STREET AND DRAINAGE CONSTRUCTION PLANS

- C1 – SCENIC LOOP IMPROVEMENTS
- C2 – TYPICAL STREET SECTIONS
- C3 – CORLEY ROAD EXISTING CONDITIONS
- C4 – CORLEY ROAD EXISTING CONDITIONS
- C5 – CORLEY ROAD EXISTING CONDITIONS
- C6 – CORLEY ROAD PLAN & PROFILE
- C7 – CORLEY ROAD PLAN & PROFILE
- C8 – CORLEY ROAD PLAN & PROFILE
- C9 – TRAFFIC SIGNAGE & STRIPING PLAN
- C10 – SCENIC LOOP TURN LANE PLAN
- * C11 – STANDARD PAVEMENT MARKINGS
- * C12 – CITY OF BOERNE STANDARD STREET DETAILS
- * C13 – STREET AND DRAINAGE DETAILS
- * C14 – TXDOT PAVEMENT MARKING DETAILS
- C15 – CR CULVERT '1' PLAN AND PROFILE
- C16 – CR CULVERT '2' PLAN AND PROFILE
- C17 – GRADING & DRAINAGE PLAN
- C18 – GRADING & DRAINAGE PLAN
- C19 – GRADING & DRAINAGE PLAN
- C20 – STORM WATER POLLUTION PREVENTION PLAN
- * C21 – TXDOT CONCRETE WINGWALL & RIP-RAP DETAILS
- * C22 – TXDOT CULVERT DETAILS
- * C23 – DRAINAGE DETAILS
- * C24 – METAL BEAM GUARD FENCE DETAILS
- C25 – TYPICAL STREET SECTIONS & RIGHT OF WAY DEDICATION
- C26 – TYPICAL STREET SECTIONS & RIGHT OF WAY DEDICATION
- C27 – TYPICAL STREET SECTIONS & RIGHT OF WAY DEDICATION
- C28 – TYPICAL STREET SECTIONS & RIGHT OF WAY DEDICATION
- C29 – TYPICAL STREET SECTIONS & RIGHT OF WAY DEDICATION
- C30 – TYPICAL STREET SECTIONS & RIGHT OF WAY DEDICATION
- C31 – TYPICAL STREET SECTIONS & RIGHT OF WAY DEDICATION
- C32 – BAR DITCH ANALYSIS
- T1 – TRAFFIC CONTROL PLAN
- T2 – TRAFFIC CONTROL PLAN
- T3 – TRAFFIC CONTROL PLAN

* STANDARD DETAILS ADOPTED FOR THIS CONSTRUCTION SET.



CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

STREET & DRAINAGE
CONSTRUCTION PLANS

CORLEY FARMS SUBDIVISION IS VESTED TO THE SUBDIVISION ORDINANCE NO. 2007-56 OF THE CITY OF BOERNE, TEXAS (REVISED 10.08.2019) PER THE DEVELOPMENT AGREEMENT EXECUTED BETWEEN BEORNEBAK, LLC. AND THE CITY OF BOERNE, TEXAS EFFECTIVE NOVEMBER 26, 2019

IMPROVEMENTS SHOWN ON THIS CONSTRUCTION PLAN SET ARE BASED ON EXHIBIT G-5 AND TERMS OF THE DEVELOPMENT AGREEMENT

DEVELOPER:
PULTE HOMES OF TEXAS, L.P.
CONTACT PERSON: TREY ROGERS
927 E. SONTERRA BLVD. STE 316
SAN ANTONIO, TX 78258
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4122 Pond Hill Road, Suite 101
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DRAWN BY	DATE	
JG/AC/JR/RC	07/16/2025	
CHECKED BY	PROJECT NO.	
JC/CA	03481.003	

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED
PROFESSIONAL ENGINEER
07/16/2025

I HAVE REVIEWED THIS PLAN SET FOR QUALITY ASSURANCE AND QUALITY CONTROL PURPOSES.

THIS PLAN SET HAS BEEN PREPARED, DESIGNED AND REVIEWED UNDER MY DIRECT SUPERVISION.

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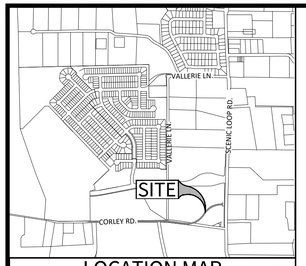


LOCATION MAP
N.T.S.

LEGEND:

- EXISTING ROW/PROPERTY LINE
- PROPOSED ROW LINE
- EXISTING STREET CENTERLINE
- EXISTING OVERHEAD ELECTRIC — OHE
- EXISTING GAS LINE — GAS
- EXISTING EDGE OF PAVEMENT
- PROPOSED FLOW
- EXISTING FIBER OPTIC MANHOLE
- EXISTING GUY WIRE
- EXISTING POWER POLE
- EXISTING SIGN
- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- PROPOSED SIDEWALK
- EXISTING DRIVEWAY
- EXISTING TREES

CAUTION NOTE:

THE CONTRACTOR SHALL BE AWARE THAT OVERHEAD ELECTRIC, UNDERGROUND FIBER OPTIC, GAS, AND TELEPHONE UTILITIES EXIST ALONG SCENIC LOOP ROAD. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE THESE UTILITIES LOCATED PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THIS AREA. ANY DAMAGE DONE TO THESE EXISTING FACILITIES WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR.

NOTES:

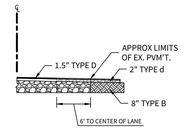
1. ALL PAVEMENT MARKINGS AND STRIPING SHALL BE HOT APPLIED THERMOPLASTIC PAVEMENT MARKINGS PER CITY OF BOERNE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
2. THE CONTRACTOR SHALL BE AWARE THAT EXISTING OVERHEAD ELECTRIC AND UNDERGROUND CABLE TV UTILITIES EXIST ALONG SCENIC LOOP ROAD. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE THESE UTILITIES LOCATED PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THIS AREA. ANY DAMAGE DONE TO THESE EXISTING FACILITIES WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR.
3. CONTRACTOR IS REQUIRED TO REPLACE ALL EXISTING FENCES AND/OR DRIVEWAYS TO EXISTING OR BETTER CONDITION.
4. CONTRACTOR IS REQUIRED TO PROVIDE ACCESS TO ALL ADJACENT HOMEOWNERS AND DRIVEWAYS AT ALL TIMES.
5. CONTRACTOR IS RESPONSIBLE FOR 85% REVEGETATION OF ALL DISTURBED AREAS WITHIN THE ROW UPON INFRASTRUCTURE COMPLETION.
6. CONTRACTOR IS RESPONSIBLE FOR ENSURING POSITIVE SITE DRAINAGE AT ALL TIMES DURING AND UPON COMPLETION OF INFRASTRUCTURE.
7. A KENDALL COUNTY PERMIT MUST BE OBTAINED BEFORE WORKING IN KENDALL COUNTY RIGHT OF WAY.

KEYNOTES:

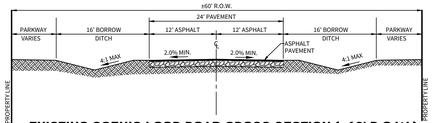
1. CONTRACTOR TO INSTALL NEW PAVEMENT. SEE PAVEMENT JUNCTION DETAIL THIS SHEET (±403 S.Y.)
2. CONTRACTOR TO SAWCUT AND MATCH EXISTING PAVEMENT WITH THE PROPOSED PAVEMENT
3. CONTRACTOR TO INSTALL NEW PAVEMENT. SEE PAVEMENT JUNCTION DETAIL THIS SHEET (±585 S.Y.)
4. EXISTING CABLE BOX TO BE RELOCATED OUTSIDE OF PROPOSED PAVEMENT BY OTHERS
5. EXISTING MAILBOX TO BE RELOCATED TO CORLEY ROAD AND PRIVATE DRIVE INTERSECTION. SEE SHEET C2 FOR LOCATION.
6. EXISTING SIGNAGE TO BE RELOCATED OUTSIDE OF PROPOSED PAVEMENT
7. CONTRACTOR TO INSTALL 1.5" HMAC OVER EXISTING PAVEMENT(±1,764 S.Y.)
8. CONTRACTOR TO INSTALL NEW PAVEMENT. SEE PAVEMENT JUNCTION DETAIL THIS SHEET (±134 S.Y.)
9. CONTRACTOR TO INSTALL NEW PAVEMENT. SEE PAVEMENT JUNCTION DETAIL THIS SHEET (±63 S.Y.)

SCENIC LOOP TREE TABLE

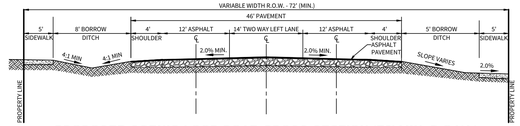
TREE NO.	TREE TYPE	TREE SIZE
62817	OAK	12.7"
62818	OAK	9.1"
62819	OAK	11.4"
62820	OAK	6.3"
62821	OAK	10.2"
62822	OAK	10.4"
62823	OAK	10.5"



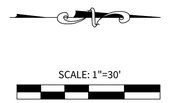
PAVEMENT JUNCTION DETAILS
N.T.S.

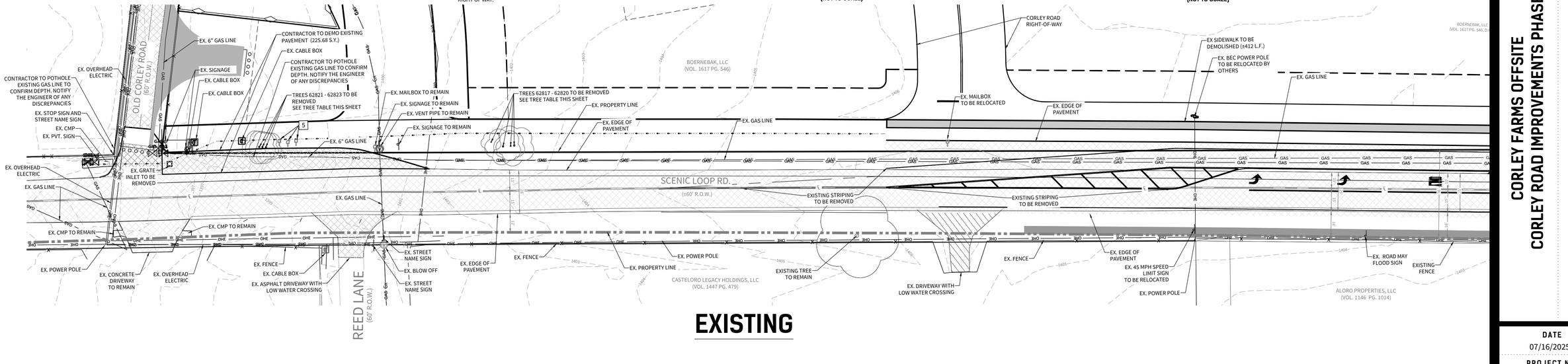


EXISTING SCENIC LOOP ROAD CROSS SECTION (±60' R.O.W.)
(NOT TO SCALE)

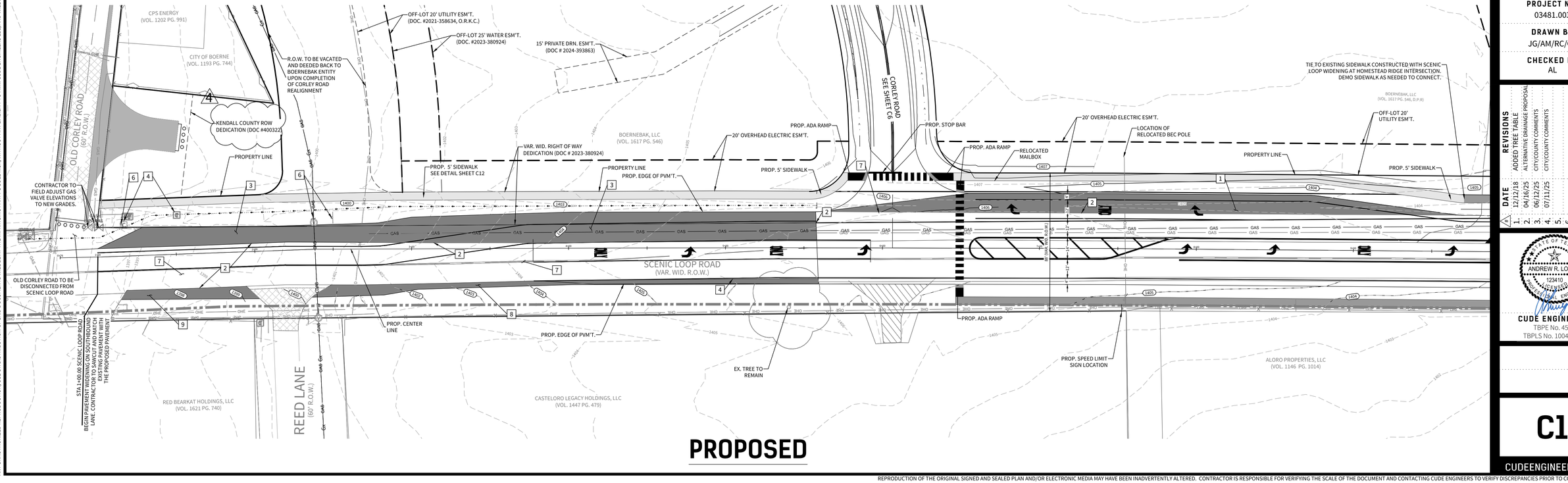


PROPOSED SCENIC LOOP ROAD CROSS SECTION (72' MIN. R.O.W.)
(NOT TO SCALE)





EXISTING



PROPOSED

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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I
SCENIC LOOP IMPROVEMENTS

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

	DATE	
1.	12/12/18	ADDED TREE TABLE
2.	04/16/25	ALTERNATIVE DRAINAGE PROPOSAL
3.	06/12/25	CITY/COUNTY COMMENTS
4.	07/11/25	CITY/COUNTY COMMENTS
5.		
6.		
7.		
8.		
9.		

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED PROFESSIONAL ENGINEER
07/16/2025

CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500

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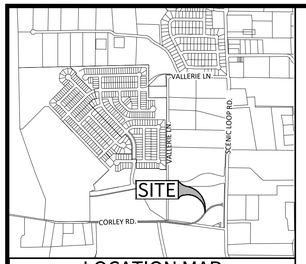
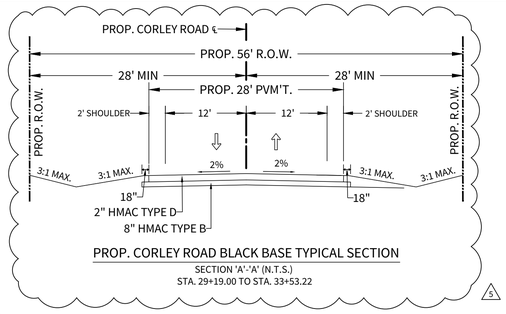
C:\03481\003 Drawings\CORLEY ROAD\PHASE I\C1 SCENIC LOOP IMPROVEMENTS.dwg, 2025/07/16 8:03am, tmurphree

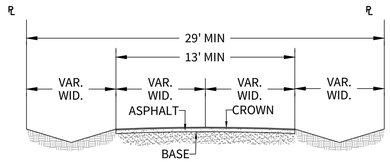


LOCATION MAP
N.T.S.



PROP. CORLEY ROAD BLACK BASE TYPICAL SECTION
SECTION 'A'-'A' (N.T.S.)
STA. 29+19.00 TO STA. 33+53.22

5



EXISTING STREET SECTION
(N.T.S.)

CAUTION!!
THE CONTRACTOR SHALL BE AWARE THAT A WATER MAIN, OVERHEAD ELECTRIC, SANITARY SEWER, AND GAS MAIN EXIST ALONG AND NEAR CORLEY ROAD. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE THESE UTILITIES LOCATED PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THIS AREA. NAY DAMAGE DONE TO THESE EXISTING FACILITIES WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR.

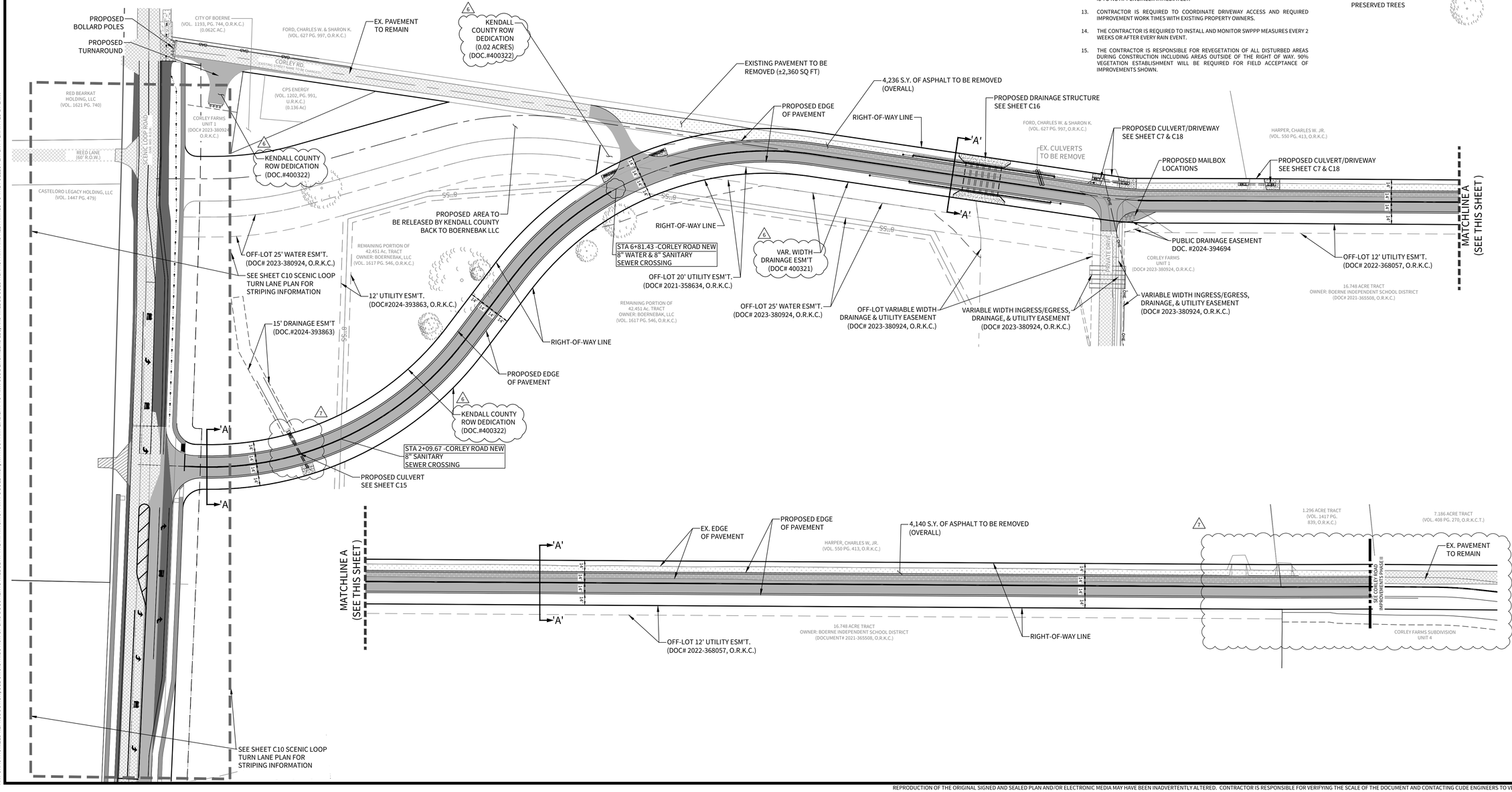
NOTES:

1. TYPICAL SECTIONS SHOWN DEPICT THE MOST COMMON CASES.
2. ALL GRADING SHALL BE WITHIN THE EXISTING RIGHT OF WAY LIMITS.
3. THE SUBGRADE SHALL BE SHAPED, BLADED, ROLLED AND PROOF ROLLED A MINIMUM DISTANCE OF 24" BEYOND THE EDGE OF THE PROPOSED BASE COURSE.
4. IF AREAS BEYOND THE CONSTRUCTION LIMITS ARE DISTURBED OR DAMAGED BY CONSTRACTOR, THE CONTRACTOR SHALL REPAIR OR BRING BACK AS CLOSE AS POSSIBLE TO PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE ENGINEER. THERE WILL BE NO SEPARATE PAY FOR THIS WORK AND / OR MATERIALS.
5. CROSS SLOPE TO MATCH EXISTING CROSS SLOPE OF THE ADJOINING TRAVEL LANE.
6. THE EXISTENCE AND LOCATION OF EXISTING UNDERGROUND CABLE INDICATED ON THESE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE, AND ARE NOT GUARANTEED TO BE ACCURATE. THE CONTRACTOR SHOULD CALL FOR LOCATES THROUGH THE "ONE CALL" UTILITY LOCATE SERVICE (1-800-344-8377) 48 HOURS PRIOR TO CONSTRUCTION/EXCAVATION WORK. CONTRACTORS HAVE THE RESPONSIBILITY TO PROTECT AND SUPPORT TELEPHONE COMPANY FACILITIES DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE EXISTING UNDERGROUND CABLE RELOCATION IF A ALIGNMENT CONFLICT ARISES.
7. CONTRACTOR TO REMOVE AND RELOCATE EXISTING SIGNS AND FENCES AS NECESSARY TO EXISTING OR BETTER CONDITION.
8. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ADEQUATE TRAFFIC FLOW (MINIMUM ONE WAY TRAFFIC) AND TRAFFIC MOVEMENTS. CONTRACTOR IS RESPONSIBLE FOR PRODUCING A TRAFFIC CONTROL PLAN AS REQUIRED BY THE CITY OF BOERNE AND KENDALL COUNTY. THE CONTRACTOR SHALL OBTAIN ANY AND ALL RIGHT OF WAY PERMITS NEEDED
9. CONTRACTOR IS RESPONSIBLE FOR REVEGETATING ALL DISTURBED AREAS WITHIN THE RIGHT OF WAY OR UTILITY EASEMENTS.
10. CONTRACTOR SHALL GRADE RIGHT OF WAY AND ADJACENT SITE AREAS TO ENSURE POSITIVE DRAINAGE AT ALL TIMES DURING AND AFTER CONSTRUCTION OF IMPROVEMENTS SHOWN.
11. CONTRACTOR MUST CONSTRUCT THE PROPOSED STREET CROSS SECTION SHOWN IN THIS SHEET IN ALL AREAS WHERE THE PROPOSED PAVEMENT IS SHOWN. CONTRACTOR TO VERIFY ALL AREAS WITHIN THE PROPOSED PAVEMENT RIGHT OF WAY HAVE NO DRAINAGE ISSUES.
12. IF ANY DRAINAGE OR UTILITY CONFLICT ARISE DURING CONSTRUCTION, CONTRACTOR IS TO NOTIFY ENGINEER IMMEDIATELY.
13. CONTRACTOR IS REQUIRED TO COORDINATE DRIVEWAY ACCESS AND REQUIRED IMPROVEMENT WORK TIMES WITH EXISTING PROPERTY OWNERS.
14. THE CONTRACTOR IS REQUIRED TO INSTALL AND MONITOR SWPPP MEASURES EVERY 2 WEEKS OR AFTER EVERY RAIN EVENT.
15. THE CONTRACTOR IS RESPONSIBLE FOR REVEGETATION OF ALL DISTURBED AREAS DURING CONSTRUCTION INCLUDING AREAS OUTSIDE OF THE RIGHT OF WAY. 90% VEGETATION ESTABLISHMENT WILL BE REQUIRED FOR FIELD ACCEPTANCE OF IMPROVEMENTS SHOWN.

SCALE: 1"=60'
60 30 0 60

LEGEND

- OVERALL UNIT BOUNDARY
- PROPOSED LOT LINE
- PROPOSED RIGHT OF WAY
- E.G.T.CA. EASEMENT
- EXISTING 1' CONTOUR (499)
- EXISTING 5' CONTOUR (500)
- PROPOSED 1' CONTOUR (499)
- PROPOSED 5' CONTOUR (500)
- EX. PVM'T TO REMAIN
- EX. PVM'T TO BE REMOVED
- PROP. PAVEMENT
- PRESERVED TREES



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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

TYPICAL STREET SECTIONS

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

	DATE	
1.	6/20/2024	PERMITTING REVISIONS
2.	9/03/2024	REVISE STREET TURNAROUND
3.	9/18/2024	REVISE STREET TURNAROUND
4.	04/10/2025	CITY & COUNTY COMMENTS
5.	06/06/2025	CITY & COUNTY COMMENTS
6.	07/14/2025	CITY & COUNTY COMMENTS
7.		
8.		
9.		

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED
PROFESSIONAL ENGINEER
07/16/2025

CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500

C2

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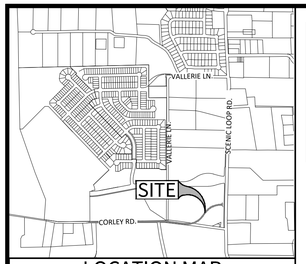


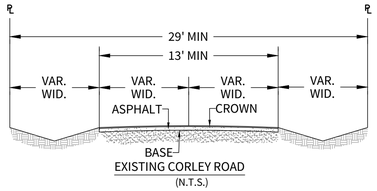
LOCATION MAP
N.T.S.

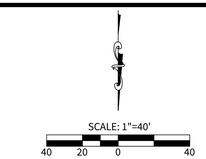
TRENCH EXCAVATION PROTECTION

CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

CAUTION!!

THE CONTRACTOR SHALL BE AWARE THAT A WATER MAIN, OVERHEAD ELECTRIC, SANITARY SEWER, AND GAS MAIN EXIST ALONG AND NEAR CORLEY ROAD. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE THESE UTILITIES LOCATED PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THIS AREA. NAY DAMAGE DONE TO THESE EXISTING FACILITIES WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR.

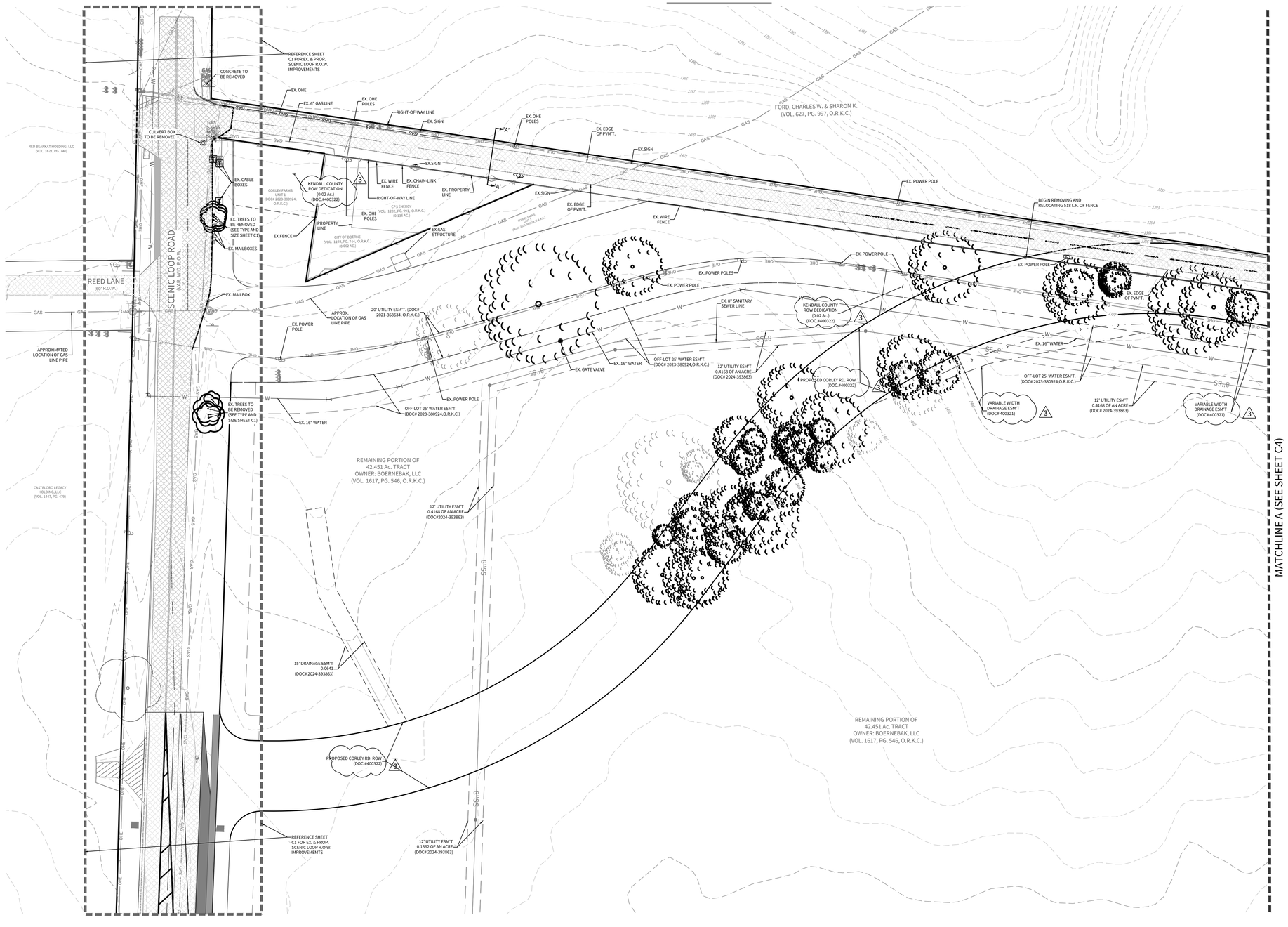




LEGEND

- OVERALL UNIT BOUNDARY
- PROPOSED LOT LINE
- PROPOSED RIGHT OF WAY
- E.G.T.CA. EASEMENT
- EXISTING 1' CONTOUR (499)
- EXISTING 5' CONTOUR (500)
- PROPOSED 1' CONTOUR (495)
- PROPOSED 5' CONTOUR (500)
- EX. PVM'T TO REMAIN
- EX. PVM'T TO BE REMOVED
- TREES TO BE PRESERVED
- TREES TO BE REMOVED

EXISTING



NOTES:

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2. **CONTRACTOR TO REMOVE AND RELOCATE EXISTING SIGNS AND FENCES AS NECESSARY TO EXISTING OR BETTER CONDITION.**
3. **CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ADEQUATE TRAFFIC FLOW (MINIMUM ONE WAY TRAFFIC) AND TRAFFIC MOVEMENTS. CONTRACTOR IS RESPONSIBLE FOR PRODUCING A TRAFFIC CONTROL PLAN AS REQUIRED BY THE CITY OF BOERNE AND KENDALL COUNTY. THE CONTRACTOR SHALL OBTAIN ANY AND ALL RIGHT OF WAY PERMITS NEEDED.**
4. **CONTRACTOR SHALL GRADE RIGHT OF WAY AND ADJACENT SITE AREAS TO ENSURE POSITIVE DRAINAGE AT ALL TIMES DURING AND AFTER CONSTRUCTION OF IMPROVEMENTS SHOWN.**
5. **CONTRACTOR MUST CONSTRUCT THE PROPOSED STREET CROSS SECTION SHOWN IN THIS SHEET IN ALL AREAS WHERE THE PROPOSED PAVEMENT IS SHOWN. CONTRACTOR TO VERIFY ALL AREAS WITHIN THE PROPOSED PAVEMENT RIGHT OF WAY HAVE NO DRAINAGE ISSUES.**
6. **IF ANY DRAINAGE OR UTILITY CONFLICT ARISE DURING CONSTRUCTION, CONTRACTOR IS TO NOTIFY ENGINEER IMMEDIATELY.**
7. **CONTRACTOR IS REQUIRED TO COORDINATE DRIVEWAY ACCESS AND REQUIRED IMPROVEMENT WORK TIMES WITH EXISTING PROPERTY OWNERS.**
8. **THE CONTRACTOR IS REQUIRED TO INSTALL AND MONITOR SWPPP MEASURES EVERY 2 WEEKS OR AFTER EVERY RAIN EVENT.**
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San Antonio, Texas 78231
P:(210) 681.2951 F: (210) 523.7112

CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

CORLEY ROAD EXISTING CONDITIONS

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

#	DATE	
1.	04/16/2025	CITY & COUNTY COMMENTS
2.	05/05/2025	CITY & COUNTY COMMENTS
3.	07/11/2025	CITY & COUNTY COMMENTS
4.		
5.		
6.		
7.		
8.		
9.		

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED
PROFESSIONAL ENGINEER
07/16/2025

CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500

C3

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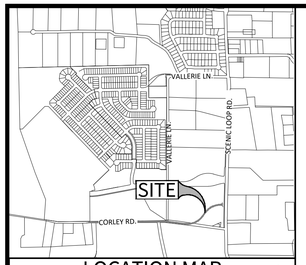

LOCATION MAP
N.T.S.

LEGEND

- OVERALL UNIT BOUNDARY
- PROPOSED LOT LINE
- PROPOSED RIGHT OF WAY
- E.G.T.CA. EASEMENT
- EXISTING 1' CONTOUR (459)
- EXISTING 5' CONTOUR (500)
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- EX. PVM'T TO REMAIN
- EX. PVM'T TO BE REMOVED
- TREES TO PRESERVED
- TREES TO BE REMOVED

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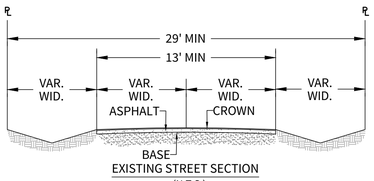

EXISTING STREET SECTION
(N.T.S.)

TRENCH EXCAVATION PROTECTION

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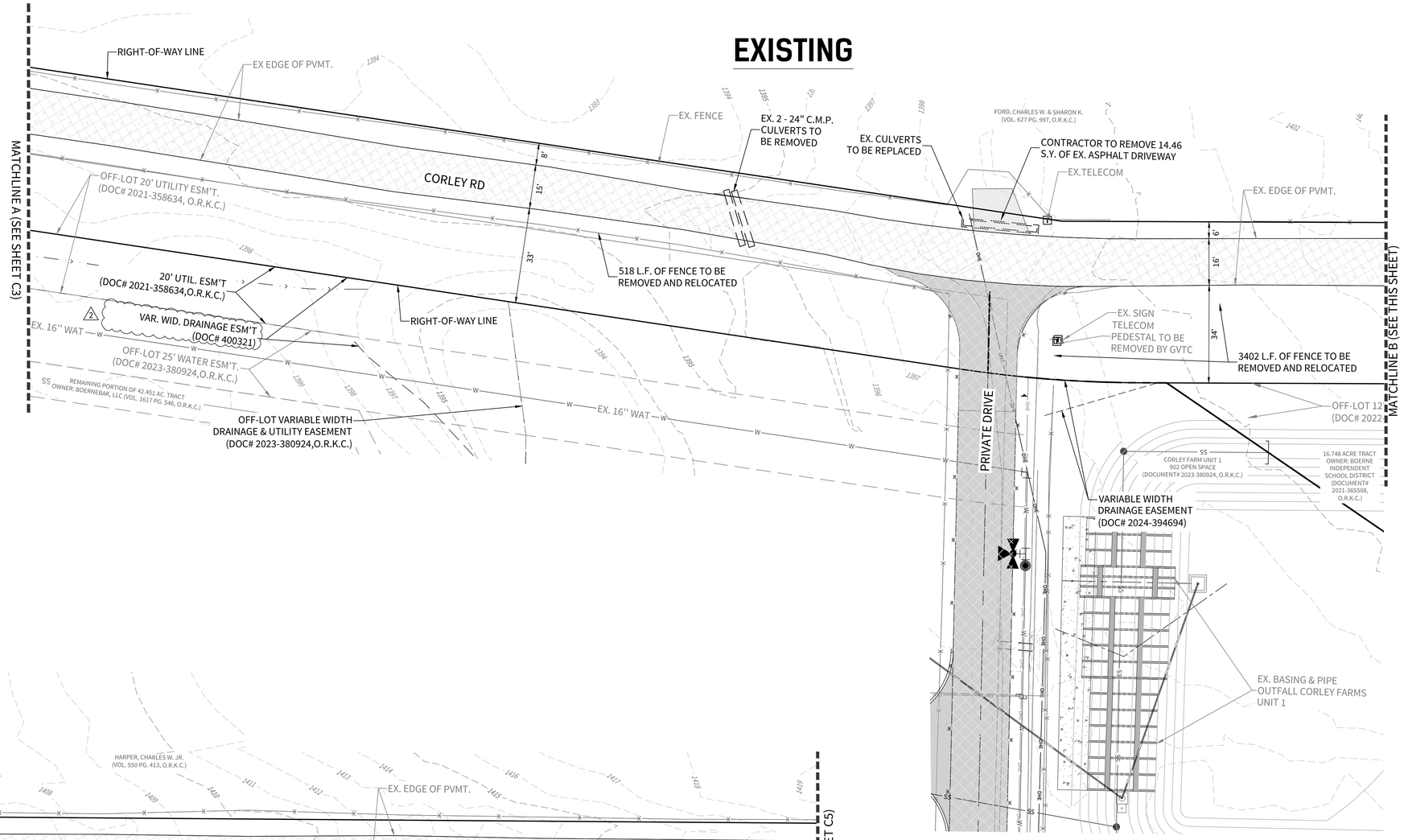
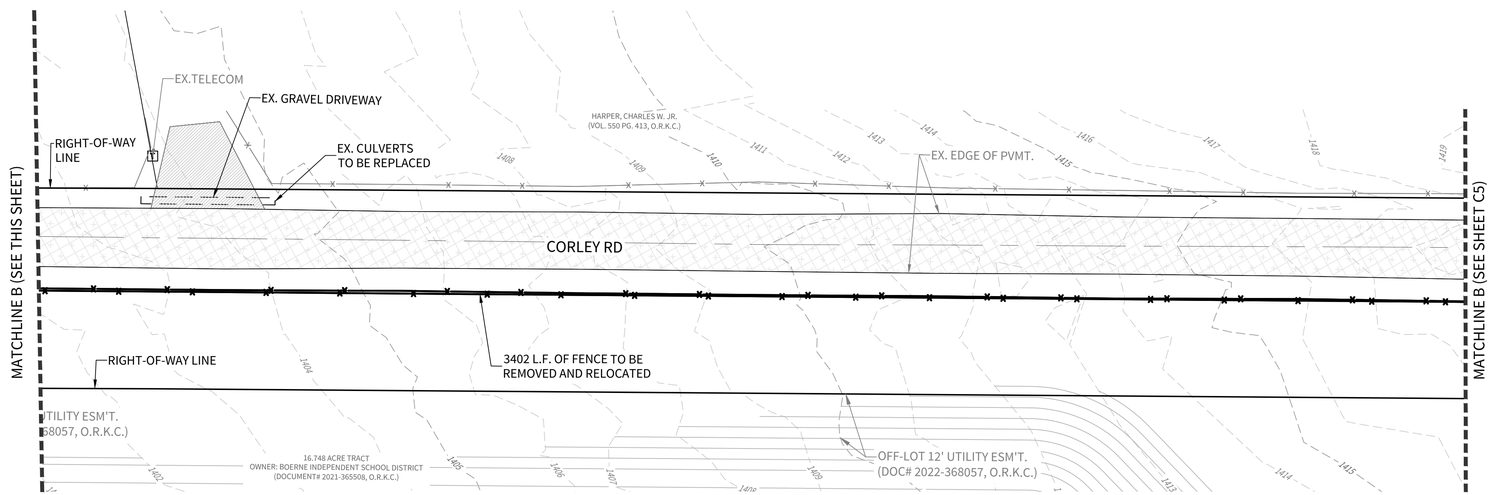
CAUTION!!

THE CONTRACTOR SHALL BE AWARE THAT A WATER MAIN, UNDER GROUND ELECTRIC, AND OVERHEAD ELECTRIC LINE EXIST ALONG VALLERIE LANE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE THESE UTILITIES LOCATED PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THIS AREA. ANY DAMAGE DONE TO THESE EXISTING FACILITIES WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR.

SCALE: 1"=20'
20 10 0 20

EXISTING





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07/16/2025

CUDE ENGINEERS
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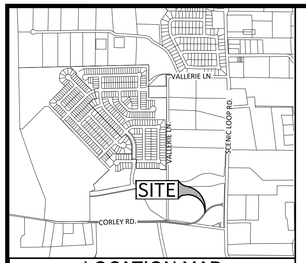

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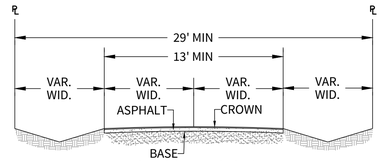
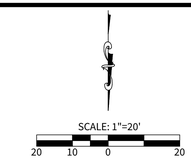


EXISTING STREET SECTION
(N.T.S.)



LEGEND

- OVERALL UNIT BOUNDARY
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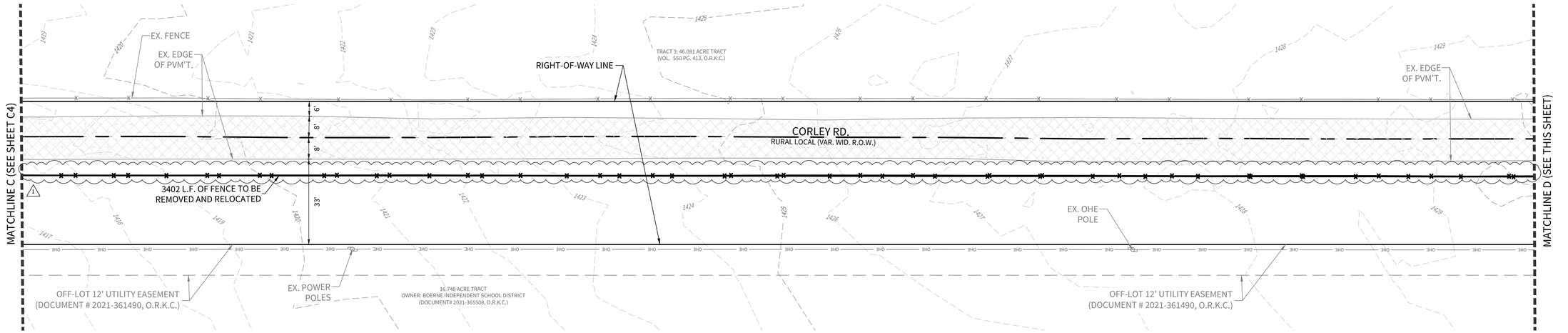

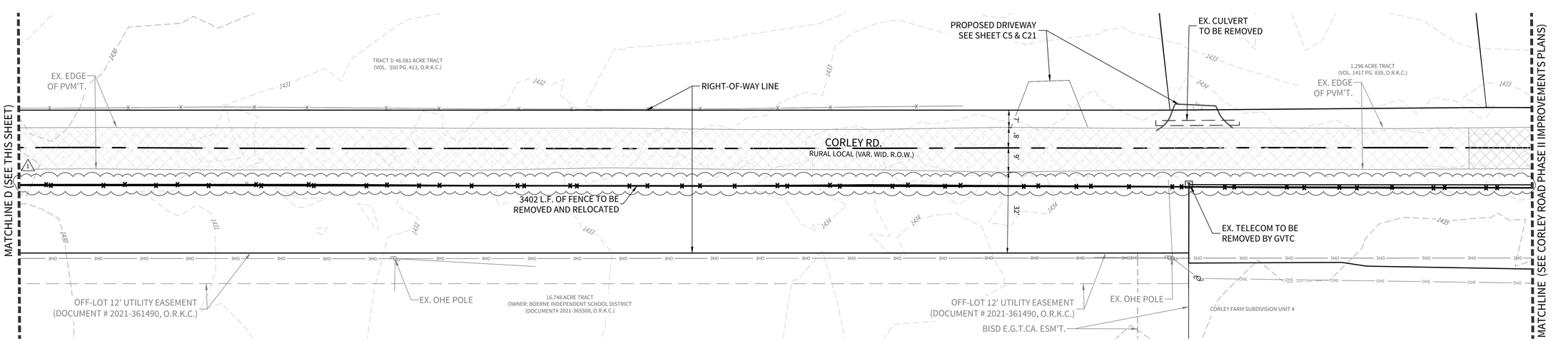

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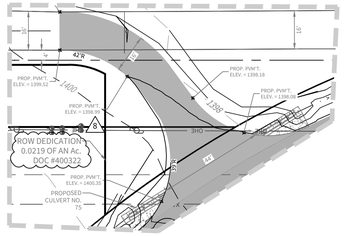
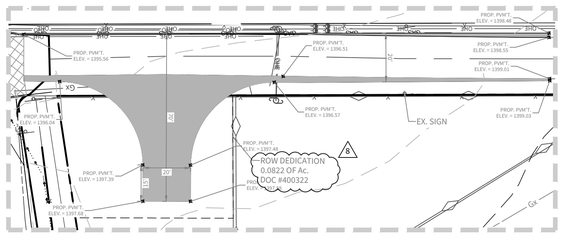
P:\03481.003\2-Drawings\CORLEY ROAD PHASE I\C4 CORLEY ROAD EXISTING CONDITIONS.dwg 2025/07/16 8:58am lamunhoz



DETAIL 'A' - TURNAROUND

N.T.S.



