FLP THARKAYTA COMPANY LIMITED

ENVIRONMENTAL MANAGEMENT PLAN

FOR

WAREHOUSE AND OFFICE SPACE RENTAL PROJECT

March 2022

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Date	**Revise**	**Status**	**Prepared By**	**Checked By**	**Approved By**	**Approved By**
						Client

FLP Tharkayta Co., Ltd.

Proposed by

FLP Tharkayta Co., Ltd

Prepared by

E Guard Environmental Services Co., Ltd

DISCLAIMER

This report was prepared under the framework of Myanmar Environmental Impact Assessment Procedures 2015. This Environmental Management Plan Report has been prepared by E Guard Environmental Services, a third party environmental services provider, for the project of Warehouse and Office Space Rental purposes, which is located in Tharkayta Township, Yangon Region of Myanmar, proposed by FLP Tharkayta Company Limited.

The analysis study works had been done based on the provided data of the proposed plan of project from (the client) and onsite observation of environmental parameters guide by Myanmar Government Environmental Authority, Environmental Conservation Department, herein after ECD. The impact assessment and mitigation measures are prepared based on the facts and figures of detail plan/ process of the project obtained from the client.

Prevailing active Laws, Rules, Procedure, Guidelines, and Standards etc. of Myanmar legal system are stipulated so that the project proponent and its implementing agencies understood these legal frameworks and committed to follow it.

The drawings, sketches, maps and other illustrative figures in this report are for the demonstrative/ descriptive purposes only and not to be considered as approved boundary nor accepted territory nor recognized properties extend of any kind.

In case of dual or multiple meanings of the wordings, those wordings should be interpreted as relevant meaning to the concerned areas of discussed in this report. The individual/ personal, organizational and commercial data and information found in this report are included based on the concerned authority's requirement. The privacy and trade secrets concerned are to be addressed to the concerned authority, Environmental Conservation Department.

Report Review Form

Report Title: Environmental Management Plan (EMP) Report For Warehouse and Office Space Rental Project	
Report Version: Version 00	
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Checked Date: 22/06/2021	**Signature:**
Summary: EMP Report This document presents the Environmental Management Plan (EMP) report as required for Warehouse and Office Space Rental Project.	**Approved by:**

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FLP

FLP Tharkayta Co., Ltd.

Date

Commitment to follow Environmental Conservation Law, Rules and Regulation, Environmental Standards and Mitigation Measures Stated in the Environmental Management Plan (EMP) Reports

With regard to the above matter, we, FLP Tharkayta Co.,Ltd. has established for Warehouse and Office Space Rental Project in Tharkayta Industrial Zone. Our company strongly commits that this proposed EMP report for this project is strong and complete, and prepared by following the later mention laws, rules and regulations, and all our operations will be performed in an environmental friendly manner by following Environmental Conservation Law (2012), Environmental Conservation Rules (2014), Environmental Impact Assessment Procedure (2015), National Environmental Quality (Emission) Guidelines (2015), IFC Environmental, Health and Safety (EHS) Guidelines (2007), IFC Guidelines on Waste Management Facilities (2007) and relevant environmental standards through successful implementation of mitigation measures stated in the Environmental Management Plan (EMP), EMoP, CSR plan and Grievance Redress Mechanism of EMP Report.

Maung Maung Hla Moe
Director & COO
FLP Tharkayta Co., Ltd.

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Commitment to follow and compliance with Environmental Conservation Law, Rules, Environmental Impact Assessment Procedure, National Environmental (Quality) Emission Guidelines, Standards and Mitigation Measures Stated in the Environmental Management Plan (EMP) report

With regard to the above matter, we, E Guard Environmental Services Co., Ltd has prepared Environmental Management Plan (EMP) report for the Warehouse and Office Space Rental Project of FLP Tharkayta Co.,Ltd. Our company strongly commits that this proposed EMP report for this project is strong and complete, and prepared by following Environmental Conservation Law (2012), Environmental Conservation Rules (2014), Environmental Impact Assessment Procedure (2015), National Environmental (Quality) Emission Guidelines (2015), IFC Environmental, Health and Safety (EHS) Guidelines (2007), IFC Guidelines on Waste Management Facilities (2007) and relevant environmental standards through successful implementation of mitigation measures and monitoring plan stated in the Environmental Management Plan (EMP) Report.

Soe Min
Director
E guard Environmental Services

E Guard Environmental Services
(A Third Party Environmental Services Provider)

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ECD	Environmental Conservation Department
EIA	Environmental Impact Assessment
IEE	Initial Environmental Examination
EMP	Environmental Management Plan
YCDC	Yangon City Development Committee
MIC	Myanmar Investment Commission
ECC	Environmental Compliance Certificate
YESC	Yangon Electricity Supply Corporation
KVA	Kilo Voltage Ampere
KW	Kilo Watt
KV	Environmental Perimeter Air Station
˚C	Degree Celsius
EPAS	Environmental Perimeter Air Station
ACGIH	American Conference of Governmental Industrial Hygienists
NAAQS	National Ambient Air Quality Standards
MONREC	Ministry of Natural Resources and Environment Conservation
IFC	International Finance Corporation
WHO	World Health Organization
NEQG	National Environmental Quality (Emission) Guidelines
BOD	Biological Oxygen Demand
COD	Chemical Oxygen Demand
pH	Potential of Hydrogen
TDS	Total Dissolved Solid
DO	Dissolved Oxygen
EC	Electric Conductivity
PM_{10}	Particulate Matter less than 10 micro meter
$PM_{2.5}$	Particulate Matter less than 2.5 micro meter
CO	Carbon Monoxide
SO_2	Sulphur Dioxide
NO_2	Nitrogen Dioxide
CO_2	Carbon Dioxide
O_3	Ozone
N_2O	Nitrous Oxide
dB	Decible
GRM	Grievance Redress Mechanism
CSR	Co-operate Social Responsibility
EMoP	Environmental Monitoring Plan

အကျဉ်းချုပ်အစီရင်ခံစာ

ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဥပဒေ (၂၀၁၂) အရ၊ အဆိုပြုစီမံကိန်းဖြစ်သည့် သိုလှောင်ရုံနှင့် ရုံးခန်းများ ဌားရမ်းခြင်းလုပ်ငန်းသည် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကို ရေးဆွဲတင်ပြရသည်။ အဆိုပြုစီမံကိန်းပိုင်ရှင်သည် ဂျပန်နိုင်ငံသားများပိုင်ဆိုင်သည့် အက်(ဖ်)အယ်(လ်)ပီ သာကေတ ကုမ္ပဏီလီမိတက် (FLP Tharkayta Company Limited) ဖြစ်ပြီး ရင်းနှီးမတည်ငွေ အမေရိကန်ဒေါ်လာ ၁၂.၄၆၅ သန်းခန့်ဖြင့် ၂၁ နှစ်စာကာလ ရင်းနှီးမြှုပ်နှံမည်ဖြစ်သည်။ အဆိုပြုစီမံကိန်း၏ ၁% အား မြန်မာနိုင်ငံသား မြေပိုင်ရှင် ဦးနေဇော်မြင့် (၁၀/တသန(နိုင်)၀၉၁၄၄၆) မှပိုင်ဆိုင်ပြီး ကျန် ၉၉% မှာ နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှုဖြစ်သည်။

စီမံကိန်းသည် ရန်ကုန်တိုင်း၊ သာကေတမြို့နယ်၊ သာကေတ စက်မှုဇုံအတွင်းရှိ မြန်မာ့ဂုဏ်ရောင်လမ်း ပေါ်တွင် တည်ရှိပါသည်။ စီမံကိန်းတွင် သိုလှောင်ရုံ (အအေးခန်း၊ ရိုးရိုး) နှင့် ရုံးခန်းများပါရှိသည့် အဆောက်အဦ သုံးလုံး(Building A, B and C) တို့ပါရှိမည်ဖြစ်ပြီး Building C တစ်မျိုးထဲတွင်သာ အအေးခန်း သိုလှောင်ရုံမပါဝင်ပါ။ အပူချိန် ၂၅ ဒီဂရီဆဲလ်စီးယပ် အောက်ရှိသည့် အအေးခန်း သိုလှောင်ရုံအား ဆေးနှင့် ဆက်စပ်ပစ္စည်းများ သိုလှောင်ရန်ရည်ရွယ်ထားပါသည်။ သာမန်ပတ်ဝန်းကျင်အပူချိန်သာရှိသည့် ရိုးရိုးသို လှောင်ရုံအား အခြားသာမန်ကုန်ပစ္စည်းများသိုလှောင်ရန် ငှားရမ်းသွားမည်ဖြစ်ပါသည်။

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကို အက်(ဖ်)အယ်(လ်)ပီ သာကေတကုမ္ပဏီလီမိတက်၏ကိုယ်စား အီးဂတ် ပတ်ဝန်းကျင်ဆိုင်ရာဝန်ဆောင်မှုကုမ္ပဏီမှ ရေးဆွဲပြုစုထားပါသည်။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် ရေးသား ပြုစုသည့် လူပုဂ္ဂိုလ်များသည် ပတ်ဝန်းကျင်ဆန်းစစ်လေ့လာခြင်း၊ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် ဖော် ဆောင်ခြင်းနှင့် ပတ်ဝန်းကျင်စောင့်ကြည့်လေ့လာခြင်းဆိုင်ရာ နယ်ပယ်များတွင် ကောင်းမွန်သော အတွေ့ အကြုံများအပြင် ပညာအရင်အချင်းနှင့်ပြည့်စုံသောသူများ ဖြစ်ကြသည်။

အဆိုပြုစီမံကိန်းနှင့်ဆက်စပ်သော မြန်မာနိုင်ငံ၏ မူဝါဒ၊ ဥပဒေနှင့် လုပ်ထုံးများကို ယခုဆန်းစစ်မှုတွင် ဖော်ထုတ်ကာ အောက်ပါဇယားတွင်ဖော်ပြပေးထားပါသည်။ ယင်းတို့၏ အရေးကြီးအချက်အလက်များကို အစီရင်ခံစာ၏ အခန်း(၄)တွင် ထည့်သွင်းဖော်ပြထားသည်။ ယင်းတို့အနက် ပတ်ဝန်းကျင်ထိခိုက်မှု ဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်း(၂၀၁၅)နှင့် အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ(ထုတ်လွှတ်မှု)လမ်းညွှန်ချက်များ (၂၀၁၅) တို့သည် အရေးအကြီးဆုံးဖြစ်ကာ ယင်းတို့ကို အခန်း(၄)တွင် အသေးစိတ်ဖော်ပြပေးထား ပါသည်။

ဇယား ၁။ မူဝါဒ၊ ဥပဒေနှင့် မူဘောင်များ

စဉ်	ဥပဒေနှင့်စည်းမျဉ်းစည်းကမ်းများ	ခုနှစ်
၁	ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဥပဒေ	၂၀၁၂
၂	ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးနည်းဥပဒေ	၂၀၁၄
၃	ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်း	၂၀၁၅
၄	အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ	၂၀၁၅
၅	မြန်မာနိုင်ငံ အမျိုးသားပတ်ဝန်းကျင်ထိန်းသိမ်းရေးမူဝါဒ	၂၀၁၉
၆	မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု ဥပဒေ	၂၀၁၆
၇	နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှု နည်းဥပဒေ	၂၀၁၃

စဉ်	ဥပဒေနှင့်စည်းမျဉ်းစည်းကမ်းများ	ခုနှစ်
၈	ကူးစက်ရောဂါများ ကာကွယ်နှိမ်နင်းရေးဥပဒေကိုပြင်ဆင်သည့်ဥပဒေ	၂၀၁၁
၉	ဓာတုပစ္စည်းနှင့် ဆက်စပ်ပစ္စည်းများ အန္တရာယ်မှ တားဆီးကာကွယ်ရေး နည်းဥပဒေ	၂၀၁၃
၁၀	ဆေးလိပ်နှင့် ဆေးရွက်ကြီးထွက်ပစ္စည်းသောက်သုံးမှုထိန်းချုပ်ရေးဥပဒေ	၂၀၀၆
၁၁	မြန်မာနိုင်ငံမီးသတ်တပ်ဖွဲ့ဥပဒေ	၂၀၁၅
၁၂	ယာဉ်အန္တရာယ်ကင်းရှင်းရေးနှင့် မော်တော်ယာဉ် စီမံခန့်ခွဲမှုဥပဒေ	၂၀၂၀
၁၃	မြန်မာ့အာမခံဥပဒေ	၁၉၉၃
၁၄	ပြည်သူ့ကျန်းရေးဥပဒေ	၁၉၇၂
၁၅	အလုပ်သမားအဖွဲ့အစည်းဥပဒေ	၂၀၁၁
၁၆	အလုပ်သမားရေးရာ အငြင်းပွားမှုဖြေရှင်းရေးဥပဒေ	၂၀၁၂
၁၇	အလုပ်အကိုင်နှင့် ကျွမ်းကျင်မှု ဖွံ့ဖြိုးတိုးတက်ရေးဥပဒေ	၂၀၁၃
၁၈	အနည်းဆုံးအခကြေးငွေဥပဒေ	၂၀၁၃
၁၉	အခကြေးငွေပေးချေရေးဥပဒေ	၂၀၁၆
၂၀	အလုပ်သမားလျှော်ကြေးဆိုင်ရာအက်ဥပဒေ	၁၉၂၃
၂၁	ခွင့်ရက်နှင့်အလုပ်ပိတ်ရက်အက်ဥပဒေ	၁၉၅၁
၂၂	လူမှုဖူလုံရေးဥပဒေ	၂၀၁၂
၂၃	လုပ်ငန်းခွင်ဘေးအန္တရာယ်ကင်းရှင်းရေးနှင့် ကျန်းမာရေးဆိုင်ရာဥပဒေ	၂၀၁၉
၂၄	တိုင်းရင်းသားလူမျိုးများအခွင့်အရေးဥပဒေ	၂၀၁၅
၂၅	ရေနံနှင့် ရေနံထွက်ပစ္စည်းများဥပဒေ	၂၀၁၇
၂၆	ပို့ကုန် သွင်းကုန်ဥပဒေ	၂၀၁၂
၂၇	မြေအောက်ရေအက်ဥပဒေ	၁၉၃၀
၂၈	လျှပ်စစ်ဥပဒေ	၂၀၁၄
၂၉	သဘာဝဘေးအန္တရာယ်ဆိုင်ရာစီမံခန့်ခွဲမှုဥပဒေ	၂၀၁၃
၃၀	စားသုံးသူကာကွယ်ရေးဥပဒေ	၂၀၁၉
၃၁	ရန်ကုန်မြို့တော်မြူနီစီပယ်အက်ဥပဒေ	၁၉၂၂
၃၂	ရန်ကုန်မြို့တော်စည်ပင်သာယာရေးဥပဒေ	၁၉၉၀
၃၃	ရန်ကုန်တိုင်းဒေသကြီး စည်ပင်သာယာရေးအဖွဲ့များ ဥပဒေ	၂၀၁၈
၃၄	အလုပ်ရုံများအက်ဥပဒေ	၁၉၅၁

ကနဦးစစ်တမ်းကောက်ယူခြင်းနှင့် ဒေသဆိုင်ရာမှအချက်အလက်များရယူခြင်းသည် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ် အကောင်အထည်ဖော်ရာတွင် အလွန်အရေးကြီးသော အခန်းကဏ္ဍတွင် ပါဝင်ပါသည်။ ပတ်ဝန်းကျင် အရည်အသွေးတိုင်းတာခြင်းကဲ့သို့သော ကနဦးစစ်တမ်းကောက်ယူခြင်းသည် ပတ်ဝန်းကျင်ဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်တွင် အရေးပါသောအခန်းအဖြစ် တည်ရှိနေသည်။

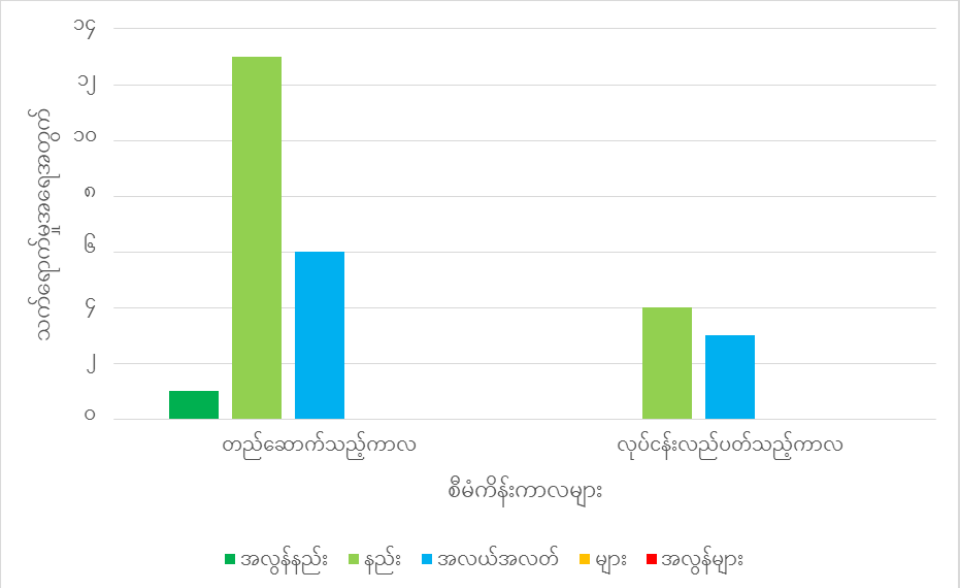
စီမံကိန်းတည်နေရာသို့သွားရောက်လေ့လာ၍ လက်ရှိပတ်ဝန်းကျင်အခြေအနေများအား စစ်တမ်းကောက်ယူ ခြင်း၊ တိုင်းတာခြင်းလုပ်ငန်းများအား ၂၀၂၁ ခုနှစ် မေလ ၁၉ ရက်နှင့် ၂၀ ရက်နေ့တို့တွင်ပြုလုပ်ခဲ့ပါသည်။ တိုင်းတာရရှိလာသော အချက်အလက်များအား စိစစ်ရာတွင် လေအရည်အသွေး၊ ဆူညံသံနှင့်တုန်ခါမှုအရည်

အသွေးများသည် ကမ္ဘာကျန်းမာရေးအဖွဲ့နှင့် အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များအတွင်း ရှိနေပါသည်။ သို့သော်လည်း ရေအရည်အသွေးရလဒ်အချို့ဖြစ်သည့် total suspended solids, total nitrogen, total phosphorous ပမာဏများသည် လမ်းညွှန်ချက်များထက် ကျော်လွန်နေသည် ကို စိစစ်တွေ့ရှိရပါသည်။

လက်ရှိပတ်ဝန်းကျင်လေအရည်အသွေးအား အမှုန်တိုင်းတာသည့် စံညွှန်းနှစ်ခုဖြစ်သည့် PM_{10}, $PM_{2.5}$ (လေထုအတွင်းရှိ သေးငယ်သောဖုန်အမှုန်များ) အပြင် ဓာတ်ငွေ့စံညွှန်းများဖြစ်သည့် ဆာလဖာဒိုင်အောက်ဆိုဒ်၊ ကာဗွန်မိုနောက်ဆိုဒ်၊ ကာဗွန်ဒိုင်အောက်ဆိုဒ်နှင့် နိုက်ထရပ်အောက်ဆိုဒ် အရည်အသွေးများအား ဖော်ထုတ်တိုင်းတာခဲ့ပါသည်။ တိုင်းတာရရှိလာသောရလဒ်များသည် အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး (ထုတ် လွှတ်မှု) လမ်းညွှန်ချက်အပြင် နိုင်ငံတကာစံချိန်စံညွှန်းများအတွင်း တည်ရှိနေပါသည်။ ပျမ်းမျှဆူညံသံတန်ဖိုးမှာ လုပ်ငန်းလည်ပတ်သည့် နေ့အချိန်တွင် ၅၁.၀၅ ဒက်စီဘယ်အေ နှင့် ညအချိန်တွင် ၅၀.၇၅ ဒက်စီဘယ်အေရှိပြီး အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်၏ စက်ရုံနှင့် စီးပွားရေးလုပ်ငန်းများအတွက် ချမှတ်ထားသော လမ်းညွှန်ချက်တန်ဖိုးဖြစ်သည့် ၇၀ ဒက်စီဘယ်အေ အောက်တွင်ရှိနေပါသည်။

စီမံကိန်းကြောင့်ဖြစ်ပေါ်လာနိုင်သောသက်ရောက်မှုများဖြစ်သည့် ပတ်ဝန်းကျင်ဆိုင်ရာအရင်းအမြစ်များ၊ ဂေဟစနစ်အရင်းအမြစ်များ၊ လူသားနှင့်စွန့်ပစ်ပစ္စည်း စွန့်ပစ်ခြင်းများကို ၎င်းတို့၏ သိသာထင်ရှားမှုများအလိုက် သက်ရောက်မှုအကဲဖြတ်စနစ်ကို အသုံးပြု၍ အမျိုးအစားခွဲခြားထားပါသည်။ အလားအလာရှိသော သက်ရောက်မှုများသည် လုပ်ငန်းလည်ပတ်သည့်ကာလနှင့် လုပ်ငန်းဖျက်သိမ်းသည့်ကာလ အပေါ်လိုက်၍ ကွဲပြားမှုရှိပါသည်။ စီမံကိန်းကြောင့်ဖြစ်ပေါ်လာနိုင်သောသက်ရောက်မှုများအား အောက်ပါဇယားတွင်ဖော်ပြထားပါသည်။

လုပ်ငန်းလည်ပတ်သည့်ကာလတွင် ဆူညံသံနှင့်တုန်ခါမှု၊ စွန့်ပစ်အမှိုက်များနှင့် ကျန်းမာရေးနှင့်လုပ်ငန်းခွင်ဘေးအန္တရာယ်ကင်းရှင်းရေးဆိုင်ရာ သက်ရောက်မှုများသည် အလယ်အလတ်အဆင့် သက်ရောက်မှုများအဖြစ် ဆန်းစစ်လေ့လာတွေ့ရှိရသည်။ အခြားသက်ရောက်မှုများဖြစ်သည့် မြေအရည်အသွေး၊ လေအရည်အသွေး၊ ရေအရည်အသွေးနှင့် ဒေသရင်းတိရစ္ဆာန်များအပေါ်သက်ရောက်မှုများသည် နည်းသည့်အဆင့်သက်ရောက်မှုများ အဖြစ်တွေ့ရှိရပြီး ဒေသရင်းအပင်များအပေါ် သက်ရောက်မှုသည် အလွန်နည်းသည့်အဆင့် သက်ရောက်မှုအဖြစ် ဆန်းစစ်တွေ့ရှိရသည်။ လုပ်ငန်းဖျက်သိမ်းသည့်ကာလတွင် လေအရည်အသွေး၊ ဆူညံသံနှင့်တုန်ခါမှုနှင့် ကျန်းမာရေးနှင့် လုပ်ငန်းခွင်ဘေးအန္တရာယ်ကင်းရှင်းရေးဆိုင်ရာသက်ရောက်မှု များသည် အလယ်အလတ်အဆင့် သက်ရောက်မှုများအဖြစ် ဆန်းစစ်တွေ့ရှိရသည်။ အခြားသက်ရောက်မှုများဖြစ်သည့် မြေအရည်အသွေး၊ စွန့်ပစ်အမှိုက်နှင့် မီးဘေးအန္တရာယ်ကြောင့် သက်ရောက်မှုများသည် နည်းသည့်အဆင့် သက်ရောက်မှုများအဖြစ် ဆန်းစစ်လေ့လာခြင်းရလဒ်များအရ ဆန်းစစ်တွေ့ရှိရသည်။ အောက်ဖော်ပြပါပုံတွင် စီမံကိန်းကြောင့်ဖြစ်ပေါ်လာနိုင်သော မကောင်းသောသက်ရောက်မှုများ၏ အသေးစိတ်အဆင့်များအား ဖော်ပြထားသည်။



ပုံ ၁၊ စီမံကိန်းကြောင့် သက်ရောက်မှုများ

မကောင်းသောသက်ရောက်မှုများအား သက်ရောက်မှုလျှော့ချရန်အတွက် လျှော့ချရန်နည်းလမ်းများ သည် အရေးကြီးသည်။ ထိုလျှော့ချရန်နည်းလမ်းများအား ဆောင်ရွက်ရန်လိုအပ်သော ဆောင်ရွက်ချက်များနှင့် နည်းပညာများအား သက်ရောက်မှုအမျိုးအစားပေါ် မူတည်ပြီး ဖော်ပြထားသည်။ အဆိုပြုစီမံကိန်းသည် အလုပ်အကိုင်အခွင့်အလမ်းများ ဖန်တီးပေးနိုင်ခြင်း၊ စီးပွားရေးအခွင့်အလမ်းများ ဖန်တီးပေးနိုင်ခြင်း၊ အခွန်ငွေရရှိနိုင်ခြင်း၊ လူမှုစီးပွားတာဝန်ယူမှု အစီအစဉ်များကြောင့် ဒေသတွင်းဖွံ့ဖြိုးတိုးတက်ခြင်းစသည့် ကောင်းသောသက်ရောက်မှု များကိုလည်း ဖြစ်ပေါ်စေနိုင်သည်။သက်ရောက်မှုလျှော့ချရေးနည်းလမ်းများနှင့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်များအား အကောင်အထည်ဖော် ဆောင်ရွက်ရာတွင် လိုအပ်သော အခြေခံ လိုအပ်ချက်များနှင့် တာဝန်ရှိသူများအား ဤအစီရင်ခံစာတွင် ဖော်ပြထားသည်။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်အား သက်ရောက်မှု လေ့လာဆန်းစစ်ချက်များနှင့် သက်ရောက်မှုအဆင့်များကိုအခြေခံ၍ စီမံကိန်း၏ လုပ်ငန်းလည်ပတ်သည့်ကာလနှင့် လုပ်ငန်းဖျက်သိမ်းသည့် ကာလတို့အတွက် ကျန်းမာရေးနှင့် ဘေးအန္တရာယ် ကင်းရှင်းရေး မူဘောင်များနှင့်အညီ ရေးဆွဲထားခြင်းဖြစ်သည်။ စီမံကိန်းအကောင်အထည်ဖော်သူသည် အဆိုပြု စီမံကိန်းအား အောက်ဖော်ပြပါအစီအစဉ်များပါဝင်သော ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်နှင့်အညီ အကောင် အထည်ဖော် ဆောင်ရွက်ရမည်။

- ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် – ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်သည် စီမံကိန်း၏ သက်ရောက်မှုများ၊ သက်ရောက်မှုရင်းမြစ်များ၊ လျှော့ချရန်နည်းလမ်းများ၊ ကျန်ရှိသောသက်ရောက်မှုများနှင့် တာဝန်ယူဆောင်ရွက်မည့်ပုဂ္ဂိုလ်တို့အား လုပ်ငန်းလည်ပတ်သည့်ကာလနှင့် လုပ်ငန်းဖျက်သိမ်းသည့် ကာလတို့အတွက် ဖော်ပြထားခြင်းဖြစ်သည်။
- ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုမှုအစီအစဉ် – ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုမှု အစီအစဉ်သည် လေနှင့်ရေအရည်အသွေး၊ ဆူညံသံပမာဏနှင့် ပတ်ဝန်းကျင်ဆိုင်ရာစစ်ဆေးခြင်းများအား စောင့်ကြပ်ကြည့်ရှုရန် အမျိုးအစား၊ အကြိမ်အရေအတွက်နှင့် တာဝန်ယူဆောင်ရွက်မည့်ပုဂ္ဂိုလ်တို့အား ဖော်ပြထားခြင်း ဖြစ်သည်။

- လုပ်ငန်းခွင်ကျန်းမာရေးနှင့် ဘေးအန္တရာယ်ကင်းရှင်းရေးအစီအစဉ် – လုပ်ငန်းခွင်ကျန်းမာရေးနှင့် ဘေးအန္တရာယ်ကင်းရှင်းရေးအစီအစဉ်သည် အလုပ်သမားများအတွက် ဘေးကင်းလုံခြုံသောလုပ်ငန်းခွင် ဖြစ်လာစေရန် ရည်ရွယ်ပါသည်။
- လျှပ်စစ်အန္တရာယ်ထိန်းချုပ်ရေးအစီအစဉ် – လျှပ်စစ်အန္တရာယ်ထိန်းချုပ်ရေးအစီအစဉ်သည် အလုပ်သမားများအား ဖြစ်ပေါ်လာနိုင်သော လျှပ်စစ်အန္တရာယ်များမှကာကွယ်မှုပေးနိုင်ရန် ရည်ရွယ်ပါသည်။
- မီးဘေးအန္တရာယ်ကင်းရှင်းရေးအစီအစဉ် – မီးဘေးအန္တရာယ်ကင်းရှင်းရေးအစီအစဉ်သည် အဆိုပြုစီမံကိန်း၏ မီးဘေးအန္တရာယ်များလျှော့ချရန်အတွက် ဖော်ပြ ထားခြင်းဖြစ်သည်။
- အရေးပေါ်ကိစ္စများတုံ့ပြန်ရေးအစီအစဉ် – အရေးပေါ်ကိစ္စများ တုံ့ပြန်ရေးအစီအစဉ်သည် အရေးပေါ်ကိစ္စရပ်များပေါ်ပေါက်ပါက မည်သို့ဆောင်ရွက်ရမည်ကို ဖော်ပြထားခြင်းဖြစ်သည်။
- လူမှုစီးပွားတာဝန်ယူမှုအစီအစဉ် – လူမှုစီးပွားတာဝန်ယူမှုအစီအစဉ်သည် ဒေသခံပြည်သူ များတွက် ဖွံ့ဖြိုးမှုလုပ်ငန်းများ ဆောင်ရွက်ပေးရန်နှင့် အဆိုပြုစီမံကိန်းသည် စီမံကိန်းအကောင်အထည်ဖော်သူကိုသာမက ဒေသခံပြည်သူများအတွက်လည်း အကျိုးရှိကြောင်းဖော်ပြရန်ဖြစ်သည်။
- မကျေလည်မှုများကိုဖြေရှင်းပေးမည့်အစီအစဉ် – မကျေလည်မှုများကိုဖြေ ရှင်းပေးမည့်အစီအစဉ်သည် အဆိုပြုစီမံကိန်းနှင့်ပတ်သက်သော မကျေလည်မှုများကို မည်သို့ဖြေရှင်းပေးမည်ဖြစ်ကြောင်း ဖော်ပြ ထားခြင်းဖြစ်သည်။

ထို့အပြင် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်နှင့် ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုမှု အစီအစဉ်များ ဆောင်ရွက်ရန် ခန့်မှန်းကုန်ကျစရိတ်ကိုလည်း ထည့်သွင်းဖော်ပြထားသည်။

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အစီရင်ခံစာပြင်ဆင်ရာတွင် စီမံကိန်းအကြောင်းအရာများကို ရှင်းလင်းတင်ပြခြင်းနှင့် ရရှိလာသော အများပြည်သူများ၏ ဆွေးနွေးအကြံပြုချက်များကို စီမံကိန်းအကောင်အထည်ဖော်ရာတွင် ထည့်သွင်းစဉ်းစားခြင်းတို့သည် အရေးပါပေသည်။ ထို့ကြောင့် စီမံကိန်းနှင့် အဓိကသက်ဆိုင်သူများအား ရွေးချယ်ဆွေးနွေးခြင်းအခမ်းအနားအား ၂၀၂၁ ခုနှစ်၊ မေလ၊ ၁၉ ရက်နေ့တွင် သာကေတစက်မှုဇုံ စီမံခန့်ခွဲမှုကော်မတီရုံးတွင် ကျင်းပခဲ့ပါသည်။ ထို့အပြင် ဒုတိယအကြိမ် စီမံကိန်းနှင့် အဓိကသက်ဆိုင်သူများအား ရှင်းလင်းတင်ပြဆွေးနွေးခြင်း အခမ်းအနားအား ၂၀၂၂ ခုနှစ်၊ မတ်လ၊ ၄ ရက်နေ့တွင် အက်ဖ်အယ်လ်ပီ သာကေတကုမ္ပဏီရုံးရှိ အစည်းအဝေးခန်းမတွင် ထပ်မံကျင်းပခဲ့ပါသည်။

အများပြည်သူများ၏ ဆွေးနွေးအကြံပြုချက်များရယူနိုင်ရန် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ရေးဆွဲထားသော အစီရင်ခံစာအား ရန်ကုန်တိုင်းဒေသကြီး ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနရုံး၊ အက်ဖ်အယ်လ်ပီ သာကေတကုမ္ပဏီရုံး၊ အီးဂတ်ပတ်ဝန်းကျင်ဆိုင်ရန်ဝန်ဆောင်မှုကုမ္ပဏီရုံးနှင့် ၎င်း၏ဝက်ဘ်ဆိုဒ်တွင် ဝင်ရောက်ဖတ်ရှုနိုင်ပါ သည်။ (**http://www.eguardservices.com/disclosure)**

နိဂုံးချုပ်အားဖြင့် ယခုစီမံကိန်းသည် လုပ်ငန်းလည်ပတ်စဉ်ကာလအတွင်း အလုပ်အကိုင်အခွင့်အလမ်းအသစ်များ ဖန်တီးပေးခြင်းအားဖြင့် ဒေသခံပြည်သူလူထု၏ လူမှုစီးပွားရေးအခြေအနေများကို ဖွံ့ဖြိုးတိုးတက်စေလာနိုင်ပါသည်။ အသံနှင့်တုန်ခါမှု၊ စွန့်ပစ်ပစ္စည်းများစွန့်ပစ်ခြင်း၊ လုပ်ငန်းခွင်ကျန်းမာရေးနှင့် ဘေးအန္တရာယ်ကင်းရှင်းရေး တို့မှဖြစ်နိုင်သော ဆိုးကျိုးသက်ရောက်မှုများမှာ အတန်အသင့်ရှိသော်လည်း စီမံကိန်းလည်ပတ်သည့်ကာလ၊ စီမံကိန်းဖျက်သိမ်းသည့်ကာလများတွင် အဆိုပြုထားသော သက်ရောက်မှုလျော့ပါးစေရေးနည်း

လမ်းများအား လိုက်နာဆောင်ရွက်ပါက ပတ်ဝန်းကျင်နှင့် လူမှုစီးပွားရေး အခြေအနေများအပေါ် သက်ရောက်မှုများကို အနည်းဆုံးဖြစ်အောင် လျော့ချနိုင်မည်ဖြစ်ပါသည်။ နောက်ဆုံး၌ ဤပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်အား ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနမှ စစ်ဆေးပြီးနောက် ပြန်လည်ပေးပို့လာသော သဘောထားမှတ်ချက်များနှင့် အကြံဉာဏ်များကို စီမံကိန်းအကောင်အထည်ဖော်သူမှ လိုက်နာဆောင်ရွက်သင့်ပါသည်။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်အား ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနမှ အတည်ပြုပြီးပါက ထိုအစီအစဉ်အား စီမံကိန်းအကောင်အထည်ဖော်သူသည် လက်တွေ့အကောင်အထည်ဖော်ရန် လိုအပ်ပါသည်။

CHAPTER 1: EXECUTIVE SUMMARY

According to the Environmental Conservation Law (2012), this proposed project of Warehouse and Office Space Rental have to be conducted Environmental Management Plan (EMP). The proposed project, which has US$ 12.465 Million as a capital investment with the investment period of 21 years, is 1% local investment by U Nay Zaw Myint, land owner of the project site, and 99% foreign investment by Japan nationalities called FLP Tharkayta Company Limited.

The project is located at Myanma Gon Yi Street, Tharkayta industrial zone. Tharkayta Township, Yangon Region. The Project site has three buildings (Building A, B and C), which designed to have constructed with Warehouse (Cold and Ambient Storage) and Office Space Rental but Building C only without cold storage. Cold storage, which is having -25 degree Celsius temperature, will be used for storing Pharmaceutical products. Ambient storage space will be given lease for other normal goods, which can be kept in atmosphere temperature.

Preparation of this report was carried out by E Guard Environmental Services Co., Ltd. on behalf of FLP Tharkayta Co., Ltd. Members of the EMP study team are well qualified with their roles and responsibilities, academic qualifications and experiences in environmental impact assessment, EMP formulations, environmental monitoring and implementation tasks.

Policies, legislations and guidelines in Myanmar that are of relevance to the project have been identified in the assessment and are shown in Table 1. Important parts of them are documented in Chapter 3 of this report. Among them, Environmental Impact Assessment Procedure (2015) and National Environmental Quality (Emission) Guidelines (2015), are considered to be the most important.

Table 1 Related Laws and Regulations

No.	Name of Laws and Regulations	Year
1	The Environmental Conservation Law	2012
2	The Environmental Conservation Rule	2014
3	Environmental Impact Assessment Procedure	2015
4	National Environmental Quality (Emission) Guidelines	2015
5	Myanmar National Environmental Policy	2019
6	Myanmar Investment Law	2016
7	Foreign Investment Rules	2013
8	The Law Amending The Prevention and Control of Communicable Disease Law	2011
9	Prevention of Hazards from Chemical and Related Substances Law	2013
10	The Control of Smoking and Consumption of Tobacco Product Law	2006
11	12. Myanmar Fire Brigade Law	2015
12	Motor Vehicles Safety and Management Law	2020
13	The Myanmar Insurance Law	1993

No.	Name of Laws and Regulations	Year
14	The Public Health Law	1972
15	Labor Organization Law	2011
16	Settlement of Labor Dispute Law	2012
17	The Development of Employment and Skill Law	2013
18	The Minimum Wages Law	2013
19	The Payment of Wages Law	2016
20	Workmen's Compensation Act	1923
21	The Leaves and Holiday Act	1951
22	Social Security Law	2012
23	Occupational Safety and Health Law	2019
24	The Rights of National Races Law	2015
25	The Petrol and Petroleum Product Law	2017
26	Import and Export Law	2012
27	The Underground Water Act	1930
28	The Electricity Law	2014
29	Natural Disaster Management Law	2013
30	Consumer Protection Law	2019
31	The City of Rangoon (Yangon) Municipal Act	1922
32	The City of Yangon Development Law	2018
33	Yangon City Development Council Law	2018
34	The Factory Act	1951

Primary data and secondary data collections are very important. Primary data collections like environmental quality measurements play an important role for conducting EMP.

Baseline environmental data collection and site visit activities were conducted on 19th to 20th, May, 2021. According to the data interpretation form the survey results of most analyze parameters for background condition, air quality, noise pollution and vibration of the proposed project site are within the acceptable and allowable standard limits of the guideline values (WHO guidelines and NEQG emission standard). Nevertheless, among the parameters of water quality result, there have excess concentration of standard level of NEQG water quality guideline in total suspended solids for the surface water as well as total nitrogen, total phosphorous and total suspended solids for the wastewater.

Existing air quality of surrounding area was also identified by categorizing two types dust level (PM_{10}, $PM_{2.5}$) and gases concentrations (SO_2, CO, CO_2, NO) in the ambient air. The observed average values for PM_{10} and PM $_{2.5}$, SO_2, CO, CO_2, NO are mentioned in Table 5.15. When compared with National Environmental Quality (Emission) Guidelines values, and International Guideline Standards such as IFC, WHO, ACGIH, NAAQS, for ambient air quality of dust and gases concentration values are within the acceptable limit. The emission can be controlled by implementation of manufacturer recommended engine maintenance programs, good driving practices, installing and maintaining emissions control devices, and implementing a regular vehicle maintenance and repair program. The average noise level is

51.05 dBA for day time operation and 50.75 dBA for night time when measuring between building A and building B for 24 hours. The allowable limit of the noise level at day is (70dB) and night time is (70 dB) for the industrial (commercial) business area according to the National Environmental Quality (Emission) Guideline.

Primary and secondary data were used to assess the environmental impacts. The potential environmental impacts were assessed in a comprehensive and scientific manner. The report has provided a full picture of all potential environmental impacts associated with the proposed project and provide recommendations for suitable mitigation measures. During the operation and decommission phase, there will be no major environmental impacts. All environmental issues could be readily addressed using conventional measures and good environmental practices. Possible negative impacts include noise, emission dust, solid waste and occupational health and safety among others during this phase. These impacts can be mitigated through strict adherence to the various guidelines.

During the *operation phase*, impacts on noise and vibration, solid waste disposal and occupational health and safety impacts are assessed as Moderate Impacts and other impacts such as impacts on soil, air quality, water and fauna impacts are categorized as Low Impacts as well as flora impact is considered as Very Low Impact as per the results of assessments. During the *decommission phase*, impacts on air, noise and vibration and occupational health and safety impacts are assessed as Moderate Impacts and other impacts like impacts on soil, solid waste disposal and fire hazards impacts are categorized as Low Impacts according to the results of assessments. The following figure illustrates detail impact significances of potential adverse impacts of the proposed project.

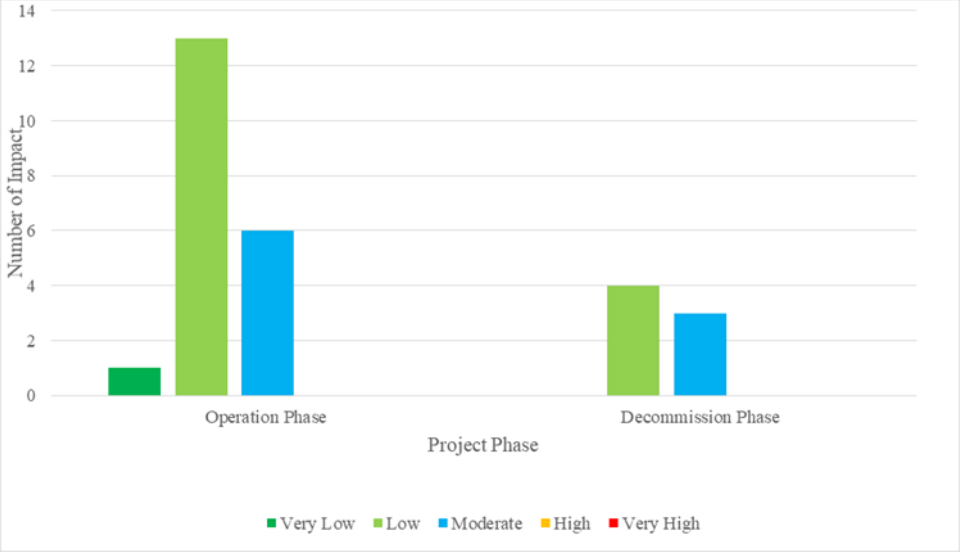


Figure 1 Impact Significance of Potential Adverse Impacts of the Proposed Project

Mitigation measures are important to minimize and reduce these potential negative impacts. They are also described requirements of impacts mitigation tasks and technologies according to the types of impacts scales. However, the proposed project can ensure some positive impacts

such as providing job opportunities, business opportunities, revenue to government, CSR development.

The Environmental Management Plan (EMP) was prepared based on findings of impacts and its significance and designed with the framework of health and safety for all two phases; operation phase and decommission phase of the proposed project. The project proponent must manage the development of the proposed project by implementing the EMP, which is composed of eight parts as follows:

- Environmental Management Plan – identifies potential negative environmental impacts, source of impacts, how to mitigate these impacts and residual impacts after mitigation and responsible persons for construction and operation phases.
- Environmental Monitoring Plan – identifies parameters, frequency and responsible persons to monitor for air quality, water quality, noise level and environmental auditing.
- Occupation Health and Safety Plan – aims to provide safe and healthy working environment for the workers.
- Electrical Hazards Control Plan – aims to protect workers from the potential electrical hazards.
- Fire Emergency Preparedness Plan – aims to protect fire hazards of the proposed project.
- Emergency Response Plan – identify how to overcome emergency cases effectively.
- Corporate Social Responsibility (CSR) Plan – aims to create social welfare for local community and to prove that the implementation of the proposed project is beneficial for not only the project proponent but also for the local community. and
- Grievance Redress Mechanism – identifies the steps to solve complaints related with the proposed project.

Moreover, cost estimation for EMP and EMoP were also described in this report.

It is important to disclose the information about the project during the preparation of EMP report and the opinion of all stakeholders should be considered in the preparation of the EMP report. A focus group discussion was held on 19th May, 2021 at the Industrial Zone Management Committee Office of the Tharkayta Industrial Zone. In addition, the second public consultation meeting was took place on 4th March 2022 with the local people at FLP Tharkayta Company conference room.

This EMP report will be disclosed at the Environmental Conservation Department (Yangon Region), FLP Tharkayta Company Office and E Guard Environmental Services Office and it's website (**http://www.eguardservices.com/disclosure)** to obtain the public opinion on the proposed project.

This project can improve socio-economic conditions of the local communities by introducing the new job opportunities during the operation phase. Even though the potential impacts for the environment are moderate in noise and vibration, solid waste disposal and occupational health and safety, they can be minimized and eliminate by implementing proposed mitigation measures. Project proponent will follow up with the comments and suggestions made by ECD

after reviewing this EMP report. Once EMP is approved by concerned authorities, effective implementation will be carried out by establishing an EMS system which is suited to actual operation of the project. The proponent will abide by environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar.

CHAPTER 2: INTRODUCTION

2.1 Background of the Study

For this proposed project of Warehouse and Office Space Rental, Proponent has been instructed to submit Environmental Management Plan (EMP). According to the Environmental Conservation Law (2012), it is the requirement of every development project in the country to submit an Environmental Management Plan (EMP) or Initial Environmental Examination (IEE) or Environmental Impact Assessment (EIA). It was enacted in the Environmental Impact Assessment Procedure (2015). According to the comments from Environmental Conservation Department (ECD), this proposed project requires EMP to meet the environmental assessment requirements of the Environmental Policy, Environmental Conservation Law and other environmental related rules and procedures. Therefore, We, E Guard Environmental Services Co., Ltd were approached by FLP Tharkayta Co., Ltd. for conducting Environmental Studies and Consultations.

The Project site has three buildings that Building A, Building B and Building C in the area of 2.25 acre (9096 Square meter). All these three buildings purposefully designed to have constructed with Warehouse (Cold and Ambient Storage) and Office Space Rental along with Loading Bay or Loading Dock, which means of Container Loading and unloading area. To be noted that, Cold Storage has not been installed at Building C, but it has Dry storage and Office space. Cold storage, which is having -25 degree Celsius temperature, will be used for storing Pharmaceutical products. Ambient storage space will be given lease for other normal goods, which can be kept in atmosphere temperature.

The proponent has signed for 21 years lease agreement for this construction of 3 buildings using warehouse and office space rental. And MIC investment license, YCDC license, Construction permit were already attained by the proponent (see APPENDIX). Here, Assessment of Environmental impacts and its mitigation measures will only be assessed for its operation phase as its construction already done. If it would have been assessed in its planning stage, the assessment might be having with Site establishment phase and construction phase in addition.

So, This Environmental Management Plan (EMP) report will be drafted with the identification of Environmental Impacts, its mitigation measures and Environmental Monitoring Plan with the mentioning of responsible persons in detail.

The Environmental Monitoring Plan is to evaluate the effectiveness of the mitigation plan and compliance with the regulatory measures in place. Budget Allocation for Management Plan is prepared and monitored by the management team of FLP Tharkayta Co., Ltd including the appointment of responsible person throughout the life cycle of project. Handling and Storage

Plan is to minimize the risk of fires and to maintain a safe path of the warehouse workers when emergency event is occurred.

2.2 Project Proponent

The proposed project type is 99% foreign investment plus 1% local investment and the proponents are Japan nationalities. The project information is attached as follows

The following table shows the summary information of the proposed project.

Table 2.1 Summary of the Project Information

Proposed Project	Warehouse and Office Space Rental
Proponent's name	FLP Tharkayta Company Limited
Citizenship	Japanese
Investment Type	99% Foreign Investment + 1% Local Investment
Capital Investment	US$ 12.465 Million
Investment Period	21 Years
Office Address	No.53/62, Tharkayta Industrial Zone, Tharkayta Township, Yangon Region, Myanmar.
Project Location	No.53/62, Tharkayta Industrial Zone, Tharkayta Township, Yangon Region, Myanmar.
Contact Person	U Maung Maung Hla Moe Director Business Development 09-260253950

2.3 Objective of the Environmental Management Plan (EMP)

The objectives of the Environmental Management Plan (EMP) are to:

- Identify possible impacts from implementation of the proposed project;

- Identify a range of mitigation measures which could reduce and mitigate the potential impacts to minimal or insignificant levels;
- To establish a method of monitoring and auditing environmental management practices during all phases of development;
- Detail specific actions deemed necessary to assist in mitigating the environmental impact of the project;
- Ensure that the safety recommendations are complied with;
- Specify time periods within which the measures contemplated in the final environmental management plan must be implemented, where appropriate.

2.4 Environmental and Social Study Team for Report Preparation

E Guard Environmental Services is preparing this Environmental Management Plan (EMP) Report in line with related Myanmar Environmental Conservation Laws and Regulations. The study for the EMP Report was carried out by the study team on December, 2020. A summary of team member's responsibilities during the study period is described below. The members of the EMP team are listed in Table 2.2 indicating their ECD Registration number, roles in preparing this report and the contact address are shown as follows:

- **E Guard Environmental Services**
- **No.145 (A2-3), Thiri Mingalar Street, 8 Miles, Pyay Road, Mayangone Township, P.O 11062 , Yangon, Myanmar**
- **Tel: +95-1-9667757, +95-1-9653332**
- **Fax: +95-1-666512**
- **info@eguardservices.com**
- **http://www.eguardservices.com**

Table 2.2 EMP Study Team and Their Responsibility

No.	Name	Position	Transitional Consultant Registration Numbers	Roles
	E Guard Environmental Services Co., Ltd.	EIA Organization	00028	
1.	U Soe Min	Consultant/ Team Leader	10067	Project Overall Supervision
2.	U Thawtar Htun	Associate Consultant	Applied	Project Supervision,

				Report Preparation.
3.	Mr. Subbiah Rajaram	Project Associate	-	Report Preparation
4.	U Aung Moe Oo	Project Associate	-	Environmental Quality Measurement, Analysis
5.	U Min Khan Paing	Project Assistant	-	Site Visit, Quality Survey Analysis, Project Support
6.	Daw May Thu Win	Project Assistant	-	Legal, Policy Framework

U Soe Min (Director)

U Soe Min is team leader of the consultant team responsible for successful implementation of the project in all aspects. He is a civil, water resources and environmental engineer. He holds Bachelor of Civil Engineering (Rangoon Institute of Technology, 1984) and Master of Environmental Engineering (Asian Institute of Technology, 2001). He had involved with Water Resources Development Projects in Myanmar and trained in Japan for Irrigation and Drainage Engineering by JICA when he was working for Irrigation Department of Myanmar for 8 Yrs. He had work experiences in Thailand (5 years) and in Singapore (10 years) as civil-water resources-environmental engineer at institute and private companies. He had involved in water resources development projects from investigation and feasibility studies to planning, design and construction, and environmental impact assessments. He has experiences of local and international practices on construction management, contractual documentations, and establishment of environmental data acquisition systems. Taking the role of a local environmental consultant, he is leading the local consultant team, E Guard Environmental Services Co., Ltd., and collaborating with international consultant firms in doing EIA reporting in Myanmar. He had involved as a local consultant to ADB and World Bank supporting capacity-building projects in strengthening environmental safeguard systems in Myanmar.

U Thaw Tar Htun (Associate Consultant)

U Thaw Tar Htun is an Associate Consultant working on EIA project reporting in E Guard Environmental Services Co., Ltd. since 2018. He received Bachelor of Civil Engineering from Taunggyi Technological University in 2011 and Master of Engineering in (International

Graduate Program in Environmental and Water Resources Engineering) from Mahidol University, Thailand in 2016. He had experiences in environmental fields for 6 years including his master degree research, "Mathematical Modelling Wastewater Collection System in Cha-Am Municipality using PCSWMM". His master thesis paper was presented in 3rd International Conference on Civil, Biological and Environmental Engineering Conference, Phukhet, Bangkok. He had worked as a Sub Assistant Engineer at Engineering Department (Water and Sanitation) at Naypyitaw Development Committee, Naypyitaw from August 2012 to October 2017.

Mr. Subbiah Rajaram (Project Associate)

Subbiah Rajaram has been working as a Project Associate in E Guard Environmental Services, since 2019. He got graduated Bachelor of Engineering in the specialization of Electrical and Electronics Engineering from Anna University, India, 2009. From this same university, he got graduation Master of Engineering in the specialization of Energy Engineering in 2011. He worked in Overhead Transmission Line in India for 3 years and Telecom industry in Myanmar for over 4 years. His contribution to the projects in E Guard Environmental Services is being part of the preparation of EIA/EMP/IEE reports and report review.

U Aung Moe Oo (Project Associate)

U Aung Moe Oo is a Project Associate, who received his Bachelor Degree in Chemical Engineering from Western Yangon Technological University in 2016. He has more than two years of experience in environmental quality analysis. He specializes in Environmental Quality such as air quality, water quality, soil quality, noise level, vibration intensity and more. He is also responsible for data analysis and interpretation of environmental baseline data of this project.

U Min Khant Paing (Project Assistant)

U Min Khant Paing is working as a Project Assistant in E Guard Environmental Service since 2019. He has been in many projects with his remarkable contribution in Data Collection, Date Analysis, GIS mapping, in addition Secondary data collection and analysis. He involved in East West Economic Corridor Bridge project for Environmental Management Plan.

Daw May Thu Win (Project Assistant)

Daw May Thu Win has been working as a Project Assistant in E Guard Environmental Services since 2017. She graduated her Bachelor degree in Law from the University of Yangon in the year of 2015. She has been in many projects of E Guard Environmental Services for the preparation of Legal, Policies, and Legislation Procedures concerned with the Myanmar Environmental Rules and Acts.

CHAPTER 3: PROJECT DESCRIPTION

3.1 Location of Proposed Project

FLP Tharkayta Company Limited is located at L.L Town Building B, 4F, No.53/62, Myanmar Gon Gyi Street, Tharkayta industrial zone. Tharkayta Township, Yangon Region. The coordinates of this warehouse is North Latitude 16°48'21.76"N and East Longitude 96°11'57.22"E**.**

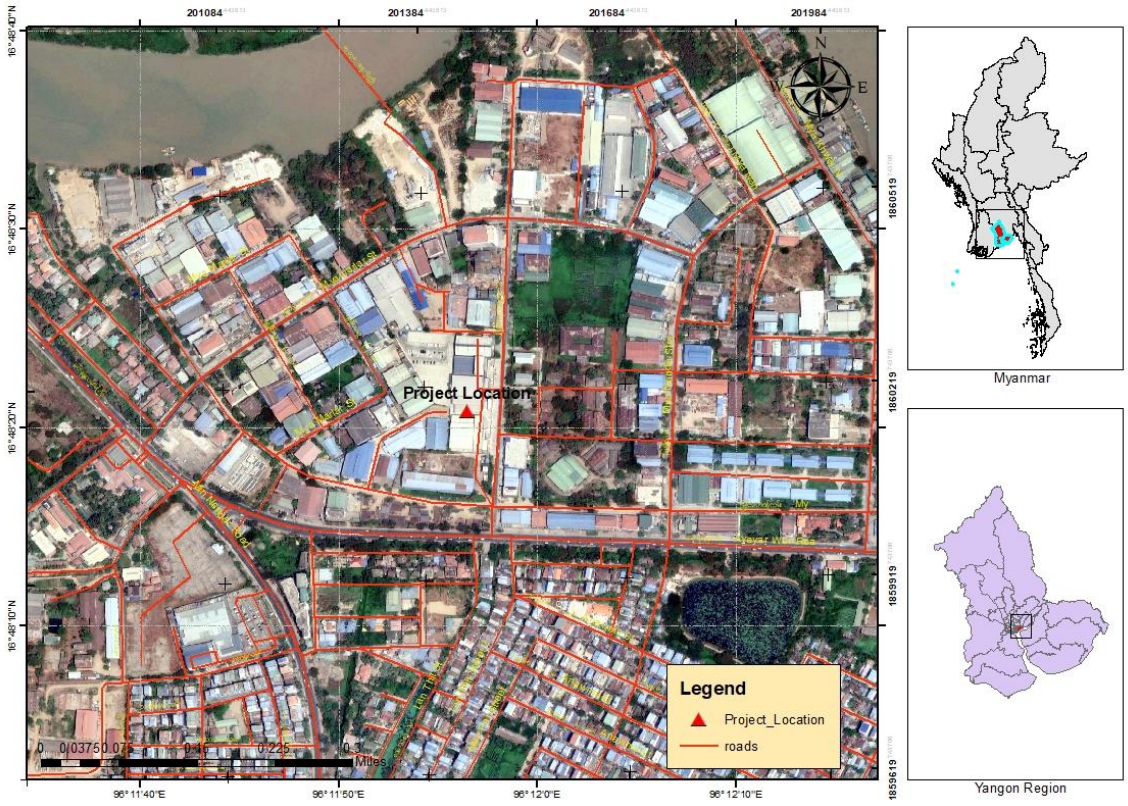


Figure 3.1 Location Map of Warehouse and Office Space Rental Project

3.2 Site Layout Plan and Floor Plan

The overall site layout plan and the floor plan of each building are shown in the following picture.

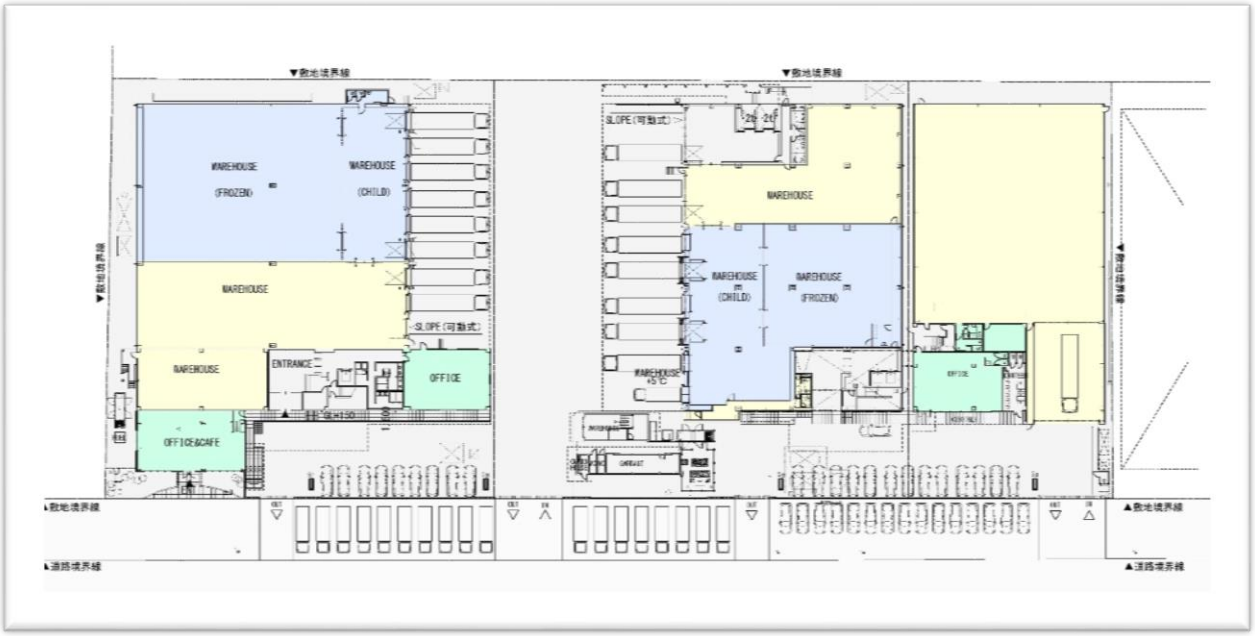


Figure 3.2 Site Layout Plan and Ground Floor Plan

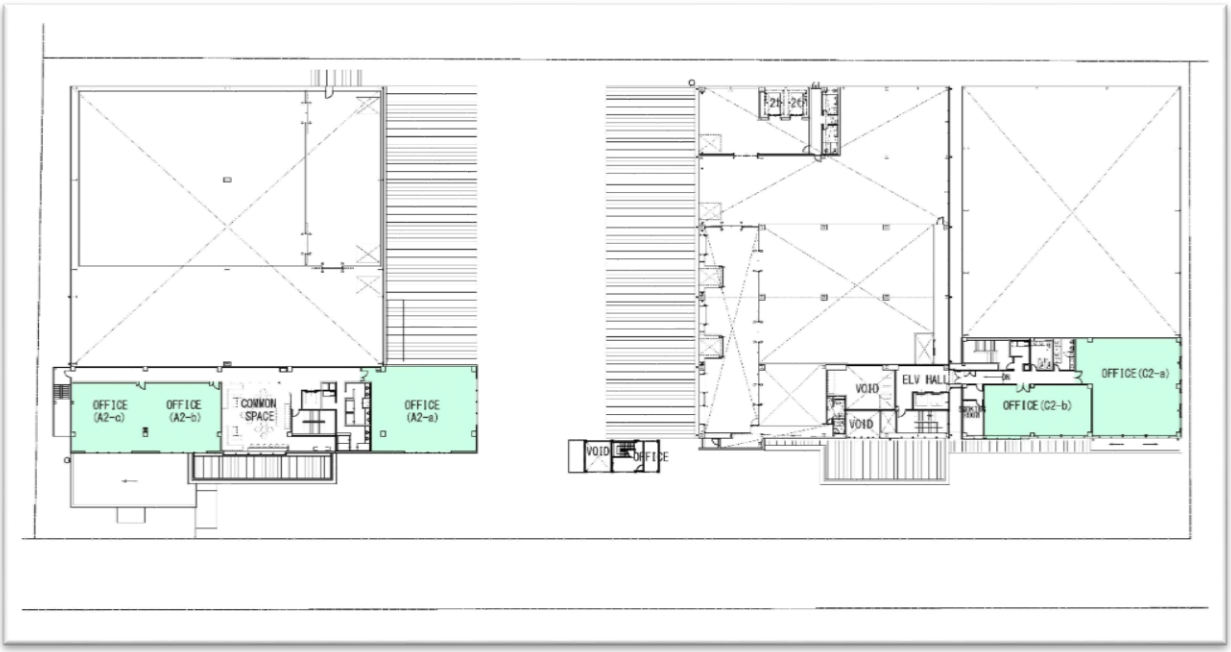


Figure 3.3 First Floor Plan

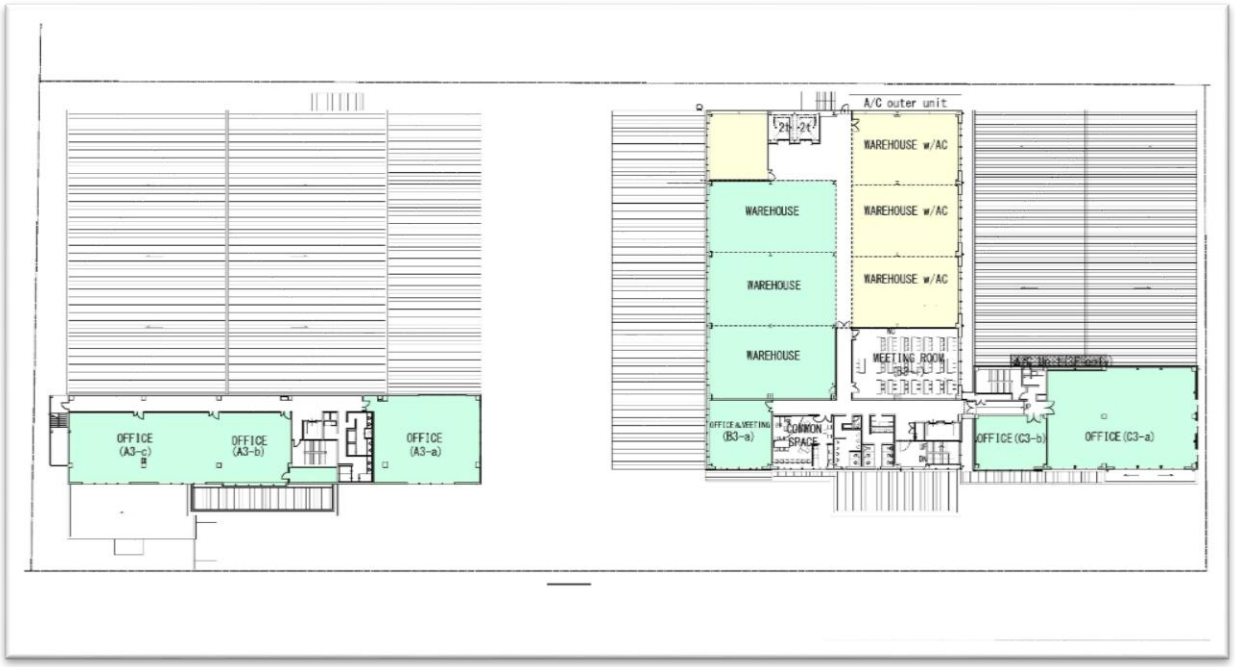


Figure 3.4 Second Floor Plan

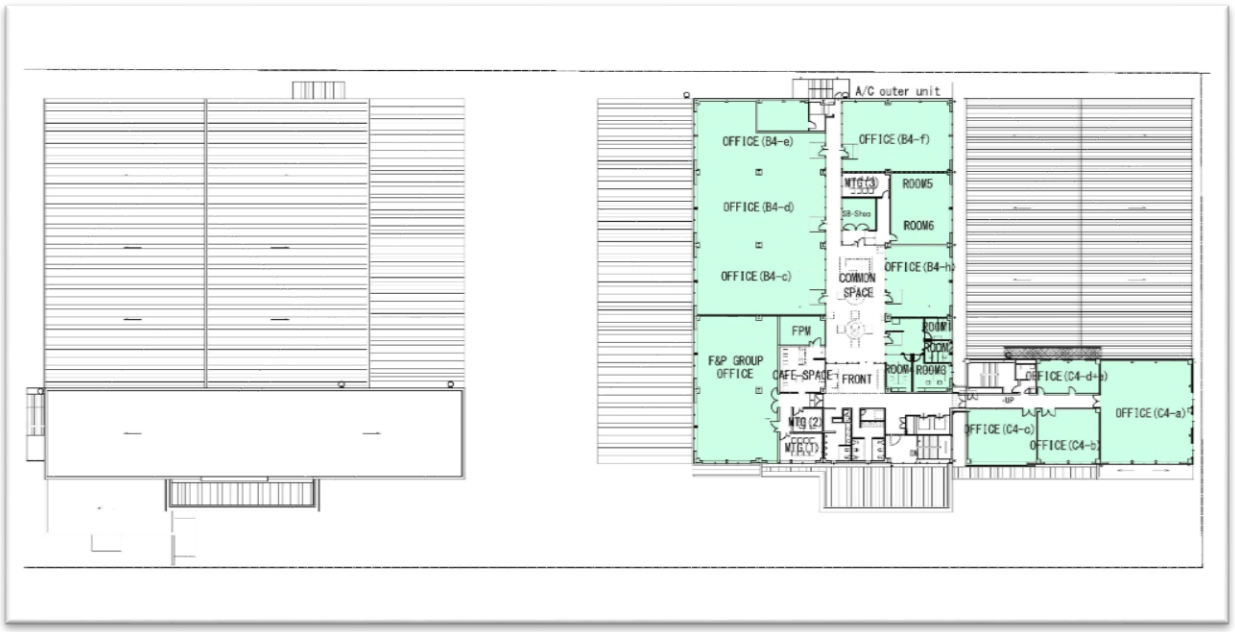


Figure 3.5 Third Floor Plan

3.3 Building Amenities and Its Operation Process

The Project site has three buildings that Building A, Building B and Building C in the area of 2.25 acre (9096 Square meter).

3.3.1 Building A

As mentioned in the introduction, Building A is under construction. Building A, which is of 3499 sq.m, will be serving with its Cold and ambient storage warehouse and office space.

Table 3.1 Building A

Floor	Name of Built Amenity
1 Floor	Cold Storage, Office for Warehouse Rent, Ambient storage and Shop
2 & 3 Floor	Office space for IT Company

Figure 3.6 Front View of the Building A

Figure 3.7 View of the Loading Bay or Loading Dock at Building A

3.3.2 Building B

It is about the area of 3750.9 square meter, having business amenities of cold storage, ambient storage and rental conference room as follows in the table.

Table 3.2 Building B

Floor	Name of Built Amenity
1 Floor	Cold Storage
3 Floor	Warehouse for Good and Parts
4 Floor	Office and Rental Conference Room

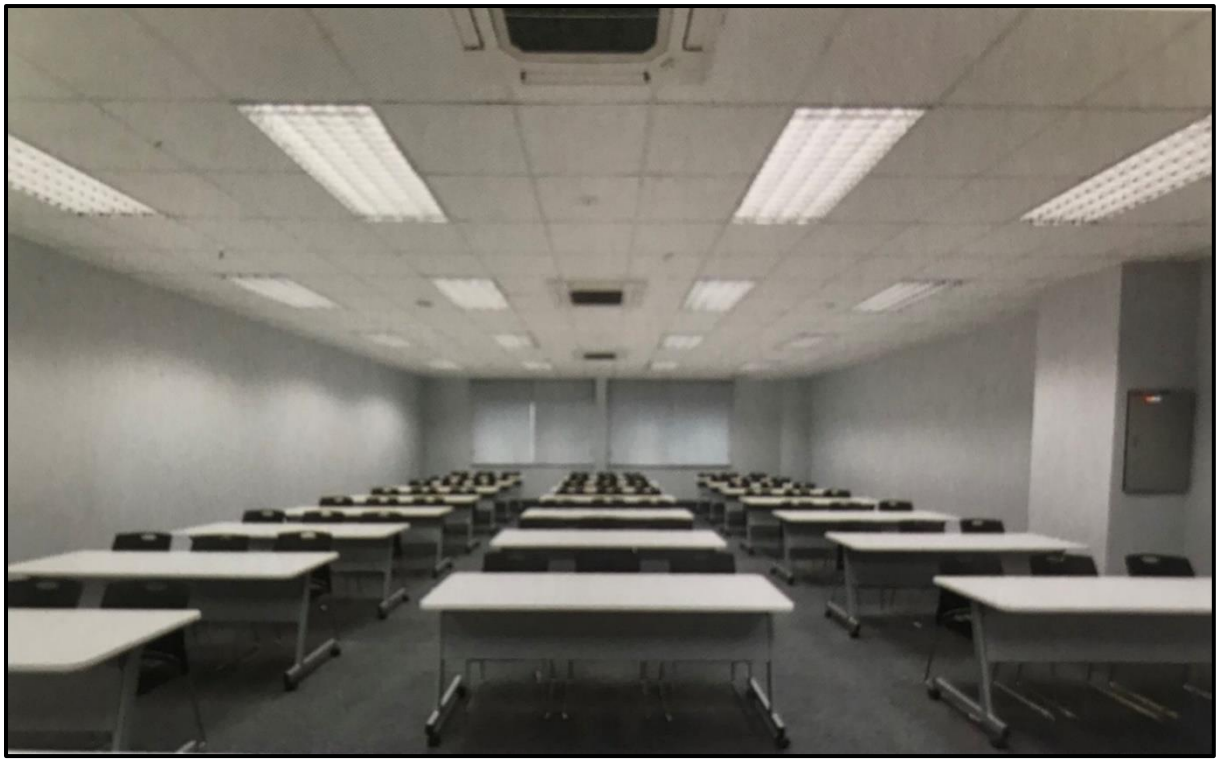


Figure 3.8 Rental Conference Room at Building B

Figure 3.9 View of the Loading Bay (Loading and Unloading Area) at Building B

Figure 3.10 Cold Storage Room at Building B

3.3.3 Building C

Building C have been Built in the area of 1845.7 sq.m, having ambient storage and Office space rental, which are the main amenities in this building as it does not have Cold storage amenity. In addition, Building B and Building C are interconnected through walkway.

Table 3.3 Building C

Floor	Name of Built Amenity
1 Floor	Ambient Storage and Office
2 Floor	Office for 1st Floor Warehouse
3 Floor	Office Space Rental
4 Floor	Office Space Rental

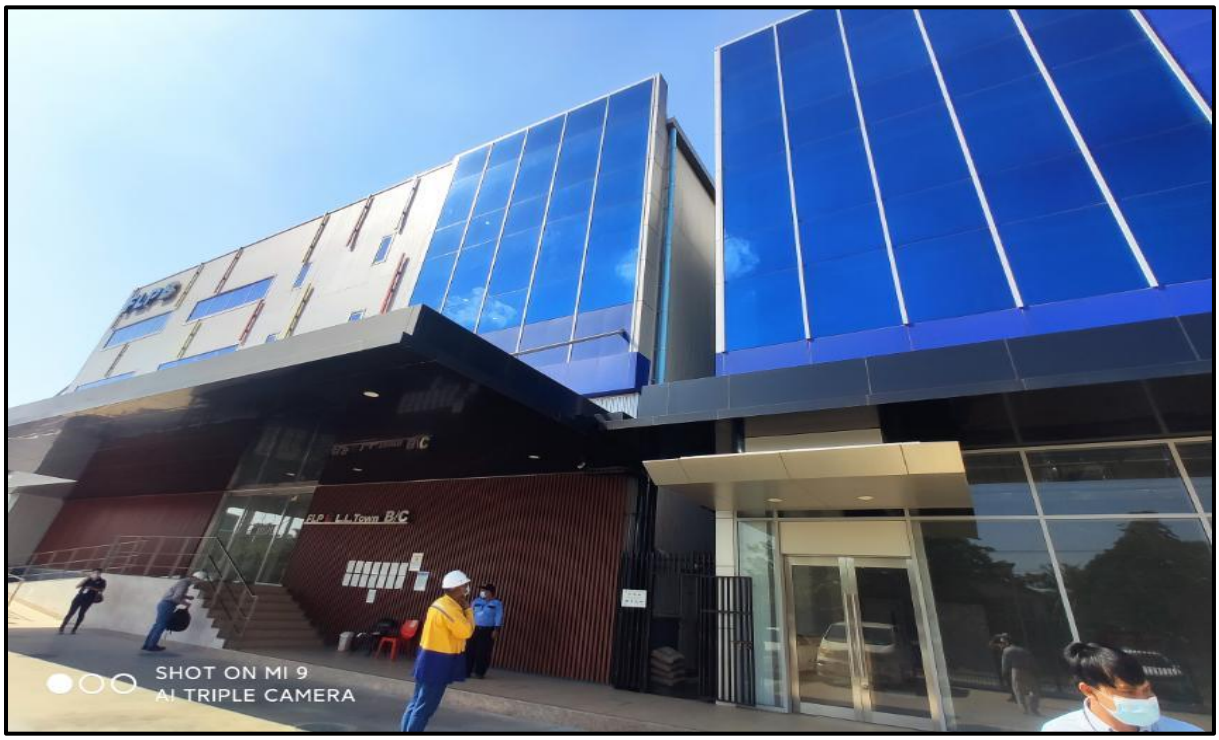


Figure 3.11 View of the Building B and Building C interconnected through Walkway

Figure 3.12 Ambient or Dry Storage Room at Building C

3.3.4 Loading Bay or Loading Dock

The ultimate purpose of having this Loading Bay or Loading Dock in warehousing businesses, deliberately where low temperature must be kept, is that controlling the heat in loading and unloading premises as it seems to be the difficult task when large industrial doors are required to open. Moreover, loading bay shelters and seals are designed to be fitted to external openings, forming a seal around vehicles.

Loading bay can seal the container quickly and it will be helpful for the smoothest operation in warehousing business. Here Cold storage at -25 degree Celsius will be used for storing Pharmaceutical products, So, Loading bay setup will surely improve its efficient operation by controlling Cooling loss.

Dock leveler is the equipment used in loading docks in bottom to ensure that vehicles line up with loading docks. Removing the need for ramps or potentially, forklift trucks, dock levelers provide ideal solution. It can be lifted or dropped to ensure that loading dock is at the same level as any vehicle that goods will be loaded into or unloaded from.

Figure 3.13 Loading Bay in Container Loading and Unloading Area at Cold Storage

Figure 3.14 Dock Leveler installed in Loading Bay

3.3.5 The Basic Operation Process of Cold Storage and Warehousing

Cold Storage and Warehousing is not only concerned with storage facility it is also involved in various other activities like receiving, identifying, holding, assembling and preparing available to meet the demand. Warehousing involve three major activities:

- Inbound Activities
- Process Activities
- Outbound Activities

Figure 3.15 Three major activities of warehousing

3.3.5.1 Inbound Activities

Receiving

Unloading and checking the shipment: The number of containers or package of materials unloaded from the carrier's vehicle is checked against the carrier's manifest to ensure that all the full consignment or order has been delivered.

Unpacking and inspecting the material: A receiving clerk is held responsible for three verification. First, he or she checks the material received against the supplier's packing slip and against a copy of the firm's purchase order to verify that the correct items have been shipped. Second, the quantity of the shipment is verified in the same manner. Finally, the clerk inspects the general condition of the material to determine whether any external damage was incurred during shipment.

Completion of the receiving report: When the receiving clerk has finished the inspection, he or she completes the form by recording the quantities of the items received, indicating those that are still open, and noting any other useful information on the form. Regardless of the system used, four operation groups generally require notification that the material has been received: the requisitioner, the purchasing department, the accounting department, and the inspection department if technical inspection if required.

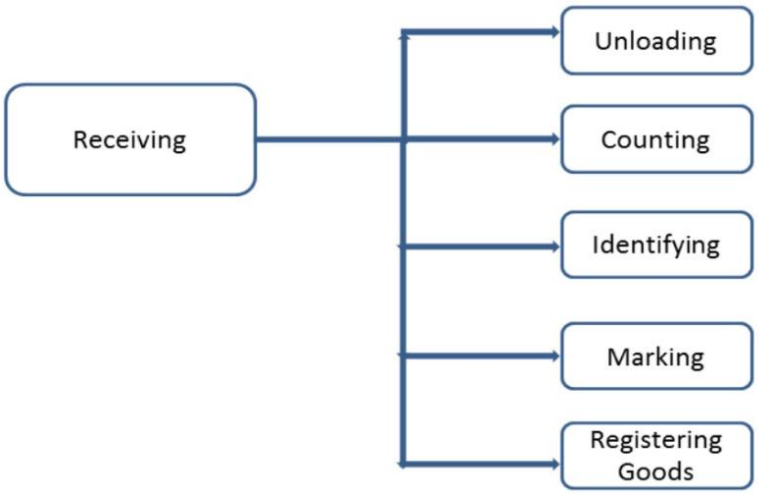


Figure 3.16 The activities include in receiving

Put-away

During the put-away process the warehouse staff scans the bar code from the pallet and according to instructions moves it on given address. The second put-away method enables to let the selection of warehouse location on warehouse staff who only by scanning the address from the rack notifies the system where the goods has been stored.

