CONSTRUCTION PLANS OF

PETRO POINT PLAZA

PREPARED BY:

CYPRESS ENGINEERING AND DEVELOPMENT, LLC
4310 RYAN ST., STE. 122
LAKE CHARLES, LA 70605
337.504.7755

General Notes

SCALED FOR 22 X 34

No.	Revisions	Date

Firm Name and Address:

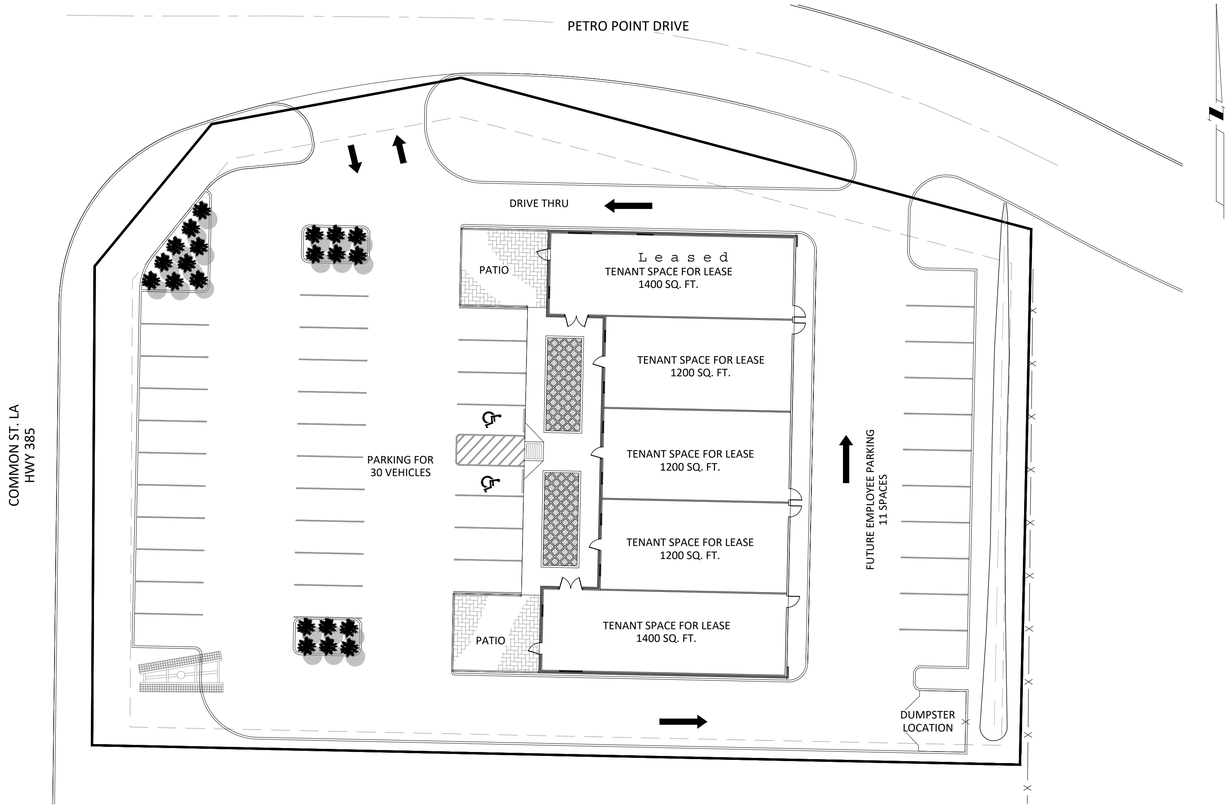
THE CYPRESS GROUP
4310 RYAN ST. STE 122
LAKE CHARLES, LA
OFFICE - 337.504.7755
FAX - 337.504.7744

Project Name and Address:

PETRO POINT PLAZA
CHRIS LOGNION
PETRO POINT DRIVE
LAKE CHARLES, LA

TITLE SHEET

Drawn By: C.G.M.	Sheet T-1
Project: 2018.035	
Date: 10/13/2018	
Scale: AS NOTED	



1 ST-1 **SITE PLAN**
SCALE: 1" = 20'

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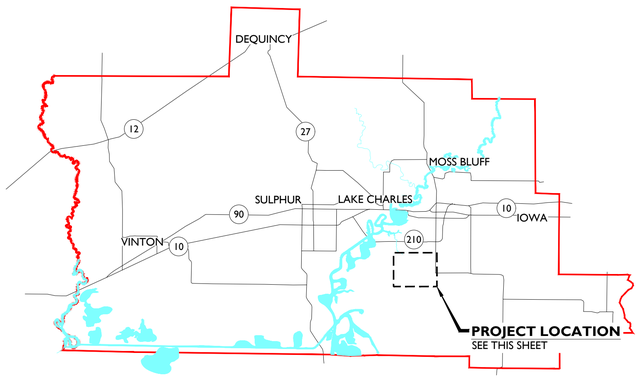
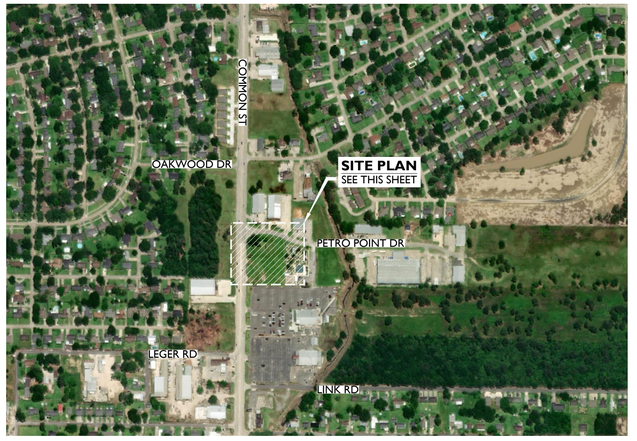
GENERAL NOTES:

1. WHERE PHYSICAL JOB SITE MEASUREMENTS ARE REQUIRED BEFORE FABRICATION, IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE ACTUAL CONSTRUCTION DIMENSIONS/DETAILS PRIOR TO FABRICATION.
2. ANY DISCREPANCY OR CONFLICT IN THESE CONSTRUCTION DOCUMENTS SHALL BE REPORTED TO THE PROJECT ENGINEER . ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.
3. ANY MODIFICATIONS MADE TO THESE CONSTRUCTION DOCUMENTS TO ACCOMPLISH THE REQUIRED WORK SHALL BE REPORTED TO THE PROJECT ENGINEER AND APPROVED BY ENGINEER PRIOR TO THIS WORK BEING COMPLETED.
4. CONTRACTOR SHALL PROVIDE OWNER WITH AS-BUILT DRAWINGS OF THE SITE AND UTILITIES INSTALLED AND PROPERLY COVERED AT THE COMPLETION OF THE PROJECT.
5. CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, EQUIPMENT, UTILITIES, PAVING, ETC., THAT ARE TO REMAIN, FROM DAMAGE DURING CONSTRUCTION OPERATIONS. REPLACE DAMAGED ITEMS WITH NEW TO MATCH EXISTING AT NO ADDITIONAL COST TO THE OWNER.
6. CONTRACTOR SHALL DISPOSE OF ALL EXCESS CONSTRUCTION MATERIALS, DEBRIS, TREES, STUMPS, AND/OR SOIL FROM THE JOB SITE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL STANDARDS.
7. CONTRACTOR SHALL EMPLOY A LOUISIANA LICENSED SURVEYOR OR ENGINEER TO PROVIDE ALL CONSTRUCTION LAYOUT, AND/OR BASELINES. SURVEYOR SHALL SET THE PROJECT TBM FOR USE DURING CONSTRUCTION.
8. ENGINEER SHALL NOT BE RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES SHOWN ON OR MISSING FROM THESE PROJECT DRAWINGS. ENGINEER SHALL BE NOTIFIED OF ANY DEVIATION IN THE ELEVATIONS OR LOCATION OF EXISTING UTILITIES PROVIDED IN THESE DRAWINGS.
9. CONTRACTOR SHALL LOCATE ALL UTILITIES BY CALLING LA ONE CALL 1.800.282.3020 NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION CALLED FOR OR IMPLIED WITHIN THESE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OF, AND THE ACTUAL LOCATION OF SUCH, WHETHER SHOWN HEREON OR NOT, PRIOR TO ANY EXCAVATION.
10. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE LADOTD STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES MANUAL LATEST ED., MUTCD LATEST ED., AND CALCASIEU PARISH CODE OF ORDINANCE.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARATION AND EXECUTION OF SWPPP PLAN IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL STANDARDS. TYPICAL DETAILS INCLUDED FOR REFERENCE.



2 ST-1 **VICINITY MAP**
SCALE: 1" = 35,000'



3 ST-1 **PROJECT LOCATION**
SCALE: 1" = 500'

General Notes

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JEFFERY M. KUDLA
REG. NO. 35277
STATE OF LOUISIANA
REGISTERED ARCHITECT

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SITE PLAN

Drawn By: C.G.M.	Sheet: ST-1
Project: 2018.035	
Date: 10/13/2018	
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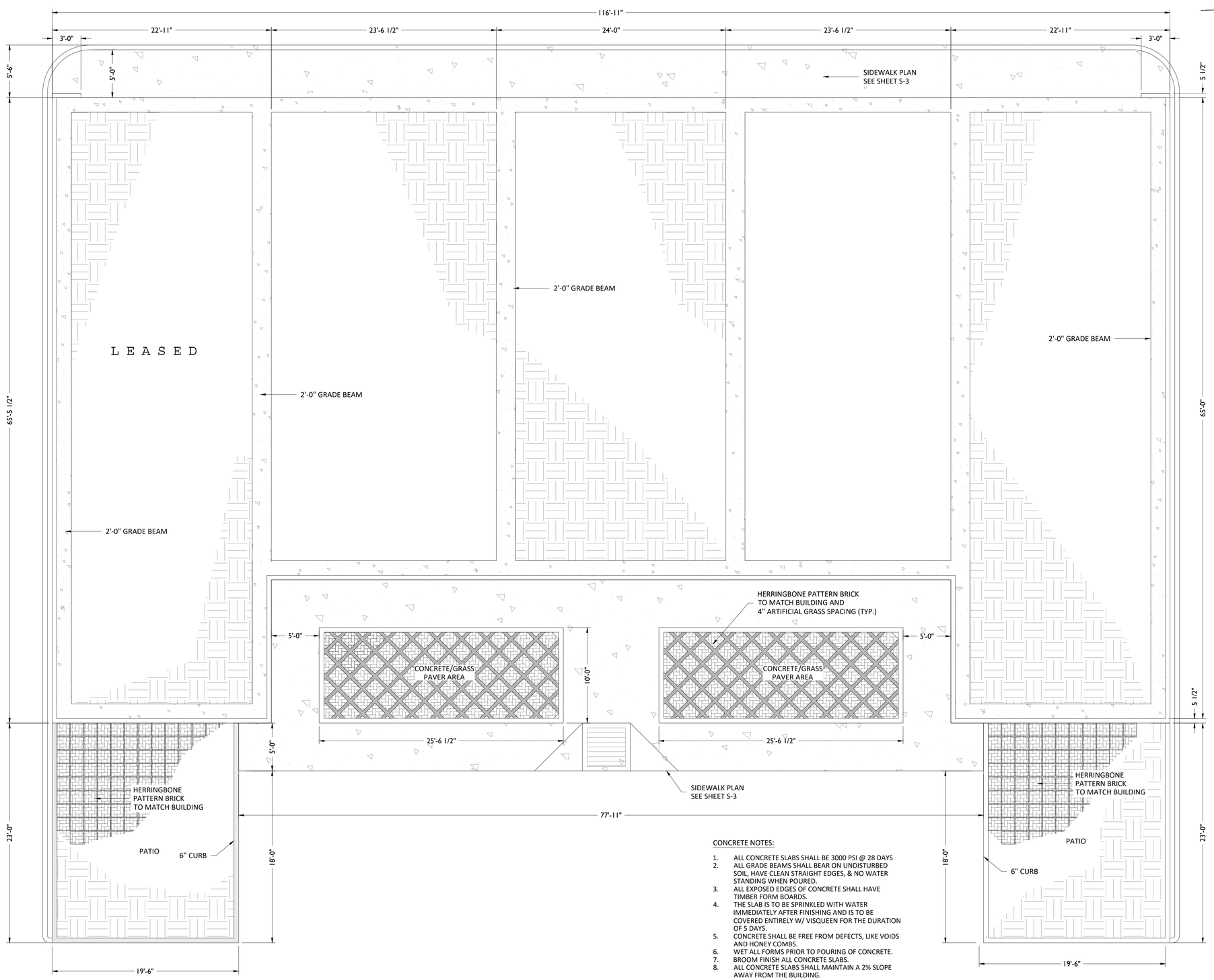

CONCRETE NOTES:

1. ALL CONCRETE SLABS SHALL BE 3000 PSI @ 28 DAYS
2. ALL GRADE BEAMS SHALL BEAR ON UNDISTURBED SOIL, HAVE CLEAN STRAIGHT EDGES, & NO WATER STANDING WHEN POURED.
3. ALL EXPOSED EDGES OF CONCRETE SHALL HAVE TIMBER FORM BOARDS.
4. THE SLAB IS TO BE SPRINKLED WITH WATER IMMEDIATELY AFTER FINISHING AND IS TO BE COVERED ENTIRELY W/ VISQUEEN FOR THE DURATION OF 5 DAYS.
5. CONCRETE SHALL BE FREE FROM DEFECTS, LIKE VOIDS AND HONEY COMBS.
6. WET ALL FORMS PRIOR TO POURING OF CONCRETE.
7. BROOM FINISH ALL CONCRETE SLABS.
8. ALL CONCRETE SLABS SHALL MAINTAIN A 2% SLOPE AWAY FROM THE BUILDING.

1 / S-1 FOUNDATION PLAN

SCALE: 3/16" = 1'-0"

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FOUNDATION PLAN

Drawn By: C.G.M.	Sheet: S-1
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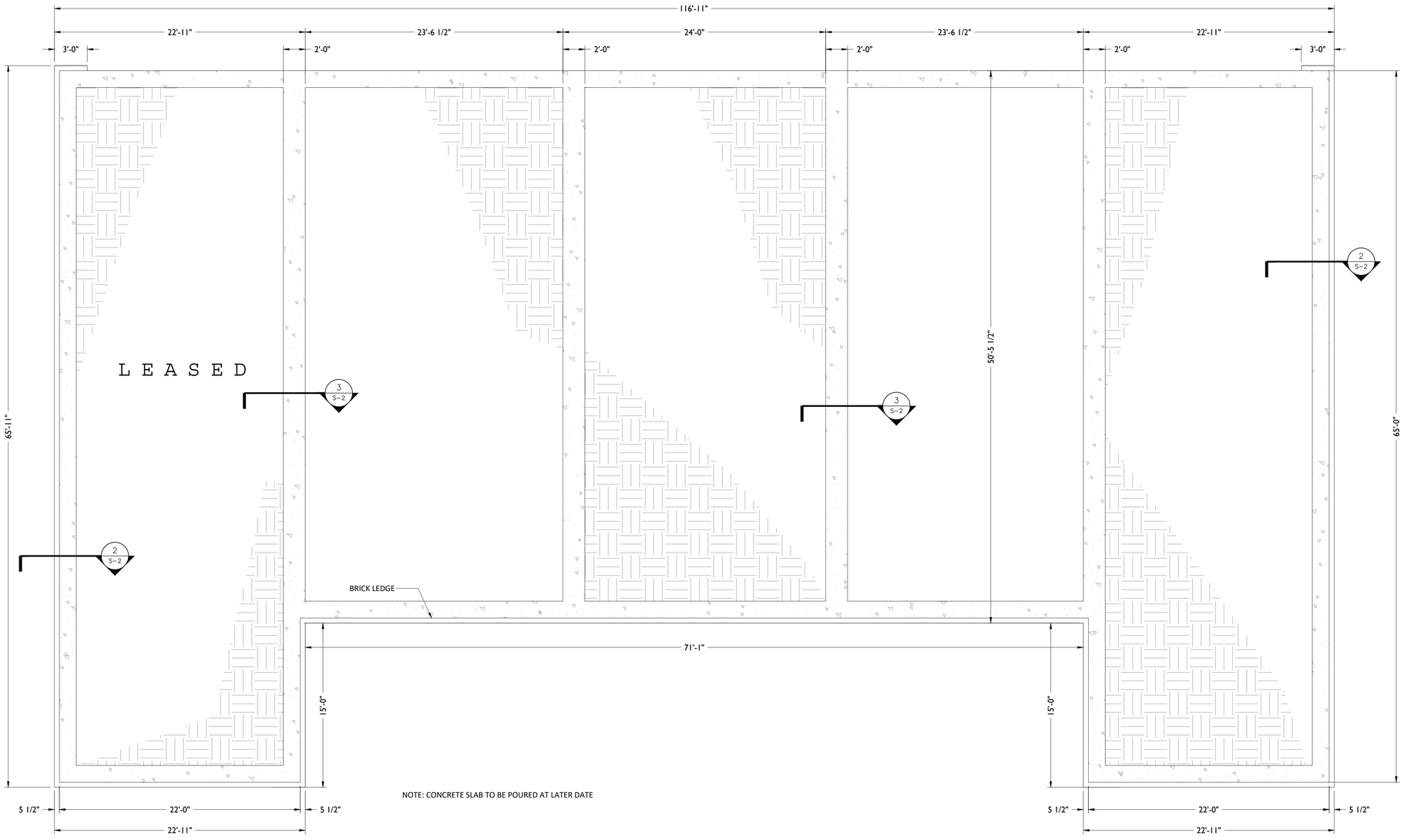
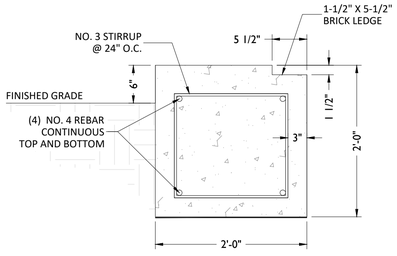


NOTE: CONCRETE SLAB TO BE POURED AT LATER DATE

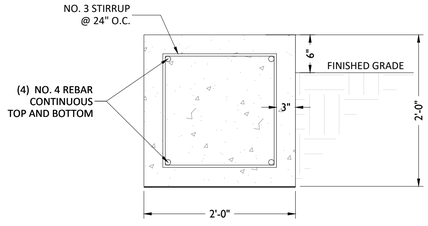
1 S-2 FOUNDATION PLAN (GRADE BEAMS)

SCALE: 3/16" = 1'-0"



2 S-2 EXTERIOR GRADE BEAM

SCALE: 1" = 1'-0"



3 S-2 INTERIOR GRADE BEAM

SCALE: 1" = 1'-0"

CONCRETE NOTES:

1. ALL CONCRETE SLABS SHALL BE 3000 PSI @ 28 DAYS
2. ALL GRADE BEAMS SHALL BEAR ON UNDISTURBED SOIL, HAVE CLEAN STRAIGHT EDGES, & NO WATER STANDING WHEN POURED.
3. ALL EXPOSED EDGES OF CONCRETE SHALL HAVE TIMBER FORM BOARDS.
4. THE SLAB IS TO BE SPRINKLED WITH WATER IMMEDIATELY AFTER FINISHING AND IS TO BE COVERED ENTIRELY W/ VISQUEEN FOR THE DURATION OF 5 DAYS.
5. CONCRETE SHALL BE FREE FROM DEFECTS, LIKE VOIDS AND HONEY COMBS.
6. WET ALL FORMS PRIOR TO POURING OF CONCRETE.
7. BROOM FINISH ALL CONCRETE SLABS.
8. ALL CONCRETE SLABS SHALL MAINTAIN A 2% SLOPE AWAY FROM THE BUILDING.

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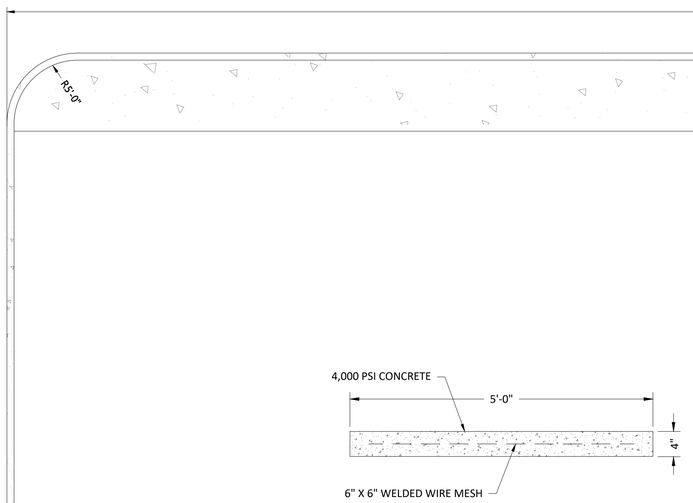
LAKE CHARLES, LA

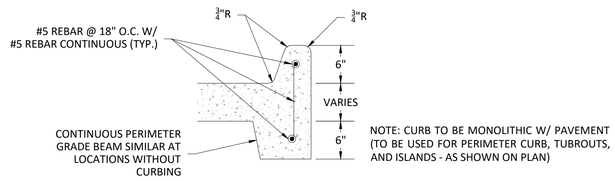
FOUNDATION PLAN (GRADE BEAMS)

Drawn By: C.G.M.	Sheet S-2
Project: 2018.035	
Date: 10/13/2018	
Scale: AS NOTED	



2 S-3 **SIDEWALK DETAIL**

SCALE: N.T.S.



3 S-3 **6" BARRIER CURB DETAIL**

SCALE: N.T.S.

1 S-3 **SIDEWALK PLAN**

SCALE: 3/16" = 1'-0"

GENERAL NOTES:

1. SIDEWALKS TO BE CONSTRUCTED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL STANDARDS.
2. SIDEWALK TIE-INS TO STREET SHALL BE ADAAG COMPLIANT INCLUDING ACCESS RAMPS AND DETECTABLE WARNINGS.
3. SIDEWALKS SHALL BE CONSTRUCTED NOT TO OBSTRUCT DRAINAGE.

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LAKE CHARLES, LA

SIDEWALK PLAN AND DETAILS

Drawn By: C.G.M.	Sheet S-3
Project: 2018.035	
Date: 10/13/2018	
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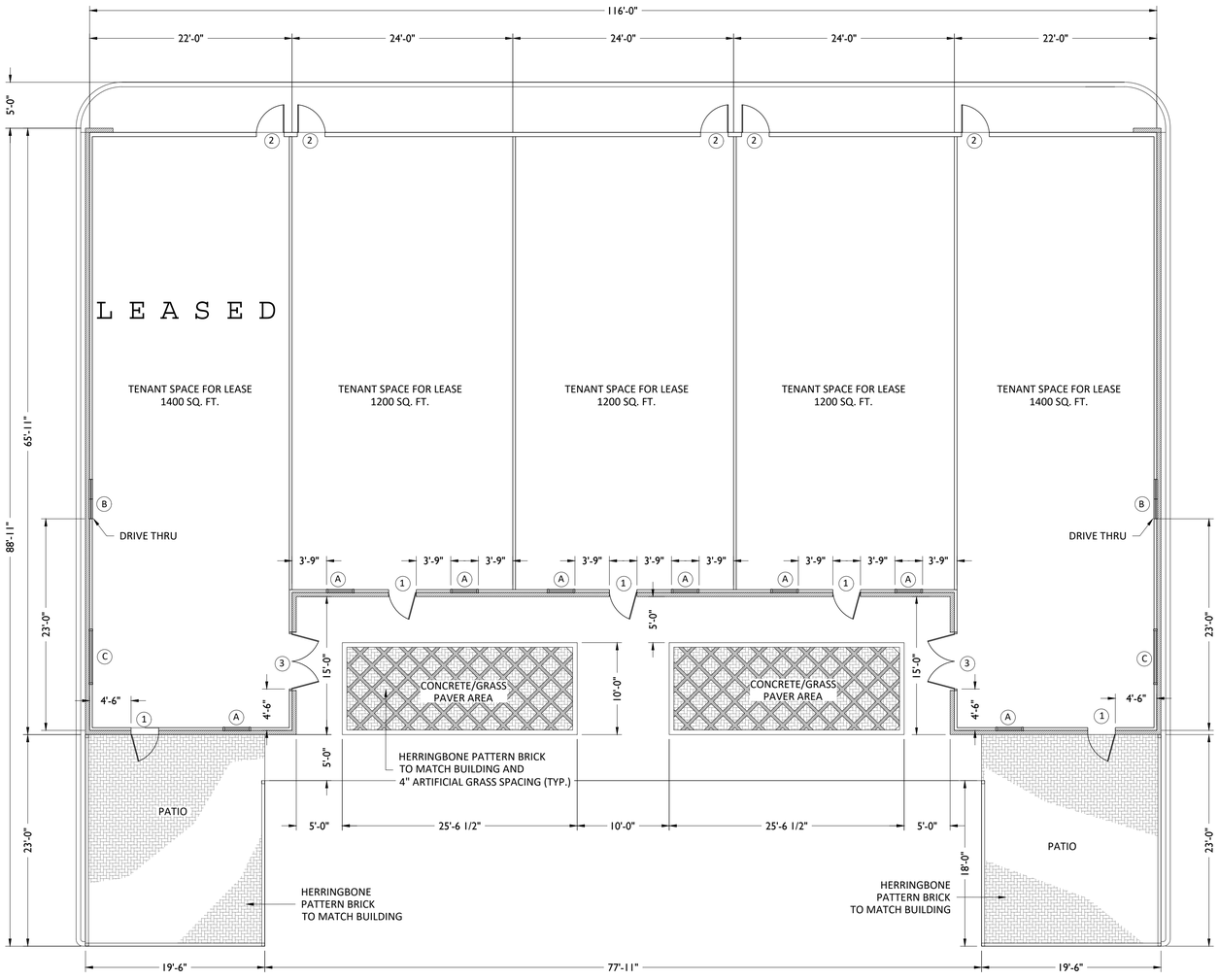


1 / A-1 **FLOOR PLAN**

SCALE: 1/8" = 1'-0"

