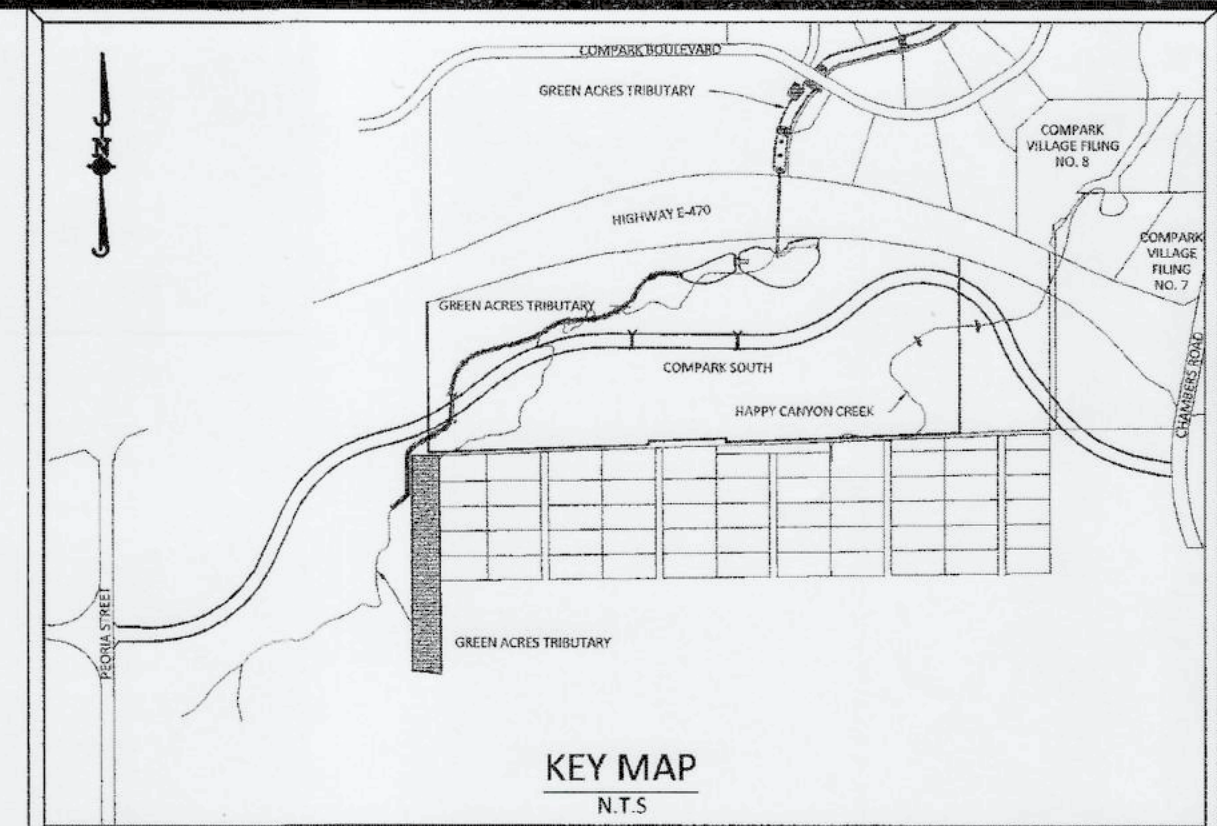
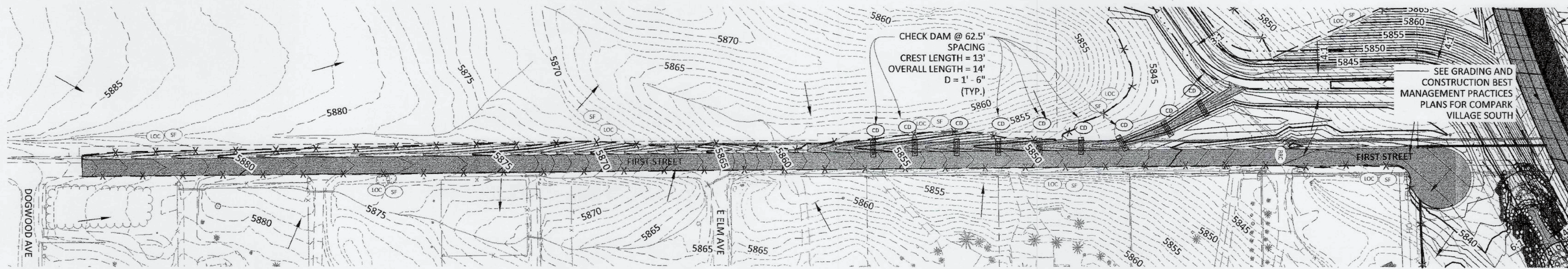
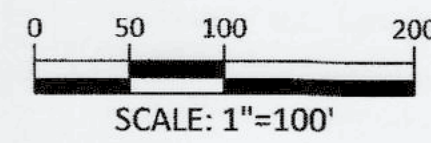
REVISIONS:

NO.	DATE	DESCRIPTION
1	8-24-16	ADD ROADSIDE SWALE STA 27+50.39-44.66 PER DOUGLAS CO
2	9-26-16	REVISIONS PER DOUGLAS COUNTY REVIEW
3	10-12-16	REVISIONS PER DOUGLAS COUNTY REVIEW

DATE: 10/23/16

Plotted: 10/17/2016 12:58 PM Dwg Name: W:\cadd\sa\Projects\DNV\Clcpk3\Combsound\Ultimate\Belford_Ave\Draw\Gesc\Drawings\Plan\Set\Douglas County\CLCPK3-40X0-21.dwg Updated By: Achrucker

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SOURCE BENCHMARKS:

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BMP LEGEND

- FLOW/SLOPE DIRECTION
- CWA CONCRETE WASHOUT AREA
- ▭ CD CHECK DAM
- DD DIVERSION DITCH
- ▭ ECB EROSION CONTROL BLANKET
- ▭ IP INLET PROTECTION
- ▭ RRB REINFORCED ROCK BERM
- ▭ SB SEDIMENT BASIN
- ▭ SCL SEDIMENT CONTROL LOG
- ▭ SM SEEDING AND MULCHING
- X — SF SILT FENCE
- ▭ SSA STABILIZED STAGING AREA
- ▭ SR SURFACE ROUGHENING
- ▭ VTC VEHICLE TRACKING CONTROL
- LOC LIMITS OF CONSTRUCTION
- SA STOCKPILE AREA

BMP PHASING LEGEND

- (with B) BMP PROPOSED BMP FOR PHASE
- (with X) BMP EXISTING BMP FOR PHASE
- (with slash) REMOVE EXISTING BMP FOR PHASE

NOTES:

1. SEE COVER SHEET OF DOUGLAS COUNTY STANDARD NOTES AND DETAILS (SHEET 8) FOR LEGEND OF BMP NAMES AND SYMBOLS.
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[Signature]
 ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW
 10/23/16

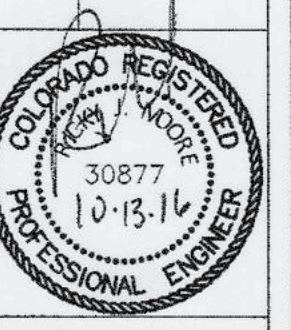
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ENGINEERING DIVISION ACCEPTANCE BLOCK

NO.	DATE	REVISIONS
1	07/20/16	ADD DOUGLAS STATE STA 17459-3446.66 PER DOUGLAS CO
2	08/16/16	REVISIONS PER DOUGLAS COUNTY REVIEW
3	10/12/16	REVISIONS PER DOUGLAS CO REVIEW

Manhard CONSULTING LTD
 8008 E. Arapahoe Court, Suite 110, Centennial, CO 80112
 Civil Engineers • Surveyors • Water Resource Engineers • Water & Wastewater Engineers
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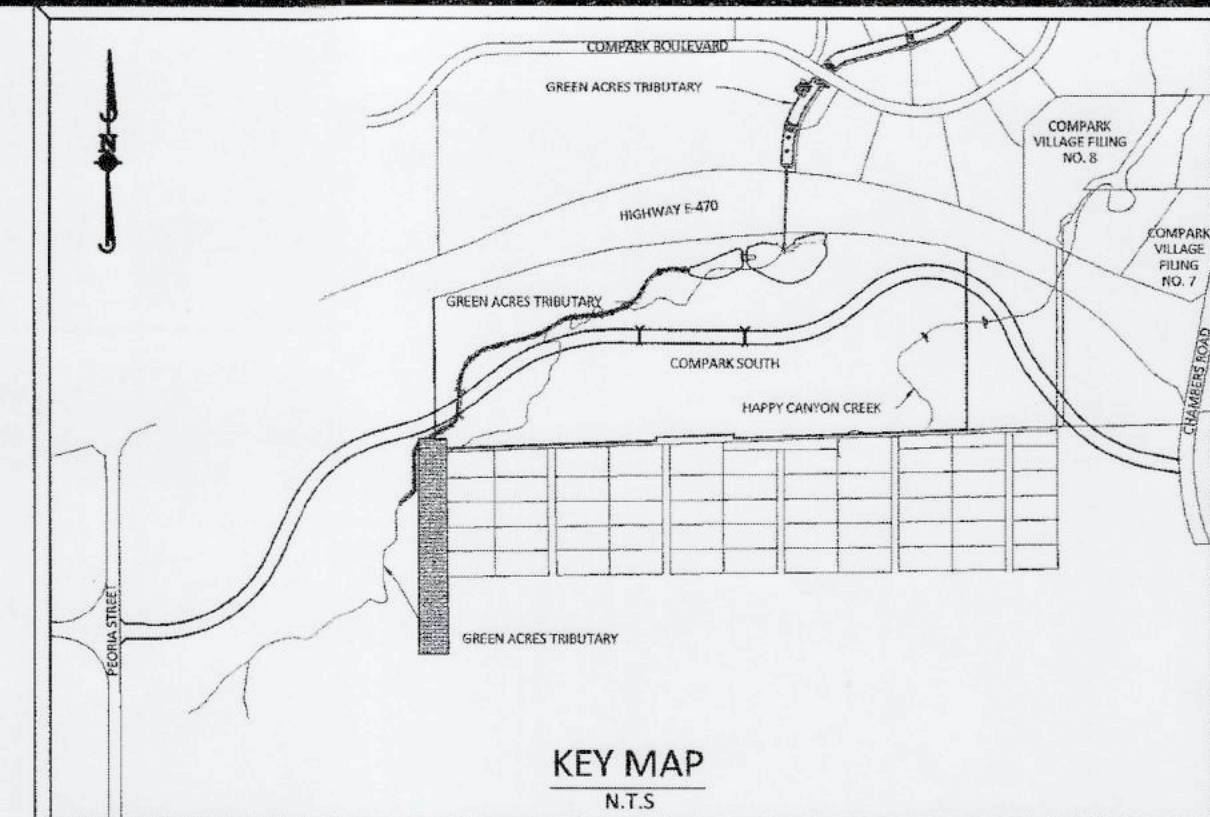
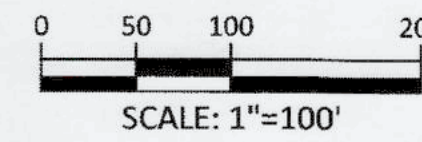
CVS FILING NO. 1 - FIRST STREET IMPROVEMENTS
 DOUGLAS COUNTY, COLORADO
 INTERIM GESC PLAN



PROJ. MGR.: RUM
 PROJ. ASST.: BRB
 DATE: 07/20/16
 SHEET
4 OF 10
 CLCPK3.03

Plotted: 10/13/2016 1:38 PM Dwg Name: \\med-drv-ras\Projects-DNV\Clpck3\ComSouth03-Ultimate\Belford Ave\Drawn\Plan_Sat\Douglas County\CLCPK3.CBVP.B1.dwg Updated By: RBarz

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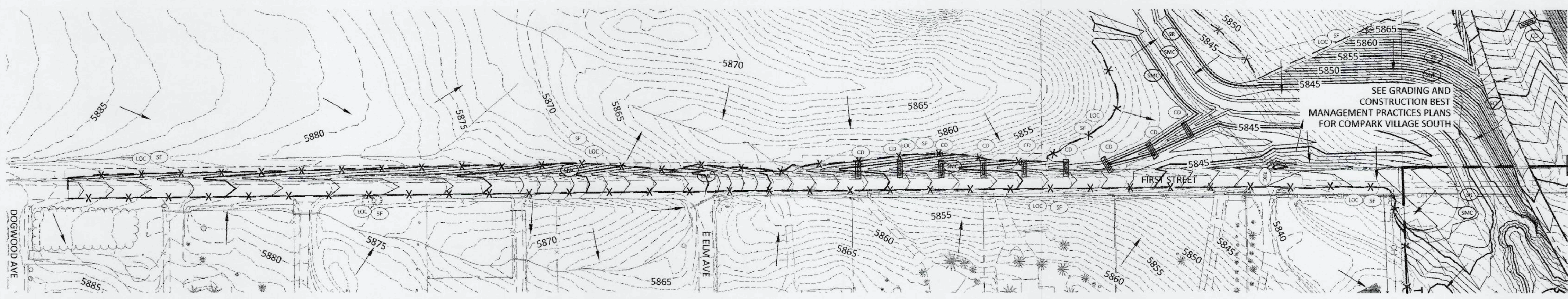
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	EROSION CONTROL BLANKET
	INLET PROTECTION
	REINFORCED ROCK BERM
	RRB FOR CULVERT PROTECTION
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	STABILIZED STAGING AREA
	SURFACE ROUGHENING
	VEHICLE TRACKING CONTROL
	LIMITS OF CONSTRUCTION
	STOCKPILE AREA

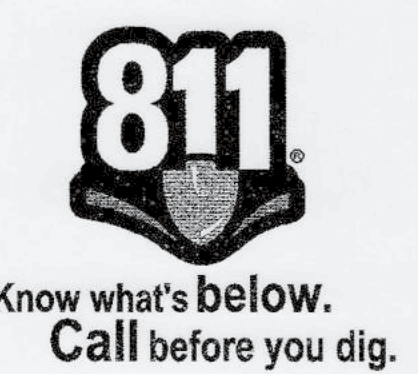
BMP PHASING LEGEND

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	EXISTING BMP FOR PHASE
	REMOVE EXISTING BMP FOR PHASE



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- DURING THE CONSTRUCTION PROCESS SUCH AS UTILITY INSTALLATION AND INDIVIDUAL LOT CONSTRUCTION. DIVERSION DITCHES SHALL BE MAINTAINED TO CONTROL RUNOFF AND SEDIMENT. SEDIMENT TRAPS SHALL BE MOVED UPSTREAM OF CONSTRUCTED LOTS.
- PERMANENT LANDSCAPING, OR APPROVED EROSION CONTROL MEASURES SHALL BE INSTALLED WITHIN CONSTRUCTED LOTS TO OBTAIN FINAL STABILIZATION.
- PRIOR TO PLACEMENT OF CONCRETE, A CONCRETE WASHOUT AREA SHALL BE LOCATED ONSITE.
- DOUGLAS COUNTY RESERVES THE RIGHT TO REQUIRE ADDITIONAL OR DIFFERENT BMP MEASURES AT THE DISCRETION OF THE DOUGLAS COUNTY INSPECTOR TO ADDRESS ANY EROSION AND/OR SEDIMENT ISSUES RESULTING FROM CONSTRUCTION.
- THESE IMPROVEMENTS ARE TO BE CONSTRUCTED AS A PART OF THE BELFORD/GREEN ACRES TRIBUTARY IMPROVEMENT PROJECT KNOWN AS COMPARK VILLAGE SOUTH FILING 1. SEE PLANS FOR MORE INFORMATION.



[Signature]
 ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW
 10/23/19
 10/2/16

THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR GRADING, EROSION, SEDIMENT CONTROL, STREET AND DRAINAGE IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

DATE	REVISIONS
10-12-16	REVISIONS PER DOUGLAS COUNTY REVIEW
9-26-16	REVISIONS PER DOUGLAS COUNTY REVIEW
8-24-16	ADD ROADSIDE SWALE STA. 271+50-33444.86 PER DOUGLAS CO.

