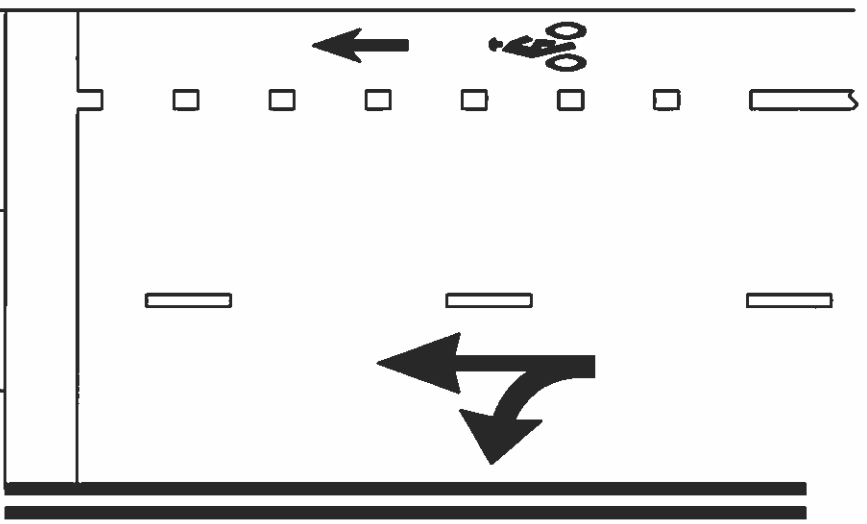


CENTER THE SIGNAL HEAD
OVER THE CENTER OF THE LANE

R10-12
30" x 36"

CENTER THE SIGNAL HEAD
OVER THE CENTER OF THE LANE



Permissive Left Turn - Shared Through/Left

NOTES:

1. ALL SIGNAL HEAD LOCATIONS SHALL COMPLY WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AS ADOPTED BY THE STATE OF IDAHO.
2. DETAIL IS A TYPICAL DESIGN FOR A TYPICAL ROAD INTERSECTING AT A 90° ANGLE. ALL SIGNAL HEAD LOCATIONS SHALL BE VERIFIED IN THE FIELD BY ACHD PRIOR TO DRILLING HOLES IN THE MAST ARM.
3. SEE STANDARD DETAIL TS-1109 FOR STREET NAME SIGN DETAILS.

12/26/2013



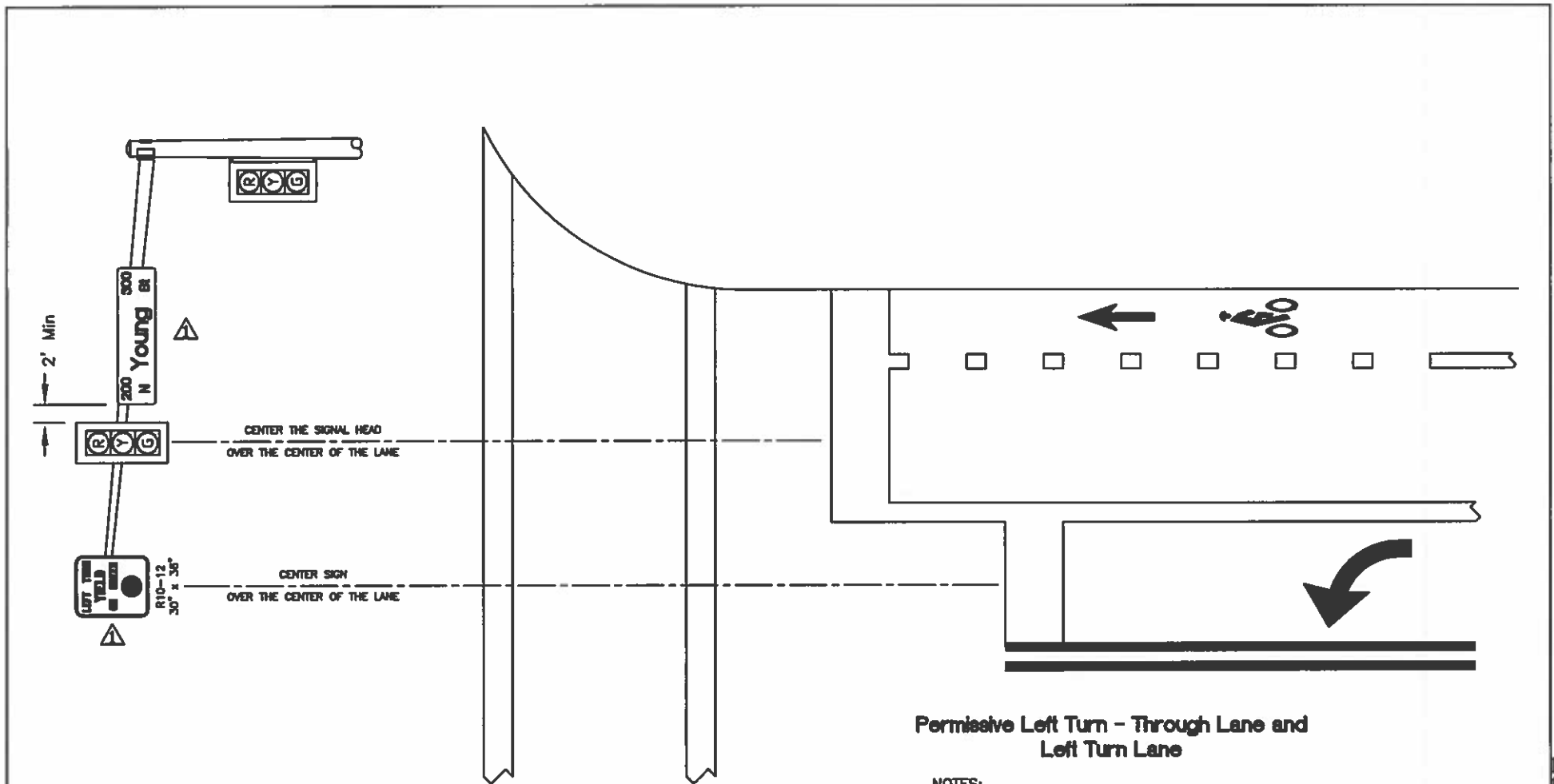
DATE	BY	REVISION



- SIGNATURES -		- CHECK FIELD -	
Drawn By	Judith Black	Checked By	Judith Black
Date	12/26/13	Design By	Judith Black
File	10-1117-000	Approved By	Sean Ryan

STANDARD TRAFFIC SIGNAL HEAD
LOCATION DETAILS

STANDARD DETAIL, INC.
TS-1117



Permissive Left Turn - Through Lane and Left Turn Lane

NOTES:

1. ALL SIGNAL HEAD LOCATIONS SHALL COMPLY WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AS ADOPTED BY THE STATE OF IDAHO.
2. DETAIL IS A TYPICAL DESIGN FOR A TYPICAL ROAD INTERSECTING AT A 90° ANGLE. ALL SIGNAL HEAD LOCATIONS SHALL BE VERIFIED IN THE FIELD BY ACHD PRIOR TO DRILLING HOLES IN THE MAST ARM.
3. SEE STANDARD DETAIL TS-1109 FOR STREET NAME SIGN DETAILS.

