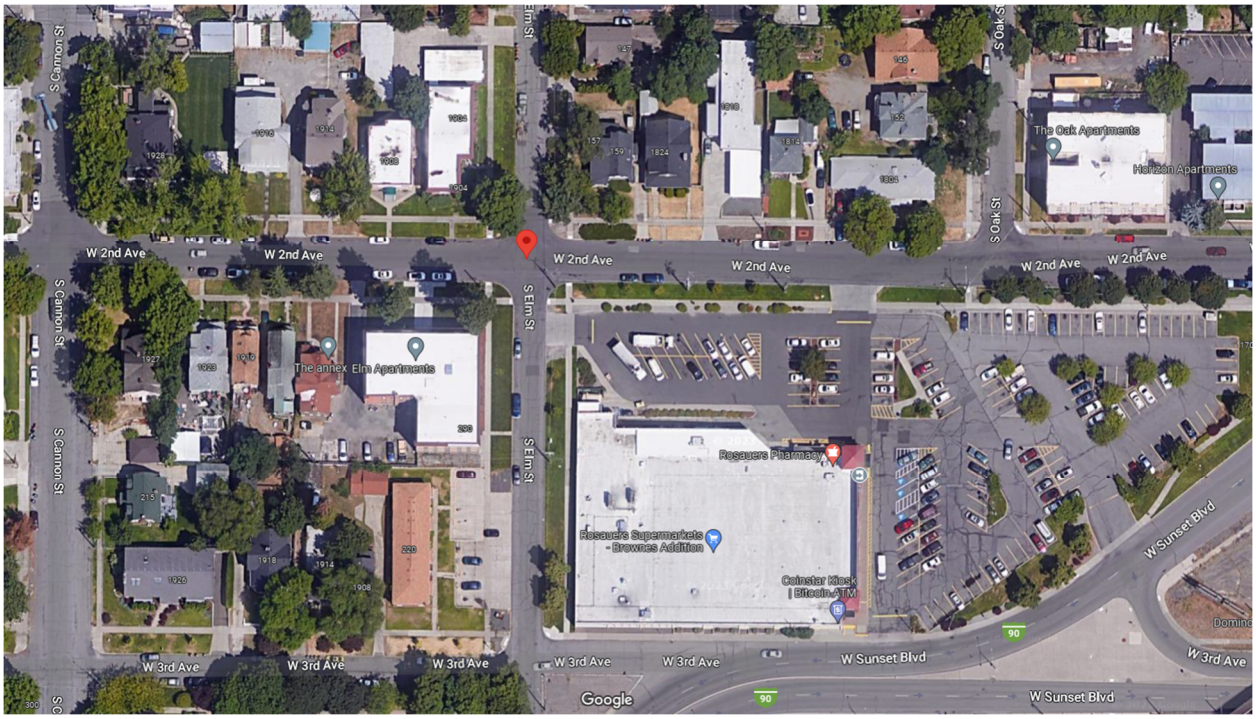
District:	3
Neighborhood:	Browne's Addition
Project Extent:	2nd Avenue near Elm Street Estimate: $232,000

Problem Statement: Residents of the Browne's Addition neighborhood raised concerns over speeding, traffic volumes, pedestrian/bicyclist safety, and narrow lanes on 2nd Avenue near Elm Street.



Elm Street/2nd Avenue Intersection

Traffic Analysis

2nd Avenue and Elm Street are both classified as urban local access roads. 2nd Avenue has a speed limit of 25 miles per hour, provides one lane in each direction, complete sidewalks and on-street parking on both sides of the roadway. Elm Street does not have a posted speed limit, provides one lane in each direction, complete sidewalks and on-street parking on both sides of the roadway. The City's Bike and Pedestrian Master Plan identifies 2nd Avenue as an existing and future bike friendly route.

The table below shows the daily traffic volumes and 85th percentile speeds on 2nd Avenue west of Elm Street. The daily volume on 2nd Avenue was 1,992 vehicles. The 85th percentile speed was 24 miles per hour (lower than the posted speed limit). The data indicates there is not a speeding issue.

2022 Daily Traffic and 85th Percentile Speeds on 2nd Avenue

Direction	# Lanes	2022 Estimated Daily Traffic (Vehicles per day) [a]	85th Percentile Speed (mph)	Posted Speed (mph)
West of Elm Street				
EB	1	670	24	
WB	1	1,322	24	
Both Dir.	2	1,992	24	25

The table below shows the severity and types of crashes occurring at the 2nd Avenue and Elm Street intersection from 2017 through 2021. There were two non-injury crashes, indicating there is not a safety issue at the intersection.

Crashes at 2nd Avenue/Elm Street Intersection (2017 to 2021)

Crash Type	Crash Severity				Total
	Fatal	Major Injury	Minor Injury	Property Damage Only	
Rear End	-	-	-	-	-
Angle	-	-	-	1	1
Sideswipe	-	-	-	-	-
Fixed Object	-	-	-	1	1
Total	-	-	-	2	2

The need for enhanced pedestrian crossing treatments across 2nd Avenue was analyzed based on NCHRP Report 562, using collected traffic data. Based on the findings, a marked crosswalk is the preferred treatment if there are 20 or more pedestrian crossings during the peak hour. Although pedestrian data is not available, it is assumed the 20 or more pedestrian crossing threshold is met due to the surrounding urban neighborhoods and commercial uses near the study corridor.

Curb extensions could be considered as a traffic calming measure on 2nd Avenue. These features narrow the roadway width, resulting in lower speeds and shorter pedestrian crossings. Curb extensions are estimated to reduce the 85th percentile speeds by 3 mph.[1]

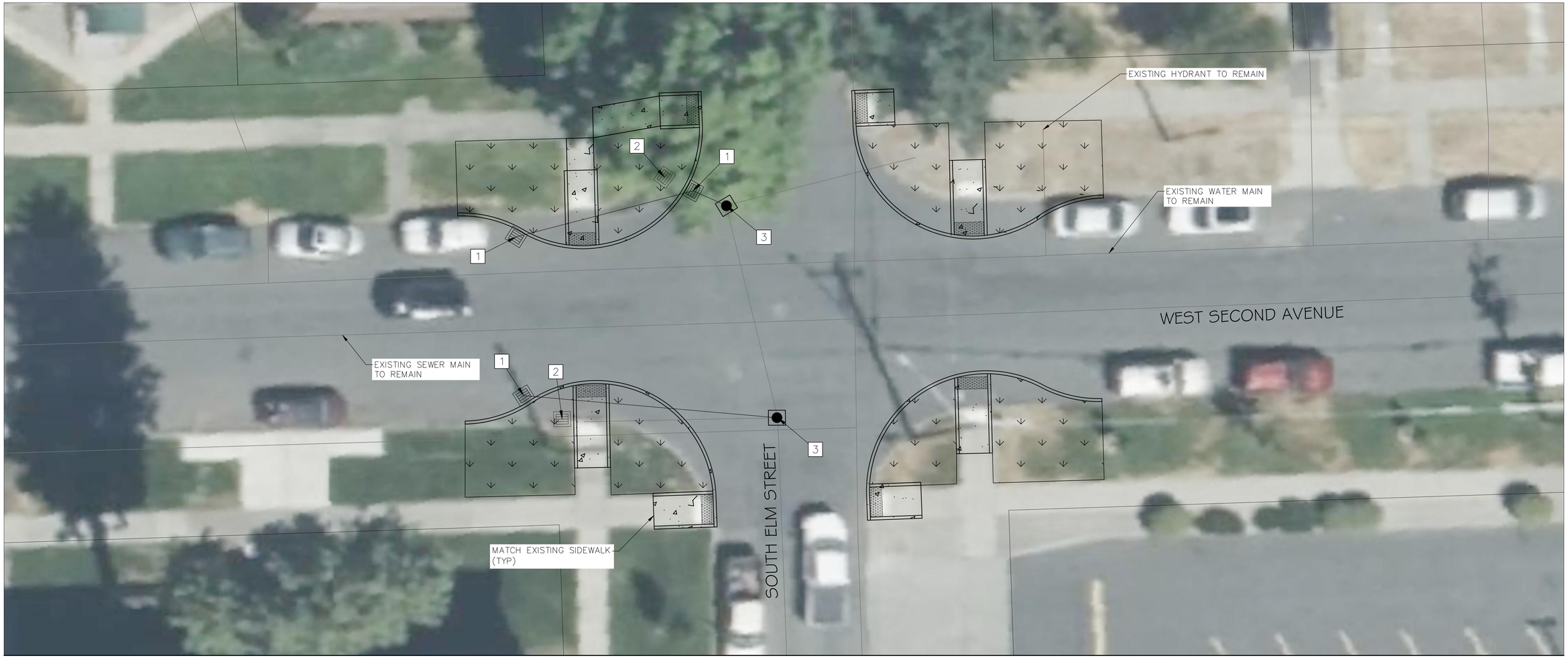
The intersection is currently uncontrolled with no stop or yield signs. The need for intersection control was evaluated to determine if the current lack of signs is appropriate for the conditions. The traffic volumes and travel speeds are low indicating control signage is not required to manage operations at the intersection. The crash data does not show a safety issue that would trigger the need for stop or yield signs.

