CITY OF FORT BRAGG

CHESTNUT STREET CORRIDOR CONCEPTUAL PLAN AND RIGHT-OF-WAY FEASIBILITY STUDY

November 2012

Prepared For: City of Fort Bragg
416 N. Franklin Street
Fort Bragg, California 95437

Prepared By: KASLConsulting Engineers
7777 Greenback Lane, Suite 104
Citrus Heights, CA 95610

CONSULTING
KASL
ENGINEERS

CITY OF FORT BRAGG
CHESTNUT STREET CORRIDOR CONCEPTUAL PLAN AND RIGHT-OF-WAY FEASIBILITY STUDY

TABLE OF CONTENTS

CONSULTING
KASL
ENGINEERS

CITY OF FORT BRAGG
CHESTNUT STREET CORRIDOR CONCEPTUAL PLAN
AND RIGHT-OF-WAY FEASIBILITY STUDY

LIST OF FIGURES

LIST OF FIGURES (con't)

CONSULTING
KASL
ENGINEERS

CITY OF FORT BRAGG
CHESTNUT STREET CORRIDOR CONCEPTUAL PLAN
AND RIGHT-OF-WAY FEASIBILITY STUDY

LIST OF TABLES

CONSULTING KASL ENGINEERS

CITY OF FORT BRAGG
CHESTNUT STREET CORRIDOR CONCEPTUAL PLAN AND RIGHT-OF-WAY FEASIBILITY STUDY

EXECUTIVE SUMMARY

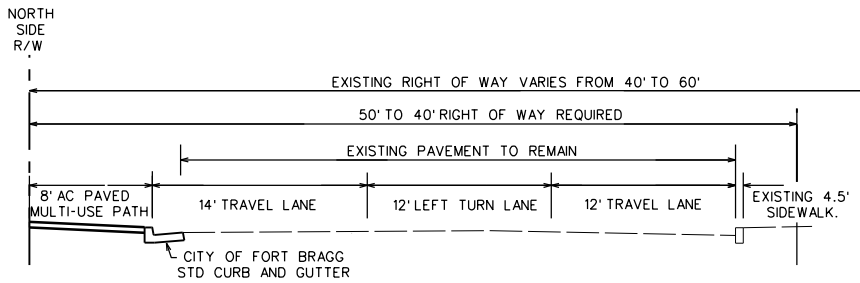
The purpose of this Conceptual Plan and Feasibility Study is to develop alternatives and a recommended plan to improve pedestrian access, bicycle and pedestrian safety and traffic calming along the Fort Bragg Chestnut Street Corridor while maintaining adequate parking, bus travel and vehicle circulation. Chestnut Street is a busy Collector roadway providing access to the Fort Bragg High School, C.V. Starr Community Center, two elementary schools and the City's south central neighborhoods. Chestnut Street was included in the 2011 City of Fort Bragg Residential Streets Safety Plan (RSSP). Implementation of the street section recommended in the 2011 RSSP would, however, require the acquisition of additional right-of-way from approximately 60% of the existing Chestnut Street parcels. More than half of the 4800 foot long street is constructed within a 40 foot wide right-of-way.

After reviewing Chestnut Street plans included in the 2011 RSSP the Fort Bragg City Council directed the City Public Works and Planning Department staff to develop feasible alternatives which address the limited rights-of-way and physical obstacles present along the Corridor and reflect input from the community. Preliminary Corridor plan alternatives were presented to the Fort Bragg community at a Public Outreach Meeting. Residents also had an opportunity to review alternatives and prioritize improvements in mailed and door to door survey forms. Preliminary Corridor alternatives were then presented to the City Council at a workshop. These were refined and resubmitted for City Council review at a subsequent City Council Meeting. This iterative review and refinement process resulted in a Recommended Chestnut Street Corridor Plan with the following features:

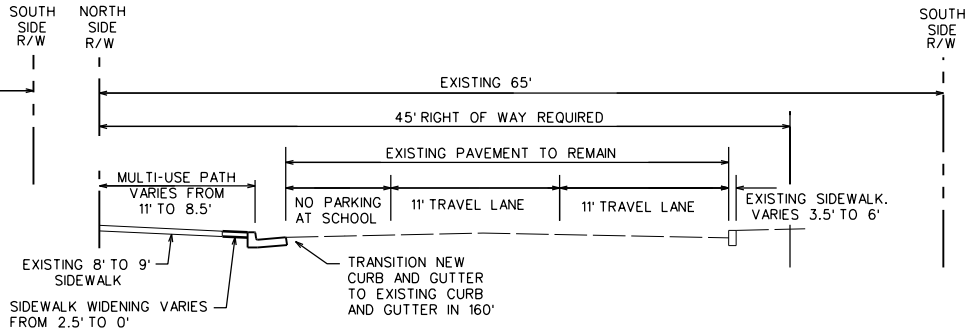
- Proposed street sections that can be implemented within the limits of existing rights-of-way
- New curb and gutter and a new multiuse path replacing existing narrow walkways along the north side of the street.
- Permitted on-street parking shifted from the south side of Chestnut to the north side
- ADA compliant ramps and intersections
- Relocated joint service utility poles, street signs and drainage inlets
- Traffic calming bulbouts and bump outs, electronic speed advisor sign, high visibility crosswalks.

The estimated project cost is **$777,000** including contingencies. Possible sources for funding the Chestnut Street Corridor improvements include State and Federal Safe Routes to School Programs, Caltrans administered Transportation Enhancement Grants and Transportation Development Act Projects and Community Development Block Grants.

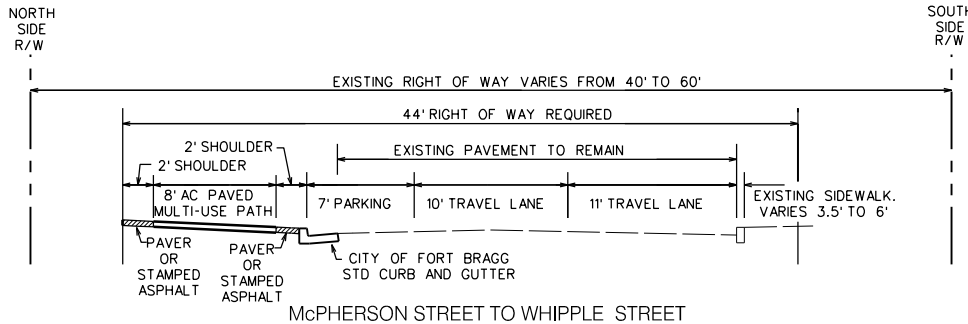
Recommended Chestnut Street cross sections are presented in **Figure S-1**.



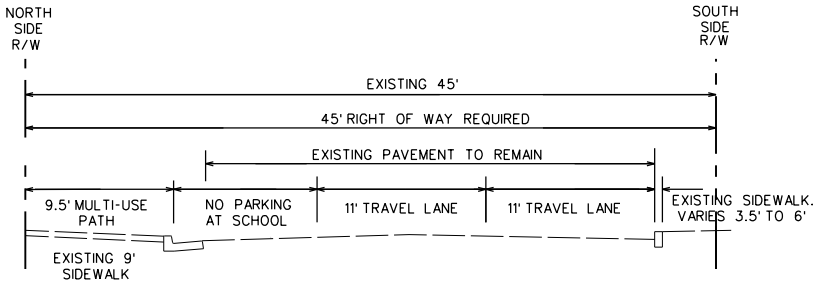
FRANKLIN STREET TO McPHERSON STREET



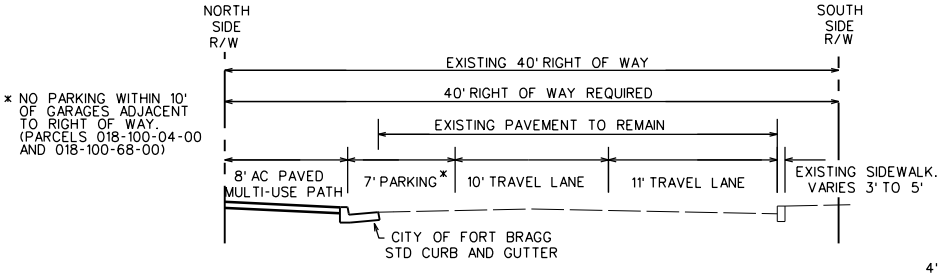
80' EAST OF SANDERSON TO DANA GRAY SCHOOL DRIVEWAY



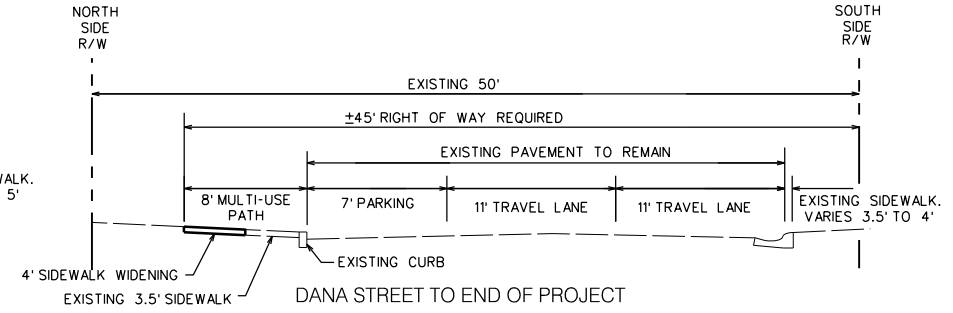
McPHERSON STREET TO WHIPPLE STREET



DANA GRAY SCHOOL DRIVEWAY TO DANA STREET



WHIPPLE STREET TO 80' EAST OF SANDERSON WAY



DANA STREET TO END OF PROJECT

CONSULTING KASL ENGINEERS

TYPICAL SECTIONS
RECOMMENDED CHESTNUT CORRIDOR IMPROVEMENTS

FILE: S:\2719-10 Chestnut St\FEASIBILITY REPORT\Figures\S IMPROVEMENTS.dgn
DATE: 11/15/2012

FIGURE S-1

CONSULTING KASL ENGINEERS

CITY OF FORT BRAGG
CHESTNUT STREET CORRIDOR CONCEPTUAL PLAN
AND RIGHT-OF-WAY FEASIBILITY STUDY

I. INTRODUCTION

BACKGROUND

Chestnut Street is a busy Collector roadway which provides access to the Fort Bragg High School, the C.V. Starr Community Center, two elementary schools and the City's south central residential neighborhoods. Chestnut is a school bus route and because of its proximity to Fort Bragg schools and the Community Center is heavily travelled by pedestrians and bicycles, especially during the early morning and late afternoon hours.

Chestnut Street is one of four local roadways included in the 2009 – 2010 Residential Streets Safety Plan (2010 RSSP). The recommended street section, developed for the 2010 RSSP, is presented in **Figure I-1**. As shown, the Chestnut Street Plan developed for the 2010 RSSP includes Class II bicycle lanes and six foot wide sidewalks but eliminates on-street parking. Traffic calming measures were also proposed within the corridor. A minimum 44 foot wide right-of-way is required to construct the recommended section. In reviewing the recommended 2010 RSSP the Fort Bragg City Council determined that additional community input and Feasibility Studies were needed to further develop the Chestnut Street Corridor Plan.

In response to this directive, the scope of this study includes:

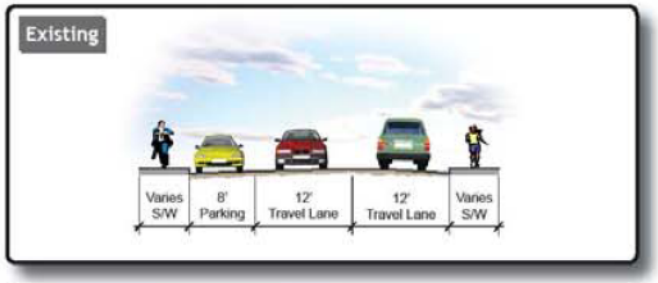
- Obtaining additional input from the community regarding Corridor alternatives.
- Right-of-way research and the identification of obstacles and opportunities involved in implementing a new Corridor Plan.
- Development of alternative design solutions and estimated costs.

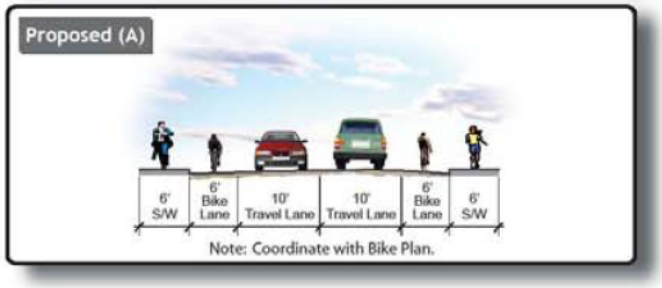
To complete this Chestnut Street Corridor Plan and Right-of-way Feasibility Study, the City of Fort Bragg received a Mendocino Council of Governments (MCOG) grant.

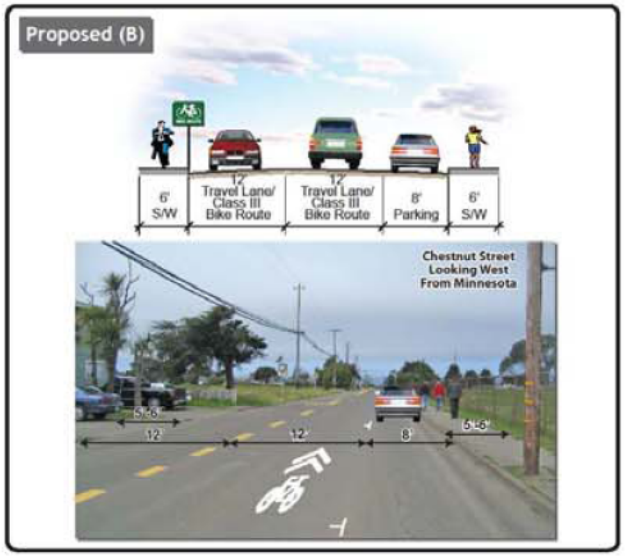
PROJECT LOCATION AND DESCRIPTION

Chestnut Street begins at State Route One and heads east to the Fort Bragg City limits east of Dana Street and the Fort Bragg High School. A Project Location Map is presented in **Figure I-2**. The scope of this study begins at Franklin Street and continues east, a distance of approximately 4800 feet. Between Franklin and Whipple Street abutting Chestnut Street properties are a mix of commercial and residential land uses. Right-of-way is typically 60 feet but narrows to 51.5 feet in the half block approaching Whipple Street. Between Whipple Street and Lincoln Street, single family residential uses predominate. The existing right-of-way width is 40 feet except for the half-street

Cross Sections:







Note: New sidewalks shall be minimum 6' wide. City of Fort Bragg to negotiate available right-of-way where necessary.

N
Not to Scale

LEGEND:
- = New High Visibility Crosswalk
- = New Crosswalk
- = No Parking
- = Parking Permitted
- = New Sidewalk (minimum 6')
- = Bulbout

Fort Bragg Traffic Calming

FEHR & PEERS
TRANSPORTATION CONSULTANTS

PROPOSED TRAFFIC CALMING IMPROVEMENTS: CHESTNUT STREET

FIGURE 3

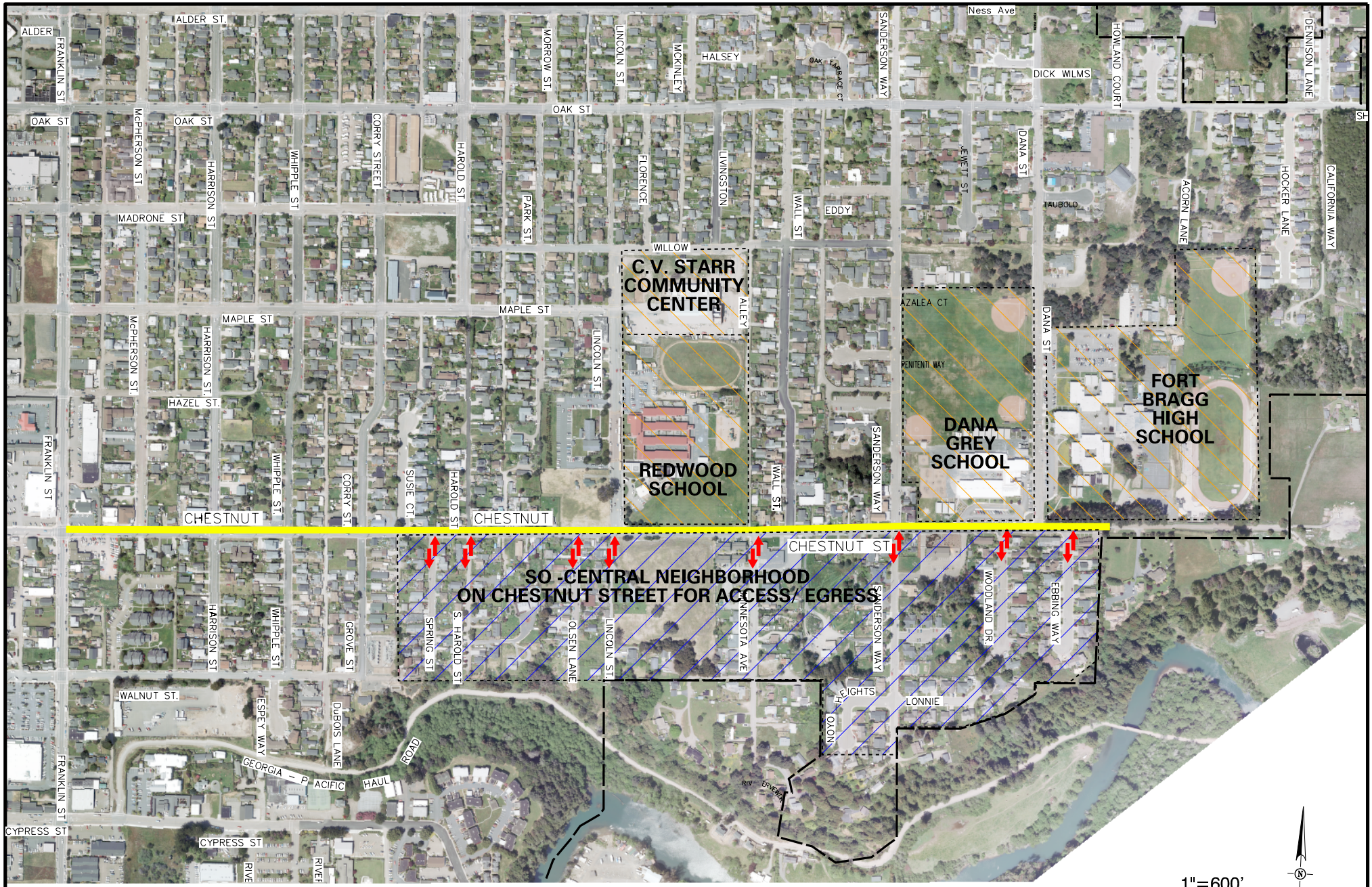
Sept 2010
SF10-0487graphics\report graphics\Chestnut St

CONSULTING
KASL
ENGINEERS

RECOMMENDED CHESTNUT STREET IMPROVEMENTS
2010 RESIDENTIAL STREETS SAFETY PLAN (RSSP)

FILE: S:\2719-10 Chestnut St\FEASIBILITY REPORT\Figures\I - 1 Safty.dgn
DATE: 11/12/2012

FIGURE I - 1



LEGEND

PROJECT AREA

CITY LIMITS

CONSULTING KASL ENGINEERS

FILE: S:\2719-10 Chestnut St\FEASIBILITY REPORT\Figures\I - 2 CHESTNUT.dgn
DATE: 11/12/2012

CHESTNUT STREET CORRIDOR PROJECT LOCATION MAP

FIGURE I - 2

approaching Lincoln. In this location, the existing right-of-way widens to 41.5 feet adjacent to the vacant parcel at the northwest corner of Chestnut and Lincoln. Between Lincoln Street and the City limits, Chestnut Street abuts Redwood School, Dana Gray School and Fort Bragg High School all located along the north right-of-way. Along the south side is a mix of single family, multifamily and church properties and a vacant parcel. The existing right-of-way varies from 40 to 65 feet.

As shown in Figure I-2, eight side streets east of Corey / Grove Street rely on Chestnut Street for ingress and egress. These streets, which are located in the southeast portion of the corridor, have no outlet on the south side due to significant topographic changes associated with the Noyo River which lies south of the project area.

PLAN OVERVIEW AND OBJECTIVES

Pedestrian Access and Safety

Existing Chestnut Street sidewalks are typically three to 4 ½ feet in width except for limited locations adjacent to school properties and within existing commercial zones. In addition, there are numerous physical obstructions including utility poles, fire hydrants and drainage structures and existing gaps in walkways which impede safe, continuous, pedestrian access. Improved walkways rank as a high priority for Chestnut Street residents. In consideration of the existing schools located along the north side of the street, improving the northerly walkways is more critical than improvements to the southerly walkways. Sidewalks along the Chestnut Street frontage of the Dana Gray School are already widened to at least eight feet. No additional widening would be needed along this school's frontage to meet the Pedestrian Access and Safety Objective of this Study. Existing Chestnut Street sidewalks along the Redwood School and Fort Bragg High School frontages do warrant widening, however, it is believed that as a "partner" in this Project, cooperation from the Fort Bragg Unified School District (FBUSD) could be obtained if additional right-of-way is needed to improve safety for students walking to and from Fort Bragg schools.
`

Bicycle and Vehicle Safety

With its proximity to three schools and the C.V. Starr Community Center, Chestnut Street has more potential for bicycle traffic than most other Fort Bragg roadways. Currently Chestnut is not improved with bicycle lanes or bicycle paths. Providing a designated, safe path of travel for bicycles is an important safety objective of this Corridor Study.

Traffic Calming

Chestnut Street residents identified reduced vehicle speeds and traffic calming as primary plan objectives. High traffic volumes and wide vehicle lanes result in higher speeds than are safe for a residential neighborhood. In their written and public meeting comments, Project area residents noted high traffic speeds associated with football games, school buses and during late night hours. Additional stop signs, intersection bulbouts, raised and enhanced cross walks and electronic speed advisory signs are traffic calming improvements considered in this Corridor Plan in response to community input.

On-street Parking / Access / Circulation

In general, on-street parking is currently facilitated along the south side of the street. Some Chestnut Street residents and residents on adjoining narrow streets to the south consider the existing Chestnut Corridor on-street parking to be very important. Some of the Chestnut Street residential properties that do not have alley access have limited onsite parking opportunities. Disabled residents expressed their need to park in close proximity to their front doors and walkways.

Although on-street parking is considered important by some residents, parking is underutilized. Based on informal surveys, less than 10% of parking spaces are typically, used at any given time. Since parking spaces are not formally delineated, on-street parking availability adds to the wide appearance of the roadway. The wide roadways encourage drivers to increase speeds. Traffic calming is especially warranted during the weekdays when children are present. During peak school access and egress hours, entire blocks are devoid of parked cars. This works against the slowing of traffic desired by Project area residents.

School Bus Routes

The Fort Bragg Unified School District is a major stakeholder in the Chestnut Street Corridor. School buses to and from Redwood School, Dana Gray School and the Fort Bragg High School use Chestnut Street for access. Chestnut Street traffic calming measures, vehicle lane widths and intersection turning movements must consider school bus movements.

Costs, Funding Opportunities and Constructability

Constructing significant modifications to the existing Chestnut Street section to achieve all or most of the Project objectives will be costly. Grant funding opportunities are presented in this Study to address some of these costs.

The Chestnut Street sections presented in the 2010 RSSP require a minimum right-of-way width of 44 feet. As further detailed in this Study, approximately 55% of Chestnut Street is now improved with a 40 foot right-of-way. Widening to 44 feet would require right-of-way acquisition from numerous property owners. Widening of the existing roadway to 44 feet also presents numerous physical challenges and costs associated with removing or relocating existing structures, fences, utilities and mature vegetation. Implementation of the 2010 RSSP would also reduce or eliminate existing and potential on-street and off-street parking. It is the objective of the Chestnut Street Corridor Study to cost effectively achieve Project goals with the minimum right-of-way acquisition required and still be responsive to Project area parking needs.

Plan Implementation

The deliverable of this Corridor and Right-of-Way Feasibility Study is a planning level document with maximum community consensus and implementation feasibility that can be subsequently utilized to develop engineering drawings for project construction.

II. EXISTING CONDITIONS AND CORRIDOR PLANNING CRITERIA

EXISTING CONDITIONS

Chestnut Street Corridor photos are presented in **Figure II-1**. These photos best describe existing conditions. Some existing features are further discussed herein.

Within the "Commercial / Residential" Zone between Franklin and Whipple Streets there are opportunities for improved walkways, bicycle lanes or multiuse paths and on-street parking. Existing structures are typically set back from the existing back of walk sufficient to permit road widening within the existing right-of-way. Beginning near Harrison Street, parking is permitted along the south side of the street. There are utility poles and fire hydrants located within and adjacent to the southerly walkways.

Within the "Residential Zone" which extends from Whipple Street to Lincoln Street there are fewer opportunities to cost effectively achieve all of the objectives of the Corridor Plan. Existing sidewalks are reduced in width to 4 ½ feet or less with significant segments only three to 3 ½ feet wide. There is a ± 150 foot gap in the sidewalk improvement on the south side of Chestnut west of Spring Street. Structures at the existing back of walk present obstructions to widening. Parking is permitted along the south side of the street. Utility poles and fire hydrants are located within and adjacent to the narrow south side sidewalks.

Within the "School / Residential" Zone beginning at Lincoln and extending east to the Project limits there are, again, more opportunities to achieve the objectives of the Corridor Plan. Within this reach Redwood School, Dana Gray School and the Fort Bragg High School occupy approximately 60% of the Chestnut Street frontage along the north side of the street. There are eight single family residential parcels with Chestnut Street frontage between Redwood School and Dana Gray School. Existing Chestnut Street walkways are typically 5 ½ feet to nine feet wide along the school properties. Existing walkways reduce to 3 ½ feet to 4 ½ feet along residential properties between the schools. There is a ± 450 foot gap in sidewalk improvement on the south side of the street east of Lincoln Street. There are fewer physical obstructions in the School / Residential section of Chestnut than in the reach between Whipple and Lincoln. Parking is permitted on the south side of the street. As with the previously described sections to the west, utility poles and fire hydrants are located within and adjacent to south side Chestnut Street walkways.

Typical sections of existing conditions in the Commercial / Residential Zone (Franklin to Whipple), the Residential Zone (Whipple to Lincoln) and for the School / Residential Zone (Lincoln to End of Project) are presented in **Figure II-2**.

Right-of-way

Existing right-of-way and improvement conditions are presented in the Chestnut Street base plans prepared for this Study. These are included in the appendix. A summary of existing right-of-way conditions, by block, is presented in **Table II-1**.

COMMERCIAL / RESIDENTIAL ZONE
(FRANKLIN TO WHIPPLE)

RESIDENTIAL ZONE
(WHIPPLE TO LINCOLN)

SCHOOL/RESIDENTIAL ZONE
(LINCOLN TO CITY LIMITS)

EASTBOUND

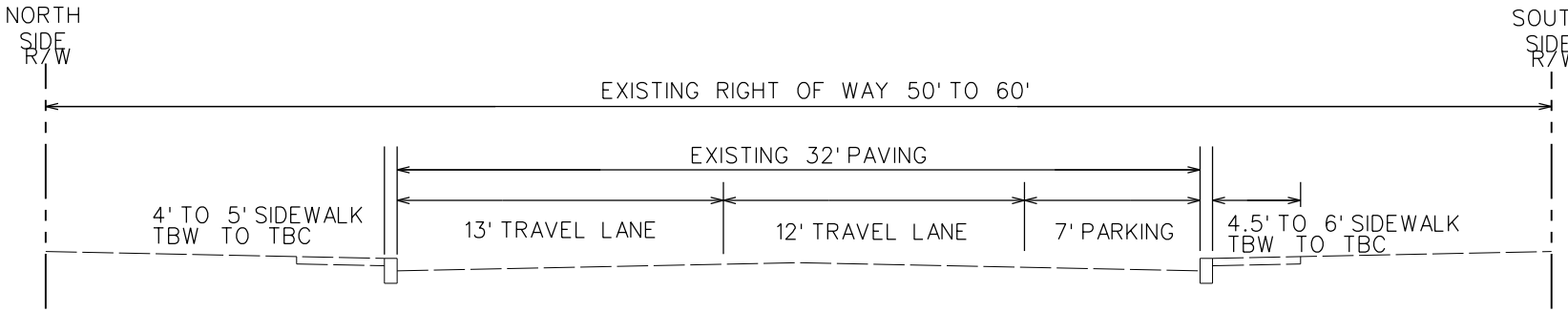
WESTBOUND

CONSULTING
KASL
ENGINEERS

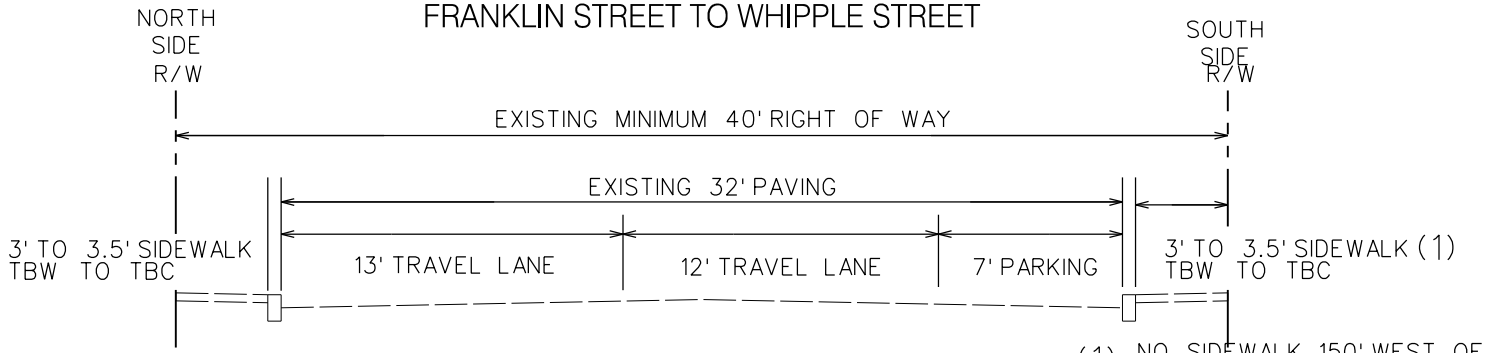
FILE: S:\2719-10 Chestnut St\FEASIBILITY REPORT\Figures\II - 1.dgn
DATE: 11/12/2012

EXISTING CHESTNUT STREET CONDITIONS

FIGURE II - 1

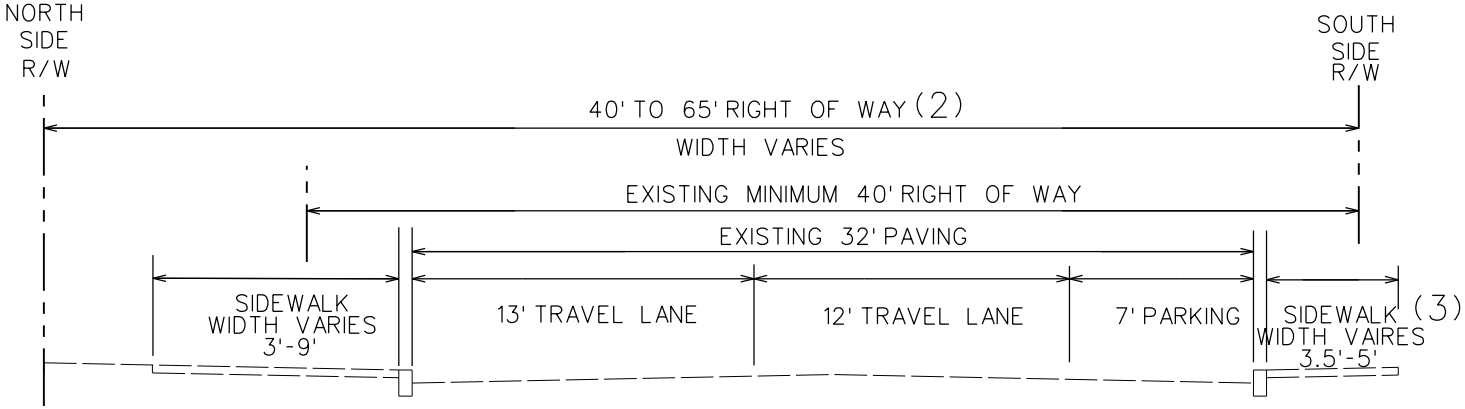


EXISTING TYPICAL SECTION
FRANKLIN STREET TO WHIPPLE STREET



(1) NO SIDEWALK 150' WEST OF SPRING STREET

EXISTING TYPICAL SECTION
WHIPPLE TO LINCOLN STREET



(2) 40' HALF STREET RIGHT OF WAY AT CALVARY BAPTIST CHURCH.