3/5/2013



NO.	DATE	BY	DESCRIPTION
1			Changed mast arm vertical sign
2			
3			
4			
5			

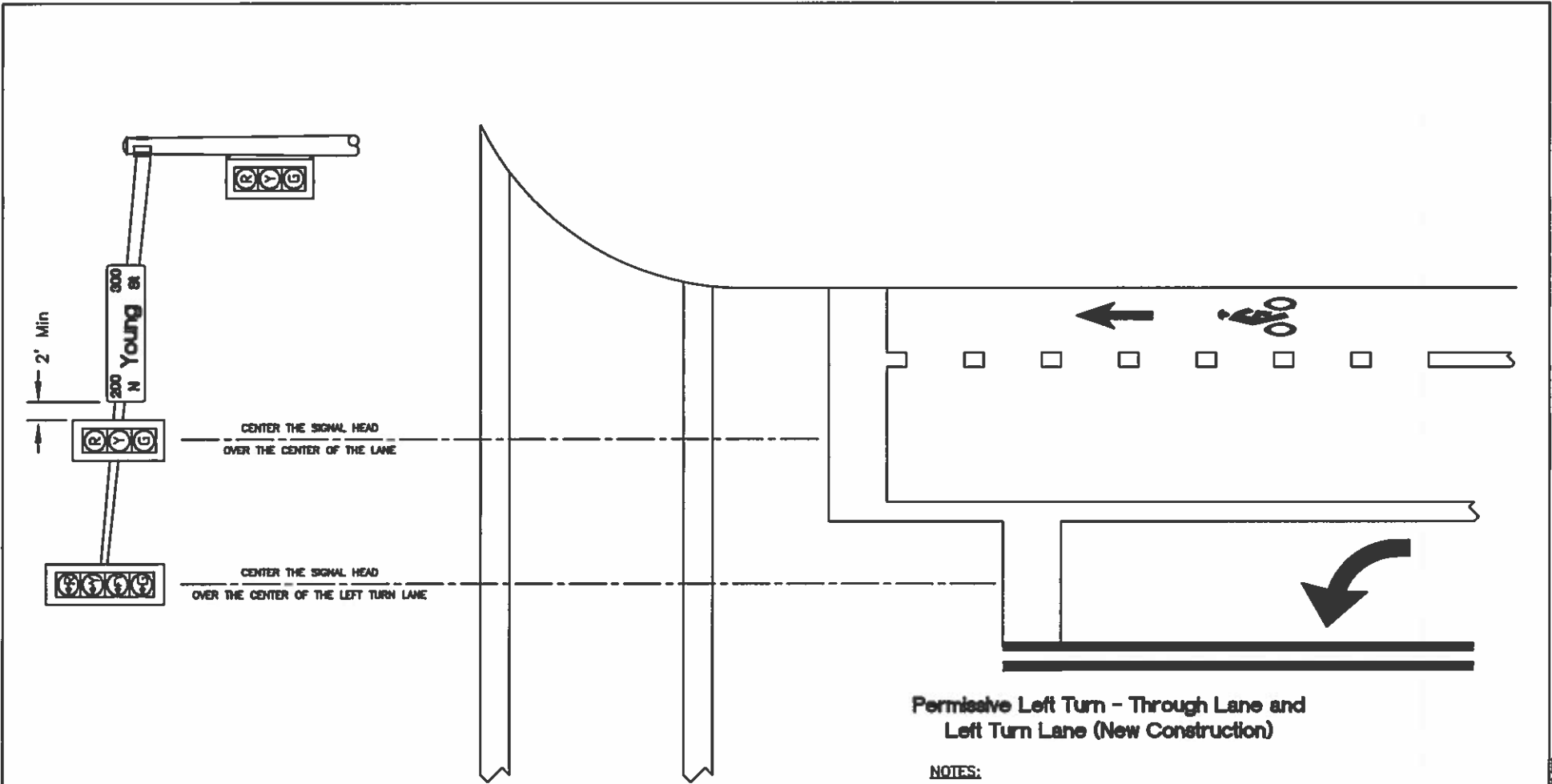


SIGNATURES		SERIES TITLES	
Drawn By: [Signature]	Checked By: [Signature]	Design By: [Signature]	Approved By: [Signature]

STANDARD TRAFFIC SIGNAL HEAD LOCATION DETAILS

DESIGNED BY: [Signature]

TS-1117



Permissive Left Turn - Through Lane and Left Turn Lane (New Construction)

NOTES:

1. ALL SIGNAL HEAD LOCATIONS SHALL COMPLY WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AS ADOPTED BY THE STATE OF IDAHO.
2. DETAIL IS A TYPICAL DESIGN FOR A TYPICAL ROAD INTERSECTING AT A 90° ANGLE. ALL SIGNAL HEAD LOCATIONS SHALL BE VERIFIED IN THE FIELD BY ACHD PRIOR TO DRILLING HOLES IN THE MAST ARM.
3. SEE STANDARD DETAIL TS-1109 FOR STREET NAME SIGN DETAILS.
4. THE LEFT TURN GREEN ARROW PHASE SHALL BE OMITTED FOR PERMISSIVE OPERATION.

3/5/2013



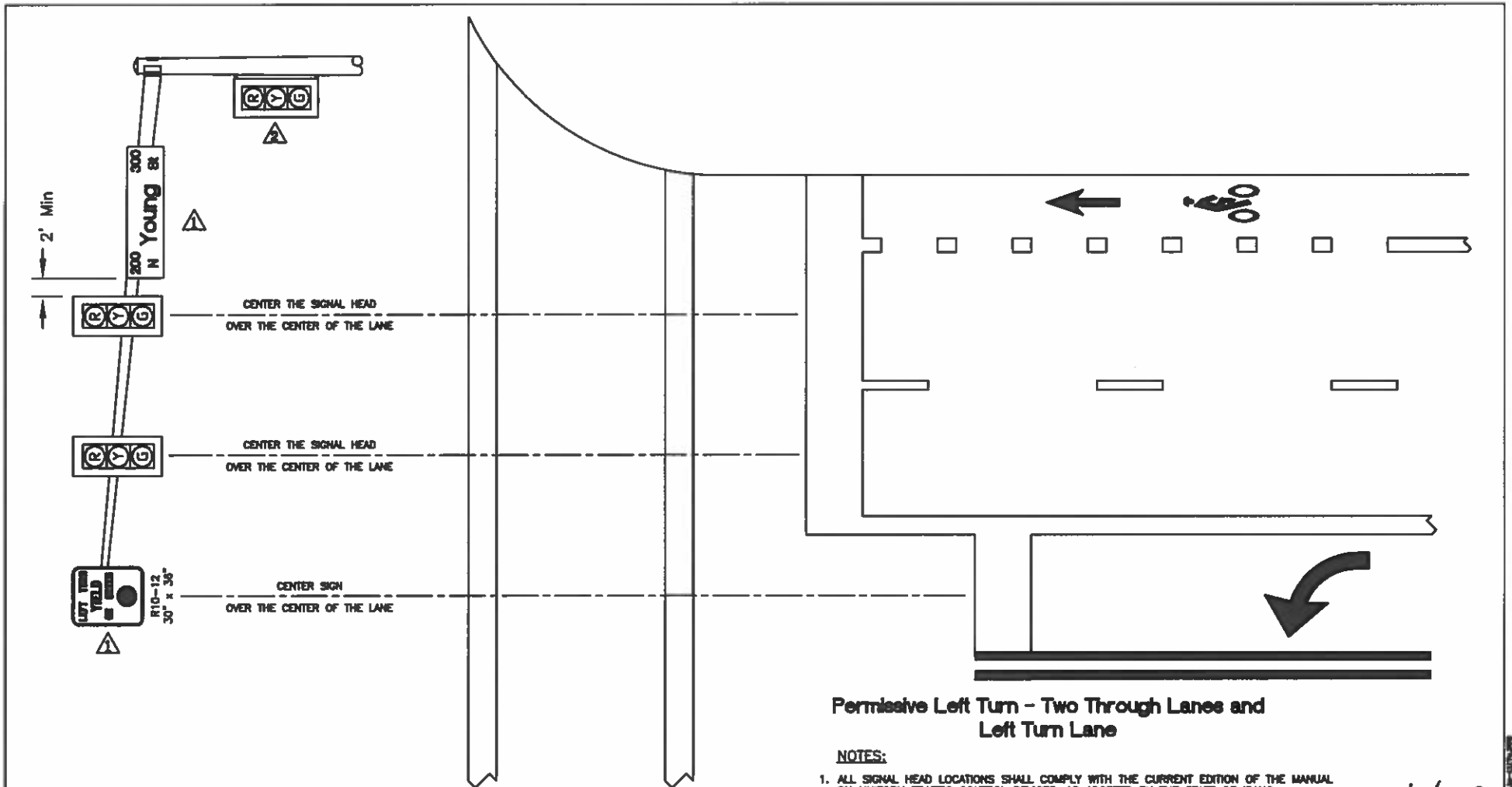
NO.	DATE	BY	REVISION



• S I G N A T U R E S •			
Drawn By	Checked By	Design By	Approved By
05/20/09			
File	10-1170.000		

• S T A N D A R D T I T L E •	
STANDARD TRAFFIC SIGNAL HEAD LOCATION DETAILS	

• STANDARD DETAIL, NO. •
TS-1117
 Sheet 28 of 33



Permissive Left Turn - Two Through Lanes and Left Turn Lane

- NOTES:**
1. ALL SIGNAL HEAD LOCATIONS SHALL COMPLY WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AS ADOPTED BY THE STATE OF IDAHO.
 2. DETAIL IS A TYPICAL DESIGN FOR A TYPICAL ROAD INTERSECTING AT A 90° ANGLE. ALL SIGNAL HEAD LOCATIONS SHALL BE VERIFIED IN THE FIELD BY ACHD PRIOR TO DRILLING HOLES IN THE MAST ARM.
 3. SEE STANDARD DETAIL TS-1109 FOR STREET NAME SIGN DETAILS.
 4. POST MOUNTED SIGNAL HEADS ARE OPTIONAL, BUT MAY BE REQUIRED BY THE ACHD TRAFFIC ENGINEER.

