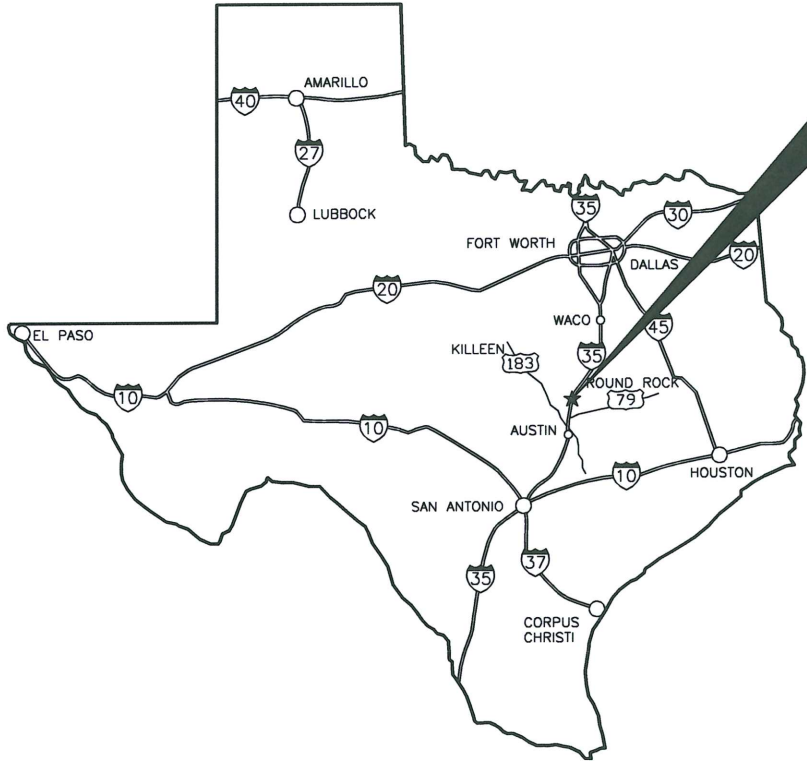


# CITY OF ROUND ROCK, TEXAS

## CONSTRUCTION PLANS FOR HESTER'S CROSSING CHANNEL IMPROVEMENTS



LOCATION MAP  
NOT TO SCALE

### SHEET INDEX

SHEET NO DESCRIPTION

- |   |   |
|---|---|
| 1 | COVER   |
| 2 | GENERAL NOTES AND LEGEND                            |
| 3 | SITE PLAN, EROSION CONTROL AND TREE PROTECTION PLAN |
| 4 | CHANNEL PLAN AND PROFILE STA. 1+00 TO 2+00          |
| 5 | CHANNEL PLAN AND PROFILE STA. 2+00 TO END           |
| 6 | CHANNEL CROSS SECTIONS                              |
| 7 | CHANNEL CROSS SECTIONS                              |
| 8 | EROSION CONTROL DETAILS                             |
| 9 | MISCELLANEOUS DETAILS                               |

REVISION TABLE			
No.	DESCRIPTION	BY	DATE

NOVEMBER 2016

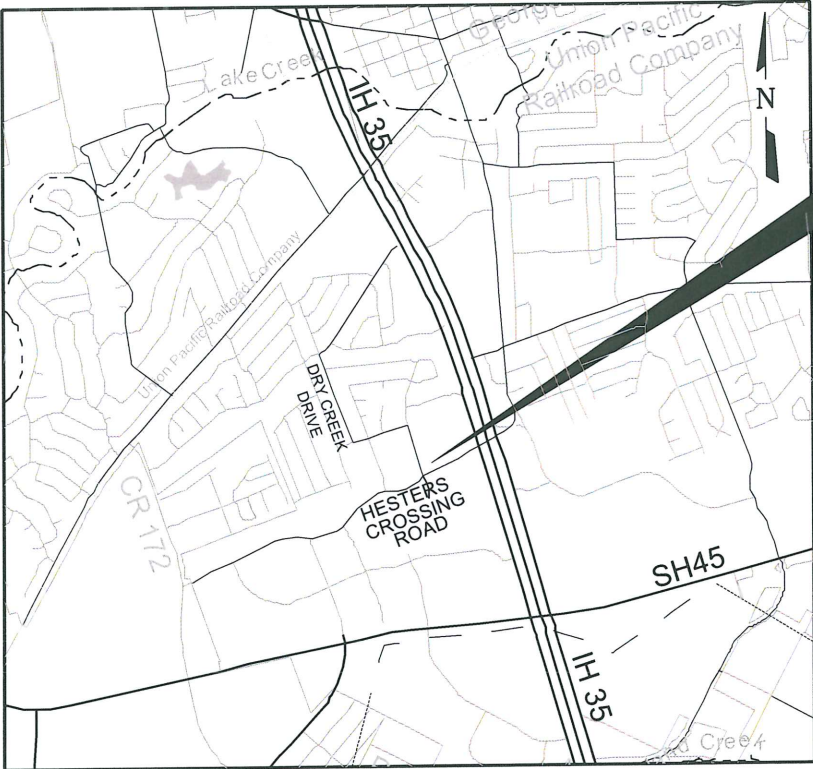
100% SUBMITTAL



10431 Morado Circle, Suite 300  
Austin, Texas 78759  
Phone - (512) 617-3100  
Fax - (512) 617-3101  
Web - www.freese.com

Freese and Nichols, Inc.  
Texas Registered Engineering Firm F-2144

RRK16426



VICINITY MAP  
NOT TO SCALE

### PROJECT INFORMATION:

STREET ADDRESS:  
500 HESTER'S CROSSING ROAD  
ROUND ROCK, TEXAS 78681

OWNER  
CITY OF ROUND ROCK

CONTACT:  
FEDERICO SANCHEZ  
PROJECT MANAGER  
PH. 512-218-6609

STATE OF TEXAS  
COUNTY OF WILLIAMSON

I, KIMBERLY K. PATAK, DO HEREBY CERTIFY THAT THE PUBLIC  
WORKS AND DRAINAGE IMPROVEMENTS DESCRIBED HEREIN HAVE  
BEEN DESIGNED IN COMPLIANCE WITH THE STORMWATER DRAINAGE  
POLICY ADOPTED BY THE CITY OF ROUND ROCK, TEXAS.

*Kimberly K. Patak* 11-17-2016  
(SEAL AND SIGNATURE OF PROFESSIONAL ENGINEER) DATE

"ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS  
REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN  
ACCEPTING THESE PLANS, THE CITY OF ROUND ROCK MUST  
RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN  
ENGINEER."

ACCEPTED FOR CONSTRUCTION:

*Federico Sanchez* 11/18/16  
CITY OF ROUND ROCK, TEXAS DATE



1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF ROUND ROCK STANDARD SPECIFICATIONS MANUAL.
2. ANY EXISTING UTILITIES, PAVEMENT, CURBS, SIDEWALKS, STRUCTURES, TREES, ETC., NOT PLANNED FOR DESTRUCTION OR REMOVAL THAT ARE DAMAGED OR REMOVED BY CONTRACTOR SHALL BE REPAIRED OR REPLACED AT HIS EXPENSE.
3. THE CONTRACTOR SHALL VERIFY ALL DEPTHS AND LOCATIONS OF EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. ANY DISCREPANCIES WITH THE CONSTRUCTION PLANS FOUND IN THE FIELD SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE ENGINEER WHO SHALL BE RESPONSIBLE FOR REVISING THE PLANS AS APPROPRIATE.
4. MANHOLE FRAMES, COVERS, VALVES, CLEANOUTS, ETC. SHALL BE RAISED TO FINISHED GRADE PRIOR TO FINAL PAVING CONSTRUCTION.
5. THE CONTRACTOR SHALL GIVE THE CITY OF ROUND ROCK 48 HOURS NOTICE BEFORE BEGINNING EACH PHASE OF CONSTRUCTION.
6. ALL AREAS DISTURBED OR EXPOSED DURING CONSTRUCTION SHALL BE REVEGETATED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. REVEGETATION OF ALL DISTURBED OR EXPOSED AREAS SHALL CONSIST OF SODDING OR SEEDING, AT THE CONTRACTOR'S OPTION. HOWEVER, THE TYPE OF REVEGETATION MUST EQUAL OR EXCEED THE TYPE OF VEGETATION PRESENT BEFORE CONSTRUCTION.
7. PRIOR TO ANY CONSTRUCTION, THE ENGINEER SHALL CONVENE A PRECONSTRUCTION CONFERENCE BETWEEN THE CITY OF ROUND ROCK, HIMSELF, THE CONTRACTOR, OTHER UTILITY COMPANIES, ANY AFFECTED PARTIES AND ANY OTHER ENTITY THE CITY OR ENGINEER MAY REQUIRE.
8. THE CONTRACTOR AND THE ENGINEER SHALL KEEP ACCURATE RECORDS OF ALL CONSTRUCTION THAT DEVIATES FROM THE PLANS. THE ENGINEER SHALL FURNISH THE CITY OF ROUND ROCK ACCURATE "AS-BUILT" DRAWINGS FOLLOWING COMPLETION OF ALL CONSTRUCTION. THESE "AS-BUILT" DRAWINGS SHALL MEET WITH THE SATISFACTION OF THE ENGINEERING AND DEVELOPMENT SERVICES DEPARTMENT PRIOR TO FINAL ACCEPTANCE.
9. THE ROUND ROCK CITY COUNCIL SHALL NOT BE PETITIONED FOR ACCEPTANCE UNTIL ALL NECESSARY EASEMENT DOCUMENTS HAVE BEEN SIGNED AND RECORDED.
10. WHEN CONSTRUCTION IS BEING CARRIED OUT WITHIN EASEMENTS, THE CONTRACTOR SHALL CONFINE HIS WORK TO WITHIN THE PERMANENT AND ANY TEMPORARY EASEMENTS. PRIOR TO FINAL ACCEPTANCE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL TRASH AND DEBRIS WITHIN THE PERMANENT AND TEMPORARY EASEMENTS. CLEAN-UP SHALL BE TO THE SATISFACTION OF THE CITY ENGINEER.
11. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL APPLY FOR AND SECURE ALL PROPER PERMITS FROM THE APPROPRIATE AUTHORITIES.
12. AVAILABLE BENCHMARKS (CITY OF ROUND ROCK DATUM) THAT MAY BE UTILIZED FOR THE CONSTRUCTION OF THIS PROJECT ARE DESCRIBED AS FOLLOWS:

3. NO TEMPORARY ABOVEGROUND HYDROCARBON AND HAZARDOUS SUBSTANCE STORAGE TANK SYSTEM IS INSTALLED WITHIN 150 FEET OF A DOMESTIC, INDUSTRIAL, IRRIGATION, OR PUBLIC WATER SUPPLY WELL, OR OTHER SENSITIVE FEATURE.
2. PRIOR TO COMMENCEMENT OF CONSTRUCTION, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY SELECTED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND GOOD ENGINEERING PRACTICES. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE CONTRACTOR MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THE CONTROLS MUST REMAIN IN PLACE UNTIL DISTURBED AREAS ARE REVEGETATED AND THE AREAS HAVE BECOME PERMANENTLY STABILIZED.
3. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFFSITE IMPACTS TO WATER QUALITY (E.G., FUGITIVE SEDIMENT IN STREET BEING WASHED INTO SURFACE STREAMS OR SENSITIVE FEATURES BY THE NEXT RAIN).
4. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS NOT LATER THAN WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50%. A PERMANENT STAKE MUST BE PROVIDED THAT CAN INDICATE WHEN THE SEDIMENT OCCUPIES 50% OF THE BASIN VOLUME.
5. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES (E.G., SCREENING OUTFALLS, PICKED UP DAILY).
6. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S CONTROLS.
7. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

1. IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, ALL TRENCHES OVER 5 FEET IN DEPTH IN EITHER HARD AND COMPACT OR SOFT AND UNSTABLE SOIL SHALL BE SLOPED, SHORED, SHEETED, BRACED OR OTHERWISE SUPPORTED. FURTHERMORE, ALL TRENCHES LESS THAN 5 FEET IN DEPTH SHALL ALSO BE EFFECTIVELY PROTECTED WHEN HAZARDOUS GROUND MOVEMENT MAY BE EXPECTED.
2. IN ACCORDANCE WITH THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, WHEN PERSONS ARE IN TRENCHES 4- FEET DEEP OR MORE, ADEQUATE MEANS OF EXIT, SUCH AS A LADDER OR STEPS, MUST BE PROVIDED AND LOCATED SO AS TO REQUIRE NO MORE THAN 25 FEET OF LATERAL TRAVEL.
3. IF TRENCH SAFETY SYSTEM DETAILS WERE NOT PROVIDED IN THE PLANS BECAUSE TRENCHES WERE ANTICIPATED TO BE LESS THAN 5 FEET IN DEPTH AND DURING CONSTRUCTION IT IS FOUND THAT TRENCHES ARE IN FACT 5 FEET OR MORE IN DEPTH OR TRENCHES LESS THAN 5 FEET IN DEPTH ARE IN AN AREA WHERE HAZARDOUS GROUND MOVEMENT IS EXPECTED, ALL CONSTRUCTION SHALL CEASE, THE TRENCHED AREA SHALL BE BARRICADED AND THE ENGINEER NOTIFIED IMMEDIATELY. CONSTRUCTION SHALL NOT RESUME UNTIL APPROPRIATE TRENCH SAFETY SYSTEM DETAILS, AS DESIGNED BY A PROFESSIONAL ENGINEER, ARE RETAINED AND COPIES SUBMITTED TO THE CITY OF ROUND ROCK.

	EXISTING CONTOUR MAJOR
	EXISTING CONTOUR MINOR
	PROPOSED CONTOUR MAJOR
	PROPOSED CONTOUR MINOR
	LIMITS OF CONSTRUCTION
	LIMITS OF CONSTRUCTION SHOWN AS ORANGE SAFETY FENCE
	LIMITS OF CONSTRUCTION SHOWN AS EROSION CONTROL LOG
	EXISTING DRAINAGE EASEMENT
	PROPERTY LINE
	WASTEWATER LINE
	WATER LINE
	TREE
	PROPERTY CORNER FOUND
	UTILITY POLE
	GUY WIRE
	OVERHEAD ELECTRIC LINE
	TELEPHONE PEDESTAL SIGN
	FIRE HYDRANT
	WASTEWATER MANHOLE
	STORM DRAIN MANHOLE
	TREE
	CONCRETE
	EXISTING GABION
	NEW GABION
	PERMANENT TURF REINFORCEMENT
	NEW ROCK RIPRAP
	NEW VEGETATED COIR ROLL
	ONSITE CHANNEL BORROW

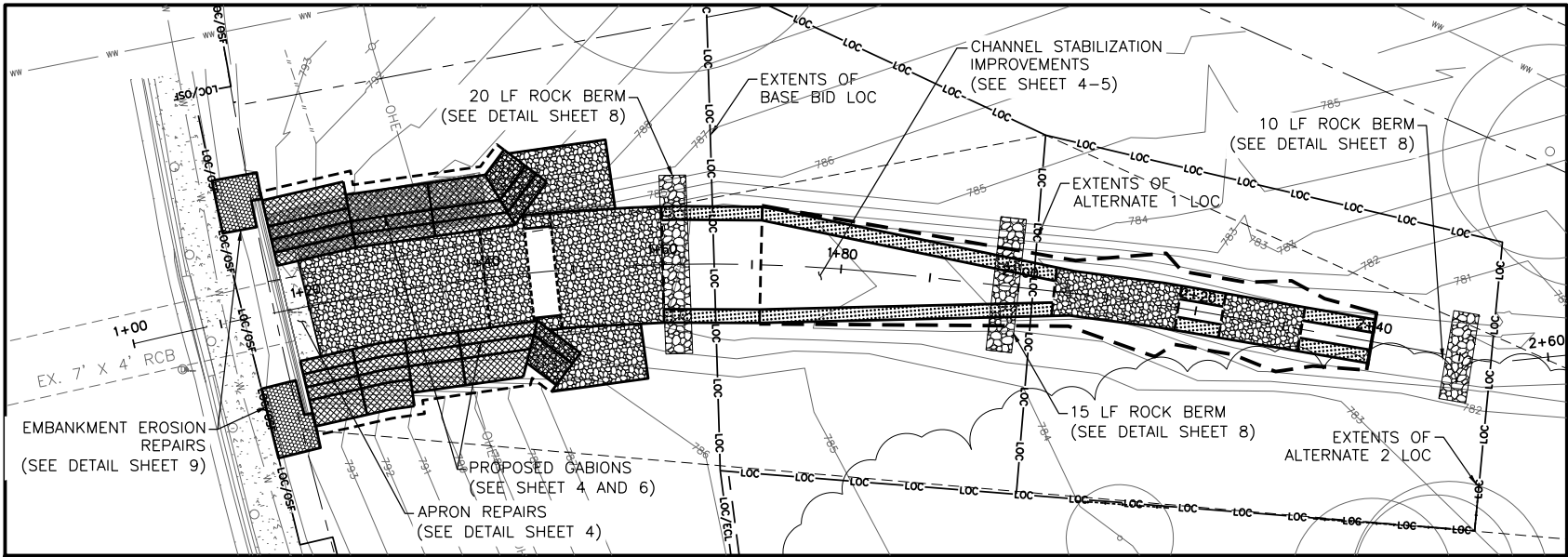
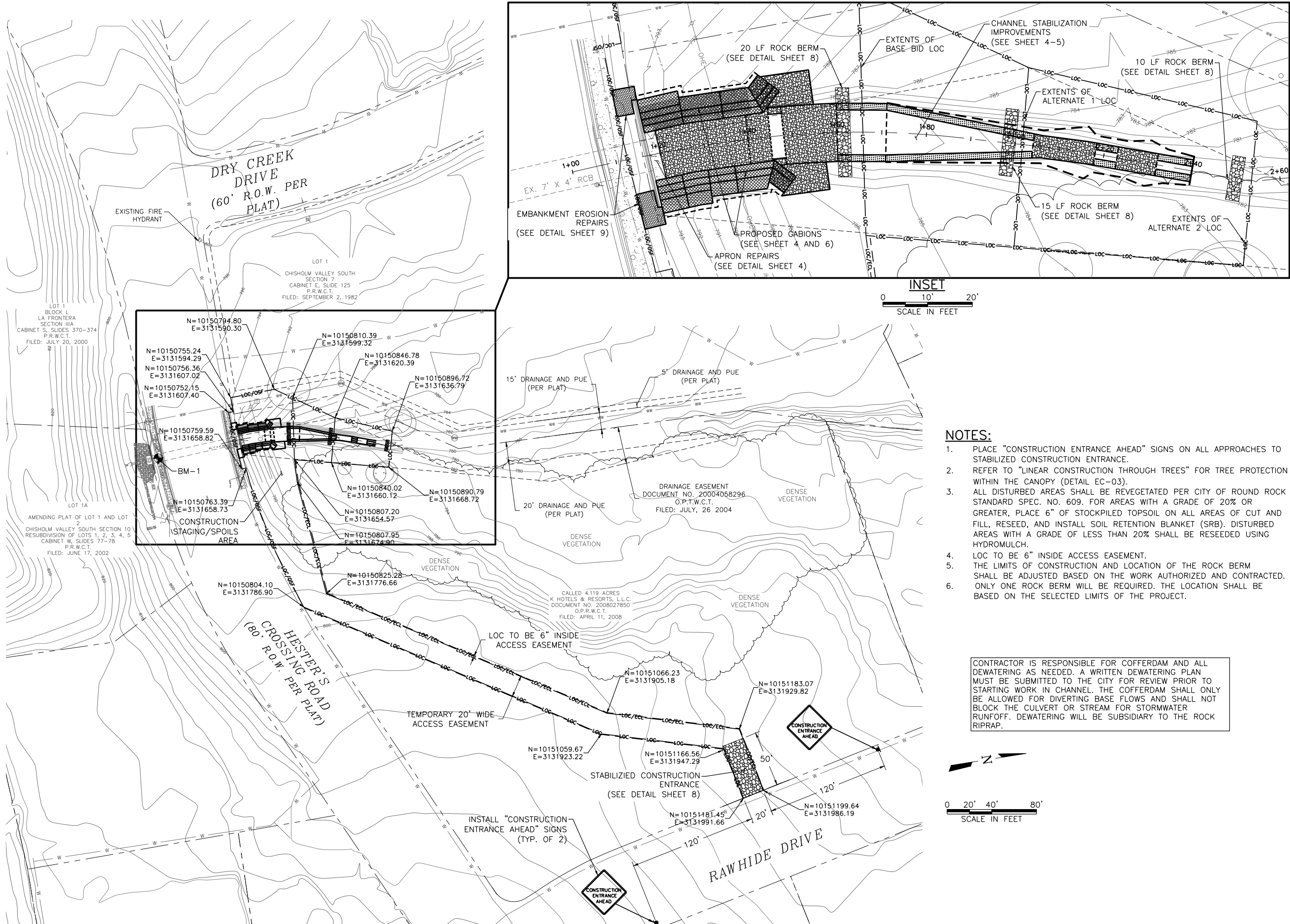
APPROX.	APPROXIMATE
BM	BENCHMARK
CL OR CL	CENTERLINE
CONC.	CONCRETE
CONT.	CONTINUOUS
E	EAST
ECL	EROSION CONTROL LOG
ELEV.	ELEVATION
EXIST	EXISTING
F.V.	FIELD VERIFY
FL.	FLOW LINE
HORZ.	HORIZONTAL
INV.	INVERT
LF	LINEAR FEET
LOC	LIMITS OF CONSTRUCTION
MAX.	MAXIMUM
MCB	MULTIPLE BOX CULVERT
MIN.	MINIMUM
N	NORTH
PVMT.	PAVEMENT
PC	POINT OF CURVATURE
PT	POINT OF TANGENCY
PTRM	PERMANENT TURF REINFORCEMENT MATTING
R	RADIUS
RC	RADIUS OF CURVATURE
S	SOUTH
SF	SILT FENCE
STA.	STATION
TYP.	TYPICAL
VERT.	VERTICAL
VPI	VERTICAL POINT OF INFLECTION
W/	WITH
WL	WATER LINE