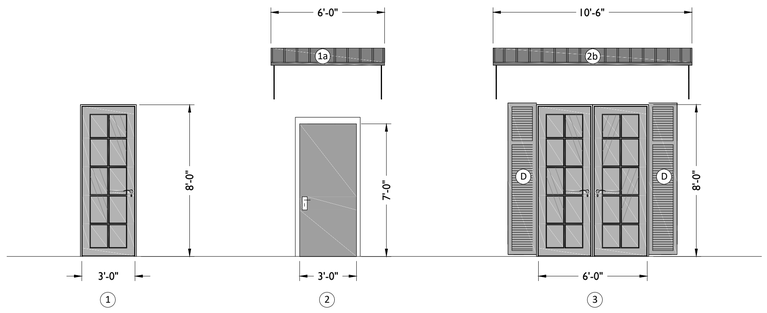
DOOR SCHEDULE		
SYMBOL	DESCRIPTION	QUANTITY
1	3'-0" W X 8'-0" H COMMERCIAL EXTERIOR DOOR, SOLID WOOD CORE, INSULATED, W/ COLONIAL GLASS, (TO INCLUDE ALL STAINLESS STEEL COMMERCIAL DOOR LOCK ADA APPROVED, HINGES, AND OTHER HARDWARE TO MOUNT DOOR)WINDOW SHALL HAVE A MINIMUM OF 40 PSF WIND RATING AND U & SHGC FACTOR OF 0.32 OR LESS. COLOR BY OWNER ANDERSON 400/200 SERIES DOOR NUMBER ACD3080 OR APPROVED EQUAL	5
2	3'-0" W X 8'-0" H COMMERCIAL EXTERIOR DOOR, CORROSION-RESISTANT METAL INSULATED, (TO INCLUDE ALL STAINLESS STEEL COMMERCIAL DOOR LOCK ADA APPROVED, HINGES, AND OTHER HARDWARE TO MOUNT DOOR) ANDERSON 400/200 SERIES DOOR NUMBER ACD3070 OR APPROVED EQUAL	5
3	6'-0" W X 8'-0" H COMMERCIAL EXTERIOR DOOR, SOLID WOOD CORE, INSULATED, W/ COLONIAL GLASS, (TO INCLUDE ALL STAINLESS STEEL COMMERCIAL DOOR LOCK ADA APPROVED, HINGES, AND OTHER HARDWARE TO MOUNT DOOR)WINDOW SHALL HAVE A MINIMUM OF 40 PSF WIND RATING AND U & SHGC FACTOR OF 0.32 OR LESS. COLOR BY OWNER ANDERSON 400/200 SERIES DOOR NUMBER ACD6080AP/PA OR APPROVED EQUAL	2

	WINDOW SCHEDULE	
SYMBOL	DESCRIPTION	QUANTITY
A	3'-0"W X 8'-0"H CUSTOM HEIGHT CASEMENT WINDOW W/ COLONIAL GLASS TO BE INSTALLED USING STAINLESS STEEL FASTENERS. WINDOW SHALL HAVE A MINIMUM OF 40 PSF WIND RATING. DOUBLE PANE LOW E WITH U& SHGC FACTOR OF 0.32 O LESS. COLOR BY OWNER ANDERSON A-SERIES WINDOW NUMBER APW3080 OR APPROVED EQUAL	8
B	47 1/2" W X 43 1/2" H W/ A 19" W X 35" H SERVICE OPEING WWW.ARCAT.COM, FLUSHMOUNT WINDOWS, MODEL: 275 SINGLE PANEL SLIDER OR APPROVED EQUAL	2
C	6'-0"W X 8'-0"H CUSTOM HEIGHT CASEMENT WINDOW W/ COLONIAL GLASS TO BE INSTALLED USING STAINLESS STEEL FASTENERS. WINDOW SHALL HAVE A MINIMUM OF 40 PSF WIND RATING. DOUBLE PANE LOW E WITH U& SHGC FACTOR OF 0.32 O LESS. COLOR BY OWNER ANDERSON A-SERIES WINDOW NUMBER APW6080 OR APPROVED EQUAL	2
D	16 1/2" W X 8-0"H CUSTOM SIZE PREMIUM VINYL OPEN LOUVER WINDOW SHUTTERS, W/ INSTALLATION SHUTTER-LOK'S, COLOR BY OWNER WWW.ARCHITECTURALDEPOT.COM, MFG. NO. MVL, STYLE: STRAIGHT TOP CENTER MULLION OR APPROVED EQUAL	24

	WINDOW / DOOR AWNING SCHEDULE	
SYMBOL	DESCRIPTION	QUANTITY
1a	72"W X 36" PROJECTION COPPER PENNY SOLID OPEN SLOPE WINDOW/DOOR AWNING, COLOR BY OWNER LOWES, AMERICAN BUILDING PRODUCTS, ITEM # 139067 MODEL # OR3672CP OR APPROVED EQUAL	3
2b	126"W X 36" PROJECTION COPPER PENNY SOLID OPEN SLOPE WINDOW/DOOR AWNING. COLOR BY OWNER LOWES, AMERICAN BUILDING PRODUCTS, ITEM # 139067 MODEL # OR36126CP OR APPROVED EQUAL	4
3c	16'-0" W X 36" PROJECTION COPPER PENNY SOLID OPEN SLOPE WINDOW/DOOR AWNING. COLOR BY OWNER	2
4d	20'-6" W X 36" PROJECTION COPPER PENNY SOLID OPEN SLOPE WINDOW/DOOR AWNING. COLOR BY OWNER	3

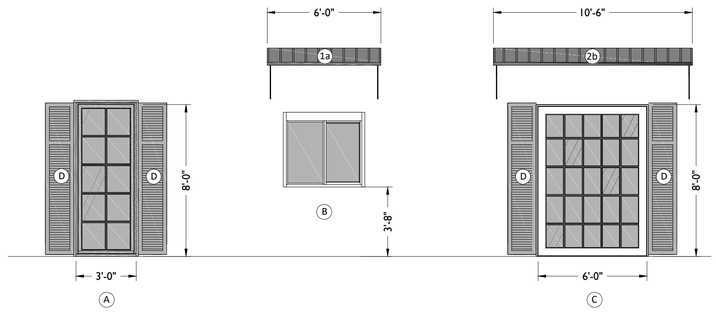
	OUTDOOR LIGHTING SCHEDULE	
SYMBOL	DESCRIPTION	QUANTITY
AI	PORTFOLIO 14" H SAND BLACK OUTDOOR WALL LIGHT LOWES, ITEM NO. 356736 MODEL NO. P5130125-10 OR APPROVED EQUAL	21
BI	14" WAREHOUSE SHADE GOOSENECK LIGHTING WWW.HOOKSANDLATTICE.COM, CODE: SL8-AE3-WH514 OR APPROVED EQUAL	15

NOTE:
INDIVIDUAL TENANT SPACE BUILD OUT TO BE DONE IN FUTURE SUBMITTAL TO FIRE MARSHAL.



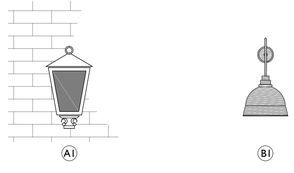
2 / A-1 **DOOR LEGEND**

SCALE: N.T.S.



3 / A-1 **WINDOW LEGEND**

SCALE: N.T.S.



4 / A-1 **OUTDOOR LIGHTING LEGEND**

SCALE: N.T.S.

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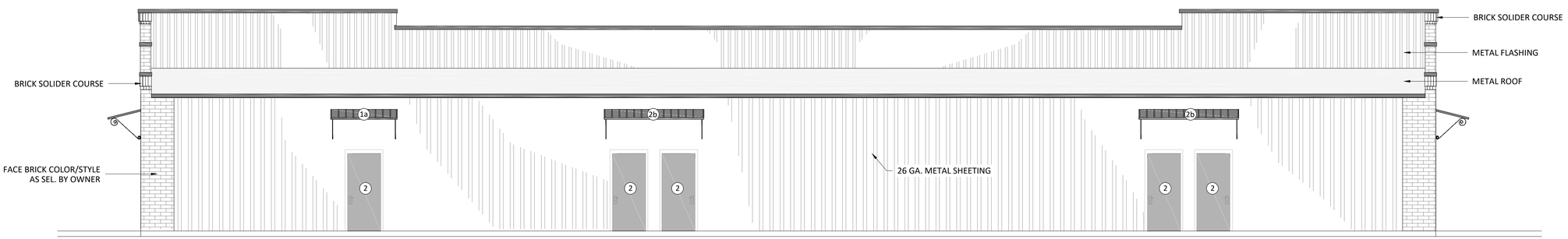
FLOOR PLAN AND SCHEDULES

Drawn By: C.G.M.	Sheet: A-1
Project: 2018.035	
Date: 10/13/2018	
Scale: AS NOTED	

1 A-2 **WEST ELEVATION VIEW**

SCALE: 3/16" = 1'-0"



2 A-2 **EAST ELEVATION VIEW**

SCALE: 3/16" = 1'-0"

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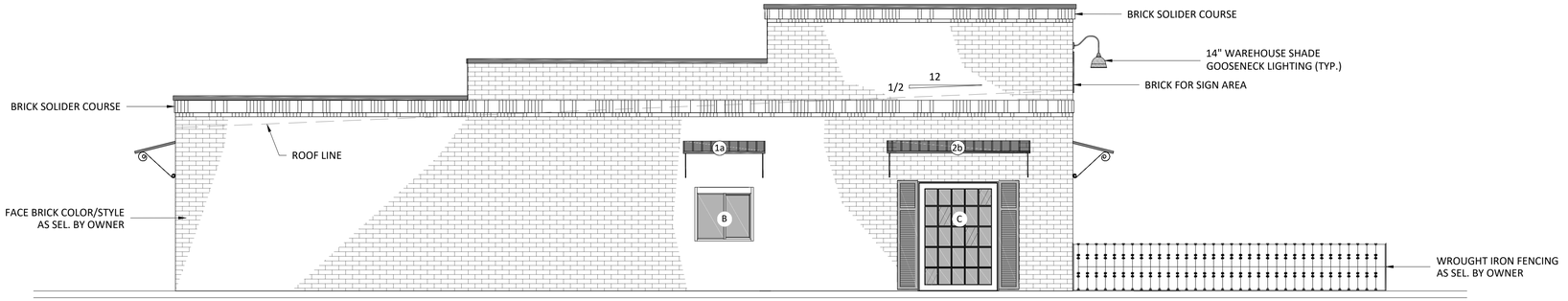
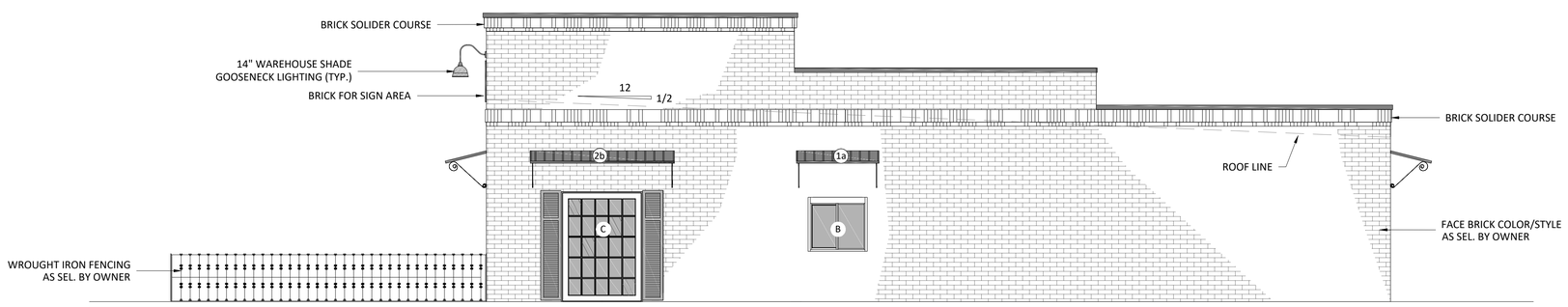
EXTERIOR ELEVATION

Drawn By: C.G.M.	Sheet A-2
Project: 2018.035	
Date: 10/13/2018	
Scale: 3/16" = 1'-0"	



1 A-3 **NORTH ELEVATION VIEW**

SCALE: 3/16" = 1'-0"



2 A-3 **SOUTH ELEVATION VIEW**

SCALE: 3/16" = 1'-0"

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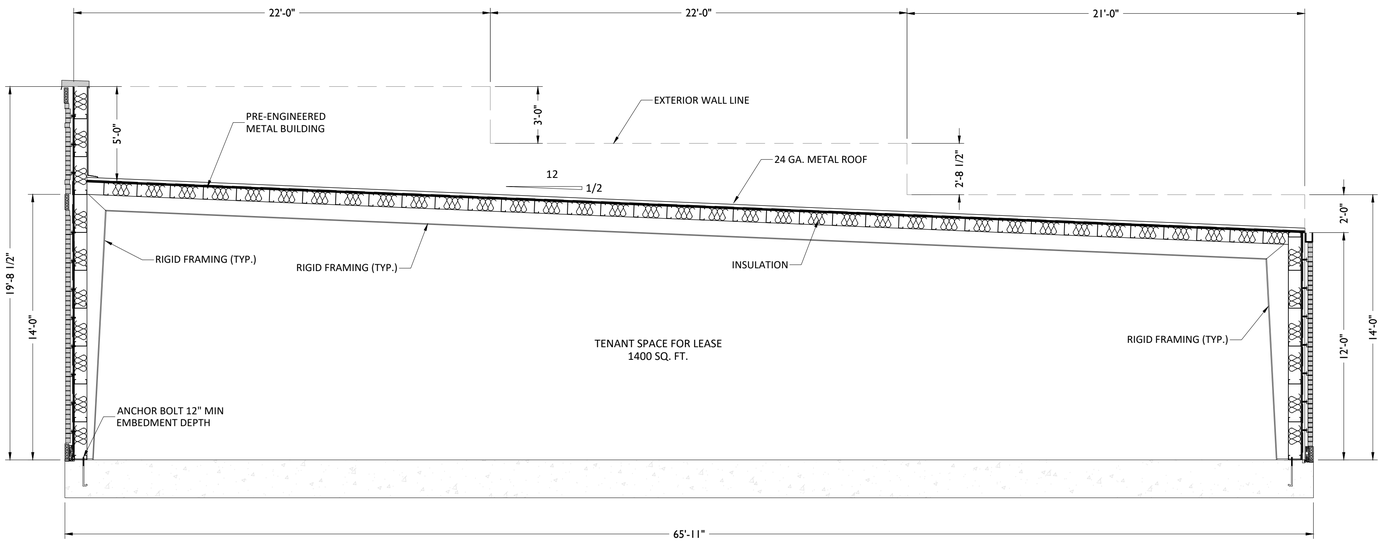
EXTERIOR ELEVATION

Drawn By: C.G.M.	Sheet A-3
Project: 2018.035	
Date: 10/13/2018	
Scale: 3/16" = 1'-0"	

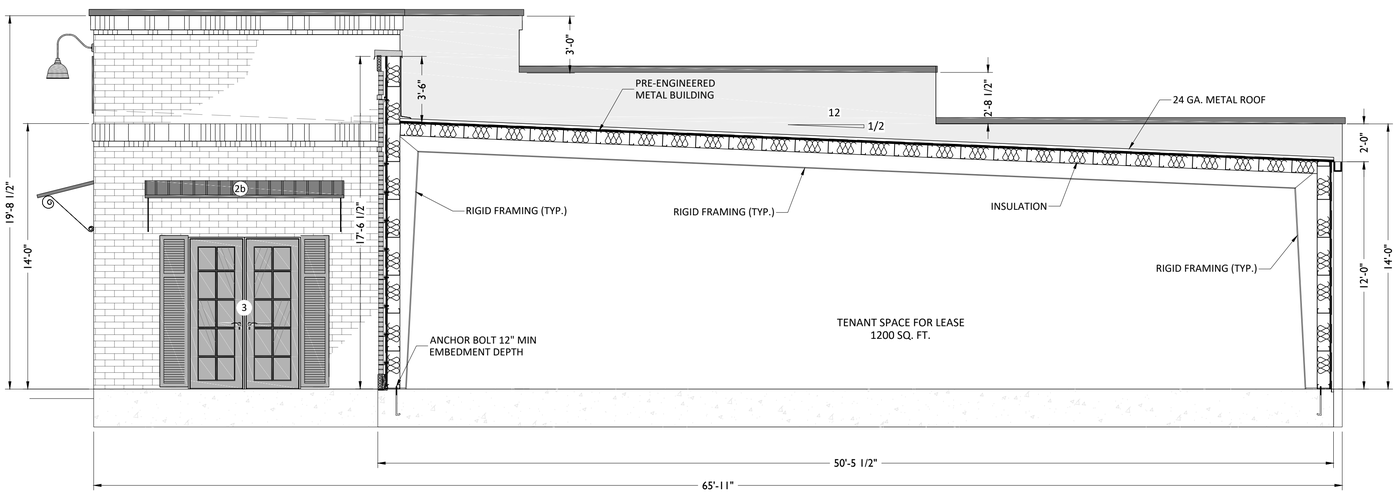


1 / D-1 TYPICAL BUILDING SECTION

SCALE: 1/4" = 1'-0"

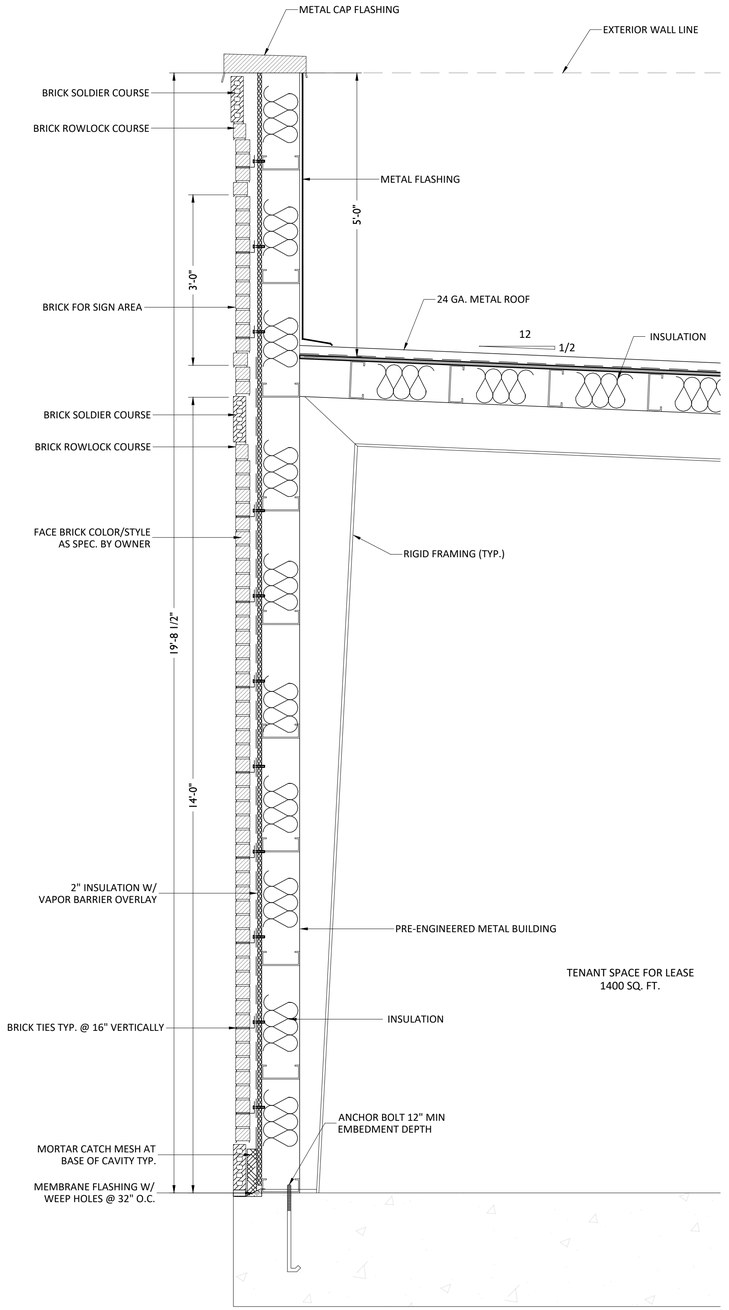
STRUCTURAL STEEL NOTES:

1. ALL WELDS SHALL BE 1/16" SMALLER THAN THE THICKNESS OF THE THINNEST ATTACHING MATERIAL.
2. ALL STRUCTURAL STEEL FASTENERS SHALL BE GRADE 50.
3. ALL STRUCTURAL STEEL, FASTENERS AND BASE PLATES SHALL BE HOT DIP GALVANIZED (H.D.G.) AFTER FABRICATION.
4. NO FIELD CUTTING, WELDING OR BENDING SHALL BE PERMITTED WITHOUT THE ENGINEERS APPROVAL.
5. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS DEPICTING ALL STRUCTURAL STEEL, CONNECTIONS AND BASE PLATES.



2 / D-1 TYPICAL BUILDING SECTION

SCALE: 1/4" = 1'-0"



3 / D-1 TYPICAL BUILDING DETAIL

SCALE: 3/4" = 1'-0"

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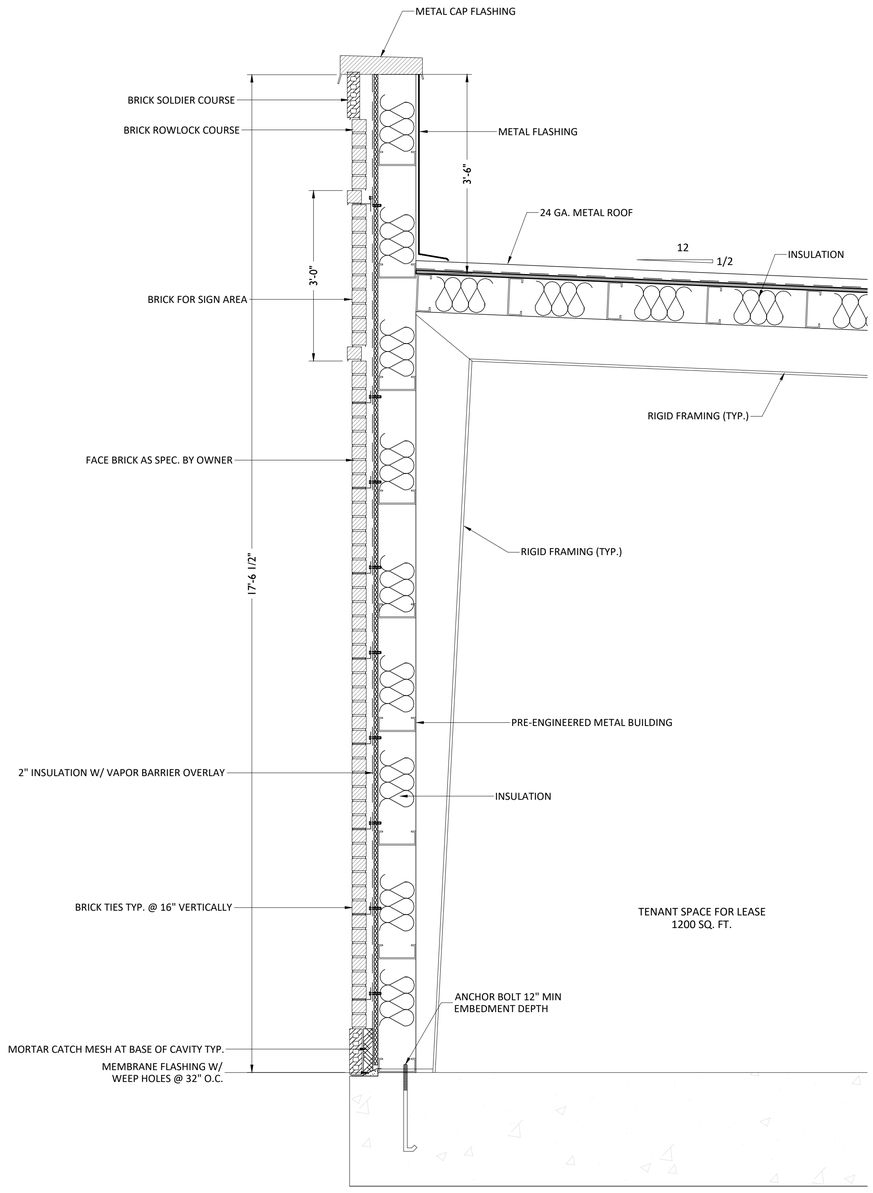
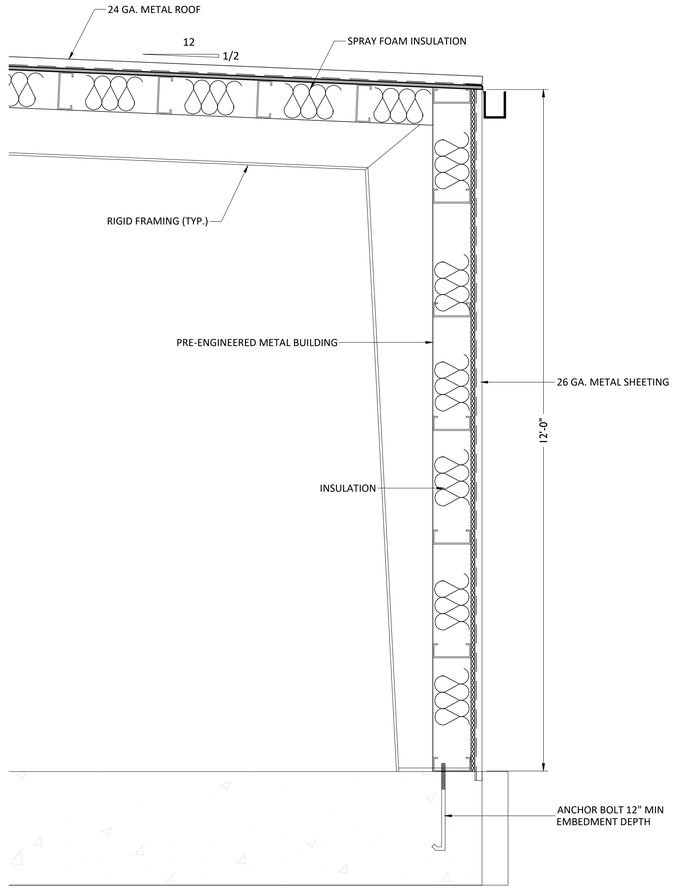
TYPICAL BUILDING SECTIONS AND DETAIL

Drawn By: C.G.M.	Sheet: D-1
Project: 2018.035	
Date: 10/13/2018	
Scale: AS NOTED	



1 D-2 TYPICAL BUILDING DETAIL

SCALE: 3/4" = 1'-0"



2 D-2 TYPICAL BUILDING DETAIL

SCALE: 3/4" = 1'-0"

STRUCTURAL STEEL NOTES:

1. ALL WELDS SHALL BE 1/16" SMALLER THAN THE THICKNESS OF THE THINNEST ATTACHING MATERIAL.
2. ALL STRUCTURAL STEEL FASTENERS SHALL BE GRADE 50.
3. ALL STRUCTURAL STEEL, FASTENERS AND BASE PLATES SHALL BE HOT DIP GALVANIZED (H.D.G.) AFTER FABRICATION.
4. NO FIELD CUTTING, WELDING OR BENDING SHALL BE PERMITTED WITHOUT THE ENGINEERS APPROVAL.
5. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS DEPICTING ALL STRUCTURAL STEEL, CONNECTIONS AND BASE PLATES.