3.3.5.2 Process Activities

The process activities include the following sub-activities-

Order Picking: It is the process of pulling items from inventory to fill a customer order. It is seen as the most labor intensive activity within a warehouse. There are many order picking methods. These include:

- Zone Picking – Each order picker is assigned a specific zone and will only realize order picking within this zone.
- Batch Picking – An order picker is assigned and picks batch wise orders.
- Wave Picking – A variation of zone and batch picking. Rather than orders moving from one zone to the next for picking, all zones are picked at the same time and the items are later sorted and consolidated into individual orders/shipment.

Replenishment: It is the movement of inventory from upstream to downstream. The purpose of replenishment is to keep inventory flowing through the supply chain by maintaining efficient order. The process helps prevent costly inventory overstocking.

Stock Rotation: To rotate stock means to arrange the oldest units in inventory so they are sold before the newer units. For example, a grocery store will restock its shelves by putting the oldest units in the front part of the shelves. The newest units will be placed in the back of the shelves. The hope is that customer will select the most convenient (older) units from the front of the shelf. It is important to rotate stock in all areas: retail display area, warehouse, factory, etc. The reason to rotate stock is to reduce the losses from deterioration and obsolescence.

3.3.5.3 Outbound Activities

Packing: The primary task for packing is to minimize damage that could occur after an item has left the production line. In the warehouse the item is subject to a variety of situations where damage could occur. Forklifts can drop materials, they can fall from conveyor belts, or fall from broken pallets. In each of these instances, the packing has to be designed so that it will protect the item from damage, but light enough so that it does not increase the weight of the finished good so much that the shipping costs are significantly increased. In addition the packing must protect the item from environmental damage, such as extreme temperature, water damage, contamination with other goods, or damage from static, which is important for electronic items.

Dispatching: The successful art of dispatch lies in the operation's ability to have goods ready for departure, just in time for carriers to load their trucks. The DC manager must therefore balance and forecast packing and dispatching according to carrier pick-up times. Goods that are ready too early, for example, will clutter staging areas, while dispatches that are late, will delay loading and potentially cause late deliveries. As indicated earlier, many firms resort to using their systems to release orders, for picking and packing in waves, aligned to specific delivery routes or carrier types. Use of Materials, Resources, Generation of Waste, Emission and Disturbances.

3.3.6 Water Usage

For the general usage and cleaning purposes for all warehouses, capacity and domestic use of 12000 liters water treatment plant has been installed in the compound. Municipality water supply as main water source for the needs in amenities, is stored in the underground tank before this water getting treated.

The maximum water usage was calculated and it's shown in the following table. The calculation sheet are attached in Appendix 7.

Table 3.4 Water Usage

	Water Usage (litre/day)		
Building	**Daily**	**Monthly**	**Yearly**
Building A	20400	612000	7344000
Building B	26200	786000	9432000
Building C	21710	651300	7815600
Total	**68310**	**2049300**	**24591600**

Figure 3.17 A 12000 liter Capacity of Water Treatment Plant Installed

3.3.7 Electricity Usage

The main power source for the amenities is from the YESC supply. A 1000 KVA transformer has been installed. There are three diesel generators 400 KVA, 364 KVA and 275 KVA for Building A, Building B and Building C respectively for standby purposes in case of electricity shortage. The average electricity usage per month is estimated about 100,000 units. In order to reduce electricity usage, the factory will use electricity saving program such as power off if no need to use. The major sources of fuel usage are for vehicles and generators. The average daily fuel consumption is about 30 gallons. The monthly and yearly fuel consumption would be 1110 gallons and 13320 gallons respectively. As the fuel consumption depend on the availability of the power from the YESC supply, it cannot be accurately estimated.

Figure 3.18 A 1000 KVA Transformer Installed

3.3.8 Generation of Waste

As expected, through cleaning activities in cold storage as well in ambient storage, it may be generated in the form of Effluents of complex mixture. It should be considered as hazardous waste, which has to be treated well and to be dumped carefully. The wastewater treatment system with the capacity of 60 m^3/day has installed in the compound. The detailed of the wastewater treatment system is described in the following.

In addition, there will be generation of solid wastes likely packaging wastes, office wastes and raw material wastes, those are harmless, can be called Non Hazardous wastes. Probably, these wastes can be dumped in dust bins, which are being kept near the warehouse, and will be collected by the YCDC weekly as shown in Figure 3.19.

Moreover, there may be considerable amount of waste generation by the workers, which is called as occupational waste. It could be collected through placing Dust bin at appropriate places inside amenities. Those dust bins would be likely Degradable and Non Degradable bins.

However, Proponent must have Proper solid waste management plan and water usage control plan for further implementation.

The generation of solid waste and the treated wastewater is shown in Table 3.5.

Table 3.5 The Amount of Treated Wastewater and Solid Waste

Treated Wastewater (m^3)			Solid Waste (kg)		
Daily	**Monthly**	**Yearly**	**Daily**	**Monthly**	**Yearly**
12	360	4320	23	690	8280

Locations No.	Points	Coordinate	Locations
Treated Wastewater Discharge Locations			
1.	Ww	Lat- 16.8061728 N, Long- 96.1993974 E	

Figure 3.19 Solid Waste Collected by YCDC

3.3.9 Wastewater Treatment System

FLP Tharkayta Co.,Ltd. was installed the wastewater treatment system called Aeromax Pre-Disposal Treatment, which has a capacity of 60 m^3/day. The Aeromax can treat the wastewater having influent concentration of 250 mg/l BOD and 300 mg/l SS into effluent concentration of 20 mg/l BOD and 30 mg/l SS.

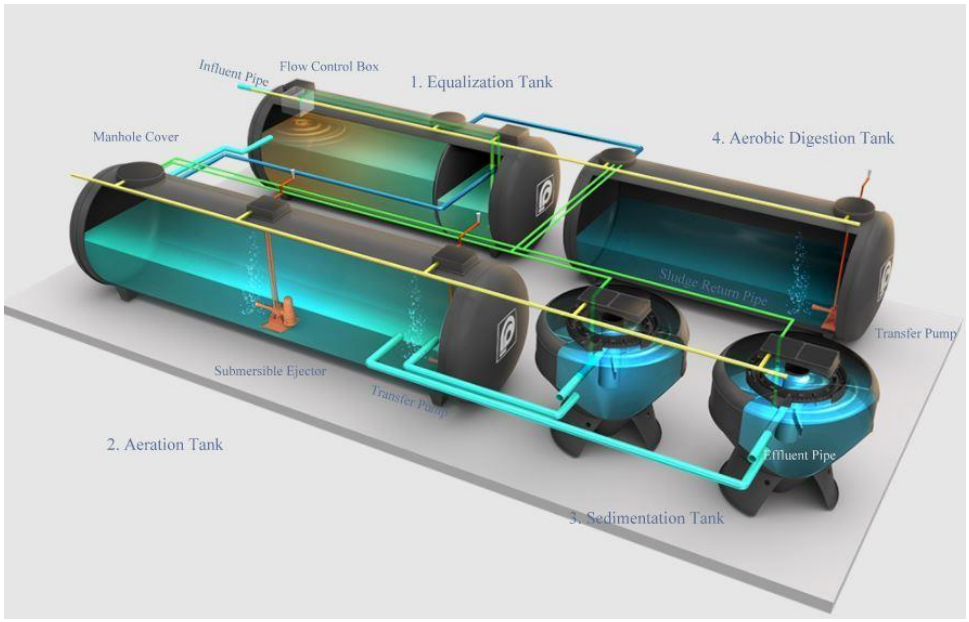


Figure 3.20 Aeromax Pre-Disposal Treatment System

Aeromax's Activated Sludge process is compact and highs efficiency, it is the ideal means to produce effluent to control pollution. The fiber-glass tank used in treatment is manufactured according to high-quality standards that ensure its durability and de-cades of lifespan. Other components of the system such as pumps and ejectors are selected for their efficiency, save maintenance cost and minimal energy demands.

Process Description

The Aeromax Tank System. This system consists of 4 parts:

1) Equalization Tank (EQ)
2) Aeration tank (AE)
3) Sedimentation Tank (SED)
4) Aerobic Digestion Tank (AD)

After passing through a primary rubbish screen, the wastewater is released into the Equalization Tank, which removes settleable and suspended solids. The water is then pumped into a flow Control Box in order to maintain its rate of flow and density while being aerated in the aeration tank. By this process of ACTIVATED SLUDGE, micro-organisms suspended in the water on the surface of organic matter are thoroughly exposed to and dissolved in the water, thereby reducing their polluting capacity. The sedimentation tank is consequently employed to separate these micro-organism from the water. Most of the sediment will be returned to the aeration tank as sludge. While the excess will be aerobically accumulated within the system. The water has passed through this Aeromax system is at last safe enough to be released into public waterways.

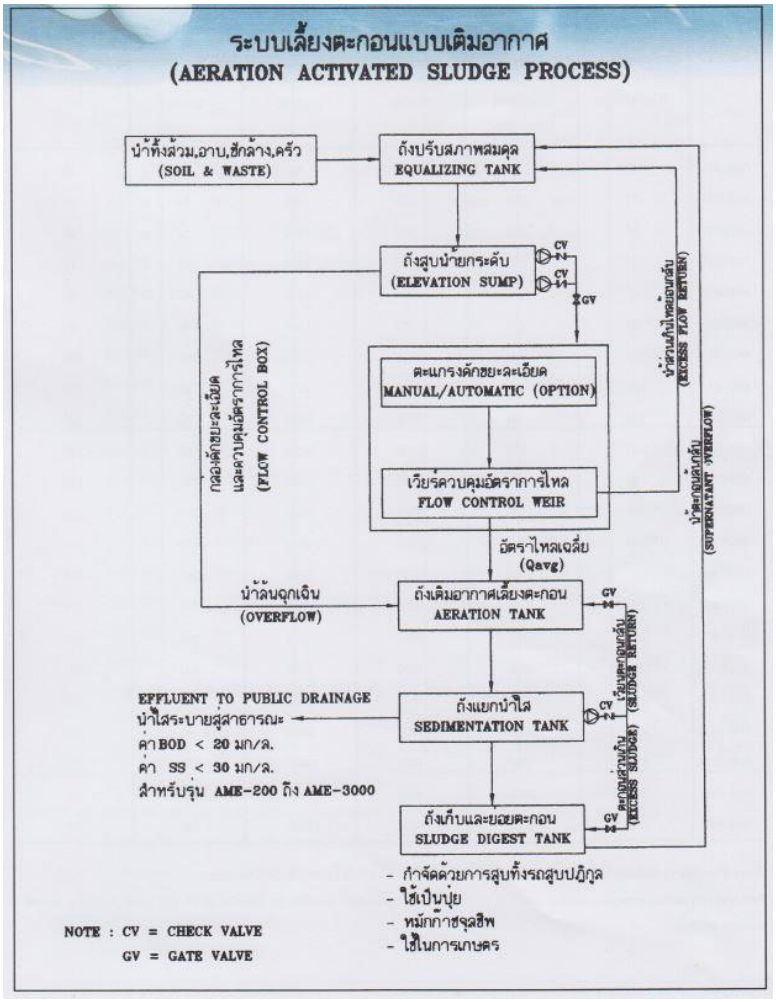


Figure 3.21 The Flow Diagram of the Aeromax

The calculation sheet of installed wastewater treatment system is shown in Figure 3.22.

CALCULATION SHEET OF SEPTIC TANK				
W_{ST}	=	Wn + Wc	57.16	(m3)
W_n	=	Water volume of septic tank	15	(m3)
Wc	=	Sediment volume of septic tank.	42.16	(m3)
W_n	=	N * a * n /1,000	15	(m3)
N	=	Person per shift	600	(persons/shift)
a	=	Standard of using water	25	(l/person.shift)
n	=	Shift of Working	1	(shift)
W_c	=	(a.T.(100 – W1).b.c)N/((100 – W2).1000)	42.16	(m3)
a	=	Sediment unit (0.5l/person.day).	0.5	(l/person.day)
T	=	Period of time between 2 times getting sediment (180 days).	365	(day)
W1	=	Moisture of raw sediment (=95%).	95	(%)
W2	=	Moisture of sediment after fermentation (=90%).	90	(%)
b	=	Coeff of Reducing sediment after fermentation (=0.7)	0.7	
c	=	Coeff of Remaining sediment (=1.1)	1.1	
N	=	Number of persons in factory	600	(persons)
Total	=	Total design volume of septic tank	57.0	[m^3]

Figure 3.22 Calculation Sheet of Wastewater Treatment System

3.3.10 Analysis of Emissions by Business Activities

Since Material have been transported till material dispatched, every activity here will be emitting pollution. Air Conditioning load of Building A (213 KW) and Building B (120 KW) together 333KW will be the main spot of the generation of pollution of overall business activities.

Table 3.6 Analysis of Emission by Business Activities

Business Activity		Energy Consumed	Emissions
Freight	Transportation	Gasoline, Diesel, Compressed Natural Gas, Liquefied Petroleum Gas, Electricity	CO2, CO, SO2, NOX, PM
Distribution	Loading, Unloading, Handling	Gasoline, Diesel, Electricity	CO2, CO, SO2, NOX, PM
	Storage	Electricity, Diesel	CO2, CO, SO2, NOX, PM
	Selecting, Picking Up, Packaging	Electricity	CO2, SO2, NOX, PM

3.4 Equipment and Manpower Requirement

The list of equipment are shown in Table 3.7.

Table 3.7 The List of Equipment

S.No	Operation	Equipment	Unit	Capacity
1	Warehouse	Cargo Lift	No.	2
		Dock Leveler	No.	7
		Air Shelter	No.	5
		Dock Shelter	No.	17
		Roller Shelter	No.	2

The warehouse and office space rental project of FLP Tharkayta Co., Ltd. will run the business operation with 8 core employees as shown in Table 3.8. The operation hours will be 8:00 AM to 17:00 PM. The business will run year-round except official holiday, Saturday and Sunday.

Table 3.8 Manpower at FLP Office

Position	Number of employees
Director	1
Operation Staff	7
Total	**8**

CHAPTER 4: POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK

4.1 Introduction

This section reviews the relevant policies, legislations, and institutional framework of Myanmar and International guidelines relevant in the context of environmental and socioeconomic aspect of the project. The activities carried out under the project are subject to these legal requirements.

1. The Environmental Conservation Law (2012)
2. The Environmental Conservation Rule (2014)
3. Environmental Impact Assessment Procedure (2015)
4. National Environmental Quality (Emission) Guidelines (2015)
5. Myanmar National Environmental Policy (2019)
6. Myanmar Investment Law (2016)
7. Foreign Investment Rules (2013)
8. The Law Amending The Prevention and Control of Communicable Disease Law (2011)
9. Prevention of Hazards from Chemical and Related Substances Law (2013)
10. The Control of Smoking and Consumption of Tobacco Product Law (2006)
11. Myanmar Fire Brigade Law (2015)
12. Motor Vehicles Safety and Management Law (2020)
13. The Myanmar Insurance Law (1993)
14. The Public Health Law (1972)
15. The Labour Organization Law (2011)
16. The Settlement of Labour Dispute Law (2012)
17. The Development of Employment and Skill Law (2013)
18. The Minimum Wages Law (2013)
19. The Payment of Wages Law (2016)
20. Workmen's Compensation Act (1923)
21. The Leaves and Holiday Act (1951)
22. Social Security Law (2012)
23. Occupational Safety and Health Law (2019)
24. The Rights of National Races Law (2015)
25. The Petrol and Petroleum Product Law (2017)
26. Import and Export Law (2012)
27. The Underground Water Act (1930)
28. The Electricity Law (2014)
29. Natural Disaster Management Law (2013)
30. Consumer Protection Law (2019)

31. The City Of Rangoon (Yangon) Municipal Act (1922)
32. The City Of Yangon Development Law (1990)
33. Yangon City Development Council Law (2018)
34. The Factory Act (1951)

4.2 The Environmental Conservation Law (2012)

Purpose: To construct a healthy and clean environment and to conserve natural and cultural heritage for the benefit of present and future generations; to maintain the sustainable development through effective management of natural resources and to enable to promote international, regional and bilateral cooperation in the matters of environmental conservation.

- The project proponent has to pay the compensation for damages if the project will causes injuries to environment, under the sub-section (o) of section 7 of said law.
- The project proponent has to purify, emit, dispose and keep the polluted materials in line with the stipulated standards, under section 14 of said law
- The project proponent has to install or use the apparatus, which can control or help to reduce, manage, control or monitor the impacts on the environment, under section 15 of said law.
- The project proponent has to allow relevant governmental organization or department to inspect whether performing is conformity with the terms and condition included in prior permission, issued by the ministry, or not, under section 24 of said law.
- The project proponent has to comply with the terms and conditions included in prior permission, under section25 of said law.
- The project proponent has to abide by the stipulations included in the rules, regulation, by-law, order, notification and procedure issued by said law, under section 29.

4.3 The Environmental Conservation Rule (2014)

- The project proponent has to avoid emit, discharge, or dispose, direct to discharge or dispose the materials which can pollute to environment, or hazardous waste or hazardous material prescribed by notification in the place where directly or indirectly injure to public, under sub- rule (a) of rule 69.
- The project proponent has to avoid performing to damage to ecosystem and the environment generated by said ecosystem, under sub-rule (b) of rule 69.

4.4 Environmental Impact Assessment Procedure (2015)

- The project proponent has to be liable for all adverse impacts caused by doing or omitting of project owner or contractor, sub-contractor, officer, employee,

representative or consultant who is appointed or hired to perform on behalf of project owner, under sub-paragraph (a) of paragraph 102.

- The project proponent has to support, after consultation with effected persons by project, relevant governmental organization, governmental department and other related persons to resettlement and rehabilitation for livelihood until the effected persons by the project receiving the stable socio-economy, which is not lower than the status in pre-project, under sub-paragraph (b) of paragraph 102.
- The project proponent has to implement fully all commitments of project and conditions included in EMP. Moreover the project proponent has to be liable for contractor and sub-contractor who perform on behalf of him/her have to fully abide by the relevant laws, rules, this procedure, EMP and all conditions, under paragraph 103.
- The project proponent has to be liable and fully & effectively implement all requirements included in ECC, relevant laws and rules, this procedure and standards under rule 104.
- The project proponent has to inform the completed information, after specifying the adverse impacts caused by the project, from time to time, under paragraph 105.
- The project proponent has to continuously monitor all adverse impacts in the pre-construction phrase, construction phrase, operation phrase, suspension phrase, closure phrase and post-closure phrase, moreover has to implement the EMP with abiding the all conditions included in ECC, relevant laws & rules and this procedure, under paragraph 106.
- The project proponent has to submit, as soon as possible, the failures of his or her responsibility, other implementation, ECC or EMP. If dangerous impact caused by this failure or failure should be known by the Ministry the project proponent has to submit within 24 hours and other than this situation has to submit within 7 days from knowing it, under paragraph 107.
- The project proponent has to submit the monitoring report semiannually prescribed time by Ministry in line with the schedule of EMP, under paragraph 108.
- The project proponent has to prepare the monitoring report in accord with the rule 109.
- The project proponent has to show this monitoring report in public place such as library, hall and website and office of project for the purpose to know this report by public within 10 days from the date, which the report is submitted to the Ministry. Moreover has to give the copy of this report, by email or other way which way agreed with the asked person, to any asked person or organization, under paragraph 110.
- The project proponent has to allow inspector to enter and inspect in working time and if it is needed by Ministry has to allow inspector to enter and inspect in the office and work place of project and other work place related to this project in any time, under paragraph 113.

- The project proponent has to allow inspector to immediately enter and inspect in any time if it is emergency or failure to implement the requirements related to social or environment or caused to it, under paragraph 115.
- The project proponent has to allow inspector to inspect the contractor and sub-contractor who implements on behalf of project, under paragraph 117.

4.5 Nation Environmental Quality (Emission) Guidelines (2015)

- The project proponent has to emit, discharge (or) dispose anything in line with the standards stipulated in said guideline.

4.6 Myanmar National Environmental Policy (2019)

- Mission: To achieve a clean environment, with healthy and functioning ecosystems, that ensures inclusive development and wellbeing for all people in Myanmar.
- Vision To establish national environmental policy principles for guiding environmental protection and sustainable development and for mainstreaming environmental considerations into all policies, laws, regulations, plans, strategies, programs and projects in Myanmar.

4.7 Myanmar Investment Law (2016)

Purpose: To ensure the appointing of employees, fulfilling the rights of employees, avoiding any injury to environment, social and cultural heritage, insure the prescribed insurance in line with the above law. This law focuses as follows,

- The project proponent has to register the land lease contract at the specific registration office, under sub-section (d) of section 51 of said law. (if the land lease contract is needed)
- The project proponent has to appoint the nationalities in the various levels of administrative, technical and expert work by the arrangement to develop their expertise, in line with the sub-section (b) of section51of said law.
- The project proponent has to appoint the nationalities only in normal work without expertise, in line with the sub-section (c) of section51of said law.
- The project proponent has to appoint either foreigner or nationality with the appointment agreement in accord with the law, in line with the sub-section (d) of section51of said law.
- The project proponent has to comply with the international best practices, existing laws, rules and procedures to not damage, pollute, and injure to environment, cultural heritage and social, in line with the sub-section (g) of section65of said law.
- The project proponent has to close the project after paying the compensation to the employees in accord with the existing laws if violates the appointment

agreement or terminate, transfer or suspend the investment or reduce the number of employees , in line with the sub-section (i) of section65of said law.

- The project proponent has to pay the wages or salary to the employees in accord with the laws, rules, order and procedures in the suspension period, in line with the sub-section (j) of section65of said law.
- The project proponent has to pay the compensation or injured fees to the respected employees or their inheritors if injury in or loss of part of body or death caused by work, in line with the sub-section (k) of section 65of said law.
- The project proponent has to stipulate the foreign employees to respect the culture and custom and abide by the existing laws, rules, orders, directives, in line with the sub-section (l) of section65of said law.
- The project proponent has to abide by labor laws, in line with the sub-section (m) of section65of said law.
- The project proponent has to pay the compensation to the injured person for damages if damages of environment or socio-economy are occurred by misuse of project, in line with the sub-section (o) of section 65of said law.
- The project proponent has to allow to inspect in anywhere of project if Myanmar Investment Commission inform to inspect the project, in line with the sub-section (p) of section 65 of said law.
- The project proponent has to obtain the permission of MIC before EIA process and report this process to MIC, in line with the sub-section (q) of section 65 of said law.
- The project proponent has to insure the prescribed insurance by rules, under section 73 of said law.

4.8 Foreign Investment Rules (2013)

The promoter or investor shall:

(a) comply with Environmental Protection Law in dealing with environmental protection matters related to the business;

(b) shall carry out socially responsible investment in the interest of the Union and its people;

(c) shall co-operate with authorities for occasional or mandatory inspection;

(d) shall exercise due diligence to be in conformity and harmony with norms and standards prescribed by relevant Union Ministry in conducting construction of factories, workshops, buildings, and other activities;

(e) shall enforce Safety and Health under rule 54 of said rule.

4.9 The Law Amending The Prevention and Control of Communicable Diseases Law (2011)

Purpose: To ensure the healthy work environment and prevention the communicable diseases by the cooperation with the relevant health department.

- The project proponent has to build the housing in line with the health standards, distribute the healthful drinking water & using water and arrange to systematically discharge the garbage and sewage, under clause (9) of sub-section (a) of section 3 of said law.
- The project proponent has to abide by any instruction or stipulation by Department of health and Ministry of Health, under section 4 of said law.
- The project proponent has to inform promptly to the nearest health department or hospital if the following are occurred; (under section 9)
    a. Mass death of animals included in birds or chicken;
    b. Mass death of mouse;
    c. Suspense of occurring of communicable disease or occurring of communicable disease;
    d. Occurring of communicable disease, this must be informed.
- The project proponent has to allow any inspection, anytime, anywhere if it is need to inspect by health officer, under section 11 of said law.

4.10 Prevention of Hazards from Chemical and Related Substances Law (2013)

Purpose: To ensure to use the hazardous chemical and related substances safely and safety for the employees. Moreover, safety in carrying the hazardous chemical and related substances and storage place of it. If it is needed to train how to use the safety dresses, which provided to the employees with free of charges. Insure to compensate for injury to person or damage to environment. The project has to be inspected for safety use of hazardous chemical and related substances before starting the project.

- The project owner will be inspected for the safety and resistance of the machinery and equipment by the respective Supervisory Board and Board of Inspection before starting the business under sub-section (a) of section 15 of said law.

- The project owner will assign the employees, who will serve with the hazardous chemical and substances, to attend the trainings on prevention of hazardous chemical and substances in local or abroad under sub-section (b) of section 15 of said law.

- The project owner will abide by the conditions included in the license under sub-section (a) of section 16 of said law.

- The project owner will abide by and assign to the employees who serve in this work to abide by the instructions for safety in using the hazardous chemical and related substances under sub-section (b) of section 16 of said law.

- The project owner will arrange the enough safety equipment in the work place and provide the safety dresses to the employees who serve in this work with free of charge under sub-section (c) of section 16 of said law.

- The project owner will train, in work place my arrangement, the know how to use the occupational safety equipment, personal protection equipment and safety dresses systemically in the work place under sub-section (d) of section 16 of said law.

- The project owner will allow the receptive Supervisory Board and Board of Inspection to inspect whether the hazard may be injured to health of human, animal, or damaged to environment under sub-section (e) of section 16 of said law.

- The project owner will assign the healthy employees who have obtained the recommendation that is fit for this work after taken medical check- up and keep systematically the medical records of employees under sub-section (f) of section 16 of said law.

- The project owner will inform the copy of storage permission for hazardous chemical and related substances to the relevant township administrative office under sub-section (g) of section 16 of said law.

- The project owner will obtain the approval with instructions of relevant fire force before starting the work if the project will use the fire hazard substances or explosive substances under sub-section (h) of section 16 of said law.

- The project owner will transport only the limited amount of the chemical and related substance in accord with the prescribed stipulations in local transportation under sub-section (i) of section 16 of said law.

- The project owner will insure, in accord with the stipulations, to pay the compensation if the project cause injury to person or animals or damage to environment under section 17 of said law.

- The project owner will abide by the conditions included in the registration certificate. Moreover will abide by the orders and directives issued by the Central Supervisory Board from time to time under section 22 of said law.

- The project owner will classify the level of hazard to protect it in advance according to the properties of chemical and related substances under sub-section (a) of section 27 of said law.

- The project owner will provide the safety equipment, personal protection equipment to protect and reduce the accident and assign to attend the training to use the equipment systematically under sub-section (c) of section 27 of said law.

- The project proponent has to abide any regulation contained in license and any regulation contained in license and any regulation contained in certificate under section 30 of said law.

4.11 The Control of Smoking and Consumption of Tobacco Product Law (2006)

Purpose: To ensure the creation of smoking area and non-smoking area in the power plant area for health and control of smoking.

- The project proponent has to keep the caption and mark referring that is non-smoking area in the project area under sub-section (a) of section 9 of said law.
- The project proponent has to arrange the specific place for smoking in the project area, keep the caption and mark in accordance with the stipulations under sub-section (b) of section 9 of said law.
- The project proponent has to supervise and carry out the measures so that no one shall smoke at the non-smoking area under sub-section (c) of section 9 of said law.
- The project proponent has to allow the inspection of supervisory body in the power plant area, under sub-section (d) of section 9 of said law.

4.12 Myanmar Fire Brigade Law (2015)

Purpose: To ensure to prevent the fire, to provide the precautionary material and apparatuses, if the fire caused in the project area to be defeated because the project is business in which electricity and any inflammable materials such as petroleum are used. Therefore, the project owner has to institute the specific fire service in line with the above law. This law focuses the following

- The project proponent has to institute the specific fire services if it is needed, under sub-section (a) of section 25.
- The project owner has to provide materials and apparatuses for fire precaution and prevention, Sub-section (b) of section 25.

4.13 Motor Vehicles Safety and Management Law (2020)

Purpose: When the construction period and if it is needed in operation and production period for the all vehicles.

- The project proponent has to comply with the restrictions and restrictions on the use of domestic vehicles by the Ministry of Transport and Communications with the approval of the Union Government under sub-section (a) of section 9 of said law.

- The project proponent has to comply with safety, environmental regulation, standards and regulations regarding the initial registration of vehicles issued by the Ministry under sub-section (c) of section 12 of said law.

- The project proponent has to drive at the speed limit set by the Road Transport Directorate to ensure the safe movement of vehicles on public roads under sub-section under sub-section (r) of section 14 of said law.

- The project proponent has to maintain the vehicles in accordance with the standards set by the Department so that it can be driven safely under sub-section (a) of section 18 of said law.

- The project proponent has not to carry or transport hazardous materials in public places in accordance with the regulations under sub-section (g) of section 81 of said law.

4.14 The Myanmar Insurance Law (1993)

Purpose: The project can cause the damages to the environment and injuries to public so to ensure the needed insurances are insured at Myanma Insurance. This law focuses the following matters;

- If the project proponent uses the owned vehicles, the project owner has to insure the insurance for injured person under section 15 of said law.
- The project proponent has to insure the insurance to compensate for general damages because the project may cause the damages to the environment and injury to public under section 16 of said law.

4.15 The Public Health Law (1972)

Purpose: To ensure the public health include not only employees but also resident people and cooperation with the authorized person or organization of health department.

- The project owner will cooperate with the authorized person or organization in line with the section 3 and 5 of said law.

Section 3 - The project proponent has to abide by any instruction or stipulation for public health.

Section 5 - The project proponent has to allow any inspection, anytime, anywhere if it is needed.

4.16 Labour Organization Law (2011)

Purpose: To ensure protection the rights of the employees, having the good relationships between the employees and employer and enabling to form and carry out the labour organizations systematically and independently.

- The project owner promises to allow the labour organization, to negotiate and to settle with the employer if the workers are unable to obtain and enjoy the rights of the workers contained in the labour laws and to summit demands to the employer and claim in accord with the relevant law if the agreement cannot be reached under section 17 of said law.
- The project proponent promises to demand the re-appointment of worker who is

dismissed by the employer, without the conformity with the labour laws under section 18 of said law.

- The project proponent promises to send the representatives to the Conciliation Body in settling a dispute between the employer and the worker under section 19 of said law.
- The project proponent promises the labour organization to participate and discuss in discussing with the government, the employer and the complaining employees in respect of employee's rights or interest contained in the labour laws under section 20 of said law.
- The project proponent promises the labour organization to participate in solving the collective bargains of the employees in accord with the labour laws under section 21 of said law.
- The project proponent promises the labour organization to carry out the holding the meetings, going on strike and other collective activities in line with the procedure, regulation ,by-law and directive of relevant Chief Labour Organization under section 22 of said law.

4.17 Settlement of Labor Dispute Law (2012)

Purpose: To ensure negotiation and discussion between employees and project proponent, abiding the decision of Tribunal. This law focuses as follows;

- The project proponent has to not absent to negotiation within the stipulated time for complaint, under section 38 of said law.
- The project proponent has not to change the existing stipulations for employees within conducting period before Tribunal, under section 39 of said law.
- The project proponent has not to close the work without negotiation, discussion on dispute in accord with this law, decision by Tribunal, under section 40 of said law.
- The project proponent has to pay the compensation decided by Tribunal if violates any act or any omission to damage the interest of labour by reducing of product without efficient cause, under section 51 of said Law.

4.18 The Development of Employment and Skill Law (2013)

Purpose: To ensure the job security and to develop the employee's skill with the fund of project owner:

- The project proponent has to appoint employees with the contract in line with the provision of section 5 of said law.
- The project proponent has to carry out the training programs with the policy of Skill Development Body to develop the employment skill of employees who is appointed or will be appointed, under section 14 of said

law.

- The project proponent has to monthly pay to the fund, which is fund for development of skill of employees, not less below 0.5 percentage of the total payment to the level of worker supervisor and the workers below such level, under sub-section (a) of section 30 of said law.
- The project proponent has to promise not to deduct from the payment of employees for above-mentioned fund, under sub-section (b) of section 30 of said law.

4.19 The Minimum Wages Law (2013)

Purpose: To ensure the project owner pay the wages not less than prescribed wages and notify obviously this wages in work place, moreover to be inspected.

- The project proponent has to pay the wages in line with section 12 of said law.
- The project proponent has to notify the prescribed wages obviously in work place under sub-section (a) of section 13 of said law.
- The project proponent has to record correctly the lists, schedules, documents, and wages, report these to the relevant department, and give if these are asked while inspecting, in accord with the stipulations under sub-section (b) (c) (d) of section13 of said law.
- The project proponent has to allow to be inspected by the inspector, under sub-section (d) and (e) of section 13 and section 18 of said law.
- The project proponent has to allow holiday for medical treatment if the employee' health is not fit to work, under sub-section (f) of section 13 of said law.
- The project proponent has to allow holidays without deducting from the wages if one of parents or one of family dies, under sub-section (g) of section 13 of said law.

4.20 The Payment of Wages Law (2016)

Purpose; To ensure the way of payment and avoiding delay payment to the employees. This law focuses as follows;

- The project proponent has to pay the wages in accord with the section 3 and 4 of said law under section 3 and 4 of said law.
- The project proponent has to submit with the agreements of employees & reasonable ground to department if it is difficult to pay because of force majeure included in natural disaster, under section 5 of said law.
- The project proponent has to abide by the provisions of section 7 to 13 in chapter (3) in respect of deduction from wages.
- The project proponent has to pay the overtime fees, prescribed by law, to

the employees who work over working hours, under section 14 of said law.

4.21 Workmen's Compensation Act (1923)

Purpose: To ensure the compensations to injured employee while implementing in line with the above law and pay the prescribed compensations in various kinds of injury. This law focuses as follow;

Section 13 -The project proponent has to pay the compensation in line with the provisions of said law base on kind of injury and case-by-case.

4.22 The Leaves and Holiday Act (1951)

Purpose: The employees can take the leaves and get the holidays legally and to ensure the right to get the holidays and leaves. This law focuses the following matters;

- The project proponent has to allow the leaves and holidays in line with the law.

4.23 Social Security Law (2012)

Purpose: The project proponent has to create the social security for the employees because the project is the business under the Myanmar Citizen Investment Law. To ensure the social security for employees of the project, the project owner has to register to the social security offices and to pay the prescribed fund.

- The project proponent has to register to the respected social security office, under sub-section (a) of section 11 of said law
- The project proponent has to pay the social security fund for at least four types of social security included in sub-section (a) of section 15, under section 15 of said law.
- The project proponent has to pay the fund, which has to be paid myself, and together with the fund which has to be paid from their salary by the employees. Moreover, the project owner will pay the cost for paying the above-mentioned fund only myself under sub-section (b) of section 18 of said law.
- The project proponent has to pay the fund for accidence, under sub-section (b) of section 48 of said law. (but this fund is not related to workmen compensation so if it is needed compensation must be separately paid by the Workmen compensation Act)
- The project proponent has to make correctly and submit the list and record provided in section 75 to respected social security office, under section 75 of said law.

4.24 Occupational Safety and Health Law (2019)

Purpose: To effectively implement measures related to safety and health in every industry and to set occupational safety and health standards.

- The project proponent has to provide adequate and relevant personal protective equipment to workers free of charge and make them wear it during work so as not to expose workers to any serious occupational diseases or hazards under sub-section (e) of section 26 of said law.

- The project proponent has to arrange and display occupational safety and health instructions, warning signs, notices, posters, and signboards under sub-section (l) of section 26 of said law.

- The worker shall wear or use at all times any protective clothes, equipment and tools provided by the employer for the purpose of safety and health under sub-section (a) of section 30 of said law.

- The worker shall proper and systematic use any equipment and tools, machines, any parts of the machines, vehicles, electricity and other substances being used at the workplace under sub-section (d) of section 30 of said law.

- The worker shall take reasonable care for the safety and health of himself/ herself and of other persons who may be affected by his/ her acts or omissions at work under sub-section (e) of section 30 of said law.

4.25 The Rights of National Races Law (2015)

Purpose: To ensure that project proponent has to disclose to residents ethnic nationalities about the project fully, moreover to ensure to cooperate with them. This law focuses the following matters;

Section 5 - The project proponent has to disclose all about the project fully to the residents who are national races.

- The project proponent has to cooperate with the residents who are national races.

4.26 The Petroleum and Product of Petroleum Law (2017)

Purpose: The project will transport and store the fuel in any phrase. To ensure to take the license for importation and storage and abide by the stipulations in the license

- The project proponent has to transport the fuel by the vehicle or vessel, which is licensed by the Ministry of Transportation and Communication under sub-section (a) of section 9 of said law.
- The project proponent has to abide by the procedures and conditions specified by the Ministry of Transportation and Communication under sub-section (e) of section 9 of said law.
- The project proponent has to transport after obtaining the transportation license issued by the Ministry of Natural Resource and Environmental Conservation under sub-section (b) of section 10 of said law.
- The project proponent has to allow inspection by the Ministry of Natural Resource and Environmental Conservation under sub-section (d) of section 10 of said law.
- The project proponent has to store the fuel in the tank, which is licensed by the Ministry of Natural Resource and Environmental Conservation under sub-section (a) of section 10 of said law.
- The project proponent has to show the notice of danger on the tank or container of fuel under section 11 of said law.

4.27 Import and Export Law (2012)

Purpose: To ensure to abide by the permission for import

The project proponent has to abide by the conditions contained in permission for import if the boiler is imported, under section 7 of said law.

4.28 The Underground Water Act (1930)

Purpose: to ensure to obtain the license before sinking the underground water and to abide by the conditions in license. This law focuses as follow;

- The project owner will obtain the license granted by the water officer for sinking the underground water before sinking water, under section 3 of said law.
- The project proponent has to abide by the conditions prescribed by rules, under sub-section (a) of section 6 of said law.

4.29 The Electricity Law (2014)

- The purpose; of this law is to ensure the compliance with the conditions of permission for productions of electricity, abiding by any stipulation, implementing with the best practices and paying compensation in line with above law. It stipulated the following obligations of the project proponent:

- To implement the project with the best practices to reduce the damages on the environment, health and socio-economy, also will pay compensation for the damages

and will pay the fund for environmental conservation, under sub-section (b) of section 10;

- To take the certificate of electric safety, issued by the chief-inspector, before the commencement of power generation, under section 18;
- To be liable for damages to any person or enterprise by failure to abide by the quality standards or rules, regulation, by-law, order and directive issued under said law according to sub-section (a) of section 21;
- To be liable for damages to any person or enterprise by negligence of project owner according to sub-section (a) of section 22;
- To comply with the permission for electric searching and generation, under sub-section (a) and (b) of section 26;
- To inform promptly to chief-inspector and head officer of related office while occurring of accident in electricity generation, under section 27;
- To comply with the standards, rules and procedure. Moreover will allow the inspection by respected governmental department and organization if it is necessary, under section 40; and
- To pay the compensation to anyone who is injured or caused to death in electric shock or fire caused by the negligence or omitting of the project owner or representative of project owner, under section 68.

4.30 Natural Disaster Management Law (2013)

Purpose: to implement natural disaster management programs and to coordinate with national and international organizations in carrying out natural disaster management activities; to conserve and restore the environment affected by natural disaster and to provide health, education, social and livelihood programs in order to bring about better living conditions for victims.

- The project proponent has to perform preparatory and preventive measures for natural disaster risks reduction before the natural disaster strikes under sub section (a)(i) of section 13 of said law.
- The project proponent has to undertake rehabilitation and reconstruction activities for improving better living standard after the natural disaster strikes and conservation of the environment that has been affected by natural disaster under sub section (a)(iii) of section 13 of said law.
- The project proponent has to carry out better improvement on early warning system of natural disaster under sub section (b) of section 14 of said law.
- The project proponent has to carry out together with the measures of natural disaster risk reduction in development plans of the State under sub section (d) of section 14 of said law.
- Whoever if the natural disaster causes or is likely to be caused by any negligent act without examination or by willful action which is known that a disaster is likely to strike, shall be punished with imprisonment for a term not exceeding three years and may also be liable to fine under section 25 of said law.

- Whoever interferes, prevents, prohibits, assaults or coerces the department, organization or person assigned by this law to perform any natural disaster management shall, on conviction, be punished with imprisonment for a term not exceeding two years or with fine or with both under section 26 of said law.
- Whoever violates any prohibition contained in rules, notifications and orders issued under this law shall, on conviction, be punished with imprisonment for a term not exceeding one year or with fine or with both under section 29 of said law.
- Whoever willful failure to comply with any of the directives of the department, organization or person assigned by this law to perform any natural disaster management shall, on conviction, be punished with imprisonment for a term not exceeding one year or with fine or with both under sub section (a) of section 30 of said law.

4.31 Consumer Protection Law (2019)

The intention of the passing of Consumer Protection Law is to promote and protect the interest of consumers over all goods and services. It will also help to clarify some of the uncertainties and ambiguities.

4.32 The City Of Rangoon (Yangon) Municipal Act (1922)

For the purpose of collecting, treating and removing rubbish and offensive matter, the Corporation shall provide public receptacles, depots and places for the temporary deposit or final disposal thereof:

Provided that the President of the Union may prohibit such final disposal in any specified placer or manner ("The city of Rangoon municipal act (1922)," 1922)

4.33 The City Of Yangon Development Law (1990)

a. carrying out works for sanitation;
b. carrying out works for public health (SLORCL, 1990)

4.34 Yangon City Development Council Law (2018)

Purpose: To ensure abiding the stipulations for construction, cleaning environment in carrying out the work of project.

The project proponent has to abide by all provisions for construction and cleaning environment.

4.35 The Factory Act (1951)

The Factory Act stipulates the work condition of the workers in the factory such as working hours, worksite safety and health measures. According to the act, worker at age 18 or over shall not work exceed 8 working hours per day or 44 hours per week, and the working days shall not exceed 6 days per week. As for worksite safety, the factory shall be kept clean with proper

ventilation, light and heat and the workspace shall be situated away from drains, latrines or other things which create a bad or unhealthy smell.

• Has been enacted for affairs concerning with health, safety, working hours of employees.	
Hygiene in Working Environment: Section 3	• Mentions responsibilities of employer and manager regarding waste disposal, ventilation, extreme temperature, dust and gas generation, minimum space for each worker, lighting, portable drinking water and toilets for employees.
Safety in Working Environment: Section 4	• States responsibilities of employer and manager concerning with machine guarding, personal protective equipment, housekeeping, aisles and exits, chemical storage and fire protection system to avoid accidents.

4.36 International Policies, Guidelines and Standards

The international standards are described as follow.

Table 4.1 National and International Standards on Air Quality

No.	Parameter	Unit	Maximum Concentration			
			NEQG	WHO	ACGIH	Average Period
1.	Carbon monoxide	mg/m^3	-	10	-	8-hour
2.	Carbon dioxide	ppm	-	-	5000	8-hour
3.	Sulfur dioxide	$\mu g/m^3$	20 500	-	-	24-hour 10-minute
4.	Nitrogen dioxide	$\mu g/m^3$	40 200	-	-	1 year 1 hour
5.	Particulate matter PM_{10}	$\mu g/m^3$	20 50	-	-	1-year 24-hour
6.	Particulate matter $PM_{2.5}$	$\mu g/m^3$	10 25	-	-	1-year 24-hour

Note) Myanmar National Environmental Quality (Emission) Guidelines, December 2015 & Air quality guidelines global update. World Health Organization (WHO). American Conference of Governmental Industrial Hygienists (ACGIH).

Table 4.2 International Standards for Noise

Receptor	One Hour LAeq (dBA)	
	Daytime 07:00 - 22:00 (10:00 - 22:00 for Public Holidays)	Nighttime 22:00 - 07:00 (22:00 - 10:00 for Public Holidays)
Residential, institutional, educational	55	45

Industrial, commercial	70	70

Note) NEQG: National Environmental Quality Guidelines (MONREC, December 2015)

Table 4.3 Japanese Standards for Vibration

Japanese Standard	Day Time	**Residential Area 65** / Commercial and Industrial Area 70 (Z direction(dB))
	Night Time	**Residential Area 60** / Commercial and Industrial Area 65 (Z direction(dB))

Table 4.4 Site Runoff and Wastewater Discharge Standards

Parameters	Unit	NEQG
Biochemical Oxygen Demand (BOD) (5 days at 20 .C)	mg/l	30
Chemical oxygen demand(COD)	mg/l	125
Oil and grease	mg/l	10
pH(On-site)	S.U.	6-9
Total coliform bacteria	100ml	400
Total Nitrogen	mg/l	10
Total Phosphorus	mg/l	2
Total Suspended Solids	mg/l	50

Note) NEQG: National Environmental Quality Guidelines (MONREC, December 2015)

CHAPTER 5: DESCRIPTION SURROUNDING ENVIRONMENT AND SOCIAL CONDITION

5.1 Natural Environment

5.1.1 Location and Extent

The Tharkayta Township is located in the lower part of Yangon Region, between North Latitude 16º 46' and 16º 45' and East Longitude between 96º 13' and 96º 15'. The area of township is described in Table 5.1.

Table 5.1 The area of Township

No	Town Name	Sub Township	Town area (Square miles)	Township	Township area (Square miles)
1.	Tharkayta		4.93		
Township			4.93		

5.1.2 Topography

The Tharkayta Township is situated on the plain of peninsula with alluvial soil.

5.1.3 Drainage

The Tharkayta Township is surrounded by the rivers flowing through west to east. Bago River at the east, Ngamoeyeik Creek at the north and Pazontaung Creek at the south and west are well-known.

5.1.4 Elevation

Tharkayta Township is located on an average 4.5 meter (15.85 ft) above mean sea level.

5.1.5 Land Use

The following Table 5.2 shows the land use in Tharkayta Township according to the types of soil.

Table 5.2 Land Use in Tharkayta Township

No.	Land types	Area (acre)
1.	Net Agricultural area	-
	Le land (Paddy land)	-
	Ya Land (Dry land)	-
	Kine/ Kyun Land (Alluvial)	-

No.	Land types	Area (acre)
	Garden land	-
	Dani Land	-
2.	Fallow Land	-
	Le land (Paddy land)	-
	Ya Land (Dry land)	-
	Kine/ Kyun Land (Alluvial)	-
	Garden land	-
	Dani Land	-
3.	Grazing Land	-
4.	Industrial land	160
5.	Town/ urban land	2866.105
6.	Village land	
7.	Other land	131.895
8.	Reserved/ Protected Public Forest area	
9.	Virgin land	
10.	Wild land	
11.	Non-agricultural land	
Total		3158

Source: General Administration Department (2019 September)

5.1.6 Climatology

Tharkayta Township is a tropical monsoon season with the highest temperature of 40 ˚C and the lowest 16 ˚C. The data of rainfall and temperature from 2016 to 2019 September obtained from Township data are shown in Table 5.3.

Table 5.3 Temperature and Rainfall

No.	Year	Tharkayta Township			
		Rainfall		Temperature	
		Rainy Days	Total Rainfall (inches)	Summer (˚C)	Winter (˚C)
				Highest	Lowest
1.	2016	105	98.9	39.9	17
2.	2017	108	99.9	40	18
3.	2018	100	90.3	40	17
4.	2019	100	99.97	42	15

Source: General Administration Department (2020, January 30)

5.1.7 Natural Disaster

Because Tharkayta Township is close to the coastal area and it is surrounded by the rivers, it may expose the risk of the natural disaster like storm and flooding. According to the Township Profile (2019), the losses from natural disaster are as follow.

Table 5.4 Record of Natural Disaster in Tharkayta Township

No.	Cases	Frequency	Death/ Loss Person	Building Failure	Value of Losses (Million Kyat)
1.	Storm				
2.	Tsunami				
3.	Earthquake				
4.	Flood				
5.	Fire Disaster	4	-	10	535.0
Total		4	-	10	535.0

5.2 Physical Environment (Based on Field Observation)

5.2.1 Methodology and Objectives of the Environmental Quality Data Collection and Analysis

Baseline environmental parameters and sampling locations were defined according to the objectives for measuring purposes. Locations for measurement of ambient air quality and sampling of water quality were identified by E Guard Environmental Services Study Team. Air quality measurement was carried out within the proposed project site, and water quality was sampled at the final discharge outlet of the project. The environmental qualities were measured and followed by comparing with National Environmental Quality (Emission) Guidelines (2015). Environmental Quality Measurements were monitored and sampled during dry season (May, 2021).

5.2.1.1 Ambient Air Quality

The emissions of dust particles and gases were measured for 24hrs continuously at the selected sites using the Environmental Perimeter Air Station (EPAS) and Aeroqual S500. The results were compared with National Environmental Quality Guidelines NEQG, American Conference of Governmental Industrial Hygienists (ACGIH) and National Ambient Air Quality Standards (NAAQS). EPAS provides direct readings in real time with data-logging capabilities. Air quality is composed of dust and gas emissions of the ambient air.

Table 5.5 Ambient Air Quality Measurement

Ambient Air Quality (1 locations)	
Gas Emission	CO, SO_2, NO_2, CO_2,O_3
Dust Emission	PM_{10}, $PM_{2.5}$

Table 5.6 Air Quality Guideline Values

Parameters	Guidelines Value	Unit	Organization	Averaging Period
PM_{10}	50	μg/m^3	NEQG	24hrs
$PM_{2.5}$	25	μg/m^3	NEQG	24hrs
CO	9	ppm	NAAQS	8hrs
SO_2	20	μg/m^3	NEQG	24hrs
NO_2	200	μg/m^3	NEQG	1hrs
O_3	100	μg/m^3	NEQG	8hrs
CO_2	5000	ppm	ACGIH	8hrs

Equipment used to measure ambient air quality are shown below in Table 5.7.

Table 5.7 Equipment used to measure ambient air quality

Davis Vantage Pro2 Wireless Weather Station Provides detailed current weather conditions and expanded forecasts - all at a glance! The Vantage Pro2 uses a frequency-hopping spread spectrum radio from 902 MHz to 928 MHz to transmit and receive data up to 1,000' (300m) line of sight. In addition, the weather station features a bubble level, improved anemometer base, redesigned wind cups, and factory-calibrated wind direction. The integrated sensor suite combines temperature and humidity sensors, rain collector with an aluminum-plated tipping bucket, and anemometer into one package for easy setup. Measure inside and outside temperature and humidity, heat index, barometric pressure, dew	

point, rainfall, wind direction and speed, and wind chill.	
Haz-Scanner EPAS PM_{10}, PM $_{2.5}$, NO_2, SO_2, CO,CO_2, Temperature, and Relative Humidity	
Aeroqual S500 O_3	

5.2.1.2 Ambient Noise and Vibration

Noise level LAeq (dBA) and Vibration will be measured at the selected locations that can reflect the exposure of the nearest local community and sensitive locations. Duration and frequency were measured for 24hrs continuously at the selected site using the Sound Pressure Level Meter and Vibration Meter VM-55.

The monitoring procedures, data analysis and interpretation were carried out in accordance with the instrument's manufacture and National Environmental Quality (Emission) Guidelines, World Health Organization (WHO) and International Finance Corporation (IFC) guidelines in order to be in line with Environmental Conservation Department, Ministry of Natural Resources and Environment Conservation (MONREC). "National Environmental Quality (Emission) Guidelines" for Myanmar was also presented the value of noise level as LAeq (dBA).

Table 5.8 Noise level monitoring

Noise monitoring (1 locations)	
Noise Emission	LAeq (dBA) (1hrs, 24 hrs.)

Equipment used to measure noise and vibration are shown in Table 5.9.

Table 5.9 Equipment used to measure noise and vibration

Digital Sound Level Meter Noise	
Vibration Level Meter VM-55	

5.2.1.3 Water Quality

Water samples were collected on site with appropriate sampling equipment and procedures. Physical parameters such as DO, conductivity, salinity, TDS, pH, Temperature turbidity of surface water were measured on site by portable multi parameter water quality meter. The sampling team has pre-arranged with the labs in Yangon for analysis and logistic arrangement made to reach the preserved samples with unique IDs to the designated labs within 48hrs.

The sampling and survey team has a list of local laboratories providing analytical services for ground water, waste water quality analysis. Up to this date, there is no laboratory having accredited certification for water quality testing (environmental analysis) in Myanmar. SGS (Myanmar), ISO (Myanmar). Laboratories have used for water quality analysis among the list of laboratories. These laboratories have been recognized as a long-term establishment in Myanmar and employed qualified technical staffs.

The following laboratories were used for analysis of water and parameter shown in Table 5.10.

1. SGS Minerals and Environmental Services, No. 79D, Bo Chain Street, 6-1/2Miles, Hlaing Township, Yangon. Tel; 01 654 795, 654 796
2. ISO Lab, No-18, Lanthit Road, Insein Township, Yangon. Tel; 01 540 955, 732251575

Table 5.10 Environmental Quality Parameters for Water quality

Water Quality Parameter	
Chemical Parameter	BOD, COD, pH, TDS, Salinity
Physical Parameter	Total Suspended Solid, Temperature, Turbidity, DO, EC
Nutrients	Total Nitrogen, Total Phosphorus
Compounds	Oils & grease

On-site water quality measurements, water samplings are conducted using the following equipment as shown in Table 5.11.

Table 5.11 Equipment for water sampling

Water Sampling Bottle	
HORIBA U-50, Multiparameter Water Quality Meter Multiple sensors allow for the measurement of 11 parameters simultaneously. (pH, pH(mv), ORP, DO, Salinity, TDS, Seawater Specific Gravity, Temperature, Turbidity, Water depth) Patented auto-calibration features provide hassle free calibration of pH, dissolved oxygen, conductivity and turbidity. Ultra-sensitive Turbidity Sensors (Models U-50) Precision has been improved over conventional instruments. Improved stability of the dissolved oxygen sensor has been achieved with a new 3 electrode design for fast response and polarographic sensor for ease of maintenance. pH and ORP electrodes can be replaced individually to reduce replacement costs.	

5.2.1.4 Monitoring and Sampling Location

Sampling locations were confirmed by environmental specialist on site before doing the sampling. Water quality sampling locations consist of one surface water sample (SWQ: Drainage channel in front of FLP project) and one wastewater sample (Wastewater effluent point). Air quality was monitored at the locations (Between Building A and B) that can get results of the existing ambient air quality.

Figure 5.1 Air Quality Monitoring Location of FLP Project

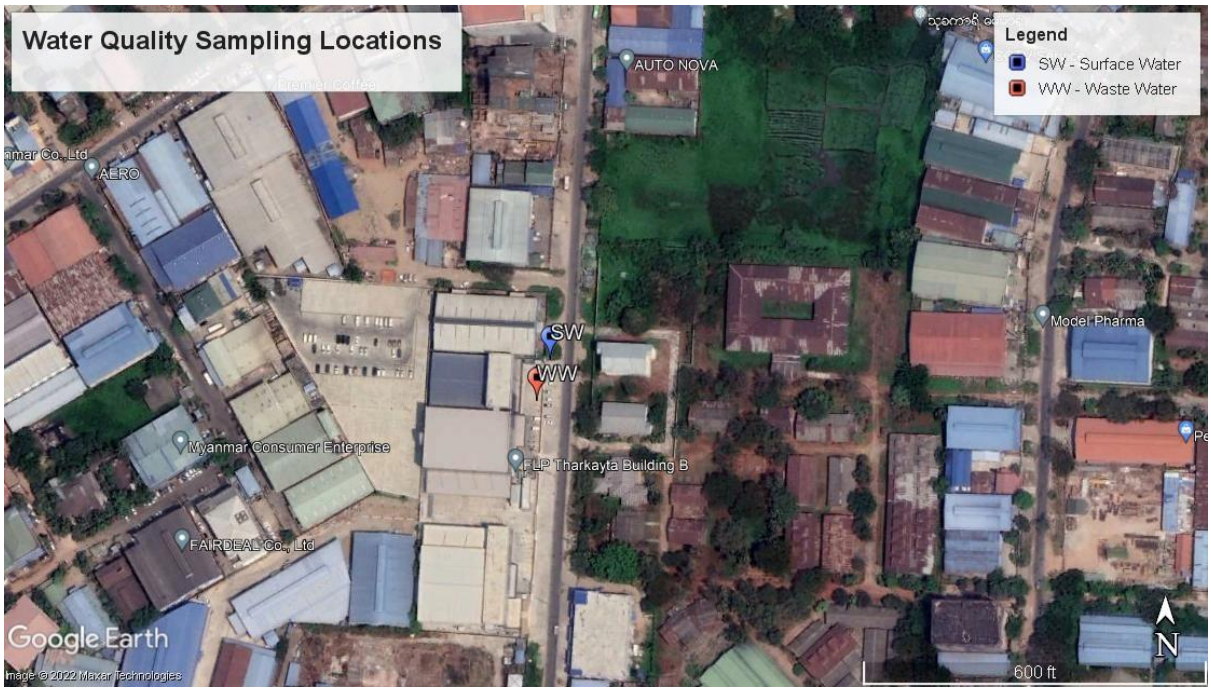


Figure 5.2 Water Quality Sampling Location of FLP Project

Table 5.12 Locations of Environmental Quality sampling points

Locations No.	Points	Coordinate	Locations
Ambient Air Quality and Noise Monitoring Locations			
1.	AQ	Lat- 16°48'20.92"N, Long- 96°11'56.11"E	Between Building A and B.
Water Quality Sampling Locations			

Locations No.	Points	Coordinate	Locations
1.	SW	Lat- 16°48'23.49"N, Long- 96°11'57.93"E	SWQ: Drainage channel in front of FLP project
2.	WW	Lat- 16°48'21.95"N, Long- 96°11'58.04"E	Wastewater effluent point

5.2.2 Environmental Quality

5.2.2.1 Ambient Air Quality

The air quality monitoring was done at selected locations during 19th to 20th May 2021. During this survey, these parameters were measured with adequate devices named Environmental Parameter Air Station (EPAS) viz; Particulate Matters (PM_{10} and $PM_{2.5}$) and gases CO, SO_2, NO_2, CO_2 via 24-hour basis and O_3 is measured with Aeroqual S500. The results and guidelines of all emission pollutants are shown in Table 5.15.

Particulate matters (PM 10 and PM 2.5) results are with in guideline values as shown in table. Atmospheric particulate matters such as PM 10 and PM 2.5 have their ability to reach the deepest part of lungs and so affect respiratory process. In this air quality survey of the project site, the surveyed results of these particulate matters gathered from EPAS. The results with one-hour interval are shown in the following table.

Sulfur Dioxide (SO_2) is generated from combustion of fuels such as oil and coal, and as by-product from some chemical production or wastewater treatment processes. On-road and off-road vehicles are also emission source of SO_2. SO_2 irritates the respiratory tract, injures lung tissues and reduces visibility and level of sunlight. The emission can be controlled by implementation of manufacturer recommended engine maintenance programs, good driving practices, installing and maintaining emissions control devices, and implementing a regular vehicle maintenance and repair program.

Nitrogen Oxides (NO_X) in the ambient air consist of nitric oxide (NO), nitrogen dioxide (NO_2) and nitrous oxide (N_2O). NO_2 is formed by chemical reaction of NO and ozone. The main sources of NO_2 are combustion of fuel and on-road and off-road vehicles. NO_2 decreases lung function and resistance to infection. The gas emission can be monitored by combustion modification, flue gas recirculation, water/ steam injection and the same measures forSO_2 reduction.

Likewise, Carbon Monoxide (CO) and Carbon dioxide (CO_2) have the same emission sources and mitigation measures for SO_2 and NO_2. They are poisonous gas and cause damage to the respiratory organ. Guidelines 2013, adopted threshold limit values of CO_2 is 5,000 ppm for 8-hour, time-weighted average. Thus, it can be concluded that the existing CO_2 level is acceptable for human health.

Detail results and diel variation patterns with one-hour interval of pollutants are shown in tables and figures below. Results of average, peak and minimum of a day are calculated in the Table 5.13.

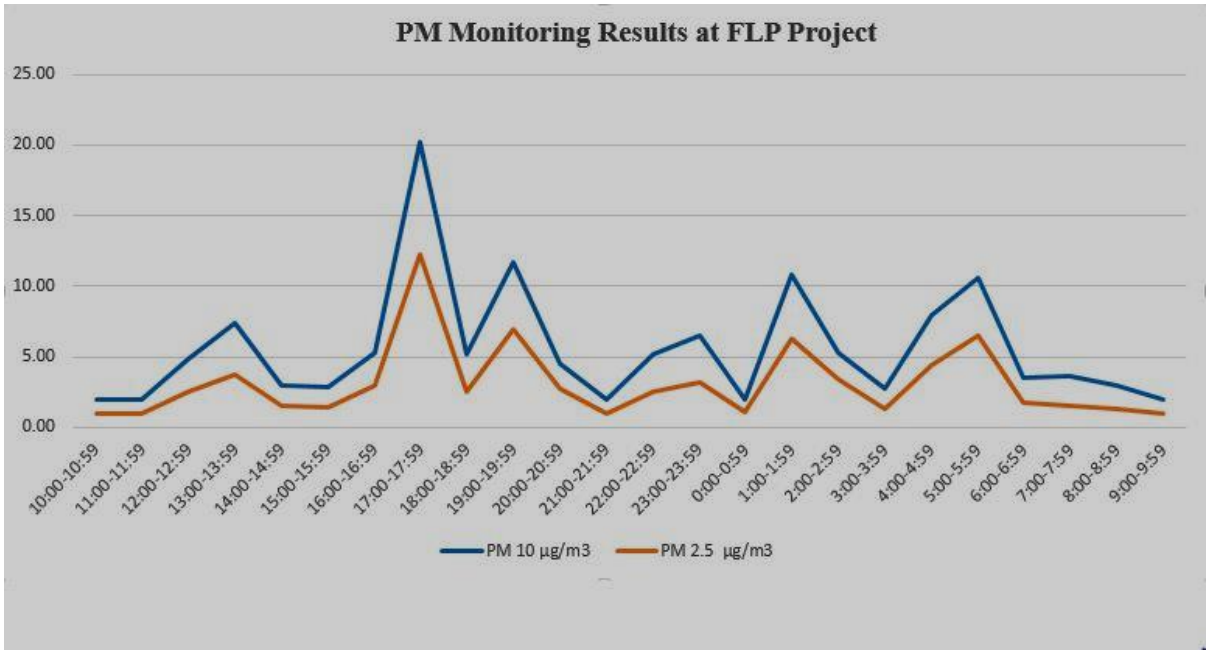


Figure 5.3 PM Monitoring Results

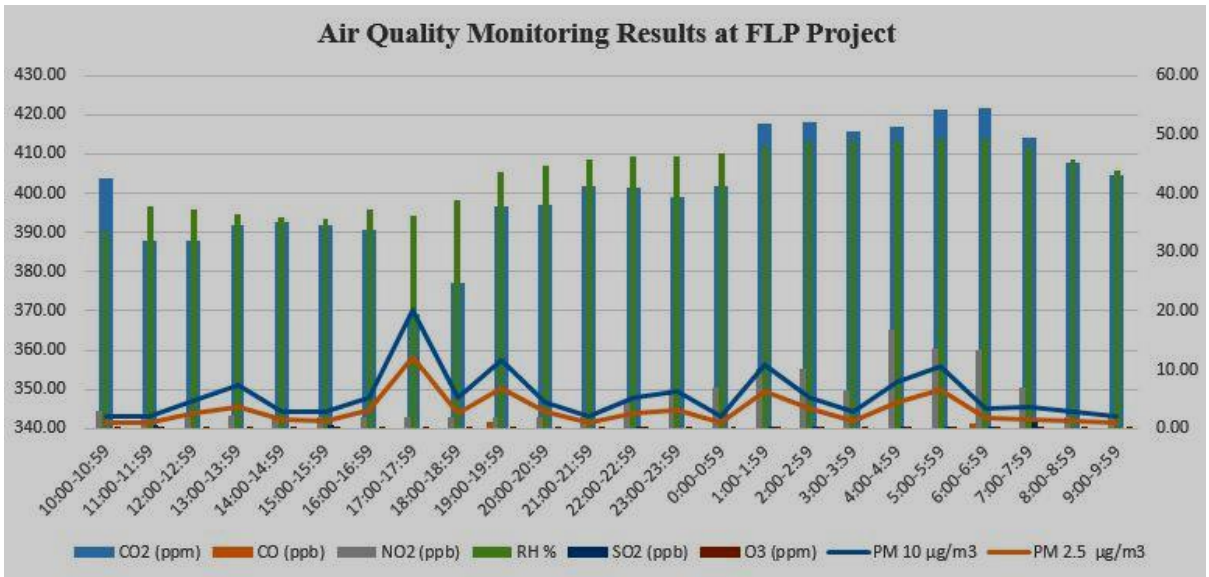


Figure 5.4 Fluctuation of Air Pollutants during Dial Cycle

Table 5.13 Air pollutants emission results

Date	Time		CO_2 (ppm)	CO (ppb)	NO_2 (ppb)	PM_{10} µg/m^3	$PM_{2.5}$ µg/m^3	RH %	SO_2 (ppb)	O_3 (ppm)
19.5.2021	10:00-10:59	Average	403.67	0.00	3.02	2.00	1.00	33.48	0.00	0.000
19.5.2021	11:00-11:59	Average	387.77	0.00	2.00	2.00	1.00	37.68	0.52	0.000
19.5.2021	12:00-12:59	Average	388.07	0.00	2.07	4.85	2.48	37.22	0.00	0.007
19.5.2021	13:00-13:59	Average	392.02	0.00	2.27	7.35	3.72	36.50	0.00	0.007
19.5.2021	14:00-14:59	Average	392.70	0.00	2.00	2.92	1.50	35.78	0.00	0.014
19.5.2021	15:00-15:59	Average	391.67	0.00	2.00	2.83	1.40	35.55	0.50	0.027
19.5.2021	16:00-16:59	Average	390.62	0.00	2.00	5.23	3.02	37.30	0.00	0.027
19.5.2021	17:00-17:59	Average	369.18	0.00	2.00	20.18	12.23	36.23	0.00	0.024
19.5.2021	18:00-18:59	Average	377.08	0.00	2.00	5.22	2.52	38.90	0.00	0.024
19.5.2021	19:00-19:59	Average	396.67	1.12	2.00	11.68	6.90	43.70	0.00	0.024
19.5.2021	20:00-20:59	Average	397.10	0.00	2.00	4.57	2.77	44.67	0.00	0.021
19.5.2021	21:00-21:59	Average	401.62	0.00	2.00	2.00	1.00	45.62	0.00	0.020
19.5.2021	22:00-22:59	Average	401.40	0.00	4.27	5.13	2.48	46.15	0.02	0.019
19.5.2021	23:00-23:59	Average	398.98	0.00	6.80	6.45	3.20	46.20	0.00	0.019
20.5.2021	0:00-0:59	Average	401.62	0.00	6.95	2.00	1.05	46.80	0.00	0.017
20.5.2021	1:00-1:59	Average	417.87	0.00	10.03	10.87	6.27	47.85	0.38	0.013
20.5.2021	2:00-2:59	Average	418.02	0.00	10.22	5.30	3.37	48.82	0.07	0.012
20.5.2021	3:00-3:59	Average	415.58	0.00	6.48	2.75	1.27	48.93	0.00	0.013
20.5.2021	4:00-4:59	Average	417.12	0.00	16.67	7.90	4.35	49.00	0.07	0.011
20.5.2021	5:00-5:59	Average	421.38	0.00	13.57	10.60	6.50	49.05	0.45	0.011
20.5.2021	6:00-6:59	Average	421.75	0.82	13.32	3.53	1.78	49.27	0.15	0.010
20.5.2021	7:00-7:59	Average	414.25	0.00	7.10	3.62	1.53	47.95	1.33	0.008
20.5.2021	8:00-8:59	Average	407.58	0.00	2.05	2.93	1.35	45.68	0.00	0.007
20.5.2021	9:00-9:59	Average	404.73	0.00	2.00	2.00	1.00	43.97	0.00	0.002
Average			401.18	0.08	5.20	5.58	3.07	43.01	0.15	0.014
1 hour Minimum			369.18	0.00	2.00	2.00	1.00	33.48	0.00	0.000
1 hour Maximum			421.75	1.12	16.67	20.18	12.23	49.27	1.33	0.027

Figure 5.5 Air quality measuring point inside project site

Table 5.14 Air Emission Levels (Standard)

No.	Parameter	Unit	Maximum Concentration			
			NEQG	WHO	ACGIH	Average Period
1.	Carbon monoxide	mg/m^3	-	10	-	8-hour
2.	Carbon dioxide	ppm	-	-	5000	8-hour
3.	Sulfur dioxide	$\mu g/m^3$	20 500	-	-	24-hour 10-minute
4.	Nitrogen dioxide	$\mu g/m^3$	40 200	-	-	1 year 1 hour
5.	Particulate matter PM_{10}	$\mu g/m^3$	20 50	-	-	1-year 24-hour
6.	Particulate matter $PM_{2.5}$	$\mu g/m^3$	10 25	-	-	1-year 24-hour

Source: Myanmar National Environmental Quality (Emission) Guidelines, December 2015 & Air quality guidelines global update. World Health Organization (WHO). American Conference of Governmental Industrial Hygienists (ACGIH).

As per above tables, it can be seen that all parameters measured are within the National Environmental Quality (Emission) Guideline (NEQG), World Health Organization (WHO) and American Conference of Governmental Industrial Hygienists (ACGIH) guidelines.

Table 5.15 Observed Ambient Air Quality Results from Selected Points

Parameters	Observed Value	Guidelines Value	Unit	Averaging Period
PM_{10}	5.58	50	$\mu g/m^3$	24hrs

$PM_{2.5}$	3.07	25	$\mu g/m^3$	24hrs
CO	0.00014	9	ppm	8hrs
CO_2	415.05	5000	ppm	8hrs
SO_2	0.38	20	$\mu g/m^3$	24hrs
NO_2	31.33	200	$\mu g/m^3$	1hrs
O_3	38.71	100	$\mu g/m^3$	8hrs

5.2.2.2 Wind Speed and Direction

The following figures describe the wind speed and wind directions of the proposed project site FLP Project on 19th to 20th May 2021 and at near the Checkpoint and road. According to the data, the wind direction is following Figure 5.6 and Figure 5.7.

Figure 5.6 Wind Speed and Wind Direction (Blowing From) at FLP Project

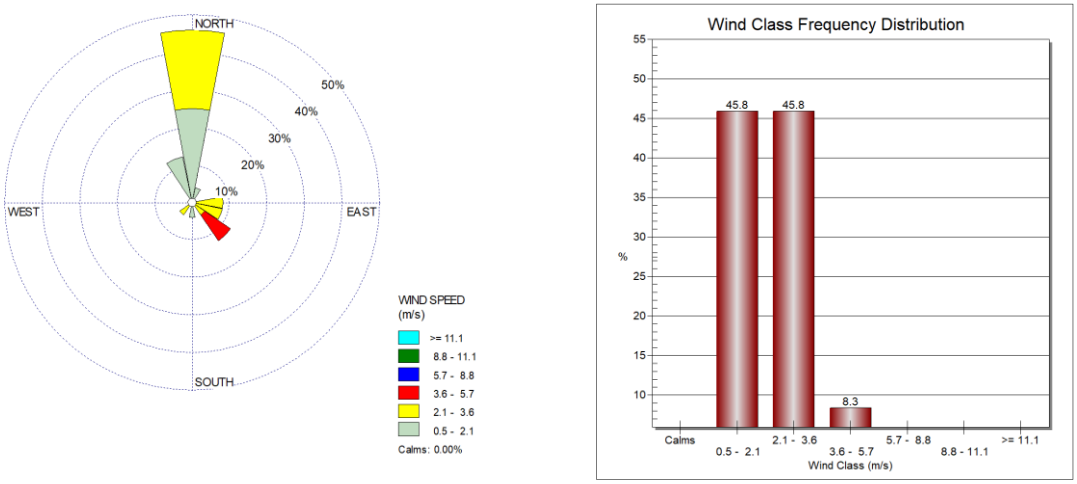


Figure 5.7 Wind Class Frequency Distribution

5.2.2.3 Ambient Noise and Vibration

Ambient noise level for the proposed project was measured with Digital Sound Level Meter at the project site. The noise level measurement is conducted at FLP project points: these points are nearly the air monitoring points on 19th to 20th May 2021. Measuring period is 24 hours continuously. The observed values are described in Table 5.16 and the following figures are noise level measurement at the proposed project.

Vibration measurement includes data analysis and test services to minimize environmental impacts. In order to find out the vibration at the pre-construction phase, vibration measurement was measured to get the baseline data for the project. Table 5.17 shows the results of vibration studies for location as source, at proposed project site. As the Environmental Quality Emission Guidelines (NEQG) Myanmar does not specify standard for vibration, the vibration standards for Japan developed by Ministry of Environmental was referred as regulatory standards for this study.

Table 5.16 Observed Values of Noise Level Measurement

No.	Date	Time	Observed Mean Value (Source)	Weight	Day/Night	Average
1	20.5.2021	7:00:13-7:59:13	54.13	A	Day	51.05
2	20.5.2021	8:00:13-8:59:13	55.25	A	Day	
3	20.5.2021	9:00:13-9:59:13	53.99	A	Day	
4	19.5.2021	10:00:13-10:59:13	53.47	A	Day	
5	19.5.2021	11:00:13-11:59:13	49.34	A	Day	
6	19.5.2021	12:00:13-12:59:13	48.67	A	Day	

No.	Date	Time	Observed Mean Value (Source)	Weight	Day/Night	Average
7	19.5.2021	13:00:13-13:59:13	48.12	A	Day	
8	19.5.2021	14:00:13-14:59:13	48.43	A	Day	
9	19.5.2021	15:00:13-15:59:13	50.66	A	Day	
10	19.5.2021	16:00:13-16:59:13	53.11	A	Day	
11	19.5.2021	17:00:13-17:59:13	51.61	A	Day	
12	19.5.2021	18:00:13-18:59:13	49.98	A	Day	
13	19.5.2021	19:00:13-19:59:13	50.72	A	Day	
14	19.5.2021	20:00:13-20:59:13	49.05	A	Day	
15	19.5.2021	21:00:13-21:59:13	49.16	A	Day	
16	19.5.2021	22:00:13-22:59:13	52.20	A	Night	50.75
17	19.5.2021	23:00:13-23:59:13	46.71	A	Night	
18	20.5.2021	0:00:13-0:59:13	49.23	A	Night	
19	20.5.2021	1:00:13-1:59:13	49.23	A	Night	
20	20.5.2021	2:00:13-2:59:13	49.44	A	Night	
21	20.5.2021	3:00:13-3:59:13	49.57	A	Night	
22	20.5.2021	4:00:13-4:59:13	53.82	A	Night	
23	20.5.2021	5:00:13-5:59:13	53.15	A	Night	
24	20.5.2021	6:00:13-6:59:13	53.43	A	Night	
Average			50.94			

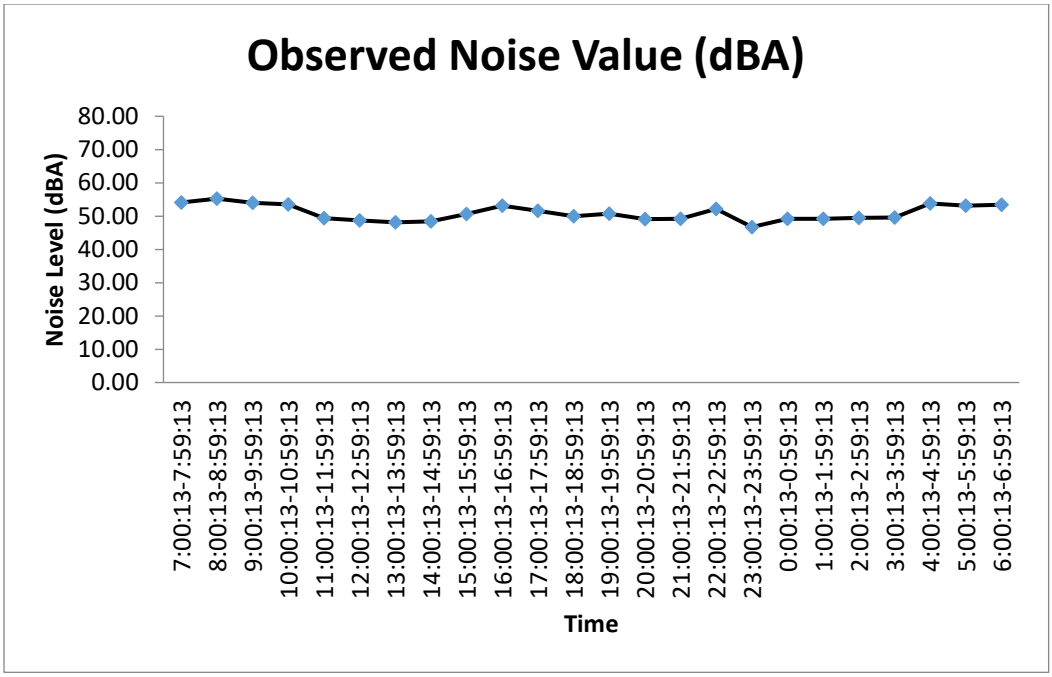


Figure 5.8 Measured Noise Level

Table 5.17 Observed Ambient Noise Level Result

Point	Observed Noise Level	
	Day Time	Night Time
FLP Project	51.05	50.75
Guideline Values for Industrial, Commercial	70	70

The observed values are compared with the National Environmental Quality (Emission) Guidelines as shown in Table 5.17 except receptor point, which indicates the separate level for residential and industrial points.

Table 5.18 National Environmental Quality (Emission) Guidelines Values for Noise Level

Receptor	One Hour LAeq (dBA)	
	Daytime 07:00 - 22:00 (10:00 - 22:00 for Public Holidays)	Nighttime 22:00 - 07:00 (22:00 - 10:00 for Public Holidays)
Residential, institutional, educational	55	45
Industrial, commercial	70	70

The observed values of the proposed project for daytime at FLP Project is 51.05 dB (A). The observed values of the proposed project for Nighttime at FLP Project is 50.75 dB (A). So, the observed values of day time and night time for FLP Project are lower than the guideline value.

Table 5.19 Summary of Vibration Measurement

Location	X-Lveq (dB)		Y-Lveq (dB)		Z-Lveq (dB)	
	Day Time 7:00-22:00	Night Time 22:00-6:00	Day Time 7:00-22:00	Night Time 22:00-6:00	Day Time 7:00-22:00	Night Time 22:00-6:00
FLP Project	49.75	30.31	35.49	33.86	45.63	37.66

Table 5.20 Regulatory Standards for Vibration (Summary)

Time Area	Day Time	Night Time	Applicable Areas
I	60-65 dB	55-60 dB	Areas where maintenance of quiet is particularly needed to preserve a good living environment and where quiet is needed for as they are used for residential purposes.
II	65-70 dB	60-65 dB	Areas used for commercial and industrial as well as residential purposes where there is a need to preserve the living environment of local residents and areas mainly serving industrial purposes which are in need of measures to prevent the living environment of local residents from deteriorating.

There is still no official released vibration guidelines in Myanmar. Therefore, Japan vibration guidelines are used to analyze the current vibration results of this project. These results are within the Japan vibration guidelines.

