Alternatives for Asset Management



Harry Taylor Nez Perce Tribe Transportation Program

Introduction

Harry Taylor Nez Perce Tribe Transportation Program Road Maintenance Supervisor

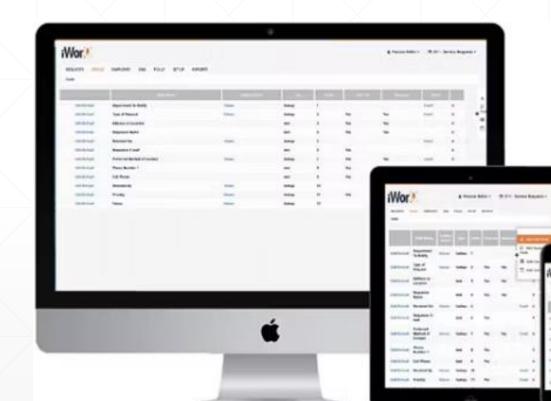
Name / Tribe / Organization



Asset Management – iWorQ system

Work Management
Sign management
Pavement Management

- DesktopLaptopPhone
- iWorQ APP



Work Management

Tracking Daily Work



Total Cost Amounts

Creating Work Orders

CREATE

CREATE WORK ORDER

Work Order Date:	04/23/24	Route Number:]
Work Type:		Work Address/Location:		
Request Type:	Request Type 🔹	Date Closed:		
Requester Phone/Email:		Work Description :		
Assigned Department:		Priority:	Priority -	
Work Type:	Weed Spraying 🔹	Status:	Open -	
Requester Name:		GIS Link ID:	0	

Creating Work Orders

- Work Order Date
- Work Order Number
- Requester Name
- Request Type
- Requester
 Phone/Email
- Assigned
 - Department

- Work Type
- Work Description
- Work Address / Location
- Date Closed
- Priority
- Status

Work Type

- Average Daily Traffic
- Asphalt Repair
- Beautification
- Crack Filling
- Culvert Repair
- Debris Pile Maintenance
- Equipment Maintenance
- General Maintenance/Repair
- Gravel Repair

- Property Inventory
- Ice Abatement
- Leaf Pickup
- Limb Tree Removal
- Mowing
- Other Program to Program
 Assistance
- Other/Miscellaneous (Non Scheduled Activity)
- Pavement Conditioning Index

Work Type Continued

- Traffic control
- Training/Travel
- Tree Trimming/Removal
- Weed Eating
- Weed Spraying
- Winter Maintenance
- Road Facility Maintenance
- Road Assessment

- ROW
- Sidewalk Repair
- Signage
- Snow Removal
- Storm Drainage
- Street Maint.
- Striping
- Street Sweeping

Assigned Department

- Sanitation
- Sewer Department
- Snow Removal Team
- Water Department

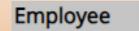
- Animal Control
- Facilities
- Parks/Recreation
- Public Works
- Roads

Tracking

- Employee Hours
- Employee Costs
- Equipment Hours
- Equipment Costs

- Material
 - Material Costs
 - Inventory
- Inventory Costs

Employee Costs



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	Name	Amount	Units	Rate	Multiplier	Total	
	Coleman Ezekiel	8.00	Hours	20.00	1.00	160.00	Ô
	Day Labor Worker	8.00	Hours	10.00	1.00	80.00	Ô
	Harry Taylor	8.00	Hours	23.55	1.00	188.40	Ō
	Joseph Guzman	8.00	Hours	23.55	1.00	188.40	Ô
					Total:	\$616	5.80
То	tal Cost						

\$616.80

Equipment Costs

Equipment

🖸 🗲

	Name	Amount	Units	Unit Cost	Total	
+	CAT Skid Steer	1.0000	Hour	14.7300	14.73	Ō
+	Chevy Flat Bed	1.0000	Hour	14.0000	14.00	Ô
+	Chevy Silverado	1.0000	Hour	13.1700	13.17	Ō
+	Hand Tools	1.0000	Hour	0.0000	0.00	Ô
+	Plow 1 (Silverado)	1.0000	Hour	6.7600	6.76	Ō