▲		
▲	05/10	ADD
▲	05/10	CHANGED MAST ARM CRANDED SLIPS
▲	04/08	BY

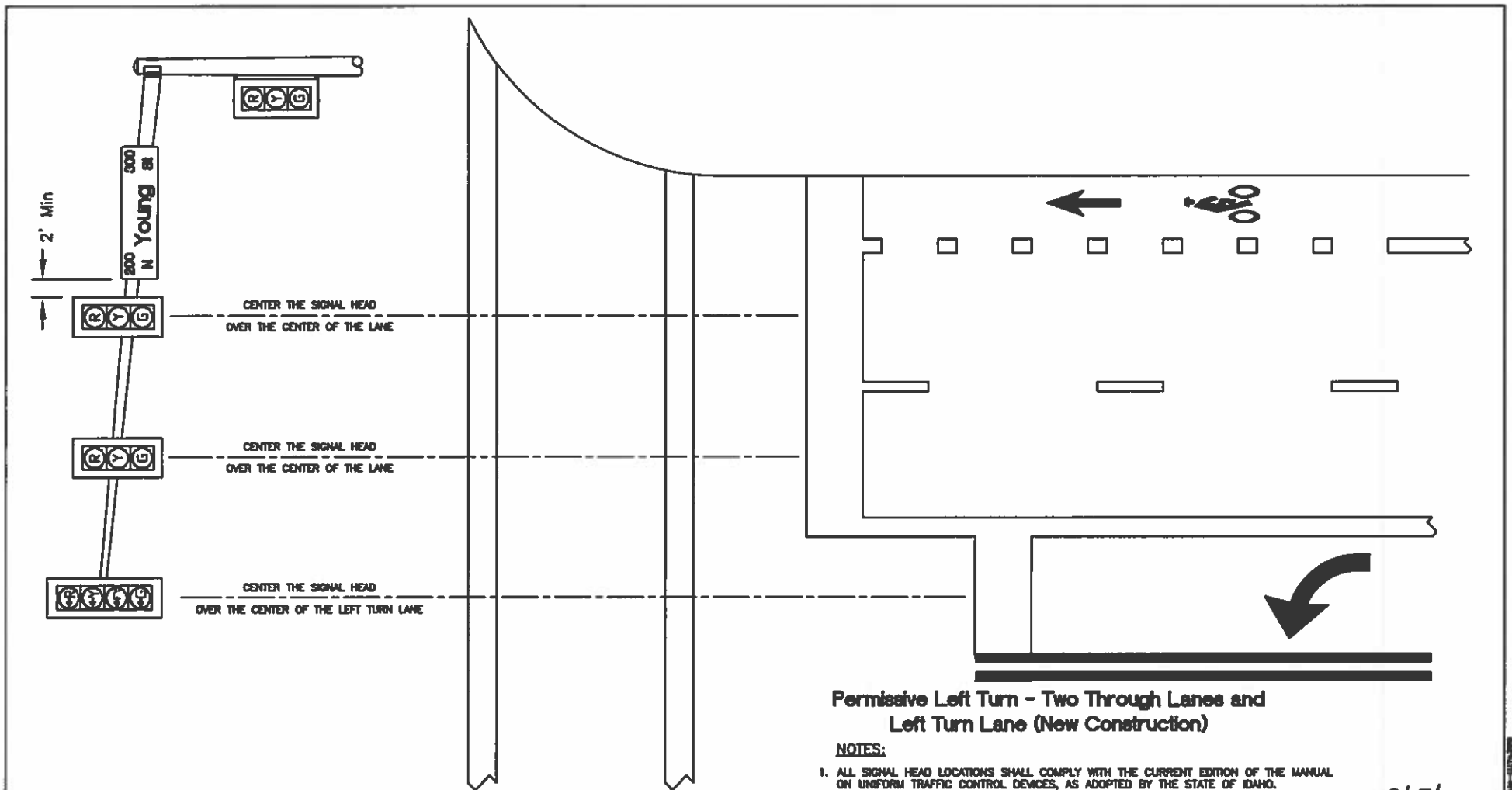


Number	TS-1117	Drawn By	Mike Patten
Date	04/27/08	Design By	Mike Patten
Title	05-1117A-2008	Approved By	Jim Larson

STANDARD TRAFFIC SIGNAL HEAD LOCATION DETAILS

3/5/2013

TS-1117



Permissive Left Turn - Two Through Lanes and Left Turn Lane (New Construction)

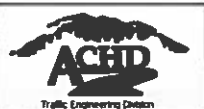
NOTES:

1. ALL SIGNAL HEAD LOCATIONS SHALL COMPLY WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AS ADOPTED BY THE STATE OF IDAHO.
2. DETAIL IS A TYPICAL DESIGN FOR A TYPICAL ROAD INTERSECTING AT A 90° ANGLE. ALL SIGNAL HEAD LOCATIONS SHALL BE VERIFIED IN THE FIELD BY ACHD PRIOR TO DRILLING HOLES IN THE MAST ARM.
3. SEE STANDARD DETAIL TS-1109 FOR STREET NAME SIGN DETAILS.
4. POST MOUNTED SIGNAL HEADS ARE OPTIONAL, BUT MAY BE REQUIRED BY THE ACHD TRAFFIC ENGINEER.
5. THE LEFT TURN GREEN ARROW PHASE SHALL BE OMITTED FOR PERMISSIVE OPERATION.

3/5/2013



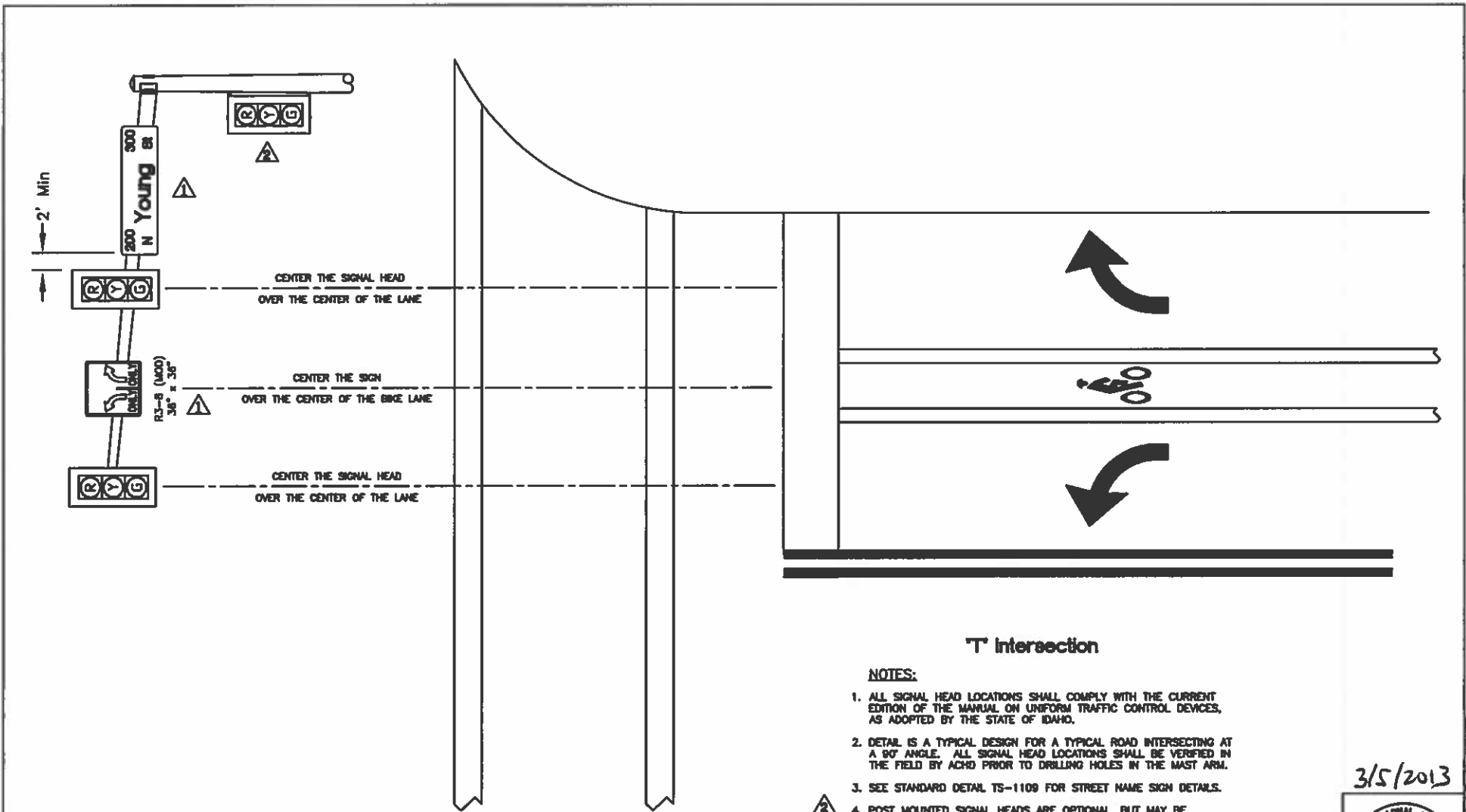
NO.	DATE	BY	REVISIONS



DRAWN BY		CHECKED BY	

DESIGN TITLE	
STANDARD TRAFFIC SIGNAL HEAD LOCATION DETAILS	

TS-1117



'T' Intersection

NOTES:

1. ALL SIGNAL HEAD LOCATIONS SHALL COMPLY WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AS ADOPTED BY THE STATE OF IDAHO.
2. DETAIL IS A TYPICAL DESIGN FOR A TYPICAL ROAD INTERSECTING AT A 90° ANGLE. ALL SIGNAL HEAD LOCATIONS SHALL BE VERIFIED IN THE FIELD BY ACHD PRIOR TO DRILLING HOLES IN THE MAST ARM.
3. SEE STANDARD DETAIL TS-1109 FOR STREET NAME SIGN DETAILS.
4. POST MOUNTED SIGNAL HEADS ARE OPTIONAL, BUT MAY BE REQUIRED BY THE ACHD TRAFFIC ENGINEER.



3/5/2013

▲			
▲	10/18	ADD	Added note
▲	10/18	CHG	Changed mast arm sign
▲	04/20	BY	REVISIONS