(3) NO SIDEWALK BETWEEN LINCOLN STREET AND 160' WEST OF MINNESOTA AVENUE

EXISTING TYPICAL SECTION
LINCOLN STREET TO END OF PROJECT

CONSULTING KASL ENGINEERS

FILE: S:\2719-10 Chestnut St\FEASIBILITY REPORT\Figures\II - 2 (E) sections.dgn
DATE: 11/12/2012

EXISTING TYPICAL CHESTNUT STREET SECTIONS

FIGURE II - 2

TABLE II-1
CHESTNUT STREET RIGHT-OF-WAY
SUMMARY

Zone and Block	R/W Width (Feet)	Length* (Feet)	Limits
Commercial / Residential Zone			
Franklin to McPherson	50	260	
	60	104	APN 018-060-42 & 018-060-53
McPherson to Harrison	60	340	
Harrison to Whipple	60	180	
	51.5	160	APN 018-017-01
Residential Zone			
Whipple to Corry / Grove	40	341	
Corry / Grove to Harold	40	492	
Harold to Lincoln	40	418	
	41.5	263	APN 018-100-42
School / Residential Zone			
Lincoln to Minnesota	40	635	
Minnesota to Wall	40	171	
Wall to Sanderson	40	490	
Sanderson to Woodland	40	93	
	45	7	
	65	230	Dana Gray School, & APN 018-282-28
	45	160	Dana Gray School
Woodland to Dana	45	167	
Dana to City Limits / End of Project	50	301	Fort Bragg High School
	Totals	**4812 Ft**	
	40 ‘ R/W =	2640 Ft	
	41.5’ R/W =	263 Ft	
	45’ R/W =	334 Ft	
	50’ R/W =	561 Ft	
	51.5’R/W =	160 Ft	
	60’ R/W =	624 Ft	
	65’ R/W =	230 Ft	

* Lengths are measured from Centerline of intersection-streets or from Centerline of street to change in R/W width.

Not including the Redwood School parcel there are 43 parcels which abut Chestnut Street where the existing right-of-way is either 40 feet or the parcel is adjacent to a 20 foot wide half street section and the total right-of-way width is less than 44 feet. All but two of these parcels, APN 018-113-01 & 03 (located on the south side of Chestnut east of Lincoln) are improved with residential dwelling units or commercial structures. Approximately 55% of the existing Chestnut Street right-of-way is limited to 40 feet. Approximately 60% is less than the 44 feet required to implement the street section recommended in the 2010 RSSP.

Sidewalks

A summary of existing sidewalk improvements is presented in **Table II-2**. Except for the sidewalks constructed along Dana Gray School, none of the existing Chestnut Street sidewalks conform to current City of Fort Bragg Standards. According to the existing City Standards, the minimum sidewalk width should be six feet in residential zones and eight feet in commercial zones and along school properties. Approximately 57% of the total sidewalks (± 4700 feet) are less than or equal to four feet in width. This total includes approximately 600 feet along the south side of Chestnut where no sidewalk improvements have been constructed. A four foot wide sidewalk is generally accepted as meeting minimum ADA access width standards.

Bicycle Lanes / Bicycle Paths

There are no existing Class II Bicycle Lanes or Class I Bicycle Paths within the Chestnut Street Corridor. Since there are no markings which show the road as a designated shared space for bicyclists and vehicles, bicycle riders currently share vehicle lanes or sidewalks for access.

Parking

In **Table II-3** is presented a summary of existing on-street parking now permitted within the Chestnut Street Corridor. All of the existing on-street parking is located on the south side of the street.

Existing on-street parking is estimated on the basis of equivalent 25 foot long parallel parking spaces.

TABLE II-2
CHESTNUT STREET SIDEWALK SUMMARY

Zone and Block	Existing Sidewalk[1] Improvements (By Width) North Side (Feet)	South Side (Feet)
Commercial / Residential Zone		
Franklin to McPherson	55 ft @ 3.5' width 70 ft @ 4' width 21 ft @ 4.5' width 151 ft @ 5' width	264 ft @ 4.5' width 58 ft @ 5' width
McPherson to Harrison	286 ft @ 4' width	142 ft @ 6' width 46 ft @ 4' width 124 ft @ 6' width
Harrison to Whipple	292 ft @ 4.5' width	292 ft @ 4.5' width
Residential Zone		
Whipple to Corry / Grove	129 ft @ 3' width 137 ft @ 3.5' width	268 ft @ 4.5 width
Corry / Grove to Harold	14.5 ft @ 3.1' width 118 ft @ 3.5'width 243 ft @ 4' width	132 ft - no sidewalk 88 ft @ 3.5' width 130 ft @ 4' width 45 ft @ 4.5' width
Harold to Lincoln	146 ft @ 2.5' width 235 ft @ 3.3 ' width 232 ft @ 4.5' width	131 ft @ 3' width 462 ft @ 3.5' width
School / Residential Zone		
Lincoln to Minnesota	583 ft @ 5.5' width	468 ft – no sidewalk 155 ft @ 3.5' width
Minnesota to Wall	151 ft @ 4.5' width	146 ft @ 4.5' width
Wall to Sanderson	81 ft @ 3' width 357 ft @ 3.5' width	350 ft @ 3.5' width 111 ft @ 4.5' width
Sanderson to Woodland	66 ft @ 5' width 165 ft @ 8' width[2] 150 ft @ 9' width[2]	135 ft @ 3.5' width 98 ft @ 4.5' width 218 ft @ 5' width
Woodland to Dana	64 ft @ 9' width[2]	134 ft @ 3.5' width
Dana to City Limits / End of Project	282 ft @ 3.5' width	101 ft @ 3.5' width 122 ft @ 4' width
	Summary, North Side	**Summary, South Side**
	146 ft @ 2.5 feet 210 ft @ 3 feet 14.5 ft @ 3.1 feet 235 ft @ 3.3 feet 949 ft @ 3.5 feet 599 ft @ 4 feet 696 ft @ 4.5 feet 217 ft @ 5 feet 583 ft @ 5.5 feet 165 ft @ 8 feet 214 ft @ 9 feet	600 ft @ 0 feet 131 ft @ 3 feet 1425 ft @ 3.5 feet 394 ft @ 4 feet 1224 ft @ 4.5 feet 322 ft @ 5 feet 124 ft @ 6 feet
Totals	**4028.5 feet**	**4220 feet**

(1) Length measured curb return to curb return; lengths do not include street or alley crossings.
(2) Conforms to current City of Fort Bragg Standard.

TABLE II-3
SUMMARY OF EXISTING ON-STREET PARKING

Zone and Block	Approximate Number of Equivalent 25 Foot Long Parallel Parking Spaces
Commercial / Residential Zone	
Franklin to McPherson	0
McPherson to Harrison	4
Harrison to Whipple	9
Residential Zone	
Whipple to Corry / Grove	6
Corry / Grove to Harold	8
Harold to Lincoln	15
School / Residential Zone	
Lincoln to Minnesota	13
Minnesota to Wall	3
Wall to Sanderson	10
Sanderson to Woodland	10
Woodland to Dana	2
Dana to City Limits	5
End of Project	
Total	85

Obstructions

In **Table II-4** is presented a summary of obstructions located within the pedestrian path of travel. These include joint utility poles, service poles, fire hydrants, and street signs which restrict accessible widths to less than four feet or drainage inlets which are located within existing or proposed sidewalk ramp areas. As summarized in Table II-4, there are more significant obstructions (specifically, joint poles and fire hydrants) within the pedestrian path of travel on the south side of Chestnut than on the north side of the street.

TABLE II-4
SUMMARY OF EXISTING OBSTRUCTIONS WITHIN PEDESTRIAN PATH OF TRAVEL

Zone & Block	North Side					South Side				
	Joint Poles	Svc. Poles	Fire Hydrants	Street Signs	Drain Inlets	Joint Poles	Svc. Poles	Fire Hydrants	Street Signs	Drain Inlets
Commercial / Residential Zone										
Franklin to McPherson		1		2		2				
McPherson to Harrison		2		1	1	1			1	
Harrison to Whipple		1		2	1	2		1	1	1
Residential Zone										
Whipple to Corry / Grove		1		3	1	2		1		1
Corry / Grove to Harold		1		4	3	5			1	1
Harold to Lincoln		1		5	1	5		2	3	2
School / Residential Zone										
Lincoln to Minnesota		1				5			2	
Minnesota to Wall		1		1				1		
Wall to Sanderson				3		4			2	
Sanderson to Woodland				1	1	1			4	1
Woodland to Dana										
Dana to City Limits / End of Project	2			1					1	1
Totals	**2**	**9**	**0**	**23**	**8**	**27**	**0**	**5**	**15**	**7**

Traffic Volumes and Vehicle Speeds

Peak hour traffic counts were conducted on Chestnut Street Cedar, Fir and Harold Street locations as part of the 2010 RSSP Study. Chestnut Street peak hour volumes and vehicle speeds are summarized in the following table. From the Study findings it was determined that peak hour traffic volumes on Chestnut Street were significantly greater than on the other streets of the 2010 RSSP.

As noted below, one way peak hour traffic on Chestnut exceeds 300 vehicles per hour in some locations. By comparison, peak hour traffic volumes counted on Cedar Street were less than 50 vehicles per hour. Peak hour volumes determined at Fir Street locations were less than 100 vehicles per hour. Peak hour volumes at Harold Street locations were less than 200 vehicles per hour.

TABLE II-5
EXISTING CHESTNUT STREET TRAFFIC CONDITIONS

Chestnut Street Segment	Direction	Peak Hour Volume AM (PM)	Vehicle Speed 85% (Max)
Between Grove and Harold	Eastbound	284 (224)	28 (45)
	Westbound	317 (228)	28 (55)
Between Lincoln and Minnesota	Eastbound	190 (173)	24 (35)
	Westbound	318 (226)	23 (35)
Between Sanderson and Dana	Eastbound	238 (132)	23 (40)
	Westbound	275 (181)	22 (40)

Traffic Accidents

According to City of Fort Bragg Police records, annual traffic accidents that have occurred on Chestnut Street over the past several years have not been significantly greater than on other collector streets within the City.

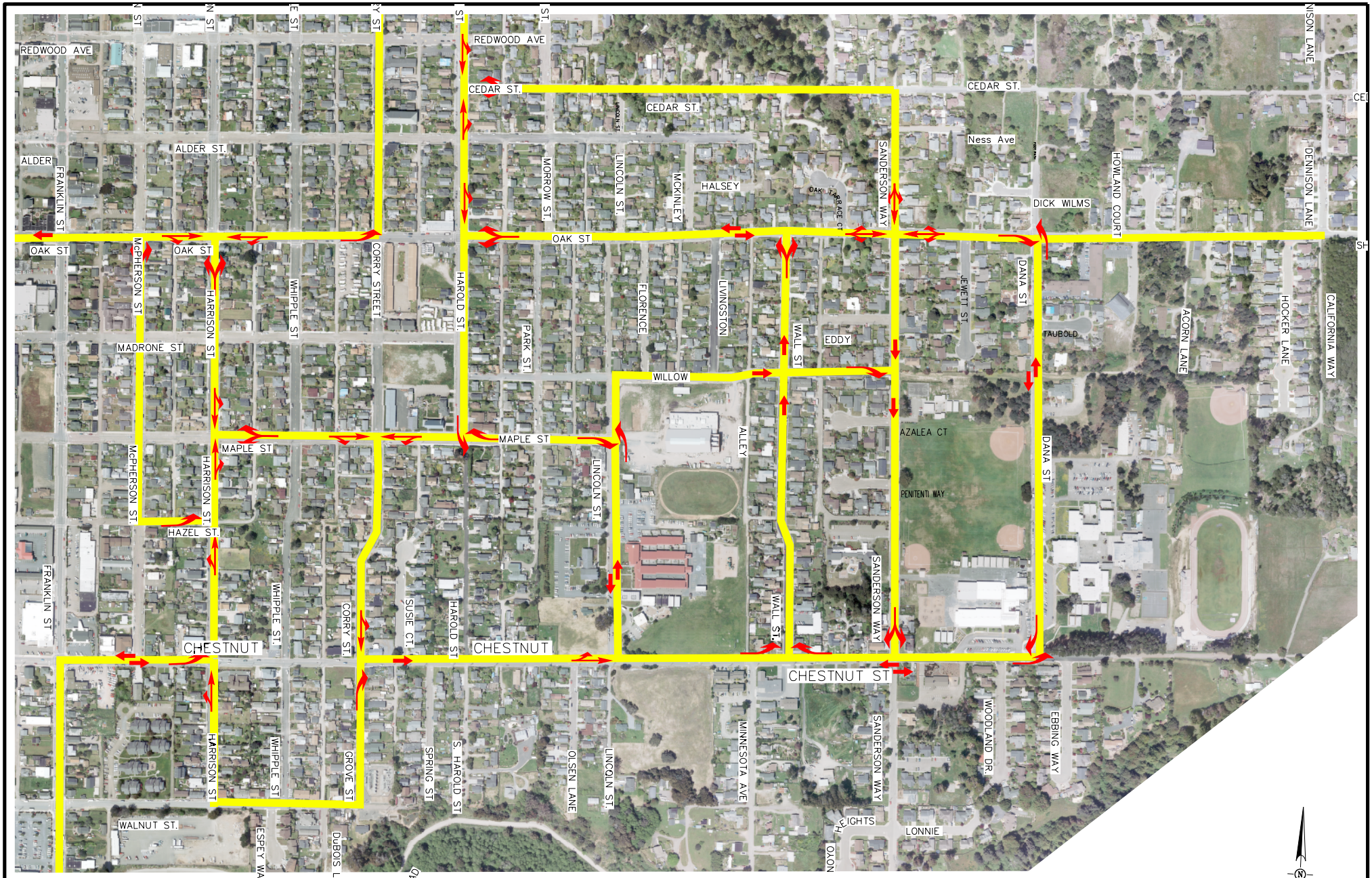
School Bus Routes

Existing Chestnut Street school bus routes are presented in **Figure II-3.** Key intersections for right turning bus movements are at Lincoln Street and Dana Street.

CORRIDOR PLANNING CRITERIA

Sidewalk Widths

In City of Fort Bragg residential areas, the minimum sidewalk width for new construction should ideally be six feet. In school zones and commercial areas, the minimum Fort Bragg sidewalk width is six feet. The California Building Code (CBC) and the proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROW) recommend a 48” minimum walkway (exclusive of top of curb).



CONSULTING KASL ENGINEERS

FILE: S:\2719-10 Chestnut St\FEASIBILITY REPORT\Figures\II - 3 SCHOOL BUS ROUTE.dgn
DATE: 11/12/2012

SCHOOL BUS ROUTES

FIGURE II - 3

Class II Bike Lanes

According to the State Highway Design Manual (HDM) and the Federal Manual on Uniform Traffic Control Devices (MUTCD) the minimum Class II Bike Lane width shall be four feet without a curb and five feet measured to the face of a curb. When adjacent to on-street parking the minimum width shall be five feet. The City's standard is six feet measured to the face of curb or five feet adjacent to parking

Vehicle Lanes

The City's standard minimum for travel lanes is 10 feet for a Minor Street and 12 feet for an Arterial or Collector Street. Chestnut Street is identified as both a Minor Street and a Collector Street in the City's planning documents. For traffic calming, a 10 foot wide travel lane is recommended. The City's standard minimum vehicle lane width is 10 feet adjacent to a parking lane or bike lane and 12 feet measured from face of curb.

Parking Lane

A minimum eight foot width is typical for a parking lane measured from face of curb. This is the City's standard for Collector Streets. The City's standard minimum width for parking on a Minor Street is seven feet.

Class I Bike Path, or Multi-Use Path

The minimum Highway Design Manual (HDM) standard width for a Class I Bike Path is 12 feet (minimum eight feet of pavement with two foot shoulders, each side). This is also the minimum standard width for a multi-use trail.

Recommended shoulder widths are included in the HDM to prevent collisions with obstructions and assumes bicycle speeds consistent with a rural setting. High bicycle speeds, typically, do not occur on a city street where there are regular intersections, yield and stop signs. A minimum five foot separation is recommended between a Class I bikeway or a multi-use trail and a vehicle lane. The HDM does not recommend Class I bike paths adjacent to a street without a raised landscaped area or some other physical, continuous, obstacle providing separation.

Corridor Planning Criteria are summarized in **Figure II-4**.

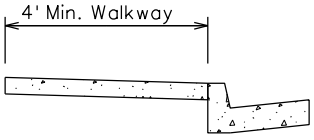
Bus Turning Radius

In Figure **II-5** is presented a right turn template for school buses. A minimum radius at the face of curb of 25 feet is required to adequately accommodate bus turn movements at 5 mph.

Corner Visibility

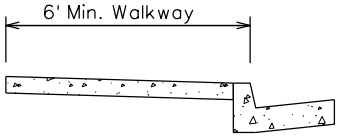
In **Figure II-6** is presented recommended on-street parking restrictions at Chestnut Street intersections. Restricting on-street parking at or near street intersections would improve vehicle and pedestrian safety within the Chestnut Street Corridor and is proposed in response to suggestions from the public at the Chestnut Street Public Outreach Meeting. Similarly, it is recommended that the on-street parking limits be extended 10 feet each side of driveways and alley intersections along Chestnut Street.

1



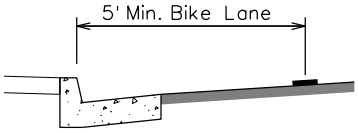
4' Walkway (Not Including Top Of Curb)
ADA Min. (2010 ADA Stds. for Access. Design, 2007 CBC, 2010 Accessibility Guidelines for Public Rights of Way)
Note: 5' Min. Width Recommended by FHWA

2



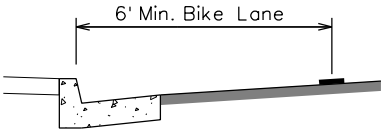
6' Walkway (Including Curb)
Fort Bragg Standard

3



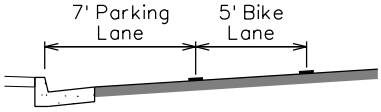
5' Min. Class II Bike Lane (Adjacent To Curb)
Caltrans Standard

4



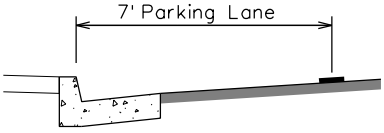
6' Min. Class II Bike Lane (Adjacent To Curb)
Fort Bragg Standard

5



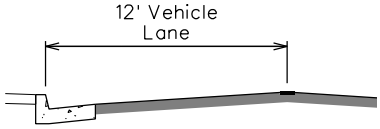
5' Min. Class II Bike Lane (Adjacent To Parking Lane)
Fort Bragg Standard

6



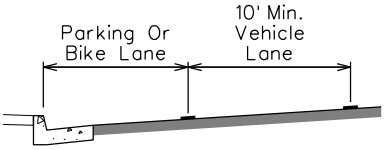
7' Min. Parking Lane (Adjacent To Curb)
Minor Street, Fort Bragg Standard

7



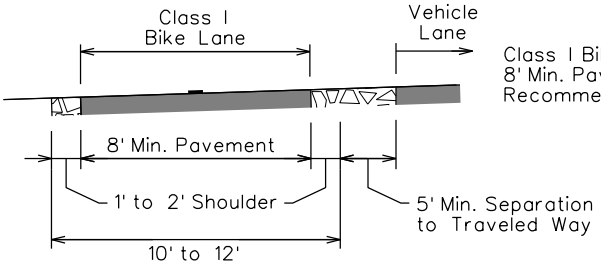
12' Min. Vehicle Lane (Adjacent To Curb)
Fort Bragg Standard

8



10' Min. Vehicle Lane (Adjacent To Bike Lane Or Parking Lane)
Fort Bragg Standard

9

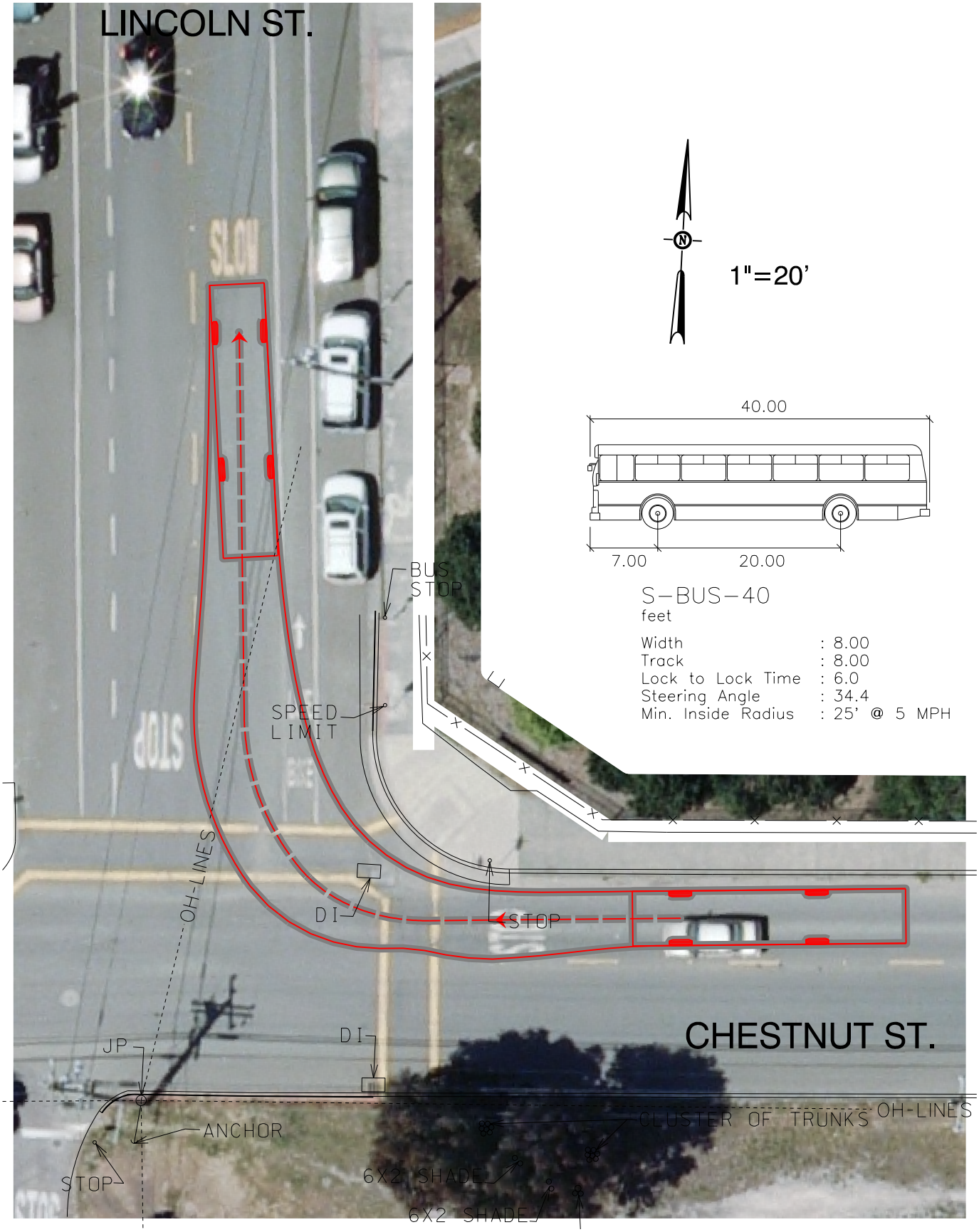


Class I Bike Path Or Multi-Use Path,
8' Min. Pavement, 10' to 12' Min. Total
Recommended Caltrans Standard

CONSULTING KASL ENGINEERS

CORRIDOR PLANNING CRITERIA

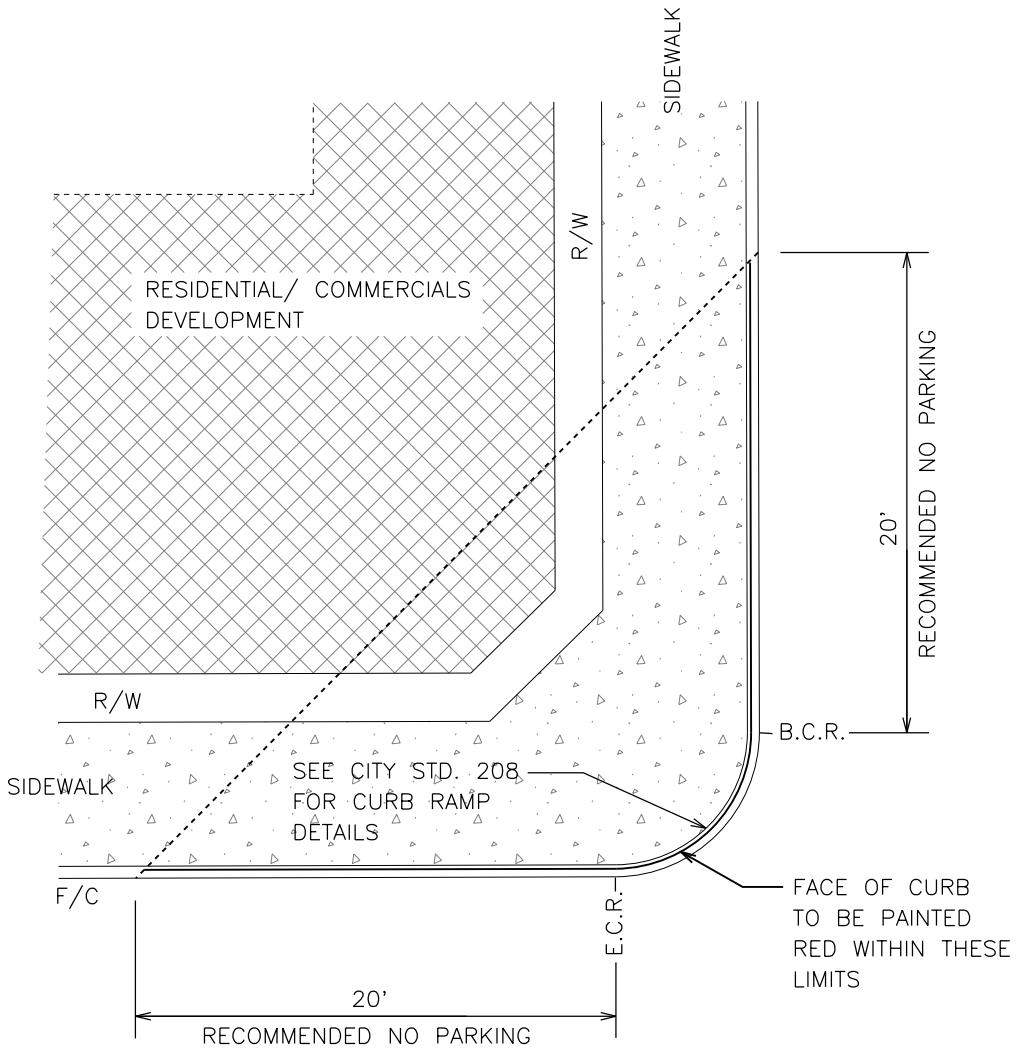
FIGURE II - 4



CONSULTING KASL ENGINEERS

SCHOOL BUS TURNING MOVEMENT

FIGURE II - 5



INTERSECTION

CONSULTING KASL ENGINEERS

RECOMMENDED PARKING RESTRICTIONS
AT CHESTNUT STREET INTERSECTIONS

FIGURE II - 6

III. PROJECT DEVELOPMENT

PRELIMINARY ALTERNATIVES

Preliminary alternatives were developed in consideration of Corridor Planning criteria. After review by City Staff, four of the preliminary alternatives were retained or modified and then further developed for review with the community at the community outreach meeting. These alternatives are presented in **Figure III-1**.

PUBLIC PARTICIPATION

Public Outreach Meeting

Approximately 50 Fort Bragg residents attended the Chestnut Street Public Outreach Meeting held on June 8, 2012 at the John Diederich Center. The meeting was monitored by City Staff, Chestnut Street consultants and Sergeant Brandon Lee of the Fort Bragg Police Department.

In attendance mostly were Project area residents. A few of the attendees were parents of school age children who regularly use Chestnut Street as part of their home to school commute.

Participants agreed that Chestnut Street needs improved pedestrian walkways and traffic calming measures. Participants were in favor of:

- Wider sidewalks (or other suitable, wider, pedestrian paths)
- Adding stop signs, enhanced crosswalks and speed "tables" (raised crosswalks) on Chestnut Street to reduce speed.
- Adding ADA compliant features such as ramps

Sgt. Brandon Lee of the Fort Bragg Police Department recommended additional electronic speed advisory signs. Currently, eastbound Chestnut Street vehicles are advised of speeds in the vicinity of the Redwood and Dana Gray Schools. A westbound speed advisory sign was suggested.

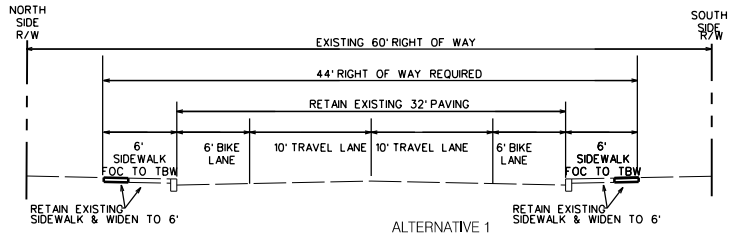
Participants recommended that future Chestnut Street sidewalk improvements should be focused on the north side of the street. Along the south side participants encouraged the City to work with PG&E to remove / relocate power poles and guide poles which now block / hinder the pedestrian path of trail.

There were several people that requested wider sidewalks. There was support for a multi-use trail on the north side. One person commented that when they bike to school with their kids, they avoid all the streets with bike lanes; if the streets have bike lanes they are too wide and cars go too fast. They would rather use a multi use path separated from the vehicle lanes.

