PRIVATE ROAD NETWORK DRAWINGS FOR PALOMINO MAJOR PLAT, PHASE 3

Prepared By

WESTERN PACIFIC ENGINEERING & SURVEY

VICINITY MAP

BENCH MARK LISTING

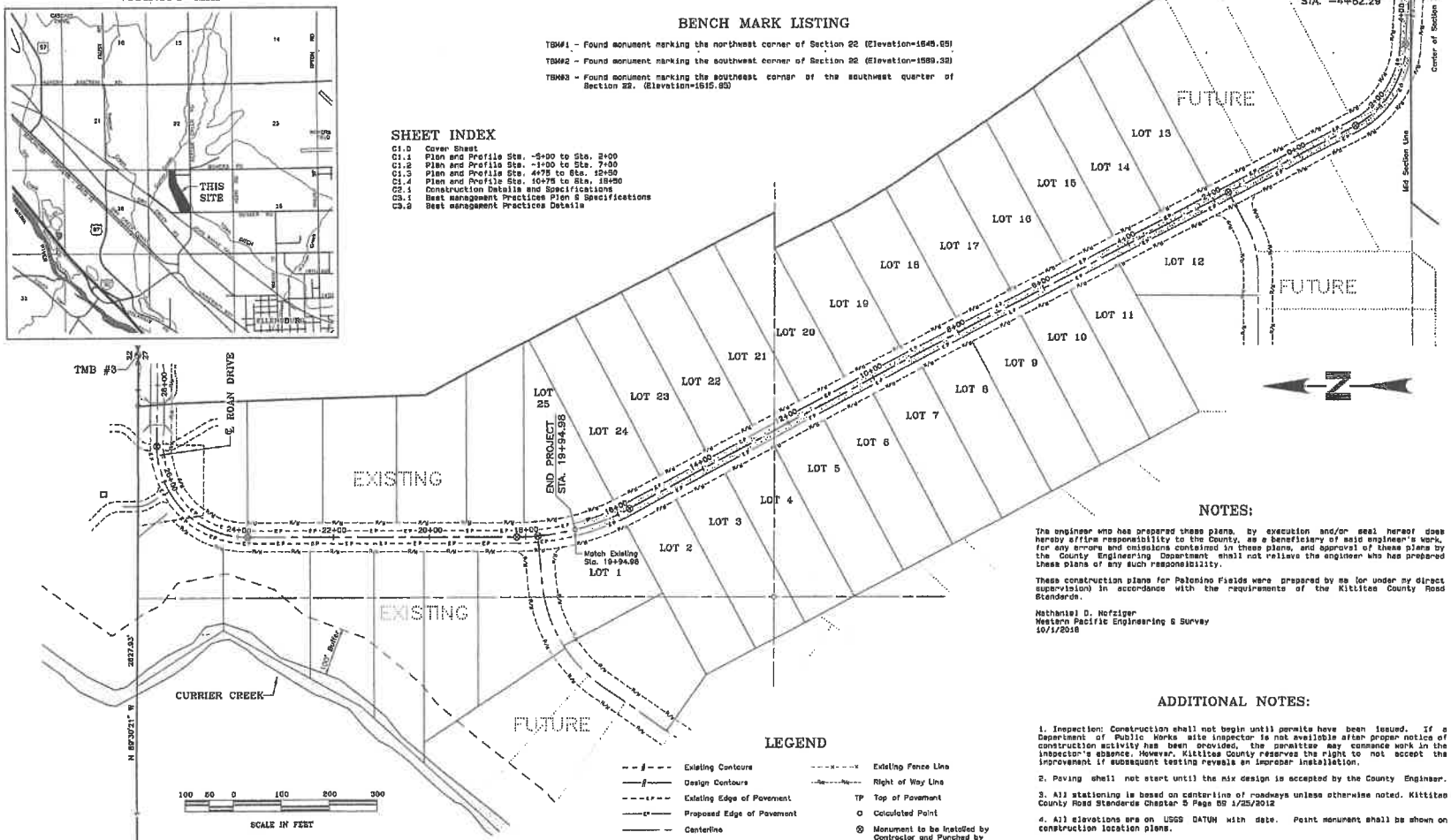
TBM#1 - Found monument marking the northwest corner of Section 22 (Elevation=1645.65)

TBM#2 - Found monument marking the southwest corner of Section 22 (Elevation=1589.32)

TBM#3 - Found monument marking the southeast corner of the southwest quarter of Section 22. (Elevation=1615.83)

SHEET INDEX

C1.0 Cover Sheet
C1.1 Plan and Profile Sta. -5+00 to Sta. 2+00
C1.2 Plan and Profile Sta. -1+00 to Sta. 7+00
C1.3 Plan and Profile Sta. 4+75 to Sta. 12+50
C1.4 Plan and Profile Sta. 10+75 to Sta. 18+50
C2.1 Construction Details and Specifications
C3.1 Best management Practices Plan & Specifications
C3.2 Best management Practices Details



LEGEND

Existing Contours		Existing Fence Line	
Design Contours		Right of Way Line	
Existing Edge of Pavement		TP	Top of Pavement
Proposed Edge of Pavement		O	Calculated Point
Centerline		⊗	Monument to be Installed by Contractor and Punched by Surveyor, Based on Surveyor's State Points
Grade Break			
Existing Grade Break			

NOTES:

The engineer who has prepared these plans, by execution and/or seal hereof does hereby affirm responsibility to the County, as a beneficiary of said engineer's work, for any errors and omissions contained in these plans, and approval of these plans by the County Engineering Department shall not relieve the engineer who has prepared these plans of any such responsibility.

These construction plans for Palomino Fields were prepared by me (or under my direct supervision) in accordance with the requirements of the Kittitas County Road Standards.

Nathaniel D. Nofziger
Western Pacific Engineering & Survey
10/1/2018

ADDITIONAL NOTES:

1. Inspection: Construction shall not begin until permits have been issued. If a Department of Public Works site inspector is not available after proper notice of construction activity has been provided, the permittee may commence work in the inspector's absence. However, Kittitas County reserves the right to not accept the improvement if subsequent testing reveals an improper installation.

2. Paving shall not start until the mix design is accepted by the County Engineer.

3. All stationing is based on centerline of roadways unless otherwise noted. Kittitas County Road Standards Chapter 5 Page 59 1/25/2012

4. All elevations are on USGS DATUM with date. Point monument shall be shown on construction location plans.

5. Except where otherwise provided for in these plans and specifications, the most current editions of the WSDOT Standard Specifications and WSDOT Standard Plans shall apply.

These plans have been reviewed by Kittitas County Department of Public Works and have been accepted for complying with the requirements of Kittitas County Road Standards.

Michael K Cook
County Engineer

10-25-18
Date

WESTERN PACIFIC ENGINEERING & SURVEY
A TERRA DEVELOPMENT SERVICES CORPORATION
1328 E. Hunter Place, Moses Lake, Washington
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Surveyors in Washington and Idaho

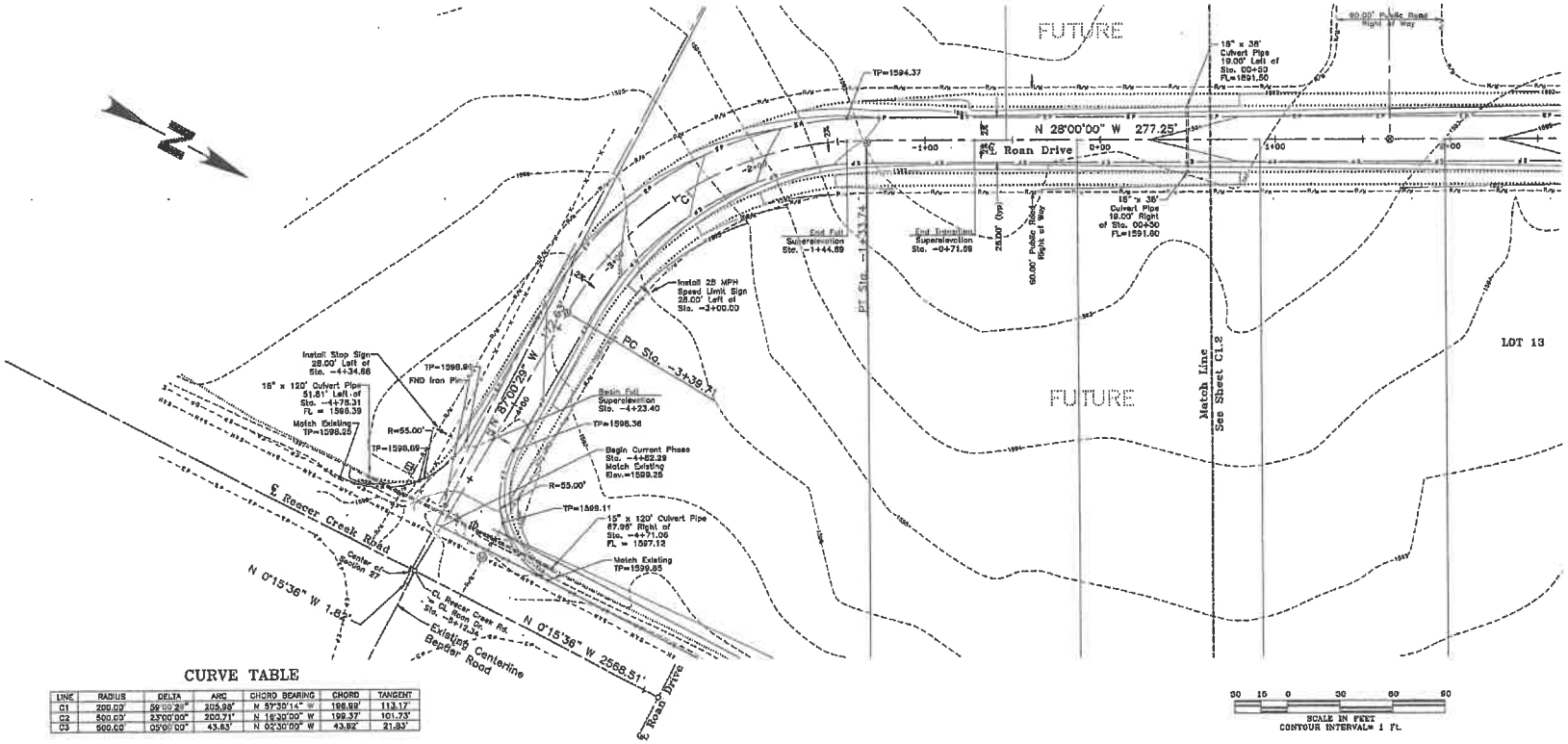
No.	Revisions	Date	By

LCU, INC.
PALOMINO MAJOR PLAT, PHASE 3
ROAN DRIVE IMPROVEMENTS
Cover Sheet
Kittitas County Washington

