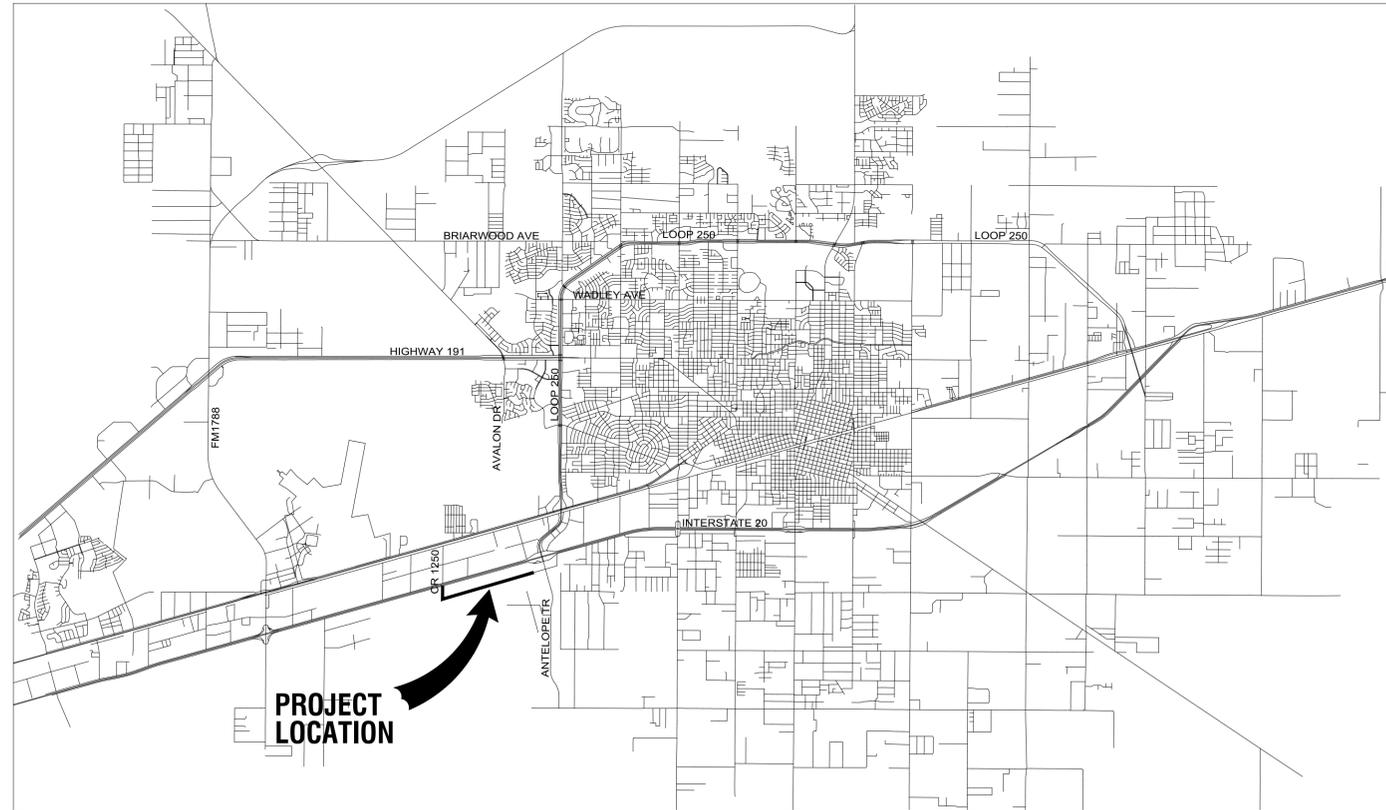


CHOLLA ROAD & COUNTY ROAD 1250 PAVING IMPROVEMENTS MIDLAND, TEXAS

ATTACHMENT B



**CITY OF MIDLAND
VICINITY MAP**
NTS

Parkhill

1700 W. Wall Street
Suite 100
Midland, Texas 79701
432.697.1447

Sheet List Table

Sheet Number	Sheet Title
1	Cover Sheet
2	General Notes
3	Typical Section
4	Coordinate Control Plan
5	Demolition Plan
5A	Traffic Control Plan
6	Cholla Road Plan and Profile
7	Cholla Road Plan and Profile
8	Cholla Road Plan and Profile
9	Cholla Road Plan and Profile
10	Cholla Road Plan and Profile
11	Cholla Road Plan and Profile
12	Cholla Road Plan and Profile
13	CR 1250 Road Plan and Profile
14	Cholla Road and CR 1250 Intersection Layout
15	CR 1250 and I-20 Frontage Intersection Layout
16	Driveway Layouts
17	Low Water Crossing Layouts
18	Concrete Jointing Plan
19	Sign and Pavement Marking Plan
20	Sign and Pavement Marking Plan
21	Sign and Pavement Marking Plan
22	Sign and Pavement Marking Plan
23	Erosion Control Plan
24	Erosion Control Details
25	Drainage Area Map and Drainage Calculations
26	Details
27	TxDOT Sign Mounting Details
28	TxDOT Sign Mounting Details
29	TxDOT Pavement Marking Standards
30	TxDOT Pavement Marking Standards
31	TxDOT Traffic Control Plan Standards
32	TxDOT Traffic Control Plan Standards
33	TxDOT Traffic Control Plan Standards
34	TxDOT Barricade Details and Fence Details



AUTHORIZATION TO CONSTRUCT CITY INFRASTRUCTURE
The undersigned, in the presence of the undersigned, and in the presence of the City of Midland, Texas, has approved the construction of the project described herein. This approval is given on the condition that the project complies with all applicable laws, rules, and regulations of the City of Midland, Texas, and the State of Texas. The undersigned, in the presence of the undersigned, and in the presence of the City of Midland, Texas, has approved the construction of the project described herein. This approval is given on the condition that the project complies with all applicable laws, rules, and regulations of the City of Midland, Texas, and the State of Texas.

Parkhill



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**Cholla Road and County Road 1250
Paving Improvements**

CLIENT
Midland County

PROJECT NO.
6000.20

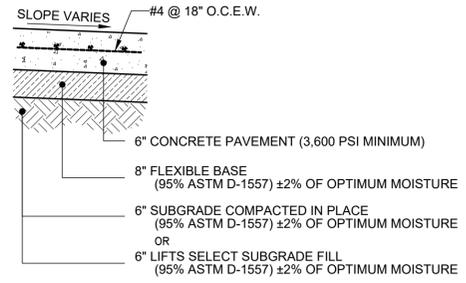
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3	03/17/2021	Response to 2nd Comments
2	03/03/2021	Response to Comments
1	02/19/2021	Waterline Projection

DATE DESCRIPTION

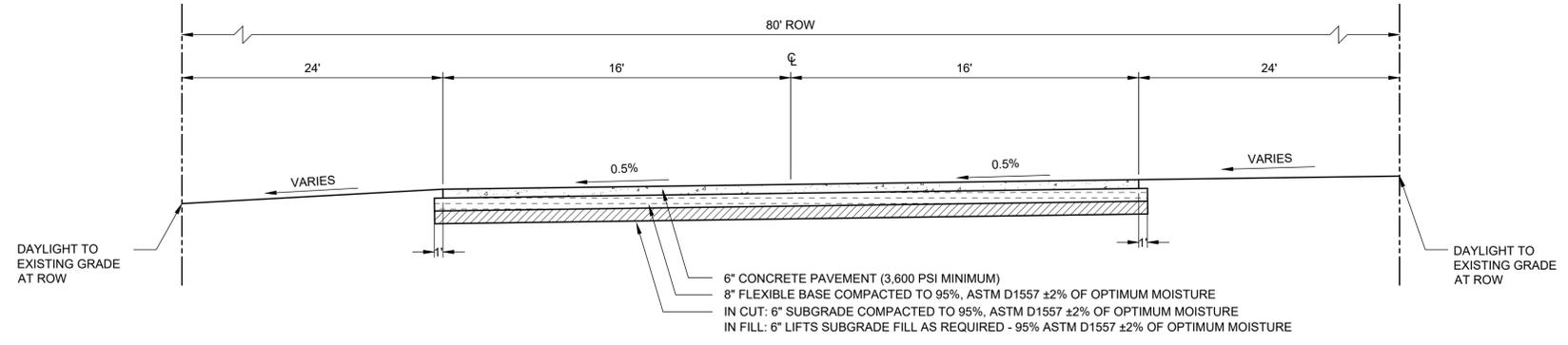
Cover Sheet

1

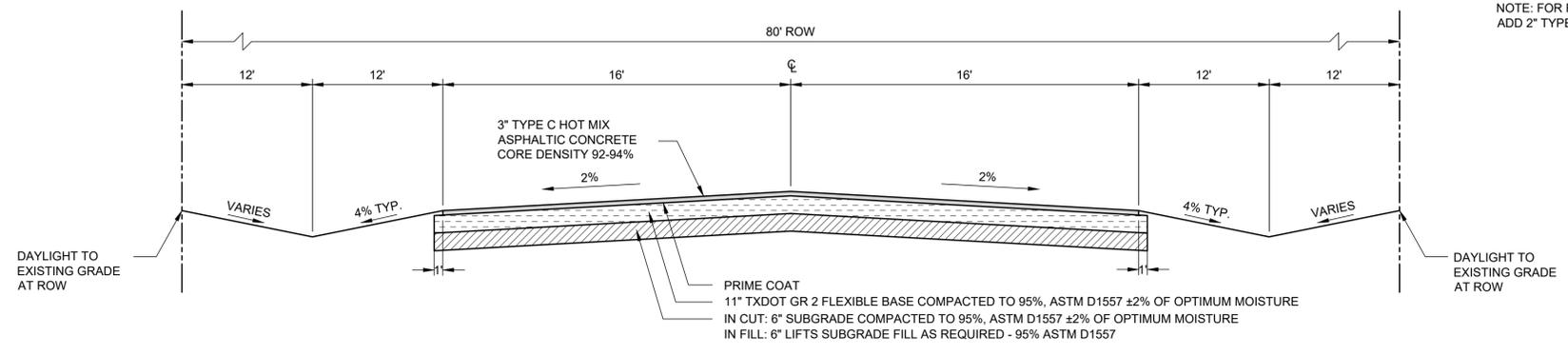
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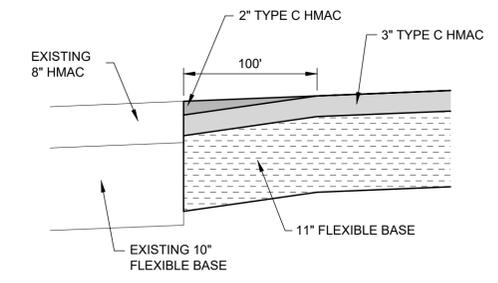
C1 CONCRETE PAVING SECTION
NO SCALE



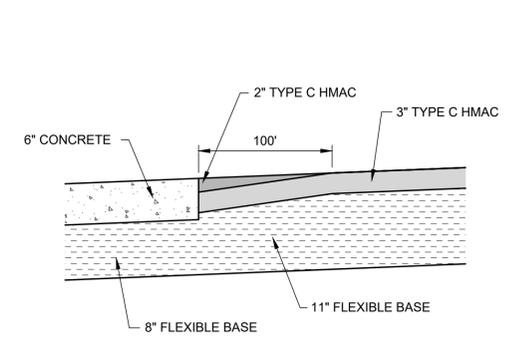
B1 LOW WATER CROSSING STREET SECTION 80' ROW
CHOLLA ROAD STATION 37+95 TO 38+15
CHOLLA ROAD STATION 80+90 TO 81+10



A1 STREET SECTION 80' ROW
NO SCALE



B5 ASPHALT TIE IN TO EXISTING ASPHALT
NO SCALE



A5 TYPICAL ASPHALT CONCRETE JUNCTION
NO SCALE

NOTE: FOR FUTURE ROADWAY SECTION
ADD 2" TYPE D HMAC ON TOP OF 3" TYPE C HMAC.

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Midland County	
PROJECT NO.	
6000.20	
#	DATE DESCRIPTION
2	03/03/2021 Response to Comments
1	02/19/2021 Waterline Projection

FILE NAME: A:\2020\6000_2003_DSGN01_DWG\050_CIVIL\00_SHEETS\CORD_CONT_01+6000.dwg LAYOUT NAME: 4 Coordinate Control Plan PRINTED: Wednesday, March 03, 2021 - 11:44pm USER: KChristopher

LEGEND

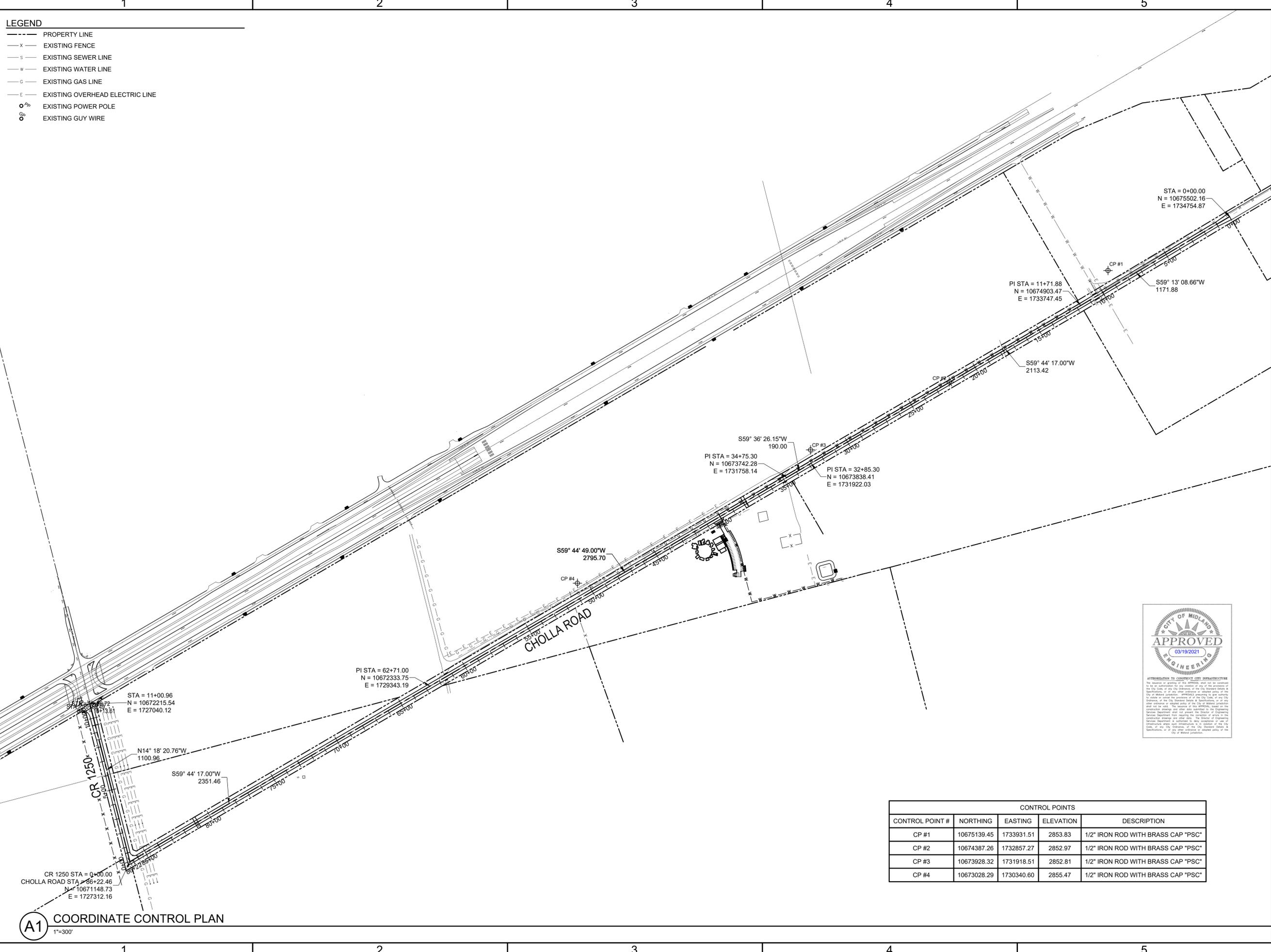
---	PROPERTY LINE
-X-	EXISTING FENCE
-S-	EXISTING SEWER LINE
-W-	EXISTING WATER LINE
-G-	EXISTING GAS LINE
-E-	EXISTING OVERHEAD ELECTRIC LINE
○	EXISTING POWER POLE
○	EXISTING GUY WIRE

D

C

B

A



CONTROL POINTS				
CONTROL POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP #1	10675139.45	1733931.51	2853.83	1/2" IRON ROD WITH BRASS CAP "PSC"
CP #2	10674387.26	1732857.27	2852.97	1/2" IRON ROD WITH BRASS CAP "PSC"
CP #3	10673928.32	1731918.51	2852.81	1/2" IRON ROD WITH BRASS CAP "PSC"
CP #4	10673028.29	1730340.60	2855.47	1/2" IRON ROD WITH BRASS CAP "PSC"

A1 COORDINATE CONTROL PLAN
1"=300'

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Cholla Road and County Road 1250
Paving Improvements



0 300' 600'

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Midland County

PROJECT NO.
6000.20

#	DATE	DESCRIPTION
2	03/03/2021	Response to Comments
1	02/19/2021	Waterline Projection

Coordinate Control Plan

4

FILE NAME: A:\2020\6000_2003_DSGN01_DWG\050_CIVIL\00_SHEETS\DEMO-6000.dwg LAYOUT NAME: 5 Demolition Plan PRINTED: Wednesday, March 03, 2021 - 11:45pm USER: KChristopher



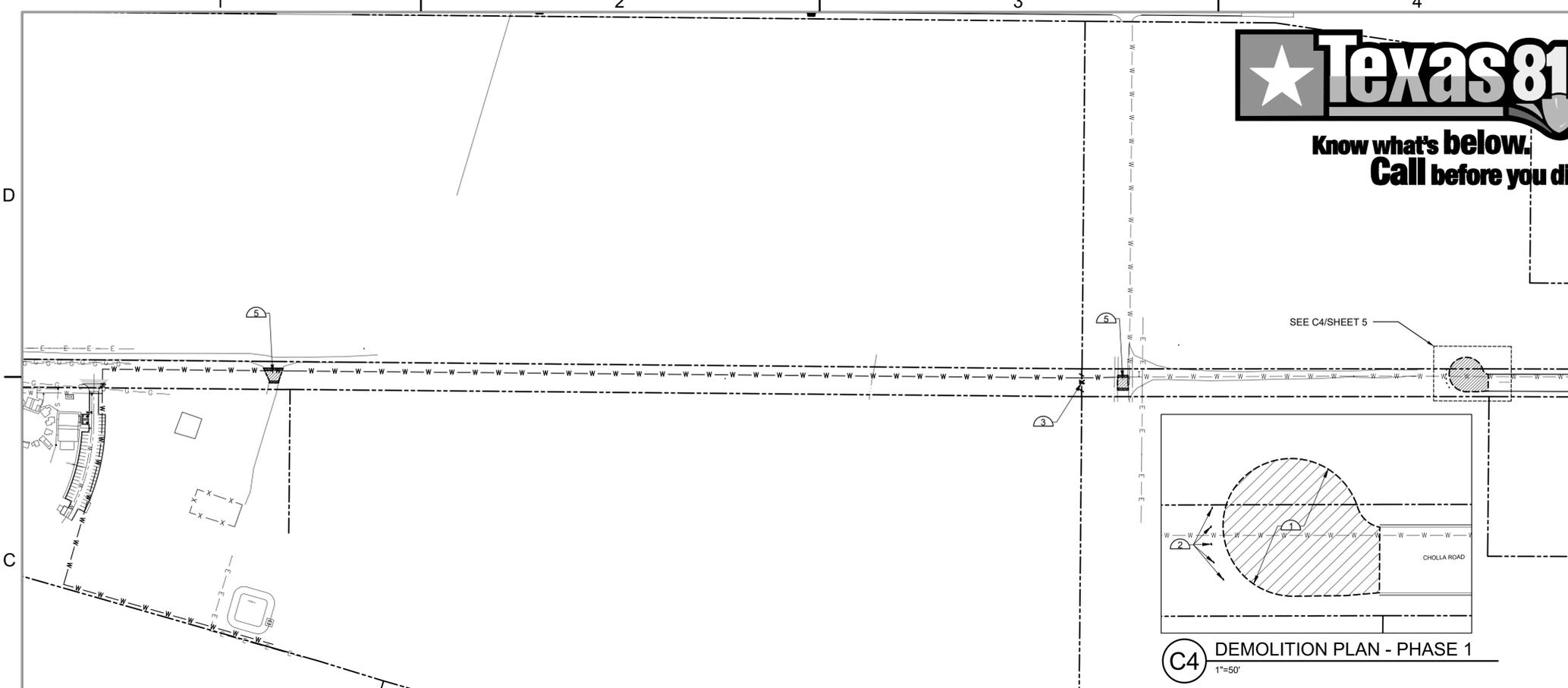
CONTRACTOR IS RESPONSIBLE TO CONTACT UTILITIES & ONE CALL SYSTEM 14 DAYS PRIOR TO DIGGING
ALL SECTIONS DIGTESS @ 1-800-344-8377

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Cholla Road and County Road 1250
Paving Improvements

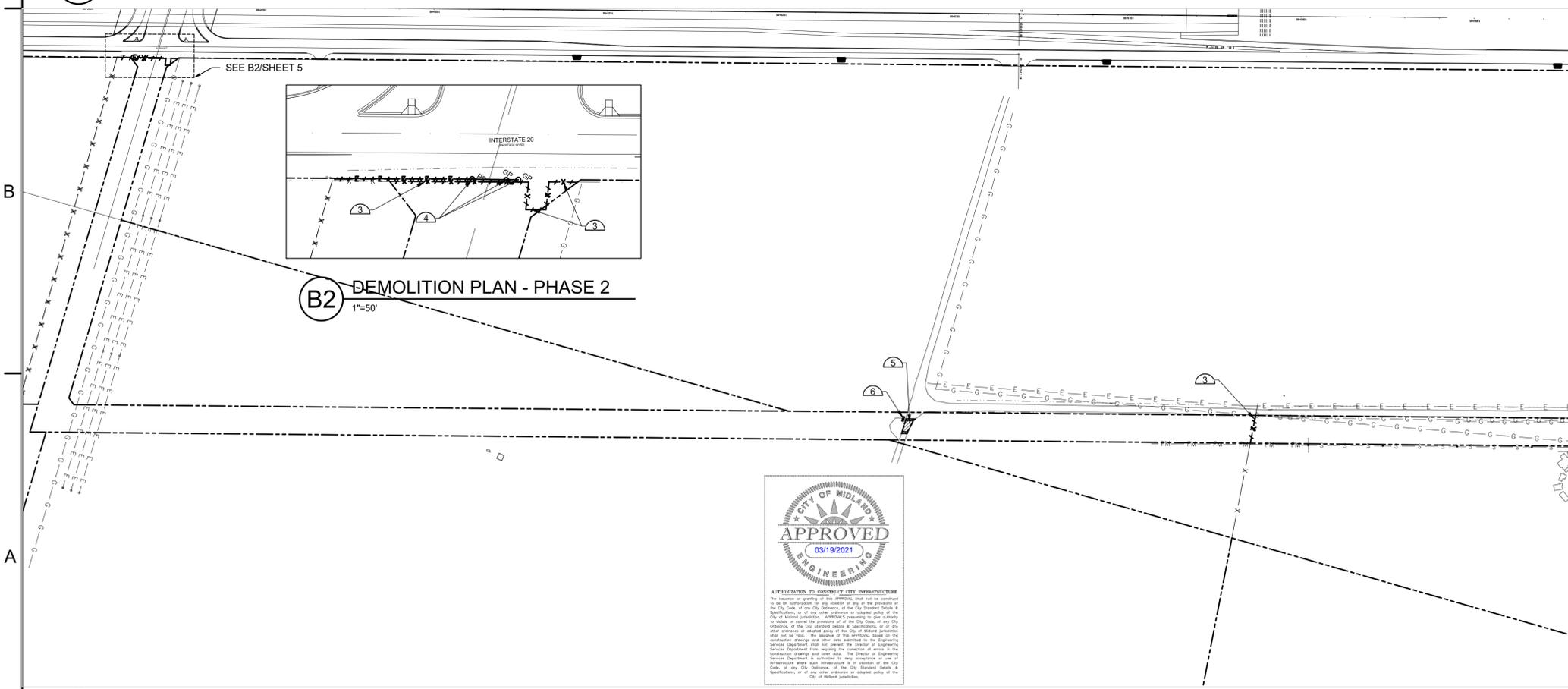


C1 DEMOLITION PLAN - PHASE 1
1"=200'

C4 DEMOLITION PLAN - PHASE 1
1"=50'

DEMOLITION NOTES

- 1 REMOVE EXISTING ASPHALT PAVEMENT AND FLEXIBLE BASE
- 2 REMOVE EXISTING END OF ROADWAY SIGNAGE
- 3 REMOVE EXISTING FENCE WITHIN THE ROW EXTENTS
- 4 COORDINATE WITH ONCOR TO REMOVE AND RELOCATE EXISTING ELECTRICAL POWER POLE AND GUY WIRES
- 5 REMOVE EXISTING CALICHE ROAD TO EXTENTS OF NEW ROADWAY
- 6 COORDINATE THE RELOCATION OF THE EXISTING WATER PIPELINE RISER TO OUTSIDE OF ROW WITH THE OWNER



B2 DEMOLITION PLAN - PHASE 2
1"=50'

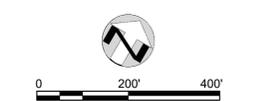
A1 DEMOLITION PLAN - PHASE 2
1"=200'

NOTES

- A. THE EXISTING UTILITIES, ABOVE GROUND AND UNDER GROUND, INDICATED ON THESE PLANS HAVE BEEN LOCATED FROM REFERENCE INFORMATION SUPPLIED BY OTHERS. VERIFY, BOTH HORIZONTALLY AND VERTICALLY, THE LOCATIONS OF ALL EXISTING UTILITIES, APPURTENANCES, OR OTHER FEATURES, PRIOR TO CONSTRUCTION. TAKE ALL NECESSARY PRECAUTIONS TO PROTECT ALL EXISTING UTILITIES, APPURTENANCES, AND ANY OTHER FEATURES ENCOUNTERED, AND NOTIFY THE ENGINEER PROMPTLY OF ANY CONFLICTS WITH THE WORK.
- B. CONTACT THE ONE CALL SYSTEM (811) PRIOR TO CONSTRUCTION. REPAIR DAMAGE TO ANY EXISTING UTILITIES AND FACILITIES.
- C. HAUL AWAY AND PROPERLY DISPOSE OF ALL MATERIAL REMOVED/DEMOLISHED FROM THE SITE IN ACCORDANCE WITH CITY, STATE, AND NATIONAL REQUIREMENTS.
- D. CONTRACTOR IS RESPONSIBLE FOR ALL MISCELLANEOUS REPAIRS DUE TO DEMOLITION DAMAGE, AT HIS OWN EXPENSE.

