Construction Database

Project Deliverable 3

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# Construction Database

Industrial construction projects are very fast-paced, dynamic environments that represent significant cost, effort, and resource commitment. Historically, change has been the nemesis of successful project delivery. The crux of the issue lies in the lack of visibility around constraints. When a constraint prevents work from following the defined path, work is done out of sequence, this frequently leads to rework, delayed testing, and ultimately elevated cost and/or schedule slippage.

A constraint can be considered anything that would prevent construction from executing their plan on schedule. This might be documents, drawings, regulatory approval, materials, predecessor activities, resources [equipment/people/etc.], or a litany of others.

The database will start with the project schedule, the work packages that will be executed per that schedule, and any constraints associated with that work package. The system will have various user roles needed to create, update, search for, and report and constraints.

# Business Requirements

The project has a Project Controls department who will be responsible for maintaining the integrity and accuracy of the data in the system. The project has a very large number of users that will need to be able to find information about work packages and their constraints. The attributes of a user are USER\_ID (identifier), first name, last name, phone number, email address, company name, and department.

The entirety of the project consists of two subtypes. Project Controls and Standard Users. Project Members can only be in one of these subtypes.

Only the Project Controls department can update the data in the system. The entirety of the Project Controls department consists of two subtypes. System Administrators and Constraint Managers. A System Administrator can do everything that a Constraint Manager can do. A Constraint Manager can only perform a subset of what a System Administrator can do. Project Controls members can only be in one of these subtypes.

A Construction Work Area is a collection of many work packages. Each work package is associated with one Construction Work Area. A Construction Work Area can be a parent to other Construction Work Areas or to work packages. The attributes for a Construction Work Area are CWA (identifier), Name

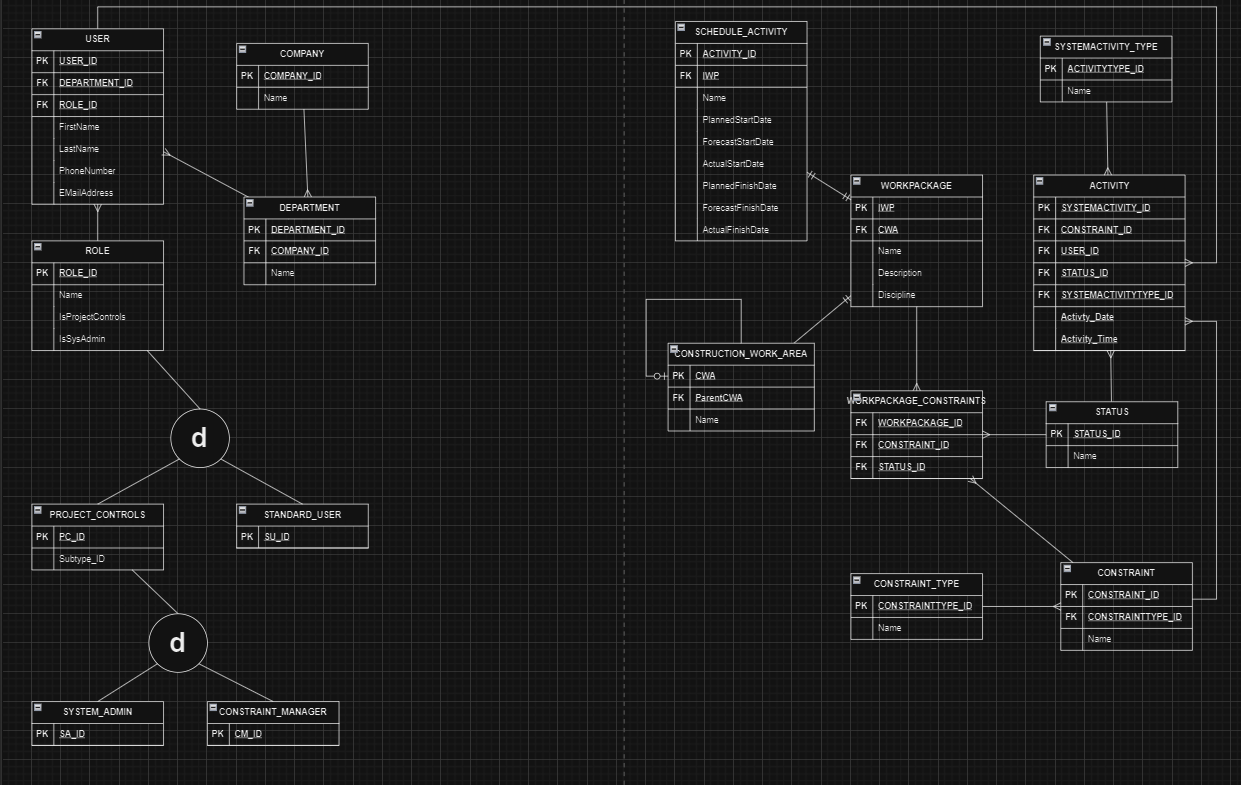
A work package is associated with only one Construction Work Area. The attributes of a work package are IWP (identifier), CWA, Name, Description, and Discipline. A work package cannot begin execution unless all Active constraints have been closed/deleted.

A constraint is related to one or more work packages. Constraints must be typed (Document/Schedule/Material/Regulatory Approval/etc. A constraint can only have one Constraint type. The attributes of a constraint are CONSTRAINT\_ID (identifier), Constraint Type, Name, Status (Active/Pending/Closed/Deleted). Once a constraint is created, it cannot be deleted, only marked with a “Deleted” status.

A schedule activity pertains to one work package but one schedule activity can be a predecessor to many other schedule activities. The attributes for a Schedule Activity are ACTIVITY\_ID, Name, Planned Start Date, Forecast Start Date, Actual Start Date, Planned Finish Date, Forecast Finish Date, Actual Finish Date, Work Package

When the status of a Constraint changes the system must capture what type of change was made, what the status changed to, who made the change, and when they made the change.

# EERD Diagram



A diagram of a computer

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# Results

## All Table Queries

### -- ACTIVITY

SELECT \* FROM activity;

A screenshot of a computer

Description automatically generated

### -- COMPANY

SELECT \* FROM company;

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Description automatically generated

### -- CONSTRAINT

SELECT \* FROM constraint;

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Description automatically generated

### -- CONSTRAINT\_TYPE

SELECT \* FROM constraint\_type;

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Description automatically generated

### --CONSTRUCTION\_WORK\_AREA

SELECT \* FROM construction\_work\_area;

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### -- DEPARTMENT

SELECT \* FROM department;

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Description automatically generated

### -- DISCIPLINE

SELECT \* FROM discipline;

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Description automatically generated

### -- ROLE

SELECT \* FROM role;

A screenshot of a computer

Description automatically generated

### --ROLE\_TYPE

SELECT \* FROM role\_type;

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Description automatically generated

### -- SCHEDULE\_ACTIVITY

SELECT \* FROM schedule\_activity;

A screenshot of a computer

Description automatically generated

### -- STATUS

SELECT \* FROM status;

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Description automatically generated

### -- SYSTEMACTIVITY\_TYPE

SELECT \* FROM systemactivity\_type;

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Description automatically generated

### -- USER

SELECT \* FROM user;

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Description automatically generated

### -- WORKPACKAGE

SELECT \* FROM workpackage;

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### -- WORKPACKAGE\_CONSTRAINTS

SELECT \* FROM workpackage\_constraints;

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## 

## Complex Queries

### -- ACTIVITY DETAIL

SELECT

U.LastName,

U.FirstName,

D.Name AS 'DepartmentName',

CO.Name AS 'CompanyName',

A.Activity\_Date,

A.Activity\_Time,

SA.Name AS 'ActivityType',

C.Name AS 'ConstraintName',

CT.Name AS 'ConstraintType',

WP.Name AS 'WorkPackage',

CWA.Name AS 'CWA',

PCWA.Name AS 'ParentCWA',

SCH.PlannedStartDate AS 'PlannedStart',

SCH.PlannedFinishDate AS 'PlannedFinish',

DISC.Name AS 'Discipline'