DETAIL 'B' - TURNAROUND

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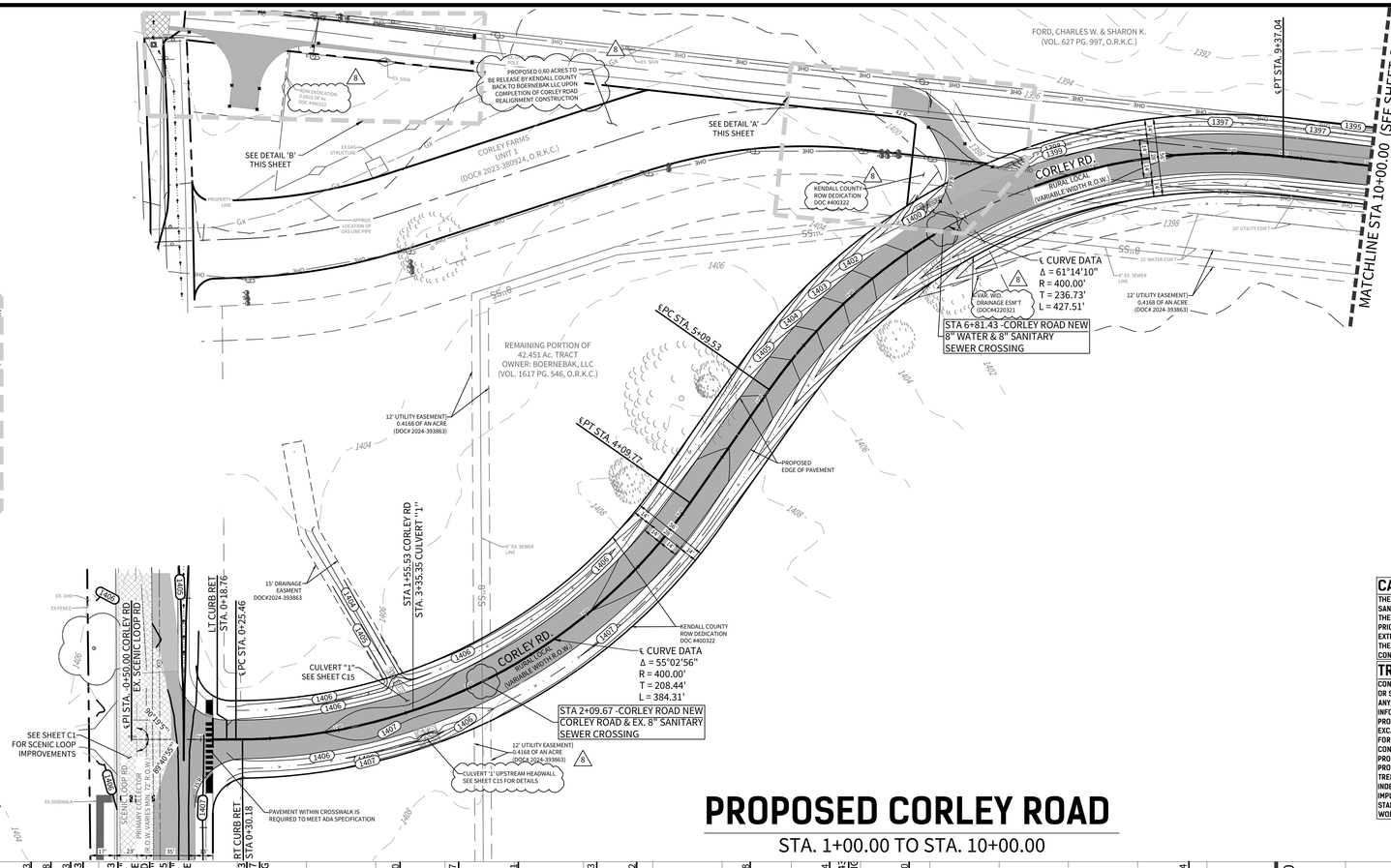
9. THE SOIL RETENTION BLANKER, WHETHER INSTALLED AS SLOPE PROTECTION OR AS FLEXIBLE CHANNEL LINER IN ACCORDANCE WITH THE APPROVED MATERIAL LIST, SHALL BE PLACED WITHIN 24 HOURS AFTER SEEDING OR SODDING OPERATIONS HAVE BEEN COMPLETED, OR AS APPROVED BY THE ENGINEER. PRIOR TO PLACING THE BLANKET, THE AREA TO BE COVERED SHALL BE RELATIVELY FREE OF ALL ROCKS OR CLODS OVER 1-1/2 INCHES IN MAXIMUM DIMENSION AND ALL STICKS OR OTHER FOREIGN MATERIAL WHICH WILL PREVENT THE CLOSE CONTACT OF THE BLANKET WITH THE SOIL. THE AREA SHALL BE SMOOTH AND FREE OF RUTS AND OTHER DEPRESSIONS. IF AS A RESULT OF RAIN, THE PREPARED BED BECOMES CRUSTED OR ERODED OR IF ANY ERODED PLACES, RUTS, OR DEPRESSIONS EXIST FOR ANY REASON, THE CONTRACTOR SHALL BE REQUIRED TO REWORK THE SOIL UNTIL IT IS SMOOTH AND RESEED OR RESOD THE AREA AT THE CONTRACTOR'S EXPENSE.


PROPOSED 0.60 ACRES TO BE RELEASE BY KENDALL COUNTY BACK TO BOERNEBAK LLC UPON COMPLETION OF CORLEY ROAD REALIGNMENT CONSTRUCTION
ROW DEDICATION 0.0219 OF Ac. DOC #400322
SEE DETAIL 'B' THIS SHEET
SEE DETAIL 'A' THIS SHEET
CORLEY FARMS UNIT 1 (DOC# 2023-380914, O.R.K.C.)
FORD, CHARLES W. & SHARON K. (VOL. 627 PG. 997, O.R.K.C.)
KENDALL COUNTY ROW DEDICATION DOC #400322
CORLEY RD. RURAL LOCAL (VARIABLE WIDTH R.O.W.)
℄ PT STA. 9+37.04
MATCHLINE STA 10+00.00 (SEE SHEET C7)
℄ CURVE DATA Δ = 61°14'10" R = 400.00' T = 236.73' L = 427.51'
STA 6+81.43 -CORLEY ROAD NEW 8" WATER & 8" SANITARY SEWER CROSSING
VAR. WID. DRAINAGE ESM'T (DOC#4220321)
12' UTILITY EASEMENT 0.4168 OF AN ACRE (DOC# 2024-393863)
30' UTILITY ESM'T
25' WATER ESM'T
8" EX. SEWER LINE
REMAINING PORTION OF 42.451 Ac. TRACT OWNER: BOERNEBAK, LLC (VOL. 1617 PG. 546, O.R.K.C.)
℄PC STA. 5+09.53
℄PT STA. 4+09.77
PROPOSED EDGE OF PAVEMENT
12' UTILITY EASEMENT 0.4168 OF AN ACRE (DOC# 2024-393863)
15' DRAINAGE EASEMENT DOC#2024-393863
STA 1+55.53 CORLEY RD STA. 3+35.35 CULVERT "1"
CULVERT "1" SEE SHEET C15
℄ CURVE DATA Δ = 55°02'56" R = 400.00' T = 208.44' L = 384.31'
STA 2+09.67 -CORLEY ROAD NEW CORLEY ROAD & EX. 8" SANITARY SEWER CROSSING
KENDALL COUNTY ROW DEDICATION DOC #400322
CULVERT '1' UPSTREAM HEADWALL SEE SHEET C15 FOR DETAILS
SEE SHEET C1 FOR SCENIC LOOP IMPROVEMENTS
℄PI STA. 2+50.00 CORLEY RD. EX. SCENIC LOOP RD.
LT CURB RET STA. 0+18.76
℄PC STA. 0+25.46
RT CURB RET STA 0+30.18
PAVEMENT WITHIN CROSSWALK IS REQUIRED TO MEET ADA SPECIFICATION
EX. OHE
EX.FENCE
EX.SIDEWALK
SCENIC LOOP RD.
PRIMARY COLLECTOR
R.O.W. VARIES MIN. 72' R.O.W.
89°47'03"
89°19'57"
90°00'00"
22'
23'
15'
4'
4:1
4:1
SS
8
Gx
3HO
Ex
Gx
Ex
SS
8
W
W
W

NOTES:

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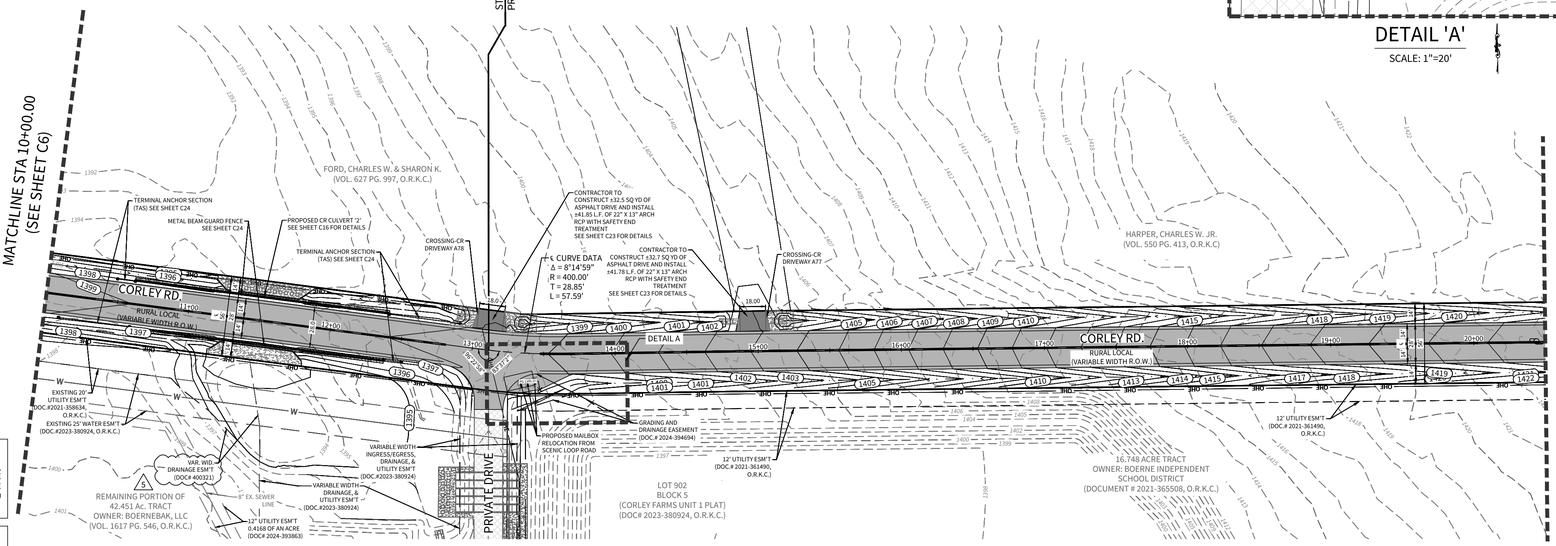
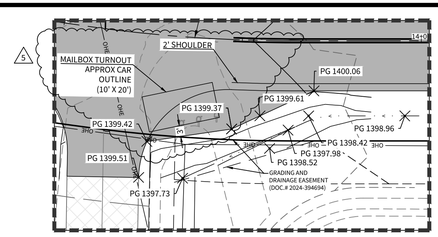




DETAIL 'A'

SCALE: 1"=20'

SCALE: 1"=50'

50 25 0 50

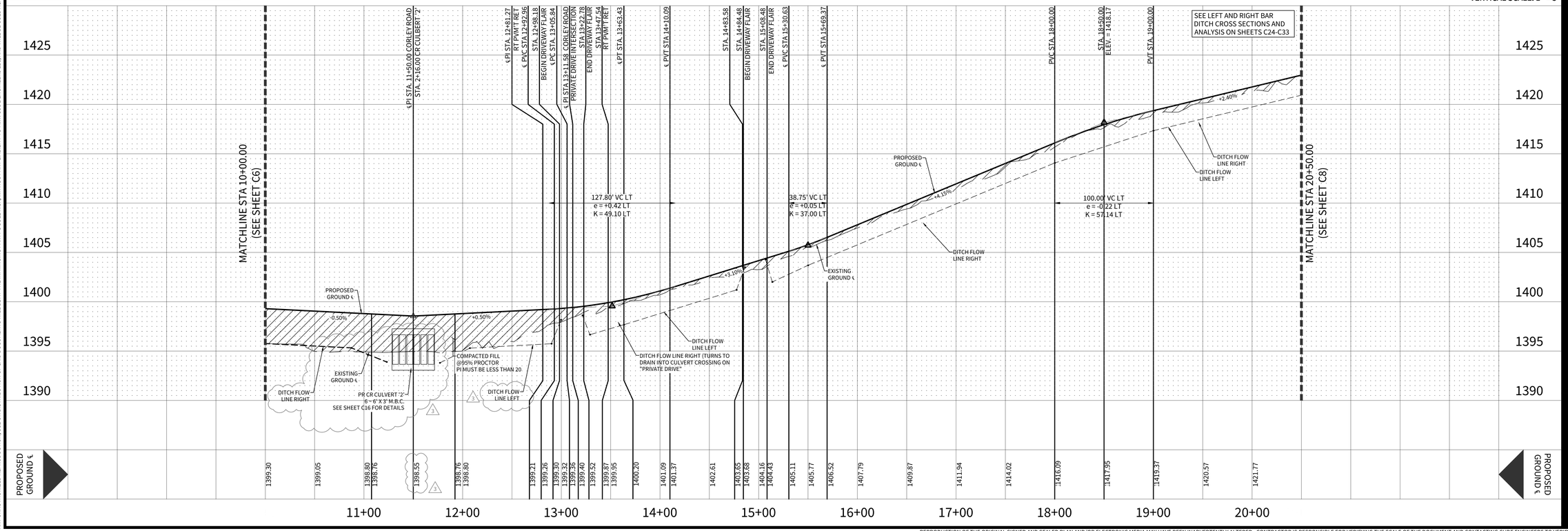
LEGEND

- RIGHT OF WAY
- LOT LINE
- UTILITY EASEMENT
- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- EXISTING OVERHEAD ELECTRIC (OHE)
- EXISTING POWER POLE
- EXISTING WATER LINE (Wx)
- EXISTING GAS LINE (Gx)
- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- PROPOSED DRIVEWAY

PROPOSED CORLEY ROAD

STA. 10+00.00 TO STA. 20+50.00

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



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CUDE ENGINEERS

4122 Pond Hill Road, Suite 101
San Antonio, Texas 78231
P:(210) 681.2951 F: (210) 523.7112

CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

CORLEY ROAD PLAN & PROFILE

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

	DATE	
1.	5/29/2024	PERMITTING REVISIONS
2.	6/20/2024	LABEL EASEMENTS
3.	9/1/2024	REVISED CULVERT SIZING AND STRT DESIGN
4.	4/14/2025	CITY & COUNTY COMMENTS
5.	6/16/2025	CITY & COUNTY COMMENTS
6.	7/18/2025	
7.		
8.		
9.		

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED PROFESSIONAL ENGINEER
07/16/2025
CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500

C7

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G:\03481\003\2-Drawings\CORLEY ROAD\PHASE I\CR CORLEY ROAD PLANS PROFILE.dwg 2025/07/16 10:08am mspak

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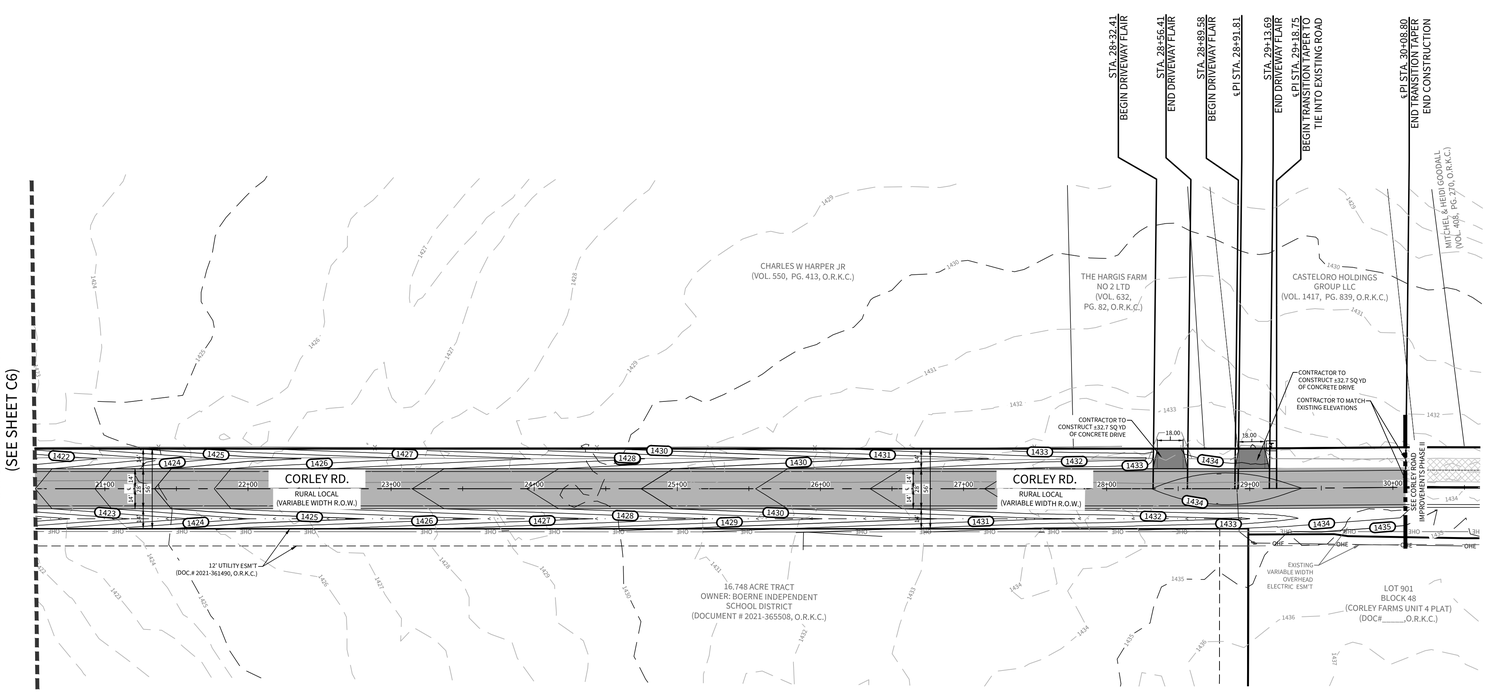
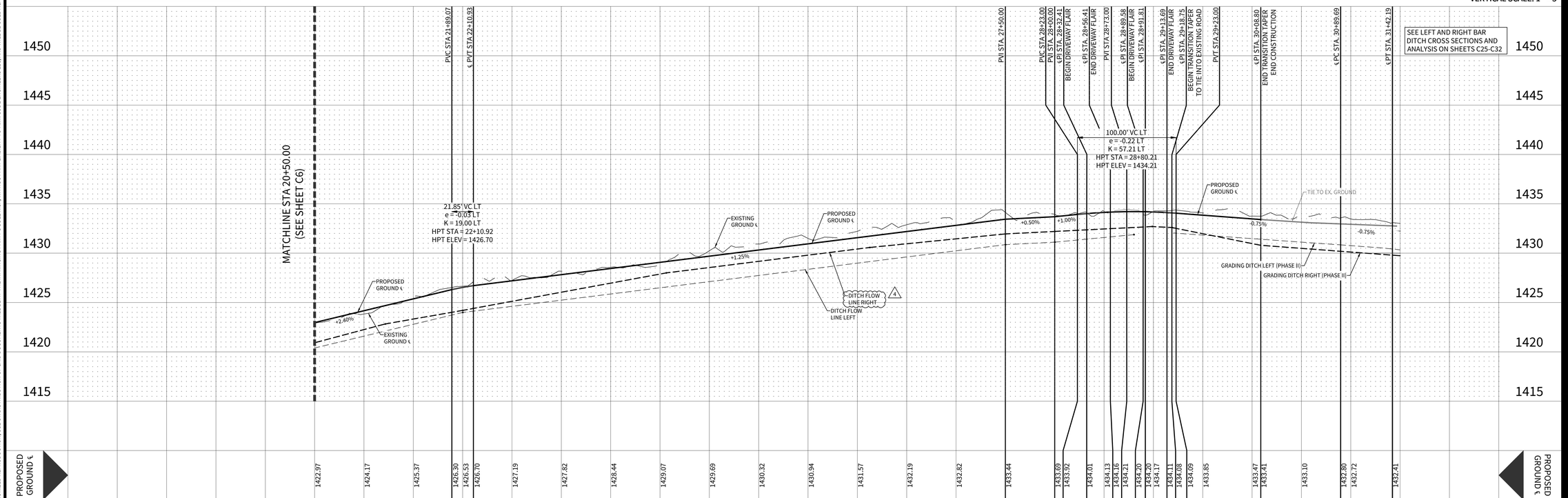


PROPOSED CORLEY ROAD

STA. 20+50.00 TO STA. 30+50.00

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



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SCALE: 1"=50'
50 25 0 50

LEGEND

- RIGHT OF WAY
- LOT LINE
- UTILITY EASEMENT
- EXISTING 1' CONTOUR — 499 —
- EXISTING 5' CONTOUR — 500 —
- EXISTING OVERHEAD ELECTRIC — OHE —
- EXISTING POWER POLE
- EXISTING WATER LINE — Wx —
- EXISTING GAS LINE — Gx —
- EXISTING PAVEMENT TO REMAIN
- PROPOSED PAVEMENT
- PROPOSED DRIVEWAY
- EXISTING FENCE — X —

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CUDE ENGINEERS — EST. 1980

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San Antonio, Texas 78231
P:(210) 681.2951 F: (210) 523.7112

CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

CORLEY ROAD PLAN & PROFILE

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

	DATE	
1.	6/30/2024	PERMITTING REVISIONS
2.	7/10/2024	REVISED GRADING AND SLOPE LABELS ADDED
3.	9/3/2024	COUNTY & CITY COMMENTS
4.	7/14/2025	COUNTY & CITY COMMENTS

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED PROFESSIONAL ENGINEER
07/16/2025
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TBPE No. 455
TBPLS No. 10048500

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P:\03481\003-Drawings\CORLEY ROAD\PANELS\CT CORLEY ROAD PLAN & PROFILE.dwg 2025/07/16 8:13 am tomhanks

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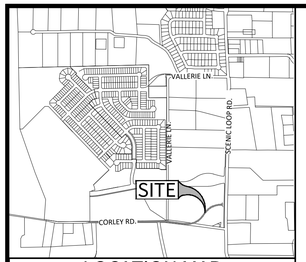

LOCATION MAP
N.T.S.

SCALE: 1"=60'
60 30 0 60

LEGEND

EX. PVM'T TO REMAIN

PROP. PAVEMENT

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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

TRAFFIC SIGNAGE & STRIPING PLAN

8-OM4-3 END OF ROAD "END OF ROAD"

W14-1 DEAD END "DEAD END"

DEAD END

CORLEY RD (EXISTING STREET NAME TO BE CHANGED)

FORD, CHARLES W. & SHARON K. (VOL. 627 PG. 997, O.R.K.C.)

RED BEARKAT HOLDING, LLC (VOL. 1621 PG. 740)

CITY OF BOERNE (VOL. 1193, PG. 744, O.R.K.C.) (0.062C Ac.)

CORLEY FARMS UNIT 1 (DOC# 2023-380924, O.R.K.C.)

REED LANE RIGHT-OF-WAY LINE

± 4,440 L.F. OF WHITE EDGE LINE ITEM #666 (OVERALL)

± 1,053 L.F. OF 4" DOUBLE YELLOW SOLID STRIPE WITH SOLID WHITE STOP BAR (OVERALL)

R1-1 STOP SIGN "STOP" SIZE = 30" x 30"

R2-1 SPEED LIMIT SIGN "SPEED LIMIT 35"

SPEED LIMIT 35

D3-1 STREET NAME "CORLEY ROAD" SIZE = 9"

D3-1 STREET NAME "PRIVATE DRIVE" SIZE = 9"

4.00' 4.00' 14.40' 20.00' 14.40' 4.00' 4.00'

PROPOSED CAR IN MAILBOX TURNAROUND

TRACT 3: 46.081 ACRE TRACT (VOL. 550 PG. 413, O.R.K.C.)

CORLEY RD

MATCHLINE "A" (SEE THIS SHEET)

OFF-LOT 25' WATER ESM'T. (DOC# 2023-380924, O.R.K.C.)

OFF-LOT 20' UTILITY ESM'T. (DOC# 2021-358634, O.R.K.C.)

OFF-LOT 20' UTILITY EASEMENT (DOC# 2023-380924, O.R.K.C.)

REMAINING PORTION OF 42.451 Ac. TRACT OWNER: BOERNEBAK, LLC (VOL. 1617 PG. 546, O.R.K.C.)

12' UTILITY ESM'T 0.4168 OF AN ACRE (DOC.# 2024-393863)

SIDEWALK

CASTELORO LEGACY HOLDING, LLC (VOL. 1447 PG. 479)

EX. 8" SANITARY SEWER ESM'T (DOC# 2024-393863

15' DRAINAGE ESM'T (DOC.#2024-393863)

SCENIC LOOP TURN LANE PLAN SEE SHEET C10

ADA RAMP

24" WHITE PAVEMENT STRIPING ITEM # 535.7 21 L.F. TO BE DONE BY OTHERS

ADA RAMP

24" WHITE PAVEMENT CROSSWALK STRIPING 52 L.F.

24" WHITE PAVEMENT CROSSWALK STRIPING 64 L.F.

OFF-LOT 20' UTILITY EASEMENT

SCENIC LOOP ROAD

R1-1 STOP SIGN "STOP" SIZE = 30" x 30"

D3-1 STREET NAME "CORLEY ROAD" SIZE = 9"

D3-1 STREET NAME "SCENIC LOOP ROAD" SIZE = 9"

R2-1 SPEED LIMIT SIGN "SPEED LIMIT 35"

SPEED LIMIT 35

12' UTILITY ESM'T 0.4168 OF AN ACRE (DOC.# 2024-393863)

± 1,331 L.F. OF 4" DOUBLE YELLOW SOLID STRIPE WITH SOLID WHITE STOP BAR (OVERALL)

± 1,293 L.F. OF WHITE EDGE LINE ITEM #666

RIGHT-OF-WAY LINE

OFF-LOT VARIABLE WIDTH DRAINAGE & UTILITY EASEMENT (DOC#2023-380924)

VARIABLE WIDTH INGRESS/EGRESS, DRAINAGE, & UTILITY EASEMENT (DOC#2023-380924)

D3-1 STREET NAME CORLEY RD SIZE = 9" ITEM# 531.59

CORLEY RD

D3-1 STREET NAME OLD CORLEY RD SIZE = 9" ITEM# 531.59

OLD CORLEY RD

R1-1 STOP SIGN "STOP" SIZE = 30"x30" ITEM# 531.3

STOP

X-W14-12 SIGN "NO OUTLET" SIZE = 30" x 30"

GRADING AND DRAINAGE EASEMENT (DOC.# 2024-394694)

OFF-LOT 12' UTILITY ESM'T. (DOC# 2022-368057, O.R.K.C.)

± 6,177 L.F. OF DOUBLE YELLOW SOLID STRIPE WITH SOLID WHITE STOP BAR (OVERALL)

CORLEY FARMS UNIT 1 (DOC# 2023-380924, O.R.K.C.)

16.748 ACRE TRACT OWNER: BOERNE INDEPENDENT SCHOOL DISTRICT (DOCUMENT# 2021-365508, O.R.K.C.)

VARIABLE WIDTH INGRESS/EGRESS, DRAINAGE, & UTILITY EASEMENT

SCALE: 1"=60'
60 30 0 60

MATCHLINE "A" (SEE THIS SHEET)

RIGHT-OF-WAY LINE

± 4,440 L.F. OF WHITE EDGE LINE ITEM #666 (OVERALL)

4.00' 28.00' 14.40' 95.00'

TRACT 3: 46.081 ACRE TRACT (VOL. 550 PG. 413, O.R.K.C.)

CORLEY RD

OFF-LOT 12' UTILITY ESM'T. (DOC# 2022-368057, O.R.K.C.)

16.748 ACRE TRACT OWNER: BOERNE INDEPENDENT SCHOOL DISTRICT (DOCUMENT# 2021-365509, O.R.K.C.)

± 6,177 L.F. OF 4" DOUBLE YELLOW SOLID STRIPE WITH SOLID WHITE STOP BAR (OVERALL)

RIGHT-OF-WAY LINE

1.296 ACRE TRACT (VOL. 1417 PG. 839, O.R.K.C.)

7.186 ACRE TRACT (VOL. 408 PG. 270, O.R.K.C.T.)

SEE CORLEY ROAD IMPROVEMENTS PHASE II

SEE CORLEY ROAD IMPROVEMENTS PHASE II

CORLEY FARMS SUBDIVISION UNIT 4

OFF-LOT 12' UTILITY ESM'T.

SCALE: 1"=60'
60 30 0 60

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

	DATE	
1.	5/02/2024	ADDED ROADWAY MARKER CALLOUTS
2.	6/20/2024	MINOR EDITS PER CITY COMMENTS
3.	9/3/2024	PERMITTING REVISIONS
4.	11/14/2024	CITY & COUNTY COMMENTS
5.	04/16/2025	CITY & COUNTY COMMENTS
6.	05/05/2025	CITY & COUNTY COMMENTS
7.	07/14/2025	CITY & COUNTY COMMENTS
8.		
9.		

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED PROFESSIONAL ENGINEER
07/16/2025

CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500

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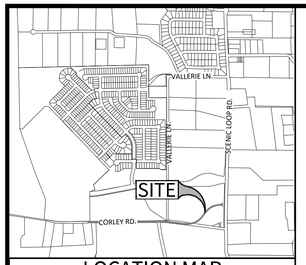
03481\003\Drawings\CORLEY ROAD\PHASE I\C9 TRAFFIC SIGNAGE & STRIPING PLAN.dwg 2025/07/16 8:32am tlamothe



LOCATION MAP
N.T.S.

LEGEND:

RIGHT-OF-WAY LINE

EXISTING STREET CENTERLINE

TRAFFIC FLOW ARROWS INDICATING DIRECTION

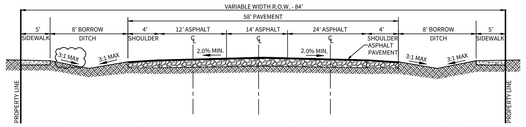
EXISTING PAVEMENT

PROPOSED PAVEMENT

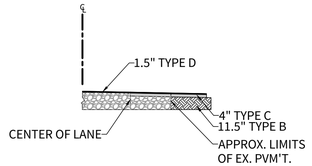
PROPOSED SIDEWALK

KEYNOTES:

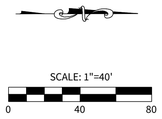
1. 4" DOUBLE SOLID YELLOW LINE THERMOPLASTIC PAVEMENT MARKING & TYPE II - A-A RAISE REFLECTIVE PAVEMENT MARKERS @ 20' O.C.
2. 12" SINGLE SOLID YELLOW LINE THERMOPLASTIC PAVEMENT MARKING & TYPE II - A-A RAISE REFLECTIVE PAVEMENT MARKERS @ 20' O.C.
3. 8" SINGLE WHITE SOLID LINE THERMOPLASTIC PAVEMENT MARKING



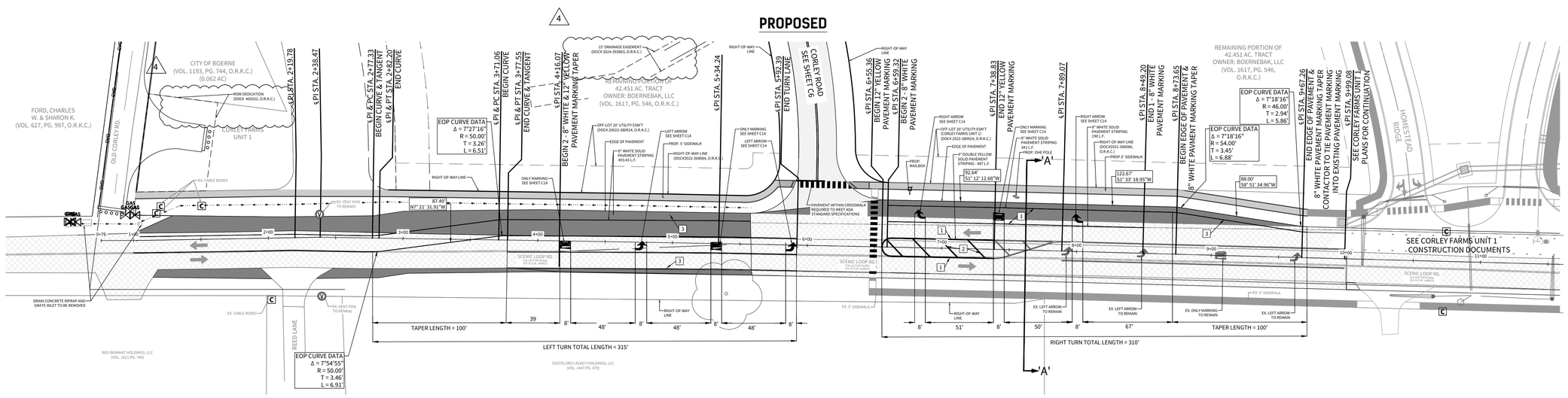
PROPOSED SCENIC LOOP ROAD CROSS SECTION (84' R.O.W.)
(NOT TO SCALE)



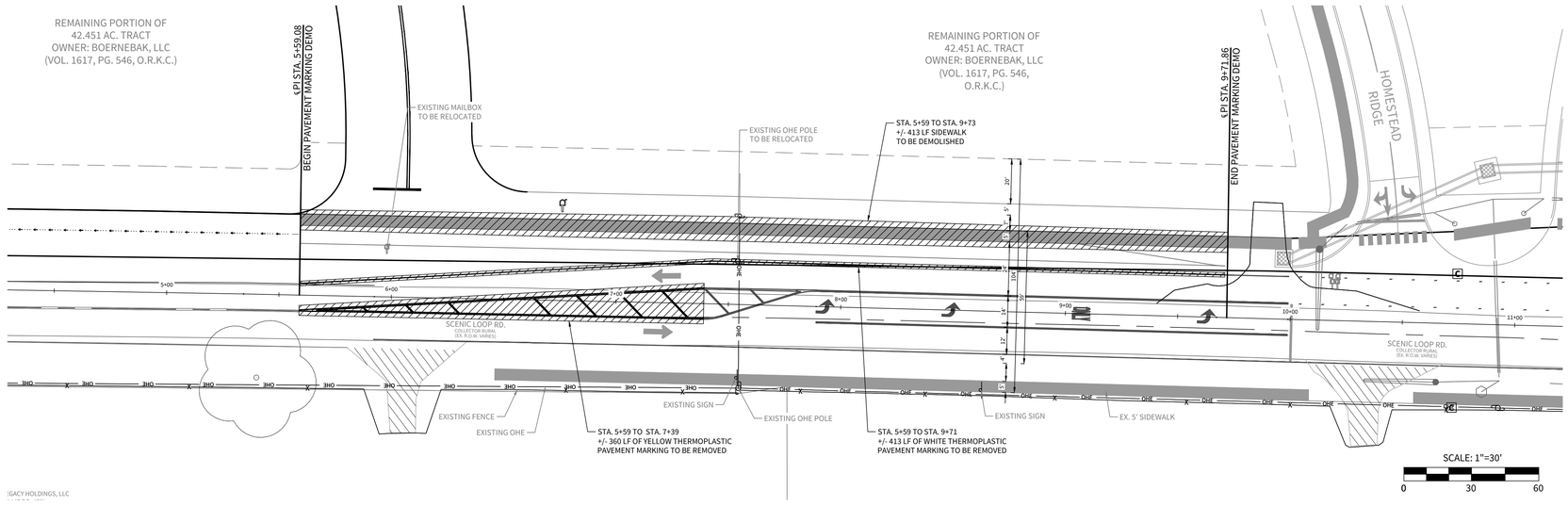
PAVEMENT JUNCTION DETAILS
N.T.S.



PROPOSED



EXISTING CONDITIONS AND DEMO PLAN



CAUTION NOTE:

THE CONTRACTOR SHALL BE AWARE THAT OVERHEAD ELECTRIC, UNDERGROUND FIBER OPTIC, GAS, AND TELEPHONE UTILITIES EXIST ALONG SCENIC LOOP ROAD. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE THESE UTILITIES LOCATED PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THIS AREA. ANY DAMAGE DONE TO THESE EXISTING FACILITIES WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR.

NOTES:

1. ALL PAVEMENT MARKINGS AND STRIPING SHALL BE HOT APPLIED THERMOPLASTIC PAVEMENT MARKINGS PER CITY OF BOERNE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
2. THE CONTRACTOR SHALL BE AWARE THAT EXISTING OVERHEAD ELECTRIC AND UNDERGROUND CABLE TV UTILITIES EXIST ALONG SCENIC LOOP ROAD. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE THESE UTILITIES LOCATED PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THIS AREA. ANY DAMAGE DONE TO THESE EXISTING FACILITIES WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR.
3. CONTRACTOR IS REQUIRED TO REPLACE ALL EXISTING FENCES AND/OR DRIVEWAYS TO EXISTING OR BETTER CONDITION.
4. CONTRACTOR IS REQUIRED TO PROVIDE ACCESS TO ALL ADJACENT HOMEOWNERS AND DRIVEWAYS AT ALL TIMES.
5. CONTRACTOR IS RESPONSIBLE FOR 85% REVEGETATION OF ALL DISTURBED AREAS WITHIN THE ROW UPON INFRASTRUCTURE COMPLETION.
6. CONTRACTOR IS RESPONSIBLE FOR ENSURING POSITIVE SITE DRAINAGE AT ALL TIMES DURING AND UPON COMPLETION OF INFRASTRUCTURE.
7. A KENDALL COUNTY PERMIT MUST BE OBTAINED BEFORE WORKING IN KENDALL COUNTY RIGHT OF WAY.
8. UPON REMOVAL OF EXISTING STRIPING AND INSTALLATION OF NEW STRIPING, THE CONTRACTOR SHALL INSTALL A FINAL SEAL COAT OVERLAY OVER THE ENTIRE LIMITS OF THE EXISTING AND NEW ASPHALT FROM STA 3+81.62 TO STA 9+99.08

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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

SCENIC LOOP TURN LANE PLAN

DATE	REVISIONS
1. 5/29/2024	PERMITTING REVISIONS
2. 9/03/2024	REVISED SLOPE LABEL IN CROSS SECTION & ADDED ADDITIONAL NOTES
3. 5/2/2025	CITY AND COUNTY COMMENTS
4. 5/12/2025	CITY AND COUNTY COMMENTS
5. 7/11/2025	CITY AND COUNTY COMMENTS
6.	
7.	
8.	
9.	

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED PROFESSIONAL ENGINEER
07/16/2025
CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500

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P:\03481\003\2-Drawings\CORLEY ROAD\PHASE I\CS SCENIC LOOP\TURN LANE PLAN.dwg, 2025/07/16 8:53am, Josiah Reid

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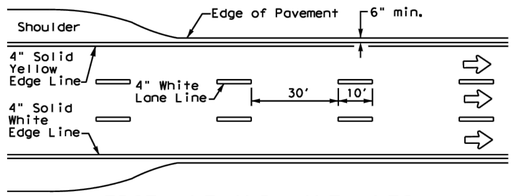
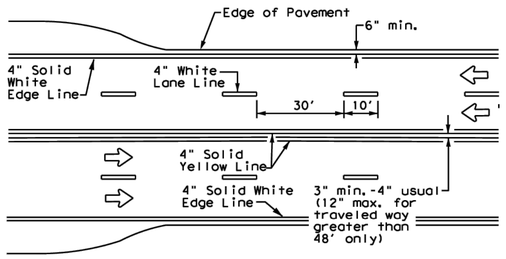
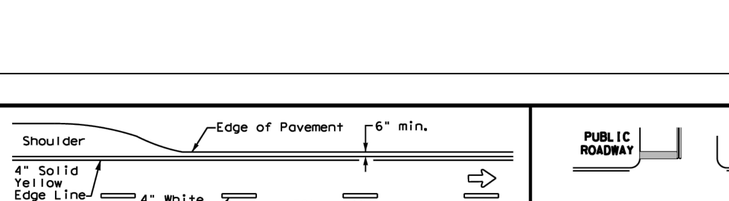


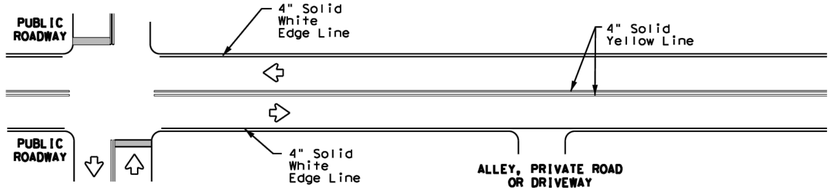
EDGE LINE AND LANE LINES ONE-WAY ROADWAY WITH OR WITHOUT SHOULDERS



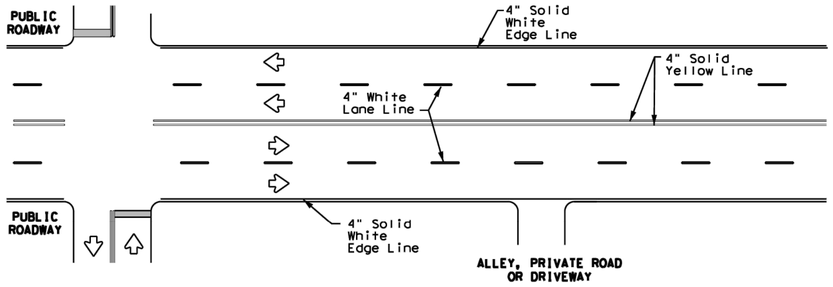
CENTERLINE AND LANE LINES FOUR LANE TWO-WAY ROADWAY WITH OR WITHOUT SHOULDERS



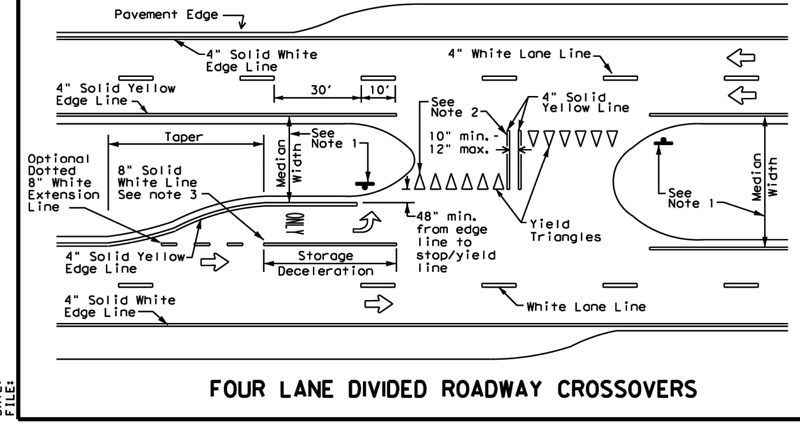
TWO LANE TWO-WAY ROADWAY WITH OR WITHOUT SHOULDERS



TYPICAL TWO-LANE, TWO-WAY PAVEMENT MARKINGS THROUGH INTERSECTIONS



TYPICAL MULTI-LANE, TWO-WAY PAVEMENT MARKINGS THROUGH INTERSECTIONS



FOUR LANE DIVIDED ROADWAY CROSSOVERS



For posted speed on road being marked equal to or less than 40 MPH.