Designed by NDN
Drawn by NDN/JAG
Checked by NDN
Project No. 18413
Date: October 2018
Scale:
Hor. 1" = 100'
Vert. 1" = N/A
Sec 27, T 18 N, R 18 E

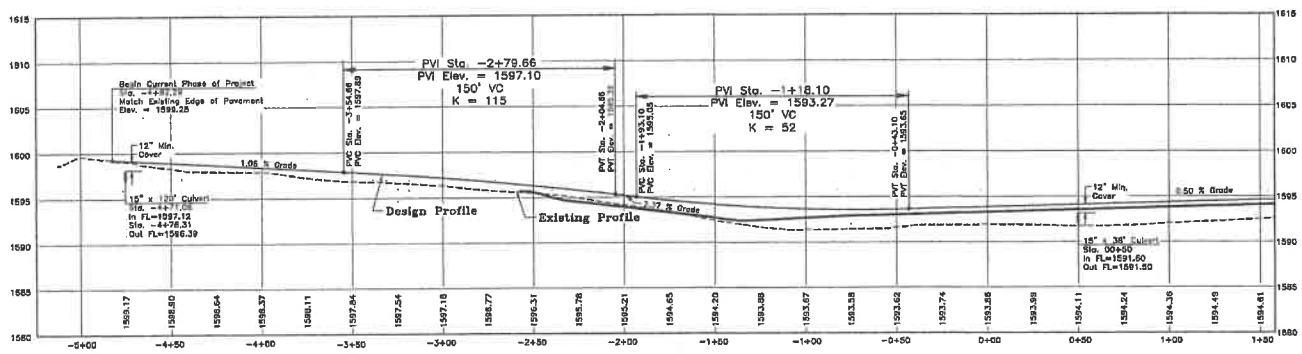
SHEET NO.
C1.0

181827



CURVE TABLE

LINE	RADIUS	DELTA	ARC	CHORD BEARING	CHORD	TANGENT
C1	200.00'	59°00'28"	205.98'	N 37°30'14" W	196.99'	113.17
C2	500.00'	23°00'00"	200.71'	N 18°30'00" W	199.37'	101.73'
C3	500.00'	05°00'00"	43.63'	N 02°30'00" W	43.62'	21.83'



10/25/18

AUTHORIZED REPRESENTATIVE
REGISTERED PROFESSIONAL ENGINEER
STATE OF WASHINGTON

WESTERN PACIFIC ENGINEERING & SURVEY
A TESORA DEVELOPMENT SERVICES CORPORATION
1720 Columbia Avenue, Suite 1, Richland, Washington
T:(509)735-1023 F:(509)735-1259
Serving the Washington and Idaho

No.	Revision	Date	By

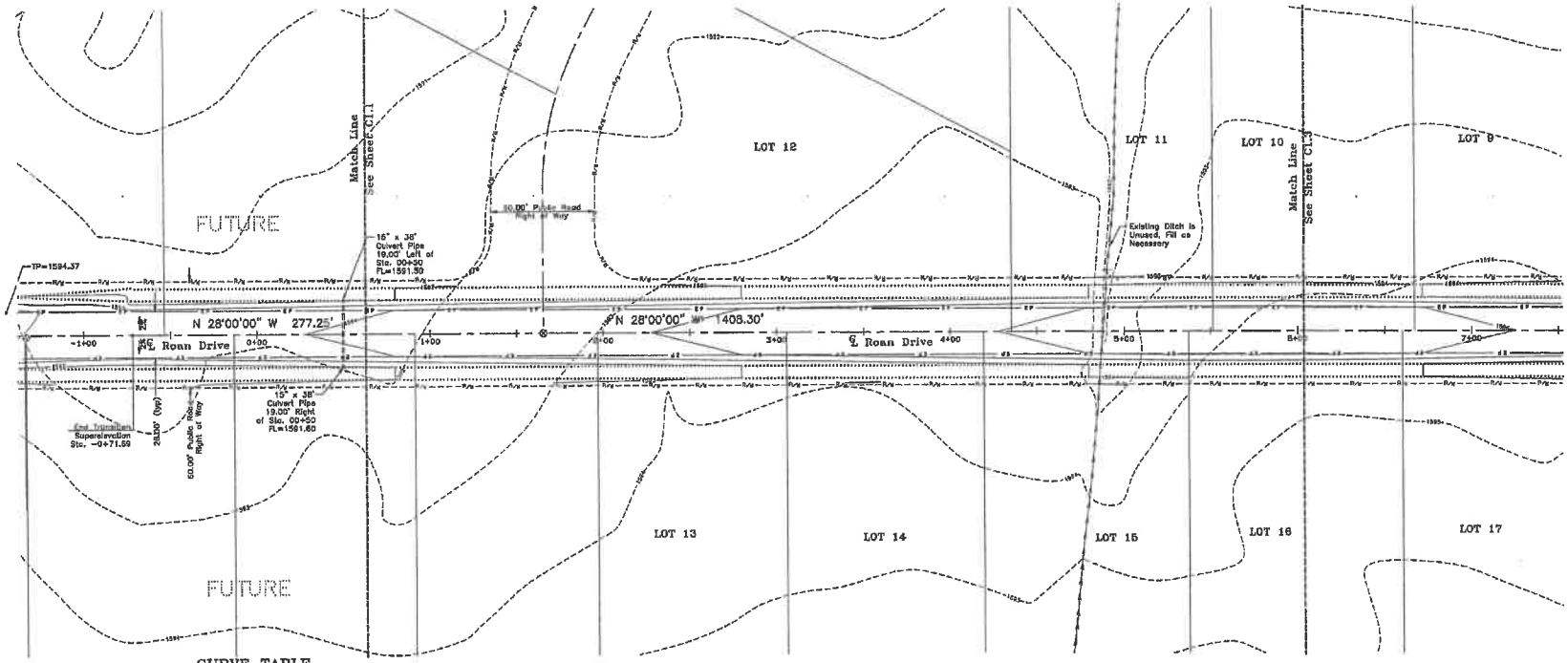
LCU, INC.
PALOMINO MAJOR PLAT, PHASE 3
ROAN DRIVE IMPROVEMENTS
Plan and Profile Sta. -5+00 to Sta. 2+00

Kittitas County Washington

Designed by NDN
Drawn by Tmt/JAC
Checked by NDN
Project No. 18413
Date: October 2018
Scale:
Hor. 1" = 30'
Vert. 1" = 6'
Sec 27, T 18 N, R 18 E

SHEET NO.
C1.1

161827



CURVE TABLE

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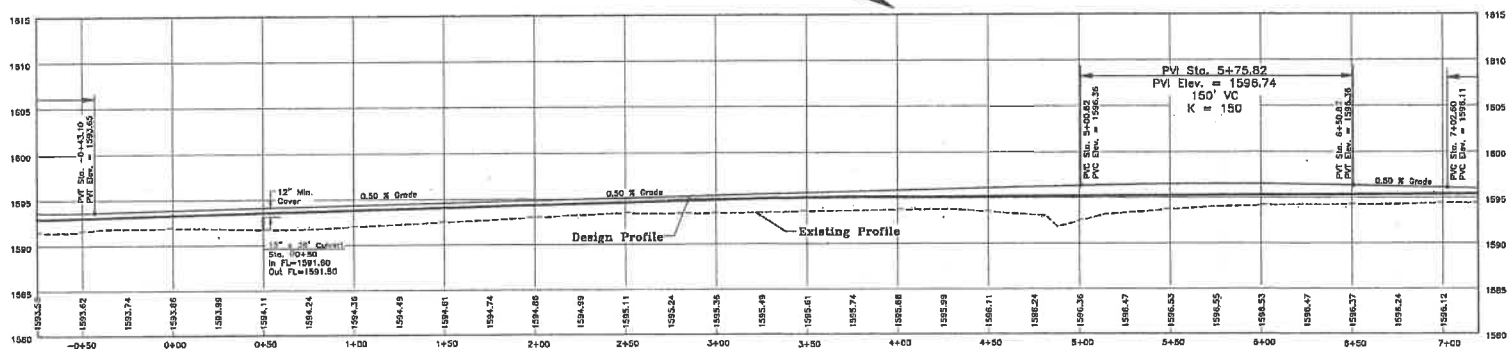
C2	500.00'	23°00'00"	200.71'	N 16°30'00" W	199.37'	101.73'
C3	500.00'	05°00'00"	43.63	N 02°30'00" W	43.62'	21.83'

30 15 0 30 60 90
SCALE IN FEET
CONTOUR INTERVAL= 1 FL.



10/25/10 @

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Serving in Washington and Idaho

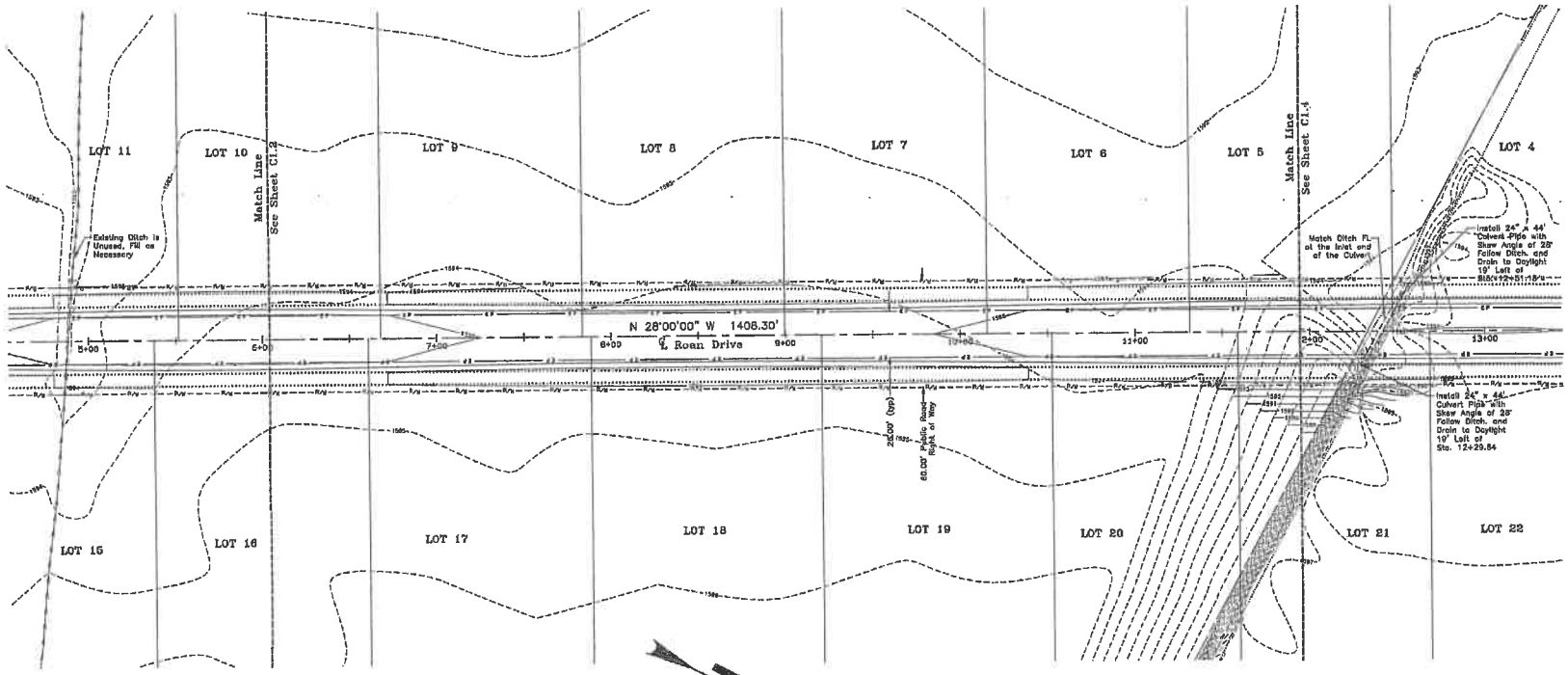
No.	Revision	Date	By

LCU, INC.
PALOMINO MAJOR PLAT, PHASE 3
ROAN DRIVE IMPROVEMENTS
Plan and Profile Sta. -1+00 to Sta. 7+00
Kittitas County Washington