[1] *Engineering Speed Management Countermeasures: A Desktop Reference of Potential Effectiveness in Reducing Speed. Federal Highway Administration. July 2014.*

Recommended Solution

Improvements are recommended at the intersection to calm traffic volumes and speeds and enhance pedestrian safety:

- Install curb extension on each corner of the 2nd Avenue and Elm Street intersection.



LEGEND

- INSTALL NEW CONCRETE SIDEWALK PER COS STD PLAN F-102B
- INSTALL LANDSCAPING, NATIVE PLANTINGS
- INSTALL CURB RAMP PER COS STD PLAN F-105
- PROPERTY LINE

CONSTRUCTION NOTES

1. INSTALL NEW CATCH BASIN TYPE 1 AND 8" DIAM. PIPE AS NECESSARY. CONNECT TO EXISTING PIPE WHERE SHOWN.
2. REMOVE EXISTING INLET. PLUG AND ABANDON EXISTING PIPE.
3. EXISTING MANHOLE TO REMAIN IN PLACE.

NORTH

PRELIMINARY
NOT FOR CONTRUCTION

1
1 OF 7

RIGHT OF WAY LINES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY

DATE	BY	PROJ	DESCRIPTION	REVISIONS

DATE	BY	PROJ.	E.F.N. : U.S.N.	FROM	TO	AS BUILT

COUNCIL ACCEPT DATE	FROM	TO	ORD. NO.	DATE	FILE NO.	GRADE ORDINANCE LIST

NAVD88 = (OLD CBM ELEV.) - (13.13) | AS OF JANUARY, 2000 USE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

BENCH MARK LOCATION: **NONE GIVEN**

NAVD88 ELEV. **NONE GIVEN**

CBM NO. **NONE GIVEN**

NAVD88 DATUM

BAR IS ONE INCH ON ORIGINAL DRAWING.
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

HORIZONTAL PLAN&PROFILE **1" = 8'**
VERTICAL PROFILE ONLY **N/A**

SCALE

CURRENT C.O.S. DESIGN STANDARDS ADOPTED FEB. 2007

	BY	DATES
DRAWN:	KL	03/2023
REVISED:	KL	05/2023
CHECKED:	SP	03/2023
APPROVED:	AM	03/2023

CITY OF SPOKANE, WASHINGTON
DEPARTMENT OF ENGINEERING SERVICES
808 WEST SPOKANE FALLS BLVD.
SPOKANE, WASHINGTON 99201-3343
(509) 625-6700

PROJECT NAME: SPOKANE TRAFFIC CALMING MASTER PLAN

SEGMENT LIMITS: SECOND AVENUE AND ELM STREET

PROJECT LIMITS: BROWNE'S ADDITION NEIGHBORHOOD

TYPE OF IMPROVEMENT: TRAFFIC

CITY PROJECT NUMBER | CITY PLAN NUMBER

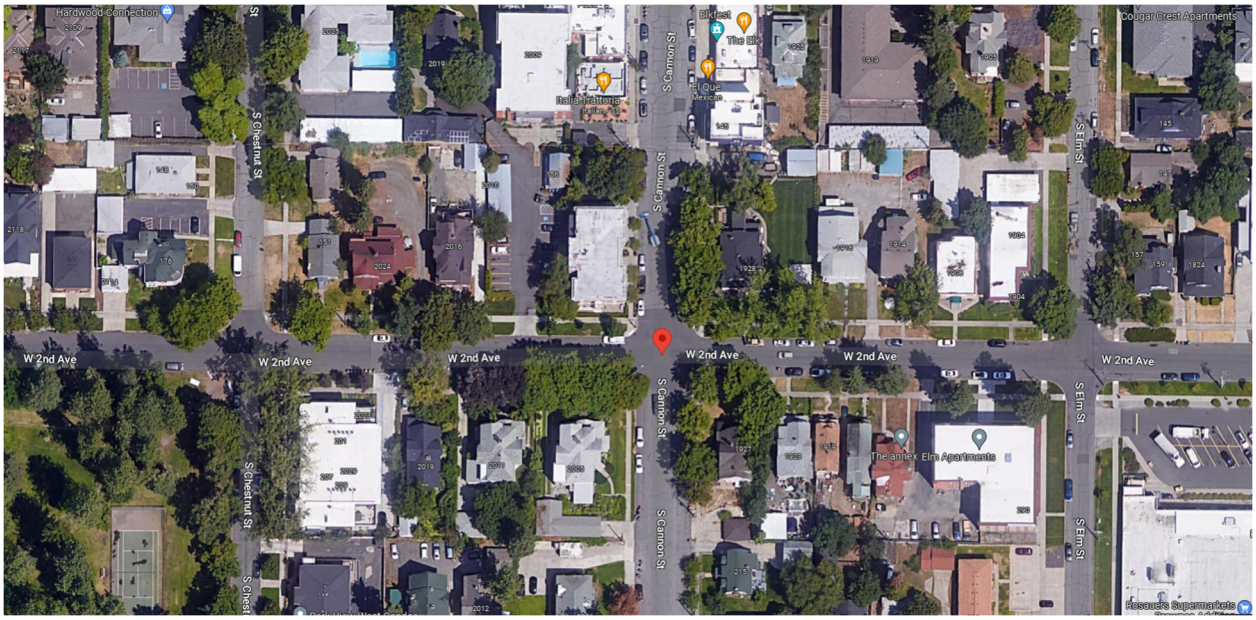
EFN: TRAFFIC DESIGN

CALL BEFORE YOU DIG 1-800-424-5555

Plotted On May 15, 2023 - 3:22pm

District:	3
Neighborhood:	Browne's Addition
Project Extent:	2nd Avenue/Cannon Street Intersection Estimate: $262,000

Problem Statement: Residents of the Browne's Addition neighborhood raised concerns over speeding, collisions, intersection safety (signs covered or not present), and pedestrian/bicyclist safety.