For posted speed on road being marked equal to or greater than 45 MPH.

YIELD LINES

NOTE:

1. **Irrespective of shoulder, use 6in width lines (edge lines).**
2. **Use 4 in. width lines (edge and lane lines) when lane width is 10 ft. or less; and 6 in. width lines when lane width is greater than 10 ft.**

NOTES

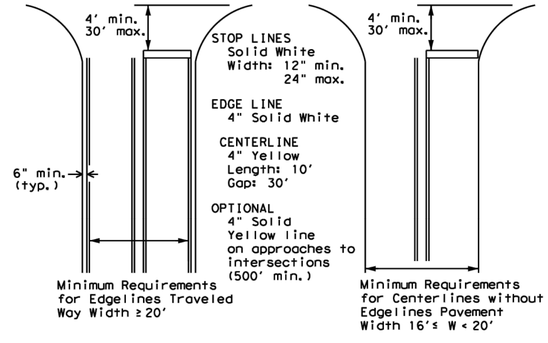
1. Where divided highways are separated by median widths at the median opening itself of 30 feet or more, median openings shall be signed as two separate intersections. Each median opening has two width measurements, with one measurement for each approach. The narrow median width will be the controlling width to determine if signs are required. Yield signs are the typical intersection control. Stop signs are optional as determined by the Engineer.
2. Install median striping (double yellow centerlines and stop bars/yield triangles) when a 50' or greater median centerline can be placed. Stop bars shall only be used with stop signs. Yield traingles shall only be used with yield signs.
3. Length of turn bays, including taper, deceleration, and storage lengths shall be as shown on the plans or as directed by the Engineer.

GENERAL NOTES

1. Edgeline striping shall be as shown in the plans or as directed by the Engineer. The edgeline should not be placed less less than 6 inches from the edge of pavement. This distance may vary due to pavement raveling or other conditions. Edgelines are not required in curb and gutter sections of roadways.
2. The traveled way includes only that portion of the roadway used for vehicular travel. It does not include the parking lanes, sidewalks, berms and shoulders. The traveled ways shall be measured from the inside of edgeline to the inside of edgeline of a two lane roadway.

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



GUIDE FOR PLACEMENT OF STOP LINES, EDGE LINE & CENTERLINE

Based on Traveled Way and Pavement Widths for Undivided Highways

Texas Department of Transportation
HOUSTON DISTRICT STANDARD

TYPICAL STANDARD PAVEMENT MARKINGS

PM-20

©TxDOT NOVEMBER 1978	DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT
REVISIONS	CONT	SECT	JOB	HIGHWAY
8-95 2-12				
5-00 8-16				
8-00 7-20	DIST	COUNTY		SHEET NO.
3-03				

STD N-5a

DATE:
FILE:

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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

STANDARD PAVEMENT MARKINGS

DATE
07/16/2025
PROJECT NO.
03481.003
DRAWN BY
JG/AM/RC/CG
CHECKED BY
AL

REVISIONS
DATE
1 2 3 4 5 6 7 8 9

ANDREW R. LOWRY
123410
LICENSED PROFESSIONAL ENGINEER
07/16/2025
CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500

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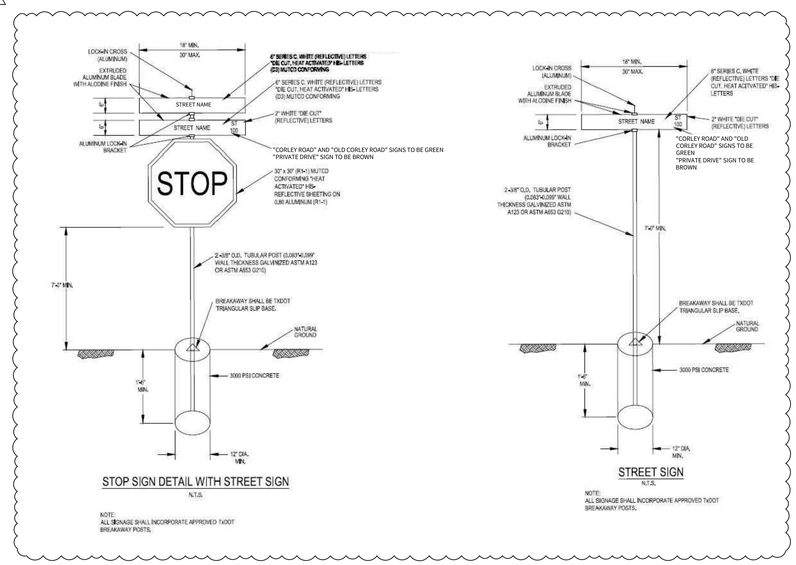
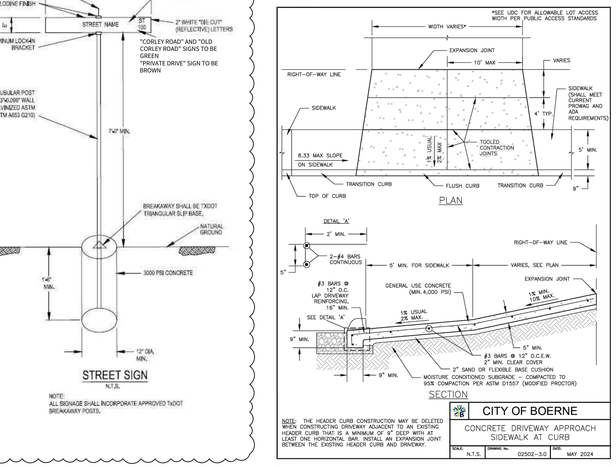
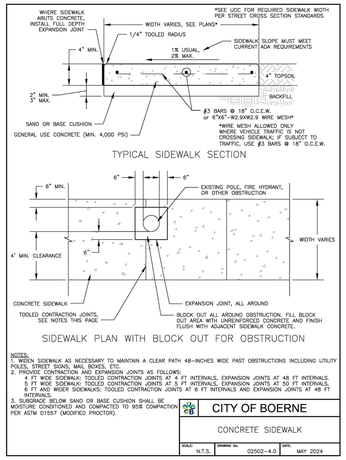




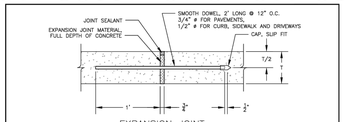
NOTE: THE HEADER CURB CONSTRUCTION MAY BE DELETED WHEN CONSTRUCTING DRIVEWAY ADJACENT TO AN EXISTING HEADER CURB THAT IS A MINIMUM OF 9" DEEP WITH AT LEAST ONE HORIZONTAL BAR. INSTALL AN EXPANSION JOINT BETWEEN THE EXISTING HEADER CURB AND DRIVEWAY.

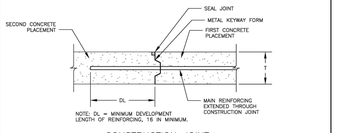
CITY OF BOERNE			
CONCRETE DRIVEWAY APPROACH SIDEWALK AT CURB			
SCALE: N.T.S.	DRAWING No.: 02502-3.0	DATE: MAY 2024	



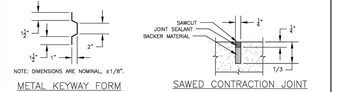
NOTES:
1. WIDEN SIDEWALK AS NECESSARY TO MAINTAIN A CLEAR PATH 48-INCHES WIDE PAST OBSTRUCTIONS INCLUDING UTILITY POLES, STREET SIGNS, MAIL BOXES, ETC.
2. PROVIDE CONTRACTION AND EXPANSION JOINTS AS FOLLOWS:
   4 FT WIDE SIDEWALK: TOOLED CONTRACTION JOINTS AT 4 FT INTERVALS, EXPANSION JOINTS AT 48 FT INTERVALS.
   5 FT WIDE SIDEWALK: TOOLED CONTRACTION JOINTS AT 5 FT INTERVALS, EXPANSION JOINTS AT 50 FT INTERVALS.
   6 FT AND WIDER SIDEWALKS: TOOLED CONTRACTION JOINTS AT 6 FT INTERVALS AND EXPANSION JOINTS AT 48 FT INTERVALS.
3. SUBGRADE BELOW SAND OR BASE CUSHION SHALL BE MOISTURE CONDITIONED AND COMPACTED TO 95% COMPACTION PER ASTM D1557 (MODIFIED PROCTOR).

CITY OF BOERNE			
CONCRETE SIDEWALK			
SCALE: N.T.S.	DRAWING No.: 02502-4.0	DATE: MAY 2024	



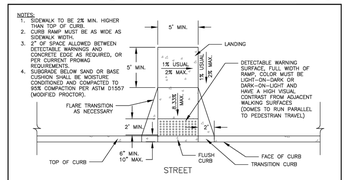


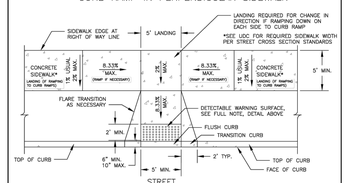
NOTE: USE KEYED JOINTS WITH METAL KEYWAY FORM FOR CONSTRUCTION JOINTS. KEYWAY FORM SHOWN IS AND IS TO BE USED ONLY AS AN ALTERNATE TO THE METAL KEYWAY FORM. ROUGHEN CONCRETE OF SECOND POUR AT FIRST POUR AND APPLY AN ADHESIVE BONDING AGENT TO ROUGHENED CONCRETE.



NOTE: SAWED CONTRACTION JOINTS MUST BE USED ON CONCRETE PAVING. ON DRIVEWAYS, SIDEWALKS AND CURB, TOOLED CONTRACTION JOINTS MAY BE USED. THE TOOLED JOINT MUST BE 1/2 INCH DEEP AND 1/2 INCH WIDE WITH A 1/4 INCH RADIUS ALONG THE EDGE.

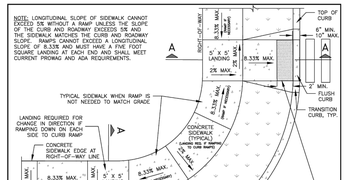
CITY OF BOERNE			
CONCRETE JOINTS			
SCALE: N.T.S.	DRAWING No.: 02502-1.2	DATE: MAY 2024	





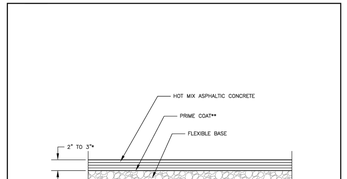
NOTE: LONGITUDINAL SLOPE OF SIDEWALK CANNOT EXCEED 5% WITHOUT A RAMP UNLESS THE SLOPE OF THE CURB AND ROADWAY EXCEEDS 5% AND THE SIDEWALK MATCHES THE CURB AND ROADWAY SLOPE. RAMPS CANNOT EXCEED A LONGITUDINAL SLOPE OF 8.33% AND MUST HAVE A FIVE FOOT SQUARE LANDING AT EACH END AND MEET CURRENT PROWAG AND ADA REQUIREMENTS.

CITY OF BOERNE			
SIDEWALK CURB RAMPS SIDEWALK AT ROW LINE			
SCALE: N.T.S.	DRAWING No.: 02502-4.1	DATE: MAY 2024	



NOTES:
1. SIDEWALK TO BE 2% MIN. HIGHER THAN TOP OF CURB.
2. CURB RAMP MUST BE AS WIDE AS SIDEWALK WIDTH.
3. 2" OF SPACE ALLOWED BETWEEN DETECTABLE WARNINGS AND CONCRETE EDGE AS REQUIRED, OR PER CURRENT PROWAG REQUIREMENTS.
4. SUBGRADE BELOW SAND OR BASE CUSHION SHALL BE MOISTURE CONDITIONED AND COMPACTED TO 95% COMPACTION PER ASTM D1557 (MODIFIED PROCTOR).
5. ANY DEVIATION FROM THESE CURB RAMP DETAILS MUST BE APPROVED BY ENGINEERING & MOBILITY DEPARTMENT.

CITY OF BOERNE			
SIDEWALK CURB RAMP ON RADIUS SIDEWALK AT ROW LINE			
SCALE: N.T.S.	DRAWING No.: 02502-4.2	DATE: MAY 2024	



*THICKNESS VARIES DEPENDING UPON PAVEMENT DESIGN AND GEOTECHNICAL REPORT. REFER TO PLAN X-SECTIONS AND DETAILS FOR SPECIFIED PAVEMENT DESIGN.

**PROVIDE TACK COAT IN ADDITION TO PRIME COAT IMMEDIATELY PRIOR TO PLACING ASPHALTIC CONCRETE AS NEEDED TO SEAL AND ENSURE ADHERENCE.

NOTES:
1. PROVIDE 1 SET OF CORES FOR EACH DAY OF PAVING OR PER 500 TONS.

CITY OF BOERNE			
ASPHALTIC CONCRETE PAVEMENT SECTION			
SCALE: N.T.S.	DRAWING No.: 02513-1.0	DATE: MAY 2024	

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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

CITY OF BOERNE STANDARD STREET DETAILS

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

#	DATE	
1	5/29/2024	PERMITTING REVISIONS
2	11/14/2024	CITY AND COUNTY COMMENTS

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED PROFESSIONAL ENGINEER
07/16/2025

CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500

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P:\03481.003\3-Drawings\CORLEY ROAD\PHASE I\01 CITY OF BOERNE STANDARD STREET DETAILS.dwg 2/25/2025 7:18:53am mhoyer

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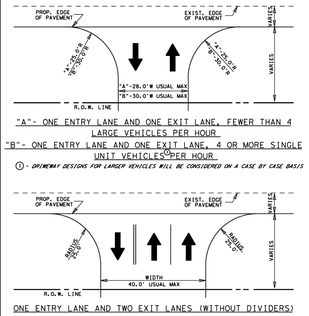
DESIGNS FOR TWO-WAY COMMERCIAL DRIVEWAYS



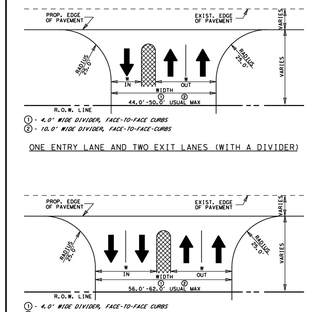
"A"- ONE ENTRY LANE AND ONE EXIT LANE, FEWER THAN 4 LARGE VEHICLES PER HOUR

"B"- ONE ENTRY LANE AND ONE EXIT LANE, 4 OR MORE SINGLE UNIT VEHICLES PER HOUR

① - DRIVEWAY DESIGNS FOR LARGER VEHICLES WILL BE CONSIDERED ON A CASE BY CASE BASIS

ONE ENTRY LANE AND TWO EXIT LANES (WITHOUT DIVIDERS)

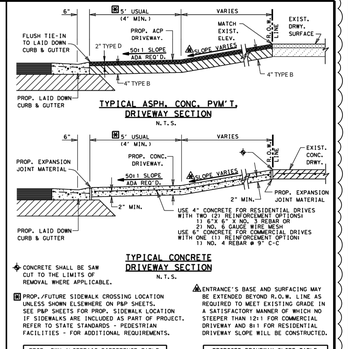
DESIGNS FOR TWO-WAY COMMERCIAL DRIVEWAYS



① - 4.0' WIDE DIVIDER, FACE-TO-FACE CURBS
② - 10.0' WIDE DIVIDER, FACE-TO-FACE CURBS

ONE ENTRY LANE AND TWO EXIT LANES (WITH A DIVIDER)

TWO ENTRY LANES AND TWO EXIT LANES (WITH A DIVIDER)



◆ CONCRETE SHALL BE SAW CUT TO THE LIMITS OF REMOVAL WHERE APPLICABLE.

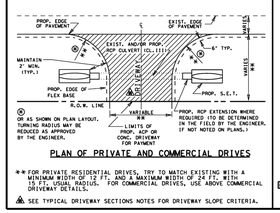
Ⓟ PROP./FUTURE SIDEWALK CROSSING LOCATION UNLESS SHOWN ELSEWHERE ON P&P SHEETS. SEE P&P SHEETS FOR PROP. SIDEWALK LOCATION IF SIDEWALKS ARE INCLUDED AS PART OF PROJECT. REFER TO STATE STANDARDS - PEDESTRIAN FACILITIES - FOR ADDITIONAL REQUIREMENTS.

⚠ ENTRANCE'S BASE AND SURFACING MAY BE EXTENDED BEYOND R.O.W. LINE AS REQUIRED TO MEET EXISTING GRADE IN A SATISFACTORY MANNER OF WHICH NO STEEPER THAN 12:1 FOR COMMERCIAL DRIVEWAY AND 8:1 FOR RESIDENTIAL DRIVEWAY SLOPE WILL BE CONSTRUCTED.

PROP. DWY ALGEBRAIC DIFFERENCE TABLE
COMMERCIAL DRIVEWAYS @ A + 4% MAX.
RESIDENTIAL DRIVEWAYS @ A + 8% MAX.

PROPOSED DRIVEWAY SLOPE TABLE
COMMERCIAL DRIVEWAYS @ 12:1 MAX.
RESIDENTIAL DRIVEWAYS @ 8:1 MAX.

PRIVATE AND COMMERCIAL DRIVES WITHOUT CURB & GUTTER



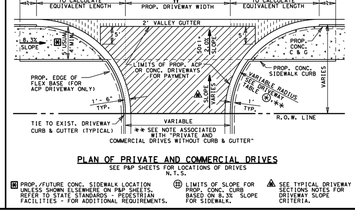
① AS SHOWN ON PLAN LAYOUT. TURNING RADIUS MAY BE REDUCED AS APPROVED BY THE ENGINEER.

PLAN OF PRIVATE AND COMMERCIAL DRIVES

✱✱ FOR PRIVATE RESIDENTIAL DRIVES, TRY TO MATCH EXISTING WITH A MINIMUM WIDTH OF 12 FT. AND A MAXIMUM WIDTH OF 24 FT. WITH MINIMAL FLARE RADIUS. - FOR COMMERCIAL DRIVES, USE ABOVE COMMERCIAL DRIVEWAY DETAILS.

⚠ SEE TYPICAL DRIVEWAY SECTIONS NOTES FOR DRIVEWAY SLOPE CRITERIA.

PRIVATE AND COMMERCIAL DRIVES WITH CURB & GUTTER



PLAN OF PRIVATE AND COMMERCIAL DRIVES

SEE P&P SHEETS FOR LOCATIONS OF DRIVES

N.T.S.

✱✱ SEE NOTE ASSOCIATED WITH "PRIVATE AND COMMERCIAL DRIVES WITHOUT CURB & GUTTER"

Ⓟ PROP./FUTURE CONC. SIDEWALK LOCATION UNLESS SHOWN ELSEWHERE ON P&P SHEETS. REFER TO STATE STANDARDS - PEDESTRIAN FACILITIES - FOR ADDITIONAL REQUIREMENTS.

Ⓛ LIMITS OF SLOPE FOR PROP. CONC. CURB BASED ON 8.3% SLOPE FOR SIDEWALK.

⚠ SEE TYPICAL DRIVEWAY SECTIONS NOTES FOR DRIVEWAY SLOPE CRITERIA.

LF EQUIVALENT TABLE FOR PAYMENT LIMITS OF 2' VALLEY GUTTER

LF OF VALLEY GUTTER= W + X1 + X2

WHERE X1 AND X2 MAY VARY DEPENDING ON RADIUS		
Prop. Driveway Radius	X1 or X2 (Sq Ft Area / 2') Equivalent LF Length	
5'	1	
8'	2	
10'	4	
12'	6	
15'	9	
18'	12	
20'	15	
22'	18	
25'	24	
28'	30	
30'	34	

SEE DRIVEWAY TABLE FOR LIMITS OF LAID DOWN CURB TO BE PAID FOR AS CURB AND GUTTER

DRIVEWAY TYPES

TY PB-1

EXIST. PRIVATE OR COMMERCIAL DRIVEWAYS TO BE CONSTRUCTED AS SHOWN WITH 4" NEW AND/OR SALVAGE FLEX. BASE, PRIMED AND SURFACED WITH 1"HMA'SY ACP. (HMA-D PG 64-22 SAC B MEETING ITEM 340)

CONCRETE (RESIDENTIAL)

EXIST. PRIVATE DRIVEWAYS TO BE CONSTRUCTED AS SHOWN WITH 4" CONCRETE. TO BE PAID FOR BY THE SQ.YD.

CONCRETE (COMMERCIAL)

EXIST. BUSINESS DRIVEWAYS TO BE CONSTRUCTED AS SHOWN WITH 6" CONCRETE. TO BE PAID FOR BY THE SQ.YD.

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PHARR DISTRICT STANDARD

TEXAS DEPARTMENT OF TRANSPORTATION

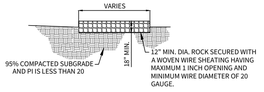
DRIVEWAY DETAILS PRIVATE (RESIDENTIAL-COMMERCIAL)

REV. 08/22 — DRIVEWAYZ.DGN

DIST.	COUNTY	PROJECT NO.	FILE NO.	SHEET NO.
08				
STATE	STATE PROJECT NO.	COUNTY	CONT. SECT. JOB	HIGHWAY NO.
TEXAS	21			

1

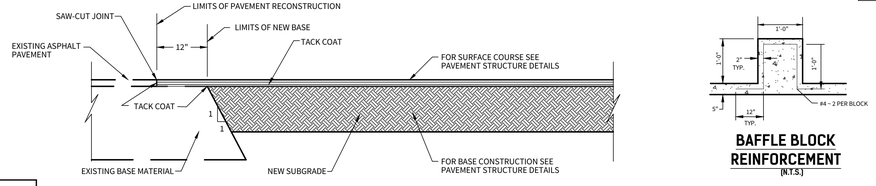
STREET TYPE	HMAC TYPE "D"	HMAC TYPE "B"	AGGREGATE BASE THICKNESS, INCHES	SUBGRADE	STRUCTURAL NUMBER
LOCAL STREET	2"	8"	-		4.20



GABION STYLE ROCK EROSION CONTROL MATRESS DETAIL

NOTE: GABION MATTRESS TO BE FREE OF GEO-TEXTILE FABRIC LINING AT DETENTION POND OUTFALL.

(N.T.S.)

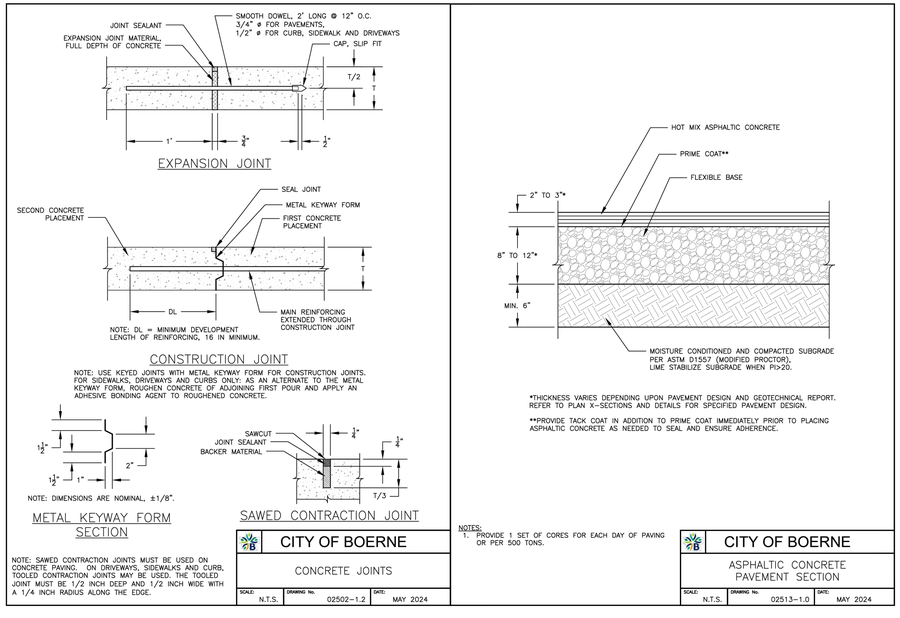


PAVEMENT JUNCTION DETAILS

N.T.S.

BAFFLE BLOCK REINFORCEMENT

(N.T.S.)



CITY OF BOERNE

CONCRETE JOINTS

SCALE:	DRAWING No.	DATE:
N.T.S.	02502-1.2	MAY 2024

*THICKNESS VARIES DEPENDING UPON PAVEMENT DESIGN AND GEOTECHNICAL REPORT. REFER TO PLAN X-SECTIONS AND DETAILS FOR SPECIFIED PAVEMENT DESIGN.

**PROVIDE TACK COAT IN ADDITION TO PRIME COAT IMMEDIATELY PRIOR TO PLACING ASPHALTIC CONCRETE AS NEEDED TO SEAL AND ENSURE ADHERENCE.

NOTES:
1. PROVIDE 1 SET OF CORES FOR EACH DAY OF PAVING OR PER 500 TONS.

CITY OF BOERNE

ASPHALTIC CONCRETE PAVEMENT SECTION

SCALE:	DRAWING No.	DATE:
N.T.S.	02513-1.0	MAY 2024

NOTES

1. PAVEMENT DESIGN THICKNESS BASED ON GEOTECHNICAL REPORT. SEE TABLE FOR STRUCTURAL NUMBER CALCULATION. REFERENCE PROJECT GEOTECHNICAL REPORT AND PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND ALTERNATE PAVEMENT SECTIONS.
2. ANY AREAS OF CLAY ENCOUNTERED DURING CONSTRUCTION SHALL BE REMOVED DOWN TO THE WEATHERED/FRIABLE MARLSTONE/LIMESTONE AND PROPERLY BACKFILLED WITH MARLSTONE/LIMESTONE MILLINGS HAVING A CBR VALUE EQUAL OR EXCEEDING 6.
3. A GEOTECHNICAL ENGINEERING REPRESENTATIVE SHALL BE RETAINED TO: (1) OBSERVE THE SITE PREPARATION AND SUBGRADE OPERATIONS. (2) EVALUATE THE ACTUAL SUBGRADE MATERIAL CLASSIFICATION; AND (3) VERIFY THAT RECOMMENDATIONS ARE FOLLOWED. THE ACTUAL SUBGRADE CONDITION AT A PARTICULAR LOCATION WILL NEED TO BE EVALUATED DURING CONSTRUCTION ONCE THE SUBGRADE IS CUT/FILLED TO THE PROPER GRADE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING MATERIAL TESTING. TESTING TO BE PAID BY OWNER.
5. PAVEMENT SECTIONS ARE SUBJECT TO CHANGE DUE TO RETESTING OF SOIL AFTER STREET EXCAVATION HAS BEEN DONE TO TOP OF CURB.
6. CONTRACTOR SHALL CONTACT ENGINEER 48 HRS IN ADVANCE FOR FIELD OBSERVATION DURING STREET CONSTRUCTION. CONTRACTOR WILL BE REQUIRED TO CONTACT ENGINEER FOR INSPECTION OF THE SUBGRADE, BASE, ASPHALT, AND CURB.
7. GENERAL FILL MATERIALS SHOULD CONSIST OF ONSITE SOILS OR CLEAN IMPORTED FILL SOILS WITH EQUAL OR BETTER CBR CHARACTERISTICS TO THE ONSITE SOILS. GENERAL FILL MATERIAL SHOULD BE CLEAN AND FREE OF ANY VEGETATION ROOTS, ORGANIC MATERIALS, TRASH OR GARBAGE, CONSTRUCTION DEBRIS, OR OTHER DELETERIOUS MATERIALS AND SHOULD CONTAIN NO LARGER THAT THREE (3) INCHES IN MAXIMUM DIMENSION.

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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

STREET AND DRAINAGE DETAILS

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

NO.	DATE
1	
2	
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7	
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9	

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED
PROFESSIONAL ENGINEER
07/16/2025

CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500

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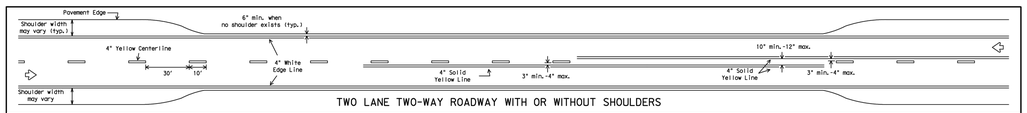
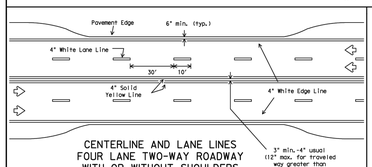
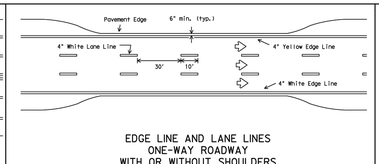


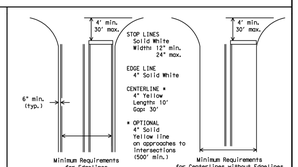
TWO LANE TWO-WAY ROADWAY WITH OR WITHOUT SHOULDERS



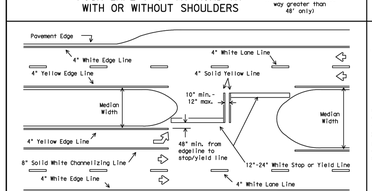
CENTERLINE AND LANE LINES
FOUR LANE TWO-WAY ROADWAY
WITH OR WITHOUT SHOULDERS



EDGE LINE AND LANE LINES
ONE-WAY ROADWAY
WITH OR WITHOUT SHOULDERS

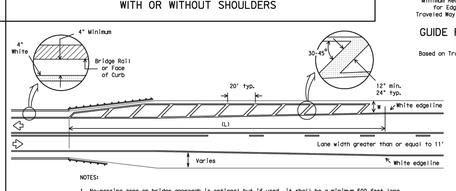


GUIDE FOR PLACEMENT OF STOP LINES,
EDGE LINE & CENTERLINE
Based on Traveled Way and Pavement Widths for Undivided Highways



All medians shall be field measured to determine the location of necessary striping. Stop/Yield bars and centerlines shall be placed when the median width is greater than 30 ft. The median width is defined as the area between two roadways of a divided highway measured from edge of traveled way to edge of traveled way. The median excludes turn lanes. The median width might be different between intersections, interchanges and at opposite approaches of the same intersection. The narrow median width will be the controlling width to determine if markings are required.

FOUR LANE DIVIDED ROADWAY INTERSECTIONS



NOTES:
1. No-passing zone on bridge approach is optional but if used, it shall be a minimum 500 feet long.
2. For crosshatching length (L) see Table 1.
3. The width of the offset (W) and the required crosshatching width is the full shoulder width in advance of the bridge.
4. The crosshatching is not required if delineators or barrier reflectors are used along the structure.
5. For guard fence details, refer elsewhere in the plans.

ROADWAYS WITH REDUCED SHOULDER
WIDTHS ACROSS BRIDGE OR CULVERT

TABLE 1 - TYPICAL LENGTH (L)

Posted Speed *	Formula
≤ 40	$L = \frac{WS^2}{60}$
≥ 45	L=WS

W-Width Perpendicular Speed may be used on roads where the Posted Speed is 5 MPH less than the Design Speed or Speed Limit. Crosshatching length shall be rounded up to nearest 5 foot increment.
L=Length of Crosshatching (FT.) W=Width of Offset (FT.)
S=Posted Speed (MPH)

EXAMPLES:

An 8 foot shoulder in advance of a bridge reduces to 4 feet on a 70 MPH roadway. The length of the cross-hatching should be:
L = 8 x 70 = 560 ft.

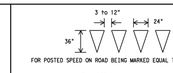
A 4 foot shoulder in advance of a bridge reduces to 2 feet on a 40 MPH roadway. The length of the cross-hatching should be:
L = 4(40)^2 / 60 = 106.67 ft, rounded to 110 ft.

GENERAL NOTES

1. Edgeline striping shall be as shown in the plans or as directed by the Engineer. The edgeline should typically be placed a minimum of 6 inches from the edge of pavement. This distance may vary due to pavement raveling or other conditions. Edgelines are not required in curb and gutter sections of roadways.
2. The traveled way includes only that portion of the roadway used for vehicular travel and not the parking lanes, sidewalks, berms and shoulders. The traveled ways shall be measured from the inside of edgeline to inside of edgeline of a two lane roadway.

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



FOR POSTED SPEED ON ROAD BEING MARKED EQUAL TO OR GREATER THAN 45 MPH



FOR POSTED SPEED ON ROAD BEING MARKED EQUAL TO OR LESS THAN 40 MPH

YIELD LINES

Texas Department of Transportation
Traffic Operations Division

TYPICAL STANDARD
PAVEMENT MARKINGS
PM(1)-12

©TxDOT November 1978	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
REVISIONS	CONT	SECT	JOB	HIGHWAY
8-95 2-12				
5-00	DIST	COUNTY		SHEET NO.
8-00				
7-03				
2-10				

22A

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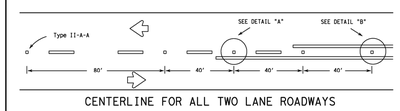
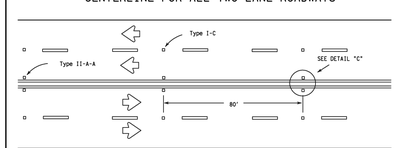
REFLECTIVE RAISED PAVEMENT MARKERS
FOR VEHICLE POSITIONING GUIDANCE

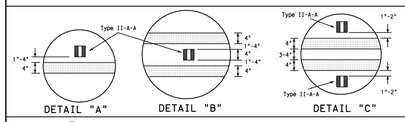


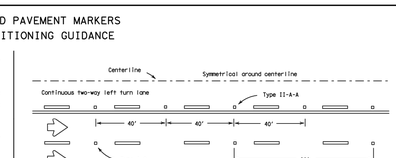
CENTERLINE FOR ALL TWO LANE ROADWAYS



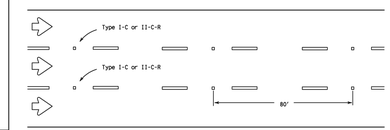
CENTERLINE & LANE LINES
FOR FOUR LANE TWO-WAY HIGHWAYS

Raised pavement marker Type I-C, clear face toward normal traffic, shall be placed on 80-foot centers.





CENTERLINE AND LANE LINES FOR TWO-WAY LEFT TURN LANE

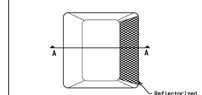


LANE LINES FOR ONE-WAY ROADWAY (NON-FREEWAY FACILITIES)

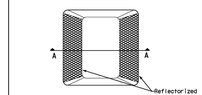
Raised pavement markers Type II-C-R shall have clear face toward normal traffic and red face toward wrong-way traffic.

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

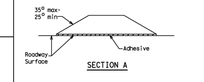
All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



Type I (Top View)

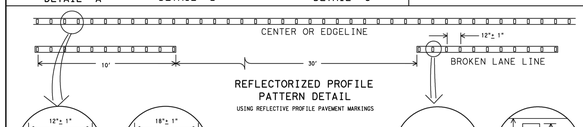


Type II (Top View)



SECTION A

RAISED PAVEMENT MARKERS



4" EDGE LINE OR CENTERLINE | OPTIONAL 6" EDGE LINE OR CENTERLINE | 4" LANE LINE | OPTIONAL 6" LANE LINE

NOTE:
Profile markings shall not be placed on roadways with a posted speed limit of 45 MPH or less.

GENERAL NOTES

1. All raised pavement markers placed in broken lines shall be placed in line with and midway between the stripes.
2. On concrete pavements the raised pavement markers should be placed to one side of the longitudinal joints.

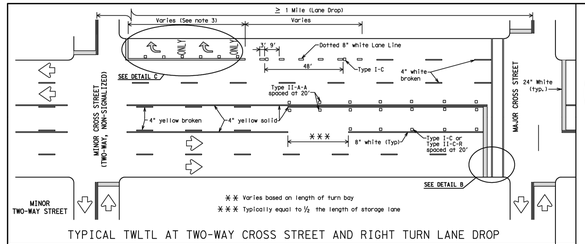
Texas Department of Transportation
Traffic Operations Division

POSITION GUIDANCE USING
RAISED MARKERS
REFLECTORIZED PROFILE
MARKINGS
PM(2)-12

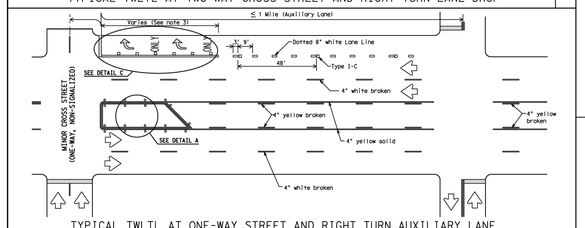
©TxDOT April 1977	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
REVISIONS	CONT	SECT	JOB	HIGHWAY
4-92 2-10				
5-00 2-12				
8-00	DIST	COUNTY		SHEET NO.
2-08				

22B

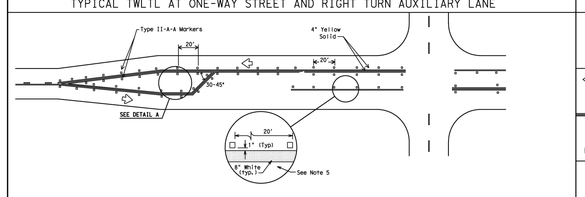
DISCLAIMER:
The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by the Texas Department of Transportation for any purpose whatsoever. The Texas Department of Transportation shall not be liable for any damages resulting from the incorrect use of this standard or for incorrect results or damages resulting from its use.



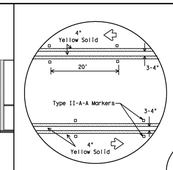
TYPICAL TWLTL AT TWO-WAY CROSS STREET AND RIGHT TURN LANE DROP



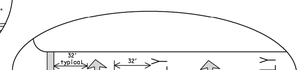
TYPICAL TWLTL AT ONE-WAY STREET AND RIGHT TURN AUXILIARY LANE



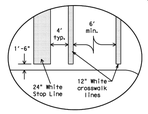
TYPICAL TWO-LANE HIGHWAY INTERSECTION WITH LEFT TURN BAYS



DETAIL A



DETAIL C

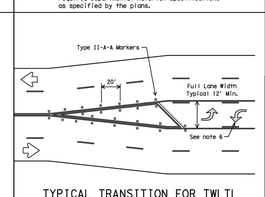


Final placement of Stop Bar and Crosswalk shall be approved by the Engineer in the field.

DETAIL B

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



TYPICAL TRANSITION FOR TWLTL
AND DIVIDED HIGHWAY

GENERAL NOTES

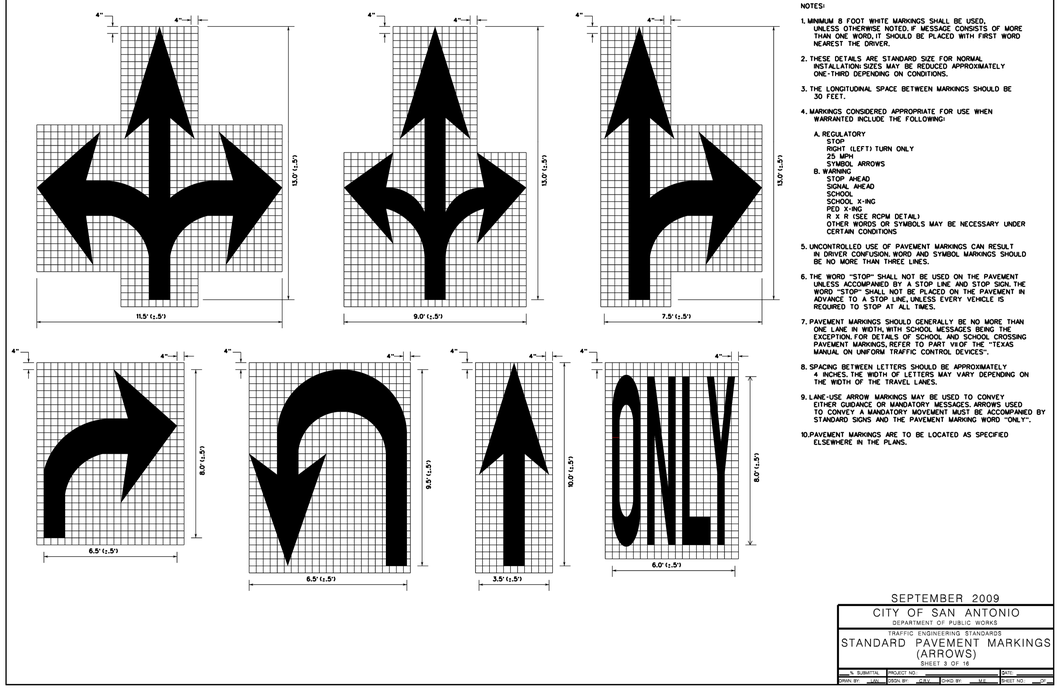
1. Refer elsewhere in plans for additional RPM placement and details.
2. Lane use word and arrow markings shall be used where through lanes approaching an intersection become exclusive turn lanes. Lane use word and arrow markings should be used on approaches of substantial length. Lane use arrow markings or word and arrow markings may be used in other lanes and turn bays for emphasis. Details for words and arrows as shown in the Standard Highway Sign Designs for Texas.
3. When lane used word and arrow markings are used, two sets of arrows should be used if the length of the bay is greater than 180 feet. When a single lane use arrow or word and arrow marking is used for a short turn lane, it should be located at or near the upstream end of the full-width turn lane.
4. Other crosswalk patterns as shown in the "Texas Manual on Uniform Traffic Control Devices" may be used.
5. Raised pavement marker Type I-C with undivided highways, flush medians and two way left turn lanes. Raised pavement marker Type II-C-R with divided highways and raised medians.
6. A two-way left-turn (TWLT) lane-use arrow pavement marking should be used at or just downstream from the beginning of a two-way left-turn lane within a corridor. Repeating the marking after each intersection or dedicated turn bay is not required unless stated elsewhere in the plans.