Designed by NDN
Drawn by Tml/JAG
Checked by NDN
Project No. 10410
Date: October 2010
Scale:
Hor. 1" = 50'
Vert. 1" = 0'
Sec 27, T 18 N, R 18 E

SHEET NO.
C1.2

181827



CURVE TABLE

LINE	RADIUS	DELTA	ARC	CHORD BEARING	CHORD	TANGENT
C1	200.00'	54°00'28"	205.98'	N 87°30'11.4" W	198.92'	113.17'
C2	500.00'	23°00'00"	200.71'	N 16°30'00" W	199.37'	101.73'
C3	500.00'	5°00'00"	43.63'	N 02°30'00" W	43.62'	21.83

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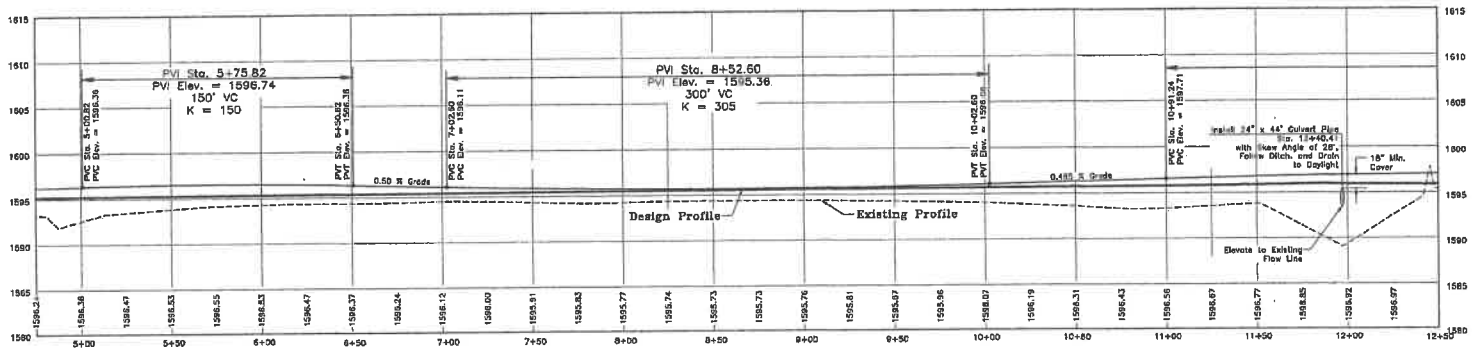
SCALE IN FEET
CONTOUR INTERVAL= 1 Ft.



10/25/18

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Services in Washington and Idaho

No.	Revisions	Date	By

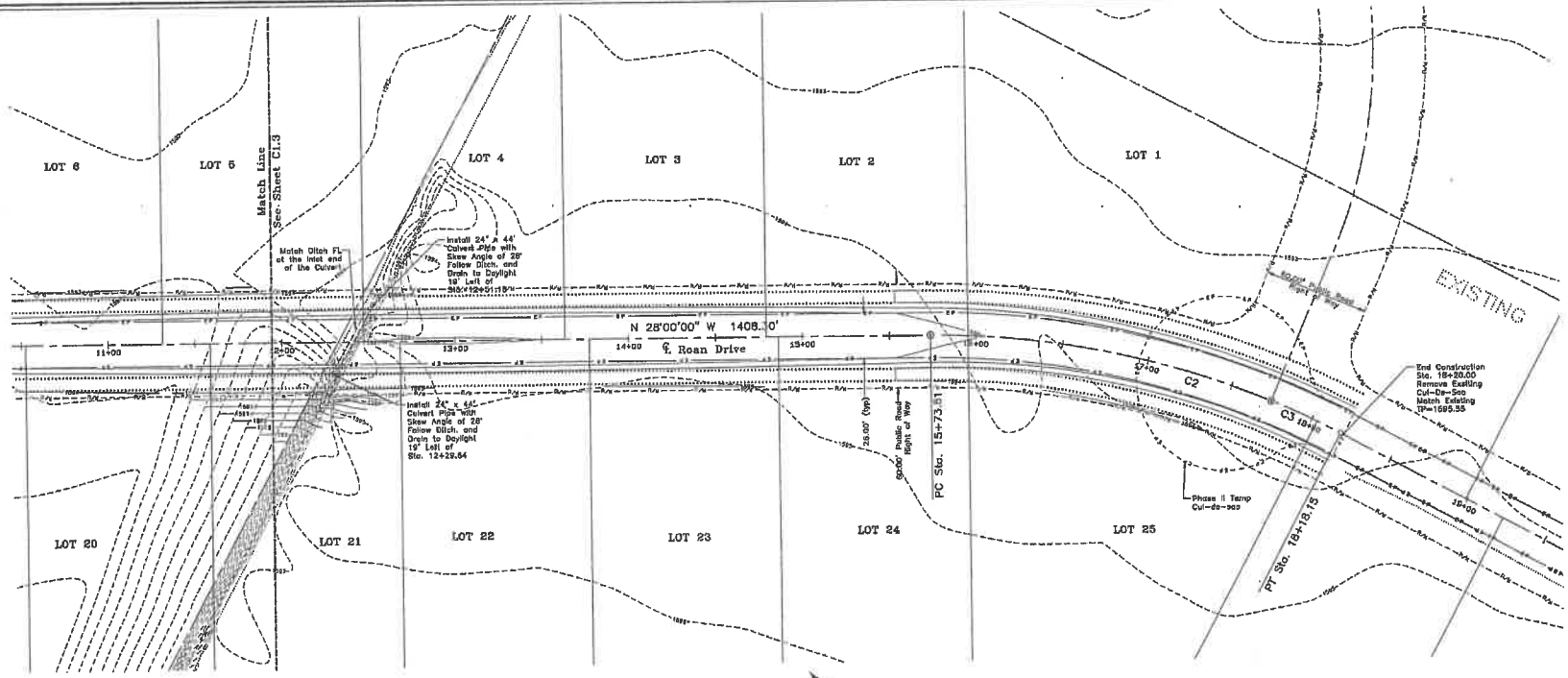
LCU, INC.
PALOMINO MAJOR PLAT, PHASE 3
ROAN DRIVE IMPROVEMENTS
Plan and Profile Sta. 4+75 to Sta. 12+50

Kittitas County Washington

Designed by NDN
Drawn by TML/IAG
Checked by NDN
Project No. 18413
Date: October 2018
Scale:
Hor. 1" = 30'
Vert. 1" = 6'
Sec 07, T 18 N, R 16 E

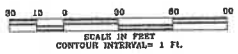
SHEET NO.
C1.3

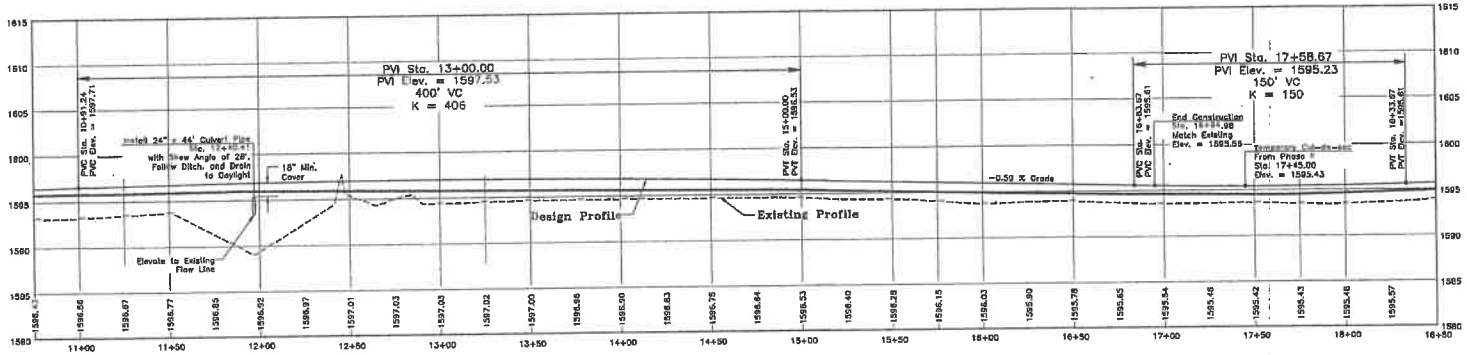
151627



CURVE TABLE

LINE	RADIUS	DELTA	ARC	CHORD BEARING	CHORD	TANGENT
C1	200.00'	59°00'19"	205.98'	N 0°30'14" W	196.89'	113.17'
C2	500.00'	23°00'00"	200.71'	N 16°30'00" W	199.37'	101.73'
C3	500.00	05°00'00"	43.63'	N 02°30'00" W	43.62	21.83'





10/25/18

WESTERN PACIFIC ENGINEERING & SURVEY
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Serving in Washington and Idaho

No.	Revision	Date	By

LCU, INC.
PALOMINO MAJOR PLAT, PHASE 3
ROAN DRIVE IMPROVEMENTS
Plan and Profile Sta. 10+75 to Sta. 18+50

Kittitas County Washington

Designed by NDN
Drawn by Tml/JAG
Checked by NDN
Project No. 18413
Date: October 2018
Scale:
Hor. 1" = 30'
Vert. 1" = 6'
Sec 27, T 18 N, R 18 E

SHEET NO.
C1.4

181827

G E N E R A L S P E C I F I C A T I O N S

The Washington State Department of Transportation "Standard Specifications for Road, Bridge and Municipal Construction" 2018 Edition as amended by the APWA and the Kittitas County Public Works Road Standards, and referred to as the "Standard Specifications", are hereby part of the contract plans. Any inconsistency in the parts of the contract including these contract plans shall be brought to the attention of Western Pacific Engineering & Survey, Inc. and the Kittitas County Public Works, prior to construction. During the performance of the work, if the contractor discovers any conflict, error, ambiguity, or discrepancy within the contract plans, contractor shall report it immediately, in writing, to Western Pacific Engineering & Survey, Inc., and to the responsible agency's designated engineer. The Standard Specifications can be obtained at the following web sites:

http://www.wsdot.wa.gov/publications/manuals/
https://www.co.kittitas.wa.us/public-works/development

Responsible Agencies:

Evergreen Valley Utilities:
All water mains and lines.

