

| | | |
|--|--|------------------------------|
| County Attorney - Development Review | If the developer wishes to include the subdivision in Public Improvement District No. 2, please complete the attached petition in full and submit to the County Attorney's Office, along with a legal description of the subdivision in Word. | 11/18/2020 11:05:30 PM |
| Developer will not be including the subdivision in the Public Improvement District No. 2 | <p>State law requires that legal notice of the BoCC hearing to include the property in the PID be published for three weeks. Developer is responsible for reimbursing the County Attorney's Office for the cost of publication.</p> <p>The inclusion hearing must be held before the plat is recorded and requires 3 weeks of published notice. The County Attorney's Office makes every attempt to schedule the inclusion hearing on the date of BoCC or administrative approval of the plat, or as close thereto as possible. The developer and County Planning are responsible to keep the County Attorney's Office informed of the anticipated plat approval date.</p> | |
| County Attorney - Development Review | <p>1. Proposed changes to the SIA are attached.</p> <p>2. The Drainage Report states that the detention facilities will be maintained by an HOA. Please obtain and fill out the appropriate template for the Detention Basin Agreement and submit in Word with proposed exhibits. Please also note that the documents described in paragraph 8 of the agreement will need to be drafted and provided for review.</p> | 11/18/2020 11:04:11 PM |
| Pikes Peak Regional Building Department | <p>Please email a large scale copy of the development to Enumerations for addressing purposes.</p> <p>Place an addressing marker (xxx), where you intend on needing addresses to each lot and tract. If addresses are not needed for the tracts leave them blank.</p> <p>I can review the mylar prior to plat for addressing accuracy. Please email to me once addresses are received.</p> <p>Amy Vanderbeek Enumerations Plans Examiner Pikes Peak Regional Building Department O: 719-327-2930 E: Amy@pprbd.org W: 719-327-2953</p> | 11/18/2020 11:28:12 AM |
| Tri-Lakes- Monument Fire Protection District | We are working with the developer to make sure all Fire issues which include cisterns for fire suppression are being met. We have no additional comments at this point. JCB | 11/18/2020 9:01:20 AM |
| Colorado Parks and Wildlife | | 11/11/2020 5:02:47 PM |
| EPC Stormwater Review | SWMP Checklist_v1 | 11/9/2020 2:09:32 PM |



EPC STORMWATER REVIEW COMMENTS
IN ORANGE BOXES WITH BLACK TEXT

GRANDWOOD RANCH

EL PASO COUNTY, CO

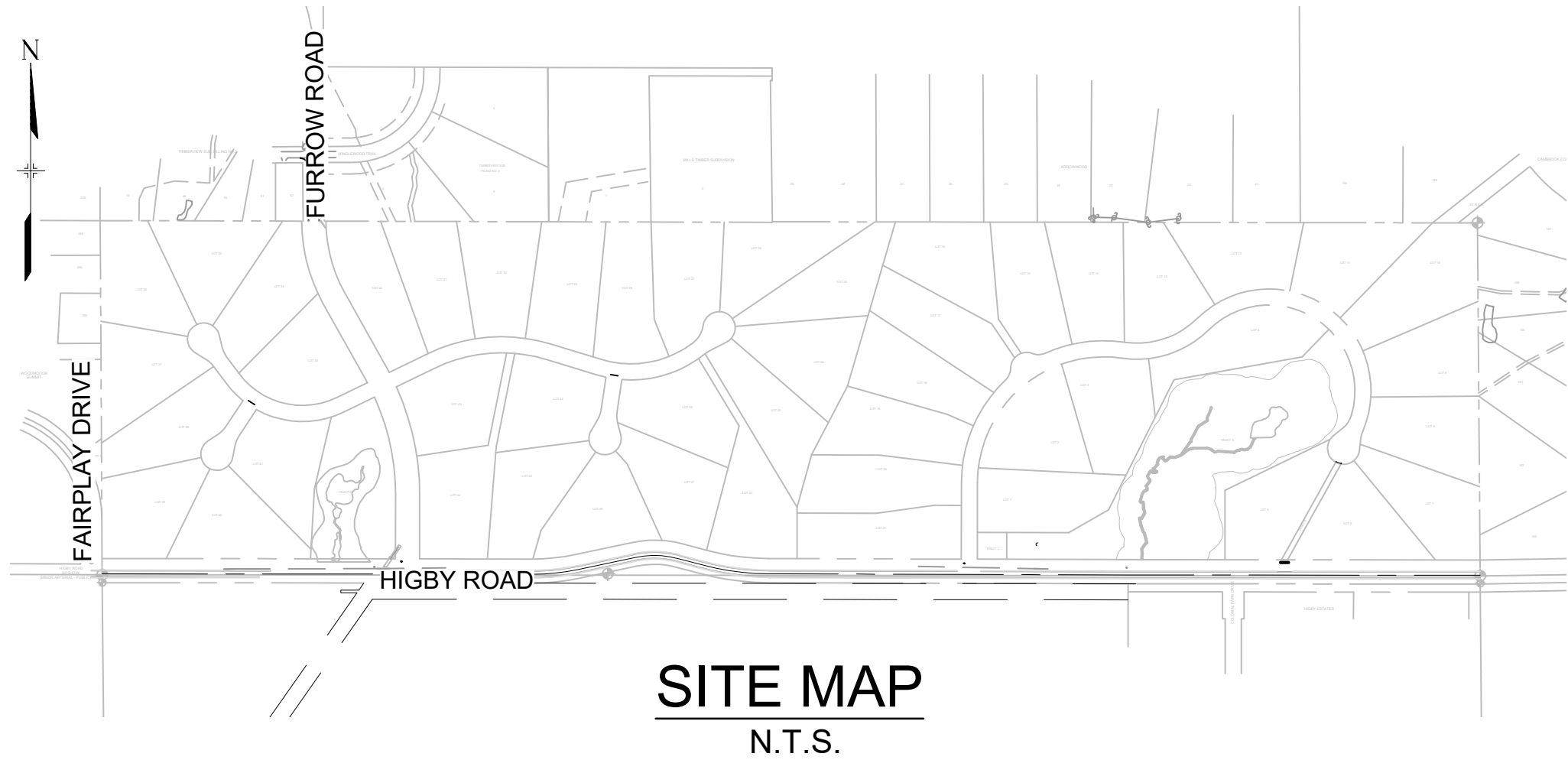
ROAD AND STORM PLANS

SEPTEMBER 2020

| INDEX OF SHEETS | | SHEET No. |
|-----------------|-----------------------------------|-----------|
| TS01 | TITLE SHEET | 1 |
| GN01-GN02 | GENERAL NOTES | 2-3 |
| TY01 | TYPICAL SECTIONS | 4 |
| RD00-RD17 | ROADWAY PLAN AND PROFILE | 5-22 |
| SD01-SD06 | STORM PLAN AND PROFILE | 23-28 |
| DF01-DF10 | WATER QUALITY AND DETENTION PLANS | 29-38 |

Add governing agencies to title sheet.

Add a signage
striping sheet or call
out on the roadway
plan and profile



ENGINEER'S STATEMENT:

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID DETAILED PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERION ESTABLISHED BY THE COUNTY FOR DETAILED DRAINAGE PLANS AND SPECIFICATIONS, AND SAID DETAILED PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH THE MASTER PLAN OF THE DRAINAGE BASIN. SAID DETAILED DRAINAGE PLANS AND SPECIFICATIONS MEET THE PURPOSE FOR WHICH THE PARTICULAR DRAINAGE FACILITY(S) IS DESIGNED. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THE DETAILED DRAINAGE PLANS AND SPECIFICATIONS.

By: _____ Date: _____

NICOLE SCHANEL, PE #52434
FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC.

EL PASO COUNTY:

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

JENNIFER IRVINE, P.E.
COUNTY ENGINEER / ECM ADMINISTRATOR

DATE _____

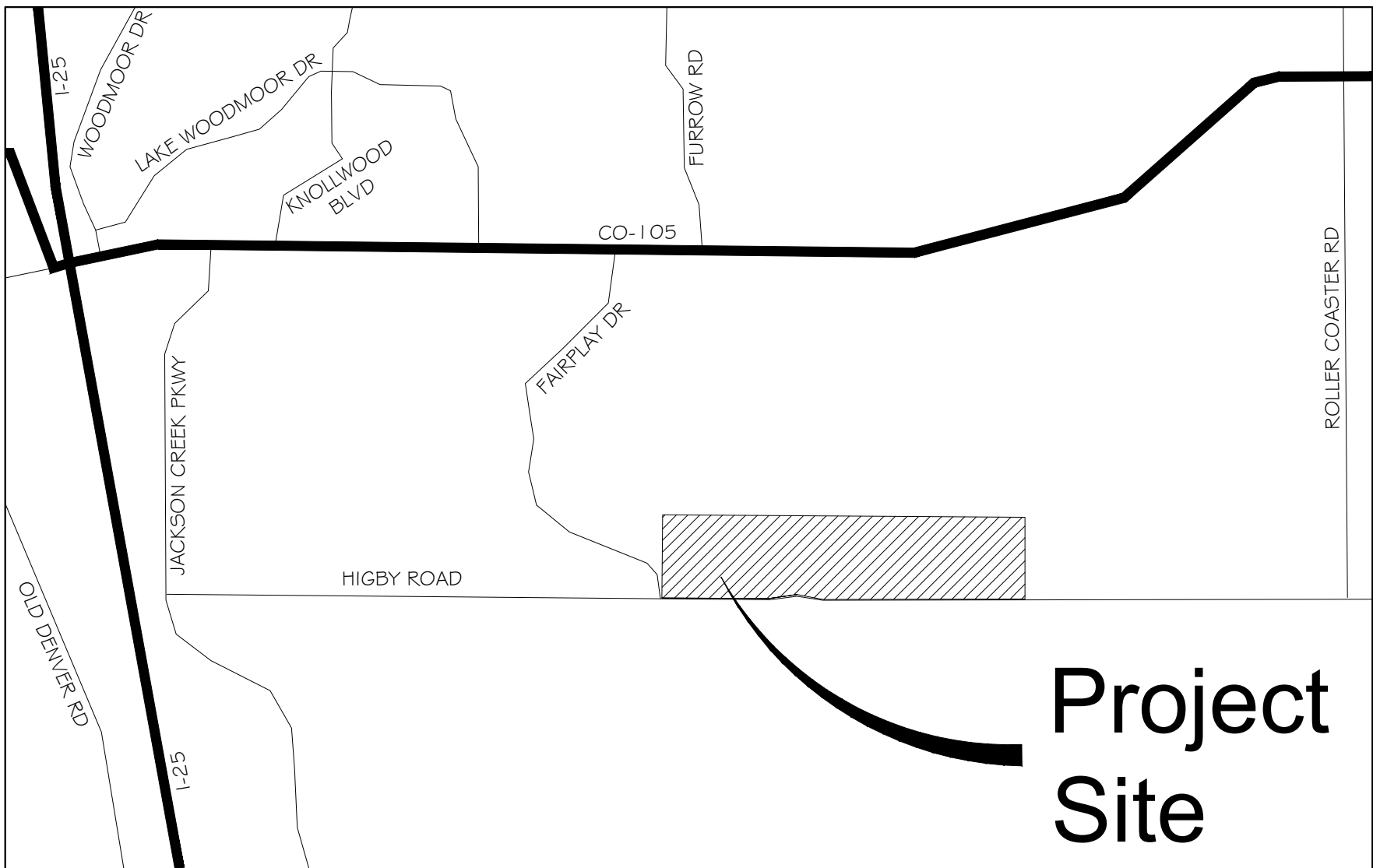
OWNER/DEVELOPER STATEMENT:

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN AND ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

WILLIAM F. HEREBIC II
SYLVAN VISTA, INC.
14160 GLENEAGLE DRIVE
COLORADO SPRINGS, CO 80921

DATE _____

Add north arrow to
map.



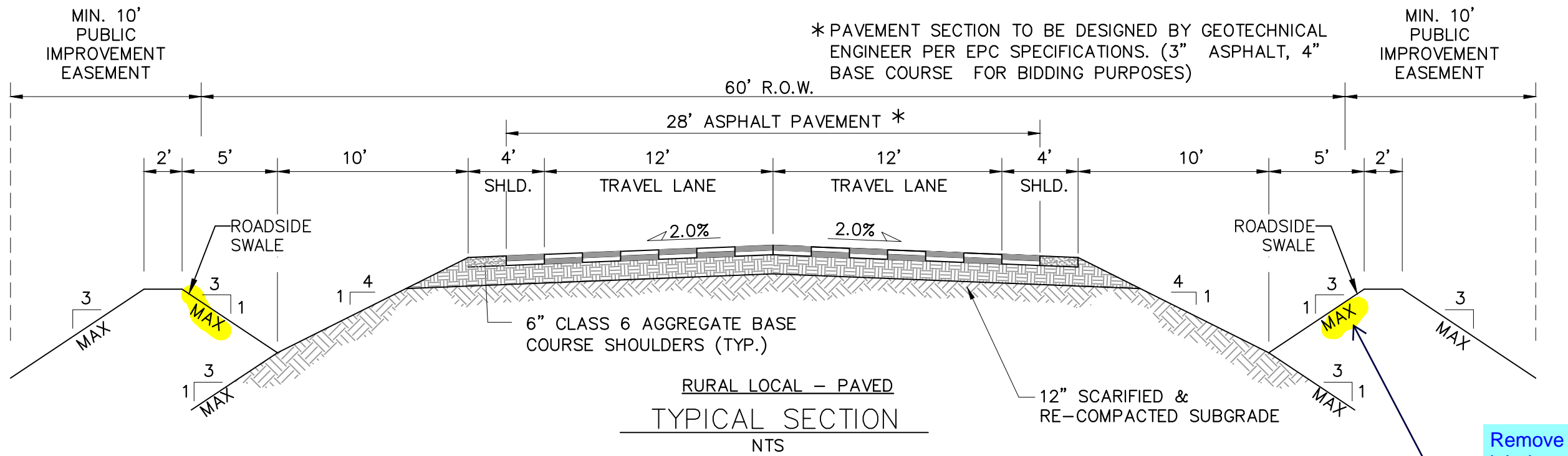
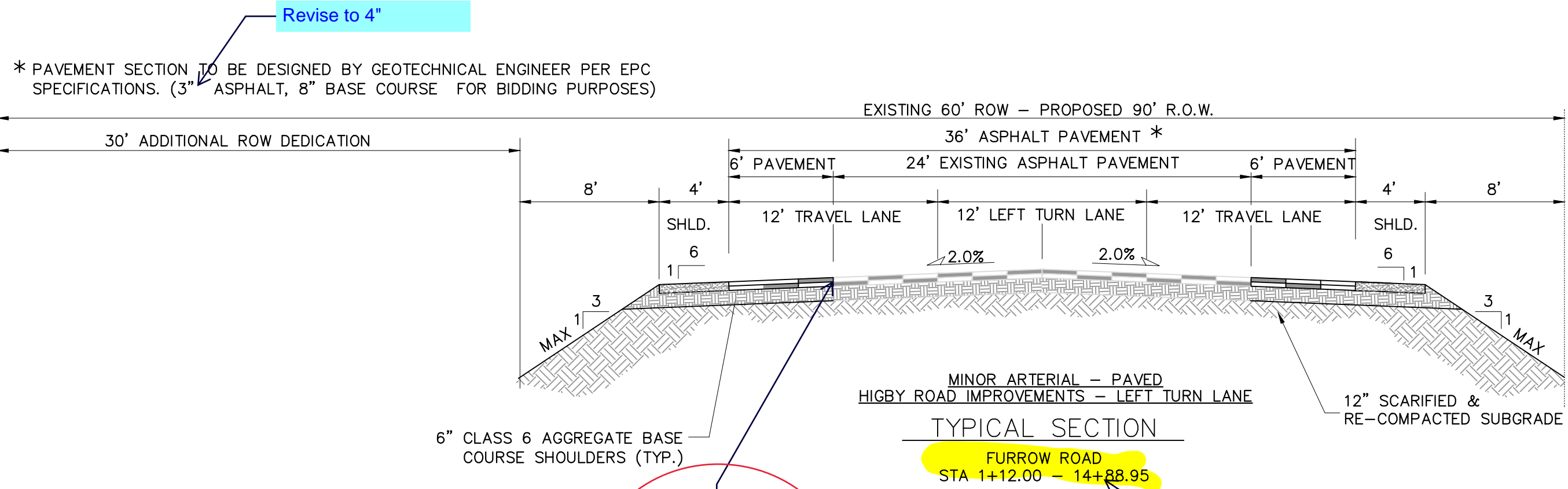
VICINITY MAP
N.T.S.

Add project number PUD #: SF 2026

| | | | | | | |
|-----------------------|--|--|--|--|--|--|
| REFERENCE DRAWINGS | #### #### #### #### #### #### #### #### #### | #### #### #### #### #### #### #### #### #### | #### #### #### #### #### #### #### #### #### | #### #### #### #### #### #### #### #### #### | | BENCHMARK NGS T 294 ELEVATION - 7247.10' NAVD 88 < |
|-----------------------|--|--|--|--|--|--|



Know what's below.
Call before you dig.



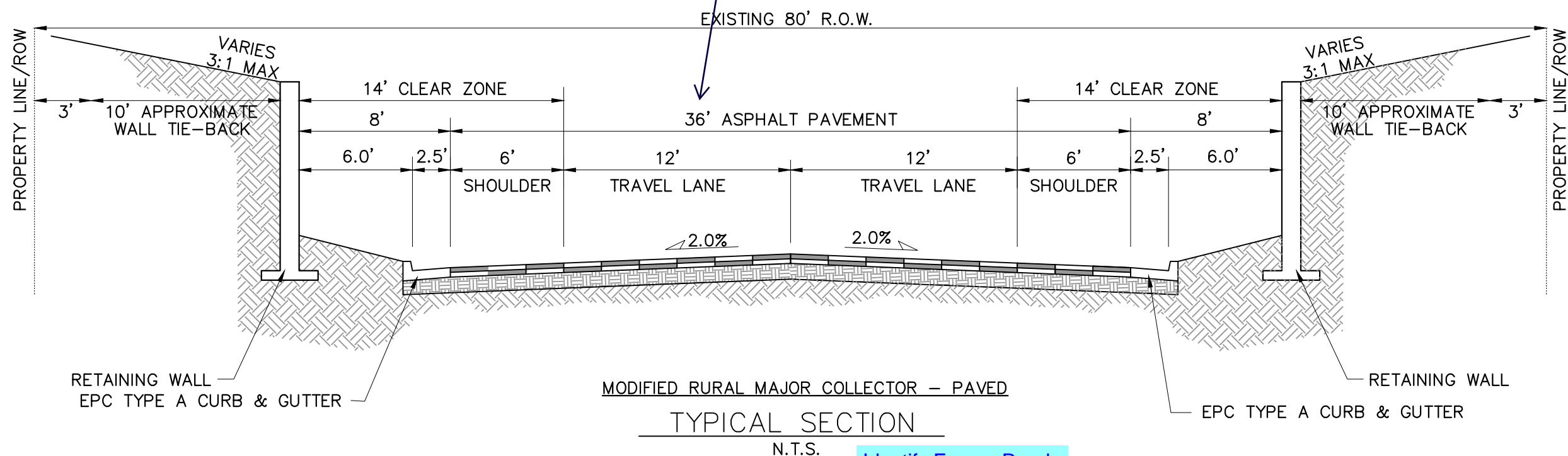
Final design is pending coordination between EPC DPW and the applicant.