1. EROSION CONTROL MEASURES, SITE WORK AND RESTORATION WORK SHALL BE IN ACCORDANCE WITH THE CITY OF ROUND ROCK EROSION AND SEDIMENTATION CONTROL ORDINANCE.
2. ALL SLOPES SHALL BE SODDED OR SEEDDED WITH APPROVED GRASS, GRASS MIXTURES OR GROUND COVER SUITABLE TO THE AREA AND SEASON IN WHICH THEY ARE APPLIED.
3. SILT FENCES, ROCK BERMS, SEDIMENTATION BASINS AND SIMILARLY RECOGNIZED TECHNIQUES AND MATERIALS SHALL BE EMPLOYED DURING CONSTRUCTION TO PREVENT POINT SOURCE SEDIMENTATION LOADING OF DOWNSTREAM FACILITIES. SUCH INSTALLATION SHALL BE REGULARLY INSPECTED BY THE CITY OF ROUND ROCK FOR EFFECTIVENESS. ADDITIONAL MEASURES MAY BE REQUIRED IF, IN THE OPINION OF THE CITY ENGINEER, THEY ARE WARRANTED.
4. ALL TEMPORARY EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL FINAL INSPECTION AND APPROVAL OF THE PROJECT BY THE ENGINEER. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL TEMPORARY EROSION CONTROL STRUCTURES AND TO REMOVE EACH STRUCTURE AS APPROVED BY THE ENGINEER.
5. ALL MUD, DIRT, ROCKS, DEBRIS, ETC., SPILLED, TRACKED OR OTHERWISE DEPOSITED ON EXISTING PAVED STREETS, DRIVES, AND AREAS USED BY THE PUBLIC BE CLEANED UP IMMEDIATELY.
6. ALL AREAS DISTURBED OR EXPOSED DURING CONSTRUCTION SHALL BE REVEGETATED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.



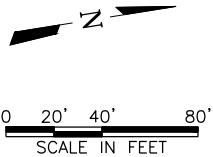
ACAD Rel: 201s (LMS Tech)  
Filename: N:\SW\Drawings\CV-RRK-PL-SITE.dwg  
Last Saved: 11/16/2016 7:40 AM Saved By: no

Plot Date: 11/16/2016 7:56 AM Plot By: no Filename: N:\SW\Drawings\CV-RRK-PL-SITE.dwg



- NOTES:**
1. PLACE "CONSTRUCTION ENTRANCE AHEAD" SIGNS ON ALL APPROACHES TO STABILIZED CONSTRUCTION ENTRANCE.
  2. REFER TO "LINEAR CONSTRUCTION THROUGH TREES" FOR TREE PROTECTION WITHIN THE CANOPY (DETAIL EC-03).
  3. ALL DISTURBED AREAS SHALL BE REVEGETATED PER CITY OF ROUND ROCK STANDARD SPEC. NO. 609. FOR AREAS WITH A GRADE OF 20% OR GREATER, PLACE 6" OF STOCKPILED TOPSOIL ON ALL AREAS OF CUT AND FILL, RESEED, AND INSTALL SOIL RETENTION BLANKET (SRB). DISTURBED AREAS WITH A GRADE OF LESS THAN 20% SHALL BE RESEED USING HYDROMULCH.
  4. LOC TO BE 6" INSIDE ACCESS EASEMENT.
  5. THE LIMITS OF CONSTRUCTION AND LOCATION OF THE ROCK BERM SHALL BE ADJUSTED BASED ON THE WORK AUTHORIZED AND CONTRACTED. ONLY ONE ROCK BERM WILL BE REQUIRED. THE LOCATION SHALL BE BASED ON THE SELECTED LIMITS OF THE PROJECT.
  - 6.

CONTRACTOR IS RESPONSIBLE FOR COFFERDAM AND ALL DEWATERING AS NEEDED. A WRITTEN DEWATERING PLAN MUST BE SUBMITTED TO THE CITY FOR REVIEW PRIOR TO STARTING WORK IN CHANNEL. THE COFFERDAM SHALL ONLY BE ALLOWED FOR DIVERTING BASE FLOWS AND SHALL NOT BLOCK THE CULVERT OR STREAM FOR STORMWATER RUNOFF. DEWATERING WILL BE SUBSIDIARY TO THE ROCK RIPRAP.



Freese and Nichols, Inc.  
Texas Registered Engineering Firm F-2144

10431 Morado Circle, Suite 300  
Austin, Texas 78759  
Phone - (512) 617-3100  
Fax - (512) 617-3101  
Web - www.freese.com