Total: \$48.66

Equipment

Equipment Name \$	Description \$	Category \$	Make \$	Model \$	Serial \$
ADT counter		Streets			
Blower (Backpack)	Backpack	Streets	Stihl	BR700	513895499
Blower (Backpack)	Backpack	Streets	Stihl	BR600	519363936
Blower (Hand)	Hand Held	Streets	Stihl	BG56	513497305
Branson (Auger Attach)	Auger Attachment	Streets			1A3000605
Branson (Backhoe)	Backhoe Attachment	Streets	Branson	BH86A	C50210
Branson (Forklift)	Forklift Attachment	Streets			
Branson (Rearblade)	Rear Blade	Streets	King Kutter	HD-RB-84-YK	1001552372
Branson Tractor	Tractor	Streets	Branson	4520C	CLCD00042
CAT (Angle Broom - Rental)	Angle Broom	Streets	Caterpillar	BA18	
CAT (Bucket)	80" Bucket	Streets	Caterpillar	279-5376	A4187BK20013
CAT (Dozer Blade)	Dozer/6-way Blade	Streets	Caterpillar	424-0451	A4187BD30007
CAT (Forks)	Forklift Attachment	Streets	Caterpillar	351-9371	6555FP055647
CAT Skid Steer	Skid Steer Loader	Streets	Caterpillar	272D2	BL201123
Chainsaw (Large)	25" Bar	Streets	Stihl	MS362	11356640500A
Chainsaw (Small)	16" Bar	Streets	Stihl	MS170	508705395
Chevy Dump	Dump Truck	Streets	Chevy	Silverado 5500	1HTKJPVKXLH604186
Chevy Flat Bed	White	Streets	2023 Chevy	3500	
Chevy Silverado	Work Truck	Streets	Chevy	Silverado	

WORK ORDER

Employee

Equipment

4 🔍

🗏 HISTORY 🗈 SAVE 📃 >

04/17/24 16:31	04/17/24 16:31 8 days Tay		Open 🗸		8 days

	B	

	Name	Amount	Units	Rate	Multiplier	Total	
Γ	Coleman Ezekiel	8.00	Hours	20.00	1.00	160.00	Ō
	Harry Taylor	8.00	Hours	23.55	1.00	188.40	Ō
	Joseph Guzman	7.00	Hours	23.55	1.00	164.85	Ô

Total: \$513.25

🔁 🕻

	Name	Amount	Units	Unit Cost	Total	
+	CAT (Bucket)	0.0000	each	0.0000	0.00	Ô
+	CAT (Forks)	0.0000	Hour	0.6300	0.00	Ô
+	CAT Skid Steer	0.0000	Hour	14.7300	0.00	Ô
+	Chevy Flat Bed	0.0000	Hour	14.0000	0.00	Ô
+	Hand Tools	0.0000	Hour	0.0000	0.00	Ô
+	Weed Eater (Large Area)	0.0000	Hour	0.7500	0.00	Ô

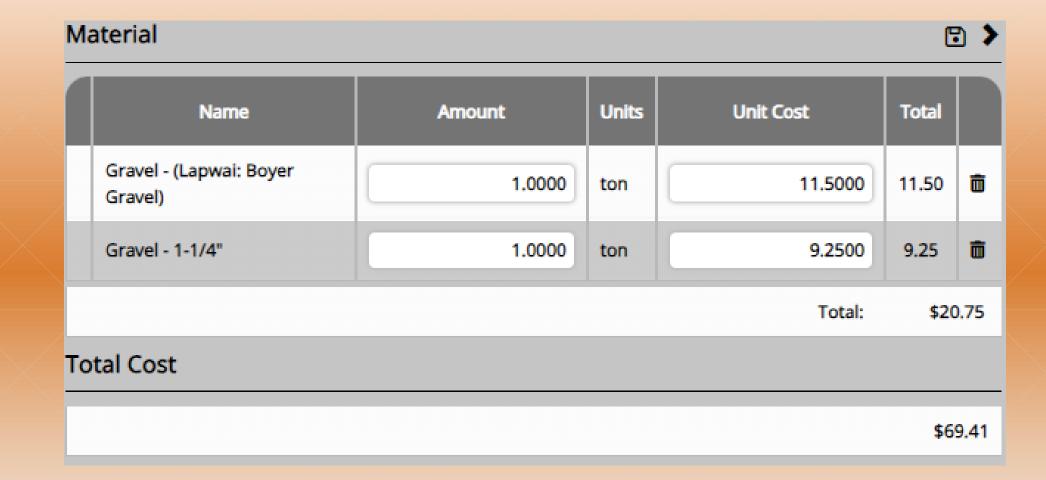
Copy Work Order Email Work Order Print Work Order Save As Template Apply Template Apply Template Notes Purchase Order Employees Equipment Material Inventory Multi-Select

