Historic Preservation Services

Community Development & Neighborhood Services
281 North College Avenue
P.O. Box 580
Fort Collins, CO 80522.0580

970.416.4250
preservation@fcgov.com
fcgov.com/historicpreservation

CERTIFICATE OF APPROPRIATENESS – Minor Alteration
ISSUED: March 15, 2022
EXPIRATION: March 15, 2023

ATTN: Sidney Lloyd, Office Manager
Voices Carry
Larimer County Child Advocacy Center
5529 S. Timberline Rd
Fort Collins, CO

Dear Property Owner:

This letter provides you with certification that proposed work to your designated Fort Collins landmark property, the Gill-Nelson Farm at 5529 S. Timberline Road has been approved by the City's Historic Preservation Division (HPD) because the proposed work appears to be routine in nature with minimal effects to the historic resource, and meets the requirements of Chapter 14, Article IV of the Fort Collins Municipal Code.

The alterations reviewed include:

- Masonry repair on south bay window due to settling and vertical separation.
- Installation of 3 helical piers at the bay window foundation to arrest further settling.

Notice of the approved application has been provided to building and zoning staff to facilitate the processing of any permits that are needed for the work. Please consider National Park Service Preservation Brief #2, *Repointing Mortar Joints*, as you complete this project. Please note that work beyond that indicated in your permit application/correspondence requires additional approval.

If the approved work is not completed prior to the expiration date noted above, you may apply for an extension by contacting staff at least 30 days prior to expiration. Extensions may be granted for up to 12 additional months, based on a satisfactory staff review of the extension request.

If you have any questions regarding this approval, or if I may be of any assistance, please do not hesitate to contact me. I may be reached at jbertolini@fcgov.com or 970-416-4250.

Sincerely,

Jim Bertolini
Historic Preservation Planner

DL ENGINEERING INC.
9100 W. JEWELL AVENUE
LAKEWOOD, CO 80232
720-440-9450
WWW.DLENGINEER.COM

FOUNDATION STABILIZATION AT 5529 S TIMBERLINE RD FORT COLLINS, CO 80528

OWNER: FALLBECK / LLOYD

DATE:	REV. DATE:	BY:
3/9/22	----	BR

JOB #:	PAGE:	CHECKED BY:
2022-11164	S1-1 OF 6	GJA

COLORADO REGISTERED GABRIEL ANDREWS 39278 PROFESSIONAL ENGINEER

SCOPE OF WORK

1. Install (3) new helical piers with continuous steel angle along the south foundation wall to help mitigate vertical movement in this area.

BUILDER INFORMATION:

Complete Basement Systems
4686 Ivy St
Denver, CO 80216
720-487-9568

Design Criteria		
Building Code	2018 IBC, 2018 IRC with City of Fort Collins Amendments	
Load Type	**Load Subcategory**	**Load (psf)**
Dead Loads	Floor	12
	Roof	20
	Walls	10
Live Loads	Floor, Residential	40
	Roof	20
Snow Loads	Ground	30
	Roof	30
Additional Design Criteria		
Load Type	**Load Subcategory**	**Value**
Wind Loads	Risk Category	2
	Exposure Category	B
	Basic Wind Speed	140 mph
Seismic Loads	Seismic Design Category	B
	Site Class (per USGS)	D
Earth Load	Soil Bearing Capacity (assumed)	1,500 psf

INDEX OF SHEETS

Gabriel Andrews, P.E.

C=US, O=DL Engineering, CN="Gabriel Andrews, P.E.", E=gandrews@dlengineer.com
2022.03.09 16:14:40-07'00'

LEGEND:

M.P. & H.P. #x ← MONOPOST & HELICAL PIER #
(xxxx#) ← LOAD ON PIER

H.P. #x ← HELICAL PIER #
(xxxx#) ← LOAD ON PIER

P.P. #x ← PUSH PIER #
(xxxx#) ← LOAD ON PIER

M.P. #x ← MONOPOST #

W.B. #x ← WALL BRACE #

W.A. #x ← WALL ANCHOR #

C.F. #x ← CARBON FIBER #

ACRONYMS:

(E)		EXISTING
(N)		NEW
H.P	=	HELICAL PIER
M.P.	=	MONOPOST
P.P	=	PUSH PIER
W.A.	=	WALL ANCHOR
W.B.	=	WALL BRACE
C.F.	=	CARBON FIBER

DL ENGINEERING INC.
9100 W. JEWELL AVENUE
LAKEWOOD, CO 80232
720-440-9450
WWW.DLENGINEER.COM

FOUNDATION STABILIZATION AT
5529 S TIMBERLINE RD
FORT COLLINS, CO 80528
OWNER: FALLBECK / LLOYD

DATE:	REV. DATE:	BY:
3/9/22	----	BR

JOB #:	PAGE:	CHECKED BY:
2022-11164	S1-2 OF 6	GJA

General Notes:

1. Construction documents are valid for a single use at the project location and shall not be reused, copied, or reproduced without written approval of the registered design professional in reasonable charge.
2. The contractor is responsible for the methods, means and sequence of all structural erection except when specifically noted otherwise in the construction documents. The contractor shall provide temporary shoring and bracing, providing adequate vertical and lateral support during erection. Shoring and bracing shall remain in place until all permanent members are placed and all final connections are completed.
3. The contractor agrees that, in accordance with generally accepted construction practices, the contractor will be required to assume sole and complete responsibility for job site conditions during the course of construction of the project, including safety of all persons and property. This requirement shall be made to apply continuously and not be limited to normal working hours. The contractor further agrees to defend, indemnify and hold owner and engineer harmless from any and all liability, real or alleged, in connection with the performance of work on this project, exempting liability arising from the sole negligence of engineer.
4. All existing sizes, dimensions and foundation damage shall be field verified by the contractor and owner prior to construction. Discrepancies with the construction documents shall be reported to the structural engineer for additional recommendations (if any).
5. Per the owner's request, the contractor shall stabilize the structure only. No attempt shall be made to lift or plumb the foundation wall without approval for the owner and structural engineer.