Identify 4" Asphalt over 8" ABC

Provide construction detail for the "T-patch" mill/overlay. See the Trails at Aspen Ridge Fil 1 construction plans sheet RM01-B

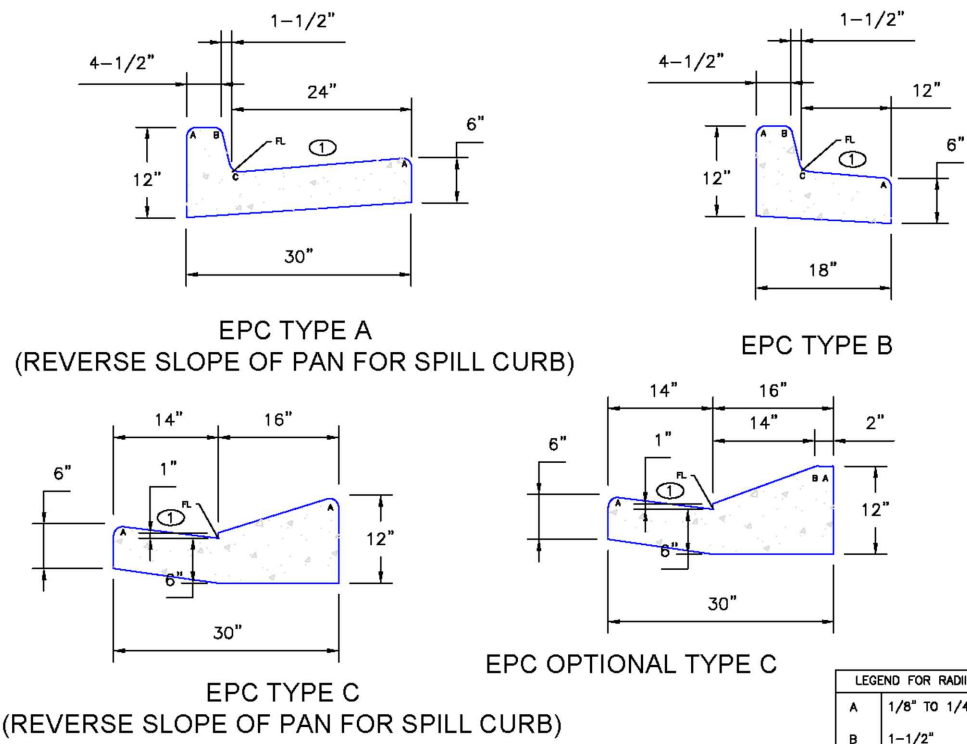
Move label to the Rural Major Cross section detail

Remove the "max" label on the backslope (highlighted) or identify the minimum required roadside ditch depth.

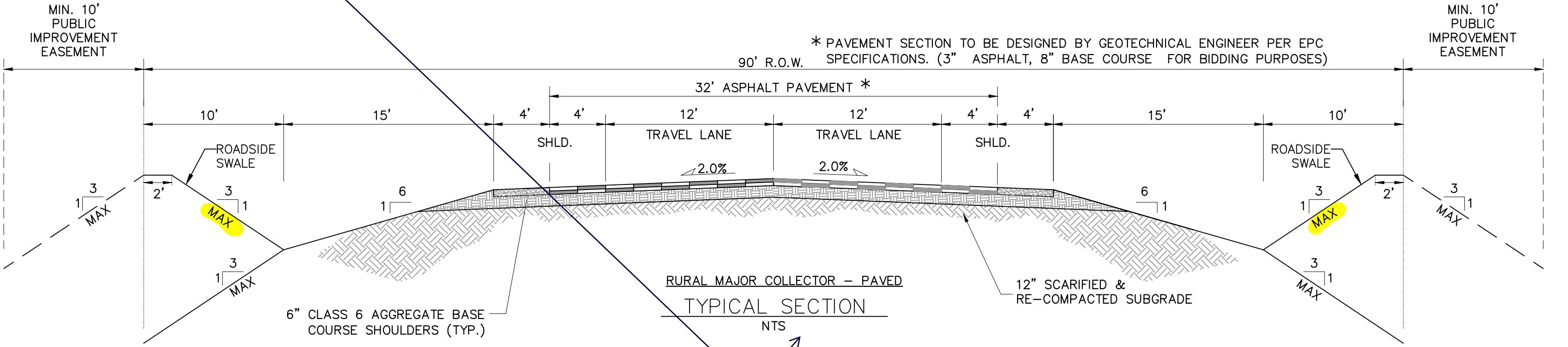
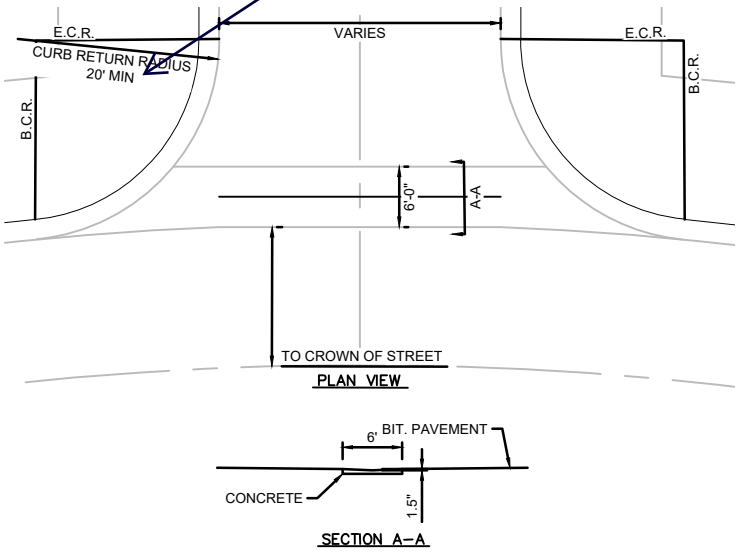


Identify Furrow Road (Sta x - Sta y)

Clarify. If this is C&G, 20' min radius is measured from flowline



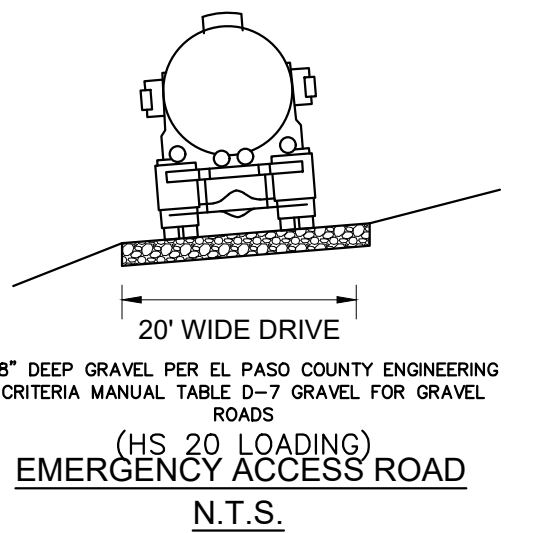
CD - GUTTER CROSS SLOPES SHALL BE 1/2 IN/FT. WHEN DRAWING AWAY FROM CURB AND 1 IN/FT. WHEN DRAWING TOWARD CURB.



Reference the approved deviation request from the design standards for Rural Major Collector per the preliminary application (SP195) and list the approved design modification.

Notes regarding deviation requests have been added to Sheet GN02

Under each road section list the street names the given cross section applies to.



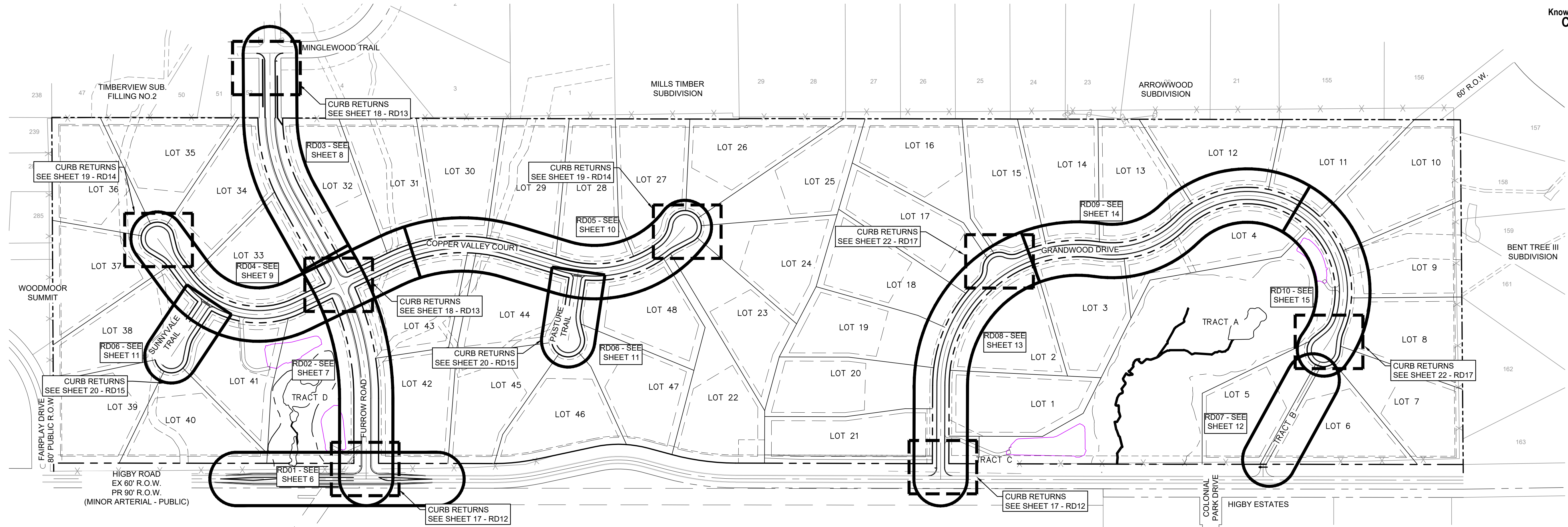
| | | | | |
|--|-----------|------|-------------|-----|
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| | ### | ### | ### | ### |
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| | ### | ### | ### | ### |
| X-1105-EX SITE DESIGN X-Title-Plan & Profile | ### | ### | ### | ### |
| | ### | ### | ### | ### |
| | No. | DATE | DESCRIPTION | BY |
| | REVISIONS | | | |
| COMPUTER FILE MANAGEMENT | | | | |
| FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\GN01.dwg | | | | |
| CTB FILE: --- | | | | |
| PLOT DATE: October 2, 2020 9:06:18 AM | | | | |
| THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE. | | | | |

| | |
|-------------------|---|
| BENCHMARK | NGS T 294 ELEVATION - 7247.10' NAVD 88 |
| BASIS OF BEARING: | A LINE THAT IS 20' NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS "LWA PLS 28658" |

| | |
|--------------|---|
| OWNER: | SYLVAN VISTA, INC. WILLIAM F. HERBIC II, MANAGER 14160 GLENEAGLE DRIVE, COLORADO SPRINGS, CO 80921 |
| PREPARED BY: | |

| | |
|--|---|
| SEAL | PRELIMINARY THIS DRAWING HAS NOT BEEN APPROVED BY GOVERNING AGENCIES AND IS SUBJECT TO CHANGE |
| FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC. PROJECT No. 20.1120.003 | DESIGNED BY: CAP DRAWN BY: CAP CHECKED BY: NMS SCALE: HORIZ N/A VERT. N/A DATE ISSUED: SEPTEMBER 2020 SHEET 4 OF 38 DRAWING No. TY01 |

| |
|--|
| GRANDWOOD RANCH |
| EL PASO COUNTY ROAD AND STORM PLANS |
| ROADWAY GENERAL NOTES |



Add scale block and north arrow.

| | | | | |
|---|--|------|-------------|-----|
| REFERENCE DRAWINGS <small>X-Title-Plan & Profile X-1105-PR-SITE</small> | ### | ### | ### | ### |
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| | No. | DATE | DESCRIPTION | BY |
| | | | REVISIONS | |
| | COMPUTER FILE MANAGEMENT | | | |
| | FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\RD01.dwg | | | |
| | CTB FILE: | | | |
| | PLOT DATE: October 2, 2020 9:07:09 AM | | | |
| | THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE. | | | |

BENCHMARK
NGS T 294 ELEVATION - 7247.10' NAVD 88

BASIS OF BEARING:
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OWNER:
SYLVAN VISTA, INC.
WILLIAM F. HEREBIC II, MANAGER
14160 GLENEAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:



SEAL

PRELIMINARY
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BEEN APPROVED BY
GOVERNING AGENCIES AND
IS SUBJECT TO CHANGE

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

| | | | |
|--|-----|--------|-----------------------------|
| GRANDWOOD RANCH | | | |
| EL PASO COUNTY ROAD AND STORM PLANS | | | |
| ROADWAY KEY MAP | | | |
| DESIGNED BY: | CAP | SCALE | DATE ISSUED: SEPTEMBER 2020 |
| DRAWN BY: | CAP | HORIZ. | DRAWING No. |
| CHECKED BY: | NMS | VERT. | SHEET |
| | | | 5 OF 38 |
| | | | RD00 |

Please provide street classifications, design speed.

Refer to ECM for all of these requirements.

A note has been added to this specifying classification and design/posted speed

1. CENTER LINES
- BROKEN YELLOW, 4 IN. WIDE - 10 FT. SEGMENTS WITH 30 FT. GAPS.
- SOLID YELLOW, 4 IN. WIDE. THESE LINES SEPARATE ADJACENT-OPPOSITE DIRECTION TRAFFIC LANES. DOUBLE LINES SHALL BE SPACED 4 IN. APART.

2. LANE LINES
- Specify yellow striping width and spacing between the double yellow. See snippet above from the CDOT M&S standards

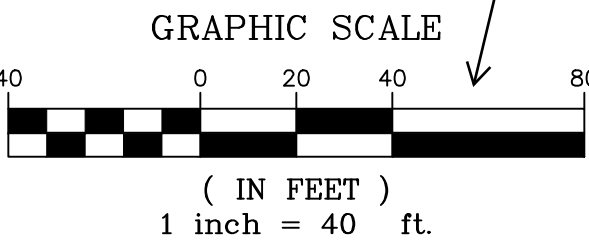
Missing pavement markings for left turn lane. Revise to include relevant markings per CDOT M&S Standards section.

Slope does not match 'minor arterial cross section' slope of 2%

Revise all pavement markings per CDOT MS standards, pavement markings.

1" = 40' is a common scale, accepted by the County and larger than the required 1" = 50' scale

Scale should be minimum of 1 inch= 50 ft for subdivision work. Revise scale.



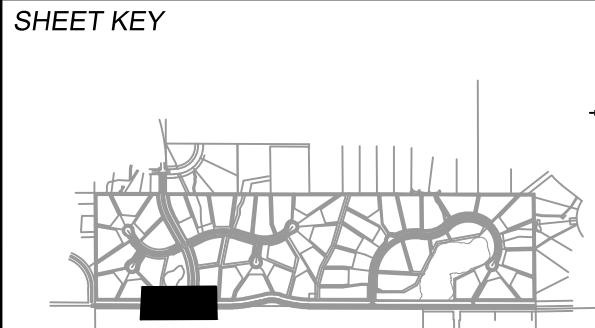
HIGBY ROAD DEMOLITION PLAN

HIGBY ROAD IMPROVEMENTS PLAN

| LINE TABLE | | |
|------------|-------------|---|
| LINE # | BEAR | Label edge line width and color (4", white) |
| L34 | S85°46' | |
| L35 | N87°04'47"W | 113.53 |
| L36 | N87°11'43"E | 113.54 |
| L37 | S89°56'32"E | 151.17 |
| L38 | N87°33'52"W | 137.24 |
| L39 | N89°56'23"W | 48.44 |
| L40 | S84°04'28"E | 14.72 |
| L42 | S89°56'23"E | 13.26 |
| L43 | N87°40'45"E | 137.49 |

| CURVE TABLE | | | | | |
|-------------|------------|--------|-------------|---------------|--------------|
| CURVE # | ARC LENGTH | RADIUS | DELTA ANGLE | CHORD BEARING | CHORD LENGTH |
| C21 | 22.44 | 49.70 | 25°5'155" | S77°00'26"E | 22.25 |

| REFERENCE DRAWINGS | | |
|--|----------------|-------------|
| X-Title-Plan & Profile | X-1105-PR-SITE | |
| No. | DATE | DESCRIPTION |
| REVISIONS | | |
| COMPUTER FILE MANAGEMENT | | |
| FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\RD01.dwg | | |
| PLOT DATE: October 2, 2020 9:07:16 AM | | |
| THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE. | | |



BENCHMARK

NGS T 294 ELEVATION - 7247.10' NAVD 88

BASIS OF BEARING:

A LINE THAT IS 20° NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS "LWA PLS 28658"

OWNER:

SYLVAN VISTA, INC.
WILLIAM F. HERBIC II, MANAGER
14160 GLENEAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:

Matrix

SEAL

PRELIMINARY

THIS DRAWING HAS NOT BEEN APPROVED BY GOVERNING AGENCIES AND IS SUBJECT TO CHANGE

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

GRANDWOOD RANCH

EL PASO COUNTY
ROAD AND STORM PLANS

ROADWAY PLAN AND PROFILE

DESIGNED BY: CAP SCALE DATE ISSUED: SEPTEMBER 2020 DRAWING No. RD01

CHECKED BY: NMS HORIZ. 1" = 40' SHEET 6 OF 38

VERT. N/A

Know what's below.
Call before you dig.

Please provide line of sight and sight distance should be marked on plans. Per ECM 2.3.7.C.5

5. Intersection Sight Distance.

The sight distance at intersections shall be shown geographically on the construction plans. A note shall be added to each leg of the intersection stating that intersection sight distance exceeds the minimum sight distance for ____ mph design speed.