LEGEND

- DEMOLISH EXISTING ASPHALT OR HARD SURFACE AND REMOVE FROM SITE
- CHAIN-LINK FENCING TO BE REMOVED
- PROPERTY LINE
- EXISTING FENCE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING POWER POLE
- EXISTING GUY WIRE



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Midland County

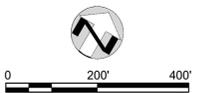
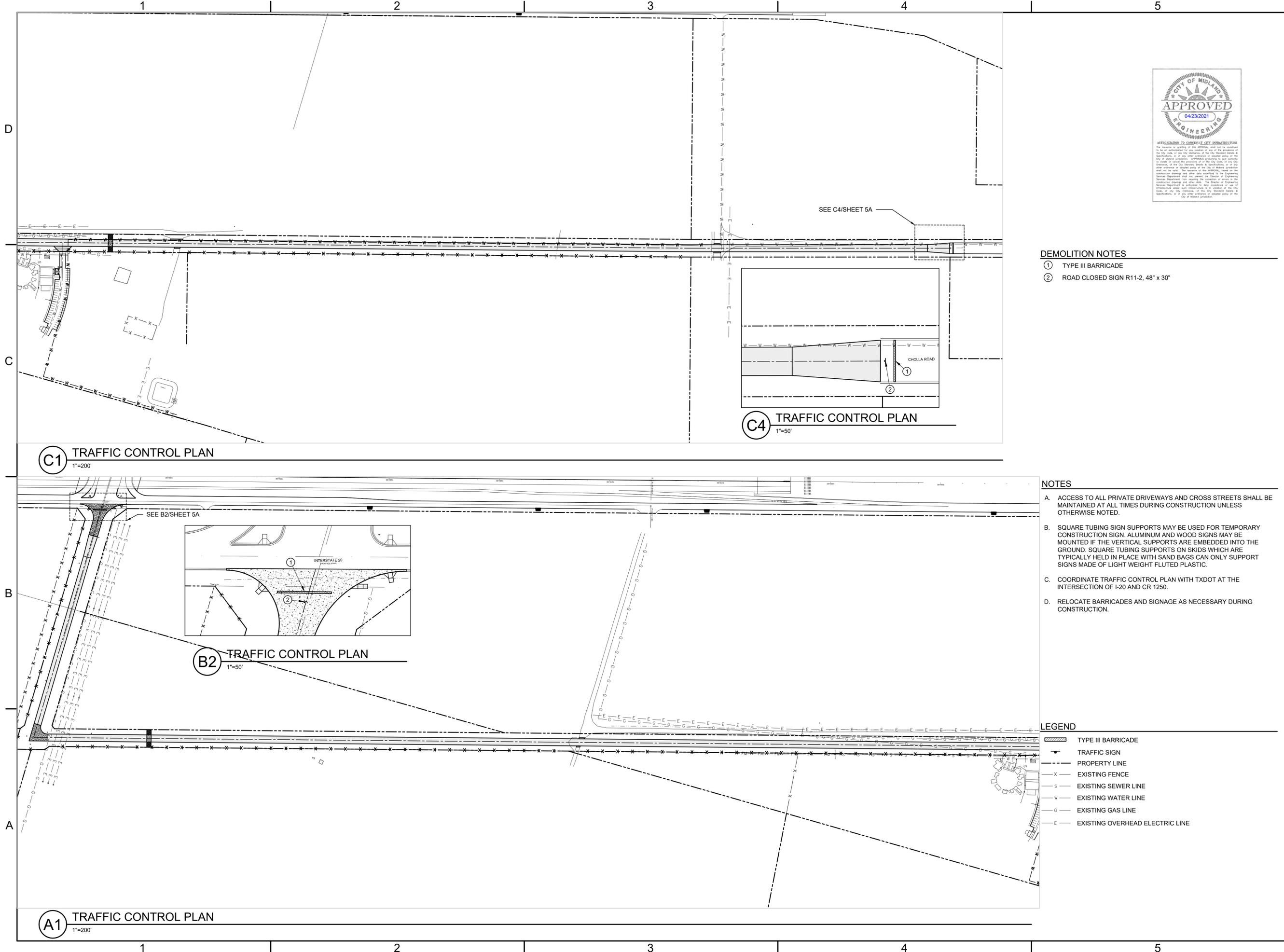
PROJECT NO.
6000.20

#	DATE	DESCRIPTION
2	03/03/2021	Response to Comments
1	02/19/2021	Waterline Projection

Demolition Plan

5

FILE NAME: \\Data1\Projects\3\2020\6000.20\03_DSGN\01_DWG\050_CIV\100_SHEETS\TSP-6000.dwg LAYOUT NAME: 5A Traffic Control Plan PRINTED: Friday, April 16, 2021 - 4:42pm USER: KChristopher

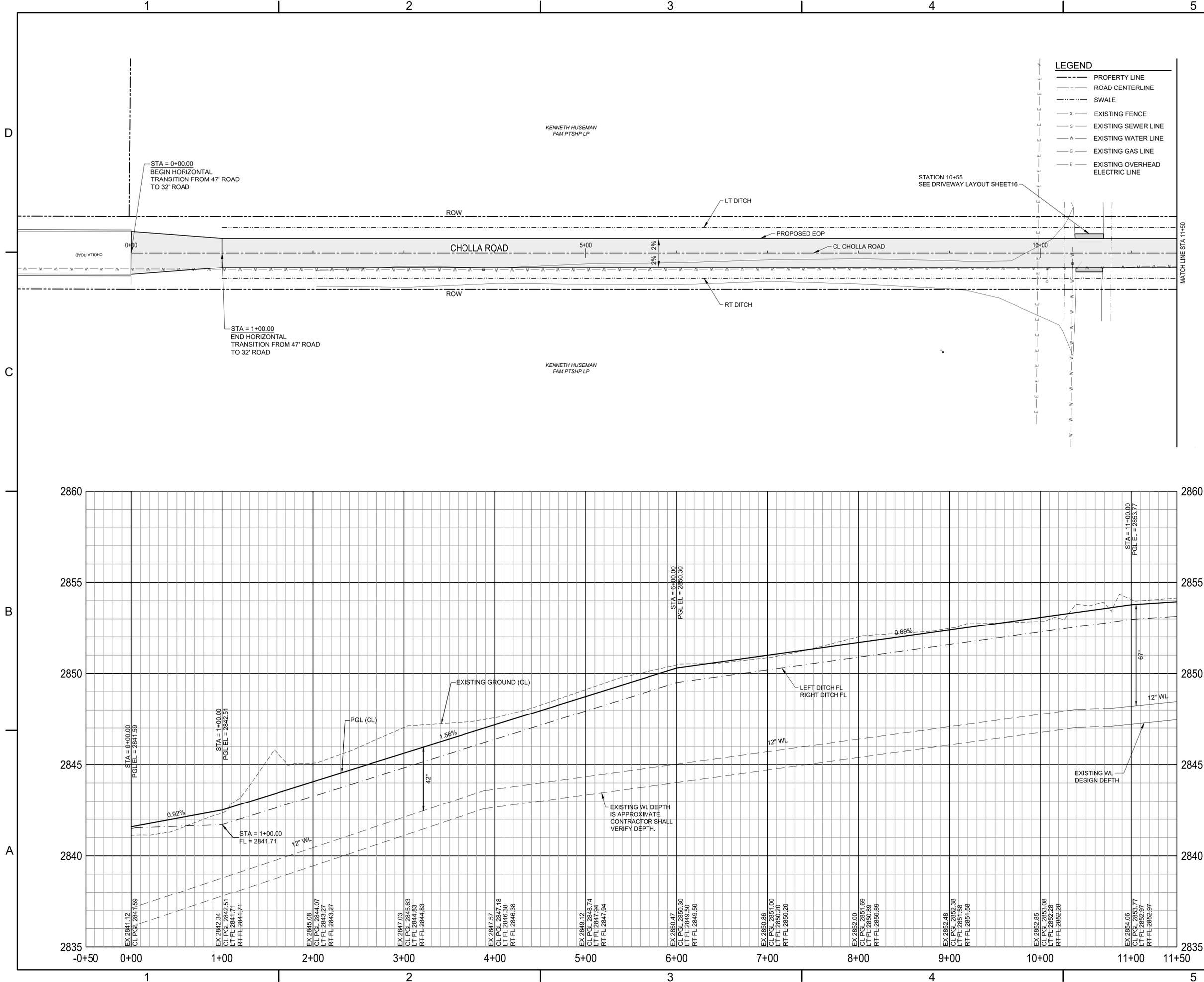


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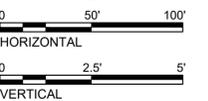
PROJECT NO.
6000.20

#	DATE	DESCRIPTION
4	04/16/2021	Midland County Comments
3	03/17/2021	Response to 2nd Comments
2	03/03/2021	Response to Comments
1	02/19/2021	Waterline Projection

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Cholla Road and County Road 1250
Paving Improvements



CLIENT
Midland County

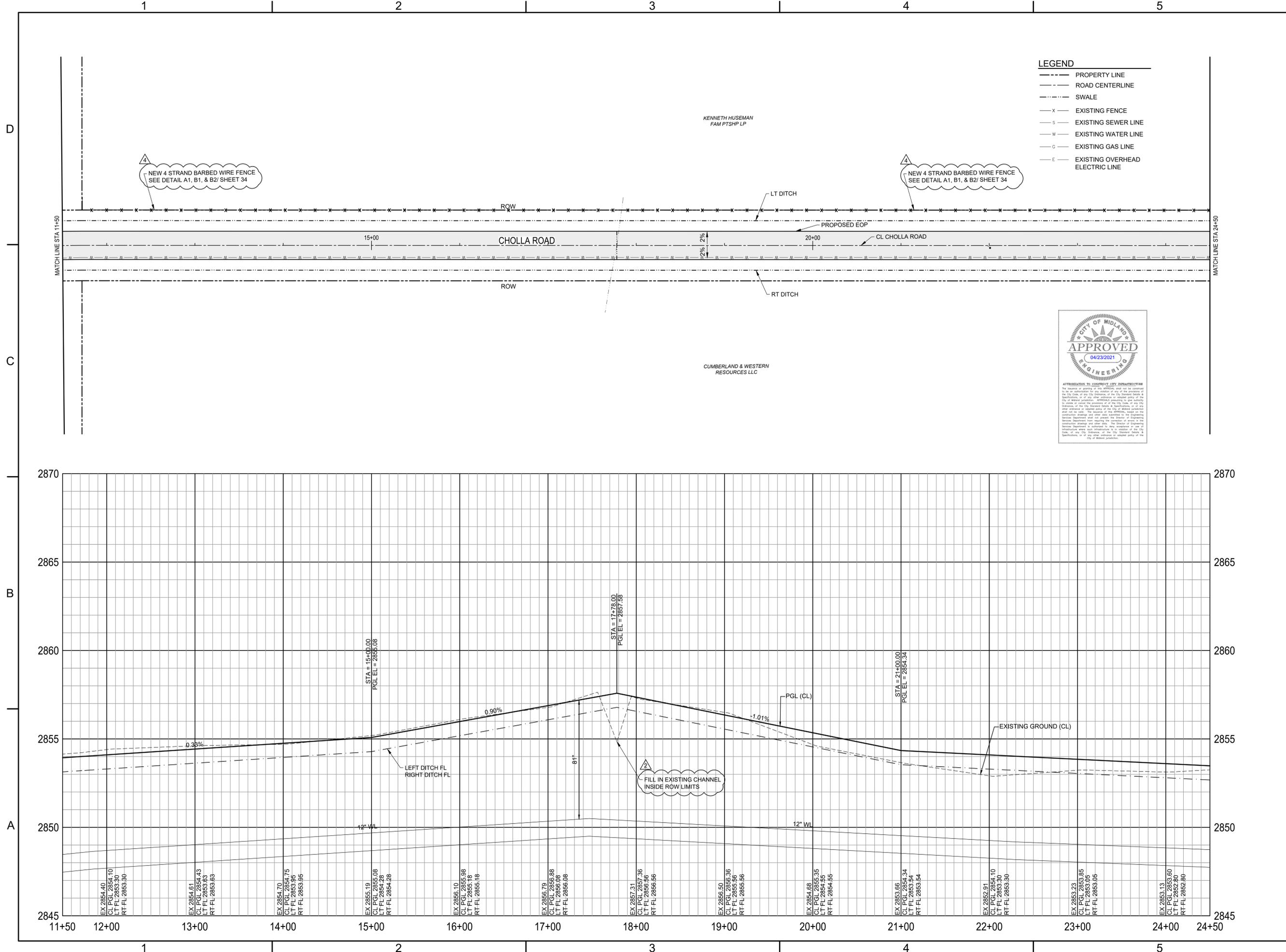
PROJECT NO.
6000.20

#	DATE	DESCRIPTION
2	03/03/2021	Response to Comments
1	02/19/2021	Waterline Projection

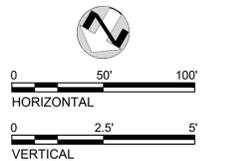


Cholla Road Plan And Profile

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Cholla Road and County Road 1250
Paving Improvements



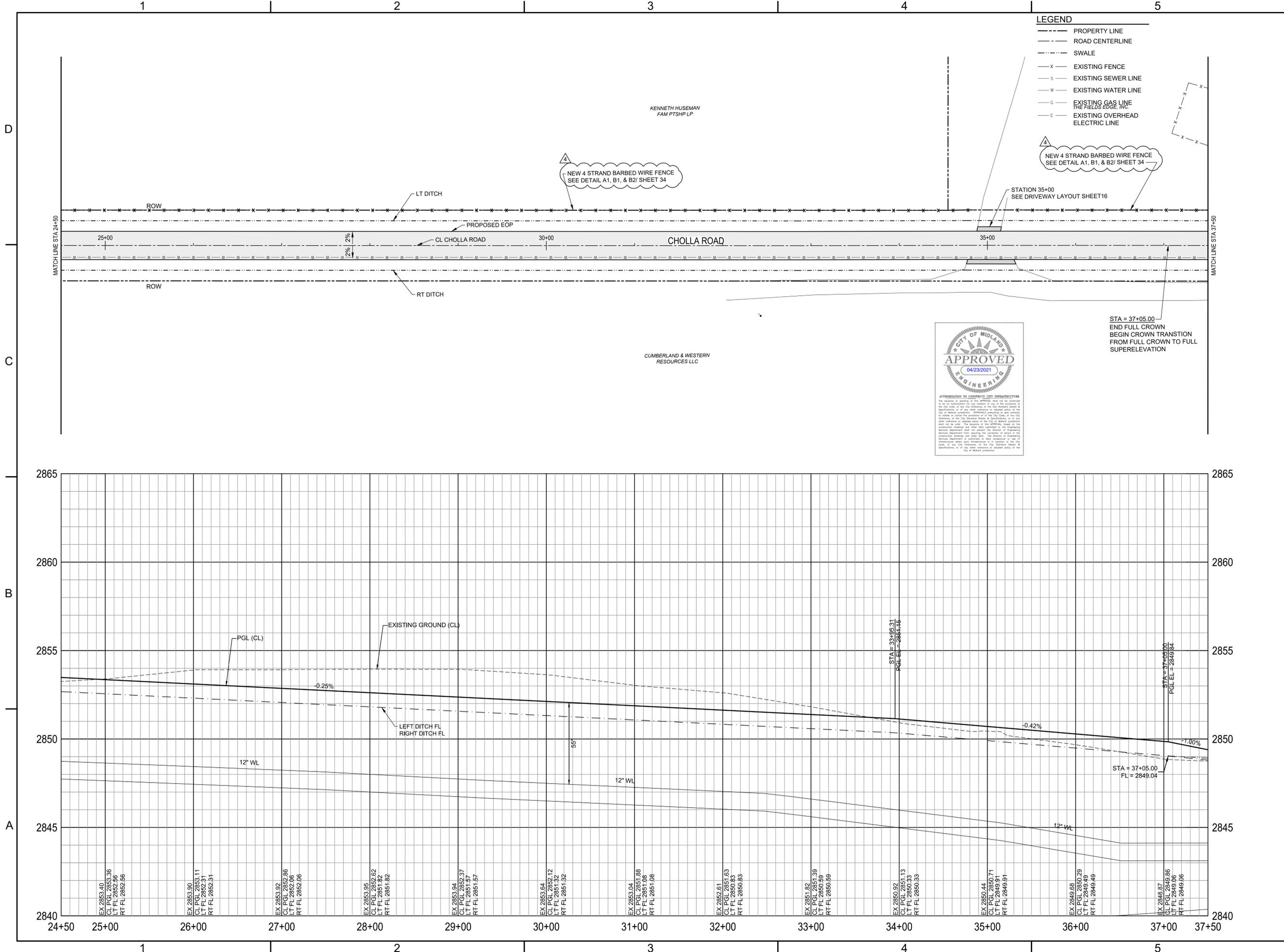
CLIENT
Midland County

PROJECT NO.
6000.20

#	DATE	DESCRIPTION
4	04/16/2021	Midland County Comments
3	03/17/2021	Response to 2nd Comments
2	03/03/2021	Response to Comments
1	02/19/2021	Waterline Projection

Cholla Road Plan And Profile

FILE NAME: \\Data1\Projects\3\2020\6000.20\03_DSGN\01_DWG\050_CIVIL\00_SHEETS\PAVE_01+6000.dwg LAYOUT NAME: 8 Cholla Road Plan and Profile PRINTED: Friday, April 16, 2021 - 4:56pm USER: KChristopher



LEGEND

- PROPERTY LINE
- ROAD CENTERLINE
- SWALE
- x-x- EXISTING FENCE
- s- EXISTING SEWER LINE
- w- EXISTING WATER LINE
- g- EXISTING GAS LINE
- e- EXISTING OVERHEAD ELECTRIC LINE

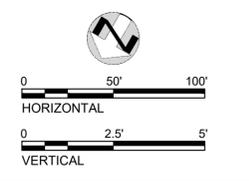


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Cholla Road and County Road 1250
Paving Improvements



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Midland County

PROJECT NO.
6000.20

#	DATE	DESCRIPTION
4	04/16/2021	Midland County Comments
3	03/17/2021	Response to 2nd Comments
2	03/03/2021	Response to Comments
1	02/19/2021	Waterline Projection

Cholla Road Plan And Profile

8

FILE NAME: \\Data1\Projects\3\2020\6000.20\03_DSGN\01_DWG\09_CIVIL\00_SHEETS\PAVE_01-6000.dwg LAYOUT NAME: 9 Cholla Road Plan and Profile PRINTED: Friday, April 16, 2021 - 4:45pm USER: KChristopher

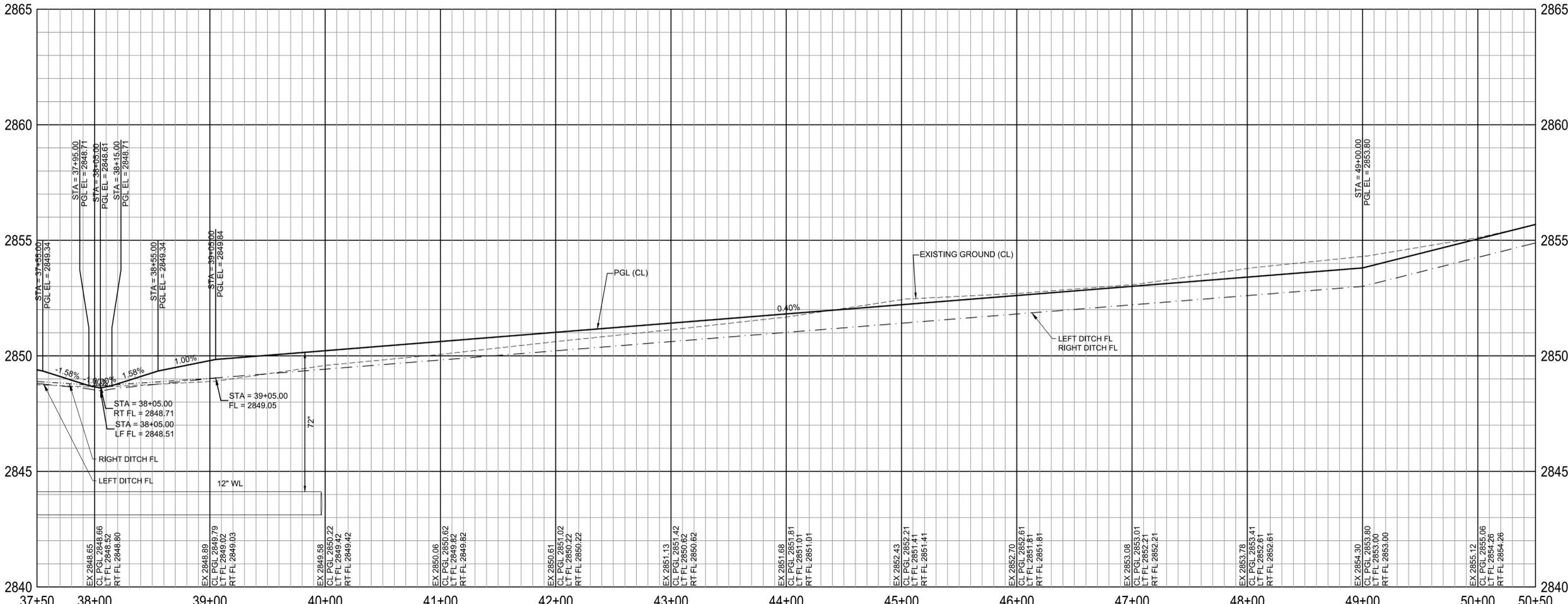
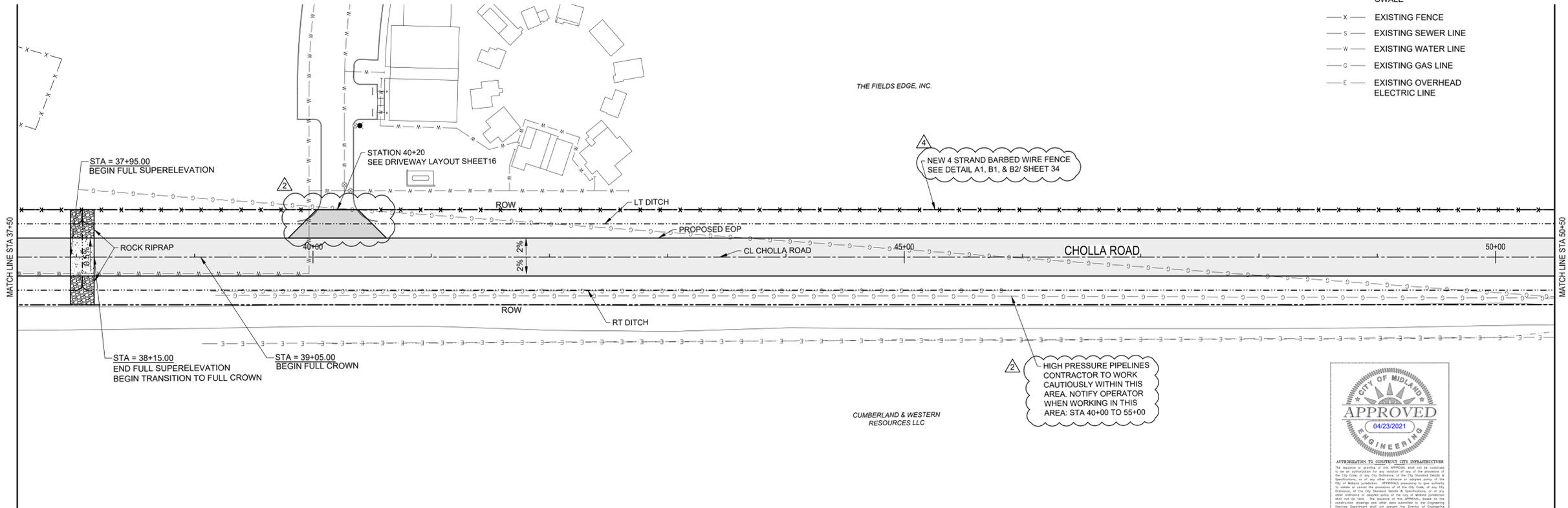
- LEGEND**
- PROPERTY LINE
 - ROAD CENTERLINE
 - SWALE
 - x-x-x- EXISTING FENCE
 - s-s-s- EXISTING SEWER LINE
 - w-w-w- EXISTING WATER LINE
 - g-g-g- EXISTING GAS LINE
 - e-e-e- EXISTING OVERHEAD ELECTRIC LINE

D

C

B

A

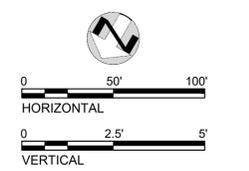


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Cholla Road and County Road 1250
Paving Improvements