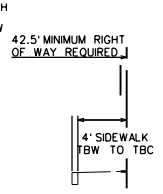
Participants agreed that:

- A "safe route to school" currently does not exist on Chestnut Street
- The do-nothing alternative is not acceptable

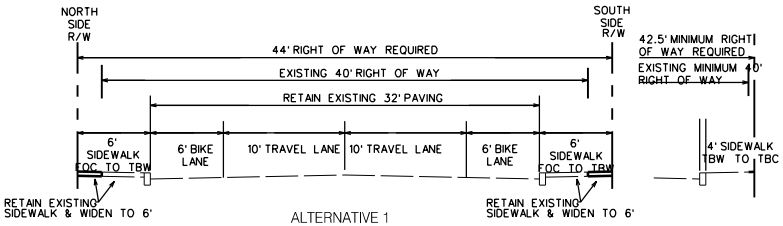
ALTERNATIVE 1



ALTERNATIVE 1
FORT BRAGG STANDARD
6' SIDEWALK AND CLASS II BIKE LANES
WITHIN EXISTING RIGHT OF WAY
FRANKLIN STREET TO WHIPPLE STREET
(2009/2010 RSSP PROPOSAL)



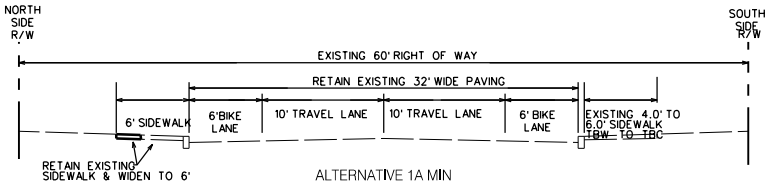
ALTERNATIVE 1
ALTERNATE SIDEWALK
CONDITION



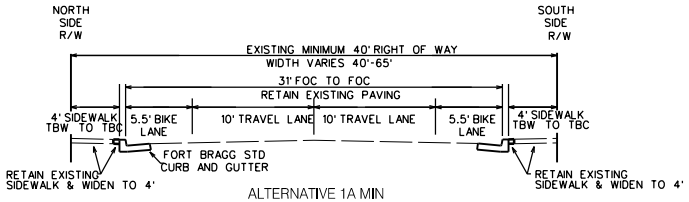
ALTERNATIVE 1
FORT BRAGG STANDARD
6' SIDEWALK AND CLASS II BIKE LANES
WHIPPLE STREET TO END OF PROJECT
(2009/2010 RSSP PROPOSAL)

ALTERNATIVE 1
ALTERNATE SIDEWALK
CONDITION

ALTERNATIVE 1A MIN

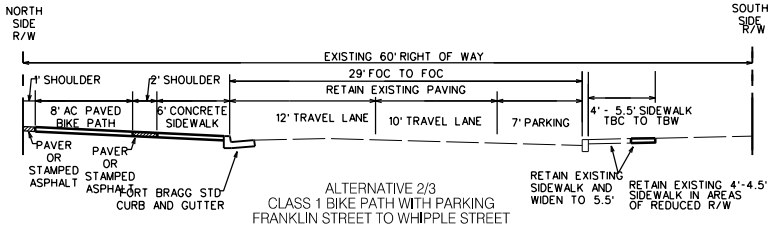


ALTERNATIVE 1A MIN
ADA COMPLIANT SIDEWALKS AND CLASS II BIKE LANES
WITHIN EXISTING RIGHT OF WAY
FRANKLIN STREET TO WHIPPLE STREET

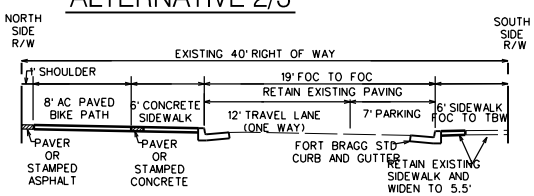


ALTERNATIVE 1A MIN
ADA COMPLIANT WALK AND CLASS II BIKE LANES
WITHIN EXISTING RIGHT OF WAY
WHIPPLE STREET TO END OF PROJECT

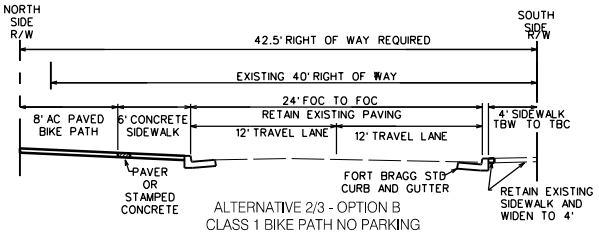
ALTERNATIVE 2/3



ALTERNATIVE 2/3
CLASS 1 BIKE PATH WITH PARKING
FRANKLIN STREET TO WHIPPLE STREET

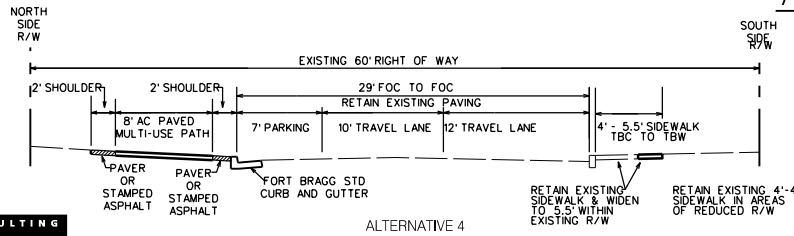


ALTERNATIVE 2/3
CLASS 1 BIKE PATH WITH PARKING
WHIPPLE STREET TO LINCOLN STREET
(ONE WAY)

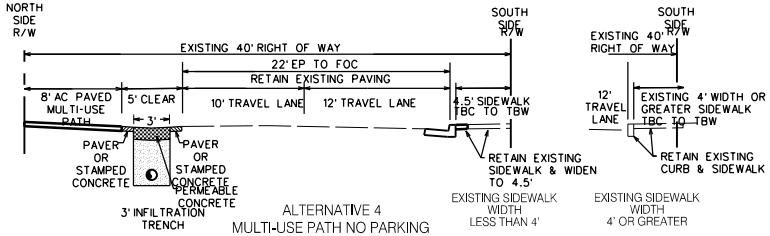


ALTERNATIVE 2/3 - OPTION B
CLASS 1 BIKE PATH NO PARKING
STANDARD ADA MINIMUM SIDEWALK WIDTH
LINCOLN STREET TO END OF PROJECT

ALTERNATIVE 4



ALTERNATIVE 4
MULTI-USE PATH WITH PARKING
FRANKLIN STREET TO WHIPPLE STREET



ALTERNATIVE 4
MULTI-USE PATH NO PARKING
WHIPPLE STREET TO END OF PROJECT

CONSULTING
KASL
ENGINEERS

FILE: S:\2719-10 Chestnut St\FEASIBILITY REPORT\Figures\III - 1 REVISED sections.dgn
DATE: 11/12/2012

REVISED PRELIMINARY CHESTNUT STREET SECTIONS

FIGURE III - 1

Mixed responses were obtained regarding on-street parking, right-of-way acquisition and converting Chestnut Street to a one-way street. One resident suggested that reducing Chestnut Street parking would improve safety. A 25 foot red zone at intersections was suggested to increase corner sight distance and visibility. About half of the meeting attendees supported elimination of on-street parking. One participant that lives on Chestnut between Olsen and Lincoln would have a difficult time losing on-street parking as not enough parking is available on their property. Another Chestnut Street resident discussed accessibility issues. She does not have a driveway, alley or garage, and parks on the street to get to her house. A third attendee lives on South Harold but has no parking on her property for her guests. Guests park on Chestnut when they visit. The narrow streets south of Chestnut have on-street parking restrictions. Residents of those streets use Chestnut Street for guest parking. One participant suggested that it would be best to just widen the sidewalks and leave the parking as is.

Converting a portion of Chestnut Street to one-way (Whipple to Lincoln) was received with mixed reviews. Many of the Chestnut Street residents were in favor of the one-way street conversion as this measure could reduce Chestnut Street traffic volumes and provide calming. Residents suggested that both one-way westbound as well as one-way east bound conversion be evaluated. Making Chestnut Street one-way eastbound received about 30% support, and others thought it would make more sense to see it one-way westbound.

Residents are reluctant to give up right-of-way but some are willing to consider limited (one to two foot) right-of-way acquisition by the City. Residents wanted to be assured that giving up right-of-way would not result in costs to them nor would it place the vehicle traveled way closer to their homes. Additional right-of-way to provide for wider walkways may be acceptable. Additional right-of-way for wider vehicle lanes or for vehicles travelling closer to their homes was not considered acceptable.

There was a consensus that people drive too fast on Chestnut Street and it is not safe to walk or bike on this street. The school busses “fly by small children” walking on the street, people speed through at all hours of the night, and after football games. Suggestions to improve conditions included re-routing school busses, additional police surveillance, a stop sign at Corry, specifically, and generally more stop signs. Fifty percent of attendants would like to see high visibility crosswalks, 50% would like to see speed tables. Other discussions included improving Maple Street as the Safe Routes to School alternative and increasing school bus service to improve safety for kids. Only 3% liked bulb outs.

After the public forum portion of the meeting approximately one–half of the meeting participants remained to discuss preliminary Chestnut Street alternatives one-on-one with City staff and consultants and to evaluate how implementation of each alternative would specifically impact their property.

Survey Results

In an effort to reach as many Chestnut area residents as possible, survey forms were mailed and posted on line. Door to door surveys were also conducted. A copy of the Survey Form is presented in **Figure III-2**. A total of 37 surveys were received.

Please complete this brief survey!

Name:_____ **Business Name if applicable**_____

Address:_____

The goal of the project is to improve pedestrian safety as well as seek input to help define the future of the Chestnut Street corridor. We welcome your input and feedback.

Please rank the following in order of importance (1-7) with 1 being the most important and 7 being the least important

___Bicycle Lanes ___Traffic calming (speed bumps/bulb outs, roundabouts)

____Sidewalks ____Bicycle Lanes ____Traffic Lights

___On-Street Parking ____Improved Pavement Quality ____Other (please specify)

For this project to be successful it should be_____. (*Please fill in the blank below*)

_____

_____

Please include other comments, concerns or questions regarding the project here.

_____

_____

_____

● ● ●

For more information on the project or to stay updated please visit our Facebook page at: www.facebook.com/ChestnutStreetProject

CONSULTING KASL ENGINEERS

FILE: S:\2719-10 Chestnut St\FEASIBILITY REPORT\Figures\III - 2 SURVEY.dgn
DATE: 11/12/2012

PUBLIC SURVEY FORM

FIGURE III - 2

Sidewalks and traffic calming ranked as the most important priorities of the survey participants. Bicycle accommodation also ranked as an important priority. Although a few participants viewed retention of on-street parking as the most important, significantly more respondents listed retention of on-street parking as less important to the least important. Installation of more traffic lights and pavement improvements were neither very important nor the least important items.

Written comments were reviewed and compiled. Results indicate a strong desire for wider sidewalks and safe bicycle access, as well as traffic calming. Many comments reflected a desire to widen sidewalks and remove poles and other structures that block access along the sidewalks. A strong interest was also expressed in providing safe bicycle access and support was given to the multi-use trail option to achieve this goal. Traffic calming was a common topic, although written comments varied on how to achieve calming. Ideas included more stop signs, traffic light, bulb outs, no bulb outs and chicanes rather than bulbouts.

Similar to the feedback received at the public outreach meeting, survey results were mixed with respect to on-street parking and converting Chestnut Street to one-way. While some responses supported the removal of on-street parking to improve safety, others were concerned about accessibility from car to home for disabled persons and how Chestnut Street parking restrictions would impact residents of adjoining streets to the south and other Chestnut Street residents with limited onsite parking options.

There was some interest expressed by survey residents in the one-way street option especially by those participants who want to retain on-street parking.

City Council Workshop June 25, 2012

On June 25, 2012 a one hour workshop was conducted with the City Council prior to the regular City Council meeting. Right-of-way survey results and a summary of the physical features present within the Chestnut Street Corridor were reviewed. Project safety and traffic calming goals were discussed and Corridor design criteria were summarized for the council members.

The four project alternatives presented in Figure III-1 were reviewed with the City Council together with the results of the June 8 Public Workshop and survey findings.

Project alternatives reviewed with the Council are summarized as follows:

> **Alternative 1** – The 2010 RSSP alternative with Class II Bike Lanes, City standard sidewalks, both sides, and no on-street parking (Minimum R / W width required = 44 feet).
>
> **Alternative 1A** – Similar to the RSSP proposal except that sidewalks are reduced to 4 feet (4 ½ to top back of curb) to meet ADA requirements. (Minimum R / W width required = 40 feet).
>
> **Alternative 2 / 3** – This alternative includes a Class I Bike Path on the north side. A six foot wide sidewalk would provide the required separation between the Class I path and vehicle lanes. Parking is retained on the south side. Chestnut Street would be converted to one-way between Whipple and Lincoln. This

section could be constructed within the existing right-of-way except for the reach between Redwood School and Dana Grey School. A 42.5 foot right-of-way would be required in this area to construct a two way street section without on-street parking. Right-of-way would be required from 8 parcels on the north side of the street. Cooperation would also be required from the Fort Bragg School District along the Redwood School and Fort Bragg High School frontage.

Alternative 4 – In this alternative, Chestnut Street would be improved with a multi-use path on the north side of the street. Parking would be retained between Franklin and Whipple but shifted from the south to the north side to provide the required separation between the multi-use path and vehicle lanes. East of Whipple on-street parking would be eliminated. The multi-use trail on the north side would be separated from the vehicle lanes by an infiltration trench constructed with permeable concrete and delineated by pavers or stamped concrete. The Alternative 4 section could be constructed within the limits of the existing right-of-way.

Some City Council members responded to the alternatives presented at the June 25, 2012 workshop by indicating a desire to retain on-street parking and focus pedestrian safety improvements on the north side of the road. Other City Council members recognized underutilization of on-street parking, lack of existing gutters and that retention of curbs is infeasible due to build up of the street over years, and were more supportive of elimination of on-street parking in favor of pedestrian and bicycle improvements on both sides of the street. There was some interest from the City Council in the one-way option, with comments that the one-way option should extend to Dana Street to more evenly re-distribute traffic northward.

ALTERNATIVES DEVELOPED IN RESPONSE TO PUBLIC REVIEW AND CITY COUNCIL COMMENTS

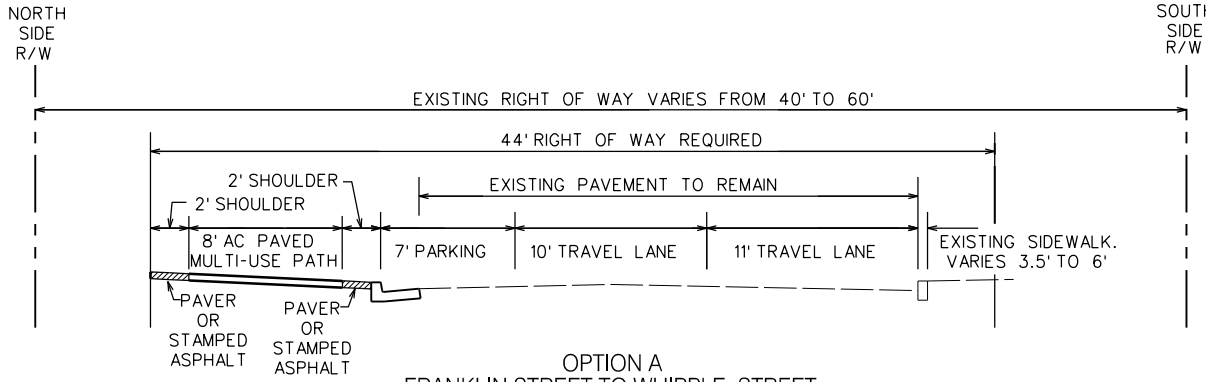
Three Chestnut Street options were developed in response to the comments received from the public outreach, public surveys and City Council workshop activities.

Option A

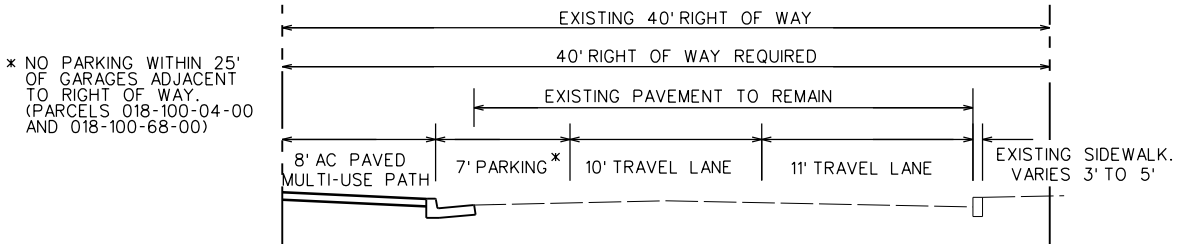
Option A presented in **Figure III-3** includes a multi-use path on the north side of the street. Within the commercial / Residential Zone, Franklin to Whipple and within a portion of the School / Residential Zone between Sanderson and the east end of the Project, a 12 foot wide path is proposed with an eight foot wide combination pedestrian / bicycle way and two foot wide shoulder, each side. Pavers or stamped concrete could be used to identify the shoulders. Existing widened walkways along Dana Gray School would be utilized as part of this Plan. Existing curb, gutter and sidewalk improvements on the south side of the street would remain unimproved. On-street parking would be shifted from the south side of the street to the north side.

Option B

The Option B Plan is presented in **Figure III-4**. This Plan shifts the multi-use path to the south side of the street. A raised utility median is proposed to serve as the separation between the multi-use path and the vehicle lanes. Existing utility poles, fire hydrants, street signs and like obstructions now located within and adjacent to the south side



OPTION A
FRANKLIN STREET TO WHIPPLE STREET
AND
SANDERSON WAY TO END OF PROJECT



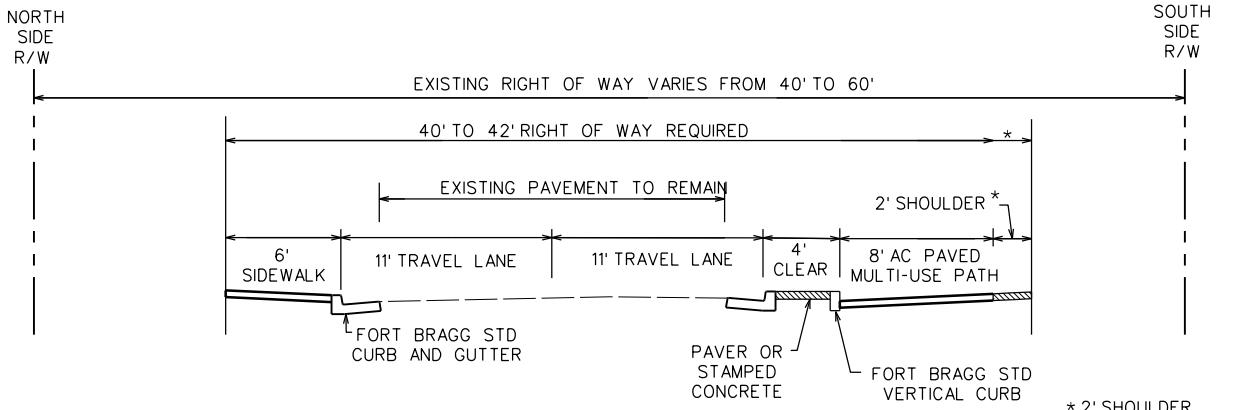
OPTION A
WHIPPLE STREET TO 80' SANDERSON WAY

CONSULTING
KASL
ENGINEERS

FILE: S:\2719-10 Chestnut St\FEASIBILITY REPORT\Figures\III - 3 IMPROVEMENTS - A.dgn
DATE: 11/12/2012

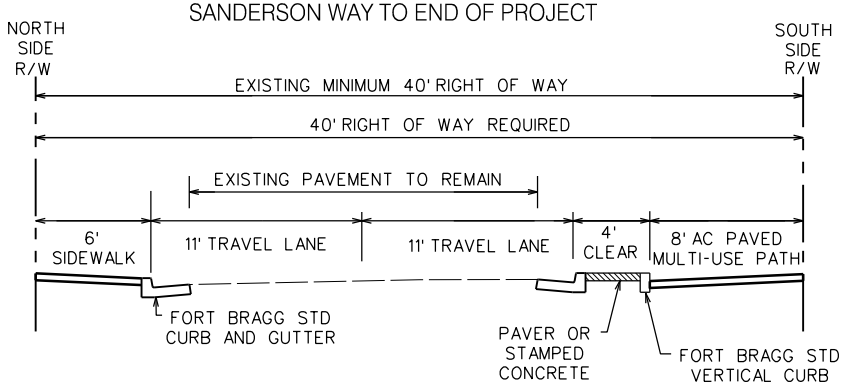
CHESTNUT STREET IMPROVEMENT
OPTION A

FIGURE III - 3



OPTION B
FRANKLIN STREET TO WHIPPLE STREET
AND
SANDERSON WAY TO END OF PROJECT

* 2' SHOULDER WHERE RIGHT OF WAY IS AVAILABLE



OPTION B
WHIPPLE STREET TO SANDERSON WAY

CONSULTING
KASL
ENGINEERS

FILE: S:\2719-10 Chestnut St\FEASIBILITY REPORT\Figures\III - 4 IMPROVEMENTS - B.dgn
DATE: 11/12/2012

CHESTNUT STREET IMPROVEMENT
OPTION B

FIGURE III - 4

sidewalks would be relocated to the raised median area. A six foot wide sidewalk, per Fort Bragg Standards, is proposed on the north side of the street. On-street parking is eliminated

Option C
Option C is similar to the Alternative 2/3 Plan reviewed with residents at the Public Outreach Meeting and with the City Council at the June 25 Council Workshop. The one-Way Street limits would begin at Harrison and extend to Dana Street. Option C is presented in **Figure III-5**.

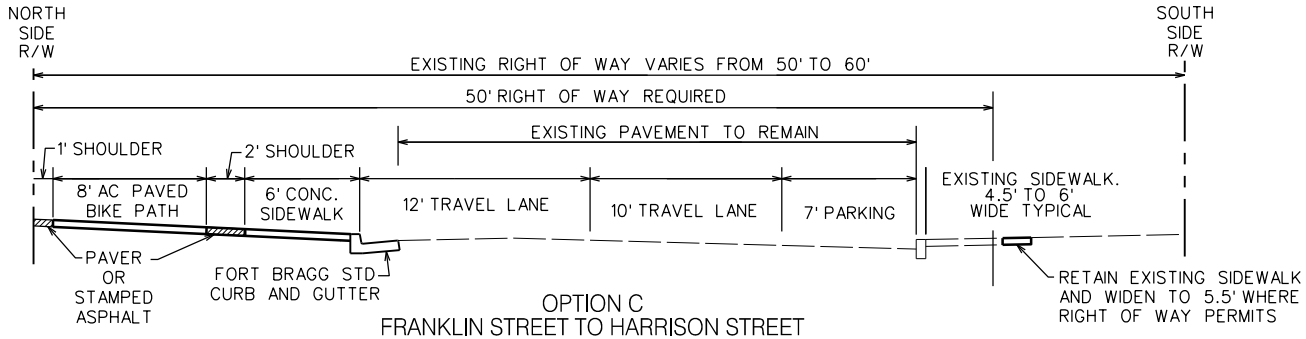
Quantity and Cost Estimates

Block by block quantity and cost estimates for Options A, B & C are presented in **Table III-1A, 1B and 1C.** A summary of estimated Chestnut Street Corridor costs is presented in **Table III-2**.

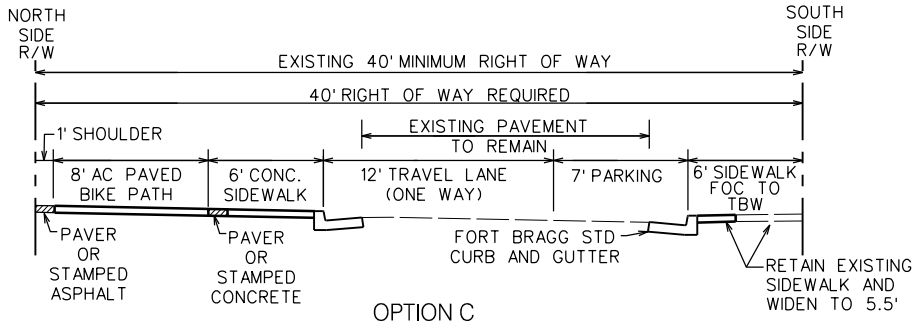
Construction costs were reduced for Option A and B by utilizing the existing widened sidewalk along Dana Grey Street. Further refinements of Option A could include utilizing the existing 5-1/2 foot wide sidewalk along Redwood School "as is" and constructing new curb, gutter and sidewalk on the south side of Chestnut west of Spring Street (± 160 feet) and east of Lincoln (± 450 feet).

City Council Meeting August 27, 2012

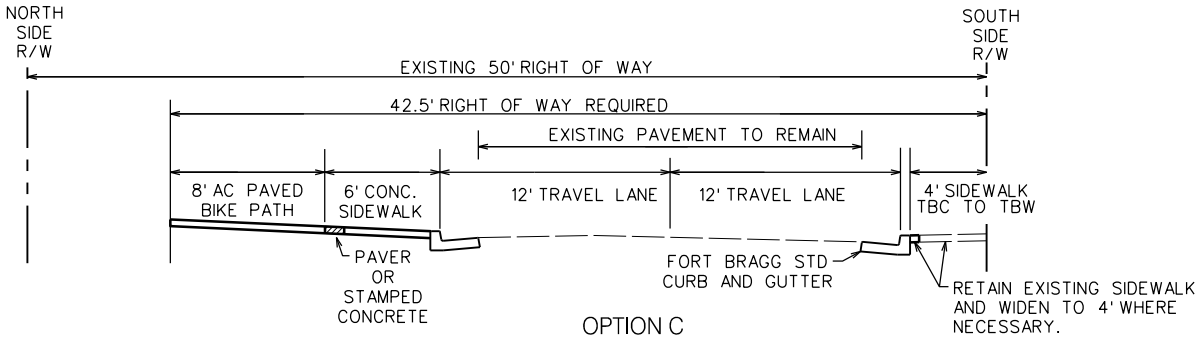
City Staff presented Chestnut Street Options A, B and C to the Fort Bragg City Council on August 27. Features of each alternative were summarized. Staff reviewed how each alternative responded to comments and suggestions received from the Public and how these refined options responded to the City Council's concerns and directives developed from the June 25, City Council Workshop. A summary of the current Chestnut Street options, as presented by City Staff for the City Council is included in **Table III-3.**



OPTION C
FRANKLIN STREET TO HARRISON STREET



OPTION C
HARRISON STREET TO DANA STREET
(ONE WAY)



OPTION C
DANA STREET TO END OF PROJECT

CONSULTING
KASL
ENGINEERS

FILE: S:\2719-10 Chestnut St\FEASIBILITY REPORT\Figures\III - 5 IMPROVEMENTS - C.dgn
DATE: 11/12/2012

CHESTNUT STREET IMPROVEMENT
OPTION C

FIGURE III - 5

CONSULTING KASL ENGINEERS

TABLE III - 1A
Chestnut Street Corridor
Option A

North Side

Block	Bike Path (1)	New Curb& Gutter	Driveway Conform	Relocate Street Sign	Relocate Inlet (2)	Right of Way Acquisition	Relocate Joint Pole	Relocate Service Pole	Estimated Cost By Block
	SF	LF	EA	EA	EA	SF	EA	EA	
Franklin to McPherson	3,240	340	2	2	1	0	0	1	$44,700
McPherson to Harrison	3,600	320	1	1	1	0	0	2	$48,500
Harrison to Whipple	3,600	320	2	2	1	0	0	2	$51,000
Whipple to Grove	2,320	330	2	2	1	0	0	1	$39,850
Grove to Harold	3,360	460	1	4	3	0	0	1	$67,300
Harold to Lincoln	5,040	670	2	4	2	0	0	1	$72,950
Lincoln to Wall	6,080	780	1	4	2	0	0	2	$83,900
Wall to Sanderson	3,600	470	3	3	0	0	0	0	$37,250
Sanderson to Woodland	840	240	1	3	1	0	3	0	$143,700
Woodland to End	1,260	0	0	1	0	0	3	0	$126,800
Subtotal	**32,940**	**3,930**	**15**	**26**	**12**	**0**	**6**	**10**	**$715,950**
							25% Contingency		$178,988
							Estimated Total		**$894,938**

South Side

Block	Bike Path (1)	New Curb& gutter	Driveway Conform	Relocate Street Sign	Relocate Inlet (2)	Right of Way Acquisition	Relocate Joint Pole	Relocate Service Pole	Estimated Cost By Block
	SF	LF	EA	EA	EA	SF	EA	EA	
Franklin to McPherson	0	0	0	0	0	0	0	0	$0
McPherson to Harrison	0	0	0	0	0	0	0	0	$0
Harrison to Whipple	0	0	0	0	0	0	0	0	$0
Whipple to Grove	0	0	0	0	0	0	0	0	$0
Grove to Harold	0	0	0	0	0	0	0	0	$0
Harold to Lincoln	0	0	0	0	0	0	0	0	$0
Lincoln to Wall	0	0	0	0	0	0	0	0	$0
Wall to Sanderson	0	0	0	0	0	0	0	0	$0
Sanderson to Woodland	0	0	0	0	0	0	0	0	$0
Woodland to End	0	0	0	0	0	0	0	0	$0
Subtotal	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$0**
							25% Contingency		$0
							Estimated Total		**$0**

(1) Includes ADA compliant ramps.
(2) Includes drainage lateral and connection to manhole.

CONSULTING KASL ENGINEERS

TABLE III - 1B
Chestnut Street Corridor
Option B

North Side

Block	Multi-use Path (1)	Utility Corridor Paving	New Curb & Gutter	New Vertical Curb	New Sidewalk (2)	Driveway Conform	Relocate Street Sign	Relocate Inlet (2)	Relocate Hydrant	Right of Way Acquisition	Relocate Joint Pole	Relocate Service Pole	Estimated Cost By Block
	SF	LF	LF	LF	SF	EA	EA	EA	EA	SF	EA	EA	
Franklin to McPherson	0	0	340	0	1,870	2	2	0	0	0	0	1	$33,460
McPherson to Harrison	0	0	320	0	1,760	0	1	1	0	0	0	2	$42,580
Harrison to Whipple	0	0	320	0	1,760	2	3	1	0	0	0	2	$47,580
Whipple to Grove	0	0	330	0	1,815	2	2	1	0	0	0	1	$42,770
Grove to Harold	0	0	460	0	2,525	1	4	3	0	0	0	1	$70,700
Harold to Lincoln	0	0	680	0	3,700	2	3	2	0	0	0	1	$77,100
Lincoln to Wall	0	0	780	0	4,290	1	4	2	0	0	0	2	$87,820
Wall to Sanderson	0	0	460	0	2,530	4	2	0	0	0	0	0	$40,740
Sanderson to Woodland	0	0	240	0	480	1	1	1	0	0	0	0	$22,340
Woodland to End	0	0	0	0	560	0	0	0	0	0	0	0	$4,480
Subtotal	**0**	**0**	**3,930**	**0**	**21,290**	**15**	**22**	**11**	**0**	**0**	**0**	**10**	**$469,570**
											25% Contingency		$117,393
											Estimated Total		**$586,963**

South Side

Block	Multi-use Path (1)	Utility Corridor Paving	New Curb& gutter	New Vertical Curb	New Sidewalk (2)	Driveway Conform	Relocate Street Sign	Relocate Inlet (2)	Relocate Hydrant	Right of Way Acquisition	Relocate Joint Pole	Relocate Service Pole	Estimated Cost By Block
	SF	LF	LF	LF	SF	EA	EA	EA	EA	SF	EA	EA	
Franklin to McPherson	2,890	340	340	340	0	2	0	2	0	0	3	0	$177,150
McPherson to Harrison	3,200	320	320	320	0	3	1	0	1	0	2	0	$123,600
Harrison to Whipple	2,930	200	200	200	0	1	1	2	1	0	2	0	$131,650
Whipple to Grove	2,320	290	290	290	0	0	0	2	1	0	2	0	$131,050
Grove to Harold	3,360	420	420	420	0	0	1	2	0	0	5	0	$260,400
Harold to Lincoln	4,880	610	610	610	0	2	2	4	2	0	5	0	$309,950
Lincoln to Wall	6,320	790	790	790	0	6	2	4	1	0	6	0	$371,550
Wall to Sanderson	3,680	460	460	460	0	7	1	0	0	0	4	0	$218,200
Sanderson to Woodland	3,600	450	450	450	0	4	4	2	0	0	1	0	$112,750
Woodland to End	3,280	410	410	410	0	1	1	2	0	0	0	0	$61,450
Subtotal	**36,460**	**4,290**	**4,290**	**4,290**	**0**	**26**	**13**	**20**	**6**	**0**	**30**	**0**	**$1,897,750**
											25% Contingency		$474,438
											Estimated Total		**$2,372,188**

(1) Includes ADA compliant ramp.

(2) Includes drainage lateral and connection to manhole.

CONSULTING KASL ENGINEERS

TABLE III - 1C
Chestnut Street Corridor
Option C

North Side

Block	Bike Path (1)	New Curb& Gutter	Widen Sidewalk	New Sidewalk (1)	Driveway Conform	Relocate Street Sign	Relocate Inlet (2)	Relocate Hydrant	Right of Way Acquisition	Relocate Joint Pole	Relocate Service Pole	Estimated Cost By Block
	SF	LF	SF	SF	EA	EA	EA	EA	SF	EA	EA	
Franklin to McPherson	3,520	260	0	1,760	2	2	0	0	1,150	0	1	$71,180
McPherson to Harrison	3,300	320	0	1,760	0	1	1	0	0	0	2	$59,080
Harrison to Whipple	2,700	320	0	1,760	2	3	1	0	0	0	2	$61,080
Whipple to Grove	2,610	330	0	1,815	2	2	1	0	0	0	1	$55,820
Grove to Harold	3,780	460	0	2,530	1	4	3	0	0	0	1	$89,640
Harold to Lincoln	5,760	680	0	3,740	2	3	2	0	0	0	1	$106,220
Lincoln to Wall	6,840	780	0	4,290	1	4	2	0	0	0	2	$122,020
Wall to Sanderson	3,960	460	0	2,530	4	2	0	0	0	0	0	$60,540
Sanderson to Dana	5,040	640	0	3,520	1	2	1	0	0	3	0	$202,360
Dana to End	2,240	290	0	1,595	0	1	0	0	0	3	0	$151,710
Subtotal	**39,750**	**4,540**	**0**	**25,300**	**15**	**24**	**11**	**0**	**1,150**	**6**	**10**	**$979,650**
										25% Contingency		$244,913
										Estimated Total		**$1,224,563**

South Side

Block	Bike Path (1)	New Curb& gutter	Widen Sidewalk	New Sidewalk (1)	Driveway Conform	Relocate Street Sign	Relocate Inlet (2)	Relocate Hydrant	Right of Way Acquisition	Relocate Joint Pole	Relocate Service Pole	Estimated Cost By Block
	SF	LF	SF	SF	EA	EA	EA	EA	SF	EA	EA	
Franklin to McPherson	0	0	105	0	1	0	0	0	0	2	0	$84,100
McPherson to Harrison	0	0	200	0	1	1	0	0	0	2	0	$86,500
Harrison to Whipple	0	165	300	0	0	1	1	1	0	2	0	$104,125
Whipple to Grove	0	330	330	0	0	0	1	1	0	2	0	$108,350
Grove to Harold	0	480	440	770	1	2	1	0	140	5	0	$242,760
Harold to Lincoln	0	660	700	880	1	2	2	2	300	5	0	$273,540
Lincoln to Wall	0	780	470	2,585	5	2	1	1	0	6	0	$314,080
Wall to Sanderson	0	470	470	0	0	2	0	0	0	4	0	$182,150
Sanderson to Dana	0	560	1,035	0	0	2	1	0	0	1	0	$85,700
Dana to End	0	0	0	0	0	0	0	0	0		0	$0
Subtotal	**0**	**3,445**	**4,050**	**4,235**	**9**	**12**	**7**	**5**	**440**	**29**	**0**	**$1,481,305**
										25% Contingency		$370,326
										Estimated Total		**$1,851,631**

(1) Includes ADA compliant ramp.
(2) Includes drainage lateral and connection to manhole.