Kittitas County Public Works:
All roadways from the existing edge of pavement and all other utility work within the County Road Right of Way.

Kittitas County Building Department:
All other aspects of construction.

Prior to the start of construction, a pre-construction conference shall be scheduled with the contractor, the developer's design engineer, city personnel and any affected utilities and agencies.

Special Provisions:

The following special provisions and responsible agency standards amend the Standard Specifications. The contractor shall do all work in accordance with the contract plans, these special provisions, responsible agency standards, and the Standard Specifications.

1-05.4 Conformity with and Deviations from Plans:

Construction staking shall be performed under the direct supervision of a licensed Professional Surveyor. A copy of the staking notes will be provided to the responsible agency.

The Contractor shall keep the surveyor informed of their staking requirements far enough in advance of the time when the stakes will be required to provide a reasonable amount of time to set the stakes. Requests for stakes shall be made at least two working days prior to the need to commence staking operations. The request shall include the offset distance and direction.

As-Constructed Drawings shall be prepared and submitted to the Kittitas County Engineer by the Design Engineer upon completion of the construction.

1-06.1 Approval of Materials:

Delete the first paragraph and replace with the following: The Contractor shall submit a written list of all materials to the design engineer prior to construction. Submittals for all non-standard materials used in the project shall be reviewed and approved by the governing agency prior to use. The contractor shall provide materials submitted for all non-standard materials to the respective agencies. All materials shall be approved by the design engineer and the agency prior to the start of construction.

1-06.2(1) Samples and Tests for Acceptance:

Modify the section as follows: The ward Engineer or Project engineer shall refer to the owner and their designated inspector.

Special inspection shall be as follows, unless modified by the design engineer due to field conditions.

1. Soil subgrade shall be randomly tested for compaction with a minimum of one test per 10,000 square feet but no less than three tests in any given area.
2. Embankment and trench backfill shall be randomly tested for compaction on every four feet of lift.
3. Each layer of rock base shall be randomly tested for compaction with a minimum of one test per 10,000 square feet but no less than three tests in any given area.
4. Each layer of asphalt shall be randomly tested for compaction with a minimum of one test per 5,000 square feet but no less than three tests in any given area.
5. Soil subgrade on roadways shall be randomly tested for compaction with a minimum of three tests per each five hundred feet of roadway.
6. Concrete pavements shall have a minimum compressive strength at 28 days of 4000 psi. One set of four cylinders shall be cast for every 100 cubic yards of concrete poured per day. Individual concrete slabs, walkways and pads containing less than 1.5 cubic yards or of concrete need not be tested.

1-07.1 Laws to be Observed:

This Section is supplemented by adding the following:

Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

1. All persons on the site or who may be affected by the work;
2. All the work and materials and equipment to be incorporated therein, whether in storage on or off the site; and
3. Other property at site or adjacent thereto.

Contractor shall comply with all applicable laws and regulations related to the safety of persons or property including MSHA and OSHA regulations.

It is the responsibility of the Contractor to obtain all necessary permits and pay all associated fees to perform the work required by these plans.

1-07.1 Laws to be Observed Continued:

Before commencing construction, the contractor must have a Kittitas County Construction bond in the amount of 125 percent of the estimated construction costs. When a letter of escrow or cash is used, the amount covered shall be for 115 percent of the estimated construction costs as reviewed by the County Engineer.

Construction Permit: Prior to construction the contractor shall obtain the permit and pay to Kittitas County a fee as required.

1-07.16 Protection and Restoration of Property:

This Section is supplemented by adding the following: If any unknown subsurface structures are encountered during construction, they shall immediately be brought to the attention of the owner and prior to proceeding further with the work, protective measures shall be taken by the contractor to protect adjacent properties, public and private, at all times during construction. The contractor shall take all necessary precautions to control dust to meet the requirements of the responsible agency. Hydrant meter, irrigation equipment and any fees are the responsibility of the contractor.

All disturbed soils areas within the clearing limits shall be covered with a minimum of 4" of stockpiled strippings and seeded with native grass seed as per the table located on sheet C3.2

1-07.17 Utilities and Similar Facilities:

This Section is supplemented by adding the following: The contractor shall be responsible for verifying the location, dimension and depth of all existing utilities prior to construction, whether shown on the contract plans or not. Locations of said utilities as shown on the contract plans are based upon the best-known records available and are subject to a degree of unknown variation. If conflict should occur, the contractor shall immediately advise the design engineer to prepare a design revision. Approval of the design revision from the engineer and design engineer shall be obtained prior to proceeding with construction. It is the contractor's responsibility to notify the appropriate utilities involved prior to the start of any excavation. Call 811 for utility locates two working days prior to excavation. The contractor shall make all necessary arrangements, for construction of utilities shown on the contract plans and/or indicated in the contract document, with the serving utility. The contractor shall perform all work and shall furnish and install all materials as required by the utility. In cases where the serving utility furnishes materials and/or installs some components, the contractor shall furnish and/or install all other items of work not provided by the utility that are necessary for a complete and functioning utility system.

1-08.0 Prosecution and Progress: Preliminary Matters:

This Section is supplemented with the following: The contractor shall have and maintain on the job site during the performance of the work complete sets or copies of the following documents:

1. Contract plans which have been signature approved by the Engineer;
2. Responsible agency standards applicable to the construction operations; and
3. One set of record drawings

All work shall be constructed according to the approved contract plans and standard specifications. Any deviation from the approved contract plans will require written approval from the engineer. The contractor shall keep and maintain on the site one set of record drawings. The contractor shall mark on the record drawings all project conditions, locations, configurations, and any other changes or deviations which may vary from the details represented on the original contract plans. When construction is complete, the record drawings shall be submitted to the design engineer for use in preparing permanent record drawings.

The contractor shall obtain and have available, copies of the applicable responsible agency standards at the job site during the related construction operations.

2-01 Clearing, grubbing and Roadside Cleanup:

The description shall be supplemented as follows: clearing, grubbing, stripping and cleanup shall be performed in accordance with 2-01 within the following limits: to the limits shown on Sheets 3.1 and 3.1. Clearing - prior to the start of any earthwork, all existing vegetation, debris, rubble, asphalt pavement, etc., shall be removed from the project area and disposed of at an approved waste site secured by the contractor. Excavation and grading outside of the right-of-way shall comply with the current edition of the International Building Code. All slopes shall be a maximum of 2 horizontal to 1 vertical (SH IV unless otherwise noted on the contract plans.

2-01.3(2) Disposal Method No. 2 - Waste Site:

Supplement the following to Section 2-01.2(2): The contracting agency provides no waste site to the contractor.

1-800-424-5555
CALL BEFORE YOU DIG

2-03 Excavation and Embankment:

This Section is revised and supplemented by the following: Prior to any excavation, including trenching, strip the topsoil as provided in section 2-01. The subgrade for embankments shall be prepared by stripping topsoil as provided in Section 2-01 and then compact (proof roll) the subgrade to at least 95 percent of the maximum density. Embankment material shall be native soils less than 12" in greatest diameter.

Compaction - All materials and layers shall be placed and compacted to 95% in loose layers not exceeding eight inches in thickness. The contractor shall be responsible for importing and/or exporting all materials as required to construct the earthwork and surfacing to the lines and grades shown on the approved contract plans. In areas of proposed landscaping, compaction need not exceed 90%.

2-03.3(7) Disposal of Surplus Material:

Supplement the following: Excess native soils may be placed on the surrounding lots.

Excess native strippings may be placed on the site as shown as discussed herein. Excess strippings beyond what can be placed on site shall be removed from the project site.

2-03.3(14)D Compaction and Moisture Control Tests:

This Section is replaced with the following: Materials with 35 percent or more retained on the No. 4 sieve shall be determined by the WSDOT Test Method T606. This variation does not modify standard testing procedures that are defined by WSDOT or AASHTO. Maximum density and optimum moisture for materials of 35 percent or less retained on the No. 4 sieve shall be determined by the ASTM D1557 test method for maximum density/optimum moisture. The contractor shall provide all necessary excavation, vibratory compaction equipment, and labor to facilitate the taking compaction tests. The contractor shall provide all necessary test pits and additional work as directed by the owners representative. The contractor shall provide the responsible agency an opportunity to be present during compaction testing. All compaction results shall be with referral to required maximum densities.

4-04.3(5) Shaping and Compaction:

Replace the first sentence of the first paragraph with the following: Immediately following spreading and final shaping, each layer of surfacing shall be compacted at least 95 percent of the density determined by the control tests. In areas of proposed landscaping, compaction need not exceed 90%.

5-04.3(5)A Preparation of Existing Surfaces:

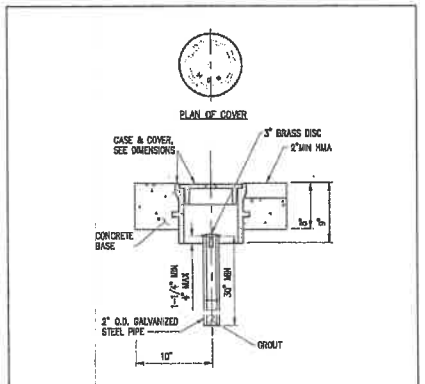
Add the following: A tack coat shall be applied to all asphalt edges to which bituminous surface treatment is to be applied.

5-02.3(2)C and 5-04.3(5)O Soil Residual Herbicide:

Soil sterilization shall be applied in areas to be paved. Keep 2-foot minimum clear of existing and proposed landscape areas. Apply at manufacture's recommended rate to assure 3-inches minimum penetration.

5-04.3(13) Surface Smoothness:

Add the following: Ponding or "birdbaths" exceeding one quarter inch in depth in surfaced areas shall not be acceptable and shall be accepted by the contractor.