Assign Asset(s)

🇘 Upload File

Open Map Work Management

Material Costs



Work Management Inventory

WO Date ≑	₩0 <i>#</i> \$	Requester Name ¢	Request Type ¢	Requester Phone/Email ¢	Assigned Department €	Work Type \$	Work Description €	Work Address/Location ¢	Date Closed ¢	Priority \$	Status ¢	Map ≑	Uploads ¢	Edit/View
04/17/2024	831	Coleman	Daily Work		Roads	Weed Eating	Did some weed eating around road maintenance facility. Also used skidsteer to move pallets of sandbags to make storage room. Will be attending north highway district meeting.	Lapwai			Open	3		1
04/16/2024	830	Coleman	Daily Work		Roads	Weed Eating	Did some weed eating on business area entrances. Also blew debris and dirt off roads and sidewalks on Agency rd. And by entrances.	Lapwai		Low	Closed	3	1	1
04/12/2024	829	Coleman	Daily Work		Roads	Weed Spraying	Power washed skidsteer of dirt & debris. Also used Mule to do some weed spraying around Appaloosa garage and road maintenance facility.	Lapwai		Low	Closed	3	Ť	
04/11/2024	826	Coleman	Daily Work		Roads	Weed Spraying	Took Mule to Lolo st. And in business areas like agency ed. Then used skidsteer to lift Eco blocks and placing them behind road maintenance facility for salt bay.	Lapwai		Low	Open	ø	Ť	ø
04/10/2024	825	Coleman	Daily Work		Roads	Gravel Repair	Rented trailer and roller. Then went to Salmon Lane to lay gravel. Then followed along with roller and compacted gravel into the ground.	Orofino		Low	Closed	3	<u>*</u>	
04/09/2024	827	Coleman			Roads	Training/Travel	Went to Roads Done Right Class in orofino.	Orofino		Low	Closed	8	<u>1</u>	1
04/08/2024	828	Coleman	Daily Work		Roads	Weed Spraying	Took Mule and did some weed spraying in business area and got work vehicles ready to be detailed.	Lapwai		Low	Closed	3	<u>*</u>	
04/04/2024	824	Coleman	Daily Work		Roads	Gravel Repair	Used dump truck to load and unload gravel at Salmon Lane. Loaded gravel at Boyer.	Kamiah		Low	Open	3	٩	1

Generating Reports

- Employee Hours
- Employee Costs
- Employee Costs Individual
- Equipment Hours
- Equipment Amount
- Equipment Costs
- Equipment Costs Individual
- Map Latitude
- Map Longitude

- Map Address
- Material Amount
- Material Cost
- Material Costs Individual
- Purchase Order Information
- Road Name
- Length
- Width
- Sign ID
- MUTCD name

Generating Reports Continued

- Requester Phone/Email
- Assigned Department
- Requester Name
- Route Number
- Work Address/Location
- Date Closed
- Work Description
- Priority
- Sign Address
- Start/End Dates of Reports

- Work Order Number
- Work Order Date
- Main Status Open/Closed
- Work Type
- Last status changed
- WO Asset
- Parent Work Order
- Request #
- Request Type
- PORT Reports

Work Order Reports

Work ÷ Order Date	Work Type 🕏	Assigned ÷ Department	Work ÷ Address/Location	Work ‡ Description	Employee Hours	Employee Cost	Equipment ‡ Cost	Material ≑ Cost
6/23/2023	Other/Miscellaneous (Non Scheduled Activity)	Roads	Lapwai	Picked up signage from Albright for asphalt work next week. picked up mini x from united rentals.	24.00	\$536.80	\$13.17	\$0.00
6/22/2023	Pothole Repair (Asphalt and Gravel)	Roads	Kamiah	Re bladed housing parking lot. reshaped and back bladed 2 holes.	24.00	\$536.80	\$33.26	\$0.00
6/21/2023	Equipment Maintenance	Roads	Lapwai	picked up lights for trucks from snake river sports truck. electrical work finding the shortage to our light connection.	24.00	\$536.80	\$13.17	\$0.00
6/20/2023	Tree Trimming	Roads	Kamiah	Trimming of limbs in roadway and ROW for sight distance on MP70 and MP69	24.00	\$536.80	\$14.30	\$0.00
						\$2,147.20	\$73.90	\$0.00