CONSULTING KASL ENGINEERS

TABLE III - 2
Chestnut Street Corridor Options

Summary of Estimated Costs

OPTION A	North Side	South Side	Estimated Total
Surface Improvements (1)	$305,950	$0	$305,950
Water and Storm Drainage Utilities	$120,000	$0	$120,000
Right of Way Acquisition	$0	$0	$0
Joint and Service Pole Relocation (2)	$290,000	$0	$290,000
SUBTOTAL	**$715,950**	**$0**	**$715,950**
25% Contingency	$178,988	$0	$178,988
Estimated Total	**$894,938**	**$0**	**$894,938**

OPTION B	North Side	South Side	Estimated Total
Surface Improvements (1)	$309,570	$476,750	$786,320
Water and Storm Drainage Utilities	$110,000	$221,000	$331,000
Right of Way Acquisition	$0	$0	$0
Joint and Service Pole Relocation (2)	$50,000	$1,200,000	$1,250,000
SUBTOTAL	**$469,570**	**$1,897,750**	**$2,367,320**
25% Contingency	$117,393	$474,438	$591,830
Estimated Total	**$586,963**	**$2,372,188**	**$2,959,150**

OPTION C	North Side	South Side	Estimated Total
Surface Improvements (1)	$556,650	$225,005	$781,655
Water and Storm Drainage Utilities	$110,000	$87,500	$197,500
Right of Way Acquisition	$23,000	$8,800	$31,800
Joint and Service Pole Relocation (2)	$290,000	$1,160,000	$1,450,000
SUBTOTAL	**$979,650**	**$1,481,305**	**$2,460,955**
25% Contingency	$244,913	$370,326	$615,239
Estimated Total	**$1,224,563**	**$1,851,631**	**$3,076,194**

(1) Includes bike paths, multi use paths, sidewalks, curbs and gutters.
(2) Portion of costs may be paid by PG&E.

August 13, 2012

TABLE III – 3

Summary Chestnut Street Design Options [(1)]

	Option A	Option B	Option C
Pros	Multi-use path increases pedestrian and bike safety on north side	Wide sidewalk on north and multi-use path on south increase bicycle and pedestrian safety on both sides, separating bikes and peds	Increases pedestrian and bicycle safety on both sides, and separates bikes and peds
	Narrows travel lanes by four feet to calm traffic	Allows for two way vehicle traffic	One-way street will reduce traffic on Chestnut Street, and road narrowed three feet will provide traffic calming
	Retains on-street parking but shifts it to the other side of the street, and allows for two way vehicle traffic	Eliminates on-street parking and narrows travel lanes to calm traffic (best traffic calming option – narrows roadway by 10 feet)	Retains on-street parking.
	Lowest cost option	Features a safety separation area between bikes and vehicles, that can also accommodate above ground items, such as fire hydrants, light poles and utility poles (best option to accommodate utilities)	Retains parking in current configuration on south side of street
	Improvements can be completed within existing R/W	Improvements can be completed within existing R / W	Improvements can be completed within existing R/W
Cons	Does not improve pedestrian safety on the south side	Eliminates on-street parking	Inconveniences residents driving to or from home; potentially increases greenhouse gas emissions from additional vehicle travel. May result in increased traffic in other nearby neighborhoods
	Existing on-street parking would be relocated across the street	Higher cost	Highest cost
	On-street parking lanes will increase the visual size of the street when parking is not utilized, and this will work against traffic calming		Future studies and consultations needed to determine feasibility of one-way street
Estimated total project cost	$894,938	$2,959,151	$3,076,194

(1) Presented to City of Fort Bragg City Council, August 27, 20120

POTENTIAL FUNDING SOURCES

PG&E

The cost of undergrounding overhead utilities versus the cost of utility pole relocation was reviewed with PG&E. Approximately $995,861 has been set aide as Rule 20A credit for undergrounding PG&E electrical poles within the City of Fort Bragg. City Staff received an estimated cost from PG&E of $2,784,106 for undergrounding utilities along the Chestnut Street Corridor. The cost estimate includes the cost of 4,670 linear feet of main trench, 3,269 linear feet of service laterals, 49 residential and 21 commercial panel conversions. Since only $995,861 is available as Rule 20A funds, the City would bear the additional $1,788,245 needed to underground electrical utilities.

The City Council has considered other areas within the City for utilizing the Rule 20A funds. These include sidewalks within the Central Business District, along Oak Street and along Alder Street. With the cost of local participation estimated for completing the undergrounding of Chestnut Street utilities it was determined that other centrally located areas in the City may be a better candidate for a Rule 20A Project.

PG&E has indicated that at least a portion of the cost to relocate poles outside of the right-of-way would be paid by them, provided that poles are relocated within the City right-of-way or a utility easement. A utility easement for the poles and overhead wires would be required for Option C, and possibly for service poles on the north side for Option B. The cost to relocate a PG&E service pole is estimated at approximately $5,000. The cost to relocate a joint pole (a pole with PG&E service as well as cable TV, telephone, etc.,) would be approximately $40,000, with PG&E only paying a portion of that cost attributable to their facilities. If PG&E pays $5,000 per pole to be relocated, project costs could potentially be reduced by as much as $80,000 for Option A, $200,000 for Option B and $225,000 for Option C.

State Safe Routes to School

Up to $450,000 may be available for projects that improve safety for children traveling to school by foot or bicycle. The City has previously been awarded State Safe Routes to School grants. With the Safe Routes to School fund limits, a section of the selected Chestnut Street Corridor option could be designated for implementation with this funding source. The School / Residential zone located between Lincoln and the east end of the project has the highest pedestrian and bicycle traffic. Safe Routes to School improvements for this area could be identified as an early project phase with remaining sections of the Chestnut Street Corridor completed as funds become available.

Federal Safe Routes to School

Up to $1,000,000 may be available for school related safety projects. The City of Fort Bragg has also received a Federal Safe Routes to School grants. As discussed above, portions of a priority segment or segments of the selected Corridor options could be designated for Federal funding with remaining sections of the selected Corridor Plan completed as funds become available.

Transportation Enhancement Grant

Varying amounts of funding could be available for Chestnut Street pedestrian and bicycle facilities through this Caltrans Administrated Program.

Bicycle Transportation Account(BTA)

Up to 25% of available funds (usual award is $200,000 to $300,000) may be available for bikeway improvements. In 2009 / 2010 Fort Bragg received BTA Funds to stripe and sign bicycle routes on North Franklin Street and Oak Street and to provide bicycle racks at downtown locations and along the Pacific Coast Bike Route.

California Office of Traffic Safety

Up to $500,000 may be available for safety facilities.

Community Development Block Grant

Up to $800,000 may be available for transportation projects.

Transportation Development Act

This Caltrans funding is mainly for transit projects, however some funds may be available for bicycle and pedestrian projects.

City Sales Tax

An amount estimated at $750,000 may be available as a local match for state or federal funds.

AB 2766 Funds

Thee funds come from registered motor vehicle fees. $30,000 to $40,000 a year may be available at the discretion of the Air Quality Management District.

Settlement Funds

$10,000 to $100,000 may be available as determined by the Air Quality Management District.

CITY COUNCIL ACTION

The City Council directed staff to proceed with Option A for the Chestnut Street Corridor.

IV. RECOMMENDED CHESTNUT STREET CORRIDOR IMPROVEMENTS

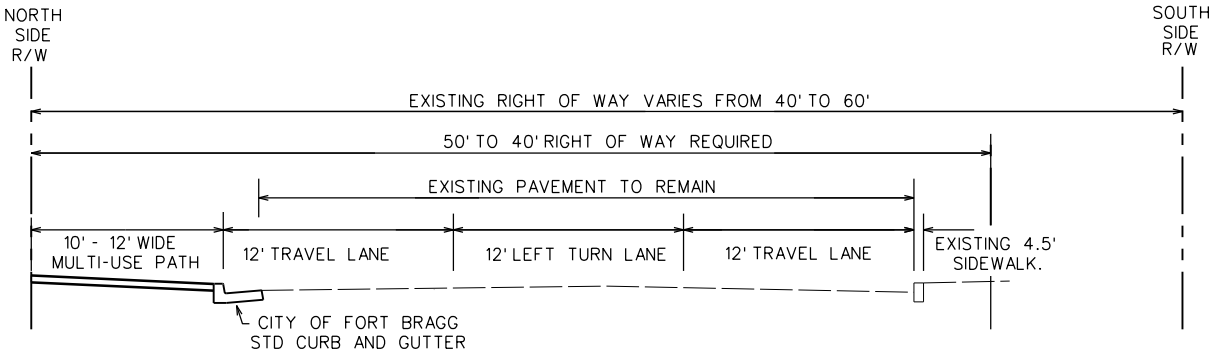
RECOMMENDED PROJECT

Chestnut Street Option A, with minor revisions, has been selected by the Fort Bragg City Council as the Recommended Project for the Chestnut Street Corridor. As previously described in Section III, this option features a multiuse path or a widened combination pedestrian / bicycle way on the north side of the street, on-street parking shifted from the south side to the north side of the street and limited improvements on the south side. Detailed cross sections for the Recommended Project are presented in **Figure IV-1A** and **IV-1B**. As shown in Figures IV-1A and IV-1B and as discussed below, refinements to Option A are included to respond to existing physical obstacles, right of way restrictions, cost reduction opportunities and existing land uses. Additional traffic calming features have also added to the Recommended Plan.

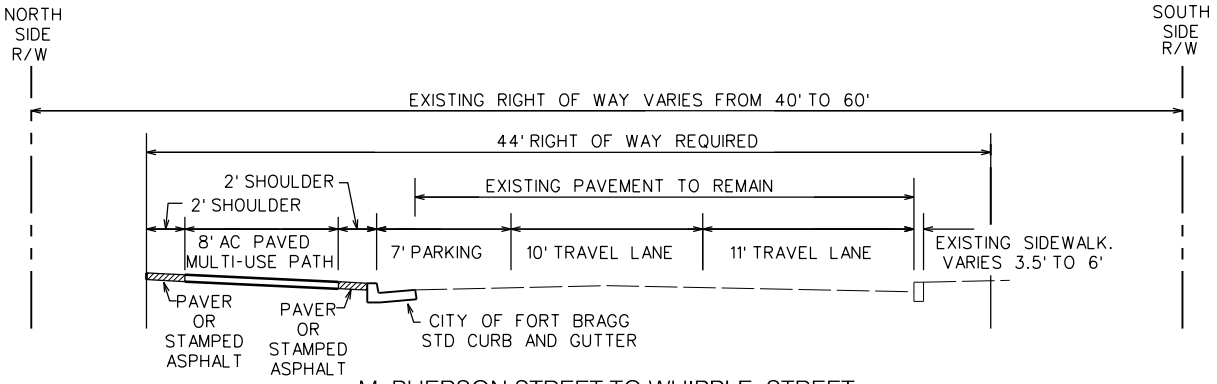
To address City Council member comments, the westbound Chestnut Street left turn movement to Franklin Street was lengthened. This modification requires removal of parking along the north side of Chestnut Street from Franklin Street to McPherson Street. To accommodate the widened street, the north side multiuse path was reduced to a ten foot width along the left turn lane. The multiuse path widens to the desired twelve foot section near the corner of Chestnut Street and McPherson Street.

Between Susie Court and Harold Street (APN 018-100-04) there is an existing structure (garage) constructed at the back of sidewalk. The existing sidewalk width at this location is three to 3 ½ feet. To widen the walkway to an eight foot wide multiuse path and preserve the existing garage, the new curb and gutter must be adjusted further into the street. A narrower street section with no on street parking is proposed at this location. A similar physical obstruction (garage) exists at Parcel 018-100-68 located between Harold Street and Lincoln Street. The existing structure is built at the back of a two to three foot walkway. To retain the existing garage the widening necessary to construct and eight foot multiuse path will be accomplished by narrowing the street section and eliminating parking adjacent to the garage.

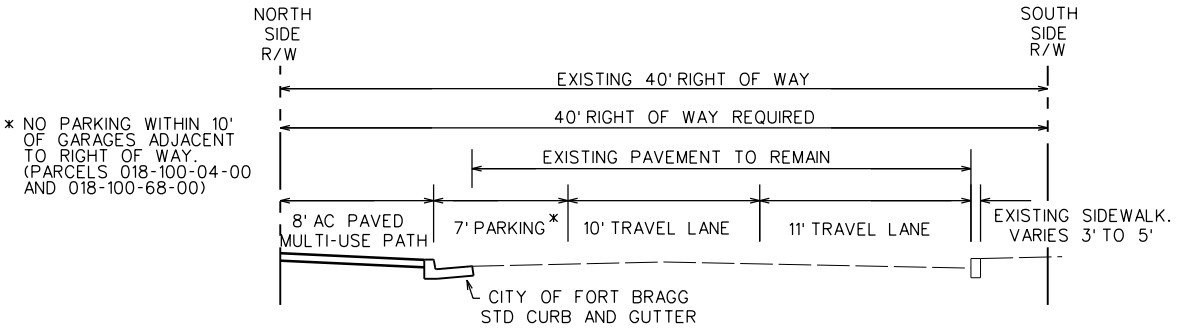
To avoid right of way acquisition and reduce costs, the multiuse path width from Sanderson Way to the end of the project has been reduced in width from twelve feet to eight feet. The Recommended Project provides an eight foot wide multiuse path section along the frontage of Parcel 008-332-12 east of Sanderson Way until the right of way and sidewalk widens at Dana Gray School. As shown in Figure IV-1B, east of this location the proposed multiuse path would transition to the existing eight to nine foot wide walkway which now exists along the frontage of Dana Gray School. East of Dana Street an eight foot wide multiuse path is proposed adjacent to the Fort Bragg High School parcel instead of the previously proposed twelve foot wide path. The existing 3 ½ foot wide sidewalk section would remain and widening to eight feet would occur at the existing back of walk.



FRANKLIN STREET TO McPHERSON STREET



McPHERSON STREET TO WHIPPLE STREET



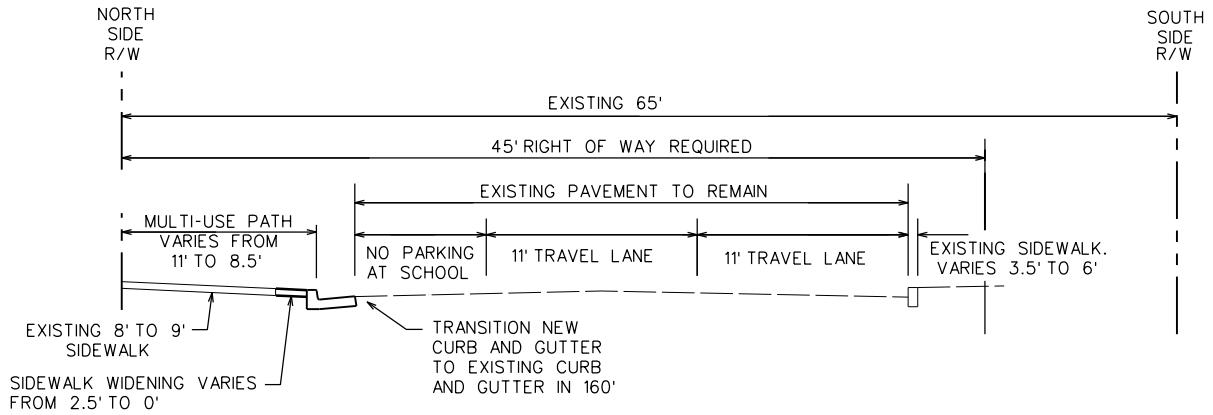
WHIPPLE STREET TO 80' EAST OF SANDERSON WAY

CONSULTING
KASL
ENGINEERS

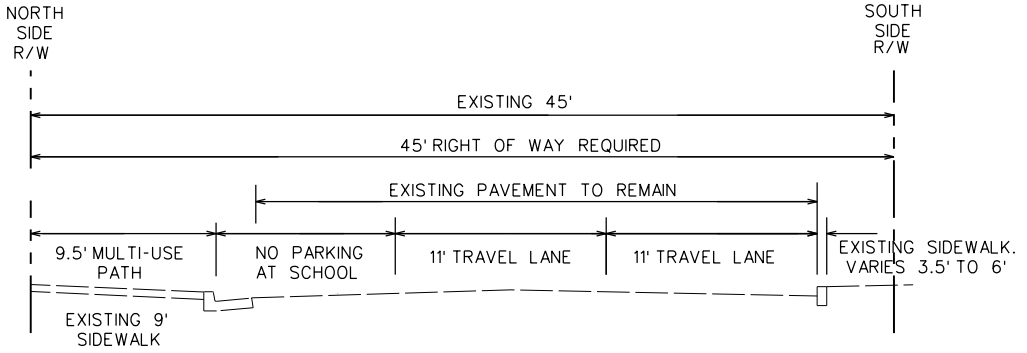
FILE: \\Chewy\jobs\2719-10 Chestnut St\FEASIBILITY REPORT\Figures\IV - 1A IMPROVEMENTS.dgn
DATE: 11/26/2012

TYPICAL SECTIONS
RECOMMENDED CHESTNUT CORRIDOR IMPROVEMENTS
(FRANKLIN STREET TO 80' EAST OF SANDERSON WAY)

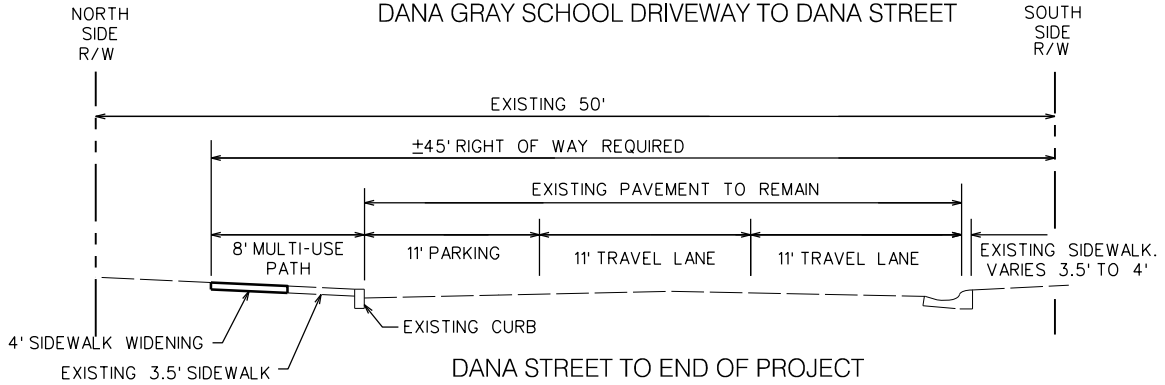
FIGURE IV-1A



80' EAST OF SANDERSON TO DANA GRAY SCHOOL DRIVEWAY



DANA GRAY SCHOOL DRIVEWAY TO DANA STREET



DANA STREET TO END OF PROJECT

CONSULTING KASL ENGINEERS

FILE: \\Chewy\jobs\2719-10 Chestnut St\FEASIBILITY REPORT\Figures\IV - 1B IMPROVEMENTS.dgn
DATE: 11/26/2012

TYPICAL SECTIONS
RECOMMENDED CHESTNUT CORRIDOR IMPROVEMENTS
(80' EAST OF SANDERSON WAY TO END OF PROJECT)

FIGURE IV-1B

In addition to the previously proposed electronic speed advisory sign and raised high visibility crosswalks (speed tables), bulbouts have been included at the McPherson Street and Whipple Street intersections. Small paved, traffic calming, "bump out" islands are added to better delineate the limits of the on-street parking and reduce the apparent width of the vehicle lanes. The bump outs would also serve as possible locations for relocated joint poles and signs.

PRELIMINARY IMPROVEMENT PLANS

Figures **IV-2a** through **IV-2l** are block by block scaled planning level exhibits that may be utilized by the City of Fort Bragg to develop engineering drawings for the future Chestnut Street improvements. These exhibits are presented at the end of Section IV. The recommended block by block Chestnut Street improvements and the traffic calming features proposed with the recommended Corridor Plan are summarized in the following;

Franklin Street to McPherson Street (Figure IV-2a)

- Remove and replace existing curb and gutter to accommodate new street section
- Remove existing sidewalk
- Lengthen left turn stacking lane, westbound, at the Franklin Street intersection
- Construct eight foot to twelve foot wide multiuse path, north side
- Construct ADA compliant ramps at Franklin Street and McPherson Street
- Construct bulbout at the McPherson Street intersection
- Relocate joint pole to back of walk or top back of curb
- Conform driveways to new face of curb location
- Relocate drain inlet at Franklin Street and construct new drain lateral
- Relocate street signs
- Place crosswalk, centerline and turn lane striping and markings and red curb painting
- Designate no on-street parking on north and south sides of street

McPherson Street to Harrison Street (Figure IV-2b)

- Remove and replace existing curb and gutter to accommodate new street section
- Remove existing sidewalk
- Construct twelve foot wide multiuse path, north side
- Construct ADA compliant ramps at McPherson Street and Harrison Street
- Construct bulbout at the McPherson Street intersection
- Construct bump out islands
- Relocate joint pole to back of walk, top back of curb or bump out island
- Conform driveway to new face of curb location
- Relocate drain inlet at Harrison Street and construct new drain lateral
- Relocate street signs
- Permit limited on-street parking, north side, as shown
- Place crosswalk and street markings and red curb painting
- Place centerline and right edge striping

Harrison Street to Whipple Street (Figure IV-2c)

- Remove and replace existing curb and gutter to accommodate new street section
- Remove existing sidewalk
- Construct twelve foot wide multiuse path, north side
- Construct ADA compliant ramps at Harrison Street and Whipple Street
- Construct bulbout at Whipple Street intersection
- Construct bump out island
- Relocate joint poles to back of walk, top back of curb or bump out island
- Relocate street signs
- Relocate drain inlet at Harrison Street and construct new drain lateral
- Conform driveway to new face of curb location
- Permit on street parking, north side,
- Place crosswalk and street markings
- Place centerline and right edge striping and red curb painting

Whipple Street to Corry Street (Figure IV-2d)

- Remove and replace existing curb and gutter to accommodate new street section
- Remove existing sidewalk
- Construct eight foot wide multiuse path, north side
- Construct ADA compliant ramps at Whipple Street, Corry Street. and the mid-block alley
- Construct bulbout at Whipple Street
- Construct bump out islands
- Relocate joint pole to back of walk or top back of curb
- Conform driveway to new face of curb location
- Relocate drain inlet at Whipple Street and construct new drain lateral
- Relocate street signs
- Permit on street parking, north side, as shown
- Place crosswalk, centerline and right edge striping and red curb painting
- Place stop markings, stop limit and new stop sign east bound Chestnut Street at Corry Street

Corry Street to Harold Street (Figure IV-2e)

- Remove and replace existing curb and gutter to accommodate new street section
- Remove existing sidewalk
- Construct eight foot wide multiuse path, north side
- Construct ADA compliant ramps at Corry Street, Susie Court and Harold Street
- Construct bump out islands
- Relocate joint pole to back of walk or to top back of curb
- Conform driveways to new face of curb locations
- Relocate drain inlets at Corry Street and Susie Court and construct new drain laterals
- Relocate street signs

- Permit on-street parking, north side, as shown. Prohibit parking adjacent to garage at Parcel 018-100-04
- Place crosswalk, centerline and right edge striping and red curb painting
- Place stop markings, stop limit and new stop sign west bound Chestnut Street at Corry Street

Harold Street to Mid Block Harold Street (Figure IV-2f)

- Remove and replace existing curb and gutter to accommodate new street section
- Remove existing sidewalk
- Construct eight foot wide multiuse path, north side
- Construct ADA compliant ramps at Harold Street and at mid-block alley
- Construct bump out islands
- Conform driveways to new face of curb locations
- Relocate drain inlet at Harold Street and construct new drain lateral
- Relocate street sign
- Permit on-street parking, north side, as shown. Prohibit parking adjacent to garage at Parcel 018-100-68
- Place crosswalk, centerline and right edge striping and red curb painting

Mid-Block Harold Street to Lincoln Street (Figure IV-2g)

- Remove and replace existing curb and gutter to accommodate new street section
- Remove existing sidewalk
- Construct eight foot wide multiuse path, north side
- Construct ADA compliant ramp at Lincoln Street
- Construct bump out island
- Relocate joint pole to back of walk, top back of curb or bump out
- Conform driveway to new face of curb location
- Relocate drain inlet opposite Olsen Lane and construct new drain lateral
- Relocate street signs
- Permit on-street parking, north side, as shown
- Place crosswalk, centerline and right edge striping and markings and red curb painting
- High visibility raised crosswalk, west leg of intersection at Lincoln to be constructed with the Cycle III Safe Routes to School (SRTS) Project

Lincoln Street to Mid-Block Lincoln Street (Figure IV-2h)

- Remove and replace existing curb and gutter to accommodate new street section
- Remove existing sidewalk
- Construct eight foot wide multiuse path, north side
- Construct ADA compliant ramp at Lincoln Street
- Construct bump out island
- Relocate drain inlet at Lincoln Street and construct new drain lateral
- Relocate street signs
- Permit on-street parking, north side, as shown

- Place crosswalk, centerline and right edge striping and markings and red curb painting

Mid-Block Lincoln Street to Wall Street (Figure IV-2i)

- Remove and replace existing curb and gutter to accommodate new street section
- Remove existing sidewalk
- Construct eight foot wide multiuse path, north side
- Construct ADA compliant ramp at Wall Street
- Construct bump out islands along
- Relocate joint poles to back of walk, top back of curb or bump out
- Conform driveways to new face of curb locations
- Relocate inlet opposite Minnesota Avenue and construct new drain lateral
- Relocate street signs
- Permit on-street parking, north side, as shown
- Place crosswalk, centerline and right edge striping and markings and red curb painting
- Furnish and install electronic, solar powered, speed advisory sign for westbound movement
- Cross walk improvements shown at Minnesota Avenue were constructed with the 2011 SRTS Project

Wall Street to Sanderson Way (Figure IV-2j)

- Remove and replace existing curb and gutter
- Remove existing sidewalk
- Construct eight foot wide multiuse path, north side
- Construct ADA compliant ramps at Wall Street and Sanderson Way
- Construct bump out islands
- Conform driveways to new face of curb locations
- Relocate street signs
- Permit on street parking, north side, as shown
- Place crosswalk, centerline and right edge striping and markings and red curb painting
- High visibility raised crosswalk, west leg of intersection at Sanderson Way to be constructed with the Cycle III SRTS Project

Sanderson Way to Woodland Drive (Figure IV-2k)

- Remove and replace existing curb and gutter, west of Dana Gray School to accommodate new street section
- Remove sidewalk along frontage of Parcel 008-332-12
- Construct eight foot wide multiuse path, north side, along frontage of Parcel 008-332-12
- Transition new eight foot wide multiuse path to existing sidewalk along frontage of Dana Gray School
- Existing sidewalk along frontage of Dana Gray School and existing curb and gutter east of school driveway to be retained
- Construct ADA compliant ramp at Sanderson Way
- Relocate joint poles to back of walk or top back of curb

- Conform driveway to new face of curb location
- Relocate drain inlet at Sanderson Way and construct new drain lateral
- Relocate street signs
- Install no parking signs
- Place crosswalk, centerline and right edge striping and markings and red curb painting

Woodland Drive to End of Project (Figure IV-2l)

- Existing curb and gutter and existing eight foot to nine foot wide sidewalk along frontage of Dana Gray School to be retained
- Widen existing sidewalk to eight feet wide east of Dana Street to end of project; existing sidewalk and curb to be retained
- Construct ADA compliant ramp at Dana Street
- Relocate joint poles to back of walk or top back of curb
- Parking allowed from Dana Street to the end of project, north side
- Place crosswalk, centerline and right edge striping and red curb painting
- Relocate chain link fence along Fort Bragg High School to new back of walk
- High visibility raised crosswalk, east leg of intersection at Dana Street to be constructed with the Cycle III SRTS Project

TRAFFIC CALMING FEATURES

A summary of the traffic calming features proposed for the Chestnut Corridor include:

- Electronic Speed Advisory Sign for westbound movement, west of Wall Street.
- High visibility raised crosswalks or speed tables at the Lincoln Street, Sanderson Way and Dana Street intersections. These improvements are scheduled to be constructed with the Cycle III Safe Routes to School project.
- New stop signs and stop ahead pavement markings at Corry Street intersection
- Bulbouts at McPherson Street and Whipple Street
- Bump out islands. These medians are proposed at various locations along the Chestnut Street Corridor to reduce the apparent width of the vehicle lanes and to provide protection for parked vehicles.
- Reduced vehicle lane widths throughout.

Chestnut Street Traffic Calming construction details itemized herein and shown in Figures IV-2a through IV-2l are presented in **Figure IV-3**. Figure IV-3 follows Figures IV-2a through IV-2l located at the end of this section.

ACCESSIBILITY AND SAFETY FEATURES

Improved pedestrian accessibility will be provided along the north side of Chestnut with the completion of a continuous, widened multiuse trail, the removal and relocation of obstacles, the construction of ADA compliant ramps, placement of improved high visibility crosswalk striping and parking restriction near each street intersection, driveway and alley crossing. Bulbouts at McPherson Street and Whipple Street and the high visibility raised crosswalks to be placed at Lincoln Street, Sanderson Way and Dana Street with the Safe Routes to School Cycle III Project will encourage slower traffic speeds within the Chestnut Street corridor.

INFILL IMPROVEMENTS

The future construction of City of Fort Bragg compliant curb, gutter and sidewalks are proposed along the south side of Chestnut Street to fill in the existing sidewalk "gaps" west of Spring Street (±150 feet) and east of Lincoln (±450 feet). These frontage improvements are to be constructed as a condition of the development of properties adjacent to the proposed sidewalks and are not included as part of the Chestnut Street Corridor improvements detailed in this Study.

COST ESTIMATES

Block by block quantity and cost estimates for the Recommended Chestnut Street Corridor Project improvements are presented in **Table IV-1.** In **Table IV-2** is summarized the costs estimated for the north and south sides of the street.

