

# Forest Heights Estates CONSTRUCTION DRAWINGS

FOR FOREST HEIGHTS CIRCLE  
COUNTY OF EL PASO, STATE OF COLORADO  
APRIL 2022

PREPARED FOR  
Ms. Phyllis Didleau  
8250 Forest Heights Drive  
Colorado Springs CO 80909

PREPARED BY  
KCH Engineering Solutions, P.E.  
5228 Cracker Barrel Circle  
Colorado Springs, CO 80917  
(On behalf of Land Development Consultants, Inc.  
3898 Maizeland Road  
Colorado Springs, Colorado 80909)

## AGENCIES

**Owner:** Phyllis Didleau  
8250 Forest Heights Drive  
Colorado Springs, CO 80908  
**Civil Engineer:** KCH Engineering Solutions, LLS  
5228 Cracker Barrel Circle  
Colorado Springs, CO 80917  
Mr. Kenneth Harrison, P.E 719-246-4471

**Surveyor:** Land Development Consultants, Inc.  
3898 Maizeland Road  
Colorado Springs, CO 80909  
Mr. Daniel Kupferer, PLS 719-528-6133

**County Engineering:** El Paso County Planning & Community Dev  
2880 International Circle, Suite 110  
Colorado Springs, CO 80910  
Mr. \_\_\_\_\_

**Gas Company:** Blackhills Energy  
37 Widefield Boulevard  
Widefield Co, 80911

**Electric Co.:** Mountainview Electric  
P.O. Box 1860  
Limon Co, 80828

**Fire District:** Black Forest Fire Rescue Protection District  
11445 Teachout Road  
Colorado Springs, CO 80908  
Ph 719-495-4300  
Mr. James Rebitski

**Telephone:**

## SHEET INDEX

Sheet 1 of 5 Title Sheet  
Sheet 2 of 5 General Notes, Cul-de-sac and Typical Sections  
Sheet 3 of 5 Forest Heights Circle Plan & Profile (Sta 0+50 To Sta 13+50)  
Sheet 4 of 5 Forest Heights Circle Plan & Profile (Sta 16+50 To Sta 23+75)  
Sheet 5 of 5 Culvert Sections and Detail Sheet

## APPROVALS

Design Engineer's Statement:

These detailed plans and specifications were prepared under my direction and supervision. Said plans and specifications have been prepared according to the criteria established by the County for detailed roadway, drainage, grading and erosion control plans and specifications, and said plans and specifications are in conformity with applicable master drainage plans and master transportation plans. Said plans and specifications meet the purposes for which the particular roadway and drainage facilities are designed and are correct to the best of my knowledge and belief. I accept responsibility for any liability caused by any negligent acts, errors or omissions on my part in preparation of these detailed plans and specifications.

Kenneth C. Harrison, P.E. # \_\_\_\_\_ Date \_\_\_\_\_

Owner/Developer's Statement:

I, the owner/developer have read and will comply with all of the requirements specified in these detailed plans and specifications.

[Name, Title] \_\_\_\_\_ Date \_\_\_\_\_  
[Business Name]  
[Address]

El Paso County:

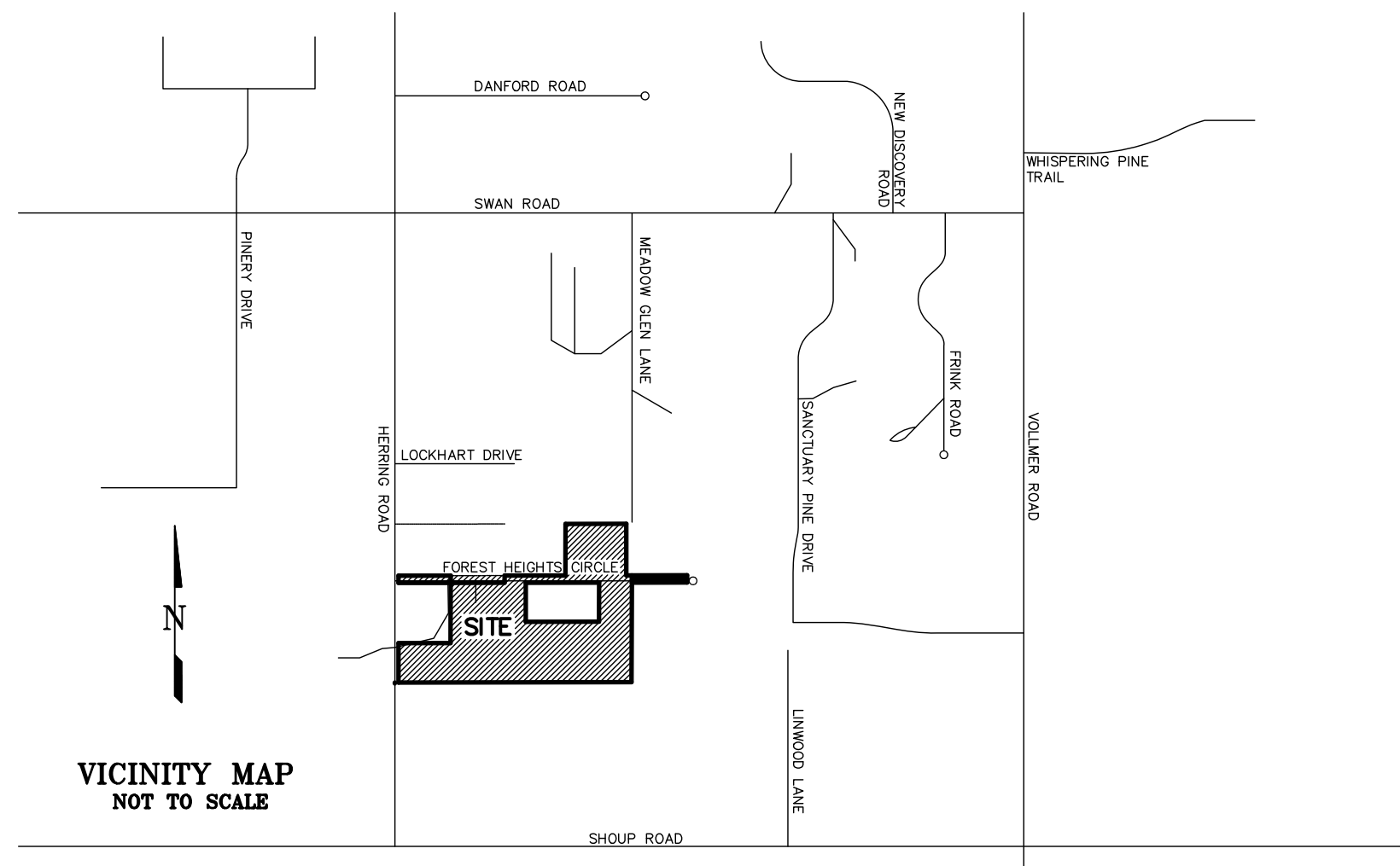
County plan review is provided only for general conformance with County Design Criteria. The County is not responsible for the accuracy and adequacy of the design, dimensions, and/or elevations which shall be confirmed at the job site. The County through the approval of this document assumes no responsibility 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.

