

Item 26 continued - Engineering:

- B. **Take all appropriate action on Standard Utility Agreement between Fort Bend County and Comcast in an amount not to exceed \$47,500 for utility relocations regarding FM 1093/Westpark, Mobility Bond Project No. 748, Precinct 3. (Fund: 2007 Mobility Bonds)**

Moved by Commissioner Meyers, Seconded by Commissioner Patterson
Duly put and unanimously carried (5-0), it is ordered to approve Standard Utility Agreement
between Fort Bend County and Comcast in an amount not to exceed \$47,500 for utility
relocations regarding FM 1093/Westpark, Mobility Bond Project No. 748, Precinct 3. (Fund:
2007 Mobility Bonds)

Judge Hebert	Yes
Commissioner Morrison	Yes
Commissioner Prestage	Yes
Commissioner Meyers	Yes
Commissioner Patterson	Yes

- C. **Take all appropriate action on request for variance to the 10-foot landscape reserve requirement as stated in Section 7.3 of the Fort Bend County Regulations of Subdivisions, for Lamar Consolidated ISD Elementary School No. 24, on behalf of Lamar Consolidated Independent School District, Precinct 3.**

Moved by Commissioner Meyers, Seconded by Commissioner Patterson
Duly put and unanimously carried (5-0), it is ordered to approve variance to the 10-foot
landscape reserve requirement as stated in Section 7.3 of the Fort Bend County Regulations of
Subdivisions, for Lamar Consolidated ISD Elementary School No. 24, on behalf of Lamar
Consolidated Independent School District, Precinct 3.

Judge Hebert	Yes
Commissioner Morrison	Yes
Commissioner Prestage	Yes
Commissioner Meyers	Yes
Commissioner Patterson	Yes

- D. **Take all appropriate action on the plat for Lamar Consolidated ISD Elementary School No. 24, Precinct 3.**

Moved by Commissioner Meyers, Seconded by Commissioner Patterson
Duly put and unanimously carried (5-0), it is ordered to approve plat for Lamar Consolidated
ISD Elementary School No. 24, Precinct 3.

Judge Hebert	Yes
Commissioner Morrison	Yes
Commissioner Prestage	Yes
Commissioner Meyers	Yes
Commissioner Patterson	Yes

STANDARD UTILITY AGREEMENT

U-0006: Comcast
County: Fort Bend
Highway: FM 1093 Westpark Extension

This Agreement by and between the County of Fort Bend, Texas, ("County"), and Comcast ("Utility"), acting by and through its duly authorized representative, shall be effective on the date of approval and execution by and on behalf of the **County**.

WHEREAS, the **County** has deemed it necessary to make certain highway improvements as designated by the **County** and approved by the Federal Highway Administration within the limits of the highway as indicated above;

WHEREAS, the proposed highway improvements will necessitate the adjustment, removal, and/or relocation of certain facilities of **Utility** as indicated in the following statement of work: relocation of assets (underground fiber optic cable and overhead lines) into a predesignated corridor according to the following schedule:

Start Date – November 24, 2015 (Approx.)

Completion Date – February 22, 2016 (Approx.)

WHEREAS, Subchapter E of Chapter 203 of the Texas Transportation Code regarding the relocation of utilities does not apply to this Project, but the **County** wishes to negotiate in good faith and enter into agreements with all affected utility companies for the participation in the costs of the adjustment, removal, and/or relocation of certain facilities as authorized under such subchapter.

WHEREAS, the **County**, upon receipt of evidence it deems sufficient, acknowledges **Utility's** interest in certain lands and/or facilities and determined it is appropriate to enter an agreement with **Utility** to govern the terms for participation in the costs of the adjustment, removal, and relocation of certain of its facilities located upon the lands as indicated in the statement of work above.

NOW, THEREFORE, BE IT AGREED:

The **County** will pay to **Utility** fifty percent (50%) of the documented actual costs incurred for relocation of the utility in adjustment, removal, and/or relocation of **Utility's** facilities up to the amount said costs may be eligible for **County** participation.

All conduct under this agreement, including but not limited to the adjustment, removal and relocation of the facility, the development and reimbursement of costs, any environmental requirements, and retention of records will be in accordance with all applicable federal and state laws, rules and regulations, including, without limitation, the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act, 42 U.S.C. §§ 4601, et seq., the National Environmental Policy Act, 42 U.S.C. §§ 4231, et seq., the Buy America provisions of 23 U.S.C. § 313 and 23 CFR 635.410, the Utility Relocations, Adjustments, and Reimbursements provisions of 23 CFR 645, Subpart A, and with the Utility Accommodation provisions of 23 CFR 645, Subpart B. **Utility** shall supply, upon request by the **County**, proof of compliance with the aforementioned laws, rules and regulations prior to the commencement of construction.

The **Utility** agrees to develop relocation or adjustment costs by accumulating actual direct and related indirect costs in accordance with a work order accounting procedure prescribed by **County**, or may, with the **County's** approval, accumulate actual direct and related indirect costs in accordance with an established accounting procedure developed by **Utility**. Bills for work hereunder will be submitted to **County** not later than 90 days after completion of the work.

When requested, the **County** will make intermediate payments at not less than monthly intervals to **Utility** when properly billed and such payments will not exceed 90 percent (90%) of the eligible cost as shown in each such billing. Intermediate payments shall not be construed as final payment for any items included in the intermediate payment.

 12/7/15
Date
Fort Bend County

RGN
Initial 11/7/15
Comcast Date

Upon execution of this agreement by both parties hereto, the **County** will, by written notice, authorize the **Utility** to perform such work diligently, and to conclude said adjustment, removal, or relocation by the stated completion date. The completion date shall be extended for delays caused by events outside **Utility's** control, including an event of Force Majeure, which shall include a strike, war or act of war (whether an actual declaration of war is made or not), insurrection, riot, act of public enemy, accident, fire, flood or other act of God, sabotage, or other events, interference by the **County** or any other party with **Utility's** ability to proceed with the relocation, or any other event in which **Utility** has exercised all due care in the prevention thereof so that the causes or other events are beyond the control and without the fault or negligence of **Utility**.

However, for any failure by **Utility** to conclude said adjustment, removal, or relocation by the stated completion date not caused by events outside **Utility's** control, the **County** may elect to: (1) reduce the reimbursement to **Utility** by one percent (1%) each day delayed; or (2) relocate the facility at the sole cost and expense of **Utility**.

The **County** will, upon satisfactory completion of the relocation or adjustment and upon receipt of final billing prepared in an approved form and manner, make payment in the amount of 90 percent (90%) of the eligible costs as shown in the final billing prior to audit and after such audit shall make an additional final payment totaling the reimbursement amount found eligible for **County** reimbursement.

Unless an item below is stricken and initialed by the **County and Utility**, this agreement in its entirety consists of the following:

1. Standard Utility Agreement;
2. Plans & Specifications (Exhibit "A");
3. Utility Construction Cost Estimate (Exhibit "B");
4. Utility's Schedule of Work and Estimated Date of Completion (Exhibit "C").

All attachments are included herein as if fully set forth. In the event it is determined that a substantial change from the statement of work contained in this agreement is required, reimbursement therefore shall be limited to costs covered by a modification or amendment of this agreement or a written change or extra work order approved by the **County and Utility**.

This agreement is subject to cancellation by the **County** at any time up to the date that work under this agreement has been authorized and that such cancellation will not create any liability on the part of the **County**. However, the **County** will review and reimburse the **Utility** for eligible costs incurred by the **Utility** in preparation of this Agreement.

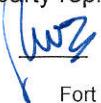
The **Utility** acknowledges to and for the benefit of the **County** and State of Texas that it understands the project under this Agreement is eligible for Federal-aid highway funds and as such, requires all of the iron, steel, and manufactured goods used in the project be produced in the United States ("Buy American Requirements") including iron, steel, and manufactured goods provided by the **Utility** pursuant to this Agreement.

The State Auditor may conduct an audit or investigation of any entity receiving funds from the **County** directly under this contract or indirectly through a subcontract under this contract. Acceptance of funds directly under this contract or indirectly through a subcontract under this contract acts as acceptance of the authority of the State Auditor, under the direction of the Legislative Audit Committee, to conduct an audit or investigation in connection with those funds. An entity that is the subject of an audit or investigation must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.

The **Utility** by execution of this agreement does not waive any of the rights which **Utility** may have within the limits of the law.

It is expressly understood that the **Utility** conducts the adjustment, removal, or relocation at its own risk, and that Fort Bend County, Texas makes no warranties or representations regarding the existence or location of utilities currently within its right of way.

The signatories to this agreement warrant that each has the authority to enter into this agreement on behalf of the party represented.

 12/9/15
Date
Fort Bend County

RGN 11/17/15
Initial Date
Comcast

UTILITY

Utility: Comcast
Name of Utility

By: Roy Novosel
Authorized Signature

Roy Novosel
Print or Type Name

Title: Director of Construction

Date: 11/17/15

EXECUTION RECOMMENDED:

Fort Bend
COUNTY

By: Robert Hebert
Authorized Signature

Robert Hebert
Print or Type Name

Title: County Judge

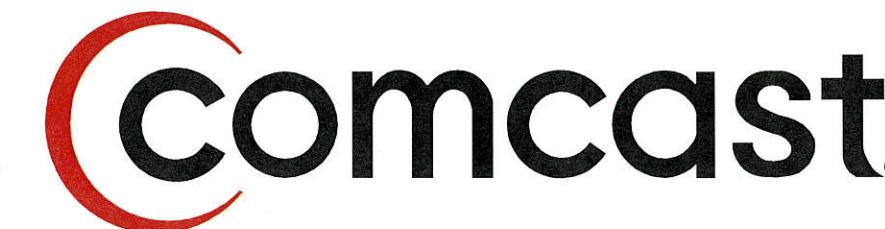
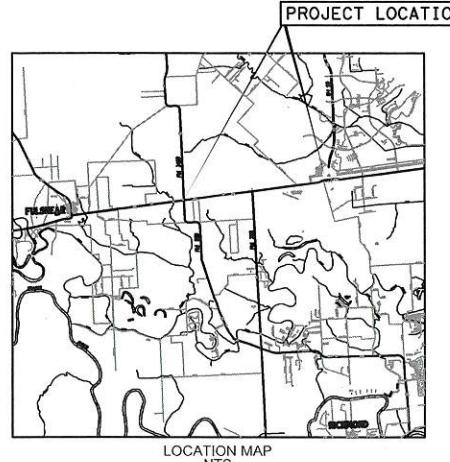
Date: 12-15-2015

MSO 12/7/15
Date
Fort Bend County

RGN 11/17/15
Initial Date
Comcast

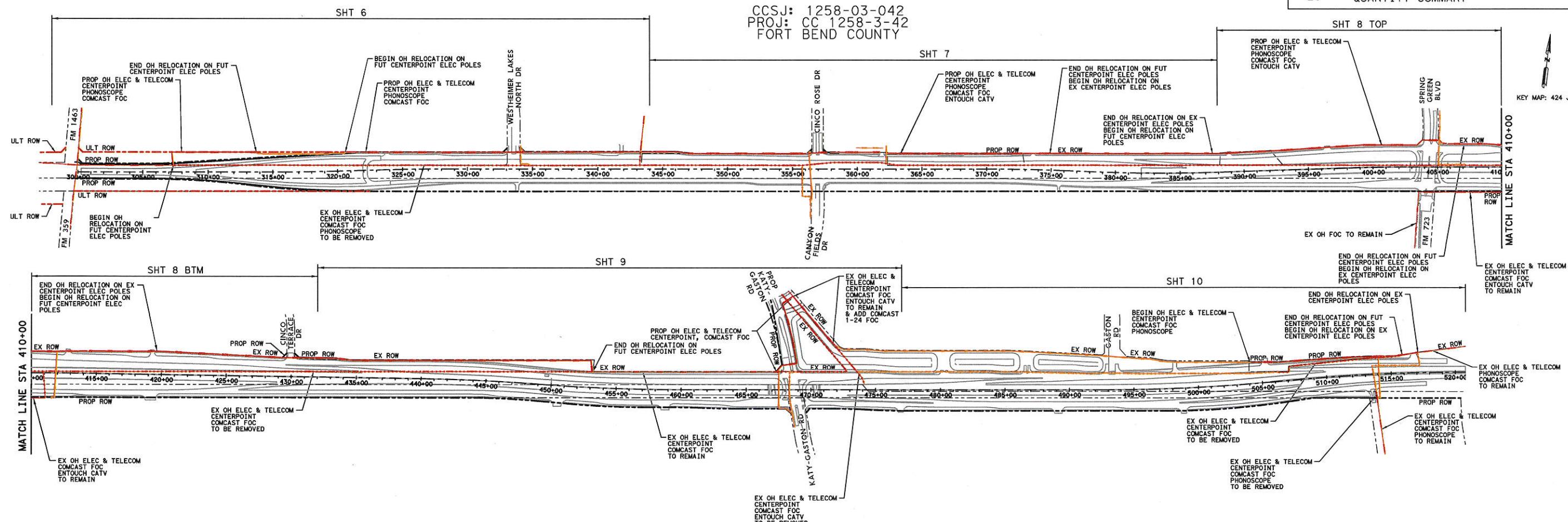
EXHIBIT "A"

PLANS AND SPECIFICATIONS



PROPOSED AERIAL AND UNDERGROUND CABLE FM 1093 WESTPARK EXTENSION FROM WEST OF KATY-GASTON RD TO WEST OF SH 99

SHEET INDEX	
SHT NO	DESCRIPTION
1	COVER
2	UNDERGROUND LAYOUT
3	GENERAL NOTES
4-5	HANDHOLE & TRENCH DETAILS
6	LEGEND
7-11	OVERHEAD CABLE INSTALLATION & REMOVAL LAYOUT
12-27	PLAN & PROFILES
28	QUANTITY SUMMARY



REVIEWED AND APPROVED
FOR CONSTRUCTION BY: *Margie Blackwell* 11/17/15
MANAGER
COMCAST

MARGIE BLACKWELL DATE:

NOTE:
THESE DRAWINGS WERE DEVELOPED
FROM PLANS PROVIDED BY DANNENBAUM
ON OR BEFORE SEPT 9, 2015

CONTRACTOR TO COORDINATE CONSTRUCTION
WITH FORT BEND COUNTY ENGINEERING.

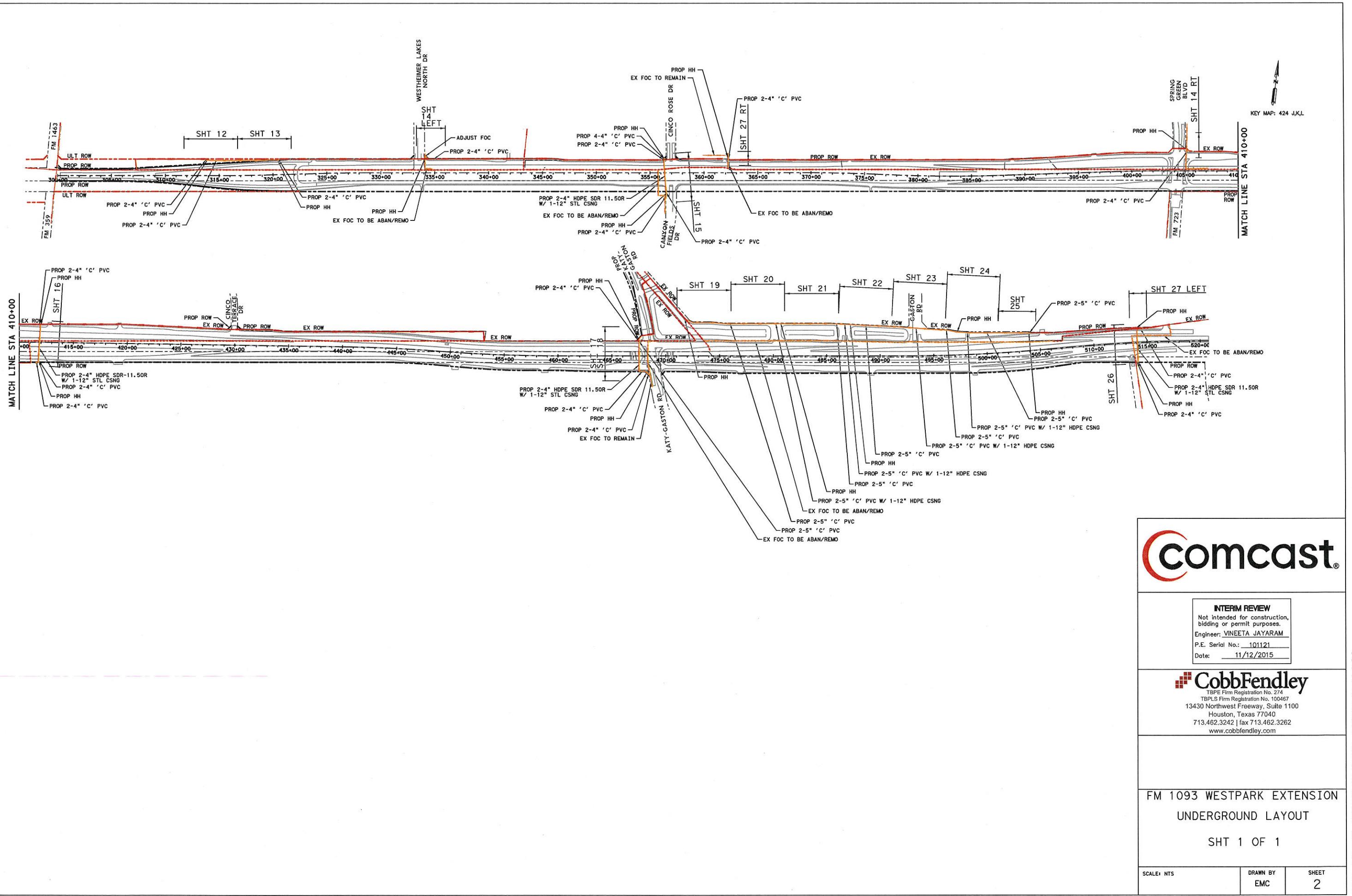
FIELD CONDITIONS IN WORK
AREA CHANGE DAILY

ONE-CALL NOTIFICATION SYSTEM
CALL
811
BEFORE YOU DIG !!!