Field Verification:

1. Contractor and Owner shall thoroughly inspect and survey existing structure to verify dimensions, elevations, framing, etc. which affect the work shown on the drawings.
2. Report any variation or discrepancies to the structural engineer before work proceeding.

Foundation Design:

1. Soil conditions and types shall be verified by a Engineer during excavation.
2. All helical piles, push piers, helical anchor tiebacks, wall anchor tiebacks and connection hardware shall be designed and installed by supplier, such that they provide the minimum allowable capacities as indicated on the drawings. All capacities shown on the drawings are unfactored service loads and have not been reduced for live load reductions.
3. Design of individual and continuous footings is based on an assumed maximum allowable bearing pressure of 1500 lbs. per square foot (dead load plus full live load), placed on the natural undisturbed soil, or compacted structural fill below frost depth.

Steel Helical Piers:

1. Grip TIte: Model GTRDS2875-0203 (round shaft) Helical Pier with FP3BA Retrofit Bracket
2. Install with Pro-Dig X9 torque head to a maximum of 4,800 ft-lbs torque.
3. Pier depth is dependent on depth of bearing soil adequate to provide the specified torque resistance, therefore, depth is not specified. Pier to be advanced until torque is attained.
4. Installation torque serves as empirical verifications of pier capacity, yielding an onsite load test for each pier. Therefore, soils testing is not necessary for generating a theoretical capacity.
5. Piers shall be 8” minimum helical piers, installed at locations shown on the plans.
6. It is assumed the each new pier will achieve penetration into bedrock or competent soil, and can be installed to the specified capacity. Should bedrock or competent soil not be reached within reasonable depth this office should be notified for further instructions.
7. Contractor is to maintain accurate pier depth and pressure / torque charts for each pier, showing depth and pressure / torque at each shaft section. Charts shall be filled out in real time during installation, and maintained onsite for engineer review during inspection. Charts shall be provided to engineer in final form upon completion.

Special Inspections:

1. Special inspections shall be provided per the requirements in the UES Evaluation Report #391, Section 3.3 as well as the requirements of the 2018 IBC Section 1705.9.

DL ENGINEERING INC.
9100 W. JEWELL AVENUE
LAKEWOOD, CO 80232
720-440-9450
WWW.DLENGINEER.COM

FOUNDATION STABILIZATION AT
5529 S TIMBERLINE RD
FORT COLLINS, CO 80528
OWNER: FALLBECK / LLOYD

DATE:	REV. DATE:	BY:
3/9/22	----	BR

JOB #:	PAGE:	CHECKED BY:
2022-11164	S1-3 OF 6	GJA

COLORADO REGISTERED GABRIEL ANDREWS 39278 PROFESSIONAL ENGINEER

Steel Push Piers:

1. IMG: Push Pier PP21617-34 system with bracket assembly
2. Install with a calibrated hydraulic ram with known pressure-to-axial-force ratio.
3. Pier depth is dependent on depth of bearing soil adequate to provide the specified pressure resistance, therefore, depth is not specified. Pier to be advanced until refusal is attained.
4. Installation pressure serves as empirical verifications of pier capacity, yielding an onsite load test for each pier. Therefore, soils testing is not necessary for generating a theoretical capacity.
5. Piers shall be push piers, installed at locations shown on the plans.
6. It is assumed the each new pier will achieve penetration into bedrock or competent soil, and can be installed to the specified capacity. Should bedrock or competent soil not be reached within reasonable depth this office should be notified for further instructions.
7. Contractor is to maintain accurate pier depth and pressure / torque charts for each pier, showing depth and pressure / torque at each shaft section. Charts shall be filled out in real time during installation, and maintained onsite for engineer review during inspection. Charts shall be provided to engineer in final form upon completion.

Cast-in-Place Concrete:

1. All concrete design is based on the “Building Code requirements for Reinforced Concrete” (ACI 318-05/318R-05)

All structural concrete shall have a minimum 28-day compressive strength as follows:

1.1 Footings: 3,000psi
1.2 Slab on Grade: 3,500psi
1.3 Foundation walls: 3,000psi

2. Concrete shall be placed on proportioned utilizing Type 1 cement except, concrete exposed directly to soil shall use Type 2 cement. Concrete susceptible to freeze shall be formulated or maximum frost resistance in accordance with the ACI manual of Concrete Practice.
3. Cold weather and or hot weather placing procedures shall be provided, if conditions warrant, as recommended in the ACI manual of Concrete practice.