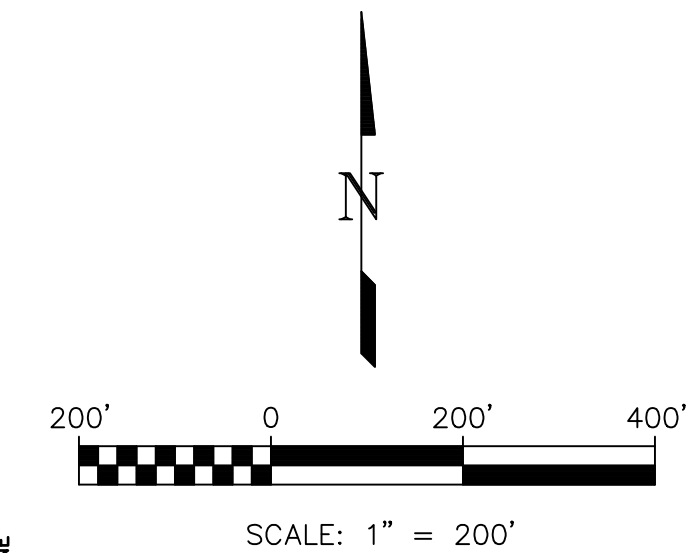
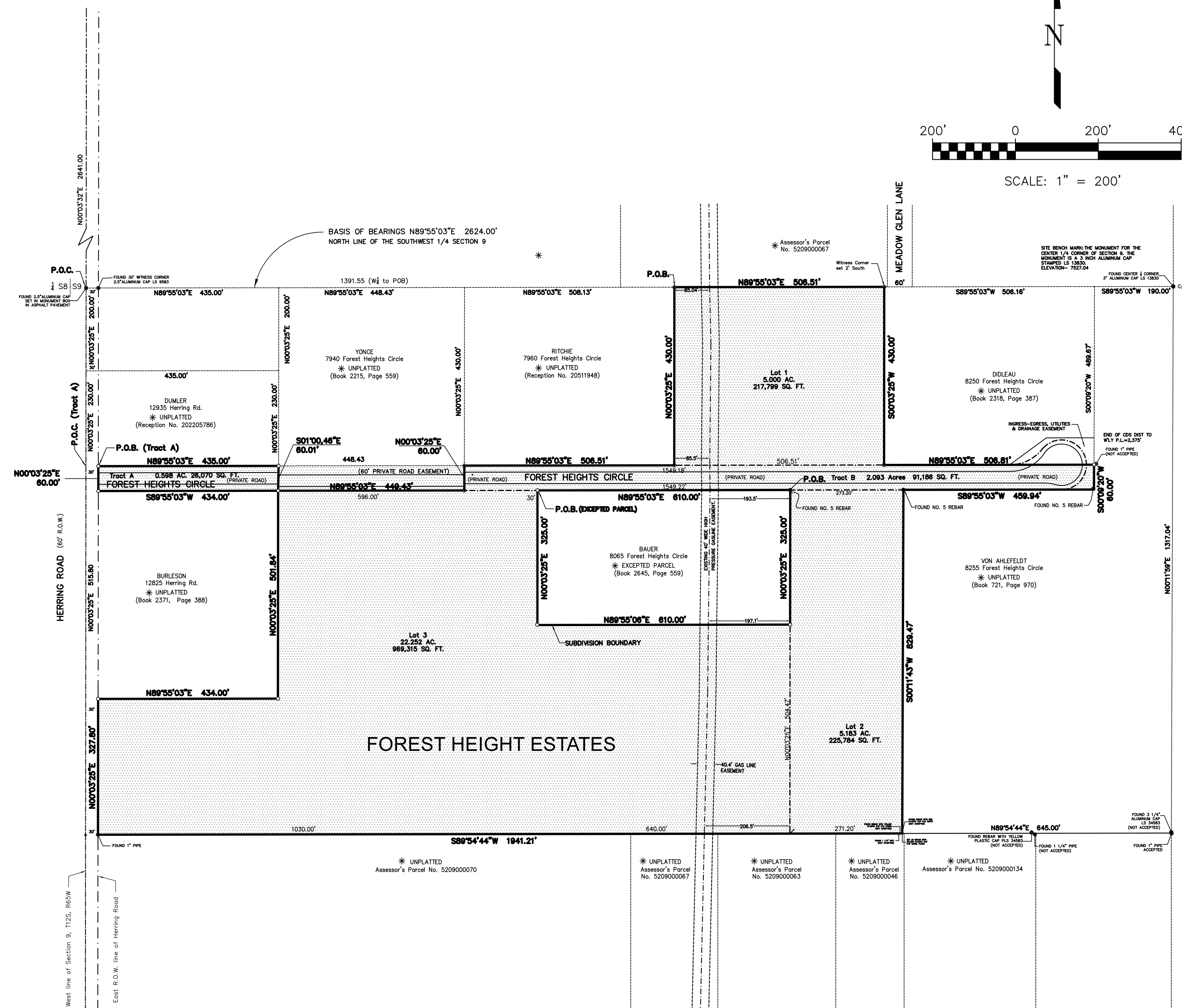
In accordance with ECM Section 1.12, these construction documents will be valid for construction for a period of 2 years from the date signed by the El Paso County Engineer. If construction has not started within those 2 years, the plans will need to be resubmitted for approval, including payment of review fees at the Planning and Community Development Directors discretion.

Jennifer Irvine, P.E. \_\_\_\_\_ Date \_\_\_\_\_  
County Engineer / ECM Administrator

Add PCD File No.  
MS-206



VICINITY MAP  
NOT TO SCALE



Revise to Joshua Palmer, PE  
Interim County Engineer

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48 HOURS BEFORE YOU DIG. CALL UTILITY LOCATORS  
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AND FIBER OPTIC.

No.	Date	By	Description
1	02-23-2022	DAS	LOT REVISIONS
2	04-12-2022	DAS	ROAD REVISIONS

H Scale: VARIES  
V Scale: VARIES  
Designed By: KCH  
Drawn By: WCS  
Checked By: DLK  
Date: 07/15/21

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FOREST HEIGHTS CIRCLE  
CONSTRUCTION DRAWINGS  
TITLE SHEET

Project No.: 18070  
Sheet: 1 of 5

F:\18000\18070-Division Property\2022 ENGINEERING\18070 FOREST HEIGHTS ROAD AND EROSION PLANS 940122.DWG

GENERAL NOTES:

- 1 THE FOLLOWING STANDARD PLAN SHEETS ARE TO BE USED TO CONSTRUCT THIS PROJECT S-627-1, S-614-2, S-614-3, S-627-1, S-612-1.
- 2 THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE COLORADO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2017) (REFERRED TO AS THE STANDARD SPECIFICATIONS), EXCEPT WHERE OTHERWISE NOTED ON THE PROJECT PLANS AND/OR THE PROJECT SPECIAL PROVISIONS.
- 3 THE "PIKES PEAK REGION ASPHALT PAVING SPECIFICATIONS," VERSION 2, DATED APRIL 1, 2008 SHALL APPLY TO ASPHALT PAVING MATERIALS AND CONSTRUCTION PROCEDURES EXCEPT WHERE NOTED ON THE PROJECT PLANS AND/OR PROJECT SPECIAL PROVISIONS.
- 4 THE CONTRACTOR SHALL HAVE A COPY OF ALL APPLICABLE STANDARDS ON SITE FOR THE DURATION OF THE PROJECT.
- 5 THE CONTRACTOR SHALL ACQUIRE ALL NECESSARY PERMITS AND INSPECTIONS REQUIRED TO COMPLETE THE SCOPE OF WORK PRESENTED HEREIN.
- 6 THE ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION.

