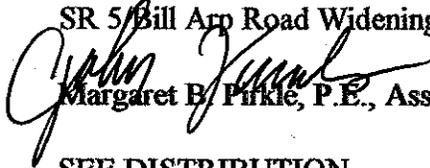


D.O.T. 66

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE STP-0007-00(069) Douglas County **OFFICE** Preconstruction
P. I. No. 0007069
SR 5/Bill Arr Road Widening **DATE** December 16, 2004

FROM  Margaret B. Pirkle, P.E., Assistant Director of Preconstruction

TO SEE DISTRIBUTION

SUBJECT PROJECT CONCEPT REPORT APPROVAL

Attached for your files is the approval for subject project.

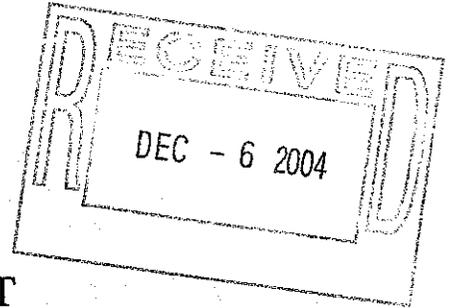
MBP/cj

Attachment

DISTRIBUTION:

David Mulling
Harvey Keeper
Ken Thompson
Jamie Simpson
Michael Henry
Phillip Allen
Joe Palladi (file copy)
Paul Liles
Buddy Gratton
BOARD MEMBER