Scheduling

- Winter Maintenance
- Weed Spraying
- Pavement Index
- Gravel Work
- Sidewalks
- Weed Removal
- Project Prep
- Asphalt Projects

- Signage
- ADT
- Street Sweeping
- Crack Filling
- Paint Striping
- ROW Clearing
- Limb/Tree Removal
- Fall Maintenance

January										
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28	29	30	31							

February									
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24	25	26	27	28		30
31						

	A	۱pri				Winter Maintenance
м	т	w	т	F	S	Weed Spraying
1	2	3	4	5	6	Road Assesments / Pavement conditioning Index
8	9	10	11	12	13	Gravel Work
5	16	17	18	19	20	Sidewalks
22	23	24	25		27	Weed Removal
						Project Prep
						Signage
						Asphalt Projects
						ADT
						Street Sweeping
	A	ugu	st			Crack Filling
М	Т	W	Т	F	S	Paint Striping
			1	2	3	Right Of Way Clearing
5	6	7	8	9	10	Limb / Tree removal
2	13	14	15	16	17	Fall Maintenance
.9	20	21	22	23	24	Inventory
26	27	28	29		31	Safety Meeting
	4 5 2 9 9 4 7 5 2 9 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	1 T 2 2 3 9 5 16 2 23 9 30 9 30 1 T 4 T 5 6 2 13 9 20	4 T W 2 3 3 9 10 5 16 17 2 23 24 9 30 - 9 30 - 4 T W 4 T W 5 6 7 2 13 14 9 20 21	1 2 3 4 3 9 10 11 5 16 17 18 2 23 24 25 9 30 0 0 4 T W T 4 T W T 5 6 7 8 2 13 14 15	M T W T F 2 3 4 5 3 9 10 11 12 5 16 17 18 19 2 23 24 25 7 9 30 7 7 F 4 T W T F 4 T W T F 5 66 7 8 9 2 13 14 15 16	4 T W T F S 1 2 3 4 5 6 3 9 10 11 12 13 5 16 17 18 19 20 2 23 24 25 Image: 27 9 9 30 Image: 24 25 Image: 27 9 9 30 Image: 25 Image: 27 9 20 4 T W T F S 4 T W T F S 5 6 7 8 9 10 2 13 14 15 16 17 9 20 21 22 23 24

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September												
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October													
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	November												
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	December													
	S	М	Т	W	Т	F	S							
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	15	16	17	18	19	20	21							
ſ	22	23	24	25	26		28	1						
ſ	29	30	31											

Sign Management

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Creating a Sign Inventory

- Date Sign was Added
- Sign ID
- MUTCD Name (R1-1) Stop Sign
- MUTCD Picture
- Size (Length)
- Size (Width)
- Backing (Aluminum)
- Sheeting (High Intensity, Engineering Grade)
- Background Reflectivity

- Legend Reflectivity
- Support Type (2in Channel) (4x4)
- Support Material
- Speed Limit
- Orientation

Sign Replacement Schedule

- Reflectivity
- Replacement Date
- Sign Condition
- Post Material
- Post Condition

- Traffic Patterns
- Speed Study
- Collector
- Arterial
- Bus Routes

Adding Signs to the Inventory

SIMPLE SEARCH

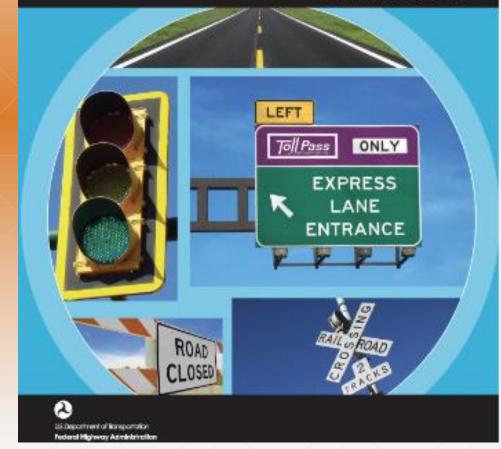
Sign ID	
MUTCD	Nothing selected -
Size (length):	
Size (width):	
Backing:	Nothing selected -
Sheeting:	Nothing selected -
ackground Reflectivity:	
Legend Reflectivity:	
Support Type:	Nothing selected -
Support Material:	Nothing selected -
Speed Limit:	
Orientation:	Nothing selected -
Visibility:	Nothing selected -
Road Name:	
Comments:	