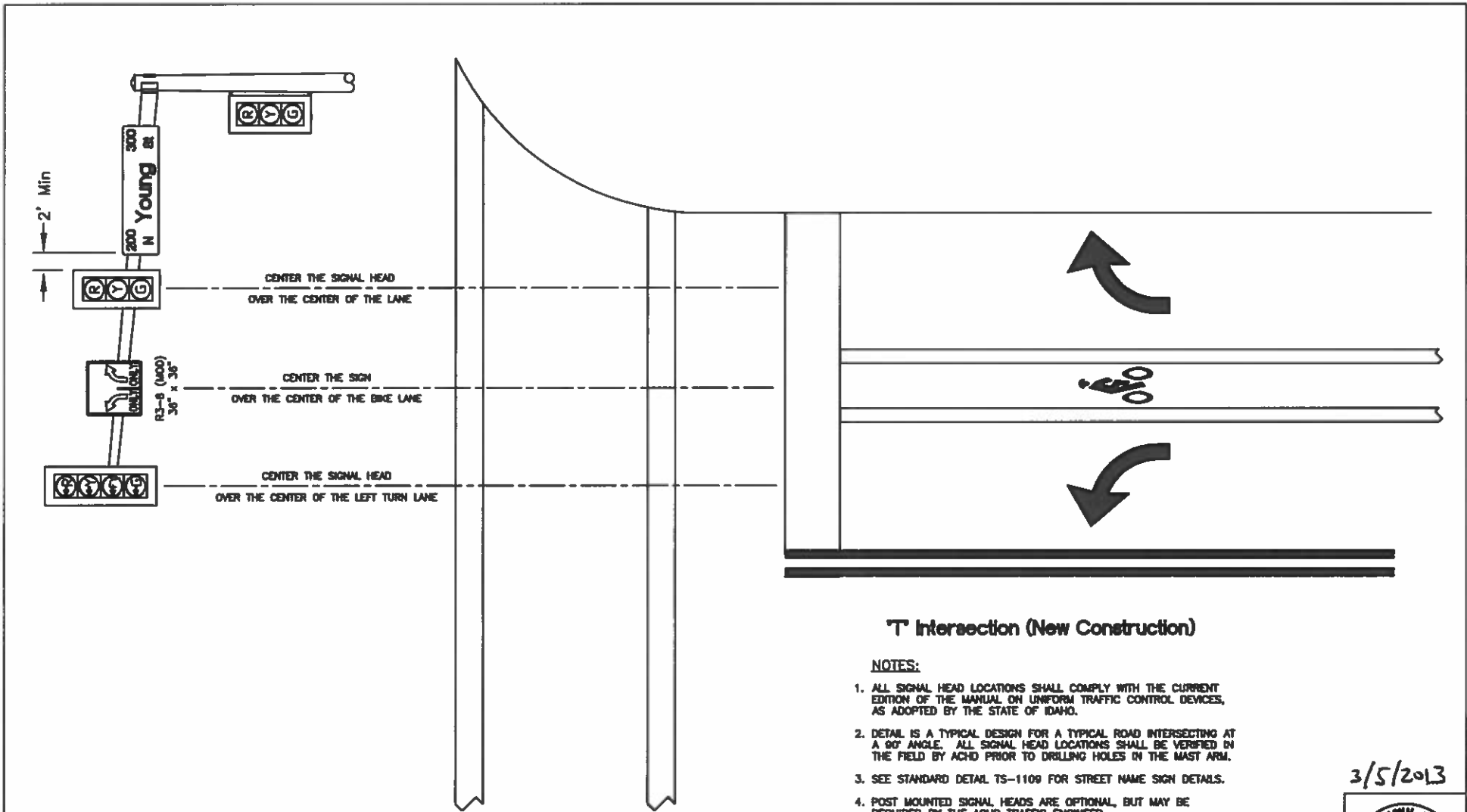


• S I G N A T U R E S •			
Drawn By	10/18/12	Checked By	10/18/12
Design By	10/18/12	Approved By	10/18/12

• S T A N D A R D T I T L E •	
STANDARD TRAFFIC SIGNAL HEAD LOCATION DETAILS	



TS-1117
Sheet 4A of 13



T Intersection (New Construction)

NOTES:

1. ALL SIGNAL HEAD LOCATIONS SHALL COMPLY WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AS ADOPTED BY THE STATE OF IDAHO.
2. DETAIL IS A TYPICAL DESIGN FOR A TYPICAL ROAD INTERSECTING AT A 90° ANGLE. ALL SIGNAL HEAD LOCATIONS SHALL BE VERIFIED IN THE FIELD BY ACHD PRIOR TO DRILLING HOLES IN THE MAST ARM.
3. SEE STANDARD DETAIL TS-1109 FOR STREET NAME SIGN DETAILS.
4. POST MOUNTED SIGNAL HEADS ARE OPTIONAL, BUT MAY BE REQUIRED BY THE ACHD TRAFFIC ENGINEER.
5. THE LEFT TURN GREEN ARROW PHASE MAY BE OMITTED AT THE DISCRETION OF ACHD CONGESTION MANAGEMENT.

3/5/2013





Drafted By: JTB Date: 01/28/13 File: 12-1117-1000	Drawn By: Joshua Beck Design By: Joshua Beck Approved By: Steve Owen
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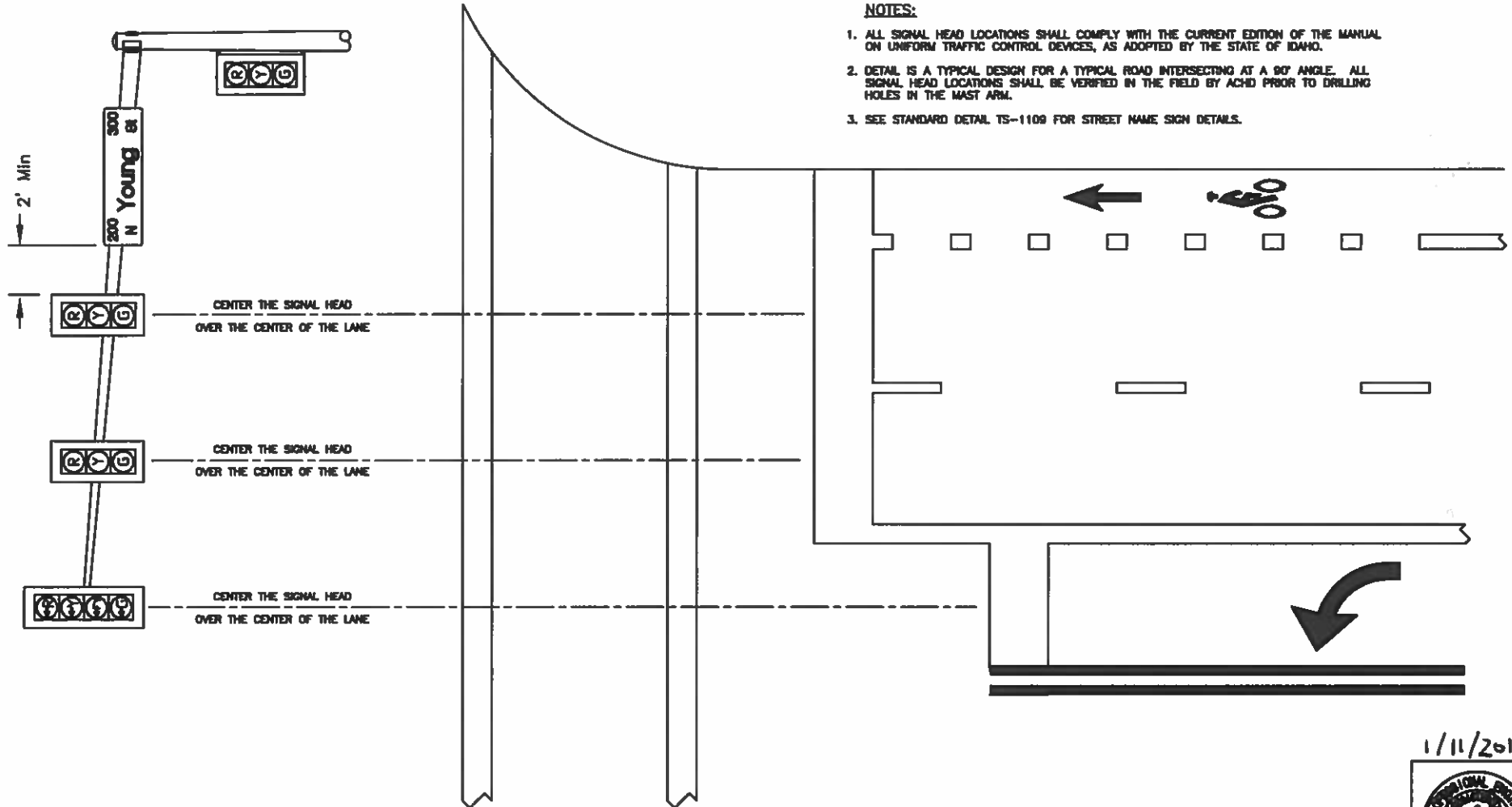
STANDARD TRAFFIC SIGNAL HEAD LOCATION DETAILS

TS-1117

Protected/Permissive Left Turn (Flashing Yellow Arrow)

NOTES:

1. ALL SIGNAL HEAD LOCATIONS SHALL COMPLY WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AS ADOPTED BY THE STATE OF IDAHO.
2. DETAIL IS A TYPICAL DESIGN FOR A TYPICAL ROAD INTERSECTING AT A 90° ANGLE. ALL SIGNAL HEAD LOCATIONS SHALL BE VERIFIED IN THE FIELD BY ACHD PRIOR TO DRILLING HOLES IN THE MAST ARM.
3. SEE STANDARD DETAIL TS-1109 FOR STREET NAME SIGN DETAILS.



1/11/2012



NO.	DATE	BY	REVISIONS



Drawn By: Joshua Smith Date: 01/10/12 PWA: 6-41276-000	Design By: Joshua Smith Approved By: Russ Olson
--	--