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA



PROJECT CONCEPT REPORT

DOUGLAS COUNTY

FEDERAL ROUTE NO: N/A
STATE ROUTE NO: 5
GADOT P.I. NO: 0007069

SEE ATTACHED
LOCATION SKETCH

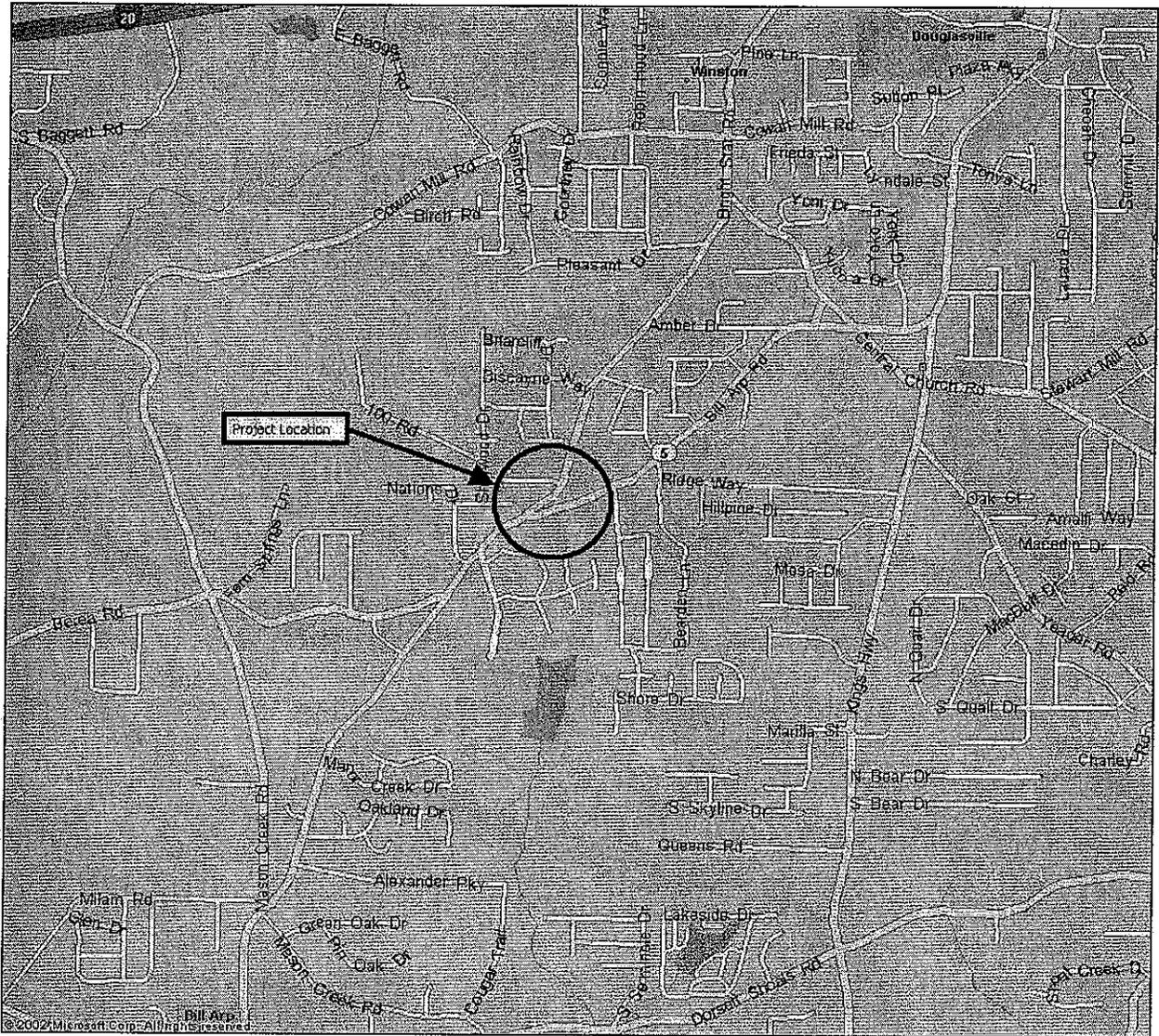
Date of Report: November 10, 2004

RECOMMENDED: 12-2-04 Phillip M. Allen
DATE SAFETY TRAFFIC SAFETY AND DESIGN ENGINEER

RECOMMENDED: 11/16/04 Buddy Heath
DATE DISTRICT ENGINEER

RECOMMENDED: 12/8/04 Paul W. White
DATE CHIEF ENGINEER

APPROVED: 12-8-04 Carol E. Fennick
DATE COMMISSIONER



Need and Purpose: The intersection of SR 5/Bill Arp. Road at CR 192/Bright Star Road is an un-signalized three leg intersection that serves a growing residential portion of Douglas County and the City of Douglasville. CR 192/Bright Star Road currently intersects SR 5/Bill Arp. Road with a substandard skew angle of less than 30 degrees. Due to this substandard skew angle alignment, the traffic traveling along SR 5/Bill Arp. Road turning onto CR 192/Bright Star Road have experienced, in the past four years, thirty-seven rear end collisions and have seen an average of twelve reported incidents per year which is three times higher than Georgia's average of 3.95 incident per year for an un-signalized intersection of a county route with a state route. The high volume of rear end collisions and high average number of incidents per year makes this intersection one of the more dangerous intersections within Douglas County. To improve the safety and operational flow for the growing amount of traffic thru this intersection, CR192/Bright Star Road will be shifted northward and both left and right turn lanes will be added to SR 5/Bill Arp. Road.

Description of the proposed project: The proposed 0.23 mile project is located on SR 5/Bill Arp. Road from MP 9.87 to MP 10.10 in Douglas County and about three miles southwest of the City of Douglasville. The proposed project will symmetrically widen SR 5/Bill Arp. Road about the center line in order to add a 200' center left-turn lane, and also a 200' right-turn lane will be added to SR 5/Bill Arp. Road to reduce the number of rear-end collisions. CR 192/Bright Star Road will be realigned 250' northward to improve the skew angle of the intersection, and a 175' right-turn lane will be added to improve traffic operation for future growth in the area.

Is the project located in a Non-attainment area? Yes No.

This project does not propose to add capacity, therefore it conforms to the Regional Transportation Plan (RTP).