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Midland County

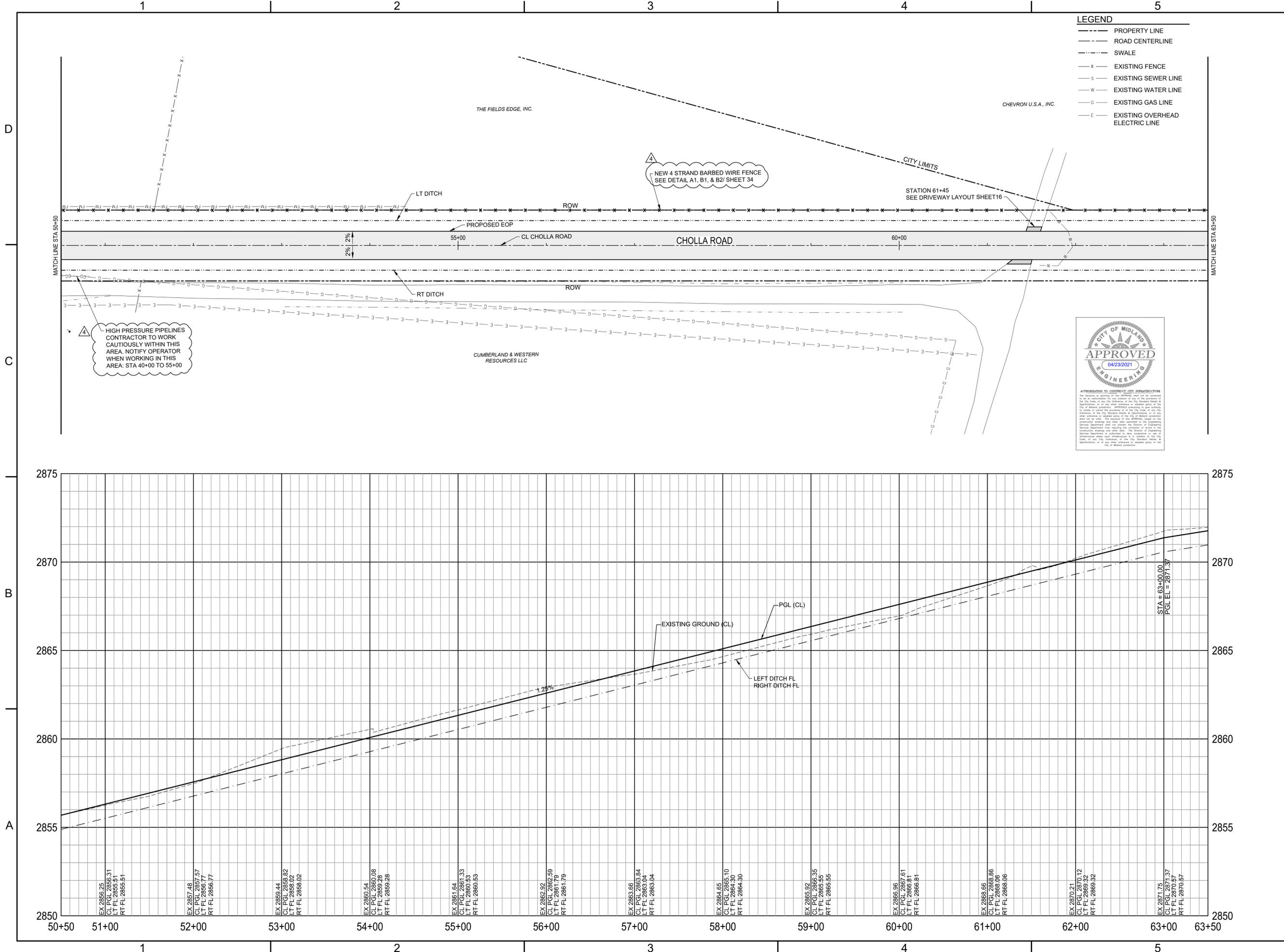
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6000.20

#	DATE	DESCRIPTION
4	04/16/2021	Midland County Comments
3	03/17/2021	Response to 2nd Comments
2	03/03/2021	Response to Comments
1	02/19/2021	Waterline Projection

Cholla Road Plan And Profile

9

FILE NAME: \\Data1\Projects\3\2020\6000.20\03_DSGN01_DWG050_CIVIL\00_SHEETS\PAVE_01-6000.dwg LAYOUT NAME: 10 Cholla Road Plan and Profile PRINTED: Friday, April 16, 2021 - 4:45pm USER: KChristopher

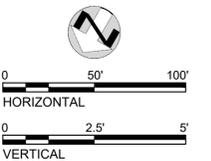


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Cholla Road and County Road 1250
Paving Improvements



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Midland County

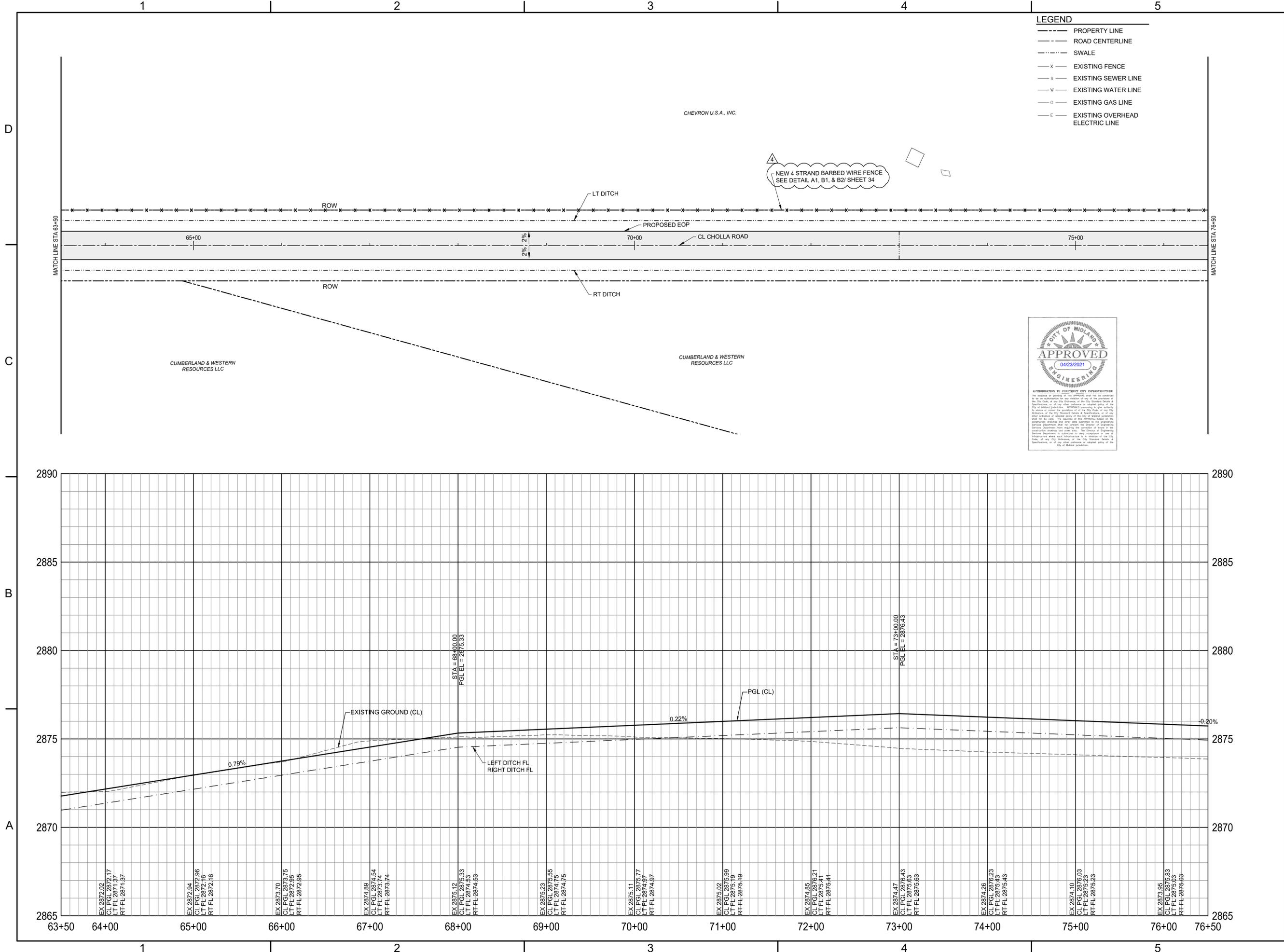
PROJECT NO.
6000.20

#	DATE	DESCRIPTION
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3	03/17/2021	Response to 2nd Comments
2	03/03/2021	Response to Comments
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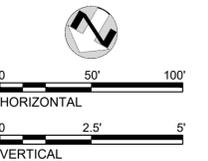
Cholla Road Plan And Profile

10

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Cholla Road and County Road 1250
Paving Improvements



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Midland County

PROJECT NO.
6000.20

#	DATE	DESCRIPTION
4	04/16/2021	Midland County Comments
3	03/17/2021	Response to 2nd Comments
2	03/03/2021	Response to Comments
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Cholla Road Plan And Profile

FILE NAME: \\Data1\Projects\3\2020\6000.20\03_DSGN\01_DWG\050_CIV\100_SHEETS\PAVE_01-6000.dwg LAYOUT NAME: 12 Cholla Road Plan and Profile PRINTED: Friday, April 16, 2021 - 4:47pm USER: KChristopher

1

2

3

4

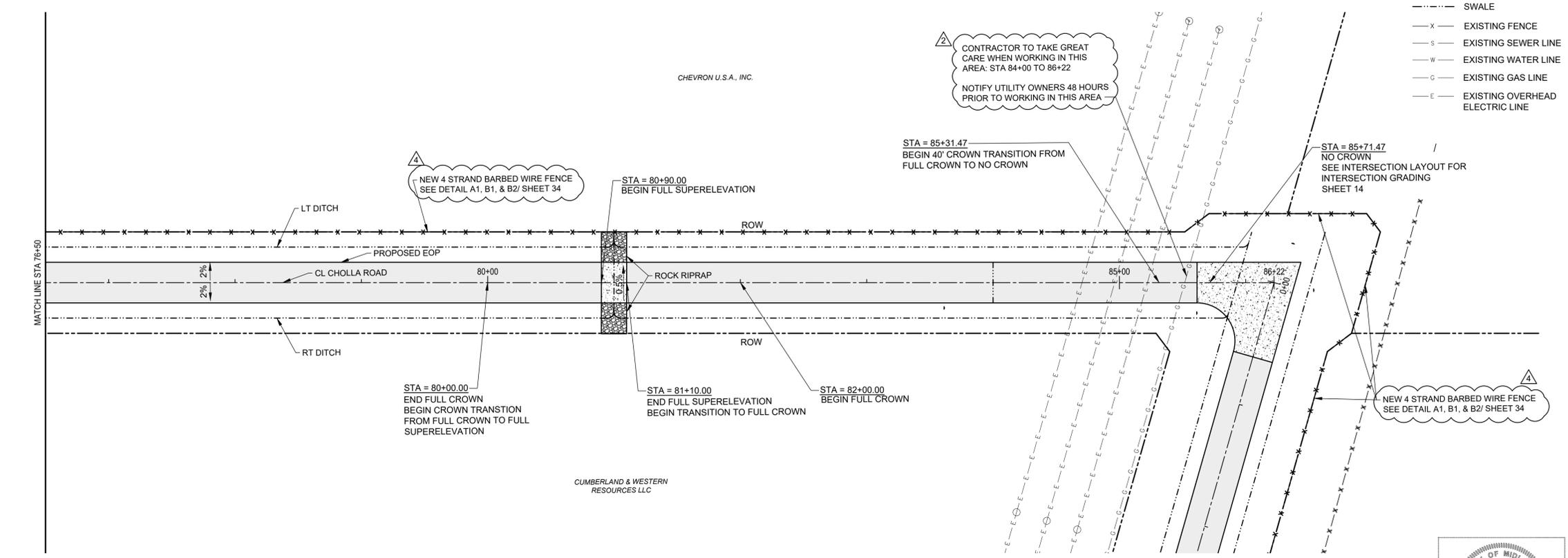
5

D

C

B

A



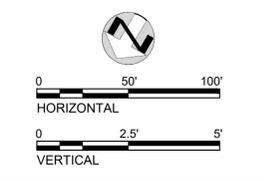
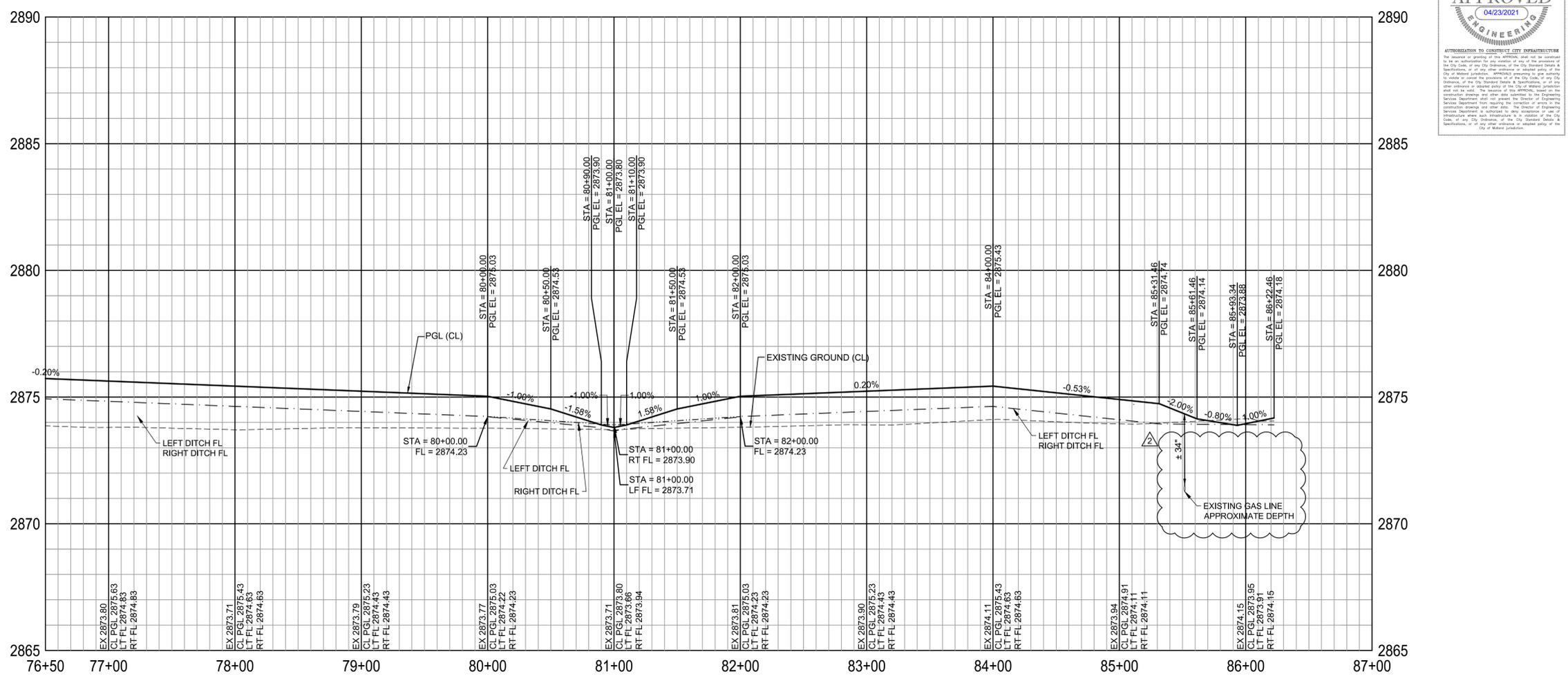
- LEGEND**
- PROPERTY LINE
 - ROAD CENTERLINE
 - SWALE
 - x- EXISTING FENCE
 - s- EXISTING SEWER LINE
 - w- EXISTING WATER LINE
 - g- EXISTING GAS LINE
 - e- EXISTING OVERHEAD ELECTRIC LINE

Parkhill

PARKHILL SMITH & COOPER, INC. F. 500
 KRISTY R. CHRISTOPHER
 131920
 C.E.S.
 04/16/2021

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Cholla Road and County Road 1250
 Paving Improvements

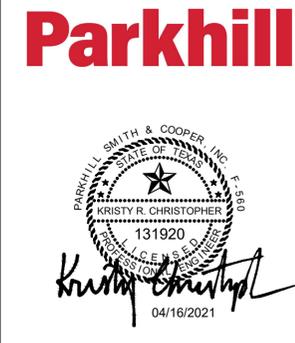
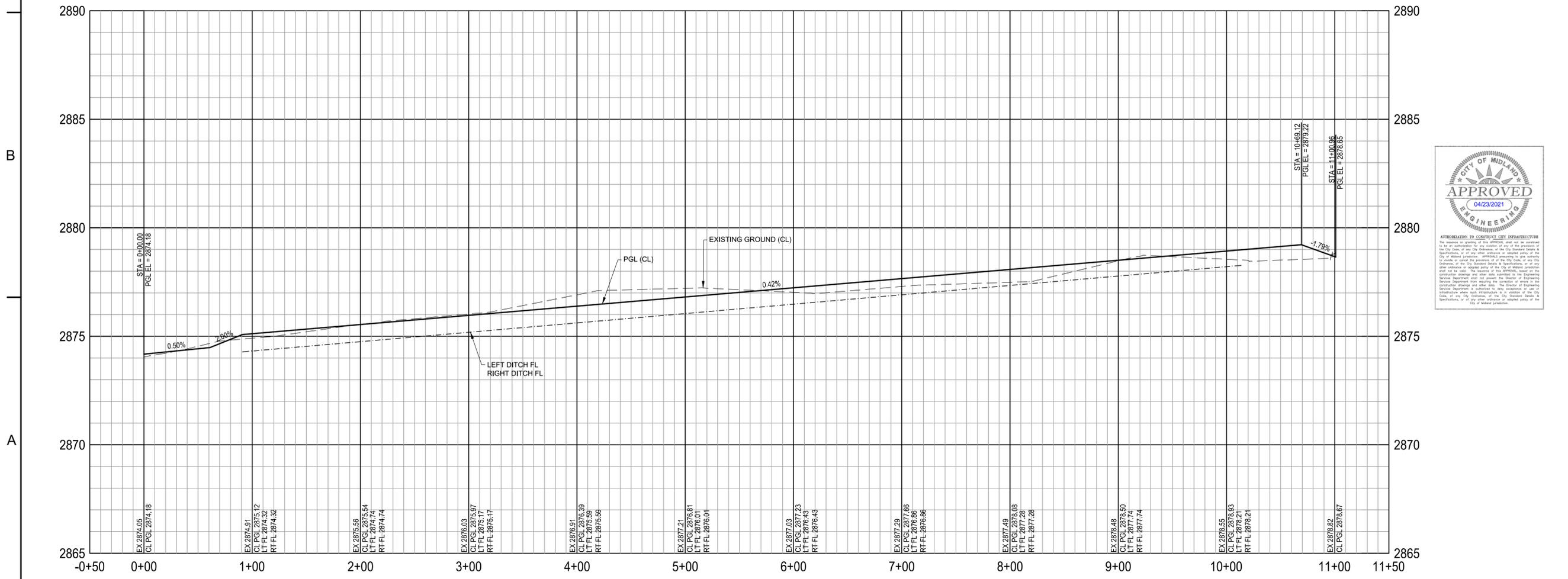
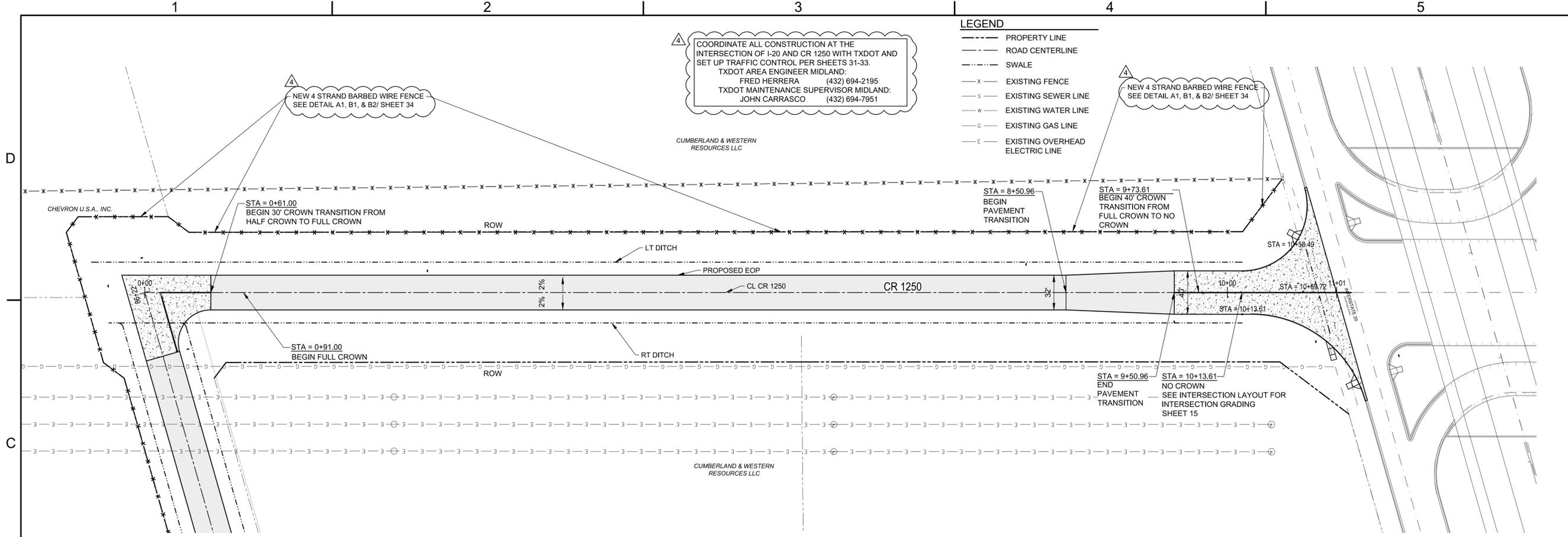


CLIENT
Midland County

PROJECT NO.
6000.20

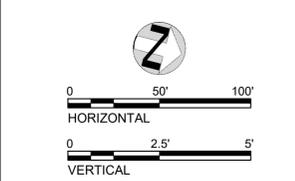
#	DATE	DESCRIPTION
4	04/16/2021	Midland County Comments
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1	02/19/2021	Waterline Projection

FILE NAME: \\Data1\Projects\3\2020\6000.20\03_DSGN\01_DWG\090_CIVIL\00_SHEETS\PAVE_02-6000.dwg LAYOUT NAME: 13 CR 1250 Road Plan and Profile PRINTED: Friday, April 16, 2021 - 4:48pm USER: KChristopher



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Cholla Road and County Road 1250
Paving Improvements



APPROVED
04/23/2021
ENGINEERING

CLIENT
Midland County

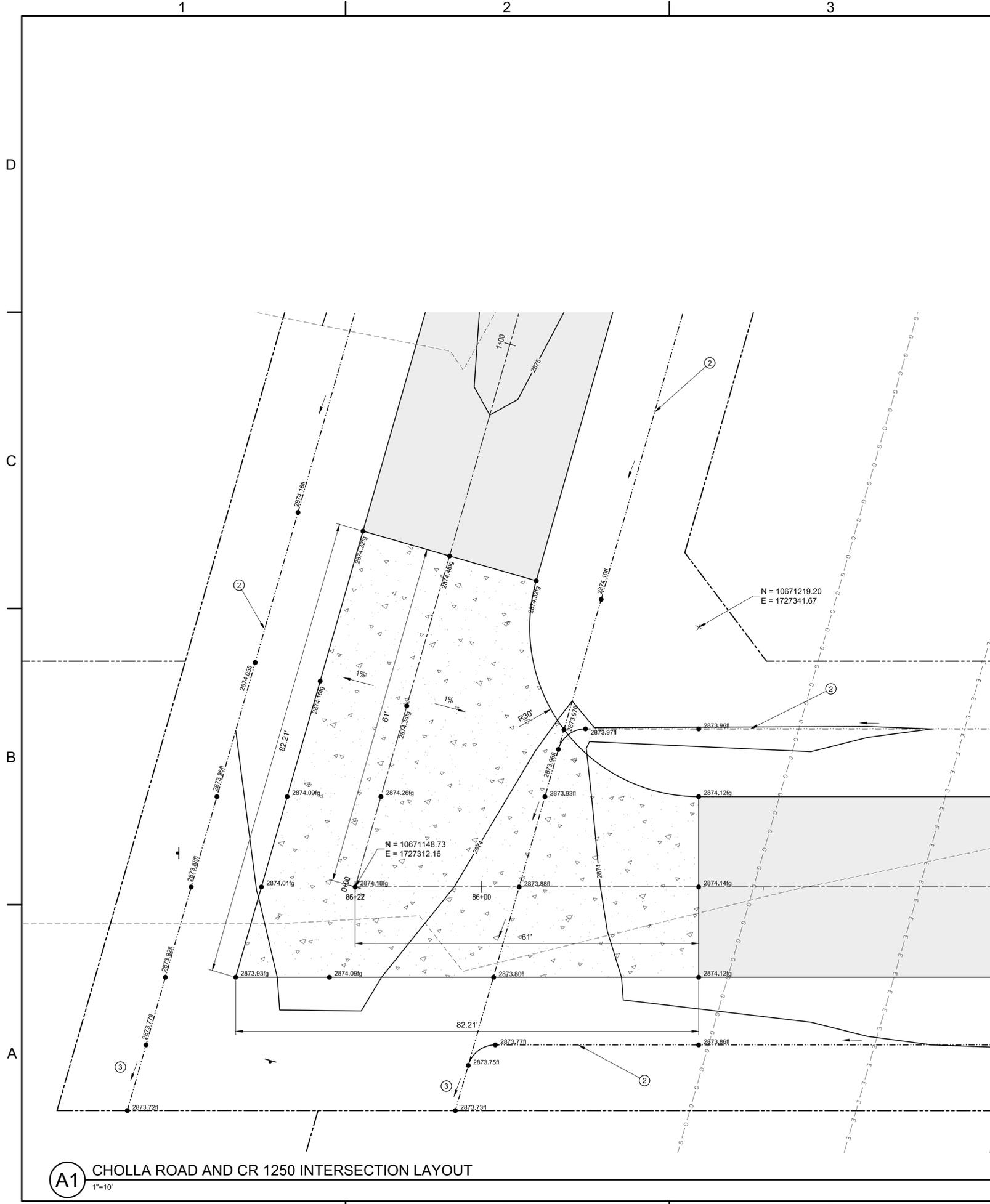
PROJECT NO.
6000.20

#	DATE	DESCRIPTION
4	04/16/2021	Midland County Comments
3	03/17/2021	Response to 2nd Comments
2	03/03/2021	Response to Comments
1	02/19/2021	Waterline Projection

CR 1250 Road Plan And Profile

13

FILE NAME: A:\2020\6000_20\03_DSGN\01_DWG\050_CIVIL\00_SHEETS\BLOWUPS-6000.dwg LAYOUT NAME: 14 Cholla Road and CR 1250 Intersection Layout PRINTED: Wednesday, March 17, 2021 - 10:57am USER: KChristopher



A1 CHOLLA ROAD AND CR 1250 INTERSECTION LAYOUT
1"=10'

- GRADING NOTES**
1. THE EXISTING CONTOURS AND SURFACE ELEVATIONS INDICATED ON THESE PLANS HAVE BEEN LOCATED FROM REFERENCE INFORMATION SUPPLIED BY OTHERS AND SURFACE LOCATIONS SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY, BOTH HORIZONTALLY AND VERTICALLY, THE LOCATIONS OF ALL EXISTING HARD SURFACE PRIOR TO CONSTRUCTION, AND TO NOTIFY THE ENGINEER PROMPTLY OF ALL CONFLICTS OF THE WORK WITH EXISTING SURFACE ELEVATIONS.
 2. ALL OF THE ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 AND ALL HORIZONTAL POSITIONS ARE BASED ON THE NORTH AMERICAN DATUM OF 1983.
 3. MAXIMUM 2% SLOPE IN HANDICAP ACCESSIBLE AREAS IN ALL DIRECTIONS.
 4. MAXIMUM 2% CROSS SLOPE FOR HANDICAP ACCESSIBLE SIDEWALKS.
 5. MAXIMUM 5% LONGITUDINAL SLOPE FOR HANDICAP ACCESSIBLE SIDEWALKS.
 6. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND GRADES, NEW OR EXISTING, PRIOR TO CONSTRUCTION, AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES WITH EXISTING OR NEW CONDITIONS.