Sight distance lines have been added to the signage and striping plans (added to this set)

LINE TABLE

| LINE # | BEARING | DISTANCE |
|--------|-------------|----------|
| L1 | N00°03'30"E | 276.18 |

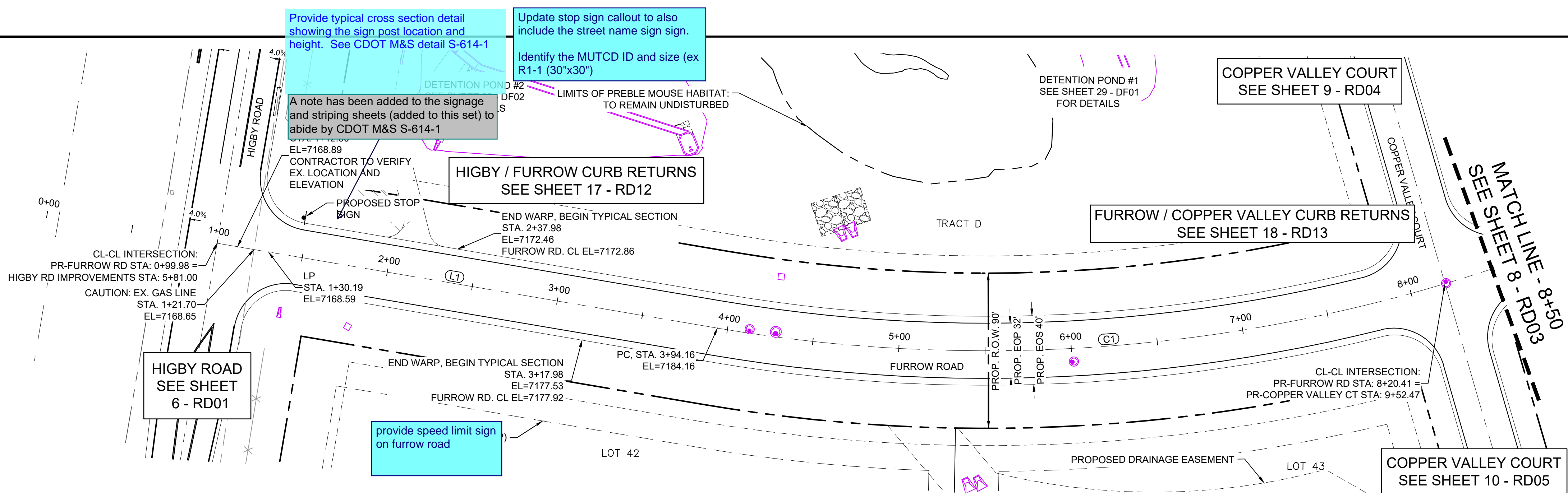
CURVE TABLE

| CURVE # | ARC LENGTH | RADIUS | DELTA ANGLE | CHORD BEARING | CHORD LENGTH |
|---------|------------|--------|-------------|---------------|--------------|
| C1 | 476.11 | 930.00 | 29°19'57" | N14°36'30"W | 470.93 |

NOTES:

1. ALL ROADWAYS ARE PUBLIC UNLESS OTHERWISE NOTED.
2. SPOT ELEVATIONS REFERENCE EDGE OF SHOULDER (EOS) UNLESS OTHERWISE NOTED.

FURROW ROAD PLAN

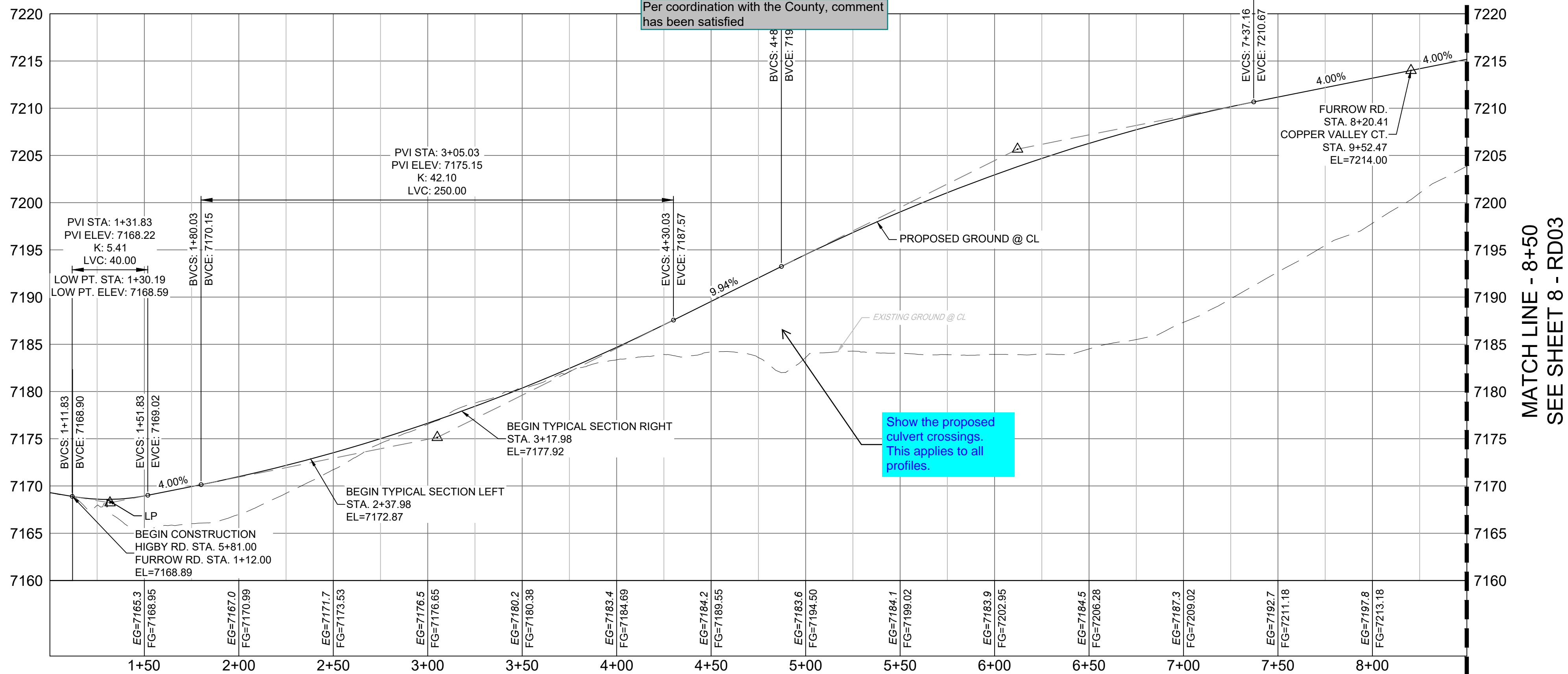


- Posted speed limit on Furrow Road of 35 mph instead of 45 mph
- Minimum centerline curve radius of 600 feet instead of the prescribed 930 feet
- Minimum K-value for a collector with a design speed of 40 mph is 44 for crest curves and 64 for sag curves. The proposed K-values for both crest and sag curves along Furrow Road is 42 with stop conditions at the intersection of Higby Road/Furrow Road and Furrow Road/Miglewood Trail.
- Design elements/features often included along higher volume roadways can be incorporated into this design. Horizontal curve warning signs (where necessary), roadside markers for nighttime visibility, shoulder and centerline pavement

Min K does not meet the approved deviation request (K=44)

PVI STA: 6+12.16
PVI ELEV: 7205.67
K: 42.10
LVC: 250.00

Per coordination with the County, comment has been satisfied



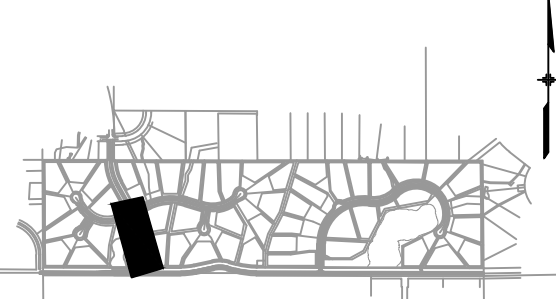
FURROW ROAD PROFILE

HORIZ: 1" = 40'

VERT: 1" = 8'

| REFERENCE DRAWINGS | ### | ### | ### | DESCRIPTION | ### |
|--|-----|------|-----|-------------|-----|
| | No. | DATE | ### | REVISIONS | BY |
| COMPUTER FILE MANAGEMENT | | | | | |
| FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\RD01.dwg | | | | | |
| CTB FILE: | | | | | |
| PLOT DATE: October 2, 2020 9:07:19 AM | | | | | |
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SHEET KEY



BENCHMARK

NGS T 294 ELEVATION - 7247.10' NAVD 88

BASIS OF BEARING:

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OWNER:
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PREPARED BY:



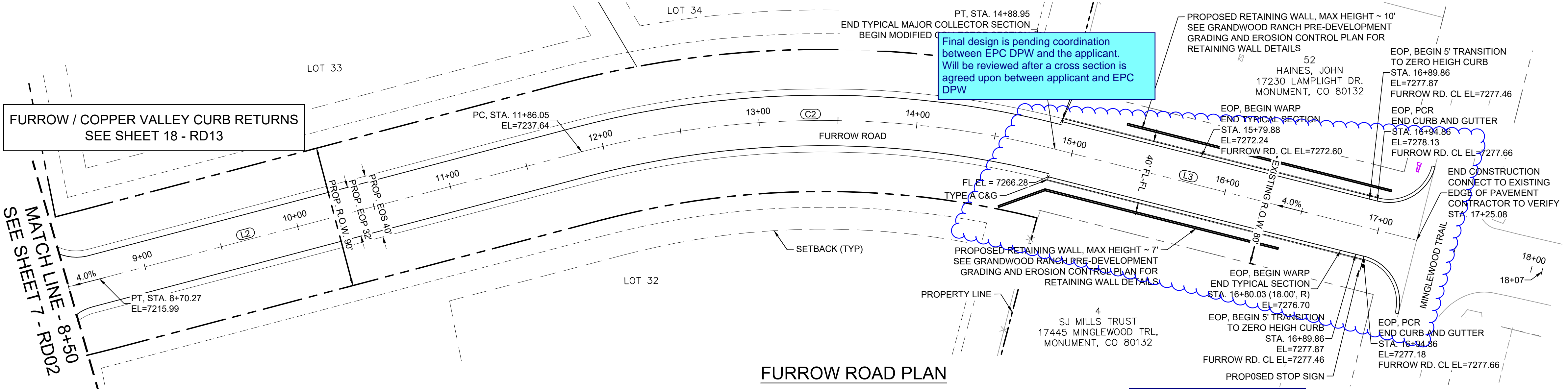
SEAL

PRELIMINARY
THIS DRAWING HAS NOT
BEEN APPROVED BY
GOVERNING AGENCIES AND
IS SUBJECT TO CHANGEFOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003DESIGNED BY: CAP SCALE: DATE ISSUED: SEPTEMBER 2020 DRAWING No. RD02
CHECKED BY: NMS HORIZ: 1" = 40' VERT: 1" = 8' SHEET 7 OF 38

GRANDWOOD RANCH

EL PASO COUNTY
ROAD AND STORM PLANS

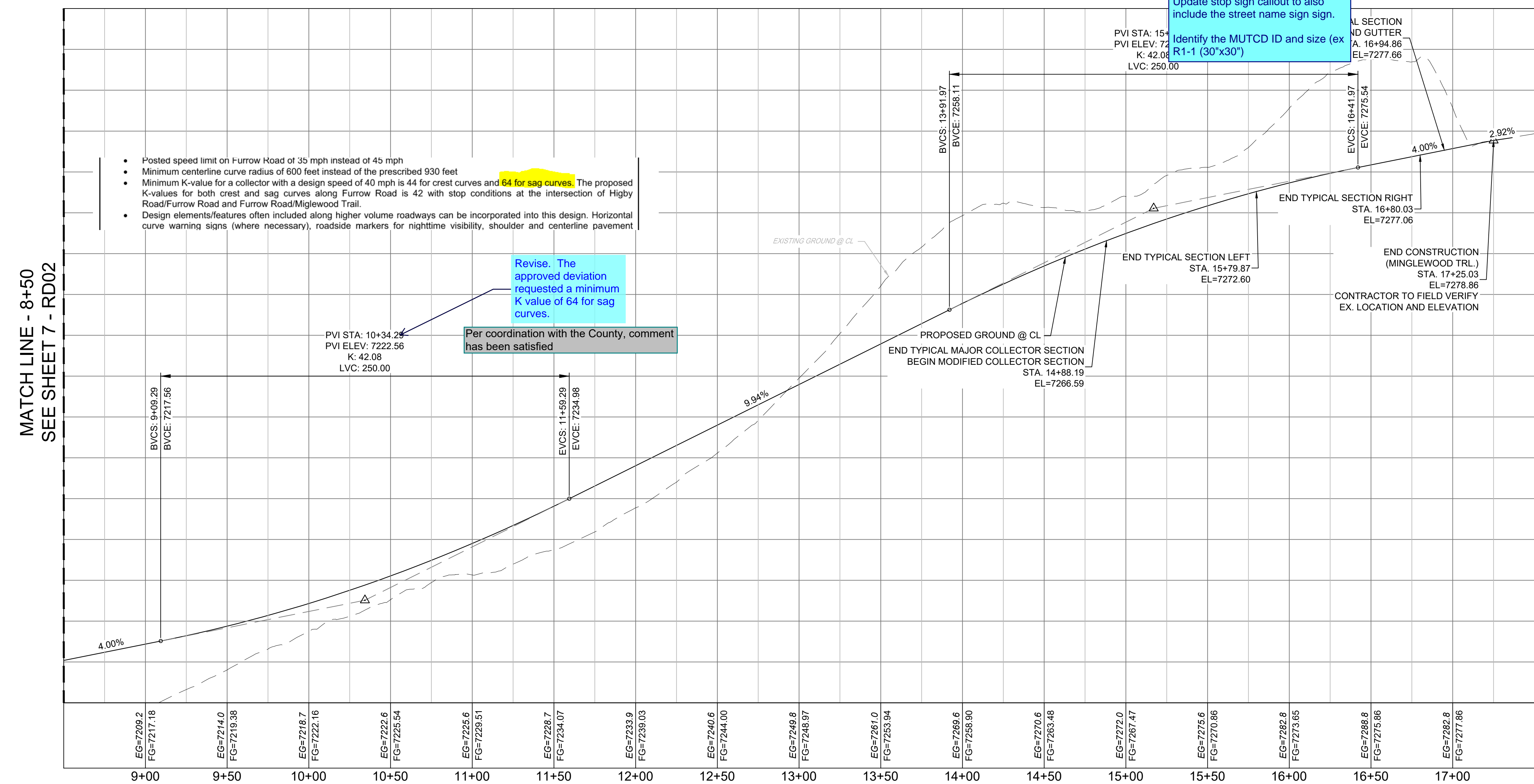
ROADWAY PLAN AND PROFILE



Revise intersection spacing to meet requirements of ECM 2.3.2.

Per coordination with the County, comment has been satisfied

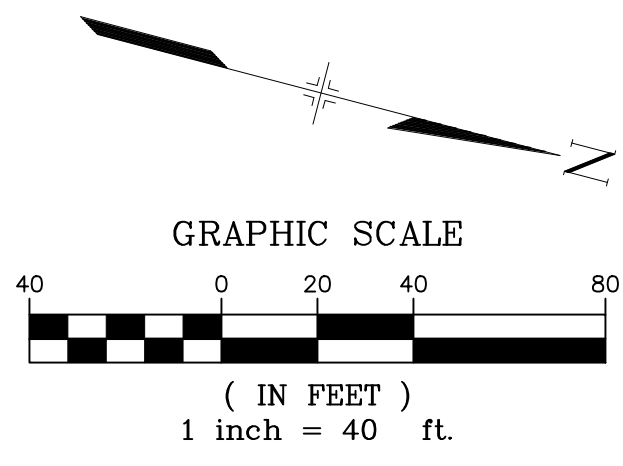
FURROW ROAD PLAN



| LINE TABLE | | |
|------------|-------------|----------|
| LINE # | BEARING | DISTANCE |
| L2 | N29°16'28"W | 315.78 |
| L3 | N00°21'00"W | 236.08 |

| CURVE TABLE | | | | | |
|-------------|------------|--------|-------------|---------------|--------------|
| CURVE # | ARC LENGTH | RADIUS | DELTA ANGLE | CHORD BEARING | CHORD LENGTH |
| C2 | 302.90 | 600.00 | 28°55'28" | N14°48'44"W | 299.69 |

NOTES:
1. ALL ROADWAYS ARE PUBLIC UNLESS OTHERWISE NOTED.
2. SPOT ELEVATIONS REFERENCE EDGE OF SHOULDER (EOS) UNLESS OTHERWISE NOTED.

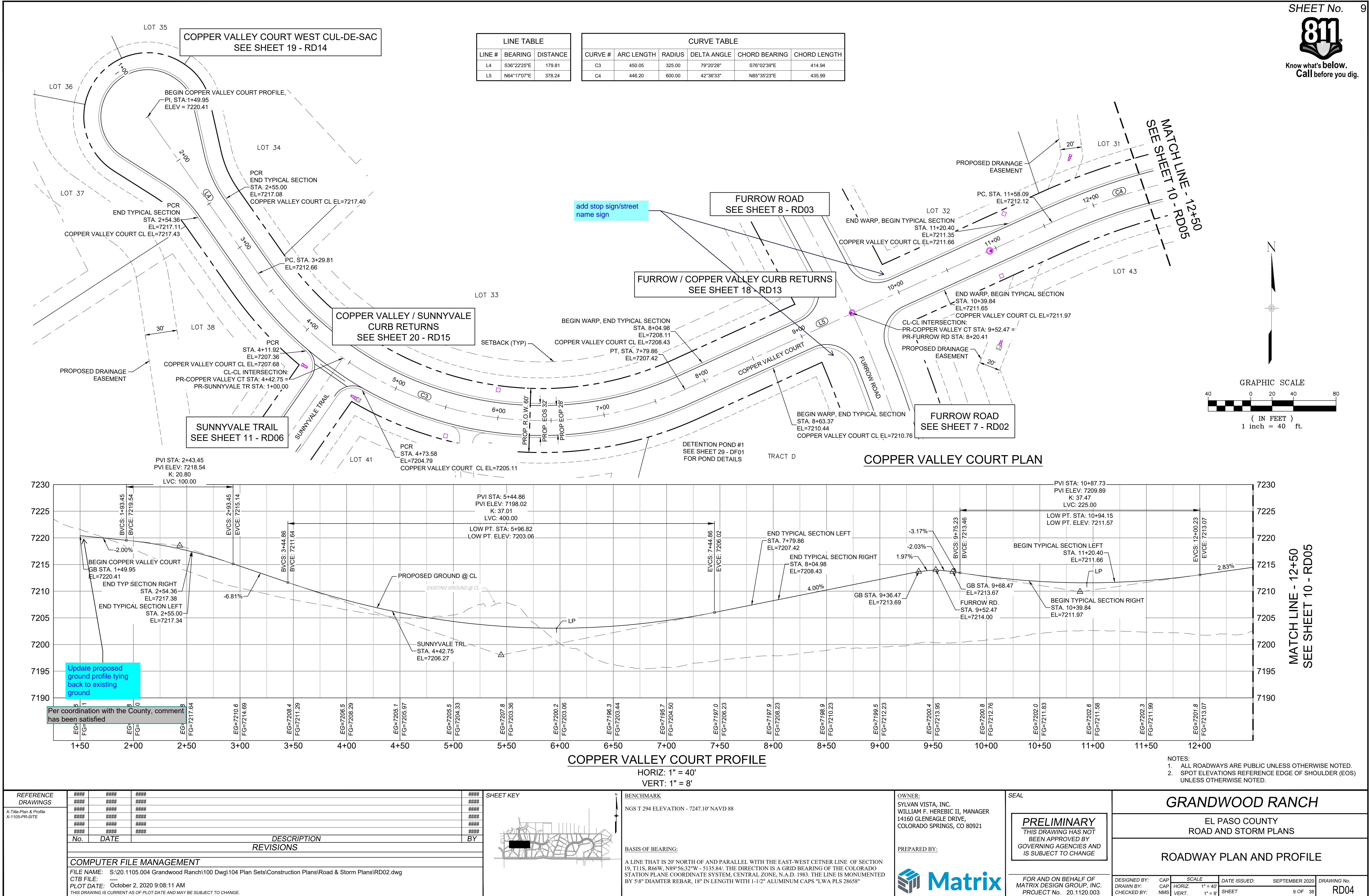


FURROW ROAD PROFILE
HORIZ: 1" = 40'
VERT: 1" = 8'