FROM ACTIVITY AS A

INNER JOIN USER AS U ON A.USER\_ID=U.USER\_ID

INNER JOIN DEPARTMENT AS D ON U.DEPARTMENT\_ID=D.DEPARTMENT\_ID

INNER JOIN COMPANY AS CO ON D.COMPANY\_ID=CO.COMPANY\_ID

INNER JOIN `CONSTRAINT` AS C ON A.Constraint\_ID=C.Constraint\_ID

INNER JOIN SYSTEMACTIVITY\_TYPE AS SA ON A.SYSTEMACTIVITY\_ID=ACTIVITYTYPE\_ID

INNER JOIN CONSTRAINT\_TYPE AS CT ON C.ConstraintType\_ID=CT.ConstraintType\_ID

INNER JOIN STATUS AS S ON A.STATUS\_ID=S.STATUS\_ID

INNER JOIN WORKPACKAGE AS WP ON A.WORKPACKAGE\_ID=WP.IWP

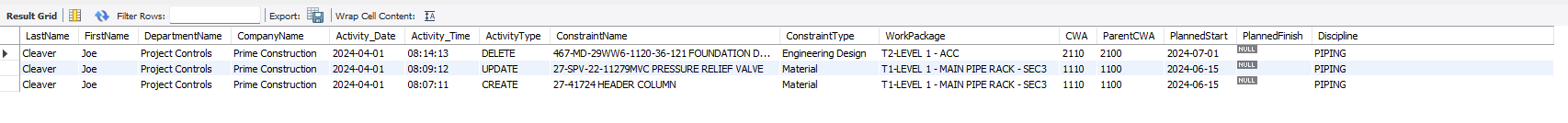
INNER JOIN WORKPACKAGE\_CONSTRAINTS AS WPC ON C.CONSTRAINT\_ID = WPC.CONSTRAINT\_ID AND S.STATUS\_ID=WPC.STATUS\_ID AND WP.IWP=WPC.WORKPACKAGE\_ID

INNER JOIN CONSTRUCTION\_WORK\_AREA AS CWA ON WP.CWA=CWA.CWA

INNER JOIN CONSTRUCTION\_WORK\_AREA AS PCWA ON CWA.ParentCWA=PCWA.CWA

INNER JOIN SCHEDULE\_ACTIVITY AS SCH ON WP.IWP=SCH.IWP

INNER JOIN DISCIPLINE AS DISC ON WP.DISCIPLINE\_ID=DISC.DISCIPLINE\_ID;



### -- IWP SCHEDULE

SELECT

WP.Name AS 'WorkPackage',

CWA.Name AS 'CWA',

PCWA.Name AS 'ParentCWA',

MIN(SCH.PlannedStartDate) AS 'PlannedStart',

MAX(SCH.PlannedFinishDate) AS 'PlannedFinish',

DISC.Name AS 'Discipline'

FROM WORKPACKAGE AS WP

INNER JOIN CONSTRUCTION\_WORK\_AREA AS CWA ON WP.CWA=CWA.CWA

INNER JOIN CONSTRUCTION\_WORK\_AREA AS PCWA ON CWA.ParentCWA=PCWA.CWA

INNER JOIN SCHEDULE\_ACTIVITY AS SCH ON WP.IWP=SCH.IWP

INNER JOIN DISCIPLINE AS DISC ON WP.DISCIPLINE\_ID=DISC.DISCIPLINE\_ID

GROUP BY CWA.Name, PCWA.Name, WP.Name, Disc.Name, SCH.PlannedStartDate, SCH.PlannedFinishDate;

A screenshot of a data

Description automatically generated

### -- IWP/CWA

SELECT

PCWA.Name AS 'ParentCWA',

CWA.Name AS 'CWA',

WP.IWP,

WP.Name AS 'WorkPackage'

FROM CONSTRUCTION\_WORK\_AREA AS CWA

INNER JOIN CONSTRUCTION\_WORK\_AREA AS PCWA ON CWA.ParentCWA=PCWA.CWA

LEFT JOIN WORKPACKAGE AS WP ON CWA.CWA=WP.CWA

ORDER BY PCWA.CWA, CWA.CWA, WP.IWP ASC;

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### -- USERS

SELECT

U.LastName,

U.FirstName,

D.Name AS 'DepartmentName',

CO.Name AS 'CompanyName'

FROM USER AS U

INNER JOIN DEPARTMENT AS D ON U.DEPARTMENT\_ID=D.DEPARTMENT\_ID

INNER JOIN COMPANY AS CO ON D.COMPANY\_ID=CO.COMPANY\_ID

ORDER BY LastName DESC;

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### -- ACTIVITY

SELECT

A.Activity\_Date,

A.Activity\_Time,

SA.Name AS 'ActivityType',

C.Name AS 'ConstraintName',

CT.Name AS 'ConstraintType',

WP.Name AS 'WorkPackage',

CWA.Name AS 'CWA'

FROM ACTIVITY AS A

INNER JOIN `CONSTRAINT` AS C ON A.Constraint\_ID=C.Constraint\_ID

INNER JOIN SYSTEMACTIVITY\_TYPE AS SA ON A.SYSTEMACTIVITY\_ID=ACTIVITYTYPE\_ID

INNER JOIN CONSTRAINT\_TYPE AS CT ON C.ConstraintType\_ID=CT.ConstraintType\_ID

INNER JOIN WORKPACKAGE AS WP ON A.WORKPACKAGE\_ID=WP.IWP

INNER JOIN CONSTRUCTION\_WORK\_AREA AS CWA ON WP.CWA=CWA.CWA;

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# Appendix

## DDL for ConstructionDB

SET @OLD\_UNIQUE\_CHECKS=@@UNIQUE\_CHECKS, UNIQUE\_CHECKS=0;

SET @OLD\_FOREIGN\_KEY\_CHECKS=@@FOREIGN\_KEY\_CHECKS, FOREIGN\_KEY\_CHECKS=0;

SET @OLD\_SQL\_MODE=@@SQL\_MODE, SQL\_MODE='ONLY\_FULL\_GROUP\_BY,STRICT\_TRANS\_TABLES,NO\_ZERO\_IN\_DATE,NO\_ZERO\_DATE,ERROR\_FOR\_DIVISION\_BY\_ZERO,NO\_ENGINE\_SUBSTITUTION';

-- -----------------------------------------------------

### -- Schema construction\_db - DROP

-- -----------------------------------------------------

DROP SCHEMA IF EXISTS `construction\_db` ;

-- -----------------------------------------------------

### -- Schema construction\_db - CREATE

-- -----------------------------------------------------

CREATE SCHEMA IF NOT EXISTS `construction\_db` ;

USE `construction\_db` ;

-- -----------------------------------------------------

### -- Table `construction\_db`.`ACTIVITY`

-- -----------------------------------------------------

DROP TABLE IF EXISTS `construction\_db`.`ACTIVITY` ;