PLANS PREPARED BY
CobbFendley
TBPE Firm Registration No. 274
TPPLS Firm Registration No. 100467
13430 Northwest Freeway, Suite 1100
Houston, Texas 77040
713.462.3242 | fax 713.462.3262
www.cobbfendley.com

11/12/2015

S. J. COOPER / JOURNAL OF CLIMATE 20



*USER: 150340*Comcast*FM*1093*
PROJECT: COMCAST

GENERAL CONSTRUCTION NOTES

1. ALL EXISTING FACILITIES CURRENTLY IN SERVICE MUST REMAIN IN SERVICE, UNLESS OTHERWISE NOTED IN THE DRAWINGS.
2. ALL EFFORTS HAVE BEEN MADE TO INDICATE ALL EXISTING UTILITIES ON PLANS, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ALL SAID UTILITIES AS WELL AS SERVICE CONNECTIONS (WHETHER OR NOT INDICATED ON PLANS), PRIOR TO CONSTRUCTION, CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES TO VERIFY LOCATION OF EXISTING UTILITIES.
3. CONTRACTOR SHALL CONTACT THE TEXAS EXCAVATION SAFETY SYSTEM INC. (TEXAS811 CALL BEFORE YOU DIG) AT LEAST 48 HOURS PRIOR TO CONSTRUCTION TO REQUEST UNDERGROUND UTILITIES BE LOCATED. CONTRACTOR SHALL CALL 811 OR VISIT WWW.TEXAS811.ORG BY CLICKING ON THE DIGGING IN TEXAS TAB TO INITIATE A LOCATE REQUEST.
4. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH GAS, OIL, ELECTRIC, TELEPHONE, FIBER OPTIC, CABLE TV, SEWER AND WATER UTILITY OWNERS, ETC. FOR ANY RELOCATION AND/OR PROTECTION OF EXISTING LINES OR CABLES AS REQUIRED, DUE TO CONSTRUCTION ACTIVITIES.
5. CONTRACTOR TO PROVIDE A MINIMUM OF 1' OF CLEARANCE AT ALL CROSSINGS OF SANITARY SEWERS, STORM SEWERS, ELECTRIC, WATER LINES AND LEADS.
6. CONTRACTOR MUST COMPLY WITH OSHA SPECIFICATIONS AND PRACTICES ON TRENCH SAFETY, EXCAVATION AND SHORING REQUIREMENTS.
7. THE CONSTRUCTION CONTRACTOR SHALL ALSO BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, SEQUENCE, PROCEDURES, TECHNIQUES OR SCHEDULING ALL PORTIONS OF THE WORK OF CONSTRUCTION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONSTRUCTION CONTRACTOR SHALL ALSO BE SOLELY RESPONSIBLE FOR SAFETY IN OR ABOUT THE JOB SITE IN ACCORDANCE WITH ANY HEALTH OR SAFETY PRECAUTIONS, REGULATIONS, STANDARDS OR CODES REQUIRED BY O.S.H.A. OR ANY OTHER REGULATORY AGENCY.
8. NO MORE TRENCH CAN BE OPENED AT ONE TIME THAN CAN BE BACKFILLED AND COMPAKTED IN 8" LIFTS AS PER TXDOT ITEM NO. 400 (EXCAVATION AND BACKFILL FOR STRUCTURES). AT THE END OF EACH WORK PERIOD, NO TRENCH SHALL BE LEFT OPEN OVERNIGHT.
9. EXISTING PAVEMENT, CURBS, SIDEWALKS, AND DRIVEWAYS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED BY BONDED CONTRACTOR IN CONFORMANCE WITH LOCAL STANDARDS. WHEELCHAIR RAMPS SHALL BE CONSTRUCTED AT ALL PEDESTRIAN CROSSINGS WHERE CURB REMOVAL IS REQUIRED FOR INSTALLATION OF THE UNDERGROUND CONDUIT SYSTEM. ALL PAVEMENT REMOVED WILL BE WET SAW CUT PRIOR TO REMOVAL.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING BORE PIT LOCATIONS AND DIMENSIONS, INFORMATION SHOWN ON PLANS ARE FOR REFERENCE PURPOSE ONLY. ANY DEVIATIONS SHALL BE APPROVED BY DEVELOPER. SITE SHALL BE RESTORED TO EXISTING CONDITIONS WITH MATERIAL COMPAKTED TO DESIGN DOCUMENT REQUIREMENTS.
11. IF IT BECOMES NECESSARY TO OPERATE MACHINERY ON A PORTION OF THE PAVEMENT, PRECAUTIONS MUST BE TAKEN TO PREVENT ANY DAMAGE WHATSOEVER TO THE PAVEMENT. DAMAGED PAVEMENT WILL BE REPLACED IN ACCORDANCE WITH THE PAVEMENT DESIGN.
12. ALL TRAFFIC CONTROL MEASURES AND DEVICES REQUIRED FOR CONSTRUCTION OF THIS RELOCATION MUST CONFORM TO THE COMPREHENSIVE DEVELOPMENT AGREEMENT AND THE 2011 EDITION OF THE TMUTCD. TRAFFIC CONTROL PLANS AND FLAGMEN TO BE PROVIDED BY DEVELOPER.
13. BORE PITS WITHIN CLEAR ZONE MUST BE PROTECTED BY CONCRETE TRAFFIC BARRIERS (CTB'S). OPEN PITS MUST BE COMPLETELY COVERED AND CLEARLY DELINEATED BY SURROUNDING THE PIT WITH CAUTION TAPE OR SEALED OFF BY ORANGE PLASTIC MESH FENCING AND CONES OR DRUMS.
14. CONSTRUCTION EQUIPMENT LEFT OVERNIGHT IN RIGHT-OF-WAY SHALL BE PLACED AT LEAST 30' FROM EDGE OF PAVEMENT (CLEAR ZONE).
15. CONTRACTOR WILL BE RESPONSIBLE FOR REPLACING AND MAINTAINING TRAFFIC SIGNS AND PAVEMENT MARKINGS, INCLUDING CENTERLINES, BARRIER LINES, LANE LINES, RAISED PAVEMENT MARKING, ETC.
16. INSTALLATION AND MAINTENANCE OF SWPPP TO BE PERFORMED BY DEVELOPER. CONTRACTOR SHALL REPAIR OR REPLACE ANY STORM WATER POLLUTION PREVENTION PLAN (SWPPP) DEVICES DAMAGED OR REMOVED BY THIS OPERATION. CONTRACTOR SHALL KEEP ALL DEBRIS & SPOIL OUT OF DRAINS, CULVERTS, AND DROP INLETS AND ENSURE THAT THEY DO NOT BECOME CLOGGED AS A RESULT OF CONSTRUCTION ACTIVITIES.
17. ANY DISCREPANCIES IN THE FIELD DURING CONSTRUCTION FROM WHAT IS SHOWN ON THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE UTILITY DESIGN ENGINEER AND DEVELOPER, ALL CHANGES SHALL FOLLOW COMPREHENSIVE DEVELOPMENT AGREEMENT REQUIREMENTS. AS-BUILTS WILL BE PROVIDED BY CONTRACTOR TO DEVELOPER.
18. THE CONDUIT, FITTINGS, CONDUIT BODIES AND ACCESSORIES SHALL BE INSPECTED UPON DELIVERY AND DURING THE PROGRESS OF THE WORK. ANY MATERIAL FOUND TO BE DEFECTIVE WILL BE REJECTED BY THE UTILITY OWNER'S REPRESENTATIVE AND THE CONTRACTOR SHALL REMOVE SUCH DEFECTIVE MATERIAL FROM THE SITE OF THE WORK.
19. CONTRACTOR SHALL COORDINATE AND VERIFY ANY UTILITY ABANDONMENT WITH THE UTILITY COMPANY, WITH DEVELOPER AND TXDOT. NO FACILITY MAY BE CONSIDERED ABANDONED WITHOUT WRITTEN CONSENT FROM THE UTILITY OWNER AND PER UAR 21.39(C)(A).
20. CONTRACTOR IS TO PLUG ALL INSTALLED DUCTS.
21. THE CONSTRUCTION CONTRACTOR SHALL PLACE WARNING TAPE OVER ALL CONDUIT.
22. ALL PROPOSED BENDS SHALL BE GRADUAL SWEEPS WITH A MINIMUM 5-FOOT RADIUS.
23. CONTRACTOR SHALL CONSTRUCT HORIZONTAL DIRECTIONAL DRILL IN ACCORDANCE WITH THE INDUSTRY GUIDELINES AND PROCEDURES APPROPRIATE IN ASTM, ASCE, PPI, NO-DIG PUBLICATIONS, NASTT AND AMERICAN SOCIETY FOR TRENCHLESS TECHNOLOGY.

24. TEMPORARY CONSTRUCTION EASEMENTS TO BE SECURED BY THE DEVELOPER IF NECESSARY. IF APPLICABLE THE CONTRACTOR IS TO CONFIRM ACQUISITION PRIOR TO SCHEDULING WORK. REFER TO SPECIAL PROVISIONS FOR EASEMENT DETAILS.

25. CONTRACTOR TO PROVIDE AND PLACE MULE TAPE IN EACH INSTALLED DUCT.

26. CONTRACTOR SHALL PLACE MARKER SIGNS AT EACH MANHOLE AND HANDHOLE INSTALLED PROVIDED BY UTILITY OWNER.

27. CONTRACTOR TO CONTACT UTILITY OWNER A MINIMUM OF 48 HOURS PRIOR TO CONNECTION TO EXISTING MANHOLE OR DUCTS TO COORDINATE ON-SITE INSPECTION BY UTILITY PERSONNEL.

28. CONTRACTOR TO ENCASE ALL 90° HORIZONTAL BENDS FOR CONDUITS WITH CONCRETE OF 2500 PSI COMPRESSIVE STRENGTH OR AS INDICATED ON THE DRAWINGS.

29. ALL PROPOSED TELECOM FACILITIES SHOULD BE INSTALLED AT A MINIMUM OF 4 FEET BELOW FINISH GRADE ELEVATION AT ALL LOCATIONS, UNLESS NOTED ON THE PLANS.

30. THE ROW WILL BE CLEARED AND STAKED BY THE DEVELOPER PRIOR TO THE UTILITY RELOCATION.

31. IN CASE OF UTILITY DAMAGE, CONTRACTOR IS TO EVACUATE AND SECURE AREA IF NECESSARY, CALLING 911 WHEN APPROPRIATE (PETROLEUM PIPELINE DAMAGE).

32. CONTRACTOR IS TO NOTIFY TEXAS 811 AND REPORT DAMAGE.

UTILITY OWNER CONTACTS

1. CONTRACTOR TO CONTACT TELECOM OWNER A MINIMUM 2-WEEKS PRIOR TO CONSTRUCTION.
2. A PRECONSTRUCTION MEETING SHALL BE SCHEDULED A MINIMUM OF ONE WEEK PRIOR TO CONSTRUCTION.
3. CONTRACTOR IS TO CALL UTILITY OWNER AND REPORT DAMAGE.
4. CONTRACTOR IS TO NOTIFY UTILITY MANGER OR DEPUTY UTILITY MANAGER AND REPORT DAMAGE.

TEXAS DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR PLACING UTILITY LINES WITHIN THE RIGHT-OF-WAY OF STATE-MAINTAINED HIGHWAYS:

1. ALL EXCAVATIONS WITHIN THE RIGHT-OF-WAY AND NOT UNDER SURFACING SHALL BE BACKFILLED BY TAMPING IN 8-INCH HORIZONTAL LAYERS AND/OR AS PER TXDOT SPEC ITEM 400. ALL SURPLUS MATERIAL SHALL BE REMOVED FROM THE RIGHT-OF-WAY AND THE EXCAVATION FINISHED FLUSH WITH THE SURROUNDING NATURAL GROUND. BACKFILL PLACED UNDER PROPOSED PAVEMENT AREAS SHALL BE DENSITY CONTROLLED.

2. WHERE SODDING IS DISTURBED BY EXCAVATION OR BACKFILLING OPERATIONS, SUCH AREAS SHALL BE REPLACED BY SEEDING. SLOPES 4:1 OR STEEPER, SHALL BE REPLACED BY BLOCK SODDING. THIS WORK SHALL BE IN ACCORDANCE WITH TXDOT SPECIFICATIONS.

3. HIGHWAY CROSSINGS UNDER SURFACED ROADS AND SURFACED CROSSROADS WITHIN THE RIGHT-OF-WAY SHALL BE PLACED BY OPEN TRENCH OR BORING. CASING SHALL EXTEND MINIMUM 5 FEET FROM BACK OF CURB, 5 FEET BEYOND THE TOE OF SLOPE FOR FILLS OR FROM TOP OF BACKSLOPE TO TOP OF BACKSLOPE FOR CUT SECTIONS. ALL LINES CARRYING PRESSURE SHALL BE ENCLOSED IN SATISFACTORY CASING.

4. USE OF WATER AND OTHER FLUIDS IN CONNECTION WITH BORING OPERATIONS WILL BE PERMITTED ONLY IN SUFFICIENT QUANTITY TO LUBRICATE BORING BIT AND FOR EASE OF REMOVING CUTTINGS. JETTING WILL NOT BE PERMITTED. CARE WILL BE TAKEN TO PREVENT POUR FLUIDS FROM ENTERING STORM WATER SYSTEM.

5. PIPELINE MATERIAL AND DESIGN FOR HIGH PRESSURE LINES MUST MEET THE MINIMUM FEDERAL SAFETY STANDARDS FOR LIQUID AND GAS PIPELINES.

6. WORK PERFORMED ON RAILROAD RIGHT-OF-WAY IS SUBJECT TO THE CONCURRENCE OF THE RAILROAD COMPANY. WORK PERFORMED WITHIN WATERWAYS, SUCH AS RIVERS, CREEKS, BAYOUS, AND DRAINAGE DITCHES IS SUBJECT TO THE RULES & REQUIREMENTS OF THAT APPROPRIATE GOVERNMENTAL AGENCY.

7. ALL MANHOLE COVERS SHALL BE INSTALLED FLUSH WITH FINISHED GROUND LEVEL. THE TOP OF ROOF OF COMMUNICATIONS MANHOLES SHALL BE AT LEAST FIVE FEET BELOW FINAL GRADE WITHIN STATE RIGHT-OF-WAY.

8. TRENCH BACKFILL SHALL COMPLY WITH TXDOT STANDARD SPECIFICATION ITEM 400.

9. UTILITY INSTALLATION SHALL COMPLY WITH THE TXDOT UTILITY ACCOMMODATION RULES.

ENTERPRISE PRODUCTS
JAY JOHNSON
JARJOHNSON@EPROD.COM

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WPENNIX@ENTOUCHSYSTEMS.NET

EXXONMOBIL
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SPRING, TX 77389
TEL 832-624-7933

CENTERPOINT ENERGY ELECTRIC
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TEL 713-945-4662
ED.HULSEY@CENTERPOINTENERGY.COM

CENTERPOINT ENERGY GAS
LOUIS CARDENAS
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FAX 713-207-0877
LOUIS.CARDENAS@CENTERPOINTENERGY.COM

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MIKE.WILLIAMS1@VERIZON.COM

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JEFF CASH
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OFC 281-966-4581
MOBILE 281-804-5330
JCASH@DOW.COM

SOUTH CROSS ENERGY
700 TOWN AND COUNTRY BLVD STE 950
HOUSTON, TX 77024
TEL 713-580-0262



INTERIM REVIEW
Not intended for construction, bidding or permit purposes.
Engineer: VINEETA JAYARAM
P.E. Serial No.: 101121
Date: 11/12/2015

CobbFendley
TBPE Firm Registration No. 274
TBPLS Firm Registration No. 100467
13430 Northwest Freeway, Suite 1100
Houston, Texas 77040
713.462.3242 | fax 713.462.3262
www.cobbfendley.com

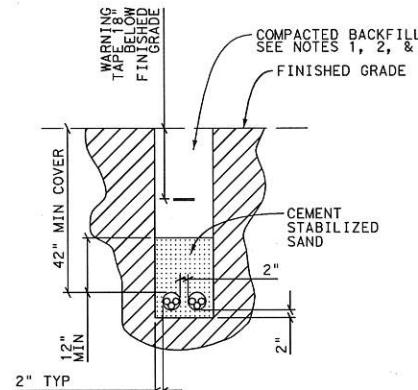
FM 1093 WESTPARK EXTENSION

GENERAL NOTES

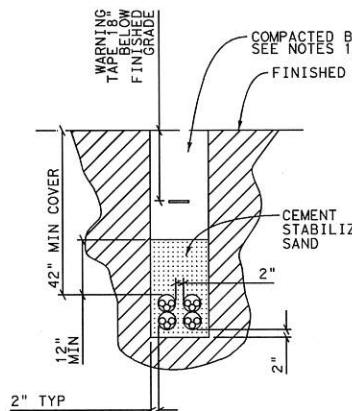
SHT 1 OF 1

SCALE: 1' = 100'	DRAWN BY EMC	SHEET 3
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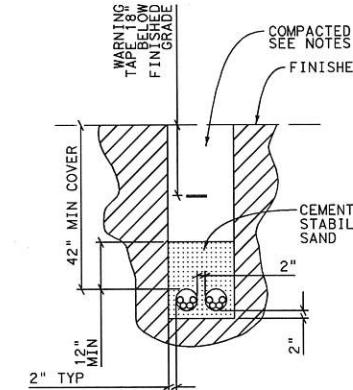
SECTION OF 2-4" 'C' PVC
W/ 3-1.25" HDPE INNERDUCT



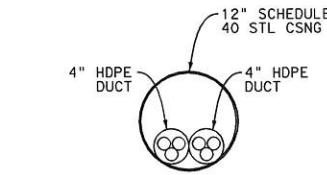
SECTION OF 4-4" 'C' PVC
W/ 3-1.25" HDPE INNERDUCT



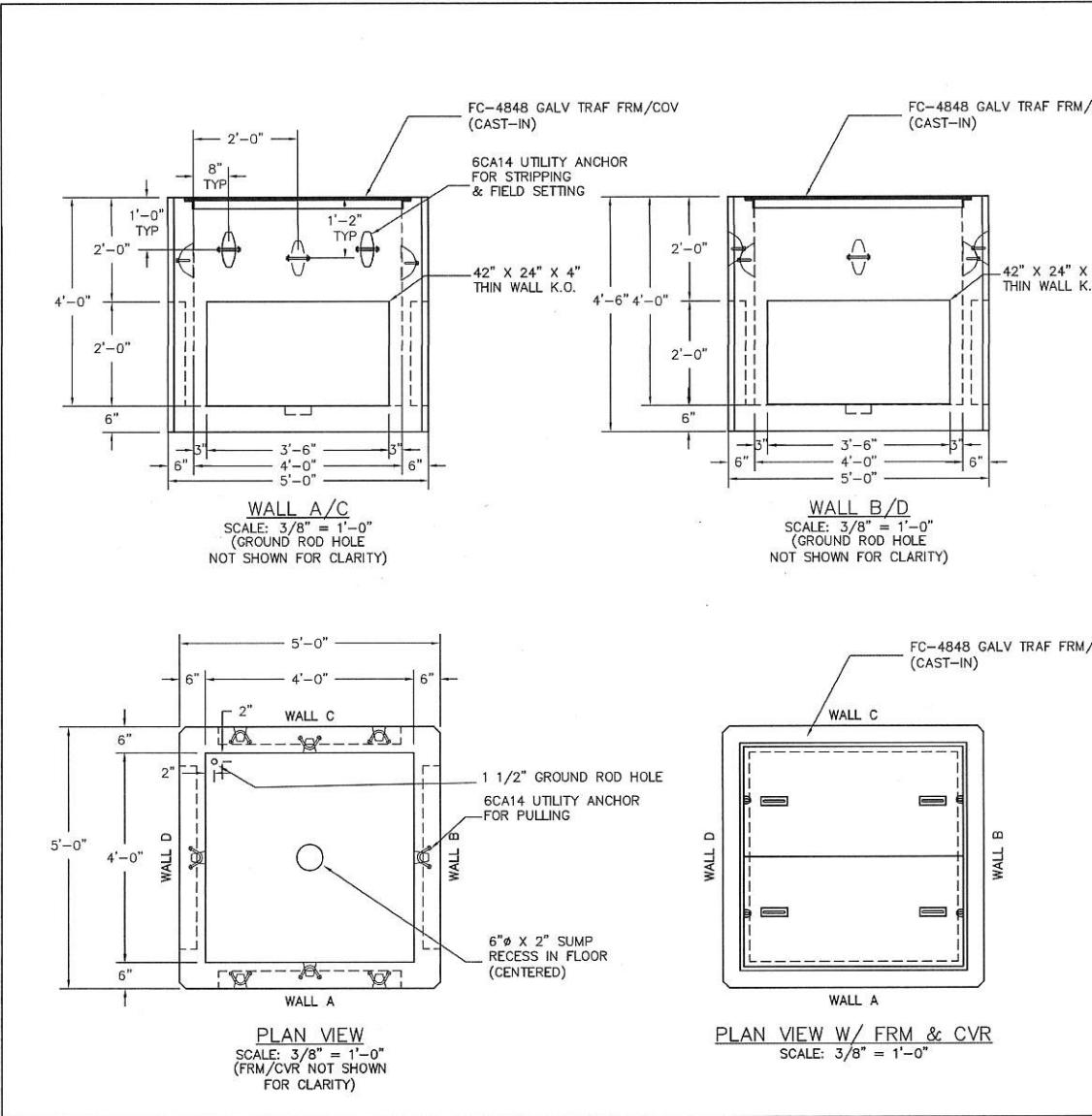
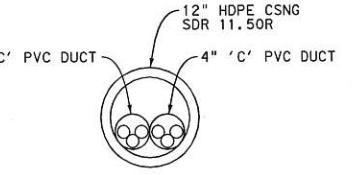
SECTION OF 2-5" 'C' PVC
W/ 4-1.25" HDPE INNERDUCT



