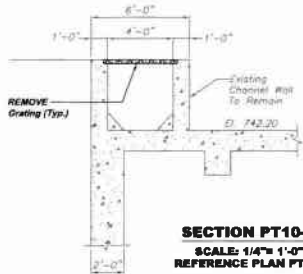
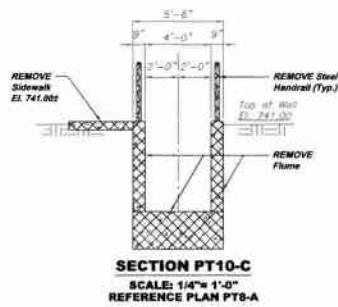


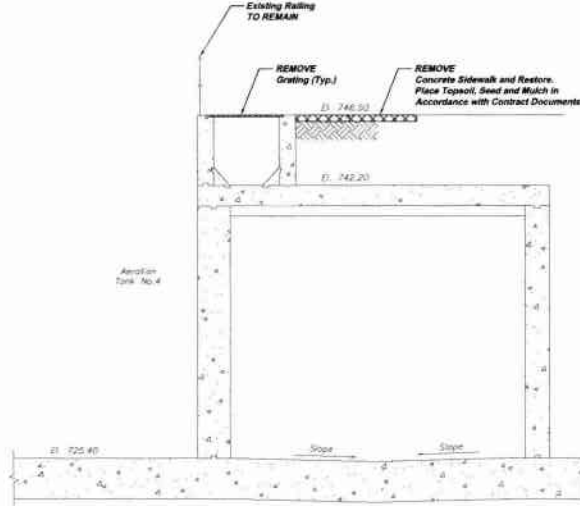
SECTION PT10-A
SCALE: 1/4" = 1'-0"
REFERENCE PLAN PT8-A



SECTION PT10-B
SCALE: 1/4" = 1'-0"
REFERENCE PLAN PT8-A



SECTION PT10-C
SCALE: 1/4" = 1'-0"
REFERENCE PLAN PT8-A



SECTION PT10-D
SCALE: 1/4" = 1'-0"
REFERENCE PLAN PT8-A

NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
Items Identified with Mixed Case Text are Existing.

Revisions	Date	By
DES SUBMITTAL		
REVISED		
RELEASE FOR BID		

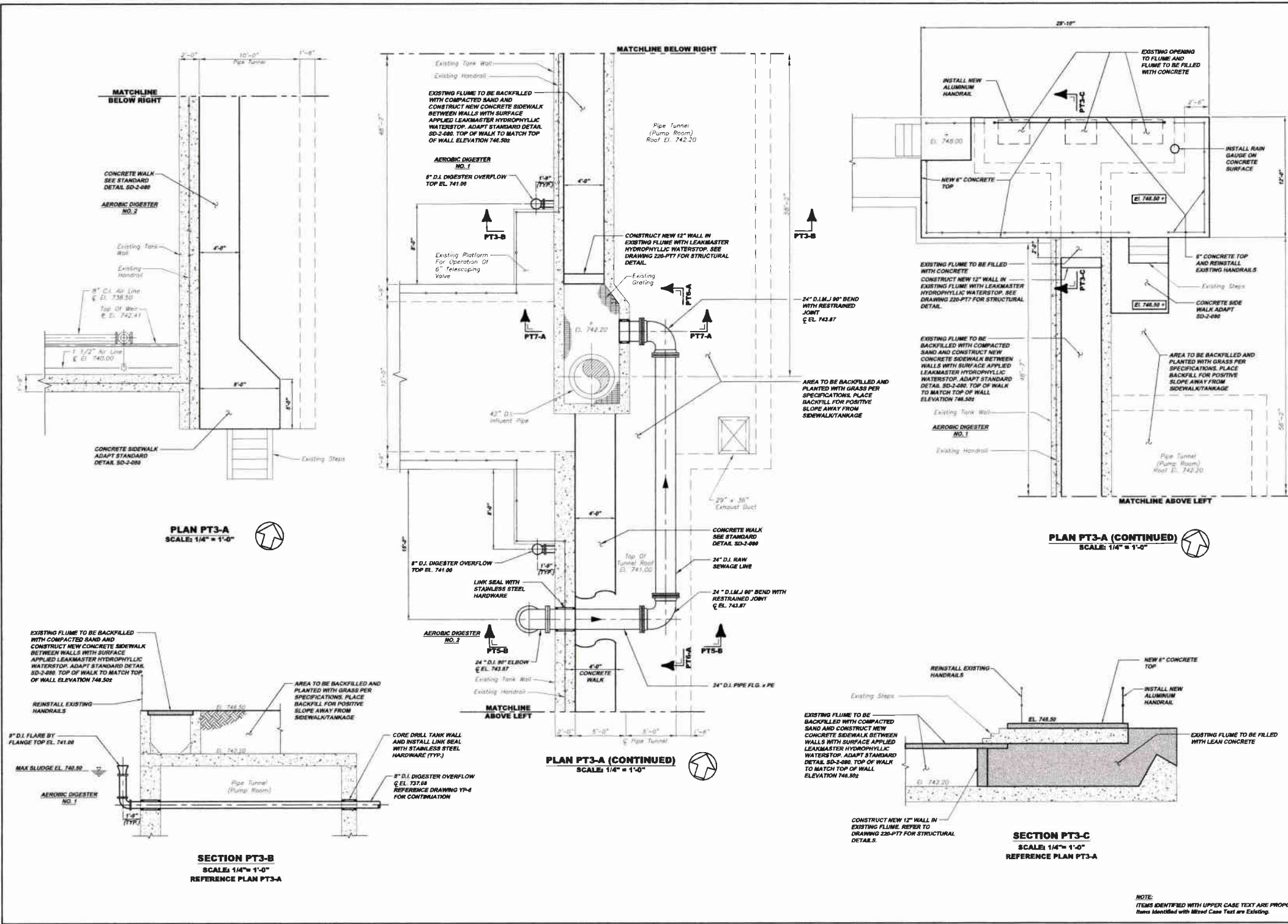
Date	7-1-08
Drawn By	DRG
Checked By	RDR
Approved By	BRG

5178 CHARLETTA RUN ROAD
PITTSBURGH, PA 15208
PHONE: 412-424-0218
FAX: 412-424-0218
INFO@KLHENGINEERS.COM

KLH ENGINEERS, INC.

**THE MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
ALLEGHENY COUNTY, PENNSYLVANIA
CONTRACT NUMBER 2010 - 01 AND 2010 - 02
WASTEWATER TREATMENT PLANT EXPANSION
SCREW PUMP AND FLUME DEMOLITION**

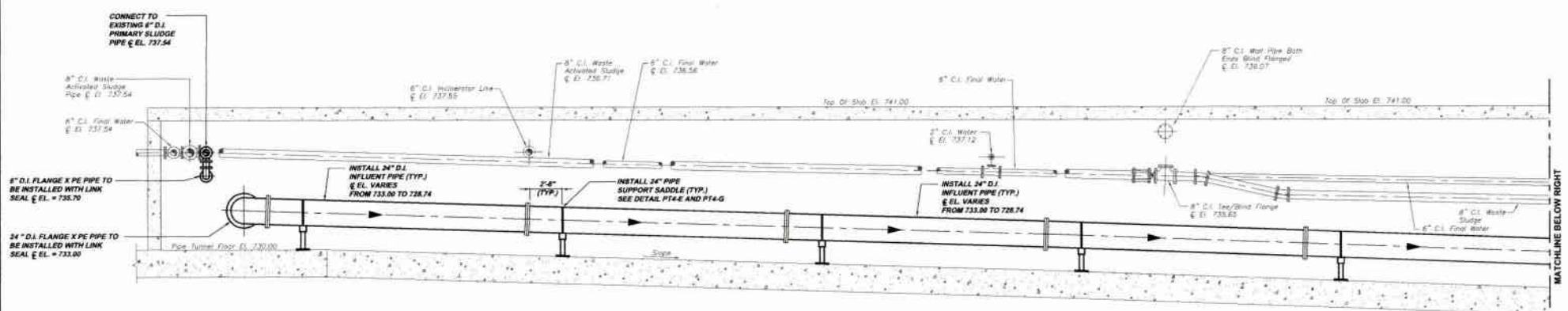
Sheet No.	5
Drawing No.	220-PT10



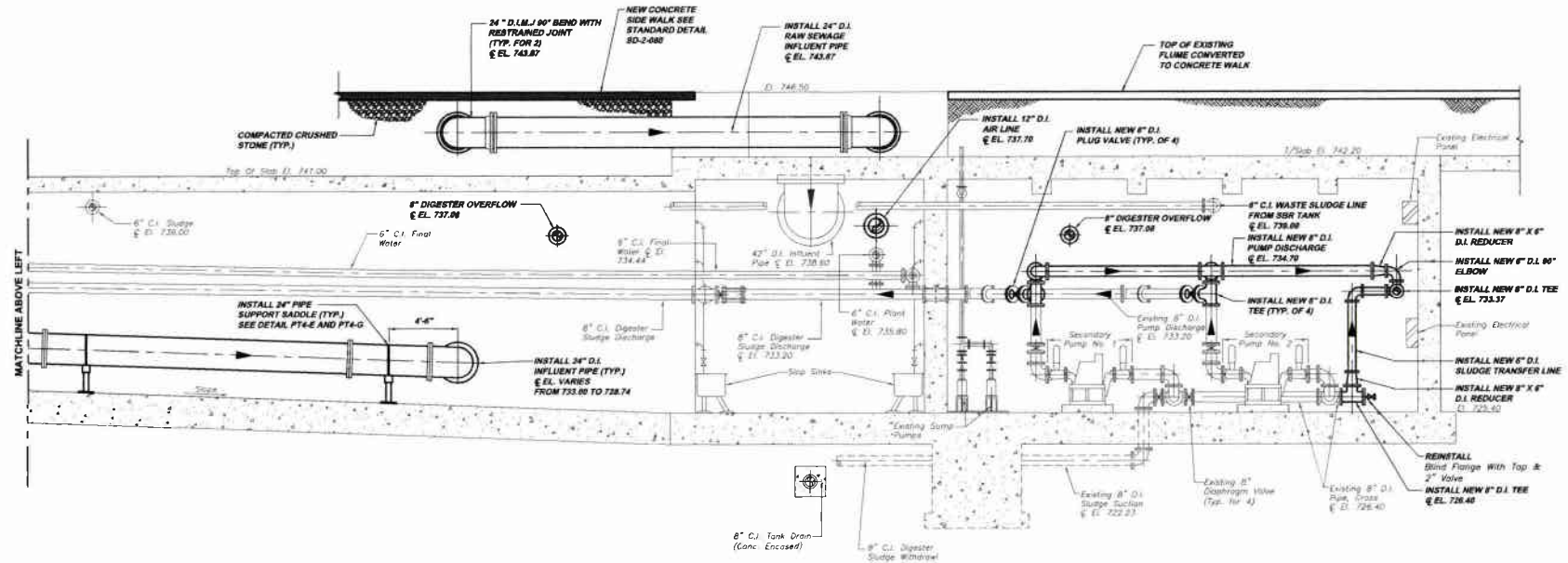
Revisions	Date	By	Check	Appr.
1	07-15-09	DRG	KDH	BHG
2	10-01	REVISED	KDH	BHG
3	04-16	REVISED	KDH	BHG
4	05-01	REVISED	KDH	BHG
5	05-01	RELEASE FOR BID	KDH	BHG

8172 DANERELLE RUN ROAD PITTSBURGH, PA 15205 PHONE: 412-944-0238 FAX: 412-944-0238 INFO@KLHENGINEERS.COM		MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT ALLEGHENY COUNTY, PENNSYLVANIA CONTRACT NUMBER 2010 - 01 AND 2010 - 02 WASTEWATER TREATMENT PLANT EXPANSION PIPE TUNNEL IMPROVEMENT PLAN AND SECTIONS
Scale: Date: Drawn By: Checked By: Approved By:		

Sheet No.	8
Drawing No.	220-PT3



SECTION PT6-A
SCALE 1/4" = 1'-0"
REFERENCE PLAN PT4-A AND PT5-A



SECTION PT6-A (CONTINUED)
SCALE 1/4" = 1'-0"
REFERENCE PLAN PT4-A AND PT5-A

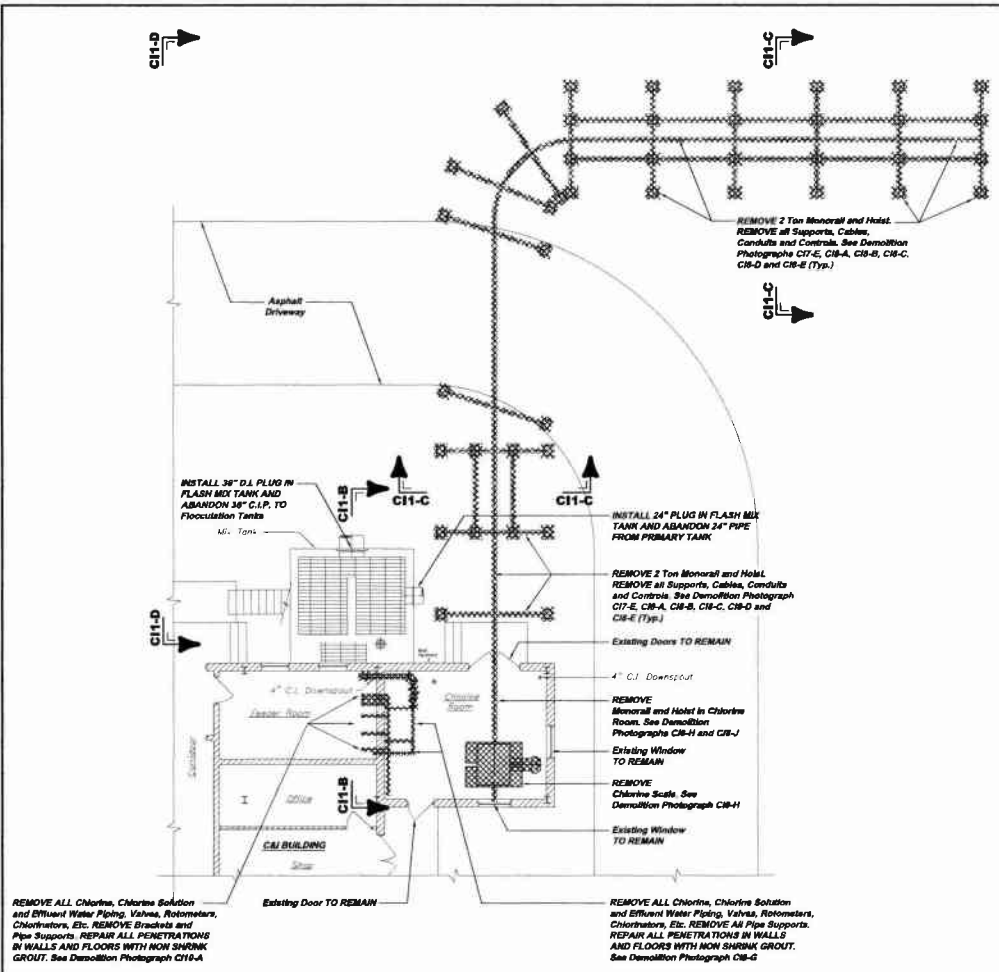
NOTES:
1. ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED
Items identified with Mixed Case Text are Existing.
2. LINES 3" DIAMETER AND UNDER ARE NOT
SHOWN FOR CLARITY PURPOSES.
CONTRACTOR SHALL MAKE ALL NECESSARY
EFFORTS TO VERIFY LOCATIONS OF ALL
LINES PRIOR TO PERFORMING WORK.

Scale:	As Shown	Project:	5173 DAMPHELLS RUN ROAD
Date:	JULY 2009	Client:	DEP SUBMITTAL
Drawn By:	KDH	City:	PITTSBURGH, PA 15206
Checked By:	KDH	Contract:	CONTRACT NUMBER 2010 - 01 AND 2010 - 02
Approved By:	BMG	Revision:	REVISED
Sheet No.:	9	Date:	7-2011
Drawing No.:	220-PT6	Revision:	REVISED FOR BID

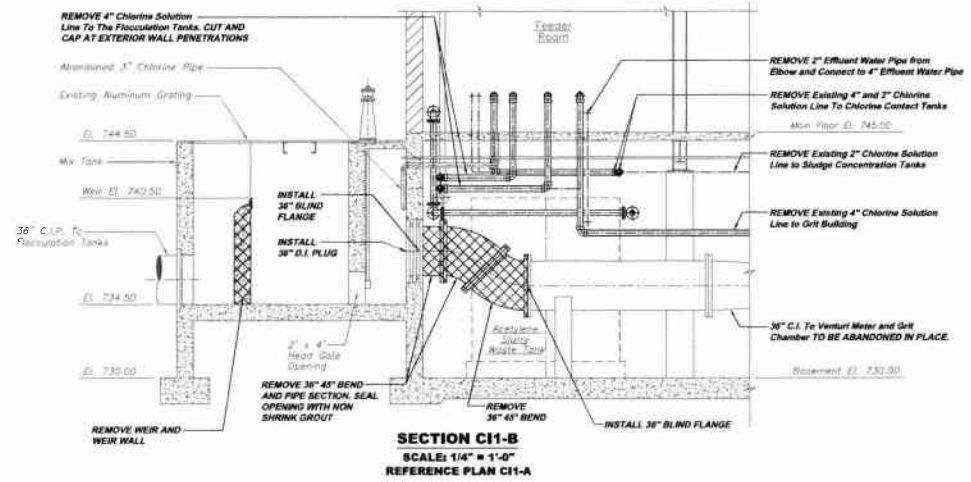
MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
ALLEGHENY COUNTY, PENNSYLVANIA
CONTRACT NUMBER 2010 - 01 AND 2010 - 02
WASTEWATER TREATMENT PLANT EXPANSION
PIPE TUNNEL IMPROVEMENT SECTIONS

KLH ENGINEERS, INC.

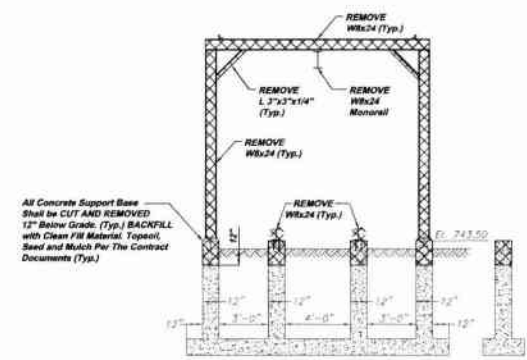
5173 DAMPHELLS RUN ROAD
PITTSBURGH, PA 15206
PHONE: 412-939-0248
FAX: 412-939-0248
WWW.KLHENGINEERS.COM



CHLORINE ROOM MONORAIL DEMOLITION PLAN C11-A
 SCALE: 1/8" = 1'-0"



SECTION C11-B
 SCALE: 1/4" = 1'-0"
 REFERENCE PLAN C11-A



SECTION C11-C
 SCALE: 1/4" = 1'-0"
 REFERENCE PLAN C11-A

REMOVE ALL Chlorine, Chlorine Solution and Effluent Water Piping, Valves, Rotometers, Chlorinators, Etc. REMOVE Brackets and Pipe Supports. REPAIR ALL PENETRATIONS IN WALLS AND FLOORS WITH NON SHRINK GROUT. See Demolition Photograph C11-A

REMOVE 2 Ton Monorail and Hoist. REMOVE all Supports, Cables, Conduits and Controls. See Demolition Photographs C11-E, C11-A, C11-B, C11-C, C11-D and C11-E (Typ.)

REMOVE 2 Ton Monorail and Hoist. REMOVE all Supports, Cables, Conduits and Controls. See Demolition Photographs C11-E, C11-A, C11-B, C11-C, C11-D and C11-E (Typ.)

REMOVE Monorail and Hoist in Chlorine Room. See Demolition Photographs C11-H and C11-J

REMOVE Chlorine Scale. See Demolition Photograph C11-H

REMOVE ALL Chlorine, Chlorine Solution and Effluent Water Piping, Valves, Rotometers, Chlorinators, Etc. REMOVE All Pipe Supports. REPAIR ALL PENETRATIONS IN WALLS AND FLOORS WITH NON SHRINK GROUT. See Demolition Photograph C11-G

C & I BUILDING MODIFICATION DRAWING REFERENCE

SHEET NO.	DWG. NO.	DESCRIPTION
1	220-C11	CHLORINE DEMOLITION PLANS, SECTIONS AND PHOTOGRAPHS
2	220-C12	CHLORINE DEMOLITION PHOTOGRAPHS AND SCHEMATIC
3	220-C13	CHLORINE DEMOLITION PHOTOGRAPHS
4	220-C14	CHLORINE DEMOLITION PLANS AND SECTIONS

REMOVE Existing Chlorine Monorail and Storage Area. REMOVE 2 Ton Monorail, and All Support Steel Members, Braces, Etc. REMOVE All Steel Installed for Exterior Storage Rack. All Concrete Support Base SHALL BE CUT AND REMOVED AT A DEPTH OF 12" BELOW FINISHED GRADE.



DEMOLITION PHOTOGRAPH C11-D
 REFERENCE PLAN C11-A

THE CONTRACTOR IS REQUIRED TO PROVIDE IN THE CONTRACT BID FORM A PRICE FOR THE LABORATORY CONSTRUCTION WORK AND SHOULD THE OWNER ELECT NOT TO COMPLETE THE LABORATORY WORK WITH THE WASTEWATER TREATMENT PLANT EXPANSION PROJECT, THE WORK ITEMS CONTAINED IN DRAWINGS 220-C11, 220-C12, 220-C13 AND 220-C14 LOCATED INSIDE AND OUTSIDE THE CHLORINE ROOM IS THE MINIMUM WORK EFFORT REQUIRED AT THE CHLORINE ROOM FOR THE WASTE WATER TREATMENT PLANT EXPANSION PROJECT AND SHALL BE COMPLETED SEPARATE FROM ANY WORK IDENTIFIED FOR COMPLETION OF THE LABORATORY.

NOTE:
 ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
 Items Identified with Mixed Case Text are Existing.

8173 CAMERELLE RIVER ROAD
 PITTSBURGH, PA 15203
 PHONE: 412-944-0233
 INFO@KLHENGINEERS.COM

KLH ENGINEERS, INC.

MUNICIPAL AUTHORITY OF THE CITY OF HICKESPORT
ALLEGHENY COUNTY, PENNSYLVANIA
 CONTRACT NUMBER 2010-01 AND 2010-02
 WASTEWATER TREATMENT PLANT EXPANSION
 CHLORINE DEMOLITION PLANS, SECTIONS AND PHOTOGRAPHS

Revisions	Date	Description
1	12/2011	RELEASE FOR BID
2	12/2011	REMOVED
3	12/2011	DEP SUBMITTAL
4	12/2011	15-08
5	12/2011	12/2011

Scale: As Shown
 Date: July 2009
 Drawn By: DMB
 Checked By: BCE
 Approved By: S110

Sheet No. 1
 Drawing No. 220-C11

REMOVE
Monorail Steel Support
Structure (WBx24 Typ.)

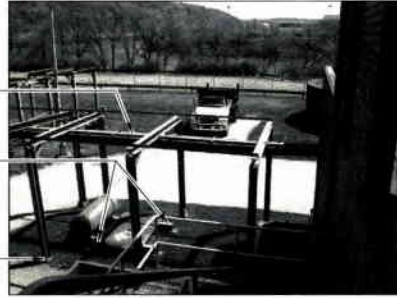


REMOVE
2 Ton Monorail (W12x27)

MONORAIL / STORAGE RACK DEMOLITION PHOTOGRAPH C13-A

REFERENCE PLAN C11-A

REMOVE
2 Ton Monorail (W12x27)



REMOVE
Chlorine Storage. REMOVE Top of
12" of Concrete Support (Typ.).
BACKFILL WITH CLEAN FILL
MATERIAL, TOPSOIL, SEED
AND MULCH PER
CONTRACT DOCUMENTS

REMOVE
Steel Structure Support (Typ.) and
REMOVE Top 12" of Concrete
Support (Typ.). BACKFILL WITH
CLEAN FILL MATERIAL, TOPSOIL,
SEED AND MULCH PER
CONTRACT DOCUMENTS

EXTERIOR DEMOLITION PHOTOGRAPH C13-B

REFERENCE PLAN C11-A

REMOVE
2 Ton Monorail (W12x27)



REMOVE
WBx24 Storage Racks

Existing Concrete Support TO
BE CUT 12" BELOW GRADE
AND REMOVED (Typ.). BACKFILL
WITH CLEAN FILL MATERIAL,
TOPSOIL, SEED AND MULCH
PER CONTRACT DOCUMENTS

REMOVE
All Monorail Support Steel
(WBx24 Typ.)

MONORAIL / STORAGE RACK DEMOLITION PHOTOGRAPH C13-C

REFERENCE PLAN C11-A

REMOVE
2 Ton Monorail (W12x27)



Existing Door Opening.
CONTRACTOR SHALL FABRICATE
AND CLOSE OPEN SPACE AT DOOR
EXTERIOR WITH SHEET METAL.

Existing Chlorine Room
Door TO REMAIN

CHLORINE ROOM DEMOLITION PHOTOGRAPH C13-D

REFERENCE PLAN C11-A

REMOVE
Monorail Steel Support
Structure



REMOVE
Chlorine Alarms

CHLORINE ROOM DEMOLITION PHOTOGRAPH C13-E

REFERENCE PLAN C11-A

REMOVE
Chlorine Alarms



CHLORINE ROOM DEMOLITION PHOTOGRAPH C13-F

REFERENCE PLAN C11-A

REMOVE
2 Ton Monorail and Hoist.
REMOVE All Supports,
Cables, Conduits and
Controls.



REMOVE
Chlorine Scale. REPAIR
Floor Penetrations
WITH NON SHRINK GROUT

REMOVE
All Chlorine Supply Lines
and Supports

CHLORINE ROOM DEMOLITION PHOTOGRAPH C13-H

REFERENCE PLAN C11-A

REMOVE
2 Ton Monorail and
Hoist. REMOVE All
Supports, Cables,
Conduits and Controls.



CHLORINE ROOM DEMOLITION PHOTOGRAPH C13-J

REFERENCE PLAN C11-A

NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
Items Identified with Mixed Case Text are Existing.

Scale:	As Shown	Revisions:	Date:
Date:	July 2009	NO SUBMITTALS	
Drawn By:	DMB	NO SUBMITTALS	
Checked By:	DMB	NO SUBMITTALS	
Approved By:	DMB	NO SUBMITTALS	
Sheet No.:	3	NO SUBMITTALS	
Drawing No.:	220-C13	NO SUBMITTALS	
MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT ALLEGHENY COUNTY, PENNSYLVANIA CONTRACT NUMBER 2010 - 01 AND 2010 - 02 WASTEWATER TREATMENT PLANT EXPANSION CHLORINE DEMOLITION PHOTOGRAPHS			
5173 CAMPBELL RUN ROAD PITTSBURGH, PA 15203 PHONE: 412-644-0230 FAX: 412-644-0230 INFO@KLHENGINEERS.COM			
KLH ENGINEERS, INC.			

Steel Frame Shed Roof
TO REMAIN



**SCREEN/GRIT BUILDING
EXTERIOR DEMOLITION PHOTOGRAPH SG3-A**

REMOVE
Conveyor, Conveyor Cover,
Supports, Motors, Cables,
Conduits and Controls.
CLOSE CONVEYOR OPENING
WITH SALVAGED BRICK AND
OR MATCHING BRICK. SAW
TOOTH Matching Existing
Courses and Joints.

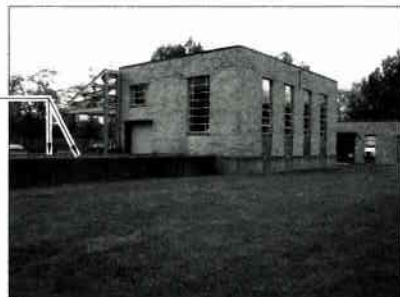
REMOVE
Conveyor, Conveyor Cover,
Supports, Motors, Cables,
Conduits and Controls.
CLOSE CONVEYOR OPENING
WITH SALVAGED AND/OR
NEW MATCHING BRICK.

REPAIR ALL SUPPORT
PENETRATIONS WITH
NON SHRINK GROUT.



**SCREEN/GRIT BUILDING
EXTERIOR DEMOLITION PHOTOGRAPH SG3-B**

CONTRACTOR SHALL CLEAN
AND DISINFECT CHANNEL



**SCREEN/GRIT BUILDING
EXTERIOR DEMOLITION PHOTOGRAPH SG3-C**



**SCREEN/GRIT BUILDING
EXTERIOR DEMOLITION PHOTOGRAPH SG3-D**

POWER WASH CHANNELS
CLEAN AND DISINFECT.

REMOVE
Concrete Deck
REMOVE
Handrail

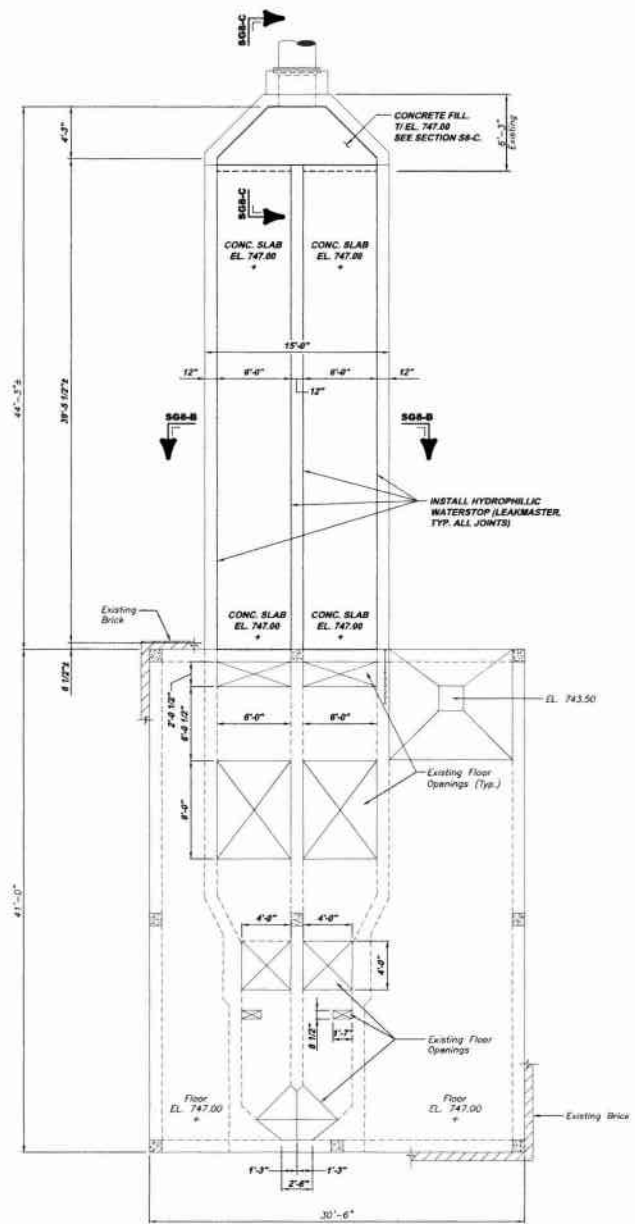


**SCREEN/GRIT BUILDING
EXTERIOR DEMOLITION PHOTOGRAPH SG3-E**

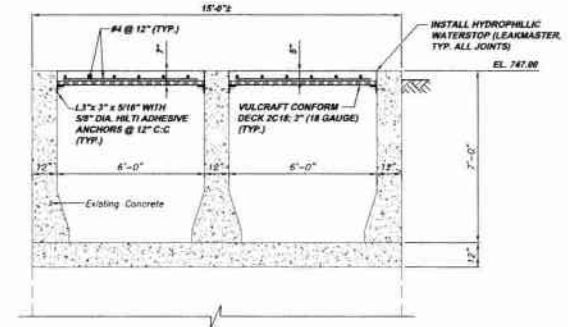
SAW CUT AND REMOVE
Insulation WAS AS NEEDED
TO CONSTRUCT NEW
BUILDING WALL.
REMOVE
Slab Galls
(TYP. EACH CHANNEL)

NOTE:
1. SEAL WALL PENETRATIONS WITH NON SHRINK GROUT UNLESS NOTED OTHERWISE. (TYP. AT BUILDING EXTERIOR).
2. ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED. Items Identified with Mixed Case Text are Existing.

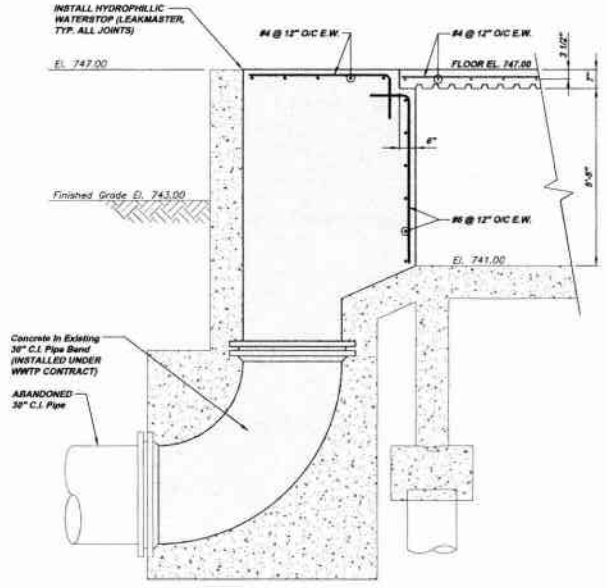
5178 CAMPBELLE RUN ROAD PITTSBURGH, PA 15108 PHONE 412-444-0910 INFO@KLH-ENGINEERS.COM		Revisions Date Date Date
KLH ENGINEERS, INC.		7-31-08 10-06 1-30-11
MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT ALLEGHENY COUNTY, PENNSYLVANIA CONTRACT NUMBER 2010 - 01 AND 2010 - 02 WASTEWATER TREATMENT PLANT EXPANSION SCREEN / GRT BUILDING DEMOLITION PHOTOGRAPHS		02P SUBMITTAL REVISED RELEASE FOR BID
Scale: Date: Drawn By: Checked By: Approved By:	As Shown July 2009 DMB RDH BUC	Sheet No. 3 Drawing No. 226- SG3



OPERATIONS BUILDING FOUNDATION PLAN SG8-A
SCALE: 3/16" = 1'-0"



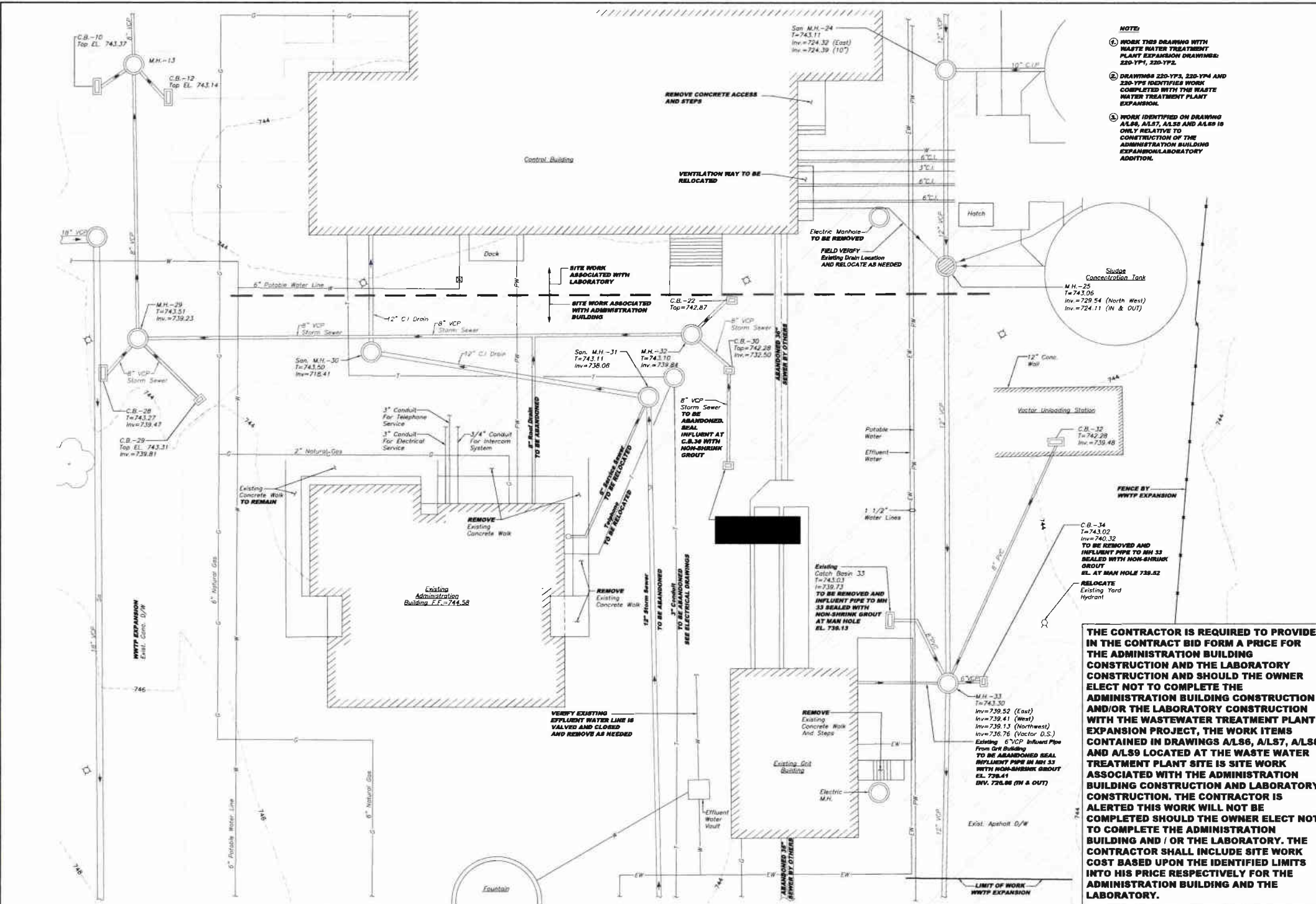
SECTION SG8-B
SCALE: 3/8" = 1'-0"
REFERENCE PLAN SG8-A



SECTION SG8-C
SCALE: 1/2" = 1'-0"

NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
ITEMS IDENTIFIED WITH MIXED CASE TEXT ARE EXISTING.

Scale:	As Shown	As Shown	As Shown	As Shown	As Shown
Date:	July 2008	July 2008	July 2008	July 2008	July 2008
Drawn By:	DBB	DBB	DBB	DBB	DBB
Checked By:	RDH	RDH	RDH	RDH	RDH
Approved By:	BAG	BAG	BAG	BAG	BAG
Sheet No.	5	5	5	5	5
Drawing No.	220-SG8	220-SG8	220-SG8	220-SG8	220-SG8
Municipal Authority of the City of McKeesport Allegheny County, Pennsylvania Wastewater Treatment Plant Expansion Screen / Grit Building Structural Plan, Sections and Details	KLH ENGINEERS, INC.	KLH ENGINEERS, INC.	KLH ENGINEERS, INC.	KLH ENGINEERS, INC.	KLH ENGINEERS, INC.
8175 CAMPBELL BLVD. ROAD PITTSBURGH, PA 15206 PHONE: 412-261-9333 FAX: 412-261-9333 INFO@KLHENGINEERS.COM	8175 CAMPBELL BLVD. ROAD PITTSBURGH, PA 15206 PHONE: 412-261-9333 FAX: 412-261-9333 INFO@KLHENGINEERS.COM	8175 CAMPBELL BLVD. ROAD PITTSBURGH, PA 15206 PHONE: 412-261-9333 FAX: 412-261-9333 INFO@KLHENGINEERS.COM	8175 CAMPBELL BLVD. ROAD PITTSBURGH, PA 15206 PHONE: 412-261-9333 FAX: 412-261-9333 INFO@KLHENGINEERS.COM	8175 CAMPBELL BLVD. ROAD PITTSBURGH, PA 15206 PHONE: 412-261-9333 FAX: 412-261-9333 INFO@KLHENGINEERS.COM	8175 CAMPBELL BLVD. ROAD PITTSBURGH, PA 15206 PHONE: 412-261-9333 FAX: 412-261-9333 INFO@KLHENGINEERS.COM
Date	7/21/08	7/21/08	7/21/08	7/21/08	7/21/08
Revisions	020 SUBMITTAL	030 REVISED	040 REVISED	050 REVISED	060 RELEASE FOR BID
Rev					
Date					
Revisions					



- NOTE**
- 1 WORK THIS DRAWING WITH WASTE WATER TREATMENT PLANT EXPANSION DRAWINGS: 220-YF1, 220-YF2.
 - 2 DRAWINGS 220-YF3, 220-YF4 AND 220-YF5 IDENTIFIED WORK COMPLETED WITH THE WASTE WATER TREATMENT PLANT EXPANSION.
 - 3 WORK IDENTIFIED ON DRAWING A/LS6, A/LS7, A/LS8 AND A/LS9 IS ONLY RELATIVE TO CONSTRUCTION OF THE ADMINISTRATION BUILDING EXPANSION/LABORATORY ADDITION.

THE CONTRACTOR IS REQUIRED TO PROVIDE IN THE CONTRACT BID FORM A PRICE FOR THE ADMINISTRATION BUILDING CONSTRUCTION AND THE LABORATORY CONSTRUCTION AND SHOULD THE OWNER ELECT NOT TO COMPLETE THE ADMINISTRATION BUILDING CONSTRUCTION AND/OR THE LABORATORY CONSTRUCTION WITH THE WASTE WATER TREATMENT PLANT EXPANSION PROJECT, THE WORK ITEMS CONTAINED IN DRAWINGS A/LS6, A/LS7, A/LS8 AND A/LS9 LOCATED AT THE WASTE WATER TREATMENT PLANT SITE IS SITE WORK ASSOCIATED WITH THE ADMINISTRATION BUILDING CONSTRUCTION AND LABORATORY CONSTRUCTION. THE CONTRACTOR IS ALERTED THIS WORK WILL NOT BE COMPLETED SHOULD THE OWNER ELECT NOT TO COMPLETE THE ADMINISTRATION BUILDING AND / OR THE LABORATORY. THE CONTRACTOR SHALL INCLUDE SITE WORK COST BASED UPON THE IDENTIFIED LIMITS INTO HIS PRICE RESPECTIVELY FOR THE ADMINISTRATION BUILDING AND THE LABORATORY.