Standard Notes for El Paso County Construction Plans

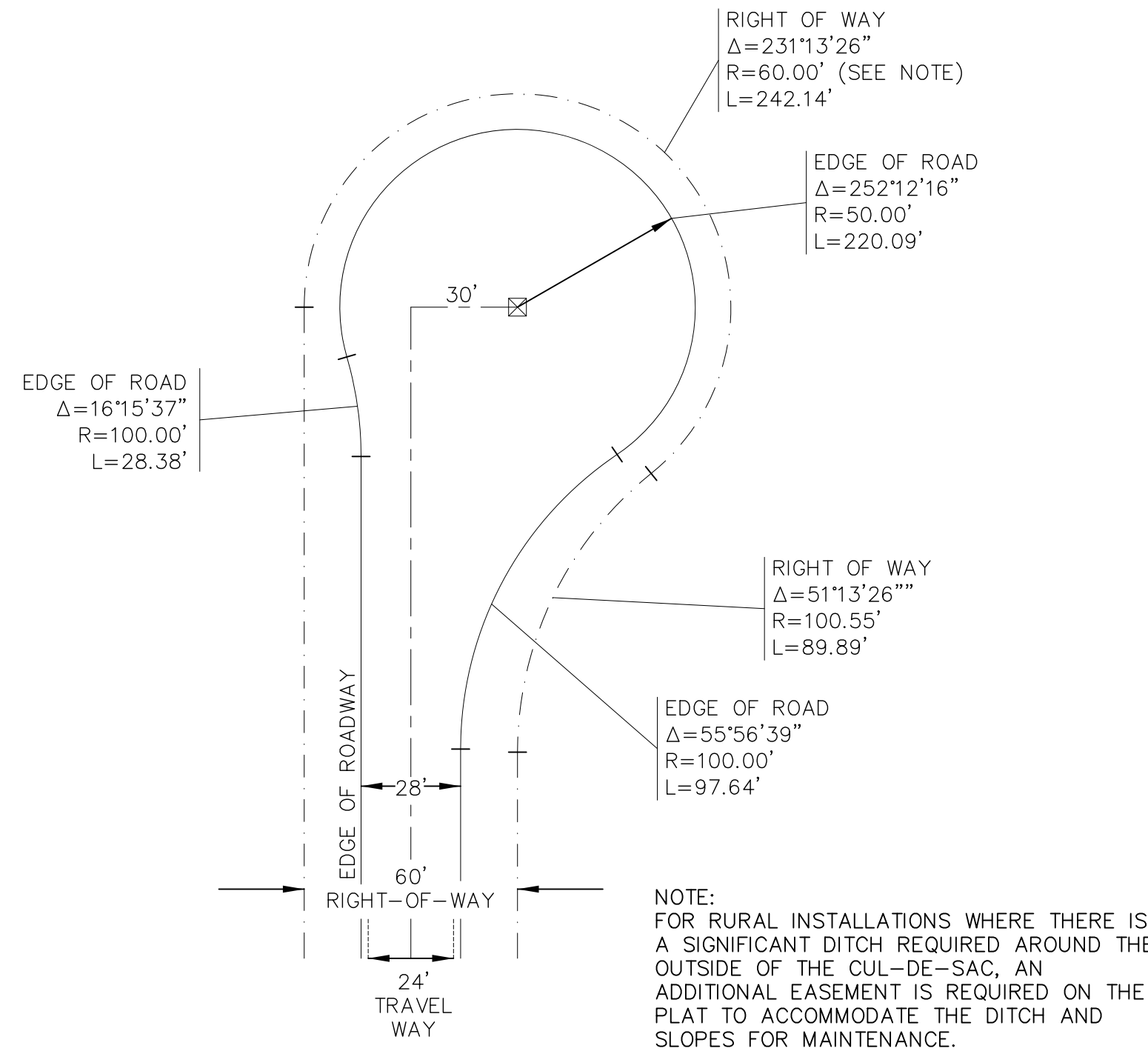
1. All drainage and roadway construction shall meet the standards and specifications of the City of Colorado Springs/El Paso County Drainage Criteria Manual, Volumes 1 and 2, and the El Paso County Engineering Criteria Manual.
2. Contractor shall be responsible for the notification and field notification of all existing utilities, whether shown on the plans or not, before beginning construction. Location of existing utilities shall be verified by the contractor prior to construction. Call 811 to contact the Utility Notification Center of Colorado (UNCC).
3. Contractor shall keep a copy of these approved plans, the Grading and Erosion Control Plan, the Stormwater Management Plan (SWMP), the soils and geotechnical report, and the appropriate design and construction standards and specifications at the job site at all times, including the following:
  - a. El Paso County Engineering Criteria Manual (ECM)
  - b. City of Colorado Springs/El Paso County Drainage Criteria Manual, Volumes 1 and 2
  - c. Colorado Department of Transportation (CDOT) Standard Specifications for Road and Bridge Construction
  - d. CDOT M & S Standards
4. Notwithstanding anything depicted in these plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall conform to the standards and requirements of the most recent version of the relevant adopted El Paso County standards, including the Land Development Code, the Engineering Criteria Manual, the Drainage Criteria Manual, and the Drainage Criteria Manual Volume 2. Any deviations from regulations and standards must be requested, and approved, in writing. Any modifications necessary to meet criteria after-the-fact will be entirely the developer's responsibility to rectify.
5. It is the design engineer's responsibility to accurately show existing conditions, both onsite and offsite, on the construction plans. Any modifications necessary due to conflicts, omissions, or changed conditions will be entirely the developer's responsibility to rectify.
6. Contractor shall schedule a pre-construction meeting with El Paso County Planning and Community Development Department (PCD) - Inspections, prior to starting construction.
7. It is the contractor's responsibility to understand the requirements of all jurisdictional agencies and to obtain all required permits, including but not limited to El Paso County Erosion and Stormwater Quality Control Permit (ESQCP), Regional Building Floodplain Development Permit, U.S. Army Corps of Engineers-issued 401 and/or 404 permits, and county and state fugitive dust permits.
8. Contractor shall not deviate from the plans without first obtaining written approval from the design engineer and PCD. Contractor shall notify the design engineer immediately upon discovery of any errors or inconsistencies.
9. All storm drain pipe shall be Class III RCP unless otherwise noted and approved by PCD.
10. Contractor shall coordinate geotechnical testing per ECM standards. Pavement design shall be approved by El Paso County PCD prior to placement of curb and gutter and pavement.
11. All construction traffic must enter/exit the site at approved construction access points.
12. Sight visibility triangles as identified in the plans shall be provided at all intersections. Obstructions greater than 18 inches above flowline are not allowed within sight triangles.
13. Signing and striping shall comply with El Paso County DOT and MUTCD criteria. [If applicable, additional signing and striping notes will be provided.]
14. Contractor shall obtain any permits required by El Paso County DOT, including Work Within the Right-of-Way and Special Transport permits.
15. The limits of construction shall remain within the property line unless otherwise noted. The owner/developer shall obtain written permission and easements, where required, from adjoining property owner(s) prior to any off-site disturbance, grading, or construction.

Forest Heights Circle

COUNTY OF EL PASO, STATE OF COLORADO  
CONSTRUCTION DRAWINGS  
APRIL 2022

NOTES FOR TYPICAL SECTION

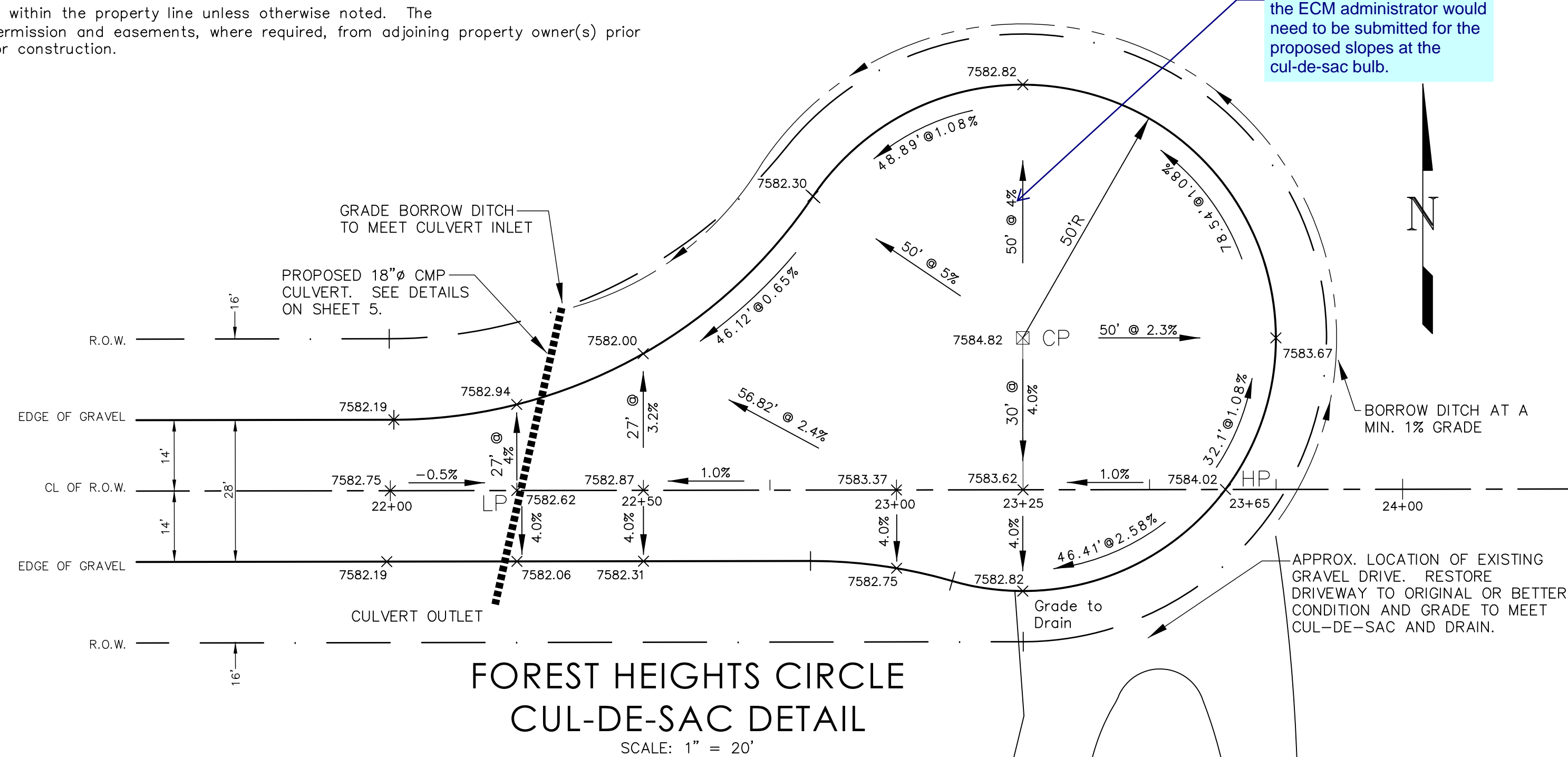
1. CENTERLINE OF EXISTING READWAY IS TYPICALLY NORTH OF THE CENTERLINE OF THE R.O.W.
2. THE PROPOSED ROADWAY IS TO BE CONSTRUCTED WITH A TYPICAL SECTION CENTERED ON THE R.O.W. CENTERLINE.
3. THE ROAD IS TO BE CONSTRUCTED APPROXIMATELY 6 FEET SOUTH OF THE EXISTING R.O.W. LINE IN ORDER TO PROTECT EXISTING TREES ALONG THE PROPERTY OWNED BY FREDERICK YONCE.
4. CENTERLINE OF THE TYPICAL SECTION TO SHIFT 6 FEET TO THE SOUTH ADJACENT TO FREDERICK YONCE LOT TO PROTECT TREES ADJACENT TO NORTHERLY R.O.W. LINE.
5. CONTRACTOR TO OBTAIN PERMISSION FROM EACH INDIVIDUAL PROPERTY OWNER WHEN CONSTRUCTION IS REQUIRED OUTSIDE THE EXISTING R.O.W.