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 8038 E. Angermore Court, Suite 110, Greenwood Village, Colorado 80120
 303.751.1100
 Construction Managers • Environmental Scientists • Landscape Architects • Planners

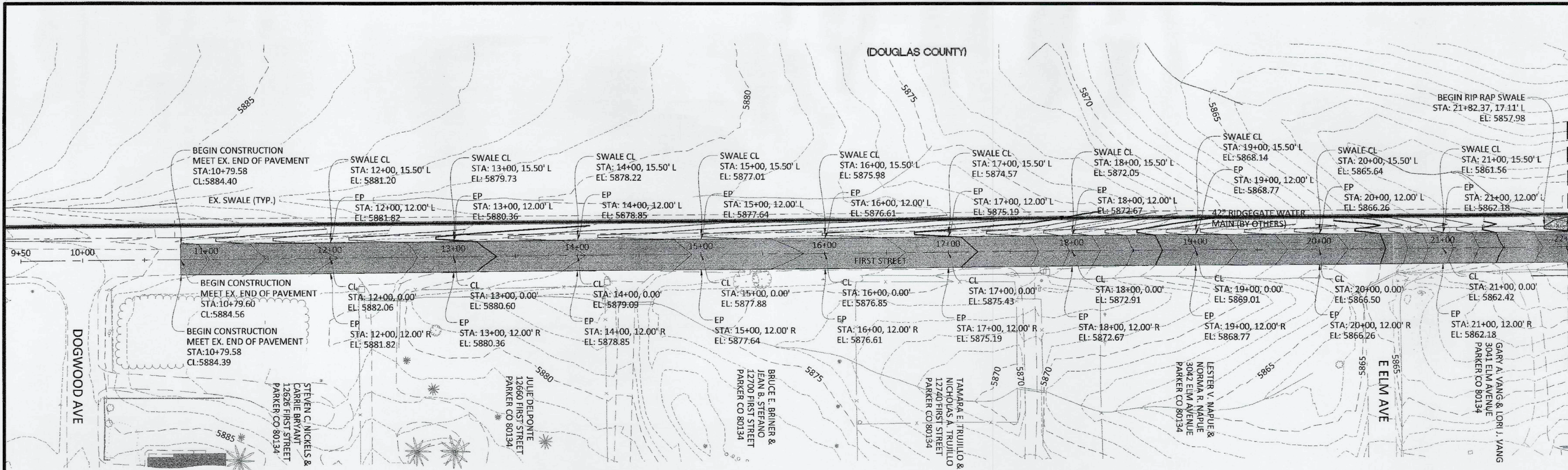
CVS FILING NO. 1 - FIRST STREET IMPROVEMENTS
 DOUGLAS COUNTY, COLORADO
FINAL GESC PLAN

PROJ. MGR.: RJM
 PROJ. ASSOC.: BRB
 DRAWN BY:
 DATE: 07/2016

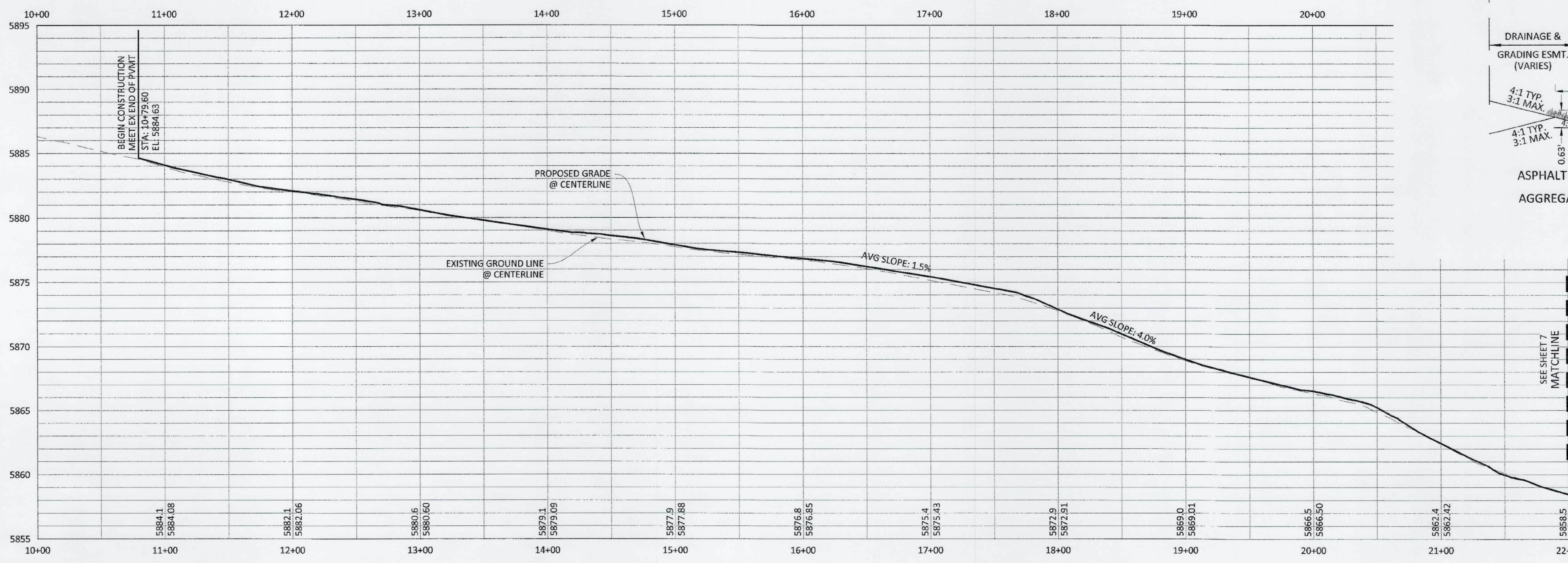
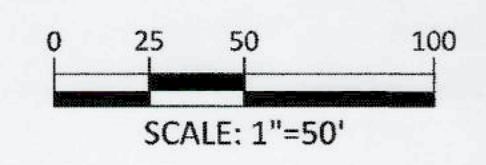
30877
 10-15-16
 PROFESSIONAL ENGINEER

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5 OF 10
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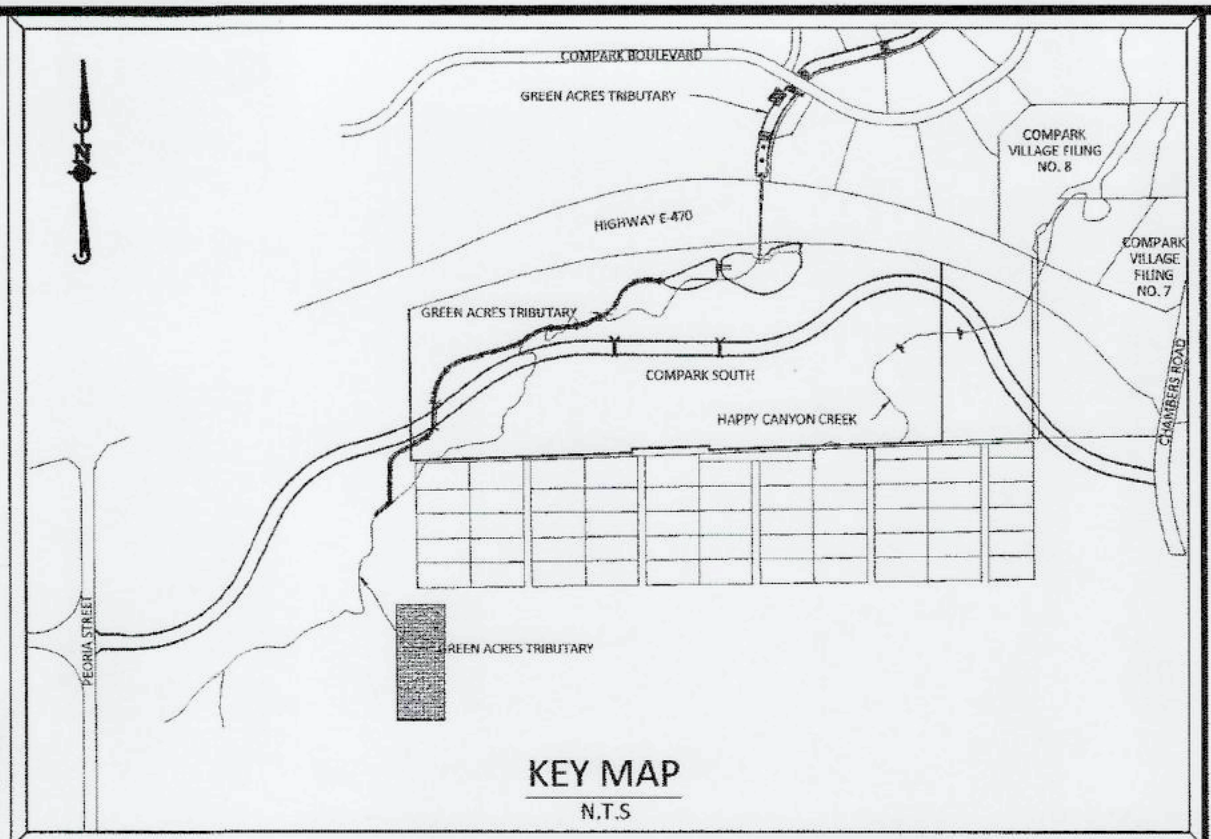
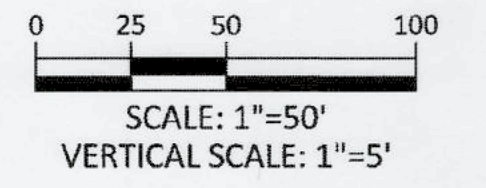
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PLAN: FIRST STREET

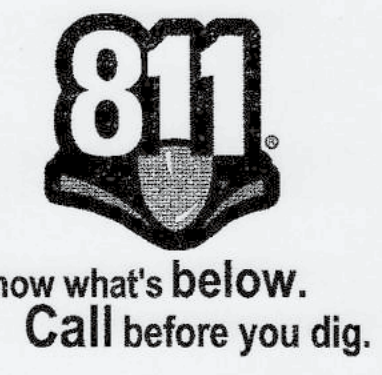
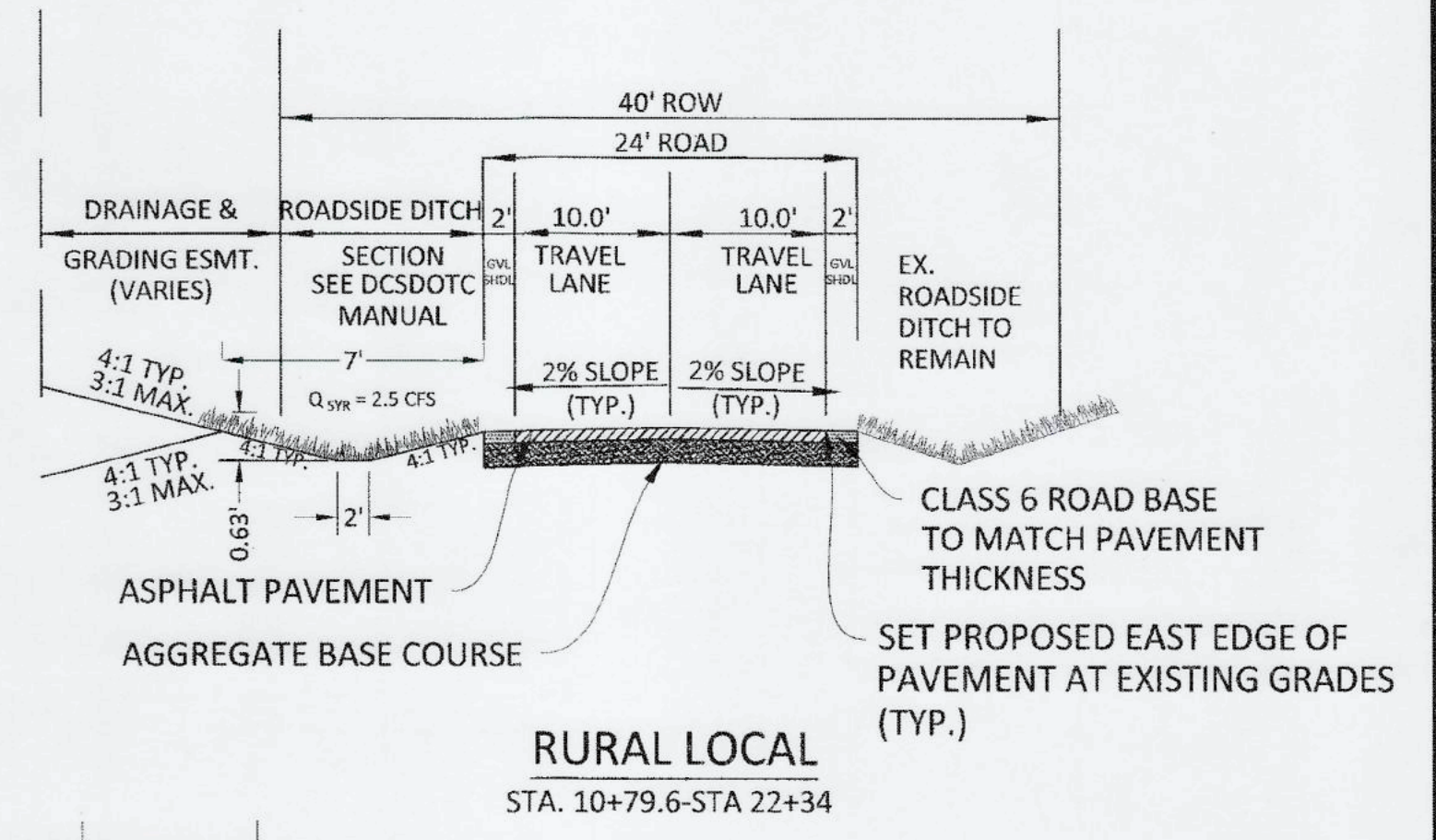


PROFILE: FIRST STREET



SOURCE BENCHMARKS:
DOUGLAS COUNTY BM 1.115010
A DOUGLAS COUNTY GIS MONUMENT SET IN CONCRETE LOCATED APPROXIMATELY 130 FEET SOUTHWESTERLY OF THE CENTERLINE OF CHAMBERS ROAD AND 95 FEET NORTHWESTERLY OF THE CENTERLINE OF COMPARK BOULEVARD. ELEVATION = 5752.84 (NAVD 88)

- NOTES:**
- REFER TO GENERAL NOTES ON SHEET 2 FOR ALL APPLICABLE CONSTRUCTION STANDARDS & MASTER LEGEND
 - ALL STATIONING IS CENTERLINE UNLESS OTHERWISE NOTED. REFER TO FINAL PLAN FOR RIGHT-OF-WAY AND CENTERLINE DIMENSIONS AND HORIZONTAL CONTROL.
 - REFER TO STONEGATE VILLAGE METRO DISTRICT APPROVED WATER AND SANITARY SEWER CONSTRUCTION PLANS FOR ALL PROPOSED WATER AND SANITARY SEWER LOCATIONS.
 - CONTRACTOR TO MEET & MATCH EXISTING GRADES AT DRIVEWAYS & STREET INTERSECTIONS.



ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW
10/23/10

THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR GRADING, EROSION, SEDIMENT CONTROL, STREET AND DRAINAGE IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

DATE	REVISIONS
10/13/10	REVISIONS PER DOUGLAS COUNTY REVIEW
02/25/10	REVISIONS PER DOUGLAS COUNTY REVIEW
02/25/10	ADD ROADSIDE SWALE STA 17+50.34-17+46.66 PER DOUGLAS CO

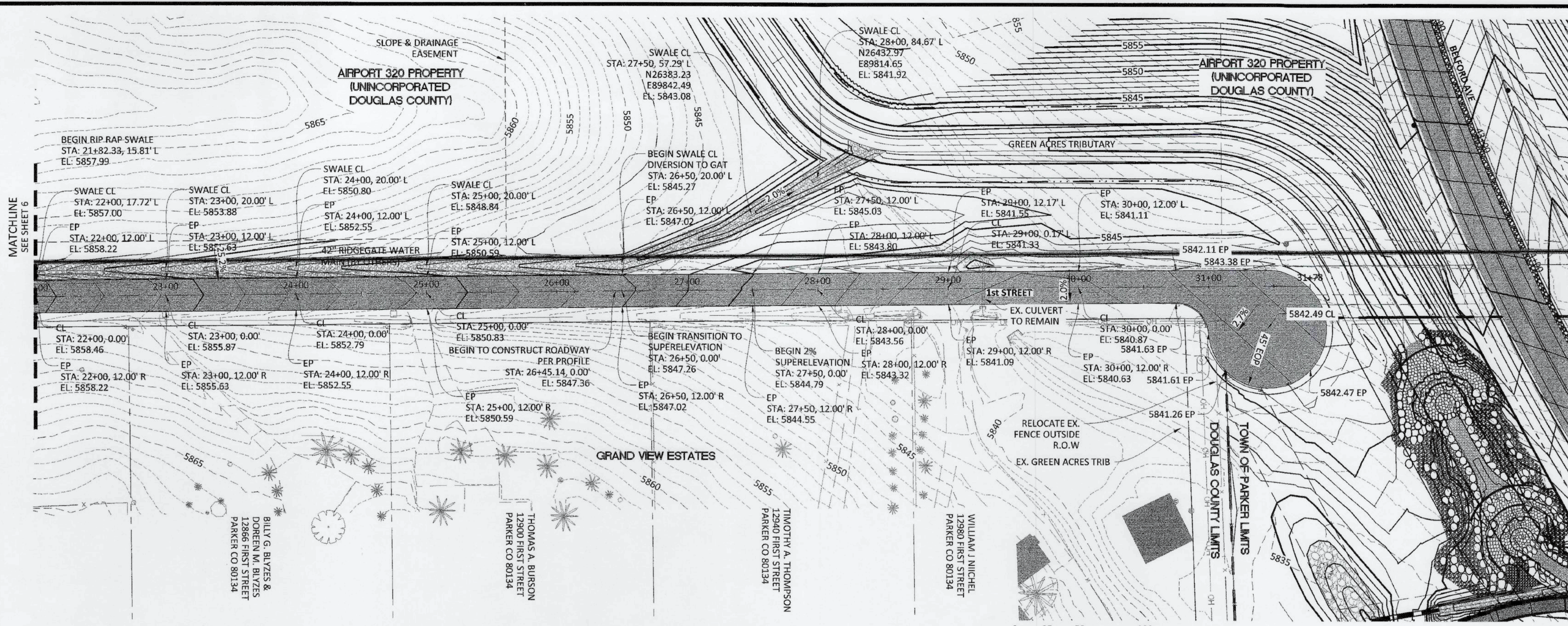
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 Civil Engineers • Surveyors • Environmental Scientists • Landscape Architects • Planners
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CVS FILING NO. 1 - FIRST STREET IMPROVEMENTS
DOUGLAS COUNTY, COLORADO
FIRST STREET P&P

