



Work Session Meeting Agenda
2 Park Drive South, Great Falls, MT
Gibson Room, Civic Center
September 17, 2024
5:30 PM

The agenda packet material is available on the City's website: <https://greatfallsmt.net/meetings>. The Public may view and listen to the meeting on government access channel City-190, cable channel 190; or online at <https://greatfallsmt.net/livestream>.

Public participation is welcome in the following ways:

- Attend in person.
- Provide public comments in writing by 12:00 PM the day of the meeting: Mail to City Clerk, PO Box 5021, Great Falls, MT 59403, or via email to: commission@greatfallsmt.net. Include the agenda item or agenda item number in the subject line, and include the name of the commenter and either an address or whether the commenter is a city resident. Written communication received by that time will be shared with the City Commission and appropriate City staff for consideration during the agenda item, and, will be so noted in the official record of the meeting.

CALL TO ORDER

PUBLIC COMMENT

(Public comment on agenda items or any matter that is within the jurisdiction of the City Commission. Please keep your remarks to a maximum of five (5) minutes. Speak into the microphone, and state your name and either your address or whether you are a city resident for the record.)

WORK SESSION ITEMS

1. Lead Service Line Inventory and Lead & Copper Rule Update - Mark Juras
2. Portland Loo - Commissioner Wilson
3. Public Safety Poll Update - Greg Doyon

DISCUSSION POTENTIAL UPCOMING WORK SESSION TOPICS

ADJOURNMENT

City Commission Work Sessions are televised on cable channel 190 and streamed live at <https://greatfallsmt.net>. Work Session meetings are re-aired on cable channel 190 the following Thursday morning at 10 a.m. and the following Tuesday evening at 5:30 p.m.

Wi-Fi is available during the meetings for viewing of the online meeting documents.

UPCOMING MEETING SCHEDULE

City Commission Work Session - Tuesday October 1, 2024 5:30 p.m.

City Commission Meeting - Tuesday October 1, 2024 7:00 p.m.



LEAD SERVICE LINE INVENTORY AND LEAD & COPPER RULE UPDATE

September 17, 2024

LSL INVENTORY UPDATE

- EPA required inventory ready to submit to MT DEQ

Galvanized	590	2.7%
Lead	157	0.7%
Non-Lead	15664	71.9%
Unknown	5378	24.7%
Total	21789	100.00%

- Addresses of all Galvanized, Lead, Unknown service lines will be posted on City website by October 16th
- Website will include instructions to contact City staff to provide or verify the information, as well as access to additional EPA required noticing and health information



EPA MANDATORY NOTICING

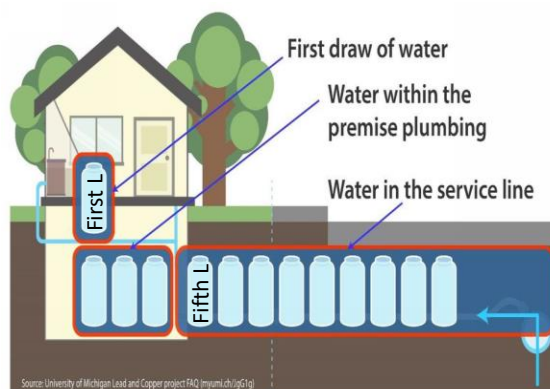
- Water customer noticing starts October 16th
 - 30 days to notice ~6,125 non-conforming addresses
 - Notice new customers at time of service initiation
 - 45 days to notify owners prior to partial service line replacement of non-conforming lines with active water main replacement projects
 - City must provide pitcher filter when City partially replaces a non-conforming line
- Estimated \$10k annually plus staff time



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TAP SAMPLING & EDUCATION

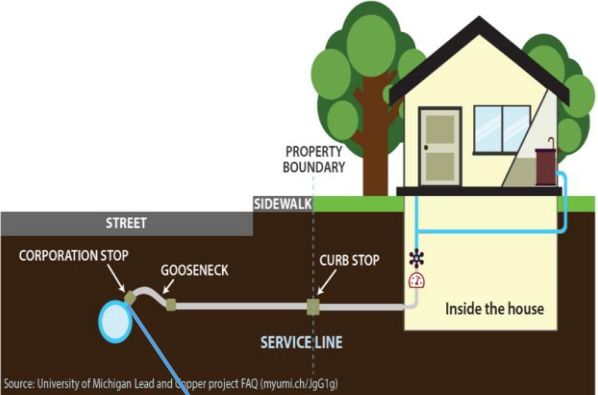
- EPA's sampling changes start October 16th
 - 1st and 5th liter
 - Tiered sampling locations - 60 samples 2x/year to start
 - City considering incentives
 - 5 years to sample all primary schools and daycares
 - Water main project partial replacements - sample within 3-6 months
 - Trigger level - 10 ppb
 - Action level - 15 ppb
- Results noticing
- Public education efforts
- Exceedance education & noticing
- Estimated \$20k annual impact plus staff time



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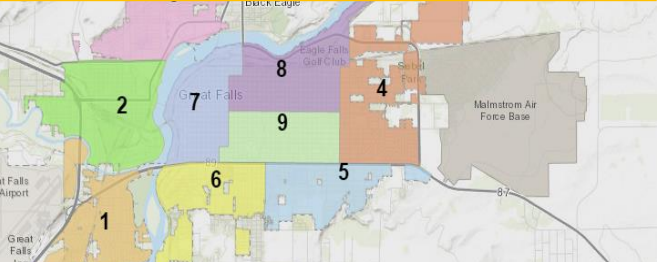
EPA LCRI CHANGES

- The previous lists are bulleted summaries
- Lead and Copper Rule Improvements (LCRI) not yet adopted as law
 - Will add more requirements to all aspects of Lead & Copper Rule Revision (LCRR)
 - This info will change if/when EPA adopts LCRI



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DOOR-TO-DOOR PLAN TO IDENTIFY UNKNOWN WATER SERVICE LINE MATERIAL



- Goal - reduce number of 5,300 unknowns before mandated replacement starts
- Already sent them a letter and gave them a call
- Door-to-Door plan - City inspectors to visit addresses of unknowns during winter months to ID services
- Leave door hanger if no answer - provides info on how to ID service line and return info to City
- Conduct efforts in winter months 2024-2027
- Other efforts TBD

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REPLACING LEAD WATER SERVICE LINES: PILOT PROJECT



- Pilot project to replace 20 lead lines
- SRF Loan Program & Water Enterprise Fund
- Recommendation: utilize rate payer funds in 2025 to move forward with \$300K pilot project via SRF loan with 60% forgiveness
 - Make use of available funding
 - Troubleshoot process for mandated replacement
 - Improve tap sampling results

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FUTURE LEAD SERVICE LINE REPLACEMENT CHALLENGES

- Mandated replacement? (very likely)
- The ratepayer pays?
- Galvanized requiring replacement?
- Unknowns count as lead?
- Mandated replacement rates? 3%/year (33 years)
 - 10%/year (10 years) per LCRI
- Future funding assistance unknown
- Contractor capacity (other cities under same mandate)
- Stresses limited staff time & resources
- The list goes on

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POTENTIAL FUTURE IMPACT TO RATEPAYER

Best Case

~1,100 replacements @ \$15,000 each = ~\$17M
3% replaced per year
\$17M over 33 years = \$520k per year
\$520k divided by 12 months = \$43K
\$43K divided by 22K customers = \$2/Month

Worst Case

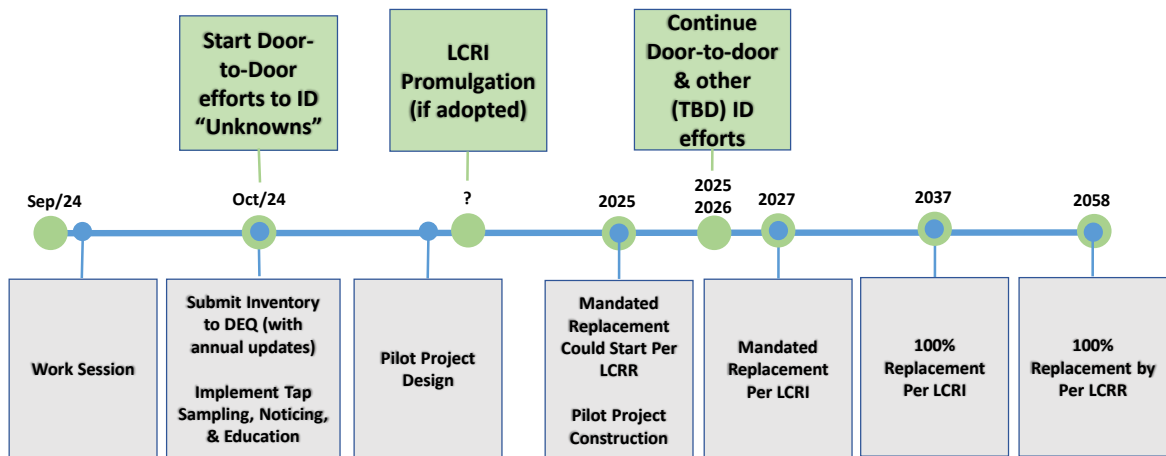
~6,125 replacements over 10 years
~\$92M or \$35/Month

Numbers to vary based on total lines to be replaced and actual cost per replacement



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FUTURE STEPS TIMELINE & DISCUSSION



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FACT SHEET

Proposed Lead and Copper Rule Improvements Rule Comparison Guide for Public Water Systems and Primacy Agencies November 2023

The United States Environmental Protection Agency (EPA) is proposing the Lead and Copper Rule Improvements (LCRI) to protect children and adults from the significant, and irreversible, health effects from being exposed to lead in drinking water. The proposal builds on the 2021 Lead and Copper Rule Revisions (LCRR) and the 1991 Lead and Copper Rule (LCR). EPA has developed this rule comparison guide to assist water systems and primacy agencies (also referred to as “States” in this document) in understanding the proposed LCRI. The following table compares the major differences among the LCR, the LCRR, and proposed LCRI.

Note a similar table can be found in the preamble for the proposed LCRI, available at www.regulations.gov, Docket ID No. EPA-HQ-OW-2022-0801. This table provides additional detail on clarification of requirements retained from previous lead and copper regulations to assist the reader in further understanding the lead and copper rules along with proposed requirements in the LCRI.

Pre-2021 LCR	LCRR	Proposed LCRI
Service Line Inventory		
<ul style="list-style-type: none"> Systems were required to complete a materials evaluation by the time of initial sampling. No requirement to update materials evaluation. 	<ul style="list-style-type: none"> All systems must develop an initial lead service line (LSL) inventory within 3 years of final rule publication (by October 16, 2024). The inventory must include a location identifier for each LSL and galvanized requiring replacement (GRR) service line. The inventory must be made publicly accessible; and available online for systems serving > 50,000 people. The LSL inventory must be updated at a frequency based on the system’s tap sampling frequency but no more than annually. 	<ul style="list-style-type: none"> All systems must review records for information on connector materials and include lead connectors in the LCRI baseline inventory by the compliance date. The inventory must include a street address with each service line and connector. Retains the LCRR requirement for the inventory to be made publicly accessible; and available online for systems serving > 50,000 people. Service line inventory must be updated annually.

Pre-2021 LCR	LCRR	Proposed LCRI
		<ul style="list-style-type: none"> • Systems must respond to customer inquiries on incorrect material categorizations within 60 days. • Systems must validate the accuracy of the non-lead service line category in their inventory no later than 7 years after the compliance date unless on a shortened or deferred deadline. • Systems must identify all unknown service lines by the applicable mandatory replacement deadline.
Service Line Replacement		
<p>Replacement Plan</p> <ul style="list-style-type: none"> • No requirement. 	<p>Replacement Plan</p> <ul style="list-style-type: none"> • Systems with at least one lead, GRR, or unknown service line must develop a lead service line replacement (LSLR) plan. • The plan must include strategies for identifying unknowns; procedures for full service line replacement; a customer communication strategy; flushing instructions; a strategy to prioritize replacements based on factors including but not limited to the targeting of known LSLs, LSLR for disadvantaged consumers and populations most sensitive to the effects of lead; and a funding strategy. • No requirement to make the plan publicly accessible. 	<p>Replacement Plan</p> <ul style="list-style-type: none"> • All systems with at least one lead, GRR, or unknown service line must develop the service line replacement plan (with all elements required in the LCRR). • The plan must also include additional elements including a strategy to inform customers and consumers about the plan and replacement program and an identification of any legal requirements or water tariff agreement provisions that affect a system’s ability to gain access to conduct full service line replacement. • Updates the language on the replacement prioritization strategy. • Service line replacement plan must be made publicly accessible; and available online for systems serving > 50,000 people.
<p>LSLR</p> <ul style="list-style-type: none"> • Replacement programs are based on the lead 90th percentile (P90) level, corrosion control treatment (CCT) installation, and/or source water treatment. 	<p>LSLR</p> <ul style="list-style-type: none"> • Replacement programs are based on P90 lead level for community water systems (CWSs) serving > 10,000 people: 	<p>Service Line Replacement</p> <ul style="list-style-type: none"> • Mandatory full service line replacement program for all systems. • All CWSs and NTNCWSs with one or more lead, GRR, or unknown service line in their

Pre-2021 LCR	LCRR	Proposed LCRI
<ul style="list-style-type: none"> • Systems with LSLs with P90 lead > 0.015 mg/L after CCT installation must annually replace at least 7 percent of number of LSLs in their distribution system when the lead action level is first exceeded. • Systems must replace the LSL portion they own and offer to replace the private portion at the owner’s expense. • Full LSLR, partial LSLR, and LSLs with lead sample results ≤ 0.015 mg/L (“test-outs”) count toward the 7 percent replacement rate. • Systems can discontinue LSLR after 2 consecutive 6-month monitoring periods at or below the lead action level. • Requires replacement of LSLs only. 	<ul style="list-style-type: none"> ○ If P90 > 0.015 mg/L: Must fully replace 3 percent of LSLs and GRR service lines per year based upon a 2-year rolling average (mandatory replacement) for at least 4 consecutive 6-month monitoring periods. ○ If 0.010 mg/L < P90 ≤ 0.015 mg/L: Implement a goal-based LSLR program and consult the primacy agency (or State) on replacement goals for 2 consecutive 1-year monitoring periods. • CWSs serving ≤ 10,000 people and all non-transient, non-community water systems (NTNCWSs) that select LSLR as their compliance option must complete LSLR within 15 years if P90 > 0.015 mg/L. Also, see the <i>Small System Flexibility</i> section of this fact sheet. • Annual LSLR rate is applied to the number of LSLs and GRR service lines when the system first exceeds the trigger or action level plus the number of unknown service lines at the beginning of the year. • Only full LSLR (replacement of the entire length of the service line) counts toward mandatory rate and goal-based rate. No “test-outs.” • All systems replace their portion of an LSL if notified by consumer of private side replacement within 45 days of notification of the private replacement. If the system cannot replace the system’s portion within 45 days, it must notify the State and replace the system’s portion within 180 days. • Following each LSLR, systems must: 	<p>inventory must replace LSLs and GRR service lines under their control in 10 years. Systems required to replace >10,000 lines per year or systems exceeding 0.039 replacements per household per year would be eligible for deferred deadlines beyond the 10-year replacement deadline. Systems must replace service lines by a shortened deadline if determined feasible by the State.</p> <ul style="list-style-type: none"> • Systems must replace service lines at a minimum average annual rate of 10 percent calculated on a rolling 3-year period unless subject to a shortened or deferred deadline. • Average annual replacement rate is applied to the number of LSLs and GRR service lines in the baseline inventory submitted by the compliance date plus the number of unknown service lines updated annually. • Systems must conduct reasonable efforts (at least 4 attempts) to engage property owners about full service line replacement, when applicable. • LCRR requirements remain for counting only full service line replacements towards replacement rate, completing customer-initiated replacements, providing a filter and offering tap sampling following replacements, and replacing lead connectors when encountered. • Systems conducting partial service line replacement must offer to replace the remaining portion of the service line not under their control (within 45 days for emergencies).

Pre-2021 LCR	LCRR	Proposed LCRI
	<ul style="list-style-type: none"> ○ Provide pitcher filters and cartridges to each customer for 6 months after replacement. Provide pitcher filters and cartridges before the affected portion of the line or the fully replaced service line is returned to service. ○ Collect a lead tap sample at locations served by the replaced line within 3 to 6 months after replacement. ● Requires replacement of lead connectors when encountered. ● Systems must make 2 good faith efforts to engage customers about LSLR. ● Systems conducting partial LSLR must offer to replace the portion of the service line. 	
<p>LSL-Related Outreach</p> <ul style="list-style-type: none"> ● When a water system plans to replace the portion it owns, it must offer to replace the customer-owned portion at owner’s expense. ● If a system replaces its portion only: <ul style="list-style-type: none"> ○ Provide notification to affected residences within 45 days prior to replacement on possible elevated short-term lead levels and measures to minimize exposure. ○ Include offer to collect lead tap sample within 72 hours of replacement. ○ Provide test results within 3 business days after receiving results. 	<p>LSL-Related Outreach</p> <ul style="list-style-type: none"> ● Notify consumers annually if they are served by a lead, GRR, or unknown service line. ● Deliver notice and educational materials to consumers during water-related work that could disturb LSLs. ● Systems subject to goal-based program must: <ul style="list-style-type: none"> ○ Conduct targeted outreach that encourages consumers with LSLs to participate in the LSLR program. ○ Conduct an additional outreach activity if they fail to meet their goal. <p>Systems subject to mandatory LSLR must include information about the LSLR program in public education (PE) materials that are provided in response to P90 > action level.</p>	<p>Service Line Related Outreach</p> <ul style="list-style-type: none"> ● Maintains LCRR requirement to notify consumers annually if they are served by a lead, GRR, or unknown service line. ● Deliver notice and educational materials to consumers during water-related work that could disturb lead, GRR, or unknown service lines, including disturbances due to inventorying efforts. ● If the system fails to meet the mandatory service line replacement rate, conduct public outreach activities to encourage consumers with lead, GRR, and unknown service lines to participate in the service line replacement program. ● Removes goal-based program outreach activities.