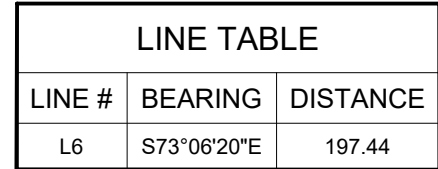
| | | | | | | | | | |
|--|---|------|----------------------------------|---------------|---|---|---|---|----|
| REFERENCE DRAWINGS X-Title-Plan & Profile X-1105-PR-SITE | ### | ### | ### | SHEET KEY | BENCHMARK NGS T 294 ELEVATION - 7247.10' NAVD 88 BASIS OF BEARING: A LINE THAT IS 20° NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS "LWA PLS 28658" | OWNER: SYLVAN VISTA, INC. WILLIAM F. HEREBIC II, MANAGER 14160 GLENDALE DRIVE, COLORADO SPRINGS, CO 80921 PREPARED BY: | SEAL PRELIMINARY THIS DRAWING HAS NOT BEEN APPROVED BY GOVERNING AGENCIES AND IS SUBJECT TO CHANGE | GRANDWOOD RANCH EL PASO COUNTY ROAD AND STORM PLANS ROADWAY PLAN AND PROFILE | |
| | No. | DATE | DESCRIPTION | | | | | | BY |
| | COMPUTER FILE MANAGEMENT | | | | | | | | |
| | FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\RD01.dwg CTB FILE: PLOT DATE: October 2, 2020 9:07:26 AM THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE. | | | | | | | | |
| DESIGNED BY: | | CAP | SCALE | DATE ISSUED: | SEPTEMBER 2020 | DRAWING No. | RD03 | | |
| CHECKED BY: | | NMS | HORIZ. 1" = 40' VERT. 1" = 8' | SHEET | 8 OF 38 | | | | |



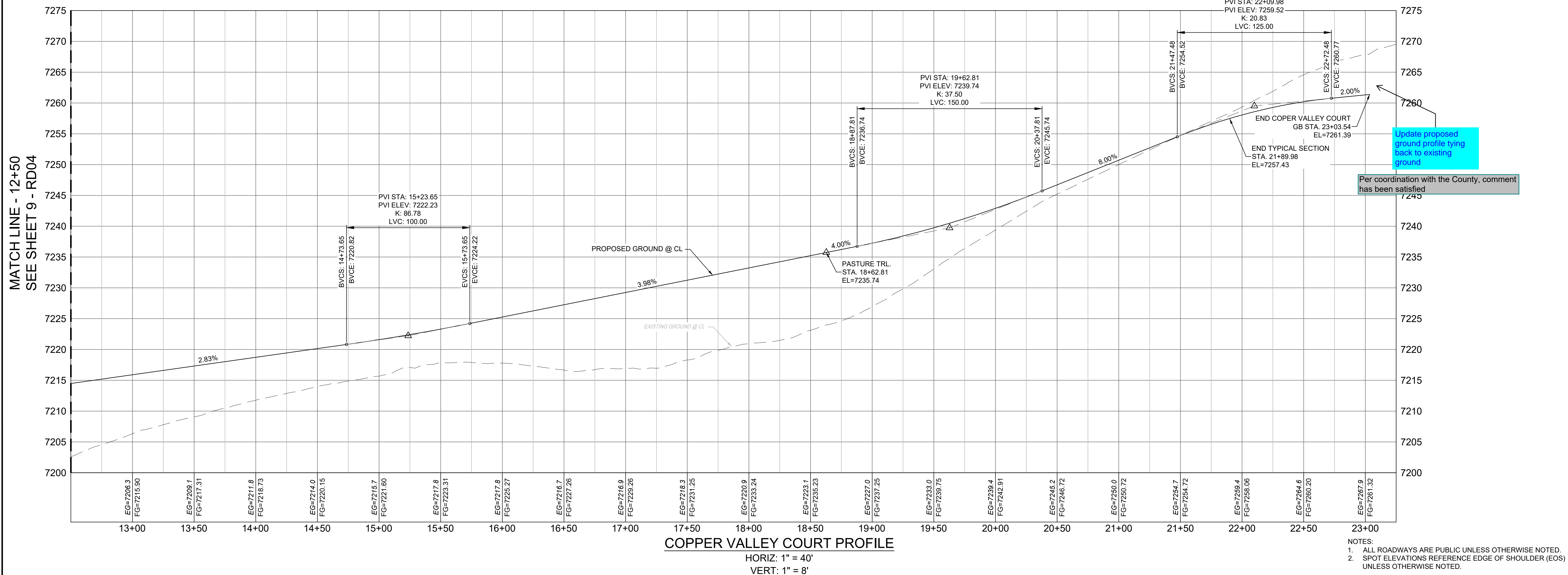
Know what's below.
Call before you dig.



Know what's **below**.
Call before you dig.





| CURVE TABLE | | | | | |
|-------------|------------|--------|-------------|---------------|--------------|
| CURVE # | ARC LENGTH | RADIUS | DELTA ANGLE | CHORD BEARING | CHORD LENGTH |
| C4 | 446.20 | 600.00 | 42°36'33" | N85°35'23"E | 435.99 |
| C5 | 501.81 | 410.00 | 70°07'34" | N71°49'53"E | 471.07 |



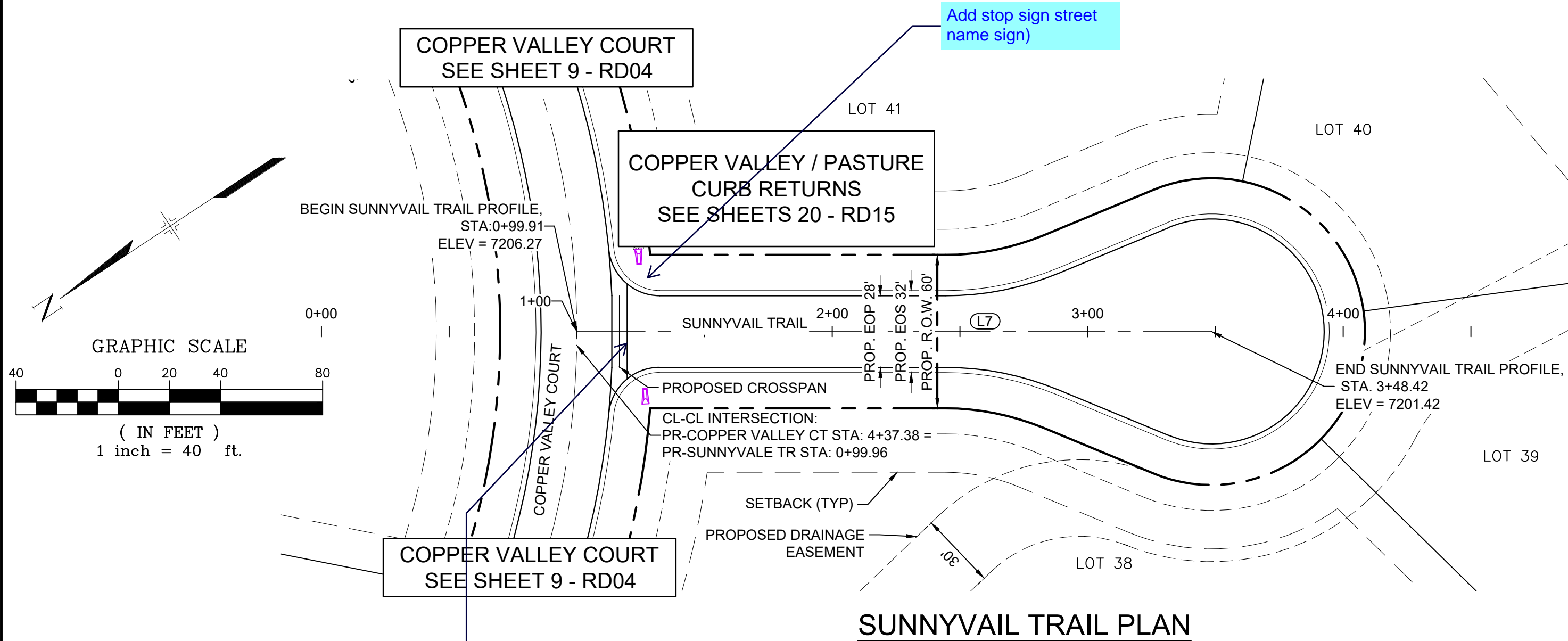
NOTES:

1. ALL ROADWAYS ARE PUBLIC UNLESS OTHERWISE NOTED.
2. SPOT ELEVATIONS REFERENCE EDGE OF SHOULDER (EOS), UNLESS OTHERWISE NOTED.

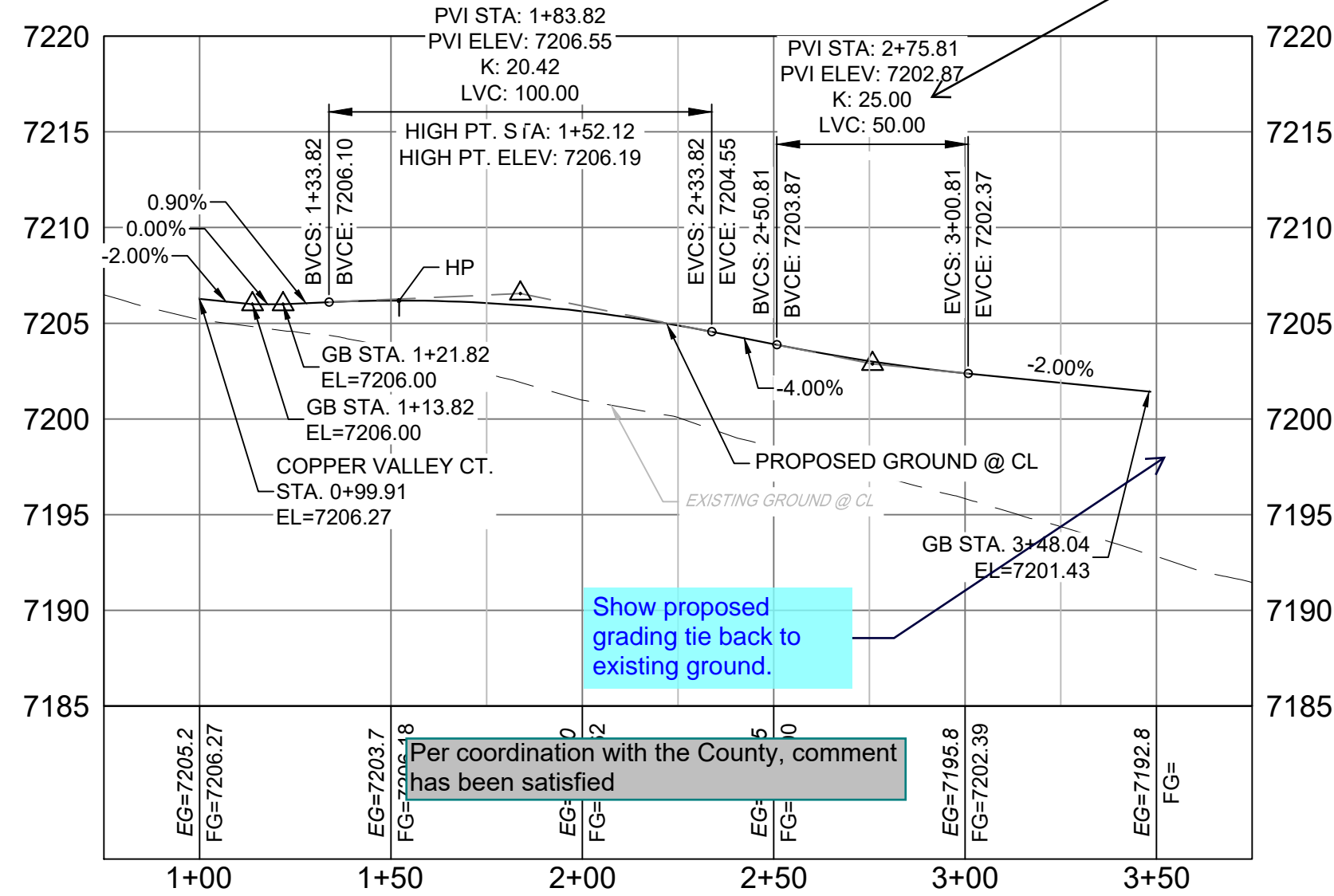
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|--|------------------------|------|------|------|---|--|--|---|---|------|
| REFERENCE DRAWINGS | #### | #### | #### | #### | <div>SHEET KEY</div> <div></div> | <div>BENCHMARK</div> <div>NGS T 294 ELEVATION - 7247.10' NAVD 88</div> | <div>OWNER:</div> <div>SYLVAN VISTA, INC. WILLIAM F. HEREBIC II, MANAGER 14160 GLENEAGLE DRIVE, COLORADO SPRINGS, CO 80921</div> | <div>SEAL</div> <div><div>PRELIMINARY</div><div>THIS DRAWING HAS NOT BEEN APPROVED BY GOVERNING AGENCIES AND IS SUBJECT TO CHANGE</div></div> | <div>GRANDWOOD RANCH</div> <div>EL PASO COUNTY ROAD AND STORM PLANS</div> | |
| | X-Title-Plan & Profile | #### | #### | #### | | | | | | #### |
| | X-110G-PR-SITE | #### | #### | #### | | | | | | #### |
| | #### | #### | #### | #### | | | | | | #### |
| | #### | #### | #### | #### | | | | | | #### |
| <div>No.</div> <div>DATE</div> <div>DESCRIPTION</div> <div>BY</div> | | | | | | | | | | |
| REVISIONS | | | | | | | | | | |
| COMPUTER FILE MANAGEMENT | | | | | | | | | | |
| FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\RD02.dwg | | | | | | | | | | |
| CTB FILE: --- | | | | | | | | | | |
| PLOT DATE: October 2, 2020 9:08:20 AM | | | | | | | | | | |
| THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE. | | | | | | | | | | |
| <div></div> | | | | | | | | | | |
| FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC. PROJECT No. 20.1120.003 | | | | | | | | | | |
| DESIGNED BY: CAP DRAWN BY: CAP CHECKED BY: NMS | | | | | <div>SCALE</div> <div>HORIZ 1" = 40'</div> <div>VERT. 1" = 8'</div> | <div>DATE ISSUED:</div> <div>SEPTEMBER 2020</div> | <div>DRAWING No.</div> <div>RD05</div> | | | |