CONSULTING KASL ENGINEERS

TABLE IV-1
Chestnut Street Corridor
Recommended Project

North Side

Block	Bike Path (1)	New Curb & Gutter	Traffic Calming Features	Driveway Conform	New or Relocate Street Sign	Relocate Inlet (2)	Relocate Joint Pole	Relocate Service Pole	Estimated Cost By Block
	SF	LF	SF	EA	EA	EA	EA	EA	
Franklin to McPherson	3,400	365	50	3	2	1	0	1	$48,625
McPherson to Harrison	3,460	365	150	0	1	1	0	2	$48,425
Harrison to Whipple	3,500	365	70	2	2	1	0	2	$52,325
Whipple to Grove	2,120	370	110	2	2	1	0	1	$40,950
Grove to Harold	3,060	525	120	1	5	3	0	1	$69,125
Harold to Lincoln	4,760	725	160	2	4	2	0	1	$74,525
Lincoln to Minnesota (3)	4,700	670	80	0	2	1	0	1	$69,050
Minnesota to Wall	1,080	185	40	1	1	1	0	1	$27,925
Wall to Sanderson	3,350	520	80	4	2	0	0	0	$39,550
Sanderson to Woodland	880	240	0	1	2	1	0	0	$23,400
Woodland to Dana	0	0	0	0	0	0	0	0	$0
Dana to End	1,250	30	0	0	1	0	3	0	$127,500
Subtotal	**31,560**	**4,360**	**860**	**16**	**24**	**12**	**3**	**10**	$621,400
							25% Contingency		$155,350
							Estimated Total		**$776,750**

South Side

Block	Sidewalk (1)	New Curb & Gutter	Traffic Calming Features	Driveway Conform	New or Relocate Street Sign	Relocate Inlet (2)	Relocate Joint Pole	Relocate Service Pole	Estimated Cost By Block
	SF	LF	SF	EA	EA	EA	EA	EA	
Franklin to McPherson	0	0	0	0	0	0	0	0	$0
McPherson to Harrison	0	0	0	0	0	0	0	0	$0
Harrison to Whipple	0	0	0	0	0	0	0	0	$0
Whipple to Grove	0	0	0	0	1	0	0	0	$500
Grove to Harold	0	0	0	0	0	0	0	0	$0
Harold to Lincoln	0	0	0	0	0	0	0	0	$0
Lincoln to Minnesota	0	0	0	0	0	0	0	0	$0
Minnesota to Wall	0	0	0	0	0	0	0	0	$0
Wall to Sanderson	0	0	0	0	0	0	0	0	$0
Sanderson to Woodland	0	0	0	0	0	0	0	0	$0
Woodland to Dana	0	0	0	0	0	0	0	0	$0
Dana to End	0	0	0	0	0	0	0	0	$0
Subtotal	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	$500
							25% Contingency		$125
							Estimated Total		**$625**

(1) Includes ADA compliant ramps.
(2) Includes drainage lateral and connection to manhole.
(3) Includes Electronic Speed Sign

CONSULTING
KASL
ENGINEERS

TABLE IV-2
Chestnut Street Corridor

Summary of Estimated Costs

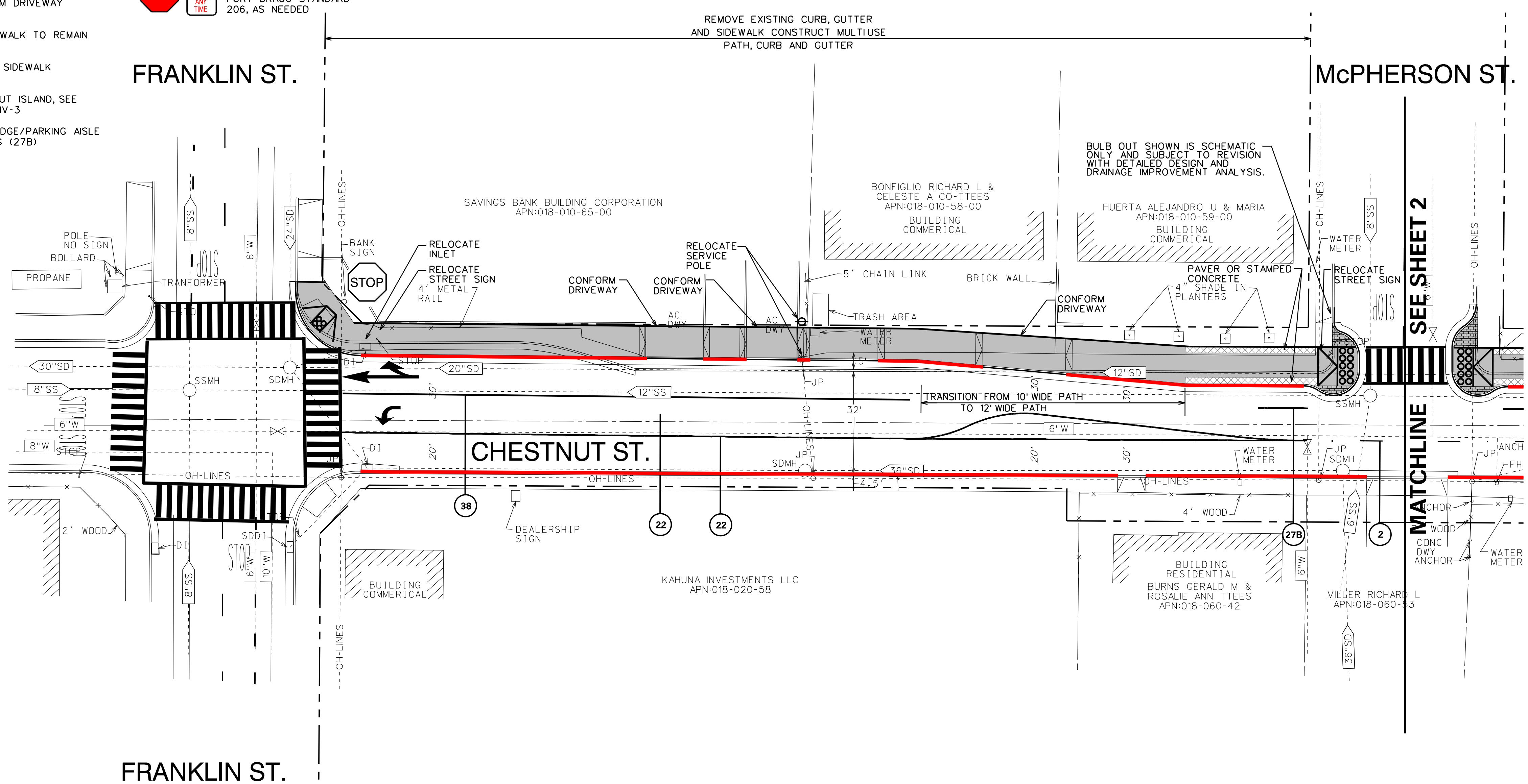
RECOMMENDED PROJECT	North Side	South Side	Estimated Total
Surface Improvements (1)	$331,400	$500	$331,900
Water and Storm Drainage Utilities	$120,000	$0	$120,000
Right of Way Acquisition	$0	$0	$0
Joint and Service Pole Relocation (2)	$170,000	$0	$170,000
SUBTOTAL	**$621,400**	**$500**	**$621,900**
25% Contingency	$155,350	$125	$155,475
Estimated Total	**$776,750**	**$625**	**$777,375**

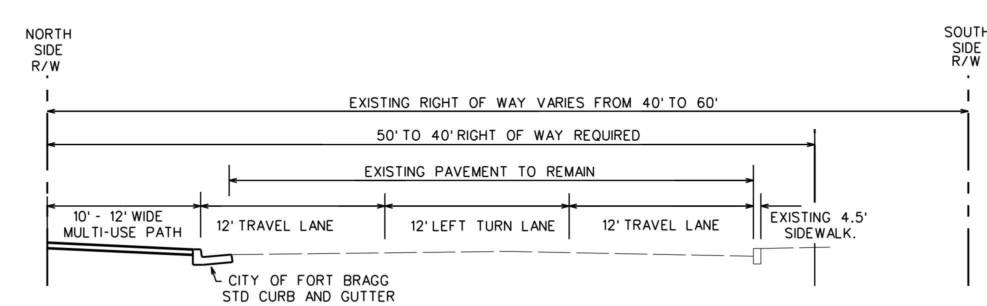
(1) Includes bike paths, multi use paths, sidewalks, curbs and gutters, traffic calming features and electronic speed sign
(2) Portion of costs may be paid by PG&E.

LEGEND

RIGHT OF WAY	NO PARKING (RED PAINT ON FACE OF CURB)
MULTIUSE PATH W/ PAVERS OR STAMPED CONC.	RELOCATED JOINT POLE OR SERVICE POLE
PEDESTRIAN RAMPS	NEW STREET SIGN
HIGH VISIBILITY STRIPED CROSSWALK	PAVEMENT STRIPING PER CALTRANS STANDARDS
RAISED CROSSWALK TO BE CONSTRUCTED WITH CYCLE III SRTS PROJECT	PAVEMENT MARKINGS PER CALTRANS STANDARDS
CONFORM DRIVEWAY	EXISTING SIGN
EX SIDEWALK TO REMAIN	PROPOSED SIGN, CONSTRUCT SIDEWALK WARP PER FORT BRAGG STANDARD 206, AS NEEDED
FUTURE SIDEWALK	
BUMP OUT ISLAND, SEE FIGURE IV-3	
RIGHT EDGE/PARKING AISLE STRIPING (27B)	

SCALE 1"=40'





FRANKLIN STREET TO McPHERSON STREET

NO.	DESCRIPTION	DATE	BY
REVISIONS			

NOVEMBER 2012
SCALE: 1"=40'
JOB NO. 2719-10

REVIEW COPY

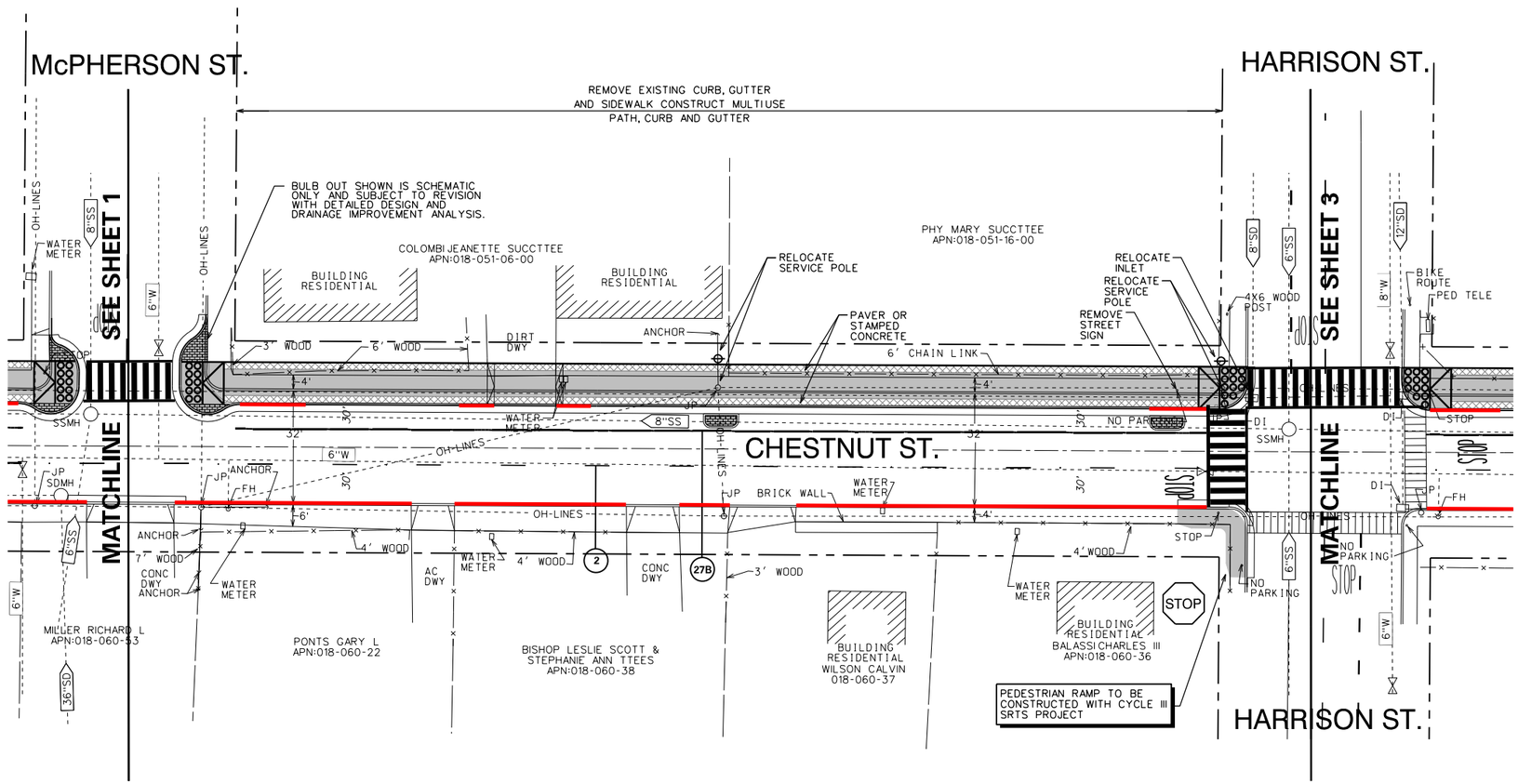
CHESTNUT STREET IMPROVEMENTS RECOMMENDED PROJECT
CITY OF FORT BRAGG, CALIFORNIA

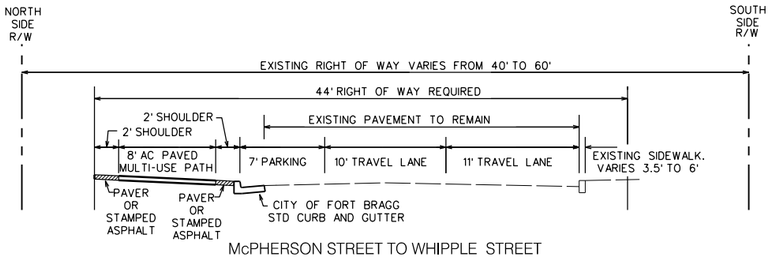
CHESTNUT STREET FRANKLIN ST TO McPHERSON ST

KASL CONSULTING ENGINEERS
7777 Greenback Lane Suite 104 Citrus Heights, CA 95610
Tel. (916) 722-1800 Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

SHEET IV-2a

FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\OPTION A FINAL\1A-01.dgn
DATE: 11/26/2012





McPHERSON STREET TO WHIPPLE STREET

0' 10' 20' 40' 80'

SCALE 1"=40'

LEGEND

- RIGHT OF WAY
- MULTIUSE PATH W/ PAVERS OR STAMPED CONC.
- PEDESTRIAN RAMPS
- HIGH VISIBILITY STRIPED CROSSWALK
- RAISED CROSSWALK TO BE CONSTRUCTED WITH CYCLE III SRTS PROJECT
- CONFORM DRIVEWAY
- EX SIDEWALK TO REMAIN
- FUTURE SIDEWALK
- BUMP OUT ISLAND, SEE FIGURE IV-3
- RIGHT EDGE/PARKING AISLE STRIPING (27B)
- NO PARKING (RED PAINT ON FACE OF CURB)
- RELOCATED JOINT POLE OR SERVICE POLE
- NEW STREET SIGN
- (27B) PAVEMENT STRIPING PER CALTRANS STANDARDS
- STOP PAVEMENT MARKINGS PER CALTRANS STANDARDS
- STOP EXISTING SIGN
- STOP NO PARKING ANY TIME PROPOSED SIGN, CONSTRUCT SIDEWALK WARP PER FORT BRAGG STANDARD 206, AS NEEDED

NO.	REVISIONS DESCRIPTION	DATE	BY

NOVEMBER 2012

SCALE: 1"=40' JOB NO. 2719-10

REVIEW COPY

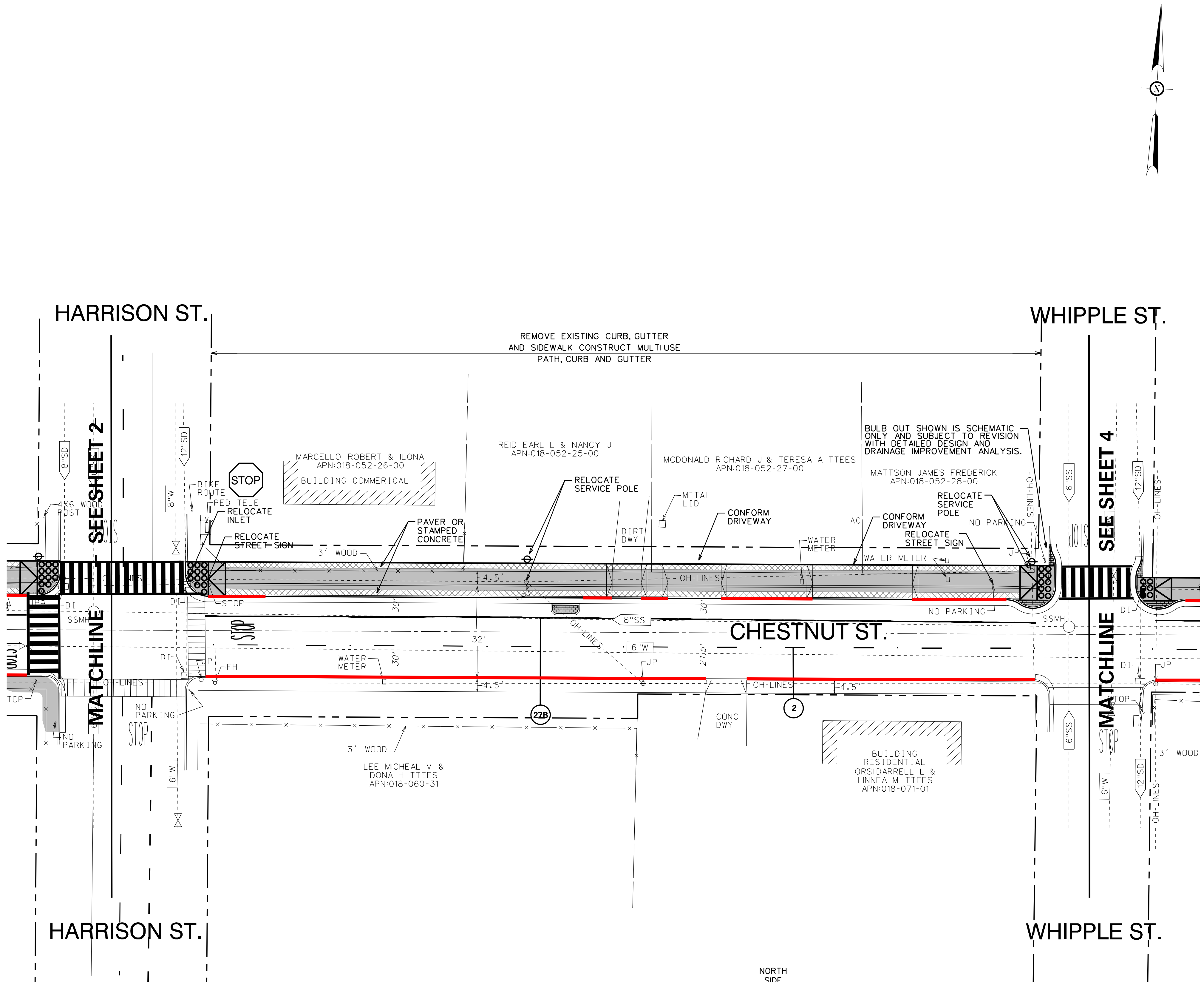
CHESTNUT STREET IMPROVEMENTS
RECOMMENDED PROJECT
CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET
McPHERSON ST TO HARRISON ST

CONSULTING KASL ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

SHEET **IV-2b**

FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\OPTION A FINAL\1A-02.dgn
DATE: 11/26/2012

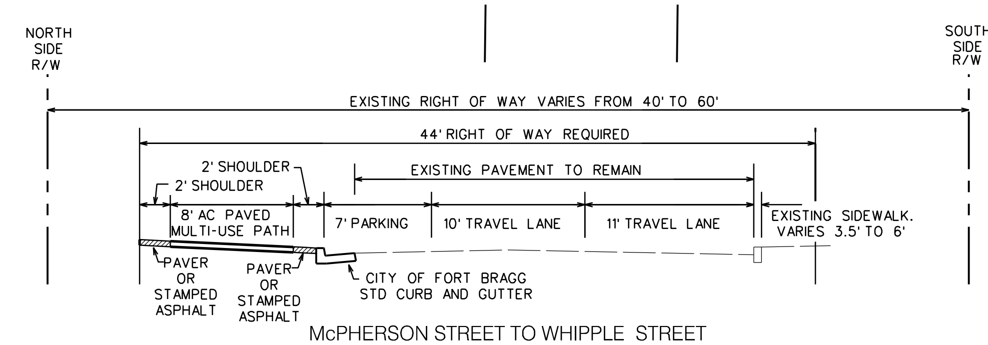


0' 10' 20' 40' 80'

SCALE 1"=40'

LEGEND

- RIGHT OF WAY
- MULTIUSE PATH W/ PAVERS OR STAMPED CONC.
- PEDESTRIAN RAMPS
- HIGH VISIBILITY STRIPED CROSSWALK
- RAISED CROSSWALK TO BE CONSTRUCTED WITH CYCLE III SRTS PROJECT
- CONFORM DRIVEWAY
- EX SIDEWALK TO REMAIN
- FUTURE SIDEWALK
- BUMP OUT ISLAND, SEE FIGURE IV-3
- RIGHT EDGE/PARKING AISLE STRIPING (27B)
- NO PARKING (RED PAINT ON FACE OF CURB)
- RELOCATED JOINT POLE OR SERVICE POLE
- NEW STREET SIGN
- PAVEMENT STRIPING PER CALTRANS STANDARDS
- PAVEMENT MARKINGS PER CALTRANS STANDARDS
- EXISTING SIGN
- PROPOSED SIGN, CONSTRUCT SIDEWALK WARP PER FORT BRAGG STANDARD 206, AS NEEDED



McPHERSON STREET TO WHIPPLE STREET

REVISIONS

NO.	DESCRIPTION	DATE	BY

NOVEMBER 2012

SCALE: 1"=40'

JOB NO. 2719-10

REVIEW COPY

CHESTNUT STREET IMPROVEMENTS RECOMMENDED PROJECT

CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET HARRISON ST TO WHIPPLE ST

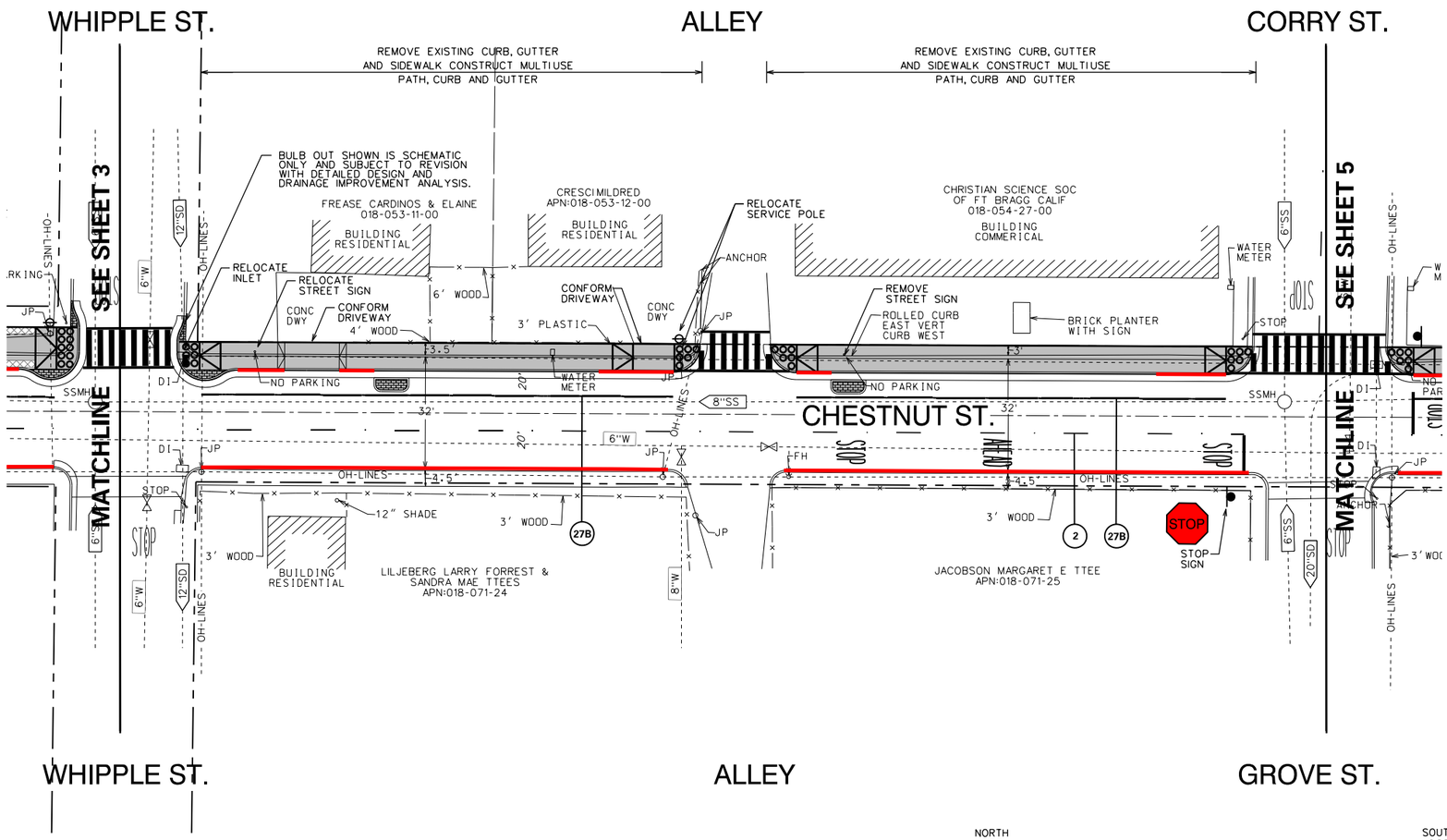
KASL CONSULTING ENGINEERS
7777 Greenback Lane Suite 104 Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

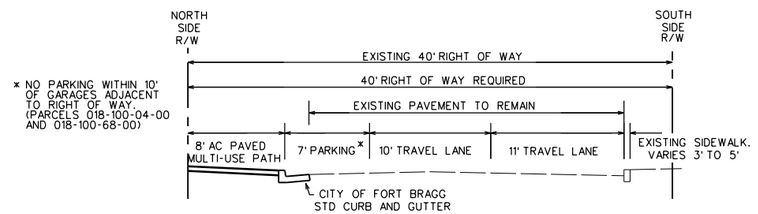
SHEET IV-2c

FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\OPTION A FINAL\1A-03.dgn
DATE: 11/26/2012

LEGEND

- RIGHT OF WAY
- MULTIUSE PATH
- PEDESTRIAN RAMPS
- HIGH VISIBILITY STRIPED CROSSWALK
- RAISED CROSSWALK TO BE CONSTRUCTED WITH CYCLE III SRTS PROJECT
- CONFORM DRIVEWAY
- EX SIDEWALK TO REMAIN
- FUTURE SIDEWALK
- BUMP OUT ISLAND, SEE FIGURE IV-3
- RIGHT EDGE/PARKING AISLE STRIPING (27B)
- NO PARKING (RED PAINT ON FACE OF CURB)
- RELOCATED JOINT POLE OR SERVICE POLE
- NEW STREET SIGN
- PAVEMENT STRIPING PER CALTRANS STANDARDS
- PAVEMENT MARKINGS PER CALTRANS STANDARDS
- EXISTING SIGN
- PROPOSED SIGN, CONSTRUCT SIDEWALK WARP PER FORT BRAGG STANDARD 206, AS NEEDED





WHIPPLE STREET TO 80' EAST OF SANDERSON WAY

0' 10' 20' 40' 80'

SCALE 1"=40'

REVISIONS

NO.	DESCRIPTION	DATE	BY

NOVEMBER 2012

SCALE: 1"=40' JOB NO. 2719-10

REVIEW COPY

CHESTNUT STREET IMPROVEMENTS RECOMMENDED PROJECT
CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET WHIPPLE ST TO GROVE ST

CONSULTING KASL ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

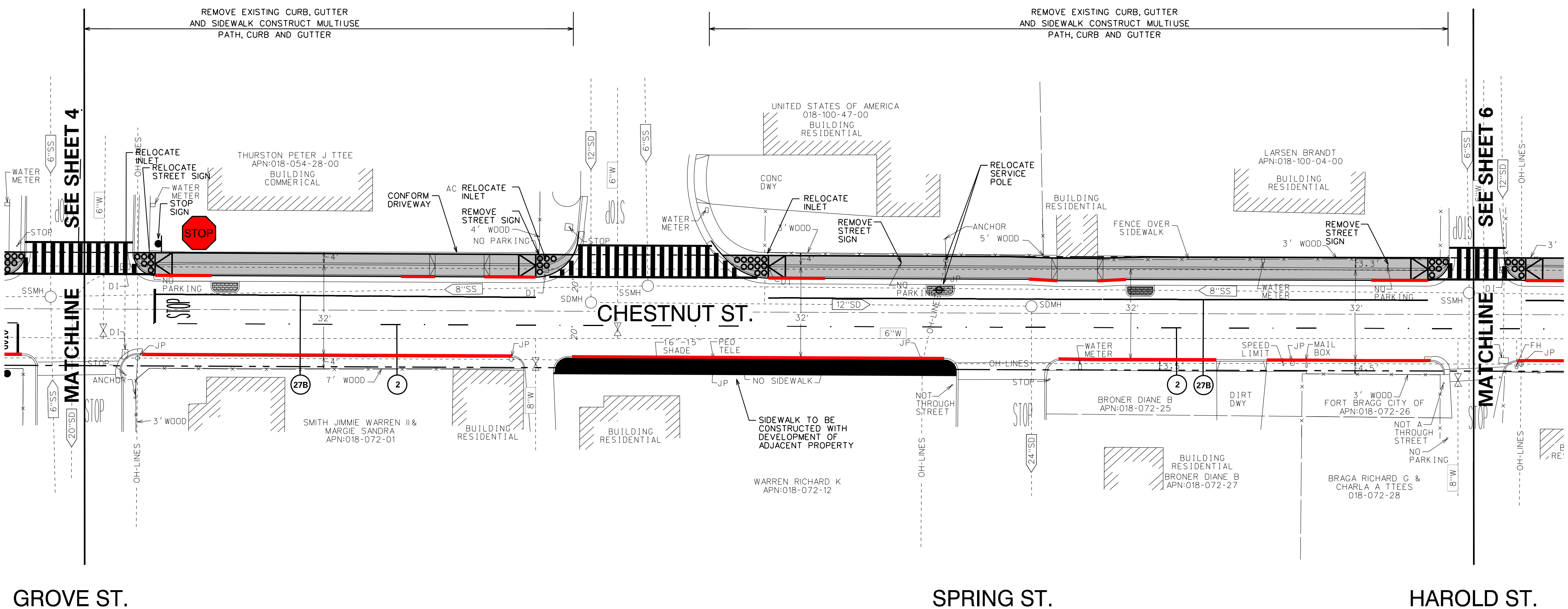
SHEET **IV-2d**

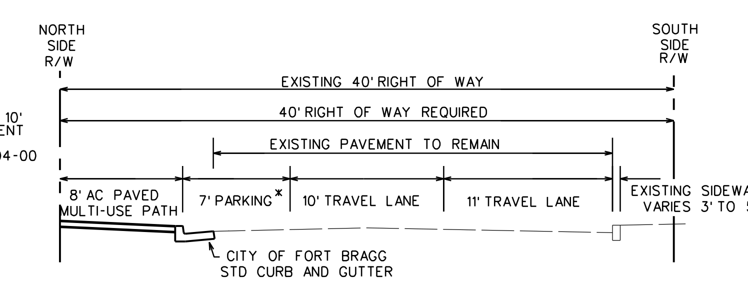
FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\OPTION A FINAL\1A-04.dgn
DATE: 11/26/2012

LEGEND

- RIGHT OF WAY
- MULTIUSE PATH
- PEDESTRIAN RAMPS
- HIGH VISIBILITY STRIPED CROSSWALK
- RAISED CROSSWALK TO BE CONSTRUCTED WITH CYCLE III SRTS PROJECT
- CONFORM DRIVEWAY
- EX SIDEWALK TO REMAIN
- FUTURE SIDEWALK
- BUMP OUT ISLAND, SEE FIGURE IV-3
- RIGHT EDGE/PARKING AISLE STRIPING (27B)
- NO PARKING (RED PAINT ON FACE OF CURB)
- RELOCATED JOINT POLE OR SERVICE POLE
- NEW STREET SIGN
- (27B) PAVEMENT STRIPING PER CALTRANS STANDARDS
- STOP PAVEMENT MARKINGS PER CALTRANS STANDARDS
- STOP EXISTING SIGN
- STOP / NO PARKING ANY TIME PROPOSED SIGN, CONSTRUCT SIDEWALK WARP PER FORT BRAGG STANDARD 206, AS NEEDED

0' 10' 20' 40' 80'
SCALE 1"=40'





* NO PARKING WITHIN 10' OF GARAGES ADJACENT TO RIGHT OF WAY. (PARCELS 018-100-04-00 AND 018-100-68-00)

