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The Sign Program Newsletter US Army Corps of Engineers

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In This Issue

Welcome back to *The Sign Post*, the informal periodic newsletter of “topics of interest” to Corps employees involved with signs and the National Sign Program.

This issue contains guidance for approving signs that deviate from the standards. It introduces a new format for addresses. Also included is advice on how

to deal with the new Headquarters guidance relating to overhead power lines. And of course, there are some pointers on how to improve the sign program at all levels.

Efforts at all levels help to make this program shine. Thank you all for your input and hard work!

New Approval Procedures

Jeff Mangum
Chairman, Sign Advisory Work Group

The Sign Advisory Work Group (SAWG) has voted to take a closer look at orders that have customized formatting and legends that stray from the standards specified in the *Sign Standards Manual*.

There is a new quality control measure being implemented. Everyone is aware that all sign orders must be reviewed and approved by the district Sign Program Manager (SPM), whose responsibility it is to ensure compliance to regulation. Any deviations from the Sign Standards Manual also need to be looked-over and approved by your division SAWG representative or the National Sign Program Manager prior to manufacture.

Orders received by the district SPM without justification for exceptions will be referred back to the project SPM for correction. When legitimate justification for exceptions exists, the district SPM will forward the documentation to the division SAWG representative for further discussion and final approval. Out-of-compliance signs will not be manufactured without approval by a division SAWG representative. Their

names are found on the NRM Gateway under the link *Division and District POCs*.

Last year, a Corps project Sign Program Manager (SPM) ordered around \$30,000 worth of signs from a manufacturer familiar with Corps standards. The SPM asked for distinct customizations, justifying the change by claiming that’s what people expect. When the manufacturer produced the order following the standards and integrating the modifications, the SPM claimed the signs were not suitable, and a dispute ensued.

Then, when the SAWG visited the UNICOR sign factory in Cumberland, Maryland, we saw a number of signs being produced for the Corps that did not follow the formatting requirements specified in the *Manual*. We also know that there are many new signs in the field that should have been made to standard but were not.

Following standards ensures consistency throughout the organization. Regulation states that “the Sign

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New Address Signs

AJ Jensen

National Sign Program Manager

Due to popular request, the Sign Advisory Work Group (SAWG) has approved new address formats to be entered into the *Sign Standards Manual* and in SignPro. They will be displayed throughout the next two pages.

The diversity of buildings and properties throughout the Corps necessitates a variety of options to choose from to best meet each project's needs. And because Sign Program Managers in the field have asked for placards and panels to help them mark buildings. The templates provided in this article are now available for immediate use.

The only mention of addresses in the current version of the *Sign Standards Manual* is this: *"Do not routinely use the secondary portion of identification signs for street addresses. Even when a local emergency requires such information, try to find an alternative – such as a separate, small custom sign – that complies with Corps sign standards"* (p. 5-11).

Affixing address panels onto buildings should maintain a consistent scheme of appearance and legibility project-wide. While buildings may still use individually-affixed letters, this addition to the *Manual* simply makes options available for your convenience.

The Helvetica medium typeface has been selected for clarity and legibility. The option of using Helvetica bold is also permissible, provided its use across a project is consistent.

SignPro will not immediately be able to accommodate these formats. However, until the new revision of the *Manual* is released, these sheets will show manufacturers the appropriate instructions on how to produce them.

Corps brown is the color of choice and should be used in most cases. However, some counties and service districts require a red, blue, yellow, green, or other background in order to accommodate emergency response efforts. This is authorized and is an easy accommodation. When using yellow, simply make the legend (numbers) black in order to provide distinctive contrast.

Also, some Corps districts utilize a serial cataloguing scheme for their building numbers that are not addresses. The address number system introduced in this article is made to accommodate that need as well, and not restrict it. If a building's accountability or other non-address number needs to be displayed, flexibility is allowed.

Some may choose to have a black background for a smaller building number panel and a Corps brown background for the street address. This is acceptable, provided it is used as a planned marking scheme and is used consistently.

There is a wide diversity of situations for marking addresses. They may be affixed to buildings or