Manual on Uniform Traffic Control Devices

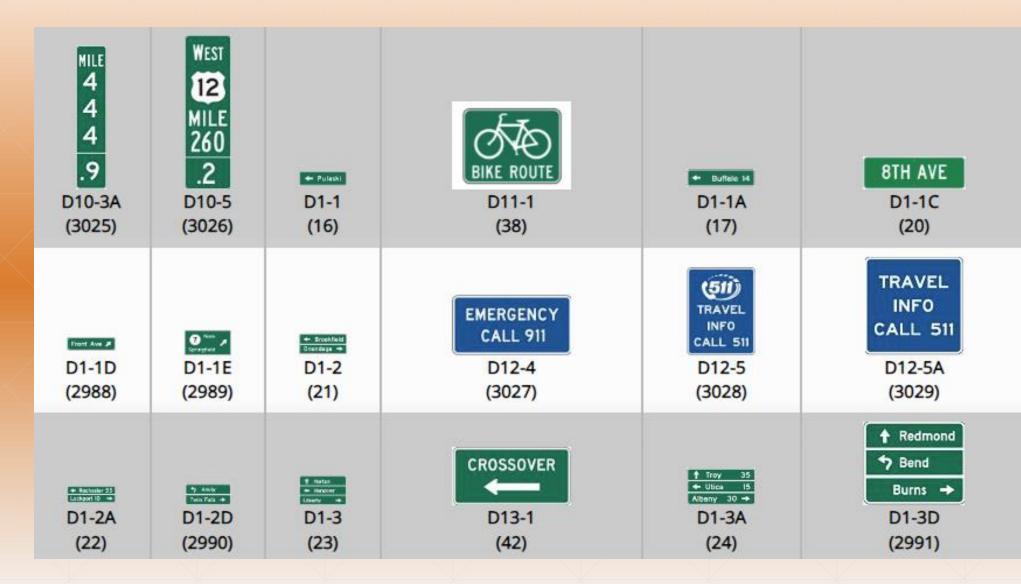
for Streets and Highways

2009 Edition

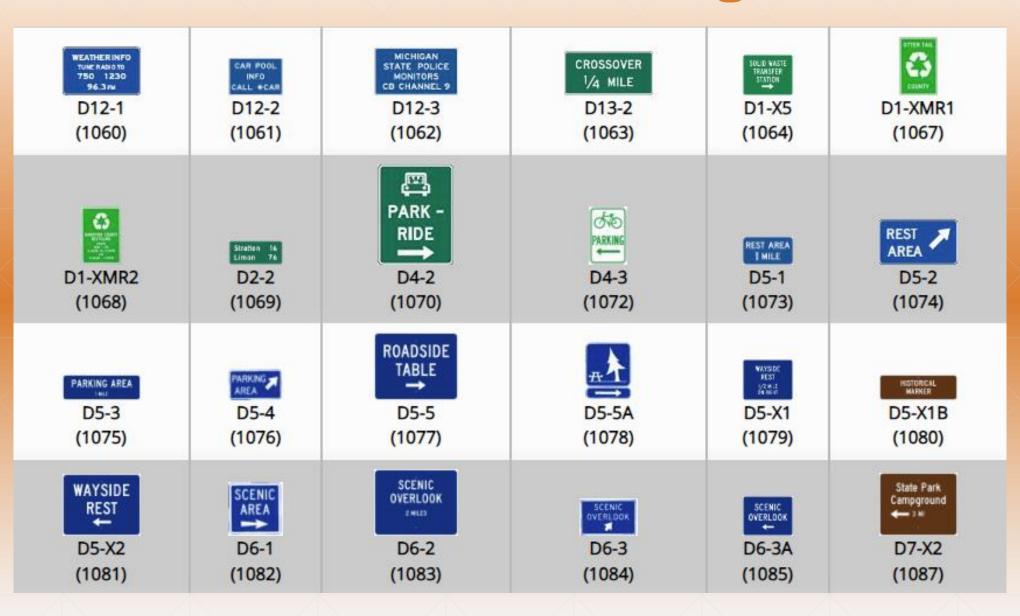
Including Revision 1 dated May 2012 Revision 2 dated May 2012 and Revision 3 dated July 2022



