



Nighttime Paving in Louisiana





Nighttime Paving in Louisiana

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EXIT 20
SOUTH
3188
L&P Place 7

“Prep Crew”



Pros and Cons of Night Paving

■ PROS

- Better production at night
 - Less traffic to and from the jobsite
 - Less interference from outside
 - Less congestion at the plant when loading trucks
 - Trucking has better “turnaround” time
 - Rush Hour traffic avoided, morning and evening
 - Cooler temperatures at night during summertime for workers.
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Cons

- Cost
- Safety
- Less light – only work area is lit
- Can't see mat appearance as well
- Mat segregation is harder to see
- Wintertime presents problems with colder weather at night than daytime
- Rain “sneaks” up on crew at night
- Too much noise for some neighborhoods – Exceeds Local Ordinances

Equipment for Night-time Paving

- Equipment must be better maintained
 - Know where to get parts at night
 - Mechanic stays on job because it is harder to call manufacturer for help
 - Mechanics can't see parts as well
 - Work zone trucks must have flashing lights with possibly strobe lights and headlights that flash, like a cop pulling you over. There called “wigwag” lights.
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Equipment for Night-time Paving

- Fluorescent lights work well, but very few use them because they are very fragile and break.
- Light stands are helpful to get light from above the work area.
- Make sure not to aim any lights directly at the traffic. Ride the job yourself to see how safe it is.
- Best lights has been found to be the everyday streetlight.
- Be careful of spotlights, they light a particular area well, but are blinding to everyone else.

Challenging

- Presents unique challenges
 - Road alignment
 - Mix issues such as segregation
 - Mix temperature – lumps
 - Truck beds not clean – can't see until too late
 - Don't get too far ahead of plant due to weather
 - Fog
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Production at Night

- Must have a paving plan and follow it
 - All equipment must be on job
 - More difficult to move to new location on job
 - Lighting is poor away from paving spread
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Costs

- Equipment lighting for all roadway equipment – approximately \$15,000.
- Rental of light standards about \$500 per week plus cost of maintaining all lighting.
- Plant lighting – approximately \$15,000.
- Restricted lane closures at night affect production. Usually have to be off of the roadway at a set time.
- Penalties for not getting off of roadway.

Costs

- Bottom line – Nighttime paving usually cost **\$5.00 to \$10.00** more per ton than conventional daytime paving.
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Night-Time Paving Effects on Quality

– Plant

- Loader operator can't see stockpiles to minimize segregation
 - Staffing effectively is always a problem
 - Phone list must be available to all responsible people for problems
 - Operator can't see outside components at plant as well as day-time
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Night-Time Paving Effects on Quality

– Testing

- Sampling mix is more difficult due to lighting – can't see mix as well
 - Plant and Lab area must be well lit
 - Need Special lighting for Sampling Stand and area to assure safety and improve visibility
 - QC personnel and LDOTD personnel cannot see cold feed operations as well
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Night-Time Paving Effects on Quality

– Roadway

- Paving crew must know the paving plan – You can't just look down the road and judge the distance because you are faced with darkness.
 - Keeping alignment straight is more difficult
 - Matching the joint is more difficult because of poor visibility
 - You can't see the mix in the paver and under the augers until it is behind the screed.
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Night-Time Paving Effects on Quality

– Roadway

- Use automatic screed controls that provide their own lights such as the “Top-Con” system
 - Profilograph is way behind the paving operations and is usually not as well lit.
 - 2 profilographs already hit by motorists at night in New Orleans area – one on our job.
 - Coring is also usually needed in poorly lit areas
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Night-Time Paving Effects on Quality

– Roadway

- Constantly monitor mix and mat temperature because of cooler environment.
 - Segregation is more of a problem
 - Can't see into truck beds for segregated mix from plant
 - Can't see as well at the paver augers
 - Mat segregation harder to see until daytime
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Night-Time Paving Effects on Quality

– Roadway

- More to the job than paving
 - More “In-laying” done at night and this involves many more people and machinery on the roadway.
 - Stripping
 - Rumble Strips
 - Guard Rail Pads and other miscellaneous items
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Night-Time Paving Effects on Safety