WHIPPLE STREET TO 80' EAST OF SANDERSON WAY

NO.	REVISIONS DESCRIPTION	DATE	BY

NOVEMBER 2012
SCALE: 1"=40'
JOB NO. 2719-10

REVIEW COPY

CHESTNUT STREET IMPROVEMENTS RECOMMENDED PROJECT

CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET GROVE ST TO HAROLD ST

KASL CONSULTING ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

SHEET IV-2e

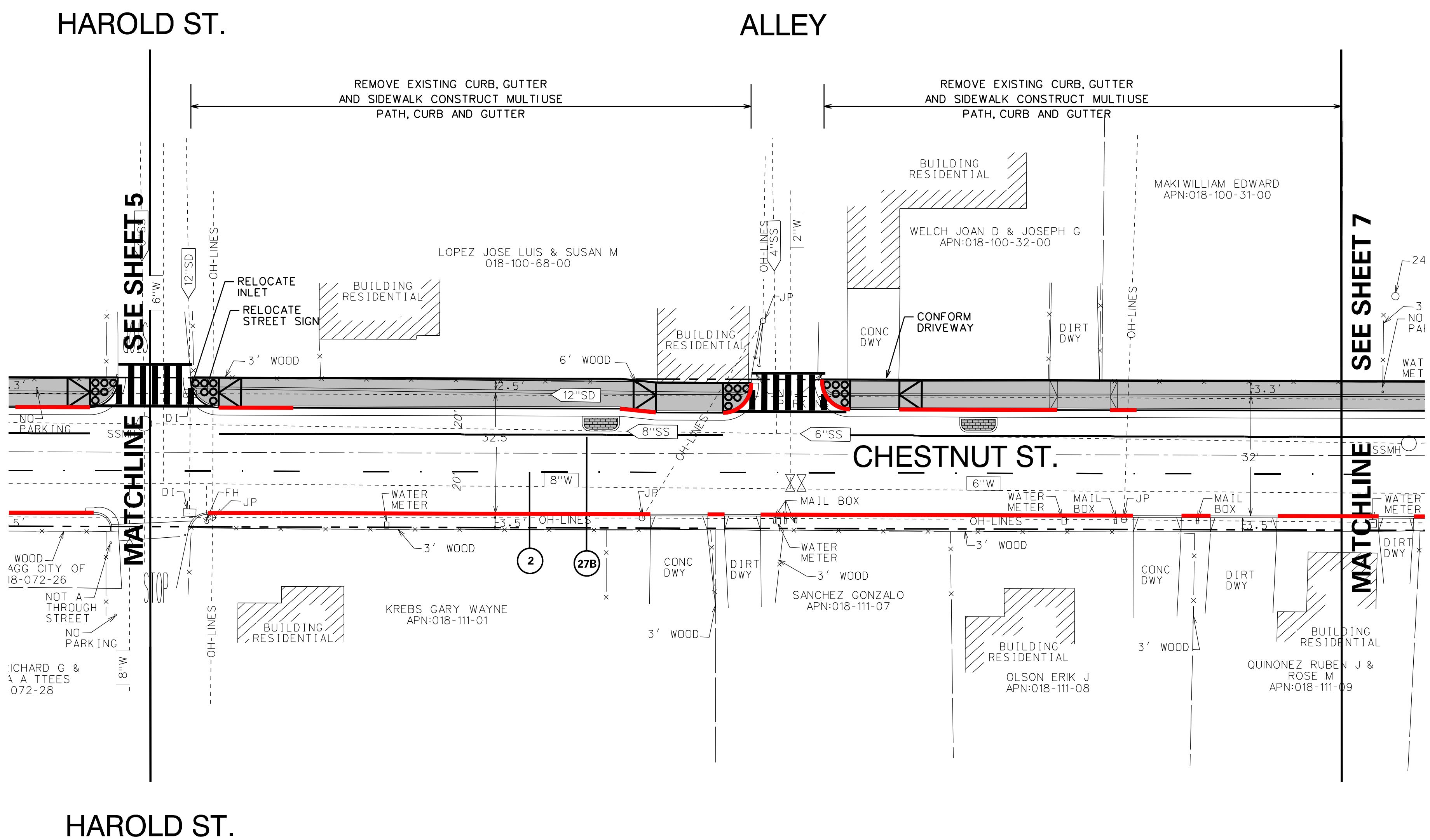
FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\OPTION A FINAL\1A-05.dgn
DATE: 11/26/2012

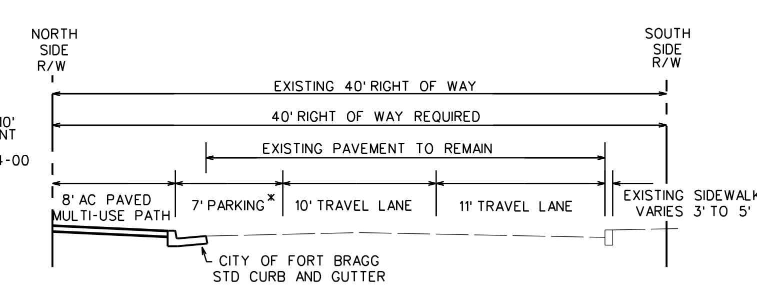
LEGEND

- RIGHT OF WAY
- MULTIUSE PATH
- PEDESTRIAN RAMPS
- HIGH VISIBILITY STRIPED CROSSWALK
- RAISED CROSSWALK TO BE CONSTRUCTED WITH CYCLE III SRTS PROJECT
- CONFORM DRIVEWAY
- EX SIDEWALK TO REMAIN
- FUTURE SIDEWALK
- BUMP OUT ISLAND, SEE FIGURE IV-3
- RIGHT EDGE/PARKING AISLE STRIPING (27B)
- NO PARKING (RED PAINT ON FACE OF CURB)
- RELOCATED JOINT POLE OR SERVICE POLE
- NEW STREET SIGN
- PAVEMENT STRIPING PER CALTRANS STANDARDS
- PAVEMENT MARKINGS PER CALTRANS STANDARDS
- EXISTING SIGN
- PROPOSED SIGN, CONSTRUCT SIDEWALK WARP PER FORT BRAGG STANDARD 206, AS NEEDED

0' 10' 20' 40' 80'

SCALE 1"=40'





× NO PARKING WITHIN 10' OF GARAGES ADJACENT TO RIGHT OF WAY. (PARCELS 018-100-04-00 AND 018-100-68-00)

WHIPPLE STREET TO 80' EAST OF SANDERSON WAY

NO.	DESCRIPTION	DATE	BY

REVISIONS

NOVEMBER 2012

SCALE: 1"=40'

JOB NO. 2719-10

REVIEW COPY

CHESTNUT STREET IMPROVEMENTS RECOMMENDED PROJECT

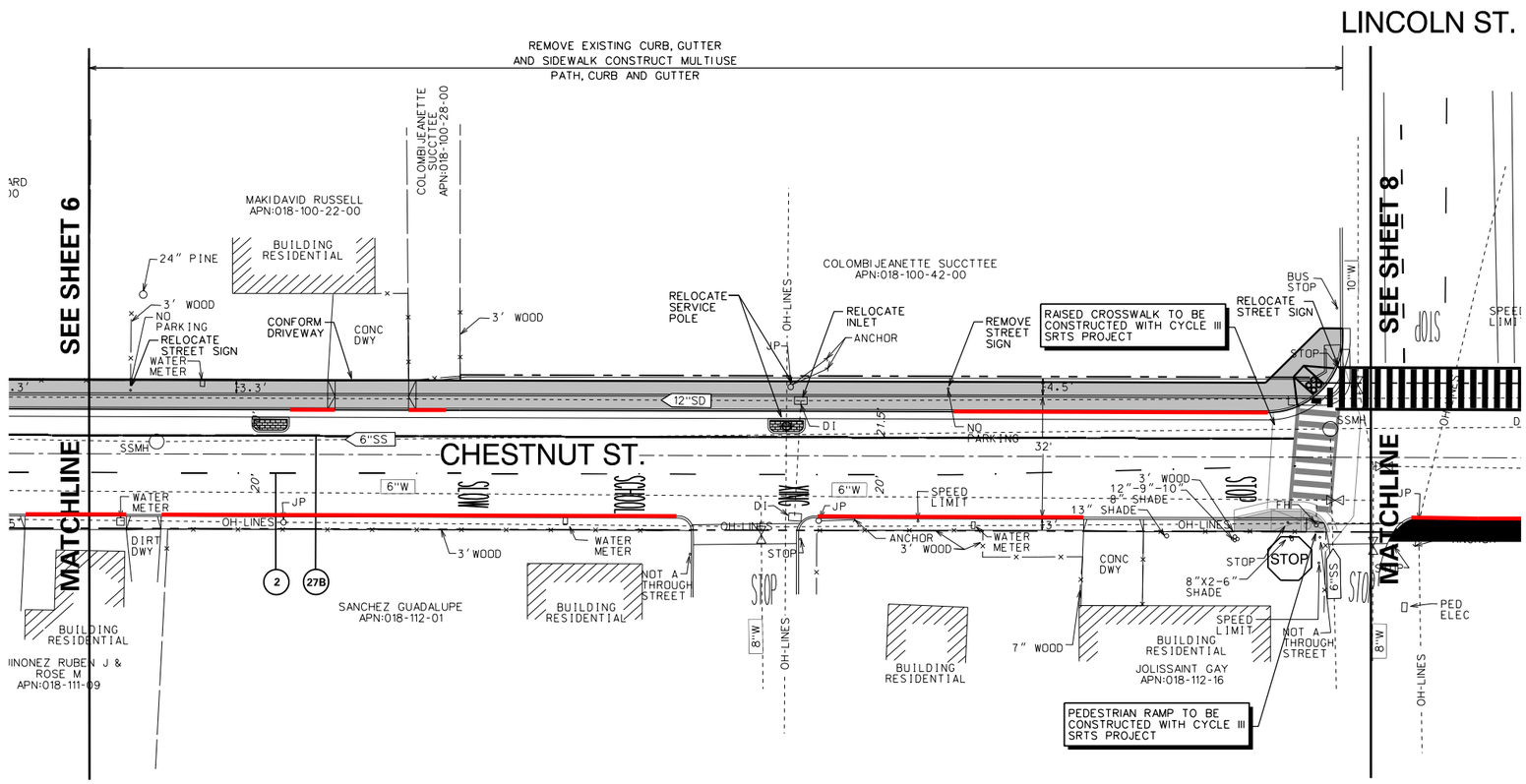
CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET HAROLD ST TO MID BLOCK

KASL CONSULTING ENGINEERS
7777 Greenback Lane Suite 104 Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

SHEET IV-2f

FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\OPTION A FINAL\1A-06.dgn
DATE: 11/26/2012

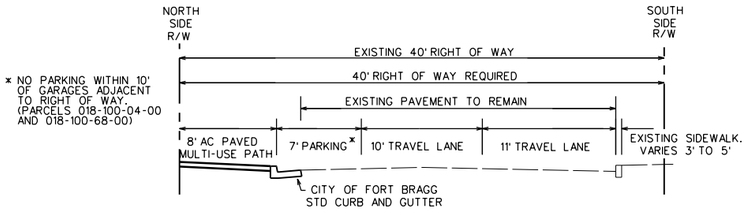


0' 10' 20' 40' 80'

SCALE 1"=40'

LEGEND

- RIGHT OF WAY
- MULTIUSE PATH
- PEDESTRIAN RAMPS
- HIGH VISIBILITY STRIPED CROSSWALK
- RAISED CROSSWALK TO BE CONSTRUCTED WITH CYCLE III SRTS PROJECT
- CONFORM DRIVEWAY
- EX SIDEWALK TO REMAIN
- FUTURE SIDEWALK
- BUMP OUT ISLAND, SEE FIGURE IV-3
- RIGHT EDGE/PARKING AISLE STRIPING (27B)
- NO PARKING (RED PAINT ON FACE OF CURB)
- RELOCATED JOINT POLE OR SERVICE POLE
- NEW STREET SIGN
- 27B PAVEMENT STRIPING PER CALTRANS STANDARDS
- STOP PAVEMENT MARKINGS PER CALTRANS STANDARDS
- STOP EXISTING SIGN
- STOP NO PARKING ANY TIME PROPOSED SIGN, CONSTRUCT SIDEWALK WARP PER FORT BRAGG STANDARD 206, AS NEEDED



* NO PARKING WITHIN 10' OF GARAGES ADJACENT TO RIGHT OF WAY. (PARCELS 018-100-04-00 AND 018-100-68-00)

WHIPPLE STREET TO 80' EAST OF SANDERSON WAY

REVISIONS NO.	DESCRIPTION	DATE	BY

NOVEMBER 2012

SCALE: 1"=40' JOB NO. 2719-10

REVIEW COPY

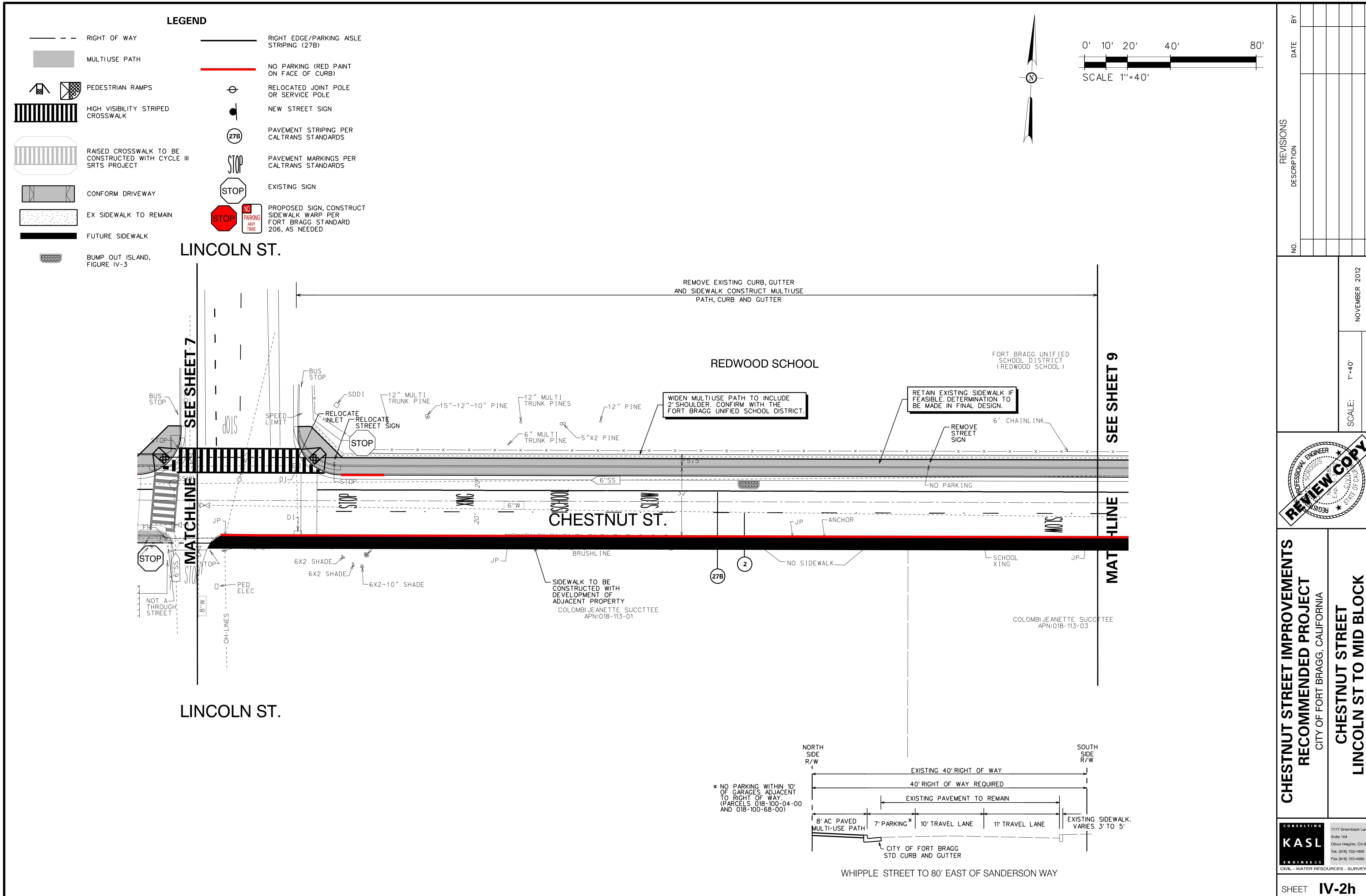
CHESTNUT STREET IMPROVEMENTS RECOMMENDED PROJECT
CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET MID BLOCK TO LINCOLN ST

CONSULTING KASL ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

SHEET **IV-2g**

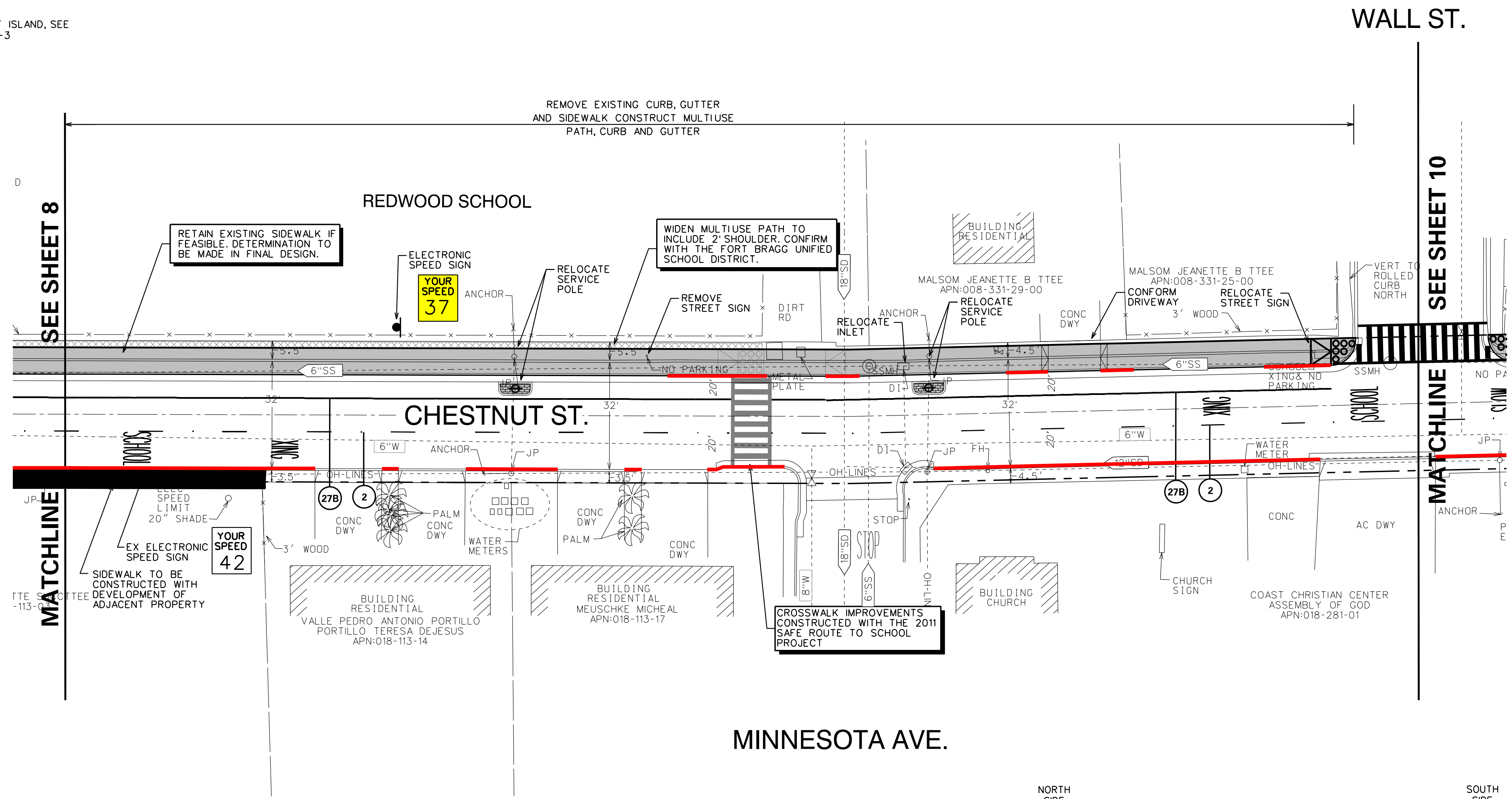
FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\OPTION A FINAL\1A-07.dgn
DATE: 11/26/2012

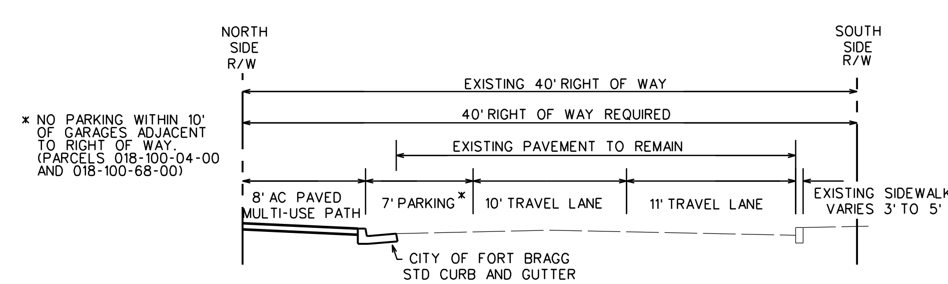

LEGEND
RIGHT OF WAY
MULTIUSE PATH
PEDESTRIAN RAMPS
HIGH VISIBILITY STRIPED CROSSWALK
RAISED CROSSWALK TO BE CONSTRUCTED WITH CYCLE III SRTS PROJECT
CONFORM DRIVEWAY
EX SIDEWALK TO REMAIN
FUTURE SIDEWALK
BUMP OUT ISLAND, FIGURE IV-3
RIGHT EDGE/PARKING AISLE STRIPING (27B)
NO PARKING (RED PAINT ON FACE OF CURB)
RELOCATED JOINT POLE OR SERVICE POLE
NEW STREET SIGN
PAVEMENT STRIPING PER CALTRANS STANDARDS
PAVEMENT MARKINGS PER CALTRANS STANDARDS
EXISTING SIGN
PROPOSED SIGN, CONSTRUCT SIDEWALK WARP PER FORT BRAGG STANDARD 206, AS NEEDED
SCALE 1"=40'
LINCOLN ST.
REMOVE EXISTING CURB, GUTTER AND SIDEWALK CONSTRUCT MULTIUSE PATH, CURB AND GUTTER
REDWOOD SCHOOL
FORT BRAGG UNIFIED SCHOOL DISTRICT (REDWOOD SCHOOL)
WIDEN MULTIUSE PATH TO INCLUDE 2' SHOULDER. CONFIRM WITH THE FORT BRAGG UNIFIED SCHOOL DISTRICT.
RETAIN EXISTING SIDEWALK IF FEASIBLE. DETERMINATION TO BE MADE IN FINAL DESIGN.
REMOVE STREET SIGN
6' CHAINLINK
SEE SHEET 7
SEE SHEET 9
MATCHLINE
BUS STOP
SDDI
12" MULTI TRUNK PINE
15"-12"-10" PINE
12" MULTI TRUNK PINES
12" PINE
6" MULTI TRUNK PINE
5"X2 PINE
RELOCATE INLET
RELOCATE STREET SIGN
SPEED LIMIT
CHESTNUT ST.
NO PARKING
ANCHOR
JP
BRUSHLINE
NO SIDEWALK
SCHOOL XING
6X2 SHADE
6X2-10" SHADE
PED ELEC
NOT A THROUGH STREET
OH-LINES
SIDEWALK TO BE CONSTRUCTED WITH DEVELOPMENT OF ADJACENT PROPERTY
COLOMBI JEANETTE SUCCTTEE APN:018-113-01
COLOMBI JEANETTE SUCCTTEE APN:018-113-03
NORTH SIDE R/W
SOUTH SIDE R/W
EXISTING 40' RIGHT OF WAY
40' RIGHT OF WAY REQUIRED
EXISTING PAVEMENT TO REMAIN
8' AC PAVED MULTI-USE PATH
7' PARKING*
10' TRAVEL LANE
11' TRAVEL LANE
EXISTING SIDEWALK. VARIES 3' TO 5'
CITY OF FORT BRAGG STD CURB AND GUTTER
* NO PARKING WITHIN 10' OF GARAGES ADJACENT TO RIGHT OF WAY. (PARCELS 018-100-04-00 AND 018-100-68-00)
WHIPPLE STREET TO 80' EAST OF SANDERSON WAY
REVISIONS
NO. DESCRIPTION DATE BY
NOVEMBER 2012
SCALE: 1"=40'
JOB NO. 2719-10
REVIEW COPY
CHESTNUT STREET IMPROVEMENTS RECOMMENDED PROJECT
CITY OF FORT BRAGG, CALIFORNIA
CHESTNUT STREET LINCOLN ST TO MID BLOCK
KASL CONSULTING ENGINEERS
CIVIL - WATER RESOURCES - SURVEYING
SHEET IV-2h
FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\OPTION A FINAL\1A-08.dgn
DATE: 11/26/2012

LEGEND

- RIGHT OF WAY
- MULTIUSE PATH
- PEDESTRIAN RAMPS
- HIGH VISIBILITY STRIPED CROSSWALK
- RAISED CROSSWALK TO BE CONSTRUCTED WITH CYCLE III SRTS PROJECT
- CONFORM DRIVEWAY
- EX SIDEWALK TO REMAIN
- FUTURE SIDEWALK
- BUMP OUT ISLAND, SEE FIGURE IV-3
- RIGHT EDGE/PARKING AISLE STRIPING (27B)
- NO PARKING (RED PAINT ON FACE OF CURB)
- RELOCATED JOINT POLE OR SERVICE POLE
- NEW STREET SIGN
- PAVEMENT STRIPING PER CALTRANS STANDARDS
- PAVEMENT MARKINGS PER CALTRANS STANDARDS
- EXISTING SIGN
- PROPOSED SIGN, CONSTRUCT SIDEWALK WARP PER FORT BRAGG STANDARD 206, AS NEEDED

0' 10' 20' 40' 80'
SCALE 1"=40'





* NO PARKING WITHIN 10' OF GARAGES ADJACENT TO RIGHT OF WAY. (PARCELS 018-100-04-00 AND 018-100-68-00)

WHIPPLE STREET TO 80' EAST OF SANDERSON WAY

REVIEW COPY

NO.	DESCRIPTION	DATE	BY
	REVISIONS		

NOVEMBER 2012
SCALE: 1"=40'
JOB NO. 2719-10

CHESTNUT STREET IMPROVEMENTS RECOMMENDED PROJECT
CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET MID BLOCK TO WALL ST

KASL CONSULTING ENGINEERS
7777 Greenback Lane Suite 104 Citrus Heights, CA 95610 Tel. (916) 722-1800 Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

SHEET IV-2i

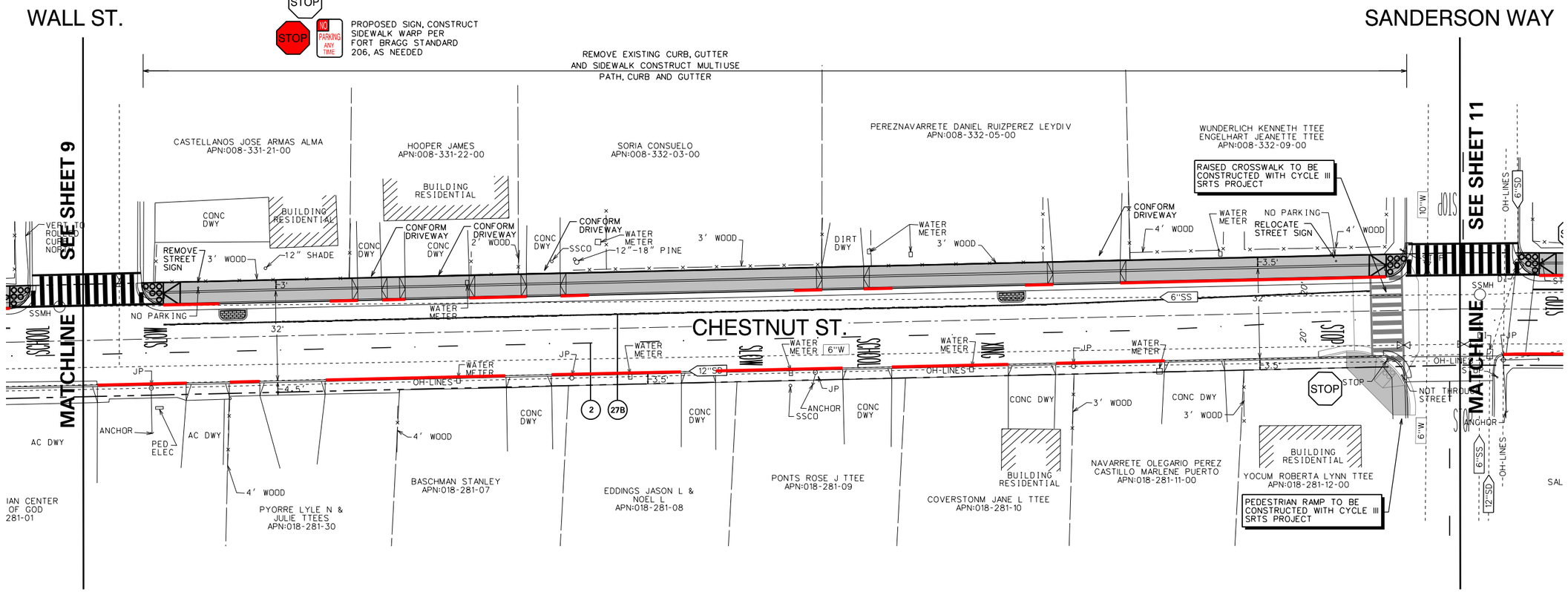
FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\OPTION A FINAL\1A-09.dgn
DATE: 11/26/2012

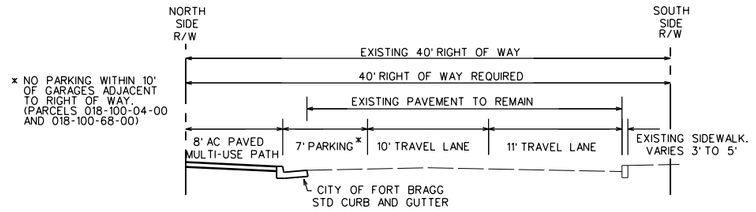
LEGEND

- RIGHT OF WAY
- MULTIUSE PATH
- PEDESTRIAN RAMPS
- HIGH VISIBILITY STRIPED CROSSWALK
- RAISED CROSSWALK TO BE CONSTRUCTED WITH CYCLE SRTS PROJECT
- CONFORM DRIVEWAY
- EX SIDEWALK TO REMAIN
- FUTURE SIDEWALK
- BUMP OUT ISLAND, SEE FIGURE IV-3
- RIGHT EDGE/PARKING AISLE STRIPING (27B)
- NO PARKING (RED PAINT ON FACE OF CURB)
- RELOCATED JOINT POLE OR SERVICE POLE
- NEW STREET SIGN
- PAVEMENT STRIPING PER CALTRANS STANDARDS
- PAVEMENT MARKINGS PER CALTRANS STANDARDS
- EXISTING SIGN
- PROPOSED SIGN, CONSTRUCT SIDEWALK WARP PER FORT BRAGG STANDARD 206, AS NEEDED

0' 10' 20' 40' 80'

SCALE 1"=40'





WHIPPLE STREET TO 80' EAST OF SANDERSON WAY

NO.	DESCRIPTION	DATE	BY

REVISIONS

REVIEW COPY

SCALE: 1"=40' | NOVEMBER 2012 | JOB NO. 2719-10

CHESTNUT STREET IMPROVEMENTS RECOMMENDED PROJECT

CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET MID BLOCK TO SANDERSON WAY

CONSULTING KASL ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

SHEET **IV-2j**

FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\OPTION A FINAL\1A-10.dgn
DATE: 11/26/2012

LEGEND

- RIGHT OF WAY
- MULTIUSE PATH
- PEDESTRIAN RAMPS
- HIGH VISIBILITY STRIPED CROSSWALK
- RAISED CROSSWALK TO BE CONSTRUCTED WITH CYCLE III SRTS PROJECT
- CONFORM DRIVEWAY
- EX SIDEWALK TO REMAIN
- FUTURE SIDEWALK
- BUMP OUT ISLAND, SEE FIGURE IV-3
- RIGHT EDGE/PARKING AISLE STRIPING (27B)
- NO PARKING (RED PAINT ON FACE OF CURB)
- RELOCATED JOINT POLE OR SERVICE POLE
- NEW STREET SIGN
- 27B — PAVEMENT STRIPING PER CALTRANS STANDARDS
- STOP — PAVEMENT MARKINGS PER CALTRANS STANDARDS
- STOP — EXISTING SIGN
- STOP / NO PARKING ANY TIME — PROPOSED SIGN, CONSTRUCT SIDEWALK WARP PER FORT BRAGG STANDARD 206, AS NEEDED

0' 10' 20' 40' 80'

SCALE 1"=40'

SANDERSON WAY

REMOVE EXISTING CURB, GUTTER AND SIDEWALK CONSTRUCT MULTIUSE PATH, CURB AND GUTTER

SEE SHEET 10

MATCHLINE

CHARTER DANIEL ALLEN APN:008-332-12-00

BUILDING COMMERICAL

RELOCATE INLET

RELOCATE STREET SIGN

CONFORM DRIVEWAY

CONC DWY

6' IRON MEETS 6' CHAINLINK

4' WOOD

10"W

6"SD

OH-LINES

STOP

SSMH

DI

JP

POLE

DANA GRAY SCHOOL

FINAL DESIGN TO INCLUDE CONSIDERATION OF A LANDSCAPE STRIP BETWEEN THE EXISTING WALK AND TRAVEL LANE PROPOSED ALONG THE DANA GRAY SCHOOL FRONTAGE.