General Notes

SCALED FOR 22 X 34

JEFFERY M. KUDLA
REG. NO. 35274
STATE OF LOUISIANA
REGISTERED ARCHITECT

No.	Revisions	Date

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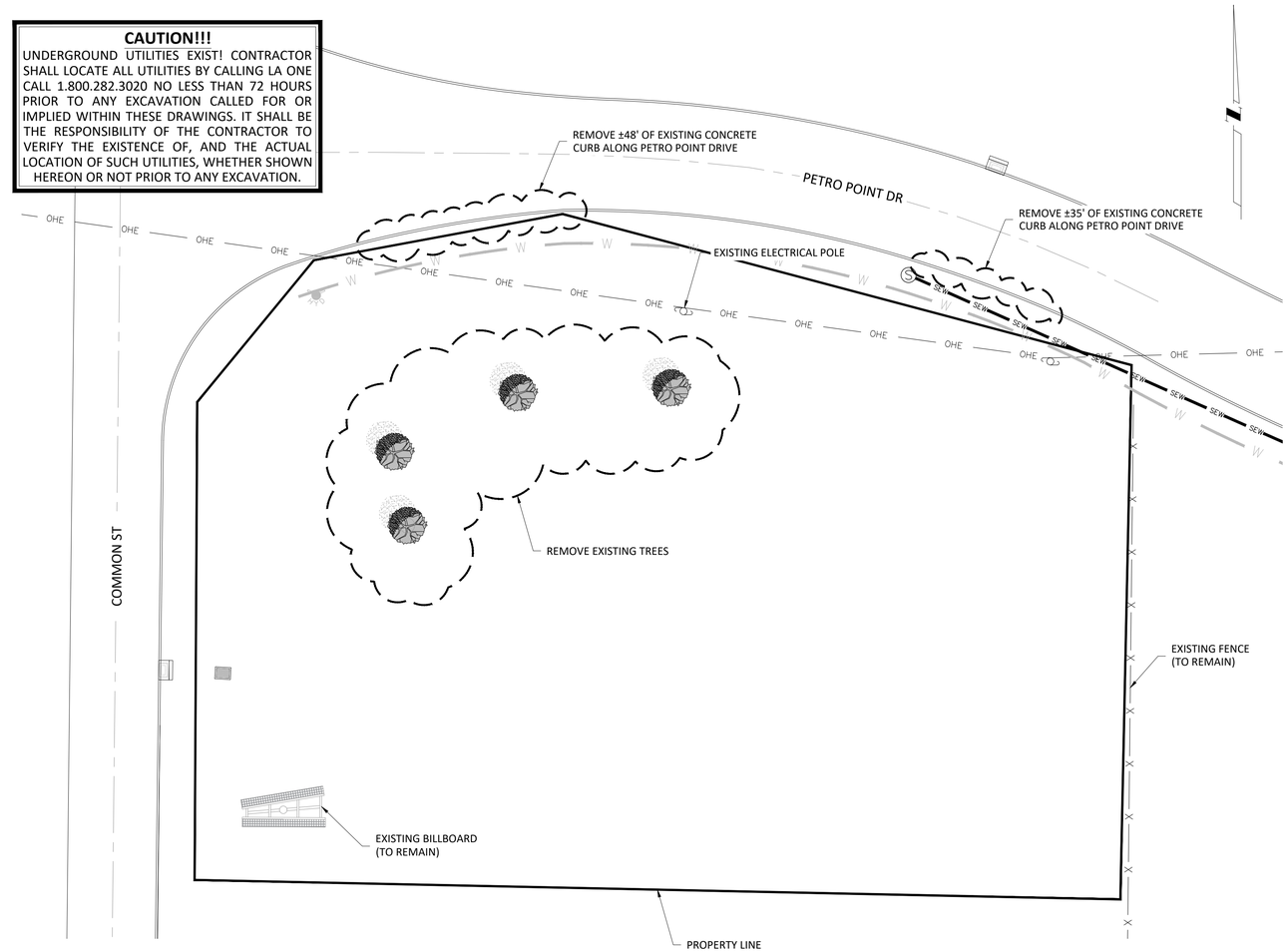
Project Name and Address:

PETRO POINT PLAZA
CHRIS LOGNION
PETRO POINT DRIVE
LAKE CHARLES, LA

TYPICAL BUILDING DETAILS

Drawn By: C.G.M.	Sheet: D-2
Project: 2018.035	
Date: 10/13/2018	
Scale: 3/4" = 1'-0"	

CAUTION!!!
UNDERGROUND UTILITIES EXIST! CONTRACTOR SHALL LOCATE ALL UTILITIES BY CALLING LA ONE CALL 1.800.282.3020 NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION CALLED FOR OR IMPLIED WITHIN THESE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OF, AND THE ACTUAL LOCATION OF SUCH UTILITIES, WHETHER SHOWN HEREON OR NOT PRIOR TO ANY EXCAVATION.



1 / C-1 DEMOLITION PLAN
SCALE: 1" = 20'

GENERAL NOTES:

1. THIS DEMOLITION DRAWING INDICATES ITEMS REQUIRED FOR CONSTRUCTION OF DEVELOPMENT. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN FIELD PRIOR TO CONSTRUCTION AND NOTIFY PROJECT ENGINEER OF ANY DISCREPANCIES.
2. CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, EQUIPMENT, UTILITIES, PAVING, ETC., THAT ARE TO REMAIN, FROM DAMAGES DURING CONSTRUCTION OPERATIONS. CONTRACTOR IS RESPONSIBLE FOR REPLACING DAMAGED ITEMS WITH NEW TO MATCH EXISTING AT NO ADDITIONAL COST TO THE OWNER.
3. CONTRACTOR SHALL DISPOSE OF ALL EXCESS CONSTRUCTION MATERIALS, DEBRIS, TREES, STUMPS, AND/OR SOIL FROM THE JOB SITE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL STANDARDS.
4. ALL AREAS WHERE DEMOLITION ACTIVITY OCCURS SHALL BE RESTORED TO PROPER GRADE SO THAT THE SITE MAY DRAIN.

General Notes

SCALED FOR 22 X 34

STATE OF LOUISIANA
DAVID W. MINTON
License No. 36790
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

10-13-2018

CYPRESS ENGINEERING AND DEVELOPMENT GROUP, LLC

DAVID MINTON
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DEMOLITION PLAN

Drawn By: A.C.J.	Sheet C-1
Project: 2018.035	
Date: 10/13/2018	
Scale: AS NOTED	

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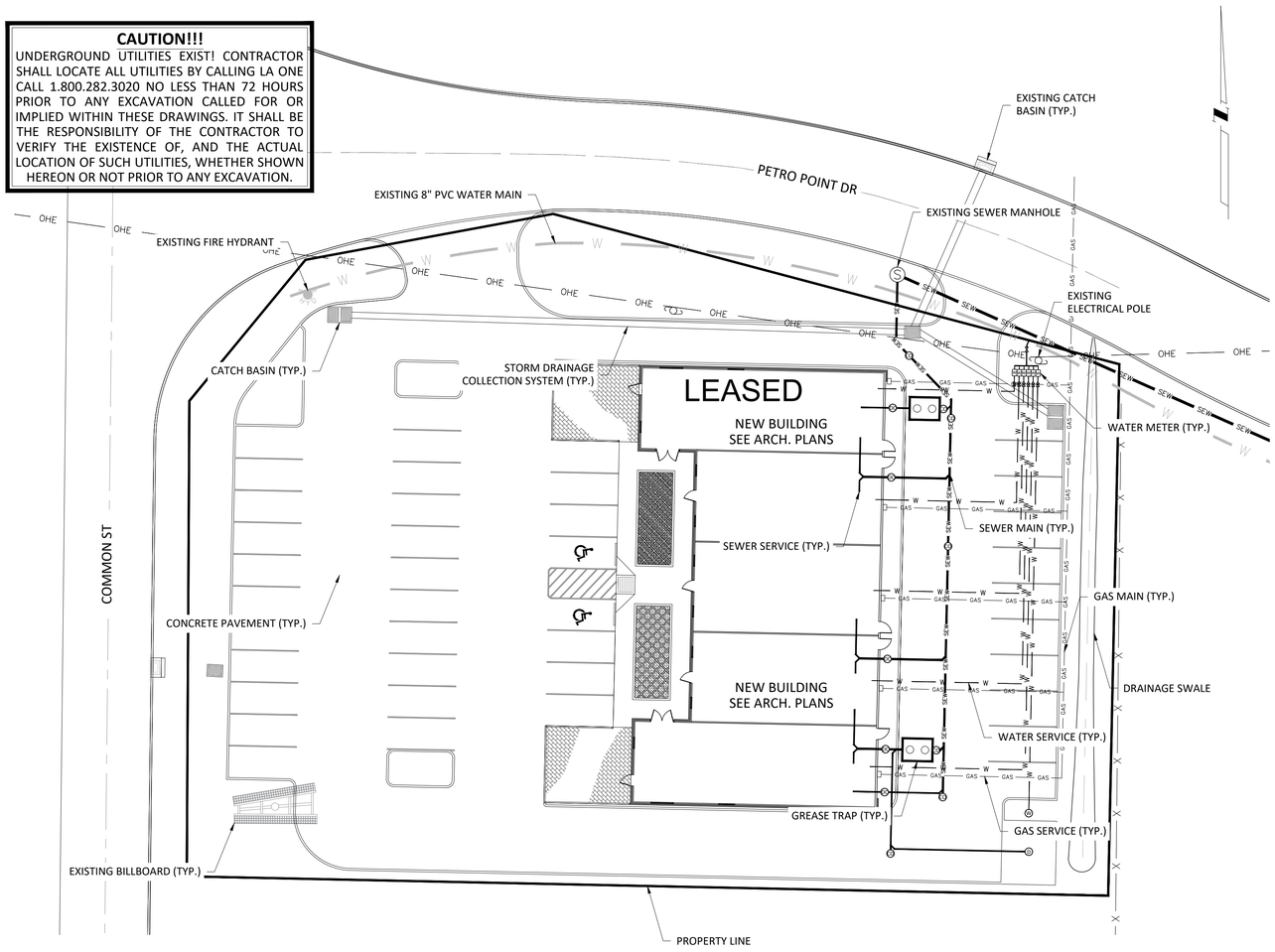

1 / C-2 UTILITIES PLAN
SCALE: 1" = 20'

GENERAL NOTES:

1. WHERE PHYSICAL JOB SITE MEASUREMENTS ARE REQUIRED BEFORE FABRICATION, IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE ACTUAL CONSTRUCTION DIMENSIONS/DETAILS PRIOR TO FABRICATION.
2. ANY DISCREPANCY OR CONFLICT IN THESE CONSTRUCTION DOCUMENTS SHALL BE REPORTED TO THE PROJECT ENGINEER . ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.
3. ANY MODIFICATIONS MADE TO THESE CONSTRUCTION DOCUMENTS TO ACCOMPLISH THE REQUIRED WORK SHALL BE REPORTED TO THE PROJECT ENGINEER AND APPROVED BY ENGINEER PRIOR TO THIS WORK BEING COMPLETED.
4. CONTRACTOR SHALL PROVIDE OWNER WITH AS-BUILT DRAWINGS OF THE SITE AND UTILITIES INSTALLED AND PROPERLY COVERED AT THE COMPLETION OF THE PROJECT.
5. CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, EQUIPMENT, UTILITIES, PAVING, ETC., THAT ARE TO REMAIN, FROM DAMAGE DURING CONSTRUCTION OPERATIONS. REPLACE DAMAGED ITEMS WITH NEW TO MATCH EXISTING AT NO ADDITIONAL COST TO THE OWNER.
6. CONTRACTOR SHALL DISPOSE OF ALL EXCESS CONSTRUCTION MATERIALS, DEBRIS, TREES, STUMPS, AND/OR SOIL FROM THE JOB SITE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL STANDARDS.
7. CONTRACTOR SHALL EMPLOY A LOUISIANA LICENSED SURVEYOR OR ENGINEER TO PROVIDE ALL CONSTRUCTION LAYOUT, AND/OR BASELINES. SURVEYOR SHALL SET THE PROJECT TBM FOR USE DURING CONSTRUCTION.
8. ELEVATIONS AND CONTOUR ELEVATION INFORMATION BASED UPON SURVEY DATA COLLECTED BY THE CYPRESS ENGINEERING AND DEVELOPMENT GROUP, LLC AND CALCASIEU PARISH POLICE JURY LIDAR DATA.
9. ENGINEER SHALL NOT BE RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES SHOWN ON OR MISSING FROM THESE PROJECT DRAWINGS. ENGINEER SHALL BE NOTIFIED OF ANY DEVIATION IN THE ELEVATIONS OR LOCATION OF EXISTING UTILITIES PROVIDED IN THESE DRAWINGS.
10. CONTRACTOR SHALL LOCATE ALL UTILITIES BY CALLING LA ONE CALL 1.800.282.3020 NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION CALLED FOR OR IMPLIED WITHIN THESE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OF, AND THE ACTUAL LOCATION OF SUCH, WHETHER SHOWN HEREON OR NOT, PRIOR TO ANY EXCAVATION.
11. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE LADOTD STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES MANUAL LATEST ED., MUTCD LATEST ED., AND CALCASIEU PARISH CODE OF ORDINANCE.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARATION AND EXECUTION OF SWPPP PLAN IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL STANDARDS. TYPICAL DETAILS INCLUDED FOR REFERENCE.

General Notes

SCALED FOR 22 X 34

STATE OF LOUISIANA
DAVID W. MINTON
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IN
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10-13-2018

CYPRESS ENGINEERING AND DEVELOPMENT GROUP, LLC

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Project Name and Address:

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CHRIS LOGNION
PETRO POINT DRIVE
LAKE CHARLES, LA

UTILITIES PLAN

Drawn By: A.C.J.	Sheet: C-2
Project: 2018.035	
Date: 10/13/2018	
Scale: AS NOTED	

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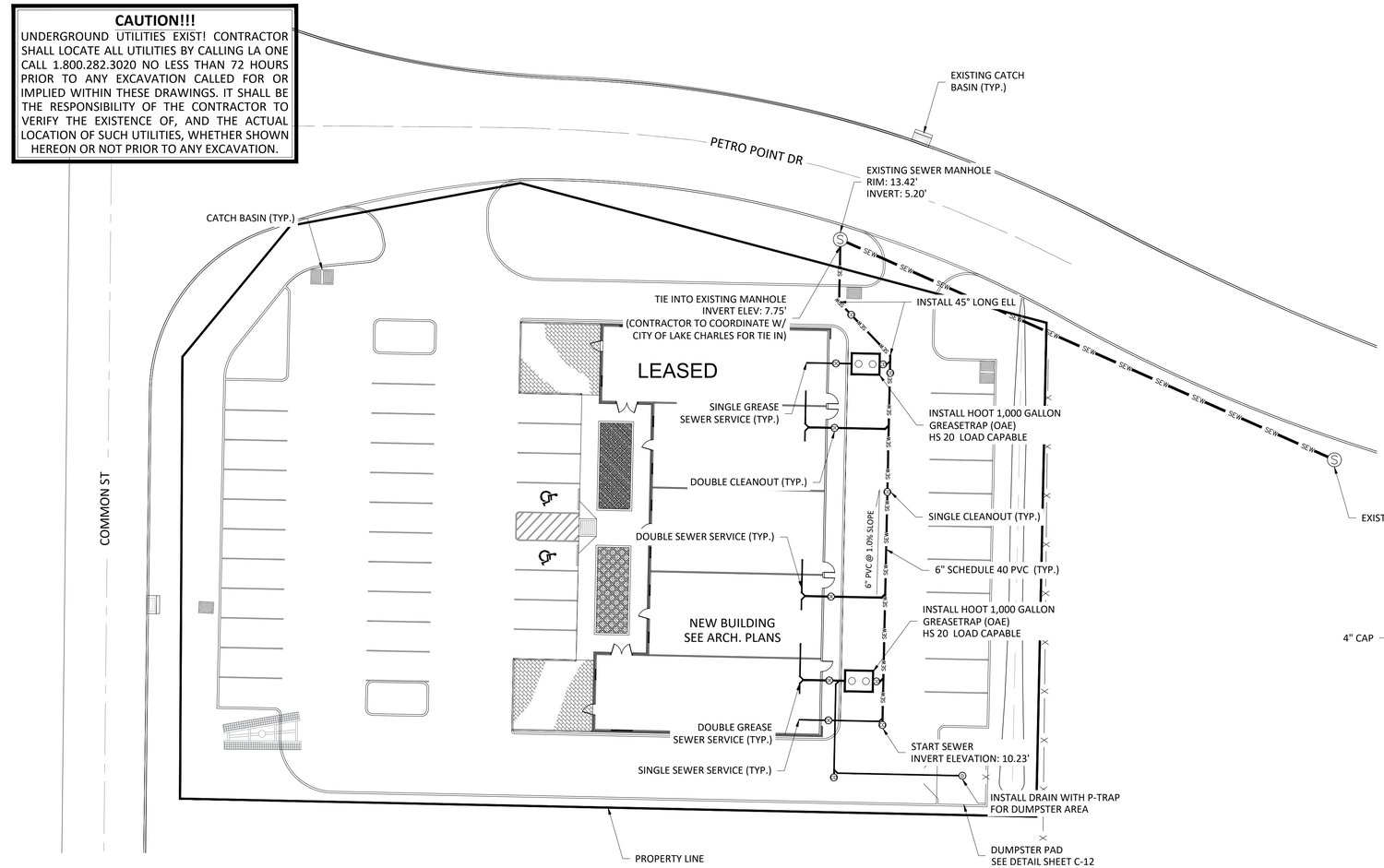
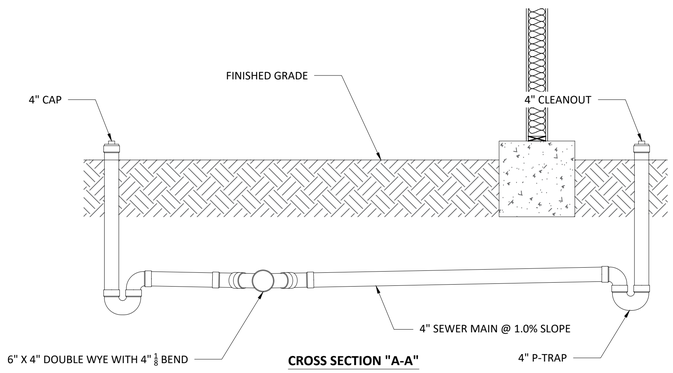


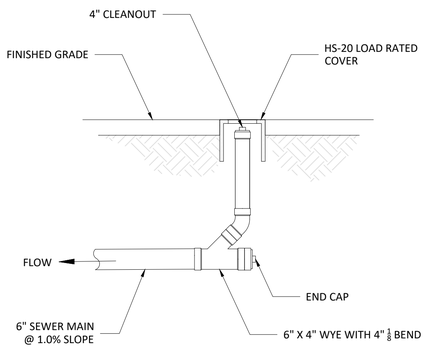
1 C-3 SEWER COLLECTION SYSTEM
SCALE: 1" = 20'

GENERAL NOTES:

1. ALL MATERIALS SHALL MEET THE REQUIREMENTS OF, AND ALSO BE INSTALLED IN ACCORDANCE WITH THE CITY OF LAKE CHARLES DETAILED SPECIFICATIONS - SUPPLEMENTAL TO THE SUBDIVISION REGULATIONS.
2. ALL SANITARY SEWER GRAVITY PIPE SHALL CONFORM TO ASTM D-3034 SDR 26 PVC PIPE WITH RUBBER JOINT GASKETS AND BE SIX INCHES (8") IN DIAMETER.
3. ALL MANHOLE TOP ELEVATIONS LISTED ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING TOPS THREE INCHES (3") ABOVE FINISHED GRADE. FOR MANHOLES WHICH MAY FALL WITHIN THE ROADWAY, MANHOLE TOPS SHALL BE PROPERLY INSTALLED SUCH THAT NO DANGER IS PRESENTED FOR PASSING VEHICLES.
4. CONTRACTOR SHALL PLACE MANHOLE INVERTS TO PROVIDE GRADIENT THROUGH MANHOLE.
5. MINIMUM DEPTH OF SERVICE CONNECTIONS AT THE PROPERTY LINE SHALL BE THREE (3) TO SIX (6) FEET BELOW FINISH GRADE. SEWER SERVICE SHALL HAVE A MINIMUM SLOPE OF 0.5% AND A RECOMMENDED SLOPE OF 1.0% WHERE AVAILABLE DEPTH PERMITS. SERVICE LINES MUST EXTEND TO THE PROPERTY LINE OR EDGE OF SERVITUDE, WHICHEVER IS GREATER.
6. ALL SANITARY SEWER PIPE INSTALLATION IS TO BEGIN AT THE DOWNSTREAM MANHOLE AND PROCEED UPSTREAM.
7. LENGTHS SHOWN ARE FROM CENTERLINE MANHOLE TO CENTERLINE MANHOLE TO PROVIDE GRADIENT THROUGH MANHOLES.
8. THE CONTRACTOR SHALL ADD APPROPRIATE WYES, STUB-OUTS, AND/OR CONNECTIONS TO ACCOMMODATE SEWER COLLECTION ON EVERY LOT.
9. EMS MARKER TO BE IN ACCORDANCE WITH AWPA STANDARDS FOR SEWER AT 121.6 KHZ FREQUENCY WITH IDENTIFICATION FLAG PLACED ON SURFACE ABOVE END OF SERVICE LINE.
10. SEWER CAPACITY BASED UPON PEAK FACTOR OF 4 IN ACCORDANCE WITH 10 STATE STANDARDS.

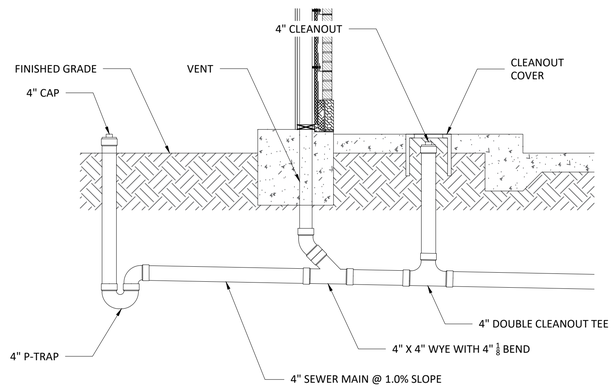


CROSS SECTION "A-A"

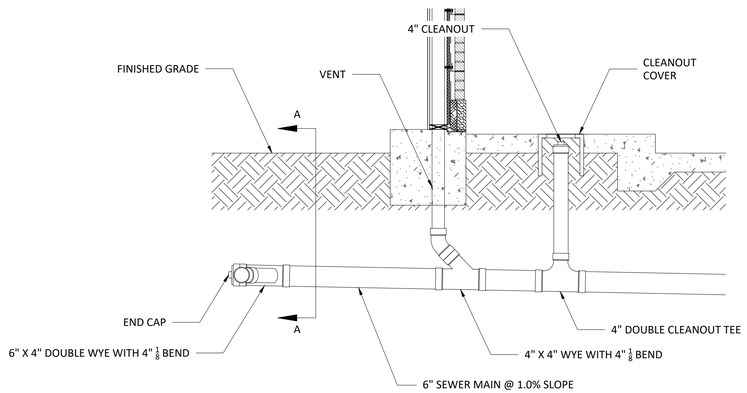


NOTE: ALL CLEANOUTS IN TRAVEL PATH TO BE HS-20 LOAD RATED.