Reinforcing Steel:

1. All detailing, fabrication, and placement of reinforcing steel shall be in accordance with the ACI Manual of Concrete Practice.
2. Reinforcing bars shall conform to ASTM A615-79 and shall be grade 60.
3. Except as noted on the drawings, minimum concrete protection for reinforcing shall be in accordance with ACI 18-05/318R-05.
4. No. 5 or larger reinforcing bars shall not be re-bent.
5. Welding of rebar is not permitted unless procedure is approved by the Structural Engineer.

Structural Steel:

1. Structural Steel shall be detailed, fabricated and erected in accordance with 2010 AISC Specification for Structural Steel Buildings, and “Code of Standard Practices” 2005.
2. Structural Steel shall be confirmed to the following grades:

2.1 W- & WT- Shapes: ASTM A36, A992
2.2 Plates & Angles: A36
2.3 HSS: ASTM A500 gr B
2.4 Steel Pipe: ASTM A53 gr B

3. All bolts shall conform to the ASTM A325 except anchor bolts which shall conform to ASTM A307. Bolt Size shall be ¾”, unless noted otherwise on the drawings.
4. All welding shall be by a certified welder in accordance with ACIS and AWS specifications and recommendation.

Structural Wood framing:

1. Except where noted otherwise, all 2” members shall be Hem-Fir No. 2 and better.

DL ENGINEERING INC.
9100 W. JEWELL AVENUE
LAKEWOOD, CO 80232
720-440-9450
WWW.DLENGINEER.COM

FOUNDATION STABILIZATION AT
5529 S TIMBERLINE RD
FORT COLLINS, CO 80528
OWNER: FALLBECK / LLOYD

DATE:	REV. DATE:	BY:
3/9/22	----	BR

JOB #:	PAGE:	CHECKED BY:
2022-11164	S1-4 OF 6	GJA

2. Except as noted otherwise, minimum nailing shall be provided as specified in Table No 2304.9.1 “Fastening Schedule” of the IBC. All nails shall be common type, unless noted otherwise.
3. Unless noted otherwise, steel connectors such as those manufactured by Simpson Company, shall be used to join rafters, trusses, joists, or beams to other members at flush-framed conditions. Use maximum number and size of nails indicated in manufactures tables U.N.O. all nails holes shall be filled.
4. All multiple members shall be glued & nailed together.
5. All wood in contact with concrete or exposed to weather, shall be pressure treated Douglas Fir-Larch No. 2 or equal.
6. Structural members shall not be cut for pipes, etc. Unless specifically noted or detailed.

Periodic surveys:

1. Periodic surveys of the supported structures should be conducted to assure project success. The Owner should be responsible for annual surveys certifying project success. We would suggest that a baseline survey be conducted immediately. The owner shall submit all findings and reports to the Structural Engineer.
2. If vertical movement of the piers is discovered, the piers should be re-pressured. A representative of the Geotechnical Engineer should be present to observe the re-pressuring. A final report should be provided by the Geotechnical Engineer after observing the re-pressuring.

Foundation Stabilization:

1. Although observed foundation damage typically does not pose an immediate health and hazard risk, delaying mitigation will likely make future repairs more difficult and costly. Furthermore, it has been our experience that once a structure begins moving, it will likely continue to so (unless action is taken) resulting in further settling, heaving, unsightly cracks, doors/widows not functioning properly and possible foundation wall collapse. The extent and aggressiveness of the foundation repairs should be carefully considered by the Owner and will depend on their tolerance for risk, the possibility of future damage, and cost.
2. If the owner chooses to do so the foundation could be stabilized only at visibly damaged locations and areas where movement is concentrated. Although this will address specific situations, it is possible that foundation movements will occur elsewhere.
3. If the Owner chooses to do so, the entire foundation could be mitigated. A general system repair, although more costly, would greatly reduce the risk of future foundation damage and movement. It is our understanding that the Owner would not like to pursue this repair option.

Site Drainage:

1. We believe that the moisture around foundation elements must be controlled for the useful life of the building. Lack of proper drainage is often a contributing factor to foundation damage observed. It is our opinion that site drainage around the structure must be maintained such that precipitations will quickly drain away. The use of proper slope slabs-on-grade, moisture barriers, swales and surface/subsurface drainage systems are strongly recommended. Extension should be attached to properly function downspouts and roof drains discharge a minimum of 10 feet away from the structure.

Site vegetation:

1. We believe that vegetation around the perimeter of structures can eventually lead to foundation movements. Vegetation can hold moisture in soil and create excessive pressure on the foundation system. In order to reduce the risk, bushes, shrubs and trees should be carefully removed by an experienced professional. Care should be taken to not further disturb or damage the existing foundation system.
2. Planters and other surface features which could retain water should be eliminated and properly graded to reduce the possibility of moisture infiltrating around the foundation. Irrigation systems and excessive moisture adjacent to structures can introduce unwanted moisture, possibly resulting in settling and or heaving. The Owner should consider removing irrigation systems or simply not use them.

Disclaimer:

1. In as much as the site review of an existing structure for the purpose of observing the structure conditions requires that certain assumptions be made regarding existing conditions and because some of these assumptions may not be verifiable without expending additional sums of money or destroying otherwise adequate or serviceable portions of the building, the Client agrees that , except for negligence on the part of the Engineer, the Client will hold harmless, indemnify and defend Engineer from and against any and all claims arising out of the professional services we have provided.