PDP Classification: Major Minor

Federal Oversight: Full Oversight (), Exempt (X), State Funded (), or Other ()

Functional Classification: Urban Principle Arterial

U. S. Route Number(s): N/A

State Route Number(s): 5

Traffic (AADT):

Current Year: (2005) 13,450

Design Year: (20YY) N/A

Existing design features:

- Typical Section: SR 5/Bill Arp. Road consists of two 12' lanes with 6' rural shoulders. CR 192/ Bright Star Road consists of two 11' lanes with 6' rural shoulders.
- Posted speed: 45 mph

- Minimum radius for curve: 1200-ft.
- Maximum super-elevation rate for curve: 12 %
- Maximum grade: 4.5 %
- Width of right of way: 80-ft.
- Major structures: N/A
- Major interchanges or intersections along the project: N/A
- Existing length of roadway segment: 0.23 miles

Proposed Design Features:

- Proposed typical section(s): SR 5/Bill Arp. Road will consist of three 12' lanes distributed evenly about the center line with 12' urban shoulders with 5' sidewalks. CR 192/Bright Star Road will consist of three 12' lanes with 12' urban shoulders with 5' sidewalks.
- Proposed Design Speed Mainline: 45 mph
- Proposed Maximum grade Mainline: Match Existing % Maximum grade allowable: Match Existing %
- Proposed Maximum grade Side Street: 2 % Maximum grade allowable: 6 %
- Proposed Maximum grade driveway: 6 %
- Proposed Minimum radius for curve: 660 ft. Minimum radius allowable: 380 ft.
- Proposed Maximum super-elevation rate for curve: 6 %
- Right of way
 - Width: 80 ft.
 - Easements: Temporary (), Permanent (X), Utility (), Other ().
 - Type of access control: Full (), Partial (), By Permit (X), Other ().
 - Number of parcels: 3 Number of displacements:
 - Business: 0
 - Residences: 0
 - Mobile homes: 0
 - Other: 0
- Structures:
 - Bridges: N/A
 - Retaining walls: N/A
- Major intersections and interchanges: N/A
- Traffic control during construction: Staged construction; traffic will be maintained at all times during construction utilizing existing lane width in conjunction with applicable work-zone signs, barriers, and barricades to facilitate construction of shoulders, turning lanes, and other roadway improvements.
- Design Exceptions to controlling criteria anticipated:

	<u>UNDETERMINED</u>	<u>YES</u>	<u>NO</u>
HORIZONTAL ALIGNMENT:	()	(X)	()
ROADWAY WIDTH:	()	()	(X)
SHOULDER WIDTH:	()	()	(X)
VERTICAL GRADES:	()	()	(X)

CROSS SLOPES:	()	()	(X)
STOPPING SIGHT DISTANCE:	()	()	(X)
SUPERELEVATION RATES:	()	()	(X)
HORIZONTAL CLEARANCE:	()	()	(X)
SPEED DESIGN:	()	()	(X)
VERTICAL CLEARANCE:	()	()	(X)
BRIDGE WIDTH:	()	()	(X)
BRIDGE STRUCTURAL CAPACITY:	()	()	(X)

- Design Variances: None Anticipated
- Environmental concerns: None Anticipated.
- Level of environmental analysis:
 - Are Time Savings Procedures appropriate? Yes (X), No (),
 - Categorical exclusion (X),
 - Environmental Assessment/Finding of No Significant Impact (FONSI) ()
 - Environmental Impact Statement (EIS) ().
- Utility involvements: Power, Gas, Water, Sewer, Phone, Cable TV

Project responsibilities:

- Design: Georgia Department of Transportation
- Right of Way Acquisition: Douglas County
- Relocation of Utilities: Utility owners
- Letting to contract: Georgia Department of Transportation
- Supervision of construction: Georgia Department of Transportation
- Providing material pits: Contractor
- Providing detours: None required

Coordination

- Initial Concept Meeting date: N/A
- Concept meeting date: N/A
- P. A. R. meetings: N/A
- FEMA, USCG, and/or TVA: N/A
- Public involvement: N/A
- Local government comments. N/A
- Other projects in the area: N/A
- Other coordination to date: N/A
- Railroads: N/A

Scheduling – Responsible Parties' Estimate

- Time to complete the environmental process: 6 Months.
- Time to complete preliminary construction plans: 1 Months.
- Time to complete right of way plans: 1 Months.
- Time to complete the Section 404 Permit: 0 Months.
- Time to complete final construction plans: 1 Months.
- Time to complete to purchase right of way: 6 Months.
- List other major items that will affect the project schedule: 0 Months.