Pre-2021 LCR	LCRR	Proposed LCRI
Action Level and Trigger Level		
<ul style="list-style-type: none"> • P90 level above lead action level of 0.015 mg/L or copper action level of 1.3 mg/L requires additional actions. • Lead action level exceedance requires 7 percent LSLR (includes partial replacements), CCT recommendation and possible study and installation, and PE within 60 days after the end of the monitoring period. 	<ul style="list-style-type: none"> • P90 level above lead action level of 0.015 mg/L or copper action level of 1.3 mg/L requires more actions than the previous rule. • Defines lead trigger level of 0.010 mg/L < P90 ≤ 0.015 mg/L that triggers additional planning, monitoring, and treatment requirements. • Trigger level exceedance requires goal-based LSLR and steps taken towards CCT installation or re-optimization. • Lead action level exceedance requires 3 percent LSLR (no partial replacements), CCT installation or re-optimization, PE, and public notification (PN) within 24 hours. 	<ul style="list-style-type: none"> • Removes the lead trigger level. • P90 level above lead action level of 0.010 mg/L or copper action level of 1.3 mg/L requires actions including installation or re-optimization of CCT, and PE and 24-hour PN (for lead action level exceedances). • Mandatory full service line replacement of LSLs and GRR service lines is independent of P90 lead levels.
Lead and Copper Tap Monitoring		
<p>Sample Site Selection</p> <ul style="list-style-type: none"> • Prioritizes collection of samples from sites with sources of lead in contact with drinking water. • Highest priority given to sites served by copper pipes with lead solder installed after 1982 or containing lead pipes and sites served by LSLs. • Systems must collect 50 percent of samples from LSLs, if available. 	<p>Sample Site Selection</p> <ul style="list-style-type: none"> • Changes priorities for collection of samples with a greater focus on LSLs. • Prioritizes collecting samples from sites served by LSLs. All samples must be collected from sites served by LSLs, if available. • No distinction in prioritization of copper pipes with lead solder by installation date. • Adds 2 tiers to focus tap sample site selection tiering criteria on LSLs first. 	<p>Sample Site Selection</p> <ul style="list-style-type: none"> • Retains LCRR requirement that all samples be collected from sites served by LSLs, if available. • Combines the tap sample site selection tiering criteria for CWSs and NTNCWSs. • Revises Tier 3 sites to include sites served by a lead connector as well as sites served by a galvanized service line or containing galvanized premise plumbing that are identified as ever being downstream of an LSL or lead connector in the past.
<p>Collection and Analysis</p> <ul style="list-style-type: none"> • Requires collection of the first-liter sample after water has sat stagnant for a minimum of 6 hours. 	<p>Collection and Analysis</p> <ul style="list-style-type: none"> • Requires collection of the fifth-liter sample in homes with LSLs after water has sat stagnant for a minimum of 6 hours. Maintains first-liter sampling protocol in homes without LSLs. 	<p>Collection and Analysis</p> <ul style="list-style-type: none"> • Requires collection of first- and fifth-liter samples in homes with LSLs after water has sat stagnant for a minimum of 6 hours. • Requires the higher value of the first- and fifth-liter lead concentration in homes with

Pre-2021 LCR	LCRR	Proposed LCRI
	<ul style="list-style-type: none"> • Adds requirement that samples must be collected in wide-mouth bottles. • Prohibits sampling instructions that include recommendations for aerator cleaning/ removal and pre-stagnation flushing prior to sample collection. 	<p>LSLs to be used to calculate the 90th percentile value for lead.</p> <ul style="list-style-type: none"> • Clarifies the definition of a wide-mouth bottle. • Retains the LCRR sampling instruction prohibitions.
<p>Monitoring Frequency</p> <ul style="list-style-type: none"> • Samples are analyzed for both lead and copper. • Systems must collect standard number of samples based on population; semi-annually unless they qualify for reduced monitoring. • Systems can qualify for annual or triennial monitoring at reduced number of sites. Monitoring schedule based on the number of consecutive years meeting the following criteria: <ul style="list-style-type: none"> ○ Serves ≤ 50,000 people and P90 is at or below the lead and copper action levels, respectively. ○ Serves any population size, meets State-specified optimized water quality parameters (OWQPs), and P90 ≤ lead action level. • Triennial monitoring also applies to any system with lead P90 ≤ 0.005 mg/L and copper P90 ≤ 0.65 mg/L for 2 consecutive 6-month monitoring periods. • Based on rule criteria, systems serving ≤ 3,300 people can apply for a 9-year monitoring waiver. 	<p>Monitoring Frequency</p> <ul style="list-style-type: none"> • Samples are analyzed for lead and copper, only copper, or only lead. This occurs when lead monitoring is conducted more frequently or at more sites than copper, and at LSL sites where a fifth-liter sample is only analyzed for lead. • Lead monitoring schedule is based on the P90 level for all systems as follows: <ul style="list-style-type: none"> ○ P90 > 0.015 mg/L: Semi-annually at the standard number of sites. ○ 0.010 mg/L < P90 ≤ 0.015 mg/L: Annually at the standard number of sites. ○ P90 ≤ 0.010 mg/L: Annually at the standard number of sites and triennially at reduced number of sites using same criteria as the LCR except copper P90 level is not considered. • Based on rule criteria, systems serving ≤ 3,300 people can apply for a 9-year monitoring waiver. 	<p>Monitoring Frequency</p> <p>Monitoring schedule is based on both lead and copper P90 levels for all systems as follows:</p> <ul style="list-style-type: none"> • All water systems with lead, GRR, and/or unknown service lines must begin by collecting a standard number of samples semi-annually. • Systems may retain or qualify for reduced monitoring based on the number of consecutive monitoring periods: <ul style="list-style-type: none"> ○ P90 ≤ action level for 2 consecutive 6-month periods: Annual monitoring at the standard number of sites for lead and reduced number of sites for copper. ○ P90 ≤ practical quantitation limit (PQL) for 2 consecutive 6-month periods: Triennial monitoring at the reduced number of sites. • Additional criteria for small and medium systems to qualify for triennial monitoring. • Based on rule criteria, systems serving ≤ 3,300 people can apply for a 9-year monitoring waiver.

Pre-2021 LCR	LCRR	Proposed LCRI
Corrosion Control Treatment (CCT) and Water Quality Parameters (WQPs)		
<p>CCT</p> <ul style="list-style-type: none"> Systems serving > 50,000 people were required to install treatment by January 1, 1997, with limited exception. Systems serving ≤ 50,000 that exceed the lead and/or copper action level(s) are subject to CCT requirements (e.g., CCT recommendation, study if required by the State, CCT installation). They can discontinue CCT steps if no longer exceed both action levels for 2 consecutive 6-month monitoring periods. Systems must operate CCT to meet any OWQPs designated by the State that define optimal CCT (OCCT). There is no requirement for systems to re-optimize. 	<p>CCT</p> <ul style="list-style-type: none"> Specifies CCT requirements for systems with $0.010 < P90 \text{ lead level} \leq 0.015 \text{ mg/L}$: <ul style="list-style-type: none"> No CCT: Must conduct a CCT study if required by the State. With CCT: Must follow the steps for re-optimizing CCT, as specified in the rule. Systems with P90 lead level > 0.015 mg/L: <ul style="list-style-type: none"> No CCT: Must complete CCT installation regardless of their subsequent P90 levels if system has started to install CCT. With CCT: Must re-optimize CCT. CWSs serving ≤ 10,000 people and all NTNCWSs can select an option other than CCT to address lead. Also, see the <i>Small System Flexibility</i> section of this fact sheet. 	<p>CCT</p> <ul style="list-style-type: none"> Systems with P90 lead level > 0.010 mg/L: <ul style="list-style-type: none"> No CCT: Must complete CCT installation regardless of their subsequent P90 levels if system has started to install CCT. With CCT: Must re-optimize CCT. Systems with OCCT meeting OWQPs need only re-optimize OCCT once, unless required to do so by the State. CWSs serving ≤ 3,300 people and all NTNCWSs can select an option other than CCT to address lead. Also, see the <i>Small System Flexibility</i> section of this fact sheet. Deferred OCCT or re-optimized OCCT for systems that can complete removal of 100 percent LSLs and GRR service lines within 5 years of the date they are triggered into CCT steps at a 20 percent annual replacement rate. Systems with CCT must maintain CCT during the 5-year service line replacement program.
<p>CCT Options</p> <p>Includes alkalinity and pH adjustment, calcium hardness adjustment, and phosphate or silicate-based corrosion inhibitor.</p>	<p>CCT Options</p> <p>Removes calcium hardness as an option and specifies any phosphate inhibitor must be orthophosphate.</p>	<p>CCT Options</p> <p>No changes from the LCRR.</p>
<p>WQPs</p> <ul style="list-style-type: none"> No CCT: pH, alkalinity, calcium, conductivity, temperature, orthophosphate (if phosphate-based inhibitor is used), silica (if silica-based inhibitor is used). With CCT: pH, alkalinity, and based on type of CCT either orthophosphate, silica, or calcium. 	<p>WQPs</p> <ul style="list-style-type: none"> Eliminates WQPs related to calcium hardness (i.e., calcium, conductivity, and temperature). All other parameters are the same as the LCR. 	<p>WQPs</p> <ul style="list-style-type: none"> No changes from the LCRR.

Pre-2021 LCR	LCRR	Proposed LCRI
<p>WQP Monitoring</p> <ul style="list-style-type: none"> • Systems serving > 50,000 people must conduct regular WQP monitoring at entry points and within the distribution system. • Systems serving ≤ 50,000 people conduct monitoring only in those periods > lead or copper action level. • Contains provisions to sample at reduced number of sites in distribution system less frequently for all systems meeting their OWQPs. 	<p>WQP Monitoring</p> <ul style="list-style-type: none"> • Systems serving > 50,000 people must conduct regular WQP monitoring at entry points and within the distribution system. • Systems serving ≤ 50,000 people must continue WQP monitoring until they no longer > lead and/or copper action level(s) for 2 consecutive 6-month monitoring periods. • To qualify for reduced WQP distribution monitoring, P90 lead level must be ≤ 0.010 mg/L and the system must meet its OWQPs. 	<p>WQP Monitoring</p> <ul style="list-style-type: none"> • Systems with CCT (unless deemed optimized) serving ≥ 10,000 people must conduct regular WQP monitoring at entry points and within the distribution system. • Systems serving <10,000 people and systems without CCT serving ≤ 50,000 people that exceed the lead and/or copper action level(s) must continue WQP monitoring until they no longer exceed lead and/or copper action level(s) for 2 consecutive 6-month monitoring periods. • Systems without CCT serving > 10,000 but ≤ 50,000 people that exceed the lead action level that are required to install CCT, must continue to conduct WQP monitoring.
<p>Sanitary Survey Review Treatment must be reviewed during sanitary surveys; no specific requirement to assess CCT or WQPs.</p>	<p>Sanitary Survey Review CCT and WQP data must be reviewed during sanitary surveys against most recent CCT guidance issued by EPA.</p>	<p>Sanitary Survey Review No changes from the LCRR.</p>
<p>Find-and-Fix No required follow-up samples or additional actions if an individual sample exceeds the lead action level.</p>	<p>Find-and-Fix If individual tap samples > 0.015 mg/L lead, find-and-fix steps include:</p> <ul style="list-style-type: none"> • Conduct WQP monitoring at or near the site > 0.015 mg/L. • Collect tap sample at the same tap sample site within 30 days. <ul style="list-style-type: none"> ○ For LSL, collect any liter or sample volume. ○ If LSL is not present, collect 1-liter first draw after stagnation. • Perform needed corrective action. • Document customer refusal or nonresponse after 2 attempts. • Provide information to local and State public health officials. 	<p>Distribution System and Site Assessment</p> <ul style="list-style-type: none"> • Changes the name from “Find-and-Fix” to “Distribution System and Site Assessment” to describe this requirement more precisely. • Requirements from the LCRR affect systems with individual tap samples > 0.010 mg/L lead. • Clarifies that the distribution system sample location must be within a half mile radius of each site with a result > 0.010 mg/L.

Pre-2021 LCR	LCRR	Proposed LCRI
Small System Flexibility		
<p>No provisions for systems to elect an alternative treatment approach but sets specific requirements for CCT and LSLR.</p>	<p>Allows CWSs serving ≤ 10,000 people and all NTNCWSs with lead P90 > 0.010 mg/L to select their compliance option to address lead with State approval:</p> <ul style="list-style-type: none"> • Systems can choose CCT, LSLR, provision and maintenance of point-of-use (POU) devices, or replacement of all lead-bearing plumbing materials. • If the system’s P90 lead level > 0.015 mg/L, the system must implement the compliance option. 	<p>Allows CWSs serving ≤ 3,300 people and all NTNCWSs with P90 levels > lead action level and ≤ copper action level to conduct the following actions in lieu of CCT requirements to address lead with State approval:</p> <ul style="list-style-type: none"> • Choose a compliance option: (1) provision and maintenance of POU devices or (2) replacement of all lead-bearing plumbing materials. • Removes the compliance option to conduct LSLR in 15 years. <p>Maintains option for systems following CCT requirements:</p> <ul style="list-style-type: none"> • With CCT: Collect WQPs and evaluate compliance options and OCCT. • No CCT: Evaluate compliance options and CCT.
Public Education and Outreach		
<ul style="list-style-type: none"> • Systems with P90 > lead action level must provide PE to customers about lead sources, health effects, measures to reduce lead exposure, and additional information sources. • Systems with P90 > lead action level must offer lead tap sampling to customers who request it. • Systems must provide lead consumer notice to individuals served at tested taps within 30 days of learning results. • For water systems serving a large proportion of consumers with limited English proficiency, consumers can contact the system to get PE materials translated in other languages. 	<ul style="list-style-type: none"> • Water systems must provide updated lead health effects language in PN and PE materials. CWSs must provide updated health effects language in the Consumer Confidence Report (CCR). • For water systems serving a large proportion of consumers with limited English proficiency, consumers can contact the system to get PE materials translated in other languages. • If P90 > lead action level: <ul style="list-style-type: none"> ○ LCR PE requirements apply. • Water systems must provide the lead consumer notice to consumers whose individual tap sample is > 0.015 mg/L lead as soon as practicable but no later than 3 days. • Water systems must deliver notice and 	<ul style="list-style-type: none"> • Revises the mandatory lead health effects language to improve completeness and clarity. • Water systems must provide the updated health effects language in PN and all PE materials. CWSs must provide updated health effects language in the CCR. • For water systems serving a large proportion of consumers with limited English proficiency, all PE materials must include a translated statement regarding the importance of the materials and consumers can contact the system to get the materials translated in other languages. • Water systems must deliver consumer notice of lead and copper tap sampling results to

Pre-2021 LCR	LCRR	Proposed LCRI
	<p>educational materials to consumers during water-related work that could disturb LSLs.</p> <ul style="list-style-type: none"> • CWSs must provide information to local and State health agencies. <p>Also, see the <i>Public Notification, Consumer Confidence Report, and LSL-Related Outreach</i> sections of this fact sheet.</p>	<p>consumers whose tap was sampled as soon as practicable but no later than 3 days after receiving the results.</p> <ul style="list-style-type: none"> • If P90 > lead action level: <ul style="list-style-type: none"> ○ LCRR PN requirements apply. ○ Water systems must conduct PE no later than 60 days after the end of the tap sampling period until the system no longer exceeds the action level unless the State approves an extension. • Water systems with multiple lead action level exceedances (at least 3 action level exceedances in a 5-year period) must conduct additional public outreach activities and make filters available. • Water systems must offer to sample the tap for lead for any customer with a lead, GRR, or unknown service line who requests it. • Water systems must deliver notice and educational materials to consumers during water-related work that could disturb LSLs. • CWSs must provide information to local and State health agencies. <p>Also, see the <i>Public Notification, Consumer Confidence Report, and Service Line Related Outreach</i> sections of this fact sheet.</p>
Public Notification		
<ul style="list-style-type: none"> • If P90 > action level: <ul style="list-style-type: none"> ○ No PN required for P90 > action level. • Tier 2 PN required for treatment technique violations to § 141.80 through § 141.85. • Tier 3 PN required for monitoring and reporting violations to § 141.86 through § 141.89. 	<ul style="list-style-type: none"> • If P90 > lead action level: <ul style="list-style-type: none"> ○ Systems must notify consumers of P90 > action level within 24 hours (Tier 1 PN). • Tier 2 PN required for violations to § 141.80 (except § 141.80(c)) through § 141.84, § 141.85(a) through (c) and (h), and § 141.93. • Tier 3 PN required for violations to § 141.86 through § 141.90. 	<ul style="list-style-type: none"> • If P90 > lead action level: <ul style="list-style-type: none"> ○ LCRR Tier 1 PN requirements apply. • Tier 2 PN required for violations to § 141.80 (except § 141.80(c)) through § 141.84, § 141.85(a) through (c) (except § 141.85(c)(3)) and (h) and (j), and § 141.93. • Tier 3 PN required for violations to § 141.86 through § 141.90 and § 141.92.

Pre-2021 LCR	LCRR	Proposed LCRI
<p>Also, see <i>Public Education and Outreach</i> section of this fact sheet.</p>	<ul style="list-style-type: none"> Also, see <i>Public Education and Outreach</i> section of this fact sheet. 	<ul style="list-style-type: none"> Water systems must provide updated lead health effects language in PN. Also, see <i>Public Education and Outreach</i> section of this fact sheet.
Consumer Confidence Report		
<ul style="list-style-type: none"> All CWSs must provide educational material in the annual CCR. 	<ul style="list-style-type: none"> CWSs must provide updated health effects language in the CCR. All CWSs are required to include information on how to access the LSL inventory and how to access the results of all tap sampling in the CCR. Revises the mandatory health effects language to improve accuracy and clarity. 	<ul style="list-style-type: none"> Revises the mandatory lead health effects language and informational statement about lead in the CCR to improve completeness and clarity. CWSs must provide updated health effects language in the CCR. CWSs must provide an updated informational statement about lead in the CCR. CWSs must include a statement in the CCR about the system sampling for lead in schools and child care facilities and may direct the public to contact their school or child care facility for further information. CWSs with lead, GRR, or unknown service lines must include a statement in the CCR about how to access the service line inventory and replacement plan. Also see <i>Public Education and Outreach</i> section of this fact sheet.
Change in Source or Treatment		
<p>Systems on a reduced tap monitoring schedule must obtain prior State approval before changing their source or treatment.</p>	<p>Systems on any tap monitoring schedule must obtain prior State approval before changing their source or treatment. These systems must also conduct tap monitoring biannually.</p>	<p>No changes from the LCRR.</p>
Source Water Monitoring and Treatment		
<p>Periodic source water monitoring for lead and copper is required for systems with:</p> <ul style="list-style-type: none"> Source water treatment; or 	<p>States can waive continued source water monitoring for lead and copper if the:</p>	<p>No changes from the LCRR.</p>

Pre-2021 LCR	LCRR	Proposed LCRI
<ul style="list-style-type: none"> • P90 > action level and no source water treatment. 	<ul style="list-style-type: none"> • System has already conducted source water monitoring for a previous P90 > action level; • State has determined that source water treatment is not required; and • System has not added any new water sources. 	
<i>Lead in Drinking Water at Schools and Child Care Facilities</i>		
<ul style="list-style-type: none"> • Does not include separate testing and education program for CWSs at schools and child care facilities. • Schools and child care facilities that are classified as NTNCWSs must sample for lead and copper. 	<ul style="list-style-type: none"> • CWSs must conduct sampling at 20 percent of elementary schools and 20 percent of child care facilities per year and conduct sampling at secondary schools on request for first testing cycle (5 years) and conduct sampling on request of all schools and child care facilities thereafter. • Sample results and PE must be provided to each sampled school/child care facility, State, and local or State health department. • Excludes facilities constructed on or after January 1, 2014. • Waives schools and child care facilities that were sampled under a State or other program after October 16, 2024. 	<p>Expands the waiver to include:</p> <ul style="list-style-type: none"> • Waivers for CWSs to sample in schools and child care facilities during the first 5-year testing cycle if the facility has been sampled between January 1, 2021, and the LCRI compliance date. • Requires CWSs to include a statement about the opportunity for schools and child care facilities to be sampled in the CCR. • Excludes facilities constructed or had full plumbing replacement on or after January 1, 2014.
<i>Primacy Agency (or State) Reporting</i>		
<p>States must report information to EPA that includes, but is not limited to:</p> <ul style="list-style-type: none"> • All P90 levels for systems serving > 3,300 people, and only levels > 0.015 mg/L for smaller systems. • Systems that are required to initiate LSLR and the date replacement must begin. • Systems for which OCCT has been designated. 	<p>Expands on LCR requirements to include:</p> <ul style="list-style-type: none"> • All P90 values for all system sizes. • The number of lead, GRR, and unknown service lines for every water system. • The goal-based or mandatory replacement rate and the date each system must begin LSLR. • OCCT status of all systems including OWQPs specified by the State. • For systems triggered into source water treatment, the State-designated date or determination for no treatment required. 	<p>Revises and expands on LCRR special primacy requirements. States must report information to EPA that includes, but is not limited to:</p> <ul style="list-style-type: none"> • The current number of lead, GRR, unknown service lines, non-lead service lines, and lead connectors in each system’s inventory. • The number and type of service lines replaced and the replacement rate for every system conducting mandatory service line replacement.