2nd Avenue and Cannon Street Intersection

Traffic Analysis

2nd Avenue and Cannon Street are both classified as urban local access roads. 2nd Avenue in the study area has a posted speed limit of 25 miles per hour, provides one lane in each direction, complete sidewalks and on-street parking on both sides of the street. Cannon Street in the study area does not have a posted speed limit, provides one lane in each direction, complete sidewalks and on-street parking on both sides of the road. The City's Bike and Pedestrian Master Plan identifies both roadways as an existing and future bike friendly route.

The table below show the daily traffic volumes and 85th percentile speeds on 2nd Avenue and Cannon Street. The daily volume on 2nd Avenue was 1,992 vehicles. The daily volume on Cannon Street was 1,038 vehicles. The 85th percentile speed on 2nd Avenue was 24 miles per hour (lower than the posted speed limit). The 85th percentile speed on Cannon Street was 23 miles per hour (lower than the posted speed limit). The data indicates there is not a speeding issue on either roadway.

2022 Daily Traffic and 85th Percentile Speeds on 2nd Avenue

Direction	# Lanes	2022 Estimated Daily Traffic (Vehicles per day) [a]	85th Percentile Speed (mph)	Posted Speed (mph)
2nd Avenue East of Cannon Street				
EB	1	670	24	
WB	1	1,322	24	
Both Dir.	2	1,992	24	25
Cannon Street North of 2nd Avenue				
NB	1	637	23	
SB	1	446	23	
Both Dir.	2	1,083	23	25

The table below shows the severity and types of crashes occurring at the 2nd Avenue/Cannon Street intersection from 2017 through 2021. There were two minor crashes, indicating there is not a safety issue at the intersection.

Crashes at 2nd Avenue/Cannon Street Intersection (2017 to 2021)

Crash Type	Crash Severity				Total
	Fatal	Major Injury	Minor Injury	Property Damage Only	
Rear End	-	-	-		-
Angle	-	-	1	1	2
Sideswipe	-	-	-	-	-
Fixed Object	-	-	-	-	-
Total	-	-	1	1	2

Curb extensions could be considered as a traffic calming measure on 2nd Avenue at the intersection. These features narrow the roadway width, resulting in lower speeds and shorter pedestrian crossings. Curb extensions are estimated to reduce the 85th percentile speeds by 3 mph.[2]

Recommended Solution:

Improvements are recommended at the intersection to calm traffic volumes and speeds and enhance pedestrian safety:

- Install curb extension on each corner of the 2nd Avenue and Cannon Street intersection.

[2] *Engineering Speed Management Countermeasures: A Desktop Reference of Potential Effectiveness in Reducing Speed. Federal Highway Administration. July 2014.*

LEGEND

- INSTALL NEW CONCRETE SIDEWALK PER COS STD PLAN F-102B
- INSTALL LANDSCAPING, NATIVE PLANTINGS
- INSTALL CURB RAMP PER COS STD PLAN F-105
- PROPERTY LINE

CONSTRUCTION NOTES

1. INSTALL NEW CATCH BASIN TYPE 1 AND 8" DIAM. PIPE AS NECESSARY. CONNECT TO EXISTING PIPE WHERE SHOWN.
2. REMOVE EXISTING INLET. PLUG AND ABANDON EXISTING PIPE.
3. EXISTING MANHOLE TO REMAIN IN PLACE.
4. RELOCATE EXISTING STREET NAME SIGN.

ARMY

PRELIMINARY
NOT FOR CONTRUCTION

2
2 OF 7

RIGHT OF WAY LINES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY

DATE	BY	PROJ.	DESCRIPTION	DATE	BY	PROJ.	E.F.N. , U.S.N.	FROM	TO
REVISIONS				AS BUILT					

COUNCIL ACCEPT DATE	FROM	TO	ORD. NO.	DATE	FILE NO.
GRADE ORDINANCE LIST					

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BENCH MARK LOCATION: NONE GIVEN

NAVD88 ELEV.: NONE GIVEN

CBM NO.: NONE GIVEN

NAVD88 DATUM

BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

HORIZONTAL PLAN&PROFILE: 1" = 8'

VERTICAL PROFILE ONLY: N/A

SCALE

CURRENT C.O.S. DESIGN STANDARDS ADOPTED FEB. 2007

	BY	DATE'S
DRAWN:	KL	03/2023
REVISED:	KL	05/2023
CHECKED:	SP	03/2023
APPROVED:	AM	03/2023

CITY OF SPOKANE, WASHINGTON
DEPARTMENT OF ENGINEERING SERVICES
808 WEST SPOKANE FALLS BLVD.
SPOKANE, WASHINGTON 99201-3343
(509) 625-6700