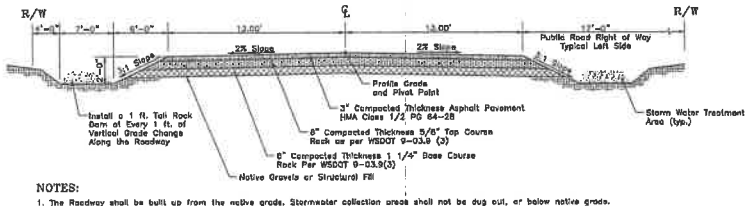


NOTES:

1. Refer to Kittitas County Standard Plan for Survey Monuments.
2. Brass discs shall be set by a professional land surveyor licensed by the State of Washington and shall bear the license number of the land surveyor responsible for setting the monument.
3. Monument case and cover shall be cast iron ASTM A48 Class 30.
4. Legend cover shall be 1/8" raised integrally (cast 1" letter height with a min face width of 3/16".
5. The brass disc shall be oriented so it can be read if the observer is facing north.

MONUMENT	
WESTERN PACIFIC ENGINEERING & SURVEY	08/2018
	B

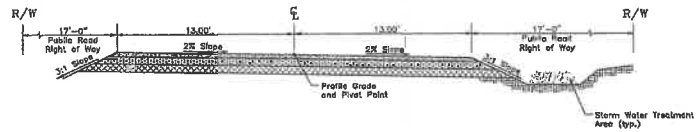
ROADWAY SECTION



NOTES:

1. The Roadway shall be built up from the native grade. Stormwater collection areas shall not be dug out, or below native grade.
2. Vegitation Plan: Drought resistant, low growing grasses shall be planted in the stormwater collection areas.

SUPER ROADWAY SECTION
Sta. -4+23.40 to Sta. -1+44.69



10/25/18

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Serving in Washington and Idaho

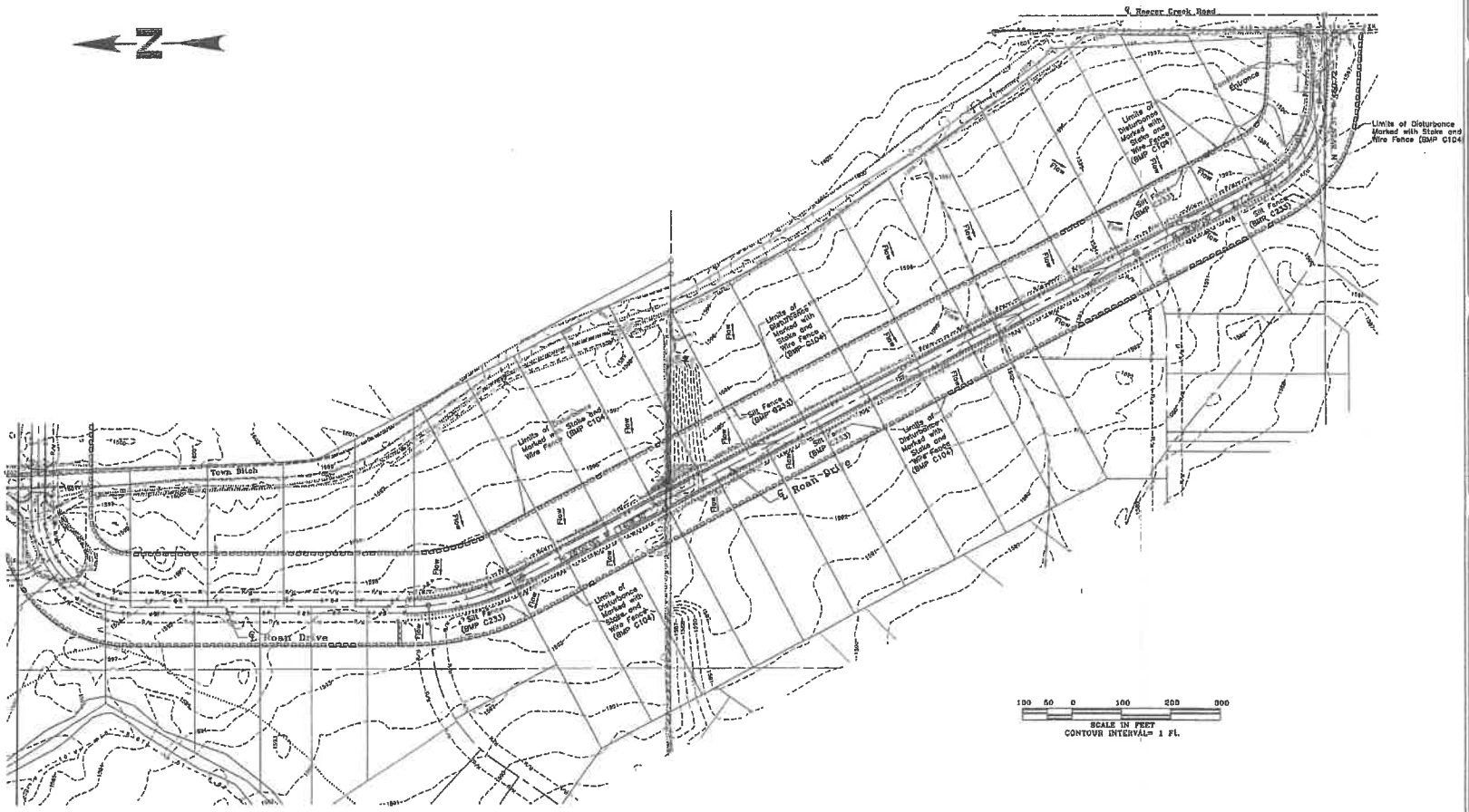
No.	Revision	Date	By

LCU, INC.
PALOMINO MAJOR PLAT, PHASE 3
ROAN DRIVE IMPROVEMENTS
Construction Details and Specifications
Kittitas County Washington

Designed by NDN
Drawn by TJA/JAG
Checked by NDN
Project No. 18413
Date: October 2018
Scale:
Hor. 1" = N/A
Vert. 1" = N/A
Sec 07, T 16 N, R 18 E

SHEET NO.
C2.1

181827


N
℄ Roscoe Creek Road
Town Ditch
℄ Rosa Drive
℄ Rosa Drive
Limits of Disturbance Marked with Stake and Wire Fence (BMP C104)
Limits of Disturbance Marked with Stake and Wire Fence (BMP C104)
Limits of Disturbance Marked with Stake and Wire Fence (BMP C104)
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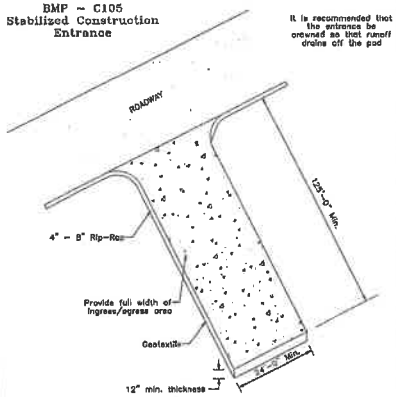
Limits of Disturbance Marked with Stake and Wire Fence (BMP C104)
Silt Fence (BMP C233)
Silt Fence (BMP C233)
Silt Fence (BMP C233)
Silt Fence (BMP C233)
Silt Fence (BMP C233)
Flow
Flow
Flow

BMP – C105
Stabilized Construction Entrance

It is recommended that the entrance be crowned so that runoff drains off the pad



CONSTRUCTION ENTRANCE

WESTERN PACIFIC ENGINEERING & SURVEY | 04/2018 | E-1

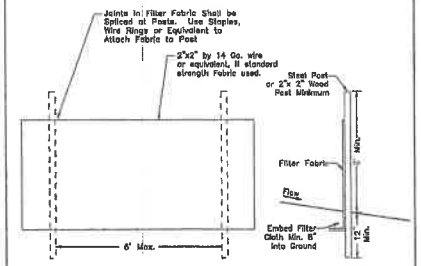
8" – 18" precip – Loamy/Limited Rock Shrub-Steppe

Common Name	Botanical Name	Seeding Method		
		Hydro-Seed	Broadcast	Drill
Bluebunch Wheatgrass	Pseudoroegneria spicata	12	7	4
Bottlebrush Squirreltail	Elymus elymoides	2	2	1
Big Squirreltail	Elymus multisetus	2	2	2
Idaho Fescue	Festuca idahoensis	4	3	1.5
Prairie Junegrass	Koeleria cristata	1	1	0.5
Sandberg Bluegrass	Poa secunda	4	3	1.5
Streambank Wheatgrass	Elymus lanceolatus ssp.	3	3	1.5
	Total Lbs./Acre	30	20	11

Beach Wildrye *Leymus cinereus*
Grass seed mix at 40lb./acre in swales and dam remnant areas

NATIVE SEEDING CHART

WESTERN PACIFIC ENGINEERING & SURVEY | 07/2018 | E-2



GEOTEXTILE STANDARDS

Polymeric Mesh AOS (ASTM D4751)	0.60 mm maximum for silt fim wovens (#30 sieve). 0.30 mm maximum for all other geotextile types (#50 sieve). 0.15 mm minimum for all fabric types (#100 sieve)
Water Permittivity (ASTM D4491)	0.02 sec^{-1} minimum
Grab Tensile Strength (ASTM D4632)	180 lbs. Minimum for extra strength fabric. 100 lbs. Minimum for standard strength fabric.
Grab Tensile Strength (ASTM D4632)	30% maximum
Ultraviolet Resistance (ASTM D4355)	70% minimum

NOTE:
Conforms to Eastern Washington Storm Water Manual BMP – C233 for a Silt Fence

SILT FENCE

WESTERN PACIFIC ENGINEERING & SURVEY | 04/2018 | E-3

10/23/18

WESTERN PACIFIC ENGINEERING & SURVEY
A TERRA DEVELOPMENT SERVICES CORPORATION
1328 E. Hastings Place, Moses Lake, Washington
TEL(509)765-9101 FAX(509)765-9388
Serving in Washington and Idaho

No.	Revision	Date	By

LCU, INC.
PALOMINO MAJOR PLAT, PHASE 3
Best Management Practices
Details
Whitman County Washington

Designed by NDN
Drawn by TMI/JAG
Checked by NDN
Project No. 18419
Date: October 2018
Scale:
Hor. 1" = N/A
Vert. 1" = N/A
Sec 27, T 18 N, R 46 E