SECTION OF 2-4" HDPE
W/ 3-1.25" HDPE INNERDUCTS
IN 12" STL CSNG



SECTION OF 2-5" 'C' PVC DUCTS
W/ 4-1.25" HDPE INNERDUCTS
IN 16" HDPE SDR 11.50R CSNG



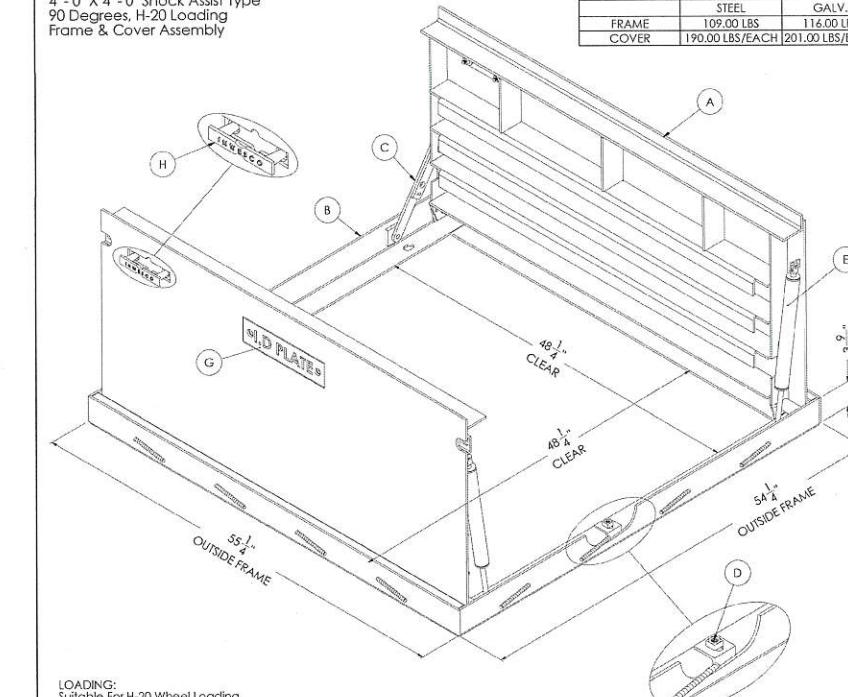
INWESCO
INCORPORATED

746 North Coney Avenue Azusa, CA 91702
Telephone: (626) 334-9304 Fax: (626) 969-3404

INWESCO, Inc - Texas
2824 N. Sylvania Ave. Ft. Worth, TX 76111
Telephone: (817) 834-3310 Fax: (817) 834-3315

4'-0" X 4'-0" Shock Assist Type
90 Degrees, H-20 Loading
Frame & Cover Assembly

WEIGHTS		
FRAME	STEEL	GALV.
109.00 LBS	116.00 LBS	190.00 LBS/EACH 201.00 LBS/EACH



LOADING:
Suitable For H-20 Wheel Loading
in Off-Street Locations Where not
Subjected To High Density Traffic.

- COMPONENT PARTS:**
- A. Shock assist covers available in diamond or slip resistance plate.
 - B. Frame assembly available: Cast in, bolt down, or skirted.
 - C. Kick plate.
 - D. Locking mechanism (Square Nut 1/2").
 - E. Mechanical Shock.
 - F. Cast in rebar.
 - G. ID plate (Per request).
 - H. Lift handles.

NOTES:
-FOR BOLT DOWN FRAME TYPE
USE SLOTS.
-FOR CAST-IN FRAME TYPE
USE REBAR.

INWESCO	Prepared By: H.T.H
	Date: 12-12-12

4'-0" X 4'-0" Shock Assist Type
90 Degrees, H-20 Loading
Frame & Cover Assembly

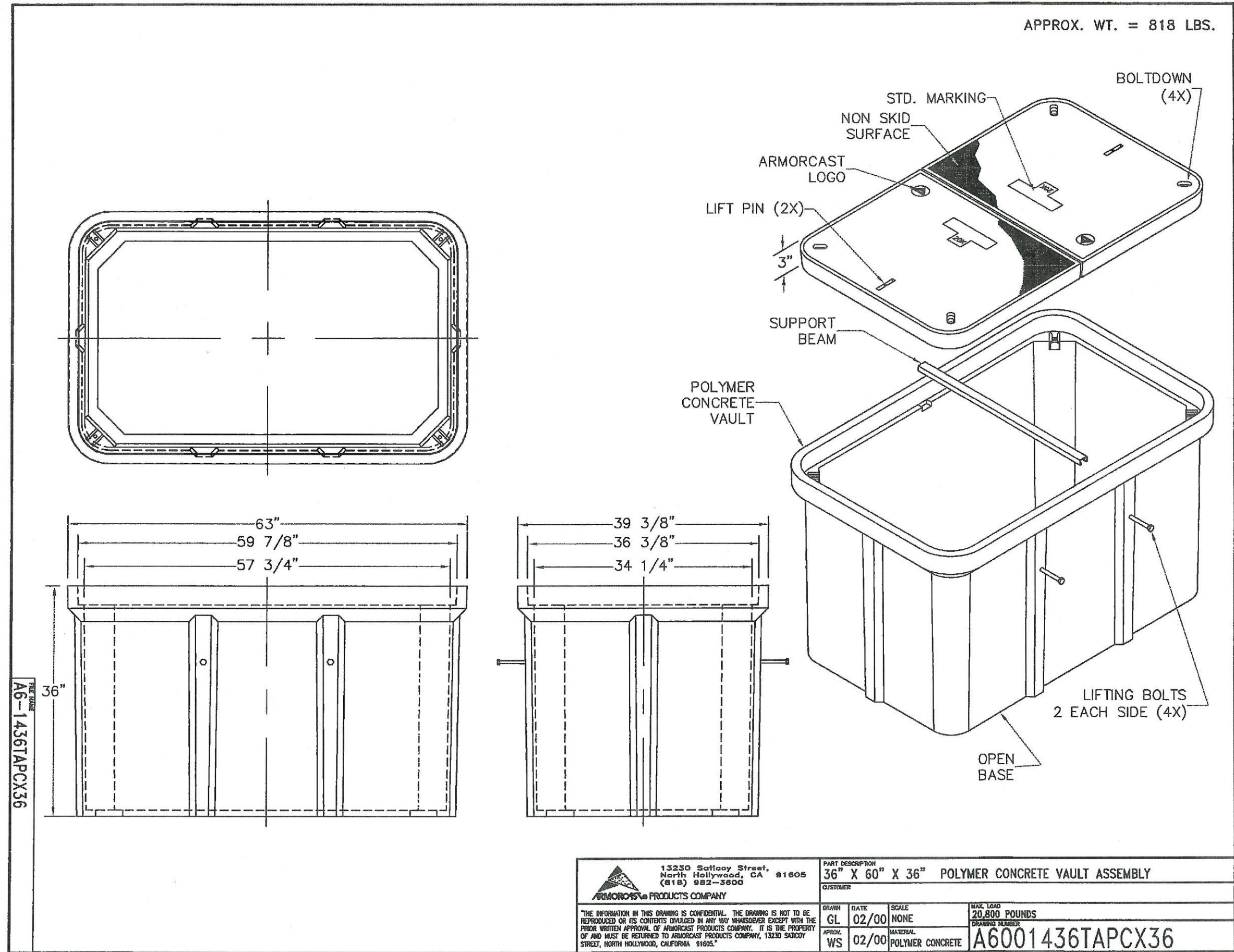
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INTERIM REVIEW
Not intended for construction,
bidding or permit purposes.
Engineer: VINEETA JAYARAM
P.E. Serial No.: 101121
Date: 11/12/2015

CobbFendley
TBPE Firm Registration No. 274
TBPLS Firm Registration No. 1100
13430 Northwest Freeway, Suite 1100
Houston, Texas 77040
713.462.3242 | fax 713.462.3262
www.cobbfendley.com

FM 1093 WESTPARK EXTENSION
HANDHOLE & TRENCH DETAILS
4'0"X4'0"X4'0" HR
SHT 1 OF 2

SCALE: NTS DRAWN BY EMC SHEET 4



15250 Satcoy Street,
North Hollywood, CA 91605
(818) 982-3600

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PART DESCRIPTION
36" X 60" X 36" POLYMER CONCRETE VAULT ASSEMBLY

CUSTOMER

DRAWN GL	DATE 02/00	SCALE NONE	MAX. LOAD 20,800 POUNDS
APPROV. WS	02/00	MATERIAL POLYMER CONCRETE	DRAWING NUMBER A6001436TAPCX36

FM 1093 WESTPARK EXTENSION

HANDHOLE & TRENCH DETAILS

3'0"X5'0"X3'0" HR
SHT 2 OF 2

SCALE: NTS	DRAWN BY EMC	SHEET 5
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INTERIM REVIEW
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Engineer: VINEETA JAYARAM
P.E. Serial No.: 101121
Date: 11/13/2015

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LEGEND

—— OE1/T2/FOC4 —— OH ELECTRIC, TELEPHONE, FOC: CENTERPOINT, PHONOSCOPE, COMCAST
 —— OE1/T2/FOC4/CTV1 —— OH ELECTRIC, TELEPHONE, FOC, CATV: CENTERPOINT, PHONOSCOPE, COMCAST, COMCAST
 —— OE1/T2/FOC1/FOC4 —— OH ELECTRIC, TELEPHONE, FOC, FOC: CENTERPOINT, PHONOSCOPE, AT&T, COMCAST
 —— OE1/T2/CTV1 —— OH ELECTRIC, TELEPHONE, CATV: CENTERPOINT, PHONOSCOPE, COMCAST
 —— OE1/CTV1 —— OH ELECTRIC, CATV: CENTERPOINT, COMCAST
 —— OE1/FOC1 —— OH ELECTRIC, FOC: CENTERPOINT, AT&T
 —— OHCTV1 —— OH CATV: COMCAST
 —— OHCTV2 —— OH CATV: ENTOUCH
 —— OHT2 —— OH TELEPHONE: PHONOSCOPE
 —— OE1 —— OH ELECTRIC: CENTERPOINT
 —— E1 —— ELECTRIC: CENTERPOINT
 —— E1 (D) —— E1 (D) —— ELECTRIC: CENTERPOINT
 —— G1 —— GAS: CENTERPOINT
 —— G1 (D) —— G1 (D) —— GAS: CENTERPOINT
 —— PL1 —— PIPELINE: CONOCO
 —— PL1 (D) —— PL1 (D) —— PIPELINE: CONOCO
 —— PL2 —— PIPELINE: COPANO
 —— PL2 (D) —— PL2 (D) —— PIPELINE: COPANO
 —— PL3 —— PIPELINE: DOW
 —— PL3 (D) —— PL3 (D) —— PIPELINE: DOW
 —— PL4 —— PIPELINE: ENTERPRISE
 —— PL4 (D) —— PL4 (D) —— PIPELINE: ENTERPRISE
 —— PL5 —— PIPELINE: EXXON
 —— PL5 (D) —— PL5 (D) —— PIPELINE: EXXON
 —— PL6 —— PIPELINE: GULF SOUTH
 —— PL6 (D) —— PL6 (D) —— PIPELINE: GULF SOUTH
 —— PL7 —— PIPELINE: SOUTHCROSS GULF COAST
 —— PL7 (D) —— PL7 (D) —— PIPELINE: SOUTHCROSS GULF COAST
 —— PL8 —— PIPELINE: WILLIAMS
 —— PL8 (D) —— PL8 (D) —— PIPELINE: WILLIAMS
 —— PL9 —— PIPELINE: ACACIA
 —— PL9 (D) —— PL9 (D) —— PIPELINE: ACACIA
 —— PL10 —— PIPELINE: PHILLIPS 66
 —— PL10 (D) —— PL10 (D) —— PIPELINE: PHILLIPS 66
 —— PL11 —— PIPELINE: HARRIS
 —— PL11 (D) —— PL11 (D) —— PIPELINE: HARRIS
 —— PL12 —— PIPELINE: SEAWAY
 —— PL12 (D) —— PL12 (D) —— PIPELINE: SEAWAY

—— FOC1 —— FOC: AT&T
 —— FOC1 (D) —— FOC1 (D) —— FOC: AT&T
 —— FOC2 —— FOC: MCI
 —— FOC2 (D) —— FOC2 (D) —— FOC: MCI
 —— FOC3 —— FOC: LEVEL 3
 —— FOC3 (D) —— FOC3 (D) —— FOC: LEVEL 3
 —— T1 —— TELEPHONE: AT&T
 —— T1 (D) —— T1 (D) —— T1 (D) —— TELEPHONE: AT&T
 —— T2 —— TELEPHONE: PHONOSCOPE
 —— T2 (D) —— T2 (D) —— T2 (D) —— TELEPHONE: PHONOSCOPE
 —— T-DUCT1 —— T-DUCT: AT&T LEGACY
 —— T-DUCT1 (D) —— T-DUCT1 (C) —— T-DUCT: AT&T LEGACY
 —— CTV1 —— CATV: COMCAST
 —— CTV1 (D) —— CTV1 (D) —— CATV: COMCAST
 —— CTV2 —— CATV: ENTOUCH
 —— CTV2 (D) —— CTV2 (D) —— CATV: ENTOUCH
 —— W1 —— WATER: CITY OF
 —— W1 (D) —— W1 (D) —— W1 (C) —— WATER: CITY OF
 —— WW1 —— WASTE WATER: CITY OF
 —— WW1 (C) —— WW1 (C) —— WW1 —— WASTE WATER: CITY OF
 —— WW1 (D) —— WW1 (D) —— WW1 —— WASTE WATER: CITY OF

QUALITY LEVEL LEGEND
 —— WW1 —— QUALITY LEVEL 'B'
 —— WW1 (C) —— WW1 (C) —— WW1 —— QUALITY LEVEL 'C'
 —— WW1 (D) —— WW1 (D) —— WW1 —— QUALITY LEVEL 'D'

TYPICAL FOR ALL UTILITIES

EXISTING OR PROPOSED
 —— CTV1 —— EXISTING UG
 —— OE1/T2/CTV1 —— EXISTING OH
 —— OE1/T2/CTV1 —— PROPOSED OH
 —— CTV1 —— PROPOSED UG

TYPICAL FOR ALL COMCAST

—— WW1 —— EXISTING
 —— WW1 —— PROPOSED
 TYPICAL FOR ALL UTILITIES

- ELECTRICAL TRANSFORMER BOX
- ELECTRICAL POWER BOX
- TRAFFIC SIGNAL LIGHT
- TRAFFIC SIGNAL POWER BOX
- POWER POLE
- LIGHT POLE
- TELEPHONE MANHOLE
- TELEPHONE VAULT
- TELEPHONE PEDESTAL

- HYDRANT
- WATER MANHOLE
- WATER VALVE
- WATER METER
- WATER VAULT
- WASTE WATER MANHOLE
- CLEAN OUT
- GAS METER
- END OF LINE
- OUT OF SCOPE



INTERIM REVIEW
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 Engineer: VINEETA JAYARAM
 P.E. Serial No.: 101121
 Date: 11/12/2015