Texas Department of Transportation
Traffic Operations Division

PAVEMENT MARKINGS FOR
TWO-WAY LEFT TURN LANES
DIVIDED HIGHWAYS AND
RURAL LEFT TURN BAYS
PM(3)-12

©TxDOT April 1998	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
REVISIONS	CONT	SECT	JOB	HIGHWAY
5-00 2-12				
8-00	DIST	COUNTY		SHEET NO.
7-03				
2-10				

22C



NOTES:

1. MINIMUM 8 FOOT WHITE MARKINGS SHALL BE USED, UNLESS OTHERWISE NOTED. IF MESSAGE CONSISTS OF MORE THAN ONE WORD, IT SHOULD BE PLACED WITH FIRST WORD NEAREST THE DRIVER.
2. THESE DETAILS ARE STANDARD SIZE FOR NORMAL INSTALLATION. SIZES MAY BE REDUCED APPROXIMATELY ONE-THIRD DEPENDING ON CONDITIONS.
3. THE LONGITUDINAL SPACE BETWEEN MARKINGS SHOULD BE 30 FEET.
4. MARKINGS CONSIDERED APPROPRIATE FOR USE WHEN WARRANTED INCLUDE THE FOLLOWING:
   A. REGULATORY
      STOP
      RIGHT (LEFT) TURN ONLY
      25 MPH
      SYMBOL ARROWS
   B. WARNING
      STOP AHEAD
      SIGNAL AHEAD
      SCHOOL
      SCHOOL X-ING
      PED X-ING
      R X R (SEE RCPM DETAIL)
      OTHER WORDS OR SYMBOLS MAY BE NECESSARY UNDER CERTAIN CONDITIONS
5. UNCONTROLLED USE OF PAVEMENT MARKINGS CAN RESULT IN DRIVER CONFUSION. WORD AND SYMBOL MARKINGS SHOULD BE NO MORE THAN THREE LINES.
6. THE WORD "STOP" SHALL NOT BE USED ON THE PAVEMENT UNLESS ACCOMPANIED BY A STOP LINE AND STOP SIGN. THE WORD "STOP" SHALL NOT BE PLACED ON THE PAVEMENT IN ADVANCE TO A STOP LINE, UNLESS EVERY VEHICLE IS REQUIRED TO STOP AT ALL TIMES.
7. PAVEMENT MARKINGS SHOULD GENERALLY BE NO MORE THAN ONE LANE IN WIDTH, WITH SCHOOL MESSAGES BEING THE EXCEPTION. FOR DETAILS OF SCHOOL AND SCHOOL CROSSING PAVEMENT MARKINGS, REFER TO PART VI OF THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
8. SPACING BETWEEN LETTERS SHOULD BE APPROXIMATELY 4 INCHES. THE WIDTH OF LETTERS MAY VARY DEPENDING ON THE WIDTH OF THE TRAVEL LANES.
9. LANE-USE ARROW MARKINGS MAY BE USED TO CONVEY EITHER GUIDANCE OR MANDATORY MESSAGES. ARROWS USED TO CONVEY A MANDATORY MOVEMENT MUST BE ACCOMPANIED BY STANDARD SIGNS AND THE PAVEMENT MARKING WORD "ONLY".
10. PAVEMENT MARKINGS ARE TO BE LOCATED AS SPECIFIED ELSEWHERE IN THE PLANS.

SEPTEMBER 2009
CITY OF SAN ANTONIO
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING STANDARDS
STANDARD PAVEMENT MARKINGS
(ARROWS)
SHEET 3 OF 16

SUBMITTAL	PROJECT NO.		DATE
DRAWN BY:	DESIGN BY:	CHKD BY:	SHEET NO.

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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

TXDOT PAVEMENT MARKING DETAILS

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

DATE	1	2	3	4	5	6	7	8	9
A									

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED
PROFESSIONAL ENGINEER
07/16/2025
CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500

C14

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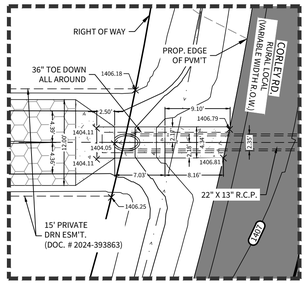
RIGHT OF WAY
PROP. EDGE OF PVM'T
36" TOE DOWN ALL AROUND
1406.18
CORLEY RD.
RURAL LOCAL
(VARIABLE WIDTH R.O.W.)
22" X 13" R.C.P.
15' PRIVATE DRN ESM'T. (DOC. # 2024-393863)
1406.25
1406.79
1406.83
1404.13
1404.09
1404.13
1406.18
5.10'
7.03'
5.16'
2.50'
4.50'
6.00'
1.00'
1.00'
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6.00'
6.00'
6.00'
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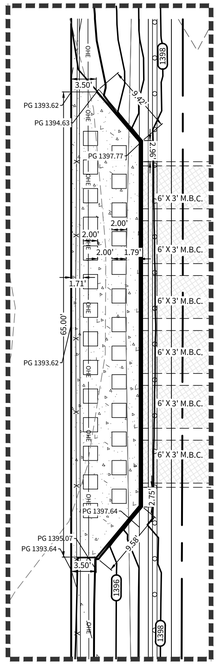
2.00'
1.05'
1.05'
1.05



DETAIL 'A'

SCALE: 1"=10'

CR CULVERT 2 (USBR TYPE III) BAFFLE BLOCK CALCULATIONS 10-YEAR

$Y_1 = 1.91$ FT $V_1 = 4.92$ FPS $F_1 = 0.627$ $Q_{10} = 506.20$ CFS

$Y_2/Y_1 = \frac{1}{2}(\sqrt{1+8(F1)^2}-1) = 0.73$

$Y_2 = 1.39$ FT

$L_b = 4.5(Y_2) / (F_1)^{0.76} = 8.92$ FT (USED 9.00 FT)

$L_b / 3 = 2.973$ FT (USED 3.00 FT)

$H = Y_1(0.168*F_1+0.58) = 1.309$ FT (USED 1.50 FT)

EXIT VELOCITY = 3.961 FPS

CR CULVERT 2 (USBR TYPE III) BAFFLE BLOCK CALCULATIONS 100-YEAR

$Y_1 = 3.00$ FT $V_1 = 10.09$ FPS $F_1 = 1.027$ $Q_{100} = 1,288.70$ CFS

$Y_2/Y_1 = \frac{1}{2}(\sqrt{1+8(F1)^2}-1) = 1.25$

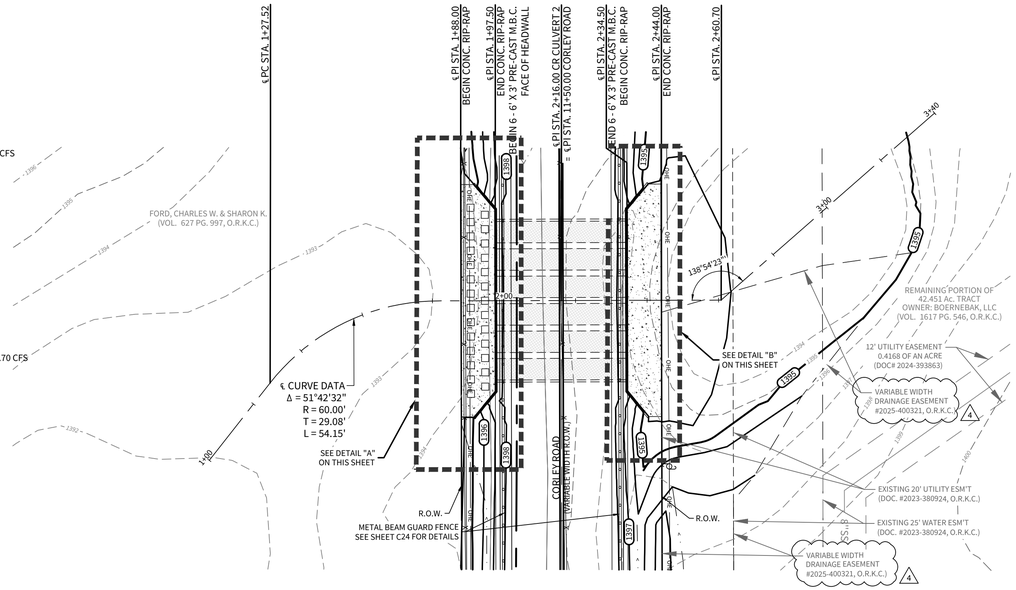
$Y_2 = 3.75$ FT

$L_b = 4.5(Y_2) / (F_1)^{0.76} = 16.51$ FT (USED 16.75 FT)

$L_b / 3 = 5.50$ FT (USED 5.75 FT)

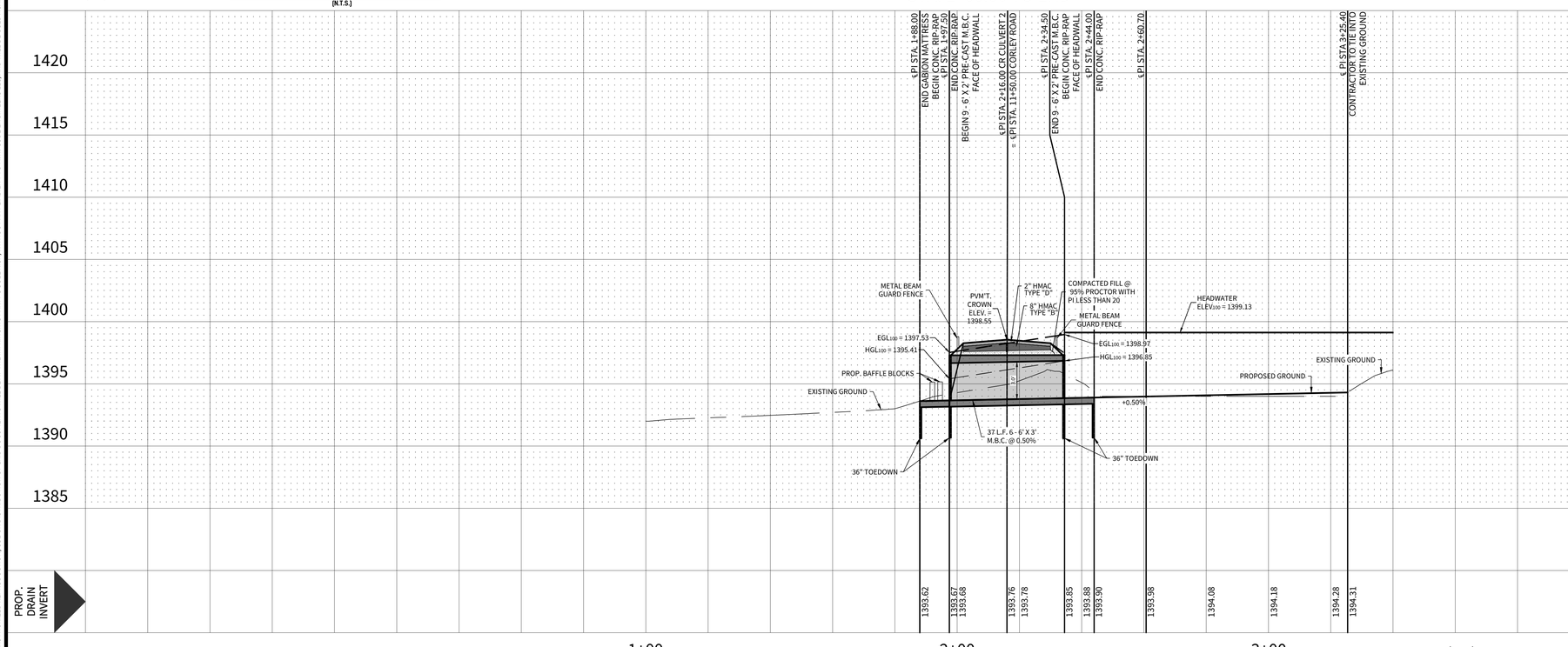
$H = Y_1(0.168*F_1+0.58) = 2.257$ FT (USED 2.50 FT)

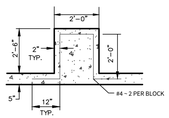
EXIT VELOCITY = 5.541 FPS



PROPOSED CR CULVERT '2'

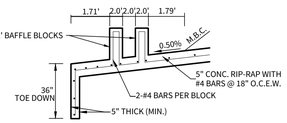
STA. 1+00.00 TO END





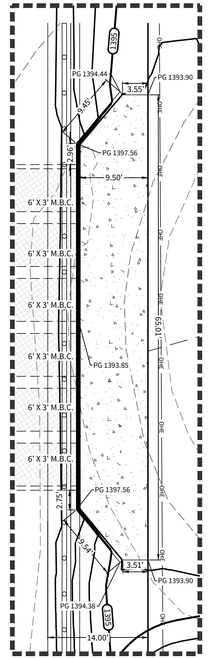
BAFFLE BLOCK REINFORCEMENT

(N.T.S.)



BOX CULVERT BAFFLE BLOCK DETAIL

(N.T.S.)



DETAIL 'B'

SCALE: 1"=10'

SCALE: 1"=20'

20 10 0 20

LEGEND

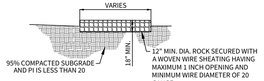
- OVERALL UNIT BOUNDARY
- E.G.T.CA. EASEMENT
- EXISTING 1' CONTOUR (499)
- EXISTING 5' CONTOUR (500)
- PROPOSED 1' CONTOUR (499)
- PROPOSED 5' CONTOUR (500)
- CONCRETE RIP RAP
- PROPOSED CULVERT
- GRADING SWALE

CULVERT SUMMARY 10-YEAR

Q_{10} = 506.20 c.f.s.
MANNING'S COEFFICIENT = 0.013
CULVERT SHAPE = RECTANGULAR
RISE = 36"
SPAN = 65"
PIPE SLOPE = 0.50%
OUTFALL V = 8.56 f.p.s.

CULVERT SUMMARY 100-YEAR

Q_{100} = 1288.70 c.f.s.
MANNING'S COEFFICIENT = 0.013
CULVERT SHAPE = RECTANGULAR
RISE = 36"
SPAN = 65"
PIPE SLOPE = 0.50%
OUTFALL V = 10.22 f.p.s.



GABION STYLE ROCK EROSION CONTROL MATRESS DETAIL

NOTE: GABION MATTRESS TO BE FREE OF GEO-TEXTILE FABRIC LINING AT DETENTION POND OUTFALL.

(N.T.S.)

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'

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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

CR CULVERT '2' PLAN AND PROFILE

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

DATE		REVISED STREET SECTION DETAILS
5/29/2024	1.	REVISED CULVERT TO BE 6-6'X3' M.B.C.
9/3/2024	2.	CITY AND COUNTY COMMENTS
5/2/2025	3.	CITY AND COUNTY COMMENTS
7/10/2025	4.	
	5.	
	6.	
	7.	
	8.	
	9.	

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED
PROFESSIONAL ENGINEER
07/16/2025

CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500

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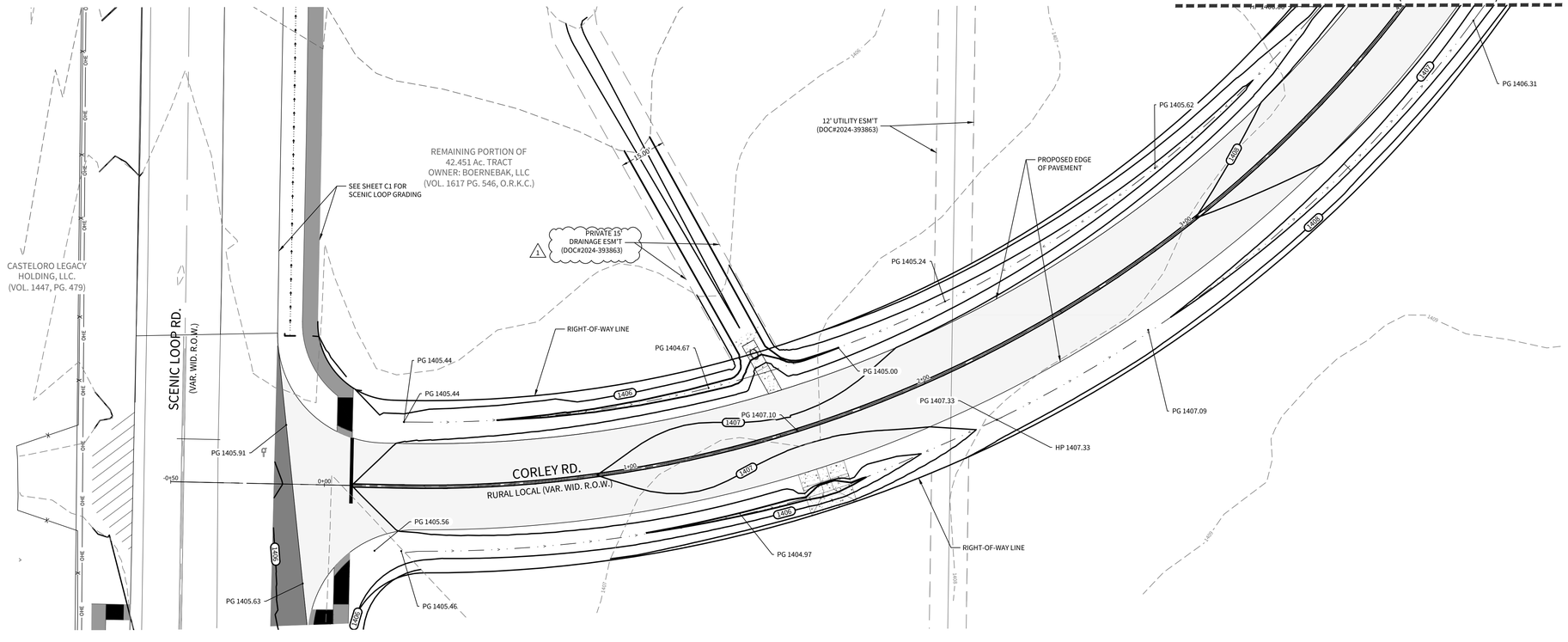

SCALE: 1"=20'
20 10 0 20

LEGEND

- OVERALL UNIT BOUNDARY
- PROPOSED LOT LINE
- PROPOSED RIGHT OF WAY
- E.G.T.CA. EASEMENT
- EXISTING 1' CONTOUR (409)
- EXISTING 5' CONTOUR (500)
- PROPOSED 1' CONTOUR (499)
- PROPOSED 5' CONTOUR (500)
- GRADING SWALE
- PRESERVED TREES

NOTE:
CONTRACTOR TO CONFIRM ELEVATION OF OVERHEAD POWER LINES MEET MINIMUM CLEARANCE REQUIREMENT OF 22' AS DICTATED BY BANDERA ELECTRIC COOPERATIVE (BEC) PRIOR TO CONSTRUCTION. IF MINIMUM CLEARANCE IS NOT MET, CONTRACTOR SHALL NOTIFY THE ENGINEER AND COORDINATE WITH BEC TO RAISE THE OVERHEAD POWER LINES.

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CUDE ENGINEERS — EST. 1980

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San Antonio, Texas 78231
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CORLEY ROAD IMPROVEMENTS PHASE I

GRADING & DRAINAGE PLAN

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

NO.	DATE	DESCRIPTION
1.	6/17/2024	ADDED EASEMENT LABEL
2.	7/15/2025	CITY AND COUNTY COMMENTS

STATE OF TEXAS — ANDREW R. LOWRY — 123410 — LICENSED PROFESSIONAL ENGINEER
07/16/2025
CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500

C17

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P:\03481.003\2-3 Drawings\CORLEY ROAD\FINALS\ES\GRADING & DRAINAGE PLAN.dwg, 2025/07/16 8:33am, kmartinez

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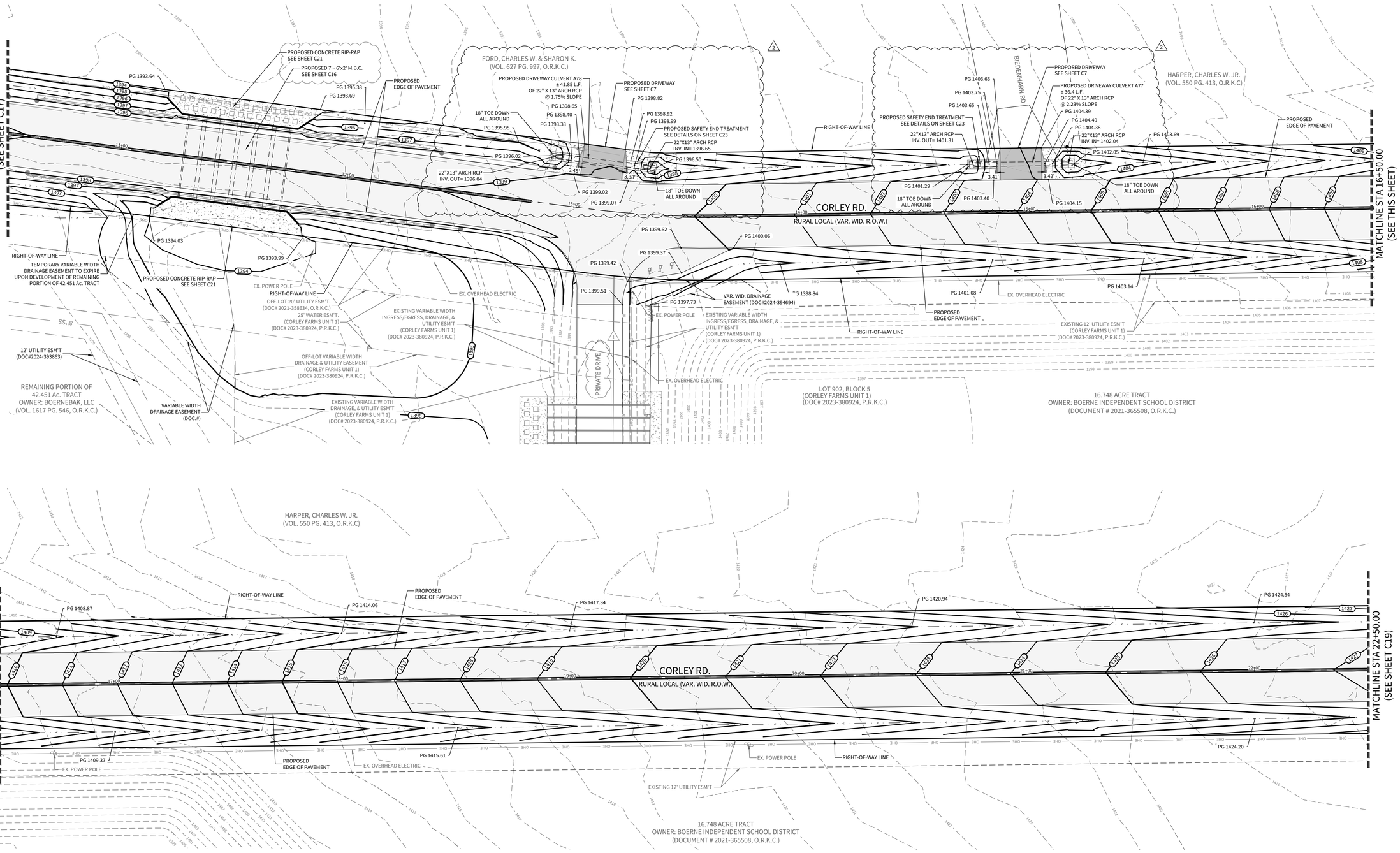

LEGEND

- OVERALL UNIT BOUNDARY
- PROPOSED LOT LINE
- PROPOSED RIGHT OF WAY
- E.G.T.CA. EASEMENT
- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- PROPOSED 1' CONTOUR
- PROPOSED 5' CONTOUR

SCALE: 1"=20'
20 10 0 20

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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

GRADING & DRAINAGE PLAN

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

	DATE	
1	5/29/2024	PERMITTING COMMENTS
2	7/15/2025	CITY AND COUNTY COMMENTS
3		
4		
5		
6		
7		
8		
9		

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED
PROFESSIONAL ENGINEER
07/16/2025

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LEGEND

- OVERALL UNIT BOUNDARY
- PROPOSED LOT LINE
- PROPOSED RIGHT OF WAY
- E.G.T.CA. EASEMENT
- EXISTING 1' CONTOUR (499)
- EXISTING 5' CONTOUR (500)
- PROPOSED 1' CONTOUR (499)
- PROPOSED 5' CONTOUR (500)

SCALE: 1"=20'
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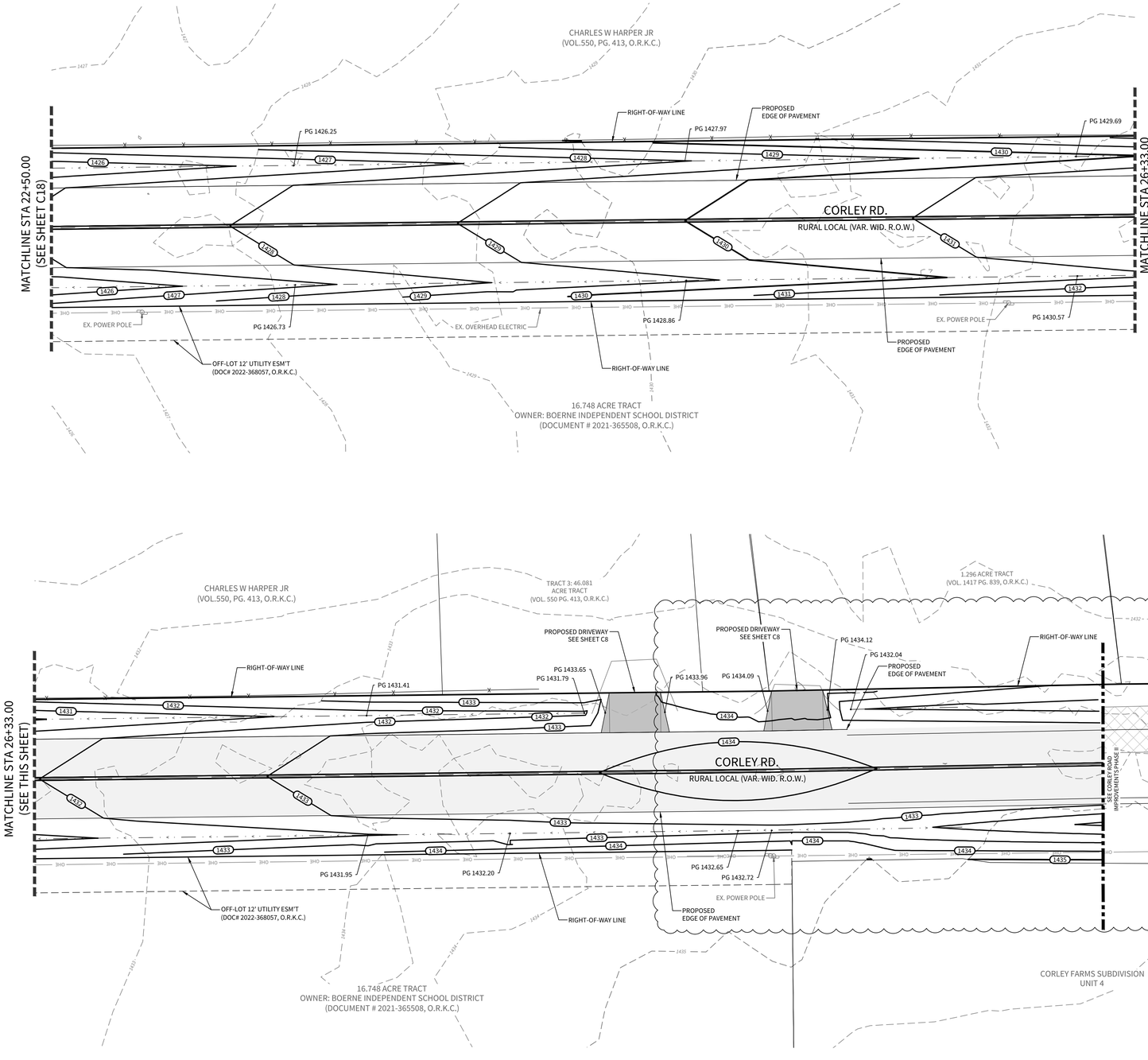

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CORLEY FARMS OFFSITE
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GRADING & DRAINAGE PLAN

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
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AL

REVISIONS

	DATE	
1.	5/2/2025	CITY AND COUNTY COMMENTS
2.		
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STATE OF TEXAS
ANDREW R. LOWRY
123410
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PROFESSIONAL ENGINEER
07/16/2025

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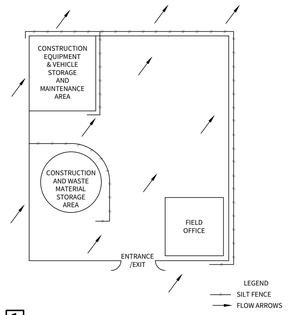
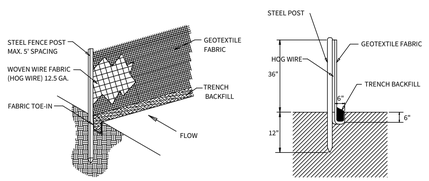


1 TYP. CONSTRUCTION STAGING AREA
N.T.S.

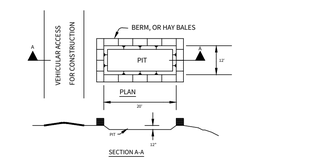
NOTE:

1. ALL SILT FENCES AND/OR ROCK BERMS AND TEMPORARY CONSTRUCTION ENTRANCES/EXITS SHALL BE PLACED AT THE MOST DOWN-GRADIENT POINT OF CONSTRUCTION AS SHOWN ON THIS SITE PLAN. CONTRACTOR SHALL TAKE INTO CONSIDERATION ANY PROPOSED CONSTRUCTION THAT MAY TAKE PLACE AT THESE LOCATIONS. ANY RELOCATION OF THE SILT FENCE, ROCK BERMS AND/OR TEMPORARY CONSTRUCTION ENTRANCES/EXITS SHALL BE AT THE CONTRACTOR'S EXPENSE.
2. AREA OF SOIL DISTURBANCES INCLUDE STREET RIGHT-OF-WAYS, EASEMENTS AND LOTS.
3. THERE WILL BE NO STORMWATER DISCHARGES INTO THE FEMA FLOOD PLAIN.
4. THE CONTRACTOR IS REQUIRED TO MAINTAIN EROSION CONTROLS THROUGHOUT THE DURATION OF THE PROJECT.
5. THE COUNTY INSPECTOR HAS THE AUTHORITY TO HAVE THE CONTRACTOR MODIFY THE EROSION CONTROLS AT THE DEVELOPER'S EXPENSE. THE DEVELOPER SHALL BE NOTIFIED OF THESE MODIFICATIONS PRIOR TO COMMENCEMENT OF MODIFICATIONS.



SILT FENCE DETAIL — SECTION DETAIL

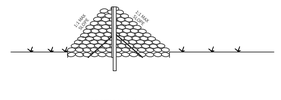
2 STANDARD SILT FENCE
N.T.S.



GENERAL NOTES:

- Detail above illustrates minimum dimensions. Pit can be increased in size depending on expected frequency of use.
- If hay bales are used, they shall be placed in accordance with details shown on Exhibit for hay bales.
- Washout pit shall be located in an area easily accessible to construction traffic.
- Washout pit shall not be located in areas subject to inundation from storm water runoff.
- Washout pit shall be lined with a 10-mil thick polyethylene sheeting free of holes, tears and other defects.

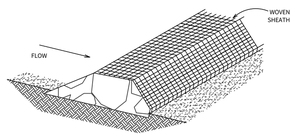
3 CONCRETE TRUCK WASHOUT PIT
N.T.S.



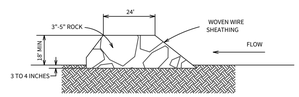
General Notes

1. The rock berm shall be inspected weekly or after each rain and the stone shall be replaced when the structure ceases to function as intended due to silt accumulation, washout, etc.
2. When silt reaches a depth of 12", the silt shall be removed and disposed of at an approved site.

ROCK BERM W/ SILT FENCE DETAIL
N.T.S.

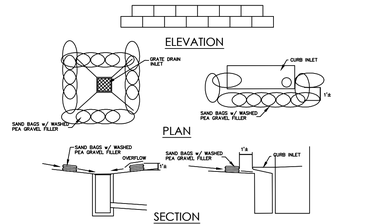


ISOMETRIC PLAN VIEW



SECTION DETAIL

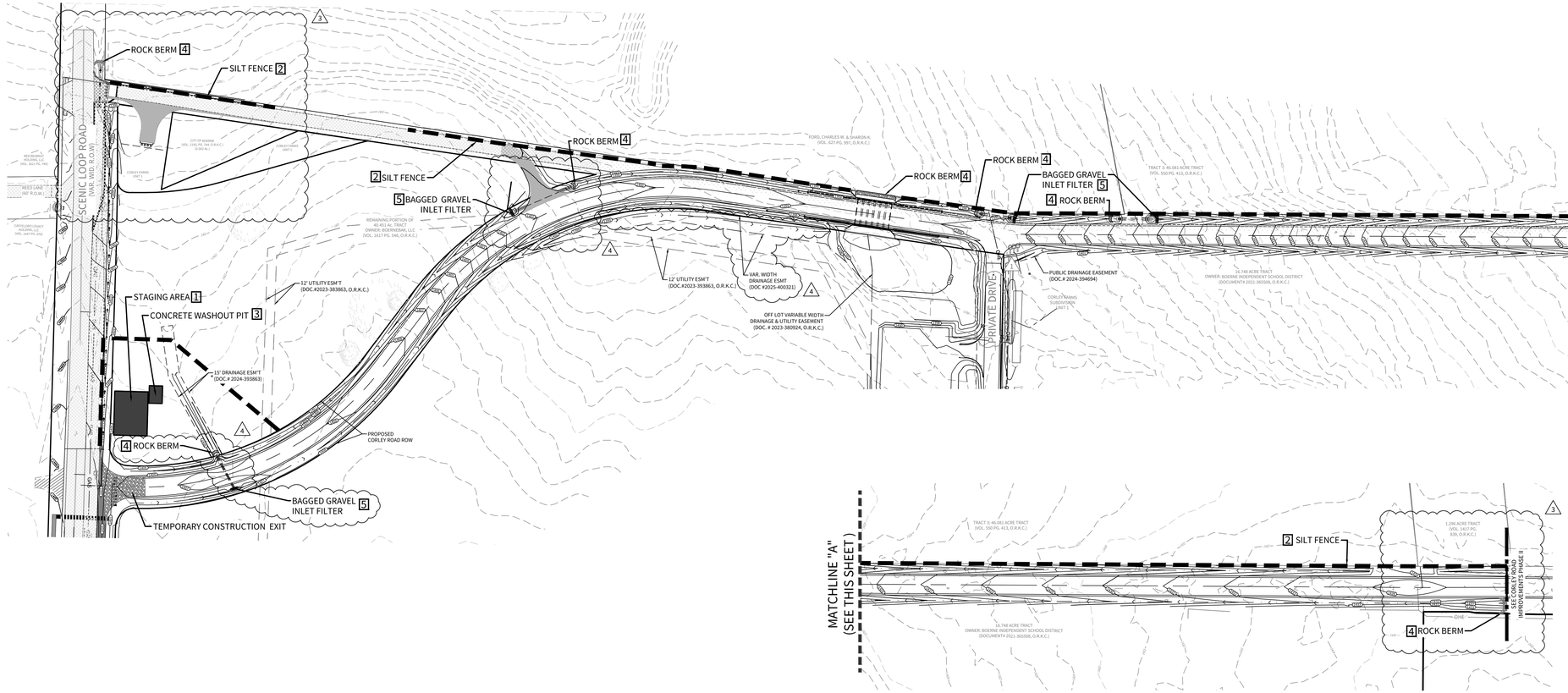
4 ROCK BERM
N.T.S.

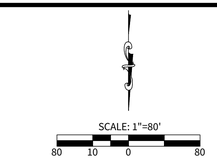


BAGGED GRAVEL INLET FILTER NOTES

1. THE GRAVEL BAG MATERIAL SHOULD BE POLYPROPYLENE, POLYETHYLENE, POLYAMIDE OR COTTON BURLAP WOVEN FABRIC, MINIMUM UNIT WEIGHT 4 OZ/YD 2 , MULLEN BURST STRENGTH EXCEEDING 300 PSI AND ULTRAVIOLET STABILITY EXCEEDING 70 PERCENT.
2. THE BAG LENGTH SHOULD BE 24 INCHES, WIDTH SHOULD BE 18 INCHES AND THICKNESS SHOULD BE 6 INCHES.
3. THE GRAVEL BAGS SHOULD BE FILLED WITH ¾" GRAVEL .
4. WHEN A GRAVEL BAG IS FILLED WITH GRAVEL, THE OPEN END OF THE GRAVEL BAG SHOULD BE STAPLED OR TIED WITH NYLON OR POLY CORD.
5. THE GRAVEL BAGS SHOULD BE PLACED AS SHOWN ON THE DETAIL. THE GRAVEL BAGS SHALL BE STACKED TO FORM A CONTINUOUS BARRIER AROUND THE INLETS. THE BAGS SHOULD BE TIGHTLY ABUTTED AGAINST EACH OTHER TO PREVENT RUNOFF FROM FLOWING BETWEEN THE BAGS.
6. INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL. REPAIR OR REPLACEMENT SHOULD BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
7. CHECK PLACEMENT OF DEVICE TO PREVENT GAPS BETWEEN DEVICE AND CURB.
8. REMOVE SEDIMENT WHEN BUILDUP REACHES A DEPTH OF 3 INCHES. REMOVED SEDIMENT SHOULD BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
9. STRUCTURES SHOULD BE REMOVED AND THE AREA STABILIZED ONLY AFTER THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

5 BAGGED GRAVEL INLET FILTER NOTES
N.T.S.





LEGEND

- OVERALL UNIT BOUNDARY
- PROPOSED LOT LINE
- PROPOSED RIGHT OF WAY
- E.G.T.CA. EASEMENT
- EXISTING 1' CONTOUR (499)
- EXISTING 5' CONTOUR (500)
- PROPOSED 1' CONTOUR (499)
- PROPOSED 5' CONTOUR (500)
- BMP ITEM NUMBER (1)
- TEMPORARY CONSTRUCTION ENTRANCE/EXIT
- ROCK BERM
- SILT FENCE
- FLOW ARROW
- STAGING AREA
- CONCRETE WASHOUT PIT
- PRESERVED TREES
- DRAINAGE SWALE

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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

STORM WATER POLLUTION PREVENTION PLAN

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

	DATE	
1.	5/29/2024	PERMITTING COMMENTS
2.	9/30/2024	REVISES STREET TURNAROUND
3.	5/1/2025	CITY AND COUNTY COMMENTS
4.	7/14/2025	CITY AND COUNTY COMMENTS
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STATE OF TEXAS
ANDREW R. LOWERY
123410
LICENSED
PROFESSIONAL ENGINEER

07/16/2025

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DATE:
FILE:

TABLE OF DIMENSIONS AND REINFORCING STEEL
(Wings for one structure end)

Maximum Wingwall Height Hw	W	X	Y	Z	Variable Reinforcing Bars J1 Size	Bars J1 Spa	Bars J2 Size	Bars J2 Spa	Estimated Quantities per ft of wing length (2-wings) ③ Reinf (Lb/Ft)	Conc (CY/Ft)
2'-6"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	33.73	0.248
3'-0"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	37.07	0.261
3'-6"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	37.74	0.273
4'-0"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	38.41	0.285
4'-6"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	41.75	0.330
5'-0"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	45.09	0.343
5'-6"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	45.75	0.355
6'-0"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	46.42	0.367
7'-0"	3'-8"	1'-9"	1'-3"	7"	#4	1'-0"	#4	1'-0"	52.77	0.414
8'-0"	4'-2"	2'-0"	1'-6"	8"	#5	1'-0"	#4	1'-0"	60.19	0.486
9'-0"	4'-8"	2'-3"	1'-9"	8"	#4	6"	#4	6"	81.49	0.535
10'-0"	5'-2"	2'-6"	2'-0"	8"	#5	6"	#4	6"	97.25	0.584
11'-0"	5'-8"	2'-9"	2'-3"	8"	#6	6"	#5	6"	133.65	0.634
12'-0"	6'-2"	3'-0"	2'-6"	9"	#7	6"	#5	6"	162.29	0.721
13'-0"	6'-8"	3'-3"	2'-9"	11"	#7	6"	#5	6"	178.80	0.856
14'-0"	7'-2"	3'-6"	3'-0"	1'-0"	#8	6"	#5	6"	216.78	0.959
15'-0"	7'-8"	4'-0"	3'-0"	1'-1"	#9	6"	#6	6"	283.06	1.068
16'-0"	8'-2"	4'-6"	3'-0"	1'-3"	#9	6"	#6	6"	297.02	1.234

TABLE OF WINGWALL REINFORCING (2-wings)

Bar	Size	No.	Spa
D	#5	~	1'-0"
E	#4	~	1'-0"
F	#4	~	1'-0"
G	#6	4	~
M	#4	4	~
P	#4	~	1'-0"
R	#5	6	~
V	#4	~	1'-0"

TABLE OF ESTIMATED CULVERT TOEWALL QUANTITIES

Bar	Size	No.	Spa
L	#4	~	1'-6"
Q	#4	1	~
Reinf (Lb/Ft)			2.45
Conc (CY/Ft)			0.037

WING DIMENSION FORMULAS:
(All values are in feet.)

Hw = H + T + C – 0.250'
A = (Hw – 0.333') (SL)
B = (A) tangent (30°)
Lw = (A) ÷ cosine (30°)

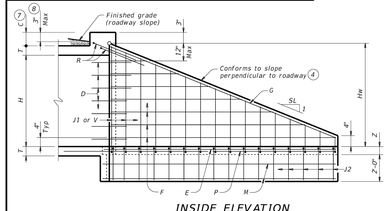
For cast-in-place culverts:
Ltw = (N) (S) + (N + 1) (U)

For precast culverts:
Ltw = (N) (2U + S) + (N – 1) (0.5)

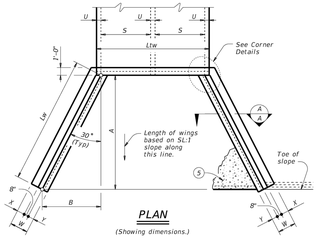
Total wingwall area (two wings – SF) = (Hw + 0.333) (Lw)

Hw = Height of wingwall
SL:1 = Side slope ratio (horizontal:1 vertical)
Lw = Length of wingwall
Ltw = Culvert toewall length
N = Number of culvert spans

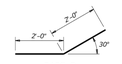
See applicable box culvert standard sheet for H, S, T, and U values.



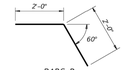
INSIDE ELEVATION
(Showing reinforcing. Culvert and culvert toewall reinforcing not shown for clarity.)



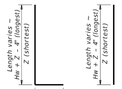
PLAN
(Showing dimensions.)