DL ENGINEERING INC.
9100 W. JEWELL AVENUE
LAKEWOOD, CO 80232
720-440-9450
WWW.DLENGINEER.COM

FOUNDATION STABILIZATION AT
5529 S TIMBERLINE RD
FORT COLLINS, CO 80528
OWNER: FALLBECK / LLOYD

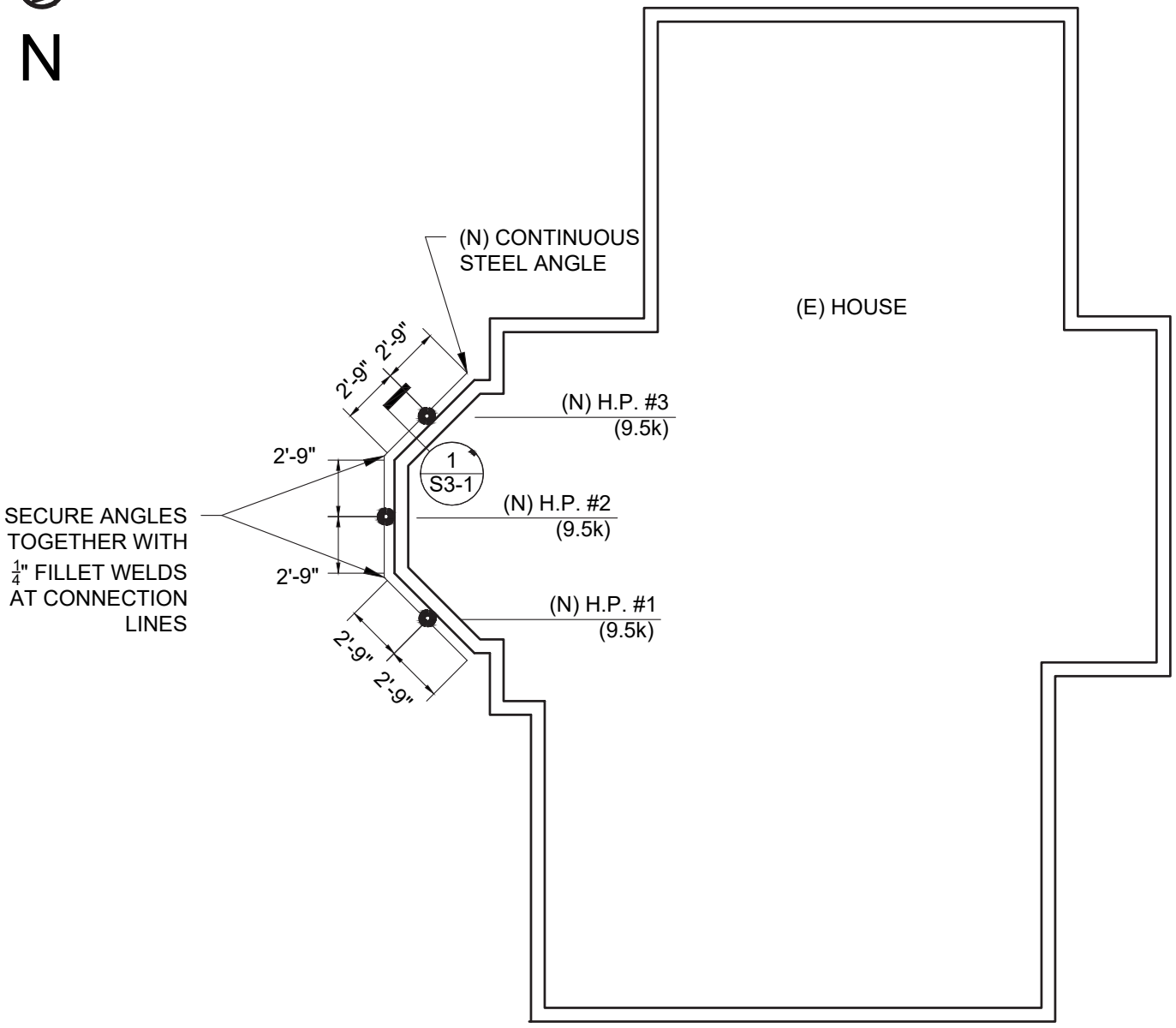
DATE:	REV. DATE:	BY:
3/9/22	----	BR

JOB #:	PAGE:	CHECKED BY:
2022-11164	S2-1 OF 6	GJA

COLORADO REGISTERED
GABRIEL ANDREWS
39278
PROFESSIONAL ENGINEER

0' 8'

N



1 FOUNDATION LAYOUT

1/8" = 1'-0"

NOTES:
1. SEE SHEETS S1-1 THROUGH S1-4 FOR GENERAL NOTES.
2. PROVIDE TEMPORARY SHORING TO SUPPORT BRICK WALLS PRIOR TO START OF REPAIR

● = H.P.