CREATE TABLE IF NOT EXISTS `construction\_db`.`ACTIVITY` (

`SYSTEMACTIVITY\_ID` INT NOT NULL AUTO\_INCREMENT,

`CONSTRAINT\_ID` INT NOT NULL,

`USER\_ID` INT NOT NULL,

`STATUS\_ID` INT NOT NULL,

`SYSTEMACTIVITYTYPE\_ID` INT NOT NULL,

`WORKPACKAGE\_ID` VARCHAR(50) NOT NULL,

`Activity\_Date` DATE NOT NULL DEFAULT (CURDATE()),

`Activity\_Time` TIME NOT NULL DEFAULT (CURRENT\_TIMESTAMP()),

PRIMARY KEY (`SYSTEMACTIVITY\_ID`, `SYSTEMACTIVITYTYPE\_ID`, `USER\_ID`, `CONSTRAINT\_ID`, `STATUS\_ID`),

UNIQUE INDEX `SYSTEMACTIVITY\_ID\_UNIQUE` (`SYSTEMACTIVITY\_ID` ASC) VISIBLE,

INDEX `FK\_ACTIVITY\_ACTIVITYTYPE\_idx` (`SYSTEMACTIVITYTYPE\_ID` ASC) VISIBLE,

INDEX `FK\_ACTIVITY\_USERID\_idx` (`USER\_ID` ASC) VISIBLE,

INDEX `FK\_ACTIVITY\_STATUSID\_idx` (`STATUS\_ID` ASC) VISIBLE,

INDEX `FK\_ACTIVITY\_CONSTRAINT\_idx` (`CONSTRAINT\_ID` ASC) VISIBLE,

INDEX `FK\_ACTIVITY\_WORKPACKAGE\_idx` (`WORKPACKAGE\_ID` ASC) VISIBLE,

CONSTRAINT `FK\_ACTIVITY\_ACTIVITYTYPE`

FOREIGN KEY (`SYSTEMACTIVITYTYPE\_ID`)

REFERENCES `construction\_db`.`SYSTEMACTIVITY\_TYPE` (`ACTIVITYTYPE\_ID`)

ON DELETE NO ACTION

ON UPDATE NO ACTION,

CONSTRAINT `FK\_ACTIVITY\_USERID`

FOREIGN KEY (`USER\_ID`)

REFERENCES `construction\_db`.`USER` (`USER\_ID`)

ON DELETE NO ACTION

ON UPDATE NO ACTION,

CONSTRAINT `FK\_ACTIVITY\_STATUSID`

FOREIGN KEY (`STATUS\_ID`)

REFERENCES `construction\_db`.`STATUS` (`STATUS\_ID`)

ON DELETE NO ACTION

ON UPDATE NO ACTION,

CONSTRAINT `FK\_ACTIVITY\_CONSTRAINT`

FOREIGN KEY (`CONSTRAINT\_ID`)

REFERENCES `construction\_db`.`CONSTRAINT` (`CONSTRAINT\_ID`)

ON DELETE NO ACTION

ON UPDATE NO ACTION,

CONSTRAINT `FK\_ACTIVITY\_WORKPACKAGE`

FOREIGN KEY (`WORKPACKAGE\_ID`)

REFERENCES `construction\_db`.`WORKPACKAGE` (`IWP`)

ON DELETE NO ACTION

ON UPDATE NO ACTION)

ENGINE = InnoDB;

-- -----------------------------------------------------

### -- Table `construction\_db`.`COMPANY`

-- -----------------------------------------------------

DROP TABLE IF EXISTS `construction\_db`.`COMPANY` ;

CREATE TABLE IF NOT EXISTS `construction\_db`.`COMPANY` (

`COMPANY\_ID` INT NOT NULL AUTO\_INCREMENT,

`Name` VARCHAR(100) NULL DEFAULT NULL,

PRIMARY KEY (`COMPANY\_ID`),

INDEX `IX\_COMPANY\_COMPANY\_ID` (`COMPANY\_ID` ASC) INVISIBLE,

UNIQUE INDEX `COMPANY\_ID\_UNIQUE` (`COMPANY\_ID` ASC) VISIBLE);

-- -----------------------------------------------------

### -- Table `construction\_db`.`CONSTRAINT`

-- -----------------------------------------------------

DROP TABLE IF EXISTS `construction\_db`.`CONSTRAINT` ;

CREATE TABLE IF NOT EXISTS `construction\_db`.`CONSTRAINT` (

`CONSTRAINT\_ID` INT NOT NULL AUTO\_INCREMENT,

`CONSTRAINTTYPE\_ID` INT NOT NULL,

`Name` VARCHAR(255) NULL,

PRIMARY KEY (`CONSTRAINT\_ID`, `CONSTRAINTTYPE\_ID`),

UNIQUE INDEX `CONSTRAINT\_ID\_UNIQUE` (`CONSTRAINT\_ID` ASC) VISIBLE,

INDEX `FK\_CONSTRAINT\_CONSTRAINTYPE\_idx` (`CONSTRAINTTYPE\_ID` ASC) VISIBLE,

CONSTRAINT `FK\_CONSTRAINT\_CONSTRAINTYPE`

FOREIGN KEY (`CONSTRAINTTYPE\_ID`)

REFERENCES `construction\_db`.`CONSTRAINT\_TYPE` (`CONSTRAINTTYPE\_ID`)

ON DELETE NO ACTION

ON UPDATE NO ACTION)

ENGINE = InnoDB;

-- -----------------------------------------------------

### -- Table `construction\_db`.`CONSTRAINT\_TYPE`

-- -----------------------------------------------------

DROP TABLE IF EXISTS `construction\_db`.`CONSTRAINT\_TYPE` ;

CREATE TABLE IF NOT EXISTS `construction\_db`.`CONSTRAINT\_TYPE` (

`CONSTRAINTTYPE\_ID` INT NOT NULL AUTO\_INCREMENT,

`Name` VARCHAR(45) NULL,

PRIMARY KEY (`CONSTRAINTTYPE\_ID`),

UNIQUE INDEX `CONSTRAINTTYPE\_ID\_UNIQUE` (`CONSTRAINTTYPE\_ID` ASC) VISIBLE)

ENGINE = InnoDB;

-- -----------------------------------------------------

### -- Table `construction\_db`.`CONSTRUCTION\_WORK\_AREA`

-- -----------------------------------------------------

DROP TABLE IF EXISTS `construction\_db`.`CONSTRUCTION\_WORK\_AREA` ;

CREATE TABLE IF NOT EXISTS `construction\_db`.`CONSTRUCTION\_WORK\_AREA` (

`CWA` int NOT NULL AUTO\_INCREMENT,

`PARENTCWA` int NOT NULL DEFAULT 1,

`Name` varchar(45) NOT NULL,

PRIMARY KEY (`CWA`),

UNIQUE KEY `CWA\_UNIQUE` (`CWA`) /\*!80000 INVISIBLE \*/,

KEY `FK\_CWA\_PARENTWA\_idx` (`PARENTCWA`),

INDEX `FK\_CWA\_PARENTWA2\_idx` (`PARENTCWA` ASC) VISIBLE,

CONSTRAINT `FK\_CWA\_PARENTWA` FOREIGN KEY (`PARENTCWA`) REFERENCES `construction\_work\_area` (`CWA`),

CONSTRAINT `FK\_CWA\_WORKPACKAGE`

FOREIGN KEY (`CWA`)

REFERENCES `construction\_db`.`workpackage` (`CWA`)

ON DELETE NO ACTION

ON UPDATE NO ACTION);

-- -----------------------------------------------------

### -- Table `construction\_db`.`DEPARTMENT`

-- -----------------------------------------------------

DROP TABLE IF EXISTS `construction\_db`.`DEPARTMENT` ;

CREATE TABLE IF NOT EXISTS `construction\_db`.`DEPARTMENT` (

`DEPARTMENT\_ID` INT NOT NULL AUTO\_INCREMENT,

`COMPANY\_ID` INT NOT NULL,

`Name` VARCHAR(100) NULL DEFAULT NULL,

PRIMARY KEY (`DEPARTMENT\_ID`, `COMPANY\_ID`),

INDEX `IX\_DEPARTMENT\_DEPARTMENT\_ID` (`DEPARTMENT\_ID` ASC) INVISIBLE,

INDEX `FK\_DEPARTMENT\_COMPANY\_ID\_idx` (`COMPANY\_ID` ASC) VISIBLE,

UNIQUE INDEX `DEPARTMENT\_ID\_UNIQUE` (`DEPARTMENT\_ID` ASC) VISIBLE,

CONSTRAINT `FK\_DEPARTMENT\_COMPANY\_ID`

FOREIGN KEY (`COMPANY\_ID`)

REFERENCES `construction\_db`.`COMPANY` (`COMPANY\_ID`)