Guide Signs



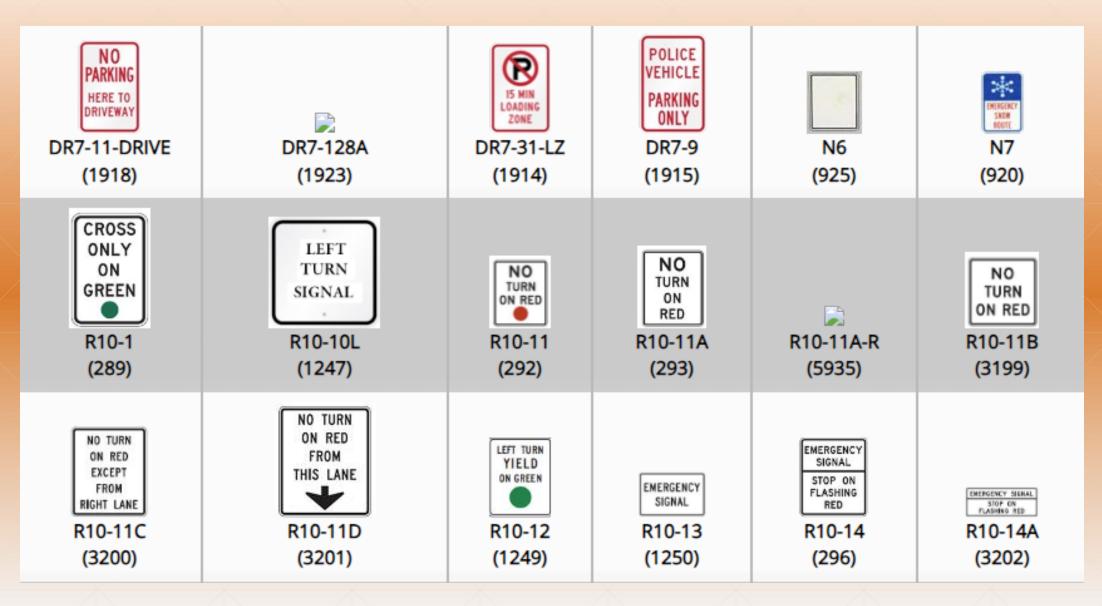
Miscellaneous Signs



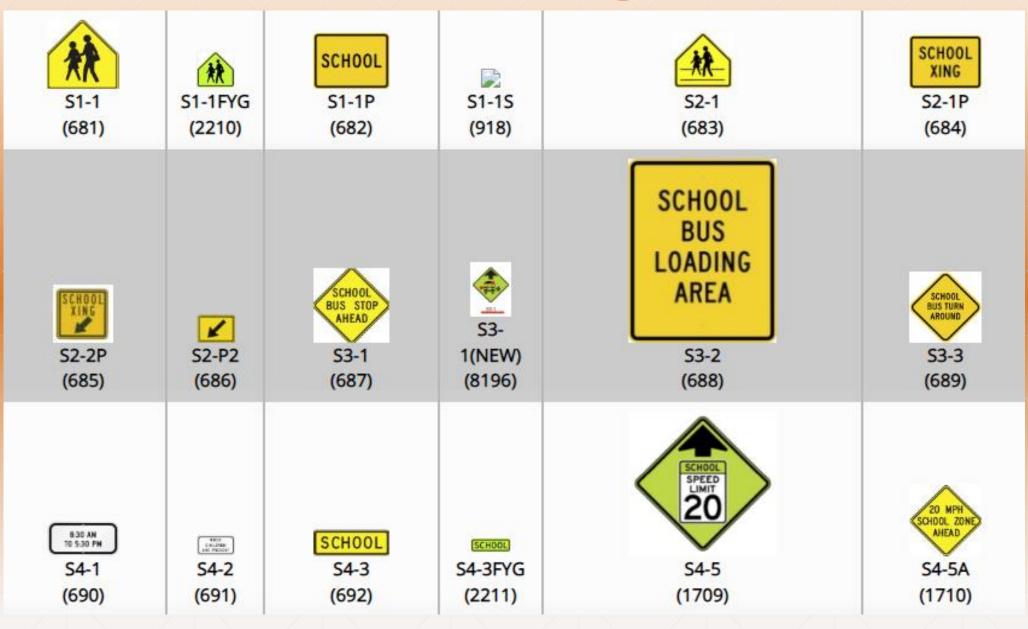
Recreational Signs

RM-010	RS-036	RS-042	RS-045	RS-064	RS-076
(641)	(3226)	(594)	(596)	(635)	(3227)
RS-089	RS-090	RS-091	RS-092	RS-093	RS-094
(3228)	(3229)	(3230)	(3231)	(3232)	(3233)
RS-096	RS-097	RS-098	RS-099	RS-101	RS-102
(3234)	(3236)	(3237)	(3239)	(3240)	(3241)
RS-103 (3243)	RS-105 (3245)	RS-106 (3247)	RS-107 (3248)	RS-108 (3249)	<mark>نرزی</mark> RS-109 (3250)