RURAL CUL-DE-SAC DETAIL

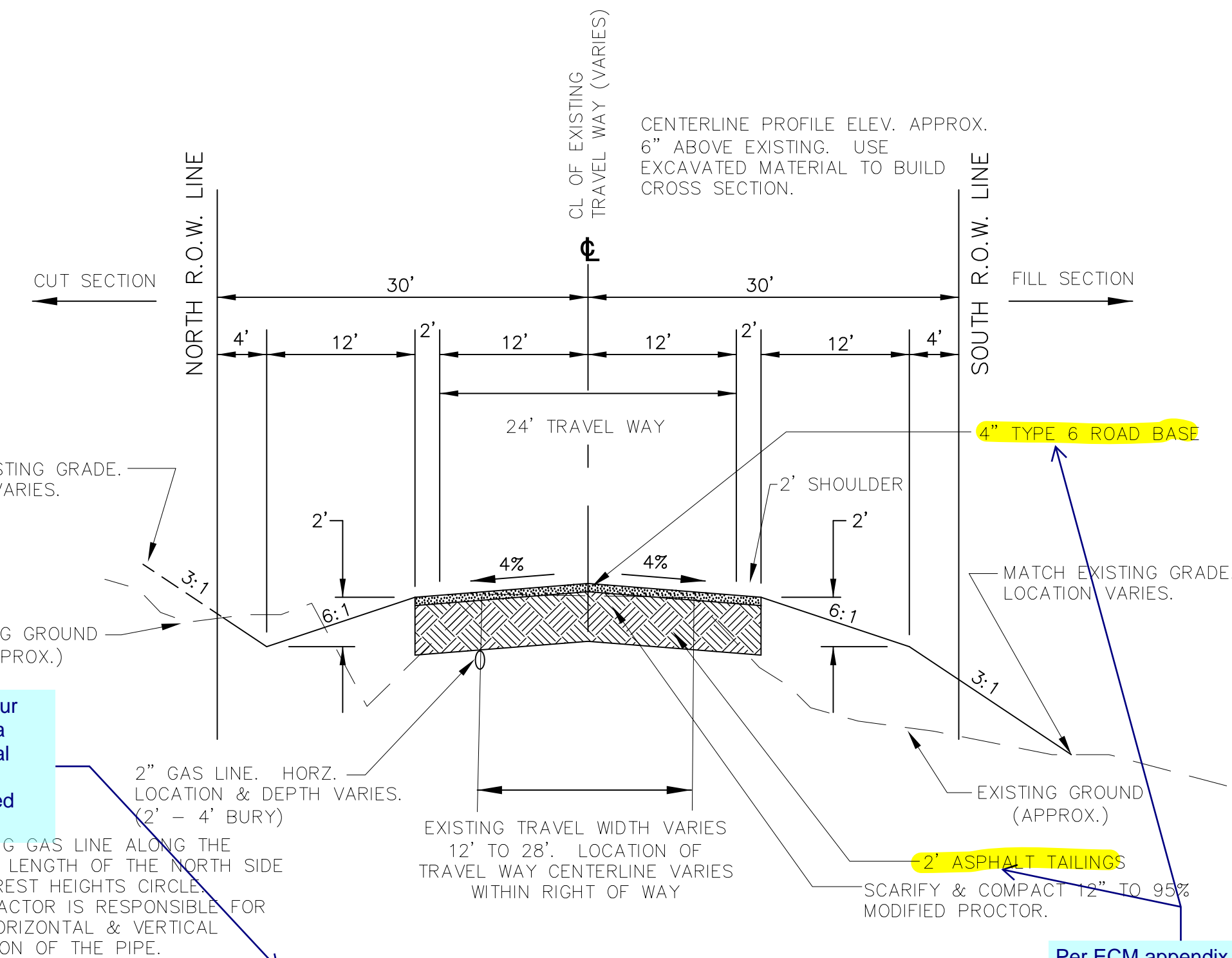
STANDARD DRAWING  
SCALE: 1" = 40'

Per ECM figure 2-31, the max slope at rural cul-de-sac bulb is 2% max. A deviation request for consideration by the ECM administrator would need to be submitted for the proposed slopes at the cul-de-sac bulb.



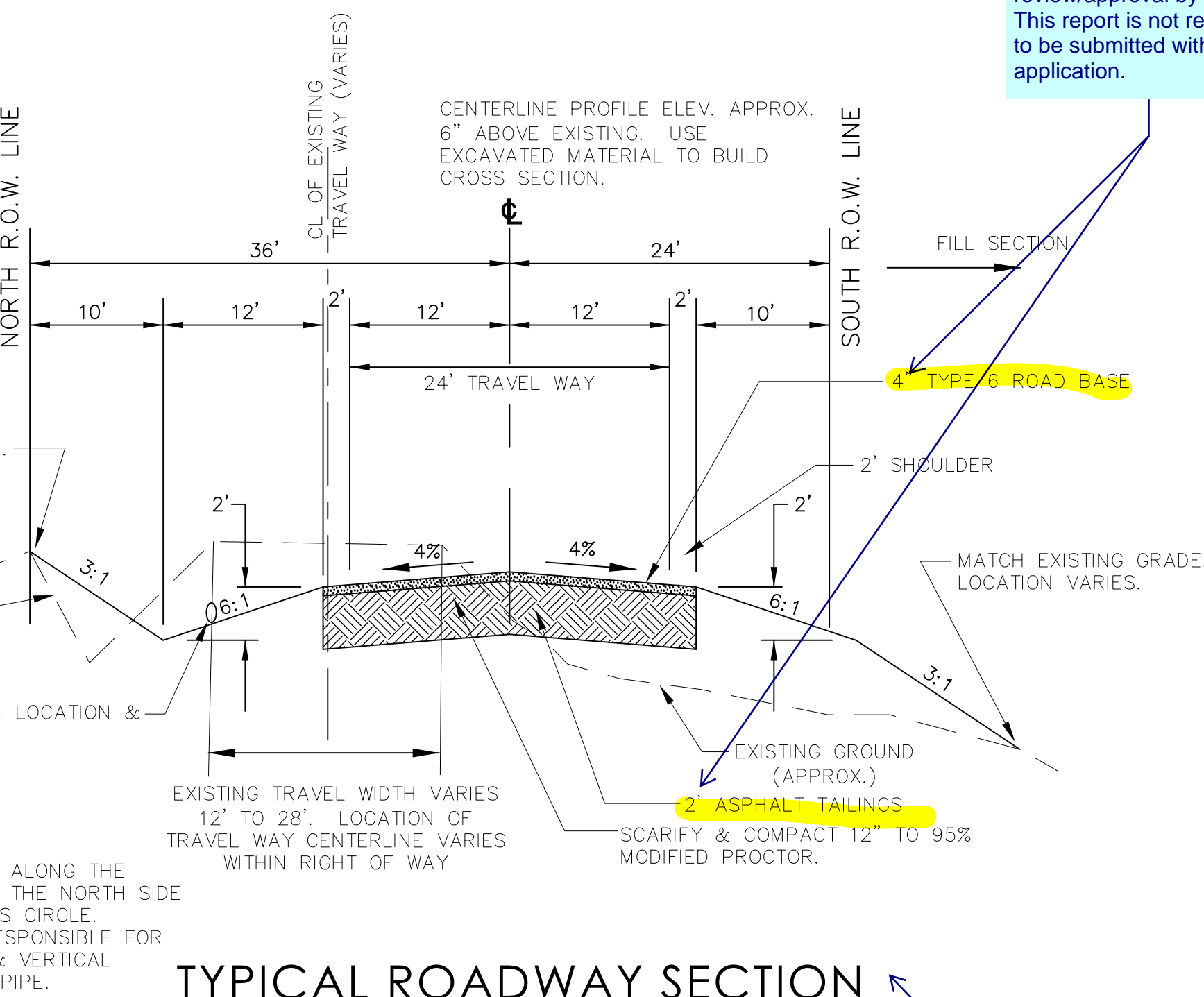
FOREST HEIGHTS CIRCLE  
CUL-DE-SAC DETAIL