5.2.2.4 Water Quality

The project proponent is responsible for ensuring the drainage or runoff from the project or its related activities do not deteriorate the existing surface water quality before the project implementation. Baseline quality of the surface water quality were recorded by on site sampling and measurement, and laboratory analysis at one selected location systematically. The field surveys for environmental quality monitoring and sampling were done during 19th May 2021. In addition, the quality of the wastewater effluent from the project site was recorded by on site sampling and spot measurement on 3rd May 2022. The laboratory results of both surface water (SW) and wastewater (WW) are compared with NEQG as shown in Table 5.21 below.

In the analysis result of wastewater, Total Nitrogen, Total Phosphorous and TSS is higher than the standard values. The wastewater treatment system was designed for the total of 600 persons/day with the water usage of 25 liters/person. During the sampling periods there are some tenant occupied in the office but no tenant occupied in the warehouse. The minimum inflow to the wastewater treatment system did not meet to reach the reasonable treatment efficiency of the system. The wastewater was trapped in the sedimentation tanks due to low inflow. There are no effluent to the public drain until the sampling period. Therefore, the

environmental specialist have had only one option to take partially treated wastewater sample from the sedimentation tanks, where the wastewater was trapped. This might be the reason why some parameter of the wastewater analysis results is higher than the standard values. On the other hand, the environmental specialist was taken one surface water sample near the downstream of the wastewater effluent point of the project as a baseline to make sure the later treated wastewater effluent to the public drain not to pollute the environment.

In the analysis result of surface water, TSS is seen above the referred surface water quality standard. During the sampling period the facilities are under construction and no tenant occupied the warehouses and offices. Thus, the sample was taken from the industrial zone's drainage system outside of the facility's compound and nearest downstream to the outlet of the treatment facility. The drainage ditch where the sample was taken, was not hydraulically functioning well and the drained water were clogged in the drainage ditch. Higher value of TSS value than the surface water quality is normally found high in most public drainage systems which does not have good hydraulic flow. Exceedance value 2 mg/l of TSS to the reference value is negligible in the public drainage system where the surrounding outlets were not controlled by regulation.

Objectives of the sampling and analysis of surface water quality is to understand the existing water quality at the selected locations and to monitor the impacts during construction and operation period.

Table 5.21 Comparison between Surface Water and Wastewater with NEQG Standard

Parameters	Unit	NEQG	SW	WW
Biochemical Oxygen Demand (BOD) (5 days at 20 .C)	mg/l	30	28	30
Chemical oxygen demand(COD)	mg/l	125	69	96
Oil and grease	mg/l	10	< 5	<5
pH(On-site)	S.U.	6-9	5.42	7.8
Total coliform bacteria	100ml	400	-	120
Total Nitrogen	mg/l	10	4.48	35.28
Total Phosphorus	mg/l	2	1.188	3.436
Total Suspended Solids	mg/l	50	52	67
On-site Measurement				
Temperature	°C	-	38.45	33.07
Dissolved Oxygen	mg/l	6	6.82	2.82
Electrical Conductivity	uS/cm	-	1080	1.31
Salinity	ppt	-	0.5	0.6
Turbidity	NTU	NTU	26.5	54

Figure 5.9 Water Quality Sampling Locations and Spot Measurement Locations

5.3 Biological Environment

As the proposed project area is located in the Tharkayta industrial zone, the information of ecological resources are not described in the township data information. In addition, within the proposed project area, there are no existing forests, protected areas and coastal resources.

Table 5.22 Ecological Resources of Tharkayta Industrial Zone

Ecological Resources	Existing Condition
Aquatic biology and fisheries	Not Existence
Wildlife	Non Existence
Forest	Non Existence
Rare of endangered species	Non Existence
Protected Area	Non Existence
Natural Vegetation	Non Existence

5.4 Social Environment

5.4.1 Economic Condition

Tharkayta Township, located in Yangon Region's Eastern District, is an economically important township. Local peoples are mainly engaged in service business in the township. Tharkayta Township connected to Thanlyin Township by Yamona Road and Shu Khin Thar Ring Road, also to Dagon Myothit and Dagon Seikkan Townships by Ayeyarwon Road. Ye, Myeik, Dawei, Kawthoung and Sittway can be accessed by Myanmar Five Star Port, which is situated in Shu Khin Thar Ward.

5.4.2 Races and Ethnic Minority

Races living in Tharkayta Township are as shown in Table 5.23

Table 5.23 Population and Races

No.	Races	Population	Township Population	% in Tharkayta Township
1.	Kachin	792	215696	0.37%
2.	Kayar	706	215696	0.33%
3.	Kayin	1807	215696	0.84%
4.	Chin	840	215696	0.39%
5.	Mon	1886	215696	0.87%
6.	Burma	174889	215696	81.08%
7.	Rakhine	5436	215696	2.52%
8.	Shan	861	215696	0.40%
Total		187217	215696	86.80%

Source: General Administration Department (2019 September)

5.4.3 Population details

Total populations of Tharkayta Township up to 2018 – 2019, at the end of the year 2020 September are shown in following tables;

Table 5.24 Household and Family Number

No.	Description	Households	Families	Ward	Village Groups	Village
1.	Urban	32589	45806	19	-	-
Total		32589	45806	19	-	-

Source: General Administration Department (2019 September)

Table 5.25 Population

No.	Description	Over 18 years old			Under 18 years old			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1.	Tharkayta Township	81798	90109	171907	22226	21563	43789	104024	111672	215696
Total		81798	90109	171907	22226	21563	43789	104024	111672	215696

Source: General Administration Department (2019 September)

5.4.4 Religion

According to Tharkayta Township data. Religions of the people living in the townships along the section are shown in Table 5.26.

Table 5.26 Religion of Tharkayta Township

No	Township	Buddhist	Christian	Hindu	Islam	Nat	Other	Total
1.	Tharkayta	184675	4121	4066	22834	-	-	215696
Total		184675	4121	4066	22834	-	-	215696

Source: General Administration Department (2019 September)

CHAPTER 6: IDENTIFICATION AND ASSESSMENT OF POTENTIAL ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

6.1 Methodology for the Impact Assessments

The impact assessment is studied based on attention to the magnitude, duration, extent and frequency of activities which are going to be carried out and characteristics of the proposed project site. This assessment is qualitative and the significance of each impact is classified into 5 categories in overall.

In order to assess the environmental impacts of the proposed project, the following methodology is applied. Each source of impact is assessed by four parameters, magnitude, duration, extent and probability and each assess point have 5 scales as mentioned below:

Table 6.1 Impact Assessment Parameters and its Scale

Assessment	Scale				
	1	2	3	4	5
Magnitude (M)	Insignificant	small and will have no effect on working environment	Moderate and will result in minor changes on working environment	High and will result in significant changes on working environment	Very high and will result in permanent changes on working environment
Duration (D)	0-1 year	2-5 year	6-15 year	Life of operation	Post Closure
Extent (E)	Limited to the site	Limited to the local area	Limited to the region	National	International
Probability (P)	Very improbable	Improbable	Probable	Highly probable	Definite

Then, Significant Point (SP) = (Magnitude + Duration + Extent)* Probability

Impact Significance: Based on calculated significant point, impact significance can be categorized as follows:

Explanation

Significant Point (SP) = (Magnitude + Duration + Extent)* Probability

Impact Significance Significant Point (SP)	Impact Significance
<15	Very Low
15-29	Low
30-44	Moderate
45-59	High
60	Very high

6.2 Impact Identifications and Potential Impacts from Proposed Project

Every developed project can make changes in the local environment in terms of physical, biological and socio-economic aspects along with the perspective on both positive and negative impacts. In the EMP study for this project, the anticipated environmental impacts will be identified and assessed based on the environmental baseline information along with its mitigation measures and professional judgment of the study team.

Potential Impacts

The potential impacts on the environment from various activities of the proposed project can be categorized as follows;

(i) Impacts on Land: Land Acquisition, Land Use
(ii) Impacts on Environmental Resources: Air Quality, Noise, Water Quality, Soil Quality
(iii) Impacts on Ecological Resources: Flora and Fauna
(iv) Impacts on Human: Occupational Health and Safety, Socio-economics
(v) Waste Disposal: Solid, Liquid

6.3 Positive Impacts

6.3.1 Operation Phase

Socio-economics

Most of the impacts of the proposed project on socio-economic environment may be positive due to the long term project. Operation of the project create temporary and permanent job opportunities. Subsequently, socio-economic standards of local people will be increased and eventually it may lead to the economic growth at local and regional level. On the other hand, the state can earn more taxes from the operation of the project.

6.3.2 Decommission Phase

For demolition to take place properly and in good time, several people will be involved. As a result, several employment opportunities will be created for the demolition staff during the demolition phase of the proposed project. Security services, cleaning and waste collection are some of the services that will benefit indirectly. Especially, the project will create job opportunities for causal labors from local community.

6.4 Negative Impacts

6.4.1 Operation Phase

6.4.1.1 Potential Environmental Impacts for Warehousing and Office Space Rental

The main function of the proposed project is Warehouse and Office Space Rental. In this EMP Report the impacts for operation and demolition phases of the warehouse will be assess and analyzed. This study will not consider the construction phase as the infrastructure has been in operation.

The followings are the expected anticipated impacts of the project;

i. Impacts on Land

Since the project is to lease the warehouse area from the original owner, the management of the industrial zone, with mutual agreement by following the legal structure, land acquisition issues are not necessarily required to describe in this report. The warehouse will undertake normal maintenance and due care of the leased land property. At the expiry of the lease of 21 years, the contract may be extended again upon their business conditions. If lease is not extended, ground damages will be refilled and repaired by the proponent.

ii. Impact on Soil Quality

Pharmaceutical wastes from the cold storage, normal wastes from the ambient storage and domestic wastes from the workers will expose soils in the warehouse area so that it may cause leading to potential soil contamination. Also, accidental spillage of fuel such as diesel from standby generators and transportation vehicles can be another source. But this impact can be considered as a small scale.

iii. Impact on Air Quality

Usage of Air conditioning unit for Cold storage and Office space rental, can generate some gases that may lead to impact of air. Some air pollution might be resulted from using vehicles and generators. Transportation activities can also produce some dust particles. By measuring the ambient air quality, most gases remains within the range of National Environmental Quality (Emission) Guidelines.

iv. Impact of Noise

Noise will inevitably be generated from the use of heavy equipment, machineries and vehicles during proposed warehouse operation and transportation activities, also from generator which may create a nuisance for nearby residents. However, this negative impact will be less magnitude and is not considered to be a significant threat to the health or well-being of humans.

v. Impact on Water Quality

Wastewater can be generated from the cold and ambient storage unit by the cleaning activities. Sometimes it may be in the form of effluent with the complex of pharmaceutical mixtures. And wastewater will be generated from the office space. But there will be no harmful contents as it will not make big impacts. Direct disposal of wastewater and solid wastes to the water bodies will affect the water quality of the environment.

vi. Impact on Solid Waste Disposal

The wastes generated from this proposed project are pharmaceutical wastes from Cold storage, normal wastes from ambient storage and domestic wastes from the workers. Furthermore, there will be some office wastes and packaging wastes. If these wastes will not be handled carefully, they can produce some environmental impacts. The aquaculture and water quality can be damaged if these wastes are disposed to the natural water bodies such as creek. In addition, burning of these wastes can produce air pollution.

6.4.1.2 Potential Ecology Resources (Flora and Fauna) Impacts for Warehousing and Office Space Rental

Based on proposed project activities, this report can consider that there will be no impact on flora. But if there may be direct disposal of wastewater and solid wastes to the natural water bodies, aquatic species can be affected because of these wastes.

6.4.1.3 Potential Occupational Health and Safety Impacts for Warehousing and Office Space Rental

Handling Containers during loading and unloading operations, workers may be found with careless mistakes like without PPE, hand cloves. It will bring some OHS issues in the future. For operation in Cold storage, Extreme care will be required while workers handling pharmaceutical contents at minus 25 degree Celsius. Well trained workers should be deployed with proper PPE to prevent accidents and unnecessary incidents from hazardous material.

6.4.2 Decommission Phase

i. Impact on Soil Quality

The waste generated from decommission phase can be impacted to soil. Also, accidental spillage of fuel such as diesel from decommission equipment and transportation vehicles can be another source. But this impact can also be considered as a small scale.

ii. Impact on Air Quality

Due to material transportation, decommission machineries and other equipment, negative impacts are expected on air quality. Exhaust gases, including CO, CO_2, NO_2 and SO_2, which are emitted from construction machines, may increase the background air quality values.

iii. Impact of Noise

The demolition works will lead to significant deterioration of the acoustic environment within the project site and the surrounding areas. This will be as a result of the noise and vibration that will be experienced as a result of demolishing. Noise will inevitably be generated from the use of heavy equipment, machineries and vehicles during decommission activities. However, this negative impact will be less magnitude and is not considered to be a significant threat to the health or well-being of humans.

iv. Impact on Solid Waste Disposal

Demolition of the proposed project infrastructure will result in generation of solid waste. The waste will contain the materials used in construction including concrete, metal, drywall, wood, glass, paints, adhesives, sealants and fasteners. The aquaculture and water quality can be damaged if these wastes are disposed to the natural water bodies such as creek. In addition, burning of these wastes can produce air pollution.

v. Occupational Health and Safety

Workers are likely to be exposed to accidents from demolition activities. It is therefore recommended decommission phase of the proposed project, there is need for the materials to be well inspected according to the occupational health and safety standards and worker encouraged to use personal protective equipment.

6.5 Project Activities and its Impacts Significance of Warehouse and Office Space Rental

The above-mentioned potential adverse impacts of the proposed project should be assessed in order to formulate for reducing these impacts. Therefore, the following table shows the details impact significance of potential adverse impacts of the project.

Table 6.2 Project Activities and its Impacts Significance for Operation Phase of Warehouse and Office Space Rental

Item	Impacts	Project Activities	Magnitude	Duration	Extent	Probability	Result Score	Significance
1.	Soil	• Operation Activities	2	3	2	3	21	Low
		• Solid Waste Disposal	1	3	2	3	18	Low
		• Accidental Spillage of Fuel from Transportation Vehicles	2	3	3	3	24	Low
2.	Air Pollution	• Gases from Air Conditioning Unit	2	3	3	3	24	Low
		• Using Fire extinguishers	2	3	3	3	24	Low
		• Vehicles and Generators	3	3	3	3	27	Low
3.	Noise and Vibration	• Usage of Heavy machineries	3	3	3	3	27	Low
		• Vehicles and Generators	4	3	3	4	40	Moderate
4.	Water pollution	• Wastewater from Cleaning Activities (Cold Storage)	3	3	3	4	27	Low
		• Domestic Wastewater	3	3	2	3	24	Low
5.	Flora	• Wastewater from Cleaning activities	2	C	2	2	14	Very Low
8.	Fauna	• Wastewater from Cleaning Activities	3	3	2	2	16	Low
9.	Solid Waste Disposal	• Pharmaceutical wastes	2	3	3	4	32	Moderate
		• Domestic Wastes of Workers	2	3	2	4	28	Low

		• Other Wastes (Packaging Wastes, Office Wastes)	2	3	2	3	21	Low
10.	Occupational Health and Safety	• Container loading and unloading	4	3	2	4	36	Moderate
		• Handling Hazardous wastes	4	3	2	4	36	Moderate
		• Stock operations (Hauling)	2	3	2	3	21	Low
		• Handling Pharmaceutical contents	4	3	2	3	36	Moderate
		• Handling machineries	4	3	2	4	36	Moderate
11.	Socio-economics	• Job Employment						Positive

Table 6.3 Project Activities and its Impacts Significance for Decommission Phase of Warehouse and Office Space Rental

Item	Impacts	Project Activities	Magnitude	Duration	Extent	Probability	Result Score	Significance
1.	Soil	• Oil leakage and spillage from demolishing machineries, vehicles used for transportation.	3	1	1	3	15	Low
		• Solid Waste Disposal	1	3	2	3	18	Low
2.	Air Pollution	• Dust generation and gaseous emission from machines operation during demolition, vehicle transportation	4	1	2	5	35	Moderate
3.	Noise and Vibration	• Operating Heavy and Demolition Machines	4	1	1	5	30	Moderate
4.	Solid Waste Disposal	• Demolished wastes like ambient and cold storage unit materials, Loading bay iron wastes	3	1	1	4	20	Low

		• Air Conditioning unit wastes						
5.	Occupational Health and Safety	• Uninstallation of Heavy Air conditioning Units	4	3	2	4	36	Moderate
		• Handling heavy Demotion machineries						
6.	Fire Hazards	• Improper storage of demolished waste material and near the fuel storage area	5	1	1	3	21	Low

During the ***operation phase***, impacts on noise and vibration, solid waste disposal and occupational health and safety impacts are assessed as **Moderate Impacts** and other impacts such as impacts on soil, air quality, water and fauna impacts are categorized as **Low Impacts** as well as flora impact is considered as **Very Low Impact** as per the results of assessments. During the ***decommission phase***, impacts on air, noise and vibration and occupational health and safety impacts are assessed as **Moderate Impacts** and other impacts like impacts on soil, solid waste disposal and fire hazards impacts are categorized as **Low Impacts** according to the results of assessments. The following figure illustrates detail impact significances of potential adverse impacts of the proposed project.

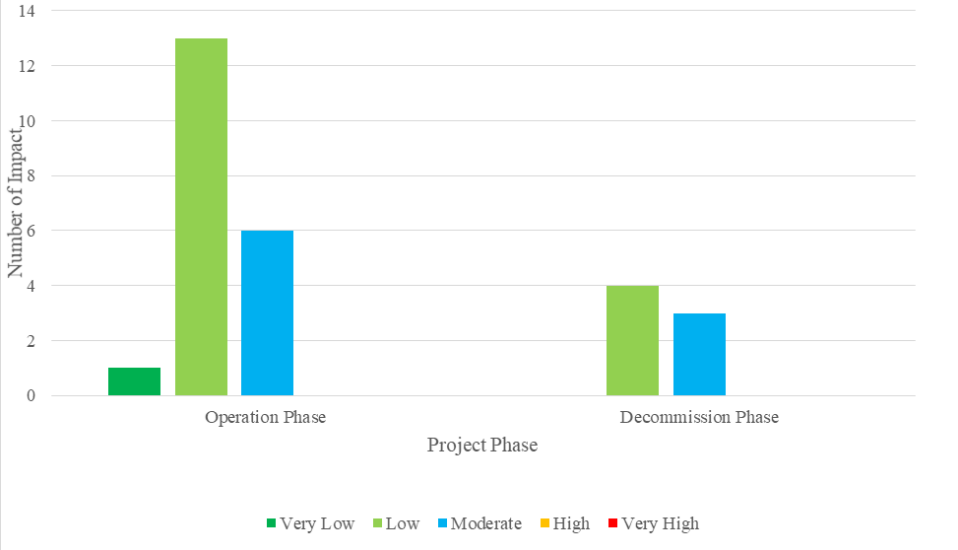


Figure 6.1 Impact Significance of Potential Adverse Impacts of the Proposed Project

6.6 Impact Mitigation Measure

6.6.1 Impact Mitigation Measure for Operation Phase

Mitigation Measure for Soil Pollution

During the operation phase, waste should be management properly not to enter to the soil. The project proponent get rid of miscellaneous wastes off site and transport to related municipal site with coordination of township development committee of YCDC.

Mitigation Measure for Air Pollution

Regularly maintain machineries and Air Conditioning unit to protect gas leakage. The vehicle must not idle when they are not in operation. Transport and operate the vehicles in timely manner if possible. Furthermore, generators must be operated in enclosed area to reduce air emission.

Mitigation Measure for Noise Pollution

During the operation phase, generators, inverters, transformers, management vehicles and maintenance vehicles must be inspected and maintained regularly to reduce noise pollution. Perform operation activities during working hours as much as possible. Installing noise barriers should be done if it is necessary. Occupational preventive measures must be used to prevent noise. Machineries and vehicles should be checked and maintained regularly to reduce noise from machines.

Mitigation Measure for Water Pollution

The proponent must avoid discharge of wastewater to natural water bodies without proper treatment. Suitable wastewater treatment facilities should be installed if necessary. Disposing of wastes from operation activities to water bodies must be prohibited. Water meters must be installed to inspect and control the water usage. Workers must be trained and educated about reducing water usage as much as possible. The existing water facilities and water discharging facilities such as pipes and taps must be inspect regularly to control water usage and leaking waste water. The sediment build-up in the storm water drain must be regularly remove to ensure the maximum efficiency of the drainage system.

Mitigation Measure for Odor

Although the project has very low impact on odor quality, the warehouse and the office buildings must be in good ventilation such as installation of ventilators. The proponent must be provided sufficient PPEs for the workers such as masks, if necessary.

Mitigation Measure for Ecological Resources (Flora and Fauna)

During operation phase, the proponent must avoid the discharging of wastewater to natural water bodies without proper treatment.

Mitigation Measure for Solid Waste Disposal

Proper solid waste disposal system must be installed and disposed in coordination with YCDC for regular collection. Sufficient dust bins must be provided in the building and its compound, (if possible) provide also recycle bins (waste separation). Dust bins must be covered to maintain sanitation in order to clean the building compound. Burning of waste materials must be strictly prohibited. Sufficient toilets for labor must be provided, also toilet waste must be cleaned regularly by waste collector.

Occupational Health and Safety

During the operation phase, personal protective equipment (PPE) such as safety gloves, helmet, goggles, earmuffs, masks, etc. must be provided as required. Workers must be completed suitable trainings for health and safety. Worker must be used required PPEs and followed instructions whenever and wherever they are working in potential risk areas. The proponent

must provide appropriate warning signs and must inform to the users and the workers. Provide suitable PPEs to all workers after training how to use it. The office and warehouse building must be provided with the suitable first-aid kits and the workers must be trained how to use it correctly. Cleaning facilities such as washing basins must be provided sufficiently for workers hygiene. Dining room must be provided for workers. Workers in Cooling Room must be assigned with suitable shifts. Suitable medical check-up must be provided for workers when necessary.

Emergency preparedness

Safety notices and warning signs must be tagged at necessary area. Fire Extinguishers must be provided at all appropriate places. Emergency Response Plan must be derived. Workers must be trained to how to access Firefighting equipment during emergency. Annual fire drill must be practiced by all workers.

6.6.2 Impact Mitigation Measure for Decommission Phase

Mitigation Measure for Air Pollution

Water spray must be used at the demolishing place where dust is generated hugely. Burning material at site must be strictly prohibited.

Mitigation Measure for Noise Pollution

High end Demolishing machineries must be used to protect noise pollution. Working noise generated demolishing activities must be avoided at night.

Occupational Health and Safety

Personal protective equipment (PPEs) such as safety gloves, helmet, goggles, earmuffs, masks, etc. as required must be provided. Safety signage and emergency contact numbers must be clearly displayed near demolishing activities. Appropriate warning signs, informing users and workers, and instructing them to use PPEs carefully and systematically must be trained to all workers. Suitable first-aid kits in the factory must be provided and trained workers how to use correctly.

Emergency preparedness

Safety notices and warning signs must be tagged at necessary area. Fire Extinguishers must be provided at all appropriate places. Emergency Response Plan must be derived. Workers must be trained to how to access Firefighting equipment during emergency. Annual fire drill must be practiced by all workers.

6.6.3 Summary of Impact Mitigation Measure

The following table show the summary of impact mitigation measure for the proposed project.

Table 6.4 Summary of Impact Mitigation Measure for Operation Phase

No.	Potential Environmental Impact	Project Activities	Recommend Mitigation Measures
1	Soil Pollution	• Waste disposal	• Get rid of miscellaneous wastes off site and transport to related municipal site with coordination of township development committee of YCDC.
2	Air Pollution	• Using Air Conditioning • Using heavy machineries, vehicles and generators	• Regularly maintain machineries and Air Conditioning unit to protect gas leakage • Do not idle the vehicles. Transport and operate the vehicles in timely manner if possible. • Generators should be operated in enclosed area and maintain properly.
3	Noise Pollution	• Using Heavy Equipment • Transportation activities	• Perform operation activities during working hours as much as possible • Install noise barriers if necessary • Use occupational preventive measures • Maintain machineries and vehicles regularly • The container trucks to stop engine as soon as the loading and unloading started.
4	Water Pollution	• Operation activities • Discharging water from washing raw materials • Wastewater from washing • Domestic wastewater from workers	• Avoid discharge of wastewater to natural water bodies without proper treatment • Install suitable wastewater treatment facilities • Prohibit disposing of wastes from operation activities to water bodies • Use water meters to control the water usage • Train and Educate workers to reduce the water usage as much as possible • Upgrade the existing water facilities such as pipes and taps to save improper water usage

No.	Potential Environmental Impact	Project Activities	Recommend Mitigation Measures
		• Unwanted parts from raw materials	
5	Odor	• Warehouse activities	• Provide sufficient PPEs such as masks • Make the factory area to have good ventilation such as installation of ventilators.
6	Ecological Resources (Flora and Fauna)	• Operation activities	• Avoid discharge of wastewater to natural water bodies without proper treatment
7	Solid Waste Disposal	• Packaging wastes • Municipal wastes from workers • Used gloves and masks	• Implement good solid waste disposal system and disposed in coordination with township development committee for regular collection • Provide sufficient dust bins in the factory area, (if possible) provide also recycle bins (waste separation) • Cover the dust bins to maintain sanitation in order to clean the factory compound • Do not allow burning of waste materials. • Provide sufficient toilets for labor, also toilet waste should be cleaned regularly by waste collector.
8	Occupational Health and Safety	• Operation Activities	• Provide personal protective equipment (PPE) such as safety gloves, helmet, goggles, earmuffs, masks, etc. as required. • Provide workers suitable trainings for health and safety • Manage workers to use required PPEs and instructions whenever and wherever they are working in potential risk areas • Use appropriate warning signs, informing users and workers, and instructing them to use PPEs carefully and systematically • Provide suitable first-aid kits in the factory and train workers how to use correctly • Provide sufficient facilities such as washing basins for workers hygiene • Provide dining room for workers

No.	Potential Environmental Impact	Project Activities	Recommend Mitigation Measures
			• Assign the workers who need to go Cooling Room with suitable shifts • Provide suitable medical check-up for workers if required
9.	Emergency preparedness	• Fire Hazardous • Fire accident	• Provide Fire Extinguishers at all appropriate places. • Emergency Response Plan must be derived. • Workers must be trained to how to access Firefighting equipment during emergency. • Practice annual fire drill

Table 6.5 Summary of Impact Mitigation Measure for Decommission Phase

No.	Potential Environmental Impact	Project Activities	Recommend Mitigation Measures
1	Air Pollution	• Dust generation from demolishing activities • Burning Demolished material at site	• Using water spray at the demolishing place where dust is generated hugely • Prohibition of burning material at site
2	Noise Pollution	• Using heavy machineries for demolishing	• Using High end Demolishing machineries • Avoid working noise generated demolishing activities at night. • The container trucks to stop engine as soon as the loading and unloading started.
			• Provide personal protective equipment (PPE) such as safety gloves, helmet, goggles, earmuffs, masks, etc. as required.

No.	Potential Environmental Impact	Project Activities	Recommend Mitigation Measures
3	Occupational Health and Safety	• Demolishing Activities	• Placing safety signage and emergency contact numbers near demolishing activities. • Use appropriate warning signs, informing users and workers, and instructing them to use PPEs carefully and systematically • Provide suitable first-aid kits in Site
4	Emergency preparedness	• Fire Hazardous • Fire accident	• Provide Fire Extinguishers at all appropriate places. • Emergency Response Plan must be derived. • Workers must be trained to how to access Firefighting equipment during emergency.

CHAPTER 7: ENVIRONMENTAL MANAGEMENT PLAN

7.1 Introduction

The Environment Management Plan (EMP) is required to ensure sustainable development in the area of the project site. Hence, an all-encompassing plan is envisaged in this chapter, albeit the identification and quantification of impacts based on scientific matrix and professional judgment is presented in this chapter.

Objectives of the Environmental Management Plan
• To identify the possible environmental impacts of the operation activities
• To develop measures to minimize, mitigate, and manage these impacts, and
• To implement sustainable development with responsibility and accountability.

Since all the data cannot bring out all variations induced by the natural or human activities, regular monitoring program of the environmental parameters is essential to take into account the changes in the environment.

Objectives of the Environmental Monitoring Plan
• To check or assess the efficacy of the controlling measures
• To detect deviations in order to initiate necessary measures
• To establish a database for Impact Assessment Studies for new projects.

Responsibilities for EMP

The responsibilities are required to identify to establish the development and effective implementation of the EMP. The environmental management practices, procedures, and responsibilities defined herein to get full compliance with the existing national environmental policy, laws, rules, and regulations.

In order to implement this EMP effectively, it will be necessary to define the responsibilities of various stakeholders. The following entities should be involved in the implementation of this EMP:

- FLP Tharkayta Co., Ltd.
- Regional and Local Level Stakeholders (e.g ECD – Yangon Region)
- Third-Party Environmental Consultant

FLP Tharkayta Co., Ltd.: The proponent will be charged with the responsibility for ensuring that the proposed development has been accomplished in an environmentally sound manner. This can be achieved by inclusion of environmental specifications in the tender specifications,

selection of environmentally conscious contractors and supervision to ensure that the objectives of this EMP are met. The implementation of Environmental Management Plan (EMP) process will prepare and follow up by appointed persons for health, safety and environmental management under the instruction of management team of FLP Tharkayta Co., Ltd. and Human Resource Manager (HR) will be assigned as EHS coordinator for EMP implementation facilities.

Regional and local level stakeholders (Yangon Region): The stakeholders include related government and departments which are responsible for general supervision and coordinating over all matters relating to the environment and to be instrumental in providing guidance for recognized regulatory frameworks.(e.g. Environmental Conservation Department (ECD), Department of Public Health, etc.)

Third-Party Environmental Consultant: The environmental consultant will have to ensure that the proposed EMP is up to date and is being followed properly by the proponent. Periodic audits of the EMP will have to be done to ensure that its performance is as expected, by comparing with operating standards so that any corrective actions can be taken.

The Environment, Health and Safety (EHS) Coordinator will be responsible for the selection and application of technology, management systems, and environmental risk assessment tools that will help ensure that the facility and it's operation process has no adverse environmental impact to the air, water, land and community. This position will also be responsible for maintaining the facility in full compliance with applicable environmental regulatory and company requirements. The appointed qualify person will therefore be directly responsible for the development and implementation of the EMP and will be the contact point with the EHS in terms of issues related to the EMP. For certain issues such as the emergency response plan or sustainability issues, the Environment, Health and Safety (EHS) Coordinator will coordinate with other managers and supervise their performance on issues relating to the EMP. The appointed person will also coordinate with the operating leaders/ supervisors in order to ensure that the EMP is correctly implemented in each of the units.

The main responsible of stakeholder for inspection is Environmental Conservation Department (ECD) and other authorized Government Department such as Regional municipality, Department of Public Health.

Table 7.1 Responsible Persons for the EMP and Mitigation Measure

No.	Name	Position	Department	Responsibilities and Duties
1.	U Maung Maung Hla Moe	Director	FLP Tharkayta Co., Ltd.	• Implementation of the EMP • Supervision and management of the implementation of EMP
2.	Daw Su	Department Head		• Implementation of the EMP • Supervision and management of the implementation of EMP
3.	The project proponent shall	HSE Coordinator		• Implementation of the EMP • Oversight of overall implementation of the project environmental activities

No.	Name	Position	Department	Responsibilities and Duties
	appoint one HSE Coordinator			• Supervision and monitoring of the implementation of EMP • Supervision, monitoring and performing of Health and safety for workers
4.	Members of MONREC	Government Authority	Environmental Conservation Department	• Monitoring and inspection of projects to determine compliance with all environmental and social requirements • The Ministry may impose penalties and/ or require the project proponent to undertake corrective action • Where, the Ministry views that the project is not in compliance, it shall o Promptly inform the project proponent o Indicate specific non-compliances of the project environmental and social requirements; and o Specify a time period for the project proponent to bring the project into compliance • In the event of noncompliance o Inform the project proponent indicating the specific non-compliances with environmental and social requirements; • Where a project is not in compliance or not likely to comply with its environmental and social requirements, take enforcement action including: o Suspension of project operation; and o Employing third parties to correct non-compliance **Source: Environmental Impact Assessment Procedure (2015).**

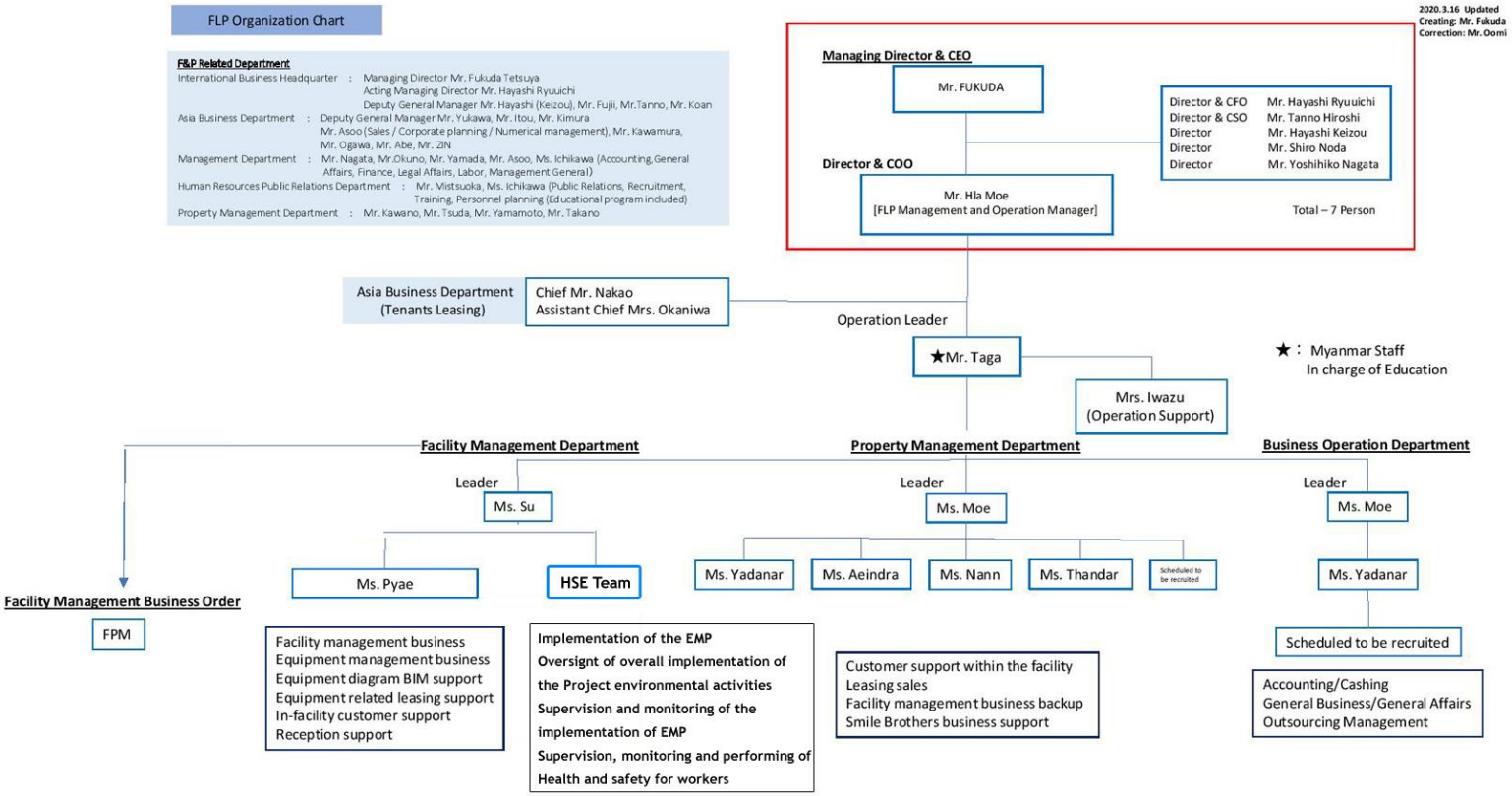


Figure 7.1 Organization Structure with EMP Implementation Team

7.2 Environmental Management Plans

Table 7.2 Environmental Management Plans (Operation Phase)

No.	Environmental Management Plans	Project Activities	Environmental Management	Responsible Party
1	Soil Pollution Control Plan	• Operation activities	• Get rid of miscellaneous wastes off site and transport to related municipal site with coordination of township development committee of YCDC.	• FLP Tharkayta Co., Ltd.
2	Air Pollution Management Plan	• Operation activities • Using heavy machineries, vehicles and generators	• Regularly maintain and check machineries and Air Conditioning unit to protect gas leakage • Do not idle the vehicles. Transport and operate the vehicles in timely manner if possible. • Generators must be operated in enclosed area.	• FLP Tharkayta Co., Ltd.
3	Noise Pollution Management Plan	• Operation activities • Heavy equipment and transportation activities	• Perform operation activities during working hours as much as possible • Install noise barriers if necessary • Use occupational preventive measures • Maintain machineries and vehicles regularly	• FLP Tharkayta Co., Ltd.
4	Water Pollution Control Plan	• Operation activities • Discharging water from washing raw materials • Wastewater from washing • Domestic wastewater from workers • Unwanted parts from raw materials	• Avoid discharge of wastewater to natural water bodies without proper treatment • Install suitable wastewater treatment facilities • Prohibit disposing of wastes from operation activities to water bodies • Use water meters to control the water usage • Train and Educate workers to reduce the water usage as much as possible • Upgrade the existing water facilities such as pipes and taps to save improper water usage	• FLP Tharkayta Co., Ltd.

No.	Environmental Management Plans	Project Activities	Environmental Management	Responsible Party
5	Odor	• Waste	• Provide sufficient PPEs such as masks • Make the factory area to have good ventilation such as installation of ventilators. • Cover the dust bins to control odor	• FLP Tharkayta Co., Ltd.
6	Ecological Resources (Flora and Fauna) Management Plan	• Operation activities	• Avoid discharge of wastewater to natural water bodies without proper treatment	• FLP Tharkayta Co., Ltd.
7	Solid Waste Disposal Management	• Packaging wastes • Municipal wastes from workers • Used gloves and masks	• Implement good solid waste disposal system and disposed in coordination with township development committee for regular collection • Provide sufficient dust bins in the factory area, (if possible) provide also recycle bins (waste separation) • Cover the dust bins to maintain sanitation in order to clean the factory compound • Do not allow burning of waste materials. • Provide sufficient toilets for labor, also toilet waste should be cleaned regularly by waste collector.	• FLP Tharkayta Co., Ltd.

Table 7.3 Environmental Management Plans (Decommission Phase)

No.	Environmental Management Plans	Project Activities	Environmental Management	Responsible Party
1	Air Pollution Management Plan	• Dust generation from demolishing activities • Burning Demolished material at site	• Using water spray at the demolishing place where dust is generated hugely • Prohibition of burning material at site	• FLP Tharkayta Co., Ltd. and sub-contractor

No.	Environmental Management Plans	Project Activities	Environmental Management	Responsible Party
2	Noise Pollution Management Plan	• Using heavy machineries for demolishing	• Using High end Demolishing machineries • Avoid working noise generated demolishing activities at night.	• FLP Tharkayta Co., Ltd. and sub-contractor
3	Occupational Health and Safety	• Demolishing Activities	• Provide personal protective equipment (PPE) such as safety gloves, helmet, goggles, earmuffs, masks, etc. as required. • Placing safety signage and emergency contact numbers near demolishing activities. • Use appropriate warning signs, informing users and workers, and instruct them to use PPEs carefully and systematically • Provide suitable first-aid kits in Site	• FLP Tharkayta Co., Ltd. and sub-contractor
4	Emergency preparedness	• Fire Hazardous • Fire accident	• Provide Fire Extinguishers at all appropriate places. • Emergency Response Plan must be derived. • Workers must be trained to how to access Firefighting equipment during emergency.	• FLP Tharkayta Co., Ltd. and sub-contractor

7.2.1 Occupational Health and Safety Plan

- Provide personal protective equipment (PPE) such as safety gloves, helmet, goggles, earmuffs, masks, etc. as required.
- Provide workers suitable trainings for health and safety
- Manage workers to use required PPEs and instructions whenever and wherever they are working in potential risk areas
- Use appropriate warning signs, informing users and workers, and instructing them to use PPEs carefully and systematically
- Provide suitable first-aid kits in the factory and train workers how to use correctly
- Provide sufficient facilities such as washing basins for workers hygiene
- Provide dining room for workers
- Assign the workers who need to go Cooling Room with suitable shifts
- Provide suitable medical check-up for workers if required.

Guidelines to Follow During COVID-19 Pandemic

- Raise awareness on how to prevent exposure and contagion by the virus (ways it presents, how to avoid its spread, symptoms and signs, etc.)
- For Staff sickness advice, must be followed the guidelines of Ministry of Health and Sports. If a worker or any other individual feels ill, they must stay home.
- For construction work follow Physical Distancing guidelines (i.e., within 6 feet).
- Not to work facing each other for over (15) minutes.
- Working hours must be in shift and for each shift the workers must be the same.
- Highlight the importance of proper and frequent hand washing. For workers personal hygiene (Hand Hygiene). Workers must be wash their hands for 20 seconds with soap before and after of their shift, before entering to their work place, after using toilets and arriving at their camps or home.
- Encourage frequent hand washing of all personnel in the project (workers, supervisors, visitors).
- Promote respiratory hygiene that emphasizes on covering the face when sneezing and coughing, and properly wiping the nose; thus controlling the primary source of the contagion.
- Do not share or exchange your personal protection equipment (PPE).
- Must be register the number workers each day.
- Must disinfect the interior of construction machines after using with different operators.
- Restrict entry to all visitors during the epidemic, until further instruction.

7.2.2 Electrical Hazards Control Plan

Many workers are unaware of the potential electrical hazards present in their work environment, which makes them more vulnerable to the dangers of electrocution.

The following tips are possible solutions to reduce or eliminate the risk of injury associated with electrical work for all phases.

- Nothing is stored under overhead power lines.
- Safety barriers and signs must be installed to warm nearby electrical workers.
- Only qualified person and trained person must fix the damaged electrical tools and equipment.
- Cracks, cuts or abrasions on cables, wires and cords should be checked thoroughly.
- The correct wires suitable for the operation and the electrical load to work on should be used.
- Non-conductive wood or fiberglass ladders should be used when working near power lines.
- Excavation and digging near the underground cable lines should be carried out carefully.
- If it is possible, cable locating devices should be used.

7.2.3 Fire Emergency Preparedness Plan

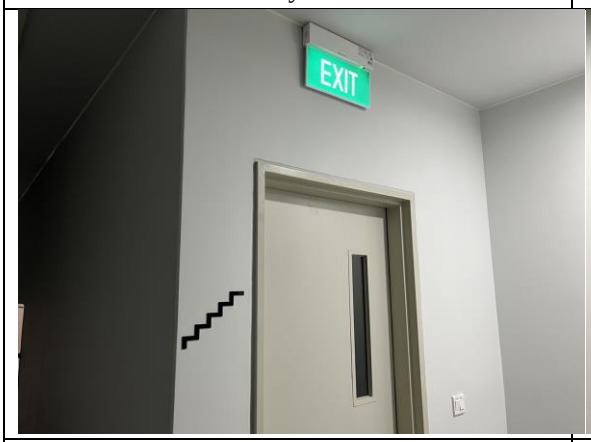
For fire safety, the project proponent that include team members, provide firefighting training, practice, regular instruction, installation of sufficient amount of fire extinguisher and water storage tanks and for the whole project site by following the instructions, techniques, and guidelines in concern with fire emergency matters of Myanmar Fire Services Department. Myanmar Fire Services Department was inspected all three buildings of the project and issued the fire safety certificate which is attached in Appendix 13.A simple fire action sign and contact numbers of Myanmar Fire Services Department was posted in positions where workers and relevant persons can read it and become familiar with its contents. Existing ways and assembly point was also prepared in proposed project area. Detail fire operation manual of the proposed project is attached in Appendix 14. The following figures describe firefighting equipment and sign that the proponent was installed.

Emergency Contact, Emergency Alarm & Fire Hose Reel

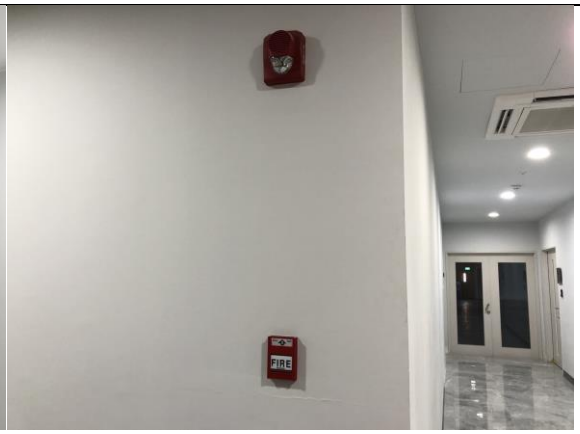
Fire Extenguisher

Fire Hydrant

Smoke Detector



Emergency Exist Sign



Fire Alarm

Figure 7.2 Fire Fighting System and Signage

7.2.4 Emergency Response Plan

Develop, maintain and disseminate and Emergency Preparedness and Response Plan for the Project, incorporating management measure as listed below. The plan must be included the following.

- Identification of potential emergency situations specific to project, including fire.
- Responsibilities of all staff and management in the event emergency must be clearly described and responsible person must know in detail procedure.
- Training requirement for all staff for emergency response plan.
- Ensure all staff are suitably trained for their respective jobs to reduce the chance for accidents that lead to medical emergencies.
- Specific actions for each emergency identified
- List and locations of hospitals, first- responders, etc.
- Phone numbers of hospitals and doctors.
- Regular environmental risk assessment need to review potential environmental emergencies that may arise.
- In case of Covid 19 epidemic situation, the project proponent need to follow Covid 19 prevention guideline that issued by Ministry of Health and Sports.

For all emergency cases, emergency response plan must be developed by the project proponent and train to all workers in order to evacuate systematically during emergency cases. Recovery plan must be developed because recovery plan should be followed after severe damages due to emergency cases.

Figure 7.3 Safety Cards for Awareness of Emergency Cases

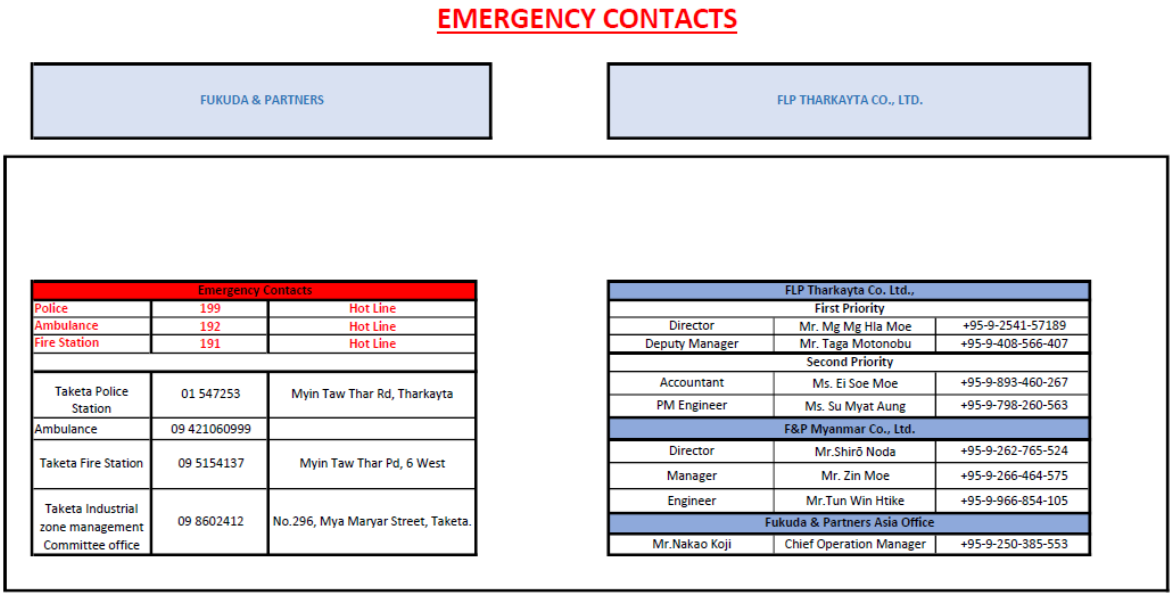


Figure 7.4 Emergency Contact

Table 7.4 List of Equipment for Emergency

S.No	Operation	Equipment/Storage	Unit	Capacity
1	Fire Fighting Equipment	Fire Extinguisher	No.	65
		Fire Hose Reel	No.	12
		Fire Hydrant	No.	8
2	First Aid	First Aid Kid	No.	50
3	Emergency Escape	Emergency Excape Route	No.	3
		Assembly Point	No.	2

7.3 Environmental Monitoring Plan

The following table describes the detail Environmental Monitoring Plan for construction phase and operation phase of the proposed project.

Table 7.5 Environmental Monitoring Plan for Operation Phase of Warehouse and Office space rental

Item	Environmental Concerns	Parameters	Frequency	Locations	Responsible Party
1	Air quality	PM $_{10}$, PM $_{2.5}$, CO, CO_2, NO_2, SO_2, O_3	Twice a Year	One point between Building A and B	FLP Tharkayta Co., Ltd
2	Noise level	Equivalent noise level dB(A)	Twice a Year	One point between Building A and B	FLP Tharkayta Co., Ltd
3	Wastewater quality	BOD, COD, Oil and Grease, pH, Total Coliform Bacteria, Total Nitrogen, Total Phosphorus, Total Suspended Solids, (on site) pH, Temperature, EC, DO, Turbidity, Salinity	Twice a Year	One point near wastewater treatment system effluent	FLP Tharkayta Co., Ltd
4	Odour	Odour Quality	Monthly	One point near wastewater treatment system effluent	FLP Tharkayta Co., Ltd
5	Waste disposal	Type and Amount	Weekly	Disposal points all Amenities	FLP Tharkayta Co., Ltd

Item	Environmental Concerns	Parameters	Frequency	Locations	Responsible Party
6	Water Usage	Usage in Litres	Monthly	All Amenities	FLP Tharkayta Co., Ltd
7	Electricity Usage	Usage in kWH	Monthly	All Amenities	FLP Tharkayta Co., Ltd
8	Capacity Building and Human Resource Development	EMP implementation Training EHS Training	Yearly	All Amenities	FLP Tharkayta Co., Ltd
		Reporting and Documentation	Monthly	All Amenities	FLP Tharkayta Co., Ltd

Table 7.6 Environmental Monitoring Plan for Decommission Phase of Warehouse and Office space rental

Item	Environmental Concerns	Parameters	Frequency	Locations	Responsible Party
1	Air quality	PM_{10}, $PM_{2.5}$ dust protective measures (covering with nets, water spraying etc	Once during the demolition	At suitable receptor point	Third Party Contractor for Decommissioning
2	Noise level	Equivalent noise level dB(A)	Once	At Suitable point where the major demolishing activity happen	Third Party Contractor for Decommissioning

7.4 Cost Estimation for EMP and EMoP

Cost estimation in advance will ensure the commitment of the proponent or concerned party on the mitigation measures. This cost may be varied at the time of execution due to the different factors. FLP Tharkayta Co., Ltd will commit to implement this plan with funds allotted.

Table 7.7 Cost Estimation for EMP and Mitigation Measures

Sl.No	Activities	Unit	Frequency	Unit Cost (MMK)	Total Cost (MMK)
1. Mitigation Measures for Operation Phase					
1	Providing PPE for the workers who are working under low temperatures			Lump Sum	1,000,000
2	Placing First Aid Kit Boxes at Appropriate places	10		25000	250,000
3	Maintenance of Air Conditioning Unit			Lump Sum	1,000,000
4	Installation of Dust bins at Appropriate place			Lump Sum	200,000
5	Maintenance of Diesel Generators			Lump Sum	1,000,000
6	Disposal of Hazardous and Non Hazardous Wastes			Lump Sum	2,000,000

7	Providing Occupational Health Facilities (Toiles, Periodical Medical Check-up)			Lump Sum	1,500,000
				Sub Total	6,950,000
	2. Mitigation Measures for Decommissioning Phase				
1	Providing PPE for the workers			Lump Sum	500,000
2	Providing First Aid Kit Boxes	5		25000	125,000
3	Dust Control			Lump Sum	2,000,000
4	Waste Disposal			Lump Sum	2,000,000
				Sub Total	4,625,000
				Contingency	1,500,000
				Gross Total	13,075,000

Table 7.8 Cost Estimation of Environmental Monitoring Plan

Sl.No	Activities	Method	Frequency per year	Unit Cost (MMK)	Annual Cost (MMK)
1	Air quality	Same method as baseline survey	2	500,000	1,000,000

Sl.No	Activities	Method	Frequency per year	Unit Cost (MMK)	Annual Cost (MMK)
2	Noise level	Same method as baseline survey	2	125,000	250,000
3	Water quality	Same method as baseline survey	2	400,000	800,000
6	Water Usage	Record the monthly water usage	12	Lump Sum	50,000
7	Electricity Usage	Record the monthly electricity usage	12	Lump Sum	50,000
8	Capacity Building	EMP Implementation Training	1	Lump Sum	2,500,000
9	HSE Coordinator		12	800,000	9,600,000
				Total	**14,250,000**

As described in Chapter 4, Section 4.4, Paragraph 8: The project proponent will submit the monitoring report semiannually prescribed time by Ministry in line with the schedule of EMP, under paragraph 108 of Environmental Impact Assessment Procedure (2015).

7.5 Co-operate Social Responsibility (CSR) Plan

FLP Tharkayta Co.,Ltd will implement the Co-operate Social Responsibility (CSR) Plan which intends to support 2% of annually profits for developing in economic condition for livelihoods of local people who are suffering from the impact of project. Funded for the intended for CSR plan will be managed under the authorization of local authorities and Yangon Region Government. The intended amount for CSR plan will have to be used in community developing plan for infrastructure such as electricity access, road construction, tube well construction and basic necessaries for schools and others.

Table 7.9 Co-operate Social Responsibility Plan of the Proposed Project

No.	Subjects	% of the Fund
1.	Contribution to Develop Education Sector	40%
2.	Infrastructure Development of Region	30%
3.	Religion Sector Development	30%

7.6 Grievance Redress Mechanism (GRM)

Grievance Redress Mechanism (GRM) is a complaint and proposal consideration mechanism that provides an additional and accessible channel for submission of complaints and feedback to individuals and communities. GRM allows to improve the response efficiency and accountability level to the project beneficiaries, ensuring the prompt complaints and feedback consideration and processing, as well as problems identification and finding their solutions together with the stakeholders. The schematic diagram of the GRM is shown in Figure 7.5.

7.6.1 Objective of Grievance Redress Mechanism (GRM)

The fundamental objectives of GRM are-

- ✓ to resolve any social and environmental related grievances locally in consultation with the aggrieved party to facilitate smooth implementation of the project
- ✓ to democratize the development process at the local level and
- ✓ to establish accountability to the stakeholders.

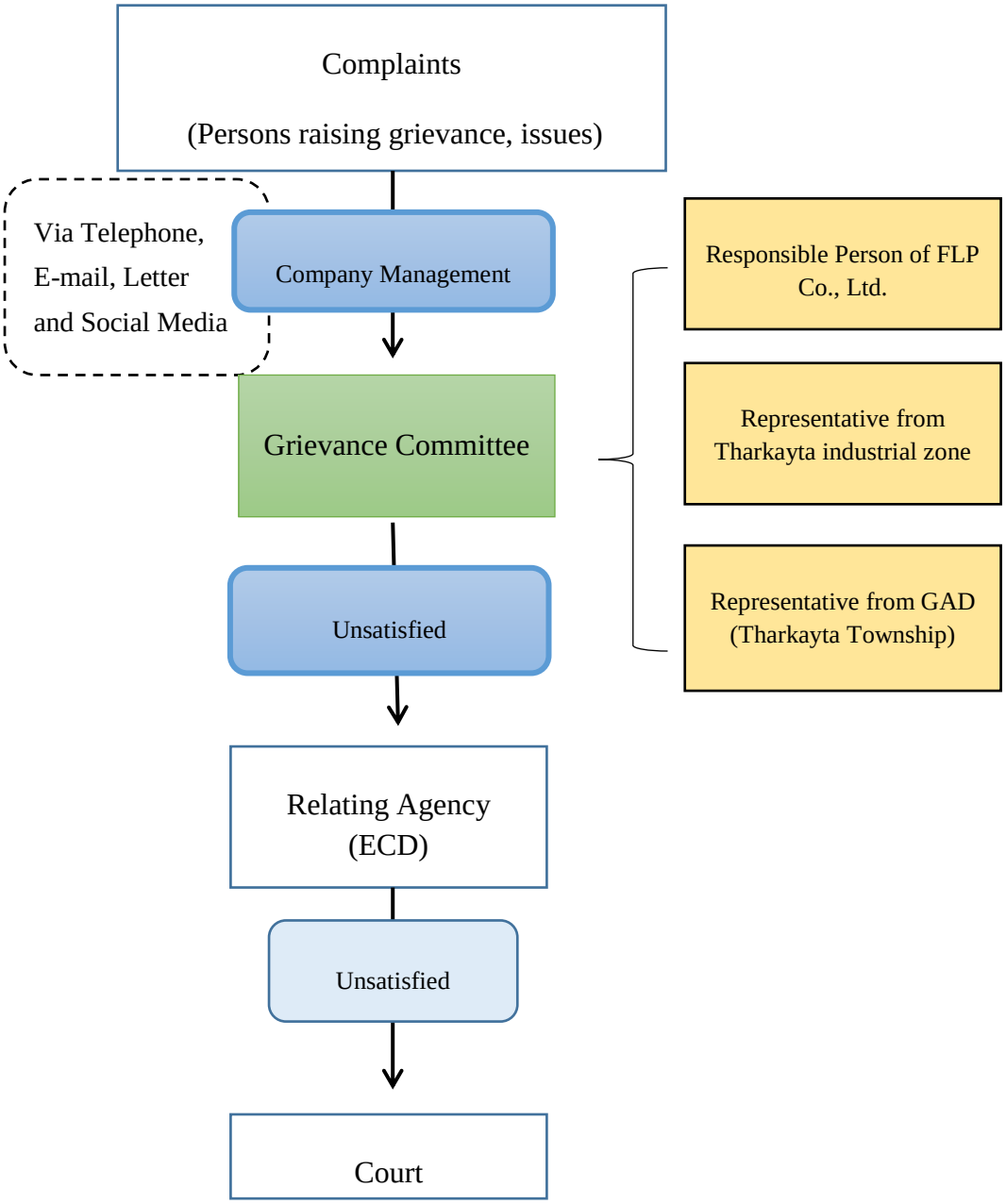


Figure 7.5 Grievance Redress Mechanism

CHAPTER 8: FOCUS GROUP DISCUSSION AND INFORMATION DISCLOSURE

As the project site is situated in the Tharkayta Industrial Zone, the project proponent informed and requested the secretary of the Tharkayta Industrial Zone Management Committee to attend the consultation meeting. The meeting was held in the Tharkayta Industrial Zone Management Committee Office by the following agenda.

Agenda of the meeting

The meeting was held in accordance with the following agenda;

1) Opening of the meeting
2) Presentation of the project information by U Maung Maung Hla Moe (Director, FLP Tharkayta Co.,Ltd.)
3) Presentation of the Environmental Management Plan (EMP) for operation and decommission of the Warehouse and Office Space Rental Project by U Soe Min (Director, E Guard Environmental Services Co.,Ltd.)
4) Discussion, Comments and Suggestion from U Htun Htun Win (Secretary, Tharkayta Industrial Zone Management Committee)
5) Closing the meeting.

The detail of the agenda is described in the following:

1. Opening of the Meeting

Opening the meeting by introducing each other and the purpose of the meeting by the U Soe Min.

2. Presentation of the project information by U Maung Maung Hla Moe (Director, FLP Tharkayta Co.,Ltd.)

U Maung Maung Hla Moe briefly explain the project information such as type of business, the operation and decommission process of the project, project proponent information and project description.

3. Presentation of the Environmental Management Plan (EMP) for operation and decommission of the Warehouse and Office Space Rental Project by U Soe Min (Director, E Guard Environmental Services Co.,Ltd.)

U Soe Min explained the process of environmental management plan preparation, potential positive impacts of the project, potential negative impacts of the project, proposed mitigation

measures to reduce these negative impacts, proposed monitoring plan, grievance redress mechanism and environmental quality measurements processes of the proposed project.

4. Discussion, Comments and Suggestion from U Htun Htun Win (Secretary, Tharkayta Industrial Zone Management Committee)

U Htun Htun Win and groups discuss the information related to this project. Then, U Thaw Tar Htun (Associate Consultant, E Guard Environmental Services Co.,Ltd.) interview as a key informant interview to U Htun Htun Win about the surrounding soci-economic condition of Tharkayta Industrial Zone.

According to the interview result with U Htun Htun Win (Secretary, Tharkayta Industrial Zone Management Committee), Tharkayta Industrial Zone was establish in 1999 and currently there are eleven kind of business mostly garment and textile, consumer goods, general household goods, aqua product and frozen goods, printing and binding, pharmaceutical, iron and steel, forest and finished product, construction, machinery, electricity, vehicle and warehouse. Base on the interview, the Zone has no experience of fire hazard before. YCDC water supply and deep well are the main water sources of the Zone. For the waste disposal, YCDC provide the dust bin for every business with appropriate fees. The water from the zone discharge to the Pazaungtaung creek via the drainage channel network.

After interviewing, U Htun Htun Win said his opinion as below.

1. The project can get the profit and taxes to the government
2. The project can also create the job opportunity to the local people
3. This project could not have negative impact on the socio-economic condition of the Zone.
4. And there may have benefit on other business within the Zone

Figure 8.1 Focus Group Discussion and Key Informant Interview

Moreover, the project proponent informed and invited local people to attend the public consultation meeting. The EMP report will be finalized and submitted to ECD for environmental approval. After submission, the submitted EMP report will be ensured for available to interested parties and publish at Yangon Region Environmental Conservation

Department, FLP Tharkayta office and office of E Guard Environmental Services, where any interested persons can review for further comments and suggestions.

Public consultation and information disclosure concerning with the Environmental Management Plan (EMP) for the Warehouse and Office Space Rental Project by FLP Tharkay Co., Ltd. was held on 4th March, 2021 at Conference Room 1, FLP Office, Tharkayta Industiral Zone. The staring time was 10:00 am and finished at 11:30 am. The objective of the meeting is to disclose information of the project, potential impacts of project activities and mitigation measures and to receive public recommendations and feedbacks for the proposed project. The project proponent invited local people by negotiating with ward administrators. As the public consultation meeting was held during COVID-19 Pandemic Period, there were some limitations related to number of attendees, venue and social distancing. The attendance list and presentation slides are described in Appendix 15 and Appendix 16. The number of attendees in the meeting is briefly shown in the following table.

Table 8.1 Summary of the Meeting

Project Name	Warehouse and Office Space Rental Project
Agenda	1. Registration 2. Opening Ceremony 3. Opening speech by U Maung Maung Hla Moe (Director, FLP Tharkayta Co., Ltd.) 4. Presentation about project descriptions of Warehouse and Office Space Rental Project by U Maung Maung Hla Moe (Director, FLP Tharkayta Co., Ltd.) 5. Presentation of the Environmental Management Plan by U Thaw Tar Htun (Associate Consultant, E Guard Environmental Services) 6. Question and Answer Session 7. Closing remark by U Maung Maung Hla Moe (Director, FLP Tharkayta Co., Ltd.)
Attendees	**Local People – 17** **FLP Tharkayta Co., Ltd. - 2** **E Guard Environmental Services – 3** **Total -** 22 Persons
Date	04/ March/ 2022
Time	10:00 AM-11:30 AM
Venue	Conference Room 1, FLP Office, Tharkayta Industrial Zone.

Public Consultation Meeting Activities

1. **Opening Speech by U Maung Maung Hla Moe (Director, FLP Tharkayta Co., Ltd.)**

   Briefly, he said, all of you know that today's ceremony is public consultation for warehouse and office space rental project. I would like to say thanks to the locals who attend this ceremony actively and have strong interest in this project.

2. **Presentation of Project Descriptions for Warehouse and Office Space Rental Project by U Maung Maung Hla Moe (Director, FLP Tharkayta Co., Ltd.)**
   Briefly, He presented about the related projects, facts and figures of the projects, existing projects' conditions of Warehouse and Office Space Rental Project.

3. **Presentation of the Environmental Management Plan by U Thaw Tar Htun (Associate Consultant, E Guard Environmental Services)**
   He explained the processes of environmental management plan preparation, potential positive impacts of the project, potential negative impacts of the project, proposed mitigation measures to reduce these negative impacts, proposed monitoring plan, grievance redress mechanism and environmental quality measurements processes of the proposed project.

4. **Question, recommendation and suggestion by Attendees**

   Question (1): Daw Aye Myat Myat Phyo (Local People)
   Firstly I would like to say thanks to the FLP Company. I would like to ask some questions about this project. May I know what kind of goods was restricted for the warehouse?
   Answers: U Maung Maung Hla Moe (Director, FLP Tharkayta Co., Ltd.)
   We will not allow chemical as well as any illegal goods. Cold Storage will be focused on pharmaceutical products. Dry Storage will be used for normal goods.

   Question (2): U Wanna (Local People)
   He wanted to know, Will used water from the project discharge to the industrial drainage?
   Answers: U Maung Maung Hla Moe (Director, FLP Tharkayta Co., Ltd.)
   Yes we will discharge wastewater but this wastewater will be treated by the treatment system before discharging to the drainage. The quality of discharge wastewater will met the related standard guideline.

   Question (2): U Han Ye Myint (Local People)
   How do we know whether FLP project reduce the environmental impact or not during operation?
   Answers: U Thaw Tar Htun (Associate Consultant, E Guard Environmental Services)
   The mitigation measures and monitoring plan will be set up according to the National Environmental Quality (Emission) Guideline to reduce the impacts of the project. The company must monitor the environmental impacts and reported to the Environmental Conservation Department. Moreover, the related government organizations will inspect to the project site. Therefore, if the local people have grievance with the project, the compliant should do according to the grievance mechanism.

5. **Closing Remark by U Maung Maung Hla Moe (Director, FLP Tharkayta Co., Ltd.)**
   As a closing remark, he said about the EMP of that project briefly and he look forward to seeing that project will be caused less negative impact to the environment.

	
Attendee Registration	Attendee Registration
	
Opening Speech by U Maung Maung Hla Moe	Presented by U Maung Maung Hla Moe
	
U Thaw Tar Htun (Associate Consultant, E Guard Environmental Services)	Questioned by attendee

	
Questioned by attendee	Closing remark

Figure 8.2 Public Consultation Meeting Activities

အများပြည်သူလေ့လာသုံးသပ်အကြံပြုနိုင်ရန် အစီရင်ခံစာဖြန့်ဝေထားရှိမှုအစီအစဉ်

အက်ဖ်အယ်ပီ သာကေတ ကုမ္ပဏီလီမိတက်၏ သိုလှောင်ရုံနှင့်ရုံးခန်းများငှားရမ်းခြင်းလုပ်ငန်းနှင့် ပတ်သက်၍ ရေးသားပြုစုထားသော ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) အစီရင်ခံစာအား အများပြည်သူဝင် ရောက်လေ့လာ၍ သုံးသပ်အကြံပြုချက်များပေးနိုင်ပါရန် အောက်ပါနေရာများတွင် ဖြန့်ဝေပေးပို့ထားပါသည်။

၁။ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၊ ရန်ကုန်တိုင်းဒေသကြီး။

၂။ အက်ဖ်အယ်ပီ သာကေတ ကုမ္ပဏီရုံး။

၃။ အီးဂတ်ပတ်ဝန်းကျင်ဆိုင်ရာဝန်ဆောင်မှုကုမ္ပဏီနှင့် ၎င်း၏ဝက်ဘ်ဆိုဒ်

(http://www.eguardservices.com/disclosure)

CHAPTER 9: CONCLUSION

This report was prepared during the Covid-19 pandemic period and the time of unrest in the country. The study team had to work on desk from home with zoom meetings during this hard time. The very first site visit to the project site, was done on 10 December 2020. The study team has to fulfill the Covid-19 Prevention Requirements for the next site visit for baseline environmental measurement and focus group meeting in the second week of May.

According to the assessment, in terms of the living environment, most of the impacts are under control, limited and confined to the project area. The expected significant impacts are noise and vibrations, air pollutions, and disturbance to surface water from operation activities. A GRM will be implemented as problems may arise from the public or encounter due to the said activities through the life circle of the project.

Implementation of appropriate mitigation measures are needed to be implemented by establishing an EMS (Environmental Management System) based on the description from this EMP. Employment of an Environmental Staff, training to the management staff and workers, budget allocation for EMS is vital for the successful implementation of the EMP.

The findings of the EMP study indicated that the proposed project is going to would generate such positive impacts as local employment opportunities, and enhancement of capabilities and working skills of the employees. Consequently, local socio-economic in the region is expected to be improved.

The environmental management practices, procedures and responsibilities defined here in this EMP are to achieve a full compliance with the existing environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar. This report will be used as a guidance for implementing the environmental management tasks practically and cost effectively with continuous improvement. It comes to the conclusion that the proposed project will make an important contribution to the national economy, and fulfilling the local industries needs of logistic and office operation with least adverse effects on the environment and socio-economic conditions of the area.

9.1 List of Commitments

A consolidated list of environmental and social impacts and mitigation measures to be committed by FLP Tharkayta Co., Ltd. are provided in Table 9.1. The company will adopt these commitments in order to manage and mitigate potential impacts associated with the project development.

Table 9.1 List of Commitments

Particular	Item	Commitment Description	Reference Chapter
Introduction	1.1	FLP Tharkayta Co.,Ltd. strongly commits that the information about the proponent was correctly described.	2
	1.2	FLP Tharkayta Co.,Ltd. strongly commits that the information about the environmental and social study team for the EMP report preparation was correctly described.	2
Project Description	2	FLP Tharkayta Co.,Ltd. strongly commits that the information and data about the project and the operation process were accurate and correct.	3
Policy, Legal and Institutional Framework	3	FLP Tharkayta Co.,Ltd. strongly commits to follow the related laws, rules, regulations, standards and guideline which was described in the EMP report.	4
Description of Surrounding Environment and Social Condition	4.1	FLP Tharkayta Co.,Ltd. strongly commits not to disturb the Existing Environment Conditions expressed in Chapter 5.	5
	4.2	FLP Tharkayta Co.,Ltd. commits to consider the baseline condition of environmental and socioeconomic of the surrounding area during the operation and decommission phase.	5
	4.3	FLP Tharkayta Co.,Ltd. strongly commits that Air Quality, Water Quality, Noise and Vibration were measured with the proper devices and compared the results with the National Environmental (Emission) Guideline.	5
Identification and Assessment of Potential Environmental Impacts and Mitigation Measures	5.1	FLP Tharkayta Co.,Ltd. commits to certainly follow the mitigation measures for avoiding and reducing the potential environmental and socio-economic impacts during the operation phases and decommission phases.	6
	5.2	FLP Tharkayta Co.,Ltd. specifically commits to follow the mitigation measures for air pollution during the operation and decommission phases.	6
	5.3	FLP Tharkayta Co.,Ltd. specifically commits to follow the mitigation measures for water pollution during the operation and decommission phases.	6
	5.4	FLP Tharkayta Co.,Ltd. specifically commits to follow the mitigation measures for waste disposal during the operation and decommission phases.	6
	5.5	FLP Tharkayta Co.,Ltd. specifically commits to follow the mitigation measures for noise and vibration during the operation and decommission phases.	6
Environmental Management Plan	6.1	FLP Tharkayta Co.,Ltd. commits to certainly follow the Environmental Management Plan.	7
	6.2	The compliance monitoring report will be reported annually along with the environmental monitoring plan for the operation and decommission phases.	7
	6.3	FLP Tharkayta Co.,Ltd. has established a Grievance Redress Mechanism with local people to solve the problems and complaints concerns with the project.	7
	6.4	FLP Tharkayta Co.,Ltd. implemented the Corporate Social Responsibility Plan to support 2% of annually profits for developing community development and improving socio-economic condition of local people.	7

Particular	Item	Commitment Description	Reference Chapter
Focus Group Discussion and Information Disclosure	7.1	FLP Tharkayta Co.,Ltd. commits that the time, date, list of attendant, the place and subject of discussion were correct.	8
	7.2	FLP Tharkayta Co.,Ltd. commits to resolve any social and environmental related grievances locally in consultation with the aggrieved party to facilitate smooth implementation of the project.	8

REFERENCES

1. National Environmental Quality (Emission) Guidelines (2015)
2. Environmental Impact Assessment Guidelines (2014)
3. Environmental Impact Assessment Procedures (2015)
4. IFC International Finance Corporation, Environment, Health and Safety Guidelines, Construction and Decommissioning, World Bank group, 2007.
5. IFC International Finance Corporation, Environment, Health and Safety Guidelines, Occupational Health and Safety, World Bank group, 2007.
6. FLP Tharkayta Company Limited, Onsite Site Visit Report and MIC Proposal.

APPENDIX

Appendix 1 Remark from ECD to prepare EMP report

တိုင်းဒေသကြီးညွှန်ကြားရေးမှူးရုံး
ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန
ရန်ကုန်တိုင်းဒေသကြီး
ရန်ကုန်မြို့

အမှတ် ၁၀(ဂျေ)၊ ၅၅ လမ်း(ကုန်သည်လမ်း နှင့် ကမ်းနားလမ်းကြား)၊ ဗိုလ်တထောင်မြို့နယ်၊ Post Code-11161
ဖုန်း - ၀၁ ၈၂၀၃၈၃၈၊ ဖက်စ် - ၀၁ ၈၂၀၃၈၃၉၊ အီးမေးလ် - ygnecd.moecaf@gmail.com

စာအမှတ်၊ရက-၁/၃/၄(အီးအိုင်အေ)(၂၁၅၅ /၂၀၂၀)
ရက်စွဲ၊ ၂၀၂၀ ပြည့် နှစ်၊ ဇူလိုင်လ ၁၇ ရက်

သို့

✓ဒါရိုက်တာ
FLP Tharkayta Co., Ltd
အမှတ် - ၅၃/၆၂၊ သာကေတစက်မှုဇုန်
သာကေတမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး

အကြောင်းအရာ။ **FLP Tharkayta Co., Ltd ၏ ကုန်သိုလှောင်ရုံနှင့်ရုံးခန်းတို့အား တည်ဆောက်ခြင်း၊ ငှားရမ်းခြင်း၊ စီမံဆောင်ရွက်ခြင်းလုပ်ငန်းနှင့်ပတ်သက်၍ ပတ်ဝန်းကျင်ဆိုင်ရာ သဘောထားမှတ်ချက် ပြန်ကြားခြင်း**

ရည်ညွှန်းချက်။ FLP Tharkayta Co., Ltd ၏ ၁၃-၇-၂၀၂၀ ရက်စွဲပါ တင်ပြစာ

၁။ အကြောင်းအရာပါကိစ္စနှင့်ပတ်သက်၍ FLP Tharkayta Co., Ltd မှ ရန်ကုန်တိုင်းဒေသကြီး၊ သာကေတမြို့နယ်၊ သာကေတစက်မှုဇုန်၊ အမှတ် - ၅၃/၆၂ နှင့် ရန်ကုန်တိုင်းဒေသကြီး၊ သာကေတမြို့နယ်၊ သာကေတစက်မှုဇုန်၊ မြေတိုင်းရပ်ကွက်အမှတ် - စက်မှုလက်မှု၊ အမှတ် - ၂၉၈ တွင် ဖက်စပ်နိုင်ငံခြားသားရင်းနှီးမြှုပ်နှံမှုဖြင့် အကောင်အထည်ဖော် ဆောင်ရွက်လျက်ရှိသော ကုန်သိုလှောင်ရုံနှင့်ရုံးခန်းတို့အား တည်ဆောက်ခြင်း၊ ငှားရမ်းခြင်း၊ စီမံဆောင်ရွက်ခြင်း လုပ်ငန်းနှင့်ပတ်သက်၍ ပတ်ဝန်းကျင်ဆိုင်ရာ သဘောထားမှတ်ချက် ပြန်ကြားပေးနိုင်ပါရန် ရန်ကုန်တိုင်းဒေသကြီး၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနသို့ ရည်ညွှန်းပါစာဖြင့် တင်ပြတောင်းခံလာပါသည်။

၂။ ရည်ညွှန်းပါစာဖြင့် တင်ပြလာသည့် FLP Tharkayta Co., Ltd ၏ စီမံကိန်းအဆိုပြုလွှာအား စိစစ်ရာတွင် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်းအရ အဆိုပြုစီမံကိန်းအနေဖြင့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (Environmental Management Plan - EMP) ရေးဆွဲဆောင်ရွက်ရန် လိုအပ်ကြောင်း စိစစ်တွေ့ရှိရပါသည်။

၃။ သို့ဖြစ်ပါ၍ ရန်ကုန်တိုင်းဒေသကြီး၊ သာကေတမြို့နယ်၊ သာကေတစက်မှုဇုန်၊ အမှတ် - ၅၃/၆၂ နှင့် ရန်ကုန်တိုင်းဒေသကြီး၊ သာကေတမြို့နယ်၊ သာကေတစက်မှုဇုန်၊ မြေတိုင်းရပ်ကွက်အမှတ် - စက်မှုလက်မှု၊ အမှတ် - ၂၉၈ တွင် အကောင်အထည်ဖော် ဆောင်ရွက်လျက် ရှိသော FLP Tharkayta

J

Co., Ltd ၏ ကုန်သိုလှောင်ရုံနှင့်ရုံးခန်းတို့အား တည်ဆောက်ခြင်း၊ ငှားရမ်းခြင်း၊ စီမံဆောင်ရွက်ခြင်း လုပ်ငန်းနှင့်ပတ်သက်၍ စီမံကိန်းအဆိုပြုသူအနေဖြင့် အောက်ဖော်ပြပါ အချက်များအား လိုက်နာ အကောင်အထည်ဖော် ဆောင်ရွက်ရန် လိုအပ်ကြောင်း သဘောထားမှတ်ချက် ပြန်ကြားအပ်ပါသည်-

(က) အဆိုပြုလုပ်ငန်းကြောင့် ပတ်ဝန်းကျင်နှင့်လူမှုရေးထိခိုက်မှု အနည်းဆုံးဖြစ်စေရေး အတွက် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (Environmental Management Plan – EMP) အစီရင်ခံစာအား ရေးဆွဲဆောင်ရွက်ရန်၊

(ခ) ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) အစီရင်ခံစာပြုစုခြင်းကို စီမံကိန်းအဆိုပြုသူ (လုပ်ငန်းရှင်) ကိုယ်တိုင် (သို့မဟုတ်) တတိယပုဂ္ဂိုလ် သို့မဟုတ် အဖွဲ့အစည်းကို ခန့်အပ်ဆောင်ရွက်နိုင်ရန်၊

(ဂ) တတိယပုဂ္ဂိုလ် (သို့မဟုတ်) အဖွဲ့အစည်းအား ခန့်အပ်၍ ဆောင်ရွက်မည်ဆိုပါက ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနတွင် လုပ်ငန်းလိုင်စင်ရယူထားသော ပုဂ္ဂိုလ် (သို့မဟုတ်) အဖွဲ့အစည်းစာရင်းအား www.ecd.gov.mm/?q=third-party တွင် ဝင်ရောက်ကြည့်ရှုခန့်အပ်ဆောင်ရွက်နိုင်ရန်၊

(ဃ) စီမံကိန်းနှင့်ပတ်သက်သည့် ပိုင်ရှင်ပြောင်းလဲခြင်း၊ အစီရင်ခံစာတွင် ဖော်ပြပါရှိသည့် ထုတ်လုပ်မှုပမာဏထက် ပိုမိုထုတ်လုပ်ခြင်း၊ လုပ်ငန်းလည်ပတ်မှုဒီဇိုင်းများ ပြောင်းလဲ ခြင်း၊ လုပ်ငန်းတည်နေရာပြောင်းလဲခြင်း၊ လုပ်ငန်းရပ်ဆိုင်းခြင်း (သို့မဟုတ်) ပိတ်သိမ်းခြင်းများပြုလုပ်မည်ဆိုပါက မပြုလုပ်မီ ရန်ကုန်တိုင်းဒေသကြီး၊ ပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဦးစီးဌာနသို့ တင်ပြသွားရန်၊

(င) စီမံကိန်းဝန်းကျင်တွင် နေထိုင်သော ဒေသခံပြည်သူများ၏ ဆန္ဒနှင့်သဘောထားများကို ရယူဆောင်ရွက်ရန်။

(ခင်သီတာတင်)
ညွှန်ကြားရေးမှူး
ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန
ရန်ကုန်တိုင်းဒေသကြီး

မိတ္တူကို
ရုံးလက်ခံ၊ မျှောစာတွဲ၊ အမှုတွဲချုပ်

Appendix 2 Project Proponent's Company Registration Card

ကုမ္ပဏီမှတ်ပုံတင်လက်မှတ်

Certificate of Incorporation

အက်ဖ်အယ်လ်ပီသာကေတ ကုမ္ပဏီလီမိတက်

FLP THARKAYTA CO., LTD

Company Registration No. 110812221

မြန်မာနိုင်ငံကုမ္ပဏီများအက်ဥပဒေ ၁၉၁၄ ခုနှစ် အရ

အက်ဖ်အယ်လ်ပီသာကေတ ကုမ္ပဏီလီမိတက်

အား ၂၀၁၈ ခုနှစ် ဇွန်လ ၂၆ ရက်နေ့တွင်

အစုရှယ်ယာအားဖြင့် တာဝန်ကန့်သတ်ထား သည့် အများနှင့်မသက်ဆိုင်သောကုမ္ပဏီ

အဖြစ် ဖွဲ့စည်းမှတ်ပုံတင်ခွင့် ပြုလိုက်သည်။

This is to certify that

FLP THARKAYTA CO., LTD

was incorporated under the Myanmar Companies Act 1914 on 26 June 2018 as a Private Company Limited by Shares.