ON DELETE NO ACTION

ON UPDATE NO ACTION);

-- -----------------------------------------------------

### -- Table `construction\_db`.`DISCIPLINE`

-- -----------------------------------------------------

DROP TABLE IF EXISTS `construction\_db`.`DISCIPLINE` ;

CREATE TABLE IF NOT EXISTS `construction\_db`.`DISCIPLINE` (

`DISCIPLINE\_ID` INT NOT NULL,

`Name` VARCHAR(45) NULL,

PRIMARY KEY (`DISCIPLINE\_ID`),

UNIQUE INDEX `DISCIPLINE\_ID\_UNIQUE` (`DISCIPLINE\_ID` ASC) VISIBLE)

ENGINE = InnoDB;

-- -----------------------------------------------------

### -- Table `construction\_db`.`ROLE\_TYPE`

-- -----------------------------------------------------

DROP TABLE IF EXISTS `construction\_db`.`ROLE\_TYPE` ;

CREATE TABLE IF NOT EXISTS `construction\_db`.`role\_type` (

`ROLE\_TYPEID` INT NOT NULL AUTO\_INCREMENT,

`Name` VARCHAR(50) NOT NULL,

`IsSysAdmin` TINYINT NOT NULL DEFAULT 0,

`IsProjectControls` TINYINT NOT NULL DEFAULT 0,

PRIMARY KEY (`ROLE\_TYPEID`),

UNIQUE INDEX `ROLE\_SUBTYPEID\_UNIQUE` (`ROLE\_TYPEID` ASC) VISIBLE,

INDEX `FK\_ROLESUBTYPE\_NAME\_idx` (`Name` ASC) VISIBLE)

ENGINE = InnoDB

AUTO\_INCREMENT = 1

DEFAULT CHARACTER SET = utf8mb4

COLLATE = utf8mb4\_0900\_ai\_ci;

-- -----------------------------------------------------

### -- Table `construction\_db`.`ROLE`

-- -----------------------------------------------------

DROP TABLE IF EXISTS `construction\_db`.`ROLE` ;

CREATE TABLE IF NOT EXISTS `construction\_db`.`role` (

`ROLE\_ID` INT NOT NULL AUTO\_INCREMENT,

`Name` VARCHAR(25) NOT NULL,

`ROLE\_TYPE\_ID` INT NOT NULL,

PRIMARY KEY (`ROLE\_ID`),

UNIQUE INDEX `ROLE\_ID\_UNIQUE` (`ROLE\_ID` ASC) VISIBLE,

INDEX `FK\_ROLE\_ROLETYPE\_idx` (`ROLE\_TYPE\_ID` ASC) VISIBLE,

CONSTRAINT `FK\_ROLE\_ROLETYPE`

FOREIGN KEY (`ROLE\_TYPE\_ID`)

REFERENCES `construction\_db`.`role\_type` (`ROLE\_TYPEID`)

ON DELETE NO ACTION

ON UPDATE NO ACTION)

ENGINE = InnoDB

AUTO\_INCREMENT = 1

DEFAULT CHARACTER SET = utf8mb4

COLLATE = utf8mb4\_0900\_ai\_ci;

-- -----------------------------------------------------

### -- Table `construction\_db`.`SCHEDULE\_ACTIVITY`

-- -----------------------------------------------------

DROP TABLE IF EXISTS `construction\_db`.`SCHEDULE\_ACTIVITY` ;

CREATE TABLE IF NOT EXISTS `construction\_db`.`SCHEDULE\_ACTIVITY` (

`ACTIVITY\_ID` INT NOT NULL AUTO\_INCREMENT,

`IWP` VARCHAR(50) NOT NULL,

`Name` VARCHAR(45) NULL COMMENT 'FK CONNECTION TO PRIMAVERA P6 SCHEDULE',

`PlannedStartDate` DATE NULL,

`ForecastStartDate` DATE NULL,

`ActualStartDate` DATE NULL,

`PlannedFinishDate` DATE NULL,

`ForecastFinishDate` DATE NULL,

`ActualFinishDate` DATE NULL,

PRIMARY KEY (`ACTIVITY\_ID`, `IWP`),

UNIQUE INDEX `ACTIVITY\_ID\_UNIQUE` (`ACTIVITY\_ID` ASC) VISIBLE,

INDEX `FK\_SCHEDULE\_IWP\_idx` (`IWP` ASC) VISIBLE,

CONSTRAINT `FK\_SCHEDULE\_IWP`

FOREIGN KEY (`IWP`)

REFERENCES `construction\_db`.`WORKPACKAGE` (`IWP`)

ON DELETE NO ACTION

ON UPDATE NO ACTION)

ENGINE = InnoDB;

-- -----------------------------------------------------

### -- Table `construction\_db`.`STATUS`

-- -----------------------------------------------------

DROP TABLE IF EXISTS `construction\_db`.`STATUS` ;

CREATE TABLE IF NOT EXISTS `construction\_db`.`STATUS` (

`STATUS\_ID` INT NOT NULL AUTO\_INCREMENT,

`Name` VARCHAR(45) NOT NULL,

PRIMARY KEY (`STATUS\_ID`),

UNIQUE INDEX `STATUS\_ID\_UNIQUE` (`STATUS\_ID` ASC) VISIBLE)

ENGINE = InnoDB;

-- -----------------------------------------------------

### -- Table `construction\_db`.`SYSTEMACTIVITY\_TYPE`

-- -----------------------------------------------------

DROP TABLE IF EXISTS `construction\_db`.`SYSTEMACTIVITY\_TYPE` ;

CREATE TABLE IF NOT EXISTS `construction\_db`.`SYSTEMACTIVITY\_TYPE` (

`ACTIVITYTYPE\_ID` INT NOT NULL AUTO\_INCREMENT,

`Name` VARCHAR(50) NULL,

PRIMARY KEY (`ACTIVITYTYPE\_ID`),

UNIQUE INDEX `ACTIVITYTYPE\_ID\_UNIQUE` (`ACTIVITYTYPE\_ID` ASC) VISIBLE)

ENGINE = InnoDB;

-- -----------------------------------------------------

### -- Table `construction\_db`.`USER`

-- -----------------------------------------------------

DROP TABLE IF EXISTS `construction\_db`.`USER` ;

CREATE TABLE IF NOT EXISTS `construction\_db`.`USER` (

`USER\_ID` INT NOT NULL AUTO\_INCREMENT,

`DEPARTMENT\_ID` INT NOT NULL,

`ROLE\_ID` INT NOT NULL,

`FirstName` VARCHAR(30) NOT NULL,

`LastName` VARCHAR(30) NOT NULL,

`PhoneNumber` VARCHAR(25) NULL DEFAULT NULL,

`EMailAddress` VARCHAR(50) NULL DEFAULT NULL,

PRIMARY KEY (`USER\_ID`, `DEPARTMENT\_ID`, `ROLE\_ID`),

INDEX `IX\_USER\_USER\_ID` (`USER\_ID` ASC) VISIBLE,

UNIQUE INDEX `USER\_ID\_UNIQUE` (`USER\_ID` ASC) VISIBLE,

INDEX `FK\_USER\_DEPARTMENT\_ID\_idx` (`DEPARTMENT\_ID` ASC) VISIBLE,

INDEX `FK\_USER\_ROLE\_ID\_idx` (`ROLE\_ID` ASC) VISIBLE,

CONSTRAINT `FK\_USER\_DEPARTMENT\_ID`

FOREIGN KEY (`DEPARTMENT\_ID`)

REFERENCES `construction\_db`.`DEPARTMENT` (`DEPARTMENT\_ID`)

ON DELETE NO ACTION

ON UPDATE NO ACTION,

CONSTRAINT `FK\_USER\_ROLE\_ID`

FOREIGN KEY (`ROLE\_ID`)

REFERENCES `construction\_db`.`ROLE` (`ROLE\_ID`)