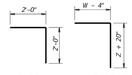
BARS D



BARS R



BARS J1 BARS V



BARS L BARS J2

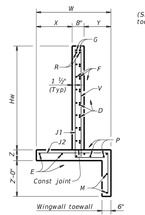
1. Extend Bars P 3'-0" minimum into bottom slab of box culvert.
2. Adjust as necessary to maintain 1 1#2" clear cover and 4" minimum between bars.
3. Quantities shown are based on an average wing height for two wings (one structure end). To determine total quantities for two wings, multiply the tabulated values by Lw.
4. Recommended values of side slope are: 2:1, 3:1, 4:1, and 6:1.
5. When shown elsewhere on the plans, construct 5" deep concrete riprap. Payment for riprap is as required by Item 432, "Riprap." Unless otherwise shown on the plans or directed by the Engineer, provide a 6" wide by 1'-6" deep reinforced concrete toewall along all edges of the riprap adjacent to natural ground; reinforce the toewall by extending typical riprap reinforcing into the toewall; and extend construction joints or grooved joints oriented in the direction of flow across the full distance of the riprap at intervals of approximately 20'. When such riprap is provided, the culvert toewall shown in SECTION B-B will not be required.
6. At Contractor's option, culvert toewall may be ended flush with wingwall toewall. Adjust reinforcing as needed.
7. 0" Min to 5'-0" Max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail or curbs taller than 1'-0, refer to the Extended Curb Details (ECD) standard sheet. For structures with T631 or T631LS bridge rail, refer to the Mounting Details for T631 & T631LS Rails (T631-CM) standard sheet. Refer to the Box Culvert Rail Mounting Details (RAC) standard sheet for structures with bridge rail other than T631 or T631LS.
8. For vehicle safety, the following requirements must be met:
   - For structures without bridge rail, construct curbs no more than 3" above finished grade.
   - For structures with bridge rail, construct curbs flush with finished grade.

   Reduce curb heights, if necessary, to meet the above requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.

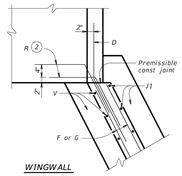
MATERIAL NOTES:
Provide Class C concrete (f'c=3,600 psi).
Provide Grade 60 reinforcing steel.
Provide galvanized reinforcing steel if required elsewhere in the plans.
In riprap concrete synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing unless noted otherwise.

GENERAL NOTES:
Designed according to AASHTO LRFD Bridge Design Specifications.
When structure is founded on solid rock, depth of toewalls for culverts and wingwalls may be reduced or eliminated as directed by the Engineer.
See Box Culvert Supplement (BCS) standard sheet for additional dimensions and information.
The quantities for concrete and reinforcing steel resulting from the formulas given on this sheet are for Contractor's information only.

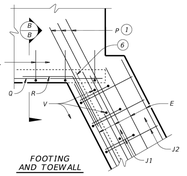
Cover dimensions are clear dimensions, unless noted otherwise. Reinforcing dimensions are out-to-out of bars.



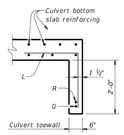
SECTION A-A



WINGWALL



FOOTING AND TOEWALL



SECTION B-B ⑤

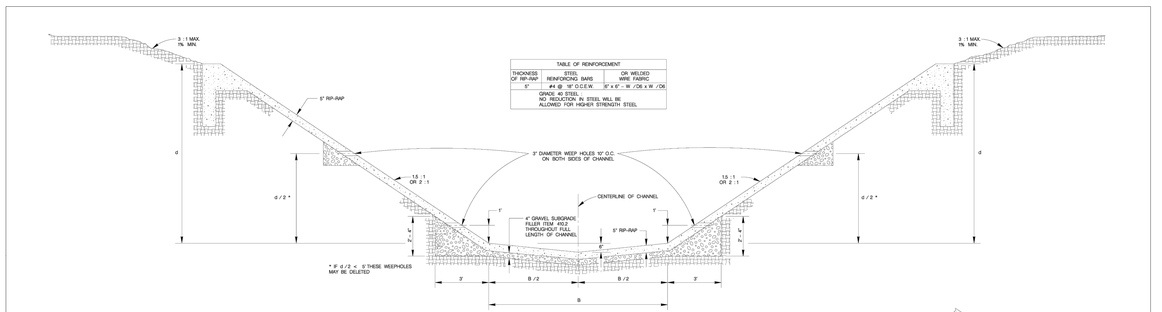
CORNER DETAILS
(Culvert and culvert toewall reinforcing not shown for clarity.)

Texas Department of Transportation — Bridge Division Standard

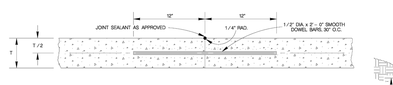
CONCRETE WINGWALLS WITH FLARED WINGS FOR 0° SKEW BOX CULVERTS

FW-0

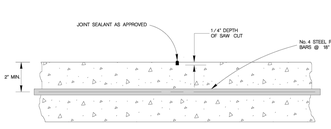
FILE: CD-FW0-20.dgn	DN: GAF	CK: CAT	DW: TxDOT	CK: TxDOT
©TxDOT February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS	DIST	COUNTY		SHEET NO.



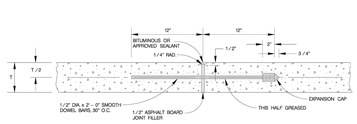
TYPICAL CHANNEL SECTION LOOKING DOWNSTREAM
SCALE : 1" = 4'



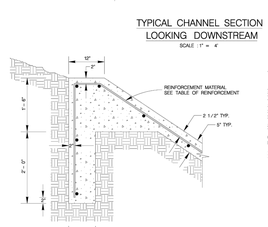
CONVERSE CONTRACTION OR CONSTRUCTION JOINT
SCALE : 1" = 1'



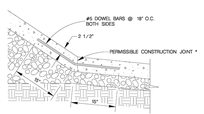
"SAW CUT" CONTRACTION JOINT
SCALE : 1" = 6"



TRANSVERSE EXPANSION JOINT
SCALE : 1" = 1'

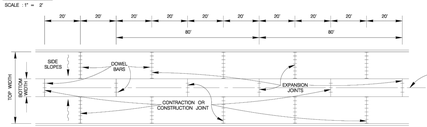


REINFORCEMENT DETAIL TOE–DOWN
SCALE : 1" = 2'

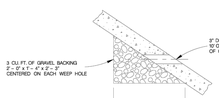


* THIS JOINT MUST BE A VERTICAL JOINT AS SHOWN

ALL SECTIONS
SCALE : 1" = 2'



EXPANSION AND CONTRACTION JOINTS FOR CONCRETE CHANNEL LINING
SCALE : 1" = 40'



WEEP HOLES DETAILS FOR SIDE SLOPES
SCALE : 1" = 2'

GENERAL NOTES

1. CONCRETE FOR CHANNEL RIP-RAP SHALL BE CLASS "A" 4000 P.S.I.
2. ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS UNLESS OTHERWISE SHOWN.
3. ALL REINFORCEMENT STEEL SHALL MEET ASTM DESIGNATIONS AS CALLED FOR IN THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION".
4. NEW RIP-RAP SHOULD BE ATTACHED TO EXISTING RIP-RAP BY NO. 4 BARS DOWELED 6' INTO EXISTING RIP-RAP. THESE BARS ARE TO BE SPACED 18" O.C. AND HAVE A LENGTH OF 18".

MAY 2009

TYPICAL CONCRETE CHANNEL RIP–RAP STANDARDS

% SUBMITTAL	PROJECT NO.:	DATE:
DRAWN BY: V. VASQUEZ	DSGN. BY:	CHKD. BY:
SHEET NO.:	OF	

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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

TXDOT CONCRETE HEADWALLS
NON-SKEWED DETAIL

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

DATE	A	1.	2.	3.	4.	5.	6.	7.	8.	9.

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED PROFESSIONAL ENGINEER
07/16/2025

CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500

C21

P:\03481.003\2 Drawings\CORLEY ROAD\PHASE I\C21 TXDOT CONCRETE HEADWALLS NON-SKEWED DETAIL.dwg 2025/07/16 8:21am tmathena

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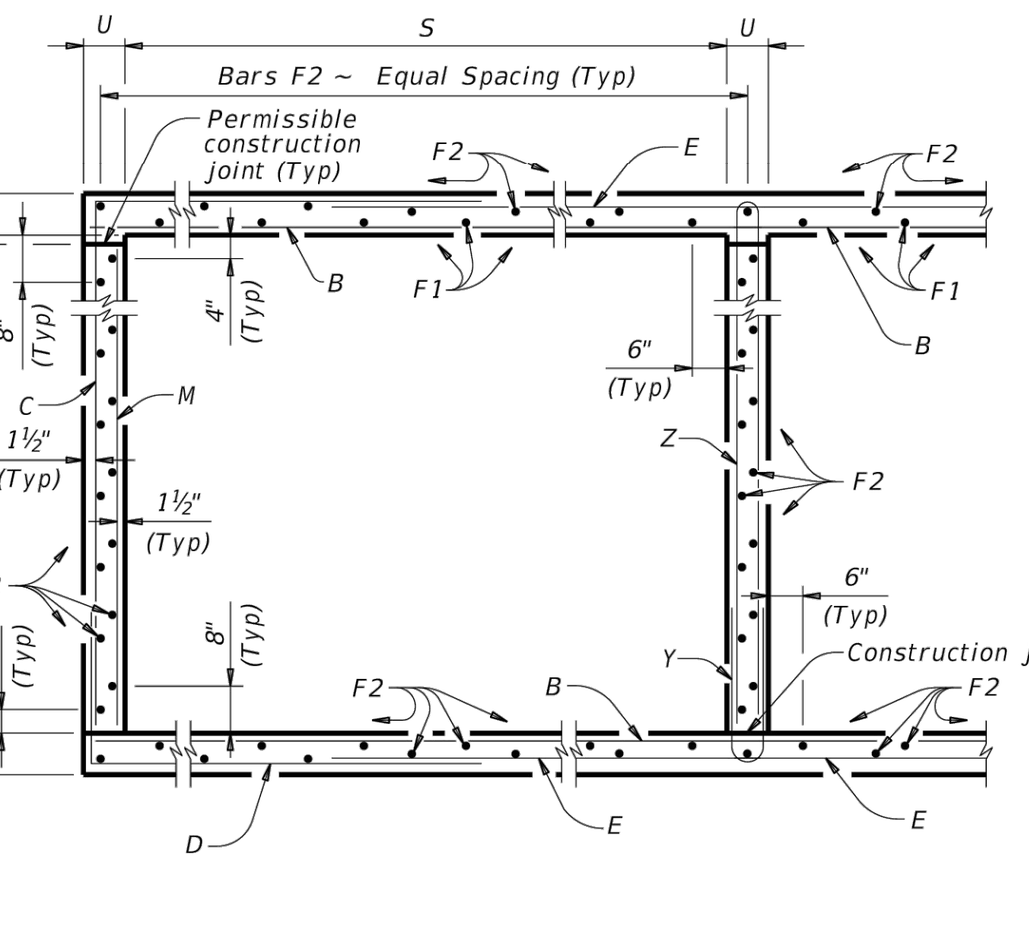
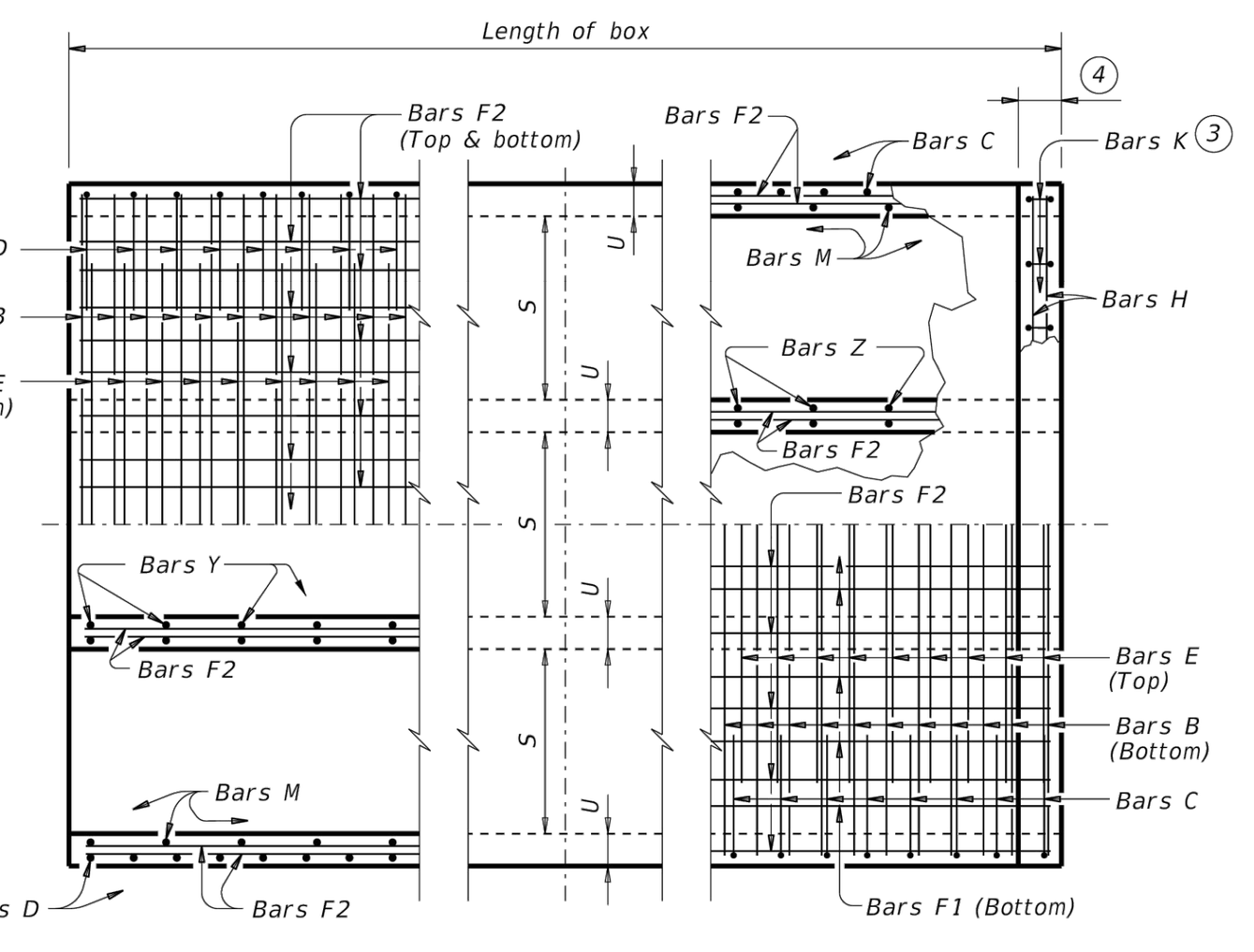
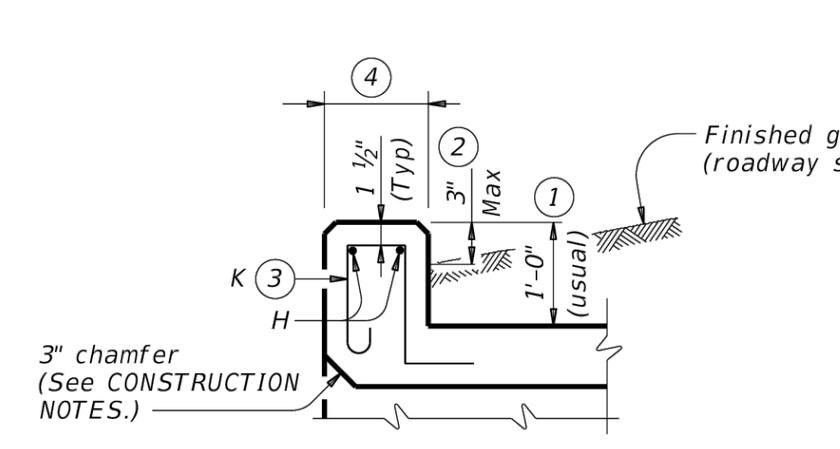


TYPICAL SECTION

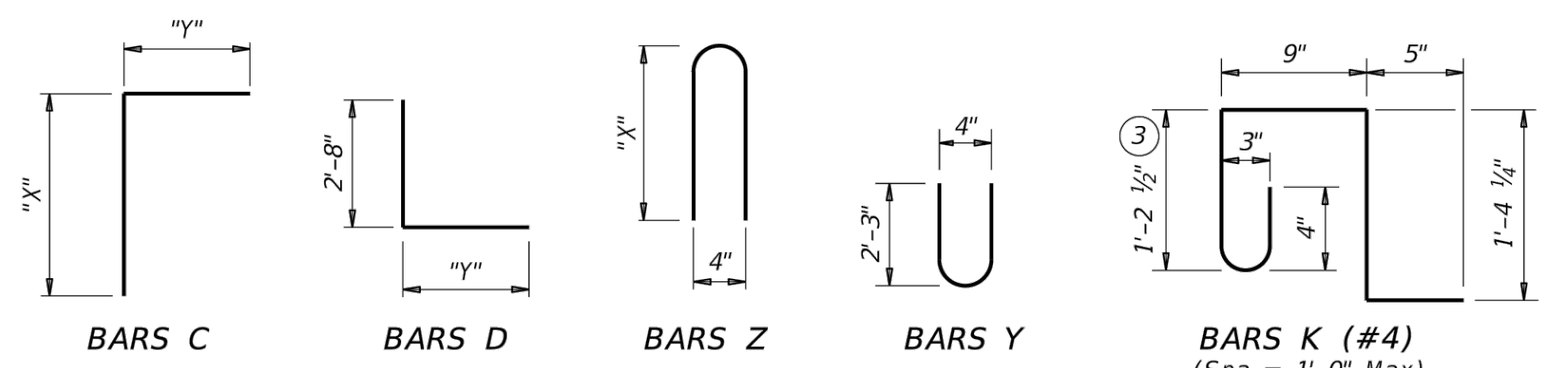


PART PLANS



SECTION THRU CURB

TABLE OF BAR DIMENSIONS		
H	"X"	"Y"
2'-0"	2'-7 ½"	4'-1"
3'-0"	3'-7 ½"	4'-1"
4'-0"	4'-7 ½"	4'-1"
5'-0"	5'-7 ½"	4'-1"
6'-0"	6'-7 ½"	4'-1"



(1) 0" Min to 5'-0" Max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail or curbs taller than 1'-0", refer to the Extended Curb Details (ECD) standard sheet. For structures with T631 or T631LS bridge rail, refer to the Mounting Details for T631 & T631LS Rails (T631-CM) standard sheet. Refer to the Rail Anchorage Curb (RAC) standard sheet for structures with bridge rail other than T631 or T631LS.

(2) For vehicle safety, the following requirements must be met:
- For structures without bridge rail, construct curbs no more than 3" above finished grade.
- For structures with bridge rail, construct curbs flush with finished grade.

Reduce curb heights, if necessary, to meet the above requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.

(3) For curbs less than 1'-0" high, tilt Bars K or reduce bar height as necessary to maintain cover. For curbs less than 3" high, Bars K may be omitted.

(4) 1'-0" typical. 2'-3" when the Rail Anchorage Curb (RAC) standard sheet is referred to elsewhere in the plans.

The Contractor may replace Bars B, C, D, E, F1, F2, M, Y, and/or Z with deformed welded wire reinforcement (WWR) meeting the requirements of ASTM A1064. The area of required reinforcement may be reduced by the ratio of 60 ksi / 70 ksi. Spacing of WWR is limited to 4" Min and 18" Max. When required, provide lap splices in the WWR of the same length required for the equivalent bar size, rounded up for wire sizes between conventional bar sizes. The lap length required for WWR is never less than the lap length required for uncoated #4 bars.

Example conversion: Replacing No. 6 Gr 60 at 6" Spacing with WWR
Required WWR = (0.44 sq. in. per 0.5 ft.) x (60 ksi / 70 ksi) = 0.755 sq. in. per ft.
If D30.6 wire is used to meet the 0.755 sq. in. per ft. requirement in this example, the required spacing = (0.306 sq. in.) / (0.755 sq. in. per ft.) x (12 in. per ft.) = 4.86" Max spacing. Required lap length for the provided D30.6 wire is 2'-1" (the same minimum lap length required for uncoated #5 bars, as listed under MATERIAL NOTES).

CONSTRUCTION NOTES:
Do not use permanent forms.
Chamfer the bottom edge of the top slab 3" at the entrance.
Optionally, raise construction joints shown at the flow line by a maximum of 6". If this option is taken, Bars M may be cut off or raised, Bars C and D may be reversed, and Bars Y and Z may be reversed.

MATERIAL NOTES:
Provide Grade 60 reinforcing steel.
Provide galvanized reinforcing steel if required elsewhere in the plans.
Provide Class C concrete (f'c = 3,600 psi) for culvert barrel and curb, with the following exceptions: provide Class S concrete (f'c = 4,000 psi) for top slabs of:
- culverts with overlay,
- culverts with 1-to-2 course surface treatment, or
- culverts with the top slab as the final riding surface.

Provide bar laps, where required, as follows:
- Uncoated or galvanized ~ #4 = 1'-8" Min
- Uncoated or galvanized ~ #5 = 2'-1" Min
- Uncoated or galvanized ~ #6 = 2'-6" Min

GENERAL NOTES:
Designed according to AASHTO LRFD Bridge Design Specifications for the range of fill heights shown.
See the Multiple Box Culverts Cast-In-Place Miscellaneous Detail (MC-MD) standard sheet for details pertaining to skewed ends, angle sections, and lengthening.

Cover dimensions are clear dimensions, unless noted otherwise.
Reinforcing bar dimensions shown are out-to-out of bar.

DISCLAIMER:
The use of this standard is governed by the "Texas Engineering Practice Act." No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE:
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HL93 LOADING SHEET 1 OF 2

Texas Department of Transportation — Bridge Division Standard

MULTIPLE BOX CULVERTS
CAST-IN-PLACE
6'-0" SPAN
0' TO 16' FILL
MC-6-16

FILE: CD-MC616-20.dgn | DN: TBE | CK: BMP | DW: TxDOT | CK: TxDOT
©TxDOT February 2020 | CONT | SECT | JOB | HIGHWAY
REVISIONS | DIST | COUNTY | SHEET NO.

BILLS OF REINFORCING STEEL (For Box Length = 40 feet)

NUMBER OF SPANS	S	H	T	U	Bars B No.	Bars B Size	Bars B Spa	Bars B Length	Bars B Wt	Bars C & D No.	Bars C & D Size	Bars C & D Spa	Bars C Length	Bars C Wt	Bars D Length	Bars D Wt	Bars E No.	Bars E Size	Bars E Spa	Bars E Length	Bars E Wt
2	6' - 0"	2' - 0"	9"	7"	108	#6	9"	13' - 6"	2,190	108	#5	9"	6' - 8"	751	6' - 9"	760	108	#6	9"	10' - 2"	1,649
3	6' - 0"	2' - 0"	9"	7"	108	#6	9"	20' - 1"	3,258	108	#5	9"	6' - 8"	751	6' - 9"	760	108	#6	9"	16' - 9"	2,717
4	6' - 0"	2' - 0"	9"	7"	108	#6	9"	26' - 8"	4,326	108	#5	9"	6' - 8"	751	6' - 9"	760	108	#6	9"	23' - 4"	3,785
5	6' - 0"	2' - 0"	9"	7"	108	#6	9"	33' - 3"	5,394	108	#5	9"	6' - 8"	751	6' - 9"	760	108	#6	9"	29' - 11"	4,853
6	6' - 0"	2' - 0"	9"	7"	108	#6	9"	39' - 10"	6,462	108	#5	9"	6' - 8"	751	6' - 9"	760	108	#6	9"	36' - 6"	5,921
2	6' - 0"	3' - 0"	9"	7"	108	#6	9"	13' - 6"	2,190	108	#5	9"	7' - 8"	864	6' - 9"	760	108	#6	9"	10' - 2"	1,649
3	6' - 0"	3' - 0"	9"	7"	108	#6	9"	20' - 1"	3,258	108	#5	9"	7' - 8"	864	6' - 9"	760	108	#6	9"	16' - 9"	2,717
4	6' - 0"	3' - 0"	9"	7"	108	#6	9"	26' - 8"	4,326	108	#5	9"	7' - 8"	864	6' - 9"	760	108	#6	9"	23' - 4"	3,785
5	6' - 0"	3' - 0"	9"	7"	108	#6	9"	33' - 3"	5,394	108	#5	9"	7' - 8"	864	6' - 9"	760	108	#6	9"	29' - 11"	4,853
6	6' - 0"	3' - 0"	9"	7"	108	#6	9"	39' - 10"	6,462	108	#5	9"	7' - 8"	864	6' - 9"	760	108	#6	9"	36' - 6"	5,921
2	6' - 0"	4' - 0"	9"	7"	108	#6	9"	13' - 6"	2,190	108	#5	9"	8' - 8"	976	6' - 9"	760	108	#6	9"	10' - 2"	1,649
3	6' - 0"	4' - 0"	9"	7"	108	#6	9"	20' - 1"	3,258	108	#5	9"	8' - 8"	976	6' - 9"	760	108	#6	9"	16' - 9"	2,717
4	6' - 0"	4' - 0"	9"	7"	108	#6	9"	26' - 8"	4,326	108	#5	9"	8' - 8"	976	6' - 9"	760	108	#6	9"	23' - 4"	3,785
5	6' - 0"	4' - 0"	9"	7"	108	#6	9"	33' - 3"	5,394	108	#5	9"	8' - 8"	976	6' - 9"	760	108	#6	9"	29' - 11"	4,853
6	6' - 0"	4' - 0"	9"	7"	108	#6	9"	39' - 10"	6,462	108	#5	9"	8' - 8"	976	6' - 9"	760	108	#6	9"	36' - 6"	5,921
2	6' - 0"	5' - 0"	9"	7"	108	#6	9"	13' - 6"	2,190	108	#5	9"	9' - 8"	1,089	6' - 9"	760	108	#6	9"	10' - 2"	1,649
3	6' - 0"	5' - 0"	9"	7"	108	#6	9"	20' - 1"	3,258	108	#5	9"	9' - 8"	1,089	6' - 9"	760	108	#6	9"	16' - 9"	2,717
4	6' - 0"	5' - 0"	9"	7"	108	#6	9"	26' - 8"	4,326	108	#5	9"	9' - 8"	1,089	6' - 9"	760	108	#6	9"	23' - 4"	3,785
5	6' - 0"	5' - 0"	9"	7"	108	#6	9"	33' - 3"	5,394	108	#5	9"	9' - 8"	1,089	6' - 9"	760	108	#6	9"	29' - 11"	4,853
6	6' - 0"	5' - 0"	9"	7"	108	#6	9"	39' - 10"	6,462	108	#5	9"	9' - 8"	1,089	6' - 9"	760	108	#6	9"	36' - 6"	5,921
2	6' - 0"	6' - 0"	9"	7"	108	#6	9"	13' - 6"	2,190	108	#5	9"	10' - 8"	1,202	6' - 9"	760	108	#6	9"	10' - 2"	1,649
3	6' - 0"	6' - 0"	9"	7"	108	#6	9"	20' - 1"	3,258	108	#5	9"	10' - 8"	1,202	6' - 9"	760	108	#6	9"	16' - 9"	2,717
4	6' - 0"	6' - 0"	9"	7"	108	#6	9"	26' - 8"	4,326	108	#5	9"	10' - 8"	1,202	6' - 9"	760	108	#6	9"	23' - 4"	3,785
5	6' - 0"	6' - 0"	9"	7"	108	#6	9"	33' - 3"	5,394	108	#5	9"	10' - 8"	1,202	6' - 9"	760	108	#6	9"	29' - 11"	4,853
6	6' - 0"	6' - 0"	9"	7"	108	#6	9"	39' - 10"	6,462	108	#5	9"	10' - 8"	1,202	6' - 9"	760	108	#6	9"	36' - 6"	5,921

NUMBER OF SPANS	H	Bars F1 ~ #4 No.	Bars F1 Spa	Bars F1 Length	Bars F1 Wt	Bars F2 ~ #4 No.	Bars F2 Spa	Bars F2 Length	Bars F2 Wt	Bars M ~ #4 No.	Bars M Spa	Bars M Length	Bars M Wt	Bars Y & Z ~ #4 No.	Bars Y & Z Spa	Bars Y Length	Bars Y Wt	Bars Z Length	Bars Z Wt
2	2' - 0"	10	18"	39' - 9"	266	44	18"	39' - 9"	1,168	108	9"	2' - 0"	144	54	9"	4' - 9"	171	5' - 5"	195
3	2' - 0"	15	18"	39' - 9"	398	63	18"	39' - 9"	1,673	108	9"	2' - 0"	144	108	9"	4' - 9"	343	5' - 5"	391
4	2' - 0"	20	18"	39' - 9"	531	82	18"	39' - 9"	2,177	108	9"	2' - 0"	144	162	9"	4' - 9"	514	5' - 5"	586
5	2' - 0"	25	18"	39' - 9"	664	101	18"	39' - 9"	2,682	108	9"	2' - 0"	144	216	9"	4' - 9"	685	5' - 5"	782
6	2' - 0"	30	18"	39' - 9"	797	120	18"	39' - 9"	3,186	108	9"	2' - 0"	144	270	9"	4' - 9"	857	5' - 5"	977
2	3' - 0"	10	18"	39' - 9"	266	50	18"	39' - 9"	1,328	108	9"	3' - 0"	216	54	9"	4' - 9"	171	7' - 5"	268
3	3' - 0"	15	18"	39' - 9"	398	71	18"	39' - 9"	1,885	108	9"	3' - 0"	216	108	9"	4' - 9"	343	7' - 5"	535
4	3' - 0"	20	18"	39' - 9"	531	92	18"	39' - 9"	2,443	108	9"	3' - 0"	216	162	9"	4' - 9"	514	7' - 5"	803
5	3' - 0"	25	18"	39' - 9"	664	113	18"	39' - 9"	3,000	108	9"	3' - 0"	216	216	9"	4' - 9"	685	7' - 5"	1,070
6	3' - 0"	30	18"	39' - 9"	797	134	18"	39' - 9"	3,558	108	9"	3' - 0"	216	270	9"	4' - 9"	857	7' - 5"	1,338
2	4' - 0"	10	18"	39' - 9"	266	50	18"	39' - 9"	1,328	108	9"	4' - 0"	289	54	9"	4' - 9"	171	9' - 5"	340
3	4' - 0"	15	18"	39' - 9"	398	71	18"	39' - 9"	1,885	108	9"	4' - 0"	289	108	9"	4' - 9"	343	9' - 5"	679
4	4' - 0"	20	18"	39' - 9"	531	92	18"	39' - 9"	2,443	108	9"	4' - 0"	289	162	9"	4' - 9"	514	9' - 5"	1,019
5	4' - 0"	25	18"	39' - 9"	664	113	18"	39' - 9"	3,000	108	9"	4' - 0"	289	216	9"	4' - 9"	685	9' - 5"	1,359
6	4' - 0"	30	18"	39' - 9"	797	134	18"	39' - 9"	3,558	108	9"	4' - 0"	289	270	9"	4' - 9"	857	9' - 5"	1,698
2	5' - 0"	10	18"	39' - 9"	266	56	18"	39' - 9"	1,487	108	9"	5' - 0"	361	54	9"	4' - 9"	171	11' - 5"	412
3	5' - 0"	15	18"	39' - 9"	398	79	18"	39' - 9"	2,098	108	9"	5' - 0"	361	108	9"	4' - 9"	343	11' - 5"	824
4	5' - 0"	20	18"	39' - 9"	531	102	18"	39' - 9"	2,708	108	9"	5' - 0"	361	162	9"	4' - 9"	514	11' - 5"	1,235
5	5' - 0"	25	18"	39' - 9"	664	125	18"	39' - 9"	3,319	108	9"	5' - 0"	361	216	9"	4' - 9"	685	11' - 5"	1,647
6	5' - 0"	30	18"	39' - 9"	797	148	18"	39' - 9"	3,930	108	9"	5' - 0"	361	270	9"	4' - 9"	857	11' - 5"	2,059
2	6' - 0"	10	18"	39' - 9"	266	62	18"	39' - 9"	1,646	108	9"	6' - 0"	433	54	9"	4' - 9"	171	13' - 5"	484
3	6' - 0"	15	18"	39' - 9"	398	87	18"	39' - 9"	2,310	108	9"	6' - 0"	433	108	9"	4' - 9"	343	13' - 5"	968
4	6' - 0"	20	18"	39' - 9"	531	112	18"	39' - 9"	2,974	108	9"	6' - 0"	433	162	9"	4' - 9"	514	13' - 5"	1,452
5	6' - 0"	25	18"	39' - 9"	664	137	18"	39' - 9"	3,638	108	9"	6' - 0"	433	216	9"	4' - 9"	685	13' - 5"	1,936
6	6' - 0"	30	18"	39' - 9"	797	162	18"	39' - 9"	4,302	108	9"	6' - 0"	433	270	9"	4' - 9"	857	13' - 5"	2,420

NUMBER OF SPANS	H	Bars H 4 ~ #4 Length	Bars H Wt	Bars K No.	Bars K Wt	QUANTITIES Per Foot of Barrel Conc (CY)	Per Foot of Barrel Renf (Lb)	Curb Conc (CY)	Curb Renf (Lb)	Total Conc (CY)	Total Renf (Lb)
2	2' - 0"	13' - 6"	36	30	84	0.894	182.4	1.0	120	36.8	7,414
3	2' - 0"	20' - 1"	54	44	122	1.302	260.9	1.5	176	53.6	10,611
4	2' - 0"	26' - 8"	71	56	156	1.711	339.4	2.0	227	70.4	13,801
5	2' - 0"	33' - 3"	89	70	195	2.120	417.9	2.5	284	87.3	16,999
6	2' - 0"	39' - 10"	106	82	228	2.529	496.4	3.0	334	104.1	20,189
2	3' - 0"	13' - 6"	36	30	84	0.958	192.8	1.0	120	39.3	7,832
3	3' - 0"	20' - 1"	54	44	122	1.389	274.4	1.5	176	57.1	11,152
4	3' - 0"	26' - 8"	71	56	156	1.819	356.1	2.0	227	74.7	14,469
5	3' - 0"	33' - 3"	89	70	195	2.250	437.7	2.5	284	92.5	17,790
6	3' - 0"	39' - 10"	106	82	228	2.681	519.3	3.0	334	110.2	21,107
2	4' - 0"	13' - 6"	36	30	84	1.023	199.2	1.0	120	41.9	8,089
3	4' - 0"	20' - 1"	54	44	122	1.475	282.6	1.5	176	60.5	11,481
4	4' - 0"	26' - 8"	71	56	156	1.927	366.1	2.0	227	79.1	14,870
5	4' - 0"	33' - 3"	89	70	195	2.380	449.5	2.5	284	97.7	18,264
6	4' - 0"	39' - 10"	106	82	228	2.832	533.0	3.0	334	116.2	21,652
2	5' - 0"	13' - 6"	36	30	84	1.088	209.6	1.0	120	44.5	8,505
3	5' - 0"	20' - 1"	54	44	122	1.562	296.2	1.5	176	64.0	12,024
4	5' - 0"	26' - 8"	71	56	156	2.035	382.7	2.0	227	83.4	15,536
5	5' - 0"	33' - 3"	89	70	195	2.509	469.3	2.5	284	102.8	19,056
6	5' - 0"	39' - 10"	106	82	228	2.983	555.9	3.0	334	122.3	22,570
2	6' - 0"	13' - 6"	36	30	84	1.153	220.0	1.0	120	47.1	8,921
3	6' - 0"	20' - 1"	54	44	122	1.648	309.7	1.5	176	67.4	12,565
4	6' - 0"	26' - 8"	71	56	156	2.144	399.4	2.0	227	87.7	16,204
5	6' - 0"	33' - 3"	89	70	195	2.639	489.1	2.5	284	108.0	19,849
6	6' - 0"	39' - 10"	106	82	228	3.134	578.9	3.0	334	128.3	23,488

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HL93 LOADING SHEET 2 OF 2

Texas Department of Transportation — Bridge Division Standard

MULTIPLE BOX CULVERTS
CAST-IN-PLACE
6'-0" SPAN
0' TO 16' FILL
MC-6-16

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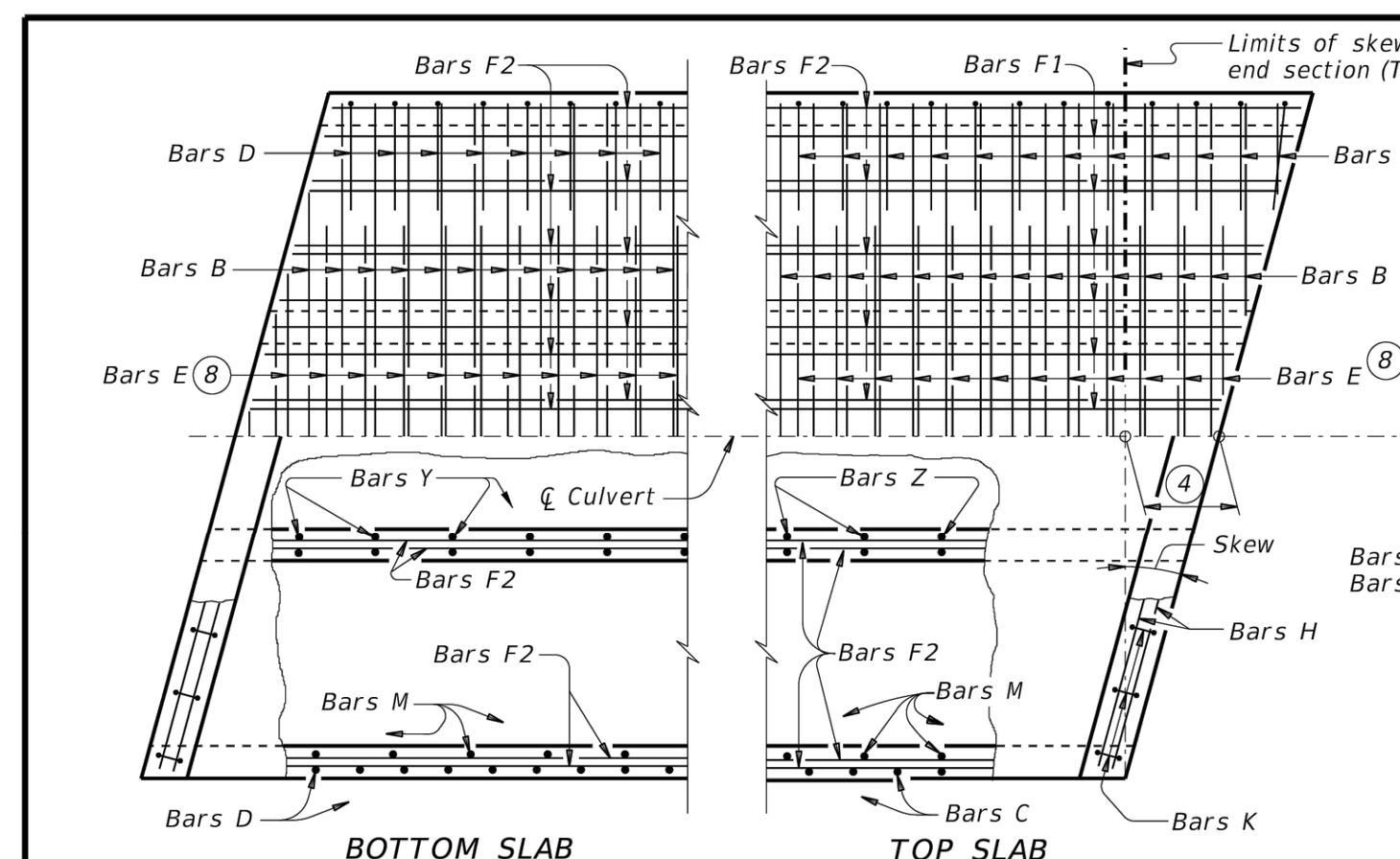
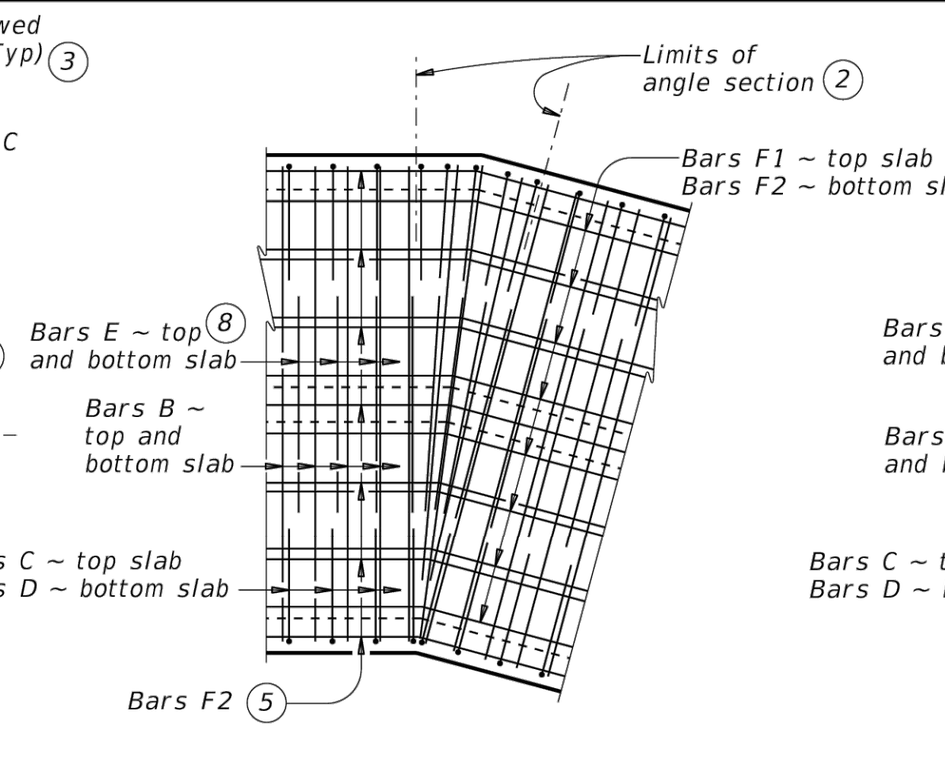
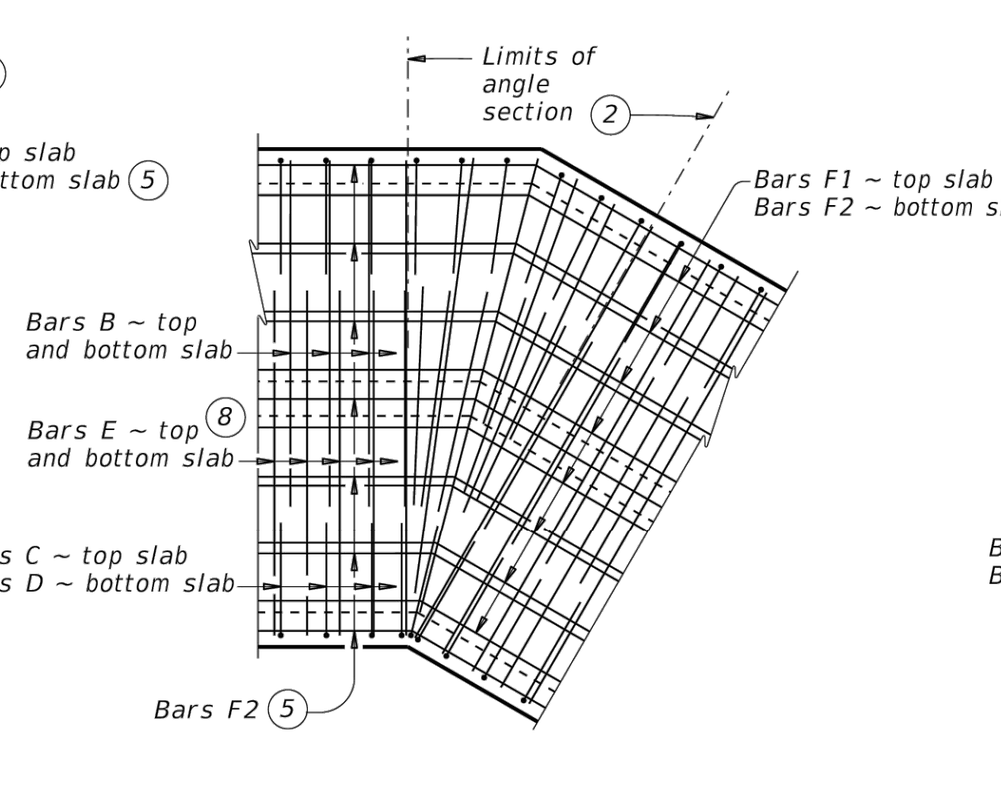