PROJECT NAME: SPOKANE TRAFFIC CALMING MASTER PLAN

SEGMENT LIMITS: SECOND AVENUE AND CANNON STREET

PROJECT LIMITS: BROWNE'S ADDITION NEIGHBORHOOD

TYPE OF IMPROVEMENT: TRAFFIC

CITY PROJECT NUMBER

CITY PLAN NUMBER

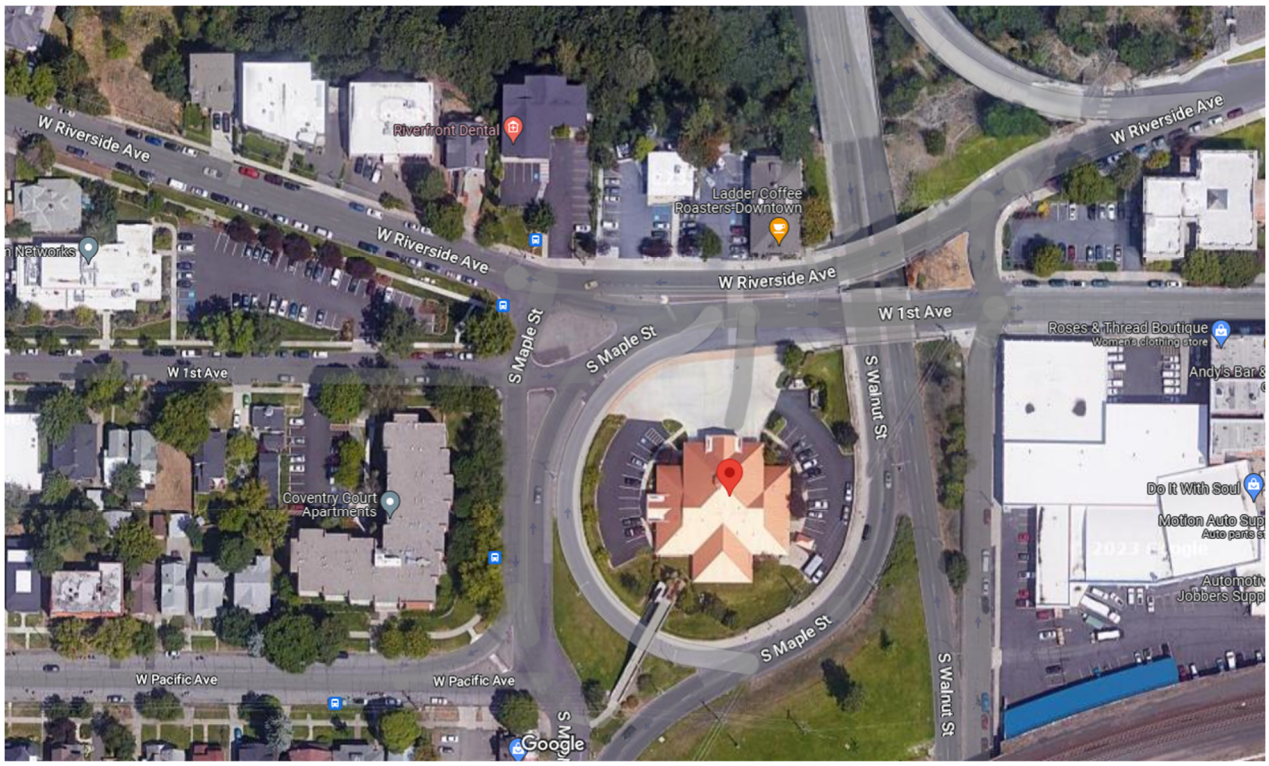
EFN: TRAFFIC DESIGN

CALL BEFORE YOU DIG 1-800-424-5555

Plotted On May 15, 2023 - 3:22pm

District:	2
Neighborhood:	Browne's Addition
Project Extent:	1st Avenue and Maple Street Intersection Estimate: $264,000

Problem Statement: Residents of the Browne's Addition neighborhood raised concerns over the confusion driving/walking/biking around the fire station loop and the lack of safe pedestrian connections to downtown. The roadway network is shown in the figure below.



1st Avenue and Maple Street Intersection

Traffic Analysis

Maple Street is classified as an urban principal arterial. Maple Street in the study area does not have a posted speed limit, provides one lane in each direction, sidewalks on both sides of the street and no on-street parking. 1st Avenue west of Maple Street is classified as an urban local access road, does not have a posted speed limit, provides one lane in each direction, on-street parking and sidewalks on both sides of the street. 1st Avenue east of Maple Street is classified as an urban principal arterial, does not have a posted speed limit, provides multiple eastbound lanes, no on-street parking and sidewalks on the south side of the street. Riverside Avenue is classified as an urban major collector with no posted speed limit. Riverside Avenue west of Maple Street provides one lane in each direction, sidewalks on both sides of

the street and on-street parking. Riverside Avenue east of Maple Street provides one westbound lane, sidewalk on the north side and no on-street parking.

The table below show the daily traffic volumes on 1st Avenue, Riverside Avenue, Maple Street and the Walnut Street ramp. The highest daily traffic volumes were on Riverside Avenue westbound and 1st Avenue eastbound. Pedestrian volumes data was collected for the PM peak hour with the highest volumes on Riverside Avenue (24 pedestrians) and 1st Avenue (14 pedestrians).

2022 Daily[a] Traffic and Pedestrian Volumes		
Location	**# Lanes**	**2022 Estimated Daily Traffic (Vehicles per day)**
1st Avenue and Riverside Avenue east of Maple Street		
EB	1	2,460
WB	1	2,680
Both Dir.	2	5,140
Maple Street south of 1st Avenue		
NB	1	670
SB	1	1,610
Both Dir.	2	2,280
Walnut Street Ramp		
NB	1	760

[A] Daily traffic volumes estimated based on ten times the evening peak hour volume.

The table below shows the severity and types of crashes occurring near the 1st Avenue and Riverside Avenue intersections at Maple Street from 2017 through 2021. There were seven minor crashes indicating there is not a significant safety issue at the intersections.

Crashes at the Riverside Avenue and 1st Avenue/Maple Street Intersections (2017 to 2021)

Crash Type	**Crash Severity**				**Total**
	Fatal	**Major Injury**	**Minor Injury**	**Property Damage Only**	
Riverside Avenue/Maple Street					
Fixed Object	-	-	1	2	3
Overturn	-	-	-	1	1
1st Avenue/Maple Street					
Angle	-	-	1	1	2
Sideswipe	-	-	-	-	-
Fixed Object	-	-	-	1	1
Total	-	-	2	5	7

The need for enhanced pedestrian crossing treatments across each roadway in the study area was analyzed based on NCHRP Report 562, using collected traffic data. Based on the findings and pedestrian count data, a marked crosswalk is the preferred treatment for each study roadway.

The study area is comprised of several closely spaced intersections, raised medians/islands and roadways that merge together that result in a high number of conflicting vehicle turn movements. There is a lack of street name and wayfinding signage to help drivers navigate through the area. There are no marked pedestrian crossings to identify the preferred walking route between the neighborhood and downtown. Many intersection approaches serve a low volume of traffic and were considered for restrictions or closure to reduce vehicle conflicts.

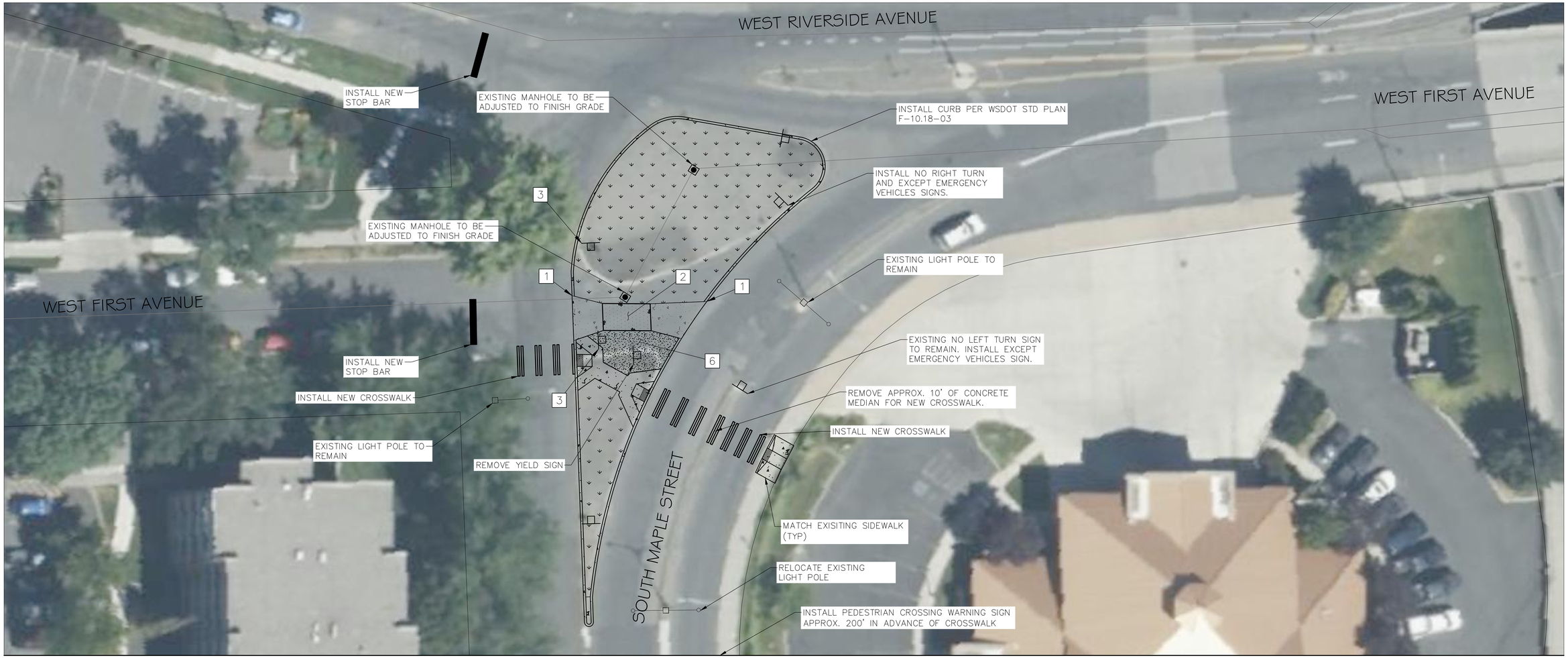
Recommended Solution:

To reduce vehicle conflicts at the 1st Avenue/Maple Street intersection and improve pedestrian safety:

- Connect the existing raised medians on Maple Street to prohibit east and west traffic flow on 1st Avenue. The low volume of drivers travelling eastbound on 1st Avenue can reroute one block north to continue east of 1st Avenue.
- Construct a marked pedestrian crossing on Maple Street connecting the sidewalks on the south side of 1st Avenue and the center median on Maple Street.
- Construct a marked pedestrian crossing on Maple Street and Walnut Street ramp connecting the sidewalks on the east side of Walnut Street ramp. Advanced warning signs for the pedestrian crossing on the Walnut Street ramp may be necessary due to horizontal curve.
- Provide a pedestrian connection on the raised median between the marked crossings.

To reduce driver confusion and improve safety in the study area:

- Install a stop bar on the eastbound 1st Avenue approach to Maple Street.
- Install a stop bar on the eastbound Riverside Avenue approach to Maple Street.



LEGEND

- INSTALL NEW CONCRETE SIDEWALK PER COS STD PLAN F-102B
- INSTALL LANDSCAPING, NATIVE PLANTINGS AND/OR NEIGHBORHOOD GATEWAY SIGNAGE
- INSTALL CURB RAMP PER COS STD PLAN F-105
- PROPERTY LINE

CONSTRUCTION NOTES

1. INSTALL NEW DRIVEWAY. MATCH TO EXISTING ASPHALT.
2. RETAIN EXISTING ASPHALT.
3. EXISTING ONE WAY, NO LEFT TURN, AND EXCEPT EMERGENCY VEHICLES SIGNS TO REMAIN
4. INSTALL PROPOSED EMERGENCY VEHICLE ACCESS SIGNS.
5. INSTALL TRAFFIC MEDIAN CONCRETE.

PROPOSED EMERGENCY VEHICLE ACCESS SIGNS

PROPOSED PEDESTRIAN CROSSING AHEAD SIGNS

PRELIMINARY

NOT FOR CONTRUCTION

3
3 OF 6

RIGHT OF WAY LINES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY

DATE	BY	PROJ	DESCRIPTION	DATE	BY	PROJ.	E.F.N. . U.S.N.	FROM	TO
REVISIONS				AS BUILT					

COUNCIL ACCEPT DATE	FROM	TO	ORD. NO.	DATE	FILE NO.
GRADE ORDINANCE LIST					

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BENCH MARK LOCATION: NONE GIVEN

NAVD88 ELEV. NONE GIVEN

CBM NO. NONE GIVEN

NAVD88 DATUM

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HORIZONTAL PLAN&PROFILE 1" = 10'
VERTICAL PROFILE ONLY N/A

SCALE

CURRENT C.O.S. DESIGN STANDARDS ADOPTED FEB. 2007

	BY	DATES
DRAWN:	KL	03/2023
REVISED:	KL	05/2023
CHECKED:	SP	03/2023
APPROVED:	AM	03/2023

CITY OF SPOKANE

CITY OF SPOKANE, WASHINGTON
DEPARTMENT OF ENGINEERING SERVICES
808 WEST SPOKANE FALLS BLVD.
SPOKANE, WASHINGTON 99201-3343
(509) 625-6700

PROJECT NAME: SPOKANE TRAFFIC CALMING MASTER PLAN

SEGMENT LIMITS: FIRST AVENUE AND MAPLE STREET

PROJECT LIMITS: BROWNE'S ADDITION NEIGHBORHOOD

TYPE OF IMPROVEMENT: TRAFFIC

CITY PROJECT NUMBER | CITY PLAN NUMBER

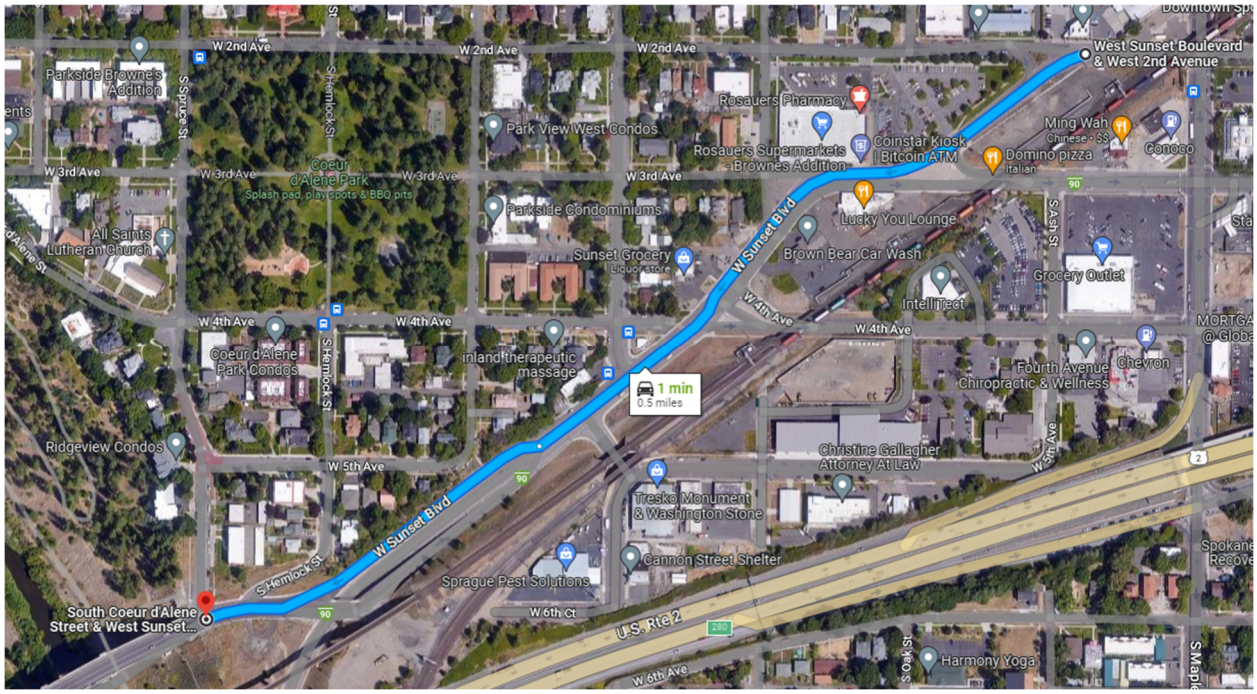
EFN: TRAFFIC DESIGN

CALL BEFORE YOU DIG 1-800-424-5555

Plotted On May 15, 2023 - 3:22pm

District:	3
Neighborhood:	Browne's Addition
Project Extent:	Sunset Boulevard from 2nd Avenue to Spruce Avenue (Coeur d'Alene Street) Estimate: $995,000

Problem Statement: Residents of the Browne's Addition neighborhood raised concerns over speeding, the lack of a pedestrian crossing facility, especially at Cannon Street, along Sunset Boulevard from 2nd Avenue to Spruce Avenue/Coeur d'Alene Street.