CITY OF ROUND ROCK, TEXAS

HESTER'S CROSSING CHANNEL IMPROVEMENTS

SITE PLAN, EROSION CONTROL AND TREE PROTECTION PLAN

NO.	REVISION	BY	DATE	FILE NAME	FILE NAME
				CV-RRK-PL-SITE.dwg	

FILE NO. RPK16426

DATE 8/29/16

DESIGNED WEH

DRAWN NO

REVIEWED KKP

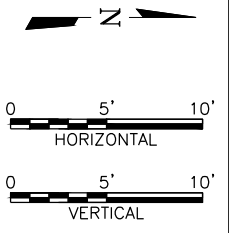
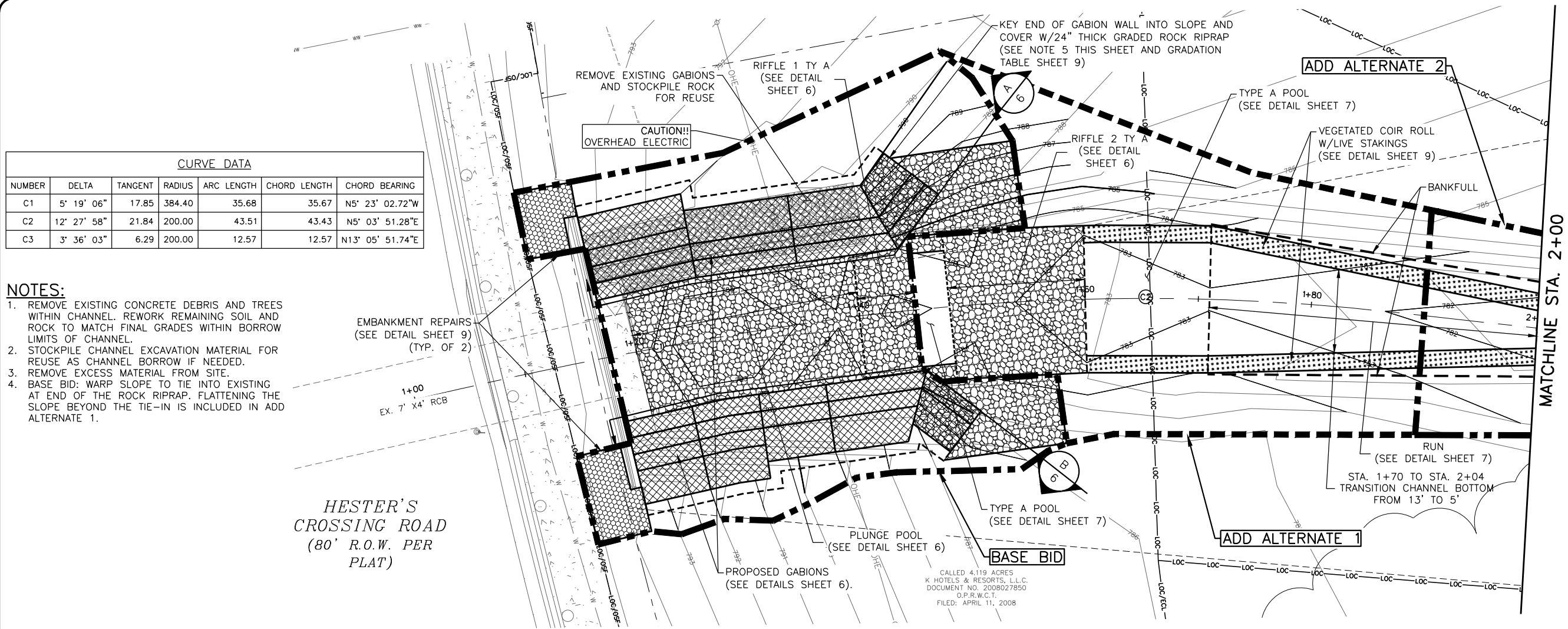
CHECKED JWS

VERIFY SCALE: Bar is one inch on original drawing, if not one inch on this sheet, adjust scale.

SHEET 3

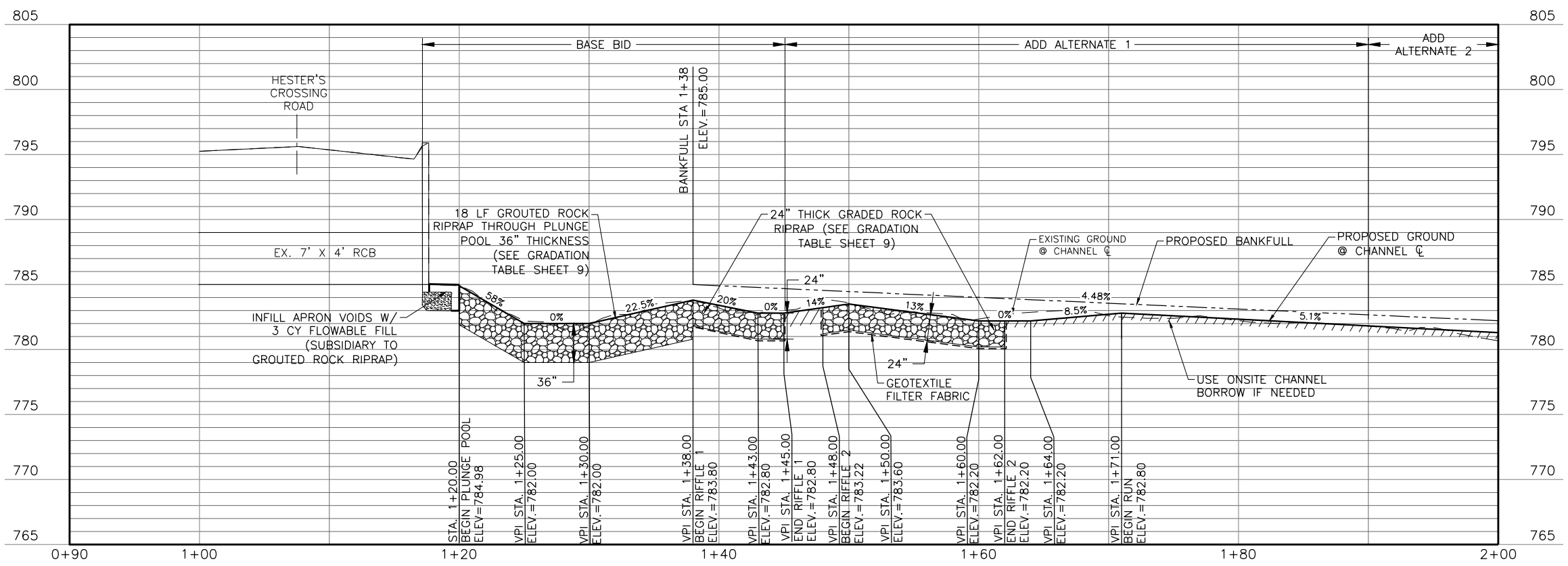
SEQ. 3 OF 9

ACAD Rel: 201s (LMS Tech)  
Filename: N:\SW\Drawings\CV-RRK-PP-CHNL.dwg  
Last Saved: 11/16/2016 7:52 AM Saved By: no



CURVE DATA						
NUMBER	DELTA	TANGENT	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C1	5° 19' 06"	17.85	384.40	35.68	35.67	N5° 23' 02.72"W
C2	12° 27' 58"	21.84	200.00	43.51	43.43	N5° 03' 51.28"E
C3	3° 36' 03"	6.29	200.00	12.57	12.57	N13° 05' 51.74"E

- NOTES:
1. REMOVE EXISTING CONCRETE DEBRIS AND TREES WITHIN CHANNEL. REWORK REMAINING SOIL AND ROCK TO MATCH FINAL GRADES WITHIN BORROW LIMITS OF CHANNEL.
  2. STOCKPILE CHANNEL EXCAVATION MATERIAL FOR REUSE AS CHANNEL BORROW IF NEEDED.
  3. REMOVE EXCESS MATERIAL FROM SITE.
  4. BASE BID: WARP SLOPE TO TIE INTO EXISTING AT END OF THE ROCK RIPRAP. FLATTENING THE SLOPE BEYOND THE TIE-IN IS INCLUDED IN ADD ALTERNATE 1.



Freese and Nichols, Inc.  
Texas Registered Engineering Firm F-2144

CITY OF ROUND ROCK, TEXAS

HESTER'S CROSSING CHANNEL IMPROVEMENTS

CHANNEL PLAN AND PROFILE STA. 1+00 TO 2+00

NO.	REVISION	BY	DATE	FILE NAME	FILE NAME
0				CV-RRK-PP-CHNL.dwg	CV-RRK-PP-CHNL.dwg

VERIFY SCALE: Bar is one inch on original drawing; if not one inch on this sheet, adjust scale.