Other alternates considered: No Build. The purpose of this project is to improve safety and operation of this intersection by improving the skew angle. Designing for a design speed of 25 mph will not accomplish this.

Comments: N/A

Attachments:

1. Cost Estimates: Construction including E&C,
2. Accident Summary
3. Typical sections
4. Location and Design Notice

PRELIMINARY COST ESTIMATE
INTERSECTION REALIGNMENT
SR 5/Bill Airport Road at CR 192/Bright Star Road
County: DOUGLAS
Project Length: 0.23 miles

A. PE					\$ 20,000.00
			SUBTOTAL		<u>\$ 20,000.00</u>
B. RIGHT-OF-WAY				LOCALS	
			SUBTOTAL		<u>\$ -</u>
C. REIMBURSABLE UTILITIES					
			SUBTOTAL		<u>\$ -</u>
D. MAJOR STRUCTURES					
			SUBTOTAL		<u>\$ -</u>
E. GRADING AND EARTHWORK					
1. EARTHWORK					
a. GRADING COMPLETE					\$ 125,000.00
					<u>\$ 125,000.00</u>
F. DRAINAGE					
1. DRAINAGE					
a. STORM DRAIN PIPES					\$ 33,200.00
b. MINOR STRUCTURES					\$ 13,900.00
			SUBTOTAL		<u>\$ 47,100.00</u>
G. BASE & PAVING					
1. GRADED AGGREGATE BASE					\$ 1,500.00
2. ASPHALT PAVING					
a. 12.5 mm Superpave					\$ 12,300.00
b. 19 mm Superpave					\$ 6,900.00
c. 25 mm Superpave					\$ 11,400.00
3. LEVELING					\$ 4,200.00
4. TACK					\$ 300.00
5. FABRIC STRIPS					\$ 5,500.00
			SUBTOTAL		<u>\$ 42,100.00</u>
H. CONCRETE WORK					
1. CURB AND GUTTER					\$ 25,700.00
2. SIDEWALKS					\$ 36,300.00
3. 6" DRIVEWAY					\$ 5,500.00
4. R/W MARKERS					\$ 900.00
			SUBTOTAL		<u>\$ 68,400.00</u>

**I. LIGHTING/SIGNING/STRIPING/SIGNAL
PERMANENT SIGNS & STRIPING**

	\$	4,000.00
SUBTOTAL	\$	<u>4,000.00</u>

J. GUARDRAIL

SUBTOTAL	\$	<u>-</u>
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K. LUMP ITEMS

1. TRAFFIC CONTROL	\$	75,000.00
2. CLEARING & GRUBBING	\$	30,000.00
3. LANDSCAPING AND GRASSING	\$	4,900.00
4. EROSION CONTROL	\$	11,500.00

SUBTOTAL	\$	<u>121,400.00</u>
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L. MISCELLANEOUS

	\$	25,000.00
SUBTOTAL	\$	<u>25,000.00</u>

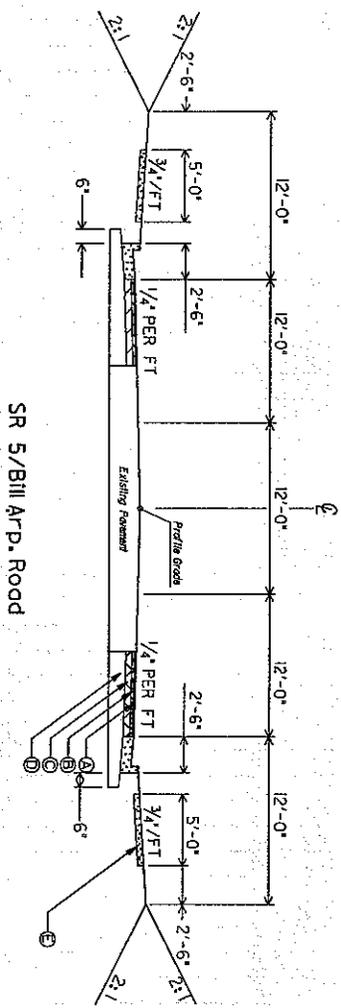
TOTAL ESTIMATE	\$	<u>453,000.00</u>
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Accident Summary