ကုမ္ပဏီမှတ်ပုံတင်အရာရှိ

Registrar of Companies

ရင်းနှီးမြှုပ်နှံမှုနှင့်ကုမ္ပဏီများညွှန်ကြားမှုဦးစီးဌာန

Directorate of Investment and Company Administration

Former Registration No. 303FC/2018-2019(YGN)

Appendix 3 Certificate of Exporter/Importer Registration

028807

The Government of The Republic of the Union of Myanmar
Ministry of Commerce
Department of Trade

CERTIFICATE OF EXPORTER/IMPORTER REGISTRATION

1. Enterprise Name (မြန်မာ/အင်္ဂလိပ်) FLP THARKAYTA CO.,LTD.
2. Registration No: 56952(18-06-19)
3. Registration Term: FIVE YEAR
4. Start Date : 18-06-2019
5. End Date : 17-06-2024
6. Address: (မြန်မာ/အင်္ဂလိပ်) Building No.459(A),Room No.302,3rd Floor, New University Avenue Road, Bahan Township, Yangon Region,Myanmar
7. Business Registration No : 1108.2221(26-6-2018)
8. Type of Business : (မြန်မာ/အင်္ဂလိပ်)
   - ☐ Sole Proprietorship(ကိစ္စပိုင်းဆိုင်ခြင်းပိုင်) ☐ Partnership(အစုအစပ်)
   - ☑ Limited Company(လီမိတက်ကုမ္ပဏီ)(~~Myanmar~~/Foreign)
   - ☐ Co-operative Society(သဘဝမအသင်း)
   - ☐ Others(Please specify)အခြား(ဖော်ပြရန်) သင်းဖွဲ့မှုတ်တမ်းပါလုပ်ငန်း( )မျိုး ဆောင်ရွက်ခွင့်ရှိသည်။
9. Type of Service : ◉ New ○ Extension
10. Contact No :

09-254157189		hlamoe@fandp.co.jp
Telephone No.	Fax No.	e-mail

11. Remarks :
MIC Endorsement No.100/2018 (23-6-2018)

12. Terms and Conditions : စည်းကမ်းချက်များ
I hereby register the above mentioned enterprise as Exporter/Importer subject to the following terms and conditions: (အောက်ဖော်ပြပါစည်းကမ်းချက်များဖြင့် ပို့ကုန်သွင်းကုန် လုပ်ငန်းရှင်အဖြစ် မှတ်တမ်းတင်ခွင့်ပြုသည်)
(a) Line of goods permitted - all items except prohibited and restricted items.
ခွင့်ပြုသည့်ကုန်ပစ္စည်းအမျိုးအမည် - တားမြစ်ဂ ခံ့သတ်ထားသော ကုန်ပစ္စည်းအမယ်များမှလွဲ၍ ကျန်ကုန်ပစ္စည်းများအားလုံး
(b) The enterprise must abide by the Export/Import rules and Regulations prescribed for the registered Exporters/Importers. (သတ်မှတ်ရရှင်သည် မှတ်ပုံတင် ပို့ကုန်သွင်းကုန်လုပ်ငန်းလုပ်ကိုင်သူများ လိုက်နာရမည့်စည်းကမ်းချက်များကို လိုက်နာရမည်)

ကုန်သွယ်ရေးဦးစီးဌာန 130 တာအောက်ခံ Stamp 18.6.19 ရက်စွဲ ကုန်သွယ်မှုဝါဒဌာနခွဲ

18.6.2019

For Director General
(ဒိုင်ရိုက်တာဦးစီးအရာရှိ)

18.6.19

EIREG061917EIREGEX12130012

Appendix 4 YCDC Business License 2021

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်
ရန်ကုန်တိုင်းဒေသကြီးအစိုးရ
ရန်ကုန်မြို့တော်စည်ပင်သာယာရေးကော်မတီ
စီမံရေးရာဌာန

(၁-၁၀-၂၀၂၁ မှ ၃၁-၃-၂၀၂၂ ရက်နေ့ထိ) (၆)လ
လုပ်ငန်းလိုင်စင်

(စက်ရုံ၊ အလုပ်ရုံ၊ သိုလှောင်ရုံသုံးစွဲရန် အထောက်အကူပစ္စည်းထုတ်လုပ်ခြင်း၊
ရောင်းချခြင်း၊ တည်ခင်းခြင်း၊ ဖြန့်ဖြူးခြင်း၊ ဝန်ဆောင်မှုလုပ်ငန်း၊ အခြားလုပ်ငန်း)

ရန်ကုန်မြို့တော်စည်ပင်သာယာရေးကော်မတီ၊ စီမံခန့်ခွဲရေးဆိုင်ရာ နည်းဥပဒေ၊ အခန်း (၂) နည်းဥပဒေ ၃(ဈ)အရ အောက်အမည်ပါသူတို့အား လိုင်စင်နှုန်း **၇၅၀၀၀၀/- ကျပ်** (စာဖြင့်၊ ကျပ် **ခုနစ်သိန်းငါးဆယ်သား**) **ပေးသွင်းစေပြီး သာကေတ** မြို့နယ်၊ **စက်မှုလက်မှုရပ်ကွက်** ၊ **မြန်မာ့ဝုက်ရည်** လမ်း ၊ အမှတ် **၅၃/၆၂**၊ အခန်းအမှတ် - တွင် **FLP Tharkayta** အမည်ပါ **စားသောက်ကုန်သိုလှောင်** ဆိုင်/လုပ်ငန်းအား လုပ်ကိုင်ခွင့်ပြု၍ ဤလုပ်ငန်းလိုင်စင်ကို ထုတ်ပေးလိုက်သည်။

စဉ်	အမည်	နိုင်ငံသားစိစစ်ရေး ကတ်ပြားအမှတ်	လိပ်စာ
၁၊	ဦးမောင်မောင်လှမိုး	၁၂/စခန(နိုင်)၀၆၂၅၄၂	၅၃/၆၂၊ မြန်မာ့ဝုက်ရည်လမ်း၊ စက်မှုလက်မှုရပ်ကွက်

ဤလုပ်ငန်းလိုင်စင်သည် **၂၀၂၂ ခုနစ်၊ မတ်လ ၃၁** ရက်နေ့တွင် သက်တမ်းကုန်ဆုံးသည်။

ဤလုပ်ငန်းလိုင်စင်အား မြင်သာသောနေရာတွင် မှန်ဘောင်ဖြင့် ချိတ်ဆွဲထားရမည်။

ဌာနမှူး (ကိုယ်စား)၁
အုပ်ချုပ်ရေးမှူး
မြို့နယ်စည်ပင်သာယာအုပ်ချုပ်ရေးမှူးရုံး
သာကေတမြို့နယ်

*ပူးတွဲပါလိုင်စင်စည်းကမ်းများအား လိုက်နာဆောင်ရွက်ရမည်။

ကျေဘက်ပါညွှန်ကြားချက်များကိုလိုက်နာဆောင်ရွက်ရမည်။

Appendix 5 Building Completion Certificate – BCC

REPUBLIC OF THE UNION OF MYANMAR
Yangon City Development Committee
Engineering Department (Building)

BUILDING COMPLETION CERTIFICATE

1. Building Completion Certificate Number (to be filled by the YCDC)

Reference number of the Building Completion Certificate: BP1-0668-BCC2-0159

2. Site

Address:	No(53/62),Corner of Marlar Myaing street & Myanmar Gon Yi Street	Ward:	စက်မှုလက်မှု
Township:	THAKETA		
Site area in sq.ft:	208216.8	Block No: Industrial Zone	Lot No: 53/62

3. Applicant / Land owner's details

Name:	Daw Khin Htay Yee		
Address:	No(53/62),Corner of Marlar Myaing Street & Myanmar Gon Ye Street	Ward:	စက်မှုလက်မှု
Township:	THAKETA		
Phone No:	09444890839	Email:	ayemonko@fandp.co.jp

Is there an representative person acting on behalf of the applicant? No

Registration number of the general or special power: Date of issue: 0000-00-00

Name:			
Address:		Ward:	-
Township:	-		
Phone No:		Email:	

4. Project's information

The type of the project is:	Regularization of an existing structure
Title of the poject:	Daw Khin Htay Yee - 3 Storyed RCC 1 Storyed Steel Warehouse
Category of risk:	2 - Medium Risk

5. Notice

In pursuance of your application to obtain the Building Completion Certificate, we have examined thoroughly and verified critically the project mentioned above. The above described development has been executed in accordance with regulations as adopted in the Myanmar National Building Code and in the Yangon Building Rules, 2014. It is further declared that the development has been inspected for compliance and complies effectively with the technical requirements needed for the occupancy and the proposed use of the development.

Remark: (1) To follow the suggestion of respective task force to improve the drainage flow and proper waste disposal.
(2) Please continue to submit for getting electricity.

Date:
08 October 2021

ရန်ကုန်မြို့တော်စည်ပင်သာယာရေးကော်မတီ
စာအမှတ်.....
ရက်စွဲ.....
အင်ဂျင်နီယာဌာန(အဆောက်အအုံ)

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်
ရန်ကုန်တိုင်းဒေသကြီးအစိုးရ
ရန်ကုန်မြို့တော်စည်ပင်သာယာရေးကော်မတီ
အင်ဂျင်နီယာဌာန (အဆောက်အအုံ)

ORIGINAL

အမှတ်စဉ်- 015162

စာအမှတ်၊ ၁၀၄၃ / ပစန / စည်ပင်-ယာ/ အုံ(ပုံစံ) ၀၉၆၂

ရက်စွဲ ၂၀၁၉ ခုနှစ် စက်တင်ဘာ လ ၂၇ ရက်

သို့ ဒေါ်ခင်ဌေးရီ

အမှတ်(၅၃/၆၂)၊ မြို့ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးနှင့်သန့်ရှင်းရေးဌာန

စက်မှုလက်မှုရပ်ကွက်၊ သာကေတမြို့နယ်

အကြောင်းအရာ။ သာကေတ * ၅၃/၆၂
---------- မြို့နယ်၊ ---------- လမ်း၊ အမှတ် ---------- အတွက်
အဆောက်အအုံပြီးစီးကြောင်း သက်သေခံလက်မှတ်ထုတ်ပေးခြင်းကိစ္စ

သာကေတ *
ရန်ကုန်တိုင်း၊ ---------- မြို့နယ်၊ ---------- လမ်း၊ မြေတိုင်းရပ်ကွက်
စက်မှုလက်မှု ၅၃/၆၂
အမှတ် ----------၊ မြေကွက်အမှတ် ----------၊ အဆောက်အအုံအမှတ်၊ ---------- တွင်
Steel(Lift-၄စီးပါ) ၂၉-၈-၂၀၁၈
---------- ထပ်၊ ---------- အဆောက်အအုံအား ဤဌာန၏ (----------) ရက်စွဲပါစာအမှတ်၊
သို့လောင်ရှ်+ရုံးခန်း
၁၀၄၃ / ၁၀၄၃ / စည်ပင်-ယာ/အုံ(ပုံစံ)ဖြင့် ဆောက်လုပ်ပြီးစီးပြီ ဖြစ်ပါသဖြင့် အဆောက်အအုံပြီးစီးကြောင်း
သက်သေခံလက်မှတ်ထုတ်ပေးလိုက်သည်။

*မြို့ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးနှင့်မြန်မာ့ဂုဏ်ရည်လမ်းထောင့်

မှတ်ချက်။
- ဇရပ်းရေလာကောင်းမွန်စေရန်နှင့်အပြိုက်
စနစ်တကျစွန့်ပစ်ရန်တို့အတွက်သက်ဆိုင်ရာ
လုပ်ငန်းတာဝန်ခံအဖွဲ့များ၏အကြံပြုချက်များ
အတိုင်းဆောင်ရွက်သွားရန်

ဌာနမှူး

မိတ္တူကို
ဌာနမှူး၊ အင်ဂျင်နီယာဌာန(ရေနှင့်သန့်ရှင်းမှု)
ဌာနမှူး၊ ရာပြတ်ဌာန
ဌာနမှူး၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးနှင့်သန့်ရှင်းရေးဌာန
သိသာရန်ပေးပို့အပ်ပါသည်။
သာကေတ
အုပ်ချုပ်ရေးမှူး၊ မြို့နယ်စည်ပင်သာယာအုပ်ချုပ်ရေးမှူးရုံး၊ ---------- မြို့နယ်
သာကေတ
မြို့နယ်လျှပ်စစ်မန်နေဂျာ၊ လျှပ်စစ်ဓာတ်အားပေးရေးကော်ပိုရေးရှင်း၊ ---------- မြို့နယ်

ORIGINAL

000257

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်
ရန်ကုန်တိုင်းဒေသကြီးအစိုးရ
ရန်ကုန်မြို့တော်စည်ပင်သာယာရေးကော်မတီ
အဆောက်အဦဆိုင်ရာလုပ်ငန်းတာဝန်ခံအဖွဲ့

စာအမှတ်၊ ၂၇၀၂ / ၁၄၂၅ / စည်ပင် - ယာ(အုံ)
ရက်စွဲ ၊ ၂၀၁၉ ခုနှစ် ဒီဇင်ဘာ လ ၉ ရက်

သို့ ဒေါ်ခင်ဌေးရီ
.....
အမှတ်(၅၃/၆၂)၊ မြန်မာ့ဝက်ရည်လမ်းနှင့်မြို့ပြင်ဟောဂန်လမ်းထောင့်၊
.....
စက်မှုလက်မှုရပ်ကွက်၊ သာကေတ မြို့နယ်

အကြောင်းအရာ ။ **အဆောက်အအုံပြီးစီးကြောင်း လက်မှတ်ထုတ်ပေးခြင်း**

သာကေတ .....မြို့နယ်၊ စက်မှုလက်မှု .....ရပ်ကွက်၊ မြေတိုင်းရပ်ကွက်အမှတ် စက်မှုလက်မှု
မြေကွက်အမှတ် ၅၃/၆၂ ၊ မြန်မာ့ဝက်ရည်လမ်းနှင့် မြို့ပြင်ဟောဂန်လမ်းထောင့် .....လမ်း၊ အိမ်အမှတ်.....၅၃/၆၂ အောင်
၁ .....ထပ် Steel၊ (၂)ထပ်တိုက် အဆောက်အအုံအား ဤလုပ်ငန်းတာဝန်ခံအဖွဲ့၏ (.....၁၈-၉-၂၀၁၉..)ရက်စွဲပါ
Guard House ၊ Ware House
စာအမှတ်၊ ၂၇၀၂ / ၂၇၀၃ /စည်ပင်-ယာ(အုံ) ဖြင့် ဆောက်လုပ်ခွင့်ပြုခဲ့ခြင်းအပေါ် အဆောက်အအုံ
ဆောက်လုပ်ပြီးစီးပြီဖြစ်ပါသဖြင့် အဆောက်အအုံပြီးစီးကြောင်းလက်မှတ် ထုတ်ပေးလိုက်သည်။

မှတ်ချက်။
- ရေစီးရေလာဒကာင်းမွန်စေရန်နှင့်အမှိုက်
ဝန်ပိကျစွန့်ပစ်ရန်တို့အတွက်သက်ဆိုင်ရာ
လုပ်ငန်းတာဝန်ခံအဖွဲ့များ၏အကြံပြုချက်များ
အတိုင်းဆောင်ရွက်သွားရန်

အတွင်းရေးမှူး
အဆောက်အဦဆိုင်ရာလုပ်ငန်းတာဝန်ခံအဖွဲ့

မိတ္တူကို
ညွှန်ကြားရေးမှူး(စစ်ဆေးရေးဌာနခွဲ)၊ အဆောက်အဦဆိုင်ရာလုပ်ငန်းတာဝန်ခံအဖွဲ့
မြို့နယ်စည်ပင်သာယာအုပ်ချုပ်ရေးမှူးရုံး(သာကေတ)မြို့နယ်
မြို့နယ်လျှပ်စစ်မန်နေဂျာ၊ ရန်ကုန်လျှပ်စစ်ဓာတ်အားပေးရေးကော်ပိုရေးရှင်း၊ သာကေတ .....မြို့နယ်

Appendix 6 Third-Party's and its Experts' Certificate for Transitional Consultant Registration

REPUBLIC OF THE UNION OF MYANMAR
Ministry of Natural Resources and Environmental Conservation
CERTIFICATE FOR TRANSITIONAL CONSULTANT REGISTRATION
(ကြားကာလအကြံပေးလုပ်ကိုင်သူမှတ်ပုံတင်ခြင်းအထောက်အထားလက်မှတ်)

No. 0028 Date 15 ၁၁၅ 2017

The Ministry of Natural Resources and Environmental Conservation, hereby, issues this certificate to the organization under Environmental Impact Assessment Procedure, Notification No. 616/2015.
(ပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း၊ အမိန့်ကြော်ငြာစာအမှတ်၊ ၅၁၆/၂၀၁၅ အရ သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာနသည် ဤအထောက်အထားလက်မှတ်ကို အဖွဲ့အစည်းအား ထုတ်ပေးလိုက်သည်။)

(a)	Name of Organization (အဖွဲ့အစည်းအမည်)	E Guard Environmental Services Co., Ltd.
(b)	Name of the representative in the organization (အဖွဲ့အစည်းကိုယ်စားလှယ်၏အမည်)	U Aye Thiha
(c)	Citizenship of the representative in the organization (အဖွဲ့အစည်းကိုယ်စားလှယ်၏နိုင်ငံသား)	Myanmar
(d)	Identity Card /Passport Number of the representative person in the organization (အဖွဲ့အစည်းကိုယ်စားလှယ်၏ မှတ်ပုံတင်/ နိုင်ငံကူးလက်မှတ် အမှတ်)	12/ MRK (Naing) 069784
(e)	Address of organization (ဆက်သွယ်ရန်လိပ်စာ)	No. 99, Mya Kan Thar Lane, Nyein Chan Yay Street, 10 Miles, Pyay Road, Saw Bwar Gyi Gone, Insein Township, Yangon. info@eguardservices.com, 09448001676
(f)	Type of Consultancy (အကြံပေးလုပ်ကိုင်မှုအမျိုးအစား)	Organization
(g)	Duration of validity (သက်တမ်းကုန်ဆုံးရက်)	31 March 2018

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for one year from (1.4.2018) to (31.3.2019)
ဤလက်မှတ်အား (၀၁-၀၄-၂၀၁၈) ရက်နေ့မှ (၃၁.၃.၂၀၁၉) ရက်နေ့အထိ တစ်နှစ်သက်တမ်း တိုးမြှင့်သည်။
12.4.2018
For Director General
(Soe Naing, Director)
Environmental Conservation Department

Director General
Environmental Conservation Department
Ministry of Natural Resources and Environmental Conservation

Areas of Expertise Permitted
(ခွင့်ပြုသည့် ကျွမ်းကျင်မှုနယ်ပယ်များ)

1. Air Pollution Control
2. Ecology and Biodiversity
3. Facilitation of Meeting
4. Geology and Soil
5. Ground Water and Hydrology
6. Land Use
7. Legal Analysis
8. Modeling for Water Quality
9. Noise and Vibration
10. Risk Assessment and Hazard Management
11. Socio-Economy
12. Water Pollution Control
13. Waste Management
14. Agriculture, RAP
15. Food Technology
16. Health Impact Assessment
17. Marine and Microbiology, Water Quality
18. RS & GIS
19. Water Quality

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for one year from (1.1.2020) to (31.12.2020)
ဤလက်မှတ်အား(၁-၁-၂၀၂၀)ရက်နေ့မှ (၃၁-၁၂-၂၀၂၀)
ရက်နေ့အထိ တစ်နှစ်သက်တမ်းတိုးမြှင့်သည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for nine months from (1.4.2019) to (31.12.2019)
ဤလက်မှတ်အား(၁-၄-၂၀၁၉) ရက်နေ့မှ (၃၁.၁၂.၂၀၁၉)
ရက်နေ့အထိ (၉)လသက်တမ်းတိုးမြှင့်သည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for six month from (1.1.2021) to (30.6.2021)
ဤလက်မှတ်အား(၁-၁-၂၀၂၁)ရက်နေ့မှ (၃၀-၆-၂၀၂၁)
ရက်နေ့အထိ (၆)လသက်တမ်းတိုးမြှင့်သည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

REPUBLIC OF THE UNION OF MYANMAR

Ministry of Natural Resources and Environmental Conservation

CERTIFICATE FOR TRANSITIONAL CONSULTANT REGISTRATION

(ကြားကာလအကြံပေးလုပ်ကိုင်သူမှတ်ပုံတင်ခြင်းအထောက်အထားလက်မှတ်)

No. 10067 Date 01 JUL 2017

The Ministry of Natural Resources and Environmental Conservation, hereby, issues this certificate to the person under Environmental Impact Assessment Procedure, Notification No. 616/2015.

(ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း၊ အမိန့်ကြော်ငြာစာအမှတ်၊ ၆၁၆/၂၀၁၅ အရ သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာနသည် ဤအထောက်အထားလက်မှတ်ကို လူပုဂ္ဂိုလ်အားထုတ်ပေးလိုက်သည်။)

(a)	Name of Consultant (အကြံပေးပုဂ္ဂိုလ်အမည်)	U Soe Min
(b)	Citizenship (နိုင်ငံသား)	Myanmar
(c)	Identity Card / Passport Number (မှတ်ပုံတင်/နိုင်ငံကူးလက်မှတ် အမှတ်)	7/ Pa Ma Na (N) 006103
(d)	Address (ဆက်သွယ်ရန်လိပ်စာ)	No.42(A), Bawdiyeiktha, Shwetaunggyar (2), Bahan Township, Yangon. usoemin@gmail.com usoemin@eguardservices.com , 09 448001676
(e)	Organization (အဖွဲ့အစည်း)	E Guard Environmental Services Co.,Ltd.
(f)	Type of Consultancy (အကြံပေးလုပ်ကိုင်မှုအမျိုးအစား)	Person
(g)	Duration of validity (သက်တမ်းကုန်ဆုံးရက်)	31 March 2018

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for one year from (1.4.2018) to (31.3.2019)
ဤလက်မှတ်အား (၁-၄-၂၀၁၈) ရက်နေ့မှ (၃၁.၃.၂၀၁၉) ရက်နေ့အထိ တစ်နှစ်တာကာလအတွက် တိုးမြှင့်သည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

Director General
Environmental Conservation Department
Ministry of Natural Resources and Environmental Conservation

Areas of Expertise Permitted
(ခွင့်ပြုသည့် ကျွမ်းကျင်မှုနယ်ပယ်များ)

1. Air Pollution Control

2. Modeling for Water Quality

3. Water Pollution Control

4. Water Resources Engineering

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended
for one year from (1.1.2020) to (31.12.2020)
ဤလက်မှတ်အား(၁-၁-၂၀၂၀) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၀)
ရက်နေ့အထိ တစ်နှစ်သက်တမ်းတိုးမြှင့်သည်။
Soe Naing 29. 1. 2020
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended
for nine months from (1.4.2019) to (31.12.2019)
ဤလက်မှတ်အား(၁-၄-၂၀၁၉) ရက်နေ့မှ (၃၁.၁၂.၂၀၁၉)
ရက်နေ့အထိ (၉)လသက်တမ်း တိုးမြှင့်သည်။
Soe Naing 17-6-19
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended
for six month from (1.1.2021) to (30.6.2021)
ဤလက်မှတ်အား(၁-၁-၂၀၂၁)ရက်နေ့မှ(၃၀-၆-၂၀၂၁)
ရက်နေ့အထိ (၆)လသက်တမ်းတိုးမြှင့်သည်။
Soe Naing
For Director General
(Soe Naing, Director)
Environmental Conservation Department

Appendix 7 Calculation Sheet for Water Usage

Building A

Contractor:
Project: THARKAYTA WAREHOUSE PROJECT
Date: 25-Feb-2019

A CALCULATED PARAMETERS (VIETNAMESE STANDARD)

		Warehouse	Office	Other
Area	m2	1449.6	1716.5	-
Person/m2	P/m2	0.004	0.100	-
	P	5.8	171.7	-
Total Person	P	177		

1 Water supply capacity:

a	Water supply for living:		
	*Number of people:		
	This time	177	persons/1shift,day
	Future	0	persons/1shift,day
		1	shift/day
	Total	177	persons/day
	*Supplied water norm:	100	L/person, day
	*Capacity for 1day:	18	m3/day
b	Water supply for Garden Facuet	2.7	m3/day
	Total:	20.4	m3/day
	for 1 days	**20.4**	m3
	for 0.5 days	**10.2**	m3
	S.F 10%	**11.2**	12m3(Choose)

2 Construction Volume

Construction Volume		**12**	m3
Long	2.5 m		
Width	3 m		
Height	2 m		

Building B

Contractor:
Project: THARKAYTA WAREHOUSE PROJECT
Date: 27-Nov-2018

A CALCULATED PARAMETERS (VIETNAMESE STANDARD)

		Warehouse	Office	Other
Area	m2	1119.02	2235.81	-
Person/m2	P/m2	0.004	0.100	-
	P	4.5	223.6	-
Total Person	P	228		

1 Water supply capacity:

a	Water supply for living:		
	*Number of people:		
	This time	228	persons/1shift,day
	Future	0	persons/1shift,day
		1	shift/day
	Total	228	persons/day
	*Supplied water norm:	100	L/person, day
	*Capacity for 1day:	23	m3/day
b	Water supply for Garden Facuet	3.4	m3/day
	Total:	26.2	m3/day
	for 1 days	**26.2**	m3
	for 0.5 days	**13.1**	m3
	S.F 10%	**14.4**	14m3(Choose)

2 Construction Volume

Construction Volume		**14**	m3
Long	3.5 m		
Width	3 m		
Height	2 m		

Building C

GENERAL INFORMATION AND DESIGN REQUIREMENT FOR PLUMBING WORK

MODAIR MYANMAR ENGINEERING CO.,LTD

CALCULATION SHEET — Document No. : - 01 — Rev No. : 00 Rev Date : OCT/31/2019

1. Project	FLP THARKAYTA WAREHOUSE
2. Location	NO.53/62, THARKAYTA INDUSTRIAL ZONE,YANGON,MYANMAR
3. Client	FLP THARKAYTA CO.,LTD
4. System	DOMESTIC WATER SUPPLY = WASTE WATER DISCHARGE
5. Information	General

Type of Building : Apartment

General Used — MNBC Part 5D 2016 Table 1.(b)

- ■ Warehouse : 22 Population Equivalent (0.25 PE per person)
  Total Office floor area = 887 m2
  No. of employees = 887 m2x 0.1 persons/m2 = 88.7 persons
  Population Equivalent = 0.25 PE/person x 88.7 persons = 22.17 PE
- ■ Office : 118 Population Equivalent (0.25 PE per person)
  Total Office floor area = 2364 m2
  No. of employees = 2364 m2x 0.2 persons/m2 = 472.8 persons
  Population Equivalent = 0.25 PE/person x 473 persons = 118 PE

Special used

- □ Chiller :
- □ Boiler :
- □ Laundry :

Note: 1 PE = 40 gpcd = 151.42 lpcd

Water demand used for

- ■ Population Equivalent : 152 l/p person x day MNBC Part 5D 2016 Table 1.(b)
- □ Special use :
- ■ Other (spare,etc.) : 2 (%) #

6. Summary Domestic Water supply	Demand water supply Schedule					
	■ Water supply for Residential	:		l/day	-	m^3/day
	■ Water supply for Commercial Area	:	17936	l/day	- 17.936	m^3/day
	□ Water supply for Chiller	:	3344	l/day	- 3.344	m^3/day
	□ Water supply for Boiler	:		l/day	-	m^3/day
	□ Water supply for Laundry	:		l/day	-	m^3/day
	■ Spare	:	430	l/day	- 0.43	m^3/day

Water Consumption 21.71 m^3/day

Appendix 8 Water Quality's Laboratory Results and On-site Measurement Result

1. Surface Water Laboratory Results

eguard ENVIRONMENTAL SERVICES	Operation Department Environmental Quality Baseline Sampling/Survey Field Notes	E Guard-OD-EQ-F-10 Version :01	Approved by MD On Date: 2/15/2019 Page 5 of 11

Water Quality Baseline Sampling/Survey Field Notes

Surveyor: U Wara Zaw	**Date:** 19.5.21
Location: Thaketa	**Time:** 10:00Am
Lat. & Long.: 16°98' 23.49"N	**Instrument:** Horiba
Weather: 96° 11' 57.93"E Sunny	**Sample/Location ID:** SW **GPS Waypoint no:** **Temperature:** 38.45°C **Time:** 10:00Am

Surface/Ground/Effluent Water

Sr. No.	pH	Electrical Conductivity			DO (mg/l)	Turbidity (NTU)	ORP	Flow Rate (m/sec)	Depth (m)	Remarks
		EC (ms/cm)	TDS (g/l)	Salinity (ppt)						
1	5.42	1.08	0.694	0.5	6.82	26.5				

Aim of Sampling

- Quality, Consistency, Representative Sample, Prevent Deterioration, Prevent Contamination Suitable sampling techniques; Accurate field measurement; Transportation; Time; Preparation:
- Monitoring Schedule; Review previous field sheets; Equipment checklist; Correct bottles and
- Preservatives; Check bottle types required with lab; Add preservatives_ if required
- Sampling Bottles
- Preferable to use NEW bottles; If not new then rigorous cleaning before re-use, Store in clean, dry dust free environment before use; Adequate for volume required.

Notes

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Checked by: Aung

Aung Moe Oo

Copy Document

EFFECTIVE DATE: 02/16/2019

ISO TECH LABORATORY

ISO-TECH LABORATORY

ISO 9001:2015 Cert. No. 688600

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd). Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

WTL-RE-002
Issue Date - 01-12-2012
Effective Date - 01-12-2012
Issue No - 1.0/Page 1 of 1

WW0521 032

WASTEWATER QUALITY TEST RESULTS FORM

Client: Warehouse & Office Space Rental Project
Nature of Water: Surface Water
Location: Thaketa Township
Date and Time of collection: 19.5.2021
Date and Time of arrival at Laboratory: 19.5.2021
Date and Time of commencing examination: 20.5.2021
Date and Time of completing: 25.5.2021

Results of Wastewater Analysis

Parameters	Results	
pH		
Biochemical Oxygen Demand (BOD) (mg/l) (5 days at 20 °C)	28	
Chemical Oxygen Demand (COD) (mg/l)	69	
Dissolved Oxygen (DO) (mg/l)		
Total Solids (mg/l)		
Total Suspended Solids (mg/l)	52	
Total Dissolved Solids (mg/l)		
Nitrate (mg/l)		
Ammonia Nitrogen (NH_3) (mg/l)		
Ammonium Nitrogen (NH_4) (mg/l)		
Phosphate (mg/l)		

Remark: This certificate is issued only for the receipt of the test sample.

Tested by

Signature: Hein
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr. Chemist
SO TECH Laboratory

Approved by

Signature:
Name: Soe Thit
B.E (Civil) 1980,
Technical Officer
ISO TECH Laboratory

(a division of WEG Co.,Ltd.)
No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-73225175, 09-30339681, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

SGS

ORIGINAL

Report No. : **21520-00003**
Job Ref. : 5000015
Date : 21-May-21
Page 1 of 1

TEST REPORT

CLIENT NAME : **E GUARD ENVIRONMENTAL SERVICES COMPANY LIMITED**

ADDRESS : **NO.145 (A2-3), THIRI MINGALAR STREET, 8 MILE PYAY ROAD, MAYANGONE TOWNSHIP, YANGON.**

The following sample was submitted and identified by client and analysed at our lab with the following results.

Sample Description : Warehouse & Office Space Rental Project
Tharkayta Township, Yangon.
SW-1 (Surface Water)
Sampling Date & Time - 18-May-21 & 10:00

Sample Condition : Plastic and Glass bottles are ambient temperature

Lab Code : W-39

Date Sample(s) Received : 19-May-21

Testing Period : 19-May-21 TO 20-May-21

No.	Test Items	Methods	Results	Units
1	Nitrogen(Kjeldahl)	APHA 4500-NorgB (Macro Kjeldahl Method) (23rd Edition) (In-house Method)	4.48	mg/L
2	Phosphorus	APHA 4500-P E (Ascorbic Acid Method) (23rd Edition)	1.188	mg/L
3	Oil & Grease	APHA 5520 B (Partition-Gravimetric Method) (23rd Edition)	<5	mg/L

********** End of Report **********

S.T.M

SGS (Myanmar) Limited
(Thin Thin Maw)
Laboratory Manager

SGS (Myanmar) Limited | Minerals Services, 79/D, Bo Chein Street, 6 ½ Mile, Hlaing Township, Yangon, Myanmar
t +95(1) 654 795, 654 796, 654 864, 654 865 e sgs.myanmar@sgs.com
Member of SGS Group(SGS SA)

2. Wastewater Laboratory Results

eguard ENVIRONMENTAL SERVICES	**Operation Department** Environmental Quality Baseline Sampling/Survey Field Notes	**E Guard-OD-EQ-F-10** **Version :01**	**Approved by MD** **On** **Date: 03/25/2021** **Page 5 of 11**

Water Quality Baseline Sampling/Survey Field Notes

Surveyor: U Wunna Zaw	**Date: 01.03.2022**
Location: Thaketa	**Time: 1:35 Pm**
Lat. & Long.: 16°48'21.95"N, 96°11'58.04"E	**Instrument: Horiba**
Weather: Sunny	**Sample/Location ID: WW 1** **GPS Waypoint no:** **Temperature: 33.07°C** **Time: 1:35 Pm**

Surface/Ground/Effluent Water

Sr. No.	pH	Electrical Conductivity			DO (mg/l)	Turbidity (NTU)	ORP	Flow Rate (m/sec)	Depth (m)	Remarks
		EC (ms/cm)	TDS (g/l)	Salinity (ppt)						
1	5.44	1.31	0.839	0.6	2.82	22.2				

Aim of Sampling

- Quality, Consistency, Representative Sample, Prevent Deterioration, Prevent Contamination Suitable sampling techniques; Accurate field measurement; Transportation; Time; Preparation:
- Monitoring Schedule; Review previous field sheets; Equipment checklist; Correct bottles and
- Preservatives; Check bottle types required with lab; Add preservatives_ if required
- Sampling Bottles
- Preferable to use NEW bottles; If not new then rigorous cleaning before re-use, Store in clean, dry dust free environment before use; Adequate for volume required.

Notes

.....

.....

Checked by: Aung Moe Oo

EFFECTIVE DATE: 04/01/2021

Copy Document

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd), Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

ISO 9001:2015 Cert. No. 688500

WTL-RE-002
Issue Date - 01-12-2012
Effective Date - 01-12-2012
Issue No - 1.0/Page 1 of 1

WW0322 001

WASTEWATER QUALITY TEST RESULTS FORM

Client: Ware House and Office Space Rentan Survice
Nature of Water: Wastewater (Outlet)
Location: Thaketa Township
Date and Time of collection: 3.3.2022
Date and Time of arrival at Laboratory: 3.3.2022
Date and Time of commencing examination: 4.3.2022
Date and Time of completing: 9.3.2022

Results of Wastewater Analysis

Parameters	Results	
pH	7.8	
Biochemical Oxygen Demand (BOD) (mg/l) (5 days at 20 °C)	30	
Chemical Oxygen Demand (COD) (mg/l)	96	
Dissolved Oxygen (DO) (mg/l)		
Total Solids (mg/l)		
Total Suspended Solids (mg/l)	67	
Total Dissolved Solids (mg/l)		
Nitrate (mg/l)		
Ammonia Nitrogen (NH_3) (mg/l)		
Ammonium Nitrogen (NH_4) (mg/l)		
Phosphate (mg/l)		

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
Lab Chemist
ISO Tech Laboratory

Approved by
Signature:
Name: Thinzar Thelet Thein
Assistant Technical Officer
ISO Tech Laboratory

(a division of WEG Co.,Ltd.)
No.18, Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd). Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

ISO 9001:2015 Cert. No. 688600

WTL-RE-001
Issue Date - 01-1-2016
Effective Date - 01-1-2016
Issue No - 1.0/Page 1 of 1

M0322 001

WATER QUALITY TEST (MICROBIOLOGY) RESULTS FORM

Client	Ware House and Office Space Rentan Survice
Nature of Water	Wastewater (Outlet)
Location	Thaketa Township
Date and Time of collection	3.3.2022
Date and Time of arrival at Laboratory	3.3.2022
Date and Time of commencing examination	3.3.2022
Date and Time of completing	4.3.2022

Results of Water Analysis			**WHO Drinking Water Guideline (Geneva - 1993)**
Total Coliform Count	120	CFU/100ml	Not detected
Thermotolerant (fecal) Coliform Count	40	CFU/100ml	Not detected
pH	7.8		6.5 - 8.5
Turbidity	54	NTU	5 NTU
Colour (True)	40	TCU	15 TCU
Free Chlorine	Nil	mg/l	
Total Chlorine	Nil	mg/l	

: **This certificate is issued only for the receipt of the test sample.**

: **< - Less than**

Tested by

Signature:

Name: Zaw Hein Oo

ISO Tech Laboratory

Approved by

Signature:

Name: Thinzar Htwet Thant

Assistant Technical Officer
ISO Tech Laboratory

(a division of WEG Co.,Ltd.)

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ORIGINAL

SGS

Report No. : **22520-00011**
Job Ref. : 5000097
Date : 7-Mar-22
Page 1 of 1

TEST REPORT

CLIENT NAME : **E GUARD ENVIRONMENTAL SERVICES COMPANY LIMITED**

ADDRESS : **NO.145,(A2-A3), THIRI MINGALAR STREET, 8 MILE, PYAY ROAD, MAYANGONE TOWNSHIP, YANGON**

The following sample was submitted and identified by client and analysed at our lab with the following results.

Sample Description : Warehouse and Office Space Rental Services
Sampling Date & Time : 03-March-22 & 08:00

Sample Condition : Plastic and Glass Bottle at Ambient Temperature

Lab Code : W-011

Date Sample(s) Received : 3-Mar-22

Testing Period : 3-Mar-22 TO 4-Mar-22

No.	Test Items	Methods	Results	Units
1	Nitrogen(Kjeldahl)	APHA 4500-NorgB (Macro Kjeldahl Method) (23rd Edition) (In-house Method)	35.28	mg/L
2	Phosphorus	APHA 4500-P E (Ascorbic Acid Method) (23rd Edition)	3.436	mg/L
3	Oil & Grease	APHA 5520 B (Partition-Gravimetric Method) (23rd Edition)	<5	mg/L

********** End of Report **********

SGS (Myanmar) Limited

M.C.Z

(Thin Thin Maw)
Laboratory Manager

SGS (Myanmar) Limited | Natural Resources, 79/D, Bo Chein Street, 6 ½ Mile, Hlaing Township, Yangon, Myanmar
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Member of SGS Group(SGS SA)

Appendix 9 Raw Data of the Environmental Quality Measurement

Air Quality

	Date	Time	CO2 (pp	CO (ppb	NO2 (PP	PM 10 µ	PM 2.5 µ	RH %	SO2 (PP	O3(ppm)
2	05/13/2021	10:00:00	420	0	2	2	1	28	0	0
3	05/13/2021	10:01:00	421	0	2	2	1	28	0	0
4	05/13/2021	10:02:00	435	0	2	2	1	28	0	0
5	05/13/2021	10:03:00	452	0	2	2	1	28	0	0.001
6	05/13/2021	10:04:00	421	0	2	2	1	28	0	0
7	05/13/2021	10:05:00	417	0	2	2	1	28	0	0
8	05/13/2021	10:06:00	419	0	2	2	1	28	0	0
9	05/13/2021	10:07:00	418	0	2	2	1	28	0	0
10	05/13/2021	10:08:00	409	0	2	2	1	28	0	0
11	05/13/2021	10:09:00	417	0	2	2	1	28	0	0
12	05/13/2021	10:10:00	407	0	2	2	1	28	0	0
13	05/13/2021	10:11:00	408	0	12	2	1	28	0	0
14	05/13/2021	10:12:00	403	0	2	2	1	29	0	0
15	05/13/2021	10:13:00	407	0	2	2	1	29	0	0
16	05/13/2021	10:14:00	405	0	2	2	1	30	0	0
17	05/13/2021	10:15:00	410	0	10	2	1	30	0	0
18	05/13/2021	10:16:00	405	0	2	2	1	31	0	0
19	05/13/2021	10:17:00	414	0	2	2	1	31	0	0
20	05/13/2021	10:18:00	406	0	2	2	1	32	0	0
21	05/13/2021	10:19:00	414	0	2	2	1	32	0	0
22	05/13/2021	10:20:00	406	0	2	2	1	32	0	0
23	05/13/2021	10:21:00	408	0	11	2	1	33	0	0
24	05/13/2021	10:22:00	405	0	2	2	1	33	0	0
25	05/13/2021	10:23:00	409	0	2	2	1	33	0	0
26	05/13/2021	10:24:00	404	0	2	2	1	34	0	0
27	05/13/2021	10:25:00	404	0	2	2	1	34	0	0
28	05/13/2021	10:26:00	395	0	11	2	1	34	0	0
29	05/13/2021	10:27:00	404	0	2	2	1	34	0	0
30	05/13/2021	10:28:00	395	0	2	2	1	35	0	0
31	05/13/2021	10:29:00	403	0	2	2	1	35	0	0
32	05/13/2021	10:30:00	403	0	2	2	1	35	0	0
33	05/13/2021	10:31:00	401	0	10	2	1	35	0	0
34	05/13/2021	10:32:00	395	0	2	2	1	35	0	0
35	05/13/2021	10:33:00	400	0	2	2	1	35	0	0.005
36	05/13/2021	10:34:00	394	0	2	2	1	36	0	0
37	05/13/2021	10:35:00	402	0	2	2	1	36	0	0
38	05/13/2021	10:36:00	394	0	2	2	1	36	0	0
39	05/13/2021	10:37:00	404	0	2	2	1	37	0	0
40	05/13/2021	10:38:00	395	0	2	2	1	37	0	0
41	05/13/2021	10:39:00	400	0	2	2	1	37	0	0
42	05/13/2021	10:40:00	394	0	10	2	1	37	0	0
43	05/13/2021	10:41:00	399	0	2	2	1	37	0	0
44	05/13/2021	10:42:00	394	0	2	2	1	37	0	0
45	05/13/2021	10:43:00	398	0	2	2	1	37	0	0
46	05/13/2021	10:44:00	395	0	2	2	1	36	0	0
47	05/13/2021	10:45:00	393	0	2	2	1	36	0	0
48	05/13/2021	10:46:00	393	0	2	2	1	36	0	0
49	05/13/2021	10:47:00	393	0	2	2	1	36	0	0
50	05/13/2021	10:48:00	393	0	2	2	1	36	0	0
51	05/13/2021	10:49:00	393	0	2	2	1	36	0	0
52	05/13/2021	10:50:00	393	0	2	2	1	36	0	0
53	05/13/2021	10:51:00	393	0	2	2	1	36	0	0
54	05/13/2021	10:52:00	393	0	2	2	1	36	0	0
55	05/13/2021	10:53:00	393	0	2	2	1	36	0	0
56	05/13/2021	10:54:00	403	0	2	2	1	37	0	0
57	05/13/2021	10:55:00	404	0	2	2	1	37	0	0
58	05/13/2021	10:56:00	402	0	2	2	1	37	0	0
59	05/13/2021	10:57:00	392	0	2	2	1	38	0	0
60	05/13/2021	10:58:00	389	0	3	2	1	38	0	0
61	05/13/2021	10:59:00	384	0	10	2	1	38	0	0
62	05/13/2021	11:00:00	389	0	2	2	1	38	4	0
63	05/13/2021	11:01:00	391	0	2	2	1	38	0	0
70	05/13/2021	11:02:00	393	0	2	2	1	38	0	0
71	05/13/2021	11:03:00	390	0	2	2	1	38	0	0
72	05/13/2021	11:04:00	394	0	2	2	1	38	0	0
73	05/13/2021	11:05:00	385	0	2	2	1	38	0	0
74	05/13/2021	11:06:00	394	0	2	2	1	38	0	0
75	05/13/2021	11:07:00	386	0	2	2	1	38	0	0
76	05/13/2021	11:08:00	390	0	2	2	1	38	0	0
77	05/13/2021	11:09:00	383	0	2	2	1	38	0	0
78	05/13/2021	11:10:00	389	0	2	2	1	38	9	0
79	05/13/2021	11:11:00	387	0	2	2	1	38	0	0
80	05/13/2021	11:12:00	393	0	2	2	1	38	6	0
81	05/13/2021	11:13:00	385	0	2	2	1	38	0	0
82	05/13/2021	11:14:00	396	0	2	2	1	38	7	0
83	05/13/2021	11:15:00	387	0	2	2	1	38	5	0
84	05/13/2021	11:16:00	395	0	2	2	1	37	0	0
85	05/13/2021	11:17:00	392	0	2	2	1	37	0	0
86	05/13/2021	11:18:00	397	0	2	2	1	37	0	0
87	05/13/2021	11:19:00	385	0	2	2	1	37	0	0
88	05/13/2021	11:20:00	392	0	2	2	1	37	0	0
89	05/13/2021	11:21:00	353	0	2	2	1	37	0	0
90	05/13/2021	11:22:00	387	0	2	2	1	38	0	0
91	05/13/2021	11:23:00	383	0	2	2	1	38	0	0
92	05/13/2021	11:24:00	388	0	2	2	1	38	0	0
93	05/13/2021	11:25:00	384	0	2	2	1	38	0	0
94	05/13/2021	11:26:00	388	0	2	2	1	38	0	0
95	05/13/2021	11:27:00	380	0	2	2	1	38	0	0
96	05/13/2021	11:28:00	392	0	2	2	1	38	0	0
97	05/13/2021	11:29:00	387	0	2	2	1	38	0	0
98	05/13/2021	11:30:00	389	0	2	2	1	38	0	0
99	05/13/2021	11:31:00	383	0	2	2	1	38	0	0.001
100	05/13/2021	11:32:00	387	0	2	2	1	38	0	0
101	05/13/2021	11:33:00	383	0	2	2	1	38	0	0
102	05/13/2021	11:34:00	390	0	2	2	1	38	0	0
103	05/13/2021	11:35:00	383	0	2	2	1	38	0	0
104	05/13/2021	11:36:00	392	0	2	2	1	37	0	0
105	05/13/2021	11:37:00	384	0	2	2	1	37	0	0
106	05/13/2021	11:38:00	392	0	2	2	1	37	0	0
107	05/13/2021	11:39:00	383	0	2	2	1	37	0	0
108	05/13/2021	11:40:00	393	0	2	2	1	37	0	0
109	05/13/2021	11:41:00	384	0	2	2	1	38	0	0
110	05/13/2021	11:42:00	389	0	2	2	1	38	0	0
111	05/13/2021	11:43:00	384	0	2	2	1	38	0	0
112	05/13/2021	11:44:00	387	0	2	2	1	38	0	0
113	05/13/2021	11:45:00	383	0	2	2	1	38	0	0
114	05/13/2021	11:46:00	389	0	2	2	1	38	0	0
115	05/13/2021	11:47:00	383	0	2	2	1	38	0	0
116	05/13/2021	11:48:00	388	0	2	2	1	38	0	0
117	05/13/2021	11:49:00	384	0	2	2	1	38	0	0
118	05/13/2021	11:50:00	387	0	2	2	1	38	0	0
119	05/13/2021	11:51:00	383	0	2	2	1	38	0	0
120	05/13/2021	11:52:00	395	0	2	2	1	37	0	0
121	05/13/2021	11:53:00	390	0	2	2	1	37	0	0.008
122	05/13/2021	11:54:00	390	0	2	2	1	37	0	0.018
123	05/13/2021	11:55:00	390	0	2	2	1	37	0	0
124	05/13/2021	11:56:00	390	0	2	2	1	37	0	0
125	05/13/2021	11:57:00	390	0	2	2	1	37	0	0
126	05/13/2021	11:58:00	390	0	2	2	1	37	0	0
127	05/13/2021	11:59:00	390	0	2	2	1	37	0	0

134	05/13/2021	12:00:00	390	0	2	2	1	37	0	0
135	05/13/2021	12:01:00	390	0	2	2	1	37	0	0.006
136	05/13/2021	12:02:00	390	0	2	2	1	37	0	0.001
137	05/13/2021	12:03:00	419	0	2	2	1	37	0	0
138	05/13/2021	12:04:00	398	0	2	2	1	37	0	0
139	05/13/2021	12:05:00	401	0	2	2	4	37	0	0
140	05/13/2021	12:06:00	387	0	2	2	1	36	0	0.004
141	05/13/2021	12:07:00	393	0	2	2	1	36	0	0
142	05/13/2021	12:08:00	384	0	2	2	1	36	0	0
143	05/13/2021	12:09:00	387	0	2	22	11	36	0	0.005
144	05/13/2021	12:10:00	381	0	2	2	1	36	0	0.002
145	05/13/2021	12:11:00	387	0	2	23	12	36	0	0
146	05/13/2021	12:12:00	383	0	2	2	1	37	0	0
147	05/13/2021	12:13:00	387	0	2	10	5	36	0	0
148	05/13/2021	12:14:00	368	0	2	2	1	35	0	0
149	05/13/2021	12:15:00	385	0	2	2	1	37	0	0
150	05/13/2021	12:16:00	382	0	2	2	1	37	0	0
151	05/13/2021	12:17:00	391	0	2	2	1	37	0	0
152	05/13/2021	12:18:00	384	0	2	2	1	37	0	0.005
153	05/13/2021	12:19:00	392	0	2	2	1	38	0	0
154	05/13/2021	12:20:00	385	0	2	2	1	38	0	0.001
155	05/13/2021	12:21:00	392	0	2	2	1	38	0	0.003
156	05/13/2021	12:22:00	385	0	2	2	1	38	0	0.01
157	05/13/2021	12:23:00	391	0	2	2	1	38	0	0.008
158	05/13/2021	12:24:00	384	0	2	2	1	38	0	0.013
159	05/13/2021	12:25:00	388	0	2	2	1	38	0	0.013
160	05/13/2021	12:26:00	390	0	2	2	1	38	0	0.014
161	05/13/2021	12:27:00	394	0	2	2	1	38	0	0.012
162	05/13/2021	12:28:00	385	0	2	2	1	38	0	0.008
163	05/13/2021	12:29:00	392	0	2	2	1	38	0	0
164	05/13/2021	12:30:00	387	0	2	2	1	38	0	0

165	05/13/2021	12:31:00	394	0	2	2	1	37	0	0
166	05/13/2021	12:32:00	385	0	2	2	1	37	0	0
167	05/13/2021	12:33:00	392	0	2	2	1	37	0	0
168	05/13/2021	12:34:00	384	0	2	2	1	37	0	0
169	05/13/2021	12:35:00	388	0	2	10	5	37	0	0
170	05/13/2021	12:36:00	383	0	2	2	1	37	0	0
171	05/13/2021	12:37:00	387	0	2	31	15	37	0	0
172	05/13/2021	12:38:00	384	0	2	2	1	37	0	0.001
173	05/13/2021	12:39:00	388	0	2	10	6	37	0	0
174	05/13/2021	12:40:00	383	0	2	2	1	38	0	0.001
175	05/13/2021	12:41:00	389	0	2	2	1	38	0	0.005
176	05/13/2021	12:42:00	384	0	2	2	1	38	0	0.009
177	05/13/2021	12:43:00	392	0	2	2	1	38	0	0.017
178	05/13/2021	12:44:00	384	0	2	2	1	38	0	0.019
179	05/13/2021	12:45:00	393	0	2	2	1	38	0	0.015
180	05/13/2021	12:46:00	384	0	2	2	1	38	0	0.014
181	05/13/2021	12:47:00	394	0	2	10	6	38	0	0.019
182	05/13/2021	12:48:00	383	0	2	2	1	38	0	0.023
183	05/13/2021	12:49:00	387	0	2	10	3	38	0	0.014
184	05/13/2021	12:50:00	387	0	2	24	12	37	0	0.016
185	05/13/2021	12:51:00	390	0	2	10	5	37	0	0.021
186	05/13/2021	12:52:00	384	0	2	2	1	37	0	0.024
187	05/13/2021	12:53:00	388	0	2	2	1	37	0	0.021
188	05/13/2021	12:54:00	384	0	2	7	2	37	0	0.011
189	05/13/2021	12:55:00	388	0	2	2	1	37	0	0.011
190	05/13/2021	12:56:00	389	0	2	20	11	37	0	0.012
191	05/13/2021	12:57:00	389	0	4	2	1	37	0	0.008
192	05/13/2021	12:58:00	390	0	4	10	6	37	0	0.018
193	05/13/2021	12:59:00	385	0	2	2	1	37	0	0.013

200	05/13/2021	13:00:00	389	0	14	2	1	37	0	0.013
201	05/13/2021	13:01:00	386	0	6	2	1	36	0	0.013
202	05/13/2021	13:02:00	389	0	2	30	16	36	0	0.017
203	05/13/2021	13:03:00	389	0	2	30	16	36	0	0.022
204	05/13/2021	13:04:00	389	0	2	30	16	36	0	0.009
205	05/13/2021	13:05:00	389	0	2	30	16	36	0	0.001
206	05/13/2021	13:06:00	389	0	2	30	16	36	0	0.006
207	05/13/2021	13:07:00	389	0	2	30	16	36	0	0.007
208	05/13/2021	13:08:00	389	0	2	30	16	36	0	0.011
209	05/13/2021	13:09:00	389	0	2	30	16	36	0	0.014
210	05/13/2021	13:10:00	389	0	2	30	16	36	0	0.007
211	05/13/2021	13:11:00	389	0	2	30	16	36	0	0.007
212	05/13/2021	13:12:00	452	0	2	13	6	36	0	0.01
213	05/13/2021	13:13:00	436	0	2	2	1	36	0	0.003
214	05/13/2021	13:14:00	423	0	2	2	1	36	0	0
215	05/13/2021	13:15:00	407	0	2	2	1	36	0	0
216	05/13/2021	13:16:00	405	0	2	2	1	36	0	0
217	05/13/2021	13:17:00	394	0	2	2	1	36	0	0
218	05/13/2021	13:18:00	403	0	2	2	1	37	0	0
219	05/13/2021	13:19:00	390	0	2	2	1	37	0	0
220	05/13/2021	13:20:00	391	0	2	10	4	37	0	0
221	05/13/2021	13:21:00	385	0	2	2	1	37	0	0
222	05/13/2021	13:22:00	394	0	2	7	2	37	0	0.002
223	05/13/2021	13:23:00	390	0	2	2	1	37	0	0
224	05/13/2021	13:24:00	390	0	2	2	1	37	0	0
225	05/13/2021	13:25:00	390	0	2	2	1	37	0	0
226	05/13/2021	13:26:00	395	0	2	2	1	37	0	0
227	05/13/2021	13:27:00	386	0	2	2	1	37	0	0
228	05/13/2021	13:28:00	392	0	2	2	1	37	0	0
229	05/13/2021	13:29:00	385	0	2	2	1	37	0	0.008
230	05/13/2021	13:30:00	393	0	2	3	3	37	0	0.001

231	05/13/2021	13:31:00	385	0	2	2	1	37	0	0.013
232	05/13/2021	13:32:00	393	0	2	2	1	37	0	0.016
233	05/13/2021	13:33:00	385	0	2	2	1	37	0	0.005
234	05/13/2021	13:34:00	390	0	2	2	1	37	0	0.009
235	05/13/2021	13:35:00	384	0	2	2	1	37	0	0.002
236	05/13/2021	13:36:00	388	0	2	2	1	37	0	0.012
237	05/13/2021	13:37:00	384	0	2	2	1	37	0	0.003
238	05/13/2021	13:38:00	390	0	2	2	1	37	0	0.003
239	05/13/2021	13:39:00	386	0	2	2	1	37	0	0.016
240	05/13/2021	13:40:00	396	0	2	2	1	37	0	0.016
241	05/13/2021	13:41:00	391	0	2	2	1	37	0	0.016
242	05/13/2021	13:42:00	393	0	2	2	1	37	0	0.015
243	05/13/2021	13:43:00	386	0	2	2	1	37	0	0.008
244	05/13/2021	13:44:00	394	0	2	2	1	36	0	0.007
245	05/13/2021	13:45:00	386	0	2	2	1	36	0	0.014
246	05/13/2021	13:46:00	391	0	2	2	1	36	0	0.015
247	05/13/2021	13:47:00	385	0	2	2	1	35	0	0.001
248	05/13/2021	13:48:00	388	0	2	2	1	35	0	0.004
249	05/13/2021	13:49:00	382	0	2	2	1	36	0	0.004
250	05/13/2021	13:50:00	388	0	2	2	1	36	0	0.007
251	05/13/2021	13:51:00	384	0	2	2	1	36	0	0
252	05/13/2021	13:52:00	388	0	2	2	1	36	0	0.016
253	05/13/2021	13:53:00	384	0	2	2	1	36	0	0.011
254	05/13/2021	13:54:00	393	0	2	2	1	36	0	0.009
255	05/13/2021	13:55:00	385	0	2	2	1	37	0	0.013
256	05/13/2021	13:56:00	384	0	2	2	1	37	0	0.01
257	05/13/2021	13:57:00	388	0	2	7	2	37	0	0.002
258	05/13/2021	13:58:00	389	0	2	2	1	37	0	0.009
259	05/13/2021	13:59:00	389	0	2	7	2	37	0	0.014

266	05/13/2021	14:00:00	385	0	2	2	1	37	0	0.013
267	05/13/2021	14:01:00	388	0	2	28	17	37	0	0.015
268	05/13/2021	14:02:00	384	0	2	2	1	37	0	0.003
269	05/13/2021	14:03:00	388	0	2	15	7	37	0	0.007
270	05/13/2021	14:04:00	384	0	2	2	1	37	0	0.005
271	05/13/2021	14:05:00	388	0	2	2	1	37	0	0.01
272	05/13/2021	14:06:00	384	0	2	2	1	36	0	0.005
273	05/13/2021	14:07:00	389	0	2	2	1	36	0	0.016
274	05/13/2021	14:08:00	384	0	2	2	1	36	0	0.02
275	05/13/2021	14:09:00	400	0	2	2	1	36	0	0.019
276	05/13/2021	14:10:00	390	0	2	2	1	37	0	0.021
277	05/13/2021	14:11:00	396	0	2	2	1	37	0	0.021
278	05/13/2021	14:12:00	396	0	2	2	1	37	0	0.026
279	05/13/2021	14:13:00	396	0	2	2	1	37	0	0.019
280	05/13/2021	14:14:00	396	0	2	2	1	37	0	0.027
281	05/13/2021	14:15:00	396	0	2	2	1	37	0	0.024
282	05/13/2021	14:16:00	396	0	2	2	1	37	0	0.02
283	05/13/2021	14:17:00	396	0	2	2	1	37	0	0.022
284	05/13/2021	14:18:00	396	0	2	2	1	37	0	0.006
285	05/13/2021	14:19:00	396	0	2	2	1	37	0	0.006
286	05/13/2021	14:20:00	396	0	2	2	1	37	0	0.011
287	05/13/2021	14:21:00	467	0	2	2	1	36	0	0.02
288	05/13/2021	14:22:00	436	0	2	2	1	36	0	0.024
289	05/13/2021	14:23:00	412	0	2	18	9	36	0	0.016
290	05/13/2021	14:24:00	396	0	2	2	1	36	0	0.027
291	05/13/2021	14:25:00	399	0	2	2	1	35	0	0.03
292	05/13/2021	14:26:00	392	0	2	2	1	36	0	0.022
293	05/13/2021	14:27:00	397	0	2	2	1	35	0	0.012
294	05/13/2021	14:28:00	386	0	2	2	1	35	0	0.008
295	05/13/2021	14:29:00	394	0	2	2	1	35	0	0.006
296	05/13/2021	14:30:00	386	0	2	2	1	35	0	0.011

297	05/13/2021	14:31:00	390	0	2	2	1	35	0	0.006
298	05/13/2021	14:32:00	385	0	2	2	1	35	0	0.011
299	05/13/2021	14:33:00	393	0	2	2	1	35	0	0.005
300	05/13/2021	14:34:00	385	0	2	2	1	35	0	0.015
301	05/13/2021	14:35:00	389	0	2	2	1	35	0	0.01
302	05/13/2021	14:36:00	383	0	2	2	1	35	0	0.012
303	05/13/2021	14:37:00	397	0	2	2	1	35	0	0.011
304	05/13/2021	14:38:00	386	0	2	2	1	35	0	0.016
305	05/13/2021	14:39:00	394	0	2	2	1	35	0	0.006
306	05/13/2021	14:40:00	386	0	2	2	1	35	0	0.006
307	05/13/2021	14:41:00	395	0	2	2	1	35	0	0.015
308	05/13/2021	14:42:00	386	0	2	2	1	35	0	0.014
309	05/13/2021	14:43:00	398	0	2	2	1	35	0	0.021
310	05/13/2021	14:44:00	388	0	2	2	1	35	0	0.011
311	05/13/2021	14:45:00	389	0	2	2	1	35	0	0.008
312	05/13/2021	14:46:00	384	0	2	2	1	36	0	0.007
313	05/13/2021	14:47:00	391	0	2	2	1	36	0	0.001
314	05/13/2021	14:48:00	385	0	2	2	1	36	0	0.002
315	05/13/2021	14:49:00	389	0	2	2	1	36	0	0.019
316	05/13/2021	14:50:00	384	0	2	2	1	36	0	0.022
317	05/13/2021	14:51:00	393	0	2	2	1	36	0	0.025
318	05/13/2021	14:52:00	390	0	2	2	1	35	0	0.029
319	05/13/2021	14:53:00	390	0	2	2	1	35	0	0.025
320	05/13/2021	14:54:00	390	0	2	2	1	35	0	0.018
321	05/13/2021	14:55:00	387	0	2	2	1	35	0	0.013
322	05/13/2021	14:56:00	389	0	2	2	1	35	0	0.009
323	05/13/2021	14:57:00	384	0	2	2	1	35	0	0.004
324	05/13/2021	14:58:00	388	0	2	2	1	34	0	0.013
325	05/13/2021	14:59:00	385	0	2	2	1	34	0	0.011

332	05/13/2021	15:00:00	392	0	2	8	1	34	9	0.005
333	05/13/2021	15:01:00	385	0	2	2	1	34	0	0.025
334	05/13/2021	15:02:00	392	0	2	2	1	34	7	0.026
335	05/13/2021	15:03:00	385	0	2	2	1	34	0	0.022
336	05/13/2021	15:04:00	393	0	2	2	1	34	4	0.024
337	05/13/2021	15:05:00	385	0	2	2	1	34	0	0.02
338	05/13/2021	15:06:00	393	0	2	2	1	34	0	0.023
339	05/13/2021	15:07:00	385	0	2	2	1	34	6	0.027
340	05/13/2021	15:08:00	389	0	2	2	1	34	0	0.032
341	05/13/2021	15:09:00	384	0	2	2	1	34	0	0.032
342	05/13/2021	15:10:00	388	0	2	2	1	34	0	0.036
343	05/13/2021	15:11:00	384	0	2	2	1	34	0	0.032
344	05/13/2021	15:12:00	389	0	2	2	1	35	0	0.033
345	05/13/2021	15:13:00	384	0	2	2	1	35	0	0.034
346	05/13/2021	15:14:00	392	0	2	2	1	35	0	0.015
347	05/13/2021	15:15:00	384	0	2	2	1	35	4	0.023
348	05/13/2021	15:16:00	390	0	2	2	1	35	0	0.032
349	05/13/2021	15:17:00	384	0	2	2	1	35	0	0.029
350	05/13/2021	15:18:00	387	0	2	2	1	35	0	0.03
351	05/13/2021	15:19:00	383	0	2	2	1	35	0	0.024
352	05/13/2021	15:20:00	388	0	2	2	1	35	0	0.029
353	05/13/2021	15:21:00	388	0	2	2	1	35	0	0.03
354	05/13/2021	15:22:00	388	0	2	2	1	35	0	0.031
355	05/13/2021	15:23:00	388	0	2	2	1	35	0	0.032
356	05/13/2021	15:24:00	388	0	2	2	1	35	0	0.027
357	05/13/2021	15:25:00	388	0	2	2	1	35	0	0.026
358	05/13/2021	15:26:00	388	0	2	2	1	35	0	0.027
359	05/13/2021	15:27:00	388	0	2	2	1	35	0	0.03
360	05/13/2021	15:28:00	388	0	2	2	1	35	0	0.03
361	05/13/2021	15:29:00	388	0	2	2	1	35	0	0.031
362	05/13/2021	15:30:00	532	0	2	2	1	35	0	0.031

363	05/13/2021	15:31:00	474	0	2	24	14	35	0	0.027
364	05/13/2021	15:32:00	427	0	2	24	12	36	0	0.025
365	05/13/2021	15:33:00	407	0	2	2	1	36	0	0.028
366	05/13/2021	15:34:00	386	0	2	2	1	36	0	0.026
367	05/13/2021	15:35:00	394	0	2	2	1	36	0	0.023
368	05/13/2021	15:36:00	389	0	2	2	1	36	0	0.023
369	05/13/2021	15:37:00	396	0	2	2	1	36	0	0.027
370	05/13/2021	15:38:00	384	0	2	2	1	36	0	0.031
371	05/13/2021	15:39:00	387	0	2	2	1	36	0	0.031
372	05/13/2021	15:40:00	383	0	2	2	1	37	0	0.029
373	05/13/2021	15:41:00	388	0	2	2	1	37	0	0.027
374	05/13/2021	15:42:00	382	0	2	2	1	36	0	0.024
375	05/13/2021	15:43:00	387	0	2	2	1	37	0	0.02
376	05/13/2021	15:44:00	383	0	2	2	1	37	0	0.025
377	05/13/2021	15:45:00	385	0	2	2	1	37	0	0.029
378	05/13/2021	15:46:00	383	0	2	2	1	37	0	0.027
379	05/13/2021	15:47:00	392	0	2	2	1	37	0	0.029
380	05/13/2021	15:48:00	384	0	2	2	1	37	0	0.023
381	05/13/2021	15:49:00	386	0	2	2	1	37	0	0.02
382	05/13/2021	15:50:00	375	0	2	2	1	37	0	0.024
383	05/13/2021	15:51:00	383	0	2	2	1	37	0	0.024
384	05/13/2021	15:52:00	383	0	2	2	1	37	0	0.024
385	05/13/2021	15:53:00	391	0	2	2	1	37	0	0.028
386	05/13/2021	15:54:00	382	0	2	2	1	37	0	0.025
387	05/13/2021	15:55:00	387	0	2	2	1	37	0	0.031
388	05/13/2021	15:56:00	383	0	2	2	1	37	0	0.028
389	05/13/2021	15:57:00	387	0	2	2	1	37	0	0.028
390	05/13/2021	15:58:00	386	0	2	2	1	36	0	0.029
391	05/13/2021	15:59:00	386	0	2	2	1	36	0	0.024

398	05/13/2021	16:00:00	388	0	2	2	1	36	0	0.027
399	05/13/2021	16:01:00	383	0	2	2	1	36	0	0.025
400	05/13/2021	16:02:00	390	0	2	2	1	36	0	0.021
401	05/13/2021	16:03:00	387	0	2	2	1	36	0	0.027
402	05/13/2021	16:04:00	393	0	2	2	1	36	0	0.028
403	05/13/2021	16:05:00	384	0	2	2	1	36	0	0.029
404	05/13/2021	16:06:00	387	0	2	2	1	36	0	0.028
405	05/13/2021	16:07:00	384	0	2	2	1	36	0	0.028
406	05/13/2021	16:08:00	390	0	2	2	1	36	0	0.027
407	05/13/2021	16:09:00	380	0	2	2	1	36	0	0.026
408	05/13/2021	16:10:00	380	0	2	2	1	37	0	0.03
409	05/13/2021	16:11:00	382	0	2	2	1	37	0	0.03
410	05/13/2021	16:12:00	388	0	2	2	1	36	0	0.029
411	05/13/2021	16:13:00	383	0	2	2	1	37	0	0.029
412	05/13/2021	16:14:00	389	0	2	2	1	37	0	0.029
413	05/13/2021	16:15:00	383	0	2	2	1	37	0	0.028
414	05/13/2021	16:16:00	390	0	2	2	1	37	0	0.029
415	05/13/2021	16:17:00	384	0	2	2	1	37	0	0.027
416	05/13/2021	16:18:00	380	0	2	2	1	37	0	0.025
417	05/13/2021	16:19:00	382	0	2	2	1	37	0	0.024
418	05/13/2021	16:20:00	392	0	2	2	1	37	0	0.026
419	05/13/2021	16:21:00	386	0	2	2	1	37	0	0.026
420	05/13/2021	16:22:00	388	0	2	2	1	37	0	0.024
421	05/13/2021	16:23:00	388	0	2	2	1	37	0	0.024
422	05/13/2021	16:24:00	384	0	2	2	1	37	0	0.024
423	05/13/2021	16:25:00	386	0	2	2	1	37	0	0.028
424	05/13/2021	16:26:00	383	0	2	2	1	37	0	0.029
425	05/13/2021	16:27:00	393	0	2	2	1	37	0	0.027
426	05/13/2021	16:28:00	385	0	2	2	1	38	0	0.026
427	05/13/2021	16:29:00	388	0	2	2	1	38	0	0.024
428	05/13/2021	16:30:00	388	0	2	2	1	38	0	0.026

429	05/13/2021	16:31:00	388	0	2	2	1	38	0	0.023
430	05/13/2021	16:32:00	388	0	2	2	1	38	0	0.026
431	05/13/2021	16:33:00	388	0	2	2	1	38	0	0.025
432	05/13/2021	16:34:00	388	0	2	2	1	38	0	0.031
433	05/13/2021	16:35:00	388	0	2	2	1	38	0	0.031
434	05/13/2021	16:36:00	388	0	2	2	1	38	0	0.028
435	05/13/2021	16:37:00	388	0	2	2	1	38	0	0.028
436	05/13/2021	16:38:00	388	0	2	2	1	38	0	0.028
437	05/13/2021	16:39:00	483	0	2	2	1	38	0	0.023
438	05/13/2021	16:40:00	456	0	2	2	1	38	0	0.027
439	05/13/2021	16:41:00	425	0	2	2	1	38	0	0.029
440	05/13/2021	16:42:00	411	0	2	10	3	38	0	0.029
441	05/13/2021	16:43:00	400	0	2	2	1	38	0	0.028
442	05/13/2021	16:44:00	397	0	2	2	1	38	0	0.025
443	05/13/2021	16:45:00	389	0	2	2	1	38	0	0.026
444	05/13/2021	16:46:00	388	0	2	18	9	38	0	0.024
445	05/13/2021	16:47:00	383	0	2	2	1	38	0	0.026
446	05/13/2021	16:48:00	392	0	2	19	7	38	0	0.024
447	05/13/2021	16:49:00	385	0	2	2	1	38	0	0.025
448	05/13/2021	16:50:00	388	0	2	28	20	38	0	0.026
449	05/13/2021	16:51:00	386	0	2	2	1	38	0	0.026
450	05/13/2021	16:52:00	393	0	2	26	14	38	0	0.028
451	05/13/2021	16:53:00	384	0	2	2	7	38	0	0.027
452	05/13/2021	16:54:00	387	0	2	28	17	38	0	0.026
453	05/13/2021	16:55:00	381	0	2	10	8	37	0	0.026
454	05/13/2021	16:56:00	389	0	2	21	10	38	0	0.027
455	05/13/2021	16:57:00	381	0	2	20	14	38	0	0.027
456	05/13/2021	16:58:00	384	0	2	10	6	37	0	0.022
457	05/13/2021	16:59:00	383	0	2	26	18	37	0	0.025

464	05/13/2021	17:00:00	379	0	2	20	11	37	0	0.022
465	05/13/2021	17:01:00	380	0	2	20	11	37	0	0.025
466	05/13/2021	17:02:00	356	0	2	20	11	36	0	0.028
467	05/13/2021	17:03:00	369	0	2	20	11	36	0	0.027
468	05/13/2021	17:04:00	362	0	2	20	11	36	0	0.027
469	05/13/2021	17:05:00	363	0	2	20	11	36	0	0.025
470	05/13/2021	17:06:00	367	0	2	20	11	36	0	0.031
471	05/13/2021	17:07:00	372	0	2	20	11	36	0	0.024
472	05/13/2021	17:08:00	360	0	2	20	11	36	0	0.024
473	05/13/2021	17:09:00	369	0	2	20	11	36	0	0.023
474	05/13/2021	17:10:00	365	0	2	20	11	36	0	0.024
475	05/13/2021	17:11:00	367	0	2	20	11	36	0	0.024
476	05/13/2021	17:12:00	366	0	2	20	11	36	0	0.024
477	05/13/2021	17:13:00	372	0	2	20	11	36	0	0.022
478	05/13/2021	17:14:00	366	0	2	23	17	36	0	0.022
479	05/13/2021	17:15:00	375	0	2	23	17	37	0	0.027
480	05/13/2021	17:16:00	371	0	2	23	17	37	0	0.026
481	05/13/2021	17:17:00	374	0	2	23	17	36	0	0.022
482	05/13/2021	17:18:00	374	0	2	23	17	36	0	0.027
483	05/13/2021	17:19:00	370	0	2	23	17	36	0	0.021
484	05/13/2021	17:20:00	373	0	2	23	17	36	0	0.026
485	05/13/2021	17:21:00	367	0	2	23	17	36	0	0.027
486	05/13/2021	17:22:00	376	0	2	23	17	36	0	0.024
487	05/13/2021	17:23:00	368	0	2	23	17	36	0	0.021
488	05/13/2021	17:24:00	363	0	2	23	17	36	0	0.024
489	05/13/2021	17:25:00	353	0	2	23	17	35	0	0.024
490	05/13/2021	17:26:00	366	0	2	23	17	36	0	0.025
491	05/13/2021	17:27:00	365	0	2	24	15	36	0	0.024
492	05/13/2021	17:28:00	377	0	2	24	15	36	0	0.027
493	05/13/2021	17:29:00	378	0	2	24	15	37	0	0.024
494	05/13/2021	17:30:00	373	0	2	24	15	36	0	0.026

495	05/13/2021	17:31:00	363	0	2	24	15	36	0	0.026
496	05/13/2021	17:32:00	380	0	2	24	15	36	0	0.025
497	05/13/2021	17:33:00	366	0	2	24	15	36	0	0.022
498	05/13/2021	17:34:00	367	0	2	24	15	36	0	0.026
499	05/13/2021	17:35:00	352	0	2	24	15	35	0	0.026
500	05/13/2021	17:36:00	362	0	2	24	15	36	0	0.021
501	05/13/2021	17:37:00	366	0	2	24	15	36	0	0.025
502	05/13/2021	17:38:00	359	0	2	24	15	36	0	0.024
503	05/13/2021	17:39:00	359	0	2	24	15	36	0	0.023
504	05/13/2021	17:40:00	359	0	2	24	15	36	0	0.026
505	05/13/2021	17:41:00	359	0	2	20	14	36	0	0.025
506	05/13/2021	17:42:00	359	0	2	20	14	36	0	0.022
507	05/13/2021	17:43:00	359	0	2	20	14	36	0	0.023
508	05/13/2021	17:44:00	359	0	2	20	14	36	0	0.024
509	05/13/2021	17:45:00	359	0	2	20	14	36	0	0.025
510	05/13/2021	17:46:00	359	0	2	20	14	36	0	0.021
511	05/13/2021	17:47:00	359	0	2	20	14	36	0	0.023
512	05/13/2021	17:48:00	433	0	2	20	14	36	0	0.019
513	05/13/2021	17:49:00	421	0	2	20	14	37	0	0.021
514	05/13/2021	17:50:00	391	0	2	20	14	37	0	0.019
515	05/13/2021	17:51:00	385	0	2	2	1	37	0	0.02
516	05/13/2021	17:52:00	381	0	2	2	1	37	0	0.018
517	05/13/2021	17:53:00	376	0	2	2	1	37	0	0.022
518	05/13/2021	17:54:00	375	0	2	2	1	37	0	0.021
519	05/13/2021	17:55:00	360	0	2	2	1	37	0	0.021
520	05/13/2021	17:56:00	361	0	2	2	1	37	0	0.023
521	05/13/2021	17:57:00	360	0	2	2	1	37	0	0.022
522	05/13/2021	17:58:00	366	0	2	2	1	37	0	0.02
523	05/13/2021	17:59:00	360	0	2	2	1	37	0	0.024