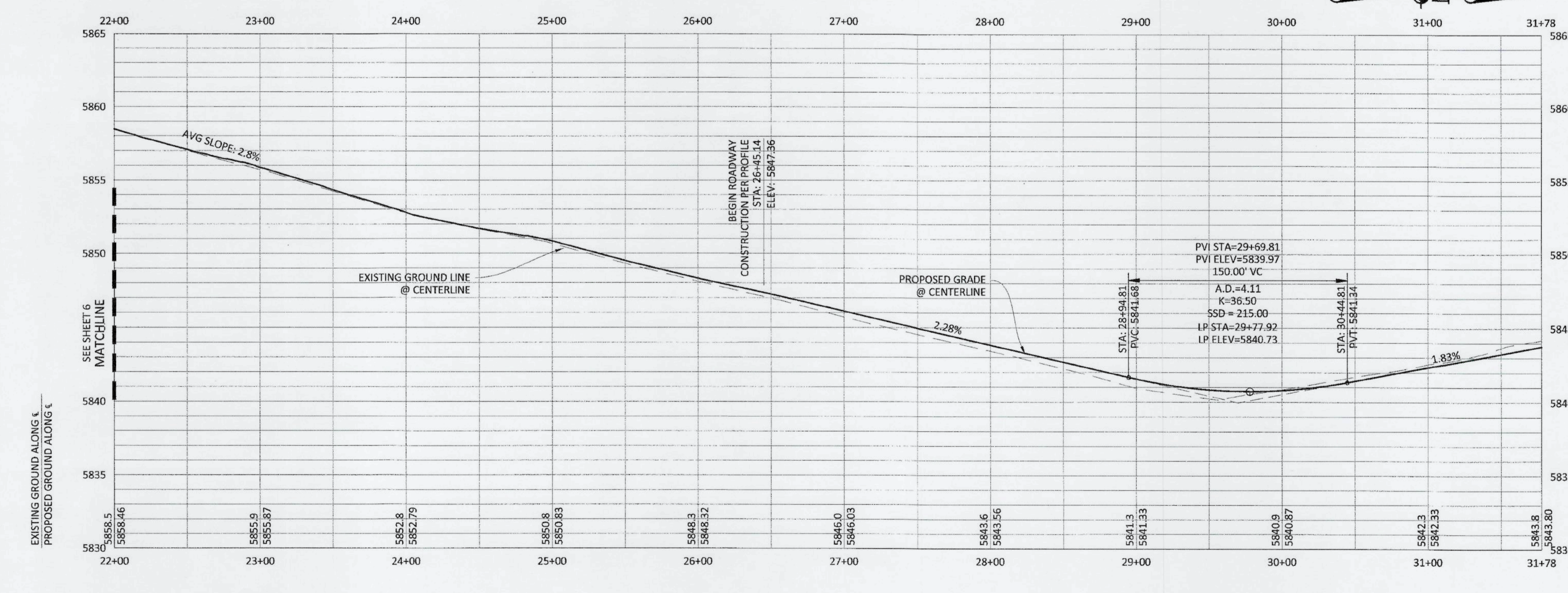
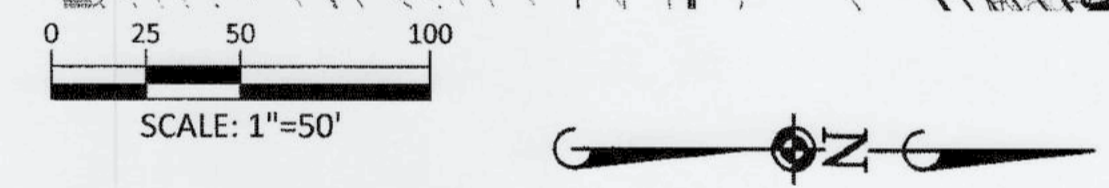
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PROJ. ASSOC.: BRB
DRAWN BY:
DATE: 07/2016

SHEET
6 OF 10
CLCPKC3.03

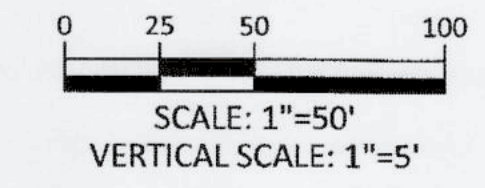
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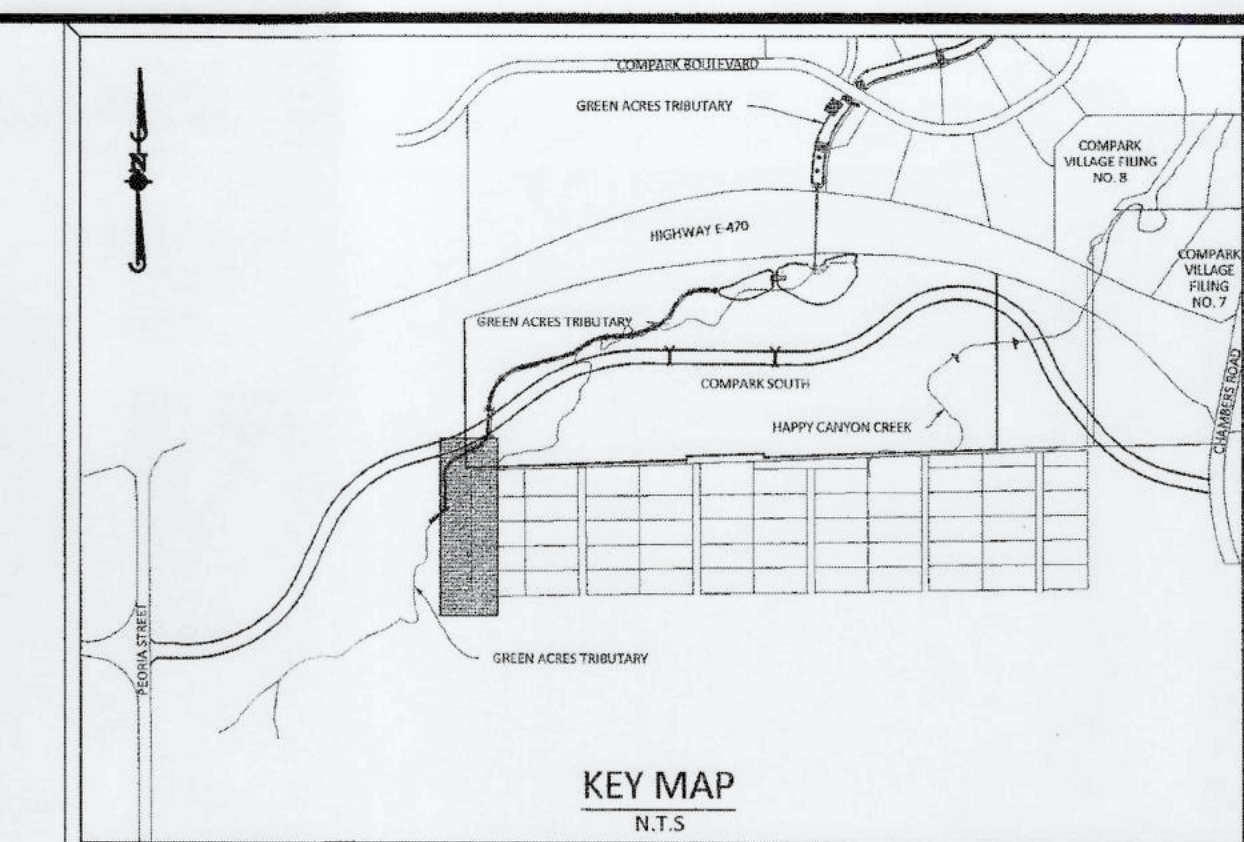
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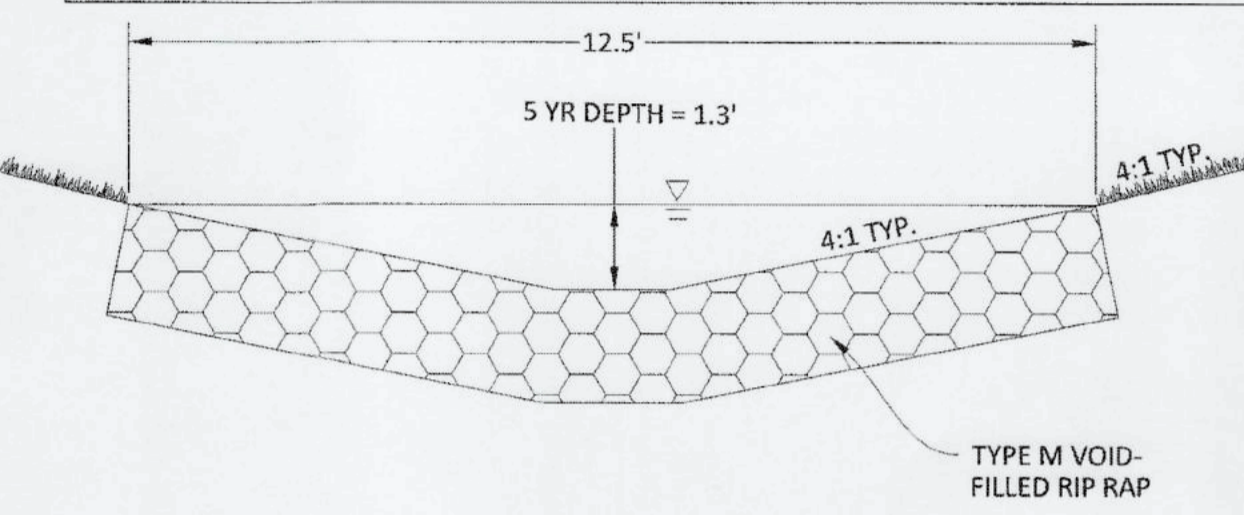
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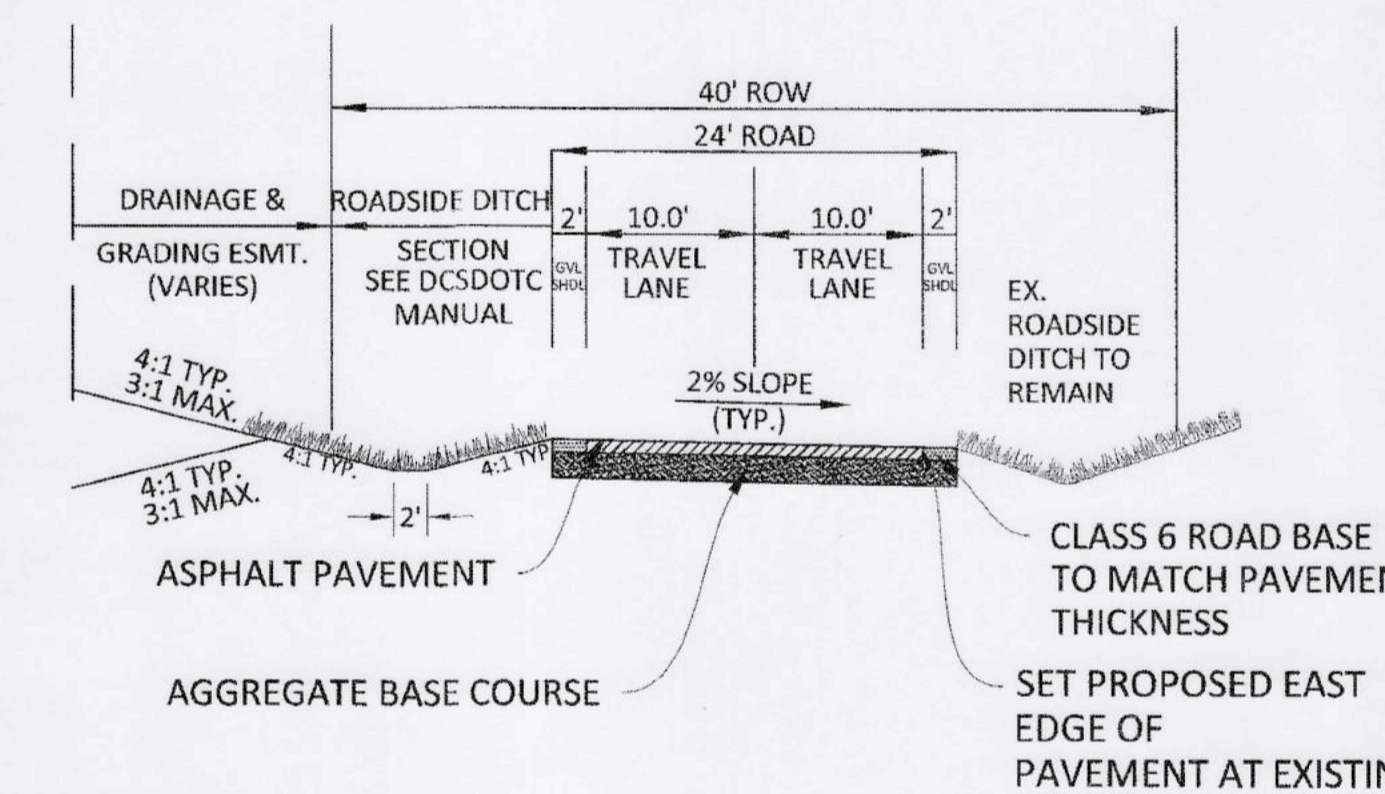
- NOTES:**
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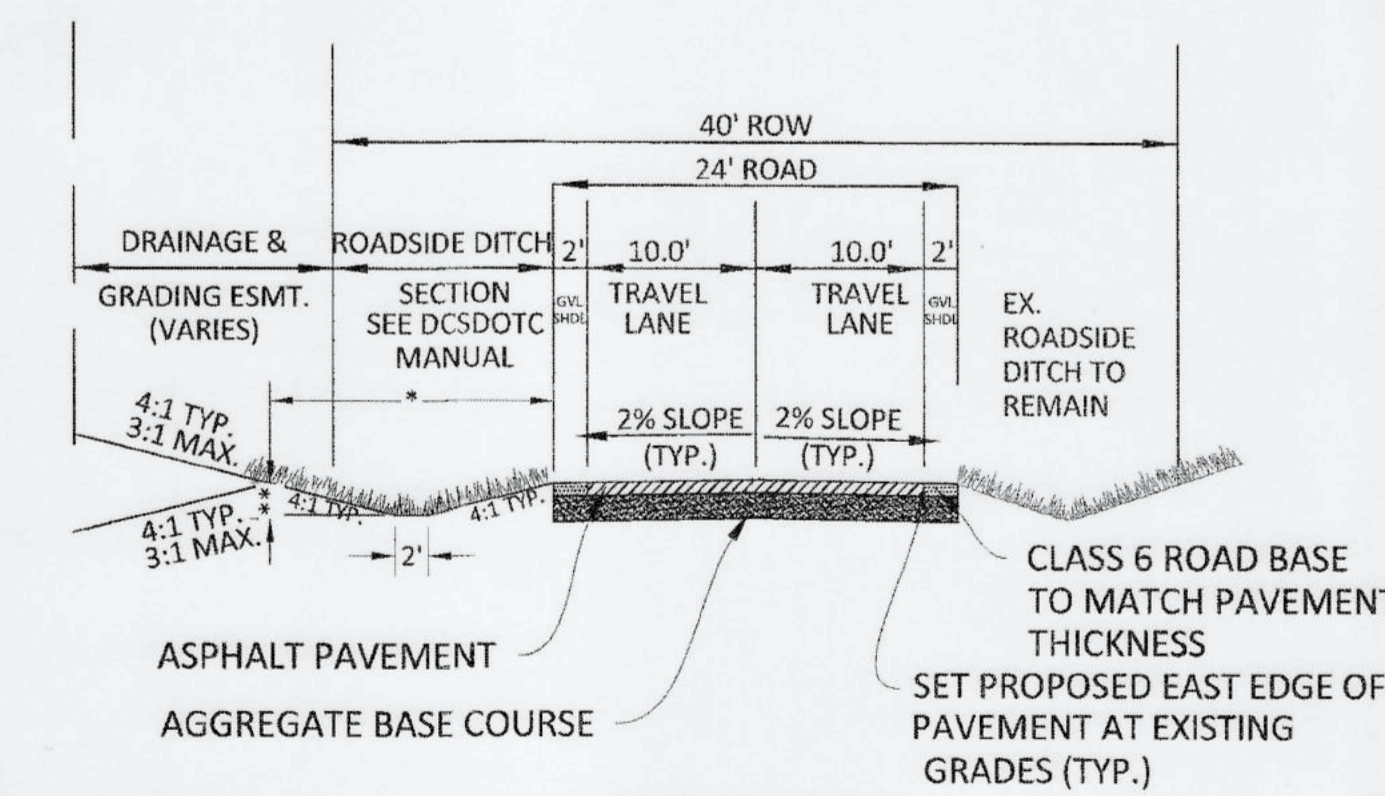
SOURCE BENCHMARKS:
DOUGLAS COUNTY BM 1.115010
A DOUGLAS COUNTY GIS MONUMENT SET IN CONCRETE LOCATED APPROXIMATELY 130 FEET SOUTHWESTERLY OF THE CENTERLINE OF CHAMBERS ROAD AND 95 FEET NORTHWESTERLY OF THE CENTERLINE OF COMPARK BOULEVARD. ELEVATION = 5752.84 (NAVD 88)



RIP RAP SWALE
N.T.S.