- KEY NOTES**
- ① MATCH EXISTING
 - ② EARTHEN SWALE
 - ③ GRADE TO DRAIN
 - ④ BEGIN SWALE
 - ⑤ CURB AND GUTTER - SEE DETAIL 205/SHEET 26
 - ⑥ DIAGONAL PEDESTRIAN CURB RAMP - SEE DETAILS 226 & 233/SHEET 26
 - ⑦ DIRECTION PEDESTRIAN CURB RAMP WITHIN RADIUS - SEE DETAILS 231 & 233/SHEET 26

- LEGEND**
- EXISTING CONTOURS (0.5' INTERVAL)
 - NEW CONTOURS (0.5' INTERVAL)
 - DIRECTION OF FLOW
 - - - SWALE
 - CURB & GUTTER
 - NEW SPOT ELEVATION
 - fg = finish grade
 - g = gutter
 - fl = flowline
 - t = topsoil
 - sw = sidewalk
 - tc = top of curb



Parkhill



Parkhill.com

Cholla Road and County Road 1250
Paving Improvements

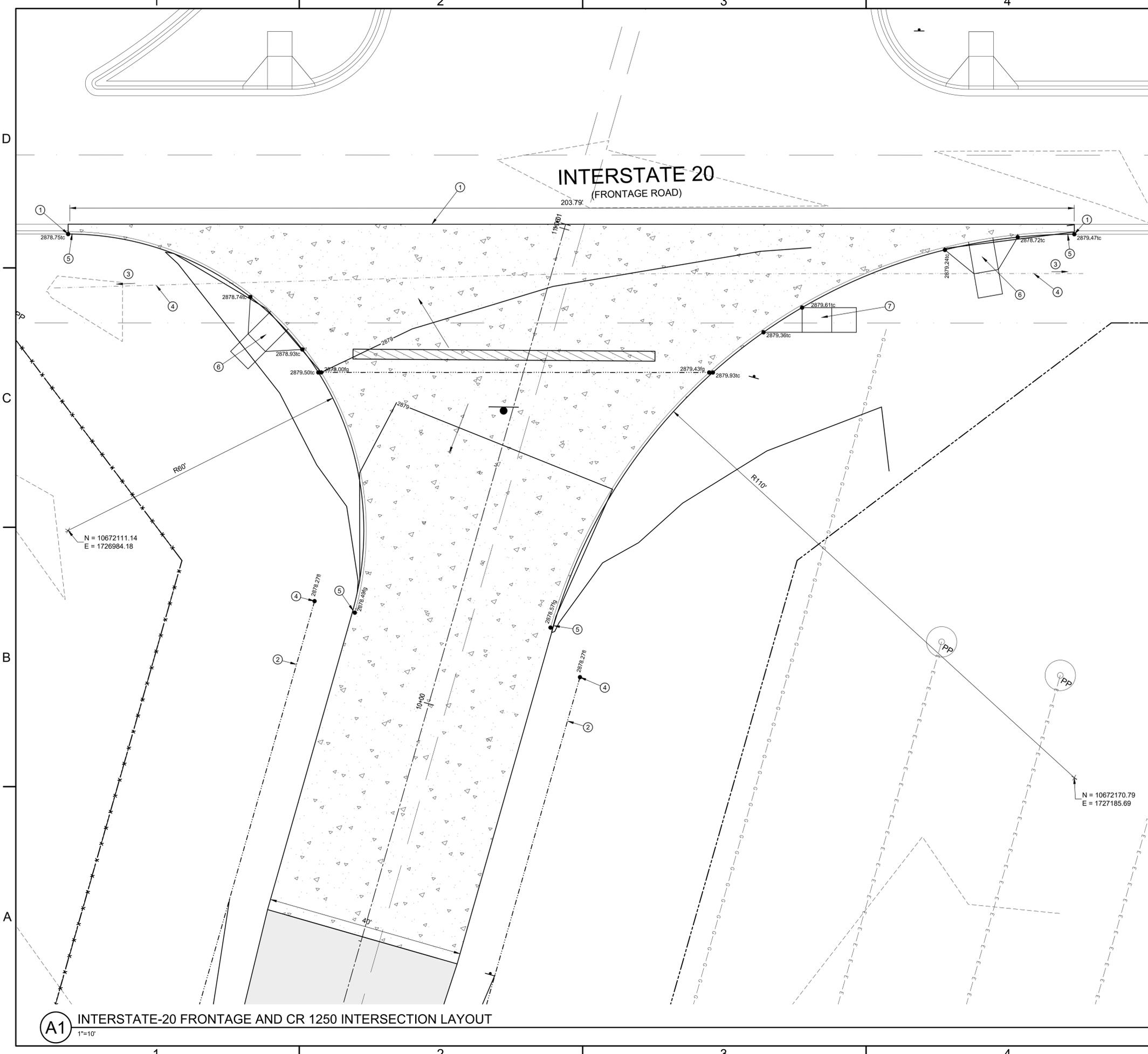
CLIENT
Midland County

PROJECT NO.
6000.20

#	DATE	DESCRIPTION
3	03/17/2021	Response to 2nd Comments
2	03/03/2021	Response to Comments
1	02/19/2021	Waterline Projection

Cholla Road And CR 1250 Intersection Layout

FILE NAME: \\Data1\Projects\3\2020\6000.20\03_DSGN\01_DWG\050_CIVIL\00_SHEETS\BLOWUPS-6000.dwg LAYOUT NAME: 15 CR 1250 and I-20 Frontage Intersection Layout PRINTED: Friday, April 16, 2021 - 4:49pm USER: K.Christopher



GRADING NOTES

1. THE EXISTING CONTOURS AND SURFACE ELEVATIONS INDICATED ON THESE PLANS HAVE BEEN LOCATED FROM REFERENCE INFORMATION SUPPLIED BY OTHERS AND SURFACE LOCATIONS SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY, BOTH HORIZONTALLY AND VERTICALLY, THE LOCATIONS OF ALL EXISTING HARD SURFACE PRIOR TO CONSTRUCTION, AND TO NOTIFY THE ENGINEER PROMPTLY OF ALL CONFLICTS OF THE WORK WITH EXISTING SURFACE ELEVATIONS.
2. ALL OF THE ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 AND ALL HORIZONTAL POSITIONS ARE BASED ON THE NORTH AMERICAN DATUM OF 1983.
3. MAXIMUM 2% SLOPE IN HANDICAP ACCESSIBLE AREAS IN ALL DIRECTIONS.
4. MAXIMUM 2% CROSS SLOPE FOR HANDICAP ACCESSIBLE SIDEWALKS.
5. MAXIMUM 5% LONGITUDINAL SLOPE FOR HANDICAP ACCESSIBLE SIDEWALKS.
6. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND GRADES, NEW OR EXISTING, PRIOR TO CONSTRUCTION, AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES WITH EXISTING OR NEW CONDITIONS.
7. COORDINATE ALL CONSTRUCTION AT THE INTERSECTION OF I-20 AND CR 1250 WITH TXDOT AND SET UP TRAFFIC CONTROL PER SHEETS 31-33.
TXDOT AREA ENGINEER MIDLAND:
FRED HERRERA (432) 694-2195
TXDOT MAINTENANCE SUPERVISOR MIDLAND:
JOHN CARRASCO (432) 694-7951



KEY NOTES

- 1 MATCH EXISTING
- 2 EARTHEN SWALE
- 3 GRADE TO DRAIN
- 4 BEGIN SWALE
- 5 CURB AND GUTTER - SEE DETAIL 205/SHEET 26
- 6 DIAGONAL PEDESTRIAN CURB RAMP - SEE DETAILS 226 & 233/SHEET 26
- 7 DIRECTION PEDESTRIAN CURB RAMP WITHIN RADIUS - SEE DETAILS 231 & 233/SHEET 26

LEGEND

- EXISTING CONTOURS (0.5' INTERVAL)
- NEW CONTOURS (0.5' INTERVAL)
- DIRECTION OF FLOW
- SWALE
- CURB & GUTTER
- NEW SPOT ELEVATION
- fg = finish grade
- g = gutter
- fl = flowline
- t = topsoil
- sw = sidewalk
- tc = top of curb

A1 INTERSTATE-20 FRONTAGE AND CR 1250 INTERSECTION LAYOUT
1"=10'

Parkhill



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Cholla Road and County Road 1250
Paving Improvements

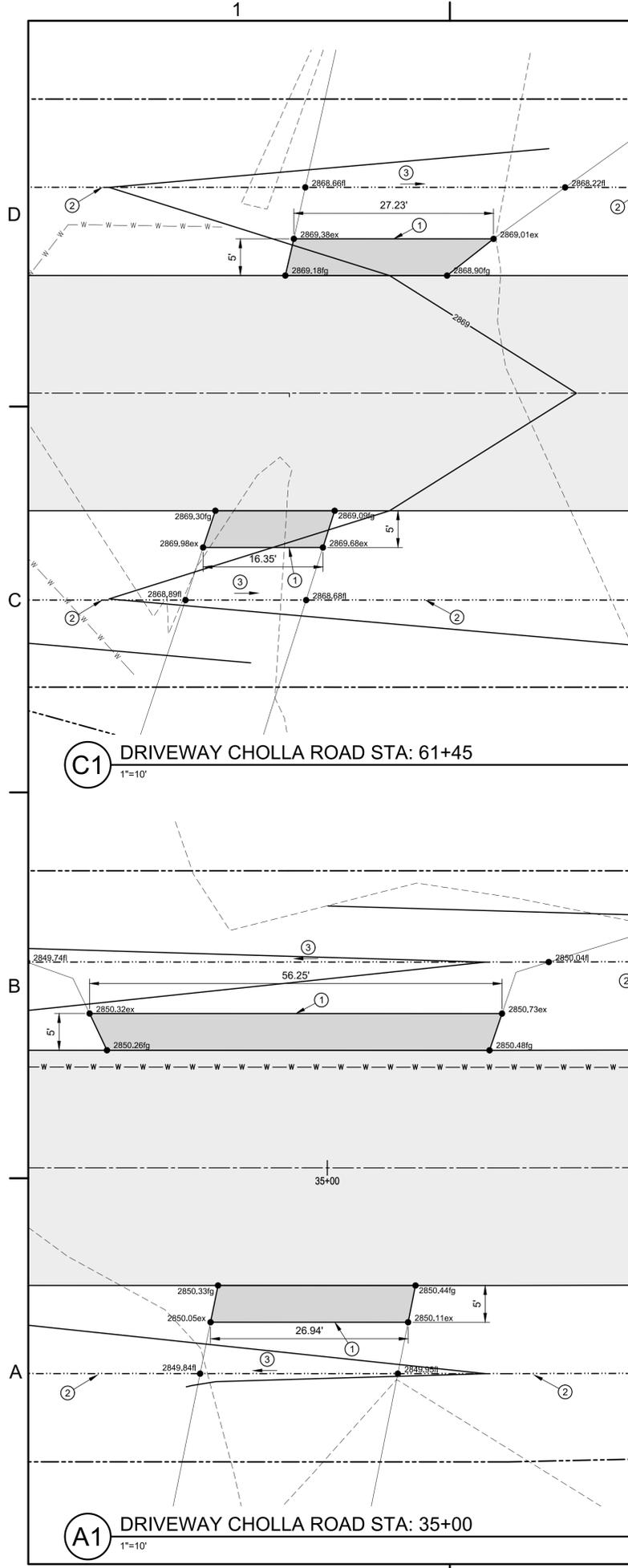
CLIENT
Midland County

PROJECT NO.
6000.20

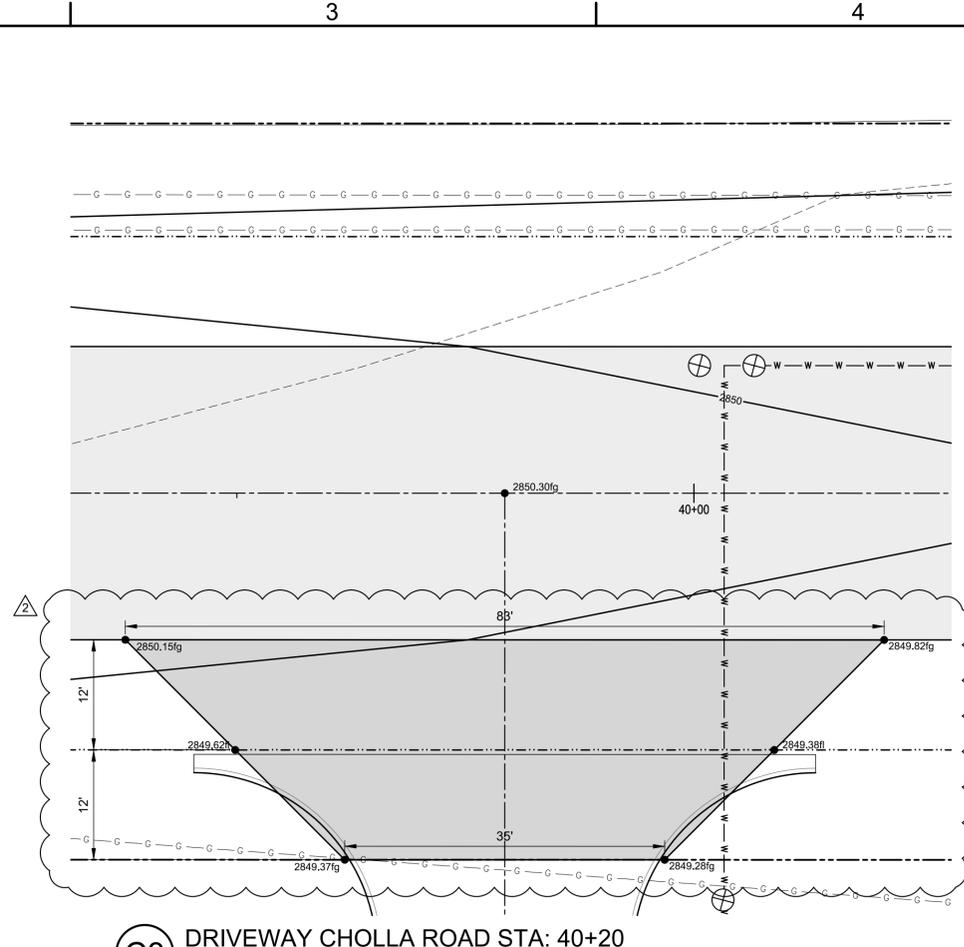
#	DATE	DESCRIPTION
4	04/16/2021	Midland County Comments
3	03/17/2021	Response to 2nd Comments
2	03/03/2021	Response to Comments
1	02/19/2021	Waterline Projection

CR 1250 And I-20
Frontage
Intersection
Layout

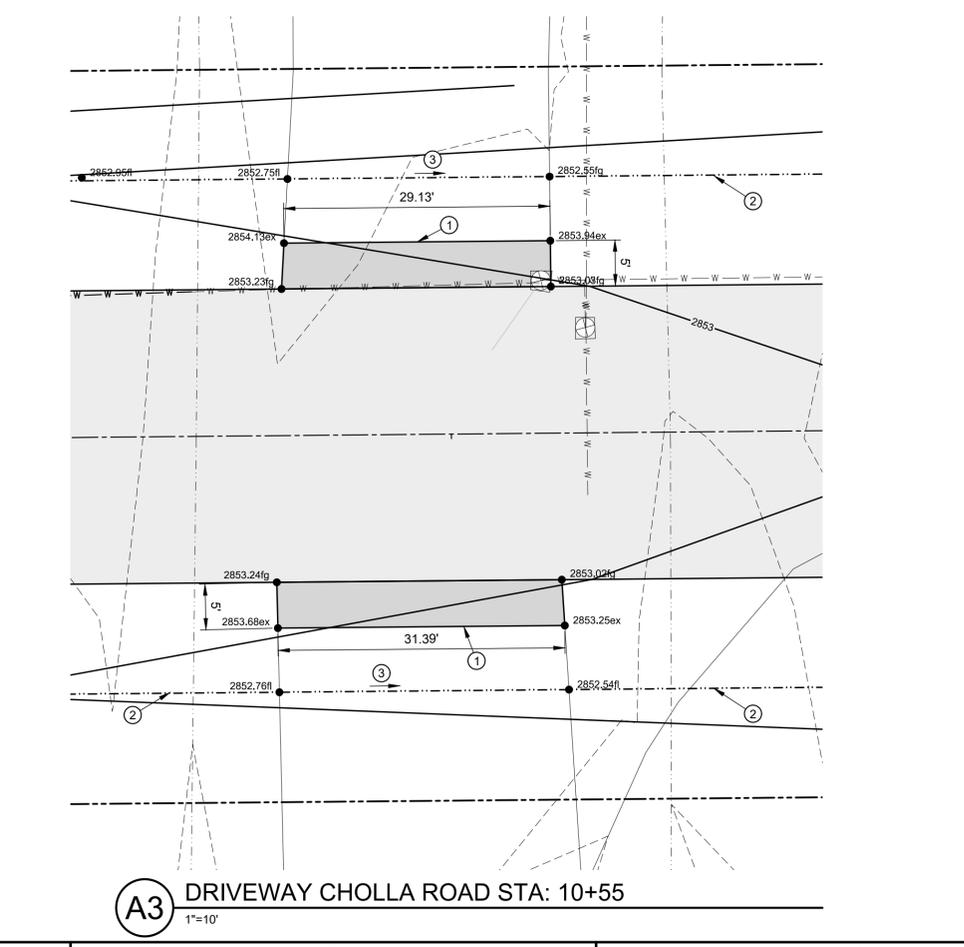
FILE NAME: A:\2020\6000_2003_DSGN01_DWG\050_CIVIL\00_SHEETS\BLOWUPS-6000.dwg LAYOUT NAME: 16 Driveway Layouts PRINTED: Wednesday, March 03, 2021 - 11:51pm USER: KChristopher



A1 DRIVEWAY CHOLLA ROAD STA: 35+00
1"=10'



C3 DRIVEWAY CHOLLA ROAD STA: 40+20
1"=10'



A3 DRIVEWAY CHOLLA ROAD STA: 10+55
1"=10'

- GRADING NOTES**
1. THE EXISTING CONTOURS AND SURFACE ELEVATIONS INDICATED ON THESE PLANS HAVE BEEN LOCATED FROM REFERENCE INFORMATION SUPPLIED BY OTHERS AND SURFACE LOCATIONS SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY, BOTH HORIZONTALLY AND VERTICALLY, THE LOCATIONS OF ALL EXISTING HARD SURFACE PRIOR TO CONSTRUCTION, AND TO NOTIFY THE ENGINEER PROMPTLY OF ALL CONFLICTS OF THE WORK WITH EXISTING SURFACE ELEVATIONS.
 2. ALL OF THE ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 AND ALL HORIZONTAL POSITIONS ARE BASED ON THE NORTH AMERICAN DATUM OF 1983.
 3. MAXIMUM 2% SLOPE IN HANDICAP ACCESSIBLE AREAS IN ALL DIRECTIONS.
 4. MAXIMUM 2% CROSS SLOPE FOR HANDICAP ACCESSIBLE SIDEWALKS.
 5. MAXIMUM 5% LONGITUDINAL SLOPE FOR HANDICAP ACCESSIBLE SIDEWALKS.
 6. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND GRADES, NEW OR EXISTING, PRIOR TO CONSTRUCTION, AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES WITH EXISTING OR NEW CONDITIONS.

- KEY NOTES**
- 1 MATCH EXISTING
 - 2 EARTHEN SWALE
 - 3 GRADE TO DRAIN
 - 4 BEGIN SWALE
 - 5 CURB AND GUTTER - SEE DETAIL 205/SHEET 26
 - 6 DIAGONAL PEDESTRIAN CURB RAMP - SEE DETAILS 226 & 233/SHEET 26
 - 7 DIRECTION PEDESTRIAN CURB RAMP WITHIN RADIUS - SEE DETAILS 231 & 233/SHEET 26

LEGEND

- EXISTING CONTOURS (0.5' INTERVAL)
- NEW CONTOURS (0.5' INTERVAL)
- DIRECTION OF FLOW
- SWALE
- CURB & GUTTER
- NEW SPOT ELEVATION
- fg = finish grade
- g = gutter
- fl = flowline
- t = topsoil
- sw = sidewalk
- tc = top of curb

CITY OF MIDLAND
APPROVED
03/19/2021
ENGINEERING

APPROVAL TO CONSTRUCT CITY INFRASTRUCTURE
This approval is granted on the condition that the project will be constructed in accordance with the City Ordinance, of the City of Midland, Texas, as amended, and all applicable rules and regulations of the City of Midland, Texas, and all applicable rules and regulations of the State of Texas. The approval is granted on the condition that the project will be constructed in accordance with the City Ordinance, of the City of Midland, Texas, as amended, and all applicable rules and regulations of the City of Midland, Texas, and all applicable rules and regulations of the State of Texas. The approval is granted on the condition that the project will be constructed in accordance with the City Ordinance, of the City of Midland, Texas, as amended, and all applicable rules and regulations of the City of Midland, Texas, and all applicable rules and regulations of the State of Texas.

Parkhill

PARKHILL SMITH & COOPER, INC. P.E. 5,500
KIRSTY R. CHRISTOPHER
131920
03/03/2021

Parkhill.com

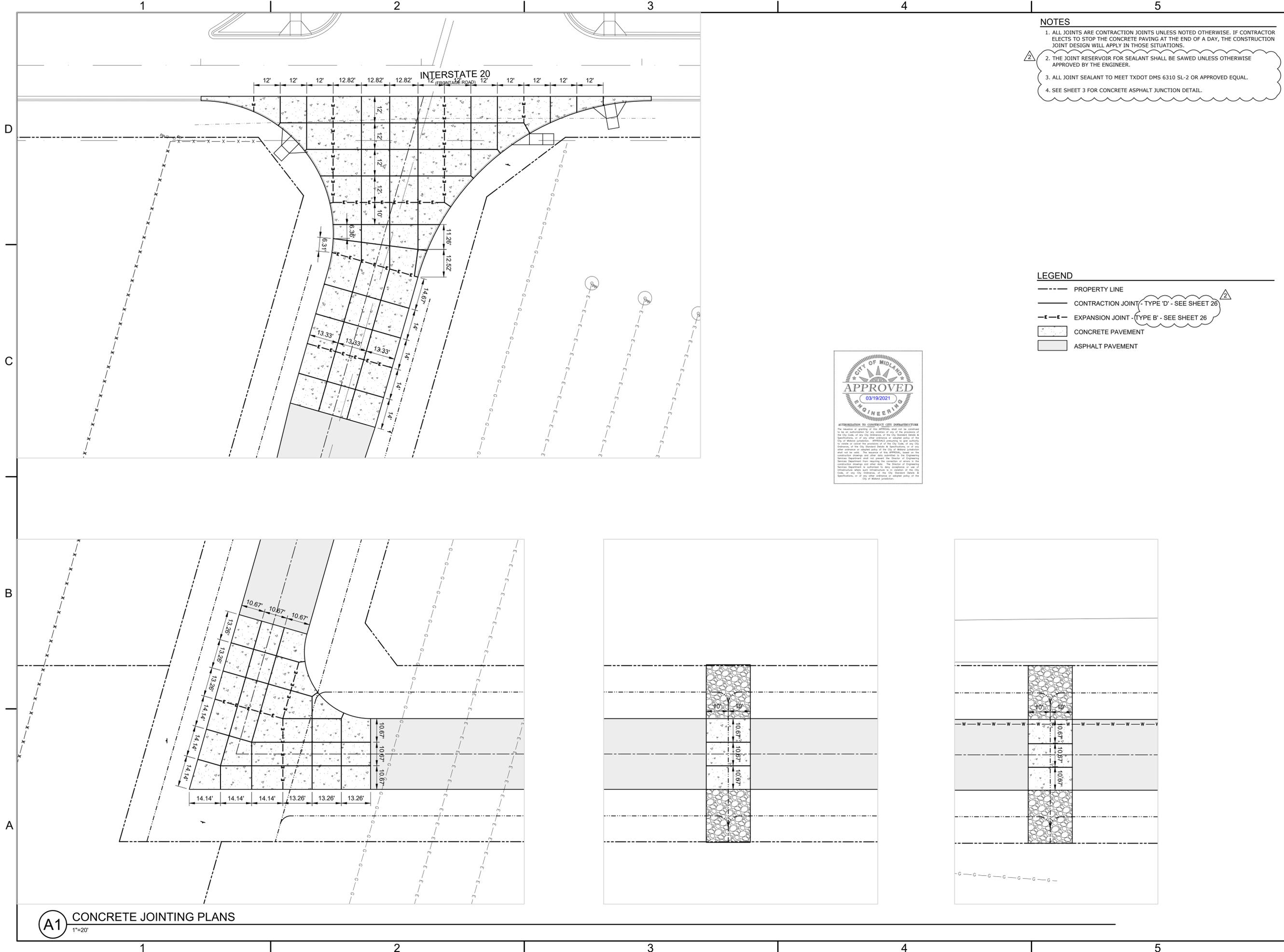
Cholla Road and County Road 1250
Paving Improvements

CLIENT
Midland County

PROJECT NO.
6000.20

#	DATE	DESCRIPTION
2	03/03/2021	Response to Comments
1	02/19/2021	Waterline Projection

FILE NAME: A:\2020\6000_2003_DSGN01_DWG\050_CIVIL\00_SHEETS\JOINT-6000.dwg LAYOUT NAME: 18 Concrete Jointing Plan PRINTED: Wednesday, March 03, 2021 - 11:52pm USER: KChristopher



- NOTES**
1. ALL JOINTS ARE CONTRACTION JOINTS UNLESS NOTED OTHERWISE. IF CONTRACTOR ELECTS TO STOP THE CONCRETE PAVING AT THE END OF A DAY, THE CONSTRUCTION JOINT DESIGN WILL APPLY IN THOSE SITUATIONS.
 2. THE JOINT RESERVOIR FOR SEALANT SHALL BE SAWED UNLESS OTHERWISE APPROVED BY THE ENGINEER.
 3. ALL JOINT SEALANT TO MEET TXDOT DMS 6310 SL-2 OR APPROVED EQUAL.
 4. SEE SHEET 3 FOR CONCRETE ASPHALT JUNCTION DETAIL.