6' CHAINLINK

NO PARKING SIGN

NO PARKING ANY TIME

PG&E

8"SS

FINAL DESIGN TO INCLUDE CONSIDERATION OF A LANDSCAPE STRIP BETWEEN THE EXISTING WALK AND TRAVEL LANE PROPOSED ALONG THE DANA GRAY SCHOOL FRONTAGE.

DANA GRAY SCHOOL

WIDEN MULTIUSE PATH TO INCLUDE 2' SHOULDERS. CONFIRM WITH THE FORT BRAGG UNIFIED SCHOOL DISTRICT.

FORT BRAGG UNIFIED SCHOOL DISTRICT (DANA GRAY SCHOOL)

RELOCATE STREET SIGN

PED ELEC

NO PARKING

SEE SHEET 12

MATCHLINE

CHESTNUT ST.

SCHOOL

SPEED LIMIT 20

WATER METER

SCHOOL XING

6"W

ELEC SPEED SIGN

WATER VALVE

NOT A THROUGH STREET

FH

CLUSTER OF TRUNKS

CONC DWY

6"SS

3' WOOD

AC DWY

YOUR SPEED 28

EX ELECTRONIC SPEED SIGN

VERT TO ROLLED CURB SOUTH

BUILDING RESIDENTIAL

SALO NATHAN W & JENNIFER MCGUIRE APN:018-282-01-00

CALVARY BAPTIST CHURCH OF FORTBRAGG APN:018-282-28-00

BUILDING RESIDENTIAL

GLUCK RANDOLPH S & CAROL H APN:018-282-05-00

12"SD

ANCHOR

SIGN

SANDERSON WAY

WOODLAND DR.

NORTH SIDE R/W

SOUTH SIDE R/W

EXISTING 40' RIGHT OF WAY

40' RIGHT OF WAY REQUIRED

EXISTING PAVEMENT TO REMAIN

8' AC PAVED MULTI-USE PATH

7' PARKING*

10' TRAVEL LANE

11' TRAVEL LANE

EXISTING SIDEWALK. VARIES 3' TO 5'

CITY OF FORT BRAGG STD CURB AND GUTTER

* NO PARKING WITHIN 10' OF GARAGES ADJACENT TO RIGHT OF WAY. (PARCELS 018-100-04-00 AND 018-100-68-00)

WHIPPLE STREET TO 80' EAST OF SANDERSON WAY

NORTH SIDE R/W

SOUTH SIDE R/W

EXISTING 45'

45' RIGHT OF WAY REQUIRED

EXISTING PAVEMENT TO REMAIN

9.5' MULTI-USE PATH

NO PARKING AT SCHOOL

11' TRAVEL LANE

11' TRAVEL LANE

EXISTING SIDEWALK. VARIES 3.5' TO 6'

EXISTING 9' SIDEWALK

DANA GRAY SCHOOL DRIVEWAY TO DANA STREET

REVISIONS

NO.	DESCRIPTION	DATE	BY

NOVEMBER 2012

SCALE: 1"=40'

JOB NO. 2719-10

REVIEW COPY

CHESTNUT STREET IMPROVEMENTS RECOMMENDED PROJECT

CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET SANDERSON WAY TO WOODLAND DR

CONSULTING KASL ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

SHEET IV-2k

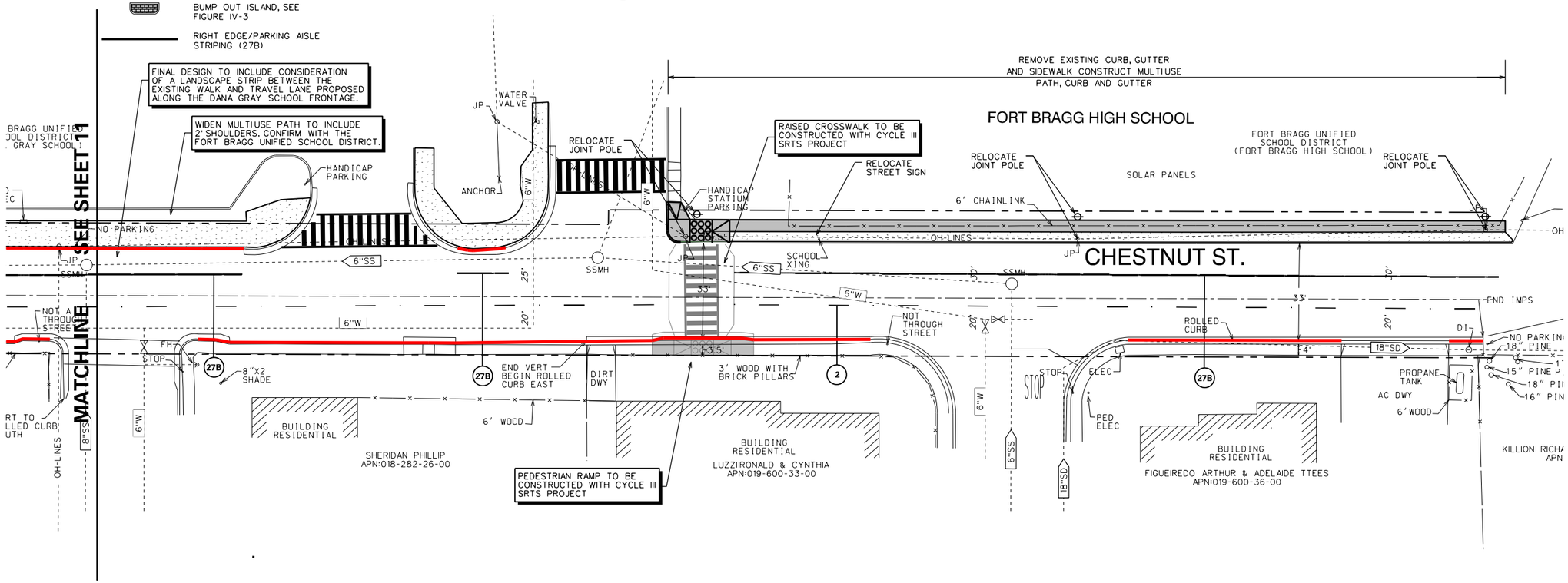
FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\OPTION A FINAL\1A-11.dgn
DATE: 11/26/2012

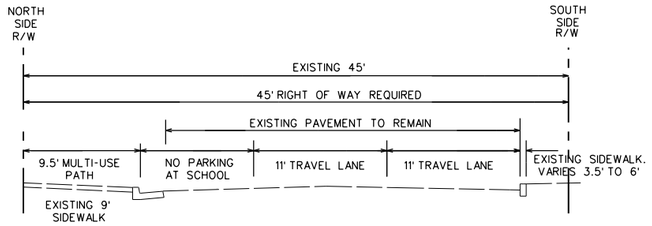
LEGEND

- RIGHT OF WAY
- MULTIUSE PATH
- PEDESTRIAN RAMPS
- HIGH VISIBILITY STRIPED CROSSWALK
- RAISED CROSSWALK TO BE CONSTRUCTED WITH CYCLE III SRTS PROJECT
- CONFORM DRIVEWAY
- EX SIDEWALK TO REMAIN
- FUTURE SIDEWALK
- BUMP OUT ISLAND, SEE FIGURE IV-3
- RIGHT EDGE/PARKING AISLE STRIPING (27B)
- NO PARKING (RED PAINT ON FACE OF CURB)
- RELOCATED JOINT POLE OR SERVICE POLE
- NEW STREET SIGN
- PAVEMENT STRIPING PER CALTRANS STANDARDS
- PAVEMENT MARKINGS PER CALTRANS STANDARDS
- EXISTING SIGN
- PROPOSED SIGN, CONSTRUCT SIDEWALK WARP PER FORT BRAGG STANDARD 206, AS NEEDED

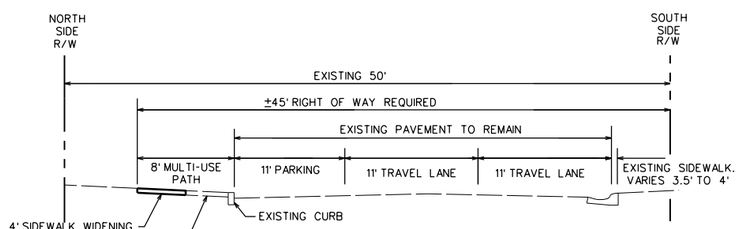
0' 10' 20' 40' 80'

SCALE 1"=40'





DANA GRAY SCHOOL DRIVEWAY TO DANA STREET



DANA STREET TO END OF PROJECT

REVISIONS

NO.	DESCRIPTION	DATE	BY

NOVEMBER 2012

SCALE: 1"=40' JOB NO. 2719-10

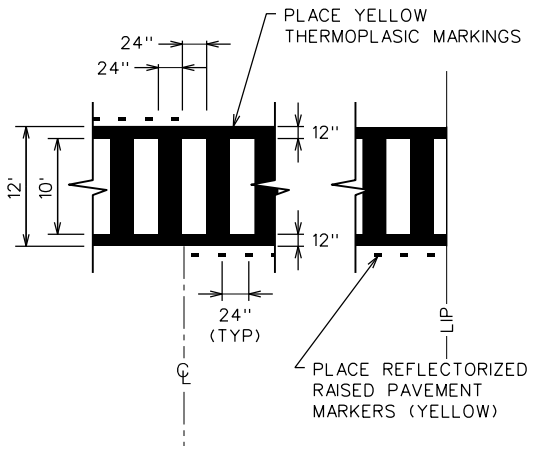
REVIEW COPY

CHESTNUT STREET IMPROVEMENTS RECOMMENDED PROJECT
CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET WOODLAND DR TO END OF PROJECT

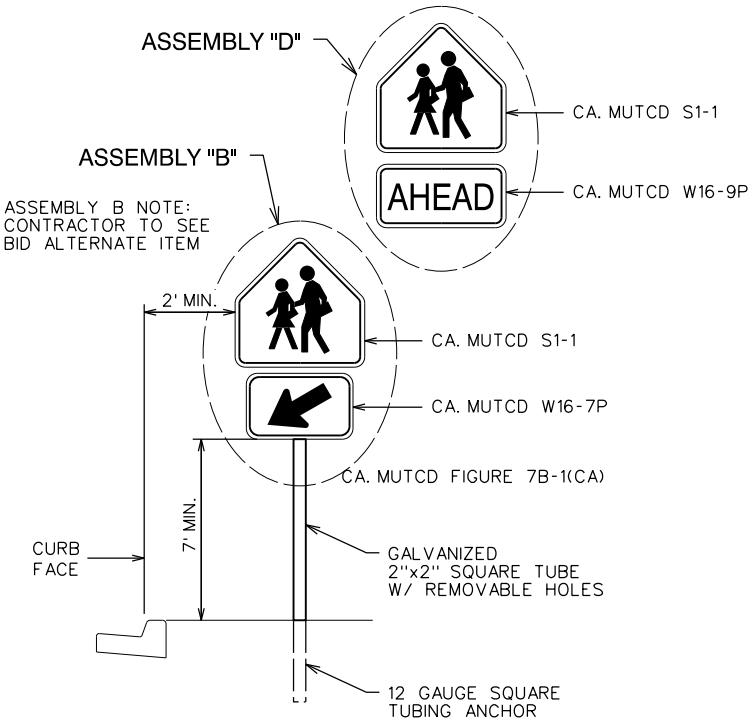
CONSULTING KASL ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\OPTION A FINAL\1A-12.dgn
DATE: 11/26/2012



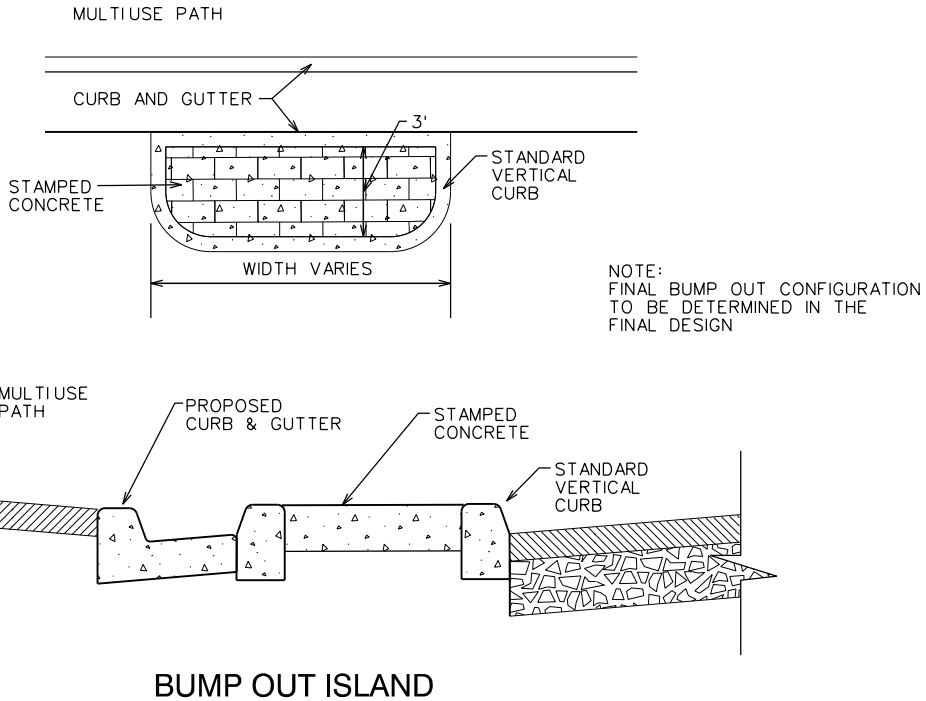
CROSSWALK STRIPING

NO SCALE



SCHOOL AREA SIGNS

NO SCALE



BUMP OUT ISLAND

NO SCALE

CONSULTING
KASL
ENGINEERS

FILE: \\Chewy\jobs\2719-10 Chestnut St\FEASIBILITY REPORT\Figures\IV-3_Calming.dgn
DATE: 11/26/2012

TRAFFIC CALMING DETAILS

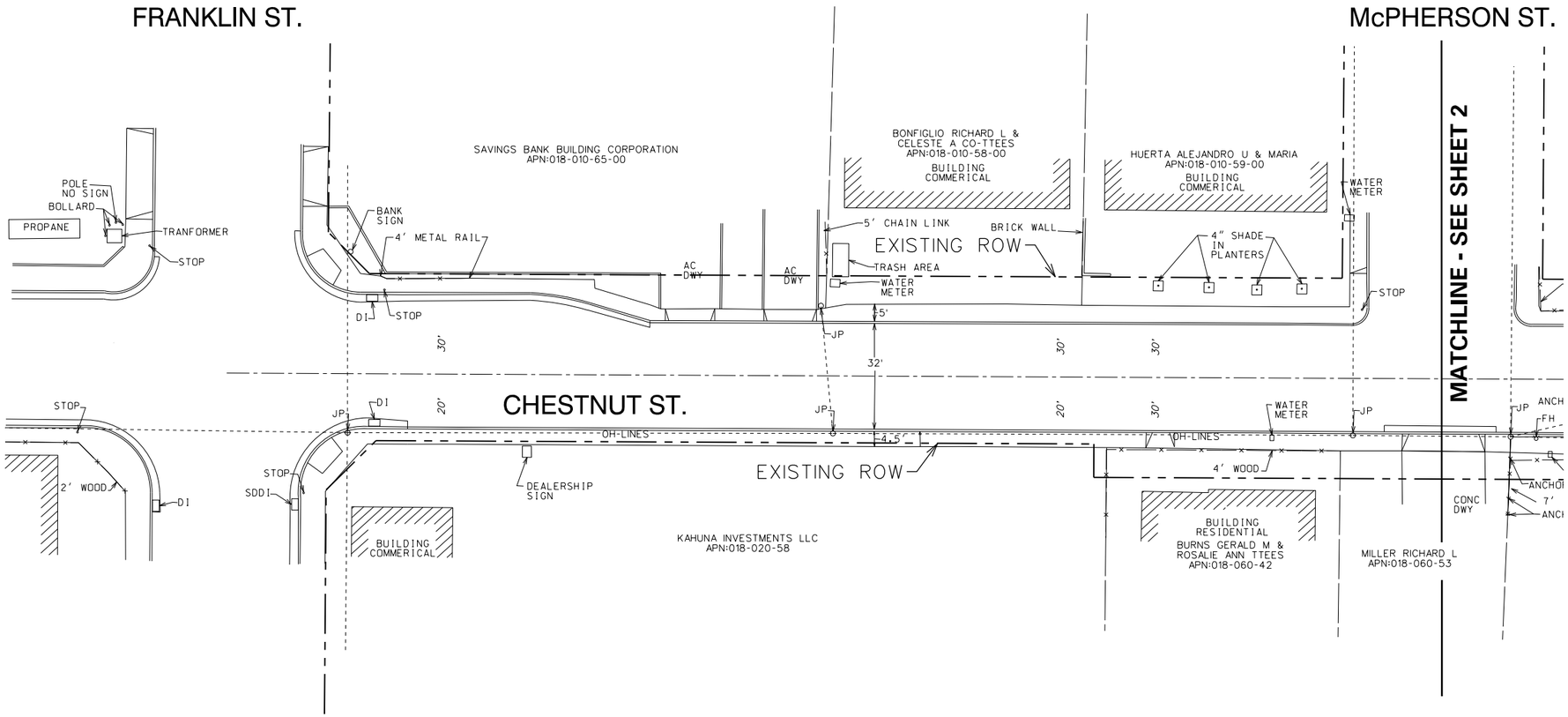
FIGURE IV-3

CONSULTING
KASL
ENGINEERS

CITY OF FORT BRAGG
CHESTNUT STREET CORRIDOR CONCEPTUAL PLAN
AND RIGHT-OF-WAY FEASIBILITY STUDY

APPENDIX

Existing Right-of-Way



REVISIONS

NO.	DESCRIPTION	DATE	BY

RELEASE 2
JULY 30, 2012

SCALE:
JOB NO. 2719-10

REVIEW COPY

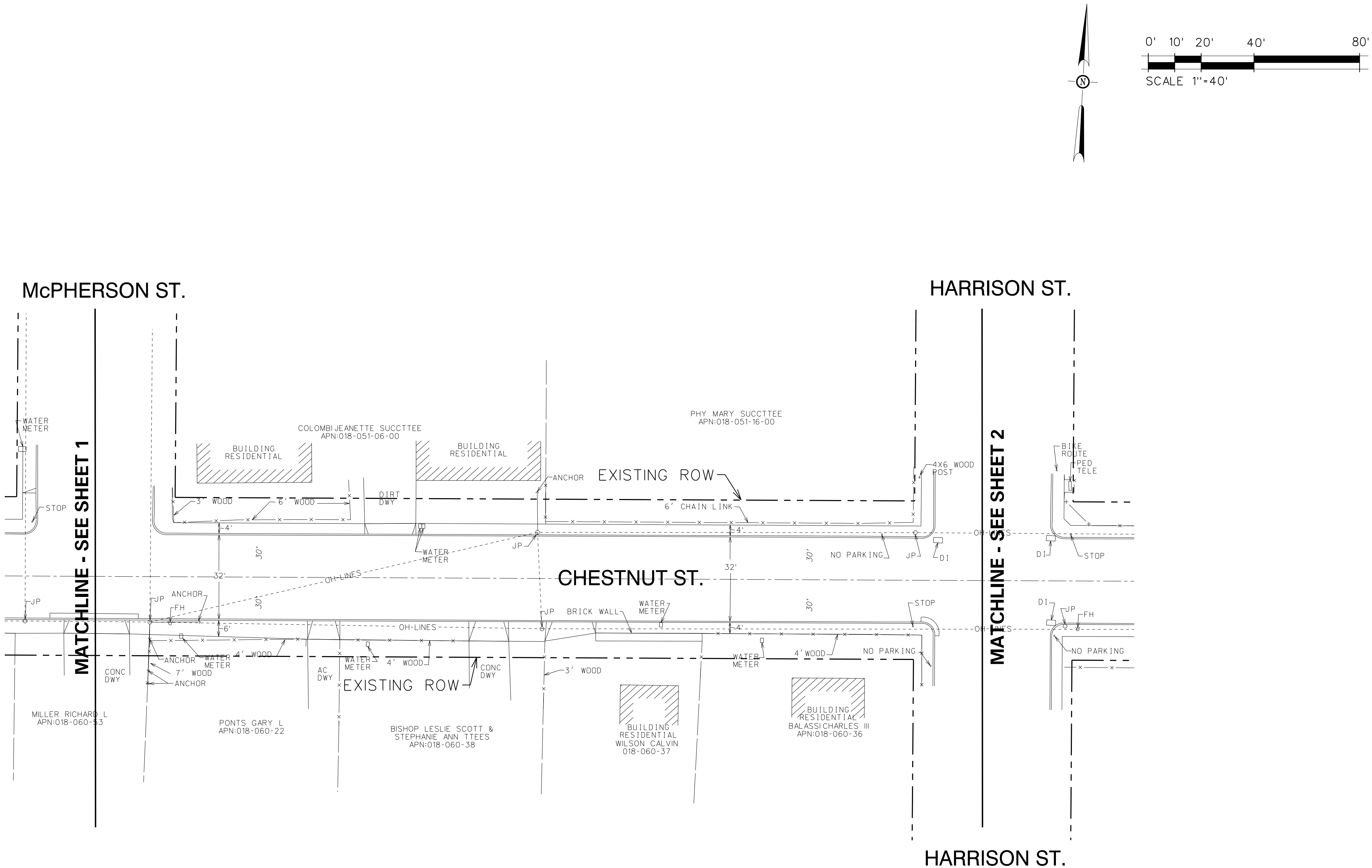
CHESTNUT STREET IMPROVEMENTS
RIGHT OF WAY
CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET
FRANKLIN ST TO McPHERSON ST

CONSULTING
KASL
ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

SHEET 1

FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\Right-of-way\ROW-01.dgn
DATE: 8/16/2012



NO.	REVISIONS DESCRIPTION	DATE	BY

RELEASE 2
JULY 30, 2012

SCALE:
JOB NO. 2719-10

REVIEW COPY

CHESTNUT STREET IMPROVEMENTS RIGHT OF WAY

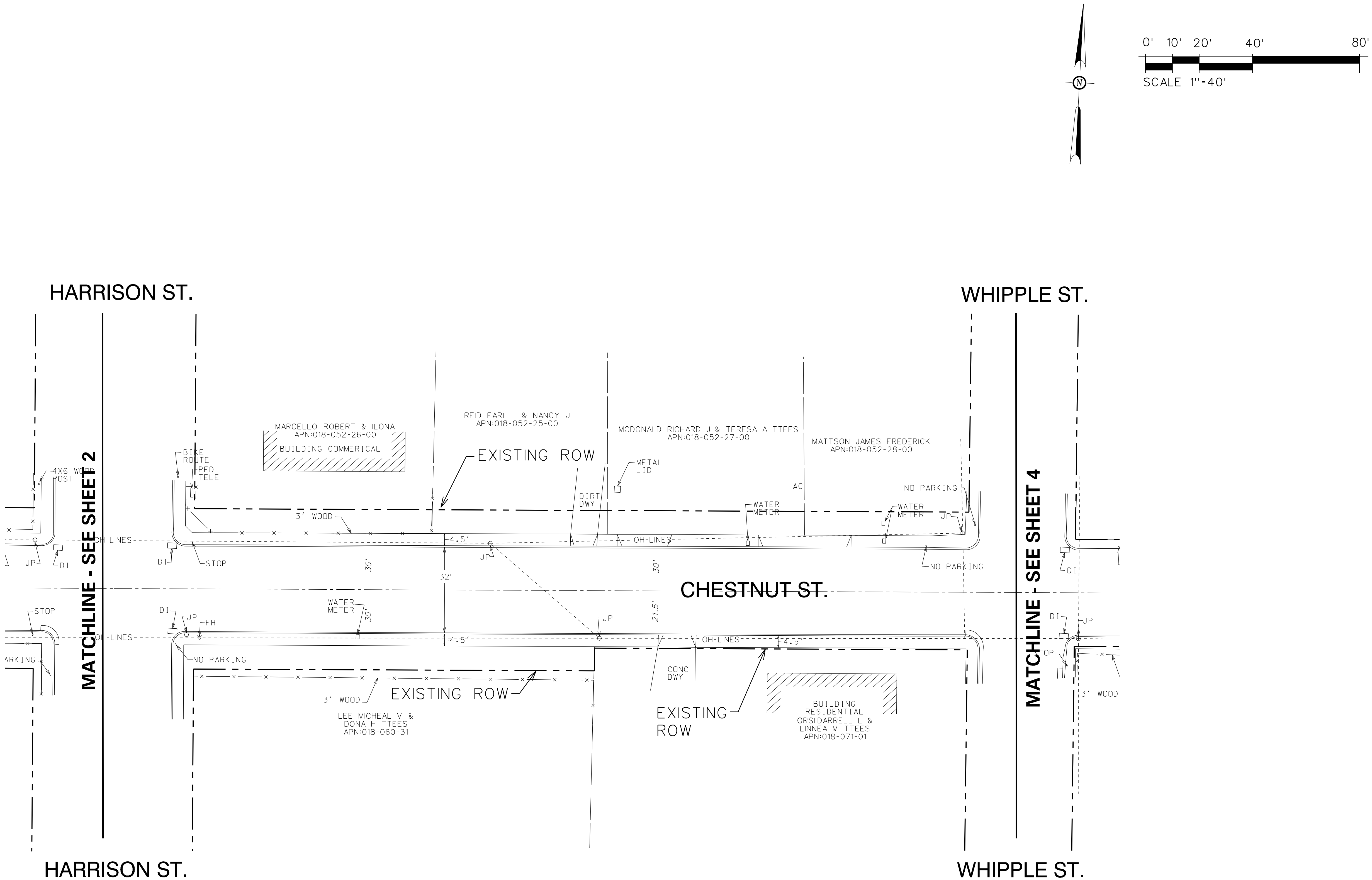
CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET McPHERSON ST TO HARRISON ST

CONSULTING KASL ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

SHEET 2

FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\Right-of-way\ROW-02.dgn
DATE: 8/16/2012



NO.	REVISIONS DESCRIPTION	DATE	BY

RELEASE 2
JULY 30, 2012

SCALE:
JOB NO. 2719-10

REVIEW COPY

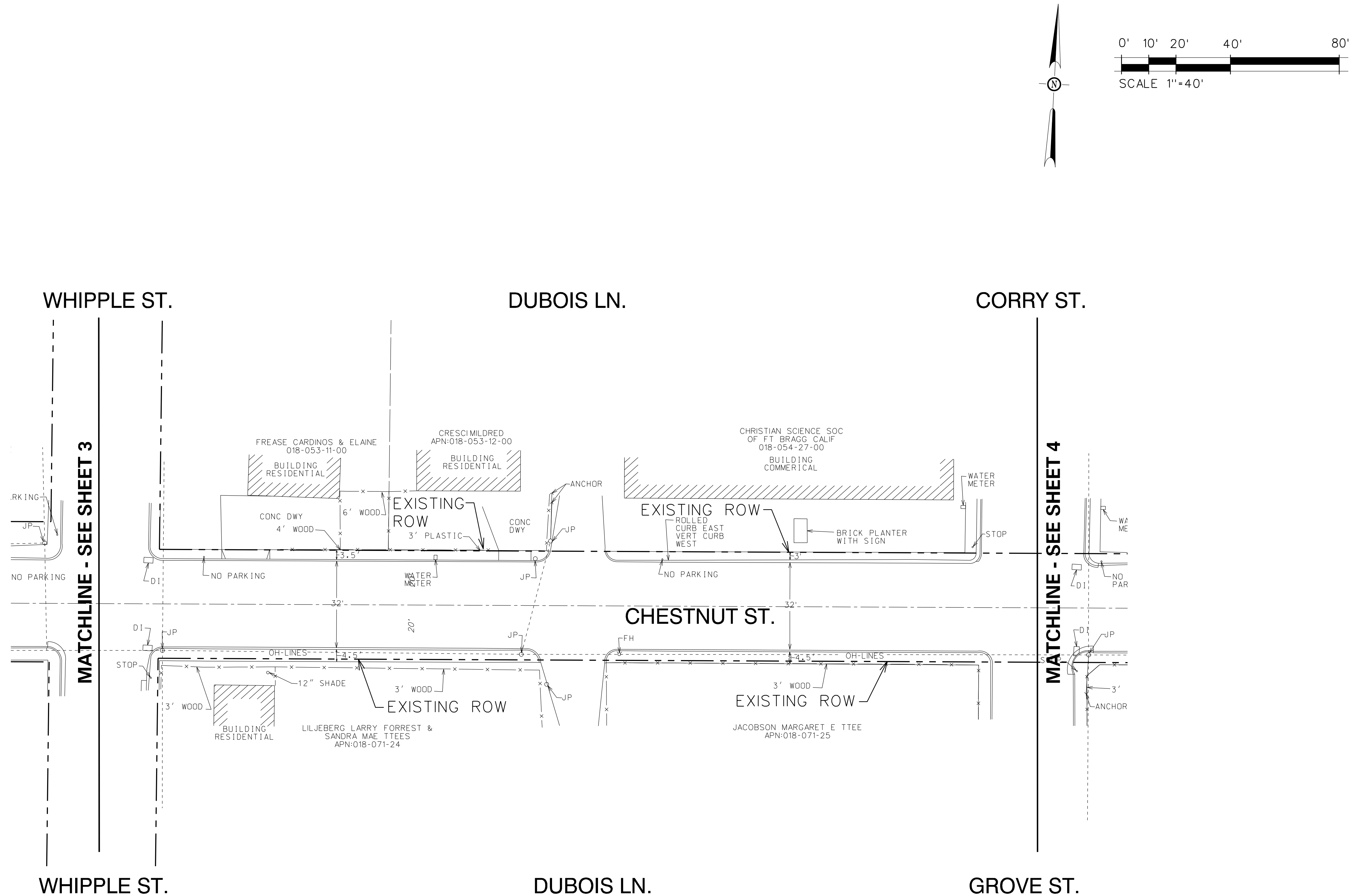
CHESTNUT STREET IMPROVEMENTS
RIGHT OF WAY
CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET
HARRISON ST TO WHIPPLE ST

CONSULTING KASL ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

SHEET 3

FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\Right-of-way\ROW-03.dgn
DATE: 8/16/2012