2 C-3 END OF LINE CLEANOUT
SCALE: N.T.S.



3 C-3 TYPICAL SINGLE BUILDING SEWER CONNECTION
SCALE: N.T.S.



4 C-3 TYPICAL SINGLE BUILDING SEWER CONNECTION
SCALE: N.T.S.

General Notes

SCALED FOR 22 X 34

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DAVID W. MINTON
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IN
CIVIL ENGINEERING
10-13-2018

CYPRESS ENGINEERING AND DEVELOPMENT GROUP, LLC

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CHRIS LOGNION
PETRO POINT DRIVE
LAKE CHARLES, LA

SANITARY SEWER COLLECTION SYSTEM

Drawn By: A.C.J.	Sheet C-3
Project: 2018.035	
Date: 10/13/2018	
Scale: AS NOTED	

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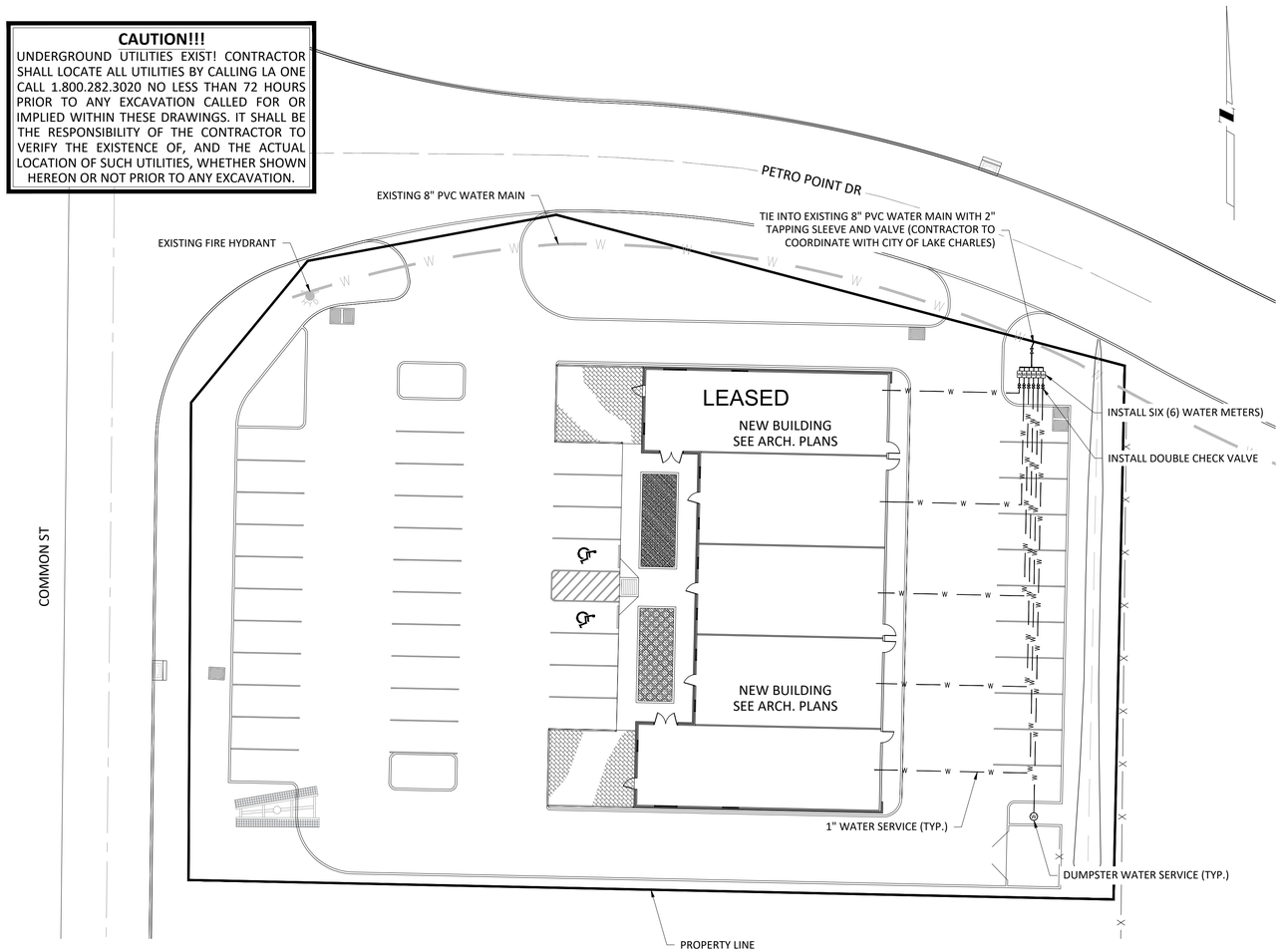
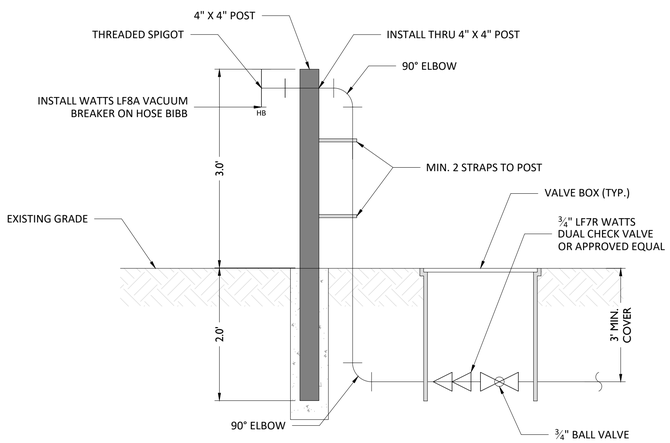
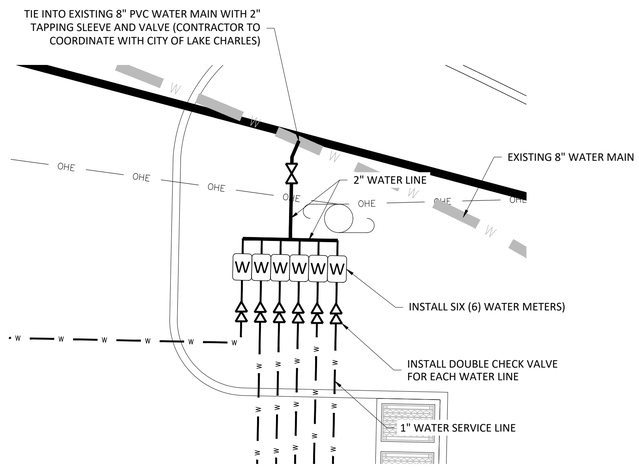


1 C-4 WATER DISTRIBUTION SYSTEM
SCALE: 1" = 20'



2 C-4 DUMPSTER WATER SERVICE
SCALE: N.T.S.



3 C-4 WATER METER MANIFOLD DETAIL
SCALE: 1" = 5'

GENERAL NOTES:

1. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL GUIDELINES.
2. MATERIALS FOR CONSTRUCTION OF WATER DISTRIBUTION SYSTEM SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
   - 2.A. WATER LINES TO BE PVC IN ACCORDANCE WITH STATE PLUMBING CODE.
   - 2.B. CONCRETE THRUST BLOCKING SHALL BE PROVIDED AT EACH HYDRANT, VALVE, BEND, TEE, AND AT REDUCERS AND FITTINGS WHERE CHANGES OCCUR IN PIPE DIAMETER OR DIRECTIONS.
   - 2.C. CONCRETE FOR THRUST BLOCKS AND INCIDENTAL USES SHALL BE READY-MIXED CONCRETE WITH A 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI MINIMUM.
   - 2.D. MINIMUM HORIZONTAL SEPARATION OF SIX (6) FEET SHALL BE MAINTAINED BETWEEN WATER MAINS AND SEWERAGE MAINS, UNLESS OTHERWISE STATED IN PLANS.
   - 2.E. MINIMUM VERTICAL SEPARATION OF EIGHTEEN (18) INCHES SHALL BE MAINTAINED WHERE WATER AND SEWERAGE MAINS CROSS, UNLESS OTHERWISE NOTED IN PLANS.
   - 2.F. ALL BENDS AND TEES FOR WATER LINES ARE TO BE INSTALLED WITH CONCRETE THRUST BLOCKS IN ADDITION TO RESTRAINING GLANDS.
3. CONTRACTOR SHALL COORDINATE ALL LINE TAPS WITH CITY OF LAKE CHARLES TO ENSURE WATER DEPARTMENT IS AWARE OF CONSTRUCTION ACTIVITIES.
4. METER BOXES SHALL BE $\frac{5}{8}$" X $\frac{3}{4}$" CONCRETE BOX (SMB#SCH3412) WITH $\frac{3}{4}$ X $\frac{3}{4}$" CAST IRON COVER WITH READER LID (SMB#STHL55834). ALL METERS SHALL BE SUPPLIED AND INSTALLED BY THE CITY OF LAKE CHARLES WATER DIVISION AFTER PROPER APPLICATION HAS BEEN MADE AND ALL APPLICABLE FEES AND DEPOSITS HAVE BEEN PAID.
5. TOP OF METER BOXES SHALL BE INSTALLED TWO (2) - THREE (3) INCHES ABOVE FINISHED GRADE.
6. LINE SETTERS SHALL BE ON ALL METER INSTALLATIONS. FOR 1" SERVICE TUBING, LINESETTER SHALL BE 1"X$\frac{3}{4}$" LINESETTER (FORD LSVH48243WAWT) WITH INTEGRAL CHECK VALVE OR APPROVED EQUAL BY CITY.
7. CONTRACTOR SHALL PRESSURE TEST ALL WATER LINES PRIOR TO INSTALLATION OF CONCRETE PAVEMENT TO ENSURE NO LEAKS ARE PRESENT.

General Notes

SCALED FOR 22 X 34

STATE OF LOUISIANA
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License No. 36790
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10-13-2018

CYPRESS ENGINEERING AND DEVELOPMENT GROUP, LLC

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PETRO POINT PLAZA
CHRIS LOGNION
PETRO POINT DRIVE
LAKE CHARLES, LA

WATER DISTRIBUTION SYSTEM

Drawn By: A.C.J.	Sheet: C-4
Project: 2018.035	
Date: 10/13/2018	
Scale: AS NOTED	

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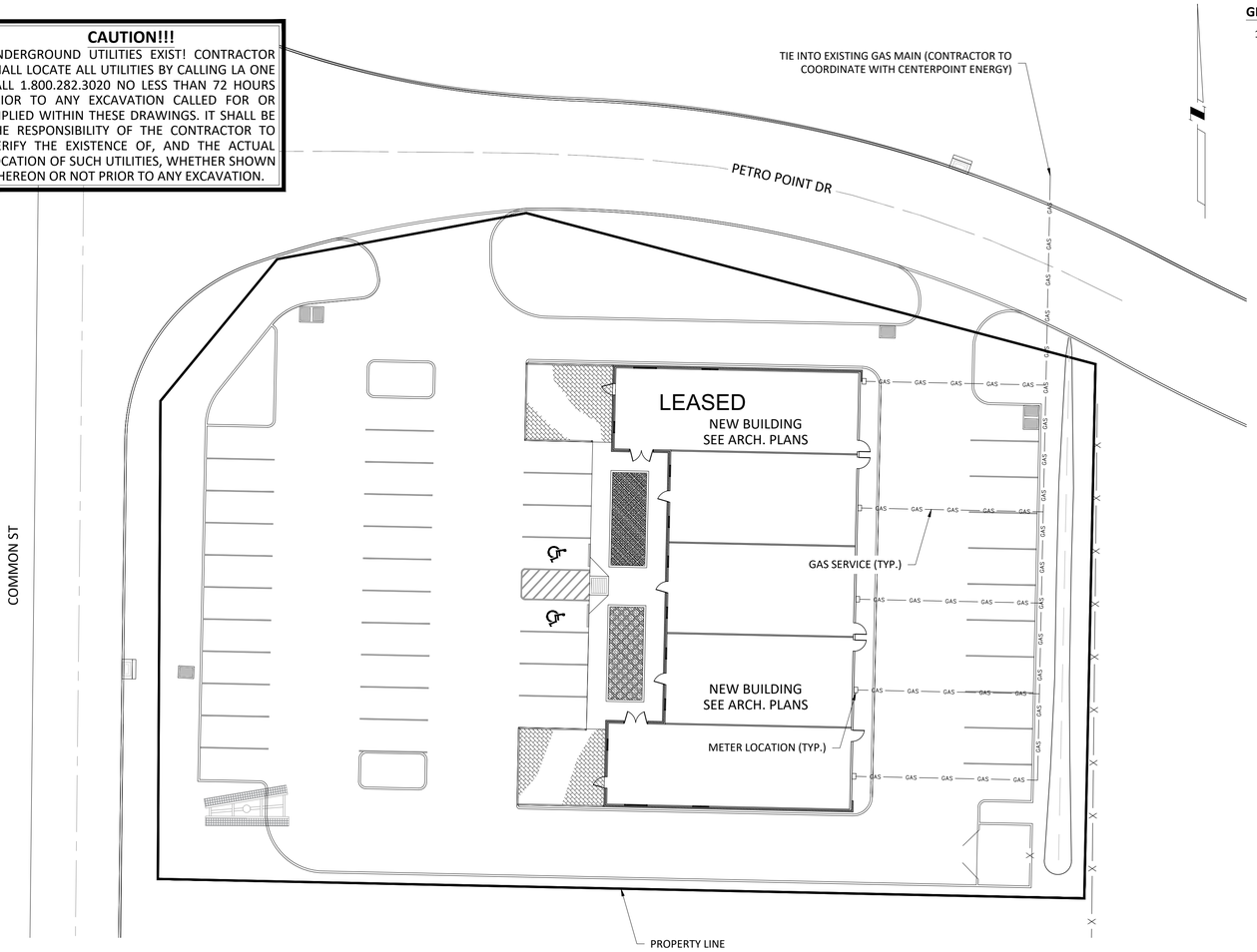

1 C-5 GAS DISTRIBUTION SYSTEM
SCALE: 1" = 20'

GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE GAS UTILITY WITH CENTERPOINT ENERGY.

General Notes

SCALED FOR 22 X 34

STATE OF LOUISIANA
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Project Name and Address:

PETRO POINT PLAZA
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LAKE CHARLES, LA

GAS DISTRIBUTION SYSTEM

Drawn By: A.C.J.
Project: 2018.035
Date: 10/13/2018
Scale: AS NOTED
Sheet: C-5

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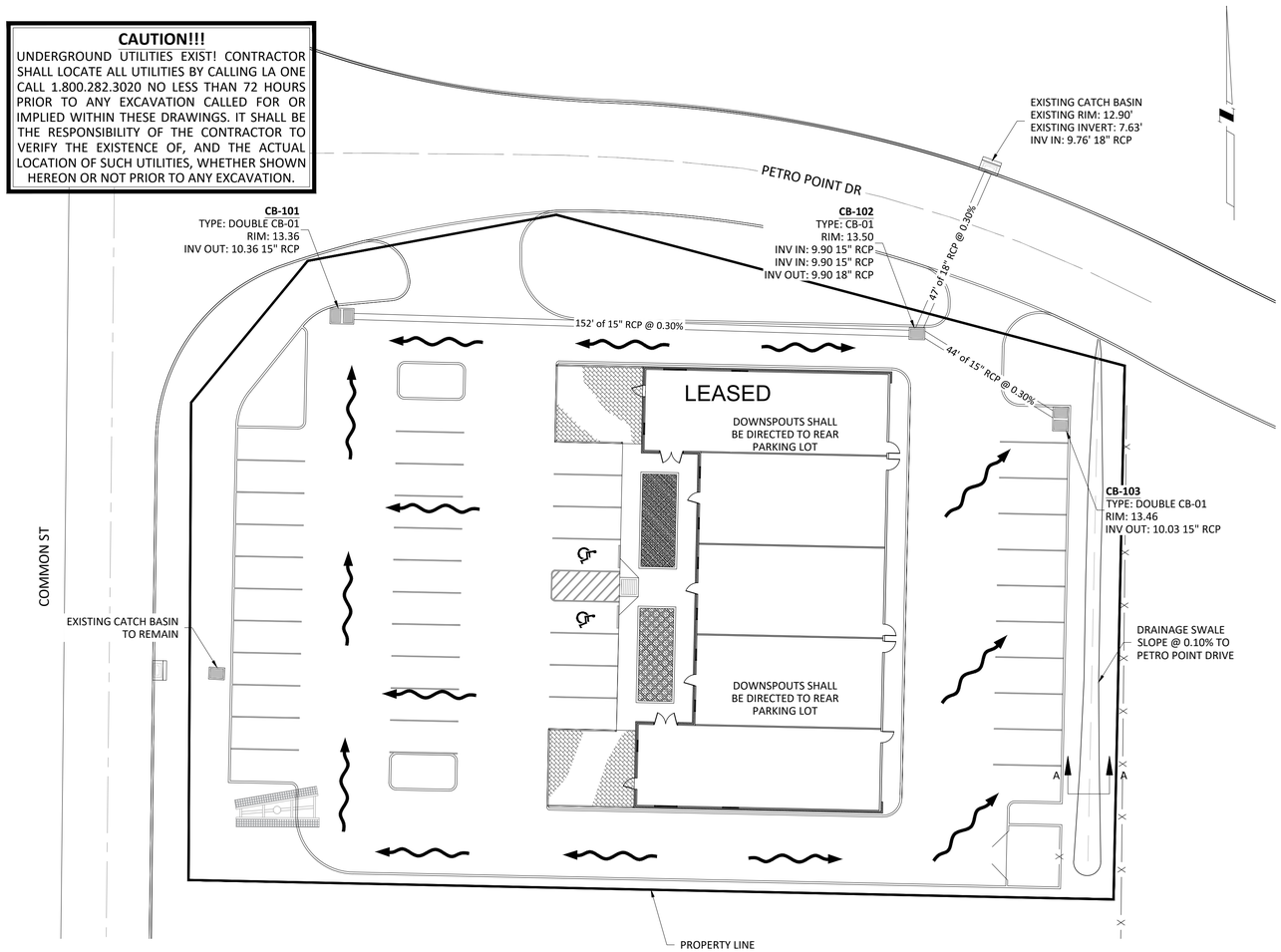


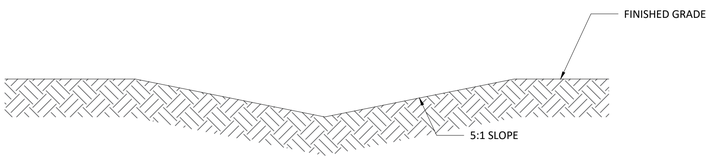
1 C-6 **DRAINAGE PLAN**
SCALE: 1" = 20'

GENERAL NOTES:

1. CONTRACTOR TO VERIFY ALL EXISTING PIPE LOCATIONS AND ELEVATIONS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES OR CONFLICTS IN THE PROPOSED PLANS SHALL BE REPORTED TO THE PROJECT ENGINEER IMMEDIATELY.
2. ALL MATERIALS SHALL MEET REQUIREMENTS OF, AND ALSO BE INSTALLED IN ACCORDANCE WITH CITY OF LAKE CHARLES CODE OF ORDINANCE.
3. ALL PIPE LENGTH DIMENSIONS ARE APPROXIMATE AND SHALL BE CONFIRMED BY CONTRACTOR PRIOR TO ORDERING MATERIAL.
4. BY REFERENCE, THE LATEST EDITION OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES , SECTIONS 701, 702, AND 1006 SHALL APPLY TO CONSTRUCTION OF THOSE ITEMS.
5. REFERENCE LA DOTD CB-01 TYPICAL DETAIL FOR CONCRETE CATCH BASIN.
6. ALL STORM WATER PIPE INSTALLATION SHALL BEGIN AT THE DOWNSTREAM CATCH BASIN OR OUTFALL AND PROCEED UPSTREAM.
7. ALL STORM WATER PIPE SHALL HAVE A MINIMUM OF ONE (1) FOOT OF COVER FROM TOP OF PIPE TO TOP OF BASE.
8. EMBANKMENTS SHALL BE HYDROSEEDED AT COMPLETION OF PROJECT TO PREVENT EROSION.
9. CONTRACTOR SHALL PROVIDE PROPER GRADING TO MATCH DRAINAGE PLANS.
10. IMPERVIOUS AREA = 32,780 SQUARE FEET
11. ALL STORM WATER RUNOFF DRAINS TO THE CITY OF LAKE CHARLES STORM WATER DRAINAGE SYSTEM.

LEGEND:

= LOT GRADING DIRECTION
= CB-01 CATCH BASIN
= CB-06 CATCH BASIN



2 C-6 **DRAINAGE SWALE CROSS SECTION "A-A"**
SCALE: 1" = 2'

General Notes

SCALED FOR 22 X 34

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10-13-2018

CYPRESS ENGINEERING AND DEVELOPMENT GROUP, LLC

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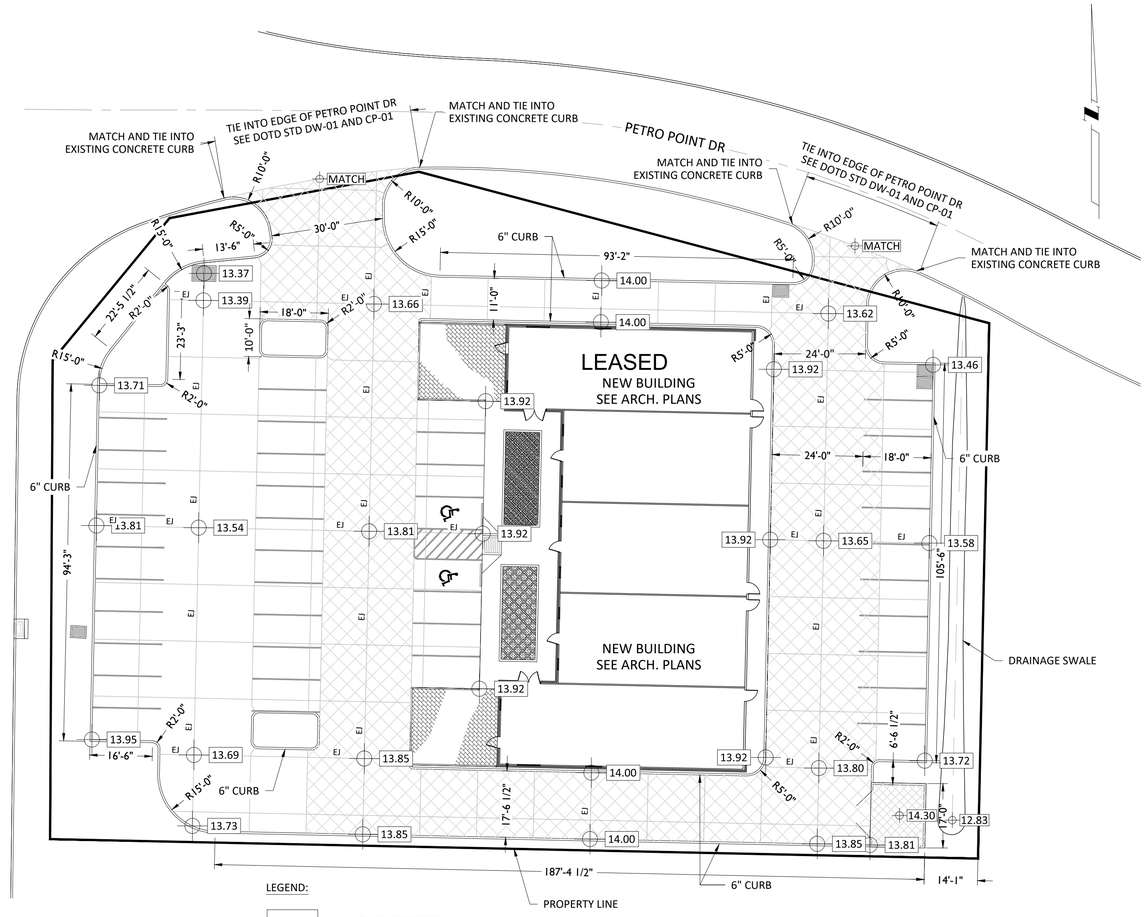
LAKE CHARLES, LA

DRAINAGE PLAN

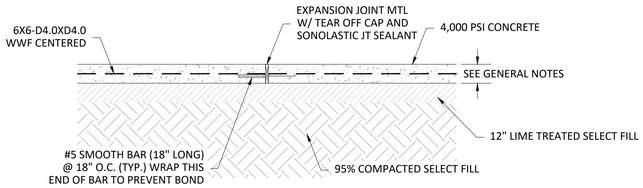
Drawn By: A.C.J.	Sheet: C-6
Project: 2018.035	
Date: 10/13/2018	
Scale: AS NOTED	



PAVING PLAN

I / C-7

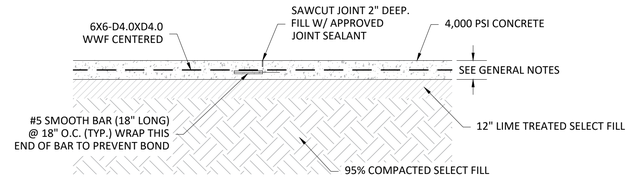
SCALE: 1"= 20'



EXPANSION JOINT (EJ) DETAIL

2 / C-7

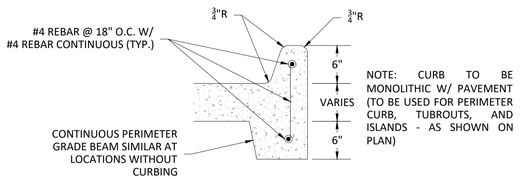
SCALE: N.T.S.



CONTROL JOINT (CJ) DETAIL

3 / C-7

SCALE: N.T.S.



6" BARRIER CURB DETAIL

4 / C-7

SCALE: N.T.S.