RURAL LOCAL
PROPOSED CONDITION
STA 26+50-STA 31+00



RURAL LOCAL
PROPOSED CONDITION
STA 10+79.6-STA 26+50

* WIDTH = 4' STA 27+50-STA 31+44.66
** $Q_{SYR}=0.02$ CFS, DEPTH_{SYR} = 0.08' STA 27+50-STA 31+44.66

* WIDTH = 7' STA 10+79.6-STA 22+34
WIDTH = 16', STA 22+34-STA 26+50
** $Q_{SYR}=2.5$ CFS, DEPTH_{SYR} = 0.3', SWALE DEPTH 0.63' STA 10+79.6-STA 22+34
 $Q_{SYR}=57.8$ CFS, DEPTH_{SYR} = 1.3', SWALE DEPTH 1.75' STA 22+34-STA 26+50



Assistant Director of Development Review
10/23/19

THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR GRADING, EROSION, SEDIMENT CONTROL, STREET AND DRAINAGE IMPROVEMENTS ONLY.

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Professional Engineer
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Boulder, CO 80504
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DATE	REVISIONS
10-12-16	1. REVISIONS PER DOUGLAS CO REVIEW
9-26-16	2. REVISIONS PER DOUGLAS COUNTY REVIEW
8-22-16	3. ADD ROADSIDE SWALE STA 27+50.31-44.66 PER DOUGLAS CO