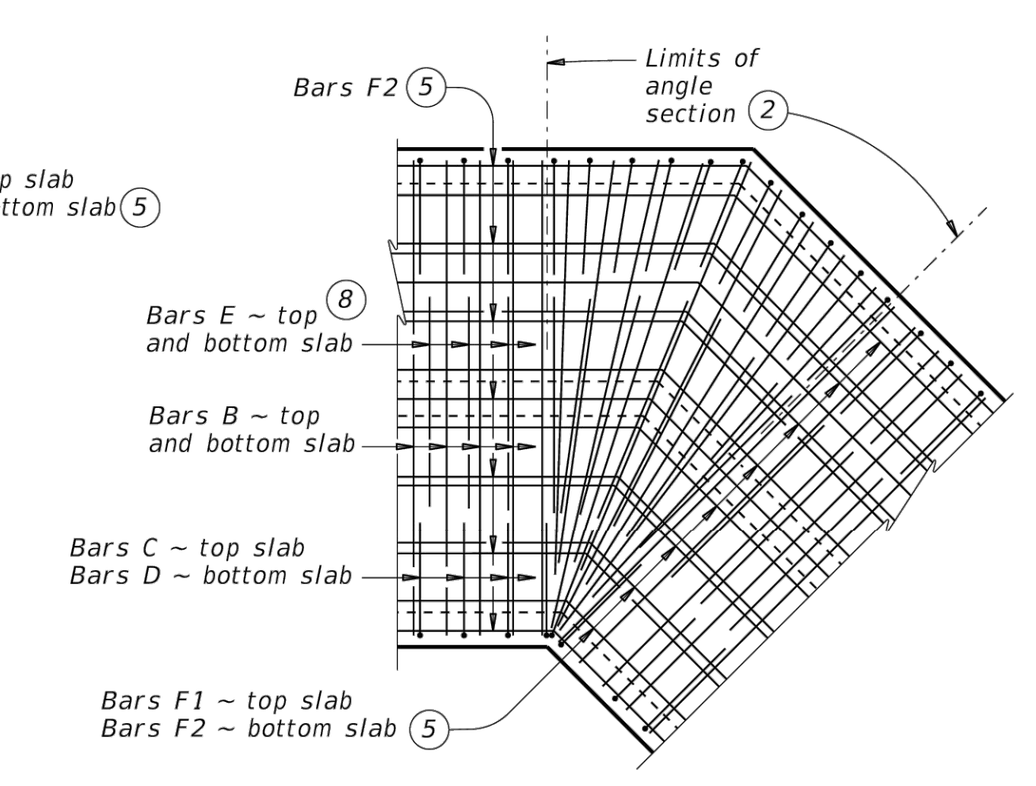
PLAN OF SKEWED ENDS ~ FROM 0° TO 15° (7)



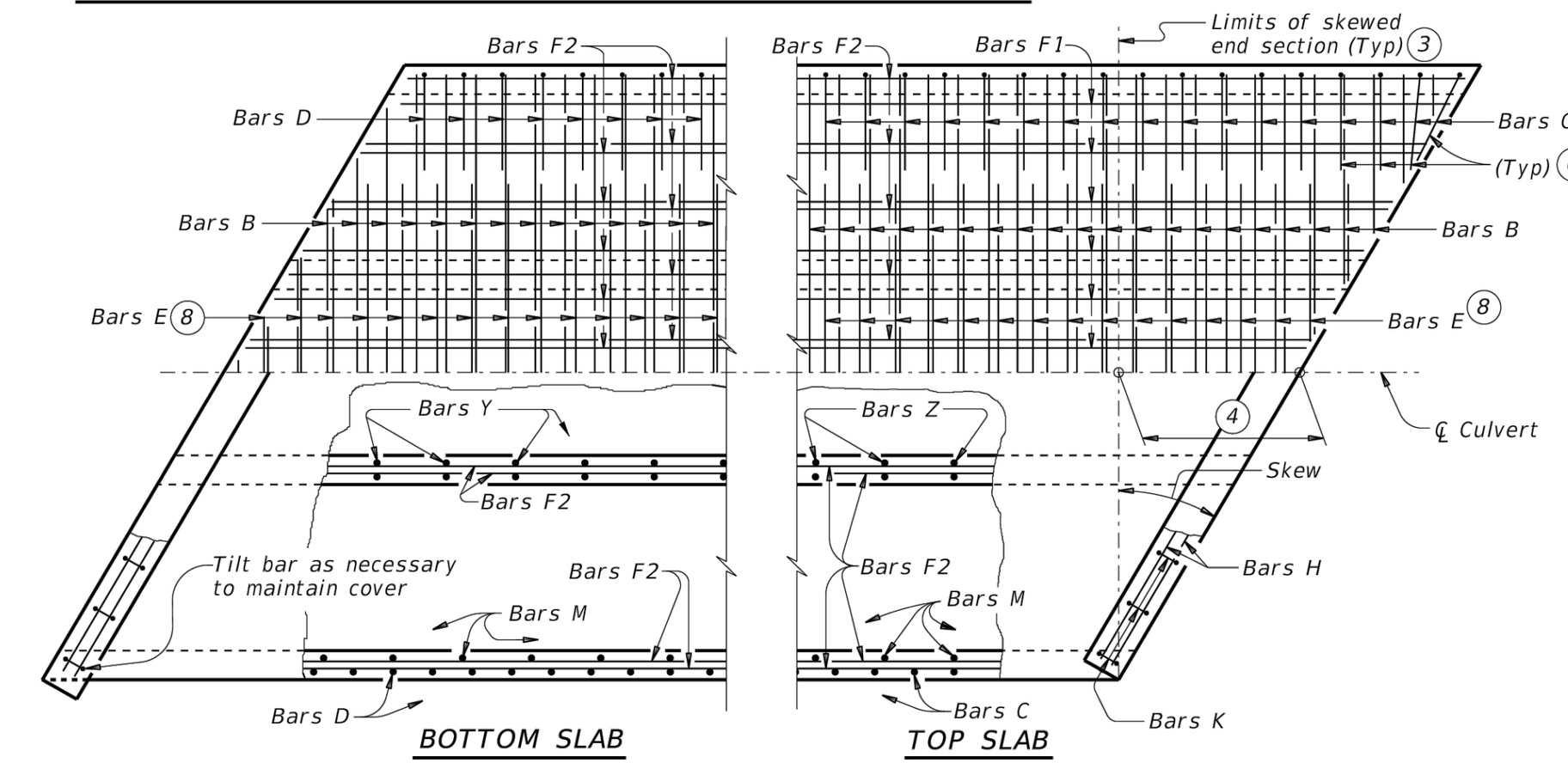
PLAN OF ANGLE SECTION ~ FROM 0° TO 15°



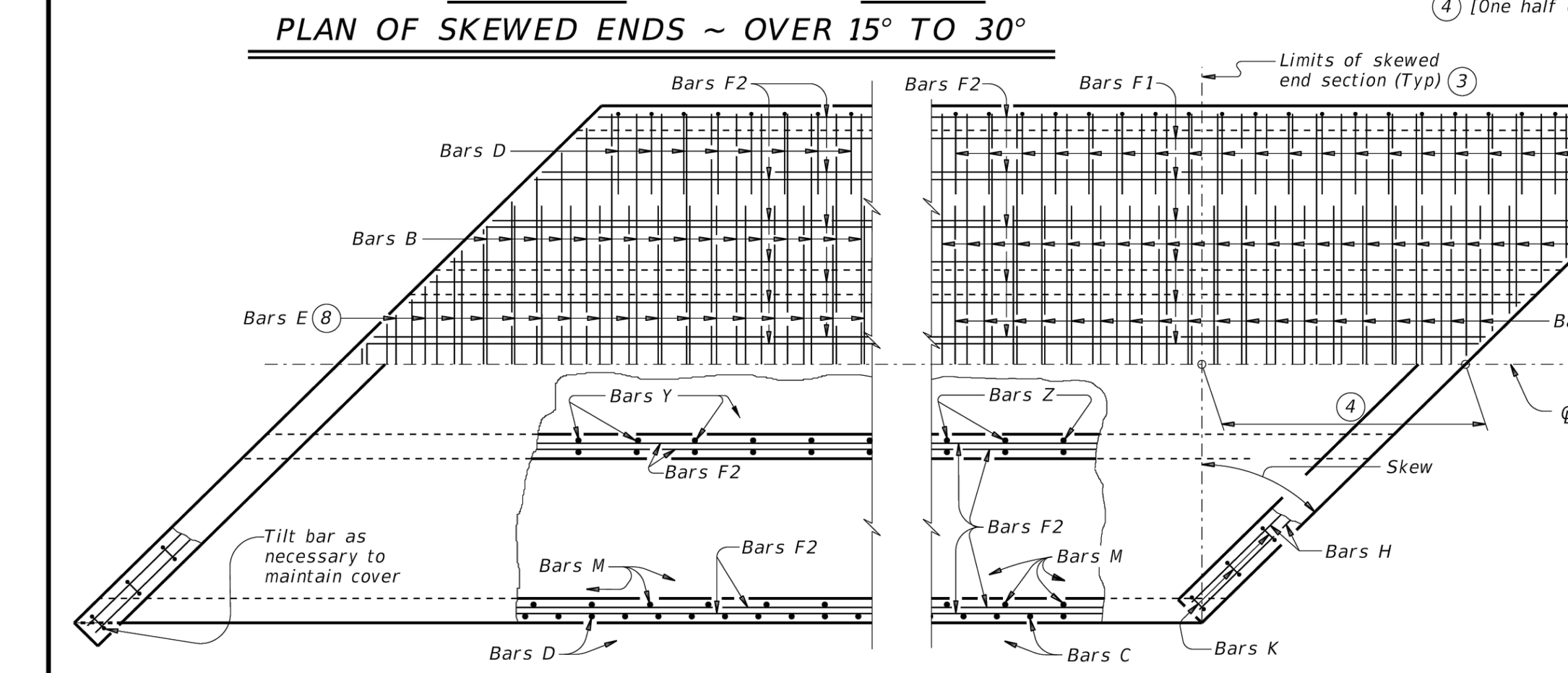
PLAN OF ANGLE SECTION ~ OVER 15° TO 30°



PLAN OF ANGLE SECTION ~ OVER 30° TO 45°



PLAN OF SKEWED ENDS ~ OVER 15° TO 30°



PLAN OF SKEWED ENDS ~ OVER 30° TO 45°

(1) For skewed box culverts with less than 2'-0" of fill, break back the top slab to provide a 1'-10" minimum lap of the existing longitudinal bars with the longitudinal bars in the extension.
For non-skewed box culverts with less than 2'-0" of fill and for skewed or non-skewed culverts with a fill depth of 2'-0" or greater, break back the top slab to provide a 1'-10" minimum lap of the existing longitudinal bars with the longitudinal bars in the extension. Alternatively, if the box is non-skewed, embed #6 anchor bars with a Type III, Class C, D, E, or F anchor adhesive into the existing walls, top and bottom slab at 1'-6" center-to-center spacing. Minimum embedment depth is 8". Anchor adhesive chosen must be able to achieve a basic bond strength in tension, Nba, of 26.4 kips. Submit signed and sealed calculations or the manufacturer's published literature showing the proposed anchor adhesive's ability to develop this load to the Engineer for approval prior to use. Anchor installation, including hole size, drilling, and clean out, must be in accordance with Item 450, "Railing." Test adhesive anchors in accordance with Item 450.3.3, "Tests." Test 3 anchors per 100 anchors installed.
Break back wings and apron as necessary to install the extension. Clean and extend the exposed wingwall and apron reinforcing into the extension. When lengthening existing box culverts with dimensions different than current standard dimensions, form horizontal and vertical transitions as directed by the Engineer. Match bottom slabs to maintain an uninterrupted flow line. Field bend existing and new reinforcing into transitions and maintain specified cover requirements. For top slabs of culverts with overlay, with 1-to-2 course surface treatment, or with the top slab as the final riding surface, adjust the "H" dimension to provide a smooth riding surface.

(2) When the spacing between Bars B or Bars E becomes less than half of the normal spacing, cut bars to avoid conflict.

(3) The length of Bars B and Bars E will vary in the skewed end sections.

(4) [One half of overall width] x [tangent of the skew angle]

(5) Place Bars F1 and F2 continuously through the angle section. Bend Bars F1 and F2 to remain parallel to the walls of the box culvert.

(6) When necessary to avoid conflict in acute corners, shorten the slab extension leg of Bars C and Bars D to a minimum of 1'-6" for skews of 30° thru 45°.

(7) At the Contractor's option, for skews of 15° or less, place Bars B, C, D, and E parallel to the skewed end while maintaining spacing along centerline of box. Increase lengths of Bars B and Bars E shown on the Multiple Box Culverts Cast-In-Place (MC) standard sheets to accommodate the skew.

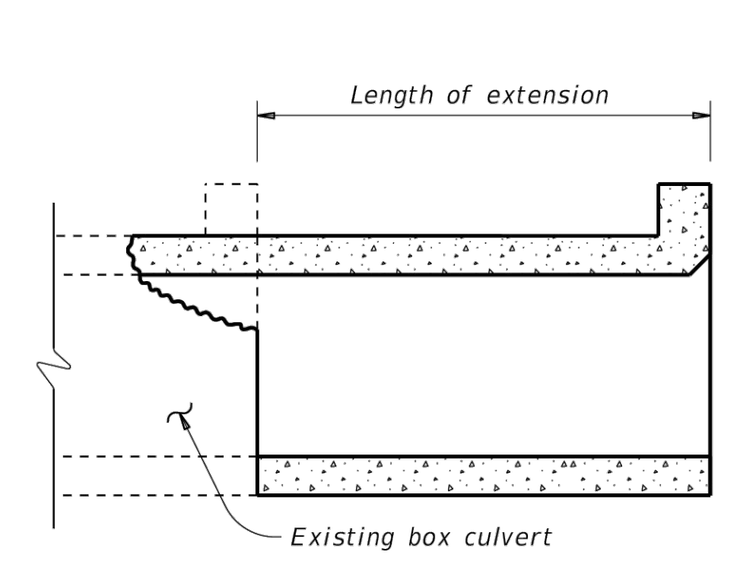
(8) Extend Bars E as shown on the MC standard sheet for direct traffic culverts.

CONSTRUCTION NOTES:
Do not use permanent forms.
When required, lap Bars H 1'-8" for uncoated or galvanized bars.
Provide a minimum of 1 ½" clear cover.

MATERIAL NOTES:
Provide Grade 60 reinforcing steel.
Provide galvanized reinforcing steel, if required elsewhere in the plans.
Provide Class C concrete (f'c = 3,600 psi) with these exceptions: provide Class S concrete (f'c = 4,000 psi) for top slabs of culverts with overlay, with 1-to-2 course surface treatment, or with the top slab as the final riding surface.

GENERAL NOTES:
Designed according to AASHTO LRFD Bridge Design Specifications.
Refer to Multiple Box Culverts Cast-in-Place (MC) standard sheets for details of straight sections of culvert.
For skewed sections and angle sections, refer to Multiple Box Culverts Cast-in-Place (MC) standard sheets for slab and wall dimensions, bar sizes, maximum bar spacing, and any other details not shown.
For skewed ends with curbs, adjust length of Bars H, number of Bars K, curb concrete volume, and reinforcing steel weight by dividing the values shown on the Multiple Box Culverts Cast-In-Place (MC) standard sheets by the cosine of the skew angle.

Cover dimensions are clear dimensions, unless noted otherwise.



LENGTHENING DETAIL (1)

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Texas Department of Transportation — Bridge Division Standard

MULTIPLE BOX CULVERTS
CAST-IN-PLACE
MISCELLANEOUS DETAILS
MC-MD

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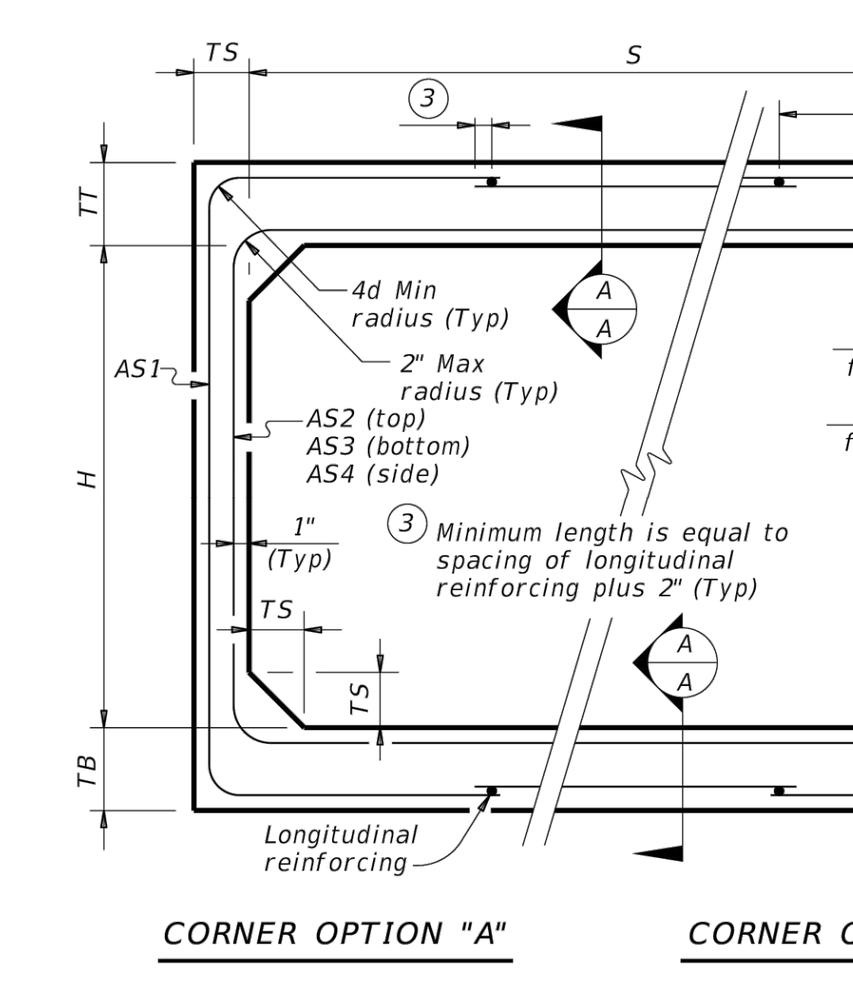
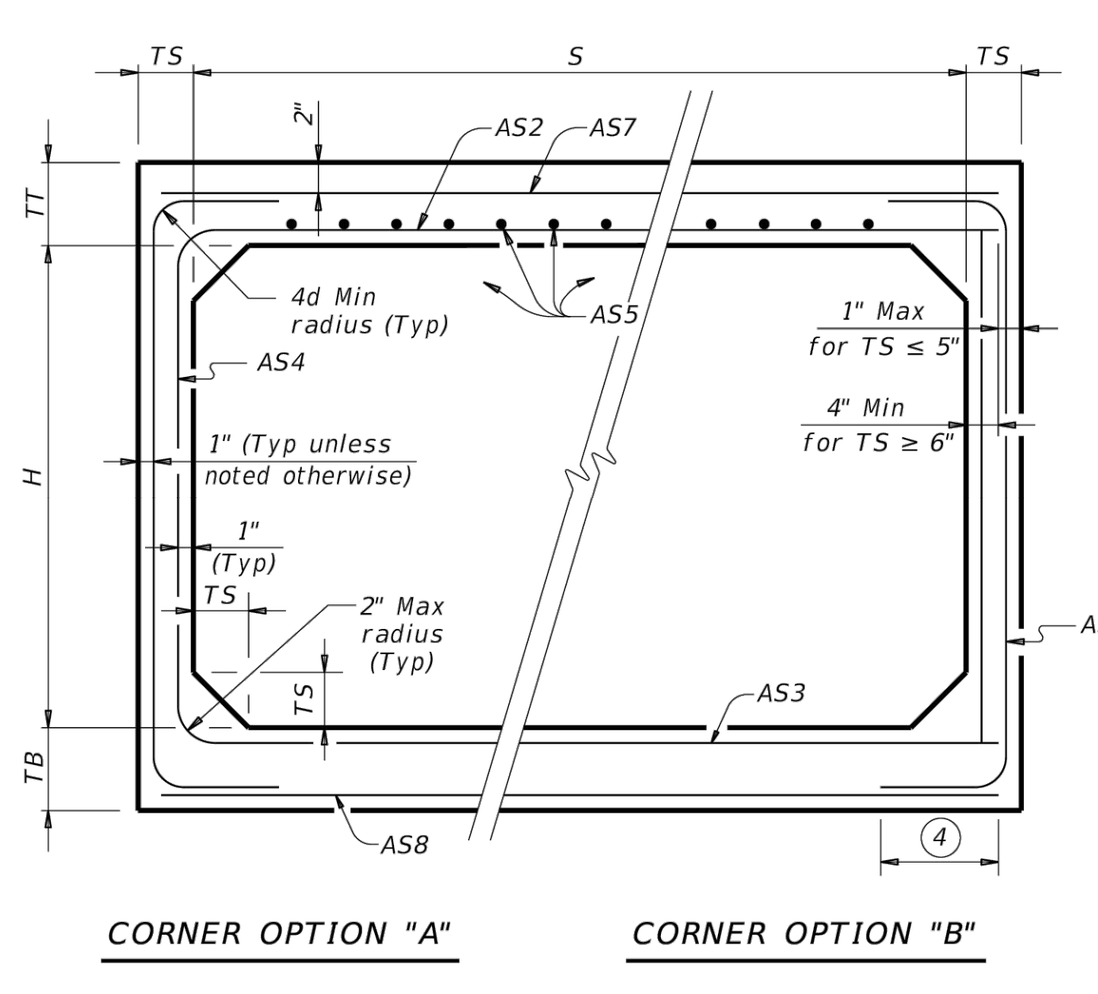
BOX DATA

SECTION DIMENSIONS S (ft.)	H (ft.)	TT (in.)	TB (in.)	TS (in.)	Fill Height (ft.)	M (Min) (in.)	REINFORCING (sq. in. / ft.) (2) AS1	AS2	AS3	AS4	AS5	AS7	AS8	(1) Lift Weight (tons)
6	2	8	7	7	< 2	–	0.23	0.27	0.19	0.17	0.19	0.19	0.17	7.2
6	2	7	7	7	2 < 3	43	0.25	0.21	0.17	0.17	–	–	–	6.8
6	2	7	7	7	3 - 5	43	0.20	0.17	0.17	0.17	–	–	–	6.8
6	2	7	7	7	10	39	0.20	0.17	0.17	0.17	–	–	–	6.8
6	2	7	7	7	15	39	0.26	0.20	0.20	0.17	–	–	–	6.8
6	2	7	7	7	20	39	0.34	0.26	0.26	0.17	–	–	–	6.8
6	2	7	7	7	25	39	0.43	0.32	0.32	0.17	–	–	–	6.8
6	2	7	7	7	30	39	0.52	0.38	0.39	0.17	–	–	–	6.8
6	3	8	7	7	< 2	–	0.20	0.31	0.22	0.17	0.19	0.19	0.17	7.9
6	3	7	7	7	2 < 3	43	0.21	0.24	0.19	0.17	–	–	–	7.5
6	3	7	7	7	3 - 5	39	0.17	0.18	0.17	0.17	–	–	–	7.5
6	3	7	7	7	10	39	0.17	0.18	0.19	0.17	–	–	–	7.5
6	3	7	7	7	15	38	0.22	0.24	0.24	0.17	–	–	–	7.5
6	3	7	7	7	20	38	0.28	0.31	0.31	0.17	–	–	–	7.5
6	3	7	7	7	25	38	0.35	0.38	0.39	0.17	–	–	–	7.5
6	3	7	7	7	30	38	0.42	0.46	0.46	0.17	–	–	–	7.5
6	4	8	7	7	< 2	–	0.19	0.34	0.25	0.17	0.19	0.19	0.17	8.6
6	4	7	7	7	2 < 3	43	0.19	0.27	0.21	0.17	–	–	–	8.2
6	4	7	7	7	3 - 5	39	0.17	0.21	0.19	0.17	–	–	–	8.2
6	4	7	7	7	10	39	0.17	0.20	0.21	0.17	–	–	–	8.2
6	4	7	7	7	15	38	0.18	0.27	0.27	0.17	–	–	–	8.2
6	4	7	7	7	20	38	0.24	0.34	0.35	0.17	–	–	–	8.2
6	4	7	7	7	25	38	0.29	0.43	0.42	0.17	–	–	–	8.2
6	4	7	7	7	30	38	0.35	0.51	0.52	0.17	–	–	–	8.2
6	5	8	7	7	< 2	–	0.19	0.37	0.28	0.17	0.19	0.19	0.17	9.3
6	5	7	7	7	2 < 3	43	0.17	0.30	0.24	0.17	–	–	–	8.9
6	5	7	7	7	3 - 5	43	0.17	0.23	0.21	0.17	–	–	–	8.9
6	5	7	7	7	10	39	0.17	0.22	0.23	0.17	–	–	–	8.9
6	5	7	7	7	15	38	0.17	0.28	0.29	0.17	–	–	–	8.9
6	5	7	7	7	20	38	0.20	0.37	0.38	0.17	–	–	–	8.9
6	5	7	7	7	25	38	0.25	0.45	0.46	0.17	–	–	–	8.9
6	5	7	7	7	30	38	0.30	0.54	0.55	0.17	–	–	–	8.9
6	6	8	7	7	< 2	–	0.19	0.38	0.30	0.17	0.19	0.19	0.17	10
6	6	7	7	7	2 < 3	52	0.17	0.32	0.26	0.17	–	–	–	9.6
6	6	7	7	7	3 - 5	52	0.17	0.24	0.22	0.17	–	–	–	9.6
6	6	7	7	7	10	43	0.17	0.23	0.24	0.17	–	–	–	9.6
6	6	7	7	7	15	39	0.17	0.29	0.31	0.17	–	–	–	9.6
6	6	7	7	7	20	39	0.18	0.38	0.39	0.17	–	–	–	9.6
6	6	7	7	7	25	38	0.23	0.46	0.48	0.17	–	–	–	9.6
6	6	7	7	7	30	38	0.27	0.55	0.57	0.17	–	–	–	9.6

(1) For box length = 8'-0"
(2) AS1 thru AS4, AS7 and AS8 are minimum required areas of reinforcement per linear foot of box length. AS5 is minimum required area of reinforcement per linear foot of box width.

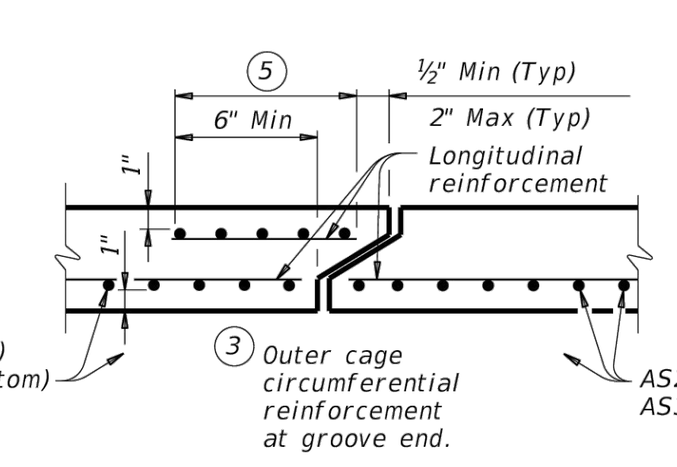


FILL HEIGHT 2 FT AND GREATER



FILL HEIGHT LESS THAN 2 FT

(4) Length is equal to spacing of longitudinal reinforcing plus 2". (10" Min) (Typ)



SECTION A-A
(Showing top and bottom slab joint reinforcement.)

MATERIAL NOTES:
Provide 0.03 sq. in./ft. minimum longitudinal reinforcement at each face in slabs and walls. This minimum requirement may be met by the transverse wires when wire mesh reinforcement is used.
Provide Class H concrete (f'c = 5,000 psi).

GENERAL NOTES:
Designs shown conform to ASTM C1577. Refer to ASTM C1577 for information or details not shown.
See Box Culverts Precast Miscellaneous Details (SCP-MD) standard sheet for details and notes not shown.
In lieu of furnishing the designs shown on this sheet, the contractor may furnish an alternate design that is equal to or exceeds the box design for the design fill height in the table. Submit shop plans for alternate designs in accordance with Item "Precast Concrete Structural Members (Fabrication)."

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Texas Department of Transportation — Bridge Division Standard

SINGLE BOX CULVERTS
PRECAST
6'-0" SPAN
SCP-6

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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

TXDOT CULVERT DETAILS

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#	DATE	REVISIONS
1.	5/29/2024	REVISED STREET SECTION DETAILS
2.	5/05/2025	CITY AND COUNTY COMMENTS
3.	07/14/2025	CITY AND COUNTY COMMENTS
4.		
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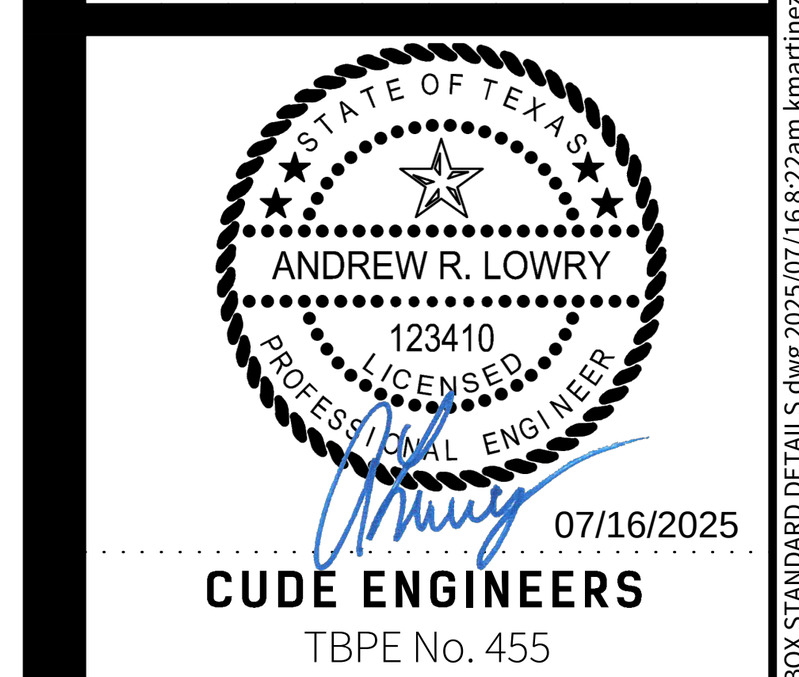

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(2)

P:\03481\003\2-Drawings\CORLEY ROAD\PHASE I\C21 DRAINAGE & JUNCTION BOX STANDARD DETAILS.dwg 2025/07/16 8:22am kmartinez

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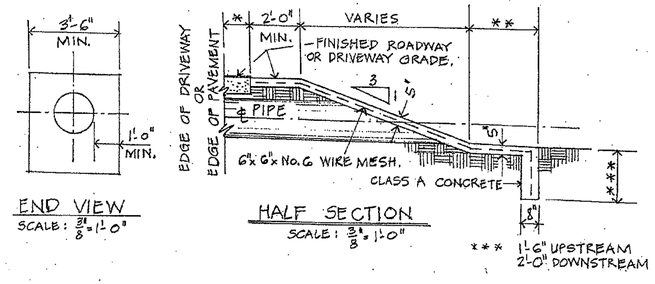
1

HEADWALLS FOR CULVERTS

* (1) 6' FROM EDGE OF ROADWAY SHOULDER.
(2) 1' FROM EDGE OF DRIVEWAY.

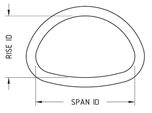
** DIA. OF PIPE + 1'-0"



NOTES:

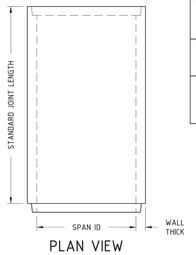
1. Where there are three or more pipes in a culvert #3 bars @ 18" each way may be substituted for wire mesh.
2. In cases where a culvert with its headwalls would extend outside the right-of-way, the subdivider shall dedicate such additional drainage easement or right-of-way as required to provide normal access and egress.

Figure 630



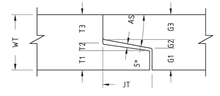
END VIEW

Joint Dimensions									
Size (in.)	Wall (in.)	Jt. (in.)	G1 (in.)	G2 (in.)	G3 (in.)	T1 (in.)	T2 (in.)	T3 (in.)	AS (in.)
18 x 11	3	2 1/2	1.281	0.197	1.522	1.002	0.197	1.803	0.28
22 x 13	3 1/2	2 1/2	1.406	0.197	1.522	1.125	0.197	1.803	0.28
29 x 18	3 1/2	2 1/2	1.516	0.234	1.750	1.250	0.234	2.016	0.27
36 x 23	3 1/2	3	1.594	0.262	1.644	1.313	0.262	1.925	0.28
44 x 27	4	3 1/2	1.719	0.306	1.975	1.438	0.306	2.256	0.28
51 x 31	4 1/2	3 1/2	1.906	0.306	2.288	1.625	0.306	2.569	0.28
58 x 36	5	3 1/2	2.281	0.306	2.413	2.000	0.306	2.694	0.28
65 x 40	5 1/2	5	2.625	0.437	2.438	2.313	0.437	2.750	0.31
73 x 45	6	5	2.938	0.437	2.625	2.375	0.437	3.188	0.56
88 x 54	7	6	3.188	0.525	3.287	2.625	0.525	3.850	0.56



PLAN VIEW

Pipe Data							
Span (in.)	Rise (in.)	Rd. Equiv Pipe Size (in.)	Metric Equiv. Rise (mm)	Metric Equiv. Span (mm)	Opening Sq. Ft. (in.)	Weight (lb./ft.)	Mid-Point A (in.)
18	11	15	460	280	1.1	188	4 11/16
22	13	18	560	345	1.6	233	6
29	18	24	725	460	2.9	325	5 29/32
36	23	30	920	570	4.4	392	7 11/16
44	27	36	1,110	675	6.5	537	8 9/16
51	31	42	1,300	795	8.7	696	10 1/16
58	36	48	1,485	915	11.4	885	11 19/32
65	40	54	1,650	1,015	14.3	1,079	13
73	45	60	1,855	1,145	17.7	1,333	14 11/16
88	54	72	2,235	1,370	25.6	1,856	17





NOTE:
AVAILABLE IN CLASS III, IV
CONFORMS TO CURRENT ASTM C-506 SPECIFICATIONS FOR REINFORCED CONCRETE ARCH CULVERT.

FORTERRA	REGION, STATE	
	C & S MS	
	DATE	SECT.PAGE
	2018	12.1.5

REINFORCED C RCH PIPE
TONGUE & GROOVE - STRAIGHT WALL

CUDEENGINEERS.COM

4122 Pond Hill Road, Suite 101
San Antonio, Texas 78231
P:(210) 681.2951 F: (210) 523.7112

CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

DRAINAGE DETAILS

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

	DATE	
1.	5/29/2024	PERMITTING COMMENTS
2.	5/05/2025	CITY AND COUNTY COMMENTS
3.		
4.		
5.		
6.		
7.		
8.		
9.		

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED PROFESSIONAL ENGINEER
07/16/2025

CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500

C23

2

P:\03481\003\2-Drawings\CORLEY ROAD\PHASE I\C23 DRAINAGE DETAILS.dwg 2025/07/16 8:22am bshackelford

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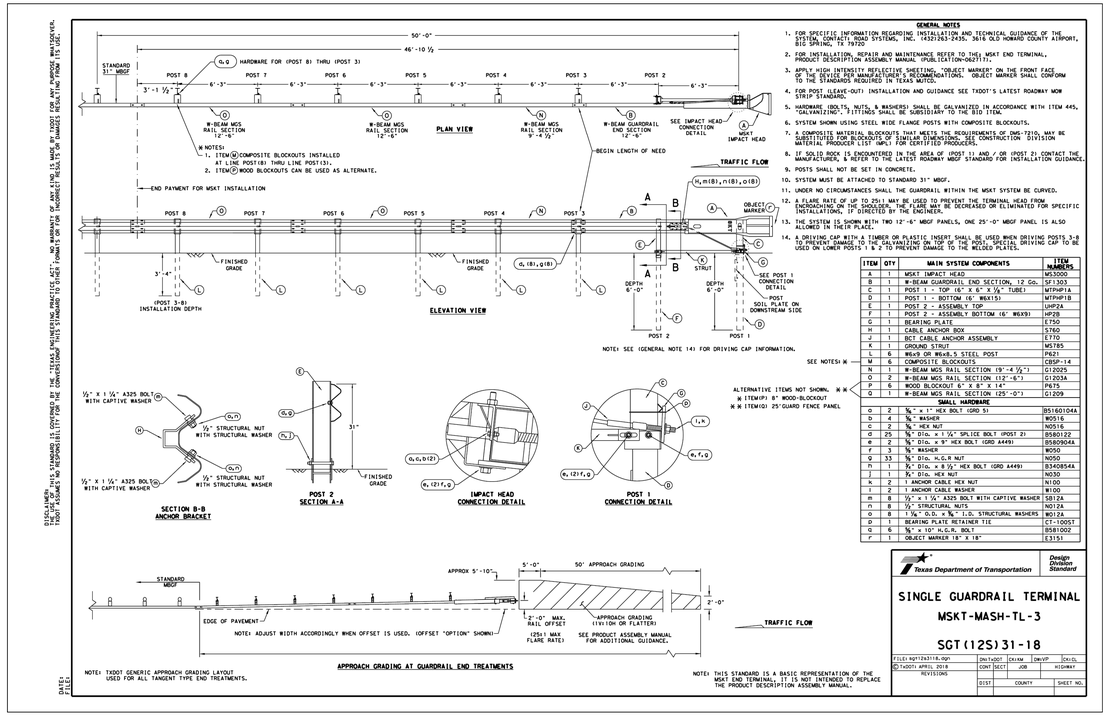

GENERAL NOTES

1. FOR SPECIFIC INFORMATION REGARDING INSTALLATION AND TECHNICAL GUIDANCE OF THE SYSTEM, CONTACT: ROAD SYSTEMS, INC. (432)263-2435, 3616 OLD HOWARD COUNTY AIRPORT, BIG SPRING, TX 79720
2. FOR INSTALLATION, REPAIR AND MAINTENANCE REFER TO THIS MSKT END TERMINAL, PRODUCT DESCRIPTION ASSEMBLY MANUAL (PUBLICATION-062377).
3. APPLY HIGH INTENSITY REFLECTIVE SHEETING, "OBJECT MARKER" ON THE FRONT FACE OF THE DEVICE PER MANUFACTURER'S RECOMMENDATIONS. OBJECT MARKER SHALL CONFORM TO THE STANDARDS REQUIRED IN TEXAS MUTCD.
4. FOR POST (LEAKE-OUT) INSTALLATION AND GUIDANCE SEE TXDOT'S LATEST ROADWAY MOW STRIP STANDARD.
5. HARDWARE (BOLTS, NUTS, & WASHERS) SHALL BE GALVANIZED IN ACCORDANCE WITH ITEM 445, "GALVANIZING". FITTINGS SHALL BE SUBSIDIARY TO THE BID ITEM.
6. SYSTEM SHOWN USING STEEL WIDE FLANGE POSTS WITH COMPOSITE BLOCKOUTS.
7. A COMPOSITE MATERIAL BLOCKOUTS THAT MEETS THE REQUIREMENTS OF DMS-7210, MAY BE SUBSTITUTED FOR BLOCKOUTS OF SIMILAR DIMENSIONS. SEE CONSTRUCTION DIVISION MATERIAL PRODUCER LIST (MPL) FOR CERTIFIED PRODUCERS.
8. IF SOLID ROCK IS ENCOUNTERED IN THE AREA OF (POST 1) AND / OR (POST 2) CONTACT THE MANUFACTURER, & REFER TO THE LATEST ROADWAY MBGF STANDARD FOR INSTALLATION GUIDANCE.
9. POSTS SHALL NOT BE SET IN CONCRETE.
10. SYSTEM MUST BE ATTACHED TO STANDARD 31" MBGF.
11. UNDER NO CIRCUMSTANCES SHALL THE GUARDRAIL WITHIN THE MSKT SYSTEM BE CURVED.
12. A FLARE RATE OF UP TO 25:1 MAY BE USED TO PREVENT THE TERMINAL HEAD FROM BECOMING AN OBSTACLE. THE LENGTH OF NEED MAY BE DECREASED OR ELIMINATED FOR SPECIFIC INSTALLATIONS, IF APPROVED BY THE ENGINEER.
13. THE SYSTEM IS SHOWN WITH TWO 12'-6" MBGF PANELS, ONE 25'-0" MBGF PANEL IS ALSO ALLOWED IN THEIR PLACE.
14. A DRIVING CAP WITH A TIMBER OR PLASTIC INSERT SHALL BE USED WHEN DRIVING POSTS 3-B & TO PREVENT DAMAGE TO THE GALVANIZING ON TOP OF THE POST. SPECIAL DRIVING CAP TO BE USED ON LOWER POSTS 1 & 2 TO PREVENT DAMAGE TO THE WELDED PLATES.

ITEM	QTY	MAIN SYSTEM COMPONENTS	ITEM NUMBERS
A	1	MSKT IMPACT HEAD	M53000
B	1	W-BEAM GUARDRAIL END SECTION, 12' Go.	SF1303
C	1	POST 1 - TOP 15" X 6" X ⅜" TUBE	WTHP1A
D	1	POST 1 - BOTTOM (6' W6X15)	WTHP1B
E	1	POST 2 - ASSEMBLY TOP	LHP2A
F	1	POST 2 - ASSEMBLY BOTTOM (6' W6X9)	HP2B
G	1	BEARING PLATE	E750
H	1	CABLE ANCHOR BOX	S760
J	1	BCT CABLE ANCHOR ASSEMBLY	E770
K	1	GROUND STRUT	W5785
L	6	W6x9 OR W6x8.5 STEEL POST	P621
M	6	COMPOSITE BLOCKOUTS	CBSP-14
N	1	W-BEAM MGS RAIL SECTION (9'-4 ½")	G12025
O	2	W-BEAM MGS RAIL SECTION (12'-6")	G1203A
P	6	WOOD BLOCKOUT 6" X 8" X 14"	P675
Q	1	W-BEAM MGS RAIL SECTION (25'-0")	G1209
SMALL HARDWARE			
a	2	⅝" x 1" HEX BOLT (GRD 5)	B516010A4
b	2	⅝" WASHER	W0516
c	2	⅝" HEX NUT	N0516
d	23	⅝" Dia. x 1 ¼" SPLICE BOLT (POST 2)	B580122
e	2	⅝" Dia. x 9" HEX BOLT (GRD A449)	B580904A
f	3	⅝" WASHER	W050
g	33	⅝" Dia. HₒG.R NUT	N050
h	1	¾" Dia. x 8 ½" HEX BOLT (GRD A449)	B340854A
i	1	¾" Dia. HEX NUT	N100
k	2	1 ANCHOR CABLE HEX NUT	N100
l	2	1 ANCHOR CABLE WASHER	W100
m	8	½" x 1 ¼" A325 BOLT WITH CAPTIVE WASHER	SB12A
n	8	½" STRUCTURAL NUTS	N012A
o	8	1 ½" O.D. x ⅝" I.D. STRUCTURAL WASHERS	W012A
p	1	BEARING PLATE RETAINER TIE	CT-100ST
q	6	⅝" x 10" H.G.R. BOLT	B581002
r	1	OBJECT MARKER 18" X 18"	E1351

Texas Department of Transportation — Design Division Standard

SINGLE GUARDRAIL TERMINAL

MSKT-MASH-TL-3

SGT(12S)31-18

FILE! MSKT2431TA.dgn | DN:TxDOT | CK:KM | DW:VP | CK:CL
©TxDOT APRIL 2018 | CONT | SECT | JOB | HIGHWAY
REVISIONS | DIST | COUNTY | SHEET NO.