DL ENGINEERING INC.
9100 W. JEWELL AVENUE
LAKEWOOD, CO 80232
720-440-9450
WWW.DLENGINEER.COM

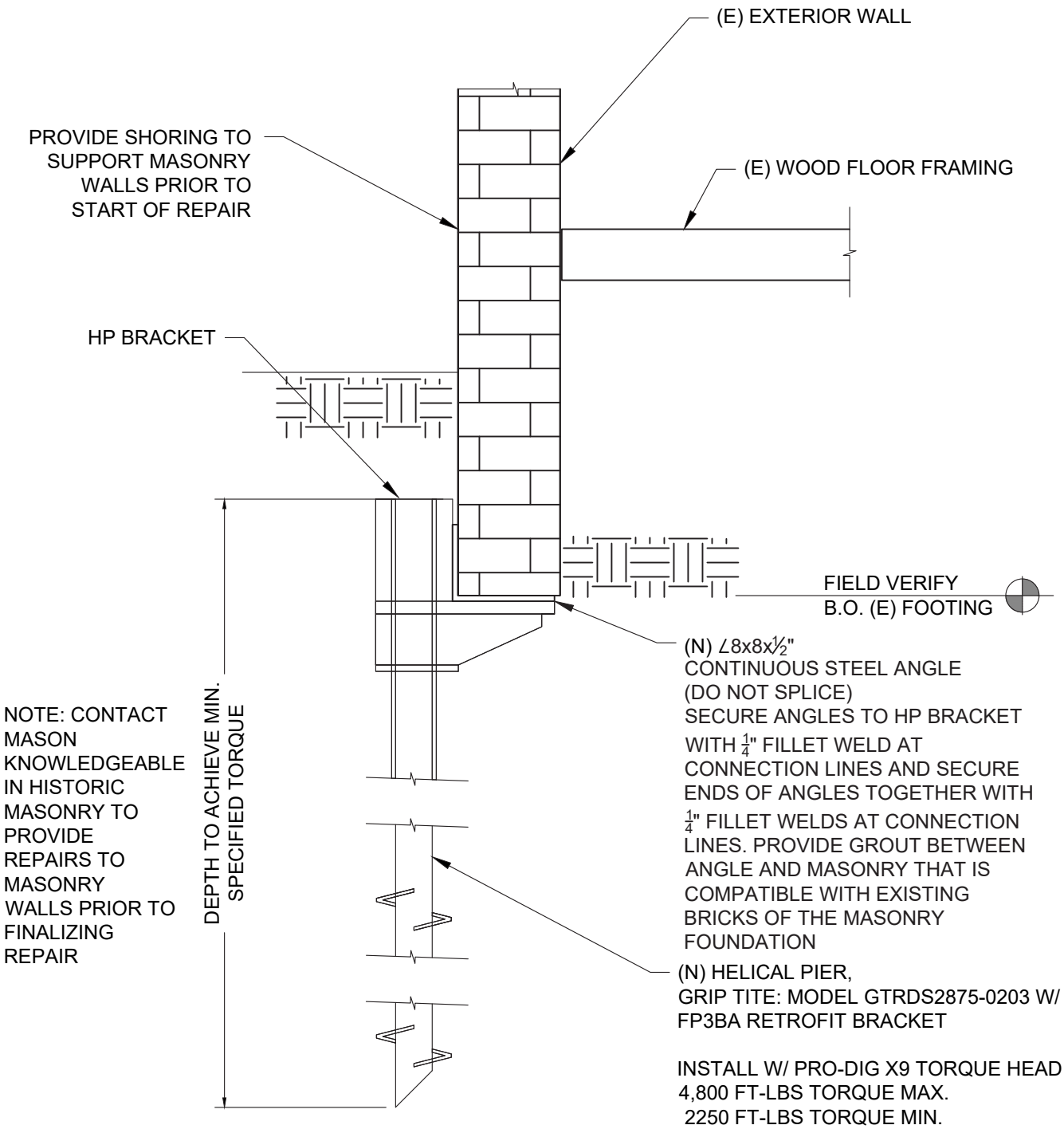
FOUNDATION STABILIZATION AT
5529 S TIMBERLINE RD
FORT COLLINS, CO 80528
OWNER: FALLBECK / LLOYD

DATE:	REV. DATE:	BY:
3/9/22	----	BR

JOB #:	PAGE:	CHECKED BY:
2022-11164	S3-1 OF 6	GJA

COLORADO REGISTERED GABRIEL ANDREWS 39278 PROFESSIONAL ENGINEER

0' 1'



1 TYP. HELICAL PIER DETAIL

1" = 1'-0"