CVS FILING NO. 1 - FIRST STREET IMPROVEMENTS
DOUGLAS COUNTY, COLORADO
FIRST STREET P&P

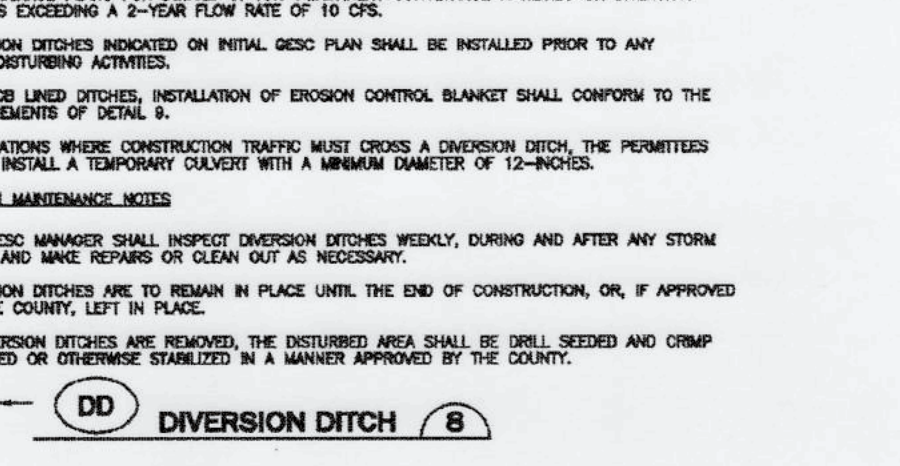
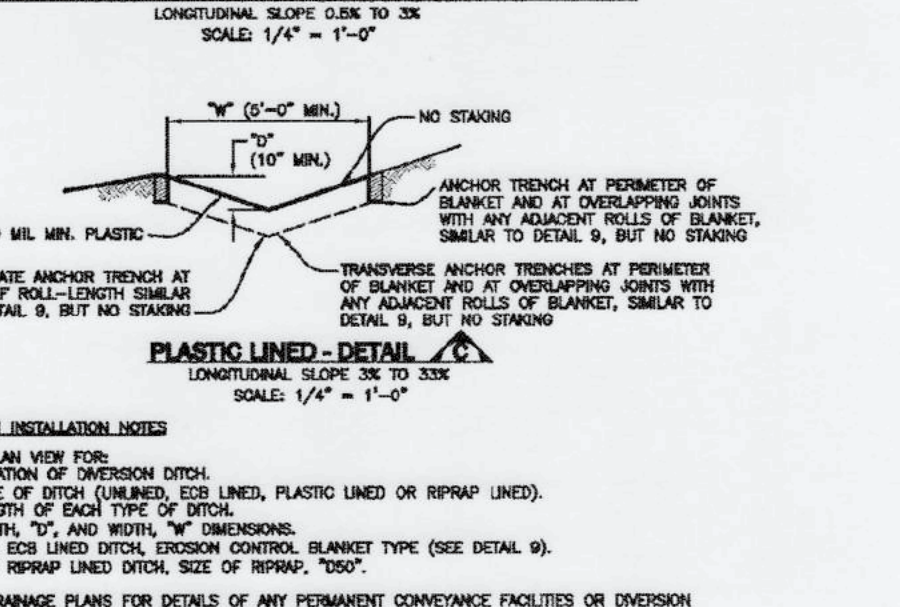
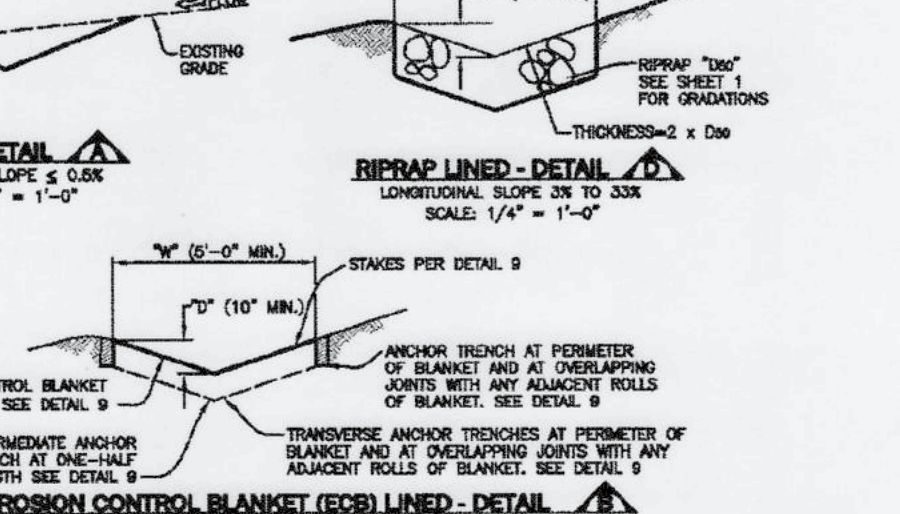
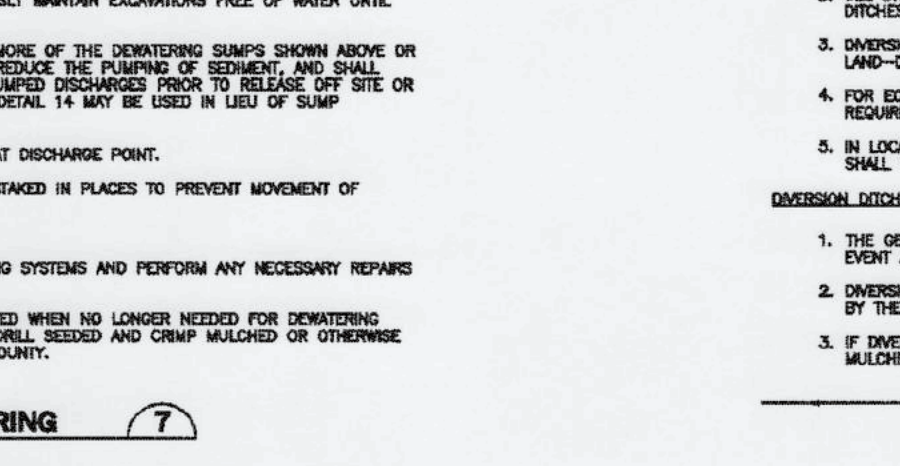
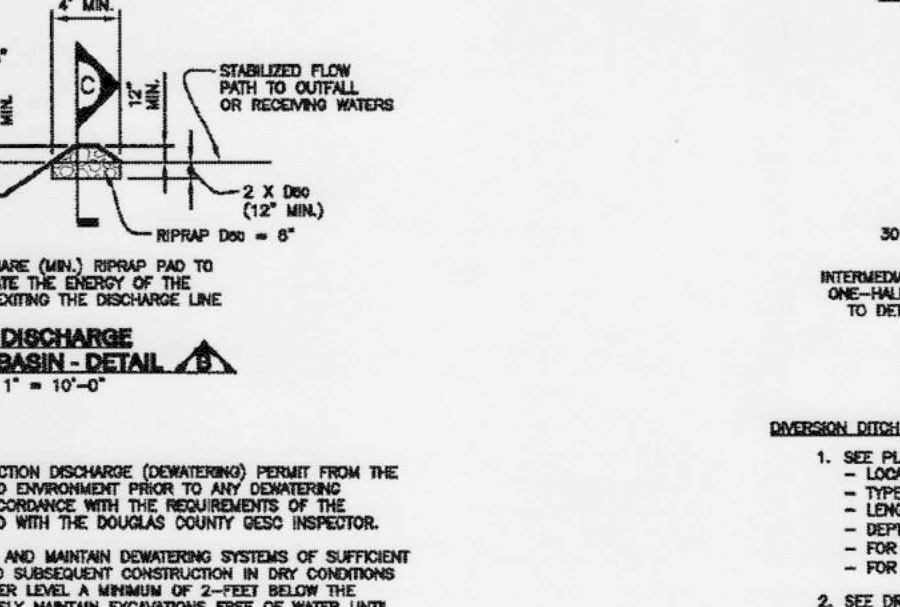
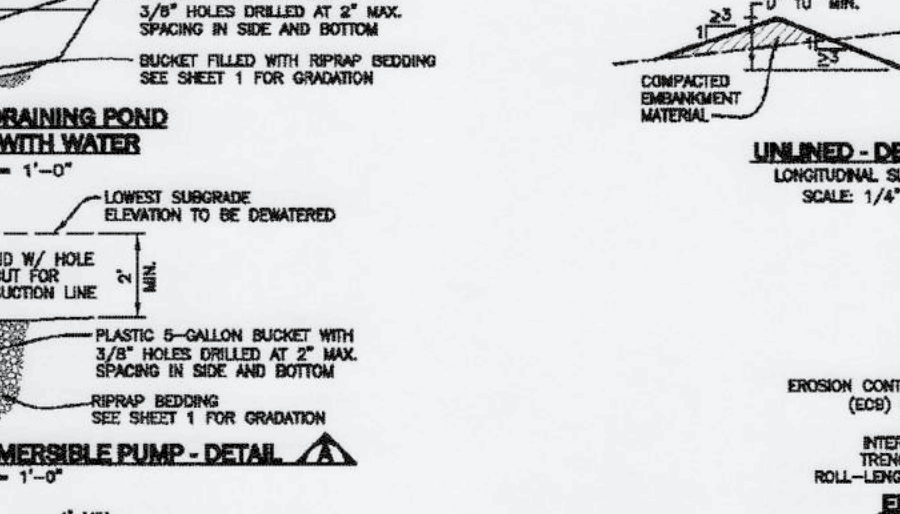
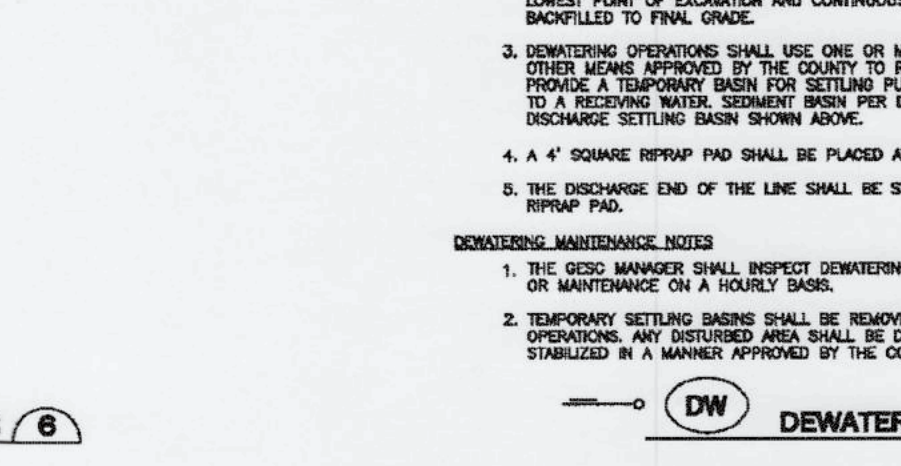
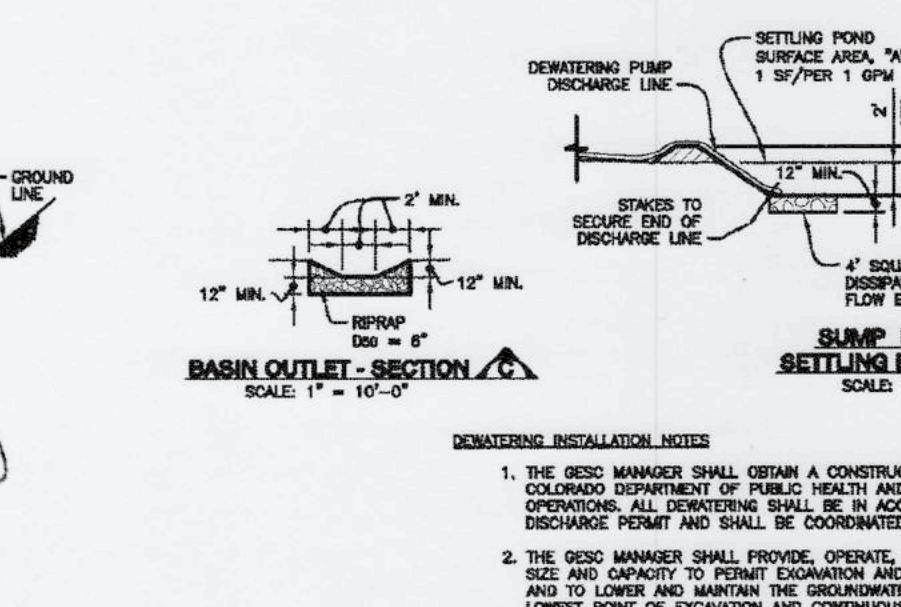
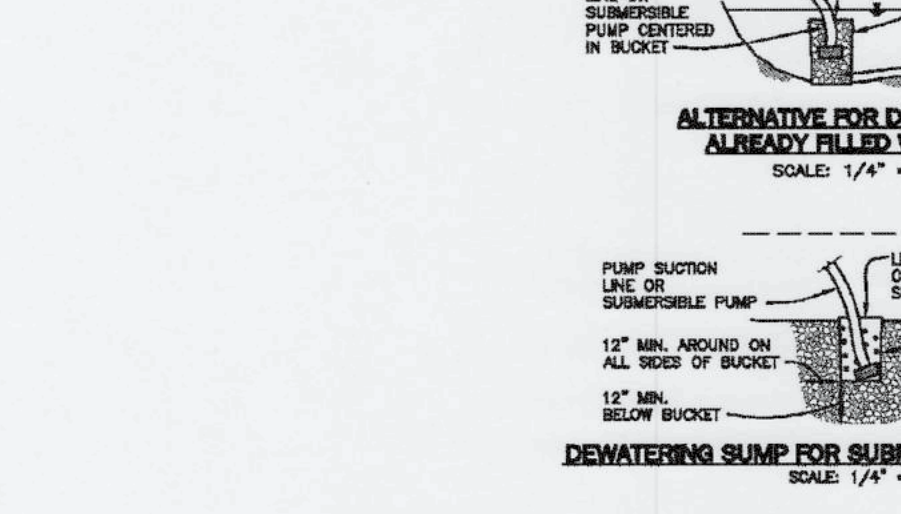
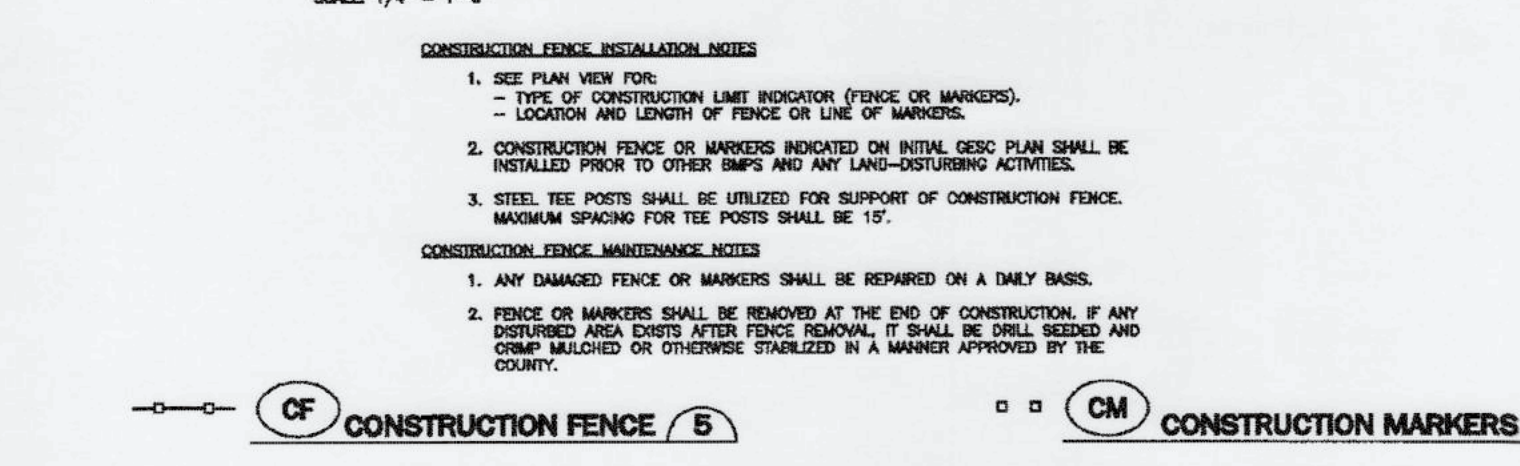
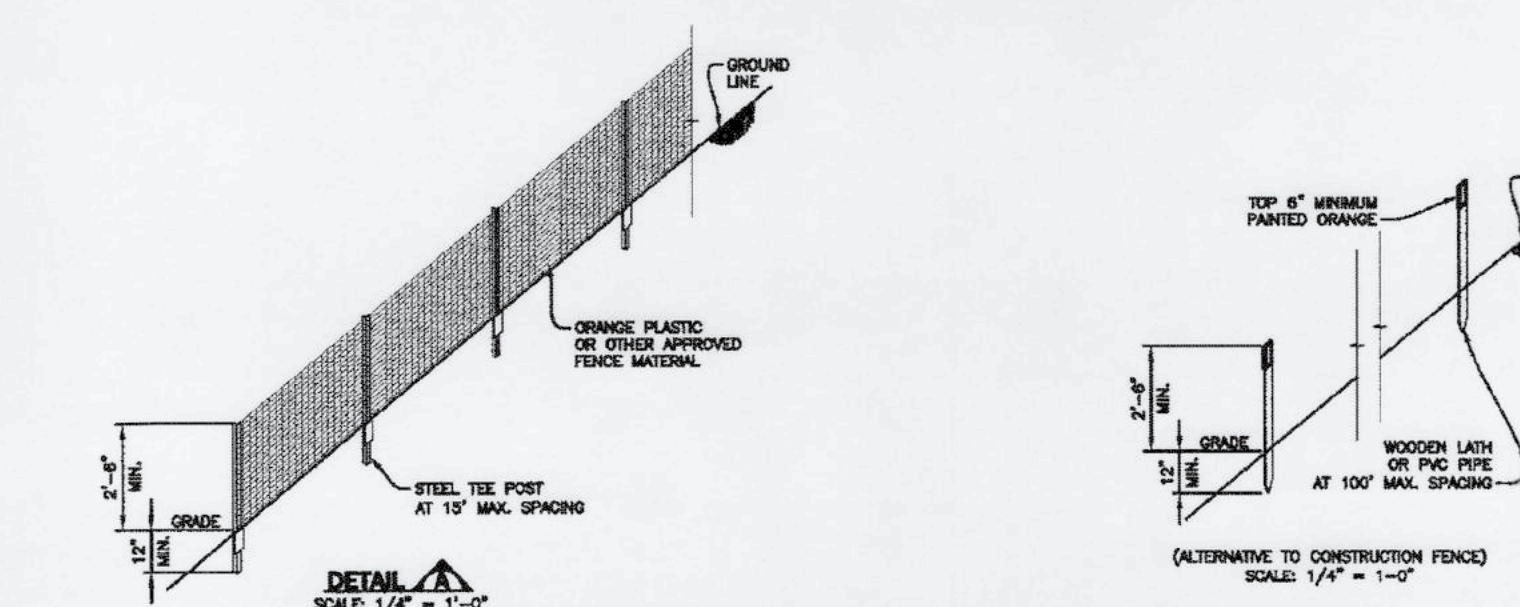
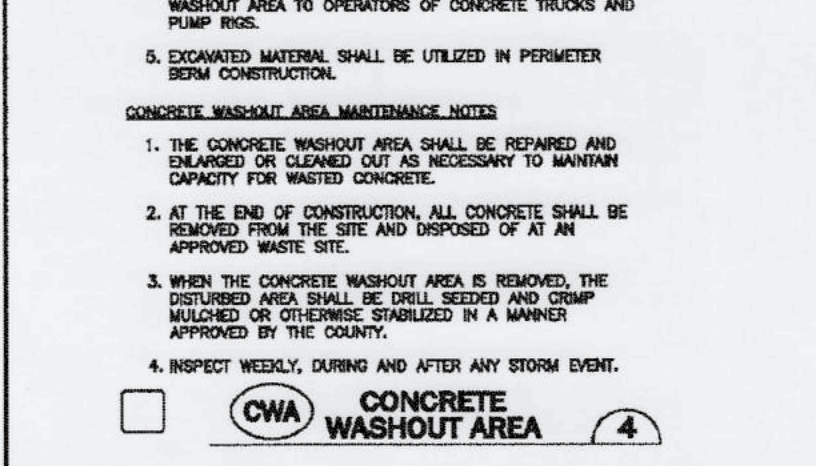
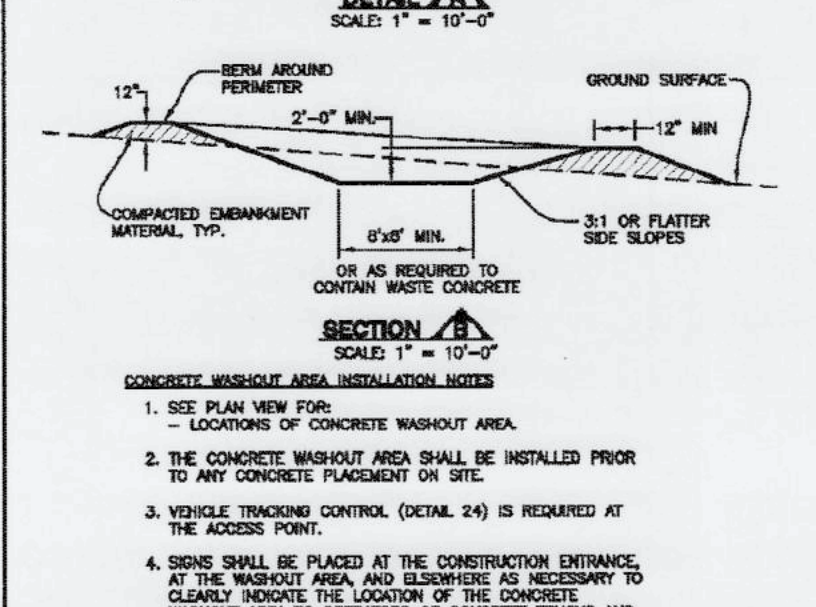
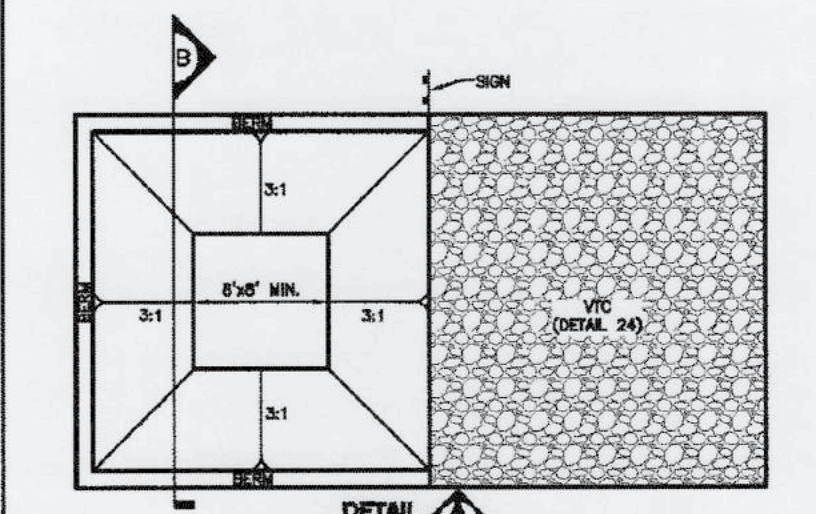
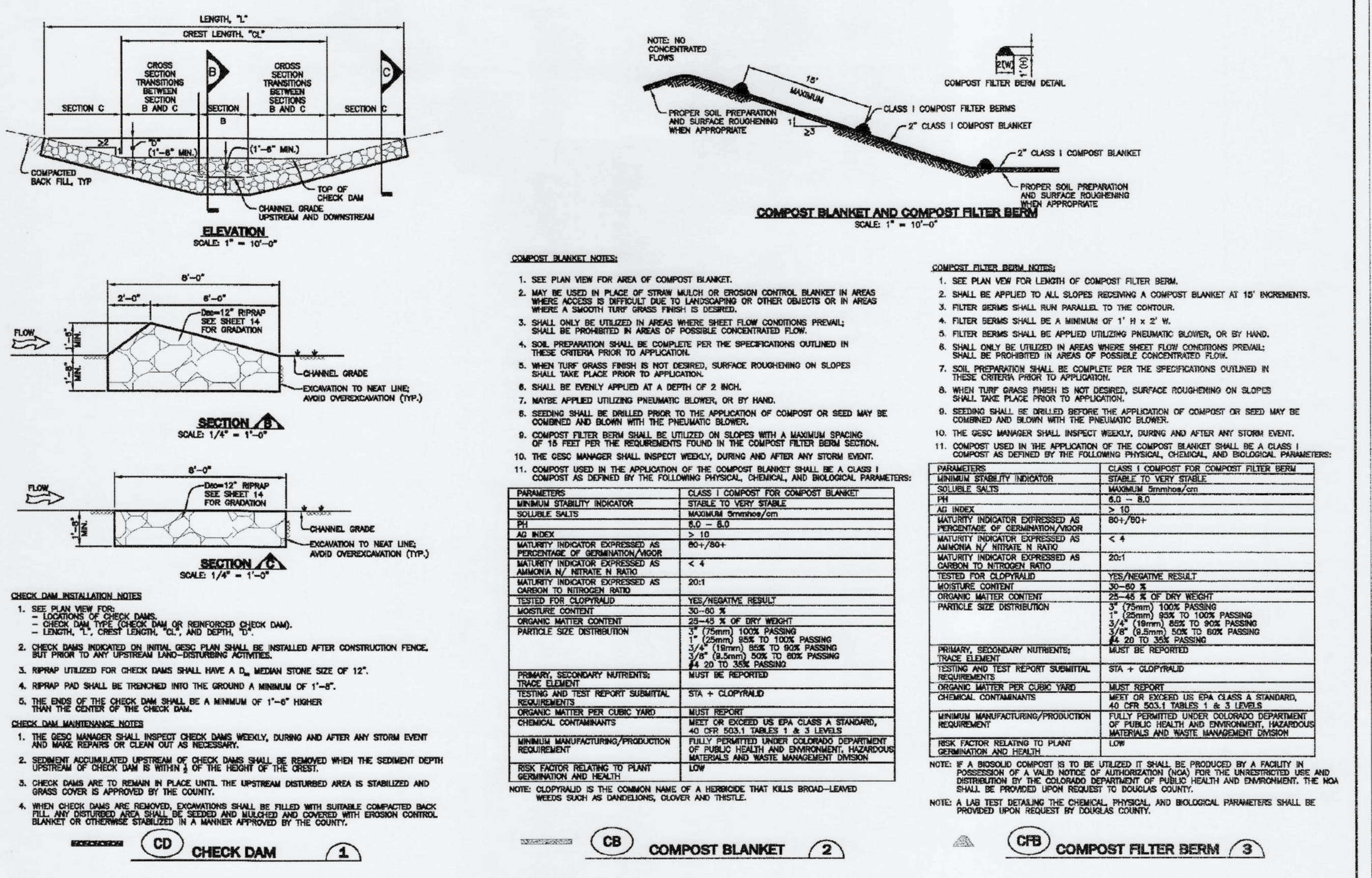
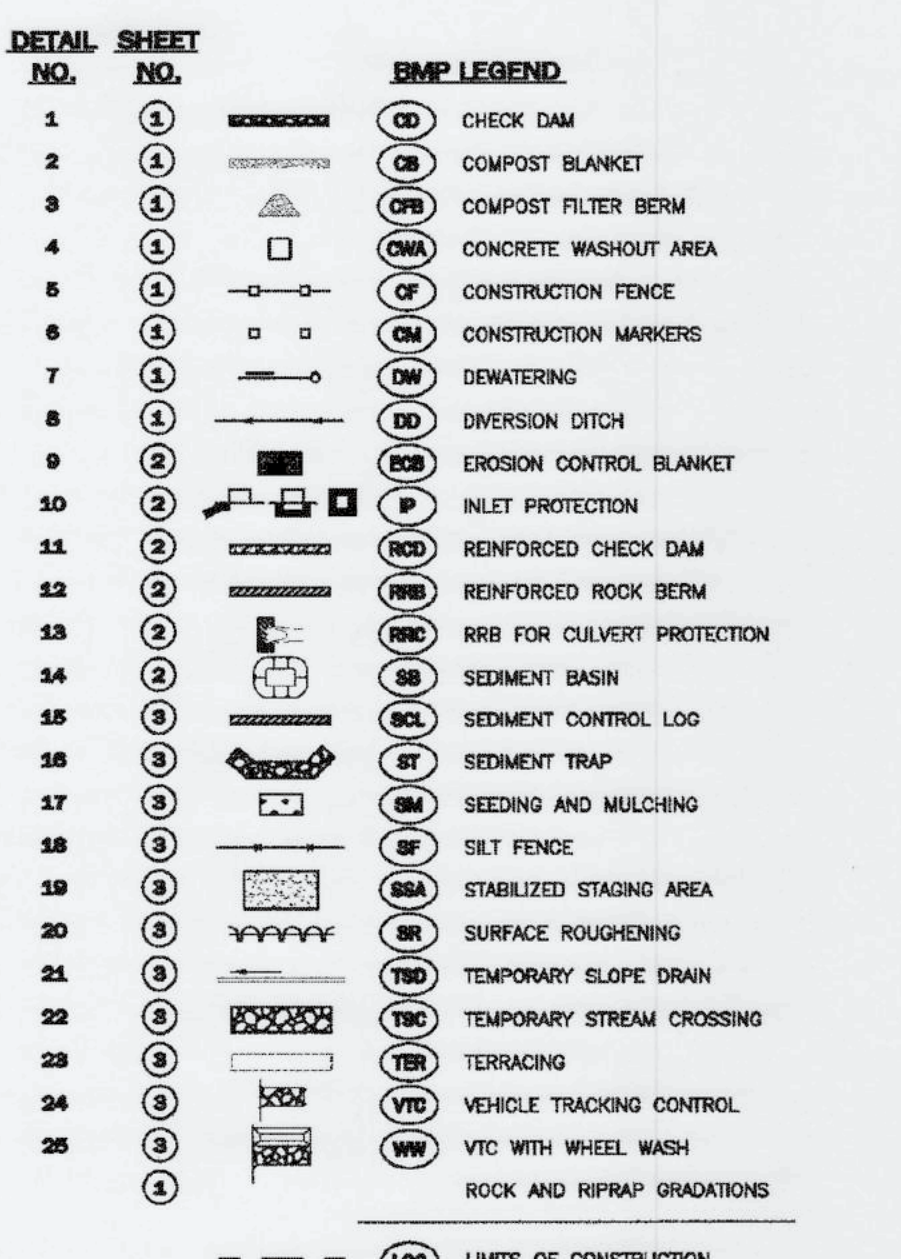
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PROJ. ASSOC: BRB
DRAWN BY: [Signature]
DATE: 07/2016

PROFESSIONAL ENGINEER
30877
10-13-16

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7 OF 10
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Printed: 10/13/2016 1:51 PM. Draw Name: \\ncd-dmva\Projects\DNV\Clients\Com\Sumba\Ultimate\Belford\Ave\chgs\Plan_Sett\Douglas County\CLCPK3-1st Avenue E&P.DWG. Updated By: ADmcd