ADMINISTRATION EXPANSION AND LABORATORY ADDITION DEMOLITION SITE PLAN A/LS6-A
SCALE: 1/10

Revision	Date	Released For Bid
1	1-2011	RELEASE FOR BID

51173 BARRACLOUGH BLVD, SUITE 1500
PITTSBURGH, PA 15205
PH: 412-439-0230
FAX: 412-439-0230
INFO@KLHENGINEERS.COM

KLH ENGINEERS, INC.

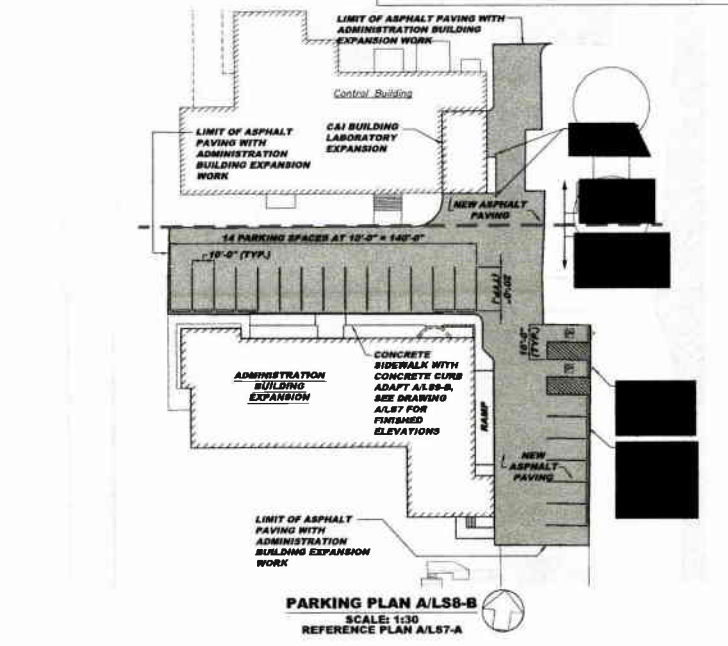
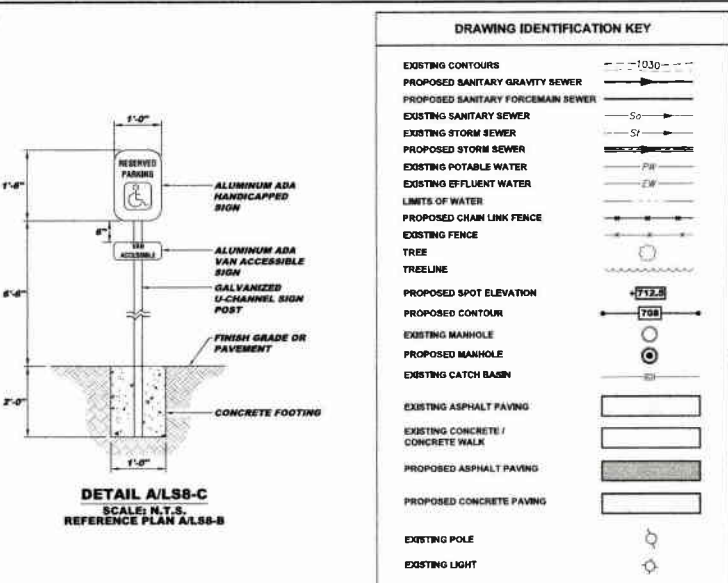
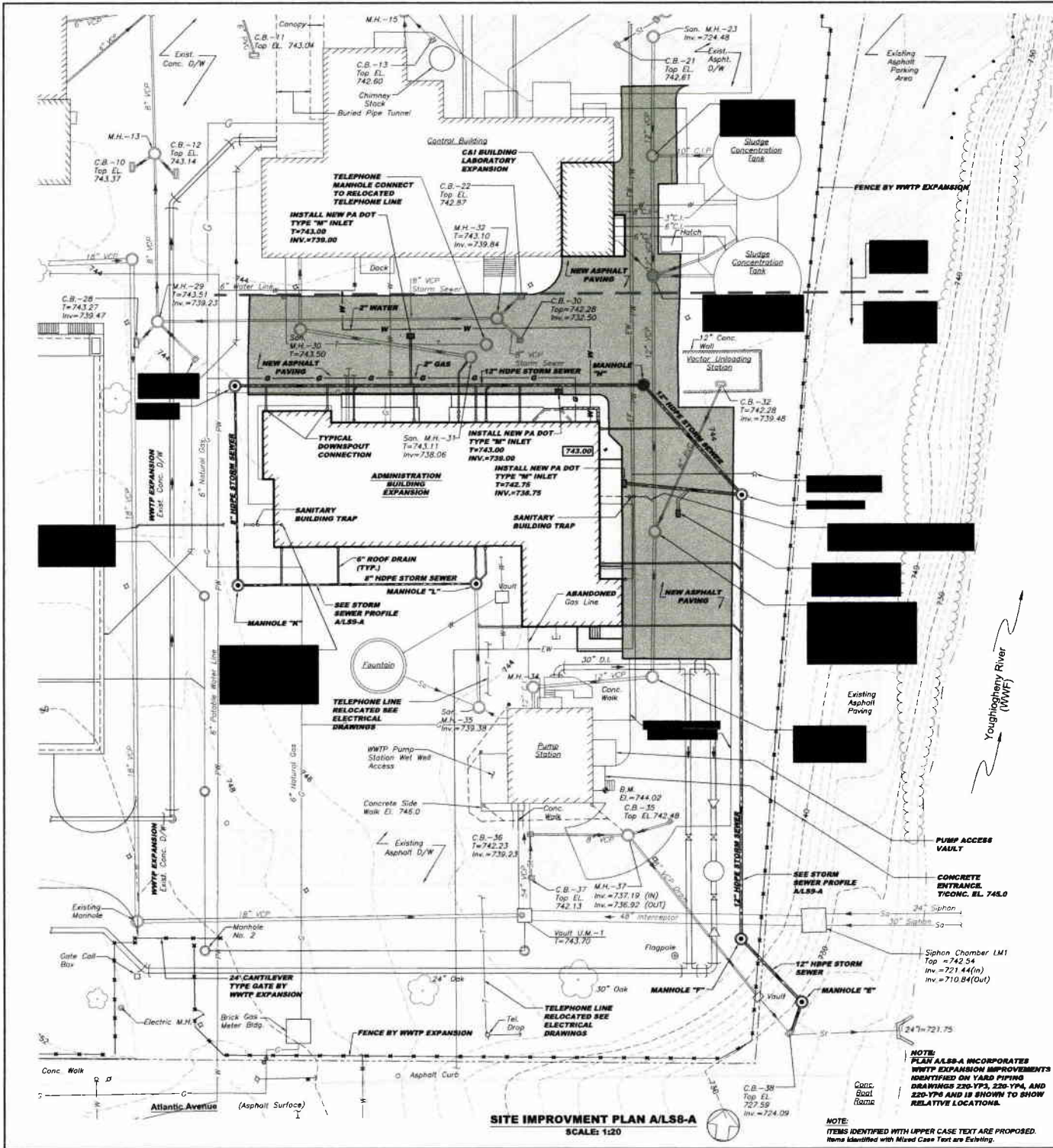
MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
ALLEGHENY COUNTY, PENNSYLVANIA
CONTRACT NUMBER 2010-01 AND 2010-02
WASTEWATER TREATMENT PLANT EXPANSION
ADMINISTRATION EXPANSION/LABORATORY ADDITION SITE DEMOLITION PLAN

Scale:	As Shown
Date:	AUGUST 2010
Drawn By:	DRB
Checked By:	RDR
Approved By:	SHD

Sheet No. 1

Drawing No. 220
A/LS6

NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
Items Identified with Lower Case Text are Existing.



DRAWING IDENTIFICATION KEY

EXISTING CONTOURS	---
PROPOSED SANITARY GRAVITY SEWER	—S—
PROPOSED SANITARY FORCEMAIN SEWER	—SF—
EXISTING SANITARY SEWER	—S—
EXISTING STORM SEWER	—ST—
PROPOSED STORM SEWER	—ST—
EXISTING POTABLE WATER	—PW—
EXISTING EFFLUENT WATER	—EW—
LIMITS OF WATER	—LW—
PROPOSED CHAIN LINK FENCE	—CLF—
EXISTING FENCE	—F—
TREE	—T—
TREELINE	—TL—
PROPOSED SPOT ELEVATION	—772.5—
PROPOSED CONTOUR	—700—
EXISTING MANHOLE	—M—
PROPOSED MANHOLE	—M—
EXISTING CATCH BASIN	—CB—
EXISTING ASPHALT PAVING	—A—
EXISTING CONCRETE / CONCRETE WALK	—C—
PROPOSED ASPHALT PAVING	—A—
PROPOSED CONCRETE PAVING	—C—
EXISTING POLE	—P—
EXISTING LIGHT	—L—

THE CONTRACTOR IS REQUIRED TO PROVIDE IN THE CONTRACT BID FORM A PRICE FOR THE ADMINISTRATION BUILDING CONSTRUCTION AND THE LABORATORY CONSTRUCTION AND SHOULD THE OWNER ELECT NOT TO COMPLETE THE ADMINISTRATION BUILDING CONSTRUCTION AND/OR THE LABORATORY CONSTRUCTION WITH THE WASTEWATER TREATMENT PLANT EXPANSION PROJECT, THE WORK ITEMS CONTAINED IN DRAWINGS A/LS6, A/LS7, A/LS8 AND A/LS9 LOCATED AT THE WASTE WATER TREATMENT PLANT SITE IS SITE WORK ASSOCIATED WITH THE ADMINISTRATION BUILDING CONSTRUCTION AND LABORATORY CONSTRUCTION. THE CONTRACTOR IS ALERTED THIS WORK WILL NOT BE COMPLETED SHOULD THE OWNER ELECT NOT TO COMPLETE THE ADMINISTRATION BUILDING AND / OR THE LABORATORY. THE CONTRACTOR SHALL INCLUDE SITE WORK COST BASED UPON THE IDENTIFIED LIMITS INTO HIS PRICE RESPECTIVELY FOR THE ADMINISTRATION BUILDING AND THE LABORATORY.

MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
ALLEGHENY COUNTY, PENNSYLVANIA
CONTRACT NUMBER 2010-01 AND 2010-02
WASTEWATER TREATMENT PLANT EXPANSION
ADMINISTRATION EXPANSION/LABORATORY ADDITION SITE IMPROVEMENT PLAN

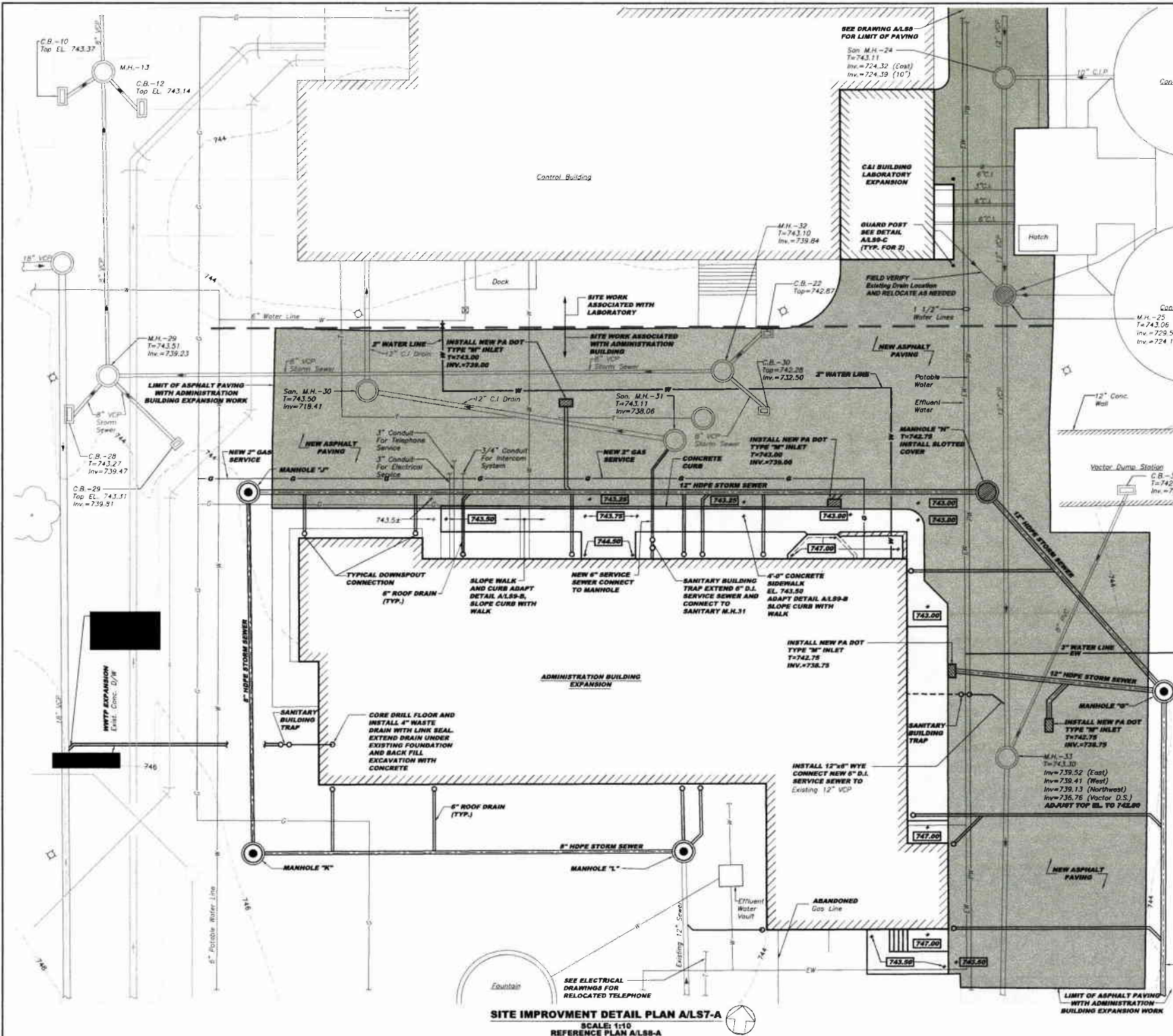
KLH ENGINEERS, INC.

5173 SANDWELL RUN, BOX 15200
PITTSBURGH, PA 15209
TEL: 412-291-0230
FAX: 412-291-0230
INFO@KLHENGINEERS.COM

Date	12/01
Revision	RELEASE FOR BID
Date	
Revision	

As Shown: AUGUST 2010
Scale: DRG
Date: DRG
Drawn By: DRG
Checked By: DRG
Approved By: DRG

Sheet No. 2
Drawing No. 220-A/LS8



- NOTE:**
- WORK THIS DRAWING WITH WWTP EXPANSION DRAWINGS: 220-YF1, 220-YF2.
 - DRAWINGS 220-YF3, 220-YF4 AND 220-YF5 IDENTIFIES WORK COMPLETED WITH THE WWTP EXPANSION.
 - WORK IDENTIFIED ON DRAWING A/LS6, A/LS7, A/LS8 AND A/LS9 IS ONLY RELATIVE TO CONSTRUCTION OF THE ADMINISTRATION BUILDING EXPANSION/LABORATORY ADDITION.

THE CONTRACTOR IS REQUIRED TO PROVIDE IN THE CONTRACT BID FORM A PRICE FOR THE ADMINISTRATION BUILDING CONSTRUCTION AND THE LABORATORY CONSTRUCTION AND SHOULD THE OWNER ELECT NOT TO COMPLETE THE ADMINISTRATION BUILDING CONSTRUCTION AND/OR THE LABORATORY CONSTRUCTION WITH THE WASTEWATER TREATMENT PLANT EXPANSION PROJECT, THE WORK ITEMS CONTAINED IN DRAWINGS A/LS6, A/LS7, A/LS8 AND A/LS9 LOCATED AT THE WASTE WATER TREATMENT PLANT SITE IS SITE WORK ASSOCIATED WITH THE ADMINISTRATION BUILDING CONSTRUCTION AND LABORATORY CONSTRUCTION. THE CONTRACTOR IS ALERTED THIS WORK WILL NOT BE COMPLETED SHOULD THE OWNER ELECT NOT TO COMPLETE THE ADMINISTRATION BUILDING AND / OR THE LABORATORY. THE CONTRACTOR SHALL INCLUDE SITE WORK COST BASED UPON THE IDENTIFIED LIMITS INTO HIS PRICE RESPECTIVELY FOR THE ADMINISTRATION BUILDING AND THE LABORATORY.

SITE IMPROVEMENT DETAIL PLAN A/LS7-A
 SCALE: 1:10
 REFERENCE PLAN A/LS6-A

NOTE:
 ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
 Items Identified with Mixed Case Text are Existing.

Revision	Date	Released For Bid
1	12/2011	RELEASE FOR BID

5173 S. WASHINGTON ST., SUITE 1500
 PITTSBURGH, PA 15206
 PHONE: 412-694-6524
 INFO@KLHENGINEERS.COM

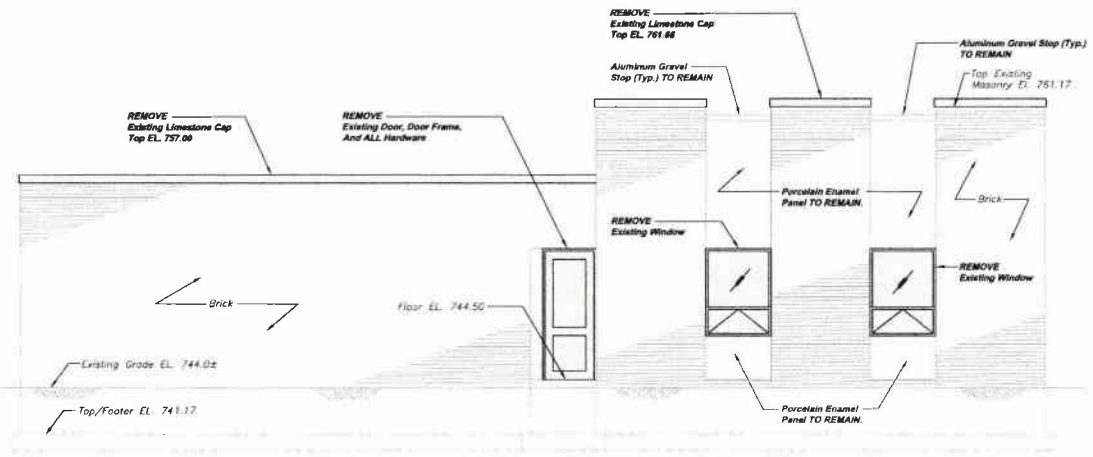
KLH ENGINEERS, INC.

MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
 ALLEGHENY COUNTY, PENNSYLVANIA
 CONTRACT NUMBER 2010-01 AND 2010-02
 WASTEWATER TREATMENT PLANT EXPANSION
 ADMINISTRATION EXPANSION/LABORATORY ADDITION SITE IMPROVEMENT DETAIL PLAN

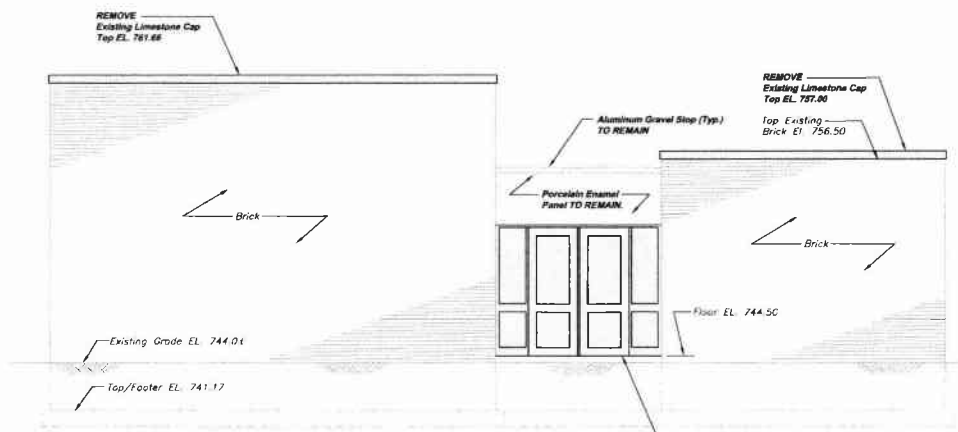
As Shown	Scale
AUGUST 2010	1"=10'
DWB	Drawn By:
RDM	Checked By:
SHG	Approved By:

Sheet No. 3

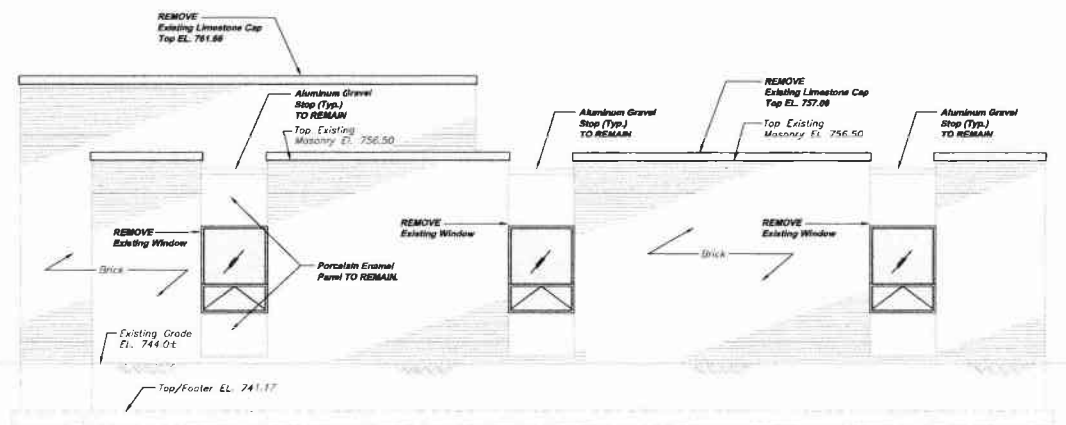
Drawing No. 220-A/LS7



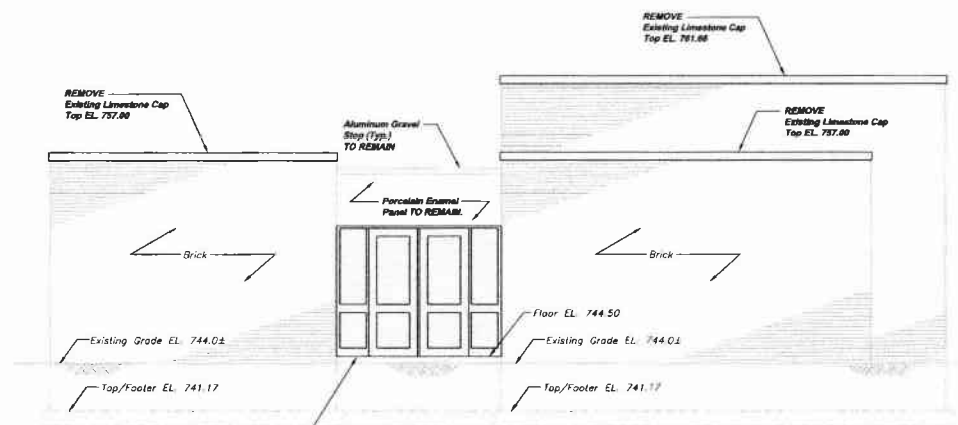
**ADMINISTRATION BUILDING
NORTH ELEVATION DEMOLITION AE1-A**
SCALE: 1/4" = 1'-0"
REFERENCE PLANS AE2-A AND AE3-A



**ADMINISTRATION BUILDING
WEST ELEVATION DEMOLITION AE1-B**
SCALE: 1/4" = 1'-0"
REFERENCE PLANS AE2-A AND AE3-A



**ADMINISTRATION BUILDING
SOUTH ELEVATION DEMOLITION AE1-C**
SCALE: 1/4" = 1'-0"
REFERENCE PLANS AE2-A AND AE3-A

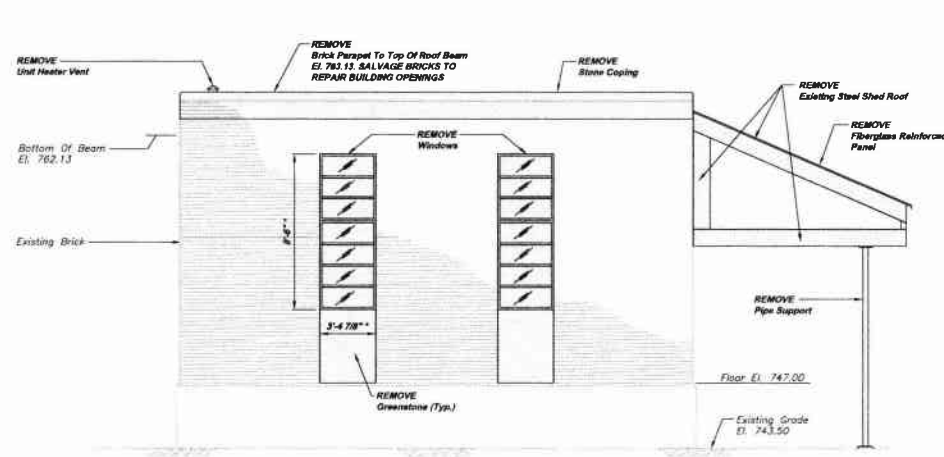


**ADMINISTRATION BUILDING
EAST ELEVATION DEMOLITION AE1-D**
SCALE: 1/4" = 1'-0"
REFERENCE PLANS AE2-A AND AE3-A

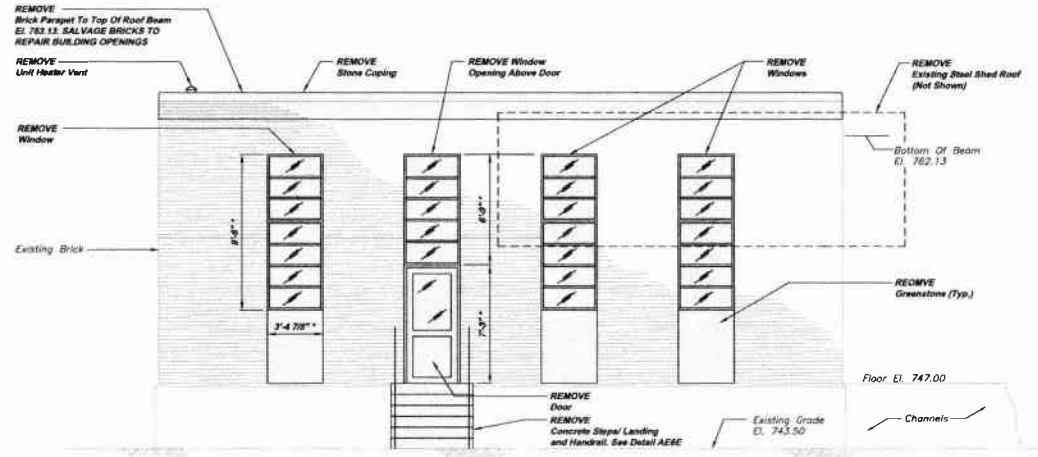
REMOVE Existing Double Doors, Side Lites, Frames AND ALL Hardware

NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED
Items Identified with Mixed Case Text are Existing.

Revision	Date	By	Check	Appr.
RELEASE FOR BID	12/11			
5173 S. WILSON ST. SUITE 100 PITTSBURGH, PA 15206 PHONE: 412-784-0310 INFO@KLHENGINEERS.COM				
MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT ALLEGHENY COUNTY, PENNSYLVANIA CONTRACT NUMBER 2010-01 AND 2010-02 WASTEWATER TREATMENT PLANT EXPANSION ADMINISTRATION BUILDING DEMOLITION ELEVATIONS				
As Shown	DATE	DATE	DATE	DATE
	AUGUST 2010	DMB	HHH	BHG
Scale:	Drawn By:	Checked By:	Approved By:	
1/4" = 1'-0"				
Sheet No.	2			
Drawing No.	220-AE1			

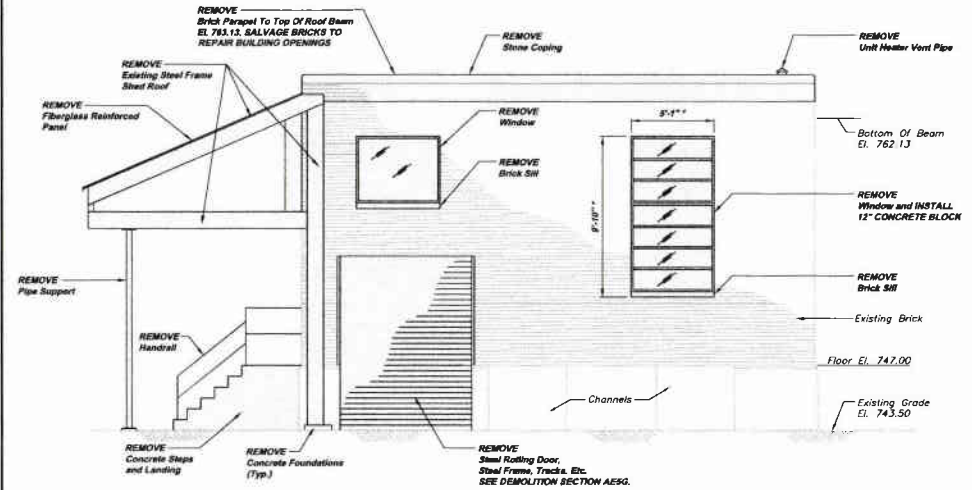


EXISTING SCREEN / GRIT BUILDING DEMOLITION SOUTH ELEVATION AE4-A
 SCALE: 1/4"=1'-0"
 REFERENCE PLAN A6A-A

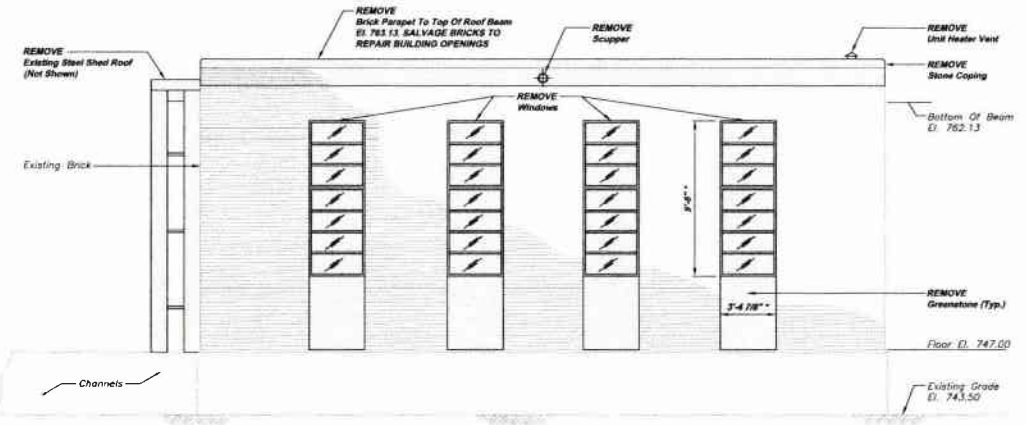


EXISTING SCREEN / GRIT BUILDING DEMOLITION EAST ELEVATION AE4-B
 SCALE: 1/4"=1'-0"
 REFERENCE PLAN A6A-A

NOTE:
 * DENOTES CONTRACTOR SHALL FIELD VERIFY DIMENSIONS



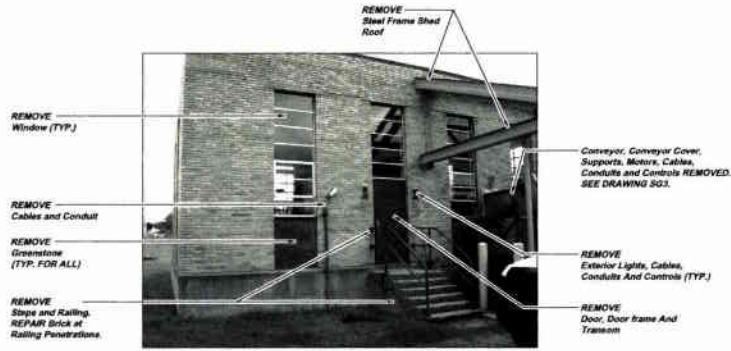
EXISTING SCREEN / GRIT BUILDING DEMOLITION NORTH ELEVATION AE4-C
 SCALE: 1/4"=1'-0"
 REFERENCE PLAN A6A-A



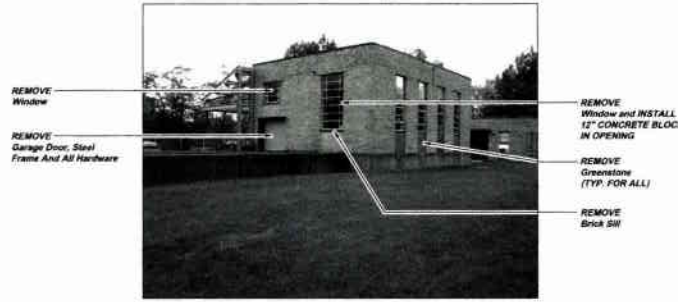
EXISTING SCREEN / GRIT BUILDING DEMOLITION WEST ELEVATION AE4-D
 SCALE: 1/4"=1'-0"
 REFERENCE PLAN A6A-A

NOTE:
 ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED
 Items Identified with Mixed Case Text are Existing.

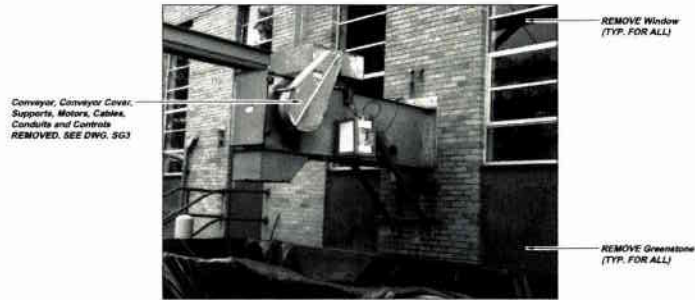
Revision	Date	By
RELEASE FOR BID		
Date	1/28/11	
5173 BALTIMORE BLVD. SUITE 200 PITTSBURGH, PA 15203 PHONE: 412-291-0220 FAX: 412-291-0220 INFO@KLEINFELDER.COM		
MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT ALLEGHENY COUNTY, PENNSYLVANIA CONTRACT NUMBER 2010-01 AND 2010-02 WASTEWATER TREATMENT PLANT EXPANSION GRIT BUILDING DEMOLITION ELEVATIONS		
As Shown	AUGUST 2010	DBM
Drawn By:		RFH
Checked By:		RFH
Approved By:		BHG
Street No.	5	
Drawing No.	220-AE4	



**SCREEN/ GRIT BUILDING
EXTERIOR DEMOLITION PHOTOGRAPH AE5-A
REFERENCE PLAN AE4-B**



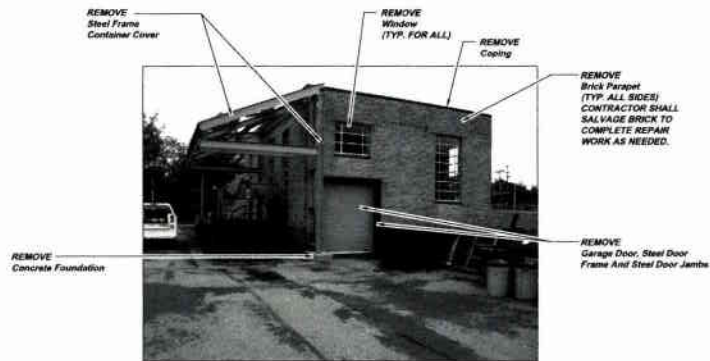
**SCREEN/ GRIT BUILDING
EXTERIOR DEMOLITION PHOTOGRAPH AE5-D
REFERENCE ELEVATION AE4-C AND AE4-B**



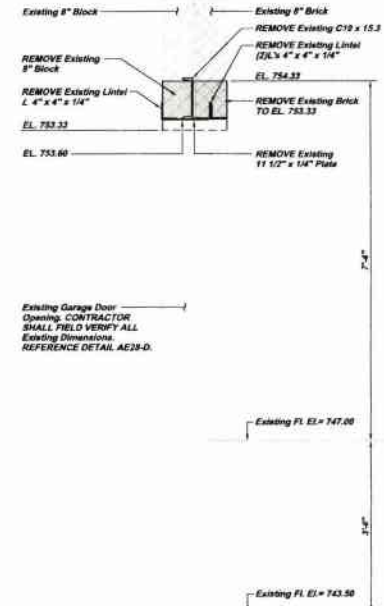
**SCREEN/ GRIT BUILDING
EXTERIOR DEMOLITION PHOTOGRAPH AE5-B
REFERENCE PLAN AE4-B**



**SCREEN/ GRIT BUILDING
EXTERIOR DEMOLITION PHOTOGRAPH AE5-E
REFERENCE ELEVATION AE4-C**



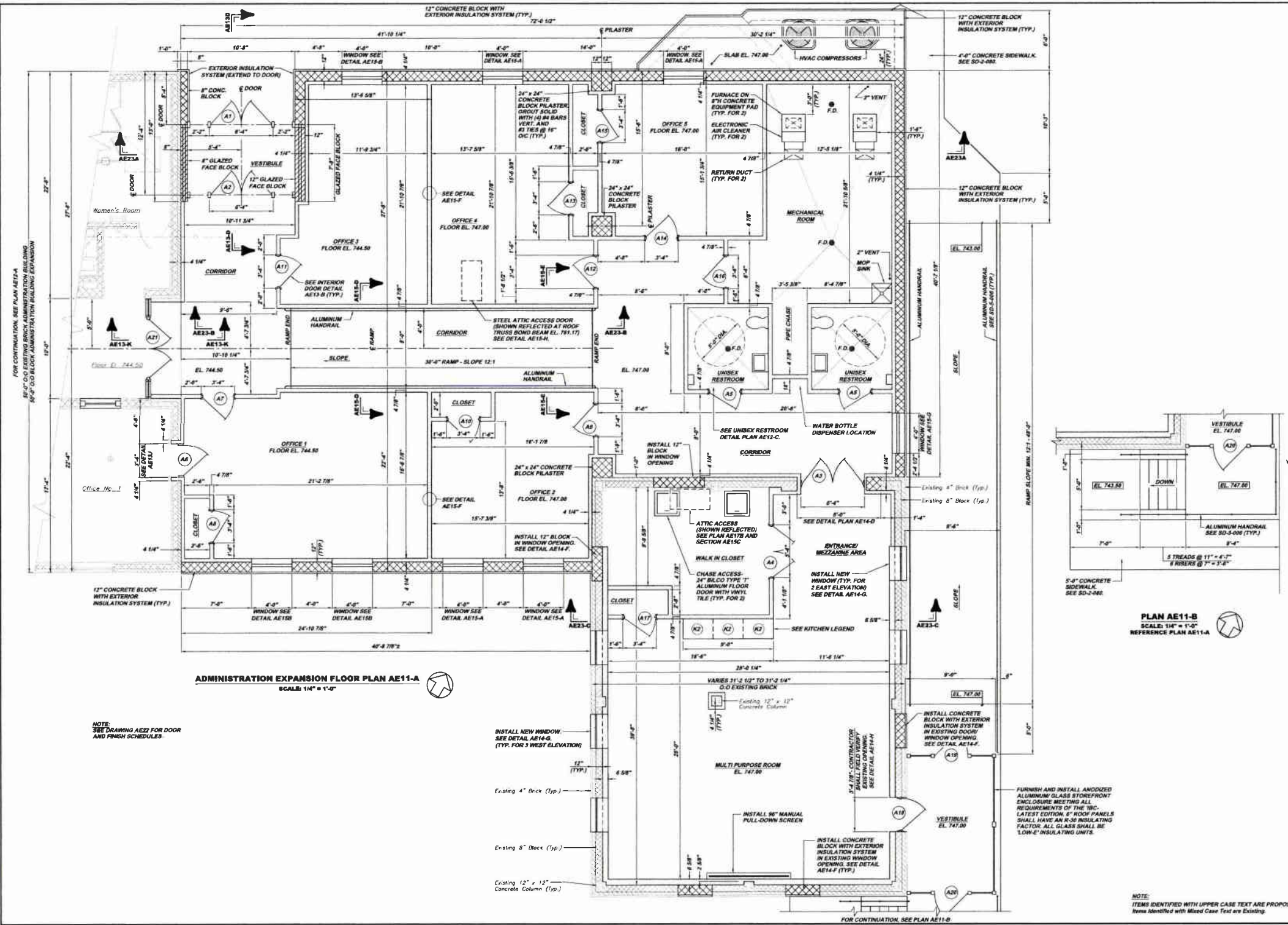
**SCREEN/ GRIT BUILDING
EXTERIOR DEMOLITION PHOTOGRAPH AE5-C
REFERENCE ELEVATION AE4-B AND AE4-C**



**DEMOLITION SECTION AE5-G
SCALE: 3/4" = 1'-0"**

NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
Items Identified with Mixed Case Text are Existing.