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FM 1093 WESTPARK EXTENSION

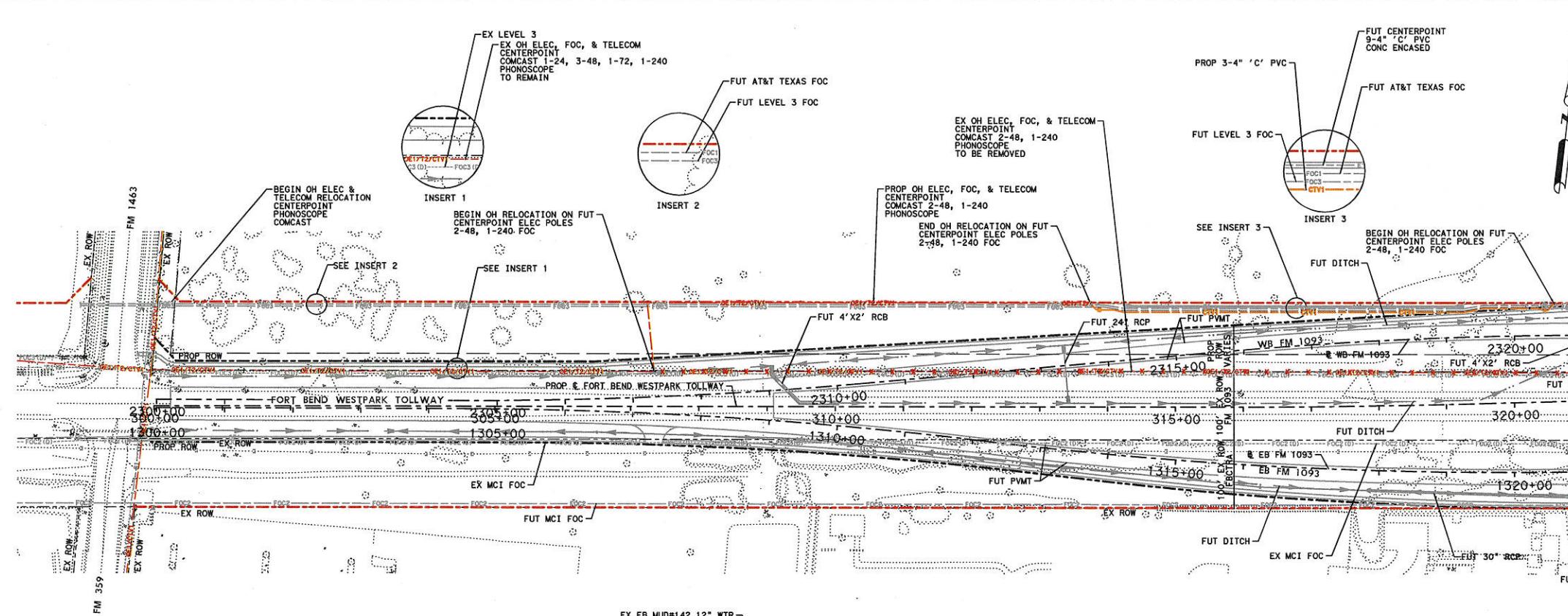
LEGEND

SHT 1 OF 1

SCALE: NTS	DRAWN BY EMC	SHEET 6
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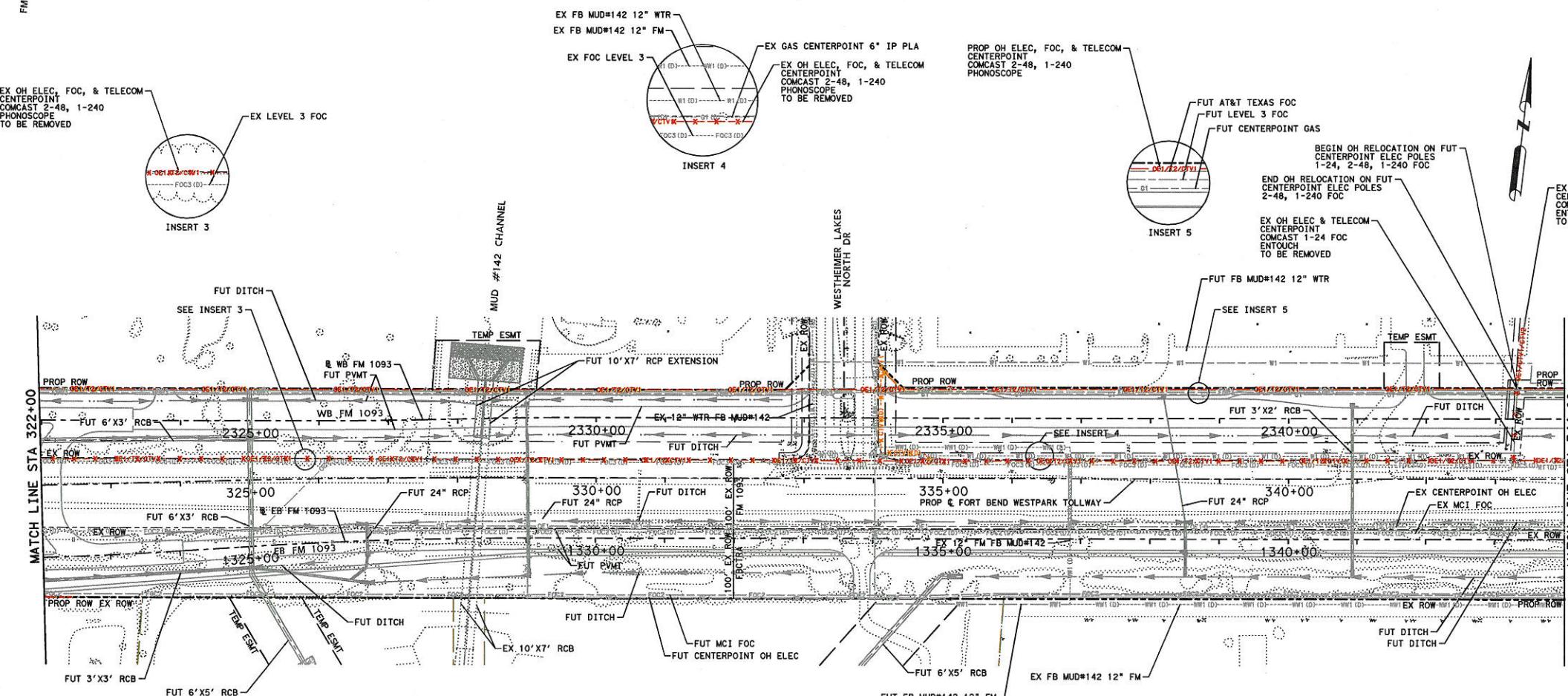
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NOTE:
SEE SHT 2 FOR OVERALL
UNDERGROUND PLAN.

SCALE
0 100 200
HORIZ



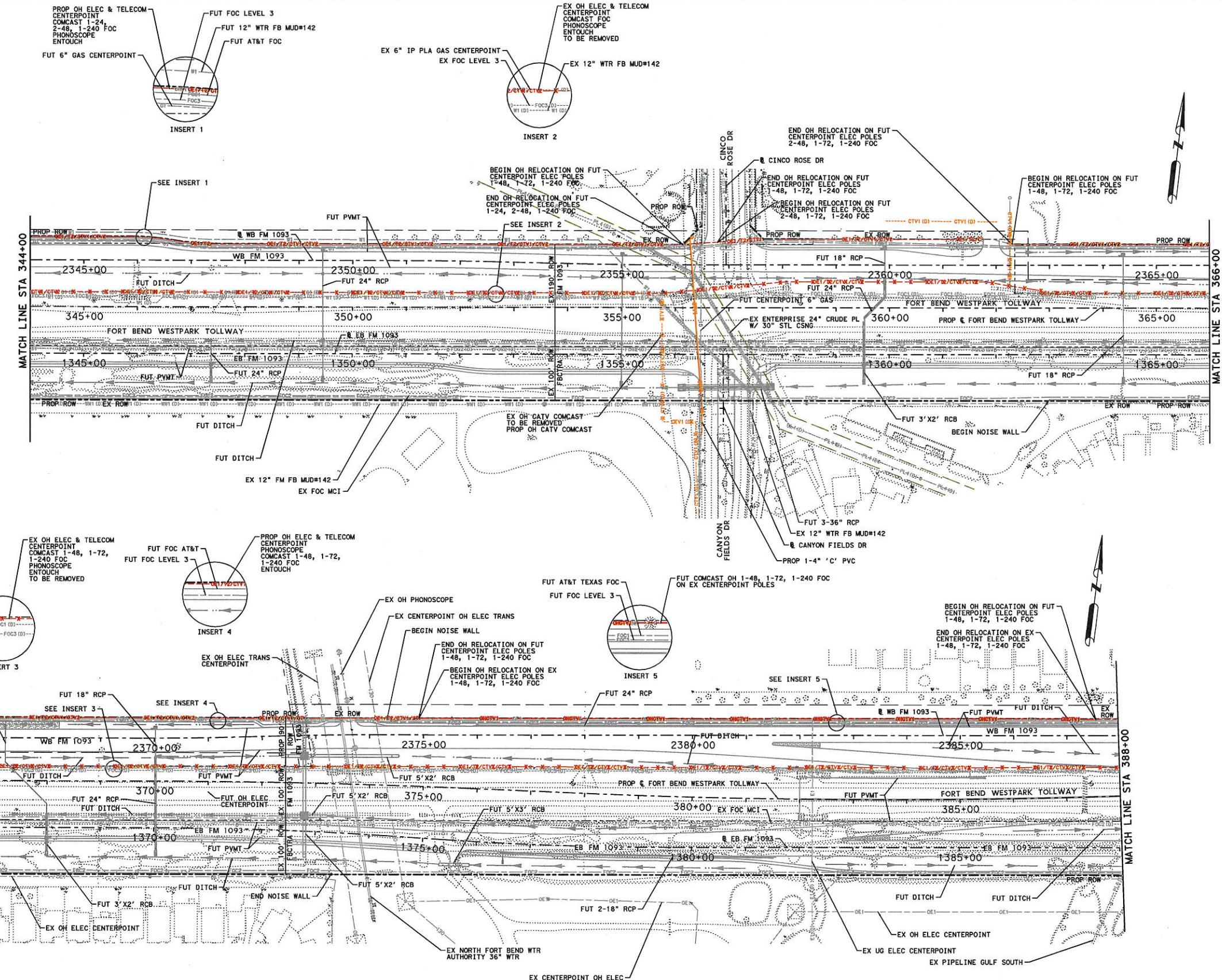
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OVERHEAD CABLE INSTALLATION
AND REMOVAL LAYOUT
SHT 1 OF 5

SCALE: PLAN: 1"=200'
DRAWN BY EMC
SHEET 7



NOTE:
SEE SHT 2 FOR OVERALL UNDERGROUND PLAN.

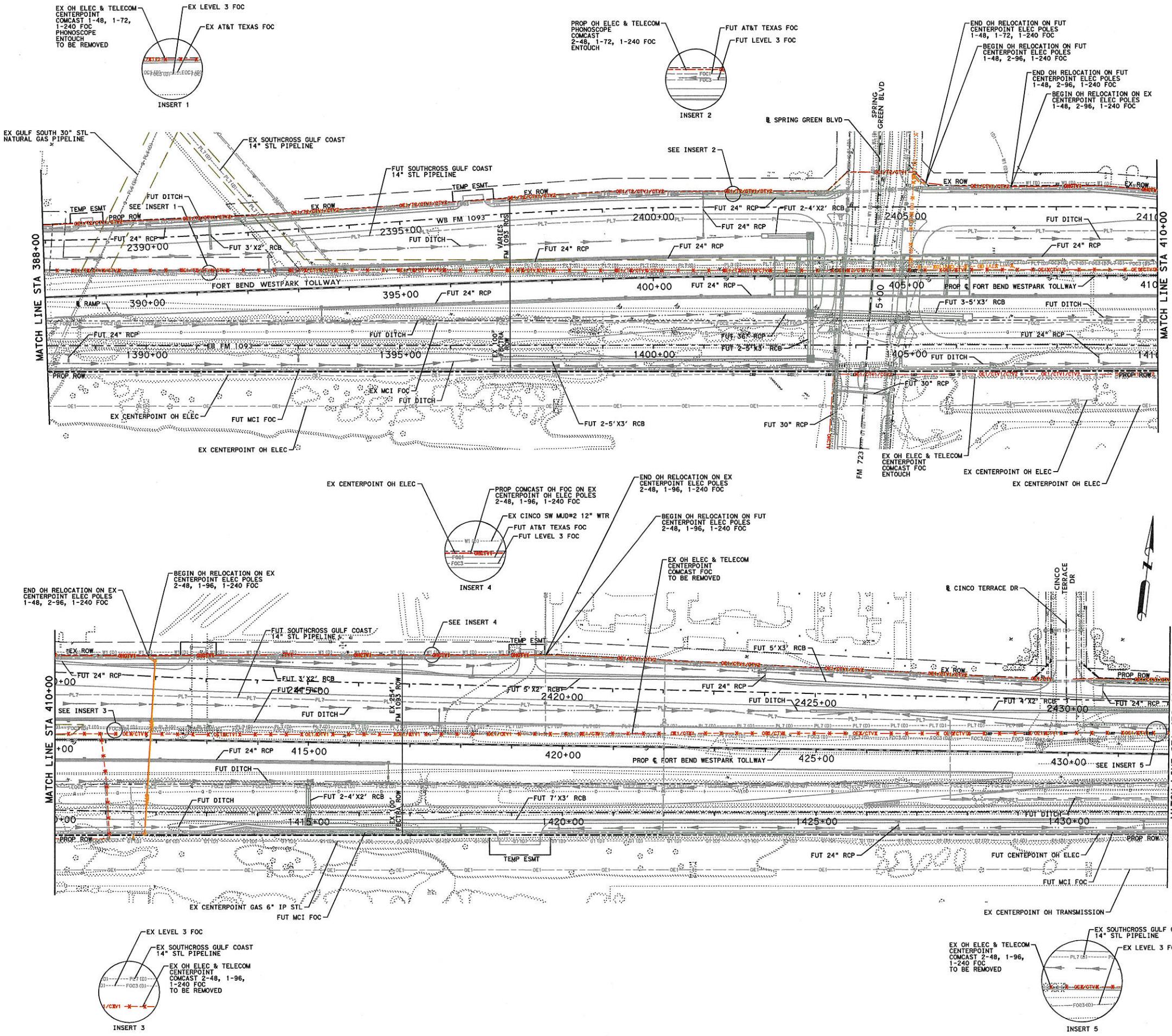
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OVERHEAD CABLE INSTALLATION
AND REMOVAL LAYOUT
SHT 2 OF 5

STA 344+00 TO STA 388+00
SCALE: PLAN: 1"=200' DRAWN BY EMC SHEET 8



NOTE:
SEE SHT 2 FOR OVERALL
UNDERGROUND PLAN.

SCALE 100 200 HORIZ

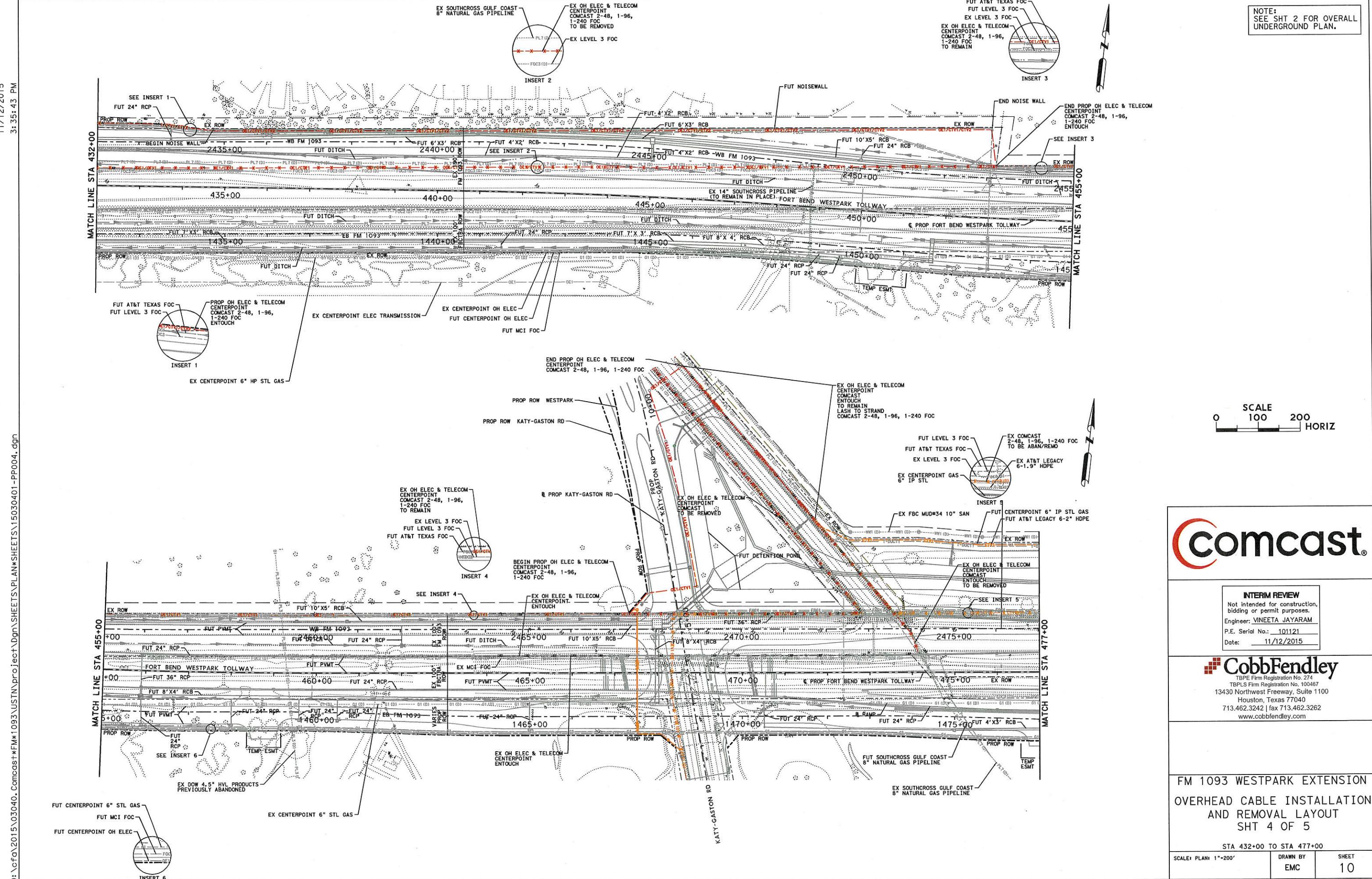
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Engineer: <u>VINEETA JAYARAM</u>
P.E. Serial No.: <u>101121</u>
Date: <u>11/12/2015</u>

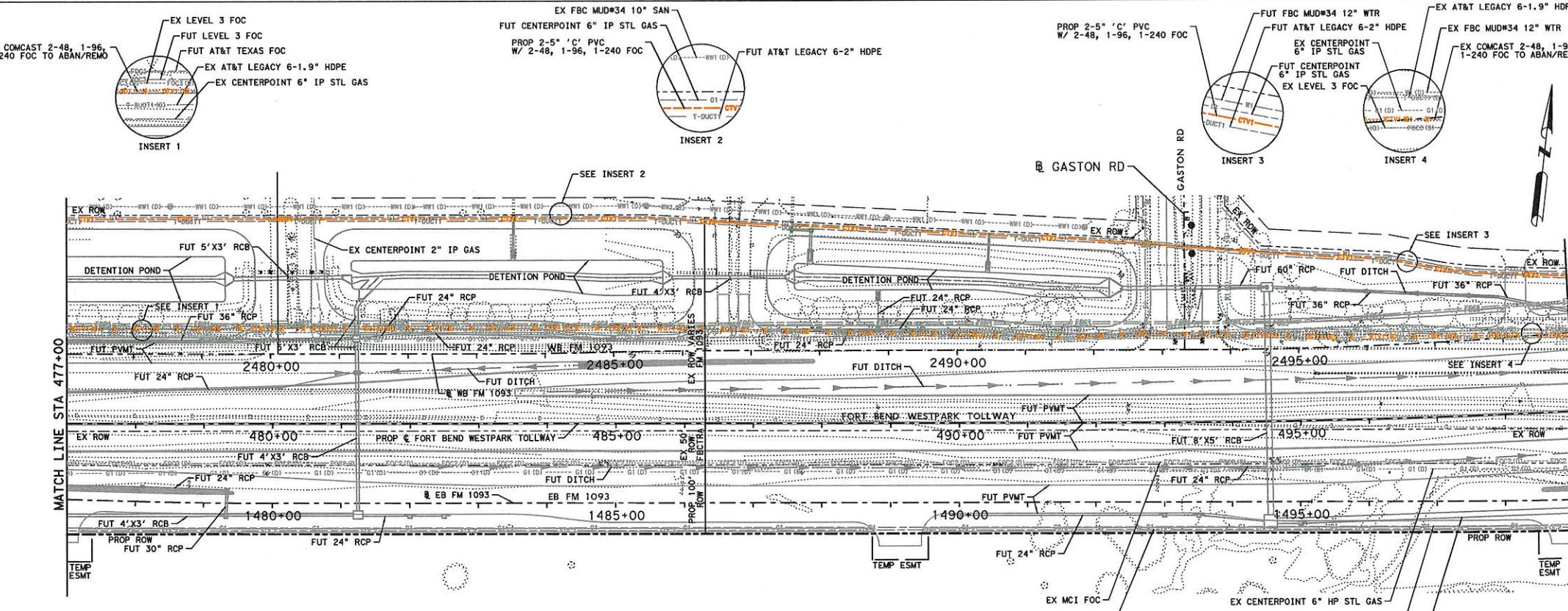
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FM 1093 WESTPARK EXTENSION
OVERHEAD CABLE INSTALLATION
AND REMOVAL LAYOUT
SHT 3 OF 5

STA 388+00 TO STA 432+00

SCALE: PLAN: 1"=200'	DRAWN BY EMC	SHEET 9
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EX AT&T LEGACY 6-1.9" HDPE