- GRADING, EROSION, AND SEDIMENT CONTROL (GESC) GENERAL NOTES**
- THE DOUGLAS COUNTY ENGINEER'S SIGNATURE ATTACHED TO THIS DOCUMENT INDICATES THE DOUGLAS COUNTY PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION, HAS REVIEWED THE DOCUMENT AND FOUND IT IN GENERAL COMPLIANCE WITH THE DOUGLAS COUNTY SUBDIVISION REGULATIONS AND/OR THE GRADING, EROSION AND SEDIMENT CONTROL (GESC) CRITERIA MANUAL. THE DOUGLAS COUNTY ENGINEER, THROUGH ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY OTHER THAN AS STATED ABOVE FOR THE COMPLETENESS AND/OR ACCURACY OF THESE DESIGN DETAILS.
 - THE ADOPTION 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 DOUGLAS COUNTY, AFTER WHICH THE PLAN SHALL BE VOID AND WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY DOUGLAS COUNTY.
 - ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE DOUGLAS COUNTY ENGINEERING DIVISION. DOUGLAS COUNTY 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 DOUGLAS COUNTY GESC MANUAL AND THE DOUGLAS COUNTY GESC MANUAL.
 - ANY VARIATION IN MATERIAL, TYPE OR LOCATION OF EROSION AND SEDIMENT CONTROL BMPs FROM THE DOUGLAS COUNTY GESC MANUAL WILL REQUIRE APPROVAL FROM AN ACCOUNTABLE REPRESENTATIVE OF THE DOUGLAS COUNTY ENGINEERING DIVISION.
 - AFTER THE GESC PLAN HAS BEEN ACCEPTED, THE GESC PERMIT APPLIED FOR, FEES AND FISCAL SECURITY SUBMITTED TO THE COUNTY, 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.
 - THE FIRST BMP TO BE INSTALLED ON THE SITE SHALL BE CONSTRUCTION FENCE, MARKERS, OR OTHER APPROVED 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 DOUGLAS COUNTY ENGINEERING DIVISION AT 303-862-7467 TO SCHEDULE A 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 DOUGLAS COUNTY GESC INSPECTOR, THE APPLICANT WILL HAVE TO PAY A REVISIONS FEE. ADDRESS ANY PROBLEMS WITH BMP INSTALLATION, AND CALL TO RESCHEDULE THE MEETING WITH A CORRESPONDING DELAY IN THE START OF CONSTRUCTION. DOUGLAS COUNTY 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 DELAY OF THE START OF CONSTRUCTION.
 - CONSTRUCTION SHALL NOT BEGIN UNTIL THE DOUGLAS COUNTY GESC INSPECTOR APPROVES THE INSTALLATION OF THE INITIAL BMPs AND THE APPROVED GESC PERMIT IS PICKED UP FROM THE COUNTY AND IS IN-LAND ON THE SITE. THE COMPLETED PERMIT WILL BE AVAILABLE WITHIN 24-HOURS AFTER THE INSTALLATION OF THE INITIAL BMPs ARE IN PLACE.
 - THE GESC MANAGER SHALL STRICTLY ADHERE TO THE DOUGLAS COUNTY-APPROVED LIMITS OF CONSTRUCTION AT ALL TIMES. THE DOUGLAS COUNTY ENGINEERING DIVISION MUST APPROVE ANY CHANGES TO THE LIMITS OF CONSTRUCTION AND AT 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 COMPLY WITH THE GRADING, EROSION AND SEDIMENT CONTROL (GESC) CRITERIA MANUAL. BMP INSTALLATION AND APPROVAL BY DOUGLAS COUNTY 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.
 - PRIOR TO ACTUAL CONSTRUCTION, THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES. FOR INFORMATION, CONTACT THE CONVEYER-UTILITY GROUP AT 1-800-922-1987 OR FAX AT 303-862-7400.
 - 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.
 - THE GESC PERMIT SHALL BE VALID FOR A PERIOD OF ONE (1) YEAR.
 - COPY OF THE GESC PERMIT, ACCEPTED GESC PLANS AND THE GESC FIELD MANUAL SHALL BE ON SITE AT ALL TIMES.
 - 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 COUNTY 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 VIOLATION, A STOP WORK ORDER SHALL BE ISSUED.
 - ALL CONSTRUCTION TRAFFIC MUST INTERVENE THE SITE THROUGH THE DOUGLAS COUNTY-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 DOUGLAS COUNTY ENGINEERING DIVISION.
 - 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 ACCUMULATION. TRACKING OR AT THE DISCRETION OF THE DOUGLAS COUNTY GESC INSPECTOR, STREET WASHING IS NOT ALLOWED. DOUGLAS COUNTY RESERVES THE RIGHT TO REQUIRE ADDITIONAL MEASURES TO ENSURE AREA STREETS ARE KEPT FREE OF SEDIMENT AND/OR CONSTRUCTION DEBRIS.
 - APPROVED EROSION AND SEDIMENT CONTROL BMPs SHALL BE MAINTAINED AND KEPT IN GOOD REPAIR FOR THE 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 1 VIOLATIONS, AND IMMEDIATELY FOR LEVEL 2 VIOLATIONS, OR AS DIRECTED BY A DOUGLAS COUNTY GESC INSPECTOR. ACCUMULATED SEDIMENT AND CONSTRUCTION DEBRIS SHALL BE REMOVED AND PROPERLY DISPOSED.
 - STRAW BALES ARE NOT A DOUGLAS COUNTY GESC-ACCEPTED SEDIMENT CONTROL BMP.
 - TOPSOIL SHALL BE STRIPPED AND STOCKPILED IN THE LOCATION SHOWN ON THE ACCEPTED GESC PLAN. THE GESC MANAGER SHALL SCHEDULE AN INSPECTION WITH THE DOUGLAS COUNTY 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.
 - 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 DOUGLAS COUNTY ENGINEERING FOR ANY PROPOSED CHANGES.
 - LINING OF TEMPORARY SHOALS AND DITCHES SHALL BE IN ACCORDANCE WITH THE GESC CRITERIA MANUAL.
 - NO PERMANENT EARTH SLOPES GREATER THAN 3:1 SHALL BE ALLOWED.
 - 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.
 - A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
 - 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 DOUGLAS COUNTY ENGINEERING DIVISION.
 - ALL CHEMICAL OR HAZARDOUS MATERIALS WHICH MAY ENTER WATERWAYS OF THE STATE OF COLORADO, WHICH INCLUDE BUT ARE NOT LIMITED TO, SURFACE WATER, GROUND WATER AND DRY GULCHES OR STORM SEWER LEAKING TO SURFACE WATER, SHALL BE IMMEDIATELY REPORTED TO THE CORPUS FOR COS 26-301, AND DOUGLAS COUNTY. RELEASES OF PETROLEUM PRODUCTS AND CERTAIN HAZARDOUS SUBSTANCES LISTED UNDER THE FEDERAL CLEAN WATER ACT (40 CFR PART 119) MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER AS WELL AS THE CORPUS. CONTACT INFORMATION FOR CORPUS, DOUGLAS COUNTY AND THE NATIONAL RESPONSE CENTER CAN BE FOUND IN APPENDIX A. 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 MAINTAIN A ONE HUNDRED (100) FEET FREE ZONE FROM ANY DRAINAGE WAY, WETLAND, ETC. UNLESS OTHERWISE NOTED ON AN ACCEPTED DOUGLAS COUNTY GESC PLAN.
 - ALL PROJECTS SHALL BALANCE EARTHWORK QUANTITIES ON SITE. IN THE EVENT A VARIANCE IS GRANTED BY THE COUNTY ENGINEER TO ALLOW IMPORT OR EXPORT OF MATERIAL, THE PERMITTEE SHALL HAVE A GESC PERMIT IN HAND FOR THE IMPORT OR EXPORT SITE PRIOR TO ANY TRANSPORTING OF EARTH MATERIAL. THE GESC MANAGER SHALL NOTIFY THE DOUGLAS COUNTY GESC INSPECTOR OF THE LOCATION AND PERMIT NUMBERS OF BOTH THE EXPORTING AND IMPORTING SITES PRIOR TO ANY IMPORT/EXPORT OPERATIONS.
 - 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 FENCES.
 - 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 APPROPRIATE LOCATION.
 - ALL DEMATERING ON SITE SHALL BE COORDINATED WITH A DOUGLAS COUNTY 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 ARCHES OR OTHER INLET AND OUTLET PROTECTION, REQUIRE INSPECTION BY DOUGLAS COUNTY ENGINEERING (SEPARATE FROM GESC INSPECTIONS).
 - ALL DISTURBED AREAS SHALL BE DRILL SEEDED AND CRMP MULCHED IN ACCORDANCE WITH THE GESC CRITERIA MANUAL WITHIN THIRTY DAYS OF INITIAL EXPOSURE OR WITHIN SEVEN DAYS OF SUBSTANTIAL COMPLETION (AS DEFINED BY DOUGLAS COUNTY) OF AN AREA, WHICHEVER IS LESS. THIS MAY REQUIRE MULTIPLE VISITATIONS FOR SEEDING AND MULCHING.
 - HYDRAULIC SEEDING AND HYDRAULIC MULCHING ARE NOT AN ACCEPTABLE METHOD OF SEEDING OR MULCHING IN DOUGLAS COUNTY.
 - NO CURB AND GUTTER PERMITS SHALL BE ISSUED UNTIL ALL DISTURBED AREAS ARE DRILL SEEDED AND CRMP MULCHED.
 - NO PAVING PERMITS SHALL BE ISSUED UNTIL ALL INTERIM INLET PROTECTION IS INSTALLED AND APPROVED BY THE GESC INSPECTOR.
 - 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.



CONCRETE WASHOUT AREA

- SEE PLAN VIEW FOR LOCATIONS OF CONCRETE WASHOUT AREA.
- CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON SITE.
- VEHICLE TRACKING CONTROL (DETAIL 24) IS REQUIRED AT THE ACCESS POINT.
- SEDS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE AT THE WASHOUT AREA AND ALSO WHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT AREA TO OPERATORS OF CONCRETE TRUCKS AND PUMP TRUCKS.
- EXCAVATED MATERIAL SHALL BE UTILIZED IN PERIMETER OF CONCRETE WASHOUT AREA.

CONSTRUCTION FENCE

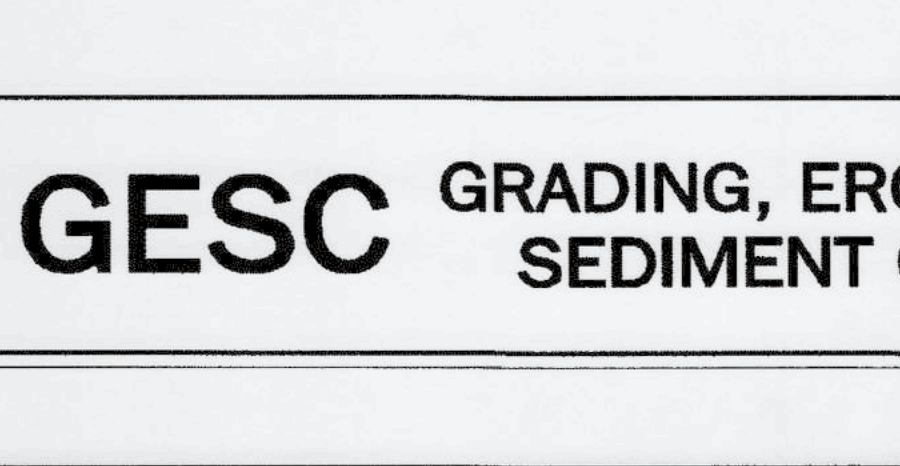
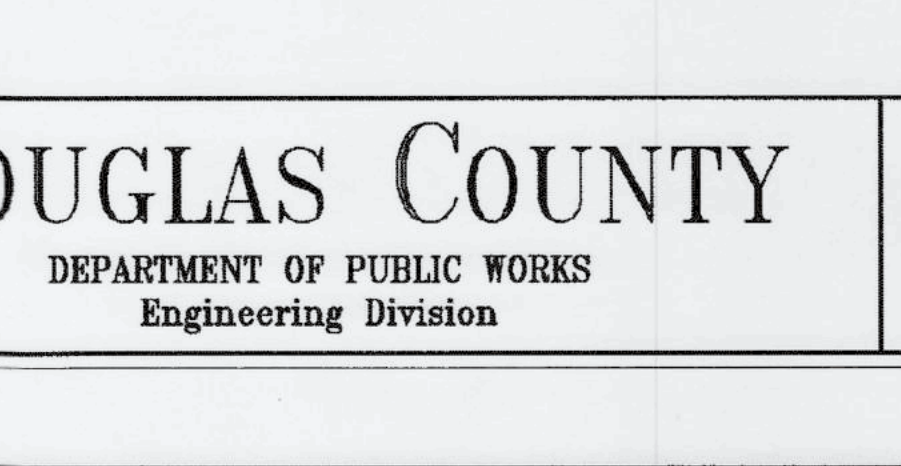
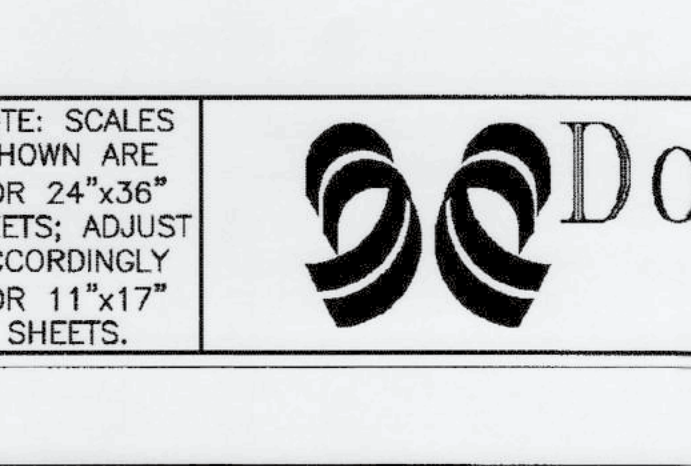
- CONCRETE WASHOUT AREA SHALL BE REPAIRED AND ENLARGED OR CLEANED OUT AS NECESSARY TO MAINTAIN CONTACT FOR WEATHER CONCRETE.
- AT THE END OF CONSTRUCTION, ALL CONCRETE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROVED WASTE SITE.
- WHEN THE CONCRETE WASHOUT AREA IS REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.
- INSPECT WEEKLY DURING AND AFTER ANY STORM EVENT.

CONSTRUCTION FENCE MAINTENANCE NOTES

- SEE PLAN VIEW FOR TYPE OF CONSTRUCTION FENCE (FENCE OR MARKERS).
- LOCATION AND LENGTH OF FENCE OR LINE OF MARKERS SHALL BE INSTALLED PRIOR TO OTHER BMPs AND ANY LAND-DISTURBING ACTIVITIES.
- STEEL TEE POSTS SHALL BE UTILIZED FOR SUPPORT OF CONSTRUCTION FENCE. MAXIMUM SPACING FOR THE POSTS SHALL BE 15'-0".