GENERAL NOTES:

1. CONTRACTOR RESPONSIBLE FOR NOTIFYING LA ONE CALL TO IDENTIFY ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
2. PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR SHALL LOCATE EXISTING UTILITIES (MUNICIPAL WATER, SANITARY SEWER, ELECTRICAL, PHONE, ETC.) VERIFY NO CONFLICTS WITH PROPOSED STORMWATER PIPE & UTILITIES.
3. CONTRACTION JOINTS SHALL BE SPACED AT 15'0" CENTER/CENTER MAXIMUM UNLESS NOTED OTHERWISE.
4. EXPANSION JOINTS (EJ) SHALL BE LOCATED BETWEEN BUILDING, PERIMETER SIDEWALK AND PAVING. JOINT LAYOUT WORK SHALL BE PERFORMED BY OTHERS AND APPROVED BY OWNER.
5. CONCRETE SHALL DEVELOP 4,000 PSI MINIMUM COMPRESSIVE STREGTHN. REFERENCE CONCRETE PLACEMENT SPECIFICATION C-300. ALL OTHER ITEMS SHALL BE SPECIFIED PER LADOTD SPECIFICATIONAS FOR ROADS AND BRIDGES, LATEST EDITION.
6. PCC PAVEMENT THICKNESS SHALL BE:
   - 6.1. 6" THICK AUTOMOBILE TRAFFIC AND PARKING AREAS
   - 6.2. 8" THICK DUMP TRUCK TRAFFIC LANES
   - 6.3. 9" THICK DUMPSTER LOADING ZONE
   - 6.4. ALL PAVEMENT SHALL BE 6" THICK UNLESS NOTED OTHERWISE.
7. RECOMMENDED AGGREGATE AND CONCRETE CROSS SECTION SHALL BE VERIFIED WITH GEOTECHNICAL REPORT AND DESIGNED BY OTHERS.
8. RECOMMENDED BASE OF 6" OF CRUSHED AGGREGATE (610 ROAD BASE OR NO. 57 STONE) SHALL MEET THE GRADATION REQUIREMENTS OF LA DOTD SECTION 1003.03(B) IN UNIMPROVED AREAS.
9. RECOMMENDED MINIMUM 12" SELECT FILL IN AREAS WITH EXISTING PAVEMENT.
10. AGGREGATE BASE SHALL BE UNDERLAIN BY A SUITABLE WOVEN GEOFABRIC (US FABRICS 160NW OAE). GEOFABRIC SHALL BE PROVIDED BETWEEN THE AGGREGATE BASE AND THE SUBGRADE.
11. WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL WWF SHALL BE SUPPORTED BY CONTINUOUS CHAIRS OR ZIG ZAG LADDERS. SPACING WILL BE PER REINFORCING INSTITUTE. WWF REINFORCEMENT SHALL BE D4XD4-6X6. WWF SHALL BE CENTERED IN ALL CONCRETE PACING AND DISCONTINUED AT JOINTS.
12. CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI-318, LATEST EDITION.
13. SUPPORT AND ANCHORAGE OF THE REINFORCEMENT IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL CONFORM TO ACI-318.
14. ALL VEGETATION AND ANY UNSUITABLE SOILS CONTAINING ORGANIC MATTER AND ANY OTHER UNSUITABLE MATERIAL SHALL BE REMOVED TO EXPOSE A FIRM SUBGRADE CAPABLE OF SUPPORTING CONSTRUCTION ACTIVITIES.
15. THE EXPOSED SUBGRADE SURFACE SHALL BE INSPECTED TO ENSURE THAT A SUITABLE SURFACE EXISTS UPON WHICH TO PLACE SELECT FILL. THIS INSPECTION MAY INCLUDE PROOF ROLLING THE SUBGRADE WITH A LOADED TANDEM-AXLE DUMP TRUCK OR OTHER MEANS AS DETERMINED BY ENGINEER. ANY AREAS THAT ARE DETERMINED UNSUITABLE FOR FILL PLACEMENT SHALL BE UNDERCUT OR STABILIZED TO ACHIEVE A STABLE SUBGRADE SURFACE PROPER SUBGRADE PREPARATION AND INSPECTION IS ESSENTIAL FOR THE DEVELOPMENT OF THIS PROJECT.
16. ANY WET AREAS AND/OR AREAS THAT YIELD EXCESSIVELY UNDER THE CONSTRUCTION ACTIVITIES SHALL BE COMPLETELY REMOVED AND REPLACED WITH NEW FILL OR STABILIZED IN PLACE.
17. ONCE A FIRM SUBGRADE EXISTS UPON WHICH TO CONDUCT FILL OPERATIONS, SELECT FILL MAY BE PLACED TO ACHIEVE THE REQUIRED FINISH ELEVATIONS. SELECT FILL SHALL CONSIST OF SILTY OR SANDY CLAY WITH A LIQUID LIMIT OF 30 TO 42 AND A PLASTICITY INDEX OF 12 TO 22. THE FILL SHALL BE PLACED IN 6 INCH THICK LOOSE LIFTS OR LESS AND COMPACTED TO 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY AT 2%± (ASTM D698). EACH LIFT SHALL BE TESTED TO ENSURE COMPLIANCE WITH THESE RECOMMENDATIONS PRIOR TO PLACING SUBSEQUENT LIFTS. MINIMUM TESTING FREQUENCY OF ONE TEST PER 2,500 SQ FT, BUT NOT LESS THAN 3 TESTS PER LIFT REQUIRED.
18. CONTRACTOR SHALL BACKFILL TO THE REQUIRED ELEVATIONS WITH SELECT FILL. FILL SHALL BE COMPACTED IN 8" LIFTS (MAX.) AND SHALL MEET 95% OF A STANDARD PROCTOR.
19. AFTER FINISHING AND TEXTURING OPERATIONS HAVE BEEN COMPLETED AND IMMEDIATELY AFTER FREE WATER HAS EVAPORATED, THE SURFACE OF THE PAVING AND ANY EXPOSED EDGES SHALL BE UNIFORMLY COATED WITH A HIGH SOLIDS MEMBRANE - WHITE PIGMENTED MEMBRANE CURING COMPOUND MEETING ASTM C309 OR ASTM C1315 (TYPE II), NOT EXCEED 200 SF/GAL OR FLOOD THE PAVED SURFACE WITH WATER FOR 7 DAYS MINIMUM.
20. SURFACE PAVING SHALL RECEIVE ROUGH BROOM FINISH TO DEVELOP A SKID RESISTANT SURFACE AND A UNIFORM APPEARANCE.
21. SIDEWALK CONSTRUCTION SHALL BE IN ACCORDANCE WITH ADA REQUIREMENTS.
22. THE CONTRACTOR SHALL EMPLOY A LA LICENSED SURVEYOR TO PROVIDE THE CONSTRUCTION LAYOUT. BOUNDARIES AND/OR BASE LINES. SURVEYORS TO SET PROJECT BENCHMARK FOR USE DURING CONSTRUCTION. BENCHMARK SHALL BE SET TO M.S.L.
23. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH EPA STORMWATER RUNOFF RULES USING BEST MANAGEMENT PRACTICES AND / OR TEMPORARY EROSION CONTROL MEASURES DURING CONSTRUCTION.
24. ANY DISCREPANCIES OR CONFLICTS IN THE CONSTRUCTION DOCUMENT SHALL BE REPORTED TO THE ENGINEER. ALL DIMENSIONS SHALL BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION ACTIVITIES.
25. IF DURING CONSTRUCTION THERE IS AN OBSTRUCTION OR IMPEDIMENT OF STORM WATER FROM OR TO THE ADJACENT PROPERTY, THEN A TEMPORARY DRAINAGE SYSTEM SHALL BE CONSTRUCTED TO MAINTAIN ADEQUATE DRAINAGE.
26. STORM DRAIN PIPE LENGTHS SHOWN ARE APPROXIMATE.
27. CONTRACTOR SHALL BE RESPONSIBLE FOR ANCHORAGE OF STORM DRAIN CULVERTS TO RESIST THE FORCES OF BUOYANCY.
28. ALL SUBGRADE EARTHWORK ACTIVITIES SHALL BE OBSERVED AND TESTED BY A QUALIFIED PERSONNEL EXPERIENCED IN EARTHWORK INSPECTION. THE OBSERVATION AND TESTING OF THE EARTHWORK AND FILL PLACEMENT IS CRITICAL TO PROVIDING ACCEPTABLE BASE FOR THIS SITE.
29. GOOD SURFACE DRAINAGE MUST BE ESTABLISHED PRIOR TO AND DURING THE EARTHWORK ACTIVITIES. STANDING WATER ON THE SUBGRADE SHALL BE PROMPTLY DRAINED OR PUMPED OFF.
30. VERIFY ALL CONDUIT REQUIRED FOR ELECTRICAL, LANDSCAPING, AND BUILDING UTILITIES HAVE BEEN PROPERLY CONSTRUCTED IN PLACE WHERE REQUIRED FOR CONCRETE PAVEMENT POUR.
31. CONTRACTOR RESPONSIBLE FOR SUBMITTAL AND RECEIPT OF APPROVAL FROM CITY OF LAKE CHARLES FOR A TEMPORARY TRAFFIC CONTROL PLAN PRIOR TO PERFORMING WORK WITHIN RIGHT OF WAY.
32. EMBANKMENTS SHALL BE HYDROSEED AT COMPLETION OF PROJECT TO PREVENT EROSION.

General Notes

SCALED FOR 22 X 34

STATE OF LOUISIANA
DAVID W. MINTON
License No. 36790
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

10-13-2018

CYPRESS ENGINEERING AND DEVELOPMENT GROUP, LLC

DAVID MINTON
LICENSEE NAME
36790
LICENSURE NUMBER

No.	Revisions	Date

Firm Name and Address:

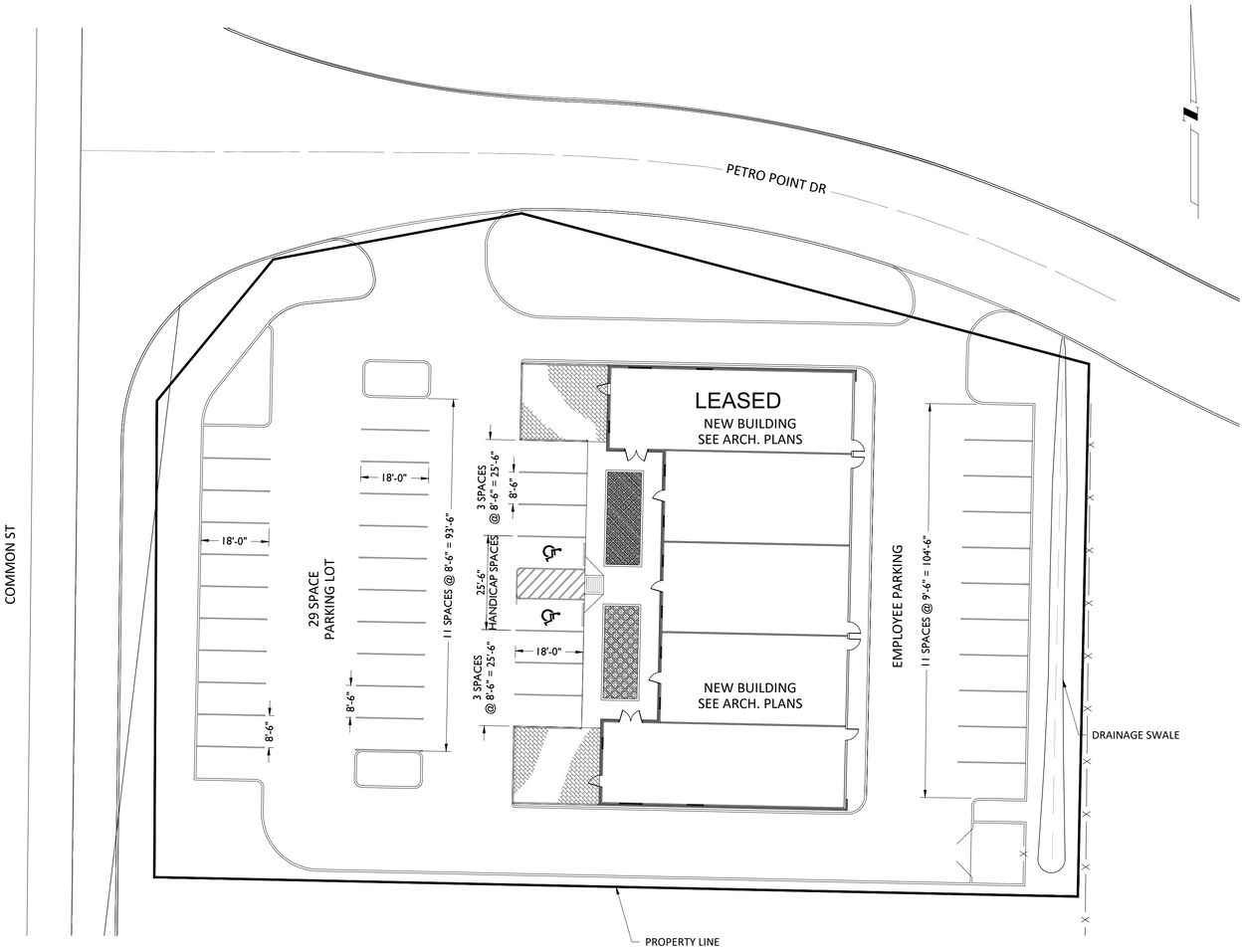
THE CYPRESS GROUP
4310 RYAN ST. STE 122
LAKE CHARLES, LA
OFFICE - 337.504.7755
FAX - 337.504.7744

Project Name and Address:

PETRO POINT PLAZA
CHRIS LOGNION
PETRO POINT DRIVE
LAKE CHARLES, LA

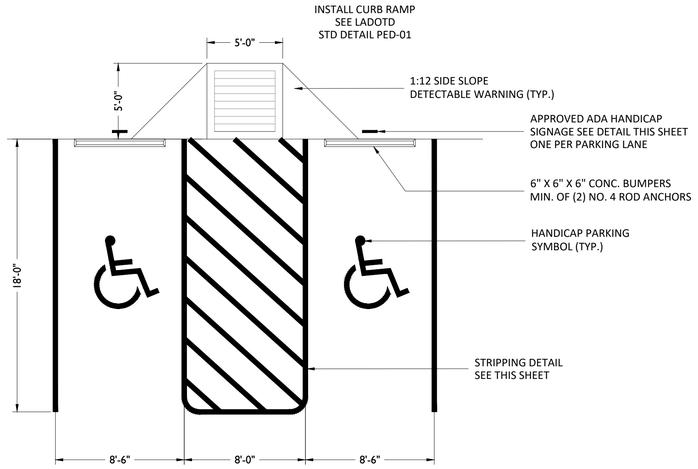
PAVING PLAN

Drawn By: A.C.J.
Project: 2018.035
Date: 10/13/2018
Scale: AS NOTED
Sheet: C-7



1 C-8 **STRIPPING PLAN**

SCALE: 1"= 20'

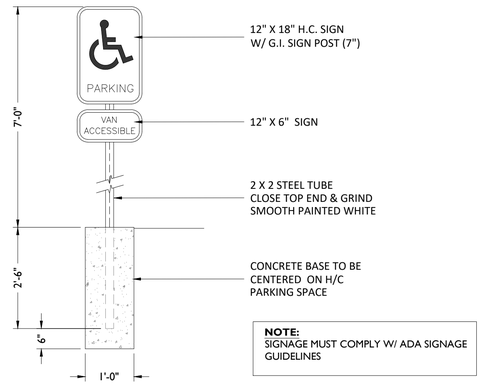


2 C-8 **HANDICAP PARKING DETAIL**

SCALE: 1"= 5'

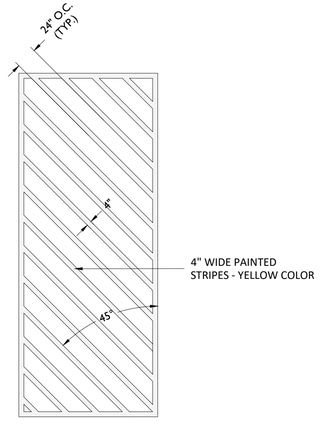
CONCRETE NOTES:

1. THE CONTRACTOR SHALL PROVIDE AND INSTALL A HANDICAP PARKING AREA. THE HANDICAP PARKING AREA SHALL INCLUDE ALL REQUIRED ADA HANDICAP PARKING LANES (AS SHOWN) ALONG W/ ALL PAINT STRIPES, EMBLEMS, SIGNAGE, POLES, MARKINGS, ETC.
2. ALL CONCRETE SLABS SHALL BE 3000 PSI @ 28 DAYS
3. ALL GRADE BEAMS SHALL BEAR ON UNDISTURBED SOIL, HAVE CLEAN STRAIGHT EDGES, & NO WATER STANDING WHEN POURED.
4. ALL EXPOSED EDGES OF CONCRETE SHALL HAVE TIMBER FORM BOARDS.
5. THE SLAB IS TO BE SPRINKLED WITH WATER IMMEDIATELY AFTER FINISHING AND IS TO BE COVERED ENTIRELY W/ VISQUEEN FOR THE DURATION OF 5 DAYS.
6. CONCRETE SHALL BE FREE FROM DEFECTS, LIKE VOIDS AND HONEY COMBS.
7. WET ALL FORMS PRIOR TO POURING OF CONCRETE.
8. BROOM FINISH ALL CONCRETE SLABS.
9. ALL CONCRETE SLABS SHALL MAINTAIN A 2% SLOPE AWAY FROM THE BUILDING.



3 C-8 **TYPICAL HANDICAP SIGN**

SCALE: N.T.S.



4 C-8 **STRIPPING DETAIL**

SCALE: N.T.S.

General Notes

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CHRIS LOGNION
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LAKE CHARLES, LA

STRIPPING PLAN

Drawn By: A.C.J.	Sheet C-8
Project: 2018.035	
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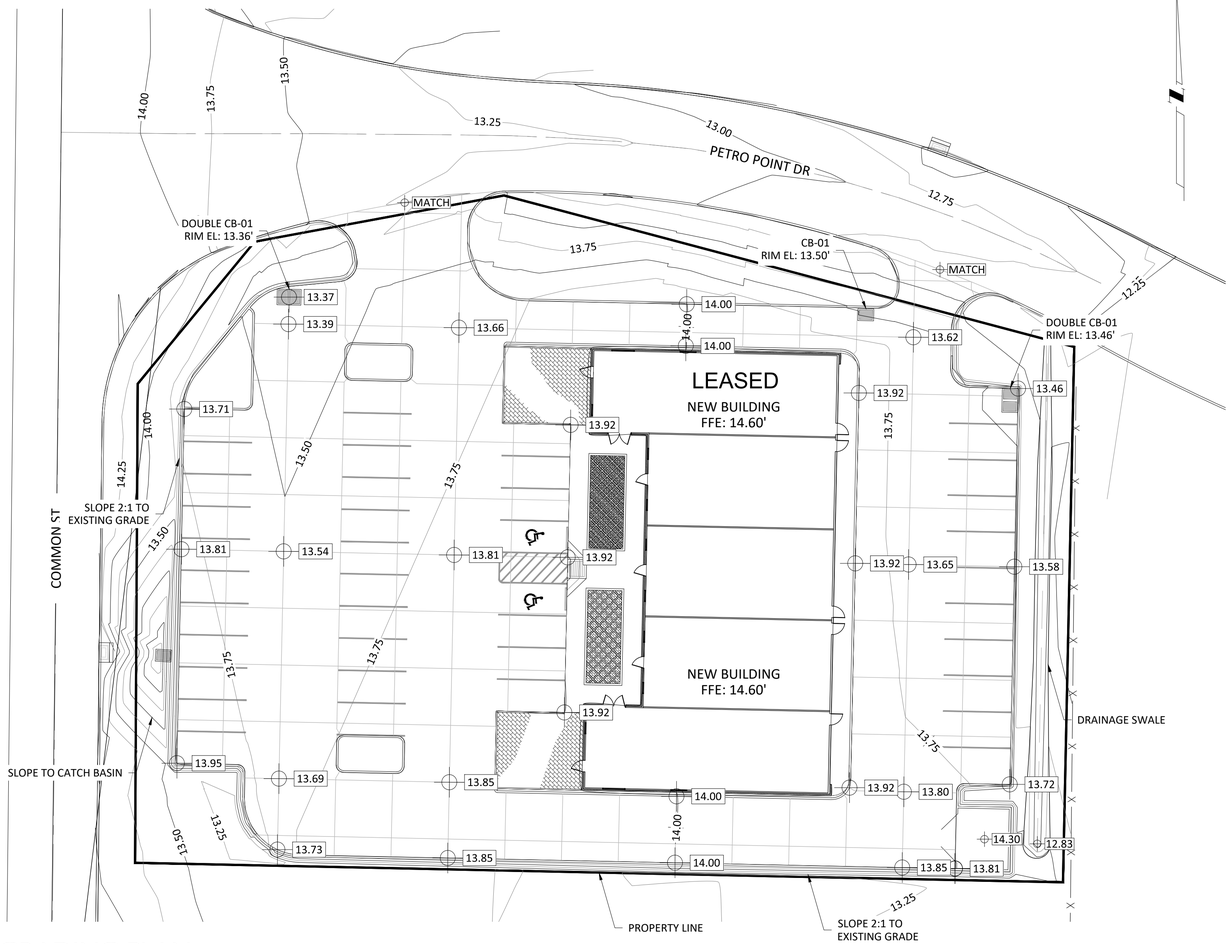
Scale: AS NOTED	



GRADING PLAN

C-9 | SCALE: 1"= 20'

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   - 6.1. 6" THICK AUTOMOBILE TRAFFIC AND PARKING AREAS
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30. VERIFY ALL CONDUIT REQUIRED FOR ELECTRICAL, LANDSCAPING, AND BUILDING UTILITIES HAVE BEEN PROPERLY CONSTRUCTED IN PLACE WHERE REQUIRED FOR CONCRETE PAVEMENT POUR.
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32. EMBANKMENTS SHALL BE HYDROSEED AT COMPLETION OF PROJECT TO PREVENT EROSION.

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10-13-2018

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DAVID MINTON
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OFFICE - 337.504.7755
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Project Name and Address:

PETRO POINT PLAZA
CHRIS LOGNION
PETRO POINT DRIVE
LAKE CHARLES, LA

GRADING PLAN

Drawn By: A.C.J.	Sheet C-9
Project: 2018.035	
Date: 10/13/2018	
Scale: AS NOTED	

1 C-10 EXISTING TOPOGRAPHY

SCALE: 1" = 20'

GENERAL NOTES:

1. ELEVATIONS AND CONTOUR ELEVATION INFORMATION BASED UPON SURVEY DATA COLLECTED BY THE CYPRESS ENGINEERING AND DEVELOPMENT GROUP, LLC AND CALCASIEU PARISH POLICE JURY LIDAR DATA.
2. CONTOURS CREATED BY AUTOCAD CIVIL 3D 2017 ALGORITHM.

General Notes

SCALED FOR 22 X 34

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DAVID W. MINTON
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EXISTING TOPOGRAPHY

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Project: 2018.035	
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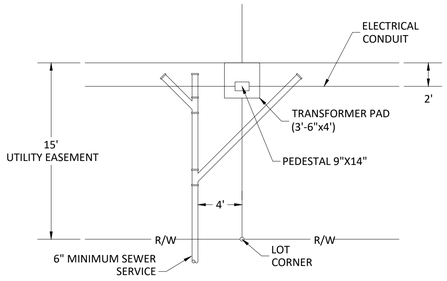
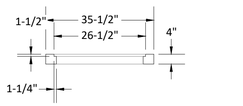
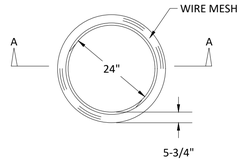


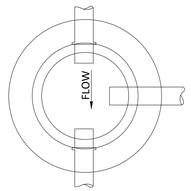
SEWER SERVICE IN UTILITIES EASEMENT



SECTION A-A



CONCRETE ADJUSTING DONUT



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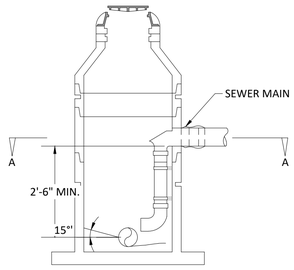
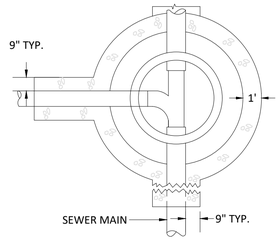


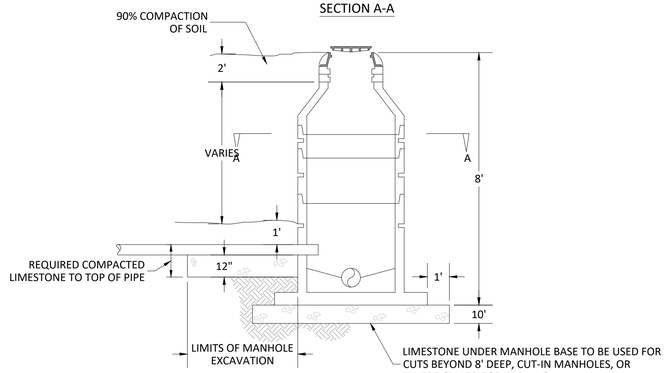
NOTE:

1. DROP TO BE THE SAME SIZE AS THE SEWER MAIN DROP SYSTEM SHALL BE RELINER INSIDE DROP SYSTEM OR APPROVED EQUAL.

TYPICAL MAIN LINE DROP MANHOLE



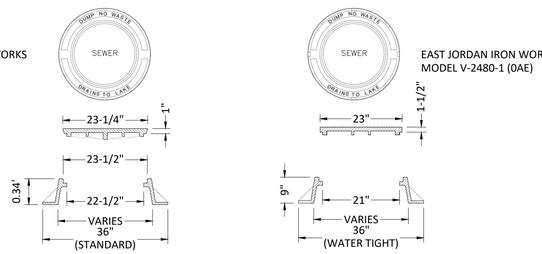
SECTION A-A



NOTE:

1. COMPACTION WITHIN THE RIGHT OF WAY SHALL BE 90% STANDARD PROCTOR DENSITY IN 6" LIFTS. 95% WHEN ON SHOULDER OR EDGE OF ROAD

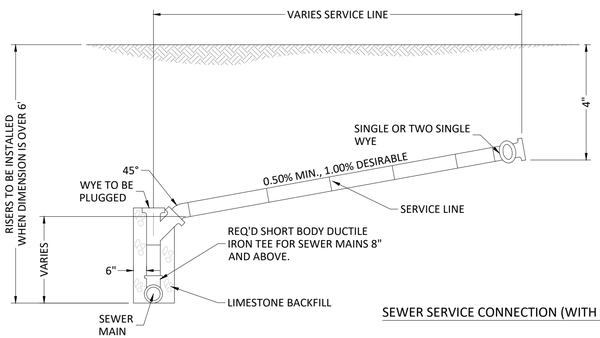
TYPICAL BACKFILL FOR SEWER MANHOLE



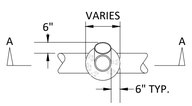
MANHOLE FRAME AND COVER

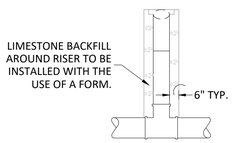
NOTES:

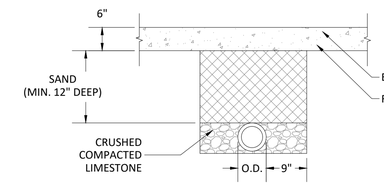
1. CULVERTS, STORM BASINS, CATCH BASINS AND INLETS SHALL COMPLY WITH THE LATEST EDITION OF LA DOTD STANDARDS AND SPECIFICATIONS FOR ROADS AND BRIDGES, SECTIONS 701, 702, 1006 WITH THE FOLLOWING EXCLUSIONS/ADDITIONS:
   1. ONLY TYPE 3 JOINTS (T3)WILL BE ALLOWED
   2. PLASTIC PIPE WILL BE ALLOWED FOR USE AS SIDE DRAINS WHEN OUTSIDE OF PAVEMENT.
2. TWO PIECE COVER TYPE INSCRIBED WITH: "SEWER" IN CENTER; "DUMP NO WASTE" AND " DRAINS TO LAKE" AROUND THE PERIMETER OF STORM WATER MANHOLES.



SEWER SERVICE CONNECTION (WITH RISER)



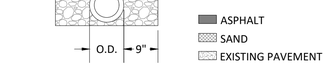




TYPICAL STREET REPAIR CONCRETE

NOTES:

1. CONCRETE SHALL BE TYPE I PORTLAND CEMENT CONCRETE, ASTM DESIGNATION C-150. WATER WILL BE TESTED AS OUTLINED IN STANDARD METHOD T-26 AASHTO. AGGREGATES SHALL MEET LA DOTD SPECIFICATIONS. MIX SHALL BE: 1 PART CEMENT, 2 PARTS FA, 3 PARTS CA; BY VOLUME. MINIMUM CEMENT CONTENT PER CUBIC YARD OF CONCRETE SHALL BE NOT LESS THAN 5.8 SACKS PER CUBIC YARD. MAXIMUM WATER CONTENT SHALL BE NOT MORE THAN 6 GALLONS PER SACK.
2. ALL ENDS OF PAVEMENT SLAB NOT SUPPORTED BY DOWEL BARS EMBEDDED IN ADJOINING CONCRETE OR DIRECTLY SUPPORTED BY A BEARING ON ADJOINING STRUCTURES SHALL BE THICKENED AS REQUIRED ON PLANS.
3. CONCRETE TEST CYLINDER SHALL BE MADE BY THE CONTRACTOR OR TESTING LABORATORY AT THE CONTRACTOR'S EXPENSE. TWO SETS OF 4 CYLINDERS FOR EACH POUR OVER 25 CUBIC YARDS SHALL BE SUPPLIED. ONE SET OF 4 SHALL BE SUPPLIED FOR POURS LESS THAN 25 CUBIC YARDS. CYLINDERS SHALL BE TESTED FOR COMPRESSIVE STRENGTH AT 7 DAYS AND AT 28 DAYS. THE LABORATORY SHALL FURNISH PROMPTLY TO THE CONTRACTOR AND THE ENGINEER WRITTEN REPORTS COVERING THE RESULTS OF ALL TESTS AND INSPECTIONS MADE.
4. AN APPROVED MECHANICAL VIBRATOR WILL BE REQUIRED.
5. ALL PAVEMENT STRIPING AND/OR RAISED PAVEMENT REFLECTIONS DESTROYED SHALL BE REPLACED. MATERIAL AND INSTALLATION SHALL MEET LA DOTD SPECIFICATIONS.