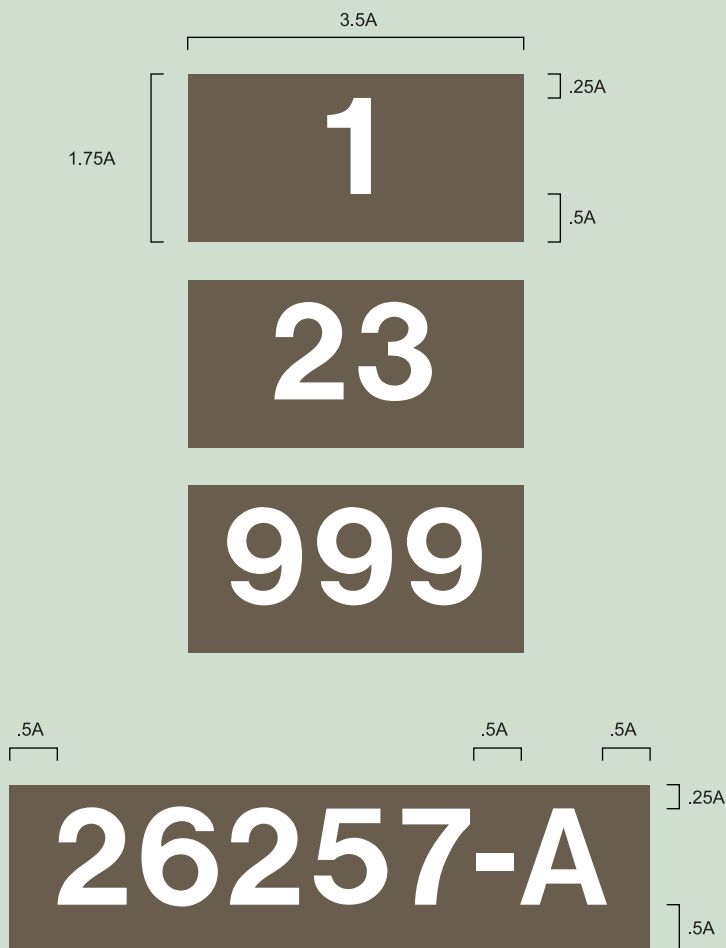
structures, placed on individual posts, or placed in an intuitive way where they can be seen as needed. Sight distance and mounting height will be determined individually. Follow the principles of visibility and legibility, marking addresses intuitively as part of an established and approved project sign plan.

Address numbers are meant to stand alone. They may be placed on their own post, but do not place them onto the sign posts of another sign, as this detracts from and competes with the other sign's function and appearance. Do not stretch nor distort the text, which makes reading the panels a challenge.



An example of the new panel system introduced in this article. These signs may be ordered immediately.

1. Horizontal Panels

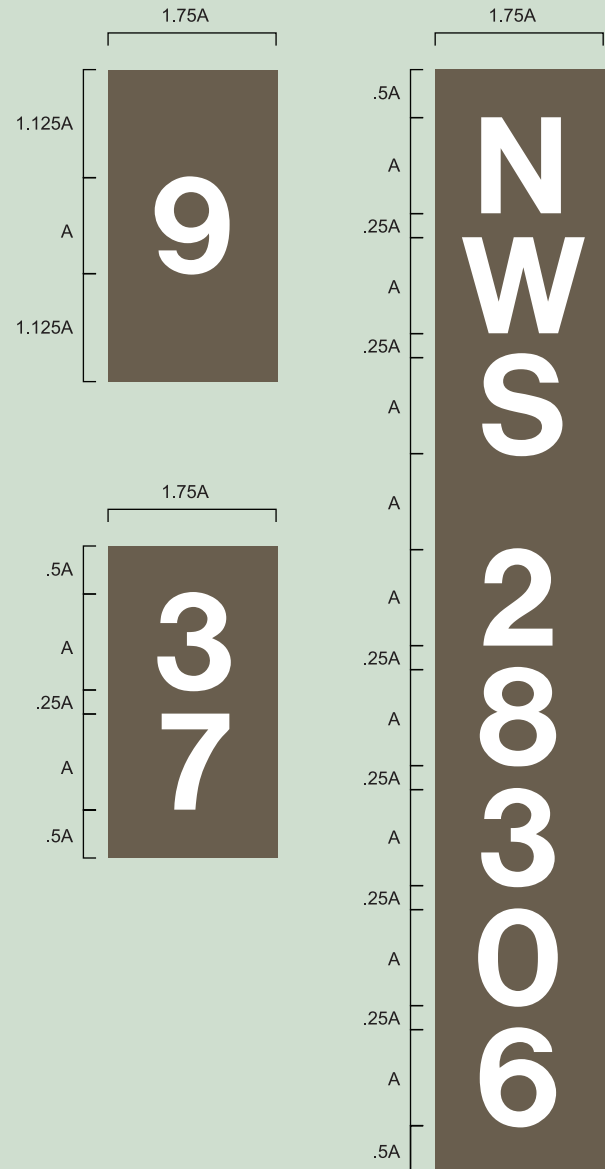


Horizontal panels will be 1.75A high with a minimum width of 3.5A. Numbers, letters, dashes, or any combination thereof, are horizontally centered as shown, with a minimum .5A margin to the edge of the panel on each side of the number (this accommodates up to a three-digit number).

For panels with longer legends (as seen below), calculate the legend length, and place a .5 margin on both the right and left ends of the sign.