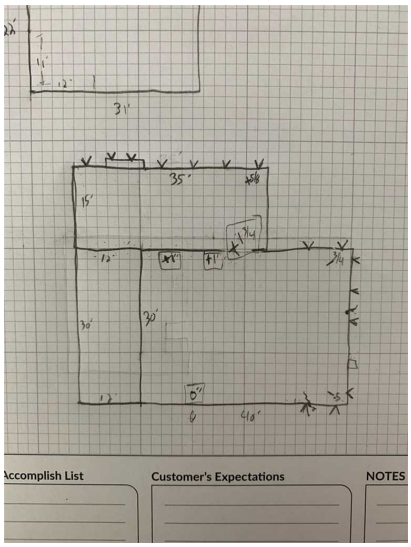
COMPLETE BASEMENT SYSTEMS

Complete Basement Systems

Pre-Production

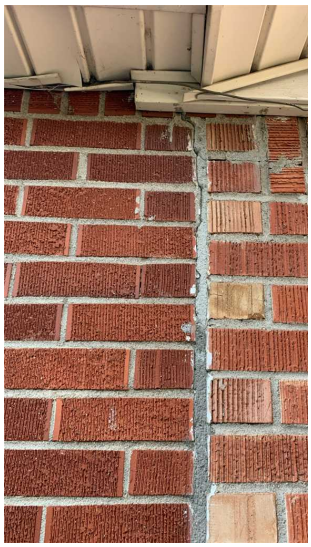
Sketch_1

9/11/21 11:17AM



hand sketch

9/13/21 8:42AM



slight movement

9/13/21 8:42AM

Produ

do nothing

9/13/21 8:42AM

pier here along the addition

9/13/21 8:42AM

pier here along the addition

9/13/21 8:42AM

pier along this section

9/13/21 8:42AM

pier here along the addition

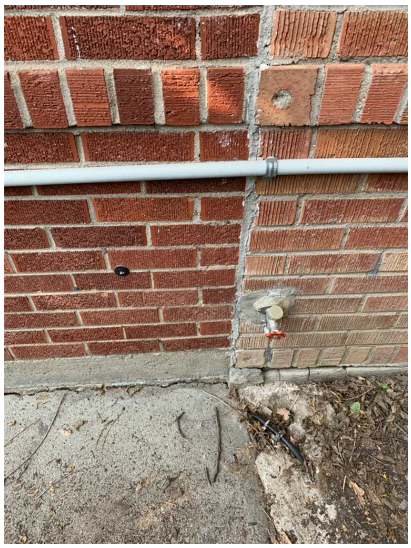
9/13/21 8:42AM

fence R/R

9/13/21 8:42AM

cut concrete patio to install piers

9/13/21 8:42AM



movement

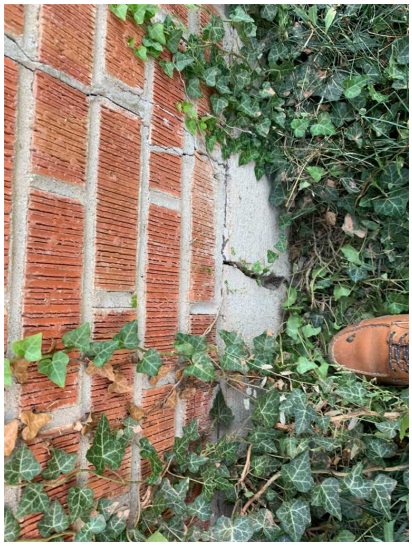
9/13/21 8:42AM

movement

9/13/21 8:43AM

movement

9/13/21 8:43AM



movement

9/13/21 8:43AM

fence R/R. Piers along this wall

9/13/21 8:43AM

piers along this wall

9/13/21 8:43AM

piers along this wall

9/13/21 8:43AM

piers along this corner

9/13/21 8:43AM

piers along this corner. not all the way down the front wall

9/13/21 8:43AM

piers here

9/13/21 8:43AM

pier on this corner

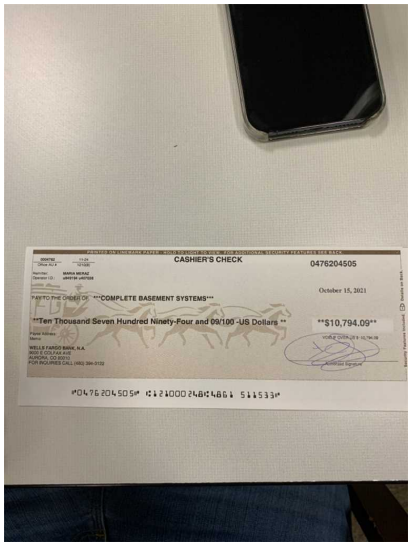
9/13/21 8:43AM

nothing here

9/13/21 8:43AM

do nothing

9/13/21 8:43AM



deposit check

10/18/21 8:55AM

Oleg locate

12/29/21 4:44PM

Oleg locate

12/29/21 4:44PM

Oleg locate

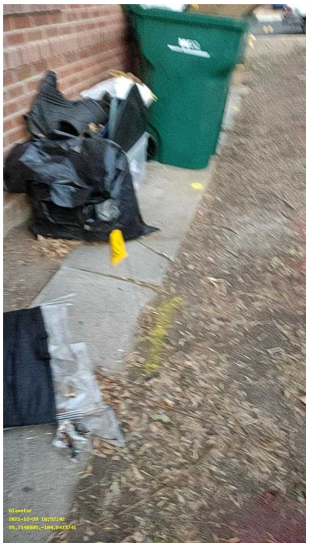
12/29/21 4:44PM

xcel locate

12/30/21 9:29AM

xcel locate

12/30/21 9:29AM

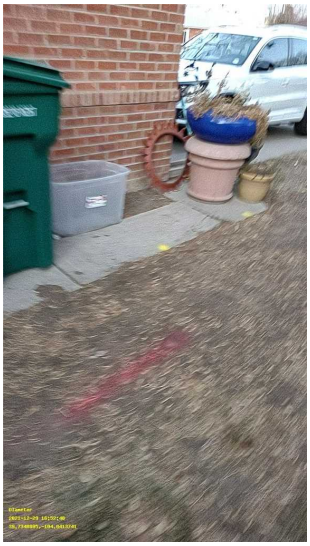


xcel locate

12/30/21 9:29AM

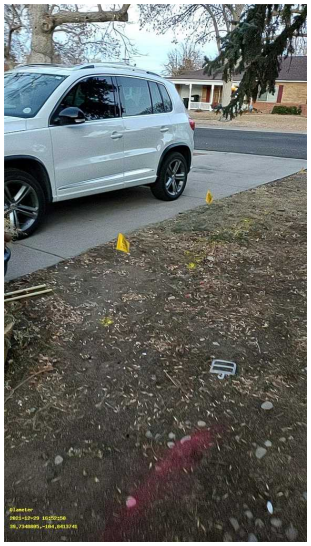
xcel locate

12/30/21 9:29AM



xcel locate

12/30/21 9:29AM



xcel locate

12/30/21 9:29AM

xcel locate

12/30/21 9:29AM

xcel locate

12/30/21 9:29AM

xcel locate

12/30/21 9:29AM

City of Aurora Water Service
Combination Underground Location Sketch
Service Center: 303 326-8645 Fax: 303 326-8085 After Hours: 303 739-6241
13645 E. Ellsworth Ave. Aurora, CO 80012