DESIGNED: WEH  
DRAWN: NO  
CHECKED: WEH  
KKP

8/29/16  
RRK16426

DATE

FILE NAME

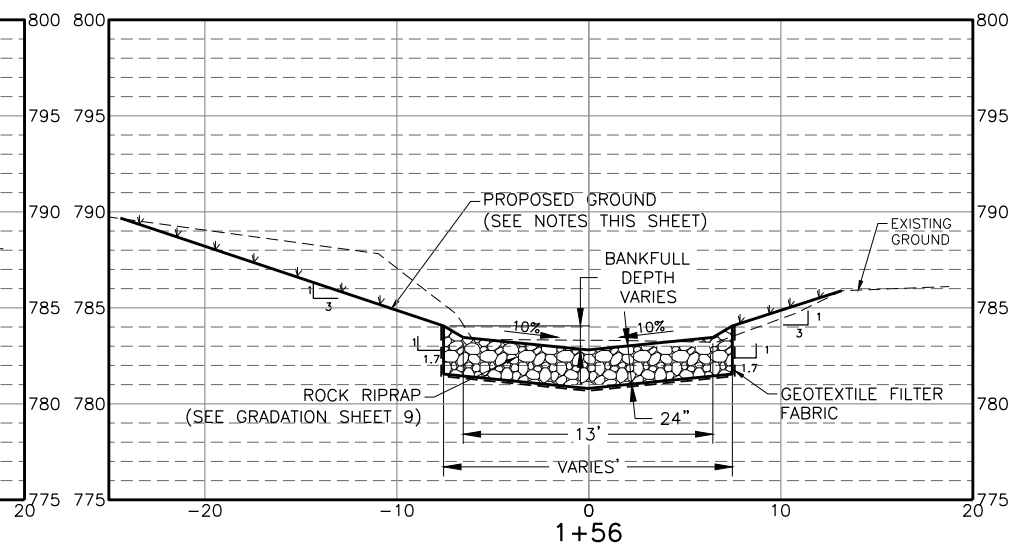
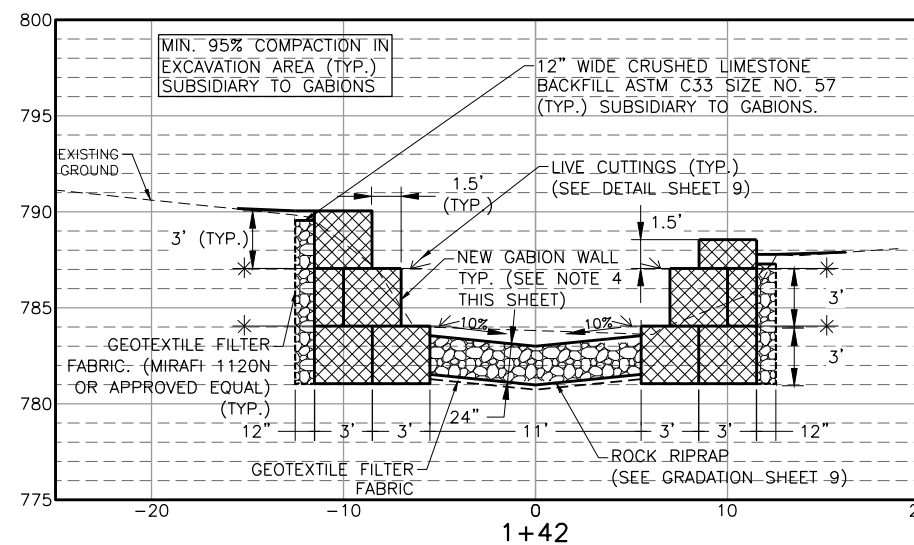
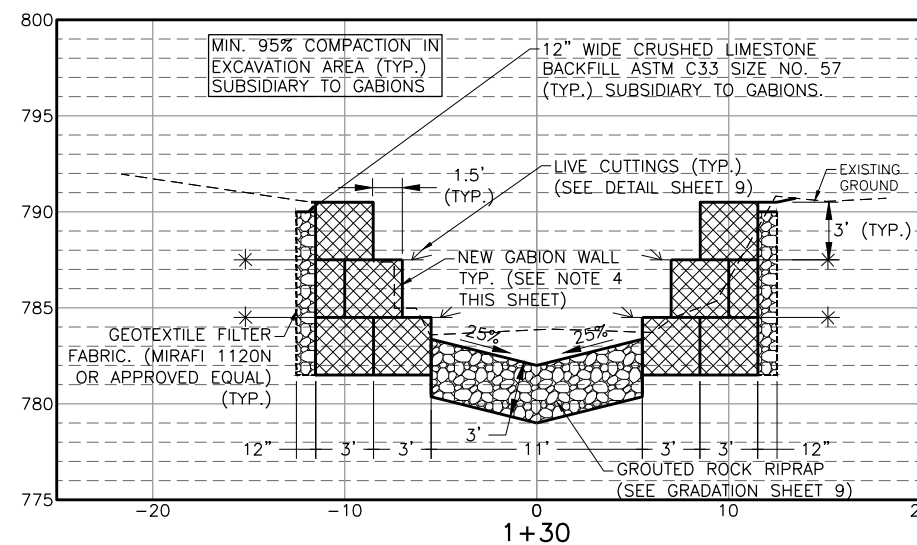
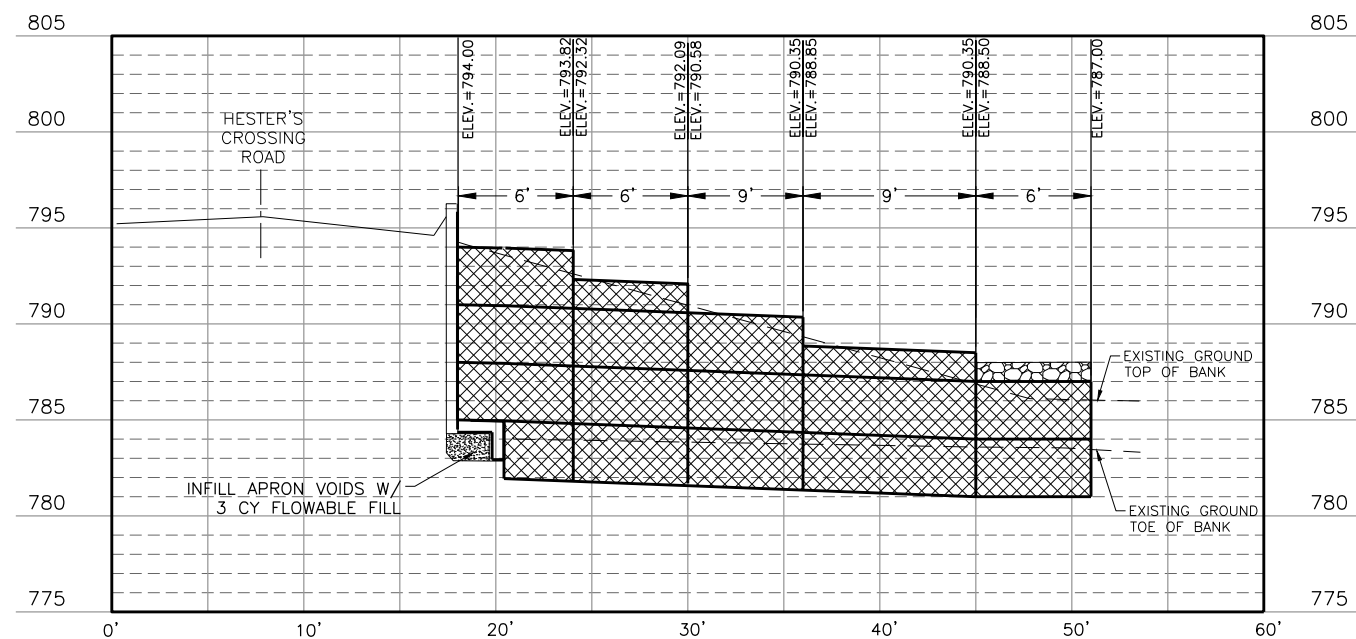
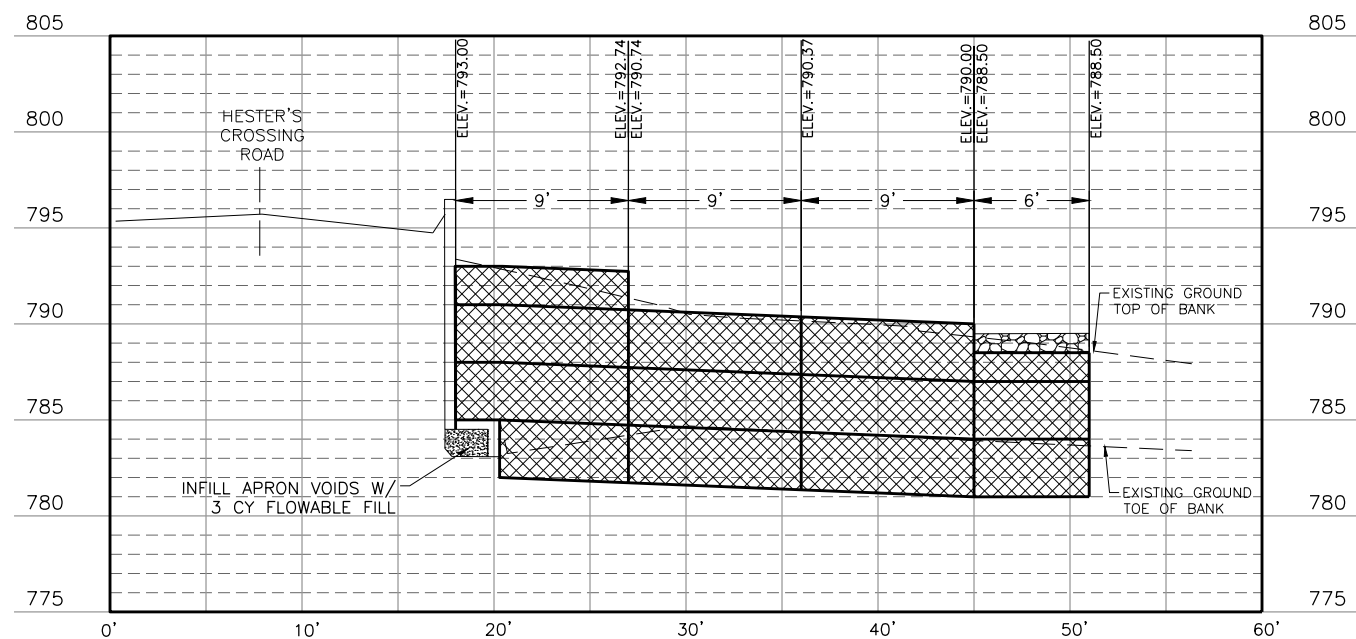
FILE NAME

4

4 OF 9

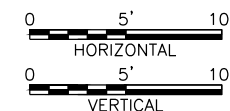






NOTES:


1. IN AREAS REQUIRING CUT/FILL CONTRACTOR SHALL STRIP 6" OF EXISTING TOPSOIL AND STOCKPILE FOR REUSE.
2. EXCAVATED ONSITE NATURAL MATERIALS SHALL BE USED FOR ONSITE BORROW. EXCESS MATERIAL SHALL BE REMOVED FROM THE SITE.
3. ALL DISTURBED AREAS SHALL BE REVEGETATED PER CITY OF ROUND ROCK STANDARD SPEC. NO. 609. FOR AREAS WITH A GRADE OF 20% OR GREATER, PLACE 6" OF STOCKPILED TOPSOIL ON ALL AREAS OF CUT AND FILL, RESEED, AND INSTALL SOIL RETENTION BLANKET (SRB). DISTURBED AREAS WITH A GRADE OF LESS THAN 20% SHALL BE RESEEDING USING HYDROMULCH.
4. GABIONS SHALL BE CONSTRUCTED USING TWISTED WOVEN MESH AND 10 GAGE WIRE.

