



Development Services Department
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 Colorado Springs, Colorado 80910

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 Website www.elpasoco.com

DEVIATION REVIEW AND DECISION FORM

Procedure # R-FM-051-07
 Issue Date: 12/31/07
 Revision Issued: 00/00/00

DSD FILE NO.:

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General Property Information

Address of Subject Property (Street Number/Name): 0 Meridian Hills Drive

Tax Schedule ID(s) #: 4229300001 & 4229300002

Legal Description of Property:

SEE ATTACHED

Subdivision or Project Name: Stonebridge Filing 4 at Meridian Ranch

Section of ECM from which Deviation Is Sought: 2.3.8.A Cul-de-sacs (maximum allowed grade, Fig 2-31)

Specific Criteria from which a Deviation Is Sought: Waiver of the 3% maximum centerline grade at a cul-de-sac as shown in Figure 2-31 on pg 2-62.

Proposed Nature and Extent of Deviation: The request for a deviation is to allow the proposed centerline grade to exceed 3% to a grade of 4% through the cul-de-sac bulb.

Applicant Information:

Applicant: GTL Development Inc. Email: raul@techbilt.com
 Applicant Is: Owner Consultant Contractor
 Mailing Address: P.O. Box 80036, San Diego State: CA Postal Code: 92138
 Telephone Number: 619-223-1663 Fax Number: N/A

Engineer Information:

Applicant: Thomas A Kerby Email Address: tom@meridianranch.com
 Company Name: Tech Contractors.
 Mailing Address: 11886 Stapleton Dr, Falcon State: CO Postal Code: 80831
 Registration Number: 31429 State of Registration: Colorado
 Telephone Number: 719-495-7444 Fax Number: N/A

Explanation of Request (Attached diagrams, figures, and other documentation to clarify request):

Section of ECM from which Deviation Is Sought: 2.3.8.A Cul-de-sacs (maximum allowed grade, Fig 2-31)

Specific Criteria from which a Deviation Is Sought: Waiver of the 3% maximum centerline grade at a cul-de-sac as shown in Figure 2-31 on pg 2-62.

Proposed Nature and Extent of Deviation: The request for a deviation is to allow the proposed centerline grade to exceed 3% to a grade of 4% within the cul-de-sac bulb of Meridian Hills Dr, a cul-de-sac located north of Granite Hills Dr and east of Rainbow Bridge Dr.

Reason for the Requested Deviation: The project is located between Stone Valley Dr and Granite Hills Dr where the existing grade differential is approximately 22 feet. Stonebridge Filing 3 is located to the north with an open space located between the two sets of lots; there is a drainage swale that captures and directs runoff easterly along the open space toward a point where the runoff can be captured and directed to Gieck Detention Pond E. The design limitations associated with the vertical and horizontal constraints applied to Rainbow Bridge Dr further complicated the lot layout and street alignments in the area. The street length to the cul-de-sac bulb is relatively short; 285 feet measured along the centerline from the radius point to the centerline intersection with Granite Hills Dr. If the guidelines and criteria were strictly followed to limit the grade through the cul-de-sac bulb at 3.0%; retaining walls may need to be constructed along the rear property lines of the lots on the cul-de-sac in order to preserve the established major drainage basin boundaries and those areas draining to two regional detention ponds, Or the centerline grade of the street may need to be around 8% or greater and minimum vertical curve lengths would be difficult to meet creating sight line difficulties.

Comparison of Proposed Deviation to ECM Standard: The request is to waive the 3% maximum grade within the cul-de-sac bulb and approaching throat and allow a maximum grade of 4% through most of the cul-de-sac bulb and transition to the centerline grade of roughly 6.5% by means of a vertical curve through the approaching throat.

Applicable Regional or National Standards Used as Basis: This request closely matches the requirements of the City of Colorado Springs; where there is no differentiation of maximum allowed grade of the cul-de-sac bulb and the remaining portions of the street. Residential centerline grade allowances between 1.0%-10% (16.0 Table of Traffic Engineering Design Standards, pg 41 COS volume 3). Also, COS Engineering Criteria Manual, Plan and Profile Checklist, pg 62 shows a limit to cul-de-sac bulb **cross slope** of 4% except in Hillside areas where 6% is permissible.