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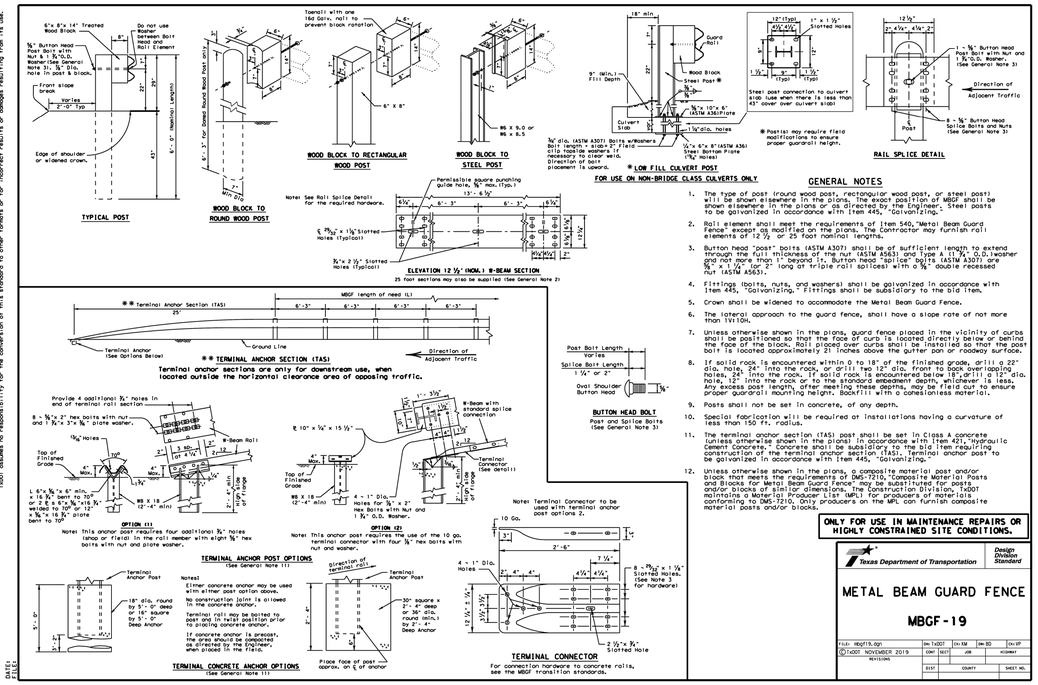
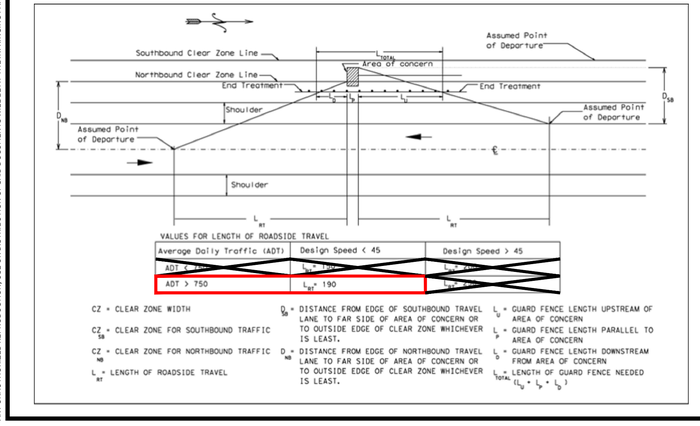
DATE!



WESTBOUND MBGF CALCULATOR		
ADT >750	Du=	4.00 ft
	Gu=	2.00 ft
	Lu=	125.00 ft
	Dd=	10.00 ft
	Gd=	30.00 ft
	Ld=	0.00 ft
	Lp=	54.00 ft
(MBGF TOTAL LENGTH) Ltotal=		179.00 ft
UPSTREAM - SINGLE GUARD TERMINAL SGT(12S)31-18		50.00 ft
DOWNSTREAM ANCHOR TERMINAL (GF (31) DAT-19) =		12.50 ft
(MBGF TOTAL LENGTH INCLUDING UPSTREAM AND DOWNSTREAM TREATMENTS) Ltotal=		241.50 ft
TOTAL LENGTH TO THE NEAREST 25' INTERVAL =		250.00 ft

EASTBOUND MBGF CALCULATOR		
ADT >750	Du=	4.00 ft
	Gu=	2.00 ft
	Lu=	125.00 ft
	Dd=	10.00 ft
	Gd=	30.00 ft
	Ld=	0.00 ft
	Lp=	54.00 ft
(MBGF TOTAL LENGTH) Ltotal=		179.00 ft
UPSTREAM - SINGLE GUARD TERMINAL SGT(12S)31-18		50.00 ft
DOWNSTREAM ANCHOR TERMINAL (GF (31) DAT-19) =		12.50 ft
(MBGF TOTAL LENGTH INCLUDING UPSTREAM AND DOWNSTREAM TREATMENTS) Ltotal=		241.50 ft
TOTAL LENGTH TO THE NEAREST 25' INTERVAL =		250.00 ft

CORLEY ROAD
METAL BEAM GUARD FENCE
CALCULATIONS



Where:

- L_u = Length of guard fence needed (upstream of area of concern), ft
- L_d = Length of guard fence needed (downstream of area of concern), ft
- D_d = Distance from edge of travel lane to far side of area of concern or to outside edge of clear zone, whichever is least, ft (for upstream direction of traffic)
- D_d = Distance from edge of travel lane to far side of area of concern or to outside edge of clear zone, whichever is least, ft (for opposing direction of traffic)
- G_u = Guard fence offset from edge of travel lane adjacent to proposed guard fence, ft
- G_d = Guard fence offset from edge of opposing direction of travel lane (centerline)

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San Antonio, Texas 78231
P:(210) 681.2951 F: (210) 523.7112

CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I
METAL BEAM GUARD FENCE DETAILS

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

A	DATE	REVISED SHEET NUMBER	
1.	5/29/2024		CITY AND COUNTY COMMENTS
2.	5/05/2025		
3.			
4.			
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9.			

STATE OF TEXAS — 123410 — REGISTERED ENGINEER — ANDREW R. LOWRY
07/16/2025
CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500

C24
2

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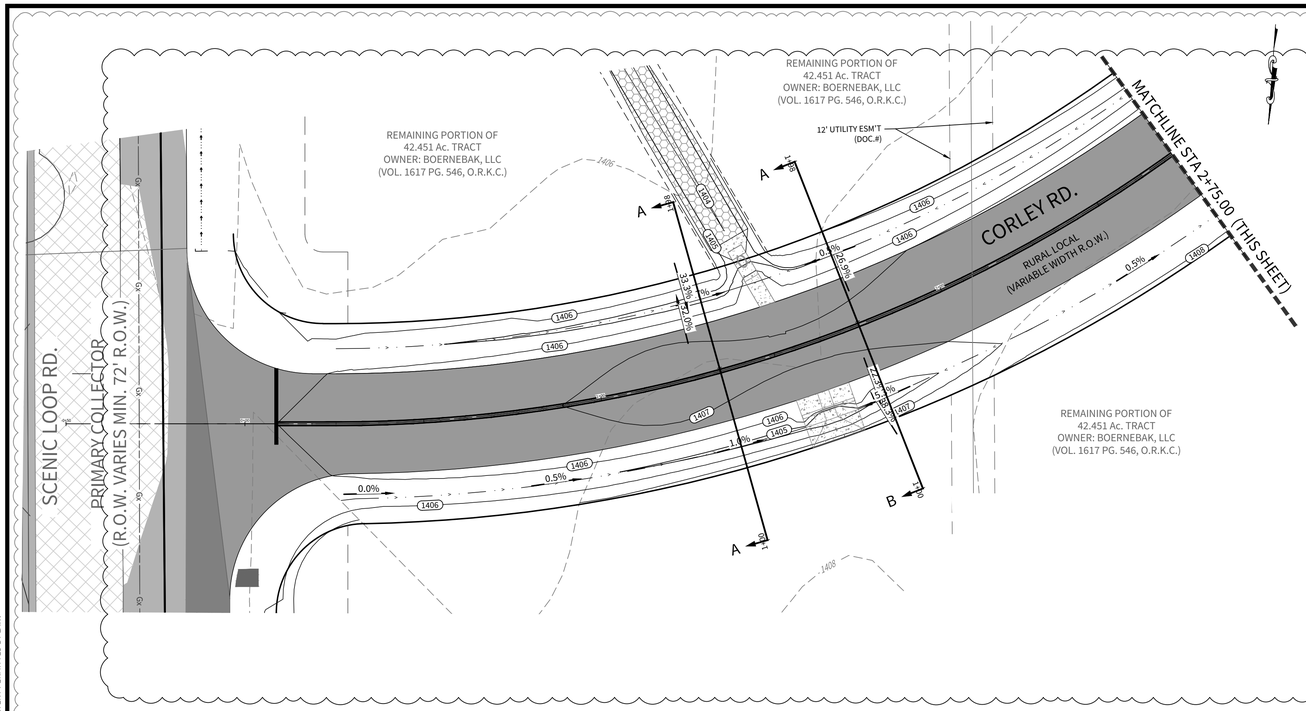
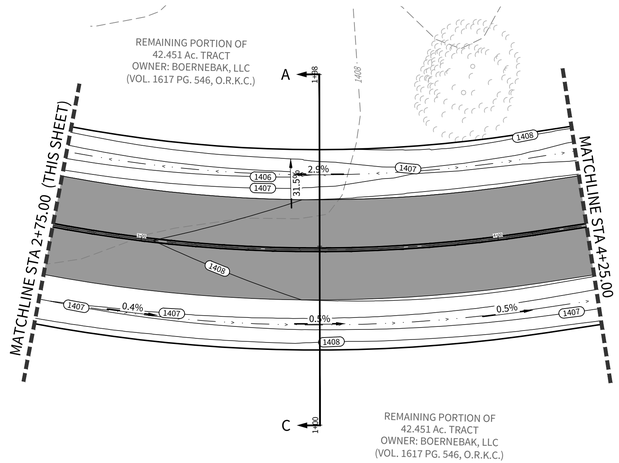




SCALE: 1"=20'
20 10 0 20

LEGEND

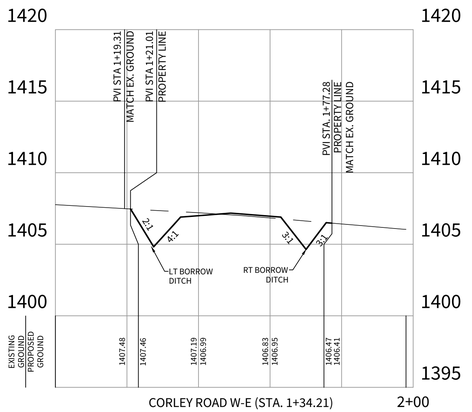
- RIGHT OF WAY
- LOT LINE
- UTILITY EASEMENT
- EXISTING 1' CONTOUR (499)
- EXISTING 5' CONTOUR (500)
- EXISTING OVERHEAD ELECTRIC (OHE)
- EXISTING POWER POLE
- EXISTING WATER LINE (Wx)
- EXISTING GAS LINE (Gx)
- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- PROPOSED DRIVEWAY
- PRESERVED TREES

4

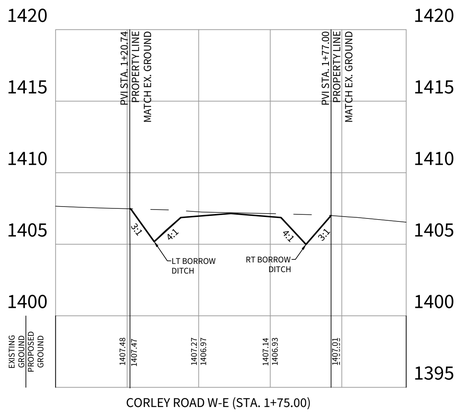
PROPOSED CORLEY ROAD
W-E STREET CROSS SECTIONS

STA. 1+00.00 TO STA. 4+25.00

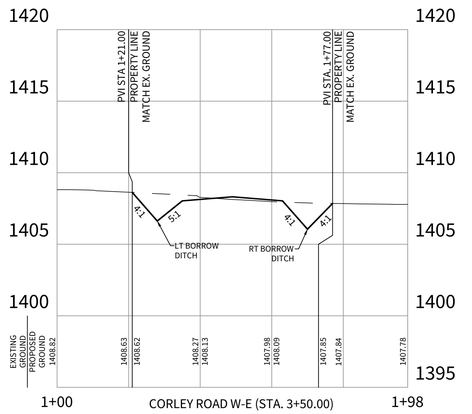
CR WE X-SECTION A-A
STA: 1+00.00 TO STA: 2+00.00



CR WE X-SECTION A-B
STA: 1+00.00 TO STA: 1+98.00



CR WE X-SECTION A-C
STA: 1+00.00 TO STA: 1+98.00



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4122 Pond Hill Road, Suite 101
San Antonio, Texas 78231
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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

PROPOSED TYPICAL STREET SECTIONS
& RIGHT OF WAY DEDICATION MAP

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

	DATE	
1.	5/29/2024	REVISED STREET SECTION DETAILS
2.	8/3/2024	ADDED PROPOSED CONTOURS, REMOVED EXCESS CROSS SECTIONS
3.	5/05/2025	CITY AND COUNTY COMMENTS
4.	7/14/2025	CITY AND COUNTY COMMENTS
5.		
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STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED PROFESSIONAL ENGINEER
07/16/2025
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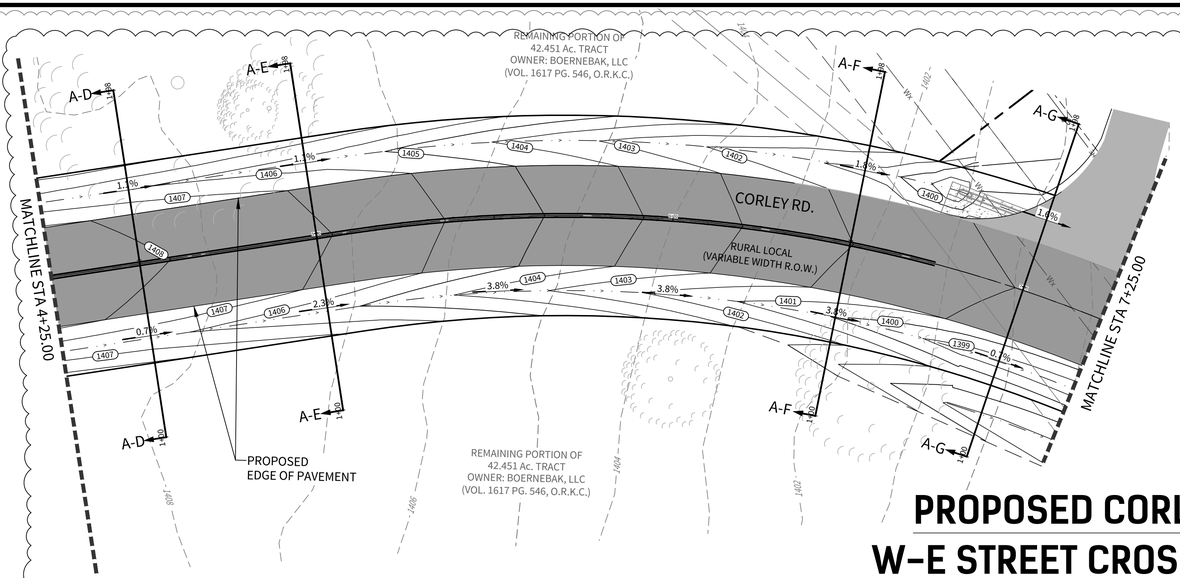
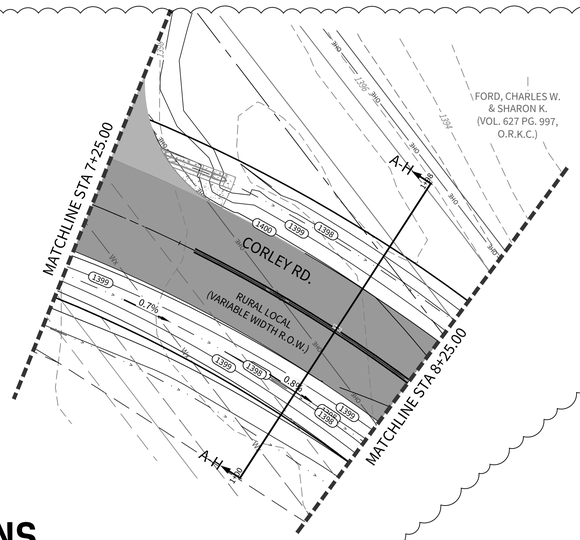
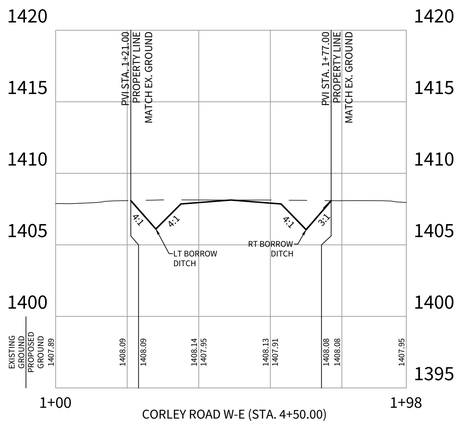




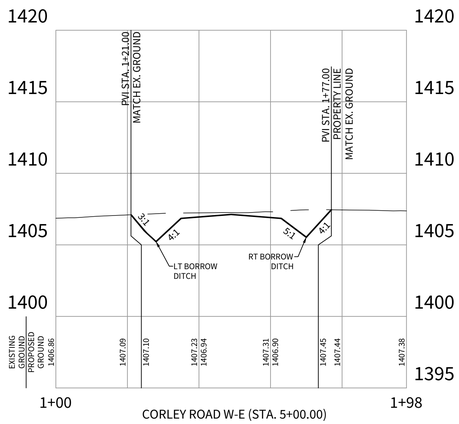
PROPOSED CORLEY ROAD
W-E STREET CROSS SECTIONS

STA. 4+25.00 TO STA. 8+25.00

CR WE X-SECTION A-D
STA: 1+00.00 TO STA: 1+98.00



CR WE X-SECTION A-E
STA: 1+00.00 TO STA: 1+98.00



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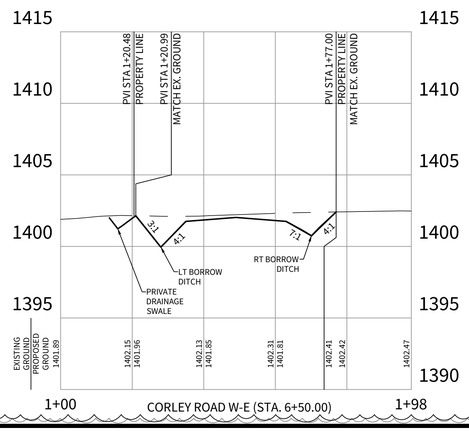
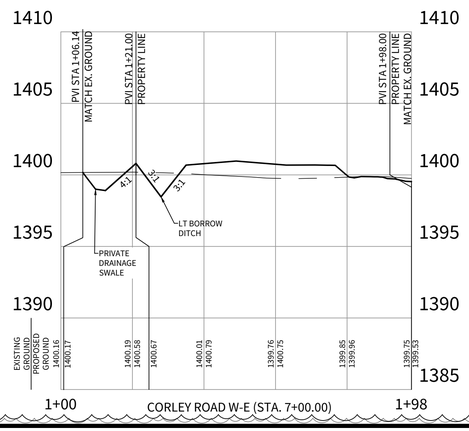


CR WE X-SECTION A-G
STA: 1+00.00 TO STA: 1+98.00



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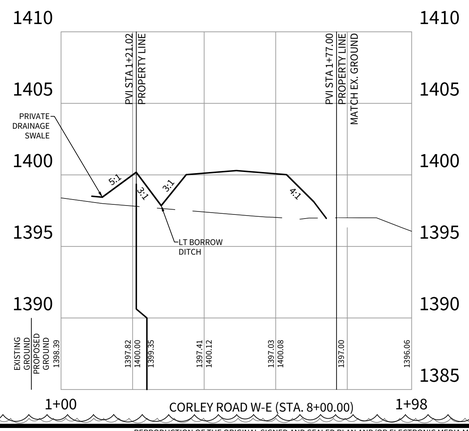
STA: 1+00.00 TO STA: 1+98.00



SCALE: 1"=20'
20 10 0 20

LEGEND

- RIGHT OF WAY
- LOT LINE
- UTILITY EASEMENT
- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- EXISTING OVERHEAD ELECTRIC
- EXISTING POWER POLE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- PROPOSED DRIVEWAY
- PRESERVED TREES

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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

PROPOSED TYPICAL STREET SECTIONS
& RIGHT OF WAY DEDICATION MAP

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

	DATE	
1.	5/29/2024	REVISED STREET SECTION DETAILS
2.	8/3/2024	ADDED PROPOSED CONTOURS, REMOVED EXCESS CROSS SECTIONS
3.	5/05/2025	CITY AND COUNTY COMMENTS
4.	7/14/2025	CITY AND COUNTY COMMENTS
5.		
6.		
7.		
8.		
9.		

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED
PROFESSIONAL ENGINEER
07/16/2025

CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500

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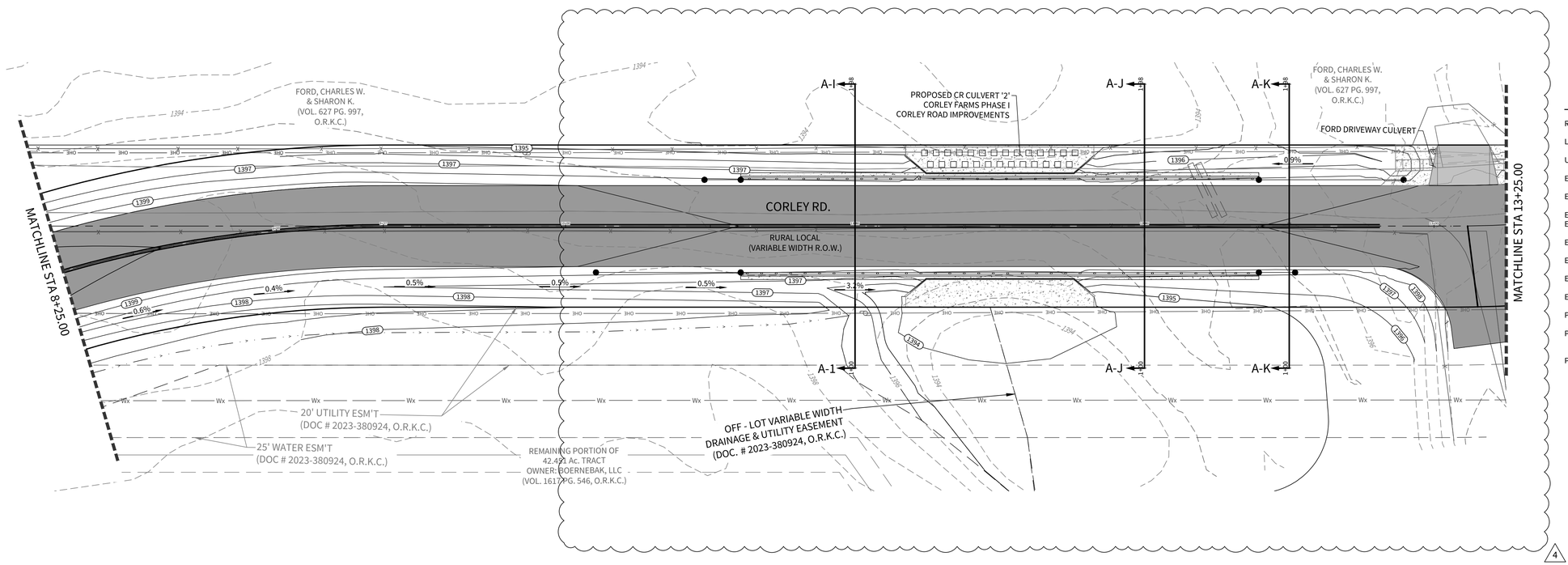
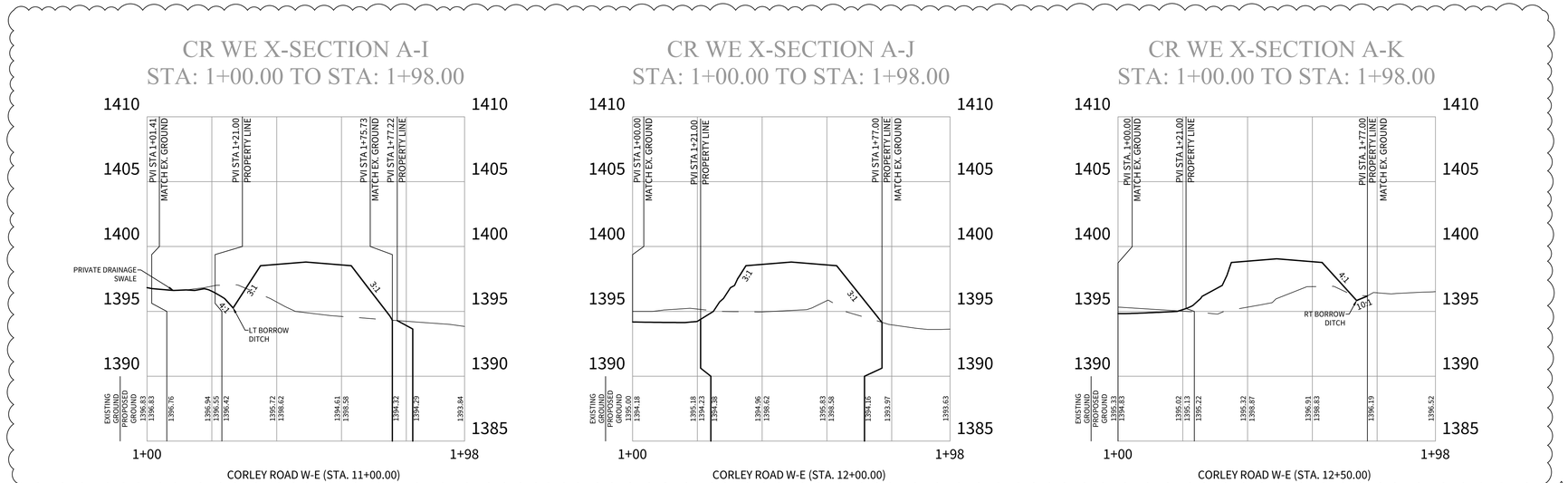


4

PROPOSED CORLEY ROAD
W-E STREET CROSS SECTIONS

STA. 8+25.00 TO STA. 13+25.00



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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

PROPOSED TYPICAL STREET SECTIONS & RIGHT OF WAY DEDICATION MAP

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

	DATE	
1.	5/29/2024	REVISED STREET SECTION DETAILS
2.	9/3/2024	ADDED PROPOSED CONTOURS, REMOVED EXCESS ROW, CORRECTED SLOPES
3.	5/05/2025	CITY AND COUNTY COMMENTS
4.	7/14/2025	CITY AND COUNTY COMMENTS
5.		
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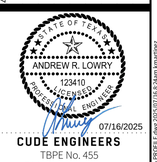

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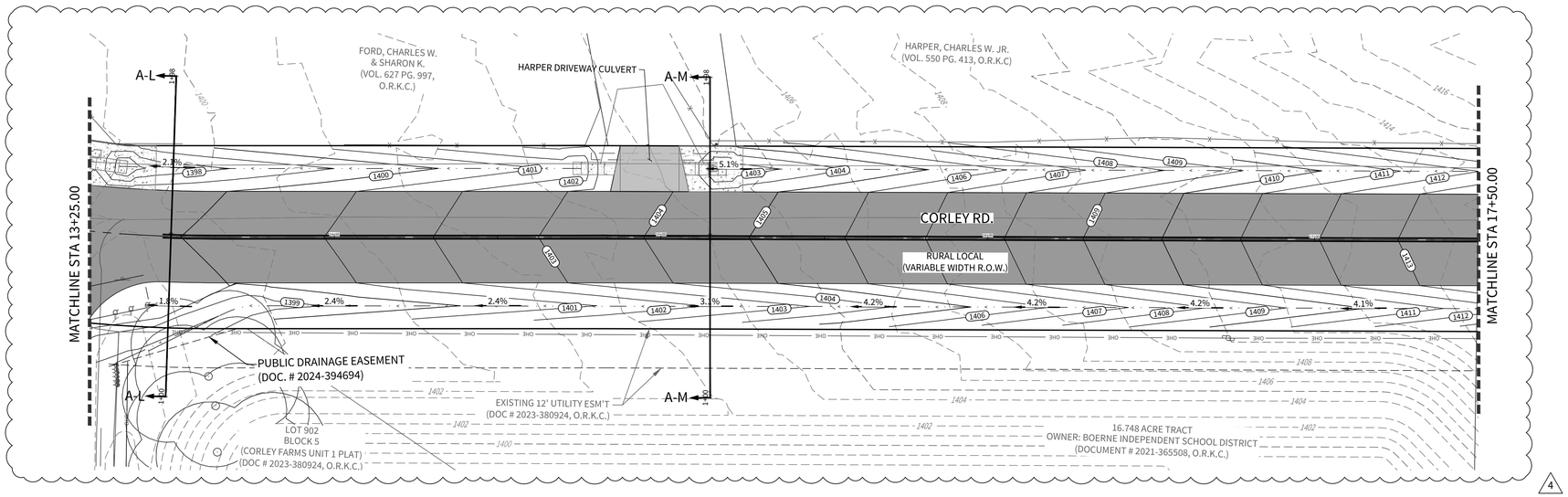
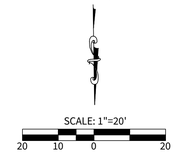
P:\03481\003\2-3\Drawings\CORLEY ROAD\PANEL\C30-31 CORLEY ROAD PLAN & PROFILE.dwg 2025/07/16 8:30am tmartinez



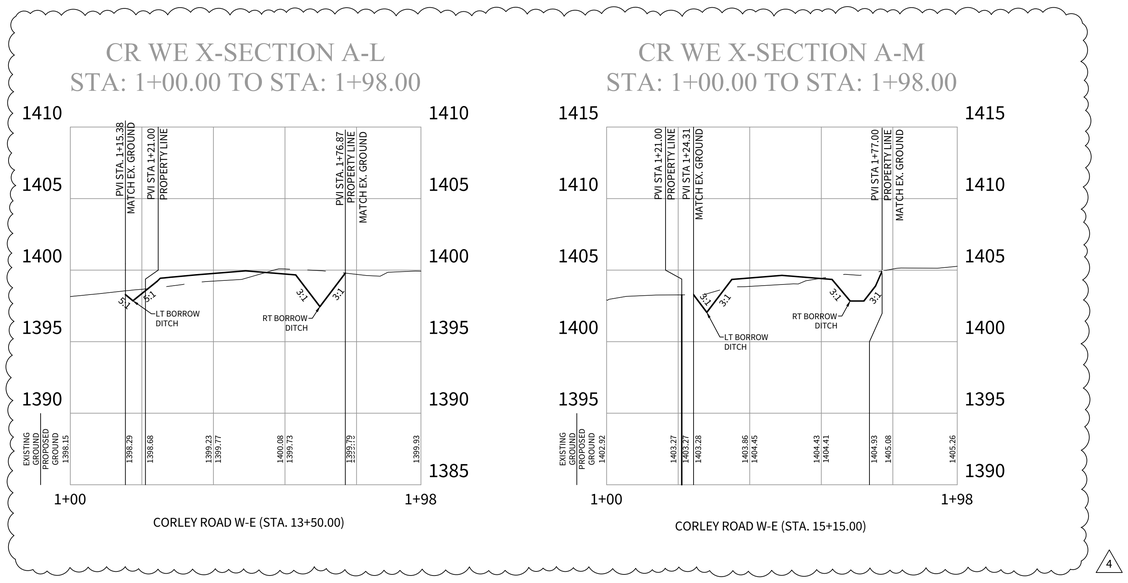


LEGEND

- RIGHT OF WAY
- LOT LINE
- UTILITY EASEMENT
- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- EXISTING OVERHEAD ELECTRIC
- EXISTING POWER POLE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- PROPOSED DRIVEWAY
- PRESERVED TREES

PROPOSED CORLEY ROAD
W-E STREET CROSS SECTIONS

STA. 13+25.00 TO STA. 17+50.00



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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

PROPOSED TYPICAL STREET SECTIONS
& RIGHT OF WAY DEDICATION MAP

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

	DATE	DESCRIPTION
1.	5/29/2024	REVISED STREET SECTION DETAILS
2.	9/3/2024	ADDED PROPOSED CONTOURS, REMOVED EXCESS CROSS SECTIONS
3.	5/05/2025	CITY AND COUNTY COMMENTS
4.	7/14/2025	CITY AND COUNTY COMMENTS
5.		
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7.		
8.		
9.		

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED PROFESSIONAL ENGINEER
07/16/2025

CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500

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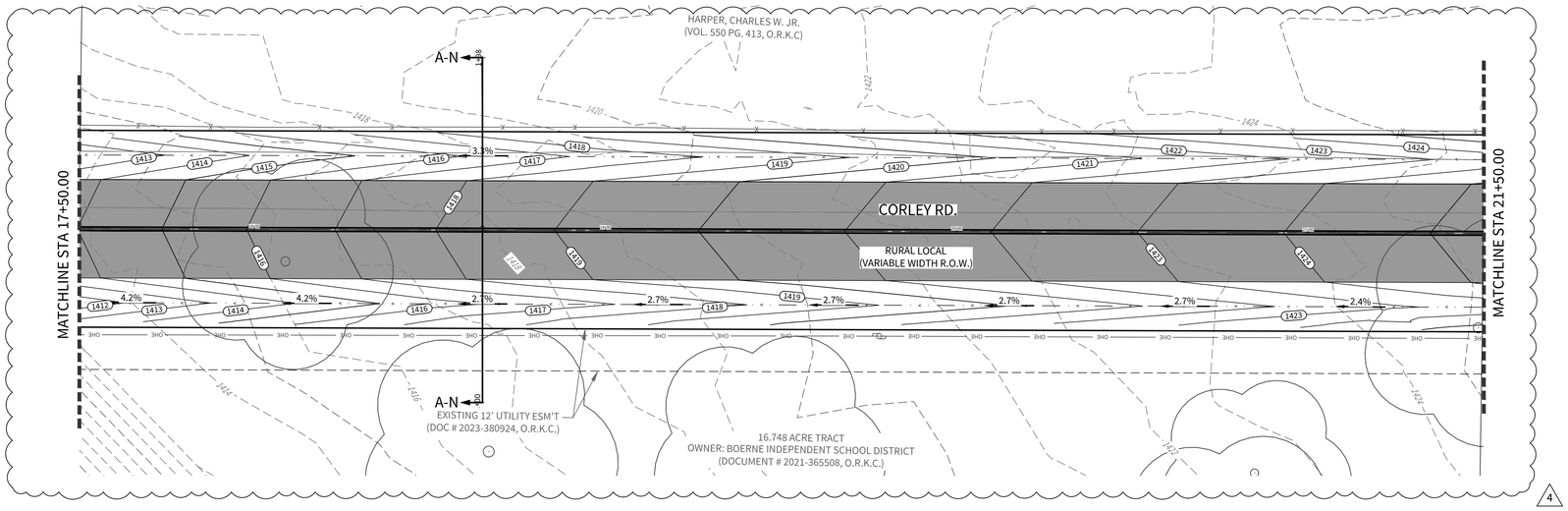
C:\03481\003\2-Drawings\CORLEY ROAD\PHASE I\C28 31 CORLEY ROAD PHASE I PLAN & PROFILE.dwg 2025/07/16 8:30am lmartinez



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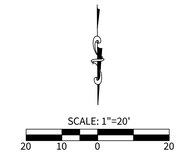
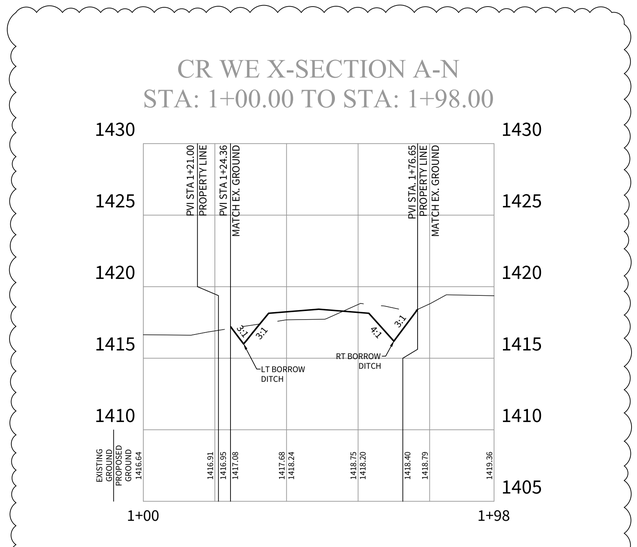


LEGEND

- RIGHT OF WAY
- LOT LINE
- UTILITY EASEMENT
- EXISTING 1' CONTOUR (499)
- EXISTING 5' CONTOUR (500)
- EXISTING OVERHEAD ELECTRIC (OHE)
- EXISTING POWER POLE
- EXISTING WATER LINE (Wx)
- EXISTING GAS LINE (Gx)
- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- PROPOSED DRIVEWAY
- PRESERVED TREES

PROPOSED CORLEY ROAD
W-E STREET CROSS SECTIONS

STA. 17+50.00 TO STA. 21+50.00



CORLEY ROAD W-E (STA. 18+65.00)

4

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CORLEY FARMS OFFSITE
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PROPOSED TYPICAL STREET SECTIONS
& RIGHT OF WAY DEDICATION MAP

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

	DATE	
1.	5/29/2024	REVISED STREET SECTION DETAILS
2.	9/3/2024	ADDED PROPOSED CONTOURS, REMOVED EXCESS ROW, UPDATED CL
3.	5/05/2025	CITY AND COUNTY COMMENTS
4.	7/14/2025	CITY AND COUNTY COMMENTS
5.		
6.		
7.		
8.		
9.		

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED
PROFESSIONAL ENGINEER
07/16/2025
CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500

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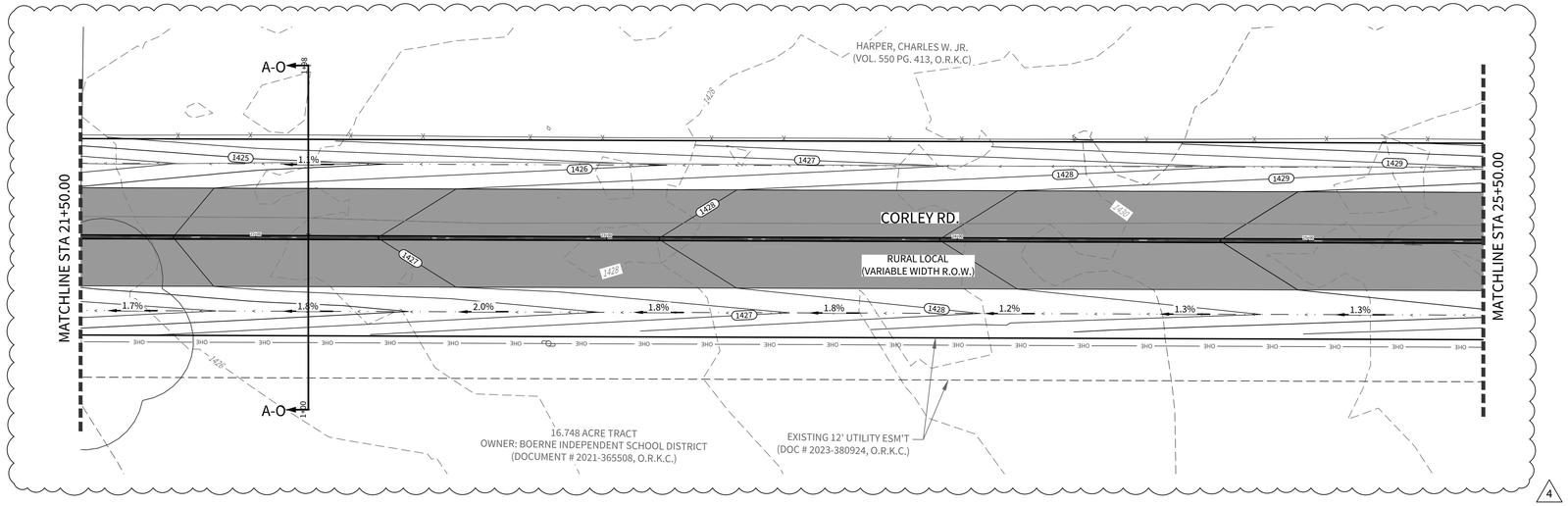
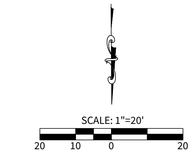
P:\03481.003\2-3 Drawings\CORLEY ROAD\PLANSET\C29-31 CORLEY ROAD PLAN & PROFILE.dwg 2025/07/16 8:34am timothec



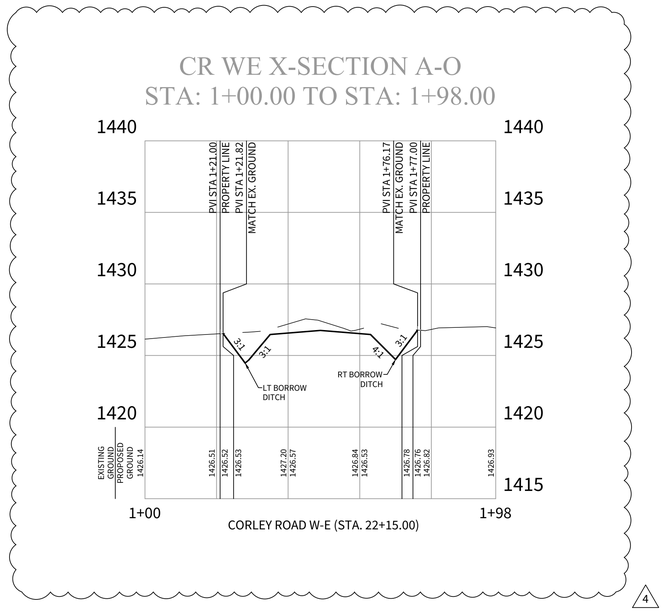


LEGEND

- RIGHT OF WAY
- LOT LINE
- UTILITY EASEMENT
- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- EXISTING OVERHEAD ELECTRIC
- EXISTING POWER POLE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- PROPOSED DRIVEWAY
- PRESERVED TREES

PROPOSED CORLEY ROAD
W-E STREET CROSS SECTIONS

STA. 21+50.00 TO STA. 25+50.00



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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

PROPOSED TYPICAL STREET SECTIONS
& RIGHT OF WAY DEDICATION MAP

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

	DATE	
1.	5/29/2024	REVISED STREET SECTION DETAILS
2.	9/3/2024	ADDED PROPOSED CONTOURS, REMOVED EXCESS ADDED DRIVEWAYS
3.	5/05/2025	CITY AND COUNTY COMMENTS
4.	7/14/2025	CITY AND COUNTY COMMENTS
5.		
6.		
7.		
8.		
9.		