ON DELETE NO ACTION

ON UPDATE NO ACTION);

-- -----------------------------------------------------

### -- Table `construction\_db`.`WORKPACKAGE`

-- -----------------------------------------------------

DROP TABLE IF EXISTS `construction\_db`.`WORKPACKAGE` ;

CREATE TABLE IF NOT EXISTS `construction\_db`.`WORKPACKAGE` (

`IWP` varchar(50) NOT NULL COMMENT 'SYNTAX XWP-AAAA-DD-WWWW-III - EXample: CWP-1220-36-1110-010',

`CWA` int NOT NULL,

`Name` varchar(45) DEFAULT NULL,

`Description` varchar(45) DEFAULT NULL,

`DISCIPLINE\_ID` int NOT NULL,

PRIMARY KEY (`IWP`),

UNIQUE INDEX `IWP\_UNIQUE` (`IWP` ASC) VISIBLE,

INDEX `FK\_WP\_DISCIPLINE\_idx` (`DISCIPLINE\_ID` ASC) VISIBLE,

INDEX `FK\_WP\_CWA\_idx` (`CWA` ASC) VISIBLE,

CONSTRAINT `FK\_WP\_DISCIPLINE`

FOREIGN KEY (`DISCIPLINE\_ID`)

REFERENCES `construction\_db`.`discipline` (`DISCIPLINE\_ID`));

-- -----------------------------------------------------

### -- Table `construction\_db`.`WORKPACKAGE\_CONSTRAINTS`

-- -----------------------------------------------------

DROP TABLE IF EXISTS `construction\_db`.`WORKPACKAGE\_CONSTRAINTS` ;

CREATE TABLE IF NOT EXISTS `construction\_db`.`WORKPACKAGE\_CONSTRAINTS` (

`WORKPACKAGE\_ID` VARCHAR(50) NOT NULL,

`CONSTRAINT\_ID` INT NOT NULL,

`STATUS\_ID` INT NOT NULL,

INDEX `FK\_WORKPACKAGECONSTRAINT\_CONSTRAINT\_idx` (`CONSTRAINT\_ID` ASC) VISIBLE,

INDEX `FK\_WORKPACKGECONSTRAINT\_STATUS\_idx` (`STATUS\_ID` ASC) VISIBLE,

INDEX `FK\_WORKPACKAGECONSTRAINT\_WORKPACKAGE\_idx` (`WORKPACKAGE\_ID` ASC) VISIBLE,

CONSTRAINT `FK\_WORKPACKAGECONSTRAINT\_CONSTRAINT`

FOREIGN KEY (`CONSTRAINT\_ID`)

REFERENCES `construction\_db`.`CONSTRAINT` (`CONSTRAINT\_ID`)

ON DELETE NO ACTION

ON UPDATE NO ACTION,

CONSTRAINT `FK\_WORKPACKGECONSTRAINT\_STATUS`

FOREIGN KEY (`STATUS\_ID`)

REFERENCES `construction\_db`.`STATUS` (`STATUS\_ID`)

ON DELETE NO ACTION

ON UPDATE NO ACTION,

CONSTRAINT `FK\_WORKPACKAGECONSTRAINT\_WORKPACKAGE`

FOREIGN KEY (`WORKPACKAGE\_ID`)

REFERENCES `construction\_db`.`WORKPACKAGE` (`IWP`)

ON DELETE NO ACTION

ON UPDATE NO ACTION)

ENGINE = InnoDB;

SET SQL\_MODE=@OLD\_SQL\_MODE;

SET FOREIGN\_KEY\_CHECKS=@OLD\_FOREIGN\_KEY\_CHECKS;

SET UNIQUE\_CHECKS=@OLD\_UNIQUE\_CHECKS;

## DML to seed the database

-- -------------------------------------------------------

-- INSERT DEFAULT DATA

-- -------------------------------------------------------

### --COMPANY

INSERT INTO COMPANY(`Name`) VALUES ('Rabbit Electrical');

INSERT INTO COMPANY(`Name`) VALUES ('Vasquez Plumbing');

INSERT INTO COMPANY(`Name`) VALUES ('SMB Plumbing');

INSERT INTO COMPANY(`Name`) VALUES ('Ellipsis Mechanical');

INSERT INTO COMPANY(`Name`) VALUES ('Vertical Welding');

INSERT INTO COMPANY(`Name`) VALUES ('Prime Construction');

INSERT INTO COMPANY(`Name`) VALUES ('Subprime Engineering');

### -- DEPARTMENT

INSERT INTO DEPARTMENT(`COMPANY\_ID`, `Name`) VALUES (1,"Construction");

INSERT INTO DEPARTMENT(`COMPANY\_ID`, `Name`) VALUES (1,"Controls");

INSERT INTO DEPARTMENT(`COMPANY\_ID`, `Name`) VALUES (2,"Construction");

INSERT INTO DEPARTMENT(`COMPANY\_ID`, `Name`) VALUES (2,"Controls");

INSERT INTO DEPARTMENT(`COMPANY\_ID`, `Name`) VALUES (3,"Construction");

INSERT INTO DEPARTMENT(`COMPANY\_ID`, `Name`) VALUES (3,"Controls");

INSERT INTO DEPARTMENT(`COMPANY\_ID`, `Name`) VALUES (4,"Construction");

INSERT INTO DEPARTMENT(`COMPANY\_ID`, `Name`) VALUES (4,"Controls");

INSERT INTO DEPARTMENT(`COMPANY\_ID`, `Name`) VALUES (5,"Construction");

INSERT INTO DEPARTMENT(`COMPANY\_ID`, `Name`) VALUES (5,"Controls");

INSERT INTO DEPARTMENT(`COMPANY\_ID`, `Name`) VALUES (6,"Construction");

INSERT INTO DEPARTMENT(`COMPANY\_ID`, `Name`) VALUES (6,"Project Controls");

INSERT INTO DEPARTMENT(`COMPANY\_ID`, `Name`) VALUES (6,"Execution Planning");

INSERT INTO DEPARTMENT(`COMPANY\_ID`, `Name`) VALUES (6,"Materials Management");

INSERT INTO DEPARTMENT(`COMPANY\_ID`, `Name`) VALUES (7,"Mechanical Engineering");

INSERT INTO DEPARTMENT(`COMPANY\_ID`, `Name`) VALUES (7,"Project Controls");

INSERT INTO DEPARTMENT(`COMPANY\_ID`, `Name`) VALUES (7,"Electrical Engineering");

INSERT INTO DEPARTMENT(`COMPANY\_ID`, `Name`) VALUES (7,"Procurement");

### -- ROLE\_TYPE

INSERT INTO ROLE\_TYPE(`Name`, `IsProjectControls`, `IsSysAdmin`) VALUES('STANDARD\_USER', 0 ,0);

INSERT INTO ROLE\_TYPE(`Name`, `IsProjectControls`, `IsSysAdmin`) VALUES('SYSTEM\_ADMIN', 1, 1);

INSERT INTO ROLE\_TYPE(`Name`, `IsProjectControls`, `IsSysAdmin`) VALUES('CONSTRAINT\_MANAGER', 1, 0);

### -- ROLE

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('ADMIN1',2);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('CONSTRAINT MANAGER5',3);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('ENGINEER',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('PLANNER',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('SCHEDULER',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('ADMIN ASSISTANT',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('PROJECT MANAGER',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('SAFETY',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('SAFETY MANAGER',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('QUALITY MANAGER',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('QUALITY INSPECTOR',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('QUALITY INSPECTOR2',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('CRAFT FOREMAN',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('CRAFT SUPERINTENDANT',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('ENGINEERING MANAGER',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('SECURITY',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('SECURITY MANAGER',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('MATERIALS MANAGER',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('WAREHOUSE FOREMAN',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('WAREHOUSE CLERK',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('MATERIAL EXPEDITER',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('LOGISTICS PLANNER',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('COMMISSIONING MANAGER',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('COMMISSIONING INSPECTOR',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('OWNERS ENGINEER',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('WORKPACKAGE PLANNER',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('MATERIAL PLANNER',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('REPORTING MANAGER',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('WORKFORCE PLANNER',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('HUMAN RESOURCES',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('TRAINING',1);