SHEET NO.
C3.2

181827

PRIVATE ROAD NETWORK DRAWINGS FOR PALOMINO MAJOR PLAT, PHASE II

Prepared By

WESTERN PACIFIC ENGINEERING & SURVEY

VICINITY MAP

BENCH MARK LISTING

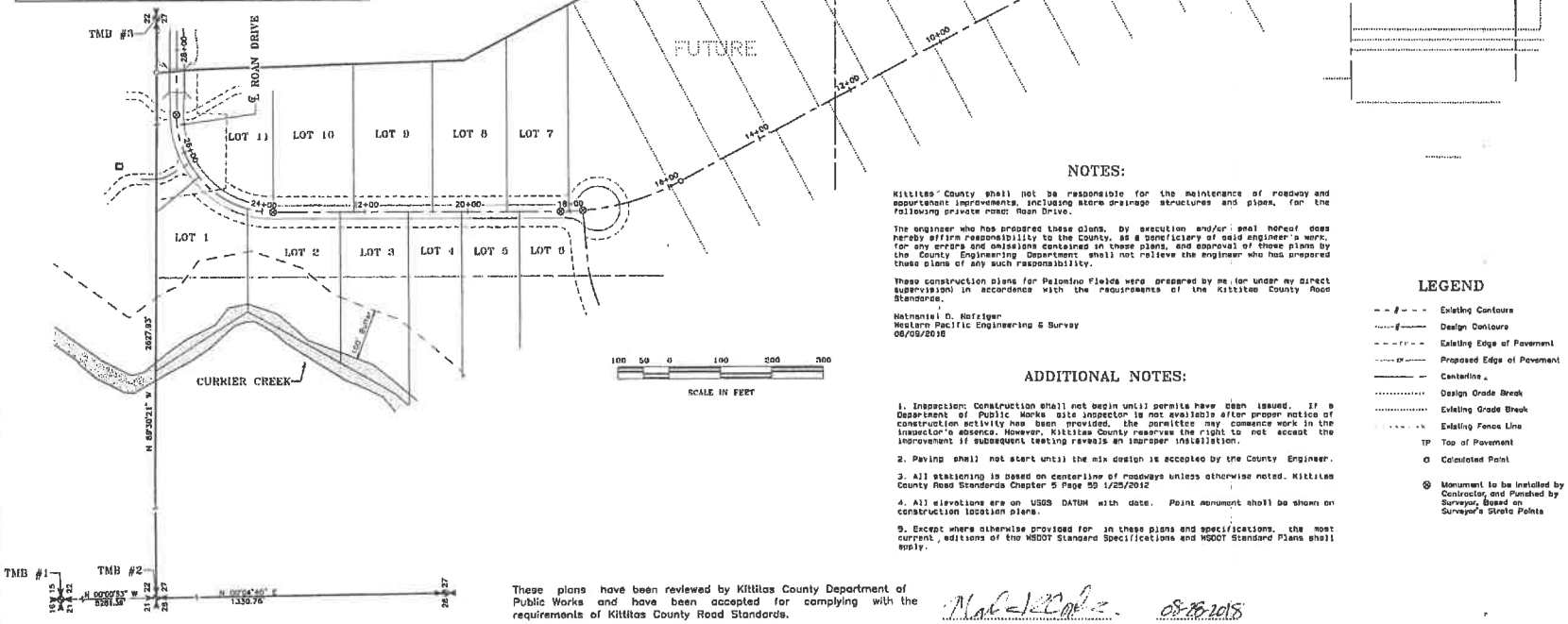
TBM#1 - Found monument marking the northwest corner of Section 22 (Elevation=1845.95)

TBM#2 - Found monument marking the southwest corner of Section 22 (Elevation=1899.32)

TBM#3 - Found monument marking the southeast corner of the southwest quarter of Section 22. (Elevation=1815.65)

SHEET INDEX

C1.0 Cover Sheet
C1.1 Plan and Profile Sta. 16+00 to Sta. 23+00
C1.2 Plan and Profile Sta. 19+00 to Sta. 27-50
C2.1 Construction Details and Specifications
C3.1 Best management Practices Plan & Details
C3.2 Best management Practices Plan & Specifications



NOTES:

Kittitas County shall not be responsible for the maintenance of roadway and appurtenant improvements, including storm drainage structures and pipes, for the following private road: Roan Drive.

The engineer who has prepared these plans, by execution and/or seal hereof does hereby affirm responsibility to the County, as a beneficiary of said engineer's work, for any errors and omissions contained in these plans, and approval of these plans by the County Engineering Department shall not relieve the engineer who has prepared these plans of any such responsibility.

These construction plans for Palomino Fields were prepared by me (or under my direct supervision) in accordance with the requirements of the Kittitas County Road Standards.

Nathaniel D. Nofziger
Western Pacific Engineering & Survey
08/09/2018

ADDITIONAL NOTES:

1. Inspection: Construction shall not begin until permits have been issued. If a Department of Public Works site inspector is not available after proper notice of construction activity has been provided, the permittee may commence work in the inspector's absence. However, Kittitas County reserves the right to not accept the improvement if subsequent testing reveals an improper installation.

2. Paving shall not start until the mix design is accepted by the County Engineer.

3. All stationing is based on centerline of roadways unless otherwise noted. Kittitas County Road Standards Chapter 5 Page 59 1/25/2012

4. All elevations are on USGS DATUM with date. Point monument shall be shown on construction location plans.

5. Except where otherwise provided for in these plans and specifications, the most current editions of the WSDOT Standard Specifications and WSDOT Standard Plans shall apply.

LEGEND

- Existing Contours
- Design Contours
- Existing Edge of Pavement
- Proposed Edge of Pavement
- Centerline
- Design Grade Break
- Existing Grade Break
- Existing Fence Line
- TP Top of Pavement
- Calculated Point
- Monument to be installed by Contractor, and Punched by Surveyor, Based on Surveyor's Strata Points

These plans have been reviewed by Kittitas County Department of Public Works and have been accepted for complying with the requirements of Kittitas County Road Standards.

County Engineer

08-28-2018
Date

WESTERN PACIFIC ENGINEERING & SURVEY
A TERRA DEVELOPMENT SERVICES CORPORATION
1328 Hunter Place, Moses Lake, Washington
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Service in Motion

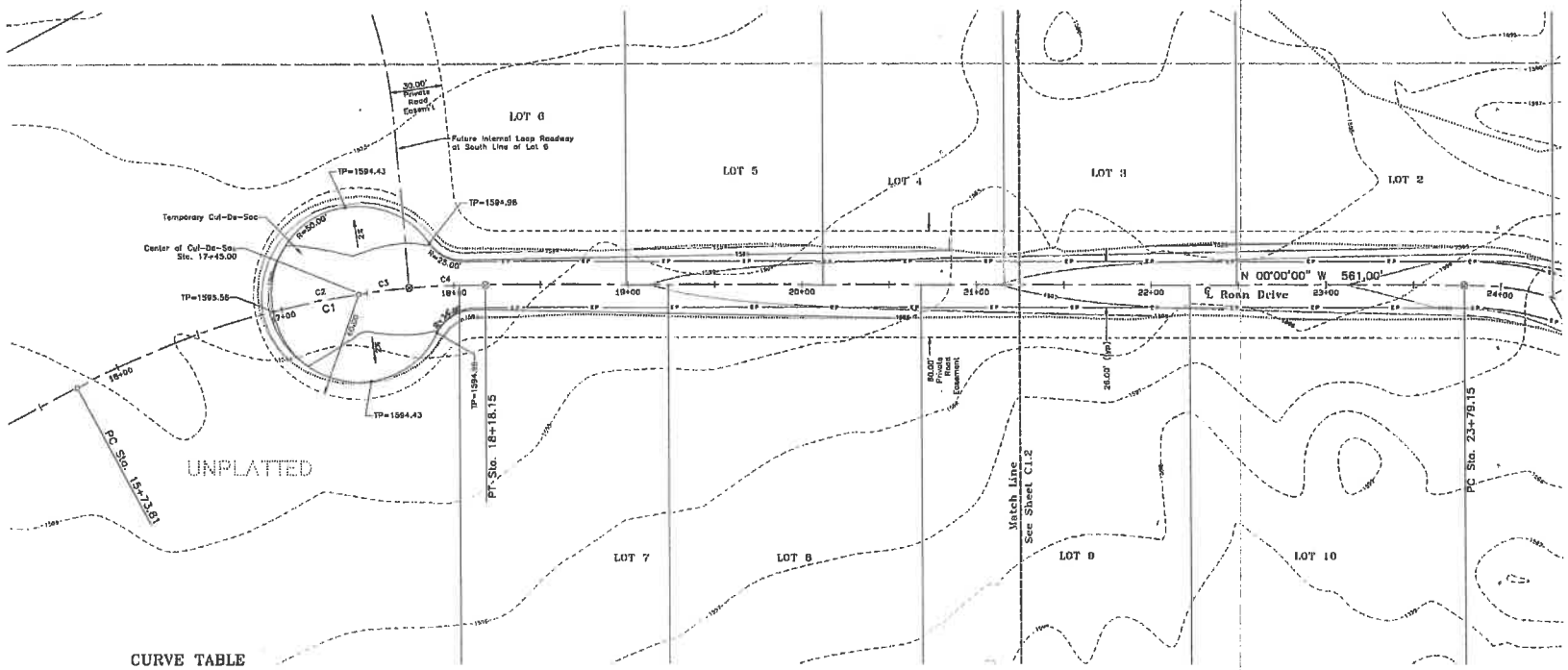
No.	Revision	Date	By
02	County Review Comments — 2	08/18	NDN
01	County Review Comments	06/18	NDN

LCU, INC.
PALOMINO MAJOR PLAT, PHASE II
ROAN DRIVE IMPROVEMENTS
Cover Sheet
Kittitas County Washington

Designed by NDN
Drawn by NDN/JAG
Checked by NDN
Project No. 18413
Date: July 2018
Scale:
Hor. 1" = 100'
Vert. 1" = N/A
Sec 27, T 18 N, R 18 E

SHEET NO.
C1.0

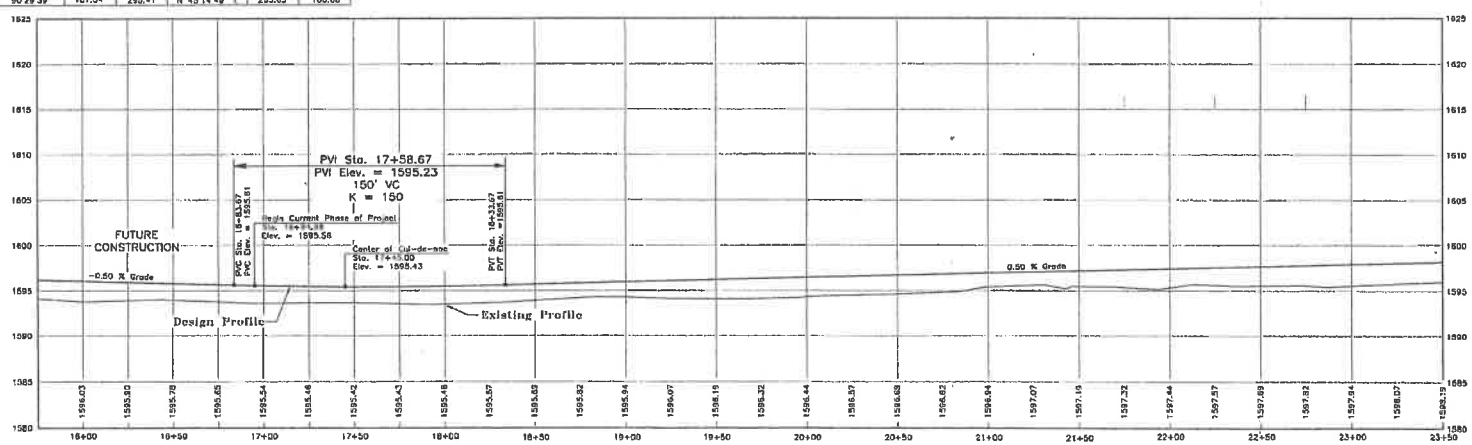
161827



CURVE TABLE

LINE	DELTA	RADIUS	ARC	CHORD BEARING	CHORD	TANGENT
C1	28°00'00"	500.00'	244.35'	N 14°00'00" W	241.92'	124.61'
C2	19°37'03"	500.00'	171.18	N 18°11'25" W	170.38'	86.44
C3	03°22'57"	500.00'	29.52	N 08°41'19" W	29.51	14.76'
C4	05°00'00"	500.00	43.63'	N 02°30'00" W	43.62'	21.83'
C5	90°29'39"	167.04	296.41'	N 45°14'49" E	265.65	188.66'

SCALE IN FEET
CONTOUR INTERVAL= 1 Ft.