EX FBC MUD#34 12" WTR

FUT AT&T LEGACY 6-2" HDPE

EX FBC MUD#34 12" WTR

EX COMCAST 2-48, 1-96,

1-240 FOC TO ABAN/REMO

EX LEVEL 3 FOC

FUT CENTERPOINT 6" IP STL GAS

PROP 2-5" 'C' PVC

W/ 2-48, 1-96, 1-240 FOC

FUT AT&T LEGACY 6-2" HDPE

EX CENTERPOINT 6" IP STL GAS

EX LEVEL 3 FOC

EX AT&T LEGACY 6-1.9" HDPE

EX FBC MUD#34 10" SAN

FUT CENTERPOINT 6" IP STL GAS

PROP 2-5" 'C' PVC

W/ 2-48, 1-96, 1-240 FOC

FUT AT&T LEGACY 6-2" HDPE

EX CENTERPOINT 6" IP STL GAS

EX LEVEL 3 FOC

EX AT&T LEGACY 6-1.9" HDPE

EX FBC MUD#34 12" WTR

FUT AT&T LEGACY 6-2" HDPE

EX FBC MUD#34 12" WTR

EX COMCAST 2-48, 1-96,

1-240 FOC TO ABAN/REMO

EX LEVEL 3 FOC

FUT CENTERPOINT 6" IP STL GAS

EX CENTERPOINT 6" HP STL GAS

FUT 8'X6' RCB

TEMP ESMT

EX ROW

FUT 24" RCP

FUT DITCH

FUT PVMT

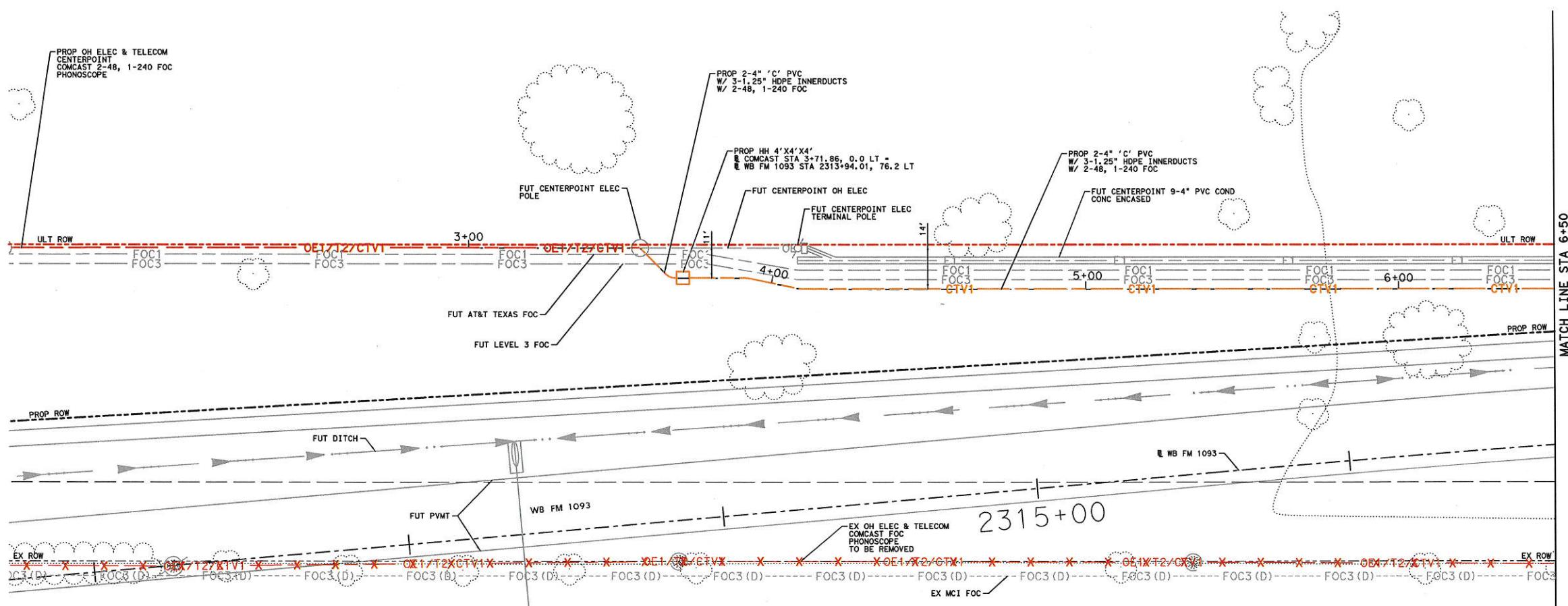
FUT 36' RCP

FUT DITCH

FUT PVMT

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SCALE
0 20 40
HORIZ
0 2 4
VERT

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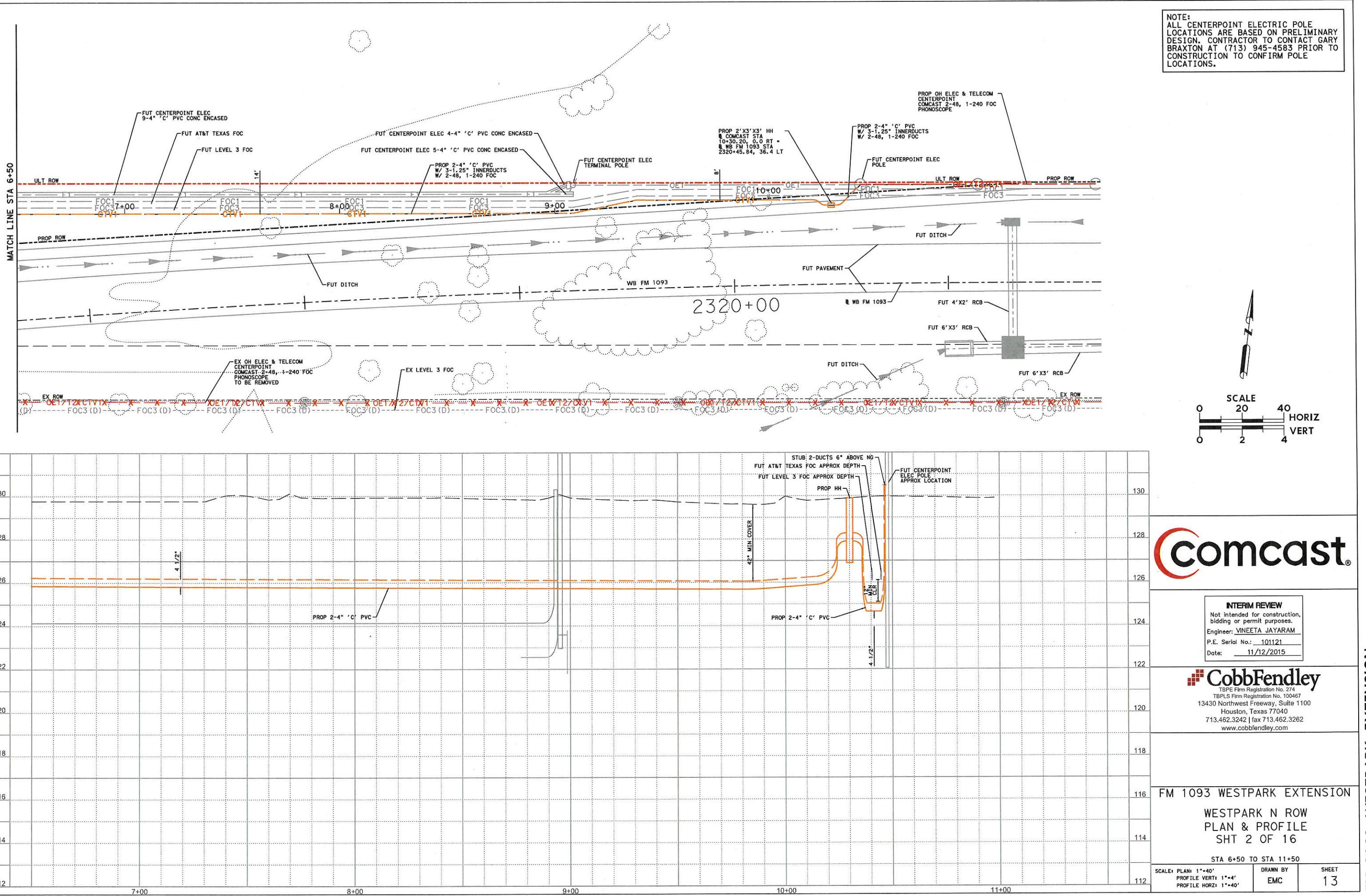
INTERIM REVIEW
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Engineer: VINEETA JAYARAM
P.E. Serial No.: 101121
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WESTPARK N ROW
PLAN & PROFILE
SHT 1 OF 16
STA 1+50 TO STA 6+50
SCALE: PLAN: 1"-40'
PROFILE VERT: 1"-4'
PROFILE HORIZ: 1"-40'
DRAWN BY EMC
SHEET 12

11/12/2015
ZEE-EZ DM

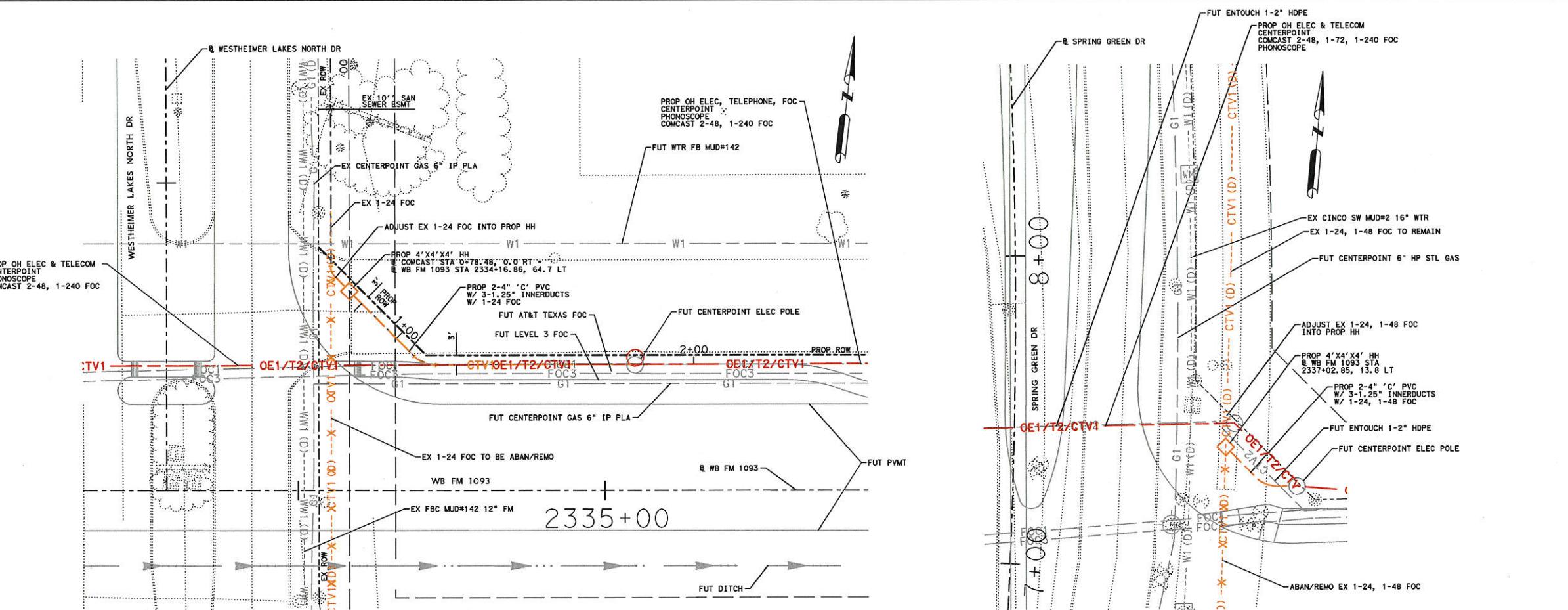
1000 QUESTIONS ON ENGLISH GRAMMAR



*USER: 150340*Comcast*FM*1093*
PROJECT: COMCAST

PROJECT: COMCAST

11/12/2015

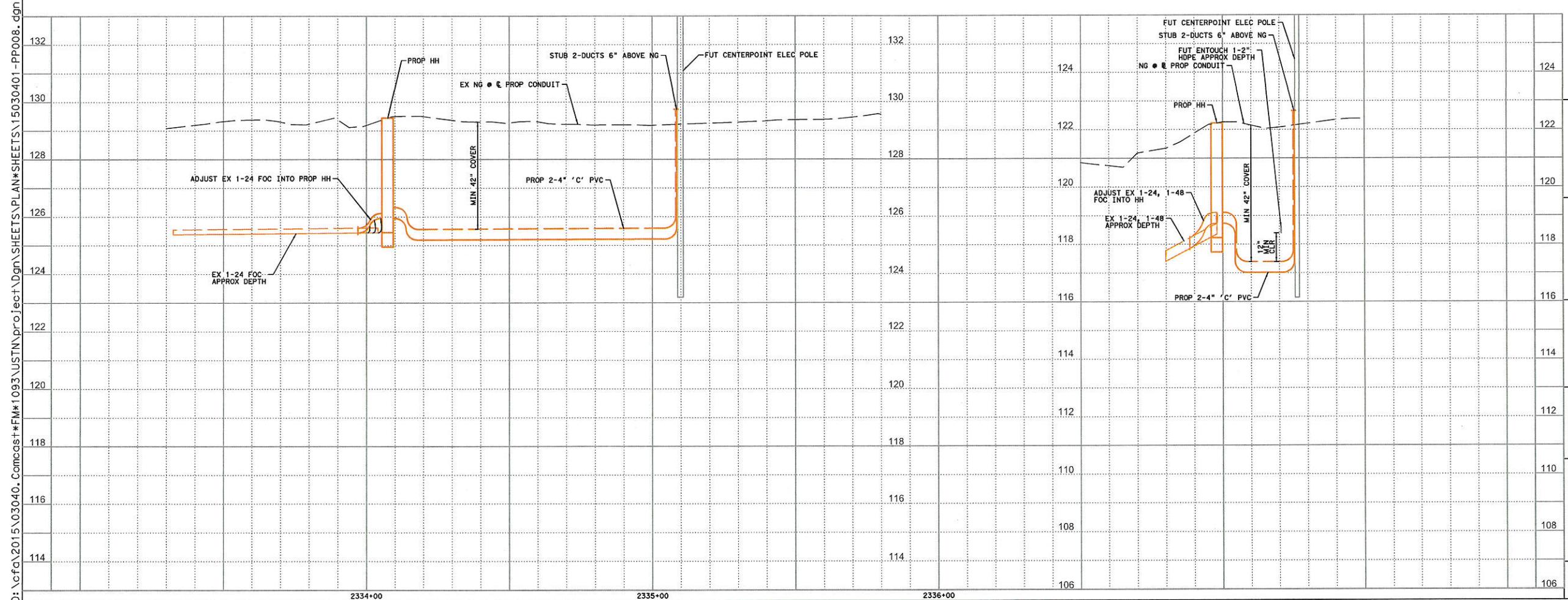


NOTE:
ALL CENTERPOINT ELECTRIC POLE
LOCATIONS ARE BASED ON PRELIMINARY
DESIGN. CONTRACTOR TO CONTACT GARY
BRAXTON AT (713) 945-4583 PRIOR TO
CONSTRUCTION TO CONFIRM POLE
LOCATIONS.

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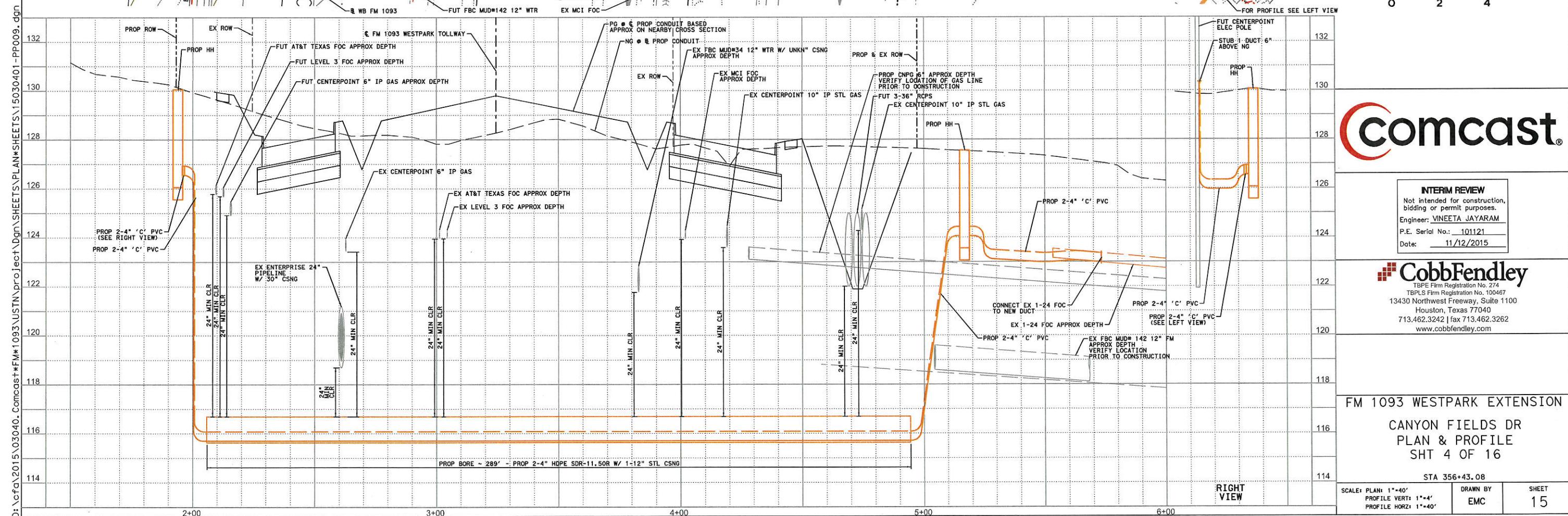
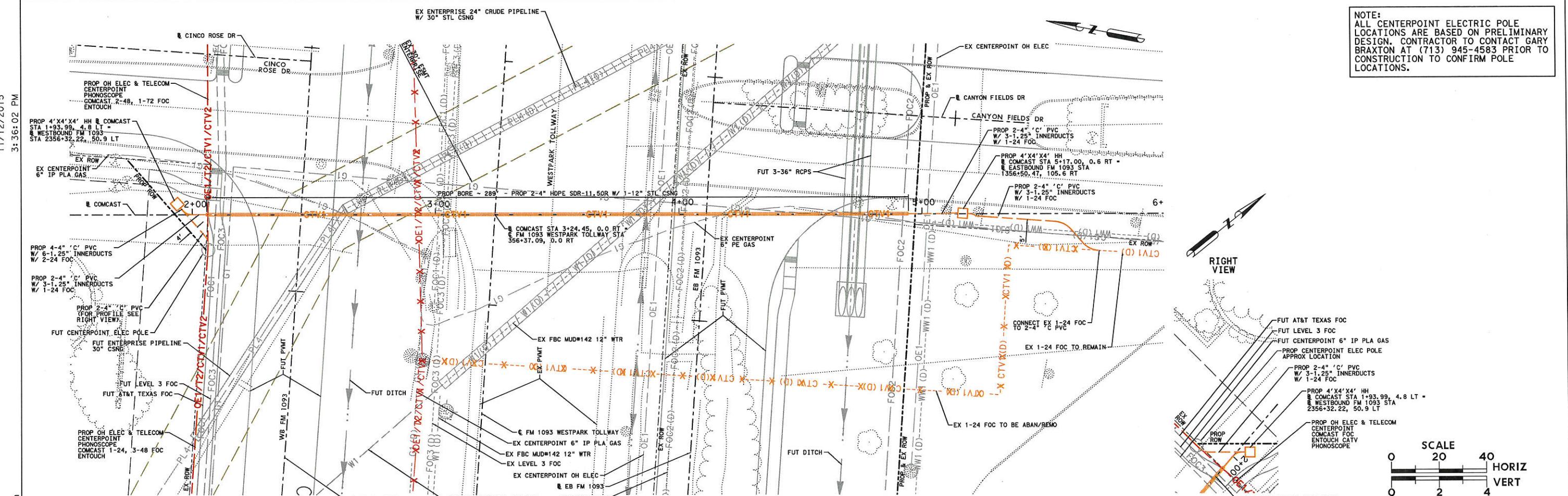