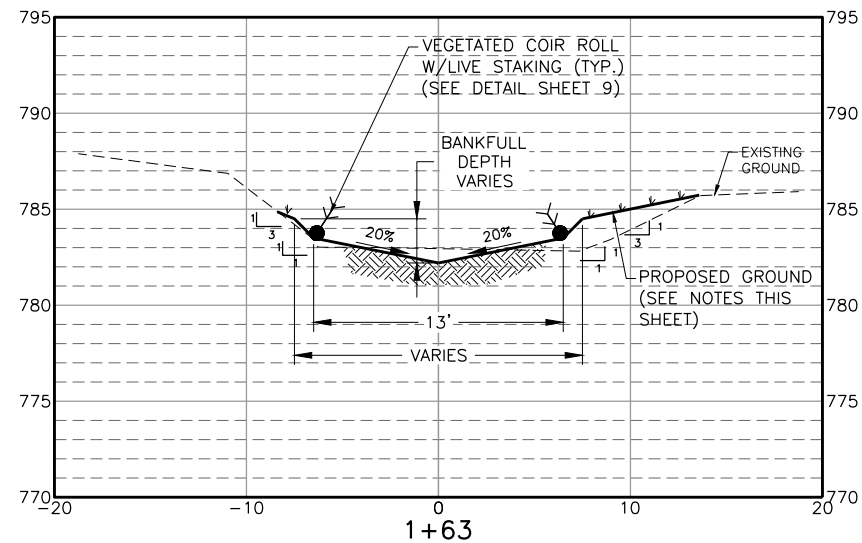


**FREESE & NICHOLS**  
10431 Morado Circle, Suite 300  
Austin, Texas 78759  
Phone - (512) 617-3100  
Fax - (512) 617-3101

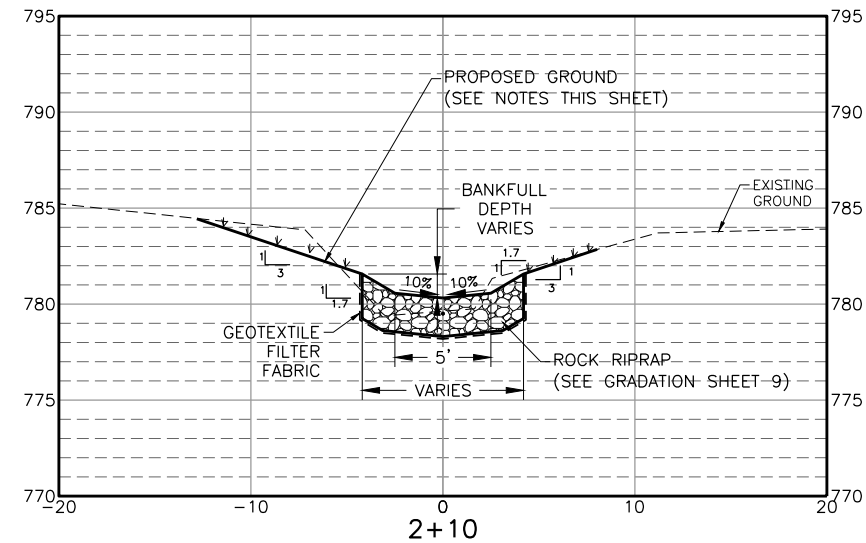
CITY OF ROUND ROCK, TEXAS  
HESTER'S CROSSING CHANNEL IMPROVEMENTS

## CHANNEL CROSS SECTIONS

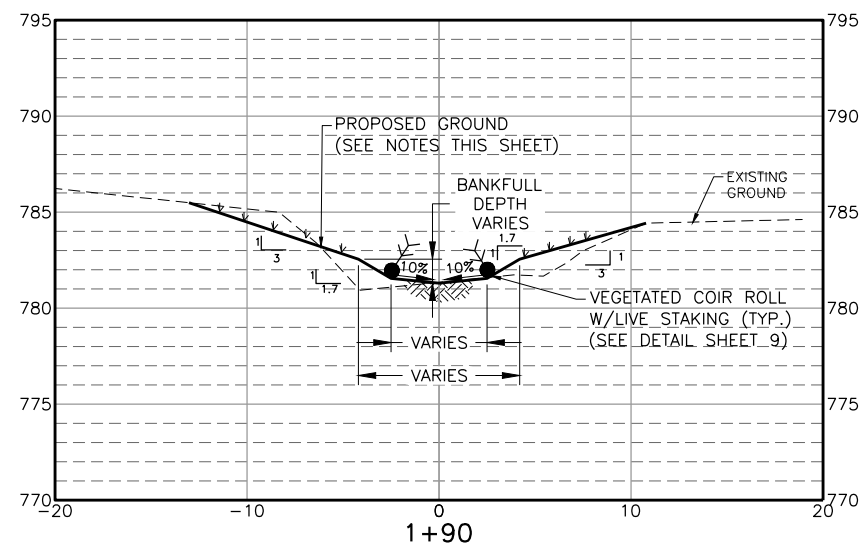
NO.	REVISION	BY	DATE	P&N JOB NO.
				RRK16426
			DATE	8/29/16
			DESIGNED	WEH
			DRAWN	NO
			REVISED	WEH
			CHECKED	KFP
VERIFY SCALE  Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.				FILE NAME CV-RRK-XS-CHNL.dwg



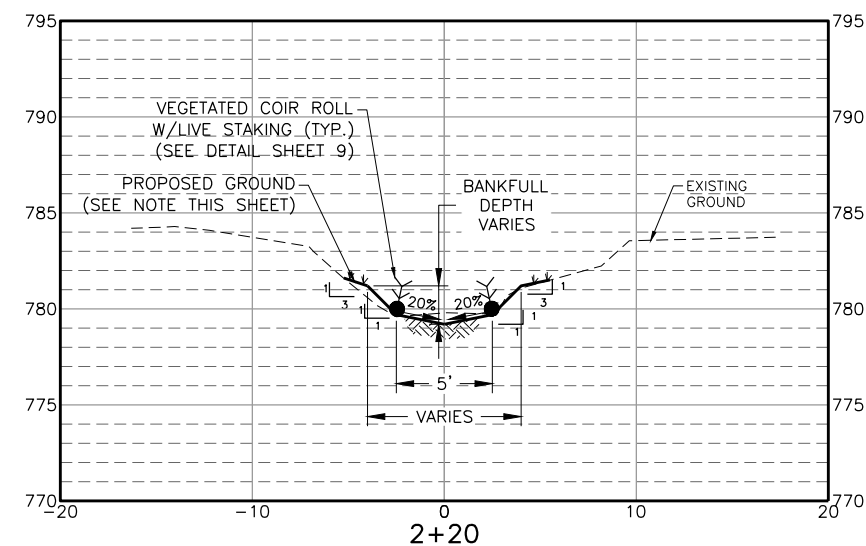
POOL-TYPE A  
TYPICAL SECTION (ADD ALTERNATE 1)



RIFFLE-TYPE B  
TYPICAL SECTION (ADD ALTERNATE 2)



4  
-  
RUN-TYPICAL  
SECTION (ADD ALTERNATE 1 AND 2)