8-28-18

WESTERN PACIFIC ENGINEERING & SURVEY
A TETRA TECH FAMILY OPERATING COMPANY
1323 S. Bellevue Place, Kennewick, Washington
T:(509)783-1322 F:(509)783-1328
Services in Washington and Idaho

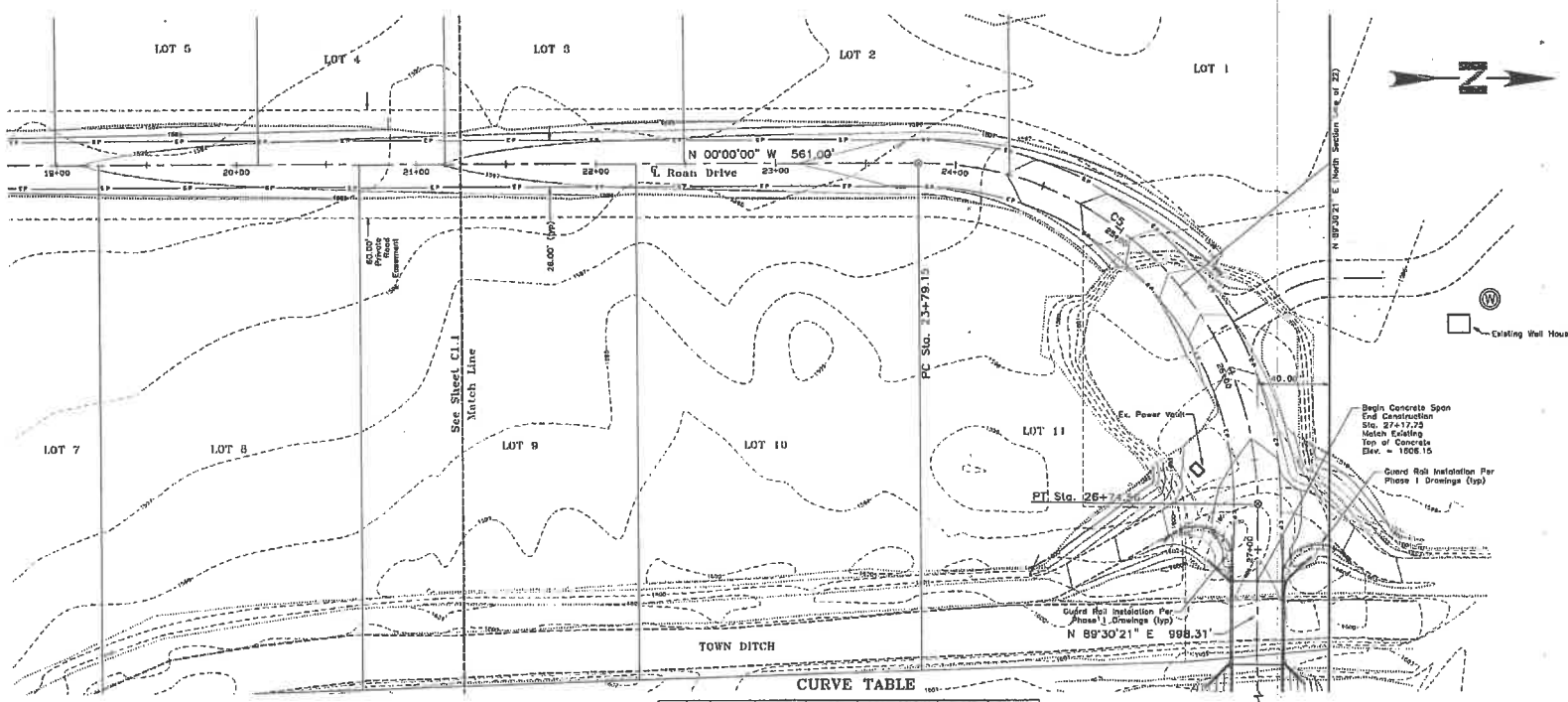
No.	Revisions	Date	By
G2	County Review Comments - 2	08/15	NDM
G1	County Review Comments	08/18	NDM

LCU, INC.
PALOMINO MAJOR PLAT, PHASE 2
ROAN DRIVE IMPROVEMENTS
Plan and Profile Sta. 16+00 to Sta. 23+00
Kittitas County Washington

Designed by NDM
Drawn by Tml/NDM
Checked by NDM
Project No. 18413
Date: April 2018
Scale:
Hor. 1" = 20'
Vert. 1" = 8'
Sec 27, T 18 N, R 18 E

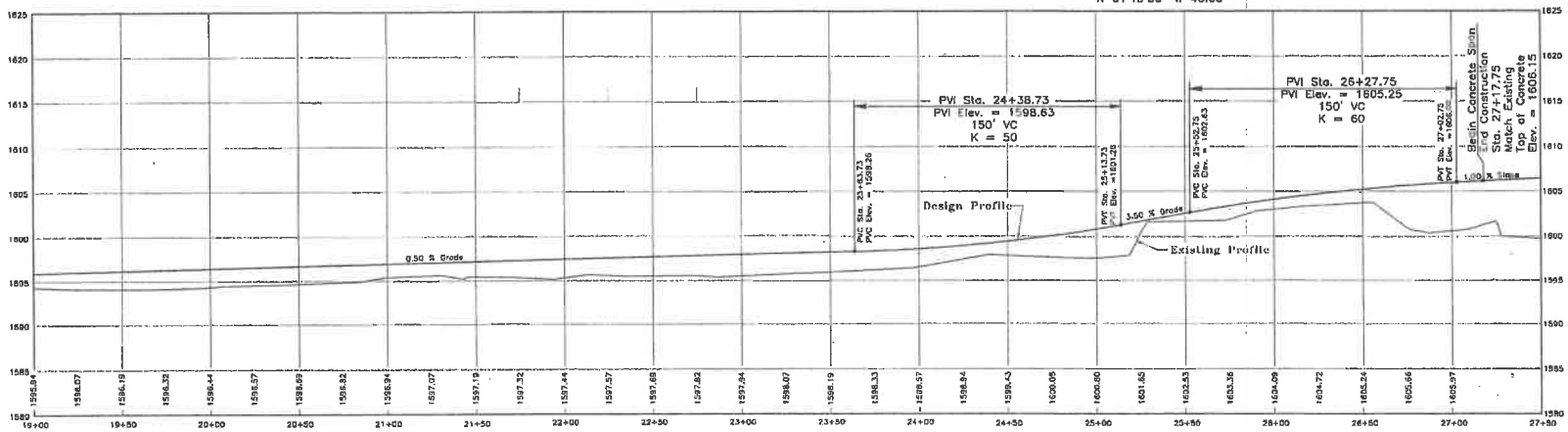
SHEET NO.
C1.1

181827



CURVE TABLE

LINE	DELTA	RADIUS	ARC	CHORD BEARING	CHORD	TANGENT
C1	28°00'00"	500.00'	244.35'	N 14°00'00" W	241.92'	124.68'
C2	19°37'03"	500.00'	171.19	N 18°11'29" W	170.38'	86.44'
C3	03°22'57"	500.00'	29.52'	N 06°41'29" W	29.51'	14.76'
C4	05°00'00"	500.00'	43.63'	N 02°30'00" W	43.62'	21.83'
C5	60°29'35"	187.04'	295.41'	N 45°14'49" E	285.65'	163.85'



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P:(509)735-1023 F:(509)735-1398
Serving in Washington and Idaho

No.	Revisions	Date	By
02	County Review 2	08/18	NDN
01	County Review Comments	06/18	NDN

LCU, INC.
PALOMINO MAJOR PLAT, PHASE 2
ROAN DRIVE IMPROVEMENTS
Plan and Profile Sta. 19+00 to Sta. 27+50
Kittitas County Washington

Designed by NDN
Drawn by TMT/NDN
Checked by NDN
Project No. 18413
Date: April 2018
Scale:
Hor. 1" = 20'
Vert. 1" = 6'
Sec 27, T 18 N, R 18 E

SHEET NO.
C1.2

181827

GENERAL SPECIFICATIONS

The Washington State Department of Transportation "Standard Specifications for Road, Bridge and Municipal Construction" 2010 Edition as amended by the APWA and the Kittitas County Public Works Road Standards, and referred to as the "Standard Specifications", are hereby part of the contract plans. Any inconsistency in the parts of the contract including these contract plans shall be brought to the attention of Western Pacific Engineering & Survey, Inc. and the Kittitas County Public Works, prior to construction. During the performance of the work, if the contractor discovers any conflict, error, ambiguity, or discrepancy within the contract plans, contractor shall report it immediately, in writing, to Western Pacific Engineering & Survey, Inc., and to the responsible agency's designated engineer. The Standard Specifications can be obtained at the following web sites:

http: //www.wsdot.wa.gov/publications/manuals/
https: //www.co.kittitas.wa.us/public-works/development

Responsible Agencies:

Evergreen Valley Utilities:
All water mains and lines.

Kittitas County Public Works:
All roadways from the existing edge of pavement and all other utility work within the County Road Right of Way.

Kittitas County Building Department:
All other aspects of construction.

Prior to the start of construction, a pre-construction conference shall be scheduled with the contractor, the developer's design engineer, city personnel and any affected utilities and agencies.

Special Provisions:

The following special provisions and responsible agency standards amend the Standard Specifications. The contractor shall do all work in accordance with the contract plans, these special provisions, responsible agency standards, and the Standard Specifications.

1-05.4 Conformity with and Deviations from Plans:

Construction staking shall be performed under the direct supervision of a licensed Professional Surveyor. A copy of the staking notes will be provided to the responsible agency.