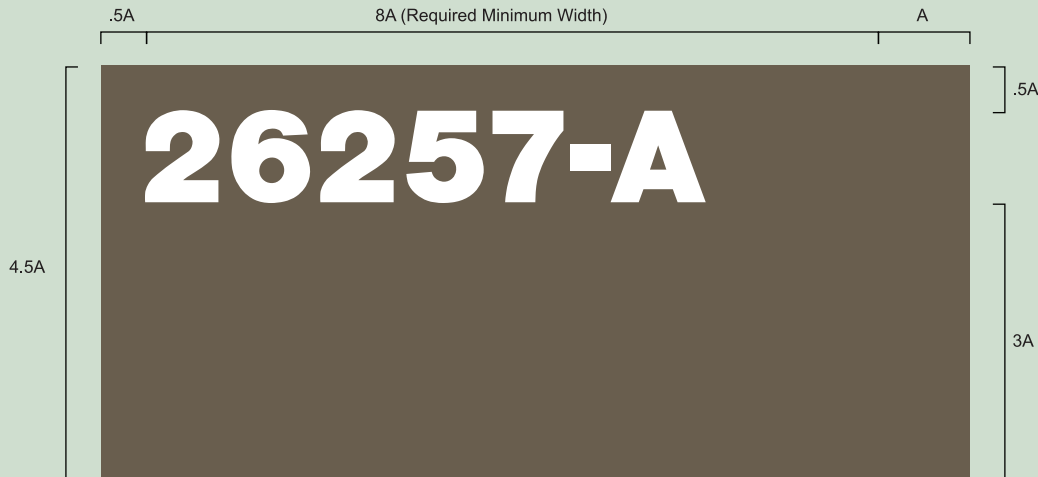
These panels may also indicate building numbers rather than addresses. Spacing between words is approximately .5A.

2. Vertical Panels



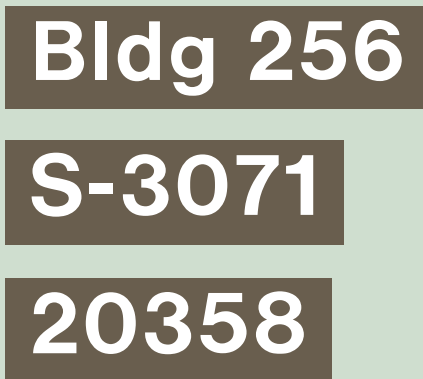
Vertical panels are 1.75A wide with a minimum height of 3.25A, as displayed to the left. Legends are centered both vertically and horizontally. With panels containing two or more characters, include a .5A margin above the first and below the last character. Space characters vertically .25A apart. If the legend requires a greater space separator between two parts of the address, use a 1A space, as in the example shown above.

3. Secondary Identification Sign Format



You may consider use of the Secondary Identification sign when placing the address between two posts. This option may be used when the building is recessed away from the road. It is an option currently available in Sign-Pro with the Helvetica bold typeface.

4. Expanded Usage



The standard is the white legend on Corps brown, which should be used in most cases. It contributes to the distinctive Corps look used throughout the nation. Exceptions should be rare and should be documented in the sign plan.

5. Local Community Requirements



When local 911 districts or other community authorities require a format recognizable to first responders, establish a color scheme that meets those requirements. Document this need to deviate in the sign plan.

6. Errors to Avoid



Be careful to avoid formatting errors, such as stretching the lettering of the legend. Legends should provide visual contrast from the color of the background.

Blind to Change

AJ Jensen

National Sign Program Manager

You work the entire summer in your hometown. Your friend spends the entire summer somewhere out of state.

Upon returning, your friend surprises you with a "Holy cow! This town is so different!"

"What do you mean?" you ask. "It's the same place it was when you left."

"Not quite," replies your friend. "There is a new traffic light. And did you notice they opened two new businesses on the main strip?"

"Hey, you're right," you acknowledge. "I guess I just took it for granted."

We all know this scenario. When you routinely see something in passing, even minor changes may seem almost unnoticeable. A periodic pause to take a fresh look can help you notice things you may not have noticed before.

It's easy to assume control of a Sign Program with a bright-eyed and bushy-tailed approach. You want to have the best Sign Program ever! Before long, you see that your program has limited funding, or that your sign duties are overshadowed by your other responsibilities. With your mind on other things, your eyes soon become numb to the Sign Program's needs because you drive past the same signs every day without noticing them anymore.

A Fresh Set of Eyes

As the National Sign Program Manager, I seek every opportunity to see local project signs. Each project overcomes challenges in different ways. It's convenient that our *Sign Standards Manual* has a wide variety of solutions to respond to sign-related issues. The full implementation of a compliant Sign Program is quite a sight to see, attesting to the resourcefulness of the NRM team and local Sign Program Manager who make it happen.

In most cases, people get it just right, but there are times that something is out of place. We've all seen places where signage can and needs to be improved.

We need to constantly remember that we design our entire program around the fresh new visitor: "A sign is designed for the first-time viewer, so sign legends must be brief and easy to understand" (*Sign Standards Manual*, p 2-2). Signs are meant to guide a new visitor to a Corps facility through a recreation area intuitively. Sometimes, however, this doesn't quite happen exactly as intended.

People who commonly frequent an area see the same signs again and again. Soon they stop reading the signs, no longer paying attention to a) posted signs' wording, b) where the signs are located, c) the condition/appearance of the signs, and d) whether the signs are actually effective. They become "sign blind" or "numb" to the posted signs.

With the experience I have gained from working with the sign program, I try to look at the signs from a true first-timer's perspective. I don the personality of a member of the public who has never been to a Corps facility and put on my "blurry first-time visitor" glasses. I ask "Did this intuitively guide me to where I wanted to go?" "Did the sign appropriately notify me of hazards so that I could react accordingly?" and "What could be changed about this sign to make it more effective to the first-time viewer?" With a little practice doing this, the answer presents itself.