SCALE: 1" = 20'



STANDARD TYPICAL ROADWAY SECTION  
STA 0+00 TO 3+37.75 & 9+80.60 TO 22+00  
(WEST OF CUL-DE-SAC)

SCALE:  
HORIZONTAL SCALE: 1" = 10'  
VERTICAL SCALE: 1" = 5'



TYPICAL ROADWAY SECTION  
STA 4+35.85 TO 8+83.50

SCALE:  
HORIZONTAL SCALE: 1" = 10'  
VERTICAL SCALE: 1" = 5'

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AND FIBER OPTIC.

REVISIONS	
No.	Description
1	LOT REVISIONS
2	ROAD REVISIONS

H Scale:	VARIES	KCH
V Scale:	VARIES	WCS
Designed By:		DLK
Drawn By:		
Checked By:		
Date:		07/15/21

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FOREST HEIGHTS CIRCLE  
CONSTRUCTION DRAWINGS  
GENERAL NOTES  
TYPICAL SECTION AND CUL-DE-SAC DETAILS

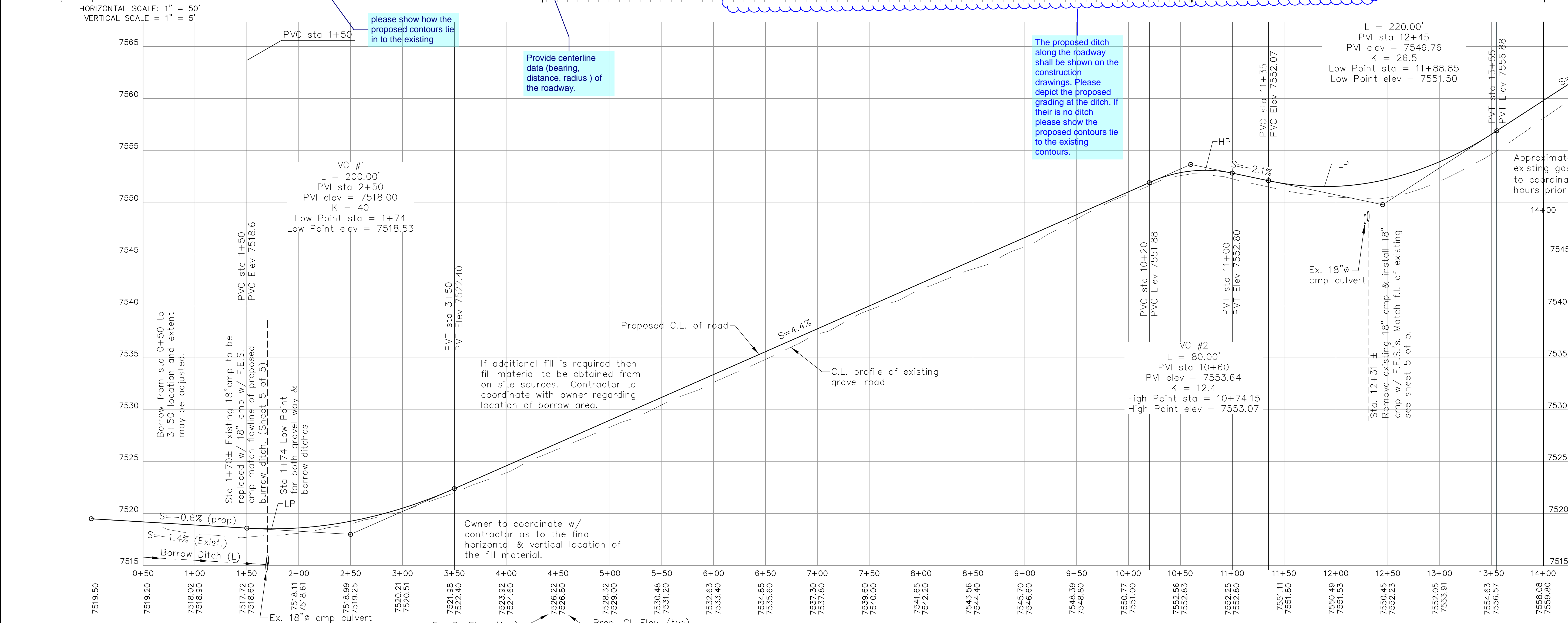
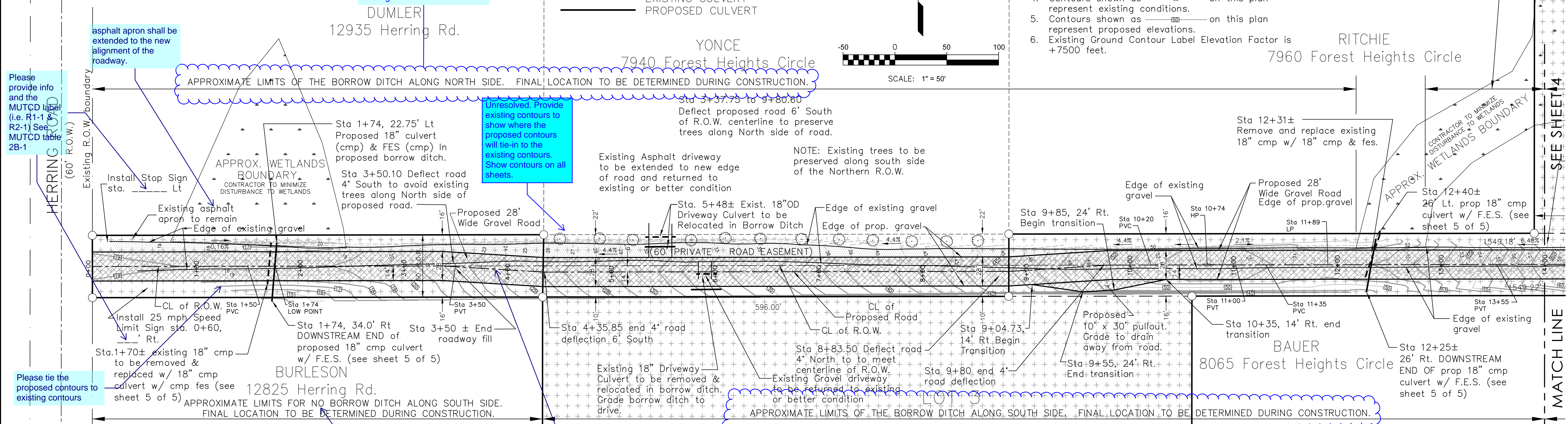
Project No.: 18070  
Sheet: 2 of 5

**FOREST HEIGHTS CIRCLE  
STA 0+00 TO 14+00**

- EXISTING GRAVEL ROADWAY
- PROPOSED GRAVEL ROADWAY WIDENING
- INCLUDED IN SUBDIVISION
- EXISTING CULVERT
- PROPOSED CULVERT

- Note:
- 2" gas line is located under the edge of the north edge of the gravel roadway.
  - Depth of potholes appears to be 2.5' to 3.5' deep.
  - Telephone and Cable lines have not been located to date.
  - Contours shown as on this plan represent existing conditions.
  - Contours shown as on this plan represent proposed elevations.
  - Existing Ground Contour Label Elevation Factor is +7500 feet.

APPROXIMATE LIMITS FOR NO BORROW DITCH ALONG NORTH SIDE. FINAL LOCATION TO BE DETERMINED DURING CONSTRUCTION.