FM 1093 WESTPARK EXTENSION
WESTHEIMER L. N. & SPRING G.
PLAN & PROFILE
SHT 3 OF 16

STA 2334+11 & STA 2405+18

1"=40' LE VERT: 1"=4' LE HORIZ: 1"=40'	DRAWN BY EMC	S
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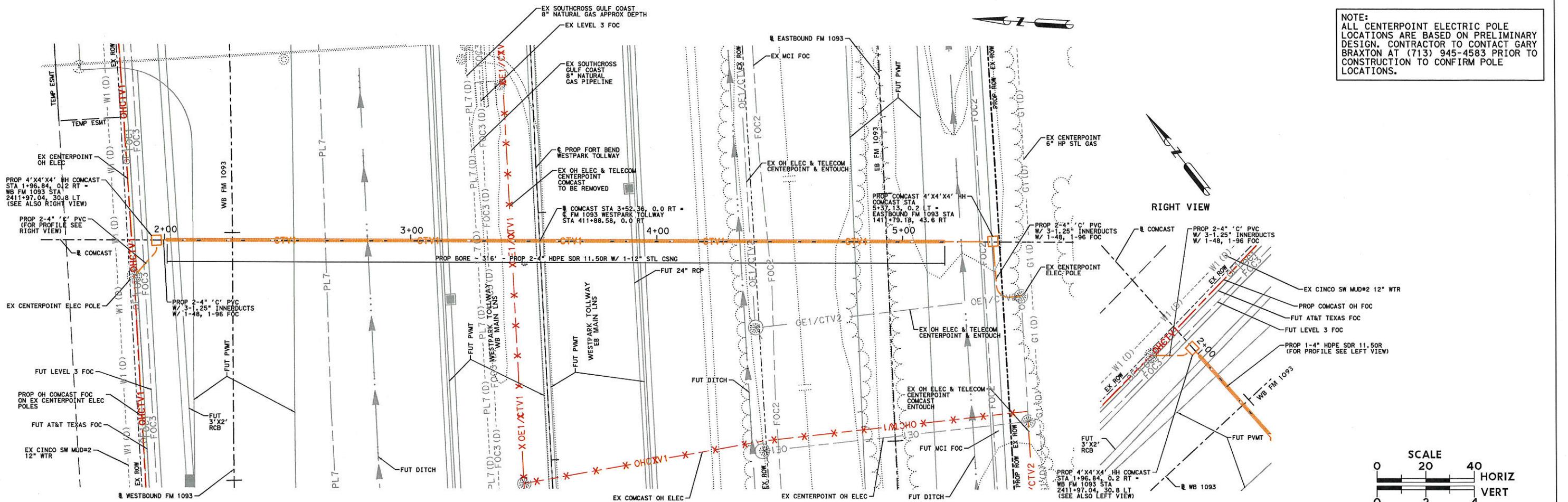
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SCALE
0 20 40 HORIZ
0 2 4 VERT

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Date: 11/13/2015

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SPRING GREEN BLVD
PLAN & PROFILE
SHT 5 OF 16

STA 411+88.58

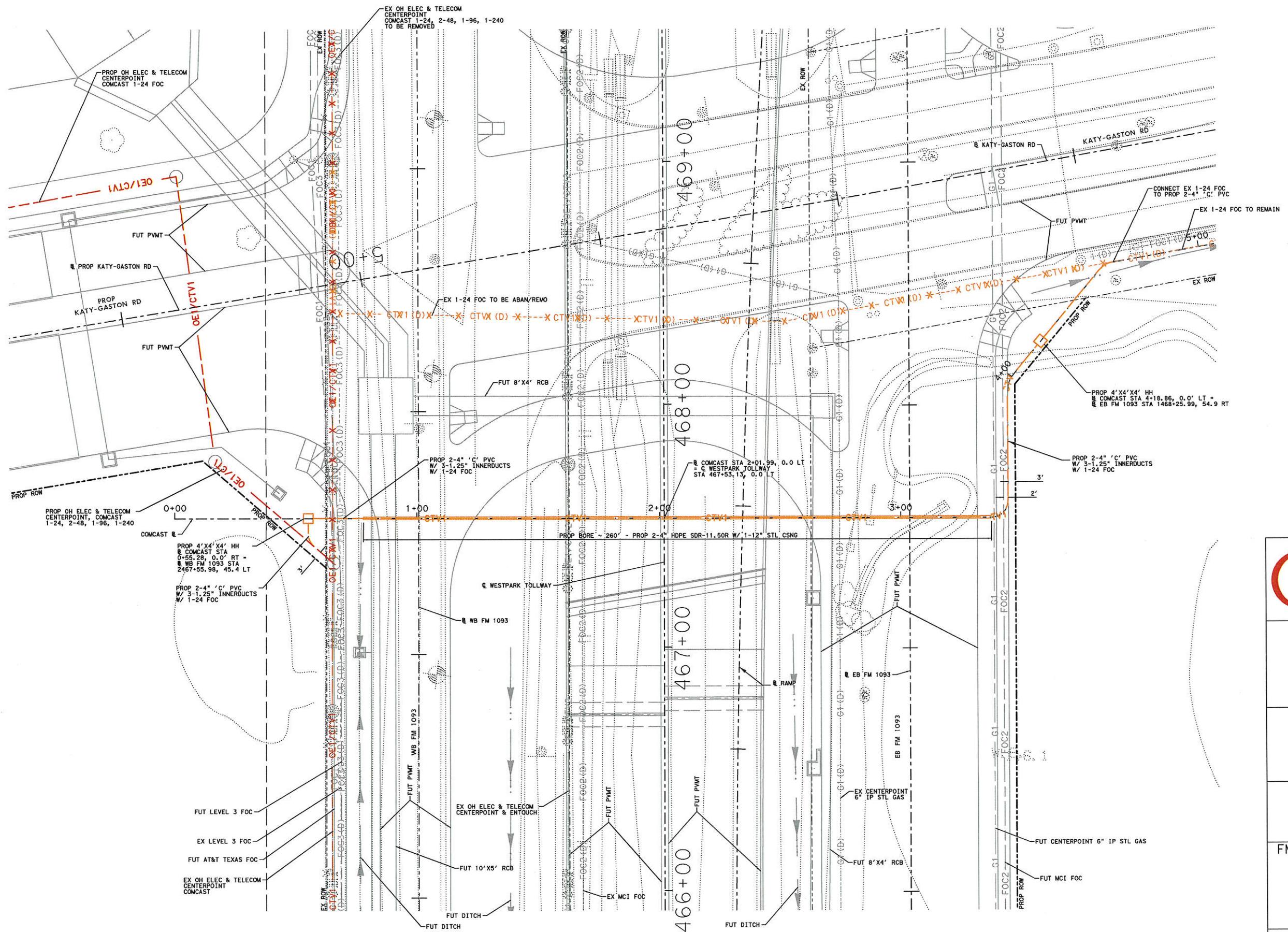
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PROFILE VERT: 1"-4'
PROFILE HORIZ: 1"-40'
DRAWN BY EMC
SHEET 16

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PROJECT: COMCAST

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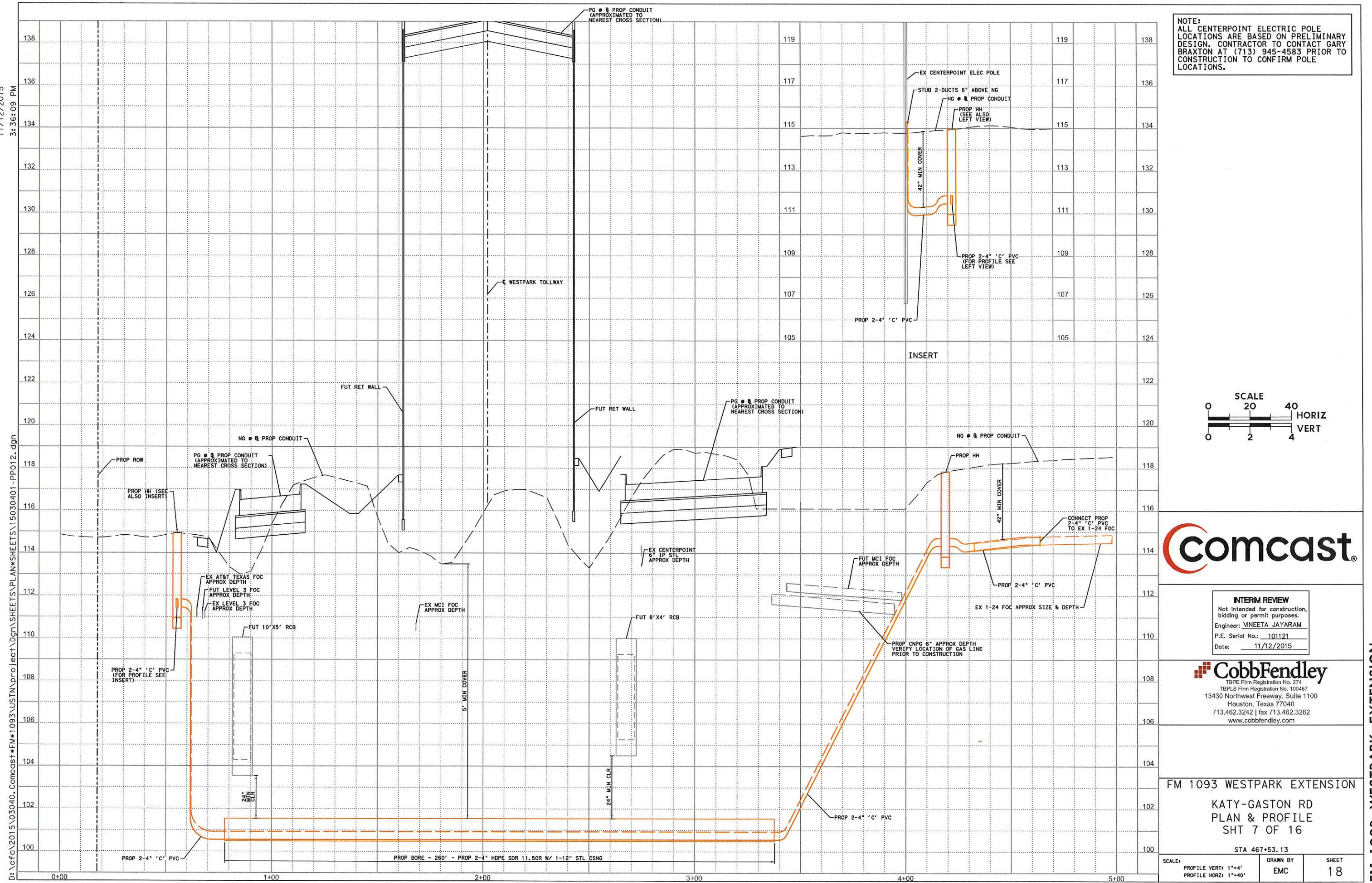
FM 1093 WESTPARK EXTENSION

KATY-GASTON RD
PLAN & PROFILE
SHT 6 OF 16

STA 467+53.13

SCALE: PLAN: 1"=40'	DRAWN BY EMC	SHEET 17
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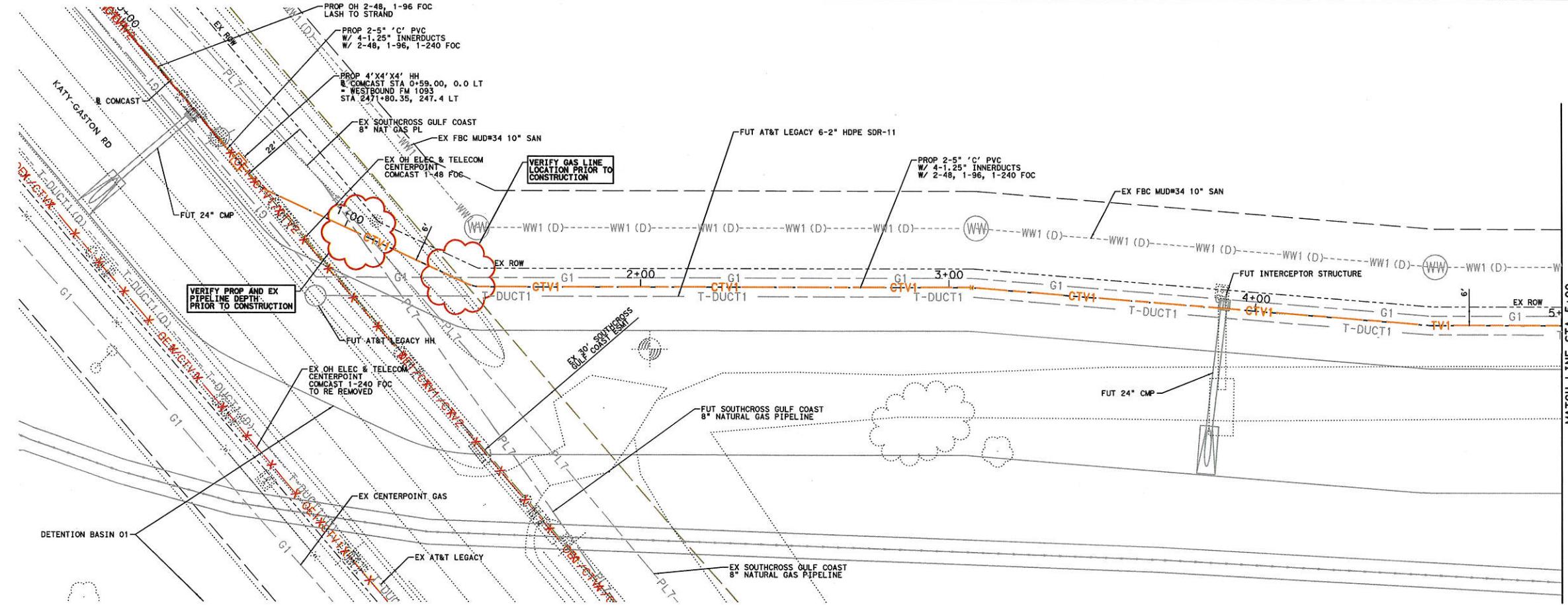
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SCALE
0 20 40 HORIZ
0 2 4 VERT

comcast

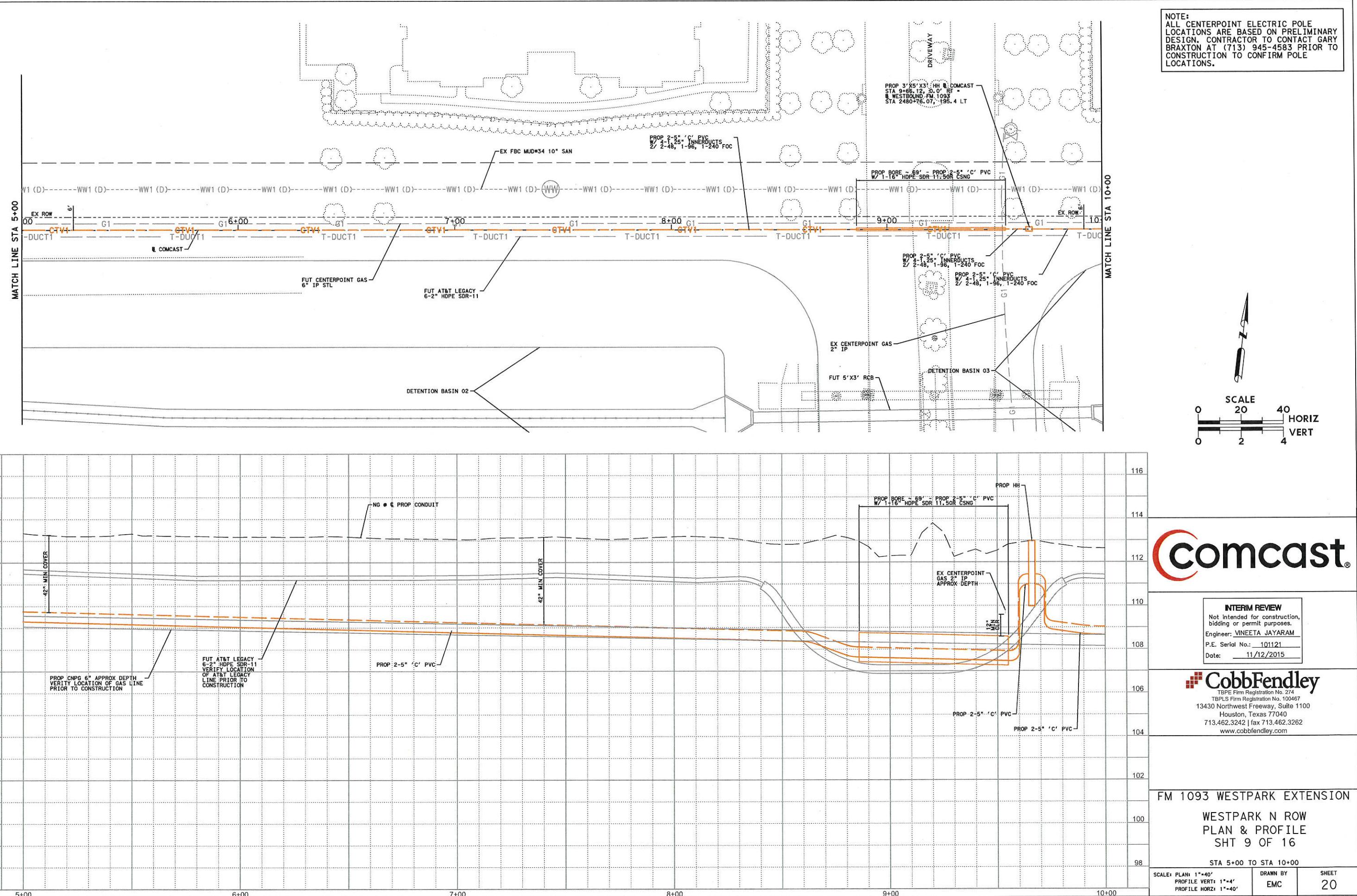
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WESTPARK N ROW
PLAN & PROFILE
SHT 8 OF 16