Sunset Boulevard from 2nd Avenue to Spruce Avenue (Coeur d'Alene Street)

Traffic Analysis

Sunset Boulevard is classified as an urban principal arterial. Sunset Boulevard in the study area has a posted speed limit of 30 miles per hour, provides 2 lanes in each direction and does not have on-street parking. 2nd Avenue and Spruce Avenue/Coeur d'Alene Street are classified as urban local access roads. 2nd Avenue in the study area has a posted speed limit of 25 miles per hour, provides one lane in each direction and on-street parking on the north side of the street. Spruce Avenue/Coeur d'Alene Street does not have a posted speed limit, provides one lane in each direction and on-street parking on both sides of the street. Both 2nd Avenue and Coeur d'Alene are classified as bike friendly route on the City of Spokane Master Bike and Pedestrian Plan map. The sidewalk network along Sunset Boulevard is in poor

condition, especially from 3rd Avenue to Spruce Avenue/Coeur d'Alene Street. There is an unsignalized crosswalk midblock between 4th Avenue and Cannon Street.

The table below shows the daily traffic volumes and 85th percentile speeds on Sunset Boulevard near 4th Avenue and Coeur d'Alene Avenue. The highest average daily volume on Sunset Boulevard was 19,250 westbound vehicles. The 85th percentile speed was 36 miles per hour (six miles per hour greater than the posted speed limit). The data indicates there is a moderate speeding concern. This could be attributed to the uncontrolled intersections on Sunset Boulevard.

2022 Daily Traffic and 85th Percentile Speeds on Sunset Boulevard near 4th Avenue

Direction	# Lanes	2022 Estimated Daily Traffic (Vehicles per day) [a]	85th Percentile Speed (mph)	Posted Speed (mph)
Sunset Boulevard near 4th Avenue				
EB	1	10,240	35	
WB	1	9,010	36	
Both Dir.	2	19,250	36	30
Sunset Boulevard near Coeur d'Alene Avenue				
EB	1	8,182	NA	
WB	1	7,090	NA	
Both Dir.	2	15,273	NA	30

[a] Traffic data collected in 2015 and 2018. Traffic volumes were grown at a 1.0% annual growth rate, to estimate 2022 traffic conditions.

The table below shows the severity and types of crashes occurring on the Sunset Boulevard corridor from 2017 through 2021. The corridor experienced 40 crashes over a four-year period. There was a pedestrian fatality at Cannon Street and multiple pedestrian and bicycle crashes at 3rd Avenue and 4th Avenue indicating a safety concern.

Crashes at the Riverside Avenue and 1st Avenue/Maple Street Intersections (2017 to 2021)

Crash Type	Crash Severity				Total
	Fatal	Major Injury	Minor Injury	Property Damage Only	
Sunset Blvd/2nd Avenue					
Fixed Object	-	-	1	1	2
Sunset Blvd/3rd Avenue					
Rearend	-	-	1	-	1
Head On	-	-	1	-	1
Angle	-	-	-	1	1
Sideswipe	-	-	-	1	1
Bicycle	-	-	2	-	2
Pedestrian	-	-	1	-	1
Sunset Blvd/Elm Street					
Angle	-	-	-	5	5

Rearend	-	-	-	1	1
Fixed Object	-	1	-	1	1
Sunset Blvd/4th Avenue					
Rearend	-	-	-	1	1
Head On	-	-	1	-	1
Angle	-	-	1	7	8
Sideswipe	-	-	-	1	1
Fixed Object	-	-	-	1	1
Pedestrian		2	-	-	2
Sunset Blvd/Cannon Street					
Angle	-	-	2	1	3
Rearend	-	-	-	2	2
Fixed Object	-	-		1	1
Pedestrian	1	-	-	--	1
Sunset Blvd/Coeur d'Alene Street					
Rearend	-	-	-	1	1
Fixed Object	-	-	-	1	1
Total	1	3	10	26	40

The need for enhanced pedestrian crossing treatments across each roadway in the study area was analyzed based on NCHRP Report 562, using collected traffic data. Based on the findings, active or enhanced pedestrian crossing treatments would be appropriate given the high existing traffic volumes and speeds on the study corridor. The study corridor was evaluated to determine the best placement for an enhanced pedestrian crossing with consideration for fronting land use, location of bus stops, estimated crossing demand and spacing from existing protected crossings. 3rd Avenue and 4th Avenue were selected to connect the adjacent commercial uses and bus stops to the neighborhood. Cannon Street was not selected due to its close spacing to 4th Avenue (approximately 300 feet) and lack of walking destinations to the east.

Recommended Solution:

- Install a rectangular rapid flashing beacon on Sunset Boulevard at 3rd Avenue slip lane to downtown (opposite Rosauer's driveway). This location would provide a connection to destinations east on 3rd Avenue.
- Install a rectangular rapid flashing beacon on Sunset Boulevard to replace the existing marked crossing at 4th Avenue. The roadway width, traffic volume and speed warrant higher protection than is provided currently. This location would provide a connection to destinations east on 3rd Avenue. Sunset Boulevard provides sidewalks on the south side of the street that would connect the 4th Avenue crossing to destinations south on Cannon Street.

- Close the existing eastbound slip lane from Sunset Boulevard to 4th Avenue, adjacent to the pedestrian crossing, to reduce vehicle conflicts and speeds.
- Add raised median on Sunset Boulevard west of 4th Avenue to reduce vehicle conflicts and potential angle crashes.
- Combine the existing 3rd Avenue and Elm Street approaches to a single perpendicular approach to Sunset to reduce conflicts and improve safety.

MATCH SHEET 5

LEGEND

INSTALL NEW TRAFFIC ISLAND CONCRETE PER COS STD PLANS SECTION F

PROPERTY LINE

R03-02

PROPOSED NO LEFT TURN SIGN

NORTH

PRELIMINARY
NOT FOR CONTRUCTION

4
4 OF 7

RIGHT OF WAY LINES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY

DATE	BY	PROJ	DESCRIPTION	DATE	BY	PROJ.	E.F.N. : U.S.N.	FROM	TO
REVISIONS				AS BUILT					

COUNCIL ACCEPT DATE	FROM	TO	ORD. NO.	DATE	FILE NO.
GRADE ORDINANCE LIST					

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BENCH MARK LOCATION: NONE GIVEN

NAVD88 ELEV. NONE GIVEN

CBM NO. NONE GIVEN

NAVD88 DATUM

BAR IS ONE INCH ON ORIGINAL DRAWING.