- When we talk nighttime paving, it's not just the scope of the work we're going to accomplish, but how safely we can do it, and whether everybody on the job is protected.
 - This applies to the traveling public as well. Do they understand what we're doing when they come upon us and do our people understand how dangerous it is out there? Their vision isn't as clear as it is in the daytime
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Night-Time Paving Effects on Safety

- High visibility is the name of the game when you are paving, but it is especially critical with night paving
 - One of the most important steps in preparing for night paving is to alert the public of “what’s happening” and where it is happening
 - The earlier you let them know, the better
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Night-Time Paving Effects on Safety

- Newspaper
 - Radio Stations
 - Television
 - Signs 4-5 miles ahead on interstates and rural roads
 - More signs as you get closer to the job
 - Message boards to instruct drivers
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Night-Time Paving Effects on Safety

- In order to properly set cones you need a traffic coordinator as part of your crew. Because signs blow over, and cones get knocked down in and out of the work zone, The traffic coordinator should be a “rover”.
 - The contractor must make the work zone as highly visible as possible and make sure crew members are well lit with reflective vests and hard hats.
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Night-Time Paving Effects on Safety

- Everyone looks out for one another. Everyone must know where everyone else is at all times, because once you step outside of the work zone, and into the “shadows”, nobody knows where you have gone.
 - Zero tolerance for unsafe practices. Safety comes first
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Night-Time Paving Effects on Safety

- Flagman's hand signs must be visible at night so motorists can see them well
 - Drivers "get lost" at night in the work zone. They get confused as to which lane is closed and which one is under construction.
 - You must see that "breaks" in the cones or barrels do not occur to confuse drivers
 - Need stations marked on both sides of roadway and in median. You can't just look across and you do not t to cross traffic to get station.
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Night-Time Paving Effects on Safety

■ Plant

- Make sure trucking stays in trucking lanes at the plant.
 - Have a designated route and staging area for trucks.
 - Loader operator cannot see beyond lights.
 - NO Trucks in stockpile areas. Aggregate trucking best take place in daytime.
 - No persons beyond cold feed and in stockpile areas.
 - Check on all personnel a few times a night to make sure nothing has happened.
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Night-Time Paving Effects on People

- People's "body clocks" get confused
 - Can't get proper amount of sleep during daytime
 - Out of the body's pattern on nighttime sleep
 - More distractions
 - Telephone ringing during day
 - Doorbell ringing
 - Family calling to check on you
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Night-Time Paving Effects on People

- A few weeks at night, then a few weeks daytime, and then back to nights
 - Affects both contractor and DOT personnel
 - 4 days on, 3 days off – hard on sleep patterns and family life.
 - Hard to find a place that serves food late at night for employees
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Night-Time Paving Effects on People

- Beware of the “twilight zone” sleepiness that usually sets in around 3:00 AM.
 - Nighttime crews look out for one another and check on one another about that time.
 - Catering to employees such as hot coffee is not a bad idea at this time.
 - Crews say best part of the night is right at daybreak when all the work done last night begins to show in the twilight of dawn.
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Night-Time Paving Effects on People

■ Trucking

- It is tough to keep trucks on Night jobs
 - Usually have to pay more to get them
 - They cannot haul other things at night - so they have to go home and not make any money.
 - Rainouts
 - Some trucks try to work both day and night shifts causing them to leave both early.
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Night-Time Paving Effects on People

- Management

- Especially hard on management. Often managers work all of one shift and checking in on other shift.
 - Extra staffing needed to run both day and night.
 - Supervisors recognize the need to do the little extras that they don't have to do on daytime jobs.
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Night-Time Paving Effects on People

- Management

- Typically not enough night work
 - Usually assign one Project manager and one Superintendent to that job only. Daytime Supers usually handle more than one job.
 - Usually put best Superintendent at night so that problems are handled better.
 - Super has to remain on job, even when paving is completed until all the subs are finished to maintain continuity.
 - The Superintendent is not being used effectively here.
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Night-Time Paving Effects on People

- Management

- Management must be flexible with all managers responsible for day and night work.
 - Puts a strain on all jobs because management has dual responsibilities and shifts
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