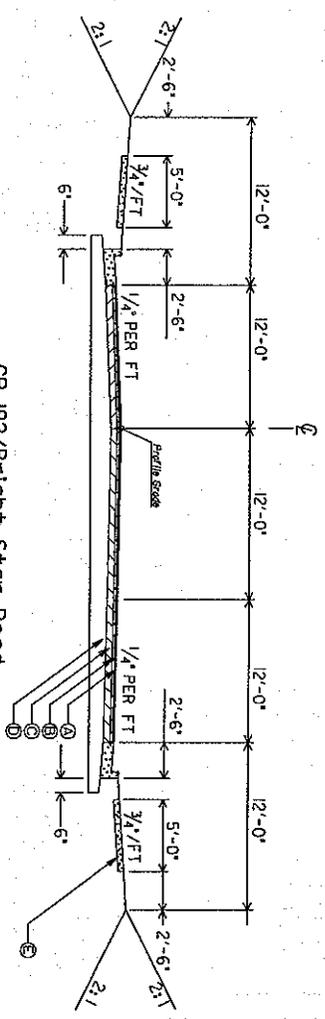
#	Date	Time	Injuries	Fatalities	Collision	MnvrVeh1	MnvrVeh2
1	7/1/2000	3:23 PM	0	0	Rear End	Straight	Stopped
2	11/7/2000	4:15 PM	0	0	Sideswipe - Opposite Direction	Negotiating A Curve	Negotiating A Curve
3	12/7/2000	4:33 PM	0	0	Rear End	Negotiating A Curve	Stopped
4	9/22/2000	3:44 PM	0	0	Rear End	Stopped	Straight
5	9/25/2000	4:45 PM	0	0	Rear End	Negotiating A Curve	Negotiating A Curve
6	6/26/2000	6:48 PM	0	0	Rear End	Turning Right	Turning Right
7	4/2/2000	12:38 PM	0	0	Rear End	Negotiating A Curve	Stopped
8	4/19/2000	7:45 AM	0	0	Rear End	Straight	Stopped
9	2/16/2000	7:10 PM	1	0	Rear End	Stopped	Negotiating A Curve
10	12/25/2000	4:10 PM	0	0	Rear End	Stopped	Negotiating A Curve
11	1/7/2000	4:47 PM	0	0	Rear End	Negotiating A Curve	Stopped
12	2/9/2001	3:43 PM	0	0	Rear End	Negotiating A Curve	Stopped
13	5/25/2001	7:55 AM	0	0	Rear End	Straight	Stopped
14	4/3/2001	11:45 AM	0	0	Rear End	Straight	Stopped
15	4/28/2001	6:03 PM	0	0	Rear End	Straight	Stopped
16	9/28/2001	8:22 PM	0	0	Rear End	Straight	Stopped
17	10/2/2001	3:50 PM	0	0	Rear End	Turning Right	Turning Right
18	6/5/2001	2:15 PM	0	0	Rear End	Negotiating A Curve	Stopped
19	11/21/2001	10:51 AM	0	0	Rear End	Negotiating A Curve	Stopped
20	11/30/2001	4:02 PM	0	0	Rear End	Negotiating A Curve	Stopped
21	9/18/2001	5:27 PM	0	0	Rear End	Negotiating A Curve	Stopped
22	9/1/2001	6:51 PM	0	0	Rear End	Negotiating A Curve	Negotiating A Curve
23	3/9/2001	2:53 PM	0	0	Rear End	Straight	Stopped
24	3/29/2001	7:38 PM	0	0	Rear End	Negotiating A Curve	Turning Left
25	12/16/2001	6:35 PM	2	0	Rear End	Stopped	Negotiating A Curve
26	1/25/2001	6:25 PM	3	0	Rear End	Negotiating A Curve	Stopped
27	6/22/2002	3:31 PM	0	0	Rear End	Straight	Stopped
28	1/28/2002	1:14 PM	0	0	Rear End	Negotiating A Curve	Stopped
29	5/10/2002	7:44 PM	0	0	Angle	Turning Left	Straight
30	6/5/2002	7:43 PM	0	0	Rear End	Straight	Stopped
31	6/15/2002	4:40 AM	0	0	Not A Collision With A Motor Vehicle	Negotiating A Curve	
32	3/5/2002	8:07 AM	3	0	Rear End	Straight	Stopped
33	3/11/2002	4:20 PM	2	0	Angle	Turning Left	Turning Left
34	11/5/2002	7:27 AM	0	0	Not A Collision With A Motor Vehicle	Straight	Stopped
35	10/28/2002	4:42 PM	0	0	Rear End	Negotiating A Curve	Negotiating A Curve
36	9/24/2002	3:51 PM	1	0	Angle	Turning Left	Negotiating A Curve
37	1/1/2003	3:49 AM	1	0	Not A Collision With A Motor Vehicle	Turning Left	
38	1/1/2003	3:49 AM	1	0	Not A Collision With A Motor Vehicle	Turning Left	
39	8/22/2003	4:54 PM	0	0	Rear End	Negotiating A Curve	Stopped
40	4/10/2003	1:21 PM	0	0	Rear End	Negotiating A Curve	Stopped
41	3/5/2003	6:20 PM	1	0	Rear End	Straight	Stopped
42	2/10/2003	8:46 AM	0	0	Rear End	Straight	Stopped
43	12/17/2003	1:37 PM	0	0	Angle	Turning Left	Straight
44	12/25/2003	2:57 PM	1	0	Rear End	Straight	Stopped
45	11/5/2003	9:42 AM	0	0	Rear End	Straight	Turning Left
46	10/9/2003	6:12 PM	0	0	Angle	Turning Left	Straight
47	6/4/2003	5:39 PM	1	0	Sideswipe - Same Direction	Changing Lanes	Straight
48	9/12/2003	5:49 PM	0	0	Rear End	Straight	Straight