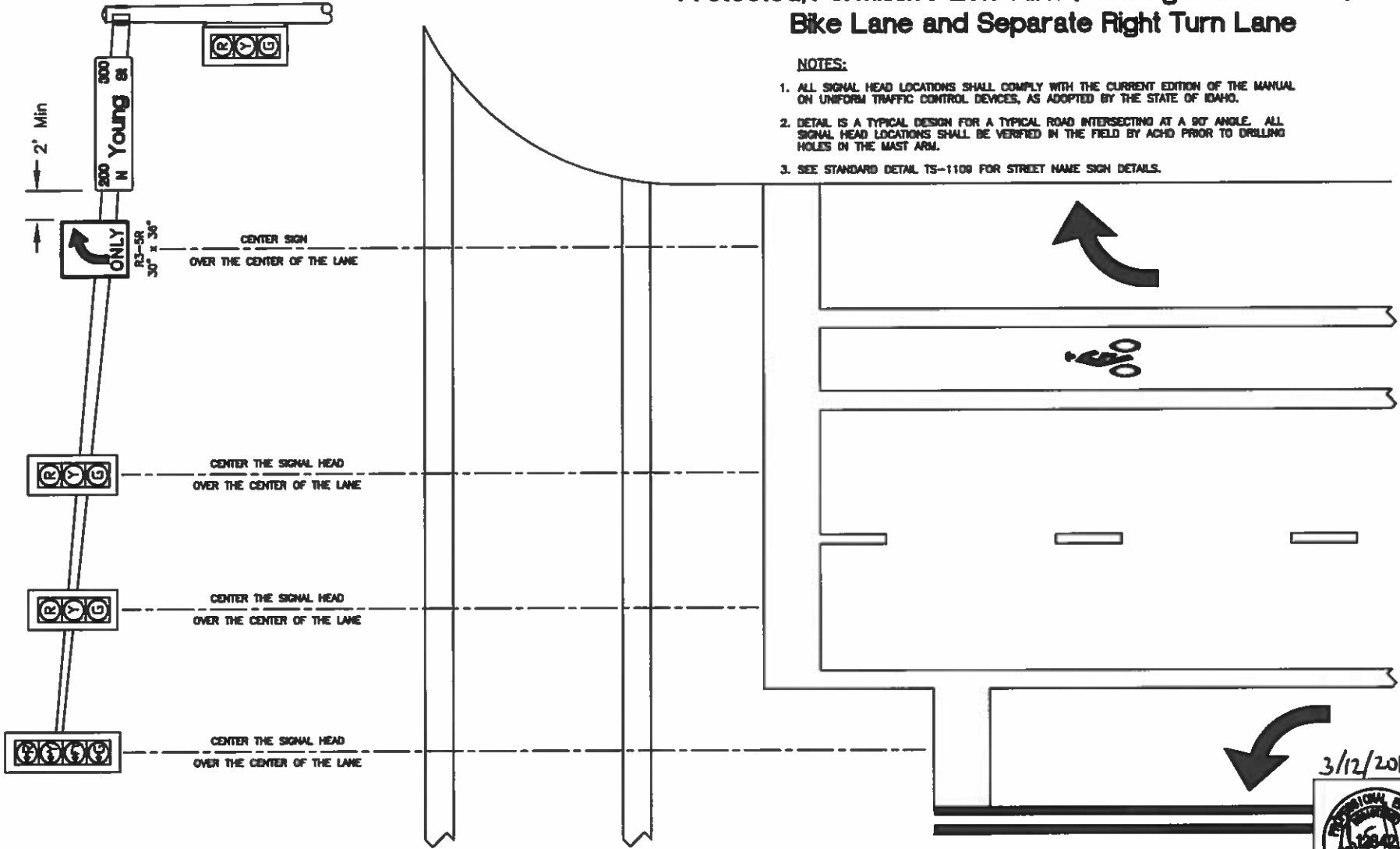
STANDARD TRAFFIC SIGNAL HEAD LOCATION DETAILS

TS-1117

Protected/Permissive Left Turn (Flashing Yellow Arrow) with Bike Lane and Separate Right Turn Lane

NOTES:

1. ALL SIGNAL HEAD LOCATIONS SHALL COMPLY WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AS ADOPTED BY THE STATE OF IDAHO.
2. DETAIL IS A TYPICAL DESIGN FOR A TYPICAL ROAD INTERSECTING AT A 90° ANGLE. ALL SIGNAL HEAD LOCATIONS SHALL BE VERIFIED IN THE FIELD BY ACHD PRIOR TO DRILLING HOLES ON THE MAST ARM.
3. SEE STANDARD DETAIL TS-1109 FOR STREET NAME SIGN DETAILS.



NO.	DATE	BY	REVISION



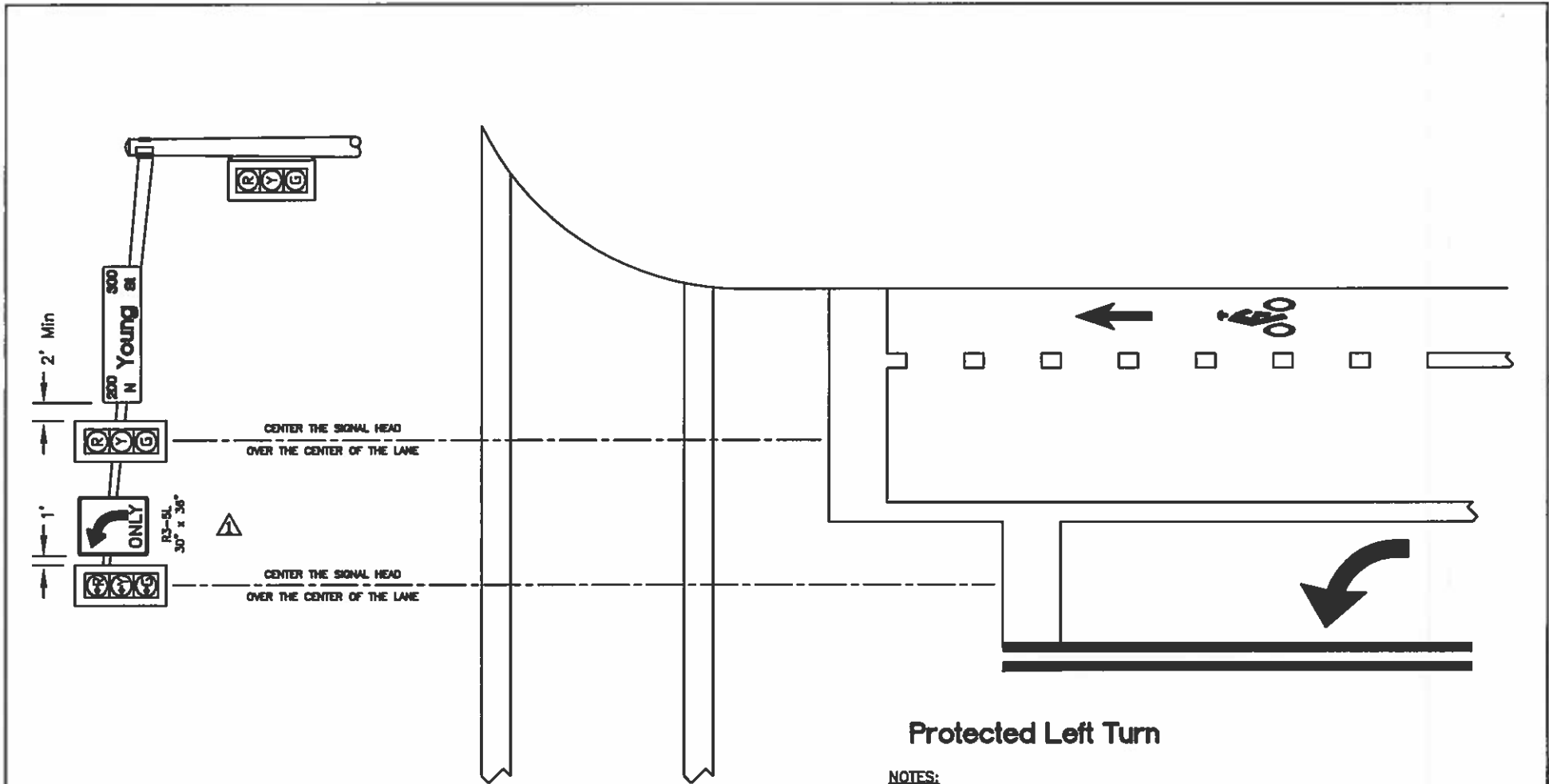
SIGNATURES			
DESIGNED BY	DESIGNED BY	CHECKED BY	CHECKED BY
DRAWN BY	DRAWN BY	APPROVED BY	APPROVED BY
DATE 12/15/09	DATE 12/15/09	DATE 12-15-09	DATE 12-15-09

DRAWN BY		CHECKED BY	
DATE		DATE	

STANDARD TRAFFIC SIGNAL HEAD LOCATION DETAILS



TS-1117



Protected Left Turn

NOTES:

1. ALL SIGNAL HEAD LOCATIONS SHALL COMPLY WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AS ADOPTED BY THE STATE OF IDAHO.
2. DETAIL IS A TYPICAL DESIGN FOR A TYPICAL ROAD INTERSECTING AT A 90° ANGLE. ALL SIGNAL HEAD LOCATIONS SHALL BE VERIFIED IN THE FIELD BY ACHD PRIOR TO DRILLING HOLES IN THE MAST ARM.
3. SEE STANDARD DETAIL TS-1109 FOR STREET NAME SIGN DETAILS.