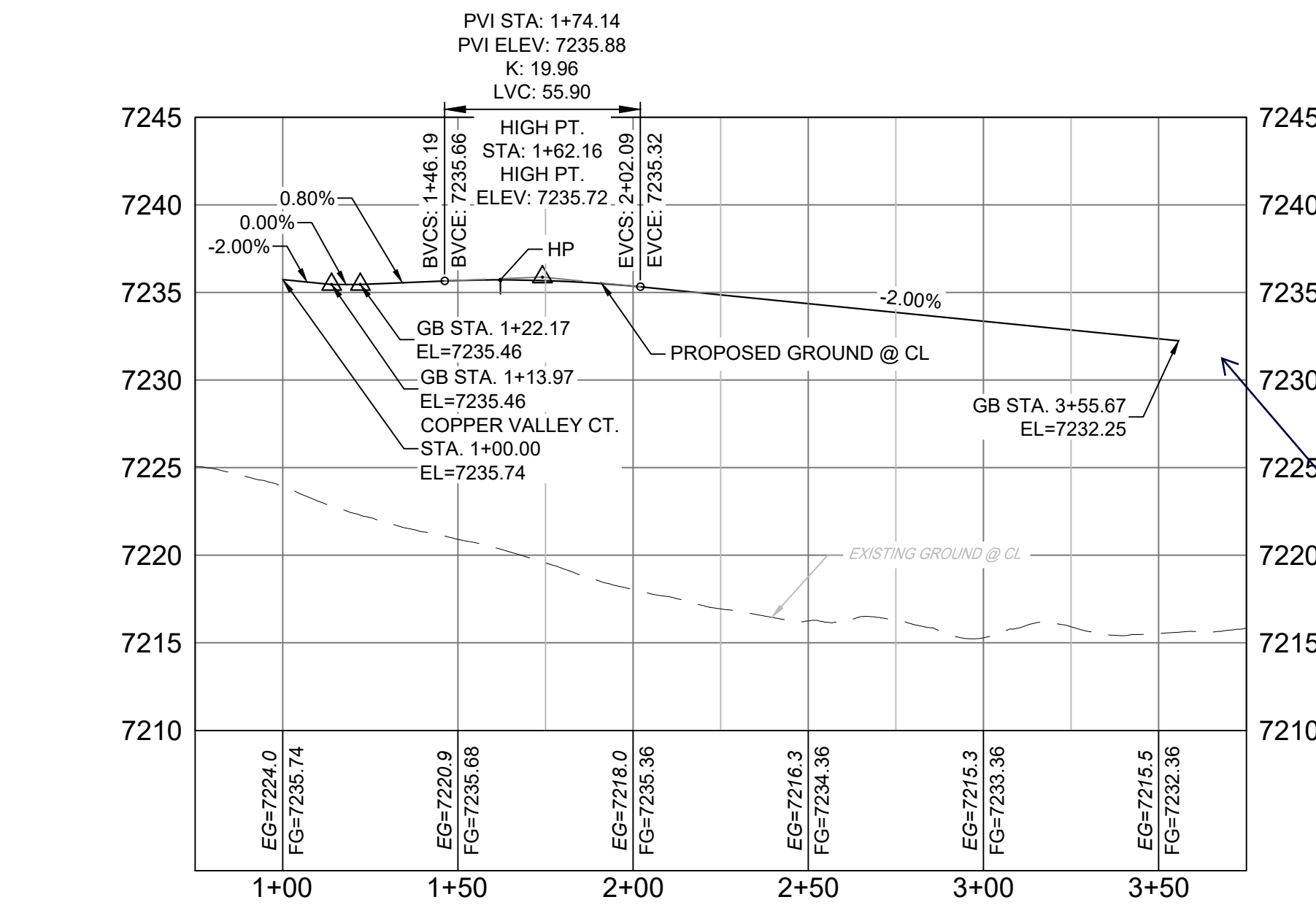
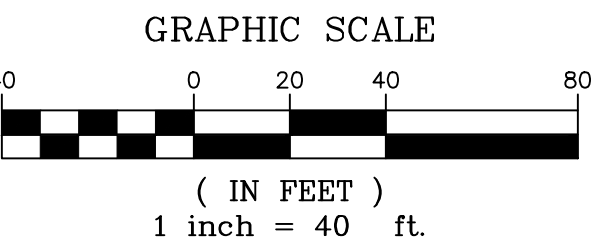
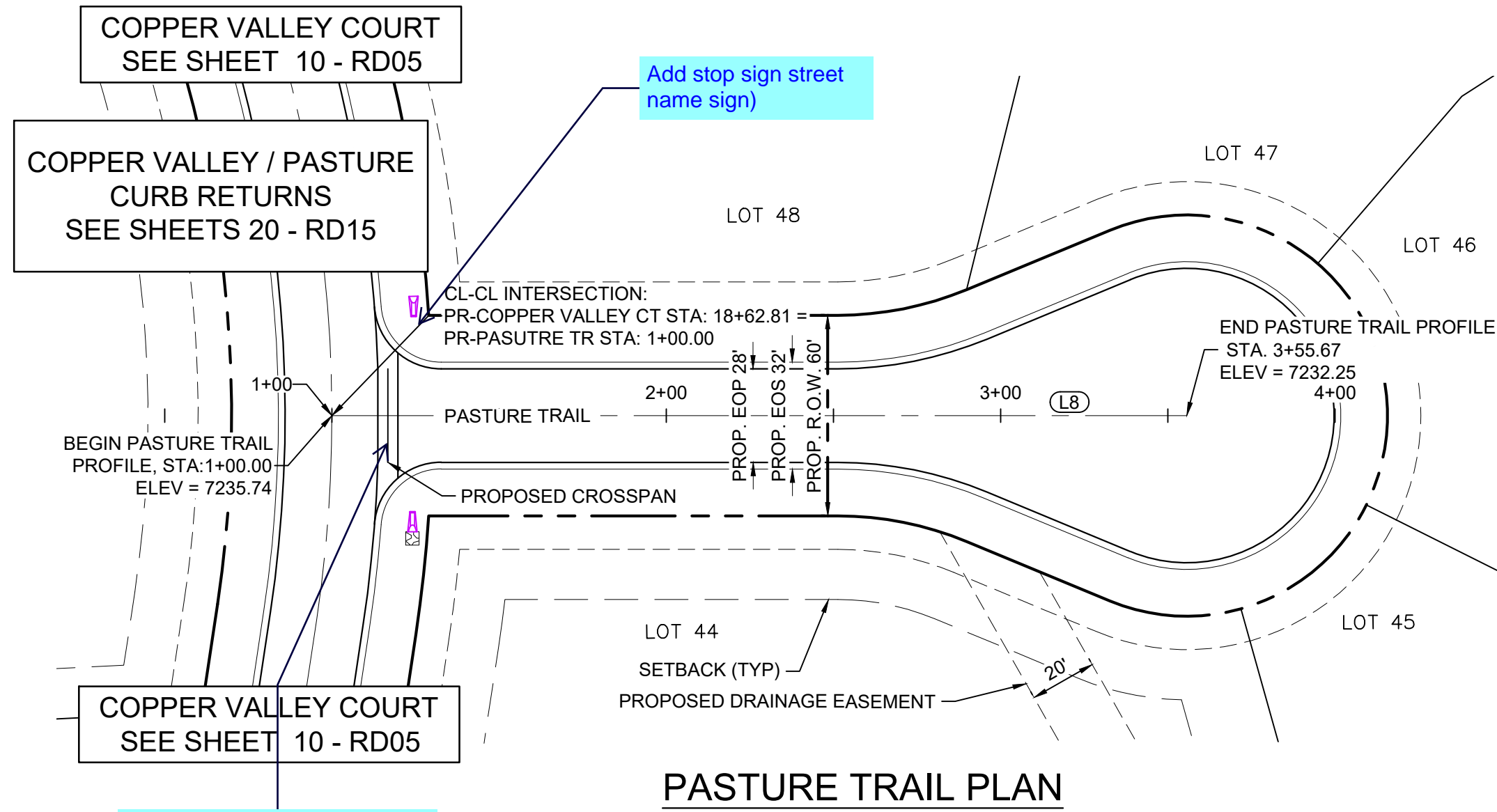
Know what's below.
Call before you dig.



| LINE TABLE | | |
|------------|-------------|----------|
| LINE # | BEARING | DISTANCE |
| L7 | S33°42'56"W | 248.50 |



SUNNYVAIL TRAIL PROFILE
HORIZ: 1" = 40'
VERT: 1" = 8'

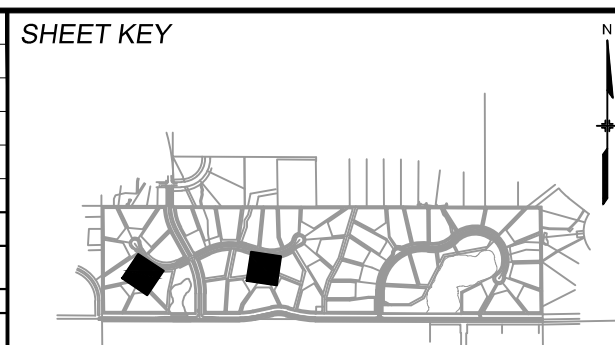


PASTURE TRAIL PROFILE
HORIZ: 1" = 40'
VERT: 1" = 8'

| LINE TABLE | | |
|------------|-------------|----------|
| LINE # | BEARING | DISTANCE |
| L8 | S08°21'30"W | 255.67 |

- NOTES:
- ALL ROADWAYS ARE PUBLIC UNLESS OTHERWISE NOTED.
 - SPOT ELEVATIONS REFERENCE EDGE OF SHOULDER (EOS) UNLESS OTHERWISE NOTED.

| REFERENCE DRAWINGS | | | |
|--|------|-------------|-----|
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| No. | DATE | DESCRIPTION | BY |
| REVISIONS | | | |
| COMPUTER FILE MANAGEMENT | | | |
| FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\RD02.dwg | | | |
| CTB FILE: --- | | | |
| PLOT DATE: October 2, 2020 9:13:47 AM | | | |
| THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE. | | | |



BENCHMARK
NGS T 294 ELEVATION - 7247.10' NAVD 88

BASIS OF BEARING:
A LINE THAT IS 20° NORTH OF AND PARALLEL WITH THE EAST-WEST CENRER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS "LWA PLS 28658"

OWNER:
SYLVAN VISTA, INC.
WILLIAM F. HEREBIC II, MANAGER
14160 GLENEAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:

Matrix

SEAL

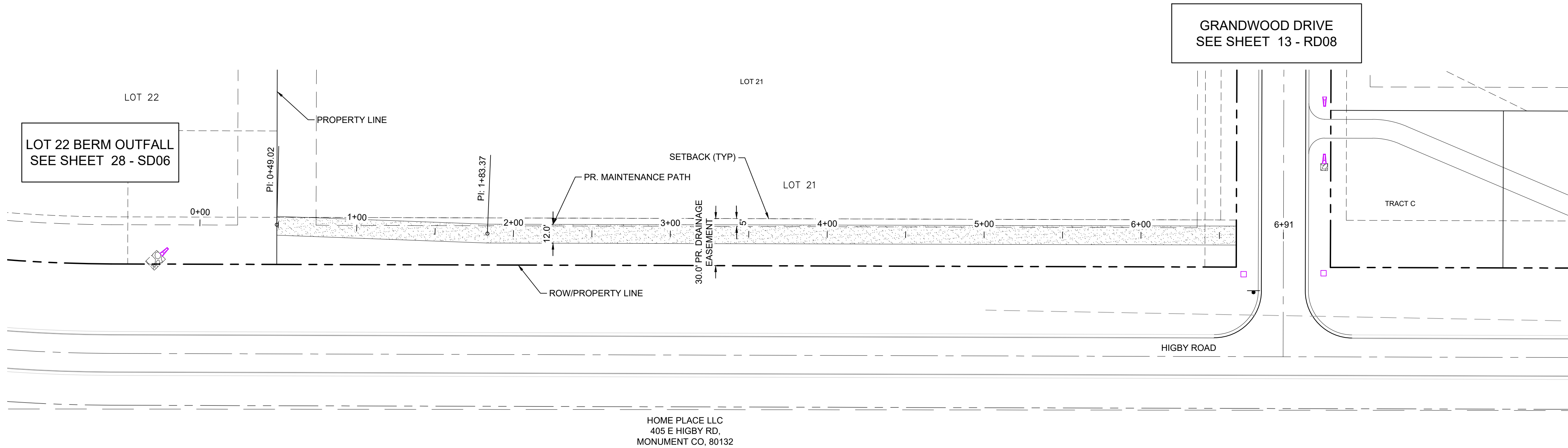
PRELIMINARY
THIS DRAWING HAS NOT BEEN APPROVED BY GOVERNING AGENCIES AND IS SUBJECT TO CHANGE

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

| GRANDWOOD RANCH | | | |
|--|-----|-----------------|----------------|
| EL PASO COUNTY ROAD AND STORM PLANS | | | |
| ROADWAY PLAN AND PROFILE | | | |
| DESIGNED BY: | CAP | SCALE | DATE ISSUED: |
| DRAWN BY: | CAP | HORIZ. 1" = 40' | SEPTEMBER 2020 |
| CHECKED BY: | NMS | VERT. 1" = 8' | SHEET 11 OF 38 |
| DRAWING No. | | | RD06 |



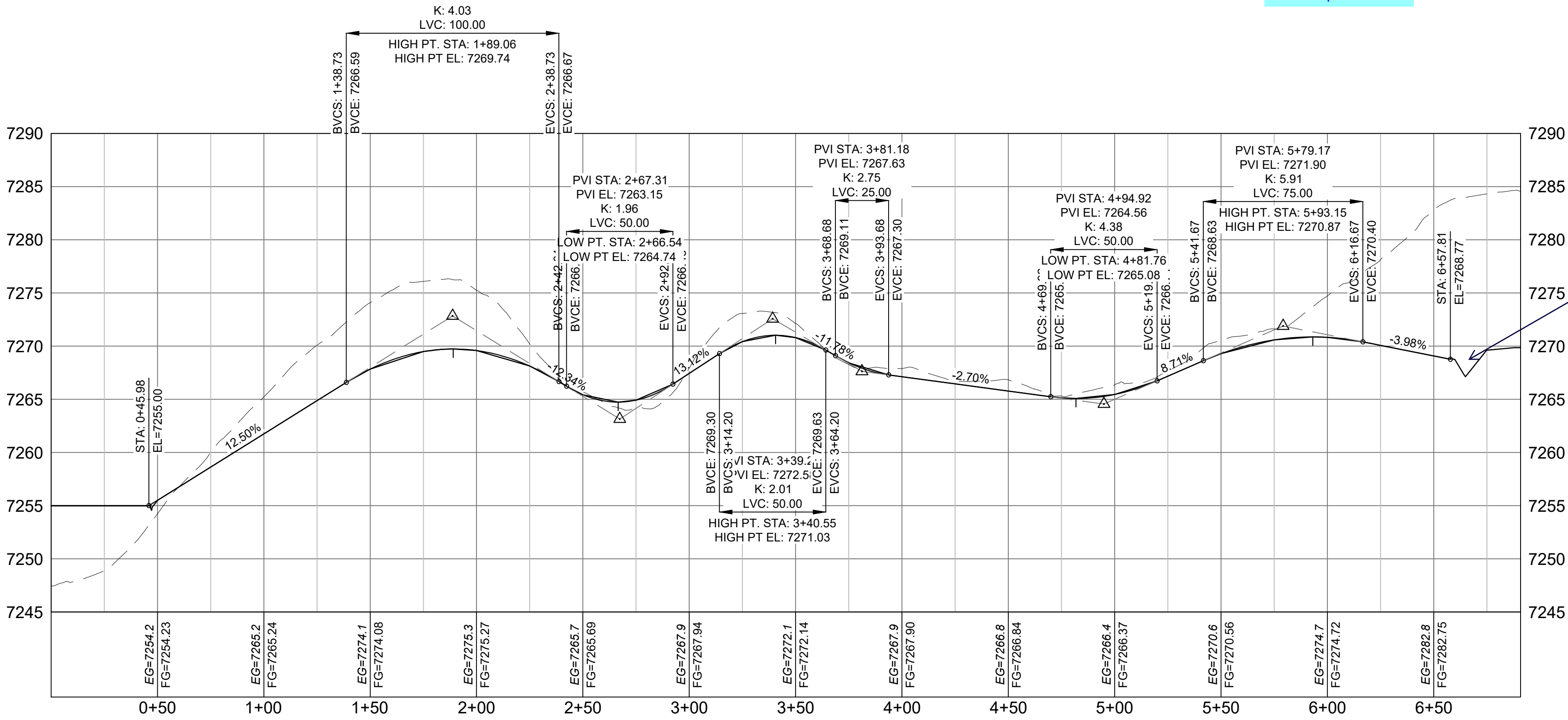
Know what's below.
Call before you dig.



LOT 22 MAINTENANCE ACCESS ROAD PLAN

- NOTES:
1. ALL ROADWAYS ARE PUBLIC UNLESS OTHERWISE NOTED.
 2. SPOT ELEVATIONS REFERENCE EDGE OF SHOULDER (EOS) UNLESS OTHERWISE NOTED.

Label as private



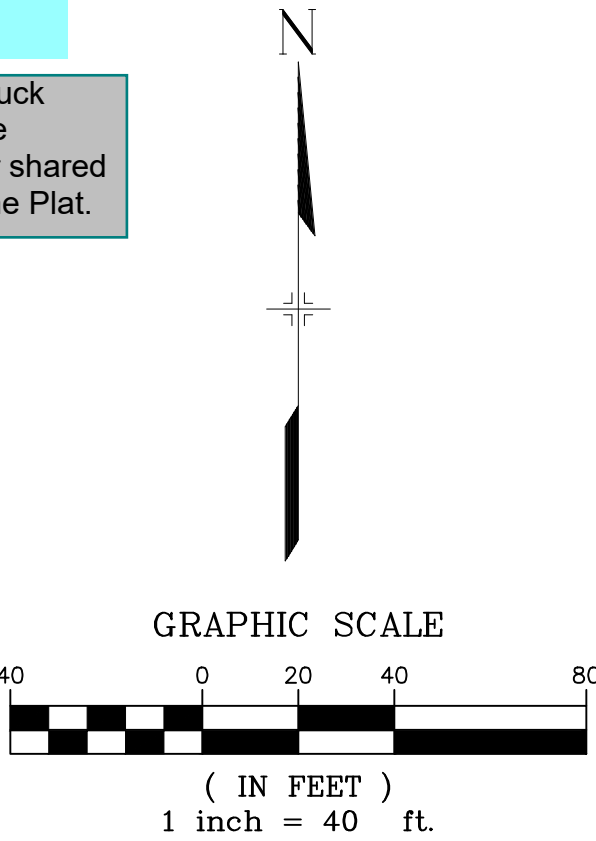
LOT 22 MAINTENANCE ACCESS ROAD PROFILE

HORIZ: 1" = 40'
VERT: 1" = 8'

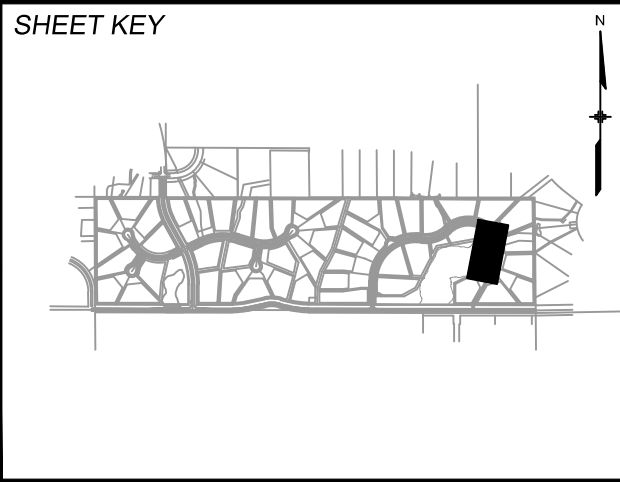
appears culvert crossing is required.

The path is located within private lot. Update the plat to add a note if this access is intended to be a shared driveway access with the lot owner or not.

Grading has been revised to allow truck access to the maintenance path. The maintenance path is not intended for shared access. A note has been added to the Plat.



| | | | | |
|--|--------------------------|------|-------------|-----|
| REFERENCE DRAWINGS | ### | ### | ### | ### |
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| | No. | DATE | DESCRIPTION | BY |
| | REVISIONS | | | |
| | COMPUTER FILE MANAGEMENT | | | |
| FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\RD03.dwg | | | | |
| CTB FILE: --- | | | | |
| PLOT DATE: October 2, 2020 9:14:48 AM | | | | |
| THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE. | | | | |



BENCHMARK
NGS T 294 ELEVATION - 7247.10' NAVD 88

BASIS OF BEARING:
A LINE THAT IS 20° NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS "LWA PLS 28658"

OWNER:
SYLVAN VISTA, INC.
WILLIAM F. HERBIC II, MANAGER
14160 GLENDALE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:

SEAL

PRELIMINARY
THIS DRAWING HAS NOT
BEEN APPROVED BY
GOVERNING AGENCIES AND
IS SUBJECT TO CHANGE

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

| GRANDWOOD RANCH | | | |
|--|-----|-------|-----------------------------|
| EL PASO COUNTY ROAD AND STORM PLANS | | | |
| ROADWAY PLAN AND PROFILE | | | |
| DESIGNED BY: | CAP | SCALE | DATE ISSUED: SEPTEMBER 2020 |
| DRAWN BY: | CAP | HORIZ | DRAWING No. RD11 |
| CHECKED BY: | JA | VERT | |

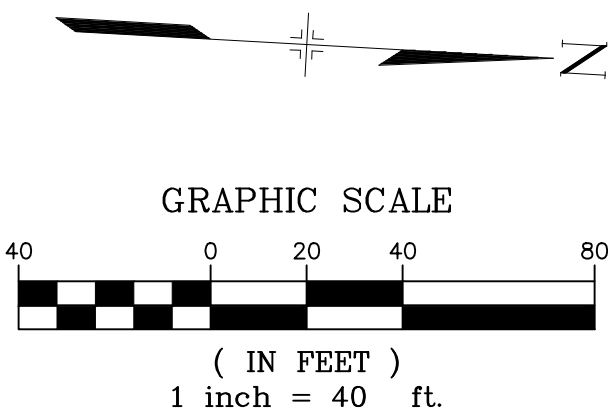


Know what's below.
Call before you dig.