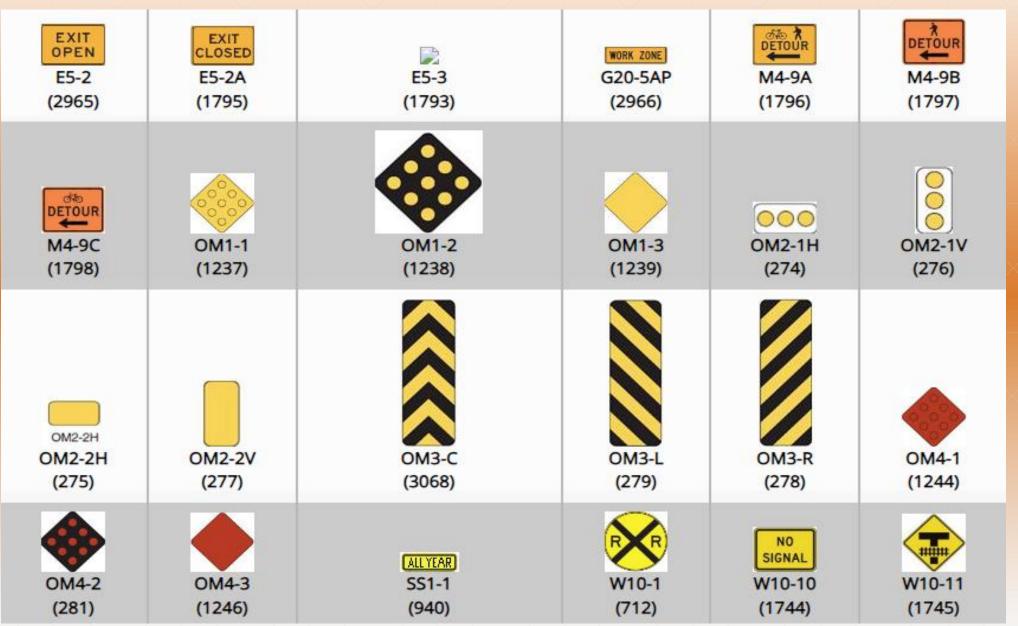
Regulatory Signs



School Signs



Warning Signs



Sign Management Inventory

Date \$	Sign ID ¢	MUTCD \$	MUTCD Picture \$	Size (length) €	Size (width) €	Backing ¢	Sheeting \$	Background Reflectivity €	Legend Reflectivity €	Support Type \$	Support Material ♦	Speed Limit \$	Orientation	Visibility \$	Road Name ♦
07/19/2021	16	D3-1	E Main &	18	6	Aluminum	High Intensity	0	0	2 in Channel	Cement	25	E	Clear	A St
12/14/2020	15	R1-1	STOP	36	36	Aluminum	High Intensity	0	0	2 in Channel	Steel	25	N	Clear	A Street
12/14/2020	16	R1-1	STOP	36	36	Aluminum	High Intensity	0	0	2 in Channel	Steel	25	s	Clear	A Street
12/14/2020	8	R1-1	STOP	36	36	Aluminum	High Intensity	0	0	2 in Channel	Steel	25	N	Clear	Agency Rd
12/14/2020	9	R1-1	STOP	36	36	Aluminum	High Intensity	0	0	4x4	Wood	25	s	Clear	Agency Rd
07/20/2021	31	S1-1	*	30	30	Aluminum	Other	0	0	Other	Cement	20	N	Clear	Agency Rd
07/20/2021	31	S1-1	*	30	30	Aluminum	Other	0	0	Other	Cement	20	s	Clear	Agency Rd
07/20/2021	30	S5-1	SPEED LIMIT 20 HIS TAXING	48	24	Aluminum	High Intensity	0	0	2 in Channel	Cement	20	N	Clear	Agency Rd
07/20/2021	32	S5-1	SCHOOL SPEED LIMIT 20 web rt.toms	48	24	Aluminum	High Intensity	0	0	2 in Channel	Cement	20	s	Obscured by Trees	Agency Rd
07/19/2021	19	D3-1	c Main s	18	6	Aluminum	High Intensity	0	0	2 in Channel	Cement	25	E	Clear	Agency Rd