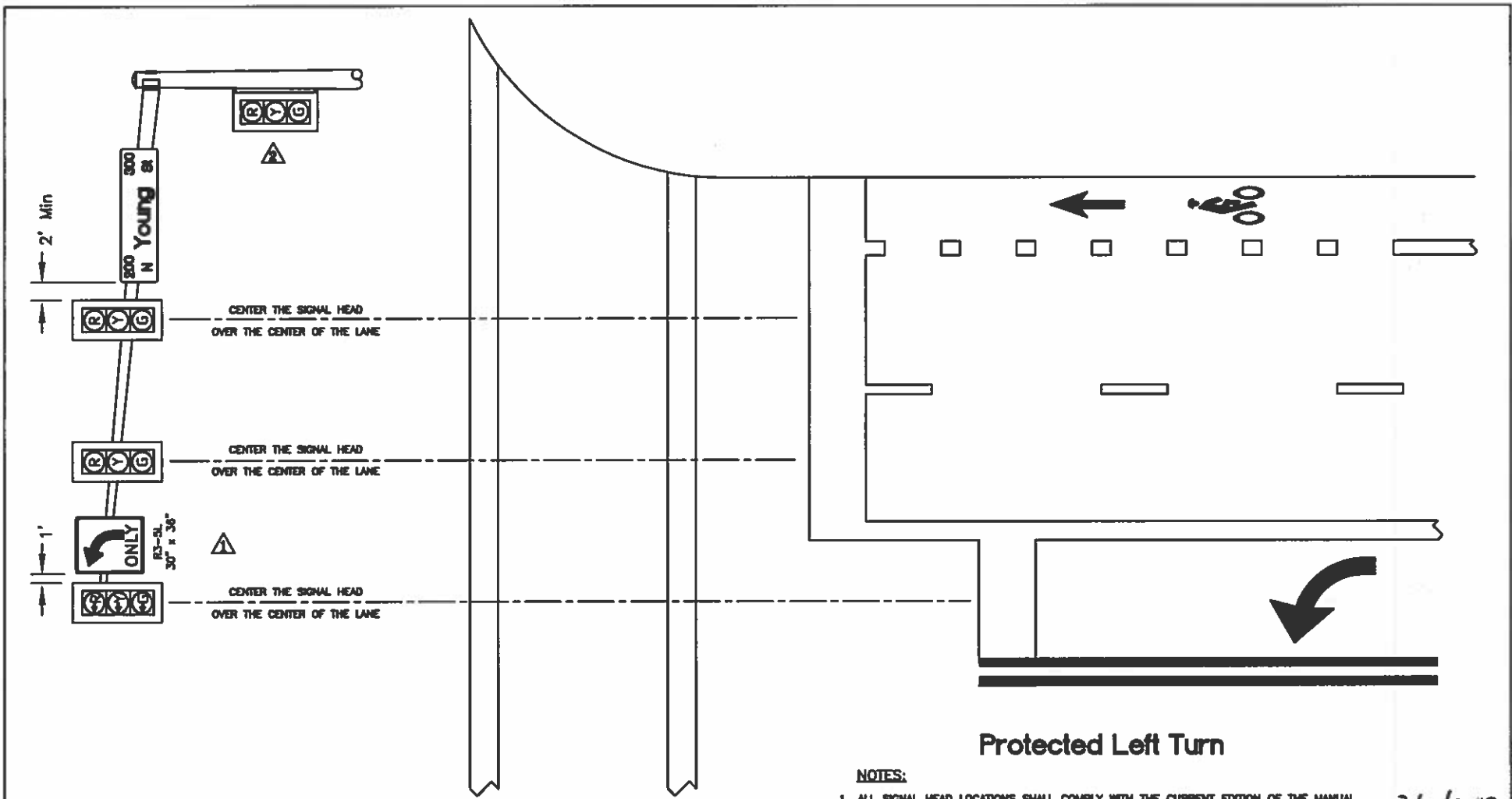
3/12/2012



▲			
▲			
▲	04/26	2012	Changed mast arm overhead signs
▲	04/26	2012	



SIGNATURES		PRINT TITLES	
Drawn By: Mike Ferris	Checked By: Mike Ferris	Standard Traffic Signal Head	
Designed By: Mike Ferris	Reviewed By: Jim Loman	Location Details	



Protected Left Turn

NOTES:

1. ALL SIGNAL HEAD LOCATIONS SHALL COMPLY WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AS ADOPTED BY THE STATE OF IDAHO.
2. DETAIL IS A TYPICAL DESIGN FOR A TYPICAL ROAD INTERSECTING AT A 90° ANGLE. ALL SIGNAL HEAD LOCATIONS SHALL BE VERIFIED IN THE FIELD BY ACHD PRIOR TO DRILLING HOLES IN THE MAST ARM.
3. SEE STANDARD DETAIL TS-1109 FOR STREET NAME SIGN DETAILS.
4. POST MOUNTED SIGNAL HEADS ARE OPTIONAL, BUT MAY BE REQUIRED BY THE ACHD TRAFFIC ENGINEER.

3/12/2012

▲		
▲		
▲	02/24	201
▲	02/24	201
▲	02/24	201
▲	02/24	201



• SIGNATURES •		
Design: [Signature]	Checked: [Signature]	Drawn: [Signature]
Date: 02/27/12	Checked: [Signature]	Drawn: [Signature]
Title: Sr. Traffic Engineer	Approved: [Signature]	Title: [Signature]

• SHEET TITLE •	
STANDARD TRAFFIC SIGNAL HEAD LOCATION DETAILS	

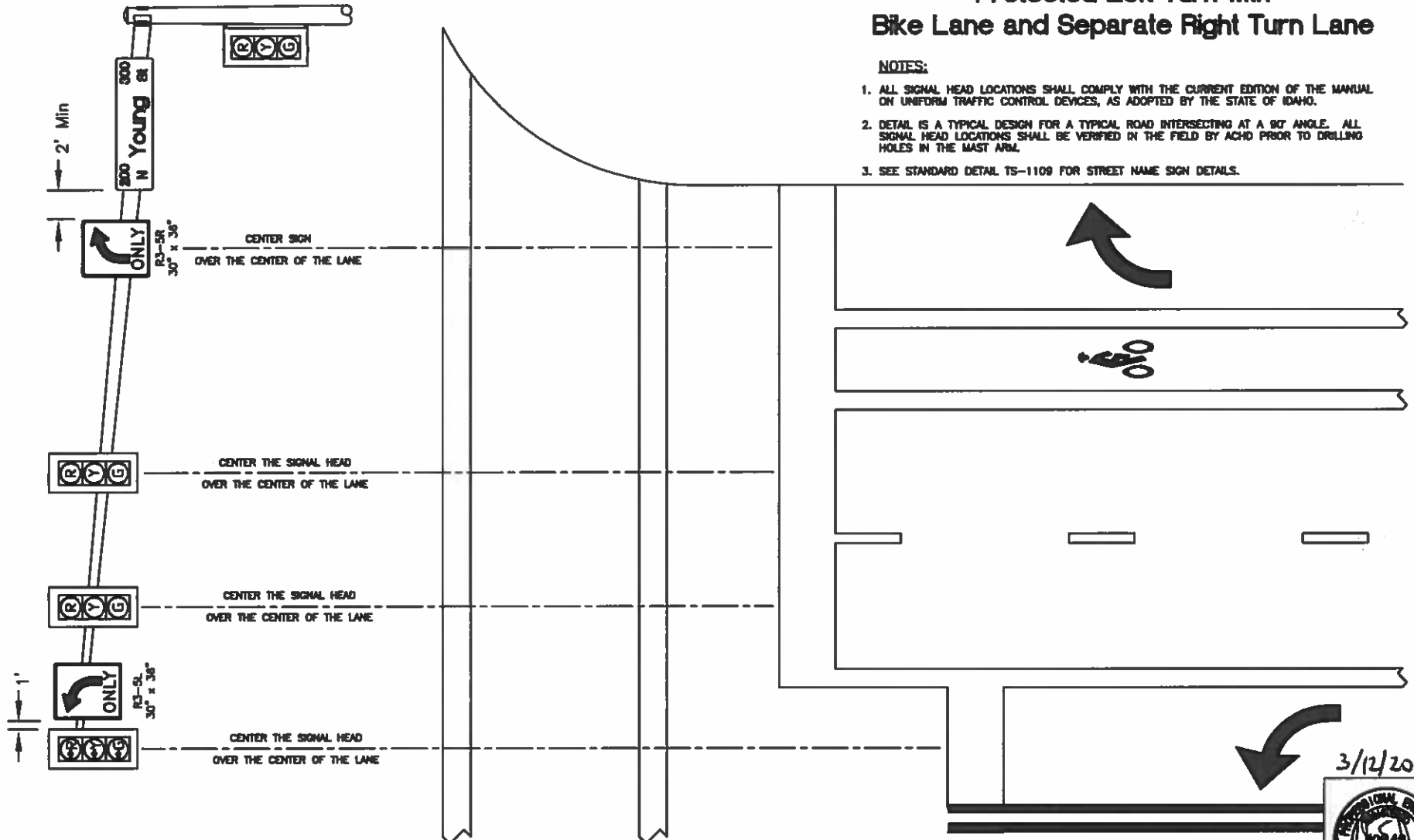


TS-117

Protected Left Turn with Bike Lane and Separate Right Turn Lane

NOTES:

1. ALL SIGNAL HEAD LOCATIONS SHALL COMPLY WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AS ADOPTED BY THE STATE OF IDAHO.
2. DETAIL IS A TYPICAL DESIGN FOR A TYPICAL ROAD INTERSECTING AT A 90° ANGLE. ALL SIGNAL HEAD LOCATIONS SHALL BE VERIFIED IN THE FIELD BY ACHD PRIOR TO DRILLING HOLES IN THE MAST ARM.
3. SEE STANDARD DETAIL TS-1109 FOR STREET NAME SIGN DETAILS.