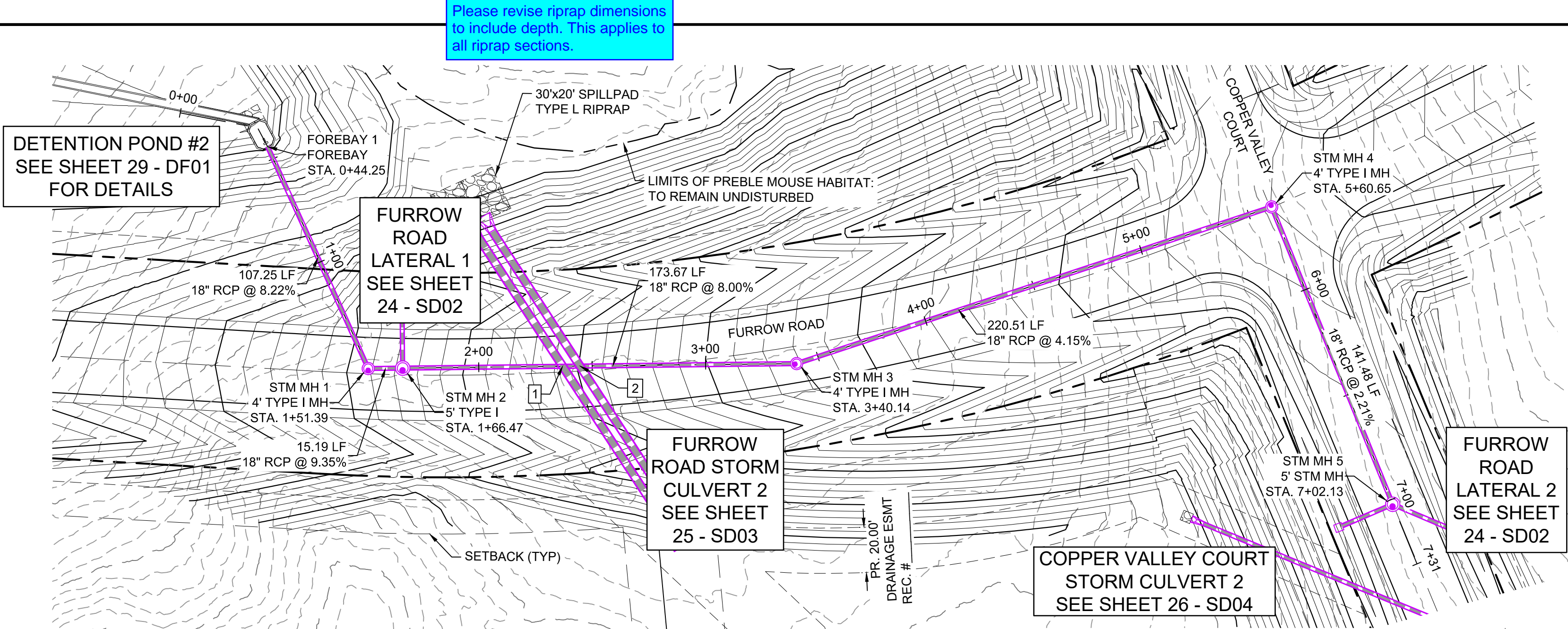
| UTILITY CROSSING DETAILS | | | | |
|--------------------------|----------------------------------|---------------------------|---------------------------|------------|
| CROSSING # | N & E | TOP OF PIPE | BTM OF PIPE | SEPARATION |
| 1 | N 1,454,528.27 E 3,191,074.79 | 18" RCP STM EL=7181.49 | 36" RCP STM EL=7183.52 | 2.03' |
| 2 | N 1,454,535.93 E 3,191,074.27 | 18" RCP STM EL=7182.10 | 36" RCP STM EL=7183.60 | 1.50' |

| PIPE TABLE | | | | |
|------------|---------|--------|-------|-------------|
| NAME | SIZE | LENGTH | SLOPE | BEARING |
| PIPE 1 | 18" RCP | 107.25 | 8.22% | S62°23'11"W |
| PIPE 2 | 18" RCP | 15.19 | 9.35% | S03°53'02"E |
| PIPE 3 | 18" RCP | 173.67 | 8.00% | S03°53'02"E |
| PIPE 4 | 18" RCP | 220.51 | 4.15% | S21°28'15"E |
| PIPE 5 | 18" RCP | 141.48 | 2.21% | S64°37'53"W |

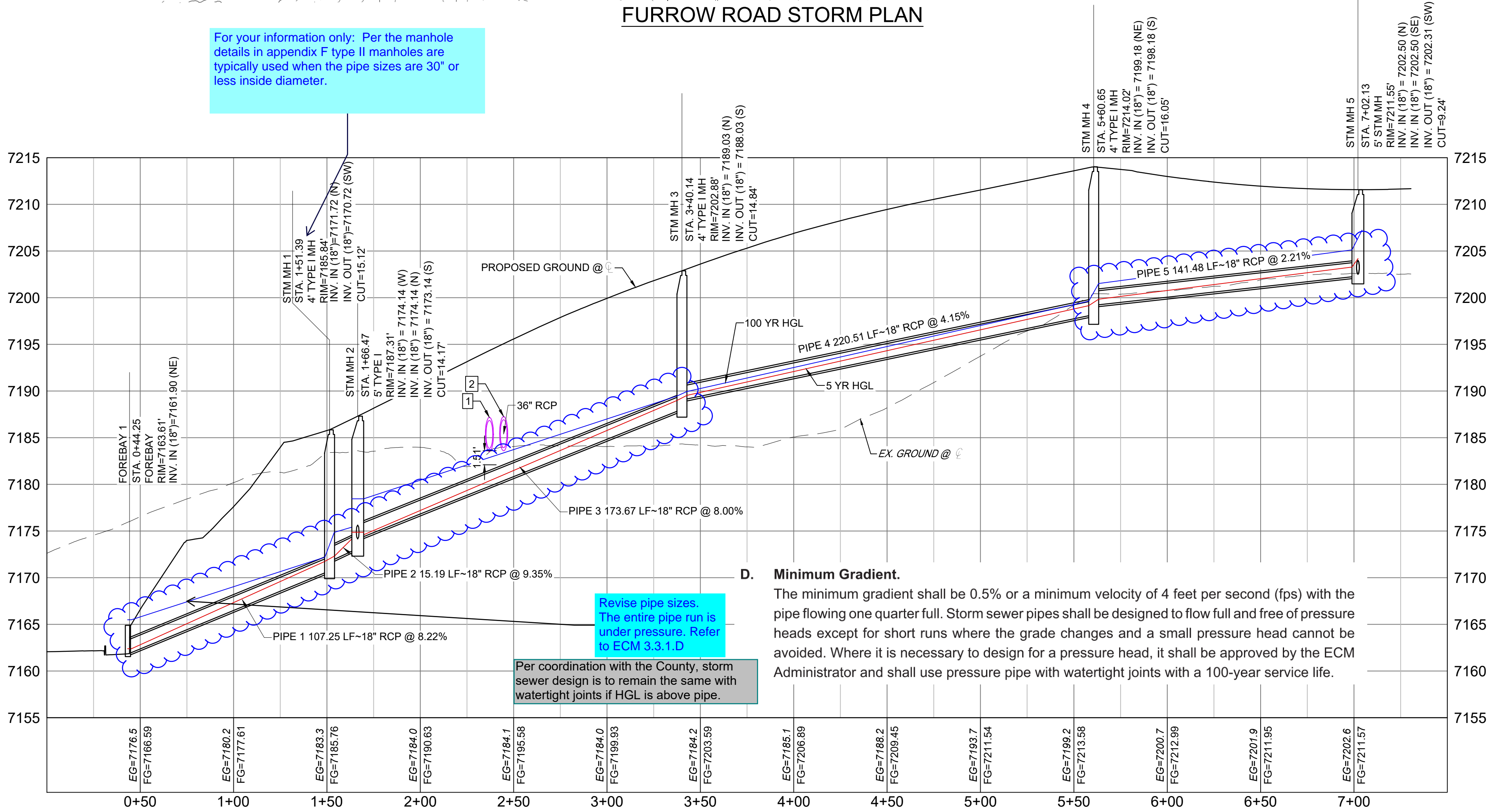
| STRUCTURE TABLE | | | |
|-----------------|--------------|---|--------------------------------|
| NAME | TYPE | DETAILS | N&E |
| FOREBAY 1 | FOREBAY | RIM=7163.61 PIPE 1 INV IN=7161.90 | N: 1454393.08 E: 3190985.55 |
| STM MH 1 | 4' TYPE I MH | RIM=7185.84 PIPE 2 INV IN=7171.72 PIPE 1 INV OUT=7170.72 | N: 1454442.79 E: 3191080.59 |
| STM MH 2 | 5' TYPE I | RIM=7187.31 PIPE 12 INV IN=7174.14 PIPE 3 INV IN=7174.14 PIPE 2 INV OUT=7173.14 | N: 1454457.95 E: 3191079.56 |
| STM MH 3 | 4' TYPE I MH | RIM=7202.88 PIPE 4 INV IN=7189.03 PIPE 3 INV OUT=7188.03 | N: 1454631.22 E: 3191067.80 |
| STM MH 4 | 4' TYPE I MH | RIM=7214.02 PIPE 5 INV IN=7199.18 PIPE 4 INV OUT=7198.18 | N: 1454836.42 E: 3190987.09 |
| STM MH 5 | 5' STM MH | RIM=7211.55 PIPE 15 INV IN=7202.50 PIPE 16 INV IN=7202.50 PIPE 5 INV OUT=7202.31 | N: 1454897.04 E: 3191114.93 |



- NOTES:
- ALL STATION, OFFSET, AND NORTHING/EASTING VALUES ARE TO THE CENTER OF ALL STRUCTURES UNLESS OTHERWISE NOTED.
 - PIPE LENGTHS ARE MEASURED FROM CENTER TO CENTER OF ALL STRUCTURES.
 - ALL PIPE BENDS ANGLES ARE MEASURED FROM THE CENTER OF PIPE.
 - CONTRACTOR TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING STRUCTURES.
 - ALL TYPE C AND TYPE D INLETS SHALL BE CONSTRUCTED AND INSTALLED PER CDOT M&S STANDARD DETAILS. ELEVATIONS PROVIDED REFER TO TOP OF GRATE/STRUCTURE ELEVATION.
 - ALL RCP PIPE SHALL BE CLASS III UNLESS OTHERWISE NOTED.
 - PIPES OF DIFFERENT SIZES ARE TO BE MATCHED TO THE CROWN OF THE INSIDE WALL OF PIPE.
 - PER THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL, MANHOLES SHALL BE INSTALLED 1/8" BELOW THE SURFACE OF THE PAVEMENT ON THE LOWEST SIDE OF THE MANHOLE."
 - SECTIONS OF STORM PIPE WITH PRESSURE HEAD DURING THE 100 YR STORM SHALL USE WATERTIGHT JOINTS WITH A 100 YR SERVICE LIFE PER ECM 3.3.1.B.2.
 - ALL STORM SEWER IS PUBLIC UNLESS OTHERWISE NOTED. ALL DETENTION PONDS ARE PRIVATE AND SHALL BE OWNED AND MAINTAINED BY THE GRANDWOOD RANCH HOMEOWNERS ASSOCIATION, INC.



FURROW ROAD STORM PLAN



FURROW ROAD STORM PROFILE

HORIZ: 1" = 40'
VERT: 1" = 8'

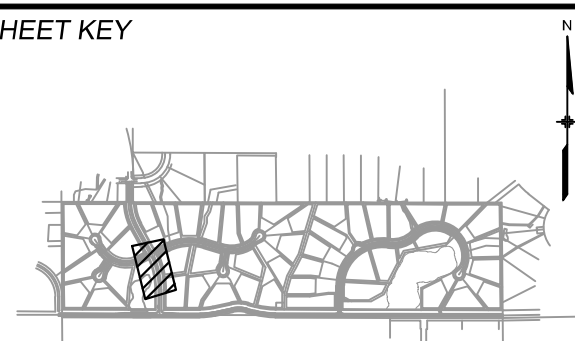
D. Minimum Gradient.

The minimum gradient shall be 0.5% or a minimum velocity of 4 feet per second (fps) with the pipe flowing one quarter full. Storm sewer pipes shall be designed to flow full and free of pressure heads except for short runs where the grade changes and a small pressure head cannot be avoided. Where it is necessary to design for a pressure head, it shall be approved by the ECM Administrator and shall use pressure pipe with watertight joints with a 100-year service life.

Revise pipe sizes.
The entire pipe run is
under pressure. Refer
to ECM 3.3.1.D

Per coordination with the County, storm
sewer design is to remain the same with
watertight joints if HGL is above pipe.

| REFERENCE DRAWINGS | | | |
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| No. | DATE | DESCRIPTION | BY |
| REVISIONS | | | |
| COMPUTER FILE MANAGEMENT | | | |
| FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\Road & Storm Plans\SD01.dwg | | | |
| CTB FILE: | | | |
| PLOT DATE: October 2, 2020 9:38:08 AM | | | |
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BENCHMARK
NGS T 294 ELEVATION - 7247.10' NAVD 88

BASIS OF BEARING:
A LINE THAT IS 20° NORTH OF AND PARALLEL WITH THE EAST-WEST CENTER LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMETER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS "LWA PLS 28658"

OWNER:
SYLVAN VISTA, INC.
WILLIAM F. HERBIC II, MANAGER
14160 GLENEAGLE DRIVE,
COLORADO SPRINGS, CO 80921

PREPARED BY:



SEAL

PRELIMINARY
THIS DRAWING HAS NOT
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IS SUBJECT TO CHANGE

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 20.1120.003

| | | | | | |
|--------------|-----|----------------------------------|--------------|----------------|-------------|
| DESIGNED BY: | CAP | SCALE | DATE ISSUED: | SEPTEMBER 2020 | DRAWING No. |
| CHECKED BY: | NMS | HORIZ. 1" = 40' VERT. 1" = 8' | SHEET | 23 OF 38 | SD01 |

GRANDWOOD RANCH

EL PASO COUNTY
ROAD AND STORM PLANS

STORM PLAN AND PROFILE

2020 Financial Assurance Estimate Form (with pre-plat construction)

Updated: 02/28/2020

| PROJECT INFORMATION | | | |
|------------------------------|-----------|---------------|--------------|
| Grandwood Ranch - Final Plat | 10/2/2020 | \$ 389,310.00 | |
| Project Name | Date | | PCD File No. |

| Description | Quantity | Units | Unit Cost | Total | (with Pre-Plat Construction) % Complete | Remaining |
|---|----------|-------|--------------|-------|--|---------------|
| SECTION 1 - GRADING AND EROSION CONTROL (Construction and Permanent BMPs) | | | | | | |
| * Earthwork | | | | | | |
| less than 1,000; \$5,300 min | | CY | \$ 8.00 | = | \$ - | \$ - |
| 1,000-5,000; \$8,000 min | | CY | \$ 6.00 | = | \$ - | \$ - |
| 5,001-20,000; \$30,000 min | | CY | \$ 5.00 | = | \$ - | \$ - |
| 20,001-50,000; \$100,000 min | | CY | \$ 3.50 | = | \$ - | \$ - |
| 50,001-200,000; \$175,000 min | | CY | \$ 2.50 | = | \$ - | \$ - |
| greater than 200,000; \$500,000 min | | CY | \$ 2.00 | = | \$ - | \$ - |
| * Permanent Seeding (inc. noxious weed mgmnt.) | | AC | \$ 800.00 | = | \$ - | \$ - |
| * Mulching | | AC | \$ 750.00 | = | \$ - | \$ - |
| * Permanent Erosion Control Blanket | | SY | \$ 6.00 | = | \$ - | \$ - |
| * Permanent Pond/BMP Construction | 4 | EA | \$ 10,000.00 | = | \$ 40,000.00 | \$ 40,000.00 |
| * Permanent Pond/BMP Forebay | 4 | EA | \$ 12,000.00 | = | \$ 48,000.00 | \$ 48,000.00 |
| * Permanent Pond/BMP Concrete Trickle Channel | 53 | CY | \$ 570.00 | = | \$ 30,210.00 | \$ 30,210.00 |
| * Permanent Pond/BMP (Spillway) | 4 | EA | \$ 10,000.00 | = | \$ 40,000.00 | \$ 40,000.00 |
| * Permanent Pond/BMP (Outlet Structure) | 4 | EA | \$ 15,000.00 | = | \$ 60,000.00 | \$ 60,000.00 |
| Safety Fence | | LF | \$ 3.00 | = | \$ - | \$ - |
| Temporary Erosion Control Blanket | | SY | \$ 3.00 | = | \$ - | \$ - |
| Vehicle Tracking Control | 2 | EA | \$ 2,370.00 | = | \$ 4,740.00 | \$ 4,740.00 |
| Silt Fence | | LF | \$ 2.50 | = | \$ - | \$ - |
| Temporary Seeding | | AC | \$ 628.00 | = | \$ - | \$ - |
| Temporary Mulch | | AC | \$ 750.00 | = | \$ - | \$ - |
| Erosion Bales | | EA | \$ 25.00 | = | \$ - | \$ - |
| Erosion Logs/Straw Waddle | | LF | \$ 5.00 | = | \$ - | \$ - |
| Rock Check Dams | | EA | \$ 500.00 | = | \$ - | \$ - |
| Inlet Protection | 42 | EA | \$ 167.00 | = | \$ 7,014.00 | \$ 7,014.00 |
| Sediment Basin | 4 | EA | \$ 1,762.00 | = | \$ 7,048.00 | \$ 7,048.00 |
| Concrete Washout Basin | 2 | EA | \$ 900.00 | = | \$ 1,800.00 | \$ 1,800.00 |
| Type 3 Barricade | 2 | EA | \$ 200.00 | = | \$ 400.00 | \$ 400.00 |
| [insert items not listed but part of construction plans] | | | | | | |
| MAINTENANCE (35% of Construction BMPs) | | | | | | |
| * - Subject to defect warranty financial assurance. A minimum of 20% shall be retained until final acceptance (MAXIMUM OF 80% COMPLETE ALLOWED) | | | | | | |
| Section 1 Subtotal | | | | | | |
| | | | | | 246,562.70 | \$ 246,562.70 |
| SECTION 2 - PUBLIC IMPROVEMENTS * | | | | | | |
| ROADWAY IMPROVEMENTS | | | | | | |
| Construction Traffic Control | | LS | | = | \$ - | \$ - |
| Aggregate Base Course (135 lbs/cf) | | Tons | \$ 28.00 | = | \$ - | \$ - |
| Aggregate Base Course (135 lbs/cf) | 6,361 | CY | \$ 50.00 | = | \$ 318,031.69 | \$ 318,031.69 |
| Asphalt Pavement (3" thick) | | SY | \$ 14.00 | = | \$ - | \$ - |
| Asphalt Pavement (4" thick) | 28,623 | SY | \$ 19.00 | = | \$ 543,834.19 | \$ 543,834.19 |
| Asphalt Pavement (6" thick) | | SY | \$ 29.00 | = | \$ - | \$ - |
| Asphalt Pavement (147 lbs/cf) ___" thick | | Tons | \$ 88.00 | = | \$ - | \$ - |
| Raised Median, Paved | | SF | \$ 8.00 | = | \$ - | \$ - |
| Regulatory Sign/Advisory Sign | 5 | EA | \$ 300.00 | = | \$ 1,500.00 | \$ 1,500.00 |
| Guide/Street Name Sign | 8 | EA | \$ 200.00 | = | \$ 1,600.00 | \$ 1,600.00 |
| Epoxy Pavement Marking | | SF | \$ 1.00 | = | \$ - | \$ - |
| Thermoplastic Pavement Marking | | SF | \$ 1.00 | = | \$ - | \$ - |
| Barricade - Type 3 | | EA | \$ 200.00 | = | \$ - | \$ - |
| Delineator - Type I | | EA | \$ 200.00 | = | \$ - | \$ - |
| Curb and Gutter, Type A (6" Vertical) | 506 | LF | \$ 30.00 | = | \$ 15,194.22 | \$ 15,194.22 |
| Curb and Gutter, Type B (Median) | | LF | \$ 30.00 | = | \$ - | \$ - |
| Curb and Gutter, Type C (Ramp) | | LF | \$ 30.00 | = | \$ - | \$ - |
| 4" Sidewalk (common areas only) | | SY | \$ 48.00 | = | \$ - | \$ - |
| 5" Sidewalk | | SY | \$ 60.00 | = | \$ - | \$ - |
| 6" Sidewalk | | SY | \$ 72.00 | = | \$ - | \$ - |
| 8" Sidewalk | | SY | \$ 96.00 | = | \$ - | \$ - |
| Pedestrian Ramp | | EA | \$ 1,150.00 | = | \$ - | \$ - |
| Cross Pan, local (8" thick, 6' wide to include return) | 88 | LF | \$ 61.00 | = | \$ 5,351.35 | \$ 5,351.35 |
| Cross Pan, collector (9" thick, 8' wide to include return) | | LF | \$ 92.00 | = | \$ - | \$ - |
| Curb Chase | | EA | \$ 1,480.00 | = | \$ - | \$ - |
| Guardrail Type 3 (W-Beam) | | LF | \$ 49.00 | = | \$ - | \$ - |
| Guardrail Type 7 (Concrete) | | LF | \$ 72.00 | = | \$ - | \$ - |
| Guardrail End Anchorage | | EA | \$ 2,098.00 | = | \$ - | \$ - |
| Guardrail Impact Attenuator | | EA | \$ 3,767.00 | = | \$ - | \$ - |
| Sound Barrier Fence (CMU block, 6' high) | | LF | \$ 78.00 | = | \$ - | \$ - |
| Sound Barrier Fence (panels, 6' high) | | LF | \$ 80.00 | = | \$ - | \$ - |

provide quantities for permanent seeding & mulching & erosion control blanket

seeding and mulching has been accounted for within the early grading plans

Staff recommends splitting this between the 3" thick (local & collector) and 4" thick (Hibby widening).