Welcoming Feedback

As Sign Program Managers, we should welcome feedback from rangers from other projects. They are much more easily able to put on the "first-time viewer" glasses, whose perspective can help us overcome sign blindness. In fact, some districts report that their projects are very good at inviting off-site rangers to perform casual sign inspections each time they visit. The visiting rangers ask the local project Sign Program Manager, "Why this?" and "Why that?" and "Have you thought about doing it a different way?" This allows the project Sign Program Manager to always have a fresh perspective, which leads to an improved Sign Program.

How common is it for newly-assigned project Sign Program Managers to inherit sign duties from their

predecessor without a good hand-off? Far too common. You have to figure out how to make the program work correctly, keeping in mind that it's only one of your duties. There are a lot of outside factors that make it difficult to get your picture-perfect Sign Program. Maybe it was in shambles to start with, so where do you start? And there's *never* enough money to do what you'd like to do with the Sign Program. And on, and on...

We've all been there, haven't we?

Sometimes project Sign Program Managers get embarrassed or defensive when out-of-compliance signs at their Corps project are brought to their attention. They feel their performance is under direct attack. Personally, when looking at a project, I never dwell on whose "fault" it is. We're all here to help each other. We have our standards. The true concern is to help Sign Program Managers come up with a plan to get into compliance with the standards and to weave that plan into the Operational Management Plan.

Don't forget that it's not about you—it's about *the program*. But if you really want to be a hero, be that ranger who fixes things now and sets up your program for compliance for years to come. Use that outside set of eyes to your (and the public's) advantage.

Leading by Example

The regulations that dictate the management of a Sign Program at the project level have been designed to be applied intuitively. They are easy to follow if you take the time to read the *Sign Standards Manual* and consult with your district Sign Program Manager by phone or in person.

Reading and following the principles and guidance in the *Sign Standards Manual* has many benefits. We place signs on the project to proactively guide people's behavior in a positive direction. Experienced rangers working at a project with a well-planned and functioning Sign Program actually influences visitors' behavior for the good.

Our concern is the safety of visitors and employees, and in turn, decreased liability and better care of the public lands to which we have been entrusted. We are stewards. It has been proven that a good Sign Pro-

gram leads to orderly behavior. And orderly behavior leads to augmented pride, giving the visiting public an increased personal stake in the care of the lands and facilities.

Our personal opinions necessarily must yield to the public's best interest, because we are stewards entrusted to care for public lands and those who visit them. Although there is not a "sign police," we are still paid by the public to manage the Sign Program according to regulation.

When emphasizing the importance of complying with the *Sign Standards Manual*, I often hear, "What does it matter? It's just a sign."

But hold on—compliance to regulation is an issue of ethics and leadership by example. How can we expect visitors to honor the regulations when we ourselves don't?

Noncompliance Perpetuates Noncompliance

So why do we find noncompliant signs throughout the Corps? Why is there noncompliance?

The *Sign Standards Manual* was published in the late 1980s and was implemented throughout the Corps in the '90s, prior to which, there was no across-the-board standard to speak of. With the fresh new standards in place and with compliance mandated by the Commanding General, all new signs ordered were required to be compliant to the *Sign Standards Manual*. To mitigate cost, already-existing signs were allowed to live-out the rest of their serviceable life. Upon replacement, they would be swapped-out by compliant signs meeting the new standards.

We're talking three decades ago. So if a typical sign has an expected lifespan of 7–15 years, no signs from back then would still be up, right? Logically then, we should be able to conclude that all of the signs out there are compliant, right? Yet we all know that this is not the case.

So we have to ask ourselves—Why do we still have non-compliant signs in the field when we know existing signs have been in place for under 30 years? Is noncompliance really justifiable from our present standpoint?

Turning Negative into Positive

Sign Program Managers across the nation have shared with me a number of their reasons for not being able to be compliant. I have listed a few of the most common ones below, citing the responses that I often use to help them resolve their concerns. As a result I have received an overwhelmingly positive response from them.

"But we've always done it that way."

As the National Sign Program Manager, I am charged by USACE Headquarters with promoting the standards and regulations across the nation. We all share in that responsibility because our common source material is the *Sign Standards Manual*, which regulation specifies is our standard (ER 1130-2-500, 6-2b). Whether your role is large or small with respect to Corps signs, you also are responsible to abide by the standards and appropriately speak up when you see that they aren't being followed correctly.

When the Truman Sign Shop and UNICOR Sign Factory receive orders for unusual or nonstandard signs, they call me to consult with me. I reach out to the district Sign Program Manager, and we work together to come up with a solution consistent with the spirit of the *Sign Standards Manual*.

"Well, we're just re-ordering what was up there already, and it was approved back then, so we'll just replace it with the same stuff."

My response: Thank goodness we all have the *Sign Standards Manual* to guide us. This is the *perfect* time to commit funds and attention to creating a compliant program. This is the *perfect* time to lift the program up to standard. We were going to spend the money, anyway, right? Why not spend it properly?