Service Request: 136200771 Date: 12/30/2021 23:59:00
Requested Location: 1219, SCRANTON ST AURORA
Company Name: COMPLETE BASEMENT
Contact: TONI PUCCIARELLI Phone: (720)-439-6507 ext. EMail: TONI@COMPLETEBASEMENTSYSTEM...
Request Type: Completed:

Please see attached files for more information.

1- CODY LOCKYER CAU Yelder / AURH20 Marked Units:1 12/29/2021 11:09:00 U/N

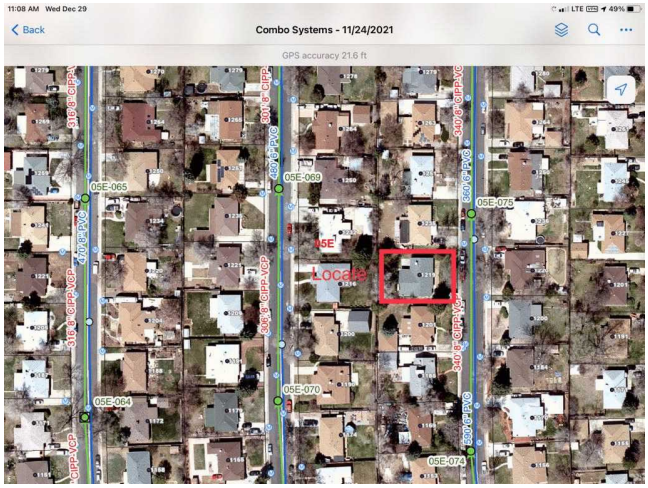
Customer Comments:
LOCATION: LOCATE ENTIRE LOT ACCESS OPEN GRIDS: 04S067W01NW : :
LEGAL: Y LAT/LONG: 39.735443/-104.842109 39.735443/-104.840625 : 39.734421/-104.842109 39.734421/-104.840625

Additional Comments:
STATUS: Marked - LOCATOR NOTES:
ADDITIONAL NOTES: Water meter pit marked in paint and flagged

♦ Locates are within 18" from either side of locate mark. ♦
Color Code: Blue for water, green for sanitary and storm lines, red for electric, orange for fiber, and purple for re-use water.
Locate sheets must remain on the job site. This locate is valid for 30 days.
State Law CRS 1973, 95-15-101 (Senate Bill N-150) requires everyone planning to dig in or near a public road, street, alley, right-of-way, or utility easement to notify the Utility Notification Center of Colorado of your intent. (Two business days before you dig) Call 811.
If City of Aurora utilities are not found or located according to the sketch, you must notify 811 immediately for relocate.

city of aurora locate

1/03/22 10:13AM



city of aurora locate

1/03/22 10:13AM

05:January:2022 12:55:53

1/05/22 2:57PM

05:January:2022 14:21:14

1/05/22 4:21PM

05:January:2022 14:21:14

1/05/22 4:22PM

06:January:2022 09:13:50

1/06/22 11:14AM

06:January:2022 09:13:50

1/06/22 11:16AM

06:January:2022 09:13:50

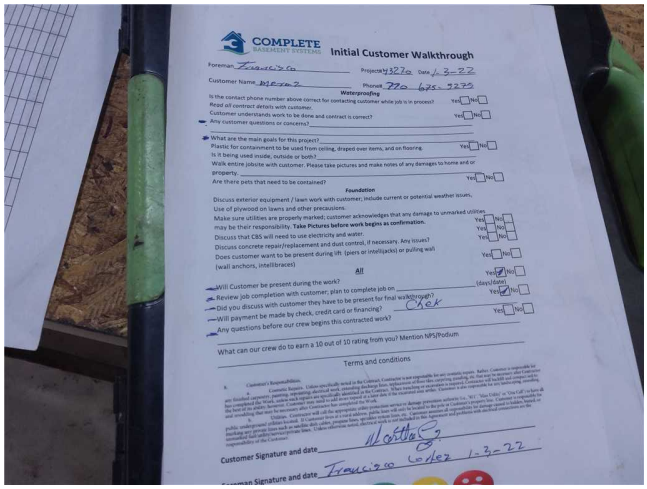
1/06/22 11:17AM

06:January:2022 09:13:50

1/06/22 11:17AM

06:January:2022 09:13:50

1/06/22 11:19AM



COMPLETE BASEMENT SYSTEMS

Initial Customer Walkthrough

Foreman Francisco Project# 3220 Date 1-3-22

Customer Name Moran Phone# 770 695-7275

Waterproofing

Is the contact phone number above correct for contacting customer while job is in process? Yes No

Read all contract details with customer. Yes No

Customer understands work to be done and contract is correct? Yes No

Any customer questions or concerns?

What are the main goals for this project?