**Application Consideration:
CHECK IF APPLICATION MEETS CRITERIA FOR
CONSIDERATION**

- The ECM standard is inapplicable to a particular situation
- Topography, right-of-way, or other geographical conditions or impediments impose an undue hardship on the applicant, and an equivalent alternative that can accomplish the same design objective is available and does not compromise public safety or accessibility.
- A change to a standard is required to address a specific design or construction problem, and if not modified, the standard will impose an undue hardship on the applicant with little or no material benefit to the public.

N/A _____

The shape and the topography of the site creates some constraints that cannot be mitigated, given the desire to maximize open space between the several surrounding existing subdivision filings and this project. The existing vertical and horizontal constraints associated with Rainbow Bridge Dr complicated the lot layout and street alignments to the west of the collector road.

The maximum slope for a cul-de-sac bulb seems unnecessary, so long as the slope meets the grade limitations set for residential centerline grade allowance. This would match the City of Colorado Springs and provide more continuity between the two jurisdictions.

If at least one of the criteria is not met, this application for deviation cannot be considered.

Criteria for Approval:

PLEASE REQUEST HOW EACH OF THE FOLLOWING CRITERIA HAVE BEEN SATISFIED BY THIS REQUEST

The request for a deviation is not based exclusively on financial considerations

The request is not based on financial considerations. The request is based on topographic constraints.

The deviation will achieve the intended result with a comparable or superior design and quality of improvement.

Given the short length and relative grade constraints, the design provides a superior design by providing better view lots than would be available absent the deviation.

The deviation will not adversely affect safety or operations

The proposed deviation does not limited sight distance. The K-value for Stopping Sight Distances on a Crest Vertical Curve is calculated at 7.6 as measured for a vehicle traveling along the curb. This provides sufficient stopping distance for a vehicle traveling in excess of 25 mph.

The deviation will not adversely affect maintenance.

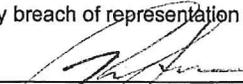
The proposed slope within the cul-de-sac bulb will not affect the maintenance cost or the ability for maintenance vehicles to work on the street or within the right-of-way.

The deviation will not adversely affect aesthetic appearance.

The proposed deviation will not affect the aesthetic appearance.

Owner, Applicant, and Engineer Declaration:

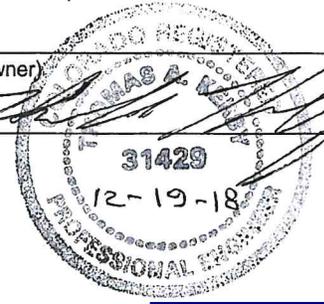
To the best of my knowledge, the information on this application and all additional or supplemental documentation is true, factual and complete. I am fully aware that any misrepresentation of any information on this application may be grounds for denial. I have familiarized myself with the rules, regulations and procedures with respect to preparing and filing this application. I also understand that an incorrect submittal will be cause to have the project removed from the agenda of the Planning Commission, Board of County Commissioners and/or Board of Adjustment or delay review, and that any approval of this application is based on the representations made in the application and may be revoked on any breach of representation or condition(s) of approval.



Raul Guzman, Vice-President, GTL
Signature of owner (or authorized representative) _____ Date December 17, 2018

Signature of applicant (if different from owner) _____ Date _____

Thomas A. Kerby, PE 31429
Signature of Engineer _____ Date _____



Review and Recommendation:

APPROVED by the ECM Administrator

Date _____



This request has been determined to have met the criteria for approval. A deviation from Section 2.3.8 of ECM is hereby granted based on the justification provided. Comments:

_____ Additional comments or information are attached

DENIED by the ECM Administrator

Date _____

This request has been determined not to have met the criteria for approval. A deviation from Section _____ of ECM is hereby denied. Comments:

The Enclave PUD

KNOW ALL MEN BY THESE PRESENTS:

THAT GTL, INC. DBA GTL DEVELOPMENT, INC., THEODORE TCHANG, PRESIDENT; BEING THE OWNERS OF THE FOLLOWING DESCRIBED TRACTS OF LAND:

TWO PARCELS OF LAND LOCATED IN A PORTION OF SECTION 29 AND 30, BOTH IN TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

PARCEL A:

BEGINNING AT A POINT ON THE SOUTHEASTERN MOST CORNER OF TRACT D OF STONEBRIDGE FILING NO. 1 AT MERIDIAN RANCH, RECORDED WITH RECEPTION NO. 215713582 IN THE RECORDS OF EL PASO COUNTY;