530	05/19/2021	18:00:00	363	0	2	2	1	37	0	0.023
531	05/19/2021	18:01:00	354	0	2	2	1	37	0	0.022
532	05/19/2021	18:02:00	353	0	2	24	14	37	0	0.022
533	05/19/2021	18:03:00	349	0	2	2	1	37	0	0.023
534	05/19/2021	18:04:00	366	0	2	2	1	37	0	0.023
535	05/19/2021	18:05:00	359	0	2	2	1	38	0	0.022
536	05/19/2021	18:06:00	364	0	2	2	1	38	0	0.02
537	05/19/2021	18:07:00	367	0	2	2	1	38	0	0.02
538	05/19/2021	18:08:00	367	0	2	2	1	38	0	0.022
539	05/19/2021	18:09:00	371	0	2	7	2	38	0	0.021
540	05/19/2021	18:10:00	368	0	2	2	1	38	0	0.022
541	05/19/2021	18:11:00	375	0	2	10	4	38	0	0.022
542	05/19/2021	18:12:00	367	0	2	2	1	38	0	0.022
543	05/19/2021	18:13:00	374	0	2	2	1	38	0	0.022
544	05/19/2021	18:14:00	368	0	2	2	1	38	0	0.022
545	05/19/2021	18:15:00	365	0	2	21	13	37	0	0.02
546	05/19/2021	18:16:00	362	0	2	2	1	37	0	0.02
547	05/19/2021	18:17:00	370	0	2	10	4	38	0	0.02
548	05/19/2021	18:18:00	356	0	2	2	1	38	0	0.019
549	05/19/2021	18:19:00	372	0	2	2	1	38	0	0.02
550	05/19/2021	18:20:00	370	0	2	2	1	39	0	0.02
551	05/19/2021	18:21:00	378	0	2	2	1	39	0	0.022
552	05/19/2021	18:22:00	367	0	2	2	1	38	0	0.022
553	05/19/2021	18:23:00	362	0	2	2	1	38	0	0.023
554	05/19/2021	18:24:00	372	0	2	22	12	38	0	0.023
555	05/19/2021	18:25:00	373	0	2	2	1	39	0	0.022
556	05/19/2021	18:26:00	383	0	2	8	2	39	0	0.022
557	05/19/2021	18:27:00	371	0	2	2	1	38	0	0.023
558	05/19/2021	18:28:00	374	0	2	2	1	38	0	0.023
559	05/19/2021	18:29:00	369	0	2	2	1	38	0	0.023
560	05/19/2021	18:30:00	376	0	2	2	1	38	0	0.024

561	05/19/2021	18:31:00	375	0	2	2	1	38	0	0.026
562	05/19/2021	18:32:00	380	0	2	2	1	38	0	0.024
563	05/19/2021	18:33:00	363	0	2	2	1	38	0	0.025
564	05/19/2021	18:34:00	375	0	2	2	1	38	0	0.024
565	05/19/2021	18:35:00	361	0	2	2	1	38	0	0.023
566	05/19/2021	18:36:00	356	0	2	2	1	37	0	0.021
567	05/19/2021	18:37:00	351	0	2	2	1	37	0	0.026
568	05/19/2021	18:38:00	358	0	2	2	1	38	0	0.026
569	05/19/2021	18:39:00	368	0	2	2	1	38	0	0.03
570	05/19/2021	18:40:00	360	0	2	2	1	38	0	0.026
571	05/19/2021	18:41:00	366	0	2	2	1	38	0	0.023
572	05/19/2021	18:42:00	370	0	2	2	1	39	0	0.027
573	05/19/2021	18:43:00	394	0	2	2	1	41	0	0.028
574	05/19/2021	18:44:00	393	0	2	2	1	42	0	0.028
575	05/19/2021	18:45:00	400	0	2	27	18	42	0	0.024
576	05/19/2021	18:46:00	394	0	2	2	1	42	0	0.026
577	05/19/2021	18:47:00	401	0	2	10	4	41	0	0.025
578	05/19/2021	18:48:00	401	0	2	10	4	41	0	0.024
579	05/19/2021	18:49:00	401	0	2	10	4	41	0	0.027
580	05/19/2021	18:50:00	401	0	2	10	4	41	0	0.026
581	05/19/2021	18:51:00	401	0	2	10	4	41	0	0.024
582	05/19/2021	18:52:00	401	0	2	10	4	41	0	0.025
583	05/19/2021	18:53:00	401	0	2	10	4	41	0	0.025
584	05/19/2021	18:54:00	401	0	2	10	4	41	0	0.027
585	05/19/2021	18:55:00	401	0	2	10	4	41	0	0.024
586	05/19/2021	18:56:00	401	0	2	10	4	41	0	0.024
587	05/19/2021	18:57:00	424	0	2	2	1	42	0	0.025
588	05/19/2021	18:58:00	428	0	2	2	1	42	0	0.026
589	05/19/2021	18:59:00	408	0	2	2	1	42	0	0.027

596	05/19/2021	19:00:00	407	0	2	2	1	42	0	0.024
597	05/19/2021	19:01:00	396	0	2	2	1	42	0	0.026
598	05/19/2021	19:02:00	396	0	2	2	1	42	0	0.026
599	05/19/2021	19:03:00	392	0	2	2	1	42	0	0.027
600	05/19/2021	19:04:00	402	5	2	2	1	42	0	0.023
601	05/19/2021	19:05:00	394	0	2	2	1	42	0	0.026
602	05/19/2021	19:06:00	398	0	2	2	1	42	0	0.026
603	05/19/2021	19:07:00	399	0	2	2	1	42	0	0.024
604	05/19/2021	19:08:00	395	5	2	2	1	43	0	0.024
605	05/19/2021	19:09:00	398	0	2	15	8	42	0	0.022
606	05/19/2021	19:10:00	394	0	2	2	1	43	0	0.025
607	05/19/2021	19:11:00	396	0	2	20	10	43	0	0.023
608	05/19/2021	19:12:00	394	5	2	2	1	43	0	0.025
609	05/19/2021	19:13:00	402	0	2	10	7	42	0	0.024
610	05/19/2021	19:14:00	394	0	2	2	1	42	0	0.024
611	05/19/2021	19:15:00	397	0	2	13	8	42	0	0.023
612	05/19/2021	19:16:00	391	10	2	2	1	42	0	0.025
613	05/19/2021	19:17:00	398	7	2	21	14	42	0	0.023
614	05/19/2021	19:18:00	394	7	2	2	1	43	0	0.025
615	05/19/2021	19:19:00	400	7	2	21	11	43	0	0.026
616	05/19/2021	19:20:00	389	7	2	17	9	43	0	0.025
617	05/19/2021	19:21:00	397	7	2	2	1	43	0	0.024
618	05/19/2021	19:22:00	398	7	2	10	5	43	0	0.024
619	05/19/2021	19:23:00	394	0	2	2	1	43	0	0.024
620	05/19/2021	19:24:00	401	0	2	2	1	43	0	0.025
621	05/19/2021	19:25:00	397	0	2	2	1	43	0	0.022
622	05/19/2021	19:26:00	398	0	2	2	1	44	0	0.024
623	05/19/2021	19:27:00	394	0	2	2	1	45	0	0.024
624	05/19/2021	19:28:00	400	0	2	22	18	45	0	0.023
625	05/19/2021	19:29:00	394	0	2	2	1	45	0	0.026
626	05/19/2021	19:30:00	403	0	2	10	6	45	0	0.027

627	05/19/2021	19:31:00	394	0	2	2	1	45	0	0.026
628	05/19/2021	19:32:00	402	0	2	10	6	45	0	0.024
629	05/19/2021	19:33:00	397	0	2	2	1	45	0	0.024
630	05/19/2021	19:34:00	395	0	2	2	7	45	0	0.025
631	05/19/2021	19:35:00	393	0	2	21	13	45	0	0.026
632	05/19/2021	19:36:00	396	0	2	21	13	45	0	0.026
633	05/19/2021	19:37:00	398	0	2	21	13	45	0	0.025
634	05/19/2021	19:38:00	394	0	2	21	13	45	0	0.025
635	05/19/2021	19:39:00	403	0	2	21	13	45	0	0.025
636	05/19/2021	19:40:00	395	0	2	21	13	45	0	0.024
637	05/19/2021	19:41:00	400	0	2	21	13	45	0	0.026
638	05/19/2021	19:42:00	394	0	2	21	13	45	0	0.025
639	05/19/2021	19:43:00	397	0	2	21	13	45	0	0.025
640	05/19/2021	19:44:00	393	0	2	21	13	45	0	0.025
641	05/19/2021	19:45:00	399	0	2	21	13	45	0	0.026
642	05/19/2021	19:46:00	393	0	2	21	13	45	0	0.024
643	05/19/2021	19:47:00	402	0	2	2	12	45	0	0.023
644	05/19/2021	19:48:00	393	0	2	10	4	45	0	0.022
645	05/19/2021	19:49:00	396	0	2	20	10	44	0	0.019
646	05/19/2021	19:50:00	396	0	2	20	10	44	0	0.021
647	05/19/2021	19:51:00	392	0	2	20	10	44	0	0.022
648	05/19/2021	19:52:00	397	0	2	20	10	44	0	0.02
649	05/19/2021	19:53:00	392	0	2	20	10	44	0	0.023
650	05/19/2021	19:54:00	395	0	2	20	10	44	0	0.024
651	05/19/2021	19:55:00	392	0	2	20	10	44	0	0.025
652	05/19/2021	19:56:00	400	0	2	20	10	44	0	0.024
653	05/19/2021	19:57:00	400	0	2	20	10	44	0	0.023
654	05/19/2021	19:58:00	400	0	2	20	10	44	0	0.021
655	05/19/2021	19:59:00	400	0	2	20	10	44	0	0.022

662	05/19/2021	20:00:00	400	0	2	25	18	44	0	0.022
663	05/19/2021	20:01:00	400	0	2	25	18	44	0	0.024
664	05/19/2021	20:02:00	400	0	2	25	18	44	0	0.022
665	05/19/2021	20:03:00	400	0	2	25	18	44	0	0.021
666	05/19/2021	20:04:00	400	0	2	25	18	44	0	0.022
667	05/19/2021	20:05:00	400	0	2	25	18	44	0	0.018
668	05/19/2021	20:06:00	403	0	2	2	1	43	0	0.022
669	05/19/2021	20:07:00	406	0	2	2	1	43	0	0.022
670	05/19/2021	20:08:00	398	0	2	2	1	44	0	0.022
671	05/19/2021	20:09:00	404	0	2	2	1	44	0	0.023
672	05/19/2021	20:10:00	390	0	2	2	1	44	0	0.021
673	05/19/2021	20:11:00	397	0	2	2	1	44	0	0.021
674	05/19/2021	20:12:00	395	0	2	2	1	44	0	0.021
675	05/19/2021	20:13:00	395	0	2	2	1	44	0	0.02
676	05/19/2021	20:14:00	389	0	2	2	1	44	0	0.02
677	05/19/2021	20:15:00	397	0	2	2	1	44	0	0.022
678	05/19/2021	20:16:00	390	0	2	2	1	44	0	0.023
679	05/19/2021	20:17:00	396	0	2	2	1	45	0	0.02
680	05/19/2021	20:18:00	397	0	2	2	1	45	0	0.023
681	05/19/2021	20:19:00	393	0	2	2	1	45	0	0.023
682	05/19/2021	20:20:00	398	0	2	2	1	45	0	0.021
683	05/19/2021	20:21:00	391	0	2	2	1	45	0	0.022
684	05/19/2021	20:22:00	394	0	2	10	3	44	0	0.022
685	05/19/2021	20:23:00	391	0	2	2	1	45	0	0.023
686	05/19/2021	20:24:00	400	0	2	10	3	44	0	0.02
687	05/19/2021	20:25:00	394	0	2	2	1	45	0	0.021
688	05/19/2021	20:26:00	401	0	2	2	1	45	0	0.023
683	05/19/2021	20:27:00	393	0	2	2	1	45	0	0.02
630	05/19/2021	20:28:00	401	0	2	2	1	45	0	0.023
691	05/19/2021	20:29:00	392	0	2	2	1	45	0	0.017
692	05/19/2021	20:30:00	396	0	2	2	1	45	0	0.022

693	05/19/2021	20:31:00	393	0	2	2	1	45	0	0.02
694	05/19/2021	20:32:00	394	0	2	2	1	45	0	0.019
695	05/19/2021	20:33:00	403	0	2	2	1	45	0	0.019
696	05/19/2021	20:34:00	399	0	2	2	1	45	0	0.019
697	05/19/2021	20:35:00	405	0	2	2	1	45	0	0.019
698	05/19/2021	20:36:00	398	0	2	2	1	44	0	0.019
699	05/19/2021	20:37:00	401	0	2	2	1	45	0	0.021
700	05/19/2021	20:38:00	392	0	2	2	1	45	0	0.022
701	05/19/2021	20:39:00	396	0	2	2	1	45	0	0.022
702	05/19/2021	20:40:00	390	0	2	2	1	45	0	0.021
703	05/19/2021	20:41:00	394	0	2	2	1	45	0	0.023
704	05/19/2021	20:42:00	390	0	2	2	1	45	0	0.022
705	05/19/2021	20:43:00	398	0	2	2	1	45	0	0.021
706	05/19/2021	20:44:00	391	0	2	2	1	45	0	0.02
707	05/19/2021	20:45:00	395	0	2	2	1	45	0	0.019
708	05/19/2021	20:46:00	394	0	2	2	1	45	0	0.019
709	05/19/2021	20:47:00	390	0	2	2	1	45	0	0.021
710	05/19/2021	20:48:00	398	0	2	2	1	45	0	0.019
711	05/19/2021	20:49:00	391	0	2	2	1	45	0	0.02
712	05/19/2021	20:50:00	390	0	2	2	1	45	0	0.021
713	05/19/2021	20:51:00	390	0	2	2	1	45	0	0.02
714	05/19/2021	20:52:00	400	0	2	2	1	45	0	0.02
715	05/19/2021	20:53:00	400	0	2	2	1	45	0	0.019
716	05/19/2021	20:54:00	410	0	2	2	1	45	0	0.021
717	05/19/2021	20:55:00	393	0	2	2	1	45	0	0.023
718	05/19/2021	20:56:00	410	0	2	2	1	45	0	0.021
719	05/19/2021	20:57:00	401	0	2	2	1	46	0	0.021
720	05/19/2021	20:58:00	405	0	2	2	1	45	0	0.02
721	05/19/2021	20:59:00	402	0	2	2	1	46	0	0.021

728	05/19/2021	21:00:00	396	0	2	2	1	46	0	0.021
729	05/19/2021	21:01:00	397	0	2	2	1	46	0	0.02
730	05/19/2021	21:02:00	394	0	2	2	1	46	0	0.019
731	05/19/2021	21:03:00	401	0	2	2	1	46	0	0.019
732	05/19/2021	21:04:00	397	0	2	2	1	46	0	0.021
733	05/19/2021	21:05:00	409	0	2	2	1	45	0	0.021
734	05/19/2021	21:06:00	409	0	2	2	1	45	0	0.019
735	05/19/2021	21:07:00	409	0	2	2	1	45	0	0.022
736	05/19/2021	21:08:00	409	0	2	2	1	45	0	0.021
737	05/19/2021	21:09:00	409	0	2	2	1	45	0	0.019
738	05/19/2021	21:10:00	409	0	2	2	1	45	0	0.019
739	05/19/2021	21:11:00	409	0	2	2	1	45	0	0.019
740	05/19/2021	21:12:00	409	0	2	2	1	45	0	0.019
741	05/19/2021	21:13:00	409	0	2	2	1	45	0	0.02
742	05/19/2021	21:14:00	409	0	2	2	1	45	0	0.02
743	05/19/2021	21:15:00	391	0	2	2	1	45	0	0.019
744	05/19/2021	21:16:00	399	0	2	2	1	45	0	0.019
745	05/19/2021	21:17:00	391	0	2	2	1	45	0	0.017
746	05/19/2021	21:18:00	396	0	2	2	1	45	0	0.017
747	05/19/2021	21:19:00	399	0	2	2	1	46	0	0.018
748	05/19/2021	21:20:00	406	0	2	2	1	46	0	0.021
749	05/19/2021	21:21:00	402	0	2	2	1	46	0	0.022
750	05/19/2021	21:22:00	409	0	2	2	1	45	0	0.023
751	05/19/2021	21:23:00	399	0	2	2	1	45	0	0.021
752	05/19/2021	21:24:00	408	0	2	2	1	45	0	0.02
753	05/19/2021	21:25:00	401	0	2	2	1	46	0	0.02
754	05/19/2021	21:26:00	405	0	2	2	1	46	0	0.021
755	05/19/2021	21:27:00	402	0	2	2	1	46	0	0.019
756	05/19/2021	21:28:00	400	0	2	2	1	46	0	0.021
757	05/19/2021	21:29:00	403	0	2	2	1	46	0	0.019
758	05/19/2021	21:30:00	399	0	2	2	1	46	0	0.021

759	05/19/2021	21:31:00	409	0	2	2	1	46	0	0.02
760	05/19/2021	21:32:00	402	0	2	2	1	46	0	0.022
761	05/19/2021	21:33:00	408	0	2	2	1	46	0	0.023
762	05/19/2021	21:34:00	401	0	2	2	1	46	0	0.023
763	05/19/2021	21:35:00	404	0	2	2	1	46	0	0.021
764	05/19/2021	21:36:00	400	0	2	2	1	46	0	0.022
765	05/19/2021	21:37:00	407	0	2	2	1	45	0	0.02
766	05/19/2021	21:38:00	400	0	2	2	1	45	0	0.02
767	05/19/2021	21:39:00	409	0	2	2	1	46	0	0.02
768	05/19/2021	21:40:00	400	0	2	2	1	46	0	0.019
769	05/19/2021	21:41:00	404	0	2	2	1	46	0	0.016
770	05/19/2021	21:42:00	403	0	2	2	1	46	0	0.02
771	05/19/2021	21:43:00	394	0	2	2	1	45	0	0.018
772	05/19/2021	21:44:00	401	0	2	2	1	45	0	0.021
773	05/19/2021	21:45:00	399	0	2	2	1	45	0	0.021
774	05/19/2021	21:46:00	408	0	2	2	1	45	0	0.02
775	05/19/2021	21:47:00	401	0	2	2	1	46	0	0.02
776	05/19/2021	21:48:00	404	0	2	2	1	46	0	0.022
777	05/19/2021	21:49:00	393	0	2	2	1	46	0	0.02
778	05/19/2021	21:50:00	397	0	2	2	1	46	0	0.021
779	05/19/2021	21:51:00	391	0	2	2	1	46	0	0.021
780	05/19/2021	21:52:00	397	0	2	2	1	46	0	0.021
781	05/19/2021	21:53:00	391	0	2	2	1	46	0	0.021
782	05/19/2021	21:54:00	400	0	2	2	1	46	0	0.021
783	05/19/2021	21:55:00	392	0	2	2	1	46	0	0.02
784	05/19/2021	21:56:00	395	0	2	2	1	46	0	0.019
785	05/19/2021	21:57:00	399	0	2	2	1	46	0	0.02
786	05/19/2021	21:58:00	398	0	2	2	1	46	0	0.021
787	05/19/2021	21:59:00	405	0	2	2	1	46	0	0.019

794	05/19/2021	22:00:00	400	0	2	2	1	46	0	0.018
795	05/19/2021	22:01:00	407	0	2	12	7	46	0	0.02
796	05/19/2021	22:02:00	400	0	2	2	1	46	0	0.021
797	05/19/2021	22:03:00	409	0	2	2	1	46	0	0.02
798	05/19/2021	22:04:00	401	0	2	2	1	46	0	0.021
799	05/19/2021	22:05:00	406	0	2	2	1	46	0	0.021
800	05/19/2021	22:06:00	400	0	2	2	1	46	0	0.02
801	05/19/2021	22:07:00	402	0	2	2	1	46	0	0.022
802	05/19/2021	22:08:00	395	0	2	2	1	46	0	0.019
803	05/19/2021	22:09:00	400	0	2	2	1	46	0	0.021
804	05/19/2021	22:10:00	395	0	2	2	1	46	0	0.022
805	05/19/2021	22:11:00	399	0	2	2	1	46	0	0.019
806	05/19/2021	22:12:00	405	0	2	2	1	46	0	0.021
807	05/19/2021	22:13:00	399	0	2	2	1	46	0	0.019
808	05/19/2021	22:14:00	402	0	2	10	4	46	0	0.019
809	05/19/2021	22:15:00	402	0	2	10	4	46	0	0.019
810	05/19/2021	22:16:00	402	0	2	10	4	46	0	0.019
811	05/19/2021	22:17:00	402	0	2	10	4	46	0	0.021
812	05/19/2021	22:18:00	402	0	2	10	4	46	0	0.02
813	05/19/2021	22:19:00	402	0	2	10	4	46	0	0.021
814	05/19/2021	22:20:00	402	0	2	10	4	46	0	0.021
815	05/19/2021	22:21:00	402	0	2	10	4	46	0	0.022
816	05/19/2021	22:22:00	402	0	2	10	4	46	0	0.019
817	05/19/2021	22:23:00	402	0	2	10	4	46	0	0.019
818	05/19/2021	22:24:00	392	0	3	2	1	46	0	0.021
819	05/19/2021	22:25:00	385	0	9	2	1	47	0	0.019
820	05/19/2021	22:26:00	391	0	5	2	1	47	0	0.019
821	05/19/2021	22:27:00	396	0	5	2	1	46	0	0.019
822	05/19/2021	22:28:00	392	0	11	2	1	46	0	0.015
823	05/19/2021	22:29:00	408	0	4	2	1	46	1	0.019
824	05/19/2021	22:30:00	402	0	24	2	1	46	0	0.019

825	05/19/2021	22:31:00	408	0	3	2	1	46	0	0.019
826	05/19/2021	22:32:00	401	0	22	2	1	46	0	0.019
827	05/19/2021	22:33:00	404	0	3	2	1	46	0	0.019
828	05/19/2021	22:34:00	401	0	6	2	1	46	0	0.016
829	05/19/2021	22:35:00	409	0	2	12	4	46	0	0.017
830	05/19/2021	22:36:00	400	0	4	2	1	46	0	0.018
831	05/19/2021	22:37:00	408	0	2	2	1	46	0	0.019
832	05/19/2021	22:38:00	400	0	11	2	1	46	0	0.02
833	05/19/2021	22:39:00	404	0	2	2	1	46	0	0.019
834	05/19/2021	22:40:00	399	0	3	2	1	46	0	0.017
835	05/19/2021	22:41:00	401	0	2	2	1	46	0	0.017
836	05/19/2021	22:42:00	403	0	2	12	6	46	0	0.02
837	05/19/2021	22:43:00	400	0	2	2	1	46	0	0.021
838	05/19/2021	22:44:00	409	0	2	2	1	46	0	0.021
839	05/19/2021	22:45:00	399	0	18	2	1	46	0	0.02
840	05/19/2021	22:46:00	405	0	2	2	1	46	0	0.018
841	05/19/2021	22:47:00	399	0	12	2	1	46	0	0.02
842	05/19/2021	22:48:00	403	0	2	20	8	46	0	0.018
843	05/19/2021	22:49:00	398	0	2	2	1	46	0	0.018
844	05/19/2021	22:50:00	406	0	2	20	11	46	0	0.02
845	05/19/2021	22:51:00	400	0	13	2	1	46	0	0.016
846	05/19/2021	22:52:00	409	0	2	2	5	46	0	0.02
847	05/19/2021	22:53:00	401	0	12	2	1	47	0	0.02
848	05/19/2021	22:54:00	404	0	2	2	1	47	0	0.02
849	05/19/2021	22:55:00	396	0	3	2	1	47	0	0.02
850	05/19/2021	22:56:00	400	0	2	2	1	47	0	0.021
851	05/19/2021	22:57:00	404	0	2	26	18	47	0	0.018
852	05/19/2021	22:58:00	400	0	5	2	1	47	0	0.019
853	05/19/2021	22:59:00	409	0	2	20	8	47	0	0.021

860	05/19/2021	23:00:00	401	0	7	2	1	47	0	0.02
861	05/19/2021	23:01:00	405	0	2	10	5	46	0	0.021
862	05/19/2021	23:02:00	396	0	12	2	1	46	0	0.023
863	05/19/2021	23:03:00	403	0	2	25	16	46	0	0.02
864	05/19/2021	23:04:00	399	0	2	2	1	46	0	0.02
865	05/19/2021	23:05:00	406	0	2	27	18	46	0	0.018
866	05/19/2021	23:06:00	397	0	8	2	1	46	0	0.017
867	05/19/2021	23:07:00	404	0	2	10	3	46	0	0.018
868	05/19/2021	23:08:00	397	0	15	2	1	46	0	0.02
869	05/19/2021	23:09:00	399	0	2	10	4	46	0	0.018
870	05/19/2021	23:10:00	389	0	4	28	14	46	0	0.02
871	05/19/2021	23:11:00	390	0	4	2	1	46	0	0.017
872	05/19/2021	23:12:00	390	0	2	28	16	45	0	0.018
873	05/19/2021	23:13:00	385	0	2	2	1	46	0	0.02
874	05/19/2021	23:14:00	393	0	2	10	5	45	0	0.018
875	05/19/2021	23:15:00	385	0	13	2	1	45	0	0.016
876	05/19/2021	23:16:00	392	0	2	28	13	45	0	0.015
877	05/19/2021	23:17:00	390	0	13	20	9	46	0	0.019
878	05/19/2021	23:18:00	399	0	2	20	9	46	0	0.02
879	05/19/2021	23:19:00	399	0	2	20	9	46	0	0.02
880	05/19/2021	23:20:00	406	0	2	20	9	46	0	0.019
881	05/19/2021	23:21:00	400	0	4	20	9	46	0	0.021
882	05/19/2021	23:22:00	407	0	2	20	8	46	0	0.022
883	05/19/2021	23:23:00	399	0	13	2	1	46	0	0.022
884	05/19/2021	23:24:00	399	0	13	2	1	46	0	0.024
885	05/19/2021	23:25:00	399	0	13	2	1	46	0	0.021
886	05/19/2021	23:26:00	399	0	13	2	1	46	0	0.018
887	05/19/2021	23:27:00	399	0	13	2	1	46	0	0.018
888	05/19/2021	23:28:00	399	0	13	2	1	46	0	0.019
889	05/19/2021	23:29:00	399	0	13	2	1	46	0	0.021
890	05/19/2021	23:30:00	399	0	13	2	1	46	0	0.019

891	05/19/2021	23:31:00	399	0	13	2	1	46	0	0.019
892	05/19/2021	23:32:00	399	0	13	2	1	46	0	0.019
893	05/19/2021	23:33:00	391	0	3	3	1	46	0	0.019
894	05/19/2021	23:34:00	383	0	28	2	1	46	0	0.018
895	05/19/2021	23:35:00	393	0	4	2	1	46	0	0.018
896	05/19/2021	23:36:00	398	0	9	2	1	47	0	0.02
897	05/19/2021	23:37:00	404	0	7	2	1	47	0	0.02
898	05/19/2021	23:38:00	400	0	9	2	1	47	0	0.016
899	05/19/2021	23:39:00	404	0	3	2	1	47	0	0.016
900	05/19/2021	23:40:00	404	0	14	2	1	46	0	0.017
901	05/19/2021	23:41:00	399	0	6	2	1	47	0	0.018
902	05/19/2021	23:42:00	404	0	2	2	1	46	0	0.017
903	05/19/2021	23:43:00	400	0	11	2	1	46	0	0.02
904	05/19/2021	23:44:00	402	0	2	2	1	47	0	0.019
905	05/19/2021	23:45:00	394	0	3	2	1	47	0	0.016
906	05/19/2021	23:46:00	408	0	2	2	1	47	0	0.018
907	05/19/2021	23:47:00	400	0	11	2	1	47	0	0.016
908	05/19/2021	23:48:00	406	0	2	2	1	47	0	0.018
909	05/19/2021	23:49:00	401	0	19	2	1	47	0	0.018
910	05/19/2021	23:50:00	403	0	2	2	1	46	0	0.018
911	05/19/2021	23:51:00	400	0	2	2	1	47	0	0.019
912	05/19/2021	23:52:00	409	0	2	2	1	46	0	0.022
913	05/19/2021	23:53:00	400	0	8	2	1	46	0	0.021
914	05/19/2021	23:54:00	404	0	2	2	1	47	0	0.021
915	05/19/2021	23:55:00	404	0	7	2	1	47	0	0.018
916	05/19/2021	23:56:00	399	0	3	2	1	47	0	0.017
917	05/19/2021	23:57:00	403	0	2	2	1	46	0	0.018
918	05/19/2021	23:58:00	399	0	5	2	1	46	0	0.02
919	05/19/2021	23:59:00	405	0	2	2	1	46	0	0.019

326	05/20/2021	0:00:00	400	0	2	2	1	47	0	0.018
327	05/20/2021	0:01:00	409	0	2	2	1	46	0	0.02
328	05/20/2021	0:02:00	400	0	12	2	1	46	0	0.018
329	05/20/2021	0:03:00	405	0	2	2	1	46	0	0.018
330	05/20/2021	0:04:00	400	0	5	2	1	46	0	0.016
331	05/20/2021	0:05:00	404	0	2	2	1	46	0	0.017
332	05/20/2021	0:06:00	399	0	2	2	1	46	0	0.016
333	05/20/2021	0:07:00	409	0	2	2	1	47	0	0.017
334	05/20/2021	0:08:00	400	0	8	2	1	46	0	0.017
335	05/20/2021	0:09:00	405	0	2	2	1	46	0	0.017
336	05/20/2021	0:10:00	402	0	2	2	1	46	0	0.019
337	05/20/2021	0:11:00	399	0	7	2	1	46	0	0.02
338	05/20/2021	0:12:00	404	0	2	2	1	46	0	0.019
339	05/20/2021	0:13:00	396	0	2	2	1	46	0	0.016
340	05/20/2021	0:14:00	402	0	2	2	1	47	0	0.019
341	05/20/2021	0:15:00	399	0	10	2	1	47	0	0.02
342	05/20/2021	0:16:00	407	0	2	2	1	47	0	0.019
343	05/20/2021	0:17:00	400	0	3	2	1	47	0	0.018
344	05/20/2021	0:18:00	404	0	2	2	1	47	0	0.018
345	05/20/2021	0:19:00	400	0	2	2	1	47	0	0.018
346	05/20/2021	0:20:00	409	0	2	2	4	47	0	0.018
347	05/20/2021	0:21:00	402	0	5	2	1	47	0	0.017
348	05/20/2021	0:22:00	410	0	2	2	1	47	0	0.018
349	05/20/2021	0:23:00	401	0	8	2	1	47	0	0.02
350	05/20/2021	0:24:00	404	0	2	2	1	47	0	0.017
351	05/20/2021	0:25:00	400	0	2	2	1	47	0	0.016
352	05/20/2021	0:26:00	401	0	2	2	1	47	0	0.018
353	05/20/2021	0:27:00	404	0	2	2	1	47	0	0.018
354	05/20/2021	0:28:00	400	0	2	2	1	47	0	0.016
355	05/20/2021	0:29:00	408	0	2	2	1	47	0	0.017
356	05/20/2021	0:30:00	401	0	3	2	1	47	0	0.017

357	05/20/2021	0:31:00	405	0	2	2	1	47	0	0.013
358	05/20/2021	0:32:00	399	0	12	2	1	47	0	0.021
359	05/20/2021	0:33:00	399	0	12	2	1	47	0	0.019
360	05/20/2021	0:34:00	399	0	12	2	1	47	0	0.019
361	05/20/2021	0:35:00	399	0	12	2	1	47	0	0.016
362	05/20/2021	0:36:00	399	0	12	2	1	47	0	0.016
363	05/20/2021	0:37:00	399	0	12	2	1	47	0	0.016
364	05/20/2021	0:38:00	399	0	12	2	1	47	0	0.019
365	05/20/2021	0:39:00	399	0	12	2	1	47	0	0.019
366	05/20/2021	0:40:00	399	0	12	2	1	47	0	0.018
367	05/20/2021	0:41:00	399	0	12	2	1	47	0	0.019
368	05/20/2021	0:42:00	372	0	5	2	1	47	0	0.017
369	05/20/2021	0:43:00	379	0	18	2	1	47	0	0.019
370	05/20/2021	0:44:00	389	0	4	2	1	47	0	0.016
371	05/20/2021	0:45:00	397	0	17	2	1	47	0	0.018
372	05/20/2021	0:46:00	409	0	3	2	1	47	0	0.017
373	05/20/2021	0:47:00	395	0	26	2	1	47	0	0.013
374	05/20/2021	0:48:00	406	0	5	2	1	47	0	0.018
375	05/20/2021	0:49:00	401	0	30	2	1	47	0	0.017
376	05/20/2021	0:50:00	405	0	4	2	1	47	0	0.015
377	05/20/2021	0:51:00	400	0	13	2	1	47	0	0.014
378	05/20/2021	0:52:00	416	0	2	2	1	47	0	0.015
379	05/20/2021	0:53:00	408	0	18	2	1	47	0	0.015
380	05/20/2021	0:54:00	406	0	3	2	1	47	0	0.014
381	05/20/2021	0:55:00	408	0	11	2	1	47	0	0.013
382	05/20/2021	0:56:00	401	0	6	2	1	47	0	0.015
383	05/20/2021	0:57:00	404	0	2	2	1	47	0	0.015
384	05/20/2021	0:58:00	406	0	9	2	1	47	0	0.013
385	05/20/2021	0:59:00	416	0	2	2	1	47	0	0.016

992	05/20/2021	1:00:00	410	0	7	21	13	47	0	0.013
993	05/20/2021	1:01:00	419	0	7	21	13	47	0	0.014
994	05/20/2021	1:02:00	411	0	7	21	13	47	0	0.013
995	05/20/2021	1:03:00	417	0	7	21	13	47	0	0.014
996	05/20/2021	1:04:00	418	0	7	21	13	47	0	0.016
997	05/20/2021	1:05:00	420	0	7	21	13	47	0	0.014
998	05/20/2021	1:06:00	414	0	7	21	13	47	0	0.015
999	05/20/2021	1:07:00	423	0	7	21	13	47	0	0.013
1000	05/20/2021	1:08:00	420	0	7	2	1	47	0	0.013
1001	05/20/2021	1:09:00	423	0	7	2	1	47	3	0.015
1002	05/20/2021	1:10:00	422	0	7	2	1	47	0	0.014
1003	05/20/2021	1:11:00	419	0	7	2	1	47	2	0.012
1004	05/20/2021	1:12:00	420	0	7	2	1	47	0	0.014
1005	05/20/2021	1:13:00	412	0	19	2	1	47	3	0.013
1006	05/20/2021	1:14:00	420	0	19	2	1	47	0	0.014
1007	05/20/2021	1:15:00	416	0	19	2	1	47	5	0.014
1008	05/20/2021	1:16:00	428	0	19	2	1	48	0	0.014
1009	05/20/2021	1:17:00	420	0	19	2	1	48	0	0.013
1010	05/20/2021	1:18:00	425	0	19	2	1	48	0	0.014
1011	05/20/2021	1:19:00	416	0	19	2	1	48	1	0.014
1012	05/20/2021	1:20:00	421	0	19	23	14	48	0	0.016
1013	05/20/2021	1:21:00	413	0	19	23	14	48	0	0.014
1014	05/20/2021	1:22:00	428	0	14	23	14	48	0	0.014
1015	05/20/2021	1:23:00	421	0	14	23	14	48	0	0.014
1016	05/20/2021	1:24:00	425	0	14	23	14	48	0	0.014
1017	05/20/2021	1:25:00	416	0	14	23	14	48	3	0.013
1018	05/20/2021	1:26:00	413	0	14	23	14	48	0	0.014
1019	05/20/2021	1:27:00	415	0	14	23	14	48	0	0.014
1020	05/20/2021	1:28:00	417	0	14	23	14	48	0	0.013
1021	05/20/2021	1:29:00	427	0	14	23	14	48	0	0.013
1022	05/20/2021	1:30:00	415	0	14	23	14	48	0	0.012

1023	05/20/2021	1:31:00	420	0	14	23	14	48	0	0.014
1024	05/20/2021	1:32:00	418	0	14	7	3	48	0	0.012
1025	05/20/2021	1:33:00	418	0	14	7	3	48	0	0.014
1026	05/20/2021	1:34:00	420	0	14	7	3	48	0	0.011
1027	05/20/2021	1:35:00	423	0	14	7	3	48	0	0.013
1028	05/20/2021	1:36:00	413	0	14	7	3	48	0	0.014
1029	05/20/2021	1:37:00	419	0	14	7	3	48	0	0.012
1030	05/20/2021	1:38:00	413	0	14	7	3	48	0	0.012
1031	05/20/2021	1:39:00	422	0	17	7	3	48	0	0.014
1032	05/20/2021	1:40:00	420	0	17	10	3	48	0	0.013
1033	05/20/2021	1:41:00	422	0	17	10	5	48	0	0.012
1034	05/20/2021	1:42:00	422	0	17	10	5	48	0	0.013
1035	05/20/2021	1:43:00	422	0	2	10	5	48	0	0.013
1036	05/20/2021	1:44:00	422	0	2	10	5	48	0	0.012
1037	05/20/2021	1:45:00	422	0	2	10	5	48	0	0.011
1038	05/20/2021	1:46:00	422	0	2	10	5	48	0	0.013
1039	05/20/2021	1:47:00	422	0	2	10	5	48	0	0.016
1040	05/20/2021	1:48:00	422	0	2	10	5	48	0	0.014
1041	05/20/2021	1:49:00	422	0	2	10	5	48	0	0.016
1042	05/20/2021	1:50:00	422	0	2	10	5	48	0	0.014
1043	05/20/2021	1:51:00	392	0	2	2	1	43	0	0.013
1044	05/20/2021	1:52:00	404	0	2	2	1	43	0	0.013
1045	05/20/2021	1:53:00	403	0	2	2	1	43	0	0.011
1046	05/20/2021	1:54:00	414	0	2	2	1	43	0	0.012
1047	05/20/2021	1:55:00	417	0	2	2	1	43	0	0.011
1048	05/20/2021	1:56:00	413	0	2	2	1	43	0	0.016
1049	05/20/2021	1:57:00	411	0	2	2	1	48	0	0.014
1050	05/20/2021	1:58:00	411	0	2	2	1	48	0	0.014
1051	05/20/2021	1:59:00	417	0	2	2	1	43	0	0.012

1058	05/20/2021	2:00:00	413	0	16	2	1	43	0	0.011
1059	05/20/2021	2:01:00	421	0	5	2	1	43	0	0.01
1060	05/20/2021	2:02:00	416	0	21	2	1	43	0	0.01
1061	05/20/2021	2:03:00	421	0	8	2	1	43	0	0.012
1062	05/20/2021	2:04:00	421	0	30	2	1	43	0	0.012
1063	05/20/2021	2:05:00	425	0	6	25	12	43	0	0.013
1064	05/20/2021	2:06:00	420	0	13	2	1	43	0	0.012
1065	05/20/2021	2:07:00	421	0	3	2	1	43	0	0.011
1066	05/20/2021	2:08:00	413	0	19	2	1	43	0	0.012
1067	05/20/2021	2:09:00	421	0	13	2	1	48	0	0.011
1068	05/20/2021	2:10:00	423	0	11	2	1	48	0	0.011
1069	05/20/2021	2:11:00	418	0	15	2	1	48	0	0.011
1070	05/20/2021	2:12:00	424	0	8	2	1	43	0	0.012
1071	05/20/2021	2:13:00	421	0	22	2	1	43	0	0.014
1072	05/20/2021	2:14:00	419	0	3	10	3	48	0	0.014
1073	05/20/2021	2:15:00	416	0	9	2	1	48	0	0.012
1074	05/20/2021	2:16:00	428	0	6	10	6	48	4	0.011
1075	05/20/2021	2:17:00	422	0	20	2	1	48	0	0.012
1076	05/20/2021	2:18:00	423	0	4	20	10	48	0	0.012
1077	05/20/2021	2:19:00	421	0	21	2	1	43	0	0.014
1078	05/20/2021	2:20:00	422	0	8	18	9	48	0	0.011
1079	05/20/2021	2:21:00	419	0	19	2	1	43	0	0.014
1080	05/20/2021	2:22:00	418	0	3	2	1	43	0	0.013
1081	05/20/2021	2:23:00	414	0	8	2	1	43	0	0.012
1082	05/20/2021	2:24:00	416	0	2	2	1	43	0	0.012
1083	05/20/2021	2:25:00	412	0	8	10	4	48	0	0.011
1084	05/20/2021	2:26:00	415	0	12	2	1	43	0	0.012
1085	05/20/2021	2:27:00	428	0	2	10	4	43	0	0.013
1086	05/20/2021	2:28:00	422	0	17	2	1	43	0	0.014
1087	05/20/2021	2:29:00	416	0	2	23	15	43	0	0.012
1088	05/20/2021	2:30:00	411	0	15	2	1	43	0	0.013

1089	05/20/2021	2:31:00	418	0	2	2	1	43	0	0.011
1090	05/20/2021	2:32:00	410	0	5	2	1	43	0	0.013
1091	05/20/2021	2:33:00	419	0	2	2	1	43	0	0.015
1092	05/20/2021	2:34:00	410	0	23	2	1	48	0	0.013
1093	05/20/2021	2:35:00	417	0	8	10	7	43	0	0.013
1094	05/20/2021	2:36:00	411	0	24	2	1	43	0	0.012
1095	05/20/2021	2:37:00	414	0	6	2	1	43	0	0.013
1096	05/20/2021	2:38:00	410	0	12	2	1	43	0	0.012
1097	05/20/2021	2:39:00	413	0	2	2	1	43	0	0.014
1098	05/20/2021	2:40:00	415	0	3	23	13	43	0	0.012
1099	05/20/2021	2:41:00	413	0	9	2	1	43	0	0.014
1100	05/20/2021	2:42:00	426	0	5	17	8	43	0	0.011
1101	05/20/2021	2:43:00	419	0	25	2	1	43	0	0.012
1102	05/20/2021	2:44:00	423	0	11	2	1	43	0	0.015
1103	05/20/2021	2:45:00	411	0	23	2	1	43	0	0.014
1104	05/20/2021	2:46:00	414	0	6	20	13	43	0	0.012
1105	05/20/2021	2:47:00	412	0	17	2	1	43	0	0.014
1106	05/20/2021	2:48:00	419	0	5	20	11	43	0	0.013
1107	05/20/2021	2:49:00	411	0	16	2	1	43	0	0.014
1108	05/20/2021	2:50:00	419	0	6	10	5	43	0	0.013
1109	05/20/2021	2:51:00	419	0	6	2	5	43	0	0.012
1110	05/20/2021	2:52:00	419	0	6	2	5	43	0	0.014
1111	05/20/2021	2:53:00	419	0	6	2	5	43	0	0.012
1112	05/20/2021	2:54:00	419	0	6	2	5	43	0	0.012
1113	05/20/2021	2:55:00	419	0	6	2	5	43	0	0.011
1114	05/20/2021	2:56:00	419	0	6	2	5	43	0	0.012
1115	05/20/2021	2:57:00	419	0	6	2	5	43	0	0.012
1116	05/20/2021	2:58:00	419	0	6	2	5	43	0	0.011
1117	05/20/2021	2:59:00	419	0	6	2	5	43	0	0.014

1124	05/20/2021	3:00:00	386	0	6	2	1	43	0	0.013
1125	05/20/2021	3:01:00	336	0	6	2	1	43	0	0.012
1126	05/20/2021	3:02:00	403	0	6	2	1	43	0	0.012
1127	05/20/2021	3:03:00	413	0	6	2	1	43	0	0.014
1128	05/20/2021	3:04:00	411	0	6	2	1	43	0	0.012
1129	05/20/2021	3:05:00	419	0	6	2	1	43	0	0.012
1130	05/20/2021	3:06:00	413	0	6	2	1	43	0	0.013
1131	05/20/2021	3:07:00	416	0	6	2	1	43	0	0.012
1132	05/20/2021	3:08:00	416	0	6	2	1	43	0	0.012
1133	05/20/2021	3:09:00	411	0	6	2	1	43	0	0.014
1134	05/20/2021	3:10:00	415	0	6	2	1	43	0	0.012
1135	05/20/2021	3:11:00	410	0	6	2	1	43	0	0.01
1136	05/20/2021	3:12:00	417	0	6	2	1	43	0	0.013
1137	05/20/2021	3:13:00	411	0	6	2	1	43	0	0.012
1138	05/20/2021	3:14:00	425	0	6	2	1	43	0	0.015
1139	05/20/2021	3:15:00	420	0	6	2	1	48	0	0.012
1140	05/20/2021	3:16:00	418	0	6	2	1	48	0	0.014
1141	05/20/2021	3:17:00	412	0	6	2	1	43	0	0.013
1142	05/20/2021	3:18:00	421	0	6	2	1	43	0	0.012
1143	05/20/2021	3:19:00	419	0	6	2	1	43	0	0.012
1144	05/20/2021	3:20:00	420	0	6	2	1	43	0	0.012
1145	05/20/2021	3:21:00	411	0	6	2	1	48	0	0.01
1146	05/20/2021	3:22:00	414	0	6	2	1	43	0	0.011
1147	05/20/2021	3:23:00	419	0	6	2	1	43	0	0.015
1148	05/20/2021	3:24:00	410	0	6	2	1	43	0	0.012
1149	05/20/2021	3:25:00	415	0	6	2	1	43	0	0.014
1150	05/20/2021	3:26:00	411	0	6	2	1	43	0	0.016
1151	05/20/2021	3:27:00	415	0	6	2	1	43	0	0.017
1152	05/20/2021	3:28:00	413	0	16	2	1	43	0	0.013
1153	05/20/2021	3:29:00	419	0	15	2	1	43	0	0.013
1154	05/20/2021	3:30:00	411	0	15	2	1	43	0	0.013

1155	05/20/2021	3:31:00	419	0	11	2	1	43	0	0.012
1156	05/20/2021	3:32:00	419	0	11	2	1	43	0	0.013
1157	05/20/2021	3:33:00	420	0	11	10	2	48	0	0.012
1158	05/20/2021	3:34:00	411	0	11	2	1	43	0	0.009
1159	05/20/2021	3:35:00	413	0	11	2	1	43	0	0.012
1160	05/20/2021	3:36:00	415	0	11	2	1	43	0	0.012
1161	05/20/2021	3:37:00	422	0	11	2	1	43	0	0.013
1162	05/20/2021	3:38:00	419	0	11	2	1	43	0	0.014
1163	05/20/2021	3:39:00	419	0	11	2	1	43	0	0.012
1164	05/20/2021	3:40:00	421	0	11	2	1	43	0	0.014
1165	05/20/2021	3:41:00	413	0	11	2	1	43	0	0.012
1166	05/20/2021	3:42:00	417	0	11	2	1	43	0	0.013
1167	05/20/2021	3:43:00	412	0	11	2	1	43	0	0.012
1168	05/20/2021	3:44:00	421	0	2	2	1	43	0	0.013
1169	05/20/2021	3:45:00	415	0	2	2	1	43	0	0.014
1170	05/20/2021	3:46:00	421	0	2	2	1	43	0	0.013
1171	05/20/2021	3:47:00	414	0	2	2	1	43	0	0.013
1172	05/20/2021	3:48:00	416	0	2	20	10	43	0	0.013
1173	05/20/2021	3:49:00	413	0	2	2	1	43	0	0.015
1174	05/20/2021	3:50:00	426	0	2	2	1	43	0	0.012
1175	05/20/2021	3:51:00	419	0	2	2	1	43	0	0.012
1176	05/20/2021	3:52:00	421	0	2	2	1	43	0	0.012
1177	05/20/2021	3:53:00	418	0	2	2	1	43	0	0.012
1178	05/20/2021	3:54:00	411	0	2	2	1	43	0	0.011
1179	05/20/2021	3:55:00	418	0	2	2	1	43	0	0.012
1180	05/20/2021	3:56:00	416	0	2	2	1	43	0	0.014
1181	05/20/2021	3:57:00	428	0	2	2	1	43	0	0.014
1182	05/20/2021	3:58:00	421	0	2	2	1	43	0	0.013
1183	05/20/2021	3:59:00	421	0	2	21	7	43	0	0.011

1190	05/20/2021	4:00:00	421	0	12	13	7	43	0	0.013
1191	05/20/2021	4:01:00	421	0	12	13	7	43	0	0.012
1192	05/20/2021	4:02:00	421	0	12	13	7	43	0	0.014
1193	05/20/2021	4:03:00	421	0	12	13	7	43	0	0.013
1194	05/20/2021	4:04:00	421	0	12	13	7	43	0	0.012
1195	05/20/2021	4:05:00	421	0	12	13	7	43	0	0.011
1196	05/20/2021	4:06:00	421	0	12	13	7	43	0	0.011
1197	05/20/2021	4:07:00	421	0	12	13	7	43	0	0.011
1198	05/20/2021	4:08:00	421	0	12	13	7	43	0	0.01
1199	05/20/2021	4:09:00	389	0	11	2	1	43	0	0.012
1200	05/20/2021	4:10:00	401	0	15	2	1	43	0	0.009
1201	05/20/2021	4:11:00	410	0	36	2	1	43	0	0.009
1202	05/20/2021	4:12:00	426	0	22	2	1	43	0	0.013
1203	05/20/2021	4:13:00	422	0	33	2	1	43	0	0.012
1204	05/20/2021	4:14:00	420	0	18	2	1	43	0	0.012
1205	05/20/2021	4:15:00	413	0	33	2	1	43	0	0.012
1206	05/20/2021	4:16:00	418	0	21	2	1	43	0	0.012
1207	05/20/2021	4:17:00	414	0	27	2	1	43	0	0.011
1208	05/20/2021	4:18:00	422	0	20	2	1	43	0	0.011
1209	05/20/2021	4:19:00	418	0	37	2	1	43	0	0.012
1210	05/20/2021	4:20:00	422	0	19	2	1	43	0	0.012
1211	05/20/2021	4:21:00	424	0	24	2	1	43	0	0.01
1212	05/20/2021	4:22:00	416	0	29	2	1	43	0	0.012
1213	05/20/2021	4:23:00	418	0	12	2	1	43	0	0.01
1214	05/20/2021	4:24:00	412	0	20	2	1	43	0	0.009
1215	05/20/2021	4:25:00	420	0	9	2	1	43	0	0.013
1216	05/20/2021	4:26:00	415	0	26	2	1	43	0	0.011
1217	05/20/2021	4:27:00	421	0	11	2	1	43	0	0.013
1218	05/20/2021	4:28:00	413	0	25	2	1	43	0	0.011
1219	05/20/2021	4:29:00	417	0	16	22	3	43	0	0.011
1220	05/20/2021	4:30:00	419	0	23	2	1	43	0	0.013

1221	05/20/2021	4:31:00	425	0	14	22	12	43	0	0.009
1222	05/20/2021	4:32:00	422	0	20	2	1	43	0	0.013
1223	05/20/2021	4:33:00	425	0	11	10	5	43	0	0.012
1224	05/20/2021	4:34:00	413	0	25	2	1	43	0	0.012
1225	05/20/2021	4:35:00	416	0	9	2	1	43	0	0.011
1226	05/20/2021	4:36:00	416	0	17	10	5	43	0	0.01
1227	05/20/2021	4:37:00	412	0	16	2	1	43	0	0.011
1228	05/20/2021	4:38:00	416	0	11	26	17	43	0	0.013
1229	05/20/2021	4:39:00	412	0	20	2	1	43	0	0.01
1230	05/20/2021	4:40:00	419	0	10	28	19	43	3	0.012
1231	05/20/2021	4:41:00	413	0	19	2	2	43	0	0.01
1232	05/20/2021	4:42:00	420	0	4	10	4	43	0	0.012
1233	05/20/2021	4:43:00	413	0	23	2	1	43	0	0.012
1234	05/20/2021	4:44:00	416	0	12	16	8	43	0	0.012
1235	05/20/2021	4:45:00	412	0	17	2	1	43	0	0.012
1236	05/20/2021	4:46:00	415	0	5	26	17	43	0	0.014
1237	05/20/2021	4:47:00	412	0	18	2	1	43	0	0.011
1238	05/20/2021	4:48:00	421	0	2	2	1	43	0	0.012
1239	05/20/2021	4:49:00	412	0	21	10	3	43	0	0.013
1240	05/20/2021	4:50:00	416	0	7	2	1	43	0	0.011
1241	05/20/2021	4:51:00	416	0	14	10	4	43	1	0.011
1242	05/20/2021	4:52:00	417	0	15	2	1	43	0	0.011
1243	05/20/2021	4:53:00	417	0	7	26	18	43	0	0.009
1244	05/20/2021	4:54:00	413	0	22	2	2	43	0	0.011
1245	05/20/2021	4:55:00	416	0	3	25	15	43	0	0.01
1246	05/20/2021	4:56:00	413	0	18	2	1	43	0	0.009
1247	05/20/2021	4:57:00	427	0	9	29	16	43	0	0.012
1248	05/20/2021	4:58:00	415	0	25	2	1	43	0	0.01
1249	05/20/2021	4:59:00	428	0	11	15	8	43	0	0.009

1256	05/20/2021	5:00:00	419	0	15	26	17	43	0	0.009
1257	05/20/2021	5:01:00	417	0	5	26	17	43	0	0.01
1258	05/20/2021	5:02:00	418	0	15	26	17	43	0	0.009
1259	05/20/2021	5:03:00	420	0	11	26	17	43	0	0.01
1260	05/20/2021	5:04:00	419	0	18	26	17	43	0	0.01
1261	05/20/2021	5:05:00	425	0	6	26	17	43	0	0.011
1262	05/20/2021	5:06:00	426	0	12	26	17	43	6	0.01
1263	05/20/2021	5:07:00	421	0	13	26	17	43	0	0.01
1264	05/20/2021	5:08:00	429	0	10	29	18	43	0	0.013
1265	05/20/2021	5:09:00	429	0	10	29	18	43	0	0.01
1266	05/20/2021	5:10:00	429	0	10	29	18	43	0	0.009
1267	05/20/2021	5:11:00	429	0	10	29	18	43	0	0.011
1268	05/20/2021	5:12:00	429	0	10	29	18	43	0	0.01
1269	05/20/2021	5:13:00	429	0	10	29	18	43	0	0.012
1270	05/20/2021	5:14:00	429	0	10	29	18	43	0	0.009
1271	05/20/2021	5:15:00	429	0	10	29	18	43	0	0.01
1272	05/20/2021	5:16:00	429	0	10	29	18	43	0	0.01
1273	05/20/2021	5:17:00	429	0	10	29	18	43	0	0.011
1274	05/20/2021	5:18:00	385	0	19	2	1	43	0	0.01
1275	05/20/2021	5:19:00	384	0	19	2	1	43	0	0.012
1276	05/20/2021	5:20:00	394	0	19	2	1	43	0	0.012
1277	05/20/2021	5:21:00	407	0	19	2	1	43	0	0.011
1278	05/20/2021	5:22:00	411	0	19	2	1	43	0	0.011
1279	05/20/2021	5:23:00	421	0	19	2	1	43	0	0.011
1280	05/20/2021	5:24:00	421	0	19	2	1	43	0	0.009
1281	05/20/2021	5:25:00	429	0	19	2	1	43	0	0.011
1282	05/20/2021	5:26:00	422	0	19	2	1	43	0	0.012
1283	05/20/2021	5:27:00	428	0	19	2	1	43	0	0.011
1284	05/20/2021	5:28:00	418	0	19	2	1	43	0	0.013
1285	05/20/2021	5:29:00	420	0	19	2	1	43	0	0.012
1286	05/20/2021	5:30:00	420	0	19	2	1	43	0	0.01

1287	05/20/2021	5:31:00	429	0	19	2	1	43	0	0.011
1288	05/20/2021	5:32:00	414	0	19	2	1	43	0	0.012
1289	05/20/2021	5:33:00	422	0	19	2	1	43	0	0.012
1290	05/20/2021	5:34:00	424	0	19	2	1	43	0	0.012
1291	05/20/2021	5:35:00	421	0	19	2	1	43	0	0.011
1292	05/20/2021	5:36:00	425	0	19	2	1	43	0	0.013
1293	05/20/2021	5:37:00	420	0	19	2	1	43	0	0.011
1294	05/20/2021	5:38:00	424	0	19	2	1	43	0	0.009
1295	05/20/2021	5:39:00	420	0	19	2	1	43	0	0.009
1296	05/20/2021	5:40:00	430	0	16	2	1	43	3	0.012
1297	05/20/2021	5:41:00	418	0	16	2	1	43	0	0.01
1298	05/20/2021	5:42:00	430	0	16	2	1	43	0	0.01
1299	05/20/2021	5:43:00	423	0	16	2	1	50	0	0.012
1300	05/20/2021	5:44:00	423	0	9	2	1	50	0	0.01
1301	05/20/2021	5:45:00	415	0	9	2	1	50	0	0.012
1302	05/20/2021	5:46:00	418	0	9	2	1	43	0	0.011
1303	05/20/2021	5:47:00	419	0	9	2	1	43	0	0.011
1304	05/20/2021	5:48:00	424	0	9	2	1	43	0	0.012
1305	05/20/2021	5:49:00	424	0	9	2	1	43	6	0.012
1306	05/20/2021	5:50:00	421	0	9	2	1	43	0	0.009
1307	05/20/2021	5:51:00	429	0	9	2	1	43	0	0.009
1308	05/20/2021	5:52:00	422	0	9	2	1	43	0	0.009
1309	05/20/2021	5:53:00	425	0	8	15	8	43	0	0.009
1310	05/20/2021	5:54:00	420	0	8	2	1	43	0	0.009
1311	05/20/2021	5:55:00	427	0	8	26	17	43	5	0.01
1312	05/20/2021	5:56:00	420	0	8	2	1	43	0	0.01
1313	05/20/2021	5:57:00	430	0	8	19	10	43	7	0.009
1314	05/20/2021	5:58:00	422	0	8	2	1	43	0	0.01
1315	05/20/2021	5:59:00	429	0	8	2	1	43	0	0.011

1322	05/20/2021	6:00:00	422	0	15	2	1	49	0	0.009
1323	05/20/2021	6:01:00	426	0	15	2	1	49	0	0.01
1324	05/20/2021	6:02:00	421	0	15	2	1	49	0	0.01
1325	05/20/2021	6:03:00	422	0	10	2	1	49	0	0.01
1326	05/20/2021	6:04:00	424	0	11	13	9	49	0	0.01
1327	05/20/2021	6:05:00	420	0	11	2	1	49	0	0.009
1328	05/20/2021	6:06:00	425	0	11	2	1	49	0	0.011
1329	05/20/2021	6:07:00	416	0	11	2	1	49	0	0.009
1330	05/20/2021	6:08:00	428	0	11	13	9	49	0	0.009
1331	05/20/2021	6:09:00	421	0	11	2	1	49	0	0.01
1332	05/20/2021	6:10:00	425	0	13	31	16	49	0	0.009
1333	05/20/2021	6:11:00	421	0	13	2	2	49	0	0.01
1334	05/20/2021	6:12:00	423	0	14	31	16	49	2	0.009
1335	05/20/2021	6:13:00	412	0	14	2	1	49	0	0.009
1336	05/20/2021	6:14:00	424	0	14	2	1	49	0	0.008
1337	05/20/2021	6:15:00	421	0	14	2	1	49	0	0.009
1338	05/20/2021	6:16:00	426	0	14	2	1	50	0	0.009
1339	05/20/2021	6:17:00	426	0	14	2	1	50	0	0.012
1340	05/20/2021	6:18:00	426	0	14	2	1	50	0	0.011
1341	05/20/2021	6:19:00	426	0	14	2	1	50	0	0.009
1342	05/20/2021	6:20:00	426	0	14	2	1	50	0	0.01
1343	05/20/2021	6:21:00	426	0	14	2	1	50	0	0.01
1344	05/20/2021	6:22:00	426	0	14	2	1	50	0	0.009
1345	05/20/2021	6:23:00	426	0	14	2	1	50	0	0.007
1346	05/20/2021	6:24:00	426	0	14	2	1	50	0	0.006
1347	05/20/2021	6:25:00	426	0	14	2	1	50	0	0.007
1348	05/20/2021	6:26:00	426	0	14	2	1	50	0	0.009
1349	05/20/2021	6:27:00	402	0	14	13	1	49	0	0.008
1350	05/20/2021	6:28:00	391	0	14	2	1	50	0	0.008
1351	05/20/2021	6:29:00	408	0	14	2	1	49	0	0.009
1352	05/20/2021	6:30:00	410	0	14	2	1	50	0	0.01

1353	05/20/2021	6:31:00	414	0	14	2	1	50	0	0.01
1354	05/20/2021	6:32:00	424	0	14	2	1	50	0	0.01
1355	05/20/2021	6:33:00	423	0	14	2	1	50	0	0.009
1356	05/20/2021	6:34:00	430	0	14	2	1	49	0	0.01
1357	05/20/2021	6:35:00	422	7	14	2	1	49	0	0.009
1358	05/20/2021	6:36:00	428	7	14	2	1	49	0	0.008
1359	05/20/2021	6:37:00	421	7	14	2	1	49	0	0.009
1360	05/20/2021	6:38:00	425	7	14	3	1	49	0	0.01
1361	05/20/2021	6:39:00	419	7	14	2	1	49	0	0.011
1362	05/20/2021	6:40:00	426	7	14	2	1	49	5	0.01
1363	05/20/2021	6:41:00	419	7	14	2	1	49	0	0.01
1364	05/20/2021	6:42:00	427	0	14	2	1	49	0	0.012
1365	05/20/2021	6:43:00	420	0	14	2	1	49	2	0.011
1366	05/20/2021	6:44:00	424	0	14	2	1	49	0	0.011
1367	05/20/2021	6:45:00	421	0	14	2	1	49	0	0.012
1368	05/20/2021	6:46:00	419	0	14	2	1	49	0	0.01
1369	05/20/2021	6:47:00	423	0	14	2	1	49	0	0.012
1370	05/20/2021	6:48:00	420	0	14	2	1	49	0	0.01
1371	05/20/2021	6:49:00	429	0	14	2	1	49	0	0.01
1372	05/20/2021	6:50:00	420	0	14	2	1	49	0	0.01
1373	05/20/2021	6:51:00	430	0	13	2	1	49	0	0.01
1374	05/20/2021	6:52:00	421	0	13	2	1	49	0	0.009
1375	05/20/2021	6:53:00	424	0	13	2	1	49	0	0.01
1376	05/20/2021	6:54:00	421	0	13	2	1	49	0	0.01
1377	05/20/2021	6:55:00	425	0	12	2	1	49	0	0.01
1378	05/20/2021	6:56:00	420	0	12	2	1	49	0	0.012
1379	05/20/2021	6:57:00	428	0	10	2	1	49	0	0.011
1380	05/20/2021	6:58:00	414	0	10	2	1	49	0	0.011
1381	05/20/2021	6:59:00	420	0	10	2	1	49	0	0.009

1388	05/20/2021	7:00:00	424	0	8	2	1	49	0	0.01
1389	05/20/2021	7:01:00	420	0	8	2	1	49	0	0.009
1390	05/20/2021	7:02:00	417	0	9	2	1	49	0	0.01
1391	05/20/2021	7:03:00	415	0	9	2	1	49	0	0.01
1392	05/20/2021	7:04:00	418	0	9	2	1	49	3	0.01
1393	05/20/2021	7:05:00	411	0	9	2	1	49	0	0.007
1394	05/20/2021	7:06:00	420	0	9	2	1	49	0	0.01
1395	05/20/2021	7:07:00	412	0	6	2	1	49	0	0.01
1396	05/20/2021	7:08:00	418	0	6	4	1	49	4	0.009
1397	05/20/2021	7:09:00	415	0	6	2	1	49	0	0.009
1398	05/20/2021	7:10:00	417	0	6	18	7	49	7	0.009
1399	05/20/2021	7:11:00	412	0	6	2	1	49	0	0.007
1400	05/20/2021	7:12:00	422	0	6	2	1	49	7	0.007
1401	05/20/2021	7:13:00	413	0	6	2	1	49	0	0.009
1402	05/20/2021	7:14:00	419	0	3	2	1	49	0	0.006
1403	05/20/2021	7:15:00	417	0	17	2	1	49	0	0.008
1404	05/20/2021	7:16:00	417	0	16	2	1	49	0	0.01
1405	05/20/2021	7:17:00	425	0	5	18	7	49	6	0.01
1406	05/20/2021	7:18:00	421	0	5	2	1	49	0	0.007
1407	05/20/2021	7:19:00	424	0	5	2	1	49	0	0.008
1408	05/20/2021	7:20:00	419	0	5	2	1	49	0	0.01
1409	05/20/2021	7:21:00	426	0	5	2	1	49	0	0.01
1410	05/20/2021	7:22:00	415	0	5	2	1	49	0	0.009
1411	05/20/2021	7:23:00	416	0	5	20	10	48	0	0.008
1412	05/20/2021	7:24:00	410	0	10	2	1	48	0	0.01
1413	05/20/2021	7:25:00	419	0	2	10	2	48	0	0.01
1414	05/20/2021	7:26:00	411	0	4	2	1	48	5	0.009
1415	05/20/2021	7:27:00	411	0	4	2	1	48	5	0.011
1416	05/20/2021	7:28:00	411	0	4	2	1	48	5	0.011
1417	05/20/2021	7:29:00	411	0	4	2	1	48	5	0.009
1418	05/20/2021	7:30:00	411	0	4	2	1	48	5	0.01

1419	05/20/2021	7:31:00	411	0	4	2	1	48	5	0.01
1420	05/20/2021	7:32:00	411	0	4	2	1	48	5	0.008
1421	05/20/2021	7:33:00	411	0	4	2	1	48	5	0.008
1422	05/20/2021	7:34:00	411	0	4	2	1	48	5	0.01
1423	05/20/2021	7:35:00	411	0	4	2	1	48	5	0.008
1424	05/20/2021	7:36:00	393	0	13	2	1	48	3	0.014
1425	05/20/2021	7:37:00	401	0	13	2	1	48	0	0.01
1426	05/20/2021	7:38:00	414	0	13	2	1	48	0	0.009
1427	05/20/2021	7:39:00	410	0	13	2	1	48	0	0.008
1428	05/20/2021	7:40:00	420	0	13	2	1	47	0	0.009
1429	05/20/2021	7:41:00	410	0	13	2	1	47	0	0.007
1430	05/20/2021	7:42:00	412	0	13	2	1	47	0	0.009
1431	05/20/2021	7:43:00	410	0	13	2	1	48	0	0.008
1432	05/20/2021	7:44:00	415	0	13	2	1	47	0	0.006
1433	05/20/2021	7:45:00	409	0	13	2	1	47	0	0.006
1434	05/20/2021	7:46:00	414	0	4	2	1	47	0	0.01
1435	05/20/2021	7:47:00	416	0	15	2	1	47	0	0.006
1436	05/20/2021	7:48:00	410	0	5	2	1	47	0	0.005
1437	05/20/2021	7:49:00	414	0	3	20	10	47	0	0.006
1438	05/20/2021	7:50:00	411	0	3	2	1	47	0	0.006
1439	05/20/2021	7:51:00	421	0	2	2	1	47	0	0.003
1440	05/20/2021	7:52:00	412	0	15	2	1	47	0	0.002
1441	05/20/2021	7:53:00	415	0	2	2	1	46	0	0.004
1442	05/20/2021	7:54:00	411	0	4	2	1	46	0	0.006
1443	05/20/2021	7:55:00	414	0	2	21	2	46	0	0.004
1444	05/20/2021	7:56:00	409	0	2	2	1	46	0	0.005
1445	05/20/2021	7:57:00	418	0	2	2	1	46	0	0.007
1446	05/20/2021	7:58:00	410	0	3	2	1	46	0	0.004
1447	05/20/2021	7:59:00	414	0	2	2	1	46	0	0.006

1454	05/20/2021	8:00:00	409	0	2	2	1	46	0	0.008
1455	05/20/2021	8:01:00	419	0	2	2	1	46	0	0.005
1456	05/20/2021	8:02:00	412	0	2	2	1	46	0	0.005
1457	05/20/2021	8:03:00	414	0	2	2	1	46	0	0.007
1458	05/20/2021	8:04:00	411	0	2	2	1	47	0	0.007
1459	05/20/2021	8:05:00	413	0	2	2	1	46	0	0.005
1460	05/20/2021	8:06:00	414	0	2	2	1	47	0	0.006
1461	05/20/2021	8:07:00	410	0	2	2	1	47	0	0.006
1462	05/20/2021	8:08:00	418	0	2	2	1	47	0	0.007
1463	05/20/2021	8:09:00	410	0	2	2	1	47	0	0.007
1464	05/20/2021	8:10:00	414	0	2	2	1	47	0	0.008
1465	05/20/2021	8:11:00	408	0	2	2	1	46	0	0.008
1466	05/20/2021	8:12:00	413	0	2	2	1	46	0	0.008
1467	05/20/2021	8:13:00	404	0	2	2	1	46	0	0.007
1468	05/20/2021	8:14:00	405	0	2	2	1	46	0	0.008
1469	05/20/2021	8:15:00	402	0	2	2	1	46	0	0.008
1470	05/20/2021	8:16:00	410	0	2	2	1	46	0	0.01
1471	05/20/2021	8:17:00	402	0	2	2	1	46	0	0.01
1472	05/20/2021	8:18:00	411	0	2	2	1	46	0	0.007
1473	05/20/2021	8:19:00	403	0	2	2	1	46	0	0.005
1474	05/20/2021	8:20:00	409	0	2	2	1	46	0	0.007
1475	05/20/2021	8:21:00	402	0	2	2	1	46	0	0.009
1476	05/20/2021	8:22:00	408	0	2	2	1	46	0	0.011
1477	05/20/2021	8:23:00	406	0	2	2	1	46	0	0.014
1478	05/20/2021	8:24:00	401	0	2	2	1	46	0	0.01
1479	05/20/2021	8:25:00	404	0	2	2	1	46	0	0.009
1480	05/20/2021	8:26:00	403	0	2	2	1	46	0	0.002
1481	05/20/2021	8:27:00	409	0	2	2	1	46	0	0.006
1482	05/20/2021	8:28:00	401	0	2	2	1	46	0	0.007
1483	05/20/2021	8:29:00	405	0	2	2	1	45	0	0.01
1484	05/20/2021	8:30:00	405	0	2	2	1	45	0	0.009

1485	05/20/2021	8:31:00	416	0	2	2	1	46	0	0.007
1486	05/20/2021	8:32:00	402	0	2	2	1	45	0	0.005
1487	05/20/2021	8:33:00	404	0	2	2	1	45	0	0.005
1488	05/20/2021	8:34:00	401	0	2	2	1	45	0	0.008
1489	05/20/2021	8:35:00	410	0	2	2	1	45	0	0.007
1490	05/20/2021	8:36:00	410	0	2	2	1	45	0	0.005
1491	05/20/2021	8:37:00	410	0	2	2	1	45	0	0.007
1492	05/20/2021	8:38:00	410	0	2	2	1	45	0	0.011
1493	05/20/2021	8:39:00	410	0	2	2	1	45	0	0.006
1494	05/20/2021	8:40:00	410	0	2	2	1	45	0	0.006
1495	05/20/2021	8:41:00	410	0	2	2	1	45	0	0.005
1496	05/20/2021	8:42:00	410	0	2	2	1	45	0	0.008
1497	05/20/2021	8:43:00	410	0	2	2	1	45	0	0.007
1498	05/20/2021	8:44:00	410	0	2	2	1	45	0	0.007
1499	05/20/2021	8:45:00	404	0	2	2	1	45	0	0.011
1500	05/20/2021	8:46:00	408	0	2	34	17	45	0	0.007
1501	05/20/2021	8:47:00	402	0	2	2	1	46	0	0.012
1502	05/20/2021	8:48:00	408	0	2	5	1	46	0	0.007
1503	05/20/2021	8:49:00	409	0	4	2	1	46	0	0.006
1504	05/20/2021	8:50:00	408	0	2	2	1	46	0	0.006
1505	05/20/2021	8:51:00	402	0	2	2	1	46	0	0.004
1506	05/20/2021	8:52:00	410	0	2	2	1	45	0	0.004
1507	05/20/2021	8:53:00	402	0	2	2	1	45	0	0.001
1508	05/20/2021	8:54:00	405	0	2	23	6	45	0	0.003
1509	05/20/2021	8:55:00	401	0	2	2	1	45	0	0.005
1510	05/20/2021	8:56:00	409	0	2	2	1	45	0	0.006
1511	05/20/2021	8:57:00	402	0	3	2	1	45	0	0.002
1512	05/20/2021	8:58:00	405	0	2	2	1	45	0	0.002
1513	05/20/2021	8:59:00	402	0	2	2	1	45	0	0.003

Noise Quality

1520	05/20/2021	3:00:00	405	0	2	2	1	45	0	0.004
1521	05/20/2021	3:01:00	406	0	2	2	1	45	0	0.002
1522	05/20/2021	3:02:00	401	0	2	2	1	45	0	0.003
1523	05/20/2021	3:03:00	405	0	2	2	1	45	0	0
1524	05/20/2021	3:04:00	401	0	2	2	1	45	0	0
1525	05/20/2021	3:05:00	410	0	2	2	1	45	0	0
1526	05/20/2021	3:06:00	402	0	2	2	1	45	0	0
1527	05/20/2021	3:07:00	406	0	2	2	1	45	0	0.001
1528	05/20/2021	3:08:00	402	0	2	2	1	45	0	0
1529	05/20/2021	3:09:00	406	0	2	2	1	45	0	0.001
1530	05/20/2021	3:10:00	403	0	2	2	1	45	0	0
1531	05/20/2021	3:11:00	407	0	2	2	1	45	0	0
1532	05/20/2021	3:12:00	402	0	2	2	1	44	0	0
1533	05/20/2021	3:13:00	411	0	2	2	1	44	0	0
1534	05/20/2021	3:14:00	403	0	2	2	1	45	0	0.004
1535	05/20/2021	3:15:00	406	0	2	2	1	44	0	0.008
1536	05/20/2021	3:16:00	404	0	2	2	1	45	0	0.004
1537	05/20/2021	3:17:00	413	0	2	2	1	45	0	0
1538	05/20/2021	3:18:00	404	0	2	2	1	45	0	0
1539	05/20/2021	3:19:00	407	0	2	2	1	45	0	0
1540	05/20/2021	3:20:00	402	0	2	2	1	45	0	0
1541	05/20/2021	3:21:00	406	0	2	2	1	45	0	0.003
1542	05/20/2021	3:22:00	407	0	2	2	1	44	0	0.002
1543	05/20/2021	3:23:00	403	0	2	2	1	45	0	0.003
1544	05/20/2021	3:24:00	407	0	2	2	1	44	0	0.003
1545	05/20/2021	3:25:00	403	0	2	2	1	44	0	0.006
1546	05/20/2021	3:26:00	411	0	2	2	1	44	0	0.005
1547	05/20/2021	3:27:00	402	0	2	2	1	44	0	0.002
1548	05/20/2021	3:28:00	406	0	2	2	1	44	0	0
1549	05/20/2021	3:29:00	402	0	2	2	1	44	0	0.008
1550	05/20/2021	3:30:00	411	0	2	2	1	44	0	0.013

1551	05/20/2021	3:31:00	403	0	2	2	1	44	0	0.013
1552	05/20/2021	3:32:00	407	0	2	2	1	44	0	0.007
1553	05/20/2021	3:33:00	402	0	2	2	1	44	0	0.005
1554	05/20/2021	3:34:00	407	0	2	2	1	44	0	0.002
1555	05/20/2021	3:35:00	402	0	2	2	1	44	0	0
1556	05/20/2021	3:36:00	403	0	2	2	1	44	0	0
1557	05/20/2021	3:37:00	395	0	2	2	1	44	0	0
1558	05/20/2021	3:38:00	397	0	2	2	1	43	0	0
1559	05/20/2021	3:39:00	393	0	2	2	1	43	0	0
1560	05/20/2021	3:40:00	402	0	2	2	1	43	0	0
1561	05/20/2021	3:41:00	394	0	2	2	1	43	0	0
1562	05/20/2021	3:42:00	410	0	2	2	1	43	0	0
1563	05/20/2021	3:43:00	403	0	2	2	1	43	0	0
1564	05/20/2021	3:44:00	406	0	2	2	1	43	0	0
1565	05/20/2021	3:45:00	406	0	2	2	1	43	0	0
1566	05/20/2021	3:46:00	406	0	2	2	1	43	0	0
1567	05/20/2021	3:47:00	406	0	2	2	1	43	0	0.007
1568	05/20/2021	3:48:00	406	0	2	2	1	43	0	0.007
1569	05/20/2021	3:49:00	406	0	2	2	1	43	0	0.005
1570	05/20/2021	3:50:00	406	0	2	2	1	43	0	0.013
1571	05/20/2021	3:51:00	406	0	2	2	1	43	0	0
1572	05/20/2021	3:52:00	406	0	2	2	1	43	0	0
1573	05/20/2021	3:53:00	406	0	2	2	1	43	0	0
1574	05/20/2021	3:54:00	406	0	2	2	1	43	0	0
1575	05/20/2021	3:55:00	406	0	2	2	1	43	0	0
1576	05/20/2021	3:56:00	406	0	2	2	1	43	0	0
1577	05/20/2021	3:57:00	406	0	2	2	1	43	0	0
1578	05/20/2021	3:58:00	406	0	2	2	1	43	0	0
1579	05/20/2021	3:59:00	406	0	2	2	1	43	0	0