INSERT INTO ROLE(`Name`, `ROLE\_TYPE\_ID`) VALUES('TRAINING MANAGER',1);

### -- USER

INSERT INTO USER(`DEPARTMENT\_ID`,`ROLE\_ID`,`FirstName`,`LastName`,`PhoneNumber`,`EMailAddress`) VALUES(12,1,'William','Gates','800-867-5309','bill@smartconstruction.com');

INSERT INTO USER(`DEPARTMENT\_ID`,`ROLE\_ID`,`FirstName`,`LastName`,`PhoneNumber`,`EMailAddress`) VALUES(12,2,'Joe','Cleaver','212-555-1212','joe@smartconstruction.com');

INSERT INTO USER(`DEPARTMENT\_ID`,`ROLE\_ID`,`FirstName`,`LastName`,`PhoneNumber`,`EMailAddress`) VALUES(13,23,'Toshiyoki','Watanabe','432-511-1119','twatanabe@smarterengineer.com');

INSERT INTO USER(`DEPARTMENT\_ID`,`ROLE\_ID`,`FirstName`,`LastName`,`PhoneNumber`,`EMailAddress`) VALUES(13,15,'Forimuki','Ito','432-511-1118','fito@smarterengineer.com');

INSERT INTO USER(`DEPARTMENT\_ID`,`ROLE\_ID`,`FirstName`,`LastName`,`PhoneNumber`,`EMailAddress`) VALUES(1,10,'Bruce','Ortiz','123-932-6334','ortiz@primeconst.com');

INSERT INTO USER(`DEPARTMENT\_ID`,`ROLE\_ID`,`FirstName`,`LastName`,`PhoneNumber`,`EMailAddress`) VALUES(3,11,'Shelly','Bryant','234-835-9656','bryant@rabbit.com');

INSERT INTO USER(`DEPARTMENT\_ID`,`ROLE\_ID`,`FirstName`,`LastName`,`PhoneNumber`,`EMailAddress`) VALUES(5,12,'Bridget','Montes','446-959-2445','montes@vasquez.com');

INSERT INTO USER(`DEPARTMENT\_ID`,`ROLE\_ID`,`FirstName`,`LastName`,`PhoneNumber`,`EMailAddress`) VALUES(7,13,'Wayne','Arnold','432-532-5321','arnold@smbplumbing.com');

INSERT INTO USER(`DEPARTMENT\_ID`,`ROLE\_ID`,`FirstName`,`LastName`,`PhoneNumber`,`EMailAddress`) VALUES(9,13,'Tariq','Johnson','231-856-8642','johnson@ellipsis.com');

INSERT INTO USER(`DEPARTMENT\_ID`,`ROLE\_ID`,`FirstName`,`LastName`,`PhoneNumber`,`EMailAddress`) VALUES(11,19,'Anthony','Walls','342-643-4529','walls@vertical.com');

### -- CONSTRUCTION\_WORK\_AREA

INSERT INTO CONSTRUCTION\_WORK\_AREA(`ParentCWA`,`Name`) VALUES(1,'0000');

INSERT INTO CONSTRUCTION\_WORK\_AREA(`ParentCWA`,`Name`) VALUES(1,'1000');

INSERT INTO CONSTRUCTION\_WORK\_AREA(`ParentCWA`,`Name`) VALUES(2,'1100');

INSERT INTO CONSTRUCTION\_WORK\_AREA(`ParentCWA`,`Name`) VALUES(3,'1110');

INSERT INTO CONSTRUCTION\_WORK\_AREA(`ParentCWA`,`Name`) VALUES(3,'1120');

INSERT INTO CONSTRUCTION\_WORK\_AREA(`ParentCWA`,`Name`) VALUES(3,'1130');

INSERT INTO CONSTRUCTION\_WORK\_AREA(`ParentCWA`,`Name`) VALUES(2,'1200');

INSERT INTO CONSTRUCTION\_WORK\_AREA(`ParentCWA`,`Name`) VALUES(7,'1210');

INSERT INTO CONSTRUCTION\_WORK\_AREA(`ParentCWA`,`Name`) VALUES(7,'1220');

INSERT INTO CONSTRUCTION\_WORK\_AREA(`ParentCWA`,`Name`) VALUES(1,'2000');

INSERT INTO CONSTRUCTION\_WORK\_AREA(`ParentCWA`,`Name`) VALUES(10,'2100');

INSERT INTO CONSTRUCTION\_WORK\_AREA(`ParentCWA`,`Name`) VALUES(11,'2110');

INSERT INTO CONSTRUCTION\_WORK\_AREA(`ParentCWA`,`Name`) VALUES(11,'2120');

INSERT INTO CONSTRUCTION\_WORK\_AREA(`ParentCWA`,`Name`) VALUES(11,'2130');

INSERT INTO CONSTRUCTION\_WORK\_AREA(`ParentCWA`,`Name`) VALUES(10,'2200');

INSERT INTO CONSTRUCTION\_WORK\_AREA(`ParentCWA`,`Name`) VALUES(15,'2210');

INSERT INTO CONSTRUCTION\_WORK\_AREA(`ParentCWA`,`Name`) VALUES(15,'2220');

### -- CONSTRAINT\_TYPE

INSERT INTO CONSTRAINT\_TYPE(`Name`) VALUES('Material');

INSERT INTO CONSTRAINT\_TYPE(`Name`) VALUES('Engineering Design');

INSERT INTO CONSTRAINT\_TYPE(`Name`) VALUES('Regulatory');

INSERT INTO CONSTRAINT\_TYPE(`Name`) VALUES('Predecessor/Schedule');

INSERT INTO CONSTRAINT\_TYPE(`Name`) VALUES('Equipment');

INSERT INTO CONSTRAINT\_TYPE(`Name`) VALUES('Labor');

INSERT INTO CONSTRAINT\_TYPE(`Name`) VALUES('Safety');

### -- SYSTEMACTIVITY\_TYPE

INSERT INTO SYSTEMACTIVITY\_TYPE(`Name`) VALUES('CREATE');

INSERT INTO SYSTEMACTIVITY\_TYPE(`Name`) VALUES('UPDATE');

INSERT INTO SYSTEMACTIVITY\_TYPE(`Name`) VALUES('DELETE');

### -- CONSTRAINT

INSERT INTO `CONSTRAINT`(`CONSTRAINTTYPE\_ID`,`Name`) VALUES(1,'27-41724 HEADER COLUMN');

INSERT INTO `CONSTRAINT`(`CONSTRAINTTYPE\_ID`,`Name`) VALUES(1,'27-SPV-22-11279MVC PRESSURE RELIEF VALVE');

INSERT INTO `CONSTRAINT`(`CONSTRAINTTYPE\_ID`,`Name`) VALUES(2,'467-MD-29WW6-1120-36-121 FOUNDATION DETAILS');

INSERT INTO `CONSTRAINT`(`CONSTRAINTTYPE\_ID`,`Name`) VALUES(2,'467-QR-36EF7-1120-21-080 PRV INSTALLATION DETAIL');

INSERT INTO `CONSTRAINT`(`CONSTRAINTTYPE\_ID`,`Name`) VALUES(3,'FERC IP 171');

INSERT INTO `CONSTRAINT`(`CONSTRAINTTYPE\_ID`,`Name`) VALUES(5,'CRANE LIFT PLAN');

INSERT INTO `CONSTRAINT`(`CONSTRAINTTYPE\_ID`,`Name`) VALUES(5,'SPMT - 17 MODULE - HEAVY LIFT');

INSERT INTO `CONSTRAINT`(`CONSTRAINTTYPE\_ID`,`Name`) VALUES(6,'TITANIUM CERTIFIED WELDER');