THE FOLLOWING SIX(6) COURSES ARE ON SAID SOUTHERLY LINE OF TRACT D:

1. THENCE N13°42'24"E A DISTANCE OF 350.00 FEET;
2. THENCE N56°18'54"E A DISTANCE OF 150.00 FEET;
3. THENCE S84°02'15"E A DISTANCE OF 300.00 FEET;
4. THENCE N60°01'20"E A DISTANCE OF 300.00 FEET;
5. THENCE N44°00'02"E A DISTANCE OF 520.00 FEET;
6. THENCE N56°12'41"E A DISTANCE OF 308.07 FEET;
7. THENCE S31°45'35"E A DISTANCE OF 134.54 FEET;
8. THENCE S12°21'07"W A DISTANCE OF 8.00 FEET;
9. THENCE S33°47'19"E A DISTANCE OF 60.00 FEET;
10. THENCE S38°56'54"E A DISTANCE OF 123.00 FEET;
11. THENCE S44°59'01"E A DISTANCE OF 59.00 FEET;
12. THENCE S46°40'09"E A DISTANCE OF 60.00 FEET;
13. THENCE S49°16'15"E A DISTANCE OF 58.53 FEET;
14. THENCE S54°59'06"E A DISTANCE OF 123.00 FEET;
15. THENCE S60°08'41"E A DISTANCE OF 60.00 FEET;
16. THENCE S65°03'17"E A DISTANCE OF 145.00 FEET;
17. THENCE S68°53'37"E A DISTANCE OF 140.36 FEET;
18. THENCE S58°13'49"E A DISTANCE OF 206.93 FEET;
19. THENCE S20°23'46"E A DISTANCE OF 350.00 FEET;
20. THENCE S82°25'21"W A DISTANCE OF 800.00 FEET;
21. THENCE S64°36'19"W A DISTANCE OF 400.00 FEET;
22. THENCE S79°31'13"W A DISTANCE OF 400.00 FEET;
23. THENCE N86°37'24"W A DISTANCE OF 475.00 FEET;
24. THENCE N38°44'01"W A DISTANCE OF 300.00 FEET;
25. THENCE N78°55'18"W A DISTANCE OF 200.00 FEET TO THE POINT OF BEGINNING.

THE ABOVE PARCEL OF LAND CONTAINS 40.435 ACRES, MORE OR LESS.

PARCEL B:

BEGINNING AT A POINT ON THE SOUTHERN LINE OF TRACT C OF STONEBRIDGE FILING NO. 3 AT MERIDIAN RANCH, RECORDED WITH RECEPTION NO. 217714053 IN THE RECORDS OF EL PASO COUNTY;

THE FOLLOWING SIX(6) COURSES ARE ON SAID SOUTHERLY LINE OF TRACT C:

1. THENCE N66°06'02"E A DISTANCE OF 570.00 FEET;
2. THENCE S85°52'49"E A DISTANCE OF 400.00 FEET;
3. THENCE S61°19'51"E A DISTANCE OF 500.00 FEET;
4. THENCE S83°50'41"E A DISTANCE OF 410.00 FEET;
5. THENCE S23°25'11"W A DISTANCE OF 140.26 FEET;
6. THENCE S09°37'54"E A DISTANCE OF 190.96 FEET;
7. THENCE S32°40'27"W A DISTANCE OF 349.31 FEET;
8. THENCE S48°27'37"W A DISTANCE OF 122.15 FEET;
9. THENCE S77°17'41"W A DISTANCE OF 109.21 FEET;
10. THENCE N51°49'02"W A DISTANCE OF 111.67 FEET;
11. THENCE S49°10'35"W A DISTANCE OF 165.08 FEET;
12. THENCE S47°26'26"W A DISTANCE OF 115.00 FEET;
13. THENCE N42°50'23"W A DISTANCE OF 125.00 FEET;
36. THENCE N42°33'34"W A DISTANCE OF 60.00 FEET;
35. THENCE N47°54'59"W A DISTANCE OF 105.00 FEET;

El Paso County Procedures Manual

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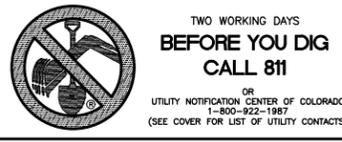
DSD File No. _____