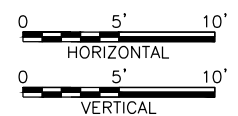


6  
—

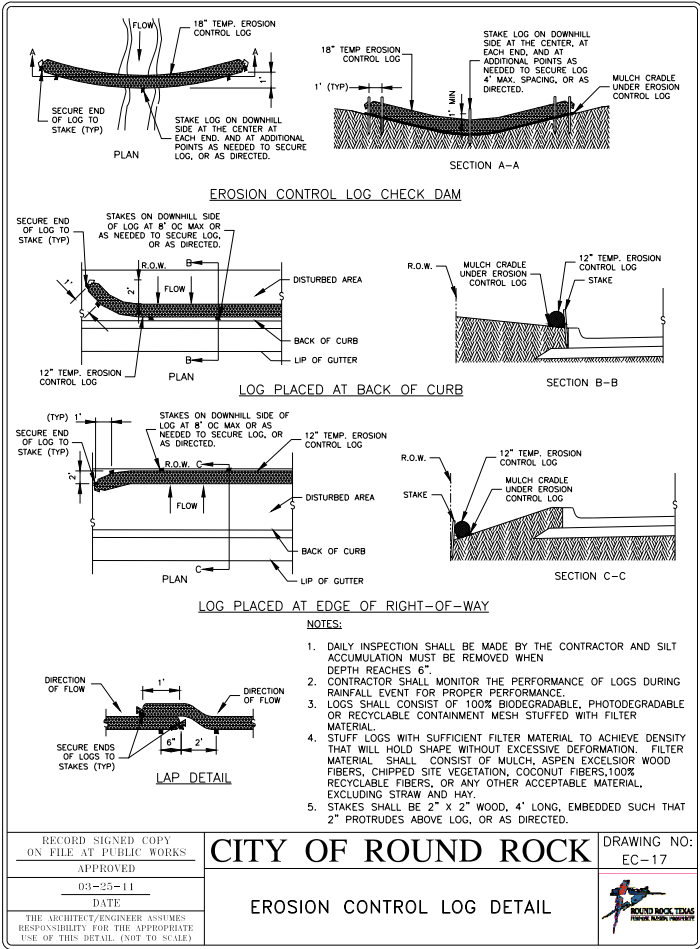
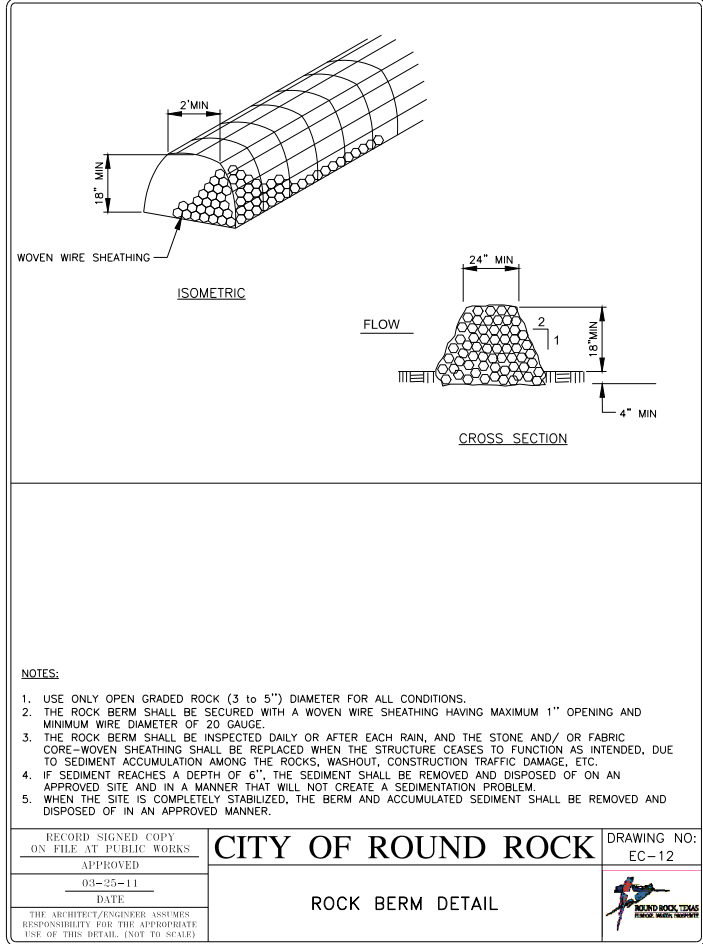
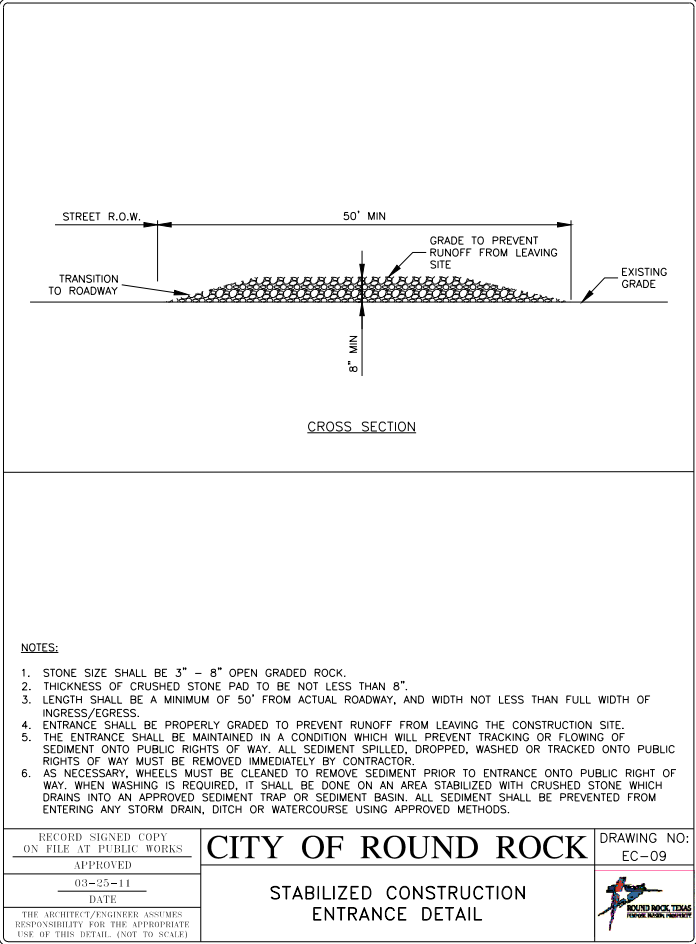
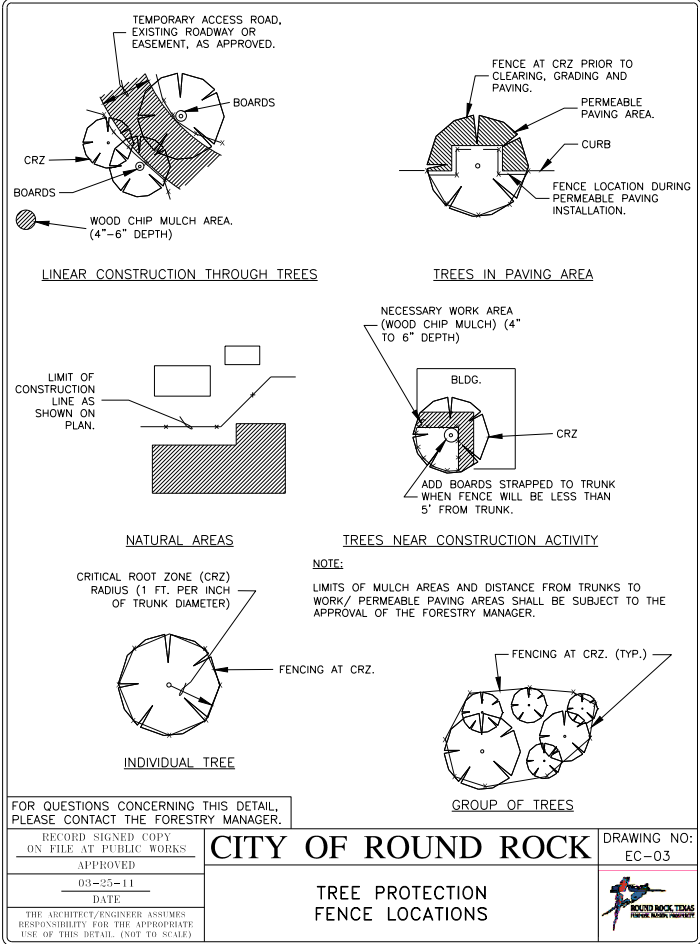
POOL-TYPE B  
TYPICAL SECTION (ADD ALTERNATE 2)

NOTES:

1. IN AREAS REQUIRING CUT/FILL CONTRACTOR SHALL STRIP 6" OF EXISTING TOPSOIL AND STOCKPILE FOR REUSE.
2. EXCAVATED ONSITE NATURAL MATERIALS SHALL BE USED FOR ONSITE BORROW. EXCESS MATERIAL SHALL BE REMOVED FROM THE SITE.
3. ALL DISTURBED AREAS SHALL BE REVEGETATED PER CITY OF ROUND ROCK STANDARD SPEC. NO. 609. FOR AREAS WITH A GRADE OF 20% OR GREATER, PLACE 6" OF STOCKPILED TOPSOIL ON ALL AREAS OF CUT AND FILL, RESEED, AND INSTALL SOIL RETENTION BLANKET (SRB). DISTURBED AREAS WITH A GRADE OF LESS THAN 20% SHALL BE RESEEDD USING HYDROMULCH.



ACAD Rel: 20.1s (LMS Tech)  
Filename: N:\SW\Drawings\CV-RRK-DT-MSC01.dwg  
Last Saved: 11/16/2016 7:53 AM    Saved By: no



Freese and Nichols, Inc.  
Texas Registered Engineering Firm F-2144

11-17-16

10431 Morado Circle, Suite 300  
Austin, Texas 78759  
Phone - (512) 617-3100  
Fax - (512) 617-3101  
Web - www.freese.com

CITY OF ROUND ROCK, TEXAS

HESTER'S CROSSING CHANNEL IMPROVEMENTS

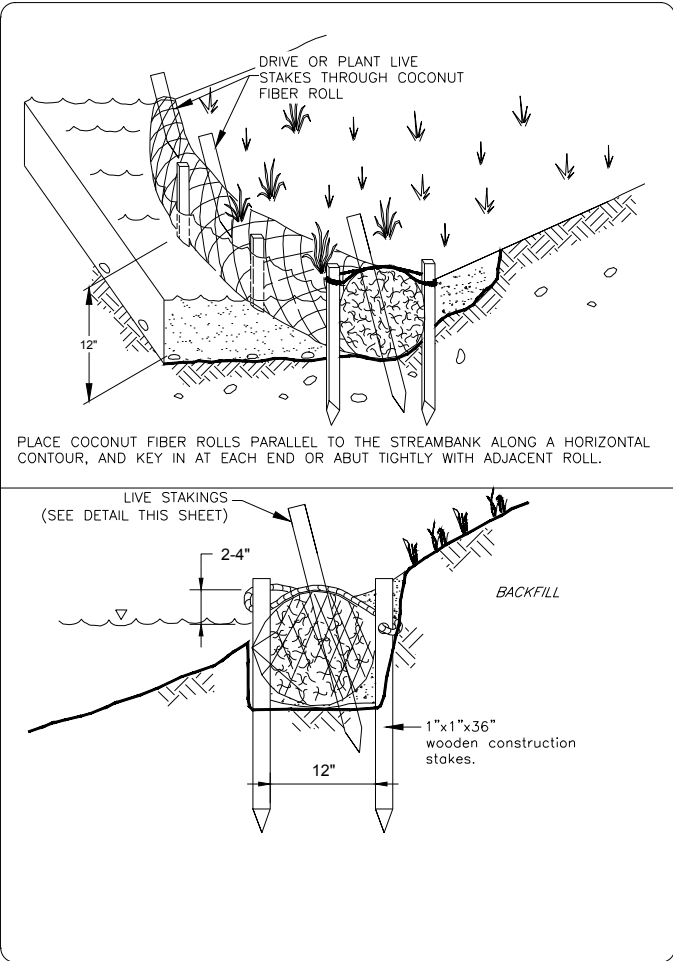
EROSION CONTROL DETAILS

NO.	REVISION	BY	DATE	FRN JOB NO.	RRK16426	DATE	8/29/16	DESIGNED	WEH	DRAWN	NO	RECEIVED	KKP	CHECKED	JWS	FILE NAME	CV-RRK-DT-MSC01.dwg
VERIFY SCALE: Bar is one inch on original drawing, if not one inch on this sheet, adjust scale.																	