"Well, this is what people expect."

My response: Really? What "people" in particular are you referring to? Don't we run a program to standard? When we install signs to accommodate personal preferences instead of the public's welfare, isn't that the *opposite* of standard? Don't forget that we run a program to standard with the first-time viewer in mind. Besides, individuals who claim to "expect" a sign to be a certain way have already noticed the sign (and hopefully have read it).

"Well, our project is different."

My response: Not to be insensitive, but I usually hear this one when somebody 1) hasn't read the *Manual*, 2) has a strong personal opinion, 3) has inherited the noncompliant program and doesn't want to make the change, or 4) just doesn't care. Yes, some cases may warrant a certain solution that the *Sign Standards Manual* doesn't accommodate. If so, I feel safe in assuming that the exception in question has not been documented in the Sign Plan or been reviewed by the Sign Advisory Work Group (SAWG).

"Well, we have historical justification to have it this way."

My response: Keep in mind that EP 1130-2-500, 6-3f requires written approval from Headquarters for deviation. In order for a non-compliant identification sign to remain standing or replaced for historical reasons, it has to be approved by the district, division, and National Sign Program Managers and then signed by HQUSACE. If you need help with that process, we'll gladly assist you, but be careful not to casually flash the "historical justification" card to simply avoid the requirement of bringing your sign program into proper compliance.

Also, in all fairness, we must ask ourselves: At what point in time were we planning on becoming compliant? Does our Sign Plan justify these variances—in writing? Were they approved—in writing—by the district Sign Program Manager and higher?

When we are assigned as a Sign Program Manager, we acknowledge that our duty and responsibility is to manage a compliant Sign Program. Aesthetics matter because a well-maintained, compliant program leads to order and visitor compliance. Visitor compliance directly leads to increased safety and reduced risk and liability. Never underestimate the far-reaching benefits of a compliant sign program. Non-compliance may affect you, especially when the district Office of Counsel calls you about your neglected program just after a tragic accident at your project.

There are many resources to help you. Talk to fellow Sign Program Managers at other projects, your district Sign Program Manager, or even a member of the SAWG. Read the *Manual*. Read the MUTCD. If the program you manage is filled with noncompliant signs, then you are the perfect person to fix it!

Field Observations, Part II

AJ Jensen

National Sign Program Manager

Back by popular demand, here is another compilation of *Field Observations*, as included in the last issue of *The Sign Post*. It's a great follow-on to the *Blind to Change* article.

The intent of this exercise is to increase awareness of how to scrutinize signs. When you get practice scrutinizing signs from other projects, you are able to carry that skill back to your own project and make a positive difference.

Remember that everything you post is public property and is visible for all to see. If you are doing the right thing with your program, you are serving the public. People who get upset when their noncompliant signs are photographed by others really can't complain because they're the ones who can fix it all.

The intent of this exercise is to train the eye for things to inspect.

Field Photos



Observation:

Replacement sign installed on older homemade mounting system. Unstained posts.

Issue:

Unprofessional appearance. New panel doesn't fit old mounting system. The panel is mounted using several screws that penetrate the panel face, which will show corrosion streak marks as the sign ages.

Recommended Action:

Order signs with the Corps-authorized framed support material from the factory. It holds up better, looks nicer, and requires less maintenance.

Observation:

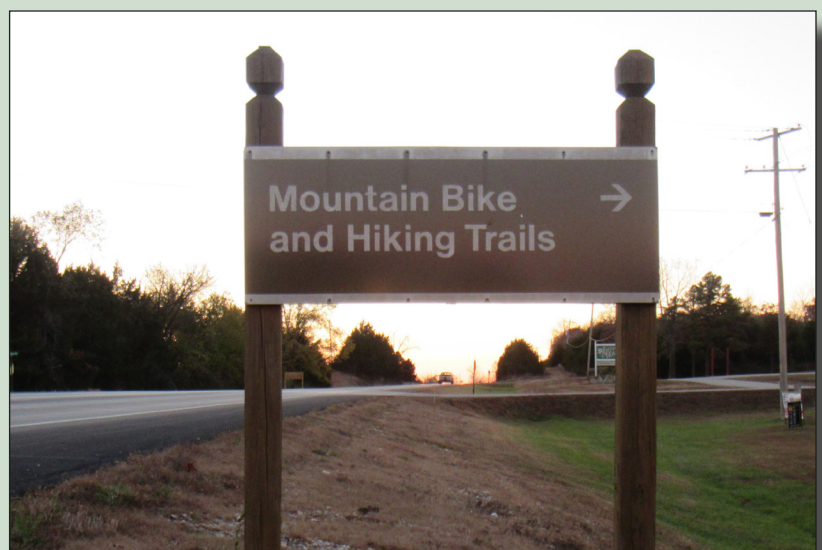
Posts aged, cracked, and not maintained; multiple rusty screws through sign face leave oxidation streaking stains.

Issue:

Deteriorating and neglected appearance can give a bad first impression to visitors.

Recommended Action:

Following the recommended maintenance schedule and installation procedures may have preserved this sign for another couple of years. Now, it's time to think about replacing the sign with a new one.