Please provide info and the MUTCD label (i.e. R1-1, R2-1) See MUTCD table 2B-1

Please tie the proposed contours to existing contours

The proposed ditch along the roadway shall be shown on the construction drawings. Please depict the proposed grading at the ditch and tie in to the existing

Unresolved. Provide existing contours to show where the proposed contours will tie-in to the existing contours. Show contours on all sheets.

please show how the proposed contours tie in to the existing

Provide centerline data (bearing, distance, radius) of the roadway.

The proposed ditch along the roadway shall be shown on the construction drawings. Please depict the proposed grading at the ditch. If there is no ditch please show the proposed contours tie to the existing contours.

Site Bench Mark: The monument for the center 1/4 corner of section 9. The monument is a 3 inch aluminum cap stamped LS 13830. Elevation - 7527.04

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CALL BEFORE YOU DIG ...

**811**

DIAL 811

48 HOURS BEFORE YOU DIG CALL UTILITY LOCATORS FOR LOCATING AND MARKING GAS, ELECTRIC, WATER AND TELEVISION

No.	Date	By	Description
1	02-23-2022	DAS	ROAD REVISIONS
2	04-12-2022	DAS	ROAD REVISIONS

H Scale: 1"=50'  
V Scale: 1"=5'

Designed By: KCH  
Drawn By: WCS  
Checked By: DLK  
Date: 07/15/21

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**FOREST HEIGHTS CIRCLE**

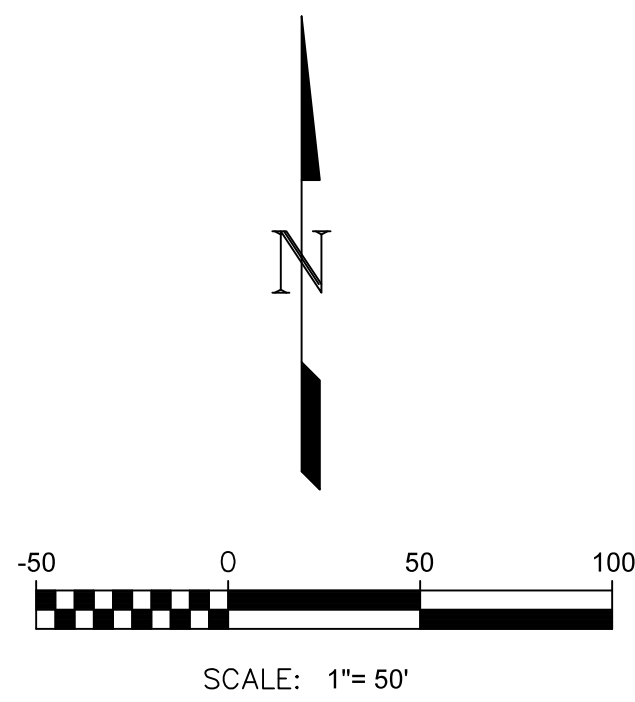
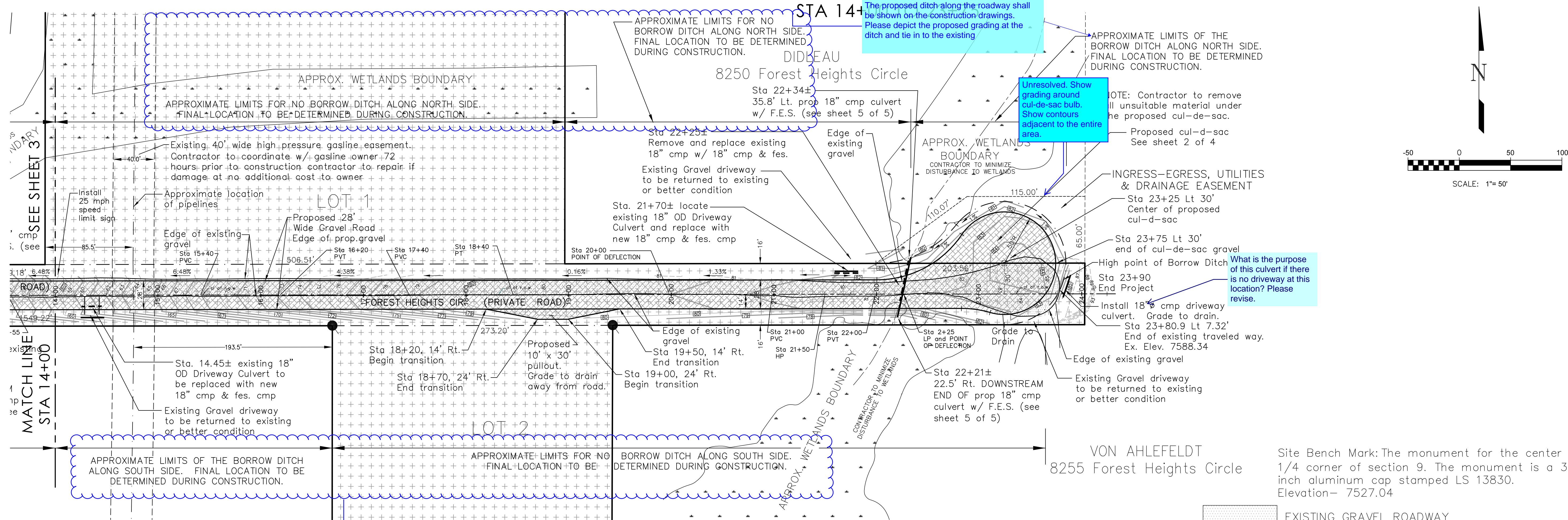
CONSTRUCTION DRAWINGS  
PLAN AND PROFILE  
0+00 TO 13+50

Project Number: **18070**

Sheet: **3** of **5**

F:\18070\18070-Dwg\18070-ENGR\ENR01\18070-FOREST HEIGHTS ROAD AND EROSION PLANS 04/22/2022.DWG

# FOREST HEIGHTS CIRCLE



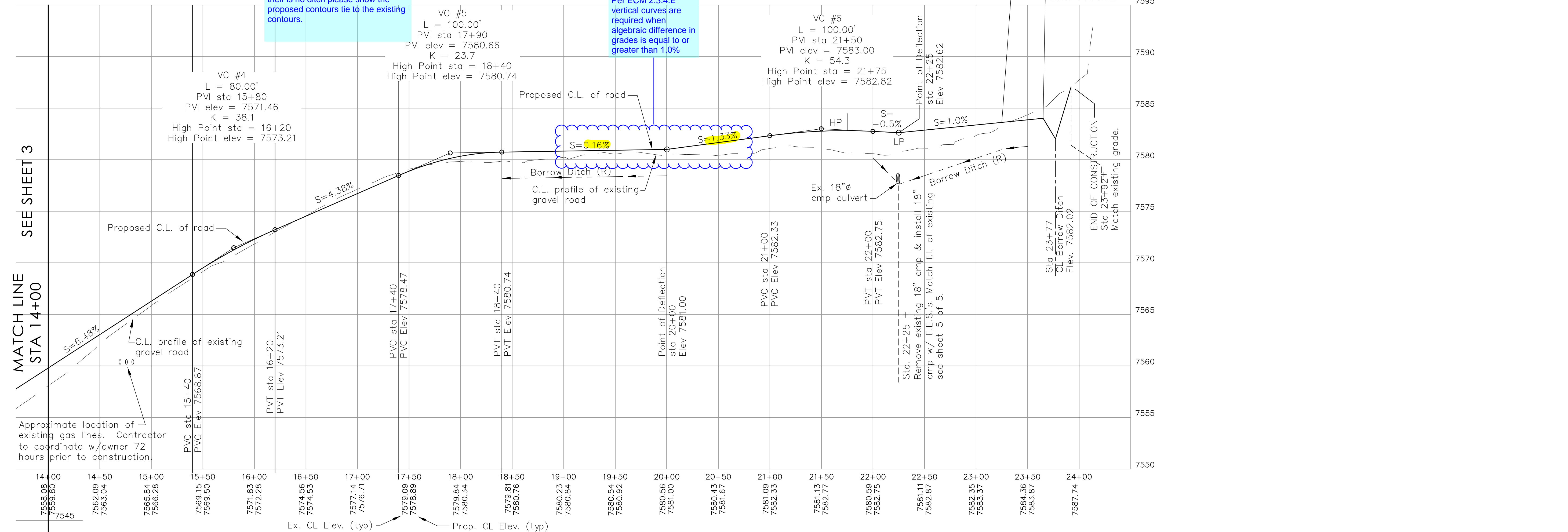
What is the purpose of this culvert if there is no driveway at this location? Please revise.