Totals: 17 0

DATE	PROJECT NUMBER	SCALE
GA	STP 0007-001069	



SR 5/Bill Arp Road



CR 192/Bright Star Road

- REQUIRED PAVEMENT
- Ⓐ 12.5 mm SUPERPAVE
 - Ⓑ 19 mm SUPERPAVE
 - Ⓒ 25 mm SUPERPAVE
 - Ⓓ 12" GRADED AGGREGATE BASE
 - Ⓔ 4' X 5' CONCRETE SIDEWALK

NOTICE OF LOCATION AND DESIGN APPROVAL

CSSTP-0007-006(069), DOUGLAS COUNTY

P. I. 0007069

Notice is hereby given in compliance with Georgia Code 22-2-109 that the Georgia Department of Transportation has approved the Location and Design of this project.

The date of location approval is DECEMBER 16, 2004

The project proposes to realign CR 192/Bright Star Road with SR 5/Bill Airport Road. This project is located in Douglas County, southwest of the Douglasville, Ga. The project lies within land lot 93 and 100 of the 2nd District of Douglas County, Georgia. All numerical units shall be in English units.

The project, CSSTP-0007-00(069), proposes to realign CR 192/Bright Star Road 230-ft to north of its current intersection with SR 5/Bill Airport Road. In addition to the realignment of CR 192/Bright Star Road, the project consists of a 200-ft center left-turn lane and a 200-ft right-turn lane. The total length for this project is 0.23 miles.

Drawings or maps or plats of the proposed project, as approved, are on file and are available for public inspection at the Georgia Department of Transportation:

Mike Lankford
Email: Michael.Lankford@dot.state.ga.us
940 Virginia Avenue
Hapeville, GA 30354
(404) 559-6655

Any interested party may obtain a copy of the drawings or maps or plats or portions thereof by paying a nominal fee and requesting in writing to:

Mike Lobdell, P.E.
District Seven Preconstruction
Email: mike.lobdell@dot.state.ga.us
5025 New Peachtree Road
Chamblee, GA 30341
(770) 986-1050

Any written request or communication in reference to this project or notice SHOULD include the Project and P. I. Numbers as noted at the top of this notice.