	RecNo	MeaVal	Weight	Time	Date	DataGroupInd
2	1	49.6	A	10:00:30	2021-5-19	0
3	2	51.6	A	10:01:30	2021-5-19	1
4	3	53.1	A	10:02:30	2021-5-19	1
5	4	56.5	A	10:03:30	2021-5-19	1
6	5	47.7	A	10:04:30	2021-5-19	1
7	6	52.4	A	10:05:30	2021-5-19	1
8	7	50.8	A	10:06:30	2021-5-19	1
9	8	49.6	A	10:07:30	2021-5-19	1
10	9	55.7	A	10:08:30	2021-5-19	1
11	10	50.5	A	10:09:30	2021-5-19	1
12	11	52.2	A	10:10:30	2021-5-19	1
13	12	50.8	A	10:11:30	2021-5-19	1
14	13	53.7	A	10:12:30	2021-5-19	1
15	14	51	A	10:13:30	2021-5-19	1
16	15	52.3	A	10:14:30	2021-5-19	1
17	16	53.5	A	10:15:30	2021-5-19	1
18	17	53.2	A	10:16:30	2021-5-19	1
19	18	52.6	A	10:17:30	2021-5-19	1
20	19	59.1	A	10:18:30	2021-5-19	1
21	20	50.4	A	10:19:30	2021-5-19	1
22	21	49.7	A	10:20:30	2021-5-19	1
23	22	49.2	A	10:21:30	2021-5-19	1
24	23	52.2	A	10:22:30	2021-5-19	1
25	24	51.9	A	10:23:30	2021-5-19	1
26	25	53.1	A	10:24:30	2021-5-19	1
27	26	60.1	A	10:25:30	2021-5-19	1
28	27	56.9	A	10:26:30	2021-5-19	1
29	28	60.3	A	10:27:30	2021-5-19	1
30	29	51.8	A	10:28:30	2021-5-19	1
31	30	52.6	A	10:29:30	2021-5-19	1
32	31	54.6	A	10:30:30	2021-5-19	1

33	32	49.6	A	10:31:30	2021-5-19	1
34	33	53.8	A	10:32:30	2021-5-19	1
35	34	53.5	A	10:33:30	2021-5-19	1
36	35	50	A	10:34:30	2021-5-19	1
37	36	49.9	A	10:35:30	2021-5-19	1
38	37	48.7	A	10:36:30	2021-5-19	1
39	38	50.5	A	10:37:30	2021-5-19	1
40	39	48	A	10:38:30	2021-5-19	1
41	40	54.9	A	10:39:30	2021-5-19	1
42	41	55.1	A	10:40:30	2021-5-19	1
43	42	55.2	A	10:41:30	2021-5-19	1
44	43	54	A	10:42:30	2021-5-19	1
45	44	53.2	A	10:43:30	2021-5-19	1
46	45	50.7	A	10:44:30	2021-5-19	1
47	46	49.2	A	10:45:30	2021-5-19	1
48	47	49.6	A	10:46:30	2021-5-19	1
49	48	50.9	A	10:47:30	2021-5-19	1
50	49	49.3	A	10:48:30	2021-5-19	1
51	50	49.1	A	10:49:30	2021-5-19	1
52	51	50.1	A	10:50:30	2021-5-19	1
53	52	52.5	A	10:51:30	2021-5-19	1
54	53	49.8	A	10:52:30	2021-5-19	1
55	54	59.9	A	10:53:30	2021-5-19	1
56	55	54.7	A	10:54:30	2021-5-19	1
57	56	52.9	A	10:55:30	2021-5-19	1
58	57	52.7	A	10:56:30	2021-5-19	1
59	58	48.5	A	10:57:30	2021-5-19	1
60	59	48.6	A	10:58:30	2021-5-19	1
61	60	49.9	A	10:59:30	2021-5-19	1

63	62	47	A	11:01:30	2021-5-19	1
64	63	49.2	A	11:02:30	2021-5-19	1
65	64	47.2	A	11:03:30	2021-5-19	1
66	65	49.7	A	11:04:30	2021-5-19	1
67	66	47.5	A	11:05:30	2021-5-19	1
68	67	50.9	A	11:06:30	2021-5-19	1
69	68	46.2	A	11:07:30	2021-5-19	1
70	69	48.4	A	11:08:30	2021-5-19	1
71	70	49.7	A	11:09:30	2021-5-19	1
72	71	48.7	A	11:10:30	2021-5-19	1
73	72	51.8	A	11:11:30	2021-5-19	1
74	73	48.4	A	11:12:30	2021-5-19	1
75	74	46.2	A	11:13:30	2021-5-19	1
76	75	47.8	A	11:14:30	2021-5-19	1
77	76	47.2	A	11:15:30	2021-5-19	1
78	77	54.8	A	11:16:30	2021-5-19	1
79	78	46	A	11:17:30	2021-5-19	1
80	79	46.5	A	11:18:30	2021-5-19	1
81	80	54.1	A	11:19:30	2021-5-19	1
82	81	53.9	A	11:20:30	2021-5-19	1
83	82	45	A	11:21:30	2021-5-19	1
84	83	45.8	A	11:22:30	2021-5-19	1
85	84	50	A	11:23:30	2021-5-19	1
86	85	47.9	A	11:24:30	2021-5-19	1
87	86	47.9	A	11:25:30	2021-5-19	1
88	87	49.7	A	11:26:30	2021-5-19	1
89	88	49.9	A	11:27:30	2021-5-19	1
90	89	49.2	A	11:28:30	2021-5-19	1
91	90	47.6	A	11:29:30	2021-5-19	1
92	91	51.5	A	11:30:30	2021-5-19	1

93	92	50	A	11:31:30	2021-5-19	1
94	93	47.6	A	11:32:30	2021-5-19	1
95	94	50.6	A	11:33:30	2021-5-19	1
96	95	46.7	A	11:34:30	2021-5-19	1
97	96	45.6	A	11:35:30	2021-5-19	1
98	97	45.4	A	11:36:30	2021-5-19	1
99	98	46.4	A	11:37:30	2021-5-19	1
100	99	45.9	A	11:38:30	2021-5-19	1
101	100	45.1	A	11:39:30	2021-5-19	1
102	101	48.2	A	11:40:30	2021-5-19	1
103	102	47.3	A	11:41:30	2021-5-19	1
104	103	45	A	11:42:30	2021-5-19	1
105	104	48.4	A	11:43:30	2021-5-19	1
106	105	52.5	A	11:44:30	2021-5-19	1
107	106	46.3	A	11:45:30	2021-5-19	1
108	107	50	A	11:46:30	2021-5-19	1
109	108	46	A	11:47:30	2021-5-19	1
110	109	47.6	A	11:48:30	2021-5-19	1
111	110	44.5	A	11:49:30	2021-5-19	1
112	111	47.6	A	11:50:30	2021-5-19	1
113	112	50	A	11:51:30	2021-5-19	1
114	113	45.2	A	11:52:30	2021-5-19	1
115	114	45.2	A	11:53:30	2021-5-19	1
116	115	54.8	A	11:54:30	2021-5-19	1
117	116	54.6	A	11:55:30	2021-5-19	1
118	117	50.2	A	11:56:30	2021-5-19	1
119	118	51.2	A	11:57:30	2021-5-19	1
120	119	47.6	A	11:58:30	2021-5-19	1
121	120	44	A	11:59:30	2021-5-19	1

122	121	45.3	A	12:00:30	2021-5-19	1
123	122	45.3	A	12:01:30	2021-5-19	1
124	123	46.1	A	12:02:30	2021-5-19	1
125	124	45.4	A	12:03:30	2021-5-19	1
126	125	47.9	A	12:04:30	2021-5-19	1
127	126	44	A	12:05:30	2021-5-19	1
128	127	45.7	A	12:06:30	2021-5-19	1
129	128	44.8	A	12:07:30	2021-5-19	1
130	129	46.4	A	12:08:30	2021-5-19	1
131	130	46	A	12:09:30	2021-5-19	1
132	131	51.4	A	12:10:30	2021-5-19	1
133	132	51.1	A	12:11:30	2021-5-19	1
134	133	52.9	A	12:12:30	2021-5-19	1
135	134	48.8	A	12:13:30	2021-5-19	1
136	135	48.1	A	12:14:30	2021-5-19	1
137	136	46	A	12:15:30	2021-5-19	1
138	137	45.8	A	12:16:30	2021-5-19	1
139	138	46.7	A	12:17:30	2021-5-19	1
140	139	45.2	A	12:18:30	2021-5-19	1
141	140	44.4	A	12:19:30	2021-5-19	1
142	141	46	A	12:20:30	2021-5-19	1
143	142	47.3	A	12:21:30	2021-5-19	1
144	143	52.7	A	12:22:30	2021-5-19	1
145	144	46	A	12:23:30	2021-5-19	1
146	145	44.3	A	12:24:30	2021-5-19	1
147	146	46.7	A	12:25:30	2021-5-19	1
148	147	46	A	12:26:30	2021-5-19	1
149	148	49.1	A	12:27:30	2021-5-19	1
150	149	53.2	A	12:28:30	2021-5-19	1
151	150	52.3	A	12:29:30	2021-5-19	1
152	151	51.9	A	12:30:30	2021-5-19	1

153	152	52.5	A	12:31:30	2021-5-19	1
154	153	54.2	A	12:32:30	2021-5-19	1
155	154	47.9	A	12:33:30	2021-5-19	1
156	155	48	A	12:34:30	2021-5-19	1
157	156	49.3	A	12:35:30	2021-5-19	1
158	157	48.9	A	12:36:30	2021-5-19	1
159	158	48.8	A	12:37:30	2021-5-19	1
160	159	47.8	A	12:38:30	2021-5-19	1
161	160	49.5	A	12:39:30	2021-5-19	1
162	161	55.3	A	12:40:30	2021-5-19	1
163	162	51.1	A	12:41:30	2021-5-19	1
164	163	45.7	A	12:42:30	2021-5-19	1
165	164	45.6	A	12:43:30	2021-5-19	1
166	165	45.2	A	12:44:30	2021-5-19	1
167	166	46.5	A	12:45:30	2021-5-19	1
168	167	45.8	A	12:46:30	2021-5-19	1
169	168	45.5	A	12:47:30	2021-5-19	1
170	169	50.8	A	12:48:30	2021-5-19	1
171	170	43.5	A	12:49:30	2021-5-19	1
172	171	44.7	A	12:50:30	2021-5-19	1
173	172	49.6	A	12:51:30	2021-5-19	1
174	173	45.3	A	12:52:30	2021-5-19	1
175	174	44.8	A	12:53:30	2021-5-19	1
176	175	44.2	A	12:54:30	2021-5-19	1
177	176	44.5	A	12:55:30	2021-5-19	1
178	177	44.5	A	12:56:30	2021-5-19	1
179	178	43.8	A	12:57:30	2021-5-19	1
180	179	49.1	A	12:58:30	2021-5-19	1
181	180	45.9	A	12:59:30	2021-5-19	1

182	181	44.5	A	13:00:30	2021-5-19	1
183	182	44	A	13:01:30	2021-5-19	1
184	183	46.4	A	13:02:30	2021-5-19	1
185	184	45.6	A	13:03:30	2021-5-19	1
186	185	44.4	A	13:04:30	2021-5-19	1
187	186	46.1	A	13:05:30	2021-5-19	1
188	187	44.6	A	13:06:30	2021-5-19	1
189	188	47.4	A	13:07:30	2021-5-19	1
190	189	50	A	13:08:30	2021-5-19	1
191	190	43.5	A	13:09:30	2021-5-19	1
192	191	46.9	A	13:10:30	2021-5-19	1
193	192	46.9	A	13:11:30	2021-5-19	1
194	193	50.5	A	13:12:30	2021-5-19	1
195	194	51.4	A	13:13:30	2021-5-19	1
196	195	48.6	A	13:14:30	2021-5-19	1
197	196	47.2	A	13:15:30	2021-5-19	1
198	197	48.8	A	13:16:30	2021-5-19	1
199	198	44.1	A	13:17:30	2021-5-19	1
200	199	45.6	A	13:18:30	2021-5-19	1
201	200	44.2	A	13:19:30	2021-5-19	1
202	201	46.4	A	13:20:30	2021-5-19	1
203	202	46.9	A	13:21:30	2021-5-19	1
204	203	44.6	A	13:22:30	2021-5-19	1
205	204	46.1	A	13:23:30	2021-5-19	1
206	205	48	A	13:24:30	2021-5-19	1
207	206	43.7	A	13:25:30	2021-5-19	1
208	207	45.8	A	13:26:30	2021-5-19	1
209	208	44.7	A	13:27:30	2021-5-19	1
210	209	47.1	A	13:28:30	2021-5-19	1
211	210	43.5	A	13:29:30	2021-5-19	1
212	211	45.8	A	13:30:30	2021-5-19	1

242	241	49.9	A	14:00:30	2021-5-19	1
243	242	46.5	A	14:01:30	2021-5-19	1
244	243	47.1	A	14:02:30	2021-5-19	1
245	244	44.5	A	14:03:30	2021-5-19	1
246	245	47.9	A	14:04:30	2021-5-19	1
247	246	46.2	A	14:05:30	2021-5-19	1
248	247	44.6	A	14:06:30	2021-5-19	1
249	248	47.6	A	14:07:30	2021-5-19	1
250	249	47.6	A	14:08:30	2021-5-19	1
251	250	46.5	A	14:09:30	2021-5-19	1
252	251	47.8	A	14:10:30	2021-5-19	1
253	252	48.3	A	14:11:30	2021-5-19	1
254	253	48.1	A	14:12:30	2021-5-19	1
255	254	48.6	A	14:13:30	2021-5-19	1
256	255	50.2	A	14:14:30	2021-5-19	1
257	256	47	A	14:15:30	2021-5-19	1
258	257	52.9	A	14:16:30	2021-5-19	1
259	258	48.2	A	14:17:30	2021-5-19	1
260	259	48.9	A	14:18:30	2021-5-19	1
261	260	45.3	A	14:19:30	2021-5-19	1
262	261	45.8	A	14:20:30	2021-5-19	1
263	262	49.2	A	14:21:30	2021-5-19	1
264	263	48.4	A	14:22:30	2021-5-19	1
265	264	46.5	A	14:23:30	2021-5-19	1
266	265	48.2	A	14:24:30	2021-5-19	1
267	266	49.8	A	14:25:30	2021-5-19	1
268	267	49.3	A	14:26:30	2021-5-19	1
269	268	50.8	A	14:27:30	2021-5-19	1
270	269	46.9	A	14:28:30	2021-5-19	1
271	270	50.9	A	14:29:30	2021-5-19	1
272	271	49.1	A	14:30:30	2021-5-19	1

213	212	48.5	A	13:31:30	2021-5-19	1
214	213	44.4	A	13:32:30	2021-5-19	1
215	214	48.3	A	13:33:30	2021-5-19	1
216	215	46.8	A	13:34:30	2021-5-19	1
217	216	47.8	A	13:35:30	2021-5-19	1
218	217	48.3	A	13:36:30	2021-5-19	1
219	218	49.9	A	13:37:30	2021-5-19	1
220	219	51.5	A	13:38:30	2021-5-19	1
221	220	43.9	A	13:39:30	2021-5-19	1
222	221	44.8	A	13:40:30	2021-5-19	1
223	222	53	A	13:41:30	2021-5-19	1
224	223	55.2	A	13:42:30	2021-5-19	1
225	224	50.6	A	13:43:30	2021-5-19	1
226	225	48.9	A	13:44:30	2021-5-19	1
227	226	49.7	A	13:45:30	2021-5-19	1
228	227	48.3	A	13:46:30	2021-5-19	1
229	228	49.2	A	13:47:30	2021-5-19	1
230	229	46.8	A	13:48:30	2021-5-19	1
231	230	46.1	A	13:49:30	2021-5-19	1
232	231	44.8	A	13:50:30	2021-5-19	1
233	232	47.9	A	13:51:30	2021-5-19	1
234	233	48.6	A	13:52:30	2021-5-19	1
235	234	48.2	A	13:53:30	2021-5-19	1
236	235	46.9	A	13:54:30	2021-5-19	1
237	236	47.6	A	13:55:30	2021-5-19	1
238	237	53.9	A	13:56:30	2021-5-19	1
239	238	43.8	A	13:57:30	2021-5-19	1
240	239	49.4	A	13:58:30	2021-5-19	1
241	240	45.1	A	13:59:30	2021-5-19	1

273	272	46.2	A	14:31:30	2021-5-19	1
274	273	54.1	A	14:32:30	2021-5-19	1
275	274	47.5	A	14:33:30	2021-5-19	1
276	275	44.3	A	14:34:30	2021-5-19	1
277	276	50	A	14:35:30	2021-5-19	1
278	277	47.3	A	14:36:30	2021-5-19	1
279	278	52.2	A	14:37:30	2021-5-19	1
280	279	49.7	A	14:38:30	2021-5-19	1
281	280	46.1	A	14:39:30	2021-5-19	1
282	281	47	A	14:40:30	2021-5-19	1
283	282	47.6	A	14:41:30	2021-5-19	1
284	283	47.3	A	14:42:30	2021-5-19	1
285	284	47.2	A	14:43:30	2021-5-19	1
286	285	48.1	A	14:44:30	2021-5-19	1
287	286	46.9	A	14:45:30	2021-5-19	1
288	287	47.9	A	14:46:30	2021-5-19	1
289	288	46.9	A	14:47:30	2021-5-19	1
290	289	46.3	A	14:48:30	2021-5-19	1
291	290	46.8	A	14:49:30	2021-5-19	1
292	291	48	A	14:50:30	2021-5-19	1
293	292	48	A	14:51:30	2021-5-19	1
294	293	49.6	A	14:52:30	2021-5-19	1
295	294	50.2	A	14:53:30	2021-5-19	1
296	295	48.5	A	14:54:30	2021-5-19	1
297	296	47.9	A	14:55:30	2021-5-19	1
298	297	46.7	A	14:56:30	2021-5-19	1
299	298	48.2	A	14:57:30	2021-5-19	1
300	299	45.7	A	14:58:30	2021-5-19	1
301	300	47.1	A	14:59:30	2021-5-19	1

302	301	50.2	A	15:00:30	2021-5-19	1
303	302	45.7	A	15:01:30	2021-5-19	1
304	303	49.7	A	15:02:30	2021-5-19	1
305	304	49.8	A	15:03:30	2021-5-19	1
306	305	47.8	A	15:04:30	2021-5-19	1
307	306	47.5	A	15:05:30	2021-5-19	1
308	307	50.5	A	15:06:30	2021-5-19	1
309	308	47.6	A	15:07:30	2021-5-19	1
310	309	53.4	A	15:08:30	2021-5-19	1
311	310	52.9	A	15:09:30	2021-5-19	1
312	311	51.8	A	15:10:30	2021-5-19	1
313	312	50.4	A	15:11:30	2021-5-19	1
314	313	54.6	A	15:12:30	2021-5-19	1
315	314	51.2	A	15:13:30	2021-5-19	1
316	315	45.8	A	15:14:30	2021-5-19	1
317	316	43.9	A	15:15:30	2021-5-19	1
318	317	46.8	A	15:16:30	2021-5-19	1
319	318	47.6	A	15:17:30	2021-5-19	1
320	319	47.3	A	15:18:30	2021-5-19	1
321	320	54	A	15:19:30	2021-5-19	1
322	321	45.5	A	15:20:30	2021-5-19	1
323	322	47.4	A	15:21:30	2021-5-19	1
324	323	50	A	15:22:30	2021-5-19	1
325	324	47.9	A	15:23:30	2021-5-19	1
326	325	54.1	A	15:24:30	2021-5-19	1
327	326	49.3	A	15:25:30	2021-5-19	1
328	327	48.6	A	15:26:30	2021-5-19	1
329	328	48.8	A	15:27:30	2021-5-19	1
330	329	50.5	A	15:28:30	2021-5-19	1
331	330	49.9	A	15:29:30	2021-5-19	1
332	331	53.3	A	15:30:30	2021-5-19	1

362	361	48.9	A	16:00:30	2021-5-19	1
363	362	48.6	A	16:01:30	2021-5-19	1
364	363	51	A	16:02:30	2021-5-19	1
365	364	50.5	A	16:03:30	2021-5-19	1
366	365	50.7	A	16:04:30	2021-5-19	1
367	366	49	A	16:05:30	2021-5-19	1
368	367	49.1	A	16:06:30	2021-5-19	1
369	368	48.4	A	16:07:30	2021-5-19	1
370	369	53.5	A	16:08:30	2021-5-19	1
371	370	51.9	A	16:09:30	2021-5-19	1
372	371	48.5	A	16:10:30	2021-5-19	1
373	372	54.3	A	16:11:30	2021-5-19	1
374	373	48.8	A	16:12:30	2021-5-19	1
375	374	53.2	A	16:13:30	2021-5-19	1
376	375	54.7	A	16:14:30	2021-5-19	1
377	376	60.6	A	16:15:30	2021-5-19	1
378	377	51.3	A	16:16:30	2021-5-19	1
379	378	48.2	A	16:17:30	2021-5-19	1
380	379	50.6	A	16:18:30	2021-5-19	1
381	380	53.2	A	16:19:30	2021-5-19	1
382	381	55.7	A	16:20:30	2021-5-19	1
383	382	50	A	16:21:30	2021-5-19	1
384	383	55.2	A	16:22:30	2021-5-19	1
385	384	50.8	A	16:23:30	2021-5-19	1
386	385	51.5	A	16:24:30	2021-5-19	1
387	386	51.9	A	16:25:30	2021-5-19	1
388	387	49.8	A	16:26:30	2021-5-19	1
389	388	54.2	A	16:27:30	2021-5-19	1
390	389	51.3	A	16:28:30	2021-5-19	1
391	390	51	A	16:29:30	2021-5-19	1
392	391	49.4	A	16:30:30	2021-5-19	1

333	332	52	A	15:31:30	2021-5-19	1
334	333	49.5	A	15:32:30	2021-5-19	1
335	334	51.1	A	15:33:30	2021-5-19	1
336	335	52.6	A	15:34:30	2021-5-19	1
337	336	50.4	A	15:35:30	2021-5-19	1
338	337	52.1	A	15:36:30	2021-5-19	1
339	338	49.2	A	15:37:30	2021-5-19	1
340	339	55.3	A	15:38:30	2021-5-19	1
341	340	54.9	A	15:39:30	2021-5-19	1
342	341	50.7	A	15:40:30	2021-5-19	1
343	342	50.3	A	15:41:30	2021-5-19	1
344	343	49.6	A	15:42:30	2021-5-19	1
345	344	50.4	A	15:43:30	2021-5-19	1
346	345	51.6	A	15:44:30	2021-5-19	1
347	346	51.6	A	15:45:30	2021-5-19	1
348	347	52.5	A	15:46:30	2021-5-19	1
349	348	49.2	A	15:47:30	2021-5-19	1
350	349	49.1	A	15:48:30	2021-5-19	1
351	350	49.3	A	15:49:30	2021-5-19	1
352	351	49.6	A	15:50:30	2021-5-19	1
353	352	50.8	A	15:51:30	2021-5-19	1
354	353	48.8	A	15:52:30	2021-5-19	1
355	354	50.9	A	15:53:30	2021-5-19	1
356	355	48.7	A	15:54:30	2021-5-19	1
357	356	49.4	A	15:55:30	2021-5-19	1
358	357	48.9	A	15:56:30	2021-5-19	1
359	358	49.5	A	15:57:30	2021-5-19	1
360	359	47.1	A	15:58:30	2021-5-19	1
361	360	51.5	A	15:59:30	2021-5-19	1

393	392	50.2	A	16:31:30	2021-5-19	1
394	393	49	A	16:32:30	2021-5-19	1
395	394	56.8	A	16:33:30	2021-5-19	1
396	395	51.5	A	16:34:30	2021-5-19	1
397	396	54.5	A	16:35:30	2021-5-19	1
398	397	49.5	A	16:36:30	2021-5-19	1
399	398	49	A	16:37:30	2021-5-19	1
400	399	57.4	A	16:38:30	2021-5-19	1
401	400	53.1	A	16:39:30	2021-5-19	1
402	401	53.5	A	16:40:30	2021-5-19	1
403	402	61.6	A	16:41:30	2021-5-19	1
404	403	53.2	A	16:42:30	2021-5-19	1
405	404	51.5	A	16:43:30	2021-5-19	1
406	405	57.4	A	16:44:30	2021-5-19	1
407	406	53.8	A	16:45:30	2021-5-19	1
408	407	55	A	16:46:30	2021-5-19	1
409	408	49.5	A	16:47:30	2021-5-19	1
410	409	50.4	A	16:48:30	2021-5-19	1
411	410	50.8	A	16:49:30	2021-5-19	1
412	411	50.1	A	16:50:30	2021-5-19	1
413	412	47.1	A	16:51:30	2021-5-19	1
414	413	49.8	A	16:52:30	2021-5-19	1
415	414	49.4	A	16:53:30	2021-5-19	1
416	415	54.4	A	16:54:30	2021-5-19	1
417	416	48	A	16:55:30	2021-5-19	1
418	417	53.3	A	16:56:30	2021-5-19	1
419	418	50.8	A	16:57:30	2021-5-19	1
420	419	48.9	A	16:58:30	2021-5-19	1
421	420	49.9	A	16:59:30	2021-5-19	1

422	421	55.7	A	17:00:30	2021-5-19	1
423	422	53.2	A	17:01:30	2021-5-19	1
424	423	49.6	A	17:02:30	2021-5-19	1
425	424	50.1	A	17:03:30	2021-5-19	1
426	425	49.5	A	17:04:30	2021-5-19	1
427	426	47.5	A	17:05:30	2021-5-19	1
428	427	52.3	A	17:06:30	2021-5-19	1
429	428	51.7	A	17:07:30	2021-5-19	1
430	429	50.5	A	17:08:30	2021-5-19	1
431	430	49.9	A	17:09:30	2021-5-19	1
432	431	53	A	17:10:30	2021-5-19	1
433	432	47.7	A	17:11:30	2021-5-19	1
434	433	49.7	A	17:12:30	2021-5-19	1
435	434	54.6	A	17:13:30	2021-5-19	1
436	435	54	A	17:14:30	2021-5-19	1
437	436	50.5	A	17:15:30	2021-5-19	1
438	437	54.2	A	17:16:30	2021-5-19	1
439	438	49.6	A	17:17:30	2021-5-19	1
440	439	53.3	A	17:18:30	2021-5-19	1
441	440	56.6	A	17:19:30	2021-5-19	1
442	441	48.5	A	17:20:30	2021-5-19	1
443	442	49.4	A	17:21:30	2021-5-19	1
444	443	47.2	A	17:22:30	2021-5-19	1
445	444	49.4	A	17:23:30	2021-5-19	1
446	445	48.3	A	17:24:30	2021-5-19	1
447	446	47.5	A	17:25:30	2021-5-19	1
448	447	53.5	A	17:26:30	2021-5-19	1
449	448	49.2	A	17:27:30	2021-5-19	1
450	449	47.5	A	17:28:30	2021-5-19	1
451	450	50.5	A	17:29:30	2021-5-19	1
452	451	48.6	A	17:30:30	2021-5-19	1

482	481	49.3	A	18:00:30	2021-5-19	1
483	482	48	A	18:01:30	2021-5-19	1
484	483	50	A	18:02:30	2021-5-19	1
485	484	50.3	A	18:03:30	2021-5-19	1
486	485	48.4	A	18:04:30	2021-5-19	1
487	486	54.6	A	18:05:30	2021-5-19	1
488	487	48	A	18:06:30	2021-5-19	1
489	488	50.4	A	18:07:30	2021-5-19	1
490	489	48.2	A	18:08:30	2021-5-19	1
491	490	47.4	A	18:09:30	2021-5-19	1
492	491	50	A	18:10:30	2021-5-19	1
493	492	47.3	A	18:11:30	2021-5-19	1
494	493	50.1	A	18:12:30	2021-5-19	1
495	494	51.3	A	18:13:30	2021-5-19	1
496	495	52.1	A	18:14:30	2021-5-19	1
497	496	48.1	A	18:15:30	2021-5-19	1
498	497	48.7	A	18:16:30	2021-5-19	1
499	498	48.5	A	18:17:30	2021-5-19	1
500	499	47.9	A	18:18:30	2021-5-19	1
501	500	53.4	A	18:19:30	2021-5-19	1
502	501	49.2	A	18:20:30	2021-5-19	1
503	502	50.1	A	18:21:30	2021-5-19	1
504	503	53.7	A	18:22:30	2021-5-19	1
505	504	46.6	A	18:23:30	2021-5-19	1
506	505	48.3	A	18:24:30	2021-5-19	1
507	506	46.8	A	18:25:30	2021-5-19	1
508	507	49	A	18:26:30	2021-5-19	1
509	508	50.4	A	18:27:30	2021-5-19	1
510	509	47.3	A	18:28:30	2021-5-19	1
511	510	49.8	A	18:29:30	2021-5-19	1
512	511	47.4	A	18:30:30	2021-5-19	1

453	452	54.4	A	17:31:30	2021-5-19	1
454	453	52.2	A	17:32:30	2021-5-19	1
455	454	52.9	A	17:33:30	2021-5-19	1
456	455	53.2	A	17:34:30	2021-5-19	1
457	456	54.7	A	17:35:30	2021-5-19	1
458	457	48.6	A	17:36:30	2021-5-19	1
459	458	48.1	A	17:37:30	2021-5-19	1
460	459	53.4	A	17:38:30	2021-5-19	1
461	460	53.1	A	17:39:30	2021-5-19	1
462	461	48.8	A	17:40:30	2021-5-19	1
463	462	49	A	17:41:30	2021-5-19	1
464	463	47.9	A	17:42:30	2021-5-19	1
465	464	49.1	A	17:43:30	2021-5-19	1
466	465	48	A	17:44:30	2021-5-19	1
467	466	48.7	A	17:45:30	2021-5-19	1
468	467	48.7	A	17:46:30	2021-5-19	1
469	468	47.1	A	17:47:30	2021-5-19	1
470	469	47.6	A	17:48:30	2021-5-19	1
471	470	50.7	A	17:49:30	2021-5-19	1
472	471	48.6	A	17:50:30	2021-5-19	1
473	472	47.7	A	17:51:30	2021-5-19	1
474	473	48.7	A	17:52:30	2021-5-19	1
475	474	49.6	A	17:53:30	2021-5-19	1
476	475	60.5	A	17:54:30	2021-5-19	1
477	476	49.7	A	17:55:30	2021-5-19	1
478	477	47.1	A	17:56:30	2021-5-19	1
479	478	49.2	A	17:57:30	2021-5-19	1
480	479	49.7	A	17:58:30	2021-5-19	1
481	480	48.3	A	17:59:30	2021-5-19	1

513	512	47.5	A	18:31:30	2021-5-19	1
514	513	49.1	A	18:32:30	2021-5-19	1
515	514	49.6	A	18:33:30	2021-5-19	1
516	515	50	A	18:34:30	2021-5-19	1
517	516	49.2	A	18:35:30	2021-5-19	1
518	517	51.5	A	18:36:30	2021-5-19	1
519	518	48.3	A	18:37:30	2021-5-19	1
520	519	53	A	18:38:30	2021-5-19	1
521	520	48.7	A	18:39:30	2021-5-19	1
522	521	50.1	A	18:40:30	2021-5-19	1
523	522	48.9	A	18:41:30	2021-5-19	1
524	523	48.2	A	18:42:30	2021-5-19	1
525	524	50.4	A	18:43:30	2021-5-19	1
526	525	50.3	A	18:44:30	2021-5-19	1
527	526	49.7	A	18:45:30	2021-5-19	1
528	527	50.9	A	18:46:30	2021-5-19	1
529	528	51.2	A	18:47:30	2021-5-19	1
530	529	48.7	A	18:48:30	2021-5-19	1
531	530	48.6	A	18:49:30	2021-5-19	1
532	531	55	A	18:50:30	2021-5-19	1
533	532	49.1	A	18:51:30	2021-5-19	1
534	533	48.2	A	18:52:30	2021-5-19	1
535	534	48.8	A	18:53:30	2021-5-19	1
536	535	48.5	A	18:54:30	2021-5-19	1
537	536	49.9	A	18:55:30	2021-5-19	1
538	537	50.3	A	18:56:30	2021-5-19	1
539	538	50.1	A	18:57:30	2021-5-19	1
540	539	49.2	A	18:58:30	2021-5-19	1
541	540	49.9	A	18:59:30	2021-5-19	1

542	541	48.9	A	19:00:30	2021-5-19	1
543	542	48.9	A	19:01:30	2021-5-19	1
544	543	50.9	A	19:02:30	2021-5-19	1
545	544	49.3	A	19:03:30	2021-5-19	1
546	545	49.3	A	19:04:30	2021-5-19	1
547	546	49	A	19:05:30	2021-5-19	1
548	547	48.7	A	19:06:30	2021-5-19	1
549	548	47.8	A	19:07:30	2021-5-19	1
550	549	49.2	A	19:08:30	2021-5-19	1
551	550	49.3	A	19:09:30	2021-5-19	1
552	551	55.5	A	19:10:30	2021-5-19	1
553	552	61.2	A	19:11:30	2021-5-19	1
554	553	50.8	A	19:12:30	2021-5-19	1
555	554	50	A	19:13:30	2021-5-19	1
556	555	48.4	A	19:14:30	2021-5-19	1
557	556	49.5	A	19:15:30	2021-5-19	1
558	557	48.3	A	19:16:30	2021-5-19	1
559	558	49.9	A	19:17:30	2021-5-19	1
560	559	48.5	A	19:18:30	2021-5-19	1
561	560	49.3	A	19:19:30	2021-5-19	1
562	561	48.3	A	19:20:30	2021-5-19	1
563	562	48	A	19:21:30	2021-5-19	1
564	563	49.5	A	19:22:30	2021-5-19	1
565	564	49.4	A	19:23:30	2021-5-19	1
566	565	50.8	A	19:24:30	2021-5-19	1
567	566	49	A	19:25:30	2021-5-19	1
568	567	52.9	A	19:26:30	2021-5-19	1
569	568	49.8	A	19:27:30	2021-5-19	1
570	569	49.7	A	19:28:30	2021-5-19	1
571	570	49.1	A	19:29:30	2021-5-19	1
572	571	52.8	A	19:30:30	2021-5-19	1

602	601	48.6	A	20:00:30	2021-5-19	1
603	602	49.2	A	20:01:30	2021-5-19	1
604	603	48.8	A	20:02:30	2021-5-19	1
605	604	49.4	A	20:03:30	2021-5-19	1
606	605	48.9	A	20:04:30	2021-5-19	1
607	606	49	A	20:05:30	2021-5-19	1
608	607	49.1	A	20:06:30	2021-5-19	1
609	608	48.9	A	20:07:30	2021-5-19	1
610	609	48.5	A	20:08:30	2021-5-19	1
611	610	48.9	A	20:09:30	2021-5-19	1
612	611	48.2	A	20:10:30	2021-5-19	1
613	612	49.1	A	20:11:30	2021-5-19	1
614	613	49.9	A	20:12:30	2021-5-19	1
615	614	49.1	A	20:13:30	2021-5-19	1
616	615	49.3	A	20:14:30	2021-5-19	1
617	616	48.3	A	20:15:30	2021-5-19	1
618	617	49	A	20:16:30	2021-5-19	1
619	618	49.9	A	20:17:30	2021-5-19	1
620	619	49.3	A	20:18:30	2021-5-19	1
621	620	49	A	20:19:30	2021-5-19	1
622	621	49.2	A	20:20:30	2021-5-19	1
623	622	49	A	20:21:30	2021-5-19	1
624	623	49.8	A	20:22:30	2021-5-19	1
625	624	50.2	A	20:23:30	2021-5-19	1
626	625	48.5	A	20:24:30	2021-5-19	1
627	626	48.4	A	20:25:30	2021-5-19	1
628	627	49.4	A	20:26:30	2021-5-19	1
629	628	48.7	A	20:27:30	2021-5-19	1
630	629	48.8	A	20:28:30	2021-5-19	1
631	630	48.6	A	20:29:30	2021-5-19	1
632	631	49.9	A	20:30:30	2021-5-19	1

573	572	48.6	A	19:31:30	2021-5-19	1
574	573	49.4	A	19:32:30	2021-5-19	1
575	574	49.6	A	19:33:30	2021-5-19	1
576	575	48.6	A	19:34:30	2021-5-19	1
577	576	48.8	A	19:35:30	2021-5-19	1
578	577	51.2	A	19:36:30	2021-5-19	1
579	578	50.4	A	19:37:30	2021-5-19	1
580	579	50.5	A	19:38:30	2021-5-19	1
581	580	49.9	A	19:39:30	2021-5-19	1
582	581	48.6	A	19:40:30	2021-5-19	1
583	582	52.1	A	19:41:30	2021-5-19	1
584	583	50.3	A	19:42:30	2021-5-19	1
585	584	48.8	A	19:43:30	2021-5-19	1
586	585	50	A	19:44:30	2021-5-19	1
587	586	48.6	A	19:45:30	2021-5-19	1
588	587	48.6	A	19:46:30	2021-5-19	1
589	588	49.6	A	19:47:30	2021-5-19	1
590	589	49.4	A	19:48:30	2021-5-19	1
591	590	49.1	A	19:49:30	2021-5-19	1
592	591	49.9	A	19:50:30	2021-5-19	1
593	592	48.2	A	19:51:30	2021-5-19	1
594	593	48.4	A	19:52:30	2021-5-19	1
595	594	49.1	A	19:53:30	2021-5-19	1
596	595	50.5	A	19:54:30	2021-5-19	1
597	596	49.1	A	19:55:30	2021-5-19	1
598	597	50.8	A	19:56:30	2021-5-19	1
599	598	50.2	A	19:57:30	2021-5-19	1
600	599	50	A	19:58:30	2021-5-19	1
601	600	50.4	A	19:59:30	2021-5-19	1

633	632	49.3	A	20:31:30	2021-5-19	1
634	633	48.4	A	20:32:30	2021-5-19	1
635	634	49.6	A	20:33:30	2021-5-19	1
636	635	49.2	A	20:34:30	2021-5-19	1
637	636	49	A	20:35:30	2021-5-19	1
638	637	48.6	A	20:36:30	2021-5-19	1
639	638	48.7	A	20:37:30	2021-5-19	1
640	639	48.8	A	20:38:30	2021-5-19	1
641	640	49.1	A	20:39:30	2021-5-19	1
642	641	48.8	A	20:40:30	2021-5-19	1
643	642	48.8	A	20:41:30	2021-5-19	1
644	643	48.9	A	20:42:30	2021-5-19	1
645	644	49	A	20:43:30	2021-5-19	1
646	645	48.3	A	20:44:30	2021-5-19	1
647	646	48.2	A	20:45:30	2021-5-19	1
648	647	49.3	A	20:46:30	2021-5-19	1
649	648	48.7	A	20:47:30	2021-5-19	1
650	649	49.4	A	20:48:30	2021-5-19	1
651	650	48.7	A	20:49:30	2021-5-19	1
652	651	48.6	A	20:50:30	2021-5-19	1
653	652	50.1	A	20:51:30	2021-5-19	1
654	653	48.8	A	20:52:30	2021-5-19	1
655	654	48.8	A	20:53:30	2021-5-19	1
656	655	49	A	20:54:30	2021-5-19	1
657	656	50.8	A	20:55:30	2021-5-19	1
658	657	48.6	A	20:56:30	2021-5-19	1
659	658	49.5	A	20:57:30	2021-5-19	1
660	659	49.1	A	20:58:30	2021-5-19	1
661	660	48.3	A	20:59:30	2021-5-19	1

662	661	49.5	A	21:00:30	2021-5-19	1
663	662	48.6	A	21:01:30	2021-5-19	1
664	663	48.7	A	21:02:30	2021-5-19	1
665	664	49	A	21:03:30	2021-5-19	1
666	665	48.4	A	21:04:30	2021-5-19	1
667	666	49.1	A	21:05:30	2021-5-19	1
668	667	49.9	A	21:06:30	2021-5-19	1
669	668	48.9	A	21:07:30	2021-5-19	1
670	669	48.9	A	21:08:30	2021-5-19	1
671	670	48.6	A	21:09:30	2021-5-19	1
672	671	51.8	A	21:10:30	2021-5-19	1
673	672	49.1	A	21:11:30	2021-5-19	1
674	673	48.2	A	21:12:30	2021-5-19	1
675	674	48.8	A	21:13:30	2021-5-19	1
676	675	49.4	A	21:14:30	2021-5-19	1
677	676	48.9	A	21:15:30	2021-5-19	1
678	677	50.8	A	21:16:30	2021-5-19	1
679	678	49.8	A	21:17:30	2021-5-19	1
680	679	48.7	A	21:18:30	2021-5-19	1
681	680	48.9	A	21:19:30	2021-5-19	1
682	681	48.8	A	21:20:30	2021-5-19	1
683	682	48.8	A	21:21:30	2021-5-19	1
684	683	50.2	A	21:22:30	2021-5-19	1
685	684	49.2	A	21:23:30	2021-5-19	1
686	685	50.1	A	21:24:30	2021-5-19	1
687	686	49	A	21:25:30	2021-5-19	1
688	687	48.8	A	21:26:30	2021-5-19	1
689	688	50.1	A	21:27:30	2021-5-19	1
690	689	48.5	A	21:28:30	2021-5-19	1
691	690	48.4	A	21:29:30	2021-5-19	1
692	691	48.9	A	21:30:30	2021-5-19	1

722	721	50.2	A	22:00:30	2021-5-19	1
723	722	49.5	A	22:01:30	2021-5-19	1
724	723	49.1	A	22:02:30	2021-5-19	1
725	724	49	A	22:03:30	2021-5-19	1
726	725	48.6	A	22:04:30	2021-5-19	1
727	726	49.6	A	22:05:30	2021-5-19	1
728	727	49.5	A	22:06:30	2021-5-19	1
729	728	49.1	A	22:07:30	2021-5-19	1
730	729	48.9	A	22:08:30	2021-5-19	1
731	730	50.8	A	22:09:30	2021-5-19	1
732	731	50	A	22:10:30	2021-5-19	1
733	732	49.2	A	22:11:30	2021-5-19	1
734	733	50.1	A	22:12:30	2021-5-19	1
735	734	68.1	A	22:13:30	2021-5-19	1
736	735	48.6	A	22:14:30	2021-5-19	1
737	736	48.4	A	22:15:30	2021-5-19	1
738	737	49.4	A	22:16:30	2021-5-19	1
739	738	46.4	A	22:17:30	2021-5-19	1
740	739	47.5	A	22:18:30	2021-5-19	1
741	740	46.7	A	22:19:30	2021-5-19	1
742	741	46.9	A	22:20:30	2021-5-19	1
743	742	47	A	22:21:30	2021-5-19	1
744	743	47.2	A	22:22:30	2021-5-19	1
745	744	46.7	A	22:23:30	2021-5-19	1
746	745	46.5	A	22:24:30	2021-5-19	1
747	746	46.5	A	22:25:30	2021-5-19	1
748	747	46.6	A	22:26:30	2021-5-19	1
749	748	47.7	A	22:27:30	2021-5-19	1
750	749	47.5	A	22:28:30	2021-5-19	1
751	750	46.6	A	22:29:30	2021-5-19	1
752	751	46.3	A	22:30:30	2021-5-19	1

693	692	49	A	21:31:30	2021-5-19	1
694	693	49.1	A	21:32:30	2021-5-19	1
695	694	49	A	21:33:30	2021-5-19	1
696	695	50.7	A	21:34:30	2021-5-19	1
697	696	48.8	A	21:35:30	2021-5-19	1
698	697	49.2	A	21:36:30	2021-5-19	1
699	698	49.2	A	21:37:30	2021-5-19	1
700	699	49	A	21:38:30	2021-5-19	1
701	700	49.2	A	21:39:30	2021-5-19	1
702	701	48.9	A	21:40:30	2021-5-19	1
703	702	48.5	A	21:41:30	2021-5-19	1
704	703	48.9	A	21:42:30	2021-5-19	1
705	704	48.9	A	21:43:30	2021-5-19	1
706	705	48.8	A	21:44:30	2021-5-19	1
707	706	48.9	A	21:45:30	2021-5-19	1
708	707	49.1	A	21:46:30	2021-5-19	1
709	708	50.2	A	21:47:30	2021-5-19	1
710	709	50.2	A	21:48:30	2021-5-19	1
711	710	48.9	A	21:49:30	2021-5-19	1
712	711	49.3	A	21:50:30	2021-5-19	1
713	712	48.1	A	21:51:30	2021-5-19	1
714	713	48.9	A	21:52:30	2021-5-19	1
715	714	48.6	A	21:53:30	2021-5-19	1
716	715	48.5	A	21:54:30	2021-5-19	1
717	716	49.1	A	21:55:30	2021-5-19	1
718	717	48.3	A	21:56:30	2021-5-19	1
719	718	48.7	A	21:57:30	2021-5-19	1
720	719	48.3	A	21:58:30	2021-5-19	1
721	720	48.9	A	21:59:30	2021-5-19	1

753	752	46.4	A	22:31:30	2021-5-19	1
754	753	47.2	A	22:32:30	2021-5-19	1
755	754	46.8	A	22:33:30	2021-5-19	1
756	755	47.3	A	22:34:30	2021-5-19	1
757	756	46.7	A	22:35:30	2021-5-19	1
758	757	46.6	A	22:36:30	2021-5-19	1
759	758	46.8	A	22:37:30	2021-5-19	1
760	759	46.6	A	22:38:30	2021-5-19	1
761	760	46.2	A	22:39:30	2021-5-19	1
762	761	47.6	A	22:40:30	2021-5-19	1
763	762	47.2	A	22:41:30	2021-5-19	1
764	763	47.9	A	22:42:30	2021-5-19	1
765	764	46.6	A	22:43:30	2021-5-19	1
766	765	47.4	A	22:44:30	2021-5-19	1
767	766	46.5	A	22:45:30	2021-5-19	1
768	767	48.1	A	22:46:30	2021-5-19	1
769	768	47	A	22:47:30	2021-5-19	1
770	769	46.2	A	22:48:30	2021-5-19	1
771	770	46.2	A	22:49:30	2021-5-19	1
772	771	46.9	A	22:50:30	2021-5-19	1
773	772	46.7	A	22:51:30	2021-5-19	1
774	773	47	A	22:52:30	2021-5-19	1
775	774	47.1	A	22:53:30	2021-5-19	1
776	775	47.3	A	22:54:30	2021-5-19	1
777	776	47.5	A	22:55:30	2021-5-19	1
778	777	46.2	A	22:56:30	2021-5-19	1
779	778	46.7	A	22:57:30	2021-5-19	1
780	779	45.8	A	22:58:30	2021-5-19	1
781	780	46.4	A	22:59:30	2021-5-19	1

782	781	47.4	A	23:00:30	2021-5-19	1
783	782	46.5	A	23:01:30	2021-5-19	1
784	783	47.2	A	23:02:30	2021-5-19	1
785	784	47	A	23:03:30	2021-5-19	1
786	785	46.7	A	23:04:30	2021-5-19	1
787	786	46.9	A	23:05:30	2021-5-19	1
788	787	46.5	A	23:06:30	2021-5-19	1
789	788	46.8	A	23:07:30	2021-5-19	1
790	789	46.3	A	23:08:30	2021-5-19	1
791	790	46.7	A	23:09:30	2021-5-19	1
792	791	45.7	A	23:10:30	2021-5-19	1
793	792	46.2	A	23:11:30	2021-5-19	1
794	793	46.3	A	23:12:30	2021-5-19	1
795	794	46.1	A	23:13:30	2021-5-19	1
796	795	46.1	A	23:14:30	2021-5-19	1
797	796	46.8	A	23:15:30	2021-5-19	1
798	797	46.2	A	23:16:30	2021-5-19	1
799	798	47.1	A	23:17:30	2021-5-19	1
800	799	47.2	A	23:18:30	2021-5-19	1
801	800	46.8	A	23:19:30	2021-5-19	1
802	801	46.4	A	23:20:30	2021-5-19	1
803	802	46.4	A	23:21:30	2021-5-19	1
804	803	49.3	A	23:22:30	2021-5-19	1
805	804	46.9	A	23:23:30	2021-5-19	1
806	805	46.7	A	23:24:30	2021-5-19	1
807	806	46.1	A	23:25:30	2021-5-19	1
808	807	46.7	A	23:26:30	2021-5-19	1
809	808	46.2	A	23:27:30	2021-5-19	1
810	809	46.4	A	23:28:30	2021-5-19	1
811	810	46	A	23:29:30	2021-5-19	1
812	811	46.3	A	23:30:30	2021-5-19	1

842	841	46.5	A	0:00:30	2021-5-20	1
843	842	46.8	A	0:01:30	2021-5-20	1
844	843	46.7	A	0:02:30	2021-5-20	1
845	844	46.7	A	0:03:30	2021-5-20	1
846	845	46.1	A	0:04:30	2021-5-20	1
847	846	47.1	A	0:05:30	2021-5-20	1
848	847	47.7	A	0:06:30	2021-5-20	1
849	848	45.7	A	0:07:30	2021-5-20	1
850	849	46.9	A	0:08:30	2021-5-20	1
851	850	47.1	A	0:09:30	2021-5-20	1
852	851	46	A	0:10:30	2021-5-20	1
853	852	46.9	A	0:11:30	2021-5-20	1
854	853	46.4	A	0:12:30	2021-5-20	1
855	854	46.9	A	0:13:30	2021-5-20	1
856	855	47	A	0:14:30	2021-5-20	1
857	856	46.3	A	0:15:30	2021-5-20	1
858	857	46.2	A	0:16:30	2021-5-20	1
859	858	46.6	A	0:17:30	2021-5-20	1
860	859	46.4	A	0:18:30	2021-5-20	1
861	860	46.4	A	0:19:30	2021-5-20	1
862	861	47.3	A	0:20:30	2021-5-20	1
863	862	47.1	A	0:21:30	2021-5-20	1
864	863	46.5	A	0:22:30	2021-5-20	1
865	864	46.9	A	0:23:30	2021-5-20	1
866	865	46.9	A	0:24:30	2021-5-20	1
867	866	48	A	0:25:30	2021-5-20	1
868	867	46.4	A	0:26:30	2021-5-20	1
869	868	47.2	A	0:27:30	2021-5-20	1
870	869	46.7	A	0:28:30	2021-5-20	1
871	870	46.2	A	0:29:30	2021-5-20	1
872	871	46.4	A	0:30:30	2021-5-20	1

813	812	46.5	A	23:31:30	2021-5-19	1
814	813	46.7	A	23:32:30	2021-5-19	1
815	814	46.2	A	23:33:30	2021-5-19	1
816	815	46.5	A	23:34:30	2021-5-19	1
817	816	47	A	23:35:30	2021-5-19	1
818	817	46.8	A	23:36:30	2021-5-19	1
819	818	46.7	A	23:37:30	2021-5-19	1
820	819	46.5	A	23:38:30	2021-5-19	1
821	820	46.8	A	23:39:30	2021-5-19	1
822	821	46.5	A	23:40:30	2021-5-19	1
823	822	46	A	23:41:30	2021-5-19	1
824	823	47.4	A	23:42:30	2021-5-19	1
825	824	46.2	A	23:43:30	2021-5-19	1
826	825	46.4	A	23:44:30	2021-5-19	1
827	826	47.7	A	23:45:30	2021-5-19	1
828	827	46.5	A	23:46:30	2021-5-19	1
829	828	47.4	A	23:47:30	2021-5-19	1
830	829	46.9	A	23:48:30	2021-5-19	1
831	830	47	A	23:49:30	2021-5-19	1
832	831	46.4	A	23:50:30	2021-5-19	1
833	832	45.9	A	23:51:30	2021-5-19	1
834	833	46.5	A	23:52:30	2021-5-19	1
835	834	46	A	23:53:30	2021-5-19	1
836	835	46.2	A	23:54:30	2021-5-19	1
837	836	46.4	A	23:55:30	2021-5-19	1
838	837	48.4	A	23:56:30	2021-5-19	1
839	838	46.3	A	23:57:30	2021-5-19	1
840	839	48.1	A	23:58:30	2021-5-19	1
841	840	46	A	23:59:30	2021-5-19	1

873	872	47.6	A	0:31:30	2021-5-20	1
874	873	45.8	A	0:32:30	2021-5-20	1
875	874	46.4	A	0:33:30	2021-5-20	1
876	875	47	A	0:34:30	2021-5-20	1
877	876	47	A	0:35:30	2021-5-20	1
878	877	47.7	A	0:36:30	2021-5-20	1
879	878	47.2	A	0:37:30	2021-5-20	1
880	879	46.5	A	0:38:30	2021-5-20	1
881	880	47.1	A	0:39:30	2021-5-20	1
882	881	47.1	A	0:40:30	2021-5-20	1
883	882	46.9	A	0:41:30	2021-5-20	1
884	883	46.6	A	0:42:30	2021-5-20	1
885	884	46.7	A	0:43:30	2021-5-20	1
886	885	46.2	A	0:44:30	2021-5-20	1
887	886	47	A	0:45:30	2021-5-20	1
888	887	46.5	A	0:46:30	2021-5-20	1
889	888	46.6	A	0:47:30	2021-5-20	1
890	889	46.3	A	0:48:30	2021-5-20	1
891	890	46.5	A	0:49:30	2021-5-20	1
892	891	47.2	A	0:50:30	2021-5-20	1
893	892	47.1	A	0:51:30	2021-5-20	1
894	893	56.2	A	0:52:30	2021-5-20	1
895	894	57.3	A	0:53:30	2021-5-20	1
896	895	57.4	A	0:54:30	2021-5-20	1
897	896	56.9	A	0:55:30	2021-5-20	1
898	897	55.7	A	0:56:30	2021-5-20	1
899	898	48.1	A	0:57:30	2021-5-20	1
900	899	48.6	A	0:58:30	2021-5-20	1
901	900	46.7	A	0:59:30	2021-5-20	1

902	901	47.3	A	1:00:30	2021-5-20	1
903	902	46.6	A	1:01:30	2021-5-20	1
904	903	47.3	A	1:02:30	2021-5-20	1
905	904	47.6	A	1:03:30	2021-5-20	1
906	905	47	A	1:04:30	2021-5-20	1
907	906	47.9	A	1:05:30	2021-5-20	1
908	907	47.1	A	1:06:30	2021-5-20	1
909	908	47	A	1:07:30	2021-5-20	1
910	909	47.4	A	1:08:30	2021-5-20	1
911	910	47.6	A	1:09:30	2021-5-20	1
912	911	46.5	A	1:10:30	2021-5-20	1
913	912	56.1	A	1:11:30	2021-5-20	1
914	913	56.4	A	1:12:30	2021-5-20	1
915	914	56.7	A	1:13:30	2021-5-20	1
916	915	55.8	A	1:14:30	2021-5-20	1
917	916	56.2	A	1:15:30	2021-5-20	1
918	917	48.9	A	1:16:30	2021-5-20	1
919	918	48.2	A	1:17:30	2021-5-20	1
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921	920	47.6	A	1:19:30	2021-5-20	1
922	921	47.1	A	1:20:30	2021-5-20	1
923	922	47.5	A	1:21:30	2021-5-20	1
924	923	46.9	A	1:22:30	2021-5-20	1
925	924	47	A	1:23:30	2021-5-20	1
926	925	46.8	A	1:24:30	2021-5-20	1
927	926	47.1	A	1:25:30	2021-5-20	1
928	927	47.1	A	1:26:30	2021-5-20	1
929	928	47.6	A	1:27:30	2021-5-20	1
930	929	47.3	A	1:28:30	2021-5-20	1
931	930	46.8	A	1:29:30	2021-5-20	1
932	931	47.3	A	1:30:30	2021-5-20	1

962	961	48.7	A	2:00:30	2021-5-20	1
963	962	46.8	A	2:01:30	2021-5-20	1
964	963	46.6	A	2:02:30	2021-5-20	1
965	964	47.8	A	2:03:30	2021-5-20	1
966	965	47.2	A	2:04:30	2021-5-20	1
967	966	47.6	A	2:05:30	2021-5-20	1
968	967	47.1	A	2:06:30	2021-5-20	1
969	968	49.2	A	2:07:30	2021-5-20	1
970	969	49.4	A	2:08:30	2021-5-20	1
971	970	49.7	A	2:09:30	2021-5-20	1
972	971	49.4	A	2:10:30	2021-5-20	1
973	972	50	A	2:11:30	2021-5-20	1
974	973	49.4	A	2:12:30	2021-5-20	1
975	974	49.3	A	2:13:30	2021-5-20	1
976	975	50.5	A	2:14:30	2021-5-20	1
977	976	49.9	A	2:15:30	2021-5-20	1
978	977	49.9	A	2:16:30	2021-5-20	1
979	978	48.8	A	2:17:30	2021-5-20	1
980	979	51	A	2:18:30	2021-5-20	1
981	980	49.3	A	2:19:30	2021-5-20	1
982	981	49.4	A	2:20:30	2021-5-20	1
983	982	49.4	A	2:21:30	2021-5-20	1
984	983	49.4	A	2:22:30	2021-5-20	1
985	984	48.8	A	2:23:30	2021-5-20	1
986	985	48.8	A	2:24:30	2021-5-20	1
987	986	49.2	A	2:25:30	2021-5-20	1
988	987	50.6	A	2:26:30	2021-5-20	1
989	988	49.9	A	2:27:30	2021-5-20	1
990	989	49.1	A	2:28:30	2021-5-20	1
991	990	49.2	A	2:29:30	2021-5-20	1
992	991	51.2	A	2:30:30	2021-5-20	1

933	932	46.4	A	1:31:30	2021-5-20	1
934	933	47.8	A	1:32:30	2021-5-20	1
935	934	46.9	A	1:33:30	2021-5-20	1
936	935	46.9	A	1:34:30	2021-5-20	1
937	936	46.8	A	1:35:30	2021-5-20	1
938	937	47.5	A	1:36:30	2021-5-20	1
939	938	46.7	A	1:37:30	2021-5-20	1
940	939	47	A	1:38:30	2021-5-20	1
941	940	47.6	A	1:39:30	2021-5-20	1
942	941	47.2	A	1:40:30	2021-5-20	1
943	942	46.3	A	1:41:30	2021-5-20	1
944	943	47.5	A	1:42:30	2021-5-20	1
945	944	47.4	A	1:43:30	2021-5-20	1
946	945	47.3	A	1:44:30	2021-5-20	1
947	946	47.4	A	1:45:30	2021-5-20	1
948	947	46.9	A	1:46:30	2021-5-20	1
949	948	46.9	A	1:47:30	2021-5-20	1
950	949	47.6	A	1:48:30	2021-5-20	1
951	950	47.6	A	1:49:30	2021-5-20	1
952	951	46.9	A	1:50:30	2021-5-20	1
953	952	47.7	A	1:51:30	2021-5-20	1
954	953	47	A	1:52:30	2021-5-20	1
955	954	46.7	A	1:53:30	2021-5-20	1
956	955	47.3	A	1:54:30	2021-5-20	1
957	956	46.8	A	1:55:30	2021-5-20	1
958	957	47.8	A	1:56:30	2021-5-20	1
959	958	47.2	A	1:57:30	2021-5-20	1
960	959	47.4	A	1:58:30	2021-5-20	1
961	960	47.3	A	1:59:30	2021-5-20	1

993	992	49.1	A	2:31:30	2021-5-20	1
994	993	49.8	A	2:32:30	2021-5-20	1
995	994	49.2	A	2:33:30	2021-5-20	1
996	995	49.2	A	2:34:30	2021-5-20	1
997	996	47.8	A	2:35:30	2021-5-20	1
998	997	49.2	A	2:36:30	2021-5-20	1
999	998	50.1	A	2:37:30	2021-5-20	1
1000	999	49.5	A	2:38:30	2021-5-20	1
1001	1000	50.4	A	2:39:30	2021-5-20	1
1002	1001	49.1	A	2:40:30	2021-5-20	1
1003	1002	49	A	2:41:30	2021-5-20	1
1004	1003	49.1	A	2:42:30	2021-5-20	1
1005	1004	50.6	A	2:43:30	2021-5-20	1
1006	1005	49.9	A	2:44:30	2021-5-20	1
1007	1006	49.1	A	2:45:30	2021-5-20	1
1008	1007	49.3	A	2:46:30	2021-5-20	1
1009	1008	49.2	A	2:47:30	2021-5-20	1
1010	1009	49.3	A	2:48:30	2021-5-20	1
1011	1010	49.9	A	2:49:30	2021-5-20	1
1012	1011	50.6	A	2:50:30	2021-5-20	1
1013	1012	48.8	A	2:51:30	2021-5-20	1
1014	1013	51.4	A	2:52:30	2021-5-20	1
1015	1014	49.7	A	2:53:30	2021-5-20	1
1016	1015	49.7	A	2:54:30	2021-5-20	1
1017	1016	50.1	A	2:55:30	2021-5-20	1
1018	1017	49.8	A	2:56:30	2021-5-20	1
1019	1018	50.2	A	2:57:30	2021-5-20	1
1020	1019	49.5	A	2:58:30	2021-5-20	1
1021	1020	48.9	A	2:59:30	2021-5-20	1

1022	1021	49.2	A	3:00:30	2021-5-20	1
1023	1022	49.5	A	3:01:30	2021-5-20	1
1024	1023	49.8	A	3:02:30	2021-5-20	1
1025	1024	49.4	A	3:03:30	2021-5-20	1
1026	1025	49.1	A	3:04:30	2021-5-20	1
1027	1026	49.6	A	3:05:30	2021-5-20	1
1028	1027	49.2	A	3:06:30	2021-5-20	1
1029	1028	48.7	A	3:07:30	2021-5-20	1
1030	1029	49.4	A	3:08:30	2021-5-20	1
1031	1030	49.6	A	3:09:30	2021-5-20	1
1032	1031	49.3	A	3:10:30	2021-5-20	1
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1034	1033	49.2	A	3:12:30	2021-5-20	1
1035	1034	52.2	A	3:13:30	2021-5-20	1
1036	1035	50.3	A	3:14:30	2021-5-20	1
1037	1036	51.6	A	3:15:30	2021-5-20	1
1038	1037	49.5	A	3:16:30	2021-5-20	1
1039	1038	50	A	3:17:30	2021-5-20	1
1040	1039	49.2	A	3:18:30	2021-5-20	1
1041	1040	49.6	A	3:19:30	2021-5-20	1
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1043	1042	48.8	A	3:21:30	2021-5-20	1
1044	1043	49.9	A	3:22:30	2021-5-20	1
1045	1044	49.9	A	3:23:30	2021-5-20	1
1046	1045	48.9	A	3:24:30	2021-5-20	1
1047	1046	48.9	A	3:25:30	2021-5-20	1
1048	1047	49.6	A	3:26:30	2021-5-20	1
1049	1048	48.9	A	3:27:30	2021-5-20	1
1050	1049	49.4	A	3:28:30	2021-5-20	1
1051	1050	49.9	A	3:29:30	2021-5-20	1
1052	1051	48.5	A	3:30:30	2021-5-20	1

1082	1081	52.9	A	4:00:30	2021-5-20	1
1083	1082	49.9	A	4:01:30	2021-5-20	1
1084	1083	49.6	A	4:02:30	2021-5-20	1
1085	1084	54.2	A	4:03:30	2021-5-20	1
1086	1085	49.2	A	4:04:30	2021-5-20	1
1087	1086	49.5	A	4:05:30	2021-5-20	1
1088	1087	49.9	A	4:06:30	2021-5-20	1
1089	1088	50.7	A	4:07:30	2021-5-20	1
1090	1089	49	A	4:08:30	2021-5-20	1
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1094	1093	51.7	A	4:12:30	2021-5-20	1
1095	1094	49.9	A	4:13:30	2021-5-20	1
1096	1095	50	A	4:14:30	2021-5-20	1
1097	1096	50.4	A	4:15:30	2021-5-20	1
1098	1097	50.3	A	4:16:30	2021-5-20	1
1099	1098	52.1	A	4:17:30	2021-5-20	1
1100	1099	52.6	A	4:18:30	2021-5-20	1
1101	1100	51.2	A	4:19:30	2021-5-20	1
1102	1101	49.8	A	4:20:30	2021-5-20	1
1103	1102	51.1	A	4:21:30	2021-5-20	1
1104	1103	51.5	A	4:22:30	2021-5-20	1
1105	1104	50.8	A	4:23:30	2021-5-20	1
1106	1105	55	A	4:24:30	2021-5-20	1
1107	1106	50	A	4:25:30	2021-5-20	1
1108	1107	53.2	A	4:26:30	2021-5-20	1
1109	1108	51.2	A	4:27:30	2021-5-20	1
1110	1109	52.9	A	4:28:30	2021-5-20	1
1111	1110	55.9	A	4:29:30	2021-5-20	1
1112	1111	58.1	A	4:30:30	2021-5-20	1

1053	1052	49.3	A	3:31:30	2021-5-20	1
1054	1053	48.4	A	3:32:30	2021-5-20	1
1055	1054	50.2	A	3:33:30	2021-5-20	1
1056	1055	49.6	A	3:34:30	2021-5-20	1
1057	1056	49.3	A	3:35:30	2021-5-20	1
1058	1057	49.3	A	3:36:30	2021-5-20	1
1059	1058	49.1	A	3:37:30	2021-5-20	1
1060	1059	48.9	A	3:38:30	2021-5-20	1
1061	1060	48.7	A	3:39:30	2021-5-20	1
1062	1061	50.8	A	3:40:30	2021-5-20	1
1063	1062	50.1	A	3:41:30	2021-5-20	1
1064	1063	49	A	3:42:30	2021-5-20	1
1065	1064	49.2	A	3:43:30	2021-5-20	1
1066	1065	49.5	A	3:44:30	2021-5-20	1
1067	1066	50.1	A	3:45:30	2021-5-20	1
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1069	1068	50.6	A	3:47:30	2021-5-20	1
1070	1069	49.1	A	3:48:30	2021-5-20	1
1071	1070	49.4	A	3:49:30	2021-5-20	1
1072	1071	49	A	3:50:30	2021-5-20	1
1073	1072	49.6	A	3:51:30	2021-5-20	1
1074	1073	48.8	A	3:52:30	2021-5-20	1
1075	1074	49.3	A	3:53:30	2021-5-20	1
1076	1075	49.5	A	3:54:30	2021-5-20	1
1077	1076	49.7	A	3:55:30	2021-5-20	1
1078	1077	49.3	A	3:56:30	2021-5-20	1
1079	1078	49.4	A	3:57:30	2021-5-20	1
1080	1079	49.4	A	3:58:30	2021-5-20	1
1081	1080	49.5	A	3:59:30	2021-5-20	1

1113	1112	57.4	A	4:31:30	2021-5-20	1
1114	1113	59	A	4:32:30	2021-5-20	1
1115	1114	56.1	A	4:33:30	2021-5-20	1
1116	1115	56.8	A	4:34:30	2021-5-20	1
1117	1116	59	A	4:35:30	2021-5-20	1
1118	1117	55.6	A	4:36:30	2021-5-20	1
1119	1118	57.8	A	4:37:30	2021-5-20	1
1120	1119	55.8	A	4:38:30	2021-5-20	1
1121	1120	55.4	A	4:39:30	2021-5-20	1
1122	1121	51.2	A	4:40:30	2021-5-20	1
1123	1122	54.4	A	4:41:30	2021-5-20	1
1124	1123	54.2	A	4:42:30	2021-5-20	1
1125	1124	54.4	A	4:43:30	2021-5-20	1
1126	1125	56.8	A	4:44:30	2021-5-20	1
1127	1126	51.6	A	4:45:30	2021-5-20	1
1128	1127	54.2	A	4:46:30	2021-5-20	1
1129	1128	52.8	A	4:47:30	2021-5-20	1
1130	1129	55.3	A	4:48:30	2021-5-20	1
1131	1130	56.3	A	4:49:30	2021-5-20	1
1132	1131	52.7	A	4:50:30	2021-5-20	1
1133	1132	51.3	A	4:51:30	2021-5-20	1
1134	1133	48.4	A	4:52:30	2021-5-20	1
1135	1134	50.3	A	4:53:30	2021-5-20	1
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1138	1137	54.7	A	4:56:30	2021-5-20	1
1139	1138	53.4	A	4:57:30	2021-5-20	1
1140	1139	54.7	A	4:58:30	2021-5-20	1
1141	1140	51.2	A	4:59:30	2021-5-20	1

1142	1141	55.8	A	5:00:30	2021-5-20	1
1143	1142	53.4	A	5:01:30	2021-5-20	1
1144	1143	51.8	A	5:02:30	2021-5-20	1
1145	1144	56.1	A	5:03:30	2021-5-20	1
1146	1145	50.7	A	5:04:30	2021-5-20	1
1147	1146	49.2	A	5:05:30	2021-5-20	1
1148	1147	52	A	5:06:30	2021-5-20	1
1149	1148	54.3	A	5:07:30	2021-5-20	1
1150	1149	55.4	A	5:08:30	2021-5-20	1
1151	1150	54.6	A	5:09:30	2021-5-20	1
1152	1151	57	A	5:10:30	2021-5-20	1
1153	1152	55.4	A	5:11:30	2021-5-20	1
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1157	1156	50.9	A	5:15:30	2021-5-20	1
1158	1157	50.7	A	5:16:30	2021-5-20	1
1159	1158	56.5	A	5:17:30	2021-5-20	1
1160	1159	48.8	A	5:18:30	2021-5-20	1
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1164	1163	51.3	A	5:22:30	2021-5-20	1
1165	1164	50.7	A	5:23:30	2021-5-20	1
1166	1165	56.4	A	5:24:30	2021-5-20	1
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1169	1168	48.4	A	5:27:30	2021-5-20	1
1170	1169	51.7	A	5:28:30	2021-5-20	1
1171	1170	54.4	A	5:29:30	2021-5-20	1
1172	1171	58.6	A	5:30:30	2021-5-20	1

1202	1201	50.6	A	6:00:30	2021-5-20	1
1203	1202	49.2	A	6:01:30	2021-5-20	1
1204	1203	50	A	6:02:30	2021-5-20	1
1205	1204	52.3	A	6:03:30	2021-5-20	1
1206	1205	57.6	A	6:04:30	2021-5-20	1
1207	1206	54.9	A	6:05:30	2021-5-20	1
1208	1207	53.3	A	6:06:30	2021-5-20	1
1209	1208	51	A	6:07:30	2021-5-20	1
1210	1209	49.4	A	6:08:30	2021-5-20	1
1211	1210	53.9	A	6:09:30	2021-5-20	1
1212	1211	52.1	A	6:10:30	2021-5-20	1
1213	1212	54.7	A	6:11:30	2021-5-20	1
1214	1213	57.4	A	6:12:30	2021-5-20	1
1215	1214	56.7	A	6:13:30	2021-5-20	1
1216	1215	58.9	A	6:14:30	2021-5-20	1
1217	1216	54.9	A	6:15:30	2021-5-20	1
1218	1217	55.1	A	6:16:30	2021-5-20	1
1219	1218	53.1	A	6:17:30	2021-5-20	1
1220	1219	49.1	A	6:18:30	2021-5-20	1
1221	1220	49.1	A	6:19:30	2021-5-20	1
1222	1221	50.1	A	6:20:30	2021-5-20	1
1223	1222	49.7	A	6:21:30	2021-5-20	1
1224	1223	53.1	A	6:22:30	2021-5-20	1
1225	1224	52.8	A	6:23:30	2021-5-20	1
1226	1225	49.8	A	6:24:30	2021-5-20	1
1227	1226	50.7	A	6:25:30	2021-5-20	1
1228	1227	49.5	A	6:26:30	2021-5-20	1
1229	1228	50.5	A	6:27:30	2021-5-20	1
1230	1229	48.6	A	6:28:30	2021-5-20	1
1231	1230	51.5	A	6:29:30	2021-5-20	1
1232	1231	50.7	A	6:30:30	2021-5-20	1

1173	1172	52.8	A	5:31:30	2021-5-20	1
1174	1173	50.3	A	5:32:30	2021-5-20	1
1175	1174	51.5	A	5:33:30	2021-5-20	1
1176	1175	54.5	A	5:34:30	2021-5-20	1
1177	1176	55.8	A	5:35:30	2021-5-20	1
1178	1177	49.6	A	5:36:30	2021-5-20	1
1179	1178	50.3	A	5:37:30	2021-5-20	1
1180	1179	52.4	A	5:38:30	2021-5-20	1
1181	1180	51.2	A	5:39:30	2021-5-20	1
1182	1181	49.6	A	5:40:30	2021-5-20	1
1183	1182	51.8	A	5:41:30	2021-5-20	1
1184	1183	50.4	A	5:42:30	2021-5-20	1
1185	1184	51.8	A	5:43:30	2021-5-20	1
1186	1185	53.5	A	5:44:30	2021-5-20	1
1187	1186	53.4	A	5:45:30	2021-5-20	1
1188	1187	50.7	A	5:46:30	2021-5-20	1
1189	1188	52	A	5:47:30	2021-5-20	1
1190	1189	52.2	A	5:48:30	2021-5-20	1
1191	1190	49.4	A	5:49:30	2021-5-20	1
1192	1191	52.7	A	5:50:30	2021-5-20	1
1193	1192	53.1	A	5:51:30	2021-5-20	1
1194	1193	49.4	A	5:52:30	2021-5-20	1
1195	1194	49.7	A	5:53:30	2021-5-20	1
1196	1195	50.4	A	5:54:30	2021-5-20	1
1197	1196	50.9	A	5:55:30	2021-5-20	1
1198	1197	52	A	5:56:30	2021-5-20	1
1199	1198	53.1	A	5:57:30	2021-5-20	1
1200	1199	50.1	A	5:58:30	2021-5-20	1
1201	1200	50.6	A	5:59:30	2021-5-20	1

1233	1232	49.7	A	6:31:30	2021-5-20	1
1234	1233	49.2	A	6:32:30	2021-5-20	1
1235	1234	48.9	A	6:33:30	2021-5-20	1
1236	1235	50.6	A	6:34:30	2021-5-20	1
1237	1236	52.1	A	6:35:30	2021-5-20	1
1238	1237	51.6	A	6:36:30	2021-5-20	1
1239	1238	51.4	A	6:37:30	2021-5-20	1
1240	1239	48.1	A	6:38:30	2021-5-20	1
1241	1240	48.5	A	6:39:30	2021-5-20	1
1242	1241	48.1	A	6:40:30	2021-5-20	1
1243	1242	54.5	A	6:41:30	2021-5-20	1
1244	1243	48.2	A	6:42:30	2021-5-20	1
1245	1244	48.4	A	6:43:30	2021-5-20	1
1246	1245	53.4	A	6:44:30	2021-5-20	1
1247	1246	50.5	A	6:45:30	2021-5-20	1
1248	1247	49.1	A	6:46:30	2021-5-20	1
1249	1248	53.3	A	6:47:30	2021-5-20	1
1250	1249	51.4	A	6:48:30	2021-5-20	1
1251	1250	50.4	A	6:49:30	2021-5-20	1
1252	1251	53.2	A	6:50:30	2021-5-20	1
1253	1252	54	A	6:51:30	2021-5-20	1
1254	1253	55.4	A	6:52:30	2021-5-20	1
1255	1254	54.5	A	6:53:30	2021-5-20	1
1256	1255	59.8	A	6:54:30	2021-5-20	1
1257	1256	53.4	A	6:55:30	2021-5-20	1
1258	1257	51.9	A	6:56:30	2021-5-20	1
1259	1258	52.9	A	6:57:30	2021-5-20	1
1260	1259	53.2	A	6:58:30	2021-5-20	1
1261	1260	52.2	A	6:59:30	2021-5-20	1

1262	1261	52.5	A	7:00:30	2021-5-20	1
1263	1262	53.4	A	7:01:30	2021-5-20	1
1264	1263	48.4	A	7:02:30	2021-5-20	1
1265	1264	51.2	A	7:03:30	2021-5-20	1
1266	1265	49	A	7:04:30	2021-5-20	1
1267	1266	53.3	A	7:05:30	2021-5-20	1
1268	1267	54.8	A	7:06:30	2021-5-20	1
1269	1268	52.2	A	7:07:30	2021-5-20	1
1270	1269	52.9	A	7:08:30	2021-5-20	1
1271	1270	50.7	A	7:09:30	2021-5-20	1
1272	1271	52.5	A	7:10:30	2021-5-20	1
1273	1272	50.4	A	7:11:30	2021-5-20	1
1274	1273	47.7	A	7:12:30	2021-5-20	1
1275	1274	47	A	7:13:30	2021-5-20	1
1276	1275	48.7	A	7:14:30	2021-5-20	1
1277	1276	51.1	A	7:15:30	2021-5-20	1
1278	1277	49.7	A	7:16:30	2021-5-20	1
1279	1278	49.8	A	7:17:30	2021-5-20	1
1280	1279	48.2	A	7:18:30	2021-5-20	1
1281	1280	48.7	A	7:19:30	2021-5-20	1
1282	1281	49.3	A	7:20:30	2021-5-20	1
1283	1282	53.2	A	7:21:30	2021-5-20	1
1284	1283	53.1	A	7:22:30	2021-5-20	1
1285	1284	51.1	A	7:23:30	2021-5-20	1
1286	1285	51.8	A	7:24:30	2021-5-20	1
1287	1286	50.8	A	7:25:30	2021-5-20	1
1288	1287	50.4	A	7:26:30	2021-5-20	1
1289	1288	52.3	A	7:27:30	2021-5-20	1
1290	1289	49.3	A	7:28:30	2021-5-20	1
1291	1290	53.5	A	7:29:30	2021-5-20	1
1292	1291	51.7	A	7:30:30	2021-5-20	1

1322	1321	53.9	A	8:00:30	2021-5-20	1
1323	1322	55	A	8:01:30	2021-5-20	1
1324	1323	55.9	A	8:02:30	2021-5-20	1
1325	1324	55.9	A	8:03:30	2021-5-20	1
1326	1325	56	A	8:04:30	2021-5-20	1
1327	1326	54.8	A	8:05:30	2021-5-20	1
1328	1327	54.5	A	8:06:30	2021-5-20	1
1329	1328	56.4	A	8:07:30	2021-5-20	1
1330	1329	56.6	A	8:08:30	2021-5-20	1
1331	1330	58.1	A	8:09:30	2021-5-20	1
1332	1331	54.5	A	8:10:30	2021-5-20	1
1333	1332	56.1	A	8:11:30	2021-5-20	1
1334	1333	56.1	A	8:12:30	2021-5-20	1
1335	1334	57.1	A	8:13:30	2021-5-20	1
1336	1335	55.3	A	8:14:30	2021-5-20	1
1337	1336	55.8	A	8:15:30	2021-5-20	1
1338	1337	55.1	A	8:16:30	2021-5-20	1
1339	1338	56.7	A	8:17:30	2021-5-20	1
1340	1339	56.2	A	8:18:30	2021-5-20	1
1341	1340	56.7	A	8:19:30	2021-5-20	1
1342	1341	55.6	A	8:20:30	2021-5-20	1
1343	1342	54.7	A	8:21:30	2021-5-20	1
1344	1343	55.8	A	8:22:30	2021-5-20	1
1345	1344	54.4	A	8:23:30	2021-5-20	1
1346	1345	54.4	A	8:24:30	2021-5-20	1
1347	1346	55.3	A	8:25:30	2021-5-20	1
1348	1347	54.4	A	8:26:30	2021-5-20	1
1349	1348	55.5	A	8:27:30	2021-5-20	1
1350	1349	57.3	A	8:28:30	2021-5-20	1
1351	1350	56.4	A	8:29:30	2021-5-20	1
1352	1351	54.1	A	8:30:30	2021-5-20	1