The proposed ditch along the roadway shall be shown on the construction drawings. Please depict the proposed grading at the ditch. If there is no ditch please show the proposed contours tie to the existing contours.

Per ECM 2.3.4.E vertical curves are required when algebraic difference in grades is equal to or greater than 1.0%.

- EXISTING GRAVEL ROADWAY
- PROPOSED GRAVEL ROADWAY WIDENING
- INCLUDED IN SUBDIVISION

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



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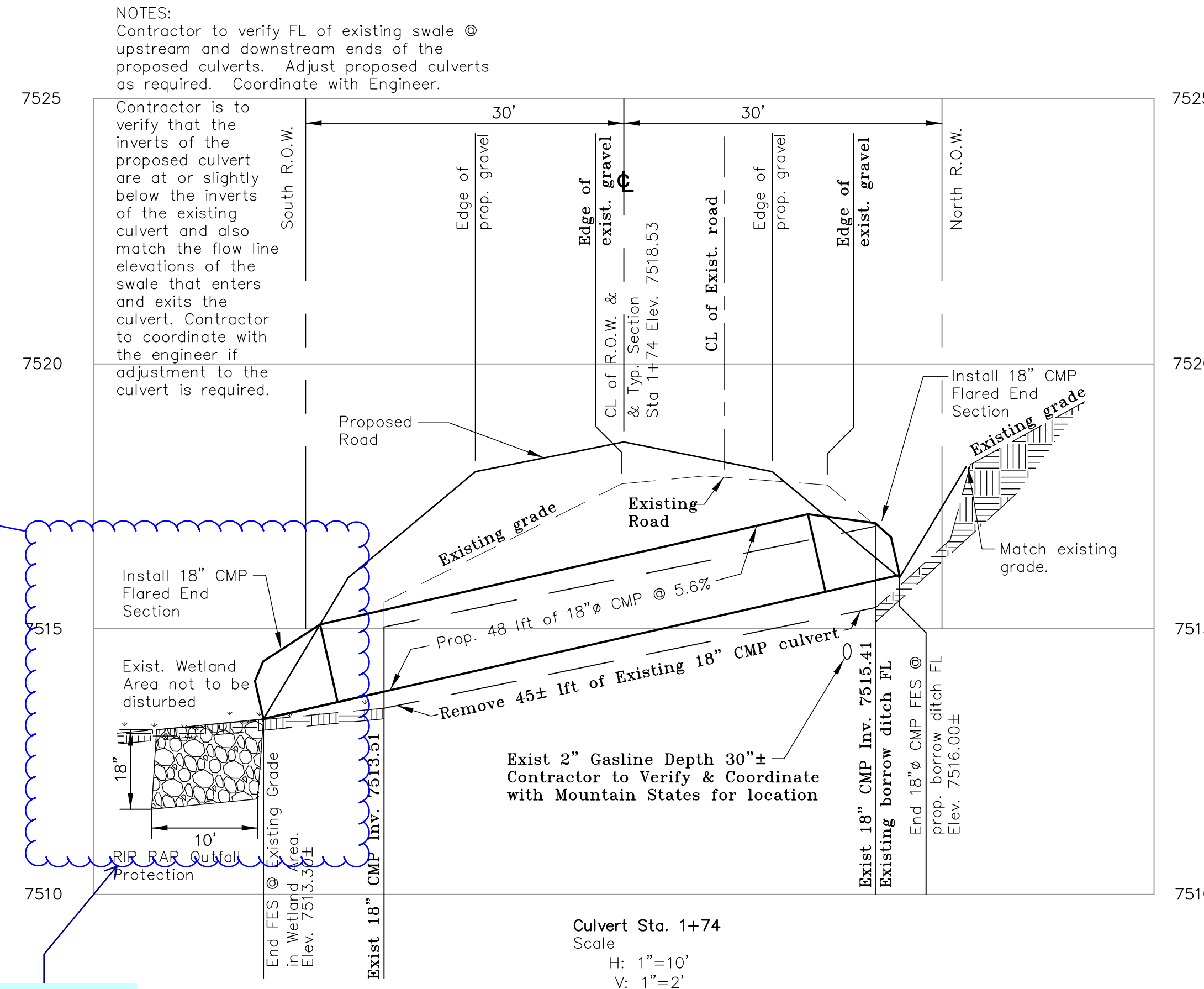
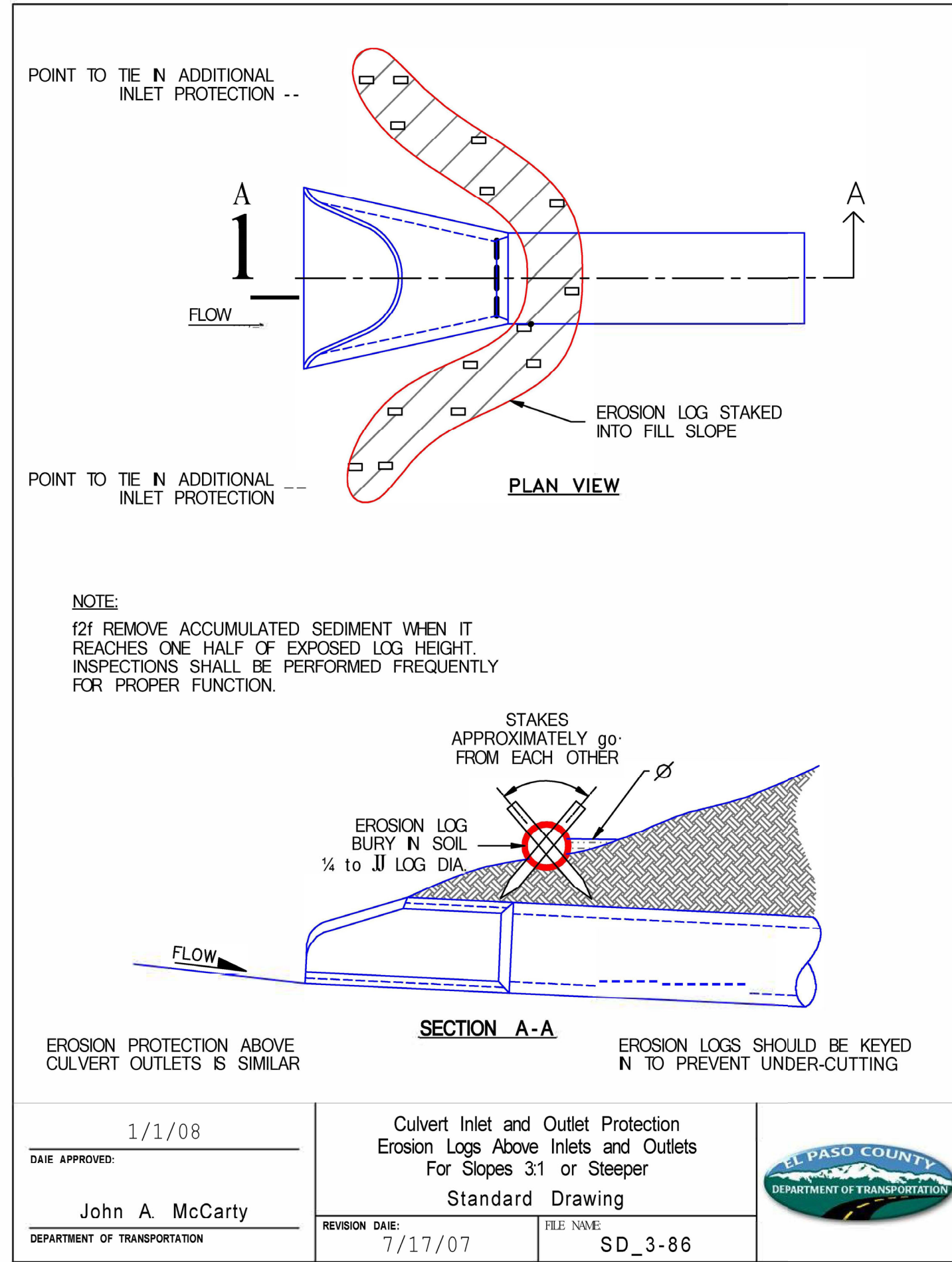
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**FOREST HEIGHTS CIRCLE**  
CONSTRUCTION DRAWINGS  
PLAN AND PROFILE  
13+50 TO 23+75  
Project Number: **18070**  
Sheet: **4** of **5**