CONSTRUCTION FENCE MAINTENANCE NOTES

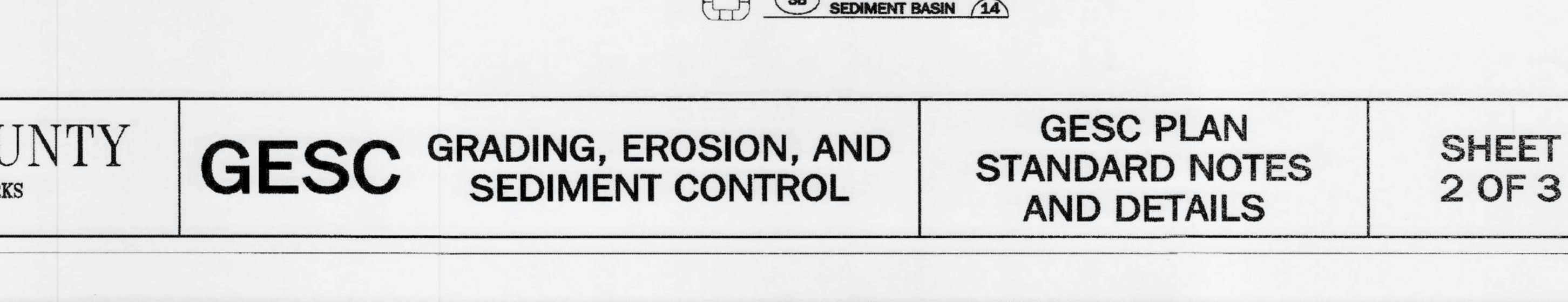
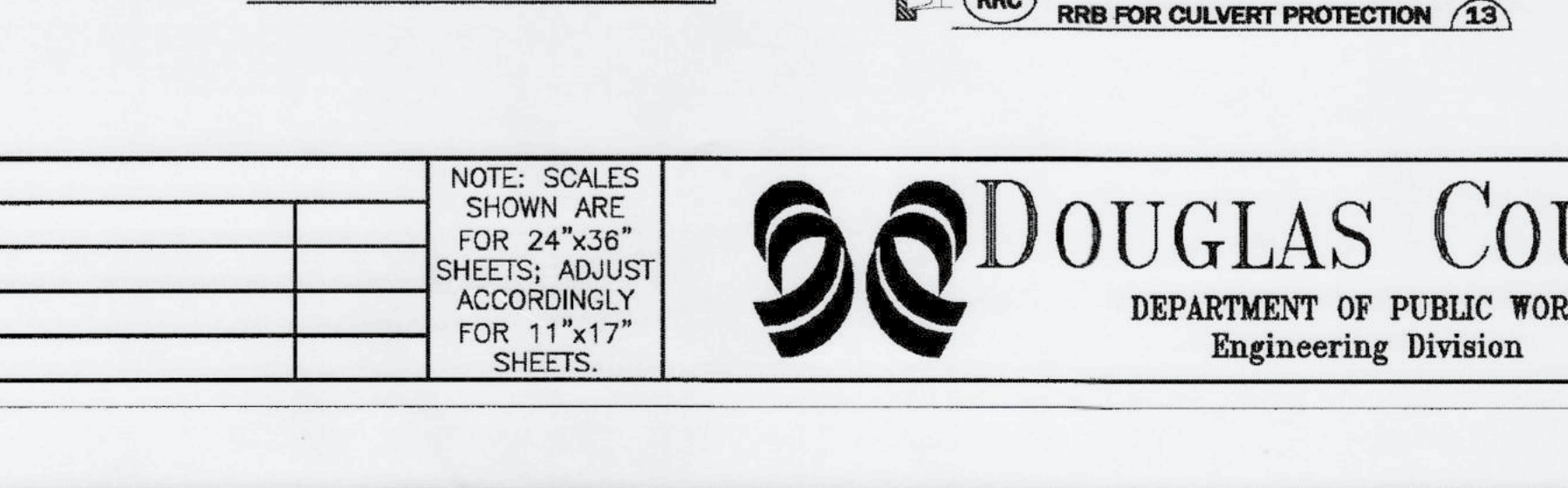
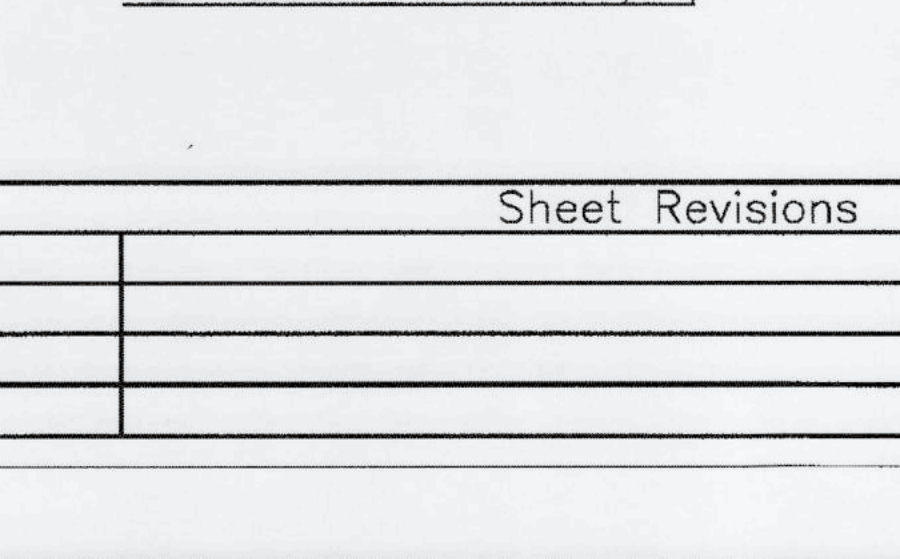
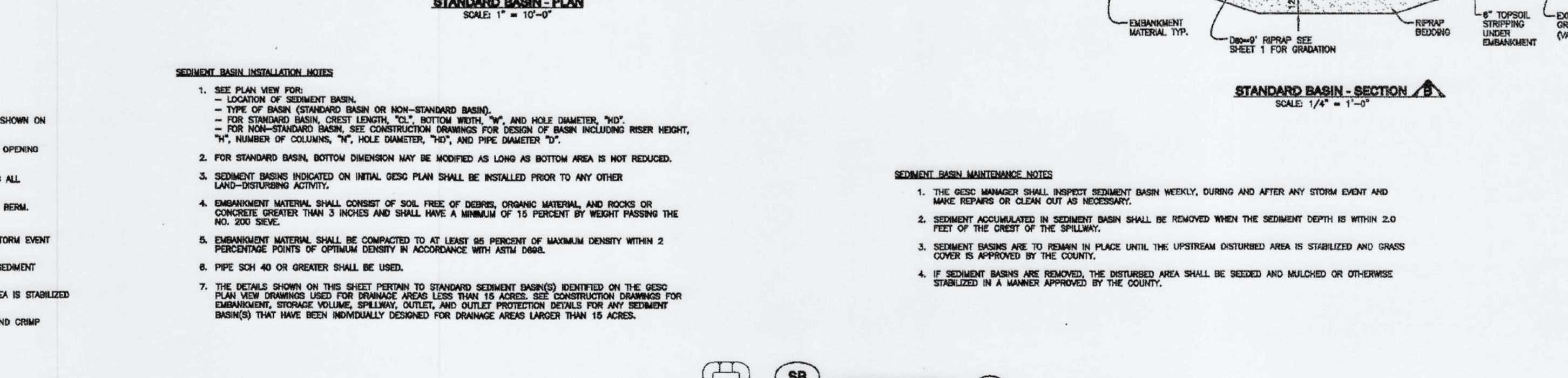
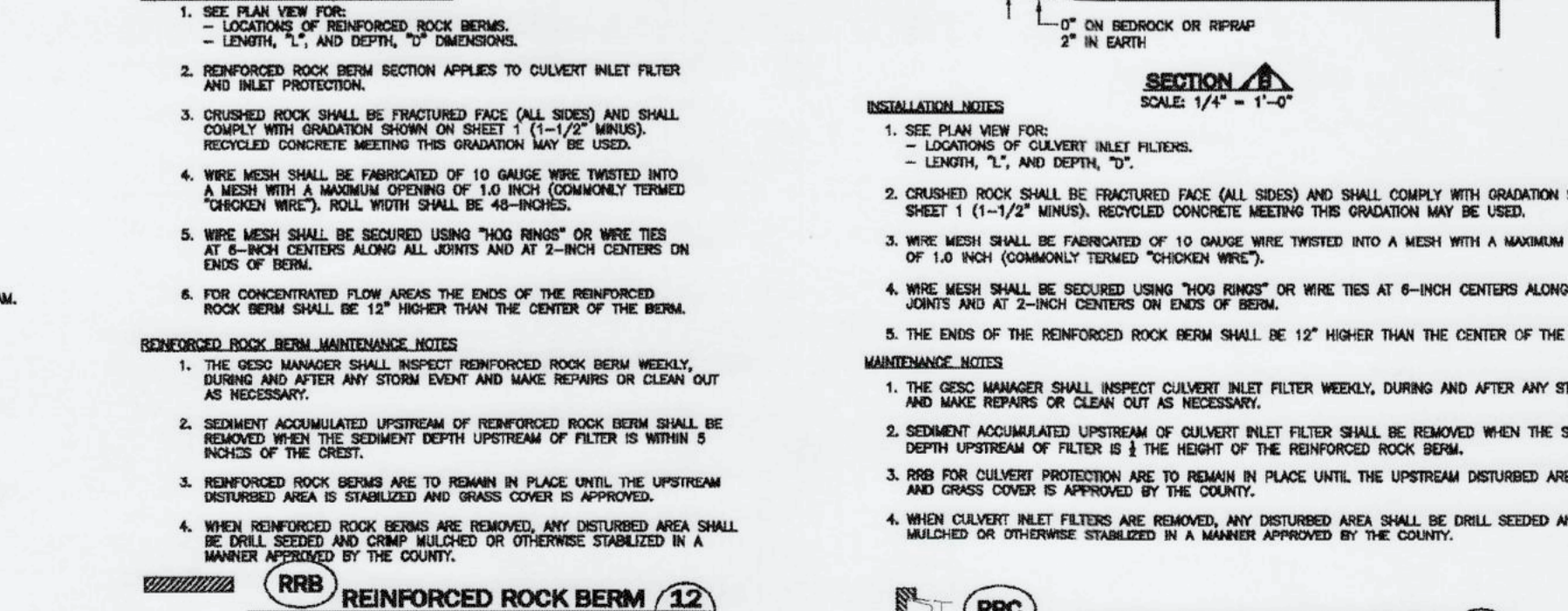
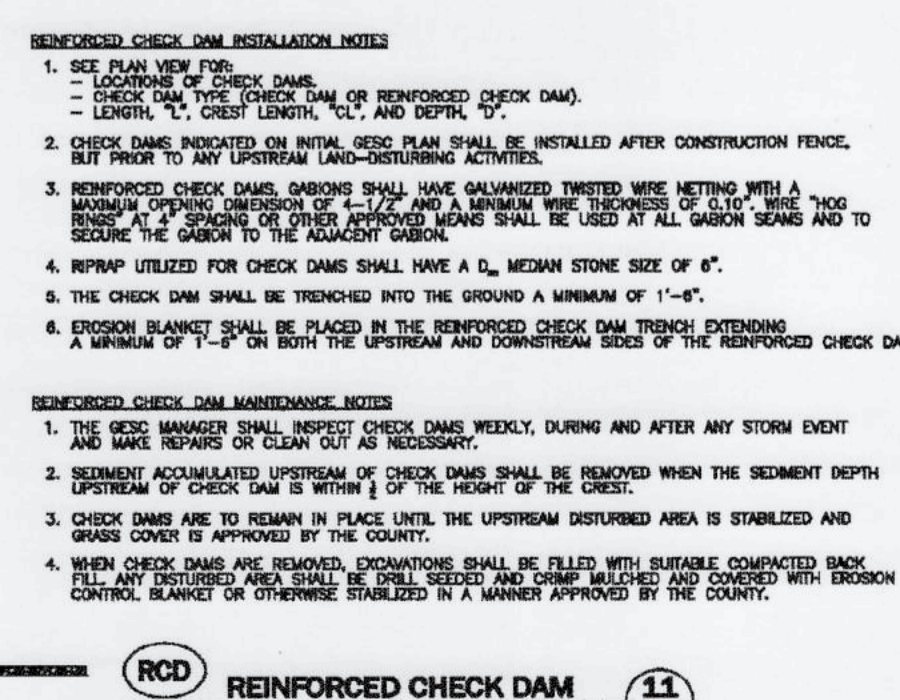
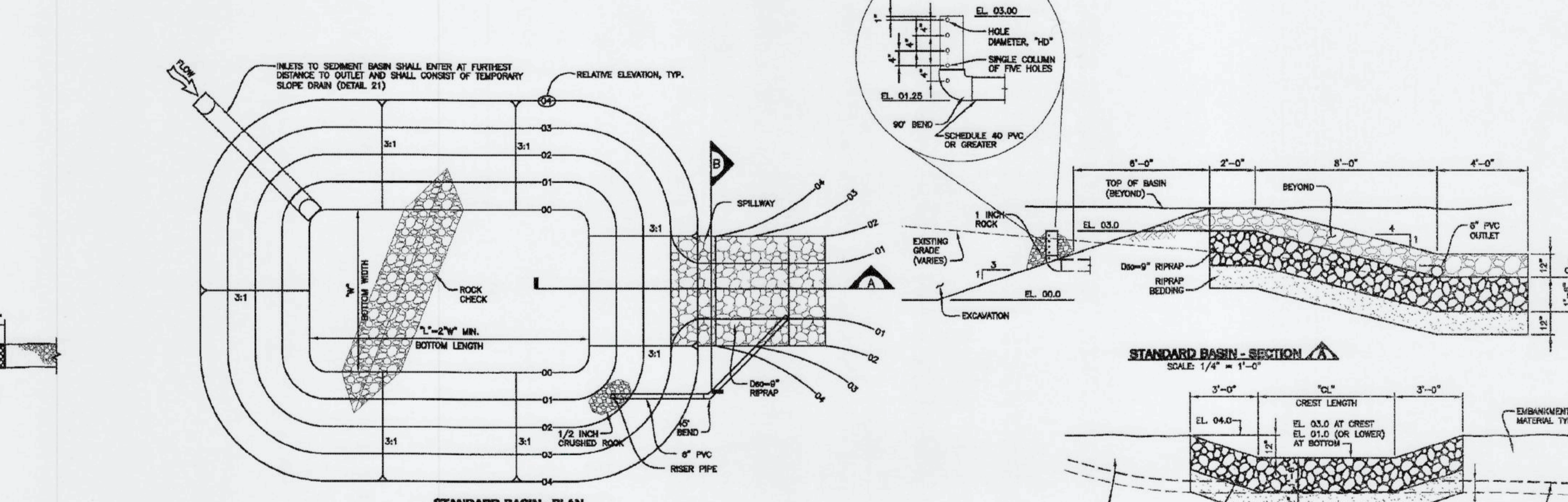
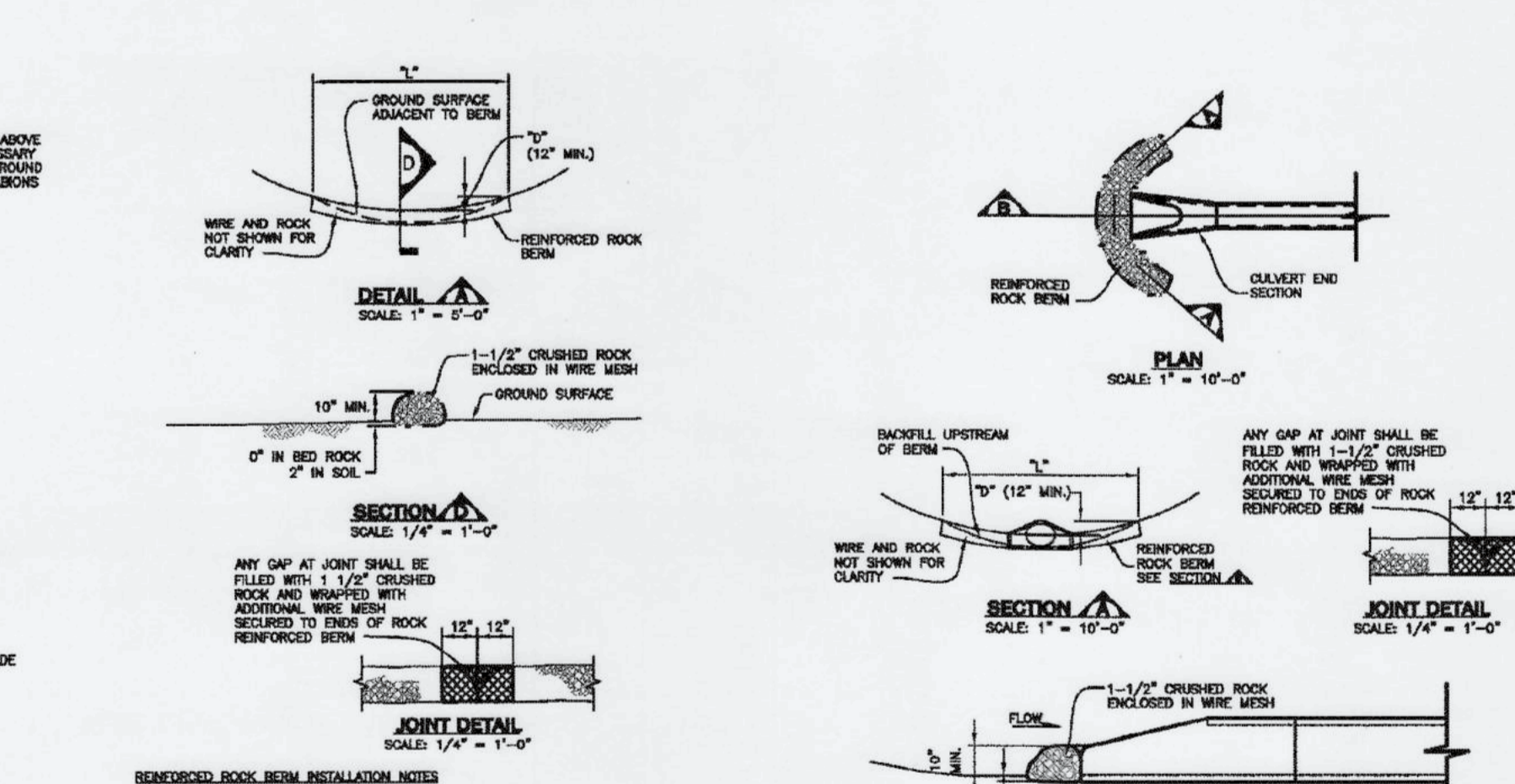
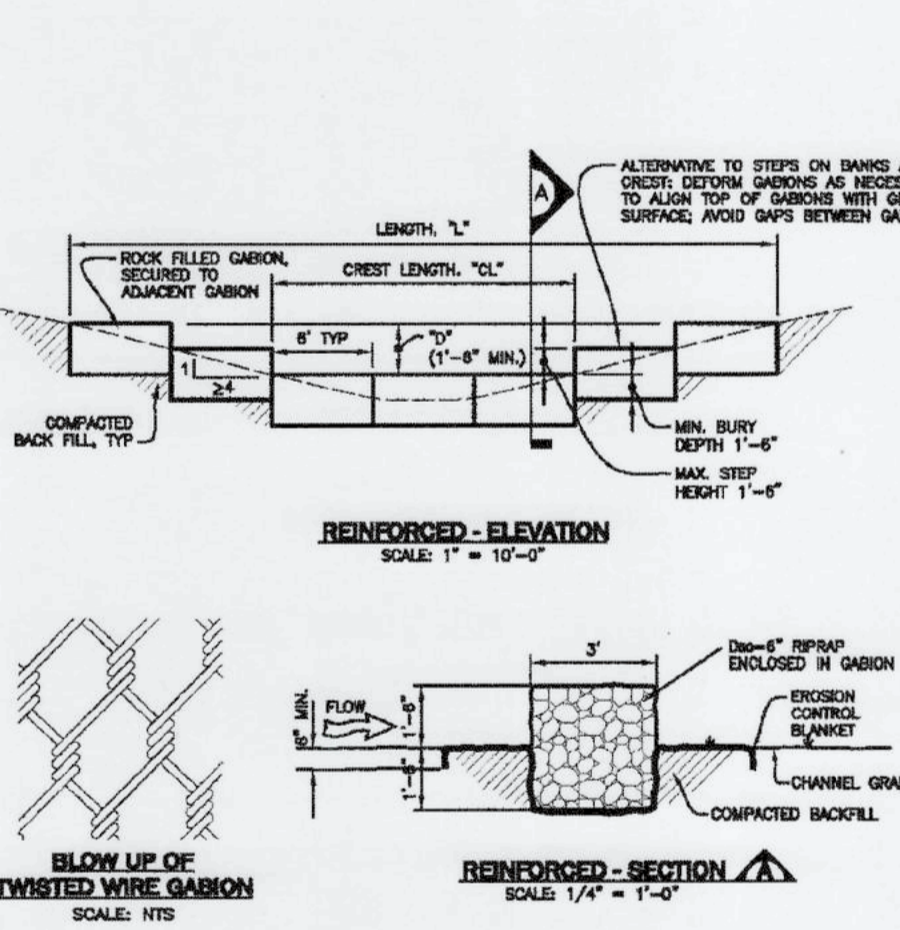
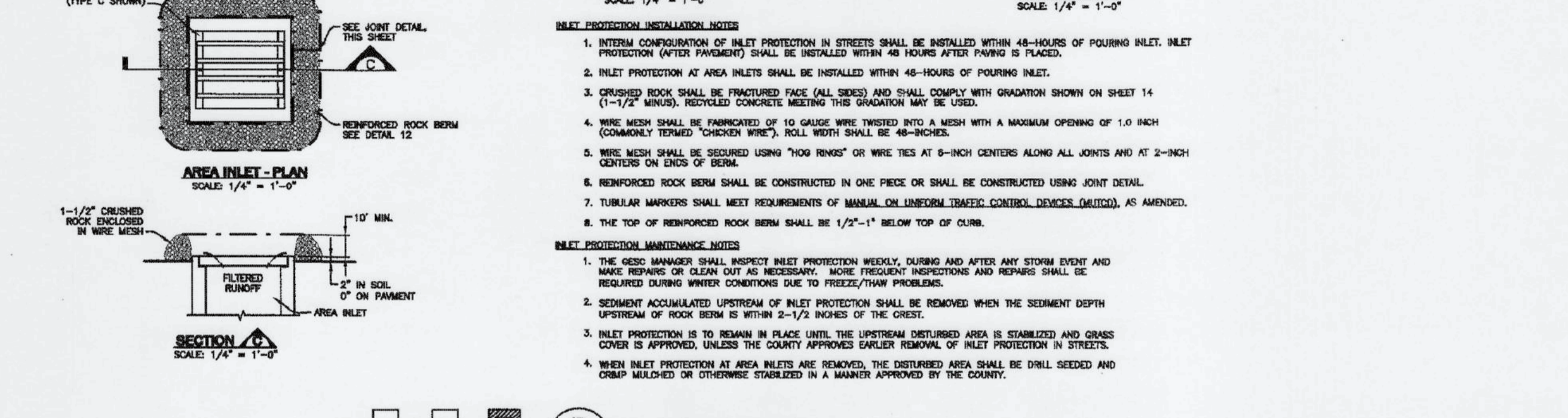
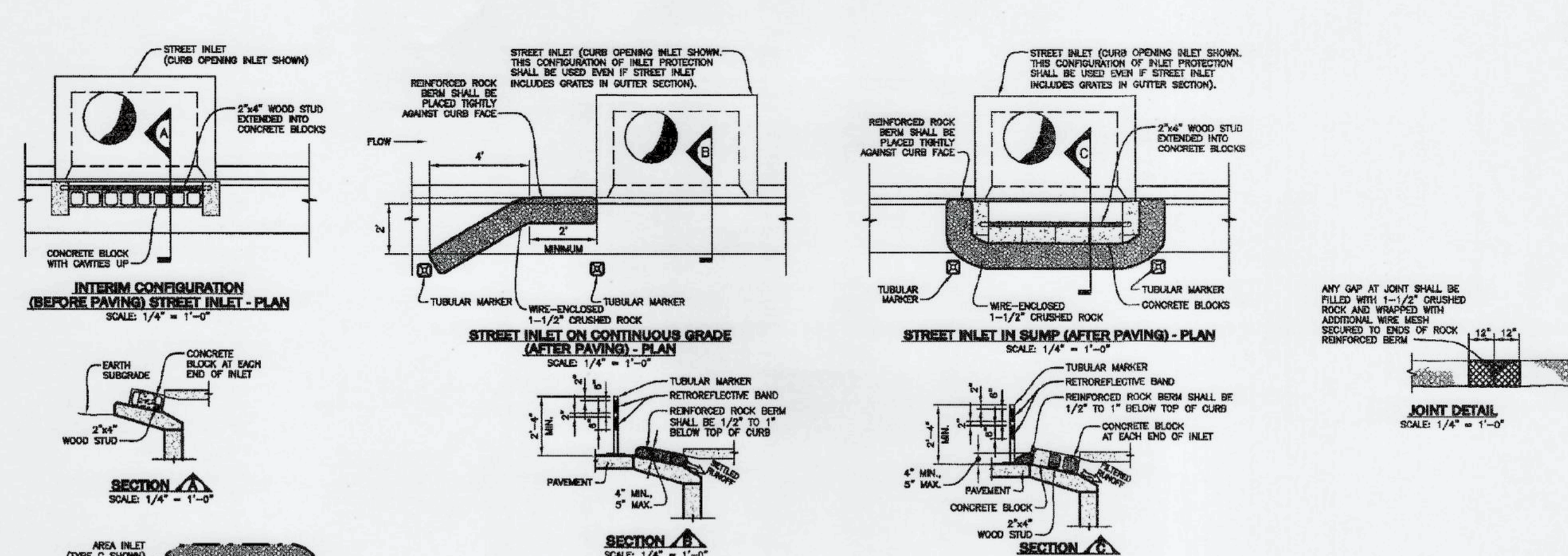
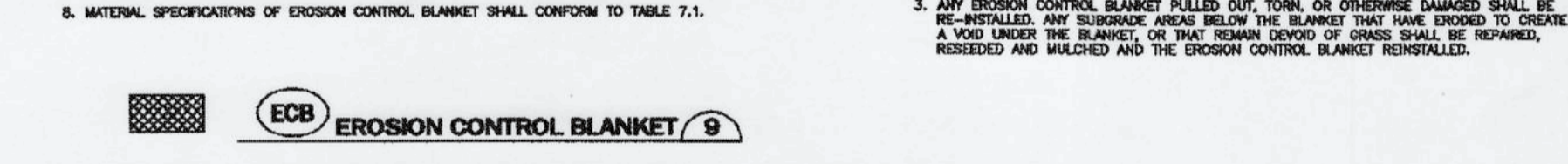
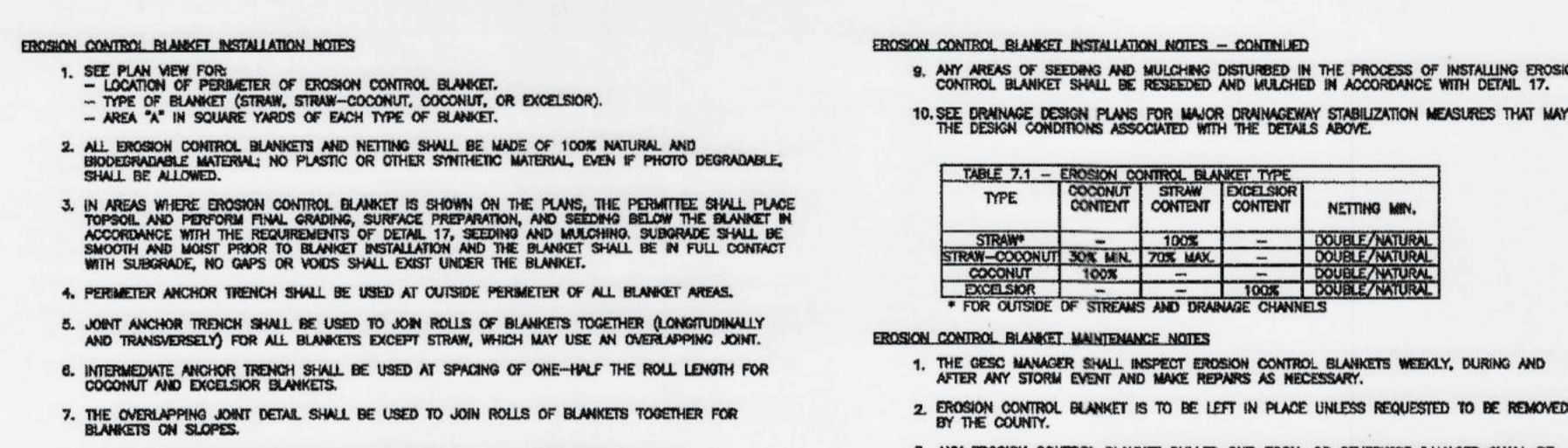
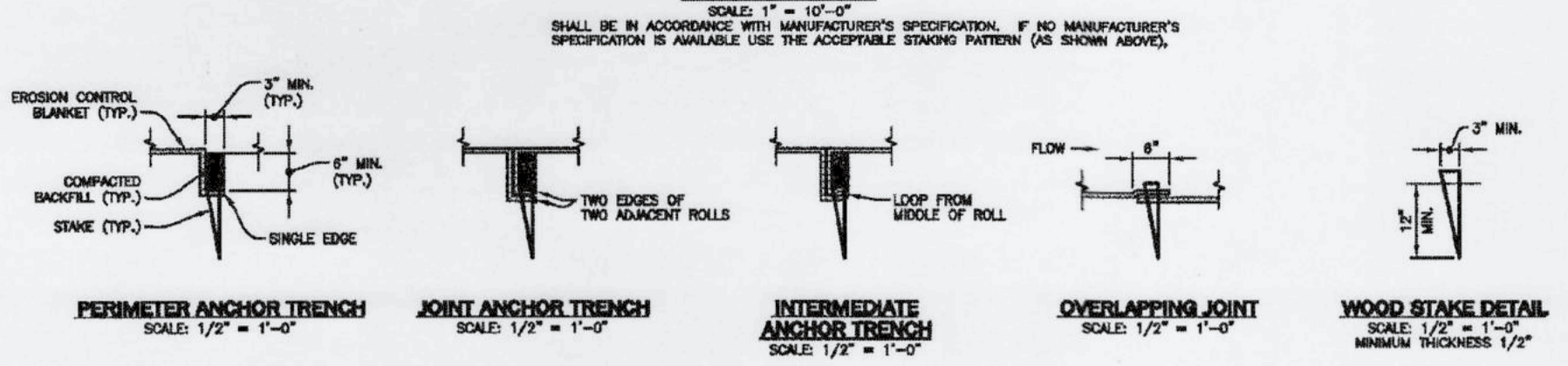
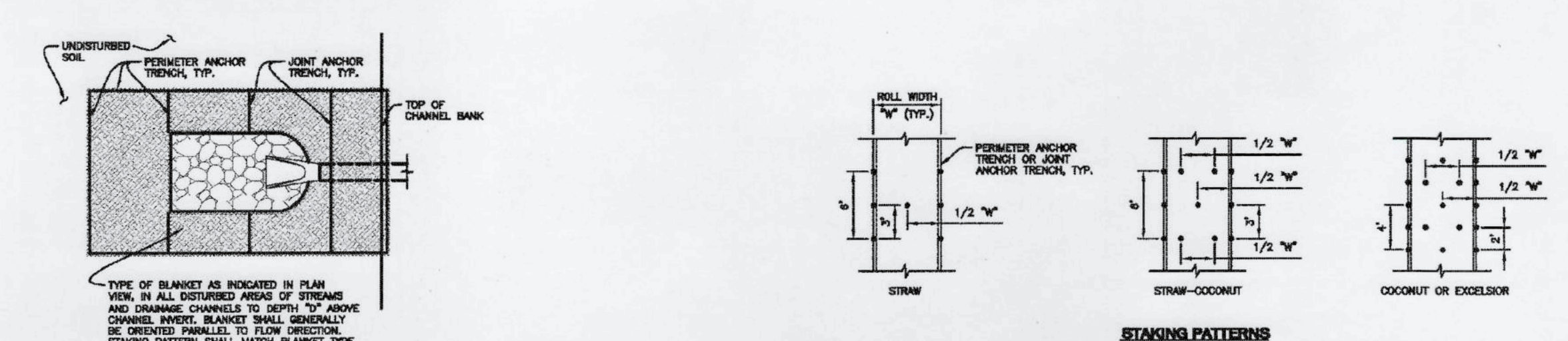
- ANY DAMAGED FENCE OR MARKERS SHALL BE REPAIRED ON A DAILY BASIS.
- FENCE OR MARKERS SHALL BE REMOVED AT THE END OF CONSTRUCTION, IF ANY DISTURBED AREAS EXIST AFTER FENCE REMOVAL, IT SHALL BE DRILL SEEDED AND CRMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.