- LEGEND**
- PROPERTY LINE
 - CONTRACTION JOINT - TYPE 'D' - SEE SHEET 26
 - E-E- EXPANSION JOINT - TYPE 'B' - SEE SHEET 26
 - [Pattern] CONCRETE PAVEMENT
 - [Pattern] ASPHALT PAVEMENT



ATTENTION TO CONCRETE CITY INFRASTRUCTURE
 The location or spacing of the JOINTS, shall not be changed by the contractor or any other person or entity without the approval of the City Engineer or any other person or entity authorized by the City Engineer. APPROVED JOINTS shall be subject to review and approval by the City Engineer. If any JOINT is not approved or spaced joint of the City of Midland shall not be used. The location of the JOINTS, based on the contractor's design and other data submitted to the Engineering Service Department shall not exceed the Director of Engineering Service Department's approval. The Director of Engineering Service Department is authorized to, in any condition or case, all JOINTS shall be spaced in accordance with the City of Midland's specifications, or any other address or change plan of the City of Midland.

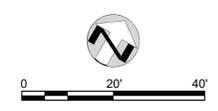
A1 CONCRETE JOINTING PLANS
 1"=20'

Parkhill



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Cholla Road and County Road 1250
 Paving Improvements



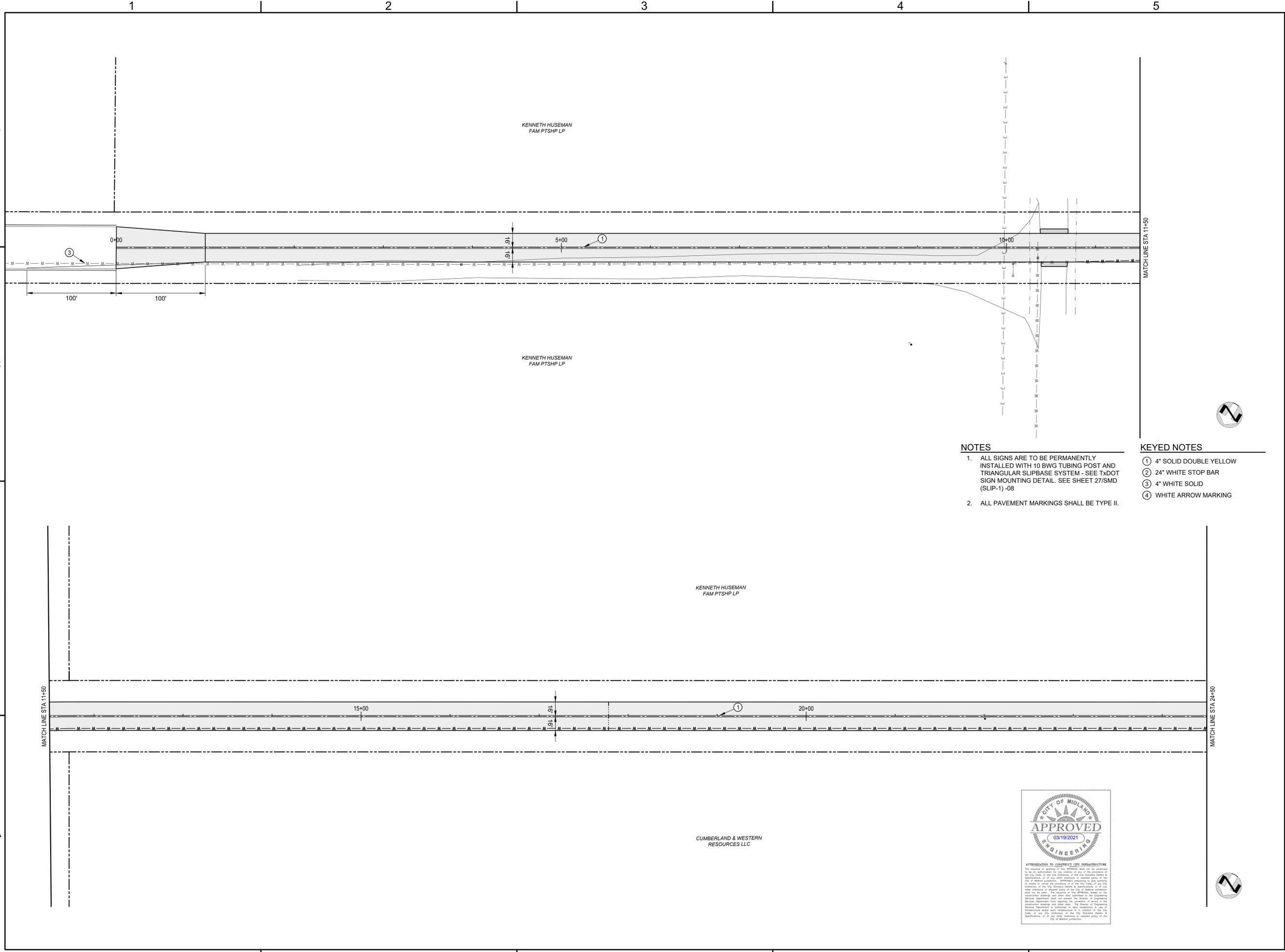
CLIENT
 Midland County

PROJECT NO.
 6000.20

#	DATE	DESCRIPTION
2	03/03/2021	Response to Comments
1	02/19/2021	Waterline Projection

Concrete Jointing Plan
18

FILE NAME: A:\2020\6000_20\03_DSGN\01_DWG\050_CIVIL\00_SHEET\STRAFF_01+6000.dwg LAYOUT NAME: 19 Sign and Pavement Marking Plan PRINTED: Wednesday, March 03, 2021 - 11:53pm USER: KChristopher



NOTES

- ALL SIGNS ARE TO BE PERMANENTLY INSTALLED WITH 10 BWG TUBING POST AND TRIANGULAR SLIPBASE SYSTEM - SEE TxDOT SIGN MOUNTING DETAIL. SEE SHEET 27/SMD (SLIP-1) -08
- ALL PAVEMENT MARKINGS SHALL BE TYPE II.

KEYED NOTES

- 4" SOLID DOUBLE YELLOW
- 24" WHITE STOP BAR
- 4" WHITE SOLID
- WHITE ARROW MARKING

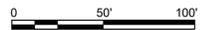


Parkhill



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Cholla Road and County Road 1250
Paving Improvements



CLIENT
Midland County

PROJECT NO.
6000.20

#	DATE	DESCRIPTION
2	03/03/2021	Response to Comments
1	02/19/2021	Waterline Projection

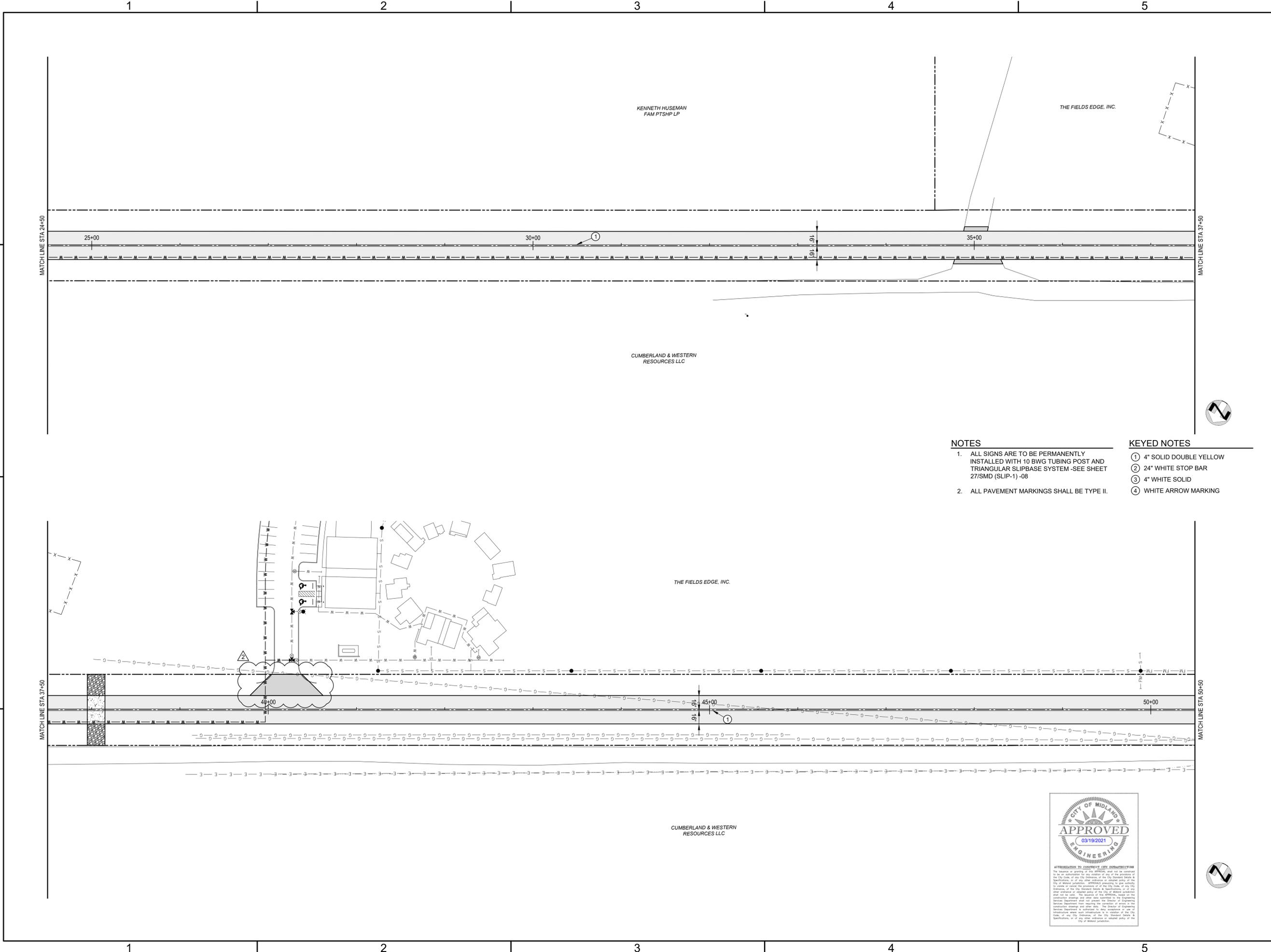


ATTESTATION TO CONTRACT CITY INFRASTRUCTURE
The Engineer or person in the position of the Engineer, and not the Engineer, is an independent professional person and is not an employee of the City of Midland. The City of Midland is not responsible for the design or construction of any infrastructure project. The City of Midland is not responsible for the design or construction of any infrastructure project. The City of Midland is not responsible for the design or construction of any infrastructure project.

Sign And Pavement Marking Plan

19

FILE NAME: A:\2020\6000_20\03_DSGN\01_DWG\050_CIVIL\00_SHEET\STRAF_01+6000.dwg LAYOUT NAME: 20 Sign and Pavement Marking Plan PRINTED: Wednesday, March 03, 2021 - 11:53pm USER: KChristopher



NOTES

- ALL SIGNS ARE TO BE PERMANENTLY INSTALLED WITH 10 BWG TUBING POST AND TRIANGULAR SLIPBASE SYSTEM - SEE SHEET 27/SMD (SLIP-1) -08
- ALL PAVEMENT MARKINGS SHALL BE TYPE II.

KEYED NOTES

- 4" SOLID DOUBLE YELLOW
- 24" WHITE STOP BAR
- 4" WHITE SOLID
- WHITE ARROW MARKING

Parkhill



Parkhill.com

Cholla Road and County Road 1250
Paving Improvements



CLIENT
Midland County

PROJECT NO.
6000.20

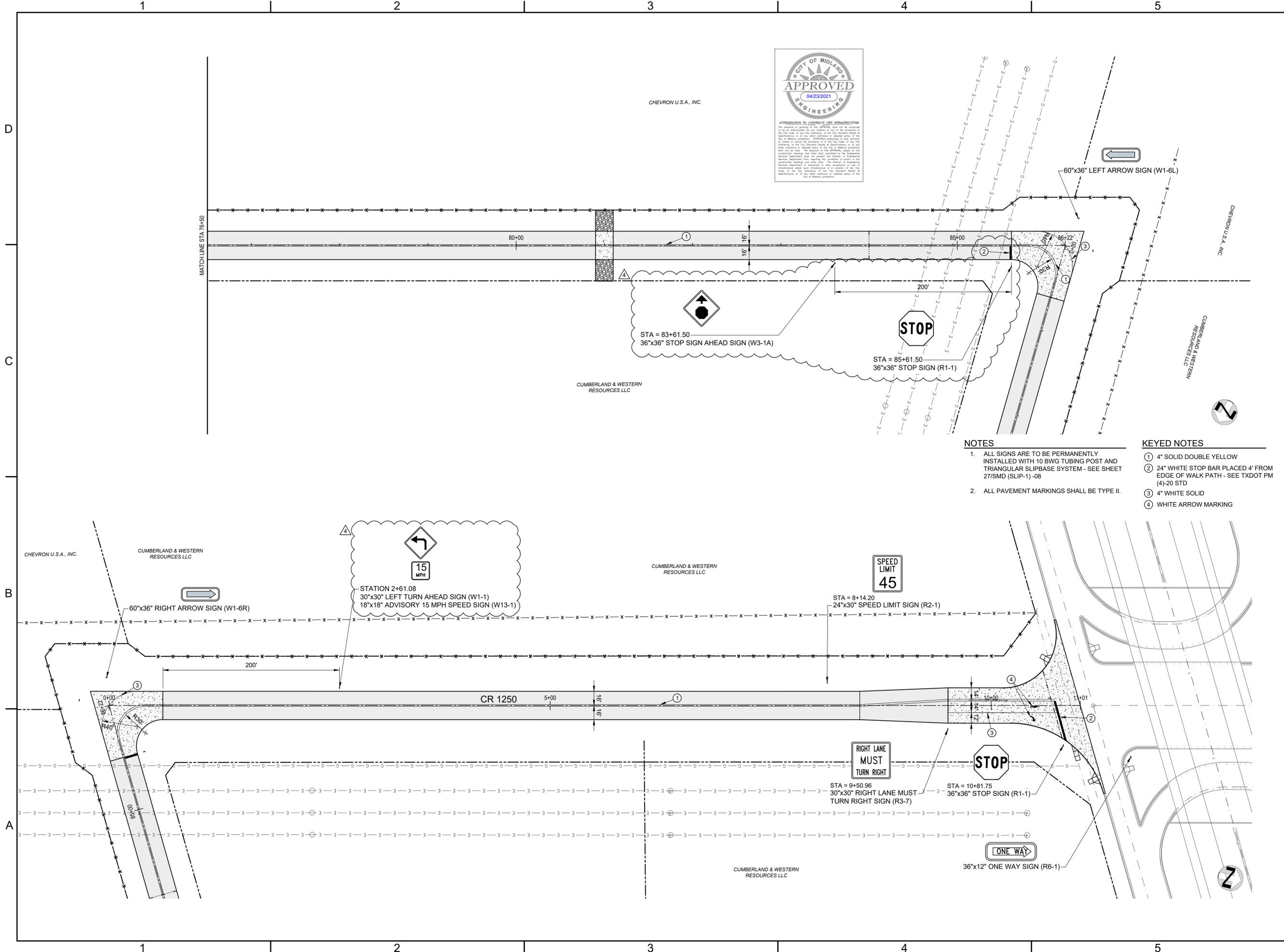
#	DATE	DESCRIPTION
2	03/03/2021	Response to Comments
1	02/19/2021	Waterline Projection

Sign And Pavement Marking Plan

20



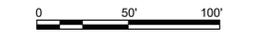
FILE NAME: \\Data1\Projects\3\2020\6000.20\03_DSGN\01_DWG\050_CIVIL\00_SHEETS\TRAF_01-6000.dwg LAYOUT NAME: 22 Sign and Pavement Marking Plan PRINTED: Friday, April 16, 2021 - 4:51pm USER: KChristopher



- NOTES**
- ALL SIGNS ARE TO BE PERMANENTLY INSTALLED WITH 10 BWG TUBING POST AND TRIANGULAR SLIPBASE SYSTEM - SEE SHEET 27/SMD (SLIP-1) -08
 - ALL PAVEMENT MARKINGS SHALL BE TYPE II.
- KEYED NOTES**
- 4" SOLID DOUBLE YELLOW
 - 24" WHITE STOP BAR PLACED 4' FROM EDGE OF WALK PATH - SEE TXDOT PM (4)-20 STD
 - 4" WHITE SOLID
 - WHITE ARROW MARKING



Cholla Road and County Road 1250
Paving Improvements

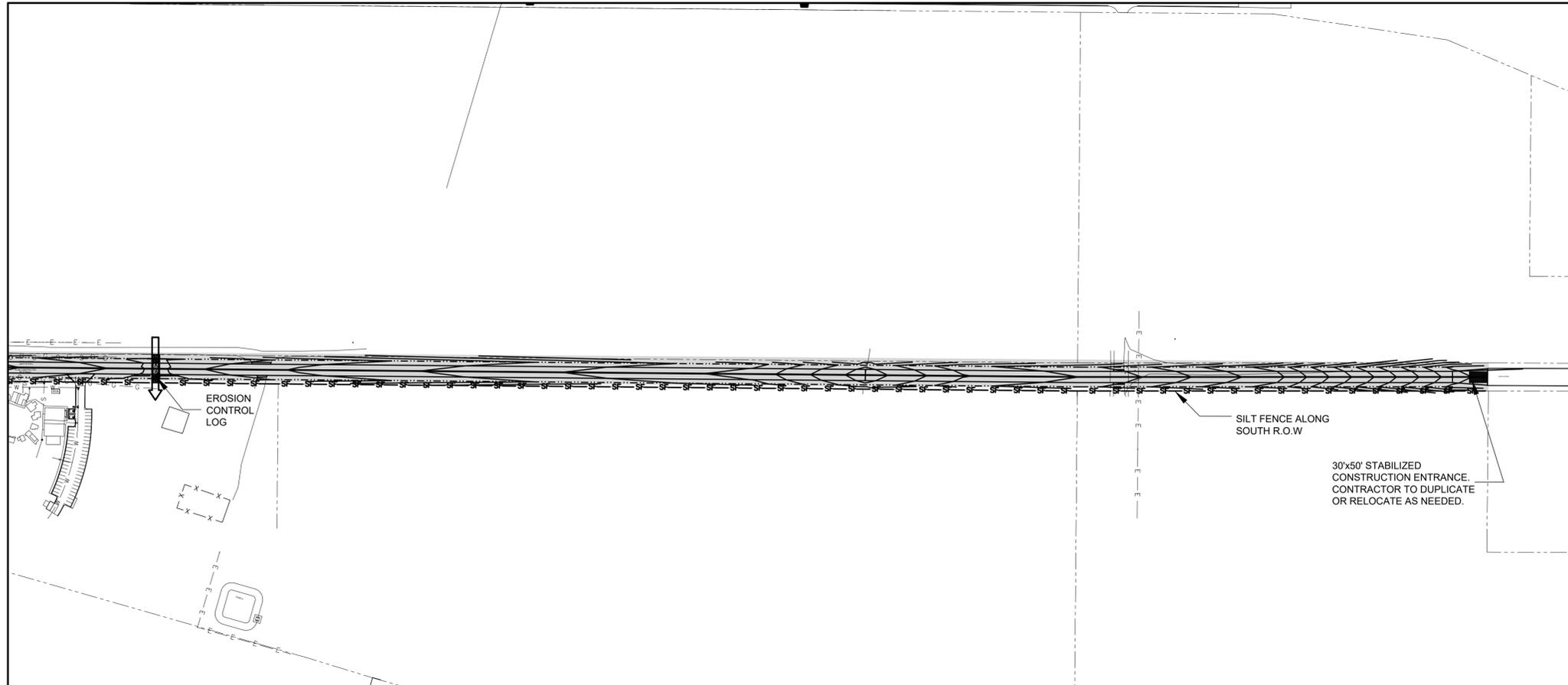


CLIENT
Midland County

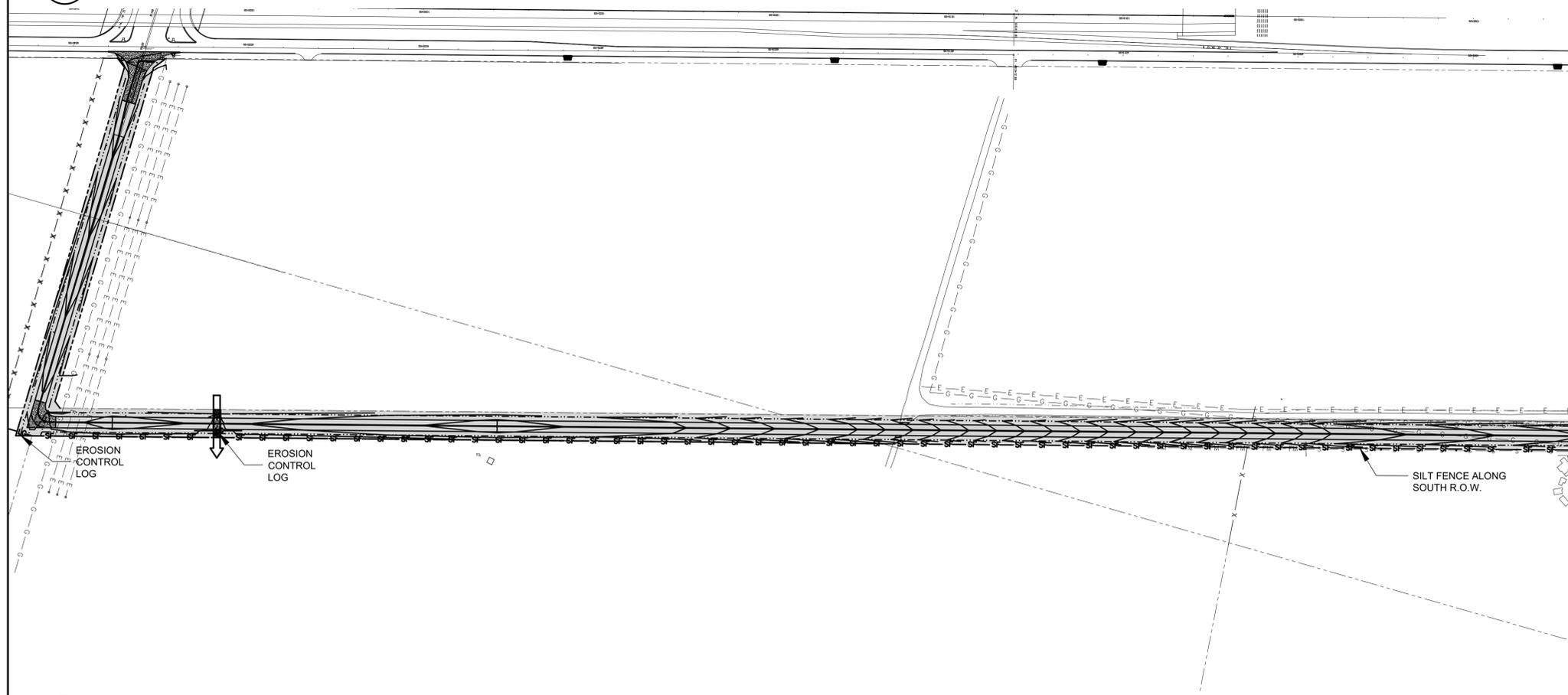
PROJECT NO.
6000.20

#	DATE	DESCRIPTION
4	04/16/2021	Midland County Comments
3	03/17/2021	Response to 2nd Comments
2	03/03/2021	Response to Comments
1	02/19/2021	Waterline Projection