Observation:

Aged stop sign is out of compliance with Federal Highway Administration's retroreflectivity requirements; posts are not stained; street name signs (not pictured) are on a different post.

Issue:

Retroreflectivity requirements are top priority for traffic control signs; posts should look neat.

Recommended Action:

Replace this stop sign as soon as you can; stain posts; optional: place street signs above stop signs to reduce clutter and look neater (it's authorized, MUTCD p. 163, para. 21).

Observation:

Corps Signature is faded, cracked, and peeling away.

Issue:

This is our Signature, which should be a showpiece on all of our signs. It is weathered beyond repair and is not the level of quality we wish to display.

Recommended Action:

Replace the sign. When using high-intensity prismatic (HIP) vinyl, it is best for backgrounds, not cut letters and shapes. Here you can see how it has lost its sharp edges. Engineering grade retroreflective vinyl works best for this type of application.



Observation:

Sign is weathered beyond repair. Message is unreadable.

Issue:

Unprofessional appearance. A sign that doesn't communicate is not a sign and should be removed.

Recommended Action:

Replace this sign with a REG-04 No Trespassing sign (Sign Standards Manual, p. 12-6). Annually inspect signs and place old signs like this on cycle for replacement.

Observation:

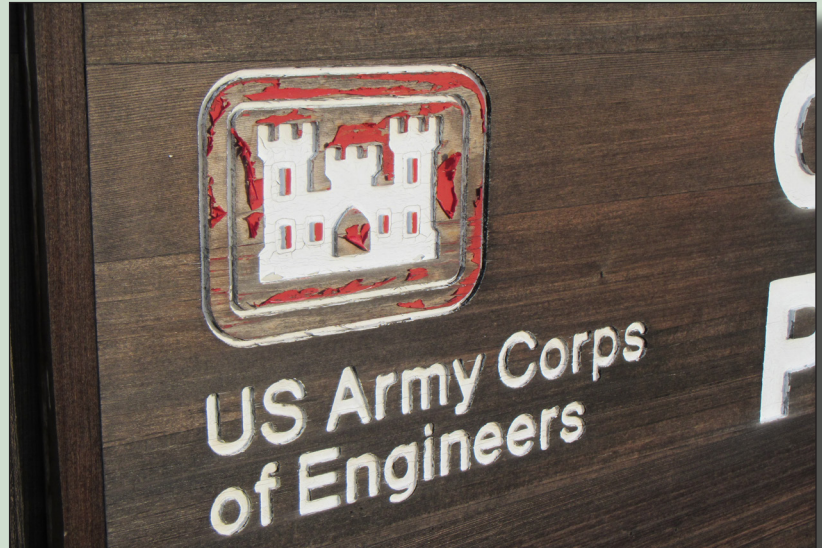
Peeling paint from routed red cedar sign.

Issue:

Insufficient maintenance causes signs to lose their radiant appearance, especially routed red cedar.

Recommended Action:

Ensure re-application of red and white paint, as needed, to maintain the sign's appearance. Routed red cedar can last many years, but without care, it will fall to disrepair.



Observation:

This is a beautiful example of a Standard ID sign constructed from routed red cedar. It shows the signs of care, including the red and white paint that needs to be re-applied from time to time.

Observation:

A good sign, but it is low to the ground. The post is unstained.

Issue:

Standards call for the bottom traffic control signs to be at least 60" (5') off the plane of the driving surface. They can be overlooked when they are too low.

Recommended Action:

Raise sign to proper minimum height. Stain post.





Observation:

Wrong sign type, typeface, and arrow. Too short a distance before turn (posts are nicely stained).

Issue:

Helvetica medium is used for Directional signs because it is easier to read than Helvetica bold shown here. The white bar at the bottom (on Directional signs) would add visibility. Placing the sign a greater distance before the turn will enable drivers to slow down and make the turn.

Recommended Action:

Order the correct sign type, installing it enough in advance of the turn for people to react best.

Observation:

Sign is warped (concave) and posts are too far to the center (posts are nicely stained, though).

Issue:

Without proper support (backing) for a sign of this size, it will warp, as seen here. Also, for Directional signs, the outer edge of the post is a 2A inset from the outer edge of the sign (Sign Manual, p. 6-3, 6-12).

Recommended Action:

When ordering the sign, ask for Z-bar support. Install posts 2A from outer edges of the sign.



Observation:

This is a blocked-off road with a mixture of sign messages that compete with each other.

Issue:

A Stop sign is used to stop a vehicle and then allow it to proceed. With a locked gate and jersey barriers, this is no longer a road. Authorized Personnel Only is unnecessary, since it is not a gate.

Recommended Action:

Replace faded Stop sign with two or three Type 4 Object Markers (see MUTCD, pp. 134-136) to indicate impassible roadway. Space-out the No Trespassing signs evenly along the fence.





Observation:

Redundant of signs on a gate.

Issue:

Too many signs

Recommended Action:

Remove the duplicate "Authorized Entry Only" sign. The Corps Sign Program has a "U.S. Property | No Trespassing" sign that should replace this older, faded sign.