DATE	BY	REVISION



SIGNATURES			
Checked By	Designed By	Reviewed By	
Date 05/28/10	Designed By	Reviewed By	
File 10-CSTL008	Approved By		

SHEET TITLE	
STANDARD TRAFFIC SIGNAL HEAD	LOCATION DETAILS



REGISTERED ENGINEER NO. 2842
TS-1117
 Sheet 9 of 13

3/12/2012

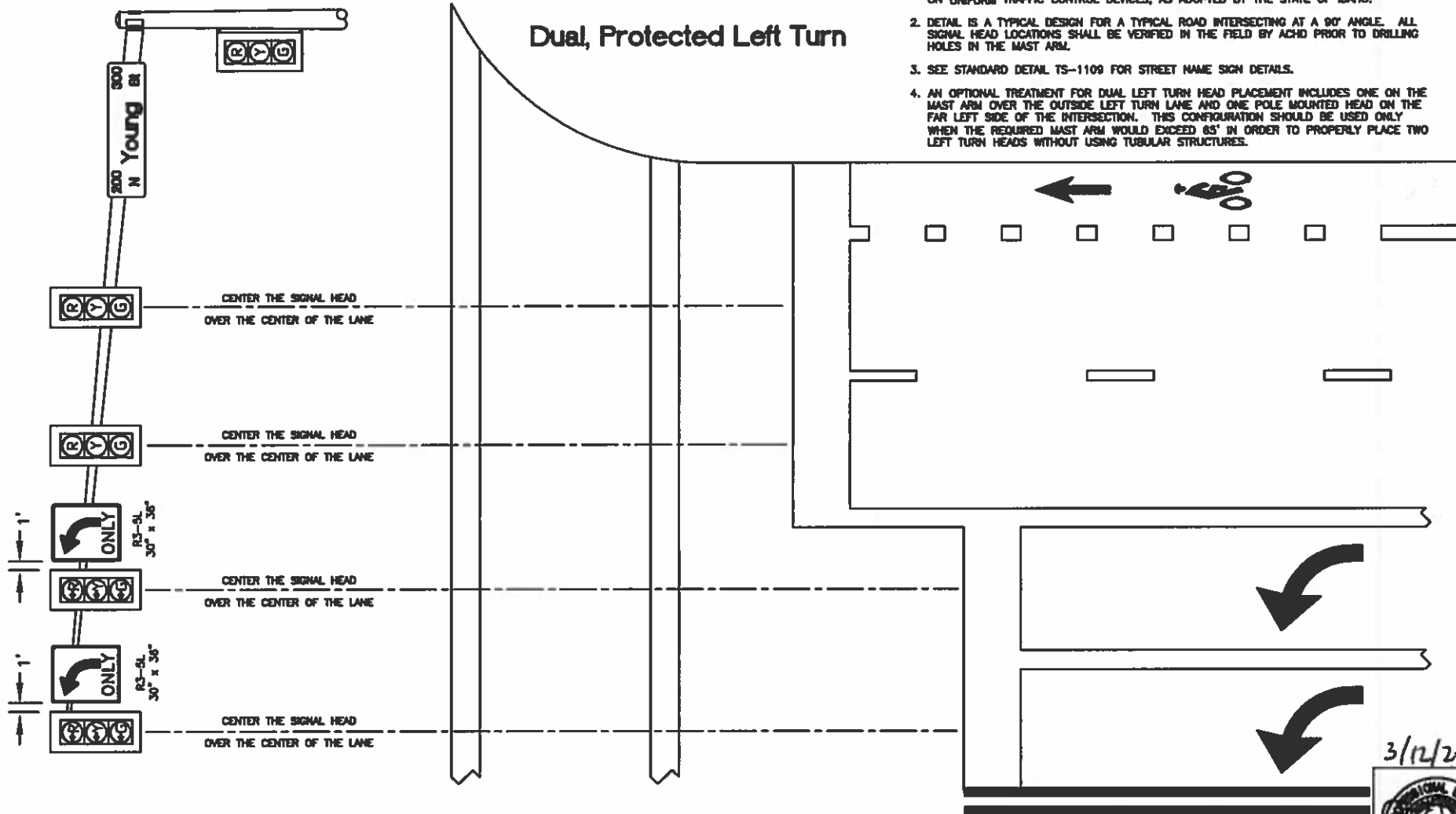
Ada County Highway District

970 Adams Street, Boise, Idaho, 83724

Dual, Protected Left Turn

NOTES:

1. ALL SIGNAL HEAD LOCATIONS SHALL COMPLY WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AS ADOPTED BY THE STATE OF IDAHO.
2. DETAIL IS A TYPICAL DESIGN FOR A TYPICAL ROAD INTERSECTING AT A 90° ANGLE. ALL SIGNAL HEAD LOCATIONS SHALL BE VERIFIED IN THE FIELD BY ACHD PRIOR TO DRILLING HOLES IN THE MAST ARM.
3. SEE STANDARD DETAIL TS-1109 FOR STREET NAME SIGN DETAILS.
4. AN OPTIONAL TREATMENT FOR DUAL LEFT TURN HEAD PLACEMENT INCLUDES ONE ON THE MAST ARM OVER THE OUTSIDE LEFT TURN LANE AND ONE POLE MOUNTED HEAD ON THE FAR LEFT SIDE OF THE INTERSECTION. THIS CONFIGURATION SHOULD BE USED ONLY WHEN THE REQUIRED MAST ARM WOULD EXCEED 65' IN ORDER TO PROPERLY PLACE TWO LEFT TURN HEADS WITHOUT USING TUBULAR STRUCTURES.



NO.	DATE	BY	DESCRIPTION



DESIGNER		CHECKER	
Drawn By	Joshua Smith	Checked By	Joshua Smith
Date	04/09/12	Checked By	Joshua Smith
File No.	10-0175/001	Approved By	Shane Martin

STANDARD TRAFFIC SIGNAL HEAD LOCATION DETAILS

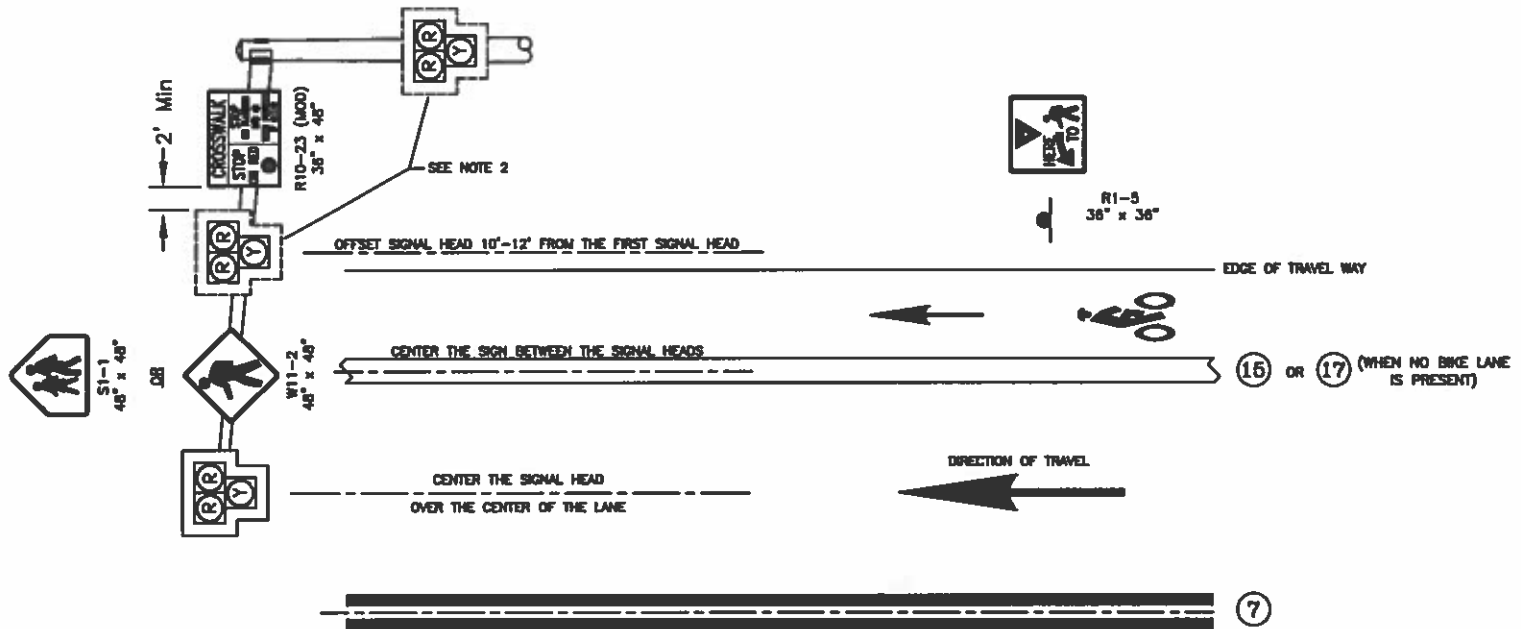
3/12/2012

TS-1117

Pedestrian Hybrid Beacon - Two Lane Roadway

DIAGRAM NOTES:

1. STOP BARS AND CROSSWALKS ARE NOT SHOWN FOR CLARITY PURPOSES.
2. CURB AND CLITTER DETAILS ARE NOT SHOWN. SIGNAL HEAD PLACEMENT IS SIMILAR WITH RESPECT TO RURAL AND URBAN ROADWAY SECTIONS.



GENERAL NOTES:

1. ALL SIGNAL HEAD LOCATIONS SHALL COMPLY WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AS ADOPTED BY THE STATE OF IDAHO.
2. INSTALLATION OF A SUPPLEMENTAL SIGNAL HEAD MAY BE EITHER MAST ARM OR POLE MOUNTED. REFER TO SIGNAL PLAN SHEETS FOR DETAILS.
3. SCHOOL CROSSING SIGNS SHOULD BE INSTALLED WHEN THE PRIMARY FUNCTION OF THE PEDESTRIAN HYBRID BEACON IS FOR SCHOOL RELATED PEDESTRIAN ACTIVITY. OTHERWISE, PEDESTRIAN SIGNS SHOULD BE INSTALLED.
4. REFER TO SIGNAL PLAN SHEETS FOR EXACT PLACEMENT AND INSTALLATION OF SIGNS AND MARKINGS.