Revision	Date	Revision	Date
1	12/2011	RELEASE FOR BID	
5173 SANDPICKLE RUN ROAD PITTSBURGH, PA 15209 PHONE: 412-281-2222 FAX: 412-281-2233 INFO@KLHENGINEERS.COM			
MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT ALLEGHENY COUNTY, PENNSYLVANIA CONTRACT NUMBER 2010-01 AND 2010-02 WASTEWATER TREATMENT PLANT EXPANSION GRIT BUILDING DEMOLITION PHOTOGRAPHS AND SECTION			
Scale:	As Shown	Drawn By:	Checked By:
Date:	AUGUST 2010	DRG: JEA	GRK
Approved By:			SRG
Sheet No.:	6		
Drawing No.:	220-AE5		

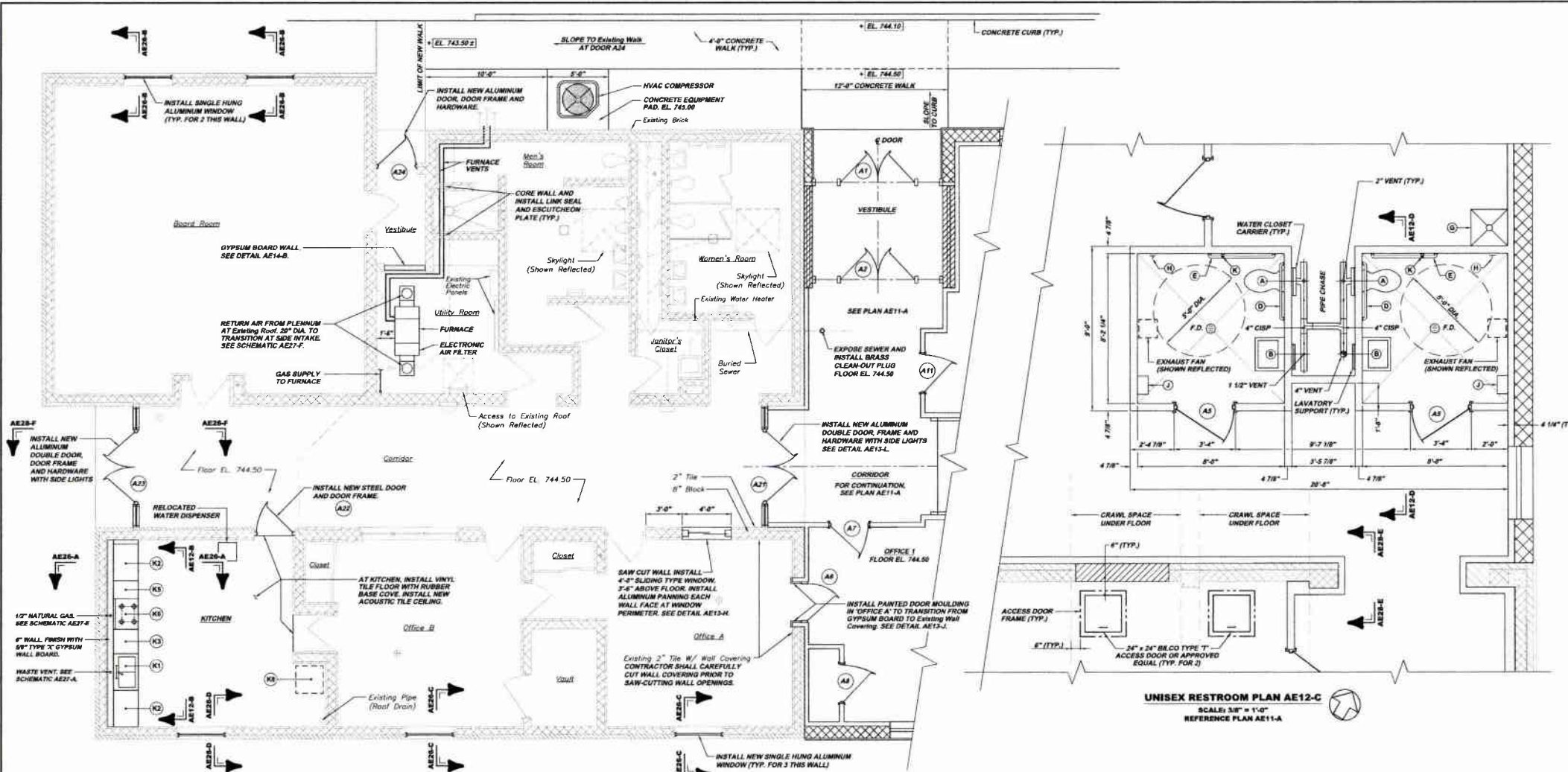


FOR CONTINUATION, SEE PLAN AE11-A
8'-0" O.D. EXISTING BRICK ADMINISTRATION BUILDING
2'-0" O.D. BLOCK ADMINISTRATION BUILDING EXPANSION

As Shown	Scale	Sheet No.	Drawing No.
AUGUST 2016	1/4" = 1'-0"	8	220-AE11
DNK/JEA	Drawn By:		
MDH	Checked By:		
SHD	Approved By:		

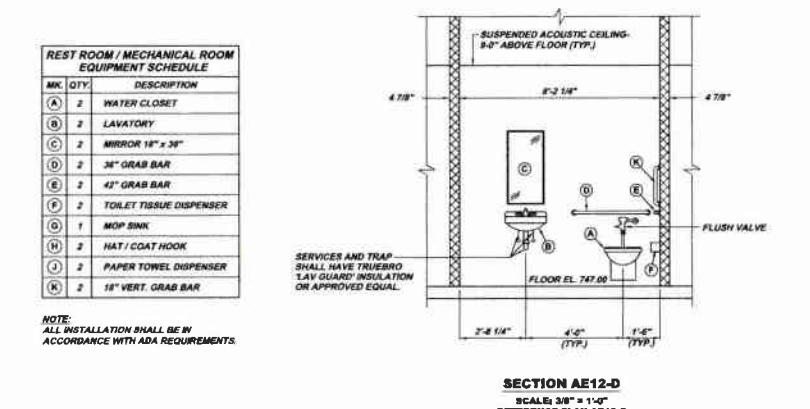
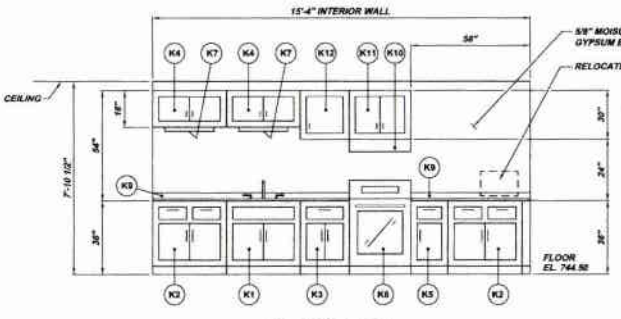
Date: 1/30/11
 Revision: RELEASE FOR BID
 5173 CAMPBELL BLVD, SUITE 1500
 PITTSBURGH, PA 15206
 PHONE: 412-281-2222
 FAX: 412-281-2220
 INFO@KLEINENGINEERS.COM

KLH ENGINEERS, INC.
 MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
 ALLEGHENY COUNTY, PENNSYLVANIA
 CONTRACT NUMBER 2010-01 & 2010-02
 WASTEWATER TREATMENT PLANT EXPANSION
 ADMINISTRATION BUILDING EXPANSION PLAN AND DETAILS



KITCHEN LEGEND

MK	DESCRIPTION
K1	36" SINK BASE CABINET WITH SINK AND FAUCET SET
K2	36" DRAWER / CUPBOARD BASE CABINET
K3	24" DRAWER BASE CABINET
K4	36" W x 18" HIGH WALL CABINET
K5	18" DRAWER BASE CABINET
K6	30" GAS RANGE
K7	UNDER CABINET LIGHT
K8	REFRIGERATOR RELOCATED
K9	COUNTER TOP W/ 4" HIGH BACKSPASH
K10	30" RANGE HOOD
K11	30" W x 30" HIGH WALL CABINET
K12	24" W x 30" HIGH WALL CABINET



5179 DAMPELLLE BLVD, SUITE 100
PITTSBURGH, PA 15206
TEL: 412-489-0218
FAX: 412-489-0219
INFO@KLHENGINEERS.COM

KLH ENGINEERS, INC.

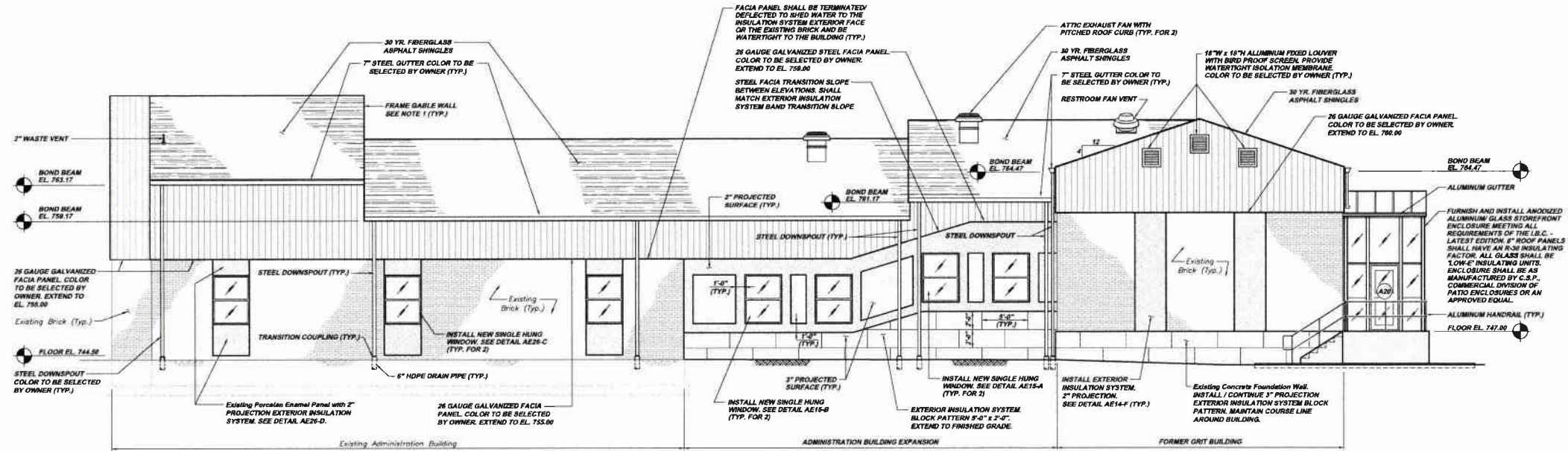
**MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
ALLEGHENY COUNTY, PENNSYLVANIA
CONTRACT NUMBER 2010-01 AND 2010-02
WASTEWATER TREATMENT PLANT EXPANSION
ADMINISTRATION BUILDING EXPANSION PLANS AND SECTIONS**

Scale:	As Shown:	Date:	Drawn By:	Checked By:	Approved By:
1/8" = 1'-0"	AUGUST 2010	DMB	RDR	BIG	

Revision
Date
1-2011
RELEASE FOR BID

Sheet No. 9

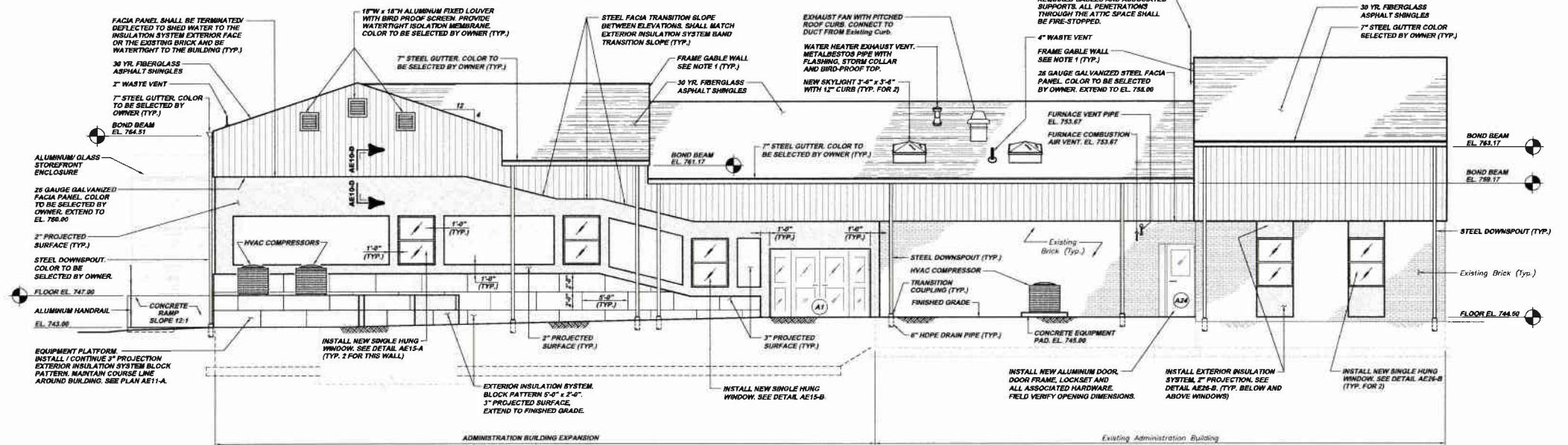
Drawing No. 220-AE12



NOTES:

1. CONTRACTOR SHALL CONSTRUCT FRAME GABLE WALL ABOVE LOW ROOF LINE. INSTALL STUDS 16" CENTER TO CENTER AND FINISH AREA ABOVE LOW ROOF WITH CELOTEX TYP. R GA 3000 EXTERNAL SHEATHING. TAPE ALL JOINTS WITH SELF-ADHESIVE CELOTEX TAPE. INSTALL ALUMINUM BASE FLASHING AND CAP FLASHING AT BUILDING WALL. BASE FLASHING TO BE INSTALLED WITH EACH COURSE OF SHINGLES. THE UPPER EDGE OF EACH PRICE OF FLASHING SHALL EXTEND A MINIMUM OF 2 INCHES ABOVE EACH COURSE OF SHINGLES. THE LOWER EDGE SHOULD BE 1/2" ABOVE THE BUTTS OF THE SHINGLES FORMING THE NEXT COURSE. BASE FLASHING MUST EXTEND UP THE WALL AND ONTO THE ROOF MINIMUM 4". CAP FLASHING SHALL COVER THE BASE FLASHING 4" MINIMUM. STEP IN CAP FLASHING SHALL NOT EXCEED MAXIMUM OF 3". FINISH SURFACE SHALL BE 26 GA. GALVANIZED STEEL WALL PANELS. COLOR TO BE SELECTED BY OWNER. PANELS TO BE FINISHED AROUND PENETRATIONS TO EXCLUDE WATER AND OR MOISTURE IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. PROVIDE WATER TIGHT ISOLATION MEMBRANE BETWEEN GALVANIZED WALL PANELS AND ALUMINUM FLASHING (TYP.)

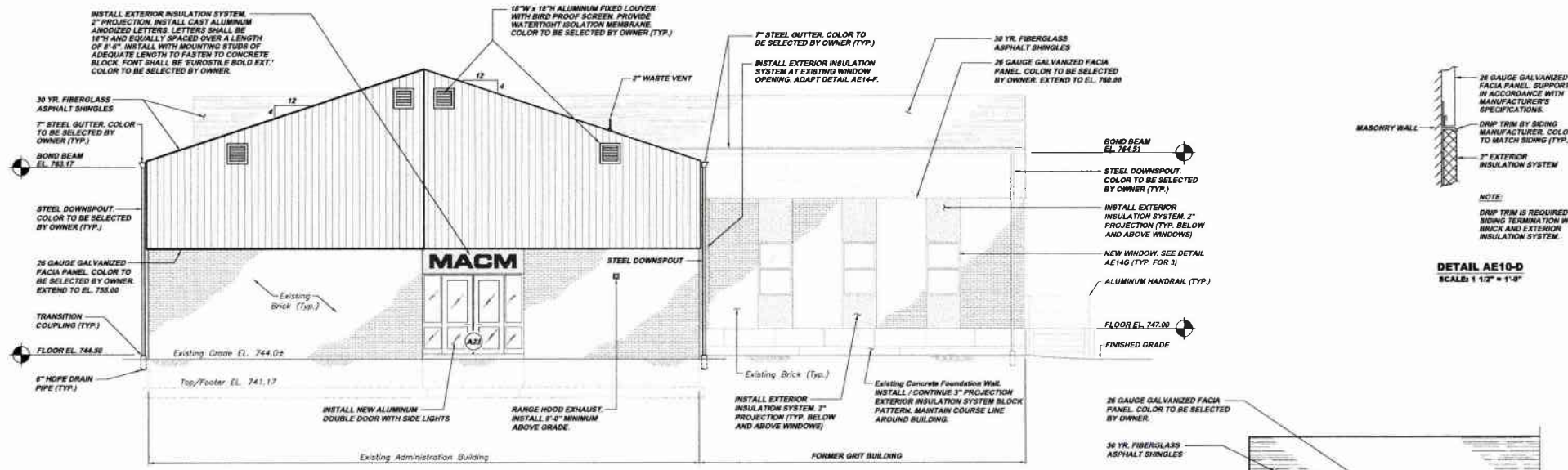
**ADMINISTRATION BUILDING
SOUTH ELEVATION AEB-A**
SCALE: 3/16" = 1'-0"



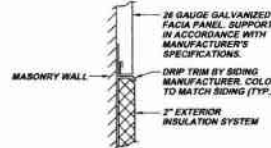
**ADMINISTRATION BUILDING
NORTH ELEVATION AEB-B**
SCALE: 3/16" = 1'-0"

NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED
ITEMS IDENTIFIED WITH MIXED CASE TEXT ARE EXISTING.

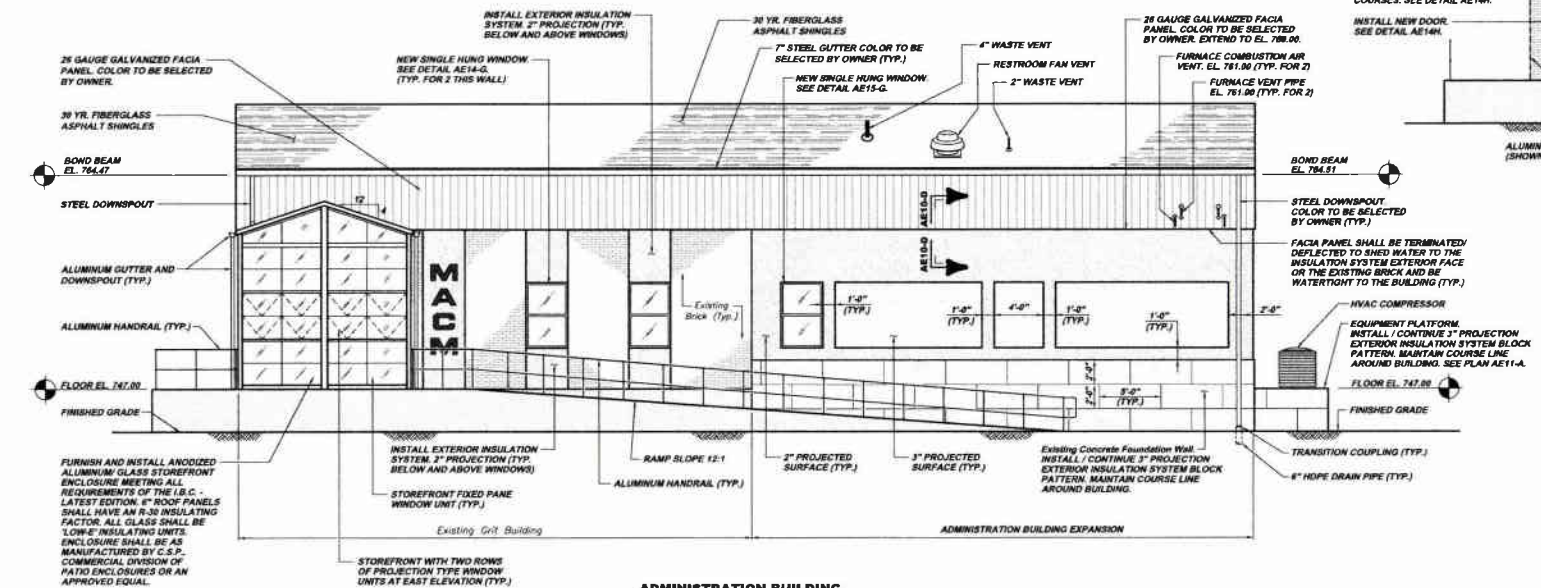
Revision	Date
1.001	RELEASE FOR BID
5173 CAMMELLE BL. SUITE 200 PITTSBURGH, PA 15208 PH: 412-241-0418 FAX: 412-241-0418 INFO@KLHENGINEERS.COM	
MUNICIPAL AUTHORITY OF THE CITY OF MCKESPORT ALLEGHENY COUNTY, PENNSYLVANIA CONTRACT NUMBER 2010-01 AND 2010-02 WASTEWATER TREATMENT PLANT EXPANSION ADMINISTRATION BUILDING EXPANSION ELEVATIONS	
As Shown	Scale:
August 2010	3/16" = 1'-0"
DRP/JEA	Drawn By:
ROH	Checked By:
BRG	Approved By:
Sheet No. 10	
Drawing No. 220-AE9	



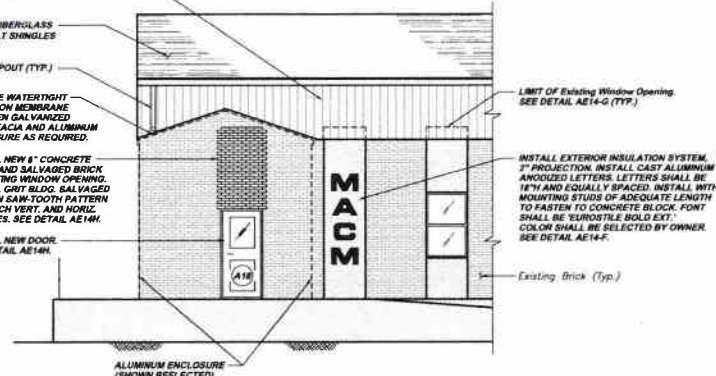
**ADMINISTRATION BUILDING
WEST ELEVATION AE10-A**
SCALE: 3/16" = 1'-0"



DETAIL AE10-D
SCALE: 1 1/2" = 1'-0"



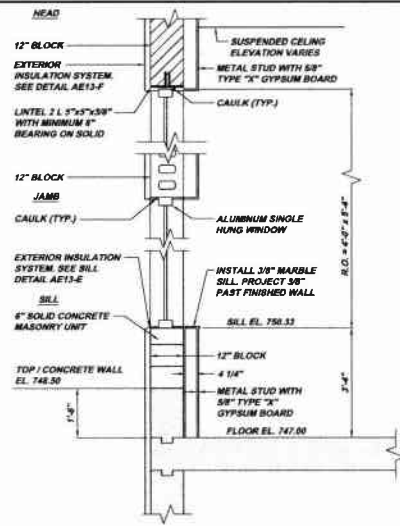
**ADMINISTRATION BUILDING
EAST ELEVATION AE10-B**
SCALE: 3/16" = 1'-0"
REFERENCE ELEVATION AE10-C



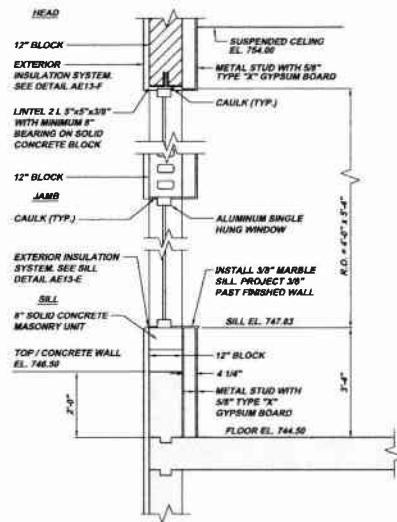
**ADMINISTRATION BUILDING
EAST ENTRANCE ELEVATION AE10-C**
SCALE: 3/16" = 1'-0"
REFERENCE ELEVATION AE10-B

Revision	Date	Released For
1	12/11	RELEASE FOR BID
5175 CAMPBELL BLVD. SUITE 200 PITTSBURGH, PA 15209 PHONE: 412-439-9230 FAX: 412-439-9230 INFO@KLHENGINEERS.COM		
MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT ALLEGHENY COUNTY, PENNSYLVANIA CONTRACT NUMBER 2010-01 AND 2010-02 WASTEWATER TREATMENT PLANT EXPANSION ADMINISTRATION BUILDING EXPANSION ELEVATIONS		
Scale:	As Shown	SHG
Date:	AUGUST 2010	
Drawn By:	DRG/JEA	
Checked By:	RDM	
Approved By:		
Sheet No.	11	
Drawing No.	220-AE10	

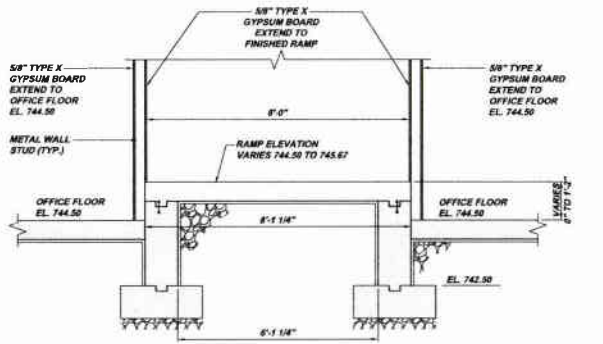
NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
ITEMS IDENTIFIED WITH LOWER CASE TEXT ARE EXISTING.



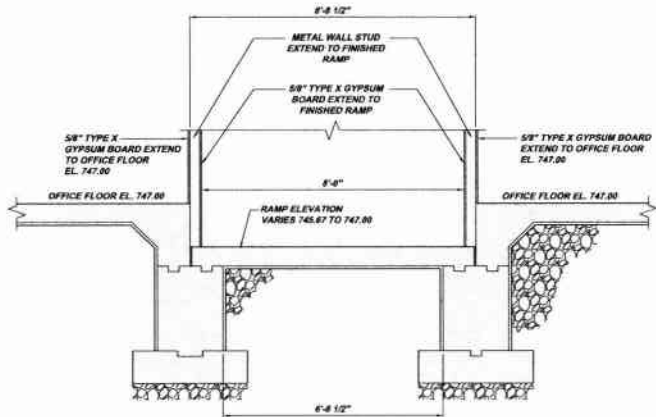
NEW FLOOR 747.00 WINDOW DETAIL AE15-A
SCALE: 1/2" = 1'-0"
REFERENCE PLAN AE11-A



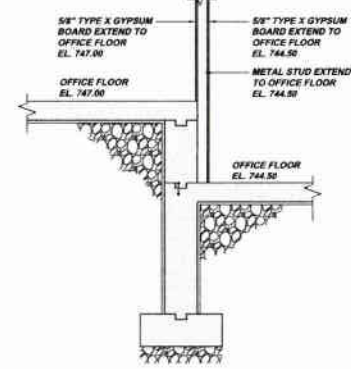
NEW FLOOR 744.50 WINDOW DETAIL AE15-B
SCALE: 1/2" = 1'-0"
REFERENCE PLAN AE11-A



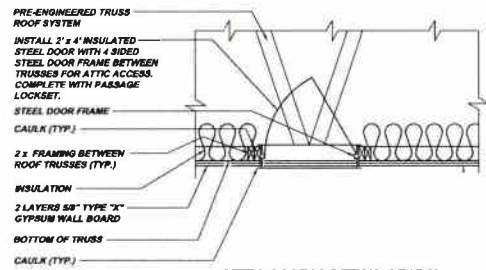
WALL SECTION AE15-D
SCALE: 1/2" = 1'-0"
REFERENCE PLAN AE11-A AND SECTION AE20-F



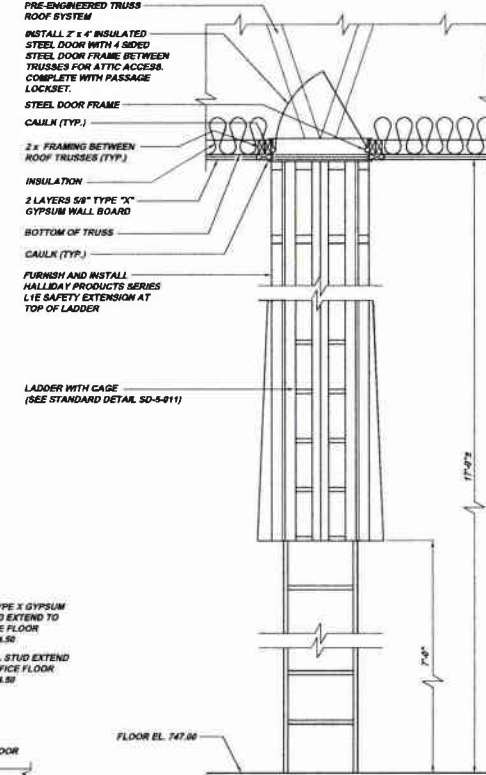
WALL SECTION AE15-E
SCALE: 1/2" = 1'-0"
REFERENCE PLAN AE11-A AND SECTION AE20-E



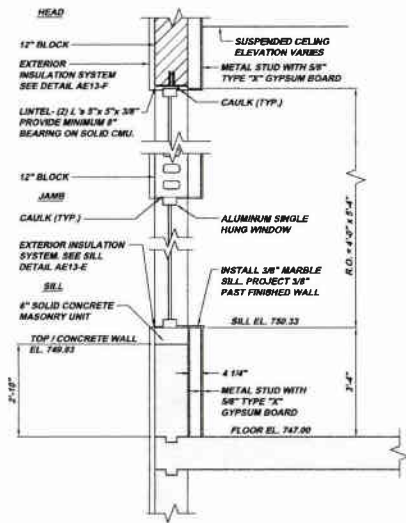
SECTION AE15-F
SCALE: 1/2" = 1'-0"
REFERENCE PLAN AE11-A AND SECTION AE20-C



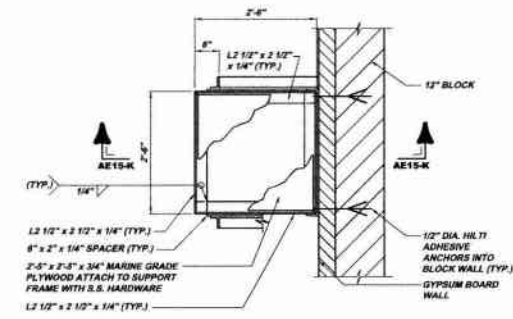
ATTIC ACCESS DETAIL AE15-H
SCALE: 3/4" = 1'-0"
REFERENCE PLAN AE11-A AND PLAN AE17-H



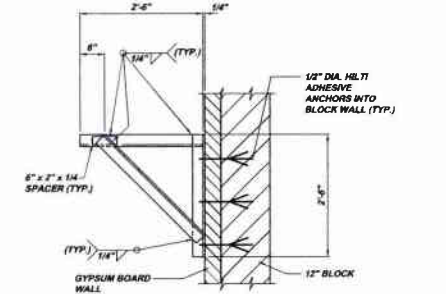
ATTIC ACCESS DETAIL AE15-C
SCALE: 3/4" = 1'-0"
REFERENCE PLAN AE11-A



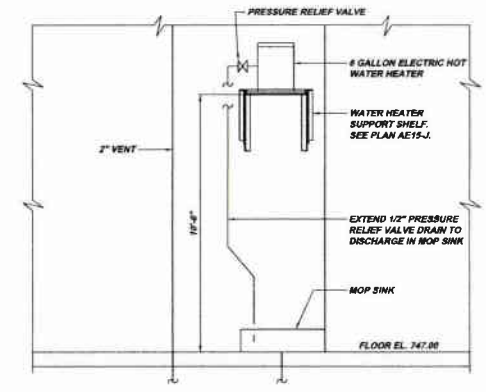
NEW FLOOR 747.00 WINDOW DETAIL AE15-G
SCALE: 1/2" = 1'-0"
REFERENCE PLAN AE11-A



WATER HEATER SUPPORT SHELF PLAN AE15-J
SCALE: 3/4" = 1'-0"
REFERENCE DETAIL AE27-C



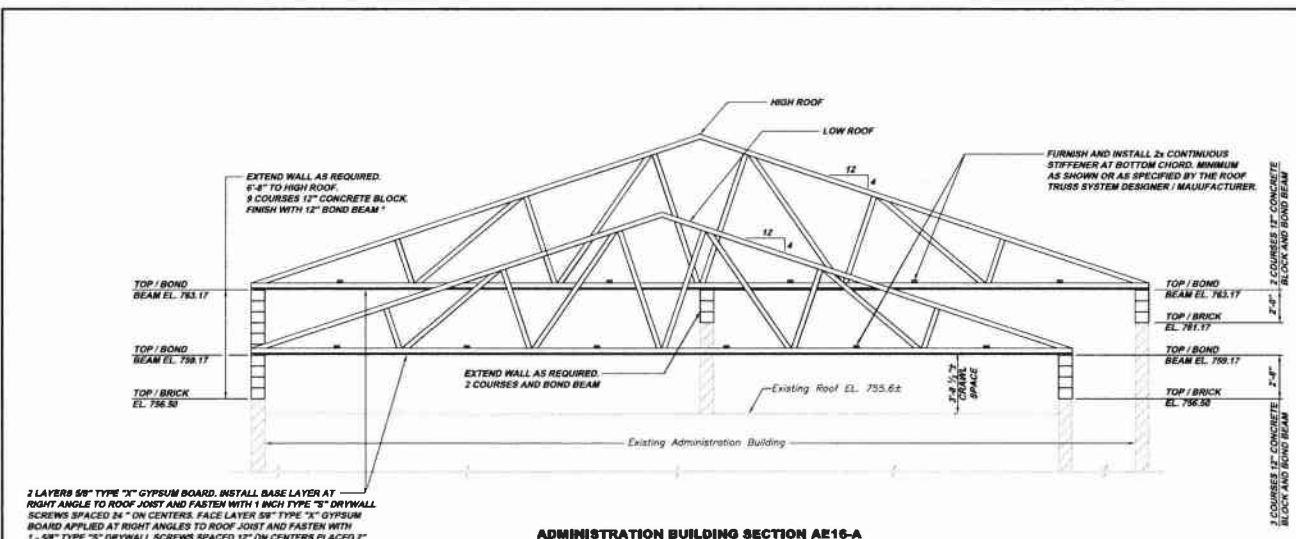
WATER HEATER SUPPORT SHELF SECTION AE15-K
SCALE: 3/4" = 1'-0"
REFERENCE PLAN AE15-J



WATER HEATER DETAIL AE15-L
SCALE: 3/8" = 1'-0"
REFERENCE SCHEMATIC AE27-B

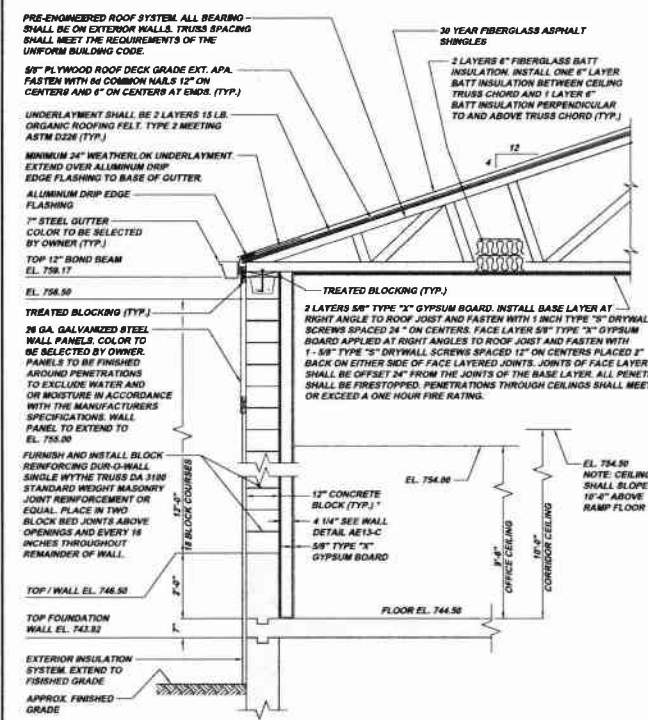
NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
Items identified with Mixed Case Text are Existing.

Revision	Date	By	Check	Appr.
1	11/11/11	KLH	KLH	KLH
RELEASE FOR BIDDING				
5173 S. MAPLE AVE. SUITE 100 PITTSBURGH, PA 15206 PROJECT: 413-333-0310 INFO@KLHENGINEERS.COM				
KLH ENGINEERS, INC.				
MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT ALLEGHENY COUNTY, PENNSYLVANIA CONTRACT NUMBER 2010-01 & 2010-02 WASTEWATER TREATMENT PLANT EXPANSION ADMINISTRATION BUILDING SECTIONS & DETAILS				
As Shown	Scale:	Drawn By:	Checked By:	Approved By:
AUGUST 2010				
Sheet No.	Drawing No.			
15	220-AE15			

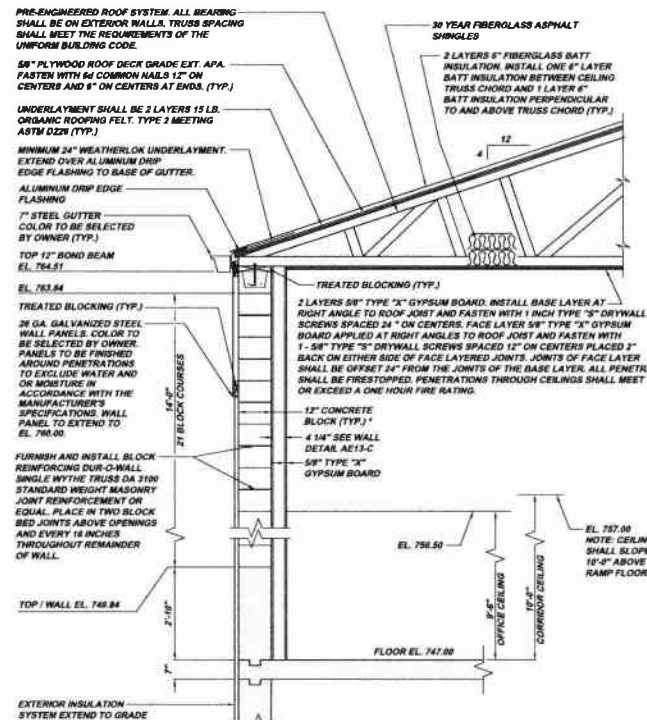


ADMINISTRATION BUILDING SECTION AE16-A
SCALE: 1/4" = 1'-0"
REFERENCE PLAN AE17-A

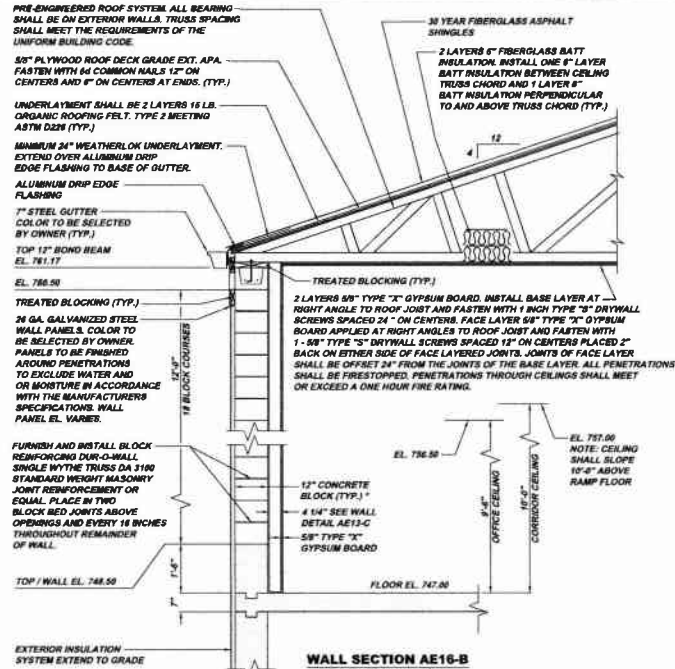
NOTE:
CONTRACTOR SHALL FURNISH ALL MATERIALS AND INSTALL ALL MASONRY REINFORCEMENT AND MASONRY CONTROL JOINTS IN ACCORDANCE WITH STANDARD DETAIL SD-4-201.



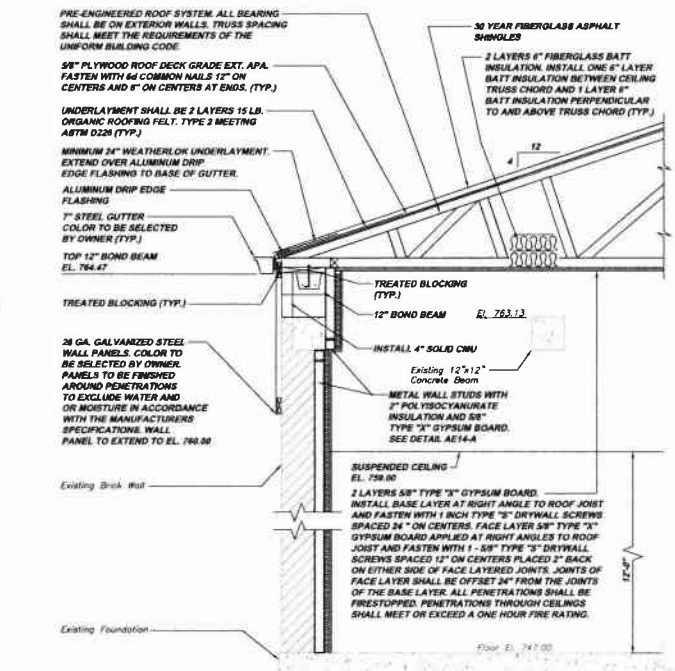
WALL SECTION AE16-B
SCALE: 1/2" = 1'-0"
REFERENCE PLAN AE17-A



WALL SECTION AE16-C
SCALE: 1/2" = 1'-0"
REFERENCE PLAN AE17-A



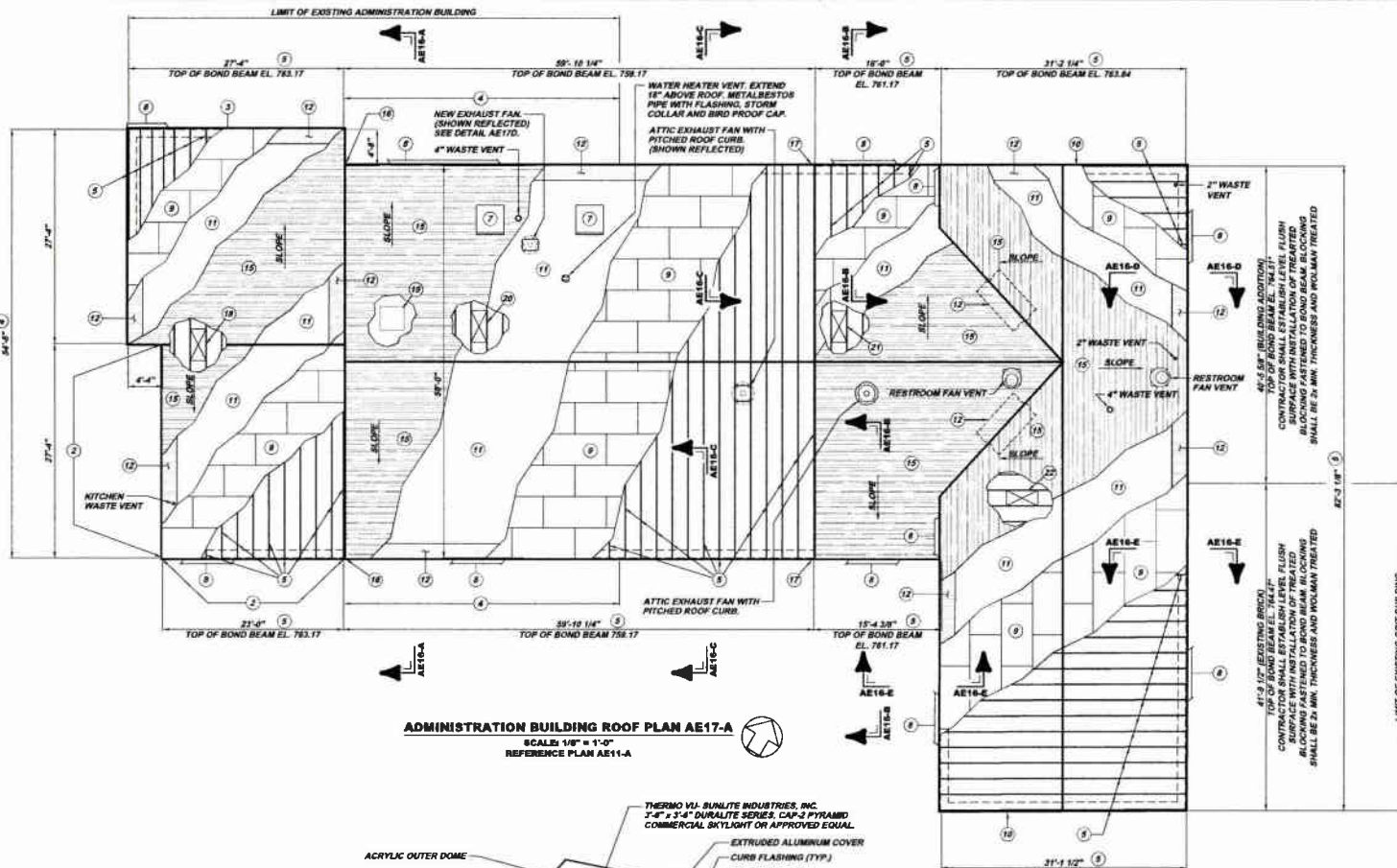
WALL SECTION AE16-D
SCALE: 1/2" = 1'-0"
REFERENCE PLAN AE17-A



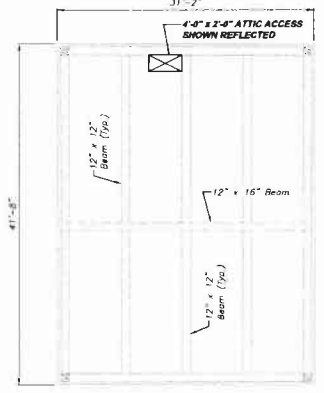
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SCALE: 1/2" = 1'-0"
REFERENCE PLAN AE17-A

NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
ITEMS IDENTIFIED WITH LOWER CASE TEXT ARE EXISTING.