update sign quantities per comments on the construction drawings.

Pending final design

| PROJECT INFORMATION | | | | |
|------------------------------|--|-----------|--------------|------------|
| Grandwood Ranch - Final Plat | | 10/2/2020 | \$ | 389,310.00 |
| Project Name | | Date | PCD File No. | |

| Description | Quantity | Units | Unit Cost | | Total | (with Pre-Plat Construction) | |
|---------------------------------------|----------|-------|------------|---|-------|------------------------------|-----------|
| | | | | | | % Complete | Remaining |
| Electrical Conduit, Size = | | LF | \$ 16.00 | = | \$ - | | \$ - * |
| Traffic Signal, complete intersection | | EA | \$ 425,000 | = | \$ - | | \$ - * |



Fix page break on the excel worksheet

Chapter V - Section 55
Subdivision Summary Form

Date: September 24, 2020

Type of Submittal:

SUBDIVISION NAME:

Request for Exemption _____

Preliminary Plan _____

Final Plat X _____

Grandwood Ranch

County: **EL PASO COUNTY**

SUB. LOCATION: Township: 11 S Range: 66 W Section: Portion of Section 19

OWNER(S) NAME: Sylvan Vista, Inc.

ADDRESS: 14160 Gleneagle Drive, Colorado Springs, CO 80921

SUBDIVIDER(S) NAME Same As Owner

The RR-2.5 zoning does not require 10% Open Space (10% requirement is for PUD development)

Listed acreage is less than 10% of subdivision area.

| | Type of Subdivision | Number of Dwelling Units | Area (Acres) | % of Total Area* |
|--|------------------------------|--------------------------|--------------|------------------|
| | Single Family Detached Res. | 48 | 122.07 | 81% |
| | Open Space/ Landscape | | 14.59 | 10% |
| | Public Street Rights-of-Way | | 14.30 | 8% |
| | Private Street Rights-of-Way | | 0.00 | 0% |
| | TOTAL | | 150.96 | 100% |

Provide information from Water Information Summary regarding usage demands

* (By map measure)

Estimated Water Requirements Private well system per lot (gallons/day).

Proposed Water Source(s) Dawson Aquifer

Estimated Sewage Disposal Requirement Private septic system per lot (gallons/day).

Proposed Means of Sewage Disposal Private septic system

ACTION:

Planning Commission Recommendation

Approval _____ Date _____

Disapproval _____

Remarks: _____

Board of County Commissioners

Approval _____ Date _____

Disapproval _____

Exemption under C.R.S. 30-28-101 (10) (d) _____

Remarks (if exemption, state reason): _____

Note: This form is required by C.R.S. 30-28-136 (4), but is not a part of the regulations of El Paso County, Colorado.

| | |
|---|--|
| DISTRICT COURT, WATER DIVISION 2, COLORADO Court Address: 501 N. Elizabeth Street, Ste. 116 Pueblo, CO 81003 Phone Number: (719) 404-8700 | DATE FILED: October 1, 2020 2:48 PM CASE NUMBER: 2019CW3015 |
| CONCERNING THE APPLICATION FOR WATER RIGHTS OF: GRANDWOOD ENTERPRISES, LLC IN EL PASO COUNTY, COLORADO | <p style="text-align: center;">▲ COURT USE ONLY ▲</p> <hr/> Case No.: 19CW3015 Ctrm.: 406 |
| FINDINGS OF FACT, CONCLUSIONS OF LAW, RULING AND DECREE OF WATER COURT ADJUDICATING DENVER BASIN GROUNDWATER AND APPROVING PLAN FOR AUGMENTATION | |

THIS MATTER, having come before the Court on the Application for Adjudication of Denver Basin Groundwater and for Approval of Plan for Augmentation filed by Grandwood Enterprises, LLC, and the Court being fully advised on this matter, hereby makes the following findings of fact, conclusions of law, judgment and decree:

GENERAL FINDINGS OF FACT

1. The Applicant in this case is Grandwood Enterprises, LLC, a Colorado limited liability company, whose address is 270 Lodge Pole Way, Monument, Colorado 80132. Applicant is the owner of approximately 146.84 acres on which the structures sought to be adjudicated herein will be located, and are the owners of the place of use where the water will be put to beneficial use.

2. The Applicant filed the Application with the Water Courts for both Water Divisions 1 and 2 on February 28, 2019. The Application was subsequently referred to the Water Referees in both Divisions 1 and 2.

3. The time for filing statements of opposition to the Application expired on the last day of April 2019. Woodmoor Water and Sanitation District No. 1 ("Woodmoor") filed a timely statement of opposition. No other parties have filed a statement of opposition.

4. Applicant and Woodmoor entered into a stipulation dated August 26, 2020 that was approved by an order of the Court dated August 27, 2020.

5. A Motion for Consolidation of the cases into Water Division 2 was filed with

Well Permit# 260946
not included under
well permit list

The well under permit #260946
was not constructed and permit
has previously been closed.

Grandwood Enterprises, LLC
Ruling and Decree
19CW3015
Page 3 of 16

Bank & Trust, lienholder on Applicant's Property, was sent a Letter of Notice. A Certificate of Notice to Lienholder was filed with the District Court, Water Division 2, on July 8, 2019.

13. There are currently two Colorado Division of Water Resources well permits issued for the Applicant's Property: Permit No. 267286 and Permit No. 2757. Such wells shall be properly capped and abandoned and the Applicant shall provide written notice to the State and Division Engineers and to Woodmoor that such wells have been capped and abandoned within sixty (60) days of abandonment.

14. Of the statutorily described Denver Basin aquifers, the Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers all exist beneath the Applicant's Property. The Dawson, Denver, and Arapahoe aquifers underlying the Applicant's Property contain nontributary water as defined in § 37-90-103(10.7), C.R.S. The water of the Laramie-Fox Hills aquifer underlying the Applicant's Property is nontributary as defined in § 37-90-103(10.5), C.R.S. The quantity of water in the Denver Basin aquifers exclusive of artificial recharge underlying the Applicant's Property is as follows:

| AQUIFER | NET SAND (ft) | Specific Yield | Total Appropriation (Acre Feet) | Annual Average Withdrawal 100 Years (Acre Feet) | Annual Average Withdrawal 300 years |
|---------------------------|---------------------|-------------------|---------------------------------------|---|--|
| Dawson (NNT) | 333.5 | 0.20 | 9,805 | 98.05 | 32.68 |
| Denver (NNT) | 500 | 0.17 | 12,495 | 124.95 | - |
| Arapahoe (NNT) | 270.6 | 0.20 | 6,763 | 67.63 | - |
| Laramie-Fox Hills (NT) | 191.4 | 0.15 | 4,220 | 42.20 | - |

15. Applicant shall not be entitled to construct a well or use water from the nontributary Dawson, Denver, and Arapahoe aquifers except pursuant to an approved augmentation plan in accordance with § 37-90-137(9)(c.5), C.R.S., including as decreed herein.

16. Applicant shall be entitled to withdraw all legally available groundwater in the Denver Basin aquifers underlying Applicant's Property. Said amounts can be withdrawn over the 100-year life for the aquifers as set forth in § 37-90-137(4), C.R.S. or withdrawn over a longer period of time based upon local governmental regulations or Applicant's water needs. The average annual amounts of groundwater available for withdrawal from the underlying Denver Basin aquifers, based upon the 100-year aquifer life (and 300-year aquifer life as set forth in El Paso County Code § 8.4.7(C)(1)) are determined and set forth above at the Office of the State Engineer Determination of Facts.

The Dawson Aquifer lies within
the Denver Basin.

Water Resources report and Water
Summary Information only identify
withdrawal from Dawson Aquifer

after the diversion by the Grandwood Wells. The water rights to be used for augmentation after pumping are a reserved amount of Applicant's nontributary water rights in the Laramie-Fox Hills aquifer. Applicant shall provide for the augmentation of stream depletions caused by pumping the Grandwood Wells as approved herein.

A. Diversion: The Grandwood Wells may pump up to 16.08 annual acre-feet of water (0.3 acre-feet per residence per year). The groundwater assessment (water resource report) was a preliminary study performed in 2018 with an assumed 50-lot development. The concluding statements of the groundwater assessment are that the reported '...results may vary slightly based on findings of the State engineers'. The state engineers findings are listed within the recorded water decree at 1,600 SF of outdoor irrigation and use will utilize an estimated 11.6 acre-feet of water (0.23 acre-feet per residence per year) pumping entitlements and 1400 sq. ft identified in Water Resources Report via non-evaporative septic systems.

B. Diversion: The Grandwood Wells may pump up to 16.08 annual acre-feet of water (0.3 acre-feet per residence per year). The groundwater assessment (water resource report) was a preliminary study performed in 2018 with an assumed 50-lot development. The concluding statements of the groundwater assessment are that the reported '...results may vary slightly based on findings of the State engineers'. The state engineers findings are listed within the recorded water decree at 1,600 SF of outdoor irrigation and use will utilize an estimated 11.6 acre-feet of water (0.23 acre-feet per residence per year) pumping entitlements and 1400 sq. ft identified in Water Resources Report via non-evaporative septic systems. Engineer's Consultation ruled acceptable to the State. The recorded court decree governs any period will amount to previous report for the site and lawfully rules water rights for the site. Maximum annual depletions for total residential pumping from the Grandwood Wells therefore amounts to 4.42 acre-feet in the year 300.

C. Uses: Outdoor irrigation use of the water pumped with the Grandwood Wells under this plan for augmentation shall be limited on each lot to 1,600 square feet. In addition, outdoor irrigation and stock watering uses shall be allowed only on lots with occupied single-family residences and septic systems.

D. Augmentation of Depletions During Pumping Life of Wells: Pursuant to § 37-90-137(9)(c.5), C.R.S., Applicant is required to replace actual stream depletions attributable to pumping of the Grandwood Wells. Applicant has determined that depletions during pumping will be effectively replaced by residential return flows from non-evaporative septic systems serving single-family residences to be constructed on Applicant's Property, which accrues to Monument Creek and some of its tributaries. The annual consumptive use for non-evaporative septic systems is estimated at 10% per year per residence. At the household use rate of 0.25 acre-feet per residence per year, an estimated 10.8 acre-feet is replaced to the stream system per year utilizing non-evaporative septic systems. Applicant will not cause stream depletions to exceed this amount during pumping. The groundwater assessment (water resource report) was a preliminary study performed in 2018 with an assumed 50-lot development. The concluding statements of the groundwater assessment are that the reported '...results may vary slightly based on findings of the State engineers'. The groundwater assessment states an estimated 11.25 AF/yr of stream system replacement. The state engineers findings are listed within the recorded water decree at 10.8 acre-feet of stream system replacement. Although the State's findings are less than the original assessment, the maximum depletion rate for the 300th year is 4.47 AF/yr. The 10.8 AF/yr stated within the water decree remains to far exceed the maximum depletion rates for the development. The recorded court decree governs any previous report for the site and lawfully rules water rights for the site. rather than measure and replace depletions assigned in whole stream replacements in actual stream. The groundwater assessment states an estimated 11.25 AF/yr of stream system replacement. The state engineers findings are listed within the recorded water decree at 10.8 acre-feet of stream system replacement. Although the State's findings are less than the original assessment, the maximum depletion rate for the 300th year is 4.47 AF/yr. The 10.8 AF/yr stated within the water decree remains to far exceed the maximum depletion rates for the development. The recorded court decree governs any previous report for the site and lawfully rules water rights for the site.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Grandwood Enterprises

El Paso County Water Quality Testing

Provide summary of recommendations from report indicating whether standards have been met for water quality

SGS Job Number: DA20418

Sampling Date: 09/19/19

The report has been revised to add a Conformance Summary Section. This can be found in the revised report within Section 2, Page 4

Report to:

Grandwood Enterprises
270 Lodgepole Way
Monument, CO 80132
herebic5@msn.com

ATTN: Bill Herebic

Total number of pages in report: 29



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Scott Heideman
Laboratory Director

Client Service contact: Elizabeth Sutcliffe 303-425-6021

Certifications: CO (CO00049), NE (NE-OS-06-04), ND (R-027), UT (NELAP CO00049)
LA (LA150028), TX (T104704511), WY (8TMS-L)

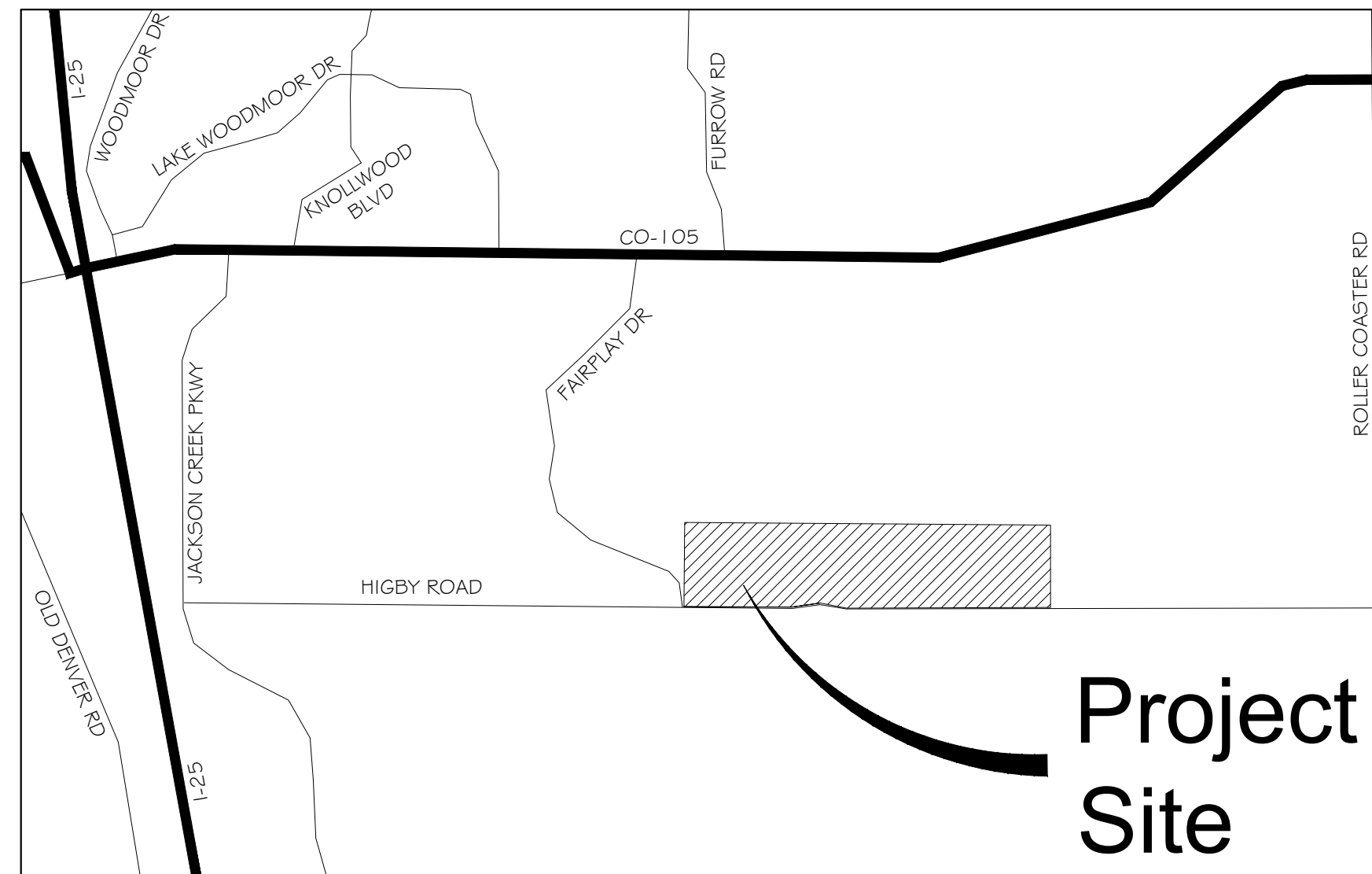
This report shall not be reproduced, except in its entirety, without the written approval of SGS.
Test results relate only to samples analyzed.