REVISIONS		
1	Added	Added
2	Changed	Changed
3	Added	Added
4	Changed	Changed
5	Added	Added



Drawn By: JRM	Checked By: JRM
Date: 11/25/10	Checked By: JRM
File: 0-0176-000	Approved By: Steve Gynn

PROJECT TITLE:	PEDESTRIAN HYBRID BEACON - TRAFFIC SIGNAL HEAD DETAILS
----------------	--

3/5/2013

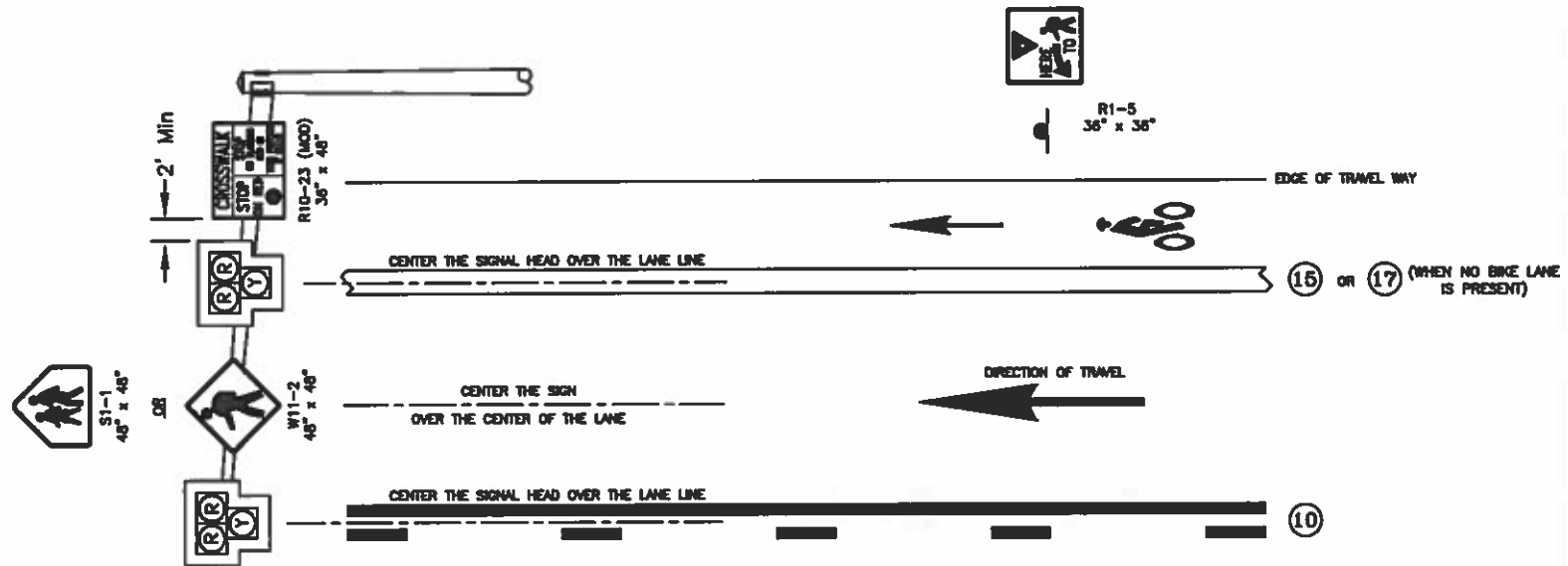


TS-1117

Pedestrian Hybrid Beacon - Three Lane Roadway

DIAGRAM NOTES:

1. STOP BARS AND CROSSWALKS ARE NOT SHOWN FOR CLARITY PURPOSES.
2. CURB AND GUTTER DETAILS ARE NOT SHOWN. SIGNAL HEAD PLACEMENT IS SIMILAR WITH RESPECT TO RURAL AND URBAN ROADWAY SECTIONS.



GENERAL NOTES:

1. ALL SIGNAL HEAD LOCATIONS SHALL COMPLY WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AS ADOPTED BY THE STATE OF IDAHO.
2. SCHOOL CROSSING SIGNS SHOULD BE INSTALLED WHEN THE PRIMARY FUNCTION OF THE PEDESTRIAN HYBRID BEACON IS FOR SCHOOL RELATED PEDESTRIAN ACTIVITY. OTHERWISE, PEDESTRIAN SIGNS SHOULD BE INSTALLED.
3. REFER TO SIGNAL PLAN SHEETS FOR EXACT PLACEMENT AND INSTALLATION OF SIGNS AND MARKINGS.

3/12/2012

DATE	BY	DESCRIPTION
12/14/11	JR	Changed 200-09 to an 200-09 1000.
08/14/09	JR	REVISIONS



DESIGNED BY	TRAVIS BAY	CHECKED BY	DAVID BAY
DRAWN BY	TRAVIS BAY	DESIGNED BY	TRAVIS BAY
DATE	11/05/11	APPROVED BY	DAVID BAY
FILE	12-0117-000		

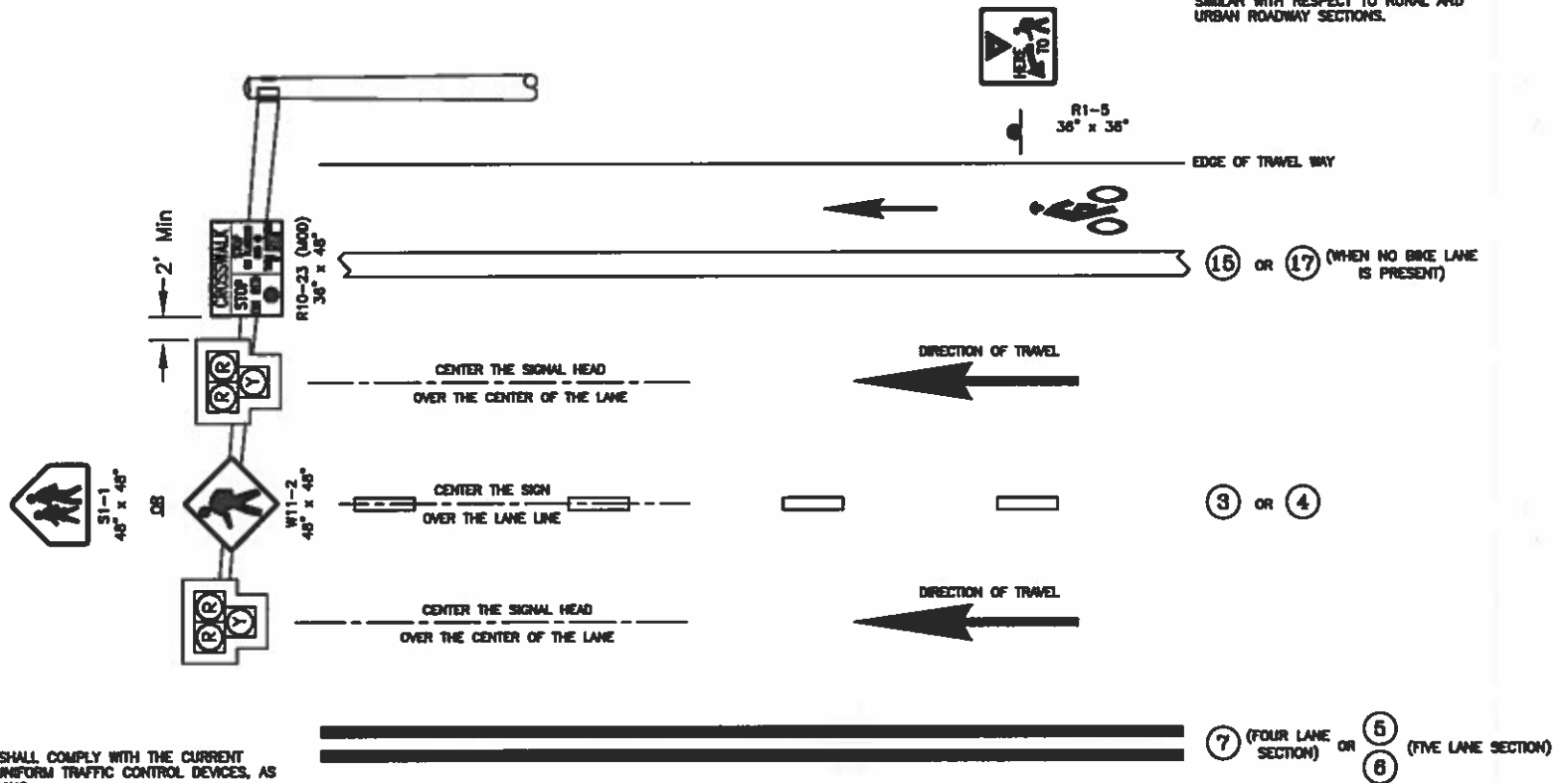
PROJECT TITLE	PEDESTRIAN HYBRID BEACON - TRAFFIC SIGNAL HEAD DETAILS
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Pedestrian Hybrid Beacon - Four or Five Lane Roadway

DIAGRAM NOTES:

1. STOP BARS AND CROSSWALKS ARE NOT SHOWN FOR CLARITY PURPOSES.
2. CURB AND GUTTER DETAILS ARE NOT SHOWN. SIGNAL HEAD PLACEMENT IS SIMILAR WITH RESPECT TO RURAL AND URBAN ROADWAY SECTIONS.



GENERAL NOTES:

1. ALL SIGNAL HEAD LOCATIONS SHALL COMPLY WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AS ADOPTED BY THE STATE OF IDAHO.
2. SCHOOL CROSSING SIGNS SHOULD BE INSTALLED WHEN THE PRIMARY FUNCTION OF THE PEDESTRIAN HYBRID BEACON IS FOR SCHOOL RELATED PEDESTRIAN ACTIVITY. OTHERWISE, PEDESTRIAN SIGNS SHOULD BE INSTALLED.
3. REFER TO SIGNAL PLAN SHEETS FOR EXACT PLACEMENT AND INSTALLATION OF SIGNS AND MARKINGS.

NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7	NO. 8	NO. 9	NO. 10



• SIGNATURES •	
Checked By: _____	Designed By: _____
Dated: 11/28/12	Approved By: _____
File: 12-117(Rev.000)	

• SHEET TITLES •	
PEDESTRIAN HYBRID BEACON - TRAFFIC SIGNAL HEAD DETAILS	

3/12/2012

YEHUA E. JIANG
PROFESSIONAL ENGINEER
LICENSE NO. 12242
STATE OF IDAHO

• STANDARD SHEET NO. •
TS-1117
Sheet 13 of 13