FILE NAME: A:\2020\6000.20\03_DSGN\01_DWG\050_CIVIL\00_SHEETS\SWPPP_01-6000.dwg LAYOUT NAME: 23 Erosion Control Plan PRINTED: Wednesday, March 17, 2021 - 10:58am USER: KChristopher



C1 STORMWATER POLLUTION PREVENTION PLAN - PHASE 1
1"=200'



A1 STORMWATER POLLUTION PREVENTION PLAN - PHASE 2
1"=200'

NOTE

- A. THIS MAP IS PART OF A TPDES STORMWATER POLLUTION PREVENTION PLAN. REFER TO THE TEXT PORTION OF THE PLAN FOR ADDITIONAL INFORMATION, REQUIREMENTS AND PROCEDURES. PLAN TO BE DEVELOPED BY THE CONTRACTOR.
- B. REFER TO SHEET 24 FOR EROSION CONTROL DETAILS
- C. REMOVE AND REPLACE CONCRETE WASHOUT WHEN 75% OF THE VOLUME IS REACHED.
- D. CONCRETE WASHOUT AREA MAY BE RELOCATED OR DUPLICATED AS NECESSARY. PORTABLE WASHOUT IS ALLOWED.
- E. THE USE OF A PORTABLE CONCRETE WASHOUT STATION IS ACCEPTABLE.
- F. SUBMIT ALTERNATE BMP'S FOR APPROVAL PRIOR TO INSTALLATION.
- G. PER THE CITY STORM WATER ADMINISTRATORS: STABILIZE BORROWED STOCKPILES AND STAGING AREAS AT THE COMPLETION OF THE PROJECT
- H. PRIOR TO ANY SOIL GRADING ACTIVITIES, CONTRACTOR TO CALL 432-685-2365 FOR INSPECTION.
- I. **PRE-APPROVED DEVELOPMENT SWPPP REQUIREMENTS:**

- I.A. **"DEVELOPERS ARE NOW REQUIRED TO CALL 432-685-7517 TO REQUEST A STORMWATER INSPECTION BEFORE GRADING LAND FOR PROJECT SITES"**
- I.B. **FOR COMMERCIAL PLANS THAT ARE IN THE PRE-APPROVAL STAGES, THE DEVELOPER, CONTRACTOR, BUILDER ETC. MUST HAVE THE FOLLOWING STORMWATER MEASURES IN PLACE, PER THE APPROVED CITY STANDARD, PRIOR TO BEGINNING ANY CONSTRUCTION. THESE MEASURES INCLUDE:**
 - I.B.A. **SILT FENCE - INSTALL PER CITY STANDARDS AND MUST BE TRENCHED 6 INCHES INTO THE GROUND WITH METAL MESH FACING THE STREET AND J-HOOKED AND BACKFILLED. ADDITIONALLY, FENCE MUST BE STAKED EVERY 6 FT. TO ENSURE PROPER STABILITY.**
 - I.B.B. **CONSTRUCTION SITE ENTRANCE - CITY STANDARDS CALL FOR "BULL ROCK" WITH A 6-8-INCH DIAMETER ROCK. THE TYPICAL ENTRANCE MUST BE 50 FT. LONG AND 14 FT. WIDE. (LENGTH AND WIDTH CAN BE ADJUSTED DEPENDING ON SITE SIZE)**
 - I.B.C. **INLET PROTECTION - IF THE SITE IS BORDERED BY STORMWATER INLETS, THEY MUST BE PROTECTED BY THE DEVELOPER USING SANDBAGS OR FIBER WATTLES.**
 - I.B.D. **TCEQ REQUIRES ALL DEVELOPERS IN THE CITY OF MIDLAND THAT DEVELOP SMALL SITES (1-5 ACRES CONSTRUCTION SITE); AND LARGE SITES (5 OR MORE ACRES CONSTRUCTION SITE) TO SUBMIT A SIGNED COPY OF THE NOTICE OF INTENT (NOI) OR CONSTRUCTION SITE NOTICE (CSN) TO THE CITY OF MIDLAND AT LEAST 7 DAYS PRIOR TO THE BEGINNING ANY SITE PREPARATION.**
- I.C. **IF THERE ARE ANY QUESTIONS OR CONCERNS, PLEASE CONTACT THE CITY OF MIDLAND, STORMWATER DIVISION AT 432-685-7517.**

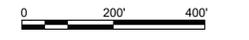
FINAL SITE STABILIZATION: IN ACCORDANCE WITH PARTS III.G.1 AND III.G.2 OF THE CONSTRUCTION STORMWATER GENERAL PERMIT, STABILIZATION OF ALL DISTURBED AREAS MUST, AT A MINIMUM, BE INITIATED IMMEDIATELY (I.E. AS SOON AS PRACTICABLE, BUT NO LATER THAN THE END OF THE NEXT WORK DAY) WHENEVER ANY EARTHWORK ACTIVITIES HAVE PERMANENTLY CEASED ON ANY PORTION OF THE SITE. THE CITY WILL NOT SUPPORT A C.O. UNLESS THIS REQUIREMENT HAS BEEN FULFILLED.

CONTRACTOR BEWARE: THIS REQUIREMENT WILL BE ENFORCED WITH ZEAL



LEGEND

- AREA AFFECTED BY PROJECT (APPROX. 17.9 ACRES)
- SF SILT FENCE
- RK ROCK FILTER DAM
- LC EROSION CONTROL LOG
- EXISTING CONTOURS (1' INTERVAL)
- PROPOSED DRAINAGE PATH WITH PERCENT SLOPE
- STABILIZED CONSTRUCTION ENTRANCE
- NEW CONTOURS (1' INTERVAL)
- FLOW DIRECTION (EXISTING)
- FLOW DIRECTION (PROPOSED)

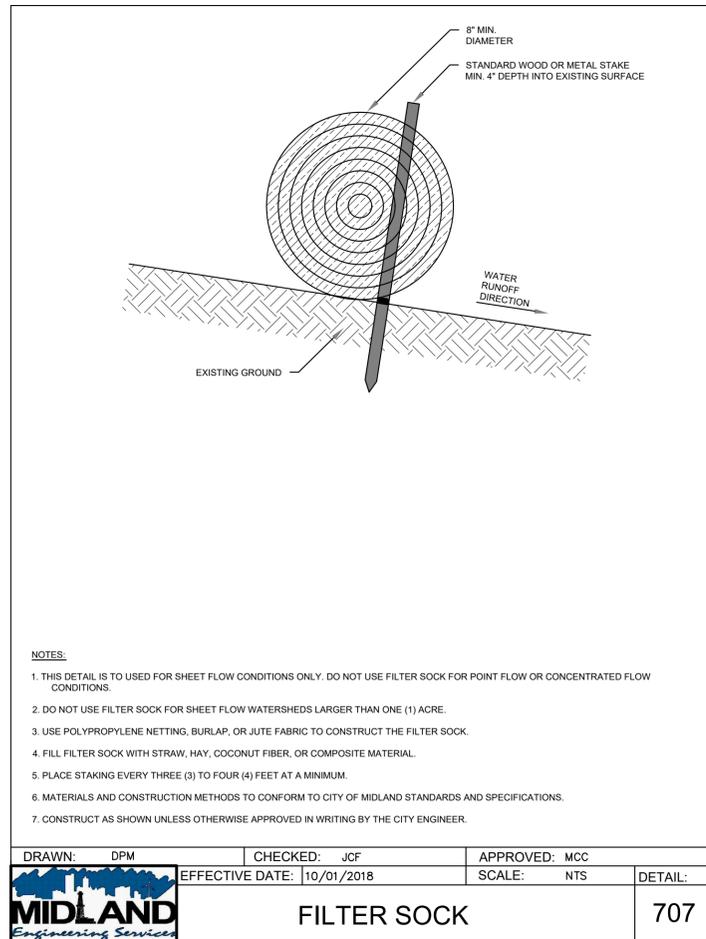
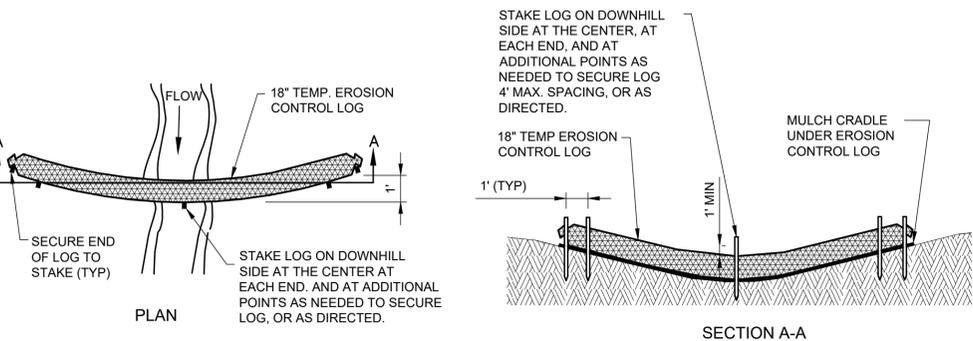
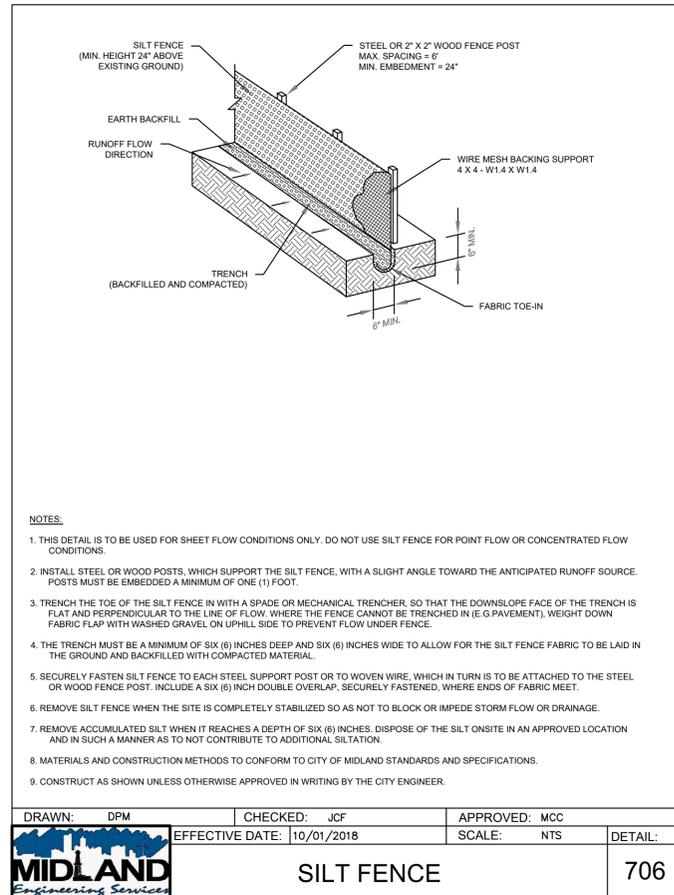
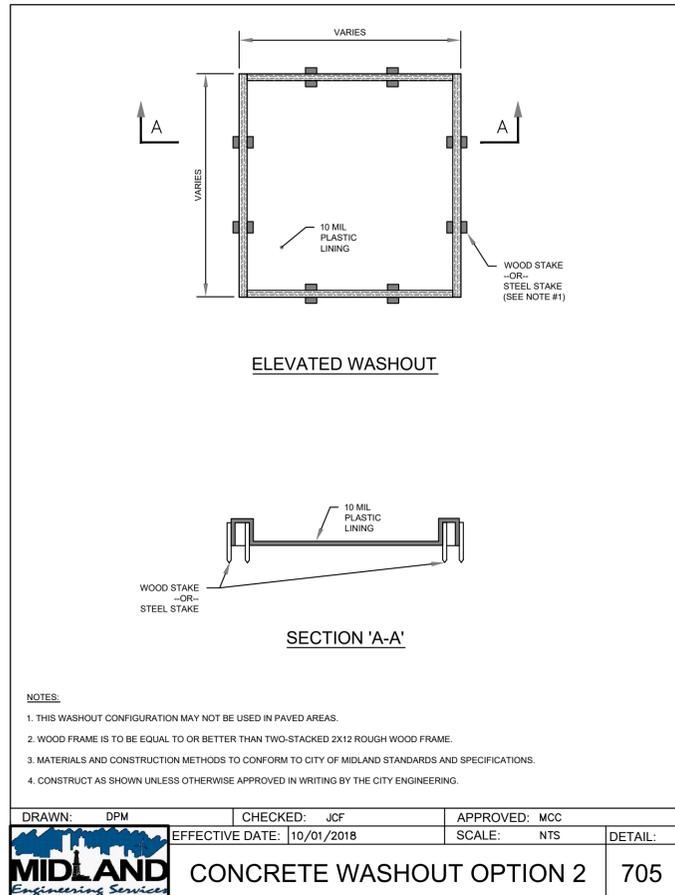
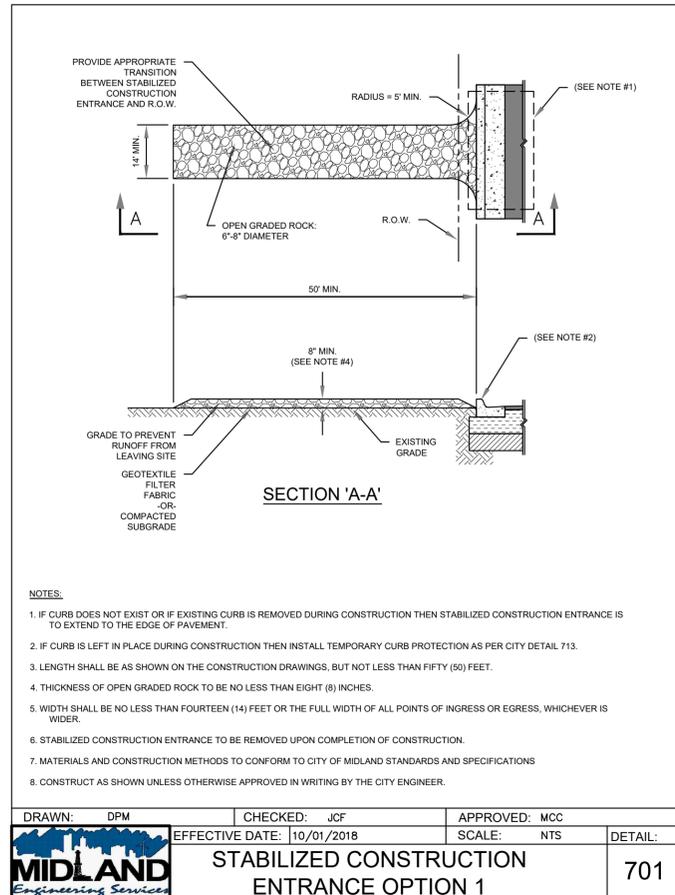


CLIENT
Midland County

PROJECT NO.
6000.20

#	DATE	DESCRIPTION
3	03/17/2021	Response to 2nd Comments
2	03/03/2021	Response to Comments
1	02/19/2021	Waterline Projection

FILE NAME: A:\2020\6000.2003_DSIGN01_DWG\050_CIVIL\00_SHEETS\SWPPP_DETAILS\6000.dwg LAYOUT NAME: 24 Erosion Control Details PRINTED: Wednesday, March 03, 2021 - 11:56pm USER: KChristopher



SEEDING FOR EROSION CONTROL NOTES

Disk areas to be seeded to a depth of four inches (4") to allow good contact between seeds and the soil. In all areas to be drill seeded, use a pasture or rangeland type seed drill. Use separate boxes on the drill to apply the fertilizer and the seed.

Before planting operations begin, furnish seed tags from the seed supplier to the Engineer for verification of appropriate pounds P.L.S./acre rates. These tags must show the percent purity, percent germination, and the date the seed was harvested.

Uniformly distribute the seed as herein described:

Seed mix totaling 20 P.L.S./acre when seeding between October and February

Variety	Lbs P.L.S./acre
Ryegrass (annual)	8.0
Western wheatgrass	2.0
Millet	2.0
Sideoats Grama	1.5
Kleingrass	1.5
Bristlegrass	1.5
Blue Grama	1.5
Buffalograss	2.0
Green Sprangletop	1.0

Seed mix totaling 20 P.L.S./acre when seeding between March and September

Variety	Lbs P.L.S./acre
Millet	4.0
Sideoats Grama	3.0
Kleingrass	3.0
Bristlegrass	3.0
Blue Grama	1.0
Buffalograss	4.0
Green Sprangletop	2.0

If a grass variety is not available, submit an available substitution to the Engineer for approval. Permission for substitution will only be granted after the Engineer is satisfied the recommended varieties are not available.

Deliver all fertilizer in bags or containers clearly labeled showing the analysis. The preferred analysis is 18-3-4. Apply the fertilizer at a rate which will not be less than 100 pounds of Nitrogen per acre. Apply fertilizer in conjunction with seeding.

Water newly seeded areas until 70 percent vegetation coverage is achieved.

Parkhill



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Cholla Road and County Road 1250
Paving Improvements



CLIENT
Midland County

PROJECT NO.
6000.20

#	DATE	DESCRIPTION
2	03/03/2021	Response to Comments
1	02/19/2021	Waterline Projection

Erosion Control Details

24

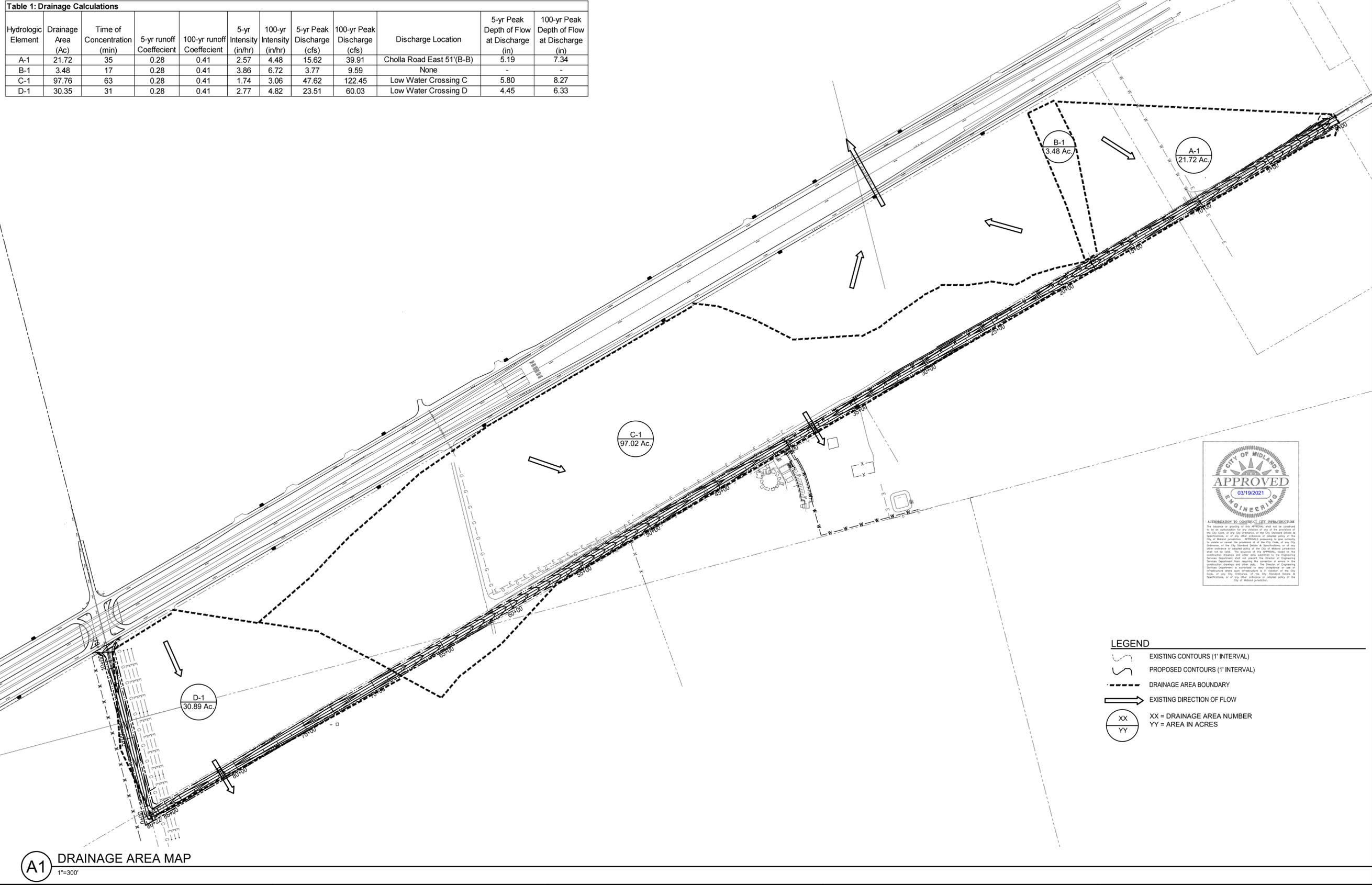
FILE NAME: A:\2020\6000_2003_DSGN01_DWG\050_CIVIL\00_SHEETS\SDAM_01-6000.dwg LAYOUT NAME: 25 Drainage Area Map and Drainage Calculations PRINTED: Wednesday, March 03, 2021 - 11:55pm USER: KChristopher

DRAINAGE NARRATIVE:
 THE DRAINAGE AREAS WERE DETERMINED BASED ON SURVEY DATA, USGS CONTOURS, AND LIDAR INFORMATION. THE RATIONAL METHOD WAS USED TO CALCULATE THE PEAK DISCHARGE FLOWRATES OF EACH AREA. MANNINGS EQUATION AND FLOW MASTER SOFTWARE WAS USED TO CALCULATE THE WATER DEPTH AT EACH OF THE DISCHARGE LOCATIONS. THE RESULTS ARE SHOWN IN TABLE 1.

DRAINAGE AREA B-1 DOES NOT HAVE A DISCHARGE POINT. IT WAS DETERMINED SINCE THE AREA AND PEAK FLOW RATES ARE MINIMAL THAT THIS AREA DOES NOT NEED TO DRAIN AND CAN ADEQUATELY STORE ITS RUNOFF WITHIN THE B-1 DRAINAGE AREA.