Pre-2021 LCR	LCRR	Proposed LCRI
		<ul style="list-style-type: none"> • The deadline for the system to complete replacement of all lead and GRR service lines. • The expected date of completion of service line replacement. • The P90 values of systems with an action level exceedance within 15 days of the end of the monitoring period or, if earlier, within 24 hours of receiving the notice from the system.

Acronyms: CCR = consumer confidence report; CCT = corrosion control treatment; CWS = community water system; GRR = galvanized requiring replacement; LCR = Lead and Copper Rule; LCRI = Lead and Copper Rule Improvements; LCRR = Lead and Copper Rule Revisions; LSL = lead service line; LSLR = lead service line replacement; NTNCWS = non-transient non-community water system; OCCT = optimal corrosion control treatment; OWQP = optimal water quality parameter; P90 = 90th percentile; PE = public education; PN = public notice; POU = point-of use; WQP = water quality parameter.

For more information on the proposed LCRI, please visit: <https://www.epa.gov/ground-water-and-drinking-water/lead-and-copper-rule-improvements>.

Disclaimer: This document is being provided for informational purposes only to assist members of the public, States, Tribes, and/or public water systems in reviewing and commenting on the package for the proposed LCR). In the event that there are any differences, conflicts, or errors between this document and the content included in the package for the proposed LCRI, including the preamble and proposed regulatory text, States, Tribes, and/or public water systems should refer to the rule package. The LCRI is only a proposed rule and the content discussed herein about the proposed LCRI is subject to change before a final LCRI is promulgated. This document does not impose any new legally binding requirements on EPA, States, Tribes, or the regulated community. Further, this document does not confer legal rights or impose legal obligations on any member of the public. In the event of a conflict between the discussion in this fact sheet and any statute or promulgated regulation, the statute and any promulgated regulations are controlling.



August 14th, 2024

RE: Downtown Restroom / “Portland Loo” Considerations

Greg,

Regarding the potential installation of a “Portland Loo” downtown, after consideration and discussion between multiple departments, including Planning & Community Development, Public Works, Police, Grants Administration and Legal, we have produced the following items of concern regarding the potential installation of a Portland Loo:

High Initial Costs

After a review of the quote the City has received (See Attachment “A,”) and a review of how much the cost was for other municipalities who have installed a Portland Loo, staff anticipates that the total capital cost of installation may range between \$200,000 to \$500,000 +. This includes costs for the unit, delivery, installation, and associated infrastructure. A general rule of thumb figure from Public Works is that waterline installation runs approx. \$100K per City block.

Maintenance Obligations & Costs

Ongoing maintenance is required, including regular cleaning and occasional repairs. Additional maintenance is needed in cold weather to deal with issues like frozen floor drains and increased cleaning challenges. CDBG or TIF funds will not be able to provide maintenance funds, meaning the funding would need to come from the City’s general fund or another unidentified fund. It is anticipated that maintenance costs may range between \$10,000 and \$20,000, depending on the use and frequency of vandalism.

Operational Challenges

Weather-Related Issues: The floor drain can freeze in colder climates, leading to ice buildup inside the unit. This problem makes the restroom unusable and increases the workload for maintenance crews during winter months. Given our climate, this facility would likely only be usable 8-9 months out of the year.

Vandalism: Other cities that have installed the Loo have reported that vandalism is the main issue. People clog toilets and sinks on purpose, locking mechanisms are frequently jammed, piping and electrical components get smashed or stolen, and even fires have been started inside them.

Usage Monitoring: The reliability of usage counters is questionable. Without accurate monitoring, assessing how often the loo is used is difficult, making it challenging to justify the investment and maintenance costs.

Public Safety Concerns: After discussing this with the City of Billings and researching other cities that have installed Portland Loo, the restroom will certainly provide a venue for unwanted activity and behavior, thus requiring Police assistance as needed. On the flip side, if the Loo is situated on City property, the Police Department cannot remove individuals if a crime is not being committed. Loitering will most likely become an issue, but unless criminal problems arise, the PD cannot intervene, thus giving the impression that they “are not doing anything”. Either problem will likely require the Police Department to become “de facto” security guards for the Loo, tying up important resources and further burdening Police staff.

Fiscal Considerations

The most likely source of funds to install this facility would be either CDBG or TIF funds. These funding sources each come with their own limitations as to appropriate usage and geographical location. Given the high initial costs, this would likely eat up almost an entire year’s allocation of CDBG funds or a large chunk of TIF funds. Spending these funds would likely not SOLVE the issues at hand, but it might mitigate or move the problem. More likely, however, is that it will create all new issues the City will have to mitigate, as noted above. Staff believes these funds could be better spent with/by our community organization partners, who could leverage those funds to do much more to help the community with sustainable solutions.

Alternative Solutions

Exploring other, potentially more cost-effective options for public restrooms could provide similar benefits without the high costs and maintenance demands associated with the Portland Loo. Overall, City Staff agreed that it would be extremely challenging to find a public restroom solution that effectively caters to downtown shoppers/visitors and those who rely on the restroom as their primary means of meeting their needs.

Conclusion

The financial burdens of a public city restroom encompass significant initial investment and ongoing operational costs. Municipalities must consider these expenses when planning public restroom facilities, balancing the need for public amenities with budgetary constraints and other community priorities.

Attachments:

A - City of Great Falls Portland Loo Quote

B - Portland Loo Plans

C - Portland Loo Summary

D - Portland Loo Information Document – Town Of Smithers



The Portland Loo | *A Unique Solution to a Universal Problem*

ATTACHMENT "A"

QUOTE

Agenda #2.

Date: July 17, 2024
Invoice #: [1438]
Customer ID: Great Falls
Expires: 8/17/2024

To: **Name:** Tom Hazen **Ship to:** Zip Code 59404
City: Great Falls, MT

Salesperson	Shipping Method	Shipping Terms	Delivery Date	Payment Terms
	Freight	FOB Shipping Point	TBD	see attached
Item #	QTY	Description	Unit Price	Line Total
1	1	<u>Portland Loo:</u> Single occupant public toilet. 304 stainless steel posts, panels, louvers, roof and toilet. Aluminum front door. Skylight, 40W heat trace, interior & exterior LED lighting with photoeye and motion sensor control and occupancy counter. Incl. interior 32oz hand sanitizer dispenser and lockable 2-roll toilet paper dispenser with AC power option. (LH/RH door swing and hand wash basin to be determined later)	\$146,000.00	\$146,000.00
2	1	Loo Template	incl	\$0.00
3	1	Foundation Mounting Hardware	incl	\$0.00
4	0	As Built Drawings	\$750.00	\$0.00
5	0	Engineered Drawings	\$1,700.00	\$0.00
6	0	<u>Add</u> Hand Wash Basin	\$2,100.00	\$0.00
7	0	<u>Add</u> Baby Changing Table	\$2,140.00	\$0.00
8	0	<u>Add</u> Trash Can	\$250.00	\$0.00
9	0	<u>Add</u> Sharps Container	\$1,800.00	\$0.00
10	0	<u>Add</u> Cold Weather Toilet Upgrade	\$5,200.00	\$0.00
11	0	<u>Add</u> Recessed Hand Wash With Cold Air Hand Dryer, Tempered Water, and Soap Dispenser.	\$7,100.00	\$0.00
12	1	Shipping & Handling	\$3,670.00	\$3,670.00
Total				\$149,670.00

Make all checks payable to Madden Fabrication
 Thank you for your business!

2550 NW 25th Pl. Portland, Oregon 97210 (503)226-3968

Proposal good for 30 days. Madden reserves the right to pass on any material price escalation beyond 30 days.

TERMS AND CONDITIONS FOR MADDEN FABRICATION
(PORTLAND LOO)

1. As used herein, "Agreement" refers to these Terms and Conditions and accompanying Standard Exclusions and Proposal, collectively; and "Madden" or "Madden Fabrication" means Madden Fabrication, Inc. The accompanying Proposal and Standard Exclusions and these Terms and Conditions comprise the entire agreement between the parties, and supersede all prior or contemporaneous understandings, agreements, negotiations, representations and warranties, and communications, both written and oral. Fulfillment of Customer's order does not constitute acceptance of any of Customer's terms and conditions and does not serve to modify or amend these Terms and Conditions.
2. The terms set forth in this Agreement are the sole terms for the sale of goods and services ("Goods", "Portland Loo" and "Services") by Madden Fabrication, unless otherwise specifically provided for by Madden Fabrication in this document and shall apply to the exclusion of any inconsistent or additional terms contained in the Customer's order or acknowledgment or otherwise proposed by Customer. Customer's acceptance of these terms shall be conclusively presumed by Customer's request for delivery of Goods and Services, or by Customer's acceptance of delivery of, or payment for, the Goods and Services.
3. Madden Fabrication may, but shall not be obligated to, grant credit terms to Customer. Madden Fabrication reserves the right to refuse or cancel any order without liability if Madden Fabrication deems Customer unable to pay for any Goods or Services. Madden Fabrication reserves the right, in its sole discretion and without prior notice, to deny, change or limit the amount or duration of credit to be allowed Customer, either generally or with respect to a particular order. Customer hereby authorizes Madden Fabrication to apply any payment made by or on behalf of Customer to any account or accounts then outstanding between Customer and Madden Fabrication and Customer hereby waives any right to require any application of such payment to a particular account.
4. All shipments of Goods will be transported to Customer's designated address. Customer agrees that Customer is responsible for unloading the Goods.
5. Unless otherwise specified in Madden Fabrication's Proposal, Madden Fabrication may ship the Goods at any time after the Goods are ready for shipment. Further, Customer agrees to accept the Goods when delivered to Customer.
6. If Customer delays shipment, regardless of the reason for delay, Customer shall pay Madden Fabrication (a) for storage, drayage, shipping and any other costs incurred due to Customer's delay plus reasonable overhead and profit as determined by Madden Fabrication; (b) the remaining balance of the purchase price; and (c) \$2,500 per month storage fee for each Portland Loo each month that delivery is delayed. Any of Customer's costs, damages or difficulties arising from the Customer's delay in shipment or receipt of the Goods are Customer's responsibility.

7. Madden Fabrication makes and sells the Portland Loo under license from the City of Portland, Oregon. Customer's purchase of the Portland Loo shall not transfer any intellectual property rights related to the Portland Loo, including but not limited to licenses, patent rights, copyrights, moral rights, trademark rights, trade name rights, service mark rights, trade dress rights, trade secret rights, proprietary rights, privacy rights, and publicity rights, whether or not those rights have been filed or registered under any statute or are protected or protectable under applicable law. All such intellectual property rights are reserved by the City of Portland and Madden Fabrication (as licensee). Customer shall have no right to make copies of the Portland Loo, or to sublicense or otherwise commercially use any intellectual property right related to the Portland Loo, including but not limited to the "Portland Loo" name.
8. Madden Fabrication may agree to make changes in the Goods or Services, or both. However, Madden Fabrication will not be required to proceed with such changes until Madden Fabrication and Customer agree on a price adjustment. No changes shall be made to the Goods or Services, or both, without Madden Fabrication's consent.
9. The Goods will be delivered within a reasonable time after the receipt of Customer's order, subject to delays permitted under this Agreement. Where required by applicable law, Madden Fabrication will calculate, collect, and remit applicable national, state, or local sales and use taxes, goods, and services taxes (GST), or value added taxes (VAT) to the applicable Government or Government Agency on the sale or delivery of Goods or Services within that specific jurisdiction. In the absence of such calculation, collection, and remittance requirement by applicable law, Customer shall pay all applicable national, state, or local sales and use taxes, goods, and services taxes (GST), or value added taxes (VAT) to the applicable Government or Government Agency on the sale or delivery of Goods or Services within that specific jurisdiction.
10. Customer shall ensure that all unloading and handling of the Goods complies with the following: (a) All Goods (including but not limited to the Portland Loo), whether palletized or separated from a pallet, must be handled in accordance with the Portland Loo Installation Procedures; (b) all material received from, but not manufactured by Madden Fabrication, must be handled in accordance with the handling instructions of the manufacturer of the material; and (c) use of proper handling equipment and its supply and operation are strictly the responsibility of Customer. Failure to properly unload and handle the Goods (including but not limited to the Portland Loo), voids Madden Fabrication's warranties hereunder.
11. Unless accepted by Customer, Madden Fabrication's Proposal will expire and shall be of no effect thirty (30) days after the Customer receives the Proposal. Madden Fabrication reserves the right to pass on any material price escalation to Customer beyond the thirty (30) day period.
12. Madden Fabrication will invoice Customer as follows: Thirty percent (30%) at the time of receipt of Customer's acceptance of Madden Fabrication's Proposal; fifty percent (50%) when the Goods are ready for shipment; and twenty percent (20%) after the Goods have left Madden Fabrication's facility in Portland, Oregon. Customer must make

payments no later than thirty (30) days from the billing date specified on each invoice. Time is of the essence of Customer's performance of its payment obligations, and Customer's failure to remit payment in full within thirty (30) days of the billing date specified on the invoice shall constitute a material breach of this Agreement. Madden Fabrication does not accept partial payments, any offsets, credit card merchant fees and/or retainage against the purchase price.

13. Customer agrees that any late payment is subject to a late fee of 1.5% per month (18% per annum). If a late fee is assessed, it must be paid together with all delinquent amounts, at Madden Fabrication's option, in order to maintain an open account with Madden Fabrication. If Customer fails to make payment as set forth herein, Madden Fabrication shall not be obligated to make any further deliveries to Customer, may elect at any time to cancel all or part of any order, and proceed to enforce all legal rights and remedies for collection of any delinquent amount.
14. If Madden Fabrication considers itself insecure with respect to Customer's performance of its obligations under this Agreement, Madden Fabrication shall have and may exercise all remedies available to it under law and at equity and may, at its option, declare all sums then unpaid immediately due and payable. Customer agrees that Madden Fabrication may file a construction, mechanic's or labor lien, payment bond claim, or other claim or action to enforce Madden Fabrication's right to payment. If Madden Fabrication files a lien or claim, Customer agrees to pay all costs necessary to satisfy and discharge the lien or claim, including, without limitation, attorney fees, filing fees, and costs. If Madden Fabrication incurs collection costs or attorney fees due to failure of Customer to pay when due or timely perform any obligation, Customer shall pay, immediately on demand, Madden Fabrication's costs, reasonable attorney fees, collection costs, and all expenses incurred by Madden Fabrication in collection of sums due, even though no suit or action is filed.
15. **Disclaimer of Warranty:**
 - a. **MADDEN FABRICATION WARRANTS SOLELY THAT IT WILL PROVIDE GOODS AND/OR SERVICES IN CONFORMANCE WITH THIS AGREEMENT AND SPECIFICALLY DISCLAIMS ANY AND ALL OTHER WARRANTIES WITH REGARD TO SUCH GOODS AND/OR SERVICES PROVIDED BY MADDEN FABRICATION. CUSTOMER ACKNOWLEDGES THAT CUSTOMER IS NOT RELYING ON MADDEN FABRICATION IN ANY WAY FOR DESIGN OR ENGINEERING WITH RESPECT TO THE GOODS AND/OR SERVICES.**
 - b. **CUSTOMER ACKNOWLEDGES THAT ANY WARRANTY FOR PRODUCTS OR GOODS ACQUIRED BY MADDEN FABRICATION THROUGH A THIRD PARTY MANUFACTURER IS LIMITED TO THE WARRANTY PROVIDED BY THE MANUFACTURER OF THE PRODUCTS OR GOODS ACQUIRED. CUSTOMER AGREES THAT ALL CLAIMS BY CUSTOMER WITH RESPECT TO THE CONDITION OR PERFORMANCE OF SUCH PRODUCTS OR GOODS**

SHALL BE MADE DIRECTLY BY CUSTOMER AGAINST SUCH MANUFACTURERS. MADDEN FABRICATION HEREBY DISCLAIMS ALL WARRANTIES WITH REGARDS TO SUCH PRODUCTS OR GOODS. IN THE EVENT THAT CUSTOMER HAS SUCH A CLAIM, CUSTOMER SHALL CONTACT MANUFACTURER DIRECTLY.

c. NOTWITHSTANDING ANY OTHER PROVISION IN THIS DOCUMENT, MADDEN FABRICATION EXPRESSLY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

16. Madden Fabrication shall not be liable for correcting or replacing any nonconforming or defective Goods or Services unless Customer promptly notifies Madden Fabrication of the nonconformity or defect. Madden Fabrication shall not be liable for any special, direct, indirect or consequential damages cause by reason of said Goods' or Services' failure, defect or nonconformity. Any claim for nonconforming or defective Goods or Services shall be deemed waived and released by Customer unless a claim is asserted against Madden Fabrication within one (1) year after the date of delivery. Madden Fabrication shall have a reasonable opportunity to investigate all claims. Madden Fabrication reserves the right to correct any defects by either repair or replacement. Unless Madden elects to correct defects by repair or replacement, it is expressly understood that Madden Fabrication's sole obligation and Customer's sole remedy for any claimed defects is returning the purchase price paid by Customer for any defective Goods or Services.
17. Madden Fabrication shall not be liable for delays in performance and/or delivery from any cause beyond Madden Fabrication's control, including but not limited to, acts of God, governmental actions, terrorist acts, utility interruptions, strikes, riots, fires, war, assertions by third parties of infringement claims, pandemics, epidemics, late or non-delivery by suppliers to Madden Fabrication, and all other contingencies beyond the reasonable control of Madden Fabrication.
18. **TO THE FULLEST EXTENT PERMITTED BY LAW, CUSTOMER AGREES THAT UNDER NO CIRCUMSTANCES WHATSOEVER SHALL MADDEN FABRICATION BE LIABLE FOR ANY INDIRECT, SPECIAL, OR CONSEQUENTIAL DAMAGES, WHETHER FORESEEABLE OR UNFORESEEABLE AND WHETHER ARISING OUT OF BREACH OF WARRANTY, BREACH OF CONTRACT, STRICT LIABILITY IN TORT, NEGLIGENCE, MISREPRESENTATION, OR OTHERWISE.**
19. If any arbitration or litigation is instituted to interpret or enforce this Agreement, including any proceeding brought under the United States Bankruptcy Code, the prevailing party shall be entitled to recover as determined by the arbitrator or court, in addition to any other relief awarded: (a) the prevailing party's reasonable attorney fees and all other fees, costs, and expenses of every kind incurred in connection with the

arbitration or litigation or any appeal or petition for review; and (b) costs incurred in the collection of the award or the enforcement of the order. For purposes of this provision, the prevailing party is the party succeeding either affirmatively or defensively on the claim or claims, not limited to monetary claims, having the greatest value or importance as reasonably determined by the arbitrator or court.

20. This Agreement shall be construed and enforced in accordance with the laws of Oregon, with venue exclusively in Multnomah County. The parties hereby consent to the personal jurisdiction over them of the courts for the aforementioned jurisdiction (including any appeals courts), for any suit, action, or claim over which those courts have subject matter jurisdiction, and waive any objection to litigating in those courts based on lack of personal jurisdiction or forum *non conveniens*.
21. Customer acknowledges that Customer is not relying on Madden Fabrication in any way with respect to the suitability of the Goods or Services, or both. Customer agrees that Madden Fabrication is not responsible for obtaining any permits, licenses, regulatory approvals, system development charges, or other approvals or charges of the authority having jurisdiction over the installation of the Goods.
22. To the fullest extent permitted by law, Customer shall indemnify, defend, reimburse and hold Madden Fabrication and its officers, employees and agents harmless from, for and against all claims, liabilities, costs, penalties and expenses, including but not limited to attorneys' fees and expert witness' fees, arising out of or related to the Goods and Services, but only to the extent caused by Customer and Customer's designers, architects, engineers, contractors, consultants and any other person or entity for whom any of them is responsible.