INSERT INTO `CONSTRAINT`(`CONSTRAINTTYPE\_ID`,`Name`) VALUES(7,'SAFETY PLAN');

### -- STATUS

INSERT INTO STATUS(`Name`) VALUES('ACTIVE');

INSERT INTO STATUS(`Name`) VALUES('CLOSED');

INSERT INTO STATUS(`Name`) VALUES('PENDING');

INSERT INTO STATUS(`Name`) VALUES('DELETED');

### -- DISCIPLINE

INSERT INTO DISCIPLINE(`DISCIPLINE\_ID`,`Name`) VALUES(21,'STEEL');

INSERT INTO DISCIPLINE(`DISCIPLINE\_ID`,`Name`) VALUES(36,'PIPING');

INSERT INTO DISCIPLINE(`DISCIPLINE\_ID`,`Name`) VALUES(42,'ELECTRICAL');

### -- WORKPACKAGE

INSERT INTO WORKPACKAGE(`IWP`,`CWA`,`Name`,`Description`,`DISCIPLINE\_ID`) VALUES('IWP-1110-36-4100-010',4,'T1-LEVEL 1 - MAIN PIPE RACK - SEC1','',36);

INSERT INTO WORKPACKAGE(`IWP`,`CWA`,`Name`,`Description`,`DISCIPLINE\_ID`) VALUES('IWP-1110-36-4100-020',4,'T1-LEVEL 1 - MAIN PIPE RACK - SEC2','',36);

INSERT INTO WORKPACKAGE(`IWP`,`CWA`,`Name`,`Description`,`DISCIPLINE\_ID`) VALUES('IWP-1110-36-4100-030',4,'T1-LEVEL 1 - MAIN PIPE RACK - SEC3','',36);

INSERT INTO WORKPACKAGE(`IWP`,`CWA`,`Name`,`Description`,`DISCIPLINE\_ID`) VALUES('IWP-1120-21-4110-010',5,'T1-LEVEL 1 - ACC','',21);

INSERT INTO WORKPACKAGE(`IWP`,`CWA`,`Name`,`Description`,`DISCIPLINE\_ID`) VALUES('IWP-1120-36-4120-010',5,'T1-LEVEL 1 - ACC','',36);

INSERT INTO WORKPACKAGE(`IWP`,`CWA`,`Name`,`Description`,`DISCIPLINE\_ID`) VALUES('IWP-1130-42-4100-010',6,'T1-LEVEL 1 - FAN DECK','',42);

INSERT INTO WORKPACKAGE(`IWP`,`CWA`,`Name`,`Description`,`DISCIPLINE\_ID`) VALUES('IWP-1130-42-4110-020',6,'T1-LEVEL 1 - FAN DECK','',42);

INSERT INTO WORKPACKAGE(`IWP`,`CWA`,`Name`,`Description`,`DISCIPLINE\_ID`) VALUES('IWP-1210-36-4120-010',8,'T1-LEVEL 2 - BRIDGE','',21);

INSERT INTO WORKPACKAGE(`IWP`,`CWA`,`Name`,`Description`,`DISCIPLINE\_ID`) VALUES('IWP-1210-21-4100-010',8,'T1-LEVEL 2 - BRIDGE','',21);

INSERT INTO WORKPACKAGE(`IWP`,`CWA`,`Name`,`Description`,`DISCIPLINE\_ID`) VALUES('IWP-2110-36-4110-010',12,'T2-LEVEL 1 - ACC','',36);

INSERT INTO WORKPACKAGE(`IWP`,`CWA`,`Name`,`Description`,`DISCIPLINE\_ID`) VALUES('IWP-2110-42-4120-010',12,'T2-LEVEL 1 - ACC','',42);

INSERT INTO WORKPACKAGE(`IWP`,`CWA`,`Name`,`Description`,`DISCIPLINE\_ID`) VALUES('IWP-2110-36-4130-010',12,'T2-LEVEL 1 - MAIN PIPE RACK','',36);

INSERT INTO WORKPACKAGE(`IWP`,`CWA`,`Name`,`Description`,`DISCIPLINE\_ID`) VALUES('IWP-2110-21-4150-010',12,'T2-LEVEL 1 - BOG COMP','',21);

INSERT INTO WORKPACKAGE(`IWP`,`CWA`,`Name`,`Description`,`DISCIPLINE\_ID`) VALUES('IWP-2120-36-4100-010',13,'T2-LEVEL 1 - MCHE','',36);

INSERT INTO WORKPACKAGE(`IWP`,`CWA`,`Name`,`Description`,`DISCIPLINE\_ID`) VALUES('IWP-2120-36-4130-010',13,'T2-LEVEL 1 - MAIN PIPE RACK','',36);

INSERT INTO WORKPACKAGE(`IWP`,`CWA`,`Name`,`Description`,`DISCIPLINE\_ID`) VALUES('IWP-2130-42-4300-010',14,'T2-LEVEL 1 - MAIN PIPE RACK','',42);

INSERT INTO WORKPACKAGE(`IWP`,`CWA`,`Name`,`Description`,`DISCIPLINE\_ID`) VALUES('IWP-2210-36-4440-010',16,'T2-LEVEL 2 - ACC','',36);

INSERT INTO WORKPACKAGE(`IWP`,`CWA`,`Name`,`Description`,`DISCIPLINE\_ID`) VALUES('IWP-2210-21-4140-010',16,'T2-LEVEL 2 - LER 17-4200','',21);

INSERT INTO WORKPACKAGE(`IWP`,`CWA`,`Name`,`Description`,`DISCIPLINE\_ID`) VALUES('IWP-2220-36-4220-010',17,'T2-LEVEL 2 - ACC','',36);

### -- WORKPACKAGE\_CONSTRAINTS

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-1110-36-4100-010',9,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-1110-36-4100-010',8,2);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-1110-36-4100-020',7,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-1110-36-4100-020',9,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-1110-36-4100-030',1,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-1110-36-4100-030',2,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-1120-21-4110-010',1,2);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-1120-21-4110-010',2,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-1120-36-4120-010',8,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-1120-36-4120-010',6,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-1210-21-4100-010',8,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-1210-21-4100-010',6,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-2110-36-4110-010',3,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-2110-36-4110-010',5,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-2110-42-4120-010',3,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-2110-42-4120-010',5,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-2110-36-4130-010',5,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-2110-36-4130-010',3,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-2110-21-4150-010',3,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-2110-21-4150-010',4,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-2120-36-4100-010',5,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-2120-36-4100-010',6,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-2120-36-4130-010',5,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-2120-36-4130-010',3,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-2130-42-4300-010',3,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-2130-42-4300-010',4,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-2210-36-4440-010',3,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-2210-36-4440-010',4,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-2210-21-4140-010',3,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-2210-21-4140-010',4,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-2220-36-4220-010',4,1);

INSERT INTO WORKPACKAGE\_CONSTRAINTS(`WORKPACKAGE\_ID`,`CONSTRAINT\_ID`,`STATUS\_ID`) VALUES('IWP-2220-36-4220-010',5,1);

### -- SCHEDULE\_ACTIVITY

INSERT INTO SCHEDULE\_ACTIVITY(`IWP`,`Name`,`PlannedStartDate`,`ForecastStartDate`,`PlannedFinishDate`) VALUES('IWP-1110-36-4100-010','CW345353555345',CAST('2024-06-01' AS DATE),CAST('2024-06-01' AS DATE),CAST('2024-06-07' AS DATE));

INSERT INTO SCHEDULE\_ACTIVITY(`IWP`,`Name`,`PlannedStartDate`,`ForecastStartDate`) VALUES('IWP-1110-36-4100-020','CW345353555346',CAST('2024-06-08' AS DATE),CAST('2024-06-08' AS DATE));