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED
PROFESSIONAL ENGINEER
07/16/2025
CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500

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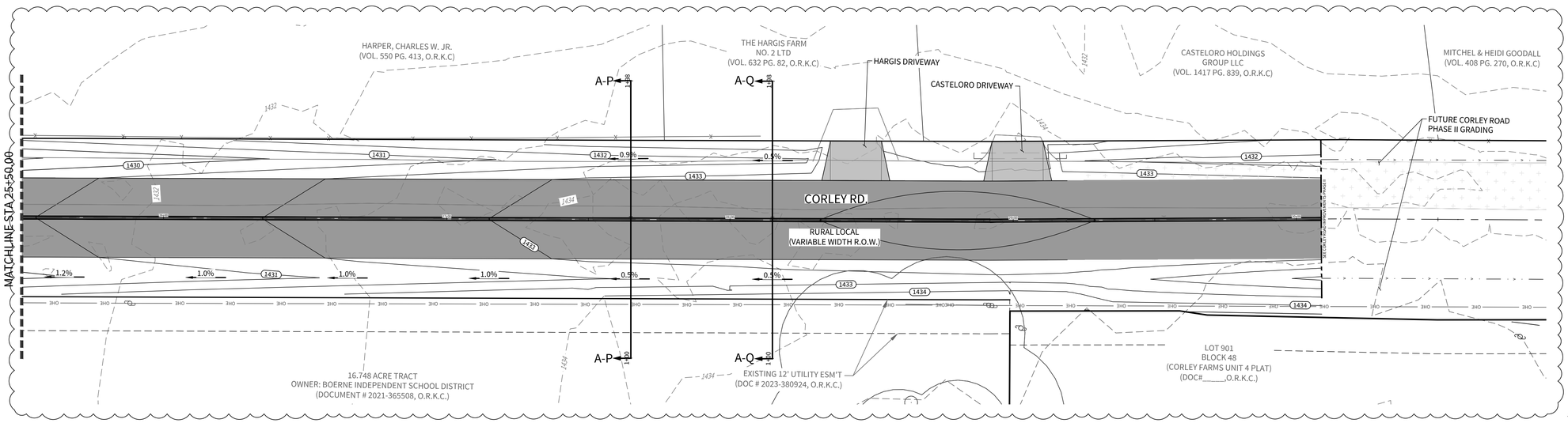


SCALE: 1"=20'
20 10 0 20

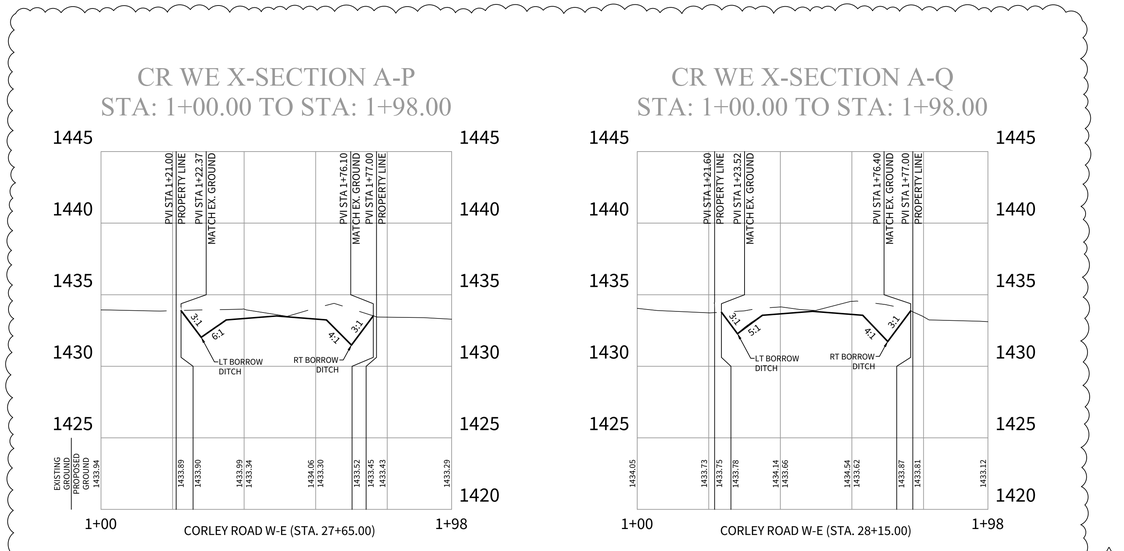
LEGEND

- RIGHT OF WAY
- LOT LINE
- UTILITY EASEMENT
- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- EXISTING OVERHEAD ELECTRIC
- EXISTING POWER POLE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- PROPOSED DRIVEWAY
- PRESERVED TREES

4

PROPOSED CORLEY ROAD
W-E STREET CROSS SECTIONS

STA. 25+50.00 TO END



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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

PROPOSED TYPICAL STREET SECTIONS
& RIGHT OF WAY DEDICATION MAP

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

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3.	5/05/2025	CITY AND COUNTY COMMENTS
4.	7/14/2025	CITY AND COUNTY COMMENTS
5.		
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9.		

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED
PROFESSIONAL ENGINEER
07/16/2025

CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500

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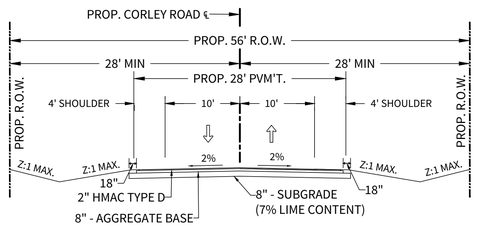
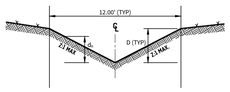
G:\03481\003\2-Drawings\CORLEY ROAD\PHASE I\C31 CORLEY ROAD PHASE I PLAN & PROFILE.dwg 2025/07/16 8:32am timsanchez



PROP. CORLEY ROAD TYPICAL SECTION

SECTION 'A'-'A' (N.T.S.)
STA. 0+30.18 TO STA. 11+07.74
& STA. 11+92.26 TO END



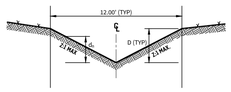
CORLEY ROAD "A-A" SECTION (N.T.S.)

"A-A" STA. 1+00.00 TO 1+98.00

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_5 (cfs)	2.43	0.47
B_w (ft)	0.00'	0.00'
z (ft)	2' & 4'	3.00'
n	0.035	0.035
D (ft)	2.34'	2.53'
S (%)	1.00	0.70
d_5 (ft)	0.65'	0.38'
V (fps)	1.92	1.08
Fr	0.420	0.309

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_{100} (cfs)	5.39	1.07
B_w (ft)	0.00'	0.00'
z (ft)	2' & 4'	3.00'
n	0.035	0.035
D (ft)	2.34'	2.53'
S (%)	1.00	0.70
d_5 (ft)	0.88'	0.51'
V (fps)	2.32	1.37
Fr	0.436	0.338

NOTE:
EARTHEN CHANNELS TO
BE SOD LINED WHEN
VELOCITIES ARE 3 - 6 FPS



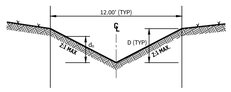
CORLEY ROAD "A-B" SECTION (N.T.S.)

"A-B" STA. 1+00.00 TO 1+98.00

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_5 (cfs)	2.43	0.71
B_w (ft)	0.00'	0.00'
z (ft)	3' & 4'	4' & 3'
n	0.035	0.035
D (ft)	1.97'	2.16'
S (%)	5.30	0.50
d_5 (ft)	0.45'	0.44'
V (fps)	3.43	1.05
Fr	0.901	0.279

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_{100} (cfs)	5.39	1.59
B_w (ft)	0.00'	0.00'
z (ft)	3' & 4'	4' & 3'
n	0.035	0.035
D (ft)	1.97'	2.16'
S (%)	5.30	0.50
d_5 (ft)	0.61'	0.60'
V (fps)	4.14	1.26
Fr	0.935	0.287

NOTE:
EARTHEN CHANNELS TO
BE SOD LINED WHEN
VELOCITIES ARE 3 - 6 FPS



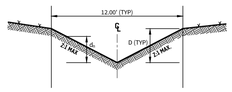
CORLEY ROAD "A-C" SECTION (N.T.S.)

"A-C" STA. 1+00.00 TO 1+98.00

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_5 (cfs)	6.62	1.41
B_w (ft)	0.00'	0.00'
z (ft)	4' & 5'	4.00'
n	0.035	0.035
D (ft)	1.69'	2.25'
S (%)	0.50	2.90
d_5 (ft)	0.92'	0.53'
V (fps)	1.74'	2.82
Fr	0.320	0.655

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_{100} (cfs)	14.62	3.17
B_w (ft)	0.00'	0.00'
z (ft)	4' & 5'	4.00'
n	0.035	0.035
D (ft)	1.69'	2.25'
S (%)	0.50	2.90
d_5 (ft)	1.24'	0.90'
V (fps)	2.11	2.04
Fr	0.334	0.683

NOTE:
EARTHEN CHANNELS TO
BE SOD LINED WHEN
VELOCITIES ARE 3 - 6 FPS



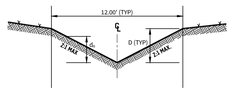
CORLEY ROAD "A-D" SECTION (N.T.S.)

"A-D" STA. 1+00.00 TO 1+98.00

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_5 (cfs)	6.62	1.41
B_w (ft)	0.00'	0.00'
z (ft)	4.00'	4' & 3'
n	0.035	0.035
D (ft)	2.02'	2.07'
S (%)	0.70	1.10
d_5 (ft)	0.90'	0.49'
V (fps)	2.04	1.68
Fr	0.379	0.423

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_{100} (cfs)	14.62	3.17
B_w (ft)	0.00'	0.00'
z (ft)	4.00'	4' & 3'
n	0.035	0.035
D (ft)	2.02'	2.07'
S (%)	0.70	1.10
d_5 (ft)	1.22'	0.67'
V (fps)	2.46	2.02
Fr	0.393	0.435

NOTE:
EARTHEN CHANNELS TO
BE SOD LINED WHEN
VELOCITIES ARE 3 - 6 FPS



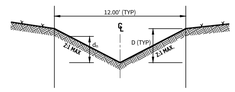
CORLEY ROAD "A-E" SECTION (N.T.S.)

"A-E" STA. 1+00.00 TO 1+98.00

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_5 (cfs)	6.62	1.41
B_w (ft)	0.00'	0.00'
z (ft)	3' & 4'	5' & 4'
n	0.035	0.035
D (ft)	1.90'	1.59'
S (%)	2.30	1.10
d_5 (ft)	0.76'	0.45'
V (fps)	3.27	1.55
Fr	0.611	0.407

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_{100} (cfs)	14.62	3.17
B_w (ft)	0.00'	0.00'
z (ft)	3' & 4'	5' & 4'
n	0.035	0.035
D (ft)	1.90'	1.59'
S (%)	2.30	1.10
d_5 (ft)	1.03'	0.60'
V (fps)	3.94	1.96
Fr	0.684	0.446

NOTE:
EARTHEN CHANNELS TO
BE SOD LINED WHEN
VELOCITIES ARE 3 - 6 FPS



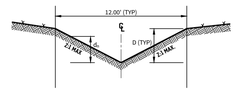
CORLEY ROAD "A-F" SECTION (N.T.S.)

"A-F" STA. 1+00.00 TO 1+98.00

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_5 (cfs)	6.62	1.41
B_w (ft)	0.00'	0.00'
z (ft)	3' & 4'	7' & 4'
n	0.035	0.035
D (ft)	2.08'	1.28'
S (%)	3.80	1.80
d_5 (ft)	0.70'	0.38'
V (fps)	3.86	1.78
Fr	0.813	0.509

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_{100} (cfs)	14.62	3.17
B_w (ft)	0.00'	0.00'
z (ft)	3' & 4'	7' & 4'
n	0.035	0.035
D (ft)	2.08'	1.28'
S (%)	3.80	1.80
d_5 (ft)	0.93'	0.51'
V (fps)	4.83	2.22
Fr	0.883	0.548

NOTE:
EARTHEN CHANNELS TO
BE SOD LINED WHEN
VELOCITIES ARE 3 - 6 FPS



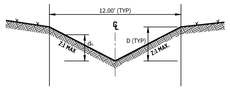
CORLEY ROAD "A-G" SECTION (N.T.S.)

"A-G" STA. 1+00.00 TO 1+98.00

	LEFT
BEGIN STA.	1+00.00
END STA.	1+98.00
Q_5 (cfs)	6.62
B_w (ft)	0.00'
z (ft)	3.00'
n	0.035
D (ft)	2.50'
S (%)	0.70
d_5 (ft)	1.01'
V (fps)	2.16
Fr	0.379

	LEFT
BEGIN STA.	1+00.00
END STA.	1+98.00
Q_{100} (cfs)	14.62
B_w (ft)	0.00'
z (ft)	3.00'
n	0.035
D (ft)	2.50'
S (%)	0.70
d_5 (ft)	1.36'
V (fps)	2.63
Fr	0.398

NOTE:
EARTHEN CHANNELS TO
BE SOD LINED WHEN
VELOCITIES ARE 3 - 6 FPS



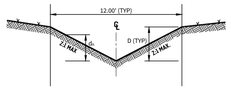
CORLEY ROAD "A-H" SECTION (N.T.S.)

"A-H" STA. 1+00.00 TO 1+98.00

	LEFT
BEGIN STA.	1+00.00
END STA.	1+98.00
Q_5 (cfs)	18.98
B_w (ft)	0.00'
z (ft)	3.00'
n	0.035
D (ft)	2.45'
S (%)	0.80
d_5 (ft)	1.46'
V (fps)	2.97
Fr	0.433

	LEFT
BEGIN STA.	1+00.00
END STA.	1+98.00
Q_{100} (cfs)	41.96
B_w (ft)	0.00'
z (ft)	3.00'
n	0.035
D (ft)	2.45'
S (%)	0.80
d_5 (ft)	1.97'
V (fps)	3.60
Fr	0.452

NOTE:
EARTHEN CHANNELS TO
BE SOD LINED WHEN
VELOCITIES ARE 3 - 6 FPS



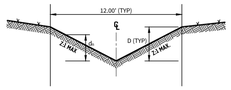
CORLEY ROAD "A-I" SECTION (N.T.S.)

"A-I" STA. 1+00.00 TO 1+98.00

	LEFT
BEGIN STA.	1+00.00
END STA.	1+98.00
Q_5 (cfs)	18.98
B_w (ft)	0.00'
z (ft)	4' & 3'
n	0.035
D (ft)	3.53'
S (%)	3.20
d_5 (ft)	1.06'
V (fps)	4.83
Fr	0.827

	LEFT
BEGIN STA.	1+00.00
END STA.	1+98.00
Q_{100} (cfs)	41.96
B_w (ft)	0.00'
z (ft)	3.00'
n	0.035
D (ft)	3.53'
S (%)	3.20
d_5 (ft)	1.43'
V (fps)	5.86
Fr	0.864

NOTE:
EARTHEN CHANNELS TO
BE SOD LINED WHEN
VELOCITIES ARE 3 - 6 FPS



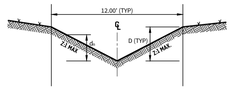
CORLEY ROAD "A-K" SECTION (N.T.S.)

"A-K" STA. 1+00.00 TO 1+98.00

	RIGHT
BEGIN STA.	1+00.00
END STA.	1+98.00
Q_5 (cfs)	7.83
B_w (ft)	0.00'
z (ft)	4' & 10'
n	0.035
D (ft)	3.21'
S (%)	0.90
d_5 (ft)	0.74'
V (fps)	2.04
Fr	0.418

	RIGHT
BEGIN STA.	1+00.00
END STA.	1+98.00
Q_{100} (cfs)	17.33
B_w (ft)	0.00'
z (ft)	3.00'
n	0.035
D (ft)	3.21'
S (%)	0.90
d_5 (ft)	1.00'
V (fps)	2.48
Fr	0.437

NOTE:
EARTHEN CHANNELS TO
BE SOD LINED WHEN
VELOCITIES ARE 3 - 6 FPS



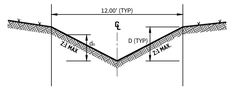
CORLEY ROAD "A-L" SECTION (N.T.S.)

"A-L" STA. 1+00.00 TO 1+98.00

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_5 (cfs)	4.56	7.83
B_w (ft)	0.00'	0.00'
z (ft)	5.00'	3.00'
n	0.035	0.035
D (ft)	2.09'	2.50'
S (%)	1.80	2.10
d_5 (ft)	0.61'	0.88'
V (fps)	2.45	3.37
Fr	0.553	0.633

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_{100} (cfs)	10.10	17.33
B_w (ft)	0.00'	0.00'
z (ft)	5.00'	3.00'
n	0.035	0.035
D (ft)	2.09'	2.50'
S (%)	1.80	2.10
d_5 (ft)	0.82'	1.18'
V (fps)	3.00	4.15
Fr	0.584	0.674

NOTE:
EARTHEN CHANNELS TO
BE SOD LINED WHEN
VELOCITIES ARE 3 - 6 FPS



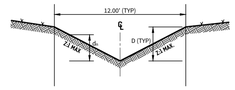
CORLEY ROAD "A-M" SECTION (N.T.S.)

"A-M" STA. 1+00.00 TO 1+98.00

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_5 (cfs)	4.56	6.32
B_w (ft)	0.00'	3.84'
z (ft)	3.00'	3.00'
n	0.035	0.035
D (ft)	2.58'	1.78'
S (%)	3.10	5.10
d_5 (ft)	0.67'	0.33'
V (fps)	3.39	3.97
Fr	0.730	1.218

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_{100} (cfs)	10.10	13.98
B_w (ft)	0.00'	3.84'
z (ft)	3.00'	3.00'
n	0.035	0.035
D (ft)	2.58'	1.78'
S (%)	3.10	5.10
d_5 (ft)	0.90'	0.52'
V (fps)	4.16	4.98
Fr	0.773	1.218

NOTE:
EARTHEN CHANNELS TO
BE SOD LINED WHEN
VELOCITIES ARE 3 - 6 FPS



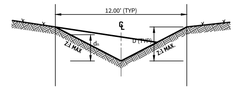
CORLEY ROAD "A-N" SECTION (N.T.S.)

"A-N" STA. 1+00.00 TO 1+98.00

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_5 (cfs)	4.56	6.32
B_w (ft)	0.00'	0.00'
z (ft)	3.00'	4' & 3'
n	0.035	0.035
D (ft)	2.43'	2.23'
S (%)	2.70	3.30
d_5 (ft)	0.69'	0.70'
V (fps)	3.19	3.69
Fr	0.677	0.778

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_{100} (cfs)	10.10	13.98
B_w (ft)	0.00'	0.00'
z (ft)	3.00'	4' & 3'
n	0.035	0.035
D (ft)	2.43'	2.23'
S (%)	2.70	3.30
d_5 (ft)	0.92'	0.94'
V (fps)	3.98	4.52
Fr	0.732	0.822

NOTE:
EARTHEN CHANNELS TO
BE SOD LINED WHEN
VELOCITIES ARE 3 - 6 FPS



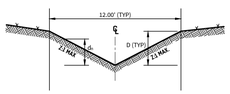
CORLEY ROAD "A-O" SECTION (N.T.S.)

"A-O" STA. 1+00.00 TO 1+98.00

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_5 (cfs)	4.56	6.32
B_w (ft)	0.00'	0.00'
z (ft)	3.00'	4' & 3'
n	0.035	0.035
D (ft)	2.28'	2.03'
S (%)	1.80	1.10
d_5 (ft)	0.74'	0.86'
V (fps)	2.78'	2.44
Fr	0.570	0.464

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_{100} (cfs)	10.10	13.98
B_w (ft)	0.00'	0.00'
z (ft)	3.00'	4' & 3'
n	0.035	0.035
D (ft)	2.28'	2.03'
S (%)	1.80	1.10
d_5 (ft)	0.99'	1.16'
V (fps)	3.44	2.97
Fr	0.610	0.486

NOTE:
EARTHEN CHANNELS TO
BE SOD LINED WHEN
VELOCITIES ARE 3 - 6 FPS



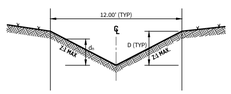
CORLEY ROAD "A-P" SECTION (N.T.S.)

"A-P" STA. 1+00.00 TO 1+98.00

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_5 (cfs)	4.56	6.32
B_w (ft)	0.00'	0.00'
z (ft)	3' & 6'	4' & 3'
n	0.035	0.035
D (ft)	1.50'	2.04'
S (%)	0.50	0.90
d_5 (ft)	0.80'	0.89
V (fps)	1.58	2.28
Fr	0.311	0.426

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_{100} (cfs)	10.10	13.98
B_w (ft)	0.00'	0.00'
z (ft)	3' & 6'	4' & 3'
n	0.035	0.035
D (ft)	1.50'	2.04'
S (%)	0.50	0.90
d_5 (ft)	1.08	1.20'
V (fps)	1.92	2.77
Fr	0.326	0.446

NOTE:
EARTHEN CHANNELS TO
BE SOD LINED WHEN
VELOCITIES ARE 3 - 6 FPS



CORLEY ROAD "A-Q" SECTION (N.T.S.)

"A-Q" STA. 1+00.00 TO 1+98.00

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_5 (cfs)	4.56	6.32
B_w (ft)	0.00'	0.00'
z (ft)	3' & 5'	4' & 3'
n	0.035	0.035
D (ft)	1.61'	2.11'
S (%)	0.90	0.50
d_5 (ft)	0.75'	1.00'
V (fps)	2.03	1.81
Fr	0.413	0.319

	LEFT	RIGHT
BEGIN STA.	1+00.00	1+00.00
END STA.	1+98.00	1+98.00
Q_{100} (cfs)	10.10	13.98
B_w (ft)	0.00'	0.00'
z (ft)	3' & 5'	4' & 3'
n	0.035	0.035
D (ft)	1.61'	2.11'
S (%)	0.90	0.50
d_5 (ft)	1.01'	1.34'
V (fps)	2.48	2.22
Fr	0.435	0.338

NOTE:
EARTHEN CHANNELS TO
BE SOD LINED WHEN
VELOCITIES ARE 3 - 6 FPS

FREEBOARD CALCULATIONS

Left Side (Q5)

Cross Section	Elevation	Invert Elevation	Depth	Freeboard
A-A	1407.17	1404.83	0.65	1.69
A-B	1407.15	1405.18	0.45	1.52
A-C	1408.31	1406.62	0.92	0.77
A-D	1408.13	1406.11	0.90	1.12
A-E	1407.12	1405.22	0.76	1.14
A-F	1402.03	1399.95	0.70	1.38
A-G	1400.97	1398.47	1.01	1.49
A-H	1400.30	1397.85	1.46	0.99
A-I	1398.80	1395.27	1.06	2.47
A-L	1399.95	1397.86	0.61	1.48
A-M	1404.63	1402.05	0.67	1.91
A-N	1418.42	1415.99	0.69	1.74
A-O	1426.75	1424.47	0.74	1.54
A-P	1433.52	1432.02	0.80	0.70
A-Q	1433.84	1432.23	0.75	0.86

Right Side (Q5)

Cross Section	Elevation	Invert Elevation	Depth	Freeboard
A-A	1407.17	1404.64	0.38	2.15
A-B	1407.15	1404.99	0.44	1.72
A-C	1408.31	1406.06	0.35	1.90
A-D	1408.13	1406.06	0.49	1.58
A-E	1407.12	1405.53	0.45	1.14
A-F	1402.03	1400.75	0.38	0.90
A-K	1399.45	1395.84	0.74	2.87
A-L	1399.95	1397.45	0.88	1.62
A-M	1406.63	1402.84	0.33	3.46
A-N	1418.42	1416.19	0.70	1.53
A-O	1426.75	1424.72	0.86	1.17
A-P	1433.52	1431.48	0.89	1.15
A-Q	1433.84	1431.73	1.00	1.11

FROUDE NUMBER CALCULATIONS (5 YR)

Left Side

Cross Section	Velocity	Hydraulic Depth	Froude Number
A-A	1.92	0.65	0.420
A-B	3.43	0.45	0.901
A-C	1.74	0.92	0.320
A-D	2.04	0.90	0.379
A-E	3.27	0.76	0.661
A-F	3.86	0.70	0.813
A-G	2.16	1.01	0.379
A-H	2.97	1.46	0.433
A-I	4.83	1.06	0.827
A-L	2.45	0.61	0.553
A-M	3.39	0.67	0.730
A-N	3.19	0.69	0.677
A-O	2.78	0.74	0.570
A-P	1.58	0.80	0.311
A-Q	2.03	0.75	0.413

Right Side

Cross Section	Velocity	Hydraulic Depth	Froude Number
A-A	1.08	0.38	0.309
A-B	1.05	0.44	0.279
A-C	2.32	0.39	0.655
A-D	1.68	0.49	0.423
A-E	1.55	0.45	0.407
A-F	1.78	0.38	0.509
A-K	2.04	0.74	0.418
A-L	3.37	0.88	0.633
A-M	3.97	0.33	1.218
A-N	3.69	0.70	0.778
A-O	2.44	0.86	0.464
A-P	2.28	0.89	0.426
A-Q	1.81	1.00	0.319

FROUDE NUMBER CALCULATIONS (100 YR)

Left Side

Cross Section	Velocity	Hydraulic Depth	Froude Number
A-A	2.32	0.88	0.436
A-B	4.14	0.61	0.935
A-C	2.11	1.24	0.334
A-D	2.46	1.22	0.393
A-E	3.94	1.03	0.684
A-F	4.83	0.93	0.883
A-G	2.63	1.36	0.398
A-H	3.60	1.97	0.452
A-I	5.86	1.43	0.864
A-L	3.00	0.82	0.584
A-M	4.16	0.90	0.773
A-N	3.98	0.92	0.732
A-O	3.44	0.99	0.610
A-P	1.92	1.08	0.326
A-Q	2.48	1.01	0.435

Cross Section	Velocity	Hydraulic Depth	Froude Number
A-A	1.37	0.51	0.338
A-B	1.26	0.60	0.287
A-C	2.82	0.53	0.683
A-D	2.02	0.67	0.435
A-E	1.96	0.60	0.446
A-F	2.22	0.51	0.548
A-K	2.48	1.00	0.437
A-L	4.15	1.18	0.674
A-M	4.98	0.52	1.218
A-N	4.52	0.94	0.822
A-O	2.97	1.16	0.486
A-P	2.77	1.20	0.446
A-Q	2.22	1.34	0.338

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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

CORLEY ROAD BAR DITCH ANALYSIS

DATE
07/16/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

	DATE	
1.	5/29/2024	REVISED STREET SECTION
2.	9/3/2024	REVISED STREET SECTION SLOPE, REVISED CROSS SECTIONS, ADDED FREEBOARD
3.	5/05/2025	CITY AND COUNTY COMMENTS
4.	7/14/2025	CITY AND COUNTY COMMENTS
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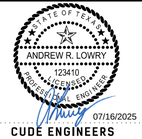

ANDREW R. LOWRY
07/16/2025
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TBPLS No. 10048500

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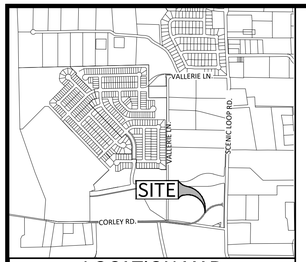


LOCATION MAP
N.T.S.

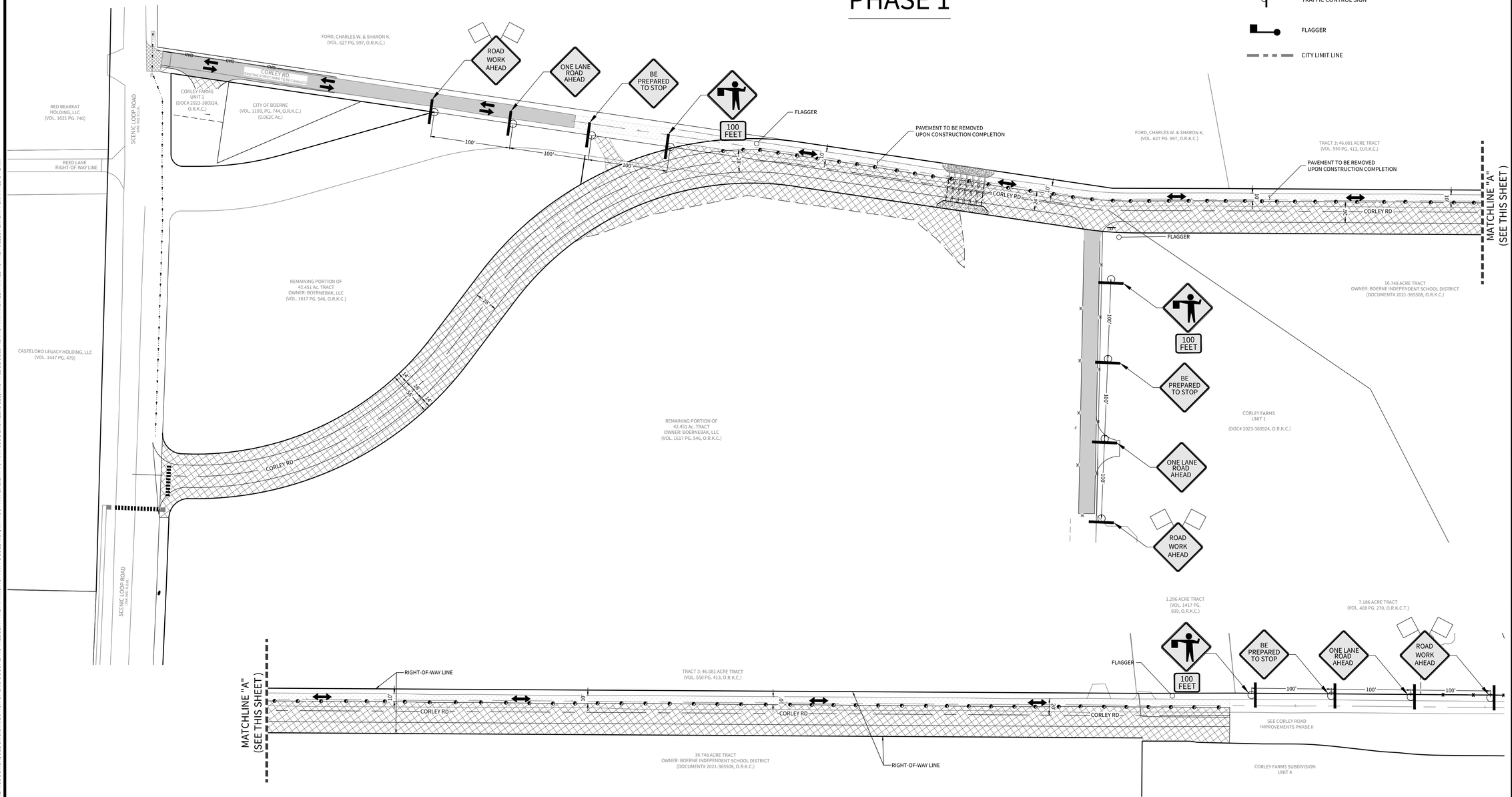
SCALE: 1"=60'
60 30 0 60

NOTES:
1. SEE TXDOT STANDARD DETAILS WZ (RCD) - 14 FOR ROAD CLOSURE SIGN PLACEMENT DETAILS.
2. CONTRACTOR TO INSTALL TEMPORARY STRIPING FOR TWO WAY TRAFFIC ON THE NEW CORLEY ROAD. PERMANENT STRIPING TO BE INSTALLED UPON PROJECT COMPLETION.

T.C.P. LEGEND

- PLASTIC DRUM W/ CHANNELING DEVICE
- TYPE III BARRICADE
- TRAFFIC FLOW ARROWS INDICATING DIRECTION
- EXISTING PVM'T TO BE REMOVED
- PROPOSED PVM'T/ WORKZONE
- EX. PVM'T TO REMAIN
- TEMPORARY PAVEMENT
- TRAFFIC CONTROL SIGN
- FLAGGER
- CITY LIMIT LINE

PHASE 1



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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

TRAFFIC CONTROL PLAN

DATE
05/05/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

	DATE	
1.	5/02/2024	ADDED ROADWAY MARKER CALLOUTS
2.	5/29/2024	ADDED PHASE 1 STREET SIGNS
3.		PERMITTING REVISIONS
4.		
5.		
6.		
7.		
8.		
9.		

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED
PROFESSIONAL ENGINEER
5/5/25

CUDE ENGINEERS
TBPE No. 455
TBPLS No. 10048500

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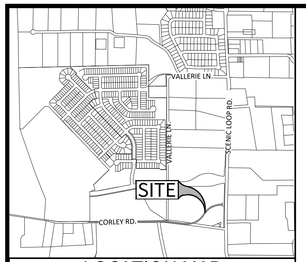


LOCATION MAP
N.T.S.

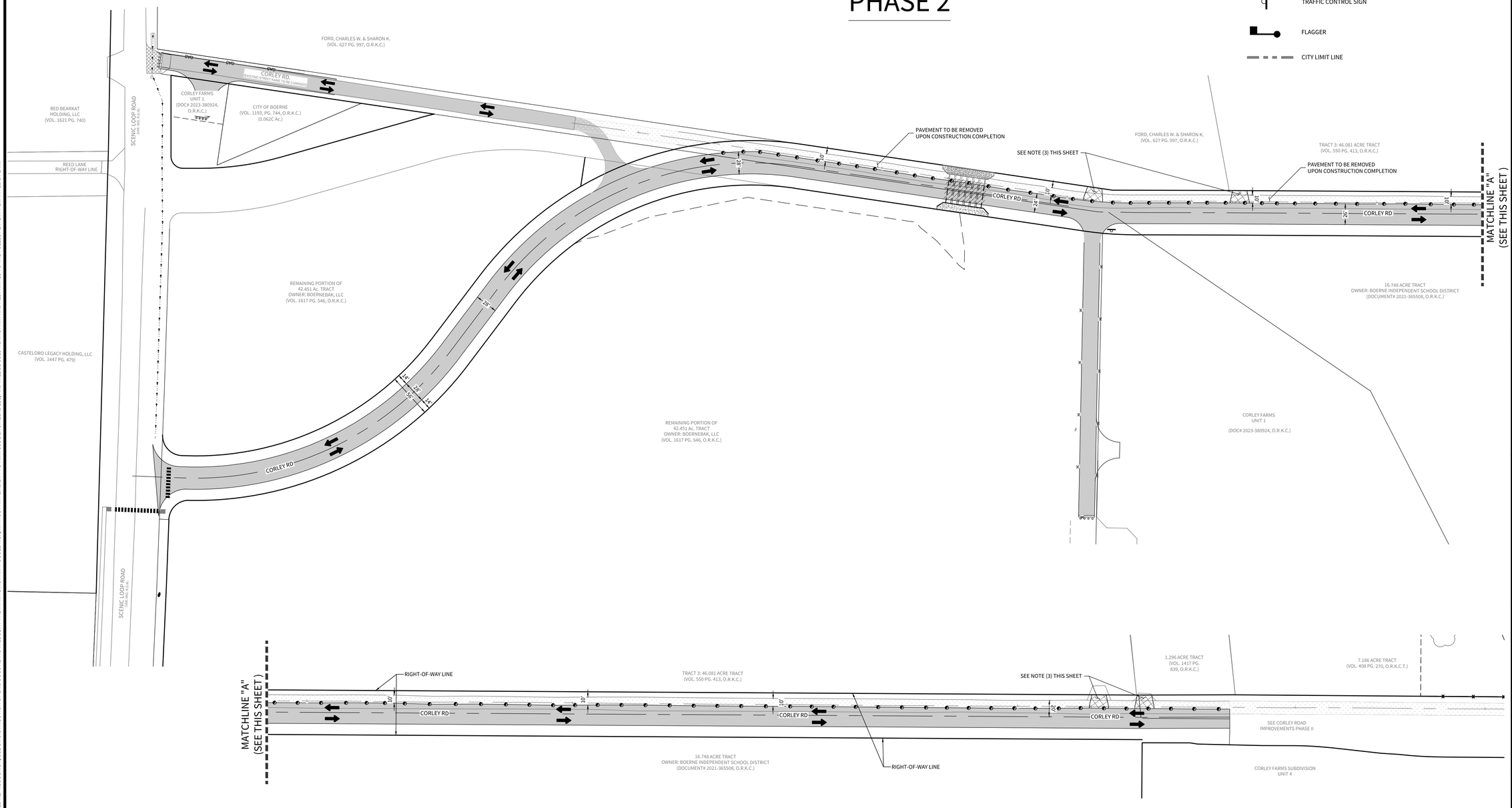
SCALE: 1"=60'
60 30 0 60

NOTES:
1. SEE TXDOT STANDARD DETAILS WZ (RCD) - 14 FOR ROAD CLOSURE SIGN PLACEMENT DETAILS.
2. THIS PHASE OF CORLEY ROAD PHASE 1 SHALL NOT BEGIN UNTIL CORLEY ROAD TIE-IN TO CORLY FARMS UNIT 4 VIA RUSTIC GROVE HAS BEEN ESTABLISHED.
3. DRIVEWAYS SHALL BE CONSTRUCTED FROM WEST TO EAST.

T.C.P. LEGEND

- PLASTIC DRUM W/ CHANNELING DEVICE
- TYPE III BARRICADE
- TRAFFIC FLOW ARROWS INDICATING DIRECTION
- EXISTING PVM'T TO BE REMOVED
- PROPOSED PVM'T/ WORKZONE
- EX. PVM'T TO REMAIN
- TEMPORARY PAVEMENT
- TRAFFIC CONTROL SIGN
- FLAGGER
- CITY LIMIT LINE

PHASE 2



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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

TRAFFIC CONTROL PLAN

DATE
05/05/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

	DATE	
1.	5/02/2024	ADDED ROADWAY MARKER CALLOUTS
2.	5/29/2024	ADDED PHASE 2 SHEET T2 PER PERMITTING REVISIONS
3.		
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9.		

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED
PROFESSIONAL ENGINEER
5/5/25

CUDE ENGINEERS
TBPE NO. 455
TBPLS No. 10048500

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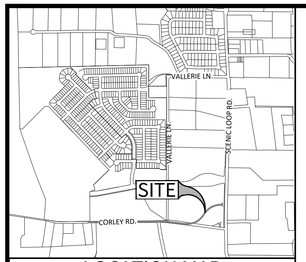

LOCATION MAP
N.T.S.

SCALE: 1"=60'
60 30 0 60

NOTES:
1. SEE TXDOT STANDARD DETAILS WZ (RCD) - 14 FOR ROAD CLOSURE SIGN PLACEMENT DETAILS.

T.C.P. LEGEND

- PLASTIC DRUM W/ CHANNELING DEVICE
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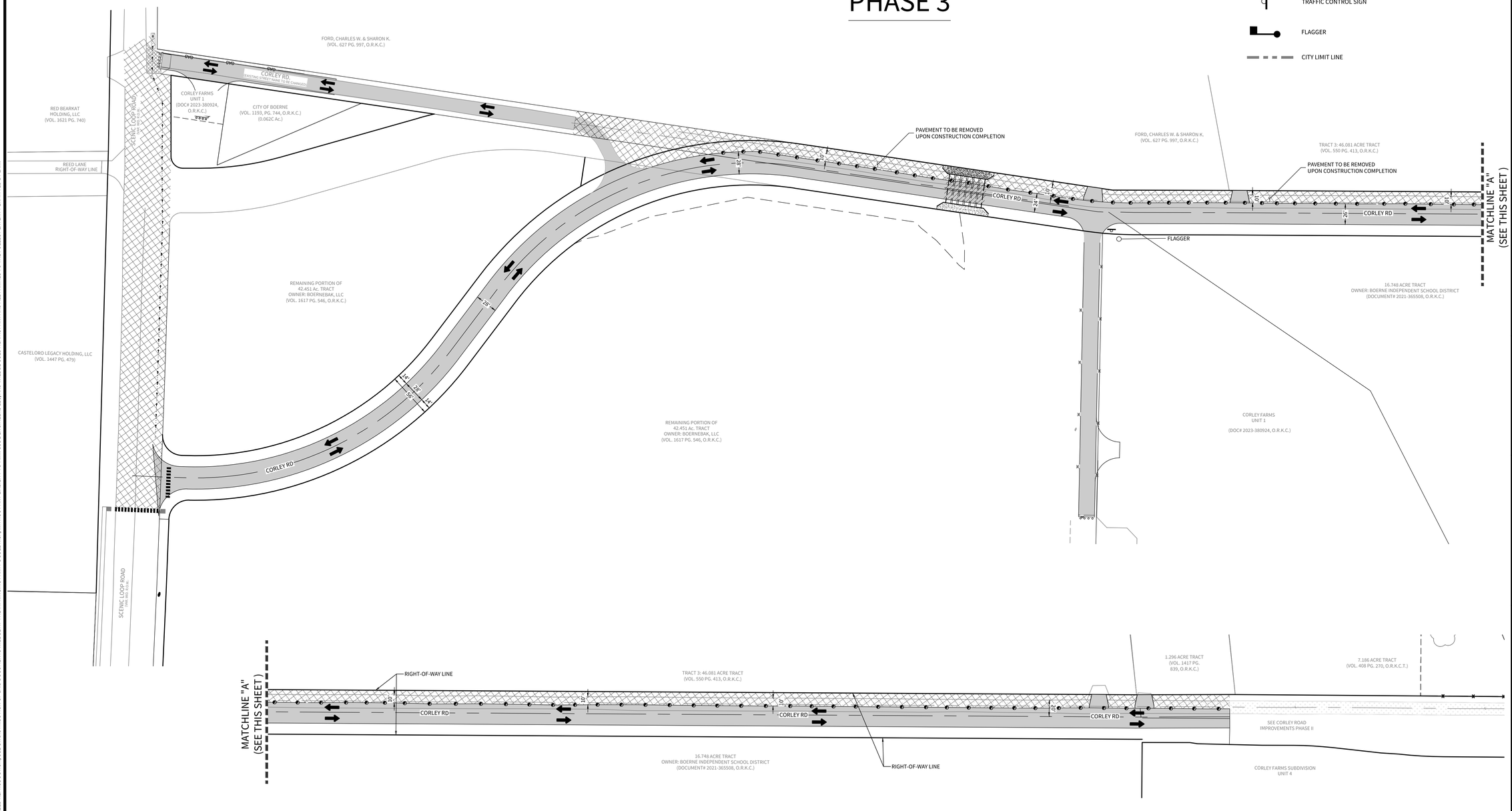
- TRAFFIC CONTROL SIGN
- FLAGGER
- CITY LIMIT LINE

PHASE 3



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CORLEY FARMS OFFSITE
CORLEY ROAD IMPROVEMENTS PHASE I

TRAFFIC CONTROL PLAN

DATE
05/05/2025

PROJECT NO.
03481.003

DRAWN BY
JG/AM/RC/CG

CHECKED BY
AL

REVISIONS

	DATE	
1.	5/02/2024	ADDED ROADWAY MARKER CALLOUTS
2.	5/29/2024	ADDED PHASE 3 SHEET T3.0
3.		PERMITTING REVISIONS
4.		
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7.		
8.		
9.		

STATE OF TEXAS
ANDREW R. LOWRY
123410
LICENSED PROFESSIONAL ENGINEER
5/5/2025

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