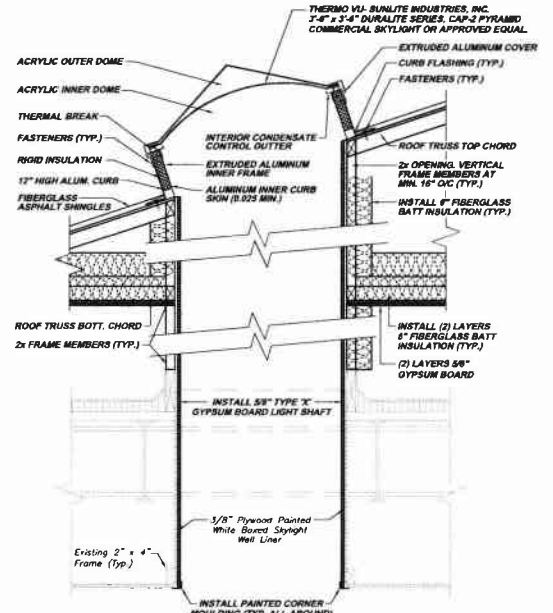
Revision	Date	Release For
1	08/11/11	RELEASE FOR RFD
5175 CAMPBELL BLVD. SUITE 1500 PITTSBURGH, PA 15206 Phone: 412-779-0220 Fax: 412-779-0220 info@klh-engineers.com		
MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT ALLEGHENY COUNTY, PENNSYLVANIA CONTRACT NUMBER 2010-01 & 2010-02 WASTEWATER TREATMENT PLANT EXPANSION ADMINISTRATION BUILDING ROOF SECTIONS		
Scale:	As Shown	
Date:	AUGUST 2010	
Drawn By:	DBH	
Checked By:	RJD	
Approved By:	and	
Sheet No.	19	
Drawing No.	220-AE16	



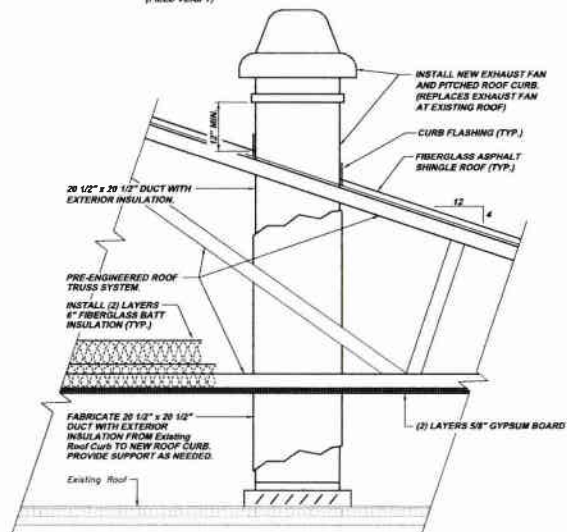
ADMINISTRATION BUILDING ROOF PLAN AE17-A
 SCALE: 1/8" = 1'-0"
 REFERENCE PLAN AE11-A



FORMER SCREEN / GRIT BUILDING ROOF BEAM PLAN AE17-B
 SCALE: 1/8" = 1'-0"
 REFERENCE PLAN AE11-A



SKYLIGHT SECTION AE17-C
 SCALE: 3/4" = 1'-0"



ROOF EXHAUST DETAIL AE17-D
 NOT TO SCALE

ROOF PLAN KEY

- 1 PRE-ENGINEERED ROOF TRUSS SYSTEM FABRICATOR IS NOTIFIED THE ROOF SYSTEM EXTENDS FROM THE EAST ABOVE THE EXISTING ADMINISTRATION BUILDING AND EXTENDS WEST OVER THE BUILDING ADDITION EXPANSION AND TO THE SOUTHWEST OVER AN EXISTING W.I.T.P. BUILDING. THE TWO EXISTING BUILDINGS ARE NOT SQUARE TO EACH OTHER. BUILDING EXPANSION LAYOUT PLAN ABOVE IDENTIFIES THE DIFFERENCES. THE CONTRACTOR SHALL VERIFY THIS INFORMATION AND NOTIFY THE ROOF SYSTEM FABRICATOR OF ALL FINAL STRUCTURE DIMENSIONS.
- 2 TOP OF EXISTING BRICK ELEVATION 758.50. INSTALL 8 COURSES CONCRETE BLOCK AND BOND BEAM TOP OF BOND BEAM EL. 763.17 (HIGH ROOF)
- 3 TOP OF EXISTING BRICK EL. 761.17. INSTALL 2 COURSES CONCRETE BLOCK AND BOND BEAM. TOP OF BOND BEAM ELEVATION 761.17 (HIGH ROOF)
- 4 TOP OF EXISTING BRICK ELEVATION 756.50. INSTALL 3 COURSES CONCRETE BLOCK AND BOND BEAM. TOP OF BOND BEAM ELEVATION 759.17 (ROOF)
- 5 PRE-ENGINEERED ROOF TRUSS SYSTEM. ALL BEARING SHALL BE ON EXTERIOR WALLS. TRUSS SPACING SHALL MEET THE REQUIREMENTS OF THE UNIFORM BUILDING CODE.
- 6 ALL FRAMED AND/OR CORED ROOF PENETRATIONS SHALL HAVE FLASHING (TYP.)
- 7 3'-4" x 3'-4" SKYLIGHT. SKYLIGHT CURB SHALL BE 12" HIGH ABOVE THE FINISHED ROOF AND FLASHED TO SHED WATER AROUND THE CURB. CONSTRUCT LIGHT SHAFT BETWEEN EXISTING SKYLIGHT AND NEW ROOF AT EXISTING ADMINISTRATION BUILDING. SEE DETAIL AE17-C.
- 8 7" STEEL GUTTER. COLOR TO BE SELECTED BY OWNER (TYP.)
- 9 5/8" PLYWOOD ROOF DECK GRADE EXT. APA. FASTEN WITH 6d COMMON NAILS AT 12" ON CENTERS AND 6" ON ENDS (TYP.)
- 10 CONTRACTOR SHALL CONSTRUCT FRAME GABLE WALL ABOVE BOND BEAM. INSTALL STUDS 16" CENTER TO CENTER AND FINISH WITH CELOTEX TUFF R GA 3000 EXTERNAL SHEATHING. TAPE ALL JOINTS WITH SELF-ADHESIVE CELOTEX TAPE FOLLOWED BY 20 GA. GALVANIZED WALL PANELS. COLOR TO BE SELECTED BY OWNER. PANELS TO BE FINISHED AROUND PENETRATIONS TO EXCLUDE WATER AND OR MOISTURE IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS (TYP.)
- 11 UNDERLAYMENT SHALL BE 2 LAYERS 15 LB. ORGANIC ROOFING FELT TYPE 2. MEETING ASTM D226 (TYP.)
- 12 MINIMUM 24" WEATHERLOK UNDERLAYMENT. EXTEND OVER ALUMINUM Drip EDGE FLASHING AND AT ALL RAKE EDGE FLASHING. ALSO INSTALL WEATHERLOK UNDERLAYMENT IN VALLEYS. EXTEND 24" EACH SIDE OF VALLEY (TYP.)
 NOTE: RAKE EDGE FLASHING COLOR TO BE SELECTED BY OWNER.
- 13 EXTEND WASTE PLUMBING VENTS MINIMUM 12" ABOVE FINISHED ROOF WITH FLASHING.
- 14 INSTALL SHEET METAL BASE FLASHING AND CAP FLASHING AT BUILDING WALL. BASE FLASHING TO BE INSTALLED WITH EACH COURSE OF SHINGLES. THE UPPER EDGE OF EACH PIECE OF FLASHING SHALL EXTEND A MINIMUM OF 2" ABOVE EACH COURSE OF SHINGLES. THE LOWER EDGE SHOULD BE 1/2" ABOVE THE BUTTS OF THE SHINGLES FORMING THE NEXT COURSE. BASE FLASHING MUST EXTEND UP THE WALL AND ONTO THE ROOF MINIMUM 4 INCHES. CAP FLASHING SHALL COVER THE BASE FLASHING 4 INCHES MINIMUM. STEP IN CAP FLASHING SHALL NOT EXCEED MAXIMUM OF 3 INCHES (TYP.)
- 15 30 YEAR FIBERGLASS ASPHALT SHINGLES. ALL INSTALLATION SHALL BE AS SPECIFIED IN THE CONTRACT SPECIFICATIONS (TYP.)
- 16 CONTRACTOR SHALL CONSTRUCT FRAME GABLE WALL ABOVE LOW ROOF LINE. TOP OF BOND BEAM EL. 759.17 AND ROOF LINE AT TOP OF BOND BEAM EL. 763.17. INSTALL STUDS 16" CENTER TO CENTER AND FINISH AREA ABOVE LOW ROOF WITH CELOTEX TUFF R GA 3000 EXTERNAL SHEATHING. TAPE ALL JOINTS WITH SELF-ADHESIVE CELOTEX TAPE. INSTALL ALUMINUM BASE FLASHING AND CAP FLASHING AT BUILDING WALL. BASE FLASHING TO BE INSTALLED WITH EACH COURSE OF SHINGLES. THE UPPER EDGE OF EACH PIECE OF FLASHING SHALL EXTEND A MINIMUM OF 2 INCHES ABOVE EACH COURSE OF SHINGLES. THE LOWER EDGE SHOULD BE 1/2" ABOVE THE BUTTS OF THE SHINGLES FORMING THE NEXT COURSE. BASE FLASHING MUST EXTEND UP THE WALL AND ONTO THE ROOF MINIMUM 4". CAP FLASHING SHALL COVER THE BASE FLASHING 4" MINIMUM. STEP IN CAP FLASHING SHALL NOT EXCEED MAXIMUM OF 8". FINISH SURFACE SHALL BE 28 GA. GALVANIZED STEEL WALL PANELS. COLOR TO BE SELECTED BY OWNER. PANELS TO BE FINISHED AROUND PENETRATIONS TO EXCLUDE WATER AND OR MOISTURE IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. PROVIDE WATERTIGHT ISOLATION MEMBRANE BETWEEN GALVANIZED STEEL WALL PANELS AND ALUMINUM FLASHING (TYP.)
- 17 CONTRACTOR SHALL CONSTRUCT FRAME GABLE WALL ABOVE LOW ROOF LINE. TOP OF BOND BEAM EL. 759.17 AND ROOF LINE AT TOP OF BOND BEAM EL. 761.17. INSTALL STUDS 16" CENTER TO CENTER AND FINISH AREA ABOVE LOW ROOF WITH CELOTEX TUFF R GA 3000 EXTERNAL SHEATHING. TAPE ALL JOINTS WITH SELF-ADHESIVE CELOTEX TAPE. INSTALL ALUMINUM BASE FLASHING AND CAP FLASHING AT BUILDING WALL. BASE FLASHING TO BE INSTALLED WITH EACH COURSE OF SHINGLES. THE UPPER EDGE OF EACH PIECE OF FLASHING SHALL EXTEND A MINIMUM OF 2 INCHES ABOVE EACH COURSE OF SHINGLES. THE LOWER EDGE SHOULD BE 1/2" ABOVE THE BUTTS OF THE SHINGLES FORMING THE NEXT COURSE. BASE FLASHING MUST EXTEND UP THE WALL AND ONTO THE ROOF MINIMUM 4". CAP FLASHING SHALL COVER THE BASE FLASHING 4" MINIMUM. STEP IN CAP FLASHING SHALL NOT EXCEED MAXIMUM OF 8". FINISH SURFACE SHALL BE 28 GA. GALVANIZED STEEL WALL PANELS. COLOR TO BE SELECTED BY OWNER. PANELS TO BE FINISHED AROUND PENETRATIONS TO EXCLUDE WATER AND OR MOISTURE IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. PROVIDE WATERTIGHT ISOLATION MEMBRANE BETWEEN GALVANIZED STEEL WALL PANELS AND ALUMINUM FLASHING (TYP.)
- 18 HIGH ROOF ATTIC ACCESS. INSTALL 4'-0" x 2'-0" DOOR. ADAPT DETAIL AE15-G.
- 19 EXISTING DOOR TO EXISTING ROOF. INSTALL OPENING IN TRUSS(es) TO PERMIT FULL DOOR SWING UPWARD. CONTRACTOR SHALL FURNISH ROOF FABRICATOR WITH LOCATION AND CLEAR SPACE REQUIRED.
- 20 LOW ROOF ATTIC ACCESS. INSTALL 4'-0" x 2'-0" DOOR. SEE DETAIL AE15-H.
- 21 INSTALL 4'-0" x 2'-0" ATTIC ACCESS DOOR. SEE DETAIL AE15-I.
- 22 INSTALL 4'-0" x 2'-0" ATTIC ACCESS DOOR. SEE PLAN AE11-A AND DETAIL AE15-C.
- 23 CONTRACTOR SHALL INSTALL ROOF FLASHING AT VALLEYS, ROOF PENETRATIONS, SKYLIGHTS AND AT ROOF TO WALL INTERSECTIONS. FLASHING MATERIAL SHALL BE ANODIZED ALUMINUM 0.016 INCH THICKNESS. FASTEN ALUMINUM FLASHING TO FRAMING WITH ALUMINUM NAILS. FLASHING SHALL BE LAPPED SHINGLE STYLE TO FUNCTION AS A CONTINUOUS SURFACE. VALLEY FLASHING SHALL EXTEND MINIMUM 12" UNDER THE ROOF COVERING.

NOTE:
 ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
 ITEMS IDENTIFIED WITH LOWER CASE TEXT ARE EXISTING.

Revision	Date	Released For
1	12/11	RELEASE FOR BID

5175 CHAMPAGNE BLVD. SUITE 1000
 PITTSBURGH, PA 15206
 PH: 412-799-0333
 FAX: 412-799-0333
 INFO@KLHENGINEERS.COM

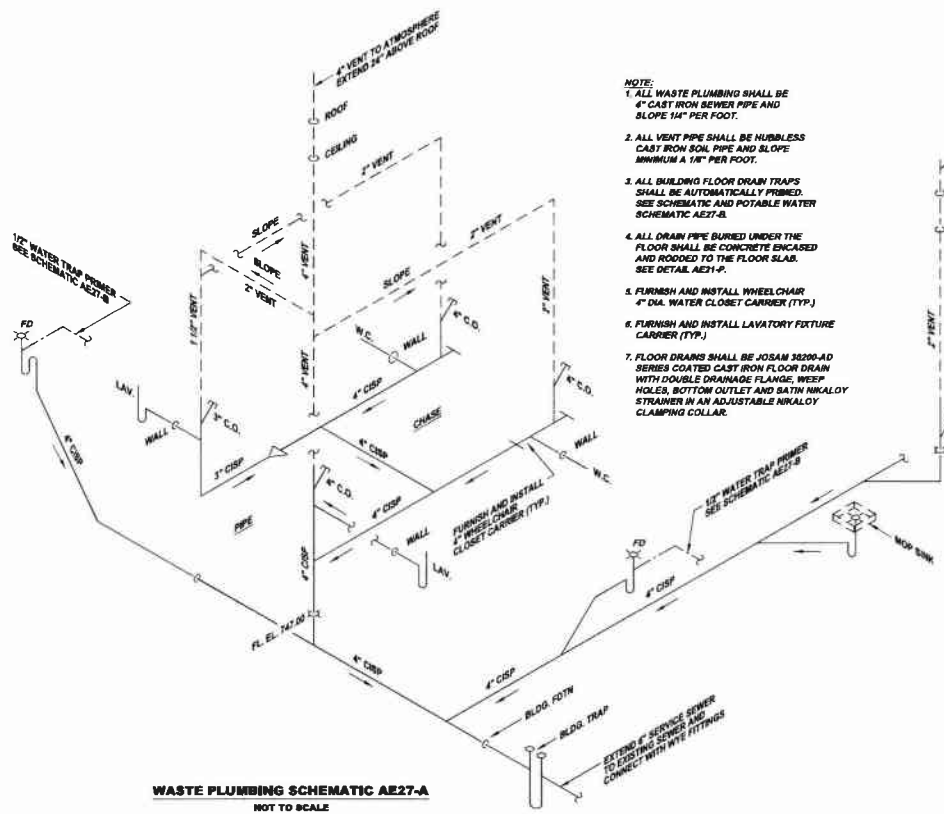
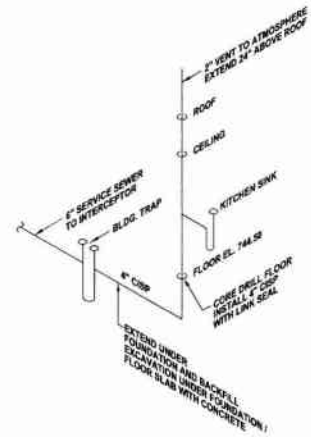
KLH ENGINEERS, INC.

MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
 ALLEGHENY COUNTY, PENNSYLVANIA
 CONTRACT NUMBER 20-0-01 AND 20-0-02
 WASTEWATER TREATMENT PLANT EXPANSION
 ADMINISTRATION BUILDING ROOF PLAN AND DETAILS

Scale: As Shown
 Date: AUGUST 2016
 Drawn By: DUBI/JEA
 Checked By: RDH
 Approved By: BJD

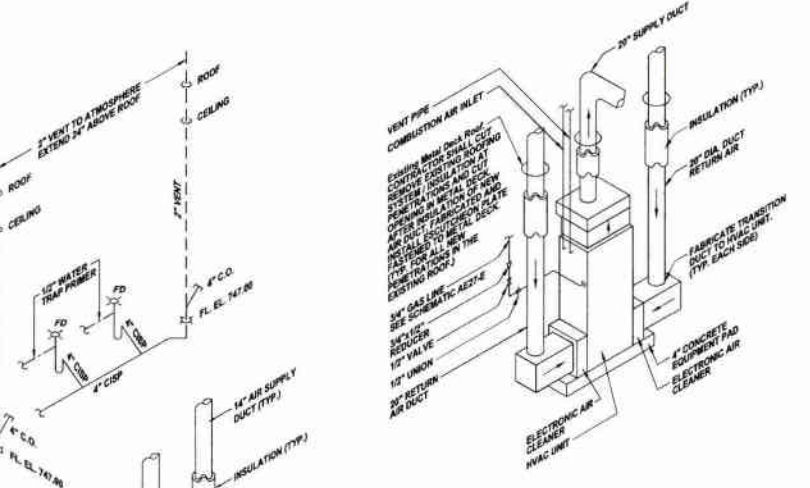
Sheet No. 20

Drawing No. **220-AE17**

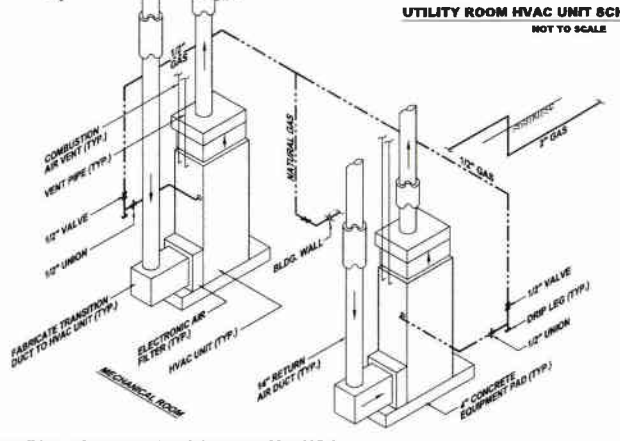


WASTE PLUMBING SCHEMATIC AE27-A
NOT TO SCALE

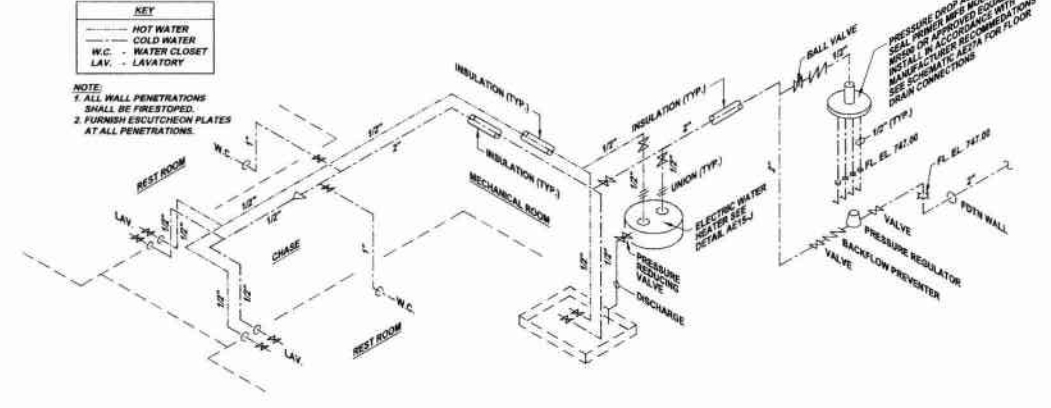
- NOTE:**
1. ALL WASTE PLUMBING SHALL BE 4" CAST IRON SEWER PIPE AND SLOPE 1/4" PER FOOT.
 2. ALL VENT PIPE SHALL BE HUBLESS CAST IRON SOIL PIPE AND SLOPE MINIMUM A 1/4" PER FOOT.
 3. ALL BUILDING FLOOR DRAIN TRAPS SHALL BE AUTOMATICALLY PRIMED. SEE SCHEMATIC AND POTABLE WATER SCHEMATIC AE27-B.
 4. ALL DRAIN PIPE BURIED UNDER THE FLOOR SHALL BE CONCRETE ENCASED AND NOTED TO THE FLOOR SLAB. SEE DETAIL AE21-P.
 5. FURNISH AND INSTALL WHEEL CHAIR 4" DIA. WATER CLOSET CARRIER (TYP.)
 6. FURNISH AND INSTALL LAVATORY FIXTURE CARRIER (TYP.)
 7. FLOOR DRAINS SHALL BE JOSAM 32300-AD SERIES COATED CAST IRON FLOOR DRAIN WITH DOUBLE DRAINAGE FLANGE, WEEP HOLES, BOTTOM OUTLET AND SATH NIKALOY STRAINER IN AN ADJUSTABLE NIKALOY CLAMPING COLLAR.



UTILITY ROOM HVAC UNIT SCHEMATIC AE27-F
NOT TO SCALE

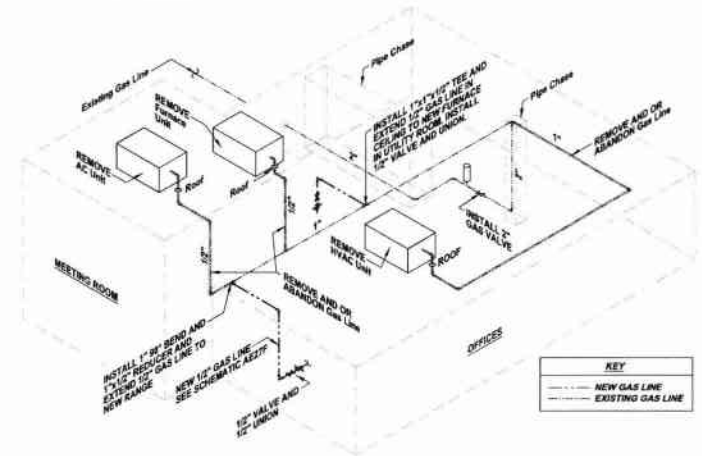


MECHANICAL ROOM HVAC/ GAS SCHEMATIC AE27-C
NOT TO SCALE



POTABLE WATER SCHEMATIC AE27-B
NOT TO SCALE

- KEY**
- HOT WATER
 - COLD WATER
 - W.C. - WATER CLOSET
 - LAV. - LAVATORY
- NOTE:**
1. ALL WALL PENETRATIONS SHALL BE FIRESTOPPED.
 2. FURNISH ESCUTCHEON PLATES AT ALL PENETRATIONS.



NATURAL GAS SCHEMATIC AE27-E
NOT TO SCALE

- NOTE:**
- ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED
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Revision	
Date	
Revision	
Date	
Revision	
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Revision	
Date	
Revision	
Date	

5175 CAMPBELLS RUN, 18000
PITTSBURGH, PA 15204
Phone: 412-949-0033
FAX: 412-949-0033
http://www.klh-engineers.com

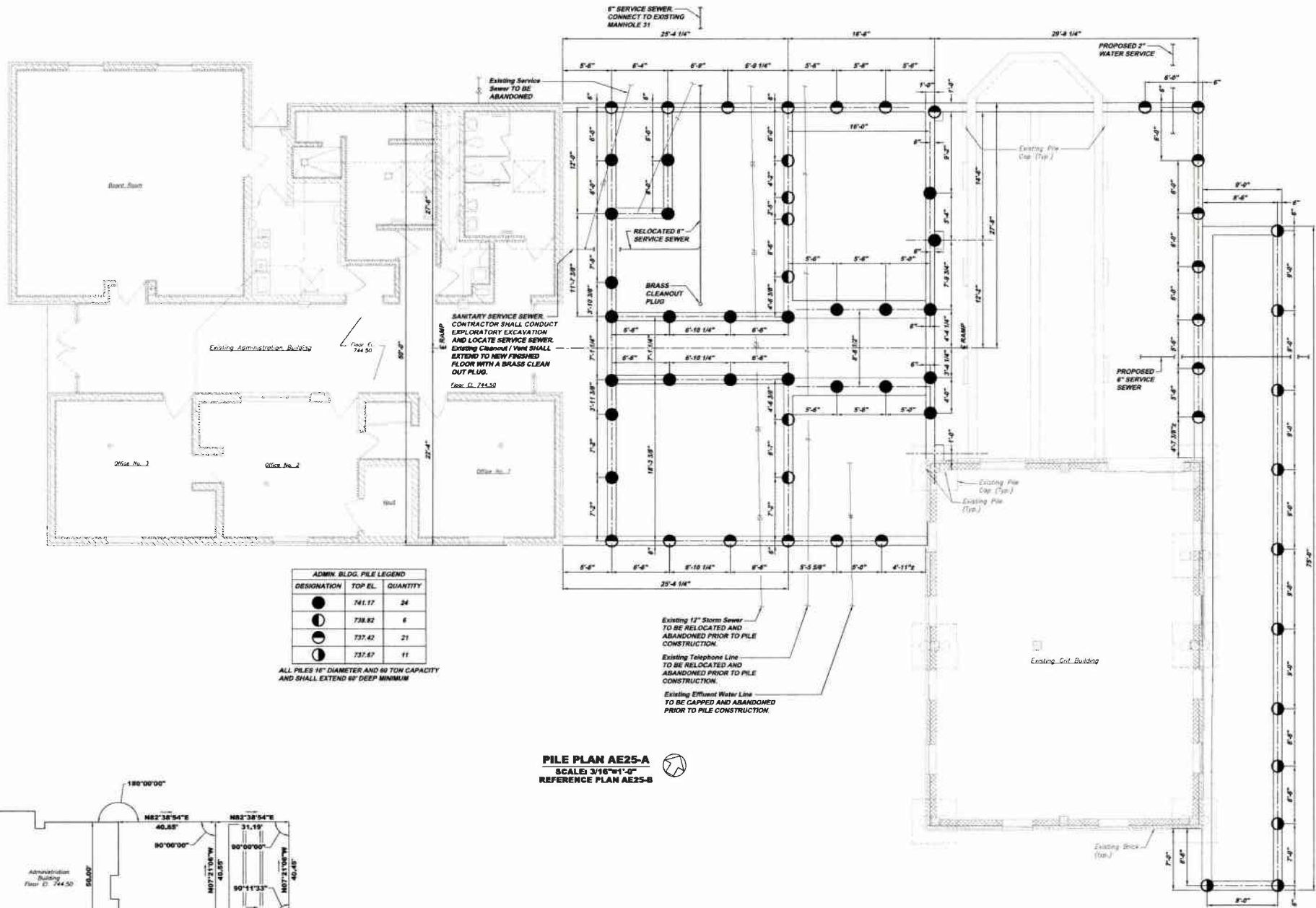
KLH ENGINEERS, INC.

**MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
ALLEGHENY COUNTY, PENNSYLVANIA
CONTRACT NUMBER 2010-01 & 2010-02
WASTEWATER TREATMENT PLANT EXPANSION
ADMINISTRATION BUILDING SCHEMATICS & DETAILS**

Scale:	As Shown
Date:	AUGUST 2010
Drawn By:	DMJ/JEA
Checked By:	
Approved By:	GGG

Sheet No. 21

Drawing No. **220-AE27**

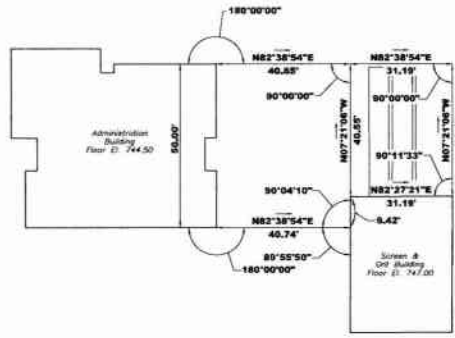


ADMIN BLDG. PILE LEGEND		
DESIGNATION	TOP EL.	QUANTITY
●	741.17	24
●	738.82	6
●	737.42	21
●	737.87	11

ALL PILES 16" DIAMETER AND 60 TON CAPACITY AND SHALL EXTEND 60" DEEP MINIMUM

Existing 12" Storm Sewer TO BE RELOCATED AND ABANDONED PRIOR TO PILE CONSTRUCTION.
 Existing Telephone Line TO BE RELOCATED AND ABANDONED PRIOR TO PILE CONSTRUCTION.
 Existing Effluent Water Line TO BE CAPPED AND ABANDONED PRIOR TO PILE CONSTRUCTION.

PILE PLAN AE25-A
 SCALE: 3/16"=1'-0"
 REFERENCE PLAN AE25-B



BUILDING EXPANSION LAYOUT PLAN AE25-B
 SCALE: 1" = 20'

NOTE:
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Scale:	As Shown
Date:	AUGUST 2010
Drawn By:	DMB
Checked By:	RDH
Approved By:	gnd

Revision
 1-2011
 RELEASE FOR BID

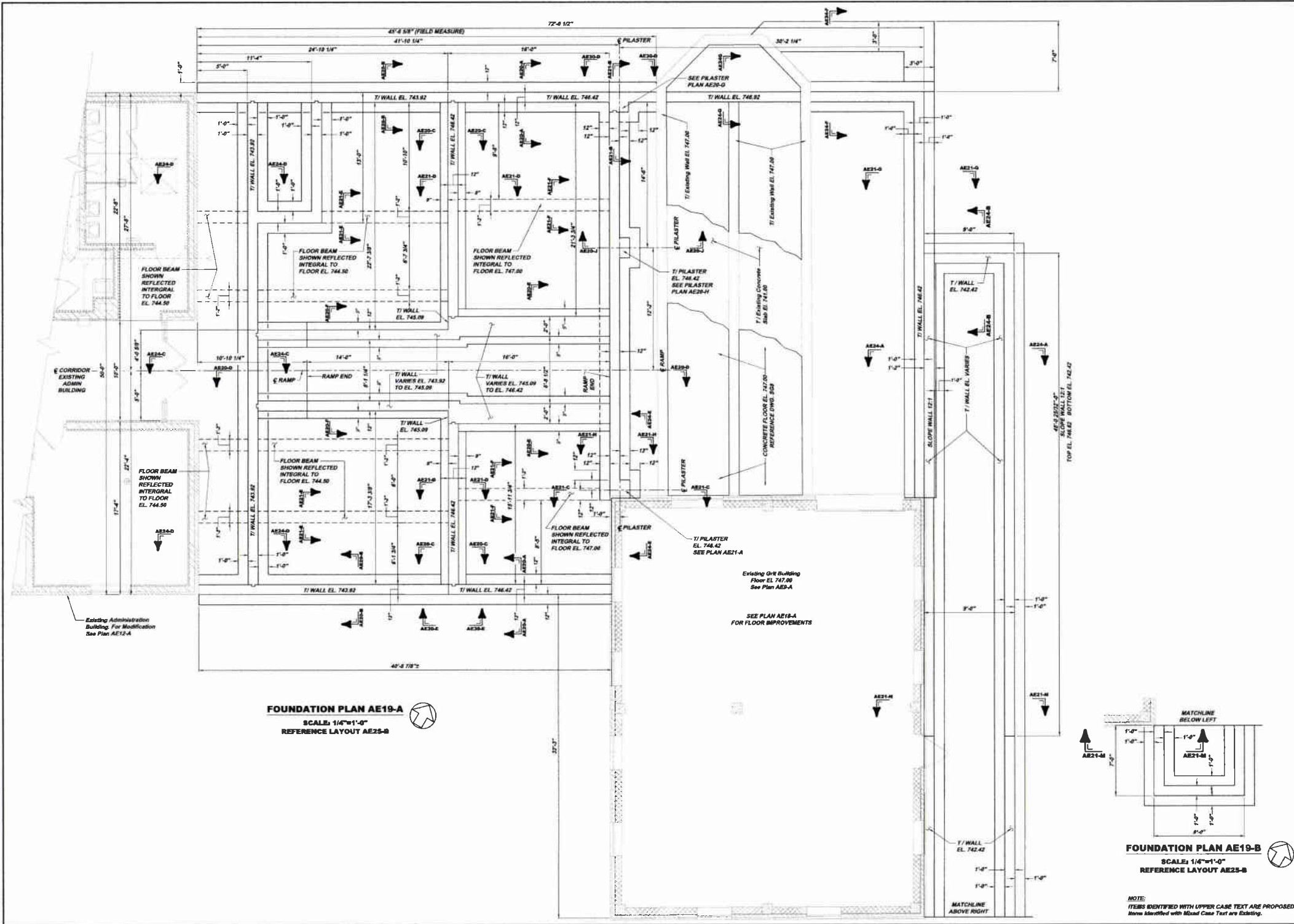
5175 CAMPBELL BLVD. SUITE 200
 PITTSBURGH, PA 15206
 PHONE 412-249-0330
 FAX 412-249-0330
 INFO@KLHENGINEERS.COM

KLH ENGINEERS, INC.

MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
 ALLEGHENY COUNTY, PENNSYLVANIA
 CONTRACT NUMBER 2010-0-01 AND 2010-02
 WASTEWATER TREATMENT PLANT EXPANSION
 ADMINISTRATION BUILDING PILE PLAN

Drawing No. **220-AE25**

Sheet No. **23**

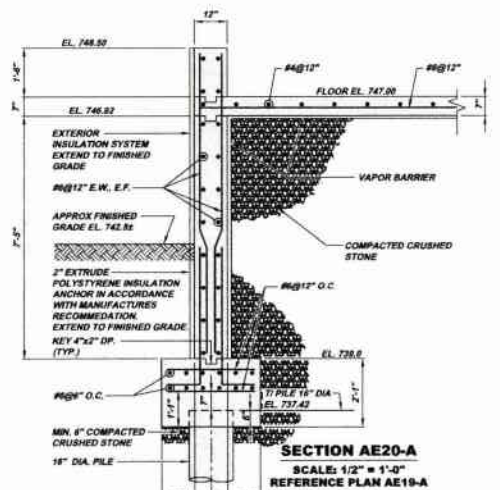


FOUNDATION PLAN AE19-A
 SCALE: 1/4"=1'-0"
 REFERENCE LAYOUT AE25-B

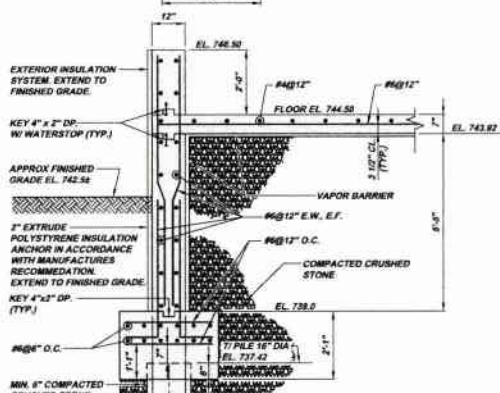
FOUNDATION PLAN AE19-B
 SCALE: 1/4"=1'-0"
 REFERENCE LAYOUT AE25-B

NOTE:
 ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
 ITEMS IDENTIFIED WITH LOWER CASE TEXT ARE EXISTING.