Observation:

Sign is too low to the ground.

Issue:

Signs should be near eye level so that they are easily seen and complied with by the visiting public.

Recommended Action:

Either place the sign on a post tall enough to be easily seen, or attach it to the wall in the descending stairwell at a height easily seen.



Observation:

Property marker is aged beyond repair. It is installed on wrong side of U-channel post.

Issue:

Signs that are unreadable are useless and need prompt replacement. Attaching sign panels to the wrong side of U-channel posts causes bending and premature weathering because it is less stable than the open part of the "U."

Recommended Action:

Replace sign with a standard property marker. If a U-channel post is used, attach the sign to the open part of the "U" for better stability.

**Observation:**

Directional signs have too many destinations (information overload). Spacing between separate items is confusing (one destination or many?).

Issue:

A driver will have to remain stopped for a while to read all of the destinations and distinguish them one from another.

Recommended Action:

Place one sign at this location with no more than four principal destinations. Spread additional signs throughout the project to guide visitors where appropriate.

Observation:

[Not a Corps sign] Too many destinations and difficult to read when approaching intersection.

Issue:

Too many destinations creates information overload, especially at an intersection. Arrows are subtle and inefficient. Blocks Yield sign.

Recommended Action:

If this were a Corps facility (it is not), the sign would have fewer destinations, have larger lettering, and be placed well before the intersection so that the decision to turn is made before reaching the intersection.

**Observation:**

[Not a Corps sign] When seeing this sign for the first time, traveling at 70mph, there was too much information to read while still driving safely.

Issue:

Excessive information on a sign causes information overload and reduced retention. We limit our legends to 8-10 words per sign and 3-4 symbols per Directional sign with good reason.

Recommended Action:

If this were on Corps property (it is not), the sign would have fewer symbols. The white sign would be its own, separately installed sign.



Implementing Updated Guidance for Overhead Power Lines

AJ Jensen
National Sign Program Manager

In the early afternoon of 5 August 2017, three Boy Scouts set sail on a Corps lake. While sailing, the main mast of their vessel came into contact with a low-hanging overhead power line. The three were electrocuted to death.

The Corps of Engineers is concerned about visitor and employee safety. In order to prevent a recurrence of such a tragedy, the agency investigated the event to determine the best way to address the issue of overhead lines crossing above rivers and reservoirs.

On 21 December 2018, the Director of Civil Works released a policy guidance memorandum intended to address this issue.

It is understandable how implementing the said guidance may appear vague to some readers. Offering a comprehensive nationwide standard operating procedure to address this issue is a challenge because of the diversity from one lake to the next. One lake might be wide, another narrow. One lake's pool level might be static while another's pool may fluctuate several feet throughout a day. Each lake presents a different layout of banks, launch points, type of recreationalist, and overhead power lines. There is no "one size fits all" solution.

From the perspective of a project Sign Program Manager, there are some things you can do to help mitigate risk, but you cannot do them alone. Signing a potential hazard is only one part of a solution. You need the help of a team of stakeholders.

Below are some suggestions of how a project with power lines crossing its lake might decide to proceed in putting together a project delivery team to answer the requirements of the 21 December memorandum.

Putting Together Your Team

Supervisor. First, get your supervisor's support and backing. Your supervisor may elect to be a team member or even assist you in getting a team together. Other individuals to consider for the team:

Project OPM. This individual, who has executive authority over the lake in question, will most likely drive this process. It is not uncommon for this individual to specify a designee.

Project Safety Officer. Is familiar with the project's safety plan and operations.

District Sign Program Manager. Can help support your efforts with the district staff. Will offer experience in coming up with solutions.

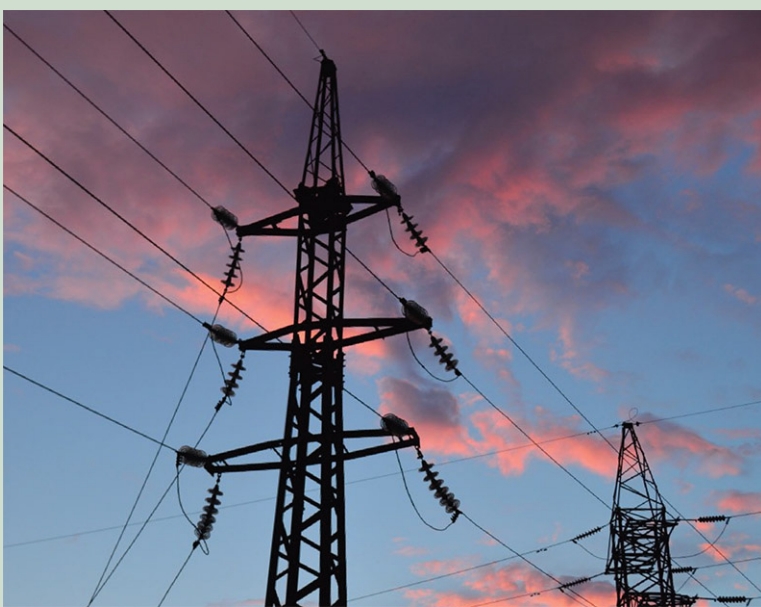
District Safety Officer. Because this is a significant undertaking, this individual should also

be involved.