INSERT INTO SCHEDULE\_ACTIVITY(`IWP`,`Name`,`PlannedStartDate`,`ForecastStartDate`) VALUES('IWP-1110-36-4100-030','CW345353555347',CAST('2024-06-15' AS DATE),CAST('2024-06-15' AS DATE));

INSERT INTO SCHEDULE\_ACTIVITY(`IWP`,`Name`,`PlannedStartDate`) VALUES('IWP-1120-21-4110-010','CW345353555348',CAST('2024-06-09' AS DATE));

INSERT INTO SCHEDULE\_ACTIVITY(`IWP`,`Name`,`PlannedStartDate`) VALUES('IWP-1120-36-4120-010','CW345353555349',CAST('2024-06-09' AS DATE));

INSERT INTO SCHEDULE\_ACTIVITY(`IWP`,`Name`,`PlannedStartDate`) VALUES('IWP-1130-42-4100-010','CW345353555350',CAST('2024-06-19' AS DATE));

INSERT INTO SCHEDULE\_ACTIVITY(`IWP`,`Name`,`PlannedStartDate`) VALUES('IWP-1130-42-4110-020','CW345353555351',CAST('2024-06-27' AS DATE));

INSERT INTO SCHEDULE\_ACTIVITY(`IWP`,`Name`,`PlannedStartDate`) VALUES('IWP-1210-36-4120-010','CW345353555352',CAST('2024-06-15' AS DATE));

INSERT INTO SCHEDULE\_ACTIVITY(`IWP`,`Name`,`PlannedStartDate`) VALUES('IWP-1210-21-4100-010','CW345353555353',CAST('2024-06-22' AS DATE));

INSERT INTO SCHEDULE\_ACTIVITY(`IWP`,`Name`,`PlannedStartDate`) VALUES('IWP-2110-36-4110-010','CW345353555354',CAST('2024-07-01' AS DATE));

INSERT INTO SCHEDULE\_ACTIVITY(`IWP`,`Name`,`PlannedStartDate`) VALUES('IWP-2110-42-4120-010','CW345353555355',CAST('2024-07-02' AS DATE));

INSERT INTO SCHEDULE\_ACTIVITY(`IWP`,`Name`,`PlannedStartDate`) VALUES('IWP-2110-36-4130-010','CW345353555356',CAST('2024-07-14' AS DATE));

INSERT INTO SCHEDULE\_ACTIVITY(`IWP`,`Name`,`PlannedStartDate`) VALUES('IWP-2110-21-4150-010','CW345353555357',CAST('2024-07-09' AS DATE));

INSERT INTO SCHEDULE\_ACTIVITY(`IWP`,`Name`,`PlannedStartDate`) VALUES('IWP-2120-36-4100-010','CW345353555358',CAST('2024-07-21' AS DATE));

INSERT INTO SCHEDULE\_ACTIVITY(`IWP`,`Name`,`PlannedStartDate`) VALUES('IWP-2120-36-4130-010','CW345353555359',CAST('2024-08-01' AS DATE));

INSERT INTO SCHEDULE\_ACTIVITY(`IWP`,`Name`,`PlannedStartDate`) VALUES('IWP-2130-42-4300-010','CW345353555360',CAST('2024-08-12' AS DATE));

INSERT INTO SCHEDULE\_ACTIVITY(`IWP`,`Name`,`PlannedStartDate`) VALUES('IWP-2210-36-4440-010','CW345353555361',CAST('2024-08-17' AS DATE));

INSERT INTO SCHEDULE\_ACTIVITY(`IWP`,`Name`,`PlannedStartDate`) VALUES('IWP-2210-21-4140-010','CW345353555362',CAST('2024-08-24' AS DATE));

INSERT INTO SCHEDULE\_ACTIVITY(`IWP`,`Name`,`PlannedStartDate`) VALUES('IWP-2220-36-4220-010','CW345353555363',CAST('2024-08-30' AS DATE));

### -- ACTIVITY

INSERT INTO ACTIVITY(CONSTRAINT\_ID, USER\_ID, STATUS\_ID, SYSTEMACTIVITYTYPE\_ID, WORKPACKAGE\_ID, ACTIVITY\_DATE, ACTIVITY\_TIME) VALUES(1,2,1,3,'IWP-1110-36-4100-030',CAST('2024-04-01' AS DATE),CAST('08:07:11' AS TIME));

INSERT INTO ACTIVITY(CONSTRAINT\_ID, USER\_ID, STATUS\_ID, SYSTEMACTIVITYTYPE\_ID, WORKPACKAGE\_ID, ACTIVITY\_DATE, ACTIVITY\_TIME) VALUES(2,2,1,3,'IWP-1110-36-4100-030',CAST('2024-04-01' AS DATE),CAST('08:09:12' AS TIME));

INSERT INTO ACTIVITY(CONSTRAINT\_ID, USER\_ID, STATUS\_ID, SYSTEMACTIVITYTYPE\_ID, WORKPACKAGE\_ID, ACTIVITY\_DATE, ACTIVITY\_TIME) VALUES(3,2,1,3,'IWP-2110-36-4110-010',CAST('2024-04-01' AS DATE),CAST('08:14:13' AS TIME));

INSERT INTO ACTIVITY(CONSTRAINT\_ID, USER\_ID, STATUS\_ID, SYSTEMACTIVITYTYPE\_ID, WORKPACKAGE\_ID, ACTIVITY\_DATE, ACTIVITY\_TIME) VALUES(4,2,1,3,'IWP-2110-21-4150-010',CAST('2024-04-01' AS DATE),CAST('08:32:14' AS TIME));

INSERT INTO ACTIVITY(CONSTRAINT\_ID, USER\_ID, STATUS\_ID, SYSTEMACTIVITYTYPE\_ID, WORKPACKAGE\_ID, ACTIVITY\_DATE, ACTIVITY\_TIME) VALUES(5,2,1,3,'IWP-2110-36-4110-010',CAST('2024-04-01' AS DATE),CAST('08:43:15' AS TIME));

INSERT INTO ACTIVITY(CONSTRAINT\_ID, USER\_ID, STATUS\_ID, SYSTEMACTIVITYTYPE\_ID, WORKPACKAGE\_ID, ACTIVITY\_DATE, ACTIVITY\_TIME) VALUES(6,2,1,3,'IWP-1210-21-4100-010',CAST('2024-04-01' AS DATE),CAST('08:50:16' AS TIME));

INSERT INTO ACTIVITY(CONSTRAINT\_ID, USER\_ID, STATUS\_ID, SYSTEMACTIVITYTYPE\_ID, WORKPACKAGE\_ID, ACTIVITY\_DATE, ACTIVITY\_TIME) VALUES(7,2,1,3,'IWP-1110-36-4100-020',CAST('2024-04-01' AS DATE),CAST('09:04:17' AS TIME));

INSERT INTO ACTIVITY(CONSTRAINT\_ID, USER\_ID, STATUS\_ID, SYSTEMACTIVITYTYPE\_ID, WORKPACKAGE\_ID, ACTIVITY\_DATE, ACTIVITY\_TIME) VALUES(8,2,1,3,'IWP-1120-36-4120-010',CAST('2024-04-01' AS DATE),CAST('09:12:18' AS TIME));

INSERT INTO ACTIVITY(CONSTRAINT\_ID, USER\_ID, STATUS\_ID, SYSTEMACTIVITYTYPE\_ID, WORKPACKAGE\_ID, ACTIVITY\_DATE, ACTIVITY\_TIME) VALUES(9,2,1,3,'IWP-1110-36-4100-010',CAST('2024-04-01' AS DATE),CAST('09:20:19' AS TIME));

INSERT INTO ACTIVITY(CONSTRAINT\_ID, USER\_ID, STATUS\_ID, SYSTEMACTIVITYTYPE\_ID, WORKPACKAGE\_ID, ACTIVITY\_DATE, ACTIVITY\_TIME) VALUES(1,2,2,4,'IWP-1110-36-4100-030',CAST('2024-04-01' AS DATE),CAST('10:01:11' AS TIME));