To the fullest extent permitted by law, Customer shall also indemnify, defend, reimburse and hold Madden Fabrication and its and its officers, employees and agents harmless from, for and against all claims, liabilities, costs, penalties and expenses, including but not limited to attorneys' fees and expert witness' fees, arising out of any claim of infringement of a patent, copyright, trademark, trade name, or other proprietary right, or claim of unfair trade or of unfair competition in connection with the manufacture, sale, or use of the Goods or Services, except to the extent that any claim, liability, or expense was caused by Madden Fabrication.
23. A party's failure or delay to insist upon or enforce strict performance of any provision of this Agreement or to exercise any right under it shall not constitute a waiver or relinquishment of the right.
24. Customer shall not assign its rights or delegate its duties under this Agreement in whole or in part without Madden Fabrication's prior written consent. Madden Fabrication may assign to any third party its rights and obligations with respect to Customer.

- 25. This Agreement binds the parties and their legal representatives, successors, and assigns. “Successor” includes any person or entity that by merger, purchase, or otherwise acquires substantially all the assets or business of a party, or a majority of its stock or shares.

- 26. If any provision of this Agreement is determined by a court of competent jurisdiction to be illegal or unenforceable, the validity of the remaining provisions hereof shall not be affected thereby. Further, it is the intention of the parties that the court modify any illegal or unenforceable provision to the minimum extent necessary to make it consistent with applicable law and enforce the provision in its modified form.

- 27. This Agreement may be executed in counterparts, each of which shall be deemed an original, both or all of which together shall constitute one and the same instrument. A scanned or electronic signature on this Agreement shall have the same effect as an original signature.

MADDEN FABRICATION, INC.

By: _____

Title: _____

Date: _____

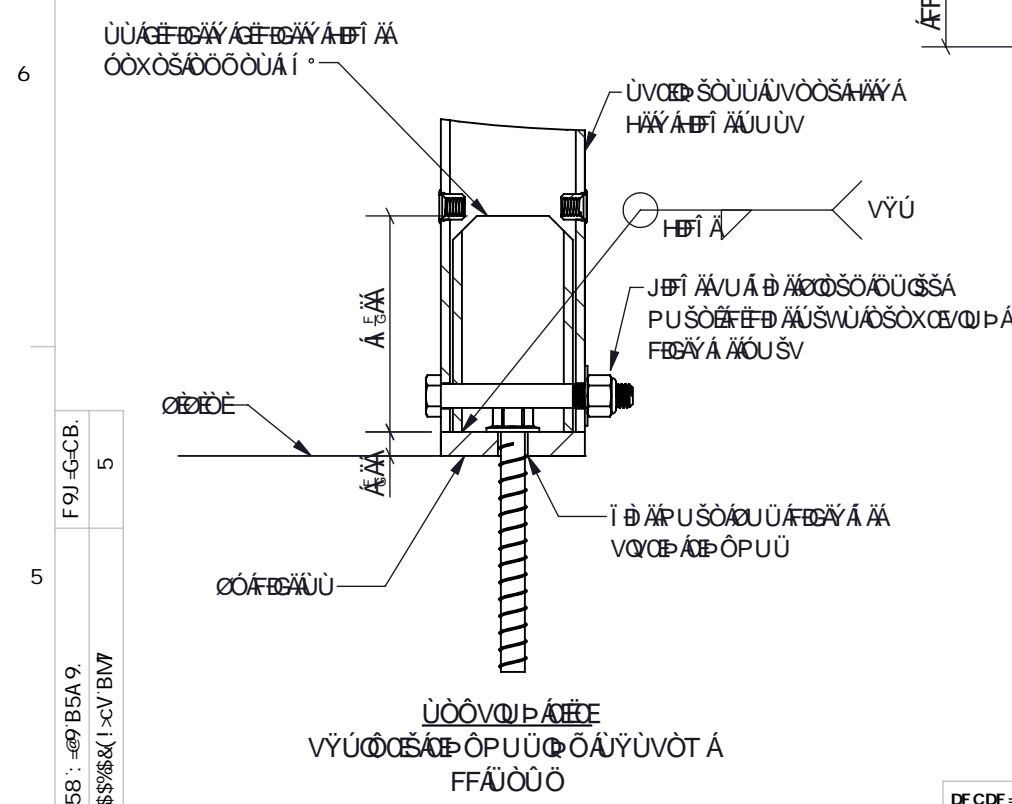
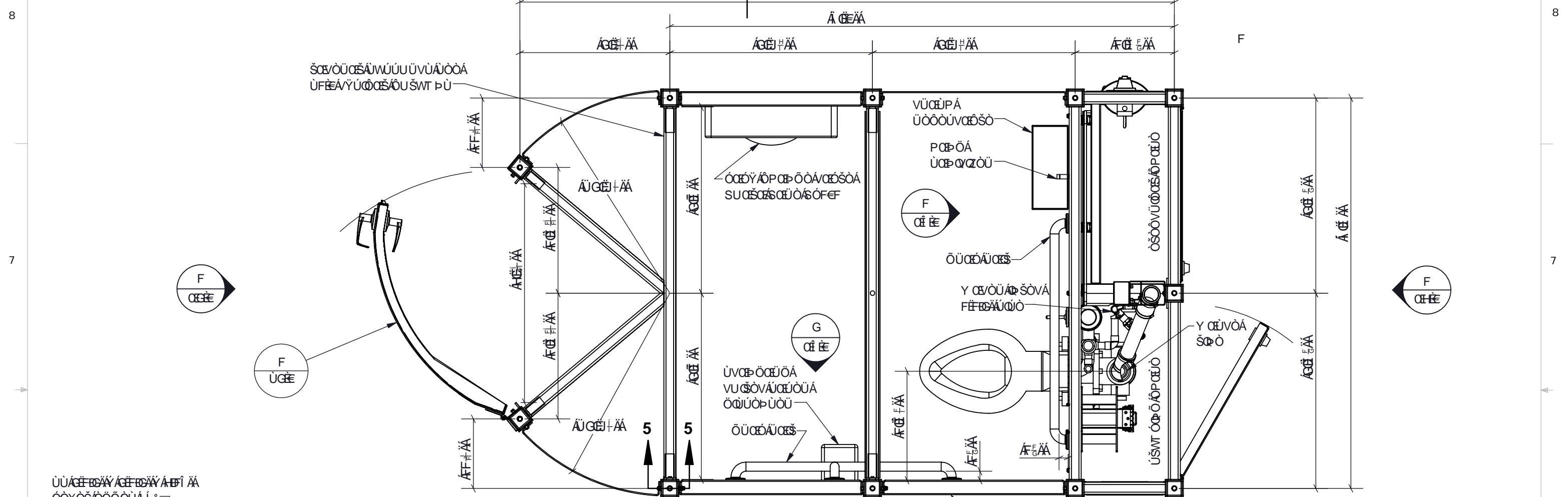
CUSTOMER: _____

By: _____

Title: _____

Date: _____

ATTACHMENT "B"



VYÜÖSÄÖÖÖÜÜYÄÜVÖPÜÄPÜY PÄÜVPÖÜÄÜVÖPÜÖKÖSÖSÖÄV/ÄÜÖÜWÖÜ

ÖVÖÜPÖSÄVÜÄXÖY

ÖPÖÖPÖPÜÜÖÜSÄSÜÖÖVÖPÜ

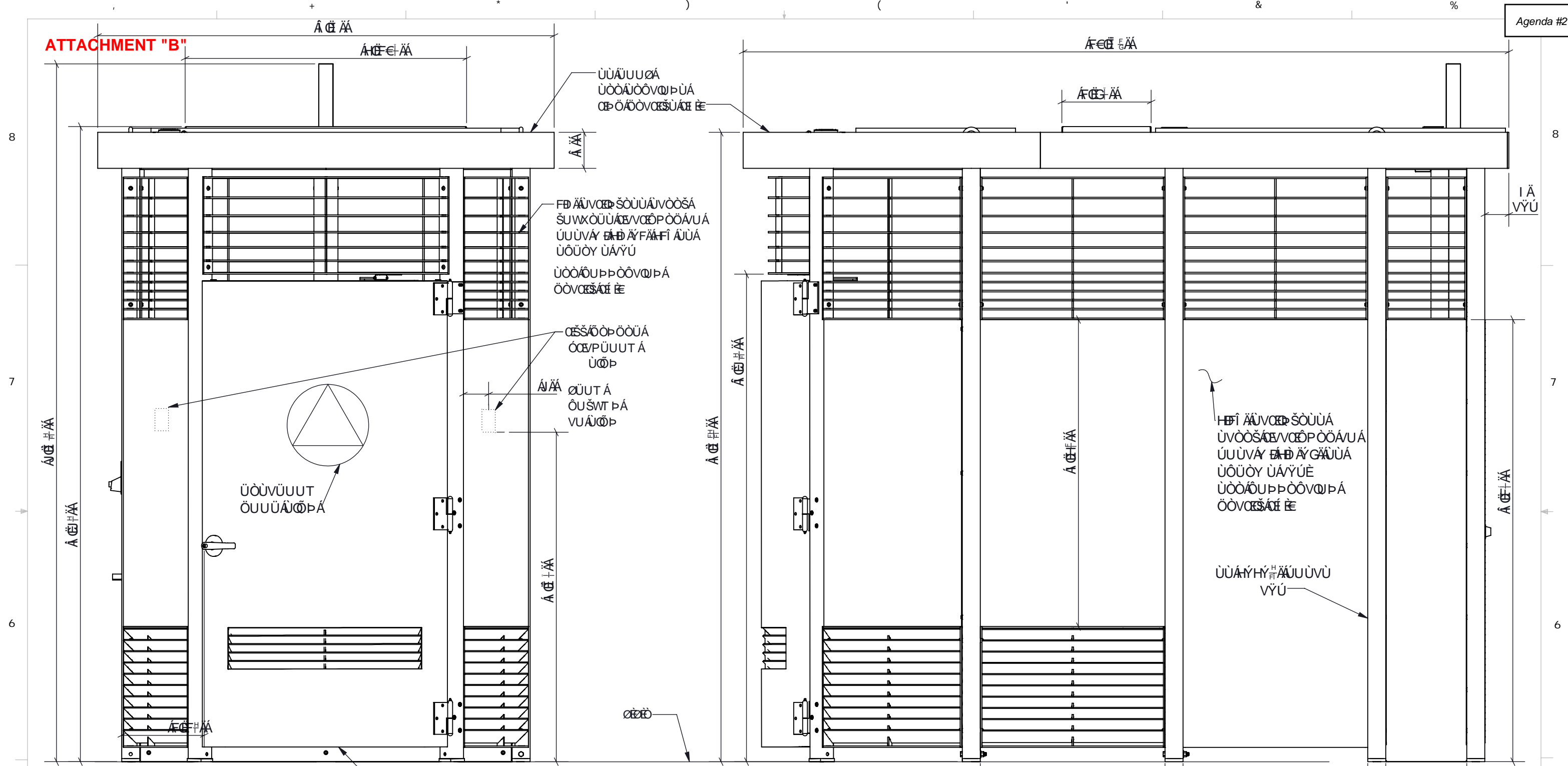


1 B@GGCH-9FK -G9 GD97=-98.	85H9	B5A 9)) \$' BK ` &) H' D'UW DcfhUbXz'CF' - +&)%\$ a UXZUV'Vta
8-A 9BG-CBG 5F 9 -B -B7-9G 5B8	89G= B98	? 7CI F-5B		
A @A 9H9F G OAA QZHC@9F 5B79G.	8F5K B	%&#& #&S&S	? 7CI F-5B	
=B7<9G	A @A 9H9F G	7<97798	AA #88#MM	B#5
L : : : ±\$%	Q : Q : Q : Q	9B: " 5DDF"	AA #88#MM	B#5
"LL : : ±\$%"	Q "L O : Q ±\$"	A : : " 5DDF"	AA #88#MM	B#5
"LLL : ±\$%"	Q "L L O. Q ±\$%"	E "5"	AA #88#MM	B#5
5B: 1 @F.				
A 57<-B9 ±\$") S2 69B8. ±%\$\$				
: 9CA 9HF =7 HC@9F 5B7-B: D9F.				
5GA 9IM(*) 1- (
A 5H9F-5@ AUVUJY ObchgdVWVYX2				
8C BCHG75@9				

F9J-G-CB. 5
758 : @9 B5A 9.
%\$%\$&&(!>CV'BM7

DF CDF =9H5F M5B8 7CB: =89BH-5@ "H<9 -B: CFA 5H<CB 7CBH5-B98 -B H<-G 8F 5K -B: -G H<9 GC@9 DF CD9F HMC: A 5889B: 56F =75H<CBZ -B7 -5B MF 9DF C8I 7H<CB -B D6FH'CF 5G'5 K <C@9 K H<CI H H<9 K F H H9B D9FA -GG-CB C: A 5889B: 56F =75H<CBZ -B7 -G DF C<-6+98"

ATTACHMENT "B"



F
ÜGEE

F
ÜGEE

ÜÜPVAÖŠÒXÆ/ΩPÁΩY

G
ÜGEE

ÜΩPVAÖŠÒXÆ/ΩPÁΩY

F9J-G-CB. 5

758 : @9 B5A 9. %\$%\$& ! > cV BM7

DF CDF =915F M5B8 7CB: =89B1-5@ "H<9 -B: CFA 5H-CB 7CBH5-B98 -B H<-G8F5K -B: "G H<9 GC@9 DF CD9F HMC: A 5889B: 56F =75H-CBZ -B7 5BMF 9DF C81 7H-CB -B D6FHCF 5G5 K <C@9 K H<C1 H H<9 K F H H9B D9FA -GG-CB C: A 5889B: 56F =75H-CBZ -B7 -G DF C<-6+98"



I B@9G CH<9FK -G9 GD97 = -98.	85H9	B5A 9
8-A 9BG-CBG 5F 9 -B -B7 -9G 5B8	89G# B98	? 7CI F-5B
A @@A 9H9F G OAA QZ HC@9F 5B79G	8F5K B	%&#& #&\$&\$? 7CI F-5B
=B7<9G	7<97798	AA #88#MM B#5
"L : : ±\$%"	9B: "5DDF"	AA #88#MM B#5
"LL : : ±\$%"	A: : "5DDF"	AA #88#MM B#5
"LLL : : ±\$%"	E "5"	AA #88#MM B#5
5B: 1 @F.		
A 57<-B9 ±\$) S2 698B. ±%\$\$		
: 9CA 9HF =7 HC@9F 5B7-B: D9F.		
5GA 9M(*) 1- (
A 5H9F -5@ A UYUJ ObchgyWVWYXZ		
8C BCHG75@9		

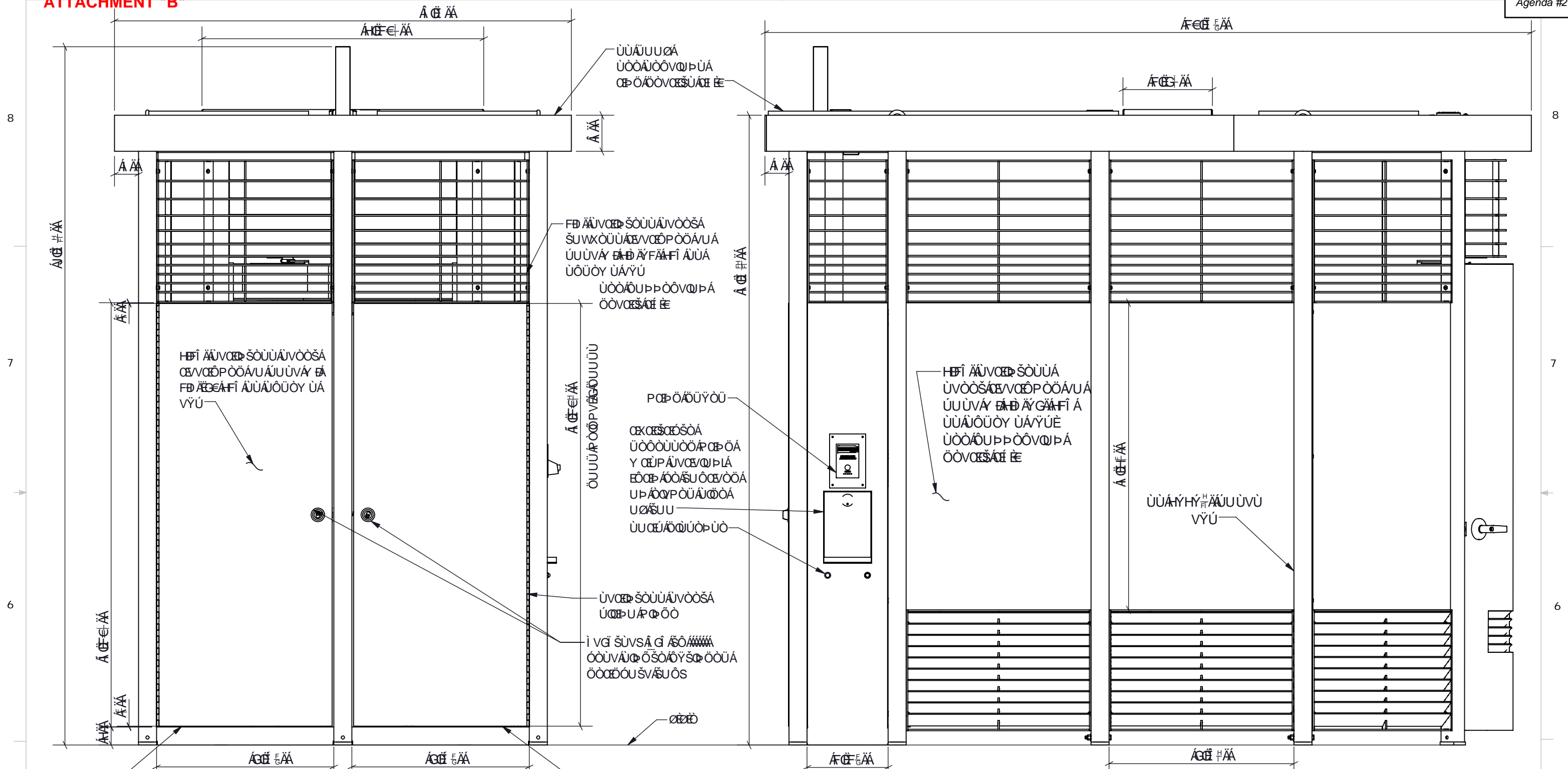
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DcfhUbXz'CF '- +&%%\$ a UXZJ"Wta

H-H@.