34. THENCE N54°18'56"W A DISTANCE OF 97.00 FEET;
33. THENCE N61°13'42"W A DISTANCE OF 97.00 FEET;
32. THENCE N69°58'55"W A DISTANCE OF 100.00 FEET;
31. THENCE N69°16'10"W A DISTANCE OF 120.43 FEET;
30. THENCE N61°52'11"W A DISTANCE OF 60.00 FEET;
29. THENCE N60°08'41"W A DISTANCE OF 60.00 FEET;
28. THENCE N55°03'09"W A DISTANCE OF 144.23 FEET;
27. THENCE N43°46'04"W A DISTANCE OF 160.00 FEET;
26. THENCE N23°57'47"W A DISTANCE OF 105.00 FEET;
25. THENCE N31°38'39"W A DISTANCE OF 206.41 FEET TO THE POINT OF BEGINNING.

THE ABOVE PARCEL OF LAND CONTAINS 27.460 ACRES, MORE OR LESS.

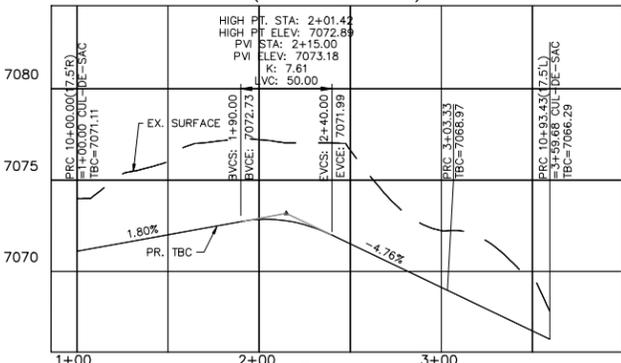
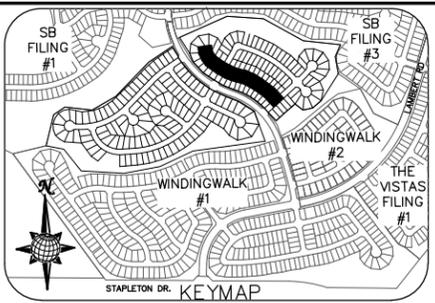
THE FINAL PLAT CONTAINS 67.895 ACRES, MORE OR LESS.

BEARINGS ARE BASED ON THE SOUTH LINE OF THE SW ¼ OF SECTION 29, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE 6TH P.M., ASSUMED TO BEAR S89°25'42"E FROM THE SOUTHWEST CORNER OF SAID SECTION 29 (A STONE W/SCRIBED "X") TO THE SOUTH QUARTER CORNER OF SAID SECTION 29 (3.25" ALUM. CAP LS #30087).



MERIDIAN HILLS TR.
CUL-DE-SAC
(ALL GRADES ARE TBC)

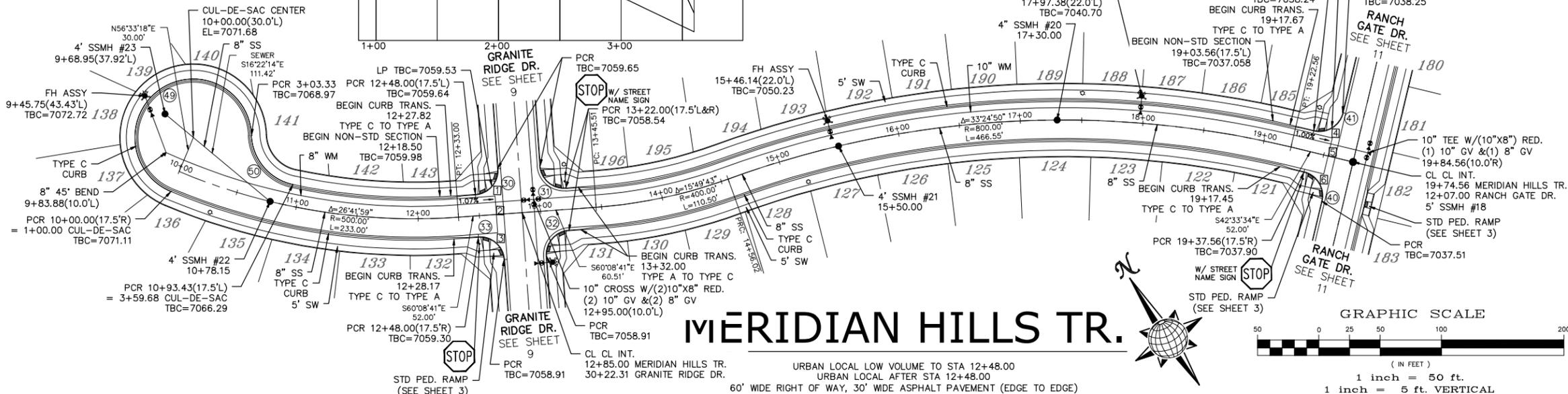
INSTALL CROSS PAN
PER COUNTY STD
SD-2-26