STA 0+00 TO STA 5+00	SCALE: PLAN: 1"-40'	DRAWN BY:
	PROFILE VERT: 1"-4'	EMC
	PROFILE HORIZ: 1"-40'	SHEET 19

11/12/2015



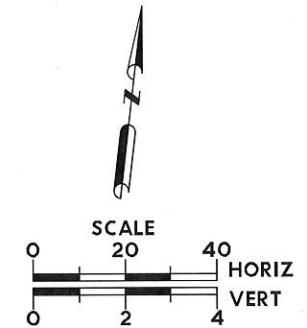
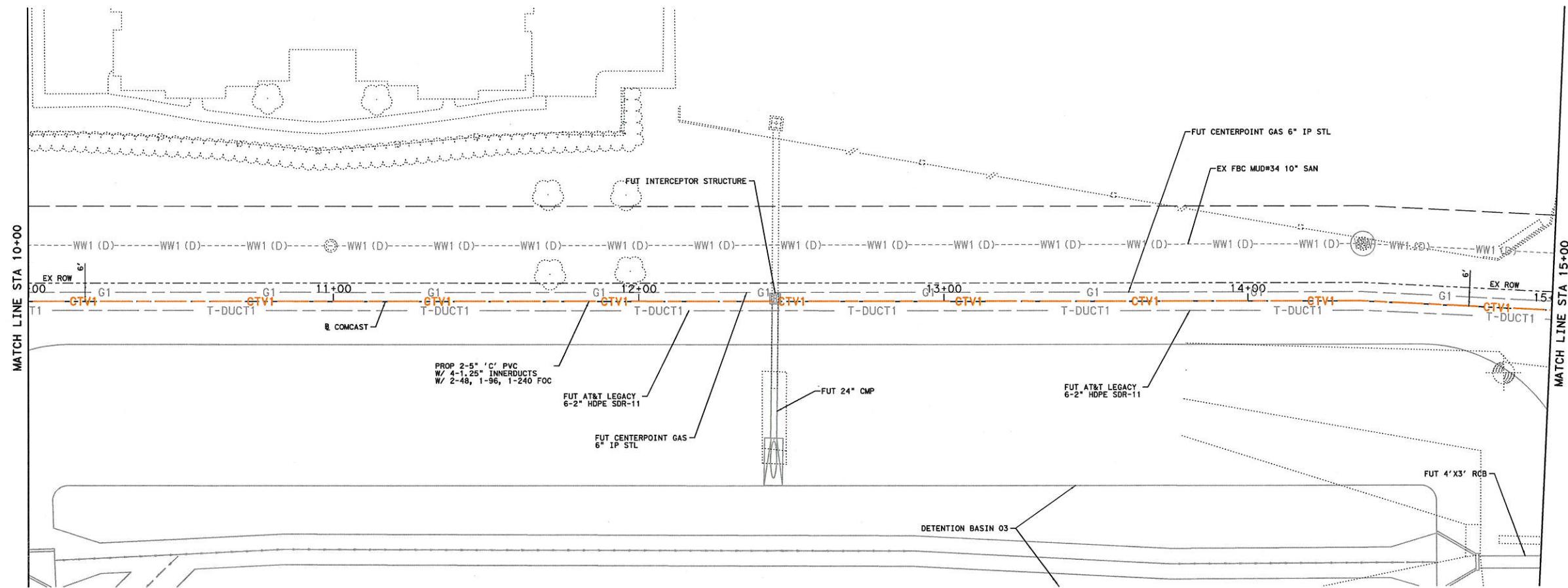
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PROJECT: COMCAST

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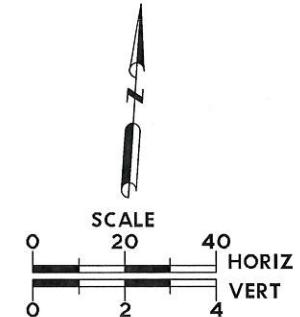
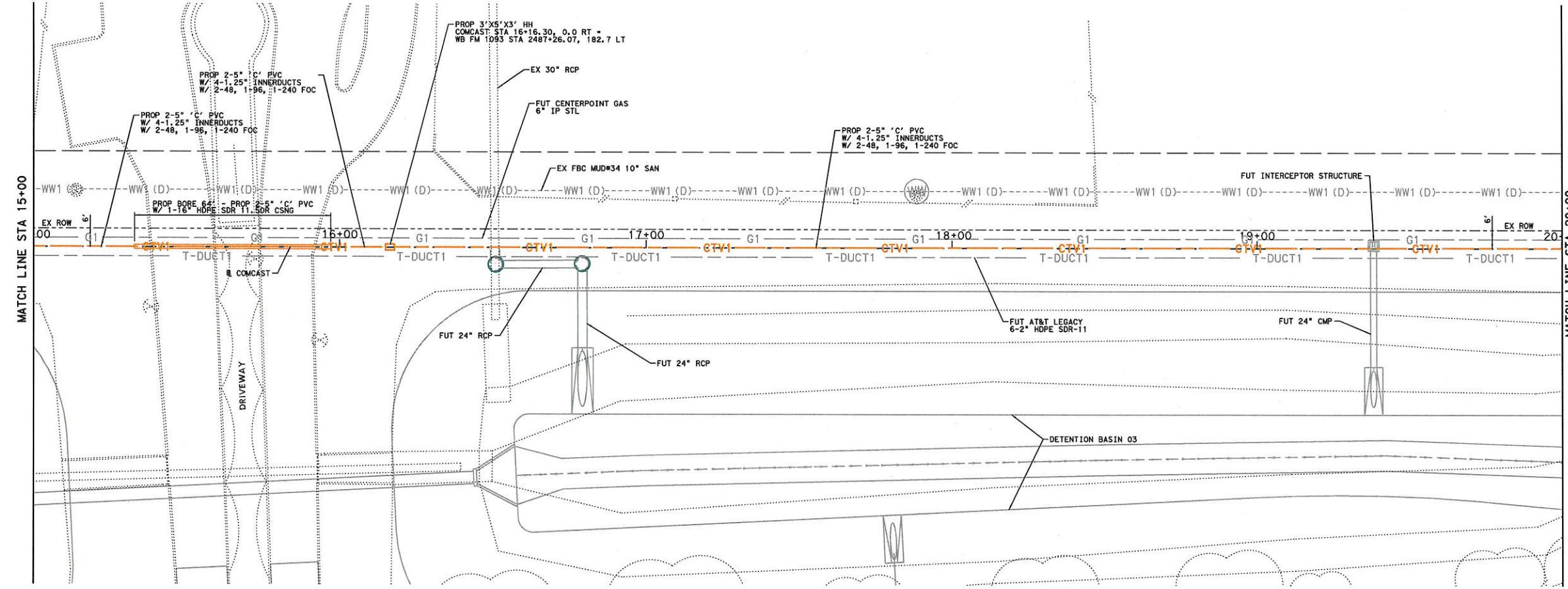
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WESTPARK N ROW
PLAN & PROFILE
SHT 10 OF 16
STA 10+00 TO STA 15+00
SCALE: PLAN: 1"-40'
PROFILE VERT: 1"-4"
PROFILE HORIZ: 1"-40'
DRAWN BY EMC
SHEET 21

11/12/2015

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INTERIM REVIEW
Not intended for construction, bidding or permit purposes.
Engineer: VINEETA JAYARAM
P.E. Serial No.: 101121
Date: 11/12/2015

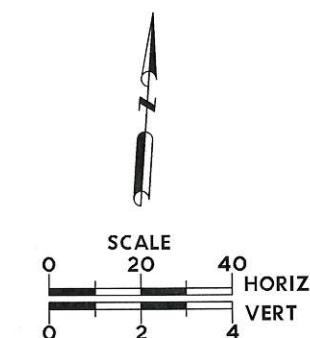
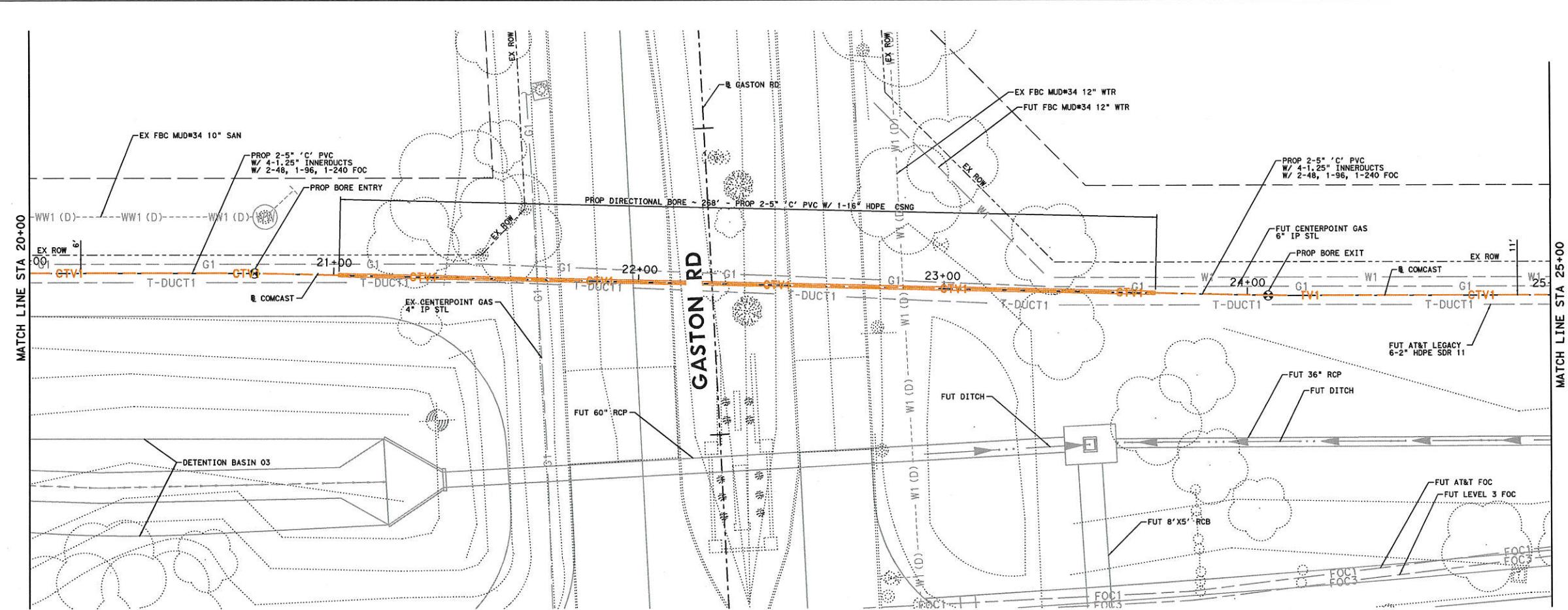
CobbFendley
TBPLS Firm Registration No. 274
13430 Northwest Freeway, Suite 1100
Houston, Texas 77040
713.462.3242 fax 713.462.3262
www.cobbfendley.com

FM 1093 WESTPARK EXTENSION
WESTPARK N ROW
PLAN & PROFILE
SHT 11 OF 16

STA 15+00 TO STA 20+00
SCALE: PLAN: 1"-40'
PROFILE VERT: 1"-4'
PROFILE HORIZ: 1"-40'
DRAWN BY EMC
SHEET 22

11/12/2015
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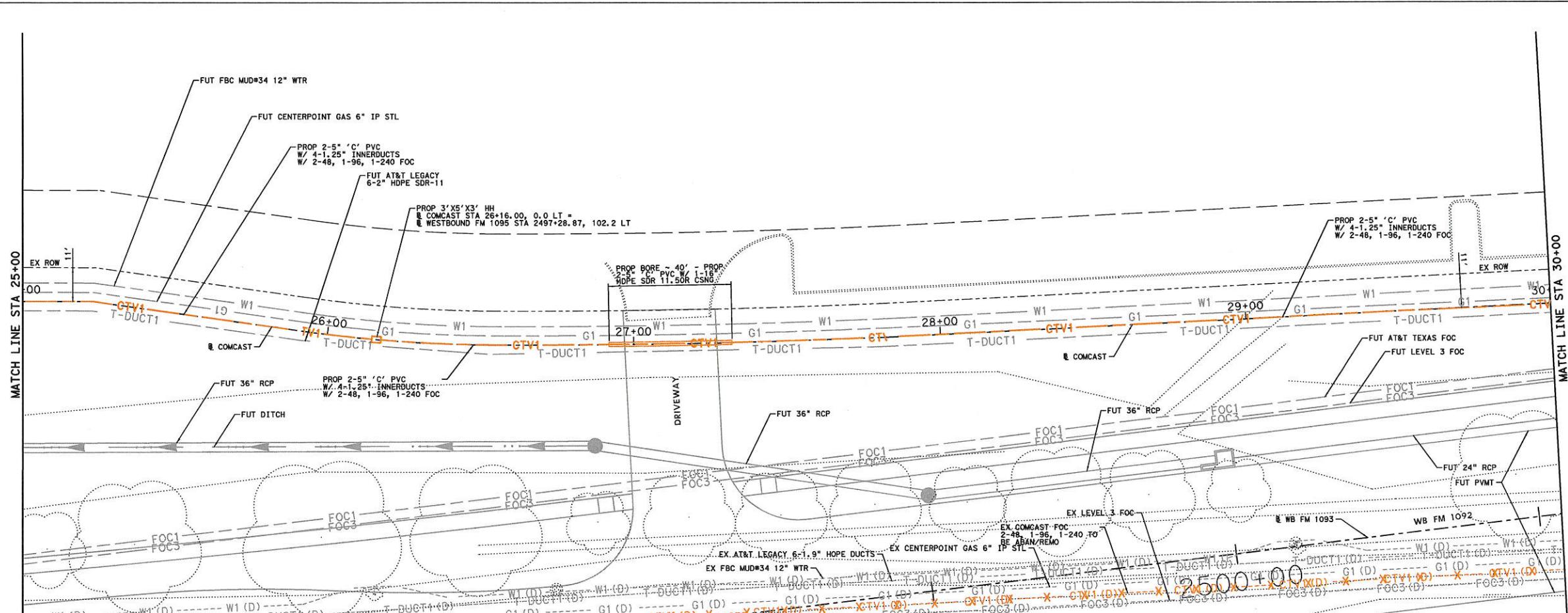
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FM 1093 WESTPARK EXTENSION
WESTPARK N ROW
PLAN & PROFILE
SHT 12 OF 16

STA 20+00 TO STA 25+00
SCALE: PLAN: 1''=40'
PROFILE VERT: 1''=4'
PROFILE HORIZ: 1''=40'

DRAWN BY EMC SHEET 23

11/12/2015



NOTE:
ALL CENTERPOINT ELECTRIC POLE
LOCATIONS ARE BASED ON PRELIMINARY
DESIGN. CONTRACTOR TO CONTACT GARY
BRAXTON AT (713) 945-4583 PRIOR TO
CONSTRUCTION TO CONFIRM POLE
LOCATIONS.

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FM 1093 WESTPARK EXTENSION
WESTPARK N ROW
PLAN & PROFILE
SHT 13 OF 16

STA 25+00 TO STA 30+00
ELEV VERT: 1"-4"
ELEV HORIZ: 1"-40'

This figure is a site plan showing utility lines and construction details. The plan includes a grid, utility lines (orange and grey), and specific labels for pipes, conduits, and construction requirements.

Labels and notes include:

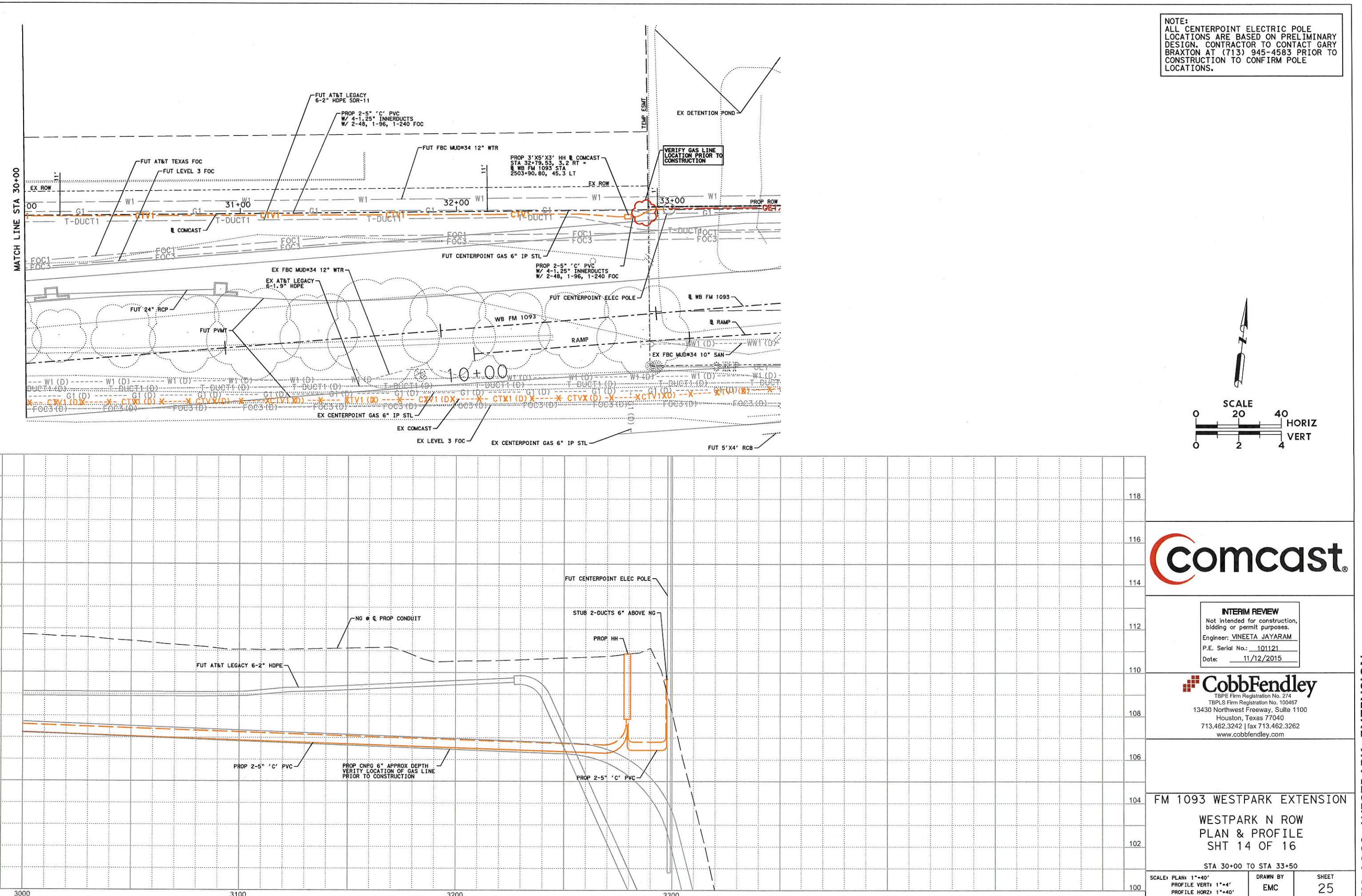
- NG • C PROP CONDUIT
- PROP. HH
- PROP BORE 2-5" C PVC W 1-16 HDPE SDR 11.50K CSNG
- PROP 2-5" 'C' PVC
- PROP 2-5" 'C' PVC
- FUT 10' T LEGACY 6-2" HDPE SDR 11
- PROP CNPG 6" APPROX DEPTH VERITY LOCATION OF GAS LINE PRIOR TO CONSTRUCTION
- 42" MIN COVER

The plan shows various utility lines, including gas (NG), water (PROP. HH), and HDPE SDR 11.50K CSNG, along with future legacy lines. Construction details include a minimum cover of 42 inches and verification of gas line locations prior to construction.