Plastic for containment to be used from ceiling, draped over items, and on flooring. Yes No

Is it being used inside, outside or both?

Walk entire jobsite with customer. Please take pictures and make notes of any damages to home and or property. Yes No

Are there pets that need to be contained? Yes No

Foundation

Discuss exterior equipment / lawn work with customer; include current or potential weather issues.

Use of plywood on lawns and other precautions. Yes No

Make sure utilities are properly marked; customer acknowledges that any damage to unmarked utilities may be their responsibility. Take Pictures before work begins as confirmation. Yes No

Discuss that CBS will need to use electricity and water. Yes No

Discuss concrete repair/replacement and dust control, if necessary. Any issues? Yes No

Does customer want to be present during lift (piers or intellijacks) or pulling wall (wall anchors, intellibraces) Yes No

All

Will Customer be present during the work? Yes (days/dates) No

Review job completion with customer; plan to complete job on Yes No

Did you discuss with customer they have to be present for final walkthrough? Okay Yes No

Will payment be made by check, credit card or financing? Yes No

Any questions before our crew begins this contracted work?

What can our crew do to earn a 10 out of 10 rating from you? Mention NPS/Podium

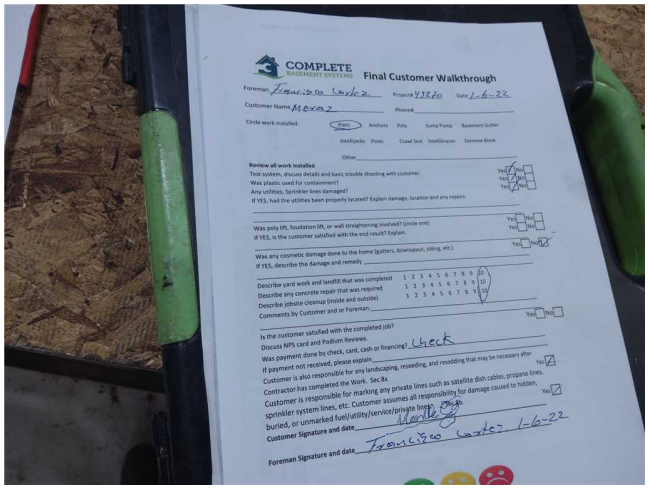
Terms and conditions

Customer Signature and date

Francisco 1-3-22

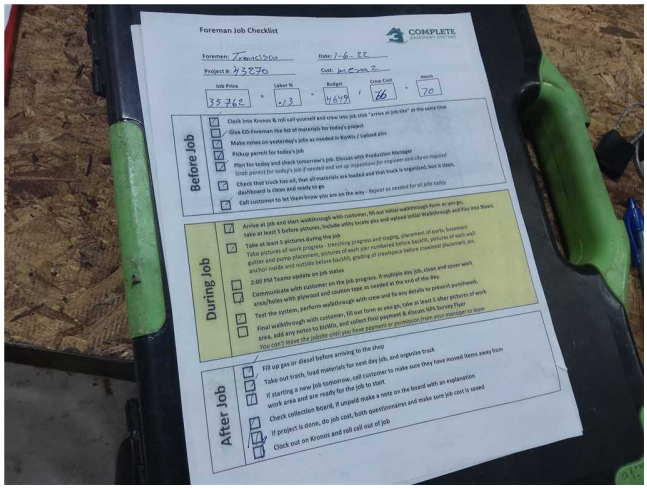
06:January:2022 13:32:00

1/06/22 3:33PM



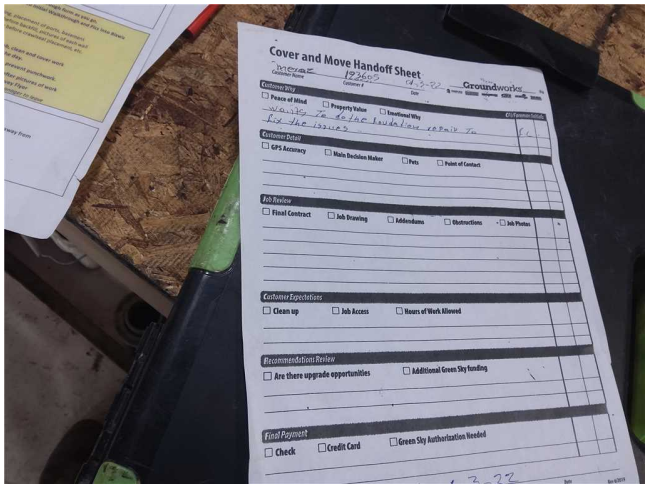
06:January:2022 13:32:00

1/06/22 3:35PM



06:January:2022 13:32:00

1/06/22 3:35PM



06:January:2022 13:32:00

1/06/22 3:35PM

06:January:2022 13:36:25

1/06/22 3:36PM

08:January:2022 13:10:12

1/08/22 3:10PM

08:January:2022 13:10:12

1/08/22 3:10PM

08:January:2022 13:10:12

1/08/22 3:10PM

08:January:2022 13:10:12

1/08/22 3:10PM

08:January:2022 13:10:12

1/08/22 3:10PM

08:January:2022 13:10:12

1/08/22 3:10PM

08:January:2022 13:10:12

1/08/22 3:10PM

08:January:2022 13:10:12

1/08/22 3:10PM

08:January:2022 13:10:12

1/08/22 3:11PM