- = 7058.95
- = 7058.78
- = 7058.61
- = 7037.55
- = 7037.38
- = 7037.21

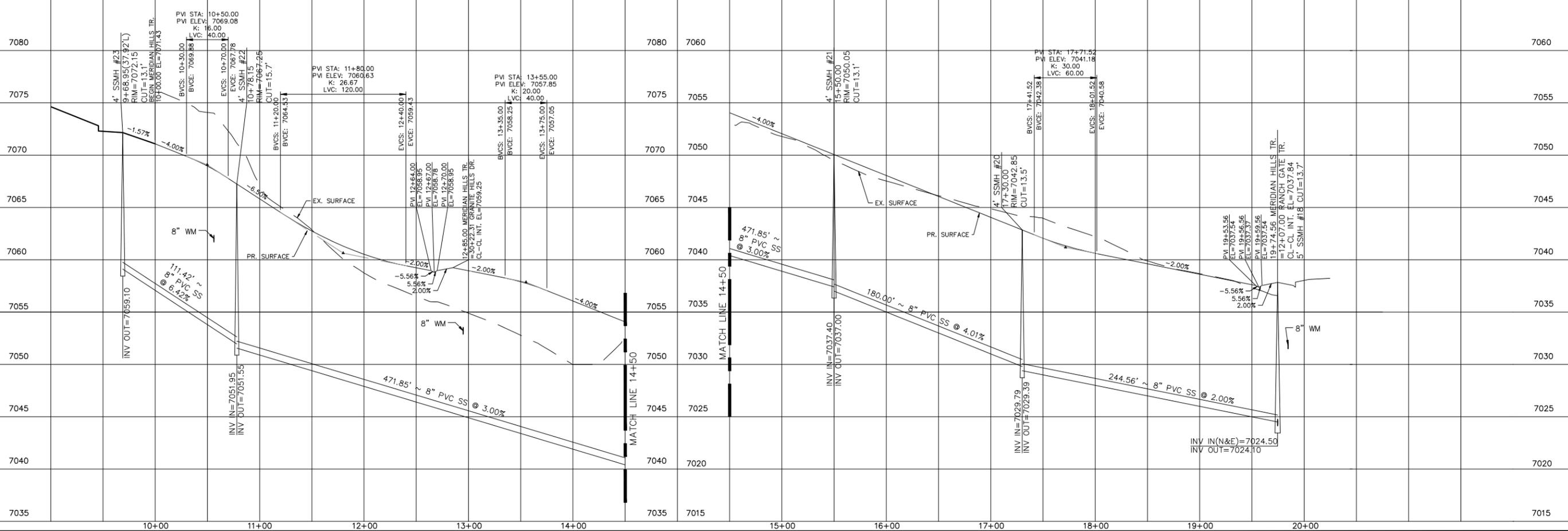
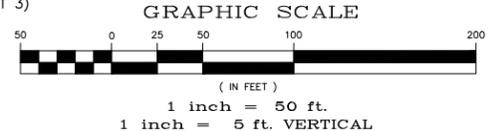
CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
30	30.63'	19.50'	90°00'00"
31	30.63'	19.50'	90°00'00"
32	30.63'	19.50'	90°00'00"
33	30.63'	19.50'	90°00'00"
40	30.63'	19.50'	90°00'00"
41	30.63'	19.50'	90°00'00"
49	203.33'	47.50'	245°15'50"
50	56.35'	42.50'	75°58'13"

ALL CURB RADII ARE TO TOP BACK OF CURB (TYP.)



MERIDIAN HILLS TR.