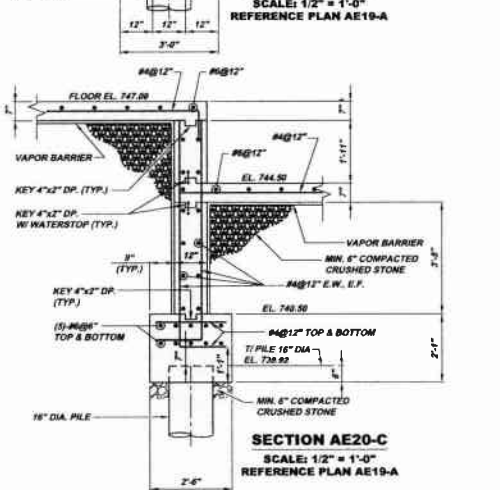
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Date:	AUGUST 2010	Drawing No.	220-AE19
Drawn By:	DMS	Revision:	RELEASE FOR BID
Checked By:	RDH	Date:	8/31/10
Approved By:	SHD	Project:	6172 D WASTE TREATMENT PLANT EXPANSION
		Product:	WASTEWATER TREATMENT PLANT EXPANSION
		Info:	ADMINISTRATION BUILDING FOUNDATION PLAN
			KLH ENGINEERS, INC.
			6172 D WASTE TREATMENT PLANT EXPANSION
			PROJECT: 6172 D WASTE TREATMENT PLANT EXPANSION
			INFO@KLHENGINEERS.COM



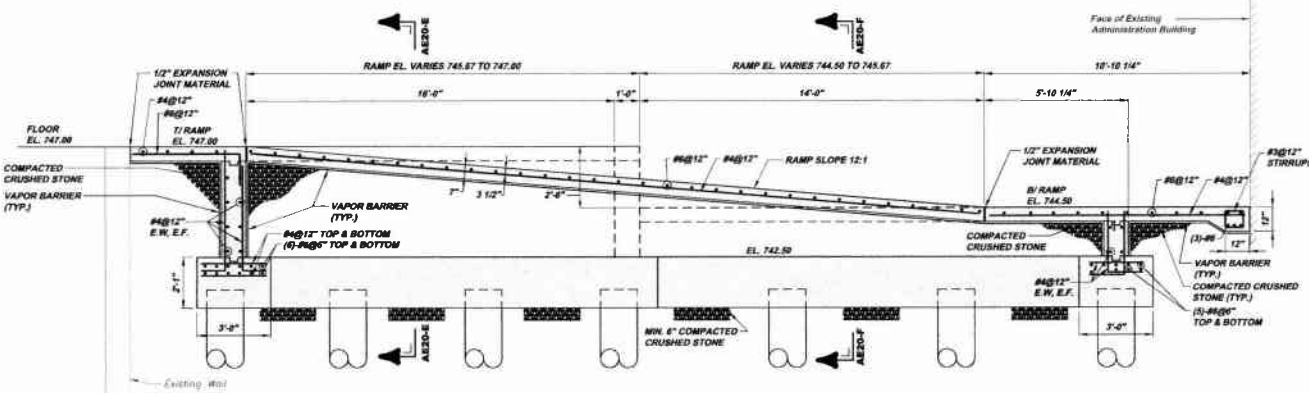
SECTION AE20-A
SCALE: 1/2" = 1'-0"
REFERENCE PLAN AE19-A



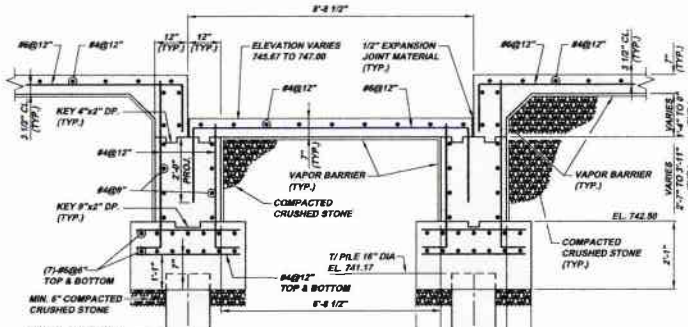
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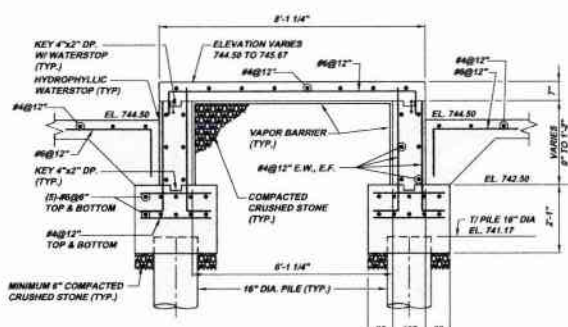
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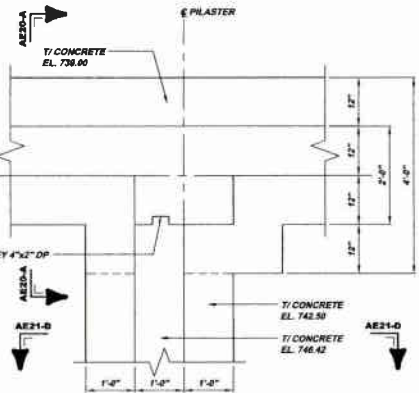
SECTION AE20-D
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REFERENCE PLAN AE19-A



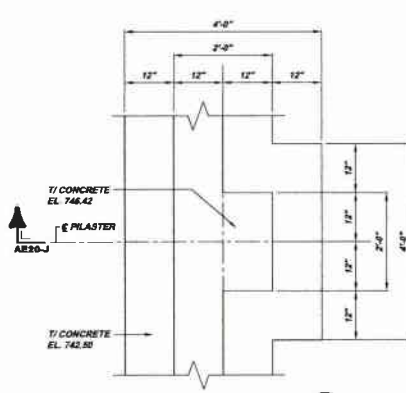
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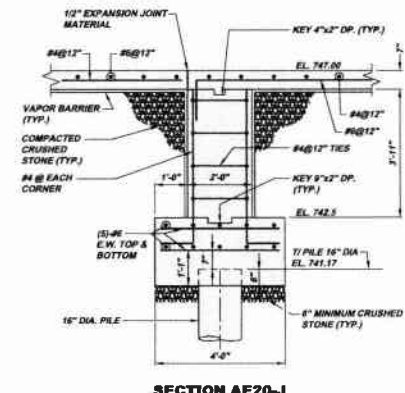
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SCALE: 1/2" = 1'-0"
REFERENCE PLAN AE19-A



PILASTER PLAN AE20-G
SCALE: 3/4" = 1'-0"
REFERENCE PLAN AE19-A



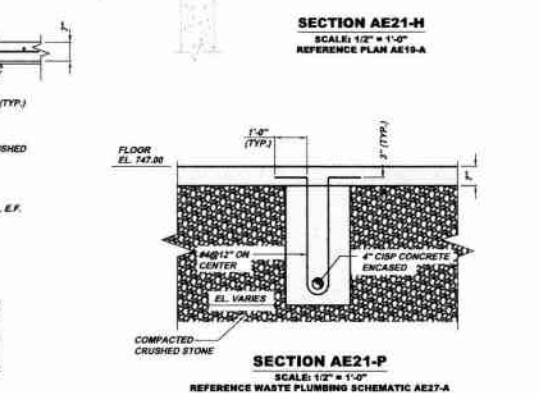
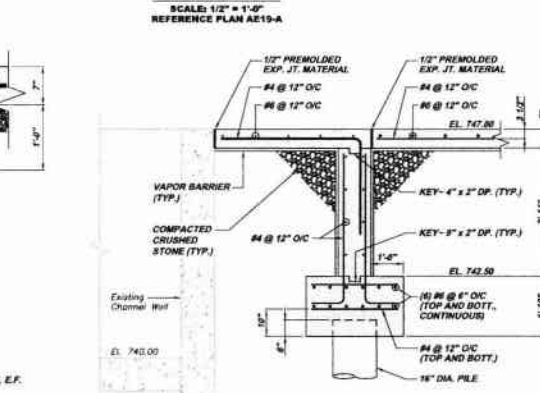
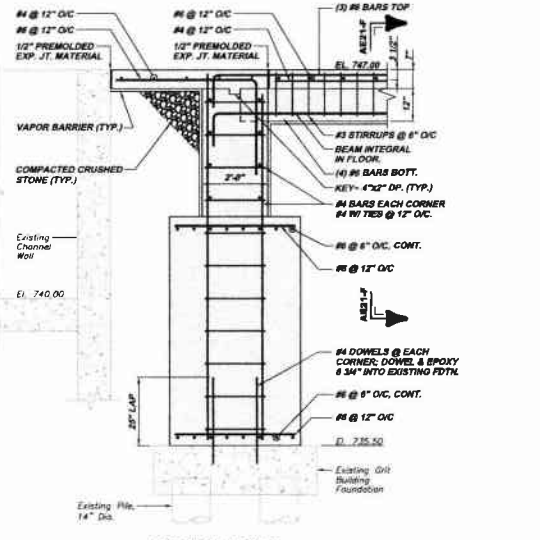
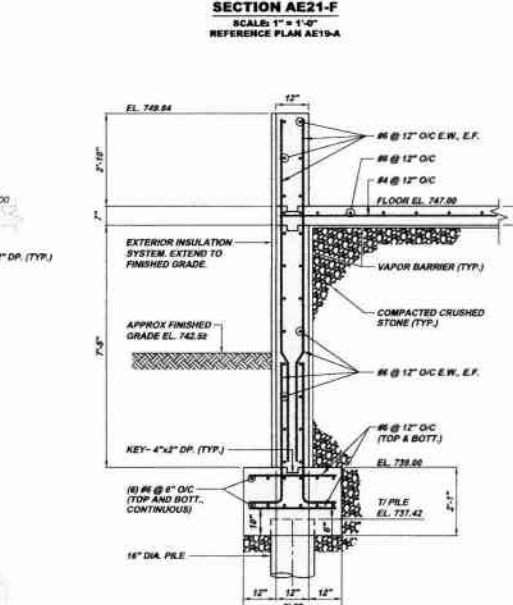
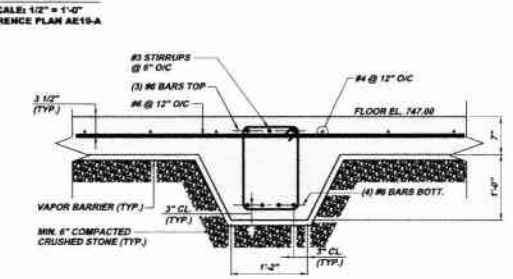
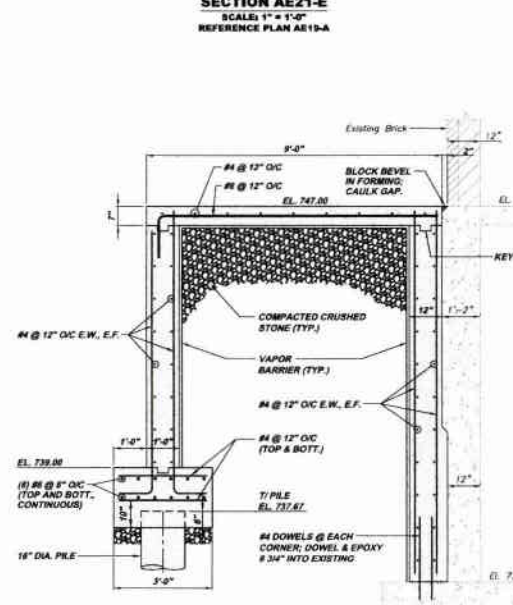
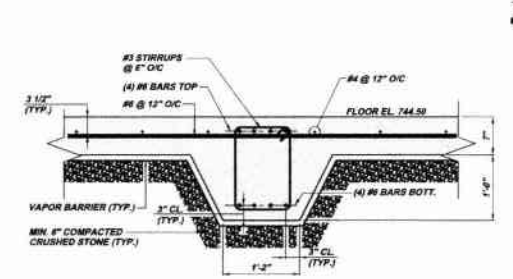
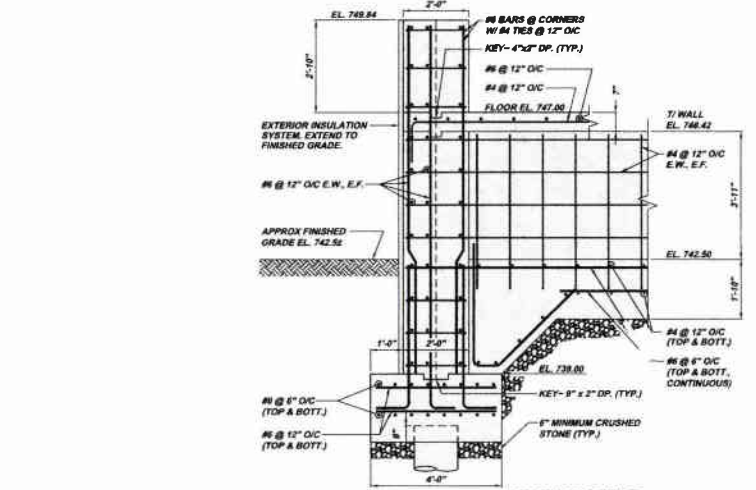
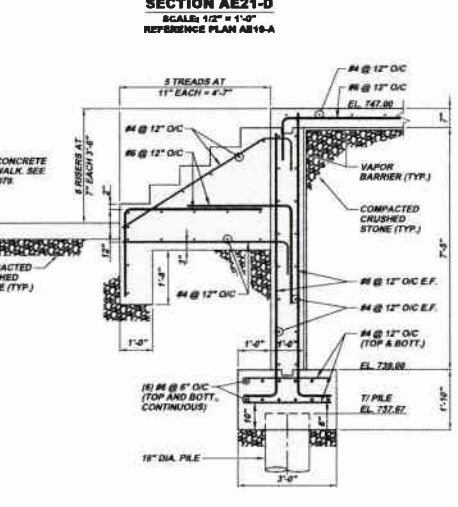
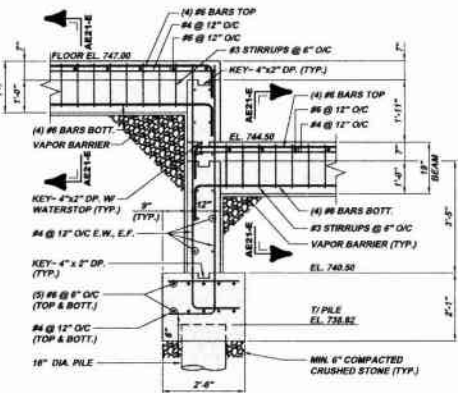
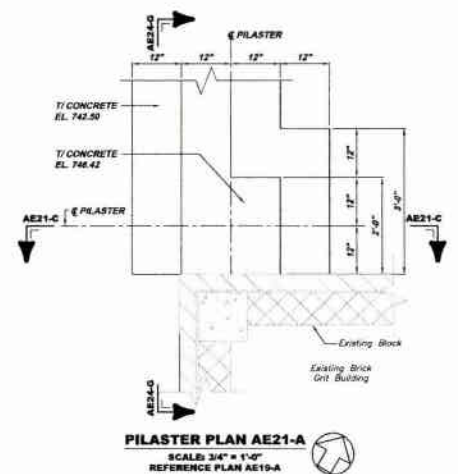
PILASTER PLAN AE20-H
SCALE: 3/4" = 1'-0"
REFERENCE PLAN AE19-A



SECTION AE20-J
SCALE: 1/2" = 1'-0"
REFERENCE PLAN AE19-A

NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
Items Identified with Mixed Case Text are Existing.

Revision	Date	By	Check	Appr.
1-2011				
RELEASE FOR BIDDING				
5175 SPRINGFIELD BLVD. SUITE 100 PITTSBURGH, PA 15201 PHONE 412-261-0330 FAX 412-261-0330 INFO@KLHENGINEERS.COM				
MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT ALLEGHENY COUNTY, PENNSYLVANIA CONTRACT NUMBER 2010-01 AND 2010-02 WASTEWATER TREATMENT PLANT EXPANSION ADMINISTRATION BUILDING FOUNDATION SECTIONS				
As Shown	Date:	Drawn By:	Checked By:	Approved By:
	AUGUST 2010	DMM	RDM	SHS
Sheet No.	25			
Drawing No.	220-AE20			



Date	Revision	By	Check	Appr.
1/28/11	RELEASE FOR BID			

Scale:	As Shown
Date:	AUGUST 2010
Drawn By:	DMB
Checked By:	RDR
Approved By:	SHD

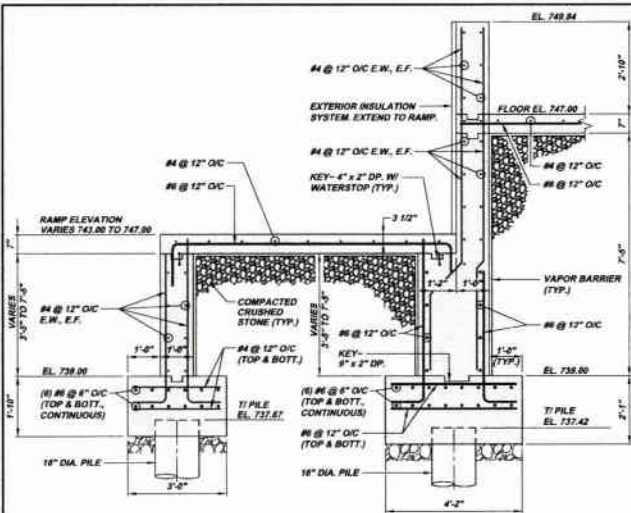
Sheet No. 26

Drawing No. 220-AE21

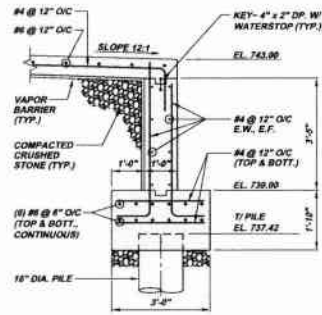


MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
ALLEGHENY COUNTY, PENNSYLVANIA
CONTRACT NUMBER 2010-01 AND 2010-02
WASTEWATER TREATMENT PLANT EXPANSION
ADMINISTRATION BUILDING FOUNDATION SECTIONS

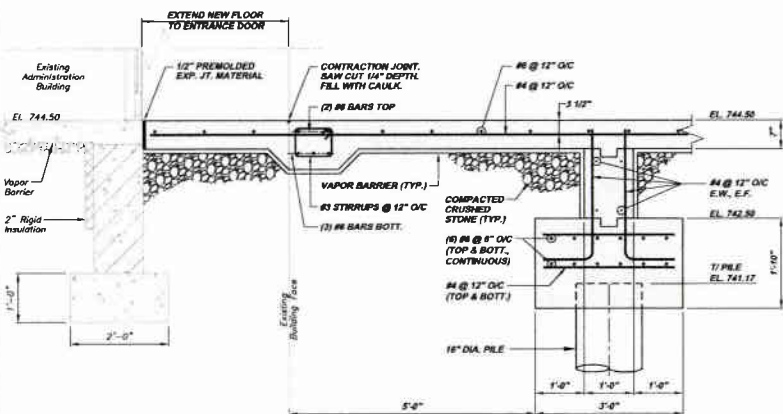
NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED
Items Identified with Mixed Case Text are Existing.



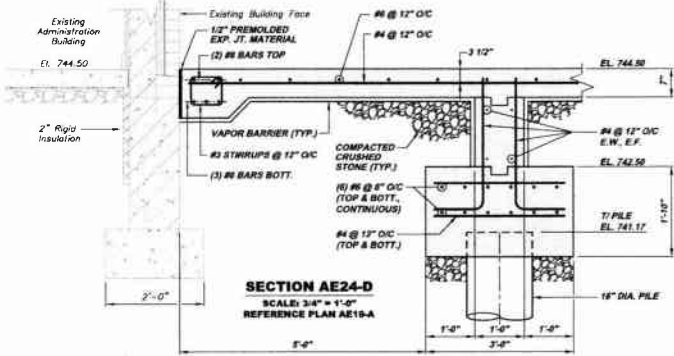
SECTION AE24-A
SCALE: 1/2" = 1'-0"
REFERENCE PLAN AE19-A



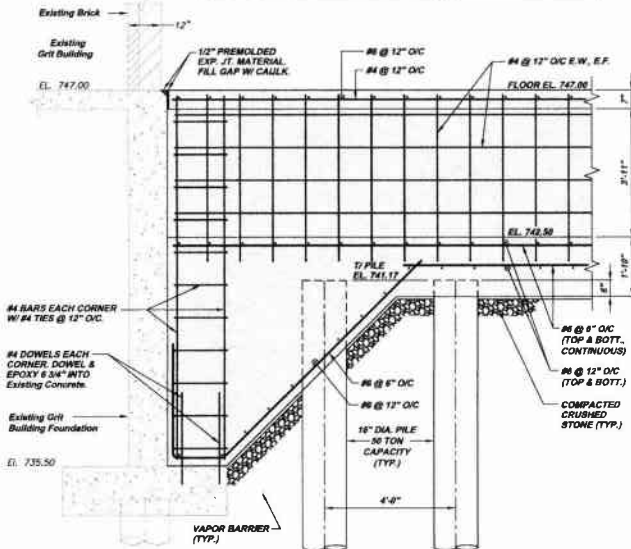
SECTION AE24-B
SCALE: 1/2" = 1'-0"
REFERENCE PLAN AE19-A



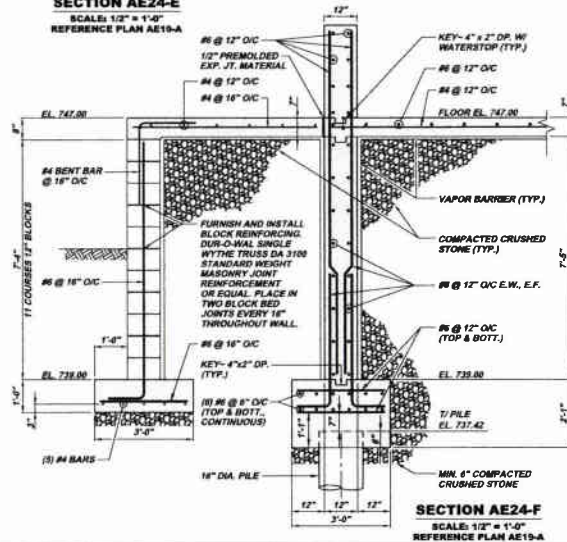
SECTION AE24-C
SCALE: 3/4" = 1'-0"
REFERENCE PLAN AE19-A



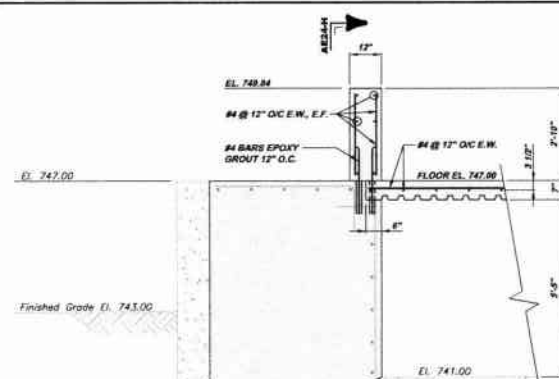
SECTION AE24-D
SCALE: 3/4" = 1'-0"
REFERENCE PLAN AE19-A



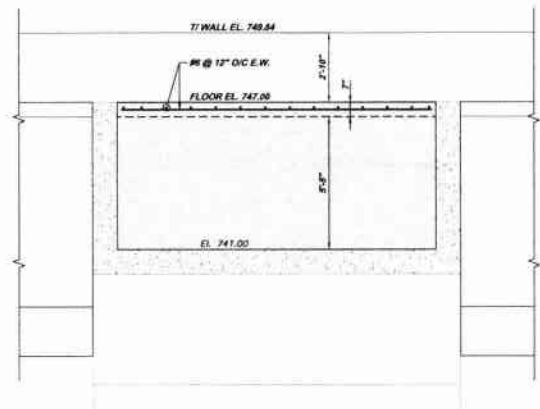
SECTION AE24-E
SCALE: 1/2" = 1'-0"
REFERENCE PLAN AE19-A



SECTION AE24-F
SCALE: 1/2" = 1'-0"
REFERENCE PLAN AE19-A



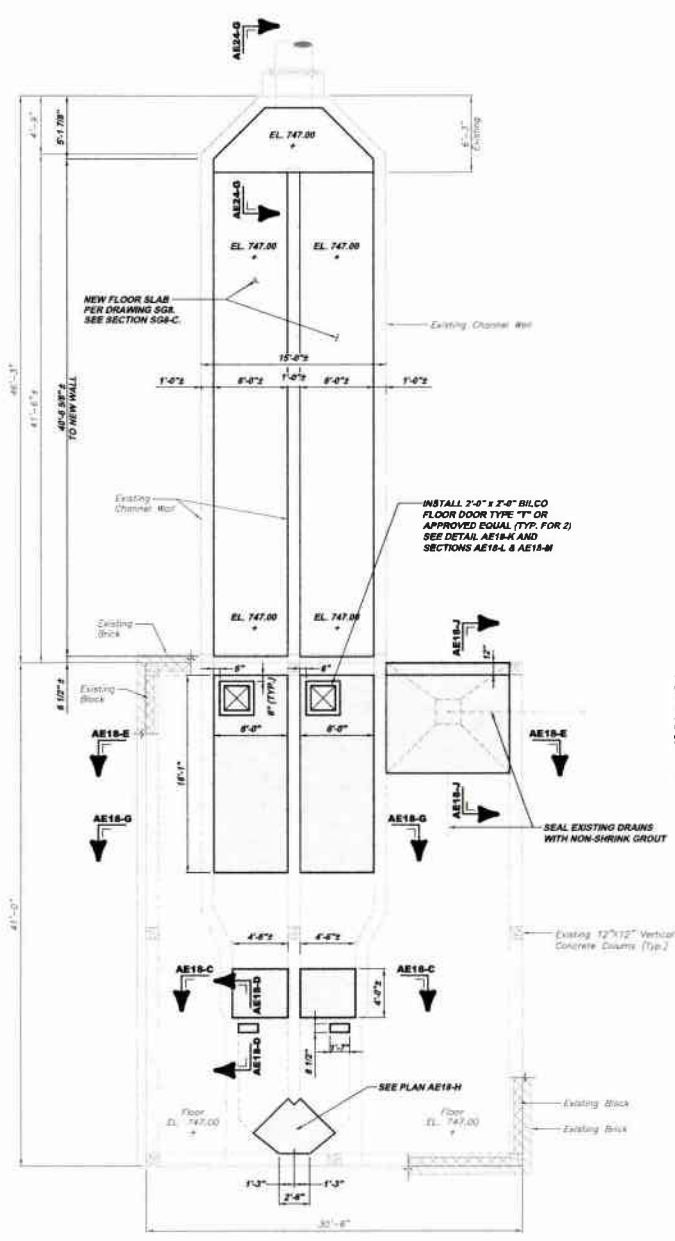
SECTION AE24-G
SCALE: 1/2" = 1'-0"
REFERENCE PLAN AE19-A



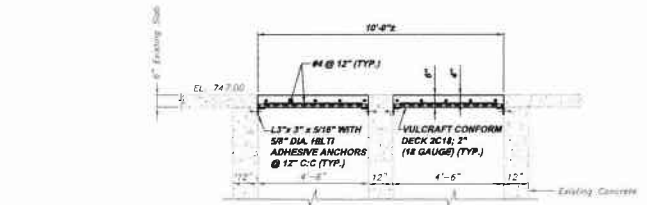
SECTION AE24-H
SCALE: 3/8" = 1'-0"
REFERENCE SECTION AE24-G

NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
Items Identified with Mixed Case Text are Existing.

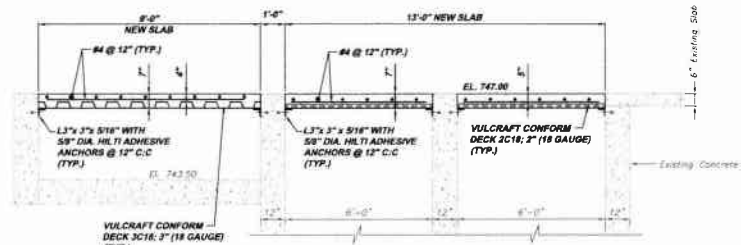
Revision	Date	By	Check	Appr.
1	1-2011	REL	JE	SH
RELEASE FOR BID				
8173 CAMPBELL BLVD PITTSBURGH, PA 15205 TEL: 412-282-0249 FAX: 412-282-0249 INFO@KLHENGINEERS.COM				
MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT ALLEGHENY COUNTY, PENNSYLVANIA CONTRACT NUMBER 2010-01 AND 2010-02 WASTEWATER TREATMENT PLANT EXPANSION ADMINISTRATION BUILDING FOUNDATION SECTIONS				
As Shown	August 2010	DRB: JE	RH	SH
Date:	August 2010	Drawn By:	Checked By:	Approved By:
Sheet No. 27				
Drawing No. 220-AE24				



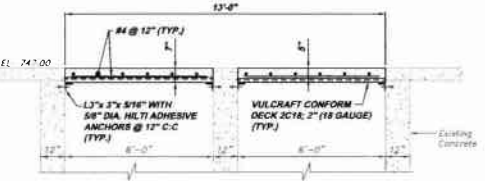
OPERATIONS BUILDING FOUNDATION PLAN AE18-A
 SCALE: 3/16"=1'-0"
 REFERENCE PLAN AE19-A



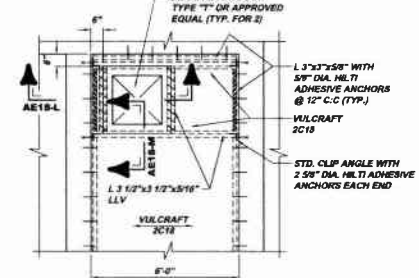
SECTION AE18-C
 SCALE: 3/8"=1'-0"
 REFERENCE PLAN AE18-A



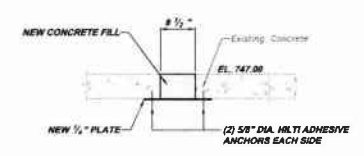
SECTION AE18-E
 SCALE: 3/8"=1'-0"
 REFERENCE PLAN AE18-A



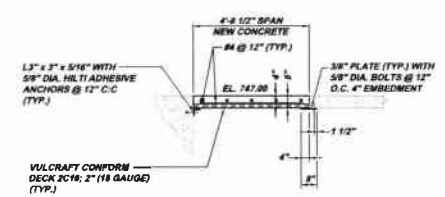
SECTION AE18-G
 SCALE: 3/8"=1'-0"
 REFERENCE PLAN AE18-A



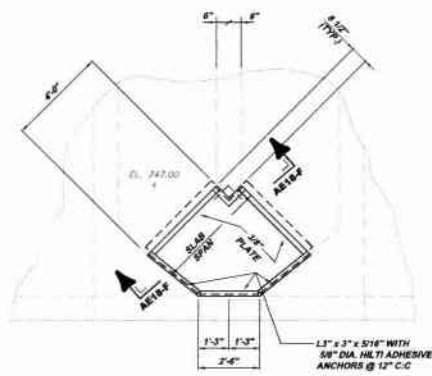
DETAIL AE18-K
 SCALE: 3/8"=1'-0"
 REFERENCE PLAN AE18-A



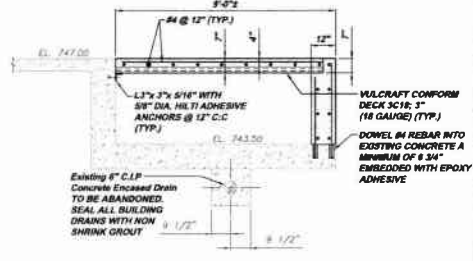
SECTION AE18-D
 SCALE: 3/4"=1'-0"
 REFERENCE PLAN AE18-A



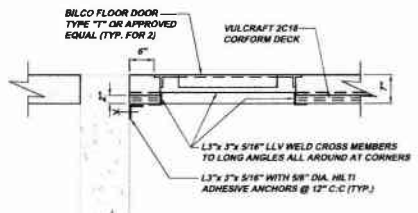
SECTION AE18-F
 SCALE: 3/8"=1'-0"
 REFERENCE PLAN AE18-A



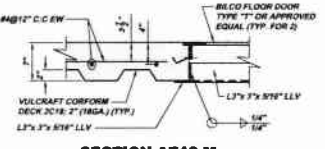
PLAN AE18-H
 SCALE: 3/8"=1'-0"
 REFERENCE PLAN AE18-A



PLAN AE18-J
 SCALE: 3/8"=1'-0"
 REFERENCE PLAN AE18-A



SECTION AE18-L
 SCALE: 3/4"=1'-0"
 REFERENCE PLAN AE18-K



SECTION AE18-M
 SCALE: 1"=1'-0"
 REFERENCE PLAN AE18-K

NOTE:
 ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
 Items Identified with Mixed Case Text are Existing.

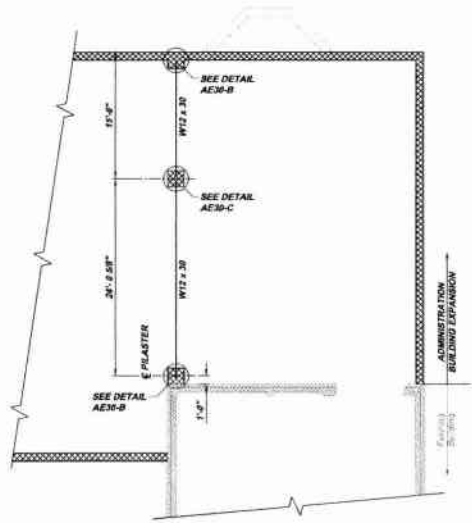
Scale:	As Shown	Date:	AUGUST 2019	DRW:	RHM	CHKD:	RHM	APPV:	SHS
Drawn By:		Checked By:		Approved By:					
Sheet No.	28								
Drawing No.	220-AE18								

MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
 ALLEGHENY COUNTY, PENNSYLVANIA
 CONTRACT NUMBER 2010-01 AND 2010-02
 WASTEWATER TREATMENT PLANT EXPANSION
 ADMINISTRATION BUILDING STRUCTURAL PLAN, SECTIONS AND DETAILS

6175 SANDERS BLVD. SUITE 100
 PITTSBURGH, PA 15206
 PHONE: 412-789-0310
 FAX: 412-789-0310
 INFO@KLHENGINEERS.COM

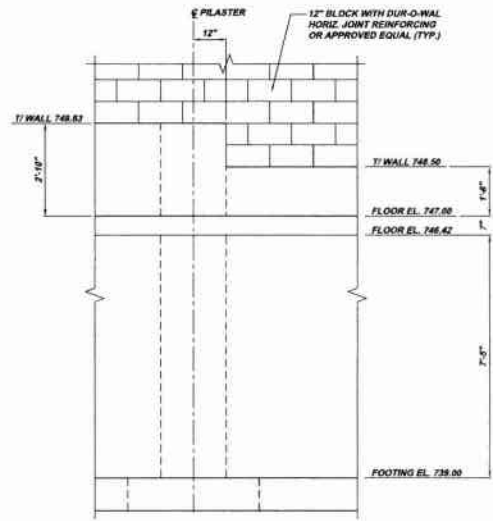


Revision	Date
1-2011	
RELEASE FOR BID	



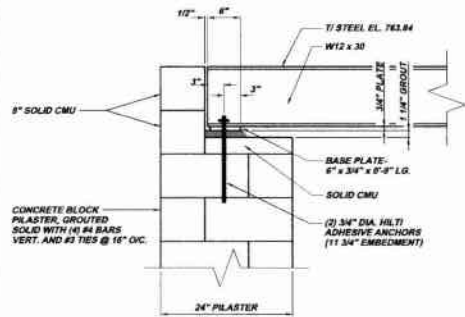
STRUCTURAL STEEL PLAN AE30-A

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



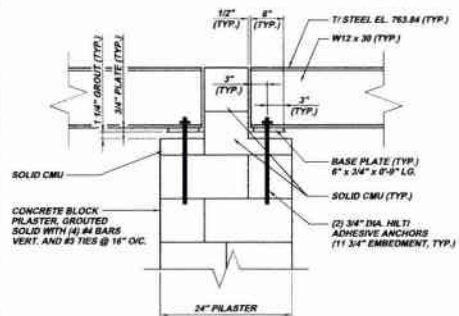
SECTION AE30-D

SCALE: 1/2" = 1'-0"
REFERENCE PLAN AE19-A



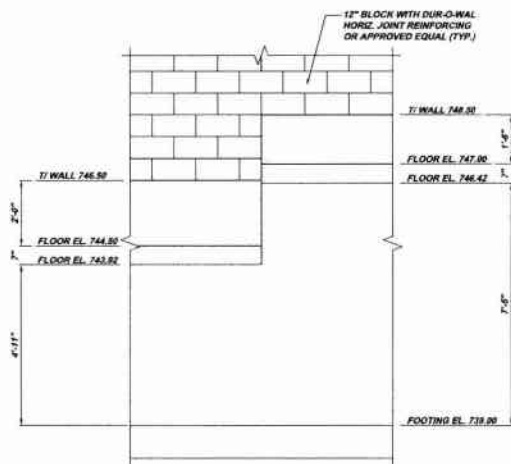
DETAIL AE30-B

SCALE: 1" = 1'-0"
REFERENCE PLAN AE30-A
(TYP. AND OPPOSITE HAND)



DETAIL AE30-C

SCALE: 1" = 1'-0"
REFERENCE PLAN AE30-A

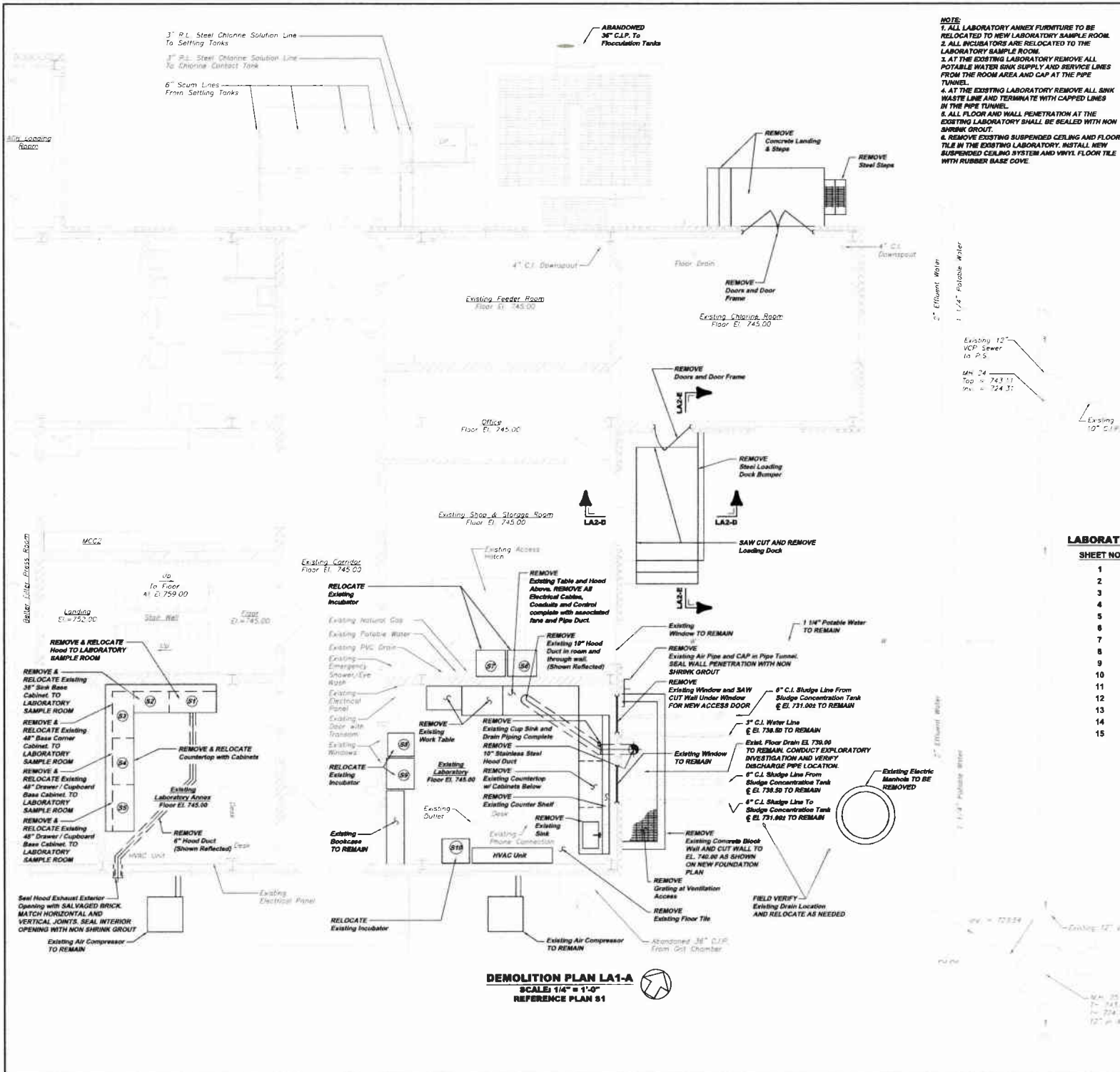


SECTION AE30-E

SCALE: 1/2" = 1'-0"
REFERENCE PLAN AE19-A
(TYP. AND OPPOSITE HAND)

NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED
Items Identified with Mixed Case Text are Existing.

Scale:	As Shown	Rev/Rev	Rev/Rev
Date:	AUGUST 2010	Date:	1-2011
Drawn By:	DMB	Rev/Rev:	RELEASE FOR BID
Checked By:	DDH	Date:	
Approved By:	BHG	Date:	
MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT ALLEGHENY COUNTY, PENNSYLVANIA CONTRACT NUMBER 2010-01 AND 2010-02 WASTEWATER TREATMENT PLANT EXPANSION ADMINISTRATION BUILDING EXPANSION STRUCTURAL STEEL PLAN			
5173 52 AVENUE, SUITE 200 PITTSBURGH, PA 15203 PHONE 412-494-0510 FAX 412-494-0511 INFO@KLHENGINEERS.COM			
SHEET NO. 29 DRAWING NO. 220-AE30			



- NOTE:**
1. ALL LABORATORY ANNEX FURNITURE TO BE RELOCATED TO NEW LABORATORY SAMPLE ROOM.
 2. ALL INCUBATORS ARE RELOCATED TO THE LABORATORY SAMPLE ROOM.
 3. AT THE EXISTING LABORATORY REMOVE ALL POTABLE WATER SINK SUPPLY AND SERVICE LINES FROM THE ROOM AREA AND CAP AT THE PIPE TUNNEL.
 4. AT THE EXISTING LABORATORY REMOVE ALL SINK WASTE LINE AND TERMINATE WITH CAPPED LINES IN THE PIPE TUNNEL.
 5. ALL FLOOR AND WALL PENETRATION AT THE EXISTING LABORATORY SHALL BE SEALED WITH NON SHRINK GROUT.
 6. REMOVE EXISTING SUSPENDED CEILING AND FLOOR TILE IN THE EXISTING LABORATORY. INSTALL NEW SUSPENDED CEILING SYSTEM AND VINYL FLOOR TILE WITH RUBBER BASE COVE.



INTERIOR LABORATORY DEMOLITION PHOTOGRAPH LA1-B
REFERENCE PLAN LA1-A

LABORATORY

SHEET NO.	DWG. NO.	DESCRIPTION
1	220-LA1	C & I BUILDING DEMOLITION PLAN
2	220-LA2	C & I BUILDING DEMOLITION ELEVATIONS
3	220-LA4	C & I BUILDING DEMOLITION PHOTOGRAPHS
4	220-LA3	C & I BUILDING DEMOLITION PHOTOGRAPHS
5	220-LA6	C & I BUILDING DEMOLITION PHOTOGRAPHS
6	220-LA8	LABORATORY ADDITION PLANS AND DETAILS
7	220-LA9	LABORATORY ADDITION PLAN AND DETAILS
8	220-LA7	LABORATORY ADDITION ELEVATIONS
9	220-LA10	LABORATORY ADDITION SECTIONS
10	220-LA11	LABORATORY ADDITION SECTIONS AND DETAILS
11	220-LA13	LABORATORY ADDITION SCHEMATIC DIAGRAMS
12	220-LA17	LABORATORY ADDITION CEILING PLAN AND DUCT PLAN
13	220-LA12	LABORATORY ADDITION STRUCTURAL PLAN AND SECTIONS
14	220-LA15	LABORATORY ADDITION STRUCTURAL SECTIONS
15	220-LA16	LABORATORY ADDITION STRUCTURAL ROOF FRAMING PLAN AND SECTIONS

MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
ALLEGHENY COUNTY, PENNSYLVANIA
CONTRACT NUMBER 2010-01 AND 2010-02
WASTEWATER TREATMENT PLANT EXPANSION
C&I BUILDING DEMOLITION PLAN

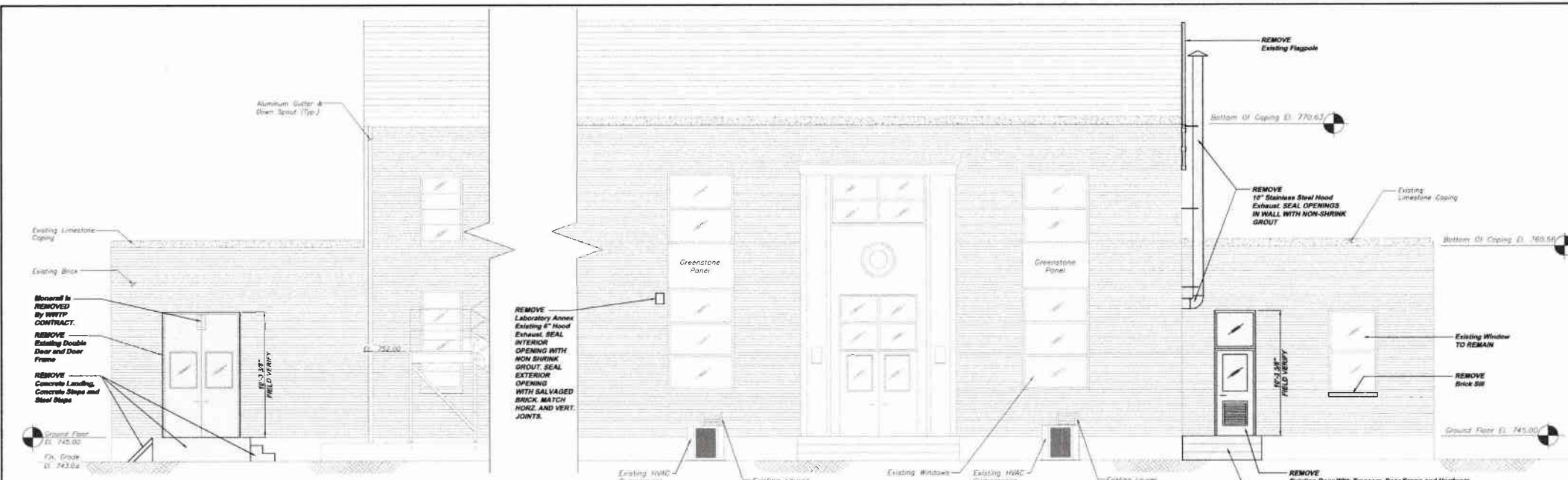
KLH ENGINEERS, INC.