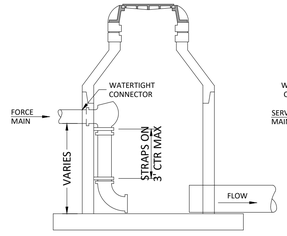


TYPICAL STREET REPAIR ASPHALT

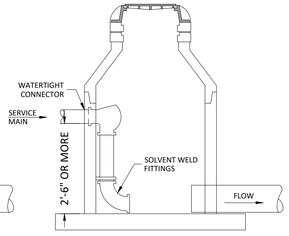
NOTES:

1. HOT MIX ASPHALT TO BE COMPACTED TO 100% DENSITY. MINIMUM SIX INCHES (6") THICK.
2. SAND SHALL MEET LA DOTD SPECIFICATIONS OF GRANULAR BACKFILL MATERIAL.
3. AN APPROVED MECHANICAL VIBRATORY WILL BE REQUIRED.
4. TACK COAT TO BE APPLIED PRIOR TO ASPHALT LAYING. TACK COAT SHALL MEET LA DOTD STANDARDS AND SPECIFICATIONS FOR ROADS AND BRIDGES, SECTION 504.
5. ALL PAVEMENT STRIPING AND/OR RAISED PAVEMENT REFLECTORS DESTROYED SHALL BE REPLACED. MATERIAL AND INSTALLATIONS SHALL MEET LA-DOTD STANDARD SPECIFICATIONS FOR THESE ITEMS.

INSIDE MANHOLE DROPS



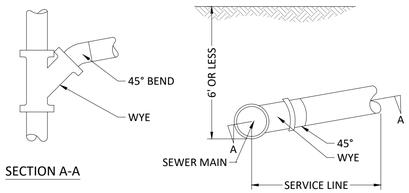
FORCE MAIN TIE-IN

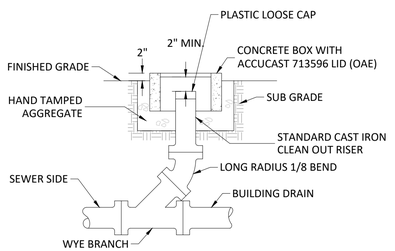


SERVICE INTO MANHOLE

* 1/8"X1" STAINLESS STEEL STRAP. ANCHOR TO WALLS WITH S.S. BOLTS S.S. STRAP AND BOLTS ARE TO BE A MINIMUM GRADE TYPE 316.

NOTE:
DROP SYSTEM SHALL BE RELINER INSIDE DROP SYSTEM OR APPROVED EQUAL





SEWER CLEANOUT

SEWER SERVICE CONNECTION (WITHOUT RISER)

NOTE:
CAST IRON LIDS SHALL BE USED IN ALL AREAS. ALL LIDS SHALL BE MARKED WITH AND "S" OF "SEWER".

General Notes

SCALED FOR 22 X 34

STATE OF LOUISIANA
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IN
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10-13-2018

CYPRESS ENGINEERING AND DEVELOPMENT GROUP, LLC

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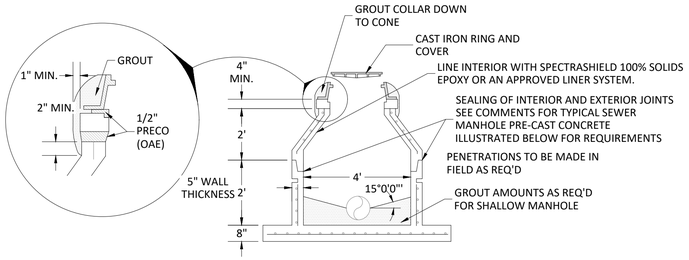
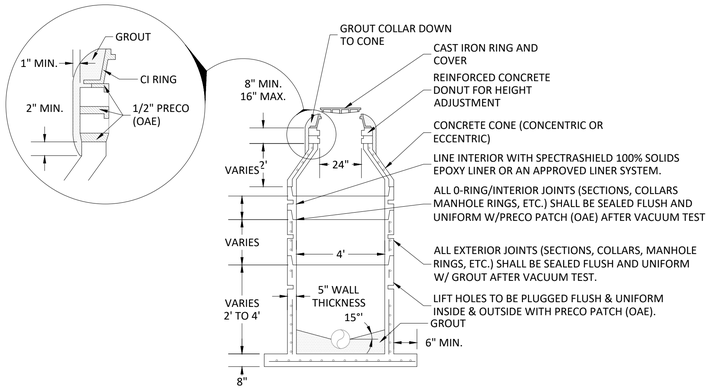
SANITARY SEWER DETAILS

Drawn By: A.C.J.	Sheet
Project: 2018.035	C-11
Date: 10/13/2018	
Scale: AS NOTED	



SHALLOW SEWER MANHOLE PRE-CAST CONCRETE)

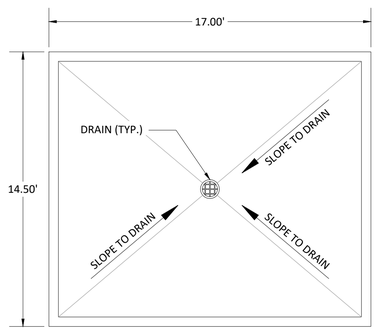


TYPICAL SEWER MANHOLE (PRE-CAST CONCRETE)

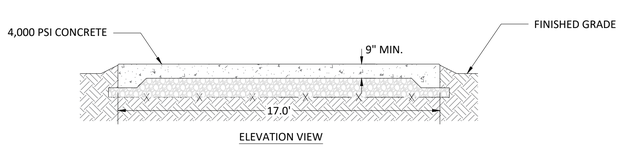
SHALLOW AND TYPICAL SEWER MANHOLE (PRE-CAST CONCRETE)

NOTES:

1. ALL SECTIONS ARE CUSTOM MADE AND CONFORM TO ASTM SPECIFICATIONS DESIGNATION C-478 OR LATEST REVISION FOR PRECAST CONCRETE MANHOLE, RISERS, AND TOPS.
2. MAINS AND SERVICES SHALL EXTEND 6" INTO MANHOLES.
3. INVERT SHALL HAVE A MIN. 15° SLOPE, HEIGHT TO 1/2 PIPE, AND LONG RADIUS TURNS.
4. OPENINGS FOR SEWER PIPE CAN BE MADE AT ANY LOCATION BELOW CONCRETE DONUTS.
5. WATERTIGHT CONNECTIONS SHALL BE INSTALLED ON ALL MANHOLE PENETRATIONS.
6. ALL PIPE PENETRATIONS SHALL BE CORED AND REQUIRE PRECO PATCH (OAE) INSIDE AND OUTSIDE.
7. MANHOLE OUTSIDE OF THE PAVED RIGHT-OF-WAY OR OTHER PAVED SURFACES SHALL HAVE A STAINLESS STEEL "RAINSTOPPER" MANHOLE COVER INSERT.

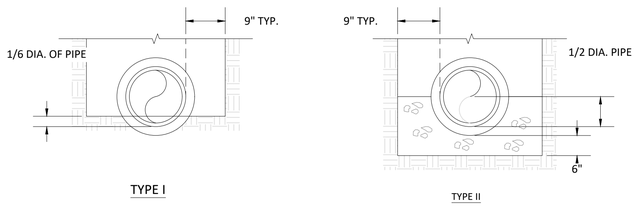


PLAN VIEW



ELEVATION VIEW

DUMPSTER PAD DETAIL



TYPE I

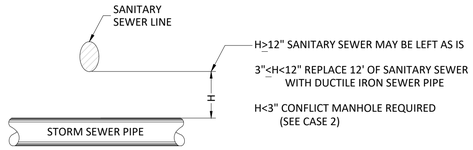
TYPE II

TYPICAL SEWER FOUNDATIONS

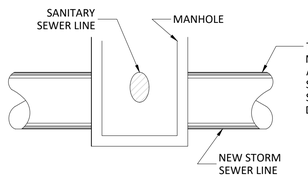
Minimum Diameter:	Minimum Slope %:	Minimum Slope ft/ft:
8 inch sewer:	0.40	0.004
10-inch sewer:	0.28	0.0028
12-inch sewer:	0.22	0.0022
14-inch sewer:	0.17	0.0017
15-inch sewer:	0.15	0.0015
18-inch sewer:	0.12	0.0012
21-inch sewer:	0.10	0.001
24-inch sewer:	0.08	0.0008
27-inch sewer:	0.07	0.00067
30-inch sewer:	0.06	0.00058

SEWER CONFLICT DETAILS

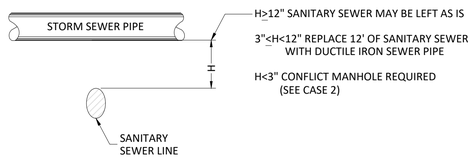
CASE 1



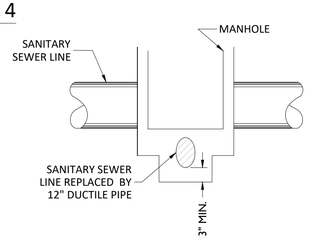
CASE 2



CASE 3



CASE 4



A SANITARY SEWER LINE MAY BE ALLOWED TO PASS THROUGH THE BOTTOM SLAB OF A MANHOLE OR CATCH BASIN, BUT 12" OF DUCTILE IRON SEWER PIPE SHOULD BE USED, AND ENOUGH CONCRETE ADDED TO PROVIDE 3" COVER AROUND THE SANITARY SEWER LINE.

GENERAL NOTES:

1. PVC PIPE SHALL CONFORM TO ASTM STANDARD D-3034, AND SDR-26 WILL HAVE A MINIMUM WALL THICKNESS OF .241" FOR A 6" DIAMETER PIPE, AND .323" FOR AN 8" DIAMETER PIPE AND .404" FOR A 10" DIAMETER PIPE.
2. COMPACTION OF BACKFILL IN HIGHWAYS AND STREETS THE DENSITY OF COMPACTED MATERIALS IN EACH LAYER OF BACKFILL SHALL NOT BE LESS THAN 90% OF THE MAX DENSITY AS MEASURED BY METHOD A OF ASSHTO DESIGNATION T-180.
3. ALL SEWER SERVICES ARE 6" PVC UNLESS OTHERWISE NOTED. ALL SEWER MAINS ARE 8" PVC SDR26 UNLESS OTHERWISE NOTED.
4. OUTSIDE OF HIGHWAYS AND STREETS TRENCH MAY BE FILLED AND COMPACTED BY APPROVED EQUIPMENT OR MECHANICAL TAMPERS TO OBTAIN DENSITY EQUAL TO THAT OF THE ADJACENT UNDISTURBED SOIL AND THE SURFACE MOUNDED OVER THE TOP TO PROVIDE FOR AFTER-SETTLEMENT.
5. (OAE)= OR APPROVED EQUAL
6. FIBERGLASS MANHOLES MAY BE SUBSTITUTED WITH ENGINEERING APPROVAL.
7. MANHOLE DIRECTLY UPSTREAM FROM SEWER PLANT TO BE PROTECTED WITH SPECTRASHIELD, OR 100% SOLIDS EPOXY LINER, OR AN APPROVED LINER SYSTEM. LINER SHALL BE APPROVED BY CALCASIEU PARISH PRIOR TO APPLICATION.
8. EMS SANITARY MARKERS TO BE INSTALLED AT ALL CONNECTIONS @3.0' - 6.0' DEPTH. EMS MARKERS TO BE IN ACCORDANCE WITH AWPA STANDARDS FOR SEWER AT 121.6 KHZ FREQUENCY WITH IDENTIFICATION FLAG PLACED ON THE SURFACE ABOVE END OF SERVICE LINE.
9. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE ALL FITTINGS REQUIRED FOR PIPING, INLETS, ETC. TO COMPLETE PIPING SYSTEM INCLUDING VALVES, FLANGES, UNIONS, ETC.
10. ALL QUALITY CONTROL (QC) TESTING SHALL BE WITNESSED BY PROFESSIONAL OF RECORD OR HIS REPRESENTATIVE AS DESIGNATED IN WRITING.

DEFLECTION TESTING OF PLASTIC PIPING:

1. ALLOWABLE MAXIMUM DEFLECTION FOR INSTALLED PLASTIC SEWER PIPE IS LIMITED TO 5 PERCENT OF ORIGINAL VERTICAL INTERNAL DIAMETER.
2. FURNISH RIGID BALL OR MANDREL WITH DIAMETER NOT LESS THAN 95 PERCENT OF BASE OR AVERAGE INSIDE DIAMETER OF PIPE AS DETERMINED BY ASTM STANDARD TO WHICH PIPE IS MANUFACTURED. MEASURE PIPE IN COMPLIANCE WITH ASTM D2122.
3. PERFORM DEFLECTION TESTING USING PROPERLY SIZED RIGID BALL OR 'GO, NO-GO' MANDREL.
4. PERFORM TEST WITHOUT MECHANICAL PULLING DEVICES.
5. LOCATE, EXCAVATE, REPLACE, AND RETEST PIPE EXCEEDING ALLOWABLE DEFLECTION.
6. ALIGNMENT TEST (LAMP TEST) SHALL BE ADMINISTERED ON ALL SEWER LINES.

MANHOLE LEAKAGE TESTING:

1. MEASURABLE LEAKAGE QUALITY CONTROL SHALL BE PERFORMED ON ALL SANITARY SEWER MANHOLES IN ACCORDANCE WITH ASTM C 1244-11.

LOW PRESSURE AIR TEST:

1. PERFORM LOW PRESSURE AIR TEST IN ACCORDANCE WITH ASTM F1417-11a.
2. ANY OBVIOUS EXCESSIVE LEAKS IN THE SYSTEM SHALL BE REPAIRED IMMEDIATELY UPON DISCOVERY. COSTS FOR REPAIRING FAULTY WORK, INCLUDING RE-EXCAVATING AND RE-BACKFILLING AND FOR MAKING TESTS, SHALL BE INCLUDED IN THE PRICE BID FOR INSTALLING SEWERS.

FORCE MAIN LEAKAGE (HIGH PRESSURE) TESTING:

1. PRESSURE GAGES SHALL HAVE A MINIMUM FACE DIAMETER OF FOUR INCHES. GAGE SCALE SHALL BE SUCH THAT THE REQUIRED TESTING PRESSURE IS TOWARD THE MID RANGE OF THE SCALE. ALL TESTING EQUIPMENT SHALL BE MANUFACTURED AND DESIGNED FOR THE INTENDED FUNCTION.
2. TEST SECTIONS INDICATING RESULTS OUTSIDE OF SPECIFIED ALLOWANCES OR TOLERANCES SHALL HAVE APPROPRIATE REMEDIAL ACTION TAKEN. ANY SECTION OR STRUCTURE REQUIRING REPAIR OR REMEDIAL ACTION FOLLOWING QC TESTING SHALL HAVE ALL PREVIOUSLY PERFORMED QC TESTING REPEATED. TESTS SHALL BE REPEATED UNTIL ALL RESULTS INDICATE COMPLIANCE WITH SPECIFIED ALLOWANCES OR TOLERANCES FOLLOWING THE REPAIR. ALL REPAIR TECHNIQUES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND INDUSTRY STANDARDS, AS A MINIMUM. REPAIR TECHNIQUES REQUIRING PIPE REMOVAL SHALL NOT RESULT IN ANY PIPE SEGMENT BETWEEN CONNECTIONS BEING LESS THAN HALF THE ORIGINAL JOINT LENGTH AND IN NO CASE LESS THAN SEVEN FEET IN LENGTH. NO PIPE SEGMENT SHALL BE CREATED WHICH HAS MORE THAN ONE END HAVING BEEN CONNECTED UTILIZING A REPAIR FITTING.
3. PVC AND DUCTILE IRON MAINS SHALL PASS PRESSURE AND LEAKAGE TESTS PRIOR TO FINAL ACCEPTANCE. PRESSURE AND LEAKAGE TESTS ARE PERFORMED SIMULTANEOUSLY. PRESSURE TESTING IS INTENDED TO DEMONSTRATE SYSTEM INTEGRITY.

3.1. SIMULTANEOUS PRESSURE AND LEAKAGE TESTING:

3.1.1. TEST PRESSURE: 100 PSI BUT NOT LESS THAN 150% OF THE PUMP SHUT OFF PRESSURE, MEASURED AT THE POINT UNDER TEST.

3.1.2. TEST DURATION: 1 HR MIN. FOR PRESSURE TEST; 4 HR MIN. FOR LEAKAGE TEST. THE MAXIMUM ALLOWED TOTAL LEAKAGE FOR THE LEAKAGE TEST SHALL NOT BE LESS THAN 0.25 GALLONS AS CALCULATED, BELOW. THE TEST DURATION FOR THE LEAKAGE TEST SHALL BE EXTENDED BEYOND THE MINIMUM TIME REQUIRED IF NECESSARY TO ACHIEVE THIS.

3.2. EVALUATION OF TESTING RESULTS:

3.2.1. LEAKAGE IS DEFINED AS TOTAL QUALITY OF WATER THAT MUST BE SUPPLIED INTO THE MAIN IN ORDER TO RESTORE AND MAINTAIN THE TESTING PRESSURE AT THE SPECIFIC LEVEL.

3.2.2. PRESSURE TEST: TESTING PRESSURE MUST NOT DROP MORE THAN 5 PSI FROM THE PRESSURE AS MEASURED AT THE BEGINNING OF THE TEST PERIOD WITHOUT ADDITION OF WATER TO SECTION UNDER TEST. A PRESSURE DROP IN EXCESS OF 5 PSI, DURING THE TIME INTERVAL SPECIFIED FOR THE PRESSURE TEST , INDICATES FAILURE OF THE PRESSURE TEST. IN THE EVENT OF TEST FAILURE ALL FURTHER TESTING SHALL BE SUSPENDED UNTIL THE DEFECT IS REMEDIED.

3.2.3. LEAKAGE TEST: TESTING MUST BE MAINTAINED WITH 5 PSI OF THE SPECIFIED LEVEL FOR THE DURATION OF THE TEST. TEST PRESSURE SHALL BE RESTORED BY ADDING WATER TO THE MAIN PRIOR TO THE TEST PRESSURE DROPPING MORE THAN 5 PSI BELOW THE SPECIFIED PRESSURE. SHOULD THE PRESSURE DROP MORE THAN 5 PSI FROM THE SPECIFIED TEST PRESSURE, THE TEST HAS FAILED. AT THE END OF THE SPECIFIED TEST DURATION, WATER SHALL BE ADDED TO THE MAIN IN SUFFICIENT QUANTITY TO RESTORE THE PRESSURE TO THE SPECIFIED TEST PRESSURE. NO WATER MAY BE ADDED DURING THE FIRST HOUR OF THE TEST. THE ALLOWABLE LEAKAGE (BASED ONA TEST PRESSURE OF 100 PSI) SHALL BE CALCULATED BY THE FOLLOWING FORMULA:

L = (0.357)SD — WHERE, L = ALLOWABLE LEAKAGE IN GALLONS PER HOUR
S = LENGTH OF PIPE TESTED, IN MILES
D = NOMINAL DIAMETER OF THE PIPE, IN INCHES

FOR EXAMPLE: 1,000 LF OF 6-INCH DIAMETER PIPE (PVC) TESTED AT 100 PSI HAS AN ALLOWABLE LEAKAGE RATE OF 0.41 GALLONS PER HOUR FOR A TOTAL ALLOWABLE OF 1.62 FOR THE 4 HR MIN. DURATION. SINCE 1.62 GALLONS EXCEEDS THE 0.25 GALLONS MINIMUM SPECIFIED, NO EXTENSION IN THE DURATION OF THE TEST IS REQUIRED.

3.2.4. LEAKAGE IN EXCESS OF THE SPECIFIED LIMITS REQUIRES THE CONTRACTOR TO LOCATE AND REPLACE OR REPAIR THE DEFECTIVE JOINTS, PIPE, VALVE(S) OR OTHER APPURTENANCE UNTIL THE LEAKAGE FROM SUBSEQUENT TESTING IS WITHIN SPECIFIED ALLOWANCE. SUPPLEMENTARY TO THE LEAKAGE TEST REQUIREMENTS AND REGARDLESS OF THE RESULTING LEAKAGE MEASUREMENTS, ANY OBSERVED LEAKS SHALL REQUIRE REPAIR. THE TESTING ALLOWANCE IS NOT INTENDED TO PERMIT A PRESSURE PIPING SYSTEM TO ACTUALLY LEAK.

3.2.5. LEAKAGE TESTS MUST BE REPEATED FOLLOWING ANY REPAIR OR REPLACEMENT.

4. PE PIPE SHALL BE SUBJECTED TO A HYDROSTATIC PRESSURE TEST PRIOR TO FINAL ACCEPTANCE. TESTING SHALL BE IN ACCORDANCE WITH ASTM F2164.
5. COMBINED PIPING SYSTEMS OF PVC/DIP AND PE PIPE SHALL HAVE A MODIFIED TESTING PROCEDURE. CONTACT PROJECT ENGINEER FOR TEST PROCEDURE.

General Notes

SCALED FOR 22 X 34

STATE OF LOUISIANA
DAVID W. MINTON
License No. 36790
PROFESSIONAL ENGINEER
IN
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10-13-2018

CYPRESS ENGINEERING AND DEVELOPMENT GROUP, LLC

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No.	Revisions	Date

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Project Name and Address:

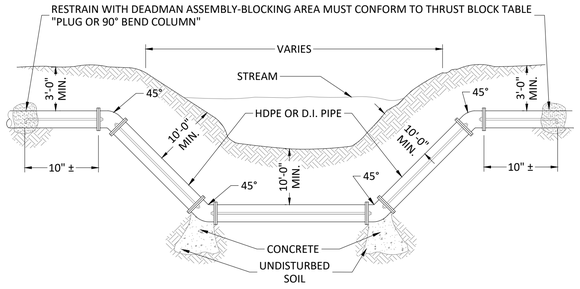
PETRO POINT PLAZA
CHRIS LOGNION
PETRO POINT DRIVE
LAKE CHARLES, LA

SANITARY SEWER DETAILS

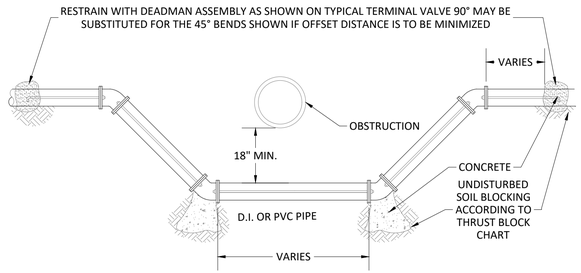
Drawn By: A.C.J.	Sheet
Project: 2018.035	C-12
Date: 10/13/2018	
Scale: AS NOTED	

NOTE:

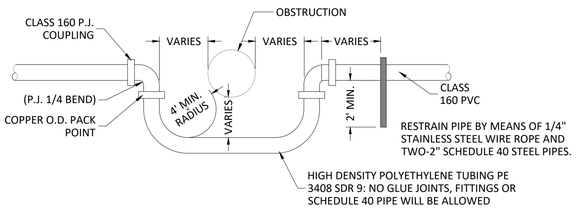
RESTRAIN 6",& 8" PIPE BY MEANS OF TWO ZINC COATED ALL THREAD RODS.
RESTRAIN 10" AND LARGER PIPE BY MEANS OF FOUR ZINC COATED ALL THREAD RODS.



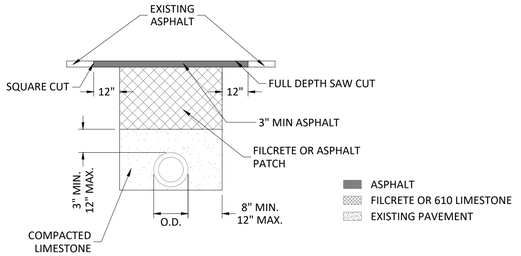
TYPICAL STREAM CROSSING



TYPICAL OFFSET - 6" MAIN AND LARGER



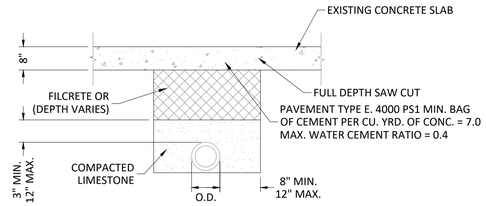
TYPICAL OFFSET/STREAM CROSSING 2" MAIN
(OR APPROVAL REQUIRED)



TYPICAL STREET REPAIR ASPHALT

NOTES:

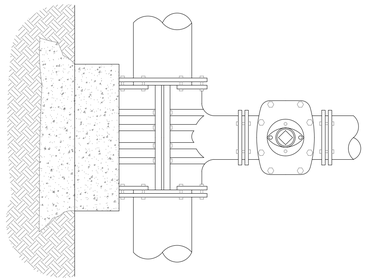
1. HOT MIX ASPHALT TO BE COMPACTED TO 100% DENSITY. MINIMUM THREE INCHES (3") THICK.
2. FILCRETE MIX AND INSTALLATION SHALL MEET LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGE 2006 EDITION.
3. 610 LIMESTONE MUST BE COMPACTED IN 12" LIFTS TO 95% DENSITY FOR EACH LIFT. A VIBRATORY COMPACTOR WILL BE REQUIRED.
4. TACK COAT TO BE APPLIED PRIOR TO ASPHALT LAYING.
5. ALL PAVEMENT STRIPING AND/OR RAISED PAVEMENT REFLECTORS DESTROYED SHALL BE REPLACED. MATERIAL AND INSTALLATIONS SHALL MEET LA-DOTD STANDARD SPECIFICATIONS FOR THESE ITEMS.