URBAN LOCAL LOW VOLUME TO STA 12+48.00
URBAN LOCAL AFTER STA 12+48.00
60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)



TECH CONTRACTORS 11886 STAPLETON DRIVE FALCON, CO 80831 TELEPHONE: 719.495.7444 FAX: 719.495.2457		Revisions	Date	Appr.	Date
		STONEBRIDGE FILING 4 AT MERIDIAN RANCH STREET AND UTILITY PLANS MERIDIAN HILLS TR.		Scale	AS SHOWN
		Drawn by LOG	Checked by TAK	Date OCTOBER 2018	12 of 32

16.0

Table of Traffic Engineering Design Standards

Traffic Engineering Design Standards (Freeways, Expressways and Arterials)

Design Element	Functional Classification				
	Freeway	Expressway	Principal Arterial Type 2 (6 lane)	Principal Arterial Type 1 (4 lane)	Minor Arterial
Speeds (1)	65	55	45	45	40
Design ADT	85,000-100,000	60,000-85,000	25,000-60,000	10,000-25,000	5,000-25,000
Trip Length	Over 5 miles	Over 5 miles	1-2 miles	1-2 miles	Over 1 mile
Corridor ROW Width	332'-420'	210'	142'	107'	90' w/ (2) 5' easements
Roadway Width (pavement mat)	Var. Width	2-50' pavement mat	2-40' pavement mat	2-28' pavement mat	69'
# of Lanes	6-8	4-6	6	4	4
Lane Widths	12'	12'	11'	11'	11'
Shoulder Width	12'	10'	4'	4'	4'
Median	Var. Width	Raised 28'	Raised 28'	Raised 17'	Raised 17'
Sidewalk Requirement (placement)	N/A	N/A	Detached 6'	Detached 6'	Detached 6'
Bicycle Accommodation	N/A	N/A	6' Multi-Use Shoulder	6' Multi-Use Shoulder	5' Multi-Use Shoulder
Tree lawn Width	N/A	N/A	7'	7'	7'
Parking	No	No	No	No	No
Access	Full Control	Full Control	Full Control	Full Control	Full Control
Design Vehicle	WB 67	WB 67	WB 67	WB 67	WB 50
Signalized Intersection Frequency	N/A	1 mile	½ mile	½ mile	½ mile
Unsignalized Intersection Frequency	1 mile	N/A	¼ mile	¼ mile	600'
Vertical Alignment	Refer to Vertical Curve Design in AASHTO Geometric Design of Highways and Streets				
Horizontal Alignment Radius	N/A	N/A	1045'	1040'	765'
Grade (min-max)	1%-4%	1%-4%	1%-4%	1%-4%	1%-4%
Intersection Grade	Grade Separ.	1% min	1% min	1% min	1% min
Intersection Sight Distance	775'	665'	500'	500'	445'
Stopping Sight Distance (2)	730'	570'	360'	360'	305'

**Traffic Engineering Design Standards
(Collector, Residential [Local], Public Alley, and Industrial)**

Design Element	Collector	Residential (Local)	Minor Residential (Local)	Public Alley	Industrial
Speeds (1)	30	25	25	15	30
Design ADT	1,500-5,000	300-1,500	50-300	50-300	<10,000
Trip Length	1 mile	Local	Local	Local	Truck Local
Maximum Uninterrupted Facility Length	¼ mile	600'	300'	Adjacent Street Length	1 mile
Corridor ROW Width	57' (no parking) 67' (parking)	50' w/ (2) 5' easements	47' w/ (2) 5' easements	20' Residential 25' Commercial	70' w/ (2) 5' easements
Roadway Width (pavement mat)	28' (no parking) 38' (parking)	30'	24' (<21 Lots) 28' (>20 Lots)	16' Residential 22' Commercial	51'
# of Lanes	2	2	2	2	3
Lane Widths	14' w/ shared bike	9'	N/A	N/A	14' w/shared bike w/12' ctl
Shoulder Width	N/A	N/A	N/A	N/A	N/A
Median	N/A	N/A	N/A	N/A	N/A
Sidewalk Requirement (placement)	Detached 5'	Attached 6' vert. curb/ Detached 5' others	Attached 6' vert. curb/ Detached 5' others	N/A	Detached 5'
Bicycle Accommodation	On street w/ shared lane	On street w/ shared lane	On street w/ shared lane		On street w/ shared lane
Tree lawn Width	7'	7'-6"	7'	N/A	7'
Parking	Allowed	Two Sides	One-side parking only	No	Two sides
Access	Partial Control	Partial Control	Partial Control	N/A	Partial Control
Design Vehicle	WB 40	SU 30	SU 30	N/A	WB 67
Signalized Intersection Frequency	N/A	N/A	N/A	N/A	½ mile
Un-signalized Intersection Frequency	600'	300' max	300' max	½ adjacent street length	600'