1293	1292	50.1	A	7:31:30	2021-5-20	1
1294	1293	51.7	A	7:32:30	2021-5-20	1
1295	1294	53	A	7:33:30	2021-5-20	1
1296	1295	57.6	A	7:34:30	2021-5-20	1
1297	1296	48.6	A	7:35:30	2021-5-20	1
1298	1297	66.9	A	7:36:30	2021-5-20	1
1299	1298	48.4	A	7:37:30	2021-5-20	1
1300	1299	48.6	A	7:38:30	2021-5-20	1
1301	1300	49.6	A	7:39:30	2021-5-20	1
1302	1301	47.8	A	7:40:30	2021-5-20	1
1303	1302	49.4	A	7:41:30	2021-5-20	1
1304	1303	51.8	A	7:42:30	2021-5-20	1
1305	1304	49.7	A	7:43:30	2021-5-20	1
1306	1305	58	A	7:44:30	2021-5-20	1
1307	1306	49.1	A	7:45:30	2021-5-20	1
1308	1307	53.2	A	7:46:30	2021-5-20	1
1309	1308	48.1	A	7:47:30	2021-5-20	1
1310	1309	49.9	A	7:48:30	2021-5-20	1
1311	1310	50.7	A	7:49:30	2021-5-20	1
1312	1311	49.5	A	7:50:30	2021-5-20	1
1313	1312	52	A	7:51:30	2021-5-20	1
1314	1313	55	A	7:52:30	2021-5-20	1
1315	1314	60.3	A	7:53:30	2021-5-20	1
1316	1315	53.6	A	7:54:30	2021-5-20	1
1317	1316	52.3	A	7:55:30	2021-5-20	1
1318	1317	55.7	A	7:56:30	2021-5-20	1
1319	1318	55.1	A	7:57:30	2021-5-20	1
1320	1319	55.6	A	7:58:30	2021-5-20	1
1321	1320	56	A	7:59:30	2021-5-20	1

1353	1352	56.9	A	8:31:30	2021-5-20	1
1354	1353	54.7	A	8:32:30	2021-5-20	1
1355	1354	54.7	A	8:33:30	2021-5-20	1
1356	1355	53.5	A	8:34:30	2021-5-20	1
1357	1356	54.3	A	8:35:30	2021-5-20	1
1358	1357	54.6	A	8:36:30	2021-5-20	1
1359	1358	53.8	A	8:37:30	2021-5-20	1
1360	1359	53.2	A	8:38:30	2021-5-20	1
1361	1360	55	A	8:39:30	2021-5-20	1
1362	1361	56.7	A	8:40:30	2021-5-20	1
1363	1362	54.1	A	8:41:30	2021-5-20	1
1364	1363	53.6	A	8:42:30	2021-5-20	1
1365	1364	56.2	A	8:43:30	2021-5-20	1
1366	1365	54.3	A	8:44:30	2021-5-20	1
1367	1366	56	A	8:45:30	2021-5-20	1
1368	1367	54.4	A	8:46:30	2021-5-20	1
1369	1368	56.4	A	8:47:30	2021-5-20	1
1370	1369	50.5	A	8:48:30	2021-5-20	1
1371	1370	49.1	A	8:49:30	2021-5-20	1
1372	1371	53.3	A	8:50:30	2021-5-20	1
1373	1372	51.4	A	8:51:30	2021-5-20	1
1374	1373	50.4	A	8:52:30	2021-5-20	1
1375	1374	53.2	A	8:53:30	2021-5-20	1
1376	1375	54	A	8:54:30	2021-5-20	1
1377	1376	55.4	A	8:55:30	2021-5-20	1
1378	1377	54.5	A	8:56:30	2021-5-20	1
1379	1378	59.8	A	8:57:30	2021-5-20	1
1380	1379	53.4	A	8:58:30	2021-5-20	1
1381	1380	51.9	A	8:59:30	2021-5-20	1

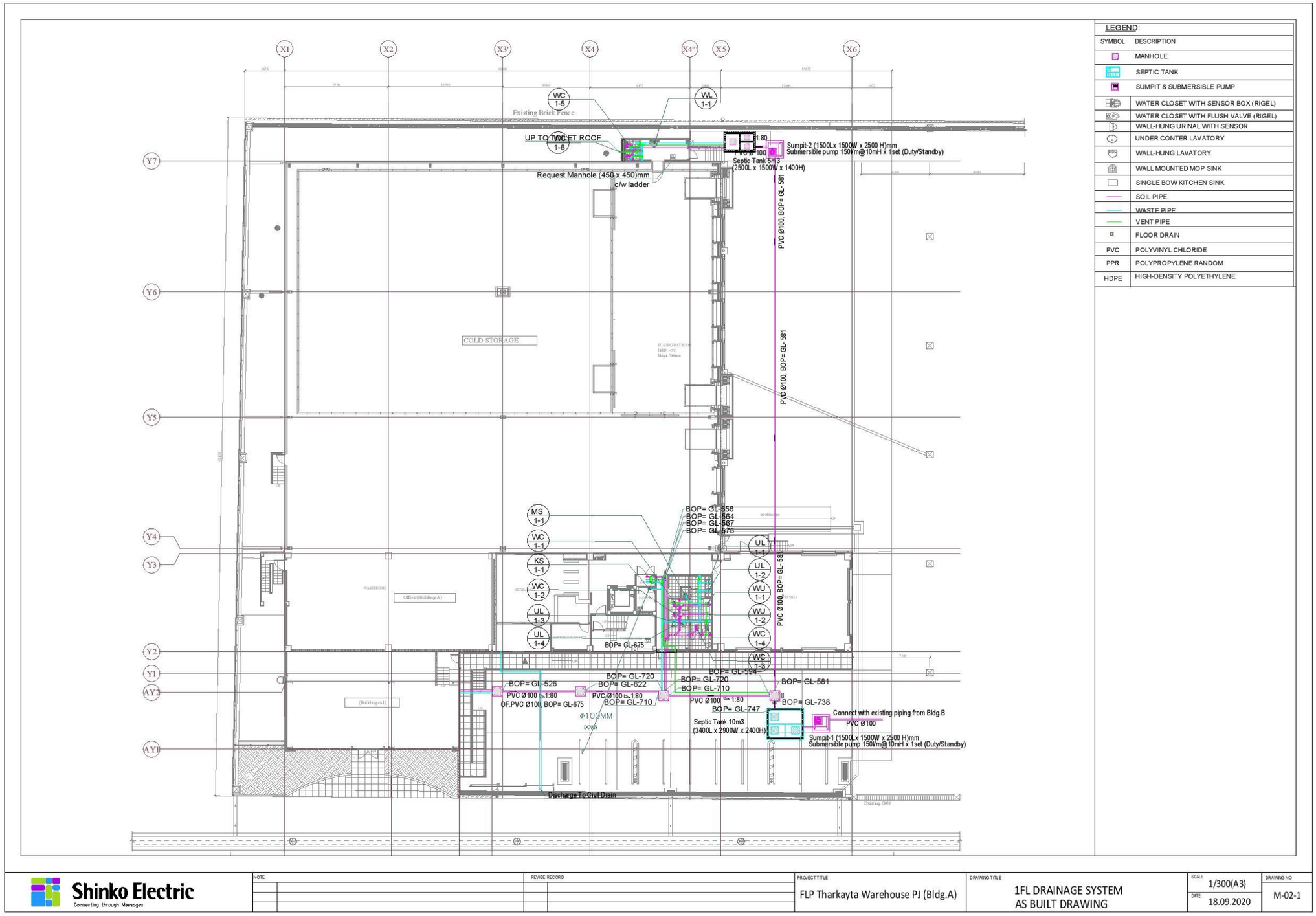
1382	1381	52.9	A	9:00:30	2021-5-20	1
1383	1382	53.2	A	9:01:30	2021-5-20	1
1384	1383	52.2	A	9:02:30	2021-5-20	1
1385	1384	52.5	A	9:03:30	2021-5-20	1
1386	1385	53.4	A	9:04:30	2021-5-20	1
1387	1386	48.4	A	9:05:30	2021-5-20	1
1388	1387	51.2	A	9:06:30	2021-5-20	1
1389	1388	49	A	9:07:30	2021-5-20	1
1390	1389	53.3	A	9:08:30	2021-5-20	1
1391	1390	54.8	A	9:09:30	2021-5-20	1
1392	1391	52.2	A	9:10:30	2021-5-20	1
1393	1392	52.9	A	9:11:30	2021-5-20	1
1394	1393	50.7	A	9:12:30	2021-5-20	1
1395	1394	52.5	A	9:13:30	2021-5-20	1
1396	1395	50.4	A	9:14:30	2021-5-20	1
1397	1396	47.7	A	9:15:30	2021-5-20	1
1398	1397	47	A	9:16:30	2021-5-20	1
1399	1398	48.7	A	9:17:30	2021-5-20	1
1400	1399	51.1	A	9:18:30	2021-5-20	1
1401	1400	49.7	A	9:19:30	2021-5-20	1
1402	1401	49.8	A	9:20:30	2021-5-20	1
1403	1402	48.2	A	9:21:30	2021-5-20	1
1404	1403	48.7	A	9:22:30	2021-5-20	1
1405	1404	49.3	A	9:23:30	2021-5-20	1
1406	1405	53.2	A	9:24:30	2021-5-20	1
1407	1406	53.1	A	9:25:30	2021-5-20	1
1408	1407	51.1	A	9:26:30	2021-5-20	1
1409	1408	51.8	A	9:27:30	2021-5-20	1
1410	1409	50.8	A	9:28:30	2021-5-20	1
1411	1410	50.4	A	9:29:30	2021-5-20	1
1412	1411	52.3	A	9:30:30	2021-5-20	1

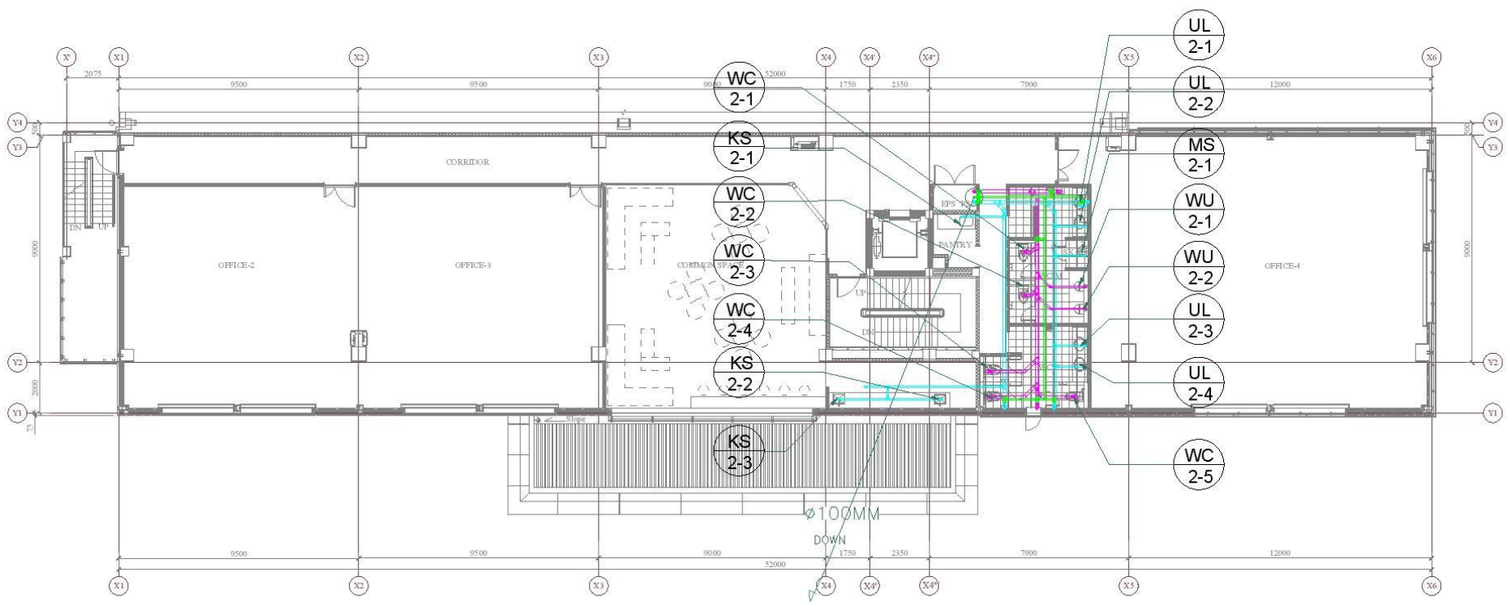
1413	1412	49.3	A	9:31:30	2021-5-20	1
1414	1413	53.5	A	9:32:30	2021-5-20	1
1415	1414	51.7	A	9:33:30	2021-5-20	1
1416	1415	50.1	A	9:34:30	2021-5-20	1
1417	1416	51.7	A	9:35:30	2021-5-20	1
1418	1417	53	A	9:36:30	2021-5-20	1
1419	1418	57.6	A	9:37:30	2021-5-20	1
1420	1419	48.6	A	9:38:30	2021-5-20	1
1421	1420	66.9	A	9:39:30	2021-5-20	1
1422	1421	48.4	A	9:40:30	2021-5-20	1
1423	1422	48.6	A	9:41:30	2021-5-20	1
1424	1423	49.6	A	9:42:30	2021-5-20	1
1425	1424	47.8	A	9:43:30	2021-5-20	1
1426	1425	49.4	A	9:44:30	2021-5-20	1
1427	1426	51.8	A	9:45:30	2021-5-20	1
1428	1427	49.7	A	9:46:30	2021-5-20	1
1429	1428	58	A	9:47:30	2021-5-20	1
1430	1429	49.1	A	9:48:30	2021-5-20	1
1431	1430	53.2	A	9:49:30	2021-5-20	1
1432	1431	48.1	A	9:50:30	2021-5-20	1
1433	1432	49.9	A	9:51:30	2021-5-20	1
1434	1433	50.7	A	9:52:30	2021-5-20	1
1435	1434	49.5	A	9:53:30	2021-5-20	1
1436	1435	52	A	9:54:30	2021-5-20	1
1437	1436	55	A	9:55:30	2021-5-20	1
1438	1437	60.3	A	9:56:30	2021-5-20	1
1439	1438	53.6	A	9:57:30	2021-5-20	1
1440	1439	52.3	A	9:58:30	2021-5-20	1
1441	1440	55.7	A	9:59:30	2021-5-20	1

Vibration Quality

	Start	X Lveq		Y Lveq		Z Lveq
2						
3	2021/05/19 10:00:00	41.8		35.6		60.8
4	2021/05/19 11:00:00	63.1		34.2		50.8
5	2021/05/19 12:00:00	30.4		33.9		33.7
6	2021/05/19 13:00:00	30.2		34		32.8
7	2021/05/19 14:00:00	62.6		34.1		50.9
8	2021/05/19 15:00:00	65.1		41.8		53.8
9	2021/05/19 16:00:00	63.3		41.4		53.6
10	2021/05/19 17:00:00	57.7		46.1		50.2
11	2021/05/19 18:00:00	50		33.5		38.3
12	2021/05/19 19:00:00	41.9		33.8		32.5
13	2021/05/19 20:00:00	33.4		33.9		32.7
14	2021/05/19 21:00:00	34.7		33.8		39
15	2021/05/19 22:00:00	30.2		33.9		37.5
16	2021/05/19 23:00:00	31.1		33.9		39.3
17	2021/05/20 00:00:00	29.5		33.9		37
18	2021/05/20 01:00:00	28.7		33.9		34.4
19	2021/05/20 02:00:00	30.9		33.9		38.1
20	2021/05/20 03:00:00	30.6		33.9		38.4
21	2021/05/20 04:00:00	30.6		33.9		38
22	2021/05/20 05:00:00	30.9		33.6		38.6
23	2021/05/20 06:00:00	59.9		33.6		48.9
24	2021/05/20 07:00:00	59.2		33.8		45.9
25	2021/05/20 08:00:00	63.4		32.4		54.9
26	2021/05/20 09:00:00	39.3		32		51.2

Appendix 10 Drainage System for Building A

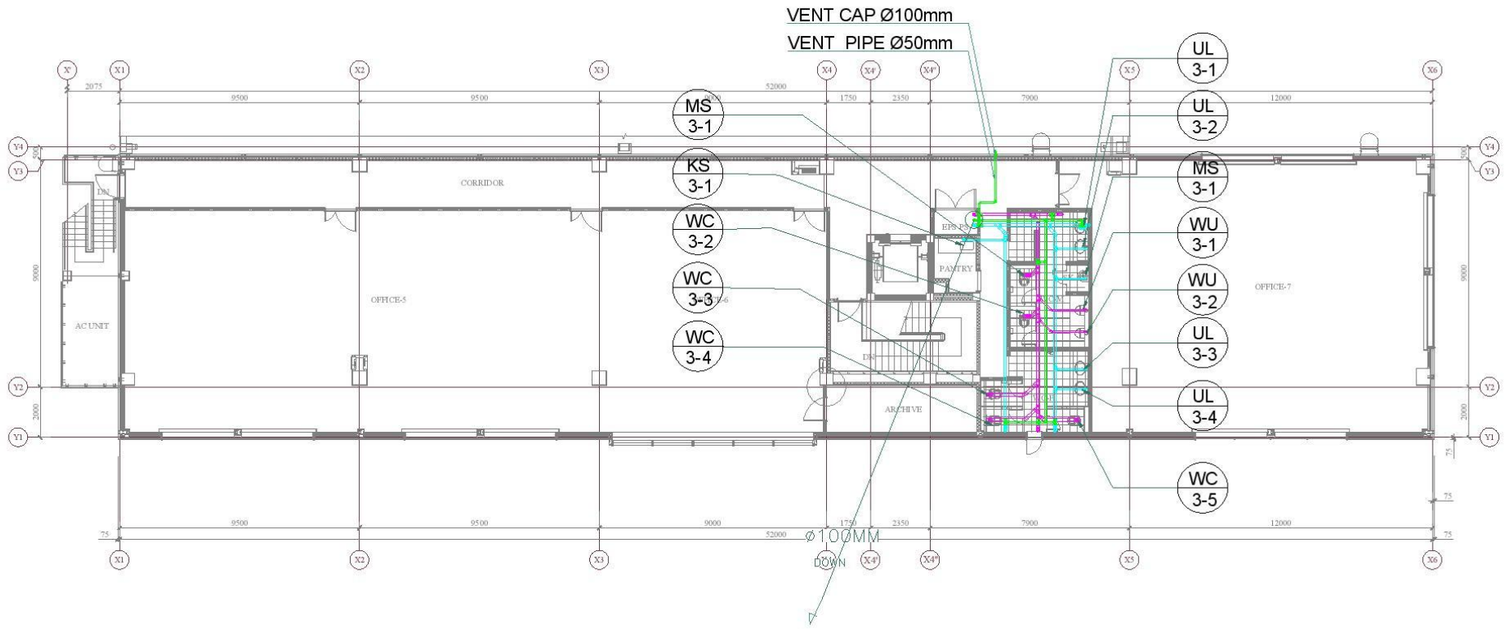




LEGEND:	
SYMBOL	DESCRIPTION
	MANHOLE
	SEPTIC TANK
	SUMPIT & SUBMERSIBLE PUMP
	WATER CLOSET WITH SENSOR BOX (RIGEL)
	WATER CLOSET WITH FLUSH VALVE (RIGEL)
	WALL-HUNG URINAL WITH SENSOR
	UNDER CONTER LAVATORY
	WALL-HUNG LAVATORY
	WALL MOUNTED MOP SINK
	SINGLE BOW KITCHEN SINK
	SOIL PIPE
	WASTE PIPE
	VENT PIPE
	FLOOR DRAIN
PVC	POLYVINYL CHLORIDE
PPR	POLYPROPYLENE RANDOM
HDPE	HIGH-DENSITY POLYETHYLENE

2nd Floor Plan

Shinko Electric Connecting through Messages	NOTE:	REVISE RECORD	PROJECT TITLE: FLP Tharkayta Warehouse PJ (Bldg.A)	DRAWING TITLE: 2FL DRAINAGE SYSTEM AS BUILT DRAWING	SCALE: 1/200(A3) DATE: 18.09.2020	DRAWING NO: M-02-2



3rd Floor Plan

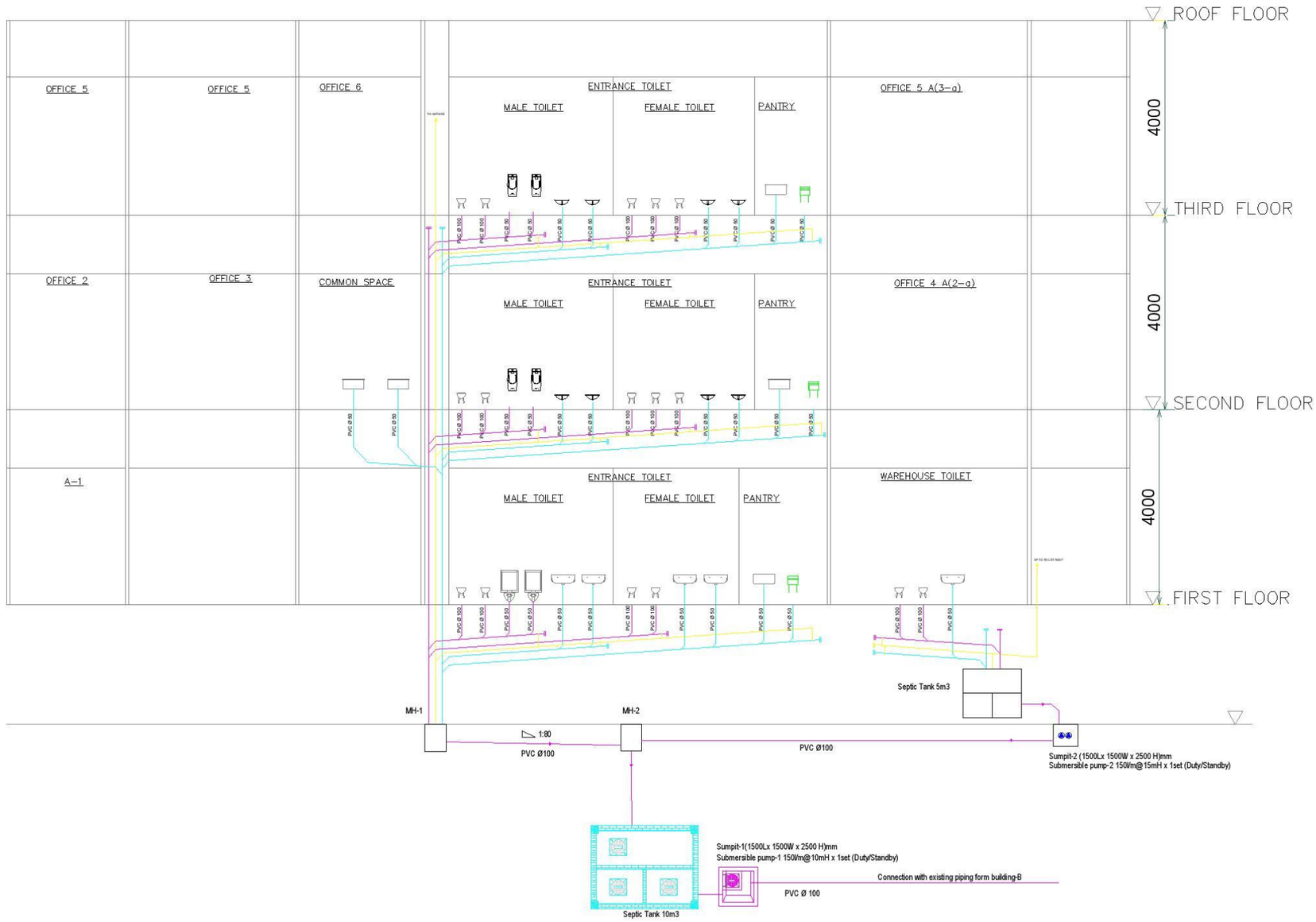
LEGEND:

SYMBOL	DESCRIPTION
	MANHOLE
	SEPTIC TANK
	SUMPIT & SUBMERSIBLE PUMP
	WATER CLOSET WITH SENSOR BOX (RIGEL)
	WATER CLOSET WITH FLUSH VALVE (RIGEL)
	WALL-HUNG URINAL WITH SENSOR
	UNDER CONTER LAVATORY
	WALL-HUNG LAVATORY
	WALL MOUNTED MOP SINK
	SINGLE BOW KITCHEN SINK
	SOIL PIPE
	WASTE PIPE
	VENT PIPE
	FLOOR DRAIN
PVC	POLYVINYL CHLORIDE
PPR	POLYPROPYLENE RANDOM
HDPE	HIGH-DENSITY POLYETHYLENE

Shinko Electric
Connecting through Meesages

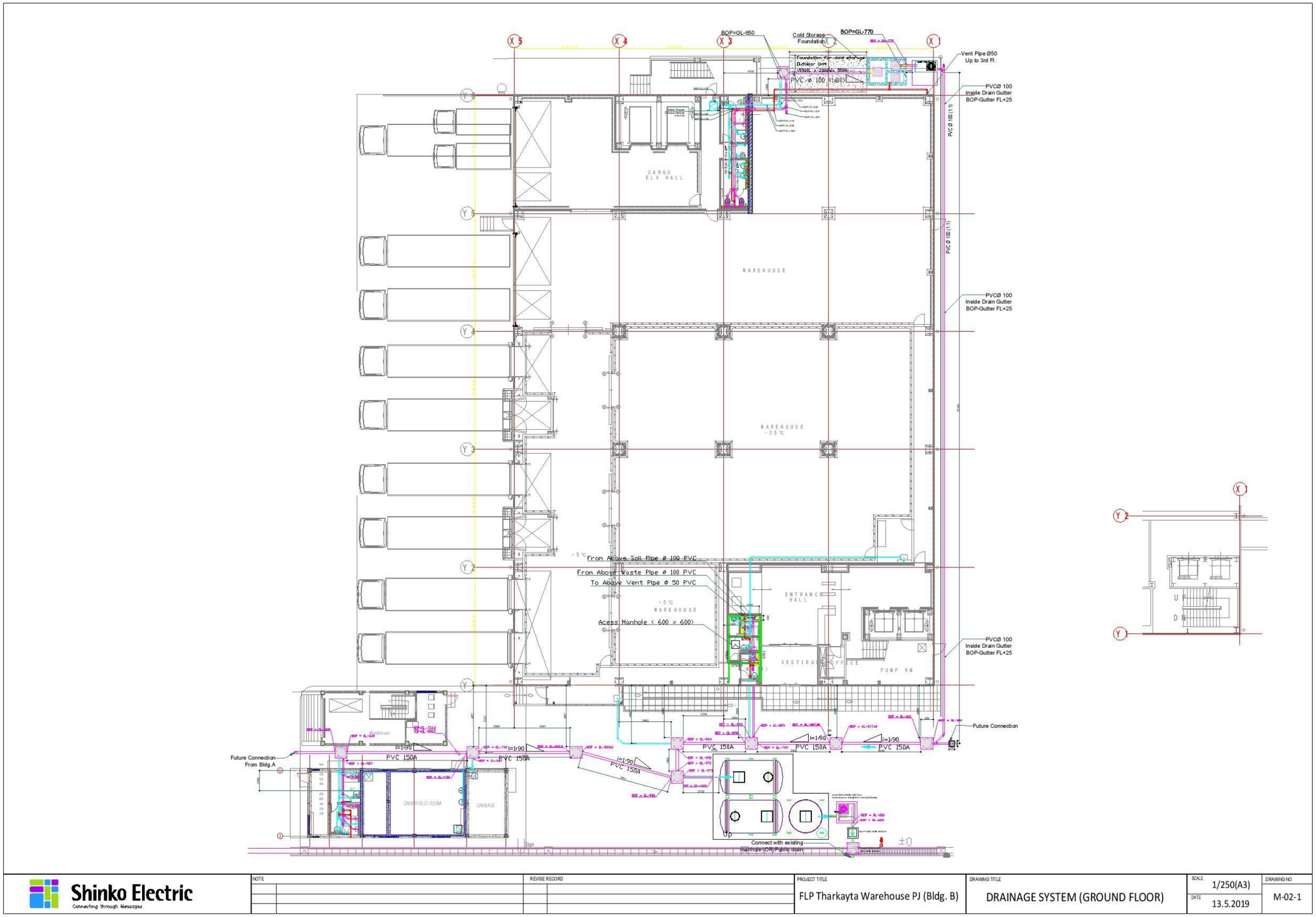
NOTE	REVISE RECORD	PROJECT TITLE	DRAWING TITLE	SCALE	DRAWING NO
		FLP Tharkayta Warehouse PJ (Bldg.A)	3FL DRAINAGE SYSTEM AS BUILT DRAWING	1/200(A3)	M-02-3
				DATE 18.09.2020	

DRAINAGE SYSTEM SCHEMATIC DIAGRAM

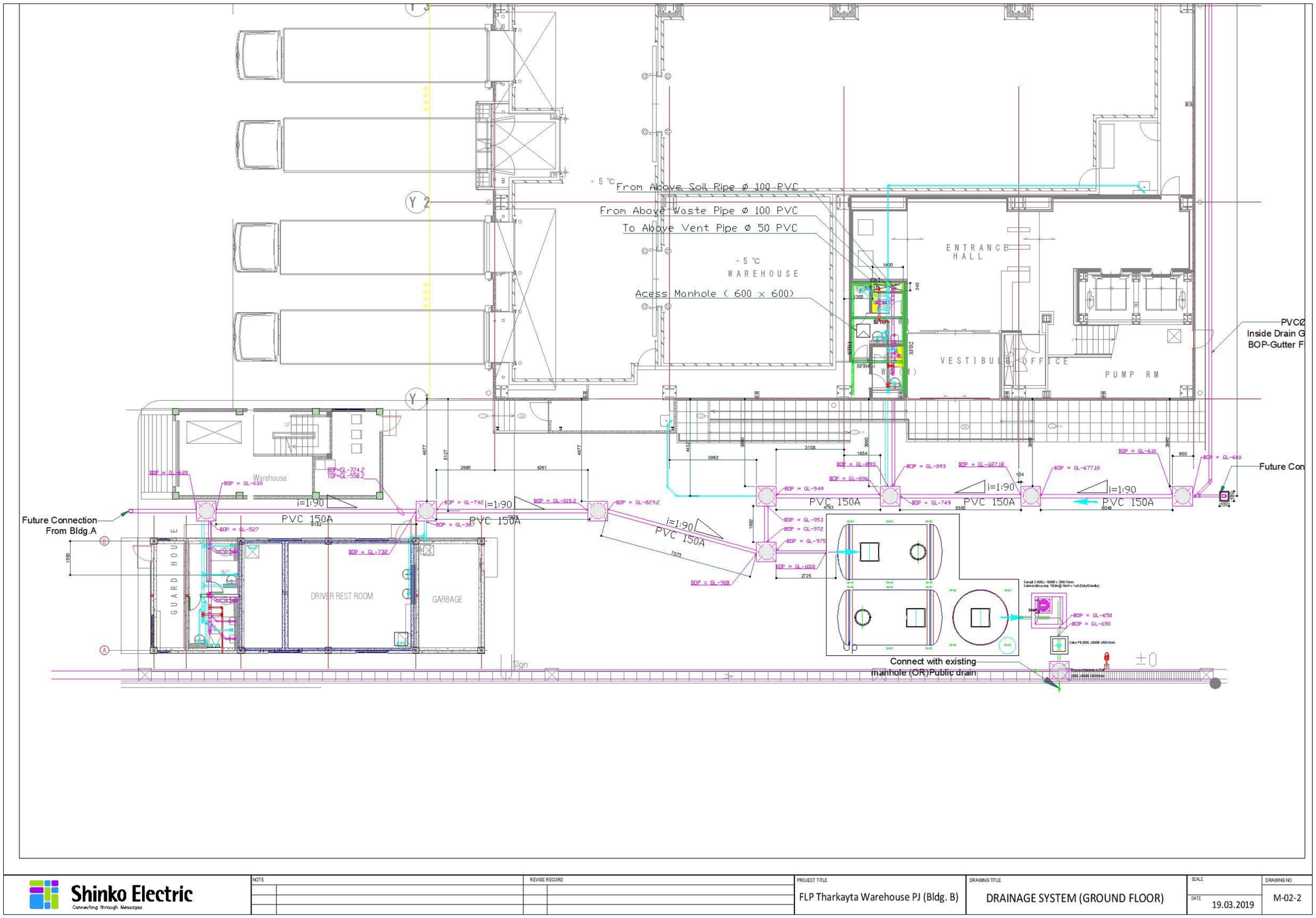


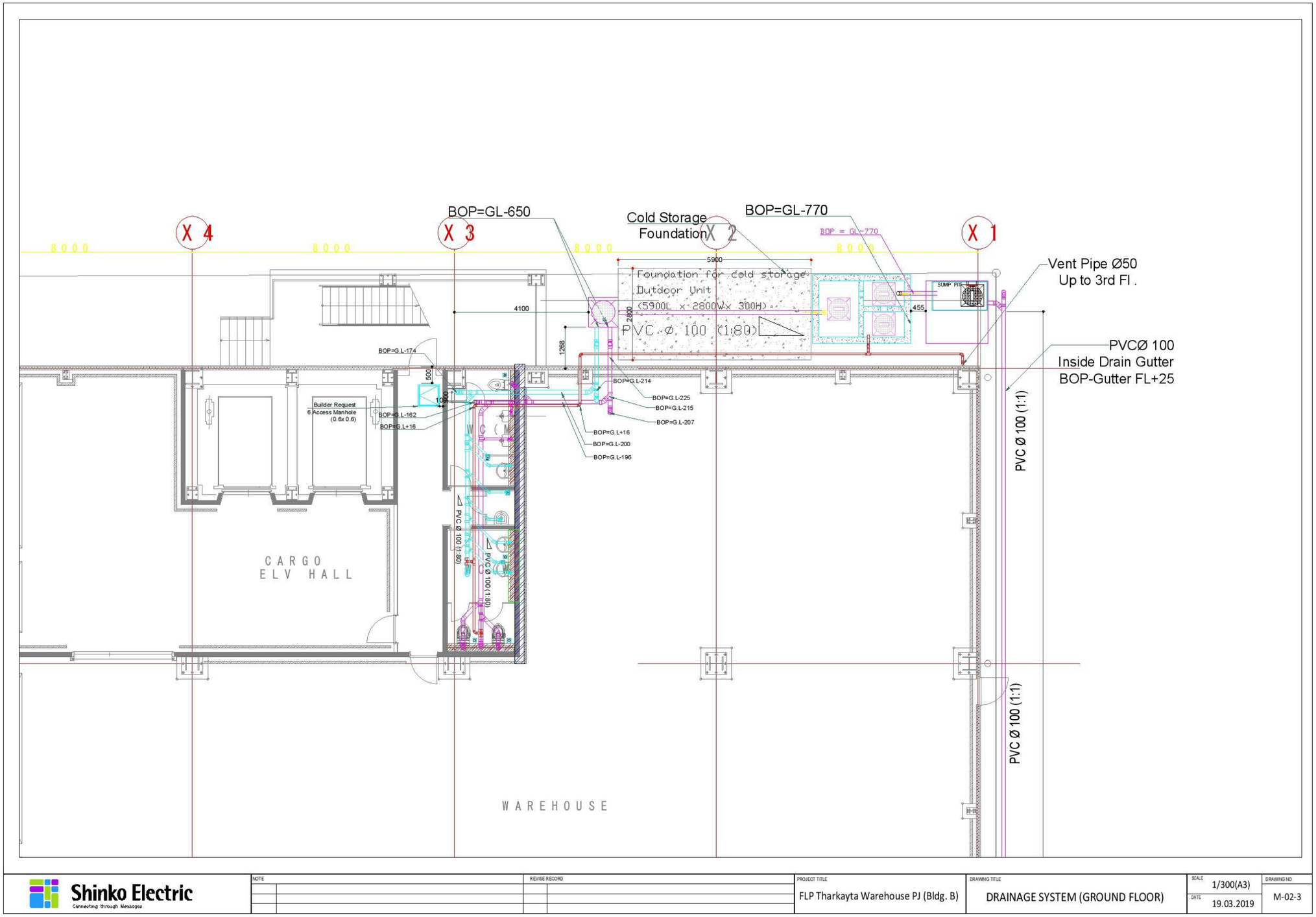
Shinko Electric Connecting through Messages	NOTE	REVISE RECORD	PROJECT TITLE FLP Tharkayta Warehouse PJ (Bldg.A)	DRAWING TITLE DRAINAGE SYSTEM SCHEMATIC DIAGRAM	SCALE NTS DATE 18.09.2020 / DRAWING NO M-02-4

Appendix 11 Drainage System for Building B

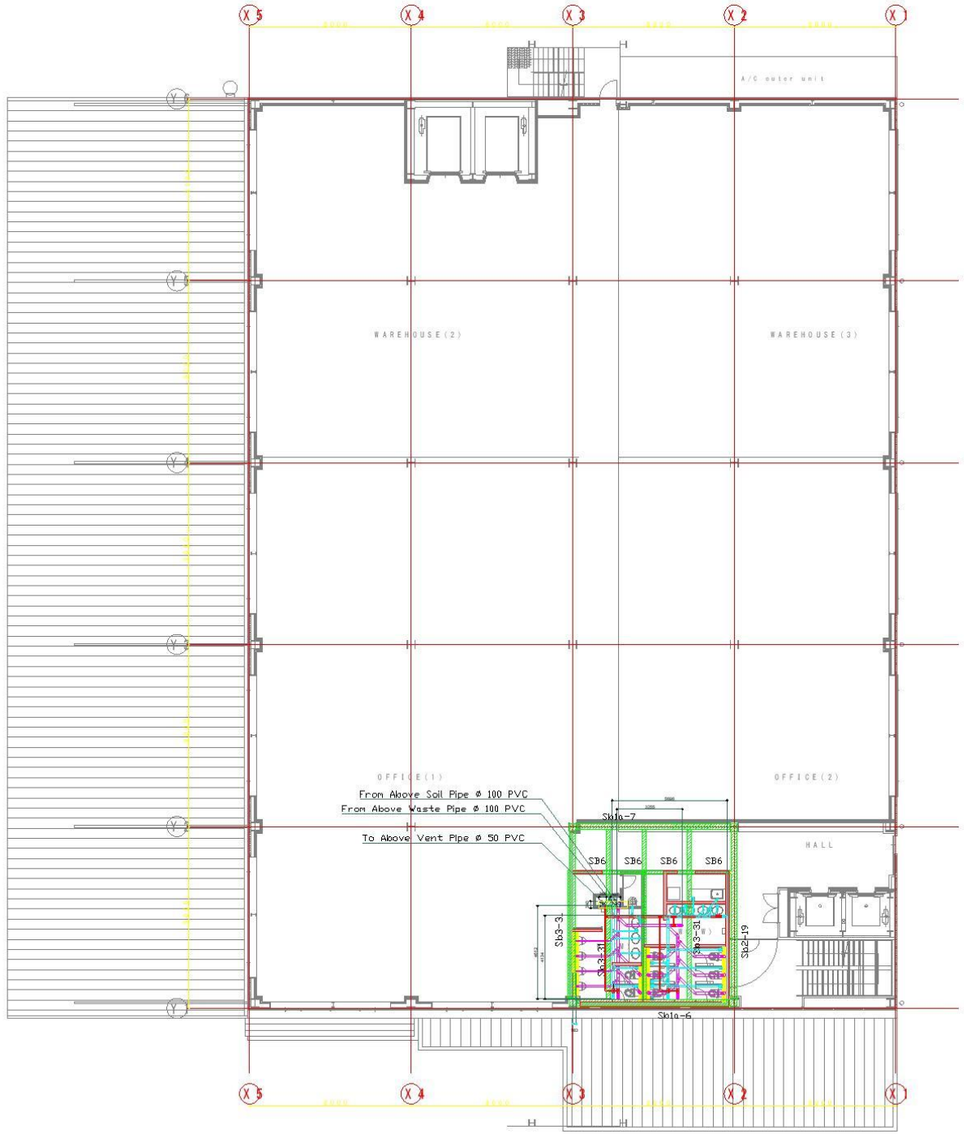


Shinko Electric (Connecting through Messages)	NOTE	REVISE RECORD	PROJECT TITLE: FLP Tharkayta Warehouse PJ (Bldg. B)	DRAWING TITLE: DRAINAGE SYSTEM (GROUND FLOOR)	SCALE: 1/250(A3) · DATE: 13.5.2019 · DRAWING NO: M-02-1

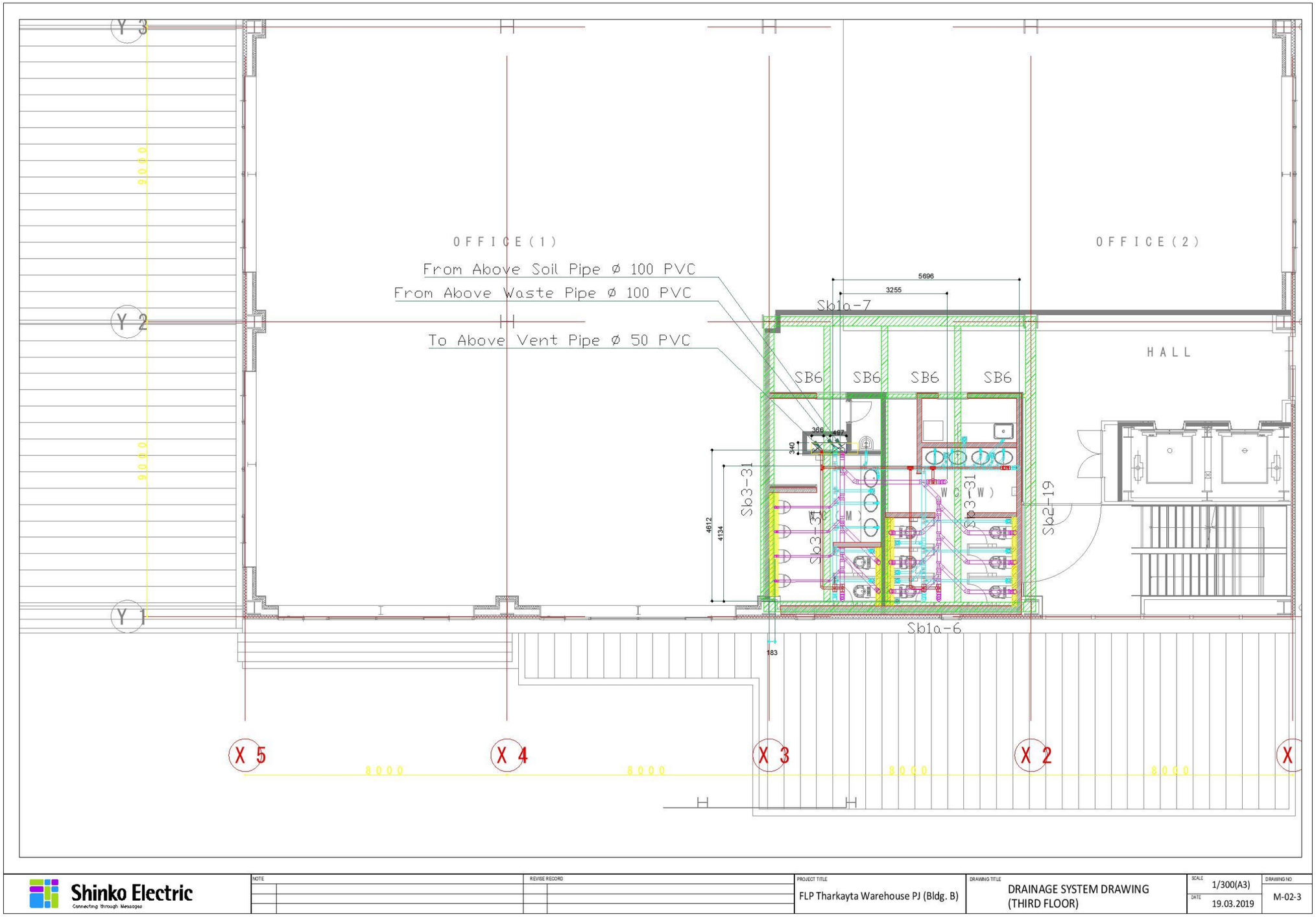

+5 °C From Above Soil Pipe ø 100 PVC
From Above Waste Pipe ø 100 PVC
To Above Vent Pipe ø 50 PVC
+5 °C
WAREHOUSE
Acess Manhole (600 x 600)
ENTRANCE HALL
VESTIBULE
OFFICE
PUMP RM
Warehouse
GUARD HOUSE
DRIVER REST ROOM
GARBAGE
Future Connection From Bldg.A
PVC 150A
i=1:90
Connect with existing manhole (OR) Public drain
Shinko Electric
Connecting through Messages
NOTE
REVISE RECORD
PROJECT TITLE
FLP Tharkayta Warehouse PJ (Bldg. B)
DRAWING TITLE
DRAINAGE SYSTEM (GROUND FLOOR)
SCALE
DATE
19.03.2019
DRAWING NO
M-02-2



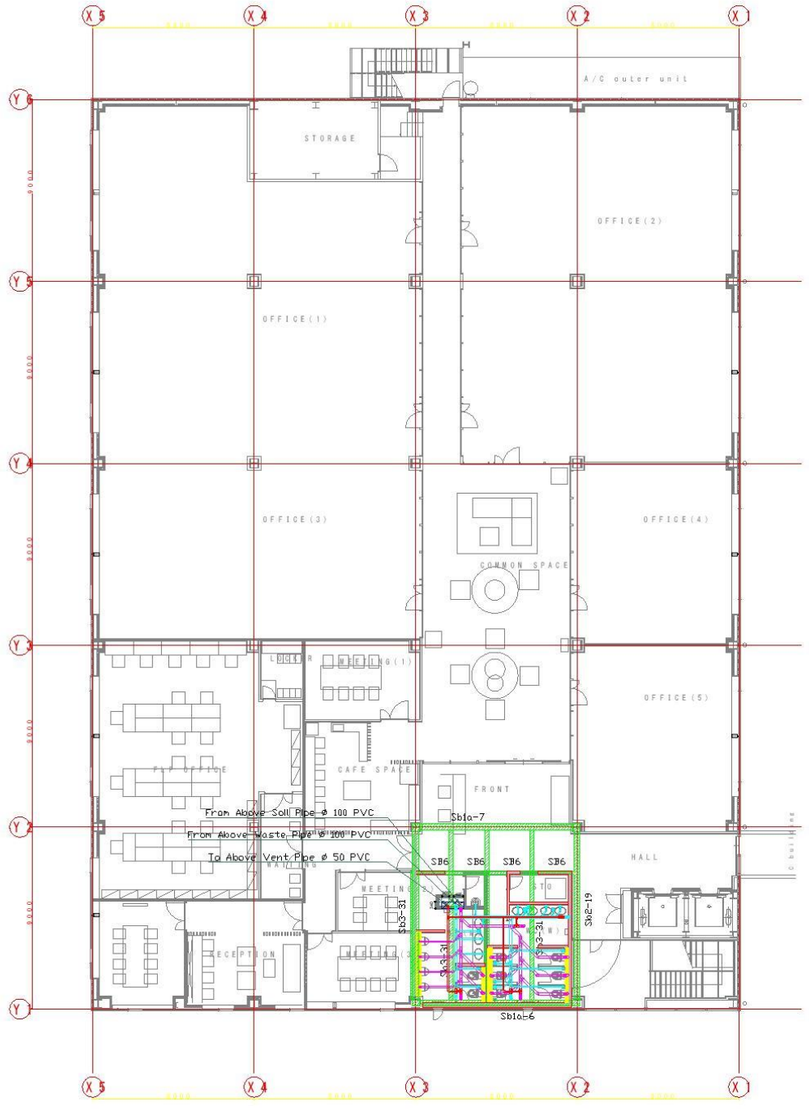
Shinko Electric (Connecting through Messages)	NOTE / REVISE RECORD	PROJECT TITLE: FLP Tharkayta Warehouse PJ (Bldg. B)	DRAWING TITLE: DRAINAGE SYSTEM (GROUND FLOOR)	SCALE: 1/300(A3) / DATE: 19.03.2019	DRAWING NO: M-02-3



Shinko Electric Connecting through Messages	NOTE	REVISE RECORD	PROJECT TITLE FLP Tharkayta Warehouse PJ (Bldg. B)	DRAWING TITLE DRAINAGE SYSTEM DRAWING (SECOND FLOOR)	SCALE DATE 19.03.2019 DRAWING NO M-02-2



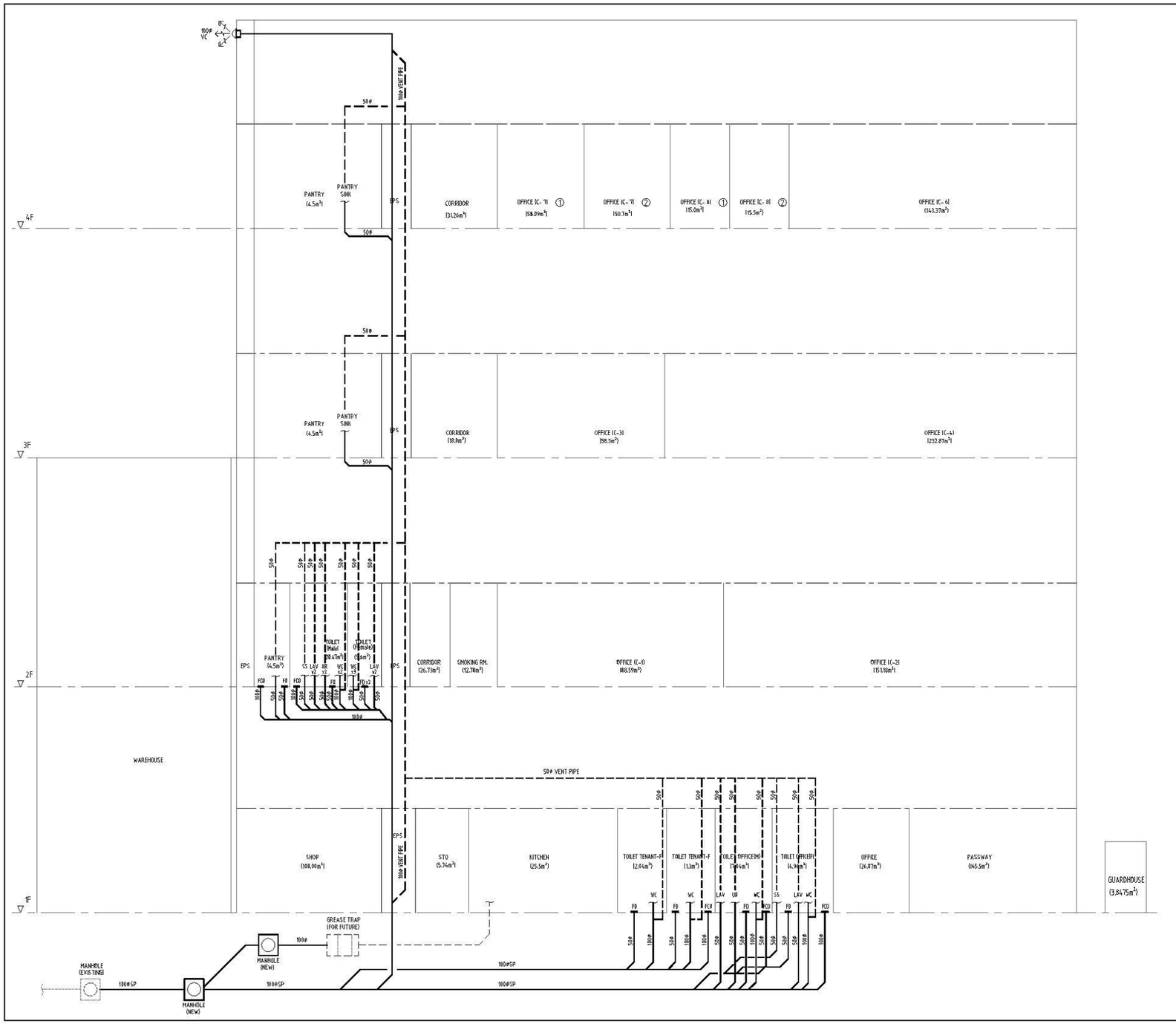
Shinko Electric (Connecting through Messages)	NOTE / REVISE RECORD	PROJECT TITLE: FLP Tharkayta Warehouse PJ (Bldg. B)	DRAWING TITLE: DRAINAGE SYSTEM DRAWING (THIRD FLOOR)	SCALE: 1/300(A3) DATE: 19.03.2019	DRAWING NO.: M-02-3



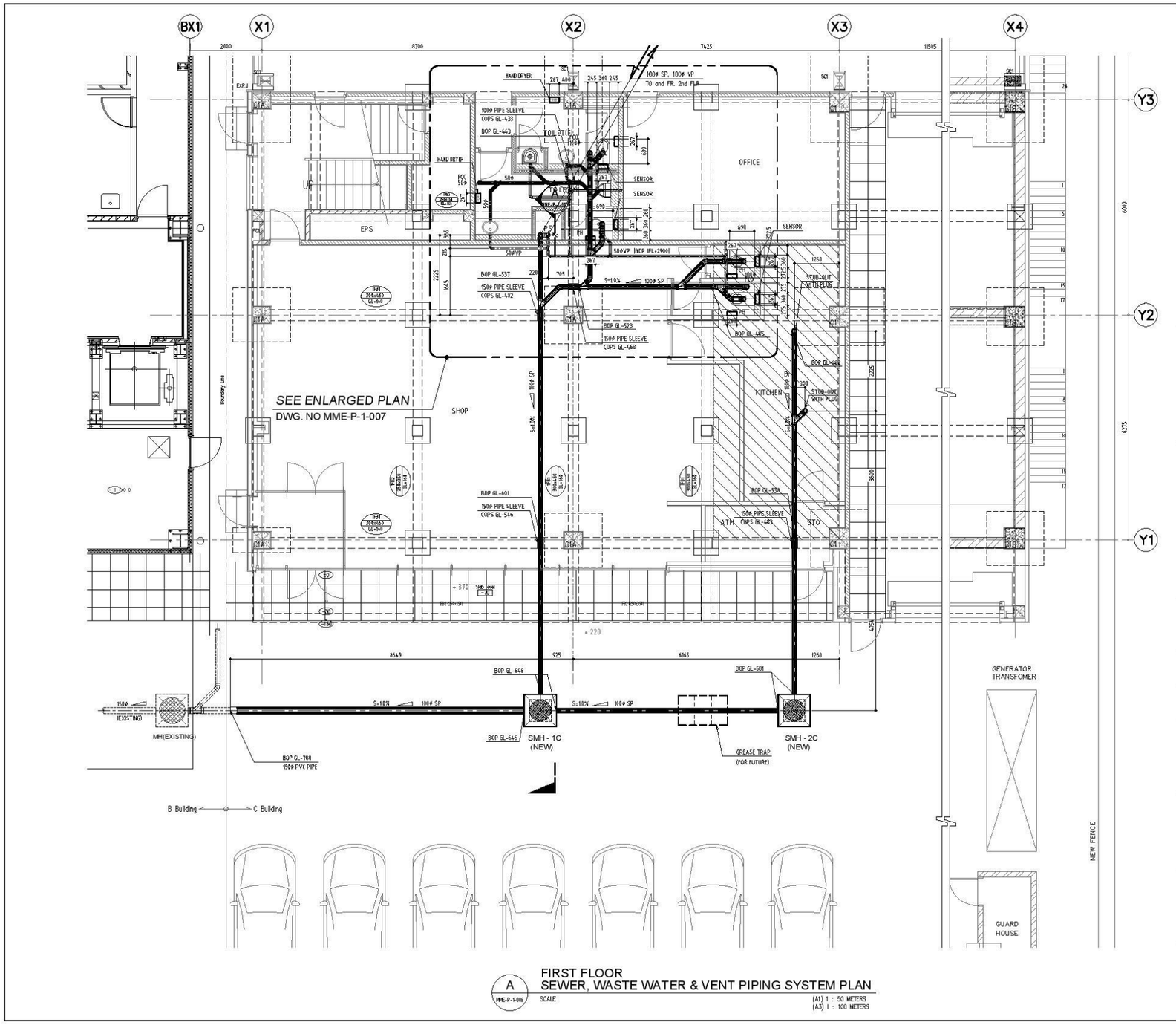
Shinko Electric Connecting through Messages	NOTE	REVISE RECORD	PROJECT TITLE FLP Tharkayta Warehouse PJ (Bldg. B)	DRAWING TITLE DRAINAGE SYSTEM DRAWING (THIRD FLOOR)	SCALE 1/300(A3) DATE 19.03.2019 / DRAWING NO M-02-3

Shinko Electric (Connecting through Messages)	NOTE / REVISE RECORD	PROJECT TITLE: FLP Tharkayta Warehouse PJ (Bldg. B)	DRAWING TITLE: DRAINAGE SYSTEM DRAWING (THIRD FLOOR)	SCALE: 1/300(A3) DATE: 19.03.2019	DRAWING NO: M-02-3

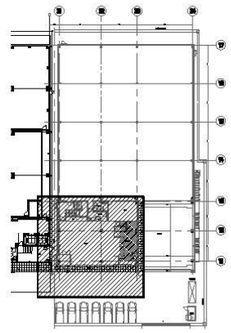
Appendix 12 Drainage System for Building C



OWNER / APPLICANT		
PROJECT	FLP THARKATA WAREHOUSE	
	BLOCK NO	C
	LOT NO	-
SUBJECT	SEWER, WASTE WATER & VENT SYSTEM SCHEMATIC DIAGRAM	
SCALE	NTS	SHEET NO.
DATE	14.Aug.2019	MME-P-003
L / C		
P.E (Structure)		
R.S.E (Construction)		
OWNER		



FIRST FLOOR
SEWER, WASTE WATER & VENT PIPING SYSTEM PLAN
SCALE (A1) 1 : 50 METERS (A3) 1 : 100 METERS



KEY PLAN

OWNER / APPLICANT

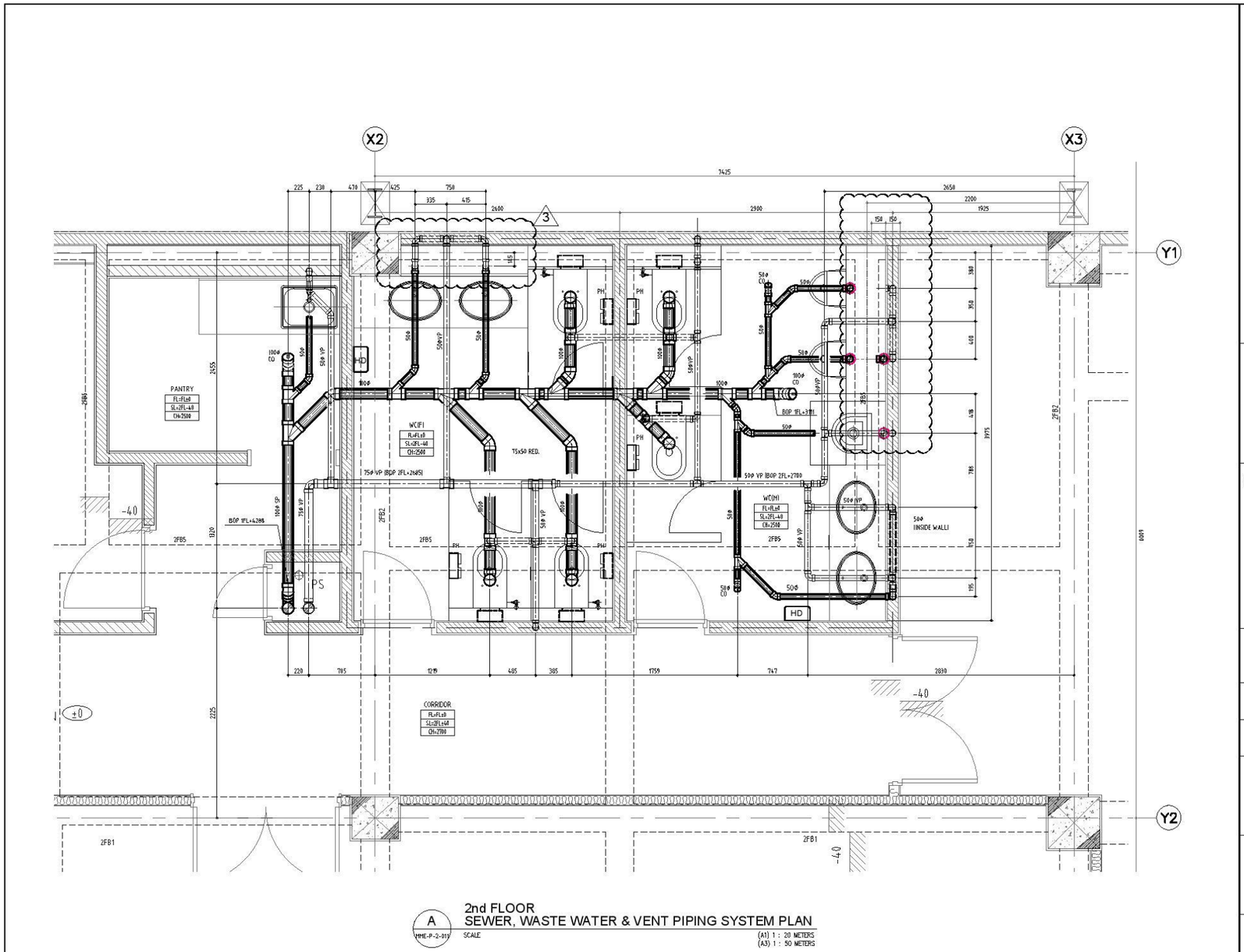
PROJECT	FLP THARKATA WAREHOUSE	
	BLOCK NO	C
	LOT NO	-
SUBJECT	1st FLOOR SEWER, WASTE WATER & VENT PIPING SYSTEM PLAN	
SCALE	(A3) 1 : 100	SHEET NO.
DATE	14.Aug.2019	MME-P-1-006

L / C

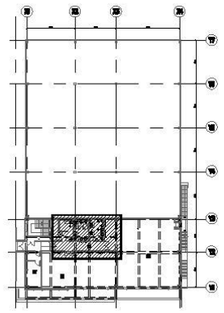
P.E (Structure)

R.S.E (Construction)

OWNER



A 2nd FLOOR
SEWER, WASTE WATER & VENT PIPING SYSTEM PLAN
MME-P-2-011 SCALE (A1) 1 : 20 METERS (A3) 1 : 50 METERS



KEY PLAN

OWNER / APPLICANT

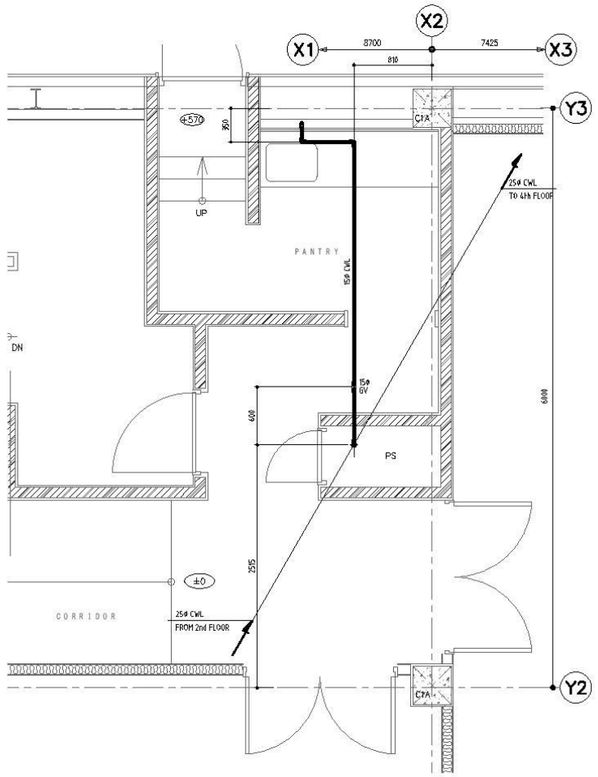
PROJECT	FLP THARKATA WAREHOUSE	
	BLOCK NO	C
	LOT NO	-
SUBJECT	2nd FLOOR SEWER, WASTE WATER & VENT PIPING SYSTEM PLAN and SECTIONS	
SCALE	(A3) 1 : 40	SHEET NO.
DATE	28.Sept.2019	MME-P-2-011

L / C

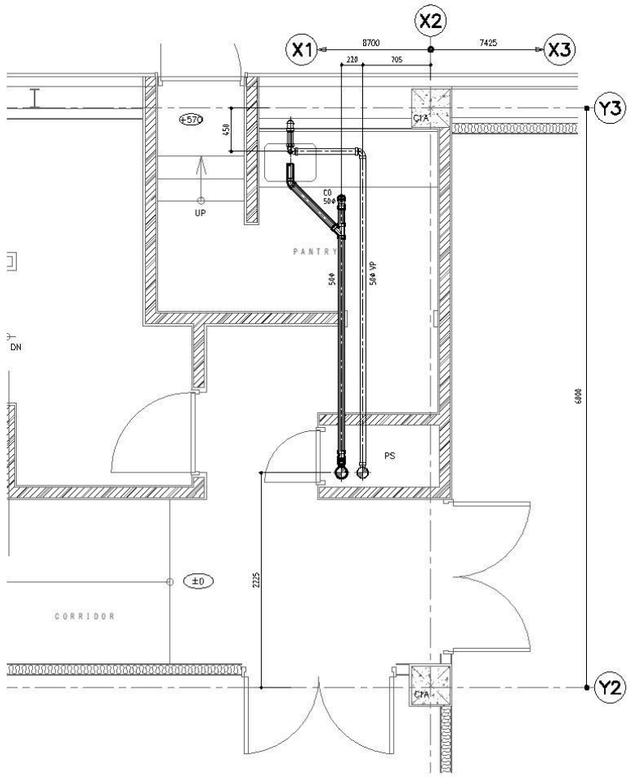
P.E (Structure)

R.S.E (Construction)

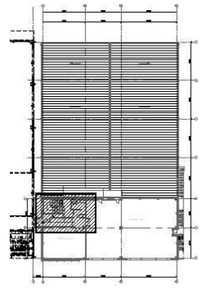
OWNER



A
MME-P-3-012
3nd FLOOR (PANTRY AREA)
COLD WATER PIPING SYSTEM PLAN
SCALE (A1) 1 : 25 METERS (A3) 1 : 50 METERS



B
MME-P-3-012
3nd FLOOR (PANTRY AREA)
WASTE WATER PIPING SYSTEM PLAN
SCALE (A1) 1 : 25 METERS (A3) 1 : 50 METERS



KEY PLAN

OWNER / APPLICANT

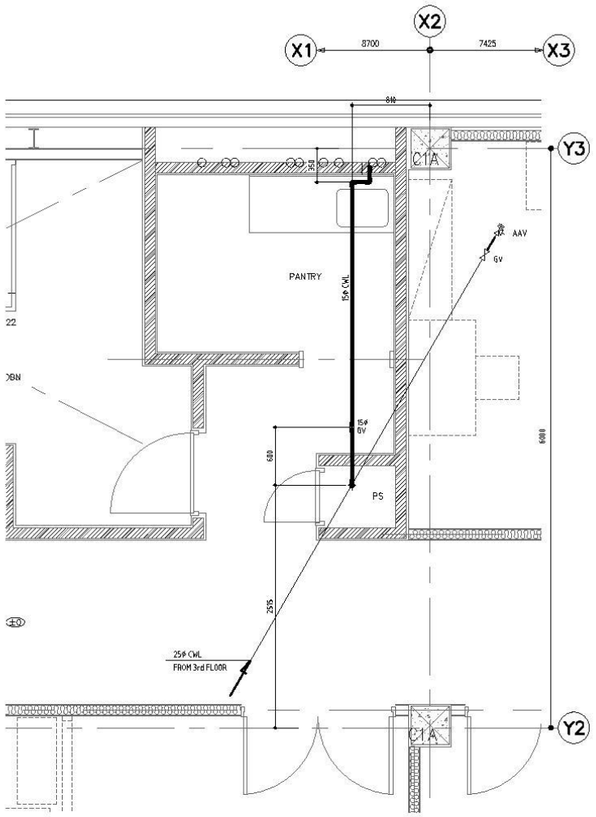
PROJECT	FLP THARKATA WAREHOUSE	
	BLOCK NO	C
	LOT NO	-
SUBJECT	3rd FLOOR COLD WATER, WASTE WATER & VENT PIPING SYSTEM PLAN and SECTIONS	
SCALE	(A3) 1 : 100	SHEET NO.
DATE	24.Sept.2019	MME-P-3-012

L / C

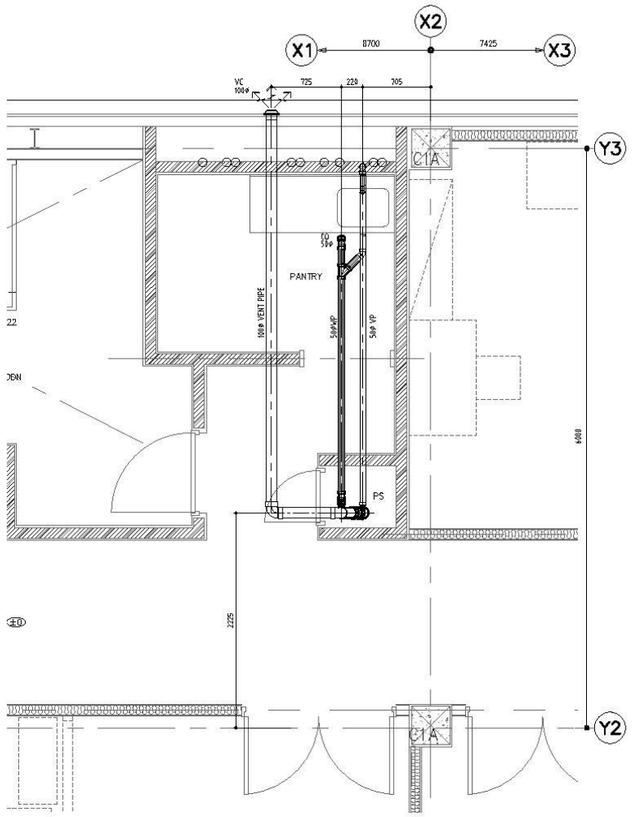
P.E (Structure)

R.S.E (Construction)

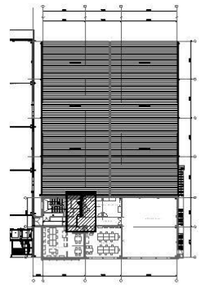
OWNER



A 4th FLOOR (PANTRY AREA)
COLD WATER PIPING SYSTEM PLAN
SCALE (A1) 1 : 25 METERS (A3) 1 : 50 METERS



B 4th FLOOR (PANTRY AREA)
WASTE WATER PIPING SYSTEM PLAN
SCALE (A1) 1 : 25 METERS (A3) 1 : 50 METERS



KEY PLAN

OWNER / APPLICANT

PROJECT	FLP THARKATA WAREHOUSE	
	BLOCK NO	C
	LOT NO	-
SUBJECT	4th FLOOR COLD WATER, WASTE WATER & VENT PIPING SYSTEM PLAN and SECTIONS	
SCALE	(A3) 1 : 100	SHEET NO.
DATE	24.Sept.2019	MME-P-4-013

L / C

P.E (Structure)

R.S.E (Construction)

OWNER

Appendix 13 Fire Safety Certificate

Building A

A-FIA

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်အစိုးရ

ပြည်ထဲရေးဝန်ကြီးဌာန

မီးသတ်ဦးစီးဌာန

မီးဘေးလုံခြုံရေးစစ်ဆေးထောက်ခံချက်

အမှတ်စဉ်(၁၉၅)

ရက် စွဲ၊ ၂၀၂၁ခုနှစ်၊ စက်တင်ဘာလ ၂၈ ရက်

၁။ ရန်ကုန်တိုင်းဒေသကြီး/ပြည်နယ်၊ သာကေတမြို့နယ်၊ သာကေတစက်မှုဇုန် ရပ်ကွက်/ကျေးရွာ၊ မြန်မာ့ဂုဏ်ရည်လမ်းနှင့်မာလာမြို့ပြင်လမ်းထောင့် လမ်း အမှတ် (၅၃/၆၂) ရှိ ပိုင်ရှင် ဦး/ဒေါ် ဒေါ်ခင်ဌေးရီ ၏ RCC(၃)ထပ်(Office)+Steel Structure(၁)ထပ်(Warehouse) အဆောက်အဦအတွက် ဤဌာန၏(၁၂-၇-၂၀၁၉)ရက်စွဲပါ စာအမှတ်၊ ၁၅၆၅၅ / ၁၀၀ / ၅၂ / ဦး ၁ ဖြင့် သတ်မှတ်ပေးထားသည့် မီးဘေးလုံခြုံရေးဆိုင်ရာပြဋ္ဌာန်းချက်များအား(၂၉-၁-၂၀၂၁)ရက်နေ့တွင် စစ်ဆေးသည့်အခါ ပြည့်စုံစွာဆောင်ရွက်ထားကြောင်း စစ်ဆေးတွေ့ရှိရသည်။

၂။ ဤထောက်ခံချက်သည် စစ်ဆေးသည့်နေ့မှစ၍ (၃)နှစ်အထိသာ အကျုံးဝင်သည်။

၃။ ထို့ပြင် မီးသတ်ဦးစီးဌာနမှ အခါအားလျော်စွာ ထပ်မံစစ်ဆေးခြင်းတွင် မီးဘေးလုံခြုံရေးဆိုင်ရာ ပြဋ္ဌာန်းချက်များကို လိုက်နာဆောင်ရွက်ခြင်းမရှိပါက ဤထောက်ခံချက်ကို ပြန်လည်ရုတ်သိမ်းသွားမည်ဖြစ်ပြီး အဆောက်အဦအားအသုံးပြုသူ(သို့မဟုတ်)ပိုင်ရှင်သည် မြန်မာနိုင်ငံမီးသတ်တပ်ဖွဲ့ဥပဒေအရအရေးယူခြင်းခံရမည်။

မှတ်ချက်။ ။ ဤထောက်ခံချက်အား လွှဲပြောင်းသုံးစွဲခြင်းမပြုရ။ အဆောက်အဦအား မူလရည်ရွယ်ချက်မှ ပြောင်းလဲအသုံးပြုပါက ထောက်ခံချက်အသစ် ထပ်မံလျှောက်ထားရမည်။

ညွှန်ကြားရေးမှူးချုပ်(ကိုယ်စား)
(သိန်းထွန်ဦး၊ ညွှန်ကြားရေးမှူး)

F.S.C(Waylin)

Building B

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်

ပြည်ထဲရေးဝန်ကြီးဌာန

မီးသတ်ဦးစီးဌာန

B Fire Certificate

မီးဘေးလုံခြုံရေးစစ်ဆေးထောက်ခံချက်

အမှတ်စဉ်(၂၂၇၅)

ရက်စွဲ၊ ၂၀၁၉ ခုနှစ်၊ စက်တင်ဘာလ ၂၂ ရက်

ရန်ကုန်တိုင်းဒေသကြီး/ပြည်နယ်၊ သာကေတ စက်မှုလက်မှု မြို့နယ်၊ ရပ်ကွက်/ကျေးရွာ၊

(၅၃/၆၂)

လမ်း၊ အမှတ်၊ ပိုင်ရှင်ဦး/အေါ် ဒေါ်ခင်ငွေးရီ ၏

Steel Structure(၃)ထပ်+Lift၊ပါ(လျှပ်စစ်ပစ္စည်းသိုလှောင်ရုံ) အဆောက်အဦအတွက် ဤဌာန၏

(၂၀-၇-၂၀၁၈)ရက်စွဲပါ စာအမှတ်၊ ၅၉၃/၁၀၀/ ၅၂ /ဦး ၁

ဖြင့်သတ်မှတ်ပေးထားသည့်မီးဘေးလုံခြုံရေးဆိုင်ရာ ပြဋ္ဌာန်းချက်များအား (၁၈-၉-၂၀၁၉)ရက်နေ့တွင် စစ်ဆေးသည့်အခါပြည့်စုံစွာ ဆောင်ရွက်ထားကြောင်း စစ်ဆေးတွေ့ရှိရသည်။

၂။ ဤထောက်ခံချက်သည် စစ်ဆေးသည့်နေ့မှစ၍ (၃)နှစ်အထိသာ အကျုံးဝင်သည်။

၃။ ထို့ပြင် မီးသတ်ဦးစီးဌာနမှ အခါအားလျော်စွာ ထပ်မံစစ်ဆေးချိန်တွင် မီးဘေးလုံခြုံရေးဆိုင်ရာ ပြဋ္ဌာန်းချက်များကို လိုက်နာဆောင်ရွက်ခြင်းမရှိပါက ဤထောက်ခံချက်ကို ပြန်လည်ရုပ်သိမ်းသွားမည်ဖြစ်ပြီး အဆောက်အဦအား အသုံးပြုသူ(သို့မဟုတ်)ပိုင်ရှင်သည် မြန်မာနိုင်ငံမီးသတ်တပ်ဖွဲ့ ဥပဒေအရ အရေးယူခြင်းခံရမည်။

မှတ်ချက်။ ဤထောက်ခံချက်အား လွဲပြောင်းသုံးစွဲခြင်းမပြုရ။ အဆောက်အဦအား မူလရည်ရွယ်ချက်မှ ပြောင်းလဲအသုံးပြုပါက ထောက်ခံချက်အသစ် ထပ်မံလျှောက်ထားရမည်။

ညွှန်ကြားရေးမှူးချုပ်(ကိုယ်စား)

(သိန်းထွန်းဦး ၊ ညွှန်ကြားရေးမှူး)

Building C

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်

ပြည်ထဲရေးဝန်ကြီးဌာန

မီးသတ်ဦးစီးဌာန

Bldg. C

မီးဘေးလုံခြုံရေးစစ်ဆေးထောက်ခံချက်

အမှတ်စဉ်(၂၅၇၉)