9LH9F -CF '9@J 5H-CBG: FCBH/ F# <H' G-B9

G-N9. 8F5K -B: ' 6 5&"\$

G75@. %% K 9# <H.) & %) % G<99H" 'C: %



F
01-11

ΟΡΘΟΣ ΑΝΟΣΟΧΩΡΩΠ ΑΧΩΡ

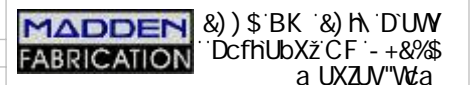
ΕΡΕΥΝΗΤΩΝ ΟΡΘΟΑΡΧΙΤΕΚΤΟΝΩΝ ΟΡΘΟΑΡΧΙΤΕΚΤΟΝΩΝ
 ΝΥΝ ΑΝΟΣΟΧΩΡΩΠ ΟΥΔΕΝΩΝ ΟΡΘΟΑΡΧΙΤΕΚΤΟΝΩΝ
 ΟΥΔΕΝΩΝ ΟΡΘΟΑΡΧΙΤΕΚΤΟΝΩΝ ΟΥΔΕΝΩΝ ΟΡΘΟΑΡΧΙΤΕΚΤΟΝΩΝ
 ΟΥΔΕΝΩΝ ΟΡΘΟΑΡΧΙΤΕΚΤΟΝΩΝ ΟΥΔΕΝΩΝ ΟΡΘΟΑΡΧΙΤΕΚΤΟΝΩΝ

ΕΡΕΥΝΗΤΩΝ ΟΡΘΟΑΡΧΙΤΕΚΤΟΝΩΝ ΟΡΘΟΑΡΧΙΤΕΚΤΟΝΩΝ
 ΝΥΝ ΑΝΟΣΟΧΩΡΩΠ ΟΥΔΕΝΩΝ ΟΡΘΟΑΡΧΙΤΕΚΤΟΝΩΝ
 ΟΥΔΕΝΩΝ ΟΡΘΟΑΡΧΙΤΕΚΤΟΝΩΝ ΟΥΔΕΝΩΝ ΟΡΘΟΑΡΧΙΤΕΚΤΟΝΩΝ

G
01-11

ΣΟΝΑΝΟΣΟΧΩΡΩΠ ΑΧΩΡ

1 B@GGCH-9FK -G9 GD97 = -98.	85H9	B5A 9
8-A 9BG-CBG 5F 9 -B -B7-9G 5B8	89G# B98	? 7CI F-5B
A @A 9HF G OAA QZ HC@F 5B79G	8F5K B	%&#, #&\$&\$? 7CI F-5B
=B7<9G	7<97798	AA #88#MM B#5
"L" : "±\$%" Q.Q" : "Q" Q	9B: "5DDF"	AA #88#MM B#5
"LLL" : "±\$%" Q.LLO. Q±\$% Q	A: : "5DDF"	AA #88#MM B#5
5B: 1 @F.	E "5"	AA #88#MM B#5
A57<-B9. ±\$) S2 69B8. ±%\$\$		
: 9CA 9HF =7 HC@F 5B7-B: D9F.		
5GA 9IM(*) 1- (
A5H9F-5@ AUWYU ObchgyWVYX2		
8C BCHG75@9		



H-H@.
 9LH9F -CF '9@J 5H-CBG 657? / ' @9: H'G-89

G-N9. 8F5K -B: .
6 5' "\$
 G75@9. %% K 9= <H) & (%) % G<99H (' C: %

F9J -G-CB. 5
 758 : @9 B5A 9.
 %\$%\$&& ! >CV BM7

DF CDF =915F M5B8 7CB: =89BH-5@ "H<9 -B: CFA 5H-CB 7CBH5-B98 -B H<-G8F5K -B: -G H<9 GC@9 DF CD9F HMC: A 5889B: 56F =75H-CBZ -B7- 5BMF 9DFC8I 7H-CB -B D6FHCF 5G5 K <C@9 K H<CI H H<9 K F H H9B D9FA -GG-CB C: A 5889B: 56F =75H-CBZ -B7 -G DF C<-6+98"

ATTACHMENT "B"

8

7

6

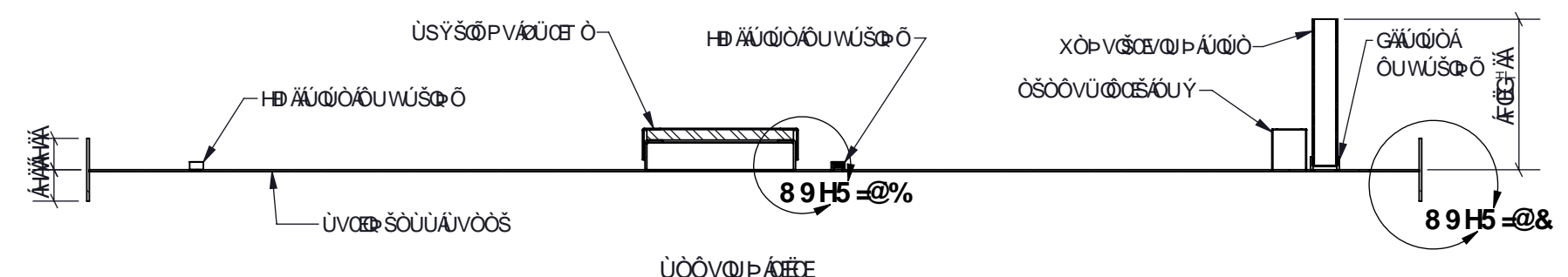
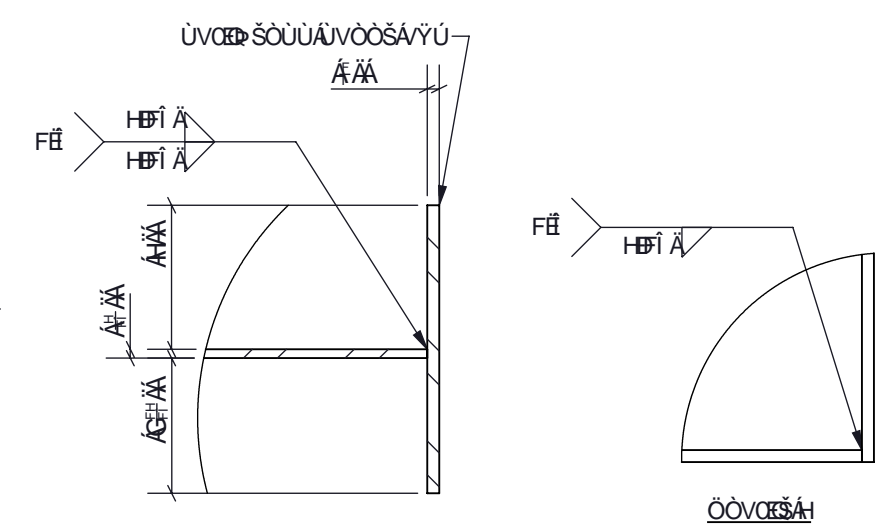
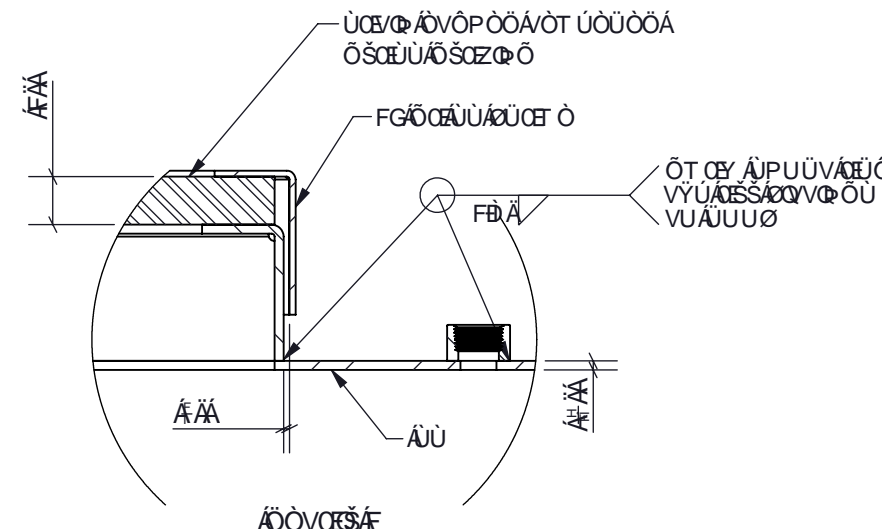
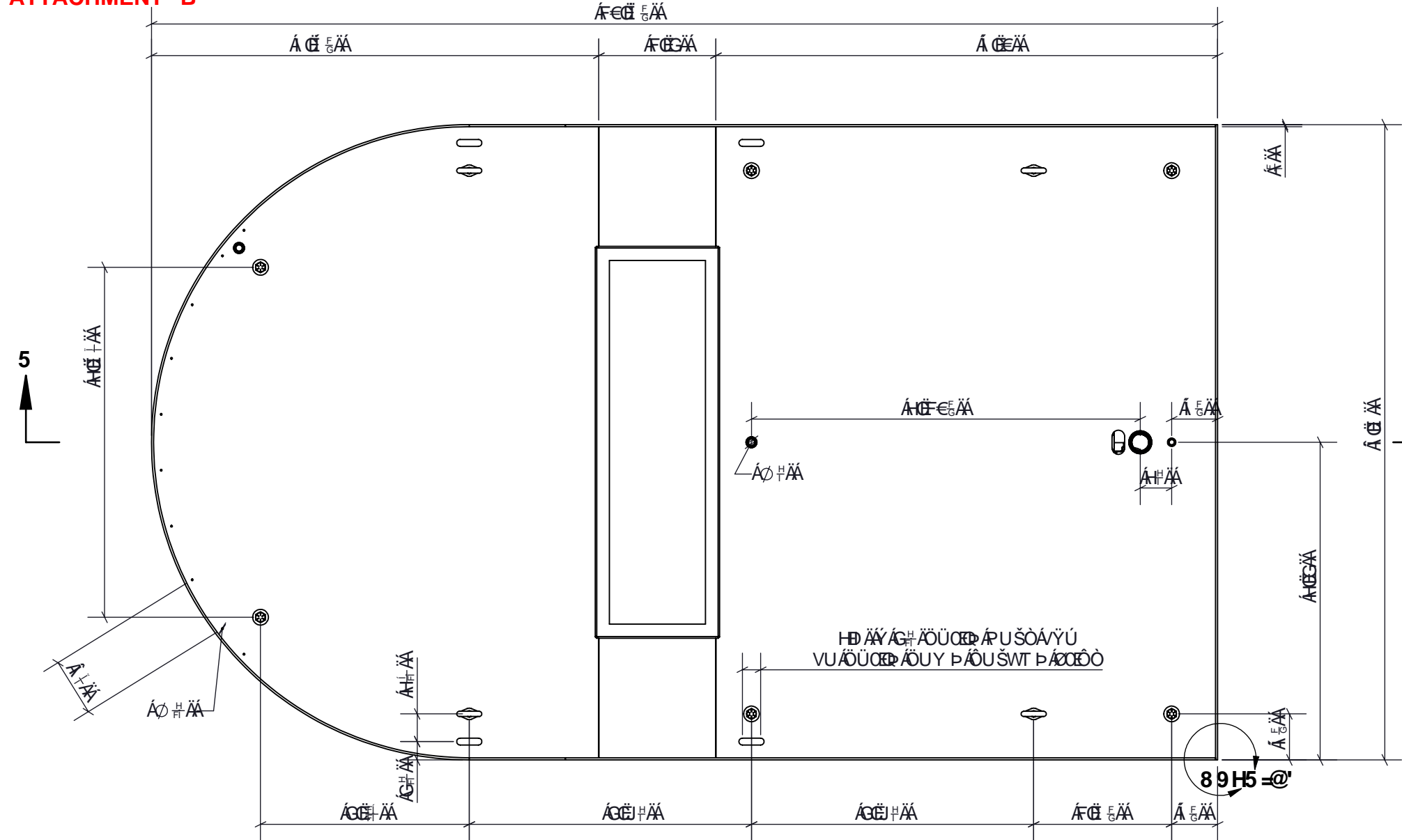
5

8

7

6

5




F9J-G-CB. 5
 758 : @9 B5A 9. 5
 %\$%\$&& !>CV'BM7

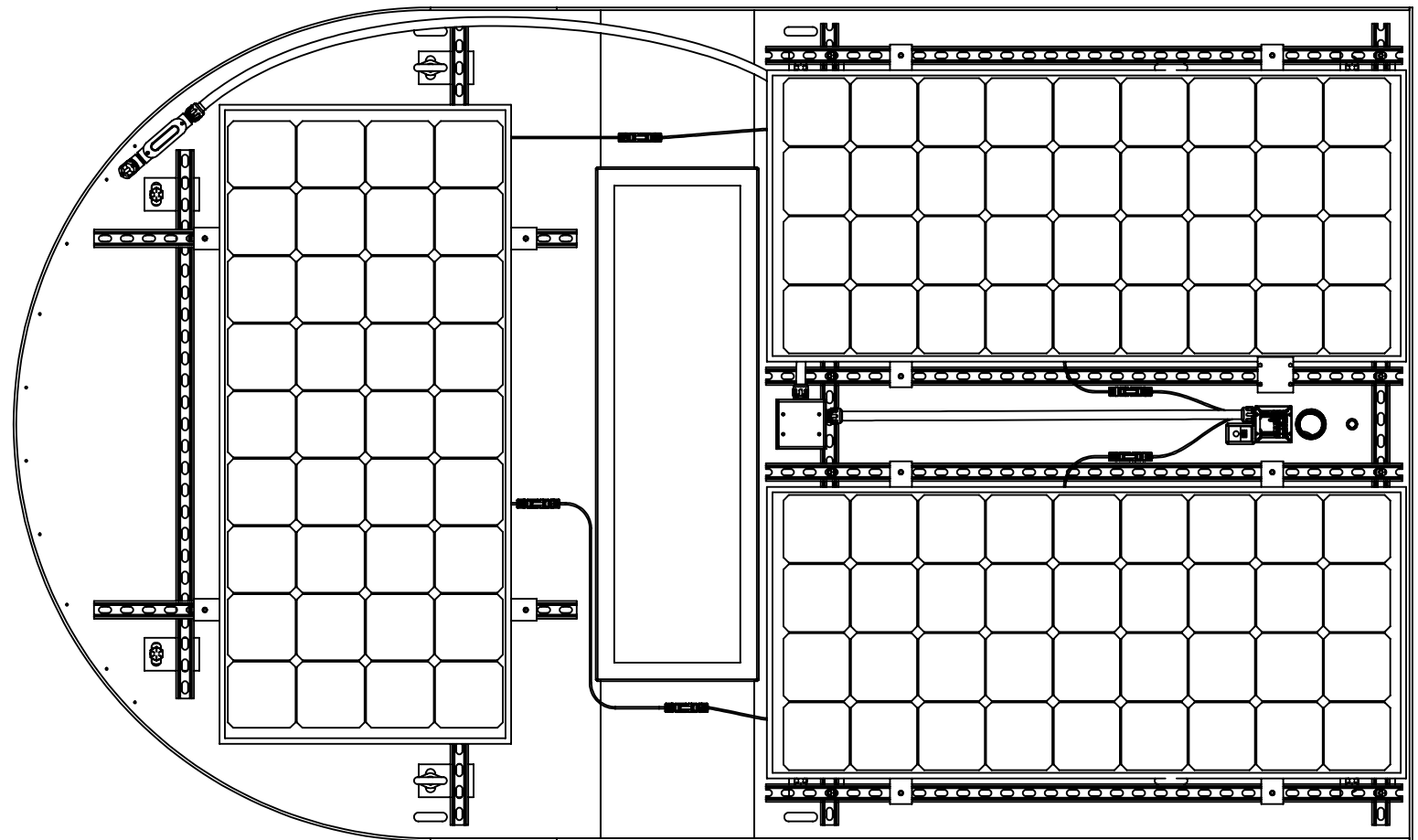


The Portland Loo
A Unique Solution to a Universal Problem.

DF CDF =9H5F M5B8 7CB: =89H5@ "H<9 -B: CFA 5H<CB 7CBH5-B98 -B H<-G8F5K -B: -G H<9 GC@9 DF CD9F HMC: A 5889B: 56F =75H<CBZ -B7 -5BMF 9DF C8I 7H<CB -B D6FH'CF 5G'5 K <C@9 K H<CI H H<9 K F H H9B D9FA -GG-CB C: A 5889B: 56F =75H<CBZ -B7 -G DF C<-6+98"

I B@9G CH<9FK -G9 GD97 = -98.	85H9	B5A 9	 &) '\$ BK (&) H ' D'UW DcfhUbXz'CF ' - +&%\$ a UXZU"Vta
8-A 9BG-CBG 5F 9 -B -B7 -9G 5B8 A =@A 9H9F G OAA ÖZ HC@9F 5B79G. =B7<9G A =@A 9H9F G "L : : ±\$%" Q. Q : : Ö : Q "LL : : ±\$%" Q. "LO. : Ö : S" Q "LLL : : ±\$%" Q. "LLO. Ö : S" Q 5B: 1 @SF. A 57<-B9. ±\$) S2 698B. : ±%%\$: 9CA 9HF =7 HC@9F 5B7-B: D9F. 5GA 9IM(*) I- (89G# B98 ? 7CI F-5B 8F5K B %&#& #&S&S ? 7CI F-5B 7<97798 AA #88#MM B#5 9B: "5DDF" AA #88#MM B#5 A: "5DDF" AA #88#MM B#5 E "5" AA #88#MM B#5	H-H@. FCC: @5MCI H G=N9. 8F5K -B: ' 6 5("\$ G75@9. %% K 9= <H.) & %) % G<99H) C: %	

ATTACHMENT "B"



ÜUUØŠŒÿUWÁ QP ÁU ŠŒÿÁÚŒÈ ÒŠÙ

F9J -G-CB.
5

758 : @9 B5A 9.
%\$%\$&&(!>CV'BM7



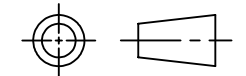
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5BMF 9DFC8I 7H-CB -B D6FH'CF 5G'5 K <C@9 K H<CI H H<9 K F H H9B D9FA -GG-CB C: A 5889B: 56F =75H-CBZ -B7 -G DFC<-6+98"

I B@9GGCH<9FK -G9 GD97 = -98.	85H9	B5A 9
8-A 9BG-CBG 5F 9 -B -B7 -9G 5B8	89G# B98	? 7CI F -5B
A @@A 9H9F G OAA QZ HC@9F 5B79G.	8F5K B	? 7CI F -5B
=B7<9G : E57H-CB5@	7<97798	AA #88#MM B#5
"L : : ±\$%" ±%#%	9B: " 5DDF"	AA #88#MM B#5
"LL : : ±\$%"	A: ; " 5DDF"	AA #88#MM B#5
"LLL : : ±\$%"	E "5"	AA #88#MM B#5
5B: 1 @5F.		
A 57<-B9 ±\$") S2 698B. ±%\$\$		
; 9CA 9HF =7 HC@9F 5B7-B: D9F.		
5GA 9IM(*) 1- (
A 5H9F -5@ AUWYJU ObchgdYVWYXZ		
8C BCHG75@9		