Table 1: Drainage Calculations

Hydrologic Element	Drainage Area (Ac)	Time of Concentration (min)	5-yr runoff Coefficient	100-yr runoff Coefficient	5-yr Intensity (in/hr)	100-yr Intensity (in/hr)	5-yr Peak Discharge (cfs)	100-yr Peak Discharge (cfs)	Discharge Location	5-yr Peak Depth of Flow at Discharge (in)	100-yr Peak Depth of Flow at Discharge (in)
A-1	21.72	35	0.28	0.41	2.57	4.48	15.62	39.91	Cholla Road East 51'(B-B)	5.19	7.34
B-1	3.48	17	0.28	0.41	3.86	6.72	3.77	9.59	None	-	-
C-1	97.76	63	0.28	0.41	1.74	3.06	47.62	122.45	Low Water Crossing C	5.80	8.27
D-1	30.35	31	0.28	0.41	2.77	4.82	23.51	60.03	Low Water Crossing D	4.45	6.33



- LEGEND**
- EXISTING CONTOURS (1' INTERVAL)
 - PROPOSED CONTOURS (1' INTERVAL)
 - DRAINAGE AREA BOUNDARY
 - EXISTING DIRECTION OF FLOW
 - XX = DRAINAGE AREA NUMBER
 - YY = AREA IN ACRES

A1 DRAINAGE AREA MAP
 1"=300'

Parkhill



Parkhill.com

Cholla Road and County Road 1250
 Paving Improvements



CLIENT
 Midland County

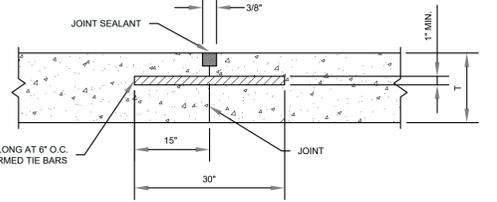
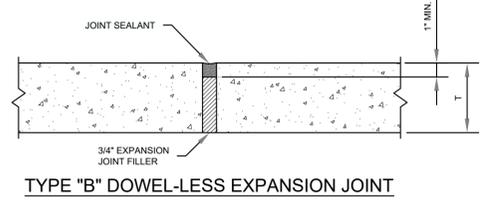
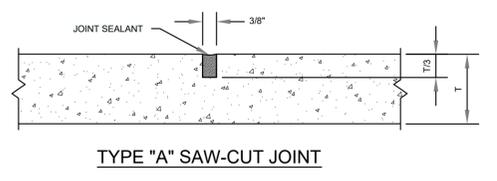
PROJECT NO.
 6000.20

#	DATE	DESCRIPTION
2	03/03/2021	Response to Comments
1	02/19/2021	Waterline Projection

Drainage Area Map And Drainage Calculations

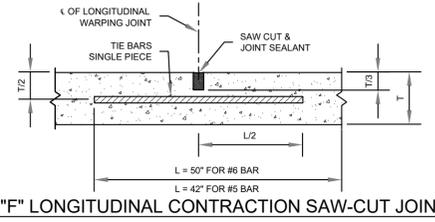
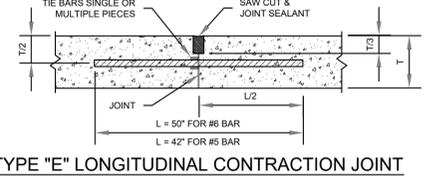
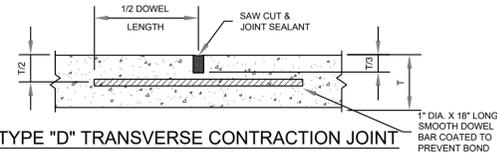
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D



DRAWN: DPM	CHECKED: JCF	APPROVED: MCC
EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
MIDLAND Engineering Services		TYPICAL CONCRETE JOINTS 234(A)

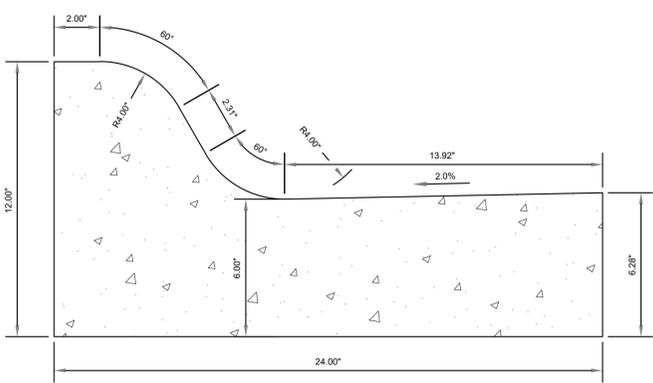
C



- NOTES:**
1. JOINTING, DOWEL AND TIE BAR DESIGN REQUIREMENTS ARE SUBJECT TO CHANGE FOR ARTERIAL OR HIGHER CLASSIFICATION ROADS IF DEEMED NECESSARY BY THE CITY ENGINEER.
 2. TYPICAL CONCRETE PAVEMENT JOINT SPACING IS TO BE NO LESS THAN 10' X 10' AND NO MORE THAN 15' X 15'.
 3. DOWELS ARE TO BE SPACED AT 12" INTERVALS WITH MINIMUM 18" SEPARATION FROM PARALLEL JOINTS OR EDGES OF PAVEMENT.
 4. TIE BARS ARE TO BE SET AT 24" INTERVALS WITH MINIMUM 18" SEPARATION FROM PARALLEL JOINTS OR EDGES OF PAVEMENT.
 5. ALL JOINT SEALANT TO BE TxDOT DMS-6310 SL-2 OR APPROVED EQUAL.
 6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
 7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC
EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
MIDLAND Engineering Services		TYPICAL CONCRETE JOINTS 234(B)

B

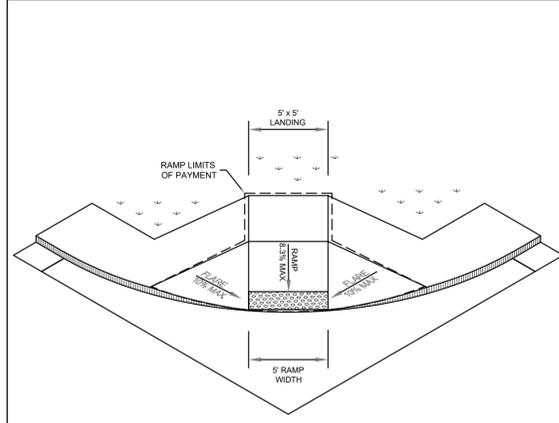


- NOTES:**
1. CONCRETE TO BE CITY OF MIDLAND CLASS "C", 3600 PSI. USE FIBER REINFORCED CONCRETE PAVEMENT THROUGHOUT.
 2. SEAL CONCRETE JOINT AT FACE OF CURB WHEN ADJACENT TO CONCRETE PAVEMENT AND NOT INTEGRAL WITH THAT PAVEMENT.
 3. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
 4. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
CHECKED: JCF	TYPE A STANDARD CURB AND GUTTER		205
APPROVED: MCC	MIDLAND Engineering Services		

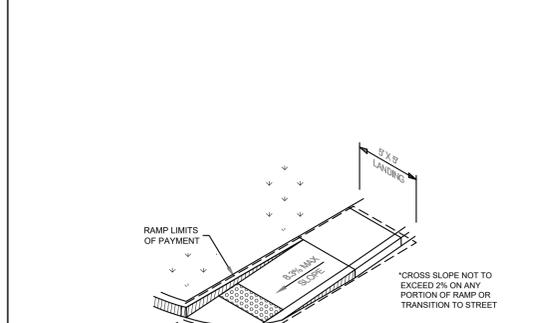


A



- CURB RAMP NOTES:**
1. ADJUST CURB RAMP LOCATION AND OR TYPE SO THAT NO OBSTRUCTION IS LOCATED WITHIN THE LANDING AREA.
 2. ALL SLOPES ARE MAXIMUM ALLOWABLE. THE LEAST POSSIBLE SLOPE THAT WILL STILL DRAIN PROPERLY SHOULD BE USED.
 3. LANDINGS SHALL BE 5' X 5' MINIMUM WITH A MAXIMUM 2% SLOPE IN ANY DIRECTION. WHERE OBSTRUCTIONS EXIST, THERE SHALL BE A 3' MINIMUM CLEARANCE IN WIDTH AND LENGTH OF THE LANDING.
 4. MANEUVERING SPACE AT THE BOTTOM OF CURB RAMP SHALL BE A MINIMUM OF 4' X 4' WHOLLY CONTAINED WITHIN THE CROSSWALK AND TO THE ENTIRE OUTSIDE OF THE PARALLEL VEHICULAR TRAVEL PATH.
 5. MAXIMUM ALLOWABLE CROSS SLOPE ON SIDEWALK AND CURB RAMP SURFACES IS 2%.
 6. CURB RAMP WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. EITHER BECAUSE THE ADJACENT SURFACE IS PLANTING OR OTHER NON-WALKING SURFACE OR BECAUSE THE SIDE APPROACH IS SUBSTANTIALLY OBSTRUCTED. OTHERWISE, PROVIDE FLARED SIDES.
 7. ADDITIONAL INFORMATION ON CURB RAMP LOCATION, DESIGN, LIGHT REFLECTIVE VALUE AND TEXTURE MAY BE FOUND IN THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND 16 TAC 68.102.
 8. AT INTERSECTIONS WHERE CROSSWALK MARKINGS ARE NOT REQUIRED, CURB RAMP SHALL BE ALIGNED WITH THEORETICAL CROSSWALKS OR AS DIRECTED BY THE ENGINEER.
 9. PROVIDE A SMOOTH TRANSITION WHERE THE CURB RAMP CONNECTS TO THE STREET.
 10. FLARE SLOPE SHALL NOT EXCEED 10% MEASURED ALONG CURB LINE.
 11. ALL RAMP AND LANDINGS WITH A CONCRETE SURFACE SHALL HAVE A COURSE BROOM FINISH OR OTHER ROUGH NON-SKID TYPE FINISH AS APPROVED BY THE ENGINEER.
 12. PLACE 6" OF CONCRETE IN RAMP, LANDINGS, AND FLARES THAT ARE LOCATED AT THE RETURNS ADJACENT TO THE BACK OF CURB OF ARTERIAL STREETS AND COMMERCIAL SITES.
- GENERAL NOTES:**
1. CONCRETE TO BE CITY OF MIDLAND CLASS "A" WITH A MINIMUM 28 DAY COMPRESSION STRENGTH OF 3000 PSI. USE FIBER REINFORCED CONCRETE THROUGHOUT.
 2. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO THE CITY OF MIDLAND STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE DIRECTED BY ADA STANDARDS AND RESOURCES.

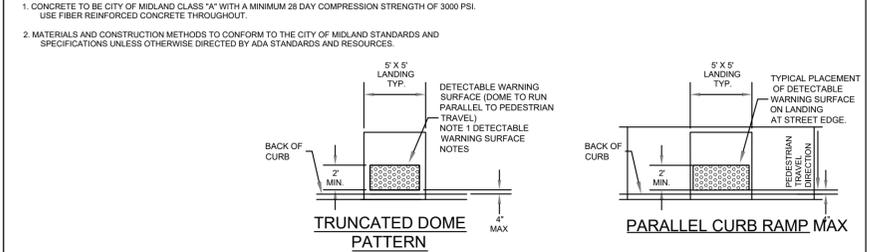
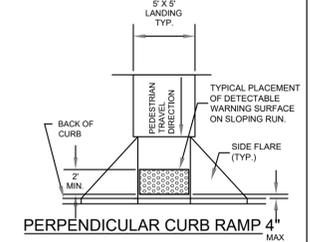
DRAWN: DPM	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
CHECKED: JCF	DIAGONAL CURB RAMP		226
APPROVED: MCC	MIDLAND Engineering Services		



- CURB RAMP NOTES:**
1. ADJUST CURB RAMP LOCATION AND OR TYPE SO THAT NO OBSTRUCTION IS LOCATED WITHIN THE LANDING AREA.
 2. ALL SLOPES ARE MAXIMUM ALLOWABLE. THE LEAST POSSIBLE SLOPE THAT WILL STILL DRAIN PROPERLY SHOULD BE USED.
 3. LANDINGS SHALL BE 5' X 5' MINIMUM WITH A MAXIMUM 2% SLOPE IN ANY DIRECTION. WHERE OBSTRUCTIONS EXIST, THERE SHALL BE A 3' MINIMUM CLEARANCE IN WIDTH AND LENGTH OF THE LANDING.
 4. MANEUVERING SPACE AT THE BOTTOM OF CURB RAMP SHALL BE A MINIMUM OF 4' X 4' WHOLLY CONTAINED WITHIN THE CROSSWALK AND TO THE ENTIRE OUTSIDE OF THE PARALLEL VEHICULAR TRAVEL PATH.
 5. MAXIMUM ALLOWABLE CROSS SLOPE ON SIDEWALK AND CURB RAMP SURFACES IS 2%.
 6. CURB RAMP WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. EITHER BECAUSE THE ADJACENT SURFACE IS PLANTING OR OTHER NON-WALKING SURFACE OR BECAUSE THE SIDE APPROACH IS SUBSTANTIALLY OBSTRUCTED. OTHERWISE, PROVIDE FLARED SIDES.
 7. ADDITIONAL INFORMATION ON CURB RAMP LOCATION, DESIGN, LIGHT REFLECTIVE VALUE AND TEXTURE MAY BE FOUND IN THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND 16 TAC 68.102.
 8. AT INTERSECTIONS WHERE CROSSWALK MARKINGS ARE NOT REQUIRED, CURB RAMP SHALL BE ALIGNED WITH THEORETICAL CROSSWALKS OR AS DIRECTED BY THE ENGINEER.
 9. PROVIDE A SMOOTH TRANSITION WHERE THE CURB RAMP CONNECTS TO THE STREET.
 10. FLARE SLOPE SHALL NOT EXCEED 10% MEASURED ALONG CURB LINE.
 11. ALL RAMP AND LANDINGS WITH A CONCRETE SURFACE SHALL HAVE A COURSE BROOM FINISH OR OTHER ROUGH NON-SKID TYPE FINISH AS APPROVED BY THE ENGINEER.
 12. PLACE 6" OF CONCRETE IN RAMP, LANDINGS, AND FLARES THAT ARE LOCATED AT THE RETURNS ADJACENT TO THE BACK OF CURB OF ARTERIAL STREETS AND COMMERCIAL SITES.
- GENERAL NOTES:**
1. CONCRETE TO BE CITY OF MIDLAND CLASS "A" WITH A MINIMUM 28 DAY COMPRESSION STRENGTH OF 3000 PSI. USE FIBER REINFORCED CONCRETE THROUGHOUT.
 2. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO THE CITY OF MIDLAND STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE DIRECTED BY ADA STANDARDS AND RESOURCES.

DRAWN: DPM	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
CHECKED: JCF	DIRECTIONAL RAMP WITHIN RADIUS		231
APPROVED: MCC	MIDLAND Engineering Services		

- DETECTABLE WARNING SURFACE NOTES:**
1. DETECTABLE WARNING SURFACE SUCH AS ARMOR-TILE ADA SOUND AMPLIFYING DETECTABLE/TACTILE WARNING SURFACE TILE OR EQUAL AND APPROVED BY THE ENGINEER AS MEETING ALL REQUIREMENTS OF ASTM C-936, C-33.
 2. CURB RAMP MUST CONTAIN A DETECTABLE WARNING SURFACE THAT CONSISTS OF RAISED TRUNCATED DOMES COMPLYING WITH SECTION 7.05 DETACHABLE WARNINGS OF THE TEXAS ACCESSIBILITY STANDARDS (TAS). THE SURFACE MUST CONTRAST VISUALLY WITH ADJOINING SURFACES, INCLUDING SIDE FLARES. PURNISH DARK BROWN OR DARK RED DETECTABLE WARNING SURFACE ADJACENT TO UNCOLORED CONCRETE UNLESS SPECIFIED ELSEWHERE IN THE PLANS.
 3. DETECTABLE WARNING SURFACES MUST BE SLIP RESISTANT AND NOT ALLOW WATER TO ACCUMULATE.
 4. ALIGN TRUNCATED DOMES IN THE DIRECTION OF PEDESTRIAN TRAVEL WHEN ENTERING THE STREET.
 5. SHADED AREAS INDICATE THE APPROXIMATE LOCATION FOR THE DETECTABLE WARNING SURFACE FOR EACH CURB RAMP TYPE.
 6. DETECTABLE WARNING SURFACES SHALL BE A MINIMUM OF 24" IN DEPTH IN THE DIRECTION OF PEDESTRIAN TRAVEL.
 7. DETECTABLE WARNING SURFACES SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS A MINIMUM OF 6" AND A MAXIMUM OF 10" FROM THE EXTENSION OF THE FACE OF CURB. DETECTABLE WARNING SURFACES MAY BE CURVED ALONG THE CORNER RADIUS.
 8. SINGLE TILE PLATES COLONIAL RED COLOR.
- GENERAL NOTES:**
1. CONCRETE TO BE CITY OF MIDLAND CLASS "A" WITH A MINIMUM 28 DAY COMPRESSION STRENGTH OF 3000 PSI. USE FIBER REINFORCED CONCRETE THROUGHOUT.
 2. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO THE CITY OF MIDLAND STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE DIRECTED BY ADA STANDARDS AND RESOURCES.



DRAWN: DPM	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
CHECKED: JCF	DETECTABLE WARNING SURFACE		233
APPROVED: MCC	MIDLAND Engineering Services		



CLIENT	
Midland County	
PROJECT NO.	
6000.20	
#	DATE DESCRIPTION
2	03/03/2021 Response to Comments
1	02/19/2021 Waterline Projection

D

C

D

A

SIGN SUPPORT DESCRIPTIVE CODES

(Descriptive codes correspond to project estimate and quantities sheets)

SM RD SGN ASSM TY XXXX (X)XX (X)XXX

Post Type

- FP = Fiberglass Reinforced Plastic Pipe (see SMD(FRP))
- LP = Laminated Pipe (see SMD(LP-1) to SMD(LP-3))
- LBK = Laminated Bolted Keel (see SMD(LBK-1) to SMD(LBK-3))
- SB = Schedule 80 Pipe (see SMD(SLP-1) to SMD(SLP-3))

Anchor Type

- UA = Universal Anchor - Concrete (see SMD(URP) and (TRT))
- UB = Universal Anchor - Bolted down (see SMD(URP) and (TRT))
- UBK = Universal Bolted Keel (see SMD(URP) and (TRT))
- WA = Wedge Anchor Plastic (see SMD(WAP))
- SA = Sillplate - Concrete (see SMD(SLP-1) to SMD(SLP-3))
- SB = Sillplate - Bolted down (see SMD(SLP-1) to SMD(SLP-3))

Sign Mounting Description

- T = Freestanding (see SMD(SLP-1) to SMD(SLP-3), (TRT), (TRP))
- U = Upright (see SMD(SLP-1) to SMD(SLP-3), (TRT))
- U = Freestanding, "T" (see SMD(SLP-1) to SMD(SLP-3), (TRT))
- LE = Extruded Laminated (see SMD(SLP-1) to SMD(SLP-3), (TRT))
- BE = Extruded Bolted Keel (see SMD(SLP-1) to SMD(SLP-3), (TRT))
- EL = Extruded Laminated Sign Panels (see SMD(SLP-3))

REQUIRED CLEARANCE FOR BREAKAWAY SUPPORT

Non-breakaway portion of (1'-4", stub).

4" max. 60" Ground Surface

To avoid vehicle undercarriage snagging, any substantial remains of a breakaway support, when it is broken away, should not project (i.e., typical space between wheel paths).

SIGN LOCATION

PAVED SHOULDERS

LESS THAN 6 FT. WIDE

When the shoulder is 6 ft. or less in width, the sign shall be placed at least 12 ft. from the edge of the travel lane.

GREATER THAN 6 FT. WIDE

When the shoulder is greater than 6 ft. in width, the sign shall be placed at least 6 ft. from the edge of the shoulder.

BEHIND BARRIER

5 ft min. * * * Sign clearance based on distance required for proper guard rail or concrete barrier performance.

BEHIND GUARDRAIL

7.5 ft min. * * * Sign clearance based on distance required for proper guard rail or concrete barrier performance.

TYPICAL SIGN ATTACHMENT DETAIL

Single Signs

Sign Panel, Sign Post, Sign Clamp, Nylon washer, flat washer, lock washer, nut, Sign Bolt.

Boots to mount sign panels to the clamp are 5/8"-18 UNC galvanized square head with nut, nylon washer, flat washer and lock washer. The boot length is 4 inches for all signs.

Book-to-Book Signs

Sign Panel, Sign Post, Sign Clamp, Nylon washer, flat washer, lock washer, nut, Sign Bolt.

Book-to-book signs use 5/8"-18 UNC galvanized hex head per ASTM A307 with nut and helical-spring lock washers and a clamp. The nut and spring lock washer and a clamp are used to secure the sign to the post. The bolt length may need to be adjusted depending upon field conditions.

Pipe Diameter	Approximate Bolt Length
3" nominal	3'-9" 3/16"
3'-2" nominal	3'-8" 1/2"
3" nominal	3'-7 1/2" or 4'-4 1/2"

REQUIREMENTS

FOUNDATION

- Foundation shall be adequately marked to indicate manufacturer, Method, design, and location of marking one subject to approval of the TxDOT Traffic Structures Engineer.
- Material used as post with this system shall conform to the following specifications:
 - 55,000 PSI minimum yield strength
 - 200 minimum tensile strength
 - Weld thickness (uncoated) shall be within the range of 0.127" to 0.138"
 - Outside diameter (uncoated) shall be within the range of 2.895" to 2.897"
 - Weld thickness (uncoated) shall be within the range of 0.248" to 0.254"
 - Outside diameter (uncoated) shall be within the range of 2.895" to 2.897"
- See the Traffic Operations Division website for detailed drawings of sign clamps and posts.
- Sign supports shall not be applied except where shown. Sign support posts shall not be applied.

ASSEMBLY PROCEDURE

- Support shall be installed by 45-degree backfill. If applicable, the depth of the foundation shall be indicated on the drawing. The foundation shall be backfilled with concrete to a minimum of 18 inches into the soil. The concrete shall be placed in layers not exceeding 6 inches. The concrete shall be consolidated by rodding. The concrete shall be cured for a minimum of 7 days before the sign is installed.
- Run the pipe end of the slip base into the center of the concrete. Rotate the stub and form while pulling it down into the concrete to assure good contact between the concrete and stub.
- Flare the stub. Allow a minimum of 4 days to set, unless otherwise directed by the Engineer.
- The triangular slipbase system is multidirectional and is designed to release when struck from any direction.

TRIANGULAR SLIPBASE INSTALLATION GENERAL REQUIREMENTS

NOTE

There are various devices approved for the Triangular Slipbase System. Please reference the Material Producer List for approved slip base systems. http://www.txdot.gov/business/producer_list.htm The devices shall be installed per manufacturers' recommendations. Installation procedures shall be provided to the Engineer by Contractor.

CONCRETE ANCHOR

6" dia. hole
1/2" dia. post
4" embedment

Concrete anchor consists of 5/8" x 18" galvanized square head with nut, nylon washer, flat washer, lock washer, and bolt. Heavy hex nut per ASTM A563, and the stud bolt shall have a minimum yield and ultimate tensile strength. Nuts, bolts, and washers shall be galvanized per Item 445. "Galvanized" shall mean zinc plated with Type III epoxy per DM-6100. "Epoxy" shall mean the epoxy resin and hardener shall be looked other adequate epoxy concrete repair products. The anchor shall be installed in 4000 psi concrete. 8 pieces shall be a minimum of minimum of 18" embedment, shall have a minimum of 18" embedment and other of 18" and 3100 PSI, respectively.

CONCRETE ANCHOR DETAIL

5/8" dia. concrete anchor
1/2" dia. post
4" embedment

SM RD SGN ASSM TY XXXX (X)XX (X)XXX

CONCRETE ANCHOR DETAIL

5/8" dia. concrete anchor
1/2" dia. post
4" embedment

SM RD SGN ASSM TY XXXX (X)XX (X)XXX

CONCRETE ANCHOR DETAIL

5/8" dia. concrete anchor
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CONCRETE ANCHOR DETAIL

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CONCRETE ANCHOR DETAIL

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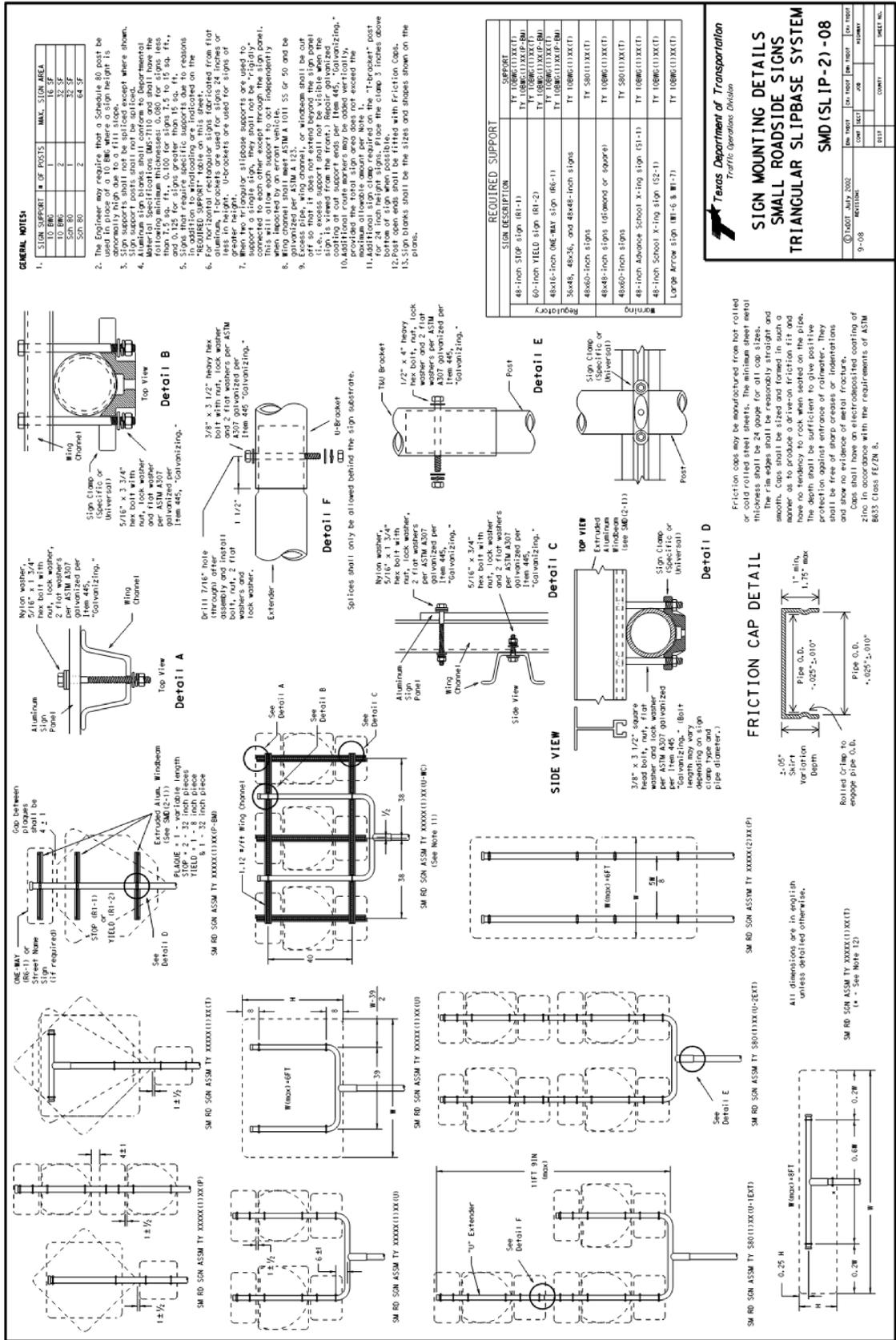
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 SHEET NO. 28

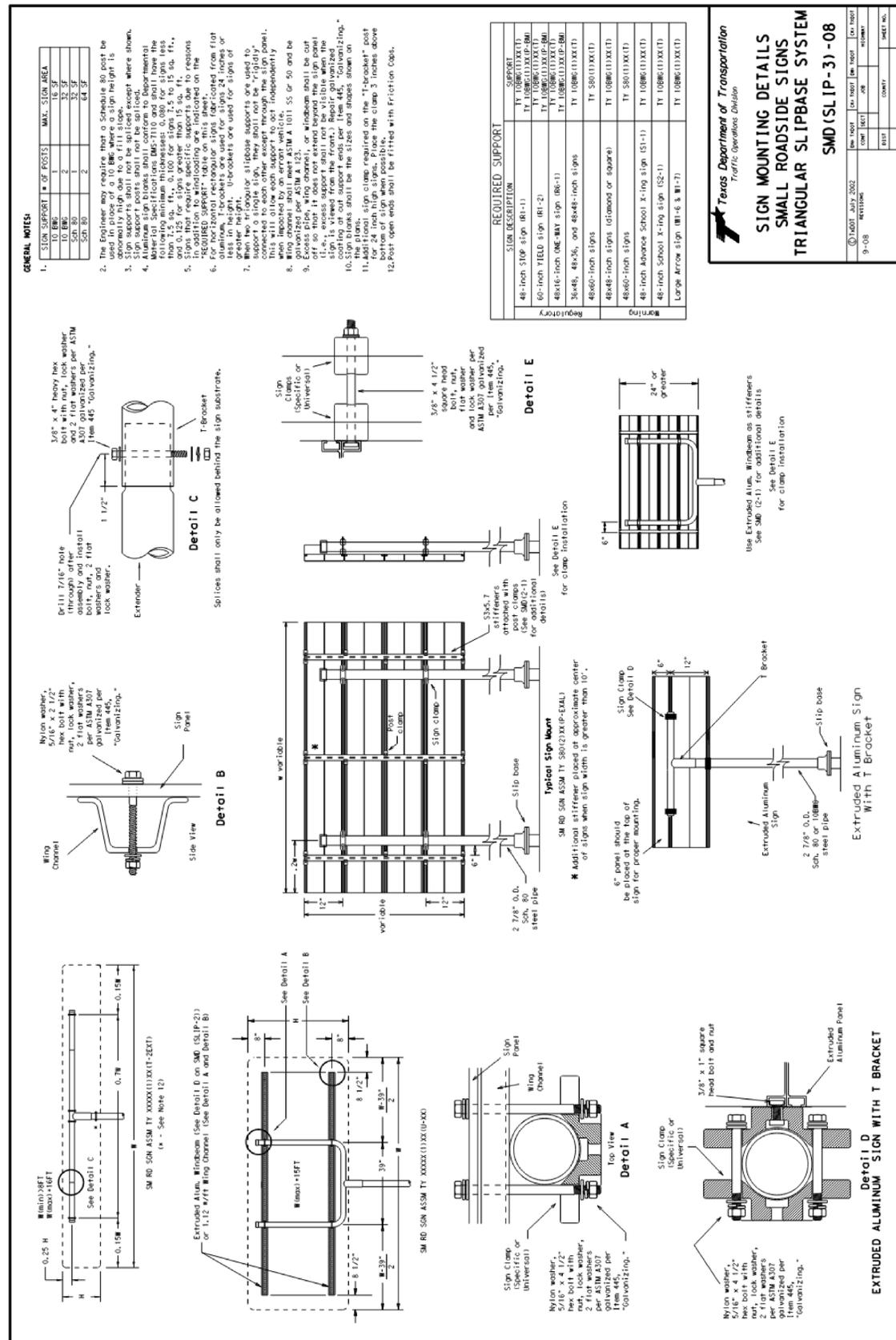


Texas Department of Transportation
 Traffic Operations Division

**SIGN MOUNTING DETAILS
 SMALL ROADSIDE SIGNS
 TRIANGULAR SLIPBASE SYSTEM
 SMD (SLIP-2) - 08**

03/19/2021
 9-08

REV. NO. DATE BY

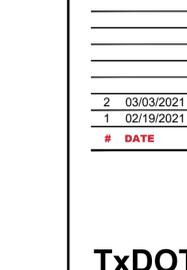


Texas Department of Transportation
 Traffic Operations Division

**SIGN MOUNTING DETAILS
 SMALL ROADSIDE SIGNS
 TRIANGULAR SLIPBASE SYSTEM
 SMD (SLIP-3) - 08**

03/19/2021
 9-08

REV. NO. DATE BY



DATE: 03/03/2021
 FILE: 28
 SHEET NO. 28



Cholla Road and County Road 1250
 Paving Improvements

CLIENT
 Midland County

PROJECT NO.
 6000.20

#	DATE	DESCRIPTION
2	03/03/2021	Response to Comments
1	02/19/2021	Waterline Projection

A
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C
D

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GENERAL NOTES

- Edgeline striping shall be as shown in the plans or as directed by the Engineer. The edgeline should not be placed less than 6 inches from the edge of pavement. This distance may vary due to pavement paving or other conditions. The edgeline shall be placed in curb and quarter sections of roadways.
- The traveled way includes only that portion of the roadway used for vehicular travel. It does not include the parking area, shoulder, or other areas. The edgeline for roadways shall be measured from the inside of the 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.