Design Element					
	Collector	Residential (Local)	Minor Residential (Local)	Public Alley	Industrial
Vertical Alignment	Refer to Vertical Curve Design in AASHTO Geometric Design of Highways and Streets				
Horizontal Alignment Radius	335'	200'	200'	85'	335'
Grade (min-max)	1%-10%	1%-10%	1%-10%	1%-10%	1%-8%
Intersection Grade	1%-3%	1%-4%	1%-4%	1%-4%	1%-3%
Intersection Sight Distance	335'	280'	280'	170'	335'
Stopping Sight Distance (2)	200'	155'	155'	80'	200'

Note: Alternate design standards may apply when Traditional Neighborhood, Mixed Use, Hillside, or Low-Impact Development are used.

(1) Speed refers to the anticipated posted speed. The design speed is 5 mph greater than the posted speed.

(2) For level terrain only.

- Superelevation begin and end stations and all pertinent elevation data must be shown on the plan and on the profile. Superelevation is intended for use on major streets. Storm drainage in superelevated sections and transitions must be checked against the approved drainage plan.
- All vertical curve data must be shown on the profile including “K” values, design speed, station and elevation of high and low points.
- Curb returns will always use Type I vertical curb. When transitioning from ramp curb to vertical curb a 20 foot transition shall be used as follows: beginning at the P.T.C.R., ten feet of vertical curb and 10 feet of transition section.
- At all street intersections the grade points of intersection shall match. Standard cross pans shall be required at all intersections where storm water will cross and must be located in accordance with the approved drainage plan. Cross pans are not to be designed on collector streets and higher classifications unless the intersection is a stop condition and will not meet warrants for signalization in the future.
- Cross gutters at “mid block” locations shall not be permitted.
- Maximum elevation difference across a street shall be 1.0 foot between flowline of gutters. All non-typical street sections such as ¼ crowns must be shown. Certain intersections in steep terrain may exceed 1.0 foot elevation difference across the street due to steep grades through the intersection. In these cases special care must be taken to provide adequate transitions from normal sections. The location and quantity of storm water flows in steep intersections must be checked for conformance with the approved drainage plan and to avoid flooding across intersections. Spot elevations are required in transitions from normal street sections.
- Enlarged intersection details may be required, especially for major street intersections, roundabouts, medians, and other traffic calming features in order to clearly indicate placement of pedestrian ramps, sidewalk transitions, drainage, etc.
- Maximum “grade break” differentials is 1.00%, otherwise a vertical curve is required.
- Vertical curves shall be provided around the ends of cul-de-sacs with spot elevations shown on the plan at twenty-five foot spacing. Vertical curves shall be provided as needed around curb returns on major streets.
- Cul-de-sac bulbs shall be limited to 4% cross slope except in Hillside areas where 6% cross slope is permissible.
- North arrow and scale. Preferred horizontal scale shall be 1” = 50’. Preferred vertical scale shall be 1” = 5’. The engineer may choose another horizontal or vertical scale as appropriate as long as the plan and profile are easily interpreted and subject to EDRD approval.
- All details for construction must conform to City Standards. This includes street and drainage construction. Reference is made to appendix B (Standard Drawings) of the Standard Specifications Manual. All non standard details should be included on the plans and special design items must be included subject to City Engineer approval. Colorado Department of Highways M and S standards are generally acceptable for City Streets if there is no City Standard drawing, subject to EDRD approval.
- Show drainage structures – pipes, inlets, manholes, etc. and all special structures such as headwalls, rip-rap, special inlets, etc. Include all sizes, details, type of pipe, class or gauge of pipe, slope, bedding class, and all other pertinent design information. Hydraulic grade lines shall be shown on the profiles. Design flow quantities must be indicated.
- Where inlets are located near intersections, pavements, crowns, and transitions may need to be detailed in order to collect stormwater in accordance with the approved drainage report. Care must be taken to provide for the required ponding depth when inlets are in sump conditions.
- Storm sewer pipe material and design shall be as specified in the Standards Specifications Manual and DCM Vol. I.