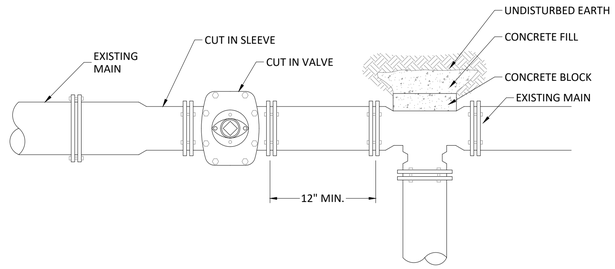
TYPICAL STREET REPAIR CONCRETE

NOTES:

1. CONCRETE SHALL BE TYPE I PORTLAND CEMENT CONCRETE, ASTM DESIGNATION C-150. WATER WILL BE TESTED AS OUTLINED IN STANDARD METHOD T-26 AASHTO. AGGREGATES SHALL MEET LA DOTD SPECIFICATIONS. MIX SHALL BE: 1 PART CEMENT, 2 PARTS FA, 3 PARTS CA; BY VOLUME. MINIMUM CEMENT CONTENT PER CUBIC YARD OF CONCRETE SHALL BE NOT LESS THAN 5.8 SACKS PER CUBIC YARD. MAXIMUM WATER CONTENT SHALL BE NOT MORE THAN 6 GALLONS PER SACK.
2. ALL ENDS OF PAVEMENT SLAB NOT SUPPORTED BY DOWEL BARS EMBEDDED IN ADJOINING CONCRETE OR DIRECTLY SUPPORTED BY A BEARING ON ADJOINING STRUCTURES SHALL BE THICKENED AS REQUIRED ON PLANS.
3. CONCRETE TEST CYLINDER SHALL BE MADE BY THE CONTRACTOR OR TESTING LABORATORY AT THE CONTRACTOR'S EXPENSE. TWO SETS OF 4 CYLINDERS FOR EACH POUR OVER 25 CUBIC YARDS SHALL BE SUPPLIED. ONE SET OF 4 SHALL BE SUPPLIED FOR POURS LESS THAN 25 CUBIC YARDS. CYLINDERS SHALL BE TESTED FOR COMPRESSIVE STRENGTH AT 7 DAYS AND AT 28 DAYS. THE LABORATORY SHALL FURNISH PROMPTLY TO THE CONTRACTOR AND THE ENGINEER WRITTEN REPORTS COVERING THE RESULTS OF ALL TESTS AND INSPECTIONS MADE.
4. AN APPROVED MECHANICAL VIBRATOR WILL BE REQUIRED.
5. ALL PAVEMENT STRIPING AND/OR RAISED PAVEMENT REFLECTIONS DESTROYED SHALL BE REPLACED. MATERIAL AND INSTALLATION SHALL MEET LA DOTD SPECIFICATIONS.

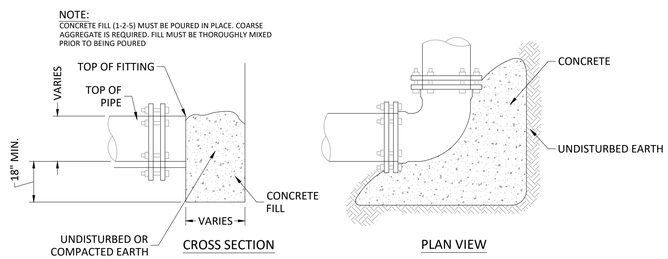


TYPICAL TAPPING SLEEVE & VALVE

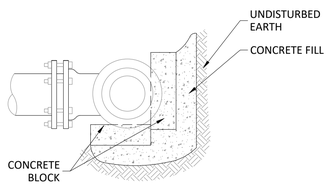


TYPICAL CUT IN SLEEVE & VALVE AND TEE

NOTE:
CONCRETE FILL (1-2-5) MUST BE POURED IN PLACE. COARSE AGGREGATE IS REQUIRED. FILL MUST BE THOROUGHLY MIXED PRIOR TO BEING POURED



TYPICAL THRUST BLOCKING FOR ALL BENDS 6" AND LARGER



THRUST BLOCKS AT TEES

THRUST BLOCK BEARING AREA IN SQUARE FEET

PIPE SIZE	PLUG OR 90° BEND	45° BEND	22-1/2° END	TEE
6"	3	2	1.50	3
8"	5	2.50	2	4
10"	7	4	3	5
12"	10	5	5	7
16"	14	8	7	10
18"	18	12	9	14

REQUIREMENTS:

1. ALL FIRE HYDRANTS AND VALVE BOXES SHALL BE INSTALLED TO MATCH THE FINISHED ELEVATION GRADE.
2. ALL FITTINGS, VALVE AND FIRE HYDRANTS MUST BE SUPPORTED THROUGHOUT BY CONCRETE BLOCKING.
3. BOLTS MUST BE OPERABLE (FREE OF CONCRETE)
4. ALL FITTINGS, VALVES AND FIRE HYDRANTS, PIPE AND SERVICE TUBING MUST CONFORM TO THE CURRENT LOCAL, STATE, AND GOVERNMENT SPECIFICATIONS.
5. RESTRAIN FITTINGS TO CASINGS.
6. ALL INSTALLATIONS STANDARDS/METHODS NOT SPECIFICALLY STATED IN THE CURRENT LOCAL, STATE, OR GOVERNMENT SPECIFICATIONS MUST ADHERE TO THE STANDARD OF JURISDICTION (AWWA, NFPA, MANUFACTURER'S STANDARDS).
7. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE ALL FITTINGS REQUIRED FOR PIPING, INLETS, ETC. TO COMPLETE PIPING SYSTEM INCLUDING VALVES, FLANGES, UNIONS, ETC.

NOTES:

1. NO VALVE SHALL BE OPERATED TO ALLOW WATER TO BE TRANSMITTED FROM A LOCAL, STATE, OR GOVERNMENT SOURCE WITHOUT THE DIRECT SUPERVISION OF THE GOVERNING AUTHORITY. VIOLATORS WILL BE PROSECUTED. DEAD END MAINS MUST BE RESTRAINED BY MEANS A CONCRETE DEADMAN SYSTEM.

General Notes

SCALED FOR 22 X 34

STATE OF LOUISIANA
DAVID W. MINTON
License No. 36790
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
10-13-2018

CYPRESS ENGINEERING AND DEVELOPMENT GROUP, LLC

DAVID MINTON
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LICENSURE NUMBER

No.	Revisions	Date

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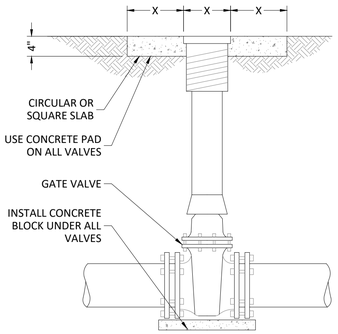
Project Name and Address:

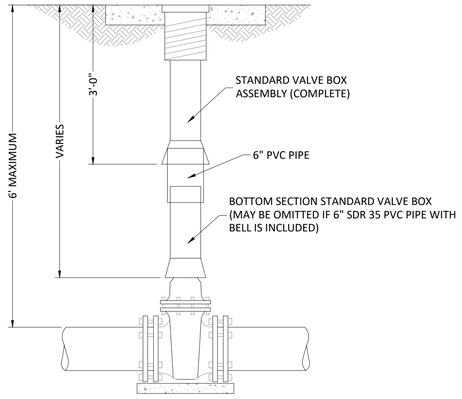
PETRO POINT PLAZA
CHRIS LOGNION
PETRO POINT DRIVE
LAKE CHARLES, LA

WATER DISTRIBUTION DETAILS

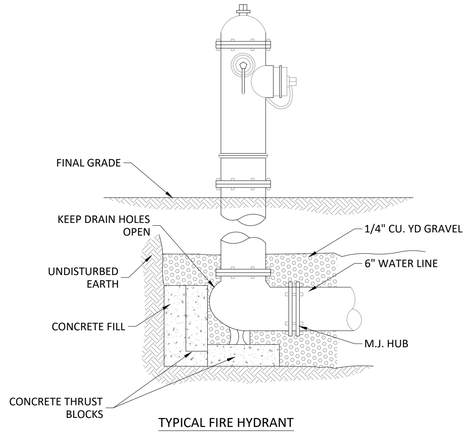
Drawn By: A.C.J.	Sheet
Project: 2018.035	C-13
Date: 10/13/2018	
Scale: AS NOTED	



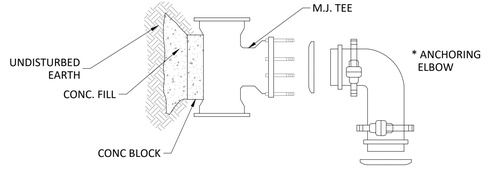
TYPICAL VALVE & BOX INSTALLATION



TYPICAL VALVE & BOX INSTALLATION BELOW NORMAL BURY



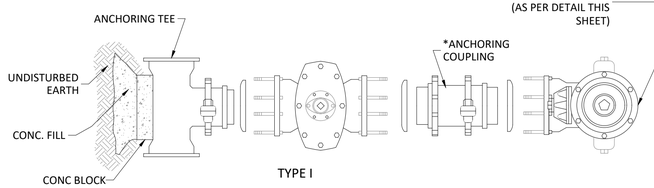
TYPICAL FIRE HYDRANT



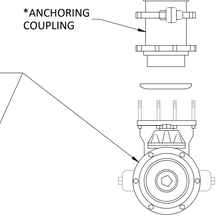
THE FIRE HYDRANT MAIN NOZZLE SHALL BE INSTALLED PERPENDICULAR AND FACING THE ROADWAY CENTER LINE

FIRE HYDRANT LEAD-LENGTH OF PIPING FROM SUPPLY TO MAIN TO HYDRANT IN ADDITION TO THE TYPICAL INSTALLATION.

*NOTE:
ANCHORING COUPLING AND ELBOW TO BE INCLUDED IN UNIT COST FOR FIRE HYDRANT



TYPE I



TYPE II

TYPICAL FIRE HYDRANT INSTALLATION - M.J.

TYPICAL FIRE HYDRANT INSTALLATION - M.J.

TYPICAL 2" VALVE & BOX INSTALLATION

TYPICAL DETECTION WIRE INSTALLATION

REQUIREMENTS:

1. ALL FIRE HYDRANTS AND VALVE BOXES SHALL BE INSTALLED TO MATCH THE FINISHED ELEVATION GRADE.
2. ALL FITTINGS, VALVE AND FIRE HYDRANTS MUST BE SUPPORTED THROUGHOUT BY CONCRETE BLOCKING.
3. BOLTS MUST BE OPERABLE (FREE OF CONCRETE)
4. ALL FITTINGS, VALVES AND FIRE HYDRANTS, PIPE AND SERVICE TUBING MUST CONFORM TO THE CURRENT LOCAL, STATE, AND GOVERNMENT SPECIFICATIONS.
5. RESTRAIN FITTINGS TO CASINGS.
6. ALL INSTALLATIONS STANDARDS/METHODS NOT SPECIFICALLY STATED IN THE CURRENT LOCAL, STATE, OR GOVERNMENT SPECIFICATIONS MUST ADHERE TO THE STANDARD OF JURISDICTION (AWWA, NFPA, MANUFACTURER'S STANDARDS).
7. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE ALL FITTINGS REQUIRED FOR PIPING, INLETS, ETC. TO COMPLETE PIPING SYSTEM INCLUDING VALVES, FLANGES, UNIONS, ETC.

NOTES:

1. NO VALVE SHALL BE OPERATED TO ALLOW WATER TO BE TRANSMITTED FROM A LOCAL, STATE, OR GOVERNMENT SOURCE WITHOUT THE DIRECT SUPERVISION OF THE GOVERNING AUTHORITY. VIOLATORS WILL BE PROSECUTED. DEAD END MAINS MUST BE RESTRAINED BY MEANS A CONCRETE DEADMAN SYSTEM.

General Notes

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Drawn By: A.C.J.
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Sheet: C-14

1. PRIOR TO ANY WORK, CONTRACTOR SHALL VERIFY SYSTEM IS DENERGIZED.
2. THE TERM "PROVIDE" WHEN USED HEREIN INCLUDES ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK.
3. SPECIFIC REFERENCE HEREIN TO ANY ARTICLE, DEVICE, PRODUCT, MATERIAL, FIXTURE, FORM OR TYPE OF CONSTRUCTION BY NAME, MAKE OR CATALOG NUMBER, SHALL BE INTERPRETED AS ESTABLISHING A STANDARD OF QUALITY AND SHALL NOT BE CONSTRUED AS LIMITING COMPETITION; AND THE CONTRACTOR, IN SUCH CASES, MAY AT HIS OPTION USE ANY ARTICLE, DEVICE, PRODUCT, MATERIAL, FIXTURE, FORM OR TYPE OF CONSTRUCTION WHICH IN THE JUDGEMENT OF THE ARCHITECT EXPRESSED IN WRITING IS EQUIVALENT TO THAT SPECIFIED.
4. COORDINATE AND PROPERLY RELATE ALL WORK OF THIS PACKAGE TO BUILDING STRUCTURE AND WORK OF ALL OTHER TRADES.
5. VISIT PREMISES AND BECOME THOROUGHLY FAMILIAR WITH EXISTING CONDITIONS; VERIFY ALL DIMENSION IN FIELD. ADVISE ARCHITECT OF ANY DISCREPANCIES.
6. THESE DRAWINGS SHALL NOT BE CONSTRUED AS SHOP DRAWINGS. IN THE EVENT OF A POSSIBLE INTERFERENCE WITH PIPING OR EQUIPMENT OF ANOTHER TRADE, ITEMS REQUIRING SET GRADE AND ELEVATIONS SHALL HAVE PRECEDENCE OVER OTHER ITEMS. SHOULD ANY MAJOR INTERFERENCE DEVELOP, IMMEDIATELY NOTIFY THE ARCHITECT.
7. IN LAYING OUT WORK, REFER TO MECHANICAL, ELECTRICAL, STRUCTURAL AND ARCHITECTURAL DRAWINGS AT ALL TIMES IN ORDER TO AVOID INTERFERENCE AND UNDUE DELAYS IN THE PROGRESS OF WORK.
8. WORK SHALL BE IN FULL ACCORD WITH THE LATEST EDITION OF LOUISIANA ADMINISTRATIVE CODE, N.E.C. (NFPA 70), NFPA 72, I.B.C. NFPA 101, LOCAL ORDINANCES, BUILDING CODES, AND OTHER APPLICABLE NATIONAL, STATE AND LOCAL REGULATIONS.
9. WORK CALLED FOR IN THESE PLANS AND NOTES SHALL BE EXECUTED BY COMPETENT WORKMEN.
10. IN THE POSSIBLE EVENT OF CONFLICT BETWEEN CODES OR REGULATIONS AND THESE DRAWINGS, NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY.
11. THE DRAWINGS SHOW APPROXIMATE LOCATIONS ONLY OF FEEDERS, BRANCH CIRCUITS, OUTLETS, ETC., EXCEPT WHERE SPECIFIC ROUTING OR DIMENSIONS ARE INDICATED.
12. BECAUSE OF THE SMALL SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OF THE OFFSETS, FITTINGS, AND ACCESSORIES REQUIRED. THE CONTRACTOR SHALL INVESTIGATE THE STRUCTURAL AND FINISH CONDITIONS AFFECTING WORK AND SHALL ARRANGE SUCH WORK ACCORDINGLY.
13. INSTALL AND OPERATE EQUIPMENT AND MATERIAL IN STRICT ACCORD WITH MANUFACTURER'S INSTALLATION AND OPERATING INSTRUCTIONS.
14. DURING CONSTRUCTION PERIOD, KEEP ACCURATE RECORDS OF INSTALLATIONS PAYING PARTICULAR ATTENTION TO MAJOR INTERIOR AND EXTERIOR UNDERGROUND AND CONCEALED PIPING, DUCTWORK, ETC.
15. ALL DEVIATIONS FROM SIZES, LOCATIONS AND FROM ALL OTHER FEATURES OF THE INSTALLATION SHOWN IN THE PLANS AND NOTES SHALL BE RECORDED.
16. FOR WORK CONCEALED IN THE BUILDING, SUFFICIENT INFORMATION SHALL BE GIVEN SO IT CAN BE LOCATED WITH REASONABLE ACCURACY OR EASE. IN SOME CASES, THIS MAY BE BY DIMENSION. IN OTHERS, IT MAY BE SUFFICIENT TO ILLUSTRATE THE WORK ON THE DRAWINGS IN RELATION TO THE SPACES IN THE BUILDING NEAR WHICH IT WAS ACTUALLY INSTALLED. THE DECISION OF THE ARCHITECT/ENGINEER IN THIS MATTER WILL BE FINAL.
17. PROVIDE THE OWNER WITH THREE (3) COPIES OF PRINTED INSTRUCTIONS, INDICATING VARIOUS PIECES OF EQUIPMENT BY NAME AND MODEL NUMBER, COMPLETE WITH PARTS LISTS, MAINTENANCE AND REPAIR INSTRUCTIONS AND TEST AND BALANCE REPORT.
18. COPIES OF SHOP DRAWINGS WILL NOT BE ACCEPTABLE AS OPERATION AND MAINTENANCE INSTRUCTIONS.
19. IN ADDITION TO THE OPERATION AND MAINTENANCE BROCHURE, THE CONTRACTOR SHALL PROVIDE A SEPARATE BROCHURE WHICH SHALL INCLUDE REGISTERED WARRANTY CERTIFICATES ON ALL EQUIPMENT, ESPECIALLY ANY PIECES OF EQUIPMENT WHICH CARRY WARRANTIES EXCEEDING ONE (1) YEAR. WORK METHODS AND PROJECT SAFETY ARE THE CONTRACTOR'S SOLE RESPONSIBILITY.
20. CONTRACTOR SHALL FURNISH AND PLACE PROPER GUARDS FOR PREVENTION OF ACCIDENTS. HE SHOULD PROVIDE AND MAINTAIN ANY OTHER NECESSARY CONSTRUCTION REQUIRED TO SECURE SAFETY OF LIFE OR PROPERTY, INCLUDING MAINTENANCE OF SUFFICIENT LIGHTS DURING ALL DAY AND NIGHT HOURS AS REQUIRED TO SECURE SUCH PROTECTION.
21. THE CONTRACTOR SHOULD PROVIDE AND INSTALL CONSTRUCTION LIGHTING AS REQUIRED BY GENERAL CONTRACTOR AND OTHER TRADES. THE INSTALLATION SHALL CONFORM TO REQUIREMENTS OF THE NATIONAL ELECTRIC CODE.
22. CONTRACTOR SHALL PERSONALLY, OR THROUGH AN AUTHORIZED AND COMPETENT REPRESENTATIVE, CONSTANTLY SUPERVISE THE WORK DONE FROM BEGINNING TO COMPLETION AND FINAL ACCEPTANCE. TO THE BEST OF HIS ABILITY HE SHALL KEEP THE SAME FOREMAN AND WORKMEN THROUGHOUT THE PROJECT DURATION.

1 GENERAL CONSTRUCTION NOTES
SCALE: NONE

1. TESTS: SUBJECT THE COMPLETED GROUNDING SYSTEM TO A MEGGER TEST AT SERVICE DISCONNECT ENCLOSURE GROUND TERMINAL. MEASURE GROUND RESISTANCE WITHOUT THE SOIL BEING MOISTENED BY ANY MEANS OTHER THAN NATURAL PRECIPITATION OR NATURAL DRAINAGE OR SEEPAGE AND WITHOUT CHEMICAL TREATMENT OR OTHER ARTIFICIAL MEANS OF REDUCING NATURAL GROUND RESISTANCE. PERFORM TESTS BY THE 2-POINT METHOD IN ACCORDANCE WITH SECTION 9.03 OF IEEE 81, "GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE AND EARTH SURFACE POTENTIALS OF A GROUNDING SYSTEM."

2 QUALITY CONTROL
SCALE: NONE

1. PROVIDE EXCAVATING AND BACKFILLING NECESSARY FOR WORK OF SCOPE OF WORK.
2. PROVIDE MINIMUM 24 INCHES OF COVER TO FINISH GRADES OR PAVING AT RACEWAYS.
3. COMPACT FILL TO SATISFACTION OF ARCHITECT AND/OR OWNER'S REPRESENTATIVE.
4. PRIOR TO ANY EXCAVATING, CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING ALL UTILITIES IN THE AREA OF EXCAVATION LOCATED AND MARKED BY AN APPROVED COMPANY WITH A MINIMUM OF FIVE (5) YEARS EXPERIENCE LOCATING UNDERGROUND FACILITIES.
5. APPROXIMATE LOCATIONS SHOWN ON THE DRAWINGS SHALL NOT BE USED. ANY FACILITY DAMAGED BY THE CONTRACTOR'S UNDERGROUND WORK SHALL BE REPAIRED AND/OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.

3 EXCAVATING AND BACKFILLING
SCALE: NONE

1. RESTORE SURFACE FEATURES AT AREAS DISTURBED BY EXCAVATION AND REESTABLISH ORIGINAL GRADES EXCEPT AS OTHERWISE INDICATED. WHERE SOD HAS BEEN REMOVED, REPLACE IT AS SOON AS POSSIBLE AFTER BACKFILLING IS COMPLETED. RESTORE AREAS DISTURBED BY TRENCHING, STORING OF DIRT, CABLE LAYING, AND OTHER WORK TO THEIR ORIGINAL CONDITION. INCLUDE NECESSARY TOPSOILING, FERTILIZING, LIMING, SEEDING, SODDING, SPRIGGING, OR MULCHING. RESTORE VEGETATION AND PAVING.

4 CLEANING AND ADJUSTING
SCALE: NONE

1. CONTRACTOR SHALL INSTALL SELF-ADHESIVE VINYL LABELS AND WARNING SIGNS ON EXTERIOR OF ALL EQUIPMENT INCLUDING EXISTING EQUIPMENT AND WARNING SIGNS TO INCLUDE TRANSFORMERS, SECTIONALIZERS, SWITCHES, INTERRUPTERS, ETC.
2. CONTRACTOR SHALL FURNISH AND INSTALL "HIGH VOLTAGE" WARNING SIGNS ON THE EXTERIOR OF ALL PADMOUNT EQUIPMENT. LABEL SHALL BE INSTALLED IN A PROMINENT LOCATION SO AS TO BE READILY SEEN BY THE PUBLIC.
3. INSTALL IDENTIFICATION DEVICES WHERE REQUIRED.
   A. INSTALL LABELS WHERE INDICATED AND AT LOCATIONS FOR BEST CONVENIENCE OF VIEWING WITHOUT INTERFERENCE WITH OPERATION AND MAINTENANCE OF EQUIPMENT.
   B. SELF-ADHESIVE IDENTIFICATION PRODUCTS: CLEAN SURFACES FOR DUST, LOOSE MATERIAL, AND OILY FILMS BEFORE APPLYING.
   C. IDENTIFY PATHS OF UNDERGROUND ELECTRICAL LINES: DURING TRENCH BACKFILLING, FOR EXTERIOR UNDERGROUND POWER, CONTROL, SIGNAL, AND COMMUNICATION LINES, INSTALL CONTINUOUS UNDERGROUND PLASTIC MARKER LOCATED DIRECTLY ABOVE POWER AND COMMUNICATION LINES. LOCATE 6 TO 8 INCHES BELOW FINISH GRADE. WHERE MULTIPLE LINES INSTALLED IN A COMMON TRENCH OR CONCRETE ENVELOPE DO NOT EXCEED AN OVERALL WIDTH OF 26 INCHES, USE A SINGLE LINE MARKER.
4. FOR PANELBOARDS, PROVIDE TYPED CIRCUIT SCHEDULES WITH EXPLICIT DESCRIPTION AND IDENTIFICATION OF ITEMS CONTROLLED BY EACH INDIVIDUAL BREAKER.

5 IDENTIFICATION AND LABELS
SCALE: NONE

1. RACEWAY AND CABLE SUPPORTS: MANUFACTURED CLEVIS HANGERS, RISER CLAMPS, STRAPS, J-HOOKS, THREADED C-CLAMPS WITH RETAINERS, CEILING TRAPEZE HANGERS, WALL BRACKETS, AND SPRING STEEL CLAMPS OR "CLICK"-TYPE HANGERS WHERE APPLICABLE.

6 SUPPORTS
SCALE: NONE

1. GENERAL: MAKE CONNECTIONS IN SUCH A MANNER AS TO MINIMIZE POSSIBILITY OF GALVANIC ACTION OR ELECTROLYSIS. SELECT CONNECTORS, CONNECTION HARDWARE, CONDUCTORS, AND CONNECTION METHODS SO METALS IN DIRECT CONTACT WILL BE GALVANICALLY COMPATIBLE.
2. CONNECTORS AND SPLICES: UNITS OF SIZE, AMPACITY RATING, MATERIAL, TYPE, AND CLASS SUITABLE FOR SERVICE INDICATED. SELECT TO COMPLY WITH PROJECT'S INSTALLATION REQUIREMENTS.
3. CONDUCTOR SPLICES: KEEP TO THE MINIMUM AND COMPLY WITH THE FOLLOWING
   A. INSTALL SPLICES AND TAPS THAT POSSESS EQUIVALENT OR BETTER MECHANICAL STRENGTH AND INSULATION RATINGS THAN UNSPLICED CONDUCTORS.
   B. USE SPLICE AND TAP CONNECTORS THAT ARE COMPATIBLE WITH CONDUCTOR MATERIAL.
4. MAKE CONNECTIONS WITH CLEAN BARE METAL AT POINTS OF CONTACT.
5. TIGHTEN GROUNDING AND BONDING CONNECTORS AND TERMINALS, INCLUDING SCREWS AND BOLTS, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUES FOR CONNECTION AND BOLTS. WHERE MANUFACTURER'S TORQUEING REQUIREMENTS ARE NOT INDICATED, TIGHTEN CONNECTIONS TO COMPLY WITH TORQUE TIGHTENING VALUES SPECIFIED IN UL 486A AND UL 486B.
6. COMPRESSION-TYPE CONNECTIONS: USE HYDRAULIC COMPRESSION TOOLS TO PROVIDE THE CORRECT CIRCUMFERENTIAL PRESSURE FOR COMPRESSION CONNECTORS. USE TOOLS AND DIES RECOMMENDED BY THE MANUFACTURER OF THE CONNECTORS. PROVIDE EMBOSSING DIE CODE OR OTHER STANDARD METHOD TO MAKE A VISIBLE INDICATION THAT A CONNECTOR HAS BEEN ADEQUATELY COMPRESSED ON THE GROUND CONDUCTOR.
7. MOISTURE PROTECTION: WHERE INSULATED GROUND CONDUCTORS ARE CONNECTED TO GROUND RODS OR GROUND BUSES, INSULATE THE ENTIRE AREA OF THE CONNECTION AND SEAL AGAINST MOISTURE PENETRATION OF THE INSULATION AND CABLE.