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

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

YIELD LINES

NOTES

- 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. The width of the median opening shall be the controlling 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.
- 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 triangles shall only be used with yield signs.
- Length of turn bays, including taper, deceleration, and storage lengths shall be as shown on the plans or as directed by the Engineer.

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

FOUR LANE DIVIDED ROADWAY CROSSOVERS

DATE: _____
 FILE: _____
 DISCLAIMER: 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 content of this standard or for incorrect results or damages resulting from its use.

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REFLECTIVE RAISED PAVEMENT MARKERS FOR VEHICLE POSITIONING GUIDANCE

CENTERLINE AND LANE LINES FOR TWO-WAY LEFT TURN LANE

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

raised pavement markers, Type I-C-R shall have clear face toward roadway traffic, and face toward opposing traffic.

GENERAL NOTES

- All raised pavement markers placed in broken lines shall be placed in line with and midway between the stripes.
- On approach pavements, the raised pavement markers shall be placed to one side of the longitudinal joints.

REFLECTORIZED PROFILE PATTERN DETAIL

USING REFLECTORIZED PROFILE PAVEMENT MARKINGS

REFLECTORIZED PROFILE PATTERN DETAIL

USING REFLECTORIZED PROFILE PAVEMENT MARKINGS

REFLECTORIZED PROFILE PATTERN DETAIL

USING REFLECTORIZED PROFILE PAVEMENT MARKINGS

NOTE

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

REFLECTIVE RAISED PAVEMENT MARKERS FOR VEHICLE POSITIONING GUIDANCE

CENTERLINE AND LANE LINES FOR TWO-WAY LEFT TURN LANE

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

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Cholla Road and County Road 1250

Paving Improvements

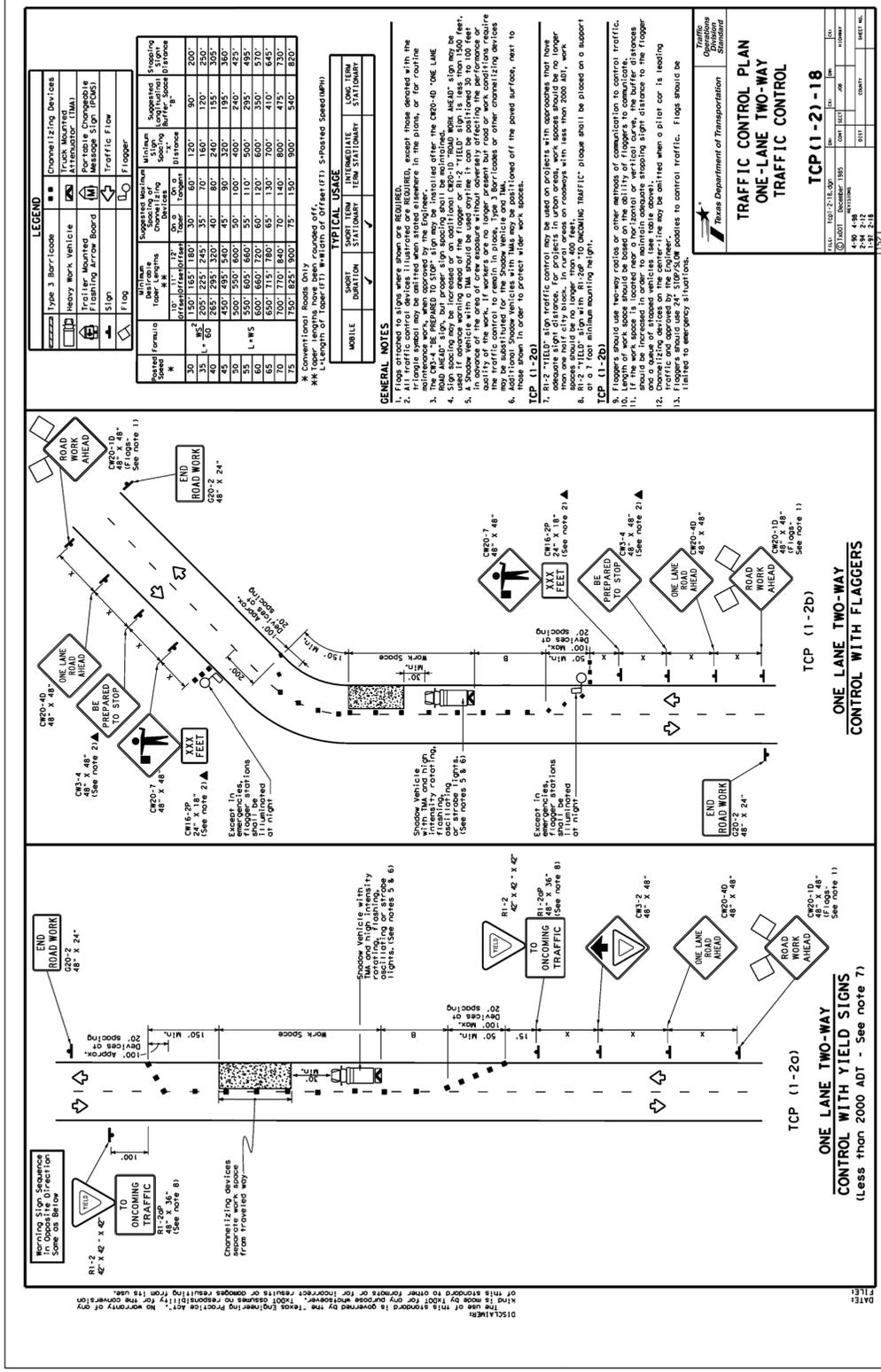
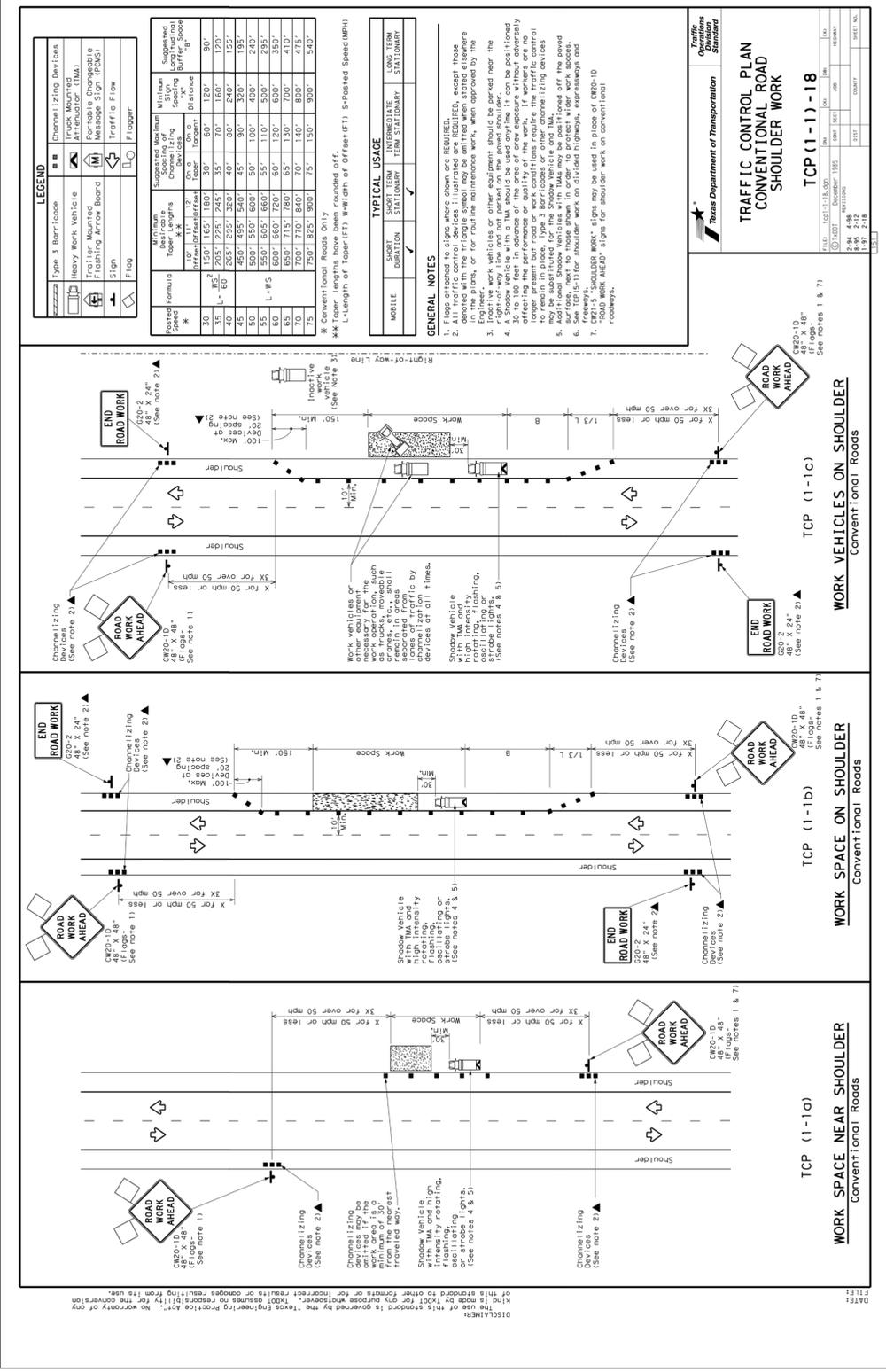
CLIENT
Midland County

PROJECT NO.
6000.20

#	DATE	DESCRIPTION
2	03/03/2021	Response to Comments
1	02/19/2021	Waterline Projection

TxDOT Pavement Marking Standards

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CLIENT
Midland County

PROJECT NO.
6000.20

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1	02/19/2021	Waterline Projection

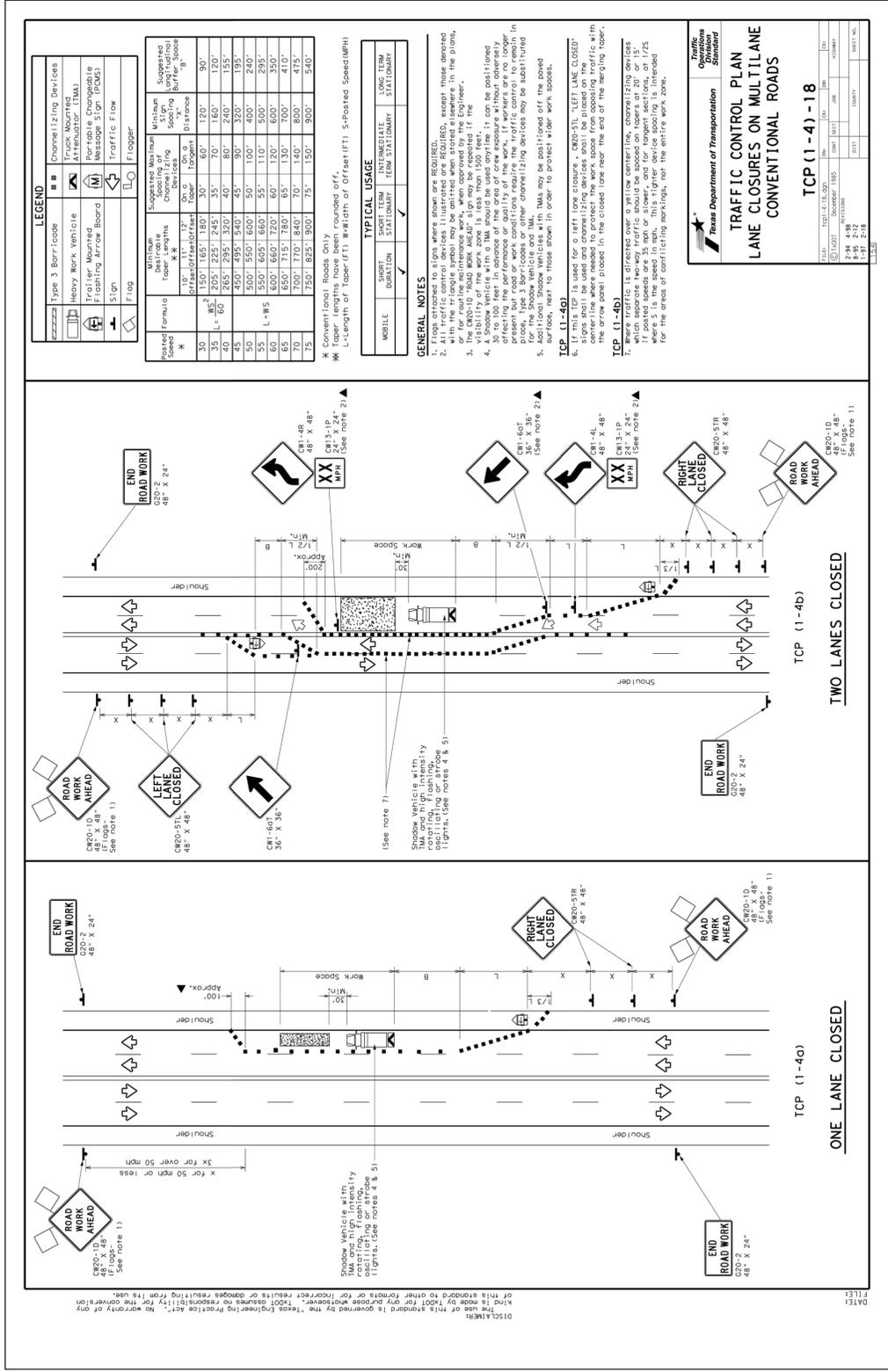
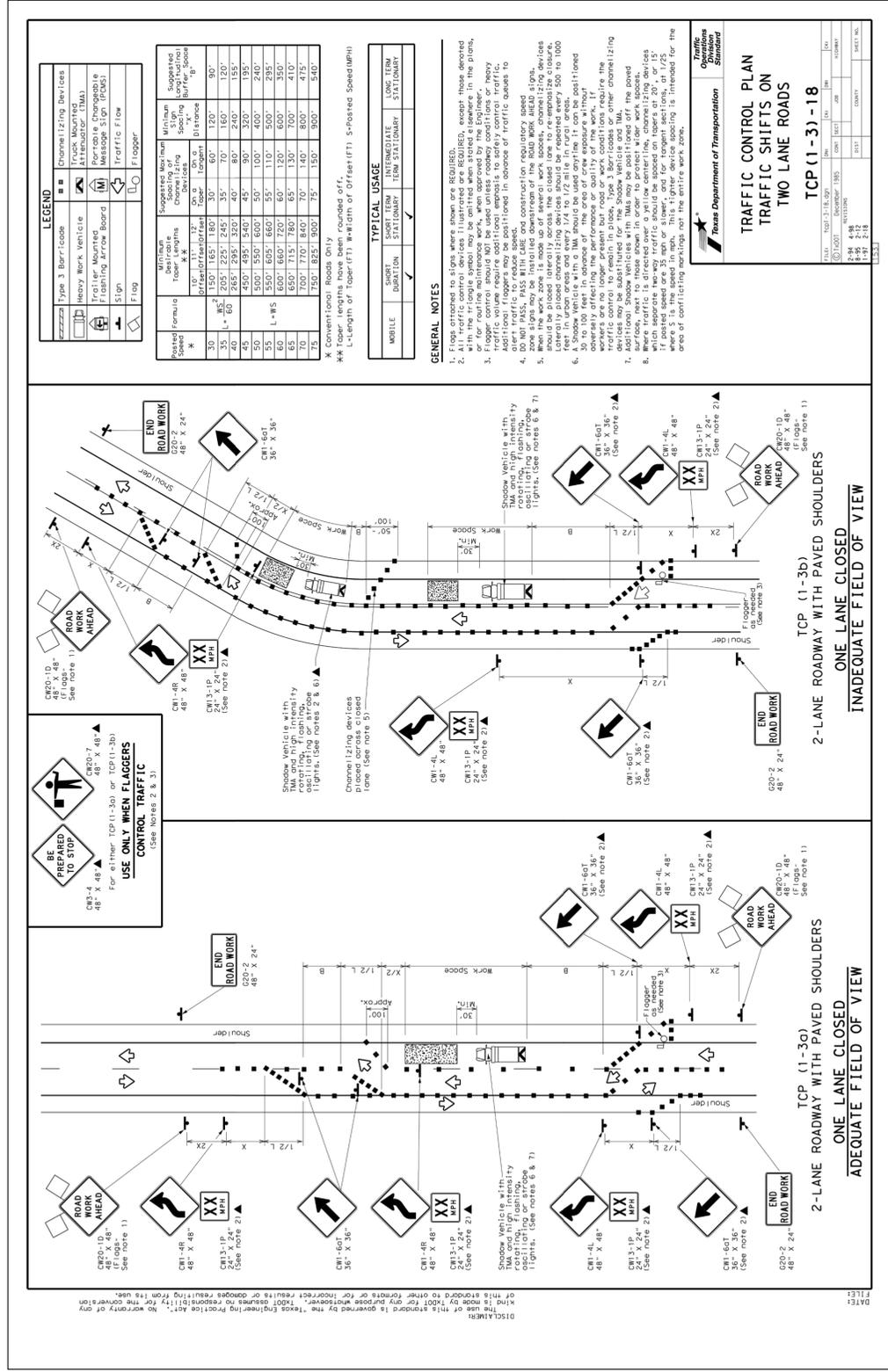
Parkhill

PARKHILL SMITH & COOPER, INC. F-5389
KRYSTY R. CHRISTOPHER
131920
03/03/2021

Parkhill.com

Cholla Road and County Road 1250
Paving Improvements

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CLIENT	Midland County
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Parkhill

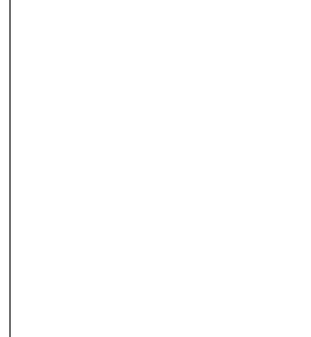
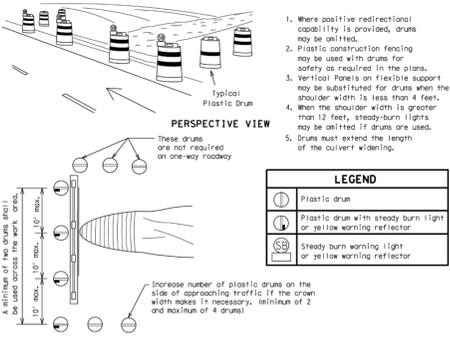
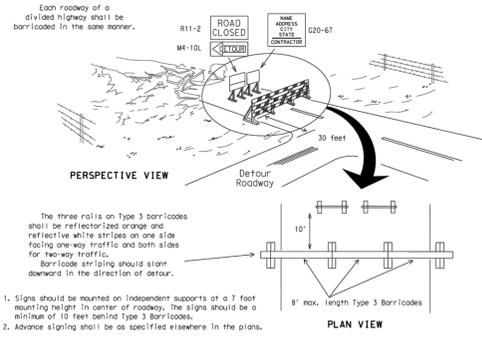
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KRISTY R. CHRISTOPHER
03/03/2021

Parkhill.com

Cholla Road and County Road 1250
Paving Improvements

TYPE 3 BARRICADES

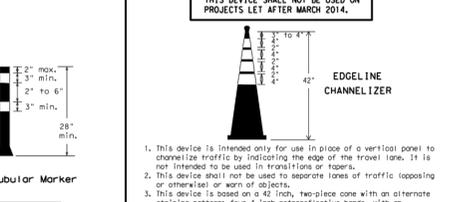
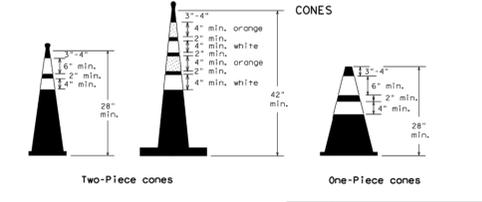
- Refer to the Compliant Work Zone Traffic Control Devices List (CWZTDL) for details of the Type 3 Barricades and a list of all materials used in the construction of Type 3 Barricades.
- Type 3 Barricades shall be used at each end of construction projects closed to all traffic.
- Barricades extending across a roadway should have stripes that slope downward in the direction toward which traffic must turn in detouring. When both right and left turns are provided, the chevron striping may slope downward in both directions from the center of the barricade. Where no turns are provided at a closed road striping should slope downward in both directions toward the center of roadway.
- Striping of rolls, for the right side of the roadway, should slope downward to the left; for the left side of the roadway, striping should slope downward to the right.
- Identification markings may be shown only on the back of the barricade rolls. The maximum height of letters and/or company logos used for identification shall be 1".
- Barricades shall not be placed parallel to traffic unless an adequate clear zone is provided.
- Warning lights shall NOT be installed on barricades.
- Where barricades require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand is recommended. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight. Sand cones shall not be used in a manner that covers any portion of a barricade roll's reflective sheeting. Rocks, concrete, iron, steel or other solid objects will NOT be permitted. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs. Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as tire inner tubes) shall not be used for sandbags. Sandbags shall only be placed atop or upon the base supports of the device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners.
- Sheeting for barricades shall be retroreflective Type A conforming to Departmental Material Specification DMS-8300 unless otherwise noted.



TYPE 3 BARRICADE (POST AND SKID) TYPICAL APPLICATION

CULVERT WIDENING OR OTHER ISOLATED WORK WITHIN THE PROJECT LIMITS

Barricades shall NOT be used as a sign support.



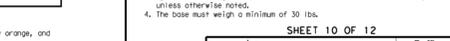
TYPICAL STRIPING DETAIL FOR BARRICADE RAIL



CONES



EDGELINE CHANNELIZER



TYPICAL PANEL DETAIL FOR SKID OR POST TYPE BARRICADES



Two-Piece cones



One-Piece cones



Tubular Marker



TRAFFIC CONTROL FOR MATERIAL STOCKPILES



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EDGELINE CHANNELIZER



TRAFFIC CONTROL FOR MATERIAL STOCKPILES



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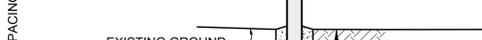
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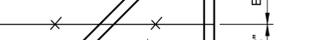
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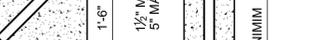
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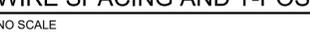
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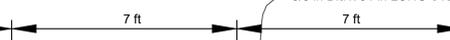
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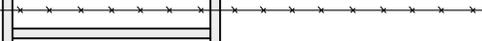
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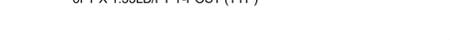
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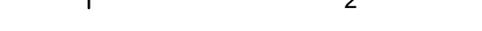
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