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

HORIZONTAL PLAN&PROFILE: 1" = 10'

VERTICAL PROFILE ONLY: N/A

SCALE

CURRENT C.O.S. DESIGN STANDARDS ADOPTED FEB. 2007

	BY	DATES
DRAWN:	KL	03/2023
REVISED:	KL	05/2023
CHECKED:	SP	03/2023
APPROVED:	AM	03/2023

CITY OF SPOKANE, WASHINGTON
DEPARTMENT OF ENGINEERING SERVICES
808 WEST SPOKANE FALLS BLVD.
SPOKANE, WASHINGTON 99201-3343
(509) 625-6700

PROJECT NAME: SPOKANE TRAFFIC CALMING MASTER PLAN

SEGMENT LIMITS: SUNSET BOULEVARD

PROJECT LIMITS: BROWNE'S ADDITION NEIGHBORHOOD

TYPE OF IMPROVEMENT: TRAFFIC

CITY PROJECT NUMBER

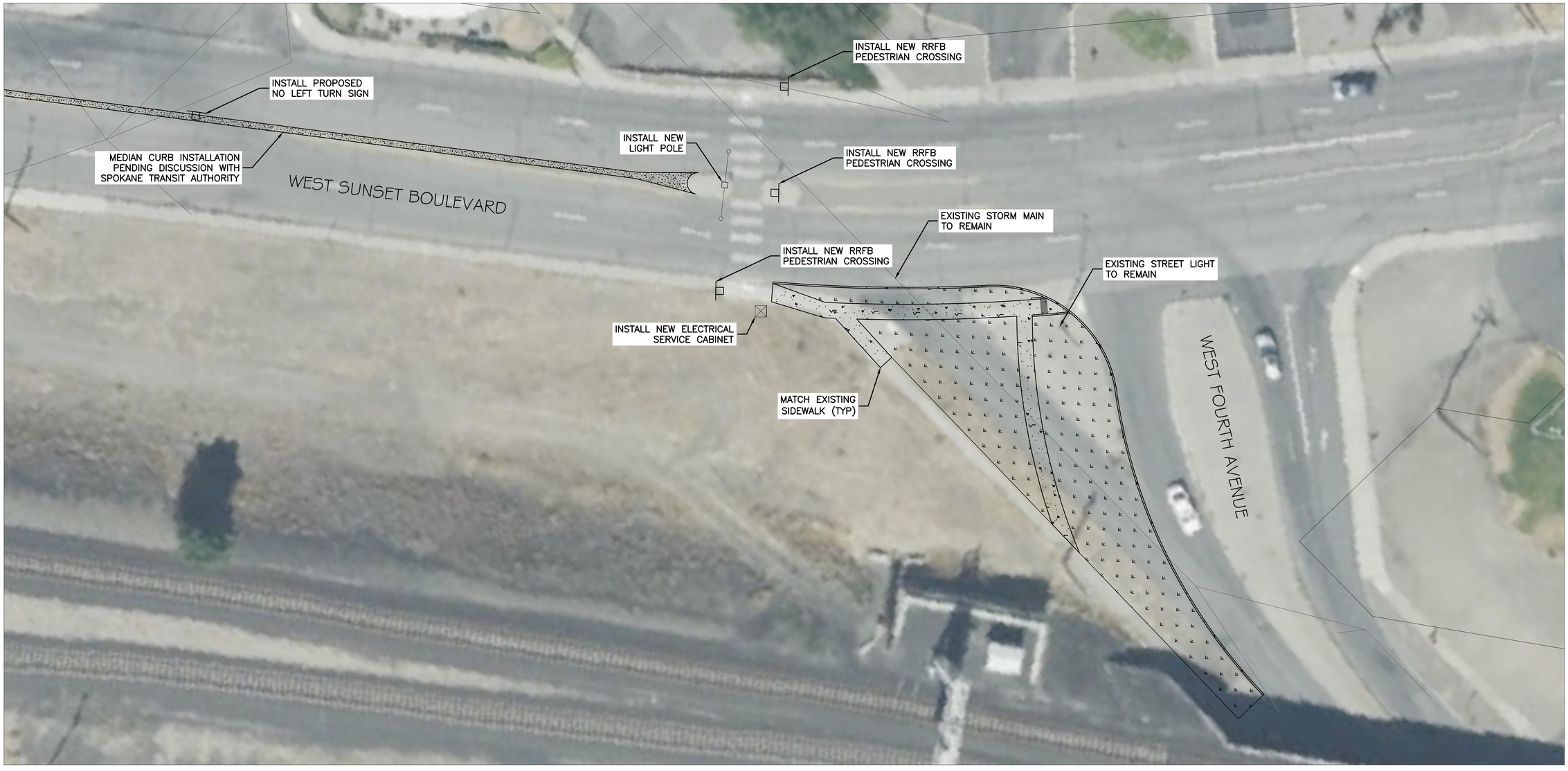
CITY PLAN NUMBER

EFN: TRAFFIC DESIGN

Plotted On May 15, 2023 - 3:22pm

CALL BEFORE YOU DIG 1-800-424-5555

MATCH SHEET 4



LEGEND

- INSTALL NEW CONCRETE SIDEWALK PER COS STD PLAN F-102B
- INSTALL NEW TRAFFIC ISLAND CONCRETE PER COS STD PLANS SECTION F
- INSTALL LANDSCAPING, NATIVE PLANTINGS
- INSTALL CURB RAMP PER COS STD PLAN F-105
- PROPERTY LINE

R03-02

PROPOSED NO LEFT TURN SIGN

PRELIMINARY
NOT FOR CONTRUCTION

5
5 OF 7

RIGHT OF WAY LINES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY

DATE	BY	PROJ	DESCRIPTION	DATE	BY	PROJ.	E.F.N. - U.S.N.	FROM	TO	COUNCIL ACCEPT DATE	FROM	TO	ORD. NO.	DATE	FILE NO.
REVISIONS				AS BUILT							GRADE ORDINANCE LIST				

NAVD88 = (OLD CBM ELEV.) - (13.13) | AS OF JANUARY, 2000 USE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

BENCH MARK LOCATION: NONE GIVEN

NAVD88 ELEV. NONE GIVEN

CBM NO. NONE GIVEN

NAVD88 DATUM

BAR IS ONE INCH ON ORIGINAL DRAWING.
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

SCALE: HORIZONTAL PLAN&PROFILE 1" = 10' | VERTICAL PROFILE ONLY N/A

CURRENT C.O.S. DESIGN STANDARDS ADOPTED FEB. 2007

	BY	DATES
DRAWN:	KL	03/2023
REVISED:	KL	05/2023
CHECKED:	SP	03/2023
APPROVED:	AM	03/2023

CITY OF SPOKANE, WASHINGTON
DEPARTMENT OF ENGINEERING SERVICES
808 WEST SPOKANE FALLS BLVD.
SPOKANE, WASHINGTON 99201-3343
(509) 625-6700

PROJECT NAME: SPOKANE TRAFFIC CALMING MASTER PLAN

SEGMENT LIMITS: SUNSET BOULEVARD

PROJECT LIMITS: BROWNE'S ADDITION NEIGHBORHOOD

TYPE OF IMPROVEMENT: TRAFFIC

CITY PROJECT NUMBER | CITY PLAN NUMBER

EFN: TRAFFIC DESIGN

CALL BEFORE YOU DIG 1-800-424-5555

Plotted On May 15, 2023 - 3:22pm

LEGEND

- INSTALL NEW CONCRETE SIDEWALK PER COS STD PLAN F-102B
- INSTALL LANDSCAPING, NATIVE PLANTINGS
- INSTALL CURB RAMP PER COS STD PLAN F-105
- INSTALL CROSSWALK PER COS STD PLAN G-61
- PROPERTY LINE

CONSTRUCTION NOTES

1. INSTALL NEW CATCH BASIN TYPE 1 AND 8" DIAM. PIPE AS NECESSARY. CONNECT TO EXISTING PIPE WHERE SHOWN.
2. REMOVE EXISTING INLET, PLUG AND ABANDON EXISTING PIPE.
3. REMOVE AND REPLACE EXISTING INLET.
4. RELOCATE EXISTING STOP SIGN.
5. EXISTING MANHOLE TO REMAIN IN PLACE.