7 CONNECTIONS
SCALE: NONE

1. WHERE APPLICABLE, CONTRACTOR SHALL USE ONE OF THE FOLLOWING METHODS FOR RACEWAYS:
   A. RIGID STEEL CONDUIT: ANSI C80.1.
   B. ELECTRICAL METALLIC TUBING AND FITTINGS: ANSI C80.3 WITH COMPRESSION-TYPE FITTINGS.
   C. FLEXIBLE METAL CONDUIT: ZINC-COATED STEEL.
   D. LIQUIDTIGHT FLEXIBLE METAL CONDUIT: FLEXIBLE STEEL CONDUIT WITH PVC JACKET.
   E. FITTINGS: NEMA FB1, COMPATIBLE WITH CONDUIT/TUBING MATERIALS.
   F. RIGID NONMETALLIC CONDUIT (RNC): NEMA TC 2, SCHEDULE 40 OR 80 PVC.
   G. PVC CONDUIT AND TUBING FITTINGS: NEMA TC 3; MATCH TO CONDUIT OR CONDUIT/TUBING TYPE AND MATERIAL.
2. OUTDOORS: USE THE FOLLOWING WIRING METHODS:
   A. EXPOSED: RIGID METAL CONDUIT.
   B. UNDERGROUND: RIGID NONMETALLIC CONDUIT.
   C. CONNECTION TO VIBRATING EQUIPMENT (INCLUDING TRANSFORMERS AND HYDRAULIC, PNEUMATIC, OR ELECTRIC SOLENOID OR MOTOR-DRIVEN EQUIPMENT): LIQUIDTIGHT FLEXIBLE METAL CONDUIT.
   D. BOXES AND ENCLOSURES: NEMA TYPE 3R OR TYPE 4.
   E. DAMP OR WET LOCATIONS: EMT.
   F. EXPOSED: ELECTRICAL METALLIC TUBING.
   G. CONCEALED: ELECTRICAL METALLIC TUBING OR MC CABLE.
   H. BOXES AND ENCLOSURES: NEMA TYPE 1.
3. INSTALL RACEWAYS, BOXES, ENCLOSURES, AND CABINETS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
4. CONCEAL CONDUIT AND EMT, UNLESS OTHERWISE INDICATED, WITHIN FINISHED WALLS, CEILINGS, AND FLOORS. WHERE RACEWAYS CANNOT BE CONCEALED, UTILIZE SURFACE RACEWAYS- WIREMOLD OR PANDUIT WITH APPROPRIATE BACKBOXES.
5. INSTALL RACEWAYS LEVEL AND SQUARE AND AT PROPER ELEVATIONS. PROVIDE ADEQUATE HEADROOM.
6. COMPLETE RACEWAY INSTALLATION BEFORE STARTING CONDUCTOR INSTALLATION.
7. USE TEMPORARY CLOSURES TO PREVENT FOREIGN MATTER FROM ENTERING RACEWAY.
8. PROTECT STUB UPS FROM DAMAGE WHERE CONDUITS RISE THROUGH FLOOR SLABS. ARRANGE SO CURVED PORTION OF BENDS IS NOT VISIBLE ABOVE THE FINISHED SLAB.
9. MAKE BENDS AND OFFSETS SO THE INSIDE DIAMETER IS NOT REDUCED. UNLESS OTHERWISE INDICATED, KEEP THE LEGS OF A BEND IN THE SAME PLANE AND THE STRAIGHT LEGS OF OFFSETS PARALLEL.
10. USE RACEWAY FITTINGS COMPATIBLE WITH RACEWAY AND SUITABLE FOR USE AND LOCATION.
11. RUN CONCEALED RACEWAYS WITH A MINIMUM OF BENDS IN THE SHORTEST PRACTICAL DISTANCE CONSIDERING THE TYPE OF BUILDING CONSTRUCTION AND OBSTRUCTIONS, EXCEPT AS OTHERWISE INDICATED.
12. INSTALL EXPOSED RACEWAYS PARALLEL TO OR AT RIGHT ANGLES TO NEARBY SURFACES OR STRUCTURAL MEMBERS, AND FOLLOW THE SURFACE CONTOURS AS MUCH AS PRACTICAL.
   A. RUN PARALLEL OR BANKED RACEWAYS TOGETHER, ON COMMON SUPPORTS WHERE PRACTICAL.
   B. MAKE BENDS IN PARALLEL OR BANKED RUNS FROM SAME CENTER LINE TO MAKE BENDS PARALLEL. USE FACTORY ELBOWS ONLY WHERE THEY CAN BE INSTALLED PARALLEL; OTHERWISE, PROVIDE FIELD BENDS FOR PARALLEL RACEWAYS.
13. JOIN RACEWAYS WITH FITTINGS DESIGNED AND APPROVED FOR THE PURPOSE AND MAKE JOINTS TIGHT.
   A. MAKE RACEWAY TERMINATIONS TIGHT. USE BONDING BUSHINGS OR WEDGES AT CONNECTIONS SUBJECT TO VIBRATION. USE BONDING JUMPERS WHERE JOINTS CANNOT BE MADE TIGHT.
   B USE INSULATING BUSHINGS TO PROTECT CONDUCTORS.
14. TERMINATIONS: WHERE RACEWAYS ARE TERMINATED WITH LOCKNUTS AND BUSHINGS, ALIGN THE RACEWAY TO ENTER SQUARELY, AND INSTALL THE LOCKNUTS WITH DISHED PART AGAINST THE BOX. WHERE TERMINATIONS CANNOT BE MADE SECURE WITH ONE LOCKNUT, USE TWO LOCKNUTS, ONE INSIDE AND ONE OUTSIDE THE BOX.
15. WHERE TERMINATING IN THREADED HUBS, SCREW THE RACEWAY OR FITTING TIGHT INTO THE HUB SO THE END BEARS AGAINST THE WIRE PROTECTION SHOULDER. WHERE CHASE NIPPLES ARE USED, ALIGN THE RACEWAY SO THE COUPLING IS SQUARE TO THE BOX, AND TIGHTEN THE CHASE NIPPLE SO NO THREADS ARE EXPOSED.
16. INSTALL PULL WIRES IN EMPTY RACEWAYS. USE NO. 14 AWG ZINC-COATED STEEL OR MONOFILAMENT PLASTIC LINE HAVING NOT LESS THAN 200-LB TENSILE STRENGTH. LEAVE NOT LESS THAN 12 INCHES OF SLACK AT EACH END OF THE PULL WIRE. USE TRACER TYPE IN NON-METALLIC UNDERGROUND.
17. INSTALL RACEWAY SEALING FITTINGS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. LOCATE FITTINGS SUITABLE, APPROVED, ACCESSIBLE, LOCATIONS AND FILL THEM WITH UL-LISTED SEALING COMPOUND. FOR CONCEALED RACEWAYS, INSTALL EACH FITTING IN A FLUSH STEEL BOX WITH A BLANK COVER PLATE HAVING A FINISH SIMILAR TO THAT OF ADJACENT PLATES OR SURFACES. INSTALL RACEWAY SEALING FITTINGS AT THE FOLLOWING POINTS AND ELSEWHERE AS INDICATED AND SEAL END OF CONDUITS WITH DUCT SEAL NOT CHIKOT:
   A. WHERE CONDUITS ENTER FROM THE EXTERIOR.
   B WHERE CONDUITS PASS FROM WARM LOCATIONS TO COLD LOCATIONS, SUCH AS THE BOUNDARIES OF REFRIGERATED SPACES AND AIR-CONDITIONED SPACES.
   C. WHERE OTHERWISE REQUIRED BY THE NEC.
18. PROVIDE GROUNDING CONNECTIONS FOR RACEWAY, BOXES, AND COMPONENTS AS INDICATED AND INSTRUCTED BY MANUFACTURER. TIGHTEN CONNECTORS AND TERMINALS, INCLUDING SCREWS AND BOLTS, ACCORDING TO EQUIPMENT MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES FOR EQUIPMENT CONNECTORS. WHERE MANUFACTURER'S TORQUEING REQUIREMENTS ARE NOT INDICATED, TIGHTEN CONNECTORS AND TERMINALS ACCORDING TO TIGHTENING TORQUES SPECIFIED IN UL STANDARD 486A.
19. RACEWAY SPACING SHALL COMPLY WITH APPLICABLE NEC ARTICLE.

8 RACEWAY
SCALE: NONE

1. SWITCHES (INDOOR/OUTDOOR) SHALL BE RATED 15A, 120VAC. WHERE INSTALLED OUTDOORS, SWITCH AND ENCLOSURE SHALL BE RATED FOR OUTDOOR APPLICATIONS.
2. PHOTOCELL (OUTDOOR) SHALL BE RATED FOR A MINIMUM OF 15A, 120VAC, AND RATED FOR OUTDOOR APPLICATIONS.
3. RECEPTACLES (INDOOR/OUTDOOR) GENERAL USE RECEPTACLES SHALL BE RATED FOR 15A, 120VAC. WHEN INSTALLED OUTDOORS, RECEPTACLE AND ENCLOSURE SHALL BE RATED FOR OUTDOOR APPLICATIONS.
4. LUMINAIRES AND LIGHT FIXTURES SHALL BE RATED FOR 120VAC. WHERE INSTALLED OUTDOORS, LUMINAIRES AND FIXTURES SHALL BE RATED FOR OUTDOOR APPLICATIONS.

9 ELECTRICAL EQUIPMENT
SCALE: NONE

1. BUILDING WIRE (600 VOLTS OR LESS): SINGLE CONDUCTOR, COPPER. SOLID CONDUCTOR FOR NO. 10 AWG AND SMALLER; STRANDED CONDUCTOR FOR LARGER THAN NO. 10 AWG.
2. SERVICE ENTRANCE CONDUCTORS: TYPE THHN/THWN COPPER CONDUCTOR WHERE INDICATED, IN RACEWAY, EXCEPT AS OTHERWISE INDICATED.
3. UNDERGROUND FEEDERS: TYPE THHN/THWN/XHHW, COPPER CONDUCTOR, COPPER (WHERE INDICATED) CONDUCTOR, IN RACEWAY.
4. THERMOSTAT CABLES: #18/7, SOLID COPPER WITH POLYPROPYLENE INSULATION AND PVC JACKET.

10 WIRING
SCALE: NONE

1. REFERENCE NEC ARTICLE 300 FOR GENERAL WIRING METHODS.
2. INSTALL WIRES IN RACEWAY ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AND NEC'S "STANDARD OF INSTALLATION".
3. INSTALL COMPONENTS AND EQUIPMENT TO PROVIDE THE MAXIMUM POSSIBLE HEADROOM WHERE MOUNTING HEIGHTS OR OTHER LOCATION CRITERIA ARE NOT INDICATED.
4. INSTALL ITEMS LEVEL, PLUMB, AND PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS, EXCEPT WHERE OTHERWISE INDICATED.
5. INSTALL EQUIPMENT TO FACILITATE SERVICE, MAINTENANCE, AND REPAIR OR REPLACEMENT OF COMPONENTS. CONNECT FOR EASE OF DISCONNECTING, WITH MINIMUM INTERFERENCE WITH OTHER INSTALLATIONS.
6. GIVE RIGHT OF WAY TO RACEWAYS AND PIPING SYSTEMS INSTALLED AT A REQUIRED SLOPE.
   A. SPLICES SHALL BE INSTALLED WITH ADEQUATE ACCESS FOR TESTING AND MAINTENANCE.
7. SERVICE ENTRANCE CONDUCTORS FROM METERS TO POWER PANELS SHALL BE SPACED TO PREVENT DERATING.
8. WIRING AT OUTLETS: INSTALL WITH AT LEAST 12 INCHES OF SLACK CONDUCTOR AT EACH OUTLET.
9. CONNECT OUTLETS AND COMPONENTS TO WIRING SYSTEMS AND TO GROUND AS INDICATED AND INSTRUCTED BY MANUFACTURER. TIGHTEN CONNECTORS AND TERMINALS, INCLUDING SCREWS AND BOLTS, ACCORDING TO EQUIPMENT MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES FOR EQUIPMENT CONNECTORS. WHERE MANUFACTURER'S TORQUEING REQUIREMENTS ARE NOT INDICATED, TIGHTEN CONNECTORS AND TERMINALS ACCORDING TO TIGHTENING REQUIREMENTS SPECIFIED IN UL-486A.
10. SLEEVES: INSTALL FOR CABLE AND RACEWAY PENETRATIONS OF CONCRETE SLABS AND WALLS, EXCEPT WHERE CORE-DRILLED HOLES ARE USED. INSTALL FOR CABLE AND RACEWAY PENETRATIONS OF MASONRY AND FIRE-RATED GYPSUM WALLS AND OF ALL OTHER FIRE-RATED FLOOR AND WALL ASSEMBLIES. INSTALL SLEEVES DURING ERECTION OF CONCRETE AND MASONRY WALLS.
11. FASTENING: UNLESS OTHERWISE INDICATED, SECURELY FASTEN ELECTRICAL ITEMS AND THEIR SUPPORTING HARDWARE TO THE BUILDING STRUCTURE.
12. CONTRACTOR SHALL INSTALL DISCONNECT FOR EACH CONDENSER UNIT LOCATED NEAR EACH CONDENSER AND RATED NOT LESS THAN THE SHORT CIRCUIT PROTECTION FEEDING IT. CONDUCTORS FROM DISCONNECT TO CONDENSER SHALL BE INSTALLED IN FLEXIBLE CONDUIT.
13. CONTRACTOR SHALL INSTALL ONE RECEPTACLE, LIGHT FIXTURE, AND LIGHT SWITCH, IN EACH SPRINKLER ROOM FED FROM A SPARE CIRCUIT IN THE NEAREST UNIT POWER PANEL.

11 INSTALLATION
SCALE: NONE

1. GENERAL: GROUND ELECTRICAL SYSTEMS AND EQUIPMENT IN ACCORDANCE WITH NEC REQUIREMENTS EXCEPT WHERE THE DRAWINGS OR SPECIFICATIONS EXCEED NEC REQUIREMENTS.
2. GROUND RODS: LOCATE A MINIMUM OF SIX FEET (6') FROM EACH OTHER AND AT LEAST THE SAME DISTANCE FROM ANY OTHER GROUNDING ELECTRODE. INTERCONNECT GROUND RODS WITH BARE CONDUCTORS BURIED AT LEAST 24 INCHES BELOW GRADE. CONNECT BARE-CABLE GROUND CONDUCTORS TO GROUND RODS BY MEANS OF EXOTHERMIC WELDS EXCEPT AS OTHERWISE INDICATED. DRIVE RODS UNTIL TOPS ARE 6 INCHES BELOW FINISHED FLOOR OR FINAL GRADE EXCEPT AS OTHERWISE INDICATED.
3. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATHS POSSIBLE WITHOUT OBSTRUCTING ACCESS OR PLACING CONDUCTORS WHERE THEY MAY BE SUBJECTED TO STRAIN, IMPACT, OR DAMAGE, EXCEPT AS INDICATED. EQUIPMENT GROUNDING CONDUCTOR: GREEN INSULATED.
4. GROUNDING ELECTRODE CONDUCTOR: STRANDED CABLE.
5. BARE COPPER CONDUCTORS: CONFORM TO THE FOLLOWING:
   A. SOLID CONDUCTORS: ASTM B 3.
   B. ASSEMBLY OF STRANDED CONDUCTORS: ASTM B 8.
   C. TINNED CONDUCTORS: ASTM B 33.
6. GROUND RODS: COPPER-CLAD STEEL WITH HIGH-STRENGTH STEEL CORE AND ELECTROLYTIC-GRADE COPPER OUTER SHEATH, MOLTEN WELDED TO CORE. SIZE 5/8 INCH BY 8 FEET.

12 GROUNDING & BONDING
SCALE: NONE

STATE OF LOUISIANA
JUSTIN J. KOWARSCH
License No: 40534
PROFESSIONAL ENGINEER
IN
ELECTRICAL ENGINEERING
10-12-18

KOWARSCH & JUDICE
LA EF: 5952

JOB NO.: 18023002 — REV. BY: GCJ
K&J PROJECT NO — CADD OPERATOR
APPRO: JJK — DATE: 10/12/201
PROJECT MANAGER — DATE
FILE: E-1.DWG — DATE: 10/11/18
CADD FILENAME — LAST PLOT DATE

NOTES:

REFERENCE DRAWINGS:
SEE CIVIL STRUCTURAL DRAWING PACKAGE

REV	DATE	DESCRIPTION	BY	CKD	APPD
0	10/18	FOR BID	GCJ	JJK	JJK

E-1

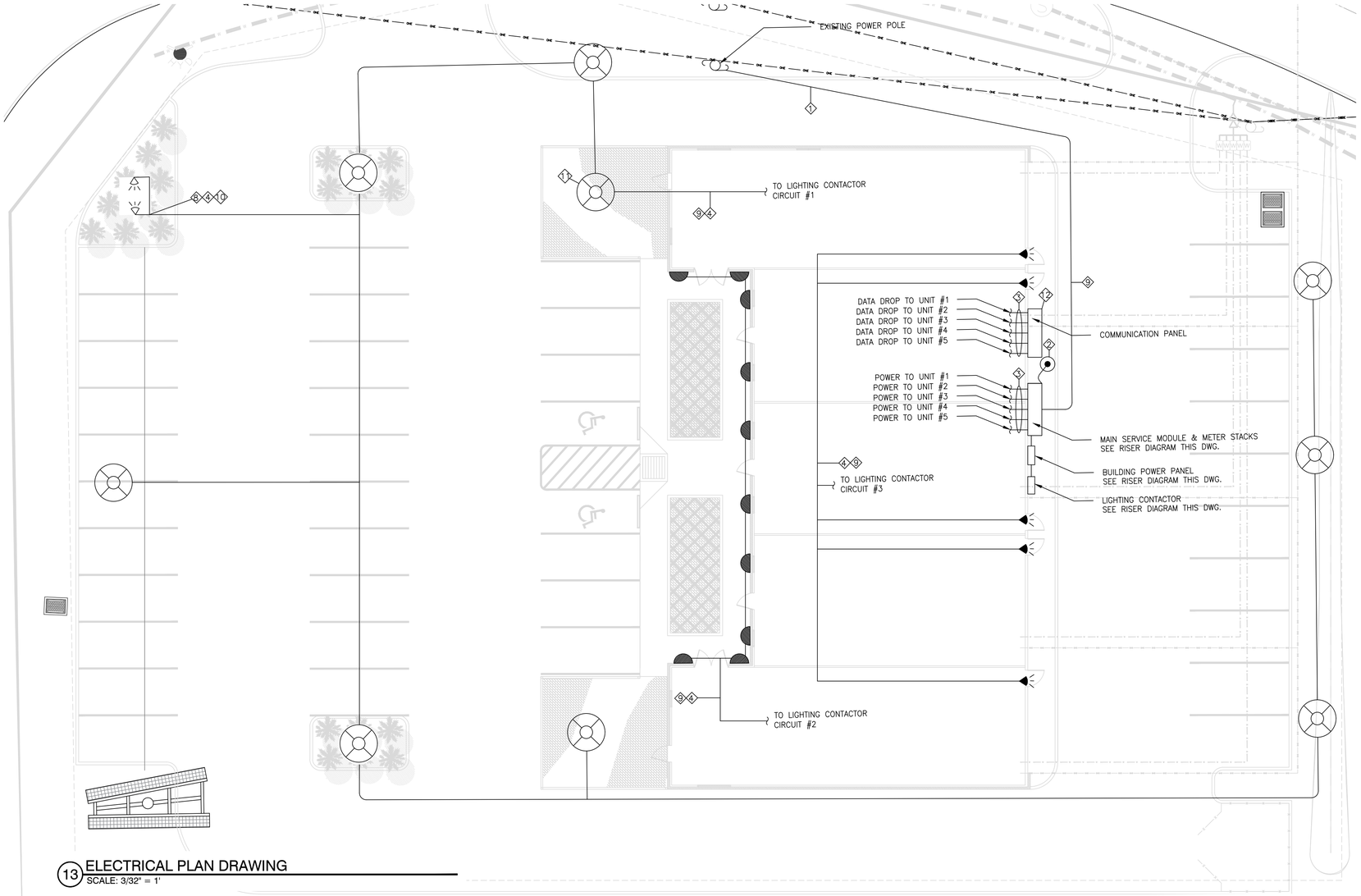
KOWARSCH & JUDICE

PETRO POINT DRIVE
ELECTRICAL & LIGHTING
GENERAL CONSTRUCTION NOTES

CLIENT APPROVAL _____
DATE _____

SCALE: AS SHOWN
JOB. No. 18023002

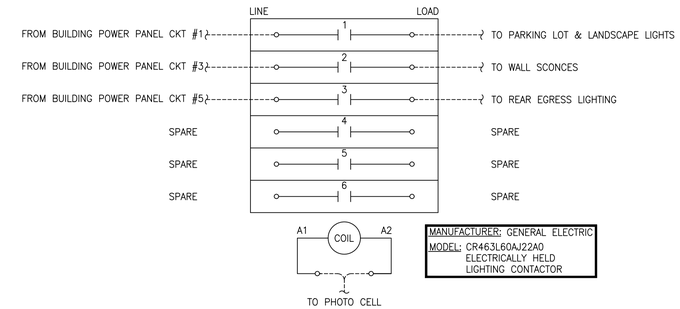
DWG NO. E-1
REV 0



13 ELECTRICAL PLAN DRAWING
SCALE: 3/32" = 1'

14 RISER DIAGRAM
SCALE: N.T.S.

MANUFACTURER: EATON
MODEL: MAIN SERVICE MODULE:
(1) X 1MCB1200RBC
METER STACK:
(2) X 1MM320RRLC



MANUFACTURER: GENERAL ELECTRIC
MODEL: CR463L60AJ22A0
ELECTRICALLY HELD
LIGHTING CONTACTOR

15 LIGHTING CONTACTOR DETAIL
SCALE: N.T.S.

BUILDING POWER PANEL

SERVICE: 120/240V, 1ø
MAIN: 200 AMP
SER. ENT. CONDUCTORS: 4/0AWG

TOTAL CONNECTED LOAD: 890VA
TOTAL DEMAND LOAD: 890VA
TOTAL CONNECTED CURRENT: 10A
TOTAL DEMAND CURRENT: 10A

SERVICE	CKT NO	TRIP	VA		VA	TRIP	CKT NO	SERVICE
PARKING LOT & LANDSCAPE	1	20	442		260	20	2	SPARE
WALL SCONCES	3	20	180		–	20	4	SPARE
EGRESS	5	20	–		–	20	6	SPARE
SPARE	7	20	–		–	20	8	SPARE
SPARE	9	20	–		–	20	10	SPARE
SPARE	11	20	–		–	20	12	SPARE
SPARE	13	20	–		–	20	14	SPARE
SPARE	15	20	–		–	20	16	SPARE
SPARE	17	20	–		–	20	18	SPARE

16 POWER PANEL SCHEDULE
SCALE: NONE

SYMBOL	FIXTURE NO	MANUFACTURER	MODEL NO	QUANTITY	VOLTAGE	AMPS	PHASE	TYPE	COLOR	ENCLOSURE	MOUNTING	CONTROL	REMARKS
	A	SUN VALLEY LIGHTING	LCM-LED-APA-V-48LED-NW-120-PT-RAL-8019-T-CPP	9	120V	0.4A	1 PH	LED	4000K	WET LOCATION	POLE MOUNT	LIGHTING CONTACTOR	POLE INFO: LYTE POLE 305-6015-18 TENON MOUNT
	B	SUN VALLEY LIGHTING	COL12-PM-LED-VLED-ASY-24LED-NW-120-WM-RAL-8019-T-HS	10	120V	0.22A	1 PH	LED	4000K	WET LOCATION	WALL MOUNT	LIGHTING CONTACTOR	--
	C	H.E. WILLIAMS, INC.	VWP-V-L30-T3-DBZ-CGL-EM/10WC-DIM-UNV	5	120V	0.3A	1 PH	LED	4000K	WET LOCATION	WALL MOUNT	LIGHTING CONTACTOR	--
	D	KICHLER	16209AZT-15645AZT-15645AZT	2	120V	0.04A	1 PH	LED	4000K	WET LOCATION	CONDUIT MOUNT	LIGHTING CONTACTOR	--

17 LIGHT FIXTURE SCHEDULE
SCALE: NONE

1. SERVICE: 120/240V, 1200A, 1ø, 3 WIRE 2 SETS 3-1/C 600 MCM W/ 3/0 GROUND IN 2 4" C.
2. GROUND ROD SHALL BE COPPER-CLAD STEEL WITH HIGH-STRENGTH STEEL CORE AND ELECTROLYTIC-GRADE COPPER OUTER SHEATH, MOLTEN WELDED TO CORE. SIZE 5/8 INCH BY 8 FEET.
3. CONTRACTOR SHALL STUB UP 2" CONDUIT INTO EACH UNIT CEILING SPACE, WITH PULL STRING FOR FUTURE USE BY TENANT
4. 2-1/C #12 AWG W/ GREEN #12 GND IN 3/4" C.
5. 3-1/C, #3/0 W/ GREEN #4 GND IN 2" C. 120/240V, 200A, 1ø, 3 WIRE POWER PANEL
6. 6-1/C #12 W/ 3 GREEN #12 GND IN 1" C.
7. CONTRACTOR SHALL INSTALL METER BANK AND FEEDER PER ENTERGY STANDARDS AND MANUFACTURE RECOMMENDATIONS
8. CONTRACTOR SHALL VERIFY EXACT LOCATION OF SIGN WITH OWNER, PRIOR TO INSTALLATION OF LIGHTS.
9. CONDUIT ROUTING SHOWN DIAGRAMMATICALLY. CONTRACTOR SHALL DETERMINE BEST ROUTE FOR CONDUIT AND CABLE IN FIELD.
10. CONTRACTOR SHALL STUB UP CONDUIT AND MOUNT LANDSCAPE LIGHTS TO CONDUIT.
11. REFERENCE CIVIL DRAWING PACKAGE FOR FOUNDATION DETAIL (TYP. FOR ALL PARKING LOT LIGHTS).
12. CONTRACTOR TO PROVIDE OUTDOOR SURFACE MOUNT PANEL FOR FUTURE COMMUNICATION USE.

18 KEYNOTES
SCALE: NONE

STATE OF LOUISIANA
JUSTIN J. KOWARSCH
License No: 40534
PROFESSIONAL ENGINEER
IN
ELECTRICAL ENGINEERING
10-12-18

KOWARSCH & JUDICE
LA EF: 5952
JOB NO: 18023002 (K&J PROJECT NO) REV. BY: GCJ (CADD OPERATOR)
APPRD: JJK (PROJECT MANAGER) DATE: 10/12/2018 (DATE)
FILE: E-2.DWG (CADD FILENAME) DATE: 10-12-18 (LAST PLOT DATE)

NOTES:

REFERENCE DRAWINGS:
SEE CIVIL STRUCTURAL DRAWING PACKAGE

REV	DATE	DESCRIPTION	BY	CKD	APPD
0	10/18	FOR BID	GCJ	JJK	JJK

E-2

KOWARSCH & JUDICE

PETRO POINT DRIVE
ELECTRICAL & LIGHTING
PLANS, SCHEDULES & DETAILS

CLIENT APPROVAL _____
DATE _____

SCALE: AS SHOWN
JOB. No. 18023002

DWG NO. E-2
REV 0