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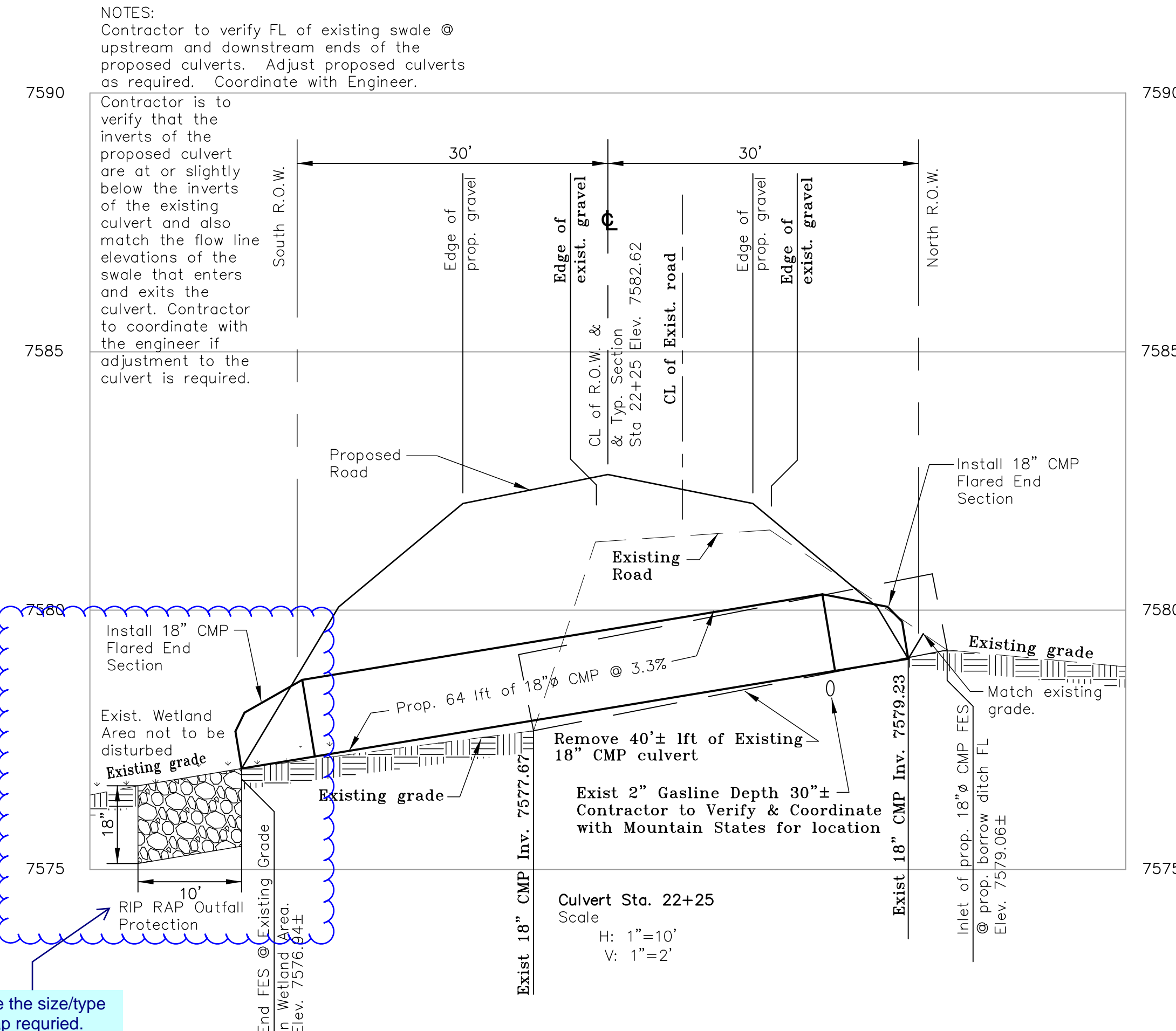
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COUNTY OF EL PASO, STATE OF COLORADO  
CONSTRUCTION DRAWINGS  
APRIL 2022



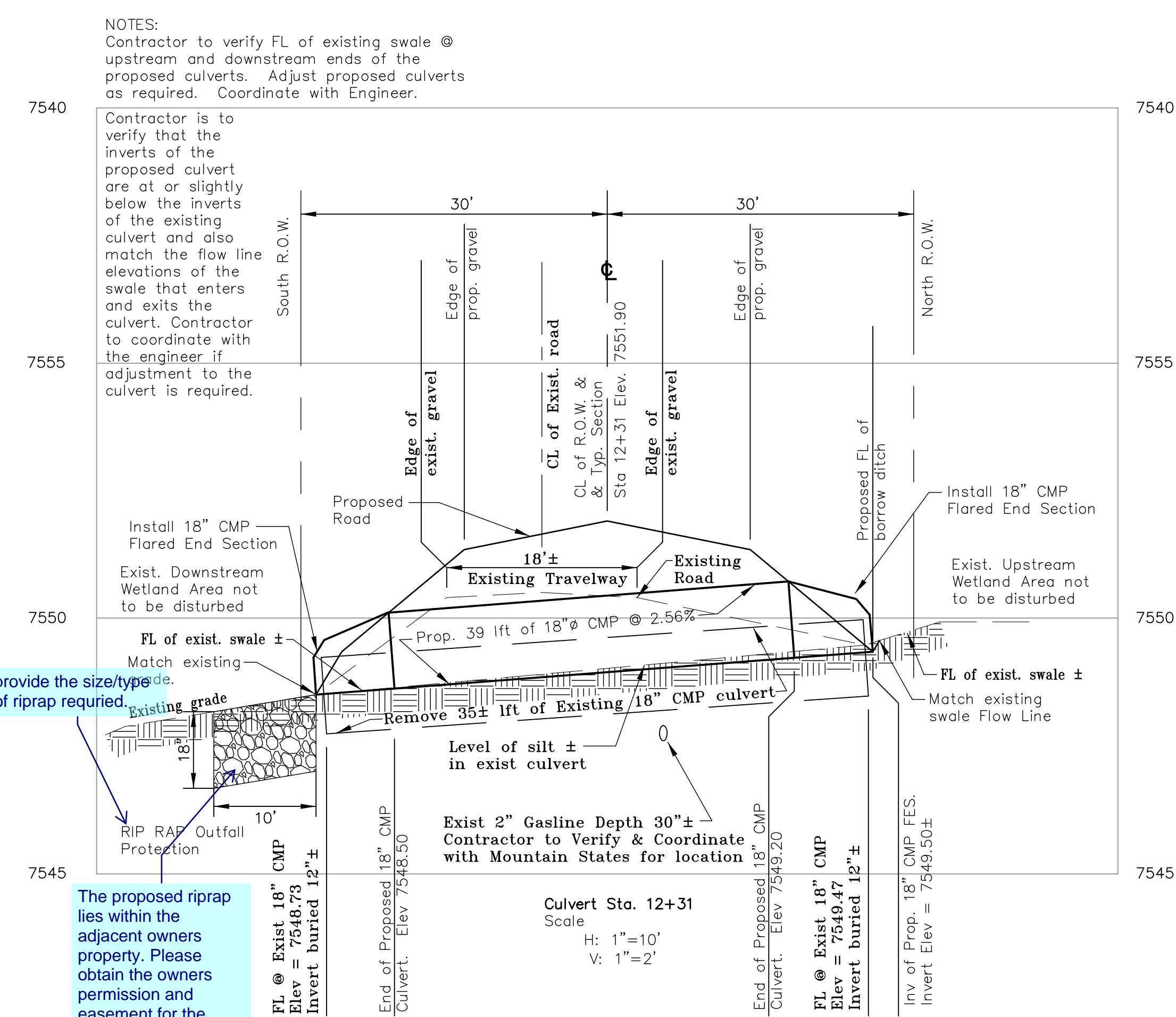
The proposed riprap and culvert lies within the adjacent owners property. Please obtain the owners permission and easement for the work to be done on their property.

provide the size/type of riprap required.



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**FOREST HEIGHTS CIRCLE**  
CONSTRUCTION DRAWINGS  
DETAILS  
CULVERT PLAN & PROFILE

Project No.: 18070  
Sheet: 5 of 5

F:\18000\18070-Detail Property\2022 ENGINEERING\18070-Forest Heights Road and Erosion Plans 940722.DWG