Scale: As Shown
Date: AUGUST 2010
Drawn By: DMB
Checked By: RDM
Approved By: BHC

Sheet No. 1

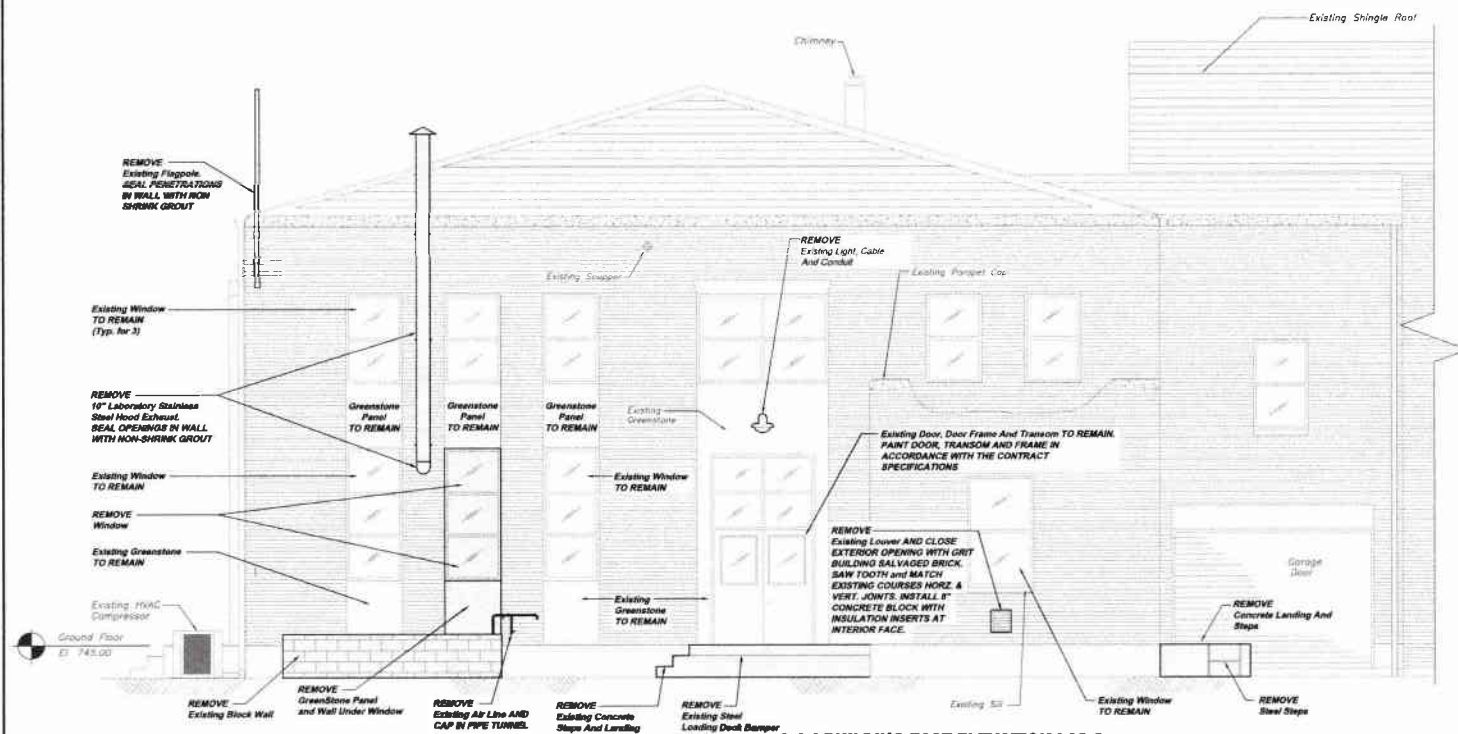
Drawing No. 220-LA1

NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
ITEMS IDENTIFIED WITH LOWER CASE TEXT ARE EXISTING.

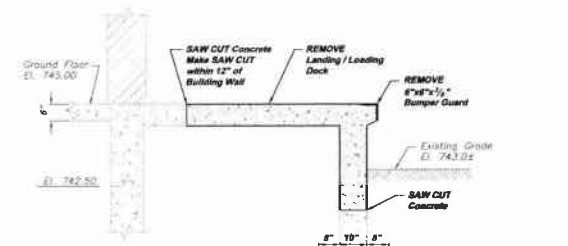


C & I BUILDING NORTH ELEVATION LA2-A
 SCALE: 1/4" = 1'-0"
 REFERENCE PLAN LA1-A

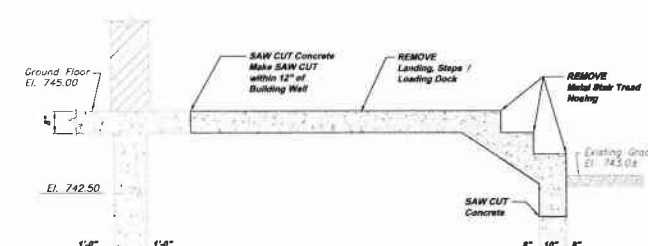
C & I BUILDING SOUTH ELEVATION LA2-B
 SCALE: 1/4" = 1'-0"
 REFERENCE PLAN LA1-A



C & I BUILDING EAST ELEVATION LA2-C
 SCALE: 1/4" = 1'-0"
 REFERENCE PLAN LA1-A



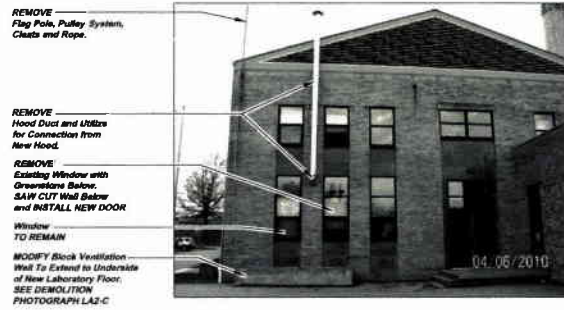
SECTION LA2-D
 SCALE: 1/2" = 1'-0"
 REFERENCE PLAN LA1-A



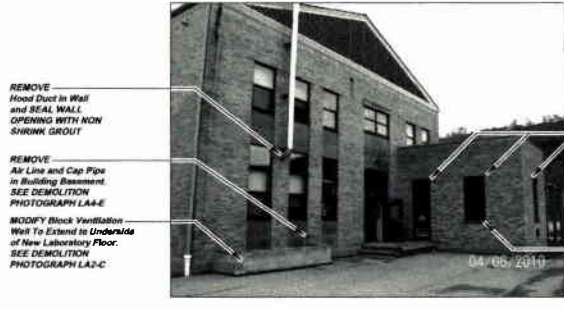
SECTION LA2-E
 SCALE: 1/2" = 1'-0"
 REFERENCE PLAN LA1-A

NOTE:
 ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
 Items Identified with Lower Case Text are Existing.

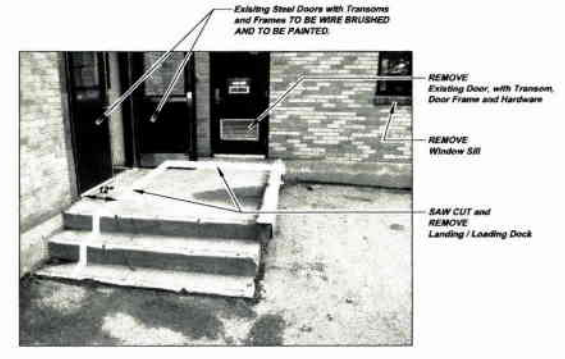
Revision	Date	By
1/3/21		
RELEASE FOR BID		
6175 SANDWICH BLVD SUITE 1000 PITTSBURGH, PA 15204 PHONE: 412-281-0330 FAX: 412-281-0330 INFO@KLHENGINEERS.COM		
MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT ALLEGHENY COUNTY, PENNSYLVANIA CONTRACT NUMBER 2010-01 AND 2010-02 WASTEWATER TREATMENT PLANT EXPANSION CAI BUILDING DEMOLITION ELEVATIONS		
As Shown	DATE	BY
AUGUST 2010		
Drawn By:	Checked By:	Approved By:
Sheet No.	2	
Drawing No.	220-LA2	



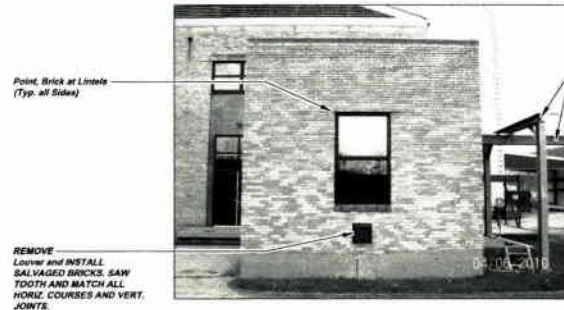
**EXTERIOR C&I BUILDING EAST ELEVATION
DEMOLITION PHOTOGRAPH LA4-A**
REFERENCE ELEVATION LA2-C



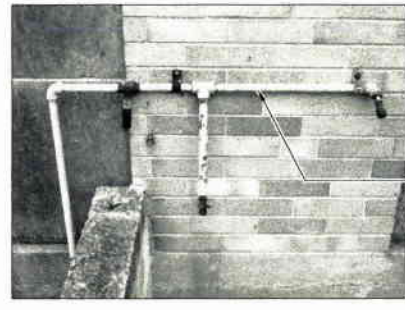
EXTERIOR C&I BUILDING DEMOLITION PHOTOGRAPH LA4-B
REFERENCE ELEVATION LA2B AND ELEVATION LA2-C



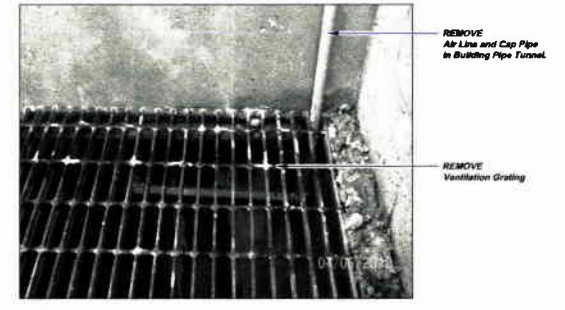
EXTERIOR C&I BUILDING DEMOLITION PHOTOGRAPH LA4-C
REFERENCE ELEVATION LA2-C



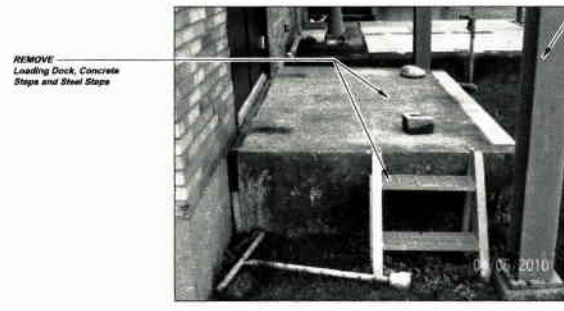
**EXTERIOR C&I BUILDING EAST ELEVATION
DEMOLITION PHOTOGRAPH LA4-D**
REFERENCE ELEVATION LA2-C



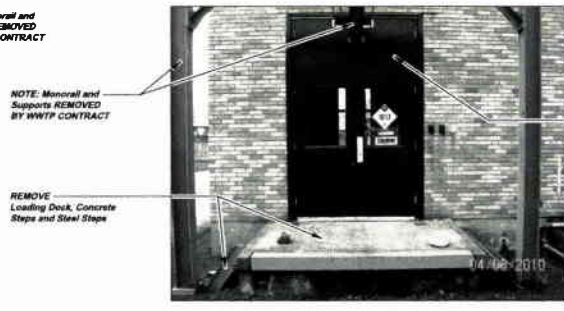
EXTERIOR C&I BUILDING DEMOLITION PHOTOGRAPH LA4-E
REFERENCE ELEVATION LA2-C



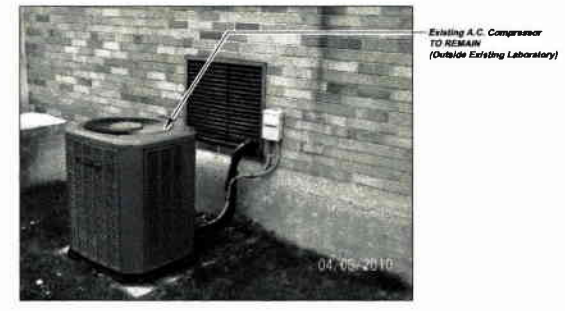
EXTERIOR C&I BUILDING DEMOLITION PHOTOGRAPH LA4-F
REFERENCE ELEVATION LA2-C



**EXTERIOR C&I BUILDING NORTH ELEVATION
DEMOLITION PHOTOGRAPH LA4-G**
REFERENCE ELEVATION LA2-A



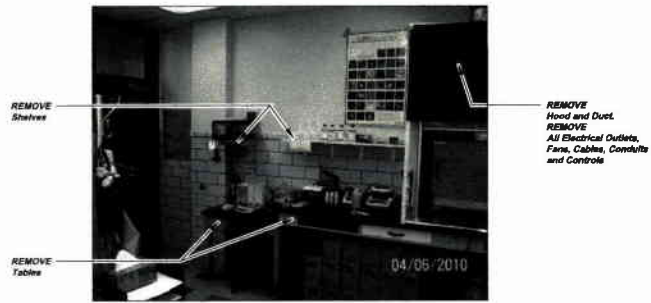
**EXTERIOR C&I BUILDING NORTH ELEVATION
DEMOLITION PHOTOGRAPH LA4-H**
REFERENCE ELEVATION LA2-A



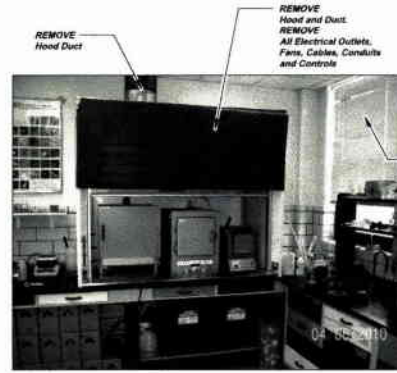
**EXTERIOR C&I BUILDING SOUTH ELEVATION
DEMOLITION PHOTOGRAPH LA4-J**
REFERENCE ELEVATION LA2-B

NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED
Items Identified with Mixed Case Text are Existing

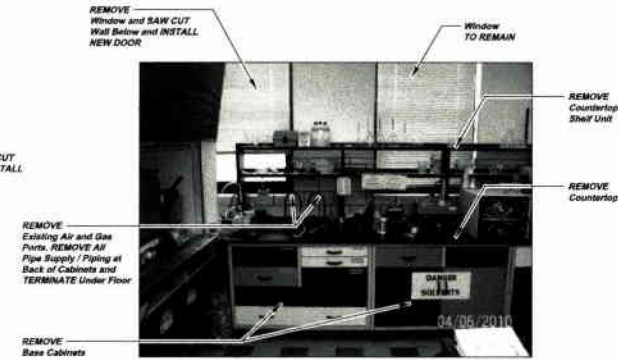
Revision	Date	Revision	Date
1	08/11	RELEASE FOR BID	
Date: 04/06/2010 5173 CAMPBELL BLVD PITTSBURGH, PA 15206 Project # 11-2-99-030 Phone # 412-494-0330 info@klhengineers.com			
MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT ALLEGHENY COUNTY, PENNSYLVANIA CONTRACT NUMBER 2010-01 AND 2010-02 WASTEWATER TREATMENT PLANT EXPANSION C&I BUILDING DEMOLITION PHOTOGRAPHS			
Scale:	As Shown	Checked By:	RMH
Date:	AUGUST 2010	Approved By:	SHG
Sheet No.	3		
Drawing No.	220-LA4		



**INTERIOR LABORATORY (LOOKING NORTH)
DEMOLITION PHOTOGRAPH LA3-A
REFERENCE PLAN LA1-A**



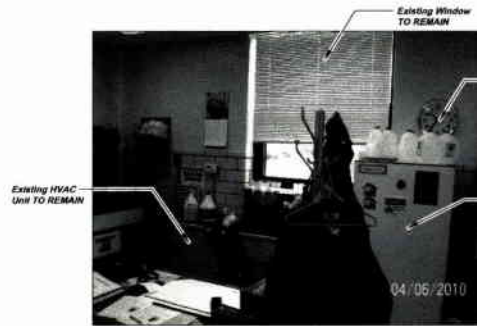
**INTERIOR LABORATORY (LOOKING NORTH)
DEMOLITION PHOTOGRAPH LA3-B
REFERENCE PLAN LA1-A**



**INTERIOR LABORATORY (LOOKING EAST)
DEMOLITION PHOTOGRAPH LA3-C
REFERENCE PLAN LA1-A**



**INTERIOR LABORATORY (LOOKING SOUTH)
DEMOLITION PHOTOGRAPH LA3-D
REFERENCE PLAN LA1-A**



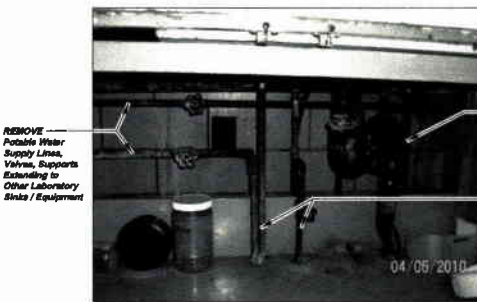
**INTERIOR LABORATORY (LOOKING SOUTH)
DEMOLITION PHOTOGRAPH LA3-E
REFERENCE PLAN LA1-A**



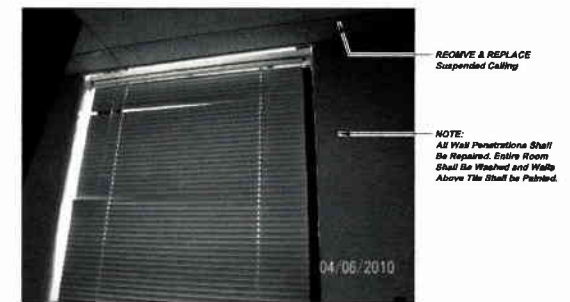
**INTERIOR LABORATORY (LOOKING WEST)
DEMOLITION PHOTOGRAPH LA3-F
REFERENCE PLAN LA1-A**



**INTERIOR LABORATORY (BASE CABINET EAST WALL)
DEMOLITION PHOTOGRAPH LA3-G
REFERENCE PLAN LA1-A**



**INSIDE SINK BASE (BASE CABINET EAST WALL)
DEMOLITION PHOTOGRAPH LA3-H
REFERENCE PLAN LA1-A**



**INTERIOR LABORATORY (TYP. WINDOW / CEILING)
DEMOLITION PHOTOGRAPH LA3-J
REFERENCE PLAN LA1-A**

NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
Items Identified with Mixed Case Text are Existing.

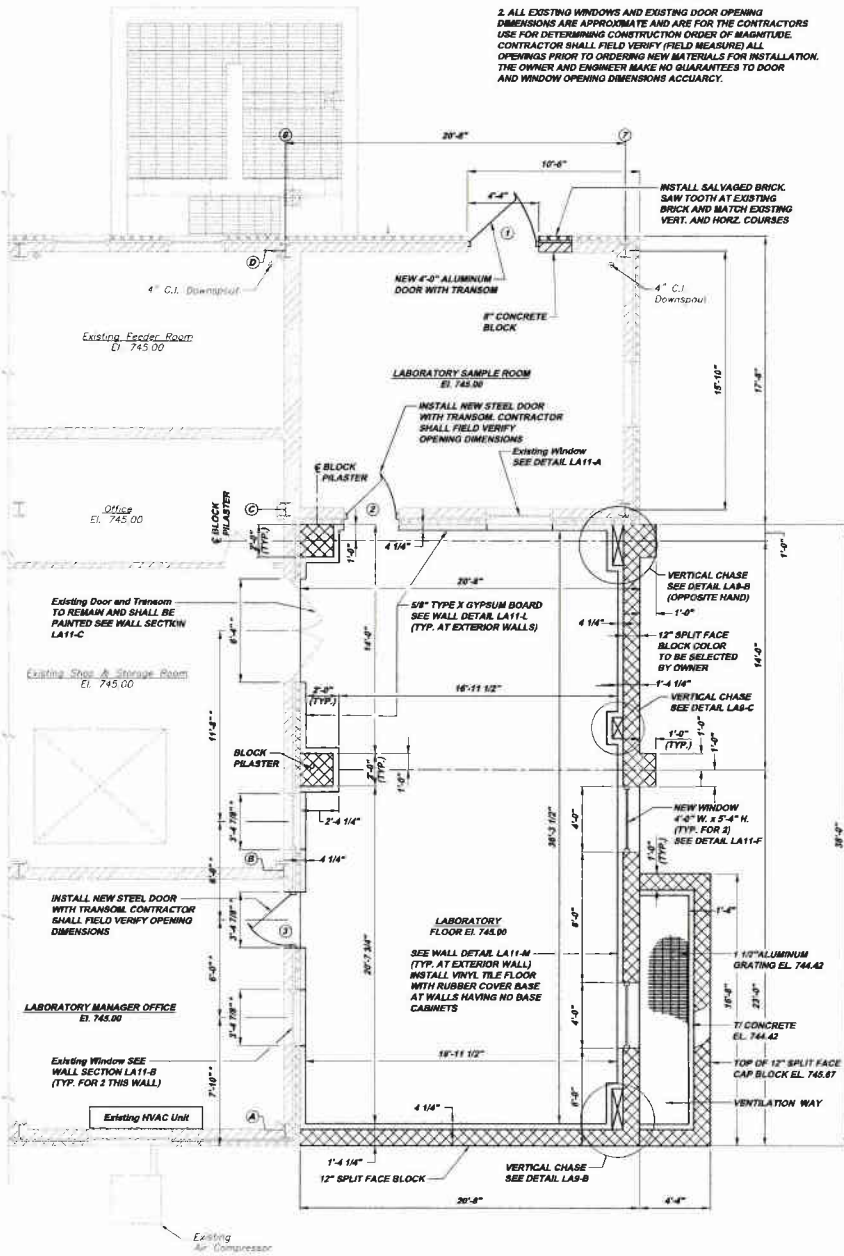
As Shown	As Proposed
Scale:	DATE: AUGUST 2018
Drawn By:	DATE: 08/14/18
Checked By:	DATE: 08/14/18
Approved By:	DATE: 08/14/18
Sheet No.:	4
Drawing No.:	220-LA3

5175 SHANNON ROAD
 PITTSBURGH, PA 15206
 PHONE: 412-281-2330
 FAX: 412-281-2330
 INFO@KLHENGINEERS.COM

KLH ENGINEERS, INC.
 MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
 ALLEGHENY COUNTY, PENNSYLVANIA
 CONTRACT NUMBER 2010-01 AND 2010-02
 WASTEWATER TREATMENT PLANT EXPANSION
 C&I BUILDING DEMOLITION PHOTOGRAPHS

NOTES:

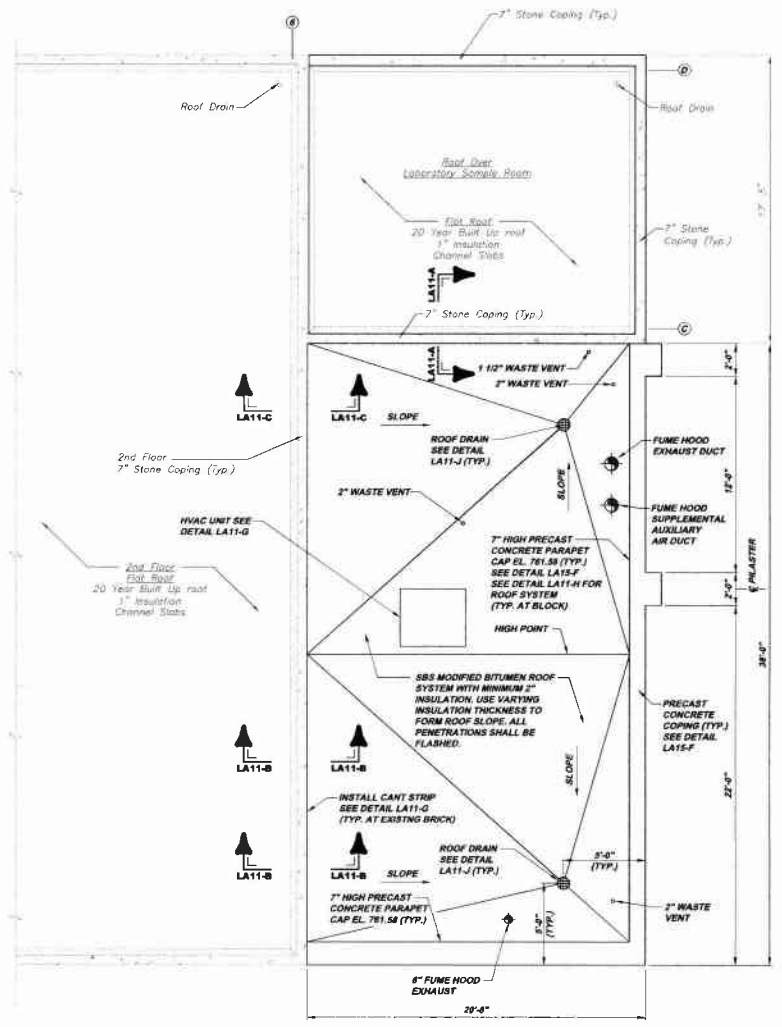
1. ALL WINDOWS SHALL BE ALUMINUM SINGLE HUNG TYPE MATCHING WINDOW UNITS INSTALLED AT THE C41 BUILDING. ALL WINDOW UNITS SHALL BE PROVIDED WITH LOW E GLASS.
2. ALL EXISTING WINDOWS AND EXISTING DOOR OPENING DIMENSIONS ARE APPROXIMATE AND ARE FOR THE CONTRACTOR USE FOR DETERMINING CONSTRUCTION ORDER OF MAGNITUDE. CONTRACTOR SHALL FIELD VERIFY FIELD MEASURED ALL OPENINGS PRIOR TO ORDERING NEW MATERIALS FOR INSTALLATION. THE OWNER AND ENGINEER MAKE NO GUARANTEES TO DOOR AND WINDOW OPENING DIMENSIONS ACCURACY.



LABORATORY ADDITION PLAN LAB-A
SCALE: 1/4" = 1'-0"
REFERENCE PLAN LA12-A

LABORATORY BUILDING DOOR SCHEDULE (ALL HARDWARE US 32 FINISH)

MARK	LOCATION	QTY.	DOOR DESCRIPTION	DIMENSIONS (ROUGH OPENING)	LOCKSET (SARGENT) (FINISH US 32)	HINGE (FINISH US 32)	CLOSER (ICM)	THRESHOLD (NATIONAL GUARD)	HICKPLATE (ROCK WOOD)	WEATHER-STRIP (NATIONAL GUARD)
1	EXTERIOR SAMPLE ROOM	1	CLINE INSULATED ALUMINUM DOOR HAVING HALF GLASS WITH ALUMINUM FRAME AND TRANSOM. ALL GLASS SHALL BE LOW E.	3'-4" x 10'-3 3/8"	MORTISE TYPE PAMC SHALL FIELD VERIFY OPENING DIMENSIONS	8900, ESCUTCHEON AND LEVER TRIM SERIES 8100	1480 ADA COMPLIANT	425	10" HIGH x .050" EACH PANEL	180 SDK PERMETER SEAL 191 VDKB SWEEP
2	INTERIOR AT LABORATORY / SAMPLE ROOM	1	CECO CORP HOLLOW METAL DOOR, STEEL FRAME, 1'-0" x 7'-0" WITH 1/2" x 12" WINDOW WITH WIRE GLASS. 1 1/2 HOUR FIRE RATED WITH TRANSOM	3'-4" x 10'-3 3/8"	MORTISE TYPE PAMC SHALL FIELD VERIFY OPENING DIMENSIONS	8900, ESCUTCHEON AND LEVER TRIM SERIES 8100	1480 ADA COMPLIANT	—	10" HIGH x .050"	180 SA PERMETER SEAL
3	INTERIOR AT LABORATORY / LAB MANAGER	1	CECO CORP HOLLOW METAL DOOR, STEEL FRAME, 1'-0" x 7'-0" WITH 1/2" x 12" WINDOW WITH WIRE GLASS. 1 1/2 HOUR FIRE RATED WITH TRANSOM	3'-4" x 10'-3 3/8"	MORTISE TYPE PAMC SHALL FIELD VERIFY OPENING DIMENSIONS	8900, ESCUTCHEON AND LEVER TRIM SERIES 8100	1480 ADA COMPLIANT	—	10" HIGH x .050"	180 SA PERMETER SEAL



LABORATORY ADDITION ROOF PLAN LAB-B
SCALE: 1/4" = 1'-0"
REFERENCE PLAN LAB-A

NOTES:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
Items identified with Mixed Case Text are Existing.

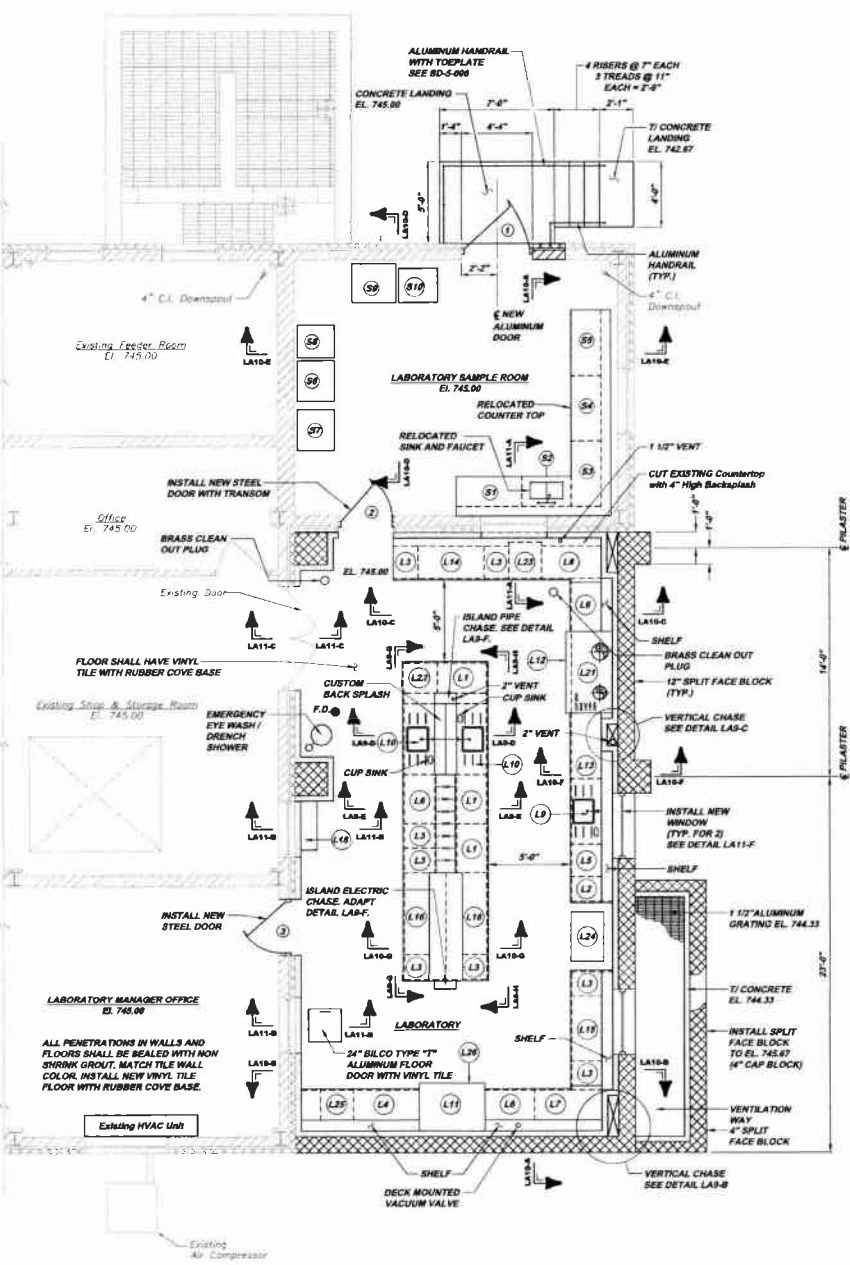
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ALLEGHENY COUNTY, PENNSYLVANIA
CONTRACT NUMBER 2019-01 AND 2010-02
WASTEWATER TREATMENT PLANT EXPANSION
LABORATORY ADDITION PLANS AND DETAILS

KLH ENGINEERS, INC.

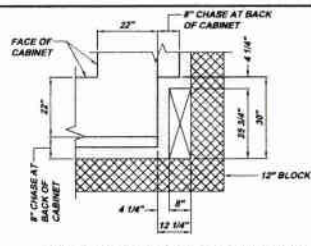
8175 CAMPBELLS RUN ROAD
PITTSBURGH, PA 15205
Phone: 412-251-0230
Fax: 412-251-0232
info@klhengineers.com

Scale: As Shown
Date: AUGUST 2019
Drawn By: DMB
Checked By: RCH
Approved By: SHG

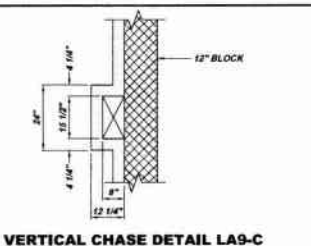
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Drawing No. 220-LAB



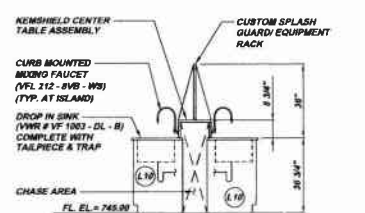
LABORATORY ADDITION PLAN LA9-A
 SCALE: 1/4" = 1'-0"
 REFERENCE PLAN LA9-A



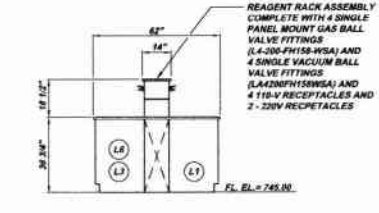
VERTICAL CHASE DETAIL LA9-B
 SCALE: 1/2" = 1'-0"
 REFERENCE PLAN LA9-A
 (TYPICAL AND OPPOSITE HAND)



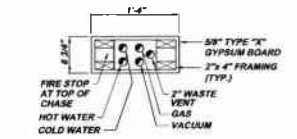
VERTICAL CHASE DETAIL LA9-C
 SCALE: 1/2" = 1'-0"
 REFERENCE PLAN LA9-A



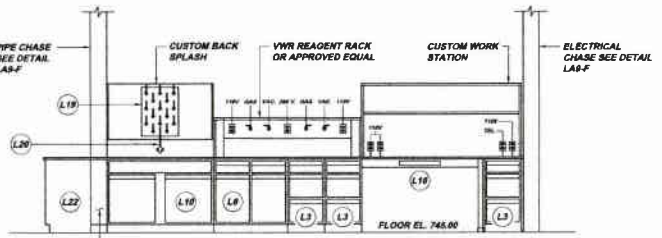
LABORATORY ISLAND SECTION LA9-D
 SCALE: 3/8" = 1'-0"
 REFERENCE PLAN LA9-A



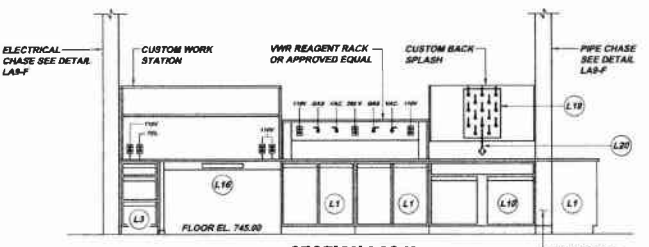
LABORATORY ISLAND SECTION LA9-E
 SCALE: 3/8" = 1'-0"
 REFERENCE PLAN LA9-A



ISLAND PIPE CHASE DETAIL LA9-F
 SCALE: 1" = 1'-0"



SECTION LA9-G
 SCALE: 3/8" = 1'-0"
 REFERENCE PLAN LA9-A



SECTION LA9-H
 SCALE: 3/8" = 1'-0"
 REFERENCE PLAN LA9-A

LABORATORY LEGEND	
MARK	DESCRIPTION (VWR SCIENTIFIC PRODUCTS OR APPROVED EQUAL)
(L1)	36" Cupboard Cabinet CFC-2036-12
(L2)	18" Drawer Cabinet CFD-2012-10
(L3)	18" Drawer Cabinet CFD-2012-10 (2 File Drawers w/ Hangers)
(L4)	48" Drawer Cabinet CFD-2318-10
(L5)	24" Cupboard and Drawer Cabinet CFE-2404-12
(L6)	36" Cupboard and Drawer Cabinet CFE-2416-12
(L7)	48" Left Side Blind Corner Cabinet CFC-2128-12
(L8)	48" Right Side Blind Corner Cabinet CFC-2136-12
(L9)	48" Sink Cabinet CFC-2008-F22, Drop in Sink VF-1003-D4-B
(L10)	52" Sink Cabinet CFC-2048-F22, Drop-in Sink VF-1003-D4-B
(L11)	48" Steel Fume Hood Base Cabinet CFC-2085-DF2 (FOR RELOCATED HOOD)
(L12)	80" Steel Fume Hood Base Cabinet, 1/2 Acid PCFD-ACID-3H1 on Right Side and 1/2 Flammable PCFG-SOLV-3H1, Work Top 6205-AS Cup Sink VF 0491-00
(L13)	48" Cupboard Cabinet CFC-2036-12
(L14)	36" One Drawer Table Apron, Pedestal Leg, Knee Space Filter CFA01M2238-03
(L15)	48" One Drawer Table Apron, Pedestal Leg, Knee Space Filter CFA01M2248-03
(L16)	80" One Drawer Table Apron Pedestal Leg, Knee Space Filter CFA02M2260-03
(L17)	36" Wall Cabinet with Blending Glass Doors CFV-8636-GL
(L18)	36" Full Height Storage Cabinet CFS-2116-01 Framed Glass Door CFS-3611-00 and Lock CFF-3304-WV
(L19)	Mod-Rack (Redline) S.S. Pegboard VFS-V1E24
(L20)	Clark Mounted Gownchanging Faucet with Vacuum Breaker Cat. No. VFL212-RVB-WB
(L21)	80" Steel Fume Hood KS-58H5468 and Hood Trim Packages CFS-0026-C7 Pre-Plumbed for 2 Services, Complete with Gownchanging Faucet, Digital Air Velocity Alarm, and 2 110V Receptacles on Facs. Work Top VFS-0205-A1
(L22)	24" Under Counter Refrigerator Marvel Scientific Model No. 6CAR
(L23)	Undercounter Steam Scrubber Catalog No. 62020-922
(L24)	VWR Balance Table 12867-330
(L25)	24" Cupboard Cabinet CFC-2034-0L2 (Swings Left)
(L26)	Relocated 48" Hood

LABORATORY SAMPLE ROOM LEGEND	
MARK	DESCRIPTION
(S1)	RELOCATED 48" Base Cabinet
(S2)	RELOCATED 36" Sink Base Cabinet
(S3)	RELOCATED 48" Base Corner Cabinet
(S4)	RELOCATED 48" Drawer / Cupboard Base Cabinet
(S5)	RELOCATED 48" Drawer / Cupboard Base Cabinet
(S6)	RELOCATED Incubator 2'-3" x 2'-4" x 6'-4"
(S7)	RELOCATED Incubator 2'-6" x 2'-3" x 5'-0"
(S8)	RELOCATED Incubator 2'-6" x 2'-6" x 4'-4"
(S9)	RELOCATED Incubator 2'-6" x 2'-4 1/2" x 6'-4"
(S10)	RELOCATED Incubator 2'-4" x 2'-1" x 5'-2"

NOTE:
 All Furniture Identified Above is Relocated from Existing Laboratory Areas. All Incubators are Existing and RELOCATED.

NOTE:
 ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
 Items Identified with Mixed Case Text are Existing.

KLH ENGINEERS, INC.