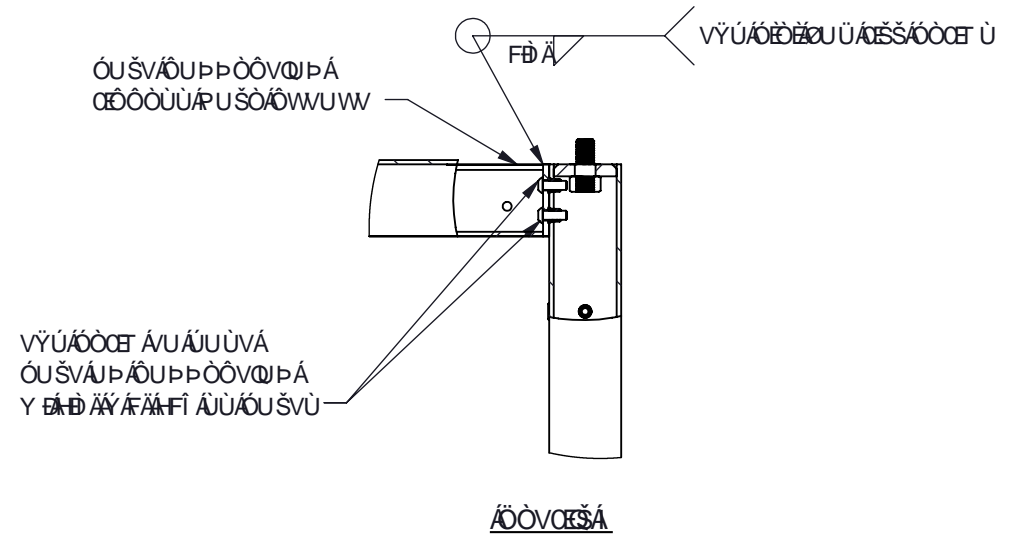
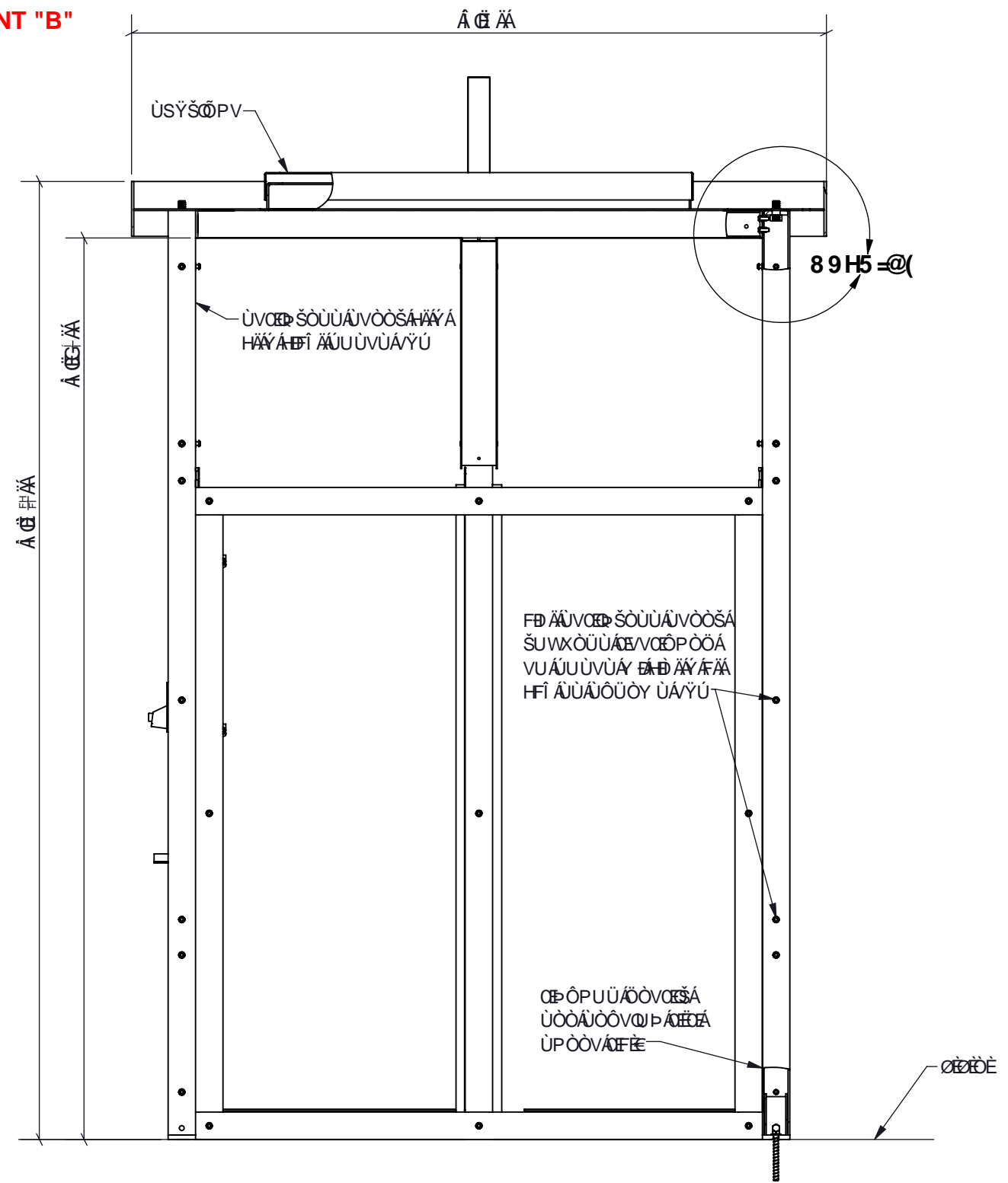
MADDEN FABRICATION &) '\$ BK ' &) H' D'UW
DcfhUbXz'CF '- +&%'\$
a UXZUV'Wta

H-H@9.
FCC: @5MCI H'K 3'GC@5F 'D5B9@G

G=N9. 8F5K =B: '
6 %\$%\$&(
G75@9. %%' K 9= <H.) &,%)' G<99H* 'C: %



ATTACHMENT "B"



$\hat{O} \hat{E} \hat{E} \hat{E}$ $\hat{O} \hat{E} \hat{E} \hat{E}$ $\hat{P} \hat{V} \hat{O} \hat{U} \hat{Q} \hat{U} \hat{A} \hat{O} \hat{S} \hat{O} \hat{X} \hat{O} \hat{E} \hat{V} \hat{O} \hat{P} \hat{A} \hat{K} \hat{O} \hat{Y}$



I B@9G'CH<9FK -G9 GD97=-98.	85H9	B5A 9
8-A 9BG-CBG 5F 9-B -B7<9G 5B8	89G# B98	? 7CI F-5B
A=@A 9H9F G'OA Q'HC@9F 5B79G.	8F5K B	%&#& #&S&S ? 7CI F-5B
=B7<9G	A=@A 9H9F G	7<97?98
"L": "±\$%"	Q.Q": "Q: Q	AA #88#MM
"LL": "±\$%"	Q.LO": "Q±\$" Q	AA #88#MM
"LLL": "±\$%"	Q.LLO. Q±\$% Q	AA #88#MM
5B: 1 @5F.	9B: "5DDF"	AA #88#MM
A 57<-B9. ±\$) S2 698B. ±%\$S	A: ; "5DDF"	AA #88#MM
; 9CA 9HF =7 HC@9F 5B7-B: D9F.	E "5"	AA #88#MM
5GA 9IM(*)1- (
A 5H9F =5@ AUYUJU ObchguYVWYXZ		
8C BCHG75@9		

MADDEN FABRICATION &) '\$ BK' &) H' D'UW
 DcfhUbXz' CF' - +&%\$
 a UXZU"Vta

H-H@9.
 -BH9F -CF 'G97H-CB' J =9K

G=N9. 8F5K =B: '
6 5)"\$

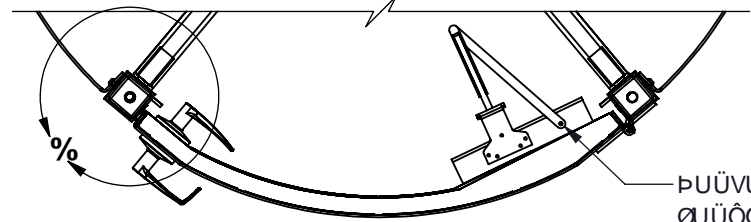
F9J.
 5

G75@9. %% K 9= <H.) &,%)%+ G<99H+C: %

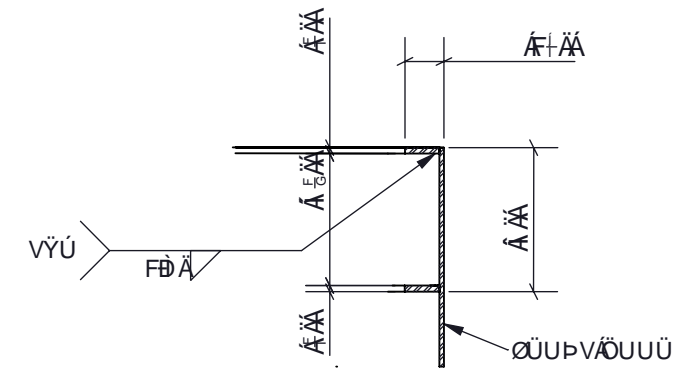
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F9J -G-CB. 5
 758 : =@9 B5A 9.
 %\$5%\$&(!>CV'BM7

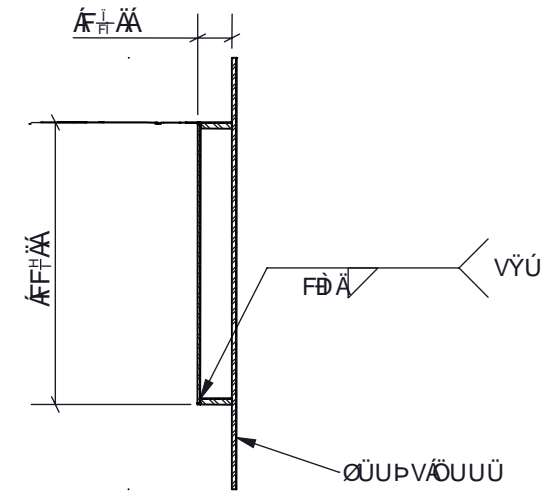
ATTACHMENT "B"



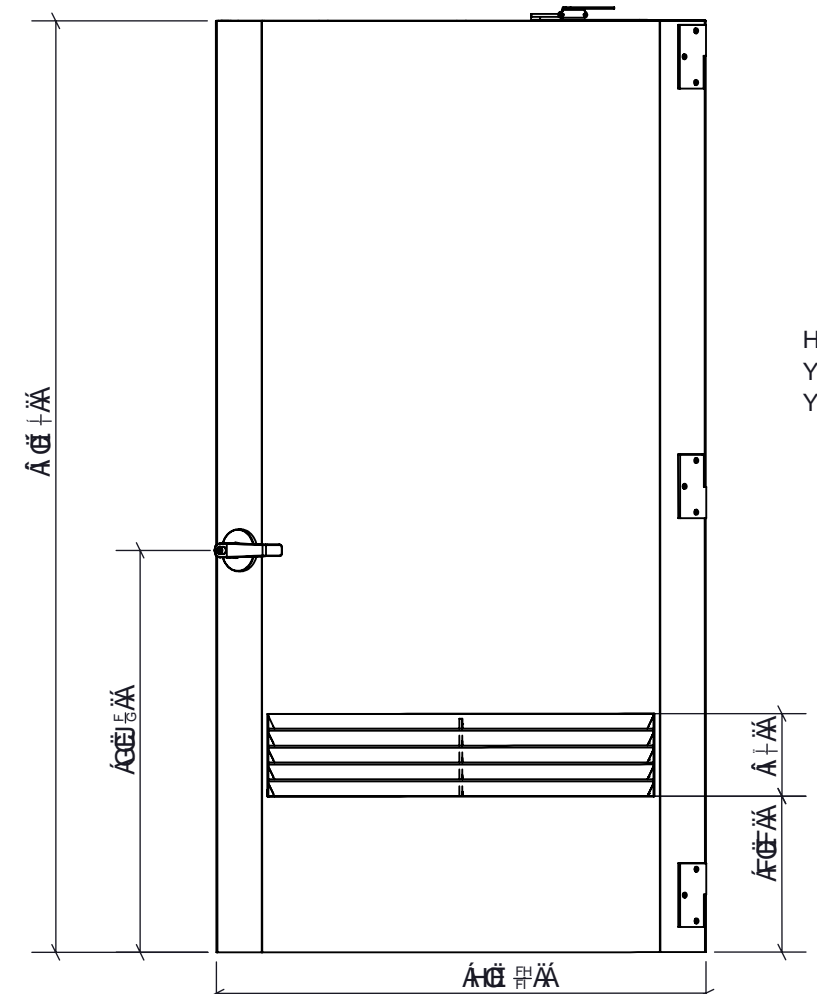
ΠΥΛΩΝ ΠΑΡΑΓΕΓΝΟΜΕΝΟΝ
 ΣΥΝΕΧΕΣ/Α ΑΠΕΡΑΤΟ



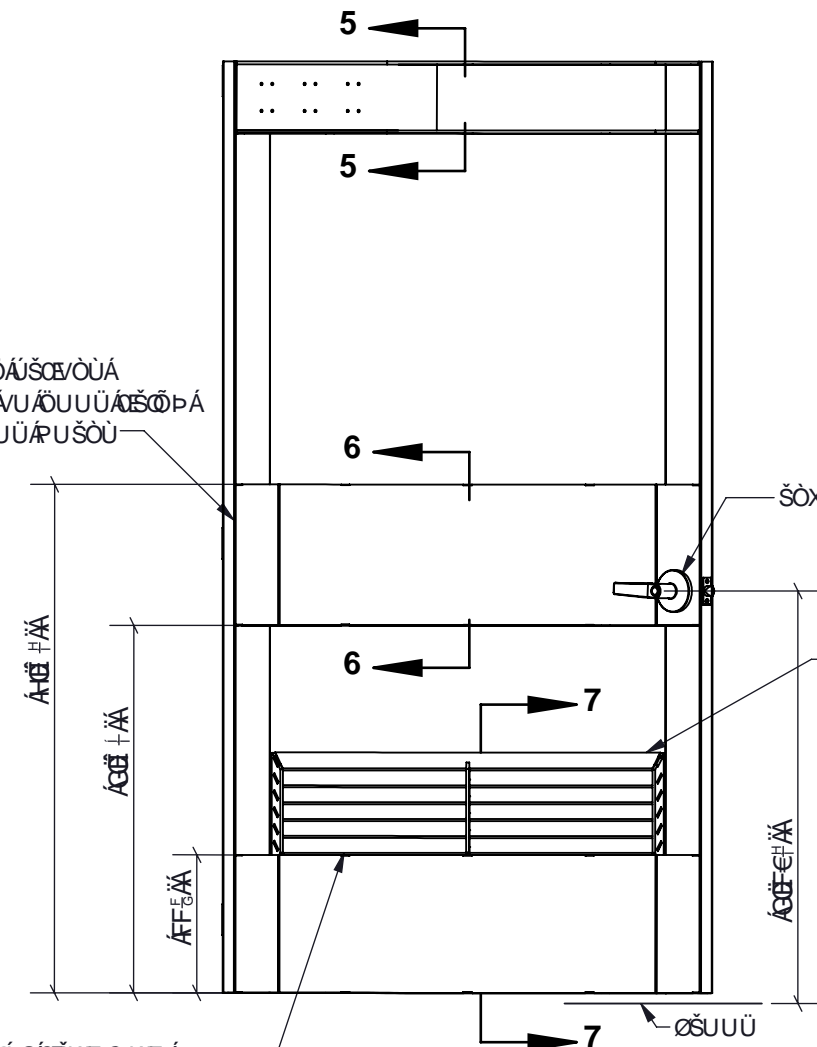
ΥΠΟΝΟΜΟΣ



ΥΠΟΝΟΜΟΣ

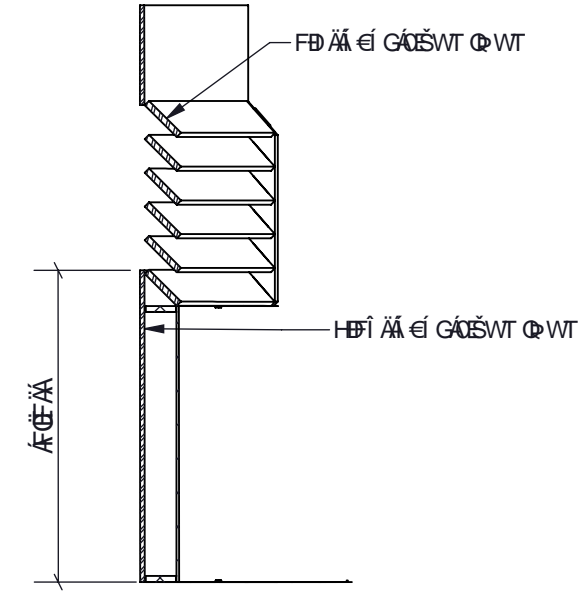


ΗΛΕΚΤΡΟΛΟΓΙΣΜΟΣ
 ΥΠΟΝΟΜΟΣ/ΣΥΝΕΧΕΣ
 ΥΠΟΝΟΜΟΣ/ΣΥΝΕΧΕΣ



ΣΧΟΛΙΑ

VYU

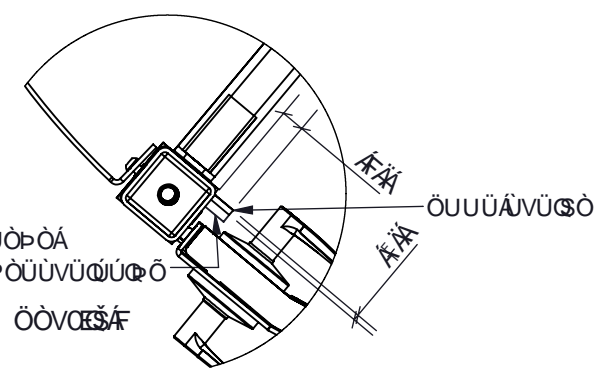


ΥΠΟΝΟΜΟΣ

F ΣΧΟΛΙΑ
 USA...
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F...
 ΣΥΝΕΧΕΣ
 ΣΥΝΕΧΕΣ

ΥΠΟΝΟΜΟΣ



ΠΥΛΩΝ ΠΑΡΑΓΕΓΝΟΜΕΝΟΝ
 ΥΠΟΝΟΜΟΣ/ΣΥΝΕΧΕΣ

ΣΥΝΕΧΕΣ

ΣΥΝΕΧΕΣ
 ΥΠΟΝΟΜΟΣ



1 B@9GCH-9FK -G9 GD97- -98.	85H9	B5A 9
8-A 9BG-CBG 5F 9 -B -B7-9G 5B8	89G- B98	? 7CI F-5B
A -@A 9HF G OAA QZHC@9F 5B79G	8F5K B	%&#& #&S&S ? 7CI F-5B
=B7<9G A -@A 9HF G	7<97?98	AA #88#MM B#5
"L" : "±\$%" Q.Q" : "Q" Q	9B: "5DDF"	AA #88#MM B#5
"LL" : "±\$%" Q.L" : "Q" Q	A: : "5DDF"	AA #88#MM B#5
"LLL" : "±\$%" Q.LL" : "Q" Q	E "5"	AA #88#MM B#5
5B: 1 @SF		
A 57<-B9 ±\$) S2 698B. ±%%\$		
: 9CA 9HF-7 HC@9F 5B7-B: D9F.		
5GA 9M(*) 1- (
A 5H9F-5@ AUYUJ ObchgyWVYX2		
8C BCHG75@9		

MADDEN FABRICATION

)) ' \$ BK ' &) H ' D'UW
 ' DcfhUbXz'CF ' - +&%'\$
 a UXZJW'Vea

H-H@.
 : FCBH'8CCF

G-N9. 8F5K -B: .
 6 G&"\$

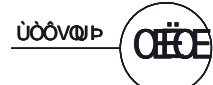
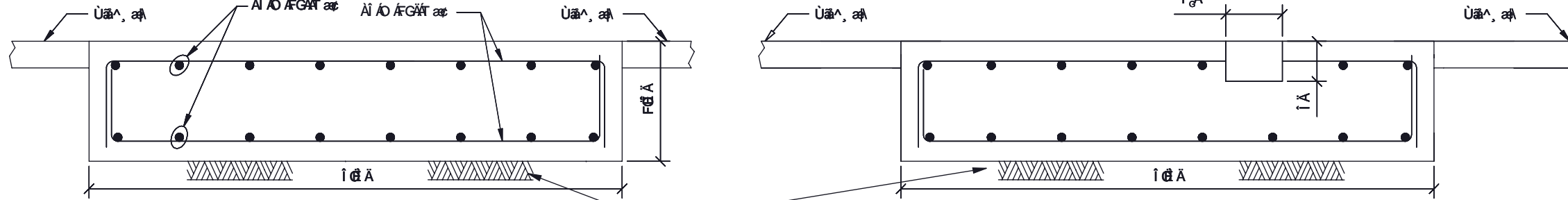
F9J.
 5

G75@. %% K 9- <H.) & (%)% G<99H'%\$ C: .