Pavement Management Maps





Pavement Management Fields

- Date
- Pave ID
- Road Name
- From Address
- To Address
- Length
- Width
- Prefix

- Street Name
- Suffix
- Post Direction
- Road Class
- Rating
- One Way
- HWY Number

Pavement Conditioning Index

- Fatigue
- Transverse
- Longitudinal
- Patching
- Alligator
- Raveling
- Corrugations

- Rutting
- Sprawling

Pavement Management Treatments

- Crack Seal
- Chip Seal
- Fog Seal
- Slurry Seal
- Overlay

- Patching
- Mastic
- Pot Hole
- Milling

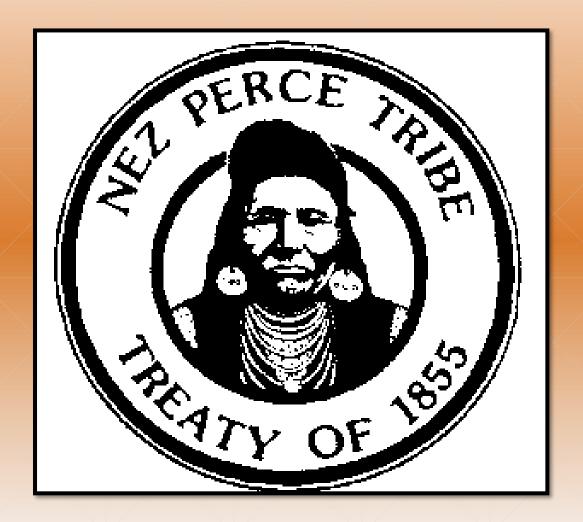
Pavement Management Inventory

Selected	Date ¢	Pave ID \$	Road Name	From Address \$	To Address ¢	Length ¢	Width ¢	PRE_DIR \$	PREFIX \$	STR_NAME €	Route Section	SUFFIX \$	POST_DIR €	RD_CLASS €	RATE \$
0	11/13/2020	523	CEDAR RIDGE DR	INDIAN CREEK RD	MOOSE RIDGE DR	3382.5				CEDAR RIDGE		DR		4	0
	11/13/2020	532	SHADOW LN	lakeview RD	END	1216.6899				SHADOW		LN		5	0
O	11/13/2020	533	LAKEVIEW RD	SHADOW LN	CEDAR RIDGE DR	2054.8501				LAKEVIEW		RD		4	0
D	11/13/2020	534	ZENNER RD	COYOTE GRADE	DUMP RD	1553.72				ZENNER		RD		5	35
Ο	11/13/2020	537	CEDAR RIDGE DR	MOOSE RIDGE DR	BEAR DANCE LN	392.52399				CEDAR RIDGE		DR		5	0
D	11/13/2020	539	HUBBARD GULCH	PRIMROSE LN	BITTERROOT LN	2480.8301				HUBBARD GULCH				4	35
0	11/13/2020	540	STATE HIGHWAY 3	ROBIN LN	SWALLOW LN	5834.6602			STHY	3				3	55
O	11/13/2020	541	SWALLOW LN	END	STATE HIGHWAY 3	1805.4301				SWALLOW		LN		5	15
0	11/13/2020	542	SWALLOW LN	STATE HIGHWAY 3	END	13.7523				SWALLOW		LN		5	15
0	11/13/2020	544	TURKEY RUN DR	OLD AHSAHKA GRADE	END	5349.8999				TURKEY RUN		DR		5	0
0	11/13/2020	545	BEAR DANCE LN	CEDAR RIDGE DR	CEDAR RIDGE DR	2687.8201				BEAR DANCE		LN		5	0
	11/13/2020	546	CEDAR RIDGE DR	BEAR DANCE LN	BEAR DANCE LN	1253.03				CEDAR RIDGE		DR		5	0

Pavement Management Budget

Category	Year 1	% Sys	Year 2	% Sys	Year 3	% Sys	Year 4	% Sys	Year 5	% Sys	
Segments Not In Budget				-						-	Add to Budget
No Maintenance	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	Modify/Print
Routine	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	Modify/Print
Preventative	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	Modify/Print
Rehabilitation	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	Modify/Print
Reconstruction	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	Modify/Print
Total	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		Modify/Print

Questions?



Thank You