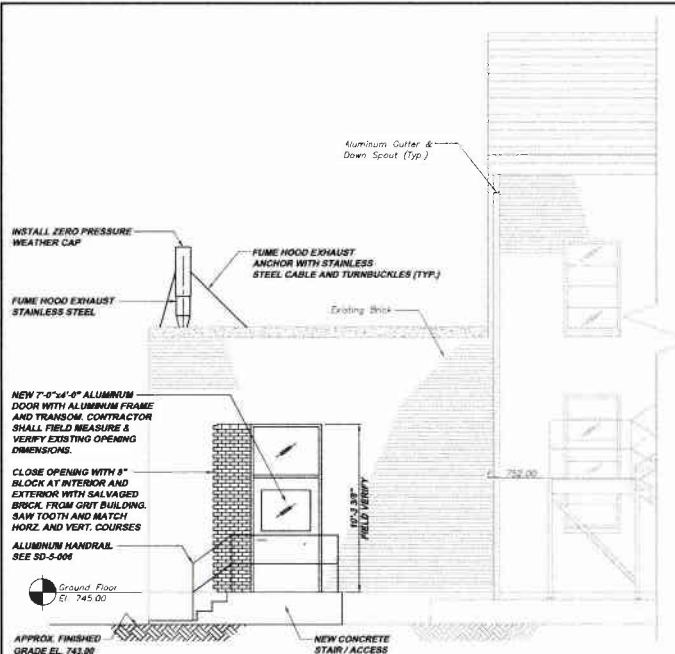
5173 CAMPBELL RUN ROAD
 PITTSBURGH, PA 15206
 PHONE: 412-261-2326
 FAX: 412-261-2326
 INFO@KLHENGINEERS.COM

**MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
 ALLEGHENY COUNTY, PENNSYLVANIA
 CONTRACT NUMBER 2010-01 AND 2010-02
 WASTEWATER TREATMENT PLANT EXPANSION
 LABORATORY ADDITION PLAN AND DETAILS**

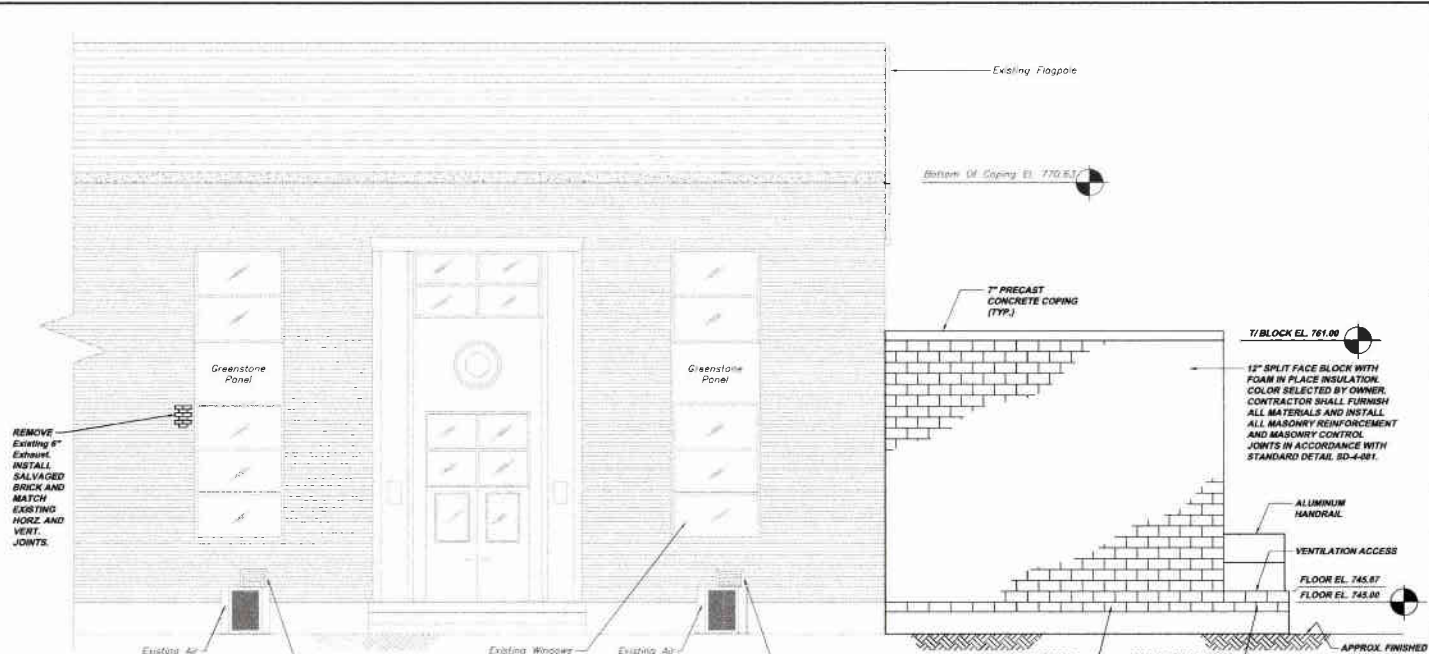
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Drawn By:	DMB
Checked By:	RDH
Approved By:	BHG

Sheet No. 7

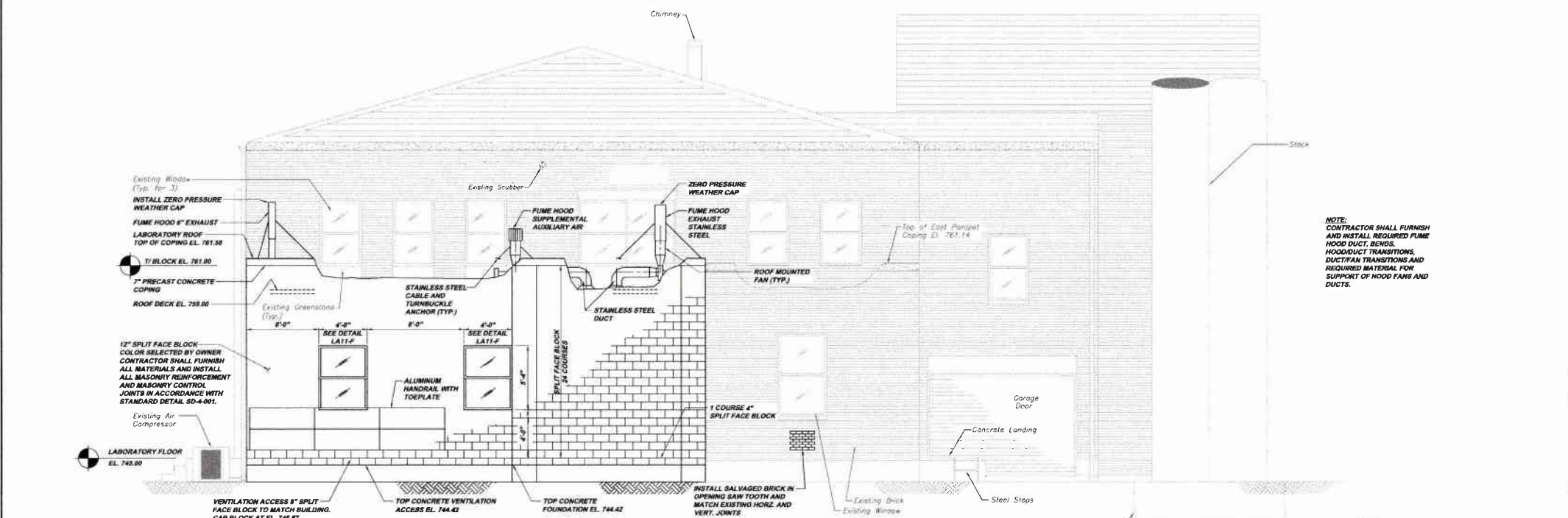
Drawing No. 220-LA9



C & I BUILDING ADDITION NORTH ELEVATION LA7-A
 SCALE: 1/4" = 1'-0"
 REFERENCE PLAN LA8-B



C & I BUILDING ADDITION SOUTH ELEVATION LA7-B
 SCALE: 1/4" = 1'-0"
 REFERENCE PLAN LA8-B



C & I BUILDING ADDITION EAST ELEVATION LA7-C
 SCALE: 1/4" = 1'-0"
 REFERENCE PLAN LA8-B

NOTE: CONTRACTOR SHALL FURNISH AND INSTALL REQUIRED FUME HOOD DUCT, BENDS, HOODUCT TRANSITIONS, DUCT/FAN TRANSITIONS AND REQUIRED MATERIAL FOR SUPPORT OF HOOD FANS AND DUCTS.

NOTE: ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED. Items Identified with Mixed Case Text are Existing.

Revision	Date	Revision	Date
1-011		RELEASE FOR BID	

Date	1-011
Scale	AS SHOWN
Drawn By	AUGUST 2010
Checked By	DHB
Approved By	RDH
	SHD

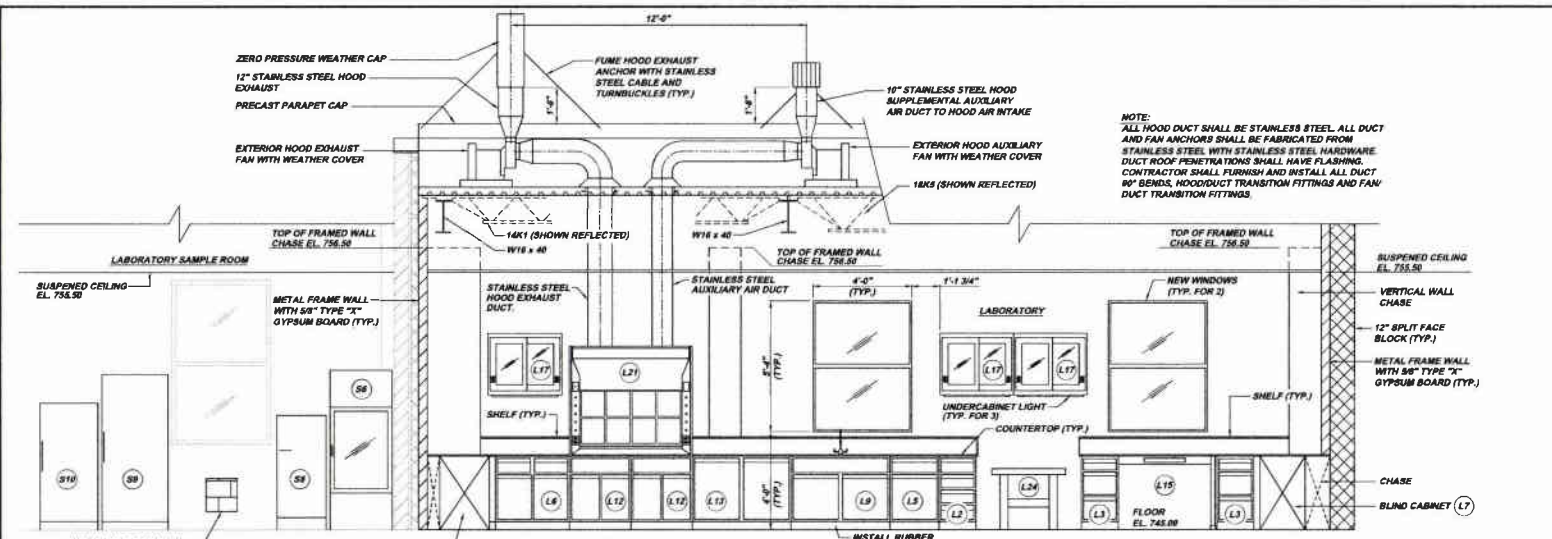
5175 CAMPBELL BLVD. SUITE 200
 PITTSBURGH, PA 15205
 PH: 412-424-9210
 FAX: 412-424-9210
 WWW.KLHENGINEERS.COM

KLH ENGINEERS, INC.

MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
 ALLEGHENY COUNTY, PENNSYLVANIA
 CONTRACT NUMBER 2010-01 AND 2010-02
 WASTEWATER TREATMENT PLANT EXPANSION
 LABORATORY ADDITION ELEVATIONS

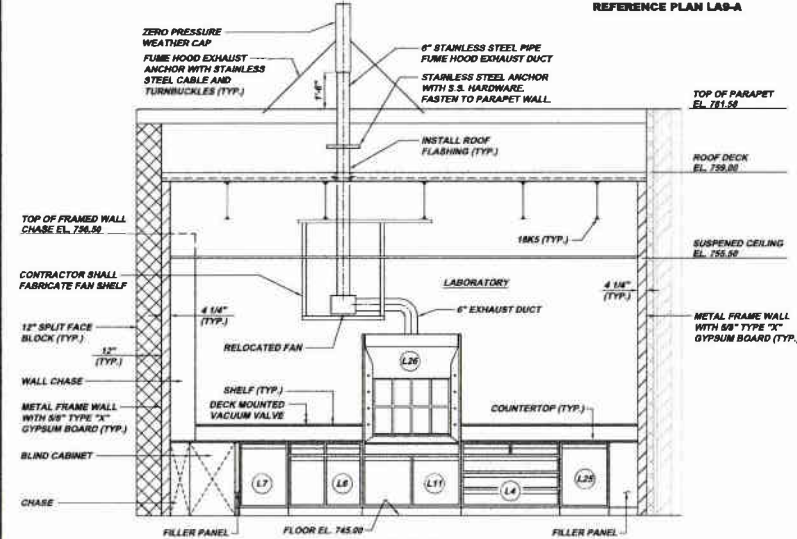
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Drawing No. **220-LA7**

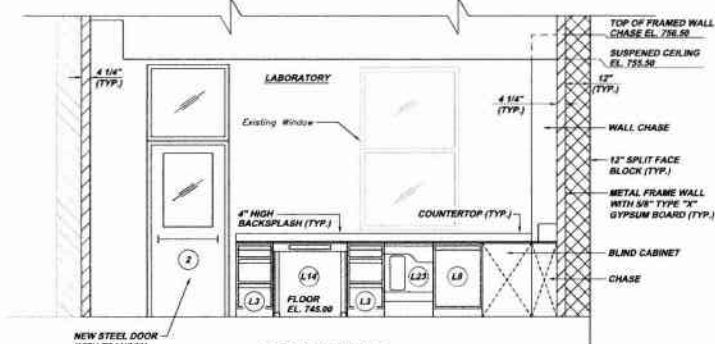


NOTE:
ALL HOOD DUCT SHALL BE STAINLESS STEEL ALL DUCT AND FAN ANCHORS SHALL BE FABRICATED FROM STAINLESS STEEL WITH STAINLESS STEEL HARDWARE. DUCT ROOF PENETRATIONS SHALL HAVE FLASHING. CONTRACTOR SHALL FURNISH AND INSTALL ALL DUCT 90° BENDS, HOOD DUCT TRANSITION FITTINGS AND FAN DUCT TRANSITION FITTINGS.

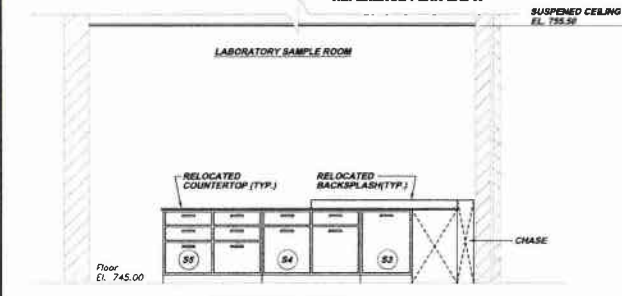
SECTION LA10-A
SCALE: 3/8" = 1'-0"
REFERENCE PLAN LA9-A



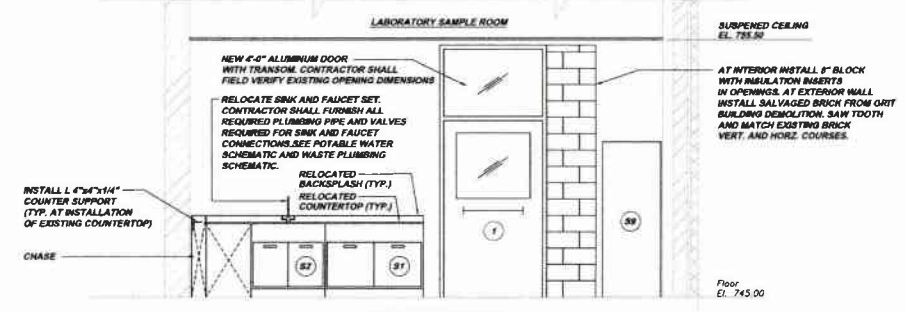
SECTION LA10-B
SCALE: 3/8" = 1'-0"
REFERENCE PLAN LA9-A



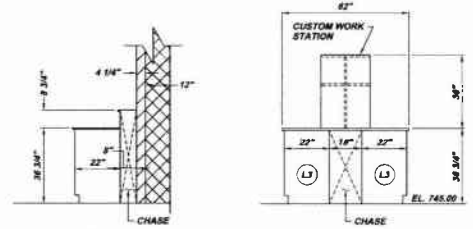
SECTION LA10-C
SCALE: 3/8" = 1'-0"
REFERENCE PLAN LA9-A



SECTION LA10-D
SCALE: 3/8" = 1'-0"
REFERENCE PLAN LA9-A



SECTION LA10-E
SCALE: 3/8" = 1'-0"
REFERENCE PLAN LA9-A



SECTION LA10-F
SCALE: 3/8" = 1'-0"
REFERENCE PLAN LA9-A

SECTION LA10-G
SCALE: 3/8" = 1'-0"
REFERENCE PLAN LA9-A

LABORATORY LEGEND	
MARK	DESCRIPTION (VWR SCIENTIFIC PRODUCTS OR APPROVED EQUAL)
(L1)	34" Cupboard Cabinet CFC-2036-12
(L2)	18" Drawer Cabinet CFD-2803-10
(L3)	18" Drawer Cabinet CFD-2812-16 (2 File Drawers w/ Hangers)
(L4)	48" Drawer Cabinet CFD-2318-10
(L5)	24" Cupboard and Drawer Cabinet CFE-2404-12
(L6)	36" Cupboard and Drawer Cabinet CFE-2419-12
(L7)	48" Left Side Blind Corner Cabinet CFG-2138-12
(L8)	48" Right Side Blind Corner Cabinet CFG-2138-12
(L9)	48" Sink Cabinet CFG-2008-F22, Drop-In Sink VF-1003-DI-B
(L10)	24" Sink Cabinet CFG-2049-F22, Drop-In Sink VF-1003-DI-B
(L11)	48" Steel Fume Hood Base Cabinet CFG 3088-0F2 (FOR RELOCATED HOOD)
(L12)	60" Steel Fume Hood Base Cabinet, 1/2 Acid RCFG-ACID-301 on Right Side and 1/2 Flammable RCFG-SOLV-301, Work Top 6205 A8 Cap Sink VF 6481-00
(L13)	48" Cupboard Cabinet CFC-2038-12
(L14)	36" One Drawer Table Apron, Pedestal Leg, Knee Space Filler CFA01M2216-03
(L15)	48" One Drawer Table Apron, Pedestal Leg, Knee Space Filler CFA01M2248-03
(L16)	60" One Drawer Table Apron Pedestal Leg, Knee Space Filler CFA02M2260-03
(L17)	35" Wall Cabinet with Sliding Glass Doors CFW-M3036-0L
(L18)	35" Full Height Storage Cabinet CFS-2116-01 Framed Glass Door CFS-3611-00 and Lock CFS-3304-0W
(L19)	Mod-Rack (Redline) S.S. Pegboard VFS-V1624
(L20)	Curb Mounted Goose-necking Faucet with Vacuum Breaker Cat. No. VFL212-8195-895
(L21)	60" Steel Fume Hood KS-09K5469 and Hood Trim Package CFS-6026-C7 Pre-Plumbed for 2 Services, Complete with Goose-neck Faucet, Digital Air Velocity Alarm, and 2 110V Receptacles on Face, Work Top VFS-4205-A1
(L22)	24" Under Counter Refrigerator Marvel Scientific Model No. 6CAR
(L23)	Undercounter Steam Scrubber Catalog No. 21020-822
(L24)	VWR Balance Table 12567-330
(L25)	24" Cupboard Cabinet CFC-2834-0L (Swings Left)
(L26)	Relocated 48" Hood

FURNISH 16 GAUGE METAL WALL ANGLES ATTACHED TO THE WALL TO SUPPORT THE REAR OVERHANG OF WORKTOPS AND WALL TABLE SERVICE LEDGES AS NEEDED. FURNISH PIPE CHASE CORNER END AND REAR SCRUBBER EXISTING FILLER PANEL ASSEMBLY AS NEEDED TO COMPLETE CABINETS.

LABORATORY SAMPLE ROOM LEGEND	
MARK	DESCRIPTION
(S1)	RELOCATED 48" Base Cabinet
(S2)	RELOCATED 36" Sink Base Cabinet
(S3)	RELOCATED 48" Base Corner Cabinet
(S4)	RELOCATED 48" Drawer / Cupboard Base Cabinet
(S5)	RELOCATED 48" Drawer / Cupboard Base Cabinet
(S6)	RELOCATED Incubator 2'-3" x 2'-6" x 8'-4"
(S7)	RELOCATED Incubator 2'-4" x 2'-5" x 5'-0"
(S8)	RELOCATED Incubator 2'-3" x 2'-0" x 4'-8"
(S9)	RELOCATED Incubator 2'-4" x 2'-4 1/2" x 6'-4"
(S10)	RELOCATED Incubator 2'-4" x 2'-1" x 5'-2"

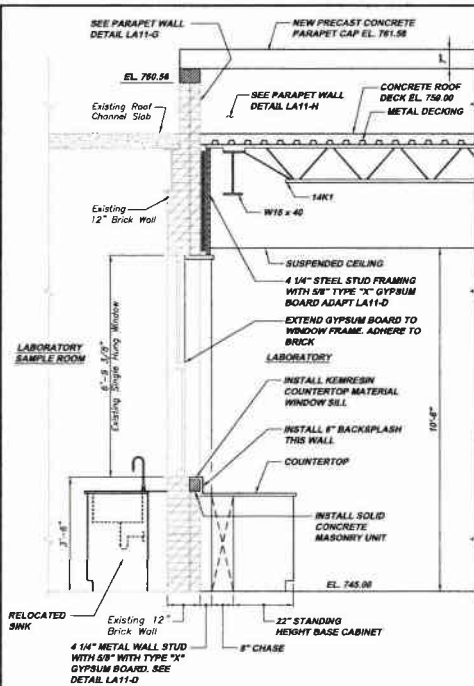
NOTE:
All Furniture Identified Above is Relocated from Existing Laboratory Areas. All Incubators are Existing and RELOCATED.

MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
ALLEGHENY COUNTY, PENNSYLVANIA
CONTRACT NUMBER 2010-01 AND 2010-02
WASTEWATER TREATMENT PLANT EXPANSION
LABORATORY ADDITION SECTIONS

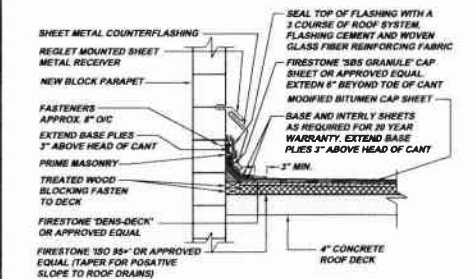


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Date: AUGUST 2010
Drawn By: DMB
Checked By: RDM
Approved By: JHS
Sheet No. 9
Drawing No. 220-LA10

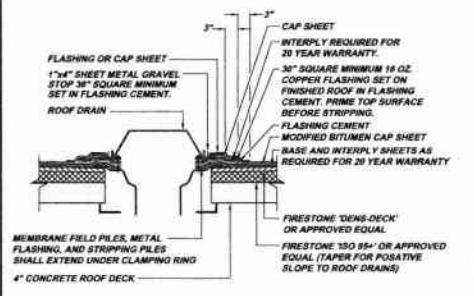
NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED
ITEMS IDENTIFIED WITH LOWER CASE TEXT ARE EXISTING.



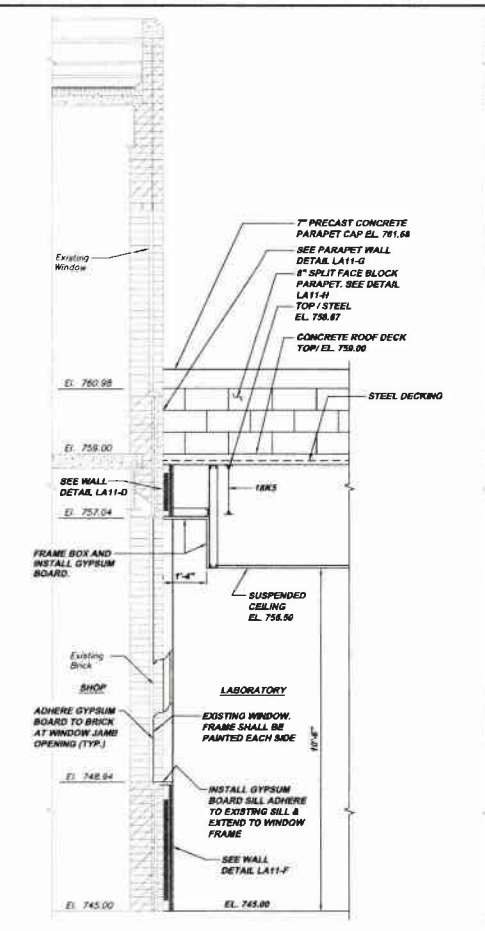
WALL SECTION LA11-A
SCALE: 1/2" = 1'-0"
REFERENCE PLAN LAB-A



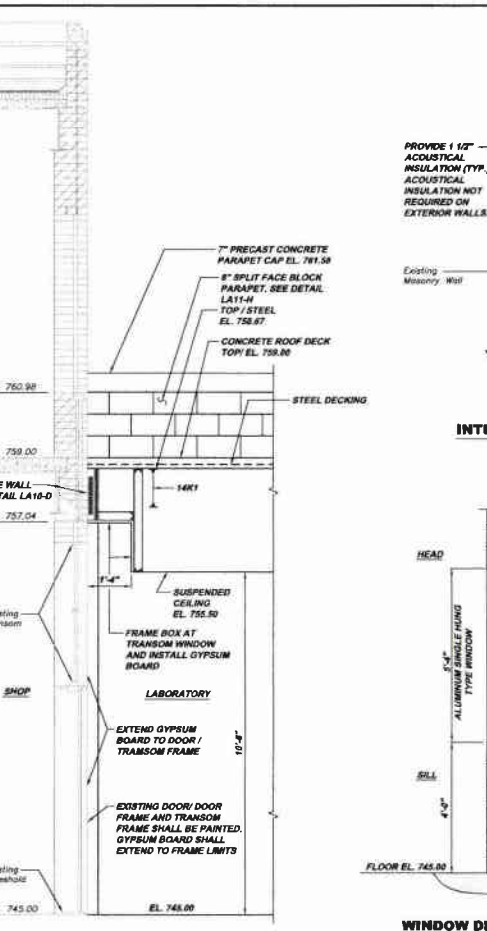
PARAPET WALL DETAIL LA11-H
NOT TO SCALE



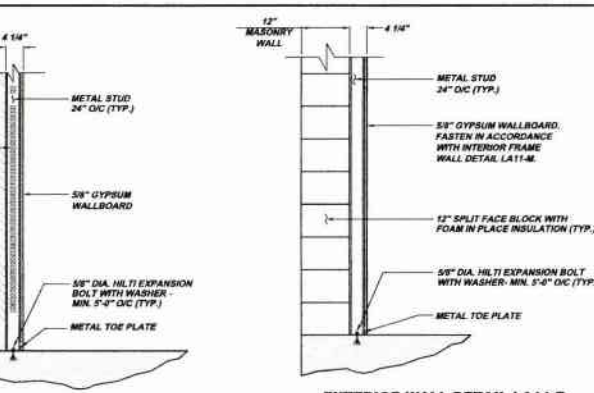
ROOF DRAIN DETAIL LA11-J
NOT TO SCALE



WALL SECTION LA11-B
SCALE: 1/2" = 1'-0"
REFERENCE PLAN LAB-A

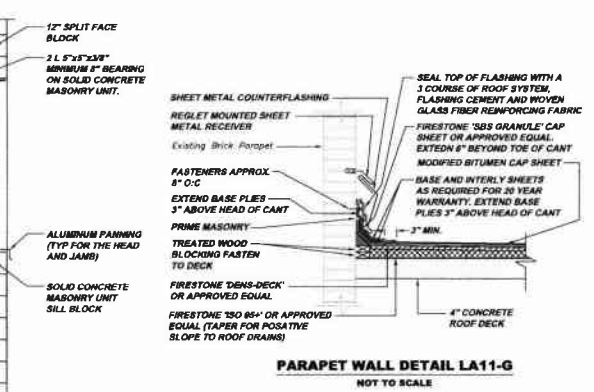


WALL SECTION LA11-C
SCALE: 1/2" = 1'-0"
REFERENCE PLAN LAB-A



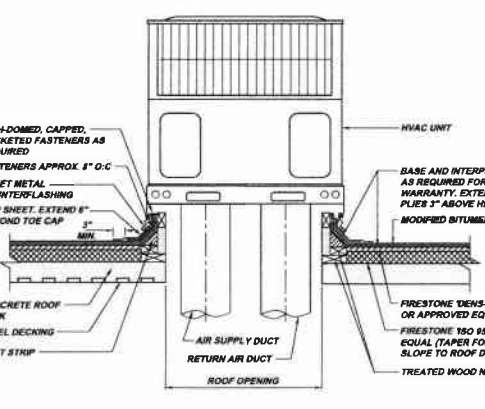
INTERIOR WALL DETAIL LA11-D
SCALE: 3/4" = 1'-0"
(TYP. AT OFFICE)

EXTERIOR WALL DETAIL LA11-E
SCALE: 3/4" = 1'-0"
(TYP. AT OFFICE)



WINDOW DETAIL LA11-F
SCALE: 1/2" = 1'-0"
REFERENCE PLAN LAB-A

PARAPET WALL DETAIL LA11-G
NOT TO SCALE



HVAC DETAIL LA11-K
NOT TO SCALE



INTERIOR WALL DETAIL LA11-L
NOT TO SCALE



INTERIOR WALL FRAMING DETAIL LA11-M
NOT TO SCALE

NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED
Items Identified with Mixed Case Text are Existing.

Revision
Date
Revision
Date
Revision
Date
Revision
Date

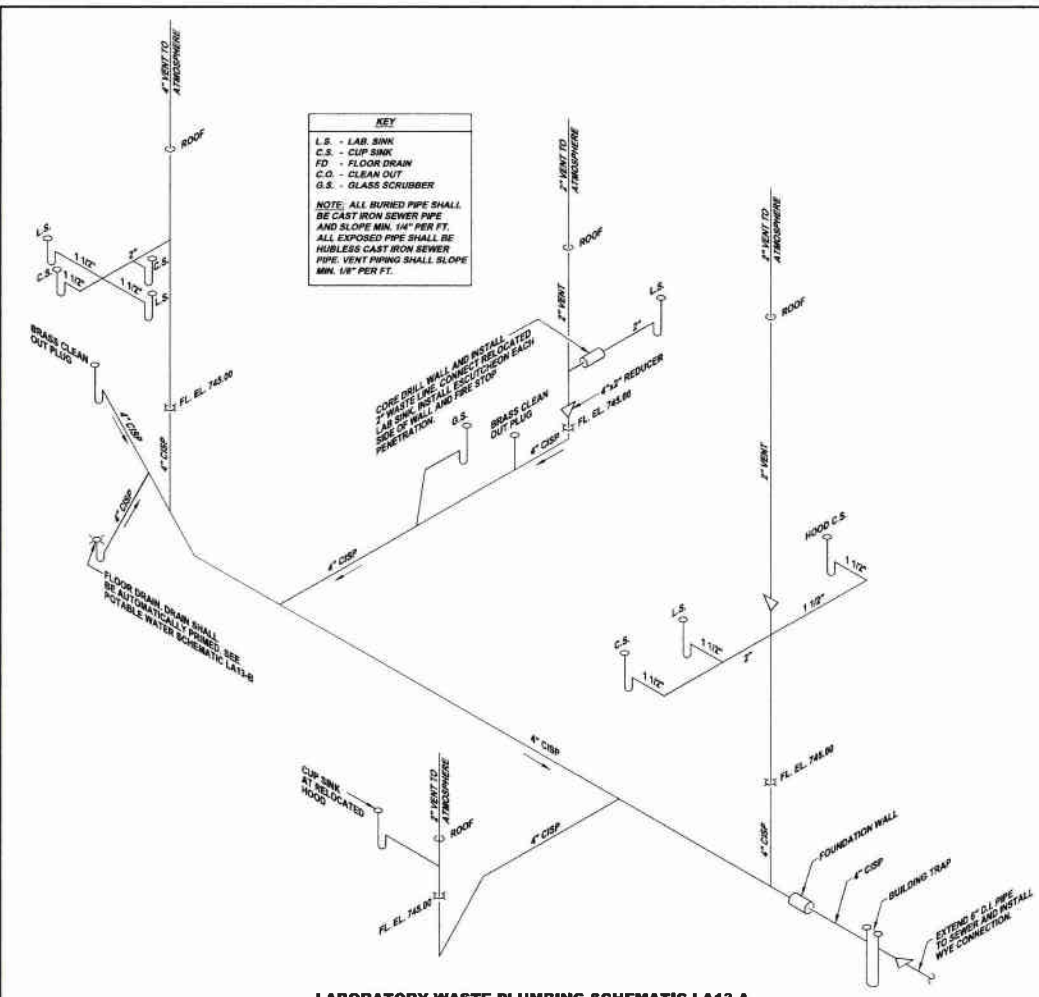
5.173 CAMPBELL'S RUN ROAD
PITTSBURGH, PA 15206
TEL: 412-989-5330
FAX: 412-989-5339
info@clh-engineers.com

KLH
ENGINEERS, INC.

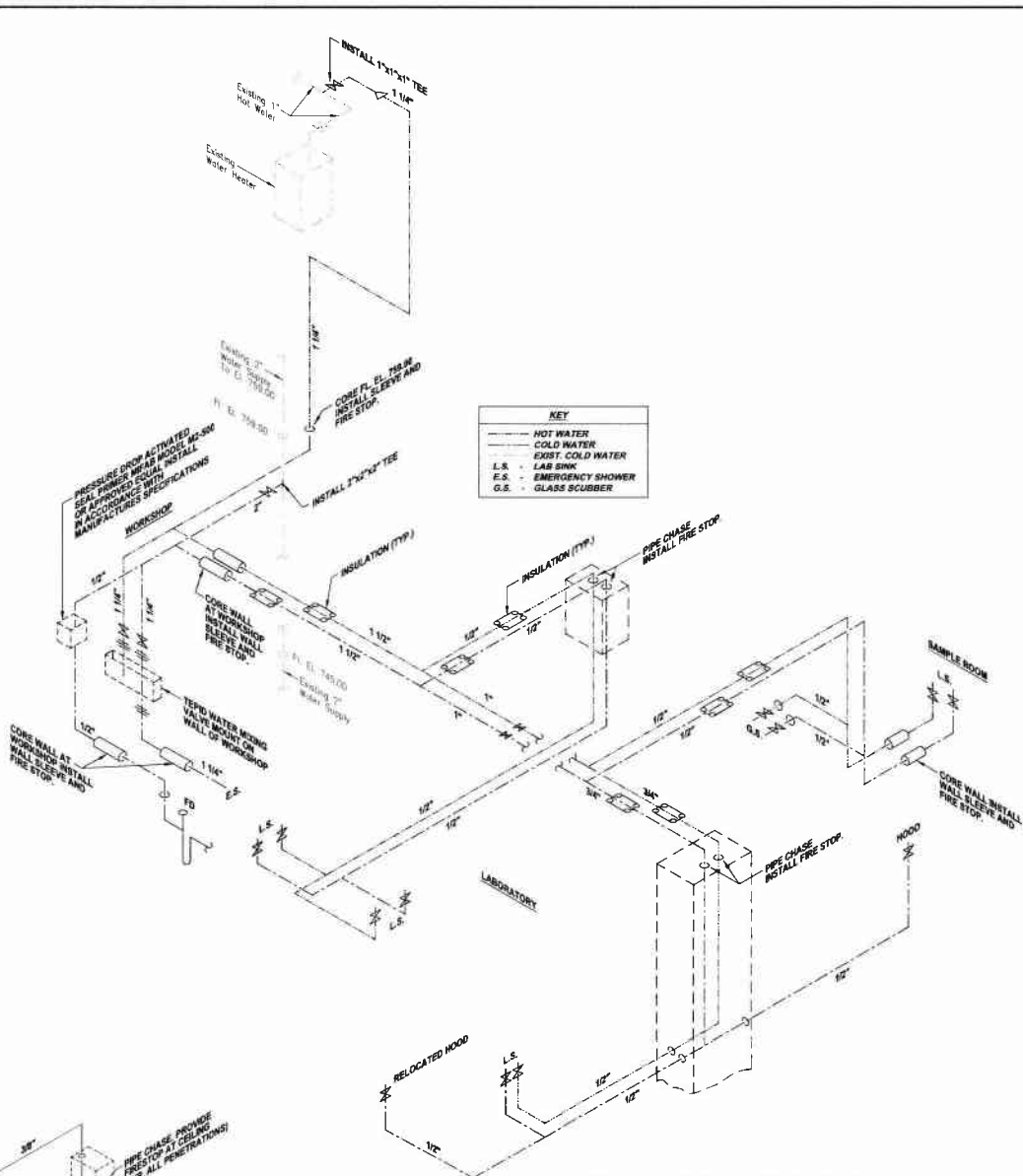
MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
ALLEGHENY COUNTY, PENNSYLVANIA
CONTRACT NUMBER 2010-01 AMD 2010-02
WASTEWATER TREATMENT PLANT EXPANSION
LABORATORY ADDITION SECTIONS AND DETAILS

Scale: As Shown
Date: AUGUST 2013
Drawn By: DMB
Checked By: RBN
Approved By: BJD

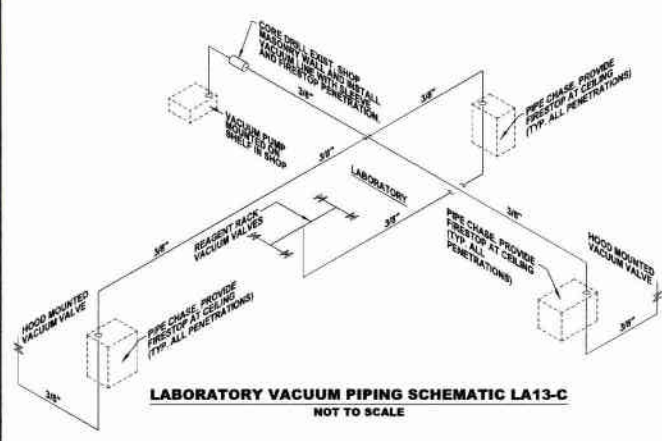
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Drawing No. 220-LA11



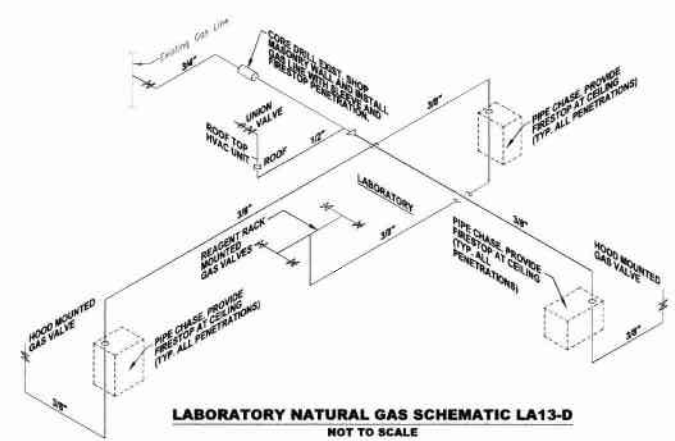
LABORATORY WASTE PLUMBING SCHEMATIC LA13-A
NOT TO SCALE



LABORATORY POTABLE WATER SCHEMATIC LA13-B
NOT TO SCALE



LABORATORY VACUUM PIPING SCHEMATIC LA13-C
NOT TO SCALE



LABORATORY NATURAL GAS SCHEMATIC LA13-D
NOT TO SCALE

NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
Items Identified with Mixed Case Text are Existing.

Revision	Date	Released For
1	1-30-11	RELEASE FOR BID

5175 CAMPBELL BLVD. SUITE 200
PITTSBURGH, PA 15203
PHONE: 412-439-0240
FAX: 412-439-0241
INFO@KLHENGINEERS.COM

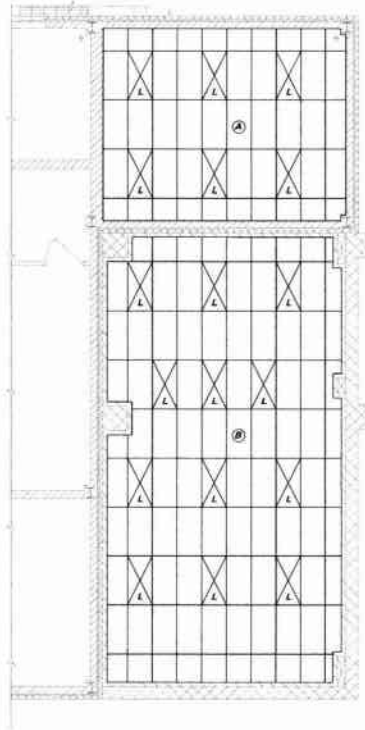
KLH ENGINEERS, INC.

MUNICIPAL AUTHORITY OF THE CITY OF MCKESPORT
ALLEGHENY COUNTY, PENNSYLVANIA
CONTRACT NUMBER 2010-01 AND 2010-02
WASTEWATER TREATMENT PLANT EXPANSION
LABORATORY ADDITION SCHEMATIC DIAGRAMS

As Shown	AUGUST 2011
Drawn By:	DMB
Checked By:	RDI
Approved By:	SHG

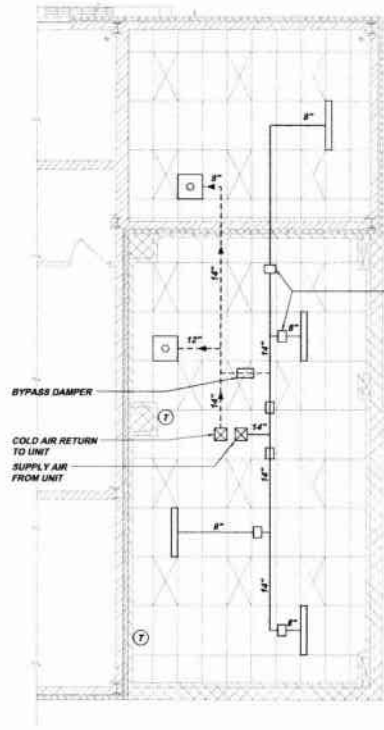
Sheet No. 11

Drawing No. **220-LA13**



LABORATORY CEILING PLAN LA17-A
SCALE: 3/16" = 1'-0"

CEILING SCHEDULE			
SYMBOL	AREA / ROOM	CEILING	HEIGHT
(A)	LABORATORY SAMPLE ROOM	SUSPENDED 2' x 4' GRID	10'-6"
(B)	LABORATORY	SUSPENDED 2' x 4' GRID	10'-6"



LABORATORY DUCT PLAN LA17-B
SCALE: 3/16" = 1'-0"

KEY	
(T)	THERMOSTAT
(D)	DAMPER
(M)	MANUAL BALANCING DAMPER
(TR)	TRANSFORMER
(S)	SUPPLY DIFFUSER
(R)	RETURN DIFFUSER
(SD)	SUPPLY DUCT
(RD)	RETURN DUCT

SUPPLY AIR DIFFUSER MECHANICAL DAMPER SETTING	
ROOM	CFM / DIFFUSER
LABORATORY SAMPLE ROOM	327
LABORATORY	241

As Shown	Revision
AUGUST 2018	RELEASE FOR BID
Drawn By:	Date
Checked By:	1/2/11
Approved By:	

5175 CAMPBELL BLVD. SUITE 100
 PITTSBURGH, PA 15206
 PHONE: 412-788-0310
 INFO@KLHENGINEERS.COM

KLH ENGINEERS, INC.

MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
 ALLEGHENY COUNTY, PENNSYLVANIA
 CONTRACT NUMBER 2010-01 AND 2010-02
 WASTEWATER TREATMENT PLANT EXPANSION
 LABORATORY ADDITION CEILING PLAN AND DUCT PLAN

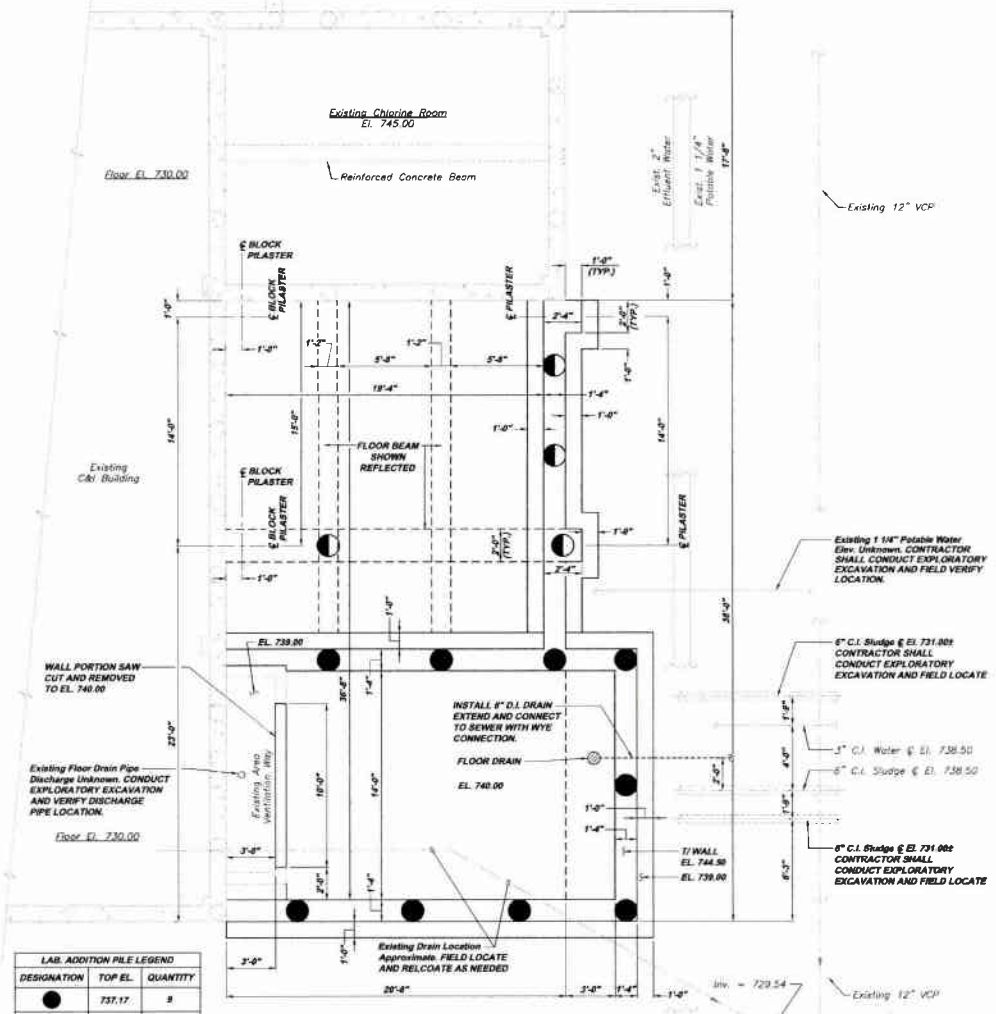
Sheet No. 12
 Drawing No. 220-LA17

NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
Items Identified with Mixed Case Text are Existing.

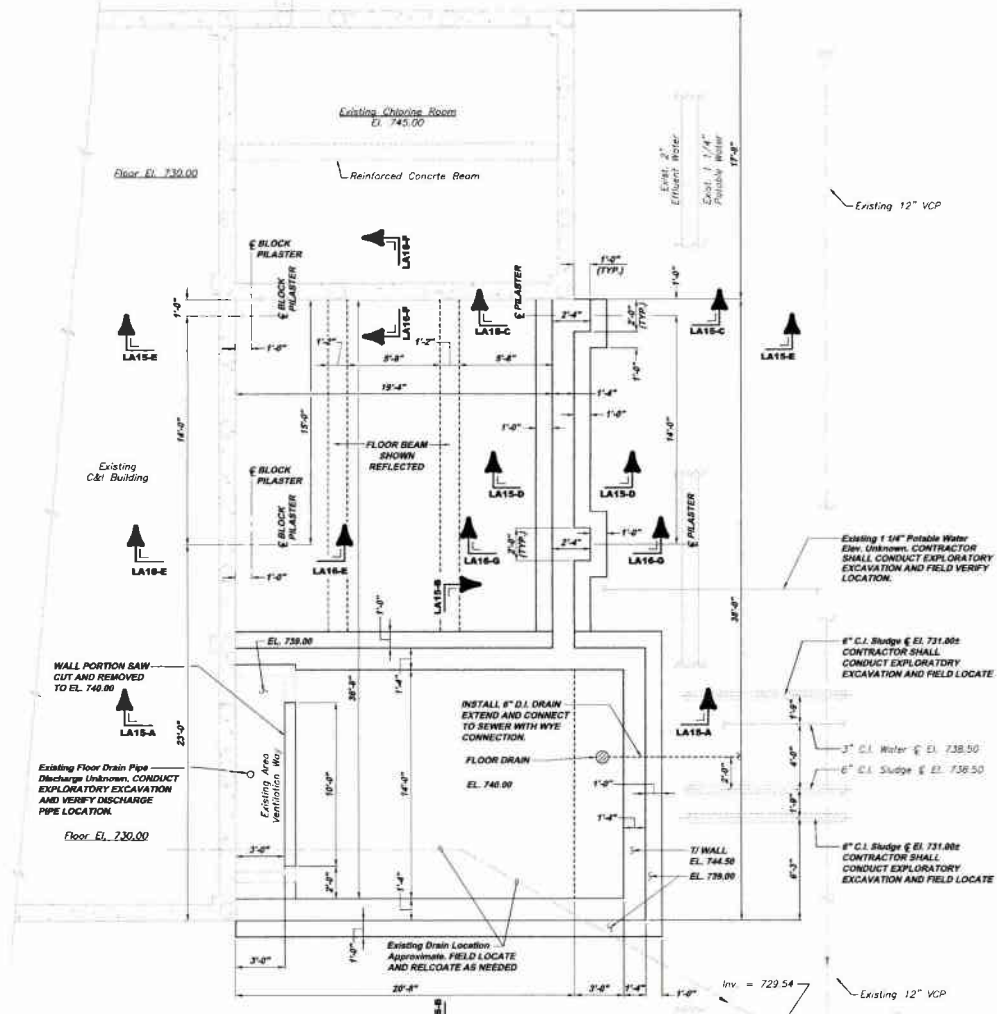
LAB. ADDITION PILE LEGEND		
DESIGNATION	TOP EL.	QUANTITY
	737.17	3
	737.50	4

ALL PILES 12" DIAMETER AND 80 TON CAPACITY AND SHALL EXTEND 90' DEEP MINIMUM

LABORATORY ADDITION PILE PLAN LA12-A
SCALE: 1/4" = 1'-0"



LABORATORY ADDITION FOUNDATION PLAN LA12-B
SCALE: 1/4" = 1'-0"



NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
Items Identified with Mixed Case Text are Existing.

5175 BARNBELL'S RUN, ROAD
PITTSBURGH, PA 15206
TEL: 412-261-1111
FAX: 412-261-1112
INFO@KLEHENGINEERS.COM

KLH ENGINEERS, INC.

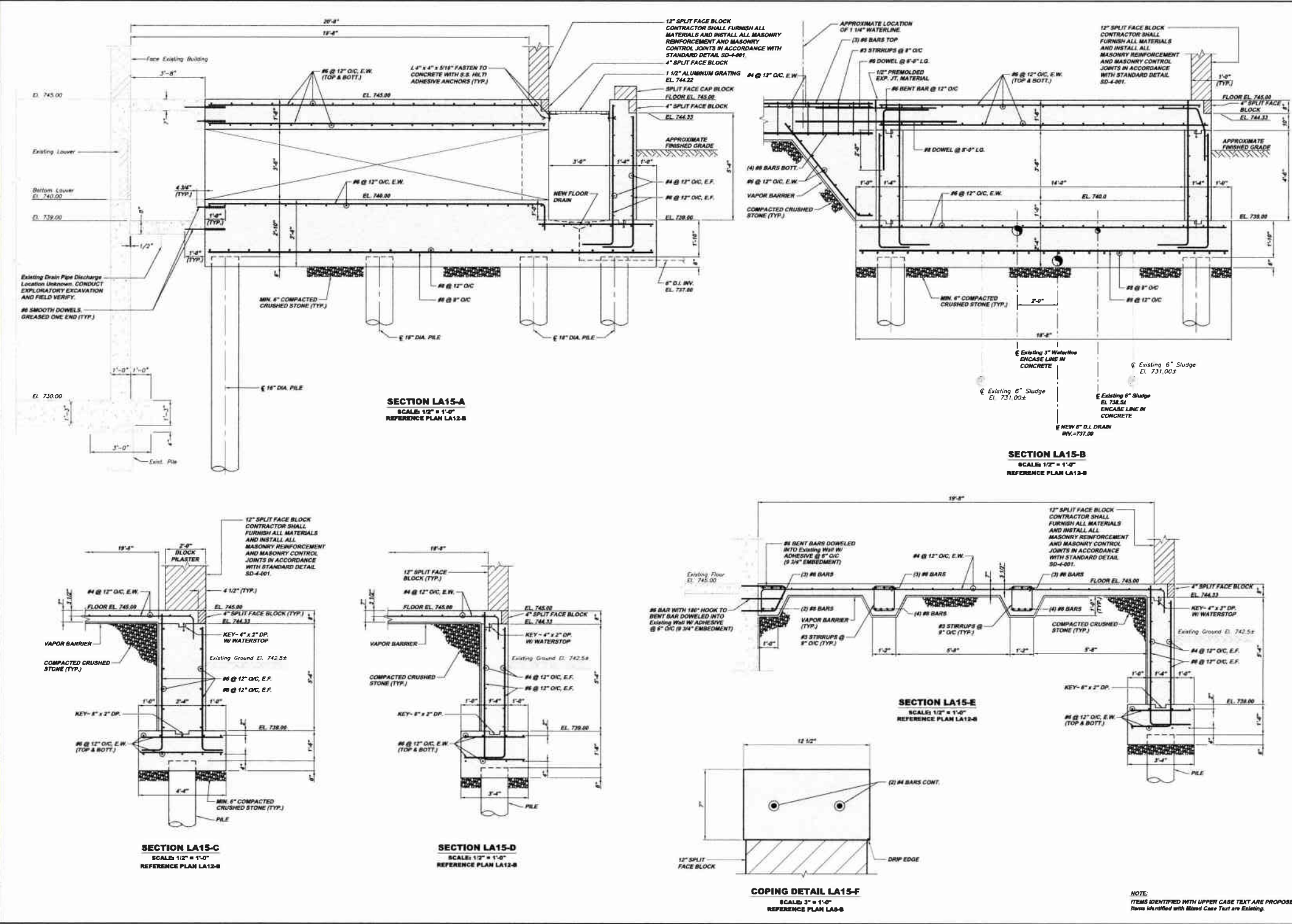
MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
ALLEGHENY COUNTY, PENNSYLVANIA
CONTRACT NUMBER 2010-01 AND 2010-02
WASTEWATER TREATMENT PLANT EXPANSION
LABORATORY ADDITION STRUCTURAL PLAN AND SECTIONS

As Shown:	AUGUST 2010
Date:	DMB
Drawn By:	RDH
Checked By:	RDH
Approved By:	BHG

Revision:
Date:
Revision:
Date:
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Revision:
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Revision:
Date:
Revision:
Date:

13

Drawing No.
220-LA12

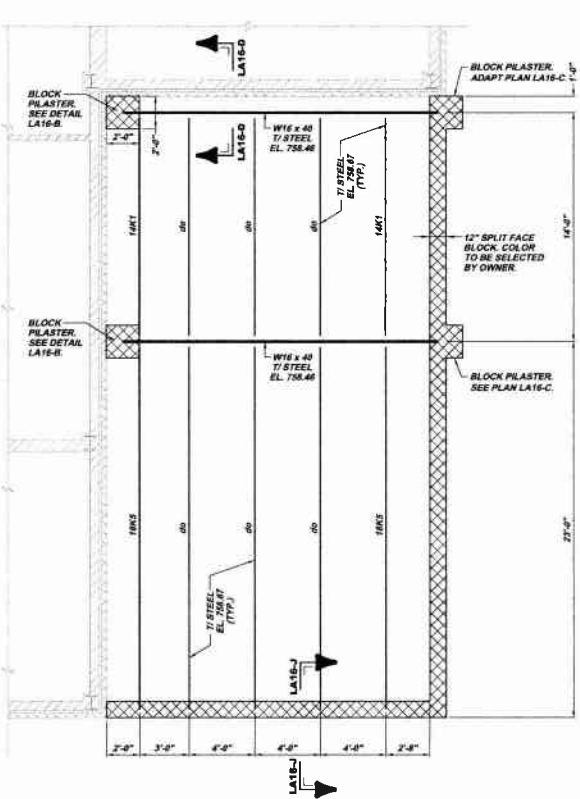


Revision	Date	By	Check	Appr.
1				
2				
3				
4				
5				
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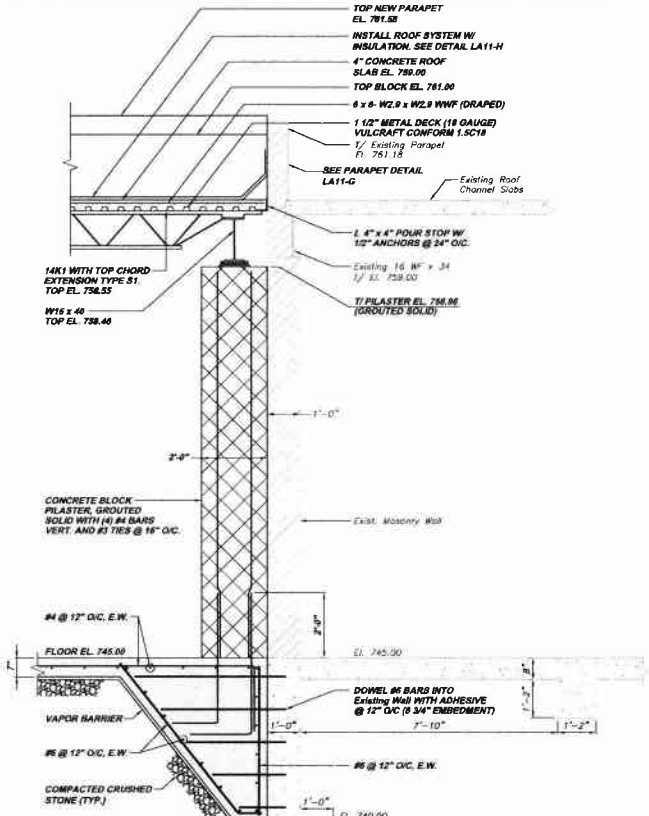
As Shown	Scale	1/4" = 1'-0"
DATE	DATE	AUGUST 2019
Drawn By:	Checked By:	RDH
Design By:	Approved By:	

5175 CAMPBELLS RUN ROAD PITTSBURGH, PA 15205 PHONE: 412-949-0320 INFO@KLHENGINEERS.COM		MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT ALLEGHENY COUNTY, PENNSYLVANIA CONTRACT NUMBER 20-09-01 AND 20-10-02 WASTEWATER TREATMENT PLANT EXPANSION LABORATORY ADDITION STRUCTURAL SECTIONS
Date: 10/11/19 Release For Bid:		

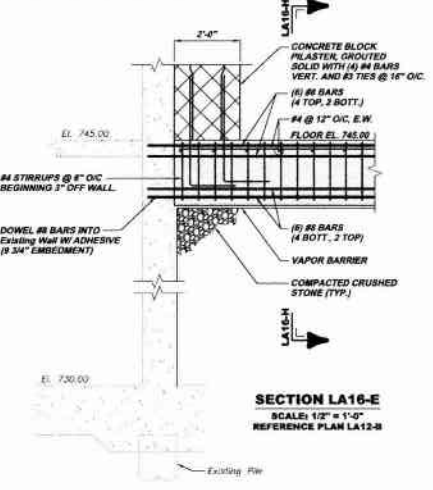
Sheet No.	14
Drawing No.	220-LA15



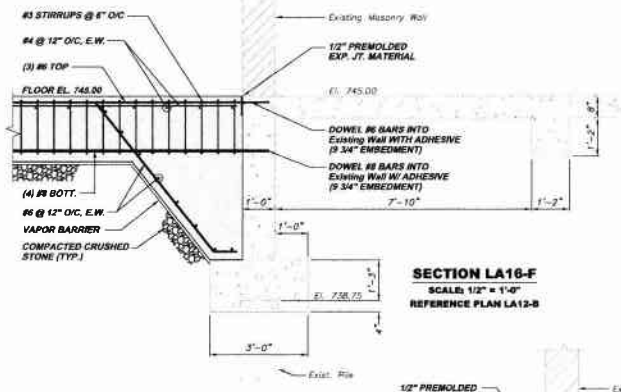
LABORATORY ADDITION STRUCTURAL PLAN LA16-A
SCALE: 1/4" = 1'-0"



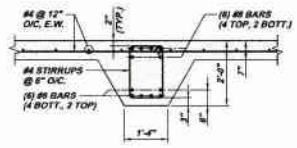
SECTION LA16-D
SCALE: 1/2" = 1'-0"
REFERENCE PLAN LA16-A



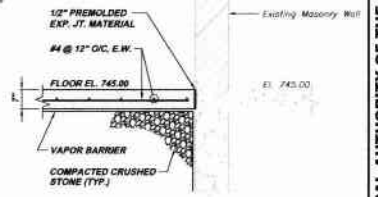
SECTION LA16-E
SCALE: 1/2" = 1'-0"
REFERENCE PLAN LA16-B



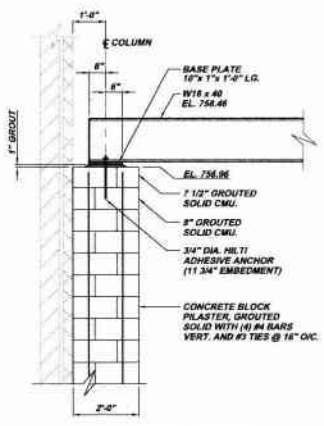
SECTION LA16-F
SCALE: 1/2" = 1'-0"
REFERENCE PLAN LA16-B



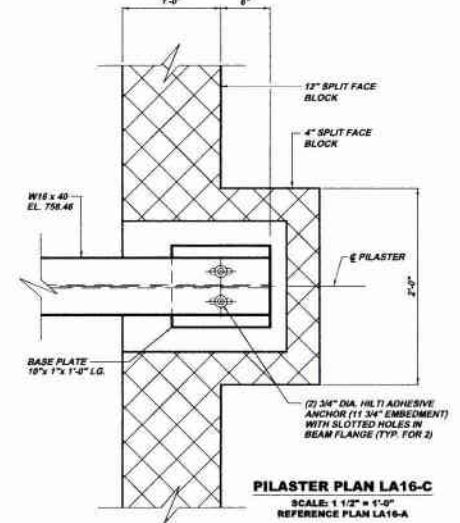
SECTION LA16-H
SCALE: 1/2" = 1'-0"
REFERENCE SECTION LA16-G



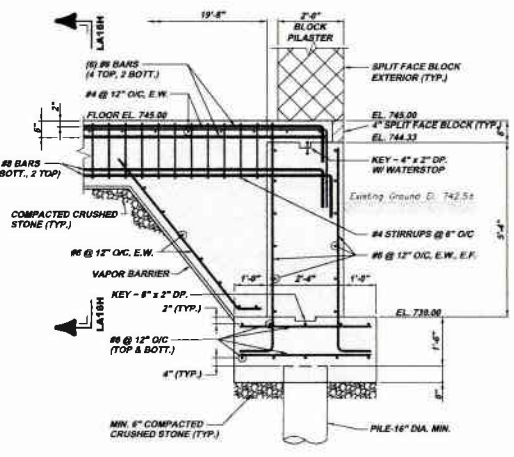
SECTION LA16-K
SCALE: 1/2" = 1'-0"
REFERENCE PLAN LA16-A



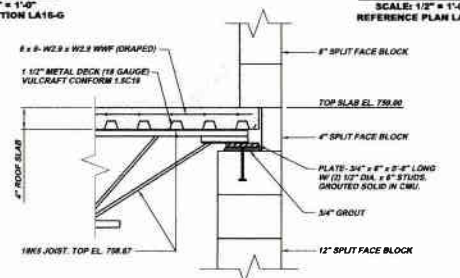
DETAIL LA16-B
SCALE: 1/2" = 1'-0"
REFERENCE PLAN LA16-A
(TYP. AND OPPOSITE HAND)



PILASTER PLAN LA16-C
SCALE: 1 1/2" = 1'-0"
REFERENCE PLAN LA16-A



SECTION LA16-G
SCALE: 1/2" = 1'-0"
REFERENCE PLAN LA16-B



SECTION LA16-J
SCALE: 1" = 1'-0"
REFERENCE PLAN LA16-A

NOTE:
ITEMS IDENTIFIED WITH UPPER CASE TEXT ARE PROPOSED.
Items Identified with Mixed Case Text are Existing.

Revision	Date	Revision	Date

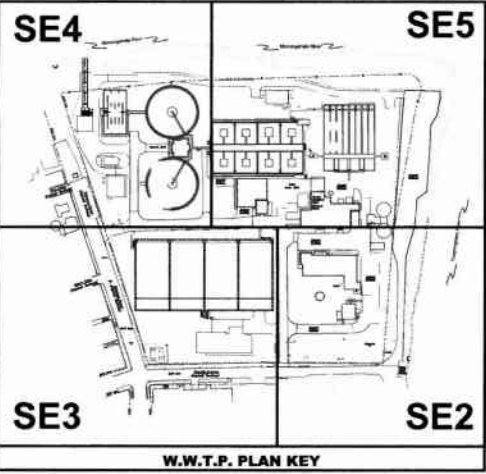
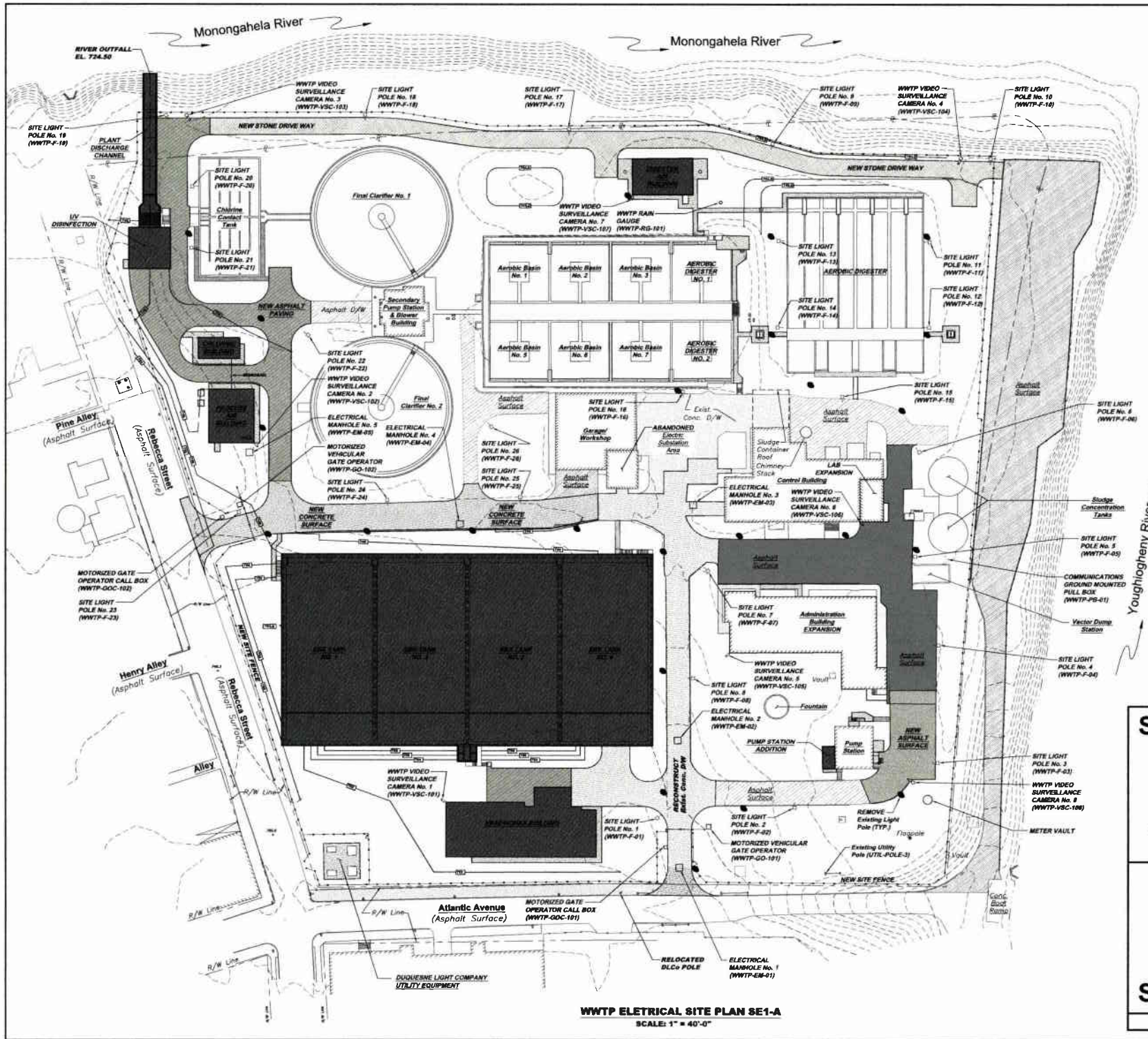
5175 S. WASHINGTON BLVD. SUITE 100
PITTSBURGH, PA 15206
PHONE: 412-281-2322
INFO@KLHENGINEERS.COM

KLH ENGINEERS, INC.

MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
ALLEGHENY COUNTY, PENNSYLVANIA
CONTRACT NUMBER 2010-01 AND 2010-02
WASTEWATER TREATMENT PLANT EXPANSION
LABORATORY ADDITION STRUCTURAL ROOF FRAMING PLAN AND SECTIONS

Scale: As Shown
Date: AUGUST 2010
Drawn By: DMJ/JEA
Checked By:
Approved By: SHD

Street No. 15
Drawing No. 220-LA16



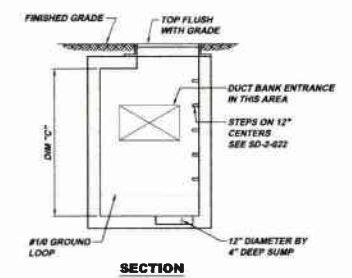
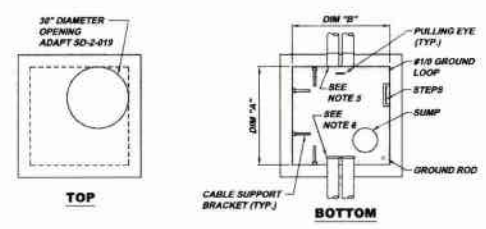
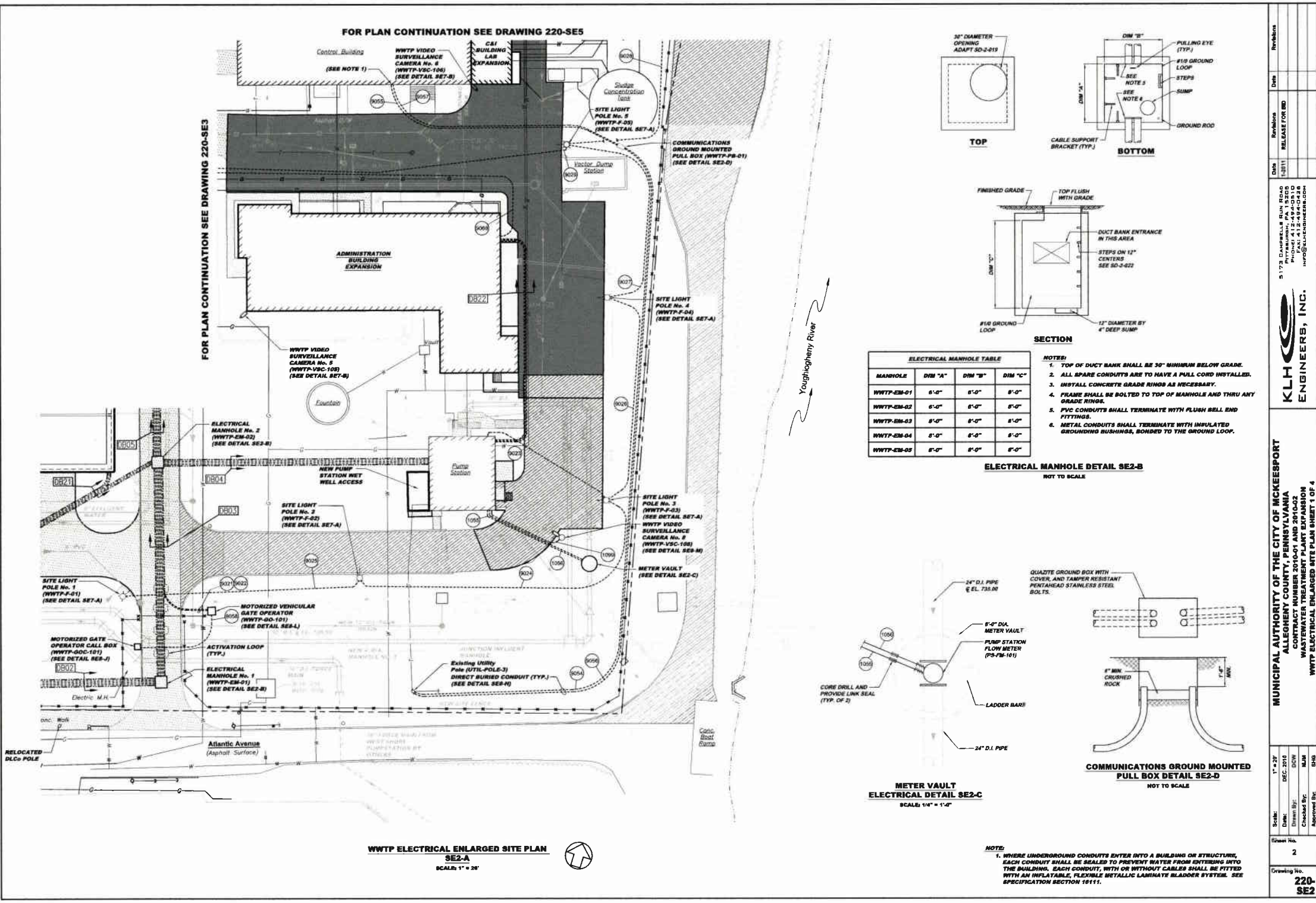
WWTP ELECTRICAL SITE PLAN SE1-A
SCALE: 1" = 40'-0"

Scale:	1" = 40'	Sheet No.	1
Date:	DEC. 2015	Drawing No.	220-SE1
Drawn By:	DCW	Revision:	
Checked By:	MM	Date:	
Approved By:	SHS	Revisions:	

Revisions	Date	Released For
1		RELEASE FOR BID

5172 CAMPBELL BLVD. ROOM 2008 PITTSBURGH, PA 15206 PHONE: 412-439-9200 FAX: 412-439-9200 INFO@KLEHENGINEERS.COM	
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MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT ALLEGHENY COUNTY, PENNSYLVANIA CONTRACT NUMBER 2010-01 AND 2010-02 WASTEWATER TREATMENT PLANT EXPANSION WWTP ELECTRICAL SITE PLAN

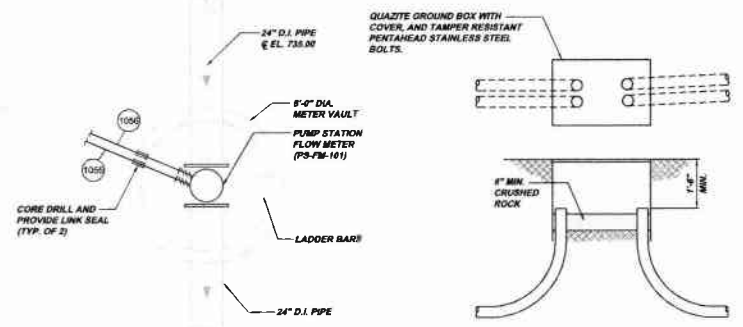


ELECTRICAL MANHOLE TABLE

MANHOLE	DIM "A"	DIM "B"	DIM "C"
WWTP-EM-01	6'-0"	6'-0"	6'-0"
WWTP-EM-02	6'-0"	6'-0"	6'-0"
WWTP-EM-03	6'-0"	6'-0"	6'-0"
WWTP-EM-04	6'-0"	6'-0"	6'-0"
WWTP-EM-05	6'-0"	6'-0"	6'-0"

- NOTES:**
1. TOP OF DUCT BANK SHALL BE 30" MINIMUM BELOW GRADE.
 2. ALL SPARE CONDUITS ARE TO HAVE A PULL CORD INSTALLED.
 3. INSTALL CONCRETE GRADE RINGS AS NECESSARY.
 4. FRAME SHALL BE BOLTED TO TOP OF MANHOLE AND THRU ANY GRADE RINGS.
 5. PVC CONDUITS SHALL TERMINATE WITH FLUSH SELL END FITTINGS.
 6. METAL CONDUITS SHALL TERMINATE WITH INSULATED GROUNDING BUSHINGS, BONDED TO THE GROUND LOOP.

ELECTRICAL MANHOLE DETAIL SE2-B
NOT TO SCALE



METER VAULT ELECTRICAL DETAIL SE2-C
SCALE: 1/4" = 1'-0"

COMMUNICATIONS GROUND MOUNTED PULL BOX DETAIL SE2-D
NOT TO SCALE

- NOTE:**
1. WHERE UNDERGROUND CONDUITS ENTER INTO A BUILDING OR STRUCTURE, EACH CONDUIT SHALL BE SEALED TO PREVENT WATER FROM ENTERING INTO THE BUILDING. EACH CONDUIT, WITH OR WITHOUT CABLES SHALL BE FITTED WITH AN INFLATABLE, FLEXIBLE METALLIC LAMINATE BLADDER SYSTEM. SEE SPECIFICATION SECTION 16111.

WWTP ELECTRICAL ENLARGED SITE PLAN SE2-A
SCALE: 1" = 20'

Scale: 1" = 20'
 Date: DEC. 2016
 Drawn By: DJW
 Checked By: MJM
 Approved By: DJW

Revision
 Date
 Description
 RELEASE FOR BIDDING

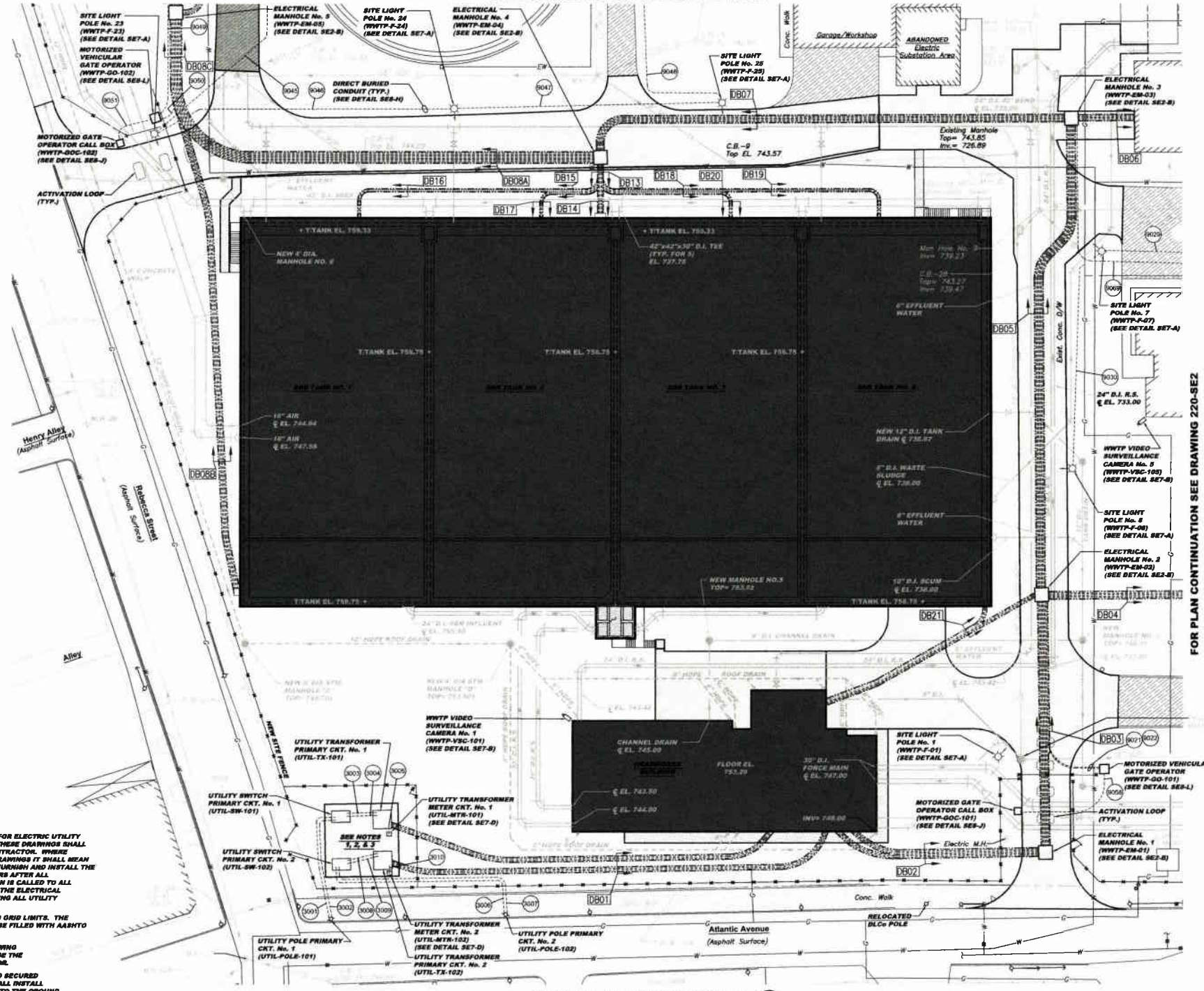
5173 DANIELLE BLVD
 PITTSBURGH, PA 15206
 PH: 412-434-2243
 FAX: 412-434-2248
 INFO@KLHENGINEERS.COM

KLH ENGINEERS, INC.

MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
 ALLEGHENY COUNTY, PENNSYLVANIA
 CONTRACT NUMBER 2016-01 AND 2016-02
 WASTEWATER TREATMENT PLANT EXPANSION
 WWTP ELECTRICAL ENLARGED SITE PLAN SHEET 1 OF 4

Sheet No. 2
 Drawing No. 220-SE2

FOR PLAN CONTINUATION SEE DRAWING 220-SE4



- NOTE:**
1. REFERENCE DRAWINGS 220-SE11 THRU 220-SE14 FOR ELECTRIC UTILITY CONSTRUCTION DETAILS. ALL WORK SHOWN ON THESE DRAWINGS SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. WORKS IDENTIFIED AS "CUSTOMER'S WORK" ON THESE DRAWINGS IT SHALL MEAN "ELECTRICAL CONTRACTOR". THE UTILITY WILL FURNISH AND INSTALL THE TWO PRIMARY SWITCHES AND TWO TRANSFORMERS AFTER ALL CONSTRUCTION WORK IS COMPLETED. ATTENTION IS CALLED TO ALL NOTES INCLUDED ON THESE UTILITY DRAWINGS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL UTILITY REQUIREMENTS.
 2. THE SHADED AREA DEPICTS THE UTILITY GROUND GRID LIMITS. THE ENTIRE AREA WITHIN THE UTILITY FENCE SHALL BE FILLED WITH AARHTO 887 STONE. SEE DETAILS ON THE DRAWINGS.
 3. THE CONDUITS REQUIRED BY NOTE No. 4 ON DRAWING 220-SE13 (DLCO DRAWING NO. 304919-13) SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
 4. ON ALL CONDUIT RUNS EXITING THE GROUND AND SECURED TO A WALL OR STRUCTURE THE CONTRACTOR SHALL INSTALL AN EXPANSION FITTING AS CLOSE AS PRACTICAL TO THE GROUND EXIT POINT, BEFORE THE FIRST WALL SUPPORT DEVICE.

WWTP ELECTRICAL ENLARGED SITE PLAN SE3-A
SCALE: 1" = 30'

FOR PLAN CONTINUATION SEE DRAWING 220-SE2

MUNICIPAL AUTHORITY OF THE CITY OF MCKEESPORT
ALLEGHENY COUNTY, PENNSYLVANIA
CONTRACT NUMBER 2010-01 AND 2010-02
WASTEWATER TREATMENT PLANT EXPANSION
WWTP ELECTRICAL ENLARGED SITE PLAN SHEET 2 OF 4



5175 CAMPBELL BLVD
PITTSBURGH, PA 15205
PHONE: 412-444-9400
FAX: 412-444-9400
WWW.KLHENGINEERS.COM

Date	Revisions	Date	Revisions
12/01	RELEASE FOR BID		

Scale:	1" = 30'
Date:	DEC. 2010
Drawn By:	DCW
Checked By:	MMJ
Approved By:	SHG
Sheet No.:	3
Drawing No.:	220-SE3