SHEET 8

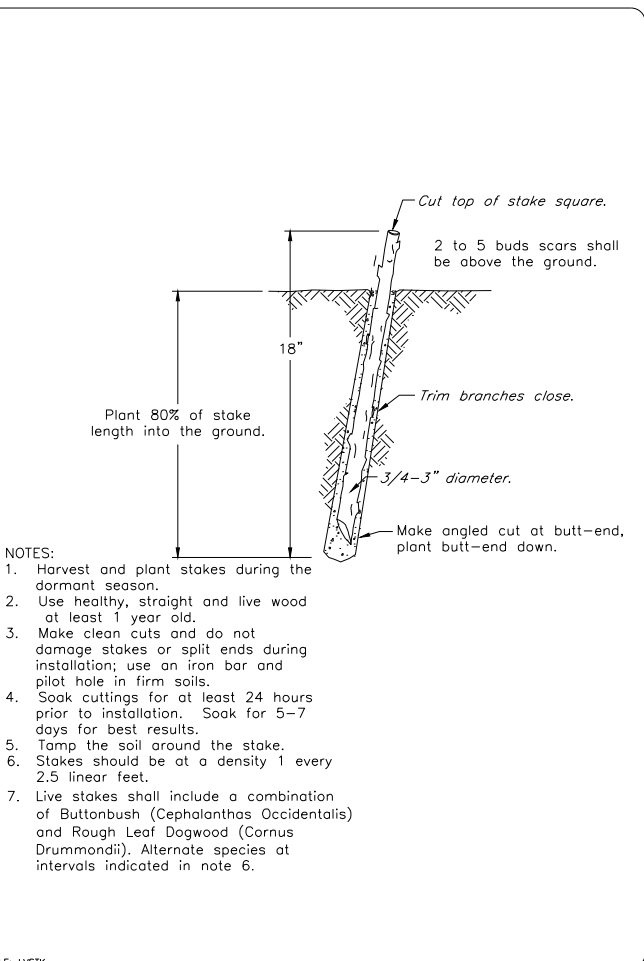
SEQ. 8 OF 9





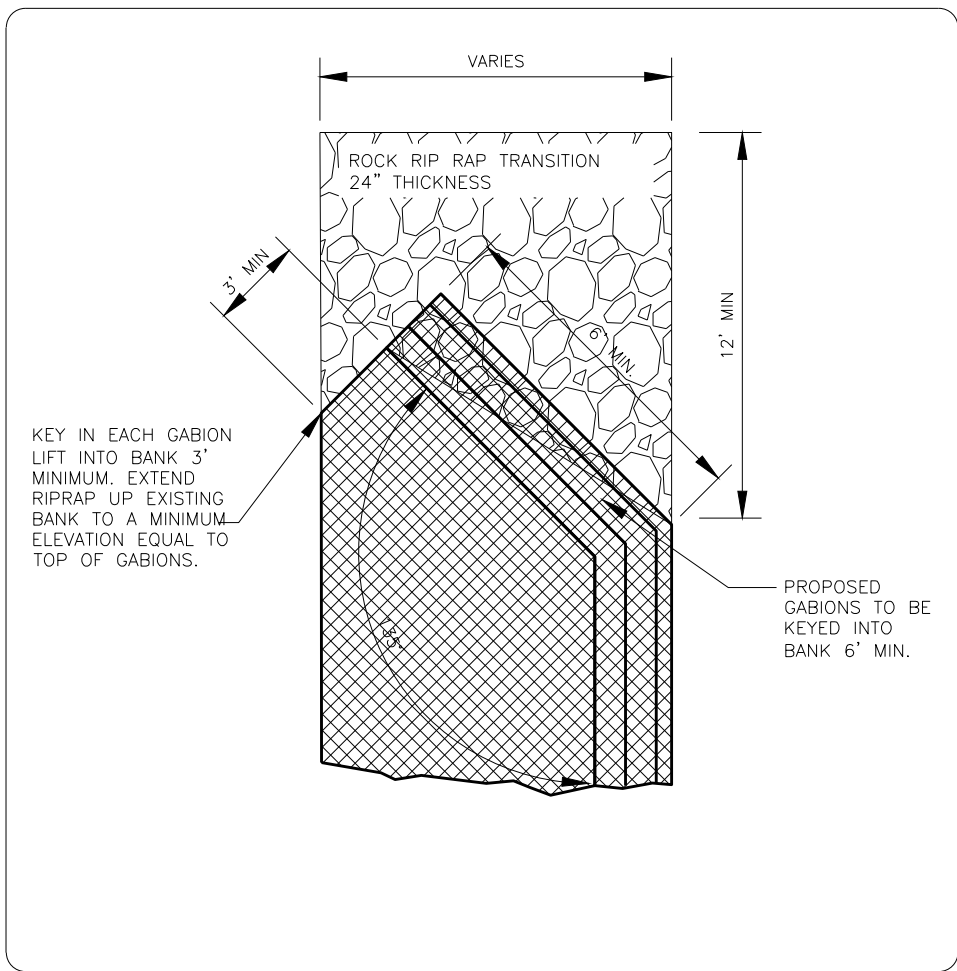
VEGETATED COIR ROLL  
WITH LIVE STAKINGS

NOT TO SCALE



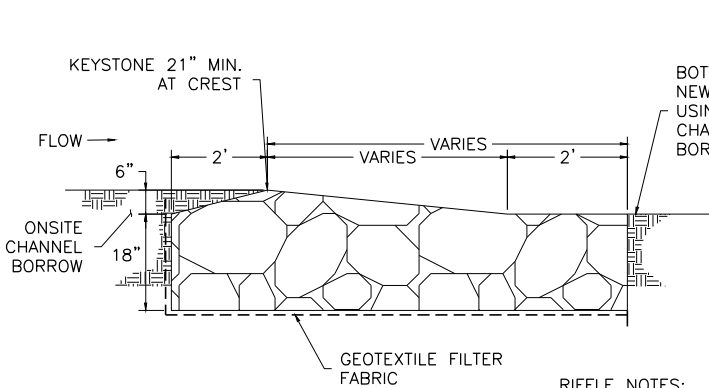
LIVE STAKING

NOT TO SCALE



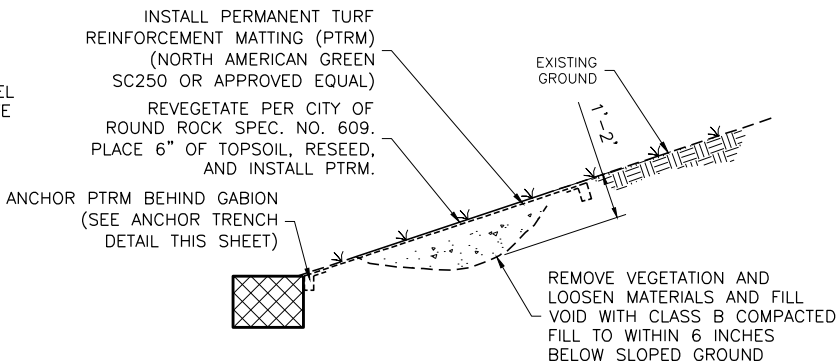
GABION TRANSITION DETAIL

NOT TO SCALE



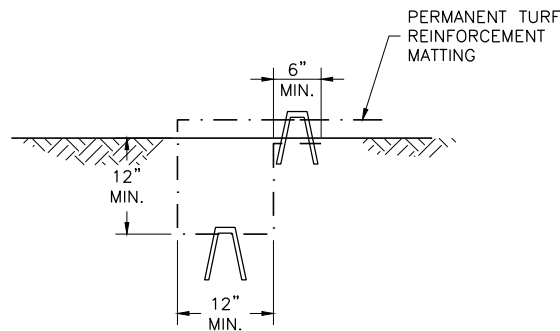
RIFFLE PROFILE

NOT TO SCALE



EMBANKMENT REPAIR

NOT TO SCALE



ANCHOR TRENCH DETAIL

NOT TO SCALE

GRADATION TABLES

RIPRAP GRADATION - 24" THICKNESS				
SIEVE SIZE	MIN	MAX	MAX	MIN
30 INCH	100	-	0	-
24 INCH	65	100	35	0
18 INCH	45	75	55	25
12 INCH	25	50	75	50
8 INCH	10	30	90	70
6 INCH	0	15	100	85

RIPRAP GRADATION - 36" THICKNESS				
SIEVE SIZE	MIN	MAX	MAX	MIN
44 INCH	100	-	0	-
36 INCH	65	100	35	0
30 INCH	50	80	50	20
18 INCH	25	45	75	55
12 INCH	10	25	90	75
8 INCH	0	10	100	90

CITY OF ROUND ROCK, TEXAS  
HESTER'S CROSSING CHANNEL IMPROVEMENTS

MISCELLANEOUS DETAILS

NO.	REVISION	DATE	BY	FILE NAME	FILE NAME	FILE NAME	FILE NAME	FILE NAME	FILE NAME
0		8/29/16		CV-RRK-DT-MISC01.dwg	CV-RRK-DT-MISC01.dwg	CV-RRK-DT-MISC01.dwg	CV-RRK-DT-MISC01.dwg	CV-RRK-DT-MISC01.dwg	CV-RRK-DT-MISC01.dwg
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									
56									
57									
58									
59									
60									
61									
62									
63									
64									
65									
66									
67									
68									
69									
70									
71									
72									
73									
74									
75									
76									
77									
78									
79									
80									
81									
82									
83									
84									
85									
86									
87									
88									
89									
90									
91									
92									
93									
94									
95									
96									
97									
98									
99									
100									