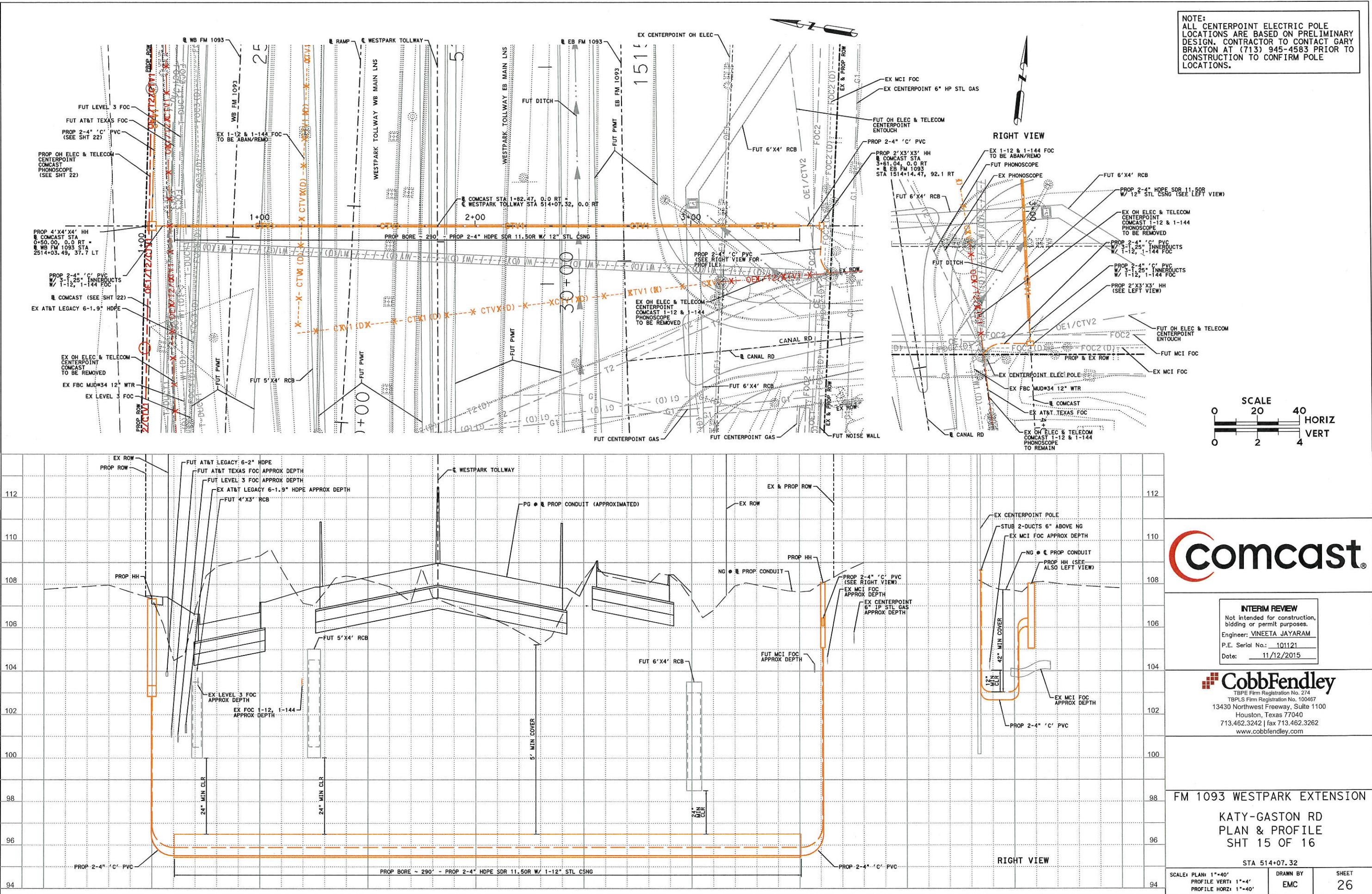
*USER: 150340*Comcast*FM*1093*
PROJECT: COMCAST

PROJECT: COMCAST

11/12/2015

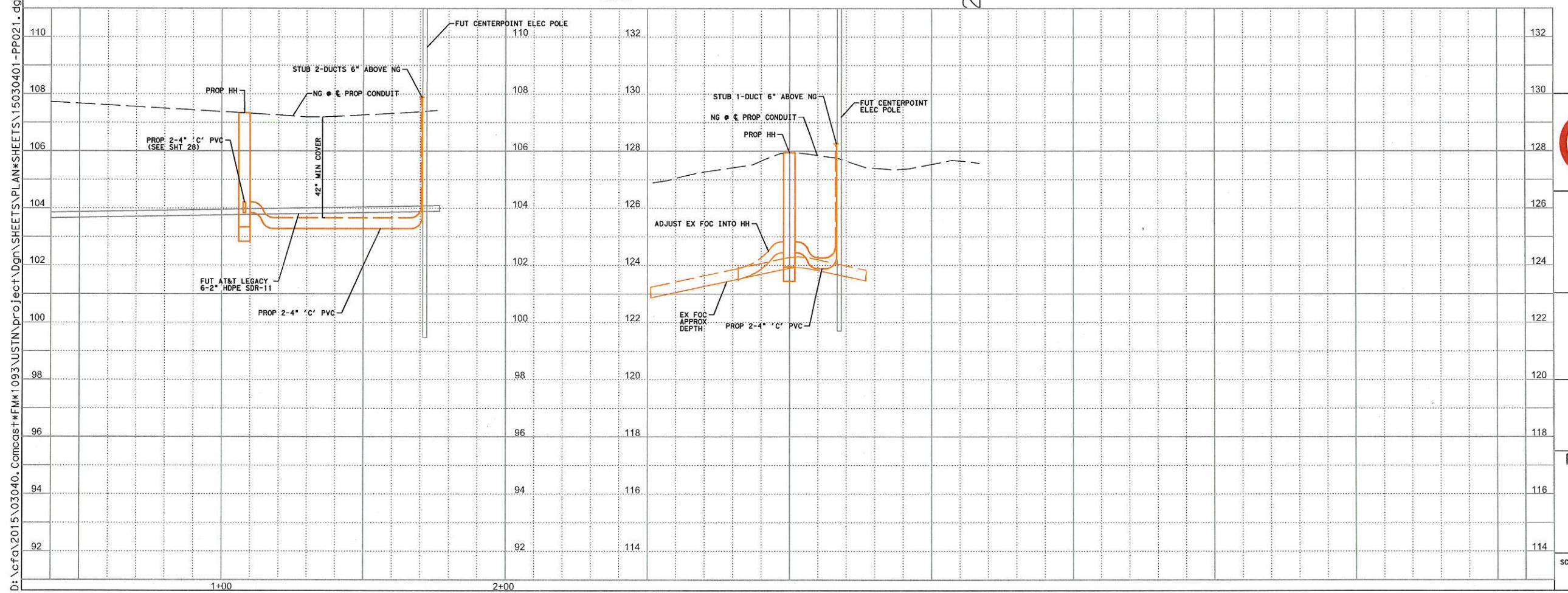


*USER: 150340*Comcast*FM*1093*
PROJECT: COMCAST



*USER: 150340*Comcast*FM*1093*
PROJECT: COMCAST

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UNDERGROUND QUANTITIES																
SHT NO	STATION LIMITS	TRENCH EXCAVATION PROTECTION	ADJUST BURIED CABLE	CONDUIT 2-4" 'C' PVC EQUIPPED W/ (3-1.25" HDPE)	CONDUIT 2-5" 'C' PVC EQUIPPED W/ (4-1.25" HDPE)	CONDUIT 2-4" HDPE SDR 11.50R EQUIPPED W/ (3-1.25" HDPE)	CSNG 16" HDPE SDR 11.50R	CSNG 12" STL SCHED 40	BURIED CABLE 12 FOC	BURIED CABLE 24 FOC	BURIED CABLE 48 FOC	BURIED CABLE 96 FOC	BURIED CABLE 144 FOC	BURIED CABLE 240 FOC	4X4X4 HANDHOLE	3X5X3 HANDHOLE
	STA XXX+XX TO STA XXX+XX	LF	LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) EA	(TELE) EA	
12	STA 313+75, 150' LT TO STA 316+74, 137' LT	291	0	291	0	0	0	0	0	782	0	0	395	1	0	
13	316+74, 137' LT TO 320+63, 142' LT	395	0	395	0	0	0	0	0	980	0	0	395	1	0	
14 LT	334+11, 159' LT TO 335+10, 127' LT	108	10	108	0	0	0	0	0	208	0	0	0	1	0	
14 RT	405+16, 195' LT TO 405+40, 182' LT	25	0	25	0	0	0	0	0	125	125	0	0	0	1	0
15	356+37	113	0	113	0	289	0	289	0	489	0	0	0	0	2	0
16	411+88	54	0	54	0	316	0	316	0	570	570	0	0	0	2	0
17	467+53	164	0	164	0	260	0	260	0	424	0	0	0	0	2	0
18	467+53 profile	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	471+71, 355' LT TO 476+07, 296' LT	446	0	0	446	0	0	0	0	892	496	0	496	1	0	
20	476+07, 296' LT TO 481+07, 296' LT	427	0	0	496	0	69	0	0	1092	546	0	546	0	1	
21	481+07, 296' LT TO 486+07, 293' LT	500	0	0	500	0	0	0	0	1000	500	0	500	0	0	
22	486+07, 293' LT TO 491+06, 269' LT	436	0	0	495	0	64	0	0	1090	545	0	545	0	1	
23	491+06, 269' LT TO 496+11, 232' LT	232	0	0	500	0	268	0	0	1000	500	0	500	0	0	
24	496+11, 232' LT TO 501+15, 185' LT	445	0	0	495	0	40	0	0	1090	545	0	545	0	1	
25	501+15, 185' LT TO 504+16, 164' LT	296	0	0	296	0	0	0	0	692	346	0	346	0	1	
26	514+07	40	0	40	0	290	0	290	530	0	0	530	0	2	0	
27 RT	362+26, 134' LT TO 362+30, 117' LT	15	0	15	0	0	0	0	0	115	0	0	0	1	0	
27 LT	514+07, 132' LT TO 514+70, 132' LT	60	0	60	0	0	0	0	60	0	0	60	0	0	0	
	TOTALS	4047	10	1265	3228	1155	441	1155	590	1246	9428	4048	590	4268	14	4

AERIAL QUANTITIES											
SHT NO	STATION LIMITS	OH CABLE 12 FOC	OH CABLE 24 FOC	OH CABLE 48 FOC	OH CABLE 72 FOC	OH CABLE 96 FOC	OH CABLE 144 FOC	OH CABLE 240 FOC	PLACE STRAND	OH CA REMOVAL	UG REMOVAL/ ABANDONED
	STA XXX+XX TO STA XXX+XX	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF						
7	STA 300+00 TO STA 344+00	0	70	6187	0	0	0	3093	3093	3664	202
8	STA 344+00 TO STA 388+00	0	1215	6223	3182	0	0	4397	4397	4400	425
9	STA 388+00 TO STA 432+00	0	0	6676	1770	3309	0	4434	4434	4609	389
10	STA 432+00 TO STA 477+00	0	0	6856	0	3428	0	3428	3428	3821	729
11	STA 477+00 TO STA 521+00	608	0	3336	0	1668	608	1668	1668	968	3583
	TOTAL	608	1285	29278	4952	8405	608	17020	17020	17462	5328



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FM 1093 WESTPARK EXTENSION

QUANTITY SUMMARY
SHT 1 OF 1

SCALE: NTS DRAWN BY EMC SHEET 28

EXHIBIT "B"

UTILITY CONSTRUCTION COST ESTIMATE

Comcast FM 1093 - Construction and Material Estimate

Item #	Description	Quantities	Units	Labor		Material		Combined	
				Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal
1	Trench Excavation Protection	4047	LF	\$ 2.00	\$ 8,094.00	\$ -	\$ -	\$ 2.00	\$ 8,094.00
2	Trench (2) 4" C' PVC	1265	LF	\$ 50.00	\$ 63,250.00	\$ 9.00	\$ 113,385.00	\$ 59.00	\$ 74,635.00
3	Trench (2) 5" C' PVC	2787	LF	\$ 55.00	\$ 153,285.00	\$ 10.00	\$ 27,870.00	\$ 65.00	\$ 181,155.00
3	Bore 12" Steel Casing equipped with (2) 4" HDPE	1155	LF	\$ 150.00	\$ 173,250.00	\$ 100.00	\$ 115,500.00	\$ 250.00	\$ 288,750.00
4	Bore 16" HDPE Casing equipped with (2) 5" PVC	441	LF	\$ 190.00	\$ 83,790.00	\$ 100.00	\$ 44,100.00	\$ 290.00	\$ 127,890.00
5	Pull (3) 1.25" Innerduct	2420	LF	\$ 0.92	\$ 13,358.40	\$ 0.90	\$ 4,356.00	\$ 1.82	\$ 17,714.40
6	Pull (4) 1.25" Innerduct	3228	LF	\$ 0.92	\$ 23,758.08	\$ 0.90	\$ 5,810.40	\$ 1.82	\$ 29,568.48
7	Place 3'x5'x3' Handhole	4	EA	\$ 70.00	\$ 2,800.00	\$ 600.00	\$ 2,400.00	\$ 1,300.00	\$ 5,200.00
8	Place 4'x4'x4' Handhole	14	EA	\$ 800.00	\$ 11,200.00	\$ 700.00	\$ 9,800.00	\$ 1,500.00	\$ 21,000.00
9	Place UG 12 ct. Fiber Optic Cable	590	LF	\$ 1.00	\$ 590.00	\$ 0.22	\$ 129.80	\$ 1.22	\$ 719.80
10	Place UG 24 ct. Fiber Optic Cable	1246	LF	\$ 1.00	\$ 1,246.00	\$ 0.28	\$ 348.88	\$ 1.28	\$ 1,594.88
11	Place UG 48 ct. Fiber Optic Cable	9428	LF	\$ 1.00	\$ 9,428.00	\$ 0.37	\$ 3,488.36	\$ 1.37	\$ 12,916.36
12	Place UG 96 ct. Fiber Optic Cable	4048	LF	\$ 1.00	\$ 4,048.00	\$ 0.65	\$ 2,631.20	\$ 1.65	\$ 6,679.20
13	Place UG 144 ct. Fiber Optic Cable	590	LF	\$ 1.00	\$ 590.00	\$ 0.85	\$ 501.50	\$ 1.85	\$ 1,091.50
14	Place UG 240 ct. Fiber Optic Cable	4268	LF	\$ 1.00	\$ 4,268.00	\$ 1.05	\$ 4,481.40	\$ 2.05	\$ 8,749.40
15	Place Aerial Cables (2-48 FOC, 240 FOC)	3023	LF	\$ 1.50	\$ 4,534.50	\$ 1.79	\$ 5,411.17	\$ 3.29	\$ 9,945.67
16	Place Aerial Cables (24 FOC, 2-48 FOC, 240 FOC)	1285	LF	\$ 1.50	\$ 1,927.50	\$ 2.07	\$ 2,659.95	\$ 3.57	\$ 4,587.45
17	Place Aerial Cables (2-48 FOC, 72 FOC, 240 FOC)	611	LF	\$ 1.50	\$ 916.50	\$ 2.29	\$ 1,399.19	\$ 3.79	\$ 2,315.69
18	Place Aerial Cables (48 FOC, 72 FOC, 240 FOC)	4120	LF	\$ 1.50	\$ 6,180.00	\$ 1.92	\$ 7,910.40	\$ 3.42	\$ 14,090.40
19	Place Aerial Cables (48 FOC, 2-72 FOC, 240 FOC)	220	LF	\$ 1.50	\$ 330.00	\$ 2.50	\$ 550.00	\$ 4.00	\$ 880.00
20	Place Aerial Cables (48 FOC, 2-96 FOC, 240 FOC)	643	LF	\$ 1.50	\$ 964.50	\$ 2.72	\$ 1,748.96	\$ 4.22	\$ 2,713.46
21	Place Aerial Cables (2-48 FOC, 96 FOC, 240 FOC)	6510	LF	\$ 1.50	\$ 9,765.00	\$ 2.44	\$ 15,884.40	\$ 3.94	\$ 25,649.40
22	Place Aerial Cables (12 FOC, 2-48 FOC, 96 FOC, 144 FOC, 240 FOC)	608	LF	\$ 1.50	\$ 912.00	\$ 3.51	\$ 2,134.08	\$ 5.01	\$ 3,046.08
23	Remove OH Cables	17462	LF	\$ 2.00	\$ 34,924.00	\$ -	\$ -	\$ 2.00	\$ 34,924.00
24	Removal/abandonment UG cable	5328	LF	\$ 2.00	\$ 10,656.00	\$ -	\$ -	\$ 2.00	\$ 10,656.00

Comcast FM 1093 - Construction and Material Estimate

Item #	Description	Quantities	Units	Labor	Material	Combined
				Unit Cost	Subtotal	Unit Cost
25	Splice - 12 FOC - 1 cables (unit is based on splicing each end of cable. (times 2 per cable))	24	EA	\$ 30.00	\$ 720.00	\$ -
26	Splice - 24 FOC - 4 cables (unit is based on splicing each end of cable. (times 2 per cable))	192	EA	\$ 30.00	\$ 5,760.00	\$ -
27	Splice - 48 FOC - 10 cables (unit is based on splicing each end of cable. (times 2 per cable))	960	EA	\$ 30.00	\$ 28,800.00	\$ -
28	Splice - 72 FOC - 1 cables (unit is based on splicing each end of cable. (times 2 per cable))	144	EA	\$ 30.00	\$ 4,320.00	\$ -
29	Splice - 96 FOC - 4 cables (unit is based on splicing each end of cable. (times 2 per cable))	768	EA	\$ 30.00	\$ 23,040.00	\$ -
30	Splice - 144 FOC - 1 cables (unit is based on splicing each end of cable. (times 2 per cable))	288	EA	\$ 30.00	\$ 8,640.00	\$ -
31	Splice - 240 FOC - 5 cables (unit is based on splicing each end of cable. (times 2 per cable))	2400	EA	\$ 30.00	\$ 72,000.00	\$ -
Total					\$ 1,037,846.17	

Comcast FM 1093 - Design

Description	Hours	Rate	Subtotal	Cost
Utility Coordination/Conflict Analysis				\$ 9,717.84
Project Manager	20	\$ 193.50	\$ 3,870.00	
Utility Specialist	32	\$ 134.37	\$ 4,299.84	
Administrative	16	\$ 96.75	\$ 1,548.00	
Utility Agreement Preparation/Estimate				\$ 12,354.00
Project Manager	4	\$ 195.00	\$ 780.00	
Utility Specialist	80	\$ 135.00	\$10,800.00	
Administrative	8	\$ 96.75	\$ 774.00	
Underground Design				\$ 38,255.00
Project Manager	20	\$ 195.00	\$ 3,900.00	
Utility Specialist	85	\$ 135.00	\$11,475.00	
Senior Project Designer	208	\$ 110.00	\$22,880.00	
Overhead Plans				\$ 33,690.00
Project Manager	16	\$ 195.00	\$ 3,120.00	
Utility Specialist	70	\$ 135.00	\$ 9,450.00	
Senior Project Designer	192	\$ 110.00	\$21,120.00	
Subtotal for design				\$ 94,016.84
Reimbursables				\$ 983.16
Total				\$ 95,000.00

EXHIBIT "C"

**UTILITY'S SCHEDULE OF WORK AND
ESTIMATED DATE OF COMPLETION**

FM 1093 - Comcast schedule

Task Name	Duration	Start	Finish								
				Nov	Dec	Jan	Feb	Mar	Apr		
				Qtr 1, 2016	Qtr 2, 2016						
Agreement approval	6 wks	Mon 11/2/15	Fri 12/11/15								
Submit and obtain TXDOT Permit for overhead and underground work	4 wks	Mon 12/14/15	Fri 1/8/16								
Underground conduit construction	40 days	Mon 1/11/16	Fri 3/4/16								
Install fiber optic cable into conduits and manholes	5 days	Mon 3/7/16	Fri 3/11/16								
Aerial construction	45 days	Mon 1/11/16	Fri 3/11/16								
Splice fiber optic cable for both underground and aerial lines	30 days	Mon 3/14/16	Fri 4/22/16								

*** Schedule is contingent upon the completion of the approved agreement