ရက်စွဲ၊ ၂၀၂၀ ပြည့်နှစ်၊ ဖေဖော်ဝါရီလ ၁၈ ရက်

၁။ ရန်ကုန်-တိုင်းဒေသကြီး/ပြည်နယ်၊ သာကေတ-မြို့နယ်၊ ---ရပ်ကွက်/ကျေးရွာ မဟာလေး လမ်းနှင့် မြန်မာ့ဂုဏ်ရည်လမ်းထောင့်-လမ်း၊အမှတ်(၅၃၃/၆၂)၊ပိုင်ရှင်ဦး/ဒေါ်-ဒေါ်ခင်ဌေးရီ-၏ Steel Structure (၁+၄)ထပ် (ရုံးခန်း+သိုလှောင်ရုံ)-အဆောက်အဦအတွက်ဤဌာန၏(၃၁-၅-၂၀၁၉)ရက်စွဲပါစာအမှတ်၊ ၁၄၂၃ / ၁၀၀ / ၅၂ / ဦး ၁-ဖြင့်သတ်မှတ်ပေးထားသည့် မီးဘေးလုံခြုံရေးဆိုင်ရာပြဋ္ဌာန်းချက်များအား (၉-၂-၂၀၂၀)ရက်နေ့တွင် စစ်ဆေးသည့်အခါ ပြည့်စုံစွာဆောင်ရွက်ထားကြောင်းစစ်ဆေး တွေ့ရှိရသည်။

၂။ ဤထောက်ခံချက်သည် စစ်ဆေးသည့်နေ့မစ၍ (၃)နှစ်အထိသာ အကျုံးဝင်သည်။

၃။ ထို့ပြင် မီးသတ်ဦးစီးဌာနမှ အခါအားလျော်စွာ ထပ်မံစစ်ဆေးခြင်းတွင် မီးဘေးလုံခြုံရေးဆိုင်ရာ ပြဋ္ဌာန်းချက်များကို လိုက်နာဆောင်ရွက်ခြင်းမရှိပါက ဤထောက်ခံချက်ကို ပြန်လည်ရုတ်သိမ်းသွားမည်ဖြစ်ပြီး အဆောက်အဦအား အသုံးပြုသူ(သို့မဟုတ်)ပိုင်ရှင်သည် မြန်မာနိုင်ငံမီးသတ်တပ်ဖွဲ့ဥပဒေအရအရေးယူခြင်းခံရမည်။

မှတ်ချက်။ ဤထောက်ခံချက်အား လွဲပြောင်းသုံးစွဲခြင်းမပြုရ။ အဆောက်အဦအား မူလရည်ရွယ်ချက်မှ ပြောင်းလဲအသုံးပြုပါက ထောက်ခံချက်အသစ် ထပ်မံလျှောက်ထားရမည်။

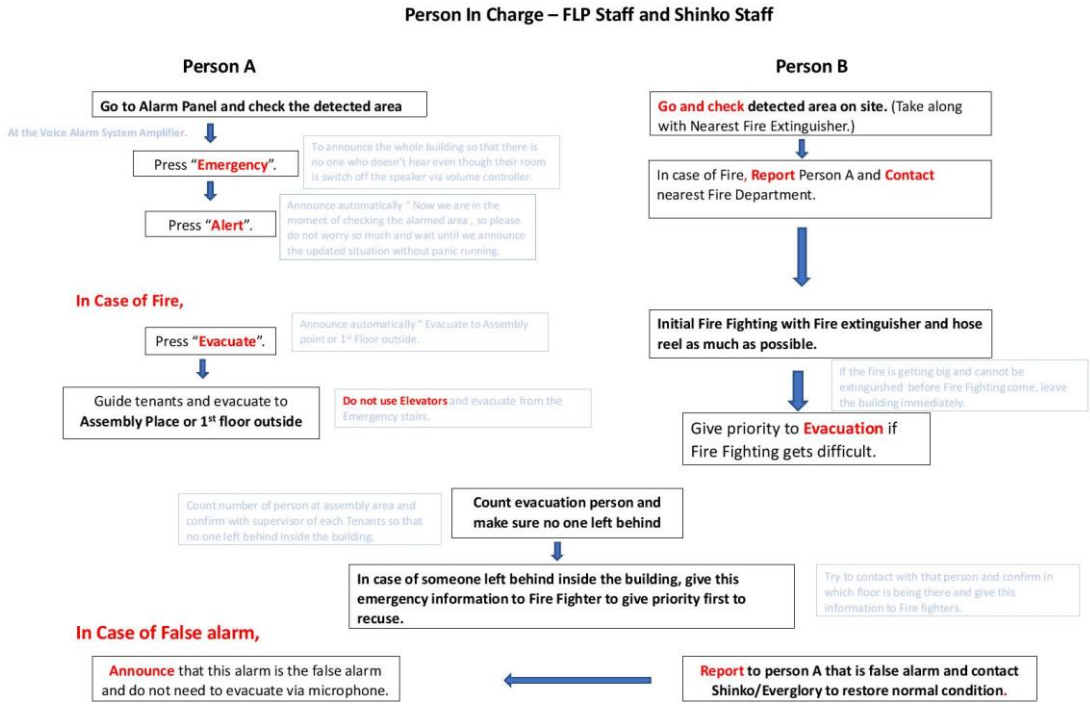
၁၈/၂/၂၀၂၀

ညွှန်ကြားရေးမှူးချုပ်(ကိုယ်စား)

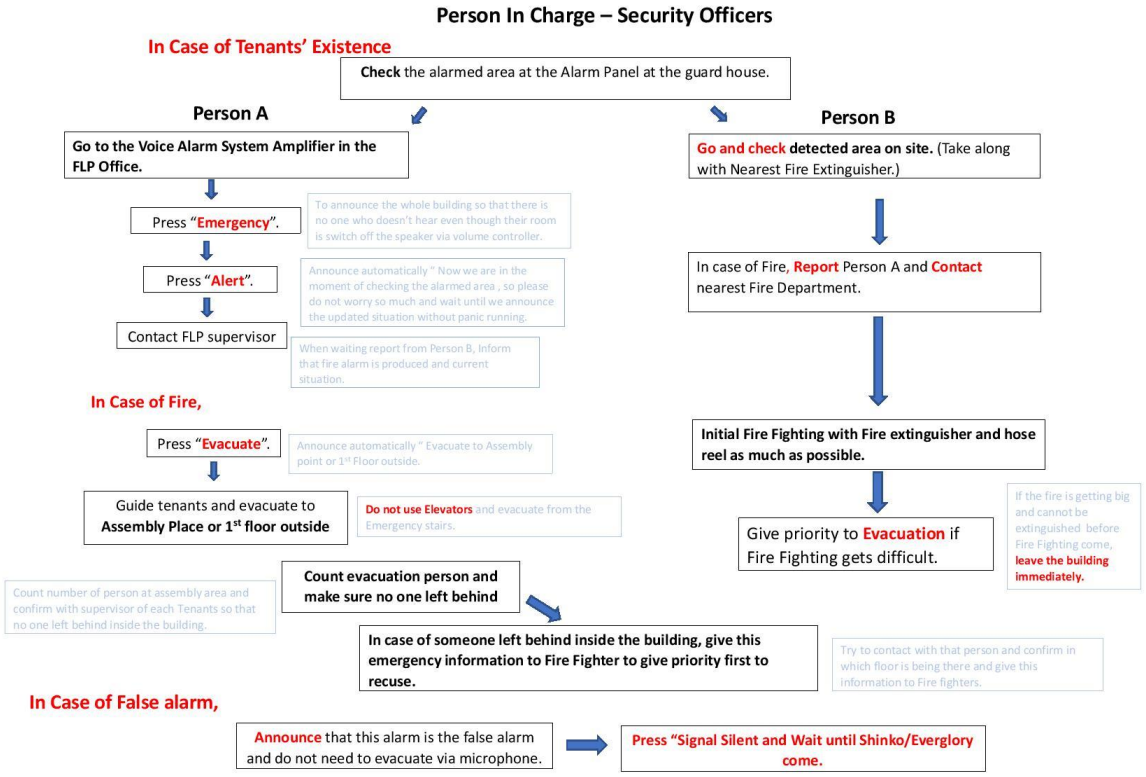
(သိန်းထွန်းဦး၊ ညွှန်ကြားရေးမှူး)

Appendix 14 Fire Operation Manual

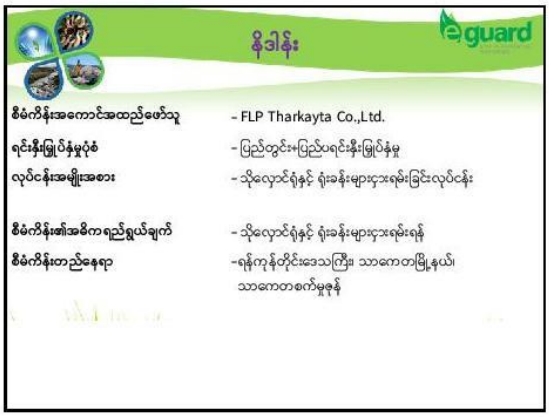
Fire Fighting Operation Manual (On Weekdays)

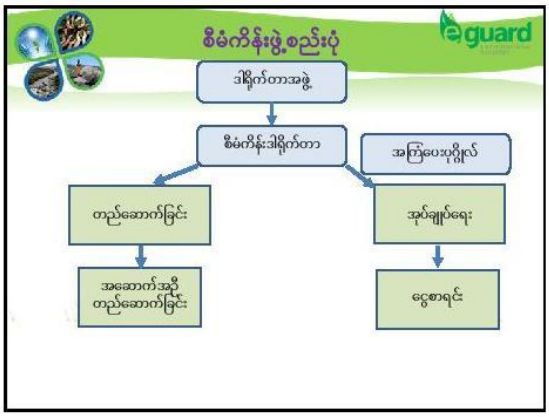


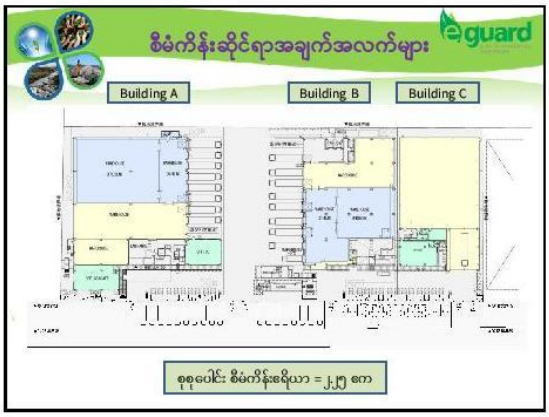
Fire Fighting Operation Manual (On Weekends and Night)



Appendix 15 Presentation for Focus Group Discussion








စီမံကိန်းဆိုင်ရာအချက်အလက်များ
A
အလွှာ
Name of Built Amenity
IT Company အတွက်ရုံးခန်းများ
B
အလွှာ
Name of Built Amenity
C
အလွှာ
Name of Built Amenity
ရုံးခန်းများ
eguard


eguard
ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ရေးဆွဲခြင်း
(Environmental Management Plan)
E Guard Environmental Services


ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ရေးဆွဲခြင်း
eguard
စီမံကိန်း၏ဖြစ်နိုင်ခြေရှိသော သက်ရောက်မှုများ
စစ်ဆေးခြင်း
✓ သိသာထင်ရှားမှုရှိမရှိ
✓ ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း ဆောင်ရွက်ရန် လိုအပ်ခြင်းရှိမရှိ
✓ သတ်မှတ်ထားသော အထောက်အထားများ ပြုစုတင်ပြရန်လိုအပ်ခြင်းရှိမရှိ
ဆောင်ရွက်သည့်အဖွဲ့အစည်း - E Guard Environmental Services Co., Ltd.
စိစစ်ခွင့်ပြုမည့်အဖွဲ့အစည်း - သယံဇာတနှင့်သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန
လိုက်နာရမည့်ဥပဒေ၊ နည်းဥပဒေနှင့် စည်းမျဉ်းစည်းကမ်းများ
ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော် ဖွဲ့စည်းပုံအခြေခံဥပဒေ (၂၀၀၈)
ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဥပဒေ၊ နည်းဥပဒေနှင့် စည်းမျဉ်းစည်းကမ်းများ။
ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း။
အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ
3


ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ရေးဆွဲခြင်း၏
eguard
ရည်ရွယ်ချက်များ
▪ စီမံကိန်းဆောင်ရွက်မှုများကြောင့် ဖြစ်ပေါ်လာနိုင်သော သက်ရောက်မှုများကို ဆန်းစစ်လေ့လာခြင်း
▪ ဆိုးသောသက်ရောက်မှုများကိုလျှော့ချပေးနိုင်မည့်နည်းလမ်းများအား အကြံပြုတင်ပြခြင်း
▪ ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုမှု အစီအစဉ်များနှင့် အခြားအစီအစဉ်များအား ကြိုတင်ပြင်ဆင်ပြီး အကောင်အထည်ဖော်ဆောင်ရွက်ခြင်း
အုပ်စုဖွဲ့ဆွေးနွေးခြင်း၏ရည်ရွယ်ချက်များ
▪ ဖြစ်ပေါ်လာနိုင်သည့် ကောင်းကျိုး၊ ဆိုးကျိုးများကိုတင်ပြခြင်း
▪ ပါဝင်ပတ်သက်သူများ၏ အမြင်နှင့်အကြံပြုချက်များ၊ ထိခိုက်သက်ရောက်လာနိုင်မှုများကို လျှော့ချပေးနိုင်မည့်အစီအစဉ်များ၊ စောင့်ကြပ်ကြည့်ရှုမှုအစီအစဉ်များတွင် ထည့်သွင်းစဉ်းစားပေးခြင်း
▪ စီမံကိန်းတည်ဆောက်ခြင်းနှင့် လုပ်ငန်းလည်ပတ်ခြင်း၏ ပွင့်လင်းမြင်သာမှုနှင့်တာဝန်ယူနိုင်မှု တိုးတက်စေခြင်း
▪ အငြင်းပွားမှုများလျှော့ချခြင်းနှင့် စီမံကိန်းအကောင်အထည်ဖော်ရာတွင် ချောမွေ့မှုရှိစေရန် ဆောင်ရွက်ခြင်း


ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်
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• သိုလှောင်ရုံနှင့် ရုံးခန်းများငှားရမ်းခြင်းလုပ်ငန်းများ၊
• အထွေထွေစီမံခန့်ခွဲမှုများ (လုပ်ငန်းလည်ပတ်သည့်ကာလ)
• စီမံကိန်းပိတ်သိမ်းခြင်း (စီမံကိန်းဖျက်သိမ်းသည့်ကာလ)
ဆိုးကျိုးသက်ရောက်ခြင်းမှ
• ကာကွယ်ရန်
• ရှောင်လွှဲရန်
• လျော့နည်းစေရန်
နည်းလမ်းနှင့်အစီအစဉ်များ ဖော်ပြသည့်စီမံချက်

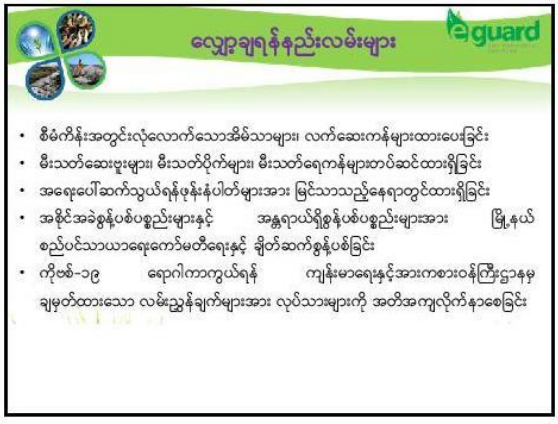

ဖြစ်ပေါ်လာနိုင်သည့်သက်ရောက်မှုများ
eguard
• ကောင်းသောသက်ရောက်မှုများ
• ဆိုးသောသက်ရောက်မှုများ

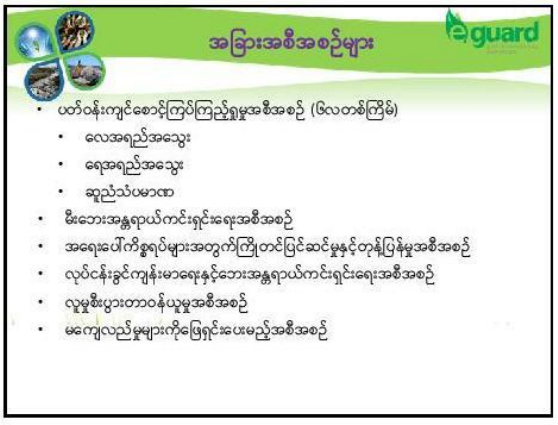

ကောင်းသောသက်ရောက်မှုများ
• လုပ်ငန်းလည်ပတ်သည့်ကာလ
• အလုပ်အကိုင်အခွင့်အလမ်းများဖန်တီးပေးနိုင်ခြင်း
• သို့လှောင်ရုံလိုအပ်ချက်ဖြည့်ဆည်းပေးခြင်း
• နိုင်ငံတော်၏စီးပွားရေးဖွံ့ဖြိုးတိုးတက်ခြင်း
• စီမံကိန်းဖျက်သိမ်းသည့်ကာလ
• အလုပ်အကိုင်အခွင့်အလမ်းများဖန်တီးပေးနိုင်ခြင်း
• စီးပွားရေးအခွင့်အလမ်းများဖန်တီးပေးနိုင်ခြင်း

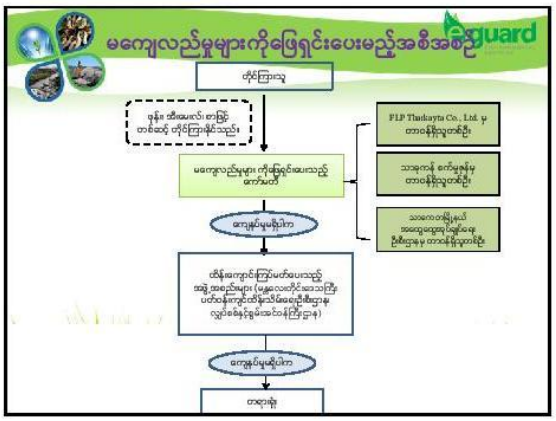

ဆိုးသောသက်ရောက်မှုများ
• လုပ်ငန်းလည်ပတ်သည့်ကာလ
• လေအရည်အသွေး
• ရေအရည်အသွေး
• မြေအရည်အသွေး
• ဆူညံသံနှင့်တုန်ခါမှု
• ဒီဝမျိုးစုံမျိုးကွဲများအပေါ်သက်ရောက်မှု
• လုပ်ငန်းခွင်ကျန်းမာရေးနှင့်ဘေးအန္တရာယ်ကင်းရှင်းရေး
• ရပ်ရွာလူထုကျန်းမာရေးနှင့်ဘေးအန္တရာယ်ကင်းရှင်းရေး
• အစိုင်အခဲစွန့်ပစ်ပစ္စည်းထွက်ရှိမှု
• စွန့်ပစ်ရေထွက်ရှိမှု


ဆိုးသောသက်ရောက်မှုများ
• စီမံကိန်းဖျက်သိမ်းသည့်ကာလ
• လေအရည်အသွေး
• ရေအရည်အသွေး
• မြေအရည်အသွေး
• ဆူညံသံနှင့်တုန်ခါမှု
• ဒီဝမျိုးစုံမျိုးကွဲများအပေါ်သက်ရောက်မှု
• လုပ်ငန်းခွင်ကျန်းမာရေးနှင့်ဘေးအန္တရာယ်ကင်းရှင်းရေး
• ရပ်ရွာလူထုကျန်းမာရေးနှင့်ဘေးအန္တရာယ်ကင်းရှင်းရေး
• အစိုင်အခဲစွန့်ပစ်ပစ္စည်းထွက်ရှိမှု
• စွန့်ပစ်ရေထွက်ရှိမှု
• အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်းထွက်ရှိမှု


လျော့ချရန်နည်းလမ်းများ
• အမှိုက်နှင့် အညစ်အကြေးများ ရေထု/မြေထုအတွင်းသို့ တိုက်ရိုက်စွန့်ပစ်ခြင်းမှ ရှောင်ရှားစေခြင်း
• အဲကွန်းနှင့် စက်ယန္တရားများအား ပုံမှန်ပြုပြင်ထိန်းသိမ်းခြင်း
• လေထုညစ်ညမ်းမှုနှင့် ဆူညံမှု လျော့ချရန် မီးစက်အား အလုံပိတ်အခန်းတွင်းထားရှိစေခြင်း
• သင့်လျော်သော အမှိုက်စွန့်ပစ်မှုစနစ်ဖော်ဆောင်ပေးပြီး အမှိုက်အမျိုးအစားခွဲခြားခြင်း၊ အမှိုက်ပုံးများလုံလောက်စွာထားရှိပေးခြင်း
• ရေဆိုးသန့်စင်စက်တပ်ဆင်ခြင်းနှင့် ရေမြောင်းများစနစ်တကျဖောက်လုပ်ခြင်း
• လုပ်သားများအား လုပ်ငန်းခွင်ကာကွယ်ရေးပစ္စည်းများ အသုံးပြုစေခြင်း၊ အမှန်တကယ်အသုံးပြုမပြုစစ်ဆေးခြင်း။


လျော့ချရန်နည်းလမ်းများ
• စီမံကိန်းအတွင်းလုံလောက်သောအိမ်သာများ၊ လက်ဆေးကန်များထားပေးခြင်း
• မီးသတ်ဆေးဗူးများ၊ မီးသတ်ပိုက်များ၊ မီးသတ်ရေကန်များတပ်ဆင်ထားရှိခြင်း
• အရေးပေါ်ဆက်သွယ်ရန်ဖုန်းနံပါတ်များအား မြင်သာသည့်နေရာတွင်ထားရှိခြင်း
• အစိုင်အခဲစွန့်ပစ်ပစ္စည်းများနှင့် အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်းများအား ဖြိုနယ်စည်ပင်သာယာရေးကော်မတီရေးနှင့် ချိတ်ဆက်စွန့်ပစ်ခြင်း
• ကိုဗစ်-၁၉ ရောဂါကာကွယ်ရန် ကျန်းမာရေးနှင့်အားကစားဝန်ကြီးဌာနမှ ချမှတ်ထားသော လမ်းညွှန်ချက်များအား လုပ်သားများကို အတိအကျလိုက်နာစေခြင်း


အခြားအစီအစဉ်များ
• ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုမှုအစီအစဉ် (၆လတစ်ကြိမ်)
• လေအရည်အသွေး
• ရေအရည်အသွေး
• ဆူညံသံပမာဏ
• မီးဘေးအန္တရာယ်ကင်းရှင်းရေးအစီအစဉ်
• အရေးပေါ်ကိစ္စရပ်များအတွက်ကြိုတင်ပြင်ဆင်မှုနှင့်တုန်ပြန်မှုအစီအစဉ်
• လုပ်ငန်းခွင်ကျန်းမာရေးနှင့်ဘေးအန္တရာယ်ကင်းရှင်းရေးအစီအစဉ်
• လူမှုစီးပွားတာဝန်ယူမှုအစီအစဉ်
• မကျေလည်မှုများကိုဖြေရှင်းပေးမည့်အစီအစဉ်


မကျေလည်မှုများကိုဖြေရှင်းပေးမည့်အစီအစဉ်
တိုင်ကြားသူ
FLP Tharkayta Co., Ltd. မှ တာဝန်ရှိသူတစ်ဦး
ကျေနပ်မှုမရှိပါက


ပတ်ဝန်းကျင်အရည်အသွေးများတိုင်းတာခြင်း
လေအရည်အသွေးနှင့် ဆူညံသံတိုင်းတာခြင်း
ရေအရည်အသွေးတိုင်းတာခြင်း
ရေနမူနာကောက်ယူခြင်း


လွတ်လပ်စွာပါဝင်ဆွေးနွေးမေးမြန်းနိုင်ပါသည်
ကျေးဇူးတင်ပါသည်

Appendix 16 FGD Attendance List

ရန်ကုန်တိုင်းဒေသကြီး၊ သာကေတမြို့နယ်၊ သာခုကန်စက်မှုဇုန်တွင် အကောင်အထည်ဖော်ဆောင်ရွက်မည့်
ကုန်သိုလှောင်ရုံနှင့် ရုံးခန်းများငှားရမ်းခြင်းလုပ်ငန်းအတွက် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ရေးဆွဲခြင်းလုပ်ငန်းနှင့်ပတ်သက်၍ ရှင်းလင်းတင်ပြခြင်းနှင့်
အုပ်စုဖွဲ့ဆွေးနွေးခြင်း အခမ်းအနားသို့ တက်ရောက်လာသူများစာရင်း

ရက်စွဲ။ ။ ၂၀၂၂ ခုနှစ်၊ မတ်လ (၄) ရက်။

စဉ်	အမည်	နေရပ်လိပ်စာ	အလုပ်အကိုင်	ဆက်သွယ်ရန်ဖုန်းနံပါတ်	လက်မှတ်
၁.	[illegible]	[illegible]	[illegible]	09-975661111	
၂.	[illegible]	[illegible]	[illegible]	09-421044787	
၃.	[illegible]	[illegible]	---	09880633038	
၄.	[illegible]	[illegible]	---	09-973314918.	
၅.	[illegible]	No. 296/B(11) [illegible]	[illegible]	09-977817782	
၆.	[illegible]	No. 298 [illegible]	[illegible]	09-977817788	
၇.	[illegible]	54/ [illegible]	[illegible]	09-977249559	
၈.	[illegible]	55/ [illegible]	[illegible]	09-893462027	
၉.	[illegible]	[illegible]	[illegible]	09-5088 2882	

အတွင်းရေးမှူး
စီမံခန့်ခွဲရေးကော်မတီ
သာကေတစက်မှုဇုန်

ရန်ကုန်တိုင်းဒေသကြီး၊ သာကေတမြို့နယ်၊ သာခုကန်စက်မှုဇုန်တွင် အကောင်အထည်ဖော်ဆောင်ရွက်မည့်
ကုန်သိုလှောင်ရုံနှင့် ရုံးခန်းများငှားရမ်းခြင်းလုပ်ငန်းအတွက် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ရေးဆွဲခြင်းလုပ်ငန်းနှင့်ပတ်သက်၍ ရှင်းလင်းတင်ပြခြင်းနှင့်
အုပ်စုဖွဲ့ဆွေးနွေးခြင်း အခမ်းအနားသို့ တက်ရောက်လာသူများစာရင်း

ရက်စွဲ။ ။ ၂၀၂၂ ခုနှစ်၊ မတ်လ (၄) ရက်။

စဉ်	အမည်	နေရပ်လိပ်စာ	အလုပ်အကိုင်	ဆက်သွယ်ရန်ဖုန်းနံပါတ်	လက်မှတ်
1.	[illegible]	[illegible]	[illegible]	09254109368	
2.	[illegible]	[illegible]	[illegible]	094250307280	
3.	[illegible]	[illegible]	[illegible]	09441550315	
4.	[illegible]	[illegible]	[illegible]	09-266464575	
5.	[illegible]	[illegible]	HR	09-798260563	
6.	[illegible]	[illegible]	[illegible]	09-420036093	
7.	[illegible]	[illegible]	[illegible]	09793059148	
8.	Ei Thandar Cho	[illegible]	[illegible]	09-751490976	
9.	[illegible]	[illegible]	[illegible]	09-966654105	
10.	Soe Yadanar	No. 60(B) [illegible] St, & ward, Tharkayta.	Company Staff	09-450691976	
11.	[illegible]	[illegible]	[illegible]	09-786102796	

Appendix 17 Comment Response Table

စဉ်	ကနဦး စိစစ်တွေ့ရှိချက်များ	သုံးသပ်အကြံပြုချက်များ	ပြန်လည်ဖြေကြားချက်များ
၁	**ကတိကဝတ်များ**		
	စီမံကိန်းအဆိုပြုသူကုမ္ပဏီအနေဖြင့်- လုပ်ငန်းဆောင်ရွက်မှုအားလုံးသည် ပတ်ဝန်းကျင် နှင့် သဟဇာတဖြစ်စေပြီး EMP တွင်ပါဝင်သည့် ထိခိုက်မှုလျော့နည်းစေရန် ဆောင်ရွက်မည့် အစီအစဉ်များကို အကောင်အထည်ဖော်ရာတွင် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးနှင့် သက်ဆိုင်သော ဥပဒေ၊ နည်းဥပဒေ၊ လုပ်ထုံးလုပ်နည်း၊ စံချိန်စံညွှန်း လမ်းညွှန်ချက်များ၊ IFC လမ်းညွှန်ချက်နှင့် သင့်လျော်သည့် ပတ်ဝန်းကျင်ဆိုင်ရာ လမ်းညွှန်ချက်များ စသည်တို့ကို လိုက်နာမည်ဖြစ်ကြောင်း ကတိကဝတ်ပြု လက်မှတ်ရေးထိုးထားသည်ကို တွေ့ရှိရပါသည်။	စီမံကိန်းအဆိုပြုသူအနေဖြင့် ကတိကဝတ်တွင် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်သည် တိကျခိုင်မာကြောင်းနှင့် ပြည့်စုံကြောင်း၊ ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း အပါအဝင် သက်ဆိုင်ရာ ဥပဒေများကို တိကျစွာလိုက်နာ၍ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်ကို ရေးဆွဲထားကြောင်း ဖြည့်စွက်ဖော်ပြရန်။	ကတိကဝတ်တွင် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်သည် တိကျခိုင်မာကြောင်းနှင့် ပြည့်စုံကြောင်း၊ ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း အပါအဝင် သက်ဆိုင်ရာ ဥပဒေများကို တိကျစွာလိုက်နာ၍ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်ကို ရေးဆွဲထားကြောင်း ပြန်လည်ပြင်ဆင်ဖော်ပြထား ပါသည်။
	အစီရင်ခံစာရေးသားပြုစုသူ အနေဖြင့် စီမံကိန်းအတွက် ရေးဆွဲထားသည့် အစီရင်ခံစာသည် တိကျမှန်ကန်ကြောင်းနှင့် ပြည့်စုံကြောင်း၊ EMP တွင်ပါဝင်သည့် ထိခိုက်မှုလျော့နည်းစေရန် ဆောင်ရွက်မည့် အစီအစဉ်များကို အကောင်အထည်ဖော်ဆောင်ရွက်ရာတွင် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးနှင့် သက်ဆိုင်သော ဥပဒေ၊ နည်းဥပဒေ၊ လုပ်ထုံးလုပ်နည်း၊ စံချိန်စံညွှန်း လမ်းညွှန်ချက်များ၊ IFC လမ်းညွှန်ချက်နှင့် သင့်လျော်သည့် ပတ်ဝန်းကျင်ဆိုင်ရာ လမ်းညွှန်ချက်များ နှင့်အညီ ရေးဆွဲထားကြောင်း ကတိကဝတ်ပြု လက်မှတ်ရေးထိုးထားသည်ကိုတွေ့ရှိရပါသည်။	အထူးသဘောထားမှတ်ချက်ပေးရန်မရှိပါ။	
၂	**အတိုကောက်စားလုံးများနှင့်အဓိပ္ပာယ်ဖွင့်ဆိုချက်များ**		
	အခန်းအားလုံးကို ခြုံငုံသော မာတိကာထည့်သွင်းဖော်ပြထားပြီး အစီရင်ခံစာတွင် အသုံးပြုထားသည့် အတိုကောက်စာလုံးများ အားလုံးကို ထည့်သွင်းဖော်ပြထားကြောင်း ကနဦးစိစစ်တွေ့ရှိရပါသည်။	အထူးသဘောထားမှတ်ချက်ပေးရန်မရှိပါ။	
၃	**အစီရင်ခံစာအကျဉ်းချုပ်**		

	အကျဉ်းချုပ်အစီရင်ခံစာကို မြန်မာဘာသာနှင့် အင်္ဂလိပ်ဘာသာနှစ်မျိုးဖြင့် ဖော်ပြထားကြောင်း၊ စီမံကိန်း၏ ရင်းနှီးမြှုပ်နှံမှုအခြေအနေ၊ လိုက်နာဆောင်ရွက်မည့် မူဝါဒ၊ ဥပဒေနှင့် မူဘောင်များ၊ စီမံကိန်း၏ လက်ရှိ ပတ်ဝန်းကျင် အခြေအနေများအား တိုင်းတာပြီး ရလဒ်များအား သုံးသပ်ထားကြောင်း၊ စီမံကိန်းကြောင့် ဖြစ်ပေါ်လာနိုင်သည့် သက်ရောက်မှုများကို ကဏ္ဍအလိုက် ခွဲခြားဆန်းစစ်ထားကြောင်း၊ သက်ရောက်မှု လျှော့ချမည့် အစီအစဉ်များကို လုပ်ငန်းလည်ပတ်ချိန်နှင့် ပိတ်သိမ်းချိန်များတွင် ဆောင်ရွက်မည်ဖြစ်ကြောင်း၊ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်များနှင့် စောင့်ကြပ်ကြည့်မှုမည့် အစီအစဉ်များကို ယေဘုယျအားဖြင့် ဖော်ပြထားကြောင်း ၊ အများပြည်သူနှင့် ဆွေးနွေးတိုင်ပင်ခြင်းအခမ်းအနားပြုလုပ်ထားပါကြောင်းနှင့် နိဂုံးချုပ်ဖော်ပြထားသည်ကို တွေ့ရှိရသော်လည်း လုပ်ငန်းဆိုင်ရာ ဖော်ပြချက်ကို ဖော်ပြရာတွင် အစီရင်ခံစာတွင်ပါရှိသည့် အအေးခန်းသိုလှောင်ရုံနှင့် ရိုးရိုးခန်းကုန်သိုလှောင်ရုံတို့၏ လုပ်ငန်းလည်ပတ်မှု အဆင့်ဆင့်နှင့်တကွ အဓိက အကြောင်းအရာများကို ခြုံငုံ၍ ဖော်ပြထားခြင်းမရှိကြောင်း တွေ့ရှိရပါသည်။	လုပ်ငန်းဆိုင်ရာဖော်ပြချက်ကို ဖော်ပြရာတွင် အစီရင်ခံစာတွင်ပါရှိသည့် အဓိက အကြောင်းအရာများကို ခြုံငုံ၍ အကျဉ်းချုပ်ဖော်ပြရန်၊ (စီမံကိန်းလုပ်ငန်းအား အကောင်အထည်ဖော်မည့်ကာလ၊ စုစုပေါင်းဧရိယာ အကျယ်အဝန်း၊ အဆောက်အဦအရေအတွက်နှင့် အကျယ်အဝန်း၊ လုပ်ငန်းစဉ် အဆင့်ဆင့်နှင့် စက်ကိရိယာများ အသုံးပြုမှုအခြေအနေ၊ စွမ်းအင် အသုံးပြုမှု၊ လုပ်သားအရေအတွက် စသည်ဖြင့်)	စာမျက်နှာ (1) တွင် မြန်မာဘာသာဖြင့် လည်းကောင်း၊ စာမျက်နှာ (7) တွင် အင်္ဂလိပ်ဘာသာ ဖြင့် လည်းကောင်း ပြန်လည်ဖြည့်စွက်၍ ပြင်ဆင်ဖော်ပြထားပါသည်။
၄	**နိဒါန်း**		
	• အစီရင်ခံစာတွင် နိဒါန်းအခန်းအား စီမံကိန်းအကြောင်းအရာ ဖော်ပြချက်တွင် ထည့်သွင်းထားပြီး သီးသန့်ဖော်ပြထားခြင်း မရှိကြောင်း ကနဦးစိစစ်တွေ့ရှိရပါသည်။ • စာမျက်နှာ (၁၁)မှ (၁၅) အထိတွင် EMP ရေးဆွဲရခြင်း၏ နောက်ခံအကြောင်းအရာများအား ဖော်ပြထားကြောင်း၊ စီမံကိန်းအဆိုပြုသူအနေဖြင့် ၂၁ နှစ်တာ ရင်းနှီးမြှုပ်နှံခွင့်ရရှိထားကြောင်း၊ MIC ရင်းနှီးမြှုပ်နှံမှုလိုင်စင်၊ YCDC လိုင်စင်၊ ဆောက်လုပ်ရေးပါမစ်များ ရရှိထားပါကြောင်း၊ ပြည်တွင်းရင်းနှီးမြှုပ်နှံမှု (၁%)နှင့် နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှု (၉၉%) တို့ဖြစ်ကြောင်း၊	အစီရင်ခံစာတွင် နိဒါန်းအခန်းအား သီးသန့်ဖော်ပြရန်နှင့် စီမံကိန်းနှင့် သက်ဆိုင်သည့် ခွင့်ပြုမိန့်များအား နောက်ဆက်တွဲတွင် ထည့်သွင်းဖော်ပြရန် (ဥပမာ– MIC ရင်းနှီးမြှုပ်နှံမှုလိုင်စင်၊ YCDC လိုင်စင်၊ ဆောက်လုပ်ရေး ပါမစ်များ)	နိဒါန်းအခန်းအား စာမျက်နှာ (၁၂)မှ (၁၆) အထိတွင် ဖြည့်စွက်ဖော်ပြထားပါသည်။ စီမံကိန်းနှင့်သက်ဆိုင်သည့်ခွင့်ပြုမိန့်များအား နောက်ဆက်တွဲတွင် ထည့်သွင်းဖော်ပြထားပါသည်။

	• သိုလှောင်ရုံနှင့် ရုံးခန်းများ ငှားရမ်းခြင်း စီမံကိန်းတွင် ဆေးနှင့် ဆက်စပ်ပစ္စည်းများသို့ လှောင်ရန်အတွက် အအေးခန်းသို့ လှောင်ရုံနှင့် ရုံးခန်းပါ အဆောက်အဦး (၂)လုံးနှင့် သာမန်ကုန်ပစ္စည်းများ သိုလှောင်ရန် ရိုးရိုးသိုလှောင်ရုံနှင့် ရုံးခန်းပါ အဆောက်အဦ (၁)လုံး ထားရှိဆောင်ရွက်ထားကြောင်း၊ • စီမံကိန်းအဆိုပြုသူ၏ အချက်အလက်များနှင့် စီမံကိန်းတာဝန်ခံ၏ အချက်အလက်များ ဖော်ပြထားကြောင်း၊ • EMP ရေးဆွဲသူ ပုဂ္ဂိုလ်/အဖွဲ့အစည်း၏ အချက်အလက်များကို ဖော်ပြထားပြီး TCR များကို နောက်ဆက်တွဲများဖြင့် ဖော်ပြထားကြောင်း တွေ့ရှိရပါသည်။		
၅	**စီမံကိန်းအကြောင်းအရာ ဖော်ပြချက်**		
	အစီရင်ခံစာ၏ စာမျက်နှာ (၁၅)မှ (၂၄)အထိတွင် စီမံကိန်းတည်နေရာ (ကောင်းကင်မြေပုံနှင့်တကွ)၊ စီမံကိန်းတစ်ခုလုံးအတွက် Layout Plan ပုံများ၊ အဆောက်အဦ (A၊B၊C) တို့၏ အကျယ်အဝန်း၊ အဆောက်အဦ အလွှာအသီးသီးတွင် ထားရှိမည့် ဝန်ဆောင်မှုများနှင့် ကုန်တင်/ချ ပြုလုပ်မည့် ဧရိယာ၏ လုပ်ဆောင်ချက်များကို မှတ်တမ်းဓာတ်ပုံများ နှင့်တကွ ဖော်ပြထားသည်ကို တွေ့ရှိရပါသည်။	စီမံကိန်းတစ်ခုလုံး၏ စုစုပေါင်း ဧရိယာအကျယ်အဝန်းကို ထည့်သွင်းဖော်ပြရန်၊	စာမျက်နှာ (19)၊ အခန်း (၃)၊ အခန်းငယ် (၃.၃)တွင် ဖော်ပြထား ပါသည်။
	အစီရင်ခံစာ၏ စာမျက်နှာ (၂၅)မှ (၂၇)အထိတွင် အအေးခန်းသိုလှောင်ရုံနှင့် ရိုးရိုးခန်းကုန်သိုလှောင်ရုံတို့၏ လုပ်ငန်းလည်ပတ်မှုအဆင့်ဆင့်ကို Flow Chart (ပုံပါ)ဖြင့်လည်းကောင်း၊ စာသားဖြင့်လည်းကောင်း ဖော်ပြထားကြောင်း တွေ့ရှိရပါသည်။	အထူးသဘောထားမှတ်ချက်ပေးရန်မရှိပါ။	
	စာမျက်နှာ (၂၇)မှ (၃၂)အထိတွင် ရေသုံးစွဲမှုအနေဖြင့် ဂိုဒေါင်အားလုံးအတွက် အထွေထွေရေ အသုံးပြုမှုနှင့် သန့်ရှင်းရေးလုပ်ငန်းများအတွက် ၁၂,၀၀၀ လီတာဆန့် ရေသန့်စင်စက် ထားရှိပြီး စည်ပင်သာယာမှုရယူကာ မြေအောက်ရေသိုလှောင်ကန်ဖြင့် ထားရှိမည်ဖြစ်ကြောင်း၊	ရေသုံးစွဲမှုပမာဏ (ဂါလံ) (နေ့အလိုက်/ လအလိုက်/ နှစ်အလိုက် အသုံးပြုမှုပမာဏ စသည်ဖြင့်) ဖော်ပြရန်။	ရေသုံးစွဲမှုပမာဏအား စာမျက်နှာ (29)၊ ဇယား (၃.၄) တွင်ဖော်ပြထားပါသည်။ တွက်ချက်မှုများအား နောက်ဆက်တွဲ (ဂ) တွင် ဖော်ပြထားပါသည်။

	စွမ်းအင်အသုံးပြုမှုအနေဖြင့် 1000 KVA Transformer တပ်ဆင်ပြီး ရန်ကုန်လျှပ်စစ်ဓာတ်အားပေးရေး ကော်ပိုရေးရှင်းမှ ရယူမည်ဖြစ်ကြောင်း၊ Diesel Generator (၃)လုံး (400KVA, 364KVA, 375KVA) ဖြစ်ပြီး (၁)လလျှင် ယူနစ် (၁၀၀,၀၀၀) ခန့် အသုံးပြုမည်ဖြစ်ကြောင်း၊ စက်ယန္တရားများနှင့် Generator များအတွက် လောင်စာဆီအသုံးပြုမည်ဖြစ်ကြောင်း ဖော်ပြထားသော်လည်း အသုံးပြုမည့် ပမာဏနှင့် သိုလှောင်ထားရှိမှု အခြေအနေများအား ဖော်ပြထားမှု မရှိကြောင်း တွေ့ရှိရပါသည်။	လောင်စာဆီသုံးစွဲမည့် ပမာဏ (ဂါလံ) (နေ့အလိုက်/ လအလိုက် / နှစ်အလိုက် အသုံးပြုမှုပမာဏ စသည်ဖြင့်) နှင့် သိုလှောင်ထားရှိမှုအခြေအနေများကို မှတ်တမ်း ဓာတ်ပုံများဖြင့် ဖော်ပြရန်၊	လောင်စာဆီသုံးစွဲမှုပမာဏအား စာမျက်နှာ (29)၊ အပိုဒ်ခွဲ (၃.၃.၇) တွင် ဖြည့်စွက်ဖော်ပြထားပါသည်။ လောင်စာဆီအား လုပ်ငန်းဧရိယာအတွင်း သိုလှောင်ထားခြင်း မပြုလုပ်ပဲ နီးစပ်ရာ ဆီဆိုင်များမှ ဝယ်ယူသုံးစွဲမည်ဖြစ်ပါသည်။
	စာမျက်နှာ (၂၇)နှင့် (၃၀)တွင် အအေးခန်းနှင့် ရိုးရိုးသိုလှောင်ရုံတို့အား သန့်ရှင်းရေးပြုလုပ်ရာတွင် စွန့်ပစ်ရေထွက်ရှိပြီး Hazardous Waste အဖြစ်သတ်မှတ်နိုင်ပါသဖြင့် စနစ်တကျ သန့်စင်စွန့်ထုတ်ရန် လိုအပ်ပါကြောင်း၊ ကမ္ဘဏီအနေဖြင့် တစ်ရက်လျှင် 60 m^3 သန့်စင်နိုင်မည့် Aeromax Pre-disposal Treatment System တပ်ဆင်ထားပါကြောင်းနှင့် ရေဆိုးသန့်စင်စနစ်၏ လုပ်ငန်းစဉ်များအကြောင်းကို ရှင်းလင်းဖော်ပြထားသော်လည်း စွန့်ပစ်ရေ ထွက်ရှိမှုနှင့် သန့်စင်ပြီး ပမာဏ ဖော်ပြထားမှုမရှိသည်ကို တွေ့ရှိရပါသည်။	လုပ်ငန်းစဉ်များကြောင့် စွန့်ပစ်ရေထွက်ရှိမှုနှင့် သန့်စင်ပြီး ပမာဏ (နေ့အလိုက်/ လအလိုက်/ နှစ်အလိုက် အသုံးပြုမှုပမာဏ စသည်ဖြင့်) ကိုဖော်ပြရန်နှင့် နောက်ဆုံးစွန့်ထုတ်သည့်နေရာအား (Lat;/Long;) အမှတ်များဖြင့်ဖော်ပြရန်။	စွန့်ပစ်ရေထွက်ရှိမှု၊ သန့်စင်ပြီးပမာဏ နောက်ဆုံးစွန့်ထုတ်မည့်နေရာကို (Latitude/ Longitude) အမှတ်များဖြင့် စာမျက်နှာ (30)၊ အပိုဒ်ခွဲ (၃.၃.၈)တွင် ဖော်ပြထားပါသည်။
	ရုံးသုံးပစ္စည်းများနှင့် ထုတ်ပိုးပစ္စည်းများ အသုံးပြုခြင်းမှ စွန့်ပစ်အစိုင်အခဲများ ထွက်ရှိနိုင်ပြီး ၎င်းတို့ကို သိုလှောင်ရုံအနီးရှိ အမှိုက်ပုံးတွင် စွန့်ပစ်ပြီး ရန်ကုန်မြို့တော်စည်ပင်သာယာရေးကော်မတီ၏ အမှိုက်သိမ်းဆည်းမှု အစီအစဉ်ဖြင့် စွန့်ပစ်သွားမည်ဖြစ်ပါကြောင်း ဖော်ပြထားသော်လည်း လုပ်ငန်းအဆင့်အလိုက် စွန့်ပစ်ပစ္စည်း အမျိုးအစားနှင့် ထွက်ရှိမှုပမာဏအား ဖော်ပြထားမှုမရှိကြောင်း တွေ့ရှိရပါသည်။	လုပ်ငန်းအဆင့်အလိုက် စွန့်ပစ်ပစ္စည်းထွက်ရှိမှု အမျိုးအစား၊ ပမာဏ (နေ့အလိုက်/ လအလိုက်/ နှစ်အလိုက် အသုံးပြုမှုပမာဏ စသည်ဖြင့်) ကိုဖော်ပြရန်နှင့် ထုတ်လွှတ်/စွန့်ပစ်သည့် နေရာများကို အမှတ်များဖြင့် ညွှန်ပြထားသည့်မြေပုံ (သို့မဟုတ်) မှတ်တမ်း ဓာတ်ပုံများဖြင့် ဖော်ပြရန်။	စွန့်ပစ်ပစ္စည်းထွက်ရှိမှု အမျိုးအစား၊ ပမာဏ (နေ့အလိုက်/ လအလိုက်/ နှစ်အလိုက် အသုံးပြုမှုပမာဏ စသည်ဖြင့်) နှင့် စွန့်ပစ်သည့် မှတ်တမ်း ဓာတ်ပုံများအား စာမျက်နှာ (30)၊ အပိုဒ်ခွဲ (၃.၃.၈) တွင် ဖော်ပြထား ပါသည်။
	A/C (213 KVA နှင့် 120 KVA) အသီးသီး အသုံးပြုသည့် အဓိကအဆောက်အဦ (၂)လုံးမှ ညစ်ညမ်းမှုအများဆုံး ဖြစ်ပေါ်နိုင်ပြီး သယ်ယူပို့ဆောင်ရေးလုပ်ငန်းများ၊ ကုန်တင်ကုန်ချ လုပ်ငန်းများ၊ သိုလှောင်ခြင်းနှင့် ထုပ်ပိုးခြင်းလုပ်ငန်းများမှ PM, CO_2, CO နှင့် SO_2	အထူးသဘောထားမှတ်ချက်ပေးရန်မရှိပါ။	

	NO_x ဓာတ်ငွေ့များ ထွက်ရှိနိုင်ကြောင်း ဇယားဖြင့်ဖော်ပြထားသည်ကို တွေ့ရှိရပါသည်။		
	အစီရင်ခံစာတွင် လုပ်သား အရေအတွက် (ပြည်တွင်း/ ပြည်ပ)၊ အလုပ်ချိန် သတ်မှတ်ချက်၊ စက်ပစ္စည်းအင်အားနှင့် လုပ်ငန်းလည်ပတ်မည့်ရက်များ ဖော်ပြထားမှုမရှိကြောင်း တွေ့ရှိရပါသည်။	အစီရင်ခံစာ၏ လုပ်ငန်းအကြောင်းအရာဖော်ပြချက်တွင် အောက်ပါအချက်များ ဖြည့်စွက်ဖော်ပြရန် လိုအပ်ပါသည်- • အသုံးပြုမည့် စက်ပစ္စည်းနှင့် ယန္တရား အင်အား စာရင်း • စုစုပေါင်း/လုပ်ငန်းစဉ်အလိုက်/အဆိုင်းအလိုက် လုပ်သား အရေအတွက်နှင့် အလုပ်ချိန် သတ်မှတ်ချက် • တစ်နှစ်လျှင် လုပ်ငန်းလည်ပတ်ရက်	လိုအပ်သည့်အချက်များအား စာမျက်နှာ (34)၊ အပိုဒ်(၃.၄) တွင် ဖြည့်စွက်ဖော်ပြထားပါသည်။
၆	**မူဝါဒ၊ ဥပဒေနှင့် အဖွဲ့အစည်းဆိုင်ရာ မူဘောင်**		
	စီမံကိန်းမှ သိရှိလိုက်နာရမည့် အောက်ပါ ဥပဒေ၊ အက်ဥပဒေ၊ လမ်းညွှန်ချက်များ (၂၉)မျိုးအနက် သိရှိလိုက်နာရမည့် ပုဒ်မ၊ ပုဒ်မခွဲများကို အစီရင်ခံစာ၏ စာမျက်နှာ (၃၃)မှ (၄၈)ထိ ဖော်ပြထားသော်လည်း ထပ်မံဖြည့်စွက်ရန် လိုအပ်ကြောင်း တွေ့ရှိရပါသည်။	• စီမံကိန်းအဆိုပြုသူအနေဖြင့် မြန်မာနိုင်ငံရှိ တည်ဆဲဥပဒေများအားလုံးကို လိုက်နာရမည်ဖြစ်သော်လည်း လုပ်ငန်းနှင့် သက်ဆိုင်သည့် အောက်ဖော်ပြပါ ဥပဒေများ၊ နည်းဥပဒေများထဲမှ သိရှိလိုက်နာရမည့် ပုဒ်မ၊ ပုဒ်မခွဲများကို အစီရင်ခံစာတွင် ထည့်သွင်းဖော်ပြရန်နှင့် လိုက်နာဆောင်ရွက်မည်ဖြစ်ကြောင်း ဖော်ပြရန်လိုအပ်ပါသည်- ○ စားသုံးသူကာကွယ်ရေးဥပဒေ (၂၀၁၉) ○ ရန်ကုန်မြို့တော်မြူနီစီပယ်အက်ဥပဒေ (၁၉၂၂) ○ ရန်ကုန်မြို့တော်စည်ပင်သာယာရေးဥပဒေ (၁၉၅၀) ○ အလုပ်ရုံများအက်ဥပဒေ (၁၉၅၁) • YCDC မှ ချမှတ်ထားသော စက်မှုဇုန် စည်းမျဉ်း၊ စည်းကမ်း၊ နည်းဥပဒေများနှင့် ညွှန်ကြားချက်များကို ဖြည့်စွက်ဖော်ပြရန်နှင့် အခြားသက်ဆိုင်နိုင်သည့် ဥပဒေများ၊ နည်းဥပဒေများရှိပါက ဖော်ပြရန်။	အခန်း (၄)၊ စာမျက်နှာ (50)မှ (51)ထိတွင် ဖြည့်စွက်ဖော်ပြထားပါသည်။
	အစီရင်ခံစာတွင် ပတ်ဝန်းကျင်အရည်အသွေး တိုင်းတာသည့် ရလဒ်များကို ပြည်တွင်းမှ NEQEG (2015) ဖြင့်လည်းကောင်း၊ ပြည်ပမှ WHO, NAAQS, ACGIH Guideline များဖြင့်လည်းကောင်း နှိုင်းယှဉ်ထားသည်ကို တွေ့ရှိရသဖြင့် စီမံကိန်းမှ လိုက်နာဆောင်ရွက်	စီမံကိန်းဆောင်ရွက်ခြင်းမှ ထွက်ရှိ/ထုတ်လွှတ်နိုင်သည့် စွန့်ပစ်ပစ္စည်းအစိုင်အခဲ၊ အရည်၊ အခိုးအငွေ့နှင့် အသံဆူညံမှု အစရှိသည်တို့ကြောင့် ဖြစ်ပေါ်နိုင်သည့် သက်ရောက်မှုများအပေါ် အခြေခံ၍ စီမံကိန်းမှ လိုက်နာဆောင်ရွက်မည့် ပြည်တွင်းနှင့် ပြည်ပမှ	အခန်း (၄)၊ စာမျက်နှာ (51)မှ (53)ထိတွင် ဖြည့်စွက်ဖော်ပြထားပါသည်။

	မည့် အဆိုပါ Guideline တန်ဖိုး၊ ပါရာမီတာများကို မူဝါဒ၊ ဥပဒေ နှင့် အဖွဲ့အစည်းဆိုင်ရာ မူဘောင်အခန်းတွင် ဖော်ပြရန်လိုအပ် ကြောင်း တွေ့ရှိရသည်။	အရည်အသွေးဆိုင်ရာ လမ်းညွှန်ချက်များ၊ ကဏ္ဍအလိုက် တိုင်း တာရမည့် ပါရာမီတာများနှင့် လမ်းညွှန်ချက် တန်ဖိုးများကို ဤအခန်း၌ ထည့်သွင်းဖော်ပြရန်။ ဥပမာ– ပြည်တွင်းမှ အရည်အသွေးဆိုင်ရာ လမ်းညွှန်ချက် အနေဖြင့် NEQEG(2015) Guideline ပါ လိုက်နာမည့် ပါရာမီတာများအား ဖော်ပြခြင်း၊ ပြည်ပမှ WHO, NAAQS, ACGIH Guideline များပါ ပါရာမီတာများကို ဖော်ပြခြင်း)၊ ပတ်ဝန်းကျင် ဆိုင်ရာ ကျန်းမာရေးနှင့် ဘေးအန္တရာယ် ကင်းရှင်းရေးဆိုင်ရာ လမ်းညွှန်ချက်များနှင့် ပတ်သက်၍ လိုက်နာမည့် အပြည်ပြည် ဆိုင်ရာ လမ်းညွှန်ချက်များရှိပါက ထည့်သွင်းဖော်ပြရန်။ (ဥပမာ IFC, EHS)	
၆	**လက်ရှိပတ်ဝန်းကျင်အခြေအနေ**		
	အစီရင်ခံစာ၏ စာမျက်နှာ (၄၉)မှ (၇၀)ထိတွင် Natural Environment, Biological Environment, Social Environment စသည့် အကြောင်းအရာများကို Secondary Data ဖြင့်ဖော်ပြထား ပြီး ရည်ညွှန်းကိုးကားသည့် Reference များအား အသီးသီးဖော်ပြ ထားကြောင်း တွေ့ရှိရပါသည်။	အထူးသဘောထားမှတ်ချက်ပေးရန်မရှိပါ။	
	Physical Environment ဆိုင်ရာအကြောင်းအရာများကို ကွင်းဆင်း လေ့လာခဲ့သည့် ဖော်ပြချက်များတွင် စီမံကိန်းအနီး ပတ်ဝန်းကျင် လေထုအရည်အသွေး၏ PM_{10}, $PM_{2.5}$, CO, SO_2, NO_2, O_3, CO_2 စသည့် ပါရာမီတာများကို တိုင်းတာပြီး NEQEG, NAAQS, ACGIH Guideline များနှင့် နှိုင်းယှဉ်ဖော်ပြထားပြီး ရလဒ်များသည် စံချိန် စံညွှန်းများအတွင်းရှိကြောင်း တွေ့ရှိရပါသည်။	လေထုအရည်အသွေး တိုင်းတာ၍ရရှိသည့် Environmental Report အထောက်အထားများအား နောက်ဆက်တွဲဖြင့် ဖော်ပြရန်။	လေထုအရည်အသွေး၊ ဆူညံသံနှင့် တုန်ခါမှု တိုင်းတာ၍ ရရှိသည့် ဒေတာအကြမ်း (Raw Data) များအား နောက်ဆက်တွဲ အခန်း ၉ (Appendix 9) တွင် ဖော်ပြထားပါသည်။
	စီမံကိန်းဧရိယာအတွင်း ဆူညံသံကို နေ့အချိန်နှင့် ညအချိန်ခွဲ၍ တိုင်းတာပြီး NEQEG နှင့် နှိုင်းယှဉ်ထားရာတွင် စံချိန်စံညွှန်းများ အတွင်းရှိကြောင်း တွေ့ရှိရပါသည်။	အထူးသဘောထားမှတ်ချက်ပေးရန်မရှိပါ။	
	အစီရင်ခံစာ၏ စာမျက်နှာ (၆၅ နှင့် ၆၆)တွင် ရေထုအရည်အသွေး (မြေပေါ်ရေ အရည်အသွေး)နှင့် ပတ်သက်၍ နှိုင်းယှဉ်မည့် ပါရာမီ	စီမံကိန်းအရှေ့ရှိ ရေစီးမြောင်းမှ ရေနမူနာ ကောက်ယူ၍ ဓာတ်ခွဲ တိုင်းတာထားသည့် ရလဒ်များအား အမှန်တကယ် နှိုင်းယှဉ်ထား	ရလဒ်များအား အမှန်တကယ်နှိုင်းယှဉ်ထားသည့် Standard Guideline ၏ Organization အမည်

	တာနှင့် တန်ဖိုးများကို Australia, New Zealand နှင့် Canada နိုင်ငံတို့၏ Protection for aquatic life အတွက် Standard Guideline များအား ဇယားဖြင့်ဖော်ပြထားသော်လည်း စာ-၆၇၊ ဇယားတွင် စီမံကိန်းအရှေ့ရှိ ရေစီးမြောင်းမှ ရေနမူနာကောက်ယူ၍ ဓာတ်ခွဲတိုင်းတာထားသည့် ရလဒ်များအား International and National Guideline ဖြင့် နှိုင်းယှဉ်ကြောင်း ယေဘုယျဆန်စွာ ဖော်ပြထားကြောင်း တွေ့ရှိရပါသည်။	သည့် Standard Guideline ၏ organization အမည်များကို ဖော်ပြရန်နှင့် ပါရာမီတာသည် Standard Guideline ထက် ကျော်လွန်နေသည့် အကြောင်းအရာများကို ရှင်းလင်းဖော်ပြရန်။	များကို ပြန်လည် စီစစ်ဖော်ပြထားပြီး Standard Guideline ထက်ကျော်လွန်နေသည့် အကြောင်းအရာများကို စာမျက်နှာ (69) တွင် ဖြည့်စွက် ရှင်းလင်းဖော်ပြထားပါသည်။
	စာ (၂၉-၃၀)တွင် ဖော်ပြထားသော အကြောင်းအရာများအရ စွန့်ပစ်ရေထွက်ရှိမှုရှိနိုင်ပြီး ရေဆိုးသန့်စင်သည့်စနစ် တည်ဆောက်ထားကြောင်းဖော်ပြသော်လည်း စွန့်ပစ်ရေအရည်အသွေး တိုင်းတာထားမှုမရှိကြောင်းတွေ့ရှိရပါသည်။	စွန့်ပစ်ရေအရည်အသွေးအား နမူနာကောက်ယူတိုင်းတာပြီး ပြည်တွင်း/ပြည်ပမှ လက်ခံထားသည့် Standard Guideline များနှင့် နှိုင်းယှဉ်၍ ကောက်ယူသည့် တည်နေရာ၊ မှတ်တမ်းဓာတ်ပုံနှင့် ရလဒ်များအား ထည့်သွင်းဖော်ပြရန်။	အပိုဒ်ခွဲ (၅.၂.၂.၄)၊ စာမျက်နှာ (71) တွင် ဖြည့်စွက်ဖော်ပြထားပါသည်။
၈	**ထိခိုက်မှုနှင့် ဘေးအန္တရာယ် ဖြစ်နိုင်ခြေဆန်းစစ်ခြင်းနှင့် လျော့နည်းစေရေး နည်းလမ်းများ**		
	အစီရင်ခံစာ၏ စာမျက်နှာ (၇၁-၇၈)တွင် စီမံကိန်းကြောင့် ဖြစ်ပေါ်နိုင်သည့် ထိခိုက်မှုများကို ဆန်းစစ်သည့်နည်းလမ်းများ၊ စီမံကိန်း၏ လည်ပတ်မှုနှင့် ပိတ်သိမ်းမှုအဆင့်များတွင် ဖြစ်ပေါ်နိုင်သည့် ကောင်းကျိုး/ဆိုးကျိုး သက်ရောက်မှုများကို ဖော်ပြထားပြီး စာမျက်နှာ(၈၂-၈၅)တွင် စီမံကိန်း၏ လည်ပတ်မှုနှင့် ပိတ်သိမ်းမှုအဆင့်များတွင် ဖြစ်ပေါ်နိုင်သည့် သက်ရောက်မှုများ၏ နယ်ပယ်အလိုက် လျော့ချမည့် နည်းလမ်းများကို ဇယားဖြင့် ဖော်ပြထားကြောင်း တွေ့ရှိရပါသည်။	အထူးသဘောထားမှတ်ချက်ပေးရန်မရှိပါ။	
	လုပ်ငန်းလည်ပတ်ခြင်းကြောင့် ဖြစ်နိုင်ခြေရှိသော လုပ်ငန်းခွင်ဆိုင်ရာ အန္တရာယ်များနှင့် မီးဘေးအန္တရာယ်များအား ဆန်းစစ်မှု ဇယားတွင် ဖော်ပြထားသော်လည်း ပေါက်ကွဲခြင်း (explosions)၊ စက်ပစ္စည်းကိရိယာ ချွတ်ယွင်းခြင်း (Equipment malfunctioning)၊ စက်ပိုင်းဆိုင်ရာနှင့် တည်ဆောက်ပုံဆိုင်ရာ ချွတ်ယွင်းမှု (mechanical and structural failures) ဆိုင်ရာ အန္တရာယ်များအား ဖော်ပြထားမှုမရှိကြောင်း တွေ့ရှိရပါသည်။	စက်ရုံလည်ပတ်ခြင်းကြောင့် ဖြစ်နိုင်ခြေရှိသော စက်မှုဆိုင်ရာ အန္တရာယ်များအား ဆန်းစစ်မှု ဇယားတွင် ပေါက်ကွဲခြင်း (Explosions)၊ စက်ပစ္စည်းကိရိယာချွတ်ယွင်းခြင်း (Equipment malfunctioning)၊ စက်ပိုင်းဆိုင်ရာနှင့် တည်ဆောက်ပုံဆိုင်ရာ ချွတ်ယွင်းမှု (Mechanical and structural failures) ဆိုင်ရာ အန္တရာယ်များအား ဖြည့်စွက်ဖော်ပြရန်။	သိုလှောင်ရုံနှင့် ရုံးခန်းများငှားရမ်းခြင်း လုပ်ငန်းသဘောတရားသည် ပေါက်ကွဲခြင်း၊ စက်ပစ္စည်းကိရိယာချွတ်ယွင်းခြင်း၊ စက်ပိုင်းဆိုင်ရာနှင့် တည်ဆောက်ပုံဆိုင်ရာချွတ်ယွင်းမှု အန္တရာယ်များ မဖြစ်ပေါ်နိုင်ပါ။
၉	**ဒေသခံပြည်သူများနှင့် တိုင်ပင်ဆွေးနွေးခြင်း**		

	အစီရင်ခံစာ၏ စာမျက်နှာ (၁၀၀)နှင့် (၁၀၁)တွင် စီမံကိန်းနှင့် ပတ်သက်၍ တိုင်ပင်ဆွေးနွေးခြင်း အစီအစဉ်အား သာကေတစက်မှုဇုန်စီမံခန့်ခွဲမှုကော်မတီရုံးတွင် ကော်မတီအတွင်းရေးမှူး၊ ကုမ္ပဏီမှ တာဝန်ရှိသူများနှင့် အစီရင်ခံစာ ရေးဆွဲသည့် တတိယအဖွဲ့အစည်းမှ တာဝန်ရှိသူများဖြင့် ကျင်းပပြုလုပ်ခဲ့ကြောင်း၊ အစည်းအဝေးတွင် စီမံကိန်းအကြောင်းအရာများ၊ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ပါ အကြောင်းအရာများနှင့် စီမံကိန်းအပေါ် မြင်တွေ့ရသည့် သဘောထားများအား ဆွေးနွေးခဲ့ကြကြောင်း ဖော်ပြထားသည်ကို တွေ့ရှိရသော်လည်း ဒေသခံပြည်သူများနှင့် တိုင်ပင်ဆွေးနွေးခြင်းအစီအစဉ်နှင့် ပတ်သက်၍ ပြည့်စုံလုံလောက်မှုမရှိကြောင်း တွေ့ရှိရပါသည်။	အများပြည်သူများနှင့် တိုင်ပင်ဆွေးနွေးခြင်းနှင့် ပတ်သက်၍ စီမံကိန်းအနေဖြင့် လက်ရှိအချိန်တွင် ကူးစက်မြန် ကမ္ဘာကပ်ရောဂါ Covid-19 ပြန့်ပွားမှု အနည်းဆုံးဖြစ်စေရန်အတွက် ကျန်းမာရေးဝန်ကြီးဌာန၏ ညွှန်ကြားချက်များနှင့်အညီ အများပြည်သူများနှင့် တိုင်ပင်ဆွေးနွေးခြင်း လုပ်ငန်းစဉ်များ စတင်နိုင်သည်နှင့် စီမံကိန်း အကြောင်းအရာများအား စက်မှုဇုန်ကော်မတီ၊ သက်ဆိုင်ရာ အစိုးရဌာန အဖွဲ့အစည်း၊ စီမံကိန်းအနီးဝန်းကျင်ရှိ ပြည်သူများဖြင့် ဆွေးနွေးဆောင်ရွက်ရန်၊ ဆွေးနွေးသည့် နေ့ရက်၊ နေရာ၊ ဆောင်ရွက်ခဲ့သည့် အကြိမ်အရေအတွက်၊ တက်ရောက်သူဦးရေ (List ပါ)၊ ဆွေးနွေးသည့် အကြောင်းအရာ အကျဉ်းချုပ်အား ဖော်ပြရန်နှင့် ဆွေးနွေးပွဲ ရလဒ်များအပေါ်မူတည်၍ ဆက်လက်ဆောင်ရွက်သွားမည့် အစီအစဉ်များအား ဖော်ပြရန်။	အများပြည်သူများနှင့် တိုင်ပင်ဆွေးနွေးခြင်းနှင့် ပတ်သက်၍ ၂၀၂၂ ခုနှစ်၊ မတ်လ (၄)ရက်တွင်၊ FLP Tharkayta ရုံး၊ အစည်းအဝေးခန်းမတွင်ထပ်မံပြုလုပ်ခဲ့ကြောင်းနှင့် တက်ရောက်သူဦးရေ၊ ဆွေးနွေးသည့် အကြောင်းအရာ အကျဉ်းချုပ်အား အခန်း (၈)၊ စာမျက်နှာ (112)တွင် ဖြည့်စွက်ဖော်ပြထားပါသည်။
၁၀	**ပတ်ဝန်းကျင်နှင့် လူမှုဆိုင်ရာ စီမံခန့်ခွဲမှုအစီအစဉ်များ**		
	အစီရင်ခံစာ၏ စာမျက်နှာ (၈၆-၉၉)တွင် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်နှင့် စောင့်ကြပ်ကြည့်ရှု စစ်ဆေးခြင်း အစီအစဉ်များ၏ ရည်ရွယ်ချက်များအပြင် EMP ကို အကောင်အထည်ဖော်ဆောင်ရွက်ရန်မှာ FLP Tharkayta Co.,Ltd. နှင့် ECD တို့မှဖြစ်ပါကြောင်း ယေဘုယျသာ ဖော်ပြထားကြောင်းတွေ့ရှိရပါသည်။	စီမံကိန်းအဆိုပြုသူအနေဖြင့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်ကို အကောင်အထည်ဖော်မည့်အဖွဲ့ (EMP Implementation Team) ဖွဲ့စည်းထားရှိမှုနှင့် အဖွဲ့ဝင်များအား တာဝန်ခွဲဝေထားမှုများ (Organization Structure နှင့်တကွ ဖော်ပြရန်) အား ဖြည့်စွက်ဖော်ပြရန်။	ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်ကို အကောင်အထည်ဖော်မည့်အဖွဲ့ ဖွဲ့စည်းထားရှိမှုနှင့် အဖွဲ့ဝင်များအား တာဝန်ခွဲဝေထားမှုများအား Organization Structure နှင့်တကွ စာမျက်နှာ (Environmental Management Plans89)မှ (92)ထိတွင် ဖြည့်စွက်ဖော်ပြထားပါသည်။
	လုပ်ငန်းလည်ပတ်မှုအဆင့်နှင့် ပိတ်သိမ်းမှုအဆင့်တို့တွင် အောက်ဖော်ပြပါ ပတ်ဝန်းကျင် အရည်အသွေးများကို စီမံခန့်ခွဲမည့် အစီအစဉ်နှင့် ဆောင်ရွက်ချက်များအပါအဝင် တာဝန်ယူမည့် အဖွဲ့အမည်တို့ကို ဇယားဖြင့် ဖော်ပြထားကြောင်း တွေ့ရှိရပါသည်- • မြေထုညစ်ညမ်းမှု • လေထုညစ်ညမ်းမှု • ရေထုညစ်ညမ်းမှု • ဆူညံသံ • အနှံ့	အရေးပေါ်တုံ့ပြန်မည့်အစီအစဉ်တွင် အောက်ဖော်ပြပါ အချက်များအား ထပ်မံဖြည့်စွက်ရန် လိုအပ်ပါသည်- • အရေးပေါ်တုံ့ပြန်မှုအစီအစဉ်အတွက် လိုအပ်သော ပစ္စည်းကိရိယာများ (ဥပမာ- မီးသတ်ပစ္စည်း ကိရိယာ၊ မီးငြိမ်းသတ်ရေးပစ္စည်းများ၊ ရှေးဦးသူနာပြုအထောက်အပံ့ ပစ္စည်းများ၊ အရေးပေါ်ဆေးပေးခန်းများနှင့် အရေးပေါ်ယာဉ်) ထားရှိဆောင်ရွက်မည့် အစီအစဉ် • အရေးပေါ်အခြေအနေဖြစ်ပွားပါက ဆက်သွယ်မည့်လိပ်စာများ/ တာဝန်ယူမည့်အဖွဲ့နှင့် လုပ်ငန်းတာဝန်များ/	အစီရင်ခံစာ၏ စာမျက်နှာ (97)မှ (102)ထိတွင် ဖြည့်စွက်ဖော်ပြထားပါသည်။

	• တိရိစ္ဆာန်နှင့် သစ်ပင်ပန်းမံများ • စွန့်ပစ်ပစ္စည်းများ • လုပ်ငန်းခွင်ကျန်းမာရေးနှင့် ဘေးကင်းမှု • အရေးပေါ်တုံ့ပြန်မည့်အစီအစဉ်	အရေးပေါ်အခြေအနေဆိုင်ရာ လုပ်ထုံးလုပ်နည်းများနှင့် အကောင်အထည်ဖော်ဆောင်ရွက်ခြင်းများ/ ကြိုတင်လေ့ကျင့်သင်ကြားမှု အစီအစဉ်များ	
၁၁	**စောင့်ကြပ်ကြည့်ရှုမည့် အစီအစဉ်**		
	အစီရင်ခံစာ၏ စာမျက်နှာ (၉၃-၉၄)ရှိ စောင့်ကြပ်ကြည့်ရှုမည့် အစီအစဉ်ဇယားတွင် အောက်ဖော်ပြပါ ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး၊ ပါရာမီတာများ၊ တည်နေရာ၊ အကြိမ်အရေအတွက်နှင့် တာဝန်ယူမည့်အဖွဲ့တို့ကို ဇယားဖြင့် အသီးသီးဖော်ပြထားသည်ကို တွေ့ရှိရပါသည်- • လေအရည်အသွေး • ဆူညံသံ • စွန့်ပစ်ရေအရည်အသွေး • အနှံ့ • စွန့်ပစ်အမှိုက် • ရေသုံးစွဲမှု • လျှပ်စစ်သုံးစွဲမှု • လူသားအရင်းအမြစ်ဖွံ့ဖြိုးတိုးတက်ရေး စွမ်းဆောင်ရည်မြှင့်တင်ခြင်း	စီမံကိန်းအဆိုပြုသူအနေဖြင့် စောင့်ကြပ်ကြည့်ရှုမည့် အစီအစဉ်ဇယားတွင် အောက်ဖော်ပြပါ အချက်များအား ထပ်မံဖြည့်စွက်ရန် လိုအပ်ပါသည်- • ပတ်ဝန်းကျင် အရည်အသွေးအလိုက် ဖော်ပြထားသည့် ပါရာမီတာများအား စစ်ဆေးမည့်နည်းလမ်း၊ လျာထား အသုံးစရိတ်/ ခန့်မှန်းကုန်ကျစရိတ် (ရာခိုင်နှုန်းဖြင့် ဖော်ပြခြင်းမပြုရန်) • ပတ်ဝန်းကျင်ဆိုင်ရာ စောင့်ကြပ်ကြည့်ရှုမည့်အစီအစဉ် အစီရင်ခံစာအား တင်ပြသွားမည့် အစီအစဉ်	ပတ်ဝန်းကျင် အရည်အသွေးအလိုက် ဖော်ပြထားသည့် ပါရာမီတာများအား စစ်ဆေးမည့်နည်းလမ်း၊ လျာထား အသုံးစရိတ်/ ခန့်မှန်းကုန်ကျစရိတ်များကို စာမျက်နှာ (105) ဇယား (၇.၈) တွင်ဖော်ပြထားပါသည်။ ပတ်ဝန်းကျင်ဆိုင်ရာ စောင့်ကြပ်ကြည့်ရှုမည့်အစီအစဉ် အစီရင်ခံစာတင်ပြခြင်းအား ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း၏ အခန်း(၉)တွင်ဖော်ပြထားသည့်အတိုင်း လိုက်နာဆောင်ရွက်သွားမည်ဖြစ်ကြောင်း ကတိကဝတ်ပြုချက်ဇယားတွင် ဖြည့်သွင်းဖော်ပြထားပါသည်။
၁၂	**List of Commitment**		
	စီမံကိန်းအဆိုပြုသူမှ အစီရင်ခံစာပါ အခန်းတစ်ခုချင်းစီအား ကတိကဝတ်ပြုချက် ဇယားပုံစံဖြင့် ဖော်ပြထားခြင်းမရှိကြောင်း စိစစ်တွေ့ရှိရပါသည်။	စီမံကိန်းအဆိုပြုသူမှ အစီရင်ခံစာပါ အခန်းတစ်ခုချင်းစီအား ကတိကဝတ်ပြုချက်ဇယား ပုံစံဖြင့် ဖော်ပြထားရှိရန်။ ကတိကဝတ်၏ အတိုချုပ် အမည် / အမှတ်စဉ် / ကတိကဝတ် အားရှင်းလင်း ဖော်ပြချက် / အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)	ကတိကဝတ်ပြုချက်ဇယားအား အခန်း၉၊ စာမျက်နှာ (117) တွင်ဖော်ပြထားပါသည်။
၁၃	**နိဂုံးသုံးသပ်ချက်**		
	ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်မှ လေ့လာတွေ့ရှိချက်များအရ အဆိုပြုစီမံကိန်းသည် ဒေသတွင်း အလုပ်အကိုင်နှင့် လူမှုစီးပွား	အထူးသဘောထားမှတ်ချက်ပေးရန်မရှိပါ။	

	တိုးတက်မှုအတွက် အားသာချက်များဖြစ်စေပြီး ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ ဥပဒေ၊ နည်းဥပဒေ၊ လုပ်ထုံးလုပ်နည်းများကို လိုက်နာကျင့်သုံး၍ ပတ်ဝန်းကျင်အတွက် ထိခိုက်မှုအနည်းဆုံးဖြစ်စေရန် အကောင်အထည်ဖော်နိုင်မည်ဖြစ်ကြောင်းကို ခြုံငုံ၍ နိဂုံးချုပ် သုံးသပ်ထားကြောင်း စိစစ်တွေ့ရှိရပါသည်။		
၁၄	**အထွေထွေအကြံပြုချက်**		
	• FLP Tharkayta Co.,Ltd. မှ သိုလှောင်ရုံနှင့် ရုံးခန်းများ ငှားရမ်းခြင်းစီမံကိန်းလုပ်ငန်းမှ တင်ပြလာသော ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်တွင် လုပ်ငန်း၏ သက်ဆိုင်ရာ လိုင်စင်များနှင့် ခွင့်ပြုချက်များအား ထည့်သွင်းဖော်ပြရန် လိုအပ်ပါသည်။ • အစီရင်ခံစာ၏ စောင့်ကြပ်ကြည့်ရှုမှုအစီအစဉ် အခန်း၍ EIA Procedure အပိုဒ် ၁၀၈ အရ စီမံကိန်းအဆိုပြုသူသည် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်၏ ဖယားပါအတိုင်း စောင့်ကြပ်ကြည့်ရှုမှု အစီရင်ခံစာကို ဝန်ကြီးဌာနသို့ (၆)လ တစ်ကြိမ် တင်ပြမည့် အစီအစဉ်အား ထည့်သွင်းဖော်ပြရန်လိုအပ်ပါသည်။ • ပြန်လည်ဖြည့်စွက်ရေးဆွဲမည့် EMP အစီရင်ခံစာတွင် ယခုပေးပို့သော အကြံပြုချက် တစ်ခုချင်းစီအလိုက် ဖြေရှင်းချက်များကို အစီရင်ခံစာ၏ မည်သည့်အပိုင်းတွင် ရေးသားထားသည်ကို ဖော်ပြသည့် (Comment Response Table) ကို ဖော်ပြပေးရန်လိုအပ်ပါသည်။	• သက်ဆိုင်ရာလိုင်စင်နှင့်ခွင့်ပြုချက်များအား နောက်ဆက်တွဲတွင် ဖြည့်စွက်ဖော်ပြထားပါသည်။ • စောင့်ကြပ်ကြည့်ရှုမှု အစီရင်ခံစာကို ဝန်ကြီးဌာနသို့ (၆)လ တစ်ကြိမ် တင်ပြမည့် အကြောင်း ကတိကဝတ်ပြုထားပါသည်။ • Comment Response Table ကို စာမျက်နှာ (188) မှ (197)ထိ တွင် ဖော်ပြထားပါသည်။