GRANDWOOD RANCH
EL PASO COUNTY, CO
FINAL GRADING & EROSION CONTROL PLANS
SEPTEMBER, 2020

**EPC STORMWATER REVIEW COMMENTS
IN ORANGE BOXES WITH BLACK TEXT**

| INDEX OF SHEETS | | SHEET No. |
|-----------------|--------------------------------|-----------|
| TS01 | TITLE SHEET | 1 |
| GEN01 | LEGEND & ABBREVIATION NOTES | 2 |
| GN01 | GENERAL NOTES | 3 |
| GEC01-GEC03 | GRADING & EROSION CONTROL PLAN | 4-6 |
| ECD01-ECD03 | EROSION CONTROL DETAILS | 7-9 |

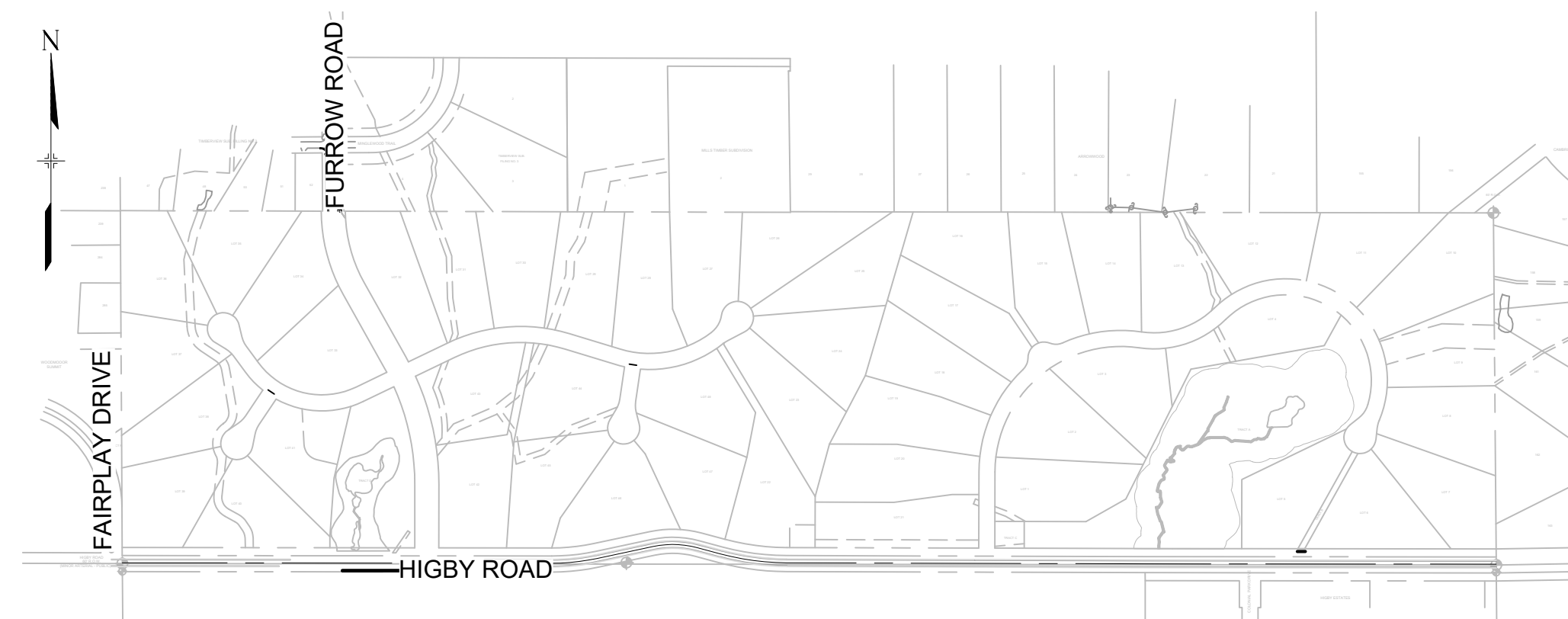
THIS FINAL GRADING AND EROSION CONTROL PLAN IS AN ACCURATE REPRESENTATION OF THE GENERAL DRAINAGE PATTERNS ON THE SITE, BUT IS NOT A COMPREHENSIVE DETAILED GRADING PLAN THAT ADDRESSES ALL CONDITIONS THAT MAY OCCUR. THE GRADING OF EACH LOT SHOULD BE CHECKED BY THE HOMEBUILDER TO ENSURE THAT DRAINAGE WILL NOT BE COMPROMISED ON THE LOT OR THE ADJACENT LOTS. CONTRACTOR TO CONTACT DESIGN ENGINEER IF FIELD CONDITIONS DIFFER FROM WHAT IS SHOWN WITHIN THESE PLANS.



VICINITY MAP


N.T.S.

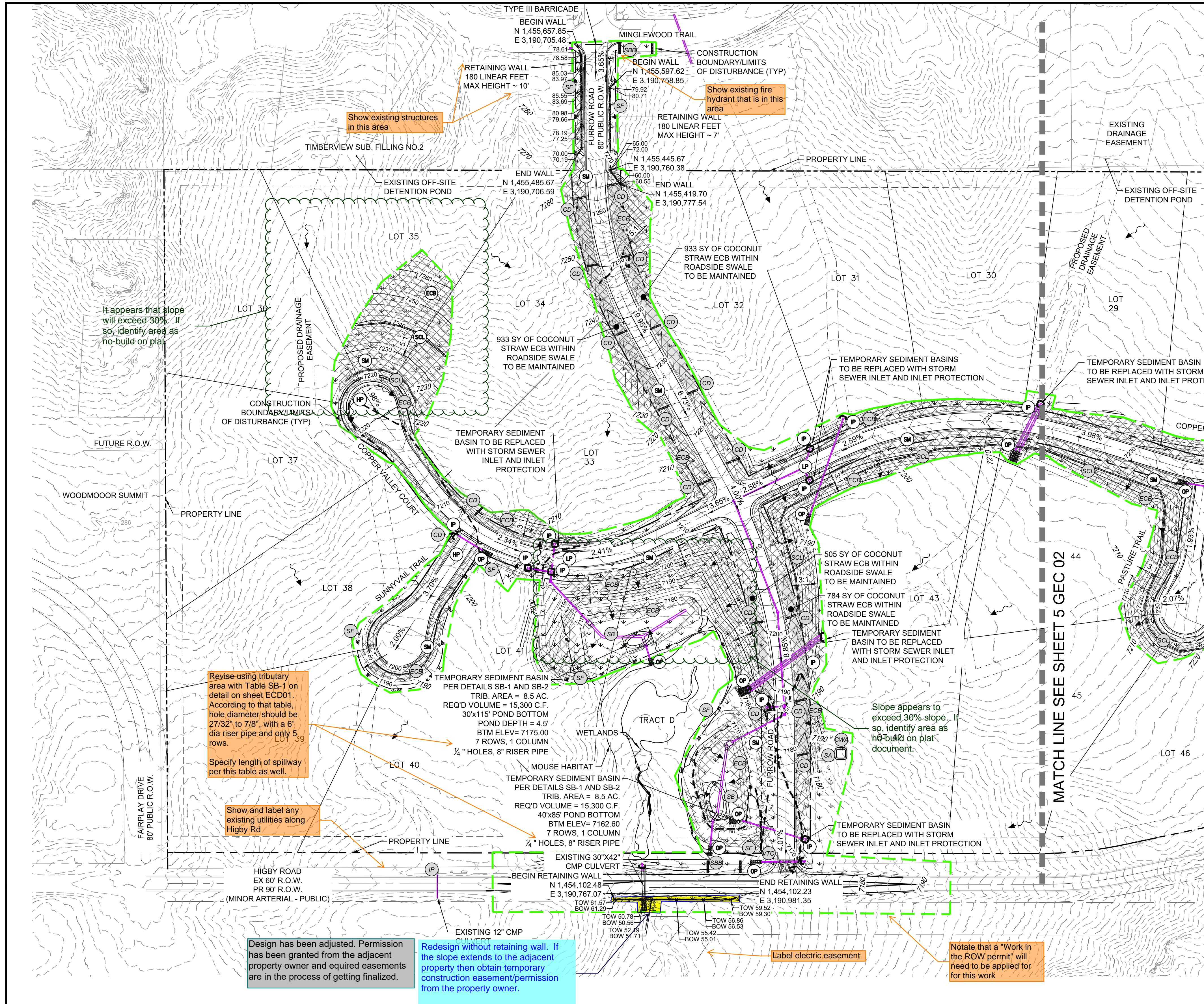
| | |
|-----------------|--|
| OWNER/DEVELOPER | SYLVAN VISTA, INC. 14160 GLENEAGLE DRIVE COLORADO SPRINGS, CO 80921 |
| CIVIL ENGINEER | MATRIX DESIGN GROUP 2435 RESEARCH PARKWAY, SUITE 300 COLORADO SPRINGS, CO 80920 |
| ELECTRIC | MOUNTAINVIEW ELECTRIC ASSOCIATION (719) 495-2283 |
| GAS | BLACK HILLS ENERGY 105 SOUTH VICTORIA AVENUE PUEBLO, CO (888) 890-5554 |
| STREET | EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT INSPECTIONS 2880 INTERNATIONAL CIRCLE, SUITE 110 COLORADO SPRINGS, CO 80910 (719) 520-6819 |
| DRAINAGE | EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS STORMWATER TEAM 3275 AKERS DRIVE COLORADO SPRINGS, CO 80922 (719) 520-6877 |
| FIRE DEPARTMENT | TRI-LAKES MONUMENT FIRE RESCUE 16055 OLD FOREST POINT, SUITE 103 MONUMENT, CO 80132 (719) 484-0911 |



SITE MAP

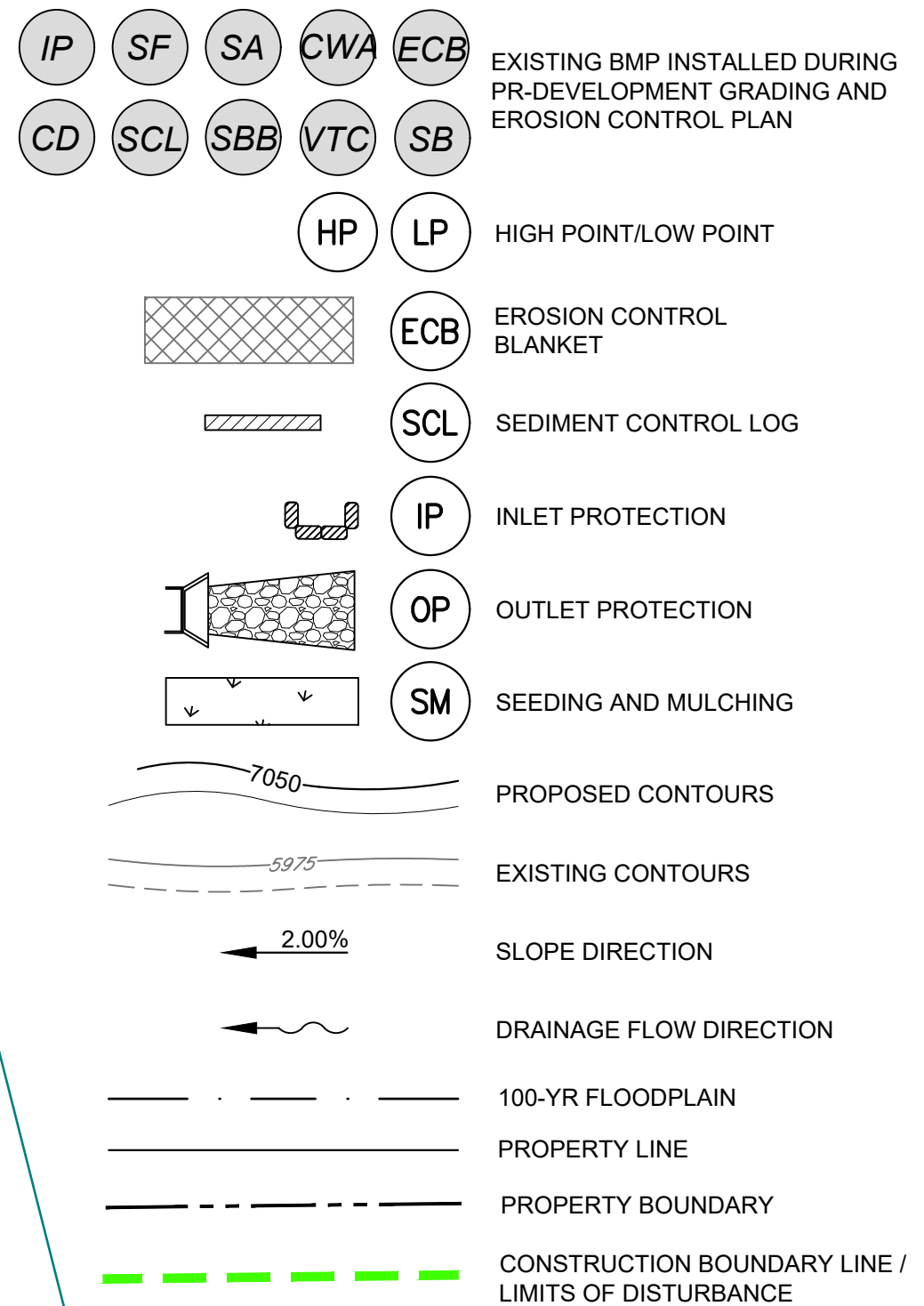
N.T.S.

| | | | | | | | |
|-----------------------|------|------|------|------|-----------|---|--|
| REFERENCE DRAWINGS | #### | #### | #### | #### | SHEET KEY |  | BENCHMARK NGS T 294 ELEVATION - 7247.10' NAVD 88 < |
|-----------------------|------|------|------|------|-----------|---|--|



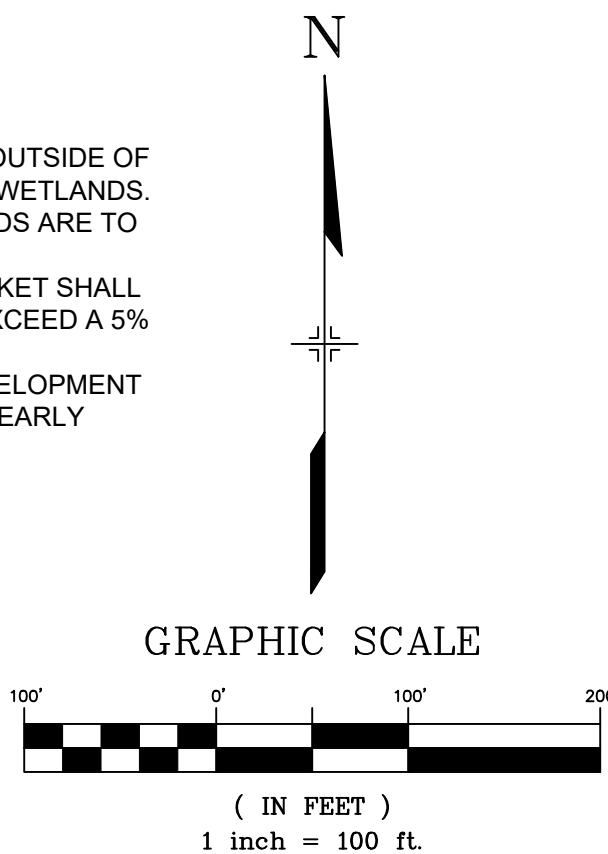
Provide a table identifying proposed BMP's by phase (initial, interim, and final)

Table is provided below

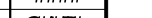


| BMP SEQUENCING | |
|----------------|---|
| INITIAL | SILT FENCE, CONCRETE WASHOUT, VEHICLE TRACKING, TEMP SEDIMENT BASINS, INLET/OUTLET PROTECTION |
| INTERIM | CHECK DAMS, COCNETE WASHOUT, STRAW BARRIERS, STOCKPILES, STAGING |
| FINAL | EROSION CONTROL BLANKETS, SEEDING & MULCHING |

- CONSTRUCTION NOTES:
- ALL GRADING OPERATIONS SHALL REMAIN OUTSIDE OF DESIGNATED PREBLE MOUSE HABITAT AND WETLANDS. DESIGNATED MOUSE HABITAT AND WETLANDS ARE TO REMAIN UNDISTURBED.
 - COCONUT STRAW EROSION CONTROL BLANKET SHALL BE USED IN ALL ROADSIDE SWALES THAT EXCEED A 5% LONGITUDINAL SLOPE.
 - REFERENCE GRANDWOOD RANCH PRE-DEVELOPMENT GRADING & EROSION CONTROL PLANS FOR EARLY OVERLOT GRADING BMP'S.



| | | | | | | | | | | |
|---|-----|-----|-----|------|-----|--|--|--|-------------|----|
| REFERENCE DRAWINGS | ### | ### | ### | ### | | | | | | |
| | ### | ### | ### | ### | | | | | | |
| | ### | ### | ### | ### | | | | | | |
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| | ### | ### | ### | ### | | | | | | |
| X-Title-W-Final X-1105-PR-SITE | | | | | | | | | | |
| No. | | | | DATE | ### | | | | DESCRIPTION | BY |
| REVISIONS | | | | | | | | | | |
| COMPUTER FILE MANAGEMENT | | | | | | | | | | |
| FILE NAME: S:\20.1105.004 Grandwood Ranch\100 Dwg\104 Plan Sets\Construction Plans\GEC Plan\Final\GEC01.dwg | | | | | | | | | | |
| CTB FILE: --- | | | | | | | | | | |
| PLOT DATE: September 21, 2020 11:07:55 AM | | | | | | | | | | |
| THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE. | | | | | | | | | | |

| | |
|---|--|
| SHEET KEY | |
|  | |

| | |
|---|--|
| BENCHMARK | |
| NGS T 294 ELEVATION - 7247.10' NAVD 88 | |
| BASIS OF BEARING: | |
| A LINE THAT IS 20' NORTH OF AND PARALLEL WITH THE EAST-WEST CETNR LINE OF SECTION 19, T11S, R66W, N89°56'32"W - 5135.84'. THE DIRECTION IS A GRID BEARING OF THE COLORADO STATION PLANE COORDINATE SYSTEM, CENTRAL ZONE, N.A.D. 1983. THE LINE IS MONUMENTED BY 5/8" DIAMTER REBAR, 18" IN LENGTH WITH 1-1/2" ALUMINUM CAPS "LWA PLS 28658" | |

| | |
|--------------|---|
| OWNER: | SYLVAN VISTA, INC. WILLIAM F. HEREBIC II, MANAGER 14160 GLENEAGLE DRIVE COLORADO SPRINGS, CO 80921 |
| PREPARED BY: | |

| | |
|--|--|
| SEAL | |
| FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC. PROJECT No. 20.1105.004 | |

| | | | | | | | | | | |
|--------------|----|-------|---------|--|--------------|-------|-----------------|--|-------------|--|
| DESIGNED BY: | | CP | SCALE | | DATE ISSUED: | | SEPTEMBER, 2020 | | DRAWING No. | |
| DRAWN BY: | TS | HORIZ | 1"=100' | | | | | | | |
| CHECKED BY: | NS | VERT. | N/A | | | SHEET | 4 OF 9 | | GEC01 | |