COMPOST BLANKET NOTES

- SEE PLAN VIEW FOR LENGTH OF COMPOST FILTER BERM.
- SHALL BE APPLIED TO ALL SLOPES REQUIRING A COMPOST BLANKET AT 15' INTERVALS.
- FILTER BERMS SHALL RUN PARALLEL TO THE CONTOUR.
- FILTER BERMS SHALL BE A MINIMUM OF 1' H X 2' W.
- FILTER BERMS SHALL BE APPLIED UTILIZING PNEUMATIC BLOWER, OR BY HAND.
- SOIL PREPARATION SHALL BE COMPLETE PER THE SPECIFICATIONS OUTLINED IN THESE CRITERIA PRIOR TO APPLICATION.
- WHEN THESE 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.
- THE GESC MANAGER SHALL INSPECT WEEKLY, DURING AND AFTER ANY STORM EVENT.
- COMPOST USED IN THE APPLICATION OF THE COMPOST BLANKET SHALL BE A CLASS I COMPOST AS DETERMINED BY THE FOLLOWING PHYSICAL, CHEMICAL, AND BIOLOGICAL PARAMETERS:

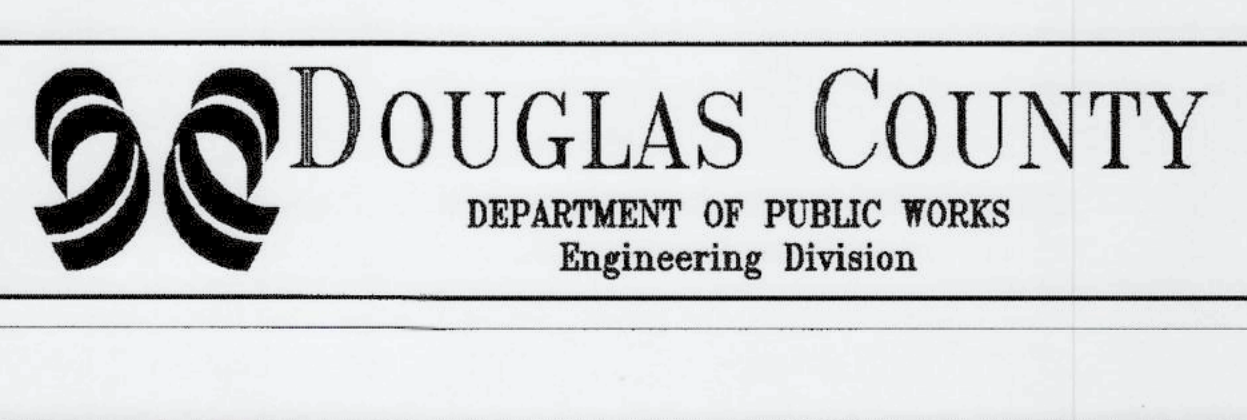
PARAMETER	CLASS I COMPOST FOR COMPOST BLANKET
MOISTURE CONTENT	30-60 %
PH	5.0 - 8.0
CEC	2 - 10
MAJORITY INDICATOR EXPRESSED AS PERCENTAGE OF ORGANIC MATTER	80/20
MAJORITY INDICATOR EXPRESSED AS ANOMALY IN NITROGEN	< 4
MAJORITY INDICATOR EXPRESSED AS ANOMALY IN PHOSPHORUS	20:1
TESTED FOR CLOSTRIDIA	YES/NEGATIVE RESULT
MOISTURE CONTENT	30-60 %
PH	5.0 - 8.0
CEC	2 - 10
MAJORITY INDICATOR EXPRESSED AS PERCENTAGE OF ORGANIC MATTER	80/20
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MOISTURE CONTENT	30-60 %
PH	5.0 - 8.0
CEC	2 - 10
MAJORITY INDICATOR EXPRESSED AS PERCENTAGE OF ORGANIC MAT	



Sheet Revisions

NO.	DATE	DESCRIPTION

NOTE: SCALES SHOWN ARE FOR 24"x36" SHEETS; ADJUST ACCORDINGLY FOR 11"x17" SHEETS.



GESC GRADING, EROSION, AND SEDIMENT CONTROL

GESC PLAN STANDARD NOTES AND DETAILS

SHEET 2 OF 3

Project: 10/13/2016 1:29 PM, Dwg Name: \\ms-dmv-nas\Projects\DMV\Projects\ComSouth03_Ultimate\Boford\Amd\Drawings\Plan Set\Douglas County\GESC DETAILS.dwg, Updated By: Adunker