DF CDF -9H5F M5B8 7CB: -89BH-5@ "H<9 -B: CFA 5H-CB 7CBH5-B98 -B H<-G8F5K -B: -G H<9 GC@9 DF CD9F HMC: A 5889B: 56F-75H-CBZ-B7-
 5BMF 9DFC8I 7H-CB -B D6FH'CF 5G'5 K <C@9 K H<CI H H<9 K F H H9B D9FA -GG-CB C: A 5889B: 56F-75H-CBZ-B7 -G DF C<-6+98"

F9J -G-CB. 5
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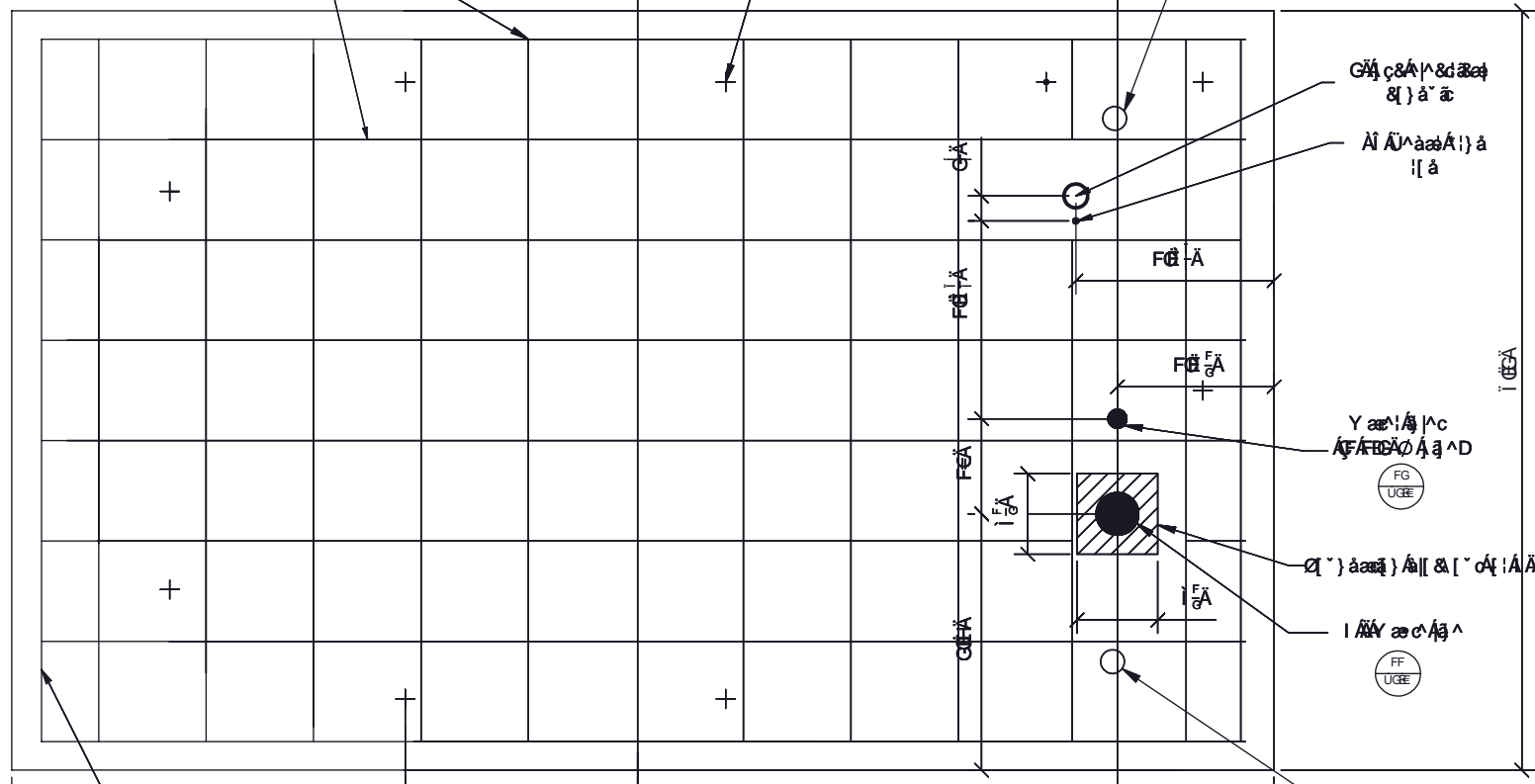
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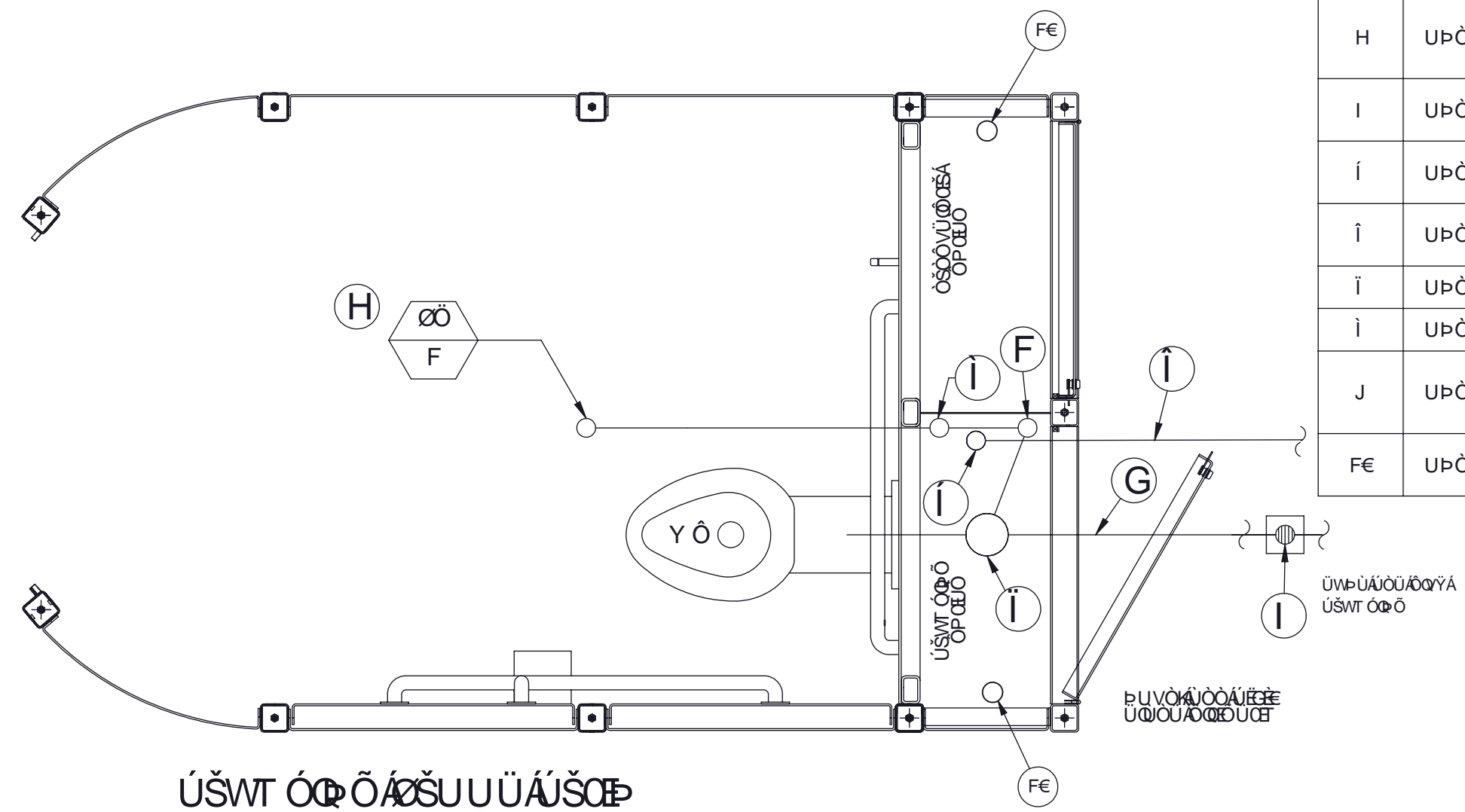
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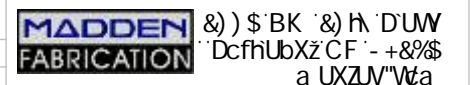
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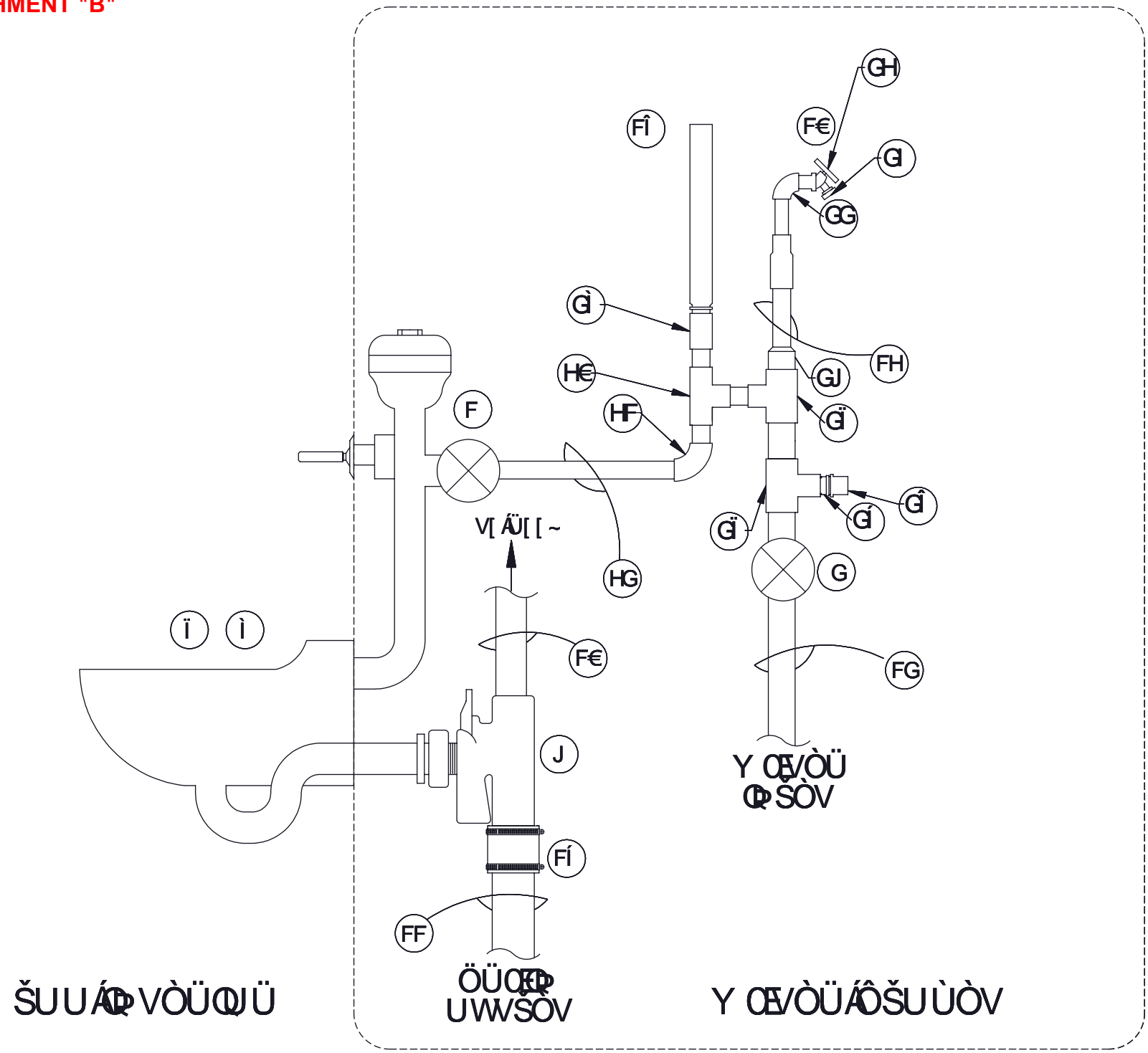
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ATTACHMENT "B"



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FE	UPÖ	GÄÜÜÜÜÜÜÜÜ ÜÜÜÜÜÜ ÜÜÜÜÜÜ	XÜÜÜÜÜ
FF	UPÖ	I ÄÜÜÜÜÜ ÜÜÜÜÜÜ	UVÜÜÜÜ
FG	UPÖ	FÄEAT WÄÜÜÜÜÜÜ ÜÜÜÜÜÜÜÜÜÜ	UVÜÜÜÜ
FH	UPÖ	HÄÜÜÜÜÜÜ ÜÜÜÜÜÜ ÜÜÜÜÜÜÜÜÜÜ	XÜÜÜÜÜ
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ATTACHMENT "C"

SUMMARY

FINDINGS AND TAKE-AWAYS FOR WASHINGTON DC FROM A QUESTIONNAIRE SENT TO CITIES THAT HAVE INSTALLED PORTLAND LOOS ¹

October 2019

“The cost to the city would be much greater if people didn't perceive downtown to be a welcoming and clean place to visit”²

In August 2019 the People for Fairness Coalition (PFFC) [Downtown DC Public Restroom Initiative](#) sent questionnaires to 28 cities in the US and Canada that, between 2008 and 2019, installed [Portland Loos](#) (stand-alone public restrooms designed to be open 24/7). Of the 18 cities that responded, 13 installed 21 Portland Loos in downtown commercial areas, and 9 installed 24 Portland Loos in city parks. ³

The questionnaire (attached) requests information on the number of Portland Loos installed, when they were installed, their locations, experiences with the Portland Loos once installed, and advice for Washington DC should it decide to install one or two Portland Loos a part of a public restroom pilot under [Law 22-280, Public Restroom Installation & Promotion Act of 2018](#) ⁴

The full report available on the [Downtown DC Public Restroom Initiative website](#) is divided into six sections: (1) background; (2) study methodology; (3) findings from cities that have installed Portland Loos in/near commercial areas; (4) what has worked and what hasn't worked; (5) takeaways for Washington DC; (6) concluding remarks.

Findings, by city, and tabulations of findings for Portland Loos installed in commercial areas in cities may be found in the left hand column of Attachment 3 and in Attachments 4, 5 and 8. Findings, by city, that have installed Portland Loos in parks may be found in the right hand column of Attachment 3 and in Attachments 6, 7, and 8.

This summary and the full document focus on findings from cities that have installed Portland Loos in downtown commercial areas.

KEY FINDINGS

- Most (9 of 13) cities keep their Portland Loos open 24/7. Two decided before installing them that they would keep them open only during the day. Two that originally opened their Portland Loo(s) 24/7 decided to close them at night due to problems. ⁵

¹ Researched and written by Marcia Bernbaum, PhD, Mentor & Advisor to the People for Fairness Coalition (PFFC) [Downtown DC Public Restroom Initiative](#)

² In Defense of San Antonio's \$100,000 Toilet, San Antonio Current, June 17, 2017: <https://www.sacurrent.com/the-daily/archives/2017/06/15/in-defense-of-san-antonios-thousand-dollar-toilet>

³ The total, 22, reflects that some cities have Portland Loos installed in downtown commercial areas and parks.

⁴ [Law 22-280](#) provides for piloting two programs: (1) Stand-alone public restrooms open 24/7; (2) Businesses provided with incentives to open their restroom to the public. The two opened for a standalone open 24/7 are the Portland Loo and Automated Public Toilets (APTs).

⁵ One was Salt Lake City UT which was inappropriately located in a dilapidated area, with few businesses and residential housing, limited pedestrian and vehicular traffic, and a high concentration of people experiencing homelessness.

- Responders’ in 8 of the 9 cities that kept their Portland Loos open 24/7 report that users have found them to be clean and safe.⁶
- All cities that have installed Portland Loos have done so with a commitment to the importance of having clean, safe public restrooms is good for personal and public health, and to serving all members of the community, with the acknowledgment that occasionally problems will arise, most of them easily addressed as part of ongoing maintenance (broken locks, stopped up toilets, graffiti, frozen pipes).⁷
- Location has been key to success: (1) an area that is visible from the sidewalk and street; (2) shops, restaurants, bars civic buildings, metro/bus stations nearby; (3) high level of pedestrian and vehicular traffic during the day and moderate at night; (4) under/near street lights at night.
- Also important is identifying potential users and designing one’s approach based on the number and variety of users. This study found that Portland Loos that are open 24/7 in cities with a variety of users (shoppers tourists, seniors, families with children, people getting on an off buses and metros, joggers; people experiencing homelessness) were apt to encounter fewer challenges.⁸
- All eleven (11) cities that responded have business and community buy in (serve as eyes and ears during the day); they have also have arranged for police/other monitoring at night.
- Seven (7) installed needle deposits; four (4) installed baby changers.
- When asked whether they would recommend the Portland Loo for Washington, DC, the seven (7) cities that responded to this question said yes.

In the words of individuals from three cities that recommended that Washington DC install Portland Loos:

Harvard Square, Cambridge, Massachusetts: *“The design is excellent. We love that it resists graffiti, that it can be maintained quite easily with a robust cleaning schedule. We also appreciate that it is comfortable, but not too comfortable so that folks are inclined to stay too long. For the most part, they use it and leave.”*

Cincinnati, Ohio: *“It is a good unit to place anywhere there are people present.”*

Monterey, California: *“They are practical and low maintenance. Because of the open, slatted wall users don’t feel too comfortable inside. So they just do their business and move on.”*

TAKEAWAYS FOR WASHINGTON DC

1. Commitment and need should be the guiding principles in deciding where to install a stand-alone public restroom open 24/7
 - There are no public restrooms nearby and businesses are increasingly limiting restroom access to customers only.

⁶ The one exception is Central Square in Cambridge MA where the BID overseeing the Portland Lo, has encountered problems but has determined, on balance, that people in need (especially the population experiencing homelessness) deserve to have access to a public restroom 24/7.

⁷ 3 report people occasionally sleeping at night; however this has not been seen as a major deterrent.

⁸ The study found that areas with a smaller variety of users, among them a relatively high proportion of transient or unhoused individuals, were more apt to experience problems.

- Members of the community are committed to making sure that the personal and public health needs of residents and visitors are met.
2. It is very important to apply Crime Prevention Through Environmental Design (CPTED) principles in selecting the most appropriate site(s)
 - In an open visible location with a lot of pedestrian and vehicular traffic during the day and at night.
 - In/near a commercial area (businesses, offices, restaurants, bars) where eyes can be kept on the restroom during the daytime and into the evening.
 - Nearby business and community buy-in (as they serve as they eyes and ears during the day)⁹;
 - Good street lighting at night.
 - Arrangements made for police (or other) monitoring at night.
 3. Consider who the users will be and adopt the most appropriate strategy(ies)
 - The ideal, depending on the location, is an area with a wide variety of users (shoppers, tourist, people working nearby, people entering and leaving public transit, people experiencing homelessness).
 - In cases where the priority is to benefit one target group (example, transient population and/or people experiencing homelessness) it may be appropriate to provide some form of oversight.
 4. Anticipate that there will be issues and be prepared to address them when they arise:
 - Most (broken locks, graffiti, clogged toilets, frozen pipes) can be easily addressed and are part of ongoing maintenance.
 - Where used for shooting up (very common in both public and private restrooms), install needle drops.
 - If used for prostitution (rarely reported) there are three options: (1) shut it down at night; (2) improve surveillance during the day including hiring a full-time monitor; (3) keep it open 24/7 if seen not to cause a significant problem and there is a determination that the highest priority is to serve those in need.
 5. The Portland Loo is a viable option for DC
 - Low cost to purchase and maintain¹⁰, durable, and easy to clean.
 - Designed using parts that are available locally should they need to be replaced.
 - Designed to maximize use by having a washing station outside.
 - Designed with safety considerations (louvers so that people outside can see and hear what is happening inside, lighting inside and outside at night.
 - Follow the manufacturer's guidance that it be located in areas that meet Crime Prevention for Environment Design (CPTED) principles.
 6. Keep the Portland Loo and the area around it clean
 - Number of times cleaned daily depends on frequency of use.
 - Ability to respond quickly between scheduled cleanings if the need arises.
 - If open 24/7 do first cleaning early in the day .