NORTH

PRELIMINARY
NOT FOR CONTRUCTION

6
6 OF 7

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DATE	BY	PROJ	DESCRIPTION	FROM	TO
REVISIONS					

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SCALE — HORIZONTAL PLAN&PROFILE 1" = 20' — VERTICAL PROFILE ONLY N/A

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Plotted On May 15, 2023 – 3:22pm

District:	3
Neighborhood:	Browne's Addition
Project Extent:	Spruce St/Coeur d'Alene St/4th Ave Intersection Estimate: $266,000

Problem Statement: Residents of the Browne's Addition neighborhood raised concerns over safety at the Spruce Street/Coeur d'Alene Street/4th Avenue intersection due to motorists travelling from Sunset Boulevard (750 feet south of the intersection).

Spruce Avenue and Coeur d'Alene Street Intersection

Traffic Analysis

Spruce Street, Coeur d'Alene Street and 4th Avenue are classified as urban local access roads. Coeur d'Alene Street classified as bike friendly route on the City of Spokane Master Bike and Pedestrian Plan map, does not have a posted speed limit, provides one lane in each direction and on-street parking on both sides of the street. Spruce Street does not have a posted speed limit, provides one lane in each direction and on-street parking on both sides of the street. Spruce Street/Coeur d'Alene Street/4th Avenue intersection has unneeded pavement width on the southwest corner.

The table below shows the daily traffic volumes and 85th percentile speeds on Spruce Street near Coeur d'Alene Avenue. The average daily volume on Spruce Street was 892 vehicles. The 85th percentile speed was 26 miles per hour (one mile per hour greater than the posted speed limit). The data indicates there is a not a speeding concern.

2022 Daily Traffic and 85th Percentile Speeds on Spruce Street

Direction	# Lanes	2022 Estimated Daily Traffic (Vehicles per day) [a]	85th Percentile Speed (mph)	Posted Speed (mph)
Spruce Street north of Coeur d'Alene Street/4th Avenue				
NB	1	401		
SB	1	491		
Both Dir.	2	892	26	25

[a] Traffic data collected in 2015. Traffic volumes were grown at a 1.0% annual growth rate, to estimate 2022 traffic conditions.

The table below shows the severity and types of crashes occurring at the Spruce Street/Coeur d'Alene Street/4th Avenue intersection from 2017 through 2021. There were three minor crashes indicating there is not a significant safety issue at the intersections.

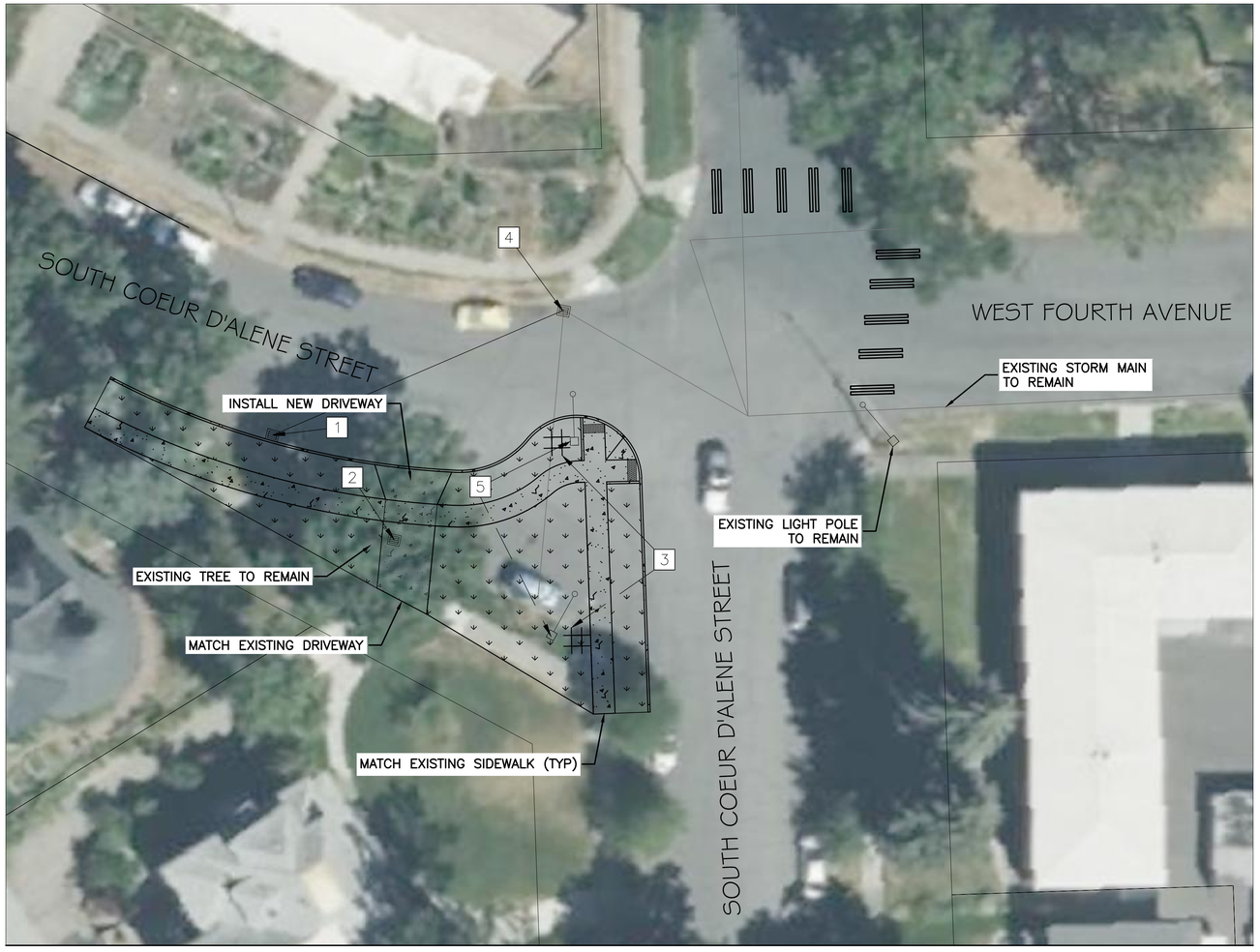
Crashes at Spruce Street/Coeur d'Alene Street Intersection (2017 to 2021)

Crash Type	Crash Severity				Total
	Fatal	Major Injury	Minor Injury	Property Damage Only	
Angle	-	-	-	3	3
Total	-	-	-	3	3

Recommended Solution:

The following traffic calming elements are recommended at the Spruce Street/Coeur d'Alene Street/4th Avenue intersection:

- Add pedestrian crosswalk markings at the east and north legs of the intersection
- Add posted speed limit sign in northbound direction at Sunset Boulevard and Coeur d'Alene Street to alert drivers coming off Sunset Boulevard
- Extend out the curb area on the southwest corner to reduce the intersection size, either with a new curb or pavement markings



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2. REMOVE EXISTING INLET. PLUG AND ABANDON EXISTING PIPE.
3. RELOCATE EXISTING STREET NAME SIGN.
4. PRESERVE AND PROTECT EXISTING INLET STRUCTURE
5. RELOCATE EXISTING LIGHT POLE

R02-01

PROPOSED SPEED LIMIT SIGN

PRELIMINARY
NOT FOR CONTRUCTION

7
7 OF 7

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SCALE

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