The Contactor shall keep the surveyor informed of their staking requirements far enough in advance of the time when the stakes will be required to provide a reasonable amount of time to set the stakes. Requests for stakes shall be made at least two working days prior to the need to commence staking operations. The request shall include the offset distance and direction.

As-Constructed Drawings shall be prepared and submitted to the Kittitas County Engineer by the Design Engineer upon completion of the construction.

1-06.1 Approval of Materials:

Delete the first paragraph and replace with the following: The Contractor shall submit a written list of all materials to the design engineer prior to construction. Submittals for all non-standard materials used in the project shall be reviewed and approved by the governing agency prior to use. The contractor shall provide materials submittal for all non-standard materials to the respective agencies. All materials shall be approved by the design engineer and the agency prior to the start of construction.

1-06.2(1) Samples and Tests for Acceptance:

Modify the section as follows: The word Engineer or Project engineer shall refer to the owner and their designated inspector.

Special inspection shall be as follows, unless modified by the design engineer due to field conditions.

1. Soil subgrade shall be randomly tested for compaction with a minimum of one test per 10,000 square feet but no less than three tests in any given area.
2. Embankment and trench backfill shall be randomly tested for compaction on every four feet of lift.
3. Each layer of rock base shall be randomly tested for compaction with a minimum of one test per 10,000 square feet but no less than three tests in any given area.
4. Each layer of asphalt shall be randomly tested for compaction with a minimum of one test per 5,000 square feet but no less than three tests in any given area.
5. Soil subgrade on roadways shall be randomly tested for compaction with a minimum of three tests per each five hundred feet of roadway.
6. Concrete pavements shall have a minimum compressive strength at 28 days of 4000 psi. One set of four cylinders shall be cast for every 100 cubic yards of concrete poured per day. Individual concrete slabs, walkways and pads containing less than 1.0 cubic yards or of concrete need not be tested.

1-07.1 Laws to Be Observed:

This Section is supplemented by adding the following:

Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

1. All persons on the site or who may be affected by the work;
2. All the work and materials and equipment to be incorporated therein, whether in storage on or off the site; and
3. Other property at site or adjacent thereto.

Contractor shall comply with all applicable laws and regulations related to the safety of persons or property including WISHA and OSHA regulations.

It is the responsibility of the Contractor to obtain all necessary permits and pay all associated fees to perform the work required by these plans.

1-07.4 Laws to Be Observed Continued:

Before commencing construction, the contractor must have a Kittitas County Construction bond in the amount of 135 percent of the estimated construction costs. When a letter of escrow or cash is used, the amount covered shall be for 115 percent of the estimated construction costs as reviewed by the Public Works Director.

Construction Permit: Prior to construction the contractor shall obtain the permit and pay to Kittitas County a fee as required.

1-07.16 Protection and Restoration of Property:

This Section is supplemented by adding the following: If any unknown subsurface structures are encountered during construction, they shall immediately be brought to the attention of the owner and prior to proceeding further with the work, protective measures shall be taken by the contractor to protect adjacent properties, public and private, at all times during construction. The contractor shall take all necessary precautions to control dust to meet the requirements of the responsible agency. Hydrant meter, irrigation equipment and any fees are the responsibility of the contractor.

All disturbed soils areas within the clearing limits shall be covered with a minimum of 4" of stockpiled strippings and seeded with native grass seed as per the table located on sheet C0.5

1-07.17 Utilities and Similar Facilities:

This Section is supplemented by adding the following: The contractor shall be responsible for verifying the location, dimension and depth of all existing utilities prior to construction, whether shown on the contract plans or not. Locations of said utilities as shown on the contract plans are based upon the best-known records available and are subject to a degree of unknown variation. If conflict should occur, the contractor shall immediately advise the design engineer to prepare a design revision. Approval of the design revision from the engineer and design engineer shall be obtained prior to proceeding with construction. It is the contractor's responsibility to notify the appropriate utilities involved prior to the start of any excavation. Call 811 for utility locates two working days prior to excavation. The contractor shall make all necessary arrangements, for construction of utilities shown on the contract plans and/or indicated in the contract document, with the serving utility. The contractor shall perform all work and shall furnish and install all materials as required by the utility. In cases where the serving utility furnishes materials and/or installs some components, the contractor shall furnish and/or install all other items of work not provided by the utility that are necessary for a complete and functioning utility system.

1-08.0 Prosecution and Progress: Preliminary Matters:

This Section is supplemented with the following: The contractor shall have and maintain on the job site during the performance of the work complete sets or copies of the following documents:

1. Contract plans which have been signature approved by the Engineer;
2. Responsible agency standards applicable to the construction operations; and
3. One set of record drawings

All work shall be constructed according to the approved contract plans and standard specifications. Any deviation from the approved contract plans will require written approval from the engineer. The contractor shall keep and maintain on the site one set of record drawings. The contractor shall mark on the record drawings all project conditions, locations, configurations, and any other changes or deviations which may vary from the details represented on the original contract plans. When construction is complete, the record drawings shall be submitted to the design engineer for use in preparing permanent record drawings.

The contractor shall obtain and have available, copies of the applicable responsible agency standards at the job site during the related construction operations.

2-01 Clearing, Grubbing and Roadside Cleanup:

The description shall be supplemented as follows: clearing, grubbing, stripping and cleanup shall be performed in accordance with 2-01 within the following limits: to the limits shown on Sheets 3.1 and 3.1. Clearing - prior to the start of any earthwork, all existing vegetation, debris, rubble, asphalt pavement, etc., shall be removed from the project area and disposed of at an approved waste site secured by the contractor. Excavation and grading outside of the right-of-way shall comply with the current edition of the International Building Code. All slopes shall be a maximum of 2 horizontal to 1 vertical (2H:1V unless otherwise noted on the contract plans.

2-01.2(2) Disposal Method No. 2 - Waste Site:

Supplement the following to Section 2-01.2(2): The contracting agency provides no waste site to the contractor.

2-03 Excavation and Embankment:

This Section is revised and supplemented by the following: Prior to any excavation, including trenching, strip the topsoil as provided in section 2-01. The subgrade for embankments shall be prepared by stripping topsoil as provided in Section 2-01 and then compact (proof roll) the subgrade to at least 95 percent of the maximum density. Embankment material shall be native soils less than 12" in greatest diameter.

Compaction - All materials and layers shall be placed and compacted to 95% in loose layers not exceeding eight inches in thickness. The contractor shall be responsible for importing and/or exporting all materials as required to construct the earthwork and surfacing to the lines and grades shown on the approved contract plans. In areas of proposed landscaping, compaction need not exceed 90%.

2-03.3(7) Disposal of Surplus Material:

Supplement the following: Excess native soils may be placed on the surrounding lots.

Excess native strippings may be placed on the site as shown as discussed herein. Excess strippings beyond what can be placed on site shall be removed from the project site.

2-03.3(14)D Compaction and Moisture Control Tests:

This Section is replaced with the following: Materials with 35 percent or more retained on the No. 4 sieve shall be determined by the WSDOT Test Method T606. This variation does not modify standard testing procedures that are defined by WSDOT or AASHTO. Maximum density and optimum moisture for materials of 35 percent or less retained on the No. 4 sieve shall be determined by the ASTM D1557 test method for maximum density/optimum moisture. The contractor shall provide all necessary excavation, vibratory compaction equipment, and labor to facilitate the taking compaction tests. The contractor shall provide all necessary test pits and additional work as directed by the owners representative. The contractor shall provide the responsible agency an opportunity to be present during compaction testing. All compaction results shall be with referral to required maximum densities.

4-04.3(5) Shaping and Compaction:

Replace the first sentence of the first paragraph with the following: Immediately following spreading and final shaping, each layer of surfacing shall be compacted at least 95 percent of the density determined by the control tests. In areas of proposed landscaping, compaction need not exceed 90%.

5-04.3(5)A Preparation of Existing Surfaces:

Add the following: A tack coat shall be applied to all asphalt edges to which bituminous surface treatment is to be applied.

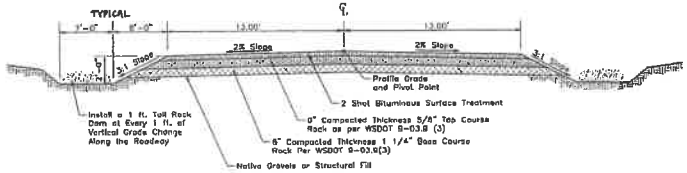
5-02.3(2)C and 5-04.3(5)D Soil Residual Herbicide:

Soil sterilization shall be applied in areas to be paved. Keep 2-foot minimum clear of existing and proposed landscape areas. Apply at manufacture's recommended rate to assure 3-inches minimum penetration.

5-04.3(13) Surface Smoothness:

Add the following: Ponding or "birdbaths" exceeding one quarter inch in depth in surfaced areas shall not be acceptable and shall be accepted by the contractor.

ROADWAY SECTION

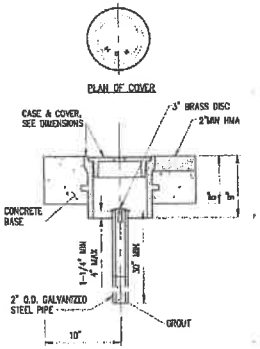


NOTES:

1. The Roadway shall be built up from the native grade. Stormwater collection areas shall not be dug out, or below native grade.
2. Vegitation Plan: Drought resistant, low growing grasses shall be planted in the stormwater collection areas.

1-800-424-5555
CALL BEFORE YOU DIG

PLAN OF COVER



NOTES:

1. Refer to Kittitas County Standard Plan for Survey Monuments.
2. Brass discs shall be set by a professional land surveyor liscensed by the State of Washington and shall bear the liscense number of the land surveyor responsible for setting the monument.
3. Monument case and cover shall be cast iron ASTM A48 Class 30.
4. Legend cover shall be 1/8" raised integrally cast 1" letter height with a min face width of 3/16".
5. The brass disc shall be oriented so it can be read if the observer is facing north.

MONUMENT
WESTERN PACIFIC ENGINEERING & SURVEY
06/2016
B

@ 8-27-18

WESTERN PACIFIC ENGINEERING & SURVEY
A LAND DEVELOPMENT SERVICES CORPORATION
1318 Nuckles Place, Moses Lake, Washington
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Services in Washington and Idaho

No.	Revision	Date	By
02	County Review Comments 2	06/18	NDN
01	County Review Comments	06/18	NDN

LCU, INC.
PALOMINO MAJOR PLAT, PHASE 2
ROAN DRIVE IMPROVEMENTS
Construction Details and Specifications
Kittitas County Washington

Designed by NDN
Drawn by Tml/DNO
Checked by NDN
Project No. 10118
Date April 2018
Scale:
Hor. 1" = N/A
Vert. 1" = N/A
See S7, T 18 N, R 18 E

SHEET NO.
C2.1

181527