District Real Estate Officer. Will share relevant real estate concerns pertaining to the issue in question.

District Counsel. Will provide advice from a legal perspective to guide you to the right solutions.

Navigation. Will address concerns that both the Corps and boaters may have.



Community Voices. A group of boaters and other interested recreationalists from the community will offer the perspective that recreational boaters have.

The idea behind involving so many people of diverse backgrounds is to get the perspectives of people who have a vested interest (“skin in the game”) in creating and executing the best delivery plan. With this delivery team, the broad variety of perspectives will lead to the best answer.

Assessing the Situation

Only by assessing your project’s overhead power lines situation as a team can you develop a feasible solution. By coming together as a team of interested parties, you will mitigate risk to the public, and in turn, to the agency.

Preparation

Compile and read all of the background guidance that applies to the overhead power lines. The policy guidance memorandum dated 21 December 2018 lists a number of resources. Look them up as a team and familiarize yourselves with their instructions pertaining to overhead power lines. If there is an additional project, district, or division policy that also applies, include that in the research. Getting a full picture of anything relevant is part of the preparation.

Assessment

As a team, discuss all of the feasible options and give them a ranking on paper. Discuss the pros and cons of each situation. Develop a scoring system that takes cost, time, feasibility, and risk management into account. This may be simple or complex. Remember that the ultimate goal is to reduce risk and communicate safety.

Documentation and the Sign Plan

Record discussions and document the steps/reasoning it takes to reach conclusions. Each abandoned option should be described with the reasoning behind abandoning it. It’s easy to consider documenting the abandoned options a waste of time, but in the event of an accident, having them on file may help convince

a court of law that the agency performed its due diligence. This “transparency” will also help future Corps employees see your work and not have to re-hash it.

When documenting, your work can be written directly into the plan, or it can appear as a supplemental package, such as an appendix or other referenced document. Regardless of how it appears in the sign plan, it needs to be documented, signed, dated, and easily accessible, according to the district SOP. Placing it on a network drive available to all personnel within the district is best.

The guidance provided from the Sign Standards Manual (EP 310-1-6a) is “Signs mounted to identify power lines that cross roads should be placed at the ramp site or at the entrance to a facility or area as appropriate. This may include placement at both the boat ramp and area entrances as well as at the specific hazard site” (p. 7-37). It is the responsibility of the project delivery team to determine where and how to install these signs. Be sure to document this in the sign plan.

Implement Plan

Install the signs according to the plan. If you see that the plan has to change due to unforeseen events, or if the plan has to be implemented in stages due to budgetary or other reasons, ensure this is documented in the sign plan.

Revisit

As with every sign plan, perform a field inspection on the signs annually. Document the results of the inspection and keep them current in the sign plan. Revisit (re-read) the plan periodically to determine whether new circumstances require any changes in the plan and document it all in the sign plan.

Note:

The intent of this article is to aid in implementing existing official policy and guidance. When developing an implementation plan, consult with applicable project and district resources, including the project OPM and district Office of Counsel, to determine the most appropriate path forward.

(Continued from page 1—"Approval Procedures")

Standards Manual (EP 310-1-6a and 6b) shall be used in the planning, design, fabrication, and maintenance of all signs installed at Corps Civil Works Projects" (ER 1130-2-500, 6-2 b). It further states that deviations from the standards shown in the manual are not permitted without the prior authorization from HQUSACE.

There have been deaths on Corps projects in the recent past. Aside from the regrettable loss of human life, another serious issue rises high. Attorneys of the deceased ask for all records of anything connected to potential negligence by the Corps. What do they look for first? Signage and physical barriers. Suddenly the project Sign Plan becomes the most important document in the world. They get ahold of written guidance, including the *Sign Standards Manual*. They read through it and look to see if they can point to a pattern of neglect by the Corps. An out-of-compliance or neglected sign program helps build a case against the Corps, even if the incident had no connection whatsoever with the tragedy. This is an extreme example, but it has happened before. I don't know many people who would prefer to go to court rather than to follow standards. It's easiest to comply, and it's regulation.

Back to the UNICOR visit: In speaking with the factory manager, we saw that most of the out-of-spec signs should never have been approved since there were approved signs already in the *Sign Standards Manual*. If they shouldn't be approved, they shouldn't be manufactured.

We emphasized the importance of not producing out-of-spec signs for the Corps without legitimate justification. In some cases, district SPMs had been "rubber stamping" sign orders from the projects, meaning they were not quality checked, hence the out-of-compliance orders. To ensure that the signs going out to the field fall in the spirit of our standards, an extra set of eyes is required.

Yes, there are times when exceptions need to be made, but they are rare. The right choice is almost always found in the *Sign Standards Manual*. Your division SAWG representative has extensive knowledge of the standards. This individual will know whether to refer your exception back downward or whether to use your lingering signage need as the basis for discussion with the SAWG, resulting in the creation of new signs to put into the *Manual*.