REVISIONS

NO.	DESCRIPTION	DATE	BY

RELEASE 2
JULY 30, 2012

SCALE:
JOB NO. 2719-10

REVIEW COPY

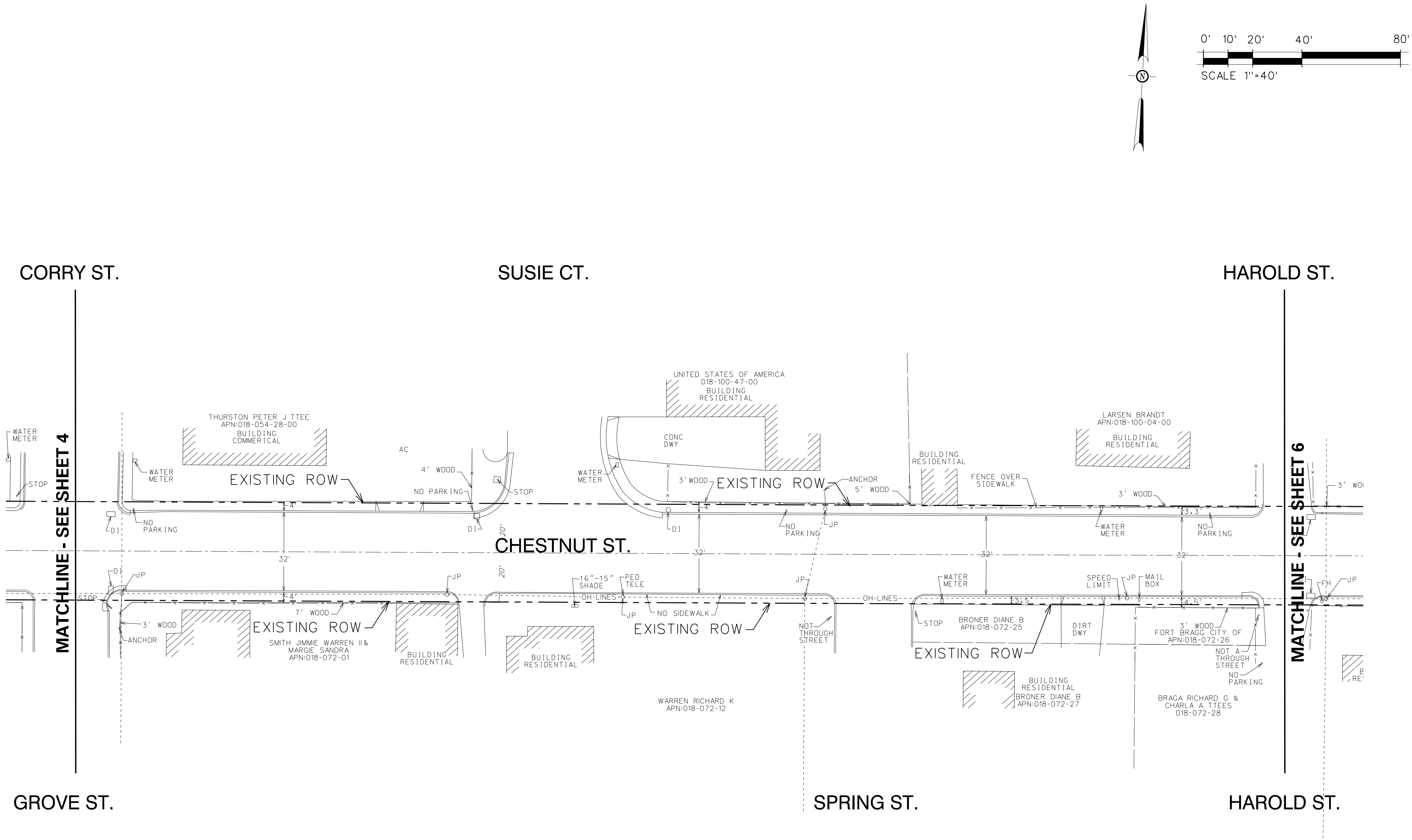
CHESTNUT STREET IMPROVEMENTS RIGHT OF WAY

CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET WHIPPLE ST TO GROVE ST

CONSULTING KASL ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\Right-of-way\ROW-04.dgn
DATE: 8/16/2012



REVISIONS

NO.	DESCRIPTION	DATE	BY

RELEASE 2
JULY 30, 2012

SCALE:
JOB NO. 2719-10

REVIEW COPY

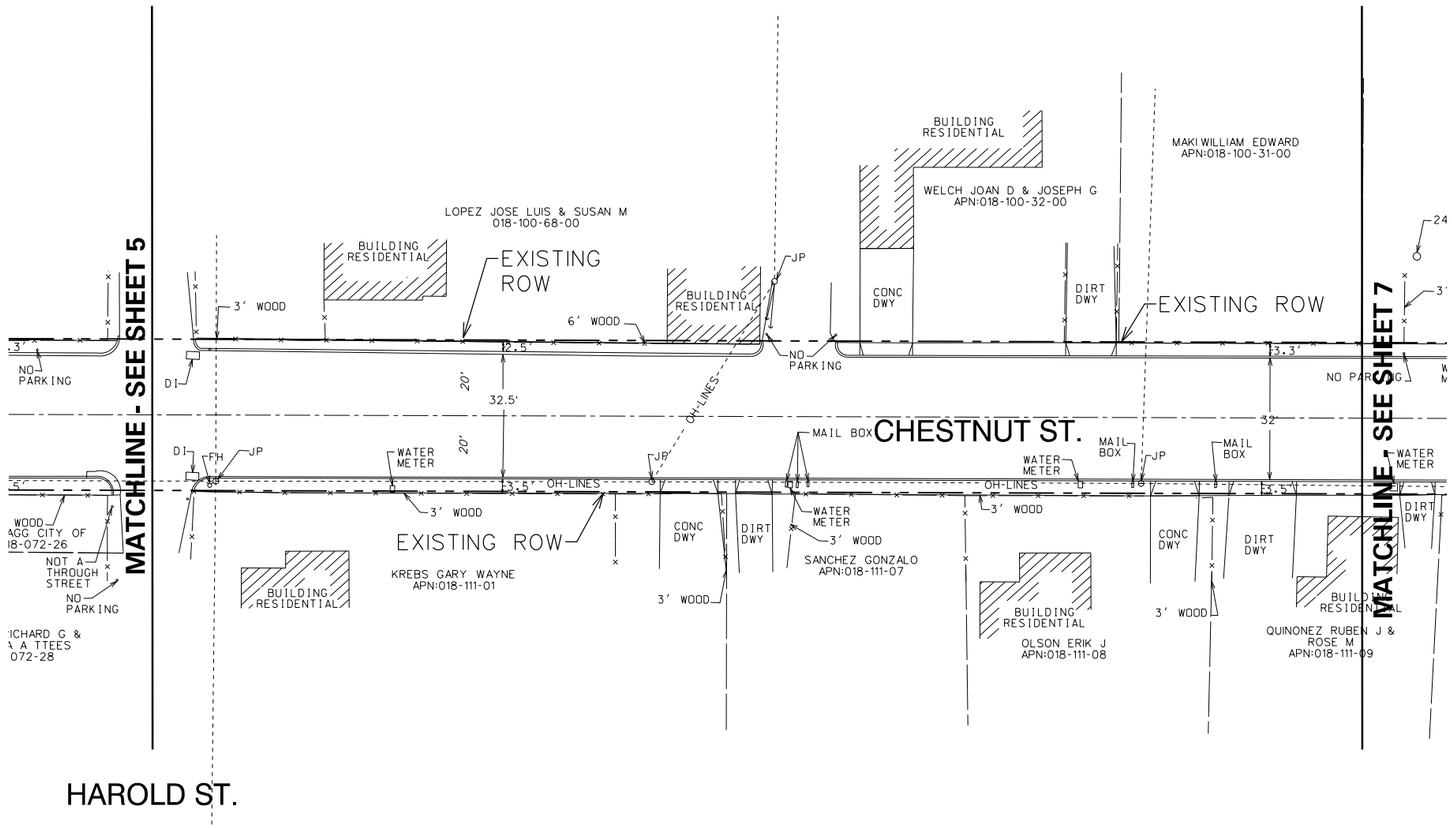
CHESTNUT STREET IMPROVEMENTS
RIGHT OF WAY
CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET
GROVE ST TO HAROLD ST

KASL CONSULTING ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

SHEET 5

FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\Right-of-way\ROW-05.dgn
DATE: 8/16/2012



0' 10' 20' 40' 80'

SCALE 1"=40'

REVISIONS

NO.	DESCRIPTION	DATE	BY

RELEASE 2
JULY 30, 2012

SCALE:
JOB NO. 2719-10

PROFESSIONAL ENGINEER
SCRIGGS
REGISTERED
EXP.
STATE OF CALIFORNIA
REVIEW COPY

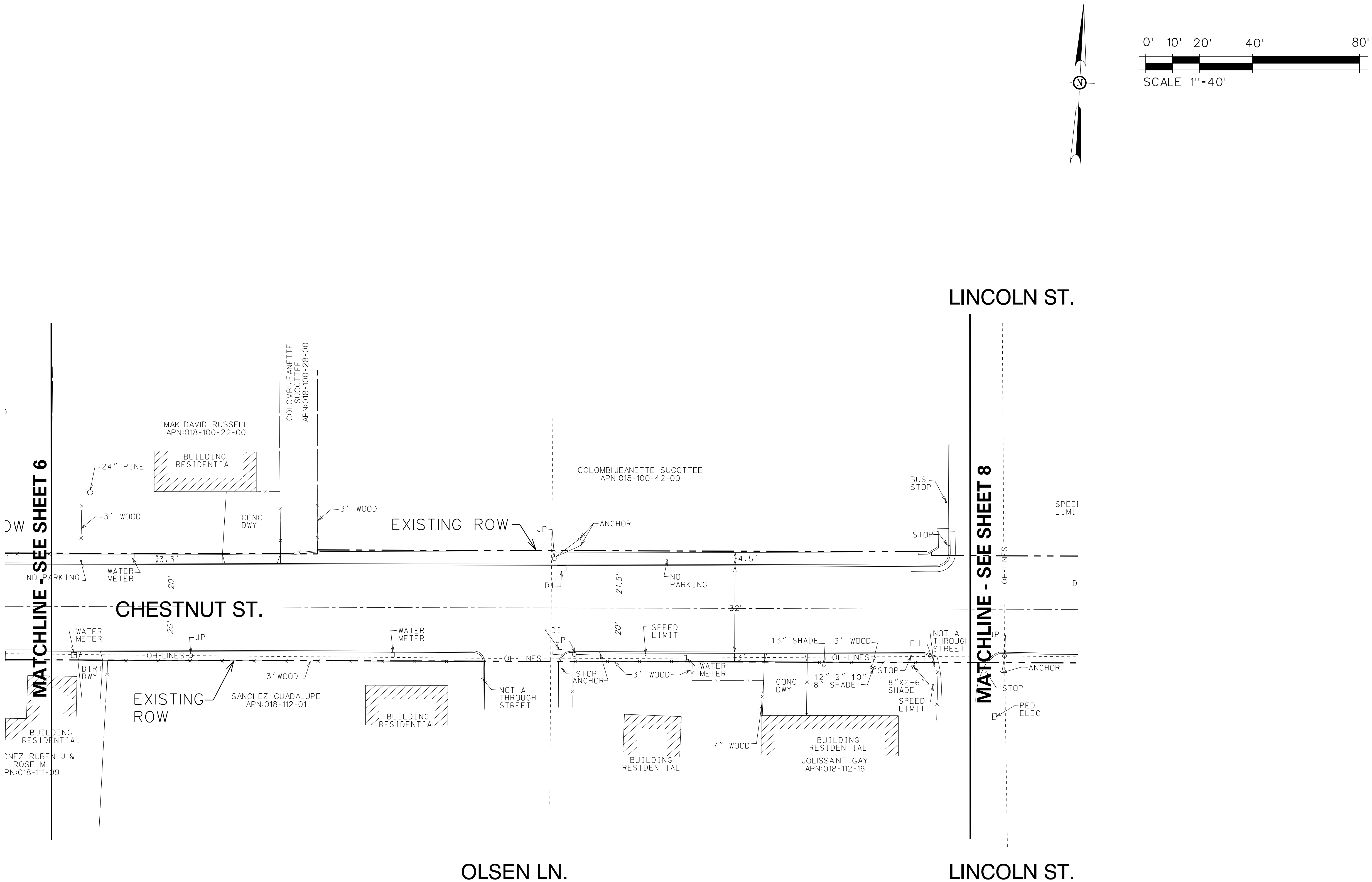
CHESTNUT STREET IMPROVEMENTS
RIGHT OF WAY
CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET
HAROLD ST TO MID BLOCK

CONSULTING
KASL
ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

SHEET **6**

FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\Right-of-way\ROW-06.dgn
DATE: 8/16/2012



NO.	REVISIONS DESCRIPTION	DATE	BY

RELEASE 2
JULY 30, 2012

SCALE:
JOB NO. 2719-10

REVIEW COPY

CHESTNUT STREET IMPROVEMENTS RIGHT OF WAY

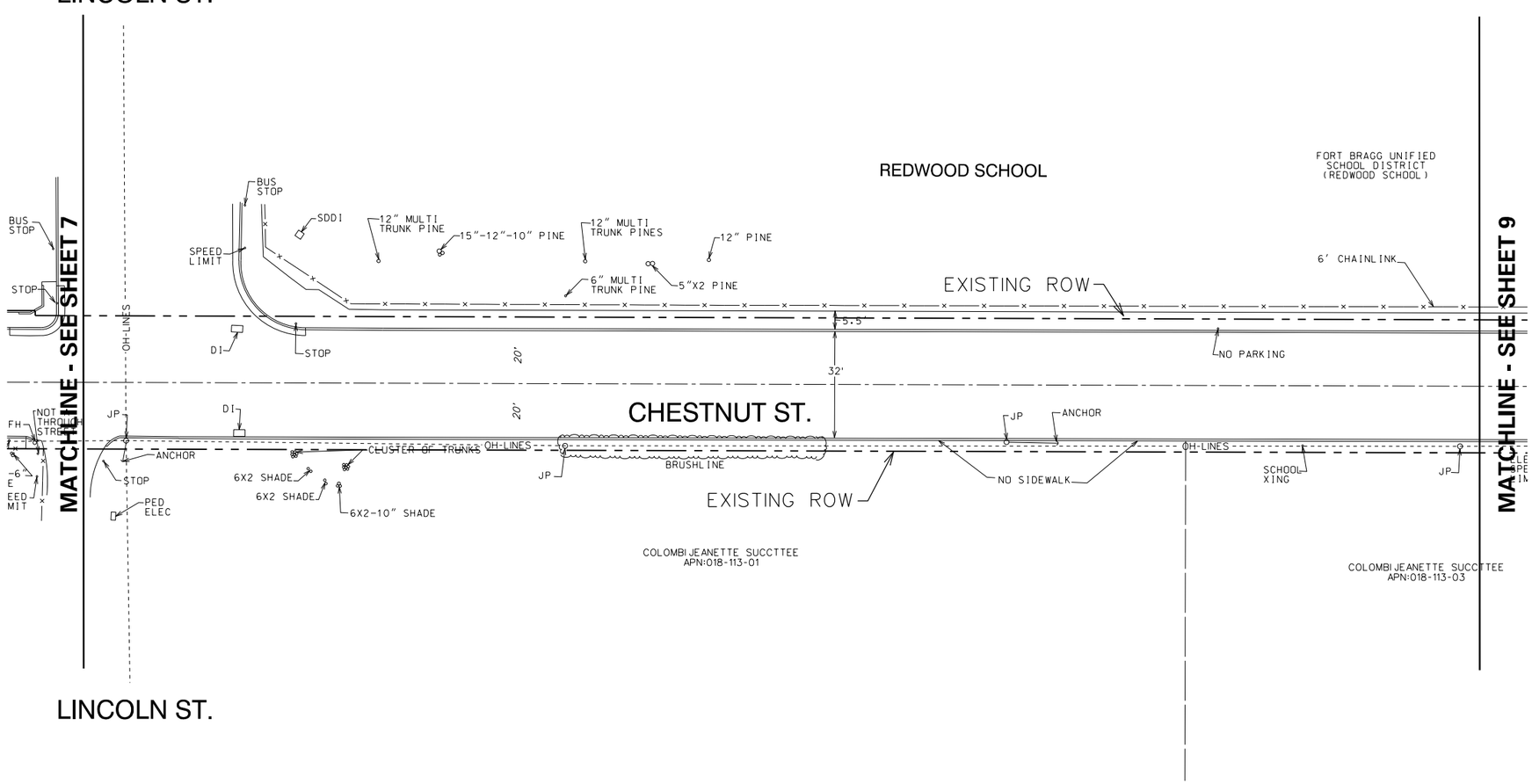
CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET MID BLOCK TO LINCOLN ST

CONSULTING KASL ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

SHEET 7

FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\Right-of-way\ROW-07.dgn
DATE: 8/16/2012



0' 10' 20' 40' 80'

SCALE 1"=40'

NO.	DESCRIPTION	DATE	BY
	REVISIONS		

RELEASE 2
JULY 30, 2012

SCALE:
JOB NO. 2719-10

REVIEW COPY

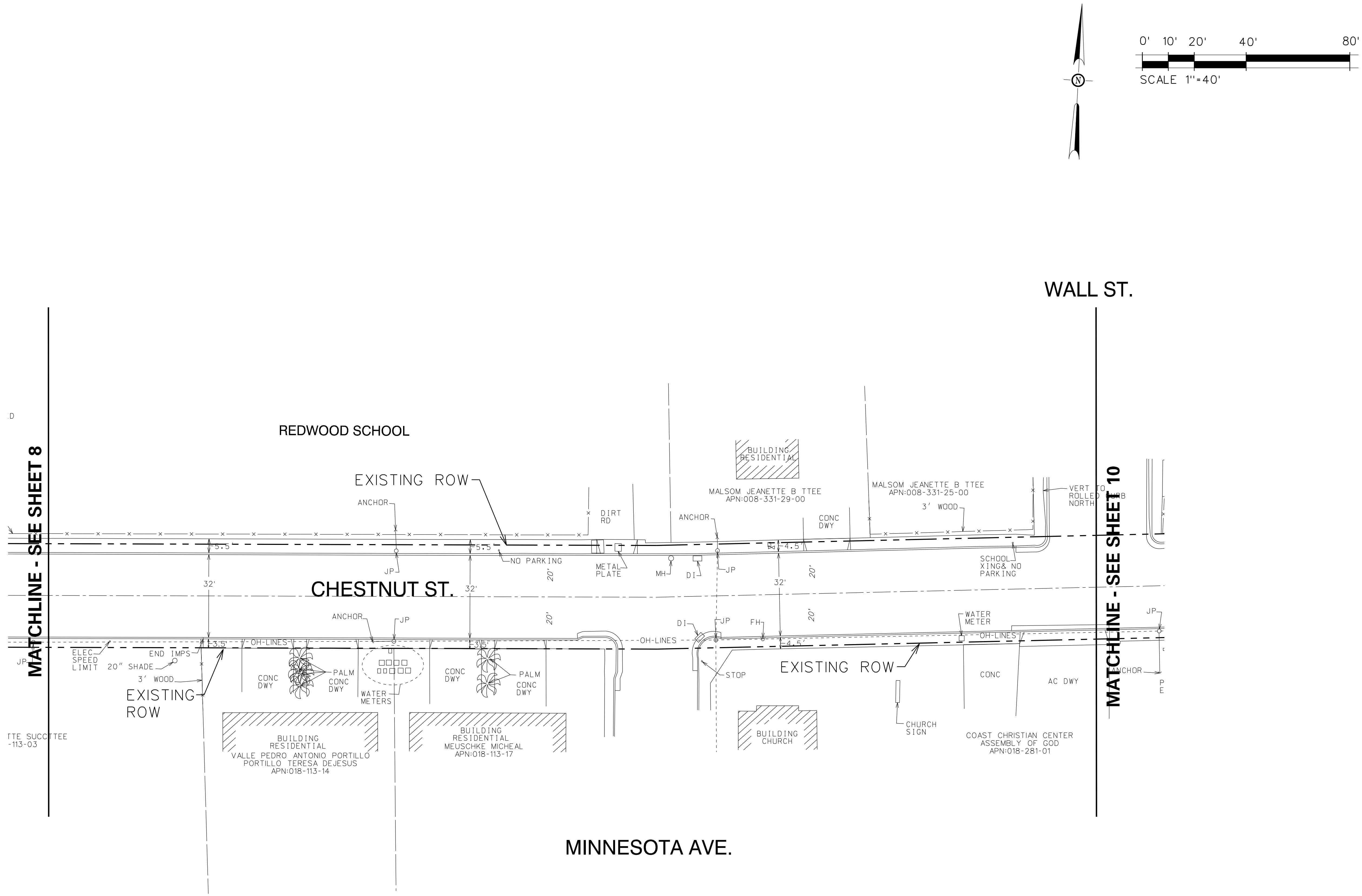
CHESTNUT STREET IMPROVEMENTS
RIGHT OF WAY
CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET
LINCOLN ST TO MID BLOCK

CONSULTING
KASL
ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

SHEET 8

FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\Right-of-way\ROW-08.dgn
DATE: 8/16/2012



FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\Right-of-way\ROW-09.dgn
DATE: 8/16/2012

NO.	REVISIONS DESCRIPTION	DATE	BY

RELEASE 2
JULY 30, 2012

SCALE:
JOB NO. 2719-10

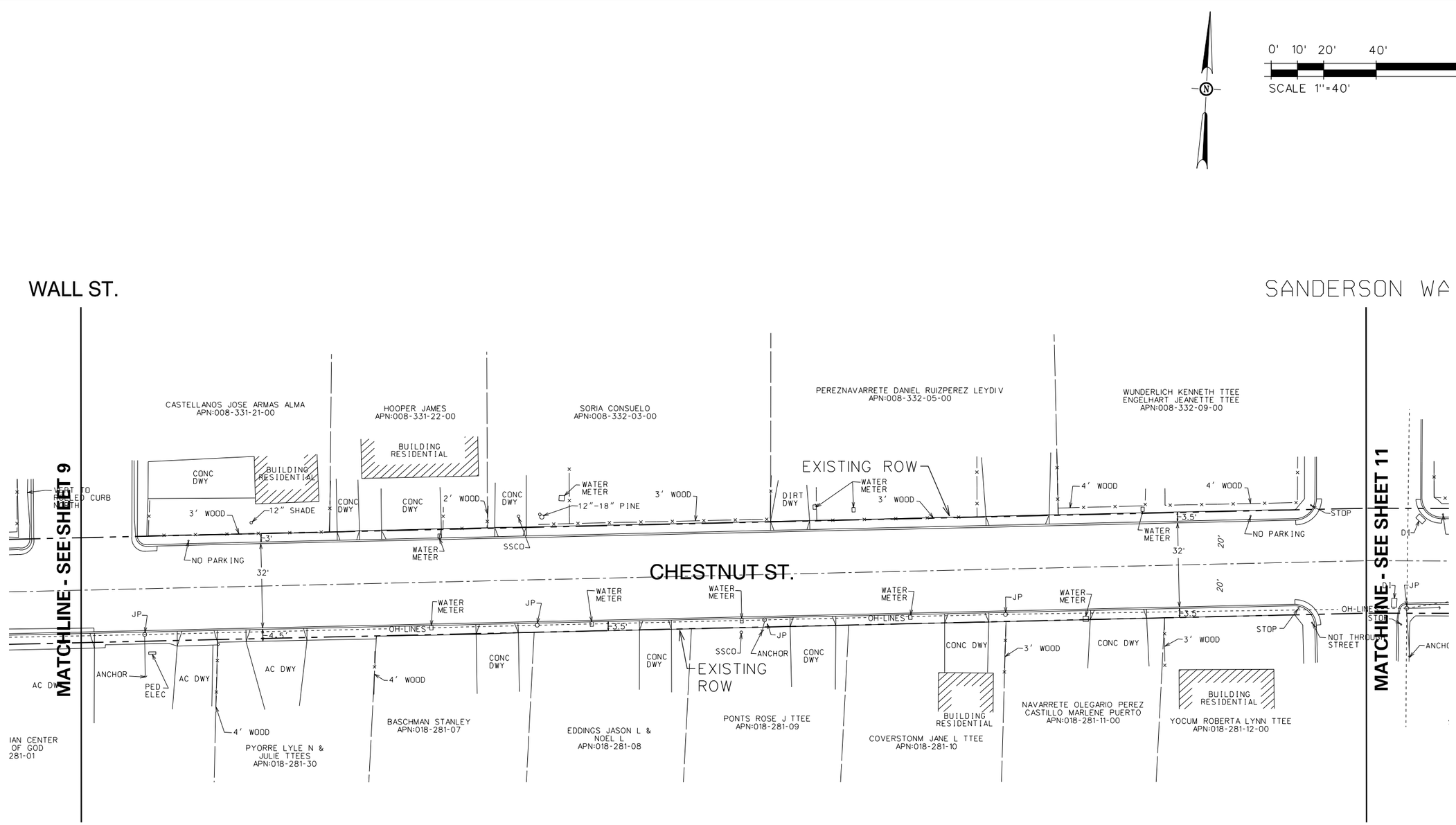
REVIEW COPY

CHESTNUT STREET IMPROVEMENTS RIGHT OF WAY

CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET MID BLOCK TO WALL ST

CONSULTING KASL ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING



REVISIONS

NO.	DESCRIPTION	DATE	BY

RELEASE 2
JULY 30, 2012

SCALE:
JOB NO. 2719-10

REVIEW COPY

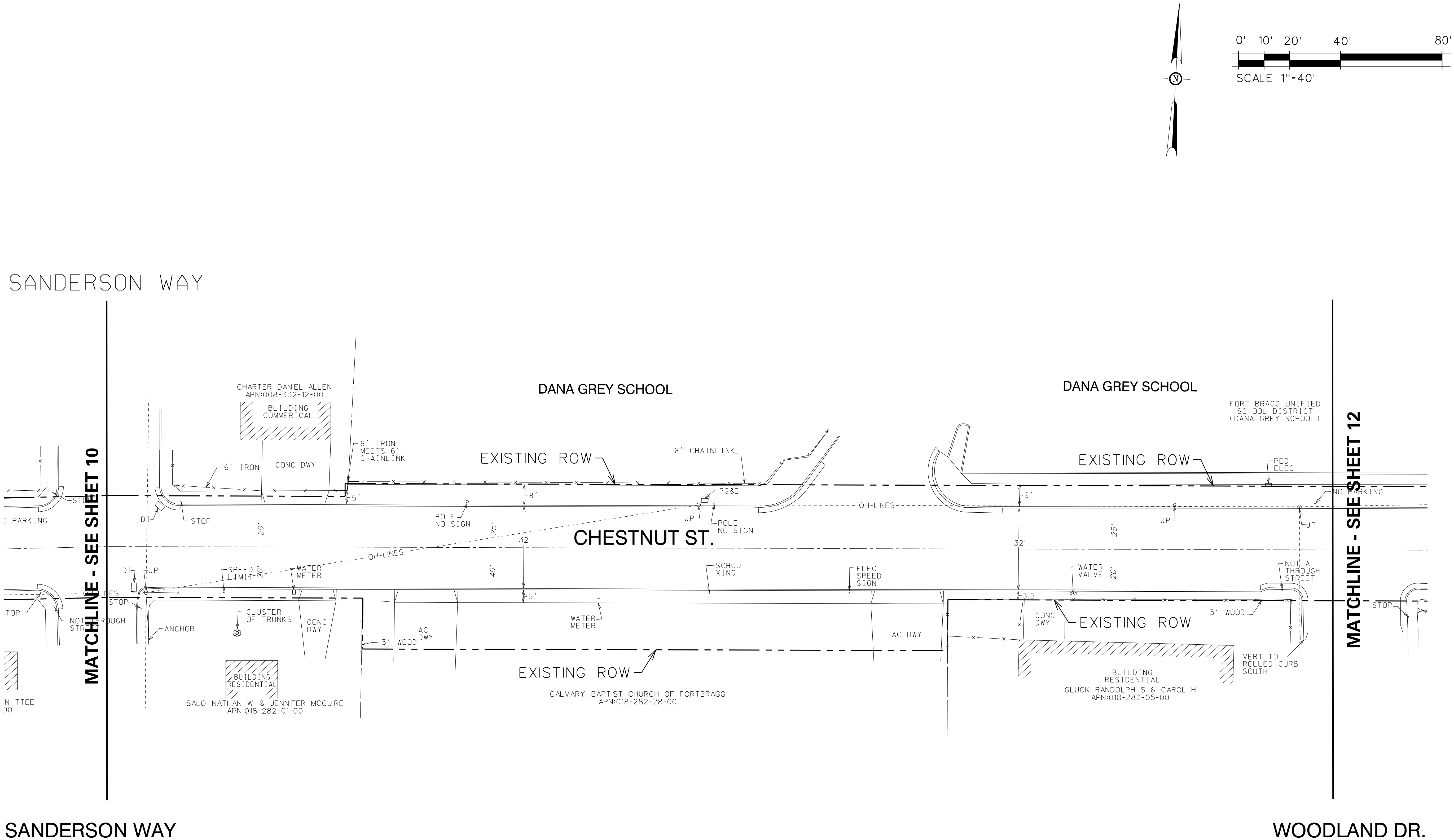
CHESTNUT STREET IMPROVEMENTS
RIGHT OF WAY
CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET
MID BLOCK TO SANDERSON WAY

CONSULTING
KASL
ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

SHEET **10**

FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\Right-of-way\ROW-10.dgn
DATE: 8/16/2012



REVISIONS

NO.	DESCRIPTION	DATE	BY

RELEASE 2
JULY 30, 2012

SCALE:
JOB NO. 2719-10

REVIEW COPY

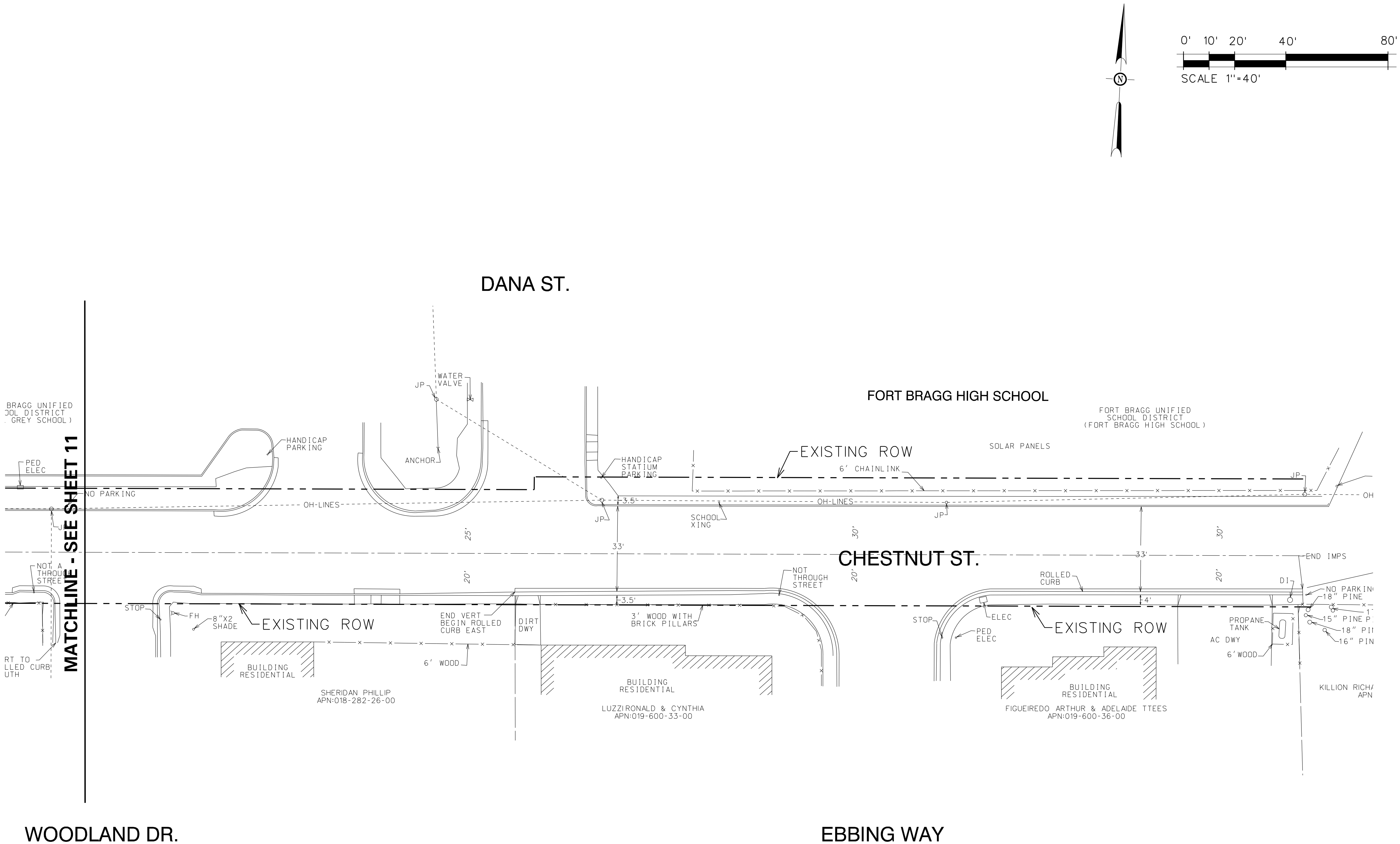
CHESTNUT STREET IMPROVEMENTS RIGHT OF WAY

CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET SANDERSON WAY TO WOODLAND DR

CONSULTING KASL ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\Right-of-way\ROW-11.dgn
DATE: 8/16/2012



NO.	REVISIONS DESCRIPTION	DATE	BY

RELEASE 2
JULY 30, 2012

SCALE:
JOB NO. 2719-10

REVIEW COPY

CHESTNUT STREET IMPROVEMENTS
RIGHT OF WAY
CITY OF FORT BRAGG, CALIFORNIA

CHESTNUT STREET
WOODLAND DR TO END OF PROJECT

CONSULTING KASL ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

FILE: S:\2719-10 Chestnut St\PLANS\PLAN SHEETS\Right-of-way\ROW-12.dgn
DATE: 8/16/2012