⁹ Businesses and residents supported the Portland Loos in the overwhelming majority of cities that responded to the questionnaire. Among others, businesses were happy that they had fewer people asking to use their restrooms.

¹⁰ \$95,000 to purchase and transport the Portland Loo to its location; \$35,000 (if near a water and sewer line) to install; \$12,000 to \$20,000 to maintain, depending on location and daily use.

IN CLOSING

ATTACHMENT "C"

Ultimately a judgement call will need to be made which takes into consideration at least four factors:

- Benefits to public health: less public urination and defecation; fewer citations for public urination/defecation; less risk of becoming sick from stepping on human feces that carry life threatening diseases such as Hepatitis B ¹¹.
- Benefits to personal health: Everyone needs access to a clean, safe public restroom when nature calls. When the need comes, people who are restroom challenged have to go urgently. They include, among others: seniors, small children, people with diabetes and crohns & colitis disease, individuals with physical challenges who move more slowly. ¹²
- Benefits to local businesses who will have fewer people asking to use their restrooms; more individuals who are restroom challenged coming to shop knowing there is a clean, safe public restroom nearby; less poop to scoop poop, less urine in front of their establishments.
- Willingness to accept that a public restroom will require ongoing cleaning and maintenance; that some occasions may arise where the restroom may be used for other purposes.

Taken from an article that appeared in June 2017 in the San Antonio Tribune: ¹³

“The cost to the city would be much greater if people didn't perceive downtown to be a welcoming and clean place to visit”.

“San Antonio Police Department officers issued 104 citations for public urination in the ten months prior to the loo opening, according to records **obtained by the local Fox affiliate**. Ten months after its July installation, and that number's been cut in half — officers have only handed out 51 citations. In an interview with Fox, SAPD spokesperson Sgt. Jesse Salame linked this significant drop to the new bathroom and said that businesses have noted a clear difference in the amount of human waste left near their downtown doorsteps.

Centro maintenance staffers — the other uniformed crew with a constant downtown presence — have also noticed a welcome dip in the amount of urine or poop they run across at work.

In the past eight months, Centro employees have reported a 27 percent decrease in what Centro CEO Pat DiGiovanni politely calls "cleaning efforts related to human waste" compared to the same 8-month period last year.

"The statistics show that [the loo's] making a positive impact on the downtown experience," DiGiovanni told the Current.

The cost to the city would be much greater if people didn't perceive downtown to be a welcoming and clean place to visit.'

¹¹ San Diego Hepatitis A outbreak ends after 2 years, <https://www.apnews.com/cc40b8c476ef469ebdc2228772176b03>

¹² A full list of individuals who are restroom challenged is drawn from a document prepared by the [American Restroom Association](#).

¹³ In Defense of San Antonio's \$100,000 Toilet, San Antonio Current, June 17, 2017: <https://www.sacurrent.com/the-daily/archives/2017/06/15/in-defense-of-san-antonios-thousand-dollar-toilet>

Questionnaire Sent Out to 28 Cities in the US and Canada Asking about their Experience with the Portland Loo

Name and contact information: _____

City: _____

General Information

1. How many Portland Loos does your city/location have?
2. When were they installed?
3. Where are they installed (along a sidewalk, in a park, etc)? Please share the following information:
 - a. Please describe pedestrian traffic that passes by during the day: e.g. shoppers, tourists, individuals experiencing homelessness
 - b. Please describe what may be found nearby (e.g. within the same block): stores, restaurants bars, how many)
 - c. Is there large population experiencing homelessness nearby?
4. What criteria did your city use in deciding on the site(s) where they are installed? For example: visibility to pedestrians and cars, community support serving as the eyes and ears during the day)
5. Has your city added any extras (ex? baby changer, needle drop)?
6. Do you have plans to install any more Portland Loos? (if yes, please specify)
7. Are the Portland Loos that are currently installed open 24/7?
 - a. If not, what hours are they open?
 - b. If not, why was the decision taking to not keep the Loo(s) open 24/7
8. Who is responsible for cleaning and maintaining them?
9. How often (times/day) are they cleaned?
10. Approximately how many people use it/them each day?
11. Have you installed any monitoring devices (e.g. counters, surveillance cameras of areas outside/nearby)?
12. Have arrangements been made for the police or other entity to monitor the Loo(s) by passing by periodically during the rounds at night o?

Receptivity to/experiences once installed

1. Are nearby businesses supportive? (please expand on your response)
2. Are community members supportive? (please expand on your response)
3. Have you experienced any problems and, if so, how has your city addressed them? (please specify)
4. Do you know of any instances where the Portland Loo(s) in your city has/have been used for prostitution/other illicit sexual activity? If so, how have you addressed this?

5. Do you know of any instances where the Portland Loo (s) have been used for selling drugs? If so, how have you addressed this?
6. Have there been complaints on cleanliness (and if so how have they been addressed)?
7. Have there been any complaints on the part of users not feeling safe (and if so how addressed)?

Other

1. Would you recommend that DC install one or more Portland Loos and, if so, why?
2. Do you have any precautions/lessons learned that you think DC should take into consideration should it decide to install/maintain one or more Portland Loos?
3. Would you be interested in receiving the spreadsheet and tabulations that we will be preparing?

Thank you very much!



ATTACHMENT "D"

Rev. 2, January 2021

Portland Loo Information Document

This document was assembled due to the recent number of municipalities requesting information about the Smithers Portland Loo and the Town's experience installing and maintaining it. The document's purpose is to provide general information and lessons learned during and since the installation of the Second Avenue/Main Street Portland Loo.



Date Installed July, 2017

Link to Portland Loo Interview with Mayor Bachrach:

<https://portlandloo.com/portland-loo-smithers-ca-interview-with-mayor-taylor-bachrach/>

Costs:

Madden Fabrication: One Loo w/ delivery: \$ 101,400 USD → Approx. \$ 140,000 Cdn (2017 conversion)

Canyon Contracting Install Contract: \$ 38,600

Public Works Hook-up (internal cost): \$ 3,500 (estimated only)

Electrical Contractor (Power Calculations): \$ 150

Lock and Key Replacement: \$ 170

Project Mgm't./Design Details: Internal and not tracked.

Total capital cost approximately \$182,400. The loo was paid primarily through gas-tax funds.

ATTACHMENT "D"

Maintenance Costs:

The loo is checked and cleaned three times per week in the summer and once per week in the winter. Additional crew time was required during the first few months of operation to sort out minor issues and glitches, for example, door adjustments, winterizing, etc.

We do not separate out operating costs for the Portland Loo. Operating costs for the Loo are included with other downtown operations (garbage collection etc).

The biggest maintenance concern the crew has is during very cold spells – the floor drain can freeze resulting in a layer of ice build up on the floor. This is worsened when users leave a mess in the loo and it is difficult to clean as everything is frozen. This issue has resulted in increased maintenance time over the winter. It has been handled by melting the ice with a torch, and using salt and other additives to keep the drain from freezing.

Between 2017 and 2020, minor vandalism has included spray paint (once); damage to the brackets of the baby table (third party add-on), presumably caused by people sitting on it, which require welding to repair (several instances of this); a purposely bent door closer that required replacement (once), and a purposely damaged door lock that required replacement (once). All damage was fixable with local parts and did not require parts delivered from Madden Fabrication.

Connections and Physical Install: (also, see drawing final page).

Water Connection: 8.5m 38mm PVC

Sewer Connection: 10m 100mm PVC

Electrical Connection: 25m buried.

Sewer and water connections included excavation and replacement of existing red brick sidewalk and concrete driveway. Electrical connection included excavation and replacement of an asphalt lane and red brick sidewalk. The cost was included in the Canyon Contracting Install contract, (which also included craning and construction of the concrete foundation slab).

Additions:

We installed a baby change table and a sharps container, both purchased from a third party.

We did not consider the solar power option. In discussions with another (further south) municipality, we were told that in their case the solar setup did not generate enough power to fully operate the loo.

Electrical:

We are on fixed-rate billing, approximately \$73.00/month.

Also see related notes in the "Various Issues" section below.

ATTACHMENT "D"

Winterization:

The standard Loo installation with the standard cold-weather kit is rated by Madden Fabrication to -15 C degrees. Winter weather in Smithers can have extreme lows of approximately -25 to -30 degrees C for up to a week or two at a time. (The published average winter low temperature is -13 degrees C).

Madden Fabrication will provide the plastic vent cover sheets (see them installed in the photo on page 1) but they had to be ordered separately.

The first winter (2017/8), PW closed the loo due to cold weather for about 10 days when the temperature fell below approx. -18 C, at which point the water in the toilet bowl froze. Prior to the second winter (2018/9), Madden Fabrication provided a second, "extra" winterization kit that has worked well so far, and the loo has not needed to close due to cold weather since it was installed. The second kit, which had to be installed by a plumber, consists of a plumbing modification that allows a very small amount of water to run through the system at all times. The water is not on a loop, it is more like a continuous mini-flush, but with such a small amount of water the flow is not really noticeable. When it gets cold, some ice still forms in the bowl around the edges, but the moving water keeps it from completely freezing and keeps the pipes from freezing. The actual flow level is adjustable with a valve, so it can be increased during periods of more extreme cold.

The exterior hand-washing tap still does need to be shut-off for the winter; neither the standard nor the additional cold-weather kit addresses that issue.

In addition to the two cold weather kits, Town crews have added heat-tape around the water pipes and insulated the storage area, and they keep a portable electric heater running in the storage area during the winter months (electrical plugs in the storage area are included in the standard loo package).

Madden Fabrication had previously mentioned they were working on a couple other cold-weather solutions, including an anti-freeze injection kit and/or some type of wire mesh that would run a current to physically warm the toilet bowl, but we haven't followed up, and we're not sure if these options were ever developed.

PW has discussed installing a radiant heater in the main area, but has not spent much time researching the Document options.

If the intention is to heat the loo, ensure enough plugs/power are installed at fabrication, depending on the number and type of heating units planned.

Additional Cold-weather Note added Feb. 2020:

This year we had temperatures down to -25/-30 and closed the loo for 10 days. The reasons for the closure were:

- 1. Water in floor drain froze – caused a buildup of ice on the floor.*
- 2. Difficulty cleaning due to cold.*
- 3. Volume of flow water required to keep the toilet bowl water from freezing was becoming a concern. (Flow is adjustable and gets increased as temperature goes down; it is not on a loop).*
- 4. Public use of the loo was low.*

PW considered the possibility of installing a space or radiant heater in the unit, but decided against it (for various reasons), and opted for closure instead.

ATTACHMENT "D"

Various Issues we Encountered:

1. We were not happy with the lock mechanism in the door. What we really wanted was a slide latch with "occupied/vacant" similar to what you get on an airplane, and un-lockable with the Town's standard key. Consequently, we replaced the lock and key after installation. Another reason for replacing the door lock was that the standard lock allowed users to push the mechanism into a 'locked' position and then shut the main door behind them when leaving, such that the door stayed locked until opened with a key from the outside. We should have asked Madden Fabrication to install our preferred lock and key during fabrication, instead of trying to do it after install. (MF says they will do this on request).
2. Prior to installation there was a lot of confusion with BC Hydro regarding what type of power hookup was required/most advantageous. (i.e., metered/unmetered and where the meter would be physically installed.). We were originally told by Hydro the loo could be unmetered, but they changed their mind after it was installed. The problem was there was no space on the loo structure to mount a meter. And, unfortunately, we had already installed the conduit and backfilled, so it was too late to mount one on the nearest pole. The conduit type was direct-bury and could not be changed. Hydro really resisted going to a fixed rate - we had to hire an electrician to work with Madden Fabrication to determine the loads in order for Hydro to accept the fixed rate option and to calculate the monthly cost.
3. You do not get the cool-looking poster holder that is shown in some of Madden Fabrication's advertising. They are not including it anymore. Minor issue, but we were a bit disappointed.
4. We had no serious issues with Madden Fabrication, especially pre-delivery and during delivery. There was a hang-up where the loo was delayed for a few days crossing the border, which was traced to the delivery company not having their paperwork in order. Madden Fabrication covered all the expenses related to the delay and made it a priority to deal with. Once the loo arrived it was installed on the same day without glitches. Post-installation we struggled a little to get a timely response from MF to our cold-weather concerns, and the cold-weather solution kit did not arrive in time for the first winter. However, once the cold kit was installed it functioned well.

ATTACHMENT "D"

Public Perception:

Our general impression is that the Loo has been quite well received. It is right next to a coffee shop and when there I sometimes overhear people comment on the thing, or have read comments in the coffee shop's guest book, and the comments are typically positive.

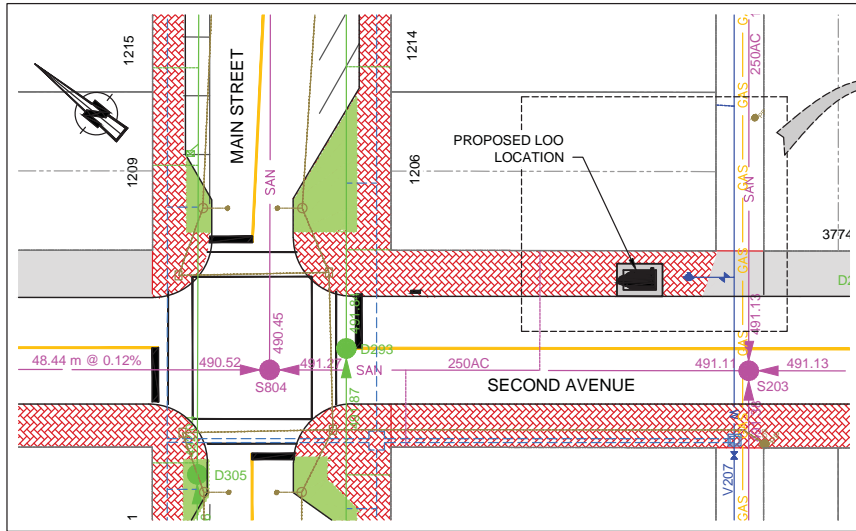
While installation was being planned the Town received several calls and letters of concern, particularly regarding the location and the cost. We handled a couple of complaints about location that were quelled by drawing an outline on the ground showing where it would be positioned - once people saw the size and how it would fit into the surroundings they felt better about it. There were also letters (pre-install) expressing concerns about the swinging door and other technical issues that were resolved by forwarding design details or referring them to the company's website. I did not respond to the more 'political' complaints (cost, etc.), so I'm not sure how many of those came in. My understanding is those complaints centered around the loo being over-priced and not locally manufactured.

The loo comes with a counter but the counter is unreliable (it is triggered by the motion detector), and we have not used it or done any other investigation as to how often the loo gets used, so its hard to make any meaningful statements regarding amount of use.



Installation, July 2017

ATTACHMENT "D"

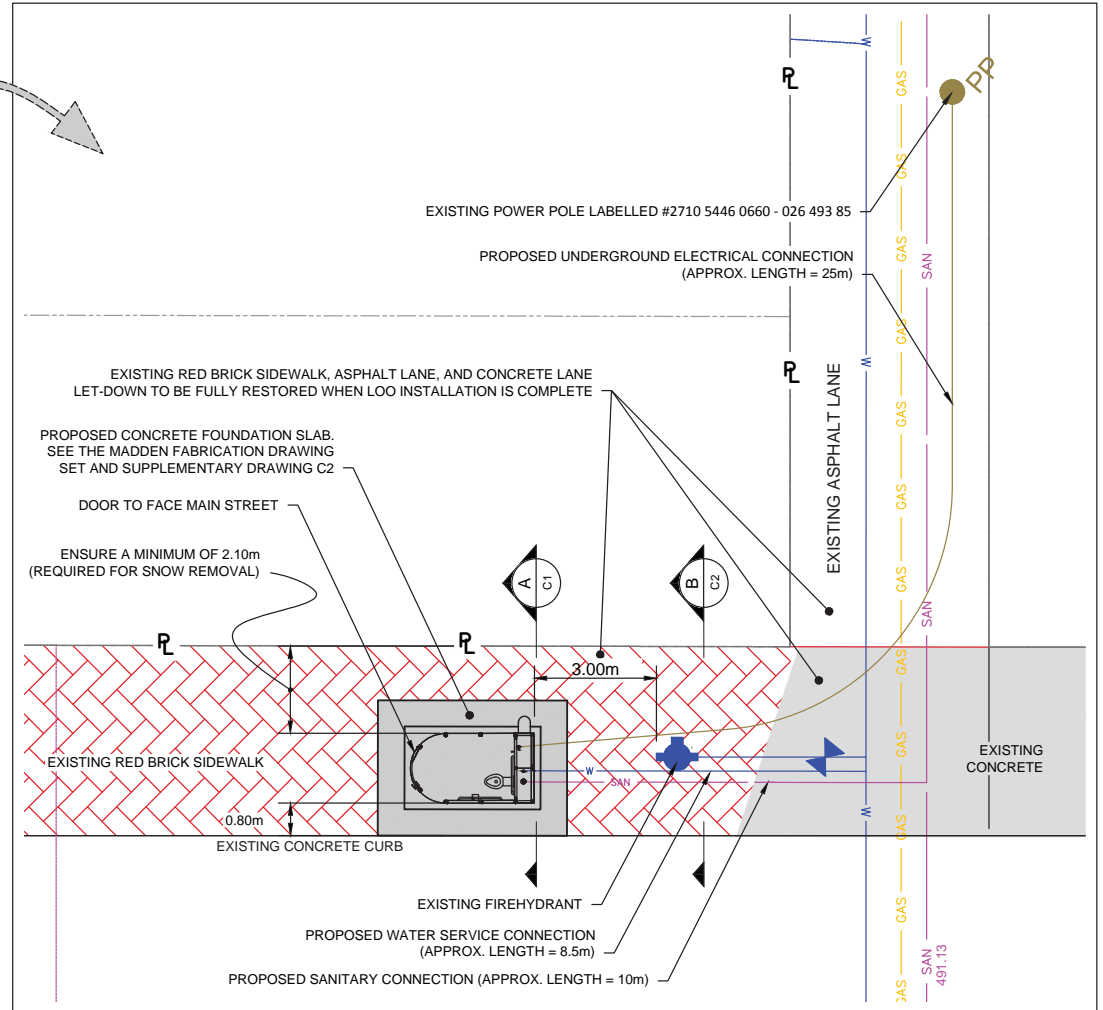


PLAN - EXISTING CONDITIONS AND PROPOSED LOO LOCATION

1:500

NOTES:

1. LOCATIONS OF ALL EXISTING UTILITIES TO BE CONFIRMED IN THE FIELD.
2. CLEAR SPACE BETWEEN OUTSIDE EDGE OF LOO AND EXISTING FIRE HYDRANT TO BE 3.00 m.
3. CLEAR SPACE BETWEEN PROPERTY LINE AND OUTSIDE EDGE OF LOO TO BE MIN. 2.10m.



PLAN - GENERAL LAYOUT AND SERVICE CONNECTION SCHEMATIC

1:120

REV. 0 - ISSUED FOR TENDER



TITLE:
**SUPPLEMENTARY DRAWING C1
EXISTING CONDITIONS AND
GENERAL ARRANGEMENT**

- LEGEND:
- WATER LINE
 - SANITARY LINE
 - STORM LINE
 - - - IRRIGATION LINE

- PROPOSED PORTLAND LOO
- EXISTING EDGE OF ASPHALT
- / - LEGAL PARCEL / LOT
- POWER POLE / LINE
- EXISTING PLANTER

SCALE: AS SHOWN	SUP. DWG. C1
DRAWN BY: A.O.H.	DATE: MAR, 28, 2017
APPROVED BY: M.F.A.	DATE: MAR, 28, 2017
DRAWING PATH: O:\ENGINEERING\PROJECTS\2017\CONTRACTS 2017\2017-05 Portland Loo\2 - ACAD\2 - Issued for Tender\C1 - General Arrangement.dwg	